IMPROVEMENT PLANS
FOR
CORONADO
A CONDOMINIUM COMMON INTEREST COMMUNITY WITHIN SUMMERLIN VILLAGE 23A, PARCEL B

CITY OF LAS VEGAS
STATE OF NEVADA

APN# 137-34-810-003

REV	REVISION DESCRIPTION	SHEETS	BY	DATE
1	ADD FLOOD ECONS, CUT TO TOTALS, PLOT POINTS ON LOTS	C-6	YD	9/9/09

WESTMARK HOMES
4350 S. ARVILLE BLDG. D, STE. 29B
LAS VEGAS, NV. 89103
TEL: (702)-648-2050
FAX: (702)-648-4550

BASIS OF BEARING
NORTH 02°40'58" WEST, BEING THE BEARING OF THE CENTERLINE OF DESERT FOOTHILLS DRIVE AS SHOWN BY MAP THEREOF ON FILE IN BOOK 108, PAGE 29 OF PLATS IN THE COUNTY RECORDER'S OFFICE, CLARK COUNTY, NEVADA, LYING WITHIN THE SOUTHEAST QUARTER (SE 1/4) OF SECTION 34, TOWNSHIP 20 SOUTH, RANGE 59 EAST, M.D.M., CITY OF LAS VEGAS, CLARK COUNTY, NEVADA.

BENCHMARK
CITY OF LAS VEGAS BENCHMARK = 2228.13
SUMMERLIN DATUM ELEVATION =
NAVD 88 ELEVATION = 789.595 (M) - 3246.71 (F)

59202 61449 72681

G.C. WALLACE, INC.
Engineers/Planners/Surveyors
10000 W. CHARLESTON BLVD., STE. 130 LAS VEGAS, NEVADA 89146

SEP 14 2009

PROJECT NAME: CORONADO
Sheets C1, C2, C6, C7, C8
This project water plan complies with the Las Vegas Valley Water District's technical requirements. However, this water plan is
NOT APPROVED FOR CONSTRUCTION
at this time and this signature does not provide or imply a water commitment.

LVVWD 10/17/07
DATE
ESN052

Avoid cutting underground utility lines. It's costly.
Call before you Dig.
1-800-227-2600
UNDERGROUND SERVICE (USA)

AVOID HITTING OVERHEAD POWER LINES. IT'S COSTLY.
CALL BEFORE YOU DO OVERHEAD
1-702-593-6111

APPROVALS
CITY OF LAS VEGAS
"APPROVAL OF THESE PLANS BY THE CITY ENGINEER IS LIMITED TO THOSE IMPROVEMENTS CONSTRUCTED IN THE DEDICATED RIGHTS-OF-WAY AND/OR DEDICATED EASEMENTS. THIS APPROVAL DOES NOT AUTHORIZE THE CONSTRUCTION OF ANY IMPROVEMENTS THAT DEVIATE FROM ADOPTED STANDARDS AND/OR SPECIFICATIONS EXCEPT THOSE SPECIFICALLY LISTED UNDER "DEVIATIONS FROM STANDARDS" THE ENGINEER SHALL RESOLVE ANY DEVIATION OTHER THAN THOSE LISTED IN "DEVIATION FROM STANDARDS" IN FAVOR OF THE SUMMERLIN IMPROVEMENT STANDARDS AND SPECIFICATIONS CLARK COUNTY AREA NEVADA".

CHARLES KAJKOWSKI, JR.; P.E. #4784 — 10/20/2003 DATE
CITY ENGINEER
CITY OF LAS VEGAS, NEVADA

M. MARGO WHEELER, AICP, CURRENT PLANNING MANAGER — 10/20/03 DATE
THIS PLAN MEETS THE APPLICABLE STANDARDS OF THE PLANNING AND DEVELOPMENT DEPARTMENT

SUMMERLIN — 10/7/03 DATE

C.L.V. FIRE DEPARTMENT — 10/16/03 DATE

NEVADA POWER CO. — 8-19-03 DATE
NEVADA POWER COMPANY ACKNOWLEDGES THAT WE HAVE RECEIVED YOUR PLANS AND WILL PROVIDE SERVICE TO ALL ELECTRICAL NEEDS ASSOCIATES WITH THIS PROJECT. NEVADA POWER COMPANY RESERVES THE RIGHT TO ADDRESS ANY EXISTING OR FUTURE CONFLICTS ONCE THE FINAL DESIGN IS COMPLETED. THE NEW SERVICE AND THE RESOLUTION OF AY \CONFLICTS WILL BE ACCOMPLISHED PURSUANT TO THE NEVADA PUBLIC UTILITY COMMISION'S RULES AND REGULATIONS.

SPRINT — 8-21-03 DATE
"THE AFFIXED SPRINT NEVADA APPROVAL DOES NOT ASSUMED OR GUARANTEE LIABILITY FOR KNOWN OR UNKNOWN CONFLICTS WITH EXISTING OR PROPOSED IMPROVEMENTS. RESOLUTION OF ANY CONFLICT WILL BE ACCOMPLISHED PURSUANT TO LOCAL ORDINANCES, NEVADA REVISED STATUTES AND/OR PUBLIC UTILITY COMMISSION RULES AND REGULATIONS"

SOUTHWEST GAS CORP. — DATE

COX COMMUNICATIONS LAS VEGAS, INC. — DATE

LAS VEGAS VALLEY WATER DISTRICT — DATE

INDEX OF DRAWINGS

NO.	TITLE & DESCRIPTION
C-1	COVER SHEET
C-2	GENERAL NOTES
C-3	HORIZONTAL CONTROL PLAN I
C-4	HORIZONTAL CONTROL PLAN II
C-5	HORIZONTAL CONTROL PLAN III
C-6	UTILITY PLAN I
C-7	UTILITY PLAN II
C-8	UTILITY PLAN III
C-9	GRADING PLAN I
C-10	GRADING PLAN II
C-11	GRADING PLAN III
C-12	GRADING SECTIONS II
C-12A	GRADING SECTIONS II (1)

RECEIVED
SEP 18 2009
City of Las Vegas

ENGINEER - STATE OF NEVADA REGISTERED PROFESSIONAL — GIA D. NGUYEN — No. 12171/2002 — CIVIL — DATE 9/15/09

REV	DATE	DESCRIPTION	DATE	APP'D
1	9/9/09	ADDED TO INDEX OF DRAWINGS	9/15/09	GCW

DESIGN:
DRAWN:
CHECK:
ISSUE DATE:
ISSUE EDITOR:
PLOT DATE: (08-13-03)
PLOT TIME: (10:42:22)

G. C. WALLACE, INC.
Engineers/Planners/Surveyors
1555 SOUTH RAINBOW BLVD./LAS VEGAS, NEVADA 89146
TELEPHONE: (702) 804-2000 • FAX: (702) 804-2299

P:\472-008\dwg\micro\X-001.dwg

CORONADO
WESTMARK HOMES
COVER SHEET

SHEET
C-1
1 OF 12 SHTS

CITY OF LAS VEGAS GENERAL NOTES

1. ALL CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH THE "UNIFORM STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION OFF-SITE IMPROVEMENTS, CLARK COUNTY AREA NEVADA", LATEST REVISED EDITION; THE "SUMMERLIN IMPROVEMENTS STANDARDS" FOR WORK IN THE SUMMERLIN AREA; AND OTHER APPLICABLE APPROVED STANDARDS ISSUED BY THE CONTROLLING AGENCY; THE UNIFORM BUILDING CODE; AND ALL LOCAL CITY CODES AND ORDINANCES APPLICABLE, EXCEPT AS NOTED ON THIS SHEET AS "DEVIATIONS FROM STANDARDS".
2. THE EXISTENCE AND LOCATION OF ANY OVERHEAD OR UNDERGROUND UTILITY LINES, PIPES, OR STRUCTURES SHOWN ON THESE PLANS ARE OBTAINED BY A RESEARCH OF THE AVAILABLE RECORDS. EXISTING UTILITIES AS SHOWN FROM CLV PLANS LIBRARY ARE APPROXIMATE AND FOR RECORD PURPOSES. EXISTING UTILITIES ARE LOCATED ON PLANS ONLY FOR THE CONVENIENCE OF THE CONTRACTOR. EXISTING UTILITY SERVICE LATERALS MAY NOT BE SHOWN ON THE PLANS. THE CONTRACTOR SHALL, AT HIS OWN EXPENSE, LOCATE ALL UNDERGROUND AND OVERHEAD INTERFERENCE'S WHICH MAY AFFECT HIS OPERATION DURING CONSTRUCTION AND SHALL TAKE ALL NECESSARY PRECAUTIONS TO AVOID DAMAGE TO SAME. THE CONTRACTOR SHALL USE EXTREME CAUTION WHEN WORKING NEAR OVERHEAD UTILITIES SO AS TO SAFELY PROTECT ALL PERSONNEL AND EQUIPMENT, AND SHALL BE RESPONSIBLE FOR ALL COST AND LIABILITY IN CONNECTION THEREWITH.
3. THE CONTRACTOR SHALL TAKE ALL PRECAUTIONARY MEASURES NECESSARY TO PROTECT EXISTING UTILITY LINES, STRUCTURES AND STREET IMPROVEMENTS WHICH ARE TO REMAIN IN PLACE, FROM DAMAGE, AND ALL SUCH IMPROVEMENTS OR STRUCTURES DAMAGED BY THE CONTRACTOR'S OPERATIONS SHALL BE REQUIRED OR REPLACED SATISFACTORY TO THE CITY ENGINEER AND OWNING UTILITY COMPANY AT THE EXPENSE OF THE CONTRACTOR.
4. ALL CONSTRUCTION SHALL BE SHOWN ON THESE PLANS, ANY REVISIONS SHALL HAVE THE PRIOR WRITTEN APPROVAL OF THE CITY ENGINEER.
5. TYPE V CEMENT SHALL BE USED IN ALL OFF-SITE CONCRETE WORK. CONCRETE TO BE 3000 P.S.I. MINIMUM @28 DAYS. MIX DESIGN TO BE APPROVED BY THE CITY ENGINEER, PRIOR TO THE USE ON THE PROJECT.
6. PERMITS ARE REQUIRED FOR ANY WORK IN THE PUBLIC RIGHT-OF-WAY. THE CONTRACTOR SHALL SECURE ALL PERMITS AND INSPECTIONS REQUIRED FOR THIS CONSTRUCTION.
7. EXPANSION JOINTS REQUIRED, MAXIMUM EVERY 150' IN EXTRUDED-TYPE CURB, PER SUMMERLIN IMPROVEMENT STANDARDS.
8. AC PAVEMENT TO BE ONE-HALF INCH (1/2") ABOVE LIP OF ALL GUTTERS AFTER COMPACTION, EXCEPT AT SIDEWALK RAMPS AND CROSS GUTTERS.
9. CURB AND GUTTER FOUND TO BE UNACCEPTABLE TO THE CITY OF LAS VEGAS SHALL BE REMOVED AND REPLACED PER SUMMERLIN STANDARD DRAWING S-47.
10. SIDEWALK RAMPS SHALL BE CONSTRUCTED IN EACH QUADRANT OF AN INTERSECTION PER STANDARD SUMMERLIN DRAWINGS. EXACT LOCATION OF RAMPS MAY BE ADJUSTED IN THE FIELD BY A CITY INSPECTOR.
11. CONTRACTOR SHALL PROVIDE ALL NECESSARY HORIZONTAL AND VERTICAL TRANSITIONS BETWEEN NEW CONSTRUCTION AND EXISTING SURFACES TO PROVIDE FOR PROPER DRAINAGE AND FOR INGRESS AND EGRESS TO NEW CONSTRUCTION. THE EXTENT OF TRANSITIONS TO BE AS SHOWN ON PLANS.
12. ALL GRADING WORK SHALL CONFORM TO THE SOILS REPORT AS PREPARED BY TERRACON, PROJECT NO. 64965481, AND AS SHOWN ON THESE PLANS.
13. EXACT LOCATION OF ALL SAWCUT LINES MAY BE ADJUSTED OR DETERMINED IN THE FIELD BY A CITY OF LAS VEGAS ENGINEER IF LOCATION ON PLANS IS NOT CLEARLY SHOWN, OR EXISTING PAVEMENT CONDITION REQUIRES RELOCATIONS.
14. THE CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO PROTECT EXISTING PERMANENT SURVEY MONUMENTS. ANY MONUMENTS DISTURBED SHALL BE REPLACED AND ADJUSTED PER AVAILABLE RECORDS IN ACCORDANCE WITH N.R.S. NO. 625.550.
15. UTILITY COMPANY METER BOXES, MANHOLE LIDS, VALVE COVERS, ETC., SHALL BE LOCATED OUT OF DRIVEWAYS, DRIVEWAY APRONS, FLOWLINES, AND CROSS GUTTERS UNLESS WRITTEN APPROVAL IS GRANTED BY THE UTILITY COMPANY AND THE CITY ENGINEER.
16. WALL NOTES:
17. ALL WALLS, NEW OR EXISTING, ARE ONLY SHOWN ON CIVIL PLANS FOR THE PURPOSE OF REVIEWING GRADING RELATIONSHIPS; FLOOD CONTROL AND SIGHT DISTANCE AT INTERSECTIONS. NEW WALLS REQUIRE A SEPERATE PERMIT AND INSPECTION BY THE BUILDING DEPARTMENT.
18. ASPHALT MIX DESIGN MUST BE SUBMITTED AND APPROVED BY THE CITY ENGINEER PRIOR TO THE PLACEMENT OF ASPHALT WITHIN CITY RIGHT-OF-WAY.
19. CONTRACTOR SHALL ADJUST ALL NEW AND EXISTING INLETS, VALVE BOXES, MANHOLE RIMS, AND SEWER CLEAN OUTS, ETC. TO FINISH GRADE AS APPLICABLE WHETHER OR NOT THEY ARE SHOWN ON THE PLANS.
20. MATERIALS, HANDLING AND PLACEMENT OF PORTLAND CEMENT CONCRETE SHALL BE IN ACCORDANCE WITH APPLICABLE SECTIONS OF NDOT OR THE CLARK COUNTY AREA SPECIFICATIONS (AS APPLICABLE) AND THE PLANS AND DETAILS SHOWN HEREON.

CITY OF LAS VEGAS GRADING NOTES

1. IN THE EVENT THAT ANY UNFORESEEN CONDITIONS NOT COVERED BY THESE NOTES ARE ENCOUNTERED DURING GRADING OPERATIONS, THE OWNER/ENGINEER SHALL BE IMMEDIATELY NOTIFIED FOR DIRECTION.
2. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PERFORM ALL NECESSARY CUTS AND FILLS WITHIN THE LIMITS OF THIS PROJECT AND THE RELATED OFF-SITE WORK, SO AS TO GENERATE THE DESIRED SUBGRADE, FINISH GRADES AND SLOPES.
3. CONTRACTOR SHALL TAKE FULL RESPONSIBILITY FOR ALL EXCAVATION. ADEQUATE SHORING SHALL BE DESIGNED AND PROVIDED BY THE CONTRACTOR TO PREVENT UNDERMINING OF ANY ADJACENT FEATURES OR FACILITIES AND/OR CAVING OF THE EXCAVATION.
4. THE CONTRACTOR IS WARNED THAT AN EARTHWORK BALANCE WAS NOT NECESSARILY THE INTENT OF THIS PROJECT. ANY ADDITIONAL MATERIAL REQUIRED OR LEFTOVER MATERIAL FOLLOWING EARTHWORK OPERATIONS BECOMES THE RESPONSIBILITY OF THE CONTRACTOR.
5. THE GRADING CONTRACTOR IS RESPONSIBLE TO COORDINATE WITH THE OWNER TO PROVIDE FOR THE REQUIREMENTS OF THE PROJECT STORM WATER POLLUTION PREVENTION PLAN (SWPPP) AND ASSOCIATED PERMIT.
6. CONTRACTOR SHALL GRADE TO THE LINES AND ELEVATIONS SHOWN ON THE PLANS WITHIN THE FOLLOWING HORIZONTAL AND VERTICAL TOLERANCES AND DEGREES OF COMPACTION, IN THE AREAS INDICATED:

	HORIZONTAL	VERTICAL	COMPACTION
A. PAVEMENT AREA SUBGRADE	0.1'+	+0.0' TO -0.1'	SEE SOILS REPORT
B. ENGINEERED FILL	0.5'+	+0.1' TO -0.1'	SEE SOILS REPORT

COMPACTION TESTING WILL BE PERFORMED BY THE OWNER OR HIS REPRESENTATIVE AND COPIES OF TEST RESULTS WILL BE PROVIDED TO THE CITY.

7. ALL CUT AND FILL SLOPES SHALL BE PROTECTED UNTIL EFFECTIVE EROSION CONTROL HAS BEEN ESTABLISHED.
8. THE USE OF POTABLE WATER WITHOUT A SPECIAL PERMIT FOR BUILDING OR CONSTRUCTION PURPOSES INCLUDING CONSOLIDATION OF BACKFILL OR DUST CONTROL IS PROHIBITED. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS FOR CONSTRUCTION WATER.
9. THE CONTRACTOR SHALL MAINTAIN THE STREETS, SIDEWALKS AND ALL OTHER PUBLIC RIGHT-OF-WAY IN A CLEAN, SAFE AND USABLE CONDITION. ALL SPILLS OF SOIL, ROCK OR CONSTRUCTION DEBRIS SHALL BE PROMPTLY REMOVED FROM THE PUBLICLY OWNED PROPERTY DURING CONSTRUCTION AND UPON COMPLETION OF THE PROJECT. ALL ADJACENT PROPERTY, PRIVATE OR PUBLIC, SHALL BE MAINTAINED IN A CLEAN, SAFE AND USABLE CONDITION.
10. IN THE EVENT THAT ANY TEMPORARY CONSTRUCTION ITEM IS REQUIRED THAT IS NOT SHOWN ON THESE DRAWINGS, THE OWNER AGREES TO PROVIDE AND INSTALL SUCH ITEM AT HIS OWN EXPENSE AT THE DIRECTION OF THE CITY ENGINEER. TEMPORARY CONSTRUCTION INCLUDES DITCHES, BERMS, ROAD SIGNS AND BARRICADES, ETC.

CITY OF LAS VEGAS STREETLIGHT NOTES

1. ALL STREET LIGHTING INSTALLATIONS SHALL BE IN ACCORDANCE WITH THE STREET LIGHTING PLANS, THE "UNIFORM STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION OFF-SITE IMPROVEMENTS, CLARK COUNTY AREA, NEVADA", LATEST REVISION, AND THE "UNIFORM STANDARD DRAWINGS FOR PUBLIC WORKS CONSTRUCTION OFF-SITE IMPROVEMENTS, CLARK COUNTY AREA, NEVADA", LATEST REVISION, AND THE SUMMERLIN IMPROVEMENT STANDARDS, 9/99.
2. NO DEVIATION OF STREET LIGHT, PULL BOX, CONDUITS (ETC.) LOCATIONS SHALL BE PERMITTED WITHOUT WRITTEN APPROVAL OF THE TRAFFIC/ELECTRICAL FIELD OPERATIONS DIVISION AND THE CITY ENGINEER. ANY DEVIATION FROM THE PLAN LOCATION WILL REQUIRE COMPLIANCE WITH SECTION 623.L0.03 (E) OF THE SPECIFICATIONS.
3. ALL EXISTING STREET LIGHTING SHALL REMAIN OPERATIONAL DURING CONSTRUCTION.
4. ALL EMPTY CONDUIT SHALL HAVE PULL STRINGS INSTALLED PRIOR TO FINAL INSPECTION.
5. ANY STRUCTURE SUCH AS BLOCK WALLS, CHAIN LINK FENCES, RETAINING WALLS, ETC., SHALL LEAVE A MINIMUM CLEARANCE OF EIGHTEEN INCHES (18") TO THE FACE OF STREET LIGHTING POLE ON ALL SIDES WHEN STREETLIGHT IS INSTALLED BEHIND SIDEWALK, AND SHALL AT NO TIME COMPLETELY ENCLOSE THE STREET LIGHTING POLE.
6. AS-BUILT DRAWINGS SHALL BE SUPPLIED TO THE ELECTRICAL SERVICES SECTION PRIOR TO ANY PREFINAL INSPECTION. THE AS-BUILT DRAWING NEEDS TO BE STAMPED AS-BUILT AND SIGNED BY THE PREPARER.
7. SERVICE POINT SHALL BE COORDINATED WITH NEVADA POWER COMPANY, AND WHEREVER POSSIBLE, BE LOCATED NEAR THE CENTER OF THE CIRCUIT. SERVICE POINTS SHALL BE SHOWN ON THE PLANS.
8. IT SHALL BE ASSUMED THAT IN THE ABSENCE OF AN EXISTING, WORKABLE CIRCUIT TO ATTACH TO, ALL INSTALLATIONS SHALL REQUIRE A NEW SERVICE FOR OPERATION OF THE CIRCUIT.
9. WHEREVER THERE IS AN OVERHEAD UTILITY THAT MAY CONFLICT WITH THE INSTALLATION OF STREET LIGHTING CIRCUITS AND/OR POLES, THESE CONFLICTS MUST BE RESOLVED BETWEEN THE DEVELOPER AND THE UTILITIES INVOLVED BEFORE STREETLIGHT BASES ARE INSTALLED AT NO EXPENSE TO THE CITY OF LAS VEGAS.
10. THE CONTRACTOR SHALL FURNISH COMPLETE SERVICE TO TRANSFORMERS AND CONTROL SYSTEMS IF REQUIRED ON PLANS.

gcw2436.dwg.020912.rin

LAS VEGAS VALLEY WATER DISTRICT NOTES

LVVWD PROJECT # 28019

1. NO WORK SHALL BEGIN UNTIL THE WATER PLANS HAVE BEEN APPROVED FOR CONSTRUCTION BY THE LVVWD. FOLLOWING WATER PLAN APPROVAL, NOTICE SHALL BE GIVEN TO THE LVVWD COMMUNICATION SUPPORT CENTER (258-7171) TWO (2) WORKING DAYS PRIOR TO THE START OF CONSTRUCTION. FOR FUTURE INSPECTIONS, NOTICE MUST BE GIVEN BY 2:00 P.M. THE BUSINESS DAY PRIOR TO THE REQUESTED LVVWD INSPECTION. WHEN REQUESTING INSPECTIONS, PLEASE REFER TO THE PROJECT # IDENTIFIED ABOVE.
2. ALL WORK SHALL CONFORM TO LVVWD STANDARD PLATES, DRAWINGS, AND SPECIFICATIONS, AND TO THE 2003 EDITION OF THE UNIFORM DESIGN AND CONSTRUCTION STANDARDS FOR POTABLE WATER SYSTEMS (UDACS).
3. ALL WORK, EXCEPT AS MODIFIED BY THESE PLANS OR BY NOTE 2 ABOVE, SHALL BE DONE IN ACCORDANCE WITH THE MOST RECENT DRAFT OR EDITION OF THE UNIFORM STANDARD SPECIFICATION FOR PUBLIC WORKS CONSTRUCTION OFFSITE IMPROVEMENT, CLARK COUNTY AREA.
4. A SINGLE PIPE MATERIAL SHALL BE USED THROUGHOUT THE PROJECT UNLESS OTHERWISE APPROVED BY THE LVVWD.
5. ALL SERVICE LATERALS TWO (2) INCHES IN DIAMETER AND SMALLER SHALL BE TYPE K COPPER TUBING WITH LVVWD APPROVED SERVICE SADDLES.
6. ALL WATER METER BOXES SHALL BE LOCATED OUTSIDE OF DRIVEWAY AREAS.
7. ALL VALVES SHALL BE LOCATED OUTSIDE OF DRIVEWAYS, VALLEY AND CURB GUTTERS.
8. ALL WATER AND STORM DRAIN OR SANITARY SEWER CROSSINGS SHALL CONFORM TO SECTION 2.19 OF THE 2003 EDITION OF THE UDACS.
9. ALL WATER FACILITIES SHALL BE FILLED, DISINFECTED, PRESSURE TESTED, FLUSHED, FILLED, AND AN ACCEPTABLE WATER SAMPLE OBTAINED, PRIOR TO CONNECTION TO THE LVVWD DISTRIBUTION SYSTEM.
10. THE CONTRACTOR MUST OBTAIN ALL METERS TWO (2) INCHES AND SMALLER FROM LVVWD CENTRAL STORES. TELEPHONE 258-3152 OR 258-3802, TWO (2) WORKING DAYS PRIOR TO METER PICKUP.
11. ANY INTERRUPTION OF SERVICE MUST BE APPROVED BY THE LVVWD INSPECTION DIVISION PRIOR TO SHUTDOWN. PROPER WRITTEN NOTIFICATION MUST BE GIVEN TO ALL AFFECTED CUSTOMERS.
12. ALL WATER FACILITY CONSTRUCTION MATERIALS USED MUST BE AS LISTED ON THE LVVWD PRE-APPROVED MATERIALS AND MANUFACTURER'S LISTING FOR NEW FACILITIES, LATEST REVISION, OR SPECIFICALLY APPROVED ON THESE PLANS.
13. TELEPHONE "CALL BEFORE YOU DIG" AT 1-800-227-2600.

APPROVED FOR CONSTRUCTION ESN.018

Robert J. Morgan 12/12/03
LAS VEGAS VALLEY WATER DISTRICT DATE

CITY OF LAS VEGAS SEWER NOTES

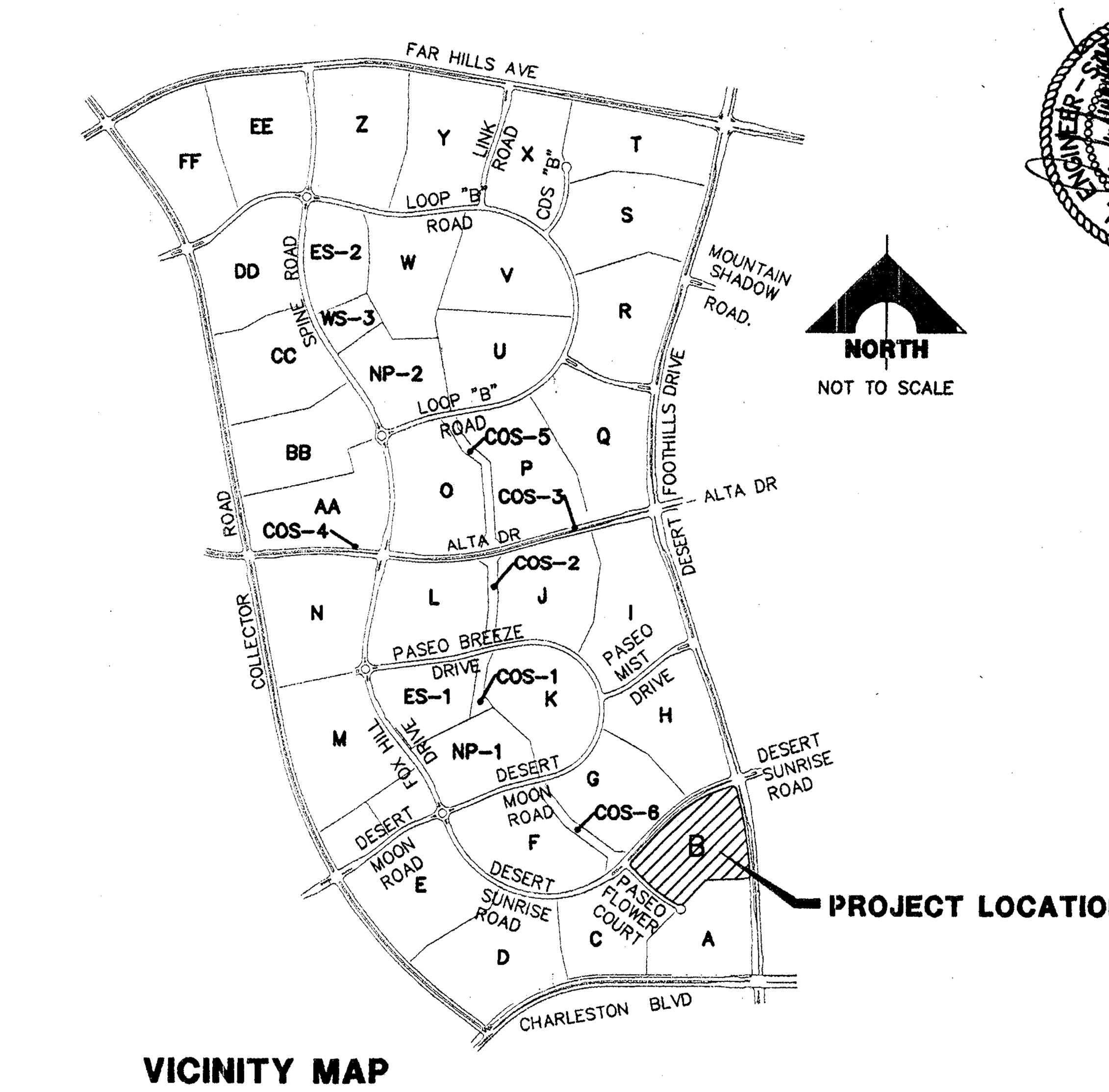
1. ALL CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE DESIGN AND CONSTRUCTION STANDARDS FOR WASTEWATER COLLECTION SYSTEMS AND THE UNIFORM STANDARD SPECIFICATIONS FOR PUBLIC WORKS' CONSTRUCTION OFF-SITE IMPROVEMENTS, CLARK COUNTY AREA, NEVADA, AS AMENDED. IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO BE AWARE OF THE CONTENTS OF THE ABOVE SPECIFICATIONS.
2. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PERFORM CONSTRUCTION AS PER PLANS. ANY ADDITIONS, DELETIONS, OR CHANGES SHALL FIRST MEET WITH THE APPROVAL OF THE CITY ENGINEER.
3. CHISEL "S" OR "G" IN CURBS WHERE SEWER OR GAS LATERALS PASS UNDER THE CURB.
4. POLYVINYL (PVC) SEWER PIPE SHALL MEET ASTM D-3034 SDR 35 SPECIFICATIONS, INSTALLED WITH SAND BEDDING AND BACKFILL OF TYPE II AGGREGATE BASE.
5. ALL MANHOLES PAVED IN STREETS EIGHTY (80') FOOT R/W AND LARGER SHALL HAVE CONCRETE COLLARS. STREETS LESS THAN EIGHTY (80') FOOT R/W WILL REQUIRE RETROFIT IF PAVING DOES NOT CONFORM TO CITY STANDARDS AT THE MANHOLE.
6. TEE SADDLES SHALL BE USED TO CONNECT SEWER LATERALS TO EXISTING MAIN LINES UP TO TWELVE INCH (12") DIAMETER. CONNECTIONS TO FIFTEEN INCH (15") OR LARGER MAINS SHALL REQUIRE SPECIAL PROCEDURES. IN LINE "Y" 'S SHALL BE USED ON LINES TWELVE INCHES (12") OR ABOVE.
7. WATER MAINS SHALL BE PROTECTED IN ACCORDANCE WITH LVVWD STANDARDS WHENEVER A SEWER MAIN CROSSES OVER A WATER MAIN OR THE SEWER IS LESS THAN EIGHTEEN INCH (18") UNDER A WATER MAIN.
8. ALL CONTRACTORS INSTALLING SEWER MAINS THAT WILL BE UNDER THE JURISDICTION OF THE CITY OF LAS VEGAS MUST BE STATE OF NEVADA CLASS "A" CONTRACTORS.
9. THE CITY OF LAS VEGAS WILL NOT ACCEPT ANY SEWER MAINS WHICH HAVE A VERTICAL DEFLECTION OF MORE THAN ONE TENTH (0.1) OF A FOOT FROM THE APPROVED CONSTRUCTION PLANS AT ANY LOCATION. SEWER MAINS FOUND TO EXCEED THIS TOLERANCE WILL HAVE TO BE REPAIRED OR REMOVED OR REPLACED TO THE SATISFACTION OF THE CITY ENGINEER PRIOR TO ACCEPTANCE BY THE CITY OF LAS VEGAS.
10. INSTALLATION OF CURVED SEWER REQUIRES THE USE OF C-900 PVC PIPE WHICH ALLOWS FOR PIPE DEFLECTION AT THE JOINT.

CITY OF LAS VEGAS TRAFFIC NOTES

1. ALL CONSTRUCTION SIGNING, BARRICADING, AND TRAFFIC DELINEATION SHALL CONFORM TO THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES", LATEST EDITION.
2. THE STREET SIGN CONTRACTOR SHALL OBTAIN STREET NAMES AND BLOCK NUMBERING FROM THE PLANNING DEPARTMENT PRIOR TO CONSTRUCTION.
3. BEFORE ANY WORK IS STARTED IN THE RIGHT-OF-WAY, THE CONTRACTOR SHALL INSTALL ALL ADVANCE WARNING SIGNS FOR THE CONSTRUCTION ZONE. THE CONTRACTOR SHALL INSTALL TEMPORARY STOP SIGNS AT ALL NEW STREET ENCROACHMENTS INTO EXISTING CITY STREETS WHERE WARRANTED IMMEDIATELY AFTER FIRST GRADING WORK IS ACCOMPLISHED, AND SHALL MAINTAIN SAID SIGNS UNTIL PERMANENT SIGNS ARE INSTALLED.
4. WHEN A DESIGNATED "SAFE ROUTE TO SCHOOL" IS ENCROACHED UPON BY A CONSTRUCTION WORK ZONE AND PUBLIC WORKS STAFF IDENTIFIES A NEED FOR STUDENTS TO BE ASSISTED IN THE SAFE CROSSING THROUGH THAT WORK ZONE, THE CONTRACTOR SHALL BE REQUIRED TO PROVIDE A QUALIFIED "CROSSING GUARD". THE GUARD SHALL BE PRESENT FOR THE FULL DURATION OF TIME THAT CHILDREN ARE LIKELY TO BE PRESENT.
5. IF THE IMPROVEMENTS NECESSITATE THE OBLITERATION, TEMPORARY OBSTRUCTION, TEMPORARY REMOVAL OR RELOCATION OF ANY EXISTING TRAFFIC PAVEMENT MARKING, SUCH PAVEMENT MARKING SHALL BE RESTORED OR REPLACED WITH LIKE MATERIALS TO THE SATISFACTION OF THE CITY TRAFFIC ENGINEER.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING AND INSTALLING ALL PERMANENT SIGNS SHOWN ON THE PLANS. STREET NAME SIGNS SHALL CONFORM IN THEIR ENTIRETY TO CURRENT CITY STANDARDS. ALL OTHER SIGNS SHALL BE STANDARD SIZE UNLESS OTHERWISE SPECIFIED ON THE PLANS. ALL SIGN POSTS SHALL BE INSTALLED IN ACCORDANCE WITH THE CURRENT CITY STANDARDS.
7. WHEN A PROPOSED STREET LIGHT STANDARD IS LOCATED WITHIN FIVE FEET (5') OF ANY PROPOSED SIGN SHOWN ON THE PLANS TO BE MOUNTED ON A SIGNPOST, THE SIGN SHALL BE MOUNTED ON THE STREET LIGHT STANDARD AND THE SIGNPOST SHALL BE ELIMINATED.
8. ALL PERMANENT TRAFFIC CONTROL DEVICES CALLED FOR HEREON SHALL BE IN PLACE AND IN FINAL POSITION PRIOR TO ALLOWING ANY PUBLIC TRAFFIC ONTO THE PORTIONS OF THE ROAD(S) BEING IMPROVED HEREUNDER, REGARDLESS OF THE STATUS OF COMPLETION OF PAVING OR OTHER OFF-SITE IMPROVEMENTS CALLED FOR BY THESE PLANS.
9. STREET SIGNS AND STOP SIGNS SHALL BE INSTALLED PER CITY STANDARD SPECIFICATIONS FOR PLACEMENT OF STREET NAME SIGNS.
10. THE CONTRACTOR SHALL PROVIDE ALL NECESSARY TRAFFIC CONTROL DEVICES AND FLAGGERS TO ENSURE THE SAFETY OF THE PUBLIC IN OR AROUND THE WORK AREA. THE CONTRACTOR SHALL HAVE A CERTIFIED ATSSA TRAFFIC CONTROL TECHNICIAN OR IMSA WORK ZONE SAFETY SPECIAL IST SET-UP, MAINTAIN AND/OR REMOVE ALL TRAFFIC CONTROL DEVICES IN THE CITY OF LAS VEGAS RIGHTS OF WAY.
11. WORK IN PUBLIC STREETS, ONCE BEGUN, SHALL BE EXPEDITED TO COMPLETION SO AS TO PROVIDE A MINIMUM INCONVENIENCE TO ADJACENT PROPERTY OWNERS AND TO THE TRAVELING PUBLIC.
12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING CITIZENS AREA TRANSIT (C.A.T.) IF THE CONSTRUCTION INTERRUPTS OR RELOCATES A BUS STOP OR HAS AN ADVERSE EFFECT ON BUS SERVICE ON THAT STREET AND TO ARRANGE FOR TEMPORARY RELOCATION OF STOP.
13. GUARDS SHALL BE OBTAINED BY CONTACTING THE METROPOLITAN POLICE DEPARTMENT SPECIAL EVENTS UNIT (PHONE NO. IS 229-3442) WHO WILL PROVIDE OFFICERS PROPERLY TRAINED IN TRAFFIC CONTROL. FEES FOR THE USE OF THESE OFFICERS SHALL BE SET BY METRO AND WILL BE PAID BY THE CONTRACTOR. THE CONTRACTOR IS RESPONSIBLE FOR ALL ARRANGEMENTS WITH METRO.
14. ANY WORK WITHIN 300' OF A SIGNALIZED INTERSECTION WILL BE NIGHT WORK, UNLESS DIRECTED BY THE CITY OF LAS VEGAS TRAFFIC ENGINEER.

CITY OF LAS VEGAS FIRE DEPARTMENT NOTES

1. ALL WORK SHALL BE DONE IN STRICT ACCORDANCE WITH THE CITY OF LAS VEGAS FIRE DEPARTMENT'S ORDINANCE #5115, "HYDRANT SPECIFICATIONS", AND "HYDRANT INSTALLATION SPECIFICATION".
2. AUTHORIZED HYDRANTS FOR THIS PROJECT ARE:
   A. KENNEDY - GUARDIAN MODELS K81A AND K81D
   B. MUELLER - SUPER CENTURION 250 MODEL A-423
   C. CLOW - MEDALLION MODEL F-2546LV
   D. TROY VALVE - PATRIOT MODEL PT8100N NEVADA HYDRANT
3. ON ANY RESIDENTIAL OR COMMERCIAL INSTALLATIONS FIRE HYDRANTS SHALL BE INSTALLED AND FIRE APPARATUS ACCESS ROADS SHALL BE MAINTAINED BEFORE COMMENCEMENT OF ANY COMBUSTIBLE CONSTRUCTION. ALL FIRE HYDRANTS SHALL BE IN GOOD WORKING ORDER AND SHALL BE CAPABLE OF DELIVERING THE REQUIRED FIRE FLOW.
4. TO IDENTIFY THE FIRE HYDRANT LOCATIONS, CONTRACTOR SHALL PLACE A BLUE REFLECTIVE MARKER AT THE CENTER LINE OF STREET ADJACENT TO THE FIRE HYDRANTS AS REQUIRED BY ORDINANCE #5115.
5. ALL UNDERGROUND INSPECTIONS PRESSURE AND FLUSH VERIFICATIONS OF ALL FIRE HYDRANTS AND FIRE LINES, SHALL BE CONDUCTED BEFORE COVERING THE LINES. CALL THE CITY OF LAS VEGAS INSPECTION HOT-LINE AT 229-2071 TO REQUEST AN INSPECTION BY THE CITY OF LAS VEGAS FIRE DEPARTMENT.
6. PAINTING OF THE CURBS AND FIRE HYDRANT AND ALL OTHER WORK NECESSARY AS REQUIRED BY ORDINANCE #5115, FOR THE PROTECTION OF FIRE HYDRANTS FROM PHYSICAL DAMAGE, SHALL BE COMPLETED BEFORE APPROVAL BY THE CITY OF LAS VEGAS FIRE DEPARTMENT.
7. A PERMIT IS REQUIRED FROM THE CITY OF LAS VEGAS FIRE DEPARTMENT FOR THE ON-SITE WATER LINES AND FIRE HYDRANTS. THE PERMIT AND CONTRACTOR'S MATERIAL AND TEST CERTIFICATE FOR UNDERGROUND PIPING FORM SHALL BE OBTAINED FROM THE FIRE PROTECTION ENGINEER BEFORE COMMENCEMENT OF WORK.
8. PRIVATE FIRE HYDRANTS SHALL BE PAINTED RED.
9. PRIOR TO THE FINAL OCCUPANCY, A FLOW TEST MUST BE WITNESSED BY THE CITY OF LAS VEGAS FIRE DEPARTMENT TO VERIFY AVAILABILITY OF THE REQUIRED FIRE FLOW.
10. ALL ON-SITE UNDERGROUND WATER MAINS AND MATERIALS SHALL BE U.L. LISTED, A.W.W.A. APPROVED, AND SHALL BE RATED FOR THE APPROPRIATE WORKING PRESSURE.
11. FIRE HYDRANTS SPACING SHALL BE:
    RESIDENTIAL - 500 FEET UNSPRINKLERED; 1000 FEET SPRINKLERED.
    COMMERCIAL - 300 FEET UNSPRINKLERED; 600 FEET SPRINKLERED.
12. WHERE NEW WATER MAINS ARE EXTENDED ALONG STREETS WHERE FIRE HYDRANTS ARE NOT NEEDED FOR PROTECTION OF THE STRUCTURES, FIRE HYDRANTS SHALL BE INSTALLED AT MAXIMUM 1,000 FOOT SPACING, TO PROVIDE FOR TRANSPORTATION HAZARDS.
13. NO FIRE HYDRANTS SHALL BE LOCATED WITHIN THE REQUIRED RADIUS OF A CUL-DE-SAC OR WITHIN 20 FEET OF THE PERIMETER OF THE RADIUS OF THE CUL-DE-SAC.
14. NO FIRE HYDRANT SHALL BE LOCATED WITHIN 6 FEET OF ANY CURB RETURN, DRIVEWAY, POWER POLE, STREET LIGHT OR ANY OTHER OBSTRUCTION.
15. THE MAXIMUM DISTANCE FROM A FIRE HYDRANT TO THE END OF A DEAD-END STREET SHALL NOT EXCEED 200 FEET.
16. THE MAXIMUM DISTANCE FROM A FIRE HYDRANT TO A FIRE DEPARTMENT CONNECTION (FDC) SHALL NOT EXCEED 100 FEET, AS MEASURED BY AN APPROVED ROUTE.
17. TWO SOURCES OF SUPPLY ARE REQUIRED WHENEVER THERE ARE 4 OR MORE FIRE HYDRANTS/SPRINKLER LEAD-INS INSTALLED ON A SINGLE SYSTEM.
18. SECTIONAL CONTROL VALVES SHALL BE INSTALLED SO THAT NO MORE THAN 2 FIRE HYDRANTS CAN BE OUT OF SERVICE DUE TO A BREAK IN A WATER MAIN.
19. ALL FIRE APPARATUS ACCESS ROADS SHALL HAVE AN UNOBSTRUCTED WIDTH OF NOT LESS THAN 20 FEET (FLOW LINE TO THE FLOW LINE), PROVIDED NO PARKING IS ALLOWED ON EITHER SIDE; 28 FEET (FLOW LINE TO THE FLOW LINE), IF PARALLEL PARKING IS ALLOWED ON ONE SIDE ONLY; AND 36 FEET (FLOW LINE TO THE FLOW LINE), IF PARALLEL PARKING IS ALLOWED ON BOTH SIDES. VERTICAL CLEARANCE SHALL BE NOT LESS THAN 13 FEET 6 INCHES.
20. ALL FIRE APPARATUS ACCESS ROADS SHALL BE PAVED TO PROVIDE ALL-WEATHER DRIVING CAPABILITIES, AND SHALL BE DESIGNED AND MAINTAINED TO SUPPORT THE IMPOSED LOADS OF THE FIRE APPARATUS.
21. THE GRADIENT FOR A FIRE APPARATUS ACCESS ROADS SHALL NOT EXCEED 12% ANGLES OF APPROACH AND ANGLES OF DEPARTURE SHALL NOT EXCEED 6% FOR 25 FEET PRIOR TO OR AFTER THE GRADE CHANGE.
22. THE TURNING RADIUS OF A FIRE APPARATUS ACCESS ROADS SHALL BE NO LESS THAN 52 FEET OUTSIDE AND 28 FEET INSIDE TURNING RADIUS.
23. A FIRE APPARATUS ACCESS ROAD SHALL BE REQUIRED WHEN ANY PORTION OF AN EXTERIOR WALL OF THE FIRST STORY IS LOCATED MORE THAN 150 FEET FROM A FIRE DEPARTMENT VEHICLE ACCESS (SEE EXCEPTIONS IN UFC 97, SECTION 902.2).
24. ALL DEAD-END FIRE APPARATUS ACCESS ROADS AND OR FIRE LANES, PUBLIC OR PRIVATE, IN EXCESS OF 150 FEET IN LENGTH SHALL BE PROVIDED WITH AN APPROVED TURN AROUND AREA HAVING A MINIMUM DIAMETER OF 81 FEET (BACK OF THE CURB TO THE BACK OF THE CURB).
25. ALL FIRE APPARATUS ACCESS ROADS SHALL BE MARKED BY PLACING APPROVED SIGNS AT THE START OF THE DESIGNATED FIRE LANE, ONE SIGN AT THE END OF THE FIRE LANE AND WITH SIGNS AT INTERVALS 100 FEET ALONG ALL DESIGNATED FIRE LANES. SIGNS TO BE PLACED ON BOTH SIDES OF AN ACCESS ROADWAY IF NEEDED TO PREVENT PARKING ON EITHER SIDE. SIGNS TO BE INSTALLED NO HIGHER THAN 10 FEET OR LESS THAN 6 FEET FROM ROADWAY LEVEL. THE CURBS ALONG OR ON THE PAVEMENT OR CEMENT IF CURB IS NOT PROVIDED SHALL BE PAINTED WITH A RED WEATHER RESISTANT PAINT IN ADDITION TO THE SIGNS.
26. ELECTRICALLY CONTROLLED ACCESS GATES SHALL BE PROVIDED WITH AN APPROVED EMERGENCY VEHICLE DETECTOR/RECEIVER SYSTEM. SAID SYSTEM SHALL BE INSTALLED IN ACCORDANCE WITH THE CITY OF LAS VEGAS GUIDELINES FOR AUTOMATIC EMERGENCY VEHICLE ACCESS GATES.



VICINITY MAP

LEGEND

RIGHT OF WAY LINE	
EASEMENT LINE	
EXIST. WATER LINE	
EXIST. SEWER LINE	
FIRE HYDRANT	
WATER LINE	
SSMH #3	SEWER LINE WITH MANHOLE
SEWER LATERAL	
GATE VALVE	
1 1/4" PVC CONDUIT (STREET LIGHTS)	
P.B.	NO. 3 1/2 CONCRETE PULL BOX W/METAL COVER
STOP SIGN	
STREET SIGN	
1/7	DRAWING NUMBER FOR DETAIL WITH REFERENCE TO THE SHEET IT IS DRAWN ON
R=	INDICATES CURVE RADIUS
	INDICATES SEWER MANHOLE IN PROFILE
	INDICATES STORM DRAIN MANHOLE IN PROFILE
(60.5) TC	EXIST. SPOT ELEVATION
60.5 TC	SPOT ELEVATION
	GRADE BREAK

EMBANKMENT

TOP / BOTTOM — YYY PROPOSED
YYY BY SEPARATE CONTRACT
YYY EXISTING

ABBREVIATIONS

SG	SUB-GRADE
W	WATER
SS	SEWER
SD	STORM DRAIN
SL	STREET LIGHTING
SIG	TRAFFIC SIGNAL
SSMH	SEWER MANHOLE
SDMH	STORM DRAIN MANHOLE
CLV	CITY OF LAS VEGAS
LVVWD	LAS VEGAS VALLEY WATER DISTRICT
TC	TOP OF CURB
FL	FLOW LINE
FG	FINISH GRADE
TG	TOP OF GRATE
FS	FINISH SURFACE
DG	DESIGN GRADE
GB	GRADE BREAK
EX.	EXISTING
BCR	BACK OF CURB RETURN
S	SLOPE
BLDG	BUILDING
LF	LINEAR FEET
USDCCA	UNIFORM STANDARD DRAWINGS FOR PUBLIC WORKS
UDS	UNIFORM DESIGN AND CONSTRUCTION STANDARDS FOR WATER DISTRIBUTION SYSTEMS

BASIS OF BEARING

NORTH 02°40'58" WEST, BEING THE BEARING OF THE CENTERLINE OF DESERT FOOTHILLS DRIVE AS SHOWN BY MAP THEREOF ON FILE IN BOOK 108, PAGE 29 OF PLATS IN THE COUNTY RECORDER'S OFFICE, CLARK COUNTY, NEVADA, LYING WITHIN THE SOUTHEAST QUARTER (SE 1/4) OF SECTION 34, TOWNSHIP 20 SOUTH, RANGE 59 EAST, M.D.M., CITY OF LAS VEGAS, CLARK COUNTY, NEVADA.

BENCHMARK

CITY OF LAS VEGAS BENCHMARK: D368 3
NAVD 88 ELEVATION: 989.599 (M)-3246.71 (F)

U.S.C.& G.S. BRASS DISC SET IN ROCK ON THE EAST SIDE OF CHARLESTON BOULEVARD AND SOUTH OF THE RED ROCK DETENTION BASIN.

PRIVATE (ON-SITE) DEVIATION FROM STANDARDS

1. 25-FOOT PAVEMENT WIDTH FOR PRIVATE DRIVES.

STATE OF NEVADA — PROFESSIONAL ENGINEER — GIA D. NGUYEN — Exp. 12/31/2003 — CIVIL — No. 14918
DATE: 10/06/03

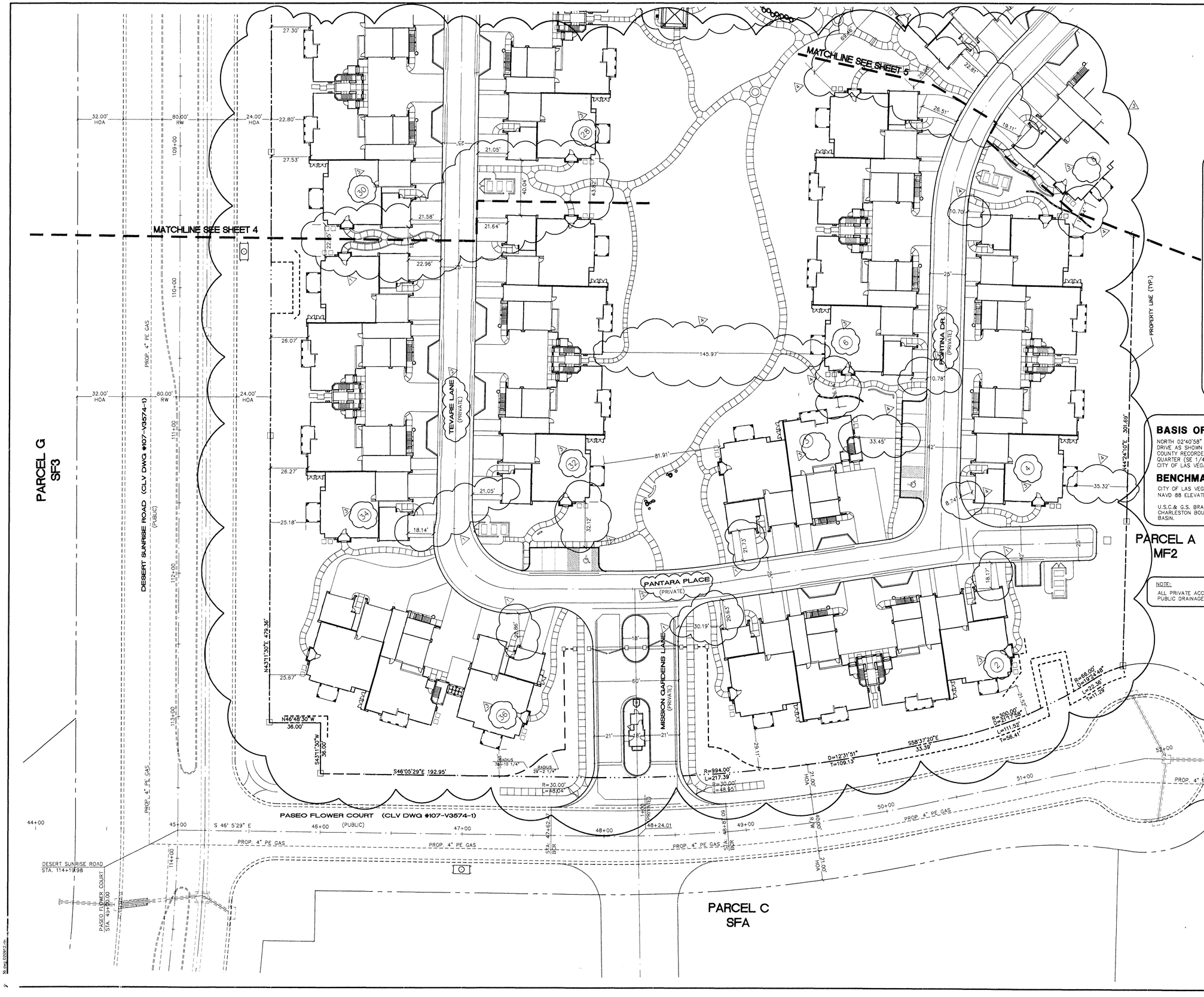
REV	DATE	DESCRIPTION	DATE	AGEN.	APP.	DATE	GCW.	APP.
1	3.07.02	MARSHALL'S BUILDING REVISION						

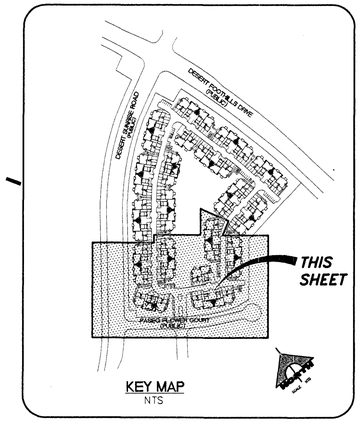
DESIGN:
DRAWN:
CHECK:
ISSUE DATE:
ISSUE EDITOR:
PLOT DATE: 10-06-03
PLOT TIME: 09:16:52

G.C. WALLACE, INC.
Engineers/Planners/Surveyors
1555 SOUTH RAINBOW BLVD./LAS VEGAS, NEVADA 89146
TELEPHONE: (702) 804-2000 • FAX: (702) 804-2299
F:\472-008\dwg\improv\c002.dwg
jgrujicic

CORONADO
WESTMARK HOMES
GENERAL NOTES

SHEET
C-2
10744779
2 OF 12 SHTS





KEY MAP
NTS

BASIS OF BEARING

NORTH 02°40'58" WEST, BEING THE BEARING OF THE CENTERLINE OF DESERT FOOTHILLS DRIVE AS SHOWN BY MAP THEREOF ON FILE IN BOOK 108, PAGE 29 OF PLATS IN THE COUNTY RECORDER'S OFFICE, CLARK COUNTY, NEVADA, LYING WITHIN THE SOUTHEAST QUARTER (SE 1/4) OF SECTION 34, TOWNSHIP 20 SOUTH, RANGE 59 EAST, M.D.M., CITY OF LAS VEGAS, CLARK COUNTY, NEVADA.

BENCHMARK

CITY OF LAS VEGAS BENCHMARK: D368 3
NAVD 88 ELEVATION: 989.599 (M)-3246.71 (F)

U.S.C.& G.S. BRASS DISC SET IN ROCK ON THE EAST SIDE OF CHARLESTON BOULEVARD AND SOUTH OF THE RED ROCK DETENTION BASIN.

NOTE:
ALL PRIVATE ACCESS DRIVES ARE PUBLIC UTILITY EASEMENTS AND PUBLIC DRAINAGE EASEMENT TO BE PRIVATELY MAINTAINED.

AVOID HITTING OVERHEAD POWER LINES. IT'S COSTLY.
CALL BEFORE YOU DO OVERHEAD
1-702-593-6111

Avoid cutting underground utility lines. It's costly.
Call before you Dig.
1-800-227-2600
UNDERGROUND SERVICE (USA)

REV	DATE	DESCRIPTION	DATE	AGEN. APP.	DATE	CCW. APP.
1	05/14/04	REVISE SET BACK DIMENSIONS - BUILDINGS 4 & 6.	8/04/04	HES		
2	05/14/04	REVISE BUILDING FOOTPRINTS & BUILDING NUMBERS.	8/04/04	HES		
3	04/20/04	REVISE STREET NAMES.				
4	02/09/04	ADD SET BACK DIMENSIONS.				

DESIGN:
DRAWN:
CHECK:
ISSUE DATE:
ISSUE EDITOR:
PLOT DATE: 08-03-04
PLOT TIME: 19:18:02

G.C. WALLACE, INC.
Engineers/Planners/Surveyors
1555 SOUTH RAINBOW BLVD./LAS VEGAS, NEVADA 89146
TELEPHONE: (702) 804-2000 • FAX: (702) 804-2299
F:\472\008\dwg\improv\030504\c003.dwg
mbonnette

CORONADO
WESTMARK HOMES
HORIZONTAL CONTROL PLAN I

SHEET
C-3
10744779
3 OF 12A SHTS
REPLOT

NOTE:
ALL PRIVATE ACCESS DRIVES ARE PUBLIC UTILITY EASEMENTS AND PUBLIC DRAINAGE EASEMENT TO BE PRIVATELY MAINTAINED.

NORTH
SCALE 1"=30'

30 0 30 60
SCALE FEET

PARCEL H
SF3

MATCHLINE SEE SHEET 3

MATCHLINE SEE SHEET 5

TEVARE LANE
(PRIVATE)

CANTERRA ST.
(PRIVATE)

DESERT SUNRISE ROAD
(PUBLIC)
(CLV DWG #107-V3574-1)

DESERT FOOTHILLS DRIVE
(PUBLIC)
(CLV DWG #107-V3605)

DESERT FOOTHILLS DRIVE
STA. 119+57.66

DESERT SUNRISE ROAD
STA. 102+60.00

DESERT FOOTHILLS DRIVE
STA. 120+00.00

DESERT SUNRISE ROAD
STA. 101+60.00

S70°33'30"W
28.79'

N19°26'30"W
98.00'

N76°12'01"E
78.00'

D=27°22'00"
R=1238.00'
L=590.36'
T=300.92'

R=1409.33'
L=433.98'

D=05°36'41"
T=147.08'

KEY MAP
NTS

THIS SHEET

DESERT SUNRISE ROAD (PUBLIC)

PASEO FLOWER COURT (PUBLIC)

BASIS OF BEARING

NORTH 02°40'58" WEST, BEING THE BEARING OF THE CENTERLINE OF DESERT FOOTHILLS DRIVE AS SHOWN BY MAP THEREOF ON FILE IN BOOK 108, PAGE 29 OF PLATS IN THE COUNTY RECORDER'S OFFICE, CLARK COUNTY, NEVADA, LYING WITHIN THE SOUTHEAST QUARTER (SE 1/4) OF SECTION 34, TOWNSHIP 20 SOUTH, RANGE 59 EAST, M.D.M., CITY OF LAS VEGAS, CLARK COUNTY, NEVADA.

BENCHMARK

CITY OF LAS VEGAS BENCHMARK: D368 3
NAVD 88 ELEVATION: 989.599 (M)–3246.71 (F)

U.S.C.& G.S. BRASS DISC SET IN ROCK ON THE EAST SIDE OF CHARLESTON BOULEVARD AND SOUTH OF THE RED ROCK DETENTION BASIN.

AVOID HITTING OVERHEAD POWER LINES. IT'S COSTLY.
CALL BEFORE YOU DIG OVERHEAD
1-702-593-6111

Avoid cutting underground utility lines. It's costly.
Call before you Dig.
1-800-227-2600
UNDERGROUND SERVICE (USA)

CORONADO
WESTMARK HOMES
HORIZONTAL CONTROL PLAN II

SHEET
C-4
10774779
4 OF 12A SHTS

REPLOT

G.C. WALLACE, INC.
Engineers/Planners/Surveyors
1555 SOUTH RAINBOW BLVD./LAS VEGAS, NEVADA 89146
TELEPHONE: (702) 804-2600 • FAX: (702) 804-2799

F:\V-72\DWG\dwg templates\ACADISO4.ctb dwg

DESIGN:
DRAWN:
CHECK:
ISSUE DATE:
ISSUE EDITOR:
PLOT DATE: 08-03-04
PLOT TIME: 19:26:35

REV DATE DESCRIPTION
1 04/04/04 REVISE SET BACK DIMENSIONS & CLUB HOUSE.
2 05/11/04 REVISE BUILDING FOOTPRINTS & BUILDING NUMBERS.
3 06/29/04 REVISE STREET NAMES.
4 08/04/04 ADD SET BACK DIMENSIONS & CLUB HOUSE.

DATE APP'D DATE APP'D

DATE 12-14-04

SONNY W. NEIGHBORS
No. 10181 PROFESSIONAL ENGINEER
CIVIL
EXP. DATE 12/31/2005
STATE OF NEVADA

MATCH LINE SEE SHEET 4

MATCHLINE SEE SHEET 3

CANTERRA ST. (PRIVATE)

PORTINA DR. (PRIVATE)

DESERT FOOTHILLS DRIVE (PUBLIC) (CLV DWG #107-V3605)

PARCEL A
MF2

PROPERTY LINE (TYP.)

PROPERTY LINE (TYP.)

N87°19'02"E 380.23'

N03°11'16"W 122.39'

N01°45'23"W 86.92'

D=03°29'14"
R=2960.00'
L=180.16'
T=90.11'

D=02°56'41"
R=730.33'
L=37.54'
T=18.77'

40.00' HOA

84.46' R/W

24.00' HOA

NORTH

SCALE 1"=30'

30 0 30 60
SCALE FEET

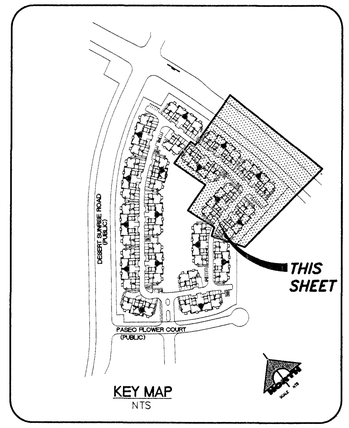
BASIS OF BEARING

NORTH 02°40'58" WEST, BEING THE BEARING OF THE CENTERLINE OF DESERT FOOTHILLS DRIVE AS SHOWN BY MAP THEREOF ON FILE IN BOOK 108, PAGE 29 OF PLATS IN THE COUNTY RECORDER'S OFFICE, CLARK COUNTY, NEVADA, LYING WITHIN THE SOUTHEAST QUARTER (SE 1/4) OF SECTION 34, TOWNSHIP 20 SOUTH, RANGE 59 EAST, M.D.M., CITY OF LAS VEGAS, CLARK COUNTY, NEVADA.

BENCHMARK

CITY OF LAS VEGAS BENCHMARK: D368 3
NAVD 88 ELEVATION: 989.599 (M)-3246.71 (F)

U.S.C.& G.S. BRASS DISC SET IN ROCK ON THE EAST SIDE OF CHARLESTON BOULEVARD AND SOUTH OF THE RED ROCK DETENTION BASIN.



KEY MAP
NTS

NOTE:
ALL PRIVATE ACCESS DRIVES ARE PUBLIC UTILITY EASEMENTS AND PUBLIC DRAINAGE EASEMENT TO BE PRIVATELY MAINTAINED.

Avoid cutting underground utility lines. It's costly.
Call before you Dig.
1-800-227-2600
UNDERGROUND SERVICE (USA)

ENGINEER - STATE OF NEVADA
JAMES W. GUNNELL
No. 10111
PROFESSIONAL ENGINEER
Exp. 12/31/2008
CIVIL

DATE: 8-4-07

REV	DATE	DESCRIPTION	DATE AGEN. APPD	DATE SCHW APPD
1	09/14/06	REVISE SET BACK DIMENSIONS - BUILDINGS 4 & 6.		
2	09/14/06	REVISE BUILDING FOOTPRINTS & BUILDING NAMES.		
3	04/20/06	REVISE STREET NAMES.		
4	12/09/04	ADD SET BACK DIMENSIONS AND CLUB HOUSE		

DESIGN:
DRAWN:
CHECK:
ISSUE DATE:
ISSUE EDITOR:
PLOT DATE: 08-03-04
PLOT TIME: 19:28:00

G.C. WALLACE, INC.
Engineers/Planners/Surveyors
1555 SOUTH RAINBOW BLVD./LAS VEGAS, NEVADA 89146
TELEPHONE: (702) 804-2000 • FAX: (702) 804-2299
E:\477\Cad\Dwg\Improve\030504-Cd05.dwg

CORONADO
WESTMARK HOMES
HORIZONTAL CONTROL PLAN III

SHEET
C-5
10774779
5 OF 12A SHTS

REPLOT

Dwg 020912.dwg

REDUCED PRESSURE PRINCIPLE ASSEMBLY (2) 8"

APPROVED REDUCED PRESSURE PRINCIPLE ASSEMBLY(S) SHALL BE INSTALLED PER THE UDACS STANDARD PLATE 118. NO WATER SHALL BE TAKEN FROM A SERVICE REQUIRING BACKFLOW PREVENTION UNTIL THE REDUCED PRESSURE REQUIRING BACKFLOW PREVENTION UNTIL THE REDUCED PRESSURE PRINCIPLE ASSEMBLY HAS BEEN SUCCESSFULLY TESTED BY THE LVVWD.

ANY BLOCK WALL OR OTHER FENCE MATERIAL SHALL BE DESIGNED AND CONSTRUCTED AROUND THE OUTSIDE OF THE EASEMENT(S) TO ALLOW THE DISTRICT DIRECT ACCESS FROM THE ADJACENT RIGHT-OF-WAY.

EASEMENT SHALL BE CLEARLY MARKED OR STAKED PRIOR TO THE START OF CONSTRUCTION.

INSTALLATION OF METER AND VAULT (2) 6" X 3"

THE METER(S) AND VAULT(S) WITH NON-TRAFFIC BEARING COVER(S) SHALL BE INSTALLED IN ACCORDANCE WITH THE UDACS PLATE NO. 210 AND WITH STANDARD VAULT DRAWING C-475, LATEST REVISION.

ANY BLOCK WALL OR OTHER FENCE MATERIAL SHALL BE DESIGNED AND CONSTRUCTED AROUND THE OUTSIDE OF THE EASEMENT(S) TO ALLOW THE DISTRICT DIRECT ACCESS TO THE VAULT(S) FROM THE ADJACENT RIGHT-OF-WAY. EASEMENTS SHALL BE CLEARLY MARKED OR STAKED PRIOR TO THE START OF CONSTRUCTION.

BASIS OF BEARING

NORTH 02°40'58" WEST, BEING THE BEARING OF THE CENTERLINE OF DESERT FOOTHILLS DRIVE AS SHOWN BY MAP THEREOF ON FILE IN BOOK 108, PAGE 29 OF PLATS IN THE COUNTY RECORDER'S OFFICE, CLARK COUNTY, NEVADA, LYING WITHIN THE SOUTHEAST QUARTER (SE 1/4) OF SECTION 34, TOWNSHIP 20 SOUTH, RANGE 59 EAST, M.D.M., CITY OF LAS VEGAS, CLARK COUNTY, NEVADA

BENCHMARK

CITY OF LAS VEGAS BENCHMARK: DJ68_3
NAVD 88 ELEVATION: 989.599 (M)-3246.71 (F)

U.S.C.& G.S. BRASS DISC SET IN ROCK ON THE EAST SIDE OF CHARLESTON BOULEVARD AND SOUTH OF THE RED ROCK DETENTION BASIN.

UTILITY NOTES

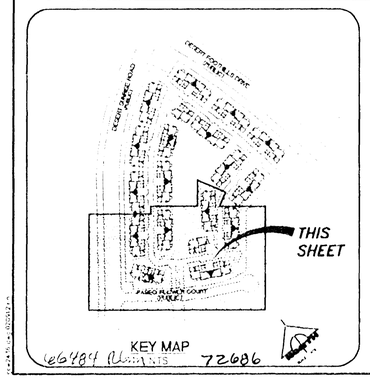
1. INSTALL 6"x3" HERSEY MODEL – 6" MFM II W/ 3" MHR PER UDACS PLATE NO. 210.
2. CONNECT FMCT TO EXISTING WATER LINE.
3. REMOVE EXISTING CAP AND BLOW-OFF ASSEMBLY PER UDACS PLATE NO. 4A, NOTE NO. 1, AND CONNECT TO EXISTING MAIN
4. INSTALL 6"x8" INCREASER/REDUCER.
5. INSTALL 8" RPPA PER UDACS PLATE NO. 11C. USING FEBCO PRODUCT MODEL NO. 880V.
6. INSTALL FIRE HYDRANT ASSEMBLY PER UDACS PLATE NO. 7.
7. INSTALL 48" DIA. TYPE I MANHOLE PER USDCCA DWG NO. 403
8. INSTALL SEWER WYE PER SANITARY DISTRICT STANDARDS.
9. SEE PLUMBING PLAN FOR CONTINUATION.
10. CONTRACTOR TO VERIFY DEPTH AND LOCATION OF ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION.
11. REMOVE EXISTING CAP AND CONNECT TO EXISTING SEWER LINE.
12. INSTALL 8" GATE VALVE
13. INSTALL (2) 4 IN. PVC IRRIGATION SLEEVES. REFER TO SIS V-18.
14. INSTALL (1) 6 IN. PVC IRRIGATION SLEEVE. REFER TO SIS V-18.
15. INSTALL 12" X 6" REDUCER.
16. INSTALL 2" BALL VALVE.
17. INSTALL 2" RPPA – SEE LANDSCAPE PLANS FOR EXACT LOC.
18. INSTALL 2" CAP.
19. INSTALL SEWER CLEAN OUT PER SANITATION DISTRICT STDS.
20. ADDITION EX. INSTALLATION PER UDACS SEC. 3.11.1.C
21. INSTALL 4" SEWER CLEAN OUT

FIRE FLOW CALCULATIONS

FIRE FLOW REQUIREMENT IS: AT 20 PSI RESIDUAL PRESSURE.	2,750 GPM (Blocks 1,3-21, 33, 35) 33,36)	FIRE FLOW: 2,000 GPM (Blocks: 2, 33, 34, 36)
BASED ON:	Blocks: 1,3-21, 33, 35	Blocks: 2, 33, 34, 36
SQUARE FOOTAGE:	22,026 SQUARE FEET	22,193 SF
LARGEST AREA BETWEEN 4-HOUR AREA SEPARATION WALLS:	22,026 SQUARE FEET	22,193 SF
BUILDING HEIGHT:	30' FEET	30'
NUMBER OF STORIES:	2 FLOOR	2
TYPE OF CONSTRUCTION:	V-1 HR	V-B
OCCUPANCY:	R-1/U-1	R-2/U
FULL AUTOMATIC FIRE SPRINKLER SYSTEM:	NO	YES

Reviewed By: _____
Date: _____

*NOTE: ONSITE SUBMITTAL REQUIRED WITH BUILDING DETAIL APPROVAL IS FOR ONSITE CONSTRUCTION FIRE PROTECTION OF 1500 GPM ONSITE 1500 GPM OFFSITE.



FIRE LANE

LEGEND:
PAINT CURBS RED WITH "FIRE LANE NO PARKING" AND SIGN TYPICAL HEREON.

MATCHLINE SEE SHEET 7

MATCHLINE SEE SHEET 8

PARCEL G
SF3

PARCEL A
MF2

PARCEL C
SFA

DESERT SUNRISE ROAD (PUBLIC) (CLV DWG #107-V3574-1)

PASEO FLOWER COURT (CLV DWG #107-V3574-1) (PUBLIC)

TEVARE LANE (PRIVATE)

PANTARA PLACE (PRIVATE)

MISSION GARDENS LANE (PRIVATE)

PORTINA DR. (PRIVATE)

EXISTING STORM DRAIN

EXISTING SANITARY SEWER

EXISTING WATER (VC 7851)

PROPERTY LINE (TYP.)

15'x35' LVVWD EASEMENT

24'x35' LVVWD EASEMENT

15'x25' LVVWD EASEMENT

15'x32' LVVWD EASEMENT

SCALE 1"=30'

30 0 30 60
SCALE FEET

NORTH

PLANS APPROVED PLUMBING/MECHANICAL
JAN 06 2009
Does not include electrical
Approval is for domestic water and sewer only.
Not a request to Waive Any Ordinance

JOHN M. WALKER Exp. 6-30-10 CIVIL No. 12779

SEP 14 2009

SEP 18 2009

NOTE:
ALL PRIVATE ACCESS DRIVES ARE PUBLIC UTILITY EASEMENTS AND PUBLIC DRAINAGE EASEMENT TO BE PRIVATELY MAINTAINED.

NOTE:
ALL ON SITE SEWERS ARE PRIVATE TO BE PRIVATELY MAINTAINED.

CALL BEFORE YOU DO OVERHEAD
1-702-593-6111

Avoid cutting underground utility lines. It's costly.
Call before you Dig.
1-800-227-2600
UNDERGROUND SERVICE (USA)

ESTIMATE OF UTILITY QUANTITIES (PUBLIC)

6"x3" FMCT.	2 EA.
6"x8" INCREASER/8"x6" REDUCER	4 EA.
8" RPPA	2 EA.

THIS PROPERTY MAY HAVE WATER PRESSURE IN EXCESS OF 80 PSI. THE UNIFORM PLUMBING CODE REQUIRES THAT INDIVIDUAL, ON-SITE (PRIVATE), PRESSURE REDUCING VALVES BE INSTALLED WHENEVER THE PRESSURE EXCEEDS 80 PSI. PRV'S ARE THE DEVELOPER'S RESPONSIBILITY AND WILL NOT BE INSPECTED OR INCLUDED IN THE ACCEPTANCE OF LVVWD FACILITIES.

METERS MUST BE SET IN A HORIZONTAL POSITION AT LEAST (8) DIAMETERS OF STRAIGHT PIPE ARE REQUIRED AT THE INLET END.

THE DISTRICT WILL NOT GUARANTEE A WATER-TIGHT SHUTDOWN WHERE CONNECTIONS OR REPAIRS TO EXISTING FACILITIES ARE REQUIRED. THE CONTRACTOR SHALL ENSURE ALL LABOR AND EQUIPMENT IS AVAILABLE AT ALL TIMES TO REMOVE FUGITIVE WATER WHICH IMPEDES THE CONTRACTOR'S PERFORMANCE IS AVAILABLE AT ALL TIMES. CONTRACTOR TO INSTALL TEMPORARY SERVICE TO ENSURE PROPER SHUTDOWN IN THE EVENT NO OTHER APPURTENANCES ARE AVAILABLE.

NOTICE

G.C. WALLACE, INC. ASSUME NO RESPONSIBILITY FOR EXISTING UTILITY SHOWN OR NOT SHOWN. THE UTILITIES SHOWN ON THIS DRAWING HAVE BEEN PLOTTED FROM RECORD INFORMATION AND ARE FOR THE CONVENIENCE OF THE CONTRACTOR ONLY. IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE LOCATION AND DEPTH OF ALL RELEVANT UTILITIES PRIOR TO COMMENCEMENT OF CONSTRUCTION. IF A CONFLICT OR DISCREPANCY IS DISCOVERED, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IN WRITING IMMEDIATELY.

APPROVED FOR CONSTRUCTION
1ST Approved 12/12/03
LAS VEGAS VALLEY WATER DISTRICT DATE 3/24/04

TYPICAL FIRE HYDRANT LOCATION
NOT TO SCALE

RECEIVED
SEP 18 2009

JOHN M. WALKER
STATE OF NEVADA
No. 12779
REGISTERED PROFESSIONAL ENGINEER
6/30/09

SONNY W. NEIGHBORS
STATE OF NEVADA
No. 10181
REGISTERED PROFESSIONAL ENGINEER
EXPIRES 12/31/2009
CIVIL

DESIGN:
DRAWN:
CHECK:
ISSUE DATE:
ISSUE EDITOR:
PLOT DATE 03-18-04
PLOT TIME 08:36:34

NO. 9/9/04 — DESCRIPTION — DATE — APP'D
1 — 9/9/04 — 3/24/04

G.C. WALLACE, INC.
Engineers/Planners/Surveyors
1555 SOUTH RAINBOW BLVD./LAS VEGAS, NEVADA 89146
TELEPHONE (702) 804-2000 • FAX (702) 804-2299
F:\Items Monitoring\4372-06\Utility\4372-06U.dwg

CORONADO
WESTMARK HOMES
UTILITY PLAN I

SHEET
C-6
10 OF 4779
6 OF 12 SHTS

PARCEL H
SF3

DESERT SUNRISE ROAD
(PUBLIC)
(CLV DWG #107-V3574-1)

DESERT FOOTHILLS DRIVE
(PUBLIC)
(CLV DWG #107-V3955)

TEVARE LANE
(PRIVATE)

CANTERRA STREET
(PRIVATE)

MATCHLINE SEE SHEET 6

MATCHLINE SEE SHEET 8

FIRE LANE

LEGEND:
PAINT CURBS RED WITH "FIRE LANE NO PARKING" AND SIGN TYPICAL HEREON.

NORTH
SCALE 1"=30'

30 0 30 60
SCALE FEET

AVOID HITTING OVERHEAD POWER LINES IT'S COSTLY
CALL BEFORE YOU DO OVERHEAD
1-702-593-6111

Avoid cutting underground utility lines. It's costly.
Call before you Dig.
1-800-227-2600
UNDERGROUND SERVICE (USA)

EMERGENCY ACCESS CONSTRUCTION ACCESS POINT EX. SANITARY SEWER (SEE DETAIL 4 THIS SHEET)

40' VIEW FENCE AND EMERGENCY ACCESS GATE

TIE IN POINT

EX. 7'x7' RCB SD.

EX. 4" PE GAS

PROP. 4" PE GAS

PROP. 2" PE GAS

EX. SANITARY SEWER

PROP. 4" PE GAS

EX. 2'x7' RCB SD.

PAD=18.3 F.F.= 19.1
PAD=17.3 F.F.= 18.1
PAD=15.1 F.F.= 15.9
PAD=14.1 F.F.= 14.9
PAD=11.9 F.F.= 12.7
PAD=10.9 F.F.= 11.7
PAD=17.5 F.F.= 18.3
PAD=16.5 F.F.= 17.3
PAD=13.9 F.F.= 14.7
PAD=12.9 F.F.= 13.7
PAD=09.3 F.F.= 10.1

NOTE:
ALL PRIVATE ACCESS DRIVES ARE PUBLIC UTILITY EASEMENTS AND PUBLIC DRAINAGE EASEMENT TO BE PRIVATELY MAINTAINED.

NOTE:
ALL ON SITE SEWERS ARE PRIVATE TO BE PRIVATELY MAINTAINED.

THIS PROPERTY MAY HAVE WATER PRESSURE IN EXCESS OF 80 PSI. THE UNIFORM PLUMBING CODE REQUIRES THAT INDIVIDUAL, ON-SITE (PRIVATE), PRESSURE REDUCING VALVES BE INSTALLED WHENEVER THE PRESSURE EXCEEDS 80 PSI. PRV'S ARE THE DEVELOPER'S RESPONSIBILITY AND WILL NOT BE INSPECTED OR INCLUDED IN THE ACCEPTANCE OF LVVWD FACILITIES.

THIS SHEET

KEY MAP
NTS

UTILITY NOTES

1. INSTALL 6"x3" HERSEY MODEL – 6" MFM II W/ 3" MHR PER UDACS PLATE NO. 21D.
2. CONNECT FMCT TO EXISTING WATER LINE.
3. REMOVE EXISTING CAP AND BLOW-OFF ASSEMBLY PER UDACS PLATE NO. 4A, NOTE NO. 1, AND CONNECT TO EXISTING MAIN
4. INSTALL 6"x8" INCREASER/REDUCER.
5. INSTALL 8" RPPA PER UDACS PLATE NO. 11C. USING FEBCO PRODUCT MODEL NO. 880V.
6. INSTALL FIRE HYDRANT ASSEMBLY PER UDACS PLATE NO. 7.
7. INSTALL 48" DIA. TYPE I MANHOLE PER USDCCA DWG NO. 403
8. INSTALL SEWER WYE PER SANITARY DISTRICT STANDARDS.
9. SEE PLUMBING PLAN FOR CONTINUATION.
10. CONTRACTOR TO VERIFY DEPTH AND LOCATION OF ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION.
11. REMOVE EXISTING CAP AND CONNECT TO EXISTING SEWER LINE.
12. INSTALL 8" GATE VALVE
13. INSTALL (2) 4 IN. PVC IRRIGATION SLEEVES. REFER TO SIS V-18.
14. INSTALL (1) 6 IN. PVC IRRIGATION SLEEVE. REFER TO SIS V-18.
15. INSTALL 12" X 6" REDUCER.
16. INSTALL 2" BALL VALVE.
17. INSTALL 2" RPPA – SEE LANDSCAPE PLANS FOR EXACT LOC.
18. INSTALL 2" CAP.
19. INSTALL SEWER CLEAN OUT PER SANITATION DISTRICT STDS.

NOTICE

G.C. WALLACE, INC. ASSUME NO RESPONSIBILITY FOR EXISTING UTILITY SHOWN OR NOT SHOWN. THE UTILITIES SHOWN ON THIS DRAWING HAVE BEEN PLOTTED FROM RECORD INFORMATION AND ARE FOR THE CONVENIENCE OF THE CONTRACTOR ONLY. IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE LOCATION AND DEPTH OF ALL RELEVANT UTILITIES PRIOR TO COMMENCEMENT OF CONSTRUCTION. IF A CONFLICT OR DISCREPANCY IS DISCOVERED, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IN WRITTING IMMEDIATELY.

BASIS OF BEARING

NORTH 02°40'58" WEST, BEING THE BEARING OF THE CENTERLINE OF DESERT FOOTHILLS DRIVE AS SHOWN BY MAP THEREOF ON FILE IN BOOK 108, PAGE 29 OF PLATS IN THE COUNTY RECORDER'S OFFICE, CLARK COUNTY, NEVADA, LYING WITHIN THE SOUTHEAST QUARTER (SE 1/4) OF SECTION 34, TOWNSHIP 20 SOUTH, RANGE 59 EAST, M.D.M., CITY OF LAS VEGAS, CLARK COUNTY, NEVADA.

BENCHMARK

CITY OF LAS VEGAS BENCHMARK: D368 3
NAVD 88 ELEVATION: 989.599 (M)–3246.71 (F)

U.S.C.& G.S. BRASS DISC SET IN ROCK ON THE EAST SIDE OF CHARLESTON BOULEVARD AND SOUTH OF THE RED ROCK DETENTION BASIN.

Approval is for domestic water and sewer only.

PLANS APPROVED
PLUMBING-MECHANICAL
MT JAN 06 2010
Does Not Include Commercial, Electrical, Structural or Off-Site Improvements Make No Changes Without Approval Plan & Make a Record of Water Approved

APPROVED FOR CONSTRUCTION
CITY OF LAS VEGAS FIRE DEPART. 3/24/04 DATE

APPROVED FOR CONSTRUCTION
1st Appv'd. 12/12/03
LAS VEGAS VALLEY WATER DISTRICT 3/24/04 DATE

SONNY NEUBAUER
No. 10181
PROFESSIONAL ENGINEER
STATE OF NEVADA
Exp. 12/31/2006

DATE: 7-1804

REV	DATE	DESCRIPTION	APP	DATE
			GCW	APP

FIRE LANE

LEGEND:

PAINT CURBS RED WITH "FIRE LANE NO PARKING" AND SIGN TYPICAL HEREON.

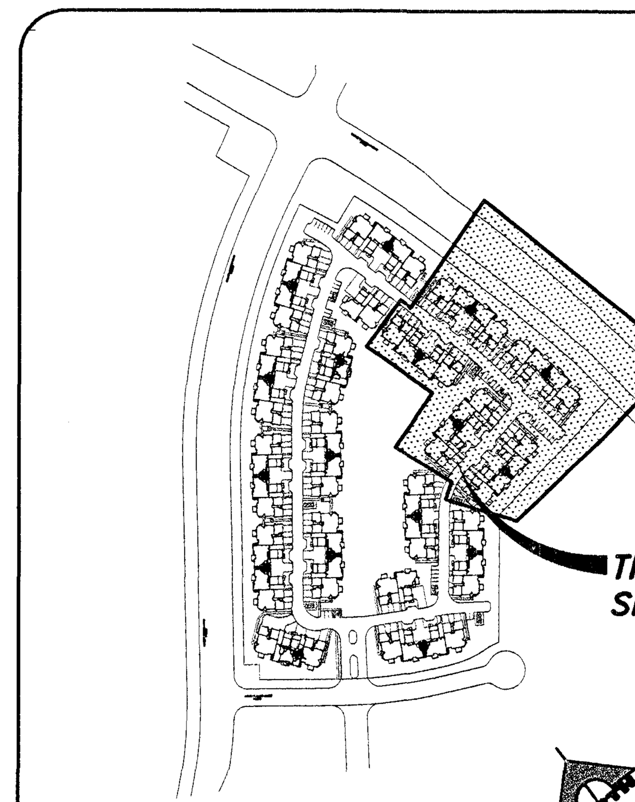
NORTH

SCALE 1"=30'

30 0 30 60
SCALE FEET

NOTE:
ALL PRIVATE ACCESS DRIVES ARE PUBLIC UTILITY EASEMENTS AND PUBLIC DRAINAGE EASEMENT TO BE PRIVATELY MAINTAINED.

NOTE:
ALL ON SITE SEWERS ARE PRIVATE TO BE PRIVATELY MAINTAINED.



KEY MAP
NTS

THIS PROPERTY MAY HAVE WATER PRESSURE IN EXCESS OF 80 PSI. THE UNIFORM PLUMBING CODE REQUIRES THAT INDIVIDUAL, ON-SITE (PRIVATE), PRESSURE REDUCING VALVES BE INSTALLED WHENEVER THE PRESSURE EXCEEDS 80 PSI. PRV'S ARE THE DEVELOPER'S RESPONSIBILITY AND WILL NOT BE INSPECTED OR INCLUDED IN THE ACCEPTANCE OF LVVWD FACILITIES.

UTILITY NOTES

1. INSTALL 6"x3" HERSEY MODEL – 6" MFM II W/ 3" MHR PER UDACS PLATE NO. 21D.
2. CONNECT FMCT TO EXISTING WATER LINE.
3. REMOVE EXISTING CAP AND BLOW-OFF ASSEMBLY PER UDACS PLATE NO. 4A, NOTE NO. 1, AND CONNECT TO EXISTING MAIN
4. INSTALL 6"x8" INCREASER/REDUCER.
5. INSTALL 8" RPPA PER UDACS PLATE NO. 11C. USING FEBCO PRODUCT MODEL NO. 880V.
6. INSTALL FIRE HYDRANT ASSEMBLY PER UDACS PLATE NO. 7.
7. INSTALL 48" DIA. TYPE I MANHOLE PER USDCCA DWG NO. 403
8. INSTALL SEWER WYE PER SANITARY DISTRICT STANDARDS.
9. SEE PLUMBING PLAN FOR CONTINUATION.
10. CONTRACTOR TO VERIFY DEPTH AND LOCATION OF ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION.
11. REMOVE EXISTING CAP AND CONNECT TO EXISTING SEWER LINE.
12. INSTALL 8" GATE VALVE
13. INSTALL (2) 4 IN. PVC IRRIGATION SLEEVES. REFER TO SIS V-18.
14. INSTALL (1) 6 IN. PVC IRRIGATION SLEEVE. REFER TO SIS V-18.
15. INSTALL 12" X 6" REDUCER.
16. INSTALL 2" BALL VALVE.
17. INSTALL 2" RPPA – SEE LANDSCAPE PLANS FOR EXACT LOC.
18. INSTALL 2" CAP.
19. INSTALL SEWER CLEAN OUT PER SANITATION DISTRICT STDS.

Approval is for domestic water and sewer only.

PLANS APPROVED
PLUMBING/MECHANICAL

JAN 06 2010

NOTICE

G.C. WALLACE, INC. ASSUME NO RESPONSIBILITY FOR EXISTING UTILITY SHOWN OR NOT SHOWN. THE UTILITIES SHOWN ON THIS DRAWING HAVE BEEN PLOTTED FROM RECORD INFORMATION AND ARE FOR THE CONVENIENCE OF THE CONTRACTOR ONLY. IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE LOCATION AND DEPTH OF ALL RELEVANT UTILITIES PRIOR TO COMMENCEMENT OF CONSTRUCTION. IF A CONFLICT OR DISCREPANCY IS DISCOVERED, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IN WRITTING IMMEDIATELY.

AVOID HITTING OVERHEAD POWER LINES. IT'S COSTLY
CALL BEFORE YOU DO OVERHEAD
1-702-593-6111

Avoid cutting underground utility lines. It's costly.
Call before you Dig.
1-800-227-2600
UNDERGROUND SERVICE (USA)

BASIS OF BEARING

NORTH 02°40'58" WEST, BEING THE BEARING OF THE CENTERLINE OF DESERT FOOTHILLS DRIVE AS SHOWN BY MAP THEREOF ON FILE IN BOOK 108, PAGE 29 OF PLATS IN THE COUNTY RECORDER'S OFFICE, CLARK COUNTY, NEVADA, LYING WITHIN THE SOUTHEAST QUARTER (SE 1/4) OF SECTION 34, TOWNSHIP 20 SOUTH, RANGE 59 EAST, M.D.M., CITY OF LAS VEGAS, CLARK COUNTY, NEVADA.

BENCHMARK

CITY OF LAS VEGAS BENCHMARK: D368 3
NAVD 88 ELEVATION: 989.599 (M)–3246.71 (F)

U.S.C.& G.S. BRASS DISC SET IN ROCK ON THE EAST SIDE OF CHARLESTON BOULEVARD AND SOUTH OF THE RED ROCK DETENTION BASIN.

APPROVED FOR CONSTRUCTION
3.24.04
CITY OF LAS VEGAS FIRE DEPART. DATE

APPROVED FOR CONSTRUCTION
1st Appv'd. 12/12/03
Robert J. Morgan 3/24/04
LAS VEGAS VALLEY WATER DISTRICT DATE

ENGINEER – STATE OF NEVADA – PROFESSIONAL
SONNY W. NEIGHBORS
CIVIL
No. 10118
EXP. 12/31/2005
DATE: 3-18-04

REV	DATE	DESCRIPTION	DATE	AGEN. APP.	DATE	GCW. APP.
3	8/10/04	REVISED BUILDING NUMBERS	8/10/04			
2	03/09/04	ADD AND RENUMBER SEWER MANHOLES; ADD GATE VALVES; AND ADD 2" WATER LINE AND REVISE WATER & SEWER STUBS				

DESIGN:
DRAWN:
CHECK:
ISSUE DATE:
ISSUE EDITOR:
PLOT DATE: 03-18-04
PLOT TIME: 08:18:20

G.C. WALLACE, INC.
Engineers/Planners/Surveyors
1555 SOUTH RAINBOW BLVD./LAS VEGAS, NEVADA 89146
TELEPHONE: (702) 804-2000 • FAX: (702) 804-2299
F:\temp\Mordechai\472-008\dwg\improv\c008.dwg
myadegar

CORONADO
WESTMARK HOMES
UTILITY PLAN III

SHEET
C-8
10744779
8 OF 12 SHTS
REPLOT

CONSTRUCTION NOTES

1. SAWCUT& REMOVE EXISTING CURB & GUTTER, AND SIDEWALK, MATCH EXISTING. CONTRACTOR SHALL VERIFY EXISTING CURB ELEVATION AND REPORT ANY DISCREPANCIES TO THE ENGINEER PRIOR TO COMMENCEMENT OF CONSTRUCTION.
2. CONSTRUCT VILLAGE MAIN ENTRY SUMMERLIN DESIGN STANDARDS. CONSTRUCT 8' WIDE VALLEY GUTTER PER SIS DWG NO. S-64.
3. CONSTRUCT CASE II HANDICAP RAMP PER USDOCA DWG. NO. 235
4. CONSTRUCT "L" TYPE CURB & GUTTER PER S.I.S. DWG. NO. S-47.
5. 10' TRANSITION FROM "L" TYPE CURB & GUTTER TO ROLL TYPE CURB & GUTTER.
6. CONSTRUCT 30" ROLL TYPE CURB & GUTTER PER S.I.S. DWG. NO. S-48.
7. CONSTRUCT "A" TYPE CURB & GUTTER PER DETAIL J SHEET C-12.
8. CONSTRUCT 4" THICK SIDEWALK PER S.I.S. DWG. NO. S-72 SEE PLAN FOR WIDTH. SEE ALSO ARCH. PLANS FOR EXACT LOCATION, COLOR AND FINISH. MAX CROSS SLOPE = 2%
9. CONSTRUCT 3' WIDE CONCRETE VALLEY GUTTER PER DETAIL K SHEET C-12.
10. CONSTRUCT 2" AC PAVING OVER 4" TYPE II AGGREGATE BASE OVER COMPACTED SUBGRADE. SEE SOILS REPORT PREPARED BY TERRACON PROJECT NO. 64035082 AND 64041003 DATED MAY 19, 2003 AND FEB. 6, 2004 FOR MORE INFORMATION. 4
11. CONSTRUCT TRASH ENCLOSURES. SEE ARCHITECTURAL PLANS FOR DETAILS.
12. INSTALL HANDICAP SIGNAGE/RAMPS AND PARKING STRIPING. SEE ARCHITECTURAL PLANS FOR MORE DETAILS.
13. CONSTRUCT VARIABLE HIGH CMU BLOCK WALL. SEE ARCHITECTURAL/STRUCTURAL PLANS FOR DETAILS.
14. CONSTRUCT VARIABLE HEIGHT RETAINING WALL. SEE ARCHITECTURAL/STRUCTURAL PLANS FOR DETAILS.
16. CONSTRUCT 1' WIDE VALLEY GUTTER FOR LANDSCAPE DRAINAGE.
17. CONSTRUCT LANDSCAPE SWALE.
18. CONSTRUCT 1' WIDE CURB OPENING FOR LANDSCAPE DRAINAGE.
19. CONSTRUCT 8' WIDE VALLEY GUTTER PER S.I.S. DWG S-64.
20. INSTALL MODIFIED TYPE "CM2" DROP INLET PER DETAIL L SHEET C-12. SEE PLAN FOR "L" & "D" DIMENSION.
21. INSTALL TYPE II STORM DRAIN MANHOLE PER USDOCA DWG. NO. 405 CONTRACTOR SHALL VERIFY EXISTING INVERT ELEVATION AND REPORT ANY DISCREPANCIES TO THE ENGINEER PRIOR TO CONSTRUCTION.
22. 3" TRANSITION FROM 0" TO ROLL CURB.
23. 0" CURB FLUSH WITH PAVEMENT.
24. TRANSITION FROM ROLL CURB TO "L" TYPE CURB AND GUTTER.
25. CONSTRUCT 4' WIDE x 16" HIGH WALL OPENING. SEE DETAIL A SHEET C-11.
26. CONSTRUCT BEEHIVE INLET PER USDOCA DWG. NO. 416 WITH NEENAH R-2563 SERIES BEHIVE GRATE AND FRAME.
27. CONSTRUCT STORM WATER OVERFLOW PER S.I.S. DWG. D-32 AND DETAIL "B" HEREON
28. CONSTRUCT HANDRAIL. SEE ARCHITECTURAL/LANDSCAPING PLAN FOR DETAILS.
29. TRANSITION FROM 0" TO 6" CURB.
30. INSTALL ADA RAMP, HANDRAILS, AND RETAINING WALL. RAMP NOT TO EXCEED 12:1. SEE LANDSCAPE PLAN FOR MORE DETAILS.
31. INSTALL PARSON ROCKERY RETAINING WALL - SEE LANDSCAPE PLAN FOR DETAILS.
32. CONSTRUCT 2-3" PVC PIPE UNDER SIDEWALK.

BASIS OF BEARING

NORTH 02°40'58" WEST, BEING THE BEARING OF THE CENTERLINE OF DESERT FOOTHILLS DRIVE AS SHOWN BY MAP THEREOF ON FILE IN BOOK 108, PAGE 29 OF PLATS IN THE COUNTY RECORDER'S OFFICE, CLARK COUNTY, NEVADA, LYING WITHIN THE SOUTHEAST QUARTER (SE 1/4) OF SECTION 34, TOWNSHIP 20 SOUTH, RANGE 59 EAST, M.D.M., CITY OF LAS VEGAS, CLARK COUNTY, NEVADA.

BENCHMARK

CITY OF LAS VEGAS BENCHMARK: D368 3
NAVD 88 ELEVATION: 989.599 (M)-3246.71 (F)

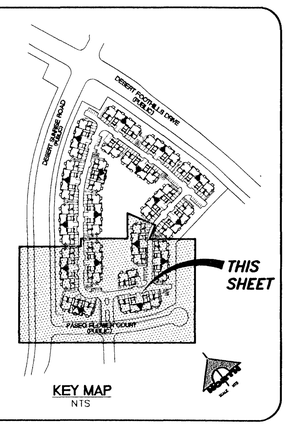
U.S.C.& G.S. BRASS DISC SET IN ROCK ON THE EAST SIDE OF CHARLESTON BOULEVARD AND SOUTH OF THE RED ROCK DETENTION BASIN.

NOTE: ALL PRIVATE STREETS ARE P.U.E., PUBLIC SEWER EASEMENTS, AND PUBLIC DRAINAGE EASEMENTS TO BE PRIVATELY MAINTAINED BY HOA."

GRADING QUANTITIES (RAW)

CUT:	34,804 yards
FILL:	37,563 yards

NOTE:
ALL PRIVATE ACCESS DRIVES ARE PUBLIC UTILITY EASEMENTS AND PUBLIC DRAINAGE EASEMENT TO BE PRIVATELY MAINTAINED.



KEY MAP
NTS

DRAINAGE CERTIFICATION

I CERTIFY THIS GRADING PLAN IS IN CONFORMANCE WITH THE APPROVED DRAINAGE STUDY ON FILE WITH THE CITY OF LAS VEGAS FOR THIS PROJECT.

PAUL R. LOHMAN — 14006 P.E. NO. — 6/21/06 DATE

STATE OF NEVADA — PROFESSIONAL ENGINEER — PAUL R. LOHMAN — No. 14006 — EXP. 12/31/2007 — CIVIL

DATE: 6/21/06

NORTH
SCALE 1"=30'

SCALE: 30 0 30 60 FEET

MATCHLINE SEE SHEET 10

MATCHLINE SEE SHEET 11

DESERT SUNRISE ROAD (PUBLIC) (CLV DWG #107-V3574-1)

TEVARE LN. (PRIVATE)

FORTINA DR. (PRIVATE)

PANTARA PLACE (PRIVATE)

MISSION GARDENS LN. (PRIVATE)

PASEO FLOWER COURT (PUBLIC) (CLV DWG #107-V3574-1)

PROPERTY LINE (TYP.)

PARCEL A
MF2

AVOID HITTING OVERHEAD POWER LINES. IT'S COSTLY.
CALL BEFORE YOU DO OVERHEAD
1-702-593-6111

Avoid cutting underground utility lines. It's costly.
Call before you Dig.
1-800-227-2600
UNDERGROUND SERVICE (USA)

DATE	APP	DESCRIPTION
06/27/06		ADD ADA PATH, REV SIDEWALK
06/20/06		REVISE RETAINING WALL ON EAST SIDE OF BLDG. 3
05/22/06		REVISE CONSTRUCTION NOTE #10
05/14/06		REVISE BUILDING FOOTPRINTS & BUILDING NUMBERS
03/24/06		ADD COMMUNITY OPEN SPACE, LANDSCAPING, REVISE WALKWAYS, DENSITY
02/09/06		REVISE DRIVEWAYS, REVISE PLANTER, ERASE CUL-DE-SAC, DESERT FOOTHILLS DR.
02/09/06		ADD COMMON SPACE, 1' V.G. & REV. SIDEWALK

DESIGN:
DRAWN:
CHECK:
ISSUE DATE:
ISSUE EDITOR:
PLOT DATE: 06-21-06
PLOT TIME: 13:49:39

G.C. WALLACE, INC.
Engineers/Planners/Surveyors
1555 SOUTH RAINBOW BLVD./LAS VEGAS, NEVADA 89146
TELEPHONE: (702) 804-2000 • FAX: (702) 804-2299
fone
J:\472\CDS\dwg\MPROV\c09.dwg

CORONADO
WESTMARK HOMES
GRADING PLAN I

SHEET
C-9
9 OF 12A SHTS

107Y4779

472-008

REPLOT

AVOID HITTING OVERHEAD POWER LINES. IT'S COSTLY.
CALL BEFORE YOU DO OVERHEAD
1-702-593-6111

Avoid cutting underground utility lines. It's costly.
Call before you Dig.
1-800-227-2600
UNDERGROUND SERVICE (USA)

BASIS OF BEARING

NORTH 02°40'58" WEST, BEING THE BEARING OF THE CENTERLINE OF DESERT FOOTHILLS DRIVE AS SHOWN BY MAP THEREOF ON FILE IN BOOK 108, PAGE 29 OF PLATS IN THE COUNTY RECORDER'S OFFICE, CLARK COUNTY, NEVADA, LYING WITHIN THE SOUTHEAST QUARTER (SE 1/4) OF SECTION 34, TOWNSHIP 20 SOUTH, RANGE 59 EAST, M.D.M., CITY OF LAS VEGAS, CLARK COUNTY, NEVADA.

BENCHMARK

CITY OF LAS VEGAS BENCHMARK J 368 3
NAVD 88 ELEVATION: 989.599 (M)=3246.71 (F)

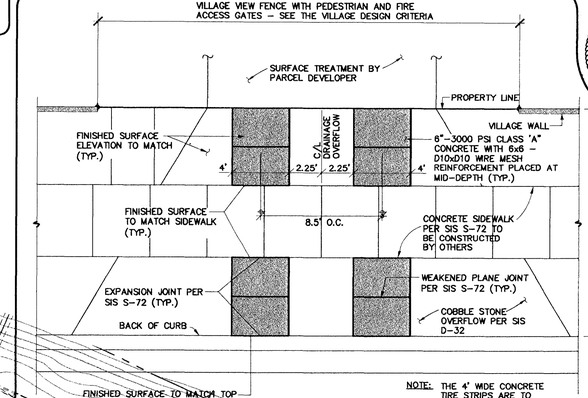
U.S.C.& G.S. BRASS DISC SET IN ROCK ON THE EAST SIDE OF CHARLESTON BOULEVARD AND SOUTH OF THE RED ROCK DETENTION BASIN.

NOTE:
ALL PRIVATE ACCESS DRIVES ARE PUBLIC UTILITY EASEMENTS AND PUBLIC DRAINAGE EASEMENT TO BE PRIVATELY MAINTAINED.

NORTH
1"=30'
30 0 30 60
SCALE FEET

NOTE: PUBLIC UTILITY EASEMENT AND PUBLIC DRAINAGE EASEMENT TO BE PRIVATELY MAINTAIN (H.O.A.)

VILLAGE VIEW FENCE WITH PEDESTRIAN AND FIRE ACCESS GATES – SEE THE VILLAGE DESIGN CRITERIA



NOTE: THE 4' WIDE CONCRETE TIRE STRIPS ARE TO BE STAINED WITH PERMEON OR EQUAL.

DETAIL "A"
NTS

SUMMERLIN HOA COMMON LOT

MATCHLINE SEE SHEET 9

DESERT SUNRISE ROAD (PUBLIC) (CLV DWG #107-Y3574-1)

TEVARE LN (PRIVATE)

CANTERA DR

DESERT FOOTHILL DRIVE (PUBLIC) (CLV DWG #107-Y3695)

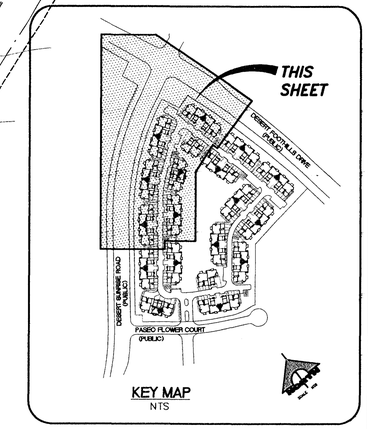
EMERGENCY ACCESS POINT CONSTRUCTION ACCESS (SEE DETAIL "A" THIS SHEET)

40' VIEW FENCE AND EMERGENCY ACCESS GATE

MATCHLINE SEE SHEET 11

CONSTRUCTION NOTES

1. SAWCUT& REMOVE EXISTING CURB & GUTTER, AND SIDEWALK. MATCH EXISTING. CONTRACTOR SHALL VERIFY EXISTING CURB ELEVATION AND REPORT ANY DISCREPANCIES TO THE ENGINEER PRIOR TO COMMENCEMENT OF CONSTRUCTION.
2. CONSTRUCT VILLAGE MAIN ENTRY SUMMERLIN DESIGN STANDARDS. CONSTRUCT 8' WIDE VALLEY GUTTER PER SIS DWG NO. S-64.
3. CONSTRUCT CASE II HANDICAP RAMP PER USDOCA DWG. NO. 235
4. CONSTRUCT "L" TYPE CURB & GUTTER PER S.I.S. DWG. NO. S-47.
5. 10' TRANSITION FROM "L" TYPE CURB & GUTTER TO ROLL TYPE CURB & GUTTER.
6. CONSTRUCT 30" ROLL TYPE CURB & GUTTER PER S.I.S. DWG. NO. S-48.
7. CONSTRUCT "A" TYPE CURB & GUTTER PER DETAIL J SHEET C-12.
8. CONSTRUCT 4" THICK SIDEWALK PER S.I.S. DWG. NO. S-72 SEE PLAN FOR WIDTH. SEE ALSO ARCH. PLANS FOR EXACT LOCATION, COLOR AND FINISH. MAX CROSS SLOPE = 2%
9. CONSTRUCT 3' WIDE CONCRETE VALLEY GUTTER PER DETAIL K SHEET C-12.
10. CONSTRUCT 2" AC PAVING OVER 4" TYPE II AGGREGATE BASE OVER COMPACTED SUBGRADE SEE SOILS REPORT PREPARED BY TERRACON PROJECT NO. 64035082 AND 64041003 DATED MAY 19, 2003 AND FEB. 6, 2004 FOR MORE INFORMATION. 4
11. CONSTRUCT TRASH ENCLOSURES. SEE ARCHITECTURAL PLANS FOR DETAILS.
12. INSTALL HANDICAP SIGNAGE/RAMPS AND PARKING STRIPING. SEE ARCHITECTURAL PLANS FOR MORE DETAILS.
13. CONSTRUCT VARIABLE HIGH CMU BLOCK WALL. SEE ARCHITECTURAL/STRUCTURAL PLANS FOR DETAILS.
14. CONSTRUCT VARIABLE HEIGHT RETAINING WALL. SEE ARCHITECTURAL/STRUCTURAL PLANS FOR DETAILS.
16. CONSTRUCT 1' WIDE VALLEY GUTTER FOR LANDSCAPE DRAINAGE.
17. CONSTRUCT LANDSCAPE SWALE.
18. CONSTRUCT 1' WIDE CURB OPENING FOR LANDSCAPE DRAINAGE.
19. CONSTRUCT 8' WIDE VALLEY GUTTER PER S.I.S. DWG S-64.
20. INSTALL MODIFIED TYPE "CM2" DROP INLET PER DETAIL L SHEET C-12. SEE PLAN FOR "L" & "D" DIMENSION.
21. INSTALL TYPE II STORM DRAIN MANHOLE PER USDOCA DWG. NO. 405 CONTRACTOR SHALL VERIFY EXISTING INVERT ELEVATION AND REPORT ANY DISCREPANCIES TO THE ENGINEER PRIOR TO CONSTRUCTION.
22. 3' TRANSITION FROM 0" TO ROLL CURB.
23. 0" CURB FLUSH WITH PAVEMENT.
24. TRANSITION FROM ROLL CURB TO "L" TYPE CURB AND GUTTER.
25. CONSTRUCT 4' WIDE x 16" HIGH WALL OPENING. SEE DETAIL A SHEET C-11.
26. CONSTRUCT BEEHIVE INLET PER USDOCA DWG. NO. 416 WITH NEENAH R-2563 SERIES BEEHIVE GRATE AND FRAME.
27. CONSTRUCT STORM WATER OVERFLOW PER S.I.S. DWG. D-32 AND DETAIL "B" HEREON
28. CONSTRUCT HANDRAIL. SEE ARCHITECTURAL/LANDSCAPING PLAN FOR DETAILS.
29. TRANSITION FROM 0" TO 6" CURB.
30. INSTALL ADA RAMP, HANDRAILS, AND RETAINING WALL. RAMP NOT TO EXCEED 12:1. SEE LANDSCAPE PLAN FOR MORE DETAILS.
31. INSTALL PARSON ROCKERY RETAINING WALL – SEE LANDSCAPE PLAN FOR DETAILS.
32. CONSTRUCT 2-3" PVC PIPE UNDER SIDEWALK.



KEY MAP
NTS

DRAINAGE CERTIFICATION

I CERTIFY THIS GRADING PLAN IS IN CONFORMANCE WITH THE APPROVED DRAINAGE STUDY ON FILE WITH THE CITY OF LAS VEGAS FOR THIS PROJECT.

PAUL R. LOHMAN — 14006 P.E. NO. — 6/21/06 DATE

107Y4779

STATE OF NEVADA — PAUL R. LOHMAN — No. 14006 — PROFESSIONAL ENGINEER — CIVIL — Exp. 12/31/2007

DESIGN:	DRAWN:	CHECK:	ISSUE DATE:	ISSUE EDITOR:	PLOT DATE: 06-21-06	PLOT TIME: 13:56:04

REV	DATE	DESCRIPTION	DATE	AGEN.	APP	DATE	CKW	APP
4	10/27/06	ADD ADA RAMP, REV. SIDEWALK						
3	07/17/06	REVISE CONSTRUCTION NOTE #10.						
2	06/14/06	REVISE BUILDING FOOTPRINTS & BUILDING NUMBERS						
1	02/24/06	ADD COMMUNITY OPEN SPACE LANDSCAPING, REVISE WALKWAYS, IDENTIFY ACCESSIBLE ROUTES, REVISE GARAGE FLOOR ELEVATIONS, AND SOME PASEO FLOWER COURT, AND SOUTH BOUNDARY						
0	02/09/04	ADD COMMON SPACE, 1' V.G. & REV. SIDEWALK.						

G.C. WALLACE, INC.
Engineers/Planners/Surveyors
1555 SOUTH RAINBOW BLVD./LAS VEGAS, NEVADA 89146
TELEPHONE: (702) 804-2000• FAX: (702) 804-2299
\\472\008\dwg\MPRTOV.008.dwg

CORONADO
WESTMARK HOMES
GRADING PLAN II

SHEET
C-10
10 OF 12A SHTS

472-008

REPLOT

BASIS OF BEARING

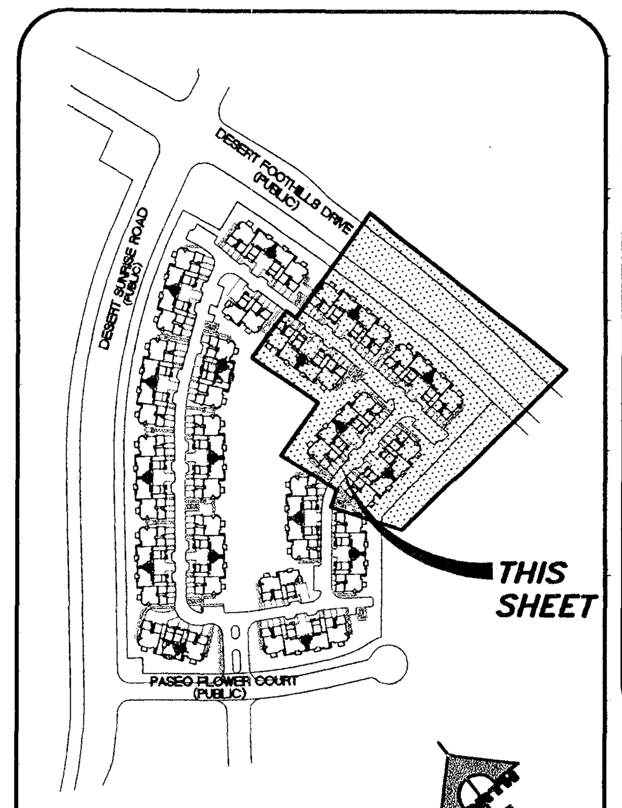
NORTH 02°40'58" WEST, BEING THE BEARING OF THE CENTERLINE OF DESERT FOOTHILLS DRIVE AS SHOWN BY MAP THEREOF ON FILE IN BOOK 108, PAGE 29 OF PLATS IN THE COUNTY RECORDER'S OFFICE, CLARK COUNTY, NEVADA, LYING WITHIN THE SOUTHEAST QUARTER (SE 1/4) OF SECTION 34, TOWNSHIP 20 SOUTH, RANGE 59 EAST, M.D.M., CITY OF LAS VEGAS, CLARK COUNTY, NEVADA.

BENCHMARK

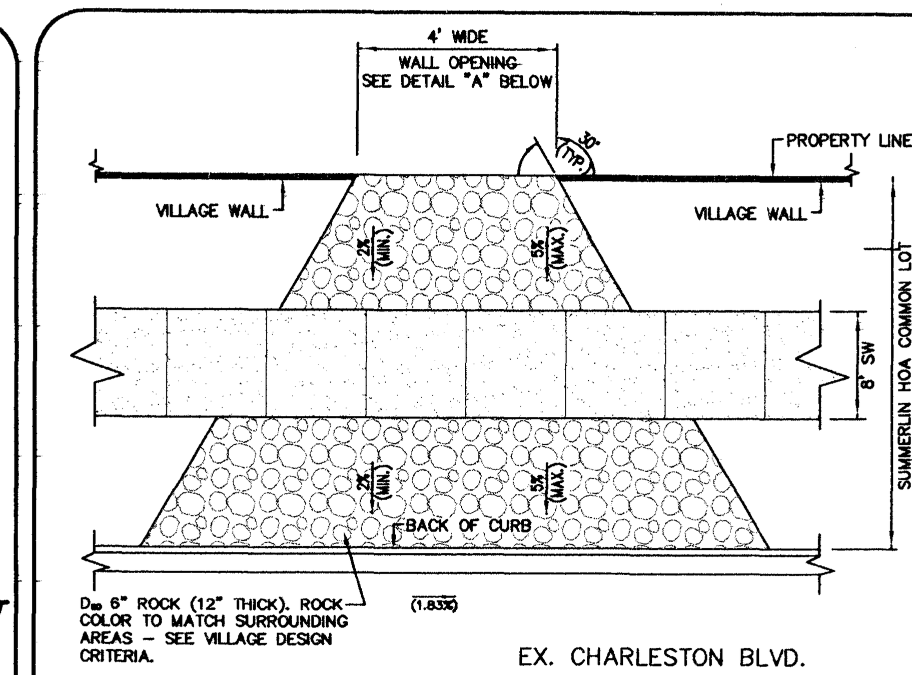
CITY OF LAS VEGAS BENCHMARK: D368 3
NAVD 88 ELEVATION: 989.599 (M)–3246.71 (F)

U.S.C.& G.S. BRASS DISC SET IN ROCK ON THE EAST SIDE OF CHARLESTON BOULEVARD AND SOUTH OF THE RED ROCK DETENTION BASIN.

NOTE:
ALL PRIVATE ACCESS DRIVES ARE PUBLIC UTILITY EASEMENTS AND PUBLIC DRAINAGE EASEMENT TO BE PRIVATELY MAINTAINED.



KEY MAP
NTS



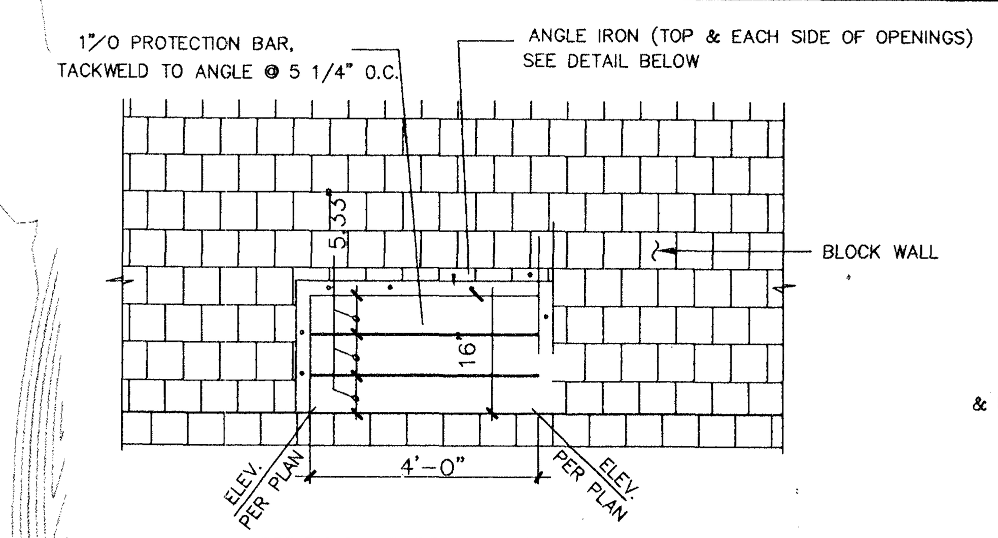
DETAIL 'B'

CONSTRUCTION NOTES

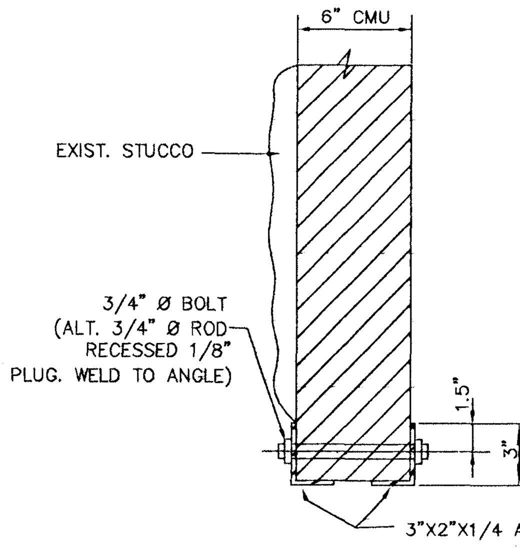
1. SAWCUT& REMOVE EXISTING CURB & GUTTER, AND SIDEWALK, MATCH EXISTING. CONTRACTOR SHALL VERIFY EXISTING CURB ELEVATION AND REPORT ANY DISCREPANCIES TO THE ENGINEER PRIOR TO COMMENCEMENT OF CONSTRUCTION.
2. CONSTRUCT VILLAGE MAIN ENTRY SUMMERLIN DESIGN STANDARDS. CONSTRUCT 8' WIDE VALLEY GUTTER PER SIS DWG NO. S-64.
3. CONSTRUCT CASE II HANDICAP RAMP PER USDDCA DWG. NO. 235
4. CONSTRUCT "L" TYPE CURB & GUTTER PER S.I.S. DWG. NO. S-47.
5. 10' TRANSITION FROM "L" TYPE CURB & GUTTER TO ROLL TYPE CURB & GUTTER.
6. CONSTRUCT 30" ROLL TYPE CURB & GUTTER PER S.I.S. DWG. NO. S-48.
7. CONSTRUCT "A" TYPE CURB & GUTTER PER DETAIL J SHEET C-12.
8. CONSTRUCT 4" THICK SIDEWALK PER S.I.S. DWG. NO. S-72 SEE PLAN FOR WIDTH. SEE ALSO ARCH. PLANS FOR EXACT LOCATION, COLOR AND FINISH. MAX CROSS SLOPE = 2%
9. CONSTRUCT 3' WIDE CONCRETE VALLEY GUTTER PER DETAIL K SHEET C-12.
10. CONSTRUCT 2" AC PAVING OVER 4" TYPE II AGGREGATE BASE OVER COMPACTED SUBGRADE . SEE SOILS REPORT PREPARED BY TERRACON PROJECT NO. 64035082 AND 64041003 DATED MAY 19, 2003 AND FEB. 6, 2004 FOR MORE INFORMATION. (4)
11. CONSTRUCT TRASH ENCLOSURES. SEE ARCHITECTURAL PLANS FOR DETAILS.
12. INSTALL HANDICAP SIGNAGE/RAMPS AND PARKING STRIPING. SEE ARCHITECTURAL PLANS FOR MORE DETAILS.
13. CONSTRUCT VARIABLE HIGH CMU BLOCK WALL. SEE ARCHITECTURAL/STRUCTURAL PLANS FOR DETAILS.
14. CONSTRUCT VARIABLE HEIGHT RETAINING WALL. SEE ARCHITECTURAL/STRUCTURAL PLANS FOR DETAILS.
16. CONSTRUCT 1' WIDE VALLEY GUTTER FOR LANDSCAPE DRAINAGE.
17. CONSTRUCT LANDSCAPE SWALE.
18. CONSTRUCT 1' WIDE CURB OPENING FOR LANDSCAPE DRAINAGE.
19. CONSTRUCT 8' WIDE VALLEY GUTTER PER S.I.S. DWG S-64.
20. INSTALL MODIFIED TYPE "CM2" DROP INLET PER DETAIL L SHEET C-12. SEE PLAN FOR "L" & "D" DIMENSION.
21. INSTALL TYPE II STORM DRAIN MANHOLE PER USDDCA DWG. NO. 405 CONTRACTOR SHALL VERIFY EXISTING INVERT ELEVATION AND REPORT ANY DISCREPANCIES TO THE ENGINEER PRIOR TO CONSTRUCTION.
22. 3' TRANSITION FROM 0" TO ROLL CURB.
23. 0" CURB FLUSH WITH PAVEMENT.
24. TRANSITION FROM ROLL CURB TO "L" TYPE CURB AND GUTTER.
25. CONSTRUCT 4' WIDE x 16" HIGH WALL OPENING. SEE DETAIL A SHEET C-11.
26. CONSTRUCT BEEHIVE INLET PER USDCCA DWG. NO. 416 WITH NEENAH R-2563 SERIES BEHIVE GRATE AND FRAME.
27. CONSTRUCT STORM WATER OVERFLOW PER S.I.S. DWG. D-32 AND DETAIL "B" HEREON
28. CONSTRUCT HANDRAIL. SEE ARCHITECTURAL/LANDSCAPING PLAN FOR DETAILS.
29. TRANSITION FROM 0" TO 6" CURB.
30. INSTALL ADA RAMP, HANDRAILS, AND RETAINING WALL. RAMP NOT TO EXCEED 12:1. SEE LANDSCAPE PLAN FOR MORE DETAILS.
31. INSTALL PARSON ROCKERY RETAINING WALL – SEE LANDSCAPE PLAN FOR DETAILS.
32. CONSTRUCT 2–3" PVC PIPE UNDER SIDEWALK.

AVOID HITTING OVERHEAD POWER LINES. IT'S COSTLY
CALL BEFORE YOU DO OVERHEAD
1-702-593-6111

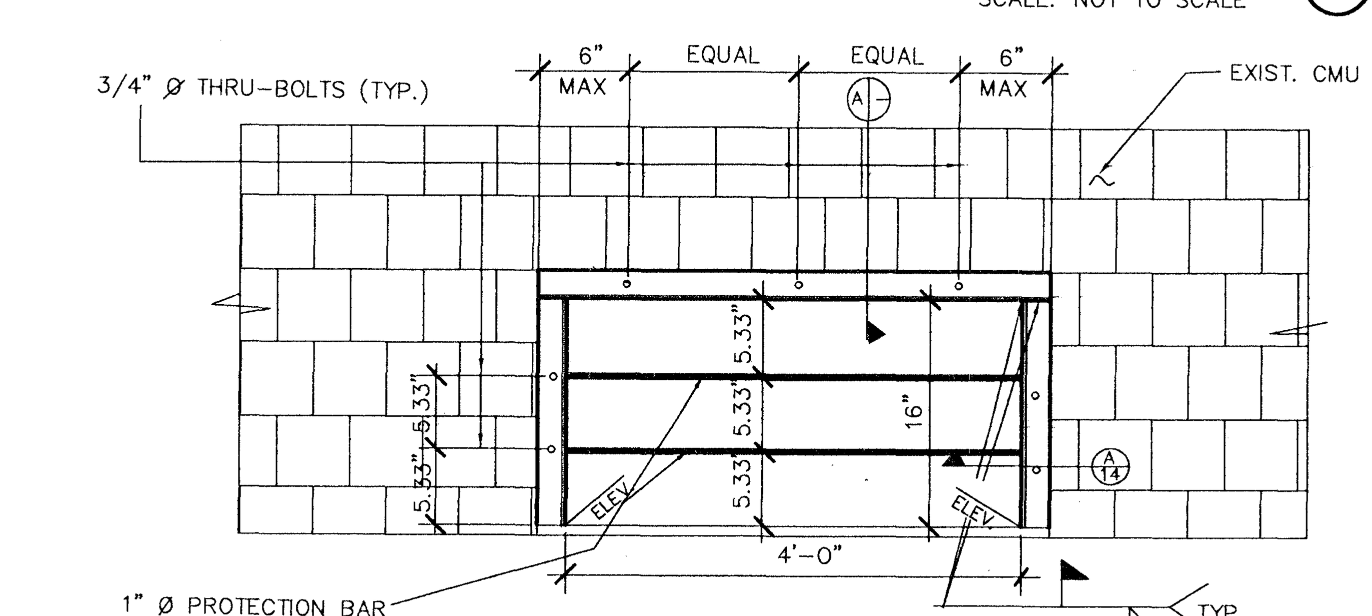
Avoid cutting underground utility lines. It's costly.
Call before you Dig.
1-800-227-2600
UNDERGROUND SERVICE (USA)



WALL OPENING DETAIL
SCALE: NOT TO SCALE



SECTION (A)
SCALE: NOT TO SCALE



ELEVATION
SCALE: NOT TO SCALE

(A / C-11) **TYPICAL BLOCK WALL OPENING**
SCALE: N.T.S.

DRAINAGE CERTIFICATION

I CERTIFY THIS GRADING PLAN IS IN CONFORMANCE WITH THE APPROVED DRAINAGE STUDY ON FILE WITH THE CITY OF LAS VEGAS FOR THIS PROJECT.

Paul R. Lohman (signature)	14006	6/21/06
PAUL R. LOHMAN	P.E. NO.	DATE

STATE OF NEVADA — PROFESSIONAL ENGINEER — PAUL R. LOHMAN — Exp. 12/31/2007 — CIVIL — No. 14006
DATE: 6/21/06

REV	DATE	DESCRIPTION	DATE	AGEN.	APP.	DATE	GCW.	APP.
6	06/07/06	ADD ADA PATH, REV. SIDEWALK	6/28/06	HES				
5	07/13/04	REVISE CONSTRUCTION NOTE #10.						
4	05/14/04	REVISD BUILDING FOOTPRINTS & BUILDING NUMBERS						
3	03/24/04	ADD COMMUNITY OPEN SPACE LANDSCAPING; REVISE WALKWAYS; IDENTIFY ACCESSIBLE ROUTES; REVISE GARAGE FLOOR ELEVATIONS, AND SOME DRIVEWAY SLOPES; REVISE PERIMETER GRADES ON DESERT FOOTHILLS DR., PASEO FLOWER COURT, AND SOUTH BOUNDARY						
1	02/09/04	ADD COMMON SPACE, 1' V.G. & REV. SIDEWALK.						

DESIGN:
DRAWN:
CHECK:
ISSUE DATE:
ISSUE EDITOR:
PLOT DATE: 06-21-06
PLOT TIME: 13:48:03

G.C. WALLACE, INC.
Engineers/Planners/Surveyors
1555 SOUTH RAINBOW BLVD./LAS VEGAS, NEVADA 89146
TELEPHONE: (702) 804-2000 • FAX: (702) 804-2299
jlane
I:\472\008\dwg\IMPROV\c011.dwg

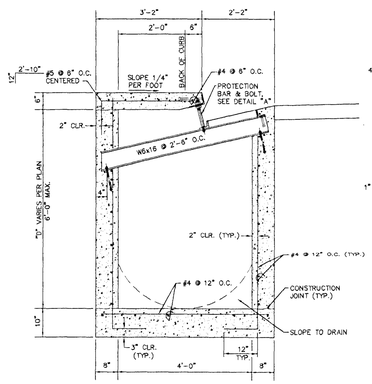
CORONADO
WESTMARK HOMES
GRADING PLAN III

472-008

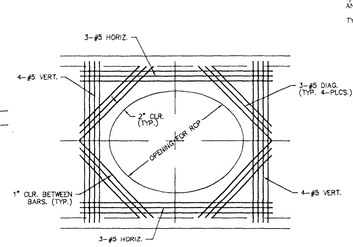
SHEET
C-11
11 OF 12A SHTS

107Y4779

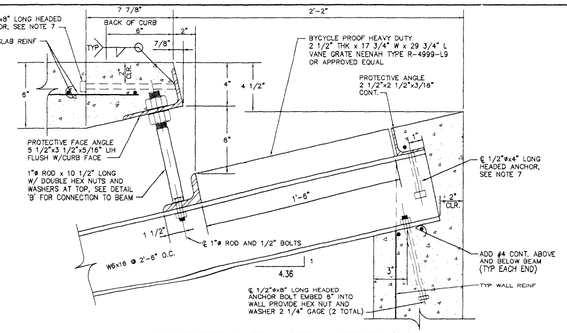
REPLOT



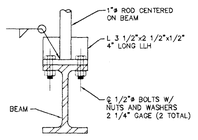
TYPE "CM2" DROP INLET SECTION
SCALE 3/4"=1'



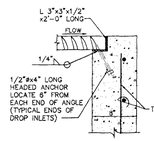
SECTION "A"
SCALE 3/4"=1'



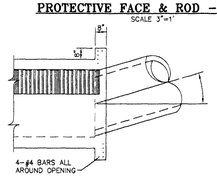
PROTECTIVE FACE & ROD – DETAIL "A"
SCALE 3"=1'



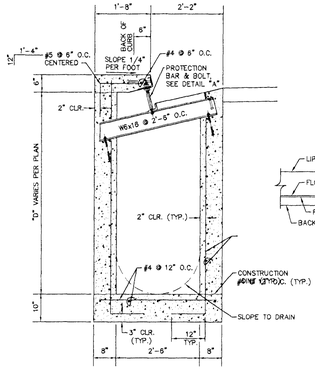
DETAIL "B"
SCALE 3"=1'



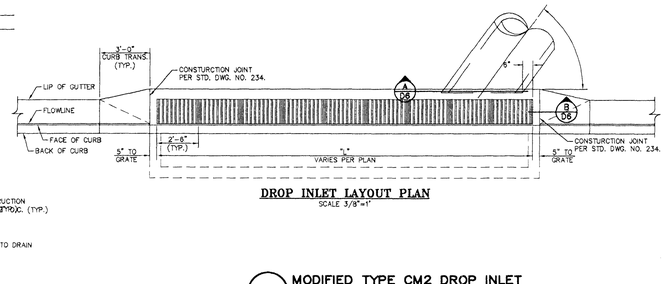
SECTION "B"
SCALE 1-1/2"=1'



ALTERNATE CONNECTION DETAIL
SCALE 3/8"=1'



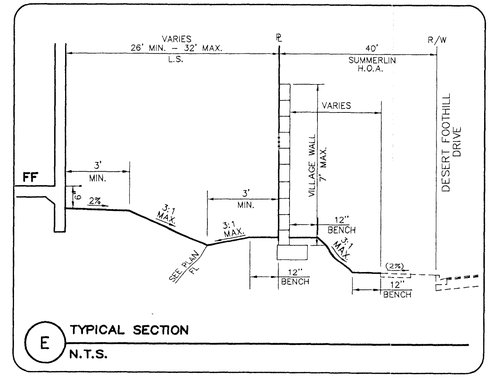
TYPE "DM2" DROP INLET SECTION
SCALE 3/4"=1'



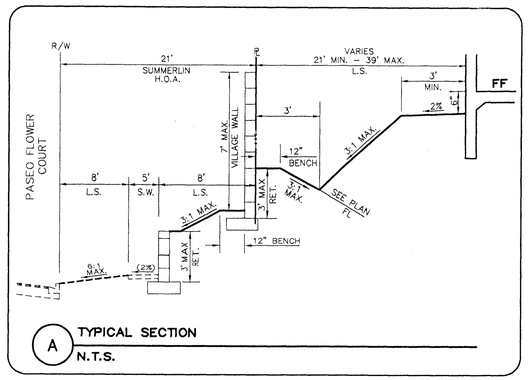
DROP INLET LAYOUT PLAN
SCALE 3/8"=1'

NOTES:

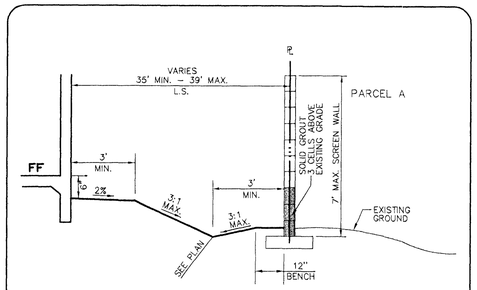
1. ALL EXPOSED METALS SHALL BE HOT DIP GALVANIZED AFTER FABRICATION.
2. PROVIDE 1/2" (MIN.) CLEARANCE ALL AROUND THE STEEL BEAM, DRY PACK AFTER INSTALLATION.
3. WHEN REQUIRED BY LENGTH OF OPENING, PLATE ANGLE MAYBE DELIVERED IN SECTIONS AND BUTT WELDED IN PLACE.
4. ALL GALVANIZING DAMAGED BY WELDING SHALL RECEIVE TWO COATS OF GALVALLOY OR EQUAL.
5. CONCRETE SHALL BE MODIFIED CLASS DA, SEE SPECIAL PROVISIONS SECTION 501.
6. SEE GENERAL NOTES FOR STRUCTURES ON DWG D8.
7. ANGLE ANCHORS SHALL BE EMBEDDED MIDPOINT IN EACH ENDWALL AND EVENLY SPACED. (MAXIMUM SPACING OF 2')



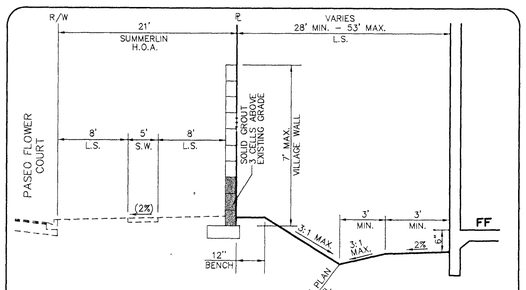
E TYPICAL SECTION
N.T.S.



A TYPICAL SECTION
N.T.S.

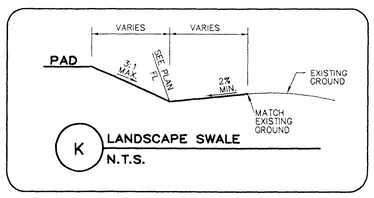


F TYPICAL SECTION
N.T.S.

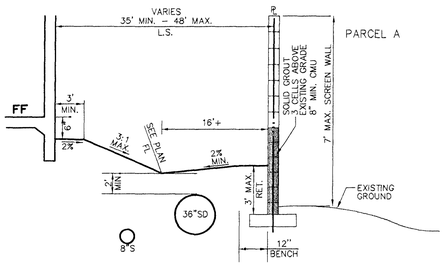


B TYPICAL SECTION
N.T.S.

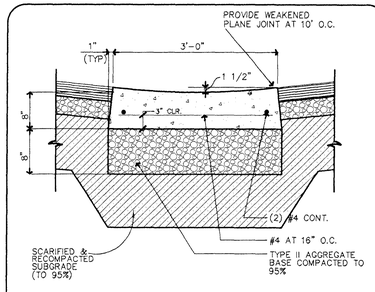
L MODIFIED TYPE CM2 DROP INLET
N.T.S.



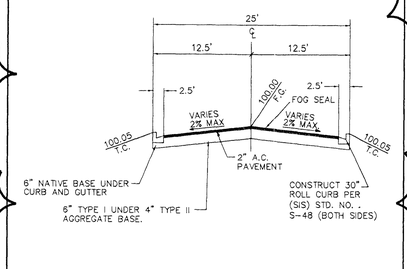
K LANDSCAPE SWALE
N.T.S.



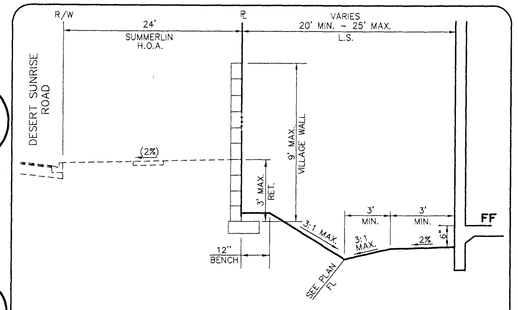
I TYPICAL SECTION
N.T.S.



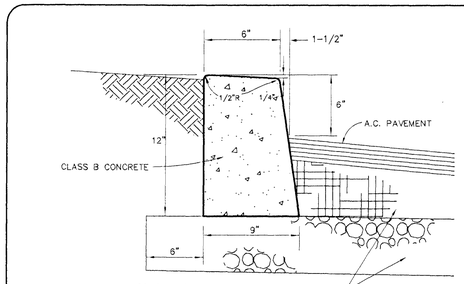
M 3' WIDE VALLEY GUTTER
N.T.S.



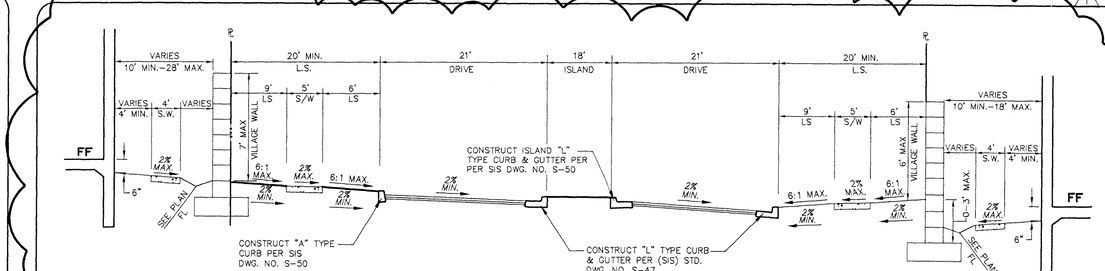
G 25' WIDE PRIVATE ACCESS DRIVE SECTION
N.T.S.



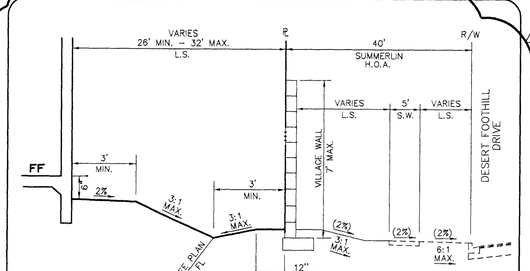
C TYPICAL SECTION
N.T.S.



J "A" TYPE CURB DETAIL
N.T.S.



H PARCEL ENTRY SECTION
N.T.S.



D TYPICAL SECTION
N.T.S.

G.C. WALLACE, INC.
Engineers/Planners/Surveyors
1555 SOUTH RAINBOW BLVD./LAS VEGAS, NEVADA 89146
TELEPHONE: (702) 804-2000 • FAX: (702) 804-2299
mbonnette
E:\A72\2091\dwg\mpnov\A305041\c012.dwg

DESIGN:
DRAWN:
CHECK:
ISSUE DATE:
ISSUE EDITOR:
PLOT DATE: 09-03-04
PLOT TIME: 19:52:06

REV	DATE	DESCRIPTION
1	07/31/04	REVISE DETAIL G
2	10/04/04	REVISE DETAIL H & D; REVISE HOA GRADING

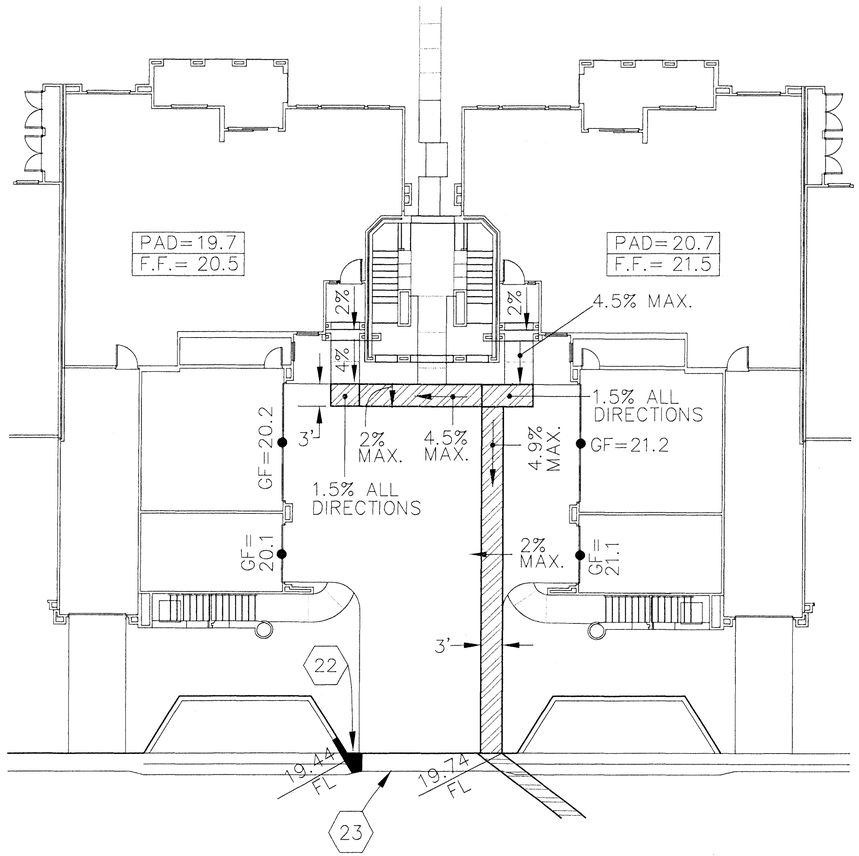
DATE | AGEN. APP | DATE | GCW APP

CORONADO
WESTMARK HOMES
GRADING SECTIONS I

SHEET
C-12
167/4779
12 OF 12A SHTS

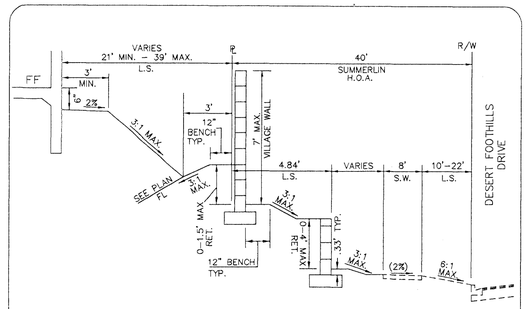
12EPLOT

d:\dwg\020912.mb



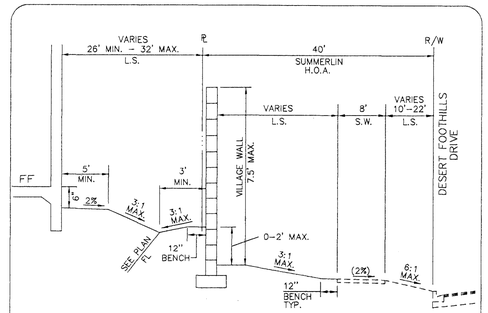
NOTES: (22) TRANSITION FROM 0" ROLL CURB
(23) 0" CURB FLUSH WITH PAVEMENT

Q MOTOR COURT ACCESSIBLE ROUTE (TYP.)
1"=10'



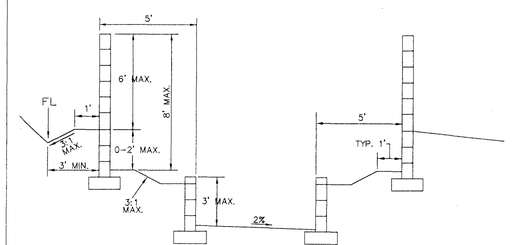
NOTE: DISTANCE FROM PROPERTY LINE TO FRONT FACE OF LOWER WALL EQUALS 4.84–FEET.
DISTANCE FROM BACK OF UPPER WALL TO PROPERTY LINE EQUALS 0.17–FEET.

N DESERT FOOTHILLS DRIVE–TYPICAL SECTION
N.T.S.



NOTE: DISTANCE FROM PROPERTY LINE TO FRONT FACE OF LOWER WALL EQUALS 4.84–FEET.
DISTANCE FROM BACK OF UPPER WALL TO PROPERTY LINE EQUALS 0.17–FEET.

O DESERT FOOTHILLS DRIVE–TYPICAL SECTION
N.T.S.



P TYPICAL SECTION
N.T.S.

DESIGN:
DRAWN:
CHECK:
ISSUE DATE:
ISSUE EDITOR:
PLOT DATE: 08-03-04
PLOT TIME: 19:55:07

REV	DATE	ISSUED / SUBJECT TO PLANS CHECK DESCRIPTION	BASIS, LEGEND, ABBR	DATE	DGN	APP
1	7-1-04					

DATE: 7-1-04

G.C. WALLACE, INC.
Engineers/Planners/Surveyors
1555 SOUTH HAVEN BLVD./LAS VEGAS, NEVADA 89146
TELEPHONE: (702) 804-2600 • FAX: (702) 804-2299
mbonnette
F:\472\008\dwg\Improv\030504\c012A.dwg

CORONADO
WESTMARK HOMES
GRADING SECTIONS II

SHEET
C-12A
12A OF 12A SHTS

(874779)
New Sheet

idwg 020917.dwg

PER 19.08 & 19.12 ALL ABOVE-GROUND UTILITY BOXES SHALL BE FULLY SCREENED FROM ALL RIGHTS-OF-WAY

UNDERGROUND SPRINKLING SYSTEM REQUIRED IN ALL LANDSCAPED AREAS

APPROVED LANDSCAPING PLAN
John Anderson 8/10/09
Planning & Development Department

REGISTERED LANDSCAPE ARCHITECT
PETER E. CURE
573
STATE OF NEVADA

JOB NUMBER: 106-03

NORTH
SCALE
1" = 30'-0"

DATE: 7/31/09
REV:
DRAWN BY: JT
SHEET
L0 OF 7

KEY PLAN

CORONADO CONDOS

935 PASEO FLOWER COURT
SUMMERLIN
LAS VEGAS, NV 89138

33632-C-09

ARTERRA INC.
LANDSCAPE ARCHITECTURE
2332 East Quail Avenue
Phoenix, Arizona 85024
TEL: (602) 569-9800
FAX: (602) 569-2693
E-MAIL: arterralsa@aol.com

CLV

THESE PLANS WERE CHECKED UNDER THE 2006 IBC/IPC AND THE 2005 NEC

RECEIVED
AUG 06 2009
City of Las Vegas

This drawing is the property of ARTERRA INC., and may not be reproduced, or reproductions hereof used without their written permission.

MATCHLINE - SEE SHT. L2

MATCHLINE - SEE SHT. L4

PANTARA PL.

GARDENS LANE

GARDENS LANE (PRIVATE)

PASEO FLOWER COURT

SUMMERLIN H.O.A.

SCALE: 1" = 10'-0"

PAD=20.8
F.F.= 21.6

PAD=19.8
F.F.= 20.6

PER 19.08 & 19.12 ALL ABOVE-GROUND UTILITY BOXES SHALL BE FULLY SCREENED FROM ALL RIGHTS-OF-WAY

THIS SHEET

APPROVED LANDSCAPING PLAN

UNDERGROUND SPRINKLING SYSTEM REQUIRED IN ALL

8/10/09

LANDSCAPE PLAN

CORONADO CONDOMINIUMS

935 PASEO FLOWER COURT
SUMMERLIN
LAS VEGAS, NV 89138

JOB NUMBER: 106-03

DATE: 7/31/09
REV:

DRAWN BY: JT

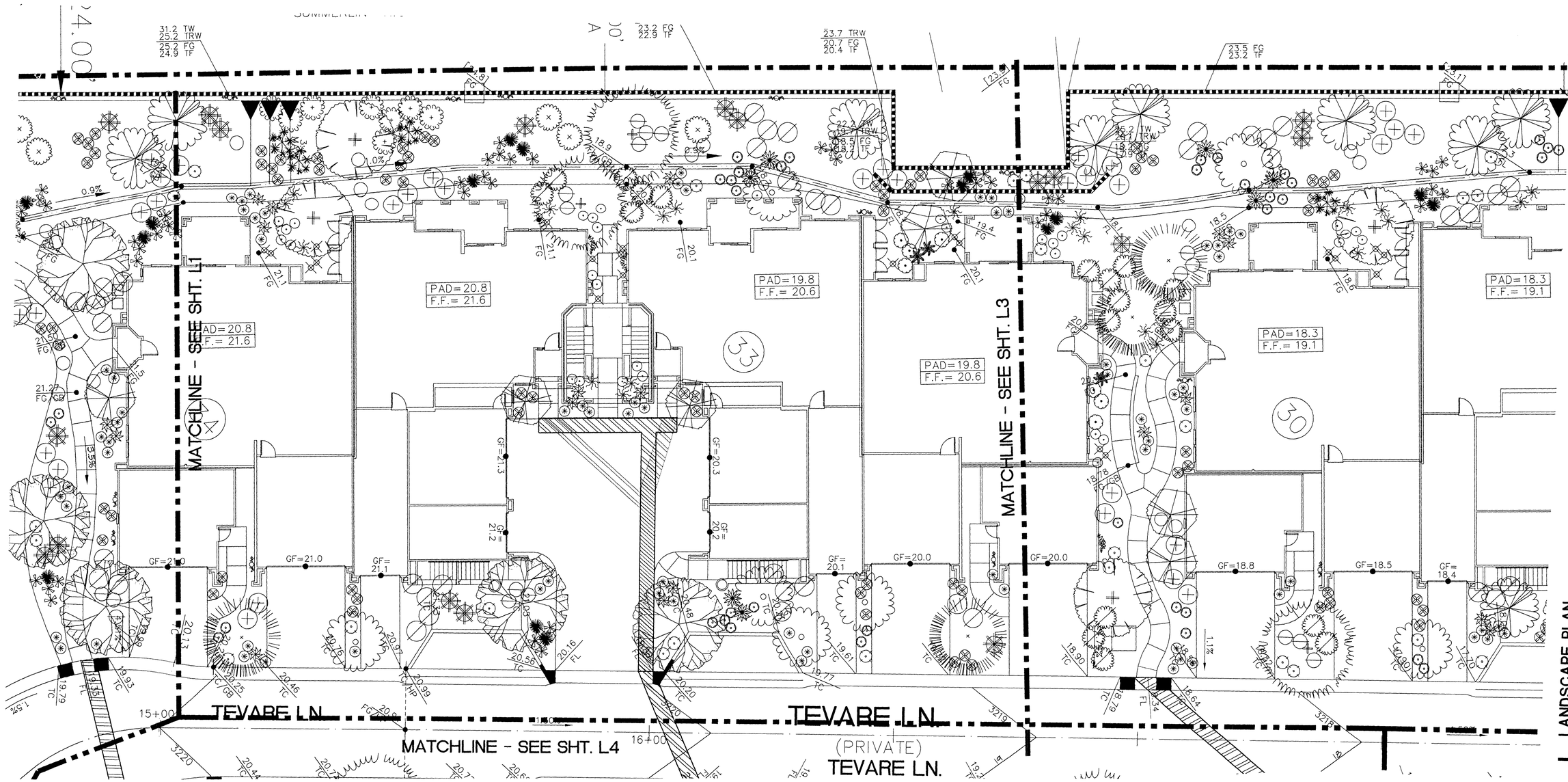
NORTH

SCALE 1"= 10'-0"

SHEET L1 OF 7

ARTERRA INC.
LANDSCAPE ARCHITECTURE
2332 East Quail Avenue
Phoenix, Arizona 85024
TEL: (602) 569-9800
FAX: (602) 569-2693
E-MAIL: arterralsa@aol.com

This drawing is the property of ARTERRA INC., and may not be reproduced, or reproductions hereof used without their written permission.

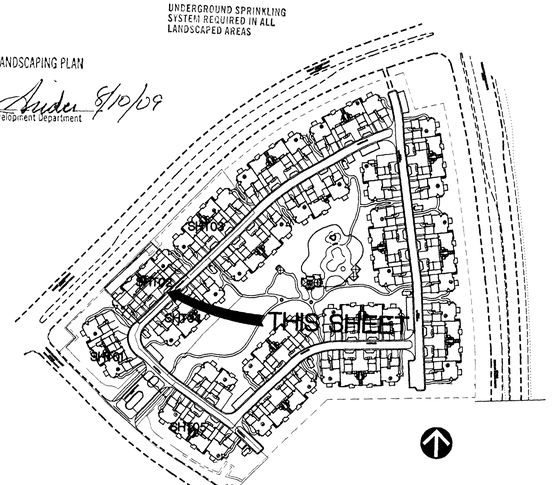


PER 19.08 & 19.12 ALL ABOVE-GROUND UTILITY BOXES SHALL BE FULLY SCREENED FROM ALL RIGHTS-OF-WAY

APPROVED LANDSCAPING PLAN

Planning & Development Department 8/10/09

UNDERGROUND SPRINKLING SYSTEM REQUIRED IN ALL LANDSCAPED AREAS



SCALE: 1"= 10'-0"

LANDSCAPE PLAN

CORONADO CONDOMINIUMS

935 PASEO FLOWER COURT

SUMMERLIN

LAS VEGAS, NV 89138

JOB NUMBER: 106-03

NORTH

SCALE 1"= 10'-0"

DRAWN BY: JT

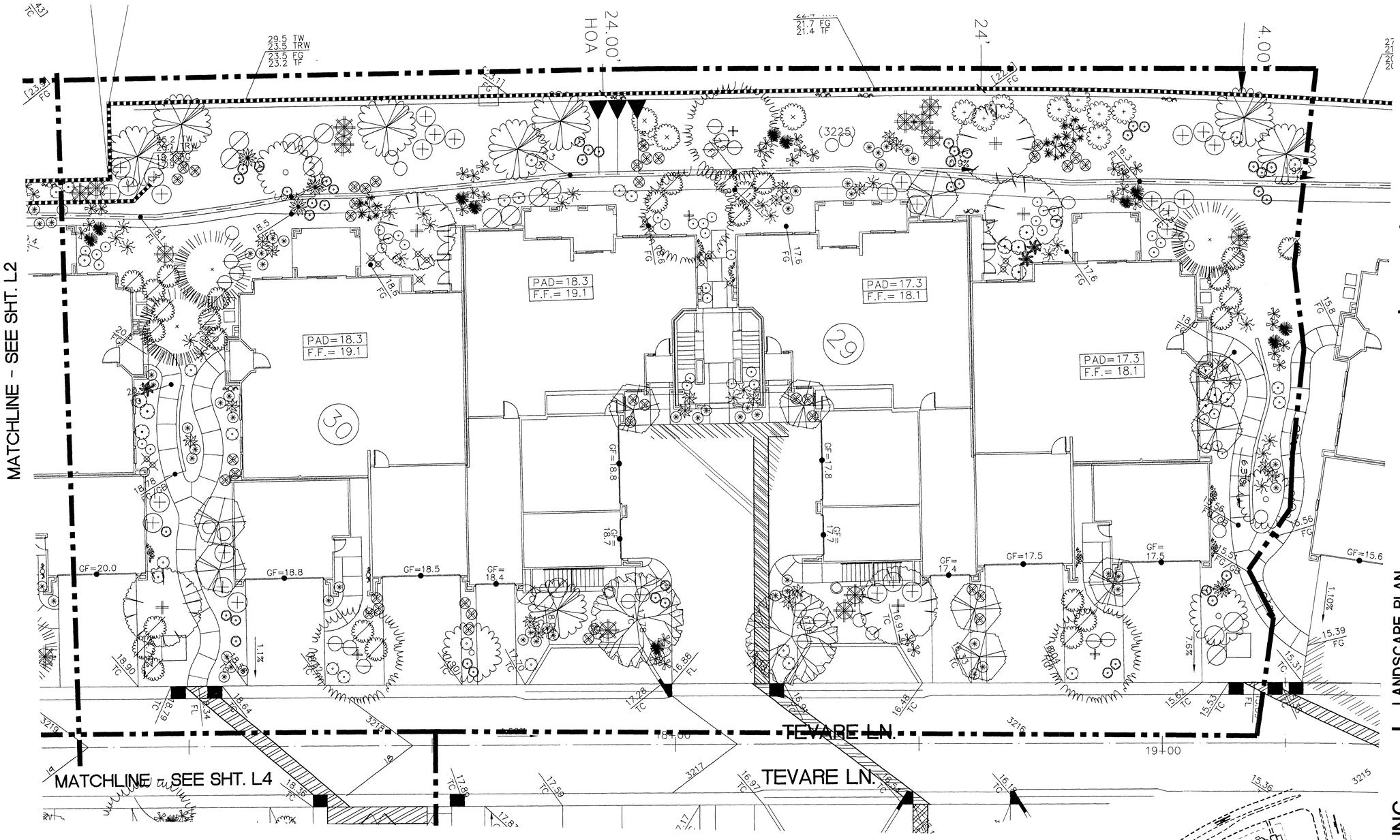
DATE: 7/31/09

REV:

SHEET L2 OF 7

ARTERRA INC.
LANDSCAPE ARCHITECTURE
2332 East Quail Avenue
Phoenix, Arizona 85024
TEL: (602) 569-9800
FAX: (602) 569-2693
E-MAIL: arterralsa@aol.com

This drawing is the property of ARTERRA INC., and may not be reproduced, or reproductions hereof used without their written permission.

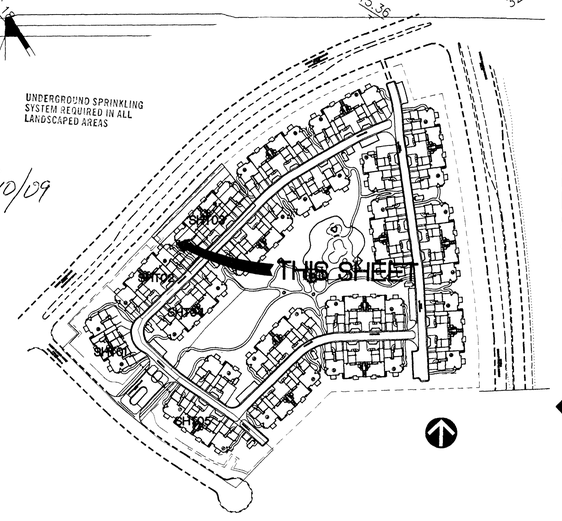


PER 19.08 & 19.12 ALL ABOVE-GROUND UTILITY BOXES SHALL BE FULLY SCREENED FROM ALL RIGHTS-OF-WAY

APPROVED LANDSCAPING PLAN

Planning & Development Department 8/10/09

UNDERGROUND SPRINKLING SYSTEM REQUIRED IN ALL LANDSCAPED AREAS



0 5' 10' 20'

SCALE: 1" = 10'-0"

LANDSCAPE PLAN

CORONADO CONDOMINIUMS

935 PASEO FLOWER COURT

SUMMERLIN

LAS VEGAS, NV 89138

ARTERRA INC.

LANDSCAPE ARCHITECTURE

2332 East Quail Avenue

Phoenix, Arizona 85024

TEL: (602) 569-9800

FAX: (602) 569-2693

E-MAIL: arterralsa@aol.com

This drawing is the property of ARTERRA INC., and may not be reproduced, or reproductions hereof used without their written permission.

DATE: 7/31/09

REV:

DRAWN BY: JT

SHEET L3 OF 7

NORTH

SCALE 1" = 10'-0"

JOB NUMBER: 106-03

REGISTERED LANDSCAPE ARCHITECT PETER E. CURE 573 STATE OF NEVADA

TEVARE LN

MATCHLINE - SEE SHT. L2

TEVARE LN

(PRIVATE)
TEVARE LN.

MATCHLINE - SEE SHT. L3

MATCHLINE - SEE SHT. L1

MATCHLINE - SEE SHT. L4

PAD=20.7
F.F.= 21.5

PAD=20.7
F.F.= 21.5

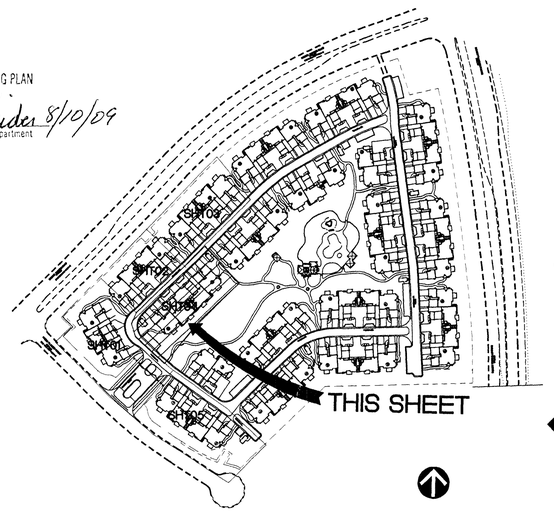
PAD=19.7
F.F.= 20.5

PAD=19.7
F.F.= 20.5

PER 19.08 & 19.12 ALL ABOVE-GROUND UTILITY BOXES SHALL BE FULLY SCREENED FROM ALL RIGHTS-OF-WAY

APPROVED LANDSCAPING PLAN
Planning & Development Department 8/10/09

UNDERGROUND SPRINKLING SYSTEM REQUIRED IN ALL LANDSCAPED AREAS



0 5' 10' 20'
SCALE: 1"= 10'-0"

REGISTERED LANDSCAPE ARCHITECT 573 STATE OF NEVADA

JOB NUMBER: 106-03

NORTH
SCALE 1"= 10'-0"

DATE: 7/31/09
REV:

DRAWN BY: JT

SHEET L4 OF 7

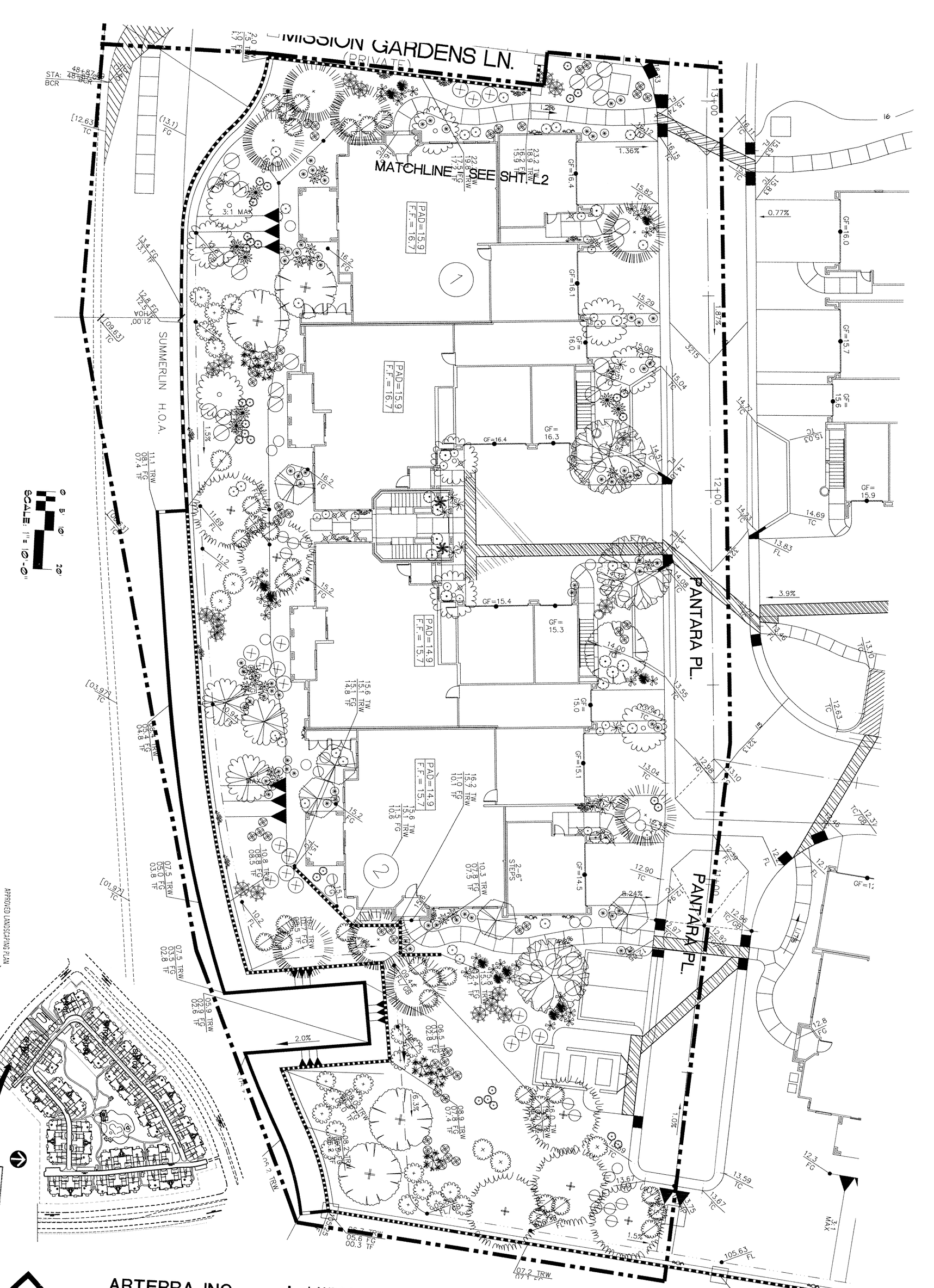
LANDSCAPE PLAN

CORONADO CONDOMINIUMS

935 PASEO FLOWER COURT
SUMMERLIN
LAS VEGAS, NV 89138

ARTERRA INC.
LANDSCAPE ARCHITECTURE
2332 East Quail Avenue
Phoenix, Arizona 85024
TEL: (602) 569-0800
FAX: (602) 569-2693
E-MAIL: arterralsa@aol.com

This drawing is the property of ARTERRA INC., and may not be reproduced, or reproductions hereof used without their written permission.



ARTERRA INC.
LANDSCAPE ARCHITECTURE
2332 East Quail Avenue
Phoenix, Arizona 85024
TEL: (602) 569-9800
FAX: (602) 569-2693
E-MAIL: arterralsa@aol.com

is the property of ARTERRA INC., and may not be reproduced, or reproductions hereof used with

LANDSCAPE PLAN

CORONADO CONDOMINIUMS

935 PASEO FLOWER COURT
SUMMERLIN
LAS VEGAS, NV 89138

DATE: 7/31/09
REV:

DRAWN BY: JT

SHEET L5 OF 7

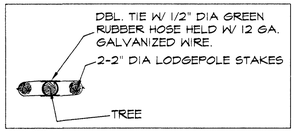
NORTH

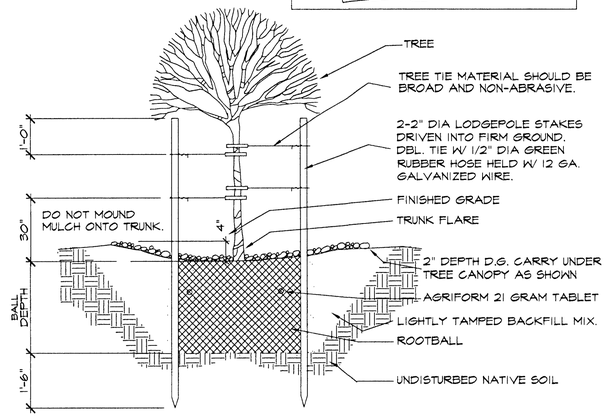
SCALE 1"= 10'-0"

REGISTERED LANDSCAPE ARCHITECT
PETER E. DURE
573
STATE OF NEVADA

LANDSCAPE LEGEND

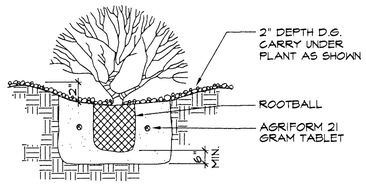
SYMBOL	SIZE	QTY.	COMMON NAME	BOTANICAL NAME
+	36" BOX	24	SWEET ACACIA	ACACIA SMALLII
	48" BOX	18	DESERT MUSEUM PALO BRAEA	CERCIDIUM HYBRID "DESERT MUSEUM"
×	48" BOX	31	CHILEAN MESQUITE	PROSOPIS CHILENSIS
	24" BOX	20	TEXAS EBONY	PITHECELLOBIUM FLEXICAULE
	48" BOX	1	ARIZONA ASH	FRAXINUS VELUTINA
	24" BOX	2	CHIR PINE	PINUS ROXBURGHII
×	36" BOX	21	MIMOSA	ALBIZIA JULIBRISSIN
o	24" BOX	27	CRAPE MYRTLE	LAGERSTROEMIA INDICA
	24" BOX	30	JAPANESE PRIVET	LIGUSTRUM JAPONICUM
	24" BOX	22	PINDO PALM	BUTIA CAPITATA
*	24" BOX	13	SAGO PALM	CYCAS REVOLUTA
	5 GAL.	81	PERRY'S AGAVE	AGAVE PARRYI
	5 GAL.	77	RED BIRD OF PARADISE	CAESALPINIA PULCHERIMA
	5 GAL.	112	GREEN CLOUD TEXAS SAGE	LEUCOPHYLLUM FRUTESCENS 'GREEN CLOUD'
	5 GAL.	127	DESERT CASSIA	CASSIA NEMOPHILA
+	15 GAL.	25	LITTLE-LEAF CORDIA	CORDIA PARVIFOLIA
	15 GAL.	53	HOPSEED BUSH	DODONEA VISCOSA
∅	5 GAL.	114	CHUPAROSA	JUSTICIA CALIFORNICA
	5 GAL.	130	PETITE PINK DWARF OLEANDER	NERIUM OLEANDER 'PETITE PINK'
	5 GAL.	44	INDIA HAWTHORN	RHAPIOLEPIS OFFICINALIS
	5 GAL.	113	RED CHIHUAHUAN SAGE	SALVIA GREGGII
	5 GAL.	58	WORMWOOD	ARTEMESIA 'POWIS' CASTLE'
	5 GAL.	225	DWARF ROSEMARY	ROSMARINUS OFFICIANALIS 'PROSTRATUS'
	5 GAL.	134	BUSH MORNING GLORY	CONVOLVULUS CNEORUM
	1 GAL.	202	SIERRA GOLD GOLDEN DALEA	DALEA CAPITA 'SIERRA CAPITA'
	1 GAL.	309	GOLD MOUND TRAILING LANTANA	LANTANA MONTEVIDENSIS 'GOLD MOUND'
	1 GAL.	76	DESERT MARIGOLD	BAILEYA MULTIRADIATA
	1 GAL.	96	PARRY'S PENSTEMON	PENTSEMON PARRYI
	5 GAL.	71	DESERT SPOON	DASYLIRION WHEELERI
	1 GAL.	74	EVERGREEN IRIS	DIETES IROIDES
	5 GAL.	21	BEAR GRASS	NOLINA MICROCARPA
		39	LADY BANKS ROSE	ROSA BANKSIAE
	15 GAL.	9	JAPANESE WISTERIA	WISTERIA FLORIBUNDA
	5 GAL.	25	STAR JASMINE	TRACHELOSPERMUM JASMINOIDES
C	24" BOX CACTUS	7		
B	15 GAL CACTUS	14		
5	5 GAL CACTUS	34		





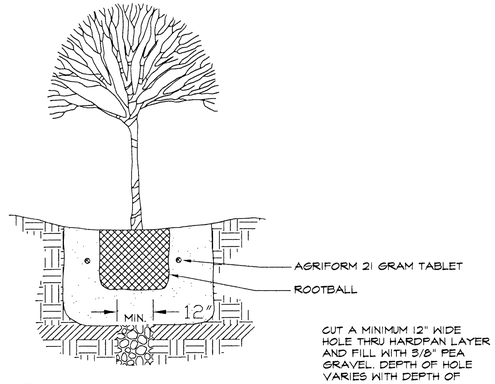
*PLANT PIT DIMENSIONS TO BE: BASE =2 x WIDTH OF ROOTBALL
TOP OF PIT = 3 - 5X ROOTBALL
*
BACKFILL MATERIAL: 1/3 BARK HUMUS
2/3 EXCAVATED SOIL BY VOLUME

TREE PLANTING DETAIL



*PLANT PIT DIMENSIONS TO BE: 2 x WIDTH OF ROOTBALL
1.5 x HEIGHT OF ROOTBALL
*BACKFILL MATERIAL: 1/3 BARK HUMUS
2/3 EXCAVATED SOIL BY VOLUME
*WATERING BASIN SHALL BE GENTLE & UNIFORM THROUGHOUT, 3' DIAMETER

SHRUB PLANTING DETAIL



CUT A MINIMUM 12" WIDE HOLE THRU HARDPAN LAYER AND FILL WITH 3/8" PEA GRAVEL. DEPTH OF HOLE VARIES WITH DEPTH OF HARDPAN LAYER

NOTE:
ALL TREES 15 GAL. AND LARGER TO USE THIS DETAIL. LANDSCAPE ARCHITECT TO VERIFY PLANT PITS PRIOR TO PLANTING.

HARD DIG DETAIL

LANDSCAPE NOTES

LANDSCAPE CONTRACTOR SHALL SECURE ALL NECESSARY PERMITS PRIOR TO CONSTRUCTION.

LANDSCAPE CONTRACTOR SHALL ADHERE TO ALL APPLICABLE LOCAL, STATE AND/OR FEDERAL LAWS OR REGULATIONS PERTAINING TO THE PROJECT'S WORK.

LANDSCAPE CONTRACTOR SHALL NOT VARY FROM PLAN WITHOUT PRIOR LANDSCAPE ARCHITECT APPROVAL AND TOWN APPROVAL.

ANY DISCREPANCIES FOUND BETWEEN PLANS, SPECIFICATIONS AND SITE SHALL BE BROUGHT TO THE ATTENTION OF THE LANDSCAPE ARCHITECT. THE LANDSCAPE ARCHITECT IS TO APPROVE ANY AND ALL SUBSTITUTIONS.

LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR CONSTRUCTION, CLEAN-UP OF ALL EXCESS SOIL, STONES, DEBRIS AND MISCELLANEOUS CONTRACT RELATED TRASH FROM THE SITE; THE JOB IS TO BE KEPT IN A CLEAN CONDITION DURING INSTALLATION.

ROUGH GRADING TO WITHIN .10 FOOT, INCLUDING ALL PLANTERS WILL BE PROVIDED BY BUILDER BEFORE PLANTING BEGINS.

FINISH GRADE OF ALL PLANTING BEDS TO BE 2" BELOW ADJACENT PAVING.

PLANT QUANTITIES ON THE LIST ARE ONLY FOR THE CONVENIENCE OF THE LANDSCAPE CONTRACTOR. ALL PLANTS CALLED FOR ON THE PLANS ARE TO BE BID.

LANDSCAPE ARCHITECT HAS OPTION OF ACCEPTANCE OR REJECTION OF PLANT MATERIAL UPON DELIVERY TO SITE.

PLANT MATERIAL QUALITY: ALL PLANT MATERIAL SHALL CONFORM TO MINIMUM A.N.A. STANDARDS AND SHALL BE HEALTHLY, SHAPELY AND WELL-ROOTED.

PLANTING SOIL SHALL BE COMPRISED OF AT LEAST ONE PART MULCH (BY VOLUME) TO TWO PARTS NATIVE SOIL, THOROUGHLY MIXED.

REFER TO PLANTING DETAILS FOR FERTILIZER AND STAKING APPLICATIONS.

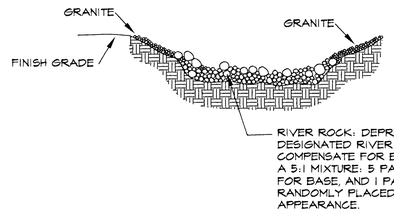
LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL PLANTS UNTIL ACCEPTANCE OF THE PROJECT BY THE OWNER. THIS INCLUDES ALL LAWN MOWING, TRIMMING, RAKING OF BEDS, WATERING, FERTILIZING, WEEDING, SPRAYING FOR INSECTS AND ALL OTHER OPERATIONS NECESSARY FOR THEIR CARE. ALL WORK TO BE GUARANTEED FOR A PERIOD OF 90 DAYS AFTER THE ACCEPTANCE OF THE PROJECT BY THE OWNER. THIS GUARANTEE SHALL BE PUT IN LETTERFORM WITH EXACT DATES OF THE GUARANTEE PERIOD BY THE LANDSCAPE CONTRACTOR AND SIGNED BY THE OWNERS.

ALL TREES SHALL BE GUARANTEED FOR ONE (1) YEAR FROM ACCEPTANCE DATE.

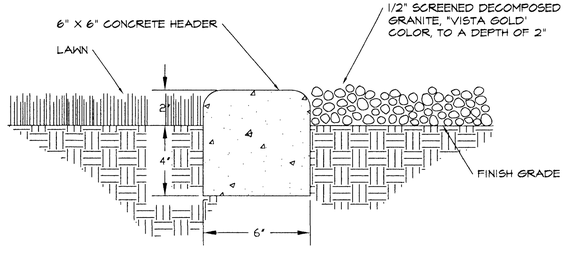
ALL LANSCAPE AREAS NOT IN LAWN TO BE COVERED IN GRANITE.

GRANITE AREAS TO BE COVERED TO A DEPTH OF 2" WITH 1/2" SCREENED GRANITE; COLOR SHALL BE "VISTA GOLD".

RIVER ROCK: DEPRESS FINISH GRADE IN DESIGNATED RIVER ROCK AREAS 4-6" TO COMPENSATE FOR BULK. RIVER ROCK IS TO BE A 5:1 MIXTURE, FIVE PARTS OF 1-3" RIVER ROCK FOR BASE AND ONE PART OF 5-8" ROCK RANDOMLY PLACED TO ACHIEVE A NATURAL APPEARANCE.



RIVER ROCK DETAIL



HEADER DETAIL

APPROVED LANDSCAPING PLAN
John Anderson 8/10/09
Planning & Development Department

UNDERGROUND SPRINKLING SYSTEM REQUIRED IN ALL LANDSCAPED AREAS

ARTERRA INC.
LANDSCAPE ARCHITECTURE
2332 East Quail Avenue
Phoenix, Arizona 85024
TEL: (602) 569-9800
FAX: (602) 569-2693
E-MAIL: arterrainc@aol.com

REGISTERED LANDSCAPE ARCHITECT 573 STATE OF NEVADA

JOB NUMBER: 106-03
NORTH
SCALE AS NOTED
DATE: 7/31/09
REV: -
DRAWN BY: --PL
SHEET L6 OF 7

LANDSCAPE LEGEND AND DETAILS

CORONADO CONDOMINIUMS
935 PASEO FLOWER COURT
SUMMERLIN
LAS VEGAS, NV 89138

This drawing is the property of ARTERRA INC., and may not be reproduced, or reproductions hereof used without their written permission.

MATCHLINE - SEE SHT. IR2

MATCHLINE - SEE SHT. IR4

PAD=20.8
F.F.=21.6

PAD=19.8
F.F.=20.6

NOTE: TIE INTO EXISTING CAPPED MAINLINE. INSTALL VALVES, AND EXTEND SLEEVES AND LATERALS. TIE INTO EXISTING WIRES.

NOTE: TIE INTO EXISTING CAPPED MAINLINE AND EXTEND LATERALS. TIE INTO EXISTING WIRES.

1 1/2" DRIP VALVE 15

1 1/2" DRIP VALVE 17

1 1/2" DRIP VALVE 18

EXISTING MAINLINE

CONNECT IRRIGATION SYSTEM INTO 3" WATER SUPPLY IN THIS AREA

3" MAIN

100 KVA

NOTE: THIS PROJECT WAS PREVIOUSLY APPROVED AND PERMITTED BY THE CITY OF LAS VEGAS FOR LANDSCAPE AND IRRIGATION INSTALLATION. MOST OF THE PROJECT HAS BEEN INSTALLED: IRRIGATION MAINLINES, VALVES WIRES AND CONTROLLERS (LOCATED IN POOL EQUIPMENT AREA) ALREADY EXIST TO COMPLETE THE IRRIGATION SYSTEM AS INDICATED ON THESE PLANS

PANTARA PL.

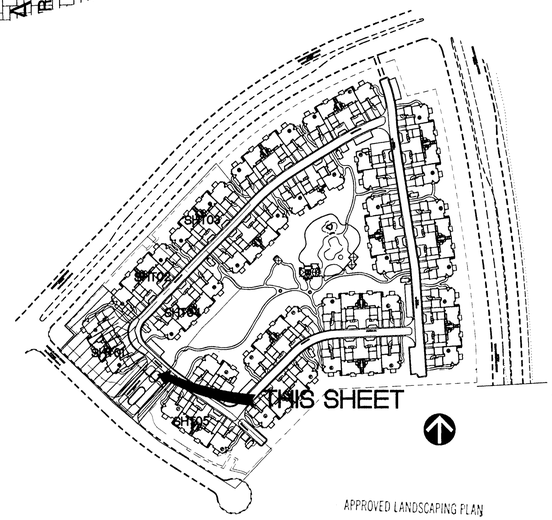
GARDENS LANE (PRIVATE)

GARDENS LN.

PASEO FLOWER COURT

3:1 MAX

SCALE: 1"= 10'-0"



APPROVED LANDSCAPING PLAN

Planning & Development Department 8/10/09

UNDERGROUND SPRINKLING SYSTEM REQUIRED IN ALL LANDSCAPED AREAS

REGISTERED LANDSCAPE ARCHITECT PETER E. DUPRE 573 STATE OF NEVADA

JOB NUMBER: 106-03

NORTH

SCALE 1"= 10'-0"

DATE: 7/31/09
REV:

DRAWN BY: JT

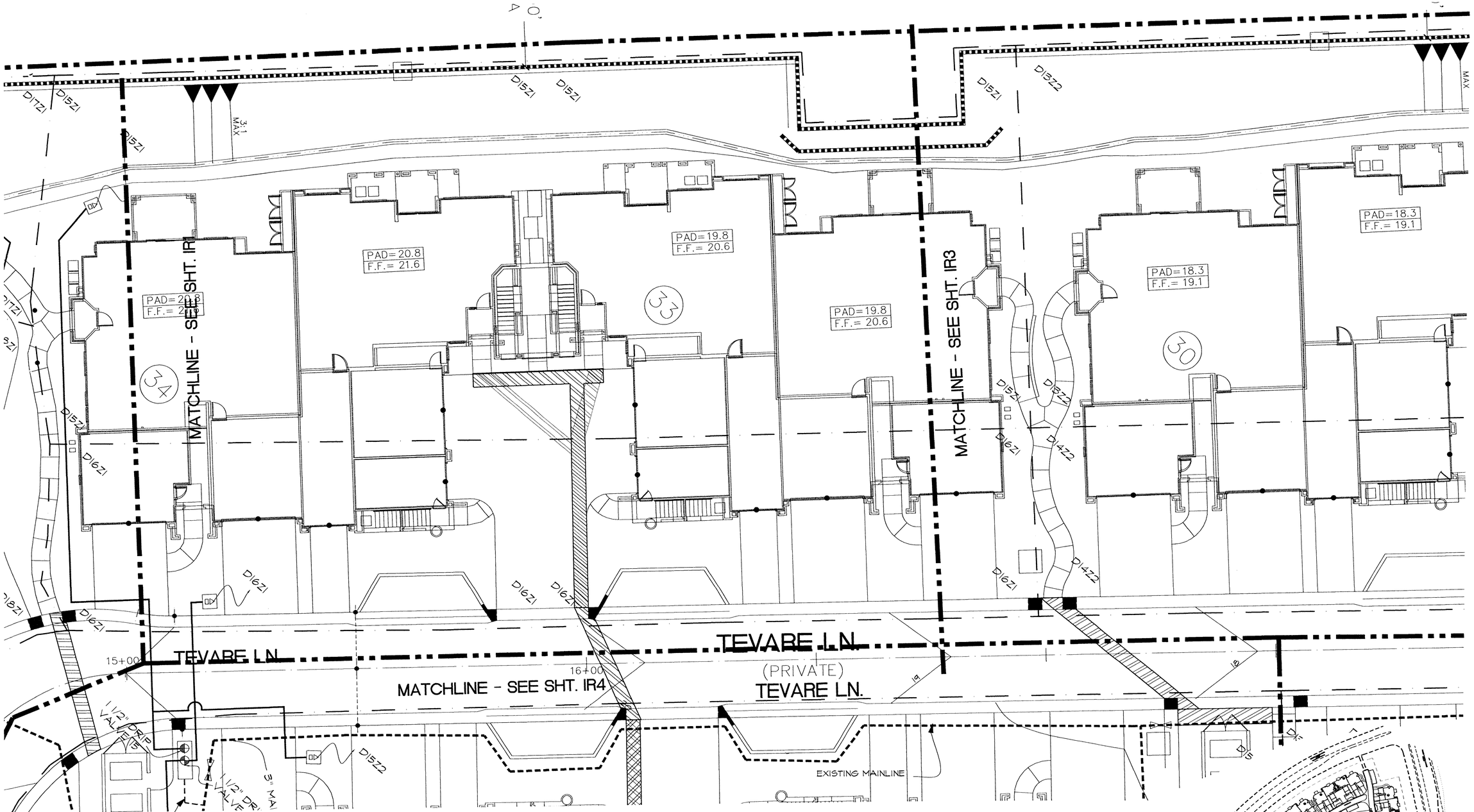
SHEET IR1 of 6

IRRIGATION PLAN

CORONADO CONDOMINIUMS
935 PASEO FLOWER COURT
SUMMERLIN
LAS VEGAS, NV 89138

ARTERRA INC.
LANDSCAPE ARCHITECTURE
2332 East Quail Avenue
Phoenix, Arizona 85024
TEL: (602) 569-9800
FAX: (602) 569-2693
E-MAIL: arterrallsa@aol.com

This drawing is the property of ARTERRA INC., and may not be reproduced, or reproductions hereof used without their written permission.

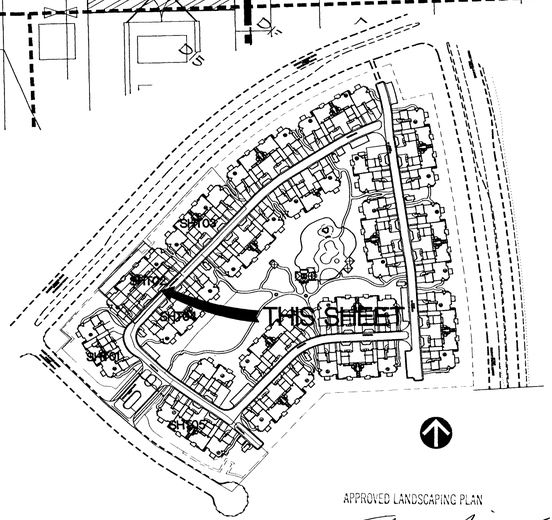


NOTE: TIE INTO EXISTING CAPPED MAINLINE. INSTALL VALVES, AND EXTEND SLEEVES AND LATERALS. TIE INTO EXISTING WIRES.

NOTE: THIS PROJECT WAS PREVIOUSLY APPROVED AND PERMITTED BY THE CITY OF LAS VEGAS FOR LANDSCAPE AND IRRIGATION INSTALLATION. MOST OF THE PROJECT HAS BEEN INSTALLED: IRRIGATION MAINLINES, VALVES WIRES AND CONTROLLERS (LOCATED IN POOL EQUIPMENT AREA) ALREADY EXIST TO COMPLETE THE IRRIGATION SYSTEM AS INDICATED ON THESE PLANS

0 5' 10' 20'

SCALE: 1"= 10'-0"



UNDERGROUND SPRINKLING SYSTEM REQUIRED IN ALL LANDSCAPED AREAS

APPROVED LANDSCAPING PLAN

Planning & Development Department 8/10/09

IRRIGATION PLAN

CORONADO CONDOMINIUMS

935 PASEO FLOWER COURT

SUMMERLIN

LAS VEGAS, NV 89138

ARTERRA INC.

LANDSCAPE ARCHITECTURE

2332 East Quail Avenue

Phoenix, Arizona 85024

TEL: (602) 569-9800

FAX: (602) 569-2693

E-MAIL: arterralsa@aol.com

DATE: 7/31/09

REV:

DRAWN BY: JT

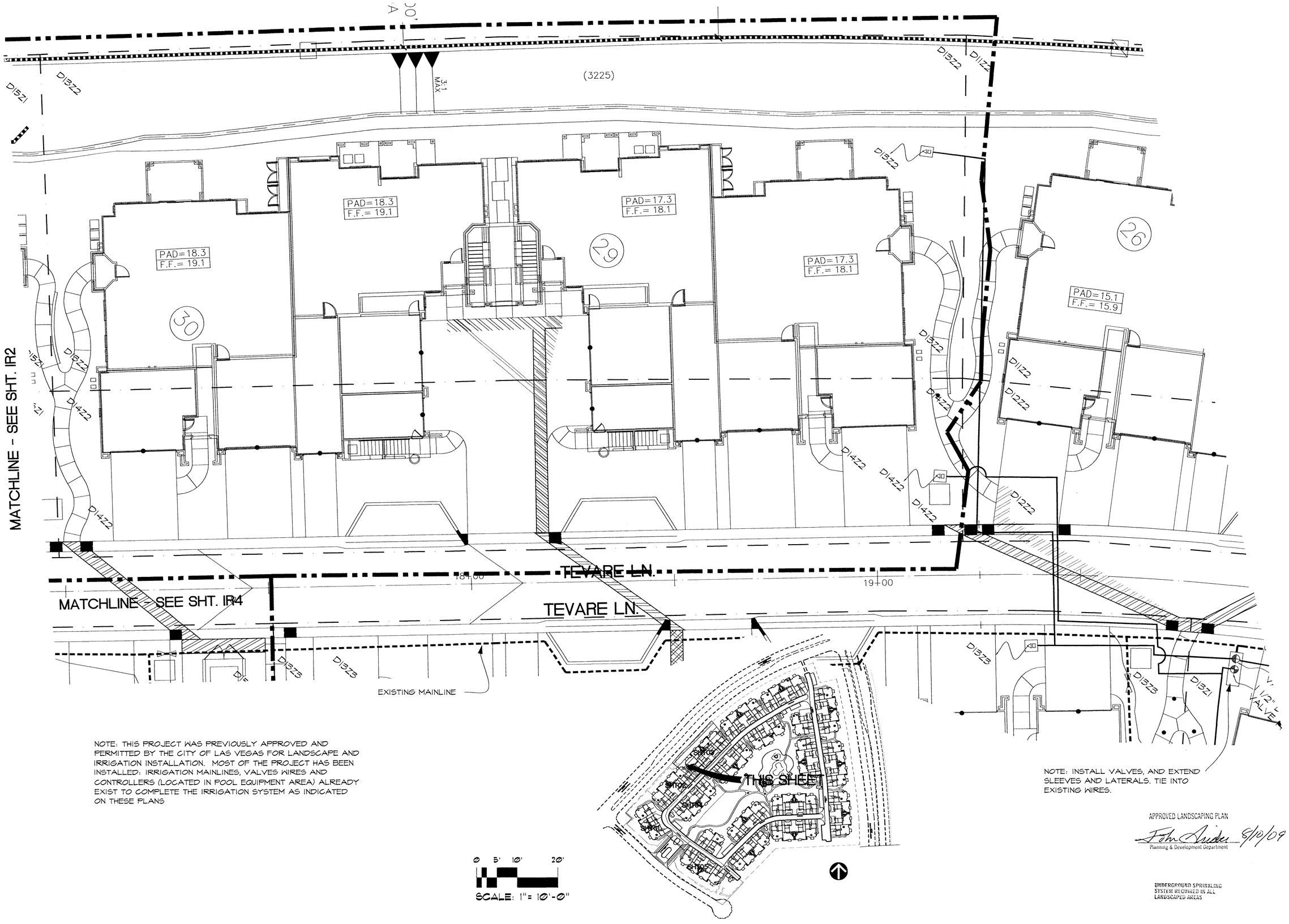
SHEET IR2 OF 6

NORTH

SCALE 1"= 10'-0"

JOB NUMBER: 106-03

This drawing is the property of ARTERRA INC., and may not be reproduced, or reproductions hereof used without their written permission.



NOTE: THIS PROJECT WAS PREVIOUSLY APPROVED AND PERMITTED BY THE CITY OF LAS VEGAS FOR LANDSCAPE AND IRRIGATION INSTALLATION. MOST OF THE PROJECT HAS BEEN INSTALLED: IRRIGATION MAINLINES, VALVES WIRES AND CONTROLLERS (LOCATED IN POOL EQUIPMENT AREA) ALREADY EXIST TO COMPLETE THE IRRIGATION SYSTEM AS INDICATED ON THESE PLANS

NOTE: INSTALL VALVES, AND EXTEND SLEEVES AND LATERALS. TIE INTO EXISTING WIRES.

APPROVED LANDSCAPING PLAN

John Snider 8/10/09

Planning & Development Department

UNDERGROUND SPRINKLING SYSTEM REQUIRED IN ALL LANDSCAPED AREAS

IRRIGATION PLAN

CORONADO CONDOMINIUMS

935 PASEO FLOWER COURT

SUMMERLIN

LAS VEGAS, NV 89138

ARTERRA INC.

LANDSCAPE ARCHITECTURE

2332 East Quail Avenue

Phoenix, Arizona 85024

TEL: (602) 569-9800

FAX: (602) 569-2693

E-MAIL: arterralsa@aol.com

DATE: 7/31/09

REV:

DRAWN BY: JT

SHEET IR3 OF 6

NORTH

SCALE 1"= 10'-0"

JOB NUMBER: 106-03

REGISTERED LANDSCAPE ARCHITECT PETER E. CURE 573 STATE OF NEVADA

This drawing is the property of ARTERRA INC., and may not be reproduced, or reproductions hereof used without their written permission.

MATCHLINE - SEE SHT. IR1

TEVARE LN

15+00

16+00

MATCHLINE - SEE SHT. IR2

TEVARE LN.
(PRIVATE)
TEVARE LN.

MATCHLINE - SEE SHT. IR3

1 1/2" DRIP VALVE 15

1 1/2" DRIP VALVE 16

3" MAIN

EXISTING MAINLINE

NOTE: TIE INTO EXISTING CAPPED MAINLINE. INSTALL VALVES, AND EXTEND SLEEVES AND LATERALS. TIE INTO EXISTING WIRES.

D1622

D1422

D1222

D1022

D821

D621

PAD=20.7
F.F.= 21.5

PAD=20.7
F.F.= 21.5

PAD=19.7
F.F.= 20.5

PAD=19.7
F.F.= 20.5

32

31

CONNECT IRRIGATION SYSTEM INTO EXISTING WATER SUPPLY IN THIS AREA

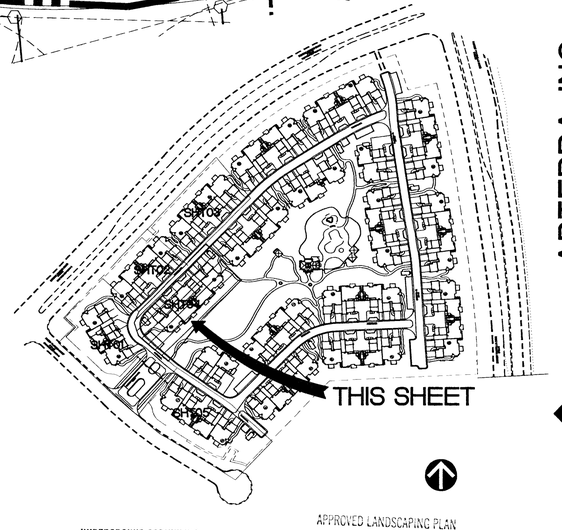
3" MAIN

MATCHLINE - SEE SHT. L4

NOTE: THIS PROJECT WAS PREVIOUSLY APPROVED AND PERMITTED BY THE CITY OF LAS VEGAS FOR LANDSCAPE AND IRRIGATION INSTALLATION. MOST OF THE PROJECT HAS BEEN INSTALLED: IRRIGATION MAINLINES, VALVES WIRES AND CONTROLLERS (LOCATED IN POOL EQUIPMENT AREA) ALREADY EXIST TO COMPLETE THE IRRIGATION SYSTEM AS INDICATED ON THESE PLANS

0 5' 10' 20'

SCALE: 1"= 10'-0"



UNDERGROUND SPRINKLING SYSTEM REQUIRED IN ALL LANDSCAPED AREAS

APPROVED LANDSCAPING PLAN
Planning & Development Department
8/10/09

PETER E. CURE
LANDSCAPE ARCHITECT
573
STATE OF NEVADA

JOB NUMBER: 106-03

NORTH

SCALE 1"= 10'-0"

DATE: 7/31/09
REV:

DRAWN BY: JT

SHEET IR4 OF 6

IRRIGATION PLAN

CORONADO CONDOMINIUMS

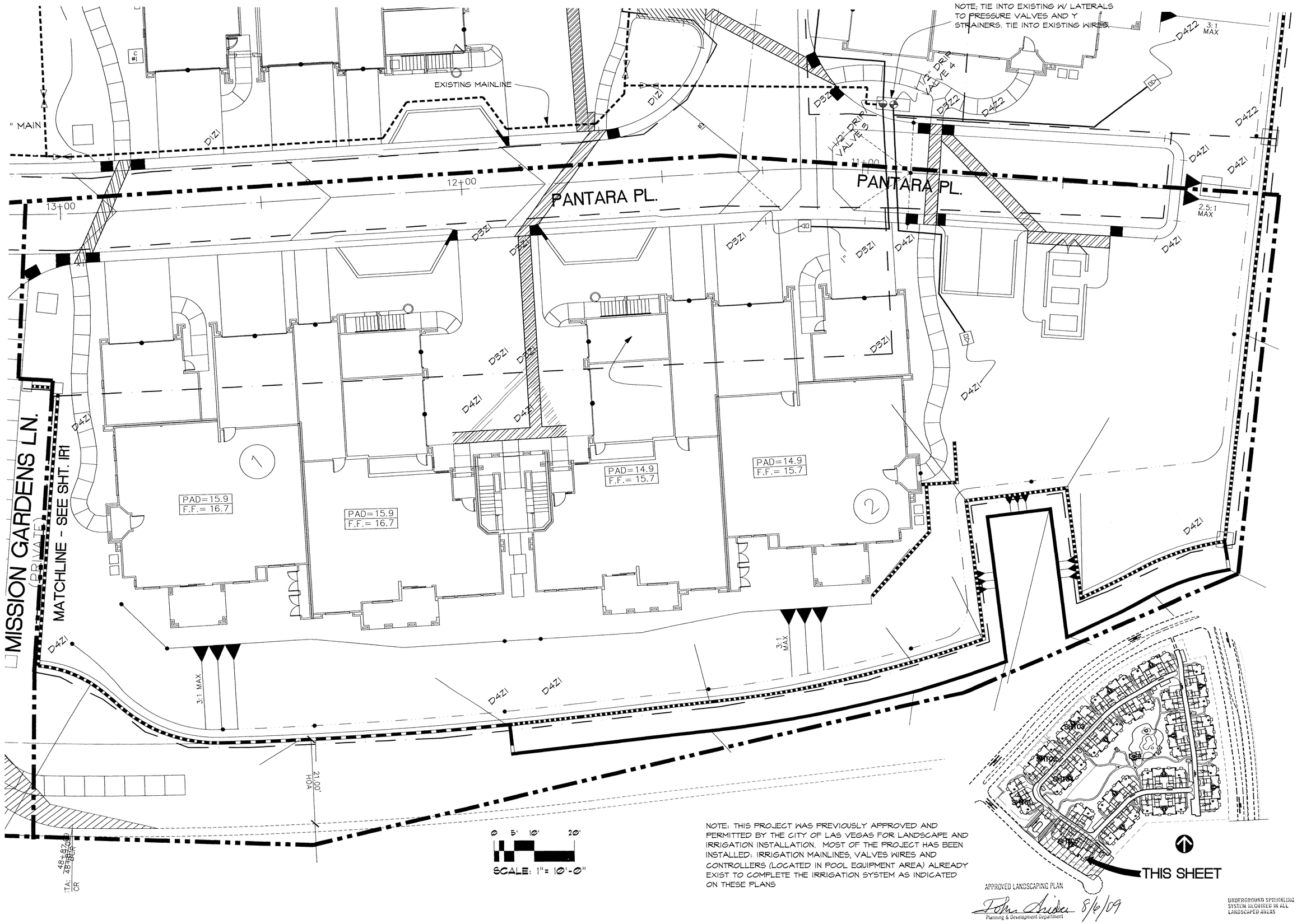
935 PASEO FLOWER COURT

SUMMERLIN

LAS VEGAS, NV 89138

ARTERRA INC.
LANDSCAPE ARCHITECTURE
2332 East Quail Avenue
Phoenix, Arizona 85024
TEL: (602) 569-8800
FAX: (602) 569-2693
E-MAIL: arterralsa@aol.com

This drawing is the property of ARTERRA INC., and may not be reproduced, or reproductions hereof used without their written permission.



NOTE: THIS PROJECT WAS PREVIOUSLY APPROVED AND PERMITTED BY THE CITY OF LAS VEGAS FOR LANDSCAPE AND IRRIGATION INSTALLATION. MOST OF THE PROJECT HAS BEEN INSTALLED: IRRIGATION MAINLINES, VALVES WIRES AND CONTROLLERS (LOCATED IN POOL EQUIPMENT AREA) ALREADY EXIST TO COMPLETE THE IRRIGATION SYSTEM AS INDICATED ON THESE PLANS

APPROVED LANDSCAPING PLAN

John Snider 8/6/09

Planning & Development Department

UNDERGROUND SPRINKLING SYSTEM REQUIRED IN ALL LANDSCAPED AREAS

REGISTERED LANDSCAPE ARCHITECT PETER E. CURE 573 STATE OF NEVADA

JOB NUMBER: 106-03

NORTH

SCALE 1"= 10'-0"

DATE: 7/31/09

REV:

DRAWN BY: JT

SHEET IR5 OF 6

IRRIGATION PLAN

CORONADO CONDOMINIUMS

935 PASEO FLOWER COURT

SUMMERLIN

LAS VEGAS, NV 89138

ARTERRA INC.

LANDSCAPE ARCHITECTURE

2332 East Quail Avenue

Phoenix, Arizona 85024

TEL: (602) 569-9800

FAX: (602) 569-2693

E-MAIL: arterralsa@aol.com

This drawing is the property of ARTERRA INC., and may not be reproduced, or reproductions hereof used without their written permission.

IRRIGATION NOTES

IRRIGATION PLANS ARE SCHEMATIC ONLY. CONTRACTOR IS TO ENSURE PROPER COVERAGE AS VARIATIONS ARE ENCOUNTERED IN THE FIELD.

PIPE FROM P.O.C. AT WATER METER TO VACUUM BREAKER SHALL BE SCH. 80 PVC PIPE, OR OTHER AS REQUIRED.

PIPE FROM VACUUM BREAKER TO VALVES SHALL BE PVC (SCH. 40), SIZED PER PLAN FROM 3" TO 2 1/2" TO 2".

MAINLINE SHALL BE PLACED 30" BELOW GRADE UNDER ALL STREETS, 18" BELOW GRADE IN ALL OTHER LOCATIONS.

ALL LINES UNDER CONCRETE SHALL BE PLACED IN SLEEVES. SLEEVES UNDER DRIVES, IN R.O.W.'S AND UNDER STREETS SHALL BE MIN. 3" CL200. SLEEVING SHALL BE SIZED AT MIN. OF TWICE LINE SIZE.
ALL DRIVES TO BE SLEEVED (TYP.)
SLEEVE WALKS AS NEEDED

PLACE ALL VALVES IN VALVE BOXES WITH LOCKING LIDS. ALL VALVE BOXES ARE TO BE PLACED IN SHRUB BEDS WHEN POSSIBLE.

USE ORANGE #14 UFUL DIRECT BURIAL CONTROL WIRE AND WHITE #12 UFUL DIRECT BURIAL WIRE FOR COMMON WITH EPOXY FILLED CYLINDER TYPE CONNECTORS.

CONTACT BLUE STAKE CENTER 24 HOURS PRIOR TO CONSTRUCTION. CONTRACTOR IS RESPONSIBLE FOR AND MUST RESTORE ANYTHING DAMAGED DURING AND AS A RESULT OF CONSTRUCTION.

IRRIG. CONTRACTOR SHALL COORDINATE ALL WORK WITH OTHER CONTRACTORS.

ALL LANDSCAPING SHALL BE ADEQUATELY IRRIGATED WHILE UNDER CONSTRUCTION.

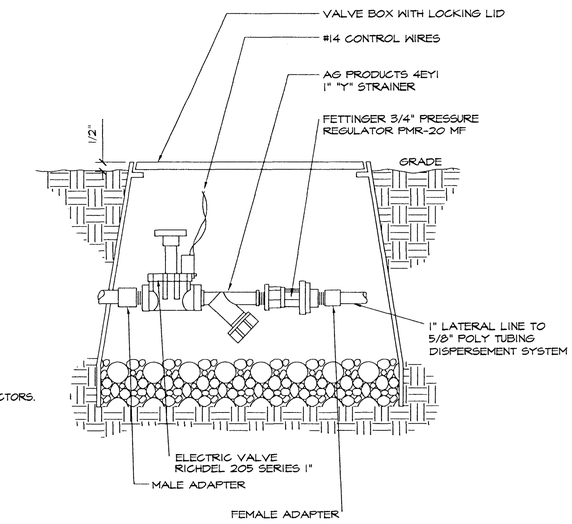
110 POWER TO BE PROVIDED AT CONTROLLER LOCATION BY OTHERS.

VERIFY METER LOCATION IN THE FIELD.

COORDINATE PROGRAMS TO AVOID STATION OVERLAP.

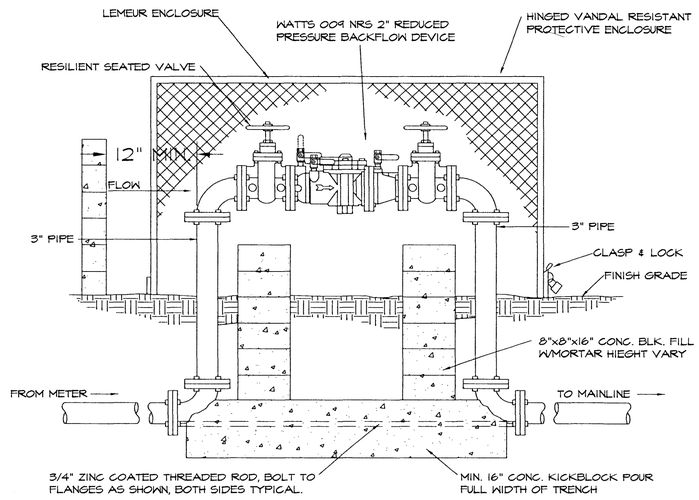
CONTRACTOR TO FLUSH ALL LINES PRIOR TO INSTALLING EMITTERS.

SEE PIPE SIZING SCHEDULE TO SIZE LATERAL LINE PIPE.

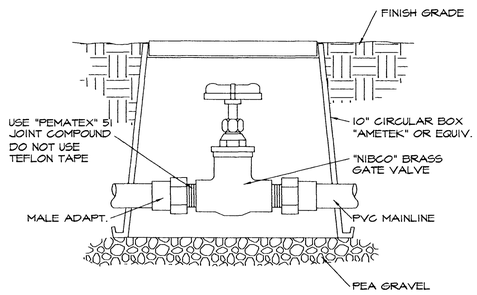


DRIP VALVE DETAIL

NOTE: SOME DRIP VALVES COVER A WIDER ZONE AND REQUIRE A 1" LATERAL LINE FROM THE VALVE TO SEVERAL "Y" STRAINERS / PRES. REGULATORS LOCATIONS IN SEPARATE VALVE BOXES BEFORE CONVERTING 5/8" POLY TUBING.



REDUCED PRESSURE VACUUM BREAKER



GATE VALVE

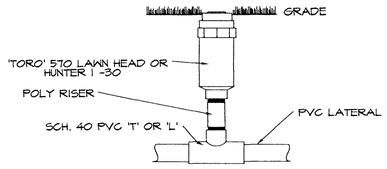
PIPE SIZING SCHEDULE

GAL/MIN.	PIPE SIZE
0-5	1/2"
6-10	3/4"
11-16	1"
17-26	1-1/4"
27-36	1-1/2"
37-46	2"
47-91	2-1/2"
92-135	3"

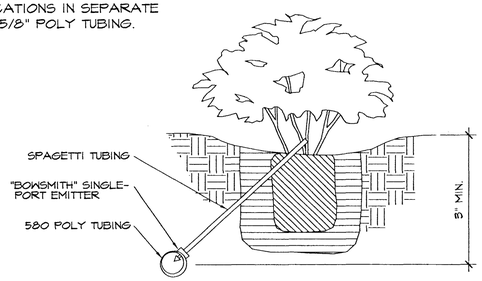
EMITTER SCHEDULE

INSTALL SPAGHETTI TUBING TO ALL PLANTS WITH THE FOLLOWING EMITTER SCHEDULE.

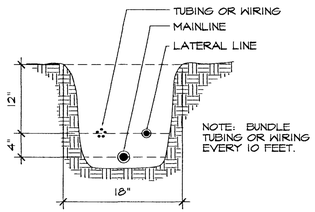
1 GAL. PLANTS	-	1 GPH EMITTER
5 GAL. PLANTS	-	2 @ 1 GPH EMITTER
15 GAL. PLANTS	-	2 @ 3 GPH EMITTER
24" BOX PLANTS	-	2 @ 4 GPH EMITTER
36" BOX PLANTS	-	2 @ 6 GPH EMITTER



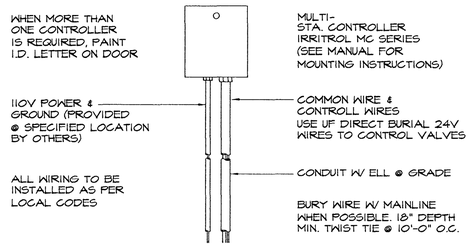
POP-UP SPRAY RISER DETAIL



EMITTER DETAIL



TRENCHING DETAIL



WALL MOUNTED CONTROLLER

IRRIGATION LEGEND

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
●	TORO 570 SERIES (12-F NOZZLE)	M	METER: 2" FROM CITY LOCATION MAY VARY
◕	TORO 570 SERIES (12-270 NOZZLE)	⬡	REDUCED PRESSURE VACUUM BREAKER: WATTS 009 NRS 2" REDUCED PRESSURE BACKFLOW DEVICE
◕	TORO 570 SERIES (12-240 NOZZLE)	⋈	GATE VALVE: SPEARS OR APPROVED EQUAL SIZED PER MAIN LINE IN A LOCKING BOX (TYP.)
◓	TORO 570 SERIES (12-180 NOZZLE)		
◔	TORO 570 SERIES (12-120 NOZZLE)		
◔	TORO 570 SERIES (12-Q NOZZLE)		
A	INDICATES ADJUSTABLE SPRAY HEAD (570 ADJ 10-270)		
L	INDICATES LOW ANGLE SPRAY HEAD		
⬡	HUNTER I-20-ADS--I.0		
⬢	HUNTER I-20-36S-I.0		
⊕	VALVE: RICHDEL 205 SERIES 1"		
⊕	VALVE: RICHDEL 216 SERIES 1 1/2"		
⊕⊕⊕	VALVE BOX W/ LOCK: AMETEK OR APPROVED EQUAL		
C #	CONTROLLER: IRRITROL MC SERIES SEE PLANS FOR SIZES		
_ _ _ _	MAIN LINE.(SCHEDULE 40 PVC)		
———	LATERAL LINE: (SCHEDULE 40 PVC) PER PIPE SIZING SCHEDULE		

CONTROLLER SCHEDULE

NOTE: CONTROLLER AND WIRES ALREADY INSTALLED, THIS SCHED. FOR INFORMATION ONLY.

C1 - "IRRITROL" 18 STATION VALVES ON THIS CONTROLLER:

DRIP VALVE #1 - 1 1/2"	ZONE 1 - BLDG. 24
	ZONE 2 - BLDG. 25
	ZONE 3 - BLDG. 26
DRIP VALVE #2 - 1"	ZONE 1 - AREA NORTH OF POOL/REC
DRIP VALVE #3 - 1"	ZONE 1 - BLDG. 28
	ZONE 2 - BLDG. 27
DRIP VALVE #4 - 1"	ZONE 1 - BLDG. 22
	ZONE 2 - BLDG. 23
DRIP VALVE #5 - 1"	ZONE 1 - BLDG. 30
	ZONE 2 - BLDG. 29
DRIP VALVE #9 - 1 1/2"	ZONE 1 - AREA SOUTH OF POOL
DRIP VALVE #10 - 1 1/2"	ZONE 1 - STREET FRONTAGE
	ZONE 2 - STREET FRONTAGE
	ZONE 3 - STREET FRONTAGE
DRIP VALVE #11 - 1 1/2"	ZONE 1 - STREET FRONTAGE
	ZONE 2 - STREET FRONTAGE
	ZONE 3 - STREET FRONTAGE
DRIP VALVE #18 - 1 1/2"	ZONE 1 - BLDG. 7
	ZONE 2 - BLDG. 6
	ZONE 3 - BLDG. 5
DRIP VALVE #19 - 1 1/2"	ZONE 1 - BLDG. 35
	ZONE 2 - BLDG. 36
	ZONE 3 - BLDG. 37
DRIP VALVE #20 - 1 1/2"	ZONE 1 - BLDG. 4
	ZONE 2 - BLDG. 3
	ZONE 3 - BLDG. 2
DRIP VALVE #21 - 1 1/2"	ZONE 1 - BLDG. 38
	ZONE 2 - BLDG. 39
DRIP VALVE #22 - 1 1/2"	ZONE 1 - BLDG. 1
	ZONE 2 - CARETAKER

LAWN VALVE #1 - 1 "	AREA NORTH OF POOL
LAWN VALVE #2 - 1 1/2 "	SOUTH BLDG. 28
LAWN VALVE #3 - 1 1/2 "	SOUTH BLDG. 29
LAWN VALVE #8 - 1 1/2 "	SOUTH OF POOL
LAWN VALVE #9 - 1 1/2"	EAST OF POOL

C2 - "IRRITROL" 18 STATION VALVES ON THIS CONTROLLER:

DRIP VALVE #6 - 1"	ZONE 1 - BLDG. 20
	ZONE 2 - BLDG. 21
DRIP VALVE #7 - 1"	ZONE 1 - SOUTH BLDG. 29-30-31
DRIP VALVE #8 - 1 1/2"	ZONE 1 - SPA, REC, & BLDG. 33 & 34
DRIP VALVE #12 - 1"	ZONE 1 - BLDG. 32
	ZONE 2 - BLDG. 31
DRIP VALVE #13 - 1 1/2"	ZONE 1 - BLDG. 17
	ZONE 2 - BLDG. 18
	ZONE 3 - BLDG. 19
DRIP VALVE #14 - 1 1/2"	ZONE 1 - BLDG. 15
	ZONE 2 - BLDG. 16
	ZONE 3 - BLDG. 14
DRIP VALVE #15 - 1 1/2"	ZONE 1 - BLDG. 13
	ZONE 2 - BLDG. 12
	ZONE 3 - BLDG. 11
DRIP VALVE #16 - 1 1/2"	ZONE 1 - BLDG. 10
	ZONE 2 - BLDG. 9
	ZONE 3 - BLDG. 8
DRIP VALVE #17 - 1"	ZONE 1 - BLDG. 33
	ZONE 2 - BLDG. 34

LAWN VALVE #4 - 1 "	AREA SOUTH OF BLDG. 31
LAWN VALVE #5 - 1 1/2 "	SPA AREA
LAWN VALVE #6 - 1 1/2 "	NORTH BLDG. 34
LAWN VALVE #7 - 1 "	NORTH BLDG. 340F POOL

UNDERGROUND SPRINKLING SYSTEM REQUIRED IN ALL LANDSCAPED AREAS

APPROVED LANDSCAPING PLAN
John Anders 8/10/09
Planning & Development Department

PETER E. CURE REGISTERED LANDSCAPE ARCHITECT 573 STATE OF NEVADA

JOB NUMBER: 106-03
NORTH
SCALE AS NOTED
DATE: 7/31/09
REV:
DRAWN BY: PDL
SHEET IR6 OF 6

IRRIGATION NOTES & DETAILS

CORONADO CONDOMINIUMS
935 PASEO FLOWER COURT
SUMMERLIN
LAS VEGAS, NV 89138

ARTERRA INC.
LANDSCAPE ARCHITECTURE
2332 East Quail Avenue
Phoenix, Arizona 85024
TEL: (602) 569-9800
FAX: (602) 569-2693
E-MAIL: arterraaz@aol.com

This drawing is the property of ARTERRA INC., and may not be reproduced, or reproductions hereof used without their written permission.

CORONADO

SUMMERLIN, LAS VEGAS, NEVADA

FOR

SPINNAKER HOMES

RES*check* Software Version 4.1.0

Compliance Certificate

Project Title: Coronado @ The Paseo
Report Date: 02/12/09
Data filename: I:\ACLTDC09\Spinnaker Homes\09-0003 Coronado @ Paseos\IECC\ENVELOPE\Coronado Bldg 100 (2006 IECC).rck

Energy Code:	**2006 IECC**
Location:	**Las Vegas, Nevada**
Construction Type:	**Multifamily**
Conditioned Floor Area:	**15710 ft2**
Glazing Area Percentage:	**13%**
Heating Degree Days:	**2652**
Climate Zone:	**3**

Construction Site: Las Vegas, NV — Owner/Agent: Spinnaker Homes — Designer/Contractor:

Compliance: **Passes on UA**

Maximum UA: **3231** Your Home UA: **2693 = 16.7% Better Than Code** Maximum SHGC: **0.40** Your SHGC: **0.35**

Assembly	Gross Area or Perimeter	Cavity R-Value	Cont. R-Value	Glazing or Door U-Factor	UA
Ceiling: Flat Ceiling or Scissor Truss	9174	30.0	0.0		321
Wall, Exterior: Wood Frame, 16" o.c.	12132	13.0	0.0		831
Window, Slider: Vinyl Frame:Double Pane with Low-E SHGC: 0.35	358			0.400	143
Window, Fixed: Vinyl Frame:Double Pane with Low-E SHGC: 0.35	223			0.400	89
Window, Single Hung: Vinyl Frame:Double Pane with Low-E SHGC: 0.35	789			0.400	316
Door, Patio: Glass SHGC: 0.35	428			0.400	171
Door, Solid Core: Solid	200			0.330	66
Wall, Garage: Wood Frame, 16" o.c.	1190	13.0	0.0		91
Door, Solid Core: Solid	76			0.330	25
Floor o/ Garage: All-Wood Joist/Truss:Over Unconditioned Space	2610	19.0	0.0		123
Slab On Grade: Slab-On-Grade:Unheated Insulation depth: 0.0'	496		0.0		517

Compliance Statement: The proposed building design described here is consistent with the building plans, specifications, and other calculations submitted with the permit application. The proposed building has been designed to meet the 2006 IECC requirements in RES*check* Version 4.1.0 and to comply with the mandatory requirements listed in the RES*check* Inspection Checklist.

Name - Title — Signature — Date

Coronado @ The Paseo — Page 1 of 1

BUILDING 100: I.E.C.C. COMPLIANCE REPORT

RES*check* Software Version 4.1.0

Compliance Certificate

Project Title: Coronado @ The Paseo
Report Date: 02/12/09
Data filename: I:\ACLTDC09\Spinnaker Homes\09-0003 Coronado @ Paseos\IECC\ENVELOPE\Coronado Bldg 200 (2006 IECC).rck

Energy Code:	**2006 IECC**
Location:	**Las Vegas, Nevada**
Construction Type:	**Multifamily**
Conditioned Floor Area:	**11427 ft2**
Glazing Area Percentage:	**13%**
Heating Degree Days:	**2652**
Climate Zone:	**3**

Construction Site: Las Vegas, NV — Owner/Agent: Spinnaker Homes — Designer/Contractor:

Compliance: **Passes on UA**

Maximum UA: **2456** Your Home UA: **2076 = 15.5% Better Than Code** Maximum SHGC: **0.40** Your SHGC: **0.35**

Assembly	Gross Area or Perimeter	Cavity R-Value	Cont. R-Value	Glazing or Door U-Factor	UA
Ceiling: Flat Ceiling or Scissor Truss	8159	30.0	0.0		286
Wall, Exterior: Wood Frame, 16" o.c.	9010	13.0	0.0		620
Window, Slider: Vinyl Frame:Double Pane with Low-E SHGC: 0.35	329			0.400	132
Window, Fixed: Vinyl Frame:Double Pane with Low-E SHGC: 0.35	171			0.400	68
Window, Single Hung: Vinyl Frame:Double Pane with Low-E SHGC: 0.35	514			0.400	206
Door, Patio: Glass SHGC: 0.35	294			0.400	118
Door, Solid Core: Solid	140			0.330	46
Wall, Garage: Wood Frame, 16" o.c.	1041	13.0	0.0		83
Door, Solid Core: Solid	28			0.330	9
Floor o/ Garage: All-Wood Joist/Truss:Over Unconditioned Space	1305	19.0	0.0		61
Slab On Grade: Slab-On-Grade:Unheated Insulation depth: 0.0'	429		0.0		447

Compliance Statement: The proposed building design described here is consistent with the building plans, specifications, and other calculations submitted with the permit application. The proposed building has been designed to meet the 2006 IECC requirements in RES*check* Version 4.1.0 and to comply with the mandatory requirements listed in the RES*check* Inspection Checklist.

Name - Title — Signature — Date

AUTOMATIC FIRE SPRINKLER SYSTEM REQUIRED 13R

Coronado @ The Paseo — Page 1 of 1

BUILDING 200: I.E.C.C. COMPLIANCE REPORT

UNIT A
FIRST FLOOR PLAN: 1,305 S.F.
GARAGE: 229 S.F.
COVERED ENTRY: 37 S.F.
OUTDOOR LIVING: 110 S.F.
EXTERIOR STAIR 78 S.F.

UNIT B1
FIRST FLOOR PLAN: 1,475 S.F.
GARAGE: 392 S.F.
COVERED ENTRY: 38 S.F.
OUTDOOR LIVING: 150 S.F.

UNIT B2
FIRST FLOOR PLAN: 1,520 S.F.
GARAGE: 442 S.F.
COVERED ENTRY: 38 S.F.
OUTDOOR LIVING: 150 S.F.
EXTERIOR STAIR 146 S.F.

UNIT C1
FIRST FLOOR PLAN: 1,793 S.F.
GARAGE: 467 S.F.
COVERED ENTRY: 47 S.F.
OUTDOOR LIVING: 140 S.F.

UNIT C2
FIRST FLOOR PLAN: 1,762 S.F.
GARAGE: 469 S.F.
COVERED ENTRY: 50 S.F.
OUTDOOR LIVING: 140 S.F.
EXTERIOR STAIR 132 S.F.

UNIT C3
FIRST FLOOR PLAN: 1,803 S.F.
GARAGE: 484 S.F.
COVERED ENTRY: 47 S.F.
OUTDOOR LIVING: 140 S.F.

UNIT C4
FIRST FLOOR PLAN: 1,769 S.F.
GARAGE: 469 S.F.
COVERED ENTRY: 50 S.F.
OUTDOOR LIVING: 140 S.F.
EXTERIOR STAIR 94 S.F.

BUILDING 100
FIRST FLOOR PLAN: 5,966 S.F.
SECOND FLOOR PLAN: 5,088 S.F.
1/2 Building S.F. 11,054 S.F.
TOTAL S.F. x 2 = **22,108 S.F.**

BUILDING 200
FIRST FLOOR PLAN: 8,962 S.F.
SECOND FLOOR PLAN: 7,047 S.F.
TOTAL S.F. **16,009 S.F.**

NOTE: SEE SHEET A0-2.1 FOR A COMPETE AREA BREAKDOWN

~~UNIT AREA~~ & BUILDING AREA SUMMARY

SYMBOLS

@	AT
℄	CENTERLINE
d	PENNY
#	POUNDS or NUMBER
P.L.	PROPERTY LINE

ABBREVIATIONS

A.B.	ANCHOR BOLT
ABV.	ABOVE
A/C	AIR CONDITIONER
AFCI	ARC-FAULT CIRCUIT INTERRUPTER
A.F.F.	ABOVE FINISHED FLOOR
AL.	ALUMINUM
ALT.	ALTERNATE
APL	ASSUMED PLATE
APPROX.	APPROXIMATE
ARCH.	ARCHITECT(ural)
AUTO.	AUTOMATIC
AWN.	AWNING
BA.	BATHROOM
BD.	BOARD
BLDG.	BUILDING
BLK.	BLOCK
BLK'G.	BLOCKING
BM.	BEAM
BR.	BEDROOM
BRG.	BEARING
B.U.R.	BUILT-UP ROOFING
CAB.	CABINET
C.J.	CEILING JOIST
CL.	CLOSET
CLG.	CEILING
CLR.	CLEAR(ance)
C.M.U.	CONCRETE MASONRY UNIT
COL.	COLUMN
COMP.	COMPOSITE/COMPUTER
CONC.	CONCRETE
CONN.	CONNECTION
CONST.	CONSTRUCTION
CONT.	CONTINUOUS
COOK	COOKTOP
CORR.	CORRIDOR
CPT.	CARPET
CSMT.	CASEMENT
C.T.	CERAMIC TILE
DBL.	DOUBLE
D.F.	DRINKING FOUNTAIN
D.H.	DOUBLE HUNG
DIA.	DIAMETER
DIAG.	DIAGONAL
DIM.	DIMENSION
DISP.	DISPOSAL
DIV.	DIVERTER
DN.	DOWN
DR.	DOOR
D.S.	DOWNSPOUT
DSDP	DOUBLE SHELF and DOUBLE POLE
DTL.	DETAIL
D.W.	DISHWASHER
DWG.	DRAWING(s)
DWR.	DRAWER
(E)	EXISTING
E	EAST
EA.	EACH
E.G.	EXISTING GRADE
EL.	ELEVATION
ELEC.	ELECTRIC(al)
ELEV.	ELEVATION/ELEVATOR
E.N.	EDGE NAIL(ing)
ENCL.	ENCLOSURE
ENT.	ENTRY
EQ.	EQUAL
EX.	EXCEPT
EXH.	EXHAUST
EXST.	EXISTING
EXP.	EXPANDED/EXPANSION
EXT.	EXTERIOR
FAU	FORCED AIR UNIT
F.D.	FLOOR DRAIN
FDN.	FOUNDATION
F.A.	FIRE EXTINGUISHER

ABBREVIATIONS (cont.)

F.E.C.	FIRE EXTINGUISHER CABINET
F.F.	FINISHED FLOOR
F.F.L.	FINISHED FLOOR LINE
F.G.	FINISHED GRADE
FG	FUEL GAS
FGL.	FIBERGLASS
F.H.S.	FIRE HOSE STATION
FIN.	FINISH(ed)
FIX.	FIXED
F.J.	FLOOR JOIST
FL.	FLUORESCENT
FLR.	FLOOR
F.N.	FIELD NAIL(ing)
FPL.	FIREPLACE
F.O.S.	FACE OF STUD
FR.	FRAME/FRAMING
FT.	FOOT or FEET
FTG.	FOOTING
FURR.	FURRING
GALV.	GALVANIZED
GAR.	GARAGE
G.B.	GRAB BAR
GD.	GRADE
G.F.I.	GROUND FAULT INTERRUPTOR
G.I.	GALVANIZED IRON
GL.	GLASS/GLAZING
GLB	GLUE-LAMINATED BEAM
GSM.	GALVANIZED SHEET METAL
GYP.	GYPSUM
H.B.	HOSE BIBB
HBD.	HARDBOARD
HC	HOLLOW CORE
HDR.	HEADER
HDW.	HARDWARE
HGT.	HEIGHT
HM	HOLLOW METAL
HOR.	HORIZONTAL
HR	HOUR
HT.	HEIGHT
HTG.	HEATING
HVAC	HEATING/VENTILATION AND AIR CONDITIONING
I.D.	INSIDE DIAMETER
INSUL.	INSULATION
INT.	INTERIOR
JAN.	JANITOR
JT.	JOINT
KIT.	KITCHEN
LAU.	LAUNDRY
LAM.	LAMINATE
LAV.	LAVATORY
LAUN.	LAUNDRY
LTG.	LIGHTING
LTL.	LINTEL
LUM.	LUMINOUS
MAS.	MASONRY
MAX.	MAXIMUM
M.B.	MACHINE BOLT
MBA.	MASTER BATHROOM
MBR.	MASTER BEDROOM
M.C.	MEDICINE CABINET
MECH.	MECHANICAL
MED.	MEDIUM
MFR.	MANUFACTURER('s)
MICRO.	MICROWAVE OVEN
MIN.	MINIMUM
MIR.	MIRROR
MISC.	MISCELLANEOUS
MTL.	MATERIAL/METAL
N	NORTH
NAT.	NATURAL
N.G.	NATURAL GRADE
N.I.C.	NOT IN CONTRACT
NO.	NUMBER
NOM.	NOMINAL
N.T.S.	NOT TO SCALE
O/	OVER
OA	OVERALL
OBS.	OBSCURE
O.C.	ON CENTER

ABBREVIATIONS (cont.)

O.D.	OUTSIDE DIAMETER
OFF.	OFFICE
OPN'G.	OPENING
OSB	ORIENTED STRAND BOARD
P.B.	PUSH BUTTON
PDR.	POWDER ROOM
PL.	PLATE
PLAS.	PLASTIC
PR.	PAIR
PT.	POINT
PWD.	PLYWOOD
R.	RISER
R.A.G.	RETURN AIR GRILLE
RAD.	RADIUS
R.D.	ROOF DRAIN
REF.	REFRIGERATOR
REINF.	REINFORCING/REINFORCED
RM.	ROOM
R.O.	ROUGH OPENING
S	SOUTH
S&P	SHELF and POLE
S.C.	SLOID CORE
SCHED.	SCHEDULE
SEC.	SECTION
SERV.	SERVICE
S.F.	SQUARE FEET
SGL.	SINGLE
S.H.	SINGLE HUNG
SHWR.	SHOWER
SHT.	SHEET
SHT'G.	SHEATHING
SIM.	SIMILAR
SL.	SLIDING
S.O.V.	SHUT OFF VALVE
SP	SUMP PUMP
SPEC.	SPECIFICATION
SPK.	SPEAKER
SQ.	SQUARE
SSDP	SINGLE SHELF and DOUBLE POLE
SSSP	SINGLE SHELF and SINGLE POLE
STD.	STANDARD
STL.	STEEL
STOR.	STORAGE
SUSP.	SUSPENDED
SYM.	SYMBOL
SW.	SWITCH(ed)
T.	TREAD
T & G	TONGUE and GROOVE
T.B.	TOWEL BAR
TECH.	TECHNOLOGY
TEL.	TELEPHONE
TEMP.	TEMPORARY/TEMPERED
TERR.	TERRAZZO
THK.	THICK/THICKNESS
THR.	THRESHOLD
T.O.C.	TOP OF CONCRETE
T.O.P.	TOP OF PARAPET
T.O.S.F.	TOP OF SUB-FLOOR
T.O.W.	TOP OF WALL
TPL.	TOP PLATE
TR.	TRANSOM
TV	TELEVISION
TYP.	TYPICAL
UNF.	UNFINISHED
U.N.O.	UNLESS NOTED OTHERWISE
U.O.N.	UNLESS OTHERWISE NOTED
VERT.	VERTICAL
VEST.	VESTIBULE
VIN.	VINYL
VTR	VENT THRU ROOF
W/	WITH
W/O	WITHOUT
W.	WASHER
WC	WATER CLOSET
WD.	WOOD
W/H	WATER HEATER
W.I.	WROUGHT IRON
WP	WEATHERPROOF
W.W.F.	WELDED WIRE FABRIC
WS	WATER SOFTENER
WT.	WEIGHT

ABBREVIATIONS

1. Contractor shall verify all conditions and dimensions at the site and all inconsistencies shall be brought to the attention of the developer and the architect before proceeding with work.
2. Any errors or omissions found in these drawings shall be brought to developers and architects attention immediately.
3. Do not scale drawings. Written dimensions take precedence over scaled dimensions.
4. All dimensions are to face of stud or to face of framing unless otherwise noted.
5. All 'or equal' substitutions must be submitted to, and approved by, city building official prior to installation.
6. Within attics and crawlspaces where entry is made only for service of utilities, foam plastics shall be protected against ignition by 1 ½" thick mineral fiber insulation, ¼" hardboard, ⅜" gypsum board, or corrosion-resistant steel having a base metal thickness of 1.016"

GENERAL NOTES

Project Name:
The Paseos/Coronado

Legal Description:
137-34-817

Jurisdiction:
CITY OF LAS VEGAS
731 South Fourth Street
Las, Vegas NV 89101
702-229-6251

Owner/Developer:
Spinnaker Homes
4511 West Cheyenne Ave., Ste. 105
North Las Vegas, Nv 89032
702-873-7773, Ext. 215 / 702-873-7776 Fax
byoung@spinnakerhomes.com
Ben Young

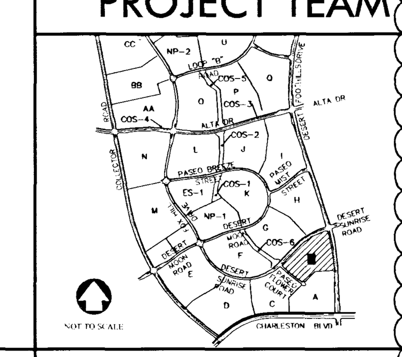
Architect:
RNM Design
2 Corporate Park
Irvine, CA 92606
949-752-1800 / 949-833-9603 Fax
csmith@rnmdesign.com
Craig Smith / Thanh Vuong

Structural:
Mendenhall Smith
3571 Red Rock St. Ste. A
Las Vegas, NV 89103
702-367-6725 / 702-367-2727 Fax
pdelmare@mendenhallsmith.com
Philip J. De La Mare PE SE

MEP:
Comfort Engineering, Inc.
9175 West Flamingo Road
Las Vegas, NV 89147
702-367-0892, Ext. 104 / 702-367-1076 Fax
john@comfortenginc.com
John D. Spargo, PE

Acoustical Consultant:
SOUNDLOGIC, LLC
7835 South Rainbow Ave., Ste. 04-207
Las Vegas, NV 89139-6457
702-242-5081 / 702-447-6164 Fax
tanlp@soundlogic.org
Paul L. Tan

PROJECT TEAM



VICINITY MAP

ANALYSIS ITEMS

1. **BUILDING CODES**
THIS PROJECT SHALL COMPLY WITH THE REQUIREMENTS SET FORTH IN THE FOLLOWING CODES AND ORDINANCES:
INTERNATIONAL BUILDING CODE, 2006 EDITION W/ SOUTHERN NEVADA AMENDMENT.
INTERNATIONAL ENERGY CONSERVATION CODE (IECC), 2006 EDITION W/ SOUTHERN NEVADA AMENDMENT.
UNIFORM PLUMBING CODE, 2006 EDITION W/ SOUTHERN NEVADA AMENDMENT.
UNIFORM MECHANICAL CODE, 2006 EDITION W/ SOUTHERN NEVADA AMENDMENT.
NATIONAL ELECTRICAL CODE, 2005 EDITION W/ SOUTHERN NEVADA AMENDMENT.
UNIFORM FIRE CODE (U.F.C.)
ALL APPLICABLE STATE AND LOCAL CODES
CLARK COUNTY, NV BUILDING CODE AMENDMENTS
ICC ANSI A117.1-2003

2. **OCCUPANCY CLASSIFICATION**
R2-/U

3. **TYPE OF CONSTRUCTION**
BLDG. 100: TYPE V-A BLDG. 200 TYPE V-B

4. **FIRE SPRINKLERS** YES/13R

5. **FIRE ALARM** NOT REQUIRED

6. **BUILDING HEIGHT**
BLDG 200 ALLOWABLE = 40 Feet ACTUAL = 31 Feet
BLDG 100 ALLOWABLE = 50 Feet ACTUAL = 31 Feet

7. **STORIES**
BLDG 200 ALLOWABLE = 2 ACTUAL = 2
BLDG 100 ALLOWABLE = 3 ACTUAL = 2

8. **ALLOWABLE AREA see sheet A0-2.1 for complete area calculations**
Allowable areas based upon worst case scenario assuming type VA - R2 occupancy for bldg 100 and type VB - R2 occupancy for bldg. 200:

BUILDING 30	ALLOWABLE = 38,880 FT.	ACTUAL = 22,108 FT.
BUILDING 32	ALLOWABLE = 39,120 FT.	ACTUAL = 22,108 FT.
BUILDING 34	ALLOWABLE = 38,880 FT.	ACTUAL = 22,108 FT.
BUILDING 2	ALLOWABLE = 39,120 FT.	ACTUAL = 22,108 FT.
BUILDING 36	ALLOWABLE = 20,440 FT.	ACTUAL = 16,0108 FT.

9. **OCCUPANT LOAD**
PER TABLE 1004.1.1 OCCUPANT LOAD = 200
MAX. UNIT OCCUPANT LOAD = 10

10. **NUMBER OF EXITS**
PER TABLE 1015.1 AS AMENDED BY SOUTHERN NEVADA AMENDMENTS = 20 Occupants allowed for one exit.
Number of exits REQUIRED per unit = 1
Number of exits PROVIDED per unit = 1

11. **REQUIRED FIRE RESISTANCE OF EXTERIOR WALLS**
BLDGE 200: Per Table 601 Type V-B - 0 hr rating required
Per Table 602 Type V-B >10' to P.L. no rating required
BLDG 100: Per Table 601 Type V-A - 1 hr rating required
Per Table 602 Type V-A >10' to P.L. 1 hr rating required
BLDG 100 RATED EXT. Wall per wall type W3 on sheet F1-1.1 UL#U356 on sheet F3-1.2

12. **PROTECTION OF OPENINGS DUE TO LOCATION ON PROPERTY AND MAXIMUM AREA OF EXTERIOR WALL OPENINGS**
BLDG 200 Per footnote (i) of table 704.8 area of openings unlimited
BLDG 100 PER table 704.8 at areas where fire separation distance is 10 to 15' max. area of openings on the side is 15% see calculation on sheet A0-2.1

13. **FIRE RESISTANCE RATING REQUIREMENTS FOR BUILDING ELEMENTS (SPECIFY AREAS RECEIVING SPRAY APPLIED FIRE PROTECTION)**

PER TABLE 601 for	Type V-B BLDG 200.	Type V A BLDG 100
Structural Frame	Non Rated	1 hr. Rated
Bearing Walls	Non Rated	1 hr. Rated
Non Bearing Walls	Non Rated	Non Rated
Floor Construction	Non Rated	1 hr. Rated
Roof Construction	Non Rated	1 hr. Rated

14. **SPACES REQUIRING FIRE-RESISTANCE-RATED SEPARATION (SPECIFY SPACES REQUIRING SEPARATION AND HOURLY RATING)**

TENANT SEPARATION WALLS
Required by code section: 708
Required rating : 1 HOUR Provided Rating : 1 HOUR
Tested Assembly: UL#U341
Referenced on Sheet: W1/F1-1.1 AND F3-1.1

TENANT SEPARATION FLOOR/CEILINGS
Required by code section: 711
Required rating : 1 HOUR Provided Rating : 1 HOUR
Tested Assembly: UL#L528 utilizing floor system 14, and item 3b
Referenced on Sheet: FC1/F1-1.1 AND F3-2.1

WALLS SUPPORTING TENANT SEPARATION FLOOR/CEILINGS
Required by code section: 711.4
Required rating : 1 HOUR Provided Rating : 1 HOUR
Tested Assembly: UL# U305 AND U356
Referenced on Sheet: W2 AND W3/F1-1.1 AND F3-1.1, F3-1.2

GARAGES TO RESIDENTIAL UNITS U TO R-2
Required by code section: 406.1.4
Required rating : 1 LAYER 5/8" TYPE X Provided Rating : 1LAYER 5/8" X

FIRE RISER ROOMS
Required by code section: FIRE CODE
Required rating : 1 HOUR Provided Rating : 1 HOUR
Tested Assembly: UL#U305 AND GA WP 4135
Referenced on Sheet: W2 and W5/F1-1.1 AND F3-1.1, F3-1.2

USEABLE SPACE UNDER STAIRS
Required by code section: 1009.5.3
Required rating : 1 HOUR Provided Rating : 1 HOUR
Tested Assembly: IBC ASSEMBLY FROM TABLE 720.1 ITEM 21-1.1
Referenced on Sheet: SHEET F3-2.1

15. **ROOF COVERING MATERIAL:**
ALLOWABLE: Per table 1505.1 roof covering required to be Class C
ACTUAL: Class A roof provided per ESR #1647

16. **REQUIRED PLUMBING FIXTURES - (PROVIDE CALCULATIONS FOR THE NUMBER OF WATER CLOSETS, URINALS, AND LAVATORIES FOR ALL RESTROOM) - NOT APPLICABLE TO RESIDENTIAL**

17. **SPECIAL INSPECTION(S) REQUIRED (PROVIDED TABLE SPECIFIC TO THE PROJECT)**

In addition to the standard inspections by the building official required per IBC Chapter 17, the owner shall employ one or more special inspectors who shall provide inspections during construction for the types of work listed in this section.
Types of work to be inspected by the special inspector are as follows:

A. During the taking of test specimens and placing of reinforced concrete and shotcrete. Exception: foundation concrete, other than cast-in-place drilled piles or caissons, where the structural design is based on an f'c no greater than 2,500 PSI does not require special inspection. Frequency and type of test specimens shall be per IBC Section 1905.6
B. Prior to, and during the installation of concrete around bolts.
C. During the placing of reinforcing and pre-stressing tendons for all concrete required to have special inspection noted above.
D. During all stressing and grouting of pre-stressing tendons. Exception: special inspector need not be present continuously during placing of reinforcing steel and pre-stressing tendons, provided the special inspector has inspected for conformance to the approved design drawings and specifications prior to the closing of the forms or the delivery of concrete to the job site.
E. During all epoxy anchoring operations for bolts, rebar, threaded rod, etc., including verification of bolt or bar materials, hole depth and diameter, hole cleanout, epoxy mixing and placement procedures, and embedment depth in accordance the contract drawings and the manufacturer's specifications and recommendations.
F. Periodic inspections for screw attachment, bolting, anchoring and other fastening of components of the lateral-force-resisting system, including struts, drags, braces, holdowns, shearwalls and diaphragms.
G. Certificate of approval regarding materials and inspection of prefabricated items shall be provided in accordance with IBC Section 1703 the quality assurance program.

18. **I.E.C.C. COMPLIANCE REPORTS**
See report above architectural sheet index

19. **USES ARE SEPARATED**

20. **STC/ICC RATING**
50 MIN. STC/ICC for all tenant separation conditions both floor, wall, and ceiling assemblies. Field verify min. STC/IIC rating with field testing, coordinate testing with City of Las Vegas Building Inspection supervisor prior to commencement of sound control testing.

~~CODE ANALYSIS SUMMARY~~

CODE ANALYSIS SUMMARY

STRUCTURAL DRAWINGS

S1.1	CSN and Information
S1.2	Typical Details
S2.1	Post-Tensioned Foundation Plan Bldg 100-100R
S2.2	Post-Tensioned Foundation Plan Bldg 100-200
S3.1	Framing Plans Bldg 100 100R
S3.2	Framing Plans Bldg 100 200
S4.1	Foundation Details
S5.1	Floor Framing Details
S5.2	Floor Framing Details
S6.1	Roof Framing Details
S6.2	Roof Framing Details

TOTAL STRUCTURAL DRAWINGS: 11 SHEETS

MECHANICAL DRAWINGS

M0-0.1	Mechanical Specifications and Details
M1-1.1	Unit A2 Mechanical Plan
M1-2.1	Unit B1 Mechanical Plan
M1-3.1	Unit B2 Mechanical Plan
M1-4.1	Unit C1 Mechanical Plan
M1-5.1	Unit C2 Mechanical Plan
M1-6.1	Unit C3 Mechanical Plan
M1-7.1	Unit C4 Mechanical Plan
ES1-0.1	Energy Calculations

TOTAL MECHANICAL DRAWINGS: 9 SHEETS

PLUMBING DRAWINGS

P0-0.1	Plumbing Specifications, Details, Schedules Symbol List and Sheet Index
P1-1.1	Units A2, B1 and B2 Domestic Water Plans
P1-2.1	Units C1 and C2 Domestic Water Plans
P10-1.1	Building 100 First Level Plumbing Plans
P10-1.2	Building 100 Second Level Plumbing Plans
P10-1.3	Building 100 First Level Gas Plans
P10-1.4	Building 100 Second Level Gas Plans
P20-1.1	Building 200 Plumbing Plans
P20-1.2	Building 200 Gas Plans

TOTAL PLUMBING DRAWINGS: 9 SHEETS

ELECTRICAL DRAWINGS

E0-0.1	Electrical Specifications, General Notes, Legend and Sheet Index
E0-1.1	Site Electrical Plan & Schedules
E1-1.1	Unit A2 Electrical Plan
E1-2.1	Unit B1 Electrical Plan
E1-3.1	Unit B2 Electrical Plan
E1-4.1	Unit C1 Electrical Plan
E1-5.1	Unit C2 Electrical Plan
E1-6.1	Unit C3 Electrical Plan
E1-7.1	Unit C4 Electrical Plan
E10-1.1	Bldg 100/100R Electrical Plans
E20-1.1	Bldg 200/100R Electrical Plans
E30-1.1	Bldg 100/100R/200 Single Line Diagrams and Load Calculations

TOTAL ELECTRICAL DRAWINGS: 12 SHEETS

CONSULATANT SHEET INDEX

ARCHITECTURAL DRAWINGS

DELTA 4 (plan check) 08.12.09	DELTA 3 (plan check) 07.09.09	DELTA 2 (plan check) 04.27.09	DELTA 1 (plan check) 03.26.09	Submitted Sheets 02.24.09	Sheet Number	
					CS	Cover Sheet
					A0-0.1	General Notes
					A0-0.2	General Notes
					A0-0.3	General Notes
					A0-0.4	General Notes
					A0-0.5	General Notes
					A0-0.6	General Notes
					A0-1.1	Fair Housing Compliance Guidelines
			NEW SHEET		A0-2.1	Building Code Analysis
					A0-2.2	Light & Ventilation Calculation
					A0-3.1	Site Plan
		NEW SHEET			A0-3.2	Enlarged Site Plan Building 2
		NEW SHEET			A0-3.3	Enlarged Site Plan Building 30 & Building 34
		NEW SHEET			A0-3.4	Enlarged Site Plan Building 32 & Building 36
					A1-1.1	Unit A2: Floor Plan & Option
					A1-2.1	Unit B1: Floor Plan & Option
					A1-3.1	Unit B2: Floor Plan & Option
					A1-4.1	Unit C1: Floor Plan & Option
					A1-5.1	Unit C2: Floor Plan & Option
					A1-6.1	Unit C3: Floor Plan & Option
					A1-7.1	Unit C4: Floor Plan & Option
					A2-1.1	Unit B1 & C1: Type 'B'
					A2-2.1	Unit C3: Type 'A'
					A3-1.1	Unit A2: Stair Floor Plan & Stair Section
					A3-3.1	Unit B2: Private Stair Floor Plan & Private Stair Section
					A3-3.2	Unit B2: Stair Floor Plan & Stair Section
					A3-3.3	Unit B2 @ BLDG. 36: Stair Floor Plan & Stair Section
					A3-5.1	Unit C2: Stair Floor Plan & Stair Section
					A3-7.1	Unit C4: Stair Floor Plan & Stair Section
					A10-1.1	Building 100: 1st Level & 2nd Level Composite Plan
					A10-2.1	Building 100: Roof Plan
					A10-3.1	Building 100: Sections
					A10-4.1	Building 100: Elevations
					A20-1.1	Building 200: 1st Level & 2nd Level Composite Plan
					A20-2.1	Building 200: Roof Plan
					A20-3.1	Building 200: Sections
					A20-4.1	Building 200: Elevations
					D-0.1	Accessibility Detail
					D-0.2	Accessibility Detail
					D-0.3	Accessibility Detail
					D-0.4	Accessibility Detail
					D-1.1	Architectural Detail
					D-1.2	Architectural Detail
					D-2.1	Architectural Detail
					D-2.2	Architectural Detail
					D-3.1	Architectural Detail
					D-4.1	Architectural Detail
					D-5.1	Architectural Detail
	NEW SHEET				D-5.2	Architectural Detail
					D-6.1	Architectural Detail
					F1-1.1	Wall Types, Floor Ceiling & Roof Ceiling Assembly
					F2-1.1	Assembly Connection
			NEW SHEET		F2-1.2	Assembly Connection
			NEW SHEET		F2-1.3	Assembly Connection
			NEW SHEET		F2-1.4	Assembly Connection
			NEW SHEET		F2-1.5	Assembly Connection
					F2-2.1	Fire Assembly Penetration Details
			NEW SHEET		F2-2.2	Fire Assembly Penetration Details
					F3-1.1	Wall Assembly Report
			NEW SHEET		F3-1.2	Wall Assembly Report
					F3-2.1	Floor Ceiling Assembly Report
			NEW SHEET		F3-3.1	Roof Ceiling Assembly Report
					F3-4.1	Penetration Assembly Report (WALL)
					F3-4.2	Penetration Assembly Report (WALL)
					F3-5.1	Penetration Assembly Report (FLOOR)
					F3-5.2	Penetration Assembly Report (FLOOR)
					F3-5.3	Penetration Assembly Report (FLOOR)
			NEW SHEET		F4-1.1	Sound Report
			NEW SHEET		F4-1.2	Sound Report
			NEW SHEET		F4-1.3	Sound Report

TOTAL ARCHITECTURAL DRAWINGS: 70 SHEETS

REVIEWED 9/22/09
BY
LAS VEGAS FIRE DEPARTMENT

PLANS FOR FIRE HYDRANTS, FIRE EXTINGUISHING SYSTEMS, FIRE ALARM SYSTEMS, MEDICAL GAS SYSTEMS, ON SITE FIRE WATER, AND FUEL TANKS MUST BE APPROVED BY FIRE DEPARTMENT BEFORE INSTALLATION.

PRIVATE HYDRANTS SHALL BE PAINTED RED

APPROVED FIRE HYDRANTS, FIRE DEPARTMENT ACCESS AND FIRE FLOW SHALL BE PROVIDED PRIOR TO ANY COMBUSTIBLE MATERIALS BEING BROUGHT ON SITE.

AN APPROVED AUDIBLE/VISUAL SPRINKLER FLOW ALARM SHALL BE PROVIDED ON THE EXTERIOR OF THE BUILDING IN AN APPROVED LOCATION

PROVIDE EMERGENCY LIGHTING AS REQUIRED BY THE NEVADA STATE FIRE MARSHALL REGULATIONS. SEPARATE SOURCE OF POWER REQUIRED

PORTABLE FIRE EXTINGUISHERS REQUIRED PER NFPA 10 MAXIMUM TRAVEL DISTANCE TO AN EXTINGUISHER SHALL NOT EXCEED 75 FT. EXCLUDING STAIRS.

IF GREATER THAN 2000 CFM'S PROVIDE HVAC SMOKE DETECTOR SHUT DOWN AS REQUIRED BY UMC

AUG 20 2009
CITY OF LAS VEGAS PERMITS

PROVIDE KNOX BOX

PLANS APPROVED CONSTRUCTION
Building & Safety Dept.
City of Las Vegas, Nevada
MT SEP 0 2 2009
Does Not ... Plumbing, Mechanical ... or Off-Site Improvements ... No Change Without Approval Plan is Not a Permit to Violate any Ordinance

ARCHITECTURAL SHEET INDEX

CRAIG D. SMITH REGISTERED No. 4967 8-20-09 ARCHITECT STATE OF NEVADA

RNM

RNM DESIGN
ARCHITECTURE
PLANNING
LANDSCAPE
GRAPHICS
RNMDESIGN.COM

2 CORPORATE PARK
SUITE 100
IRVINE, CALIFORNIA
92606
T 949.752.1800
F 949.833.9603

CLV

PROJECT NAME/ADDRESS

CORONADO
THE PASEOS
875 PANTARA PLACE
LAS VEGAS, NEVADA

CLIENT

SPINNAKER
HOMES
4511 W. CHEYENNE AVE. ST 105
NO. LAS VEGAS, CA 89032
702-873-7773
702-873-7776 FAX

REVISIONS

1	DELTA 1: PLAN CHECK CORRECTION
2	DELTA 2: PLAN CHECK CORRECTION
3	DELTA 3: PLAN CHECK CORRECTION
4	DELTA 4: PLAN CHECK CORRECTION

336-22-09

THESE DRAWINGS AND IMAGES ARE NOT TO BE REPRODUCED OR COPIED IN ANY FORM WITHOUT WRITTEN PERMISSION COPYRIGHT 2008 RNM DESIGN

DRAWING TITLE

COVER
SHEET

DRAWING INF

PROJ. NO: 08
FIRST SUBMITTAL DATE: (
SCALE: N/A

DRA

CS

SECTION 01.00.00 - GENERAL CONSTRUCTION REQUIREMENTS (BUILDER)

1.0 GENERAL

1.01 SCOPE

The Contractor is the person or entity identified as such in the Owner/Contractor Agreement pertaining to this project, unless the Owner is the Contractor. The Contractor shall perform all work in, around and about the project site, on or off the subject property, as indicated in the Contract Documents. The "Contract Documents" consist of the Owner/Contractor Agreement, approved drawings and architectural general notes including these General Requirements, and any approved change orders, revisions, modifications or addenda to such writings. Except as otherwise specifically stated in the Contract Documents, the Contractor shall provide and pay for materials, labor, tools, equipment, transportation, services, and any other item reasonably necessary to execute and complete the job.

The Construction Documents include only a "builder's set" of plans which are intended to set forth the requirements for the construction of the Project in sufficient detail to enable a knowledgeable and experienced General Contractor familiar with code requirements and California statutory functionality standards or similar Local requirements, with established industry practices and with projects similar to the Project to bid and to complete construction with only routine inquiries, corrections and clarifications. In general these plans delineate only the locations, dimensions, types of materials and general methods for assembling and fastening of the Project's major components; and they do not direct or require specific materials, products or details of construction except where specifically noted or required by law or by governmental authorities. Any question or uncertainty as to exactly how the plans are to be implemented must be resolved with the Owner before the work proceeds; and the Contractor assumes all risks of proceeding with unclear or insufficient direction.

The Contractor, directly or through subcontractors shall furnish all labor, equipment, and materials indicated on the plans and required by the applicable codes, and statutory functionality standards. Any addition, deletion or change in the scope of work called for by the Construction Documents shall be by written change order only. The Contractor shall procure the building official's approval for any change in the work. The intent of the plans and general notes is that all labor, materials, equipment and transportation shall be included in the work for the complete execution of the project.

Unless the Owner expressly directs or the parties mutually agree otherwise, the Contractor shall have the right and obligation to determine, and sole responsibility for, all contractor means, methods, techniques, sequences and procedures, including all safety precautions and programs in connection with the work.

Each Contractor or Subcontractor shall be required to inspect and verify that any work installed by others and relied upon or covered up by Contractor or Subcontractor was installed consistent with the requirements of these plans and specifications, the applicable legal requirements including building codes and statutory functionality standards, any manufacturer requirements, and industry standards, and was suitable for its intended purpose. The Contractor or Subcontractor shall not proceed until unsatisfactory conditions have been corrected.

The Contractor shall verify all conditions and dimensions in the field; and all questions as to dimensions and field conditions shall be resolved before the affected work proceeds. No dimensions shall be obtained by scaling these plans.

1.02 CODES AND STATUTORY FUNCTIONALITY STANDARDS

The Contractor shall perform all work in accordance with the applicable edition of the Building Code as indicated on the plans, with all other applicable governmental requirements including the functionality standards set forth in Title 7 of the California Civil Code, and with all other codes as required by the governing jurisdiction. All work shall comply with the most stringent requirements of all applicable city, county, state and general laws, rules, codes, ordinances and regulations. If the General Contractor of any Subcontractor performs any work in conflict with the above-mentioned laws, rules, codes, ordinances and regulations, then the contractor in violation shall bear all costs of repair and other losses arising out of the non-conforming work.

1.03 FEES

The Contractor shall obtain and pay for all permits, and licenses, and shall pay all income, sales and construction taxes and fees, including, but not limited to meter installation fees, required by the City, and/or County, and/or State laws or agencies, with the exception of the general building plan check fee, and required refundable deposits, which will be paid by the Owner. The Contractor shall provide necessary temporary toilet facilities as required by local law, and shall pay all fees in connection therewith.

1.04 SAFETY ORDERS

The Contractor shall retain at the work site copies, or suitable extracts of OSHA, State and Local Construction Safety Orders, and General Industrial Safety Orders, Codes and Regulations.

1.05 WAIVERS OF LIENS

The Contractor shall provide the Owner with certified conditional waiver of labor and material liens by Contractor and all subcontractors, laborers and suppliers, with each request for progress payment, the term "Subcontractor" as used herein refers to a person or entity who has a direct contract with the Contractor to perform any of the work at the site, or any agent, sub-agent, or independent contractor who has a contract with a person or entity directly contracting with the Contractor. The failure of Owner, to request or receive copies of lien waivers as provided in the paragraph shall not be deemed a waiver of this paragraph or of the Contractor's agreement to supply same.

1.06 INSURANCE

The Contractor and every Subcontractor performing work upon or providing services and/or materials for the work is required to purchase and maintain in force "All Risk" Builders Risk Insurance prior to commencement of the work and/or furnishing labor, services and materials. Each "All Risk" policy shall be in an amount sufficient to cover the replacement value of the work being performed and/or the labor, services, and materials being supplied by the Contractor, Subcontractors, Architect, and all professional Consultants.

The Owner shall cause the Contractor and every Subcontractor performing work or providing services and/or materials for the work to purchase and maintain General Liability Insurance, on an occurrence basis, in an amount not less than one million dollars and shall name the Owner and Architect as additional insureds to said policies.

1.07 DRAWINGS AND ARCHITECTURAL GENERAL NOTES

Drawings and architectural general notes are complementary and that work called out on one, but not the other, shall be provided as though set forth in both.

Drawings and architectural general notes represent the entire complementary documents and they supersede all prior negotiations, representations or agreements regarding the drawings and architectural general notes.

The project drawings and architectural general notes are intended to show and describe the work for the project as a whole. Parts and details not fully shown or described on the drawings or architectural general notes shall be detailed and executed according to standard practices. If the Contractor or any Subcontractor finds details which are unclear, unsound, unsafe or not waterproof, it is his duty to notify the Architect in writing of such fact. If work is performed as detailed, it is assumed there is no objection to the detail. No extra compensation will be allowed for differences between actual dimensions and those indicated on drawings. The Contractor will maintain at the site a full set of authorized drawings and architectural general notes. Such set will include all authorized change orders, revisions, modifications or addenda.

All architectural documents prepared by Architect pursuant to this contract are instruments of the Architect's services and are Architect's property solely for use by the Owner only on this project. Use of architectural documents on other projects will be allowed only with the written authorization from the Architect. Such authorization may be subject to an appropriate reuse fee as determined by Architect. In the event drawings, computer disks or tapes are provided by the Architect, a written disclaimer releasing Architect from any liability for its use or translation shall be considered provided by the Owner as part of this Agreement.

If the Owner and/or Contractor makes or causes to be made any alteration or change of any kind in the drawings or other documents provided under this agreement, or shall deviate in any way from the drawings or other documents in the construction of the project without the prior written approval of Architect, the Owner and/or Contractor will be solely responsible for any and all damage, liability and consequence resulting therefrom. The Owner and/or Contractor agrees to defend, indemnify and hold harmless Architect and its agents, employees, architects, and consultants from and against all claims, damages, losses and expenses including, but not limited to attorney's fees arising out of or related directly or indirectly to any alteration, change, amendment, addition to such documents or deviation from such documents during construction.

1.08 FIGURED DIMENSIONS

The Contractor shall check accuracy of all dimensions in the field prior to commencement of work or fabrication of materials or products ordered for the project. The Contractor shall follow the architectural general notes and any written notes and schedules on drawings in preference to information furnished in the form of line drawings. Detailed drawings furnished during construction, or accepted by the Contractor or Architect, are to be considered explanatory rather than authorized changes to the drawings and architectural general notes. Notes, figures and details on such detailed drawings shall be followed by the Contractor and executed by him as part of the architectural general notes.

SECTION 01.00.00 1.0 THRU 1.08

1.09 SUBCONTRACTORS

Division of these architectural general notes into trade headings generally conforms to CSI "Manual of Practice." They are for convenience only. The Architect is not bound to define the limits of any subcontract.

If Design/Build Contractors or subcontractors are to be retained directly by the Owner or Contractor for specified portions of the design and construction of the Project, each Design/Build Contractor or subcontractor shall be responsible for (1) preparing engineering and other drawings and specifications for all components of its Design/Build contract, (2) complying with the Project requirements and space limitations, (3) coordinating and interfacing with other trades and consultants, and (4) obtaining approvals from authorities having jurisdiction over the Project. The Design/Build contractor or subcontractor shall be the Professional of Record for its portion of the work, responsible directly to the Owner. Design/Build system designs shall be reviewed by the Architect only for conformance to the aesthetic aspects of the architectural design and major space limitations. The Architect does not assume responsibility for the design, installation or performance of these systems. Review by the Architect of more than one Design/Build proposals for a Design/Build trade shall be compensated as Additional Services.

1.10 CONSTRUCTION DOCUMENTS ERRORS OR OMISSIONS

The Contractor shall require his Subcontractors to notify the Contractor in writing if any errors or omissions appear in the drawings, architectural general notes or other Contract Documents.

The Contractor, in his contracts with Subcontractors shall provide that if a Subcontractor fails to give written notification of errors or omissions before construction, or fabrication of work, the Subcontractor will have waived such errors or omissions, and the costs of rectifying them. Omissions from the drawings or architectural general notes of the description of details of work which are necessary to carry out the intent of the drawings and architectural general notes or are customarily performed, shall not relieve the contractor from performing such omitted or misdescribed details of the work, but they shall be performed as if fully and correctly set forth and described in the drawings and architectural general notes.

If the Contractor observes or otherwise becomes aware of any fault or defect in the project or nonconformance with the drawings and/or architectural general notes, prompt written notice thereof shall be given to the Owner within ten (10) days of its discovery or any claims arising thereto shall be deemed waived as to the Owner and the Architect.

1.11 CLAIMS FOR EXTRA COSTS

If the Contractor contends that instructions from the Architect or Owner involve extra cost under the Contract between Owner and Contractor, the Contractor shall give written notice of such contention within a reasonable time after receiving such instructions, not to exceed five days, and shall give an estimate in writing of the extra costs involved in such change before commencing the work. The Contractor, before executing the work concerning such instructions shall not proceed, except in case of emergency endangering life or property, without a written change order signed by Owner or the Architect. Without such a change order signed by Owner or the Architect, the Contractor shall have no valid claim for extra work performed pursuant to instructions from the Architect.

PART 2 - PRODUCTS

2.01 MANUFACTURE

The Contractor shall provide only new equipment and products for each class of equipment and product type specified and such equipment and products shall be produced by only one manufacturer, unless indicated otherwise on the drawings. All manufacturers providing equipment or products for this project shall have produced the specified items for a minimum period of five years and have been in commercial or consumer use for a continuous period of four years. All substitutions shall be approved by owner and architect, and shall be "or equal substitutions."

2.02 ACOUSTICAL REQUIREMENTS

All acoustical work shall conform to the requirements of the report prepared by the project acoustical engineer. Such report and any drawings incident thereto, may be obtained from Owner. The acoustical engineer's report includes, but is not limited to the following subjects: carpet, resilient flooring, glazing, gypsum wallboard and lightweight concrete floor fill. Acoustical report criteria shall take precedence over materials contained in the project drawings or architectural general notes. Floor ceiling assemblies and wall assemblies which are required to meet acoustical standards per code shall be tested or listed in assemblies which meet such standards. Assemblies shall exceed minimum code standards by 20%, e.g. assemblies required to meet standards of a 50 stc shall be listed or tested to a minimum of 60 stc.

2.03 FIRE ASSEMBLY REQUIREMENTS

Materials and products used within Fire Rated assemblies as described by the construction documents shall be specifically listed and tested with the referenced fire assembly. Where no reference is listed Underwriter's Laboratory standards for fire resistive assemblies shall be used. Substitutions within assemblies shall only occur where specifically permitted by the testing agency. Where specific brand name products are listed in said assembly, only those brand name products may be used, unless specifically allowed by the testing agency.

2.04 OTHER MATERIALS

All other materials not specifically described in the Contract Documents, but required for a complete and proper installation of the work under this Part 2, Products shall be new, and of first quality.

2.05 WORK NOT INCLUDED IN CONTRACT

Items marked as "N.I.C", on the drawings or architectural general notes identify items that have been separately contracted for or arranged for by the Owner. Items not specifically referred to within the architectural scope of services shall not be included within these construction documents and general notes. Architect shall not be responsible for coordination of utility services. The following list of items are separately contracted for by Owner, this list is not comprehensive and may be superceded by other contractual agreements between the owner and the builder:

A. Telephone instruments and equipment, except for conduits and pole wires therefore.
B. Site grading, asphalt paving, Portland cement, cement driveway aprons, storm drainage.
C. Underground water, gas, sewer and electric lines more than five feet from project buildings.
D. Landscaping.
E. Irrigation System.
D. Distribution of mechanical, plumbing, electrical and fire sprinkler systems designed and installed by sub-contractors.

2.06 CONTRACTOR'S SUBMITTALS

A. Make all submittals including revisions and resubmittals required by Contract Documents, as listed, but not necessarily limited to shop drawings, product data, certificates of compliance, samples and work ups required by pertinent other sections of these architectural general notes.

B. Shop drawings shall be presented in a clear, thorough manner, with details identified by reference to sheet and detail, and schedule or room number shown on the Contract Documents. Shop drawings shall have a minimum sheet size of 24" x 36". The architect shall not review Truss calculations, Structural Calculations, Soils Reports, Title Reports, or other items not listed within the architectural scope of services. Shop drawings which are reviewed shall be done so only for compliance to the architectural construction documents. Such reviews shall not include review as to the numbers or location of materials.

C. Product and Equipment Data:

1. All copies of product or equipment data submitted for review, shall be clearly marked to identify pertinent products, work-ups or models and shall show performance characteristics, capacities, dimensions, required clearances, wiring diagrams, piping diagrams and controls, and etc.

2. The Contractor shall modify the manufacturers' standard schematic drawing diagrams or shop drawings to delete information not applicable to the work, and further that if necessary, he shall supplement standard information on such schematic drawings, diagrams and shop drawings to provide information specifically applicable to the work.

D. Samples and Mock Ups:

1. The Contractor shall provide office samples of sufficient size and quality to clearly illustrate functional characteristics of products or equipment, with integrally related parts and attachment devices, along with a full range of colors, textures, and patterns of samples for selection by the Architect.

2. The Contractor, if required by the Contract Documents, shall erect, at the project site, mock-ups or field samples of the size specified in the architectural general notes at a location selected by the Owner. Field sample and mock-up shall be fabricated in a complete and finished manner, and shall be maintained for review during construction, and Contractor removal upon completion of the work or when the Owner otherwise directs.

SECTION 01.00.00 1.09 THRU 2.06 D

E. Contractor's Additional Responsibilities

1. Review all shop drawings, product data, samples and mock-ups prior to submission.

2. Determine and verify field measurements, field dimensions, field construction criteria, catalog numbers and other similar data to insure such measurements, criteria, numbers and data conform with the drawings or architectural general notes.

3. Coordinate each submittal with requirements of the work and the Contract Documents.

4. Notify the Owner in writing of any modifications or deviations in the submittals from requirements of the Contract Documents at the time shop drawings, product data, samples and mock-ups are submitted to the Owner.

F. Submission Requirements

1. Make all submittals promptly in accordance with the accepted schedules, and in a manner which will cause no delay in the Work.

2. Provide no less than five copies of each submittal while retaining no less than one copy at the construction site.

3. All submittals shall contain at least the following information:

a. The date of submission and dates of any previous submission.

b. The project title and number.

c. The contract identification.

d. The names of the Contractor, the Subcontractors, the supplier and manufacturer.

e. The identification of the product or piece of equipment, with specification section number.

f. The field dimensions, clearly identified as such.

g. The relationship of the submittal to adjacent or critical features of the work or materials to show the interrelationship of said items.

h. Applicable standards such as ASTM, ANSI, Trade Standard of Federal Specification number for each item.

i. The identification of any modifications or deviations from the Contract Documents.

j. The identification of revisions on reshipments.

k. An 8" x 3" blank space for the Contractor's stamp.

l. The Contractor's stamp, initialed or signed certifying (a) the Contractor's review of submittals, (b) his verification of products or equipment, field measurements, and field construction criteria and (c) coordination of the information within the submittal with the requirements of the work and the Contract Documents.

m. No substitutions shall be made without the Owner's written authorization. Any substitution shall be made in advance to avoid any delay in the project schedule. The Contractor and Subcontractor shall not make structural changes without prior written authorization from the structural engineer.

G. Resubmission Requirements.

1. Promptly make any corrections or changes required in the submittals and resubmit.

H. Distribution

Distribute approved reproductions of shop drawings and other copies of product or equipment data to the following:

1. Job site file
2. Record Document file.
3. Applicable Subcontractors.
4. Suppliers or Fabricators.
5. Any other Subcontractors whose work is affected by such reproductions or copies of data.

2.07 CONTRACTOR'S RESPONSIBILITY TO ORDER MATERIALS AND EQUIPMENT

As soon as any color, type of material, equipment, product, fixture or appliance is specifically identified or specified in the Contract Documents, such color, material type, equipment, fixture or appliance shall be ordered by the Contractor immediately to avoid any delay in completion of the project. No substitution will be considered by the Owner or Architect resulting from the Contractor's failure to coordinate the work or comply with the above required procedure.

PART 3 - EXECUTION

3.01 PREPARATION

A. Survey Requirements

The Contractor agrees to provide a Registered Surveyor or Civil Engineer to verify all survey lines and elevations as indicated on the drawings. The Contractor further agrees to make actual conditions conform to the drawings without additional cost to the Owner.

B. Job Conditions

In the event the Contractor/Owner or Architect is or becomes aware of the presence of, or exposure of persons to asbestos, polychlorinated biphenyl (PCB) or any other toxic or water pollutants at the site ("Hazardous Substances"), or the substantial risk thereof, each shall have a duty to immediately notify the other in writing. Upon such knowledge or notice, the Owner shall promptly retain a qualified consultant to investigate, test and determine the presence of such Hazardous Substances and, if such Hazardous Substances are found at the site to an unacceptable degree, to provide services that may include, among other things, recommendations as to the removal, encapsulation, or other appropriate handling of such Hazardous Substances to undertake the consultant's recommendations.

The Owner acknowledges that the Architect is unable to reasonably obtain professional liability (errors and omissions) or other insurance for claims arising out of the performance of failure to perform professional services, including but not limited to, the preparation of reports, designs, drawings and specifications or testing related to the investigation, detection, abatement, replacement, discharge or removal of products, materials or processes containing Hazardous Substances ("Hazardous Substances Services"). Accordingly, the Architect shall not provide such services. The Owner hereby agrees to bring no claim for negligence, breach of contract, indemnity or other cause of action against the Architect, if such a claim in any way arises out of Hazardous substances or Hazardous Substances Services.

The Owner hereby acknowledges that standards for maximum acceptable levels of indoor or outdoor pollutant or contaminants may not yet have been established and/or recognized, and that sufficient ongoing ventilation and maintenance by the Owner must be provided to reduce the risk of injury to persons or property from such.

The Owner agrees to indemnify, defend and hold the Architect harmless from and against any and all claims, suits, demands, losses and expenses, including reasonable attorneys' fees, accruing to or resulting from any and all persons, firms or any other legal entity, on account of any damage or loss to property or persons, including death, arising out of Hazardous Substances or Hazardous Substances Services, except where the Architect is found to be solely liable for such damages or losses by a court or forum of competent jurisdiction.

The Contractor and Subcontractors shall be responsible for storing the materials on the site. The materials shall be kept secure and protected from moisture, pests, and vandals. Any loss arising out of materials stored at the site shall be the responsibility of the Contractor or Subcontractor who stored the damages or lost materials.

C. Service Lines

1. The Contractor shall remove or relocate the following items which interfere with construction work: drainage, sewer, water, gas, or other utility service lines, as well as other piping or conduit.

2. The Contractor shall cap or plug and make tight at the appropriate line, services which are to be removed or relocated.

3. No action shall be taken under Section 3.01C without notification to, and authorization from the utility, or other interested party whose lines, piping or conduit interfere with construction work.

SECTION 01.00.00 2.06 E THRU 3.01 C

3.02 INSTALLATION

A. Building Code or Other Requirements

The installation of all work shall be in accordance with current Code and statutory functionality standards requirements, the architectural general notes, accepted shop drawings, the project drawings, or manufacturer's installation or application instructions.

The Contractor and all Subcontractors shall be familiar with the following documents:

1. Soils report
2. Energy compliance report
3. Structural calculations
4. Acoustical report

The Contractor shall keep a copy of the above documents on the site at all times.

B. Supervision of the Work

The Contractor shall provide inspection and supervision of the work through completion.

The Contractor shall be responsible for coordinating the work between the different Subcontractors and requiring all Subcontractors to use the most current building department approved set of construction documents. The Contractor shall arrange a pre-construction meeting to review omissions and discrepancies sufficiently in advance of construction to assure the orderly progress of the project prior to the performance of any work. All parties using these construction documents are responsible for reviewing the full content of these drawings for omissions and discrepancies prior to the start of construction.

1. Inspection

a. Prior to each phase of work, the Contractor shall carefully inspect his installed work and that of Subcontractors, and verify that all such work is complete to the point where further installation may properly commence.

b. The Contractor shall verify that this work may be installed in accordance with all pertinent codes and regulations, the original design and the referenced standards.

2. Discrepancies

a. The Contractor shall upon the discovery of any and all discrepancies, immediately notify the Architect.

b. The Contractor shall not proceed with installation in areas of discrepancy until such discrepancies have been fully corrected.

C. Qualifications of Installers

1. The Contractor shall employ only skilled and experienced installers.

2. All helpers or apprentices used for this project shall, at all times, be under full and constant supervision by thoroughly skilled installers.

3. In determining acceptance or rejection of installed work, no allowance will be made for lack of skill on the part of the installer.

D. Coordination of the Work

The Contractor shall be responsible for coordinating all work, including that of the Subcontractors and all subtrades. The Contractor shall bind each and every Subcontractor by the terms of the Contract between the Owner and Contractor insofar as such terms apply to each such Subcontractor's work.

The Owner shall be responsible for on-site inspections or observations to check the quality or quantity of contractor's work or for contractor's compliance with the plans or architectural general notes. The Owner shall be responsible for and have control over construction means, methods, techniques, sequences, procedures, safety precautions and programs in connection with the work. The Owner shall be responsible for, and control or charge over, any acts or omissions of the Contractor, Subcontractors or any of their agents or employees, other design professionals, or any other persons performing any work at the site

E. Manufacturer's Recommendations

The manufacturer's recommended methods of installation shall be the basis for acceptance or rejection of actual installation used in this work.

The architectural general notes refer to various professional trade association manuals and publications. The Contractor and Subcontractors shall be familiar with and refer to the trade publications relating to their work.

F. Other Standards

1. In addition to complying with pertinent codes and regulations, the Contractor shall comply with pertinent recommendations contained in applicable trade association standards and architectural general notes for the work.

2. Where provisions of pertinent codes and standards conflict with the project drawings or architectural general notes, the more stringent provisions shall govern.

G. Manufacturer's Recommendations

Except as otherwise indicated on the drawings, the Contractor shall apply, install, connect, erect, use, clean and condition manufactured articles, materials, products and equipment in accordance with the manufacturer's current printed recommendations. The Contractor shall maintain one copy of any such printed recommendations and shall forward two copies of such recommendations to the Architect and Owner.

H. Cleaning and Maintenance

1. General

The project shall be maintained in accordance with General Industrial Safety Regulations, and OSHA Regulations.

2. Materials

The Contractor shall use only cleaning materials which are recommended by the Manufacturer of the surface to be cleaned, and to use such cleaning materials only in accordance with the recommendations of manufacturers of such cleaning materials.

3. Cleaning During Construction

The Contractor shall effect cleaning in order to insure that buildings, grounds, and public properties are maintained free from accumulations of waste materials and rubbish. The Contractor shall wet down dry materials and rubbish to allay dust and prevent blowing dust.

4. Safety Containers

The Contractor shall provide on the site an adequate number of 10 to 20 cubic yard safety containers for collection of waste material, debris and rubbish. The Contractor shall remove waste materials, debris and rubbish from the site and legally dispose of such materials at public or private dumping areas off Owner's property.

5. General Cleaning Guidelines

The Contractor shall vacuum clean all interior building areas when they are ready to receive finish painting, and to continue vacuuming on an as needed basis until buildings are ready for occupancy. All construction waste materials shall be handled in a fashion so as not to drop or throw them from heights, and to schedule cleaning operations so that dust and other contaminants arising from the cleaning process will not fall on wet, newly painted surfaces.

RECEIVED
JUN 05 2009
CITY OF LAS VEGAS

SECTION 01.00.00 3.01 D THRU 3.02 H

CRAIG D. SMITH
CERTIFICATE
No. 4967
6-2-09
ARCHITECT
STATE OF NEVADA

RNM

RNM DESIGN
ARCHITECTURE
PLANNING
LANDSCAPE
GRAPHICS
RNMDESIGN.COM

2 CORPORATE PARK
SUITE 100
IRVINE, CALIFORNIA
92606
T 949.752.1800
F 949.833.9603

PROJECT NAME/ADDRESS

CORONADO THE PASEOS
875 PANTARA PLACE
LAS VEGAS, NEVADA

CLIENT

SPINNAKER HOMES
4511 W. CHEYENNE AVE. ST 105
NO. LAS VEGAS, CA 89032
702-873-7773
702-873-7776 FAX

REVISIONS

THESE DRAWINGS AND IMAGES ARE NOT TO BE REPRODUCED OR COPIED IN ANY FORM WITHOUT WRITTEN PERMISSION. COPYRIGHT 2008 RNM DESIGN

DRAWING TITLE

GENERAL NOTE

DRAWING INFORMATION

PROJ. NO: 08041
FIRST SUBMITTAL DATE: 02.24.2009
SCALE:

DRAWING NUMBER

A0-0.1

DELTA 2 - PLAN CHECK CORRECTION
05.27.09

SECTION 01.00.00 3.02H CONTINUED

6. Final Cleaning

The Contractor shall employ experienced or professional cleaning personnel for the final cleaning of the site, which shall include, but not necessarily limited to:

a. In preparation for occupancy, the Contractor shall conduct a final inspection of visible interior and exterior surfaces as well as concealed spaces.

b. Remove all grease, dust, stains, labels, fingerprints and other foreign materials from visible interior and exterior finish surfaces, and shall, as designated by Owner, polish surfaces to a shine finish.

c. Repair, patch and touch-up marred surfaces to the specified finish and to match adjacent surfaces.

d. Broom clean all paved surfaces and rake clean other surfaces on the site.

e. Replace air conditioning or heater filters if such filters were operated during the construction.

f. Clean ducts, blowers and coils, if air conditioning units were operated without filters during the construction.

g. Maintain a cleaning staff until the project, or a portion thereof, is occupied by Home Owner, or Owner's designees.

I. Warranty.

1. The Contractor shall replace or remedy any faulty, improper, or inferior materials or workmanship, or any damage to the work resulting therefrom, without cost to Owner, so long as such defects or damage appear within one year of completion and acceptance of the work under the Owner and Contractor agreement. The Contractor shall not be responsible for replacement or remedial action for problems resulting from ordinary wear and tear.

2. State or Federal Law shall, however, govern the length and type of warranties if such laws are more stringent in duration or type than that set forth in Part 3.02I of this contract.

3. Contractor shall require the roofing Subcontractor to furnish a maintenance agreement co-signed by the Contractor to maintain the roofing in a water tight condition for two years commencing after the first local rainfall following acceptance by Owner of not less than 1.0" in 24 hours, or alternatively if on completion of any built-up roofing all roof drains and overflows are sealed and water to a depth of 2.0" is maintained for 24 hours on the built-up roofs without damage to such roofs or leakage within the underlying structures.

4. The Contractor shall require each Subcontractor (the roofing Subcontractor included) to provide a written warranty stating that work executed by each such Subcontractor is free, and will remain free from defects in material and workmanship for one year from the date of acceptance of his work by Owner, and that he will repair and replace (within a reasonable time after receiving notification) such defective work without cost to Owner. Such written warranty from each Subcontractor is not intended to, nor shall it; preclude Owner from pursuing other legal remedies available to him under State or Federal laws.

5. The Contractor is aware that he is responsible for providing materials and construction whose quality, value and serviceability will exceed the specified minimum warranties and warranty periods for Subcontractors stated in Part 3.02 I of this section. The exposed materials used in the construction of this project will deteriorate as the completed project ages unless properly and routinely maintained. Owner shall provide or cause the development of a comprehensive maintenance manual which shall be given to each homeowner which specifically describes required periodic inspection, maintenance, repair and replacement of building and surrounding components. Special attention shall be given to landscaping, landscape irrigation, site drainage, building water run-off control, major structural components, waterproof walking surfaces and exposed wood and metal. Adequate funds shall be allocated by those responsible for such maintenance to insure required maintenance is performed in a timely manner.

3.03 WRITINGS PROVIDED BY CONTRACTOR TO OWNER

A. Subcontractor List

Upon execution of the Owner/Contractor agreement, the Contractor shall provide Owner with a complete list of the names, addresses and telephone numbers of all Subcontractors, suppliers, fabricators, and manufacturers engaged in the execution of this project.

B. Maintenance Manuals

The Contractor shall deliver to Homeowner all available operation and maintenance manuals for equipment and products used in the subject work. The Contractor agrees to provide a hard cover three-ring binder for each manual provided.

C. Manufacturer's Warranties

The Contractor shall deliver to Owner any and all manufacturer's warranties for equipment and products used in the subject work

END OF SECTION

SECTION 02.30.00 - Subsurface Investigation

PART 1 GENERAL

1.01 SCOPE

A soil investigation report has been prepared by:
(***Enter Soils Engineer Name and Address Here)
hereafter referred to as Soils Engineer.

This report was obtained for the Developer's use in design and is a part of the Contract Documents. The report and log of borings is available for Owner's information but is not a warrant of subsurface conditions and will not relieve the Owner from the risk of unanticipated soil or subsurface conditions.

1.02 ADDITIONAL INFORMATION

The Bidder should visit the site and acquaint himself with existing conditions. Prior to bidding, Bidders may make their own subsurface investigations to satisfy themselves as to site and subsurface conditions but such subsurface investigations shall be performed only under time schedules and arrangements accepted in advance by the Soils Engineer.

1.03 QUALITY ASSURANCE

An Engineer has been retained by the Developer to observe performance of all earthwork in connection with excavating, filling, and grading. Work performed that does not meet technical or design requirements shall be corrected by the Developer. No deviations from the Contract Documents without specific and written acceptance of the Engineer shall be accepted.

END OF SECTION

SECTION 03.54.13 - GYPSUM CEMENT UNDERLAYMENT

PART 1 GENERAL

1.01 SUMMARY

A. This is the recommended specification for Gyp Crete 2000/3.2K Floor Underlayment over Acousti-Mat II sound deadening pad in hard surface areas in multifamily housing.

1.02 SECTION INCLUDES

A. Gyp Crete 2000/3.2K gypsum cement
B. Acousti-Mat II
C. Maxxon Floor Primer
D. Maxxon Overspray

1.03 QUALITY ASSURANCE

A. Gyp-Crete 2000/3.2K Installer's Qualifications: Installation of Gyp-Crete 2000/3.2K shall be by an applicator authorized by the Maxxon Corporation using Maxxon approved mixing and pumping equipment.

B. Acousti-Mat II Installer's Qualifications: Installation of Acousti-Mat II shall be by an applicator authorized by the Maxxon Corporation.

1.04 DELIVERY, STORAGE AND HANDLING

A. General Requirements: Materials shall be delivered in their original, unopened packages, and protected from exposure to the elements. Damaged or deteriorated materials shall be removed from the premises.

1.05 SITE CONDITIONS

A. Environmental Requirements: Before, during and after installation of Gyp Crete 2000/3.2K and Acousti-Mat II, building interior shall be enclosed and maintained at a temperature above 50 degrees F (10 degrees C).

PART 2 PRODUCTS

2.01 MATERIALS

A. Gypsum Cement: Floor Underlayment Gyp-Crete 2000/3.2K gypsum cement as manufactured by the Maxxon Corporation, Hamel, MN. All others must receive prior approval.

B. Sound Deadening Pad: Acousti-Mat II as manufactured by the Maxxon Corporation, Hamel, MN.

C. Sand Aggregate: Sand shall be 1/8 inch (3 mm) or less, washed masonry or plaster sand, meeting requirements of Maxxon Corporation Sand Specifications 101.

D. Mix Water: Potable, free from impurities

E. Subfloor Primer: Maxxon Floor Primer

F. Sealer: Maxxon Overspray

2.02 MIX DESIGNS

A. General Requirements: Mix proportions and methods shall be in strict accordance with product manufacturer recommendations.

PART 3 EXECUTION

3.01 PREPARATION

A. Condition and Cleaning of Subfloor: Subfloor shall be structurally sound. General Contractor shall clean subfloor to remove mud, oil, grease, and other contaminating factors before the arrival of the Gyp-Crete 2000/3.2K crew.

B. Leak Prevention: Fill cracks and voids with a quick setting patching or caulking material where leakage of Gyp-Crete 2000/3.2K could occur.

C. Expansion Joints: Allow joints to continue through the Gyp-Crete 2000/3.2K at the same width.

D. Transition Areas: The general contractor shall install bulk heads in all the areas where the Acousti-Mat II system stops and meets the carpet and pad areas. The height of the bulk head will depend on the total thickness of the Gyp-Crete 2000/3.2K and Acousti-Mat II. The typical height of the bulk heads will be 1 ¼" (31 mm).

3.02 APPLICATION OF ACOUSTI-MAT II

A. Acousti-Mat II Installations: Install Acousti-Mat II following manufacturers recommendations and specifications.

3.03 APPLICATION OF CEMENTITIOUS FLOORING

A. Scheduling: Application of Gyp-Crete 2000/3.2K shall not begin until the building is enclosed, including roof, windows, doors and other fenestration. Install after drywall installation unless tenant finish requirements identify partitioning after the pour. If Acousti-Mat II is to be installed before drywall, then 3.4 lb. sq. yd. galvanized metal lath must be loose laid over the entire Acousti-Mat II surface. Schedule the Acousti-Mat II sound control system as late as possible in the construction cycle.

B. Priming Acousti-Mat II: Prime Acousti-Mat II using the Maxxon Floor Primer to bond the Gyp Crete 2000/3.2K to the pad..

C. Application: Place Gyp-Crete 2000/3.2K a minimum 1 inch (25 mm) thick over Acousti-Mat II. Place Gyp Crete 2000/3.2K at ¾" (19 mm) over the subfloor in all carpet and pad areas. Spread and screed Gyp-Crete 2000/3.2K to a smooth surface.

D. Drying: General Contractor shall provide continuous ventilation and adequate heat to rapidly remove moisture from the area until the Gyp-Crete 2000/3.2K is dry. General Contractor shall provide mechanical ventilation if necessary. Under the above conditions, for 1 inch thick Gyp-Crete 2000/3.2K, 7-10 days is usually adequate drying time. To test for dryness, tape a 24 inch by 24 inch (609 mm by 609 mm) section of plastic or a high density rubber mat to the surface of the underlayment. After 48-72 hours, if no condensation occurs, the underlayment shall be considered dry. Perform dryness test 5-7 days after pour.

3.04 PREPARATION FOR INSTALLATION OF GLUE DOWN FLOOR GOODS

A. Sealing: Seal all areas that receive glue down floor goods with Maxxon Overspray according to the Maxxon Corporation's specifications. Any floor areas where the surface has been damaged shall be cleaned and sealed regardless of floor covering to be used. Where floor goods manufacturers require special adhesive or installation systems, their requirements supersede these recommendations.

B. Floor Goods Procedures: See the Maxxon Corporation's "Procedures for Attaching Finished Floor Goods to Maxxon Underlayments" brochure for guidelines for installing finished floor goods. This procedure is not a warranty and is to be used as a guideline only.

3.05 FIELD QUALITY CONTROL

A. Slump Test: Gyp-Crete 2000/3.2K mix shall be tested for slump as it's being pumped using a 2 inch by 4 inch (50 mm by 101 mm) cylinder resulting in a patty size of 8 inches (203 mm) plus or minus 1 inch (25 mm) diameter.

B. Field Samples: At least one set of 3 molded cube samples shall be taken from each day's pour during the Gyp-Crete 2000/3.2K application. Cubes shall be tested as recommended by the Maxxon Corporation in accordance with modified ASTM C 472. Test results shall be available to architect and/or contractor upon request from applicator.

3.06 PROTECTION

A. Protection From Heavy Loads: During construction, place temporary wood planking over Gyp-Crete 2000/3.2K wherever it will be subject to heavy wheeled or concentrated loads.

SECTION 04.22.00 CONCRETE UNIT MASONRY

PART 1 GENERAL

1.01 SUMMARY

A. Provide materials, labor and equipment necessary for the completion of concrete masonry work as indicated on the drawings and specified herein.

1.02 RELATED WORK SPECIFIED ELSEWHERE

A. Section 07180- Water Repellents
B. Section 08100- Metal Door Frames
C. Section 09200- Plaster
D. Section 09250-Gypsum Wallboard

1.03 CODES AND STANDARDS

A. Perform work with materials complying with ASTM, UBC and NCMA specifications.

1.04 INSPECTION

A. Conform with the requirements of Section 01401- Testing and Inspections.

1.05 SUBMITTAL

A. Submittal procedures and quantities are specified in Section 01300-Submittal.

B. Submit copies of manufacturer's product information and installation instructions for each item and accessory.

C. Submit samples of exposed masonry units, indicating special shapes, textures and colors.

D. Expansion Joint and Control Joint Materials: Provide samples and Catalogue data.

1.06 JOB CONDITIONS

Do not lay masonry when the ambient temperature is below 40 degrees F. or when it is likely that the ambient temperature will fall below 40 degrees F. during, or within 24-hours after masonry laying operations.

1.07 QUALITY ASSURANCE

A. Subcontractor Qualifications: Only skilled, first class masons shall be employed for masonry work. The Masonry Subcontractor shall have a minimum of six (6) years experience in masonry work of the type indicated for this project.

B. Coordination with other Trades: Coordinate masonry work with other trades that interface with the masonry work or that require penetration Through or attachment to masonry.

PART 2 PRODUCTS

2.01 CONCRETE UNIT MASONRY

A. Load bearing smooth face (light, medium, normal) weight concrete masonry units shall comply with ASTM C 90-96, UBC 21-4 (Type I or Type II). Provide required shapes such as corner, end units, radius bases, bond beams, lintels, etc. Provide units open one or both ends, as required. Maximum linear shrinkage shall be .065% from standard oven dry condition. Concrete masonry units shall have a minimum net compressive strength of 1900 psi.

B. Masonry units shall be manufactured by Orco Block Company, Inc., or approved equal by Architect. Provide the following types of concrete masonry units:

1. Precision block

2.02 MORTAR AND GROUT COMPONENTS

A. Cement: Cement shall be portland cement conforming to ASTM C-150, Type I, II, III (UBC 19-1).

B. Aggregates: Aggregates for mortar conform to ASTM C-144. Aggregates for grout conform to ASTM C-404.

C. Lime: Hydrated lime shall conform to ASTM C-51 (UBC 21-13).

D. Water: Clean and free from deleterious substances.

E. Sand: Comply with the "Standard Specifications for Aggregate for Masonry Mortar", ASTM C-144, except provide natural sand graded From coarse to fine within the following limits:
Passing No. 4 sieve 100%
Passing No. 8 sieve 95% to 100%
Passing No. 16 sieve 70% to 100%
Passing No. 30 sieve 40% to 75%
Passing No. 50 sieve 10% to 35%
Passing No. 100 sieve 3% to 15%

F. Pea Gravel: Graded with 100% passing the 3/8" sieve and not more than 5% passing the No. 8 sieve.

G. Package Materials to be delivered and stored in original packages until ready for use. Store cement, lime and aggregates in a manner which prevents deterioration or contamination.

H. Do not use material which is caked, lumpy, partially set or otherwise deteriorated.

2.03 MORTAR AND GROUT MIXES

A. Mortar (ASTM C-270, UBC 21-15):

1. Type S Mortar: 1 part portland cement; 1/4 to ½ part lime putty or hydrated lime; 2 1/4 to 3 times to sum of the volume of the cement and lime used. (Average compressive strength at 28 at days shall be 1800 psi.)

B. Grout (ASTM C476, UBC 21-19): 1 part portland cement: 2 1/4 to 3 damp loose sand; 1 to 2 parts course aggregate.

1. Sufficient water shall be added to make a workable mix that will flow into joints of masonry without separation or segregation. When grout is to be placed in masonry units with typical rates of absorption the slump of the grout should be approximately 8 to 10 inches depending on temperature and humidity conditions.

2.04 REINFORCING STEEL

A. Reinforcing bars shall comply with ASTM A615, Grade 60, except that Number 4 and smaller bars shall be Grade 40.

PART 3 EXECUTION

3.01 GENERAL WORKMANSHIP

A. Lay block in running bond with mortar for bed joints flattened, furrowing of bed joint mortar will not be permitted. Head joints solidly filled with mortar for a distance in from the face of the wall or unit not less than the thickness of the longitudinal face shell. Shove blocks into place to compact the head joint mortar and improve the bed joint. Vertical cells shall have vertical alignment sufficient to maintain a clear, unobstructed continuous vertical cells for grouting. Remove overhanging mortar and debris from cells before grouting. Install hollow metal frames as indicated.

B. Accurately place reinforcing steel as shown on the drawings, positively secured and supported in such a manner that no movement occurs when the grout is poured. Reinforcing and tie wires shall be embedded in the grout. The thickness of the grout between masonry units and reinforcing shall be a minimum of one bar diameter.

C. Damp cure masonry work for a period of not less than 7 days after the work is completed. Make visions for curing on Saturdays, Sundays and Holidays.

D. Replace defective blocks and blocks cut when cylinder is removed with new masonry which matches the existing.

3.02 JOINTS

A. Exposed vertical and horizontal joints shall be solidly filled as the work progresses. After joints are thumb print firm, they shall be tooled to a tight, smooth concave surface with an approved tool. Joint width shall be 3/8" inch, 1/2" for slump block.

B. Control of expansion joint shall be continuous through the mortar and masonry, at a maximum of 40' 0", unless shown otherwise. Horizontal reinforcement, except at roof or floor diaphragm, shall be continuous through the control joint.

3.03 CURING

A. Top of grout pour should be kept damp to prevent too rapid drying during hot or drying weather and drying winds.

3.04 CLEANING

A. Immediately after the wall has been fully grouted, the scum and stains which have percolated through the blocks and joints shall be hosed off with low pressure water through a jet nozzle.

B. Keep area clean and neat. After completion of grouting, clean up and remove resultant debris from the site.

END OF SECTION

SECTION 05.50.00 METAL FABRICATIONS

PART 1 - GENERAL

1.01 WORK INCLUDED

A. Provide stock and custom fabricated metal items Scheduled at end of this Section, complete in respect to function as intended.

B. Metal fabrications includes items made from iron and steel shapes, plates, bars, strips, tubes, pipes, castings, perforated plate which are not a part of structural steel or metal systems specified elsewhere.

1.03 QUALITY ASSURANCE

A. Field Measurements: Take field measurements prior to preparation of shop drawings and fabrication, where possible; do not delay job progress; allow for trimming and fitting where necessary.

B. Railings: Design railings to support minimum lateral force of 50 lbs./lin. ft. uniform load and minimum 200 lbs. at any single point without permanent set or damage; ASTM E935.

1. Top Rails: Design to support minimum 300 lb. concentrated single point load applied at any point vertically or horizontally.

2. Access for Persons with Disabilities: Comply with ANSI A117 (2003)

1.04 REFERENCES

A. American Welding Society (AWS): 01.1, Structural Welding Code.

B. National Association of Architectural Metal Manufacturers (NAAMM): Pipe Rail Manual.

1.05 SUBMITTALS

Submit the following in accordance with Section 01300.

A. Shop Drawings: Submit for fabrication and erection of metal fabrications, indicate profiles, sizes, connection, reinforcing and anchorage.

1. Provide templates for anchor installation by others.

B. Product Data: Submit manufacturer's literature for products used in metal fabrications, including paint, grout and premanufactured items.

C. Railings: Provide certification signed by a California registered structural engineer indicating compliance with design requirements.

PART 2 - PRODUCTS

2.01 MATERIALS

A. Steel Shapes, Plates and Bars: ASTM A36.

B. Structural Steel Sheet: Hot rolled, ASTM A570; or cold rolled, ASTM A611, Class 1; of grade required for design loading.

C. Steel Pipe: ASTM A53, Type S seamless, grade as selected by fabricator and as required for design loading; minimum standard weight, STD or Schedule 40.

D. Steel Tubing: Cold formed ASTM A500; or hot rolled, ASTM A501; minimum Grade B; seamless where exposed.

E. Castings: Gray iron, ASTM A48, Class 30; malleable iron, ASTM A47.

F. Concrete Inserts: Threaded or wedge type; galvanized ferrous castings, either malleable iron ASTM A47, or cast steel ASTM A27. Provide bolts, washers and shims as required, hot-dip galvanized, ASTM A153.

G. Grout: Non-shrink meeting ASTM E827, non-metallic, pre-mixed, factory-packaged, non-staining, non corrosive; type specifically recommended by manufacturer as applicable to job condition.

1. Master Builders/Masterflow 713.
2. U.S. Grout Corp./Five Star Grout.
3. Bostik Construction Products/Upcon Grout.
4. Protex Industries, Inc./Propak.

H. Fasteners and Rough Hardware: Type required for specific usage; provide zinc coated fasteners for exterior use or where built into exterior walls.

I. Welding Materials: AWS D1.1, type required for materials being welded.

J. Paint: Provide primers as recommended by paint manufacturers for substrates and paints specified in Section 09900 - Painting.

K. Galvanizing Repair Paint: High zinc-dust content paint for regalvanizing welds in galvanized steel.

2.02 FABRICATION

A. Fabricate items with joints neatly fitted and properly secured.

B. Grind exposed welds continuous, smooth and flush with adjacent finished surfaces, and ease exposed edges to approximate 1/32" uniform radius.

C. Exposed Mechanical Fastenings: Flush countersunk fasteners unobtrusively located consistent with design of structure.

D. Fit and shop assemble in largest practical sections for delivery.

E. Fit and shop assemble in largest practical sections for delivery.

F. Make exposed joints flush butt type, hairline joints where mechanically fastened.

1. Fabricate joints exposed to weather in manner to exclude water or provide weep holes where water could accumulate.

G. Supply components required for proper anchorage of metal fabrications; fabricate anchorage and related components of same material and finish as metal fabrication.

H. Railings: Comply with requirements of NAAMM "Pipe Railing Manual"; welded tube construction; cap exposed ends.

1. Handrails: 1-1/2" outside diameter seamless tube rails conforming with applicable requirements for access for persons with disabilities.

I. Ladders and Ships Ladders: Comply with requirements of ANSI A14.3 and OSHA; steel or aluminum Contractor's option.

1. Rungs: Fit in centerline of side rails, plug weld and grind smooth on outer rail faces; provide non-slip surface on top of rung, similar to epoxy resin and aluminum oxide granules surface.

J. Steel Bollards: Minimum Schedule 80 seamless steel piping, filled with minimum 2000 psi concrete.

RECEIVED
JUN 11 2009
CITY OF LAS VEGAS
PERMITS

CRAIG D. SMITH
REGISTERED
No. 4967
6-2-09
ARCHITECT
STATE OF NEVADA

RNM

RNM DESIGN
ARCHITECTURE
PLANNING
LANDSCAPE
GRAPHICS
RNMDESIGN.COM

2 CORPORATE PARK
SUITE 100
IRVINE, CALIFORNIA
92606
(949) 752-1800
(949) 833-9603

PROJECT NAME/ADDRESS

CORONADO THE PASEOS
875 PANTARA PLACE
LAS VEGAS, NEVADA

CLIENT

SPINNAKER HOMES
4511 W. CHEYENNE AVE. ST 105
NO. LAS VEGAS, CA 89032
702-873-7773
702-873-7776 FAX

REVISIONS

THESE DRAWINGS AND IMAGES ARE NOT TO BE REPRODUCED OR COPIED IN ANY FORM WITHOUT WRITTEN PERMISSION. COPYRIGHT 2008 RNM DESIGN

DRAWING TITLE

GENERAL NOTE

DRAWING INFORMATION

PROJ. NO: 08041
FIRST SUBMITTAL DATE: 02.24.2009
SCALE:

DRAWING NUMBER

A0-0.2

DELTA 2 - PLAN CHECK CORRECTION
05.27.09

SECTION 05.50.00 2.02 CONTINUED

K. Finishes: Unless otherwise scheduled, galvanize and prime paint exterior work and prime paint interior work; comply with requirements of Section 09 90 00 - Painting for preparation and priming.

1. Thoroughly clean surfaces of rust, scale, grease and foreign matter prior to applying finish.

2. Do not shop prime surface areas in direct contact with concrete or requiring field welding; shop prime in one coat.

3. Provide minimum ASTM A123 or A525 G90 coating, 0.90 oz/ft2 galvanized coating (formerly 1.25 Commercial Class); iron and steel hardware galvanized conforming with ASTM A153.

3.01 ERECTION

A. Obtain Architect's review prior to site cutting or making adjustments which are not part of scheduled work.

1. Perform necessary cutting and altering for installation and coordination with other work.

PART 3 - EXECUTION

A. Install items square and level, accurately fitted and free from distortion or defects detrimental to appearance or performance.

1. Supply items requiring to be cast into or embedded in other materials to appropriate trades.

2. Ensure alignment with adjacent construction; coordinate with related work to ensure no interruption in installation.

C. Make provision for erection stresses by temporary bracing; keep work in alignment.

D. Field bolt and weld to match standard of shop bolting and welding; hide bolts and screws whenever possible, where not hidden, use flush countersunk fastenings.

1. Perform field welding in accordance with AWS D1.1.

E. After installation, touch up field welds and scratched and damaged surfaces; use primer consistent with shop coat or recommended for galvanized surfaces, as applicable.

F. Replace items damaged in course of installation and construction.

3.02 SCHEDULE

A. Supply and install metal fabrications listed in Schedule, complete with anchorage and attachments necessary for installation.

1. Schedule lists principal items only, refer to Drawing details for items not listed.

B. Schedule:

1. Miscellaneous angles, plates and attachments to be set in concrete or masonry for anchorage of other items.

2. Iron and steel shapes, sleeves, anchors, connectors and fastenings required to complete construction work, and which are not provided in other specification sections.

a. Rough hardware, including bolts, fabricated plates, anchors, hangers, dowels and miscellaneous metals.

b. Ledge and shelf angles, channels and plates not attached to structural steel, and for support of metal decking.

c. Angle and channel frames for doors and wall openings.

d. Beams of structural shapes, not supported by structural steel.

e. Steel angle corner guards.

3. 1 ¼" Guard rails and handrails except steel stair railings.

4. Ladders and ships ladders.

5. Steel bollards.

END OF SECTION

SECTION 06.20.00 - FINISH CARPENTRY

1.0 GENERAL

1.01 SCOPE

A. Furnish and install all finish carpentry complete, including trim, door frames.

B. Installation of finish hardware, bath accessories, cabinet pulls, etc.

1.02 WORKMANSHIP

A. All joints shall be tight and true and securely fastened. Corners shall be neatly mitered, butted, or coped, with nails set and surfaces free of tool marks.

B. Wood work shall be accurately scribed to fit adjoining surfaces.

C. All work shall be machined or hand_sanded, sharp edges and splinters removed, and completely prepared for finish.

D. Full length continuous boards shall be used wherever applicable or specifically noted.

2.0 PRODUCT MATERIALS

2.01 DOOR FRAMES: PRE-HUNG

A. Frames shall be set plumb and true, tightly secured, and protected during the course of construction.

2.02 DOOR CASING: CLEAR PINE, FINGER_JOINTED, PRE_FIT

A. All vertical and horizontal trim members shall be in longest practical lengths.

1. Wood Trim: (door, window, projections). Refer to drawings.

2. Wood Base: As selected by Developer.

END OF SECTION

SECTION 07.25.00 WEATHER RESISTIVE BARRIERS

PART 1 - GENERAL

1.01 SUMMARY

A. Section Includes: Provides weather-resistive barriers including sealing joints and protrusions through membranes, with accessories as required for complete installation.

1.02 SUBMITTALS

A. Product Data: Submit manufacturer's literature for each type of membrane.

B. Samples: Submit samples of each type of material. Quality Assurance/Control Submittals:

Submit either test reports or manufacturer's certificates indicating materials comply with specified requirements.

PART 2 - PRODUCTS

2.01 MANUFACTURER

A. Fortifiber® Building Systems Group, 1 800 773 4777.

B. Substitutions: Comply with provisions of Division 1.

2.02 MATERIALS

A. Vapor Permeable Weather-Resistive Barriers: Single layer, 1-Ply asphalt saturated kraft

Grade D breather type sheathing paper.

1. Types:

a. Premier: Fortifiber® / Super Jumbo Tex® 60 Minute

2. Reference Standard: Federal Specification UU-B-790a, Type 1, Grade D, Style 2.

3. Moisture Vapor Transmission: 35 grams minimum; ASTM F 1249.

4. Water Resistance: 60 minutes minimum (premier); ASTM D 779.

PART 3 - EXECUTION

3.01 PREPARATION

A. Ensure items which pass through membrane are properly and rigidly installed, substrate is free of projections and irregularities which may be detrimental to proper installation of membrane.

3.02 INSTALLATION

A. Apply membrane in accordance with manufacturer's recommendations, laid smooth without folds or bunches of material.

1. Seam Overlap: As recommended by membrane manufacturer for specific membrane material and application indicated.
2. Sealing: Seal edges and items projecting through vapor retarders and vapor barriers.

B. Inspect and repair membrane prior to application of finish material over membrane; tape tears, perforations and similar damage.

END OF SECTION

SECTION 07.32.00 ROOF TILES

Part 1 General

1.01 RELATED SECTIONS

A. Rough Carpentry - Section 06100
B. Roof and Deck Insulation - Section 07220
C. Flashing and Sheet Metal - Section 07600
D. Roof Accessories - 07720

1.02 REFERENCES

1.03 SUBMITTALS

A. Samples - tile profile and color as selected

B. Product Data

1. Manufacturers literature
2. Product description
3. Installation guide - Refer to TRI / (Installation Manual for Moderate Climate Regions ICBO ER-6034P)

C. Compliance Reports

1. ICC-ES / ER 4660

1.04 DELIVERARY, STORAGE & HANDLING

A. Refer to roof loading guide MC-09 (Moderate Climate Guide ER-6034P)

1.05 PROJECT CONDITIONS

A. Do not install underlayment on wet or frozen sheathing.

B. Do not begin tile installation until related work areas are completed. Repair any punctures or tears in the underlayment.

1.06 WARRANTY

A. Roof Tile: Refer to Eagle Roofing Products Limited Lifetime Warranty.

Part 2 Products

2.01 Eagle Roofing Products

Color Finish: As selected

A. Malibu
B. Capistrano
C. Ponderosa
D. Bel Air
E. American Heirloom
F. Camino Real
G. Cityscapes

2.02 Underlayment

A. Nominal: One layer of No. 30 asphalt-saturated felt complying with ASTM D 226.

1. Upgraded underlayment may be required in severe climate areas.

2.03 Tile Fasteners

A. Corrosive resistant fastener meeting ASTM A641 Class 1 or approved equal. Number 11 gauge diameter and of sufficient length to penetrate ¾" into or through the thickness of the deck or the batten.

2.04 Flashing material

A. Flashing shall be a minimum No. 26 ga. Galvanized steel G90 or equal.

2.05 Adhesive/sealant

A. Plastic cement shall conform to ASTM D 4586.

B. Tile adhesive formulated for use with concrete roof tile.

2.06 Eave Closure/Riser

A. Refer to MC-10A, 10B, 10C & or 10D (Moderate Climate Installation Guide ER-6034P)

2.07 Battens

A. Refer to MC-04 or MC-05 (Moderate Climate Installation Guide ER-6034P)

Part 3 EXECUTION

3.01 Examination

A. Examine areas to receive tile to verify conditions.
B. Do not commence tile installation until unsatisfactory conditions are corrected.

3.02 Eave

A. Refer to MC-10A, 10B, 10C & or 10D (Moderate Climate Installation Guide ER-6034P)

3.03 Venting

A. Install per manufacturers instructions and local code requirements

3.04 Underlayment

A. Nominal: One layer of No. 30 asphalt-saturated felt complying with ASTM D 226.

1. Upgraded underlayment may be required in severe climate areas.

3.05 Hip and Ridge Nailer Boards

A. Securely fasten with sufficient heights to maintain an even plane of trim tiles

B. Weatherblocking is required with all profiles.

3.06 Valleys

A. Choose one

1. Open
2. Closed

B. Metal valley flashing will be a minimum No. 26 gauge G90 galvanized steel

3.07 Side Wall Flashing

A. Flashing shall be a minimum No 26 ga. G90 galvanized

B. Flashing shall be a minimum 4" up the vertical wall and approximately 6" out over the deck and have a ¾" return.

3.08 Head and Apron Flashing

A. Flashing shall be a minimum No 26 ga. G90 galvanized

B. Flashing shall be a minimum 4" up the vertical wall and approximately 6" out over the tile.

C. Weatherblocking is required with low and high profile tiles.

3.09 Flashing at Chimneys, skylights, ect.

A. Flashing shall be a minimum No 26 ga. G90 galvanized

B. Flashing shall be a minimum 4" up the vertical wall

3.10 Flashing at pipes, vents, etc.

A. Deck flashing is required

B. Secondary tile flashing is required

1. Profile tiles require conforming sheet lead or other malleable metal flashing

3.11 Batten Installation

A. Battens are optional up to 7:12 pitch and required above 7:12

B. When specified, nominal 1" x 2" x 4' battens shall have a minimum ½" gap between the battens.

C. Battens shall be fastened with approved fasteners at no more than 24" on center

3.12 Clean-up

A. Remove all broken tile and debris from roof

3.13 Protection

A. Protect material and take precautions to prevent other trades from damaging roof during and after installation.

END OF SECTION

SECTION 07.65.00 FLEXIBLE FLASHING

PART 1 - GENERAL

1.01 SUMMARY

A. Section Includes: Provides flashing systems, moisture retardant membranes, including sealing joints and protrusions through membranes, with accessories as required for complete installation.

1.02 SUBMITTALS

A. Product Data: Submit manufacturer's literature for each type of membrane.

B. Samples: Submit samples of each type of material. Quality Assurance/Control Submittals:

Submit either test reports or manufacturer's certificates indicating materials comply with specified requirements.

PART 2 - PRODUCTS

2.01 MANUFACTURER

A. Fortifiber® Building Systems Group, 1-800-773-4777.
B. Substitutions: Comply with provisions of Division 1.

2.02 MATERIALS

A. Flexible Flashings: Fortifiber® / FortiFlash® self-adhesive, self-sealing SBS modified asphalt waterproof membrane laminated to high density, cross laminated polyethylene film reinforcement

1. Types:

a. Waterproof: Fortifiber® / FortiFlash® 25 mil and 40 mil Waterproof Flashing.

2. Reference Standards: ICC Acceptance Criteria 148 (waterproof).

3. Water Vapor Permeance: <.08 perms 25-Mil, <.05 perms 40-Mil (waterproof); ASTM F 1249.

4. Water Resistance: 200 hours (waterproof); ASTM D-779

3.01 PREPARATION

A. Ensure items which pass through membrane are properly and rigidly installed, substrate is free of projections and irregularities which may be detrimental to proper installation of membrane.

3.02 INSTALLATION

A. Apply membrane in accordance with manufacturer's recommendations, laid smooth without folds or bunches of material.

1. Seam Overlap: As recommended by building paper manufacturer for specific building paper material and application indicated.

2. Sealing: Seal items projecting through vapor retarders and vapor barriers.

B. Inspect and repair building paper prior to application of finish material over building paper; tape tears, perforations and similar damage.

END OF SECTION

SECTION 07.65.26 SELF ADHERED SHEET FLASHING

PART 1 - GENERAL

1.01 SUMMARY

A. Section Includes: Provides flashing systems, moisture retardant membranes, including sealing joints and protrusions through membranes, with accessories as required for complete installation.

1.02 SUBMITTALS

A. Product Data: Submit manufacturer's literature for each type of membrane.

B. Samples: Submit samples of each type of material. Quality Assurance/Control Submittals:

Submit either test reports or manufacturer's certificates indicating materials comply with specified requirements.

PART 2 - PRODUCTS

2.01 MANUFACTURER

A. Fortifiber® Building Systems Group, 1 800 773 4777.
B. Substitutions: Comply with provisions of Division 1.

2.02 MATERIALS

A. Flexible Flashings: Fortifiber® / Moistop E-Z Seal® self-adhesive strong reinforced polymer membrane.

1. Types:
a. Premium: Fortifiber® / Moistop E-Z Seal® Adhesive Flashing

2. Reference Standards: ASTM E-2112 (premium).

3. Water Vapor Permeance: less than <0.1 (premium); ASTM F 1249.

4. Water Resistance: 150 hours minimum (premium); ASTM D-779.

3.01 PREPARATION

A. Ensure items which pass through membrane are properly and rigidly installed, substrate is free of projections and irregularities which may be detrimental to proper installation of membrane.

3.02 INSTALLATION

A. Apply membrane in accordance with manufacturer's recommendations, laid smooth without folds or bunches of material.

1. Seam Overlap: As recommended by flashing manufacturer for specific flashing material and application indicated.

2. Sealing: Seal items projecting through vapor retarders and vapor barriers.

B. Inspect and repair flashing prior to application of finish material over flashing; tape tears, perforations and similar damage.

END OF SECTION

SECTION 07.81.16 CEMENTIOUS FIREPROOFING

PART 1 GENERAL

1.01 SUMMARY

A. Work under this section consists of the furnishing of all labor, materials, equipment, and services necessary for, and incidental to, the complete and proper installation of all cementitious fireproofing and related work as shown on the drawings or specified herein, and in accordance with all applicable requirements of the contract documents.

B. Conform to all applicable building code requirements of all authorities having jurisdiction.

1.03 REFERENCES

A. American Society for Testing and Materials (ASTM):

1. ASTM E84 Surface Burning Characteristics
2. ASTM E119 Standard Methods of Fire Tests of Building Construction and Materials
3. ASTM E605 Standard Test Methods for Thickness and Density of Sprayed Fire-Resistive Material Applied to Structural Members
4. ASTM E736 Cohesion/Adhesion of Sprayed Fire-Resistive Material Applied to Structural Members
5. ASTM E759 Effect of Deflection on Sprayed Fire-Resistive Material Applied to Structural Members
6. ASTM E760 Effect of Impact on Bonding of Sprayed Fire-Resistive Material Applied to Structural Members
7. ASTM E761Compressive Strength of Sprayed Fire-Resistive Material Applied to Structural Members
8. ASTM E859 Air Erosion of Sprayed Fire-Resistive Material Applied to Structural Members
9. ASTM E937 Corrosion of Steel by Sprayed Fire-Resistive Material Applied to Structural MemberS
10. ASTM E1354 Cone Calorimeter
11. ASTM G21 Standard Practice for Determining Resistance of Synthetic Polymeric Materials to Fungi

B. Bureau of Building Inspection: City of San Francisco

1. Abrasion Resistance Test Method
2. Impact Penetration Test Method

C. Underwriters Laboratories Inc. (UL) Fire Resistance Directory (Latest Edition)

D. IBC (INTERNATIONAL BUILDING CODE.)

E. Association of the Walls and Ceilings Industry (AWCI)

1. AWCI Technical Manual 12-A: Standard Practice for the Testing and Inspection of Spray Applied Fire-Resistive Materials
2. AWCI Technical Manual 12: Design Selection Utilizing Spray Applied Fire-Resistive Materials

1.04 DEFINITIONS

A. Cementitious Fireproofing as defined by Underwriters Laboratories Inc. (CALV) in the latest edition of the UL Fire Resistance Directory.

1.05 SUBMITTALS

A. Manufacturer's Data: Submit manufacturer's instructions for proper application of cementitious fireproofing.

B. Fire Testing: Submit evidence that the cementitious fireproofing has been subjected to full-scale ASTM E119 fire testing at Underwriters Laboratories Inc. by the manufacturer.

C. Thickness Schedule: Provide schedule indicating material to be used, building elements to be protected with spray applied fireproofing, hourly rating and material thickness provided and appropriate references.

D. Test Data: Independent laboratory test results for fireproofing shall be submitted for the following performance criteria:

1. Bond Strength per ASTM E736
2. Compressive Strength per ASTM E761
3. Deflection per ASTM E759
4. Bond Impact per ASTM E760
5. Air Erosion per ASTM E859
6. Corrosion Resistance per ASTM E937
7. Abrasion Resistance (Test Method developed by City of San Francisco, Bureau of Building Inspection)
8. Impact Penetration (Test Method developed by City of San Francisco, Bureau of Building Inspection)
9. High Speed Air Erosion per ASTM E859
10. Surface Burning Characteristics per ASTM E84
11. Combustibility per ASTM E1354 Cone Calorimeter
12. Mold Resistance per ASTM G21

RECEIVED
JUN 10 2009
CITY OF LAS VEGAS
PERMITS

SECT. 05.50.00 2.02 J THRU SECT. 06.20.00 2.01

SECT. 06.20.00 2.02 THRU SECT. 07.32.00 3.04

SECTION 07.32.00 3.05 THRU SECT. 07.65.00

SECTION 07.65.26 THRU SECT. 07.81.16 1.05

RONALD D. SMITH
REGISTERED
No. 4967
6-2009
ARCHITECT
STATE OF NEVADA

RNM

RNM DESIGN
ARCHITECTURE
PLANNING
LANDSCAPE
GRAPHICS
RNMDESIGN.COM

2 CORPORATE PARK
SUITE 100
IRVINE, CALIFORNIA
92606
T949.752.1800
F949.833.9603

PROJECT NAME/ADDRESS

CORONADO THE PASEOS
875 PANTARA PLACE
LAS VEGAS, NEVADA

CLIENT

SPINNAKER HOMES
4511 W. CHEYENNE AVE. ST 105
NO. LAS VEGAS, CA 89032
702-873-7773
702-873-7776 FAX

REVISIONS

THESE DRAWINGS AND IMAGES ARE NOT TO BE REPRODUCED OR COPIED IN ANY FORM WITHOUT WRITTEN PERMISSION.
COPYRIGHT 2008 RNM DESIGN

DRAWING TITLE

GENERAL NOTE

DRAWING INFORMATION

PROJ. NO: 08041
FIRST SUBMITTAL DATE: 02.24.2009
SCALE:

DRAWING NUMBER

A0-0.3

DELTA 2 - PLAN CHECK CORRECTION
05.27.09

SECTION 07.81.16 1.06 CONTINUED

1.06 QUALITY ASSURANCE

A. Fireproofing work shall be performed by a firm acceptable to the cementitious fireproofing material manufacturer.

B. Products, execution, and fireproofing thicknesses shall conform to the applicable code requirements for the required fire-resistance ratings.

C. Contractor, fireproofing subcontractor and independent testing laboratory shall attend a pre-installation conference to review the substrates for acceptability, method of application, applied thicknesses, inspection procedures and other issues.

1.07 DELIVERY, STORAGE AND HANDLING

A. Material shall be delivered in original unopened packages, fully identified as to manufacturer, brand or other identifying data and bearing the proper Underwriters Laboratories Inc. labels for Surface Burning Characteristic and Fire Resistance Classification.

B. Material shall be stored off the ground, under cover, and in a dry location until ready for use. All bags that have been exposed to water before use shall be found unsuitable and discarded. Stock of material is to be rotated and used prior to its expiration date.

1.08 PROJECT/SITE CONDITIONS

A. Minimum air and substrate temperature of 4.4°C (40°F) shall be present before application of spray applied fireproofing. A minimum air and substrate temperature of 4.4°C (40°F) must be maintained during and for 24 hours after application of the spray applied fireproofing. Provide enclosures with heat to maintain temperature.

B. Provide ventilation in poorly ventilated areas to achieve a minimum total air exchange rate of 4 times per hour until the material is substantially dry.

1.09 SEQUENCING AND SCHEDULING

A. Sequence and coordinate application of cementitious fireproofing with work in other sections which would interfere with efficient fireproofing application.

PART 2 PRODUCTS

2.01 ACCEPTABLE MANUFACTURER

A. Fireproofing shall be cementitious mixture as manufactured by Grace Construction Products, W. R. Grace & Co.-Conn., or its processing distributors.

2.02 MATERIALS

A. Materials shall be Monokote® MK-6® factory-blended cementitious fireproofinG. Physical Performance Characteristics: Fireproofing material shall meet the following physical performance standards:

1. Dry Density: The field density shall be measured in accordance with ASTM Standard E605.Minimum average density shall be that required by the manufacturer, listed in the UL Fire Resistance Directory for each rating indicated, ICBO Evaluation Report, as required by the authority having jurisdiction, or minimum average 240 kg/m3 (15 pcf), whichever is greater.

2. Deflection: Material shall not crack or delaminate from the surface to which it is applied when tested in accordance with ASTM E759.

3. Bond Impact: Material subject to impact tests in accordance with ASTM E760 shall not crack or delaminate from the surface to which it is applied.

4. Bond Strength: Fireproofing, when tested in accordance with ASTM E736, shall have a minimum average bond strength of 9.6 KPa (200 psf) and a minimum individual bond strength of 7.2 kpa (150 psf).

5. Air Erosion: Maximum allowable total weight loss of the fireproofing material shall be .05 g/m2 (.005 g/ft2) when tested in accordance with ASTM E859. Sample surface shall be "as applied" (not pre purged) and the total reported weight loss shall be the total weight loss over a 24 hour period from the beginning of the test.

6. High Speed Air Erosion: Materials to be used in plenums or ducts shall exhibit no continued erosion after 4 hours at an air speed of 12.7 m/s (47 km/h) [2500 ft/min (29 mph)] when tested per ASTM E859.

7. Compressive Strength: The fireproofing shall not deform more than 10% when subjected to compressive forces of 57 KPa (1200 psf) when tested in accordance with ASTM E761.

8. Corrosion Resistance: Fireproofing applied to steel shall be tested in accordance with ASTM E937 and shall not promote corrosion of steel.

9. Abrasion Resistance: No more that 15 cm3 shall be abraded or removed from the fireproofing substrate when tested in accordance with the test methods developed by the City of San Francisco, Bureau of Building Inspection.

10. Impact Penetration: The fireproofing material shall not show a loss of more than 6 cm3 when subjected to impact penetration tests in accordance with the test methods developed by the City of San Francisco, Bureau of Building Inspection.

11. Surface Burning Characteristics: Material shall exhibit the following surface burning characteristics when tested in accordance with ASTM E84:

Flame Spread 0
Smoke Development 0

12. Resistance to Mold: The fireproofing material shall be formulated at the time of manufacturing with a mold inhibitor. Fireproofing material shall be tested in accordance with ASTM G21 and shall show resistance to mold growth for a period of 28 days for general use.

13. Combustibility: Material shall have a maximum total heat release of 20 MJ/m2 and a maximum 125 kw/m2 peak rate of heat release 600 seconds after insertion when tested in accordance with ASTM E1354 at a radiant heat flux of 75 kw/m2 with the use of electric spark ignition. The sample shall be tested in the horizontal orientation.

a. Fire Resistance Classification: The spray applied fireproofing material shall have been tested and reported by Underwriters Laboratories Inc. in accordance with the procedures of ASTM E119 and shall be listed in the Underwriters Laboratories Fire Resistance Directory.

B. Mixing water shall be clean, fresh, and suitable for domestic consumption and free from such amounts of mineral or organic substances as would affect the set of the fireproofing material. Provide water with sufficient pressure and volume to meet the fireproofing application schedule.

2.03 ACCESSORIES

Provide accessories to comply with manufacturer's recommendations and to meet fire resistance design and code requirements. Such accessories include, but are not limited to, any required or optional items such as Spatterkote SK-3; bonding agents, mechanical attachments; application aids such as metal lath, scrim, or netting; and Monokote Accelerator.

2.04 SOURCE QUALITY CONTROL

Submit evidence that the cementitious fireproofing has been tested per ASTM E119 by Underwriters Laboratories Inc. Include evidence that the fire testing was sponsored by the manufacturer and that the material tested was produced at the manufacturer's facility under the supervision of Underwriters Laboratories Inc. personnel. Letters documenting classification status are not acceptable evidence of compliance with this section.

PART 3 EXECUTION

3.01 EXAMINATION

A. All surfaces to receive spray applied fireproofing shall be provided free of oil, grease, paints/primers, loose mill scale, dirt or other foreign substances which may impair proper adhesion of the fireproofing to the substrate. Where necessary, cleaning or other corrections of surfaces to receive fireproofing shall be the responsibility of the supplier of the incompatible substrate.

B. Application of the fireproofing shall not begin until the contractor, applicator and fireproofing testing laboratory (inspector) have examined surfaces to receive fireproofing and determined that the surfaces are acceptable to receive the fireproofing material.

SECTION 07.81.16 1.06 THRU 3.01

3.02 PREPARATION

A. Prior to application of the fireproofing material, a bonding agent, approved by the fireproofing material manufacturer, shall be applied to all concrete substrates to receive fireproofing.

B. Other trades shall install clips, hangers, support sleeves and other attachments required to penetrate the fireproofing, prior to application of the fireproofing materials.

C. Other trades shall not install ducts, piping, equipment or other suspended items until the fireproofing is complete.

D. Complete placing of concrete on floor and roof decking prior to application of the fireproofing to the underside of steel deck and supporting beams and joists.

E. On roof decks without a concrete cover, complete all roofing applications and roof mounted equipment installation prior to application of the fireproofing to the underside of roof decking and supporting beams and joists. Prohibit all roof traffic upon commencement of the fireproofing and until the fireproofing material is dry.

F. Protection of permanently exposed walls or floors, or special surfaces:

3.03 APPLICATION

A. Equipment and application procedures shall conform to the material manufacturer's application instructions.

B. Post appropriate cautionary "Slippery When Wet" signs in all areas in contact with wet fireproofing material. Erect appropriate barriers to prevent entry by non fireproofing workers into the fireproofing spray and mixing areas and other areas exposed to wet fireproofing material.

C. Apply a discontinuous textured spray of W. R. Grace & Co. Conn. Spatterkote SK-3 in accordance with manufacturer's instructions to all cellular steel floor units with flat plate on the bottom and to roof deck assemblies as required to meet the fire resistance ratings, before application of the Monokote fireproofing to these surfaces.

END OF SECTION

SECTION 07.84.00

PART 1 - GENERAL

1.01RELATED DOCUMENTS

Drawings and general provisions of Contract, including General and Supplementary Conditions and Division-1 Specification Section, apply to work specified in this section.

1.02 DEFINITIONS

Firestopping: Material or combination of materials used to retain integrity of fire-rated construction by maintaining an effective barrier against the spread of flame, smoke, and hot gases through penetrations in, or construction joints between, fire rated wall and floor assemblies.

1.03 GENERAL DESCRIPTION OF THE WORK OF THIS SECTION

Only tested firestop systems shall be used in specific locations as follows:

A. Penetrations for the passage of duct, cable, cable tray, conduit, piping, electrical busways and raceways through fire-rated vertical barriers (walls and partitions), horizontal barriers (floor/ceiling assemblies), and vertical service shaft walls and partitions.

B. Safing slot gaps between edge of floor slabs and curtain walls.

C. Openings between structurally separate sections of wall or floors.

D. Gaps between the top of walls and ceilings or roof assemblies.

E. Expansion joints in walls and floors.

F. Openings and penetrations in fire-rated partitions or walls containing fire doors.

G. Openings around structural members which penetrate floors or walls.

1.05 REFERENCES

A. Test Requirements: ASTM E 814, "Standard Method of Fire Tests of Through Penetration Fire Stops"

B. Test Requirements: UL 1479, "Fire Tests of Through Penetration Firestops"

C. Test Requirements: UL 2079, "Tests for Fire Resistance of Building Joint Systems"

D. Underwriters Laboratories (UL) of Northbrook, IL publishes tested systems in their "FIRE RESISTANCE DIRECTORY" that is updated annually.

1. UL Fire Resistance Directory:
   A. Firestop Devices (XHJI)
   B. Fire Resistance Ratings (BXRH)
   C. Through-Penetration Firestop Systems (XHEZ)
   D. Fill, Voids, or Cavity Material (XHHW)
   E. Forming Materials (XHKU)
   F. Joint Systems (XHBN)
   G. Perimeter Fire Containment Systems (XHDG)

2. Alternate Systems: "Omega Point Laboratories Directory" (updated annually).

E. Test Requirements: ASTM E 1966, "Standard Test Method for Fire Resistive Joint Systems"

F. Test Requirements: ASTM E 2307, "Standard Test Method for Determining Fire Resistance of Perimeter Fire Barrier Systems Using Intermediate-Scale, Multi-story Test Apparatus"

G. Inspection Requirements: ASTM E 2174, "Standard Practice for On-site Inspection of Installed Fire Stops"

H. ASTM E 84, "Standard Test Method for Surface Burning Characteristics of Building Materials"

I. International Firestop Council Guidelines for Evaluating Firestop Systems Engineering Judgments

J. All major building codes: ICBO, SBCCI, BOCA, and IBC.
(Note to specifier: Retain or delete building codes listed above as applicable)

K. NFPA 101 - Life Safety Code

L. NFPA 70 - National Electric Code

1.06 QUALITY ASSURANCE

A. A manufacturer's direct representative (not distributor or agent) to be on site during initial installation of firestop systems to train appropriate contractor personnel in proper selection and installation procedures. This will be done per manufacturer's written recommendations published in their literature and drawing details.

B. Firestop System installation must meet requirements of ASTM E 814, UL 1479 or UL 2079 tested assemblies that provide a fire rating equal to that of construction being penetrated.

C. Proposed firestop materials and methods shall conform to applicable governing codes having local jurisdiction.

D. Firestop Systems do not reestablish the structural integrity of load bearing partitions/assemblies, or support live loads and traffic. Installer shall consult the structural engineer prior to penetrating any load bearing assembly.

E. For those firestop applications that exist for which no UL tested system is available through a manufacturer, an engineering judgment derived from similar UL system designs or other tests will be submitted to local authorities having jurisdiction for their review and approval prior to installation. Engineering judgment drawings must follow requirements set forth by the International Firestop Council.

SECT. 07.81.16 2.03 THRU SECT. 08.84.00 1.06

1.07 SUBMITTALS

A. Submit Product Data: Manufacturer's specifications and technical data for each material including the composition and limitations, documentation of UL firestop systems to be used and manufacturer's installation instructions to comply with Section 1300.

B. Manufacturer's engineering judgment identification number and drawing details when no UL system is available for an application. Engineering judgment must include both project name and contractor's name who will install firestop system as described in drawing.

C. Submit material safety data sheets provided with product delivered to job-site.

1.08 INSTALLER QUALIFICATIONS

Engage an experienced Installer who is certified, licensed, or otherwise qualified by the firestopping manufacturer as having been provided the necessary training to install manufacturer's products per specified requirements. A supplier's willingness to sell its firestopping products to the Contractor or to an Installer engaged by the Contractor does not in itself confer qualification on the buyer.

1.09 DELIVERY, STORAGE, AND HANDLING

A. Deliver materials undamaged in manufacturer's clearly labeled, unopened containers, identified with brand, type, and UL label where applicable.

B. Coordinate delivery of materials with scheduled installation date to allow minimum storage time at job site.

C. Store materials under cover and protect from weather and damage in compliance with manufacturer's requirements, including temperature restrictions.

D. Comply with recommended procedures, precautions or remedies described in material safety data sheets as applicable.

E. Do not use damaged or expired materials.

1.10 PROJECT CONDITIONS

A. Do not use materials that contain flammable solvents.

B. Schedule installation of firestopping after completion of penetrating item installation but prior to covering or concealing of openings.

C. Verify existing conditions and substrates before starting work. Correct unsatisfactory conditions before proceeding.

D. Weather conditions: Do not proceed with installation of firestop materials when temperatures exceed the manufacturer's recommended limitations for installation printed on product label and product data sheet.

E. During installation, provide masking and drop cloths to prevent firestopping material's from contaminating any adjacent surfaces.

PART 2 - PRODUCTS

2.01 FIRESTOPPING, GENERAL

A. Provide firestopping composed of components that are compatible with each other, the substrates forming openings, and the items, if any, penetrating the firestopping under conditions of service and application, as demonstrated by the firestopping manufacturer based on testing and field experience.

B. Provide components for each firestopping system that are needed to install fill material. Use only components specified by the firestopping manufacturer and approved by the qualified testing agency for the designated fire-resistance-rated systems.

C. Firestopping Materials are either "cast-in-place" (integral with concrete placement) or "post installed." Provide cast-in-place firestop devices prior to concrete placement.

2.02 ACCEPTABLE MANUFACTURERS

A. Subject to compliance with through penetration firestop systems (XHEZ), joint systems (XHBN), and perimeter firestop systems (XHDG) listed in Volume 2 of the UL Fire Resistance Directory; provide products of the following manufacturers as identified below:

1. Hilti, Inc., Tulsa, Oklahoma
   800-879-8000/www.us.hilti.com
2. Provide products from the above acceptable manufacturer; no substitutions will be accepted.

2.03 MATERIALS

A. Use only firestop products that have been UL 1479, ASTM E 814 or UL 2079 tested for specific fire-rated construction conditions conforming to construction assembly type, penetrating item type, annular space requirements, and fire-rating involved for each separate instance.

B. Cast-in place firestop devices for use with noncombustible and combustible pipes (closed and open systems), conduit, and cable bundles penetrating concrete floors, the following products are acceptable:

1. Hilti CP 680 Cast-In Place Firestop Device
   a. Add Aerator adaptor when used in conjunction with aerator ("sovent") system.
2. Hilti CP 681 Tub Box Kit for use with tub installations.
3. Hilti CP 682 Cast-In Place Firestop Device for use with noncombustible penetrants

C. Sealants, caulking materials, or foams for use with non combustible items including steel pipe, copper pipe, rigid steel conduit and electrical metallic tubing (EMT), the following products are acceptable:

1. Hilti FS-ONE Intumescent Firestop Sealant
2. Hilti CP 604 Self-leveling Firestop Sealant
3. Hilti CP 620 Fire Foam
4. Hilti CP 606 Flexible Firestop Sealant
5. Hilti CP 601s Elastomeric Firestop Sealant

D. Sealants or caulking materials for use with sheet metal ducts, the following products are acceptable:

1. Hilti CP 601s Elastomeric Firestop Sealant
2. Hilti CP 606 Flexible Firestop Sealant
3. Hilti FS-ONE Intumescent Firestop Sealant

E. Sealants, caulking or spray materials for use with fire-rated construction joints and other gaps, the following products are acceptable:

1. Hilti CP 672 Speed Spray
2. Hilti CP 601s Elastomeric Firestop Sealant
3. Hilti CP 606 Flexible Firestop Sealant
4. Hilti CP 604 Self-leveling Firestop Sealant

F. Pre-formed mineral wool designed to fit flutes of metal profile deck and gap between top of wall and metal profile deck; as a backer for spray material.

1. Hilti CP 777 Speed Plugs
2. Hilti CP 767 Speed Strips

G. Intumescent sealants, caulking materials for use with combustible items (penetrants consumed by high heat and flame) including insulated metal pipe, PVC jacketed, flexible cable or cable bundles and plastic pipe, the following products are acceptable:

1. Hilti FS ONE Intumescent Firestop Sealant

H. Foams, intumescent sealants, or caulking materials for use with flexible cable or cable bundles, the following products are acceptable:

1. Hilti FS ONE Intumescent Firestop Sealant
2. Hilti CP 620 Fire Foam
3. Hilti CP 601s Elastomeric Firestop Sealant
4. Hilti CP 606 Flexible Firestop Sealant

I. Non-curing, re-penetrable intumescent putty or foam materials for use with flexible cable or cable bundles, the following products are acceptable:

1. Hilti CP 618 Firestop Putty Stick
2. Hilti CP 658T Firestop Plug

SECT. 07.84.00 1.07 THRU 07.84.00 2.03I

J. Wall opening protective materials for use with U.L. listed metallic and specified nonmetallic outlet boxes, the following products are acceptable:

1. Hilti CP 617 Firestop Putty Pad

K. Firestop collar or wrap devices attached to assembly around combustible plastic pipe (closed and open piping systems), the following products are acceptable:

1. Hilti CP 643N Firestop Collar
2. Hilti CP 644 Firestop Collar
3. Hilti CP 645/648 Wrap Strips

L. Materials used for large openings and complex penetrations made to accommodate cable trays and bundles, multiple steel and copper pipes, electrical busways in raceways, the following products are acceptable:

1. Hilti CP 637 Firestop Mortar
2. Hilti FS 657 FIRE BLOCK
3. Hilti CP 620 Fire Foam
4. Hilti CP 675T Firestop Board

M. Non curing, re penetrable materials used for large size/complex penetrations made to accommodate cable trays and bundles, multiple steel and copper pipes, electrical busways in raceways, the following products are acceptable:

1. Hilti FS 657 FIRE BLOCK
2. Hilti CP 675T Firestop Board

N. Sealants or caulking materials used for openings between structurally separate sections of wall and floors, the following products are acceptable:

1. Hilti CP 672 Speed Spray
2. Hilti CP 601s Elastomeric Firestop Sealant
3. Hilti CP 606 Flexible Firestop Sealant
4. Hilti CP 604 Self-Leveling Firestop Sealant

O. For blank openings made in fire rated wall or floor assemblies, where future penetration of pipes, conduits, or cables is expected, the following products are acceptable:

1. Hilti FS 657 FIRE BLOCK
2. Hilti CP 658T Firestop Plug

P. Provide a firestop system with a "F" Rating as determined by UL 1479 or ASTM E814 which is equal to the time rating of construction being penetrated.

Q. Provide a firestop system with an Assembly Rating as determined by UL 2079 which is equal to the time rating of construction joint assembly.

PART 3 - EXECUTION

3.01 PREPARATION

A. Verification of Conditions: Examine areas and conditions under which work is to be performed and identify conditions detrimental to proper or timely completion.

1. Verify penetrations are properly sized and in suitable condition for application of materials.

2. Surfaces to which firestop materials will be applied shall be free of dirt, grease, oil, rust, laitance, release agents, water repellents, and any other substances that may affect proper adhesion.

3. Provide masking and temporary covering to prevent soiling of adjacent surfaces by firestopping materials.

4. Comply with manufacturer's recommendations for temperature and humidity conditions before, during and after installation of firestopping.

5. Do not proceed until unsatisfactory conditions have been corrected.

3.02 COORDINATION

A. Coordinate location and proper selection of cast-in place Firestop Devices with trade responsible for the work. Ensure device is installed before placement of concrete.

B. Responsible trades to provide adequate spacing of field run pipes to allow for installation of cast-in place firestop devices without interferences.

3.03 INSTALLATION

A. Regulatory Requirements: Install firestop materials in accordance with UL Fire Resistance Directory or Omega Point Laboratories Directory.

B. Manufacturer's Instructions: Comply with manufacturer's instructions for installation of through-penetration and construction joint materials.

1. Seal all holes or voids made by penetrations to ensure an air and water resistant seal.

2. Consult with mechanical engineer, project manager, and damper manufacturer prior to installation of UL firestop systems that might hamper the performance of fire dampers as it pertains to duct work.

3. Protect materials from damage on surfaces subjected to traffic.

3.04 FIELD QUALITY CONTROL

A. Examine sealed penetration areas to ensure proper installation before concealing or enclosing areas.

B. Keep areas of work accessible until inspection by applicable code authorities.

C. Inspection of through-penetration firestopping shall be performed in accordance with ASTM E 2174, "Standard Practice for On-Site Inspection of Installed Fire Stops" or other recognized standard.

D. Perform under this section patching and repairing of firestopping caused by cutting or penetrating of existing firestop systems already installed by other trades.

3.05 ADJUSTING AND CLEANING

A. Remove equipment, materials and debris, leaving area in undamaged, clean condition.

B. Clean all surfaces adjacent to sealed holes and joints to be free of excess firestop materials and soiling as work progresses.

END OF SECTION

SECTION 08.51.00

PART 1 - GENERAL

1.01 SUMMARY

A. Section Includes:

1. Shop fabricated, thermally improved extruded aluminum fixEd sash and operating units.
2. Glass and glazing, operating hardware and other accessories.
3. Configurations Including:

Picture Window Series 920, 921
Horizontal Slider Series 1120
Vertical Slider Series 1520
Sliding Glass Door Series 420

RECEIVED
JUN 11 2009
CITY OF LAS VEGAS
PERMITS

1.02 REFERENCES

A. Windows shall comply with the requirements of AAMA/NWWDA 101/I.S.2-97 (American Architectural Manufacturer's Association).

B. Units to meet performance standards for:

1. ASTM E 283-91 - Test method for infiltration rate of air leakage through exterior windows, curtain walls, and doors under specified pressure differences across the specimen.
2. ASTM E 330-90 - Test method for structural performance of exterior windows, and doors by uniform static air pressure difference.
3. ASTM E 547-93 - Test method for water penetration of exterior windows, curtain walls, and doors by cyclic static air pressure difference.

SECT. 07.84.00 2.03J THRU SECT. 08.51.00 1.02

CRAIG D. SMITH
REGISTERED
No. 4967
PROFESSIONAL
ARCHITECT
STATE OF NEVADA

RNM DESIGN
ARCHITECTURE
PLANNING
LANDSCAPE
GRAPHICS
RNMDESIGN.COM

2 CORPORATE PARK
SUITE 100
IRVINE, CALIFORNIA
92606
949.752.1800
949.833.9603

PROJECT NAME/ADDRESS

CORONADO THE PASEOS
875 PANTARA PLACE
LAS VEGAS, NEVADA

CLIENT

SPINNAKER HOMES
4511 W. CHEYENNE AVE. ST 105
NO. LAS VEGAS, CA 89032
702-873-7773
702-873-7776 FAX

REVISIONS

THESE DRAWINGS AND IMAGES ARE NOT TO BE REPRODUCED OR COPIED IN ANY FORM WITHOUT WRITTEN PERMISSION.
COPYRIGHT 2008 RNM DESIGN

DRAWING TITLE

GENERAL NOTE

DRAWING INFORMATION

PROJ. NO: 08041
FIRST SUBM/ITTAL DATE: 02.24.2009
SCALE:

DRAWING NUMBER

A0-0.4

DELTA 2 - PLAN CHECK CORRECTION
05.27.09

SECTION 08.85.00 1.03 CONTINUED

1.03 PERFORMANCE REQUIREMENTS1

A. Testing standards for air infiltration, water penetration and structural performance: AAMA/NWWDA 101/I.S. 2-97 for type of window unit indicated.

B. Air infiltration: Maximum 0..24 CFM per foot of overall sash crack at inward test pressure of 1.57, ASTM E 283.

C. Water penetration: No water penetration at inward test pressure of 3.0 psf, ASTM E 547-93.

D. Structural performance: No glass breakage, damage to hardware, permanent deformation at positive and negative test pressure of 30.0 psf, ASTM E 330-90.

1.04 SUBMITTALS

A. Product data: Submit manufacturer's product specifications, technical support data, installation and maintenance recommendations and standard details for each type of unit required, including finishing methods, hardware and accessories.

B. Product drawings: For each type of window specified, submit standard assembly and details for lap siding, stucco, CMU, brick veneer and power wall. Include stacking bar details for any mulled windows or configurations.

C. Color samples: Submit samples of each required aluminum finish.

D. Certification: Provide certification by a recognized, independent testing laboratory certifying that each required type of window complies with performance requirement indicated.

1.05 DELIVERY, STORAGE AND HANDLING

A. Comply with manufacturer's instructions for protection of units from damage.

B. Deliver in manufacturer's protective packaging.

1.06 QUALIFICATIONS

A. Manufacturer: Company specializing in manufacturing of thermally improved extruded aluminum with a minimum 10 years documented experience.

1. Specified performance values represent worst case scenarios. Contact your local 1 Milgard representative for values specific to each window style. Milgard Windows 3 Part)

PART 2 - PRODUCTS

2.01 MANUFACTURERS

A. Subject to compliance of materials and requirements listed.

B. Milgard thermally improved extruded aluminum windows and sliding glass doors.

2.02 MATERIALS

A. Aluminum: Comply with requirements of AAMA/NWWDA 101/I.S. 2-97, 6063-T5 temper for strength, corrosion resistance and application of required finish.

B. Extrusion frame members are to be 0.060 in thickness for structural wall.

2.03 GLASS AND GLAZING:

Provide the manufacturer's standard clear sealed insulating glazing material that complies with ASTM E 774-88 Class A and is at least 3/4"overall in thickness.

A. Factory glazed except where field glazing is required due to large window unit dimensions.

B. Spacer Bar: PPG Intercept(tm) warm-edge steel or aluminum spacer.

C. Glazing Stops: Provide snap on glazing stops (beads), coordinated with glass selection finish and glazing system indicated.

2.04 HARDWARE:

Provide the manufacturer's standard hardware fabricated from a corrosive resistant material and of sufficient strength to perform its intended function. For application of exposed hardware, use fasteners that match the finish of the hardware being fastened. All locking hardware must have certified forced entry resistance performance per CMBSO 1-79, CAWM 300/301.

A. 1120 Horizontal Slider: Automatic, spring loaded adjustable positive lock. Self-lubricating, dual nylon rollers operate on an integral monorail track.

B. 1520 Vertical Slider: Automatic, spring loaded adjustable positive lock. Concealed block and tackle balancers.

C. 920/921 Awning: Cam style locking mechanism. Tension adjustable hinge.

D. 920/921 Casement: Cam style locking mechanism. Tension adjustable hinge.

E. 420 Sliding Glass Door: Flip latch, dual hook locking mechanism with anti-lift device. Adjustable tandem axle stainless steel rollers.

2.05 ACCESSORIES

A. Weatherstripping: Operating sash members shall be weatherstripped with either fin seal, silicone treated polypropylene or dual durometer vinyl bulb seal.

B. Insect Screens: Provide insect screens for each operable exterior sash or ventilator depending on window type. Design windows and hardware to accommodate screens in a tight-fitting removable arrangement with a minimum of exposed fasteners and latches.

C. Fasteners: Provide aluminum, non-magnetic steel, epoxy adhesive, or other materials warranted by the manufacturer to be non-corrosive and compatible with window members, trim, hardware, anchors and other components of window units. Where fasteners screw-anchor into aluminum frame members less than 0.125" thick, reinforce the interior with aluminum to receive screw threads, or provide standard, non-corrosive, pressed-in, splined grommet nuts.

D. Anchors, Clips and Window Accessories: Fabricate anchors, clips and window accessories of aluminum or non-magnet stainless steel.

2.06 FABRICATION

A. Fabricate framing, mullions and sash members with mitered mechanically fastened corners and joints.

B. Provide a poured-in polyurethane insulator as a thermal break, with minimum gap width of .210 in all frame and sash parts that are exposed to interior and exterior air.

C. Glazing: Factory outside glazed, except where field glazing is required due to window unit dimensions. Designed for easy replacement without dismantling sash framing.

D. Fabricate components with minimum clearances and shim spacing around perimeter of assembly, yet enabling installation and dynamic movement of perimeter seal.

E. Provide drainage holes with moisture pattern to exterior.

F. Prepare components to receive anchor devices.

G. Provide integral weather stop flange to perimeter of unit.

H. Provide double or triple seal polypropylene for weatherstripping depending on type of operable window.

I. Assemble insect screens to fully integrate with window frame. Frames to be manufactured of cambered formed aluminum and reinforced with rigid plastic corner keys. Screen mesh to fit taut in frame and secured. Door screens made of extruded aluminum for strength and durability.

2.07 FINISHES

A. Bronze or Clear Anodized Exterior Finish: Provide AA-C22-A32 Class II Bronze or AA-C22-A31 Class II Clear finish, minimum 0.4 mils thick, electrolytically deposited color anodized finish..

B. White Painted Exterior Finish: Provide manufacturer's standard shop finish, consisting of no less than three coats, equaling 0.3 mils dry film thickness to comply with AAMA 603.8-92.

PART 3 - EXECUTION

3.01 EXAMINATION

A. Verify wall openings and adjoining air and vapor seal materials are ready to receive work of this section.

SECTION 08.51.00 THRU 08.51.00 3.01

3.02 INSTALLATION

A. Comply with manufacturer's specifications and recommendations for installation of window units, hardware, operators, accessories and other window components.

B. Windows shall be factory sized to fit in each framed opening, whether new or created by removing an existing window. Windows will be 1/2"smaller than the framed (rough) opening to allow 1/4"clearance on all sides (tolerance 1/16") for standard wood siding applications.

D. Windows shall be fabricated to rough opening size with 1/2"deductions automatically made, so that no additional calculations will be required.

E. Opening panels must be closed and locked during installation. Windows must be installed level, plumb and square with 1/4"clearance on all sides with weep holes at the bottom in a weather tight manner.

F. Headers must not be nailed. Nail through fin into framing along sides and base. At the head, finishing nails may be placed 1/2"above fin and bent down over fin to allow for header deflection

G. Adjust operating sash and hardware to provide tight fit at contact points and weatherstripping. Lubricate hardware and moving parts.

H. Seal frames at corners the full length of the seam where mounting flanges meet.

3.03 CLEANING

A. Clean interior and exterior glass surfaces promptly after installation. Take care to avoid damage to protective coatings and finishes.

B. Clean all exterior aluminum surfaces.

C. Do not use petroleum distillants to clean windows.

END OF SECTION

SECTION 09.21.16 GYPSUM BOARD ASSEMBLIES

PART 1 - GENERAL

1.01 SUMMARY

A. Description of Work: Work of this Section includes, but is not limited to, the following:

1. Gypsum board and accessories.
2. Sound-rated construction and accessories.
3. Gypsum board finishing.
4. Trim and accessories.

B. Related Work Specified Elsewhere:

1. See Division 6 for wood framing and furring components.
2. See Section 09310 CERAMIC TILE for tile facing on cement backer board.
3. See Section 09900 PAINTING AND FINISHING for gypsum board prime and finish coats.

1.02 REFERENCES

1.03 SUBMITTALS

A. Product Data: Submit manufacturer's specifications and installation instructions with Project conditions and materials clearly identified or detailed for each required system.

1.04 SYSTEM REQUIREMENTS

A. Fire Resistance Ratings: Where fire resistance classifications are indicated, provide materials and application procedures identical to those listed by UL or tested according to ASTM E119 for type of construction shown.

B. Acoustical Ratings: Where sound ratings are indicated, provide materials and application procedures identical to those tested by manufacturer to achieve Sound Transmission Class (STC) scheduled or indicated in accordance with ASTM E90.

1.05 QUALITY ASSURANCE

A. Install gypsum board in accordance with applicable requirements and recommendations of Gypsum Association GA 216, "Recommended Specifications for the Application and Finishing of Gypsum Board", except for more stringent requirements of manufacturer.

B. Apply acoustical sealant in accordance with applicable requirements of ASTM C919.

1.06 DELIVERY, STORAGE AND HANDLING

A. Delivery:

1. Deliver material to site promptly without undue exposure to weather.
2. Deliver in manufacturer's unopened containers or bundles, fully identified with name, brand, type and grade.

B. Storage:

1. Store above ground in dry, ventilated space.
2. Protect materials from soiling, rusting and damage.
3. Store board to be directly applied to masonry walls at 70°F for 24 hours prior to installation.

1.07 PROJECT CONDITIONS

A. Environmental Requirements:

1. Do not install gypsum board when ambient temperature is below 40°F.

B. For adhesive attachment of gypsum board, and for finishing of gypsum board, maintain ambient temperature above 50°F from one week prior to attachment or joint treatment until joint treatment is complete and dry.

PART 2 - PRODUCTS

2.01 PRODUCTS AND MANUFACTURERS

Gypsum Board and Accessories: Listed products establish standard of quality and are manufactured by United States Gypsum Company (USG), Chicago, IL.

2.02 BOARD MATERIALS

A. Gypsum Board:

1. ASTM C36, Type X fire_resistant type throughout except where indicated or required to meet UL assembly types.
2. Edges: Tapered.
3. Thickness: 5/8 inch, unless otherwise indicated.

B. Shaft Walls:

1. Liner boards:
   a. Edges: Beveled.
   b. Thickness: 1 inch.
   c. Acceptable product: Equivalent to Gypsum Liner Panels by USG.
2. Framing:
   a. Runners: ASTM C645, "C" shaped.
   b. Studs:"H" or "CH" type, minimum 25 gage.
   c. Aluminum clip angles: Minimum .063 inch thick, equivalent to USG Aluminum Clip Angle.
   d. Resilient channels: ½ inch deep, 25 gage steel with G40 hot dip galvanized coating per ASTM A653, equivalent to RC-1 by US Gypsum.

C. Cementitious Backer Board:

1. Aggregated portland cement board with woven glass fiber mesh facing complying with ANSI A118.9.
2. Thickness: 5/8 inch.
3. Acceptable product and manufacturer: Durock Cement Board by USG.

SECT. 08.51.00 3.02 THRU SECT. 09.21.16 2.02C

D. Gypsum Sheathing:

1. Manufacturer's fire resistant board with water-resistant gypsum core encased in specially formulated black water_repellent paper facing.
2. ASTM C79, Type X.
3. Edges: V_shaped tongue & groove. [square.]

2.03 ACCESSORIES

A. Metal Trim for Gypsum Board:

1. Conform to profile and dimensions indicated.
2. Material for interior Work: Galvanized steel, 26 gage minimum.
3. Corner beads: Equivalent to Dur_A_Bead No. 103 [104] [800] [900] by USG.
4. Casing beads (edge beads): to 200A [200B] [401] [402] [P-1] [701-B] [801-A] [801-B] by USG.
5. Control joints:
   a. Roll_formed zinc with perforated flanges.
   b. Size: 1-3/4 inch wide, with 1/4 inch wide center channel.
   c. Provide with removable tape strip over channel.
   d. Acceptable product: Equivalent to No. 093 by USG.

B. Metal Trim for Veneer Plaster:

1. Conform to profile and dimensions indicated.
2. Material: Galvanized steel, 26 gage minimum.
3. Corner beads: Equivalent to No. 900 by USG.
4. Casing beads: Equivalent to No. 701_A (channel_type edge) or No. 701_B (angle edge) by USG.
5. Control joints: Roll_formed zinc with perforated flanges. Acceptable product: Equivalent to No. 093 by USG.

C. Trim for Exterior Soffits: Rolled zinc complying with ASTM C1047.

D. Special Trim and Reveals: Extruded aluminum alloy 6063-T5, profiles as indicated..

E. Molding and Trim for Vinyl-Faced Panels:

1. Manufacturer's standard rigid plastic molding.
2. Include inside corners, end caps, battens and ceiling drive-in trim, as indicated.
3. Color: Almond [Ash Blue] [Factory-laminated with matching vinyl].

F. Adhesives and Joint Treatment Materials: Adhesives and Joint Treatment Materials:

1. Conform to requirements of ASTM C475
2. Joint compounds:
   a. Drying-type (ready-mixed): Equivalent to SHEETROCK Taping Joint Compound and Topping Joint Compound, or SHEETROCK All Purpose Joint Compound [or Lightweight All Purpose Joint Compound Ready-Mixed] by USG.

G. Gypsum Board Screws:

1. Comply with ASTM C1002. Consult UL assemblies for specific requirements

H. Backer Board Accessories: Provide accessories and corrosion-resistant-coated steel screws as recommended by backer board manufacturer and required for complete installation.

I. Acoustical Sealant: Equivalent to Sheetrock Brand Acoustical Sealant by USG.

PART 3 - EXECUTION

3.01 EXAMINATION

Examine substrates and adjoining construction and conditions under which Work is to be installed. Do not proceed with Work until unsatisfactory conditions are corrected.

3.02 GENERAL INSTALLATION REQUIREMENTS

1. Install in accordance with reference standards and manufacturer's instructions [, and as required to comply with seismic requirements].

2. Install framing to comply with ASTM C840 requirements that apply to framing installation.

3. Install supplementary framing, blocking and bracing at terminations in gypsum board assemblies to support fixtures, equipment, heavy trim, grab bars, toilet accessories, furnishings or similar construction.

3.03 BOARD INSTALLATION

A. Single Layer Gypsum Board on Wood Framing:

1. Loosely butt gypsum board joints together and neatly fit.
2. Do not place butt ends against tapered edges.]
3. Maximum allowable gap at end joints: 1/8 inch.
4. Stagger joints on opposite sides of partitions.
5. Apply ceiling boards first where gypsum board ceilings and wall occur.
6. Cut openings in gypsum board to fit electrical outlets, plumbing, light fixtures and piping snugly and small enough to be covered by plates and escutcheons. Cut both face and back paper.
7. Screw or nail board in place securely with fasteners spaced according to manufacturer's recommendations.

B. Double Layer Gypsum Board on Wood Framing:

1. Fasten base layer to studs or furring and attach face layer using laminating adhesive and screws or nails, applied according to manufacturer's instructions.
2. Offset face-layer joints at least 10 inches from parallel base-layer joints.

C. Direct Gypsum Board Adhesive Application:

1. Apply adhesive with manufacturer's recommended spreader to backs of gypsum boards in band of four beads each to center of each board and along edges.
2. Position boards vertically and press firmly in place to insure good bond.
3. Fasten top and bottom of board if required.

D. Water Resistant Gypsum Board:

1. Complete plumbing rough_in before gypsum board panels are erected.
2. Separate gypsum panels from rough_in and fixtures by 1/4 inch space.
3. Make necessary cut_outs and seal cut or exposed panel edges with thinned-down ceramic tile adhesive or with waterproof flexible sealant, as recommended by gypsum board manufacturer.
4. Install water_resistant board horizontally.
5. Do not install water-resistant board directly over vapor retarder.
6. Prior to tile application, fill openings around pipes, fittings, fixtures, interior angles and other penetrations with waterproof flexible sealant, as recommended by gypsum board manufacturer. Do not fill 1/4 inch gap at bottom of panels.

E. Cementitious Backer Board Installation:

1. Install as indicated to comply with ANSI A108.11 and in accordance with manufacturer's instructions.
2. Complete plumbing rough_in before boards are erected.
3. Separate board from rough_in and fixtures and fill space as recommended by manufacturer.
4. Securely fasten boards to substrate as required.
5. Follow manufacturer's instructions for treatment of edge terminations.
6. At joints and corners, embed fiberglass tape in skim coat of mortar.]

3.06 SOUND-RATED CONSTRUCTION

A. Insulation:

1. Install sound attenuation blankets in sound_rated partitions and ceilings where indicated.
2. Completely fill space between studs and framing to full height of partition wall or full area of ceiling.
3. Fit carefully behind electrical outlets and other Work penetrating sound-rated construction.

B. Gypsum Board:

1. Install gypsum board same as for non-acoustic interior partitions and ceilings.
2. Coordinate with installation of perimeter sealants.

SECT. 09.21.16 2.01D THRU 09.21.16 3.06B

C. Acoustical Sealant:

1. At partition walls, provide continuous beads of acoustic sealant at juncture of both faces of runners with floor and ceiling construction, and wherever gypsum board abuts dissimilar materials, prior to installation of gypsum board.

2. At ceilings, provide continuous beads of sealant wherever gypsum board abuts dissimilar materials.

3. Provide continuous bead of sealant behind faces of control joints prior to installation of control joint accessories.

4. After installation of gypsum board base layers, cut face layer sheets ½ inch less than floor_to_ceiling height and position with 1/4 inch open space between gypsum board and floor, ceiling and dissimilar vertical construction. Fill 1/4 inch open space with continuous sealant beads after installation of face layer.

5. At openings and cutouts, fill open spaces between gypsum board and fixtures, cabinets, ducts and other flush or penetrating items, with continuous bead of sealant.

6. Seal sides and backs of electrical boxes to completely close off openings and joints.

D. Sound Flanking Paths:

1. Where sound_rated partition walls intersect non_rated gypsum board partition walls, extend sound_rated construction to completely close sound flanking paths through non_rated construction.
2. Seal joints between face layers at vertical interior angles of intersecting partitions.]

3.07 ACCESSORY INSTALLATION

A. Trim:

1. Use same fasteners to anchor trim accessory flanges as required to fasten gypsum board to supports, unless otherwise recommended by trim manufacturer.
2. Install metal corner beads at external corners.
3. Install metal casing bead trim whenever edge of gypsum board would otherwise be exposed or semi_exposed.

B. Control Joints:

1. Install control joints at junction of gypsum board partitions with walls or partitions of other finish material.
2. Install control joints within long runs of partitions, ceilings or soffits at approximately 30'_0" on center or as indicated.
3. Where gypsum board is vertically continuous, as at stairwells, provide horizontal control joints at each floor level.

C. Special Trim: Install as indicated on Drawings and in accordance with manufacturer's instructions.

3.08 FINISHING

A. Provide levels of gypsum board finish for locations as follows, in accordance with Gypsum Association GA 214, "Recommended Specification: Levels of Gypsum Board Finish":

1. Level 1: Ceiling plenum areas and concealed areas, except provide higher level of finish as required to comply with fire resistance ratings and acoustical ratings.
2. Level 2: Gypsum board substrate at tile [stone], except remove tool marks and ridges.
3. Level 4: Gypsum board surfaces, except where another finish level is indicated.
4. Level 5: Where indicated.

B. Interior Gypsum Board:

1. Taping (Level 1):
   a. Butter taping compound into inside corners and joints.
   b. Center tape over joints and press down into fresh compound.
   c. Remove excess compound.
   d. Tape joints of gypsum board above suspended ceilings.

2. First coat (Level 2):
   a. Use taping or all-purpose drying-type compound.
   b. Immediately after bedding tape, apply skim coat of compound and allow to dry completely in accordance with manufacturer's instructions.
   c. Apply first coat of compound over flanges of trim and accessories, and over exposed fastener heads and finish level with board surface.

3. Second coat (Level 3): After first coat treatment is dried, apply second coat of compound over tape and trim, feathering compound 2 inches beyond edge of first coat.

4. Third coat (Level 4):
   a. After second coat has dried, sand surface lightly and apply thin finish coat to joints, fasteners and trim, feathering compound 2 inches beyond edge of second coat.
   b. Allow third coat to dry. Apply additional compound, and touch up and sand, to provide surface free of visual defects, tool marks, and ridges, and ready for application of finish.

5. Skim coat (Level 5):
   a. Apply skim coat of topping or all purpose drying type compound over exposed surfaces of gypsum board according to manufacturer's directions.
   b. After skim coat has dried, touch up and sand to provide surface free of visual defects, tool marks, and ridges, and ready for application of finish.

C. Water-Resistant Gypsum Board: Treat fastener heads and joints with setting-type joint compound.

1. For joints to be covered with tile, apply tape and joint compound bedding coat and skim coat only; do not apply finish coats.
   a. Do not crown joints or leave excess compound on panels.
   b. Remove tool marks and ridges.
   c. For fastener heads to be covered with tile, apply one coat of joint compound.

D. Cementitious Backer Board: Prepare and finish joints in accordance with manufacturer's instructions.

E. Joint Compound:

1. Fill and sand filled joints, edges, corners and openings to produce surface ready to receive veneer finish.
2. Feather coats onto adjoining surfaces so that camber is maximum 1/32 inch.
3. Allow joint compound to completely set before applying veneer plaster finish.

F. Trim:

1. Use same fasteners to anchor trim accessory flanges as required to fasten gypsum board to supports, unless otherwise recommended by trim manufacturer.
2. Install metal corner beads at external corners.
3. Install metal casing bead trim whenever edge of gypsum base would otherwise be exposed or semi_exposed, and where gypsum base terminates against dissimilar material.

G. Control Joints: Install where indicated and specified.

H. Special Trim and Reveal Joints: Install as indicated on Drawings and in accordance with manufacturer's instructions.

END OF SECTION

RECEIVED
JUN 17, 2009
CITY OF LAS VEGAS
PLANNING

SECT. 09.21.16 3.06C THRU 09.21.16 3.08

CRAIG D. SMITH
REGISTERED
No. 4967
6-2-09
ARCHITECT
STATE OF NEVADA

RNM

RNM DESIGN
ARCHITECTURE
PLANNING
LANDSCAPE
GRAPHICS
RNMDESIGN.COM

2 CORPORATE PARK
SUITE 100
IRVINE, CALIFORNIA
92606
(949) 752-1800
(949) 833-9603

PROJECT NAME/ADDRESS

CORONADO
THE PASEOS
875 PANTARA PLACE
LAS VEGAS, NEVADA

CLIENT

SPINNAKER
HOMES
4511 W. CHEYENNE AVE. ST 105
NO. LAS VEGAS, CA 89032
702-873-7773
702-873-7776 FAX

REVISIONS

THESE DRAWINGS AND IMAGES ARE NOT TO BE REPRODUCED OR COPIED IN ANY FORM WITHOUT WRITTEN PERMISSION.
COPYRIGHT 2006 RNM DESIGN

DRAWING TITLE

GENERAL
NOTE

DRAWING INFORMATION

PROJ. NO: 08041
FIRST SUBMITTAL DATE: 02.24.2009
SCALE:

DRAWING NUMBER

A0-0.5

DELTA 2 - PLAN CHECK CORRECTION
05.27.09

SECTION 09.22.16

PART 1 - GENERAL

1.01 SECTION INCLUDES

Non-structural metal studs for wall assemblies.

1.03 REFERENCES

A. ASTM A 780 - Standard Practice for Repair of Damaged and Uncoated areas of Hot Dip Galvanized Coatings.
B. ASTM A 1003 - Standard Specification for Steel Sheet, Carbon, Metallic- and Nonmetallic Coated for Cold Formed Framing Members.
C. ASTM B 633 - Standard Specification for Electrodeposited Coatings of Zinc on Iron and Steel.
D. ASTM C 645 - Standard Specification for Nonstructural Steel Framing Members, 2007.
E. ASTM C 754 - Standard Specification for Installation of Steel Framing Members to Receive Screw Attached Gypsum Panel Products, 2004.
F. ASTM C 1513 - Standard Specification for Steel Tapping Screws for Cold-Formed Steel Framing Connections.
G. AISI North American Specification for the Design of Cold-Formed Steel Structural Members.
H. AISI - Standard for Cold-Formed Steel Framing General Provisions

1.04 SUBMITTALS

A. Submit under provisions of Section 01300.

B. Manufacturer's data sheets on each product specified, including:

1. Preparation instructions and recommendations.
2. Storage and handling requirements and recommendations.
3. Installation methods.

1.05 QUALITY ASSURANCE

A. Installer Qualifications: Installer experienced in performing work of this section who has specialized in installation of work similar to that required for this project.

B. Pre-installation Meetings: Conduct pre-installation meeting to verify project requirements, substrate conditions, and manufacturer's installation instructions.

C. Fire-Test-Response Characteristics: For fire-resistance-rated assemblies that incorporate non-structural steel framing, provide materials and construction identical to those tested in assembly indicated according to ASTM E 119 by an independent testing agency. Products used in the assembly shall carry a classification label from a testing laboratory acceptable to authority having jurisdiction.

D. STC-Rated Assemblies: For STC-rated assemblies, provide materials and construction identical to those tested in assembly indicated according to ASTM E 90 and classified according to ASTM E 413 by an independent testing agency.

1.06 DELIVERY, STORAGE, AND HANDLING

Store products in manufacturer's unopened packaging until ready for installation per requirements of AISI's "Code of Standard Practice".

1.07 PROJECT CONDITIONS

Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results. Do not install products under environmental conditions outside manufacturer's absolute limits.

PART 2 - PRODUCTS

2.01 MANUFACTURERS

2.02 COMPONENTS

A. Studs: Cold-formed galvanized steel C-studs, in conformance with AISI Specifications for Design of Cold-formed Steel Structural Members; Dietrich UltraSTEEL drywall studs.

1. Designation and size as indicated on the drawings.
2. Designation: USTE 20 gauge-equivalent, drywall stud.
3. Designation: USTN-25 gauge-equivalent drywall stud.
4. Minimum Delivered Thickness: 0.0179 inches (0.45 mm)
5. Minimum Delivered Thickness: 0.0296 inches (0.75 mm)
6. Members that can show independently verified test performance that meets the limiting height values listed in C 754 (need not meet the minimum thickness set forth in 4.3 or the minimum section properties set forth in 8.1).

B. Runner Track: Cold formed galvanized steel in conformance with AISI Specifications for Design of Cold-formed Steel Structural Members; Dietrich UltraSTEEL drywall runner track.

1. Thickness equal to stud thickness minimum or heavier per design requirements.
*rength of 33 ksi in 18 gauge (1.09 mm) and lighter.

C. Furring Channel: Cold-formed galvanized steel in conformance with AISI Specifications for Design of Cold-formed Steel Structural Members; Dietrich Metal Framing furring channel:

D. U Channel: Cold-formed galvanized steel; Dietrich Metal Framing U channel;

E. H Studs and Track: Cold-formed galvanized steel, approved for the use intended based on ICC's current Research Report; Dietrich Metal Framing H studs and track:

1. Designation and size as indicated on the drawings.
2. Designation: Unhemmed H stud: 2 inches (51 mm), 10-foot (3 m) length, 25 gauge, 0.021 inches (0.53 mm) .
3. Designation: Hemmed H stud: 2 inches (51 mm), 10-foot (3 m) length, 25 gauge, 0.021 inches (0.53 mm).
4. Deflection Limitation at 10-foot (3000 mm): L/240.

F. Metal Trims: Cold-formed galvanized steel.

1. Type and Size as indicated on the drawings.
2. Type: J Trim.
   a. Designation: M400, 3/8 inches (9.5 mm) size, 1-1/4 inches (32 mm) leg.
   b. Designation: M401, 1/2 inches (12.7 mm) size, 1 1/4 inches (32 mm) leg.
   c. Designation: M402, 5/8 inches (15.9 mm) size, 1-1/4 inches (32 mm) leg.
3. Type: U Trim
   a. Designation: M20A, 1/2 inches (12.7 mm) size, 1 inch (25.4 mm) leg.
   b. Designation: M20A, 5/8 inches (15.9 mm) size, 1 inch (25.4 mm) leg.
4. Type: L Trim
   a. Designation: M20B, 1/2 inches (12.7 mm) size, 1 inch (25.4 mm) leg.
   b. Designation: M20B, 5/8 inches (15.9 mm) size, 1 inch (25.4 mm) leg.

G. Drywall Corner Bead: Cold-formed galvanized steel sheet.

1. Type: 103 Deluxe.
2. Flange Length: 1-1/4 inches (32 mm).

H. Flat Strap and Backing Plate: Sheet for blocking and bracing in length and width indicated.

1. Minimum Base-Metal Thickness: As indicated on Drawings.
2. Minimum Base-Metal Thickness: 0.0179 inch (0.45 mm).
3. Minimum Base-Metal Thickness: 0.0296 inch (0.75 mm).
4. Subject to compliance with requirements, provide:
   a. Dietrich Metal Framing Danback Fire Treated Wood Backing Plate D16F.
   b. Dietrich Metal Framing Danback Fire Treated Wood Backing Plate D24F.

I. Channel Bridging: 0.0538-inch (1.37-mm) bare metal thickness, with minimum 1/2-inch (1.27 mm) wide flanges.

1. Subject to compliance with requirements, provide Dietrich Metal Framing; Spazzer 9200 Bridging and Spacing Bar SPZD.
2. Assembly: U-Channel assembly.
3. Depth: As indicated on Drawings.
4. Depth: 3/4 inch (19.1 mm).
5. Depth: 1-1/2 inches (38.1 mm).
6. Depth: 2 inches (50.8 mm).
7. Clip Angle: Subject to compliance with requirements, provide Dietrich Metal Framing; EasyClip U Series Clip
8. Angle or not less than 1-1/2 by 1-1/2 inches (38.1 by 38.1 mm), 0.068 inch (1.73 mm) thick, galvanized steel.
   a. Clip Angle: U543.
   b. Clip Angle: U545.
   c. Clip Angle: U547.

J. Resilient Furring Channels: 1/2-inch (12.7 mm) deep, steel sheet members designed to reduce sound transmissions:

1. Provide Dietrich Metal Framing; Resilient Channel RCSD.
2. Provide Dietrich Metal Framing; Resilient Channel RCUR.

K. Framing Component Accessories: Provide the following accessories as required for a complete system.

1. EasyClip Clip Angle
2. Angles.
3. Backing Strip.

L. Fasteners: Self-drilling, self-tapping screws; steel, complying with ASTM C 1513; galvanized coating, plated or oil-phosphate coated complying with ASTM B 633 as needed for required corrosion resistance. Consult UL assemblies for other specific requirements.

2.03 MATERIALS

A. Cold-Formed Steel: Complying with ASTM A 1003/A 1003M; unless indicated otherwise.

B. Galvanized Coating: G40 coating weight minimum, complying with ASTM C 645.

2.04 FABRICATION

A. General:Framing components may be preassembled into panels prior to erecting.

B. Fabricate panels square, with components attached in a manner so as to prevent racking or distortion.

C. Cut all framing components squarely for attachment to perpendicular members, or as required for an angular fit against abutting members. Hold members positively in place until properly fastened.

D. Fasteners: Fasten components using self-tapping screws or welding.

PART 3 - EXECUTION

3.01 EXAMINATION

A. Prior to installation, inspect previous work of all other trades. Verify that all work is complete and accurate to the point where this installation may properly proceed in strict accordance with framing shop drawings.

B. If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.

3.20 ERECTION

A. Install cold-formed framing in accordance with requirements of ASTM C 754.

B. Framing Installation:

1. Erect framing and panels plumb, level and square in strict accordance with approved drawings.
2. Handle and lift prefabricated panels in a manner to not cause distortion in any member.
3. Anchor runner track securely to the supporting structure. Install concrete anchors only after full compressive strength has been achieved.
4. Butt all track joints. Securely anchor abutting pieces of track to a common structural element, or splice them together.
5. Align and plumb studs, and securely attach to the flanges or webs of both upper and lower tracks.
6. Attach wall stud bridging when required in a manner to prevent stud rotation. Space bridging rows according to manufacturer's recommendations.
7. Provided temporary bracing until erection is completed.
8. Where indicated in the drawings, provide for structural vertical movement using means in accordance with manufacturer's recommendations.

C. Shaftwall Framing Installation:

1. Lay out as shown in construction drawings. Secure J Track as perimeter framing and plumb to ceiling, floor and sides. Attach with suitable fasteners, spaced not more than 24 inches (610 mm) on centers. Apply a bead of sealant to the perimeter.

2. Preplan the stud layout 24 inches (610 mm) on center and adjust the spacing at either end so the end studs will not fall closer than 12 inches (305 mm) from the end.

3. Erect the first 1-inch (25.4 mm) shaft wall liner panel, cut 3/4 inch (19.0) less than the total height of the framed section. Plumb the panel against the web of the J Track and bend out tabs in J Track to secure panels in place.

4. Insert C-T Stud, cut 1/2 inch (19.1 mm) less than the overall height, into the top and bottom J Tracks and fit tightly over the previously installed 1 inch (25.4 mm) panel. Allow equal clearance between top and bottom J Track.

5. Install the next 1-inch (25.4 mm) shaft wall liner panel inside the J Tracks and within the tabs of the CT stud.

6. Progressively install succeeding studs and panels as described above until the wall section is enclosed. The final panel section may be secured with tabs from the J Track at 12 inches (305 mm) on center.

7. Where wall heights exceed the standard or available length of shaft wall liner panels, the gypsum panels may be cut and stacked with joints occurring within the top or bottom third points of the wall. Joints of adjacent panels should be alternately staggered to prevent a continuous horizontal joint.

8. For doors, ducts or other large penetrations or openings, install J Track as perimeter framing. Use 20 gauge, 0.0329 inches (0.91 mm) track with a 3 inches (76 mm) back leg for elevator doors and block cavity with 12 inches (305 mm) wide gypsum filler strips for doors exceeding 7-foot (2 m) height.

3.03 PROTECTION

A. Protect installed products until completion of project.

B. Touch-up, repair or replace damaged products before Substantial Completion.

SECTION 09.24.23

PART I GENERAL

1.01 SECTION INCLUDES

A. Provide all labor, materials, and equipment necessary to install a Portland Cement Plaster Exterior Finish

1.02 RELATED SECTIONS

A. 03300 - Cast-in-Place Concrete
B. 04200 - Unit Masonry
C. 05400 - Light gauge cold formed steel framing
D. 06110 - Wood Framed Construction
E. 06160 - Sheathing
F. 07900 - Joint Sealers
G. 09220 - Portland Cement Plaster

1.03 REFERENCES

A. ASTM C 91 - Masonry Cement
B. ASTM C 150 - Portland Cement
C. ASTM C 206 - Finishing Hydrated Lime
D. ASTM C 207 - Hydrated Lime for Masonry Purposes
E. ASTM A 641 - Zinc Coated (Galvanized) Carbon Steel Wire
F. ASTM C 847 - Standard Specification for Metal Lath
G. ASTM C 897 - Aggregate for Job-Mixed Portland Cement-Based Plaster
H. ASTM C 926 - Application of Portland Cement-Based Plaster
I. ASTM C 1063 - Installation of Lathing and Furring for Portland Cement Based Plaster
J. PCA (Portland Cement Association) - Plaster (Stucco) Manual
K. Plaster and Drywall Systems Manual, Third Edition
L. UBC - Uniform Building Code
M. Omega ColorTek Three Coat System Details

1.04 DEFINITIONS

A. Three-Coat Plastering - The application of plaster in three successive coats, leaving time between coats for setting and drying or partial drying

B. Lath - A base to receive plaster. It is generally secured to framing or furring members

C. Flashings - Strips of sheet metal or building paper used to waterproof around openings, roof penetrations, etc.

D. Accessories - Linear formed metal, metal and paper, or plastic members fabricated for the purpose of forming corners, edges, control joints, or decorative effects in conjunction with gypsum board and plaster assemblies

E. Scratch Coat - First coat of plaster in three-coat plaster work

F. Brown Coat - Coat of plaster directly beneath the finish coat. In two-coat work, brown coat refers to the base coat plaster applied over the lath. In three-coat work, the brown coat refers to the second coat applied over a scratch coat. Brown coats are applied with a fairly rough surface to receive the finish coat

G. Finish Coat - The final layer of plaster applied over a base coat or other substrate

1.05 SYSTEM DESCRIPTION

General: The Three-Coat System is an exterior finishing system and is comprised of: lath, scratch coat, brown coat, and a finish coat

Application Methods: The Three-Coat System is applied directly to a structure at the construction site

1.06 SUBMITTALS

A. Submit under provisions of Section 01300 Submittal Procedures

B. Product Data: All Product Data Sheets and details that pertain to the project

C. Samples: Submitted upon request:

1. Samples of the Three-Coat System of an adequate size as required to represent each color and texture to be utilized on the project and produced using the same techniques and tools required

2. Retain approved samples at the construction site throughout the application process

1.07 QUALITY ASSURANCE

A. Qualifications:

1. System component materials shall be manufactured or approved by Omega Products International, Inc. and shall be distributed by the same or its authorized dealers

2. Plastering Contractor shall specialize in cement plaster work with a minimum of five years documented experience

B. On Site Mock Ups: Produced upon request.

1. Prior to commencement of work, provide a mock up for approval
   a. Mock Ups to represent the products to be installed and each color and texture, constructed using the same tools and techniques to be utilized on the project
   b. Retain approved mock up at job site throughout the application process

1.08 DELIVERY, STORAGE, AND HANDLING

A. Deliver all materials to the construction site in their original, unopened packaging with labels intact

B. Inspect the materials upon delivery to assure that specified products have been received. Report defects or discrepancies to the responsible party according to the contract agreement; do not use reported material for application Store materials in a cool, dry place, protected from direct sunlight, weather, and other damage. Do not store materials in direct contact with the ground or in temperatures ranging below 40° F (4° C) or above 110° F (39° C)

1.09 PROJECT CONDITIONS

A. Environmental Conditions:

1. Portland cement-based plaster shall not be applied to frozen base or those bases containing frost. Plaster mixes shall not contain frozen ingredients. Plaster coats shall be protected from freezing for a period of not less than 24 hours after set has occurred

B. Existing Conditions:

1. Access to electrical outlets, clean, potable water, and a suitable work area at the construction site throughout the application of the Three-Coat System is required

1.10 SEQUENCING AND SCHEDULING

A. The installation of the Three-Coat System shall be coordinated with all other construction trades

B. Provide sufficient manpower to ensure continuous operation, free of cold joints, scaffolding lines, variations in texture, etc

1.11 MAINTENANCE

A. The following materials shall be presented to the owner following the application of the system:

1. One unit of finish for each color and texture utilized on the project

PART II: PRODUCTS

2.01 MANUFACTURERS

A. Acceptable Manufacturer: Omega Products International, Inc.

2.02 COMPONENTS

A. Scratch and Brown Coat

1. Cement: ASTM C 150 Type I, Portland or ASTM C 91, Masonry
2. Lime: ASTM C 206, Type S for use with Portland Cement or ASTM C 207, Type S, for use with masonry cement
3. Aggregate: In accordance with ASTM C 897 and ASTM C 144
4. Water: Clean, fresh, potable and free of mineral or organic matter that can affect plaster
5. Plaster Mix Reinforcement: Glass fibers, 1/2 in. nominal length, alkali resistant

B. Finish Coat

1. ColorTek Exterior Color Coat manufactured by Omega Products International, Inc.
2. AkroFlex and OmegaFlex Finishes manufactured by Omega Products International, Inc.
3. Colors and textures shall be approved by Architect and Owner

C. Furring and Lath

1. Refer to Table 25-B in this report, also the UBC as well as local building jurisdictions
2. Kraft Waterproof Building Paper: See UBC Standard 14-1 enclosed in this report

D. Accessories

1. Corner Mesh: Formed steel, minimum 26 gauge thick, expanded flanges shaped to permit complete embedding in plaster, minimum 2 in. wide, galvanized finish

2. Strip Mesh: Metal Lath, 3.4 lb/yd2 expanded metal, galvanized, 6 in. wide x 18 in. long

3. Vent Screed: Minimum 24 gauge thick, thickness governed by plaster thickness, minimum 4 in width, double "V" profile, with perforated expanse between "V's" of longest possible lengths; galvanized finish

4. Casing Bead: Formed steel, minimum 24 gauge thick, thickness governed by plaster thickness, maximum possible lengths, expanded metal flanges with square edges, galvanized finish

5. Drip Screed: Minimum 26 gauge thick, depth governed by plaster thickness, minimum 3-1/2 in. high flange of longest possible lengths, galvanized finish

6. Control and Expansion Joints: Depth to conform to plaster thickness, maximum practical lengths manufactured from galvanized steel, zinc, PVC, or anodized aluminum

7. Anchorages: Nails, staples, or other approved metal supports of type and size to suit application, galvanized to rigidly secure lath and associated metal accessories in place

8. Penetration Flashing: Type I, Grade A building paper conforming to UBC Standard 14-1, 9 in. wide x length required

9. Wire: ASTM A 641, Class I coating (galvanized), soft temper

2.03 MIXES

A. Mix and proportion cement plaster in accordance with ASTM C 926 and PCA Plaster (Stucco) Manual

B. ColorTek base stucco and ColorTek color packs shall be mixed according to the appropriate product data sheets written and published by Omega Products International

C. Protect mixtures from freezing, contamination and rapid evaporation

PART III EXECUTION

3.01 EXAMINATION

A. Prior to the application of the Three-Coat System the plastering contractor shall ensure that:

1. Surface and site conditions are ready to receive work

2. Grounds and Blocking: Verify that the items within the walls for other sections of work have been installed

3. Mechanical and Electrical: Verify that the services within the walls have been tested and approved

4. Beginning of installation means acceptance of existing conditions

B. The plastering contractor shall notify the appropriate authority, according to the construction contract, of any discrepancies found

3.02 SURFACE PREPARATION

A. Clean the substrate to which the system is to be applied ensuring that there are no foreign materials present.

1. Foreign materials include, but are not limited to, oil, dirt, dust, form release agents, efflorescence, paint, wax, water repellants, moisture, frost

B. Protect surfaces near the work of this section from damage, disfiguration, and overspray. Mask off all dissimilar materials

3.03 INSTALLATION

A. Weather Resistive Barriers

1. All weather-exposed surfaces shall have a weather resistive barrier to protect the interior wall covering. Such barrier shall be equal to that provided in UBC Standard 14-1 for Kraft waterproof building paper or asphalt-saturated rag felt. Building paper and rag felt shall be free from holes and breaks other than those created by fasteners and construction system due to attaching building paper, and shall be applied over studs or sheathing of all exterior walls. Such felt or building paper shall be applied horizontally, with the upper layer lapped over the lower layer not less than 2 inches (51 mm). Where vertical joints occur, felt or paper shall be lapped not less than 6 inches (152 mm).

B. Plastering

1. Apply plaster in accordance with ASTM C 926 and UBC

2. Apply scratch coat to a nominal thickness of 3/8 in., brown coat to a nominal thickness of 3/8 in., and finish coat to a nominal thickness of 1/8 in. over metal-lathed surfaces. At concrete or concrete block apply 1/2 in. thick leveling coat and then 1/8 in. finish coat

3. First and second coats of plaster shall be applied and moist cured as set fourth in Table 25 F of this specification

4. Cement plaster finish coats shall be applied over base coats that have been in place for the time period set forth in Table 25 F of this report. The finish coat shall be applied with sufficient material and pressure to bond and to cover the brown coat and shall be of sufficient thickness to conceal the brown coat

C. Tolerances

1. Maximum variation from true flatness: 1/8 in. in 10 ft

3.04 CLEANING

A. Remove any and all materials used

B. Remove any overspray from surrounding materials

C. Remove all protective masking

END OF SECTION

RECEIVED
NOV 05 2009
CITY OF LAS VEGAS

SECT. 09.21.16 THRU 09.22.16 2.02H

SECTION 09.22.16 2.02I THRU 9.24.16 3.03

SECTION 09.24.23 THRU 09.24.23 2.01

SECTION 09.24.23 2.02 THRU 09.24.23 3.04

CRAIG D. SMITH
REGISTERED
No. 4967
6-2-09
ARCHITECT
STATE OF NEVADA

RNM

RNM DESIGN
ARCHITECTURE
PLANNING
LANDSCAPE
GRAPHICS
RNMDESIGN.COM

2 CORPORATE PARK
SUITE 100
IRVINE, CALIFORNIA
92606
(949) 752-1800
(949) 833-9603

PROJECT NAME/ADDRESS

CORONADO THE PASEOS
875 PANTARA PLACE
LAS VEGAS, NEVADA

CLIENT

SPINNAKER HOMES
4511 W. CHEYENNE AVE. ST 105
NO. LAS VEGAS, CA 89032
702-873-7773
702-873-7776 FAX

REVISIONS

THESE DRAWINGS AND IMAGES ARE NOT TO BE REPRODUCED OR COPIED IN ANY FORM WITHOUT WRITTEN PERMISSION. COPYRIGHT 2008 RNM DESIGN

DRAWING TITLE

GENERAL NOTE

DRAWING INFORMATION

PROJ. NO: 08041
FIRST SUBMITTAL DATE: 02.24.2009
SCALE:

DRAWING NUMBER

A0-0.6

DELTA 2 - PLAN CHECK CORRECTION
05.27.09

NOTE: ALL UNITS IN THIS BUILDING MUST COMPLY WITH THE FOLLOWING PROVISIONS, AS STIPULATED BY THE FAIR HOUSING ACT.

Fair Housing Accessibility Guidelines--Design Guidelines for Accessible/Adaptable Dwellings

Section 1. Introduction Authority, Purpose, Scope & Organization of Guidelines
Section 2. Definitions
Section 3. Fair Housing Act Design and Construction Requirements
Section 4. Application of the Guidelines
Section 5. Guidelines
Requirement 1. Accessible building entrance on an accessible route.
Requirement 2. Accessible and usable public and common use areas.
Requirement 3. Usable Doors.
Requirement 4. Accessible route into and through the covered unit.
Requirement 5. Light switches, electrical outlets, thermostats and other environmental controls in accessible locations.
Requirement 6. Reinforced walls for grab bars.
Requirement 7. Usable kitchens and bathrooms.

Section 1. Introduction

Authority
Section 804(f)(5)(C) of the Fair Housing Amendments Act of 1988 directs the Secretary of the Department of Housing and Urban Development to provide technical assistance to States, local governments, and other persons in implementing the accessibility requirements of the Fair Housing Act. These guidelines are issued under this statutory authority.

Purpose
The purpose of these guidelines is to provide technical guidance on designing dwelling units as required by the Fair Housing Amendments Act of 1988 (Fair Housing Act). These guidelines are not mandatory, nor do they prescribe specific requirements which must be met, and which, if not met, would constitute unlawful discrimination under the Fair Housing Act. Builders and developers may choose to depart from these guidelines and seek alternate ways to demonstrate that they have met the requirements of the Fair Housing Act. These guidelines are intended to provide a safe harbor for compliance with the accessibility requirements of the Fair Housing Act.

Scope
These guidelines apply only to the design and construction requirements of 24 CFR 100.205. Compliance with these guidelines do not relieve persons participating in a Federal or Federally-assisted program or activity from other requirements, such as those required by section 504 of the Rehabilitation Act of 1973 (29 U.S.C. 794) and the Architectural Barriers Act of 1968 (42 U.S.C. 4151-4157). Accessible design requirements for Section 504 are found at 24 CFR Part 8. Accessible design requirements for the Architectural Barriers Act are found at 24 CFR Part 40.

Organization of Guidelines
The design guidelines are incorporated in Section 5 of this document. Each guideline cites the appropriate paragraph of HUD's regulation at 24 CFR 100.205; quotes from the regulation to identify the required design features, and states recommended specifications for each design feature. Generally, these guidelines rely on the American National Standards Institute (ANSI) A117.1-1986, American National Standard for Buildings and Facilities - Providing Accessibility and Usability for Physically Handicapped People (ANSI Standard). Where the guidelines rely on sections of the ANSI Standard, the ANSI sections are cited. Only those sections of the ANSI Standard cited in the guidelines are recommended for compliance with 24 CFR 100.205. For those guidelines that differ from the ANSI Standard, recommended specifications are provided. The texts of cited ANSI sections are not reproduced in the guidelines. The complete text of the 1986 version of the ANSI A117.1 Standard may be purchased from the American National Standards Institute, 1430 Broadway, New York, NY 10018.

Section 2. Definitions
As used in these guidelines:
"Accessible", when used with respect to the public and common use areas of a building containing covered multifamily dwellings, means that the public or common use areas of the building can be approached, entered, and used by individuals with physical handicaps. The phrase **"readily accessible to and usable by"** is synonymous with accessible. A public or common use area that complies with the appropriate requirements of ANSI A117.1-1986, a comparable standard or these guidelines is "accessible" within the meaning of this paragraph.
"Accessible route" means a continuous unobstructed path connecting accessible elements and spaces in a building or within a site that can be negotiated by a person with a severe disability using a wheelchair, and that is also safe for and usable by people with other disabilities. Interior accessible routes may include corridors, floors, ramps, elevators and lifts. Exterior accessible routes may include parking access aisles, curb ramps, walks, ramps and lifts. A route that complies with the appropriate requirements of ANS A117.1-1986, a comparable standard, or Section 5, Requirement 1 of these guidelines is an "accessible route". In the circumstances described in Section 5, Requirements 1 and 2, "accessible route" may include access via a vehicular route.
"Adaptable dwelling units", when used with respect to covered multifamily dwellings, means dwelling units that include the features of adaptable design specified in 24 CFR 100.205(c)(9) (3).
"ANSI A117.1-1986" means the 1986 edition of the American National Standard for buildings and facilities providing accessibility and usability for physically handicapped people.
"Assistive device" means an aid, tool, or instrument used by a person with disabilities to assist in activities of daily living. Examples of assistive devices include tongs, knob-turners, and oven rack pusher/pullers.
"Bathroom" means a bathroom which includes a water closet (toilet), lavatory (sink), and bathtub or shower. It does not include single fixture facilities or those with only a water closet and lavatory. It does include a compartmented bathrooms. A compartmented bathroom is one in which the fixtures are distributed among interconnected rooms. A compartmented bathroom is considered a single unit and is subject to the Act's requirements for bathrooms.
"Building" means a structure, facility or portion thereof that contains or serves one or more dwelling units.
"Building entrance on an accessible route" means an accessible entrance to a building that is connected by an accessible route to public transportation stops, to parking or passenger loading zones, or to public streets or sidewalks, if available. A building entrance that complies with ANSI A117.1-1986 (see Section 5, Requirement 1 of these guidelines) or a comparable standard complies with the requirements of this paragraph.
"Clear" means unobstructed.
"Common use areas" means rooms, spaces or elements inside or outside of a building that are made available for the use of residents of a building or the guests thereof. These areas include hallways, lounges, lobbies, laundry rooms, refuse rooms, mail rooms, recreational areas and passageways among and between buildings. See Section 5, Requirement 2 of these guidelines.
"Controlled substance" means any drug or other substance, or immediate precursor included in the definition in Section 102 of the Controlled Substances Act (21 U.S.C. 802).
"Covered multifamily dwellings" or "covered multifamily dwellings subject to the Fair Housing Amendments" means buildings consisting of four or more dwelling units if such buildings have one or more elevators; and ground floor dwelling units in other buildings consisting of four or more dwelling units. Dwelling units within a single structure separated by firewalls do not constitute separate buildings.
"Dwelling unit" means a single unit of residence for a household of one or more persons. Examples of dwelling units covered by these guidelines include: condominiums; an apartment unit within an apartment building; and other types of dwellings in which sleeping accommodations are provided but toileting or cooking facilities are shared by occupants of more than one room or portion of the dwelling. Examples of the latter include dormitory rooms and sleeping accommodations in shelters intended for occupancy as a residence for homeless persons.
"Entrance" means any exterior access point to a building or portion of a building used by residents for the purpose of entering. For purposes of these guidelines, an "entrance" does not include a door to a loading dock or a door used primarily as a service entrance, even if nonhandicapped residents occasionally use that door to enter.
"Finished grade" means the ground surface at the site after all construction, levelling, grading, and development has been completed.
"Ground floor" means a floor of a building with a building entrance on an accessible route. A building may have one or more ground floors. Where the first floor containing dwelling units in a building is above grade, all units on that floor must be served by a building entrance on an accessible route. This floor will be considered to be a ground floor.
"Handicap" means, with respect to a person, a physical or mental impairment which substantially limits one or more major life activities; a record of such an impairment; or being regarded as having such an impairment. This term does not include current, illegal use of or addiction to a controlled substance. For purposes of these guidelines, an individual shall not be considered to have a handicap solely because that individual is a transvestite. As used in this definition:
"Physical or mental impairment" includes: Any physiological disorder or condition, cosmetic disfigurement, or anatomical loss affecting one or more of the following body systems: Neurological; musculoskeletal; special sense organs; respiratory, including speech organs; cardiovascular; reproductive; digestive; genito-urinary; hemic and lymphatic; skin; and endocrine; or Any mental or psychological disorder, such as mental retardation, organic brain syndrome, emotional or mental illness, and specific learning disabilities. The term 'physical or mental impairment' includes, but is not limited to, such diseases and conditions as orthopedic, visual, speech and hearing impairments, cerebral palsy, autism, epilepsy, muscular dystrophy, multiple sclerosis, cancer, heart disease, diabetes, Human Immunodeficiency Virus infection, mental retardation, emotional illness, drug addiction (other than addiction caused by current, illegal use of a controlled substance) and alcoholism. These guidelines are designed to make units accessible or adaptable for people with physical handicaps.
"Major life activities" means functions such as caring for one's self, performing manual tasks, walking, seeing, hearing, speaking, breathing, learning and working.
"Has a record of such an impairment" means has a history of, or has been misclassified as having, a mental or physical impairment that substantially limits one or more major life activities.
"Is regarded as having an impairment" means: Has a physical or mental impairment that does not substantially limit one or more major life activities but that is treated by another person as constituting such a limitation;
Has a physical or mental impairment that substantially limits one or more major life activities only as a result of the attitudes of others toward such impairment; or Has none of the impairments defined in paragraph (a) of this definition but is treated by another person as having such an impairment.
"Loft" means an intermediate level between the floor and ceiling of any story, located within a room or rooms of a dwelling.
"Multistory dwelling unit" means a dwelling unit with finished living space located on one floor and the floor or floors immediately above or below it.
"Public use areas" means interior or exterior rooms or spaces of a building that are made available to the general public. Public use may be provided at a building that is privately or publicly owned.
"Single-story dwelling unit" means a dwelling unit with all finished living space located on one floor.
"Site" means a parcel of land bounded by a property line or a designated portion of a public right of way.
"Slope" means the relative steepness of the land between two points and is calculated as follows: The distance and elevation between the two points (e.g., an entrance and a passenger loading zone) are determined from a topographical map. The difference in elevation is divided by the distance and that fraction is multiplied by 100 to obtain a percentage slope figure. For example, if a principal entrance is ten feet from a passenger loading zone, and the principal entrance is raised one foot higher than the passenger loading zone, then the slope is 1/10 x 100 = 10%.
"Story" means that portion of a dwelling unit between the upper surface of any floor and the upper surface of the floor next above, or the roof of the unit. Within the context of dwelling units, the terms "story" and "floor" are synonymous.
"Undisturbed site" means the site before any construction, levelling, grading, or development associated with the current project.
"Vehicular or pedestrian arrival points" means public or resident parking areas, public transportation stops, passenger loading zones, and public streets or sidewalks.
"Vehicular route" means a route intended for vehicular traffic, such as a street, driveway or parking lot.

Section 3. Fair Housing Act Design and Construction Requirements
The regulations issued by the Department at 24 CFR 100.205 state:
[Text of 24 CFR 100.205 to be inserted]

Section 4. Application of the Guidelines
The design specifications (guidelines) presented in Section 5 apply to new construction of "covered multifamily dwellings", as defined in Section 2. These guidelines are recommended for designing dwellings that comply with the requirements of the Fair Housing Amendments Act of 1988.

Section 5. Guidelines

Requirement 1. Accessible building entrance on an accessible route.
Under section 100.205(a), covered multifamily dwellings shall be designed and constructed to have at least one building entrance on an accessible route, unless it is impractical to do so because of terrain or unusual characteristics of the site.

Guideline

Building entrance. Each building on a site shall have at least one building entrance on an accessible route unless prohibited by the terrain, as provided in paragraphs (2)(a)(i) or (2)(a)(ii), or unusual characteristics of the site, as provided in paragraph (2)(b). This guideline applies both to a single building on a site and to multiple buildings on a site.
Separate ground floor unit entrances. When a ground floor unit of a building has a separate entrance, each such ground floor unit shall be served by an accessible route, except for any unit where the terrain or unusual characteristics of the site prohibit the provision of an accessible route to the entrance of that unit.

Multiple entrances. Only one entrance is required to be accessible to any one ground floor of a building, except in cases where an individual dwelling unit has a separate exterior entrance, or where the building contains clusters of dwelling units, with each cluster having a different exterior entrance. In these cases, more than one entrance may be required to be accessible, as determined by analysis of the site. In every case, the accessible entrance should be on an accessible route to the covered dwelling units it serves.

Site impracticality. Covered multifamily dwellings with elevators shall be designed and constructed to provide at least one accessible entrance on an accessible route, regardless of terrain or unusual characteristics of the site. Covered multifamily dwellings without elevators shall be designed and constructed to provide at least one accessible entrance on an accessible route unless terrain or unusual characteristics of the site are such that the following conditions are found to exist:

Site impracticality due to terrain. There are two alternative tests for determining site impracticality due to terrain: the individual building test provided in paragraph (i), or the site analysis test provided in paragraph (ii). These tests may be used as follows. A site with a single building having a common entrance for all units may be analyzed only as described in paragraph (i). All other sites, including a site with a single building having multiple entrances serving either individual dwelling units or clusters of dwelling units, may be analyzed using the methodology in either paragraph (i) or paragraph (ii). For these sites for which either test is applicable, regardless of which test is selected, at least 20% of the total ground floor units in nonelevator buildings, on any site, must comply with the guidelines.

Individual building test. It is impractical to provide an accessible entrance served by an accessible route when the terrain of the site is such that: the slopes of the undisturbed site measured between the planned entrance and all vehicular or pedestrian arrival points within 50 feet of the planned entrance exceed 10 percent; and the slopes of the planned finished grade measured between the entrance and all vehicular or pedestrian arrival points within 50 feet of the planned entrance also exceed 10 percent. If there are no vehicular or pedestrian arrival points within 50 feet of the planned entrance, the slope for the purposes of this paragraph (i) will be measured to the closest vehicular or pedestrian arrival point. For purposes of these guidelines, vehicular or pedestrian arrival points include public or resident parking areas; public transportation stops; passenger loading zones; and public streets or sidewalks. To determine site impracticality, the slope would be measured at ground level from the point of the planned entrance on a straight line to (i) each vehicular or pedestrian arrival point that is within 50 feet of the planned entrance, or (ii) if there are no vehicular or pedestrian arrival points within that specified area, the vehicular or pedestrian arrival point closest to the planned entrance. In the case of sidewalks, the closest point to the entrance will be where a public sidewalk entering the site intersects with the sidewalk to the entrance. In the case of resident parking areas, the closest point to the planned entrance will be measured from the entry point to the parking area that is located closest to the planned entrance.

Site analysis test. Alternatively, for a site having multiple buildings, or a site with a single building with multiple entrances, impracticality of providing an accessible entrance served by an accessible route can be established by the following steps: The percentage of the total buildable area of the undisturbed site with a natural grade less than 10% slope shall be calculated. The analysis of the existing slope (before grading) shall be done on a topographic survey with two foot (2') contour intervals with slope determination made between each successive interval. The accuracy of the slope analysis shall be certified by a professional licensed engineer, landscape architect, architect or surveyor. To determine the practicality of providing accessibility to planned multifamily dwellings based on the topography of the existing natural terrain, the minimum percentage of ground floor units to be made accessible should equal the percentage of the total buildable area (not including floodplains, wetlands, or other restricted use areas) of the undisturbed site that has an existing natural grade of less than 10% slope.
In addition to the percentage established in paragraph (B), all ground floor units in a building, or ground floor units served by a particular entrance, shall be made accessible if the entrance to the units is on an accessible route, defined as a walkway with a slope between the planned entrance and a pedestrian or vehicular arrival point that is no greater than 8.33%

Site impracticality due to unusual characteristics. Unusual characteristics include sites located in a federally designated floodplain or coastal high hazard area and sites subject to other similar requirements of law or code that the lowest floor or the lowest structural member of the lowest floor must be raised to a specified level at or above the base flood elevation. An accessible route to a building entrance is impractical due to unusual characteristics of the site where the unusual site characteristics result in a difference in finished grade elevation exceeding 30 inches and 10 percent measured between an entrance and all vehicular or pedestrian arrival points within 50 feet of the planned entrance; or if there are no vehicular or pedestrian arrival points within 50 feet of the planned entrance, the unusual characteristics result in a difference in finished grade elevation exceeding 30 inches and 10 percent measured between an entrance and the closest vehicular or pedestrian arrival point.

Exceptions to site impracticality. Regardless of site considerations described in paragraphs (1) and (2), an accessible entrance on an accessible route is practical when: There is an elevator connecting the parking area with the dwelling units on a ground floor. (In this case, those dwelling units on the ground floor served by an elevator, and entrances to all of each of public and common use areas, would be subject to these guidelines.) However: Where a building elevator is provided only as a means of creating an accessible route to dwelling units on a ground floor, the building is not considered an elevator building for purposes of these guidelines; hence, only the ground floor dwelling units would be covered. If the building elevator is provided as a means of access to dwelling units other than dwelling units on a ground floor, then the building is an elevator building which is a covered multifamily dwelling, and the elevator in that building must provide accessibility to all dwelling units in the building, regardless of the slope of the natural terrain; An elevated walkway, a planned between a building entrance and a vehicular or pedestrian arrival point and the planned walkway has a slope no greater than 10 percent.

Accessible entrance. An entrance that complies with ANSI A.4.1 meets section 100.205(a).

Accessible route. An accessible route that complies with ANSI 4.3 would meet section 100.205(a). If the slope of the finished grade between covered multifamily dwellings and a public or common use facility (including parking) exceeds 8.33%, or where other physical barriers (natural or manmade) or legal restrictions, all of which are outside the control of the owner, prevent the installation of an accessible pedestrian route, an acceptable alternative is to provide access via a vehicular route, so long as necessary site provisions such as parking spaces and curb ramps are provided at the public or common use facility.

Requirement 2. Accessible and usable public and common use areas. Section 100.205(c)(1) provides that covered multifamily dwellings with a building entrance on an accessible route shall be designed in such a manner that the public and common use areas are readily accessible to and usable by handicapped persons.

Guideline
The following chart identifies the public and common use areas that should be made accessible, cites the appropriate section of the ANSI Standard, and describes the appropriate application of the specifications, including modifications to the referenced Standard.

Basic Components for Accessible and
Usable Public and Common Use Areas or Facilities

Accessible element or space	ANSI A117.1 section	APPLICATION
1. Accessible route(s)	4.3	Within the boundary of the site: 1. From public transportation stops, accessible parking spaces, accessible passenger loading zones, and public streets or sidewalks to accessible building entrances (subject to site considerations describes in section 5). 2. Connecting accessible buildings, facilities, elements and spaces that are on the same site. On grades walks or paths between separate buildings with covered multifamily dwellings, while not required, should be accessible unless the slope of finish grade exceeds 8.33% at any point along the route. Handrails are not required on these accessible walks. 3. Connecting accessible building or facility entrances with accessible spaces and elements within the building or facility, including adaptable dwelling units. 4. Where site or legal constraints prevent a route accessible to wheelchair users between covered multifamily dwellings and public or common-use facilities elsewhere on the site, an acceptable alternative is the provision of access via a vehicular route so long as there is accessible parking on an accessible route to at least 2% of covered dwelling units, and necessary site provisions such as parking and curb cuts are available at the public or common use facility.
2. Protruding Objects	4.4	Accessible routes or maneuvering space including , but not limited to halls, corridors, passageways, or aisles.
3. Ground and floor surface treatments	4.5	Accessible routes, and spaces, including floors, walks, ramps, stairs, and curb ramps.
4. Parking and passenger loading zones	4.6	If provided at the site, designated accessible parking at the dwelling unit on request of residents with handicaps, on the same terms and with the full range of choices (e.g. surface parking or garage) that are provided for other residents of the project, with accessible parking on a route accessible to wheelchairs for at least 2% of the dwelling units; accessible visitor parking sufficient to provide access to gradient-level entrances of covered multifamily dwellings and accessible parking at facilities (e.g. swimming pools) that serve accessible building.
5. Curb ramps	4.7	Accessible routes crossing curbs.
6. Ramps	4.8	Accessible routes with slopes greater than 1:20.
7. Stairs	4.9	Stairs on accessible routes connecting levels not connected by an elevator.
8. Elevator	4.1	If provided.
9. Platform lift	4.11	May be used in lieu of an elevator or ramp under certain conditions.
10. Drinking fountains and water coolers	4.15	Fifty percent of fountains and coolers on each floor, or at least one, if provided in the facility or the site.
11. Toilet rooms and bathing facilities (including water closets, toilet stalls and stalls, urinals, lavatories and mirrors, bathtubs, shower stalls, and sinks.)	4.22	Where provided in public-use and common-use facilities, at least one on each future provided per room.
12. Seating, tables, or work surfaces	4.3	If provided in accessible spaces, at least one of each type provided.
13. Places of assembly	4.31	If provided in the facility or at the site.
14. Common-use spaces and facilities (including swimming pools, playgrounds, entrances, rental-offices, lobbies, elevators, mailbox areas, lounges, halls and corridors,and the like.)	4.1 through 4.30	If provided in the facility or at the site:
15. Laundry rooms	4.32.6	If provided in the facility or at the site, at least one of each type of appliance provided in each laundry area, except that laudry rooms serving covered multifamily dwellings would not be required to have front loading washers in order to meet the requirements of §100.205(c)(1). (Where front loading washers are not provided, management will be expected to provide assistive devices on request if necessary to permit a resident to use a top loading washer.)

Requirement 3. Usable doors.
Section 100.205(c)(2) provides that covered multifamily dwellings with a building entrance on an accessible route shall be designed in such a manner that all the doors designed to allow passage into and within all premises are sufficiently wide to allow passage by handicapped persons in wheelchairs.

Guideline
Section 100.205(c)(2) would apply to doors that are a part of an accessible route in the public and common use areas of multifamily dwellings and to doors into and within individual dwelling units. On accessible routes in public and common use areas, and for primary entry doors to covered units, doors that comply with ANSI 4.13 would meet this requirement. Within individual dwelling units, doors intended for user passage through the unit which have a clear opening of at least 30 inches nominal width when the door is open 90 degrees, measured between the face of the door and the stop, would meet this requirement. (See Fig. 1 (a), (b), and (c).) Openings more than 24 inches in depth are not considered doorways. (See Fig. 1(d).)

Note
A 34 inch door, hung in the standard manner, provides an acceptable nominal 32 inch clear opening. This door can be adapted to provide a wider opening by using offset hinges, by removing lower portions of the door stop, or both. Pocket or sliding doors are acceptable doors in covered dwelling units and have the added advantage of not impinging on clear floor space in small rooms. The nominal 32 inch clear opening provided by a standard six-foot sliding patio door assembly is acceptable.

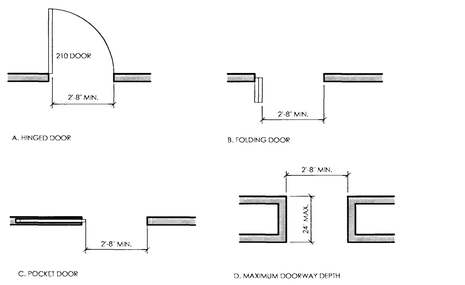


FIGURE 1: USABLE DOORS

Requirement 4. Accessible route into and through the covered dwelling unit.
Section 100.205(c)(3)(i) provides that all covered multifamily dwellings with a building entrance on an accessible route shall be designed and constructed in such a manner that all premises within covered multifamily dwelling units contain an accessible route into and through the covered dwelling unit.

Guideline.
Accessible routes into and through dwelling units would meet section 100.205(c)(3)(i) if: A minimum clear width of 36 inches is provided.

In single story dwelling units, changes in level within the dwelling unit with height between 1/4 inch and 1/2 inch are beveled with a slope no greater than 1:2. Except for design features, such as a loft or an area on a different level within a room (e.g., a sunken living room), changes in level greater than 1/2 inch are ramped or have other means of access. Where a single story dwelling unit has special design features, all portions of the single story unit, except the loft or the sunken or raised area, are on an accessible route; and

In single-story dwelling units with lofts, all spaces other than the loft are on an accessible route.

Design features such as sunken or raised functional areas do not interrupt the accessible route through the remainder of the dwelling unit.

In multistory dwelling units in buildings with elevators, the story of the unit that is served by the building elevator (a) is the primary entry to the unit; (b) complies with Requirements 2 through 7 with respect to the rooms located on the entry/accessible floor; and (c) contains a bathroom or powder room which complies with Requirement 7. (Note: multistory dwelling units in non-elevator buildings are not covered dwelling units because, in such cases, there is no ground floor unit.)

Except as noted in paragraphs (5) and (6) below, thresholds at exterior doors, including sliding door tracks, are no higher than 3/4 inch. Thresholds and changes in level at these locations are beveled with a slope no greater than 1:2.

Exterior deck, patio, or balcony surfaces are no more than 1/2 inch below the floor level at the interior of the dwelling unit, unless they are constructed of impervious material such as concrete, brick or flagstone. In such case, the surface is no more than 4 inches below the floor level of the interior of the dwelling unit, or lower if required by local building code.

At the primary entry door to dwelling units with direct exterior access, outside landing surfaces constructed of impervious materials such as concrete, brick or flagstone, are no more than 1/2 inch below the floor level of the interior of the dwelling unit. The finished surface of this area that is located immediately outside the entry may be sloped, up to 1/8 inch per foot (12 inches), for drainage.

Requirement 5. Light switches, electrical outlets, thermostats and other environmental controls in accessible locations.
Section 100.205(c)(3)(ii) requires that all covered multifamily dwellings with a building entrance on an accessible route shall be designed and constructed in such a manner that all premises within covered multifamily dwelling units contain light switches, electrical outlets, thermostats, and other environmental controls in accessible locations.

Guideline.
Light switches, electrical outlets, thermostats and other environmental controls would meet section 100.205(c)(3)(ii) if operable parts of the controls are located no higher than 48 inches, and no lower than 15 inches, above the floor. If the reach is over an obstruction (for example, an overhanging shelf) between 20 and 25 inches in depth, the maximum height is reduced to 44 inches for forward approach; or 46 inches for side approach, provided the obstruction (for example, a kitchen base cabinet) is no more than 24 inches in depth. Obstructions should not extend more than 25 inches from the wall beneath a control. (See Fig.2.)

Note. Controls or outlets that do not satisfy these specifications are acceptable provided that comparable controls or outlets (i.e., that perform the same functions) are provided within the same area and are accessible, in accordance with this guideline for Requirement 5.

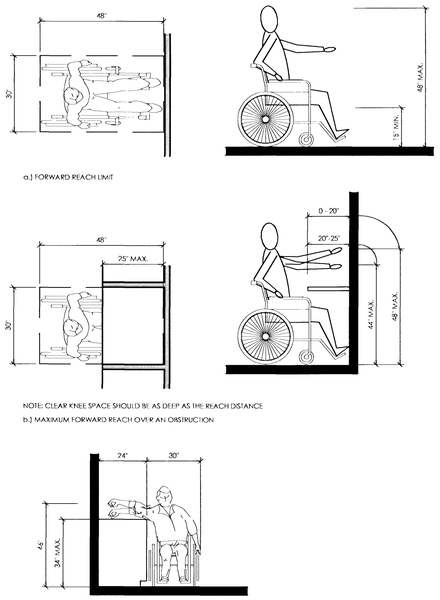


FIGURE 2: REACH RANGES

Requirement 6. Reinforced walls for grab bars. Section 100.205(c)(3)(iii) requires that covered multifamily dwellings with a building entrance on an accessible route shall be designed and constructed in such a manner that all premises within covered multifamily dwelling units contain reinforcements in bathroom walls to allow later installation of grab bars around toilet, tub, shower stall and shower seat, where such facilities are provided.

Guideline
Reinforced bathroom walls to allow later installation of grab bars around the toilet, tub, shower stall and shower seat, where such facilities are provided, would meet section 100.205(c)(3)(iii) if reinforced areas are provided at least at those points where grab bars will be mounted. (for example, see Figs. 3, 4 and 5.) Where the toilet is not placed adjacent to a side wall, the bathroom would comply if provision was made for installation of floor mounted, foldaway or similar alternative grab bars. Where the powder room (a room with a toilet and sink) is the only toilet facility located on an accessible level of a multistory dwelling unit, it must comply with the requirement for reinforced walls for grab bars.

Note
Installation of bathtubs is not limited by the illustrative figures; a tub may have shelves or benches at either end; or a tub may be installed without surrounding walls, if there is provision for alternative mounting of grab bars. For example, a sunken tub placed away from walls could have reinforced areas for installation of floor-mounted grab bars. The same principle applies to shower stalls - e.g., glass-walled stalls could be planned to allow floor-mounted grab bars to be installed later. Reinforcement for grab bars may be provided in a variety of ways (for example, by plywood or wood blocking) so long as the necessary reinforcement is placed so as to permit later installation of appropriate grab bars.

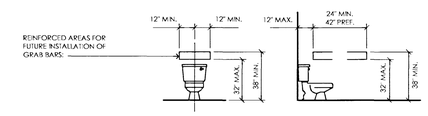


FIGURE 3: GRAB BARS AT WATER CLOSETS

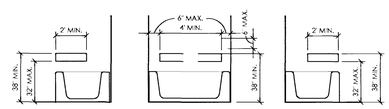


FIGURE 4: GRAB BARS AT BATHTUBS

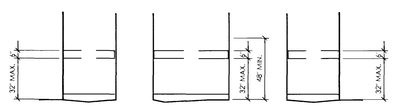


FIGURE 5: GRAB BARS AT SHOWERS

Requirement 7. Usable kitchens and bathrooms. Section 100.205(c)(3)(iv) requires that covered multifamily dwellings with a building entrance on an accessible route shall be designed and constructed in such a manner that all premises within covered multifamily dwelling units contain usable kitchens and bathrooms such that an individual in a wheelchair can maneuver about the space.

Guideline

Usable kitchens. Usable kitchens would meet section 100.205(c)(3)(iv) if:

A clear floor space at least 30 inches by 48 inches that allows a parallel approach by a person in a wheelchair is provided at the range or cooktop and sink, and either a parallel or forward approach is provided at oven, dishwasher, refrigerator/freezer or trash compactor. (See Fig. 6)

Clearance between counters and all opposing base cabinets, countertops, appliances or walls is at least 40 inches.
In U-shaped kitchens with sink or range or cooktop at the base of the "U", a 60-inch turning radius is provided to allow parallel approach, or base cabinets are removable at that location to allow knee space for a forward approach.

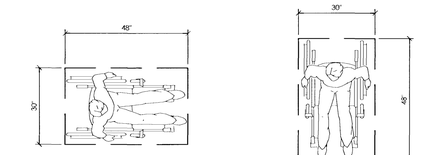


FIGURE 6: MINIMUM CLEAR FLOOR SPACE FOR WHEELCHAIRS

Usable bathrooms. To meet the requirements of section 100.205(c)(3)(iv) either:

All bathrooms in the dwelling unit comply with the provisions of paragraph (a); or
At least one bathroom in the dwelling unit complies with the provisions of paragraph (b), and all other bathrooms and powder rooms within the dwelling unit must be on an accessible route with usable entry doors in accordance with the guidelines for Requirements 3 and 4.
However, in multistory dwelling units, only those bathrooms on the accessible level are covered by the requirements of section 100.205(c)(3)(iv).
Where a powder room is the only facility provided on the accessible level of a multistory dwelling unit, the powder room must comply with provisions of paragraph (a) or paragraph (b). Powder rooms that are subject to the requirements of section 100.205(c)(3)(iv) must have reinforcements for grab bars as provided in the guideline for Requirement 6.

Bathrooms that have reinforced walls for grab bars (see Requirement 6) would meet section 100.205(c)(3)(iv) if:

Sufficient maneuvering space is provided within the bathroom for a person using a wheelchair or other mobility aid to enter and close the door, use the fixtures, reopen the door and exit. Doors may swing into the clear floor space provided at any fixture if the maneuvering space is provided. Maneuvering spaces may include any kneespace or toespace available below bathroom fixtures.

Clear floor space is provided at fixtures as shown in Fig. 7 (a), (b), (c) and (d). Clear floor space at fixtures may overlap.

If the shower stall is the only bathing facility provided in the covered dwelling unit, or on the accessible level of a covered multistory unit, the shower stall measures at least 36 inches x 36 inches.

Note

Cabinets under lavatories are acceptable provided the bathroom has space to allow a parallel approach by a person in a wheelchair; if parallel approach is not possible within the space, any cabinets provided would have to be removable to afford the necessary knee clearance for forward approach.

Bathrooms that have reinforced walls for grab bars (see Requirement 6) would meet section 100.205(c)(3)(iv) if:

Where the door swings into the bathroom, there is a clear space (approximately 2' 6" by 4'0") within the room to position a wheelchair or other mobility aid clear of the path of the door as it is closed and to permit use of fixtures. This clear space can include any kneespace and toespace available below bathroom fixtures.

Where the door swings out, a clear space is provided within the bathroom for a person using a wheelchair or other mobility aid to position the wheelchair such that the person is allowed use of fixtures. There also shall be clear space to allow persons using wheelchairs to reopen the door to exit.

When bath tub and shower fixtures are provided in the bathroom, at least one is made accessible. When two or more lavatories in a bathroom are provided, at least one is made accessible.

Toilets are located within bathrooms in a manner that permit a grab bar to be installed on one side of the fixture, in locations where toilets are adjacent to walls or bathtubs. The center line of the fixture is a minimum of 16" from the obstacle. The other (non-grab bar) side of the toilet fixture is a minimum of 13" from the finished surface of adjoining walls, vanities or from the edge of a lavatory. (See Figure 7(a).)

Vanities and lavatories are installed with the centerline of the fixture a minimum of 13" horizontally from an adjoining wall or fixture. The tops of the fixture rim is a maximum height of 2'-0" above the finished floor. If kneespace is provided below the vanity, the bottom of the apron is at least 23" above the floor. If provided, full kneespace (for front approach) is at least 1'-5" deep. (See Figure 7(c).)

Bathtubs and tub/showers located in the bathroom provide a clear access aisle adjacent to the lavatory that is at least 2'6" wide and extends for a length of 4'0" (measured from the head of the bathtub). (See Figure 8.)

Stall showers in the bathroom may be of any size or configuration. A minimum clear floor space 2'6" wide by 4'0" should be available outside the stall. (See Figure 7(d).) If the shower stall is the only bathing facility provided in the covered dwelling unit, or on the accessible level of a covered multistory unit, and measures a nominal 36 x 36 or smaller, the shower stall must have reinforcing to allow for installation of an optional wall hung bench seat.

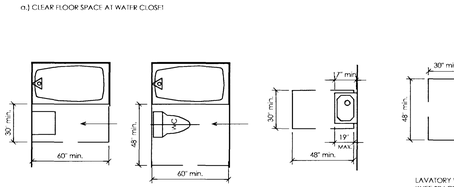


FIGURE 7: CLEAR FLOOR SPACE FOR ADAPTABLE BATHROOMS

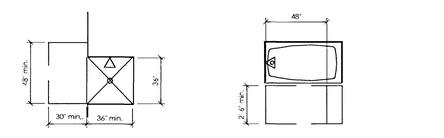


FIGURE 8: ALTERNATIVE SPECIFICATION CLEAR FLOOR SPACE AT TUB

RECEIVED
JUN 11, 2009
PLANNING DEPARTMENT
CITY OF LAS VEGAS

CRAIG D. SMITH
No. 4967
STATE OF NEVADA
RNM DESIGN
ARCHITECTURE
PLANNING
LANDSCAPE
GRAPHICS
RNMDESIGN.COM
2 CORPORATE PARK
SUITE 100
IRVINE, CALIFORNIA
92606
(949) 752.1800
(949) 833.9603

PROJECT NAME/ADDRESS
CORONADO THE PASEOS
875 PANTARA PLACE
LAS VEGAS, NEVADA

CLIENT
SPINNAKER HOMES
4511 W. CHEYENNE AVE. ST 105
NO. LAS VEGAS, CA 89032
702-873-7773
702-873-7776 FAX

REVISIONS

THESE DRAWINGS AND IMAGES ARE NOT TO BE REPRODUCED OR COPIED IN ANY FORM WITHOUT WRITTEN PERMISSION. COPYRIGHT 2005 RNM DESIGN

DRAWING TITLE
FAIR HOUSING COMPLIANCE GUIDELINES

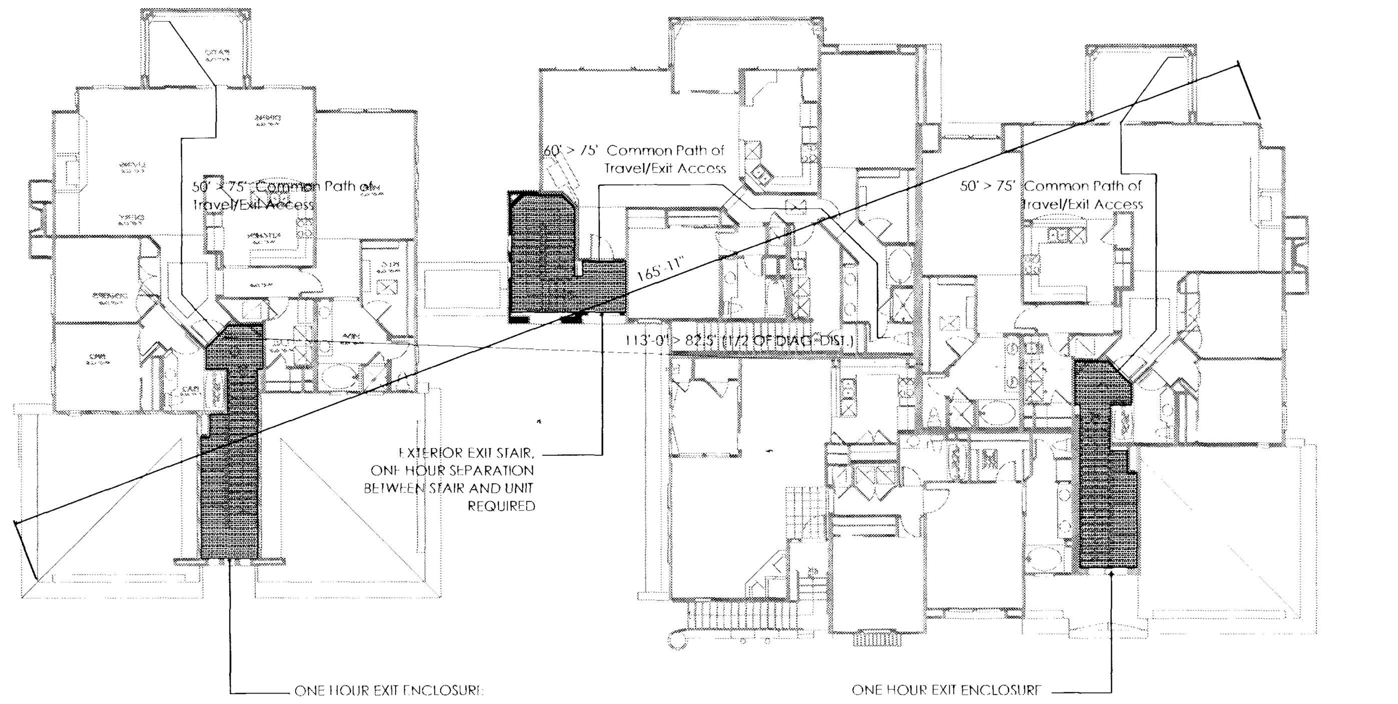
DRAWING INFORMATION
PROJ. NO: 08041
FIRST SUBMITTAL DATE: 02.24.2009
SCALE:

DRAWING NUMBER
A0-1.1

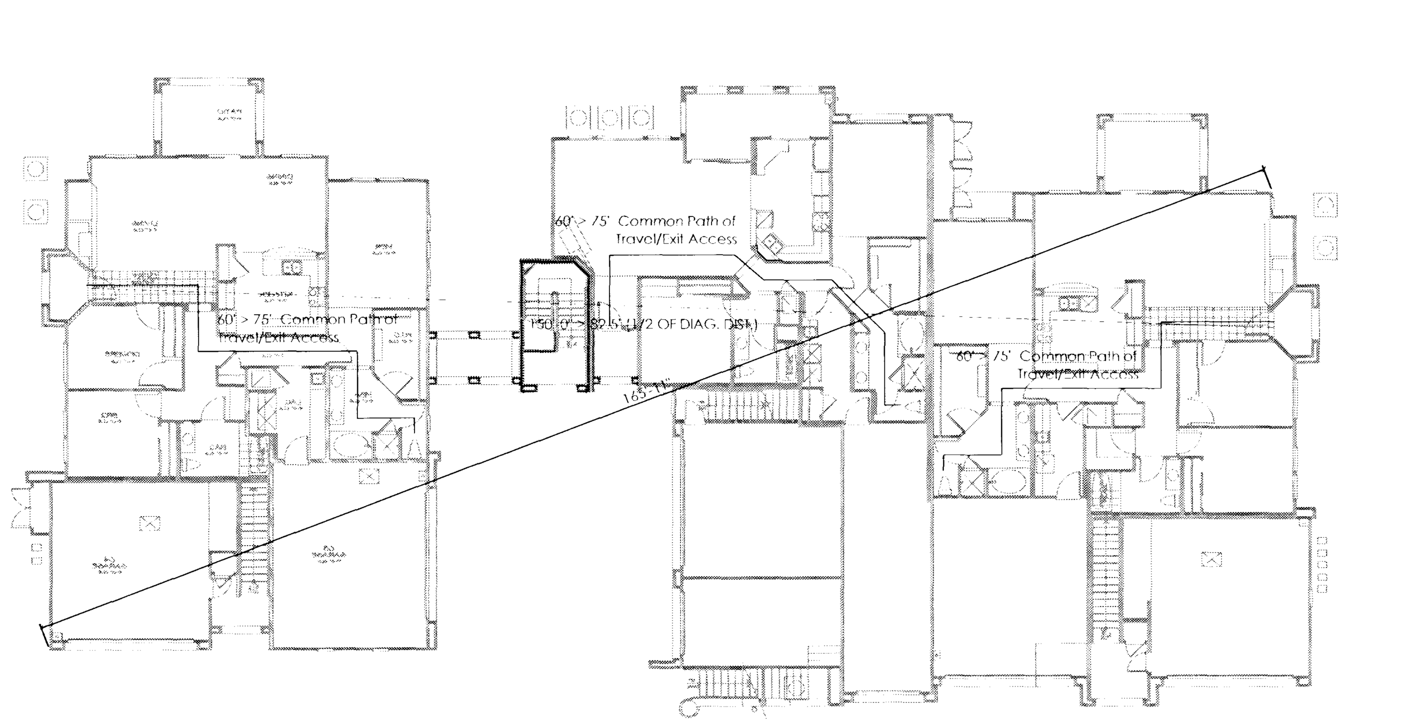
DELTA 2 - PLAN CHECK CORRECTION
05.27.09

FAIR HOUSING COMPLIANCE GUILDLINE

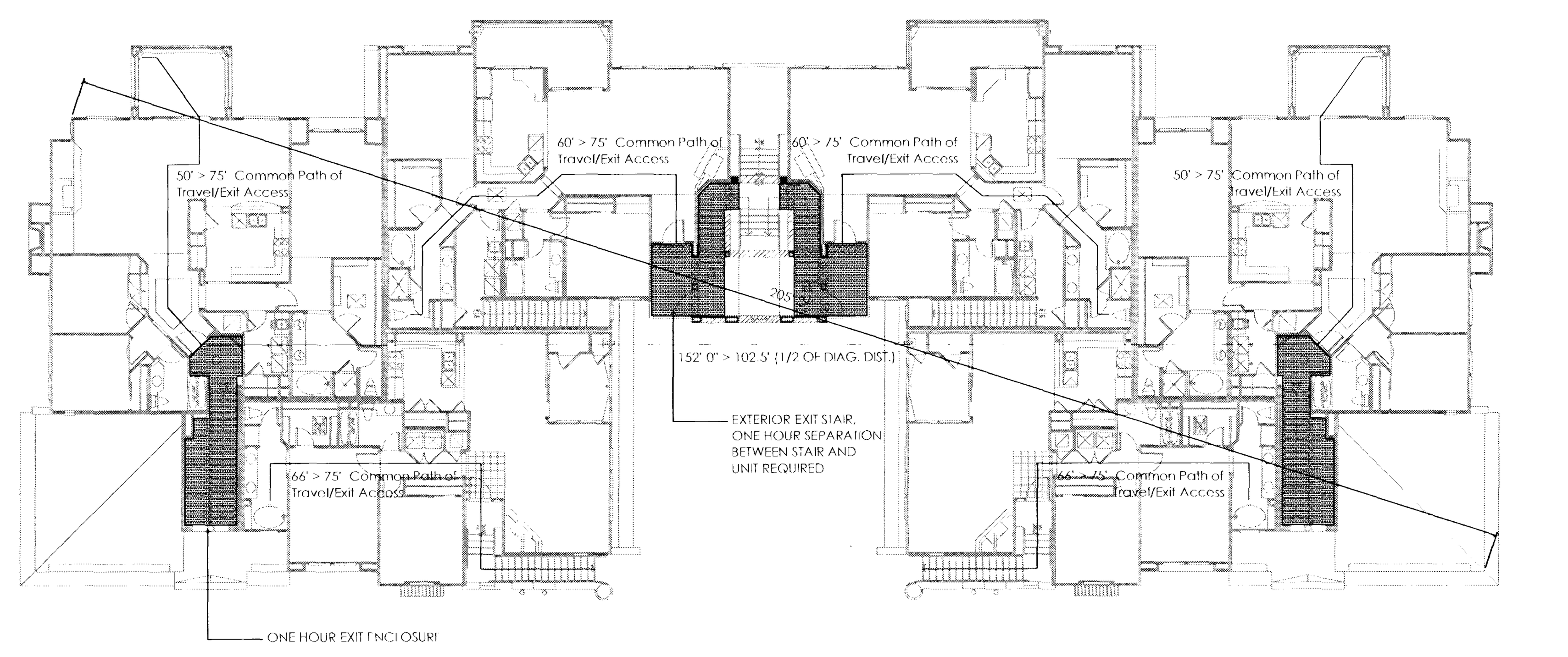
BUILDING 200: 2nd LEVEL



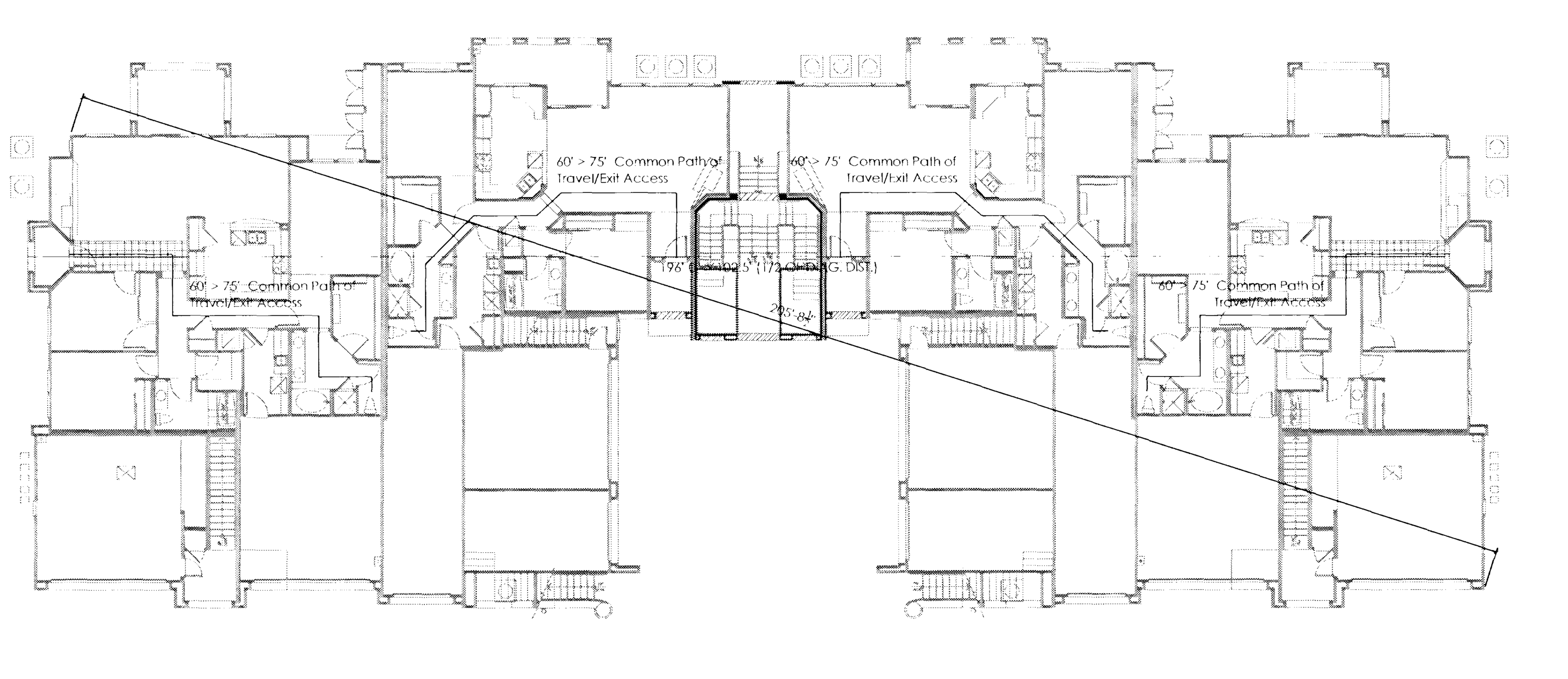
BUILDING 200: 1st LEVEL



BUILDING 100: 2nd LEVEL



BUILDING 100: 1st LEVEL



BUILDING AREA CALCULATIONS

BUILDING 100 LEFT

UNIT #	CONDITIONED SPACE	UNCONDITIONED SPACE ENCLOSED	COVERED UNCONDITIONED	TOTALS	OCCUPANT LOAD FACTOR (S.F./200)
FIRST FLOOR					
UNIT B1	1475 S.F.		188 S.F.	1663 S.F.	8.31
UNIT C1	1793 S.F.		187 S.F.	1980 S.F.	9.9
UNIT B2	75 S.F.			75 S.F.	.375
GARAGE C2		469 S.F.		469 S.F.	2.35
COMMON HALL		132 S.F. /		132 S.F.	.66
GARAGE C1		466 S.F.		466 S.F.	2.33
GARAGE B1		392 S.F.		392 S.F.	1.96
GARAGE B2		403 S.F.		403 S.F.	2
GARAGE A1		236 S.F.		236 S.F.	1.18
B2 STAIR			150 S.F.	150 S.F.	.75
1ST SUB TOTAL	3343 S.F.	2098 S.F.	525 S.F.	5966 S.F.	30
SECOND FLOOR					
UNIT A1	1305 S.F.	28 S.F.	120 S.F.	1453 S.F.	7.26
UNIT B2	1481 S.F.		188 S.F.	1669 S.F.	8.34
UNIT C2	1776 S.F.		140 S.F.	1916 S.F.	9.58
COMMON HALL	50 S.F.			50 S.F.	.25
2ND FLR TOTALS	4612 S.F.	28 S.F.	448 S.F.	5088 S.F.	26
TOTAL For 1/2 of 100	7955 S.F.	2126 S.F.	973	11,054 S.F.	56

BUILDING 100 RIGHT

UNIT #	CONDITIONED SPACE	UNCONDITIONED SPACE ENCLOSED	COVERED UNCONDITIONED	TOTALS	OCCUPANT LOAD FACTOR (S.F./200)
FIRST FLOOR					
UNIT B1	1475 S.F.		188 S.F.	1663 S.F.	8.31
UNIT C1	1793 S.F.		187 S.F.	1980 S.F.	9.9
UNIT B2	75 S.F.			75 S.F.	.375
GARAGE C2		469 S.F.		469 S.F.	2.35
COMMON HALL		132 S.F. /		132 S.F.	.66
GARAGE C1		466 S.F.		466 S.F.	2.33
GARAGE B1		392 S.F.		392 S.F.	1.96
GARAGE B2		403 S.F.		403 S.F.	2
GARAGE A1		236 S.F.		236 S.F.	1.18
B2 STAIR			150 S.F.	150 S.F.	.75
1ST SUB TOTAL	3343 S.F.	2098 S.F.	525 S.F.	5966 S.F.	30
SECOND FLOOR					
UNIT A1	1305 S.F.	28 S.F.	120 S.F.	1453 S.F.	7.26
UNIT B2	1481 S.F.		188 S.F.	1669 S.F.	8.34
UNIT C2	1776 S.F.		140 S.F.	1916 S.F.	9.58
COMMON HALL	50 S.F.			50 S.F.	.25
2ND FLR TOTALS	4612 S.F.	28 S.F.	448 S.F.	5088 S.F.	26
TOTAL For 1/2 of 100	7955 S.F.	2126 S.F.	973	11,054 S.F.	56
GRAND TOTAL	15,910 S.F.	4252 S.F.	1946	22,108 S.F.	112

BUILDING 200

UNIT #	CONDITIONED SPACE	UNCONDITIONED SPACE ENCLOSED	COVERED UNCONDITIONED	TOTALS	OCCUPANT LOAD FACTOR (S.F./200)
FIRST FLOOR					
UNIT B1	1475 S.F.		188 S.F.	1663 S.F.	8.31
UNIT C1	1793 S.F.		187 S.F.	1980 S.F.	9.9
UNIT B2	75 S.F.			75 S.F.	.375
GARAGE C2		469 S.F.		469 S.F.	2.35
COMMON HALL		132 S.F. /		132 S.F.	.66
GARAGE C1		466 S.F.		466 S.F.	2.33
GARAGE B1		392 S.F.		392 S.F.	1.96
GARAGE B2		403 S.F.		403 S.F.	2
GARAGE A1		236 S.F.		236 S.F.	1.18
B2 STAIR			150 S.F.	150 S.F.	.75
UNIT C3	1803 S.F.		140 S.F.	1943 S.F.	9.715
COMMON HALL			100 S.F.	100 S.F.	.5
GARAGE C3		484 S.F.		484 S.F.	2.42
GARAGE C4		469 S.F.		469 S.F.	2.35
1ST SUB TOTAL	5146 S.F.	3051 S.F.	765 S.F.	8962 S.F.	44.85
SECOND FLOOR					
UNIT A1	1305 S.F.	28 S.F.	120 S.F.	1453 S.F.	7.26
UNIT B2	1481 S.F.		188 S.F.	1669 S.F.	8.34
UNIT C2	1776 S.F.		140 S.F.	1916 S.F.	9.58
COMMON HALL	50 S.F.			50 S.F.	.25
UNIT C4	1769 S.F.		140 S.F.	1909 S.F.	9.54
COMMON HALL			50 S.F.	50 S.F.	.25
					112
2ND FLR TOTALS	6381 S.F.	28 S.F.	638 S.F.	7047 S.F.	35.19
GRAND TOTAL	11,527 S.F.	3,079 S.F.	1,402 S.F.	16008 S.F.	80.04

BUILDING AREA SUMMARY

BUILDING 100
FIRST FLOOR: 11,932 SQUARE FEET
SECOND FLOOR: 10,176 SQUARE FEET
TOTAL: 22,108 SQUARE FEET

BUILDING 200
FIRST FLOOR: 8,962 SQUARE FEET
SECOND FLOOR: 7,047 SQUARE FEET
TOTAL: 16,009 SQUARE FEET

GRAPHIC LEGEND & KEYNOTE

———	INDICATES EXIT PATH OF TRAVEL
———	INDICATES MAXIMUM TRAVEL DISTANCE TO EXIT ACCESS
— —	INDICATES SEPARATION OF EXIT DISTANCE

NOTE:

1. ALL EXIT DOORS ARE MIN. 32" X80" (NET) PER I.B.C. SECT. 1008.1.1

01 MAX. PATH OF COMMON TRAVEL
02 MAXIMUM DISTANCE TO EXIT ACCESS
03 TYPICAL TENANT SEPARATION WALL TO BE A MIN. OF 1 HOUR
04 TYPICAL INTERIOR STAIR ENCLOSURE TO HAVE A 1 HOUR ENCLOSURE
05 EXTERIOR STAIR - NO ENCLOSURE REQUIRED - BUT A MIN. OF 35 S.F. OF OPEN AREA TO BE PROVIDED.
06 TYPICAL GARAGE SEPARATION WALL TO BE A MIN. OF 1 HOUR

CODE ANALYSIS SUMMARY

ANALYSIS ITEMS

1. BUILDING CODES
THIS PROJECT SHALL COMPLY WITH THE REQUIREMENTS SET FORTH IN THE FOLLOWING CODES AND ORDINANCES:
INTERNATIONAL BUILDING CODE, 2006 EDITION W/ SOUTHERN NEVADA AMENDMENT.
INTERNATIONAL ENERGY CONSERVATION CODE (IECC), 2006 EDITION W/ SOUTHERN NEVADA AMENDMENT.
UNIFORM PLUMBING CODE, 2006 EDITION W/ SOUTHERN NEVADA AMENDMENT.
UNIFORM MECHANICAL CODE, 2006 EDITION W/ SOUTHERN NEVADA AMENDMENT.
NATIONAL ELECTRICAL CODE, 2005 EDITION W/ SOUTHERN NEVADA AMENDMENT.
UNIFORM FIRE CODE (U.F.C.)
ALL APPLICABLE STATE AND LOCAL CODES
CLARK COUNTY, NV BUILDING CODE AMENDMENTS
ICC ANSI A117.1-2003

2. OCCUPANCY CLASSIFICATION
R2-/U

3. TYPE OF CONSTRUCTION
BLDG. 100: TYPE V-A BLDG. 200 TYPE V-B

4. FIRE SPRINKLERS YES/13R

5. FIRE ALARM NOT REQUIRED

6. BUILDING HEIGHT
BLDG 200 ALLOWABLE = 40 Feet ACTUAL = 31 Feet
BLDG 100 ALLOWABLE = 50 Feet ACTUAL = 31 Feet

7. STORIES
BLDG 200 ALLOWABLE = 2 ACTUAL = 2
BLDG 100 ALLOWABLE = 3 ACTUAL = 2

8. ALLOWABLE AREA see sheet A0-2.1 for complete area calculations
Allowable areas based upon worst case scenario assuming type VA - R2 occupancy for bldg 100 and type VB - R2 occupancy for bldg. 200:
BUILDING 30 ALLOWABLE = 38,880 FT. ACTUAL = 22,108 FT.
BUILDING 32 ALLOWABLE = 39,120 FT. ACTUAL = 22,108 FT.
BUILDING 34 ALLOWABLE = 38,880 FT. ACTUAL = 22,108 FT.
BUILDING 2 ALLOWABLE = 39,120 FT. ACTUAL = 22,108 FT.
BUILDING 36 ALLOWABLE = 20,440 FT. ACTUAL = 16,0108 FT.

9. OCCUPANT LOAD
PER TABLE 1004.1.1 OCCUPANT LOAD = 200
MAX. UNIT OCCUPANT LOAD = 10

10. NUMBER OF EXITS
PER TABLE 1015.1 AS AMENDED BY SOUTHERN NEVADA AMENDMENTS = 20 Occupants allowed for one exit.
Number of exits REQUIRED per unit = 1
Number of exits PROVIDED per unit = 1

11. REQUIRED FIRE RESISTANCE OF EXTERIOR WALLS
BLDGE 200: Per Table 601 Type V-B - 0 hr rating required
Per Table 602 Type V-B >10' to P.L. no rating required

BLDG 100: Per Table 601 Type V-A - 1 hr rating required
Per Table 602 Type V-A >10' to P.L. 1 hr rating required

BLDG 100 RATED EXT. Wall per wall type W3 on sheet F1-1.1 UL#U356 on sheet F3-1.2

12. PROTECTION OF OPENINGS DUE TO LOCATION ON PROPERTY AND MAXIMUM AREA OF EXTERIOR WALL OPENINGS
BLDG 200 Per footnote (i) of table 704.8 area of openings unlimited
BLDG 100 PER table 704.8 at areas where fire separation distance is 10 to 15' max. area of openings on the side is 15% see calculation on sheet A0-2.1

13. FIRE RESISTANCE RATING REQUIREMENTS FOR BUILDING ELEMENTS (SPECIFY AREAS RECEIVING SPRAY APPLIED FIRE PROTECTION)

PER TABLE 601 for Type V-B	BLDG 200.	Type V A BLDG 100
Structural Frame	Non Rated	1 hr. Rated
Bearing Walls	Non Rated	1 hr. Rated
Non Bearing Walls	Non Rated	Non Rated
Floor Construction	Non Rated	1 hr. Rated
Roof Construction	Non Rated	1 hr. Rated

14. SPACES REQUIRING FIRE-RESISTANCE-RATED SEPARATION (SPECIFY SPACES REQUIRING SEPARATION AND HOURLY RATING)

TENANT SEPARATION WALLS
Required by code section: 708
Required rating : 1 HOUR Provided Rating : 1 HOUR
Tested Assembly: UL#U341
Referenced on Sheet: W1/F1-1.1 AND F3-1.1

TENANT SEPARATION FLOOR/CEILINGS
Required by code section: 711
Required rating : 1 HOUR Provided Rating : 1 HOUR
Tested Assembly: UL#L528 utilizing floor system 14, and item 3b
Referenced on Sheet: FC1/F1-1.1 AND F3-2.1

WALLS SUPPORTING TENANT SEPARATION FLOOR/CEILINGS
Required by code section: 711.4
Required rating : 1 HOUR Provided Rating : 1 HOUR
Tested Assembly: UL# U305 AND U356
Referenced on Sheet: W2 AND W3/F1-1.1 AND F3-1.1, F3-1.2

GARAGES TO RESIDENTIAL UNITS U TO R-2
Required by code section: 406.1.4
Required rating : 1 LAYER 5/8" TYPE X Provided Rating : 1LAYER 5/8" X

FIRE RISER ROOMS
Required by code section: FIRE CODE
Required rating : 1 HOUR Provided Rating : 1 HOUR
Tested Assembly: UL#U305 AND GA WP 4135
Referenced on Sheet: W2 and W5/F1-1.1 AND F3-1.1, F3-1.2

USEABLE SPACE UNDER STAIRS
Required by code section: 1009.5.3
Required rating : 1 HOUR Provided Rating : 1 HOUR
Tested Assembly: IBC ASSEMBLY FROM TABLE 720.1 ITEM 21-1.1
Referenced on Sheet: SHEET F3-2.1

15. ROOF COVERING MATERIAL:
ALLOWABLE: Per table 1505.1 roof covering required to be Class C
ACTUAL: Class A roof provided per ESR #1647

16. REQUIRED PLUMBING FIXTURES - (PROVIDE CALCULATIONS FOR THE NUMBER OF WATER CLOSETS, URINALS, AND LAVATORIES FOR ALL RESTROOM) - NOT APPLICABLE TO RESIDENTIAL

17. SPECIAL INSPECTION(S) REQUIRED (PROVIDED TABLE SPECIFIC TO THE PROJECT)
In addition to the standard inspections by the building official required per IBC Chapter 17, the owner shall employ one or more special inspectors who shall provide inspections during construction for the types of work listed in this section.

Types of work to be inspected by the special inspector are as follows:

A. During the taking of test specimens and placing of reinforced concrete and shotcrete. Exception: foundation concrete, other than cast-in-place drilled piles or caissons, where the structural design is based on an f'c no greater than 2,500 PSI does not require special inspection. Frequency and type of test specimens shall be per IBC Section 1905.6

B. Prior to, and during the installation of concrete around bolts.

C. During the placing of reinforcing and pre-stressing tendons for all concrete required to have special inspection noted above.

D. During all stressing and grouting of pre-stressing tendons. Exception: special inspector need not be present continuously during placing of reinforcing steel and pre-stressing tendons, provided the special inspector has inspected for conformance to the approved design drawings and specifications prior to the closing of the forms or the delivery of concrete to the job site.

E. During all epoxy anchoring operations for bolts, rebar, threaded rod, etc., including verification of bolt or bar materials, hole depth and diameter, hole cleanout, epoxy mixing and placement procedures, and embedment depth in accordance the contract drawings and the manufacturer's specifications and recommendations.

F. Periodic inspections for screw attachment, bolting, anchoring and other fastening of components of the lateral-force-resisting system, including struts, drags, braces, holdowns, shearwalls and diaphragms.

G. Certificate of approval regarding materials and inspection of prefabricated items shall be provided in accordance with IBC Section 1703 the quality assurance program.

18. I.E.C.C. COMPLIANCE REPORTS
See report above architectural sheet index

19. USES ARE SEPARATED

20. STC/ICC RATING
50 MIN. STC/ICC for all tenant separation conditions both floor, wall, and ceiling assemblies. Field verify min. STC/IIC rating with field testing, coordinate testing with City of Las Vegas Building Inspection supervisor prior to commencement of sound control testing.

SITE ACCESSIBILITY MATTRIX

NOTE: ALL BATHROOM IN TYPE B UNITS ARE OPTION B - BATHROOMS

UNIT	TYPE A	TYPE B	N/A	UNIT	TYPE A	TYPE B	N/A
BUILDING 100 - 30							
A 2(L)				A 2(R)			
B 1(L)				B 1(R)			
B 2(L)				B 2(R)			
C 1(L)				C 1(R)			
C 2(L)				C 2(R)			
BUILDING 100 - 32							
A 2(L)				A 2(R)			
B 1(L)				B 1(R)			
B 2(L)				B 2(R)			
C 1(L)				C 1(R)			
C 2(L)				C 2(R)			
BUILDING 100 - 34							
A 2(L)				A 2(R)			
B 1(L)				B 1(R)			
B 2(L)				B 2(R)			
C 1(L)				C 1(R)			
C 2(L)				C 2(R)			
BUILDING 100 - 2							
A 2(L)				A 2(R)			
B 1(L)				B 1(R)			
B 2(L)				B 2(R)			
C 1(L)				C 1(R)			
C 2(L)				C 2(R)			
BUILDING 200 - 36							
				A 2(R)			
C 3(L)				B 1(R)			
				B 2(R)			
C 4(L)				C 1(R)			
				C 2(R)			
SUB TOTAL	1	8	13		0	10	15

ALLOWABLE AREA CALCULATIONS

ALLOWABLE AREA PER TABLE 503 A(a) = 7,000 S.F.

PER SECTION 506 :

I(s) = 0 SPRINKLER INCREASE NOT TAKEN DUE TO THE SYSTEM BEING 13 R

I(f) = TAKEN FROM FRONTAGE CALC'S BELOW

TOTAL ALLOWABLE AREA:

BUILDING 30 A(a) = (12000 + (.62 x 12000) = 19,440 PER FLOOR
1ST FLOOR = 11932 < 19,440 OKAY
2ND FLOOR = 10176 < 19,440 OKAY

TOTAL S.F. = 22,108 < 38,880 (19,440 x 2 per 506.4)
AREA IS OKAY.

BUILDING 32 A(a) = (12000 + (.63 x 12000) = 19,560 PER FLOOR

1ST FLOOR = 11932 < 19,560 OKAY
2ND FLOOR = 10176 < 19,560 OKAY

TOTAL S.F. = 22,108 < 39,120 (19,560 x 2 per 506.4)
AREA IS OKAY.

BUILDING 34 A(a) = (12000 + (.62 x 12000) = 19,440 PER FLOOR
1ST FLOOR = 11932 < 19,440 OKAY
2ND FLOOR = 10176 < 19,440 OKAY

TOTAL S.F. = 22,108 < 38,880 (19,440 x 2 per 506.4)
AREA IS OKAY.

BUILDING 2 A(a) = (12000 + (.63 x 12000) = 19,560 PER FLOOR
1ST FLOOR = 11932 < 19,560 OKAY
2ND FLOOR = 10176 < 19,560 OKAY

TOTAL S.F. = 22,108 < 39,120 (19,560 x 2 per 506.4)
AREA IS OKAY.

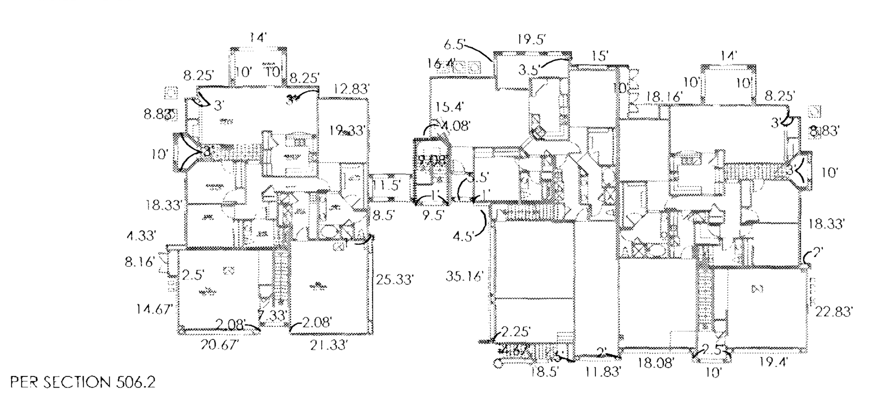
BUILDING 36 A(a) = (7000 + (.36 x 7000) = 9,520 ALLOWED PER FLOOR
1ST FLOOR = 8962 < 9520 OKAY
2ND FLOOR = 7047 < 9520 OKAY

BUILDING TOTAL AREA = 9520 x 2 (PER 506.4) = 19,040 ACTUAL = 16,008 < 19,040 AREA IS OKAY.

SECOND FLOOR OPENING CALCULATION:
WALL PLANE = 376 S.F. X .15 (PER TABLE 704.8 WITH SEP. DIST 10 TO 15') = 56.4 S.F. ALLOWABLE:
ACTUAL = 25 S.F. + 15 S.F. +15 S.F. = 55 S.F. TOTAL ACTUAL < 56.4 ALLOWABLE OKAY
FIRST FLOOR OPENING CALCULATION:
WALL PLANE = 568S.F. X .15 (PER TABLE 704.8 WITH SEP. DIST 10 TO 15') = 85.2 S.F. ALLOWABLE:
ACTUAL = 25 S.F. + 15 S.F. +15 S.F. + 30S.F. = 85 S.F. TOTAL ACTUAL < 85.2 ALLOWABLE OKAY

ALLOW. OPENING PROTECTION BLDG 100

BUILDING 36



PER SECTION 506.2

HEAVY LINE INDICATES FRONTAGE WHICH FACES OPEN SPACE OF 30' OR GREATER

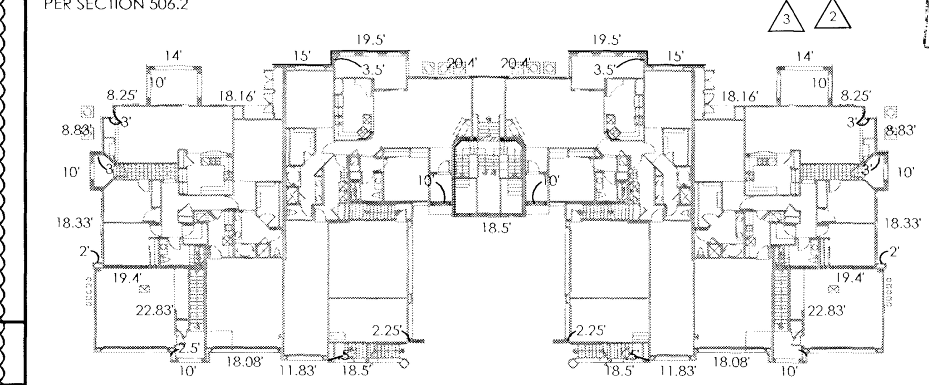
TOTAL FRONTAGE CALCULATION F = TOTAL PERIMETER = 406.75+252.8 = 659.55 LIN. FT.

FRONT = 159.89 REAR=162.22 RIGHT = 75.49 LEFT = 72.99 LIN FT.
TOTAL WHERE THE BUILDING FRONTS AT 30' OR GREATER, AREAS WHERE W<30' HAVE NOT BEEN INCLUDED
F = 162.22 + 75.49+ 72.99 + 95.83 = 406.53
F/P = 406.53/659.55 = .61 I(f) = (.61 - .25)x 30/30 = .36

BUILDING 200: PERIMETER CALCULATION

BUILDING 100: PERIMETER CALCULATION

PER SECTION 506.2



PER SECTION 506.2

HEAVY LINE INDICATES POTENTIAL FRONTAGE WHICH FACES OPEN SPACE OF 20' OR GREATER FOR SPECIFIC BLDG. OPEN AREA SEE ENLARGED SITE PLANS

TOTAL P = 558
POTENTIAL F FRONTAGE PER 100 BUILDING: FRONT = 198.62 , REAR = 202.62, RIGHT OR LEFT 53.16

BLDG 30 W = weighted average, total potential perimeter available = 507 lin. ft.
Weighted W= front = 198.62 rear = 202.62 left or right = 53.16
(198.6 x30) +(202.62 x 30) + (53.16 x 22) + (53.16 x 20)/ 507 weighted w = 28.14
F = 507 P = 558.6 I(f) = (507 /558.6 -.25) x 28.5/30 = .62

BLDG 32 W = weighted average, total potential perimeter available = 507 lin. ft.
Weighted W= front = 198.62 rear = 202.62 left or right = 53.16
(198.6 x30) +(202.62 x 30) + (53.16 x 30) + (53.16 x 20)/ 507 weighted w = 29
F = 507 P = 558.6 I(f) = (507 /558.6 -.25) x 29/30 = .63

BLDG 34 W = weighted average, total potential perimeter available = 507 lin. ft.
Weighted W= front = 198.62 rear = 202.62 left or right = 53.16
(198.6 x30) +(202.62 x 30) + (53.16 x 22) + (53.16 x 20)/ 507 weighted w = 28.14
F = 507 P = 558.6 I(f) = (507 /558.6 -.25) x 28.5/30 = .62

BLDG 2 W = weighted average, total potential perimeter available = 507 lin. ft.
Weighted W= front = 198.62 rear = 202.62 left or right = 53.16
(198.6 x29.33) +(202.62 x 30) + (53.16 x 30) + (53.16 x 20)/ 507 weighted w = 29
F = 507 P = 558.6 I(f) = (507 /558.6 -.25) x 29/30 = .63

PLANS APPROVED CONSTRUCTION
Building & Safety Dept.
City of Las Vegas, Nevada
MT SEP 02 2009
Does Not ... Plumbing, Mechanical Structural or Off-Site Improvements Make No Change Without Approval Plan is Not a Permit to Violate Any Ordinance

AUG 20 2009
CITY OF LAS VEGAS PERMITS

CRAIG D. SMITH
REGISTERED ARCHITECT
No. 4967
8-20-09
STATE OF NEVADA

RNM

RNM DESIGN
ARCHITECTURE
PLANNING
LANDSCAPE
GRAPHICS
RNMDESIGN.COM

2 CORPORATE PARK
SUITE 100
IRVINE, CALIFORNIA
92606
T949.752.1800
F949.833.9603

PROJECT NAME/ADDRESS

CORONADO THE PASEOS
875 PANTARA PLACE
LAS VEGAS, NEVADA

CLIENT

SPINNAKER HOMES
4511 W. CHEYENNE AVE. ST 105
NO. LAS VEGAS, CA 89032
702-873-7773
702-873-7776 FAX

REVISIONS

1	DELTA 1: PLAN CHECK CORRECTION 03.26.09
2	DELTA 2: PLAN CHECK CORRECTION 05.06.09
3	DELTA 3: PLAN CHECK CORRECTION 06.22.09
4	DELTA 4: PLAN CHECK CORRECTION

THESE DRAWINGS AND IMAGES ARE NOT TO BE REPRODUCED OR COPIED IN ANY FORM WITHOUT WRITTEN PERMISSION. COPYRIGHT 2008 RNM DESIGN

DRAWING TITLE

BUILDING CODE ANALYSIS

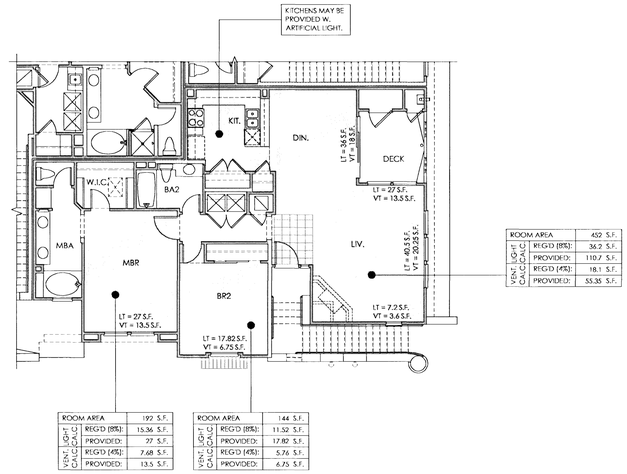
DRAWING INFORMATION

PROJ. NO: 08041
FIRST SUBMITTAL DATE: 02.24.2009
SCALE: 1/16" = 1'-0"

DRAWING NUMBER

A0-2.1

DELTA 4 - PLAN CHECK CORRECTION 08.12.09

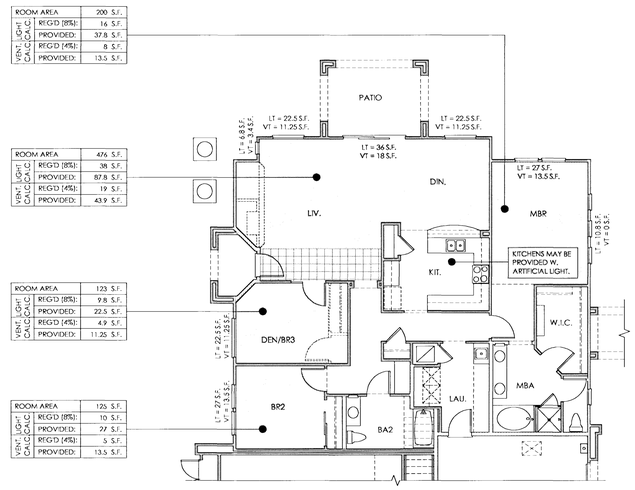


ROOM AREA		459 S.F.
VENT. LIGHT CALC.(CA.C)	REQ'D (8%):	36.7 S.F.
	PROVIDED:	110.7 S.F.
	REQ'D (4%):	18.1 S.F.
	PROVIDED:	55.35 S.F.

ROOM AREA		199 S.F.
VENT. LIGHT CALC.(CA.C)	REQ'D (8%):	15.36 S.F.
	PROVIDED:	27 S.F.
	REQ'D (4%):	7.68 S.F.
	PROVIDED:	13.5 S.F.

ROOM AREA		144 S.F.
VENT. LIGHT CALC.(CA.C)	REQ'D (8%):	11.52 S.F.
	PROVIDED:	17.82 S.F.
	REQ'D (4%):	5.76 S.F.
	PROVIDED:	6.75 S.F.

UNIT A2: LIGHT AND VENTILATION CALCULATION



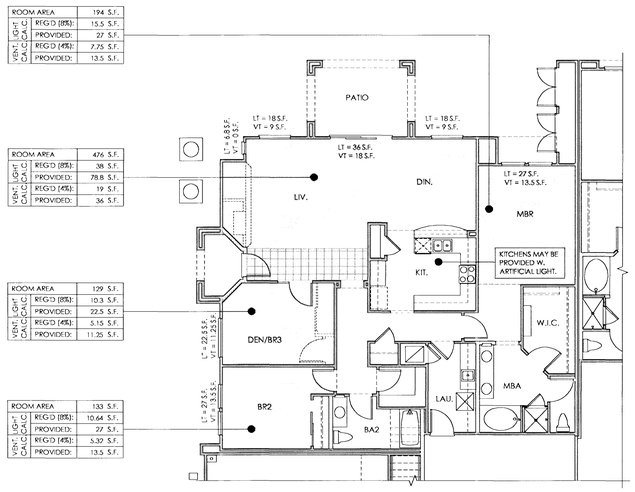
ROOM AREA		200 S.F.
VENT. LIGHT CALC.(CA.C)	REQ'D (8%):	16 S.F.
	PROVIDED:	37.8 S.F.
	REQ'D (4%):	8 S.F.
	PROVIDED:	13.5 S.F.

ROOM AREA		476 S.F.
VENT. LIGHT CALC.(CA.C)	REQ'D (8%):	38 S.F.
	PROVIDED:	87.8 S.F.
	REQ'D (4%):	19 S.F.
	PROVIDED:	43.9 S.F.

ROOM AREA		123 S.F.
VENT. LIGHT CALC.(CA.C)	REQ'D (8%):	9.8 S.F.
	PROVIDED:	22.5 S.F.
	REQ'D (4%):	4.9 S.F.
	PROVIDED:	11.25 S.F.

ROOM AREA		125 S.F.
VENT. LIGHT CALC.(CA.C)	REQ'D (8%):	10 S.F.
	PROVIDED:	27 S.F.
	REQ'D (4%):	5 S.F.
	PROVIDED:	13.5 S.F.

UNIT C3: LIGHT AND VENTILATION CALCULATION



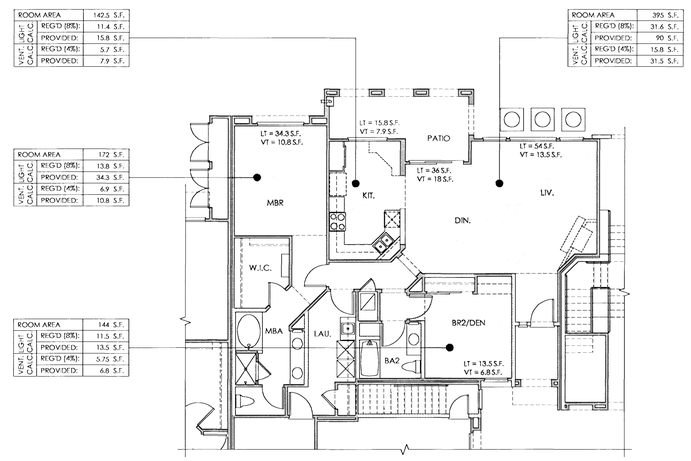
ROOM AREA		194 S.F.
VENT. LIGHT CALC.(CA.C)	REQ'D (8%):	15.5 S.F.
	PROVIDED:	27 S.F.
	REQ'D (4%):	7.75 S.F.
	PROVIDED:	13.5 S.F.

ROOM AREA		476 S.F.
VENT. LIGHT CALC.(CA.C)	REQ'D (8%):	38 S.F.
	PROVIDED:	78.8 S.F.
	REQ'D (4%):	19 S.F.
	PROVIDED:	36 S.F.

ROOM AREA		129 S.F.
VENT. LIGHT CALC.(CA.C)	REQ'D (8%):	10.3 S.F.
	PROVIDED:	22.5 S.F.
	REQ'D (4%):	5.15 S.F.
	PROVIDED:	11.25 S.F.

ROOM AREA		133 S.F.
VENT. LIGHT CALC.(CA.C)	REQ'D (8%):	10.64 S.F.
	PROVIDED:	27 S.F.
	REQ'D (4%):	5.32 S.F.
	PROVIDED:	13.5 S.F.

UNIT C1: LIGHT AND VENTILATION CALCULATION



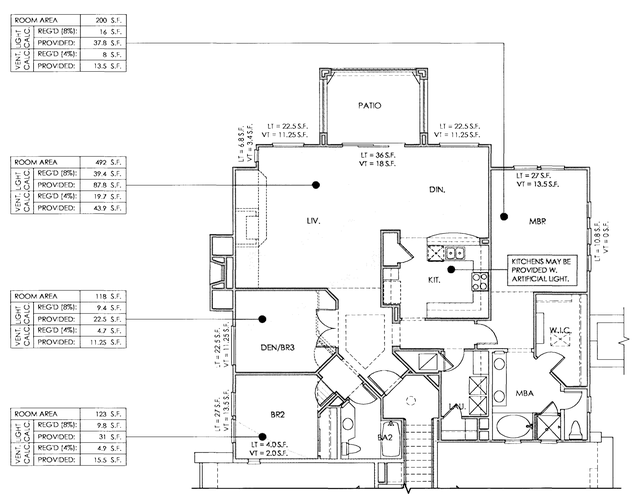
ROOM AREA		142.5 S.F.
VENT. LIGHT CALC.(CA.C)	REQ'D (8%):	11.4 S.F.
	PROVIDED:	15.8 S.F.
	REQ'D (4%):	5.7 S.F.
	PROVIDED:	7.9 S.F.

ROOM AREA		395 S.F.
VENT. LIGHT CALC.(CA.C)	REQ'D (8%):	31.6 S.F.
	PROVIDED:	90 S.F.
	REQ'D (4%):	15.8 S.F.
	PROVIDED:	31.5 S.F.

ROOM AREA		172 S.F.
VENT. LIGHT CALC.(CA.C)	REQ'D (8%):	13.8 S.F.
	PROVIDED:	34.3 S.F.
	REQ'D (4%):	6.9 S.F.
	PROVIDED:	10.8 S.F.

ROOM AREA		144 S.F.
VENT. LIGHT CALC.(CA.C)	REQ'D (8%):	11.5 S.F.
	PROVIDED:	13.5 S.F.
	REQ'D (4%):	5.75 S.F.
	PROVIDED:	6.8 S.F.

UNIT B1: LIGHT AND VENTILATION CALCULATION



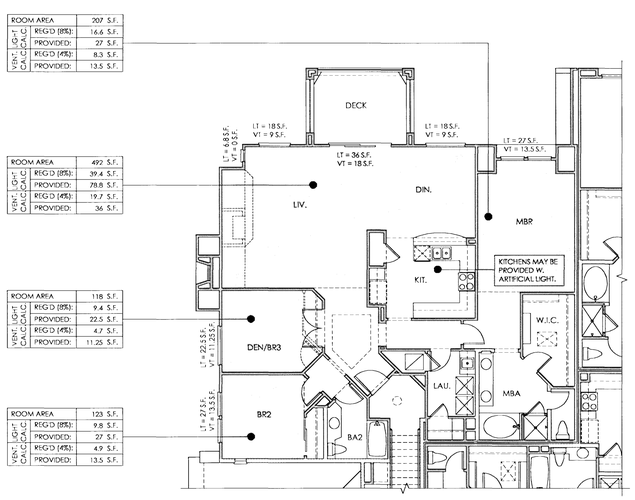
ROOM AREA		200 S.F.
VENT. LIGHT CALC.(CA.C)	REQ'D (8%):	16 S.F.
	PROVIDED:	37.8 S.F.
	REQ'D (4%):	8 S.F.
	PROVIDED:	13.5 S.F.

ROOM AREA		492 S.F.
VENT. LIGHT CALC.(CA.C)	REQ'D (8%):	39.4 S.F.
	PROVIDED:	87.8 S.F.
	REQ'D (4%):	19.7 S.F.
	PROVIDED:	43.9 S.F.

ROOM AREA		118 S.F.
VENT. LIGHT CALC.(CA.C)	REQ'D (8%):	9.4 S.F.
	PROVIDED:	22.5 S.F.
	REQ'D (4%):	4.7 S.F.
	PROVIDED:	11.25 S.F.

ROOM AREA		123 S.F.
VENT. LIGHT CALC.(CA.C)	REQ'D (8%):	9.8 S.F.
	PROVIDED:	31 S.F.
	REQ'D (4%):	4.9 S.F.
	PROVIDED:	15.5 S.F.

UNIT C4: LIGHT AND VENTILATION CALCULATION



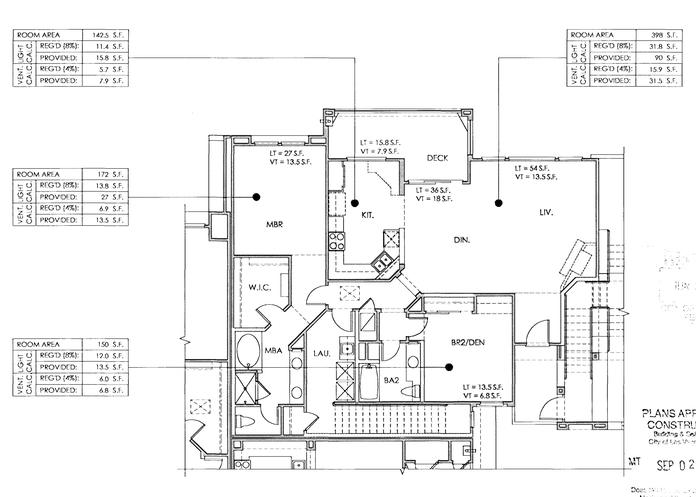
ROOM AREA		207 S.F.
VENT. LIGHT CALC.(CA.C)	REQ'D (8%):	16.6 S.F.
	PROVIDED:	27 S.F.
	REQ'D (4%):	8.3 S.F.
	PROVIDED:	13.5 S.F.

ROOM AREA		492 S.F.
VENT. LIGHT CALC.(CA.C)	REQ'D (8%):	39.4 S.F.
	PROVIDED:	78.8 S.F.
	REQ'D (4%):	19.7 S.F.
	PROVIDED:	36 S.F.

ROOM AREA		118 S.F.
VENT. LIGHT CALC.(CA.C)	REQ'D (8%):	9.4 S.F.
	PROVIDED:	22.5 S.F.
	REQ'D (4%):	4.7 S.F.
	PROVIDED:	11.25 S.F.

ROOM AREA		123 S.F.
VENT. LIGHT CALC.(CA.C)	REQ'D (8%):	9.8 S.F.
	PROVIDED:	27 S.F.
	REQ'D (4%):	4.9 S.F.
	PROVIDED:	13.5 S.F.

UNIT C2: LIGHT AND VENTILATION CALCULATION



ROOM AREA		142.5 S.F.
VENT. LIGHT CALC.(CA.C)	REQ'D (8%):	11.4 S.F.
	PROVIDED:	15.8 S.F.
	REQ'D (4%):	5.7 S.F.
	PROVIDED:	7.9 S.F.

ROOM AREA		398 S.F.
VENT. LIGHT CALC.(CA.C)	REQ'D (8%):	31.8 S.F.
	PROVIDED:	90 S.F.
	REQ'D (4%):	15.9 S.F.
	PROVIDED:	31.5 S.F.

ROOM AREA		172 S.F.
VENT. LIGHT CALC.(CA.C)	REQ'D (8%):	13.8 S.F.
	PROVIDED:	27 S.F.
	REQ'D (4%):	6.9 S.F.
	PROVIDED:	13.5 S.F.

ROOM AREA		150 S.F.
VENT. LIGHT CALC.(CA.C)	REQ'D (8%):	12.0 S.F.
	PROVIDED:	13.5 S.F.
	REQ'D (4%):	6.0 S.F.
	PROVIDED:	6.8 S.F.

UNIT B2: LIGHT AND VENTILATION CALCULATION

PLANS APPROVED CONSTRUCTION
Building & Safety Dept.
City of Las Vegas, Nevada
MT SEP 02 2009

Dept. Not Responsible for Errors or Omissions Which May Be Contained Herein. Approval Does Not Permit Violation of Any Ordinance

CRAIG D. SMITH
Registered Architect
No. 4967
9-2-09
Re-Registration Date
STATE OF NEVADA

RNM DESIGN
ARCHITECTURE
PLANNING
LANDSCAPE
GRAPHICS
RNMDESIGN.COM

2 CORPORATE PARK
SUITE 100
IRVINE, CALIFORNIA
92606
T949.752.1800
F949.833.9603

PROJECT NAME/ADDRESS

CORONADO THE PASEOS
875 PANTARA PLACE
LAS VEGAS, NEVADA

CLIENT

SPINNAKER HOMES
4511 W. CHEYENNE AVE. ST 105
NO. LAS VEGAS, CA 89032
702-873-7773
702-873-7776 FAX

REVISIONS

THESE DRAWINGS AND IMAGES ARE NOT TO BE REPRODUCED OR COPIED IN ANY FORM WITHOUT WRITTEN PERMISSION. COPYRIGHT 2008 RNM DESIGN

DRAWING TITLE

LIGHT AND VENT. CALC.

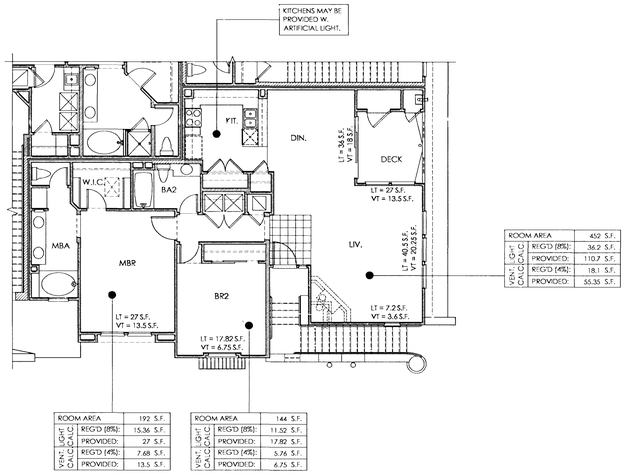
DRAWING INFORMATION

PROJ. NO: 08041
FIRST SUBMITTAL DATE: 02.24.2009
SCALE: 1/8" = 1'-0"

DRAWING NUMBER

A0-2.2

DELTA 2 - PLAN CHECK CORRECTION
05.27.09



ROOM AREA		192 S.F.
VENT. LIGHT CALC.(CA.C)	REQ'D (8%):	15.36 S.F.
	PROVIDED:	27 S.F.
	REQ'D (4%):	7.68 S.F.
	PROVIDED:	13.5 S.F.

ROOM AREA		144 S.F.
VENT. LIGHT CALC.(CA.C)	REQ'D (8%):	11.52 S.F.
	PROVIDED:	17.82 S.F.
	REQ'D (4%):	5.76 S.F.
	PROVIDED:	6.75 S.F.

ROOM AREA		459 S.F.
VENT. LIGHT CALC.(CA.C)	REQ'D (8%):	36.7 S.F.
	PROVIDED:	110.7 S.F.
	REQ'D (4%):	18.1 S.F.
	PROVIDED:	55.35 S.F.

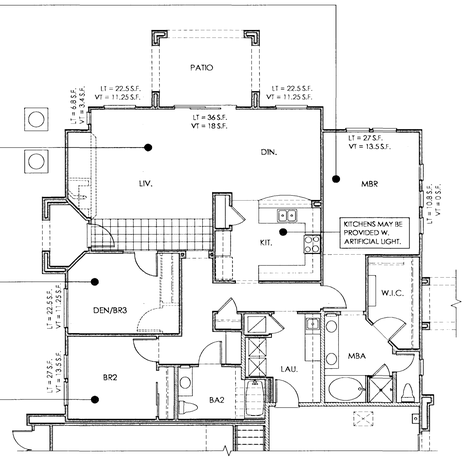
UNIT A2: LIGHT AND VENTILATION CALCULATION

ROOM AREA		200 S.F.
VENT. LIGHT CALC.(CA.C)	REQ'D (8%):	16 S.F.
	PROVIDED:	37.8 S.F.
	REQ'D (4%):	8 S.F.
	PROVIDED:	13.5 S.F.

ROOM AREA		476 S.F.
VENT. LIGHT CALC.(CA.C)	REQ'D (8%):	38 S.F.
	PROVIDED:	87.8 S.F.
	REQ'D (4%):	19 S.F.
	PROVIDED:	43.9 S.F.

ROOM AREA		123 S.F.
VENT. LIGHT CALC.(CA.C)	REQ'D (8%):	9.8 S.F.
	PROVIDED:	22.5 S.F.
	REQ'D (4%):	4.9 S.F.
	PROVIDED:	11.25 S.F.

ROOM AREA		125 S.F.
VENT. LIGHT CALC.(CA.C)	REQ'D (8%):	10 S.F.
	PROVIDED:	27 S.F.
	REQ'D (4%):	5 S.F.
	PROVIDED:	13.5 S.F.



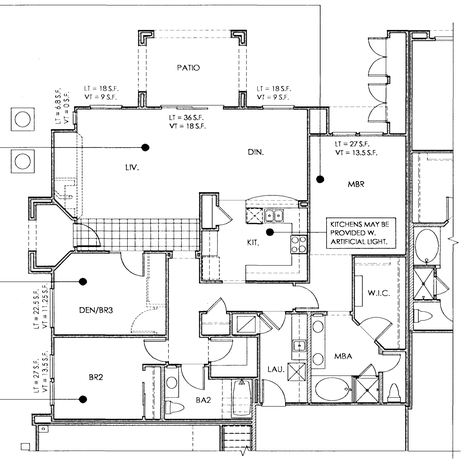
UNIT C3: LIGHT AND VENTILATION CALCULATION

ROOM AREA		194 S.F.
VENT. LIGHT CALC.(CA.C)	REQ'D (8%):	15.5 S.F.
	PROVIDED:	27 S.F.
	REQ'D (4%):	7.75 S.F.
	PROVIDED:	13.5 S.F.

ROOM AREA		476 S.F.
VENT. LIGHT CALC.(CA.C)	REQ'D (8%):	38 S.F.
	PROVIDED:	78.8 S.F.
	REQ'D (4%):	19 S.F.
	PROVIDED:	36 S.F.

ROOM AREA		129 S.F.
VENT. LIGHT CALC.(CA.C)	REQ'D (8%):	10.3 S.F.
	PROVIDED:	22.5 S.F.
	REQ'D (4%):	5.15 S.F.
	PROVIDED:	11.25 S.F.

ROOM AREA		133 S.F.
VENT. LIGHT CALC.(CA.C)	REQ'D (8%):	10.64 S.F.
	PROVIDED:	27 S.F.
	REQ'D (4%):	5.32 S.F.
	PROVIDED:	13.5 S.F.



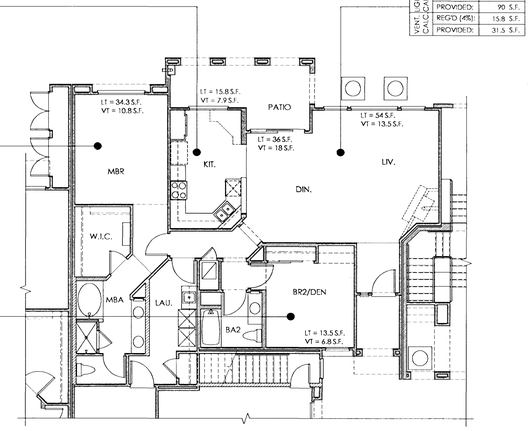
UNIT C1: LIGHT AND VENTILATION CALCULATION

ROOM AREA		142.5 S.F.
VENT. LIGHT CALC.(CA.C)	REQ'D (8%):	11.4 S.F.
	PROVIDED:	15.8 S.F.
	REQ'D (4%):	5.7 S.F.
	PROVIDED:	7.9 S.F.

ROOM AREA		172 S.F.
VENT. LIGHT CALC.(CA.C)	REQ'D (8%):	13.8 S.F.
	PROVIDED:	34.3 S.F.
	REQ'D (4%):	6.9 S.F.
	PROVIDED:	10.8 S.F.

ROOM AREA		144 S.F.
VENT. LIGHT CALC.(CA.C)	REQ'D (8%):	11.5 S.F.
	PROVIDED:	13.5 S.F.
	REQ'D (4%):	5.75 S.F.
	PROVIDED:	6.8 S.F.

ROOM AREA		395 S.F.
VENT. LIGHT CALC.(CA.C)	REQ'D (8%):	31.6 S.F.
	PROVIDED:	90 S.F.
	REQ'D (4%):	15.8 S.F.
	PROVIDED:	31.5 S.F.



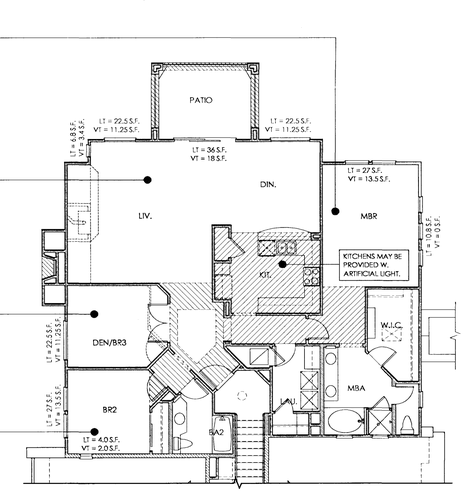
UNIT B1: LIGHT AND VENTILATION CALCULATION

ROOM AREA		200 S.F.
VENT. LIGHT CALC.(CA.C)	REQ'D (8%):	16 S.F.
	PROVIDED:	37.8 S.F.
	REQ'D (4%):	8 S.F.
	PROVIDED:	13.5 S.F.

ROOM AREA		492 S.F.
VENT. LIGHT CALC.(CA.C)	REQ'D (8%):	39.4 S.F.
	PROVIDED:	87.8 S.F.
	REQ'D (4%):	19.7 S.F.
	PROVIDED:	43.9 S.F.

ROOM AREA		118 S.F.
VENT. LIGHT CALC.(CA.C)	REQ'D (8%):	9.4 S.F.
	PROVIDED:	22.5 S.F.
	REQ'D (4%):	4.7 S.F.
	PROVIDED:	11.25 S.F.

ROOM AREA		123 S.F.
VENT. LIGHT CALC.(CA.C)	REQ'D (8%):	9.8 S.F.
	PROVIDED:	31 S.F.
	REQ'D (4%):	4.9 S.F.
	PROVIDED:	15.5 S.F.



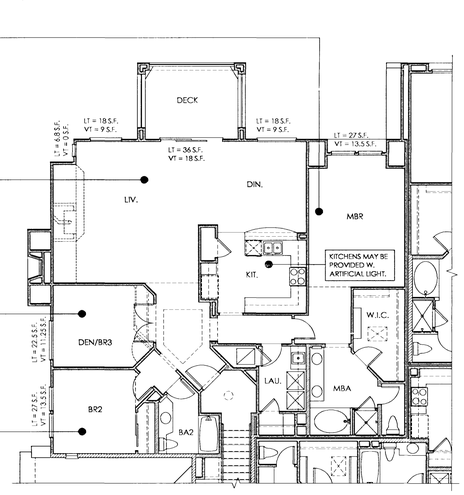
UNIT C4: LIGHT AND VENTILATION CALCULATION

ROOM AREA		207 S.F.
VENT. LIGHT CALC.(CA.C)	REQ'D (8%):	16.6 S.F.
	PROVIDED:	27 S.F.
	REQ'D (4%):	8.3 S.F.
	PROVIDED:	13.5 S.F.

ROOM AREA		492 S.F.
VENT. LIGHT CALC.(CA.C)	REQ'D (8%):	39.4 S.F.
	PROVIDED:	78.8 S.F.
	REQ'D (4%):	19.7 S.F.
	PROVIDED:	36 S.F.

ROOM AREA		118 S.F.
VENT. LIGHT CALC.(CA.C)	REQ'D (8%):	9.4 S.F.
	PROVIDED:	22.5 S.F.
	REQ'D (4%):	4.7 S.F.
	PROVIDED:	11.25 S.F.

ROOM AREA		123 S.F.
VENT. LIGHT CALC.(CA.C)	REQ'D (8%):	9.8 S.F.
	PROVIDED:	27 S.F.
	REQ'D (4%):	4.9 S.F.
	PROVIDED:	13.5 S.F.



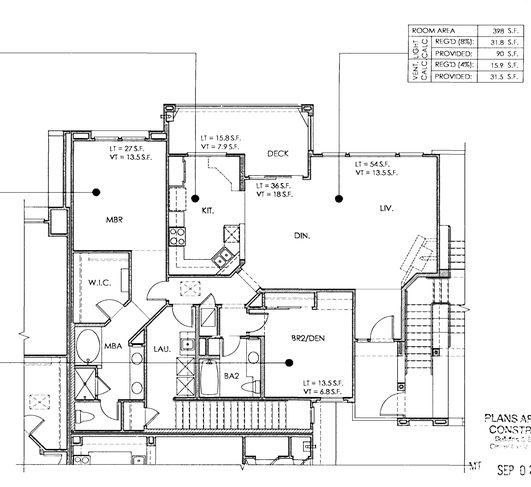
UNIT C2: LIGHT AND VENTILATION CALCULATION

ROOM AREA		142.5 S.F.
VENT. LIGHT CALC.(CA.C)	REQ'D (8%):	11.4 S.F.
	PROVIDED:	15.8 S.F.
	REQ'D (4%):	5.7 S.F.
	PROVIDED:	7.9 S.F.

ROOM AREA		172 S.F.
VENT. LIGHT CALC.(CA.C)	REQ'D (8%):	13.8 S.F.
	PROVIDED:	27 S.F.
	REQ'D (4%):	6.9 S.F.
	PROVIDED:	13.5 S.F.

ROOM AREA		150 S.F.
VENT. LIGHT CALC.(CA.C)	REQ'D (8%):	12.0 S.F.
	PROVIDED:	13.5 S.F.
	REQ'D (4%):	6.0 S.F.
	PROVIDED:	6.8 S.F.

ROOM AREA		398 S.F.
VENT. LIGHT CALC.(CA.C)	REQ'D (8%):	31.8 S.F.
	PROVIDED:	90 S.F.
	REQ'D (4%):	15.9 S.F.
	PROVIDED:	31.5 S.F.



UNIT B2: LIGHT AND VENTILATION CALCULATION

PLANS APPROVED CONSTRUCTION
Building & Safety Dept.
Clark County, Nevada
SEP 02 2009

Documentation for Planning, Structural, Mechanical, Plumbing, Electrical, Energy Code Review Only. Not to be Used for Permit, Construction or Bidding Purposes. Approval Does Not Authorize Violation of Any Federal, State, or Local Laws, Ordinances or Regulations.

CRAIG D. SMITH
REGISTERED
No. 4967
7-22-09
ARCHITECT
STATE OF NEVADA

RNM DESIGN
ARCHITECTURE
PLANNING
LANDSCAPE
GRAPHICS
RNMDESIGN.COM

4611 TELLER AVENUE
NEWPORT BEACH
CALIFORNIA
92660
T949.752.1800
F949.833.9603

PROJECT NAME/ADDRESS

CORONADO THE PASEOS
LAS VEGAS, NEVADA

CLIENT

SPINNAKER HOMES
4511 W. CHEYENNE AVE. ST 105
NO. LAS VEGAS, CA 89032
702-873-7773
702-873-7776 FAX

REVISIONS

THESE DRAWINGS AND IMAGES ARE NOT TO BE REPRODUCED OR COPIED IN ANY FORM WITHOUT WRITTEN PERMISSION. COPYRIGHT 2008 RNM DESIGN

DRAWING TITLE

LIGHT AND VENT. CALC.

DRAWING INFORMATION

PROJ. NO: 08041
FIRST SUBMITTAL DATE: 02.24.2009
SCALE: 1/8" = 1'-0"

DRAWING NUMBER

A0-2.3

THIS PROJECT CONSISTS OF 5 BUILDINGS - SHADED AREA INDICATES LOCATION OF THE NEW BUILDINGS. ALL OTHER BUILDINGS ARE EXISTING BASED UPON PREVIOUS PERMIT. ALL ROADS, CURB AND GUTTER ARE EXISTING BASED UPON PREVIOUS SUBMITTALS

PARCEL H
SF3

PARCEL G
SF3

PARCEL C
SFA

PARCEL A
MF2

DESERT SUNRISE ROAD (PUBLIC)

TRIPOLI LN.

CHAMBORD ST.

PORTIFA DR.

PORTIFA PL.

PARIS PLACER COURT

1 ACCESSIBLE ROUTE SEE DEATIL 02/100.4

2 EXISTING ACCESSIBLE PARKING

3 EXISTING TRASH ENCLOSURE

PLANNING & DEVELOPMENT

June 11, 2003

CORRECTED LETTER

The Howard Hughes Corporation
10000 West Charleston Boulevard, Suite 200
Las Vegas, Nevada 89135

Re: *CWG-7184*

Dear Applicant

Your request for a Summerlin Site Development Plan Review for a 174 Unit Condominium Complex located in Summerlin Village 21A, Parcel B, on the northwest corner of Tuscan Foothills and Paseo Flower Court (APN: 137-34-810-003), (P-C (Planned Community) Zone, Ward 7 (Ll.H. McDonald) was considered by the City Referral Group (CWG-7184).

The City Referral Group APPROVED your request subject to the following conditions:

Planning and Development

1. Street names must be provided in accord with the City's Street Naming Regulations.
2. Prior to the submittal of a building permit, the applicant shall meet with Planning and Development Department staff to develop a comprehensive address plan for the subject site. A copy of the approved address plan shall be submitted with any future building permit applications related to the site.
3. Prior to the issuance of permits, a final landscape plan approved by the Summerlin Development Review Committee shall be submitted to the Planning and Development department for review and staff.
4. All mechanical equipment shall be screened from view from the abutting streets.
5. All development must be in conformance with the Summerlin Development Standards as required by the Planning and Development Department and the Department of Public Works.
6. All City codes requirements and design standards must be satisfied.

Public Works

7. If not already constructed or guaranteed by the master developer, construct half-street improvements, including widened paving, on Paseo Flower Court, Desert Sunrise Road and Desert Foothills Drive adjacent to this site. Also, if not already constructed or guaranteed by the master developer, provide a paved legal access to this site concurrent with development of this site.

Provide public sewer easements for all public sewers not located within existing public street right-of-way prior to the issuance of any permits as required by the Department of Public Works. Improvement Drainage plans/reports for this site or a sewer shall not be approved for construction until all required public sewer easements necessary to connect this site to the existing public sewer system have been granted to the City.

9. Meet with the Traffic Engineering Representative at Land Development for assistance in the possible redesign of the proposed driveway access, on-site circulation and queuing layout prior to the submittal of any construction plans. Prior to the issuance of any permits, whichever may occur first. The proposed driveway accessing Paseo Flower Court shall be designed, located and constructed in accordance with Summerlin Standard Drawing #9.10.
10. The design and layout of all onsite private circulation and access drives shall meet the approval of the Department of Fire Services.
11. A Drainage Plan and Technical Drainage Study must be submitted to and approved by the Department of Public Works prior to the issuance of any building or grading permits, submittal of any construction drawings or the recordation of a Map subdividing this site, whichever may occur first. Provide and improve all drainage/storm facilities as required by approved drainage plan/study. The developer of this site shall be responsible for construction of any off-site facilities, including but not limited to those recommended by the Flamingo Wash Watershed Drainage Studies and approved Drainage Plan/Study in accordance with development of this site. In lieu of constructing improvements, in whole or in part, the developer may agree to contribute money for the construction of neighborhood or local drainage improvements, the amount of such moneys shall be determined by the approved Drainage Plan/Study and shall be contributed prior to the issuance of any building or grading permits, or the recordation of a Map subdividing this site, whichever may occur first, if allowed by the City Engineer.
12. Site development to comply with all applicable conditions of approval for SV-1008, the Summerlin Village 21A Tentative Map and all other subsequent site related actions.
13. A deviation from the Summerlin Improvements Standards drawing S.42 to allow a 25 foot pavement width for private drives serving no more than 170 unit condominium complex is hereby approved as a Deviation From Standards and may be incorporated into the construction drawings and Tentative Map.
14. The approval of all Public Works related improvements shown on this Site Development Plan Review is no exception. Specific design and construction details for access, street type and/or alignment of public improvements, including but not limited to street, sewer and drainage improvements, shall be resolved prior to approval of a Tentative Map or any construction drawings, whichever may occur first. Any deviations from adopted City Standards shall be allowed only when specifically approved for such a request from the City Engineer prior to the submittal of a Tentative Map or construction drawings, whichever may occur first.

Sincerely,

Linda Mathews-Hayward
Public Information Officer, Planner II
Planning and Development Department
Current Planning Division

LMH:ml

cc: Ms. Cee Nguyen, P.E.
GC Wallace, Inc.
10000 West Charleston Boulevard, Suite 120
Las Vegas, Nevada 89135

ALL SOURCES OF LIGHT SHALL BE SCREENED OR DIRECTED AWAY FROM RESIDENTIAL PROPERTY

WHEEL STOPS REQUIRED AT PEDESTRIAN WALKWAYS AND LANDSCAPE AREAS.

ALL AIR CONDITIONING, ROOF MECHANICS, AND TRASH AREAS MUST BE SCREENED FROM VIEW

ATTENTION!
NO FINAL INSPECTION WITHOUT ZONING APPROVAL

APPROVED LANDSCAPING PLAN
Planning & Development Department

PLANS APPROVED
CONSTRUCTION
Building & Safety Dept.
City of Las Vegas, Nevada
BY MT SEP 02 2009
Demolition, Mechanical, Plumbing, Mechanical Equipment, Off-Site Improvements, Mass No Changes Without Approval Plans Is Not a Permit to Violate Any Ordinance

SITE PLAN

APPROVED
Site Plan
5-19-09
CURRENT PLANNING DIVISION
CITY OF LAS VEGAS

CRAIG D. SMITH
REGISTERED
No. 4967
7-9-09
ARCHITECT
STATE OF NEVADA

RNM

RNM DESIGN
ARCHITECTURE
PLANNING
LANDSCAPE
GRAPHICS
RNMDESIGN.COM

2 CORPORATE PARK
SUITE 100
IRVINE, CALIFORNIA
92606
T949.752.1800
F949.833.9603

PROJECT NAME/ADDRESS

CORONADO
THE PASEOS
875 PANTARA PLACE
LAS VEGAS, NEVADA

CLIENT

SPINNAKER
HOMES
4511 W. CHEYENNE AVE. ST 105
NO. LAS VEGAS, CA 89032
702-873-7773
702-873-7776 FAX

REVISIONS

- DELTA 1: PLAN CHECK CORRECTION
- DELTA 2: PLAN CHECK CORRECTION
- DELTA 3: PLAN CHECK CORRECTION

DRAWING TITLE

SITE PLAN

RECEIVED
JUL 09 2009
CLARK COUNTY
BUILDING DEPT.

DRAWING INFORMATION

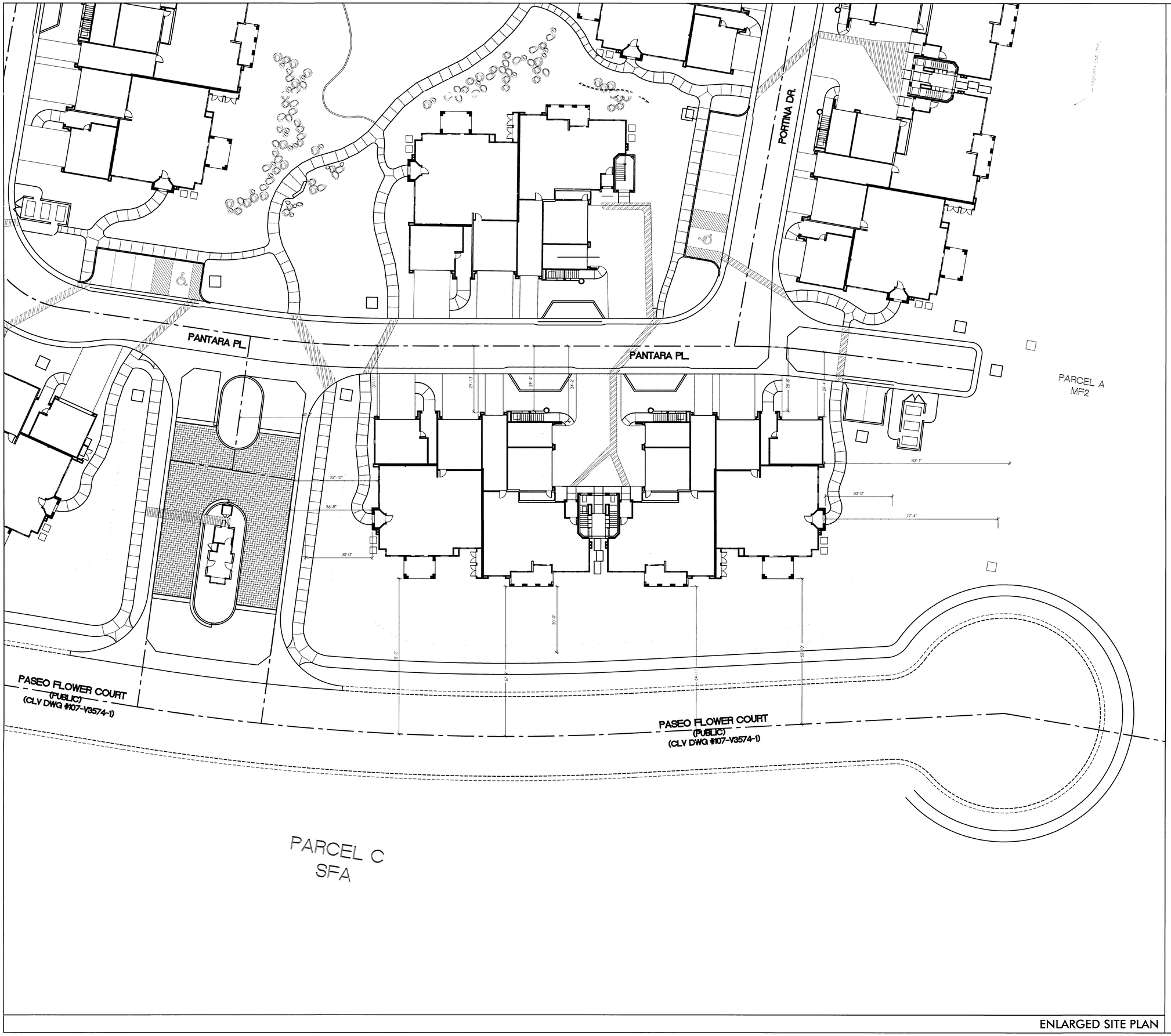
PROJ. NO: 08041
FIRST SUBMITTAL DATE: 02.24.2009
SCALE: 1"=40'-0"

DRAWING NUMBER

A0-3.1

DELTA 3 - PLAN CHECK CORRECTION
07.09.09

DRAWINGS AND IMAGES ARE NOT TO BE REPRODUCED OR COPIED IN ANY FORM WITHOUT WRITTEN PERMISSION.
COPYRIGHT 2008 RNM DESIGN



ENLARGED SITE PLAN

CRAIG D. SMITH
REGISTERED
No. 4967
7-9-09
ARCHITECT
STATE OF NEVADA

RNM

RNM DESIGN
ARCHITECTURE
PLANNING
LANDSCAPE
GRAPHICS
RNMDESIGN.COM

2 CORPORATE PARK
SUITE 100
IRVINE, CALIFORNIA
92606
T949.752.1800
F949.833.9603

PROJECT NAME/ADDRESS

CORONADO
THE PASEOS
875 PANTARA PLACE
LAS VEGAS, NEVADA

CLIENT

SPINNAKER
HOMES
4511 W. CHEYENNE AVE. ST 105
NO. LAS VEGAS, CA 89032
702-873-7773
702-873-7776 FAX

REVISIONS

2 DELTA 2: PLAN CHECK CORRECTION

THESE DRAWINGS AND IMAGES ARE NOT TO BE REPRODUCED OR COPIED IN ANY FORM WITHOUT WRITTEN PERMISSION. COPYRIGHT 2008 RNM DESIGN

DRAWING TITLE

ENLARGED
SITE PLAN
BUILDING 2

JUL 09 2009
CITY OF LAS VEGAS
BUILDING DEPT.

DRAWING INFORMATION

PROJ. NO:	08041
FIRST SUBMITTAL DATE:	02.24.2009
SCALE:	1/16" = 1'-0"

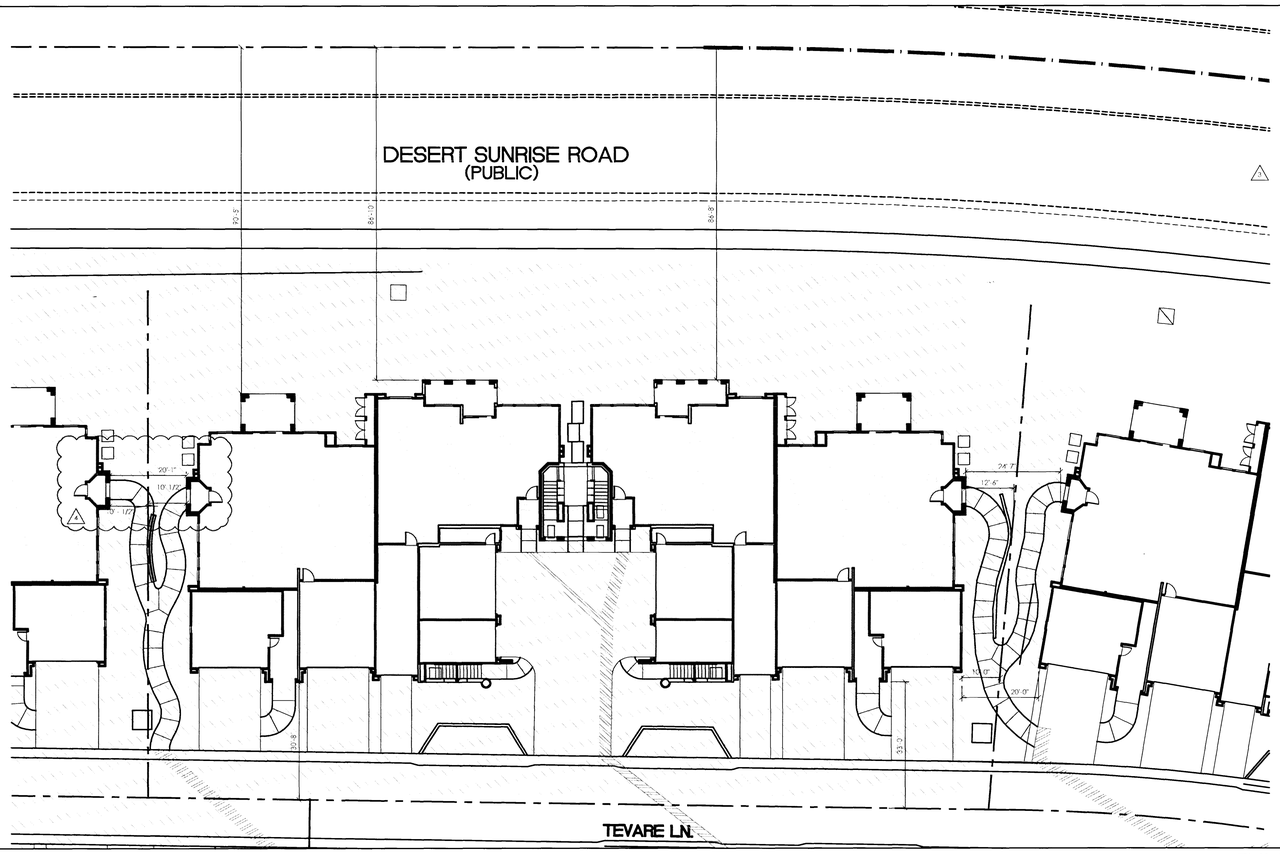
PLANS APPROVED
CONSTRUCTION
Building & Planning Dept.
City of Las Vegas, Nevada
SEP 0 2 2009
Does Not Cover Plumbing, Mechanical Drainage or Off-Site Improvements Which Are Change Without Approval Plan Is Not a Permit to Violate Any Ordinance

DRAWING NUMBER

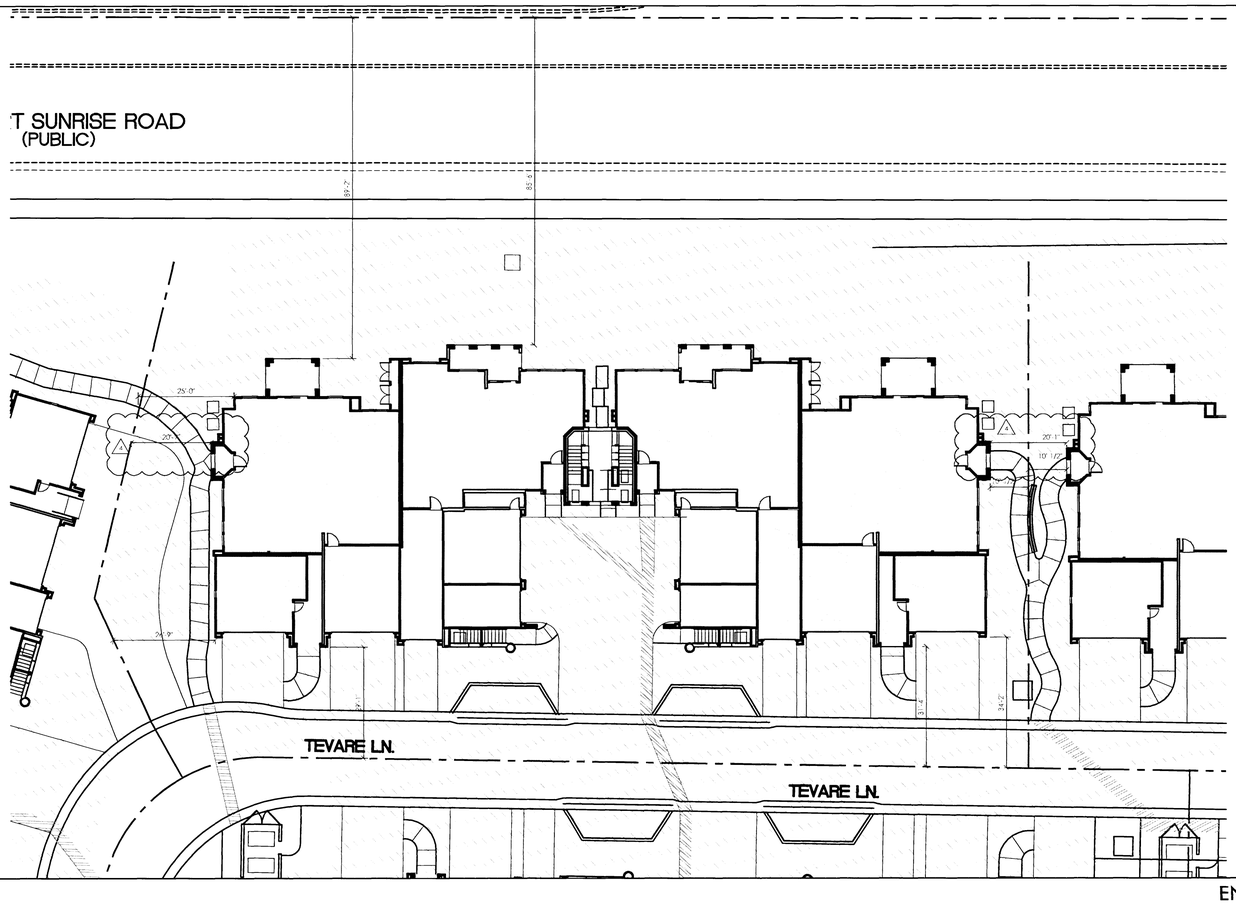
A0-3.2

DELTA 3 - PLAN CHECK CORRECTION

07.09.09



ENLARGED SITE PLAN BUILDING 30



ENLARGED SITE PLAN BUILDING 34

RNM DESIGN
ARCHITECTURE
PLANNING
LANDSCAPE
GRAPHICS
RNMDESIGN.COM

2 CORPORATE PARK
SUITE 100
IRVINE, CALIFORNIA
92606
T949.752.1800
F949.833.9603

PROJECT NAME/ADDRESS

CORONADO
THE PASEOS
875 PANTARA PLACE
LAS VEGAS, NEVADA

CLIENT

SPINNAKER
HOMES
4511 W. CHEYENNE AVE. ST 105
NO. LAS VEGAS, CA 89032
702-873-7773
702-873-7776 FAX

REVISIONS

- DELTA 2: PLAN CHECK CORRECTION
- DELTA 3: PLAN CHECK CORRECTION
- DELTA 4: PLAN CHECK CORRECTION

THESE DRAWINGS AND IMAGES ARE NOT TO BE REPRODUCED OR COPIED IN ANY FORM WITHOUT WRITTEN PERMISSION. COPYRIGHT 2008 RNM DESIGN

DRAWING TITLE

ENLARGED
SITE PLAN
BUILDING 30
BUILDING 34

DRAWING INFORMATION

PROJ. NO:	08041
FIRST SUBMITTAL DATE:	02.24.2009
SCALE:	1/16" = 1'-0"

DRAWING NUMBER

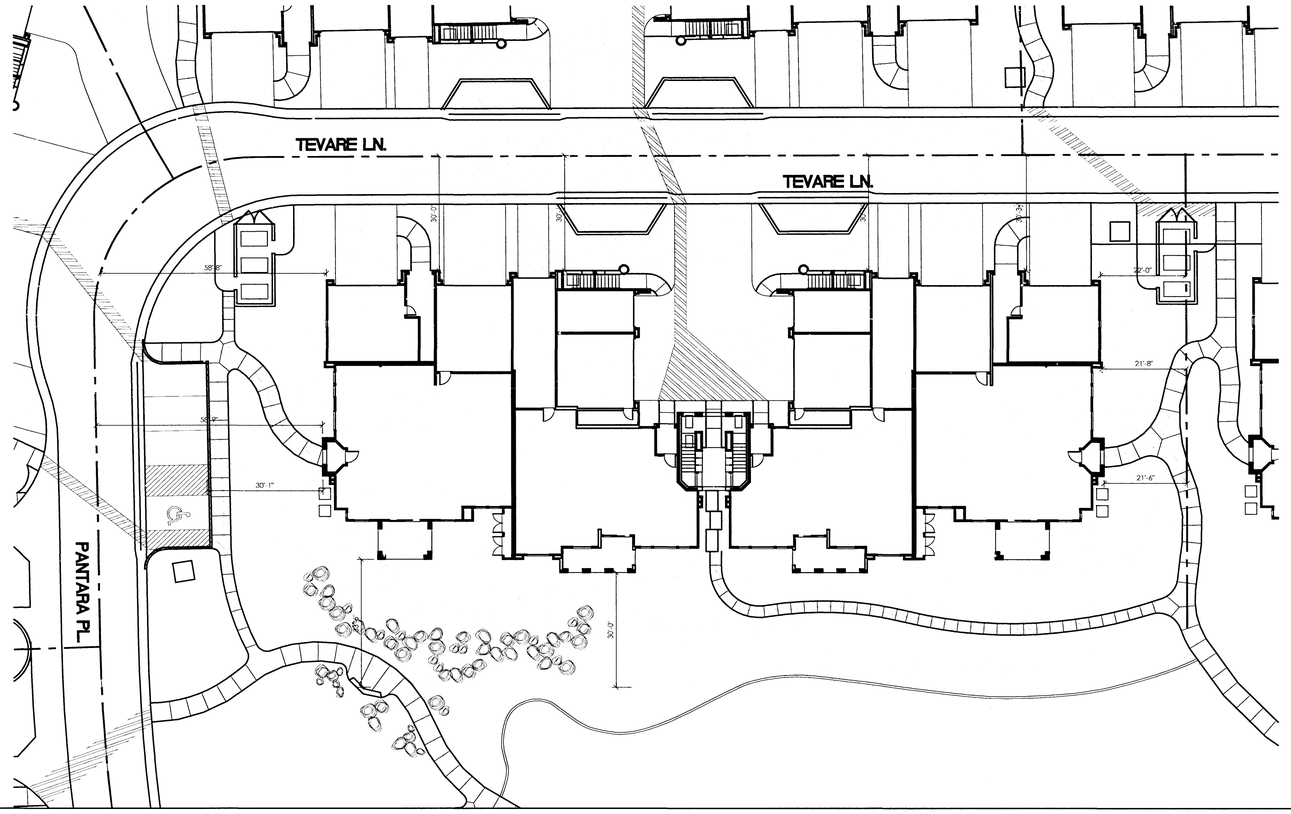
A0-3.3

DELTA 4 - PLAN CHECK CORRECTION

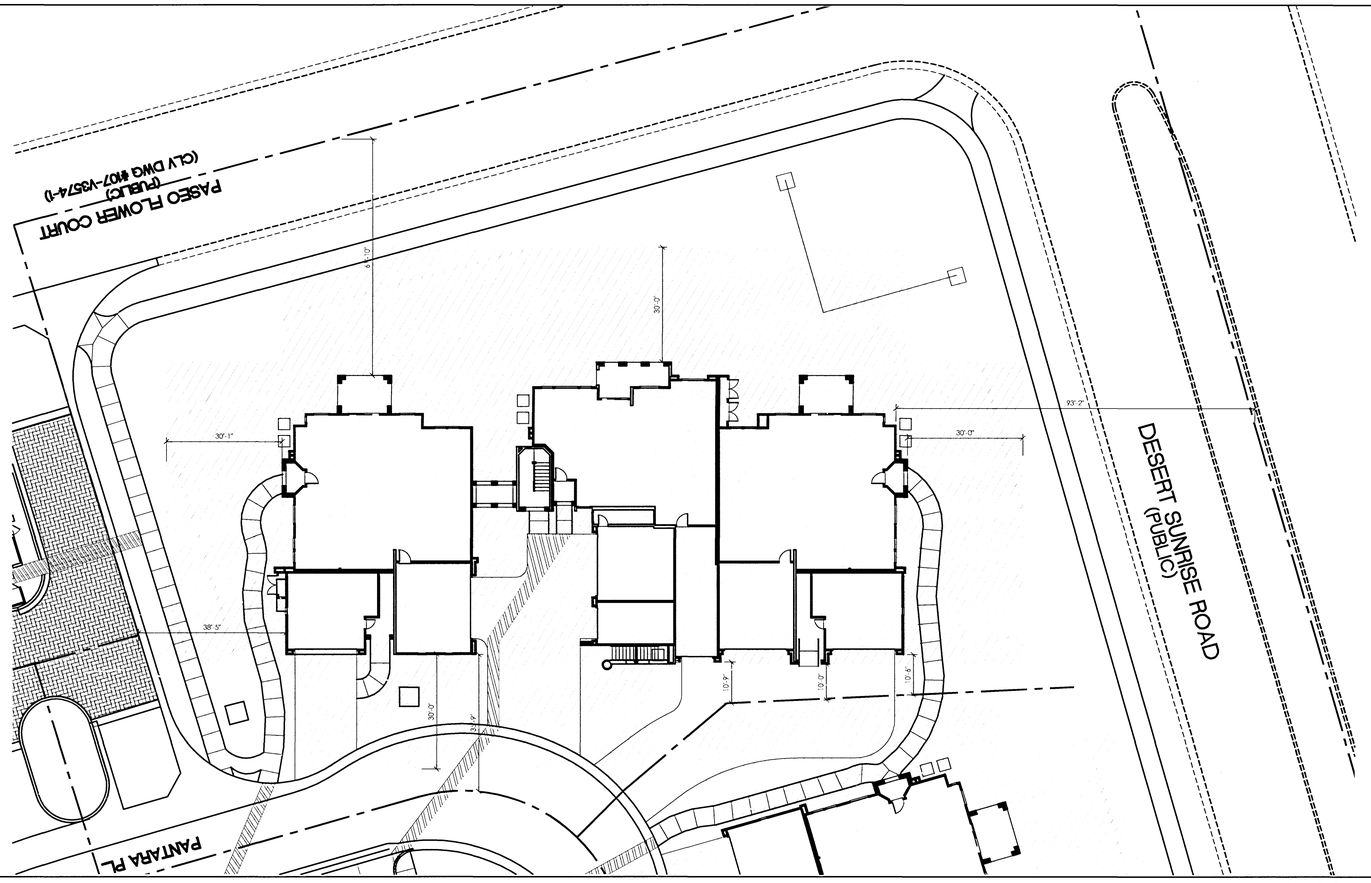
08.12.09

AUG 20 2009
CITY OF LAS VEGAS
PLANS

PLANS APPROVED
CONSTRUCTION
Building & Safety Dept.
City of Las Vegas, Nevada
MT SEP 0 2 2009
Does Not Cover Mechanical, Plumbing, Mechanical Drawings for Off-Site Improvements Make No Change Without Approval Plan is Not a Permit to Violate Any Ordinance



ENLARGED SITE PLAN BUILDING 32



ENLARGED SITE PLAN BUILDING 36

PLANS APPROVED
CONSTRUCTION
Building & Safety Dept.
City of Las Vegas, Nevada

MT SEP 0 2 2009

Does Not Include Structural, Plumbing, Mechanical, Electrical or Other Nonconforming Uses Or Change Without Approved Plan Is Not a Permit To Violate Any Ordinance

CRAIG D. SMITH
REGISTERED
No. 4967
ARCHITECT
STATE OF NEVADA

RNM

RNM DESIGN
ARCHITECTURE
PLANNING
LANDSCAPE
GRAPHICS
RNMDESIGN.COM

2 CORPORATE PARK
SUITE 100
IRVINE, CALIFORNIA
92606
T949.752.1800
F949.833.9603

PROJECT NAME/ADDRESS

CORONADO
THE PASEOS
875 PANTARA PLACE
LAS VEGAS, NEVADA

CLIENT

SPINNAKER
HOMES
4511 W. CHEYENNE AVE. ST 105
NO. LAS VEGAS, CA 89032
702-873-7773
702-873-7776 FAX

REVISIONS

1 DELTA 2: PLAN CHECK CORRECTION

THESE DRAWINGS AND IMAGES ARE NOT TO BE REPRODUCED OR COPIED IN ANY FORM WITHOUT WRITTEN PERMISSION. COPYRIGHT 2008 RNM DESIGN

DRAWING TITLE

ENLARGED
SITE PLAN
BUILDING 32
BUILDING 36

RECEIVED
JUL 09 2009
CITY OF LAS VEGAS
BUILDING DEPT.

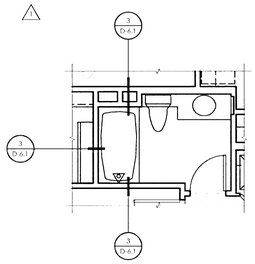
DRAWING INFORMATION

PROJ. NO: 08041
FIRST SUBMITTAL DATE: 02.24.2009
SCALE: 1/16" = 1'-0"

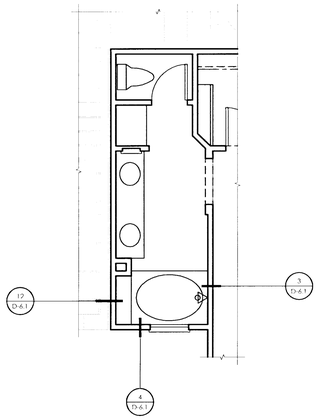
DRAWING NUMBER

A0-3.4

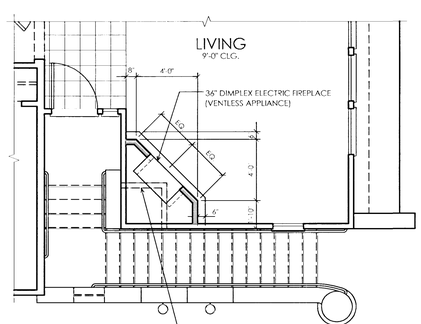
DELTA 3 - PLAN CHECK CORRECTION
07.09.09



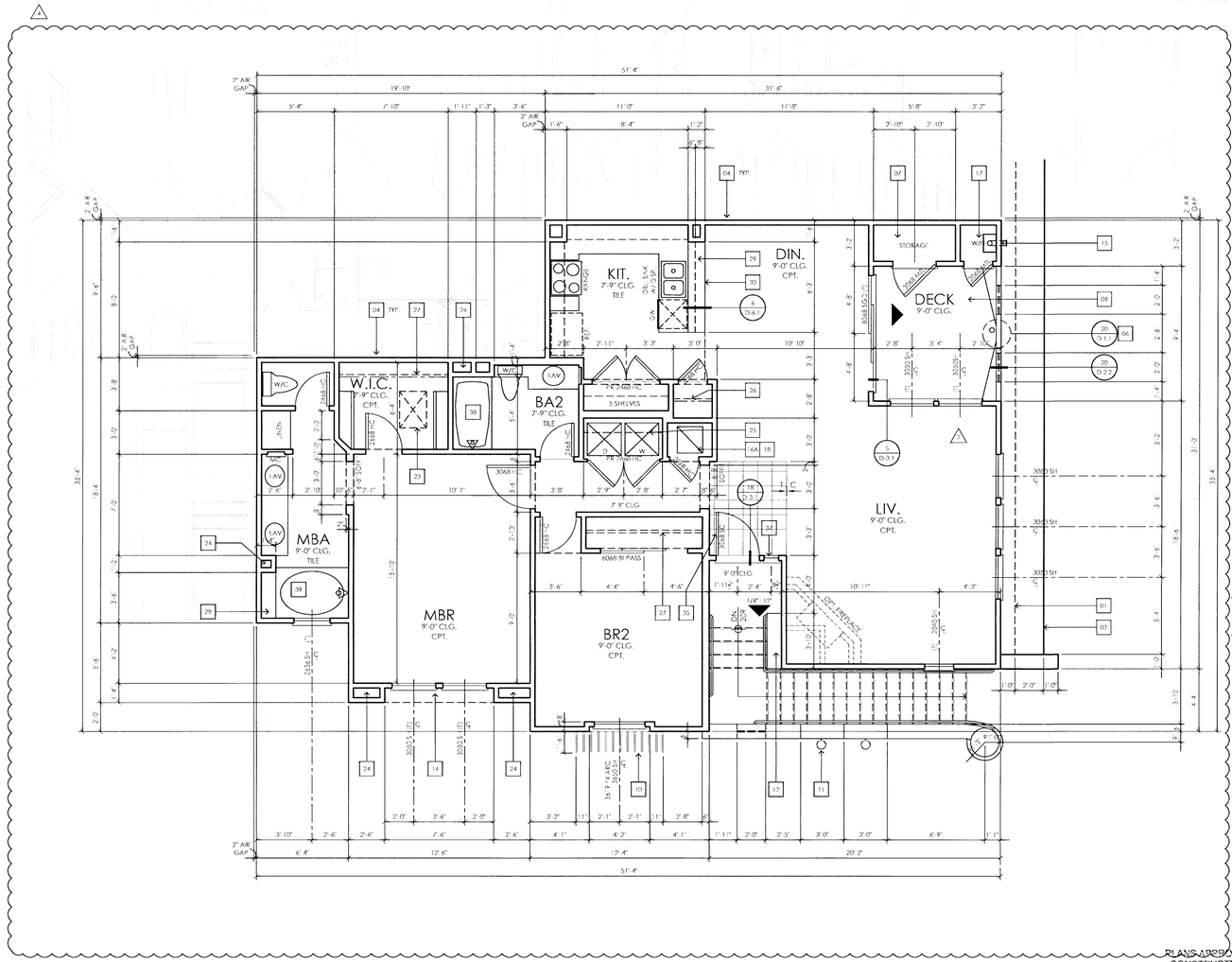
UNIT A2: BA2 DETAIL PLAN



UNIT A2: MBA DETAIL PLAN



UNIT A2: FIREPLACE OPTION



UNIT A2: FLOOR PLAN

UNIT PLAN NOTES

1. Refer to A0.0.1 sheet's for plan general notes.
2. Refer to mechanical plans for HVAC efficiency glazing u-values, shading devices & insulation values.
3. Glazing:
   - A. Safety glazing shall be provided in the following locations:
     1. Ingress and egress doors, fixed and operable.
     2. Showers doors and enclosures.
     3. Windows at tubs and showers less than 60" above standing surface.
     4. Glazing in locations within a 24" radius of vertical edge of adjacent door and where bottom edge of glazing is less than 60" above floor.
     5. Glazing within 18" of finished floor.
     6. Glazing in railings.
   - B. All windows to be dual glazed.
   - C. Refer to energy compliance information for u-values.
4. Cutting, notching and boring of studs shall be in accordance with IBC section 2308.9
5. Plumbing:
   - A. Provide backflow preventer at all hose bibbs.
   - B. Provide recessed box in wall at refrigerator and at washer space (rated box at rated wall).
   - C. Provide pressure balance or thermostatic mixing valves at all shower and tub/shower locations.
   - D. Water closet to be max. 1.6 gal. per flush.
6. Water Heaters:
   - A. Anchor water heater to wall strap per detail provided
   - B. Locate gas fired water heater on min. 18" high enclosed wood platform anchored to support unit.
   - C. Provide P&T relief valve.
   - D. Vent gas to outside air.
7. Clothes dryer exhaust:
   - A. Max. 14' combined horizontal and vertical run (including two 90 deg. elbows) to outside air.
   - B. Provide smooth metal duct.
   - C. Provide backdraft damper.
8. Provide outside air intake and glass doors at all fireplaces.
9. Provide backdraft damper at hood vents and exhaust fans.
10. Provide drain to visible exit at F.A.U. condensate pan.
11. Refer to section notes for fire blocking information.
12. Through penetrations at fire rated walls shall comply with UL listings. (see sheet U1.x to U1.x)
13. Water resistant gypsum backing board shall be used:
    - A. In areas which may be exposed to moisture.
    - B. At water closet compartment walls.

GRAPHIC LEGEND

	SH: COMPOSITE FLOOR PLAN FOR SPECIFIC WALL TYPE (A10.1.1, A10.1.2, A20.1.1, A20.1.2 & H1.1.1)
	SOFFIT OR DROPPED CEILING (See detail 1, 2, 3, 5 & 10 on sheet F2.2.2)

FLOOR PLAN SYMBOLS

LIVING

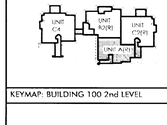
CEILING HGT: 9'-0"
FLOOR MATERIAL: TILE
WINDOW SIZE (FT.,IN.): 3050 SH
WINDOW TYPE:
A = AWNING, B = GLASS BLOCK, F = FIXED, SH = SINGLE HUNG
SL = HORIZ. SLIDER, SGD = SLIDING GLASS DOOR, [T] = TEMPERED GLAZING, [E] = EGRESS WINDOW

UNIT PLAN KEYNOTE

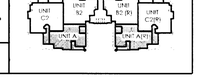
01 LINE OF FLOOR BELOW
02 LINE OF FLOOR ABOVE
03 LINE OF ROOF BELOW
04 TENANT SEPARATION WALL - SEE BUILDING COMPOSITE PLAN FOR DETAIL
05 OVERFLOW DECK DRAIN TO VISIBLE EXIT
06 DECK DRAIN TO VISIBLE EXIT
07 ELASTOMERIC ROOFING OVER 2" LIGHT WEIGHT CONCRETE AT STORAGE CLOSET
08 DIRECT VENT, WATER HEATER VENT THRU ROOF
09 ELASTOMERIC WATERPROOF MEMBRANE DESERT - CRETE INSTALL PER MANUFACTURE SPECIFICATIONS AND ICC REPORT ESR 1461
10 DECORATIVE WROUGHT IRON POSH-11
11 DECORATIVE WROUGHT IRON GRILLE POT HOLDER
12 STUCCO FINISH SHEET AT 42"
13 STUCCO FINISH POSISHIFT (SLOPE TO DRAIN)
14 SOFFIT - SEE ELEVATION FOR HEIGHT
15 PROVIDE (2) 14"x16" LOUVERED VENTS - (LOW VENT IN DOOR & HIGH VENT IN WALL
16A HIGH EFFICIENCY FAU DIRECT VENT, DIRECT VENT THRU NON RATED ROOF, DRAFTSTOP AT CEILING LINE
16B HIGH EFFICIENCY FAU DIRECT VENT, DIRECT VENT THRU RATED FLOOR CEILING WITH APPROVED U.L. F.C. 2022 OR SHEET F3.5.2
17 FLASH HEATER
18 PROVIDE CONDENSATION PAN WITH DRAIN AT F.A.U. & C.U. BELOW
19 TIGHT FITTING SELF CLOSING SOLID CORE 90 MIN. RATED DOOR & ASSEMBLY
20 5/8" TYPE X GYPSUM BOARD AT USABLE SPACE UNDER STAIR
21 TIGHT FITTING SELF CLOSING SOLID CORE 1 HOUR RATED DOOR & ASSEMBLY
22 1 HOUR RATED 22X30 ACCESS PANEL - SELF-CLOSING - SEE DETAIL 17/F2.2.1
23 NON RATED 22x30 ACCESS PANEL
24 VOID SPACE (FIRE BLOCK)
25 SINGLE SHELF
26 SINGLE SHELF AND POLE
27 DOUBLE SHELF AND POLE
28 TILE SHELF AT TOP OF TUB
29 42" HIGH CORNER ABOVE FINISH FLOOR
30 2x6 WALL UNDER COUNTER
31 36" HIGH 2x6 LOW WALL
32 34.5" HIGH 2X4 LOW WALL
33 42" HIGH LOW WALL
34 SINGLE HUNG WINDOW
35 RATED ENTRY DOOR AT BUILDING 100 ONLY: 45 MIN. RATED DOOR AND 60 MIN. RATED DOOR FRAME
37 1364 FRAMED GLASS BLOCK
38 32"x60" TUB/SHOWER WITH CURTAIN ROD
39 42"x60" TUB
40 32"x48" SHOWER WITH TEMP. ENCLOSURE
41 36"x36" SHOWER WITH TEMP. ENCLOSURE
42 ARCH SOFFIT - SEE ELEVATION FOR HEIGHT
43 SLOPED SOFFIT
44 60 MIN. RATED DOOR AND DOOR FRAME.

NOTE:
1. 76" HIGH MIN. SHOWER HEAD (78" HIGH FOR CULTURED MARBLE W. OPTION)
2. SEE DETAIL 8/D-6.1 FOR INTERIOR SOFFIT OPENING AT UNIT.

KEYMAP: BUILDING 200 2nd LEVEL



KEYMAP: BUILDING 100 2nd LEVEL



PLANS APPROVED
CONSTRUCTION
Building & Safety Dept.
City of Las Vegas

MT SEP 02 2009

Documentation of Electrical, Plumbing, Mechanical Elements for Off-Site Improvements Made No Change Without Approval Plan is Not a Permit to Violate Any Ordinance

CRAIG D. SMITH
REGISTERED
No. 4967
8-20-09
ARCHITECT
STATE OF NEVADA

RNM

RNM DESIGN
ARCHITECTURE
PLANNING
LANDSCAPE
GRAPHICS
RNMDESIGN.COM

2 CORPORATE PARK
SUITE 100
IRVINE, CALIFORNIA
92606
(949) 752-1800
(949) 833-9603

PROJECT NAME/ADDRESS

CORONADO THE PASEOS
875 PANTARA PLACE
LAS VEGAS, NEVADA

CLIENT

SPINNAKER HOMES
4511 W. CHEYENNE AVE. ST. 105
NO. LAS VEGAS, CA 89032
702-873-7773
702-873-7776 FAX

REVISIONS

1 DELTA 1: PLAN CHECK CORRECTION
2 DELTA 2: PLAN CHECK CORRECTION
3 DELTA 3: PLAN CHECK CORRECTION
4 DELTA 4: PLAN CHECK CORRECTION

APR 27 2009
CITY OF LAS VEGAS
BLDG. DIV.

THESE DRAWINGS AND IMAGES ARE NOT TO BE REPRODUCED OR COPIED IN ANY FORM, WITHOUT WRITTEN PERMISSION COPYRIGHT 2009 RNM DESIGN

DRAWING TITLE

UNIT A2: FLOOR PLAN & OPTION

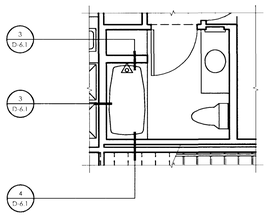
DRAWING INFORMATION

PROJ. NO: 08041
FIRST SUBMITTAL DATE: 02.24.2009
SCALE: 1/4" = 1'-0"

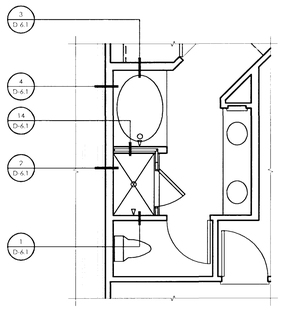
DRAWING NUMBER

A1-1.1

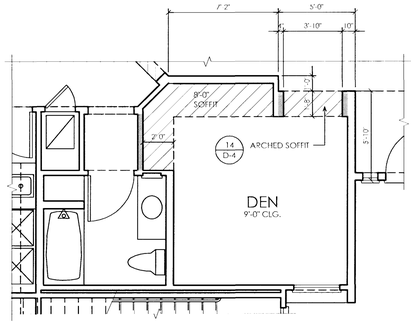
08.12.09 DELTA 4 - PLAN CHECK CORRECTION



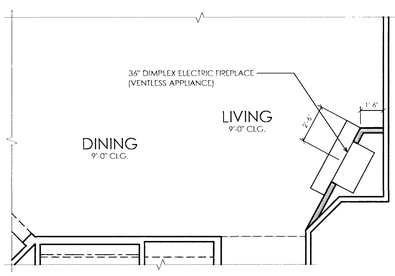
UNIT B1: BA2 DETAIL PLAN



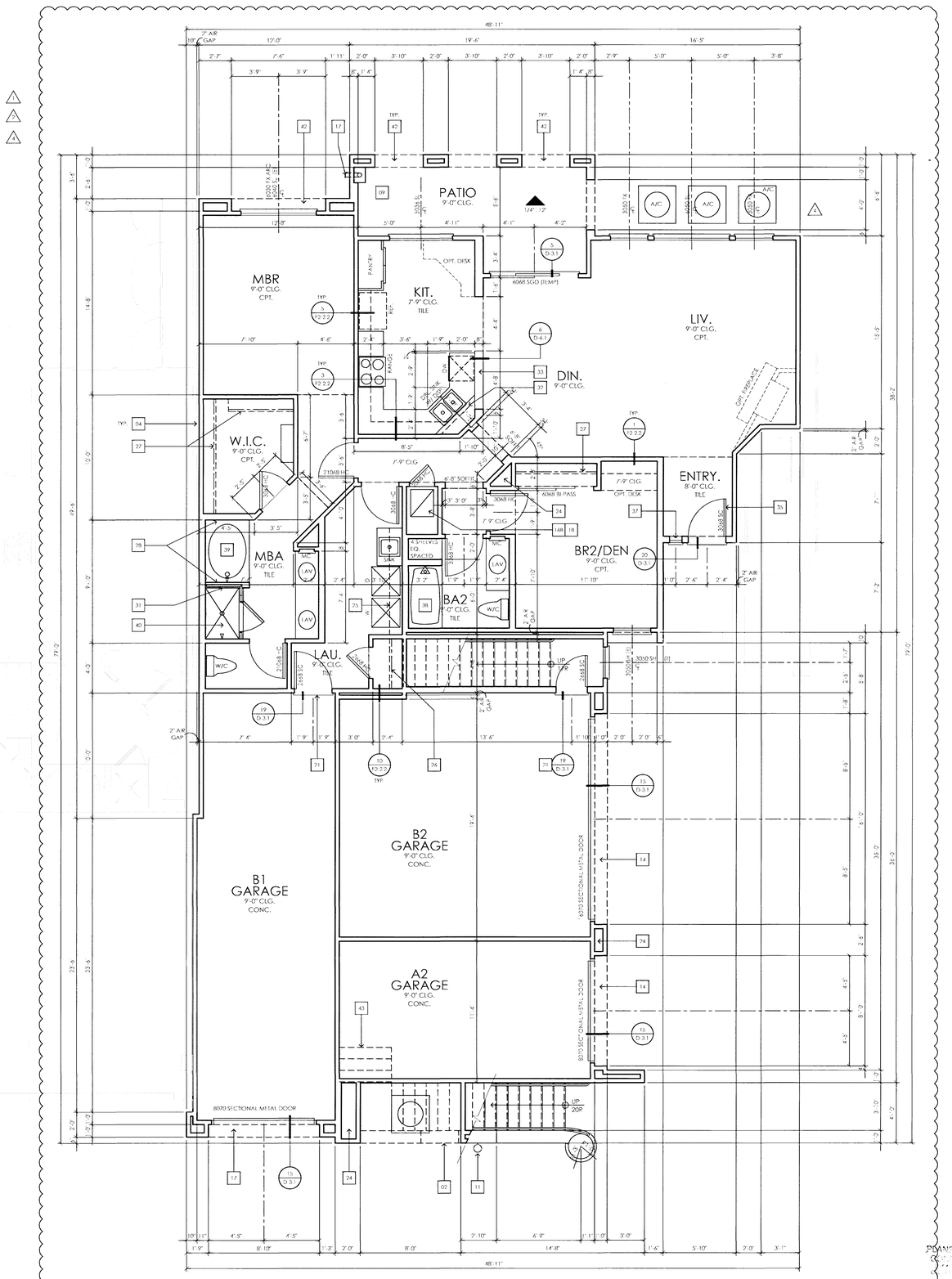
UNIT B1: MBA DETAIL PLAN



UNIT B1: DEN OPTION



UNIT B1: FIREPLACE OPTION



UNIT B1: FLOOR PLAN

UNIT PLAN NOTES

1. Refer to A0.0.1 sheets for plan general notes.
2. Refer to mechanical plans for HVAC efficiency glazing u-values, shading devices & insulation values.
3. Glazing:
   - A. Safety glazing shall be provided in the following locations:
     1. Ingress and egress doors, fixed and operable.
     2. Showers doors and enclosures.
     3. Windows at tubs and showers less than 60" above standing surface.
     4. Glazing in locations within a 24" radius of vertical edge of adjacent door and where bottom edge of glazing is less than 60" above floor.
     5. Glazing within 18" of finished floor.
     6. Glazing in railings.
   - B. All windows to be dual glazed.
   - C. Refer to energy compliance information for u-values.
4. Cutting, notching and boring of studs shall be in accordance with IBC section 2308.9
5. Plumbing:
   - A. Provide backflow preventer at all hose bibbs.
   - B. Provide recessed box in wall at refrigerator and at washer space (noted box at rated wall).
   - C. Provide pressure balance or thermostatic mixing valves at all shower and tub/shower locations.
   - D. Water closet to be max. 1.6 gall. per flush.
6. Water Heaters:
   - A. Another water heater to wall strap per detail provided
   - B. Locate gas fired water heater on min. 18" high enclosed wood platform anchored to support unit.
   - C. Provide P&T relief valve.
   - D. Vent gas to outside air.
7. Clothes dryer exhaust:
   - A. Max. 14' combined horizontal and vertical run (including two 90 deg. elbows) to outside air.
   - B. Provide smooth metal duct.
   - C. Provide backdraft damper.
8. Provide outside air intake and glass doors at all fireplaces.
9. Provide backdraft damper at hood vents and exhaust fans.
10. Provide drain to visible exit at FAU condensate pan.
11. Refer to section notes for fan blocking information.
12. Through penetrations of fire-rated walls shall comply with UL listings. (see sheet UL1 to UL4)
13. Water resistant gypsum backing board shall be used:
    - A. In areas which may be exposed to moisture.
    - B. At water closet compartment walls.
    - C. Not more than 6" above the bathtub rim.

GRAPHIC LEGEND

- SH: COMPOSITE FLOOR PLAN FOR SPECIFIC WALL TYPE (A1.0.1.1, A1.0.1.2, A2.0.1.1, A2.0.1.2 & 1.1-1.11)
- SOFFIT OR DROPPED CEILING (See detail 1, 2, 3, 5 & 10 on sheet 12.2.2)

FLOOR PLAN SYMBOLS

ROOM NAME: LIVING
CEILING HGT.: 9'-0"
FLOOR MATERIAL: TILE
WINDOW SIZE (FT.,IN.): 3050 SH
WINDOW TYPE:
A = AWNING, B = GLASS BLOCK, F = FIXED, SH = SINGLE HUNG, SL = HORIZ. SLIDER, SGD = SLIDING GLASS DOOR, [T] = TEMPERED GLAZING, [E] = EGRESS WINDOW

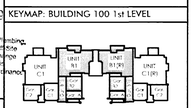
UNIT PLAN KEYNOTE

01 LINE OF FLOOR BELOW
02 LINE OF FLOOR ABOVE
03 LINE OF ROOF BELOW
04 TENANT SEPARATION WALL. SEE BUILDING COMPOSITE PLAN FOR DETAIL
05 OVERFLOW DECK DRAIN TO VISIBLE EXIT
06 DECK DRAIN TO VISIBLE EXIT
07 ELASTOMERIC TOPPING OVER 2" LIGHT WEIGHT CONCRETE AT STORAGE CLOSET
08 DIRECT VENT WALL FURNACE VENT THRU ROOF.
09 ELASTOMERIC WATERPROOF MEMBRANE DECK. CRETE INSTALL PER MANUFACTURE SPECIFICATIONS AND ICC REPORT ESR 1661
10 DECORATIVE WROUGHT IRON POT SHELF
11 DECORATIVE WROUGHT IRON GRILLE POT HOLDER
12 STUCCO FINISH SHELF AT 42"
13 STUCCO FINISH POTSHELF (SLOPE TO DRAIN)
14 SOFFIT - SEE ELEVATION FOR HEIGHT
15 PROVIDE (2) 14"x16" LOUVERED VENTS - (LOW VENT IN DOOR & HIGH VENT IN WALL)
16A HIGH EFFICIENCY FAU DIRECT VENT. DIRECT VENT THRU NON RATED ROOF. DRAFTSTOP AT CEILING LINE
16B HIGH EFFICIENCY FAU DIRECT VENT. DIRECT VENT THRU RATED FLOOR CEILING WITH APPROVED U.L. F.C. 7022 ON SHEET 13.5.2
17 FLASH HEATER
18 PROVIDE CONDENSATION PAN WITH DRAIN AT FAU P.A.G. BELOW
19 TIGHT FITTING SELF CLOSING SOLID CORT 90 MIN. RATED DOOR & ASSEMBLY
20 ⅝" TYPE X GYPSUM BOARD AT USABLE SPACE UNDER STAIR
21 TIGHT FITTING SELF CLOSING SOLID CORE 1-HOUR RATED DOOR & ASSEMBLY
22 1-HOUR RATED 22X30 ACCESS PANEL SELF-CLOSING - SEE DETAIL 1/F2.2.1
23 NON RATED 22x30 ACCESS PANEL
24 VOID SPACE (FIRE BLOCK)
25 SINGLE SHELF
26 SINGLE SHELF AND POLE
27 DOUBLE SHELF AND POLE
28 TILE SHELF AT TOP OF TUB
29 42" HIGH CORNER ABOVE FINISH FLOOR
30 2x6 WALL UNDER COUNTER
31 36" HIGH 2x6 LOW WALL
32 34.5" HIGH 2X4 LOW WALL
33 42" HIGH LOW WALL
34 OPENING
35 RATED ENTRY DOOR AT BUILDING 100 ONLY: 45 MIN. RATED DOOR AND 60 MIN. RATED DOOR FRAME
37 10MM FRAMED GLASS BLOCK
38 30"x60" TUB/SHOWER WITH CURTAIN ROD
39 42"x60" TUB
40 32"x48" SHOWER WITH TEMP. ENCLOSURE
41 36"x36" SHOWER WITH TEMP. ENCLOSURE
42 ARCH SOFFIT - SEE ELEVATION FOR HEIGHT
43 SLOPED SOFFIT
44 60 MIN. RATED DOOR AND DOOR FRAME.

NOTE:
1. 76" HIGH MIN. SHOWER HEAD (78" HIGH FOR CULTURED MARBLE in OPTION)
2. SEE DETAIL B/D 4.1.1 FOR INTERIOR SOFFIT OPENING AT UNIT.

KEYMAP: BUILDING 200 1st LEVEL

KEYMAP: BUILDING 100 1st LEVEL



PLANS APPROVED
CONDITION
SEP 0 2 2009

Does Not Include Plumbing, Mechanical or Electrical Systems Improvements Make No Change Without Approval Plans Is Not a Permit to Violate Any Ordinance

CRAIG D. SMITH
No. 4967
8-20-09
REGISTERED ARCHITECT
STATE OF NEVADA

RNM DESIGN
ARCHITECTURE
PLANNING
LANDSCAPE
GRAPHICS
RNMDESIGN.COM

2 CORPORATE PARK
SUITE 100
IRVINE, CALIFORNIA
92606
(949) 752-1800
(949) 833-9603

PROJECT NAME/ADDRESS

CORONADO THE PASEOS
875 PANTARA PLACE
LAS VEGAS, NEVADA

CLIENT

SPINNAKER HOMES
4511 W. CHEYENNE AVE. ST 105
NO. LAS VEGAS, CA 89032
702-873-7773
702-873-7776 FAX

REVISIONS

- DELTA 1: PLAN CHECK CORRECTION
- DELTA 2: PLAN CHECK CORRECTION
- DELTA 3: PLAN CHECK CORRECTION
- DELTA 4: PLAN CHECK CORRECTION

AUG 20 2009
CITY OF LAS VEGAS
PLANS

THESE DRAWINGS AND IMAGES ARE NOT TO BE REPRODUCED OR COPIED IN ANY FORM, WITHOUT WRITTEN PERMISSION. COPYRIGHT 2008 RNM DESIGN

DRAWING TITLE

UNIT B1: FLOOR PLAN & OPTION

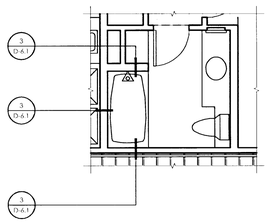
DRAWING INFORMATION

PROJ. NO: 08041
FIRST SUBMITTAL DATE: 02.24.2009
SCALE: 1/4" = 1'-0"

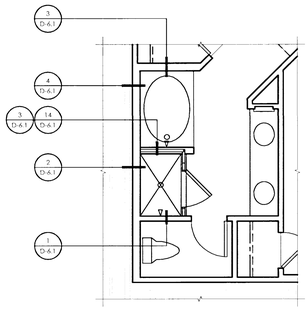
DRAWING NUMBER

A1-2.1

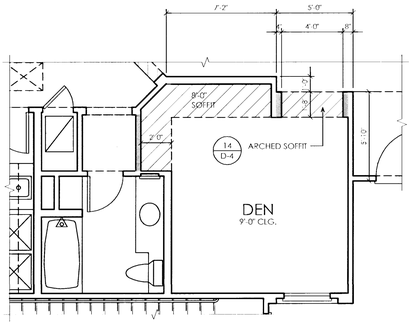
08.12.09 DELTA 4 - PLAN CHECK CORRECTION



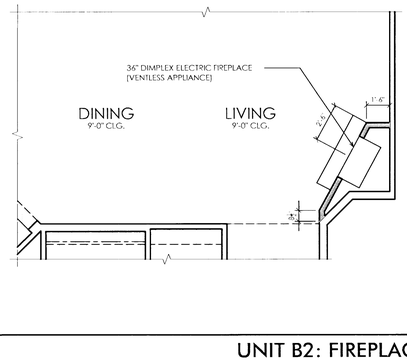
UNIT B2: BA2 DETAIL PLAN



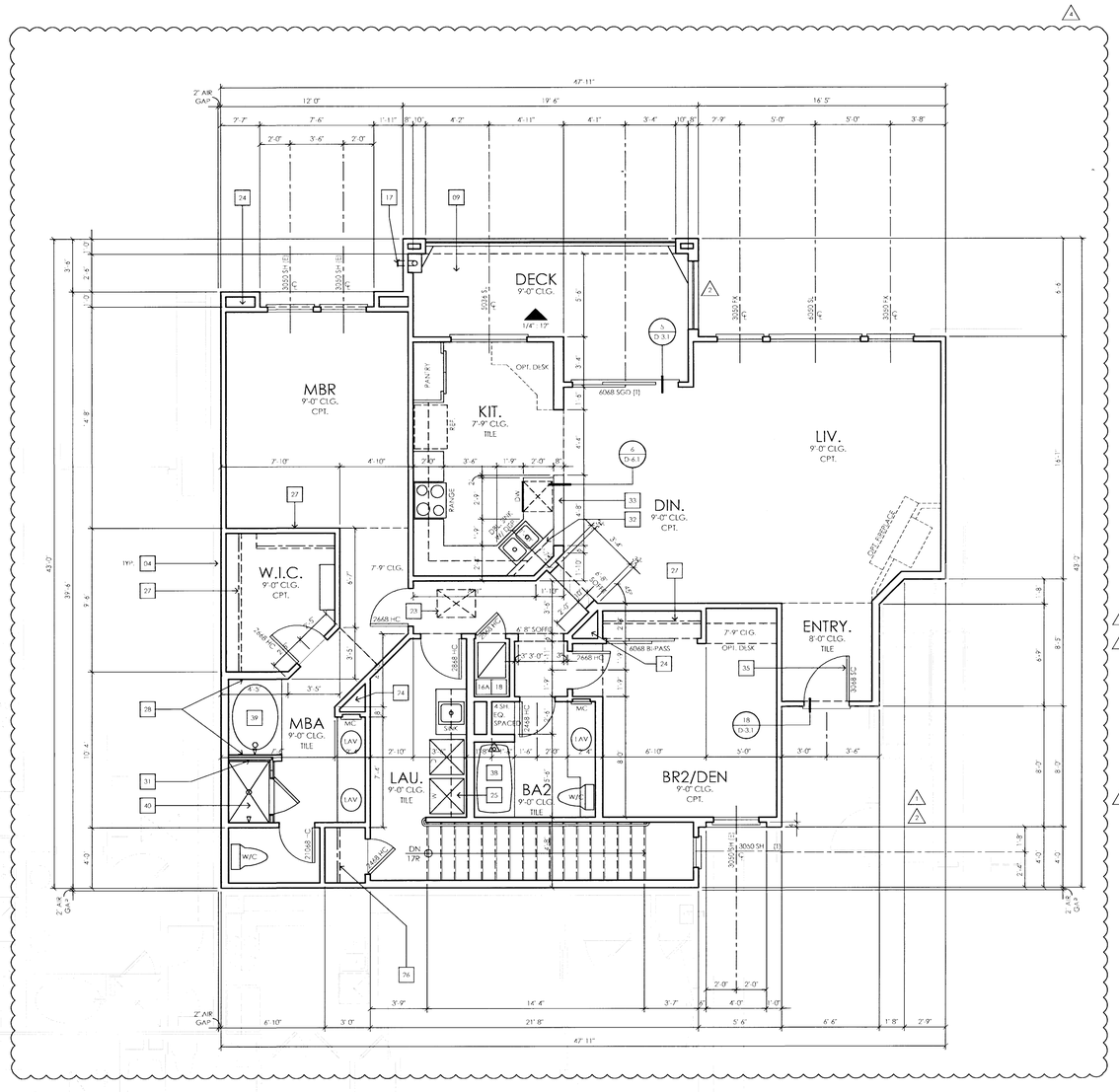
UNIT B2: MBA DETAIL PLAN



UNIT B2: DEN OPTION



UNIT B2: FIREPLACE OPTION



UNIT B2: FLOOR PLAN

UNIT PLAN NOTES

1. Refer to A0.0.1 sheets for plan general notes.
2. Refer to mechanical plans for HVAC efficiency glazing u-values, shading devices & insulation values.
3. Glazing:
   - A. Safety glazing shall be provided in the following locations:
     1. Ingress and egress doors, fixed and operable.
     2. Showers doors and enclosures.
     3. Windows at tubs and showers less than 60" above standing surface.
     4. Glazing in locations within a 24" radius of vertical edge of adjacent door and where bottom edge of glazing is less than 60" above floor.
     5. Glazing within 18" of finished floor.
     6. Glazing in railings.
   - B. All windows to be dual glazed.
   - C. Refer to energy compliance information for u-values.
4. Cutting, notching and boring of studs shall be in accordance with IBC section 2308.9
5. Plumbing:
   - A. Provide backflow preventer at all hose bibbs.
   - B. Provide recessed box in wall at refrigerator and at washer space (raised box at rated wall).
   - C. Provide pressure balance or thermostatic mixing valves at all shower and tub/shower locations.
   - D. Water closet to be max. 1.6 gal. per flush.
6. Water Heaters:
   - A. Anchor water heater to wall strap per detail provided
   - B. Locate gas fired water heater on min. 18" high enclosed wood platform anchored to support unit.
   - C. Provide P&T relief valve.
   - D. Vent gas to outside air.
7. Clothes dryer exhaust:
   - A. Max. 14' combined horizontal and vertical run (including two 90 deg. elbows) to outside air.
   - B. Provide smooth metal duct.
   - C. Provide backdraft damper.
8. Provide outside air intake and glass doors at all fireplaces.
9. Provide backdraft damper at hood vents and exhaust fans.
10. Provide drain to visible exit at FAU condensate pan.
11. Refer to section notes for fire blocking information.
12. Through penetrations of fire rated walls shall comply with UL listings. [see sheet UL1x to UL1x]
13. Water resistant gypsum backing board shall be used:
   - A. In areas which may be exposed to moisture.
   - B. At water closet compartment walls.
   - C. but may not be used as a tile backing

GRAPHIC LEGEND

- SEE COMPOSITE FLOOR PLAN FOR SPECIFIC WALL TYPE (A1.0.1.1, A1.0.1.2, A2.0.1.1, A2.0.1.2 & A1.1.1.1)
- SOFFIT OR DROPPED CEILING [See detail 1, 2, 3, 5 & 10 on sheet 12.2.22]

FLOOR PLAN SYMBOLS

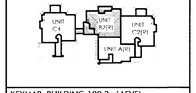
ROOM NAME — LIVING
CEILING HGT. — 9'-0"
FLOOR MATERIAL — TILE
WINDOW SIZE (FT.,IN.) — 3050 SH
WINDOW TYPE:
A = AWNING, B = GLASS BLOCK, F = FIXED, SH = SINGLE HUNG, SL = HORIZ. SLIDER, SGD = SLIDING GLASS DOOR [T] = TEMPERED GLAZING, [E] = EGRESS WINDOW

UNIT PLAN KEYNOTE

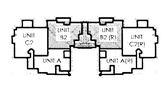
01 LINE OF FLOOR BELOW
02 LINE OF FLOOR ABOVE
03 LINE OF ROOF BELOW
04 TENANT SEPARATION WALL - SEE BUILDING COMPOSITE PLAN FOR DETAIL
05 OVERFLOW DECK DRAIN TO VISIBLE EXIT
06 DECK DRAIN TO VISIBLE EXIT
07 ELASTOMERIC TOPPING OVER 3/4" LIGHT WEIGHT CONCRETE AT STORAGE CLOSET
08 DIRECT VENT - WATER HEATER VENT THRU ROOF.
09 ELASTOMERIC WATERPROOF MEMBRANE DEMKO - COMPLY WITH MFR. MANUFACTURE SPECIFICATIONS AND ICC REPORT ESR 1461
10 DECORATIVE WROUGHT IRON FINISH
11 DECORATIVE WROUGHT IRON GRILLE POT HOLDER
12 STUCCO FINISH SHELF AT 42"
13 STUCCO FINISH POSTSHELF (SLOPE TO DRAIN)
14 SOFFIT - SEE ELEVATION FOR HEIGHT
15 PROVIDE (2) 14"x14" LOUVERED VENTS - (LOW VENT IN DOOR & HIGH VENT IN WALL
16A HIGH EFFICIENCY FAU DIRECT VENT, DIRECT VENT THRU NON RATED ROOF. DRAFTSTOP AT CEILING LINE
16B HIGH EFFICIENCY FAU DIRECT VENT, DIRECT VENT THRU RATED FLOOR CEILING WITH APPROVED U.L. F/C 7022 ON SHEET 13.5.2
17 FLASH HEATER
18 PROVIDE CONDENSATION PAN WITH DRAIN AT FAU R.A.G. BELOW
19 TIGHT FITTING SELF CLOSING SOLID CORE 90 MIN. RATED DOOR & ASSEMBLY
20 5/8" TYPE X GYPSUM BOARD AT USABLE SPACE UNDER STAIR
21 TIGHT FITTING SELF CLOSING SOLID CORE 1-HOUR RATED DOOR & ASSEMBLY
22 1-HOUR RATED 22X30 ACCESS PANEL - SELF-CLOSING - SEE DETAIL 17/F2-2.1
23 NON RATED 22x30 ACCESS PANEL
24 VOID SPACE (FIRE BLOCK)
25 SINGLE SHELF
26 SINGLE SHELF AND POLE
27 DOUBLE SHELF AND POLE
28 TILE SHELF AT TOP OF TUB
29 42" HIGH COUNTER ABOVE FINISH FLOOR
30 2x6 WALL UNDER COUNTER
31 36" HIGH 2x4 LOW WALL
32 34" HIGH 2X4 LOW WALL
33 42" HIGH LOW WALL
34 [RESERVED]
35 RATED ENTRY DOOR AT BUILDING 100 ONLY: 45 MIN. RATED DOOR AND 60 MIN. RATED DOOR FRAME
37 10MM FRAMED GLASS BLOCK
38 32"x60" TUB/SHOWER WITH CURTAIN ROD
39 42"x60" TUB
40 32"x48" SHOWER WITH TEMP. ENCLOSURE
41 36"x36" SHOWER WITH TEMP. ENCLOSURE
42 ARCH SOFFIT - SEE ELEVATION FOR HEIGHT
43 SLOPED SOFFIT
44 60 MIN. RATED DOOR AND DOOR FRAME.

NOTE:
1. 76" HIGH MIN. SHOWER HEAD (78" HIGH FOR CULTURED MARBLE w/ OPTIONS)
2. SEE DETAIL 8/D 4.1.1 FOR INTERIOR SOFFIT OPENING AT UNIT.

KEYMAP: BUILDING 200 2nd LEVEL



KEYMAP: BUILDING 100 2nd LEVEL



PLANS APPROVED
CONSTRUCTION
[illegible] Valley Dept.
[illegible] Towns
SEP 02 2009
Prior [illegible] Plumbing, Mech[illegible] Division of City Site Improvements Plans No Change Without Approval Plan is Not a Permit to Violate Any Ordinance

CRAIG D. SMITH
CERTIFICATE
No. 4967
8-20-09
REGISTERED
STATE OF NEVADA

RNM DESIGN
ARCHITECTURE
PLANNING
LANDSCAPE
GRAPHICS
RNMDESIGN.COM

2 CORPORATE PARK
SUITE 100
IRVINE, CALIFORNIA
92606
T 949.252.1800
FAX 949.833.9603

PROJECT NAME/ADDRESS

CORONADO THE PASEOS
875 PANTARA PLACE
LAS VEGAS, NEVADA

CLIENT

SPINNAKER HOMES
4511 W. CHEYENNE AVE. ST 105
NO. LAS VEGAS, CA 89032
702-873-7773
702-873-7776 FAX

REVISIONS

1 DELTA 1: PLAN CHECK CORRECTION
2 DELTA 2: PLAN CHECK CORRECTION
3 DELTA 3: PLAN CHECK CORRECTION
4 DELTA 4: PLAN CHECK CORRECTION

APR 20 2009
CITY OF LAS VEGAS

THESE DRAWINGS AND IMAGES ARE NOT TO BE REPRODUCED OR COPIED IN ANY FORM, WITHOUT WRITTEN PERMISSION.
COPYRIGHT 2008 RNM DESIGN

DRAWING TITLE

UNIT B2: FLOOR PLAN & OPTION

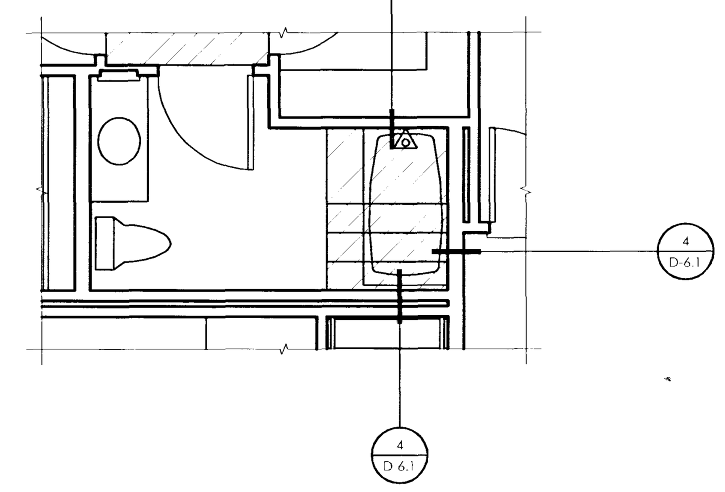
DRAWING INFORMATION

PROJ. NO: 08041
FIRST SUBMITTAL DATE: 02.24.2009
SCALE: 1/4" = 1'-0"

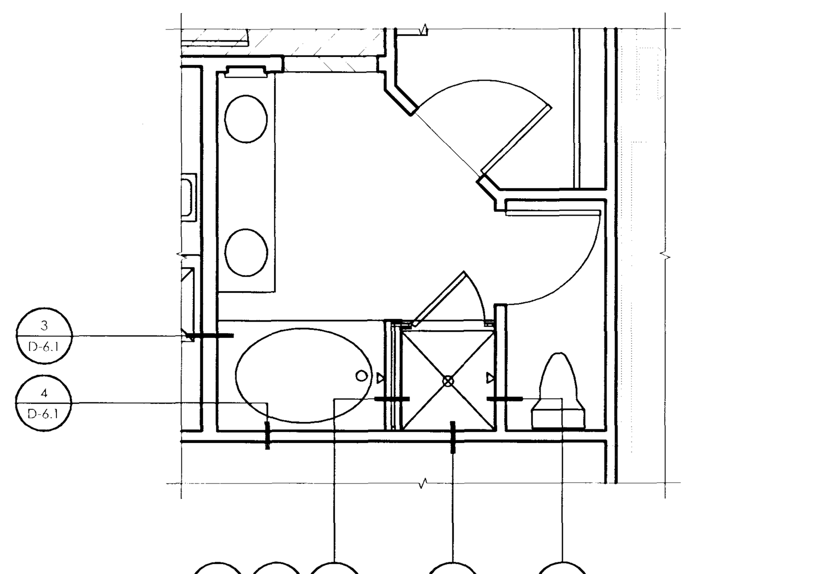
DRAWING NUMBER

A1-3.1

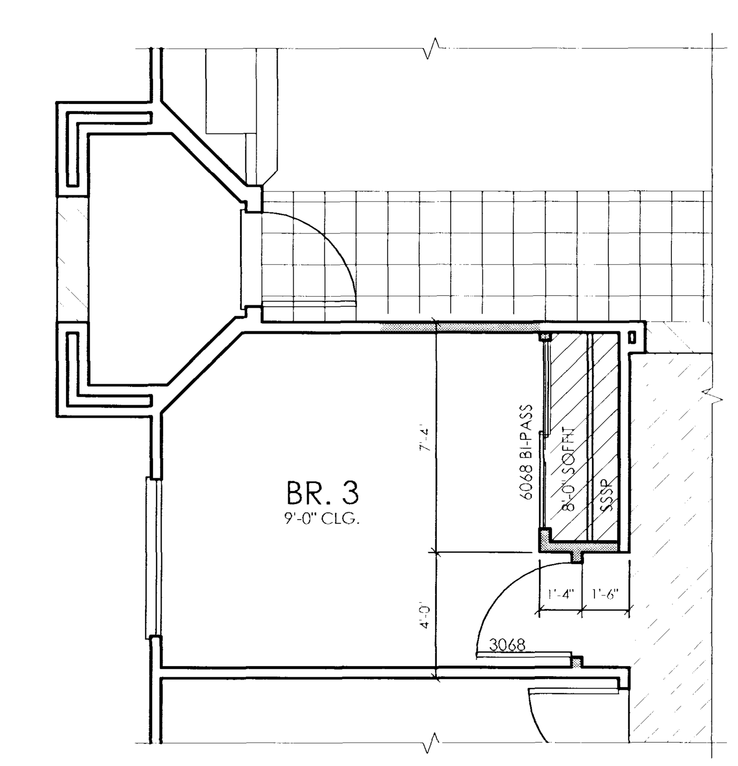
DELTA 4 - PLAN CHECK CORRECTION 08.12.09



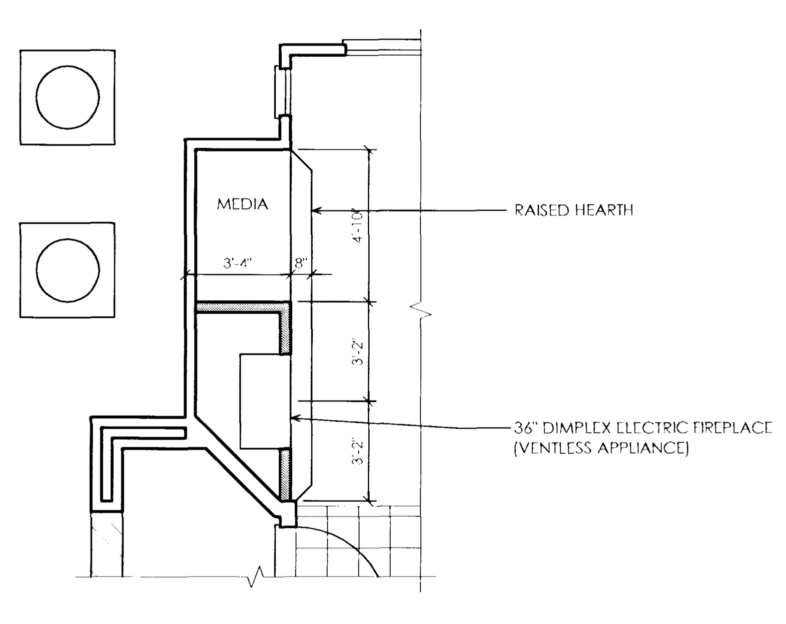
UNIT C1: BA2 DETAIL PLAN



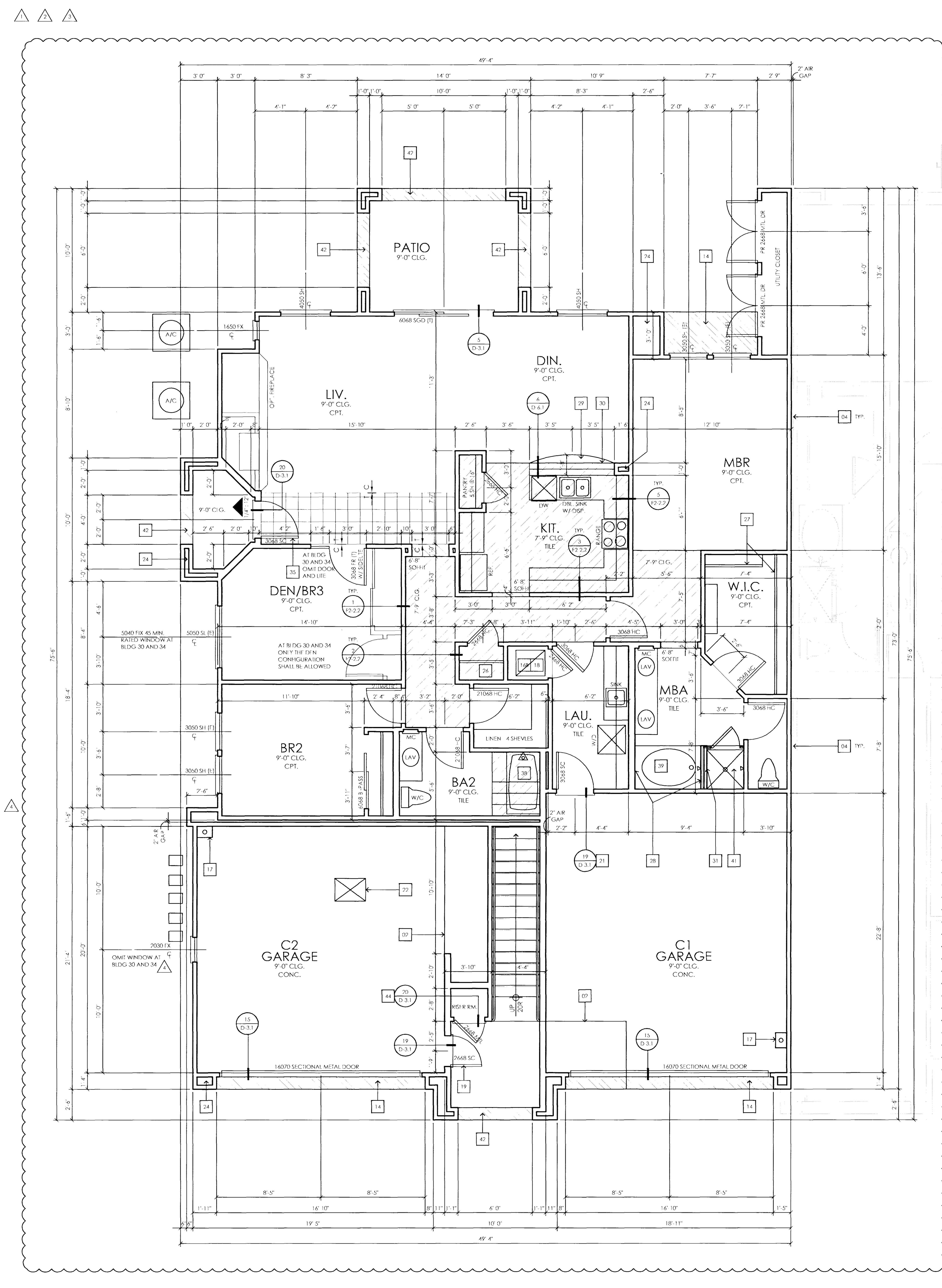
UNIT C1: MBA DETAIL PLAN



UNIT C1: BEDROOM 3 OPTION



UNIT C1: FIREPLACE OPTION



UNIT C1: FLOOR PLAN

UNIT PLAN NOTES

1. Refer to A0-0.1 sheets for plan general notes.
2. Refer to mechanical plans for HVAC efficiency glazing u-values, shading devices & insulation values.
3. Glazing:
   A. Safety glazing shall be provided in the following locations:
      1. Ingress and egress doors, fixed and operable.
      2. Showers doors and enclosures.
      3. Windows at tubs and showers less than 60" above standing surface.
      4. Glazing in locations within a 24" radius of vertical edge of adjacent door and where bottom edge of glazing is less than 60" above floor.
      5. Glazing within 18" of finished floor.
      6. Glazing in railings.
   B. All windows to be dual glazed.
   C. Refer to energy compliance information for u-values.
4. Cutting, notching and boring of studs shall be in accordance with IBC section 2308.9
5. Plumbing:
   A. Provide backflow preventer at all hose bibbs.
   B. Provide recessed box in wall at refrigerator and at washer space (rated box at rated wall).
   C. Provide pressure balance or thermostatic mixing valves at all shower and tub/shower locations.
   D. Water closet to be max. 1.6 gal. per flush.
6. Water Heaters:
   A. Anchor water heater to wall strap per detail provided
   B. Locate gas fired water heater on min. 18" high enclosed wood platform anchored to support unit.
   C. Provide P&T relief valve.
   D. Vent gas to outside air.
7. Clothes dryer exhaust:
   A. Max. 14' combined horizontal and vertical run (including two 90 deg. elbows) to outside air.
   B. Provide smooth metal duct.
   C. Provide backdraft damper.
8. Provide outside air intake and glass doors at all fireplaces.
9. Provide backdraft damper at hood vents and exhaust fans.
10. Provide drain to visible exit at FAU condensate pan.
11. Refer to section notes for fire blocking information.
12. Through penetrations of fire rated walls shall comply with UL listings (see sheet ULx to ULx)
13. Water resistant gypsum backing board shall be used:
   A. In areas which may be exposed to moisture.
   B. At water closet compartment walls.
   C. but may not be used as a tile backer.

GRAPHIC LEGEND

(wall line)	SEE COMPOSITE FLOOR PLAN FOR SPECIFIC WALL TYPE (A10-1.1, A10-1.2, A20-1.1, A20-1.2 & F1-1.1)
(hatch)	SOFFIT OR DROPPED CEILING (See detail 1, 2, 3, 5 & 10 on sheet F2-2.2)

FLOOR PLAN SYMBOLS

ROOM NAME — LIVING
CEILING HGT. — 9'-0"
FLOOR MATERIAL — TILE
WINDOW SIZE (FT., IN.) — 3050 SH
WINDOW TYPE:

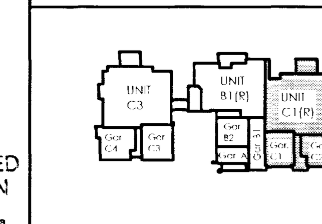
A – AWNING	SL = HORIZ. SLIDER
B – GLASS BLOCK	SGD = SLIDING GLASS DOOR
F = FIXED	(T) – TEMPERED GLAZING
SH = SINGLE HUNG	(E) – EGRESS WINDOW

UNIT PLAN KEYNOTE

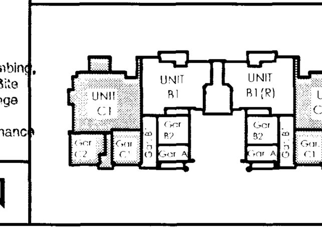
01 LINE OF FLOOR BELOW
02 LINE OF FLOOR ABOVE
03 LINE OF ROOF BELOW
04 TENANT SEPARATION WALL - SEE BUILDING COMPOSITE PLAN FOR DETAIL.
05 OVERFLOW DECK DRAIN TO VISIBLE EXIT
06 DECK DRAIN TO VISIBLE EXIT
07 ELASTOMERIC TOPPING OVER ½" LIGHT WEIGHT CONCRETE AT STORAGE CLOSET
08 DIRECT VENT: WATER HEATER VENT THRU ROOF.
09 ELASTOMERIC WATERPROOF MEMBRANE: DESERT CRETE INSTALL PER MANUFACTURE SPECIFICATIONS AND ICC REPORT ESR 1661
10 DECORATIVE WROUGHT IRON POTSHELF
11 DECORATIVE WROUGHT IRON GRILLE POT HOLDER
12 STUCCO FINISH SHELF AT 42"
13 STUCCO FINISH POTSHELF (SLOPE TO DRAIN)
14 SOFFIT - SEE ELEVATION FOR HEIGHT
15 PROVIDE (2) 14"x16" LOUVERED VENTS (LOW VENT IN DOOR & HIGH VENT IN WALL
16A HIGH EFFICIENCY FAU DIRECT VENT. DIRECT VENT THRU NON RATED ROOF. DRAFTSTOP AT CEILING LINE
16B HIGH EFFICIENCY FAU DIRECT VENT. DIRECT VENT THRU RATED FLOOR CEILING WITH APPROVED U.L. F-C-7022 ON SHEET F3 5.2
17 FLASH HEATER
18 PROVIDE CONDENSATION PAN WITH DRAIN AT FAU R.A.G. BELOW
19 TIGHT FITTING SELF CLOSING SOLID CORE 90 MIN. RATED DOOR & ASSEMBLY
20 ⅝" TYPE X GYPSUM BOARD AT USABLE SPACE UNDER STAIR
21 TIGHT FITTING SELF CLOSING SOLID CORE 1-HOUR RATED DOOR & ASSEMBLY
22 1-HOUR RATED 22X30 ACCESS PANEL SELF CLOSING SEE DETAIL 17/F2 2.1
23 NON RATED 22x30 ACCESS PANEL
24 VOID SPACE (FIREBLOCK)
25 SINGLE SHELF
26 SINGLE SHELF AND POLE
27 DOUBLE SHELF AND POLE
28 TILE SHELF AT TOP OF TUB
29 42" HIGH COUNTER ABOVE FINISH FLOOR
30 2x6 WALL UNDER COUNTER
31 36" HIGH 2x6 LOW WALL
32 34½" HIGH 2X4 LOW WALL
33 42" HIGH LOW WALL
34 POTSHELF
35 RATED ENTRY DOOR AT BUILDING 100 ONLY: 45 MIN. RATED DOOR AND 60 MIN. RATED DOOR FRAME
36 NOT USED
37 1066 FRAMED GLASS BLOCK
38 32"x60" TUB/SHOWER WITH CURTAIN ROD
39 42"x60" TUB
40 32"x48" SHOWER WITH TEMP. ENCLOSURE
41 36"x36" SHOWER WITH TEMP. ENCLOSURE
42 ARCH SOFFIT - SEE ELEVATION FOR HEIGHT
43 SLOPED SOFFIT
44 60 MIN. RATED DOOR AND DOOR FRAME.

NOTE:
1. 76" HIGH MIN. SHOWER HEAD (78" HIGH FOR CULTURED MARBLE @ OPTION)
2. SEE DETAIL 8/D 6.1 FOR INTERIOR SOFFIT OPENING AT UNIT.

KEYMAP: BUILDING 200 1st LEVEL



KEYMAP: BUILDING 100 1st LEVEL



PLANS APPROVED CONSTRUCTION
Building & Safety Dept.
City of Las Vegas Nevada
MT SEP 0 2 2009

RECEIVED
AUG 20 2009
CITY OF LAS VEGAS PERMITS

RNM

RNM DESIGN
ARCHITECTURE
PLANNING
LANDSCAPE
GRAPHICS
RNMDESIGN.COM

2 CORPORATE PARK
SUITE 100
IRVINE, CALIFORNIA
92606
T949.752.1800
F949.833.9603

PROJECT NAME/ADDRESS

CORONADO THE PASEOS
875 PANTARA PLACE
LAS VEGAS, NEVADA

CLIENT

SPINNAKER HOMES
4511 W. CHEYENNE AVE. ST 105
NO. LAS VEGAS, CA 89032
702-873-7773
702-873-7776 FAX

REVISIONS

1 DELTA 1: PLAN CHECK CORRECTION
2 DELTA 2: PLAN CHECK CORRECTION
3 DELTA 3: PLAN CHECK CORRECTION
4 DELTA 4: PLAN CHECK CORRECTION

THESE DRAWINGS AND IMAGES ARE NOT TO BE REPRODUCED OR COPIED IN ANY FORM WITHOUT WRITTEN PERMISSION. COPYRIGHT 2008 RNM DESIGN

DRAWING TITLE

UNIT C1: FLOOR PLAN & OPTION

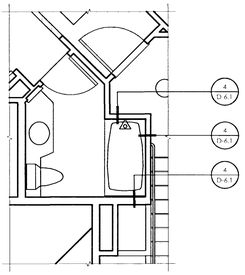
DRAWING INFORMATION

PROJ. NO: 08041
FIRST SUBMITTAL DATE: 02.24.2009
SCALE: 1/4" = 1'-0"

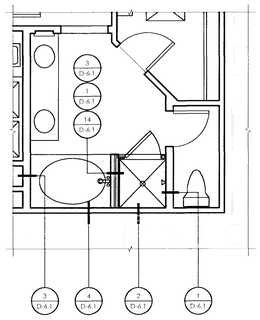
DRAWING NUMBER

A1-4.1

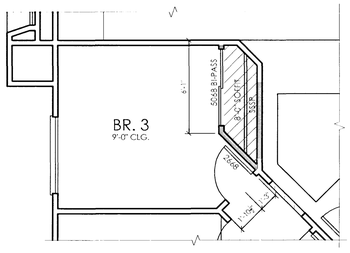
DELTA 4 - PLAN CHECK CORRECTION
08.12.09



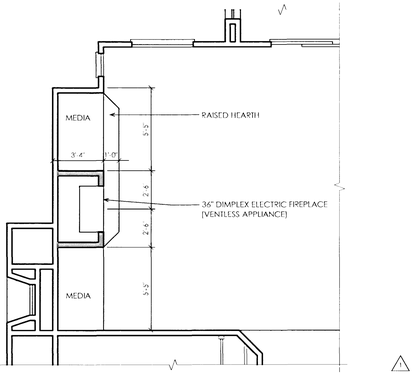
UNIT C2: BA2 DETAIL PLAN



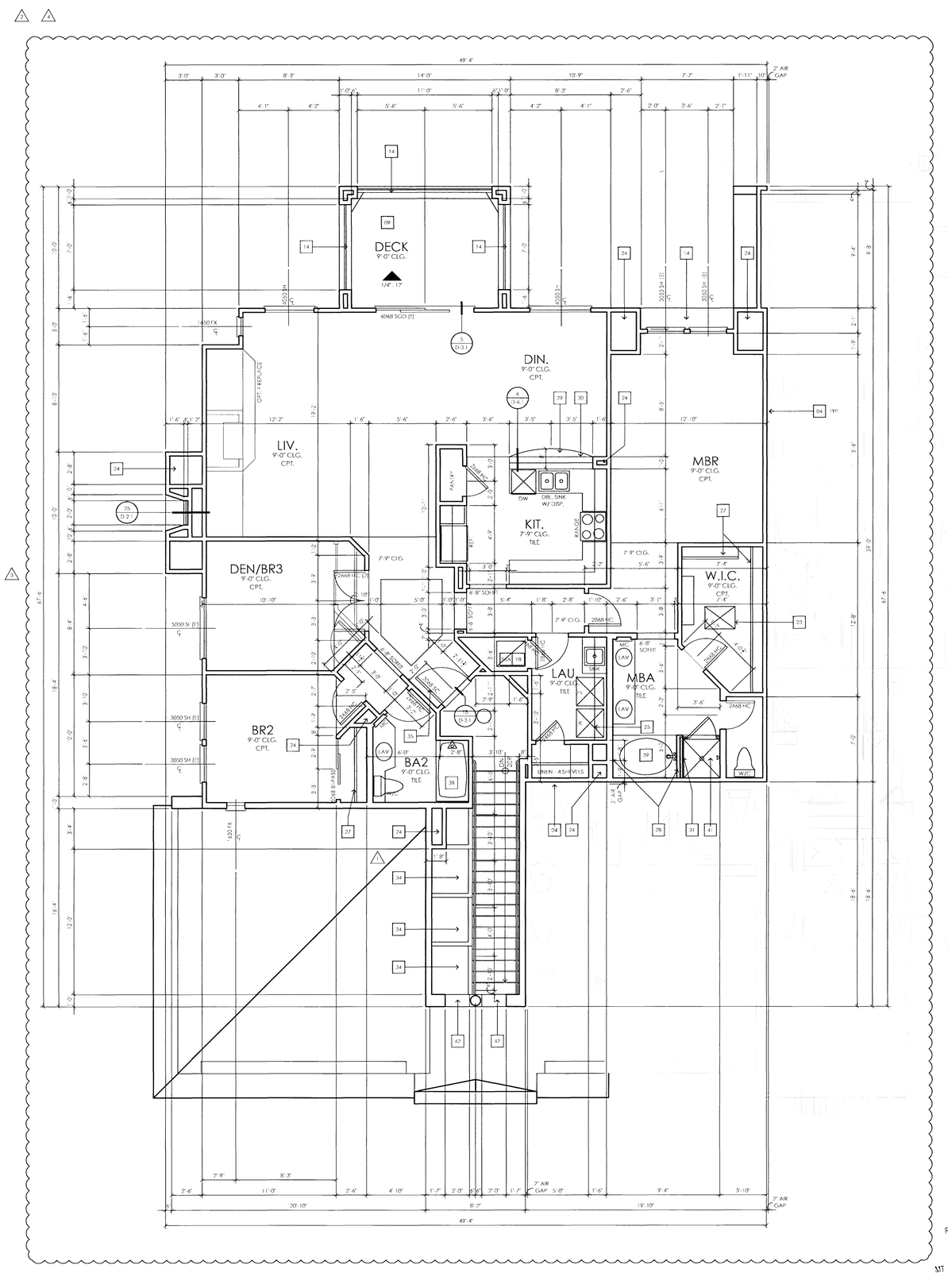
UNIT C2: MBA DETAIL PLAN



UNIT C2: BEDROOM 3 OPTION



UNIT C2: FIREPLACE OPTION



UNIT C2: FLOOR PLAN

PLANS APPROVED
CONSTRUCTION
Building Safety Dept.
City of Las Vegas, Nevada
MT SEP 02 2009

Dept. ... Permit, Plumbing, Mechanical and Electrical OR Site Improvements Issues No Change Without Approval. Plan is Not a Permit to Violate Any Ordinance

UNIT PLAN NOTES

1. Refer to A0.0.1 sheet's for plan general notes.
2. Refer to mechanical plans for HVAC efficiency glazing u-values, shading devices & insulation values.
3. Glazing:
   - A. Safety glazing shall be provided in the following locations:
     1. Ingress and egress doors, fixed and operable.
     2. Showers doors and enclosures.
     3. Windows at tubs and showers less than 60" above standing surface.
     4. Glazing in locations within a 24" radius of vertical edge of adjacent door and where bottom edge of glazing is less than 60" above floor.
     5. Glazing within 18" of finished floor.
     6. Glazing in railings.
   - B. All windows to be dual glazed.
   - C. Refer to energy compliance information for u-values.
4. Cutting, notching and boring of studs shall be in accordance with IBC section 2308.9
5. Plumbing:
   - A. Provide backflow preventer at all hose bibbs.
   - B. Provide recessed box in wall at refrigerator and at washer space (raised box at rated wall).
   - C. Provide pressure balance or thermostatic mixing valves at all shower and tub/shower locations.
   - D. Water closet to be max. 1.6 gall. per flush.
6. Water Heaters:
   - A. Anchor water heater to wall strap per detail provided.
   - B. Locate gas fired water heater on min. 18" high enclosed wood platform anchored to support unit.
   - C. Provide P&T relief valve.
   - D. Vent gas to outside air.
7. Clothes dryer exhaust:
   - A. Max. 14' combined horizontal and vertical run (including two 90 deg. elbows) to outside air.
   - B. Provide smooth metal duct.
   - C. Provide backdraft damper.
8. Provide outside air intake and glass doors at all fireplaces.
9. Provide backdraft damper at hood vents and exhaust fans.
10. Provide drain to visible exit at T.A.U. condensate pan.
11. Refer to section notes for fire blocking information.
12. Through penetrations of fire-rated walls shall comply with U.L. listings. See sheet U1.1 to U1.4.
13. Water resistant gypsum backing board shall be used:
    - A. In areas which may be exposed to moisture.
    - B. At water closet compartment walls.

GRAPHIC LEGEND

- SH-COMPOSITE FLOOR PLAN FOR SPECIFIC WALL TYP. (A10.1.1, A10.1.2, A29.1.1, A29.1.2 & 1.1.1.1)
- SOFFIT OR DROPPED CEILING (See detail 1, 2, 3, 5 & 10 on sheet 12.2.2)

FLOOR PLAN SYMBOLS

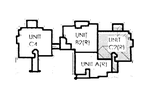
ROOM NAME — LIVING
CEILING HGT.: — 9'-0"
FLOOR MATERIAL — TILE
WINDOW SIZE (FT.-IN.) — 3050 SH
WINDOW TYPE:
A = AWNING — SL = HORIZ. SLIDER
B = GLASS BLOCK — SGD = SLIDING GLASS DOOR
T = FIXED — [T] = TEMPERED GLAZING
SH = SINGLE HUNG — [E] = EGRESS WINDOW

UNIT PLAN KEYNOTE

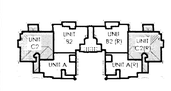
01 LINE OF FLOOR BELOW
02 LINE OF FLOOR ABOVE
03 LINE OF ROOF BELOW
04 TENANT SEPARATION WALL. SEE BUILDING COMPOSITE PLAN FOR DETAIL
05 OVERFLOW DECK DRAIN TO VISIBLE EXIT
06 DECK DRAIN TO VISIBLE EXIT
07 1/4 ELASTOMERIC TOPPING OVER 3/4" LIGHT WEIGHT CONCRETE AT STORAGE CLOSET
08 DIRECT VENT. WATER HEATER VENT THRU ROOF
09 ELASTOMERIC WATERPROOF MEMBRANE: DESERT CRETE INSTALL PER MANUFACTURE SPECIFICATIONS AND ICC REPORT ESR 1661
10 DECORATIVE WROUGHT IRON POSITION
11 DECORATIVE WROUGHT IRON GRILLE POT HOLDER
12 STUCCO FINISH SHELF AT 42"
13 STUCCO FINISH POTSHELF (SLOPE TO DRAIN)
14 SOFFIT - SEE ELEVATION FOR HEIGHT
15 PROVIDE (2) 14"x16" LOUVERED VENTS - (LOW VENT IN DOOR & HIGH VENT IN WALL
16A HIGH EFFICIENCY F.A.U. DIRECT VENT. DIRECT VENT THRU NON-RATED ROOF. DRAFTSTOP AT CEILING LINE
16B HIGH EFFICIENCY F.A.U. DIRECT VENT. DIRECT VENT THRU RATED FLOOR CEILING WITH APPROVED U.L. F.C. 7022 ON SHEET 13.3.2
17 FLASH HEATER
18 PROVIDE CONDENSATION PAN WITH DRAIN AT F.A.U. R.A.G. BELOW
19 TIGHT FITTING SELF CLOSING SOLID CORE 90 MIN. RATED DOOR & ASSEMBLY
20 5/8" TYPE 'X' GYPSUM BOARD AT USABLE SPACE UNDER STAIR
21 TIGHT FITTING SELF CLOSING SOLID CORE 1 HOUR RATED DOOR & ASSEMBLY
22 1 HOUR RATED 22X30 ACCESS PANEL SELF-CLOSING - SEE DETAIL 1/7.12-2.1
23 NON RATED 22X30 ACCESS PANEL
24 VOID SPACE (FIRE BLOCK)
25 SINGLE SHELF
26 SINGLE SHELF AND POLE
27 DOUBLE SHELF AND POLE
28 TILE SHELF AT TOP OF TUB
29 42" HIGH COUNTER ABOVE FINISH FLOOR
30 7'x1 WALL UNDER COUNTER
31 36" HIGH 2x6 LOW WALL
32 34" HIGH 2X4 LOW WALL
33 42" HIGH LOW WALL
34 SOFFIT
35 RATED ENTRY DOOR AT BUILDING 100 ONLY: 45 MIN. RATED DOOR AND 60 MIN. RATED DOOR FRAME
37 1066 FRAMED GLASS BLOCK
38 32"x60" TUB/SHOWER WITH CURTAIN ROD
39 42"x60" TUB
40 32"x48" SHOWER WITH TEMP. ENCLOSURE
41 36"x36" SHOWER WITH TEMP. ENCLOSURE
42 ARCH SOFFIT - SEE ELEVATION FOR HEIGHT
43 SLOPED SOFFIT
44 60 MIN. RATED DOOR AND DOOR FRAME

NOTE:
1. 76" HIGH MIN. SHOWER HEAD (78" HIGH FOR CULTURED MARBLE W. OPTION)
2. SEE DETAIL 8/D-6.1 FOR INTERIOR SOFFIT OPENING AT UNIT.

KEYMAP: BUILDING 200 2nd LEVEL



KEYMAP: BUILDING 100 2nd LEVEL



CRAIG D. SMITH
REGISTERED
ARCHITECT
No. 4967
8-20-09
REGISTERED
STATE OF NEVADA

RNM

RNM DESIGN
ARCHITECTURE
PLANNING
LANDSCAPE
GRAPHICS
RNMDESIGN.COM

2 CORPORATE PARK
SUITE 100
IRVINE, CALIFORNIA
92606
(949) 752-1800
(949) 833-9603

PROJECT NAME/ADDRESS

CORONADO THE PASEOS
875 PANTARA PLACE
LAS VEGAS, NEVADA

CLIENT

SPINNAKER HOMES
4511 W. CHEYENNE AVE. ST 105
NO. LAS VEGAS, CA 89032
702-873-7773
702-873-7776 FAX

REVISIONS

1 DELTA 1: PLAN CHECK CORRECTION
2 DELTA 2: PLAN CHECK CORRECTION
3 DELTA 3: PLAN CHECK CORRECTION
4 DELTA 4: PLAN CHECK CORRECTION

AUG 20 2009
CITY OF LAS VEGAS
BLDG

THESE DRAWINGS AND IMAGES ARE NOT TO BE REPRODUCED OR COPIED IN ANY FORM WITHOUT WRITTEN PERMISSION. COPYRIGHT 2008 RNM DESIGN

DRAWING TITLE

UNIT C2: FLOOR PLAN & OPTION

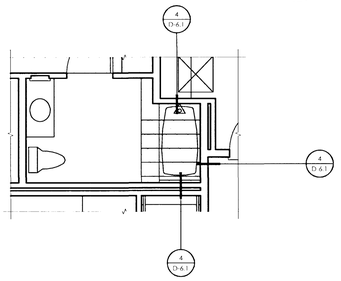
DRAWING INFORMATION

PROJ. NO: 08041
FIRST SUBMITTAL DATE: 02.24.2009
SCALE: 1/4" = 1'-0"

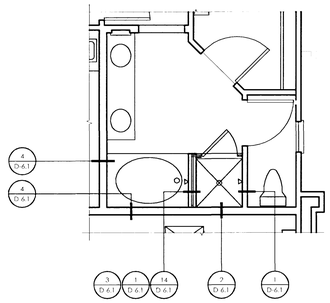
DRAWING NUMBER

A1-5.1

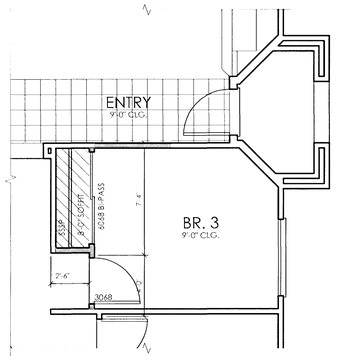
08.12.09 DELTA 4 - PLAN CHECK CORRECTION



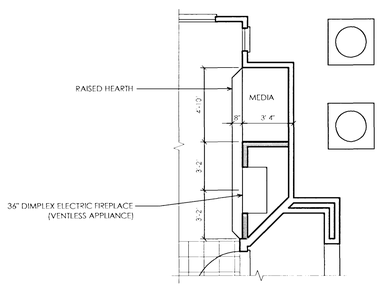
UNIT C3: BA2 DETAIL PLAN



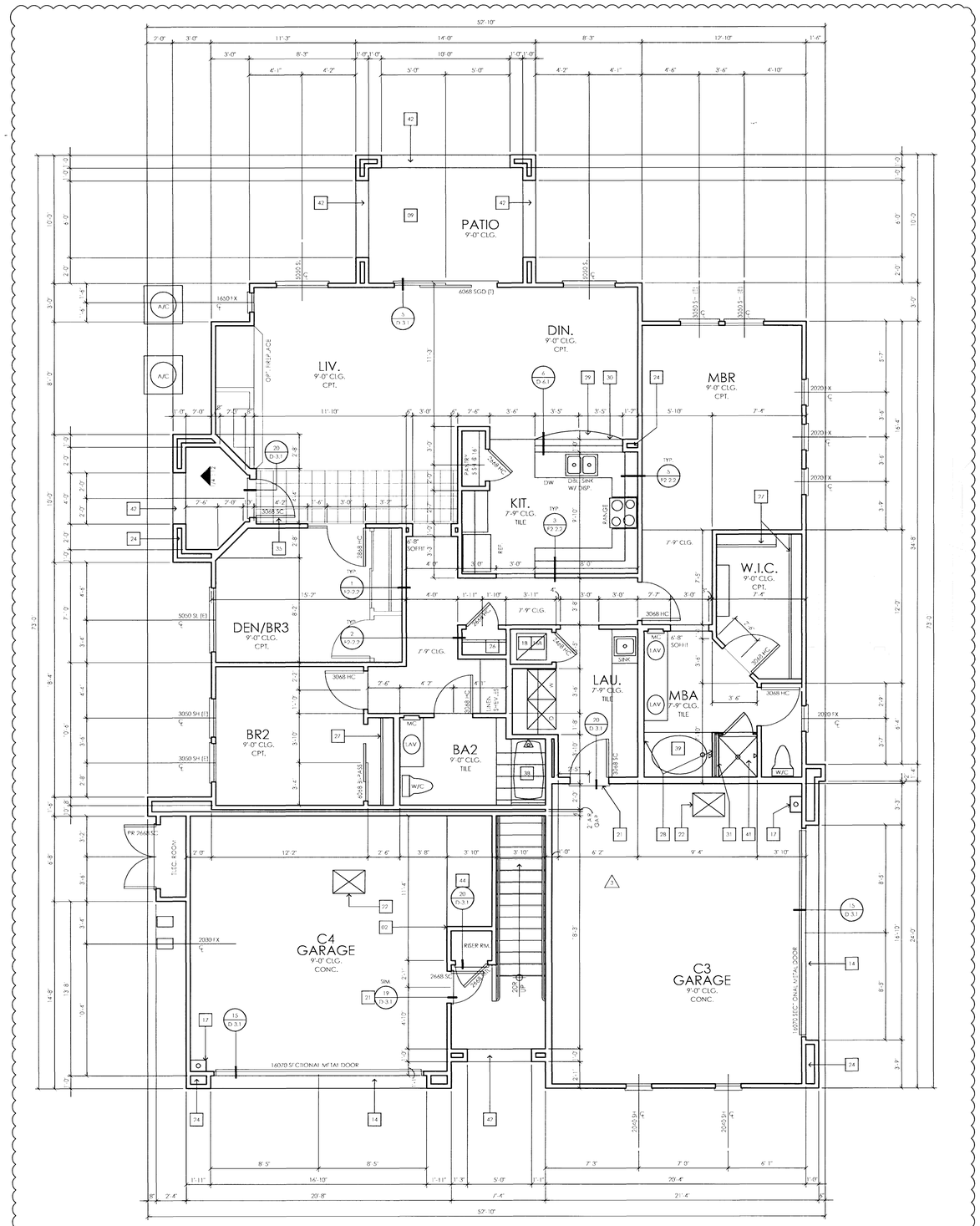
UNIT C3: MBA DETAIL PLAN



UNIT C3: BEDROOM 3 OPTION



UNIT C3: FIREPLACE OPTION



UNIT C3: FLOOR PLAN

UNIT PLAN NOTES

1. Refer to A0.0.1 sheets for plan general notes.
2. Refer to mechanical plans for HVAC efficiency glazing u-values, shading devices & insulation values.
3. Glazing:
   - A. Safety glazing shall be provided in the following locations:
     1. Ingress and egress doors, fixed and operable.
     2. Showers doors and enclosures.
     3. Windows at tubs and showers less than 60" above standing surface.
     4. Glazing in locations within a 24" radius of vertical edge of adjacent door and where bottom edge of glazing is less than 60" above floor.
     5. Glazing within 18" of finished floor.
     6. Glazing in railings.
   - B. All windows to be dual glazed.
   - C. Refer to energy compliance information for u-values.
4. Cutting, notching and boring of studs shall be in accordance with IBC section 2308.9
5. Plumbing:
   - A. Provide backflow preventer at all hose bibbs.
   - Bx Provide recessed box in wall at refrigerator and at washer space (rated box at rated wall). "
   - C. Provide pressure balance or thermostatic mixing valves at all shower and tub/shower locations.
   - D. Water closet to be max. 1.6 gal. per flush.
6. Water Heaters:
   - A. Anchor water heater to wall straps per detail provided.
   - B. Locate gas fired water heater on min. 18" high enclosed wood platform anchored to support unit.
   - C. Provide P&T relief valve.
   - D. Vent gas to outside air.
7. Clothes dryer exhaust:
   - A. Max. 14' combined horizontal and vertical run (including two 90 deg. elbows) to outside air.
   - B. Provide smooth metal duct.
   - C. Provide backdraft damper.
8. Provide outside air intake and glass doors at all fireplaces.
9. Provide backdraft damper at hood vents and exhaust fans.
10. Provide drain to visible exit at FAU condensate pan.
11. Refer to section notes for fire blocking information.
12. Through penetrations of fire-rated walls shall comply with UL listings. (see sheet UL1 to UL4)
13. Water resistant gypsum backing board shall be used:
   - A. In areas which may be exposed to moisture.
   - B. At water closet compartment walls.

GRAPHIC LEGEND

- SH: COMPOSITE FLOOR PLAN FOR SPECIFIC WALL TYPE (A10.1.1, A.10.1.2, A20.1.1, A20.1.2 & F1.1.1)
- SOFFIT OR DROPPED CEILING (See detail 1, 2, 3, 5 & 10 on sheet F2.2.2)

FLOOR PLAN SYMBOLS

ROOM NAME — LIVING
CEILING HGT: — 9'-0"
FLOOR MATERIAL — TILE
WINDOW SIZE (FT.,IN.) — 3050 SH
WINDOW TYPE:
A = AWNING
B = GLASS BLOCK
F = FIXED
SH = SINGLE HUNG
SL = HORIZ. SLIDER
SGD = SLIDING GLASS DOOR
(T) = TEMPERED GLAZING
(E) = EGRESS WINDOW

UNIT PLAN KEYNOTE

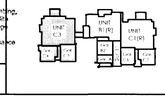
01 LINE OF FLOOR BELOW
02 LINE OF FLOOR ABOVE
03 LINE OF ROOF BELOW
04 TENANT SEPARATION WALL - SEE BUILDING COMPOSITE PLAN FOR DETAIL
05 OVERFLOW DECK DRAIN TO VISIBLE EXIT
06 DECK DRAIN TO VISIBLE EXIT
07 ELASTOMERIC TOPPING - OVER LIGHT WEIGHT CONCRETE AT STORAGE CLOSET
08 DIRECT VENT - WATER HEATER VENT THRU ROOF
09 ELASTOMERIC WATERPROOF MEMBRANE: DESERT - CRETE INSTALL PER MANUFACTURE SPECIFICATIONS AND ICC-ES REPORT ESR-1661
10 DECORATIVE WROUGHT IRON PO SHELF
11 DECORATIVE WROUGHT IRON GRILLE POT HOLDER
12 STUCCO FINISH SHELF AT 42"
13 STUCCO FINISH POTSHELF (SLOPE TO DRAIN)
14 SOFFIT - SEE ELEVATION FOR HEIGHT
15 PROVIDE (2) 14"x14" LOUVERED VENTS - (LOW VENT IN DOOR & HIGH VENT IN WALL)
16A HIGH EFFICIENCY FAU DIRECT VENT - DIRECT VENT THRU NON RATED ROOF - DRAFTSTOP AT CEILING LINE
16B HIGH EFFICIENCY FAU DIRECT VENT - DIRECT VENT THRU RATED FLOOR CEILING - WITH APPROVED U.L. # C-7022 ON SHEET F3.5.2
17 FLASH HEATER
18 PROVIDE CONDENSATION PAN WITH DRAIN AT FAU R.A.G. BELOW
19 TIGHT FITTING SELF CLOSING SOLID CORE 90 MIN. RATED DOOR & ASSEMBLY
20 5/8" TYPE X GYPSUM BOARD AT USABLE SPACE UNDER STAIR
21 TIGHT FITTING SELF CLOSING SOLID CORE 1-HOUR RATED DOOR & ASSEMBLY
22 1-HOUR RATED 22X30 ACCESS PANEL - SELF-CLOSING - SEE DETAIL 17/F2.2.1
23 NON RATED 22X30 ACCESS PANEL
24 VOID SPACE (FIRE BLOCK)
25 SINGLE SHELF
26 SINGLE SHELF AND POLE
27 DOUBLE SHELF AND POLE
28 TEE SHELF AT TOP OF TUB
29 42" HIGH COUNTER ABOVE FINISH FLOOR
30 2x6 WALL UNDER COUNTER
31 36" HIGH 2x6 LOW WALL
32 34.5" HIGH 2X4 LOW WALL
33 42" HIGH LOW WALL
34 DELETED
35 RATED ENTRY DOOR AT BUILDING 100 ONLY: 45 MIN. RATED DOOR AND 60 MIN. RATED DOOR FRAME
37 1068 FRAMED GLASS BLOCK
38 32"x60" TUB/SHOWER WITH CURTAIN ROD
39 42"x60" TUB
40 32"x48" SHOWER WITH TEMP. ENCLOSURE
41 36"x36" SHOWER WITH TEMP. ENCLOSURE
42 ARCH SOFFIT - SEE ELEVATION FOR HEIGHT
43 SLOPED SOFFIT
44 60 MIN. RATED DOOR AND DOOR FRAME

NOTE:
1. 76" HIGH MIN. SHOWER HEAD 178" HIGH FOR CULTURED MARBLE +/- OPTIONS
2. SEE DETAIL 8/D.4.1 FOR INTERIOR SOFFIT OPENING AT UNIT.

PLANS APPROVED
CONSTRUCTION
Date
SEP 02 2009

Does not include Mechanical, Electrical, Plumbing, Mechanical, Electrical or Off-Site Improvements. Not a No Change Without Approval Plans is Not a Permit to Violate Any Ordinance

KEYMAP: BUILDING 200 1st LEVEL



CRAIG D. SMITH
REGISTERED
No. 4967
8-20-09
ARCHITECT
STATE OF NEVADA

RNM DESIGN
ARCHITECTURE
PLANNING
LANDSCAPE
GRAPHICS
RNMDESIGN.COM

2 CORPORATE PARK
SUITE 100
IRVINE, CALIFORNIA
92606
(949) 752-1800
FAX 833.9603

PROJECT NAME/ADDRESS

CORONADO THE PASEOS
875 PANTARA PLACE
LAS VEGAS, NEVADA

CLIENT

SPINNAKER HOMES
4511 W. CHEYENNE AVE. ST 105
NO. LAS VEGAS, CA 89032
702-873-7773
702-873-7776 FAX

REVISIONS

1. DELTA 1: PLAN CHECK CORRECTION
2. DELTA 2: PLAN CHECK CORRECTION
3. DELTA 3: PLAN CHECK CORRECTION
4. DELTA 4: PLAN CHECK CORRECTION

AUG 26 2009

THESE DRAWINGS AND IMAGES ART NOT TO BE REPRODUCED OR COPIED IN ANY FORM WITHOUT WRITTEN PERMISSION
COPYRIGHT 2008 RNM DESIGN

DRAWING TITLE

UNIT C3: FLOOR PLAN & OPTION

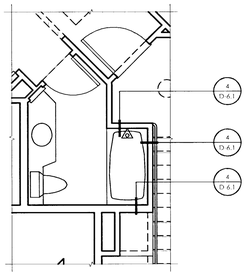
DRAWING INFORMATION

PROJ. NO:	08041
FIRST SUBMITTAL DATE:	02.24.2009
SCALE:	1/4" = 1'-0"

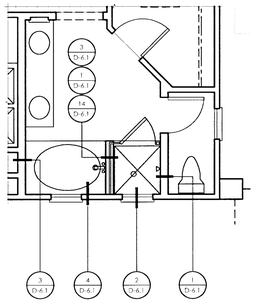
DRAWING NUMBER

A1-6.1

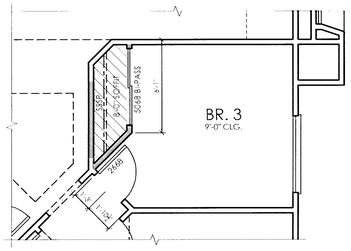
DELTA 4 - PLAN CHECK CORRECTION
08.12.09



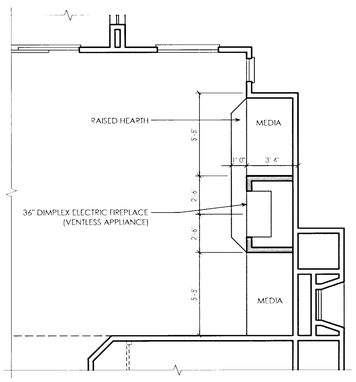
UNIT C4: BA2 DETAIL PLAN



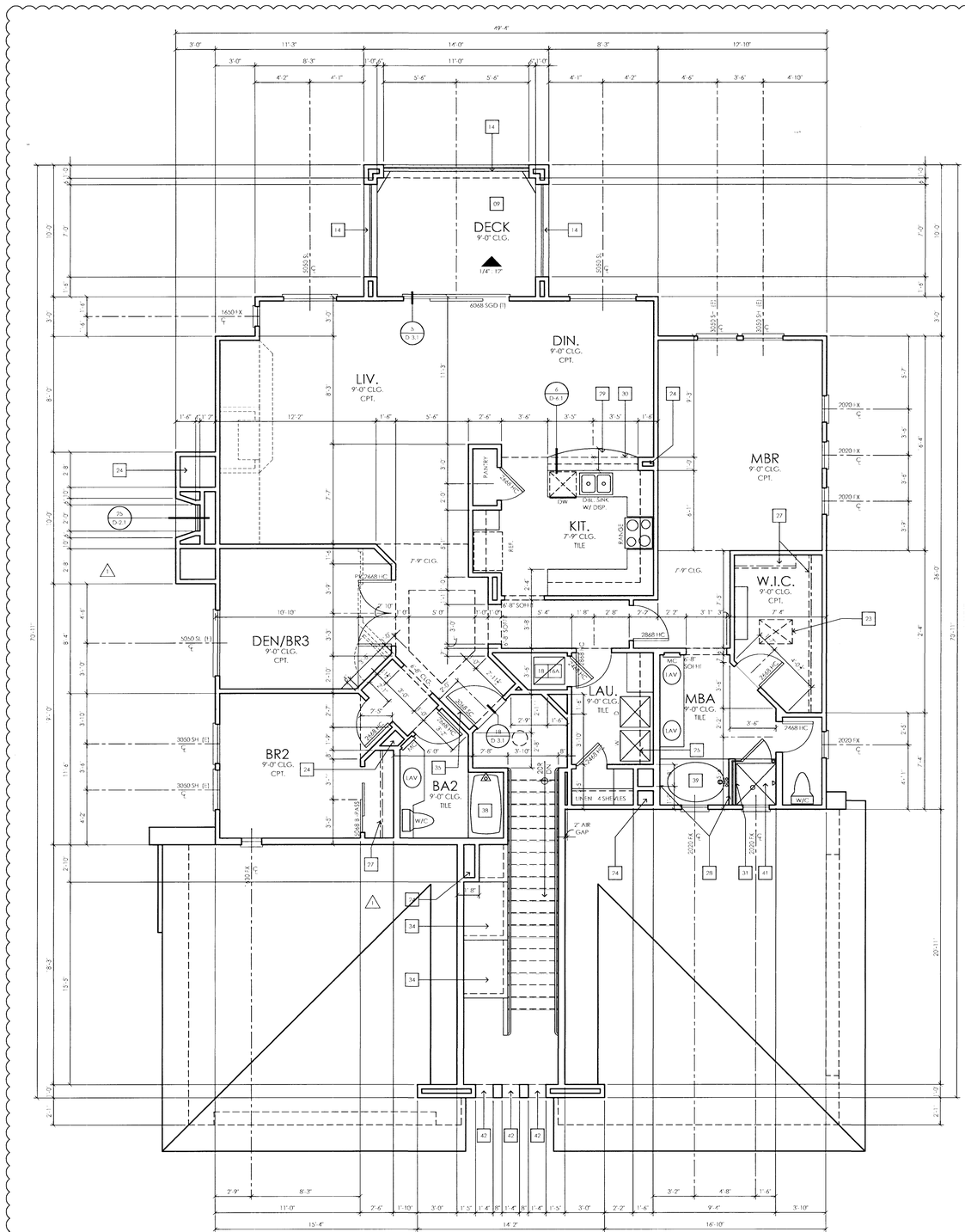
UNIT C4: MBA DETAIL PLAN



UNIT C4: BEDROOM 3 OPTION



UNIT C4: FIREPLACE OPTION



UNIT C4: FLOOR PLAN

UNIT PLAN NOTES

1. Refer to A0-0.1 sheets for plan general notes.
2. Refer to mechanical plans for HVAC efficiency glazing u-values, shading devices & insulation values.
3. Glazing:
   - A. Safety glazing shall be provided in the following locations:
     1. Ingress and egress doors, fixed and operable.
     2. Showers,doors and enclosures.
     3. Windows at tubs and showers less than 60" above standing surface.
     4. Glazing in locations within a 24" radius of vertical edge of adjacent door and where bottom edge of glazing is less than 60" above floor.
     5. Glazing within 18" of finished floor.
     6. Glazing in railings.
   - B. All windows to be dual glazed.
   - C. Refer to energy compliance information for u values.
4. Cutting, notching and boring of studs shall be in accordance with IBC section 2308.9
5. Plumbing:
   - A. Provide backflow preventer at all hose bibbs.
   - B. Provide recessed box in wall at refrigerator and at washer space (rated box at rated wall).
   - C. Provide pressure balance or thermostatic mixing valves at all shower and tub/shower locations.
   - D. Water closet to be max. 1.6 gal. per flush.
6. Water Heaters:
   - A. Anchor water heater to wall strap per detail provided
   - B. Locate gas fired water heater on min. 18" high enclosed wood platform anchored to support unit.
   - C. Provide P&T relief valve.
   - D. Vent gas to outside air.
7. Clothes dryer exhaust:
   - A. Max. 14' combined horizontal and vertical run (including two 90 deg. elbows) to outside air.
   - B. Provide smooth metal duct.
   - C. Provide backdraft damper.
8. Provide outside air intake and glass doors at all fireplaces.
9. Provide backdraft damper at hood vents and exhaust fans.
10. Provide drain to visible exit at FAU condensate pan.
11. Refer to section notes for fire blocking information.
12. Through penetrations at fire-rated walls shall comply with UL listings. (see sheet UL1 to UL2
13. Water resistant gypsum backing board shall be used:
   - A. In areas which may be exposed to moisture.
   - B. At water closet compartment walls.

GRAPHIC LEGEND

- SEE COMPOSITE FLOOR PLAN FOR SPECIFIC WALL TYPE (A10-1.1, A-0-1.2, A20-1.1, A20-1.2 & I-1.1.1)
- SOFFIT OR DROPPED CEILING (See detail 1, 2, 3, 5 & 10 on sheet F2.2.2)

FLOOR PLAN SYMBOLS

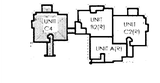
ROOM NAME — LIVING
CEILING HGT: — 9'-0"
FLOOR MATERIAL — TILE
WINDOW SIZE (FT. IN.) — 3050 SH
WINDOW TYPES:
A = AWNING — SL = HORIZ. SLIDER
B = GLASS BLOCK — SGD = SLIDING GLASS DOOR
F = FIXED — (T) = TEMPERED GLAZING
SH = SINGLE HUNG — (E) = EGRESS WINDOW

UNIT PLAN KEYNOTE

01 LINE OF FLOOR BELOW
02 LINE OF FLOOR ABOVE
03 LINE OF ROOF BELOW
04 TENANT SEPARATION WALL. SEE BUILDING COMPOSITE PLAN FOR DETAIL.
05 OVERFLOW DECK DRAIN TO VISIBLE EXIT
06 DECK DRAIN TO VISIBLE EXIT
07 ELASTOMERIC TOPPING OVER 2" LIGHT WEIGHT CONCRETE AS STORAGE CLOSET
08 DIRECT VENT; WATER HEATER VENT THRU ROOF
09 ELASTOMERIC WATERPROOF MEMBRANE: DESERT - CRETE INSTALL PER MANUFACTURE SPECIFICATIONS AND ICC REPORT ESR 1661
10 DECORATIVE WROUGHT IRON POT SHELF
11 DECORATIVE WROUGHT IRON GRILLE POT HOLDER
12 STUCCO FINISH SHEET AT 42"
13 STUCCO FINISH POTSHELF (SLOPE TO DRAIN)
14 SOFFIT - SEE ELEVATION FOR HEIGHT
15 PROVIDE (2) 14"x16" LOUVERED VENTS - (LOW VENT IN DOOR & HIGH VENT IN WALL
16A HIGH EFFICIENCY FAU DIRECT VENT; DIRECT VENT THRU NON-RATED ROOF; DRAFTSTOP AT CEILING LINE
16B HIGH EFFICIENCY FAU DIRECT VENT; DIRECT VENT THRU RATED FLOOR CEILING WITH APPROVED U.L. F.C. 2022 ON SHEET F3.5.2
17 FLASH HEATER
18 PROVIDE CONDENSATION PAN WITH DRAIN AT LAUNDRY AS BELOW
19 TIGHT FITTING SELF-CLOSING SOLID CORE 90 MIN. RATED DOOR & ASSEMBLY
20 5/8" TYPE X GYPSUM BOARD AT USABLE SPACE UNDER STAIR
21 TIGHT FITTING SELF-CLOSING SOLID CORE 1 HOUR RATED DOOR & ASSEMBLY
22 1 HOUR RATED 22X30 ACCESS PANEL; SELF-CLOSING - SEE DETAIL 17/F2.2.1
23 NON RATED 22X30 ACCESS PANEL
24 VOID SPACE (FIRE BLOCK)
25 SINGLE SHELF
26 SINGLE SHELF AND POLE
27 DOUBLE SHELF AND POLE
28 TEE SHELF AT TOP OF TUB
29 42" HIGH COUNTER ABOVE FINISH FLOOR
30 2'x6 WALL UNDER COUNTER
31 36" HIGH 2'x6 LOW WALL
32 34.5" HIGH 2'X4 LOW WALL
33 42" HIGH LOW WALL
34 BENCH
35 RATED ENTRY DOOR AT BUILDING 100 ONLY; 45 MIN. RATED DOOR AND 60 MIN. RATED DOOR FRAME
37 1066 FRAMED GLASS BLOCK
38 32"x60" TUB/SHOWER WITH CURTAIN ROD
39 42"x60" TUB
40 32"x48" SHOWER WITH TEMP. ENCLOSURE
41 36"x36" SHOWER WITH TEMP. ENCLOSURE
42 ABOVE SOFFIT - SEE ELEVATION FOR HEIGHT
43 SLOPED SOFFIT
44 60 MIN. RATED DOOR AND DOOR FRAME.

NOTE:
1. 76" HIGH MIN. SHOWER HEAD (78" HIGH FOR CULTURED MARBLE = OPTION)
2. SEE DETAIL 8/D-4.1 FOR INTERIOR SOFFIT OPENING AT UNIT.

KEYMAP: BUILDING 200 2nd LEVEL



PLANS APPROVED
CONSTRUCTION
Building & Safety Dept.
City of Las Vegas, Nevada
MT SEP 02 2009
Plans Approved, Plumbing, Mechanical, Electrical Or Other Engineering Subject to Change Without Approval Plan is Not a Permit to Violate Any Ordinance

CRAIG D. SMITH
REGISTERED
No. 4967
8-20-09
ARCHITECT
STATE OF NEVADA

RNM DESIGN
ARCHITECTURE
PLANNING
LANDSCAPE
GRAPHICS
RNMDESIGN.COM

2 CORPORATE PARK
SUITE 100
IRVINE, CALIFORNIA
92606
T 949.752.1800
F 949.833.9643

PROJECT NAME/ADDRESS

CORONADO
THE PASEOS
875 PANTARA PLACE
LAS VEGAS, NEVADA

CLIENT

SPINNAKER
HOMES
4511 W. CHEYENNE AVE. ST 105
NO. LAS VEGAS, CA 89032
702-873-7773
702-873-7776 FAX

REVISIONS

- 1 DELTA 1: PLAN CHECK CORRECTION
- 2 DELTA 2: PLAN CHECK CORRECTION
- 3 DELTA 3: PLAN CHECK CORRECTION
- 4 DELTA 4: PLAN CHECK CORRECTION

AUG 24 2009

THESE DRAWINGS AND IMAGES ART NOT TO BE REPRODUCED OR COPIED IN ANY FORM WITHOUT WRITTEN PERMISSION.
COPYRIGHT 2008 RNM DESIGN

DRAWING TITLE

UNIT C4:
FLOOR PLAN
& OPTION

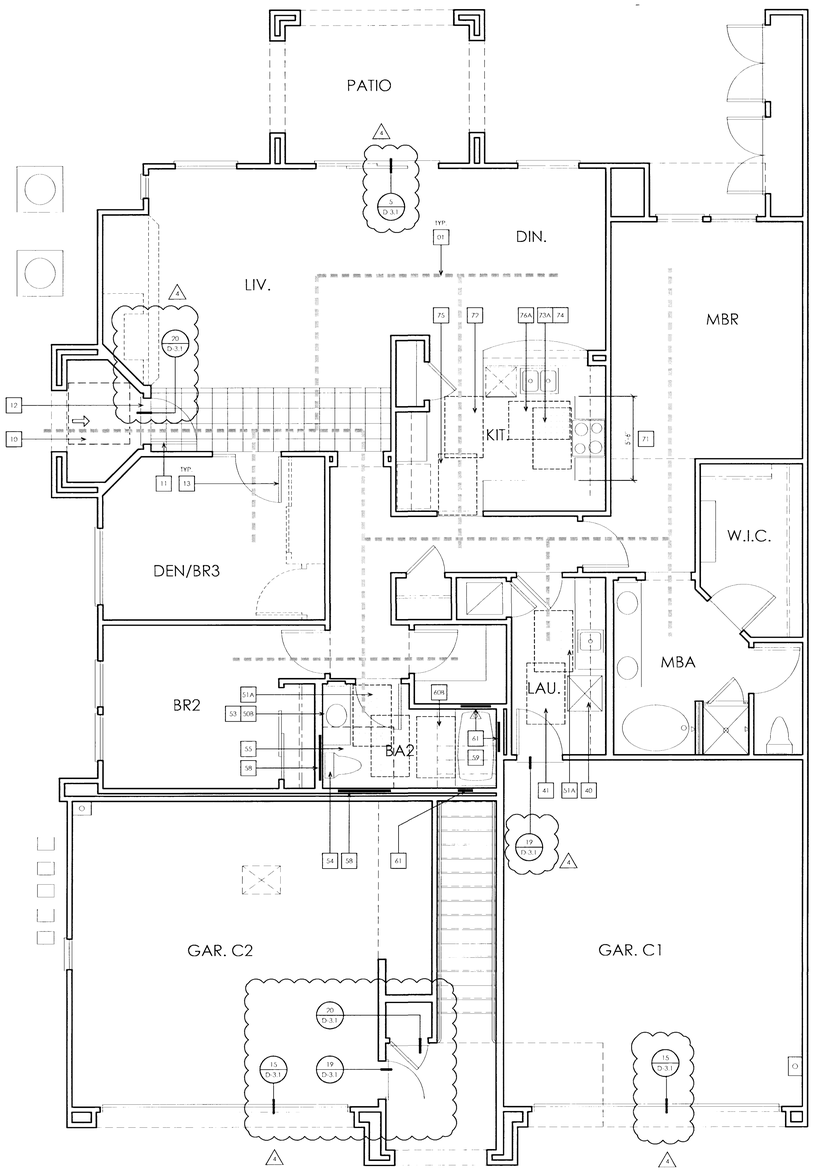
DRAWING INFORMATION

PROJ. NO: 08041
FIRST SUBMITTAL DATE: 02.24.2009
SCALE: 1/4" = 1'-0"

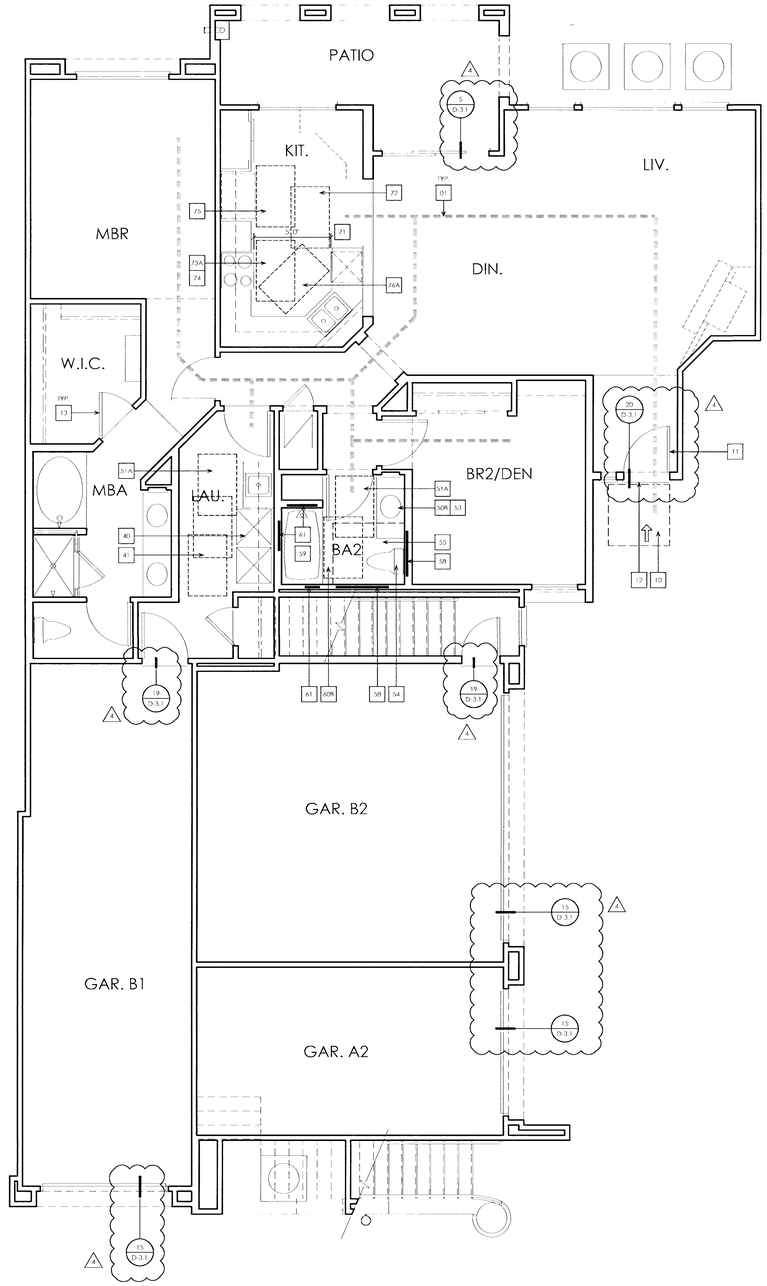
DRAWING NUMBER

A1-7.1

DELTA 4 - PLAN CHECK CORRECTION
08.12.09



UNIT C1: TYPE 'B' OPTION B BATHROOM



UNIT B1: TYPE 'B' OPTION B BATHROOM

TYPE 'B' ACCESSIBLITY UNIT KEYNOTES

The following keynotes are based upon the ANSI A117.2-2003 for Type B units. Refer to the ANSI A117.2-2003 for further clarification

ACCESSIBLE ROUTE [ANSI SEC. 1004.3] see sheet A0.1.1 requirement 1 for FHA requirements

1	ACCESSIBLE ROUTE THROUGH UNIT - Provide one accessible route connecting all spaces within the unit.	SEE DETAIL 4/D-0.4

DOORS AND DOORWAYS PER [ANSI 1004.5] see sheet A0.1.1 requirement 3 for FHA requirements

10	The primary entrance door shall have maneuvering clearances on the exterior side of the door only.	5/D-0.1
11	PROVIDE DOOR HARDWART PER ANSI 4.13.9 ON THE FRONT DOOR. Handles, pulls, latches, locks, and other operable parts shall have a shape that is easy to grasp with one hand and does not require tight grasping, pinching, or twisting of the wrist to operate. Hardware shall be mounted within reach ranges.	
12	FRONT DOOR THRESHOLD MUST COMPLY WITH 2" MAX. HEIGHT	
13	TYPICAL INTERIOR DOOR: MINIMUM CLEARANCE OF 32"	
14	30" x 48" Maneuvering Space Clear of Door Swing	

ELEVATORS [ANSI SEC. 1004.7]

20	ELEVATOR CONTROLS - shall comply with height and reach requirements.	16/D-0.4

OPERABLE PARTS [ANSI SEC. 1003.9]

30	TYPICAL OPPARTS PARTS OF LIGHTING CONTROLS, ELECTRICAL SWITCHES, RECEPTACLE OUTLETS, ENVIRONMENTAL CONTROLS AND USER CONTROLS OF SECURITY SYSTEMS SHALL COMPLY WITH ANSI REACH RANGES.	

LAUNDRY EQUIPMENT [ANSI SEC. 1004.10]

40	ACCESSIBLE WASHING MACHINE/DRYER	24/D-0.1
41	ACCESSIBLE SPACE AT WASHING MACHINE/DRYER - Provide a 30 x 48" clear space at the washer and dryer centered upon the appliance.	25/D-0.1

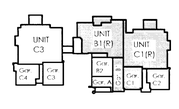
TOILET AND BATHING FACILITIES [ANSI SEC. 1004.11] see sheet A0.1.1 requirement 7 for FHA requirements

50a	ACCESSIBLE LAVATORY (option A)	29/D-0.2
50b	ACCESSIBLE LAVATORY (option B)	18/D-0.2
51a	30" x 48" CLEAR SPACE AT LAVATORY parallel approach	
51b	30" x 48" CLEAR SPACE AT LAVATORY forward approach	
57	CARRIERY UNDER LAVATORY TO BE REMOVABLE	
53	ACCESSIBLE MIRROR WITH LAVATORY	
54	ACCESSIBLE TOILET	9a/D-0.2
55	48" x 56" CLEAR SPACE AT TOILET Overlap exception parallel approach.	9b/D-0.2
56	48" x 66" CLEAR SPACE AT TOILET Overlap exception forward approach.	8c/D-0.2
57	56" x 60" CLEAR SPACE AT TOILET Parallel or forward approach.	9d/D-0.2
58	PROVIDE BACKING AT TOILET FOR GRAB BARS	2/D-0.3
59	ACCESSIBLE BATHTUB	
60A	30" X 48" PARALLEL APPROACH AT BATHTUB [Option A]	13/D-0.2
60B	30" X 48" PARALLEL APPROACH AT BATHTUB [Option B]	18/D-0.2
61	PROVIDE BACKING AT BATHTUB FOR GRAB BARS	24/D-0.2
67	ACCESSIBLE SHOWER [Transfer Type]	14/D-0.2
63	PROVIDE BACKING AT SHOWER FOR GRAB BARS a. TRANSFER TYPE b. STANDARD ROLL IN c. ALTERNATE ROLL IN	5/D-0.3 9/D-0.3 14/D-0.3
64	30" X 48" PARALLEL APPROACH AT SHOWER	16/D-0.2

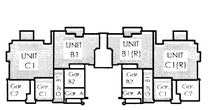
KITCHENS [ANSI SEC. 1004.12] see sheet A0.1.1 requirement 7 for FHA requirements

70	40" MIN. CLEARANCE Between opposing countertops	18/D-0.3
71	60" MIN. CLEARANCE Between opposing countertops at U-shaped kitchen.	18/D-0.3
72	30" x 48" CLEAR SPACE AT DISHWASHER adjacent to dishwasher, forward or parallel approach	24/D-0.3
73A	30" x 48" PARALLEL CLEAR SPACE AT COOKTOP centered upon appliance	20/D-0.4
73B	30" x 48" FORWARD CLEAR SPACE CENTERED UPON THE COOKTOP. Provide knee and toe clearance complying with Section 306.	20/D-0.4
74	30" x 48" CLEAR SPACE AT OVEN parallel or forward approach	20/D-0.4
75	30" X 48" CLEAR SPACE AT REFRIGERATOR parallel or forward approach	20/D-0.4
76A	30" x 48" PARALLEL CLEAR SPACE CENTERED ON THE KITCHEN SINK BOWL	20/D-0.4
76B	30" x 48" FORWARD OR PARALLEL CLEAR SPACE CENTERED ON THE KITCHEN SINK BOWL COMPLYING WITH SECTION 606. Provide knee and toe clearance complying with Section 306.	20/D-0.4

KEYMAP: BUILDING 200 1st LEVEL



KEYMAP: BUILDING 100 1st LEVEL



PLANS APPROVED
CONSTRUCTION
Building & Safety Dept.
Clark County, Nevada
MT SEP 02 2009
Does Not Include Structural, Plumbing, Mechanical, Electrical or Off-Site Improvements. Make No Change Without Approval. Plan Is Not a Permit to Violate Any Ordinance

CRAIG D. SMITH
REGISTERED
No. 4967
6-20-09
ARCHITECT
STATE OF NEVADA

RNM DESIGN
ARCHITECTURE
PLANNING
LANDSCAPE
GRAPHICS
RNMDESIGN.COM

2 CORPORATE PARK
SUITE 155
IRVINE, CALIFORNIA
92606
TEL 949.752.1800
FAX 949.833.9603

PROJECT NAME/ADDRESS

CORONADO THE PASEOS
875 PANTARA PLACE
LAS VEGAS, NEVADA

CLIENT

SPINNAKER HOMES
4511 W. CHEYENNE AVE. ST 105
NO. LAS VEGAS, CA 89032
702.873.7773
702.873.7776 FAX

REVISIONS

4	DELTA 4 - PLAN CHECK CORRECTION

AUG 24 2009

THESE DRAWINGS AND IMAGES ARE NOT TO BE REPRODUCED OR COPIED IN ANY FORM WITHOUT WRITTEN PERMISSION. COPYRIGHT 2008 RNM DESIGN

DRAWING TITLE

UNIT B1 & C1: TYPE 'B'

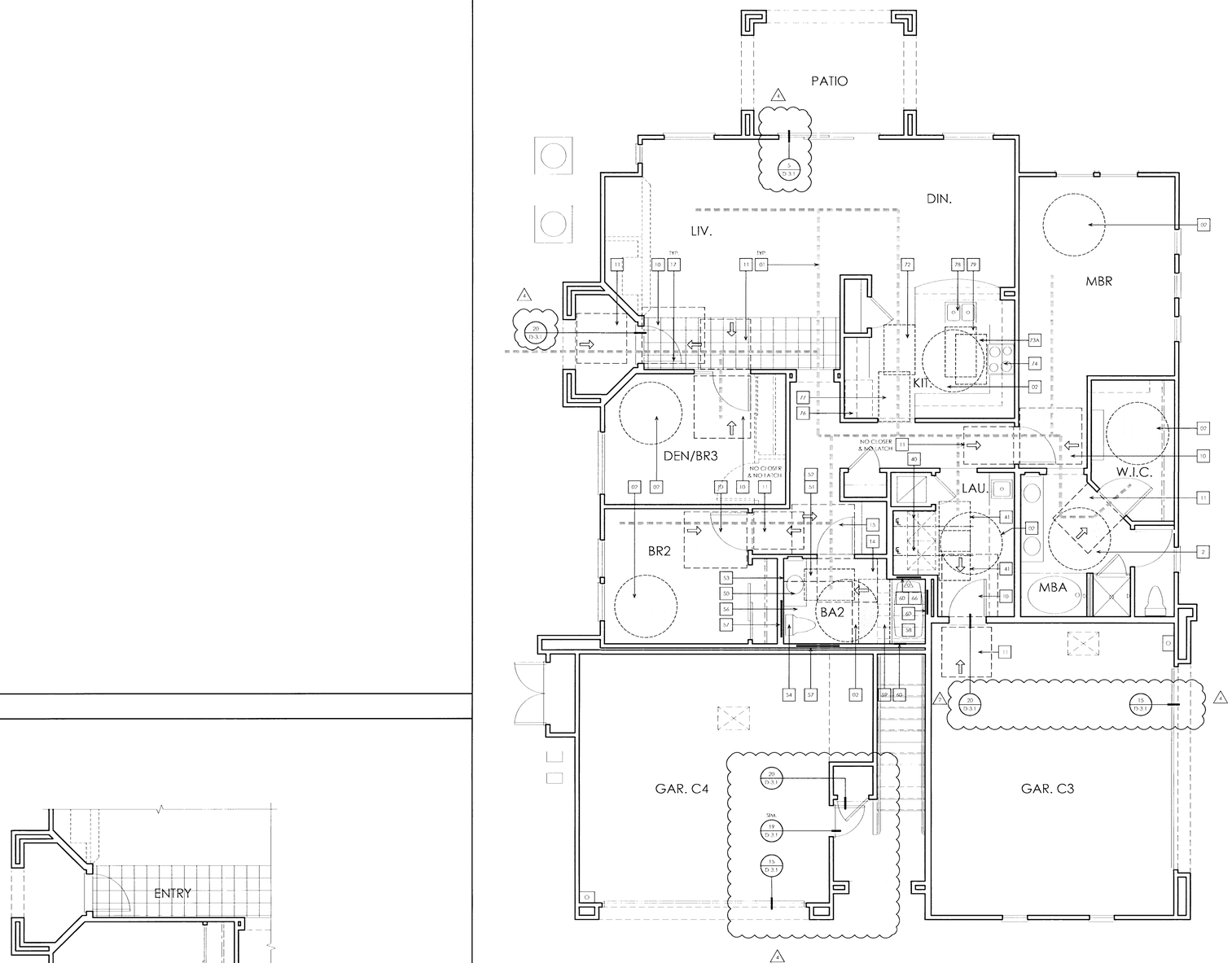
DRAWING INFORMATION

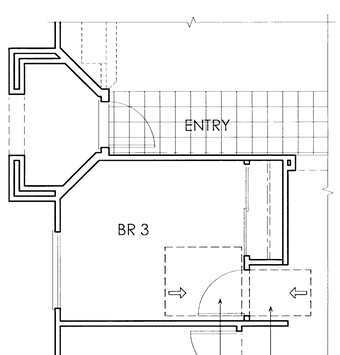
PROJ. NO:	08041
FIRST SUBMITTAL DATE:	02.24.2009
SCALE:	1/4" = 1'-0"

DRAWING NUMBER

A2-1.1

08.12.09 DELTA 4 - PLAN CHECK CORRECTION





UNIT C3 BEDROOM 3 OPTION: TYPE 'A' BATHROOM

UNIT C3: TYPE 'A' BATHROOM

TYPE 'A' ACCESSIBLITY UNIT KEYNOTES

The following keynotes are based upon the ANSI A117.2-2003 for type A units. Refer to the ANSI A117.2-2003 for further clarification.

	ACCESSIBLE ROUTE [ANSI SEC. 1003.3]	SEE DETAIL
1	ACCESSIBLE ROUTE THROUGH UNIT Provide one accessible route connecting all spaces within the unit	4/D-0.4
2	TYPICAL TURNING SPACE - Provide one turning space in all rooms connected by the accessible route	9/D-0.1
	DOORS AND DOORWAYS [ANSI SEC. 1003.5]	
10	MANEUVERING CLEARANCES FRONT APPROACH - pull side	5A/D-0.1
11	FRONT APPROACH - push side	5B/D-0.1
12	HINGE APPROACH - pull side	5C/D-0.1
13	HINGE APPROACH - pull side	5D/D-0.1
14	HINGE APPROACH - push side	5E/D-0.1
15	LATCH APPROACH - pull side	5F/D-0.1
16	LATCH APPROACH - push side	5G/D-0.1
17	PROVIDE DOOR HARDWARE PER ANSI A 13.9 Handles, pulls, latches, locks, and other operable parts shall have a shape that is easy to grasp with one hand and does not require tight grasping, pinching, or twisting of the wrist to operate. hardware shall be mounted within reach ranges	
	ELEVATORS [ANSI SEC. 1003.7]	
20	ELEVATOR CONTROLS - shall comply with height and reach requirements.	16/D-0.4
	OPERABLE PARTS [ANSI SEC. 1003.9]	
30	TYPICAL OPERABLE PARTS OF EQUIPMENT - shall comply with ANSI reach ranges.	
	LAUNDRY EQUIPMENT [ANSI SEC. 1003.10]	
40	ACCESSIBLE WASHING MACHINE/DRYER	24/D-0.1
41	ACCESSIBLE SPACE AT WASHING MACHINE/DRYER - Provide a 30 x 48" clear space at the washer and dryer centered upon the appliance.	25/D-0.1
	TOILET AND BATHING FACILITIES [ANSI SEC. 1003.11]	
50	ACCESSIBLE LAVATORY	25/D-0.2
51	CLEAR SPACE AT LAVATORY	15/D-0.2
52	CABINETRY UNDER LAVATORY TO BE REMOVABLE	15/D-0.2
53	ACCESSIBLE MIRROR BEHIND LAVATORY	
54	ACCESSIBLE TOILET	3/D-0.2
55	60" x 66" CLEAR SPACE AT TOILET Overlap exception	3/D 0.2
56	60" x 56" CLEAR SPACE AT TOILET	3/D 0.2
57	PROVIDE BACKING AT TOILET FOR GRAB BARS	7/D 0.3
58	ACCESSIBLE BATHTUB	
59	30" X 48" PARALLEL APPROACH AT BATHTUB	5/D 0.2
60	PROVIDE BACKING AT BATHTUB FOR GRAB BARS	24/D-0.2
61	ACCESSIBLE SHOWER [Transfer Type]	16/D 0.2
62	ACCESSIBLE SHOWER [Standard Roll-in type]	9/D 0.3
63	ACCESSIBLE SHOWER (Alternate Roll-in type)	10/D-0.3
64	PROVIDE BACKING AT SHOWER FOR GRAB BARS a. TRANSFER TYPE b. STANDARD ROLL-IN c. ALTERNATE ROLL-IN	5/D-0.3 9/D-0.3 14/D-0.3
65	30" X 48" PARALLEL APPROACH AT SHOWER	16/D 0.2
66	BATHTUB CONTROLS AND HAND SHOWER	24/D-0.2
	KITCHENS [ANSI SEC. 1003.12]	
70	40" MIN. CLEARANCE Between opposing countertops	18/D 0.3
71	60" MIN. CLEARANCE Between opposing countertops at U shaped kitchen.	18/D 0.3
72	30" x 48" CLEAR SPACE AT DISHWASHER adjacent to dishwasher, forward approach	25/D 0.3
73A	30" x 48" PARALLEL CLEAR SPACE AT COOKTOP centered upon appliance	25/D 0.4
73B	30" x 48" FORWARD CLEAR SPACE CENTERED UPON THE COOKTOP. Provide knee and toe clearance complying with Section 306.	25/D 0.4
74	ACCESSIBLE OVEN w/controls on the front panel on either side of the door and w/ counter space adjacent to the side of the oven.	25/D-0.4
75	30" x 48" CLEAR SPACE AT OVEN parallel approach	25/D-0.4
76	ACCESSIBLE REFRIGERATOR	25/D-0.4
77	30" X 48" PARALLEL CLEAR SPACE CENTERLINE OF THE DEDICATED SPACE. The centerline of the clear floor space shall be offset 24 inches maximum from the centerline of the dedicated space.	25/D 0.4
78	ACCESSIBLE SINK w/ removable cabinetry below Countertop shall be adjustable to variable heights	25/D 0.4 20/D 0.3 10/D-0.3
79	30" x 48" CLEAR SPACE AT KITCHEN SINK forward approach, kitchen flooring to extend under removable cabinetry	25/D-0.4 20/D-0.3
80	30" MIN. WIDE WORK SURFACE - Cabinetry under work surface to be removable.	10/D-0.3
81	30" x 48" CLEAR SPACE AT WORK SURFACE forward approach.	

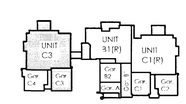
NOTES:

1. **BATHROOM 2** SHALL BE DESIGNATED AS THE BATHROOM COMPLYING WITH SECTION 1003.11 FOR ACCESSIBLE TOILET AND BATHING FACILITIES WITH TYPE 'A' UNITS

2. Doorways intended for user passage shall comply ICC/ANSI A117-.1-2003 Section 1004.5.2. (see detail 15 on sheet D-0.1)

PLANS APPROVED FOR CONSTRUCTION
Building & Safety Dept.
Clark County, Nevada
MT SEP 02 2009
Permit Number: [illegible]
Approval Does Not Authorize Violation Of Any Federal, State Or Local Laws, Ordinances Or Regulations
Improper Use Or Failure To Change Or Revise Approved Plans In Accordance With Applicable Codes Is Not A Permit To Violate Any Ordinance

KEYMAP: BUILDING 200 1st LEVEL



CRAIG D. SMITH
REGISTERED
No. 4967
8-20-09
ARCHITECT
STATE OF NEVADA

RNM

RNM DESIGN
ARCHITECTURE
PLANNING
LANDSCAPE
GRAPHICS
RNMDESIGN.COM

2 CORPORATE PARK
SUITE 100
IRVINE, CALIFORNIA
92606
(949) 752-1800
(949) 833-9603

PROJECT NAME/ADDRESS

CORONADO THE PASEOS
875 PANTARA PLACE
LAS VEGAS, NEVADA

CLIENT

SPINNAKER HOMES
4511 W. CHEYENNE AVE. ST 105
NO. LAS VEGAS, CA 89032
702-873-7773
702-873-7776 FAX

REVISIONS

2	DELTA 2: PLAN CHECK CORRECTION
4	DELTA 4: PLAN CHECK CORRECTION

AUG 26 2009

THESE DRAWINGS AND IMAGES ARE NOT TO BE REPRODUCED OR COPIED IN ANY FORM WITHOUT WRITTEN PERMISSION.
COPYRIGHT 2008 RNM DESIGN

DRAWING TITLE

UNIT C3: TYPE 'A'

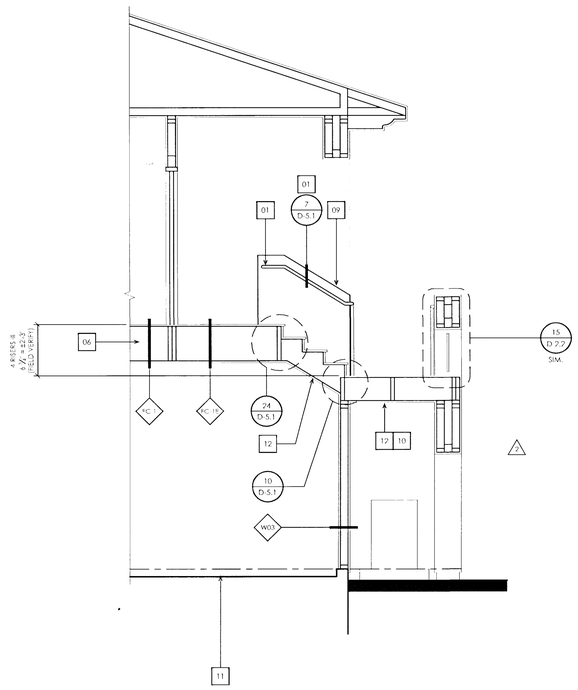
DRAWING INFORMATION

PROJ. NO:	08041
FIRST SUBMITTAL DATE:	02.24.2009
SCALE:	1/4" = 1'-0"

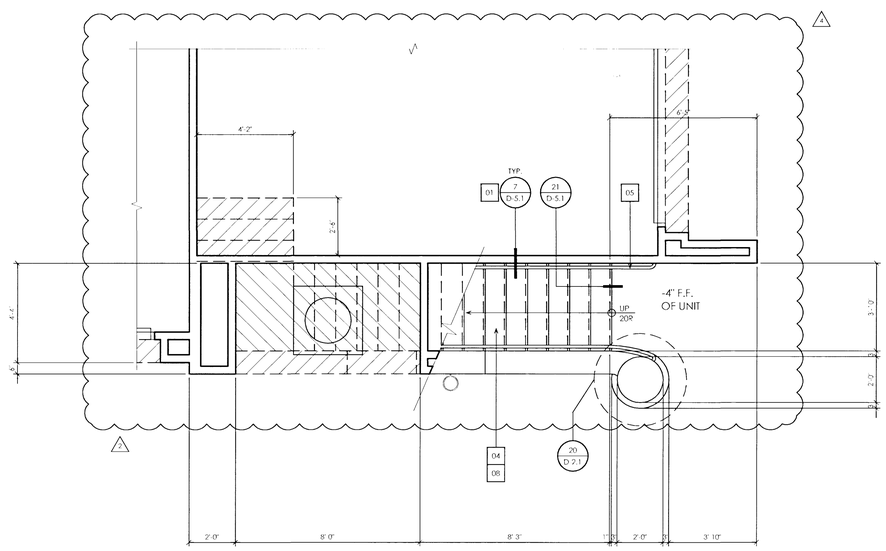
DRAWING NUMBER

A2-2.1

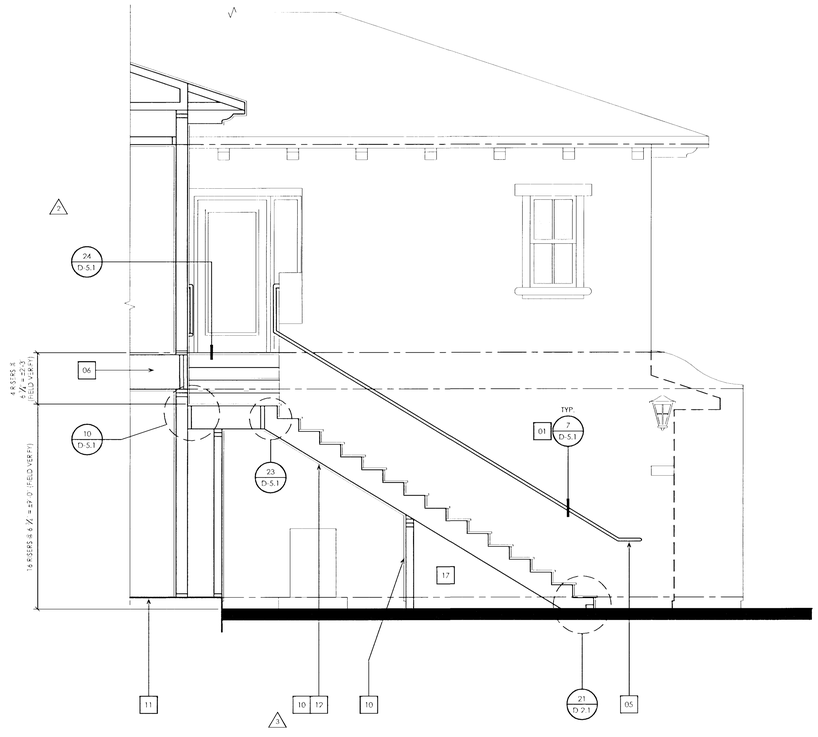
DELTA 4 - PLAN CHECK CORRECTION 08.12.09



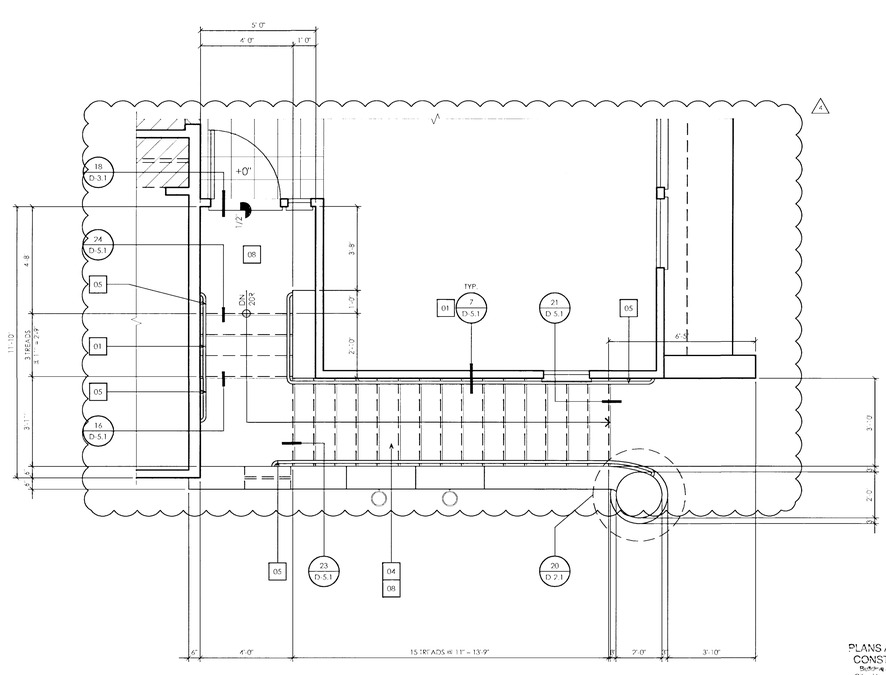
UNIT A2: STAIR SECTION 2



UNIT A2: 1ST LEVEL STAIR FLOOR PLAN



UNIT A2: STAIR SECTION 1



UNIT A2: 2ND LEVEL STAIR FLOOR PLAN

STAIR NOTES

1. Mark upper approach and the lower thread at each flight of each stair by a strip 2" wide place strip parallel to and not more than 1" from nose of step of landing to alert the visually impaired. The strip is required to be of materials at least as slip-resistant as the other treads of stairs and to be of a clearly contrasting.

2. 80" clear is required for headroom in walks, halls, corridors, passageways, aisles and other circulation spaces.

3. Where stairways occur outside a building, the upper approach and all treads shall be marked with a 2" strip.

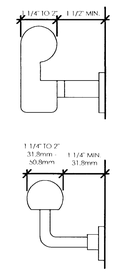
4. Braill indentification indicating floor and travel direction located at the top and bottom of each stair run.

5. Rise and run: The run of every step is required to be less than 10" as measured horizontally between vertical planes of the furthermost projection of adjacent treads.

6. Treads in the stairs that may be used by a disabled person. The treads are required to be smooth, rounded or chamfered without abrupt edges at the lower front edge of nosing.

7. Nosing shall not project more than 1½" past face of riser.

8. Closed risers shall sufficiently solid to prevent passage of objects larger than ⅜" maximum dimension.



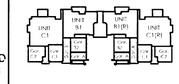
GRAPHIC LEGEND

	SEE COMPOSITE FLOOR PLAN FOR SPECIFIC WALL TYPE (A10.1.1, A10.1.2, A20.1.1, A20.1.2 & A1.1.1)
	SOFFIT OR DROPPED CEILING (See detail 1, 2, 3, 5 & 10 on sheet 2.2.2)

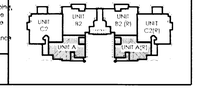
STAIR PLAN KEYNOTES

01 WALL MOUNTED METAL HANDRAIL
02 STEEL PIPE STAIR RAIL
03 GUARDRAIL
04 TYPICAL WOOD TREAD
05 HANDRAIL EXTENSION - SEE DETAIL 15/D 5.1
06 OPEN WEB WOOD TRUSS ASSEMBLY
07 LIGHT WEIGHT CONCRETE TOPPING
08 DESERT CREAM TOPPING
09 LOW WALL MIN. 42" A.F.F.
10 STUCCO FINISH UNDERSIDE OF STAIR
11 CONCRETE SLAB
12 TWO LAYERS OF ⅝" TYPE 'X' GYPSUM BOARD (STAIR ASSEMBLY PER IBC 2006 TABLE 720.1 ITEM # 21.1.1 (SEE SHEET FS-2.1)
13 ONE LAYER OF ⅝" TYPE 'X' GYPSUM BOARD
14 CARPET FINISH
15 STUFF CAVITY FULL OF INSULATION
16 2/" HEIGHT MAX. RAILING FOR CANE DETECTION BARRIER
17 UN-USEABLE SPACE UNDERNEATH THE STAIR

KEYMAP: BUILDING 100 1st LEVEL



KEYMAP: BUILDING 100 2nd LEVEL



PLANS APPROVED
CONSTRUCTION
Building & Safety Dept.
City of Las Vegas

MT SEP 02 2009

Does Not Include Any Provisions Of Building, Mechanical Electrical Or Fire Code. Improvements Made No Changes Without Approval Plan Is Not a Permit to Violate Any Ordinance

CRAIG D. SMITH
REGISTERED
No. 4967
8-20-09
ARCHITECT
STATE OF NEVADA

RNM

RNM DESIGN
ARCHITECTURE
PLANNING
LANDSCAPE
GRAPHICS
RNMDESIGN.COM

2677 TELLER AVENUE
NEWPORT BEACH
CALIFORNIA
92660
(949) 752 1800
(949) 833 9603

PROJECT NAME/ADDRESS

PROJECT NAME
PROJECT TYPE AND ADDITIONAL INFORMATION
CITY, STATE ZIP

CLIENT

DEVELOPER'S LOGO/NAME
ADDRESS
CITY, STATE, ZIP
PHONE
FAX

REVISIONS

2	DELTA 2: PLAN CHECK CORRECTION
3	DELTA 3: PLAN CHECK CORRECTION
4	DELTA 4: PLAN CHECK CORRECTION

AUG 26 2009

THESE DRAWINGS AND IMAGES ARE NOT TO BE REPRODUCED OR COPIED IN ANY FORM WITHOUT WRITTEN PERMISSION COPYRIGHT 2008 RNM DESIGN

DRAWING TITLE

UNIT A2: STAIR FLOOR PLAN & STAIR SECTION

PLOT DESCRIPTION

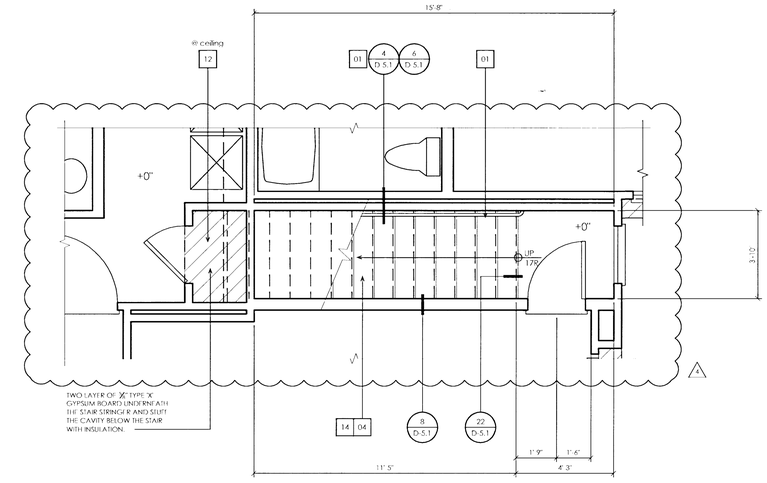
DRAWING INFORMATION

PROJ. NO: XXXXX
FIRST SUBMITTAL DATE: XX.XX.XXXX
SCALE: 3/8"=1'-0"

PLOT DATE

DRAWING NUMBER

A3-1.1



UNIT B1: 1ST LEVEL PRIVATE STAIR FLOOR PLAN

STAIR NOTES

1. Mark upper approach and the lower thread of each flight of each stair by a min 2" wide place strip parallel to and not more than 1" from nose of step of landing to alert the visually impaired. The strip is required to be of materials at least as slip resistant as the other treads of stairs and to be of a clearly contrasting.

2. 80" clear is required for headroom in walks, halls, corridors, passageways, aisles and other circulation spaces.

3. Where stairways occur outside a building, the upper approach and all treads shall be marked with a 2" strip.

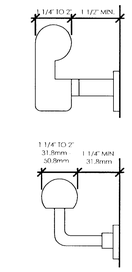
4. Brail indentification indicating floor and travel direction located at the top and bottom of each stair run.

5. Rise and run: The run of every step is required to be less than 10" as measured horizontally between vertical planes of the furthermost projection of adjacent treads.

6. Treads in the stairs that may be used by a disabled person. The treads are required to be smooth, rounded or chamfered without abrupt edges at the lower front edge of nosing.

7. Nosing shall not project more than 1½" past face of riser.

8. Closed risers shall sufficiently solid to prevent passage of objects larger than ⅜" maximum dimension.

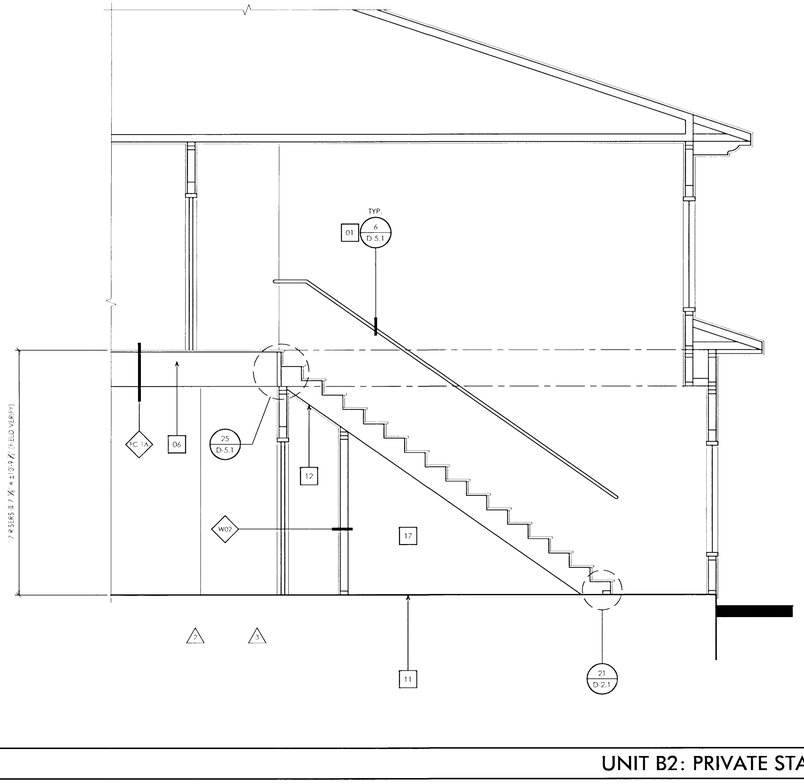


GRAPHIC LEGEND

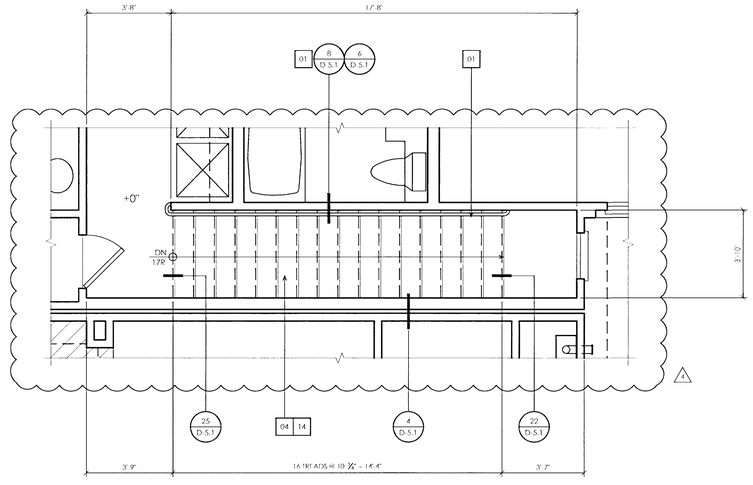
	SEE COMPOSITE FLOOR PLAN FOR SPECIFIC WALL TYPE (A10.1.1, A10.1.2, A20.1.1, A20.1.2 & F1.1.1)
	SOFFIT OR DROPPED CEILING (See detail 1, 2, 3, 5 & 10 on Sheet F2.2.2)

STAIR PLAN KEYNOTES

01 WALL MOUNTED METAL HANDRAIL
02 STEEL PIPE STAIR RAIL
03 GUARDRAIL
04 TYPICAL WOOD TREAD
05 HANDRAIL EXTENSION - SEE DETAIL 15/D-5.1
06 OPEN WEB WOOD TRUSS ASSEMBLY
07 LIGHT WEIGHT CONCRETE TOPPING
08 DESERT CAVE TOPPING
09 LOW WALL MIN. 42" A.F.F.
10 STUCCO FINISH UNDERSIDE OF STAIR
11 CONCRETE SLAB
12 TWO LAYERS OF ⅝" TYPE 'X' GYPSUM BOARD (STAIR ASSEMBLY PER IBC 2006 TABLE 720.1 ITEM # 21-1.1 (SEE SHEET F3.2.1)
13 ONE LAYER OF ⅝" TYPE 'X' GYPSUM BOARD
14 CARPET FINISH
15 STUFF CAVITY FULL OF INSULATION
16 27" HEIGHT MAX. RAILING FOR CANE DETECTION BARRIER
17 UN-USEDABLE SPACE UNDERNEATH THE STAIR

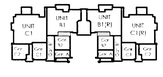


UNIT B2: PRIVATE STAIR SECTION 1

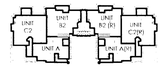


UNIT B2: 2ND LEVEL PRIVATE STAIR FLOOR PLAN

KEYMAP: BUILDING 100 1st LEVEL

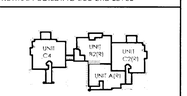


KEYMAP: BUILDING 100 2nd LEVEL



KEYMAP: BUILDING 200 1st LEVEL

KEYMAP: BUILDING 200 2nd LEVEL



PLANS APPROVED
CONSTRUCTION
Building Code by Dept.
Clark County, Nevada
MT SEP 02 2009
Dept. of Comprehensive Planning, Building and Safety
Mechanical, Structural or Other Non-Impact Code Rules No Changes Without Approval This is Not a Permit to Violate Any Ordinance

RNM DESIGN
ARCHITECTURE
PLANNING
LANDSCAPE
GRAPHICS
RNMDESIGN.COM

2 CORPORATE PARK
SUITE 100
IRVINE, CALIFORNIA
92606
T 949.752.1800
F 949.833.9603

PROJECT NAME/ADDRESS

CORONADO THE PASEOS
875 PANTARA PLACE
LAS VEGAS, NEVADA

CLIENT

SPINNAKER HOMES
4511 W. CHEYENNE AVE. ST 105
NO. LAS VEGAS, CA 89032
702-873-7773
702-873-7776 FAX

REVISIONS

2 DELTA 2: PLAN CHECK CORRECTION
3 DELTA 3: PLAN CHECK CORRECTION
4 DELTA 4: PLAN CHECK CORRECTION

THESE DRAWINGS AND IMAGES ARE NOT TO BE REPRODUCED OR COPIED IN ANY FORM WITHOUT WRITTEN PERMISSION. COPYRIGHT 2008 RNM DESIGN

DRAWING TITLE

UNIT B2: PRIVATE STAIR FLOOR PLAN & PRIVATE STAIR SECT.

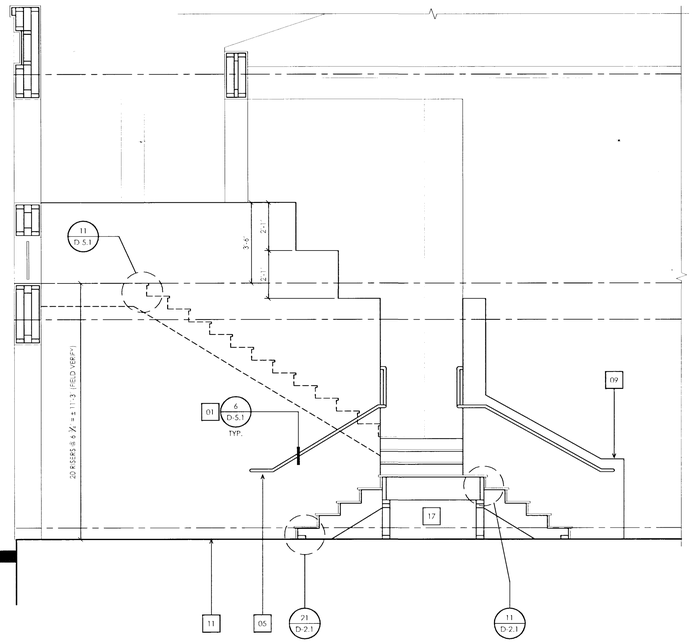
DRAWING INFORMATION

PROJ. NO: 08041
FIRST SUBMITTAL DATE: 02.24.2009
SCALE: 3/8"=1'-0"

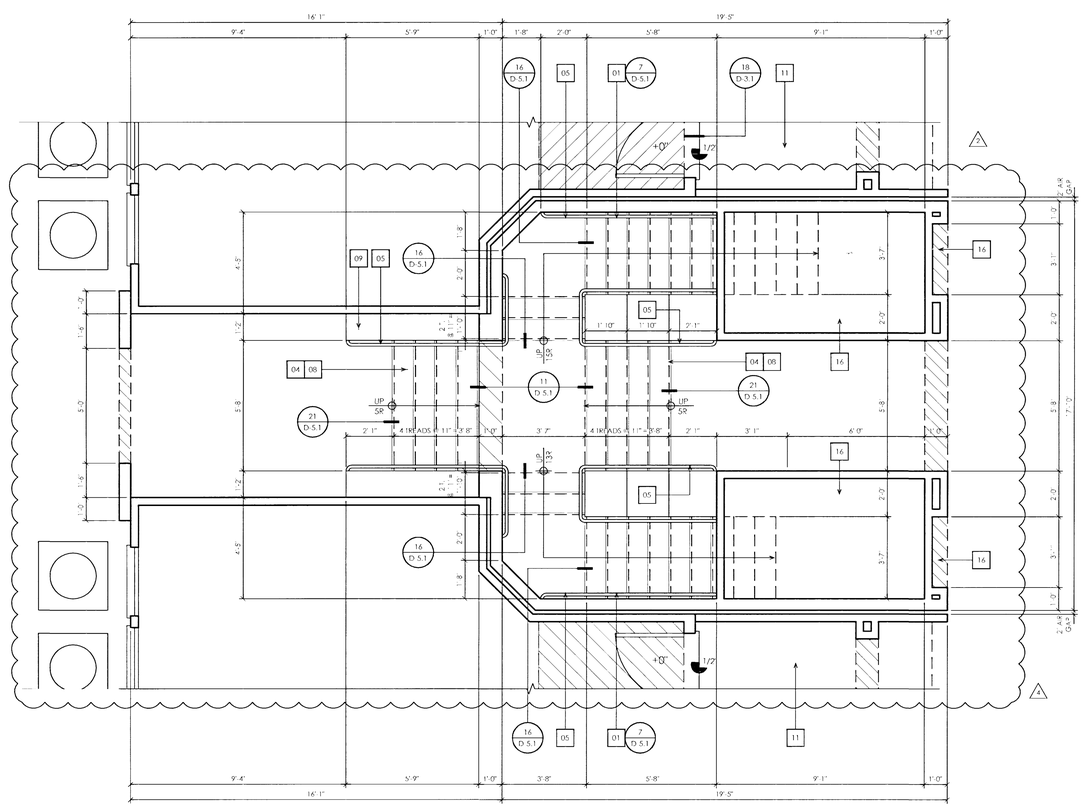
DRAWING NUMBER

A3-3.1

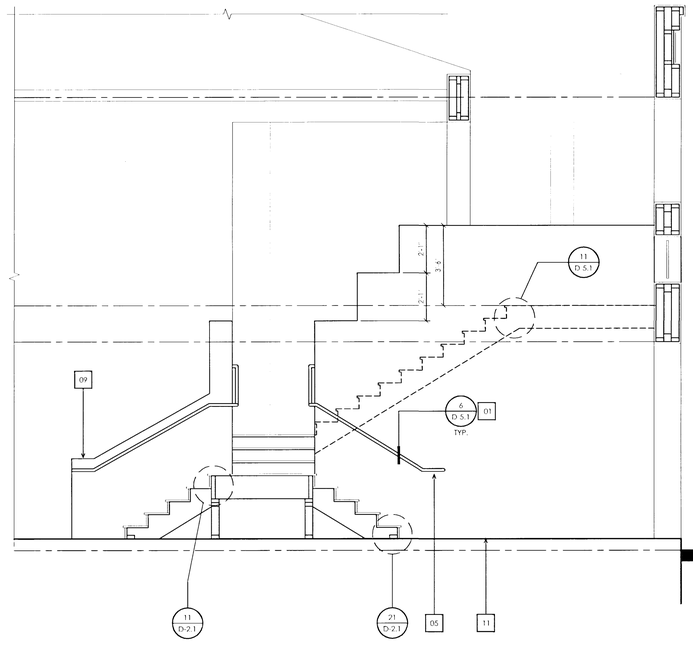
DELTA 4 - PLAN CHECK CORRECTION 08.12.09



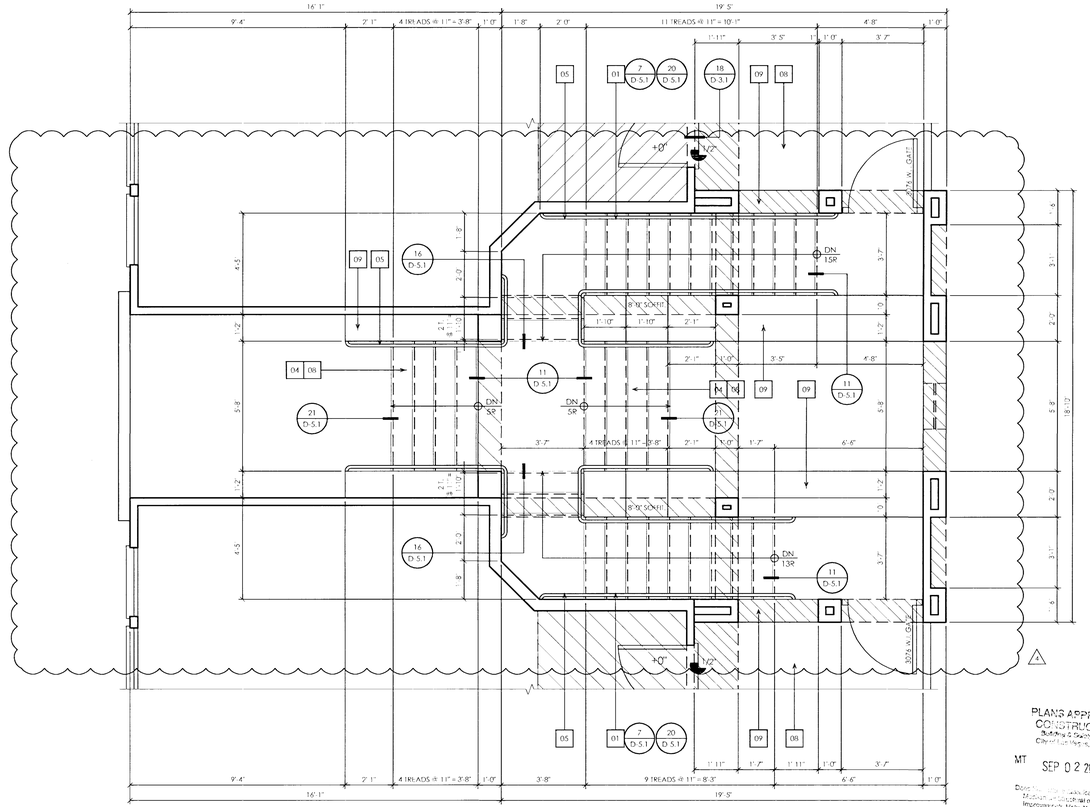
UNIT B2: STAIR SECTION 1



UNIT B2: 1ST LEVEL STAIR FLOOR PLAN



UNIT B2: STAIR SECTION 2



UNIT B2: 2ND LEVEL STAIR FLOOR PLAN

PLANS APPROVED
CONSTRUCTION
Building & Safety Dept.
City of Las Vegas, Nevada
MT SEP 02 2009
Approval of Construction Documents Shall Not Be Construed as a Permit for, or an Approval of, Any Violation of Any Provisions of the Building Code or Other Ordinances of the City. Permit Presumed to Give Authority to Violate or Cancel the Provisions of the Building Code or Other Ordinances of the City. Approval of Construction Documents Based on Plans Known to Be in Violation of Any Ordinance Shall Not Prevent the Building Official from Thereafter Requiring Corrections of Errors in Plans, Construction or Violations of This Code. All Work Must Conform to the Approved Plans.

STAIR NOTES

1. Mark upper approach and the lower thread of each flight of each stair by a strip 2" wide place strip parallel to and not more than 1" from nose of step of landing to alert the visually impaired. The strip is required to be of materials of least as slip resistant as the other treads of stairs and to be of a clearly contrasting.

2. 80" clear is required for headroom in walks, halls, corridors, passageways, aisles and other circulations spaces.

3. Where stairways occur outside a building, the upper approach and all treads shall be marked with a 1" strip.

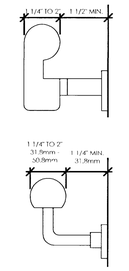
4. Braf indentification indicating floor and travel directions located at the top and bottoms of each stair run.

5. Rise and run: The rim of every step is required to be less than 18" as measured horizontally between vertical planes of the furthermost projection of adjacent treads.

6. Treads in the stairs that may be used by a disabled person. The treads are required to be smooth, rounded or chamfered without abrupt edges at the lower front edge of nosing.

7. Nosing shall not project more than 1 1/2" past face of rism.

8. Closed risers shall sufficiently solid to prevent passage of objects larger than 1/2" maximum dimension.



GRAPHIC LEGEND

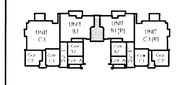
SET COMPOSITE FLOOR PLAN FOR SPECIFIC WALL TYPE (A10.1.1, A10.1.2, A20.1.1, A20.1.2 & F1.1.1)

SOFFIT OR DROPPED CEILING (See detail 1, 2, 3, 5 & 10 on sheet F2.2.2)

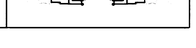
STAIR PLAN KEYNOTES

01 WALL MOUNTED METAL HANDRAIL
02 STEEL PIPE STAIR RAIL
03 GUARDRAIL
04 TYPICAL WOOD TREAD
05 HANDRAIL EXTENSION. SEE DETAIL 15/D-5.1
06 OPEN WEB WOOD TRUSS ASSEMBLY
07 LIGHT WEIGHT CONCRETE TOPPING
08 DESIGN CRETE TOPPING
09 LOW WALL MIN. 42" A.F.F.
10 STUCCO FINISH UNDERSIDE OF STAIR
11 CONCRETE STAIR
12 TWO LAYERS OF 5/8" TYPE 'X' GYPSUM BOARD (S.I.A.R. ASSEMBLY PER IBC 2006 TABLE 720.1 ITEM # 21-1.1 (SEE SHEET F3.2.1)
13 ONE LAYER OF 5/8" TYPE 'X' GYPSUM BOARD
14 CARPET FINISH
15 SURF-CAVITY FULL OF INSULATION
16 27" HEIGHT MAX. RAILING FOR CANE DETECTION BARRIER
17 UN-USEDABLE SPACE UNDERNEATH THE STAIR

KEYMAP: BUILDING 100 1st LEVEL



KEYMAP: BUILDING 100 2nd LEVEL



CRAIG D. SMITH
ARCHITECT
No. 4567
8-20-09
REGISTERED
STATE OF NEVADA

RNM DESIGN
ARCHITECTURE
PLANNING
LANDSCAPE
GRAPHICS
RNMDESIGN.COM

2 CORPORATE PARK
SUITE 100
IRVINE, CALIFORNIA
92606
(949) 752-1800
(949) 833-9603

PROJECT NAME/ADDRESS

CORONADO
THE PASEOS
875 PANTARA PLACE
LAS VEGAS, NEVADA

CLIENT

SPINNAKER
HOMES
4511 W. CHEYENNE AVE. ST 105
NO. LAS VEGAS, CA 89032
702-873-7773
702-873-7776 FAX

REVISIONS

1 DELTA 2: PLAN CHECK CORRECTION
2 DELTA 3: PLAN CHECK CORRECTION
3 DELTA 4: PLAN CHECK CORRECTION

AUG 20 2009

THESE DRAWINGS AND IMAGES ARE NOT TO BE REPRODUCED OR COPIED IN ANY FORM WITHOUT WRITTEN PERMISSION. COPYRIGHT 2008 RNM DESIGN

DRAWING TITLE

UNIT B2:
STAIR FLOOR
PLAN & STAIR
SECTION

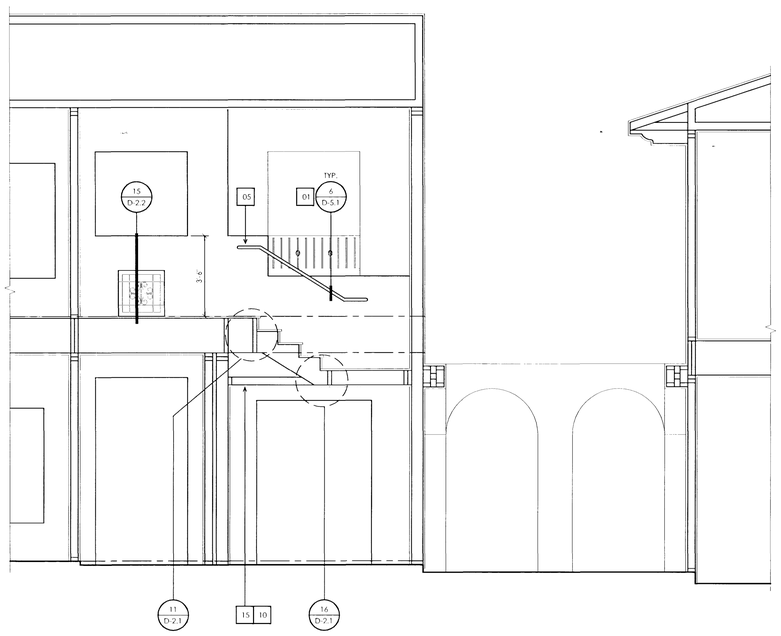
DRAWING INFORMATION

PROJ. NO:	08041
FIRST SUBMITTAL DATE:	02.24.2009
SCALE:	3/8"=1'-0"

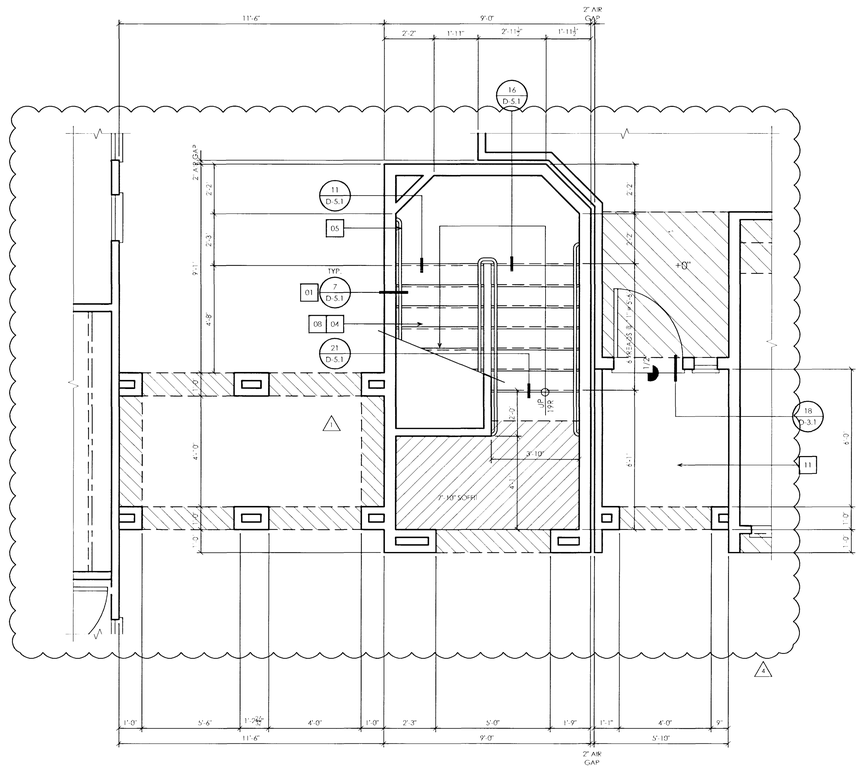
DRAWING NUMBER

A3-3.2

DELTA 4 - PLAN CHECK CORRECTION
08.12.09



UNIT B2 @ BUILDING 36: STAIR SECTION 2



UNIT B2 @ BUILDING 36: 1ST LEVEL STAIR FLOOR PLAN

STAIR NOTES

1. Mark upper approach and the lower thread of each flight of each stair by a strip 2" wide place strip parallel to and not more than 1" from nose of step of landing to alert the visually impaired. The strip is required to be of materials at least as slip resistant as the other treads of stairs and to be of a clearly contrasting.

2. 80" clear is required for headroom in walks, halls, corridors, passageways, aisles and other circulation spaces.

3. Where stairways occur outside a building, the upper approach and all treads shall be marked with a 2" strip.

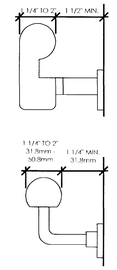
4. Braill identification indicating floor and travel direction located at the top and bottom of each stair run.

5. Rise and run: The run of every step is required to be less than 10" as measured horizontally between vertical planes of the furthermost projection of adjacent treads.

6. Treads in the stairs that may be used by a disabled person. The treads are required to be smooth, rounded or chamfered without abrupt edges at the lower front edge of nosing.

7. Nosing shall not project more than 1½" past face of riser.

8. Closed risers shall sufficiently solid to prevent passage of objects larger than ⅜" maximum dimension.



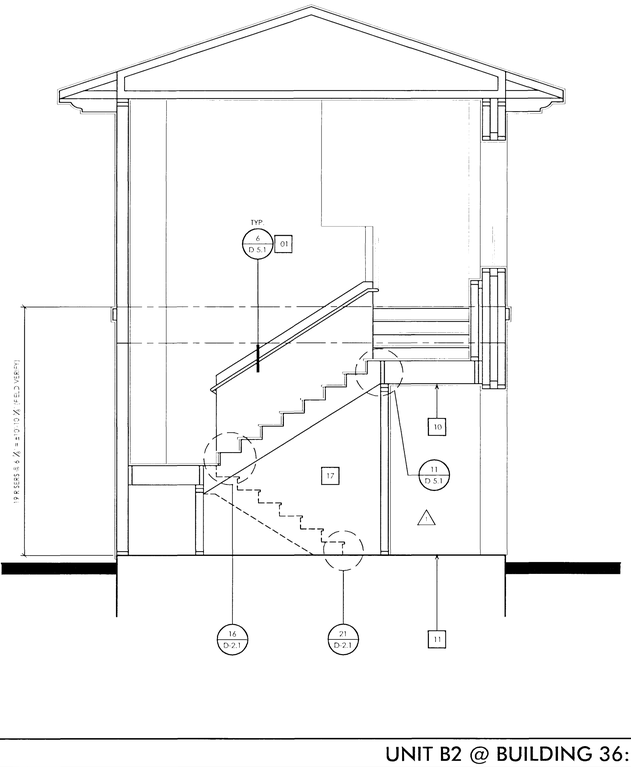
HANDRAILS

GRAPHIC LEGEND

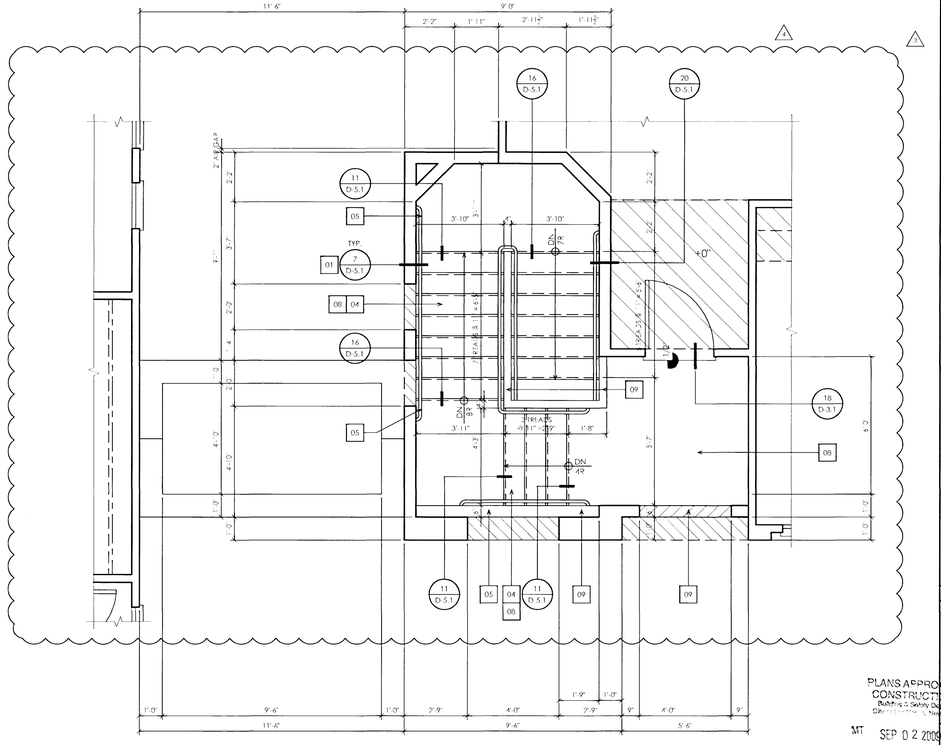
	SEE COMPOSITE FLOOR PLAN FOR SPECIFIC WALL TYPE (A10.1.1, A10.1.2, A20.1.1, A20.1.2 & 11.1.1)
	SOFFIT OR DROPPED CEILING (See detail 1, 2, 3, 5 & 10 on sheet H2.2.2)

STAIR PLAN KEYNOTES

01 WALL MOUNTED METAL HANDRAIL
02 STEEL PIPE STAIR RAIL
03 GUARDRAIL
04 TYPICAL WOOD TREAD
05 HANDRAIL EXTENSION - SEE DETAIL 15/D-5.1
06 OPEN WEB WOOD TRUSS ASSEMBLY
07 LIGHT WEIGHT CONCRETE TOPPING
08 DESERT CRUSE TOPPING
09 LOW WALL MIN. 42" A.F.F.
10 STUCCO FINISH UNDERSIDE OF STAIR
11 CONCRETE STAIR
12 TWO LAYERS OF ⅝" TYPE 'X' GYPSUM BOARD (STAIR ASSEMBLY PER IBC 2006 TABLE 720.1 ITEM # 21-1.1 (SEE SHEET H3.2.1)
13 ONE LAYER OF ⅝" TYPE 'X' GYPSUM BOARD
14 CARPET FINISH
15 STUFF CAVITY FULL OF INSULATION
16 27" HEIGHT MAX. RAILING FOR CANE DETECTION BARRIER
17 UN-USEDABLE SPACE UNDERNEATH THE STAIR



UNIT B2 @ BUILDING 36: STAIR SECTION 1



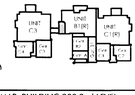
UNIT B2 @ BUILDING 36: 2ND LEVEL STAIR FLOOR PLAN

PLANS APPROVED
CONSTRUCTION
Building & Safety Dept.
By: [illegible]

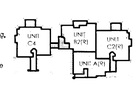
MT SEP 02 2009

Does not include Zoning, Grading, Flooding, Mapping, or Other Requirements
Approval Is Not To Be Changed Without Approval From All
Not a Permit to Violate Any Ordinance

KEYMAP: BUILDING 200 1st LEVEL



KEYMAP: BUILDING 200 2nd LEVEL



CRAIG D. SMITH
REGISTERED
No. 4967
6-20-09
ARCHITECT
STATE OF NEVADA

RNM

RNM DESIGN
ARCHITECTURE
PLANNING
LANDSCAPE
GRAPHICS
RNMDESIGN.COM

2 CORPORATE PARK
SUITE 100
IRVINE, CALIFORNIA
92606
T 949.752.1800
F 949.833.9603

PROJECT NAME/ADDRESS

CORONADO THE PASEOS
875 PANTARA PLACE
LAS VEGAS, NEVADA

CLIENT

SPINNAKER HOMES
4511 W. CHEYENNE AVE. ST 105
NO. LAS VEGAS, CA 89032
702-873-7773
702-873-7776 FAX

REVISIONS

1 DELTA 1: PLAN CHECK CORRECTION
3 DELTA 3: PLAN CHECK CORRECTION
4 DELTA 4: PLAN CHECK CORRECTION

AUG 20 2009

THESE DRAWINGS AND IMAGES ARE NOT TO BE REPRODUCED OR COPIED IN ANY FORM WITHOUT WRITTEN PERMISSION
COPYRIGHT 2008 RNM DESIGN

DRAWING TITLE

UNIT B2 @ BLDG 36: STAIR FLOOR PLAN & STAIR SECTION

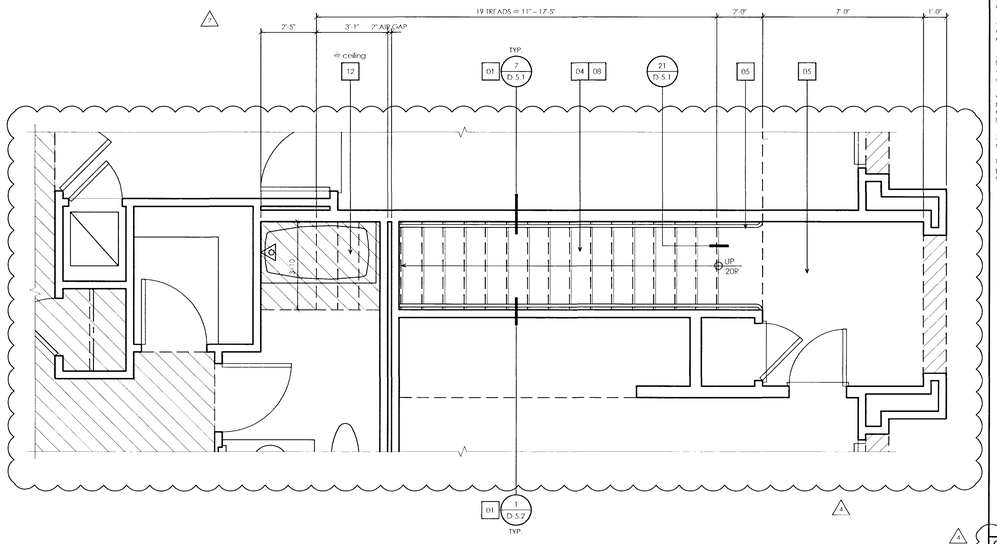
DRAWING INFORMATION

PROJ. NO:	08041
FIRST SUBMITTAL DATE:	02.24.2009
SCALE:	3/8" = 1'-0"

DRAWING NUMBER

A3-3.3

DELTA 4 - PLAN CHECK CORRECTION 08.12.09



UNIT C2: 1ST LEVEL STAIR FLOOR PLAN

UNIT C2: STAIR SECTION 1

PLANS APPROVED
CONSTRUCTION
Building & Safety Dept.
City of Las Vegas, Nevada

MT SEP 02 2009

Does Not Include Mechanical, Plumbing, Electrical Components Or Site Improvements. Make No Change Without Approved Plan. Is Not a Permit to Violate Any Ordinance

UNIT C2: 2ND LEVEL STAIR FLOOR PLAN

STAIR NOTES

1. Mark upper approach and the lower thread of each flight of each stair by a strip 2" wide place strip parallel to and not more than 1" from nose of step of landing to alert the visually impaired. The strip is required to be of materials at least as slip resistant as the other treads of stair and to be of a clearly contrasting.

2. 80" clear is required for headroom in walks, halls, corridors, passageways, aisles and other circulation spaces.

3. Where stairways occur outside a building, the upper approach and all treads shall be marked with a 3" strip.

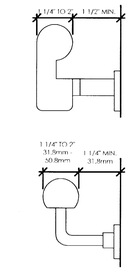
4. Braill identification indicating floor and travel direction located at the top and bottom of each stair run.

5. Rise and run: The run of every step is required to be less than 10" as measured horizontally between vertical planes of the furthermost projection of adjacent treads.

6. Treads in the stairs that may be used by a disabled person. The treads are required to be uniform, rounded or chamfered without abrupt edges at the lower front edge of nosing.

7. Nosing shall not project more than 1 1/2" past face of riser.

8. Closed risers shall sufficiently solid to prevent passage of objects larger than 1/2" maximum dimension.



HANDRAILS

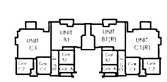
GRAPHIC LEGEND

	SEE COMPOSITE FLOOR PLAN FOR SPECIFIC WALL TYPE (A10.1.1, A10.1.2, A20.1.1, A20.1.2 & A1.1.1)
	SOFFIT OR DROPPED CEILING (See detail 1, 2, 3, 5 & 10 on sheet A2.2.2)

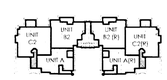
STAIR PLAN KEYNOTES

01 WALL MOUNTED METAL HANDRAIL
02 STEEL PIPE STAIR RAIL
03 GUARDRAIL
04 TYPICAL WOOD TREAD
05 HANDRAIL EXTENSION - SEE DETAIL 15/D 5.1
06 OPEN WEB WOOD TRUSS ASSEMBLY
07 LIGHT WEIGHT CONCRETE TOPPING
08 DESERT CRETE TOPPING
09 LOW WALL MIN. 42" A.F.F.
10 STUCCO FINISH UNDERSIDE OF STAIR
11 CONCRETE STAIR
12 TWO LAYERS OF 5/8" TYPE 'X' GYPSUM BOARD (STAIR ASSEMBLY PER IBC 2006 TABLE 720.1 ITEM # 21-1.1 (SEE SHEET A3-2.1)
13 ONE LAYER OF 5/8" TYPE 'X' GYPSUM BOARD
14 CARPET FINISH
15 STUD CAVITY FULL OF INSULATION
16 27" HEIGHT MAX. RAILING FOR CANE DETECTION BARRIER
17 UN-USEDABLE SPACE UNDERNEATH THE STAIR

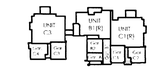
KEYMAP: BUILDING 100 1st LEVEL



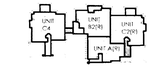
KEYMAP: BUILDING 100 2nd LEVEL



KEYMAP: BUILDING 200 1st LEVEL



KEYMAP: BUILDING 200 2nd LEVEL



CRAIG D. SMITH
REGISTERED
No. 4967
8-20-09
ARCHITECT
STATE OF NEVADA

RNM

RNM DESIGN
ARCHITECTURE
PLANNING
LANDSCAPE
GRAPHICS
RNMDESIGN.COM

2 CORPORATE PARK
SUITE 100
IRVINE, CALIFORNIA
92606
T 949.752.1800
F 949.833.9603

PROJECT NAME/ADDRESS

CORONADO THE PASEOS
875 PANTARA PLACE
LAS VEGAS, NEVADA

CLIENT

SPINNAKER HOMES
4511 W. CHEYENNE AVE. ST 105
NO. LAS VEGAS, CA 89032
702-873-7773
702-873-7776 FAX

REVISIONS

2	DELTA 2: PLAN CHECK CORRECTION
3	DELTA 3: PLAN CHECK CORRECTION
4	DELTA 4: PLAN CHECK CORRECTION

AUG 24 2009
CITY OF LAS VEGAS

THESE DRAWINGS AND IMAGES ARE NOT TO BE REPRODUCED OR COPIED IN ANY FORM WITHOUT WRITTEN PERMISSION. COPYRIGHT 2008 RNM DESIGN

DRAWING TITLE

UNIT C2: STAIR FLOOR PLAN & STAIR SECTION

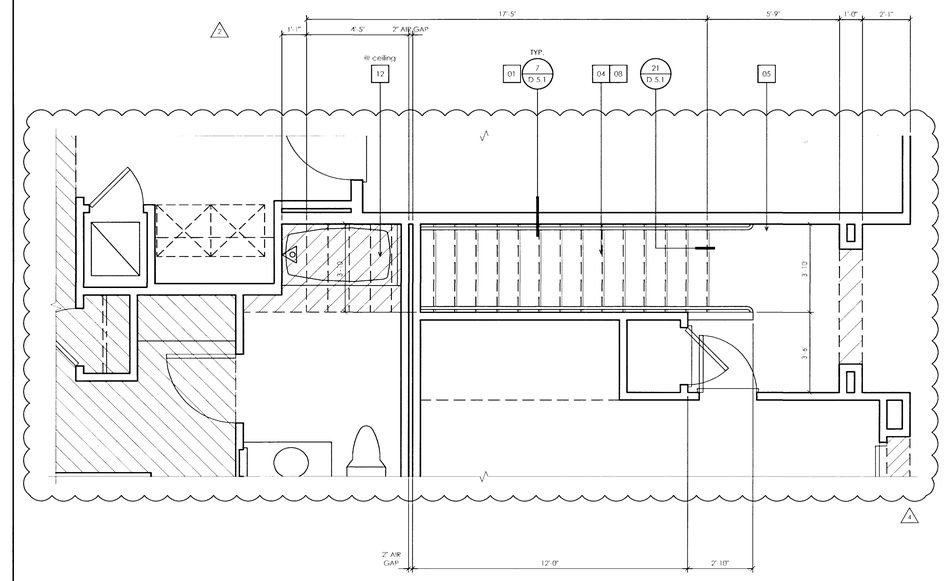
DRAWING INFORMATION

PROJ. NO: 08041
FIRST SUBMITTAL DATE: 02.24.2009
SCALE: 3/8"=1'-0"

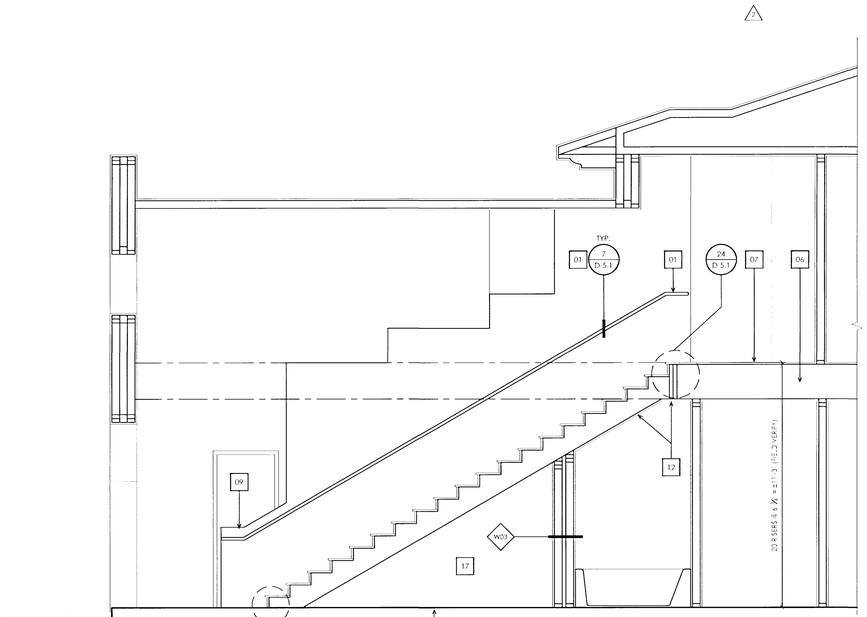
DRAWING NUMBER

A3-5.1

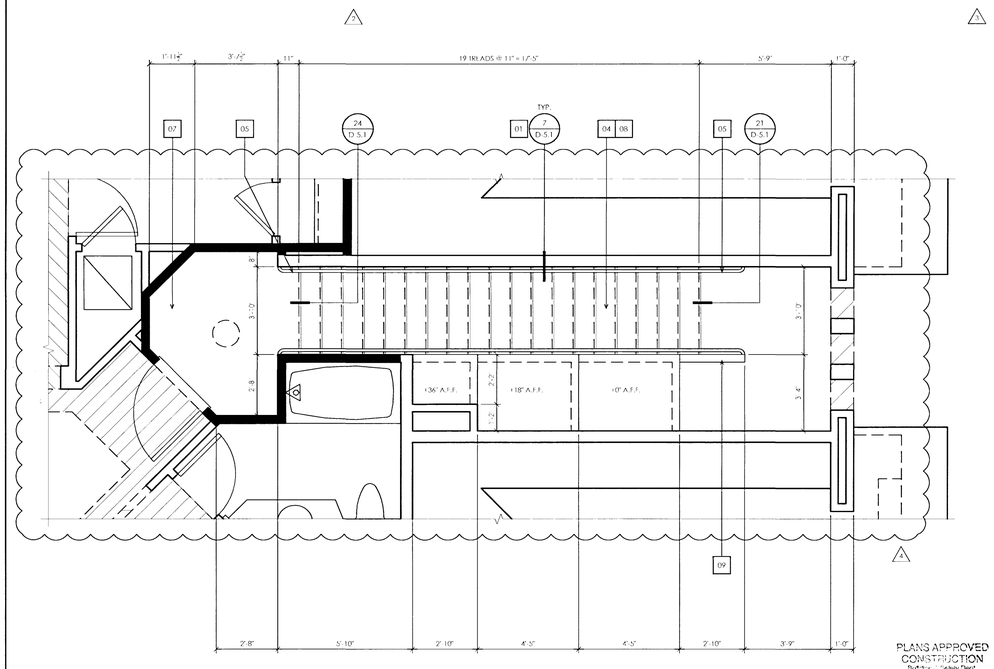
08.12.09 DELTA 4 - PLAN CHECK CORRECTION



UNIT C4: 1ST LEVEL STAIR FLOOR PLAN



UNIT C4: STAIR SECTION 1



UNIT C4: 2ND LEVEL STAIR FLOOR PLAN

PLANS APPROVED
CONSTRUCTION
Building & Safety Dept.
Las Vegas, Nevada

MT SEP 02 2009

Do not scale drawings. Job Plumbing, Mechanical, Electrical or Off-Site Improvements Notes No Change Without Approval Plan is Not is Permit to Violate Any Ordinance

STAIR NOTES

1. Mark leading edge of each tread and the lower tread of each flight of each stair by a strip 2" wide placed parallel to and not more than 1" from nose of step of landing to alert the visually impaired. The strip is required to be of materials at least as slip resistant as the other treads of stairs and to be of a cleanly contrasting.

2. 80" clear is required for headroom in walks, halls, corridors, passageways, aisles and other circulation spaces.

3. Where stairways occur outside a building, the upper approach and all treads shall be marked with a 2" strip.

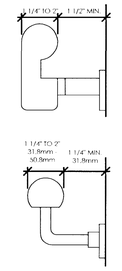
4. Brail indentification indicating floor and travel direction located at the top and bottom of each stair run.

5. Rise and run: The run of every step is required to be less than 10" as measured horizontally between vertical planes of the furthermost projection of adjacent treads.

6. Treads in the stairs that may be used by a disabled person. The treads are required to be smooth, rounded or chamfered without abrupt edges at the lower front edge of nosing.

7. Nosing shall not project more than 1 ½" past face of riser.

8. Closed risers shall sufficiently solid to prevent passage of objects larger than ⅜" maximum dimension.



HANDRAILS

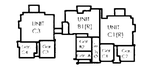
GRAPHIC LEGEND

	SEE COMPOSITE FLOOR PLAN FOR SPECIFIC WALL TYPE (A10.1.1, A10.1.2, A20.1.1, A20.1.2 & F1.1.1)
	SOFFIT OR DROPPED CEILING [See detail 1, 2, 3, 5 & 10 on sheet F2.2.2]

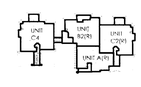
STAIR PLAN KEYNOTES

01 WALL MOUNTED METAL HANDRAIL
02 STEEL PIPE STAIR RAIL
03 GUARDRAIL
04 TYPICAL WOOD TREAD
05 HANDRAIL EXTENSION - SEE DETAIL 15/D 5.1
06 OPEN WEB WOOD TRUSS ASSEMBLY
07 LIGHT WEIGHT CONCRETE TOPPING
08 DESERT CRETE TOPPING
09 LOW WALL MIN. 42" A.F.F.
10 STUCCO FINISH UNDERSIDE OF STAIR
11 CONCRETE SLAB
12 TWO LAYERS OF ⅝" TYPE 'X' GYPSUM BOARD [STAIR ASSEMBLY PER IBC 2006 TABLE 720.1 ITEM # 21-1.1 (SEE SHEET F3-2.1)]
13 ONE LAYER OF ⅝" TYPE 'X' GYPSUM BOARD
14 CARPET FINISH
15 STUFF CAVITY FULL OF INSULATION
16 27" HIGHT MAX. RAILING FOR CANE DETECTION BARRIER
17 UN-USEDABLE SPACE UNDERNEATH THE STAIR

KEYMAP: BUILDING 200 1st LEVEL



KEYMAP: BUILDING 200 2nd LEVEL



CRAIG D. SMITH
CERTIFICATE
No. 4967
6-20-09
REGISTERED
ARCHITECT
STATE OF NEVADA

RNM

RNM DESIGN
ARCHITECTURE
PLANNING
LANDSCAPE
GRAPHICS
RNMDESIGN.COM

2 CORPORATE PARK
SUITE 100
IRVINE, CALIFORNIA
92606
T 949.752.1800
F 949.833.9603

PROJECT NAME/ADDRESS

CORONADO THE PASEOS
875 PANTARA PLACE
LAS VEGAS, NEVADA

CLIENT

SPINNAKER HOMES
4511 W. CHEYENNE AVE. ST 105
NO. LAS VEGAS, CA 89032
702-873-7773
702-873-7776 FAX

REVISIONS

2 DELTA 2: PLAN CHECK CORRECTION
3 DELTA 3: PLAN CHECK CORRECTION
4 DELTA 4: PLAN CHECK CORRECTION

MAR 20 2009

THESE DRAWINGS AND IMAGES ARE NOT TO BE REPRODUCED OR COPIED IN ANY FORM WITHOUT WRITTEN PERMISSION. COPYRIGHT 2008 RNM DESIGN

DRAWING TITLE

UNIT C4: STAIR FLOOR PLAN & STAIR SECTION

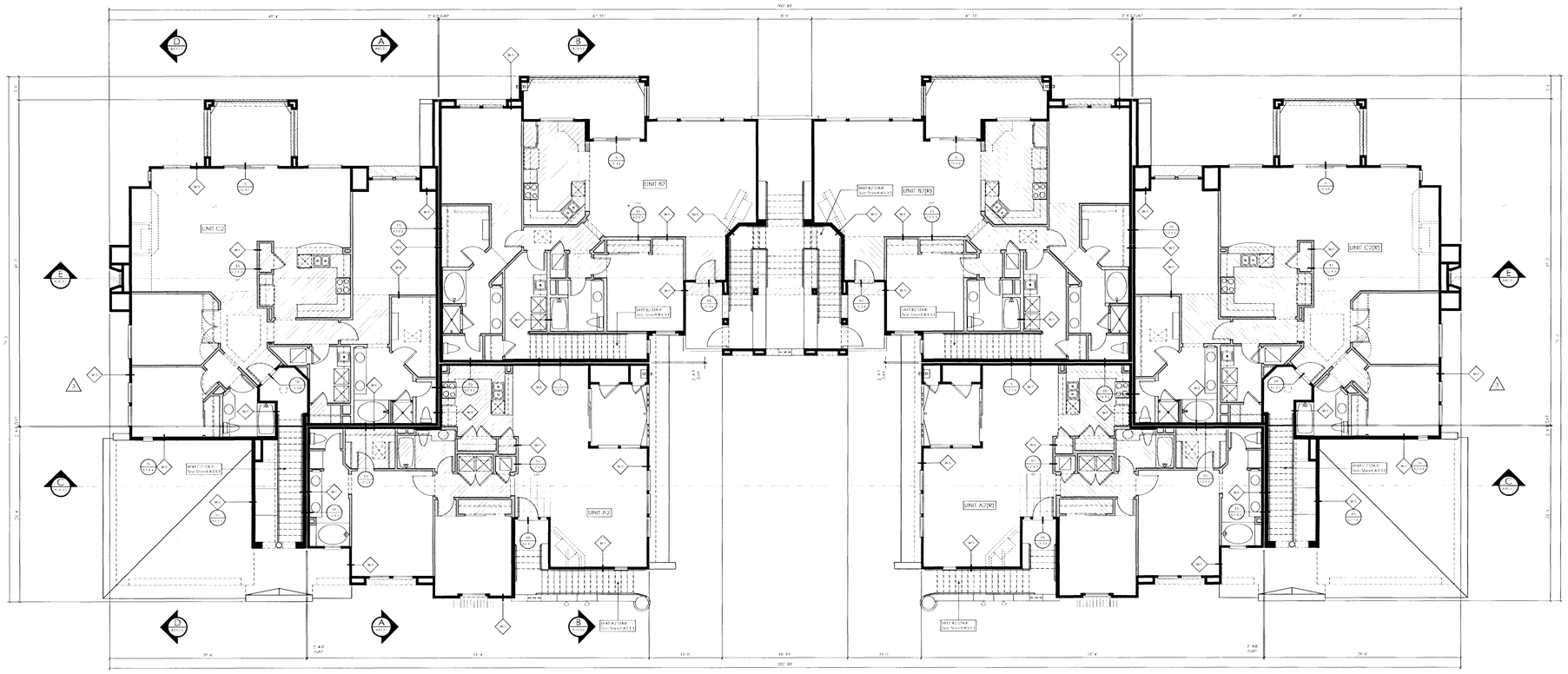
DRAWING INFORMATION

PROJ. NO:	08041
FIRST SUBMITTAL DATE:	02.24.2009
SCALE:	3/8" = 1'-0"

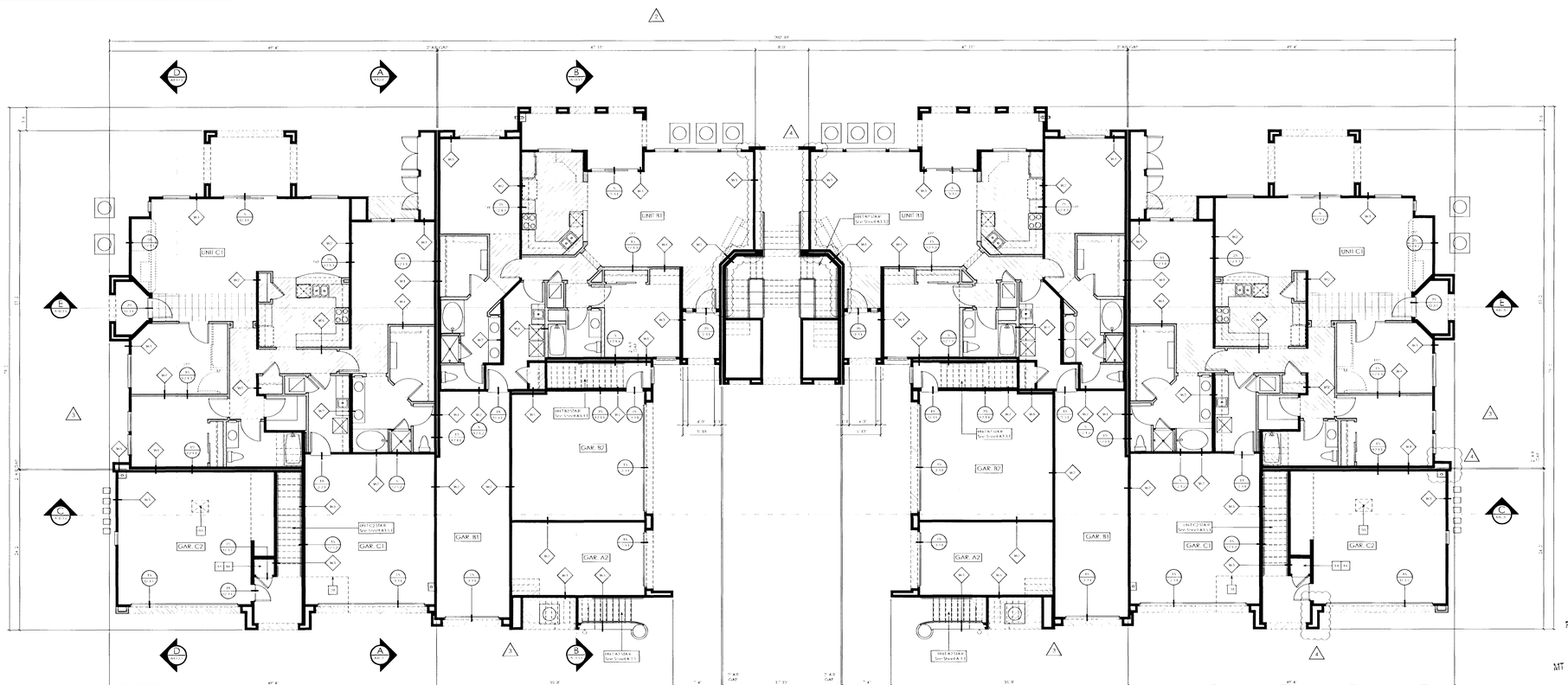
DRAWING NUMBER

A3-7.1

DELTA 4 - PLAN CHECK CORRECTION 08.12.09



BUILDING 100: 2ND LEVEL COMPOSITE FLOOR PLAN



BUILDING 100: 1ST LEVEL COMPOSITE FLOOR PLAN

COMPOSITE PLAN GENERAL NOTES

TYPICAL FIRE RATED CONSTRUCTION NOTES

This building contains components and assemblies which are required to achieve an hourly fire rating. Please see the assembly and detail call-outs for specific hourly requirements. In order to achieve the required ratings, the assembly test reports must be carefully followed. Please see the T sheets for specific test references.

1. THROUGH PENETRATIONS OF RATED ASSEMBLIES SHALL COMPLY WITH 13.4.1 to 13.4.2 SHEET3
2. MEMBRANE PENETRATIONS FOR ELECTRICAL BOXES SHALL COMPLY WITH DETAILS 2/P2.2-2.1 OR 4/P2.2-2.1
3. MEMBRANE PENETRATIONS FOR UTILITY BOXES OR OTHER NON RATED ITEMS GREATER THAN 16 SQ. INCHES SHALL COMPLY WITH DETAILS 11/P2.2-2.1, 14/P2.2-2.1
4. ABANDONED PENETRATION HOLES SHALL COMPLY WITH 14/P2.2-2.1
5. LIGHT FIXTURE PENTRATIONS SHALL COMPLY WITH 18/P2.2-2.1
6. VENT PENETRATIONS THROUGH EXTERIOR WALLS SHALL COMPLY WITH 21/P2.2-2.1

FIRE BLOCKS AND DRAFT STOPS IN COMBUSTIBLE CONSTRUCTION:

1. Fireblocking shall be provided in the following locations:
   a. In concealed spaces of stud walls and partitions, including furred spaces, at the ceiling and floor levels and at 10 foot intervals, both vertical and horizontal.
   b. At all interconnections between concealed vertical and horizontal spaces such as occur at soffits, drop ceilings and cove ceilings.
   c. In concealed spaces between stair stringers at the top and bottom of the run and between stud walls along and in line with the run of stairs if the walls under the stairs are unfinished.
   d. In openings around vents, pipes, ducts, chimneys, fireplaces and similar openings which afford a passage for fire at ceiling and floor levels, with noncombustible materials.
   e. At openings between attic spaces and chimney chases for factory-built chimneys.
2. Fireblocking shall consist of 2 inches nominal lumber, gypsum board, cement asbestos board, mineral fiber, glass fiber or other approved materials securely fastened in place. Loose fill insulation material shall not be used as a fire block unless specifically fire tested.
3. Draft stops shall be installed in floor-ceiling assemblies of buildings, having more than one dwelling unit. Such draft stops shall be in line with walls separating individual dwelling units.
4. Draft stops shall be installed in the attics, overhangs, false fronts set on fire walls and similar concealed spaces of buildings containing more than one dwelling unit. Such draft stops shall be above and in line with the walls separating individual dwelling units.
5. Draft stopping materials shall not be less than 1/2 inch gypsum board, 3/8 inch wood structural panel, 3/8 inch type 2-M particle board or other approved materials adequately supported. Openings in the partitions shall be protected by self-closing doors with automatic latches constructed as required for the partitions.

GRAPHIC LEGEND

	NON-BEARING WALL (NON RATED) SEE DETAIL 8/P2.2-2.2 FOR CONNECTION TO RATED FLOOR CEILING ASSEMBLY AND SEE SHEET F1.1-1.1
	RATED STRUCTURAL WALL BEARING OR SHEAR WALL. SEE WALL CALL OUTS ON PLAN FOR ASSEMBLY. SEE SHEET F1.1-1
	SOFFIT OR DROPPED CEILING (See detail 1, 2, 3, 5 & 10 on sheet F2.2-2)

COMPOSITE PLAN SYMBOLS

WALL DESIGNATION — SEE SHEET F1.1-1.1 FOR WALL TYPES

ASSEMBLY MODIFIER — XXX (X, X)

DETAIL MODIFIER

13	KEYNOTE REFERENCE
12 / D-1.1	DETAIL REFERENCE

COMPOSITE PLAN KEYNOTES

01 LINE OF FLOOR ABOVE
02 LINE OF FLOOR BELOW
03 22" X 30" MIN. 1 HOUR RATED ATTIC ACCESS PANEL. SEE DETAIL 17/P2.2-2.1
04 24"x36" MICRO 5 FOR ACCESS TO SPRINKLER RISER - VERIFY WITH FIRE DEPARTMENT
05 RUN 5/8"TYPE X GYP BD. BEHIND TUB AND SHOWERS
06 ELASTOMERIC WATERPROOF DECKING. SLOPE TO DRAIN
07 SEE ACCOUSTICAL REPORT FOR SPECIAL RECOMMENDATIONS AT HARD SURFACE INSTALLATIONS
08 SEE ACCOUSTICAL REPORT FOR SPECIAL RECOMMENDATIONS AT BATHTUBS
09 SEE ACCOUSTICAL REPORT FOR SPECIAL RECOMMENDATIONS AT UNIT SEPARATION WALLS
10 VOID SPACE - FIREBLOCK AT MAX 10'-0" INTERVALS
11 FAU, HORIZONTAL VENT TO EXT PRIOR
12 EXPECT VENT BY PLACE
13 FAU VENT THRU ROOF
14 PRT ROCK CONDITION
15 PRL ROCK AT FAU PLATFORM
16 RISER ROOM

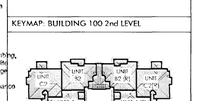
WALL TYPES

SEE SHEET F1.1-1.1 FOR WALL TYPES

W1 TENANT SEPARATION
W2 INTERIOR RATED WALL
W3 EXTERIOR WALL
W4 NON RATED WALL

KEYMAP: BUILDING 100 1st LEVEL

KEYMAP: BUILDING 100 2nd LEVEL



PLANS APPROVED
CONSTRUCTION
Building & Safety Dept.
City of Las Vegas, Nevada
MT SEP 02 2009

Plumbing, Mechanical, Electrical Or Other Improvements Made To Change Without Approval Plans Is Not a Permit to Violate Any Ordinance

CRAIG D. SMITH
Registered
No. 4967
9-30-09
ARCHITECT
STATE OF NEVADA

RNM

RNM DESIGN
ARCHITECTURE
PLANNING
LANDSCAPE
GRAPHICS
RNMDESIGN.COM

2 CORPORATE PARK
SUITE 100
IRVINE, CALIFORNIA
92606
949.752.1800
949.833.9603

PROJECT NAME/ADDRESS

CORONADO
THE PASEOS
875 PANTARA PLACE
LAS VEGAS, NEVADA

CLIENT

SPINNAKER
HOMES
4511 W. CHEYENNE AVE. ST 105
NO. LAS VEGAS, CA 89032
702-873-7773
702-873-7776 FAX

REVISIONS

1 DELTA 1: PLAN CHECK CORRECTION
2 DELTA 2: PLAN CHECK CORRECTION
3 DELTA 3: PLAN CHECK CORRECTION
4 DELTA 4: PLAN CHECK CORRECTION

AUG 04 2009

THESE DRAWINGS AND IMAGES ARE NOT TO BE REPRODUCED OR COPIED IN ANY FORM WITHOUT WRITTEN PERMISSION COPYRIGHT 2008 RNM DESIGN

DRAWING TITLE

BUILDING 100:
1ST LEVEL &
2ND LEVEL
COMPOSITE
FLOOR PLAN

DRAWING INFORMATION

PROJ. NO: 08041
FIRST SUBMITTAL DATE: 02.24.2009
SCALE: 1/8" = 1'-0"

DRAWING NUMBER

A10-1.1

DELTA 4 - PLAN CHECK CORRECTION 08.12.09

ROOF PLAN SYMBOLS

4:12	INDICATES SLOPE OF ROOF AND DIRECTION
	INDICATES LOCATION OF ROOF VENT
13	KEYNOTE REFERENCE
12 / D-1.1	DETAIL REFERENCE
	INDICATES LOCATION OF GUTTER
	INDICATES LOCATION OF DRAFTSTOP
	INDICATES LOCATION OF SOFFIT/EAVE VENTS (4" VENT)

ROOF PLAN NOTES

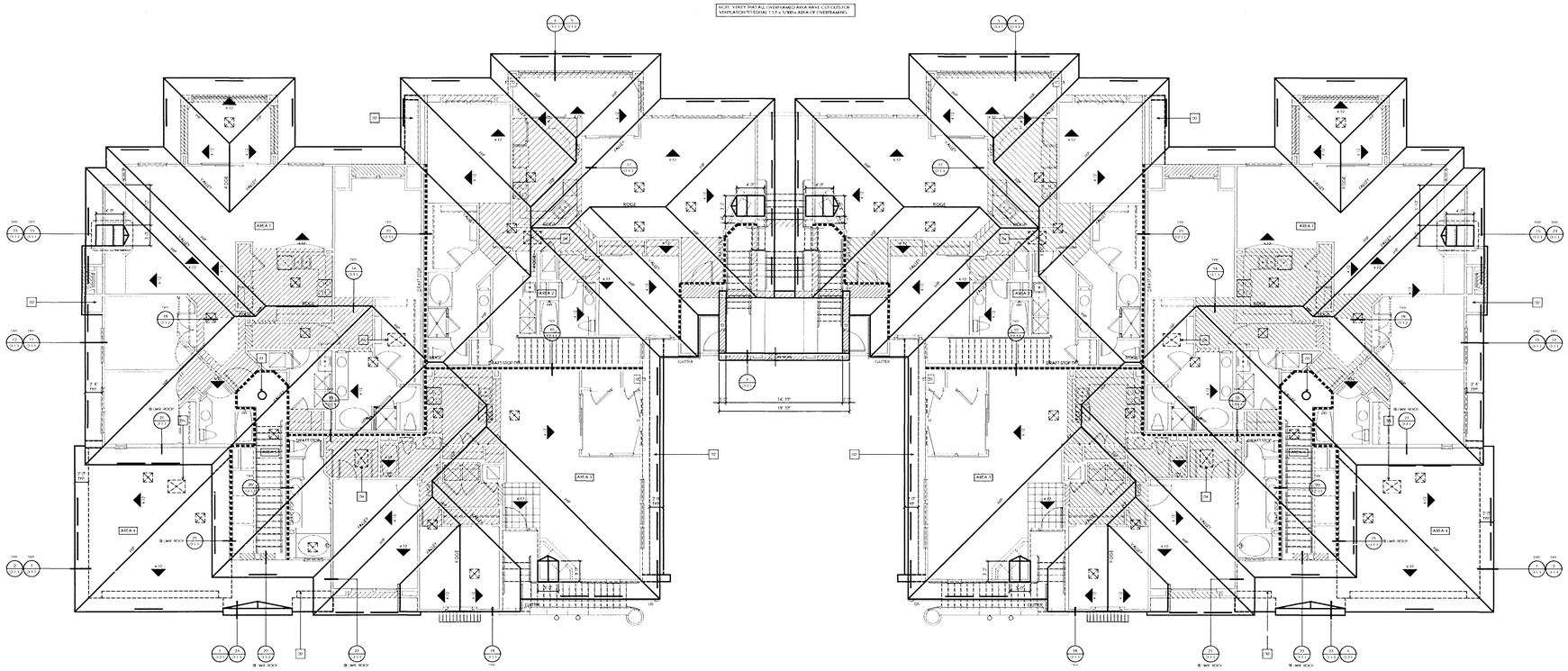
ROOFING:	CONCRETE 'S' TILE
MFR:	MONIER LIFETILE
ICC #:	ESR 1647
UNDERLAYMENT:	TRIFLEX 30
SLOPE:	AS NOTED
GUTTER/DS:	ALUM.
FLASHING:	MIN. 26 GAUGE G.S.M.

1. At all California framed locations, provide min. 22"x30" opening for access and flow-through ventilation to adjacent attic space.
2. See attic ventilation calculations for compliance information.
3. Provide min. 30" head clearance at attic access with single pole switch to light fixture.
4. At all over-framed location provide min. 22"x30" opening for access and flow through ventilation to adjacent space.
5. Provide min. 30" head clearance at attic access with single pole switch to light fixture.
6. Trim tile covers field tile a minimum of 3 inches.
7. Set trim tile into a continuous bead of color matched mortar held away from ridge board.
8. Remove portion of tile head lug where tile rests on metal flashing to prevent water damage.
9. Where tile must be cut to the extend that anchor lugs and nail holes are eliminated, the remaining portion must be on an even plane with field tiles. Cut tiles should be fastened to previous course of tile with roof mastic.
10. The minimum required net free ventilating area shall be $\frac{1}{300}$ of the area of the space ventilated, provided a vapor retarder having a transmission rate not exceeding 1 perm in accordance with ASTM 196 is installed on the warm side of the attic insulation and provided 50 percent of the required ventilation area provided by ventilators located in the upper portion of the space to be ventilated at least 3 feet above eave or cornice vents, with the balance of the required ventilation provided by eave or cornice vents.
11. For standard installation of concrete tile over approved underlayment see details 1, 3, 5, 6, 8, 9, 10, 12, 14, 15, 17, 18, 19, 21, 22, and 23 on sheet D-1.2

ROOF PLAN KEYNOTES

01 14" SOLATUBE INSTALLATION PER MANUFACTURER
02 PACK ATTIC CAVITY WITH INSULATION
03 NOT USED
04 22x30 NON RATED ATTIC ACCESS SEE DETAIL 13/D-6.1
05 22x30 RATED ATTIC ACCESS SEE DETAIL 17/P2 2.1

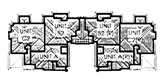
NOTE: VERIFY THAT ALL OVERFRAMED AREA WAS CUT-OUT FOR VENTILATION (TYP EQUAL 1.5 ft x 0.5ft) AREA OF OVERFRAMING



AREA 1	ATTIC AREA:			1949 SQ. FT.
	VENTILATION RATIO:			1:300
	VENTILATION REQ'D:			936 SQ. IN.
	VENT TYPE	AREA	QUAN.	NET AREA
	O'HAGIN 'S' HIGH CONC. TILE VENT	97.5	5	487.5 SQ. IN.
	Cor-A-Vent S-400 soffit/eave vents	40 per 4' vent	12	480 SQ. IN.
	VENTILATION PROPOSED:			967.5 SQ. IN.
AREA 2	ATTIC AREA:			1733 SQ. FT.
	VENTILATION RATIO:			1:300
	VENTILATION REQ'D:			832 SQ. IN.
	VENT TYPE	AREA	QUAN.	NET AREA
	O'HAGIN 'S' HIGH CONC. TILE VENT	97.5	5	487.5 SQ. IN.
	Cor-A-Vent S-400 soffit/eave vents	40 per 4' vent	11	440 SQ. IN.
	VENTILATION PROPOSED:			927.5 SQ. IN.
AREA 3	ATTIC AREA:			1471 SQ. FT.
	VENTILATION RATIO:			1:300
	VENTILATION REQ'D:			706 SQ. IN.
	VENT TYPE	AREA	QUAN.	NET AREA
	O'HAGIN 'S' HIGH CONC. TILE VENT	97.5	4	390 SQ. IN.
	Cor-A-Vent S-400 soffit/eave vents	40 per 4' vent	9	330 SQ. IN.
	VENTILATION PROPOSED:			720 SQ. IN.
AREA 4	ATTIC AREA:			446 SQ. FT.
	VENTILATION RATIO:			1:300
	VENTILATION REQ'D:			214 SQ. IN.
	VENT TYPE	AREA	QUAN.	NET AREA
	O'HAGIN 'S' HIGH CONC. TILE VENT	97.5	2	195 SQ. IN.
	Cor-A-Vent S-400 soffit/eave vents	40 per 4' vent	3	120 SQ. IN.
	VENTILATION PROPOSED:			315 SQ. IN.
AREA 5	ATTIC AREA:			192 SQ. FT.
	VENTILATION RATIO:			1:300
	VENTILATION REQ'D:			92 SQ. IN.
	VENT TYPE	AREA	QUAN.	NET AREA
	O'HAGIN 'S' HIGH CONC. TILE VENT	97.5	1	97.5 SQ. IN.
	Cor-A-Vent S-400 soffit/eave vents	40 per 4' vent	2	80 SQ. IN.
	VENTILATION PROPOSED:			177.5 SQ. IN.

PLANS APPROVED CONSTRUCTION
MT SEP 02 2009

KEYMAP: BUILDING 100 2nd LEVEL



BUILDING 100: ROOF PLAN

CHARLES D. SMITH
No. 4967
REGISTERED ARCHITECT
STATE OF NEVADA

RNM

RNM DESIGN
ARCHITECTURE
PLANNING
LANDSCAPE
GRAPHICS
RNMDESIGN.COM

2 CORPORATE PARK
SUITE 100
IRVINE, CALIFORNIA
92606
T 949.752.1800
F 949.833.9603

PROJECT NAME/ADDRESS

CORONADO THE PASEOS
875 PANTARA PLACE
LAS VEGAS, NEVADA

CLIENT

SPINNAKER HOMES
4511 W. CHEYENNE AVE. ST 105
NO. LAS VEGAS, CA 89032
702-873-7773
702-873-7776 FAX

REVISIONS

1 DELTA 1: PLAN CHECK CORRECTION
2 DELTA 2: PLAN CHECK CORRECTION
3 DELTA 3: PLAN CHECK CORRECTION

THESE DRAWINGS AND IMAGES ARE NOT TO BE REPRODUCED OR COPIED IN ANY FORM WITHOUT WRITTEN PERMISSION.
COPYRIGHT 2008 RNM DESIGN

DRAWING TITLE

BUILDING 100: ROOF PLAN

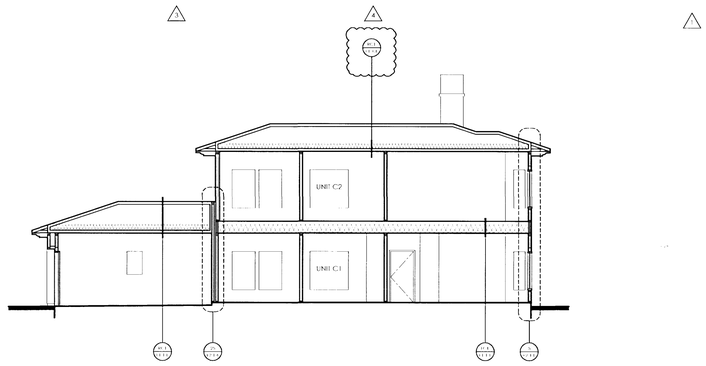
DRAWING INFORMATION

PROJ. NO: 08041
FIRST SUBMITTAL DATE: 02.24.2009
SCALE: 1/8" = 1'-0"
JUL 09 2009

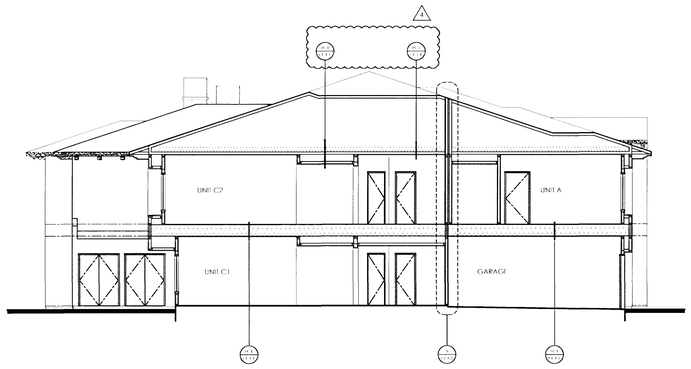
DRAWING NUMBER

A10-2.1

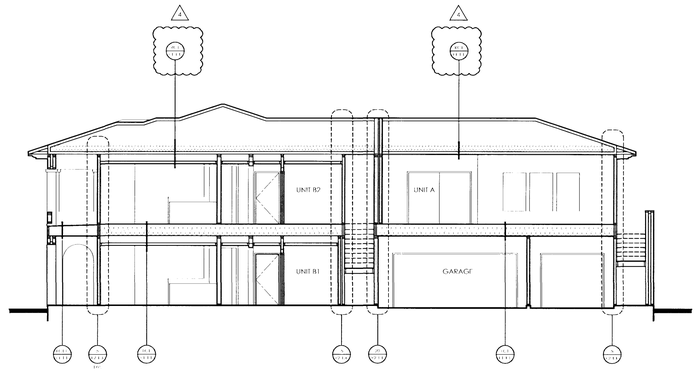
DELTA 3 - PLAN CHECK CORRECTION
07.09.09



BUILDING 100: SECTION D | 5

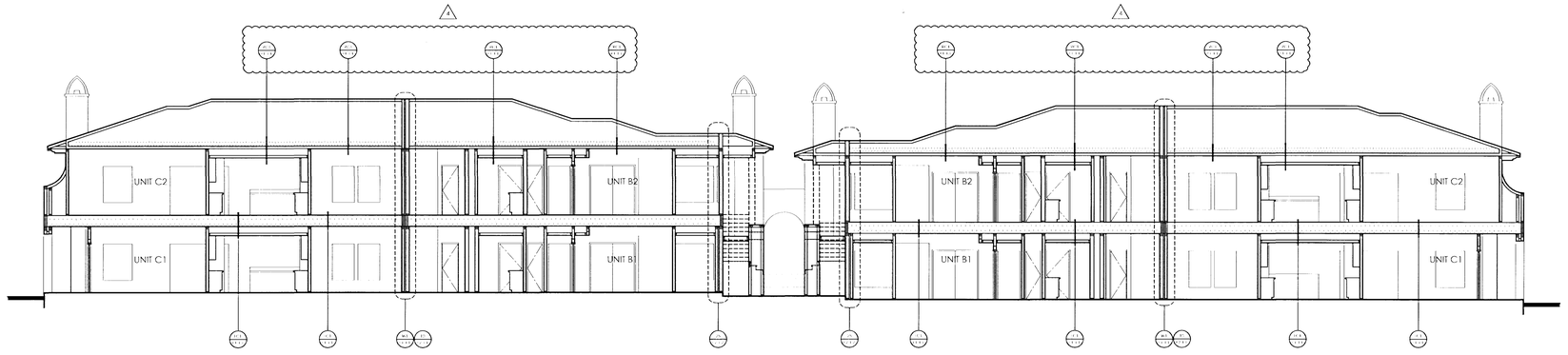


BUILDING 100: SECTION A | 4



BUILDING 100: SECTION B | 3

BUILDING 100: SECTION C | 2



PLANS APPROVED
CONSTRUCTION
Building & Safety Dept.
City of Las Vegas, Nevada
BY SEP 02 2009
Design ... Mechanical, Plumbing, Electrical Code as per Ord. Title ... Shall Be Changes Without Approved Plans & Void & Punishable Under Any Ordinance

BUILDING 100: SECTION E | 1

SECTION GENERAL NOTES

TYPICAL FIRE RATED CONSTRUCTION NOTES

This building contains components and assemblies which are required to achieve an hourly fire rating. Please see the assembly and detail call outs for specific hourly requirements. In order to achieve the required ratings the assembly test reports must be carefully followed. Please see the 'I' sheets for specific test references.

1. THROUGH PENETRATIONS OF RATED ASSEMBLIES SHALL COMPLY WITH F3.4.1 to 13.4.2 SHEETS
2. MEMBRANE PENETRATIONS FOR ELECTRICAL BOXES SHALL COMPLY WITH DETAILS 2/P2.2.1 OR 4/P2.2.1
3. MEMBRANE PENETRATIONS FOR UTILITY BOXES OR OTHER NON-RATED ITEMS GREATER THAN 16 SQ. INCHES SHALL COMPLY WITH DETAILS 11/P2.2.1, 14/P2.2.1
4. ABANDONED PENETRATION HOLES SHALL COMPLY WITH 16/P2.2.1
5. LIGHT FIXTURE PENETRATIONS SHALL COMPLY WITH 18/P2.2.1
6. VENT PENETRATIONS THROUGH EXTERIOR WALLS SHALL COMPLY WITH 21/P2.2.1

FIRE BLOCKS AND DRAFT STOPS IN COMBUSTIBLE CONSTRUCTION:

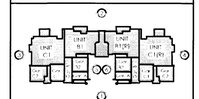
1. Fireblocking shall be provided in the following locations:
   a. In concealed spaces of stud walls and partitions, including furred spaces, at the ceiling and floor levels and at 10 foot intervals both vertical and horizontal.
   b. At all interconnections between concealed vertical and horizontal spaces such as occur at soffits, drop ceilings and cove ceilings.
   c. In concealed spaces between stair stringers at the top and bottom of the run and between studs along and in line with the run of stairs if the walls under the stairs are unfinished.
   d. In openings around vents, pipes, ducts, chimneys, fireplaces and similar openings which afford a passage for fire at ceiling and floor levels, with noncombustible materials.
   e. At openings between attic spaces and chimney chases for factory built chimneys.
2. Fireblocking shall consist of 2 inches nominal lumber, gypsum board, cement asbestos board, mineral fiber, glass fiber or other approved materials securely fastened in place. Loose-fill insulation material shall not be used as a fire block unless specifically fire tested.
3. Draft stops shall be installed in floor-ceiling assemblies of buildings having more than one dwelling unit. Such draft stops shall be in line with walls separating individual dwelling units.
4. Draft stops shall be installed in the attics, overhangs, false fronts set out from walls and similar concealed spaces of buildings containing more than one dwelling unit. Such draft stops shall be above and in line with the walls separating individual dwelling units.
5. Draft stopping materials shall not be less than 1/2 inch gypsum board, 3/8 inch wood structural panel, 3/8 inch type 2-M particle-board or other approved materials adequately supported. Openings in the partitions shall be protected by self-closing doors with automatic latches constructed as required for the partitions.

SECTION SYMBOLS

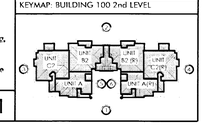
WALL DESIGNATION — XXX (X, X)
ASSEMBLY MODIFIER
DETAIL MODIFIER

XX	KEYNOTE REFERENCE
X/ X-1.1	DETAIL REFERENCE

KEYMAP: BUILDING 100 1st LEVEL



KEYMAP: BUILDING 100 2nd LEVEL



CRAIG D. SMITH
Registered
No. 4967
8-20-09
ARCHITECT
STATE OF NEVADA

RNM

RNM DESIGN
ARCHITECTURE
PLANNING
LANDSCAPE
GRAPHICS
RNMDESIGN.COM

2 CORPORATE PARK
SUITE 100
IRVINE, CALIFORNIA
92606
(949) 252-1800
FAX (949) 833-9603

PROJECT NAME/ADDRESS

CORONADO
THE PASEOS
875 PANTARA PLACE
LAS VEGAS, NEVADA

CLIENT

SPINNAKER
HOMES
4511 W. CHEYENNE AVE. ST 105
NO. LAS VEGAS, CA 89032
702-873-7773
702-873-7776 FAX

REVISIONS

1 DELTA 1 - PLAN CHECK CORRECTION
3 DELTA 3 - PLAN CHECK CORRECTION
4 DELTA 4 - PLAN CHECK CORRECTION

AUG 26 2009

THESE DRAWINGS AND IMAGES ARE NOT TO BE REPRODUCED OR COPIED IN ANY FORM WITHOUT WRITTEN PERMISSION.
COPYRIGHT 2009 RNM DESIGN

DRAWING TITLE

BUILDING 100:
SECTION

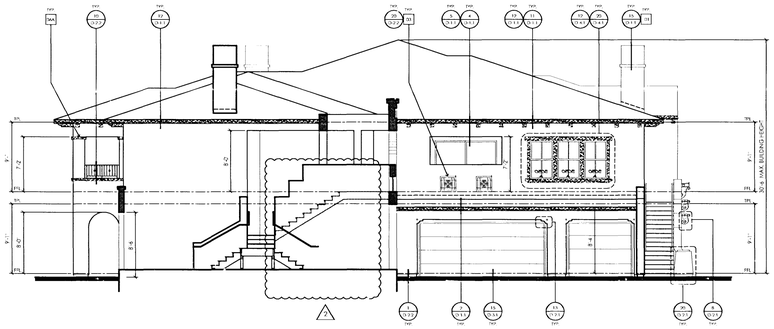
DRAWING INFORMATION

PROJ. NO:	08041
FIRST SUBMITTAL DATE:	02.24.2009
SCALE:	1/8" = 1'-0"

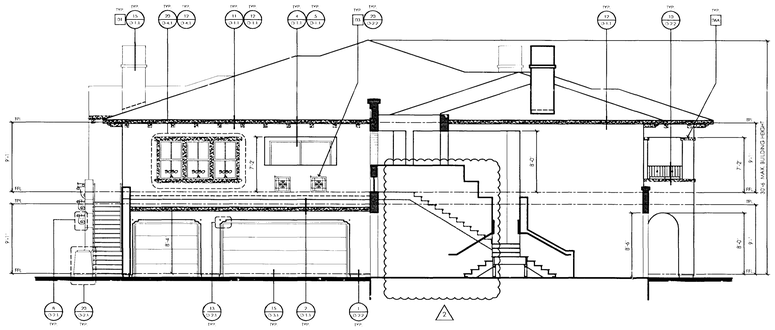
DRAWING NUMBER

A10-3.1

DELTA 4 - PLAN CHECK CORRECTION
08.12.09



BUILDING 100: RIGHT COURTYARD ELEVATION | 6

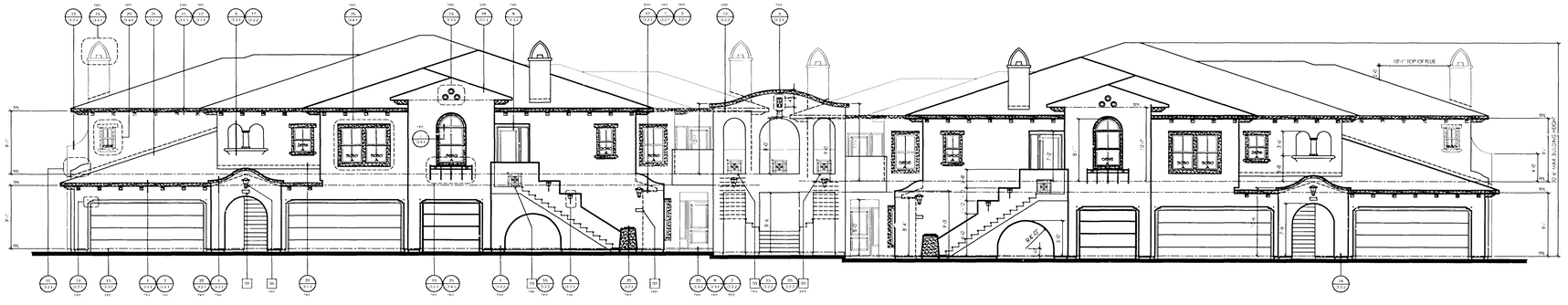


BUILDING 100: LEFT COURTYARD ELEVATION | 5

BUILDING 100: RIGHT ELEVATION | 4

BUILDING 100: LEFT ELEVATION | 3

BUILDING 100: REAR ELEVATION | 2



BUILDING 100: FRONT ELEVATION | 1

WARNING:

ANY VARIATION IN THE ELEVATIONS AS SHOWN AND APPROVED HEREON MAY RESULT IN THE WITHHOLDING OF FINAL APPROVAL AND/OR A CERTIFICATE OF OCCUPANCY UNTIL SUCH TIME AS THE BUILDING OR STRUCTURE CONFORMS TO THE PLANS AND ELEVATIONS AS APPROVED BY

John Anders 8/10/09

PLANS APPROVED CONSTRUCTION
Building & Safety Dept.
City of Las Vegas, Nevada

MT SEP 0 2 2009

Does [illegible] Plumbing, Mechanical Processing or Off-Site Improvement Make No Change Without Approval Plan is Not a Permit to Violate Any Ordinance

ELEVATION SYMBOLS

1	KEYNOTE REFERENCE
1 / D-1.1	DETAIL REFERENCE
12 / 4	ROOF PITCH
	DENOTES AREA OF DASH STUCCO FINISH
	DENOTES AREA OF LIGHT SAND FINISH
	DENOTES AREA OF SMOOTH FINISH
	FLUSH WINDOW
	RECESSED WINDOW (SHADOW INDICATE RECESSED WINDOW)

ELEVATION INFORMATION

WALL CONSTRUCTION:

PLATE HEIGHTS:

1st FLOOR:	9' 1" (TYP. U.N.O.)
2nd FLOOR:	9' 1" (TYP. U.N.O.)

HEADER HEIGHTS:

1st FLOOR:	6' 8" (TYP. U.N.O.)
2nd FLOOR:	6' 8" (TYP. U.N.O.)

SOFFIT HEIGHTS:

1st FLOOR:	8' 0" (TYP. U.N.O.)
2nd FLOOR:	8' 0" (TYP. U.N.O.)

ROOF CONSTRUCTION:

ROOF SLOPE:	4:12 (TYP. U.N.O.)
ROOFING:	EAGLE CONC. TILE
UNDERLAYMENT:	1 LAYER 40# ROOFING FELT
FLASHING:	GSM (MIN. 26 GA.) PAINT TO MATCH ROOF
DIVERTER:	GSM (MIN. 26 GA.) PAINT TO MATCH ROOF
CRICKET:	GSM (MIN. 26 GA.) PAINT TO MATCH ROOF

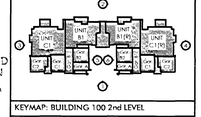
EXTERIOR MATERIALS:

EXTERIOR FINISH:	7/8" STUCCO W. K-LATH
EXTERIOR FINISH:	DASH FINISH
BUILDING PAPER:	GRADE 'D' WEATHER BARRIER
WINDOWS:	VINYL FRAME W/ LOW-E GLASS (NON WHITE FRAME)

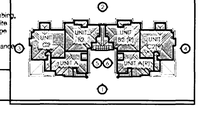
ELEVATION KEYNOTES

01 METAL CHIMNEY CAP
02 ADDRESS SIGN WITH LIGHT
03 WROUGHT IRON GRILLE
04 PRE-CAST COLUMN (TUSCAN STYLE)
05 LIGHT
06A 2X4 TRIM
07 GSM FLASHING

KEYMAP: BUILDING 100 1st LEVEL



KEYMAP: BUILDING 100 2nd LEVEL



RNM DESIGN
ARCHITECTURE
PLANNING
LANDSCAPE
GRAPHICS
RNMDESIGN.COM

2 CORPORATE PARK
SUITE 100
IRVINE, CALIFORNIA
92606
T949.752.1800
F949.833.9603

PROJECT NAME/ADDRESS

CORONADO THE PASEOS
875 PANTARA PLACE
LAS VEGAS, NEVADA

CLIENT

SPINNAKER HOMES
4511 W. CHEYENNE AVE. ST 105
NO. LAS VEGAS, CA 89032
702-873-7773
702-873-7776 FAX

REVISIONS

1 DELTA 1: PLAN CHECK CORRECTION
2 DELTA 2: PLAN CHECK CORRECTION

THESE DRAWINGS AND IMAGES ARE NOT TO BE REPRODUCED OR COPIED IN ANY FORM WITHOUT WRITTEN PERMISSION. COPYRIGHT 2008 RNM DESIGN

DRAWING TITLE

BUILDING 100: ELEVATIONS

DRAWING INFORMATION

PROJ. NO: 08041
FIRST SUBMITTAL DATE: 02.24.2009
SCALE: 1/8" = 1'-0"

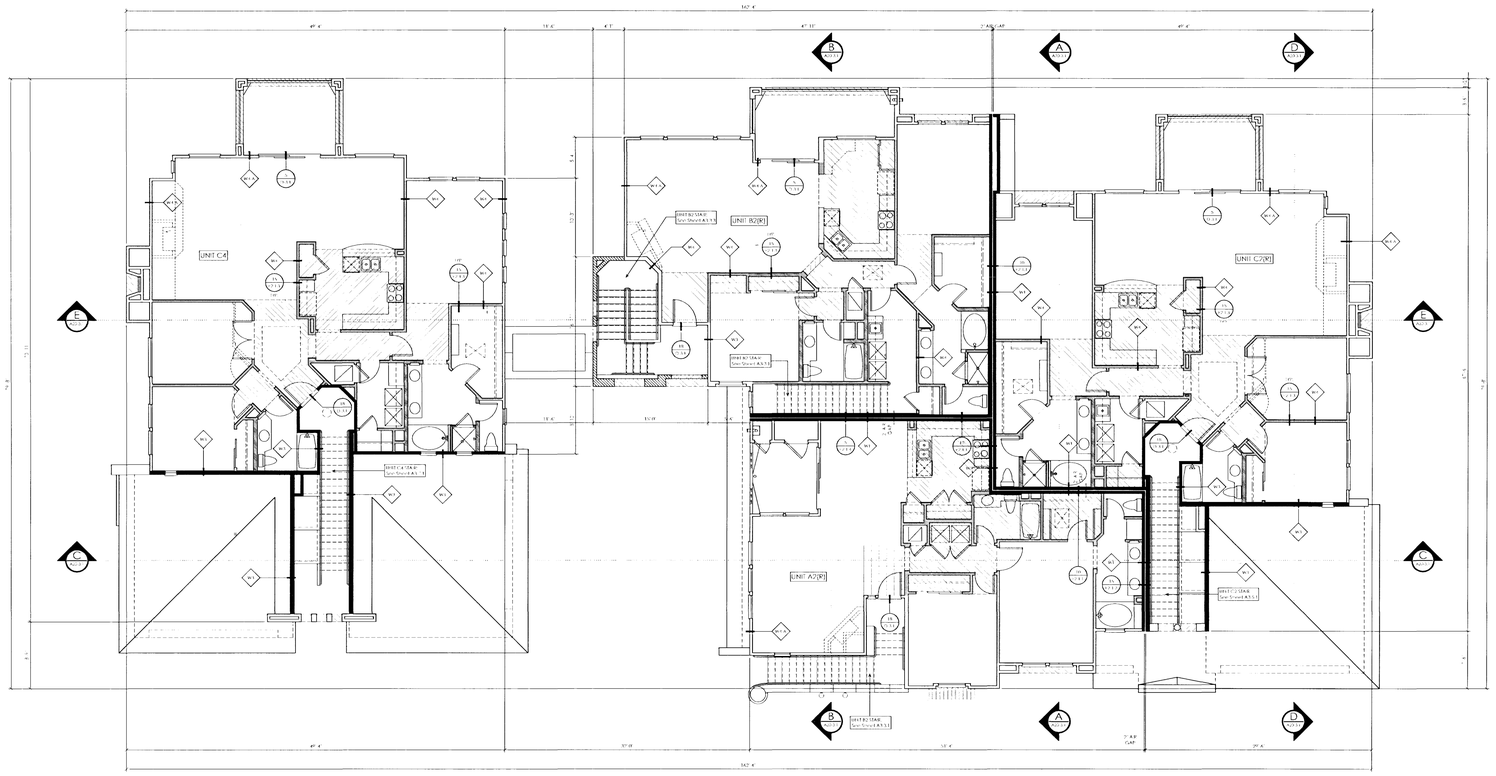
JUL 09 2009

DRAWING NUMBER

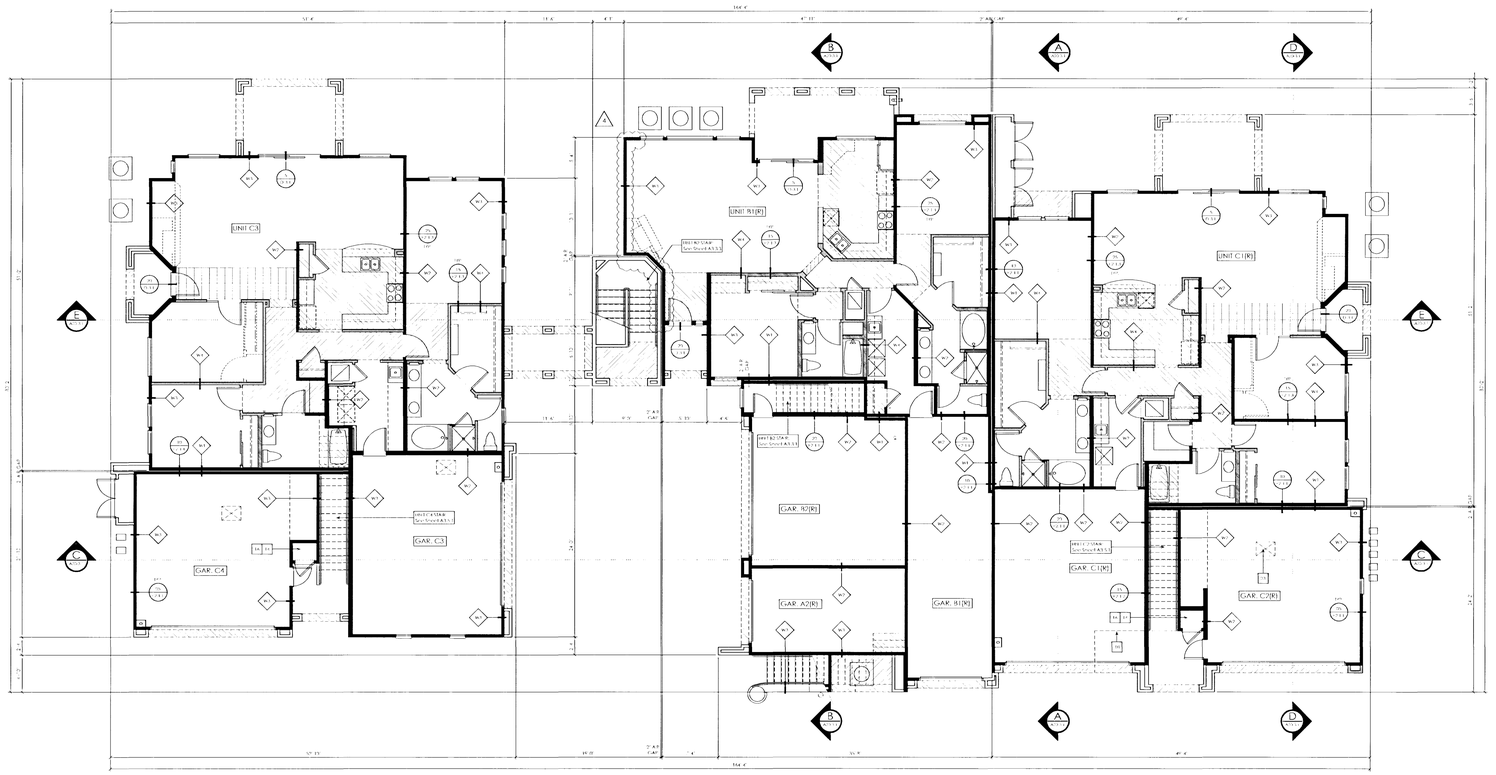
A10-4.1

DELTA 3 - PLAN CHECK CORRECTION

07.09.09



BUILDING 200: 2ND LEVEL COMPOSITE FLOOR PLAN



BUILDING 200: 1ST LEVEL COMPOSITE FLOOR PLAN

PLANS APPROVED
CONSTRUCTION
Building & Safety Dept.
City of Las Vegas, Nevada

MT SEP 02 2009

Does Not Include Elec., Mech., Plumbing, Mechanical Drawings or Off-Site Improvements. Make No Changes Without Approval From Issuer. Not a Permit to Violate Any Ordinance

COMPOSITE PLAN GENERAL NOTES

TYPICAL FIRE RATED CONSTRUCTION NOTES

This building contains components and assemblies which are required to achieve an hourly fire rating. Please see the assembly and detail call-outs for specific hourly requirements. In order to achieve the required ratings, the assembly test reports must be carefully followed. Please see the 'I' sheets for specific test references.

1. THROUGH PENETRATIONS OF RATED ASSEMBLIES SHALL COMPLY WITH I13.4.1 to I13.4.2. SHEET1
2. MEMBRANE PENETRATIONS FOR ELECTRICAL BOXES SHALL COMPLY WITH DETAILS 2/I7.2.2.1 OR 4/I7.2.2.1
3. MEMBRANE PENETRATIONS FOR UTILITY BOXES OR OTHER NON RATED ITEMS GREATER THAN 16 SQ. INCHES SHALL COMPLY WITH DETAILS 1 I/I7.2.2.1, 14/I7.2.2.1
4. ABANDONED PENETRATION HOLES SHALL COMPLY WITH 14/I7.2.1
5. LIGHT FIXTURE PENETRATIONS SHALL COMPLY WITH 18/I7.2.1
6. VENT PENETRATIONS THROUGH EXTERIOR WALLS SHALL COMPLY WITH 21/I7.2.1

FIRE BLOCKS AND DRAFT STOPS IN COMBUSTIBLE CONSTRUCTION

1. Fireblocking shall be provided in the following locations:
   a. In concealed spaces of stud walls and partitions, including furred spaces, at the ceiling and floor levels and at 10 foot intervals both vertical and horizontal.
   b. At all interconnections between concealed vertical and horizontal spaces such as occur at soffits, drop ceilings, and cove ceilings.
   c. In concealed spaces between stair stringers at the top and bottom of the run and between studs along and in line with the run of stairs if the walls under the stairs are unfinished.
   d. In openings around vents, pipes, ducts, chimneys, fireplaces and similar openings which afford a passage for fire at ceiling and floor levels, with noncombustible materials.
   e. At openings between attic spaces and chimney chases for factory-built chimneys.
2. Fireblocking shall consist of 2 inches nominal lumber, gypsum, pergelt, cement asbestos board, mineral fiber, glass fiber or other approved materials securely fastened in place. Loose fill insulation material shall not be used as a fire block unless specifically tested.
3. Draft stops shall be installed in floor ceiling assemblies of buildings, having more than one dwelling unit. Such draft stops shall be in line with walls separating individual dwelling units.
4. Draft stops shall be installed in the attics, overhangs, false fronts set out from walls and similar concealed spaces of buildings containing more than one dwelling unit. Such draft stops shall be relocated and in line with the walls separating individual dwelling units.
5. Draft stopping materials shall not be less than 1/2 inch gypsum board, 3/8 inch wood structural panel, 3/8 inch type 2-M particle board or other approved materials adequately supported. Openings in the partitions shall be protected by self-closing doors with automatic latches constructed as required for the purpose.

GRAPHIC LEGEND

	INTERIOR NON BEARING WALL (NON RATED) SEE DETAIL 8/I7.2.2 FOR CONNECTION TO RATED FLOOR CEILING ASSEMBLY AND SEE SHEET I1.1.1
	RATED STRUCTURAL WALL, BEARING OR SHEAR WALL. SEE WALL CALL OUTS ON PLAN FOR ASSEMBLY. SEE SHEET I1.1.1
	NON RATED STRUCTURAL WALL. SEE STRUCTURAL DRAWINGS
	SOFFIT OR DROPPED CEILING (See detail 1, 2, 3, 5 & 10 on sheet I7.2.2)

COMPOSITE PLAN SYMBOLS

WALL DESIGNATION — SEE SHEET I1.1.1 FOR WALL TYPES — YYx
ASSEMBLY MODIFIER
DETAIL MODIFIER

13	KEYNOTE REFERENCE
12 / D1.1	DETAIL REFERENCE

COMPOSITE PLAN KEYNOTES

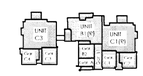
01 LINE OF FLOOR ABOVE
02 LINE OF FLOOR BELOW
03 22" X 30" MIN. 1 HOUR RATED ATTIC ACCESS PANEL. SEE DETAIL 17/I7.2.2.1
04 24"x36" NICHES FOR ACCESS TO SPRINKLER RISER - VERIFY WITH FIRE DEPARTMENT
05 RUN 5/8"TYP. X GYP. BD. BEHIND TUB AND SHOWERS.
06 ELASTOMERIC WATERPROOF DECKING. SLOPE TO DRAIN
07 SEE ACCOUSTICAL REPORT FOR SPECIAL RECOMMENDATIONS AT HARD SURFACE INSTALLATIONS.
08 SEE ACCOUSTICAL REPORT FOR SPECIAL RECOMMENDATIONS AT BATHTUBS.
09 SEE ACCOUSTICAL REPORT FOR SPECIAL RECOMMENDATIONS AT UNIT SEPARATION WALLS.
10 VOID SPACE - FIREBLOCK AT MAX 10'-0" INTERVALS.
11 FAU, HORIZONTAL VENT TO EXTERIOR
12 DIRECT VENT FIRE PLACE
13 FAU VENT THRU ROOF
14 PRF ROCK CONDITION
15 PRF ROCK AT FAU PLATFORM
16 RISER ROOM

WALL TYPES

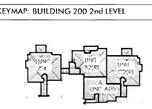
SEE SHEET I1.1.1 FOR WALL TYPES.

W1 TENANT SEPARATION
W2 INTERIOR RATED WALL
W3 EXTERIOR WALL
W4 NON RATED WALL

KEYMAP: BUILDING 200 1st LEVEL



KEYMAP: BUILDING 200 2nd LEVEL



CRAIG D. SMITH
REGISTERED
ARCHITECT
No. 4967
8-20-09
STATE OF NEVADA

RNM

RNM DESIGN
ARCHITECTURE
PLANNING
LANDSCAPE
GRAPHICS
RNMDESIGN.COM

2 CORPORATE PARK
SUITE 100
IRVINE, CALIFORNIA
92606
(949) 752-1800
(949) 833-9660

PROJECT NAME/ADDRESS

CORONADO
THE PASEOS
875 PANTARA PLACE
LAS VEGAS, NEVADA

CLIENT

SPINNAKER
HOMES
4511 W. CHEYENNE AVE. ST 105
NO. LAS VEGAS, CA 89032
702-873-7773
702-873-7776 FAX

REVISIONS

1 DELTA 1: PLAN CHECK CORRECTION
2 DELTA 4: PLAN CHECK CORRECTION

AUG 20 2009

THESE DRAWINGS AND IMAGES ARE NOT TO BE REPRODUCED OR COPIED IN ANY FORM WITHOUT WRITTEN PERMISSION. COPYRIGHT 2006 RNM DESIGN

DRAWING TITLE

BUILDING 200: 1ST LEVEL & 2ND LEVEL COMPOSITE FLOOR PLAN

DRAWING INFORMATION

PROJ. NO: 08041
FIRST SUBMITTAL DATE: 02.24.2009
SCALE: 1/8" = 1'-0"

DRAWING NUMBER

A20-1.1

08.12.09 DELTA 4 - PLAN CHECK CORRECTION

ROOF PLAN SYMBOLS

4:12	INDICATES SLOPE OF ROOF AND DIRECTION
	INDICATES LOCATION OF ROOF VENT
13	KEYNOTE REFERENCE
12 D-1.1	DETAIL REFERENCE
	INDICATES LOCATION OF GUTTER
	INDICATES LOCATION OF DRAFTSTOP
	INDICATES LOCATION OF SOFFIT/EAVE VENTS (4" VENT)

ROOF PLAN NOTES

ROOFING:	CONCRETE S-TILE
MFR:	MONIER-LIFETILE
ICC #:	ESR 1647
UNDERLAYMENT:	TRIFLEX 30
SLOPES:	AS NOTED
GUTTER/DS:	ALLUM.
FLASHING:	MIN. 26 GAUGE G.S.M.

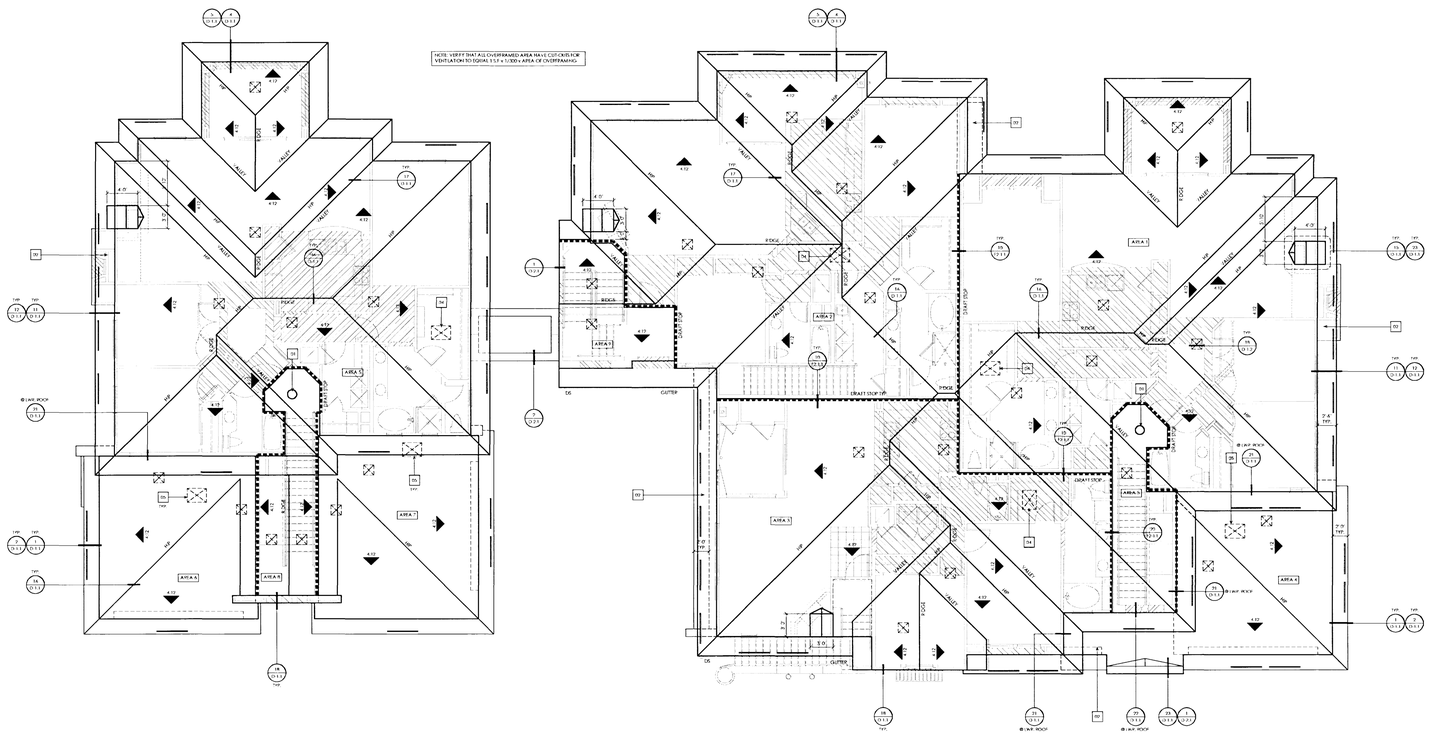
1. At all California framed locations provide min. 22"x30" opening for access and flow-throught ventilation to adjacent attic space.
2. See attic ventilation calculations for compliance information.
3. Provide min. 30" head clearance at attic access with single pole switch to light fixture.
4. At all over framed location provide min. 22"x30" opening for access and flow-through ventilation to adjacent space.
5. Provide min. 30" head clearance at attic access with single pole switch to light fixture.
6. Trim tile covers field tile a minimum of 3 inches.
7. Set trim tile into a continuous bead of color matched mortar held away from ridge board.
8. Remove portion of tile head lug where tile rests on metal flashing to prevent water damage.
9. When tile must be cut to the extend that anchor lugs and nail holes are eliminated, the remaining portion must be on an even plane with field tiles. Cut tiles should be fastened to previous course of tile with roof mastic.
10. The minimum required net free ventilating area shall be $\frac{1}{300}$ of the area of the space ventilated, provided a vapor retarder having a transmission rate not exceeding 1 perm in accordance with ASTM 96 is installed on the warm side of the attic insulation and provided 50 percent of the required ventilation area provided by ventilators located in the upper portion of the space to be ventilated at least 3 feet above eave or cornice vents, with the balance of the required ventilation provided by eave or cornice vents.
11. For standard installation of concrete tile over approved underlayment see details 1, 3, 5, 6, 8, 9, 10, 12, 14, 15, 17, 18, 19, 21, 22, and 23 on sheet D-1.2

ROOF PLAN KEYNOTES

01 14" SOLATUBE INSTALLATION PER MANUFACTURER
02 PACK ATTIC CAVITY WITH INSULATION
03 NOT USED
04 22x30 NON RATED ATTIC ACCESS SEE DETAIL 13/D 6.1
05 22x30 RATED ATTIC ACCESS SEE DETAIL 17/F2 2.1

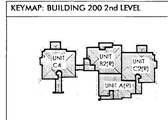
AREA 1	ATTIC AREA:			1959 SQ. FT.
	VENTILATION RATIO:			1:300
	VENTILATION REQ'D:			941 SQ. IN.
	VENT TYPE	AREA	QUAN.	NET AREA
	O'HAGIN 'S' HIGH CONC. TILE VENT	97.5	5	487.5 SQ. IN.
	Cor-A-Vent S-400 soffit/eave vents	40 per 4' vent	12	480 SQ. IN.
	VENTILATION PROPOSED:			967.5 SQ. IN.
AREA 2	ATTIC AREA:			1733 SQ. FT.
	VENTILATION RATIO:			1:300
	VENTILATION REQ'D:			832 SQ. IN.
	VENT TYPE	AREA	QUAN.	NET AREA
	O'HAGIN 'S' HIGH CONC. TILE VENT	97.5	5	487.5 SQ. IN.
	Cor-A-Vent S-400 soffit/eave vents	40 per 4' vent	11	440 SQ. IN.
	VENTILATION PROPOSED:			927.5 SQ. IN.
AREA 3	ATTIC AREA:			1471 SQ. FT.
	VENTILATION RATIO:			1:300
	VENTILATION REQ'D:			706 SQ. IN.
	VENT TYPE	AREA	QUAN.	NET AREA
	O'HAGIN 'S' HIGH CONC. TILE VENT	97.5	4	390 SQ. IN.
	Cor-A-Vent S-400 soffit/eave vents	40 per 4' vent	9	350 SQ. IN.
	VENTILATION PROPOSED:			740 SQ. IN.
AREA 4	ATTIC AREA:			540 SQ. FT.
	VENTILATION RATIO:			1:300
	VENTILATION REQ'D:			259 SQ. IN.
	VENT TYPE	AREA	QUAN.	NET AREA
	O'HAGIN 'S' HIGH CONC. TILE VENT	97.5	2	195 SQ. IN.
	Cor-A-Vent S-400 soffit/eave vents	40 per 4' vent	4	160 SQ. IN.
	VENTILATION PROPOSED:			355 SQ. IN.
AREA 5	ATTIC AREA:			1911 SQ. FT.
	VENTILATION RATIO:			1:300
	VENTILATION REQ'D:			917 SQ. IN.
	VENT TYPE	AREA	QUAN.	NET AREA
	O'HAGIN 'S' HIGH CONC. TILE VENT	97.5	5	487.5 SQ. IN.
	Cor-A-Vent S-400 soffit/eave vents	40 per 4' vent	12	480 SQ. IN.
	VENTILATION PROPOSED:			967.5 SQ. IN.
AREA 6	ATTIC AREA:			432 SQ. FT.
	VENTILATION RATIO:			1:300
	VENTILATION REQ'D:			207 SQ. IN.
	VENT TYPE	AREA	QUAN.	NET AREA
	O'HAGIN 'S' HIGH CONC. TILE VENT	97.5	2	195 SQ. IN.
	Cor-A-Vent S-400 soffit/eave vents	40 per 4' vent	3	120 SQ. IN.
	VENTILATION PROPOSED:			315 SQ. IN.
AREA 7	ATTIC AREA:			498 SQ. FT.
	VENTILATION RATIO:			1:300
	VENTILATION REQ'D:			239 SQ. IN.
	VENT TYPE	AREA	QUAN.	NET AREA
	O'HAGIN 'S' HIGH CONC. TILE VENT	97.5	2	195 SQ. IN.
	Cor-A-Vent S-400 soffit/eave vents	40 per 4' vent	3	120 SQ. IN.
	VENTILATION PROPOSED:			315 SQ. IN.
AREA 8	ATTIC AREA:			149 SQ. FT.
	VENTILATION RATIO:			1:150
	VENTILATION REQ'D:			143 SQ. IN.
	VENT TYPE	AREA	QUAN.	NET AREA
	O'HAGIN 'S' HIGH CONC. TILE VENT	97.5	2	195 SQ. IN.
	Cor-A-Vent S-400 soffit/eave vents	40 per 4' vent		SQ. IN.
	VENTILATION PROPOSED:			195 SQ. IN.
AREA 9	ATTIC AREA:			180 SQ. FT.
	VENTILATION RATIO:			1:150
	VENTILATION REQ'D:			76 SQ. IN.
	VENT TYPE	AREA	QUAN.	NET AREA
	O'HAGIN 'S' HIGH CONC. TILE VENT	97.5	2	195 SQ. IN.
	Cor-A-Vent S-400 soffit/eave vents	40 per 4' vent		SQ. IN.
	VENTILATION PROPOSED:			195 SQ. IN.

NOTE: VERIFY THAT ALL OVERFRAMED AREA HAVE CUT-OFF FOR VENTILATION TO EQUAL 1/150 X 1/300 X AREA OF OVERFRAMING



PLANS APPROVED
CONSTRUCTION
Building & Safety Dept.
CITY OF LAS VEGAS, Nevada
MT SEP 02 2009
Plumbing,
Mechanical, Electrical or Fire
Inspection Must Be Obtained
Without Approval Plans is
Not a Permit to Violate Any Ordinance

KEYMAP: BUILDING 200 2nd LEVEL



BUILDING 200: ROOF PLAN

CRAIG D. SMITH
Registered Architect
No. 4967
6-2-09
ARCHITECT
STATE OF NEVADA

RNM DESIGN
ARCHITECTURE
PLANNING
LANDSCAPE
GRAPHICS
RNMDESIGN.COM

2 CORPORATE PARK
SUITE 100
IRVINE, CALIFORNIA
92606
T 949.752.1800
F 949.833.9603

PROJECT NAME/ADDRESS

CORONADO THE PASEOS
875 PANTARA PLACE
LAS VEGAS, NEVADA

CLIENT

SPINNAKER HOMES
4511 W. CHEYENNE AVE. ST 105
NO. LAS VEGAS, CA 89032
702-873-7773
702-873-7776 FAX

REVISIONS

1 DELTA 1: PLAN CHECK CORRECTION
2 DELTA 2: PLAN CHECK CORRECTION

THESE DRAWINGS AND IMAGES ARE NOT TO BE REPRODUCED OR COPIED IN ANY FORM WITHOUT WRITTEN PERMISSION.
COPYRIGHT 2008 RNM DESIGN

DRAWING TITLE

BUILDING 200: ROOF PLAN

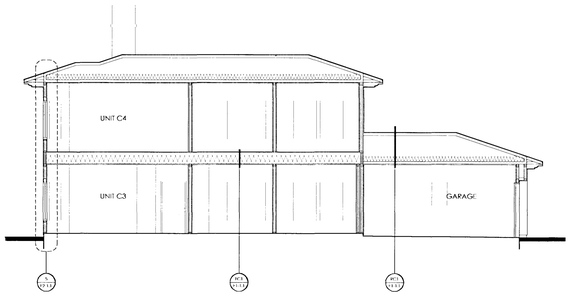
DRAWING INFORMATION

PROJ. NO: 08041
FIRST SUBMITTAL DATE: 02.24.2009
SCALE: 1/8" = 1'-0"

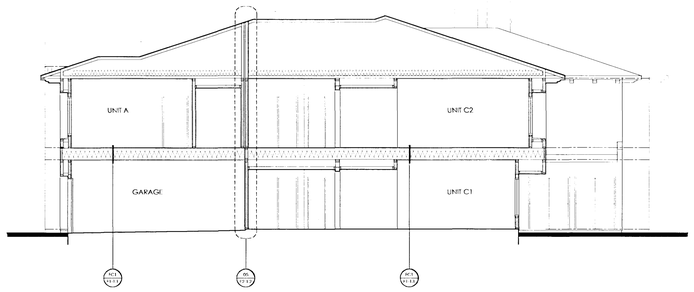
DRAWING NUMBER

A20-2.1

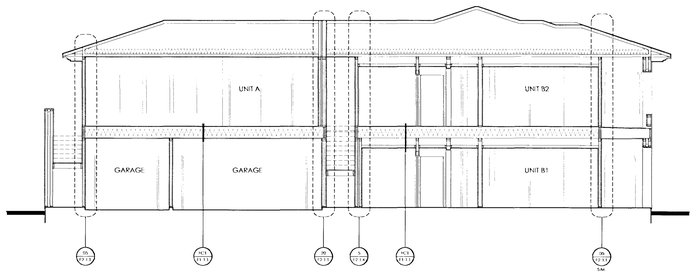
DELTA 2 - PLAN CHECK CORRECTION
05.27.09



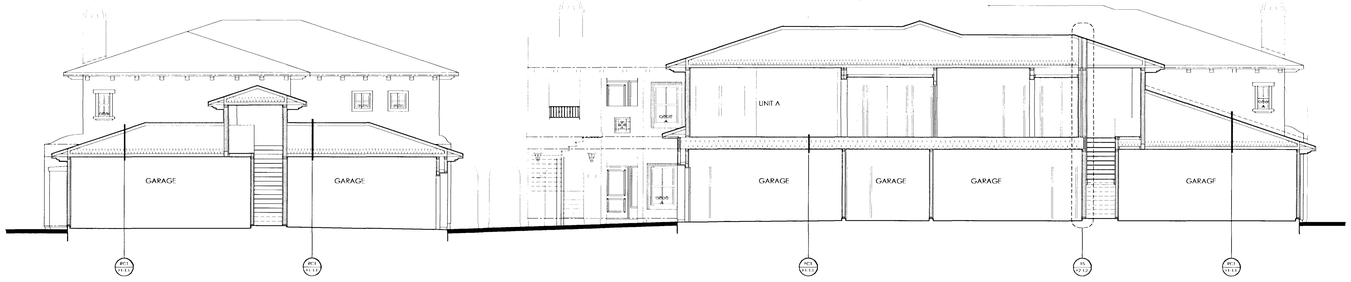
BUILDING 200: SECTION D | 5



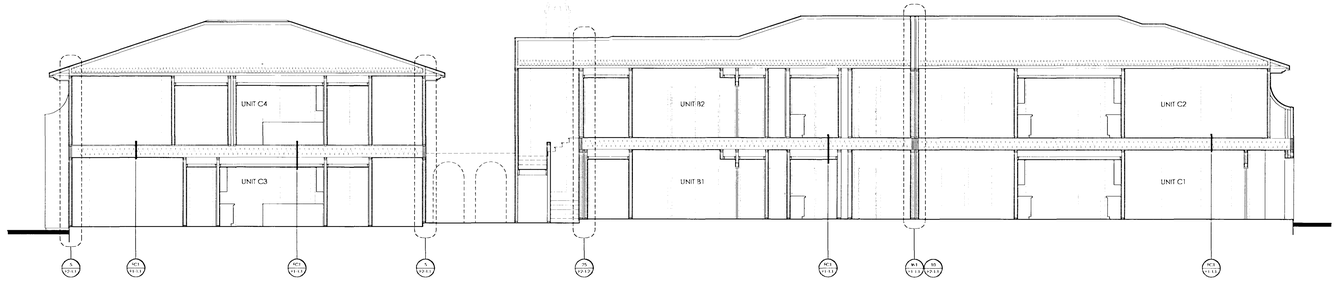
BUILDING 200: SECTION A | 4



BUILDING 200: SECTION B | 3



BUILDING 200: SECTION C | 2



BUILDING 200: SECTION E | 1

SECTION GENERAL NOTES

TYPICAL FIRE RATED CONSTRUCTION NOTES

This building contains components and assemblies which are required to achieve an hourly fire rating. Please see the assembly and detail call-outs for specific hourly requirements. In order to achieve the required ratings the assembly test reports must be carefully followed. Please see the 9 sheets for specific test references.

1. THROUGH PENETRATIONS OF RATED ASSEMBLIES SHALL COMPLY WITH F3.4.1 to F3-4.2 SHEETS
2. MEMBRANE PENETRATIONS FOR ELECTRICAL BOXES SHALL COMPLY WITH DETAILS 2/F2-2.1 OR 4/F2-2.1
3. MEMBRANE PENETRATIONS FOR UTILITY BOXES OR OTHER NON-RATED ITEMS GREATER THAN 16 SQ. INCHES SHALL COMPLY WITH DETAILS 11/F2-2.1, 14/F2-2.1
4. ABANDONED PENETRATION HOLES SHALL COMPLY WITH 16/F2-2.1
5. LIGHT FIXTURE PENETRATIONS SHALL COMPLY WITH 18/F2-2.1
6. VENT PENETRATIONS THROUGH EXTERIOR WALLS SHALL COMPLY WITH 21/F2 2.1

FIRE BLOCKS AND DRAFT STOPS IN COMBUSTIBLE CONSTRUCTION:

1. Fireblocking shall be provided in the following locations:
   a. In concealed spaces of stud walls and partitions, including furred spaces, at the ceiling and floor levels and at 10-foot intervals both vertical and horizontal.
   b. At all interconnections between concealed vertical and horizontal spaces such as occur at soffits, drop ceilings and cove ceilings.
   c. In concealed spaces between stair stringers at the top and bottom of the run and between studs along and in line with the run of stairs if the walls under the stairs are unfinished.
   d. In openings around vents, pipes, ducts, chimneys, fireplaces and similar openings which afford a passage for fire at ceiling and floor levels, with noncombustible materials.
   e. At openings between attic spaces and chimney chases for factory-built chimneys.
2. Fireblocking shall consist of 2 inches nominal lumber, gypsum board, cement asbestos board, mineral fiber, glass fiber or other approved materials securely fastened in place. Loose-fill insulation material shall not be used as a fire block unless specifically fire tested.
3. Draft stops shall be installed in floor-ceiling assemblies of buildings having more than one dwelling unit. Such draft stops shall be in line with walls separating individual dwelling units.
4. Draft stops shall be installed in the attics, overhangs, false fronts set out from walls and similar concealed spaces of buildings containing more than one dwelling unit. Such draft stops shall be above and in line with the walls separating individual dwelling units.
5. Draftstopping materials shall not be less than 1/2-inch gypsum board, 3/8-inch wood structural panel, 3/8-inch Type 2-M particle board or other approved materials adequately supported. Openings in the partitions shall be protected by self-closing doors with automatic latches constructed as required for the partitions.

SECTION SYMBOLS

WALL DESIGNATION — XXX
ASSEMBLY MODIFIER — X
DETAIL MODIFIER — X

13	KEYNOTE REFERENCE
2 / D.1.1	DETAIL REFERENCE

PLANS APPROVED
CONSTRUCTION
Building & Safety Dept.
City of Las Vegas, Nevada
MT SEP 02 2009
Does Not Include Mechanical, Plumbing, Electrical or Fire Sprinkler Systems
Approval Marks No Change Without Approved Plan is Not a Permit to Violate Any Ordinance

CRAIG D. SMITH REGISTERED No. 4967 6-2-09 ARCHITECT STATE OF NEVADA

RNM DESIGN
ARCHITECTURE
PLANNING
LANDSCAPE
GRAPHICS
RNMDESIGN.COM

2 CORPORATE PARK
SUITE 100
IRVINE, CALIFORNIA
92606
1949.752.1800
1949.833.9603

PROJECT NAME/ADDRESS

CORONADO
THE PASEOS
875 PANTARA PLACE
LAS VEGAS, NEVADA

CLIENT

SPINNAKER
HOMES
4511 W. CHEYENNE AVE. ST 105
NO. LAS VEGAS, CA 89032
702-873-7773
702-873-7776 FAX

REVISIONS

1 DELTA 1: PLAN CHECK CORRECTION

THESE DRAWINGS AND IMAGES ARE NOT TO BE REPRODUCED OR COPIED IN ANY FORM WITHOUT WRITTEN PERMISSION. COPYRIGHT 2008 RNM DESIGN

DRAWING TITLE

BUILDING 200:
SECTION

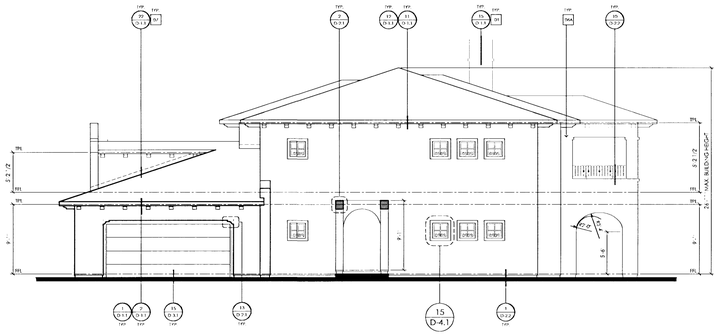
DRAWING INFORMATION

PROJ. NO: 08041
FIRST SUBMITTAL DATE: 02.24.2009
SCALE: 1/8" = 1'-0"

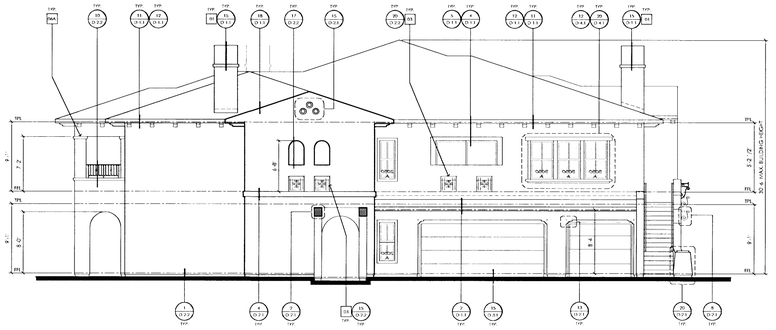
DRAWING NUMBER

A20-3.1

DELTA 2 - PLAN CHECK CORRECTION
05.27.09

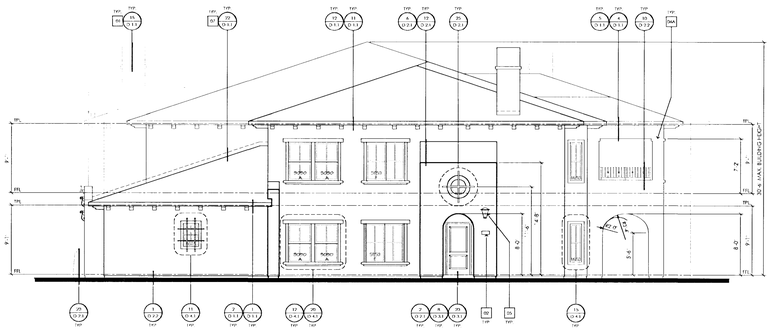


BUILDING 200: LEFT COURTYARD ELEVATION | 6

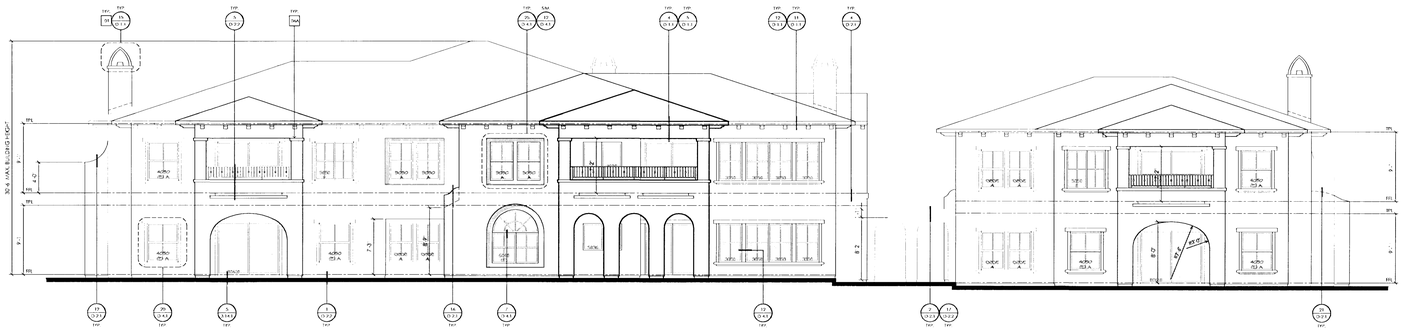


BUILDING 200: RIGHT COURTYARD ELEVATION | 5

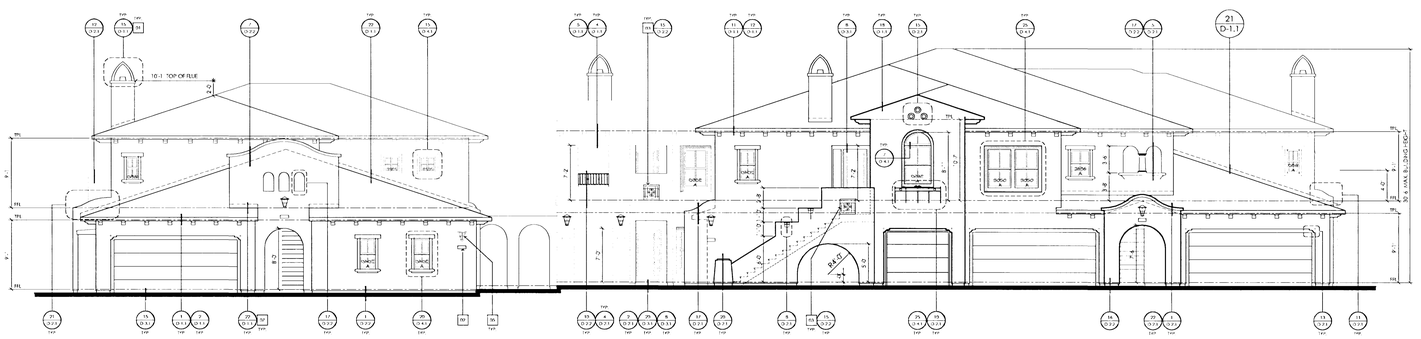
BUILDING 200: LEFT ELEVATION | 4



BUILDING 200: RIGHT ELEVATION | 3



BUILDING 200: REAR ELEVATION | 2



BUILDING 200: FRONT ELEVATION | 1

ELEVATION SYMBOLS

1	KEYNOTE REFERENCE
1 / D-1.1	DETAIL REFERENCE
12 / 4	ROOF PITCH
	DENOTES AREA OF DASH STUCCO FINISH
	DENOTES AREA OF LIGHT SAND FINISH
	DENOTES AREA OF SMOOTH FINISH
	FLUSH WINDOW
	RECESSED WINDOW (SHADOW INDICATE RECESSED WINDOW)

ELEVATION INFORMATION

WALL CONSTRUCTION:

PLATE HEIGHTS:

1st FLOOR:	9'-1" (TYP. U.N.O.)
2nd FLOOR:	9'-1" (TYP. U.N.O.)

HEADER HEIGHTS:

1st FLOOR:	6'-8" (TYP. U.N.O.)
2nd FLOOR:	6'-8" (TYP. U.N.O.)

SOFFIT HEIGHTS:

1st FLOOR:	8'-0" (TYP. U.N.O.)
2nd FLOOR:	8'-0" (TYP. U.N.O.)

ROOF CONSTRUCTION:

ROOF SLOPE:	4:12 (TYP. U.N.O.)
ROOFING:	EAGLE CONC. TILE
UNDERLAYMENT:	1 LAYER #30 ROOFING FELT
FLASHING:	GSM (MIN. 26 GA.) PAINT TO MATCH ROOF
DIVERTER:	GSM (MIN. 26 GA.) PAINT TO MATCH ROOF
CRICKET:	GSM (MIN. 26 GA.) PAINT TO MATCH ROOF

EXTERIOR MATERIALS:

EXTERIOR FINISH:	3/4" STUCCO W. K-LATH DASH FINISH
EXTERIOR FINISH:	GARAGE: 3/4" WEATHER BARRIER
BUILDING TRIM:	VINYL FRAME W/ LOWE GLASS (NON-WHITE FRAME)
WINDOWS:	

ELEVATION KEYNOTES

01 METAL CHIMNEY CAP
02 ASCHPED SCIAL WITH LIGHT
03 WROUGHT IRON GRILLE
04 PRE-CAST COLUMN (TUSCAN STYLE)
05 LIGHT
06A DRAINAGE
07 GSM FLASHING

WARNING:

ANY VARIATION IN THE ELEVATIONS AS SHOWN AND APPROVED HEREON MAY RESULT IN THE WITHHOLDING OF FINAL APPROVAL AND/OR A CERTIFICATE OF OCCUPANCY UNTIL SUCH TIME AS THE BUILDING OR STRUCTURE CONFORMS TO THE PLANS AND ELEVATIONS AS APPROVED BY

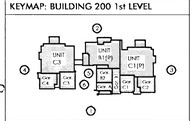
6/10/09

PLANS APPROVED FOR CONSTRUCTION
Building & Safety Dept.
City of Las Vegas, Nevada

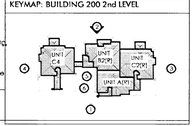
MT SEP 02 2009

Approval of these Plans does not Permit the Use of any Plumbing, Mechanical, Electrical or Other Building Improvement Not Shown on These Plans. Any Changes Must be Approved by the Building Official. Approval of Plans is Not a Permit to Violate Any Ordinance or Regulation.

KEYMAP: BUILDING 200 1st LEVEL



KEYMAP: BUILDING 200 2nd LEVEL



CRAIG D. SMITH
REGISTERED
No. 4967
6-2-09
ARCHITECT
STATE OF NEVADA

RNM

RNM DESIGN
ARCHITECTURE
PLANNING
LANDSCAPE
GRAPHICS
RNMDESIGN.COM

2 CORPORATE PARK
SUITE 100
IRVINE, CALIFORNIA
92606
1.949.752.1800
1.949.833.9603

PROJECT NAME/ADDRESS

CORONADO THE PASEOS
875 PANTARA PLACE
LAS VEGAS, NEVADA

CLIENT

SPINNAKER HOMES
4511 W. CHEYENNE AVE. ST 105
NO. LAS VEGAS, CA 89032
702.873.7773
702.873.7776 FAX

REVISIONS

1 DELTA 1: PLAN CHECK CORRECTION

THESE DRAWINGS AND IMAGES ARE NOT TO BE REPRODUCED OR COPIED IN ANY FORM WITHOUT WRITTEN PERMISSION.
COPYRIGHT 2008 RNM DESIGN

DRAWING TITLE

BUILDING 200: ELEVATIONS

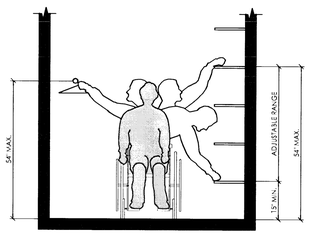
DRAWING INFORMATION

PROJ. NO:	08041
FIRST SUBMITTAL DATE:	02.24.2009
SCALE:	1/8" = 1'-0"

DRAWING NUMBER

A20-4.1

DELTA 2 - PLAN CHECK CORRECTION
05.27.09

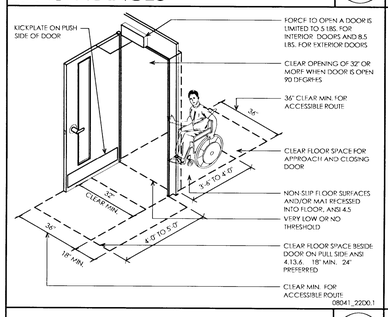


STORAGE SHELVES AND CLOSETS

08041_2100.1

REACH RANGES

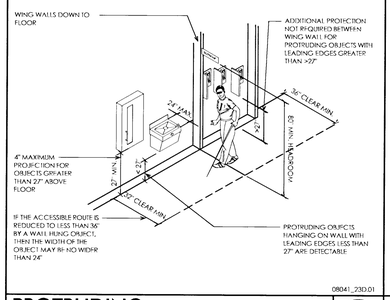
21



08041_2200.1

ACCESSIBLE DOORS

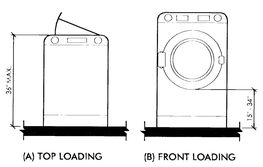
22



08041_2300.01

PROTRUDING WALL HUNG FIXTURES

23



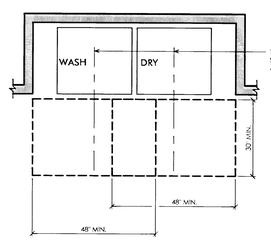
(A) TOP LOADING (B) FRONT LOADING

ANSI 2003 - FIGURE 611.4

08041_2400.1

HEIGHT OF LAUNDRY EQUIPMENT

24

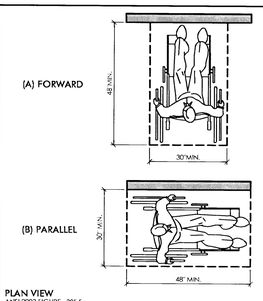


PLAN VIEW

08041_2500.1

MANEUVERING CLEARANCE AT LAUNDRY EQUIPMENT

25

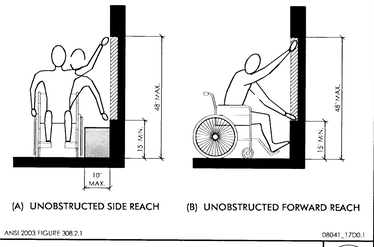


PLAN VIEW
ANSI 2003 FIGURE - 305.5

08041_1400.1

POSITION OF CLEAR FLOOR SPACE

16



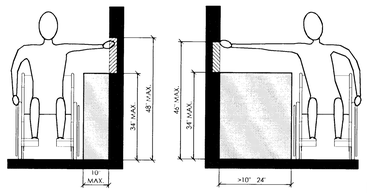
(A) UNOBSTRUCTED SIDE REACH (B) UNOBSTRUCTED FORWARD REACH

ANSI 2003 FIGURE 308.2.1

08041_1700.1

UNOBSTRUCTED REACH

17



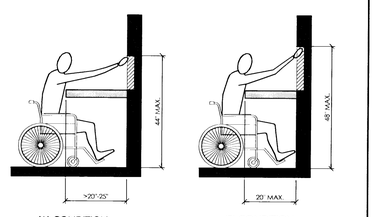
(A) OBSTRUCTED HIGH SIDE REACH
ANSI 2003 FIGURE 308.3.2

(B) OBSTRUCTED HIGH SIDE REACH
ANSI 2003 FIGURE 308.3.2

08041_1800.1

OBSTRUCTED HIGH SIDE REACH

18



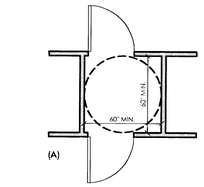
(A) CONDITION (B) CONDITION

ANSI 2003 FIGURE - 308.2.2

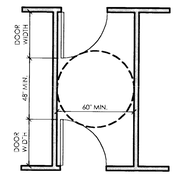
08041_1900.1

OBSTRUCTED HIGH FORWARD REACH

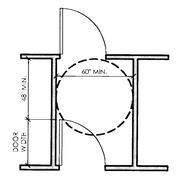
19



(A)



(B)



(C)

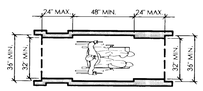
PLAN VIEW
ANSI 2003 FIGURE - 404.2.5

08041_1200.1

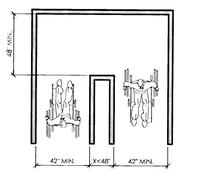
TWO DOORS IN A SERIES

12

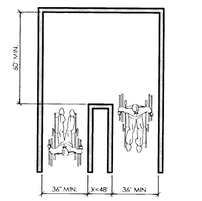
AN ACCESSIBLE ROUTE WITH A CLEAR WIDTH LESS THAN 60" SHALL PROVIDE PASSING SPACE AT INTERVALS OF 200' MAX. PASSING SPACES SHALL BE EITHER A 60" MIN. BY 60" MIN. SPACE, OR AN INTERSECTION OF TWO WALKING SURFACES THAT PROVIDE A T-SHAPED TURNING SPACE COMPLYING WITH SECTION 304.3.2, PROVIDED BASE AND ARMS OF THE T-SHAPED SPACE EXTEND 48" MIN. BEYOND THE INTERSECTION.



(A) CLEAR WIDTH OF AN ACCESSIBLE ROUTE
[ANSI 2003 - FIGURE 403.5]



(B) CLEAR WIDTH AT 180 DEGREE TURN
[ANSI 2003 - FIGURE 403.5.1]

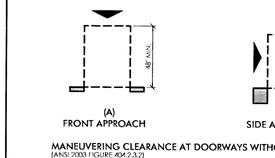


(B) CLEAR WIDTH AT 180 DEGREE TURN WITH EXCEPTION
[ANSI 2003 - FIGURE 403.5.1]

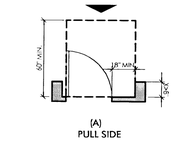
08041_1400.1

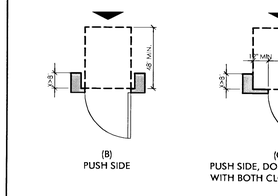
CLEAR WIDTH AT ACCESSIBLE ROUTE AND TURN

14



MANEUVERING CLEARANCE AT DOORWAYS WITHOUT DOORS
[ANSI 2003 FIGURE 404.2.3.2]





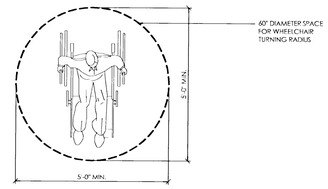
MANEUVERING CLEARANCE AT RECESSED DOORS
[ANSI 2003 FIGURE 404.2.3.4]

PLAN VIEW

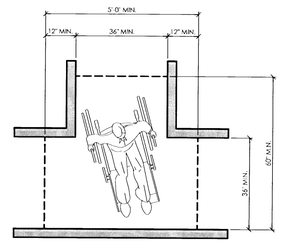
08041_0700.1

MANEUVERING CLEARANCE AT RECESSED DOORS

7



(A) CIRCULAR TURNING SPACE



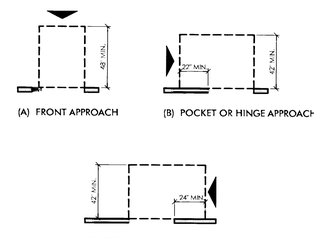
(B) T-SHAPE TURNING SPACE

PLAN VIEW
[ANSI 2003 - FIGURE 304.3]

08041_0900.1

MANEUVERING CLEARANCE

9

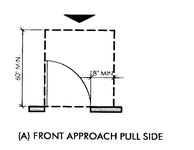


PLAN VIEW
ANSI 2003 FIGURE - 404.2.3.2

08041_1000.1

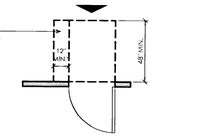
MANEUVERING CLEARANCE AT SLIDING AND FOLDING DOORS

10

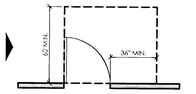


(A) FRONT APPROACH PULL SIDE

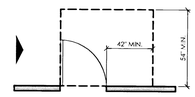
PROVIDE THIS ADDITIONAL SPACE IF DOOR IS EQUIPPED WITH BOTH A LATCH AND A CLOSER



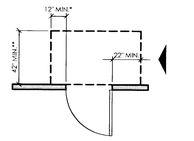
(B) FRONT APPROACH PUSH SIDE



(C) HINGE APPROACH PULL SIDE

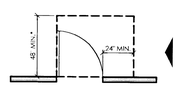


(D) HINGE APPROACH PULL SIDE



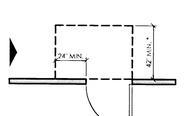
* IF BOTH CLOSER AND LATCH ARE PROVIDED
** 48 MIN IF BOTH CLOSER AND LATCH PROVIDED

(E) HINGE APPROACH PUSH SIDE



* 54" MIN. IF CLOSER IS PROVIDE

(F) LATCH APPROACH PULL SIDE



* 48" MIN. IF CLOSER IS PROVIDED

(G) LATCH APPROACH PUSH SIDE

ANSI 2003 FIGURE 404.2.3.1

08041_0500.1

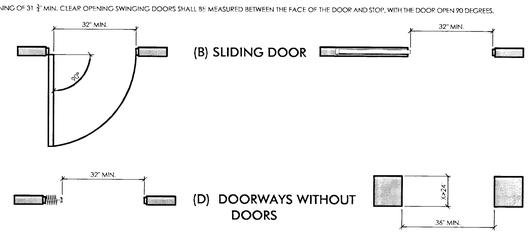
MANEUVERING CLEARANCE AT MANUAL SWINGING DOORS

5

THERE SHALL BE NO PROJECTIONS INTO THE CLEAR OPENING WIDTH LOWER THAN 34" ABOVE THE FLOOR. PROJECTIONS INTO THE CLEAR OPENING WIDTH BETWEEN 34" AND 80" ABOVE THE FLOOR SHALL NOT EXCEED 4".

EXCEPTIONS:
1. DOOR CLOSERS AND STOP SHALL BE PERMITTED TO BE 79" MIN. ABOVE THE FLOOR.
2. IN ALTERATIONS A PROJECTION OF 5/8" MAX. INTO THE REQUIRED CLEAR OPENING WIDTH SHALL BE PERMITTED FOR THE LATCH SIDE STOP.

TYPE 'B' UNITS: DOORWAYS SHALL HAVE A CLEAR OPENING OF 31 ¾" MIN. CLEAR OPENING SWINGING DOORS SHALL BE MEASURED BETWEEN THE FACE OF THE DOOR AND STOP, WITH THE DOOR OPEN 90 DEGREES.



PLAN VIEW
ANSI 2003 FIGURE 404.2.2

08041_1500.1

CLEAR WIDTH OF DOORWAYS

15

CRAIG D. SMITH
REGISTERED
No. 4967
6-2-09
ARCHITECT
STATE OF NEVADA

RNM

RNM DESIGN
ARCHITECTURE
PLANNING
LANDSCAPE
GRAPHICS
RNMDESIGN.COM

2 CORPORATE PARK
SUITE 100
IRVINE, CALIFORNIA
92606
1949.752.1800
1949.833.9603

PROJECT NAME/ADDRESS

CORONADO THE PASEOS
875 PANTERA PLACE
LAS VEGAS, NEVADA

CLIENT

SPINNAKER HOMES
4511 W. CHEYENNE AVE. ST 105
NO. LAS VEGAS, CA 89032
702-873-7773
702-873-7776 FAX

REVISIONS

THESE DRAWINGS AND IMAGES ARE NOT TO BE REPRODUCED OR COPIED IN ANY FORM, WITHOUT WRITTEN PERMISSION.
COPYRIGHT 2008 RNM DESIGN

DRAWING TITLE

ACCESSIBILITY DETAIL

DRAWING INFORMATION

PROJ. NO:	08041
FIRST SUBMITTAL DATE:	02.24.2009
SCALE:	N/A

DRAWING NUMBER

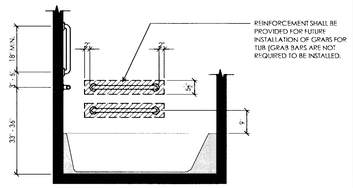
D-0.1

DELTA 2 - PLAN CHECK CORRECTION
05.27.09

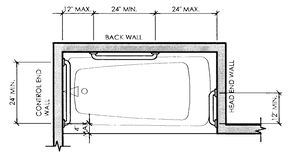
1. L-SHAPED CONTINUOUS GRAB BAR OF EQUIVALENT DIMENSIONS AND POSITIONING SHALL BE PERMITTED TO SERVE THE FUNCTION OF SEPARATE VERTICAL AND HORIZONTAL GRAB BARS.

2. ENCLOSURES FOR BATHTUBS SHALL NOT OBSTRUCT CONTROLS OR TRANSFER FROM WHEEL CHAIRS ONTO BATHTUB SEATS OR INTO BATHTUBS. ENCLOSURES OF BATHTUBS SHALL NOT HAVE TRACKS INSTALLED ON THE RIM OF THE BATHTUB.

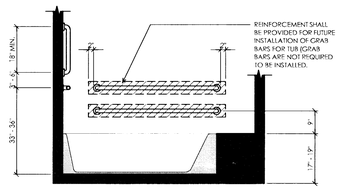
3. A HAND SHOWER WITH A HOSE 59" MIN. IN LENGTH THAT CAN BE USED AS BOTH A FIXED SHOWER HEAD AND AS A HAND SHOWER SHALL HAVE A CONTROL WITH A NON-POSITIVE SHUT-OFF FEATURE. AN ADJUSTABLE HEIGHT HAND SHOWER MOUNTED ON A VERTICAL BAR SHALL BE INSTALLED SO AS TO NOT OBSTRUCT THE USE OF GRAB BARS.



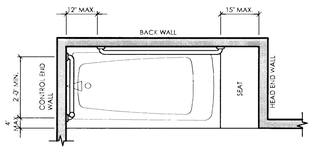
(A) ELEVATION WITHOUT SEAT
(ANSI 2003 - FIGURE 607.4.2)



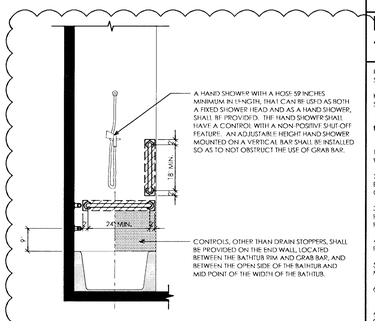
(B) PLAN - GRAB BARS FOR BATHTUB WITHOUT SEAT
(ANSI 2003 FIGURE 607.4.2)



(C) ELEVATION WITH SEAT
(ANSI 2003 - FIGURE 607.4.1)



(D) PLAN - GRAB BARS FOR BATHTUB WITH SEAT
(ANSI 2003 - FIGURE 607.4.1)

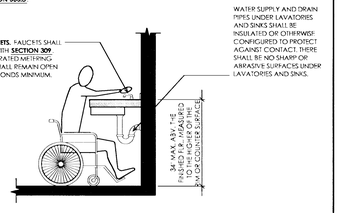


(E) LOCATION OF BATHTUB CONTROLS
(ANSI 2003 - FIGURE 607.4.3)

08041_2400.2

LOCATION OF BATHTUB CONTROLS AND GRAB BARS — 24

EXCEPTION: A LAVATORY IN A TOILET AND BATHING FACILITY FOR A SINGLE OCCUPANT, ACCESSED ONLY THROUGH A PRIVATE OFFICE AND NOT FOR COMMON USE OR PUBLIC USE, SHALL NOT BE REQUIRED TO COMPLY WITH **SECTION 606.3**.

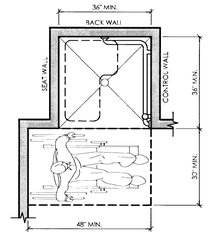


ANSI 2003 FIGURE - 606.3

08041_2500.2

HEIGHT OF LAVATORIES AND SINK FOR TYPE 'A' AND 'B' UNITS — 25

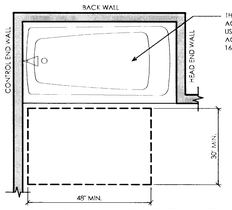
1. IF A SHOWER COMPARTMENT IS THE ONLY BATHING FACILITY, THE SHOWER COMPARTMENT SHALL HAVE DIMENSIONS OF 36" MIN. IN WIDTH AND 36" MIN. IN DEPTH.
2. SHOWER NEED NOT BE ACCESSIBLE, WHERE OPTION 'A' OR OPTION 'B' IS USED IN CONJUNCTION WITH AN ACCESSIBLE BATHTUB. SEE DETAIL 13/D0.2 AND 18/D0.2 FOR CLEAR SPACE FOR TYPE 'B' UNIT.



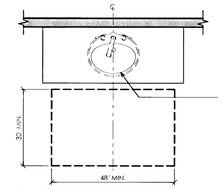
ANSI 2003 - FIGURE 608.2.1

08041_1600.2

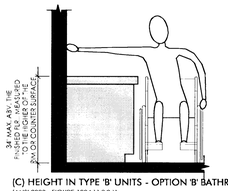
TRANSFER-TYPE SHOWER IN TYPE 'A' AND 'B' UNITS — 16



(A) BATHROOM CLEARANCE IN TYPE 'B' UNITS - OPTION 'B' BATHROOM
(ANSI 2003 - FIGURE 1004.11.3.2.1)



(B) CLEAR FLOOR SPACE IN TYPE 'B' UNITS - OPTION 'B' BATHROOM
(ANSI 2003 - FIGURE 1004.11.3.2.1)



(C) HEIGHT IN TYPE 'B' UNITS - OPTION 'B' BATHROOM
(ANSI 2003 - FIGURE 1004.11.3.2.1)

08041_1800.2

LAV. & BATH. CLEARANCE IN TYPE 'B' UNITS - OPTION 'B' — 18

PARALLEL APPROACH CLEAR FLOOR SPACE SHALL BE PROVIDED IN FRONT OF LAVATORY. THE CLEAR FLOOR SPACE SHALL BE CENTERED ON THE LAVATORY.

KNEE AND TOE CLEARANCE COMPLYING WITH **SECTION 306** SHALL BE PROVIDED. THE DIP OF THE OVER FLOW SHALL NOT BE CONSIDERED IN DETERMINING KNEE AND TOE CLEARANCES.

EXCEPTIONS:

1. A PARALLEL APPROACH COMPLYING WITH **SECTION 305** SHALL BE PERMITTED TO A KITCHEN SINK IN A SPACE WHERE A COOK TOP OR CONVENTIONAL RANGE IS NOT PROVIDED.

2. THE REQUIREMENT FOR KNEE AND TOE CLEARANCE SHALL NOT APPLY TO A LAVATORY IN A TOILET AND BATHING FACILITY FOR A SINGLE OCCUPANT, ACCESSED ONLY THROUGH A PRIVATE OFFICE AND NOT FOR COMMON USE OR PUBLIC USE.

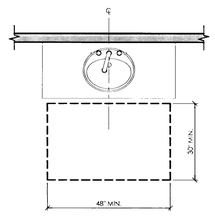
3. A KNEE CLEARANCE OF 24" MIN. ABOVE THE FLOOR SHALL BE PERMITTED AT LAVATORIES AND SINKS USED PRIMARILY BY CHILDREN AGES 6 THROUGH 12 WHERE THE RIM OR COUNTER SURFACE IS 31" MAX. ABOVE THE FLOOR.

4. A PARALLEL APPROACH COMPLYING WITH **SECTION 305** SHALL BE PERMITTED AT LAVATORIES AND SINKS USED PRIMARILY BY CHILDREN AGES 5 AND YOUNGER.

5. THE REQUIREMENT FOR KNEE AND TOE CLEARANCE SHALL NOT APPLY TO MORE THAN ONE BOWL OF A MULTI-BOWL SINK.

6. A PARALLEL APPROACH SHALL BE PERMITTED AT WET BARS.

A FORWARD APPROACH SHALL BE PERMITTED. THE LAVATORY SHALL COMPLY WITH SECTION 606 AND CABINETRY SHALL BE REMOVABLE WITHOUT REMOVAL OR REPLACEMENT OF THE LAVATORY, AND THE FLOOR FINISH SHALL EXTEND UNDER SUCH CABINETRY. MAXIMUM HEIGHT TO THE RIM OF THE LAVATORY SHALL BE 34". SEE DETAIL 25/D0.2

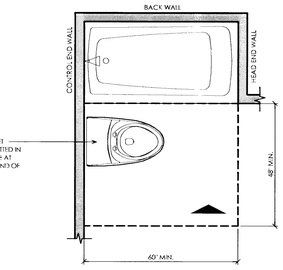


ANSI 2003 FIGURE - 1004.11.3.1.1

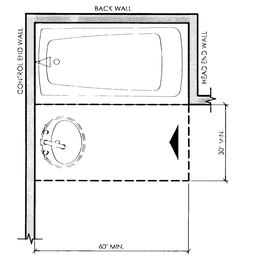
08041_2000.2

LAVATORY IN TYPE 'B' UNITS - OPTION 'A' BATHROOM — 20

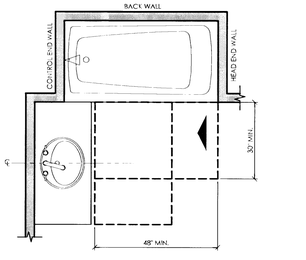
BATHTUB NEED NOT BE ACCESSIBLE, WHERE OPTION 'A' IS USED IN CONJUNCTION WITH AN ACCESSIBLE SHOWER. SEE DETAIL 16/D0.2 FOR MIN. SHOWER SIZES.



(A) FORWARD APPROACH BATHTUB IN TYPE 'B' UNITS - OPTION 'A' BATHROOMS
(ANSI 2003 FIGURE - 1004.11.3.1.3.2)



(B) PARALLEL APPROACH BATHTUB IN TYPE 'B' UNITS - OPTION 'A' BATHROOM
(ANSI 2003 FIGURE - 1004.11.3.1.3.1)



(C) PARELLEL APPROACH BATHTUB IN TYPE 'B' UNITS - OPTION 'A' BATHROOM
(ANSI 2003 FIGURE - 1004.11.3.1.3.1)

08041_1300.2

CLEAR SPACE AT BATHTUB IN TYPE 'B' UNITS - OPTION 'A' BATH — 13

FORWARD APPROACH CLEAR FLOOR SPACE SHALL BE PROVIDED IN FRONT OF LAVATORIES AND SINKS. THE CLEAR FLOOR SPACE SHALL BE CENTERED ON THE LAVATORY.

KNEE AND TOE CLEARANCE COMPLYING WITH **SECTION 306** SHALL BE PROVIDED. THE DIP OF THE OVER FLOW SHALL NOT BE CONSIDERED IN DETERMINING KNEE AND TOE CLEARANCES.

EXCEPTIONS:

1. A PARALLEL APPROACH COMPLYING WITH **SECTION 305** SHALL BE PERMITTED TO A KITCHEN SINK IN A SPACE WHERE A COOK TOP OR CONVENTIONAL RANGE IS NOT PROVIDED.

2. THE REQUIREMENT FOR KNEE AND TOE CLEARANCE SHALL NOT APPLY TO A LAVATORY IN A TOILET AND BATHING FACILITY FOR A SINGLE OCCUPANT, ACCESSED ONLY THROUGH A PRIVATE OFFICE AND NOT FOR COMMON USE OR PUBLIC USE.

3. A KNEE CLEARANCE OF 24" MIN. ABOVE THE FLOOR SHALL BE PERMITTED AT LAVATORIES AND SINKS USED PRIMARILY BY CHILDREN AGES 6 THROUGH 12 WHERE THE RIM OR COUNTER SURFACE IS 31" MAX. ABOVE THE FLOOR.

4. A PARALLEL APPROACH COMPLYING WITH **SECTION 305** SHALL BE PERMITTED AT LAVATORIES AND SINKS USED PRIMARILY BY CHILDREN AGES 5 AND YOUNGER.

5. THE REQUIREMENT FOR KNEE AND TOE CLEARANCE SHALL NOT APPLY TO MORE THAN ONE BOWL OF A MULTI-BOWL SINK.

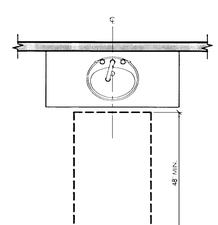
6. A PARALLEL APPROACH SHALL BE PERMITTED AT WET BARS.

CABINETRY SHALL BE PERMITTED UNDER THE LAVATORY, PROVIDED:

(A) THE CABINETRY CAN BE REMOVED WITH OUT REMOVAL OR REPLACEMENT OF THE LAVATORY;

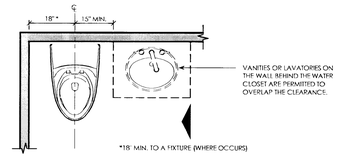
(B) THE FLOOR FINISH EXTENDS UNDER SUCH CABINETRY, AND

(C) THE WALLS BEHIND AND SURROUNDING CABINETRY ARE FINISHED.

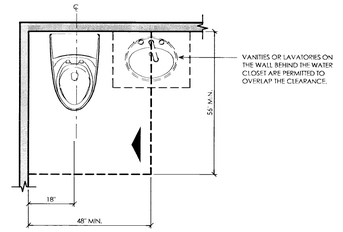


08041_1500.2

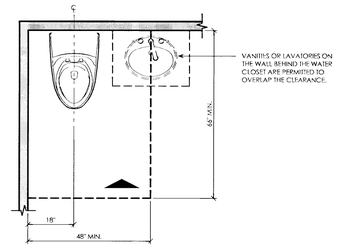
LAVATORY IN TYPE 'A' UNITS — 15



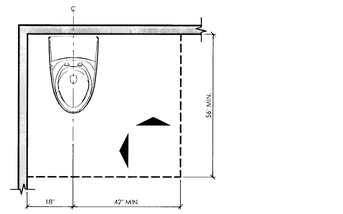
(A) WATER CLOSET LOCATION



(B) PARALLEL APPROACH



(C) FORWARD APPROACH

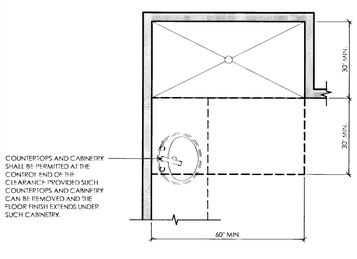


(D) PARALLEL OR FORWARD APPROACH

ANSI 2003 - FIGURE 1004.11.3.2.1

08041_0800.2

WATER CLOSETS IN TYPE 'B' UNITS - OPTION 'A' & 'B' — 8



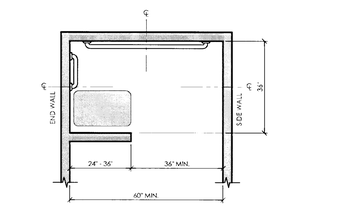
ANSI 2003 - FIGURE 1003.11.9

08041_0900.2

STANDARD ROLL-IN TYPE SHOWER IN TYPE 'A' UNITS — 9

1. ALTERNATE ROLL-IN TYPE SHOWER NEED NOT BE ACCESSIBLE WHERE BATHTUB IS USE IN CONJUNCTION FOR TYPE 'B' UNITS. SEE DETAILS 5, 3, AND 18 ON SHEET D-0.2 FOR CLEAR FLOOR SPACE AT BATHTUB.

2. INSIDE FINISHED DIMENSIONS MEASURE AT THE CENTER POINTS OF OPPOSING SIDES.

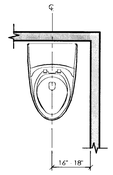


ANSI 2003 FIGURE - 608.2.3

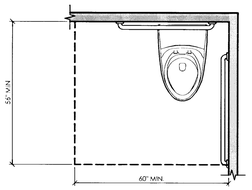
08041_1000.2

ALTERNATE ROLL-IN-TYPE SHOWER FOR TYPE 'A' & 'B' — 10

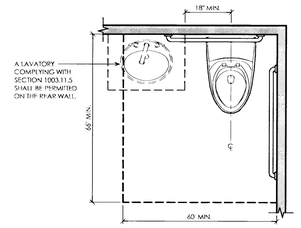
NOTE: THE REQUIRED CLEARANCE AROUND THE WATER CLOSET SHALL BE PERMITTED TO OVERLAP THE WATER CLOSET, ASSOCIATED GRAB BARS, PAPER DISPENSERS, COAT HOOKS, SHELVES, ACCESSIBLE ROUTES, CLEAR FLOOR SPACE REQUIRED FOR OTHER FIXTURES, AND THE WHEEL CHAIR TURNING SPACE. NO OTHER FIXTURES OR OBSTRUCTION SHALL BE LOCATED WITHIN THE REQUIRED WATER CLOSET CLEARANCE.



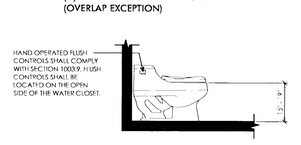
(A) WATER CLOSET LOCATION



(B) MINIMUM CLEARANCE



(C) CLEARANCE WITH LAVATORY (OVERLAP EXCEPTION)



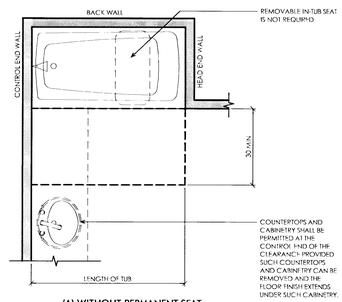
(D) WATER CLOSET HEIGHT

ANSI 2003 FIGURE 1003.11.7

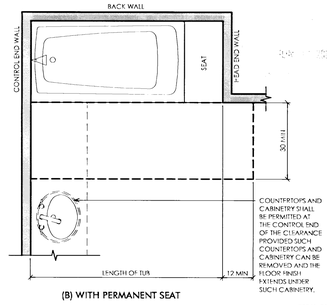
08041_0300.2

CLEAR SPACE AT WATER CLOSETS IN TYPE 'A' UNITS — 3

BATHTUB NEED NOT BE ACCESSIBLE, WHERE AN ACCESSIBLE SHOWER IS USED IN CONJUNCTION. SEE DETAIL 9.10, AND 16 ON SHEET D-0.2 FOR MIN. SHOWER SIZES.



(A) WITHOUT PERMANENT SEAT



(B) WITH PERMANENT SEAT

08041_0500.2

CLEAR SPACE AT BATH TUB IN TYPE 'A' UNITS — 5

CRAIG D. SMITH
REGISTERED
No. 4967
6-2-09
ARCHITECT
STATE OF NEVADA

RNM DESIGN
ARCHITECTURE
PLANNING
LANDSCAPE
GRAPHICS
RNMDESIGN.COM

2 CORPORATE PARK
SUITE 100
IRVINE, CALIFORNIA
92606
1949.752.1800
1949.833.9603

PROJECT NAME/ADDRESS

CORONADO THE PASEOS
875 PANTARA PLACE
LAS VEGAS, NEVADA

CLIENT

SPINNAKER HOMES
4511 W. CHEYENNE AVE. ST 105
NO. LAS VEGAS, CA 89032
702-873-7773
702-873-7776 FAX

REVISIONS

2	DELTA 2: PLAN CHECK CORRECTION 05.06.09

THESE DRAWINGS AND IMAGES ARE NOT TO BE REPRODUCED OR COPIED IN ANY FORM, WITHOUT WRITTEN PERMISSION. COPYRIGHT 2008 RNM DESIGN

DRAWING TITLE

ACCESSIBILITY DETAIL

DRAWING INFORMATION

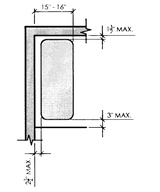
PROJ. NO: 08041
FIRST SUBMITTAL DATE: 02.24.2009
SCALE: N/A

DRAWING NUMBER

D-0.2

DELTA 2 - PLAN CHECK CORRECTION
05.27.09

WHERE A SEAT IS PROVIDED IN A STANDARD ROLL-IN SHOWER COMPARTMENT, IT SHALL BE A FOLDING TYPE AND SHALL BE ON THE WALL ADJACENT TO THE CONTROLS. THE HEIGHT OF THE SEAT SHALL BE 17" MIN. AND 19" MAX. ABOVE THE BATHROOM FLOOR, MEASURED TO THE TOP OF THE SEAT. IN TRANSFER-TYPE AND ALTERNATE ROLL-IN-TYPE SHOWERS, THE SEAT SHALL EXTEND FROM THE CONTROL WALL TO A POINT WITHIN 3" OF THE COMPARTMENT ENTRY. SEAT SHALL COMPLY WITH SECTION 610.3.1 OF 610.3.2.

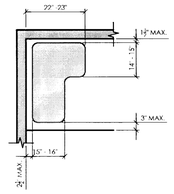


ANSI 2003 FIGURE - 610.3.1 08041_21D0.3

RECTANGULAR SHOWER COMPARTMENT SEAT

21

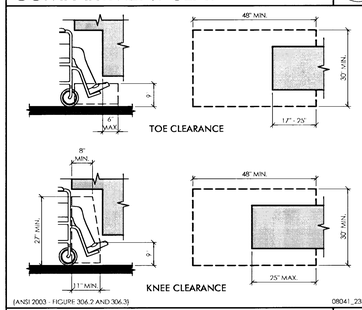
WHERE A SEAT IS PROVIDED IN A STANDARD ROLL-IN SHOWER COMPARTMENT, IT SHALL BE A FOLDING TYPE AND SHALL BE ON THE WALL ADJACENT TO THE CONTROLS. THE HEIGHT OF THE SEAT SHALL BE 17" MIN. AND 19" MAX. ABOVE THE BATHROOM FLOOR, MEASURED TO THE TOP OF THE SEAT. IN TRANSFER-TYPE AND ALTERNATE ROLL-IN-TYPE SHOWERS, THE SEAT SHALL EXTEND FROM THE CONTROL WALL TO A POINT WITHIN 3" OF THE COMPARTMENT ENTRY. SEAT SHALL COMPLY WITH SECTION 610.3.1 OF 610.3.2.



ANSI 2003 FIGURE - 610.3.2 08041_22D0.3

L-SHAPED SHOWER COMPARTMENT SEAT

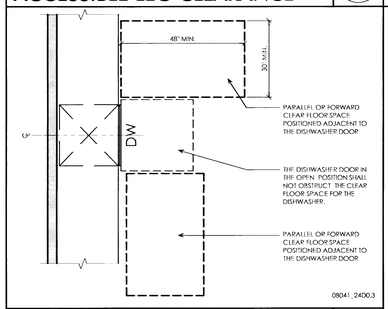
22



(ANSI 2003 - FIGURE 306.2 AND 306.3) 08041_23D0.3

ACCESSIBLE LEG CLEARANCE

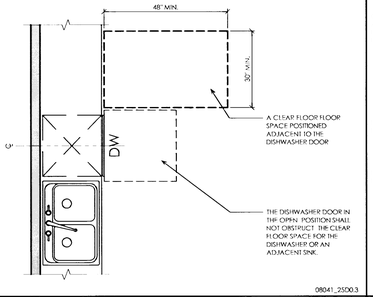
23



08041_24D0.3

CLEAR SPACE @ DISHWASHER IN TYPE 'B' UNITS

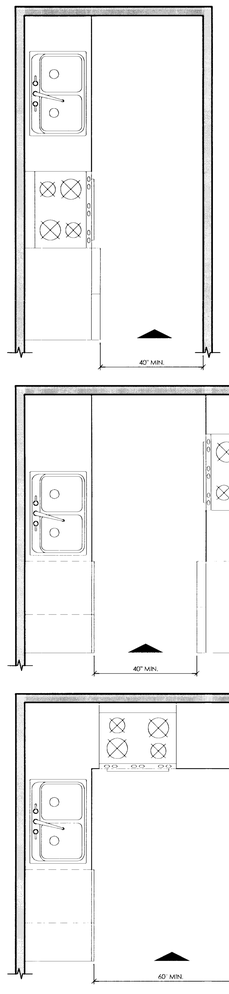
24



08041_25D0.3

CLEAR SPACE @ DISHWASHER IN TYPE 'A' UNITS

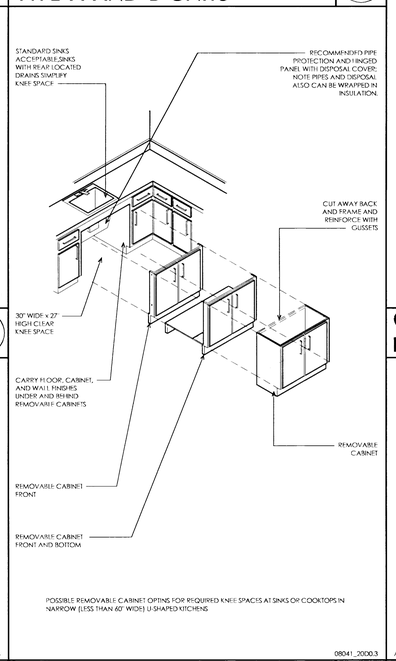
25



08041_18D0.3

CLEAR SPACE AT KITCHEN FOR TYPE 'A' AND 'B' UNITS

18



08041_20D0.3

REMOVABLE CABINET

20

1. A HAND SHOWER WITH A HOSE 59" MIN. IN LENGTH, THAT CAN BE USED BOTH AS A FIXED SHOWER HEAD AND AS A HAND SHOWER, SHALL BE PROVIDED. THE HAND SHOWER SHALL HAVE A CONTROL WITH A NON-POSITIVE SHUT-OFF FEATURE. AN ADJUSTABLE-HEIGHT HEAD MOUNTED ON A VERTICAL BAR SHALL BE INSTALLED SO AS TO NOT OBSTRUCT USE OF GRAB BARS.

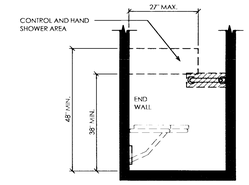
EXCEPTION: A FIXED SHOWER HEAD SHALL BE PERMITTED IN LIEU OF A HAND SHOWER WHERE THE SCOPING PROVISIONS OF THE ADMINISTRATIVE AUTHORITY REQUIRE A FIXED SHOWER HEAD.

2. THRESHOLDS IN ROLL-IN-TYPE SHOWER COMPARTMENTS SHALL BE 1/2" MAX. IN HEIGHT IN ACCORDANCE WITH **SECTION 303**. IN TRANSFER-TYPE SHOWER COMPARTMENTS, THRESHOLDS 1/2" MAX. IN HEIGHT SHALL BE BEVELED, ROUNDED, OR VERTICAL.

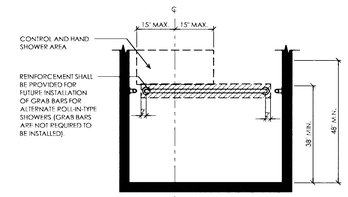
EXCEPTION: IN EXISTING FACILITIES, IN TRANSFER-TYPE SHOWER COMPARTMENTS WHERE PROVISION OF A THRESHOLD 1/2" IN HEIGHT WOULD DISTURB THE STRUCTURAL REINFORCEMENT OF THE FLOOR SLAB, A THRESHOLD 2" MAX. IN HEIGHT SHALL BE PERMITTED.

3. SHOWER COMPARTMENT ENCLOSURES FOR SHOWER COMPARTMENTS SHALL NOT OBSTRUCT CONTROLS OR OBSTRUCT TRANSFER FROM WHEELCHAIRS ONTO SHOWER SEATS.

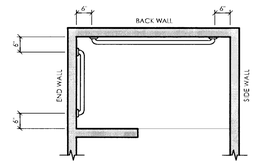
4. SHOWERS SHALL DELIVER WATER THAT IS 120 DEGREES F (49 DEGREES C) MAX.



(A) ELEVATION



(B) ELEVATION



(C) PLAN - ALTERNATE ROLL-IN-TYPE SHOWER

08041_14D0.3

GRAB BAR/CONTOL LOCATION FOR ROLL-IN-TYPE SHOWER

14

1. A HAND SHOWER WITH A HOSE 59" MIN. IN LENGTH, THAT CAN BE USED BOTH AS A FIXED SHOWER HEAD AND AS A HAND SHOWER, SHALL BE PROVIDED. THE HAND SHOWER SHALL HAVE A CONTROL WITH A NON-POSITIVE SHUT-OFF FEATURE. AN ADJUSTABLE-HEIGHT SHOWER HEAD MOUNTED ON A VERTICAL BAR SHALL BE INSTALLED SO AS TO NOT OBSTRUCT THE USE OF GRAB BARS.

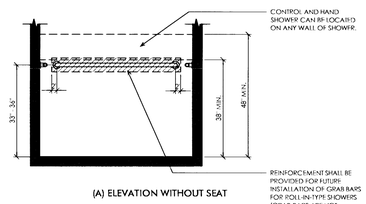
EXCEPTION: A FIXED SHOWER HEAD SHALL BE PERMITTED IN LIEU OF A HAND SHOWER WHERE THE SCOPING PROVISIONS OF THE ADMINISTRATIVE AUTHORITY REQUIRE A FIXED SHOWER HEAD.

2. THRESHOLDS IN ROLL-IN-TYPE SHOWER COMPARTMENTS SHALL BE 1/2" MAX. IN HEIGHT IN ACCORDANCE WITH **SECTION 303**. IN TRANSFER-TYPE SHOWER COMPARTMENTS, THRESHOLDS 1/2" MAX. IN HEIGHT SHALL BE BEVELED, ROUNDED, OR VERTICAL.

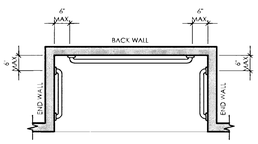
EXCEPTION: IN EXISTING FACILITIES, IN TRANSFER-TYPE SHOWER COMPARTMENTS WHERE PROVISION OF A THRESHOLD 1/2" IN HEIGHT WOULD DISTURB THE STRUCTURAL REINFORCEMENT OF THE FLOOR SLAB, A THRESHOLD 2" MAX. IN HEIGHT SHALL BE PERMITTED.

3. SHOWER COMPARTMENT ENCLOSURES FOR SHOWER COMPARTMENTS SHALL NOT OBSTRUCT CONTROLS OR OBSTRUCT TRANSFER FROM WHEELCHAIRS ONTO SHOWER SEATS.

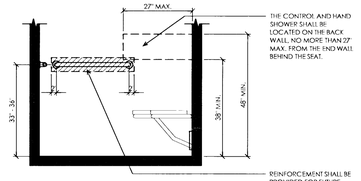
4. SHOWERS SHALL DELIVER WATER THAT IS 120 DEGREES F (49 DEGREES C) MAX.



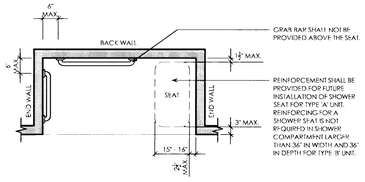
(A) ELEVATION WITHOUT SEAT



(B) PLAN - GRAB BAR FOR ROLL-IN-TYPE SHOWER WITH OUT SEAT



(C) ELEVATION WITH SEAT



(D) PLAN - GRAB BAR FOR ROLL-IN-TYPE SHOWER WITH SEAT

ANSI 2003 FIGURE 608.3.2 AND 608.5.2 08041_09D0.3

GRAB BARS AND CONTROL

9

CABINETRY SHALL BE PERMITTED UNDER THE WORK SURFACE, PROVIDED:

(A) THE CABINETRY CAN BE REMOVED OR REPLACED,

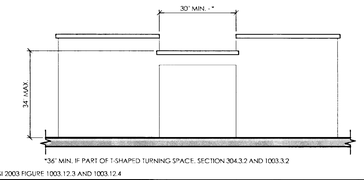
(B) THE FLOOR FINISH EXTENDS UNDER SUCH CABINETRY, AND

(C) THE WALLS BEHIND AND SURROUNDING CABINETRY ARE FINISHED

1. A CLEAR FLOOR SPACE, POSITIONED FOR A FORWARD APPROACH TO THE WORK SURFACE, SHALL BE PROVIDED. KNEE AND TOE CLEARANCE COMPLYING WITH SECTION 306 SHALL BE PROVIDED. THE CLEAR FLOOR SPACE SHALL BE CENTERED ON THE WORK SURFACE.

2. A COUNTER THAT IS ADJUSTABLE TO PROVIDE A WORK SURFACE AT VARIBLE HEIGHTS 29" MIN. ABOVE THE FLOOR, OR THAT CAN BE RELOCATED WITHIN THAT RANGE WITHOUT CUTTING THE COUNTER OR DAMAGING ADJACENTS CABINETS, WALLS, DOORS, AND STRUCTURAL ELEMENTS, SHALL BE PERMITTED.

3. THERE SHALL BE NO SHARP OR ABRASIVE SURFACE UNDER THE EXPOSED PORTION OF WORK SURFACE COUNTERS.



*36" MIN. IF PART OF T-SHAPED TURNING SPACE. SECTION 304.3.2 AND 1003.3.2

ANSI 2003 FIGURE 1003.12.3 AND 1003.12.4 08041_10D0.3

WORK SURFACE IN KITCHEN AND KITCHEN SINK FOR TYPE 'A' UNITS

10

GENERAL:
1. GRAB BARS ARE NOT REQUIRED TO BE INSTALLED IN A TOILET ROOM FOR A SINGLE OCCUPANT, ACCESSED ONLY THROUGH A PRIVATE OFFICE AND NOT FOR COMMON USE OR PUBLIC USE, PROVIDED REINFORCEMENT HAS BEEN INSTALLED IN WALLS AND LOCATED SO AS TO PERMIT THE INSTALLATION OF GRAB BARS.

2. IN TYPE 'A' UNITS LOCATED IN INSTITUTIONAL FACILITIES AND ASSISTED LIVING FACILITIES, NO SWING-UP GRAB BARS SHALL BE PERMITTED TO BE INSTALLED IN LIEU OF THE REAR WALL AND SIDE WALL GRAB BARS.

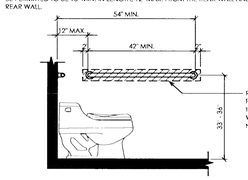
3. IN A TYPE 'B' UNIT, WHERE FIXTURE ARE LOCATED ON BOTH SIDES OF THE WATER CLOSET, A SWING-UP GRAB BAR COMPLYING WITH SECTIONS 604.5.3 AND 609 SHALL BE PERMITTED.

REAR GRAB BAR:
1. THE REAR GRAB BAR SHALL BE PERMITTED TO BE 24" MIN. IN LENGTH, CENTERED ON THE WATER CLOSET, WHERE WALL SPACE DOES NOT PERMIT A GRAB BAR 36" MIN. IN LENGTH DUE TO THE LOCATION OF A RECESSED FIXTURE ADJACENT TO THE WATER CLOSET.

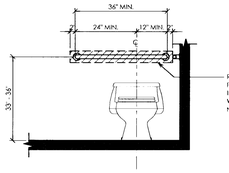
2. IN A TYPE A OR TYPE B UNIT, THE REAR GRAB BAR SHALL BE PERMITTED TO BE 24" MIN. IN LENGTH, CENTERED ON THE WATER CLOSET, WHERE WALL SPACE DOES NOT PERMIT A GRAB BAR 36" MIN. IN LENGTH.

3. WHERE AN ADMINISTRATIVE AUTHORITY REQUIRES FLUSH CONTROLS FOR FLUSH VALVES TO BE LOCATED IN A POSITION THAT CONFLICTS WITH THE LOCATION OF THE REAR GRAB BAR, THAT GRAB BAR SHALL BE PERMITTED TO BE SPLIT OR SHIFTED TO THE OPEN SIDE OF THE TOILET AREA.

SIDE GRAB BAR:
1. IN A TYPE 'B' UNIT, WHEN A SIDE WALL IS NOT AVAILABLE FOR A 42" GRAB BAR, THE SIDE WALL GRAB BAR SHALL BE PERMITTED TO BE 18" MIN. IN LENGTH, 12" MAX. FROM THE REAR WALL AND EXTENDING 30" MIN. FROM THE REAR WALL.



(A) SIDE WALL GRAB BAR FOR WATER CLOSET
(ANSI 2003 - FIGURE 604.5.1)

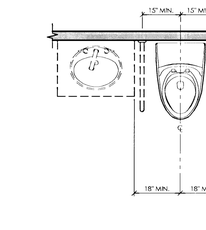


(B) REAR WALL GRAB BAR FOR WATER CLOSET
(ANSI 2003 - FIGURE 604.5.2)

08041_02D0.3

TYPE 'A' AND 'B' UNITS BLOCKING AT WATER CLOSET

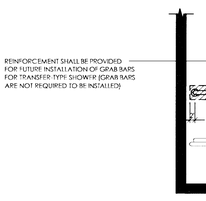
2

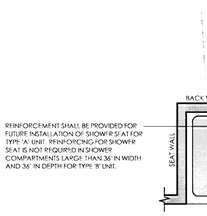


ANSI 2003 FIGURE 604.5.3 08041_03D0.3

SWING-UP GRAB BAR FOR WATER CLOSET

3





ANSI 2003 - FIGURE 608.3.1 08041_05D0.3

GRAB BAR IN TRANSFER-TYPE SHOWER

5

CRAIG D. SMITH
REGISTERED
No. 4967
6-2-09
ARCHITECT
STATE OF NEVADA

RNM DESIGN
ARCHITECTURE
PLANNING
LANDSCAPE
GRAPHICS
RNMDESIGN.COM

2 CORPORATE PARK
SUITE 100
IRVINE, CALIFORNIA
92606
1949.752.1800
1949.833.9603

PROJECT NAME/ADDRESS

CORONADO THE PASEOS
875 PANTARA PLACE
LAS VEGAS, NEVADA

CLIENT

SPINNAKER HOMES
4511 W. CHEYENNE AVE. ST 105
NO. LAS VEGAS, CA 89032
702-873-7773
702-873-7776 FAX

REVISIONS

THESE DRAWINGS AND IMAGES ARE NOT TO BE REPRODUCED OR COPIED IN ANY FORM, WITHOUT WRITTEN PERMISSION.
COPYRIGHT 2008 RNM DESIGN

DRAWING TITLE

ACCESSIBILITY DETAIL

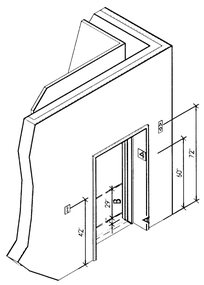
DRAWING INFORMATION

PROJ. NO: 08041
FIRST SUBMITTAL DATE: 02.24.2009
SCALE: N/A

DRAWING NUMBER

D-0.3

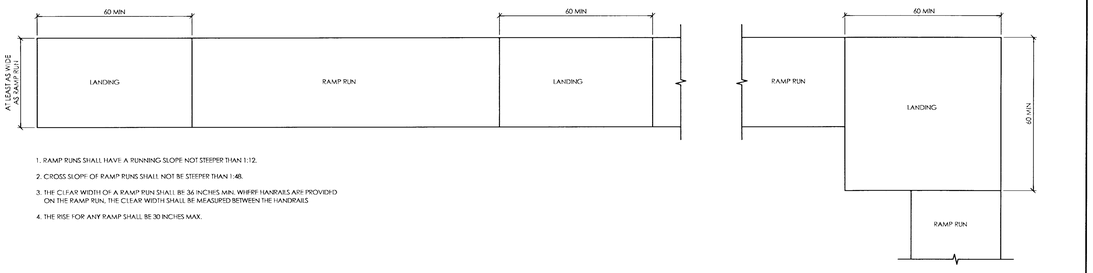
DELTA 2 - PLAN CHECK CORRECTION
05.27.09



NOTE: THE AUTOMATIC DOOR REOPENING DEVICE IS ACTIVATED IF AN OBJECT PASSES THROUGH EITHER LINE A OR LINE B. LINE A AND LINE B REPRESENT THE VERTICAL LOCATIONS OF THE DOOR REOPENING DEVICE NOT REQUIRING CONTACT.

08041_1600.4

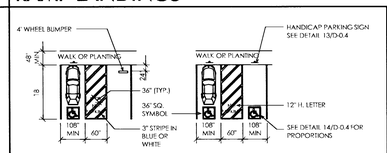
ELEVATOR ACCESSIBILITY — 16



1. RAMP RUNS SHALL HAVE A RUNNING SLOPE NOT STEEPER THAN 1:12.
2. CROSS SLOPE OF RAMP RUNS SHALL NOT BE STEEPER THAN 1:48.
3. THE CLEAR WIDTH OF A RAMP RUN SHALL BE 36 INCHES MIN. WHERE HANDRAILS ARE PROVIDED ON THE RAMP RUN, THE CLEAR WIDTH SHALL BE MEASURED BETWEEN THE HANDRAILS.
4. THE RISE FOR ANY RAMP SHALL BE 30 INCHES MAX.

08041_0100.4

RAMP LANDINGS — 1

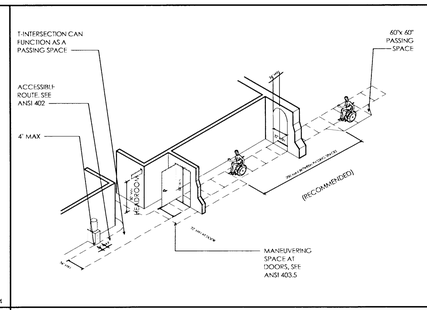


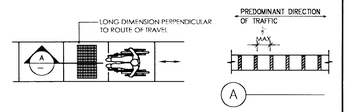
SINGLE (NON-VAN) VAN

1. HANDICAPPED SPACE MUST PERMIT THE USE OF EITHER OF CAR DOORS.
2. BUMPERS ARE REQUIRED WHEN NO CURB OR BARRIER IS PROVIDED WHICH WILL PREVENT ENCROACHMENT OF CARS OVER WALKWAYS.
3. WHEELCHAIR USERS MUST NOT BE FORCED TO GO BEHIND PARKED CARS OTHER THAN THEIR OWN.
4. SURFACE SLOPES OF PARKING AREAS FOR THE DISABLED SHOULD BE MINIMAL BUT ARE REQUIRED NOT TO EXCEED 2%. IN ANY DIRECTION.
5. RAMPS SHALL NOT ENCROACH INTO ANY PARKING SPACE.
6. HANDICAPPED SPACE SHALL BE NEAR ACCESSIBLE PRIMARY ENTRANCE OF BLDG.
7. ONE OF EVERY 8 ACCESSIBLE SPACES IS REQ'D TO BE A VAN ACCESSIBLE SPACE, BUT NOT LESS THAN 1
8. WHEN MORE THAN 1 SPACE IS REQUIRED, 2 SPACES CAN BE PROVIDED WITHIN A 23' WIDE AREA.
9. EACH PARKING SPACE IS REQUIRED TO BE AT LEAST 18' LONG.

08041_1200.4

ACCESSIBLE PARKING — 12





GRADING NOTES:

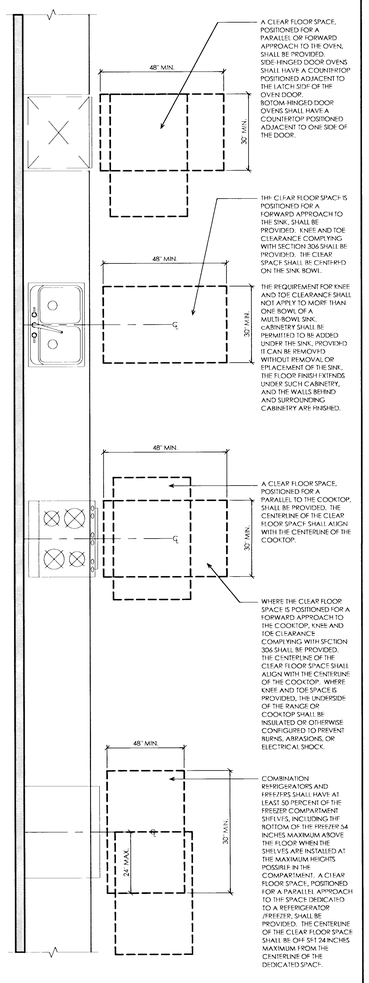
1. WALKS, SIDEWALKS, AND PEDESTRIAN WAYS SHOULD NOT HAVE GRATINGS.
2. WHERE GRATINGS OCCUR IN THE PATH OF TRAVEL, THE GRID OPENINGS ARE REQUIRED TO BE NO GREATER THAN 1/2" IN THE DIRECTION OF TRAFFIC FLOW.

WALKS AND SIDEWALKS NOTES:

1. PRIVATE WALKS OR SIDEWALKS ARE REQUIRED TO BE ACCESSIBLE IF THEY LEAD TO BUILDINGS AND FACILITIES REQUIRED TO BE ACCESSIBLE.
2. A MINIMUM OF 48" IS REQUIRED.
3. WALKS AND SIDEWALKS SHALL HAVE CONTINUOUS COMMON SURFACE, NOT INTERRUPTED BY STEPS OR BY ABRUPT CHANGES IN LEVEL EXCEEDING 1/2" AND SHALL BE A MINIMUM OF 48" WIDE.
4. SURFACES WITH SLOPE OF LESS THAN 6% GRADIENT SHALL BE SLIP-RESISTANT.
5. SURFACE CROSS SLOPES SHALL NOT EXCEED 1/4"/FT.

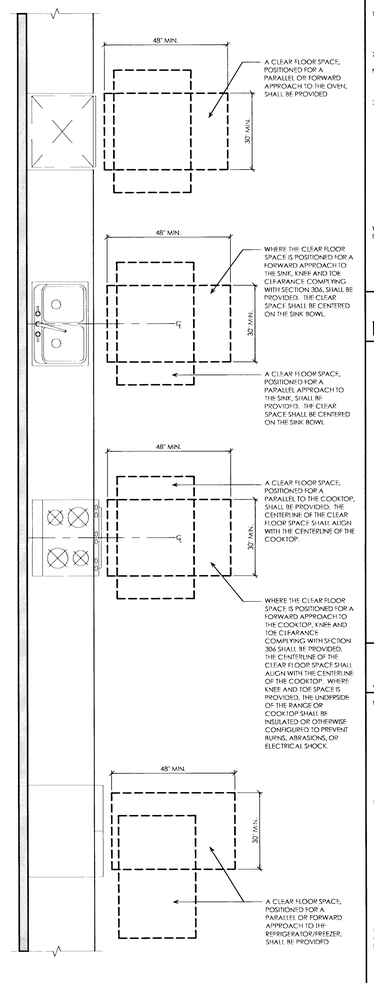
08041_0200.4

ACCESSIBLE ROUTE — 2



08041_2000.4

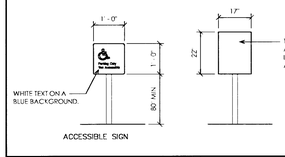
KITCHEN APPLIANCES CLEAR SPACE FOR TYPE 'A' UNITS — 25



08041_2000.4

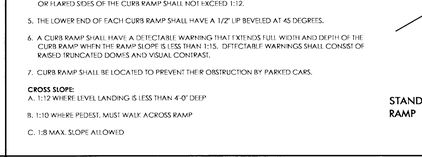
KITCHEN APPLIANCES CLEAR SPACE FOR TYPE 'B' UNITS — 20

1. EACH PARKING SPACE TO HAVE A PERMANENT (70 SQ. IN.) REFLECTORIZED PORCELAIN ENAMELED SIGN. SIGN MAY BE STANDING SIGNS LOCATED AT INTERIOR END OF PARKING SPACE MOUNTED MINIMUM OF 80" ABOVE FINISH GRADE. WALL MOUNTED SIGNS LOCATED AT INTERIOR END OF PARKING SPACE MOUNTED MINIMUM OF 80" ABOVE FINISH GRADE.
2. OFF-STREET PARKING FACILITIES TO HAVE A SIGN AT STREET ENTRANCE NOT LESS THAN 17"X22" IN SIZE. SIGN TEXT TO READ THE FOLLOWING: "UNAUTHORIZED VEHICLES PARKED IN DESIGNATED ACCESSIBLE SPACES NOT DISPLAYING DISTINGUISHING PLACARDS OR LICENSE PLATES ISSUED FOR PERSONS WITH DISABILITIES MAY BE TOWED AWAY AT OWNER'S EXPENSE. TOWED VEHICLES MAY BE RECLAIMED AT _____ OR BY TELEPHONING _____."
3. SURFACE IDENTIFICATION OF SPACES WITH INTERNATIONAL SYMBOL OF ACCESSIBILITY IN BLUE PAINT 3 FEET SQUARE.



08041_1300.4

HCP PARKING SIGNAGE — 13



CURB RAMPS

1. CURB RAMPS SHALL BE CONSTRUCTED AT EACH CORNER OF STREET INTERSECTIONS AND WHERE PEDESTRIAN WAY CROSSES A CURB.
2. CURB RAMPS SHALL BE A MINIMUM OF 4 FT. IN WIDTH AND SHALL BE, GENERALLY, IN A SINGLE SLOPED PLANE, WITH A MINIMUM OF SURFACE WARPING AND CROSS SLOPE.
3. THE SLOPE OF THE CURB SHALL NOT EXCEED 1:12. THE SLOPE OF FANNED OR FLARED SIDES OF CURB RAMPS SHALL NOT EXCEED 1:8. IF A CURB RAMP IS LOCATED WHERE PEDESTRIANS MUST WALK ACROSS THE RAMP, THEN IT SHALL HAVE FLARED SIDES WHICH SLOPE AT MAXIMUM 1:10.
4. A LEVEL LANDING 4 FT. DEEP SHALL BE PROVIDED AT THE UPPER END OF EACH CURB RAMP OVER ITS FULL WIDTH TO PERMIT SAFE EGRESS FROM THE RAMP SURFACE, OR THE SLOPE OF THE FANNED OR FLARED SIDES OF THE CURB RAMP SHALL NOT EXCEED 1:12.
5. THE LOWER END OF EACH CURB RAMP SHALL HAVE A 1/2" LIP BEVELED AT 45 DEGREES.
6. A CURB RAMP SHALL HAVE A DETECTABLE WARNING THAT EXTENDS FULL WIDTH AND DEPTH OF THE CURB RAMP WHEN THE RAMP SLOPE IS LESS THAN 1:15. DETECTABLE WARNINGS SHALL CONSIST OF RAISED TRUNCATED DOMES AND VISUAL CONTRAST.
7. CURB RAMP SHALL BE LOCATED TO PREVENT THEIR OBSTRUCTION BY PARKED CARS.

CROSS SLOPE:

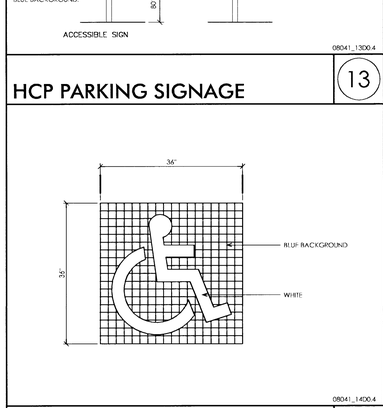
A. 1:12 WHERE LEVEL LANDING IS LESS THAN 4'-0" DEEP

B. 1:10 WHERE PEDEST. MUST WALK ACROSS RAMP

C. 1:8 MAX. SLOPE ALLOWED

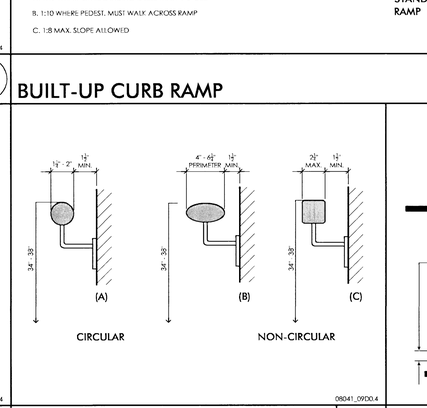
08041_0300.4

BUILT-UP CURB RAMP — 3



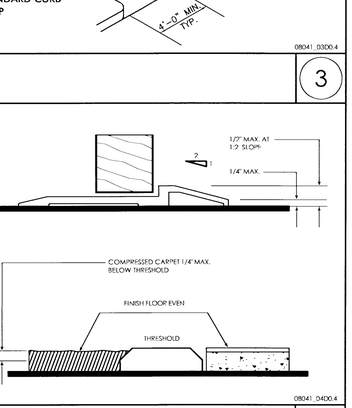
08041_1400.4

ACCESSIBILITY PROPORTIONS — 14



08041_0900.4

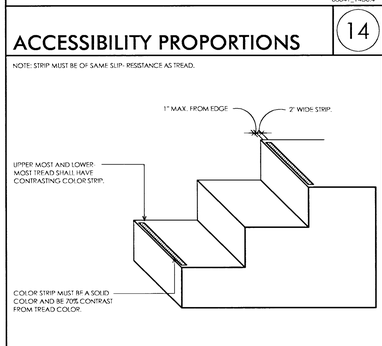
HANDRAIL CROSS SECTION — 9



08041_0400.4

TYPICAL FLOOR TRANSITION — 4

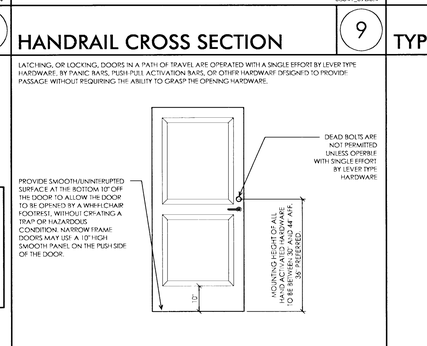
NOTE: STRIP MUST BE OF SAME SLIP- RESISTANCE AS TREAD.



08041_1500.4

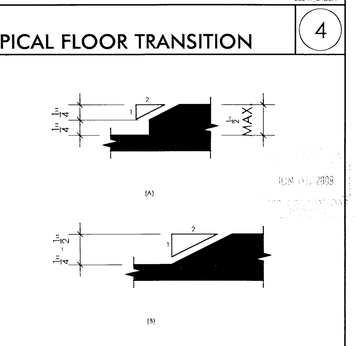
WARNING STRIP AT TREADS — 15

LATCHING, OR LOCKING, DOORS IN A PATH OF TRAVEL ARE OPERATED WITH A SINGLE EFFORT BY LEVER TYPE HARDWARE, BY PANIC BARS, PUSH PLATE ACTIVATION BARS, OR OTHER HARDWARE DESIGNED TO PROVIDE PASSAGE WITHOUT REQUIRING THE ABILITY TO GRASP THE OPENING HARDWARE.



08041_1000.4

TYPICAL ACCESSIBLE DOOR — 10



08041_0500.4

BEVELED CHANGES IN LEVEL — 5

CRAIG D. SMITH
REGISTERED
No. 4967
6-2-09
ARCHITECT
STATE OF NEVADA

RNM

RNM DESIGN
ARCHITECTURE
PLANNING
LANDSCAPE
GRAPHICS
RNMDESIGN.COM

2 CORPORATE PARK
SUITE 100
IRVINE, CALIFORNIA
92606
T 949.752.1800
F 949.833.9603

PROJECT NAME/ADDRESS

CORONADO THE PASEOS

875 PANTARA PLACE
LAS VEGAS, NEVADA

CLIENT

SPINNAKER HOMES

4511 W. CHEYENNE AVE. ST 105
NO. LAS VEGAS, CA 89032
702-873-7773
702-873-7776 FAX

REVISIONS

THESE DRAWINGS AND IMAGES ARE NOT TO BE REPRODUCED OR COPIED IN ANY FORM, WITHOUT WRITTEN PERMISSION. COPYRIGHT 2008 RNM DESIGN

DRAWING TITLE

ACCESSIBILITY DETAIL

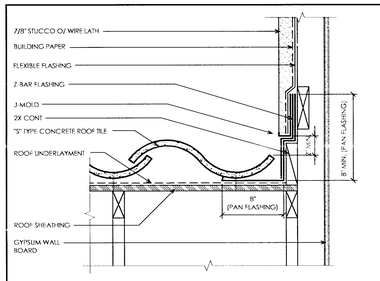
DRAWING INFORMATION

PROJ. NO: 08041
FIRST SUBMITTAL DATE: 02.24.2009
SCALE: N/A

DRAWING NUMBER

D-0.4

DELTA 2 - PLAN CHECK CORRECTION
05.27.09

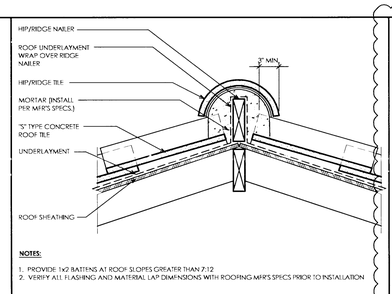


SECTION VIEW

08041_21D-1.1

RAKE AT WALL

21



NOTES:

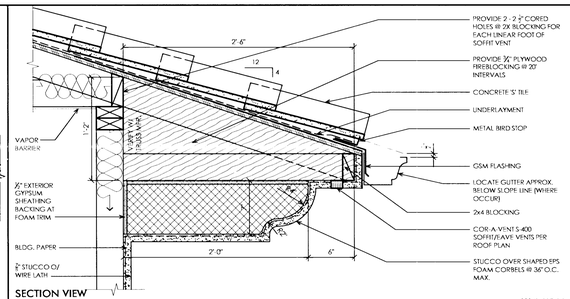
1. PROVIDE 1x2 BATTENS AT ROOF SLOPES GREATER THAN 7:12
2. VERIFY ALL FLASHING AND MATERIAL LAP DIMENSIONS WITH ROOFING MFR'S SPECS PRIOR TO INSTALLATION

SECTION VIEW

08041_16D-1.1

HIP/RIDGE TILE

16

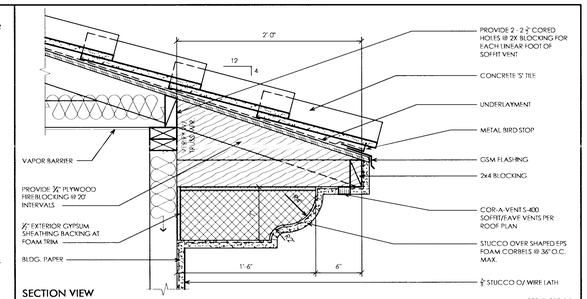


SECTION VIEW

08041_11D-1.1

30" EAVE WITH CORBEL

11

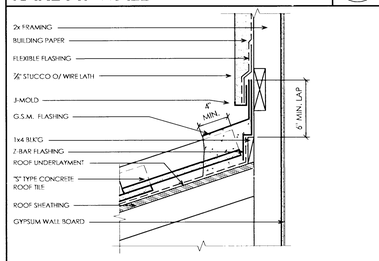


SECTION VIEW

08041_01D-1.1

24" EAVE WITH CORBEL

1



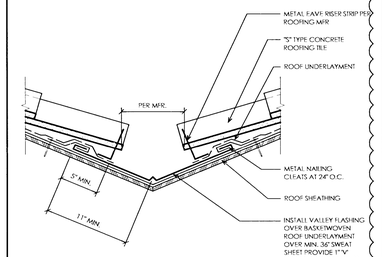
NOTE: VERIFY ALL FLASHING AND MATERIAL LAP DIMENSIONS WITH ROOFING MFR'S SPECS PRIOR TO INSTALLATION

SECTION VIEW

08041_22D-1.1

ROOF AT WALL

22

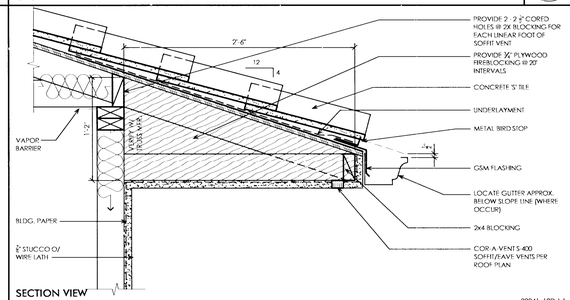


SECTION VIEW

08041_17D-1.1

OPEN VALLEY FLASHING

17

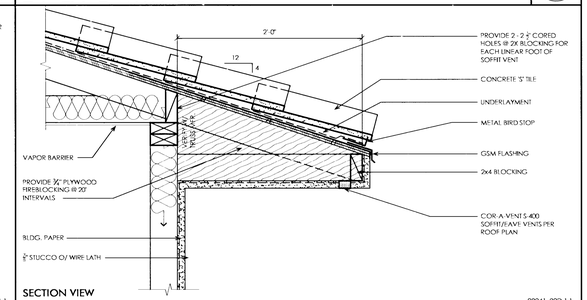


SECTION VIEW

08041_12D-1.1

30" EAVE CORBEL

12



SECTION VIEW

08041_02D-1.1

24" EAVE CORBEL

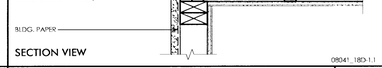
2

SECTION VIEW

08041_23D-1.1

SADDLE

23

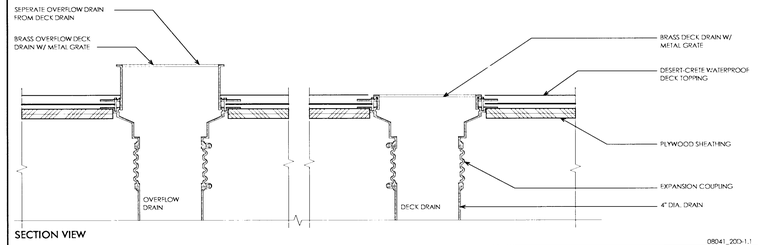


SECTION VIEW

08041_18D-1.1

TYPICAL RAKE @ STUCCO

18

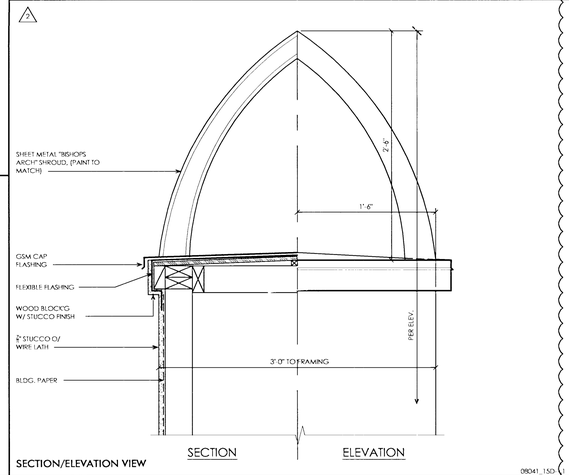


SECTION VIEW

08041_20D-1.1

DECK DRAIN AND OVERFLOW DRAIN

20

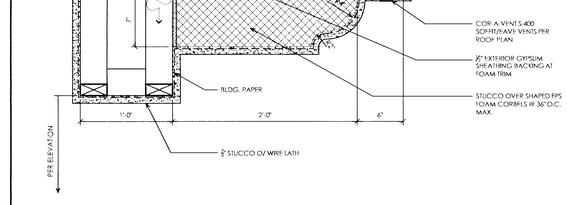


SECTION/ELEVATION VIEW

08041_15D-1.1

DECORATIVE CHIMENY

15

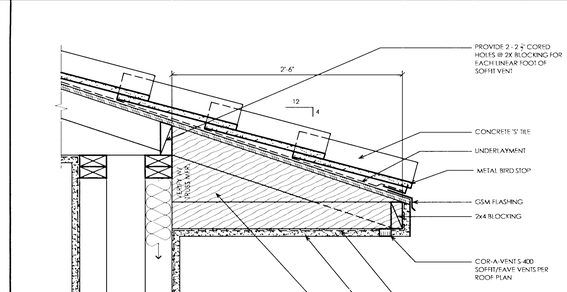


SECTION VIEW

08041_04D-1.1

30" EAVE @ SOFFIT WITH CORBEL

4



SECTION VIEW

08041_05D-1.1

30" EAVE @ SOFFIT

5

RNM DESIGN
ARCHITECTURE
PLANNING
LANDSCAPE
GRAPHICS
RNMDESIGN.COM

2 CORPORATE PARK
SUITE 100
IRVINE, CALIFORNIA
92606
1.949.752.1800
F.949.833.9603

PROJECT NAME/ADDRESS

CORONADO
THE PASEOS
875 PANTARA PLACE
LAS VEGAS, NEVADA

CLIENT

SPINNAKER
HOMES
4511 W. CHEYENNE AVE. ST 105
NO. LAS VEGAS, CA 89032
702-873-7773
702-873-7776 FAX

REVISIONS

1. DELTA 1: PLAN CHECK CORRECTION
2. DELTA 2: PLAN CHECK CORRECTION
3. DELTA 3: PLAN CHECK CORRECTION

THESE DRAWINGS AND IMAGES ARE NOT TO BE REPRODUCED OR COPIED IN ANY FORM WITHOUT WRITTEN PERMISSION. COPYRIGHT 2008 RNM DESIGN

DRAWING TITLE

ARCHITECTURAL
DETAILS

DRAWING INFORMATION

PROJ. NO: 08041
FIRST SUBMITTAL DATE: 02.24.2009
SCALE: N/A

JUL 09 2009

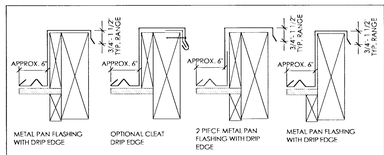
PLANS APPROVED
CONSTRUCTION
Building & Safety Dept.
City of Las Vegas, Nevada
DATE SEP 02 2009

DRAWING NUMBER

D-1.1

DELTA 3 - PLAN CHECK CORRECTION

07.09.09



NOTES:
1.- FLASHING DETAILS MAY VERY ACCORDING TO LOCAL WEATHER CONDITIONS, SLOPE OF ROOF AND TRIBUTARY WATER AREA.

2.- UNDERLAYMENT WILL EXTAND MIN. OF 4" UP VERTICAL WOOD BLOCKING OR WALL.
3.- SHEET METAL FLASHING SHOULD BE A MIN. OF 26 GA., G40-90 GALVANIZED STEEL, 16 OZ. COPPER OR AN EQUIVALENT LONGEVITY NON-CORRESIVE METAL.

4.- DIMENSIONS SHOWN ARE MIN. AND AREA INTENDED TO BE APPROXIMATE TO ALOW FOR REASONABLE TOLERANCES DUE TO FIELD CONDITIONS.

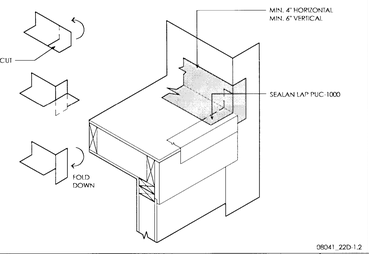
5.- RAKE FLASHING AND WOOD NAILER/TRIM BOARD WILL BE RAISED ABOVE THE ROOF DECK TO A HEIGHT GREATER THAN THE HEIGHT OF THE INSTALLED ROOF TILE.

SECTION VIEW

08041_21D-1.2

RAKE FLASHING-OPTIONS

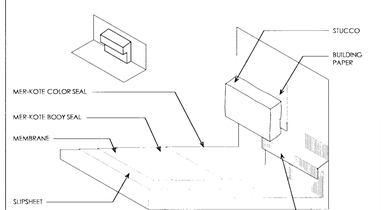
21



08041_22D-1.2

CORNER WALL TO DECK

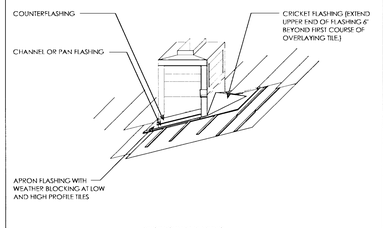
22

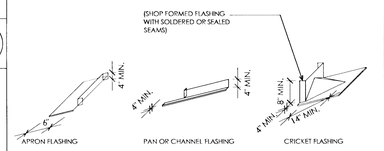


08041_23D-1.2

WALL VENTING

23





NOTES:
1.- CHIMNEY FLASHING DIMENSIONS MAY VARY ACCORDING TO LOCAL WEATHER CONDITIONS, CHIMNEY SIZE, CHIMNEY LOCATION, SLOPE OF ROOF, RAFTER LENGTH BEHIND CHIMNEY AND TRIBUTARY WATER AREA.

2.- EXTEND A MIN. OF 6" UP CHIMNEY AND 14" UP ROOF SLOPE.

3.- A DIVERTER OR CRICKET FLASHING IS REQUIRED FOR CHIMNEYS AND OTHER PENETRATIONS EQUAL TO OR GREATER THAN 30" IN WIDTH TO PROMOTE POSITIVE RUN OFF.

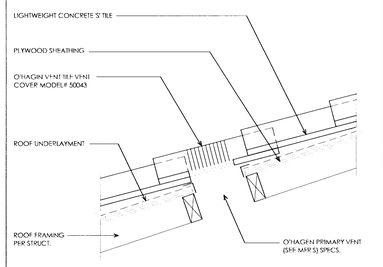
4.- DIMENSIONS SHOWN ARE INTENDED TO BE APPROXIMATE TO ALOW FOR REASONABLE ICLERANCES DUE TO FIELD CONDITIONS.

5.- ROOF TO WALL APRON FLASHING WILL EXTEND A MIN. OF 3" OVERLAP/HEADLEP ONTO TILE.

08041_17D-1.2

CHIMNEY FLASHING

17

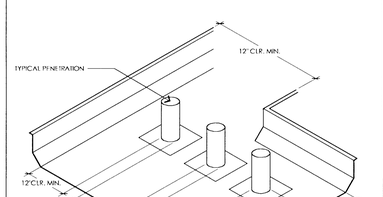


SECTION VIEW

08041_18D-1.2

ROOF VENT

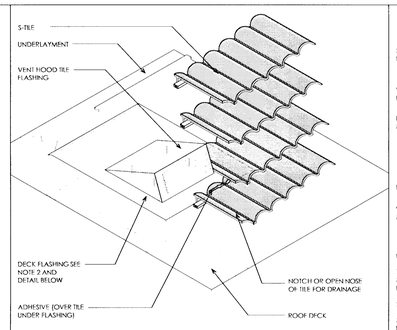
18

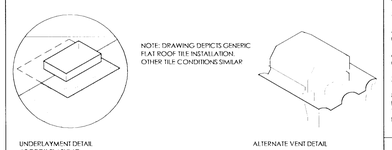


08041_19D-1.2

PIPE/WALL/CURB CLEAR

19



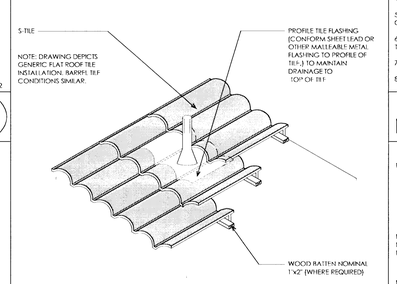


NOTES:
1. ONE LAYER OF #30 ASPHALT SATURATED FELT COMPLYING WITH ASTM D 226 (ASTM D4869 TYPE IV) OR APPROVED EQUAL IS REQUIRED AS MIN. UNDERLAYMENT ON ALL TILE ROOF APPLICATIONS. OTHER UNDERLAYMENTS AS APPROVED BY LOCAL BUILDING OFFICIALS WILL BE ALLOWED.
2. A SPLASH DIVERTER IS REQUIRED ON THE DECK AROUND THE PENETRATION TO PREVENT MOISTURE INTRUSION SHOULD WATER REACH THE UNDERLAYMENT UNDER THE ROOF TILE. DECK FLASHING IS REQUIRED WITH ALL TILES.
3. THIS APPLICATION NOT RECOMMENDED FOR CLIMATES WITH WIND DRIVEN RAIN OR BLOWING SNOW. CONSULT LOCAL BUILDING OFFICIAL FOR APPROVED APPLICATION.
4. SEAL AS REQUIRED TO PREVENT WATER INTRUSION.

08041_12D-1.2

TYPICAL ROOF VENT

12

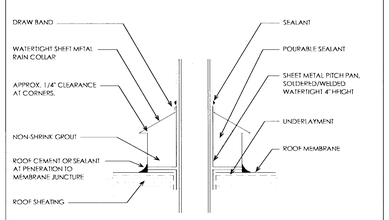


NOTES:
1. ONE LAYER OF #30 ASPHALT SATURATED FELT COMPLYING WITH ASTM D 226 (ASTM D4869 TYPE IV) OR APPROVED EQUAL IS REQUIRED AS MIN. UNDERLAYMENT ON ALL TILE ROOF APPLICATIONS. OTHER UNDERLAYMENTS AS APPROVED BY LOCAL BUILDING OFFICIALS WILL BE ALLOWED.
2. ALL VENT PIPES REQUIRE A ROOF DECK AND TILE FLASHING.
3. TILE FLASHINGS SHALL EXTEND ONTO THE TILE A MIN. OF 4" ON FLAT TILE AND A MIN. 1" PAST THE CROW OF PROFILED TILE.
4. FOR RECOMMENDED TILE FASTENING SCHEDULE(S) SEE FASTENING TABLE 1A AND 1B.
5. DIMENSIONS SHOWN ARE MIN. AND ARE INTENDED TO BE APPROXIMATE TO ALLOW FOR REASONABLE TOLERANCES DUE TO FIELD CONDITIONS.
6. FOR FLAT TILE, RIGID FLASHING MATERIALS MAY BE USED.

08041_14D-1.2

VENT PIPE FLASHING

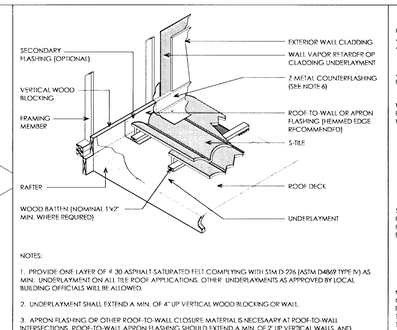
14



08041_15D-1.2

PENETRATION POCKET

15



NOTES:
1. PROVIDE ONE LAYER OF # 30 ASPHALT-SATURATED FELT COMPLYING WITH STM D-226 (ASTM D4869 TYPE IV) AS MIN. UNDERLAYMENT ON ALL TILE ROOF APPLICATIONS. OTHER UNDERLAYMENTS AS APPROVED BY LOCAL BUILDING OFFICIALS WILL BE ALLOWED.

2. UNDERLAYMENT SHALL EXTEND A MIN. OF 4" UP VERTICAL WOOD BLOCKING OR WALL.

3. APRON FLASHING OR OTHER ROOF-TO-WALL CLOSURE MATERIAL IS NECESSARY AT ROOF-TO-WALL INTERSECTIONS. ROOF-TO-WALL APRON FLASHING SHOULD EXTEND A MIN. OF 2" UP VERTICAL WALLS, AND PROVIDE A MIN. OF 3" OVER-AP-HEADLAP ONTO TILE. THE APRON FLASHING IS REQUIRED TO BE OVERLAPPED A MIN. OF 2" BY SHEET METAL COUNTERFLASHING OR WALL CLADDING.

4. SOLID WOOD BLOCKING IS REQUIRED BEHIND Z-METAL COUNTERFLASHING APPLICATIONS.

5. DIMENSIONS SHOWN ARE MIN. AND APPINTENDED TO BE APPROXIMATE TO ALOW FOR REASONABLE CLEARANCES DUE TO FIELD CONDITIONS.

6. THE BOTTOM EDGE OF THE COUNTERFLASHING HEIGHT SETTING SHALL BE SET ABOVE THE ROOF DECK A MIN. OF 4" FOR FLAT TILE, 5" FOR LOW PROFILE TILE, AND 6" FOR HIGH PROFILE TILE.

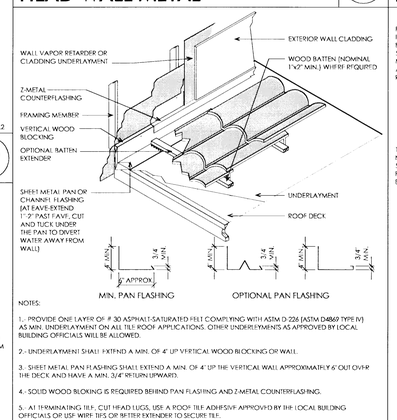
7. ALL ROOF FLASHING SHALL BE A MIN. OF # 26 GA. G40 90 GALVANIZED.

8. OPENINGS AT HIPS, RIDGES AND HEAD WALLS INCLUDING CHIMNEYS, SKYLIGHTS, SOLAR PANELS, AND DOWNSLOPE HORIZONTAL ARUTMNTS SHALL BE FITTED WITH WEATHER BLOCKING MATERIAL TO KEEP WATER ON THE SURFACE OF THE FIELD TILE. OTHER METHODS APPROVED BY LOCAL WRAPPING OF NAILER BOARD IS OPTIONAL EXEPT WITH THE USE OF MORTAR.

08041_06D-1.2

HEAD WALL METAL

6



NOTES:
1.- PROVIDE ONE LAYER OF # 30 ASPHALT-SATURATED FELT COMPLYING WITH ASTM D-226 (ASTM D4869 TYPE IV) AS MIN. UNDERLAYMENT ON ALL TILE ROOF APPLICATIONS. OTHER UNDERLEYMENTS AS APPROVED BY LOCAL BUILDING OFFICIALS WILL BE ALLOWED.

2.- UNDERLAYMENT SHALL EXTEND A MIN. OF 4" UP VERTICAL WOOD BLOCKING OR WALL.

3.- SHEET METAL PAN FLASHING SHALL EXTEND A MIN. OF 4" UP THE VERTICAL WALL APPROXIMATELY 6" OUT OVER THE DECK AND HAVE A MIN. 3/4" RETURN UPWARD.

4.- SOLID WOOD BLOKING IS REQUIRED BEHIND PAN FLASHING AND Z-METAL COUNTERFLASHING.

5.- AT TERMINATING TILE, CUT HEAD LUGS, USE A ROOF TILE ADHESIVE APPROVED BY THE LOCAL BUILDING OFFICIALS OR USE WIRE TIES OR RETTER EXTENDER TO SECURE TILE.

6.- DIMENSIONS SHOWN ARE MIN. AND ARE INTENDED TO BE APPROXIMATE TO ALLOW FOR REASONABLE TOLERANCES DUE TO FIELD CONDITIONS.

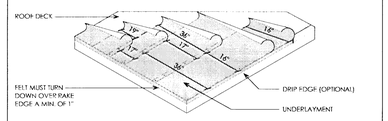
7.- CONSIDERATION SHALL BE GIVE TO TRIBUTARY APEA OF ROOF FOR PAN FLASHING DESIGN.

8.- ALL ROOF FLASHING SHALL BE A MIN. OF # 26 GA. G40-90 GALVANIZED.

08041_08D-1.2

RAKE @ WALL

8

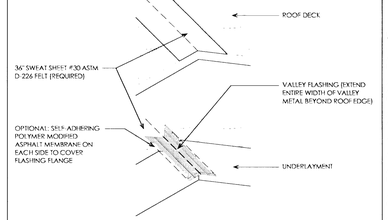


NOTES:
1. ENSURE THAT THE ROOF DECK IS PROPERLY FASTENED, CLEAN AND SMOOTH BEFORE UNDERLAYMENT AND ROOF TILES ARE APPLIED.
2. VERIFY THAT THE ROOF DECK HAS NO SIGNIFICANT DELAMINATION, WARPAGE, BOWING, OR SEPARATION FROM THE RAFTERS OR TRUSSES. CHECK FOR ROOF DECK ROT OR DAMAGE PRIOR TO INSTALLATION.
3. MAKE SURE REPAIRS ARE MADE TO THE ROOF DECK AS NECESSARY TO MEET LOCAL BUILDING CODES.
4. APPLY A HALF SHEET PARALLEL TO EAVE. FASTEN UNDERLAYMENT SUFFICIENT TO HOLD THE FELT IN PLACE.
5. COMPLETELY COVER THE STARTER SHEET WITH A FULL WIDTH SHEET.
6. MOST PROBLEMS WITH WATER SHEDDING ROOF INSTALLATIONS OCCUR FROM WATER THAT MIGRATES THROUGH IMPROPER FLASHING OF THE TILE. WIND-DRIVEN RAIN OR ICE'S DAMMING, INCLUDE OF THIS POSSIBILITY, THE UNDERLAYMENT IS CRITICAL TO THE SUCCESS OF THE ROOF SYSTEM.
7. ONE LAYER OF #30 ASPHALT SATURATED FELT COMPLYING WITH ASTM D-226 (ASTM D4869 TYPE IV) OR APPROVED EQUAL IS REQUIRED AS MIN. UNDERLAYMENT ON ALL TILE ROOF APPLICATIONS. OTHER UNDERLAYMENTS AS APPROVED BY LOCAL BUILDING OFFICIALS WILL BE ALLOWED.
8. UNDERLAYMENT SHALL EXTEND A MIN. OF 4" UP VERTICAL WOOD BLKG OR WALL.
9. LAP SUCCEEDING SHEETS TO ENSURE DOUBLE LAYERS OVER ENTIRE ROOF. END LAPS SHALL BE A MIN. OF 6" VERTICAL LAP.

08041_09D-1.2

UNDERLAYMENT

9

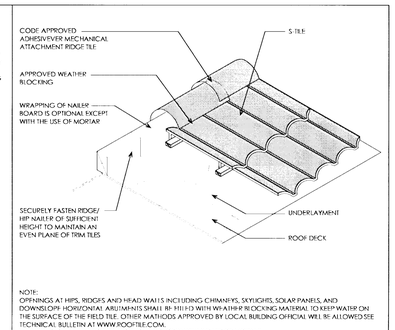


NOTES:
1. ONE LAYER OF #30 ASPHALT SATURATED FELT COMPLYING WITH ASTM D-226 (ASTM D4869 TYPE IV) OR APPROVED EQUAL IS REQUIRED AS MIN. UNDERLAYMENT ON ALL TILE ROOF APPLICATIONS. OTHER UNDERLAYMENTS AS APPROVED BY LOCAL BUILDING OFFICIALS WILL BE ALLOWED.

08041_10D-1.2

VALLEY UNDERLAYMENT

10



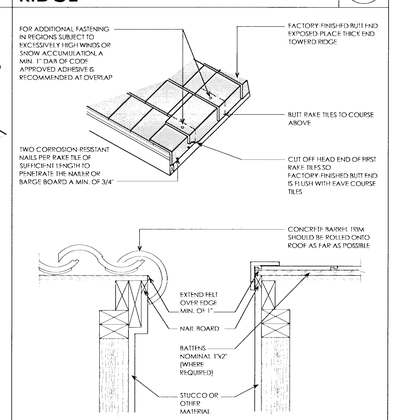
NOTE:
OPENINGS AT HIPS, RIDGES AND HEAD WALLS INCLUDING CHIMNEYS, SKYLIGHTS, SOLAR PANELS, AND DOWNSLOPE HORIZONTAL ARUTMNTS SHALL BE FITTED WITH WEATHER BLOCKING MATERIAL TO KEEP WATER ON THE SURFACE OF THE FIELD TILE. OTHER METHODS APPROVED BY LOCAL BUILDING OFFICIAL WILL BE ALLOWED SEE TECHNICAL BULLETIN AT WWW.ROOFTILE.COM.
WRAPPING OF NAILER BOARD IS OPTIONAL EXCEPT WITH THE USE OF MORTAR.

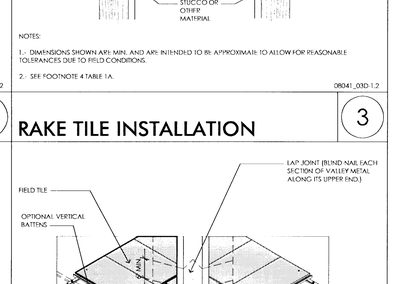
NOTES:
1. ONE LAYER OF # 30 ASPHALT SATURATED FELT COMPLYING WITH ASTM D 226 (ASTM D4869 TYPE IV) AS A MIN. UNDERLAYMENT ON ALL TILE ROOF APPLICATIONS. OTHER UNDERLAYMENTS AS APPROVED BY LOCAL BUILDING OFFICIALS WILL BE ALLOWED.
2. ALL HIP AND RIDGE TILE ARE REQUIRED TO HAVE A CODE APPROVED ADHESIVE OR SPECIAL CLIP BETWEEN LAPS OF TRIM TILE.
3. FOR TILE FASTERING SCHEDULE (S) SEE FASTENING TABLE 1A AND 1B.
4. BATTENS FOR TILES WITH PROTRUDING ANCHOR LUGS ARE OPTIONAL FOR SLOPES BTWFEN 3:12 AND 7:12. DIRECT DECK ATTACHMENT OF TILE AS APPROVED BY LOCAL BUILDING OFFICIAL WILL BE ALLOWED.
5. ROOFERS MASTIC OR TILE ADHESIVE MUST BE APPLIED AT HIP AND RIDGE TRIM HEAD AP TO COVER NAIL HOLE AND CREATE A BOND BETWEEN RIDGE TILES.

08041_01D-1.2

RIDGE

1





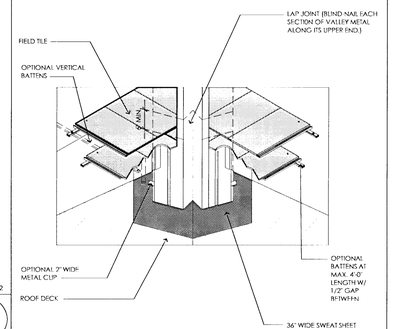
NOTES:
1.- DIMENSIONS SHOWN ARE MIN. AND ARE INTENDED TO BE APPROXIMATE TO ALLOW FOR REASONABLE TOLERANCES DUE TO FIELD CONDITIONS.

2.- SEE FOOTNOTE 4 TABLE 1A.

08041_03D-1.2

RAKE TILE INSTALLATION

3



NOTE: DRAWING DEPICTS GENERIC FLAT ROOF TILE INSTALLATION. OTHER TILE CONDITIONS SIMILAR

NOTES:
1. ONE LAYER OF #30 ASPHALT SATURATED FELT COMPLYING WITH ASTM D 226 (ASTM D4869 TYPE IV) OR APPROVED EQUAL IS REQUIRED AS MIN. UNDERLAYMENT ON ALL TILE ROOF APPLICATIONS. OTHER UNDERLAYMENTS AS APPROVED BY LOCAL BUILDING OFFICIALS WILL BE ALLOWED.
2. CUT TILE PIECES SHOVED BY SCURED BY ONE OF A COMBINATION OF THE FOLOWING METHODS: a) CODE APPROVED ADHESIVE; b) WIRE TIES; c) BATTEN EXTENDER; d) CUT TILE CLIP; OR e) OTHER CODE APPROVED FASTENING DEVICE.
3. FOR OPEN VALLEYS, FLASHING SHALL BE A MIN. OF #26 GAUGE G40-90 GALVANIZED STEEL, 16oz. COPPER OR AN EQUIVALENT LONGEVITY NON-CORRESIVE METAL.
4. FOR TILE FASTENING SCHEDULE(S) SEE FASTENING TABLES 1A AND 1B.
5. TILE MUST EXTEND A MIN. OF 4" OVER THE VALLEY METAL.
6. BATTENS FOR TILE WITH PROTRUDING ANCHOR LUGS ARE OPTIONAL FOR SLOPES BTWFEN 3:12 AND 7:12. DIRECT DECK ATTACHMENT OF TILE MAY BE PERMISSIBLE, VERIFY WITH LOCAL BUILDING CODE.
7. DIMENSIONS SHOWN ARE MIN. AND ARE INTENDED TO BE APPROXIMATE TO ALLOW FOR REASONABLE CLEARANCES DUE TO FIELD CONDITIONS.
8. VALLEY METAL DESING MUST BE ABLE TO CONTROL AND DISCHANGE EXPECTED WATER FLOWS.

08041_05D-1.2

VALLEY FLASHING

5

PLANS APPROVED FOR CONSTRUCTION
Building Safety Dept.
City of Las Vegas
MT SEP 02 2009

CRAIG D. SMITH REGISTERED No. 4967 ARCHITECT STATE OF NEVADA

RNM DESIGN
ARCHITECTURE
PLANNING
LANDSCAPE
GRAPHICS
RNMDESIGN.COM

2 CORPORATE PARK
SUITE 100
IRVINE, CALIFORNIA
92606
(949) 752-1800
(949) 833-9603

PROJECT NAME/ADDRESS

CORONADO THE PASEOS
875 PANTARA PLACE
LAS VEGAS, NEVADA

CLIENT

SPINNAKER HOMES
4511 W. CHEYENNE AVE. ST 105
NO. LAS VEGAS, CA 89032
702-873-7773
702-873-7776 FAX

REVISIONS

THESE DRAWINGS AND IMAGES ARE NOT TO BE REPRODUCED OR COPIED IN ANY FORM WITHOUT WRITTEN PERMISSION. COPYRIGHT 2006 RNM DESIGN

DRAWING TITLE

ARCHITECTURA DETAILS

DRAWING INFORMATION

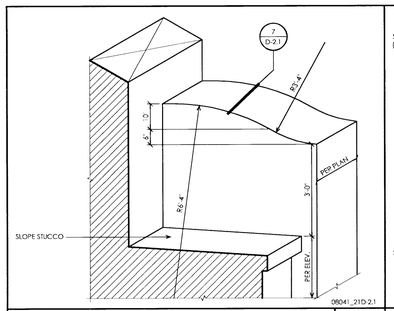
PROJ. NO: 08041
FIRST SUBMITTAL DATE: 02.24.2009
SCALE: N/A

DRAWING NUMBER

D-1.2

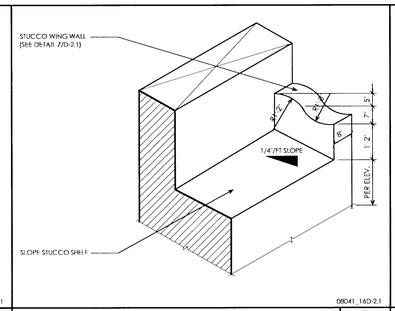
DELTA 2 - PLAN CHECK CORRECTION

05.27.09



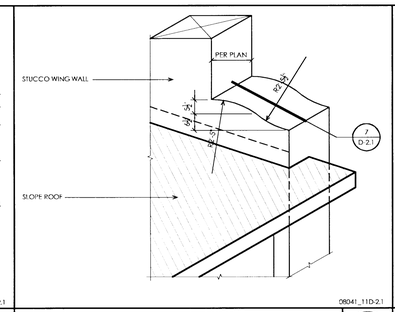
08041_21D-2.1

CURVED STUCCO WING WALL 5 — 21



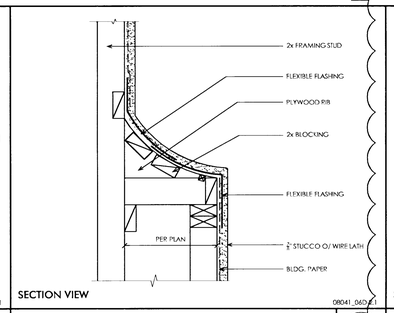
08041_16D-2.1

CURVED STUCCO WING WALL 3 — 16



08041_11D-2.1

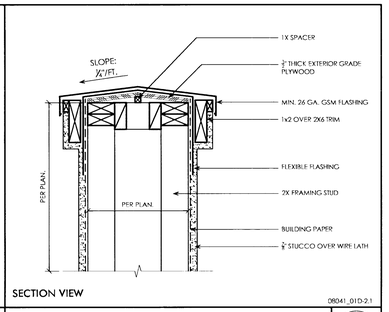
CURVED STUCCO WING WALL 1 — 11



SECTION VIEW

08041_06D-2.1

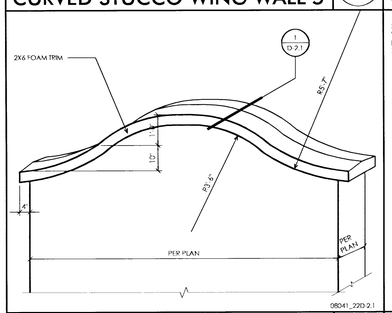
CURVED STUCCO ROOF 1 — 6



SECTION VIEW

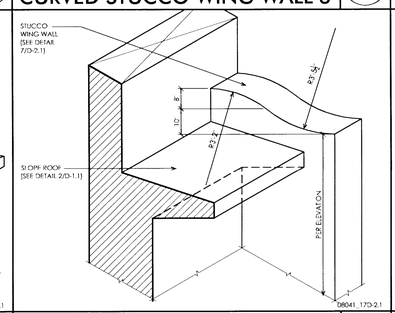
08041_01D-2.1

PARAPET WITH TRIM — 1



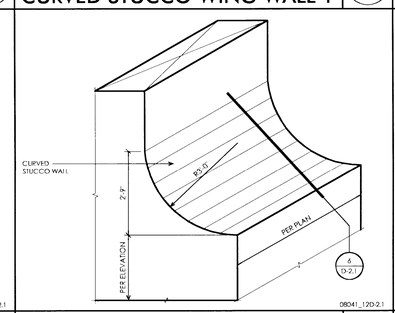
08041_22D-2.1

PARAPET WALL 1 — 22



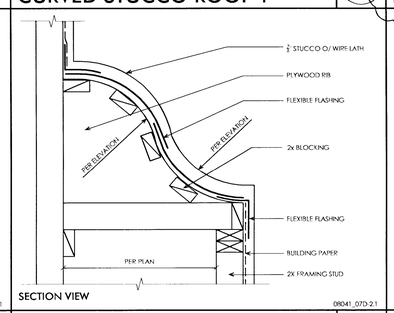
08041_17D-2.1

CURVED STUCCO WING WALL 4 — 17



08041_12D-2.1

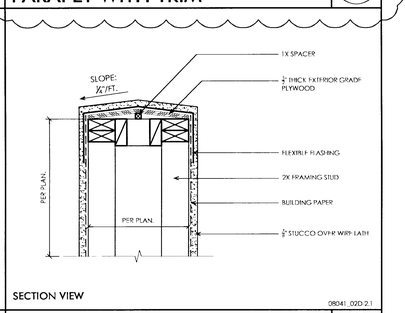
CURVED STUCCO WING WALL 2 — 12



SECTION VIEW

08041_07D-2.1

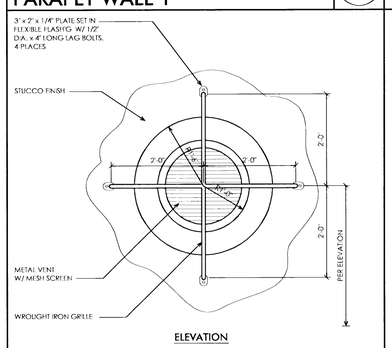
CURVED STUCCO ROOF 2 — 7



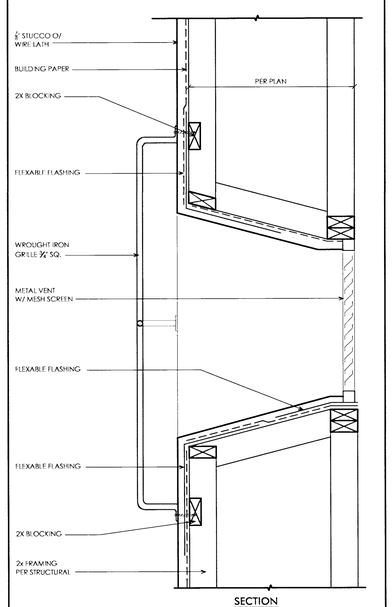
SECTION VIEW

08041_02D-2.1

EXTERIOR LOW WALL — 2



ELEVATION

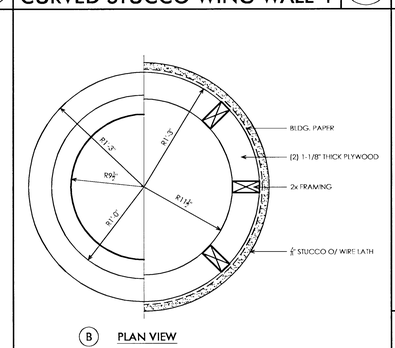


SECTION

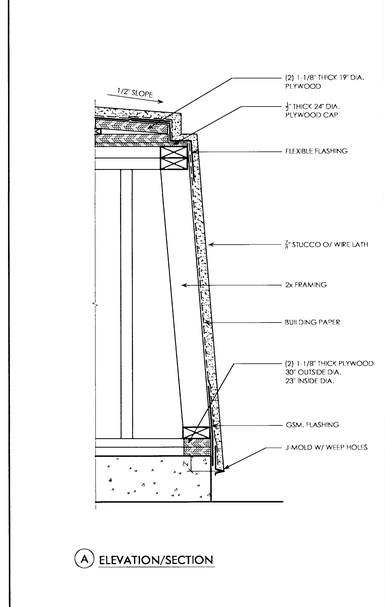
SECTION/ELEVATION VIEW

DWG NAME

GRILLE WITH VENT — 25



B PLAN VIEW

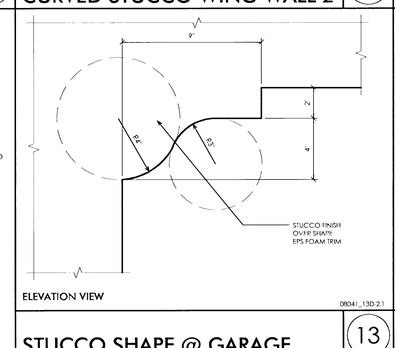


A ELEVATION/SECTION

PLAN VIEW

08041_20D-2.1

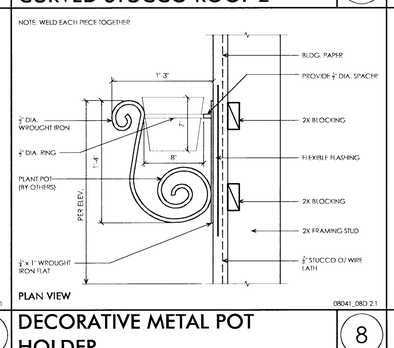
SHAPED STUCCO BOLLARD — 20



ELEVATION VIEW

08041_13D-2.1

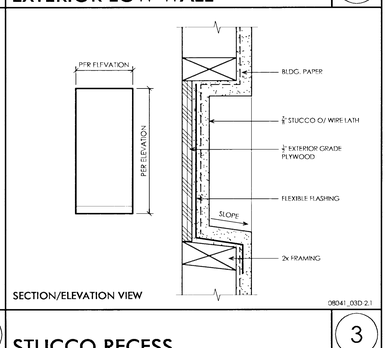
STUCCO SHAPE @ GARAGE — 13



PLAN VIEW

08041_08D-2.1

DECORATIVE METAL POT HOLDER — 8



SECTION/ELEVATION VIEW

08041_03D-2.1

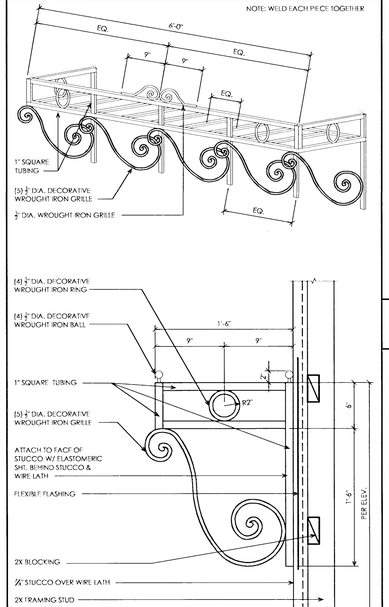
STUCCO RECESS — 3

FRONT

SECTION/ELEVATION VIEW

08041_15D-2.1

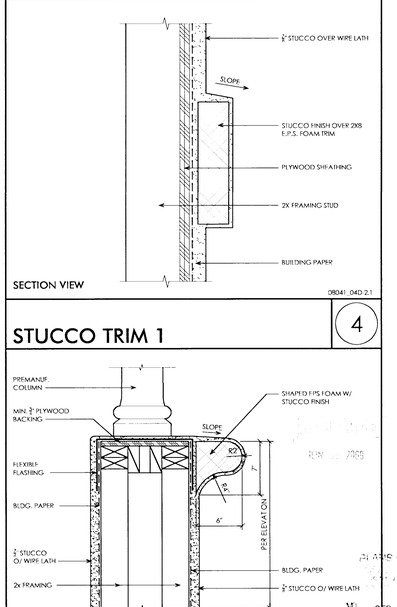
CLAY PIPE DETAIL — 15



SECTION VIEW

08041_10D-2.1

DECORATIVE WROUGHT IRON GRILLE POT SHELF — 10



SECTION VIEW

08041_04D-2.1

STUCCO TRIM 1 — 4

SECTION VIEW

08041_05D-2.1

TRIM AT LOW WALL — 5

THESE DRAWINGS AND IMAGES ARE NOT TO BE REPRODUCED OR COPIED IN ANY FORM WITHOUT WRITTEN PERMISSION. COPYRIGHT 2008 RNM DESIGN

CRAIG D. SMITH
REGISTERED
No. 4967
ARCHITECT
STATE OF NEVADA

RNM

RNM DESIGN
ARCHITECTURE
PLANNING
LANDSCAPE
GRAPHICS
RNMDESIGN.COM

2 CORPORATE PARK
SUITE 100
IRVINE, CALIFORNIA
92606
T 949.752.1800
F 949.833.9603

PROJECT NAME/ADDRESS

CORONADO
THE PASEOS
875 PANTARA PLACE
LAS VEGAS, NEVADA

CLIENT

SPINNAKER
HOMES
4511 W. CHEYENNE AVE. ST 105
NO. LAS VEGAS, CA 89032
702-873-7773
702-873-7776 FAX

REVISIONS

Δ1 DELTA 2: PLAN CHECK CORRECTION

DRAWING TITLE

ARCHITECTURA
DETAILS

DRAWING INFORMATION

PROJ. NO: 08041
FIRST SUBMITTAL DATE: 02.24.2009
SCALE: N/A

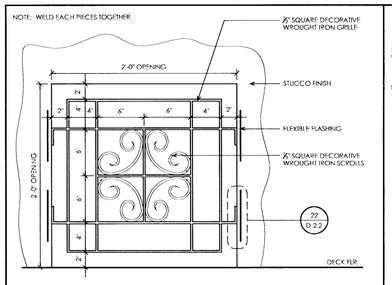
DRAWING NUMBER

D-2.1

DELTA 2 - PLAN CHECK CORRECTION
05.27.09

RECEIVED
SEP 02 2009
CLARK COUNTY
BUILDING DEPARTMENT

APPROVED
SEP 02 2009
CLARK COUNTY
BUILDING DEPARTMENT

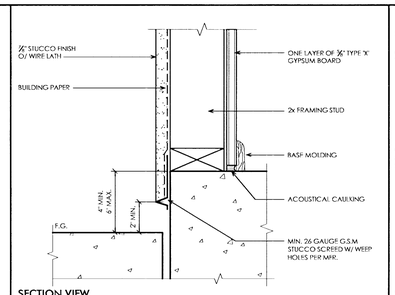


ELEVATION VIEW

08041_21D-2.2

WROUGHT IRON GRILLE

21

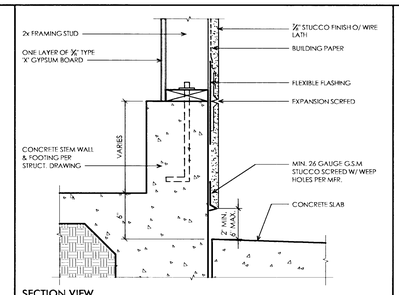


SECTION VIEW

08041_16D-2.2

STUCCO WEEP SCREED 3

16

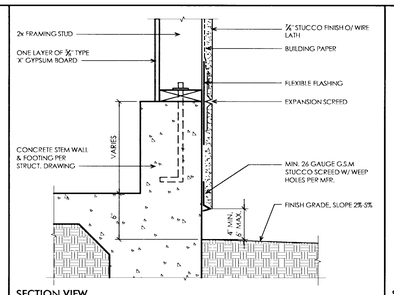


SECTION VIEW

08041_11D-2.2

SCREED AT STEM WALL 2

11

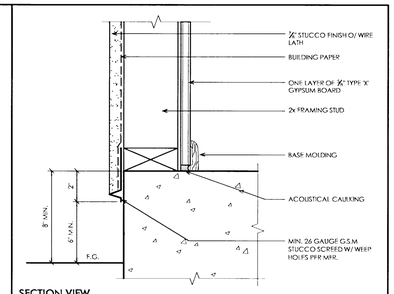


SECTION VIEW

08041_06D-2.2

SCREED AT STEM WALL 1

6

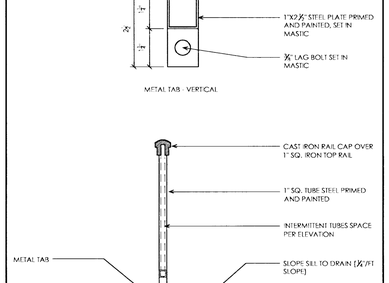


SECTION VIEW

08041_01D-2.2

STUCCO WEEP SCREED

1

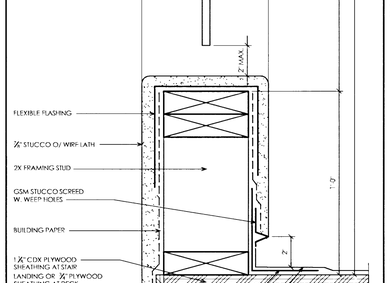


SECTION VIEW

08041_22D-2.2

CONNECTION @ GRILLE

22

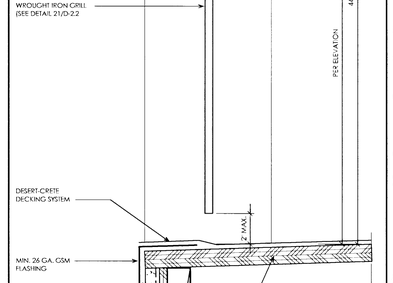


SECTION VIEW

08041_17D-2.2

OPENING THRU WALL

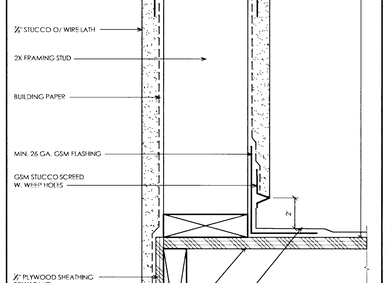
17



08041_12D-2.2

PARAPET WALL 3

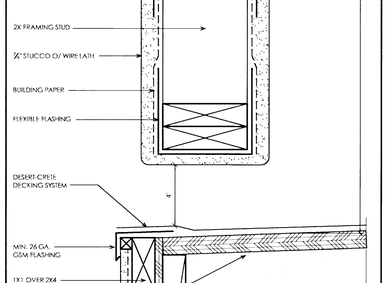
12



08041_07D-2.2

PARAPET WALL 2

7



SECTION VIEW

08041_02D-2.2

STUCCO WEEP SCREED 2

2

08041_25D-2.2

RAILING CONNECTION

25

RAIL MFR TO PROVIDE DRAWINGS AND CALCS FOR RAILING SYSTEM TO PROJECT ENGINEER AND CITY BLDG DEPT. FOR APPROVAL PRIOR TO INSTALLATION

SECTION VIEW

08041_20D-2.2

GUARDWALL 2

20

RAIL MFR TO PROVIDE DRAWINGS AND CALCS FOR RAILING SYSTEM TO PROJECT ENGINEER AND CITY BLDG DEPT. FOR APPROVAL PRIOR TO INSTALLATION

SECTION VIEW

08041_15D-2.2

GUARDWALL 1

15

RAIL MFR TO PROVIDE DRAWINGS AND CALCS FOR RAILING SYSTEM TO PROJECT ENGINEER AND CITY BLDG DEPT. FOR APPROVAL PRIOR TO INSTALLATION

SECTION VIEW

08041_10D-2.2

GUARDRAIL AT DECK

10

RAIL MFR TO PROVIDE DRAWINGS AND CALCS FOR RAILING SYSTEM TO PROJECT ENGINEER AND CITY BLDG DEPT. FOR APPROVAL PRIOR TO INSTALLATION

SECTION VIEW

08041_05D-2.2

GUARDRAIL AT DECK

5

PLANS APPROVED CONSTRUCTION
SEP 02 2009

CRAIG D. SMITH REGISTERED No. 4967 6-2-09 ARCHITECT STATE OF NEVADA

RNM DESIGN
ARCHITECTURE
PLANNING
LANDSCAPE
GRAPHICS
RNMDESIGN.COM

2 CORPORATE PARK
SUITE 100
IRVINE, CALIFORNIA
92606
T 949 752 1800
F 949 833 9603

PROJECT NAME/ADDRESS

CORONADO THE PASEOS
875 PANTARA PLACE
LAS VEGAS, NEVADA

CLIENT

SPINNAKER HOMES
4511 W. CHEYENNE AVE. ST 105
NO. LAS VEGAS, CA 89032
702-873-7773
702-873-7776 FAX

REVISIONS

1 DELTA 1: PLAN CHECK CORRECTION
2 DELTA 2: PLAN CHECK CORRECTION

THESE DRAWINGS AND IMAGES ARE NOT TO BE REPRODUCED OR COPIED IN ANY FORM WITHOUT WRITTEN PERMISSION. COPYRIGHT 2008 RNM DESIGN

DRAWING TITLE

ARCHITECTURAL DETAILS

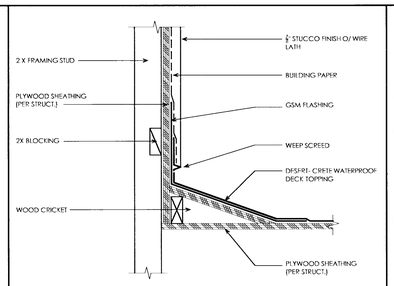
DRAWING INFORMATION

PROJ. NO:	08041
FIRST SUBMITTAL DATE:	02.24.2009
SCALE:	N/A

DRAWING NUMBER

D-2.2

DELTA 2 - PLAN CHECK CORRECTION
05.27.09

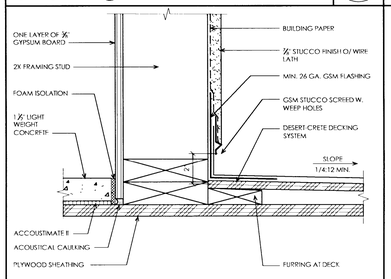


SECTION VIEW

08041_16D-3.1

CRICKET @ DECK

16

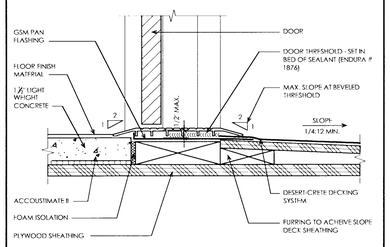


SECTION VIEW

08041_17D-3.1

SCREED ADJACENT TO DOOR

17

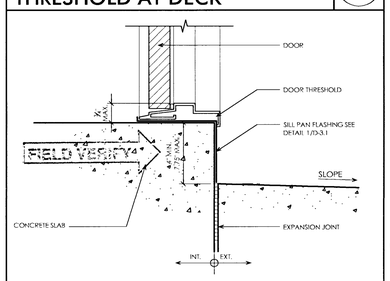


SECTION VIEW

08041_20D-3.1

THRESHOLD AT DECK

18

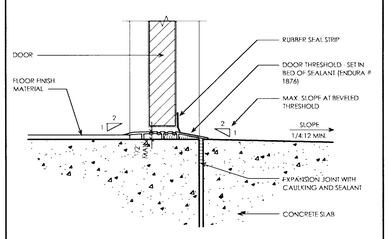


SECTION VIEW

08041_19D-3.1

DOOR THRESHOLD

19

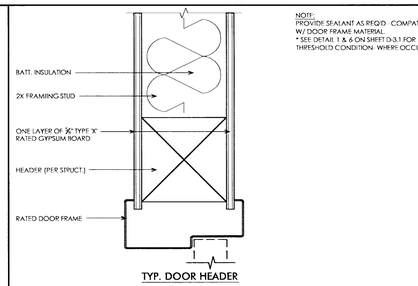


SECTION VIEW

08041_20D-3.1

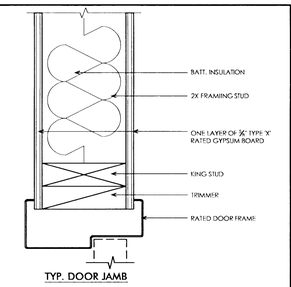
ACCESSIBLE DOOR THRESHOLD

20



TYP. DOOR HEADER

NOTE:
PROVIDE SEALANT AS REQ'D - COMPATIBLE W/ DOOR FRAME MATERIAL
* SEE DETAIL 1 & 6 ON SHEET D3.1 FOR THRESHOLD CONDITION- WHERE OCCURS.



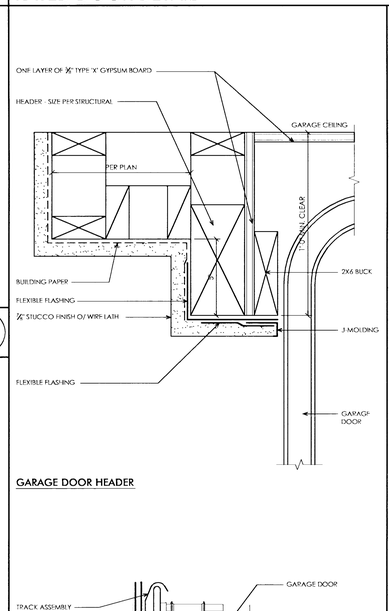
TYP. DOOR JAMB

SECTION VIEW

08041_06D-3.1

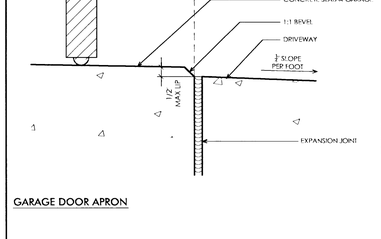
RATED DOOR DETAIL

6



GARAGE DOOR HEADER

GARAGE DOOR JAMB



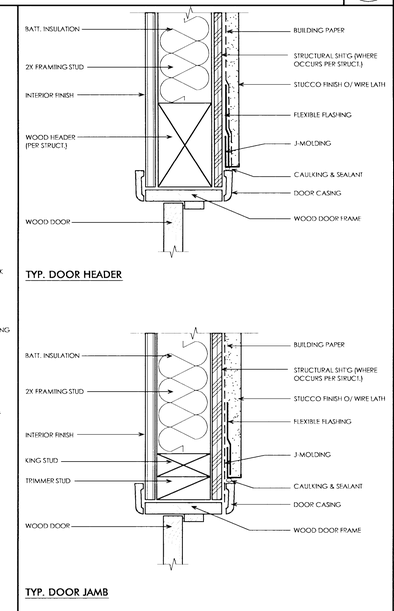
GARAGE DOOR APRON

SECTION VIEW

08041_15D-3.1

GARAGE DOOR DETAIL

15



TYP. DOOR HEADER

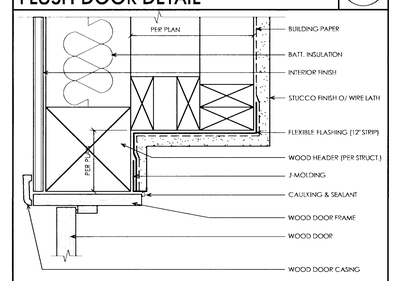
TYP. DOOR JAMB

NOTE:
PROVIDE SEALANT AS REQ'D - COMPATIBLE W/ DOOR FRAME MATERIAL
* SEE DETAIL 1 & 6 ON SHEET D3.1 FOR THRESHOLD CONDITION- WHERE OCCURS.

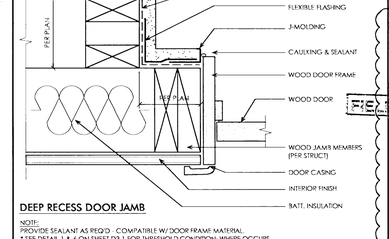
08041_08D-3.1

FLUSH DOOR DETAIL

8



DEEP RECESS DOOR HEADER



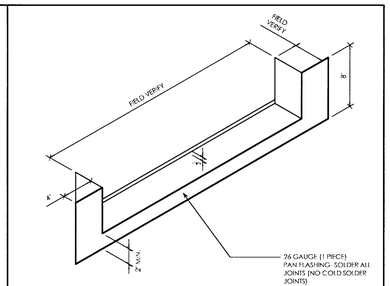
DEEP RECESS DOOR JAMB

NOTE:
PROVIDE SEALANT AS REQ'D - COMPATIBLE W/ DOOR FRAME MATERIAL
* SEE DETAIL 1 & 6 ON SHEET D3.1 FOR THRESHOLD CONDITION- WHERE OCCURS.

08041_10D-3.1

DEEP RECESS DOOR DETAIL

10

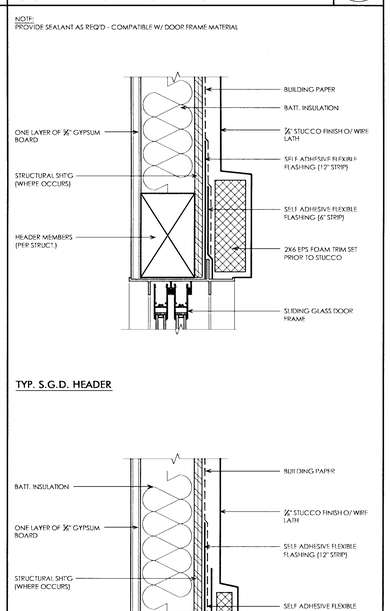


08041_01D-3.1

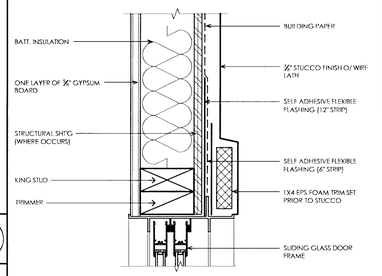
GSM PAN FLASHING

1

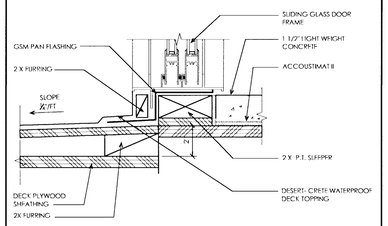
NOTE:
PROVIDE SEALANT AS REQ'D - COMPATIBLE W/ DOOR FRAME MATERIAL



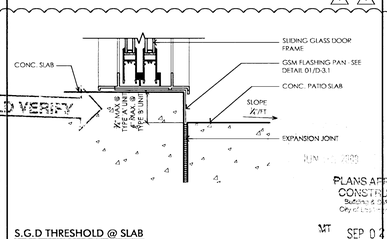
TYP. S.G.D. HEADER



TYP. S.G.D. JAMB



S.G.D. THRESHOLD @ DECK



S.G.D THRESHOLD @ SLAB

SLIDING GLASS DOOR DETAIL

5

PLANS APPROVED CONSTRUCTION
Subject to Field Insp.
City of Las Vegas
SEP 04 2009
Permit No. 09043.0503.1
Not to be changed without approval of Inspector

CRAIG D. SMITH
REGISTERED
No. 4967
6-2-09
ARCHITECT
STATE OF NEVADA

RNM DESIGN
ARCHITECTURE
PLANNING
LANDSCAPE
GRAPHICS
RNMDESIGN.COM

2 CORPORATE PARK
SUITE 100
IRVINE, CALIFORNIA
92606
1.949.752.1800
1.949.833.9603

PROJECT NAME/ADDRESS

CORONADO THE PASEOS
875 PANTARA PLACE
LAS VEGAS, NEVADA

CLIENT

SPINNAKER HOMES
4511 W. CHEYENNE AVE. ST 105
NO. LAS VEGAS, CA 89032
702-873-7773
702-873-7776 FAX

REVISIONS

1 DELTA 1: PLAN CHECK CORRECTION
2 DELTA 2: PLAN CHECK CORRECTION

THESE DRAWINGS AND IMAGES ARE NOT TO BE REPRODUCED OR COPIED IN ANY FORM WITHOUT WRITTEN PERMISSION.
COPYRIGHT 2008 RNM DESIGN

DRAWING TITLE

ARCHITECTURAL DETAILS

DRAWING INFORMATION

PROJ. NO: 08041
FIRST SUBMITTAL DATE: 02.24.2009
SCALE: N/A

DRAWING NUMBER

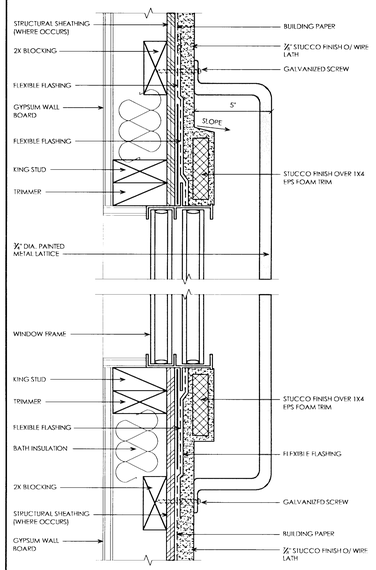
D-3.1

DELTA 2 - PLAN CHECK CORRECTION
05.27.09

NOTE:

1. VERIFY THAT NAILING FIN DIMENSION FROM FACE OF WINDOW FRAME IS SUFFICIENT TO ACCOMODATE STUCCO SYSTEM THICKNESS.

2. PROVIDE SEALANT AS REQUIRED COMPATIBLE W/ WINDOW FRAME MATL.



PLAN VIEW

08041_22D-4.1

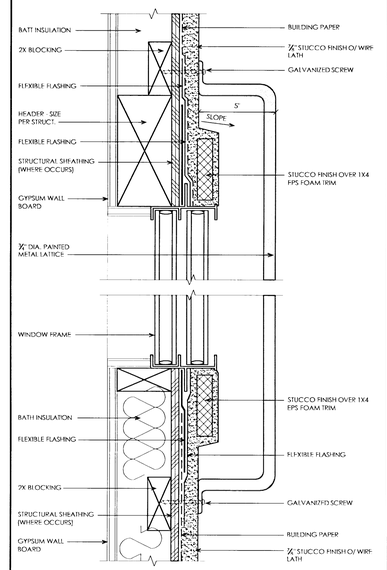
METAL LATTICE AT WINDOW JAMB

22

NOTE:

1. VERIFY THAT NAILING FIN DIMENSION FROM FACE OF WINDOW FRAME IS SUFFICIENT TO ACCOMODATE STUCCO SYSTEM THICKNESS.

2. PROVIDE SEALANT AS REQUIRED COMPATIBLE W/ WINDOW FRAME MATL.

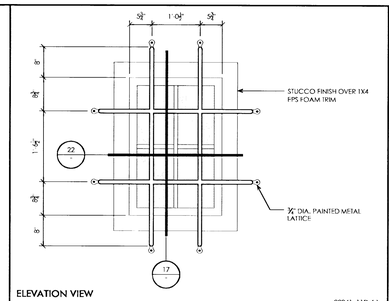


SECTION VIEW

08041_17D-4.1

METAL LATTICE AT WINDOW HEADER AND SILL

17

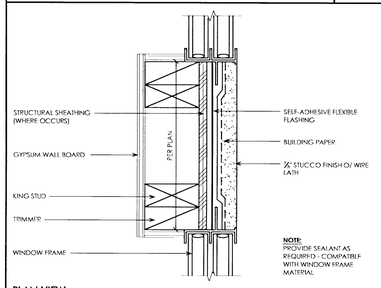


ELEVATION VIEW

08041_11D-4.1

METAL LATTICE @ WINDOW

11



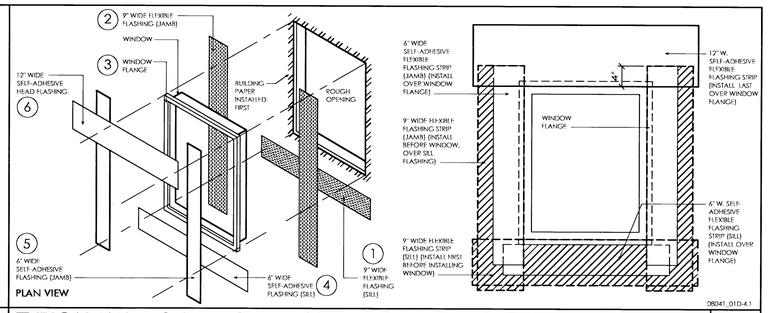
NOTE:
PROVIDE SEALANT AS REQUIRED - COMPATIBLE WITH WINDOW FRAME MATERIAL

PLAN VIEW

08041_12D-4.1

FLUSH WINDOW JAMB 2

12

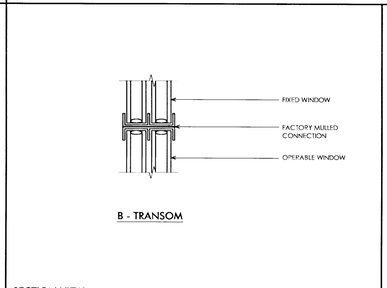


PLAN VIEW

08041_01D-4.1

TYPICAL WINDOW FLASHING METHOD B INSTALLATION

1



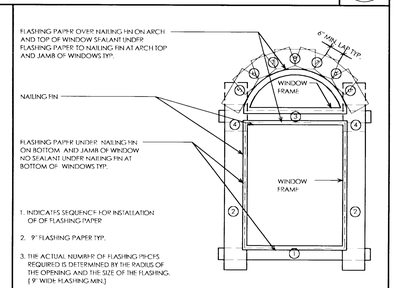
B - TRANSOM

SECTION VIEW

08041_07D-4.1

WINDOW TRANSOM

7

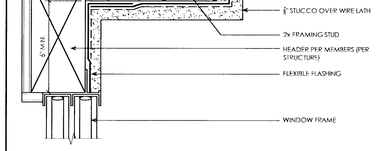


SECTION VIEW

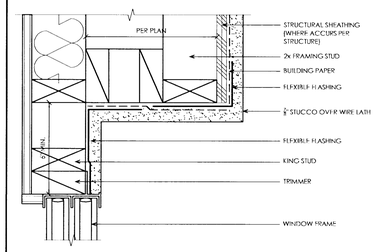
08041_02D-4.1

ARCH WINDOW FLASHING

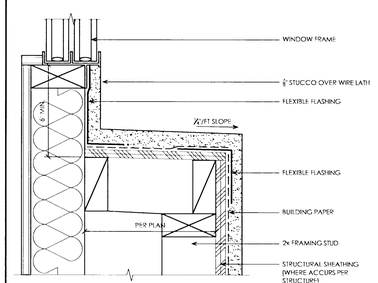
2



A - DEEP RECESSED WINDOW HEAD



A - DEEP RECESSED WINDOW JAMB



A - DEEP RECESSED WINDOW SILL

SECTION VIEW

08041_25D-4.1

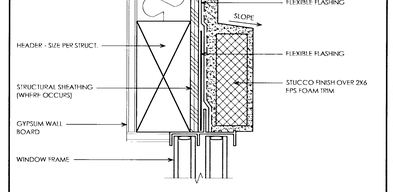
DEEP RECESSED WINDOW DETAIL

25

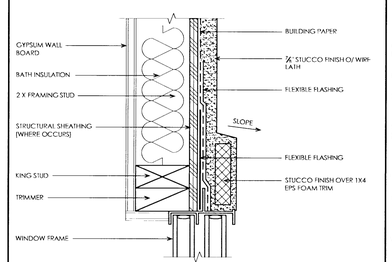
NOTE:

1. VERIFY THAT NAILING FIN DIMENSION FROM FACE OF WINDOW FRAME IS SUFFICIENT TO ACCOMODATE STUCCO SYSTEM THICKNESS.

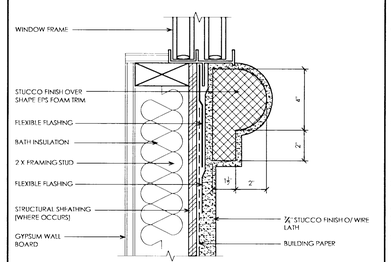
2. PROVIDE SEALANT AS REQUIRED COMPATIBLE W/ WINDOW FRAME MATL.



WINDOW HEADER



WINDOW JAMB



WINDOW SILL

SECTION VIEW

08041_20D-4.1

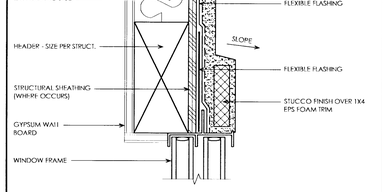
FLUSH WINDOW DETAIL 2

20

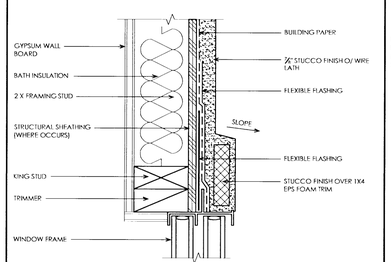
NOTE:

1. VERIFY THAT NAILING FIN DIMENSION FROM FACE OF WINDOW FRAME IS SUFFICIENT TO ACCOMODATE STUCCO SYSTEM THICKNESS.

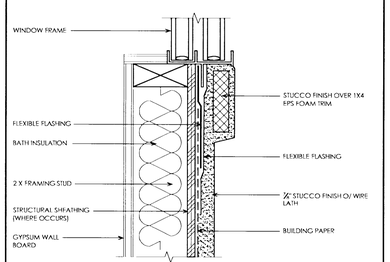
2. PROVIDE SEALANT AS REQUIRED COMPATIBLE W/ WINDOW FRAME MATL.



WINDOW HEADER



WINDOW JAMB



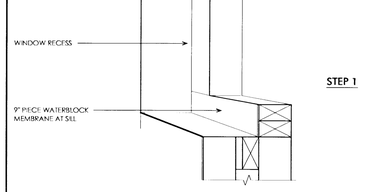
WINDOW SILL

SECTION VIEW

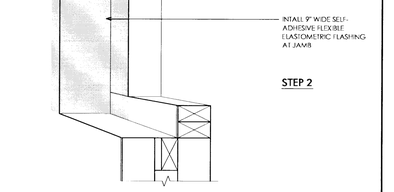
08041_15D-4.1

FLUSH WINDOW DETAIL 1

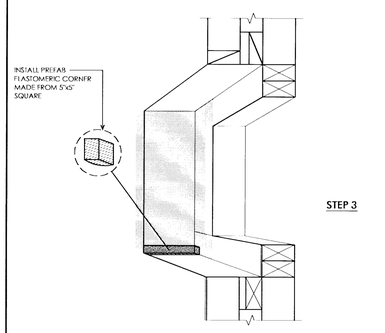
15



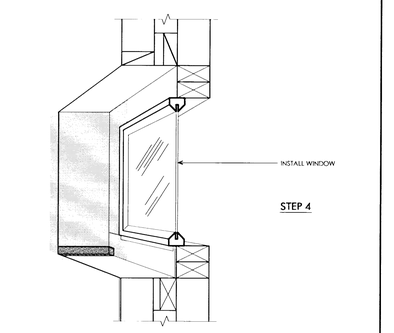
STEP 1



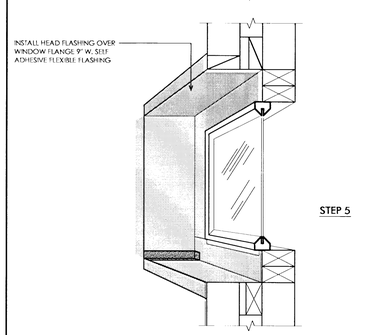
STEP 2



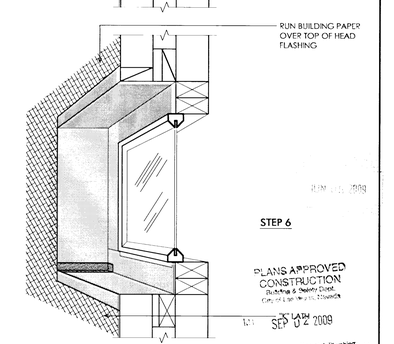
STEP 3



STEP 4



STEP 5



STEP 6

08041_05D-4.1

RECESSED WINDOW FLASHING

5

THESE DRAWINGS AND IMAGES ARE NOT TO BE REPRODUCED OR COPIED IN ANY FORM WITHOUT WRITTEN PERMISSION.
COPYRIGHT 2009 RNM DESIGN

CRAIG D. SMITH
REGISTERED
No. 4967
6-2-09
ARCHITECT
STATE OF NEVADA

RNM

RNM DESIGN
ARCHITECTURE
PLANNING
LANDSCAPE
GRAPHICS
RNMDESIGN.COM

2 CORPORATE PARK
SUITE 100
IRVINE, CALIFORNIA
92606
1949.752.1800
1949.833.9603

PROJECT NAME/ADDRESS

CORONADO THE PASEOS
875 PANTARA PLACE
LAS VEGAS, NEVADA

CLIENT

SPINNAKER HOMES
4511 W. CHEYENNE AVE. ST 105
NO. LAS VEGAS, CA 89032
702-873-7773
702-873-7776 FAX

REVISIONS

DRAWING TITLE

ARCHITECTURA DETAILS

DRAWING INFORMATION

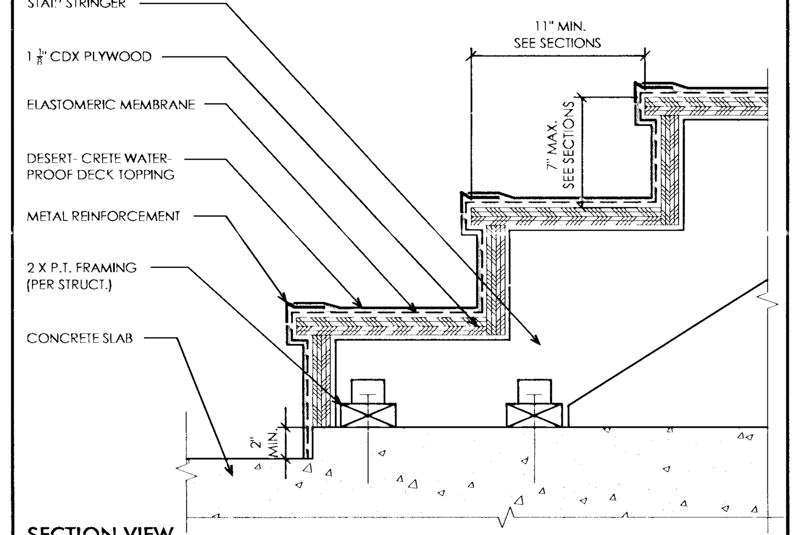
PROJ. NO: 08041
FIRST SUBMITTAL DATE: 02.24.2009
SCALE: N/A

DRAWING NUMBER

D-4.1

DELTA 2 - PLAN CHECK CORRECTION
05.27.09

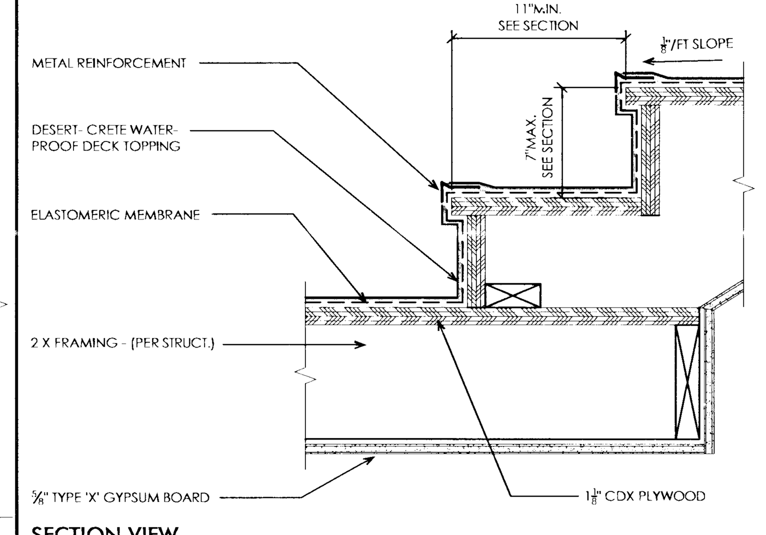
1 St RISER MAY NOT VARY. MORE THAN 3/8"



SECTION VIEW

08041_21D-5.1

EXTERIOR STAIR @ SLAB
21

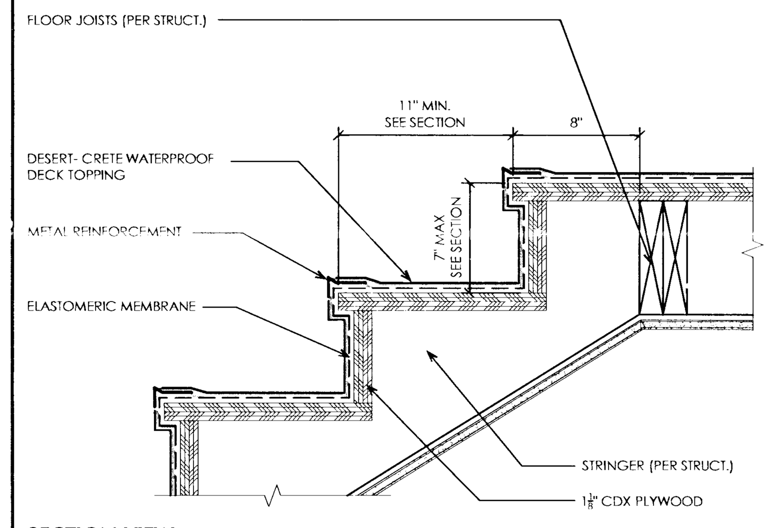


SECTION VIEW

08041_16D-5.1

△2

BOTTOM OF STAIR LANDING
16

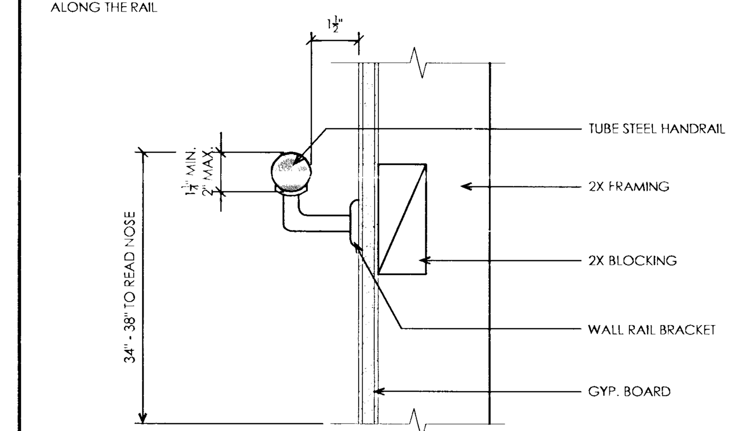


SECTION VIEW

08041_11D-5.1

TOP OF STAIR LANDING
11

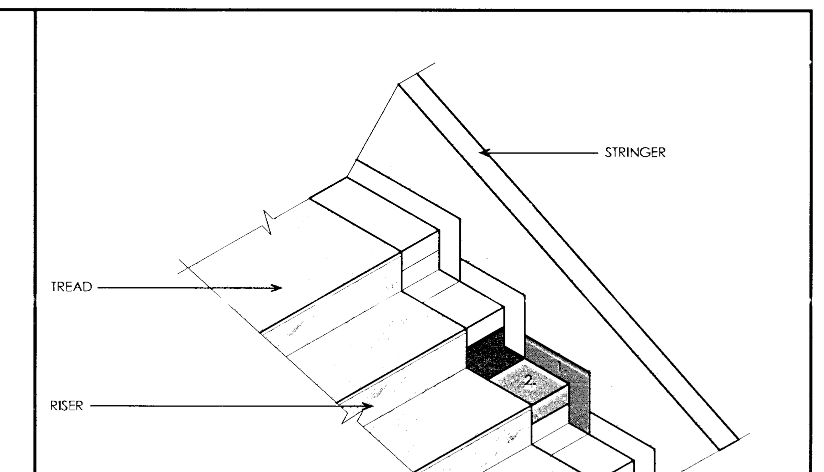
NOTE:
1. TUBE STEEL. HANDRAIL - SHAPE MUST COMPLY WITH 2006 I.B.C. SECT. 1012.3 PROVIDING A SMOOTH GRIPPING SURFACE NOT LESS THAN 1 1/4" OR GREATER THAN 2" IN CROSS-SECTIONAL DIMENSION (OR EQUIVALENT GRIPPING SURFACE).
2. HANDRAIL SHALL BE DESIGNED TO WITHSTAND A LOAD OF 200 LBS. APPLIED IN ANY DIRECTION AT AY POINT ALONG THE RAIL



STAIR MFR TO PROVIDE DRAWINGS AND CALCS FOR RAILING SYSTEM TO PROJECT ENGINEER AND CITY BUILDING DEPARTMENT FOR APPROVAL PRIOR TO INSTALLATION.

08041_06D-5.1

INTERIOR HANDRAIL
6

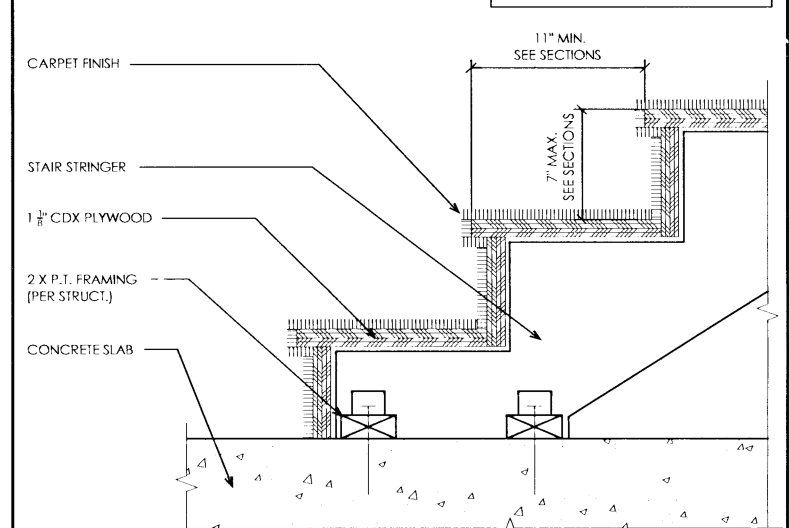


ORDER OF INSTALL
1. FLASHING TO SIDE OF STRINGER
2. FLASHING FORM RISER TO TREAD
3. OVERLAP FLASHING ON TOP OF NUMBER 2.

08041_01D-5.1

STAIR FLASHING
1

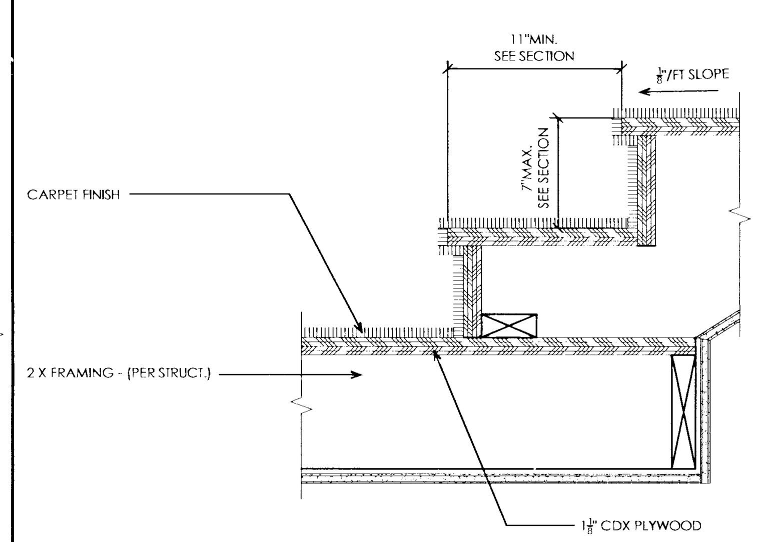
1 St RISER MAY NOT VARY. MORE THAN 3/8"



SECTION VIEW

08041_22D-5.1

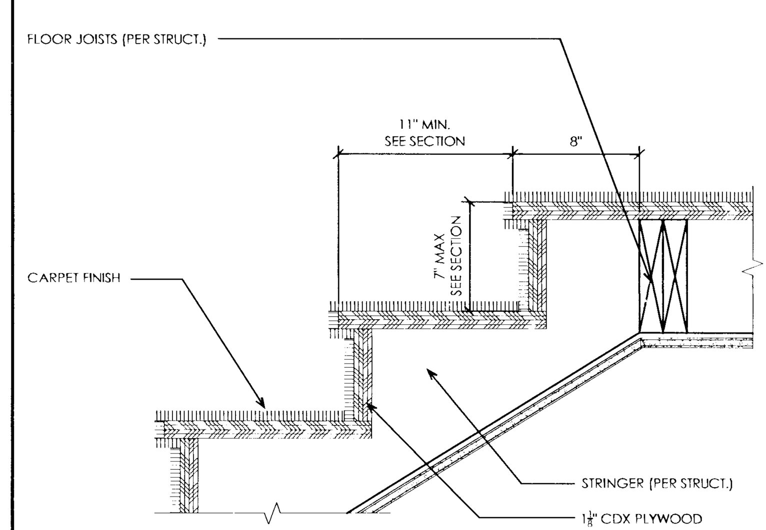
~~INTERIOR STAIR @ SLAB~~
22



SECTION VIEW

08041_17D-5.1

BOTTOM OF STAIR LANDING
17

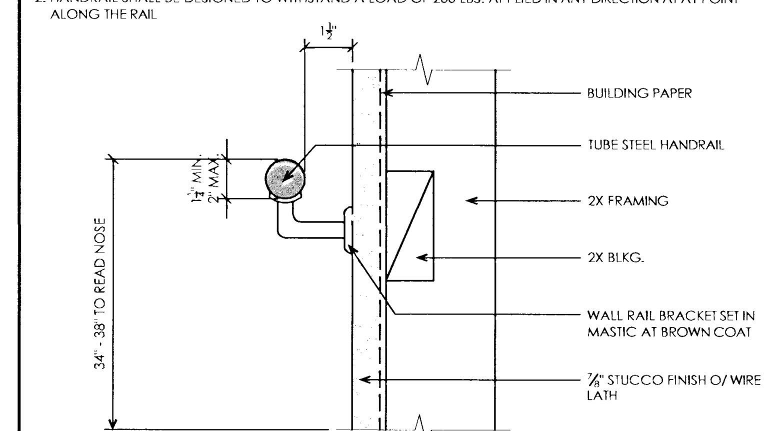


SECTION VIEW

08041_12D-5.1

TOP OF STAIR LANDING
12

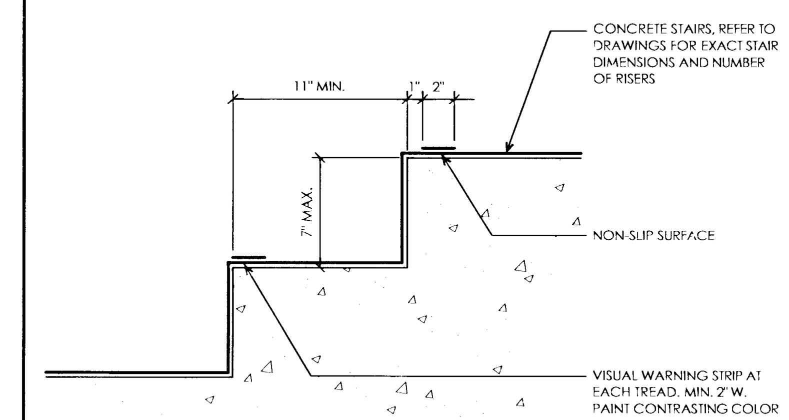
NOTE:
1. TUBE STEEL. HANDRAIL - SHAPE MUST COMPLY WITH 2006 I.B.C. SECT. 1012.3 PROVIDING A SMOOTH GRIPPING SURFACE NOT LESS THAN 1 1/4" OR GREATER THAN 2" IN CROSS-SECTIONAL DIMENSION (OR EQUIVALENT GRIPPING SURFACE).
2. HANDRAIL SHALL BE DESIGNED TO WITHSTAND A LOAD OF 200 LBS. APPLIED IN ANY DIRECTION AT AY POINT ALONG THE RAIL



STAIR MFR TO PROVIDE DRAWINGS AND CALCS FOR RAILING SYSTEM TO PROJECT ENGINEER AND CITY BUILDING DEPARTMENT FOR APPROVAL PRIOR TO INSTALLATION.

08041_07D-5.1

EXTERIOR HANDRAIL
7

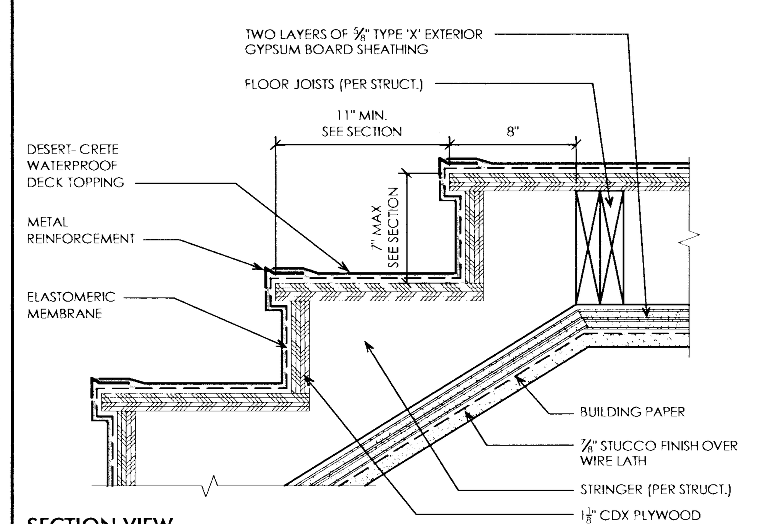


08041_02D-5.1

CONCRETE STAIRS
2

△2 △3

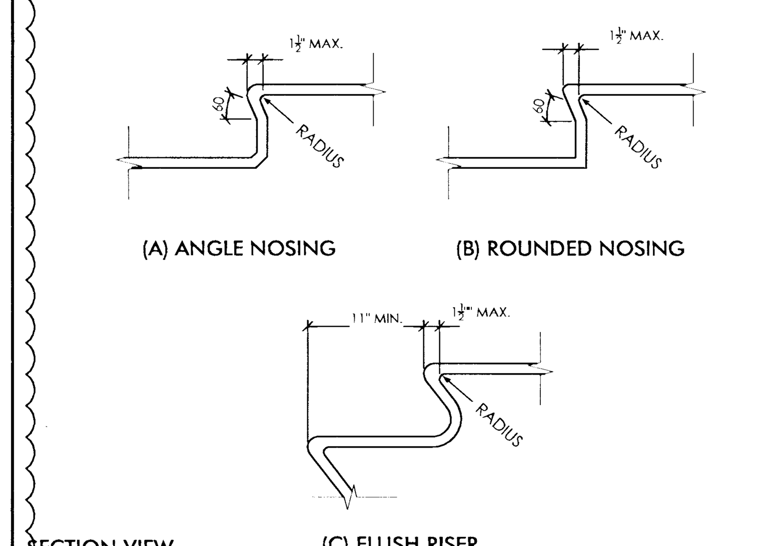
STAIR ASSEMBLY PER IBC 2006 TABLE 720.1 ITEM # 21-1.1 (SEE SHEET F3-2.1)



SECTION VIEW

08041_23D-5.1

TOP OF STAIR LANDING
23



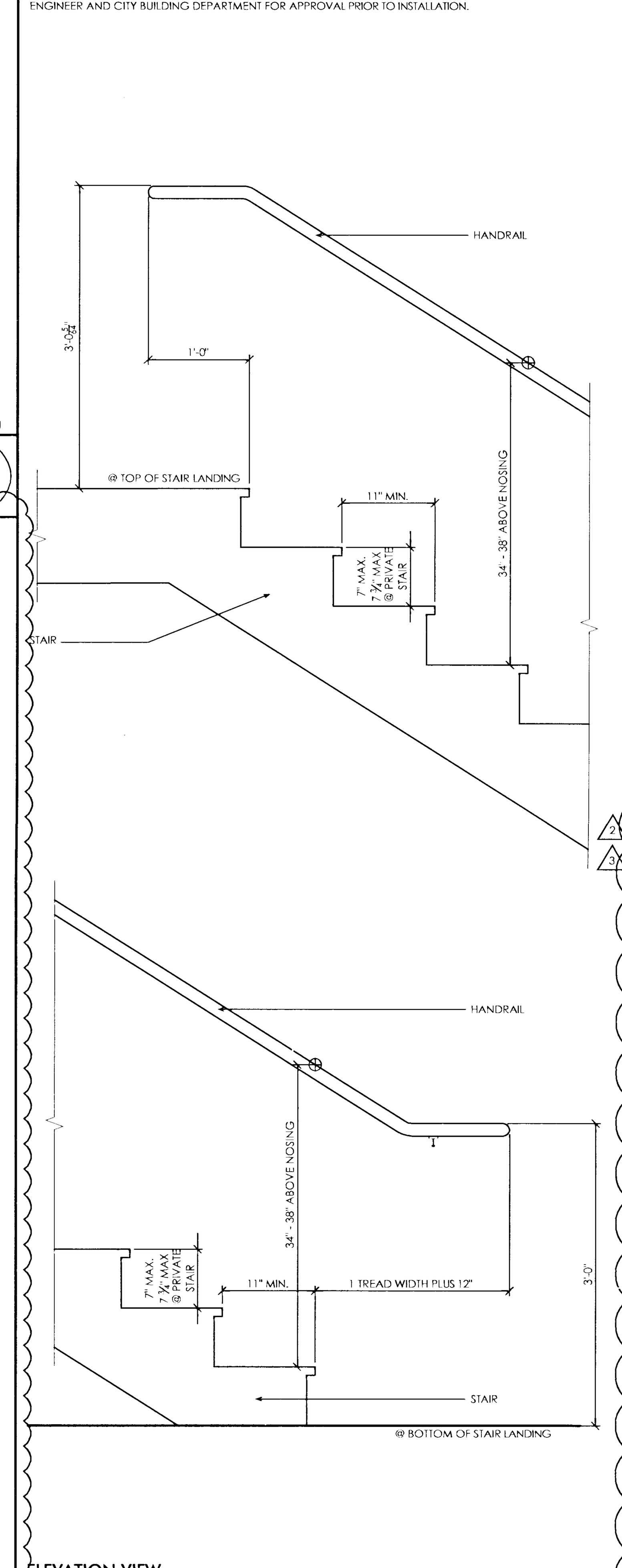
SECTION VIEW

08041_18D-5.1

~~TREAD NOSING DETAIL~~
18

NOTES:

STAIR MANUFACTURER TO PROVIDE DRAWINGS AND CALCULATION FOR RAILING SYSTEM TO PROJECT ENGINEER AND CITY BUILDING DEPARTMENT FOR APPROVAL PRIOR TO INSTALLATION.



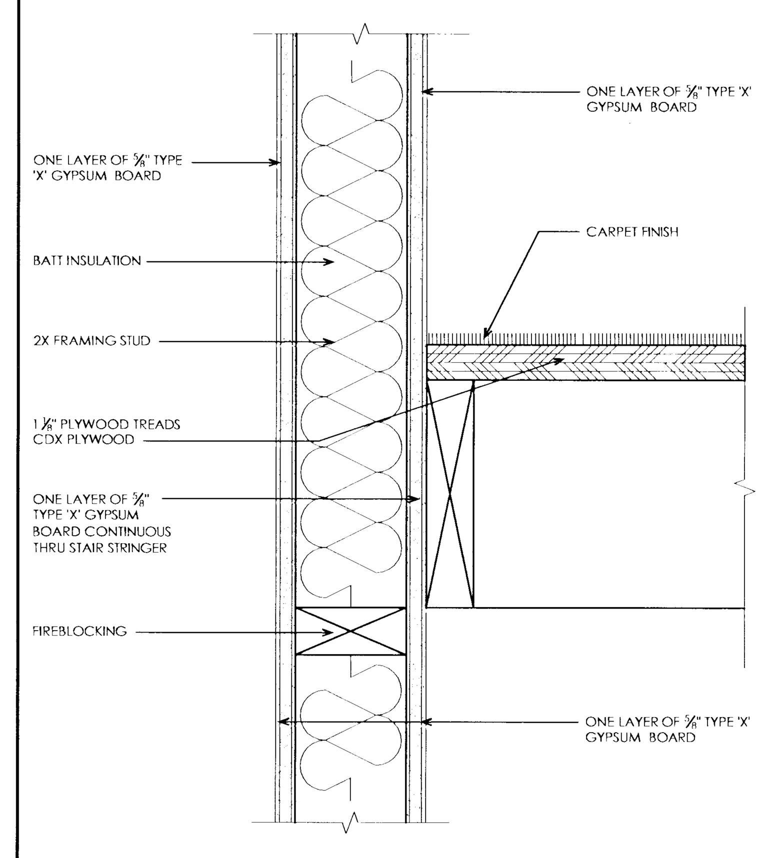
ELEVATION VIEW

08041_15D-5.1

TYPICAL HANDRAIL EXTENSION AT LANDING
15

NOTES:

PLYWOOD TREADS TO BE GLUED



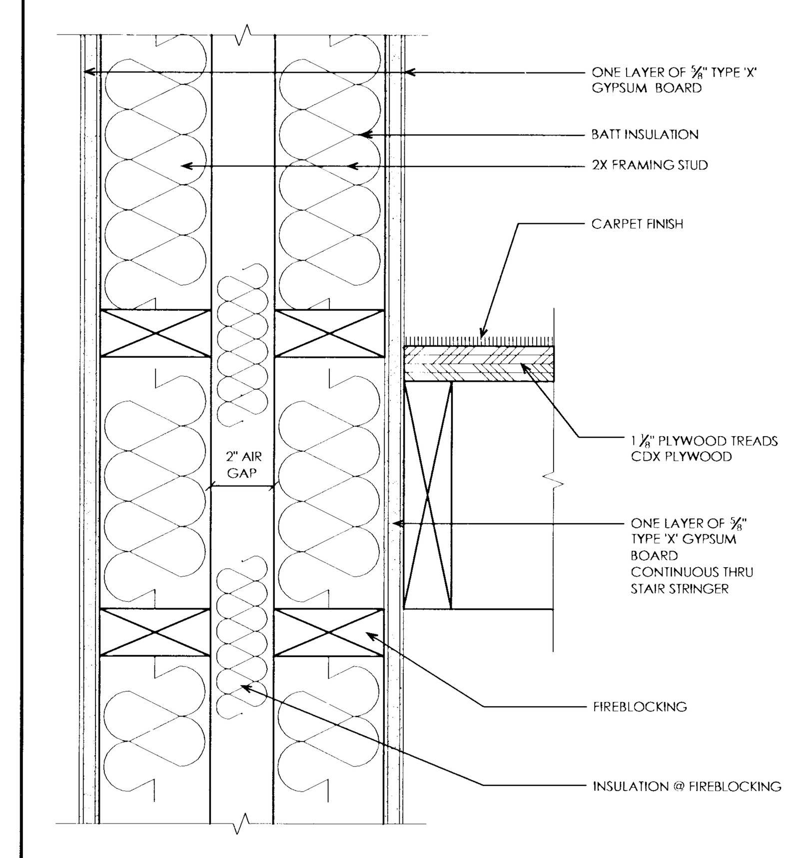
SECTION VIEW

08041_08D-5.1

~~STAIR AT WALL 1~~
8

NOTES:

PLYWOOD TREADS TO BE GLUED

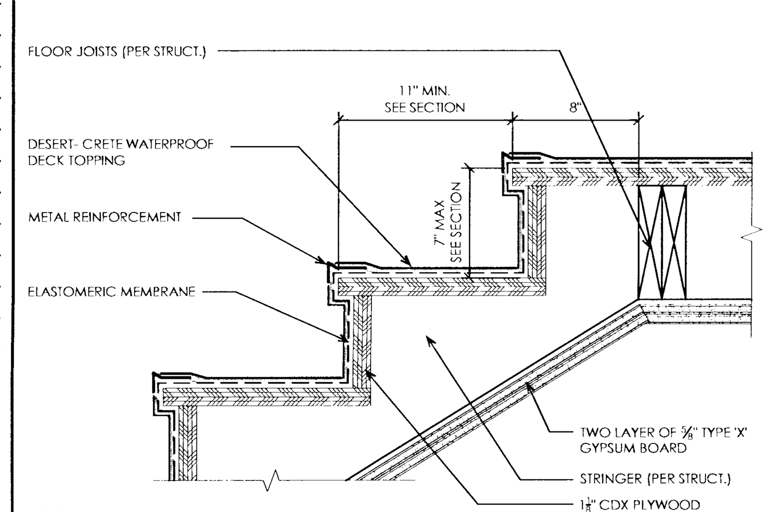


SECTION VIEW

08041_04D-5.1

STAIR AT TENANT WALL 1
4

STAIR ASSEMBLY PER IBC 2006 TABLE 720.1 ITEM # 21-1.1 (SEE SHEET F3-2.1)



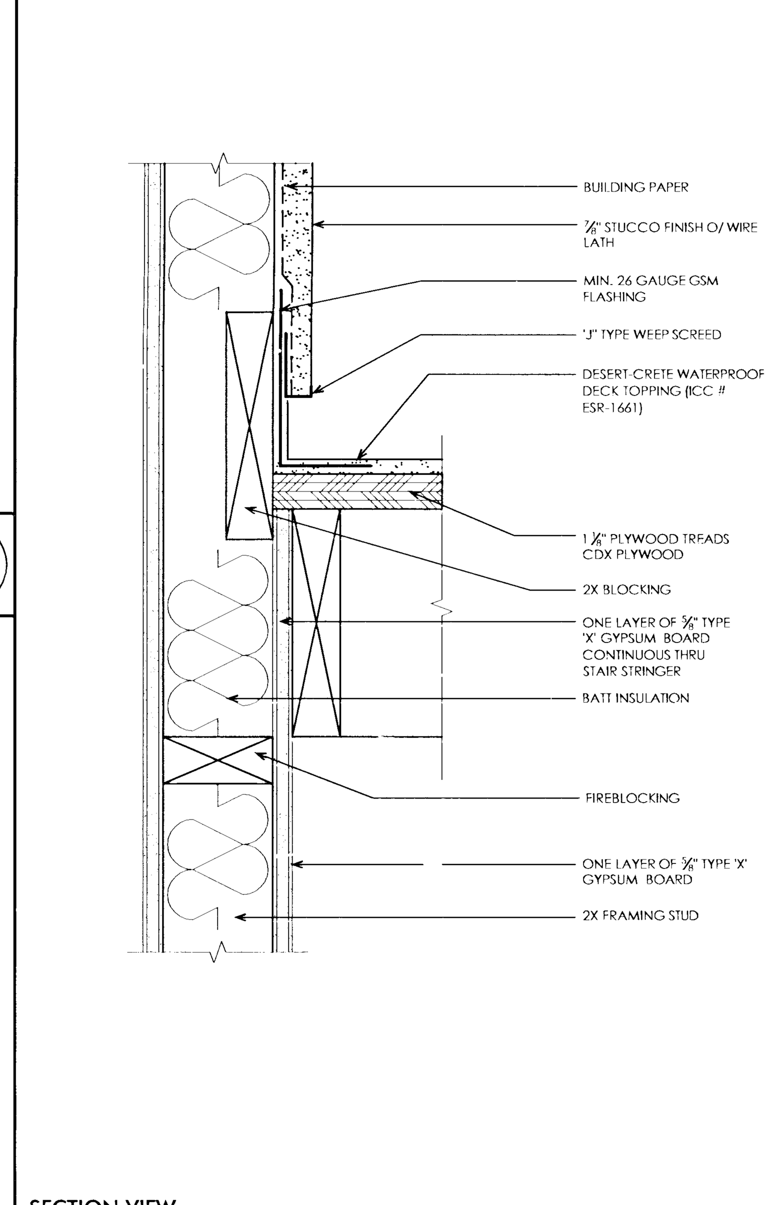
SECTION VIEW

08041_24D-5.1

TOP OF STAIR LANDING
24

NOTES:

PLYWOOD TREADS TO BE GLUED



SECTION VIEW

08041_20D-5.1

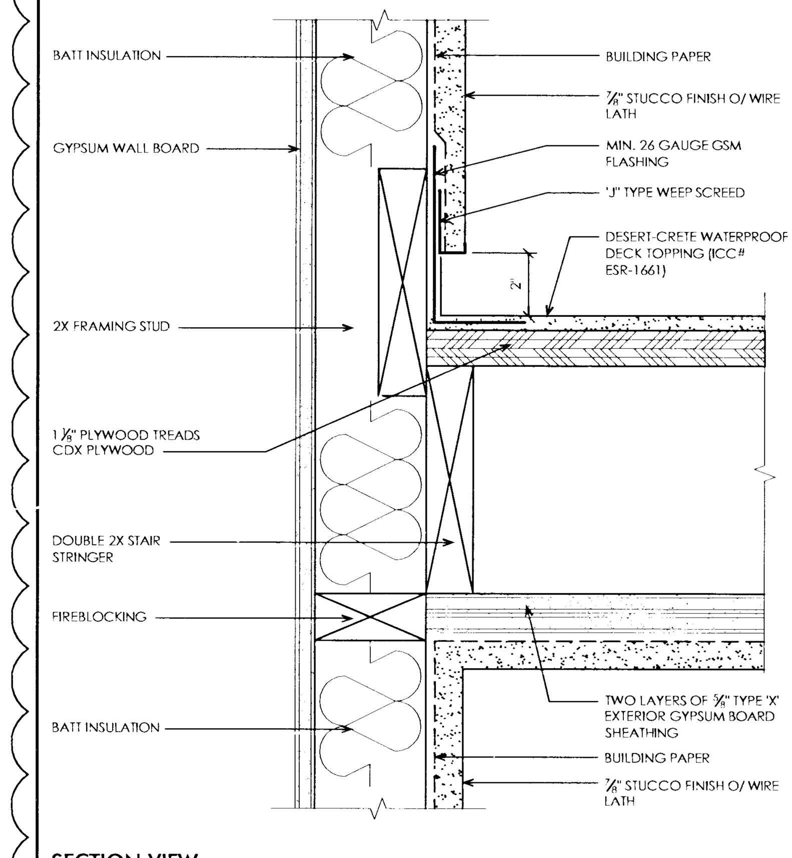
STAIR AT WALL 3
20

△2 △3

NOTES:

PLYWOOD TREADS TO BE GLUED

STAIR ASSEMBLY PER IBC 2006 TABLE 720.1 ITEM # 21-1.1 (SEE SHEET F3-2.1)



SECTION VIEW

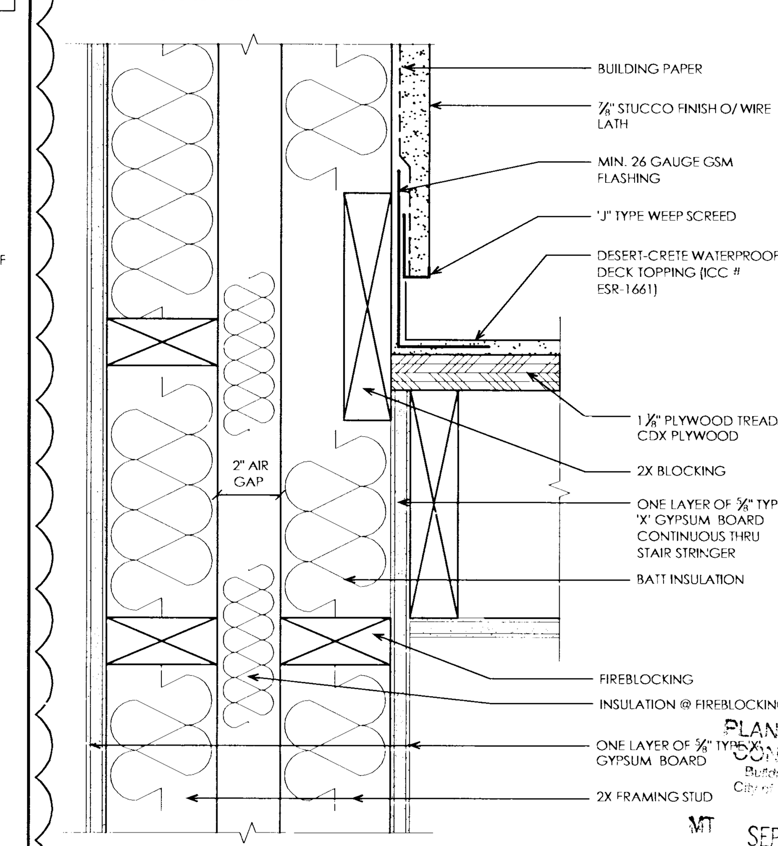
08041_10D-5.1

STAIR AT WALL 2
10

NOTES:

PLYWOOD TREADS TO BE GLUED

△1

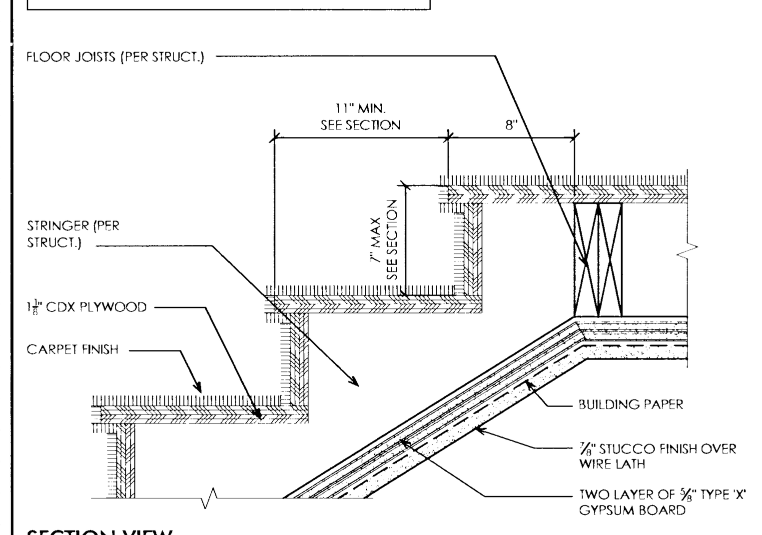


SECTION VIEW

08041_05D-5.1

STAIR AT TENANT WALL 2
5

STAIR ASSEMBLY PER IBC 2006 TABLE 720.1 ITEM # 21-1.1 (SEE SHEET F3-2.1)



SECTION VIEW

08041_25D-5.1

TOP OF STAIR LANDING
25

CRAIG D. SMITH REGISTERED No. 4967 7-9-09 ARCHITECT STATE OF NEVADA

RNM

RNM DESIGN
ARCHITECTURE
PLANNING
LANDSCAPE
GRAPHICS
RNMDESIGN.COM

2 CORPORATE PARK
SUITE 100
IRVINE, CALIFORNIA
92606
T949.752.1800
F949.833.9603

PROJECT NAME/ADDRESS

CORONADO THE PASEOS
875 PANTARA PLACE
LAS VEGAS, NEVADA

CLIENT

SPINNAKER HOMES
4511 W. CHEYENNE AVE. ST 105
NO. LAS VEGAS, CA 89032
702-873-7773
702-873-7776 FAX

REVISIONS

△1 DELTA 1: PLAN CHECK CORRECTION
△2 DELTA 2: PLAN CHECK CORRECTION
△3 DELTA 3: PLAN CHECK CORRECTION

THESE DRAWINGS AND IMAGES ARE NOT TO BE REPRODUCED OR COPIED IN ANY FORM WITHOUT WRITTEN PERMISSION. COPYRIGHT 2008 RNM DESIGN

DRAWING TITLE

ARCHITECTURAL DETAILS

DRAWING INFORMATION

PROJ. NO: 08041
FIRST SUBMITTAL DATE: 02.24.2009
SCALE: N/A

JUL 09 2009

PLANS APPROVED CONSTRUCTION Building & Safety Dept. City of Las Vegas, Nevada
MT SEP 0 2 2009
Does Not Include Electrical, Plumbing... Not a Permit to Violate Any Ordinance

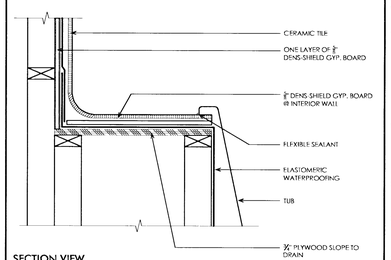
DELTA 3 - PLAN CHECK CORRECTION

DRAWING NUMBER

D-5.1

07.09.09

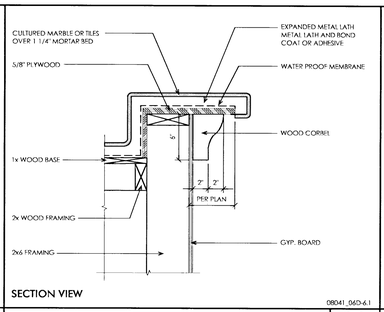
NOTE: TILE INSTALLATION SHALL BE PER THE CURRENT EDITION OF "THE HANDBOOK FOR TILE INSTALLATION".



SECTION VIEW

08041_11D-6.1

TUB AT NON-RATED WALL (11)

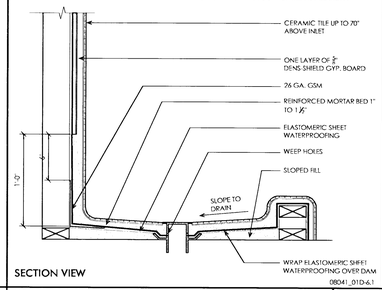


SECTION VIEW

08041_06D-6.1

COUNTER AT KITCHEN (6)

NOTE: TILE INSTALLATION SHALL BE PER THE CURRENT EDITION OF "THE HANDBOOK FOR TILE INSTALLATION".

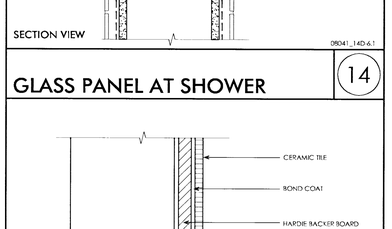


SECTION VIEW

08041_01D-6.1

SHOWER RECEPTOR (NON-RATED) (1)

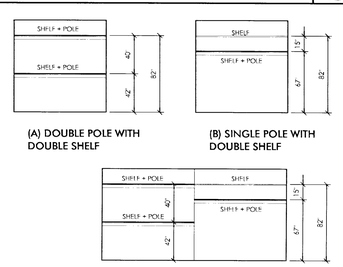
NOTE: TILE INSTALLATION SHALL BE PER THE CURRENT EDITION OF "THE HANDBOOK FOR TILE INSTALLATION".



SECTION VIEW

08041_12D-6.1

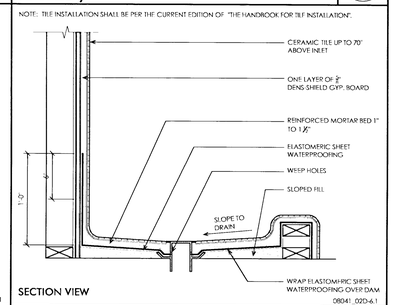
TUB AT RATED WALL (12)



08041_07D-6.1

STANDARD CLOSET HEIGHTS (7)

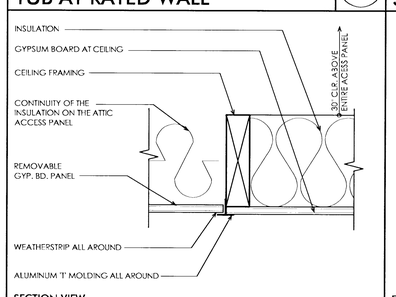
NOTE: TILE INSTALLATION SHALL BE PER THE CURRENT EDITION OF "THE HANDBOOK FOR TILE INSTALLATION".



SECTION VIEW

08041_02D-6.1

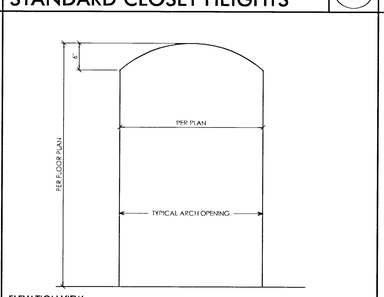
SHOWER RECEPTOR (RATED) (2)



SECTION VIEW

08041_13D-6.1

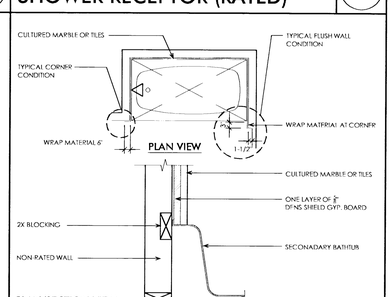
NON-RATED ATTIC ACCESS (13)



ELEVATION VIEW

08041_08D-6.1

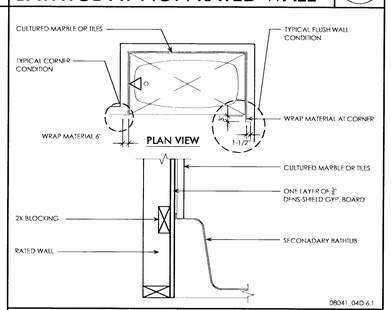
ARCH OPENING (8)



PLAN/SECTION VIEW

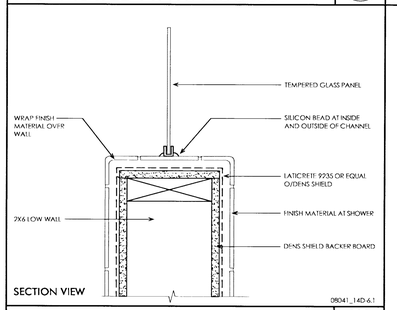
08041_03D-6.1

BATHTUB AT NON RATED WALL (3)



08041_04D-6.1

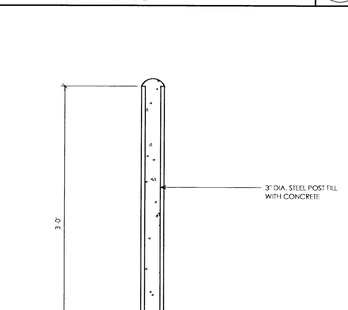
BATHTUB @ RATED WALL (4)



SECTION VIEW

08041_14D-6.1

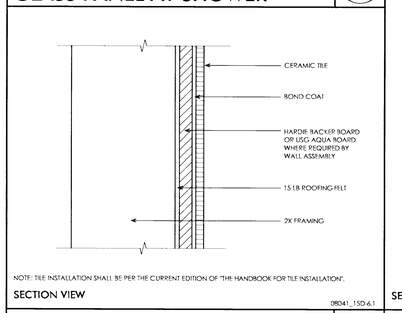
GLASS PANEL AT SHOWER (14)



SECTION VIEW

08041_10D-6.1

PIPE BOLLARD (10)

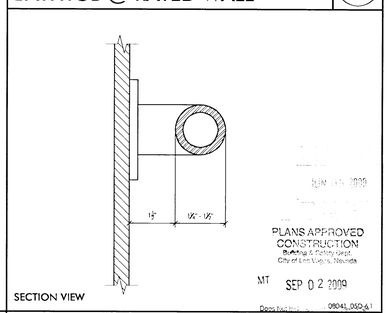


NOTE: TILE INSTALLATION SHALL BE PER THE CURRENT EDITION OF "THE HANDBOOK FOR TILE INSTALLATION".

SECTION VIEW

08041_15D-6.1

TYPICAL TILE WAINSCOAT (15)



SECTION VIEW

08041_05D-6.1

STANDARD GRAB BAR (5)

PLANS APPROVED CONSTRUCTION
Building & Safety Dept.
City of Las Vegas, Nevada
MT SEP 02 2009

Approval of these plans does not authorize the violation of any City ordinance nor the omission of any permit or fee. Approval of these plans does not authorize the improvement of any land not owned by the applicant without the written consent of the owner. Approval of these plans does not authorize any work to be done in any street or alley dedicated to the public use. Approval of these plans does not authorize any work to be done in any easement not owned by the applicant. Approval of these plans does not authorize any work to be done in any easement not owned by the applicant without the written consent of the owner. Approval of these plans does not authorize any work to be done in any easement not owned by the applicant without the written consent of the owner.

CRAIG D. SMITH
REGISTERED
No. 4967
ARCHITECT
STATE OF NEVADA

RNM

RNM DESIGN
ARCHITECTURE
PLANNING
LANDSCAPE
GRAPHICS
RNMDESIGN.COM

2 CORPORATE PARK
SUITE 100
IRVINE, CALIFORNIA
92606
T 949.252.1800
F 949.833.9603

PROJECT NAME/ADDRESS

CORONADO THE PASEOS
875 PANTARA PLACE
LAS VEGAS, NEVADA

CLIENT

SPINNAKER HOMES
4511 W. CHEYENNE AVE. ST 105
NO. LAS VEGAS, CA 89032
702-873-7773
702-873-7776 FAX

REVISIONS

THESE DRAWINGS AND IMAGES ARE NOT TO BE REPRODUCED OR COPIED IN ANY FORM WITHOUT WRITTEN PERMISSION. COPYRIGHT 2008 RNM DESIGN

DRAWING TITLE

ARCHITECTURAL DETAILS

DRAWING INFORMATION

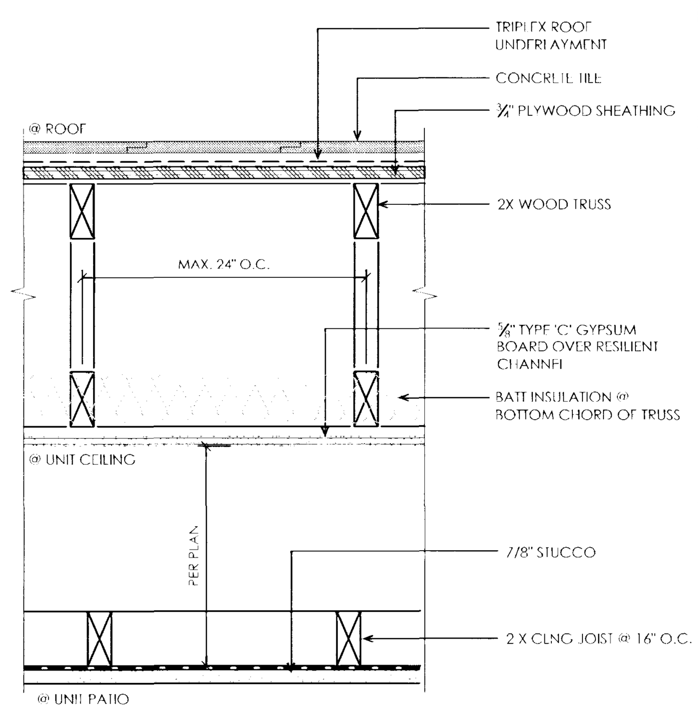
PROJ. NO:	08041
FIRST SUBMITTAL DATE:	02.24.2009
SCALE:	N/A

DRAWING NUMBER

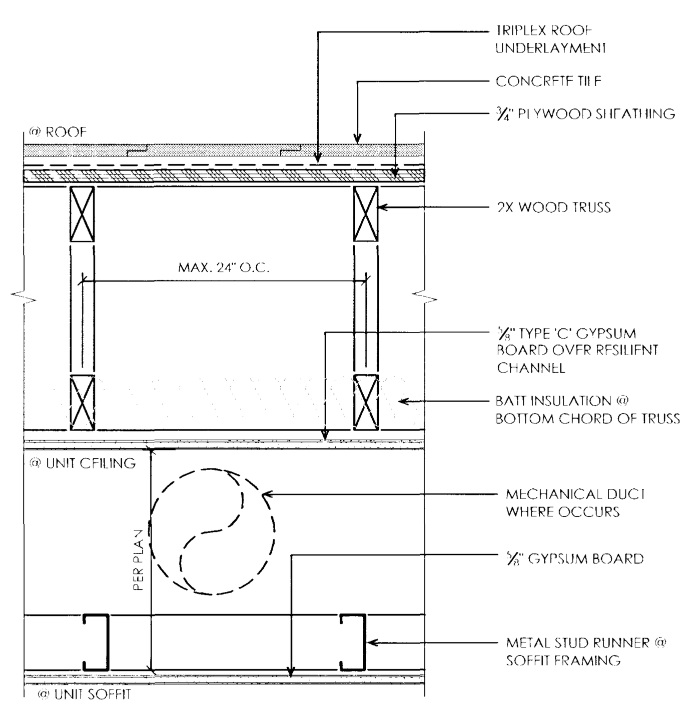
D-6.1

DELTA 2 - PLAN CHECK CORRECTION
05.27.09

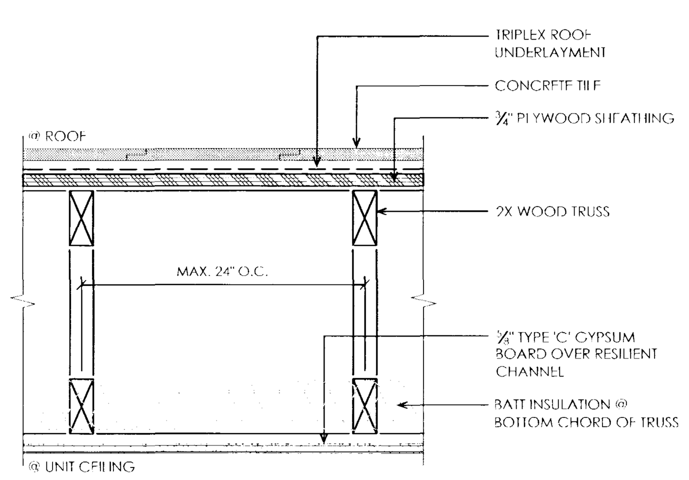
RC1 - RATED ROOF ASSEMBLY



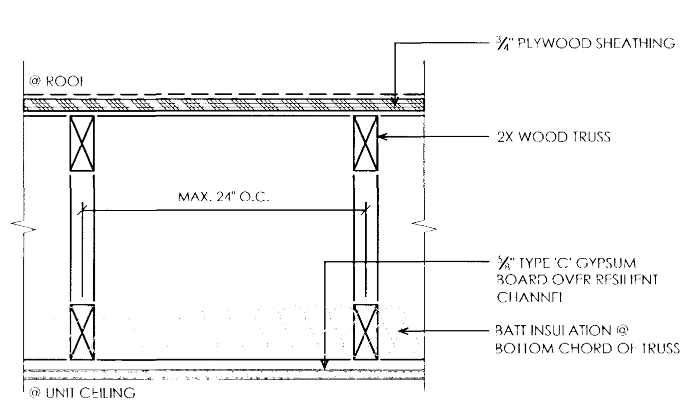
RC1 - C



RC1 - B



RC1 - A

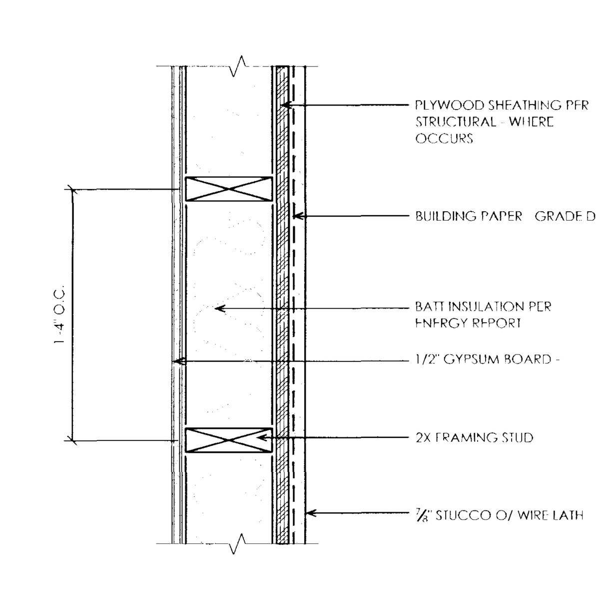


RC1 - BASE

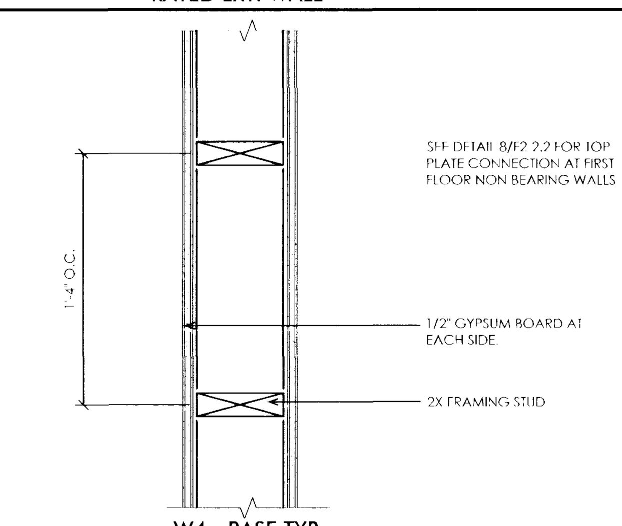
SECTION VIEW

08041_RC01F1-1.1

W4 - NON RATED WALL



W4-A TYP. NON RATED EXT. WALL

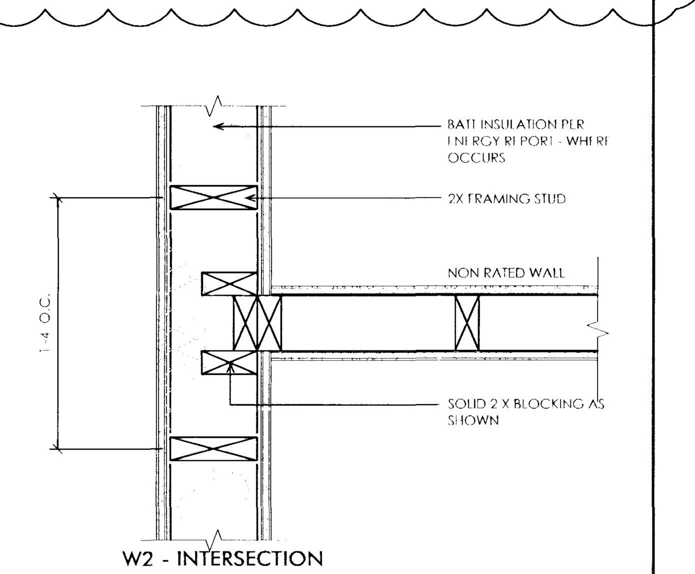


W4 - BASE TYP. INTERIOR NON RATED WALL

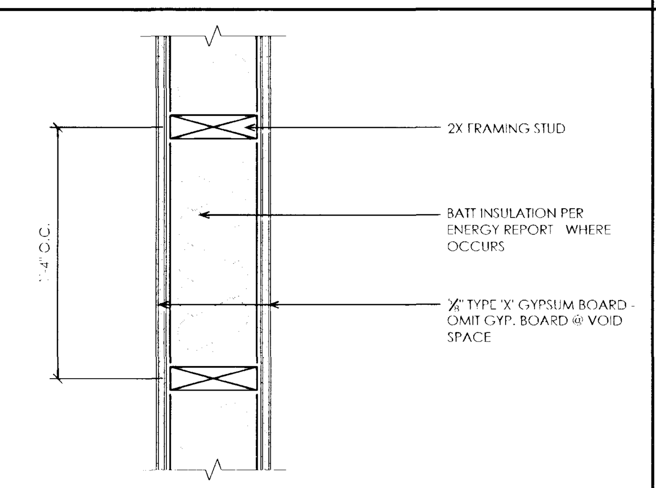
PLAN VIEW

08041_W03F1.1.1

W2 - INTERIOR RATED WALL



W2 - INTERSECTION OF NON RATED WALL



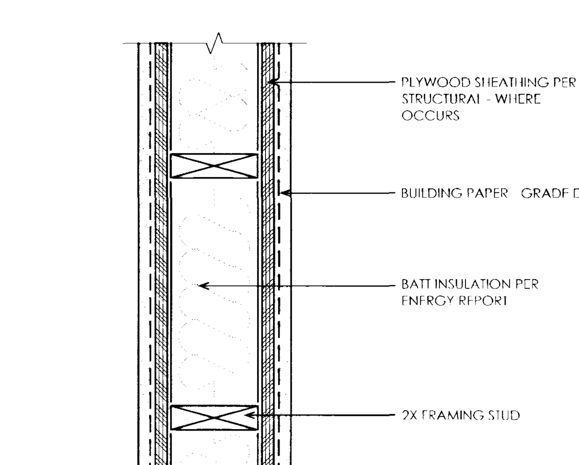
W2 - BASE

NOTE: @ SHOWER AND BATHTUBS DENS SHIELD MAYBE SUBSTITUTED FOR STANDARD TYPE " X " DRYWALL

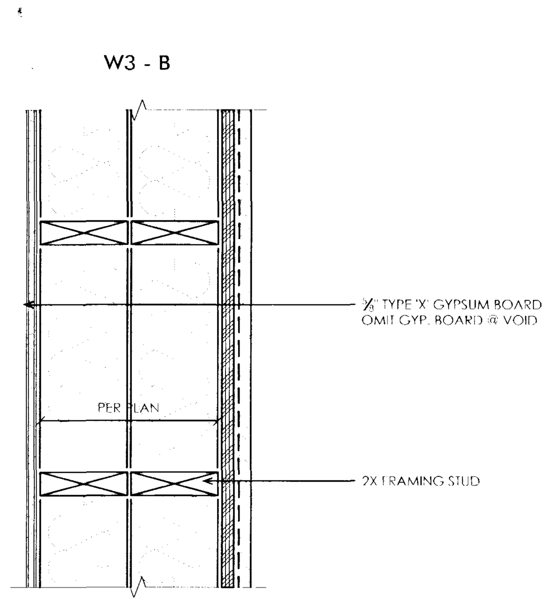
PLAN VIEW

08041_W02F1.1.1

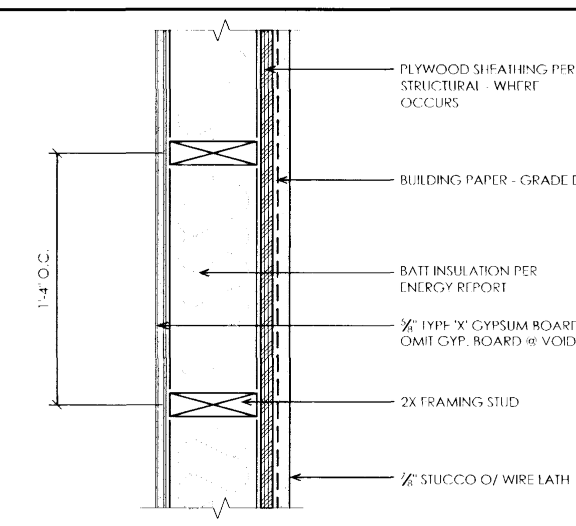
W3 - EXTERIOR WALL



W3 - B



W3 - A

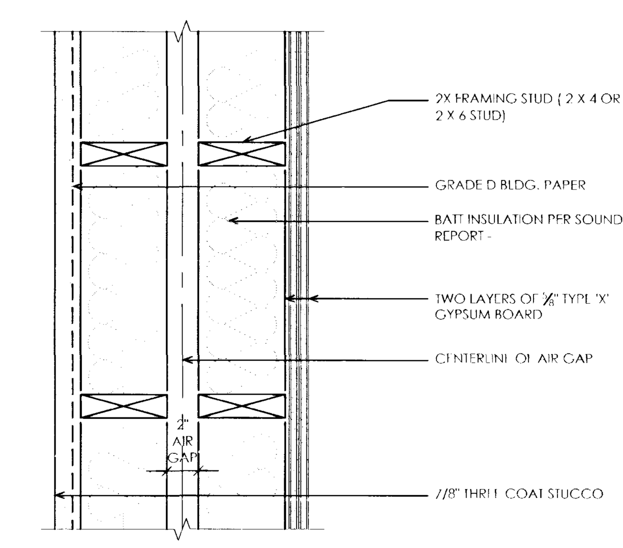


W3 - BASE

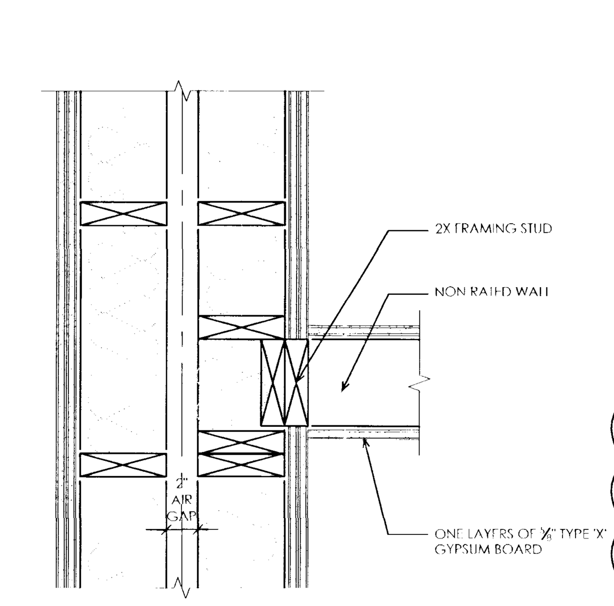
PLAN VIEW

08041_W03F1.1.1

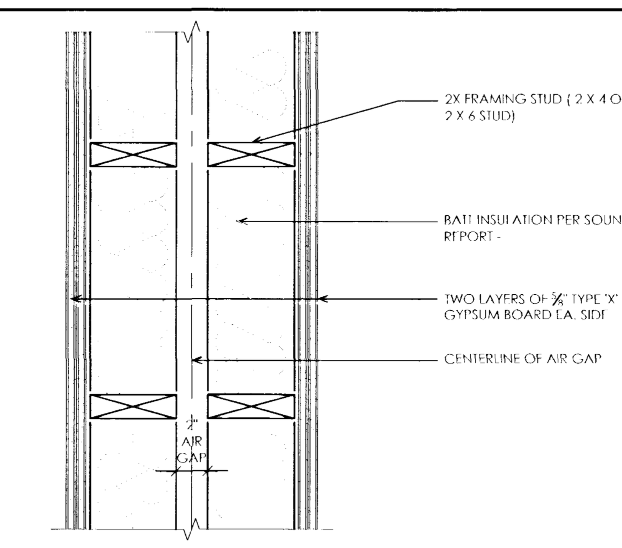
W1 - TENANT SEPARATION



W1-B DOUBLE EXTERIOR WALL



W1 - A



W1 - BASE

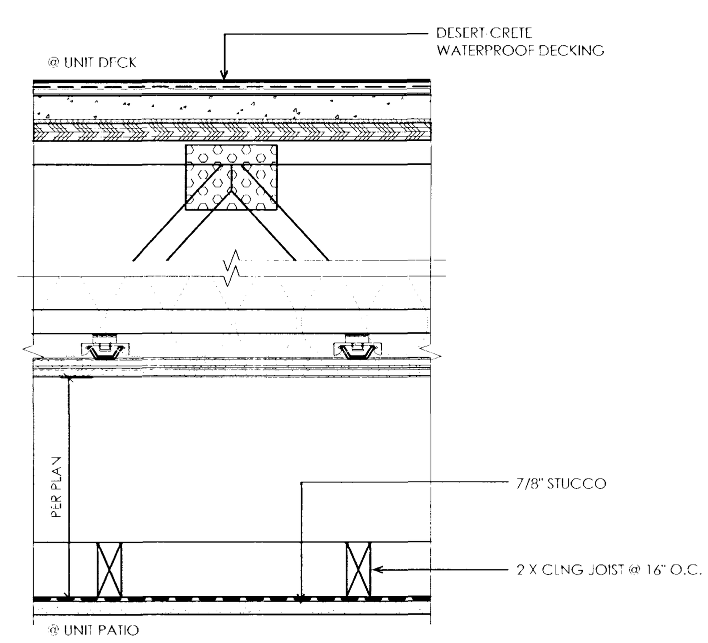
PLAN VIEW

08041_W01F1.1.1

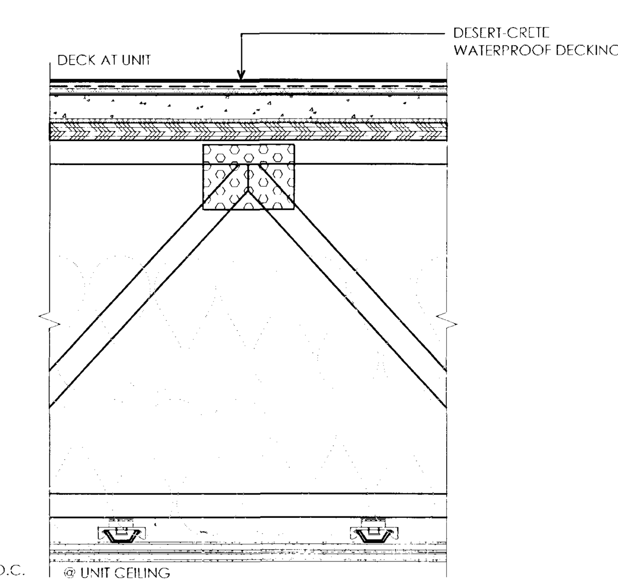
WALL ASSEMBLY TYPES AND ASSEMBLY NOTES

Assembly Designation	Location	Tested Rating	Req. Rating	STC/IIC Rating	Test Report #
W1 TENANT SEPARATION	1st, 2nd Level	1 hour	1 hour	50 Min. FIELD VERIFY	UL Design # U341 See Sheet F3-1.1
	Notes: 1. Through Penetrations of the wall shall be rated for 1 hour penetrations - see F3-4.1 & F3-4.2 sheets for specific penetrants 2. Membrane penetrations for electrical boxes shall comply w/detail 2/F2-2.1 and 4/F2-2.1 3. Membrane penetrations for utility boxes shall comply w/ 14/F2-2.1 4. Void in wall shall be fireblocked at 10' intervals both vertically and horizontally 5. See sheet F4-1.1 to F4-1.3 for additional sound assembly information.				
W2 INTERIOR RATED WALL	1st Level Interior Bearing Wall and occupancy separations.	1 hour	1 hour	N/A	UL Design # U305 See Sheet F3-1.1
	Notes: 1. Through Penetrations of the wall shall be rated for 1 hour penetrations - see F3-4 sheets for specific penetrants 2. Membrane penetrations for electrical boxes shall comply w/detail 2/F2-2.1 and 4/F2-2.1 3. Membrane penetrations for utility boxes shall comply w/ 14/F2-2.1 4. Void in wall shall be fireblocked at 10' intervals both vertically and horizontally				
W3 EXTERIOR WALL	1st Level Exterior Wall	1 hour	1 hour	N/A	UL Design # U356 See Sheet F3-1.2
	Notes: 1. This wall is only required to be rated from the interior side. Exterior rating is not required due to distance to the property line. 2. Through Penetrations of the wall shall be rated for 1 hour penetrations - see F3-4 sheets for specific penetrants 3. Membrane penetrations for electrical boxes shall comply w/detail 2/F2-2.1 and 4/F2-2.1 4. Membrane penetrations for utility boxes shall comply w/ 13/F2-4.1 5. Void in wall shall be fireblocked at 10' intervals both vertically and horizontally				
W4 NON RATED WALL	1st Level & 2nd level	N/A	N/A	N/A	
	Notes: 1. Per the code analysis non bearing interior walls on the first level and all walls other than occupancy and tenant separation walls on the second level need not be rated in a type v - b building.				

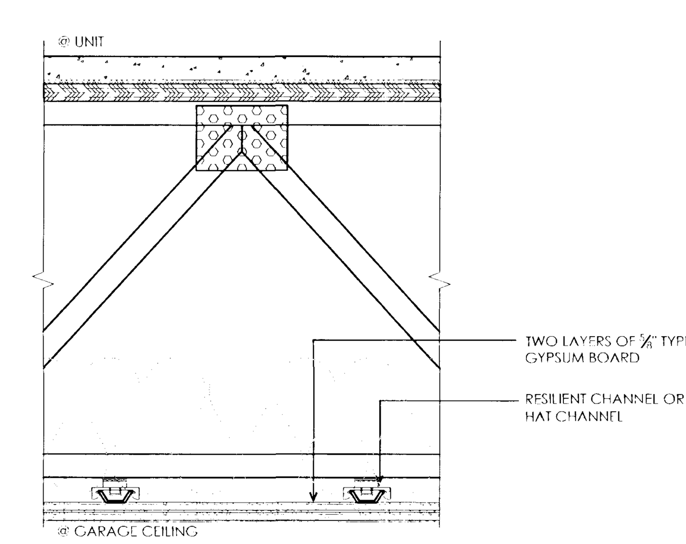
FC1 - WOOD FLOOR TRUSS @ UNIT



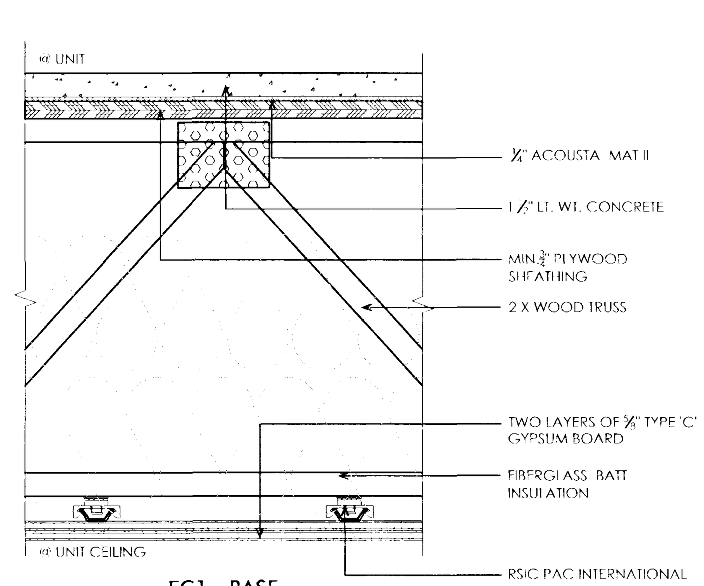
FC1 - F



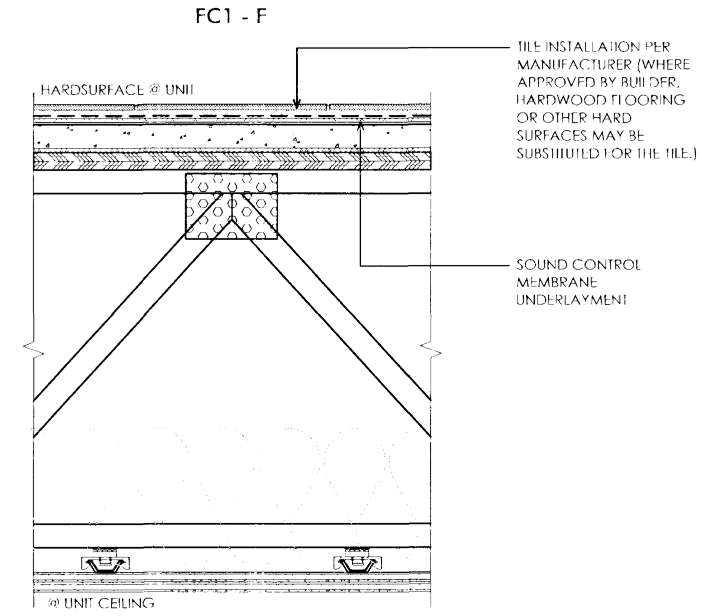
FC1 - E



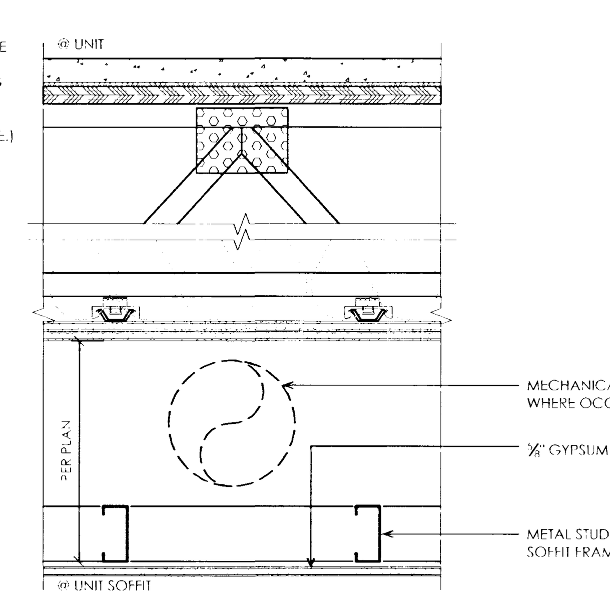
FC1 - D



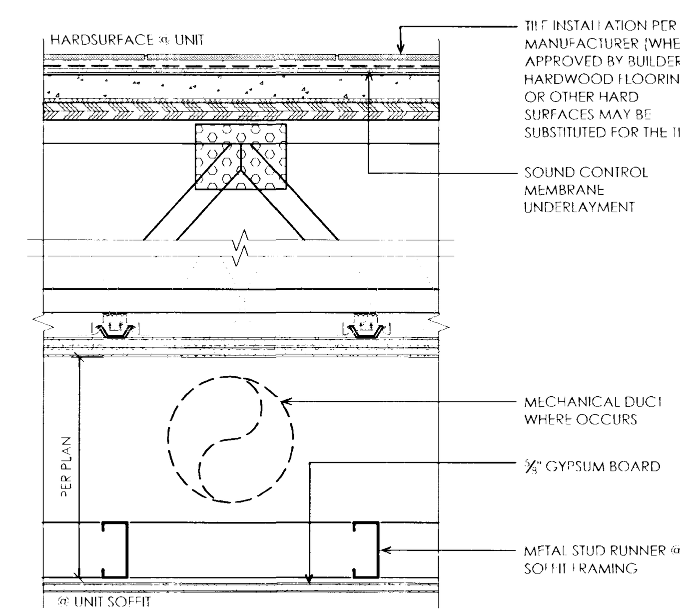
FC1 - BASE



FC1 - A



FC1 - B



FC1 - C

SECTION VIEW

08041_FC01F1-1.1

FLOOR CEILING & ROOF CEILING ASSEMBLIES & NOTES

Assembly Designation	Location	Tested Rating	Req. Rating	STC/IIC Rating	Test Report #
FC1 WOOD FLOOR TRUSS @ UNIT	2nd Floor Level	1 hour	1 hour	50 MIN. FIELD VERIFY	UL Design # L528 System No. 14 See Sheet F3-2.1 with item 3b
	Notes: 1. See sheet F4-1.1 to F4-1.3 for additional sound assembly information.				
FC1 - A WOOD FLOOR TRUSS @ UNIT	2nd Floor Level at hardsurface finishes	1 hour	1 hour	50 MIN. FIELD VERIFY	UL Design # L528 System No. 14 See Sheet F3-2.1 with item 3b
	Notes: 1. Additional sound membrane to be installed over the lt. wt. concrete prior to placementt of hardsurfaces. 2. See sheet F4-1.1 to F4-1.3 for additional sound assembly information.				
FC1 - B WOOD FLOOR TRUSS @ UNIT	2nd Floor Level with dropped soffit below.	1 hour	1 hour	50 MIN. FIELD VERIFY	UL Design # L528 System No. 14 See Sheet F3-2.1 with item 3b
	Notes: 1. See sheet F4-1.1 to F4-1.3 for additional sound assembly information.				
FC1 - C WOOD FLOOR TRUSS @ UNIT	2nd Floor Level with tile and with dropped soffit below.	1 hour	1 hour	50 MIN. FIELD VERIFY	UL Design # L528 System No. 14 See Sheet F3-2.1 with item 3b
	Notes: 1. Additional sound membrane to be installed over the lt. wt. concrete prior to placementt of hardsurfaces. 2. See sheet F4-1.1 to F4-1.3 for additional sound assembly information.				
FC1 - D WOOD FLOOR TRUSS @ UNIT	2nd Floor Level above garages.	1 hour	1 hour	50 MIN. FIELD VERIFY	UL Design # L528 System No. 14 See Sheet F3-2.1 with item 3b
	Notes: 1. Additional sound membrane to be installed over the lt. wt. concrete prior to placementt of hardsurfaces. 2. See sheet F4-1.1 to F4-1.3 for additional sound assembly information.				
FC1 - E WOOD FLOOR TRUSS @ UNIT	2nd Floor Level with waterproof deck above unit.	1 hour	1 hour	50 MIN. FIELD VERIFY	UL Design # L528 System No. 14 See Sheet F3-2.1 with item 3b
	Notes: 1. See ICC report ESR 1661 for further information regarding desert crete waterproof decking. 2. See sheet F4-1.1 to F4-1.3 for additional sound assembly information.				
FC1 - F WOOD FLOOR TRUSS @ DECK OF UNIT	2nd Floor Level with waterproof deck above patio below.	1 hour	1 hour	50 MIN. FIELD VERIFY	UL Design # L528 System No. 14 See Sheet F3-2.1 with item 3b
	Notes: 1. See ICC report ESR 1661 for further information regarding desert crete waterproof decking. 2. See sheet F4-1.1 to F4-1.3 for additional sound assembly information.				
RC1 RATED ROOF CEILING ASSEMBLY AT WOOD ROOF TRUSS	2nd Floor Level above garages	1 hour	1 hour	N/A	PER IBC table 720 item 21-1.1 See Sheet F3-3.1

08041_GeneralNotesF1-1.1

PLANS APPROVED FOR CONSTRUCTION
Building & Safety Dept.
City of Las Vegas, Nevada
MT SEP 02 2009
Electrical, Plumbing, Mechanical, Off-Site Improvements Made No Change Without Approval. Plan is Not a Permit to Violate Any Ordinance

CRAIG D. SMITH
REGISTERED ARCHITECT
No. 4967
8-20-09
STATE OF NEVADA

RNM

RNM DESIGN
ARCHITECTURE
PLANNING
LANDSCAPE
GRAPHICS
RNMDESIGN.COM

2 CORPORATE PARK
SUITE 100
IRVINE, CALIFORNIA
92606
T949.752.1800
F949.833.9603

PROJECT NAME/ADDRESS

CORONADO THE PASEOS
875 PANTARA PLACE
LAS VEGAS, NEVADA

CLIENT

SPINNAKER HOMES
4511 W. CHEYENNE AVE. ST 105
NO. LAS VEGAS, CA 89032
702-873-7773
702-873-7776 FAX

REVISIONS

DELTA 1: PLAN CHECK CORRECTION
DELTA 2: PLAN CHECK CORRECTION
DELTA 3: PLAN CHECK CORRECTION
DELTA 4: PLAN CHECK CORRECTION

AUG 20 2009

THESE DRAWINGS AND IMAGES ARE NOT TO BE REPRODUCED OR COPIED IN ANY FORM WITHOUT WRITTEN PERMISSION. COPYRIGHT 2008 RNM DESIGN

DRAWING TITLE

ASSEMBLY CONNECTION

DRAWING INFORMATION

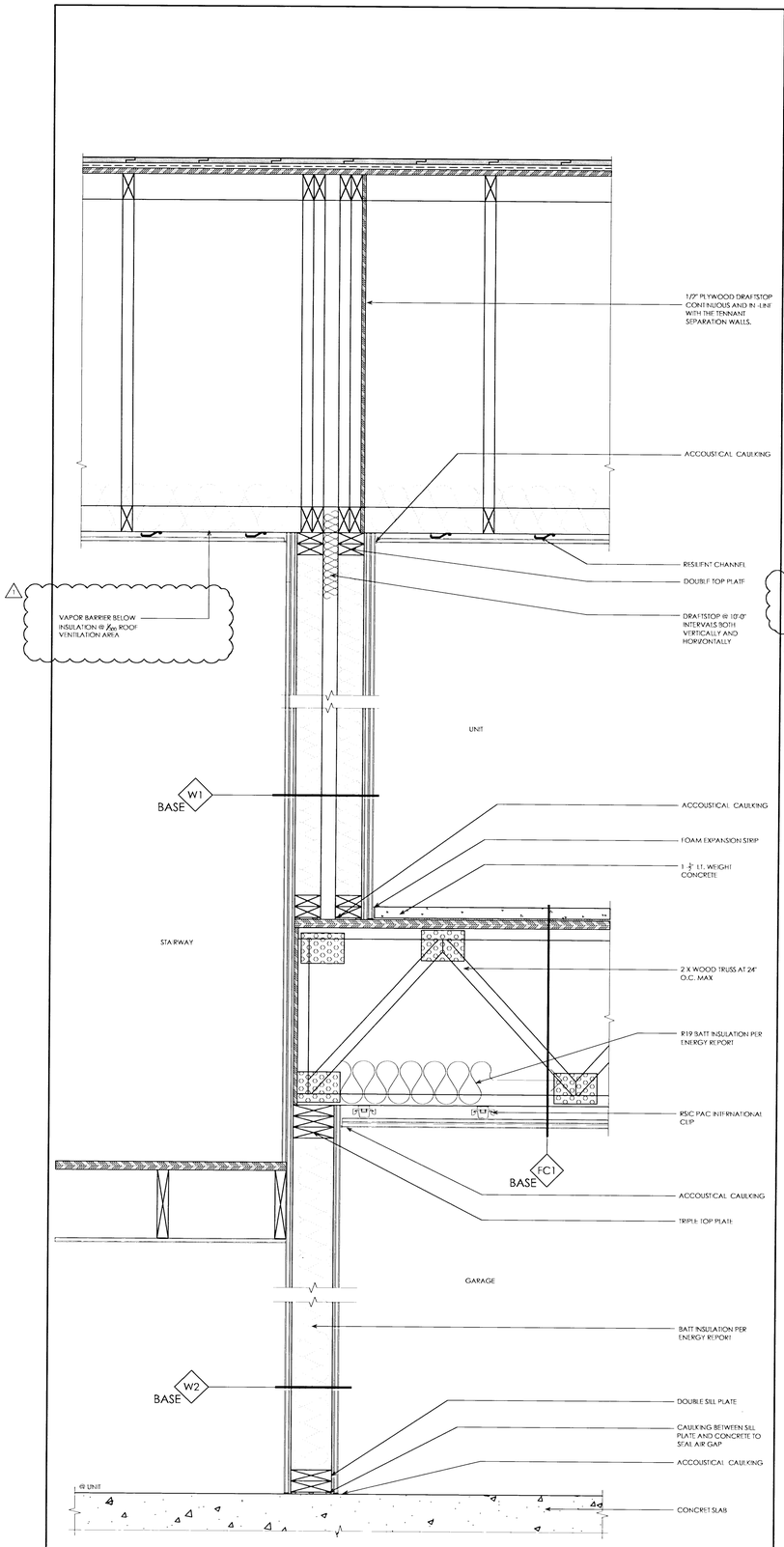
PROJ. NO: 08041
FIRST SUBMITTAL DATE: 02.24.2009
SCALE: N/A

DRAWING NUMBER

F1-1.1

DELTA 4 - PLAN CHECK CORRECTION

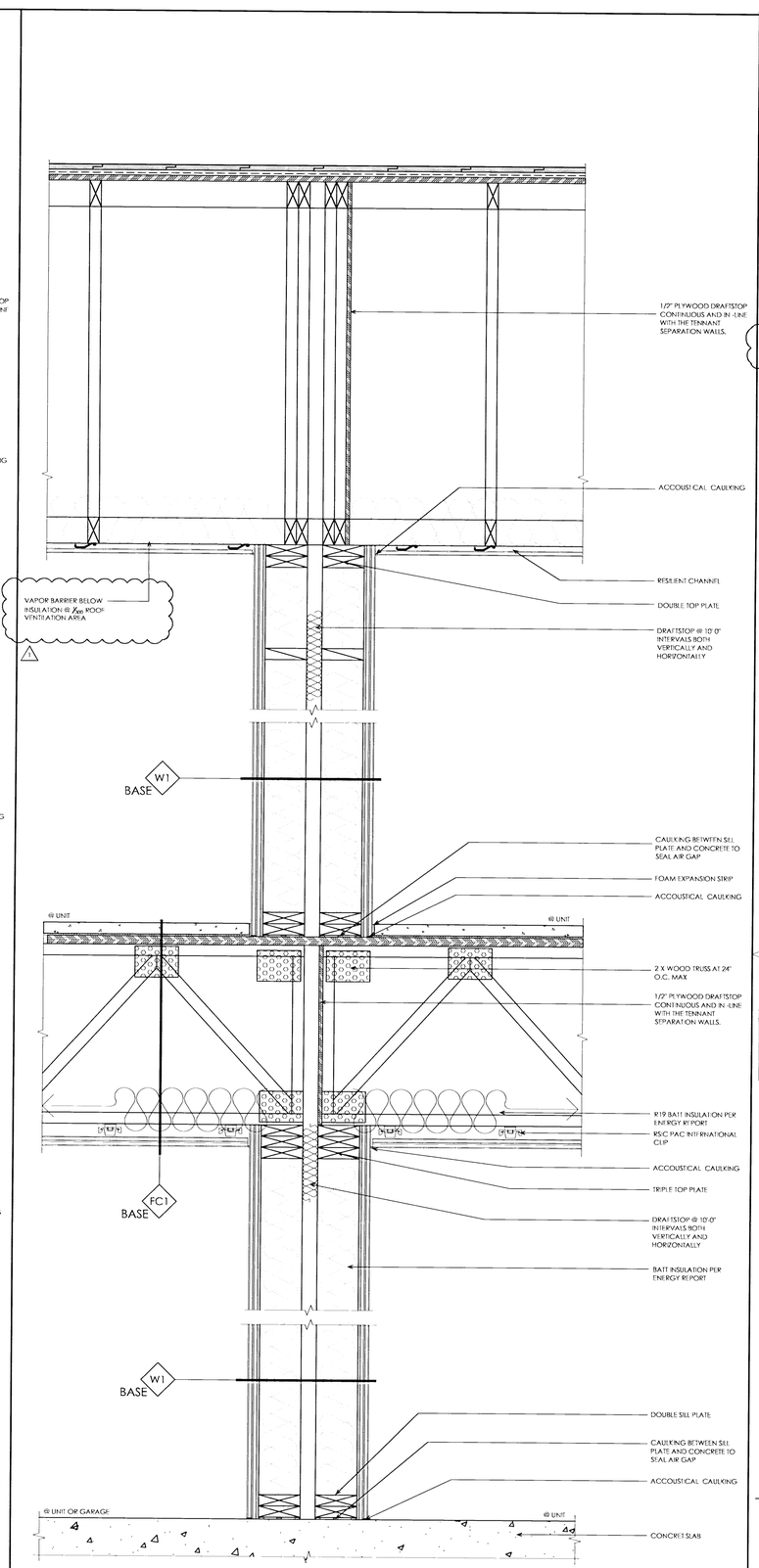
08.12.09



SECTION VIEW

08041_20F2 1.1

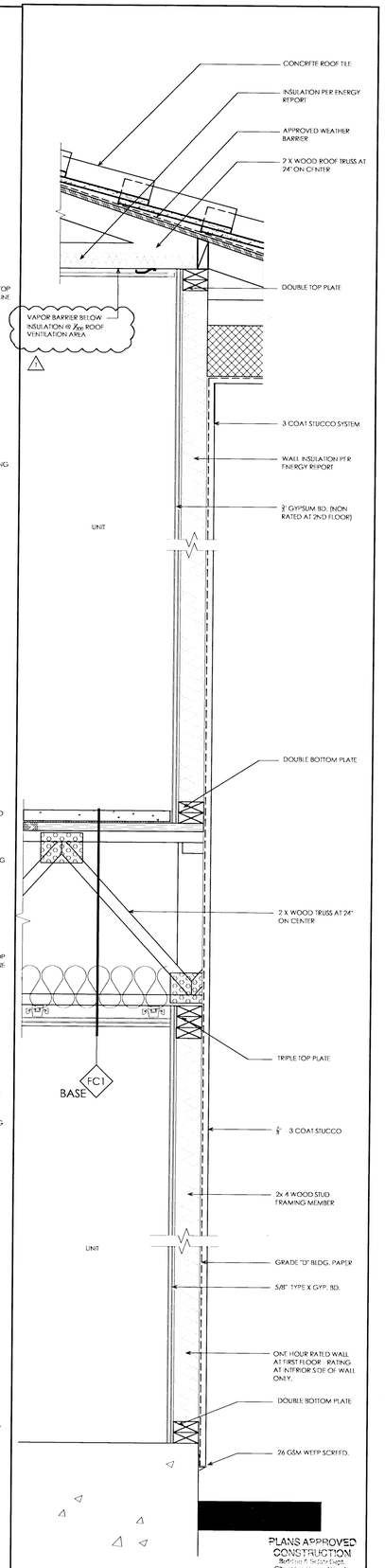
TENANT SEPARATION WALL AT GARAGE | 20



SECTION VIEW

08041_10F2 1.1

TENANT SEPARATION WALL | 10



PLANS APPROVED CONSTRUCTION
Building & Safety Dept.
City of Las Vegas, Nevada
MT SEP 02 2009

SECTION VIEW

TYPICAL WALL SECTION AT EXTERIOR WALL | 5

CRAIG D. SMITH REGISTERED No. 4967 6-2-09 ARCHITECT STATE OF NEVADA

RNM

RNM DESIGN
ARCHITECTURE
PLANNING
LANDSCAPE
GRAPHICS
RNMDESIGN.COM

2 CORPORATE PARK
SUITE 100
IRVINE, CALIFORNIA
92606
1949.752.1800
1949.833.9603

PROJECT NAME/ADDRESS

CORONADO THE PASEOS
875 PANTARA PLACE
LAS VEGAS, NEVADA

CLIENT

SPINNAKER HOMES
4511 W. CHEYENNE AVE. ST 105
NO. LAS VEGAS, CA 89032
702-873-7773
702-873-7776 FAX

REVISIONS

1 DELTA 1: PLAN CHECK CORRECTION

THESE DRAWINGS AND IMAGES ARE NOT TO BE REPRODUCED OR COPIED IN ANY FORM WITHOUT WRITTEN PERMISSION. COPYRIGHT 2008 RNM DESIGN

DRAWING TITLE

ASSEMBLY CONNECTION

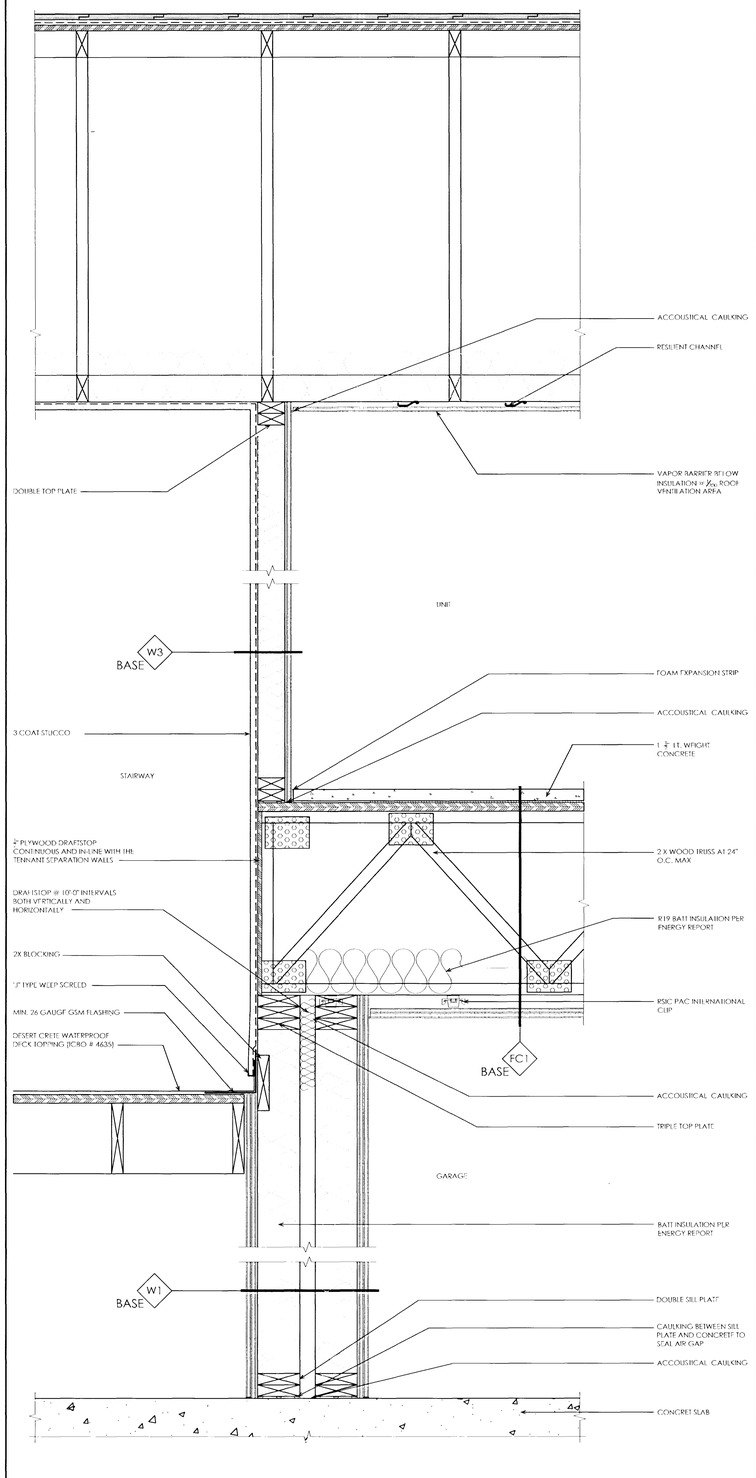
DRAWING INFORMATION

PROJ. NO:	08041
FIRST SUBMITTAL DATE:	02.24.2009
SCALE:	N/A

DRAWING NUMBER

F2-1.1

DELTA 2 - PLAN CHECK CORRECTION
05.27.09



SECTION VIEW

08041 25T2.1.2

TENANT SEPARATION WALL AT STAIRWAY

25

SECTION VIEW

08041 15T2.1.2

TENANT SEPARATION WALL AT STAIRWAY

15

SECTION VIEW

TENANT SEPARATION WALL @ GARAGE

5

PLANS APPROVED
CONSTRUCTION
Building & Safety Dept.
City of Las Vegas

MT SEP 02 2009

Plans must be kept on job at all times.
Master Shall Be Kept on Job. No Changes May Be Made Without Approval.
Void If Not Used Within 180 Days.
Not a Permit to Violate Any Ordinance.
08041 15T2.1.2

RNM DESIGN
ARCHITECTURE
PLANNING
LANDSCAPE
GRAPHICS
RNMDESIGN.COM

2 CORPORATE PARK
SUITE 100
IRVINE, CALIFORNIA
92606
949.732.1500
949.833.9500

PROJECT NAME/ADDRESS

CORONADO THE PASEOS
875 PANTARA PLACE
LAS VEGAS, NEVADA

CLIENT

SPINNAKER HOMES
4511 W. CHEYENNE AVE. ST 105
NO. LAS VEGAS, CA 89032
702-873-7773
702-873-7776 FAX

REVISIONS

1 DELTA 1: PLAN CHECK CORRECTION
4 DELTA 4: PLAN CHECK CORRECTION

AUG 20 2009
CITY OF LAS VEGAS

THESE DRAWINGS AND IMAGES ARE NOT TO BE REPRODUCED OR COPIED IN ANY FORM WITHOUT WRITTEN PERMISSION.
COPYRIGHT 2008 RNM DESIGN

DRAWING TITLE

ASSEMBLY CONNECTION

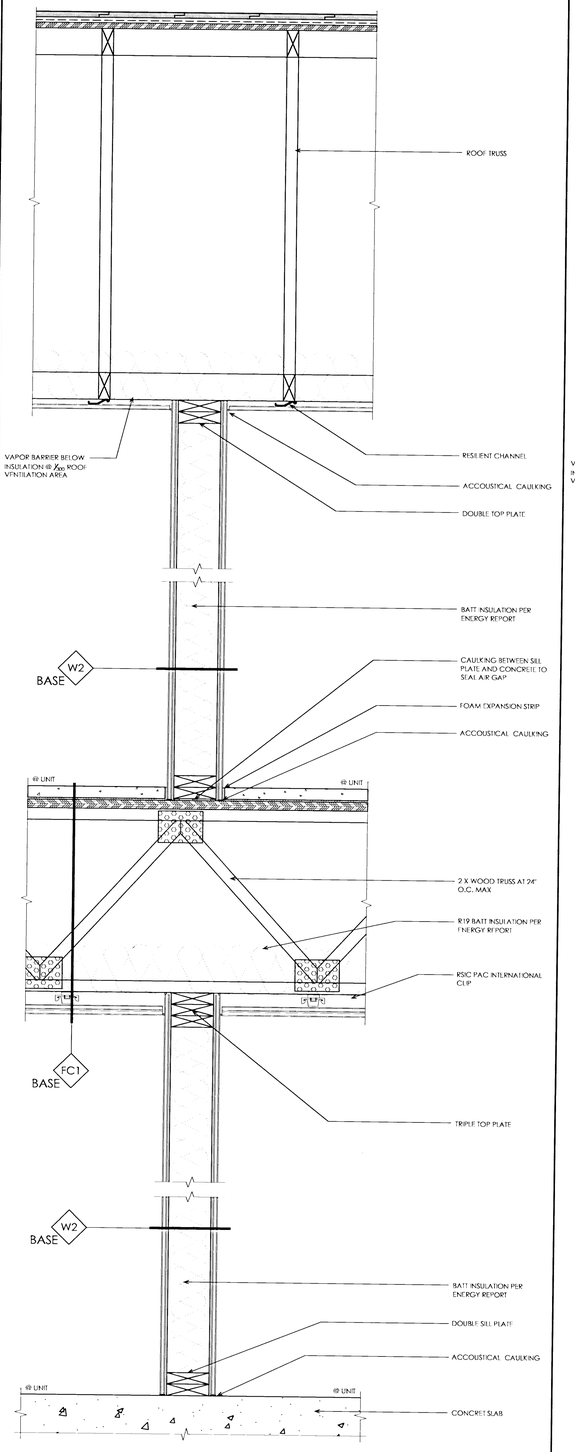
DRAWING INFORMATION

PROJ. NO: 08041
FIRST SUBMITTAL DATE: 02.24.2009
SCALE: N/A

DRAWING NUMBER

F2-1.2

DELTA 4 - PLAN CHECK CORRECTION 08.12.09

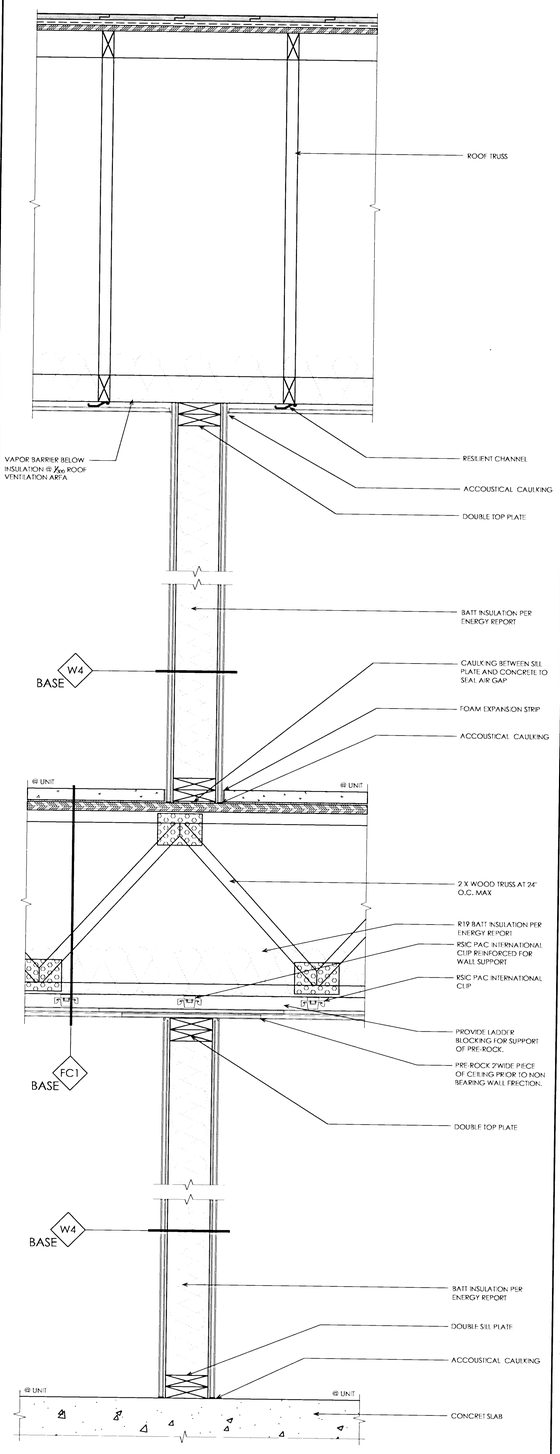


SECTION VIEW

08041_25F2-1.3

INTERIOR RATED WALL

25

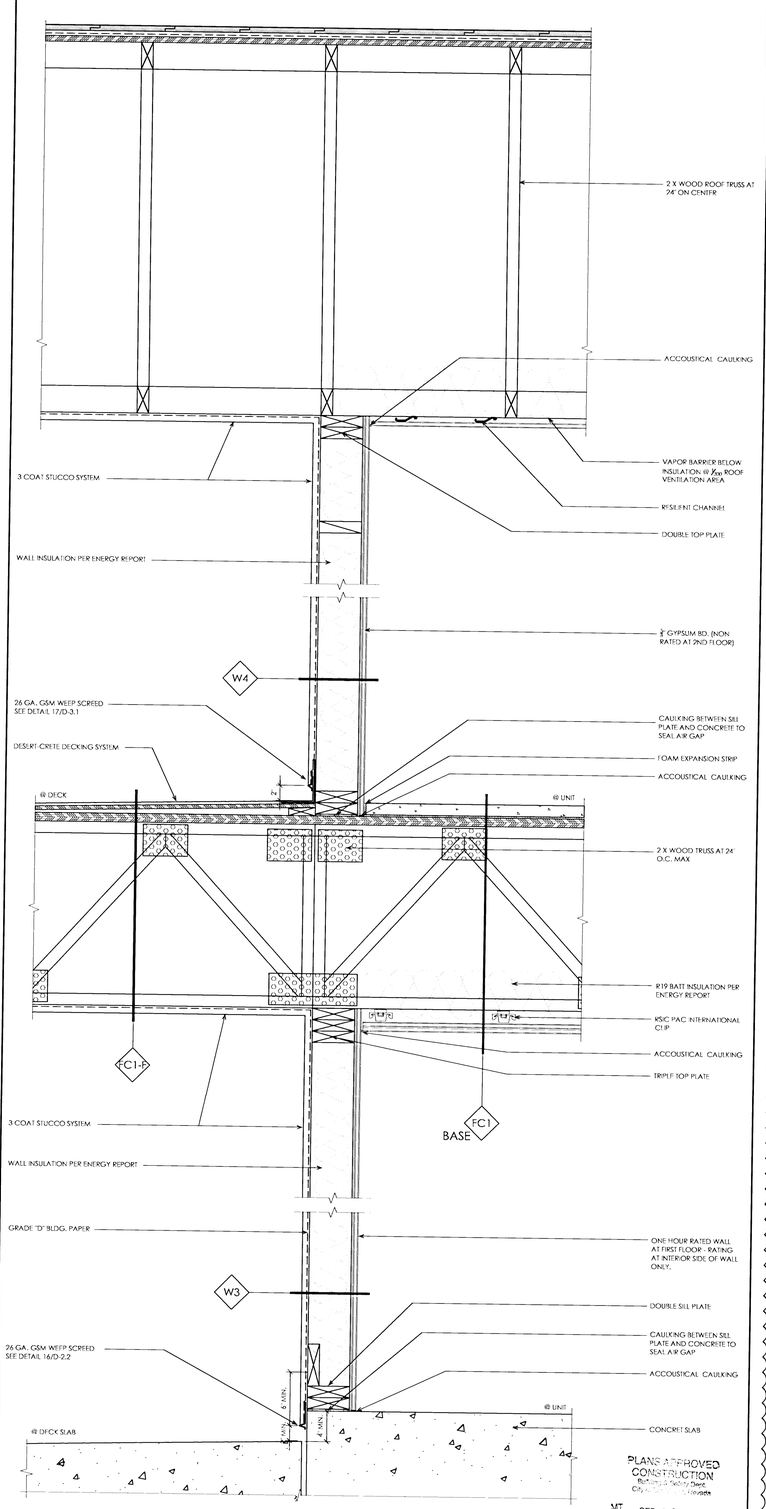


SECTION VIEW

08041_15F2-1.3

NON RATED INTERIOR WALL

15



PLANS APPROVED CONSTRUCTION

MT SEP 02 2009

SECTION VIEW

08041_05F2-1.3

WALL @ DECK

5

CRAIG D. SMITH REGISTERED No. 4967 6-2-07 ARCHITECT STATE OF NEVADA

RNM

RNM DESIGN
ARCHITECTURE
PLANNING
LANDSCAPE
GRAPHICS
RNMDESIGN.COM

2 CORPORATE PARK
SUITE 100
IRVINE, CALIFORNIA
92606
T949.752.1800
F949.833.9603

PROJECT NAME/ADDRESS

CORONADO THE PASEOS
875 PANTARA PLACE
LAS VEGAS, NEVADA

CLIENT

SPINNAKER HOMES
4511 W. CHEYENNE AVE. ST 105
NO. LAS VEGAS, CA 89032
702-873-7773
702-873-7776 FAX

REVISIONS

1 DELTA 1: PLAN CHECK CORRECTION

THESE DRAWINGS AND IMAGES ARE NOT TO BE REPRODUCED OR COPIED IN ANY FORM, WITHOUT WRITTEN PERMISSION. COPYRIGHT 2008 RNM DESIGN

DRAWING TITLE

ASSEMBLY CONNECTION

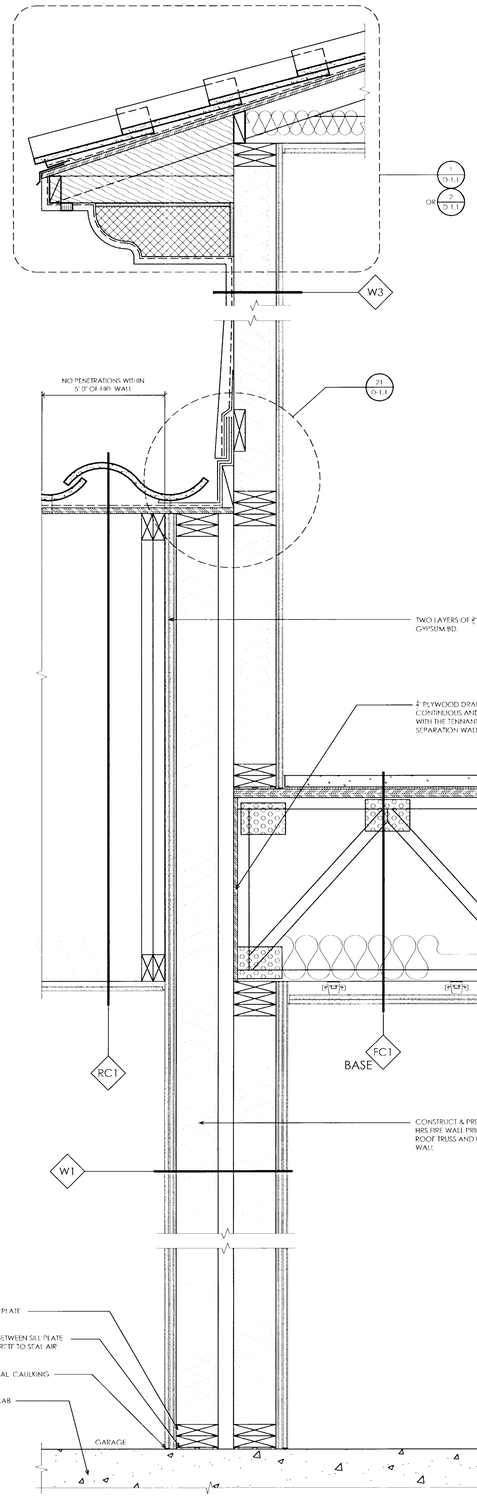
DRAWING INFORMATION

PROJ. NO: 08041
FIRST SUBMITTAL DATE: 02.24.2009
SCALE: N/A

DRAWING NUMBER

F2-1.3

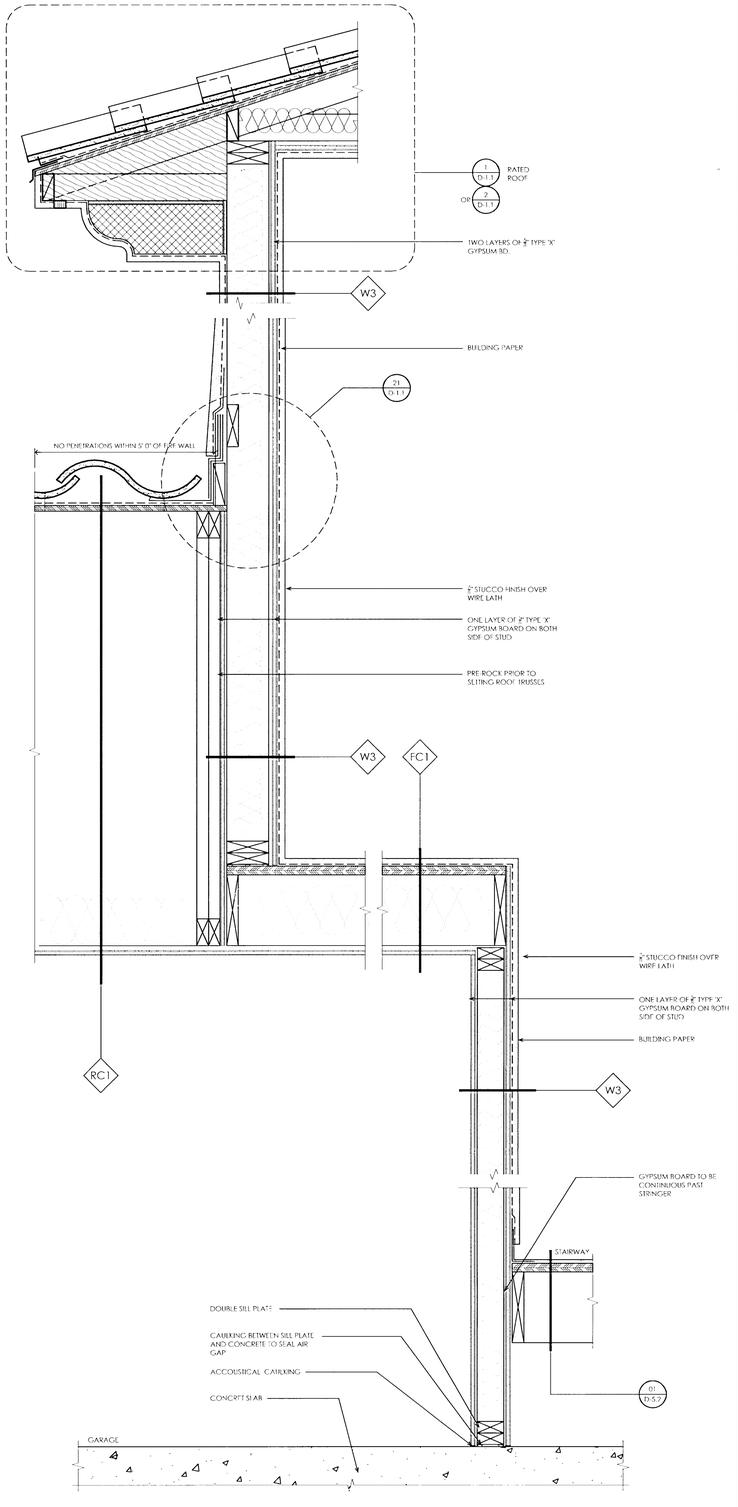
DELTA 2 - PLAN CHECK CORRECTION 05.27.09



SECTION VIEW

08041_25F2.1.2

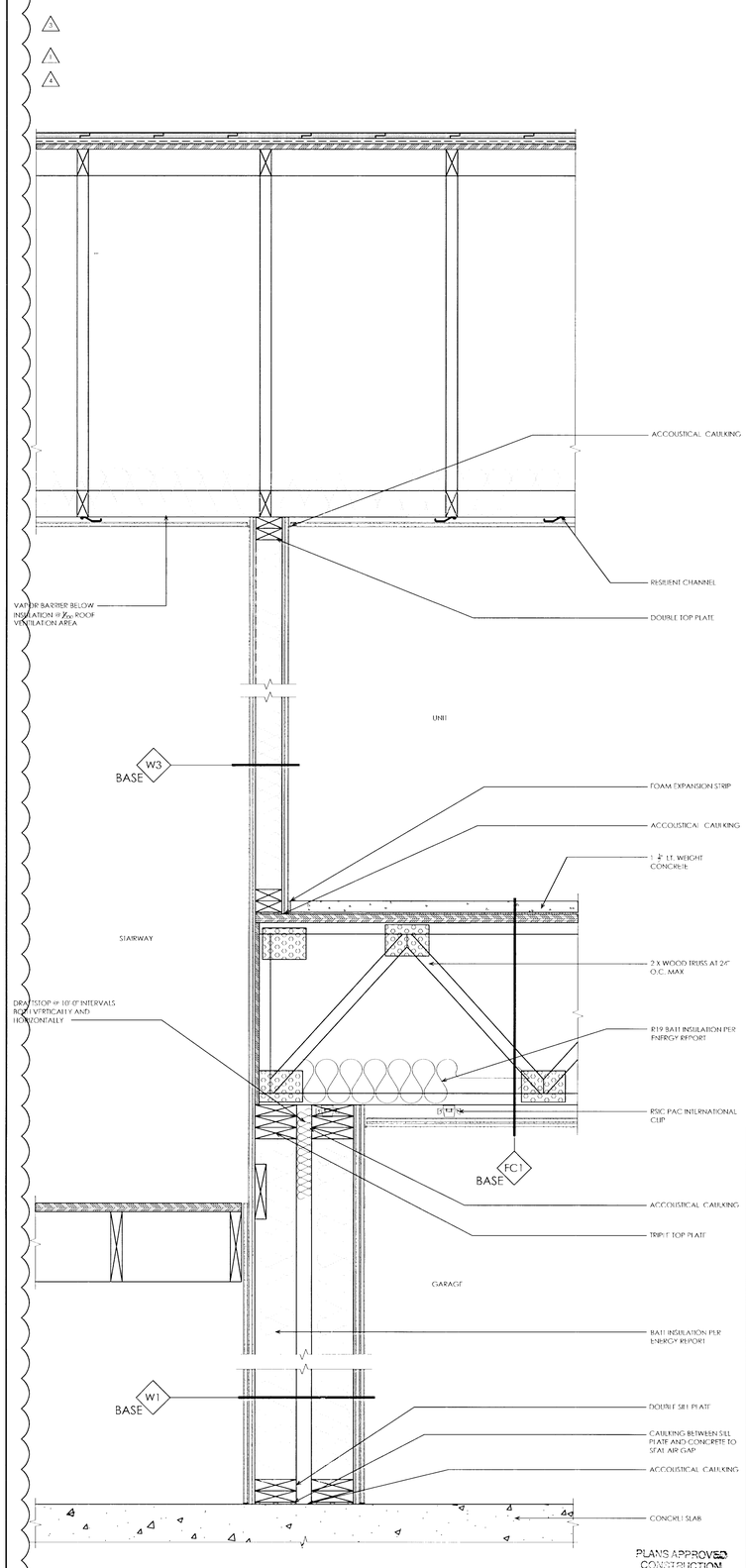
1HR RATED WALL @ GARAGE | 25



SECTION VIEW

08041_15F2.1.4

1 HR RATED WALL @ GARAGE | 15



PLANS APPROVED CONSTRUCTION

MT SEP 02 2009

SECTION VIEW

TENANT SEPARATION WALL AT STAIRWAY | 5

CRAIG D. SMITH REGISTERED No. 4967 8-20-09 ARCHITECT STATE OF NEVADA

RNM

RNM DESIGN
ARCHITECTURE
PLANNING
LANDSCAPE
GRAPHICS
RNMDESIGN.COM

2 CORPORATE PARK
SUITE 100
IRVINE, CALIFORNIA
92606
T 949.252.1800
F 949.833.9603

PROJECT NAME/ADDRESS

CORONADO THE PASEOS

875 PANTARA PLACE
LAS VEGAS, NEVADA

CLIENT

SPINNAKER HOMES

4511 W. CHEYENNE AVE. ST 105
NO. LAS VEGAS, CA 89032
702-873-7773
702-873-7776 FAX

REVISIONS

1 DELTA 1: PLAN CHECK CORRECTION
3 DELTA 3: PLAN CHECK CORRECTION
4 DELTA 4: PLAN CHECK CORRECTION

AUG 20 2009

THESE DRAWINGS AND IMAGES ARE NOT TO BE REPRODUCED OR COPIED IN ANY FORM WITHOUT WRITTEN PERMISSION COPYRIGHT 2006 RNM DESIGN

DRAWING TITLE

ASSEMBLY CONNECTION

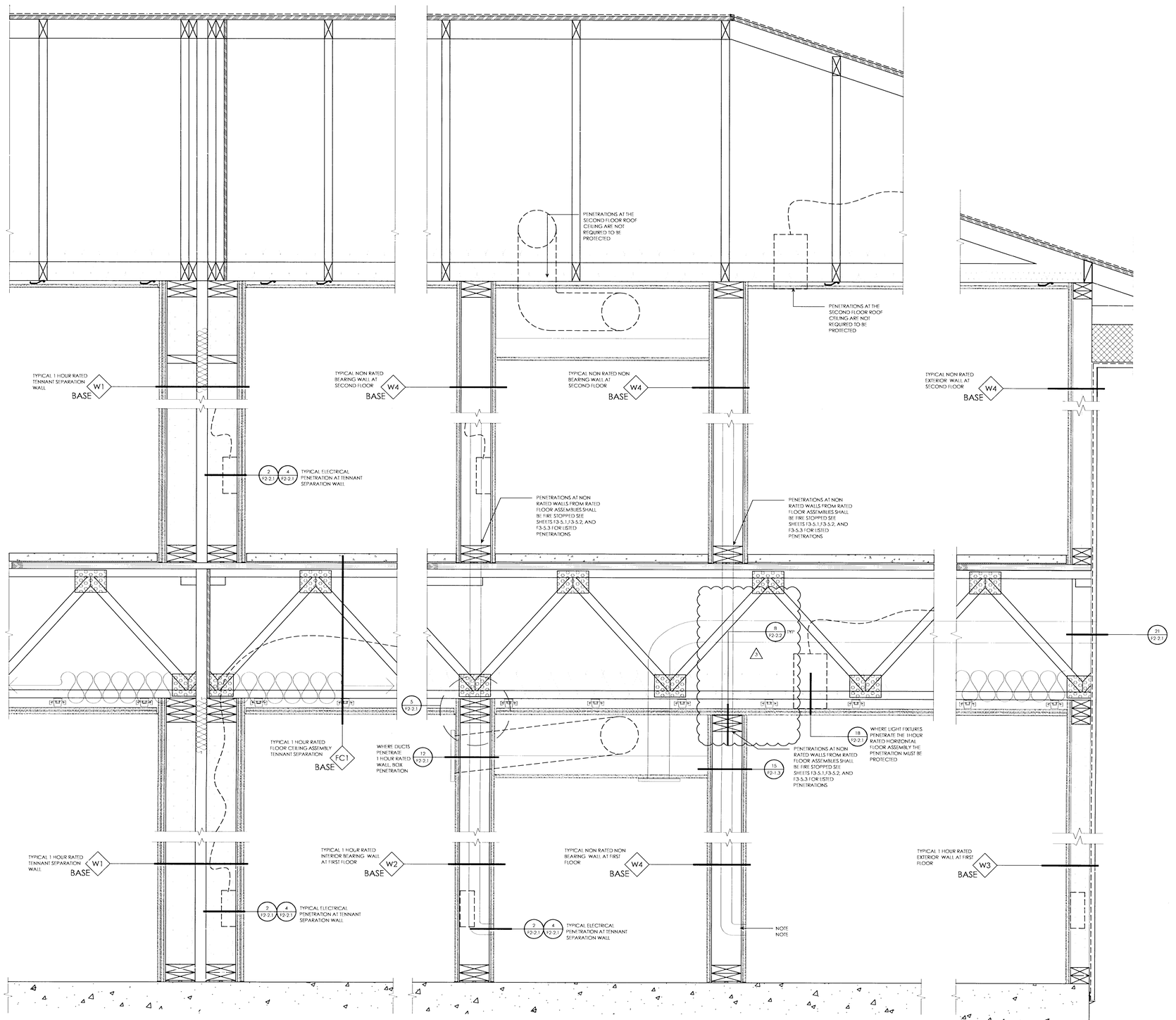
DRAWING INFORMATION

PROJ. NO:	08041
FIRST SUBMITTAL DATE:	02.24.2009
SCALE:	N/A

DRAWING NUMBER

F2-1.4

DELTA 4 - PLAN CHECK CORRECTION 08.12.09



SECTION VIEW

TYPICAL ASSEMBLY SECTION

5

PLANS APPROVED CONSTRUCTION
SEP 02 2009

RNM DESIGN
ARCHITECTURE
PLANNING
LANDSCAPE
GRAPHICS
RNMDESIGN.COM

2 CORPORATE PARK
SUITE 100
IRVINE, CALIFORNIA
92606
1949.752.1800
F949.833.9603

PROJECT NAME/ADDRESS

CORONADO THE PASEOS
875 PANTARA PLACE
LAS VEGAS, NEVADA

CLIENT

SPINNAKER HOMES
4511 W. CHEYENNE AVE. ST 105
NO. LAS VEGAS, CA 89032
702-873-7773
702-873-7776 FAX

REVISIONS

1 DELTA 1: PLAN CHECK CORRECTION
3 DELTA 3: PLAN CHECK CORRECTION

THESE DRAWINGS AND IMAGES ARE NOT TO BE REPRODUCED OR COPIED IN ANY FORM WITHOUT WRITTEN PERMISSION. COPYRIGHT 2008 RNM DESIGN

DRAWING TITLE

TYPICAL ASSEMBLY PENETRATIONS

JUL 09 2009

DRAWING INFORMATION

PROJ. NO: 08041
FIRST SUBMITTAL DATE: 02.24.2009
SCALE: N/A

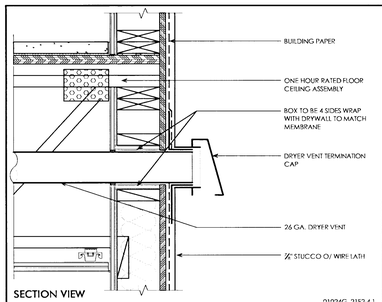
JUL 09 2009

DRAWING NUMBER

F2-1.5

DELTA 3 - PLAN CHECK CORRECTION

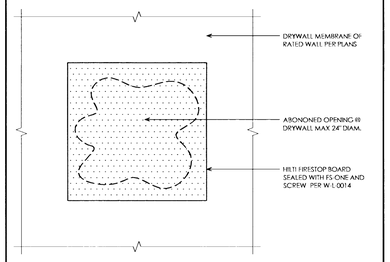
07.09.09



SECTION VIEW

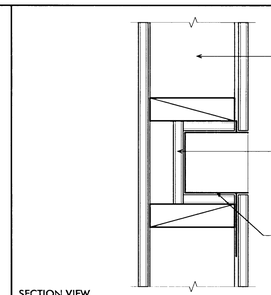
01024G_21F2.4.1

4 SIDES WRAP @ DRYER VENT PENETRATION — 21



08041_16F2.2.1

DRYWALL MEMBRANE PATCH — 16

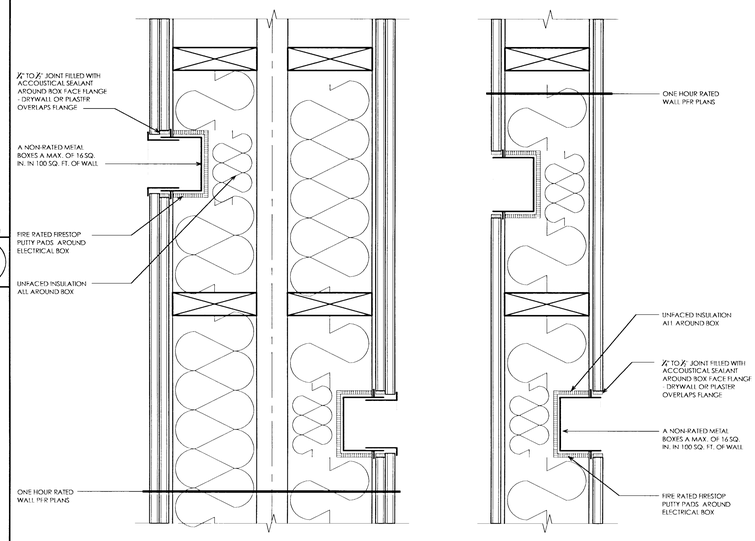


SECTION VIEW

08041_11F2.2.1

BOX PENETRATION — 11

NOTE PER IBC SECTION712.3.2 THERE SHALL NOT BE MORE THAN 100 SQ. IN. IN 100 SQ. FT OF WALL



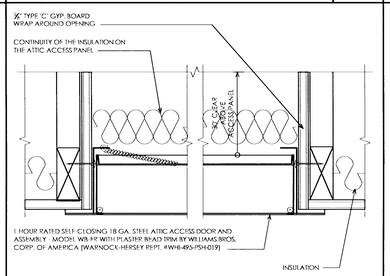
PLAN VIEW

08041_02F2.2.1

RATED BOX PENETRATION — 2

⅛" TYPE 'C' GYP. BOARD WRAP AROUND OPENING

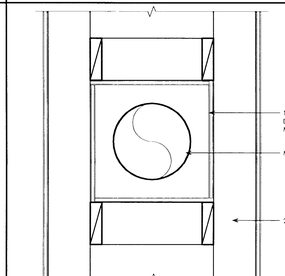
CONTINUITY OF THE INSULATION ON THE ATTIC ACCESS PANEL



SECTION VIEW

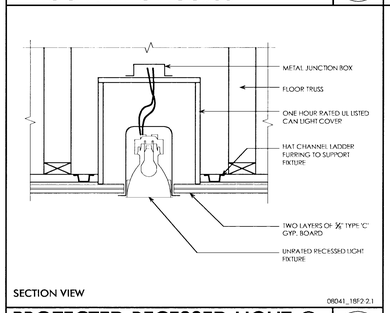
08041_17F2.2.1

1 HOUR ATTIC ACCESS — 17



08041_12F2.2.1

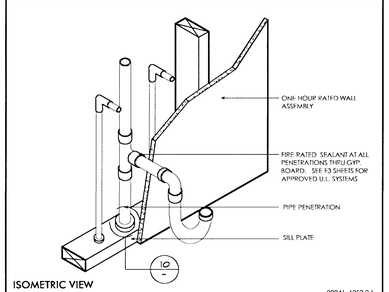
4 SIDES WRAP @ HVAC PENETRATION — 12



SECTION VIEW

08041_18F2.2.1

PROTECTED RECESSED LIGHT @ WOOD FLOOR — 18

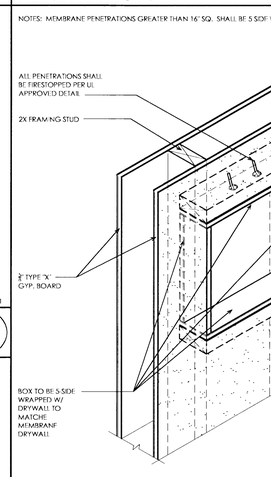


ISOMETRIC VIEW

08041_19F2.2.1

WALL PENETRATION — 19

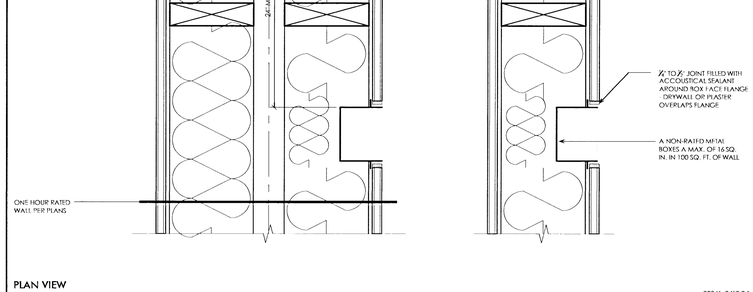
NOTES: MEMBRANE PENETRATIONS GREATER THAN 16" SQ. SHALL BE 5 SIDE WRAPPED



08041_13F2.2.1

5 SIDED MEMBRANE WRAP PENETRATION — 14

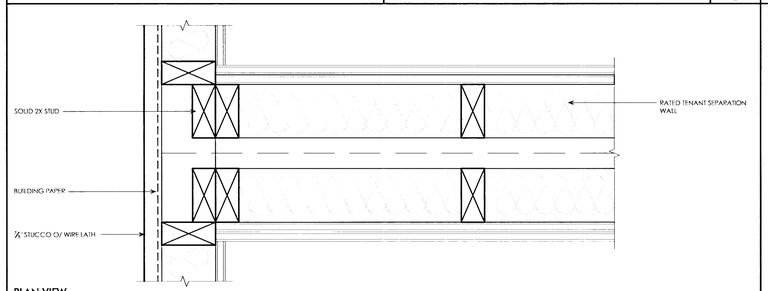
NOTE PER IBC SECTION712.3.2 THERE SHALL NOT BE MORE THAN 100 SQ. IN. IN 100 SQ. FT OF WALL



PLAN VIEW

08041_04F2.2.1

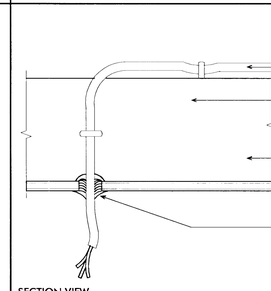
~~NON RATED BOX PENETRATION~~ — 4



PLAN VIEW

08041_20F2.2.1

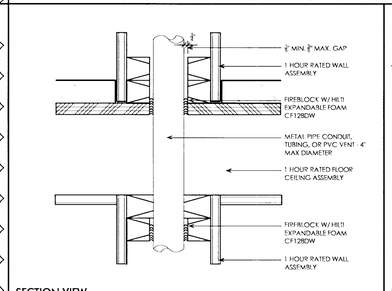
EXTERIOR WALL INTERSECTION — 20



SECTION VIEW

08041_15F2.2.1

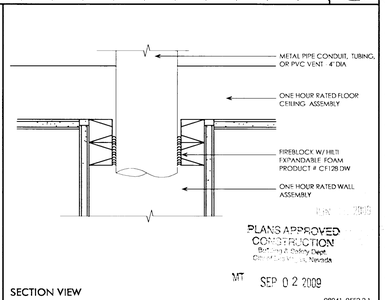
MEMBRANE PENETRATION — 15



SECTION VIEW

08041_10F2.2.1

PIPE PENETRATION AT CEILING — 10



SECTION VIEW

08041_05F2.2.1

PIPE PENETRATION AT CEILING — 5

CRAIG D. SMITH REGISTERED ARCHITECT No. 4967 STATE OF NEVADA

RNM

RNM DESIGN
ARCHITECTURE
PLANNING
LANDSCAPE
GRAPHICS
RNMDESIGN.COM

2 CORPORATE PARK
SUITE 100
IRVINE, CALIFORNIA
92606
1.949.752.1800
1.949.833.9603

PROJECT NAME/ADDRESS

CORONADO THE PASEOS
875 PANTARA PLACE
LAS VEGAS, NEVADA

CLIENT

SPINNAKER HOMES
4511 W. CHEYENNE AVE. ST 105
NO. LAS VEGAS, CA 89032
702-873-7773
702-873-7776 FAX

REVISIONS

1 DELTA 1: PLAN CHECK CORRECTION
2 DELTA 2: PLAN CHECK CORRECTION

THESE DRAWINGS AND IMAGES ARE NOT TO BE REPRODUCED OR COPIED IN ANY FORM WITHOUT WRITTEN PERMISSION. COPYRIGHT 2008 RNM DESIGN

DRAWING TITLE

FIRE ASSEMBLY PENETRATION DETAILS

DRAWING INFORMATION

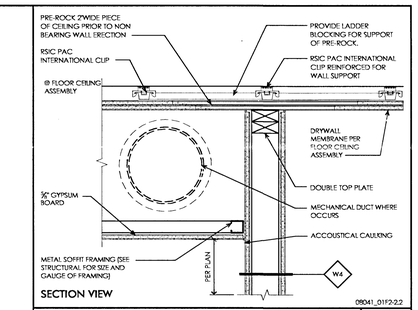
PROJ. NO: 08041
FIRST SUBMITTAL DATE: 02.24.2009
SCALE: N/A

DRAWING NUMBER

F2-2.1

DELTA 2 - PLAN CHECK CORRECTION

05.27.09

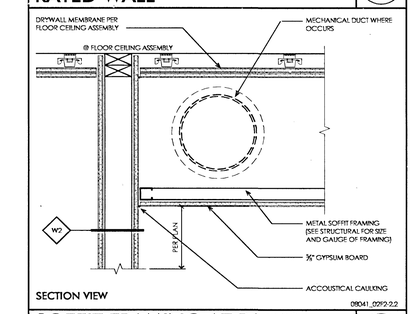


SECTION VIEW

08041_01F2-2.2

SOFFIT FRAMING AT NON RATED WALL

1

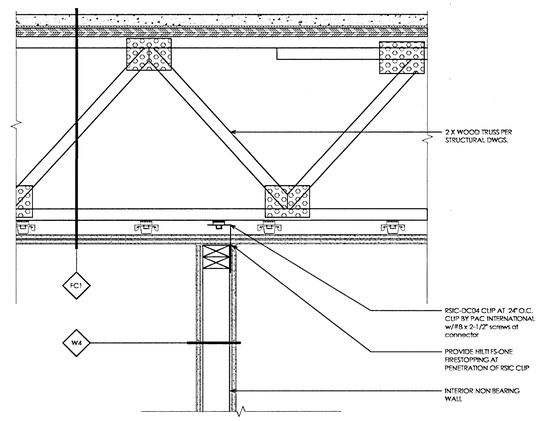


SECTION VIEW

08041_02F2-2.2

SOFFIT FRAMING AT RATED WALL

2

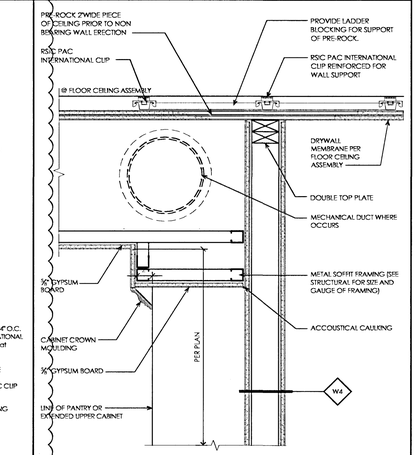


SECTION VIEW

08041_08F2-2.2

NON BEARING WALL AT FLOOR CEILING (1ST FLR)

8

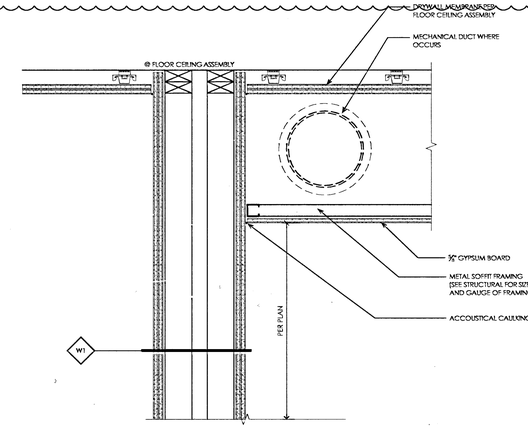


SECTION VIEW

08041_03F2-2.2

CABINET SOFFIT FRAMING AT NON RATED WALL

3

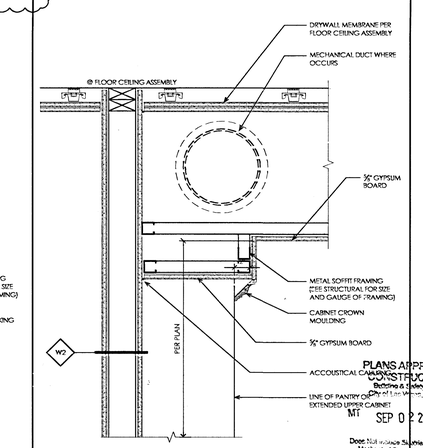


SECTION VIEW

08041_10F2-2.2

SOFFIT FRAMING AT TENANT SEPARATION WALL

10



SECTION VIEW

CABINET SOFFIT FRAMING AT RATED WALL

5

CRAIG D. SMITH
REGISTERED
No. 4967
7-9-09
ARCHITECT
STATE OF NEVADA

RNM DESIGN
ARCHITECTURE
PIANNING
LANDSCAPE
GRAPHICS
RNMDESIGN.COM

2 CORPORATE PARK
SUITE 100
IRVINE, CALIFORNIA
92606
T949.752.1800
F949.833.9603

PROJECT NAME/ADDRESS

CORONADO THE PASEOS
875 PANTARA PLACE
LAS VEGAS, NEVADA

CLIENT

SPINNAKER HOMES
4511 W. CHEYENNE AVE. ST 105
NO. LAS VEGAS, CA 89032
702-873-7773
702-873-7776 FAX

REVISIONS

1 DELTA 1: PLAN CHECK CORRECTION
3 DELTA 3: PLAN CHECK CORRECTION

THESE DRAWINGS AND IMAGES ARE NOT TO BE REPRODUCED OR COPIED IN ANY FORM, WITHOUT WRITTEN PERMISSION. COPYRIGHT 2008 RNM DESIGN

DRAWING TITLE

FIRE ASSEMBLY PENETRATION DETAILS

RECEIVED
JUL 09 2009
CITY OF LAS VEGAS
BUILDING & SAFETY

DRAWING INFORMATION

PROJ. NO:	08041
FIRST SUBMITTAL DATE:	02.24.2009
SCALE:	N/A

PLANS APPROVED
CONSTRUCTION
Building & Safety Dept.
City of Las Vegas, Nevada
MT SEP 0 2 2009

Dept. Will Review Submitted Plumbing, Mechanical Drawings or Other Improvements Made No Change Otherwise Noted Plans to Conform to Any Ordinance

DRAWING NUMBER

F2-2.2

DELTA 3 - PLAN CHECK CORRECTION

07.09.09

BXUV.U341
Fire Resistance Ratings - ANSI/UL 263

Page Bottom

Design/System/Construction/Assembly Usage Disclaimer

- Authorities Having Jurisdiction should be consulted in all cases as to the particular requirements covering the installation and use of UL Listed or Classified products, equipment, system, devices, and materials.
- Authorities Having Jurisdiction should be consulted before construction.
- Fire resistance assemblies and products are developed by the design submitter and have been investigated by UL for compliance with applicable requirements. The published information cannot always address every construction nuance encountered in the field.
- When field issues arise, it is recommended the first contact for assistance be the technical service staff provided by the product manufacturer noted for the design. Users of fire resistance assemblies are advised to consult the general Guide Information for each product category and each group of assemblies. The Guide Information includes specifics concerning alternate materials and alternate methods of construction.
- Only products which bear UL's Mark are considered as Classified, Listed, or Recognized.

Fire Resistance Ratings - ANSI/UL 263

See General Information for Fire Resistance Ratings - ANSI/UL 263

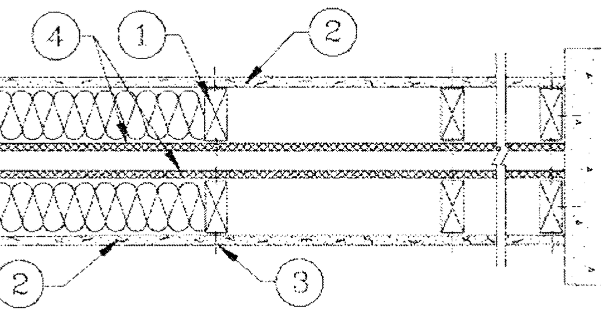
Design No. U341

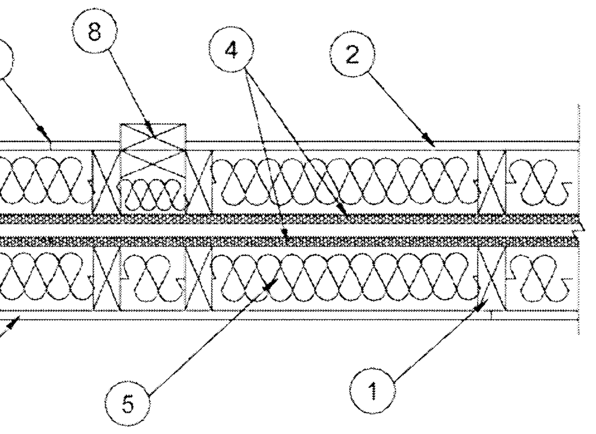
December 17, 2008

Bearing Wall Rating — 1 Hr.

Finish Rating — Min 20 min.

Load Restricted for Canadian Applications — See Guide BXUV7





HORIZONTAL SECTION

1. **Wood Studs** — Nom 2 by 4 in., spaced 24 in. OC max. Cross braced at mid-height and effectively firestopped at top and bottom of wall. No min. air space between stud rows except to accommodate attachment of sheathing, where required. See items 4 and 5.

2. **Gypsum Board*** — 5/8 in. thick 4 ft wide. Wallboard or lath applied horizontally or vertically and nailed to studs and bearing plates 7 in. OC with 6d cement coated nails, 1-7/8 in. long, 0.0915 in. shank diam and 1/4 in. diam head. As an alternate, No. 6 bugle head drywall screws, 1-7/8 in. long, may be substituted for the 6d cement coated nails.

When Steel Framing Members* (Item 6) are used, wallboard attached to furring channels with 1 in. long Type S bugle-head steel screws spaced 12 in. OC.

When used in widths other than 48 in., gypsum board to be installed horizontally.

See Gypsum Board* (CKNX) category for names of Classified companies.

2A. **Wall and Partition Facings and Accessories*** — (As an alternate to Item 2, not shown) - Nominal 5/8 in. thick, 4 ft wide panels, applied vertically to studs and bearing plates on one side of the assembly with 1-5/8 in. long Type S screws spaced 12 in. OC at perimeter of panels and 8 in. OC in the field. Horizontal joints of vertically applied panels need not be backed by studs. Panel joints covered with paper tape and two layers of joint compound. Screw heads covered with two layers of joint compound. Batts and Blankets placed in stud cavity as described in Item 5C. Not evaluated for use with Steel Framing Members, Furring Channels or Fiber, Sprayed.

QUIET SOLUTION INC — Type QuietRock QR-530 (finish rating 23 min).

2B. **Gypsum Board*** — (As an alternate to Item 2, not shown) - Any 5/8 in. thick gypsum panels supplied by the Classified Companies listed below shown Gypsum Board* (CKNX) category. Applied horizontally or vertically and attached to studs and bearing plates with 1-1/4 in. long Type W coarse thread gypsum panel steel screws spaced a max 8 in. OC, with last screw 1 in. from edge of board. When used in widths other than 48 in., gypsum board to be installed horizontally.

CANADIAN GYPSUM COMPANY

UNITED STATES GYPSUM CO

USG MEXICO S A DE C V

2C. **Gypsum Board*** — (As an alternate to Item 2, not shown) - 5/8 in. thick gypsum panels applied horizontally or vertically and attached to studs and bearing plates with 1-1/4 in. long Type W coarse thread gypsum panel steel screws spaced a max 8 in. OC, with last screw 1 in. from edge of board. When used in widths other than 48 in., gypsum board to be installed horizontally.

AMERICAN GYPSUM CO — Types AGX-1, AG-C

CERTAINTEED GYPSUM INC — ProRoc Type C or ProRoc Type X

CERTAINTEED GYPSUM CANADA INC — ProRoc Type C or ProRoc Type X

2D. **Gypsum Board*** — (As an alternate to Items 2, 2A, 2B and 2C) — 5/8 in. thick gypsum panels, with square edges, applied either horizontally or vertically. Gypsum panels fastened to framing with 1-1/4 in. long Type W coarse thread gypsum panel steel screws spaced a max 8 in. OC, with last 2 screws 1 and 4 in. from edge of board or nailed as described in Item 2. When used in widths of other than 48 in., gypsum boards are to be installed horizontally.

TEMPLE-INLAND — GreenGlass Type X.

3. **Joints and Nailheads** — Wallboard joints of outer layer covered with tape and joint compound. Nail heads of outer layer covered with joint compound. As an alternate, nom 3/32 in. thick gypsum veneer plaster may be applied to the entire surface of Classified veneer baseboard.

4. **Sheathing** — (Optional) — Septum may be sheathed with min 7/16 in. thick wood structural panels min grade "C-D" or "Sheathing" or min 1/2 in. thick Mineral and Fiber Boards*. See **Mineral and Fiber Boards** (CERZ) category for names of Classified companies.

5. **Batts and Blankets*** — 3-1/2 in. max thickness glass or mineral fiber batt insulation. **Optional** when sheathing (Item 4) is used on both halves of wall

See **Batts and Blankets** (BZJZ) category for list of Classified companies.

5A. **Fiber, Sprayed*** — As an alternate to Batts and Blankets (Item 5) — Spray applied cellulose material. The fiber is applied with water to completely fill the enclosed cavity in accordance with the application instructions supplied with the product. Nominal dry density of 3.0 lb/ft^3. Alternate application method: The fiber is applied with U.S. Greenfiber LLC Type AD100 hot melt adhesive at a nominal ratio of one part adhesive to 6.6 parts fiber to completely fill the enclosed cavity in accordance with the application instructions supplied with the product. Nominal dry density of 2.5 lb/ft^3.

U S GREENFIBER L L C — Cocoon2 Stabilized or Cocoon-FRM (Fire Rated Material)

5B. **Fiber, Sprayed*** — As an alternate to Batts and Blankets (Item 5) and Item 5A when Sheathing (Item 4) is used on both halves of wall - Spray applied cellulose insulation material. The fiber is applied with water to interior surfaces in accordance with the application instructions supplied with the product. Applied to completely fill the enclosed cavity. Minimum dry density of 4.3 pounds per cubic ft.

NU-WOOL CO INC — Cellulose Insulation

5C. **Batts and Blankets*** — (Required for use with Wall and Partition Facings and Accessories, Item 2A. Use of Sheathing, Item 4, does not nulify requirement of Item 5C for use with Item 2A) — Glass fiber insulation, nom 3-1/2 in. thick, min. density of 0.80 pcf, with a flame spread of 25 or less and a smoke developed of 50 or less, friction fitted to completely fill the stud cavities. See Batts and Blankets Category (BKNV) for names of manufacturers.

6 **Steel Framing Members (Optional, Not Shown)*** — Furring channels and Steel Framing Members as described below

A. **Furring Channels** — Formed of No. 25 MSG galv steel. 2-3/8 in. wide by 7/8 in. deep, spaced 24 in. OC perpendicular to studs. Channels secured to studs as described in Item b. Ends of adjoining channels are overlapped 6 in. and tied together with double strand of No. 18 SWG galv steel wire near each end of overlap. As an alternate, ends of adjoining channels may be overlapped 6 in. and secured together with two self-tapping #6 framing screws, min. 7/16 in. long at the midpoint of the overlap, with one screw on each flange of the channel. Wallboard attached to furring channels as described in Item 2.

B. **Steel Framing Members*** — Used to attach furring channels (Item a) to studs (Item 1). Clips spaced 48 in. OC., and secured to studs with No. 8 x 2-1/2 in. coarse drywall screw through the center grommet. Furring channels are friction fitted into clips.

PAC INTERNATIONAL INC — Type RSIC-1

7. **Wall and Partition Facings and Accessories*** — (Optional, Not shown) — Nominal 1/2 in. thick, 4 ft wide panels, for optional use as an additional layer on one or both sides of the assembly. Panels attached in accordance with manufacturer's recommendations. When the QR 510 panel is installed between the wood framing and the UL Classified gypsum board, the required UL Classified gypsum board layer(s) is/are to be installed as indicated as to fastener type and spacing, except that the required fastener length shall be increased by a minimum of 1/2 in. Not evaluated or intended as a substitute for the required layer(s) of UL Classified Gypsum Board.

QUIET SOLUTION INC — Type QuietRock QR-510.

8. **Non-Bearing Wall Partition Intersection** — (Optional) Two nominal 2 by 4 in. stud or nominal 2 by 6 in. stud nailed together with two 3in. long 10d nails spaced a max. 16 in. OC. vertically and fastened to one side of the minimum 2 by 4 in. stud with 3 in. long 10d nails spaced a max 16 in. OC. vertically. Intersection between partition wood studs to be flush with the 2 by 4 in. studs. The wall partition wood studs are to be framed by with a second 2 by 4 in. wood stud fastened with 3 in. long 10d nails spaced a max. 16 in. OC. vertically. Maximum one non bearing wall partition intersection per stud cavity. Non-bearing wall partition stud depth shall be at a minimum equal to the depth of the bearing wall.

*Bearing the UL Classification Mark

Last Updated on 2008-12-17

Questions? Notice of Disclaimer Page Top

Copyright © 2009 Underwriters Laboratories Inc.®

The appearance of a company's name or product in this database does not in itself assure that products so identified have been manufactured under UL's Follow-Up Service. Only those products bearing the UL Mark should be considered to be Listed and covered under UL's Follow-Up Service. Always look for the Mark on the product.

UL permits the reproduction of the material contained in the Online Certification Directory subject to the following conditions: 1. The Guide Information, Designs and/or Listings (files) must be presented in their entirety and in a non-misleading manner, without any manipulation of the data (or drawings). 2. The statement "Reprinted from the Online Certifications Directory with permission from Underwriters Laboratories Inc." must appear adjacent to the extracted material. In addition, the reprinted material must include a copyright notice in the following format: "Copyright © 2009 Underwriters Laboratories Inc.®"

An independent organization working for a safer world with integrity, precision and knowledge

UL DESIGN NO. U341

CRAIG D. SMITH REGISTERED ARCHITECT No. 4967 8-20-09 STATE OF NEVADA

RNM DESIGN
ARCHITECTURE
PLANNING
LANDSCAPE
GRAPHICS
RNMDESIGN.COM

2 CORPORATE PARK
SUITE 100
IRVINE, CALIFORNIA
92606
T949.752.1800
F949.833.9603

PROJECT NAME/ADDRESS

CORONADO THE PASEOS
875 PANTARA PLACE
LAS VEGAS, NEVADA

CLIENT

SPINNAKER HOMES
4511 W. CHEYENNE AVE. ST 105
NO. LAS VEGAS, CA 89032
702-873-7773
702-873-7776 FAX

REVISIONS

△1 DELTA 1: PLAN CHECK CORRECTION

AUG 20 2009

THESE DRAWINGS AND IMAGES ARE NOT TO BE REPRODUCED OR COPIED IN ANY FORM WITHOUT WRITTEN PERMISSION COPYRIGHT 2008 RNM DESIGN

DRAWING TITLE

WALL ASSEMBLY REPORT

DRAWING INFORMATION

PROJ. NO:	08041
FIRST SUBMITTAL DATE:	02.24.2009
SCALE:	N/A

PLANS APPROVED FOR CONSTRUCTION
Building & Safety Dept.
City of ... Nevada
MT SEP 02 2009
Not a Permit to Violate Any Ordinance

DRAWING NUMBER

F3-1.1

DELTA 4 - PLAN CHECK CORRECTION

08.12.09

TABLE 720.1(2)—continued
RATED FIRE-RESISTANCE PERIODS FOR VARIOUS WALLS AND PARTITIONS [a,o,p]

MATERIAL	ITEM NUMBER	CONSTRUCTION	MINIMUM FINISHED THICKNESS FACE-TO-FACE[b] (inches) 4 hour	3 hour	2 hour	1 hour
14. Wood studs—interior partition with gypsum wallboard each side	14-1.1[h, m]	2″ × 4″ wood studs 16″ on center with two layers of $^5/_8$″ regular gypsum wallboard[c] each side, 4d cooler[n] or wallboard[n] nails at 8″ on center first layer, 5d cooler[n] or wallboard[n] nails at 8″ on center second layer with laminating compound between layers, joints staggered. First layer applied full length vertically, second layer applied horizontally or vertically	—	—	—	5
	14-1.2[i, m]	2″ × 4″ wood studs 16″ on center with two layers $^1/_2$″ regular gypsum wallboard[c] applied vertically or horizontally each side[k], joints staggered. Nail base layer with 5d cooler[n] or wallboard[n] nails at 8″ on center face layer with 8d cooler[n] or wallboard[n] nails at 8″ on center	—	—	—	$5^1/_2$
	14-1.3[i, m]	2″ × 4″ wood studs 24″ on center with $^5/_8$″ Type X gypsum wallboard[c] applied vertically or horizontally nailed with 6d cooler[n] or wallboard[n] nails at 7″ on center with end joints on nailing members. Stagger joints each side.	—	—	—	$4^3/_4$
	14-1.4[j]	2″ × 4″ fire-retardant-treated wood studs spaced 24″ on center with one layer of $^5/_8$″ Type X gypsum wallboard[c] applied with face paper grain (long dimension) parallel to studs. Wallboard attached with 6d cooler[n] or wallboard[n] nails at 7″ on center.	—	—	—	$4^3/_4$[d]
	14-1.5[i, m]	2″ × 4″ wood studs 1″ on center with two layers $^5/_8$″ Type X gypsum wallboard[c] each side. Base layers applied vertically and nailed with 6d cooler[n] or wallboard[n] nails at 9″ on center. Face layer applied vertically or horizontally and nailed with 8d cooler[n] or wallboard[n] nails at 7″ on center. For nail-adhesive application, base layers are nailed 6″ on center. Face layers applied with coating of approved wallboard adhesive and nailed 12″ on center.	—	—	6	—
	14-1.6[j]	2″ × 3″ fire-retardant-treated wood studs spaced 24″ on center with one layer of $^5/_8$″ Type X gypsum wallboard[c] applied with face paper grain (long dimension) at right angles to studs. Wallboard attached with 6d cement-coated box nails spaced 7″ on center.	—	—	—	$3^5/_8$[d]
15. Exterior or interior walls	15-1.1[k, m]	Exterior surface with $^3/_4$″ drop siding over $^1/_2$″ gypsum sheathing on 2″ × 4″ wood studs at 16″ on center, interior surface treatment as required for 1-hour-rated exterior or interior 2″ × 4″ wood stud partitions. Gypsum sheathing nailed with $1^3/_4$″ by No. 11 gage by $^7/_{16}$″ head galvanized nails at 8″ on center. Siding nailed with 7d galvanized smooth box nails.	—	—	—	Varies
	15-1.2[i, m]	2″ × 4″ wood studs 16″ on center with metal lath and $^3/_4$″ cement plaster on each side. Lath attached with 6d common nails 7″ on center driven to 1″ minimum penetration and bent over. Plaster mix 1:4 for scratch coat and 1:5 for brown coat, by volume, cement to sand.	—	—	—	$5^1/_8$
	15-1.3[i, m]	2″ × 4″ wood studs 16″ on center with $^7/_8$″ cement plaster (measured from the face of studs) on the exterior surface with interior surface treatment as required for interior wood stud partitions in this table. Plaster mix 1:4 for scratch coat and 1:5 for brown coat, by volume, cement to sand.	—	—	—	Varies
	15-1.4	$3^5/_8$″ No. 16 gage noncombustible studs 16″ on center with $^7/_8$″ cement plaster (measured from the face of the studs) on the exterior surface with interior surface treatment as required for interior, nonbearing, noncombustible stud partitions in this table. Plaster mix 1:4 for scratch coat and 1:5 for brown coat, by volume, cement to sand.	—	—	—	Varies[d]

(continued)

PLANS APPROVED CONSTRUCTION
Building & Safety Dept.
City of Las Vegas, Nevada
MT SEP 02 2009
Deputy Building, Mechanical, Plumbing, Electrical Inspector for Code Compliance
Not a Permit to Violate City Ordinance

IBC table 720.1 (2)

CRAIG D. SMITH
No. 4967
8-12-09
STATE OF NEVADA

RNM DESIGN
ARCHITECTURE
PLANNING
LANDSCAPE
GRAPHICS
RNMDESIGN.COM

2 CORPORATE PARK
SUITE 100
IRVINE, CALIFORNIA
92606
(949) 752-1900
(949) 833-9502

PROJECT NAME/ADDRESS
CORONADO THE PASEOS
875 PANTARA PLACE
LAS VEGAS, NEVADA

CLIENT
SPINNAKER HOMES
4511 W. CHEYENNE AVE. ST 105
NO. LAS VEGAS, CA 89032
702-873-7773
702-873-7776 FAX

REVISIONS
1 DELTA 1: PLAN CHECK CORRECTION
3 DELTA 3: PLAN CHECK CORRECTION
4 DELTA 4: PLAN CHECK CORRECTION

RECEIVED
AUG 24 2009
CITY OF LAS VEGAS
BUILDING & SAFETY

THESE DRAWINGS AND IMAGES ARE NOT TO BE REPRODUCED OR COPIED IN ANY FORM WITHOUT WRITTEN PERMISSION.
COPYRIGHT 2008 RNM DESIGN

DRAWING TITLE
WALL ASSEMBLY REPORT

DRAWING INFORMATION
PROJ. NO: 08041
FIRST SUBMITTAL DATE: 02.24.2009
SCALE: N/A

DRAWING NUMBER
F3-1.2

DELTA 4 - PLAN CHECK CORRECTION
08.12.09

BXUV.L528
Fire Resistance Ratings - ANSI/UL 263

Page Bottom

Design/System/Construction/Assembly Usage Disclaimer

- Authorities Having Jurisdiction should be consulted in all cases as to the particular requirements covering the installation and use of UL Listed or Classified products, equipment, system, devices, and materials.
- Authorities Having Jurisdiction should be consulted before construction.
- Fire resistance assemblies and products are developed by the design submitter and have been investigated by UL for compliance with applicable requirements. The published information cannot always address every construction nuance encountered in the field.
- When field issues arise, it is recommended the first contact for assistance be the technical service staff provided by the product manufacturer noted for the design. Users of fire resistance assemblies are advised to consult the general Guide Information for each product category and each group of assemblies. The Guide Information includes specifics concerning alternate materials and alternate methods of construction.
- Only products which bear UL's Mark are considered as Classified, Listed, or Recognized.

Fire Resistance Ratings - ANSI/UL 263

See General Information for Fire Resistance Ratings - ANSI/UL 263

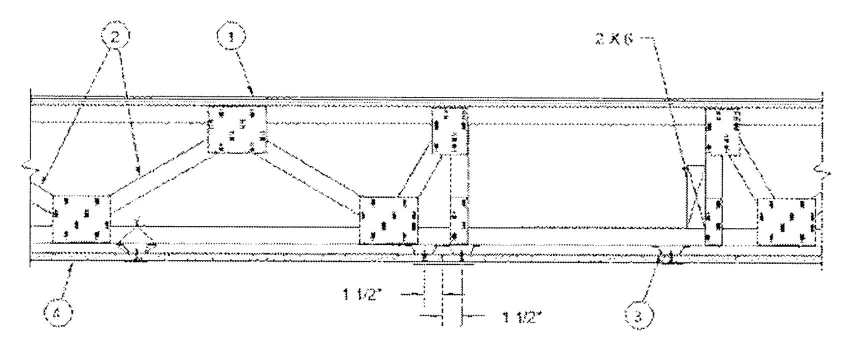
Design No. L528

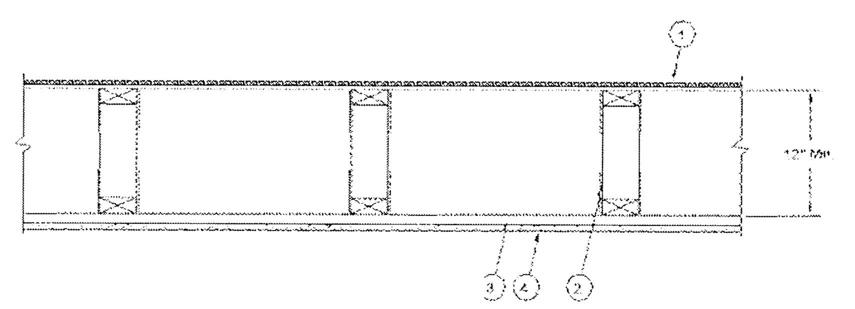
February 09, 2009

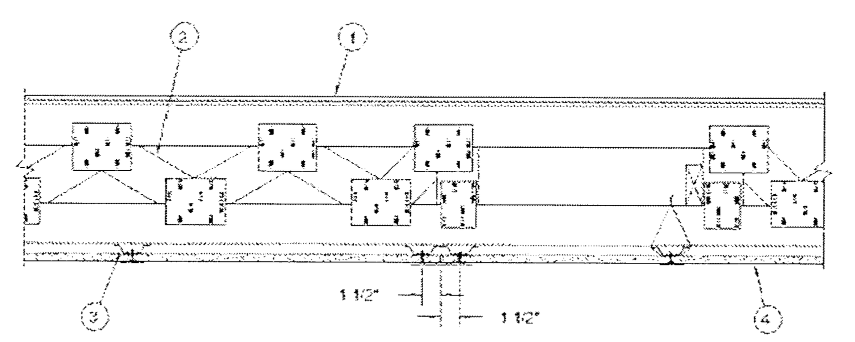
Unrestrained Assembly Rating - 1 Hr.

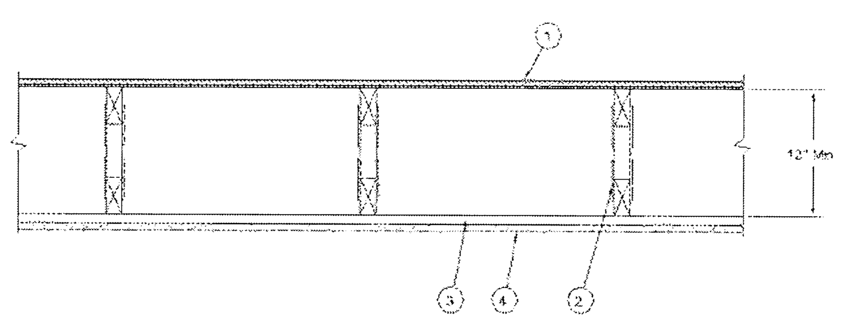
Finish Rating - 22 Min.

Load Restricted for Canadian Applications — See Guide BXUV7









1. **Flooring System** — The flooring system shall consist of one of the following:

System No. 1

Subflooring — Min 23/32 in. thick T & G wood structural panels, min grade "Underlayment" or "Single-Floor". Face grain of plywood or strength axis of panels to be perpendicular to the trusses with end joints staggered 4 ft. Panels secured to trusses with construction adhesive and No. 6d ringed shank nails spaced 12 in. OC along each truss. Staples having equal or greater withdrawal and lateral resistance strength may be substituted for the 6d nails.

System No. 2

Subflooring — Min 23/32 in. thick T & G wood structural panels, min grade "Underlayment" or "Single-Floor". Face grain of plywood or strength axis of panels to be perpendicular to the trusses with end joints staggered 4 ft. Panels secured to trusses with construction adhesive and No. 6d ringed shank nails spaced 12 in. OC along each truss. Staples having equal or greater withdrawal and lateral resistance strength may be substituted for the 6d nails.

Vapor Barrier — (Optional) - Commercial asphalt saturated felt, 0.030 in. thick.

Vapor Barrier — (Optional) - Nom 0.010 in. thick commercial rosin-sized building paper.

Finish Flooring — Min 3/4 in. thickness of lightweight insulating concrete with **Perlite Aggregate*** or **Vermiculite Aggregate***, or gypsum concrete.

See **Perlite Aggregate** (CFFX) and **Vermiculite Aggregate** (CJZZ) categories for names of manufacturers.

System No. 3

Subflooring — Min 23/32 in. thick wood structural panels, min grade "C-D" or "Sheathing". Face grain of plywood or strength axis of panels to be perpendicular to the trusses with joints staggered.

Vapor Barrier — (Optional) - Commercial asphalt saturated felt, 0.030 in. thick.

Floor Mat Materials* — (Optional)— Nom 6 mm thick floor mat material adhered to subfloor with Hacker Floor Primer. Primer to be applied to the surface of the mat prior to the placement of floor-topping mixture. When floor mat material is used, min thickness of floor topping mixture is 1 in.

HACKER INDUSTRIES INC — Type Hacker Sound-Mat.

Alternate Floor Mat Materials* — (Optional) — Floor mat material nom 10 mm thick adhered to subfloor with Hacker Floor Primer. Primer to be applied to the surface of the mat prior to the placement of a min 1-1/2 in. of floor-topping mixture.

HACKER INDUSTRIES INC — Type Hacker Sound-Mat II.

Alternate Floor Mat Materials* — (Optional) — Floor mat material nom 1/4 in. thick loose laid over the subfloor. Floor topping thickness shall be a min of 1 in.

HACKER INDUSTRIES INC — Type Quiet Qurl 55/025

Alternate Floor Mat Materials* — (Optional) — Floor mat material nom 3/8 in. thick loose laid over the subfloor. Floor topping thickness shall be a min of 1-1/2 in.

HACKER INDUSTRIES INC — Type Quiet Qurl 60/040

Alternate Floor Mat Materials* — (Optional) — Floor mat material nom 3/4 in. thick loose laid over the subfloor. Floor topping thickness shall be a min of 1-1/2 in.

HACKER INDUSTRIES INC — Type Quiet Qurl 65/075

Metal Lath (Optional) — For use with 3/8 in. or 10 mm floor mat materials, 3/8 in. expanded steel diamond mesh, 3.4 lbs/sq yd placed over the floor mat material. Hacker Floor Primer to be applied prior to the placement of the metal lath. When metal lath is used, floor topping thickness a nom 1-1/4 in. over the floor mat.

Finish Flooring - Floor Topping Mixture* — Min 3/4 in. thickness of floor topping mixture having a min compressive strength of 1100 psi. Mixture shall consist of 6.8 gal of water to 80 lbs of floor topping mixture to 1.9 cu ft of sand.

HACKER INDUSTRIES INC — Firm-Fill Gypsum Concrete, Firm-Fill 2010, Firm-Fill 3310, Firm-Fill 4010, Firm-Fill High Strength, Gyp-Span Radiant

System No. 4

Subflooring — Min 23/32 in. thick wood structural panels, min grade "C-D" or "Sheathing". Face grain of plywood or strength axis of panels to be perpendicular to the trusses with joints staggered.

Vapor Barrier — (Optional)— Commercial asphalt saturated felt, 0.030 in. thick.

Floor Mat Materials* — (Optional) - Min 3/8 in. to max 3/4 in. thick floor mat material loose laid over the subfloor. Floor topping thickness shall be as specified under Floor Topping Mixture.

UNITED STATES GYPSUM CO — Levelrock Brand Sound Reduction Mat

Alternate Floor Mat Materials* — (Optional) - Nom 1/4 in. thick floor mat material loose laid over the subfloor. Floor topping thickness shall be as specified under **Floor Topping Mixture.**

UNITED STATES GYPSUM CO — Levelrock Brand Floor Underlayment SRM-25

Alternate Floor Mat Materials* — (Optional) - Nom 3/8 in. thick floor mat material loose laid over the subfloor. Floor topping thickness shall be as specified under **Floor Topping Mixture.**

SOLUTIA INC — Type SC50

Alternate Floor Mat Material* — (Optional) - Floor mat material nominal 3/8 in. thick loose laid over the subfloor. Floor topping shall be a min 3/4 in. thick.

OWENS CORNING — Type QuietZone Acoustical Floor Mat

UL DESIGN NO. L528 PAGE 1

Finish Flooring - Floor Topping Mixture* — Min 3/4 in. thickness of floor topping mixture having a min compressive strength of 1200 psi. Refer to manufacturer's instructions accompanying the material for specific mix design.

UNITED STATES GYPSUM CO — Type LRK

System No. 5

Subflooring — Min 23/32 in. thick wood structural panels, min grade "C-D" or "Sheathing". Face grain of plywood or strength axis of panels to be perpendicular to the trusses with joints staggered.

Vapor Barrier-(Optional) — Commercial asphalt saturated felt, 0.030 in. thick.

Finish Flooring - Floor Topping Mixture* — Min 1-1/2 in. thickness of floor topping mixture having a min compressive strength of 1000 psi and a cast density of 100 plus or minus 5 pcf. Foam concentrate mixed 40:1 by volume with water and expanded at 100 psi through nozzle. Mixture shall consist of 1.4 cu feet of preformed foam concentrate to 94 lbs Type I Portland cement, 300 lbs of sand with 5-1/2 gal of water.

ELASTIZELL CORP OF AMERICA — Type FF

System No. 6

Subflooring — Min 23/32 in. thick wood structural panels, min grade "C-D" or "Sheathing". Face grain of plywood or strength axis of panels to be perpendicular to the trusses with joints staggered.

Vapor Barrier-(Optional) — Commercial asphalt saturated felt, 0.030 in. thick.

Finish Flooring - Floor Topping Mixture* — Min 1-1/2 in. thickness of floor topping mixture having a min compressive strength of 1000 psi and a cast density of 100 plus or minus 5 pcf. Foam concentrate mixed 40:1 by volume with water and expanded at 100 psi through nozzle. Mixture shall consist of 1.2 cu feet of preformed foam concentrate to 94 lbs Type I Portland cement, 300 lbs of sand with 5-1/2 gal of water.

CELLULAR CONCRETE L L C — Floor Topping Mixture

System No. 7

Subflooring — Min 23/32 in. thick wood structural panels, min grade "C-D" or "Sheathing". Face grain of plywood or strength axis of panels to be perpendicular to the trusses with joints staggered.

Vapor Barrier — (Optional) - Commercial asphalt saturated felt, 0.030 in. thick.

Finish Flooring - Floor Topping Mixture* — Min 1 in. thickness of floor topping mixture having a min compressive strength of 1000 psi and a cast density of 100 plus or minus 5 pcf. Foam concentrate mixed 40:1 by volume with water and expanded at 100 psi through nozzle. Mixture shall consist of 1.4 cu feet of preformed foam concentrate to 94 lbs Type I Portland cement, 62.5 lbs of Pea Gravel, 312.5 lbs of sand with 5-1/2 gal of water.

LITE-CRETE INC — Type I

System No. 8

Subflooring — Min 23/32 in. thick wood structural panels, min grade "C-D" or "Sheathing". Face grain of plywood or strength axis of panels to be perpendicular to the trusses with joints staggered.

Vapor Barrier — **(Optional)** — Commercial asphalt saturated felt, 0.030 in. thick.

Floor Mat Materials* — (Optional) - Nom 1/4 in. thick floor mat material loose laid over the subfloor. Maxxon Floor Primer to be applied to the surface of the mat prior to the floor topping placement. When floor mat material is used, min thickness of floor topping thickness is 1 in.

MAXXON CORP — Type Acousti-Mat II

Alternate Floor Mat Materials* - (Optional) - Nom 0.8 in. thick floor mat material loose laid over the subfloor with Crack Suppression Mat (CSM) loose laid over the floor mat material. Floor topping thickness shall be min 1-1/2 in.

MAXXON CORP — Type Acousti-Mat 3, Crack Suppression Mat (CSM)

Metal Lath (Alternate to Crack Suppression Mat (CSM)) - 3/8 in. expanded galvanized steel diamond mesh, 3.4 lbs/sq yd loose laid over the floor mat material. Floor topping thickness shall be min 1-1/2 in.

Alternate Floor Mat Materials* - (Optional) — Nom 0.4 in. thick floor mat material loose laid over the subfloor. Maxxon Floor Primer to be applied to the surface of the mat prior to the floor topping placement. Floor topping thickness shall be min 1-1/2 in.

MAXXON CORP — Type Enkasonic 9110

Alternate Floor Mat Materials* - (Optional) — Nom 0.2 in. thick floor mat material loose laid over the subfloor. Maxxon Floor Primer may be applied to the surface of the mat prior to the floor topping placement. Floor topping thickness shall be as specified under **Floor Topping Mixture.**

MAXXON CORP — Type Acousti-Mat LP-R

Metal Lath (Optional) — For use with floor mat materials, 3/8 in. expanded galvanized steel diamond mesh, 3.4 lbs/sq yd or Maxxon Corp. UL Classified Crack Suppression Mat (CSM) loose laid over the floor mat material. Floor topping thickness shall be min 1 in.

MAXXON CORP — Type Crack Suppression Mat (CSM)

Finish Flooring - Floor Topping Mixture* — Min 3/4 in. thickness of floor topping mixture having a min compressive strength of 1000 psi. Mixture shall consist of 3 to 7 gal of water to 80 lbs of floor topping mixture to 1.0 to 2.1 cu ft of sand.

MAXXON CORP — Types D-C, GC, GC2000, L-R, T-F, CT

System No. 9

Subflooring — Min 23/32 in. thick wood structural panels, min grade "C-D" or "Sheathing". Face grain of plywood or strength axis of panels to be perpendicular to the trusses with joints staggered.

Vapor Barrier — (Optional) - Commercial asphalt saturated felt, 0.030 in. thick.

Finish Flooring - Floor Topping Mixture* — Min 3/4 in. thickness of floor topping mixture having a min compressive strength of 1000 psi. Mixture shall consist of 5 to 8 gal of water to 80 lbs of floor topping mixture to 2.1 cu ft of sand.

ULTRA QUIET FLOORS — UQF-A, UQF-Super Blend, UQF-Plus 200

System No. 10

Subflooring — Min 23/32 in. thick wood structural panels, min grade "C-D" or "Sheathing". Face grain of plywood or strength axis of panels to be perpendicular to the trusses with joints staggered.

Vapor Barrier — (Optional) - Commercial asphalt saturated felt, 0.030 in. thick.

Floor Mat Materials* — (Optional) - Nom 1/4 in. thick floor mat material loose laid over the subfloor. Maxxon Floor Primer to be applied to the surface of the mat prior to the floor topping placement. When floor mat material is used, min thickness of floor topping mixture is 1 in.

MAXXON CORP — Type Acousti-Mat II

Alternate Floor Mat Materials* - (Optional) - Nom 0.8 in. thick floor mat material loose laid over the subfloor with Crack Suppression Mat (CSM) loose laid over the floor mat material. Floor topping thickness shall be min 1-1/2 in.

MAXXON CORP — Type Acousti-Mat 3, Crack Suppression Mat (CSM)

Metal Lath (Alternate to Crack Suppression Mat (CSM)) - 3/8 in. expanded galvanized steel diamond mesh, 3.4 lbs/sq yd loose laid over the floor mat material. Floor topping thickness shall be min 1-1/2 in.

Alternate Floor Mat Materials* - (Optional) — Nom 0.4 in. thick floor mat material loose laid over the subfloor. Maxxon Floor Primer to be applied to the surface of the mat prior to the floor topping placement. Floor topping thickness shall be min 1-1/2 in.

MAXXON CORP — Type Enkasonic 9110

Alternate Floor Mat Materials* - (Optional) — Nom 0.2 in. thick floor mat material loose laid over the subfloor. Maxxon Floor Primer may be applied to the surface of the mat prior to the floor topping placement. Floor topping thickness shall be as specified under **Floor Topping Mixture.**

MAXXON CORP — Type Acousti-Mat LP-R

Metal Lath (Optional) — For use with floor mat materials, 3/8 in. expanded galvanized steel diamond mesh, 3.4 lbs/sq yd or Maxxon Corp. UL Classified Crack Suppression Mat (CSM) loose laid over the floor mat material. Floor topping thickness shall be min 1 in.

MAXXON CORP — Type Crack Suppression Mat (CSM)

Finish Flooring - Floor Topping Mixture* — Min 3/4 in. thickness of floor topping mixture having a min compressive strength of 1200 psi. Mixture shall consist of 4 to 7 gal of water mixed with 80 lbs of floor topping mixture and 1.4 to 1.9 cu ft of sand.

RAPID FLOOR SYSTEMS — Types RF, RFP, RFU, RFR, Ortecrete

System No. 11

Subflooring — Min 1 by 6 in. T & G lumber fastened diagonally to trusses, or min 15/32 in. thick plywood or min 7/16 in. thick oriented strand board (OSB) wood structural panels, min grade "C-D" or "Sheathing". Face grain of plywood or strength axis of panel to be perpendicular to trusses with joints staggered.

Finish Floor - Mineral and Fiber Board* — Min 1/2 in. thick, supplied in sizes ranging from 3 ft by 4 ft to 8 ft by 12 ft. All joints to be staggered a min of 12 in. with adjacent sub-floor joints.

HOMASOTE CO — Type 440-32 Mineral and Fiber Board

System No. 12

Subflooring — Min 23/32 in. thick wood structural panels, min grade "C-D" or "Sheathing". Face grain of plywood or strength axis of panels to be perpendicular to the trusses with joints staggered.

Vapor Barrier — (Optional) - Commercial asphalt saturated felt, 0.030 in. thick.

Floor Mat Materials* — (Optional) - Min 3/8 in. to max 3/4 in. thick floor mat material loose laid over the subfloor. Floor topping thickness shall be as specified under Floor Topping Mixture.

UNITED STATES GYPSUM CO — Levelrock Brand Sound Reduction Board

Alternate Floor Mat Materials* — (Optional) - Nom 1/4 in. thick floor mat material loose laid over the subfloor. Floor topping thickness shall be as specified under **Floor Topping Mixture.**

UNITED STATES GYPSUM CO — Levelrock Brand Floor Underlayment SRM-25

Alternate Floor Mat Materials* — (Optional) - Nom 3/8 in. thick floor mat material loose laid over the subfloor. Floor topping thickness shall be as specified under **Floor Topping Mixture.**

SOLUTIA INC — Type SC50

Finish Flooring - Floor Topping Mixture* — Min 1/2 in. thickness of floor topping mixture having a min compressive strength of 3000 psi. Refer to manufacturer's instructions accompanying the material for specific mix design.

UNITED STATES GYPSUM CO — Type HSLRK

System No. 13

Subflooring — Min 23/32 in. thick wood structural panels, min grade "C-D" or "Sheathing". Face grain of plywood or strength axis of panels to be perpendicular to the trusses with joints staggered.

Vapor Barrier — (Optional) - Commercial asphalt saturated felt, 0.030 in. thick.

Finish Flooring - Floor Topping Mixture* — Min 3/4 in. thickness of floor topping having a min compressive strength of 1000 psi. Refer to manufacturer's instructions accompanying the material for specific mix design.

ALLIED CUSTOM GYPSUM PLASTERWORKS LLC — Accu-Crete, AccuRadiant

Alternate Floor Mat Material* - (Optional) - Floor mat material nominal 2 - 9.5 mm thick loose laid over the subfloor. Floor topping shall be a min of 3/4 in.

ALLIED CUSTOM GYPSUM PLASTERWORKS LLC — Type AccuQuiet P80, Type AccuQuiet C40, Type AccuQuiet RSM 20, Type AccuQuiet RSM 32, Type AccuQuiet RSM 48, Type AccuQuiet RSM 64, and Type AccuQuiet RSM 120

UL DESIGN NO. L528 PAGE 2

System No. 14

Subflooring — Min 23/32 in. thick T & G wood structural panels, min grade "Underlayment" or "Single-Floor". Face grain of plywood or strength axis of panels to be perpendicular to the trusses with end joints staggered 4 ft. Panels secured to trusses with construction adhesive and No. 6d ringed shank nails spaced 12 in. OC along each truss. Staples having equal or greater withdrawal and lateral resistance strength may be substituted for the 6d nails.

Vapor Barrier — (Optional) - Commercial asphalt saturated felt, 0.030 in. thick.

Vapor Barrier — (Optional) - Nom 0.010 in. thick commercial rosin-sized building paper.

Finish Flooring — Min 3/4 in. thickness of lightweight insulating concrete with **Perlite Aggregate*** or **Vermiculite Aggregate***, or gypsum concrete.

See **Perlite Aggregate** (CFFX) and **Vermiculite Aggregate** (CJZZ) categories for names of manufacturers.

Floor Mat Materials* — (Optional) - Nom. 1/4 in. thick loose laid over the subfloor. Floor topping thickness shall be a minimum of 1 in.

KEENE BUILDING PRODUCTS CO INC — Type Quiet Qurl 55/025 and Quiet Qurl 55/025 N

Alternate Floor Mat Materials* — (Optional) - Floor mat material Nom. 3/8 in. thick loose laid over the subfloor. Floor topping thickness shall be a minimum of 1 in.

KEENE BUILDING PRODUCTS CO INC — Type Quiet Qurl 60/040 and Quiet Qurl 60/040 N

Alternate Floor Mat Materials* — (Optional) - Floor mat material Nom. 3/4 in. thick loose laid over the subfloor. Floor topping thickness shall be a minimum of 1-1/2 in.

KEENE BUILDING PRODUCTS CO INC — Type Quiet Qurl 65/075 and Quiet Qurl 65/075 N

System No. 15

Subflooring — Min 3/4 in. thick wood structural panels, min grade "Underlayment" or "Single-Floor". Face grain of plywood or strength axis of panel to be perpendicular to joists with joints staggered. Long edges may be T & G or square.

Finish Flooring — Floor Topping Mixture* — Compressive strength to be 2500 psi min. Thickness to be 3/4 in. min. Refer to manufacturer's instructions accompanying the material for specific mix design.

ALPHA 7 GYPSUM L L C — EarthSmart Gypsum Cement Commercial Floor Topping

Floor Mat Materials* — (Optional)— Floor mat material nom 1/4 in. thick adhered to subfloor with Alpha 7 Gypsum Floor Primer. Primer to be applied to the surface of the mat prior to the placement of a min 1 in. of floor-topping mixture.

ALPHA 7 GYPSUM L L C — Type EarthSmart SCM WL.

Floor Mat Materials* — (Optional)— Floor mat material nom 6 mm thick adhered to subfloor with Alpha 7 Gypsum Floor Primer. Primer to be applied to the surface of the mat prior to the placement of a min 1 in. of floor-topping mixture.

ALPHA 7 GYPSUM L L C — Type EarthSmart SCM RT.

2. **Trusses** — Parallel chord trusses, spaced a max 24 in. OC, fabricated from nom 2 by 4 in. lumber with lumber oriented vertically or horizontally. Min truss depth is 12 in. Truss members secured together with min No. 20 MSG galv steel truss plates. Plates have 5/16 in. long teeth projecting perpendicular to the plane of the plate. The teeth are in pairs facing each other (made by the same punch), forming a split-tooth-type plate. Each tooth has a chisel point on its outside edge. These points are diagonally opposite each other for each pair. The top half of each tooth has a twist for stiffness. The pairs are repeated on approx 7/8 in. centers with four rows of teeth per in. of plate width.

3. **Furring Channels** — Furring channels, 7/8 in. deep by 2-11/16 in. wide at the base and 1-7/16 in. wide at the face, formed from No. 25 ga galv steel, spaced 24 in. OC perpendicular to trusses. Channels secured to trusses with double strand of No. 18 SWG galv steel wire spaced 48 in. OC. Ends of adjoining channels overlapped 6 in. and tied together with double strand of No. 18 SWG galv steel wire near each end of overlap. Two furring channels used at end joints of gypsum board (Item 4), each extending a min of 6 in. beyond both side edges of the board.

3A. **Resilient Channels** — (Not Shown) - As an alternate to Item 3, resilient channel formed from No. 26 MSG galv steel, spaced 16 in. OC perpendicular to trusses. Channels secured to each truss with 1-1/4 in. long No. 6 Type S bugle head steel screw. Channels overlapped at splices 4 in. Two resilient channels used at end joints of gypsum board (Item 4), each extending a min of 6 in. beyond both side edges of the board.

3B. **Steel Framing Members*** — (Optional, Not Shown) - Used as an alternate method to attach furring channels to trusses (Item 2). Clips spaced 48 in. OC. RSIC-1 clips secured to the bottom chord of alternating trusses with No. 8 x 2-1/2 in. coarse drywall screw through the center grommet. RSIC-V clips secured to the bottom chord of alternating trusses with No. 8 x 1-1/2 in. coarse drywall screw through the center hole. Furring channels are friction fitted into clips. Adjoining channels are overlapped as described in Item 3. As an alternate, ends of adjoining channels may be overlapped 6 in. and secured together with two min 7/16 in. long No. 6 self-tapping framing screws, at the midpoint of the overlap, with one screw on each flange of the channel. Additional clips required to hold furring channel that supports the gypsum board butt joints, as described in Item 4. When Fiber, Sprayed (Item 6) is used, furring channel spacing reduced to 16 in. OC and two layers of nom 5/8 in. thick, 4 ft wide gypsum board shall be installed as described in Item 4.

PAC INTERNATIONAL INC — Types RSIC-1, RSIC-V.

3C. **Steel Framing Members*** — (Optional, Not Shown) - Used as an alternate method to attach furring channels to trusses. Clips spaced 48 in. OC., and secured to the bottom chord to alternating trusses with two No. 8 x 2-1/2 in. coarse drywall screws, one through the hole at each end of the clip. Furring channels are friction fitted into clips. Ends of adjoining channels overlapped 6 in. and tied together with double strand of No. 18 SWG galv steel wire near each end of overlap. Additional clips required to hold furring channel that supports the gypsum board butt joints, as described in Item 4. Two layers of gypsum board required as described in Item 4. Not evaluated for use with Item 6. When Item 3C is used and Batts and Blankets* are added per Section III Item 18 Blanket Insulation in the General Information of this Directory (BXUV), clips spaced 48 in. OC, furring channels spaced 16 in. OC max, 3-1/2 in. max. Batts and Blankets* secured to plywood subfloor with staples spaced 12 in. OC or to the trusses with 0.090 in. diam galv steel wires spaced 12 in. OC, and two layers of gypsum board required as described in Item 4A. When the Batts and Blankets* are draped over the furring channel/gypsum panel ceiling membrane, the clip spacing shall be reduced to 24 in. OC and secured to consecutive trusses, the furring channel spacing shall be reduced to 12 in. OC, and two layers of gypsum board required as described in Item 4A.

KINETICS NOISE CONTROL INC — Type Isomax.

3D. **Steel Framing Members*** — (Optional, Not Shown) - Used as an alternate method to attach min. 1/2 in. deep resilient channels (Item 3A) to trusses (Item 2). Resilient channels are friction fitted into clips, and then clips are secured to the bottom chord of each truss with a 1-3/4 in. long No. 6 Type S bugle head steel screw through the center hole of the clip and the resilient channel flange. Adjoining resilient channels are overlapped 4 in. under trusses. The clip flange is opened slightly to accommodate the two overlapped channels. Additional clips required to hold resilient channel that supports the gypsum board butt joints, as described in Item 4.

KEENE BUILDING PRODUCTS CO INC — Type RC Assurance.

3E. **Steel Framing Members*** — (Optional, Not Shown) - Used as an alternate method to attach furring channels to trusses. Clips spaced 48 in. OC. and secured to the bottom chord to alternating trusses with one No. 8 x 2-1/2 in. coarse drywall screw through the center hole. Furring channels are friction fitted into clips. Ends of adjoining channels overlapped 6 in. and tied together with double strand of No. 18 SWG galv steel wire near each end of overlap. Additional clips required to hold furring channel that supports the gypsum board butt joints, as described in Item 4. Two layers of gypsum board required as described in Item 4. Not evaluated for use with Item 6.

PLITEQ INC — Type Genie Clip

4. **Gypsum Board*** — One layer of nom 5/8 in. thick, 4 ft wide gypsum board, installed with long dimension perpendicular to furring or resilient channels. Gypsum board secured with 1 in. long No. 6 Type S bugle head steel screws spaced 12 in. OC and located a min of 1-1/2 in. from side and end joints. End joints secured to both resilient channels as shown in the end joint detail. When **Steel Framing Members** (Item 3B) are used, one layer of nom 5/8 in. thick, 4 ft wide gypsum board is installed with long dimension perpendicular to furring channels. Gypsum board secured to furring channels with nom 1 in. long No. 6 Type S bugle head screws spaced 12 in. OC in the field of the board. Gypsum board butt joints shall be staggered 2 ft within the assembly, and shall occur between the main furring channels. At the gypsum board butt joints, each end of each gypsum board shall be supported by a single length of furring channel equal to the width of the gypsum board plus 6 in. on each end. The two furring channels at each butt joint shall be spaced approximately 3-1/2 in. OC, and be attached to the bottom chord of the truss with one RSIC-1 clip at each end of the channel. Screw spacing along the gypsum board butt joint shall be 8 in. OC. When both **Steel Framing Members** (Item 3B) and **Fiber, Sprayed** (Item 6) are used, furring channel spacing reduced to 16 in. OC and two layers of nom 5/8 in. thick, 4 ft wide gypsum board are installed with long dimension perpendicular to furring channels. Base layer secured to furring channels with nom 1 in. long No. 6 Type S bugle head screws spaced 12 in. OC in the field of the board. Gypsum board butt joints shall be staggered 2 ft within the assembly, and shall occur between the main furring channels. At the gypsum board butt joints, each end of each gypsum board shall be supported by a single length of furring channel equal to the width of the gypsum board plus 6 in. on each end. The two furring channels at each butt joint shall be spaced approximately 3-1/2 in. OC, and be attached to the bottom chord of the truss with one RSIC-1 clip at each end of the channel. Screw spacing along the gypsum board butt joint shall be 8 in. OC. Outer layer secured to furring channels using 1-5/8 in. long No. 6 Type S screws spaced 8 in. OC and 1-1/2 in. from the end joint. Butted end joints to be offset a min. of 8 in. from base layer end joints. Butted side joints of outer layer to be offset min. 18 in. from butted side joints of base layer. When **Steel Framing Members** (Item 3C) are used, two layers of nom 5/8 in. thick, 4 ft wide are installed with long dimensions perpendicular to furring channels. Base layer attached to the furring channels using 1 in. long No. 6 Type S bugle-head steel screws spaced 12 in. OC in the field of the board. Butted end joints shall be staggered min 2 ft. within the assembly, and occur midway between the continuous furring channels. Each end of each gypsum board shall be supported by a single length of furring channel equal to the width of the gypsum board plus 6 in. on each end. The two furring channels shall be spaced approximately 4 in. OC, and be attached to underside of the truss with one Isomax clip at each end of the channel. Screw spacing along the gypsum board butt joint shall be 8 in. OC. Outer layer attached to the furring channels using 1-5/8 in. long No. 6 Type S bugle-head steel screws spaced 12 in. OC in the field. The end of the outer layer boards at the butt joint shall be attached to the base layer boards with 1-5/8 in. long Type G screws spaced 8 in. OC and 1-1/2 in. from the end joint. Butted end joints to be offset a min of 8 in. from base layer end joints. Butted side joints of outer layer to be offset min 18 in. from butted side joints of base layer. When Steel Framing Members (Item 3E) are used, two layers of nom 5/8 in. thick, 4 ft wide are installed with long dimensions perpendicular to furring channels. Base layer attached to the furring channels using 1 in. long No. 6 Type S bugle-head steel screws spaced 12 in. OC in the field of the board. Butted end joints shall be staggered minimum 2 ft. within the assembly. Additional furring channels constructed as per Item 3E shall be used to support each end of each gypsum board. These additional furring channels shall be attached to underside of the truss with Genie clips as described in Item 3E. Screw spacing along the gypsum board butt joint shall be 8 in. OC. Outer layer attached to the furring channels using 1-5/8 in. long No. 6 Type S bugle-head steel screws spaced 12 in. OC in the field. The outer layer boards at the butt joint shall be attached to the base layer boards with No. 10, 1-1/2 in. long drywall screws spaced 8 in. OC and 1-1/2 in. from the end joint. Butted end joints to be offset a min of 24 in. from base layer end joints. Butted side joints of outer layer to be offset min 16 in. from butted side joints of base layer. When **Fiber, Sprayed** (Item 6) is used, two layers of nom 5/8 in. thick, 4 ft wide gypsum board are installed with long dimensions perpendicular to furring channels. Base layer gypsum board secured with 1 in. long No. 6 Type S bugle head steel screws spaced 12 in. OC and located a min of 1-1/2 in. from side and end joints. End joints secured to both resilient channels as shown in the end joint detail. Outer layer gypsum board secured with 1-5/8 in. long No. 6 Type S bugle head steel screws spaced 12 in. OC and located a min of 1-1/2 in. from side and end joints. Outer layer shall be finished as described in Item 5.

AMERICAN GYPSUM CO — Type AG-C

CERTAINTEED GYPSUM INC — Types FRPC, ProRoc Type C

CERTAINTEED GYPSUM CANADA INC — ProRoc Type C

CANADIAN GYPSUM COMPANY — Types C, IP-X2, IPC-AR

GEORGIA-PACIFIC GYPSUM L L C — Type 5

LAFARGE NORTH AMERICA INC — Types LGFC-C, LGFC-C/A

NATIONAL GYPSUM CO — Types FSK-C, FSW-C, FSW-G

PABCO BUILDING PRODUCTS L L C, DBA

PABCO GYPSUM — Type C

TEMPLE-INLAND FOREST PRODUCTS CORP — Type TG-C

UNITED STATES GYPSUM CO — Types C, IP-X2, IPC-AR

USG MEXICO S A DE C V — Types C, IP-X2, IPC-AR

4A. **Gypsum Board** — For use when Item 3C is used and Batts and Blankets* are secured to the plywood subfloor, to the trusses or draped over the furring channel/gypsum panel ceiling membrane as described in Item 3C. For method of gypsum board installation, see Item 4.

CANADIAN GYPSUM COMPANY — Types C, IP-X2, IPC-AR

UNITED STATES GYPSUM CO — Types C, IP-X2, IPC-AR

USG MEXICO S A DE C V — Types C, IP-X2, IPC-AR

UL DESIGN NO. L528 PAGE 3

5. **Finishing System** — (Not Shown) - Vinyl, dry or premixed joint compound, applied in two coats to joints and screw-heads. Nom 2 in. wide paper tape embedded in first layer of compound over all joints. As an alternate, nom 3/32 in. thick veneer plaster may be applied to the entire surface of gypsum board.

6. **Fiber, Sprayed*** — (Not Shown, Optional) — Spray-applied cellulose insulation material. The fiber is applied with water within the concealed space, over the resilient channel/gypsum board ceiling membrane, in accordance with the application instructions supplied with the product, and may substantially fill the concealed space. Nominal dry density of 3.0 lb/ft³. Alternate application method: The fiber is applied with U.S. Greenfiber LLC Type AD100 hot melt adhesive at a nominal ratio of one part adhesive to 6.6 parts fiber in accordance with the application instructions supplied with the product. Nominal dry density of 2.5 lb/ft³. Alternate application method: The fiber is applied without water or adhesive at a nominal dry density of 3.0 lb/ft³, in accordance with the application instructions supplied with the product. When Item 6 (Fiber, Sprayed) is used, Furring Channels (Item 3) or Resilient Channels (Item 3A) spacing shall be reduced to 12 in. OC. When Item 6 (Fiber, Sprayed) is used, two layers of gypsum board required as described in Item 4. Not evaluated for use with Item 3C.

U S GREENFIBER L L C — Cocoon2 Stabilized or Cocoon-FRM (Fire Rated Material)

*Bearing the UL Classification Mark

Last Updated on 2009-02-09

Questions? Notice of Disclaimer Page Top

Copyright © 2009 Underwriters Laboratories Inc.®

The appearance of a company's name or product in this database does not in itself assure that products so identified have been manufactured under UL's Follow-Up Service. Only those products bearing the UL Mark should be considered to be Listed and covered under UL's Follow-Up Service. Always look for the Mark on the product.

UL permits the reproduction of the material contained in the Online Certification Directory subject to the following conditions: 1. The Guide Information, Designs and/or Listings (files) must be presented in their entirety and in a non-misleading manner, without any manipulation of the data (or drawings). 2. The statement "Reprinted from the Online Certifications Directory with permission from Underwriters Laboratories Inc." must appear adjacent to the extracted material. In addition, the reprinted material must include a copyright notice in the following format: "Copyright © 2009 Underwriters Laboratories Inc.®"

An independent organization working for a safer world with integrity, precision and knowledge.

△3

UL DESIGN NO. L528 PAGE 4

FIRE-RESISTANCE-RATED CONSTRUCTION

TABLE 720.1(3)—continued
MINIMUM PROTECTION FOR FLOOR AND ROOF SYSTEMS[a,q]

FLOOR OR ROOF CONSTRUCTION	ITEM NUMBER	CEILING CONSTRUCTION	THICKNESS OF FLOOR OR ROOF SLAB (inches) 4 hour	3 hour	2 hour	1 hour	MINIMUM THICKNESS OF CEILING (inches) 4 hour	3 hour	2 hour	1 hour
(continued) 20. Slab reinforced with mesh consisting of 0.042″ (No. 19 B.W. gage) galvanized steel wire twisted together to form 2″ hexagons with straight 0.065″ (No. 16 B.W. gage) galvanized steel wire woven into mesh and spaced 3″. Alternate slab reinforcement shall be permitted to consist of 4″ × 8″, 0.109/0.238″ (No. 12/4 B.W. gage), or 2″ × 2″, 0.083/0.083″ (No. 14/14 B.W. gage) welded wire fabric. Class A or B roof covering on top.	20-1.1	None			Varies					
21. Wood joists, floor trusses and flat or pitched roof trusses spaced a maximum 24″ o.c. with 1/2″ wood structural panels with exterior glue applied at right angles to top of joist or top chord of trusses with 8d nails. The wood structural panel thickness shall not be less than nominal 1/2″ less than required by Chapter 23.	21-1.1	Base layer 5/8″ Type X gypsum wallboard applied at right angles to joist or truss 24″ o.c. with 1¼″ Type S or Type W drywall screws 24″ o.c. Face layer 5/8″ Type X gypsum wallboard or veneer base applied at right angles to joist or truss through base layer with 1⁷/₈″ Type S or Type W drywall screws 12″ o.c. at joints and intermediate joist or truss. Face layer Type G drywall screws placed 2″ back on either side of face layer end joints, 12″ o.c.		—		Varies	—		—	1¼
22. Wood joists, wood I-joists, floor trusses and flat or pitched roof trusses spaced a maximum 24″ o.c. with 1/2″ wood structural panels with exterior glue applied at right angles to top of joist or top chord of trusses with 8d nails. The wood structural panel thickness shall not be less than nominal 1/2″ less than required by Chapter 23.	22-1.1	Base layer 5/8″ Type X gypsum board applied at right angles to steel framing 24″ on center with 1″ Type S drywall screws spaced 24″ on center. Face layer 5/8″ Type X gypsum board applied at right angles to steel framing attached through base layer with 1⁵/₈″ Type S drywall screws 12″ on center at end joints and intermediate joints and 1½″ Type G drywall screws 12 inches on center placed 2″ back on either side of face layer end joints. Joints of the face layer are offset 24″ from the joints of the base layer.	—	—	—	Varies	—	—	—	1¼
23. Wood I-joist (minimum joist depth 9¼″ with a minimum flange depth of 1⁵/₁₆″ and a minimum flange cross-sectional area of 2.3 square inches) at 24″ o.c. spacing with 1 × 4 (nominal) wood furring strip spacer applied parallel to and covering the bottom of the bottom flange of each member, tacked in place. 2″ mineral fiber insulation, 3.5 pcf (nominal) installed adjacent to the bottom flange of the I-joist and supported by the 1 × 4 furring strip spacer.	23-1.1	1/2″ deep single leg resilient channel 16″ on center (channels doubled at wallboard end joints), placed perpendicular to the furring strip and joist and attached to each joist by 1⁷/₈″ Type S drywall screws. 5/8″ Type C gypsum wallboard applied perpendicular to the channel with end joints staggered at least 4′ and fastened with 1⅛″ Type S drywall screws spaced 7″ on center. Wallboard joints to be taped and covered with joint compound.	—	—	—	Varies	—	—	—	

(continued)

IBC 2006 TABLE 720.1 ITEM # 21-1.1

△4

PLANS APPROVED
CONSTRUCTION
Building & Safety Dept.
City of Las Vegas, Nevada
MT SEP 0 2 2009
Does Not ... Plumbing, Mechanical, Structural or Off-Site Improvements Make No Change Without Approval Plan is Not a Permit to Violate Any Ordinance

CRAIG D. SMITH
REGISTERED
No. 4967
8-20-09
ARCHITECT
STATE OF NEVADA

RNM

RNM DESIGN
ARCHITECTURE
PLANNING
LANDSCAPE
GRAPHICS
RMDESIGN.COM

2 CORPORATE PARK
SUITE 100
IRVINE, CALIFORNIA
92606
T 949.752.1800
F 949.833.9603

PROJECT NAME/ADDRESS
CORONADO THE PASEOS
875 PANTARA PLACE
LAS VEGAS, NEVADA

CLIENT
SPINNAKER HOMES
4511 W. CHEYENNE AVE. ST 105
NO. LAS VEGAS, CA 89032
702-873-7773
702-873-7776 FAX

REVISIONS
△1 DELTA 1: PLAN CHECK CORRECTION
△3 DELTA 3: PLAN CHECK CORRECTION
△4 DELTA 4: PLAN CHECK CORRECTION

AUG 20 2009

THESE DRAWINGS AND IMAGES ARE NOT TO BE REPRODUCED OR COPIED IN ANY FORM WITHOUT WRITTEN PERMISSION. COPYRIGHT 2008 RNM DESIGN

DRAWING TITLE
FLOOR CEILING ASSEMBLY REPORT

DRAWING INFORMATION
PROJ. NO: 08041
FIRST SUBMITTAL DATE: 02.24.2009
SCALE: N/A

DRAWING NUMBER
F3-2.1

DELTA 4 - PLAN CHECK CORRECTION

08.12.09

TABLE 720.1(3)—continued
MINIMUM PROTECTION FOR FLOOR AND ROOF SYSTEMS[a,b]

FLOOR OR ROOF CONSTRUCTION	ITEM NUMBER	CEILING CONSTRUCTION	THICKNESS OF FLOOR OR ROOF SLAB (inches) 4 hour	3 hour	2 hour	1 hour	MINIMUM THICKNESS OF CEILING (inches) 4 hour	3 hour	2 hour	1 hour
(continued)										
20. Slab reinforced with mesh consisting of 0.042" (No. 19 B.W. gage) galvanized steel wire twisted together to form 2" hexagons with straight 0.065" (No. 16 B.W. gage) galvanized steel wire woven into mesh and spaced 3". Alternate slab reinforcement shall be permitted to consist of 4" × 8", 0.109/0.238" (No. 12/4 B.W. gage), or 2" × 2", 0.083/0.083" (No. 14/14 B.W. gage) welded wire fabric. Class A or B roof covering on top.	20-1.1	None	—	—	Varies	—	—	—	—	—
21. Wood joists, floor trusses and flat or pitched roof trusses spaced a maximum 24" o.c. with 1/2" wood structural panels with exterior glue applied at right angles to top of joist or top chord of trusses with 8d nails. The wood structural panel thickness shall not be less than nominal 1/2" less than required by Chapter 23.	21-1.1	Base layer 1/2" Type X gypsum wallboard applied at right angles to joist or truss 24" o.c. with 1 1/4" Type S or Type W drywall screws 24" o.c. Face layer 1/4" Type X gypsum wallboard or veneer base applied at right angles to joist or truss through base layer with 1 7/8" Type S or Type W drywall screws 12" o.c. at joints and intermediate joist or truss. Face layer Type G drywall screws placed 2" back on either side of face layer end joints, 12" o.c.	—	—	—	Varies	—	—	—	1 1/4
22. Wood joists, wood I-joists, floor trusses and flat or pitched roof trusses spaced a maximum 24" o.c. with 1/2" wood structural panels with exterior glue applied at right angles to top of joist or top chord of trusses with 8d nails. The wood structural panel thickness shall not be less than nominal 1/2" less than required by Chapter 23.	22-1.1	Base layer 1/2" Type X gypsum board applied at right angles to steel framing 24" on center with 1" Type S drywall screws spaced 24" on center. Face layer 1/4" Type X gypsum board applied at right angles to steel framing attached through base layer with 1 3/4" Type S drywall screws 12" on center at end joints and intermediate joints and 1 1/2" Type G drywall screws 12 inches on center placed 2" back on either side of face layer end joints. Joints of the face layer are offset 24" from the joints of the base layer.	—	—	—	Varies	—	—	—	1 1/4
23. Wood I-joist (minimum joist depth 9 1/4" with a minimum flange depth of 1 1/8" and a minimum flange cross-sectional area of 2.3 square inches) at 24" o.c. spacing with 1 × 4 (nominal) wood furring strip spacer applied parallel to and covering the bottom of the bottom flange of each member, tacked in place. 2" mineral fiber insulation, 3.5 pcf (nominal) installed adjacent to the bottom flange of the I-joist and supported by the 1 × 4 furring strip spacer.	23-1.1	1/2" deep single leg resilient channel 16" on center (channels doubled at wallboard end joints), placed perpendicular to the furring strip and joist and attached to each joist by 1 1/4" Type S drywall screws. 1/4" Type C gypsum wallboard applied perpendicular to the channel with end joints staggered at least 4' and fastened with 1 1/4" Type S drywall screws spaced 7" on center. Wallboard joints to be taped and covered with joint compound.	—	—	—	Varies	—	—	—	—

(continued)

TABLE 720 ITEM 21.1 FROM 2006 IBC

CRAIG D. SMITH
REGISTERED
No. 4967
6-2-09
ARCHITECT
STATE OF NEVADA

RNM

RNM DESIGN
ARCHITECTURE
PLANNING
LANDSCAPE
GRAPHICS
RNMDESIGN.COM

2 CORPORATE PARK
SUITE 100
IRVINE, CALIFORNIA
92606
T949.752.1800
F949.833.9603

PROJECT NAME/ADDRESS

CORONADO THE PASEOS
875 PANTARA PLACE
LAS VEGAS, NEVADA

CLIENT

SPINNAKER HOMES
4511 W. CHEYENNE AVE. ST 105
NO. LAS VEGAS, CA 89032
702-873-7773
702-873-7776 FAX

REVISIONS

DELTA 1: PLAN CHECK CORRECTION

THESE DRAWINGS AND IMAGES ARE NOT TO BE REPRODUCED OR COPIED IN ANY FORM WITHOUT WRITTEN PERMISSION. COPYRIGHT 2008 RNM DESIGN

DRAWING TITLE

ROOF CEILING ASSEMBLY REPORT

DRAWING INFORMATION

PROJ. NO: 08041
FIRST SUBMITTAL DATE: 02.24.2009
SCALE: N/A

PLANS APPROVED
CONSTRUCTION
Building & Safety Dept
City of Las Vegas, Nevada
MT SEP 0 2 2009
Department of Planning, Planning, Management Services or Off-Site Improvements Under No Change Without Approval Plan is Not a Permit to Violate Any Ordinance

DRAWING NUMBER

F3-3.1

DELTA 2 - PLAN CHECK CORRECTION

05.27.09

XHEZ.W-L-1054
Through-penetration Firestop Systems

Page Bottom

Design/System/Construction/Assembly Usage Disclaimer

- Authorities Having Jurisdiction should be consulted in all cases as to the particular requirements covering the installation and use of UL Listed or Classified products, equipment, system, devices, and materials.
- Authorities Having Jurisdiction should be consulted before construction.
- Fire resistance assemblies and products are developed by the design submitter and have been investigated by UL for compliance with applicable requirements. The published information cannot always address every construction nuance encountered in the field.
- When field issues arise, it is recommended the first contact for assistance be the technical service staff provided by the product manufacturer noted for the design. Users of fire resistance assemblies are advised to consult the general Guide Information for each product category and each group of assemblies. The Guide Information includes specifics concerning alternate materials and alternate methods of construction.
- Only products which bear UL's Mark are considered as Classified, Listed, or Recognized.

Through-penetration Firestop Systems

See General Information for Through-penetration Firestop Systems

System No. W-L-1054

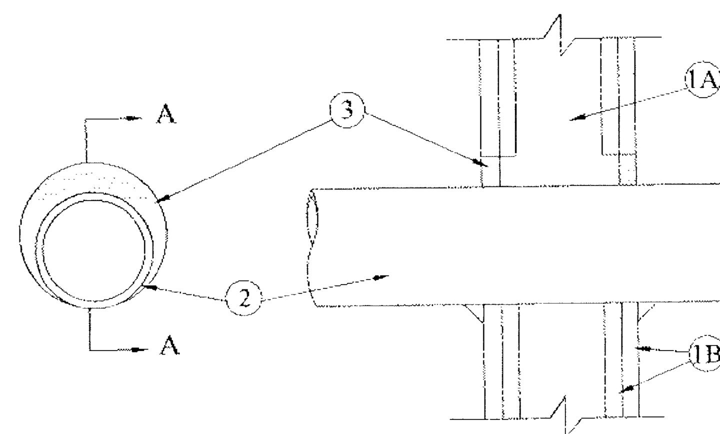
December 04, 2002

F Ratings — 1 and 2 Hr (See Items 1 and 3)

T Rating — 0 Hr

L Rating At Ambient — Less Than 1 CFM/Sq Ft

L Rating At 400 F — 4 CFM/Sq Ft



SECTION A-A

1. **Wall Assembly** — The 1 or 2 hr fire-rated gypsum wallboard/stud wall assembly shall be constructed of the materials and in the manner specified in the individual U300 or U400 Series Wall and Partition Designs in the UL Fire Resistance Directory and shall include the following construction features:

A. **Studs** — Wall framing may consist of either wood studs or steel channel studs. Wood studs to consist of nom 2 by 4 in. lumber spaced 16 in. OC. Steel studs to be min 2-1/2 in. wide and spaced max 24 in. OC. When steel studs are used and the diam of opening exceeds the width of stud cavity, the opening shall be framed on all sides using lengths of steel stud installed between the vertical studs and screw-attached to the steel studs at each end. The framed opening in the wall shall be 4 to 6 in. wider and 4 to 6 in. higher than the diam of the penetrating item such that, when the penetrating item is installed in the opening, a 2 to 3 in. clearance is present between the penetrating item and the framing on all four sides.

B. **Gypsum Board*** — 5/8 in. thick, 4 ft wide with square or tapered edges. The gypsum board type, thickness, number of layers, fastener type and sheet orientation shall be as specified in the individual U300 or U400 Series Design in the UL Fire Resistance Directory. Max diam of opening is 32-1/4 in. for steel stud walls. Max diam of opening is 14-1/2 in. for wood stud walls.

The F Rating of the firestop system is equal to the fire rating of the wall assembly.

2. **Through-Penetrants** — One metallic pipe, conduit or tubing to be installed either concentrically or eccentrically within the firestop system. The annular space shall be min 0 in. to max 2-1/4 in. Pipe may be installed with continuous point contact. Pipe, conduit or tubing may be installed at an angle not greater than 45 degrees from perpendicular. Pipe, conduit or tubing to be rigidly supported on both sides of wall assembly. The following types and sizes of metallic pipes, conduits or tubing may be used:

A. **Steel Pipe** — Nom 30 in diam (or smaller) Schedule 10 (or heavier) steel pipe.

B. **Iron Pipe** — Nom 30 in. diam (or smaller) cast or ductile iron pipe.

C. **Conduit** — Nom 4 in diam (or smaller) steel electrical metallic tubing or 6 in. diam steel conduit.

D. **Copper Tubing** — Nom 6 in. diam (or smaller) Type L (or heavier) copper tubing.

E. **Copper Pipe** — Nom 6 in. diam (or smaller) regular (or heavier) copper pipe.

3. **Fill, Void or Cavity Material* — Sealant** — Min 5/8 in. thickness of fill material applied within the annulus, flush with both surfaces of wall. At the point or continuous contact locations between pipe and wall, a min 1/2 in. diam bead of fill material shall be applied at the pipe wall interface on both surfaces of wall.

HILTI CONSTRUCTION CHEMICALS, DIV OF

HILTI INC — FS-One Sealant

*Bearing the UL Classification Mark

Last Updated on 2002-12-04

Questions? Notice of Disclaimer Page Top

Copyright © 2008 Underwriters Laboratories Inc.®

The appearance of a company's name or product in this database does not in itself assure that products so identified have been manufactured under UL's Follow-Up Service. Only those products bearing the UL Mark should be considered to be Listed and covered under UL's Follow-Up Service. Always look for the Mark on the product.

UL permits the reproduction of the material contained in the Online Certification Directory subject to the following conditions: 1. The Guide Information, Designs and/or Listings (files) must be presented in their entirety and in a non-misleading manner, without any manipulation of the data (or drawings). 2. The statement "Reprinted from the Online Certifications Directory with permission from Underwriters Laboratories Inc." must appear adjacent to the extracted material. In addition, the reprinted material must include a copyright notice in the following format: "Copyright © 2008 Underwriters Laboratories Inc.®"

An independent organization working for a safer world with integrity, precision and knowledge

UL DESIGN NO. W-L-1054

XHEZ.W-L-2048
Through-penetration Firestop Systems

Page Bottom

Design/System/Construction/Assembly Usage Disclaimer

- Authorities Having Jurisdiction should be consulted in all cases as to the particular requirements covering the installation and use of UL Listed or Classified products, equipment, system, devices, and materials.
- Authorities Having Jurisdiction should be consulted before construction.
- Fire resistance assemblies and products are developed by the design submitter and have been investigated by UL for compliance with applicable requirements. The published information cannot always address every construction nuance encountered in the field.
- When field issues arise, it is recommended the first contact for assistance be the technical service staff provided by the product manufacturer noted for the design. Users of fire resistance assemblies are advised to consult the general Guide Information for each product category and each group of assemblies. The Guide Information includes specifics concerning alternate materials and alternate methods of construction.
- Only products which bear UL's Mark are considered as Classified, Listed, or Recognized.

Through-penetration Firestop Systems

See General Information for Through-penetration Firestop Systems

System No. W-L-2048

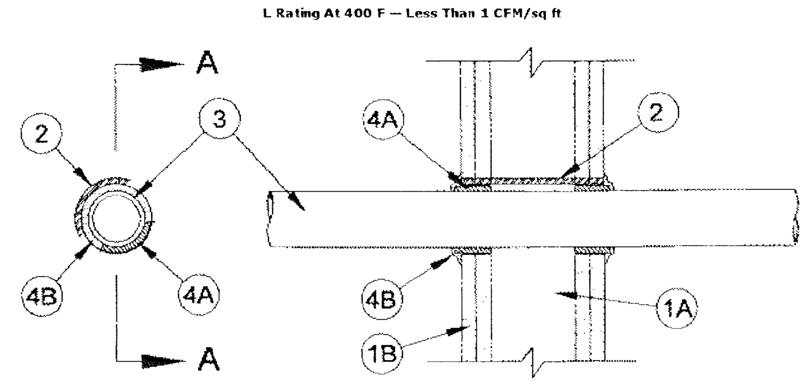
November 19, 2008

F Ratings — 1 and 2 Hr (See Item 1)

T Ratings — 1, 1-3/4 and 2 Hr (See Items 2 and 4A)

L Rating At Ambient — Less Than 1 CFM/sq ft

L Rating At 400 F — Less Than 1 CFM/sq ft



Section A-A

1. **Wall Assembly** — The 1 or 2 hr fire-rated gypsum wallboard/stud wall assembly shall be constructed of the materials and in the manner described in the individual U300 or U400 Series Wall or Partition Design in the UL Fire Resistance Directory and shall include the following construction features:

A. **Studs** — Wall framing may consist of either wood studs or steel channel studs. Wood studs to consist of nom 2 by 4 in. (51 by 102 mm) lumber spaced 16 in. (406 mm) OC. Steel studs to be min 3-1/2 in. (89 mm) wide and spaced max 24 in. (610 mm) OC.

B. **Gypsum Board*** — The gypsum board type, thickness, number of layers, fastener type and sheet orientation shall be as specified in the individual U300 or U400 Series Design in the UL Fire Resistance Directory. Max diam of opening is 5 in. (127 mm).

The hourly F Rating of the firestop system is equal to the hourly fire rating of the wall assembly in which it is installed.

2. **Steel Sleeve (Optional)** — Nom 3 in. (76 mm) diam (or smaller) Schedule 40 (or thinner) steel pipe friction-fit into wall assembly, flush with both surfaces of wall. **When steel sleeve is used, T Rating is 1 hr.**

3. **Through Penetrants** — One nonmetallic pipe or conduit to be centered within the firestop system. The annular space shall be min 1/4 in. (6 mm) to max 1-1/4 in (32 mm). Pipe or conduit to be rigidly supported on both sides of the wall assembly. The following types and sizes of nonmetallic pipes or conduits may be used:

A. **Polyvinyl Chloride (PVC) Pipe** — Nom 3 in. (76 mm) diam (or smaller) Schedule 40 cellular or solid core PVC pipe for use in closed (process or supply) or vented (drain, waste or vent) piping systems.

B. **Chlorinated Polyvinyl Chloride (CPVC) Pipe** — Nom 3 in. (76 mm) diam (or smaller) SDR 13.5 CPVC pipe for use in closed (process or supply) piping systems.

C. **Rigid Nonmetallic Conduit+** — Nom 3 in. (76 mm) diam (or smaller) Schedule 40 PVC conduit installed in accordance with the National Electrical Code (NFPA No. 70).

D. **Acrylonitrile Butadiene Styrene (ABS) Pipe** — Nom 3 in. (76 mm) diam (or smaller) Schedule 40 cellular or solid core ABS pipe for use in closed (process or supply) or vented (drain, waste or vent) piping systems.

E. **Flame Retardant Polypropylene (FRPP) Pipe** — Nom 2 in. (51 mm) diam (or smaller) Schedule 40 FRPP pipe for use in closed (process or supply) or vented (drain, waste or vent) piping systems.

F . **Polypropylene (PP) Pipe** — Nom 1 in. (25 mm) diam (or smaller) Schedule 80 PP pipe for use in closed (process or supply) piping systems .

G. **Polyvinylidene Fluoride (PVDF) Pipe** — Nom 2 in. (51 mm) diam (or smaller) Schedule 40 PVDF pipe for use in closed (process or supply) piping systems .

4. **Firestop System** — The firestop system shall consist of the following:

A. **Fill, Void or Cavity Material* — Wrap Strip** — Nom 1/8 in. (3.2 mm) or 3/16 in. (4.8 mm) thick intumescent material faced on both sides with a plastic film, supplied in 2 in. (51 mm) wide strips or 1/8 or 1/4 in. (3.2 or 6 mm) thick intumescent material faced on both sides with a plastic film, supplied in 1-1/2 in. (38 mm) wide strips. Single layer of wrap strip wrapped around the through penetrant with the ends butted and held in place by means of foil tape. The wrap strip is slid along the through penetrant into annulus such that 1/4 in. (6 mm) of the wrap strip protrudes from the wall. One set of wrap strips to be installed on each side of wall. As an option when 1/8 in. (3.2 mm) thick wrap strip (BLU2) is used, the strips may be cut to a width of 1-1/2 in. (38 mm).

The T Rating of the firestop system is dependent upon the hourly rating of the wall, the type of through penetrant and the type of wrap strip used as tabulated below:

Type of Through Penetrant	Hourly Rating of Wall Hr	Type of Wrap Strip	T Rating Hr
PVC, CPVC, PVDF, RNC, PP or FRPP	1	SpecSeal BLU, SpecSeal BLU2 or SpecSeal RED, RED2	1
ABS	1	SpecSeal BLU, SpecSeal BLU2 or SpecSeal RED, RED2	1
PVC, CPVC, PVDF, RNC, PP or FRPP	2	SpecSeal BLU, SpecSeal BLU2 or SpecSeal RED, RED2	2
ABS	2	SpecSeal BLU or SpecSeal BLU2	2
ABS	2	SpecSeal RED, RED2	1-3/4

SPECIFIED TECHNOLOGIES INC — SpecSeal BLU Wrap Strip, SpecSeal BLU2 Wrap Strip or SpecSeal RED Wrap Strip, SpecSeal RED2 Wrap Strip

B. **Fill, Void or Cavity Material* — Sealant** — When an annular space is present between the wrap strip and the edge of the opening, a min 5/8 in. (16 mm) depth of sealant shall be installed in the annular space flush with each surface of the wall. A min 1/4 in. (6 mm) diam bead of sealant shall be applied at the gypsum board/wrap strip interface on both surfaces of wall.

SPECIFIED TECHNOLOGIES INC — SpecSeal 100, 101, 102, 105, 120 or 129 Sealant, SpecSeal LCI Sealant, Pensil 300 Sealant or SpecSeal Series SIL300 Sealant

*Bearing the UL Classification Mark

Last Updated on 2008-11-19

Questions? Notice of Disclaimer Page Top

Copyright © 2008 Underwriters Laboratories Inc.®

The appearance of a company's name or product in this database does not in itself assure that products so identified have been manufactured under UL's Follow-Up Service. Only those products bearing the UL Mark should be considered to be Listed and covered under UL's Follow-Up Service. Always look for the Mark on the product.

UL permits the reproduction of the material contained in the Online Certification Directory subject to the following conditions: 1. The Guide Information, Designs and/or Listings (files) must be presented in their entirety and in a non-misleading manner, without any manipulation of the data (or drawings). 2. The statement "Reprinted from the Online Certifications Directory with permission from Underwriters Laboratories Inc." must appear adjacent to the extracted material. In addition, the reprinted material must include a copyright notice in the following format: "Copyright © 2008 Underwriters Laboratories Inc.®"

An independent organization working for a safer world with integrity, precision and knowledge

UL DESIGN NO. W-L-2048

XHEZ.W-L-2088
Through-penetration Firestop Systems

Page Bottom

Design/System/Construction/Assembly Usage Disclaimer

- Authorities Having Jurisdiction should be consulted in all cases as to the particular requirements covering the installation and use of UL Listed or Classified products, equipment, system, devices, and materials.
- Authorities Having Jurisdiction should be consulted before construction.
- Fire resistance assemblies and products are developed by the design submitter and have been investigated by UL for compliance with applicable requirements. The published information cannot always address every construction nuance encountered in the field.
- When field issues arise, it is recommended the first contact for assistance be the technical service staff provided by the product manufacturer noted for the design. Users of fire resistance assemblies are advised to consult the general Guide Information for each product category and each group of assemblies. The Guide Information includes specifics concerning alternate materials and alternate methods of construction.
- Only products which bear UL's Mark are considered as Classified, Listed, or Recognized.

Through-penetration Firestop Systems

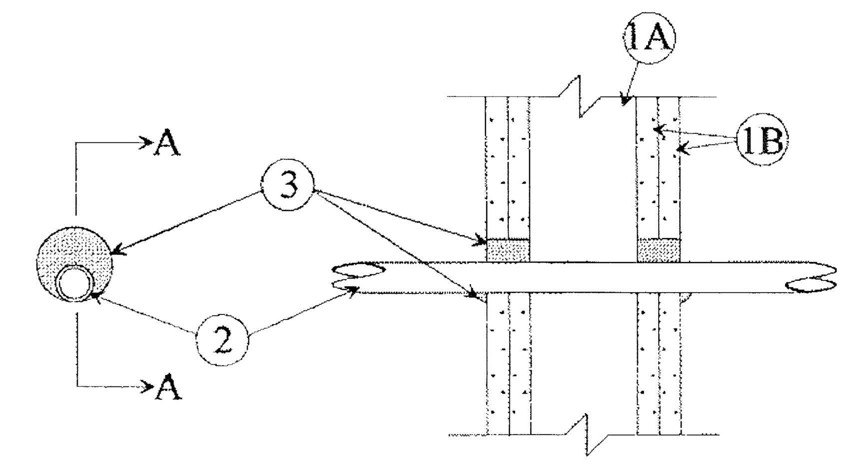
See General Information for Through-penetration Firestop Systems

System No. W-L-2088

May 23, 2005

F Ratings — 1 and 2 Hr (See Item 1)

T Ratings — 0, 1 and 2 Hr (See Item 2)



SECTION A-A

1. **Wall Assembly** — The 1 or 2 hr fire rated gypsum board/stud wall assembly shall be constructed of the materials and in the manner specified in the individual U300, U400 or V400 Series Wall and Partition Designs in the UL Fire Resistance Directory and shall include the following construction features:

A. **Studs** — Wall framing may consist of either wood studs or steel channel studs. Wood studs to consist of nom 2 by 4 in. (51 by 102 mm) lumber spaced 16 in. (406 mm) OC. Steel studs to be min 3-1/2 in. (89 mm) wide and spaced max 24 in. (610 mm) OC.

B. **Gypsum Board*** — Thickness, type, number of layers and fasteners as required in the individual Wall and Partition Design. Diam of opening shall be 7/8 in. (22 mm) larger than the outside diam of nonmetallic pipe or conduit (Item 2).

The hourly F Rating of the firestop system is equal to the hourly fire rating of the wall assembly in which it is installed.

2. **Through Penetrants** — One nonmetallic pipe or conduit to be installed either concentrically or eccentrically within the firestop system. The annular space for max 1-1/4 in. (32 mm) diam pipe or conduit shall be min 0 in. (0 mm, point contact) to max 7/8 in (22 mm). The annular space for pipe or conduit larger than nom 1-1/4 in. (32 mm) diam shall be min 1/2 in. (13 mm) to max 1 in. (25 mm) Pipe or conduit to be rigidly supported on both sides of wall assembly. The following types and sizes of nonmetallic pipes or conduits may be used:

A. **Polyvinyl Chloride (PVC) Pipe** — Nom 2 in. (51 mm) diam (or smaller) Schedule 40 solid core or cellular core PVC pipe for use in closed (process or supply) or vented (drain, waste or vent) piping system.

B. **Polyvinyl Chloride (PVC) Pipe** — Nom 3 in. (76 mm) diam (or smaller) Schedule 40 solid core PVC pipe for use in closed (process or supply) piping system.

C. **Chlorinated Polyvinyl Chloride (CPVC) Pipe** — Nom 3 in. (76 mm) diam (or smaller) SDR11 CPVC pipe for use in closed (process or supply) piping systems.

D. **Rigid Nonmetallic Conduit++** — Nom 3 in. (76 mm) diam (or smaller) Schedule 40 PVC conduit installed in accordance with the National Electrical Code (NFPA No 70).

E. **Electrical Nonmetallic Tubing (ENT)++** — Nom 1 in. (25 mm) diam (or smaller) ENT formed of PVC, installed in accordance with the National Electrical Code (NFPA No. 70).

See **Rigid Nonmetallic Conduit** (DZKT) and **Electrical Nonmetallic Tubing** (FKHU) categories in the UL Electrical Construction Equipment Directory for names of manufacturers.

F. **Acrylonitrile Butadiene Styrene (ABS) Pipe** — Nom. 2 in. (51 mm) diam (or smaller) Schedule 40 solid core or cellular core ABS pipe for use in closed (process or supply) or vented (drain, waste or vent) piping systems.

The hourly T Rating is dependent on the hourly rating of the wall assembly, the pipe or conduit size and whether the pipe is intended for use as a closed or vented system, as shown in the following table.

Nom Pipe Diam In.	Wall Assembly Rating Hr	Closed (c) or Vented (v)	T Rating Hr
1/2 to 3 (13 to 76)	1	c	1
1/2 to 1-1/4 (13 to 32)	1	v	1
1/2 to 1-1/4 (13 to 32)	2	c	2
1/2 to 1-1/4 (13 to 32)	2	v	1
2 (51)	1	v	0
2 (51)	2	v	0

3. **Fill, Void or Cavity Materials* — Caulk, Sealant or Putty** — Min thickness of 5/8 in. (16 mm) and 1-1/4 in. (32 mm) of caulk or putty for 1 and 2 hr rated wall assemblies, respectively, applied within annulus between pipe or conduit and periphery of the opening, flush with both surfaces of wall assembly. At the point contact location between pipe or conduit and gypsum board, a min 1/2 in. (13 mm) diam bead of caulk or putty shall be applied at the pipe or conduit/ board interface on both surfaces of wall assembly.

3M COMPANY — CP 25WB+, MP+ Stix, IC 15WB+ caulk or FB-3000 WT sealant. (Note: CP 25WB+ not suitable for use with CPVC pipes.)

++Bearing the UL Listing Mark.

*Bearing the UL Classification Mark

Last Updated on 2005-05-23

Questions? Notice of Disclaimer Page Top

Copyright © 2008 Underwriters Laboratories Inc.®

The appearance of a company's name or product in this database does not in itself assure that products so identified have been manufactured under UL's Follow-Up Service. Only those products bearing the UL Mark should be considered to be Listed and covered under UL's Follow-Up Service. Always look for the Mark on the product.

UL permits the reproduction of the material contained in the Online Certification Directory subject to the following conditions: 1. The Guide Information, Designs and/or Listings (files) must be presented in their entirety and in a non-misleading manner, without any manipulation of the data (or drawings). 2. The statement "Reprinted from the Online Certifications Directory with permission from Underwriters Laboratories Inc." must appear adjacent to the extracted material. In addition, the reprinted material must include a copyright notice in the following format: "Copyright © 2008 Underwriters Laboratories Inc.®"

An independent organization working for a safer world with integrity, precision and knowledge

UL DESIGN NO. W-L-2088

XHEZ.W-L-2148
Through-penetration Firestop Systems

Page Bottom

Design/System/Construction/Assembly Usage Disclaimer

- Authorities Having Jurisdiction should be consulted in all cases as to the particular requirements covering the installation and use of UL Listed or Classified products, equipment, system, devices, and materials.
- Authorities Having Jurisdiction should be consulted before construction.
- Fire resistance assemblies and products are developed by the design submitter and have been investigated by UL for compliance with applicable requirements. The published information cannot always address every construction nuance encountered in the field.
- When field issues arise, it is recommended the first contact for assistance be the technical service staff provided by the product manufacturer noted for the design. Users of fire resistance assemblies are advised to consult the general Guide Information for each product category and each group of assemblies. The Guide Information includes specifics concerning alternate materials and alternate methods of construction.
- Only products which bear UL's Mark are considered as Classified, Listed, or Recognized.

Through-penetration Firestop Systems

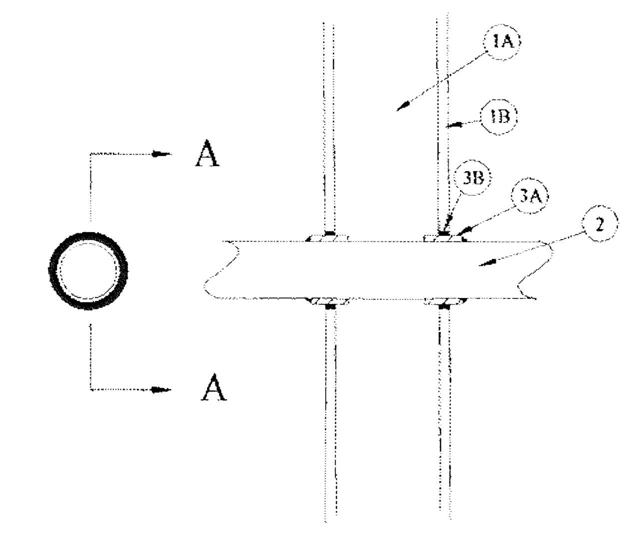
See General Information for Through-penetration Firestop Systems

System No. W-L-2148

May 23, 2005

F Rating — 1 Hr

T Rating — 1 Hr



SECTION A-A

1. **Wall Assembly** — The 1 hr fire rated gypsum board/stud wall assembly shall be constructed of the materials and in the manner specified in the individual U300, U400 or V400 Series Wall and Partition Designs in the UL Fire Resistance Directory and shall include the following construction features:

A. **Studs** — Wall framing may consist of either wood studs or steel channel studs. Wood studs to consist of nom 2 by 4 in. (51 by 102 mm)lumber spaced 16 in. (406 mm) OC. Steel studs to be min 3-1/2 in. (89 mm) wide and spaced max 24 in. (610 mm) OC.

B. **Gypsum Board*** — Thickness, type, number of layers and fasteners as required in the individual Wall and Partition Design. Max diam of opening is 2-3/4 in. (70 mm).

2. **Through Penetrants** — One nonmetallic pipe or conduit to be centered within opening with a nom 3/16 in. (5 mm) annular space between pipe or conduit and periphery of opening. Pipe or conduit to be rigidly supported on both sides of the wall assembly. The following types and sizes of nonmetallic pipes or conduits may be used:

A. **Polyvinyl Chloride (PVC) Pipe** — Nom 2 in. (51 mm) diam (or smaller) Schedule 40 solid core or cellular core PVC pipe for use in closed (process or supply) or vented (drain, waste or vent) piping system.

B. **Rigid Nonmetallic Conduit++** — Nom 2 in. (51 mm) diam (or smaller) Schedule 40 PVC conduit installed in accordance with the National Electrical Code (NFPA No. 70).

C. **Chlorinated Polyvinyl Chloride (CPVC) Pipe** — Nom 2 in. (51 mm) diam (or smaller) SDR13 CPVC pipe for use in closed (process or supply) piping systems.

D. **Acrylonitrile Butadiene Styrene (ABS) Pipe** — Nom 2 in. (51 mm) diam (or smaller) Schedule 40 solid core or cellular core ABS pipe for use in closed (process or supply) or vented (drain, waste or vent) piping systems.

E. **Fire Retardant Polypropylene (FRPP) Pipe** — Nom 2 in. (51 mm) diam (or smaller) Schedule 40 FRPP pipe for use in closed (process or supply) or vented (drain, waste or vent) piping system.

3. **Firestop System** — The details of the firestop system shall be as follows:

A. **Fill, Void or Cavity Materials* — Wrap Strip** — Nom 1/8 in. (3 mm) thick intumescent material supplied in 2 in. (51 mm) wide strips. One layer of wrap strip tightly wrapped around nonmetallic pipe with end tightly butted and held in place with 2 in. (51 mm) wide min 3 mil foil tape. Wrap strip to be slid into annular space on both sides of wall such that 1/2 to 3/4 in. (13 to 19 mm) of wrap strip extends beyond both surfaces of the wall. Min 18 gauge steel wire tie to be secured around middle of extending portion of wrap strip.

3M COMPANY — Ultra GS

B. **Fill, Void or Cavity Materials* — Caulk or Sealant** — Min 5/8 in. (16 mm) thickness of caulk shall be applied within annular space on both sides of wall. An additional min 1/8 in. (3 mm) bead of caulk shall be applied at the exposed end of wrap strip at the pipe/wrap strip interface on both sides of wall.

3M COMPANY — CP 25WB+, IC 15WB+, FireDam 150+ caulk or FB-3000 WT sealant. (Note: CP 25WB+ not suitable for use with CPVC pipes.)

*Bearing the UL Classification Marking

++Bearing the UL Listing Mark

Last Updated on 2005-05-23

Questions? Notice of Disclaimer Page Top

Copyright © 2008 Underwriters Laboratories Inc.®

The appearance of a company's name or product in this database does not in itself assure that products so identified have been manufactured under UL's Follow-Up Service. Only those products bearing the UL Mark should be considered to be Listed and covered under UL's Follow-Up Service. Always look for the Mark on the product.

UL permits the reproduction of the material contained in the Online Certification Directory subject to the following conditions: 1. The Guide Information. Designs and/or Listings (files) must be presented in their entirety and in a non-misleading manner, without any manipulation of the data (or drawings). 2. The statement "Reprinted from the Online Certifications Directory with permission from Underwriters Laboratories Inc." must appear adjacent to the extracted material. In addition, the reprinted material must include a copyright notice in the following format: "Copyright © 2008 Underwriters Laboratories Inc.®"

An independent organization working for a safer world with integrity, precision and knowledge

PLANS APPROVED CONSTRUCTION
Building & Safety Dept.
City of L... Nevada
MT SEP 0 2 2009
Not a Permit to Violate Any Ordinance

UL DESIGN NO. W-L-2148

CRAIG D. SMITH
REGISTERED ARCHITECT
No. 4967
6-2-09
STATE OF NEVADA

RNM

RNM DESIGN
ARCHITECTURE
PLANNING
LANDSCAPE
GRAPHICS
RNMDESIGN.COM

2 CORPORATE PARK
SUITE 100
IRVINE, CALIFORNIA
92606
T949.752.1800
F949.833.9603

PROJECT NAME/ADDRESS

CORONADO THE PASEOS
875 PANTARA PLACE
LAS VEGAS, NEVADA

CLIENT

SPINNAKER HOMES
4511 W. CHEYENNE AVE. ST 105
NO. LAS VEGAS, CA 89032
702-873-7773
702-873-7776 FAX

REVISIONS

THESE DRAWINGS AND IMAGES ARE NOT TO BE REPRODUCED OR COPIED IN ANY FORM WITHOUT WRITTEN PERMISSION. COPYRIGHT 2008 RNM DESIGN

DRAWING TITLE

PENETRATION ASSEMBLY REPORT

DRAWING INFORMATION

PROJ. NO: 08041
FIRST SUBMITTAL DATE: 02.24.2009
SCALE: N/A

DELTA 2 - PLAN CHECK CORRECTION 05.27.09

DRAWING NUMBER

F3-4.1

ONLINE CERTIFICATIONS DIRECTORY

XHEZ.W-L-2186
Through-penetration Firestop Systems

Page Bottom

Design/System/Construction/Assembly Usage Disclaimer

- Authorities Having Jurisdiction should be consulted in all cases as to the particular requirements covering the installation and use of UL Listed or Classified products, equipment, system, devices, and materials.
- Authorities Having Jurisdiction should be consulted before construction.
- Fire resistance assemblies and products are developed by the design submitter and have been investigated by UL for compliance with applicable requirements. The published information cannot always address every construction nuance encountered in the field.
- When field issues arise, it is recommended the first contact for assistance be the technical service staff provided by the product manufacturer noted for the design. Users of fire resistance assemblies are advised to consult the general Guide Information for each product category and each group of assemblies. The Guide Information includes specifics concerning alternate materials and alternate methods of construction.
- Only products which bear UL's Mark are considered as Classified, Listed, or Recognized.

Through-penetration Firestop Systems

See General Information for Through-penetration Firestop Systems

System No. W-L-2186

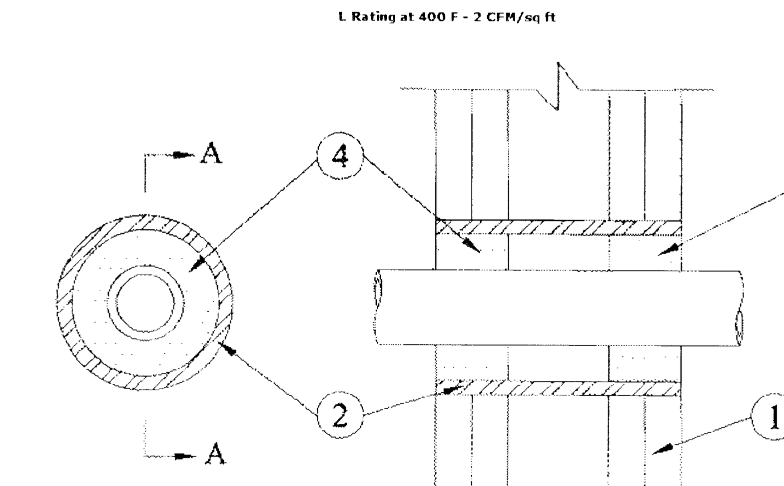
July 17, 2006

F Ratings — 1 and 2 Hr (See Items 1 and 4)

T Ratings — 1/2 and 1 Hr (See Items 3 and 4)

L Rating at Ambient - Less Than 1 CFM/sq ft

L Rating at 400 F - 2 CFM/sq ft



SECTION A-A

1. **Wall Assembly** — The 1 or 2 hr fire rated gypsum board/stud wall assembly shall be constructed of the materials and in the manner specified in the individual U300, U400 or V400 Series Wall and Partition Designs in the UL Fire Resistance Directory and shall include the following construction features:

   A. **Studs** — Wall framing shall consist of either wood studs or steel channel studs. Wood studs to consist of nom 2 by 4 in. (51 by 102 mm) lumber spaced max 16 in. (406 mm) . Steel studs to be min 2-1/2 in. (64 mm) wide and spaced max 24 in. (610 mm) OC.

   B. **Gypsum Board*** — For 1 hr assembly, one layer of min 5/8 in. (16 mm) thick gypsum board as required in the individual Wall and Partition Design. For 2 hr assembly, two layers of min 5/8 in. (16 mm) thick gypsum board as required in the individual Wall and Partition Design. Max diam of opening is 3 in. (76 mm).

   The hourly F Rating of the firestop system is equal to the hourly fire rating of the wall assembly in which it is installed.

2. **Steel Sleeve** — (Optional) - Max 3 in. (76 mm) diam Schedule 40 (or heavier) steel pipe sleeve friction-fit into circular opening core drilled through wall. Length of steel sleeve to be equal to thickness of wall.

3. **Through Penetrant** — One nom 1 in. (25 mm) diam (or smaller) SDR 9 cross-linked polyethylene (PEX) tubing for use in closed (process or supply) piping systems. The tubing installed concentrically or eccentrically within the opening. The annular space between the tube and the steel sleeve or wall opening shall be min 1/2 in. (13 mm) to max 1-3/8 in. (35 mm). Tube to be rigidly supported on both sides of wall assembly. When steel sleeve (Item 2) is not provided, tube may be installed at an angle not greater than 45 degrees from perpendicular.

   The hourly T Rating is 1/2 Hr and 1 Hr for 1 Hr and 2 Hr fire rated wall assemblies, respectively.

4. **Fill, Void or Cavity Material*-Sealant** — Min 5/8 in. (16 mm) and 1-1/4 in. (32 mm) thickness of fill material applied within annulus, flush with both surfaces of wall assembly for 1 and 2 hr rated walls, respectively. When a steel sleeve (Item 2) is provided for assemblies with L Ratings, sealant shall be applied around periphery of opening to cover the exposed ends of the sleeve and to lap min 1/4 in. (6 mm) onto gypsum board on each side of wall.

   HILTI CONSTRUCTION CHEMICALS, DIV OF

   HILTI INC — FS-ONE Sealant

*Bearing the UL Classification Mark

Last Updated on 2006-07-17

Questions? Notice of Disclaimer Page Top

Copyright © 2008 Underwriters Laboratories Inc.®

The appearance of a company's name or product in this database does not in itself assure that products so identified have been manufactured under UL's Follow-Up Service. Only those products bearing the UL Mark should be considered to be Listed and covered under UL's Follow-Up Service. Always look for the Mark on the product.

UL permits the reproduction of the material contained in the Online Certification Directory subject to the following conditions: 1. The Guide Information, Designs and/or Listings (files) must be presented in their entirety and in a non-misleading manner, without any manipulation of the data (or drawings). 2. The statement "Reprinted from the Online Certifications Directory with permission from Underwriters Laboratories Inc." must appear adjacent to the extracted material. In addition, the reprinted material must include a copyright notice in the following format: "Copyright © 2008 Underwriters Laboratories Inc.®"

An independent organization working for a safer world with integrity, precision and knowledge

UL DESIGN NO. W-L-2186

ONLINE CERTIFICATIONS DIRECTORY

XHEZ.W-L-7042
Through-penetration Firestop Systems

Page Bottom

Design/System/Construction/Assembly Usage Disclaimer

- Authorities Having Jurisdiction should be consulted in all cases as to the particular requirements covering the installation and use of UL Listed or Classified products, equipment, system, devices, and materials.
- Authorities Having Jurisdiction should be consulted before construction.
- Fire resistance assemblies and products are developed by the design submitter and have been investigated by UL for compliance with applicable requirements. The published information cannot always address every construction nuance encountered in the field.
- When field issues arise, it is recommended the first contact for assistance be the technical service staff provided by the product manufacturer noted for the design. Users of fire resistance assemblies are advised to consult the general Guide Information for each product category and each group of assemblies. The Guide Information includes specifics concerning alternate materials and alternate methods of construction.
- Only products which bear UL's Mark are considered as Classified, Listed, or Recognized.

Through-penetration Firestop Systems

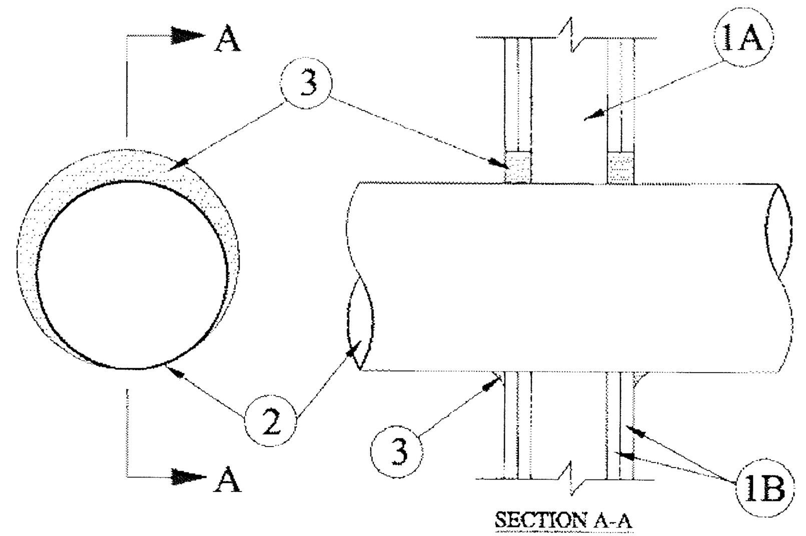
See General Information for Through-penetration Firestop Systems

System No. W-L-7042

November 30, 2000

F Ratings — 1 and 2 Hr (See Items 1 and 3)

T Rating — 0 Hr



SECTION A-A

1. **Wall Assembly** — The 1 or 2 hr fire rated wallboard/stud wall assembly shall be constructed of the materials and in the manner specified in the individual U300 or U400 Series Wall and Partition Designs in the UL Fire Resistance Directory and shall include the following construction features.

   A. **Studs** — Wall framing may consist of either wood studs or steel channel studs. Wood studs to consist of nom 2 by 4 in. lumber spaced 16 in. OC. Steel studs to be min 2-1/2 in. wide and spaced 24 in. OC.

   B. **Gypsum Board*** — For 1 hr assembly, one layer of min 5/8 in. thick wallboard as required in the individual Wall and Partition Design. For 2 hr assembly, two layers of min 5/8 in. thick wallboard as required in the individual Wall and Partition Design. Max diam of opening is 14-1/2 in. for wood stud walls and 21-3/4 for steel stud walls.

   The hourly F and T Ratings of the firestop system is equal to the hourly fire rating of the wall assembly in which it is installed.

2. **Through Penetrant** — Galv steel duct to be installed concentrically or eccentrically within the firestop system. The annular space between the duct and periphery of opening shall be 0 in. (point contact) and max 1-1/2 in. Duct to be rigidly supported on both sides of wall assembly.

   A. **Spiral Wound HVAC Duct** — Nom 20 in. diam (or smaller) No. 24 MSG (or heavier) galv steel spriral wound duct.

   B. **Sheet Metal Duct** — Nom 12 in. diam (or smaller) No. 28 MSG (or heavier) galv sheet steel duct.

3. **Fill, Void or Cavity Material*—Sealant** — Min 5/8 in. and 1-1/4 in. thickness of fill material applied within annulus, flush with both surfaces of wall assembly for 1 or 2 hr rated walls, respectively. At the point contact location between duct and wallboard, a min 1/2 in. diam bead of sealant shall be applied at the wallboard/duct interface on both surfaces of wall assembly.

   HILTI CONSTRUCTION CHEMICALS, DIV OF

   HILTI INC — CP601S Elastomeric Firestop Sealant, FS-ONE Sealant or CP606 Flexible Firestop Sealant

*Bearing the UL Classification Mark

Last Updated on 2000-11-30

Questions? Notice of Disclaimer Page Top

Copyright © 2008 Underwriters Laboratories Inc.®

The appearance of a company's name or product in this database does not in itself assure that products so identified have been manufactured under UL's Follow-Up Service. Only those products bearing the UL Mark should be considered to be Listed and covered under UL's Follow-Up Service. Always look for the Mark on the product.

UL permits the reproduction of the material contained in the Online Certification Directory subject to the following conditions: 1. The Guide Information, Designs and/or Listings (files) must be presented in their entirety and in a non-misleading manner, without any manipulation of the data (or drawings). 2. The statement "Reprinted from the Online Certifications Directory with permission from Underwriters Laboratories Inc." must appear adjacent to the extracted material. In addition, the reprinted material must include a copyright notice in the following format: "Copyright © 2008 Underwriters Laboratories Inc.®"

An independent organization working for a safer world with integrity, precision and knowledge

UL DESIGN NO. W-L-7042

ONLINE CERTIFICATIONS DIRECTORY

XHEZ.W-L-8018
Through-penetration Firestop Systems

Page Bottom

Design/System/Construction/Assembly Usage Disclaimer

- Authorities Having Jurisdiction should be consulted in all cases as to the particular requirements covering the installation and use of UL Listed or Classified products, equipment, system, devices, and materials.
- Authorities Having Jurisdiction should be consulted before construction.
- Fire resistance assemblies and products are developed by the design submitter and have been investigated by UL for compliance with applicable requirements. The published information cannot always address every construction nuance encountered in the field.
- When field issues arise, it is recommended the first contact for assistance be the technical service staff provided by the product manufacturer noted for the design. Users of fire resistance assemblies are advised to consult the general Guide Information for each product category and each group of assemblies. The Guide Information includes specifics concerning alternate materials and alternate methods of construction.
- Only products which bear UL's Mark are considered as Classified, Listed, or Recognized.

Through-penetration Firestop Systems

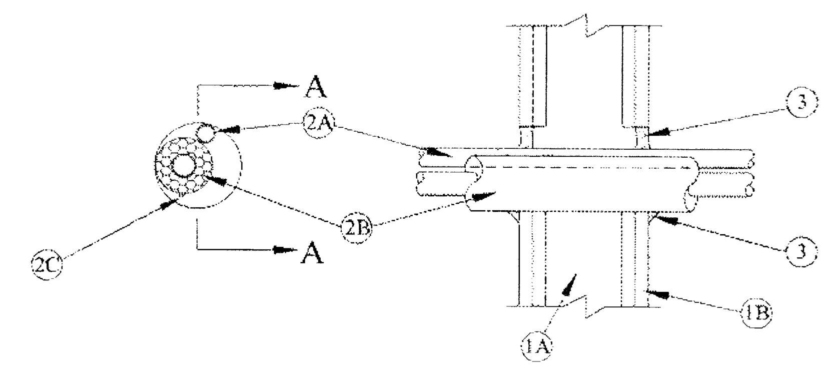
See General Information for Through-penetration Firestop Systems

System No. W-L-8018

May 19, 2005

F Ratings - 1 and 2 Hr (See Item 1)

T Ratings - 0 and 3/4 Hr (See Item 1)



SECTION A-A

1. **Wall Assembly** — The 1 or 2 hr fire rated gypsum board/stud wall assembly shall be constructed of the materials and in the manner specified in the individual U400 or V400 Series Wall and Partition Design in the UL Fire Resistive Directory and shall include the following construction features.

   A. **Studs** — Wall framing may consist of either wood studs or steel channel studs. Wood studs to consist of nom 2 by 4 in. (51 by 102 mm) lumber spaced 16 in. (406 mm) OC. Steel studs to be min 2-1/2 in. (64 mm) wide steel channel studs spaced max 24 in. (610 mm) OC.

   B. **Gypsum Board*** — Thickness, type, number of layers and fasteners as required in the individual Wall and Partition Design. Max diam of opening is 4 in. (102 mm).

   The hourly F Rating of the firestop system is equal to the hourly fire rating of the wall assembly. The hourly T Rating of the firestop system is 0 and 3/4 Hr for 1 and 2 Hr fire rated assemblies, respectively.

2. **Through Penetrants** — Penetrants to be installed either concentrically or eccentrically within the firestop system. The annular space between penetrants shall be min 0 in. (0 mm, point contact) to max 1-1/2 in. (38 mm). The annular space between penetrants and periphery of opening shall be min 0 in. (0 mm, point contact) to max 1-1/4 in. (32 mm). Penetrants to be rigidly supported on both sides of wall assembly. The following types and sizes of penetrants may be used:

   A. **Metallic Pipes** — Max two metallic pipes or tubing. The following types and sizes of metallic pipes or tubing may be used:

      A1. **Copper Tubing** — Nom 1 in. (25 mm) diam (or smaller) Type M (or heavier) copper tube.

      A2. **Copper Pipe** — Nom 1 in. (25 mm) diam (or smaller) Regular (or heavier) copper pipe.

   B. **Tube Insulation*- Plastics+** — Nom 3/4 in. (19 mm) thick acrylonitrile butadiene/polyvinyl chloride (AB/PVC) flexible foam furnished in the form of tubing. Tube insulation required for all copper tubes and pipes greater than nom 3/4 in. (19 mm) diam.

   See **Plastics** (QMFZ2) category in the Recognized Component Directory for names of manufacturers. Any Recognized Component tube insulation material meeting the above specifications and having a UL 94 Flammability Classification of 94-5VA may be used.

   C. **Cables** — Max one 2/C No. 18 AWG (or smaller) control cable with polyvinyl chloride (PVC) insulation and jacket. Cable to be rigidly supported on both sides of floor or wall assembly.

3. **Fill, Void or Cavity Materials* - Caulk, Putty or Sealant** — Min 5/8 in. (16 mm) thickness of fill material applied within the annulus, flush with both surfaces of the wall. Min 1/2 in. (13 mm) diam bead of fill material applied to the gypsum board/penetrant interface at point contact location on both surfaces of wall.

   3M COMPANY — MP+ Stix putty, CP 25WB+, IC 15WB+ caulk or FB-3000 WT sealant

*Bearing the UL Classification Marking

+Bearing the UL Recognized Component Mark

Last Updated on 2005-05-19

Questions? Notice of Disclaimer Page Top

Copyright © 2008 Underwriters Laboratories Inc.®

The appearance of a company's name or product in this database does not in itself assure that products so identified have been manufactured under UL's Follow-Up Service. Only those products bearing the UL Mark should be considered to be Listed and covered under UL's Follow-Up Service. Always look for the Mark on the product.

UL permits the reproduction of the material contained in the Online Certification Directory subject to the following conditions: 1. The Guide Information, Designs and/or Listings (files) must be presented in their entirety and in a non-misleading manner, without any manipulation of the data (or drawings). 2. The statement "Reprinted from the Online Certifications Directory with permission from Underwriters Laboratories Inc." must appear adjacent to the extracted material. In addition, the reprinted material must include a copyright notice in the following format: "Copyright © 2008 Underwriters Laboratories Inc.®"

An independent organization working for a safer world with integrity, precision and knowledge

UL DESIGN NO. W-L-8018

PLANS APPROVED
CONSTRUCTION
Building & Safety Dept.
City of Las Vegas, Nevada

MT SEP 02 2009

Not a Permit to Violate Any Ordinance

CRAIG D. SMITH
REGISTERED
No. 4967
6-2-09
ARCHITECT
STATE OF NEVADA

RNM

RNM DESIGN
ARCHITECTURE
PLANNING
LANDSCAPE
GRAPHICS
RNMDESIGN.COM

2 CORPORATE PARK
SUITE 100
IRVINE, CALIFORNIA
92606
T949.752.1800
F949.833.9603

PROJECT NAME/ADDRESS

CORONADO THE PASEOS
875 PANTARA PLACE
LAS VEGAS, NEVADA

CLIENT

SPINNAKER HOMES
4511 W. CHEYENNE AVE. ST 105
NO. LAS VEGAS, CA 89032
702-873-7773
702-873-7776 FAX

REVISIONS

THESE DRAWINGS AND IMAGES ARE NOT TO BE REPRODUCED OR COPIED IN ANY FORM WITHOUT WRITTEN PERMISSION. COPYRIGHT 2008 RNM DESIGN

DRAWING TITLE

PENETRATION ASSEMBLY REPORT

DRAWING INFORMATION

PROJ. NO: 08041
FIRST SUBMITTAL DATE: 02.24.2009
SCALE: N/A

DRAWING NUMBER

F3-4.2

DELTA 2 - PLAN CHECK CORRECTION

05.27.09

ONLINE CERTIFICATIONS DIRECTORY

XHEZ.F-C-1002
Through-penetration Firestop Systems

Page Bottom

Design/System/Construction/Assembly Usage Disclaimer

- Authorities Having Jurisdiction should be consulted in all cases as to the particular requirements covering the installation and use of UL Listed or Classified products, equipment, system, devices, and materials.
- Authorities Having Jurisdiction should be consulted before construction.
- Fire resistance assemblies and products are developed by the design submitter and have been investigated by UL for compliance with applicable requirements. The published information cannot always address every construction nuance encountered in the field.
- When field issues arise, it is recommended the first contact for assistance be the technical service staff provided by the product manufacturer noted for the design. Users of fire resistance assemblies are advised to consult the general Guide Information for each product category and each group of assemblies. The Guide Information includes specifics concerning alternate materials and alternate methods of construction.
- Only products which bear UL's Mark are considered as Classified, Listed, or Recognized.

Through-penetration Firestop Systems

See General Information for Through-penetration Firestop Systems

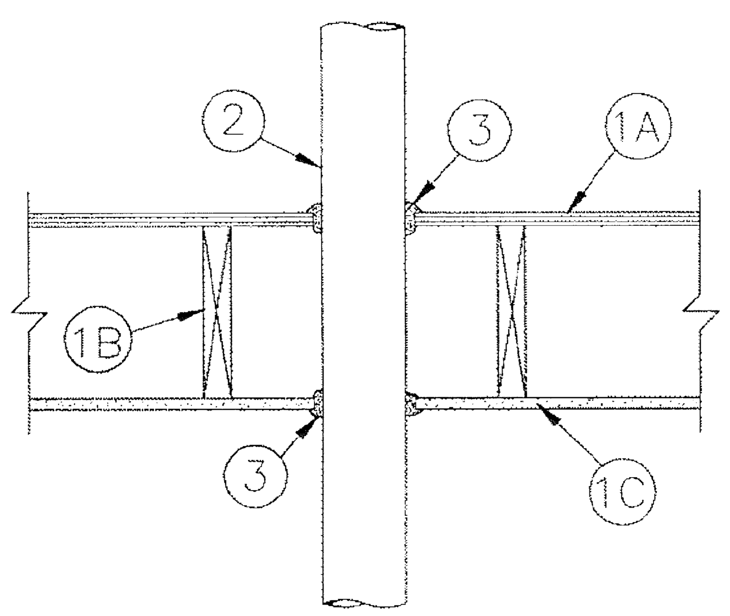
System No. F-C-1002

September 03, 2004

(Formerly System No. 169)

F Ratings — 1 and 2 Hr (See Item 1)

T Rating — 1 Hr



1. **Floor-Ceiling Assembly —** The 1 or 2 hr fire-rated wood joist floor-ceiling assembly shall be constructed of the materials and in the manner specified in the UL Fire Resistance Directory. The 1 hr fire rated assembly shall be constructed as specified in Design No. L501, L512 or L537. The 2 hr fire rated assembly shall be constructed as specified in Design No. L505, L511 or L536. **The F Rating of the firestop system is equal to the fire rating of the floor-ceiling assembly.** The general construction details of the floor-ceiling assembly are summarized below:

A. **Flooring System** — Lumber or plywood subfloor with finish floor of lumber, plywood or **Floor Topping Mixture*** as specified in the individual Floor-Ceiling Design. Max diam of opening is 1 in. larger than outside diam of penetrant.

B. **Wood Joists** — Nom 2 by 10 in. lumber joists spaced 16 in. O.C. with nom 1 by 3 in. lumber bridging and with ends firestopped.

C. **Furring Channels** — (Not Shown) — Resilient galv steel furring channels installed perpendicular to wood joists between first and second layers of wallboard (Item 1D) in 2 hr fire rated assembly. Furring channels spaced max 24 in. O.C.

D. **Gypsum Board*** — Nom 4 ft wide by 5/8 in. thick as specified in the individual Floor-Ceiling Design. First layer of wallboard nailed to wood joists. Second layer of wallboard (2 hr fire rated assembly only) screw-attached to furring channels. Max diam of opening is 1 in. larger than outside diam of penetrant.

1.1 **Chase Wall —** (Optional, not shown) — The through penetrants (Item No. 2) may be routed through a fire-rated single, double or staggered wood stud/gypsum wallboard chase wall having a fire rating consistent with that of the floor-ceiling assembly. The chase wall shall be constructed of the materials and in the manner specified in the individual U300 Series Wall and Partition Designs in the UL Fire Resistance Directory and shall include the following construction features:

A. **Studs —** Nom 2 by 6 in. or double nom 2 by 4 in. lumber studs.

B. **Sole Plate —** Nom 2 by 6 in. or parallel 2 by 4 in. lumber plates, tightly butted.

C. **Top Plate —** The double top plate shall consist of two nom 2 by 6 in. or two sets of parallel 2 by 4 in. lumber plates, tightly butted. Max diam of opening is 5 in.

D. **Gypsum Board* —** Thickness, type, number of layers and fasteners shall be as specified in individual Wall and Partition Design.

2. **Through Penetrants** — One metallic pipe, conduit or tubing to be installed either concentrically or eccentrically within the firestop system. The annular space between pipe, conduit or tubing and periphery of opening shall be min 0 in. (point contact) to max 1 in. Pipe, conduit or tubing to be rigidly supported on both sides of floor assembly. The following types and sized of metallic pipe, conduit or tubing may be used:

A. **Steel Pipe** — Nom 10 in. diam (or smaller) Schedule 40 (or heavier) steel pipe.

B. **Iron Pipe —** Nom 10 in. diam (or smaller) cast or ductlie iron pipe.

C. **Conduit —** Nom 6 in. diam (or smaller) steel conduit, or nom 4 in. (or smaller) steel electrical metallic tubing.

D. **Copper Tubing** — Nom 4 in. diam (or smaller) Type L (or heavier) copper tubing.

E. **Copper Pipe** — Nom 4 in. diam (or smaller) Regular (or heavier) copper pipe.

3. **Fill, Void or Cavity Material* — Caulk or Sealant** — Min 3/4 in. thickness of fill material applied within the annulus, flush with top surface of floor or sole plate. Min 5/8 in. or 1-1/4 in. thickness of fill material, for 1 and 2 hr rated assemblies, respectively, applied within the annulus, flush with bottom surface of ceiling or top plate. An additional min 1/4 in. crown of fill material applied to perimeter of penetrant at its egress from the top of flooring and underside of ceiling or from top of sole plate and underside of top plate.

3M COMPANY — CP 25WB+ or FB-3000 WT

*Bearing the UL Classification Mark

Last Updated on 2004-09-03

Questions? Notice of Disclaimer Page Top

Copyright © 2008 Underwriters Laboratories Inc.®

The appearance of a company's name or product in this database does not in itself assure that products so identified have been manufactured under UL's Follow-Up Service. Only those products bearing the UL Mark should be considered to be Listed and covered under UL's Follow-Up Service. Always look for the Mark on the product.

UL permits the reproduction of the material contained in the Online Certification Directory subject to the following conditions: 1. The Guide Information, Designs and/or Listings (files) must be presented in their entirety and in a non-misleading manner, without any manipulation of the data (or drawings). 2. The statement "Reprinted from the Online Certifications Directory with permission from Underwriters Laboratories Inc." must appear adjacent to the extracted material. In addition, the reprinted material must include a copyright notice in the following format: "Copyright © 2008 Underwriters Laboratories Inc.®"

An independent organization working for a safer world with integrity, precision and knowledge

UL DESIGN NO. F-C-1002

ONLINE CERTIFICATIONS DIRECTORY

XHEZ.F-C-1054
Through-penetration Firestop Systems

Page Bottom

Design/System/Construction/Assembly Usage Disclaimer

- Authorities Having Jurisdiction should be consulted in all cases as to the particular requirements covering the installation and use of UL Listed or Classified products, equipment, system, devices, and materials.
- Authorities Having Jurisdiction should be consulted before construction.
- Fire resistance assemblies and products are developed by the design submitter and have been investigated by UL for compliance with applicable requirements. The published information cannot always address every construction nuance encountered in the field.
- When field issues arise, it is recommended the first contact for assistance be the technical service staff provided by the product manufacturer noted for the design. Users of fire resistance assemblies are advised to consult the general Guide Information for each product category and each group of assemblies. The Guide Information includes specifics concerning alternate materials and alternate methods of construction.
- Only products which bear UL's Mark are considered as Classified, Listed, or Recognized.

Through-penetration Firestop Systems

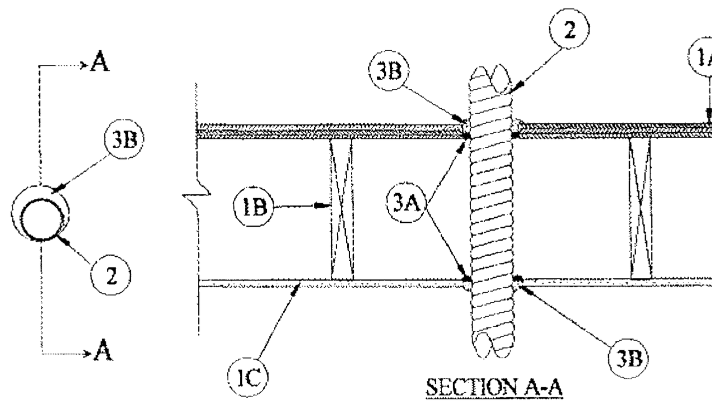
See General Information for Through-penetration Firestop Systems

System No. F-C-1054

August 12, 2008

F Rating — 1 Hr

T Rating — 3/4 Hr



1. **Floor-Ceiling Assembly —** The fire-rated wood joist floor-ceiling assembly shall be constructed of the materials and in the manner specified in the individual L500 Series Floor-Ceiling Designs in the UL Fire Resistance Directory, as summarized below:

A. **Flooring System** — Lumber or plywood subfloor with finish floor of lumber, plywood or **Floor Topping Mixture*** as specified in the individual Floor-Ceiling Design. Max diam of floor opening is 3-3/16 in.

B. **Wood Joists —** Nom 10 in. deep (or deeper) lumber, steel or combination lumber and steel joists, trusses or **Structural Wood Members* with bridging as required with ends firestopped.**

C. **Gypsum Board*** — Nom 4 ft wide by 5/8 in. thick as specified in the individual Floor-Ceiling Design. Wallboard nailed to wood joists. Max diam of ceiling opening is 3-3/16 in.

2. **Through Penetrating Products* — Flexible Metal Piping —** Nom 2 in. diam (or smaller) steel Flexible Metal Piping to be installed either concentrically or eccentrically within the firestop system. The space between pipe and periphery of opening shall be min 0 in. (point contact) to max 7/8 in. Pipe to be rigidly supported on both sides of floor assembly.

OMEGA FLEX INC

3. **Firestop System** — The firestop system shall consist of the following:

A. **Packing Material** — (Optional) — Foam backer rod firmly packed into opening as a permanent form. Packing material to be recessed from top surface of floor and bottom surface of the ceiling as required to accommodate the required thickness of fill material.

B. **Fill, Void or Cavity Material* — (Caulk)** — Min 1/2 in. thickness of fill material applied within the annulus, flush with top surface of the floor and bottom surface of the ceiling. Additional fill material to be installed such that a min 1/16 in. crown is formed around the penetrating item and lapping 3/8 in. beyond the periphery of the opening.

TREMCO INC — TREMstop Intumescent Acrylic, FyreCaulk or TREMstop IA+

*Bearing the UL Classification Mark

Last Updated on 2008-08-12

Questions? Notice of Disclaimer Page Top

Copyright © 2008 Underwriters Laboratories Inc.®

The appearance of a company's name or product in this database does not in itself assure that products so identified have been manufactured under UL's Follow-Up Service. Only those products bearing the UL Mark should be considered to be Listed and covered under UL's Follow-Up Service. Always look for the Mark on the product.

UL permits the reproduction of the material contained in the Online Certification Directory subject to the following conditions: 1. The Guide Information, Designs and/or Listings (files) must be presented in their entirety and in a non-misleading manner, without any manipulation of the data (or drawings). 2. The statement "Reprinted from the Online Certifications Directory with permission from Underwriters Laboratories Inc." must appear adjacent to the extracted material. In addition, the reprinted material must include a copyright notice in the following format: "Copyright © 2008 Underwriters Laboratories Inc.®"

An independent organization working for a safer world with integrity, precision and knowledge

UL DESIGN NO. F-C-1054

ONLINE CERTIFICATIONS DIRECTORY

XHEZ.F-C-2039
Through-penetration Firestop Systems

Page Bottom

Design/System/Construction/Assembly Usage Disclaimer

- Authorities Having Jurisdiction should be consulted in all cases as to the particular requirements covering the installation and use of UL Listed or Classified products, equipment, system, devices, and materials.
- Authorities Having Jurisdiction should be consulted before construction.
- Fire resistance assemblies and products are developed by the design submitter and have been investigated by UL for compliance with applicable requirements. The published information cannot always address every construction nuance encountered in the field.
- When field issues arise, it is recommended the first contact for assistance be the technical service staff provided by the product manufacturer noted for the design. Users of fire resistance assemblies are advised to consult the general Guide Information for each product category and each group of assemblies. The Guide Information includes specifics concerning alternate materials and alternate methods of construction.
- Only products which bear UL's Mark are considered as Classified, Listed, or Recognized.

Through-penetration Firestop Systems

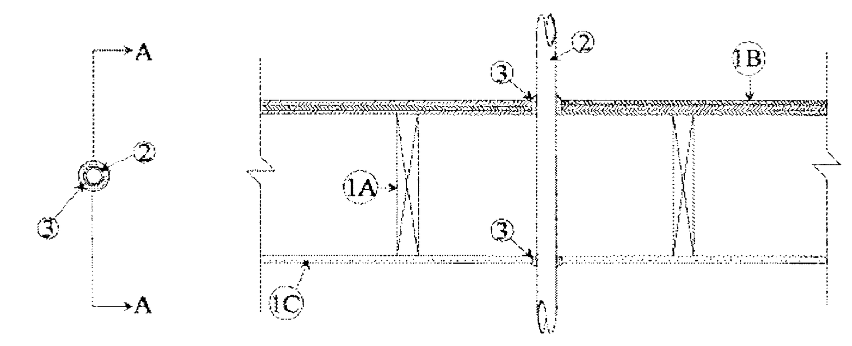
See General Information for Through-penetration Firestop Systems

System No. F-C-2039

May 18, 2005

F Rating — 1 Hr

T Ratings — 0 & 1 Hr (See Item 2)



SECTION A-A

1. **Floor Assembly —** The 1 hr fire rated wood truss or combination wood and steel truss Floor-Ceiling assembly shall be constructed of the materials and in the manner described in the individual L500 Series Design in the UL Fire Resistance Directory, as summarized below:

A. **Joists —** Nom 10 in. (254 mm) deep (or deeper) lumber, steel or combination lumber and steel joists, trusses or **Structural Wood Members*** with bridging as required and ends firestopped.

B. **Flooring System** — Lumber or plywood subfloor with finish floor of lumber, plywood or **Floor Topping Mixture*** as specified in the individual Floor-Ceiling Design. Diameter of opening shall be 5/8 in. (16 mm) larger than the outside diam of nonmetallic pipe or conduit (Item 2).

C. **Gypsum Board* —** Nom a 4 ft (122 cm) wide by 5/8 in. (16 mm) thick, screw-attached to furring channels. Diameter of opening shall be 5/8 in. (16 mm) larger than the outside diam of nonmetallic pipe or conduit (Item 2).

1.1 **Chase Wall** — (Optional, not shown) — The through penetrants (Item 2) may be routed through a 1 hr fire-rated single, double or staggered wood stud/gypsum board chase wall constructed of the materials and in the manner specified in the individual U300 Series Wall and Partition Designs in the UL Fire Resistance Directory and shall include the following construction features:

A. **Studs** — Nom 2 by 6 (51 by 152 mm) in. or double nom 2 by 4 in. (51 by 102 mm) lumber studs.

B. **Sole Plate** — Nom 2 by 6 in. (51 by 152 mm) or parallel 2 by 4 in. (51 by 102 mm) lumber plates, tightly butted.

C. **Top Plate —** The double top plate shall consist of two nom 2 by 6 in. (51 by 152 mm) or two sets of parallel 2 by 4 in. (51 by 102 mm) lumber plates, tightly butted. Diameter of opening shall be 5/8 in. (16 mm) larger than outside diam of nonmetallic pipe or conduit.

D. **Gypsum Board* —** Thickness, type, number of layers and fasteners shall be as specified in individual Wall and Partition Design.

2. **Through Penetrants —** One nonmetallic pipe, tubing or conduit to be installed concentrically or eccentrically within the firestop system. Annular space between pipe, tubing or conduit and edge of opening to be min 0 in. (0 mm) (point contact) and max 5/8 in. (16 mm) Pipe, tubing or conduit to be rigidly supported on both sides of floor-ceiling assembly. The following types and sizes of nonmetallic pipes, tubing or conduit may be used:

A. **Polyvinyl Chloride (PVC) Pipe —** Nom 1-1/2 in. (38 mm) diam (or smaller) Schedule 40 solid core PVC pipe for use in closed (process or supply) or vented (drain, waste or vent) piping system.

B. **Rigid Nonmetallic Conduit++ —** Nom 1-1/2 in. (38 mm) diam (or smaller) Schedule 40 solid core PVC conduit installed in accordance with Article 347 of the National Electrical Code (NFPA No. 70).

C. **Chlorinated Polyvinyl Chloride (CPVC) Pipe** — Nom 1-1/2 in. (38 mm) diam (or smaller) SDR13.5 CPVC pipe for use in closed (process or supply) piping systems.

D. **Cellular Core Polyvinyl Chloride (ccPVC) Pipe** — Nom 1-1/2 in. (38 mm) diam (or smaller) Schedule 40 cellular core PVC pipe for use in closed (process or supply) or vented (drain, waste or vent) piping system.

E. **Acrylonitrile Butadiene Styrene (ABS) Pipe** — Nom 1-1/2 in. (38 mm) diam (or smaller) Schedule 40 solid core ABS pipe for use in closed (process or supply) or vented (drain, waste or vent) piping system.

F. **Cellular Core Acrylonitrile Butadiene Styrene (ccABS) Pipe** — Nom 1-1/2 in. (38 mm) diam (or smaller) Schedule 40 cellular core ABS pipe for use in closed (process or supply) or vented (drain, waste or vent) piping system.

G. **Crosslink Polythylene (PEX) Tube** — Nom 1 in. (25 mm) diam (or smaller) SDR 9 PEX tube for use in closed (process or supply) piping system.

H. **Electrical Nonmetallic (ENT) Tubing+ —** Nom 1-1/4 in. (32 mm) diam (or smaller) corrugated wall electrical nonmetallic tubing constructed of polyvinyl chloride. ENT to be installed as a complete system with all terminations in junction boxes, outlet boxes or other approved enclosures as specified in the National Electrical Code.

The hourly T Rating is 1 Hr when pipes/conduits A, B, C , G or H are used. The hourly T Rating is 0 Hr when pipes D, E or F are used.

3. **Fill, Void or Cavity Materials* — Caulk, Sealant or Putty —** Min 3/4 in. (19 mm) thickness of fill material applied within the annulus, flush with top surface of floor or sole plate. Min 5/8 in. (16 mm) thickness of fill material applied within the annulus, flush with bottom surface of ceiling or top plate. An additional min 1/4 in. (6 mm) crown of fill material applied to perimeter of penetrant at its egress from the top of flooring and underside of ceiling or from top of sole plate and underside of top plate.

3M COMPANY — CP 25WB+ caulk, MP+ Stix putty, IC 15WB+ caulk, or FB-3000 WT sealant. (Note: CP 25WB+ not suitable for use with CPVC pipes.)

*Bearing the UL Classification Marking

++Bearing the UL Listing Mark

Last Updated on 2005-05-18

Questions? Notice of Disclaimer Page Top

Copyright © 2008 Underwriters Laboratories Inc.®

The appearance of a company's name or product in this database does not in itself assure that products so identified have been manufactured under UL's Follow-Up Service. Only those products bearing the UL Mark should be considered to be Listed and covered under UL's Follow-Up Service. Always look for the Mark on the product.

UL permits the reproduction of the material contained in the Online Certification Directory subject to the following conditions: 1. The Guide Information, Designs and/or Listings (files) must be presented in their entirety and in a non-misleading manner, without any manipulation of the data (or drawings). 2. The statement "Reprinted from the Online Certifications Directory with permission from Underwriters Laboratories Inc." must appear adjacent to the extracted material. In addition, the reprinted material must include a copyright notice in the following format: "Copyright © 2008 Underwriters Laboratories Inc.®"

An independent organization working for a safer world with integrity, precision and knowledge

UL DESIGN NO. F-C-2039

ONLINE CERTIFICATIONS DIRECTORY

XHEZ.F-C-2141
Through-penetration Firestop Systems

Page Bottom

Design/System/Construction/Assembly Usage Disclaimer

- Authorities Having Jurisdiction should be consulted in all cases as to the particular requirements covering the installation and use of UL Listed or Classified products, equipment, system, devices, and materials.
- Authorities Having Jurisdiction should be consulted before construction.
- Fire resistance assemblies and products are developed by the design submitter and have been investigated by UL for compliance with applicable requirements. The published information cannot always address every construction nuance encountered in the field.
- When field issues arise, it is recommended the first contact for assistance be the technical service staff provided by the product manufacturer noted for the design. Users of fire resistance assemblies are advised to consult the general Guide Information for each product category and each group of assemblies. The Guide Information includes specifics concerning alternate materials and alternate methods of construction.
- Only products which bear UL's Mark are considered as Classified, Listed, or Recognized.

Through-penetration Firestop Systems

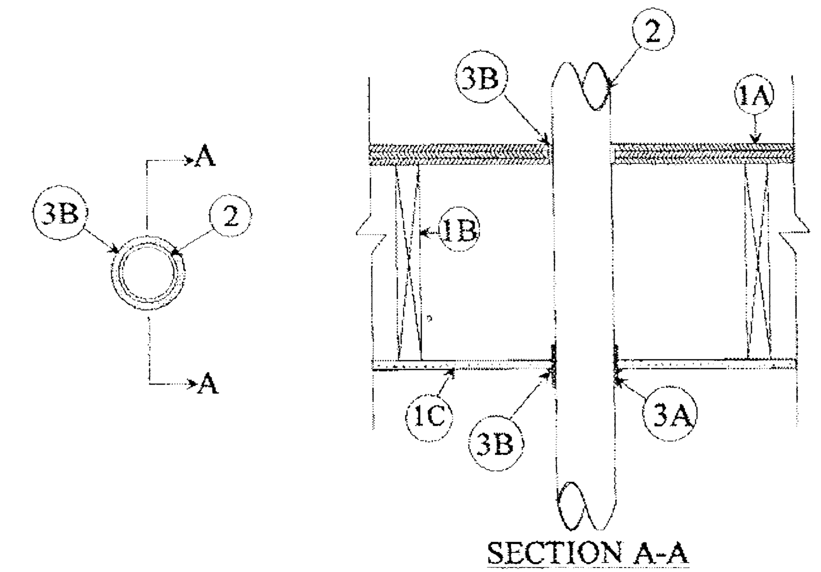
See General Information for Through-penetration Firestop Systems

System No. F-C-2141

May 20, 2005

F Rating — 1 Hr

T Rating — 1 Hr



1. **Floor-Ceiling Assembly —** The fire-rated solid or trussed lumber joist floor-ceiling assembly shall be constructed of the materials and in the manner specified in the individual L500 Series Floor-Ceiling Designs in the UL Fire Resistance Directory, as summarized below:

A. **Flooring System** — Lumber or plywood subfloor with finish floor of lumber, plywood or **Floor Topping Mixture*** as specified in the individual Floor-Ceiling Design. Diam of opening shall be 3/4 in. (19 mm) larger than the nom diam of penetrant (Item 2).

B. **Joists** — Nom 10 in. (254 mm) deep (or deeper) lumber, steel or combination lumber and steel joists, trusses or **Structural Wood Members*** with bridging as required and with ends firestopped.

C. **Gypsum Board*** — Nom 4 ft (122 cm) wide by 5/8 in. (16 mm) thick as specified in the individual Floor-Ceiling Design. Gypsum board nailed to wood joists. Diam of opening shall be 3/4 in. (19 mm) larger than the nom diam of penetrant (Item 2).

1.1 **Chase Wall** — (Optional, Not Shown) — The through penetrants (Item No. 2) may be routed through a fire-rated single, double or staggered wood stud/gypsum wallboard chase wall constructed of the materials and in the manner specified in the individual U300 Series Wall and Partition Designs in the UL Fire Resistance Directory and shall include the following construction features:

A. **Studs —** Nom 2 by 6 in. (51 by 152 mm) or double nom 2 by 4 in. (51 by 102 mm) lumber studs.

B. **Sole Plate —** Nom 2 by 6 in. (51 by 152 mm) or parallel 2 by 4 in. (51 by 102 mm) lumber plates, tightly butted. Diam of opening shall be 3/4 in. (19 mm) larger than the nom diam of penetrant (Item 2).

C. **Top Plate** — The double top plate shall consist of two nom 2 by 6 in. (51 by 152 mm) or two sets of parallel 2 by 4 in. (51 by 102 mm) lumber plates, tightly butted. Diam of opening shall be 3/4 in. (19 mm) larger than the nom diam of penetrant (Item 2).

D. **Gypsum Board* —** Thickness, type, number of layers and fasteners shall be as specified in individual Wall and Partition Design.

2. **Through Penetrants —** One nonmetallic pipe or conduit to be installed either concentrically or eccentrically within the firestop system. Pipe or conduit to be rigidly supported on both sides of floor assembly. The annular space between pipe, conduit or tubing and periphery of opening shall be min of 1/8 in. (3.2 mm) to max 1/4 in. (6 mm) The following types and sizes of nonmetallic pipes or conduits may be used:

A. **Polyvinyl Chloride (PVC) Pipe** — Nom 2 in. (51 mm) diam (or smaller) Schedule 40 solid core or cellular core PVC pipe for use in closed (process or supply) or vented (drain, waste or vent) piping system.

B. **Acrylonitrile Butadiene Styrene (ABS) Pipe** — Nom 2 in. (51 mm) diam (or smaller) Schedule 40 solid core or cellular core ABS pipe for use in closed (process or supply) or vented (drain, waste or vent) piping system.

C. **Rigid Nonmetallic Conduit++** — Nom 2 in. (51 mm) diam (or smaller) Schedule 40 PVC conduit installed in accordance with the National Electrical Code (NFPA No. 70).

D. **Chlorinated Polyvinyl Chloride (CPVC) Pipe** — Nom 2 in. (51 mm) diam (or smaller) SDR13.5 CPVC pipe for use in closed (process or supply) piping systems.

3. **Firestop System** — The details of the firestop system shall be as follows:

A. **Fill, Void or Cavity Materials* — Wrap Strip —** Nom 1/8 in. (3.2 mm) thick intumescent material supplied in 2 in. (51 mm) wide strips. One wrap strip tightly wrapped around perimeter of penetrant and held in position using 2 in. (51 mm) wide, 3 mil thick aluminum tape wrapped completely around wrap strip. Wrap strip recessed into opening such that 1/2 to 3/4 in. (13 to 19 mm) extends below the bottom surface of the gypsum wallboard ceiling or top plate when optional chase wall is used.

3M COMPANY — Ultra GS

B. **Fill, Void or Cavity Materials* — Caulk or Sealant —** Min 5/8 in. (16 mm) thickness of caulk applied within annular space between wrap strip and periphery of opening flush with bottom surface of ceiling or top plate. Min 1/4 in. (6 mm) crown of caulk applied around the perimeter of the wrap strip at its interface with the gypsum board ceiling or top plate. Min 3/4 in. (19 mm) thickness of caulk applied to completely fill annular space, flush with top surface of floor.

3M COMPANY — CP 25WB+ or FB-3000 WT (Note: CP 25WB+ not suitable for use with CPVC pipes.)

++Bearing the UL Listing Mark

*Bearing the UL Classification Mark

Last Updated on 2005-05-20

Questions? Notice of Disclaimer Page Top

Copyright © 2008 Underwriters Laboratories Inc.®

The appearance of a company's name or product in this database does not in itself assure that products so identified have been manufactured under UL's Follow-Up Service. Only those products bearing the UL Mark should be considered to be Listed and covered under UL's Follow-Up Service. Always look for the Mark on the product.

UL permits the reproduction of the material contained in the Online Certification Directory subject to the following conditions: 1. The Guide Information, Designs and/or Listings (files) must be presented in their entirety and in a non-misleading manner, without any manipulation of the data (or drawings). 2. The statement "Reprinted from the Online Certifications Directory with permission from Underwriters Laboratories Inc." must appear adjacent to the extracted material. In addition, the reprinted material must include a copyright notice in the following format: "Copyright © 2008 Underwriters Laboratories Inc.®"

An independent organization working for a safer world with integrity, precision and knowledge

UL DESIGN NO. F-C-2141

JUN 01 2009

PLANS APPROVED
CONSTRUCTION
Building & Safety Dept.
City of Las Vegas, Nevada

MT SEP 0 2 2009

Not a Permit to Violate Any Ordinance

CRAIG D. SMITH
REGISTERED
No. 4967
6-2-09
ARCHITECT
STATE OF NEVADA

RNM

RNM DESIGN
ARCHITECTURE
PLANNING
LANDSCAPE
GRAPHICS
RNMDESIGN.COM

2 CORPORATE PARK
SUITE 100
IRVINE, CALIFORNIA
92606
T949.752.1800
F949.833.9603

PROJECT NAME/ADDRESS

CORONADO THE PASEOS
875 PANTARA PLACE
LAS VEGAS, NEVADA

CLIENT

SPINNAKER HOMES
4511 W. CHEYENNE AVE. ST 105
NO. LAS VEGAS, CA 89032
702-873-7773
702-873-7776 FAX

REVISIONS

THESE DRAWINGS AND IMAGES ARE NOT TO BE REPRODUCED OR COPIED IN ANY FORM WITHOUT WRITTEN PERMISSION. COPYRIGHT 2008 RNM DESIGN

DRAWING TITLE

PENETRATION ASSEMBLY REPORT

DRAWING INFORMATION

PROJ. NO: 08041
FIRST SUBMITTAL DATE: 02.24.2009
SCALE: N/A

DELTA 2 - PLAN CHECK CORRECTION 05.27.09

DRAWING NUMBER

F3-5.1

ONLINE CERTIFICATIONS DIRECTORY

XHEZ.F-C-2203
Through-penetration Firestop Systems

Page Bottom

Design/System/Construction/Assembly Usage Disclaimer

- Authorities Having Jurisdiction should be consulted in all cases as to the particular requirements covering the installation and use of UL Listed or Classified products, equipment, system, devices, and materials.
- Authorities Having Jurisdiction should be consulted before construction.
- Fire resistance assemblies and products are developed by the design submitter and have been investigated by UL for compliance with applicable requirements. The published information cannot always address every construction nuance encountered in the field.
- When field issues arise, it is recommended the first contact for assistance be the technical service staff provided by the product manufacturer noted for the design. Users of fire resistance assemblies are advised to consult the general Guide Information for each product category and each group of assemblies. The Guide Information includes specifics concerning alternate materials and alternate methods of construction.
- Only products which bear UL's Mark are considered as Classified, Listed, or Recognized.

Through-penetration Firestop Systems

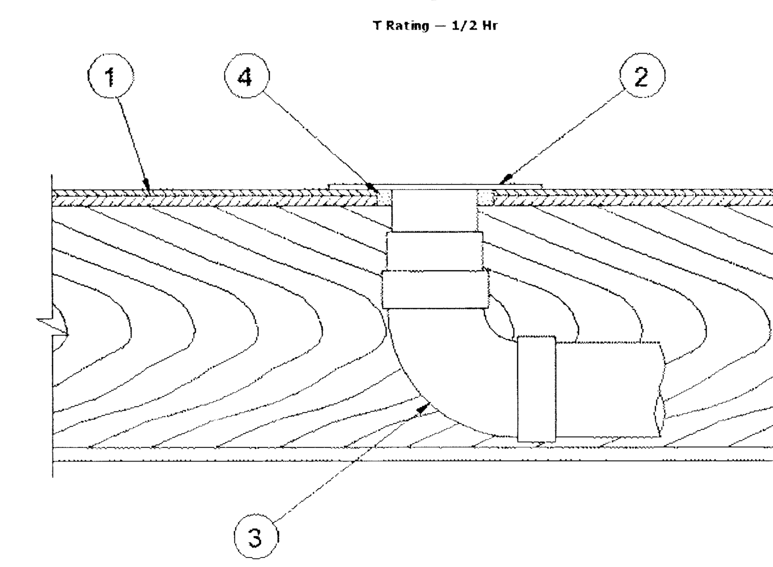
See General Information for Through-penetration Firestop Systems

System No. F-C-2203

February 19, 2002

F Rating — 1 Hr

T Rating — 1/2 Hr



1. **Floor-Ceiling Assembly** — The 1 hr fire-rated solid or trussed lumber joist floor-ceiling assembly shall be constructed of the materials and in the manner specified in the individual L500 Series Floor-Ceiling Designs in the UL Fire Resistance Directory. The general construction features of the floor-ceiling assembly are summarized below:

   A. **Flooring System** — Lumber or plywood subfloor with finish floor of lumber, plywood or **Floor Topping Mixture*** as specified in the individual Floor-Ceiling Design. Max diam of opening shall be 5 in.

   B. **Wood Joist*** — Nom 10 in. deep (or deeper) lumber, steel or combination lumber and steel joists, trusses or **Structural Wood Members*** with bridging as required and with ends firestopped.

   C. **Gypsum Board*** — Nom 5/8 in. thick, 4 ft wide as specified in the individual Floor-Ceiling Design.

2. **Closet Flange** — Acrylonitrile butadiene styrene (ABS) or polyvinyl chloride (PVC) closet stub sized to accommodate drain pipe. Closet flange installed over drain piping within floor opening with flange secured to plywood floor with steel screws. Diam of circular opening through flooring (Item 1A) to be max ½ in. larger than outside diam of closet flange.

3. **Drain Piping** — Nom 4 in. diam (or smaller) Schedule 40 acrylonitrile butadiene styrene (ABS) or polyvinyl chloride (PVC) drain pipe and 90 degree elbow for use in vented (drain, waste or vent) piping systems. Pipe installed concentrically within firestop system.

4. **Fill, Void or Cavity Materials*—Sealant** — Min 3/4 in. thickness of fill material applied within the annulus, flush with the bottom surface of floor.

HILTI CONSTRUCTION CHEMICALS, DIV OF

HILTI INC — FS-ONE Sealant

5. **Water Closet** — (Not Shown)—Floor mounted vitreous china water closet.

*Bearing the UL Classification Mark

Last Updated on 2002-02-19

Questions? Notice of Disclaimer Page Top

Copyright © 2008 Underwriters Laboratories Inc.®

The appearance of a company's name or product in this database does not in itself assure that products so identified have been manufactured under UL's Follow-Up Service. Only those products bearing the UL Mark should be considered to be Listed and covered under UL's Follow-Up Service. Always look for the Mark on the product.

UL permits the reproduction of the material contained in the Online Certification Directory subject to the following conditions: 1. The Guide Information, Designs and/or Listings (files) must be presented in their entirety and in a non-misleading manner, without any manipulation of the data (or drawings). 2. The statement "Reprinted from the Online Certifications Directory with permission from Underwriters Laboratories Inc." must appear adjacent to the extracted material. In addition, the reprinted material must include a copyright notice in the following format: "Copyright © 2008 Underwriters Laboratories Inc.®"

An independent organization working for a safer world with integrity, precision and knowledge

UL DESIGN NO. F-C-2203

ONLINE CERTIFICATIONS DIRECTORY

XHEZ.F-C-2204
Through-penetration Firestop Systems

Page Bottom

Design/System/Construction/Assembly Usage Disclaimer

- Authorities Having Jurisdiction should be consulted in all cases as to the particular requirements covering the installation and use of UL Listed or Classified products, equipment, system, devices, and materials.
- Authorities Having Jurisdiction should be consulted before construction.
- Fire resistance assemblies and products are developed by the design submitter and have been investigated by UL for compliance with applicable requirements. The published information cannot always address every construction nuance encountered in the field.
- When field issues arise, it is recommended the first contact for assistance be the technical service staff provided by the product manufacturer noted for the design. Users of fire resistance assemblies are advised to consult the general Guide Information for each product category and each group of assemblies. The Guide Information includes specifics concerning alternate materials and alternate methods of construction.
- Only products which bear UL's Mark are considered as Classified, Listed, or Recognized.

Through-penetration Firestop Systems

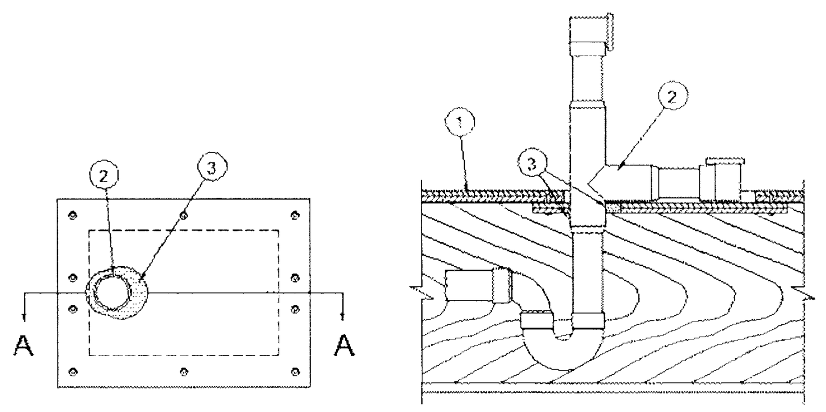
See General Information for Through-penetration Firestop Systems

System No. F-C-2204

December 07, 2001

F Rating — 1 Hr

T Rating — 1/2 Hr



SECTION A-A

1. **Floor — Ceiling Assembly** — The 1 hr fire-rated solid or trussed lumber joist floor-ceiling assembly shall be constructed of the materials and in the manner specified in the individual L500 Series Floor-Ceiling Designs in theUL Fire Resistance Directory. The general construction features of the floor-ceiling assembly are summarized below:

   A. **Flooring System** — Lumber or plywood subfloor with finish floor of lumber, plywood or **Floor Topping Mixture*** as specified in the individual Floor-Ceiling Design. Rectangular cutout in flooring to accommodate the bathtub drain piping (Item 2) to be max 8 in. by 12 in. Cutout to be patched on underside of subfloor using one layer of min 3/4 in. thick plywood or min 5/8 in. thick gypsum board (Item 1C) sized to lap min 2 in. beyond each edge of rectangular cutout. Patch split into two pieces at opening and hole-sawed for bathtub drain piping. Diam of opening hole sawed through patch to accommodate drain piping (Item 2) to be 1 in. larger than outside diam of drain piping and positioned such that the annular space between drain piping and periphery of opening is min 0 in. (point contact) to max 1 in. Two pieces positioned around drain piping, with cut edges tightly butted, and screw-attached to underside of subfloor with 1-1/4 in. long steel screws spaced max 6 in. OC.

   B. **Wood Joists*** — Nom 10 in. deep (or deeper) lumber, steel or combination lumber and steel joists, trusses or **Structural Wood Members*** with bridging as required and with ends firestopped.

   C. **Gypsum Board*** — Nom 5/8 in. thick, 4 ft wide as specified in the individual Floor-Ceiling Design.

2. **Drain Piping** — Nom 1-1/2 in. (or smaller) diam Schedule 40 acrylonitrile butadiene styrene (ABS) or polyvinyl chloride (PVC) pipe and drain fittings cemented together and provided with ABS or PVC bathtub waste/overflow fittings. Annular space shall be min 0 in. (point contact) to max 1 in.

3. **Fill Void or Cavity Materials*** — Min 5/8 in. depth or fill material applied within the annulus, flush with both surfaces of plywood or gypsum board patch.

HILTI CONSTRUCTION CHEMICALS, DIV OF

HILTI INC — FS-ONE Sealant

*Bearing the UL Classification Mark

Last Updated on 2001-12-07

Questions? Notice of Disclaimer Page Top

Copyright © 2008 Underwriters Laboratories Inc.®

The appearance of a company's name or product in this database does not in itself assure that products so identified have been manufactured under UL's Follow-Up Service. Only those products bearing the UL Mark should be considered to be Listed and covered under UL's Follow-Up Service. Always look for the Mark on the product.

UL permits the reproduction of the material contained in the Online Certification Directory subject to the following conditions: 1. The Guide Information, Designs and/or Listings (files) must be presented in their entirety and in a non-misleading manner, without any manipulation of the data (or drawings). 2. The statement "Reprinted from the Online Certifications Directory with permission from Underwriters Laboratories Inc." must appear adjacent to the extracted material. In addition, the reprinted material must include a copyright notice in the following format: "Copyright © 2008 Underwriters Laboratories Inc.®"

An independent organization working for a safer world with integrity, precision and knowledge

UL DESIGN NO. F-C-2204

ONLINE CERTIFICATIONS DIRECTORY

XHEZ.F-C-7013
Through-penetration Firestop Systems

Page Bottom

Design/System/Construction/Assembly Usage Disclaimer

- Authorities Having Jurisdiction should be consulted in all cases as to the particular requirements covering the installation and use of UL Listed or Classified products, equipment, system, devices, and materials.
- Authorities Having Jurisdiction should be consulted before construction.
- Fire resistance assemblies and products are developed by the design submitter and have been investigated by UL for compliance with applicable requirements. The published information cannot always address every construction nuance encountered in the field.
- When field issues arise, it is recommended the first contact for assistance be the technical service staff provided by the product manufacturer noted for the design. Users of fire resistance assemblies are advised to consult the general Guide Information for each product category and each group of assemblies. The Guide Information includes specifics concerning alternate materials and alternate methods of construction.
- Only products which bear UL's Mark are considered as Classified, Listed, or Recognized.

Through-penetration Firestop Systems

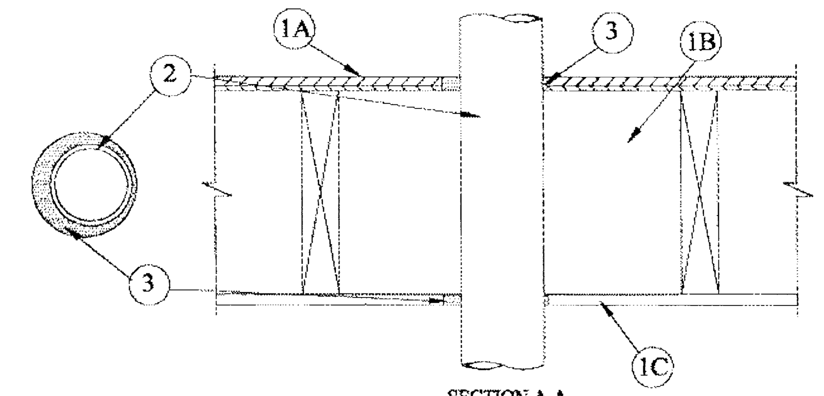
See General Information for Through-penetration Firestop Systems

System No. F-C-7013

May 23, 2008

F Rating — 1 Hr

T Rating — 0 Hr



SECTION A-A

1. **Floor-Ceiling Assembly** — The 1 hr fire-rated solid or trussed lumber joist floor-ceiling assembly shall be constructed of the materials and in the manner specified in the individual L500 Series Floor-Ceiling Designs in the UL Fire Resistance Directory. The general construction features of the floor-ceiling assembly are summarized below:

   A. **Flooring System** — Lumber or plywood subfloor with finish floor of lumber, plywood or **Floor Topping Mixture*** as specified in the individual Floor-Ceiling Design. Max diam of opening shall be 5-1/4 in. (133 mm).

   B. **Wood Joist*** — Nom 10 in. (254 mm) deep (or deeper) lumber, steel or combination lumber and steel joists, trusses or **Structural Wood Members*** with bridging as required and with ends firestopped.

   C. **Gypsum Board*** — Nom 4 ft (1.2 m) wide by 5/8 in. (16 mm) thick as specified in the individual Floor-Ceiling Design. Max diam of opening shall be 5-1/4 in. (133 mm).

1.1 **Chase Wall** — (Not shown, Optional) The through penetrants (Item 2) may be routed through a 1 hr fire-rated single, double or staggered wood stud/gypsum wallboard chase wall having a fire rating consistent with that of the floor-ceiling assembly. The chase wall shall be constructed of the materials and in the manner specified in the individual U300 Series Wall and Partition Designs in the UL Fire Resistance Directory and shall include the following construction features:

   A. **Studs** — Nom 2 by 6 in. (51 by 152 mm) lumber or double nom 2 by 4 in. (51 by 102 mm) lumber studs.

   B. **Sole Plate** — Nom 2 by 6 in. (51 by 152 mm) lumber or parallel 2 by 4 in. (51 by 102 mm) lumber plates, tightly butted. Max diam of opening shall be 5-1/4 in.

   C. **Top Plate** — The double top plate shall consist of two nom 2 by 6 in. (51 by 152 mm) lumber plates or two sets of nom 2 by 4 in. (51 by 102 mm) lumber plates tightly butted. Max diam of opening is 5-1/4 in. (133 mm).

   D. **Gypsum Board*** — Thickness, type, number of layers and fasteners shall be as specified in individual Wall and Partition Design.

2. **Steel Duct** — Nom 4 in. (102 mm) diam (or smaller) No. 28 gauge (or heavier) steel duct to be installed either concentrically or eccentrically within the firestop system. The annular space between duct and periphery of opening shall be min of 1/4 in. to max 3/4 in. Steel duct to be rigidly supported on both sides of floor-ceiling assembly.

3. **Fill, Void or Cavity Materials*-Sealant** — Min 3/4 in. (19 mm) thickness of sealant applied within the annular space, flush with top surface of floor or sole plate. Min 5/8 in. (16 mm) thickness of sealant applied within annular space, flush with bottom surface of gypsum board or lower top plate.

HILTI CONSTRUCTION CHEMICALS, DIV OF

HILTI INC — FS-ONE Sealant

*Bearing the UL Classification Mark

Last Updated on 2008-05-23

Questions? Notice of Disclaimer Page Top

Copyright © 2008 Underwriters Laboratories Inc.®

The appearance of a company's name or product in this database does not in itself assure that products so identified have been manufactured under UL's Follow-Up Service. Only those products bearing the UL Mark should be considered to be Listed and covered under UL's Follow-Up Service. Always look for the Mark on the product.

UL permits the reproduction of the material contained in the Online Certification Directory subject to the following conditions: 1. The Guide Information, Designs and/or Listings (files) must be presented in their entirety and in a non-misleading manner, without any manipulation of the data (or drawings). 2. The statement "Reprinted from the Online Certifications Directory with permission from Underwriters Laboratories Inc." must appear adjacent to the extracted material. In addition, the reprinted material must include a copyright notice in the following format: "Copyright © 2008 Underwriters Laboratories Inc.®"

An independent organization working for a safer world with integrity, precision and knowledge

UL DESIGN NO. F-C-7013

ONLINE CERTIFICATIONS DIRECTORY

XHEZ.F-C-7022
Through-penetration Firestop Systems

Page Bottom

Design/System/Construction/Assembly Usage Disclaimer

- Authorities Having Jurisdiction should be consulted in all cases as to the particular requirements covering the installation and use of UL Listed or Classified products, equipment, system, devices, and materials.
- Authorities Having Jurisdiction should be consulted before construction.
- Fire resistance assemblies and products are developed by the design submitter and have been investigated by UL for compliance with applicable requirements. The published information cannot always address every construction nuance encountered in the field.
- When field issues arise, it is recommended the first contact for assistance be the technical service staff provided by the product manufacturer noted for the design. Users of fire resistance assemblies are advised to consult the general Guide Information for each product category and each group of assemblies. The Guide Information includes specifics concerning alternate materials and alternate methods of construction.
- Only products which bear UL's Mark are considered as Classified, Listed, or Recognized.

Through-penetration Firestop Systems

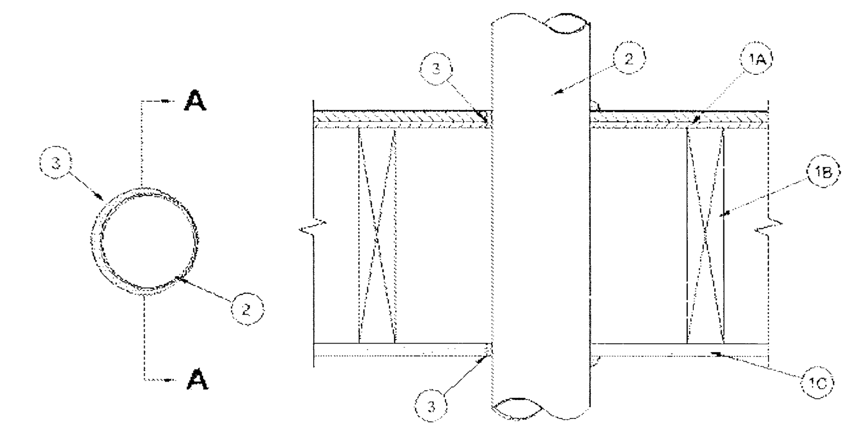
See General Information for Through-penetration Firestop Systems

System No. F-C-7022

May 19, 2005

F Rating — 1 Hr

T Rating — 1/4 Hr



Section A-A

1. **Floor-Ceiling Assembly** — The 1 hr fire-rated solid or trussed lumber joist floor-ceiling assembly shall be constructed of the materials and in the manner specified in the individual L500 Series Floor-Ceiling Designs in the UL Fire Resistance Directory. The general construction details of the floor-ceiling assembly are summarized below:

   A. **Flooring System** — Lumber or plywood subfloor with finish floor of lumber, plywood or **Floor Topping Mixture*** as specified in the individual Floor-Ceiling Design. Max diam of opening is 11 in. (279 mm).

   B. **Wood Joists** — Nom 10 in. (254 mm) deep (or deeper) lumber, steel or combination lumber and steel joists, trusses or **Structural Wood Members*** with bridging as required and with ends firestopped.

   C. **Gypsum Board*** — Nom 4 ft (122 cm) wide by 5/8 in. (16 mm) thick as specified in the individual Floor-Ceiling Design. Max diam of opening is 11 in. (279 mm).

2. **Steel Duct** — Nom 10 in. (254 mm) (or smaller) No. 28 gauge (or heavier) steel duct or nom 5 in. (127 mm) (or smaller) No. 30 gauge (or heavier) steel duct to be installed either concentrically or eccentrically within opening. The annular space between duct and periphery of opening shall be min 0 in. (0 mm point contact) to max 1 in. (25 mm). Duct to be rigidly supported on both sides of floor assembly.

3. **Fill, Void or Cavity Materials* - Caulk or Sealant** — Min 3/4 in. (19 mm) thickness of caulk applied within annulus, flush with top surface of floor. Min 5/8 in. (16 mm) thickness of caulk applied within annulus, flush with bottom surface of ceiling. Min 1/4 in. (6 mm) diam bead of caulk applied at point contact locations at duct/floor interface on top surface of floor and at duct/ceiling interface.

3M COMPANY — IC 15WB+, CP 25WB+ caulk or FB-3000 WT sealant

*Bearing the UL Classification Mark

Last Updated on 2005-05-19

Questions? Notice of Disclaimer Page Top

Copyright © 2008 Underwriters Laboratories Inc.®

The appearance of a company's name or product in this database does not in itself assure that products so identified have been manufactured under UL's Follow-Up Service. Only those products bearing the UL Mark should be considered to be Listed and covered under UL's Follow-Up Service. Always look for the Mark on the product.

UL permits the reproducton of the material contained in the Online Certification Directory subject to the following conditions: 1. The Guide Information, Designs and/or Listings (files) must be presented in their entirety and in a non-misleading manner, without any manipulation of the data (or drawings). 2. The statement "Reprinted from the Online Certifications Directory with permission from Underwriters Laboratories Inc." must appear adjacent to the extracted material. In addition, the reprinted material must include a copyright notice in the following format: "Copyright © 2008 Underwriters Laboratories Inc.®"

An independent organization working for a safer world with integrity, precision and knowledge

PLANS APPROVED
CONSTRUCTION
Building & Safety Dept.
City of ... Nevada
MT SEP 0 2 2009
Does ... Plumbing, ... Off-Site Improvements Make No Change ... Approval Plan is Not a Permit to Violate Any Ordinance

UL DESIGN NO. F-C-7022

CRAIG D. SMITH REGISTERED ARCHITECT No. 4967 6-2-09 STATE OF NEVADA

RNM

RNM DESIGN
ARCHITECTURE
PLANNING
LANDSCAPE
GRAPHICS
RNMDESIGN.COM

2 CORPORATE PARK
SUITE 100
IRVINE, CALIFORNIA
92606
T949.752.1800
F949.833.9603

PROJECT NAME/ADDRESS

CORONADO THE PASEOS
875 PANTARA PLACE
LAS VEGAS, NEVADA

CLIENT

SPINNAKER HOMES
4511 W. CHEYENNE AVE. ST 105
NO. LAS VEGAS, CA 89032
702-873-7773
702-873-7776 FAX

REVISIONS

THESE DRAWINGS AND IMAGES ARE NOT TO BE REPRODUCED OR COPIED IN ANY FORM WITHOUT WRITTEN PERMISSION. COPYRIGHT 2008 RNM DESIGN

DRAWING TITLE

PENETRATION ASSEMBLY REPORT

DRAWING INFORMATION

PROJ. NO:	08041
FIRST SUBMITTAL DATE:	02.24.2009
SCALE:	N/A

DELTA 2 - PLAN CHECK CORRECTION

DRAWING NUMBER

F3-5.2

05.27.09

ONLINE CERTIFICATIONS DIRECTORY

XHEZ.F-C-8024
Through-penetration Firestop Systems

Page Bottom

Design/System/Construction/Assembly Usage Disclaimer

- Authorities Having Jurisdiction should be consulted in all cases as to the particular requirements covering the installation and use of UL Listed or Classified products, equipment, system, devices, and materials.
- Authorities Having Jurisdiction should be consulted before construction.
- Fire resistance assemblies and products are developed by the design submitter and have been investigated by UL for compliance with applicable requirements. The published information cannot always address every construction nuance encountered in the field.
- When field issues arise, it is recommended the first contact for assistance be the technical service staff provided by the product manufacturer noted for the design. Users of fire resistance assemblies are advised to consult the general Guide Information for each product category and each group of assemblies. The Guide Information includes specifics concerning alternate materials and alternate methods of construction.
- Only products which bear UL's Mark are considered as Classified, Listed, or Recognized.

Through-penetration Firestop Systems

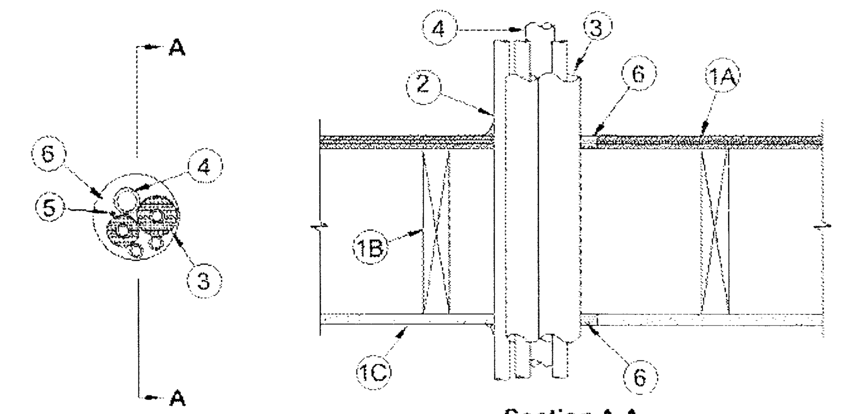
See General Information for Through-penetration Firestop Systems

System No. F-C-8024

May 19, 2005

F Rating — 1 Hr

T Rating — 1/4 Hr



Section A-A

1. **Floor-Ceiling Assembly** — The 1 hr fire-rated solid or trussed lumber joist floor-ceiling assembly shall be constructed of the materials and in the manner specified in the individual L500 Series Floor-Ceiling Designs in the UL Fire Resistance Directory. The general construction details of the floor-ceiling assembly are summarized below:

A. **Flooring System** — Lumber or plywood subfloor with finish floor of lumber, plywood or Floor Topping Mixture* as specified in the individual Floor-Ceiling Design. Max diam of opening is 5 in. (127 mm).

B. **Wood Joists** — Nom 10 in. (254 mm) deep (or deeper) lumber, steel or combination lumber and steel joists, trusses or Structural Wood Members* with bridging as required and with ends firestopped.

C. **Gypsum Board*** — Nom 4 ft (1219 mm) wide by 5/8 in. (16 mm) thick as specified in the individual Floor-Ceiling Design. Max diam of opening is 5 in.(127 mm).

1.1. **Chase Wall** — (Optional, not. shown) - The through penetrants (Item No. 2) may be routed through a fire-rated single, double or staggered wood stud/gypsum board chase wall having a fire rating consistent with that of the floor-ceiling assembly. The chase wall shall be constructed of the materials and in the manner specified in the individual U300 Series Wall and Partition Designs in the UL Fire Resistance Directory and shall include the following construction features:

A. **Studs** — Nom 2 by 6 in. (51 by 152 mm) or double nom 2 by 4 in. (51 by 102 mm) lumber studs.

B. **Sole Plate** — Nom 2 by 6 in. (51 by 152 mm) or parallel 2 by 4 in. (51 by 102 mm) lumber plates, tightly butted. Max diam of opening is 5 in. (127 mm).

C. **Top Plate** — The double top plate shall consist of two nom 2 by 6 in. (51 by 152 mm) or two sets of parallel 2 by 4 in. (51 by 102 mm) lumber plates, tightly butted. Max diam of opening is 5 in. 127 mm.

D. **Gypsum Board*** — Thickness, type, number of layers and fasteners shall be as specified in individual Wall and Partition Design.

2. **Through Penetrants** — One or more metallic pipes, conduits or tubing to be installed concentrically or eccentrically within opening. Pipes, conduits or tubing to be spaced min 0 in. (0 mm) (point contact) to max 1 in. (25 mm) apart. The space between the pipes, conduits or tubing and the periphery of the opening shall be min 0 in. (0 mm) (point contact) to max 1 in. (25 mm). Penetrants to be rigidly supported on both sides of floor-ceiling assembly. The following types and sizes of metallic pipe, conduits or tubing may be used:

A. **Steel Pipe** — Nom 3/4 in. (19 mm) diam (or smaller) Schedule 5 (or heavier) steel pipe.

B. **Conduit** — Nom 3/4 in. (19 mm) diam (or smaller) steel electrical metallic tubing or steel conduit.

C. **Copper Tubing** — Nom 3/4 in. (19 mm) diam (or smaller) Type L (or heavier) copper tubing.

D. **Copper Pipe** — Nom 3/4 in. (19 mm) diam (or smaller) Regular (or heavier) copper pipe.

3. **Tube Insulation-Plastics+** — Nom 3/4 in. (19 mm) thick (or less) acrylonitrile butadiene/polyvinyl chloride (AB/PVC) flexible foam furnished in the form of tubing. The annular space between the insulated penetrant and the periphery of the opening shall be min 0 in. (0 mm point contact) to max 1 in. (25 mm).

See **Plastics** (QMFZ2) category in the Recognized Component Directory for names of manufacturers. Any Recognized Component tube insulation material meeting the above specifications and having a UL 94 Flammability Classification of 94-5A may be used.

4. **Nonmetallic Pipes** — One nonmetallic pipe or conduit to be installed within the firestop system. Pipe or conduit to be spaced min 0 in. (0 mm point contact) to max 1 in. (25 mm) from the insulated through penetrants and min 1/2 in. (13 mm) to max 1 in. (25 mm) from non-insulated through penetrants. The space between the pipe or conduit and the periphery of the opening shall be min 0 in. (0 mm point contact) to max 1 in. (25 mm). Pipe or conduit to be rigidly supported on both sides of floor-ceiling assembly. One of the following types and sizes of nonmetallic through penetrants may be used:

A. **Polyvinyl Chloride (PVC) Pipe** — Nom 1-1/2 in. (38 mm) diam (or smaller) Schedule 40 solid-core PVC pipe for use in closed (process or supply) or vented (drain, waste or vent) piping systems.

B. **Chlorinated Polyvinyl Chloride (CPVC) Pipe** — Nom 1-1/2 in. (38 mm) diam (or smaller) SDR13.5 CPVC pipe for use in closed (process or supply) piping systems.

C. **Rigid Nonmetallic Conduit++** — Nom 1-1/2 in. (38 mm) diam (or smaller) Schedule 40 solid-core PVC conduit installed in accordance with Article 347 of the National Electrical Code (NFPA No. 70).

5. **Cables** — Max two 7/C (or less) No. 12 AWG (or smaller) multiconductor power and control cables with XLPE or PVC insulation with XLPE or PVC jacket. Cables to be spaced min 0 in. (0 mm point contact) to max 1 in. (25 mm) from the insulated through penetrants and min 1/2 in. (13 mm) to max 1 in. (25 mm) from non-insulated through penetrants. The space between the cables and the periphery of the opening shall be min 0 in. (0 mm point contact) to max 1 in. (25 mm). Cables to be rigidly supported on both sides of the floor-ceiling assembly.

6. **Fill, Void or Cavity Materials* - Caulk or Sealant** — Min 3/4 in. (19 mm) thickness of caulk applied within annulus, flush with top surface of floor or sole plate. Min 5/8 in. (16 mm) thickness of caulk applied within annulus, flush with bottom surface of ceiling or top plate. Min 1/4 in. (6 mm) diam bead of caulk applied at point contact locations at penetrant/floor interface on top surface of floor or sole plate and at penetrant/ceiling or top plate interface.

3M COMPANY — IC 15WB+, CP 25WB+ caulk or FB-3000 WT sealant (Note: CP 25WB+ not suitable for use with CPVC pipes.)

*Bearing the UL Classification Mark

+Bearing the UL Recognized Component Marking

++Bearing the UL Listing Mark

Last Updated on 2005-05-19

Questions? Notice of Disclaimer Page Top

Copyright © 2008 Underwriters Laboratories Inc.®

The appearance of a company's name or product in this database does not in itself assure that products so identified have been manufactured under UL's Follow-Up Service. Only those products bearing the UL Mark should be considered to be Listed and covered under UL's Follow-Up Service. Always look for the Mark on the product.

UL permits the reproduction of the material contained in the Online Certification Directory subject to the following conditions: 1. The Guide Information, Designs and/or Listings (files) must be presented in their entirety and in a non-misleading manner, without any manipulation of the data (or drawings). 2. The statement "Reprinted from the Online Certifications Directory with permission from Underwriters Laboratories Inc." must appear adjacent to the extracted material. In addition, the reprinted material must include a copyright notice in the following format: "Copyright © 2008 Underwriters Laboratories Inc.®"

An independent organization working for a safer world with integrity, precision and knowledge

JUN 05 2009

PLANS APPROVED
CONSTRUCTION
Safety Dept.
Nevada
MT SEP 0 2 2009
Plumbing,
Off-Site
Make No Change
Approval Plan is
Not a Permit to Violate Any Ordinance

UL DESIGN NO. F-C-8024

CRAIG D. SMITH
REGISTERED
No. 4967
6-2-09
ARCHITECT
STATE OF NEVADA

RNM

RNM DESIGN
ARCHITECTURE
PLANNING
LANDSCAPE
GRAPHICS
RNMDESIGN.COM

2 CORPORATE PARK
SUITE 100
IRVINE, CALIFORNIA
92606
T949.752.1800
F949.833.9603

PROJECT NAME/ADDRESS

CORONADO THE PASEOS
875 PANTARA PLACE
LAS VEGAS, NEVADA

CLIENT

SPINNAKER HOMES
4511 W. CHEYENNE AVE. ST 105
NO. LAS VEGAS, CA 89032
702-873-7773
702-873-7776 FAX

REVISIONS

THESE DRAWINGS AND IMAGES ARE NOT TO BE REPRODUCED OR COPIED IN ANY FORM WITHOUT WRITTEN PERMISSION. COPYRIGHT 2008 RNM DESIGN

DRAWING TITLE

PENETRATION ASSEMBLY REPORT

DRAWING INFORMATION

PROJ. NO: 08041
FIRST SUBMITTAL DATE: 02.24.2009
SCALE: N/A

DRAWING NUMBER

F3-5.3

DELTA 2 - PLAN CHECK CORRECTION

05.27.09

SOUNDLOGIC, LLC
Acoustics & Technology Consultants
7035 S. Rainbow Ave., Ste. 01-207
Las Vegas, NV 89139
(702) 242-5981 tel
(702) 447-6184 cell
www.soundlogic.org

February 17, 2009

Mr. Ben Young
S.B.A. Development, Inc., dba
Royal Construction Company
4511 W. Cheyenne Ave., #105
North Las Vegas, NV 89032
Tel: 702-873-7773
Fax: 702-873-7776
Cell: 702-768-7035
byoung@spinnakerhomes.com

Re: Proposal for Acoustic Consulting Services
Coronado at The Paseos

Dear Ben:

Find below, acoustical review summary and recommendations based on the architectural drawings posted by RNM Design on February 12, 2009, our meeting discussions, and our familiarity in many similar projects.

1.0 Background

1.1 We understand that majority of the condominium building were previously completed by Westmark Homes, and the remaining 10 buildings were bankruptcy liquidated and purchased by Spinnaker Homes/Royal Construction.

1.2 We understand that the current project will be based on 2006 IBC, Section 1207 on Sound Transmission, as follows:

- **1207.1 Scope.** This section shall apply to common interior walls, partitions and floor/ceiling assemblies between dwelling units or between dwelling units and adjacent areas such as halls, corridors, stairs or service areas.
- **1207.2 Air-borne sound.** Walls, partitions and floor/ceiling assemblies separating dwelling units from each other or from public or service areas shall have a sound transmission class (STC) of not less than 50 (45 if field tested) for air-borne noise when tested in accordance with ASTM E90.
- **1207.3 Structure-borne sound.** Floor/ceiling assemblies between dwelling units or between a dwelling units and public or service area within the structure shall have an impact insulation class (IIC) rating of not less than 50 (45 if field tested) when tested in accordance with ASTM E 492.

1.3 Based on our meeting discussions, we understand that the project is considered medium to high end product. We recommend airborne and impact sound isolation meeting both STC and IIC of 55 to 60.

2.0 Review Summary and Recommendations

2.1 We understand that typical floor-ceiling assembly will be based on UL Design No. L528 consisting of the following:

2.1.1 1-1/2" lightweight 110# concrete in-lieu of gypsum concrete
2.1.2 ¼" thick Maxxon Acoustimat 2 underlayment
2.1.3 ¾" thick plywood structural sheathing
2.1.4 2x4 18" deep wood trusses
2.1.5 Two layers of R-30 unfaced fiberglass insulation
2.1.6 PAC International Type RSIC-1 resilient mount
2.1.7 Two layers 5/8" thick gypsum board

Based on RAL Test IN02-06, the expected sound rating for this assembly is STC 61 and IIC 55.

2.2 We understand that some upper unit exterior deck will be over bottom unit living room or bedroom area. The floor-ceiling assembly for the deck should include the Maxxon Acoustimat 2 resilient underlayment, as well as the two layers 5/8" thick gypsum board mounted to the open-web joists via PAC International Type RSIC-1 mount.

2.3 We understand that the typical separation wall assembly will be based on UL Design No. U341 consisting of the following:

2.3.1 Double 2x4 wood stud separated by minimum 1" clearance
2.3.2 R-13 unfaced fiberglass insulation in each 2x4 stud cavity
2.3.3 Two layers 5/8" thick gypsum board on each finish (or room) side

Based on GA Test WP3820, the expected sound rating for this assembly is STC55.

2.4 We strongly recommend that recessed light in floor-ceiling assembly should be enclosed in 5/8" thick 1-Hr. UL listed can light cover to maintain sound isolation.

2.5 We recommend electrical outlet or junction boxes located in separation wall assembly should include the following:

2.5.1 Avoid back-to-back box configuration.
2.5.2 Outlet or junction boxes should include one stud separation and at least 24" apart.
2.5.3 Outlet or junction boxes should be wrapped in moldable fire putty pad.

2.6 Separation wall assembly edge conditions should be caulked with continuous bead of non-hardening acoustical sealant to maintain airtight assembly.

2.7 Penetrations through separation wall or floor-ceiling assembly should observe typical sound isolating penetration details, attached.

2.8 We understand that some upper unit exterior deck will be over bottom unit living room or bedroom area. The floor-ceiling assembly for the deck should include the Maxxon Acoustimat 2 resilient underlayment, as well as the two layers 5/8" thick gypsum board mounted to the open-web joists via PAC International Type RSIC-1 mount.

3.0 Mechanical and Plumbing Guidelines

3.1 Mechanical (HVAC)

3.1.1 The ambient noise levels in a given space should be controlled to within an acceptable range, such that noise from building services does not interfere with usage of the space. Noise Criteria (NC) curves are groupings of sound pressure levels versus frequency, and are used to approximate noise levels subjectively perceived to be equal in annoyance in the audible frequency spectrum from 63Hz at the low end, to 8000Hz at the high end. A single number rating system is used for ease in identifying each grouping of sound pressure levels.

3.1.2 The following ambient noise criteria are recommended in the design of the following spaces:

Table 1

Space Background	NC Criteria
Bedrooms	NC-30
Living, Dining, Kitchen	NC-35

3.1.3 Mechanical equipment such as air-conditioning condensers and blower fans should be located remotely, away from bedroom or living room windows.

3.1.4 All ducts should be constructed of sheet metal and configured for smooth aerodynamics in accordance with SMACNA guidelines.

3.1.5 Flexible ducts or duct constructed of fiberboard should only be used in branch duct applications leading to diffusers, or grilles, at least 3-ft. in length, and should have one 90-degree elbow in its run to the diffuser.

3.1.6 Rooftop equipment should be located at a point on the roof structure so that the dead load deflection of the structure is at or less than 0.25". Condenser and fan units should ideally be mounted on minimum 2" thick concrete curbs via neoprene isolation pads similar to Mason Industries Type Super W pad.

3.1.7 Heatpump or fan coil units should be mounted via neoprene pads or with spring/neoprene mounts if ceiling mounted similar to Mason Industries Type PC30 spring/neoprene mount.

3.1.8 All ducts, pipes, conduit, and structural penetrations through sound isolating partitions should be sealed airtight to limit sound leakage (refer to attached sound isolation details).

3.1.9 Refer to Table 2 below, for limiting airflow velocities, based on the designated background NC criteria, assuming that ducts are lined with 1" thick liner:

Table 2

Space	Background NC Criteria	Supply and Return Air (FPM) Branch Main	5-ft. Runout
Bedrooms	NC-30	840	460
Living and Dining	NC-35	1020	540

3.1.10 Select grilles and diffusers minimum 8 NC points below background noise criteria.

3.1.11 Fire dampers should be out of air stream, and recessed into barrier.

3.1.12 Rooftop exhaust fans are to be selected for a nominal 800rpm in an effort to reduce noise and vibration.

3.2 Plumbing Requirements

3.2.1 Storm drains and other plumbing mains should ideally be cast iron construction in-lieu of PVC, and should avoid all noise-sensitive spaces (e.g., living, dining, and bedrooms).

3.2.2 Should storm or sanitary drains traverse over noise-sensitive areas, ideally the pipes should be enclosed in insulated two layer 5/8" thick drywall assembly via the use of barrier material similar to Kinetics Noise KNM-100ALQ pipe lagging.

3.2.3 Plumbing installation detail should include resilient closed-cell insulation similar to ½" thick Armacell Armaflex, or Acousto-Plumb system per typical plumbing isolation details provided.

3.2.4 Saddles or clamps supporting main sanitary and storm drains should include resilient mounts similar to Mason Industries Type ADA resilient anchor, or Mason Super W neoprene pad to avoid structureborne sound and vibration.

3.2.5 To limit water knocking, we recommend the following water flow velocities:

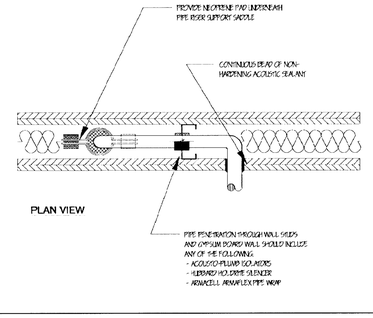
3.2.5.1 1-inch and smaller: Maximum 3-ft. per second velocity.
3.2.5.2 1-1/2 inch and smaller: Maximum 4-ft. per second velocity.
3.2.5.3 2-in and larger: Maximum 6-ft. per second velocity

This concludes our Schematic Design acoustical review and recommendations for the Coronado at The Paseo Condominium project. Please call should you have questions.

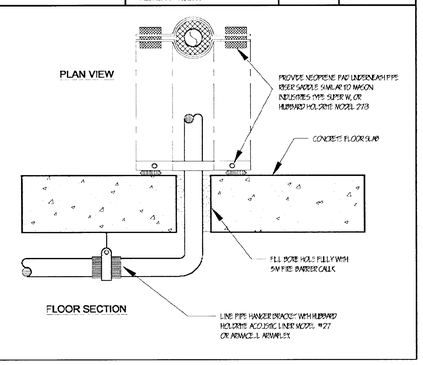
Sincerely,
SoundLogic, LLC

Paul L. Tan, Principal

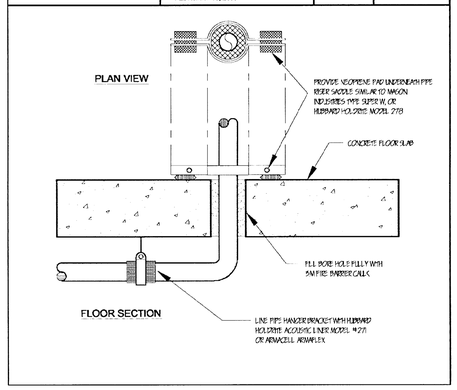
DRAWING TITLE: TYPICAL PLUMBING WALL TREATMENT
PROJECT NAME: CORONADO CONDOMINIUMS
PROJECT NO. | DRAWING SCALE: N.T.S. | SHEET NUMBER: P-1
DRAWING PATH: | DRAWING DATE: FEBRUARY 10, 2009
SOUNDLOGIC, LLC



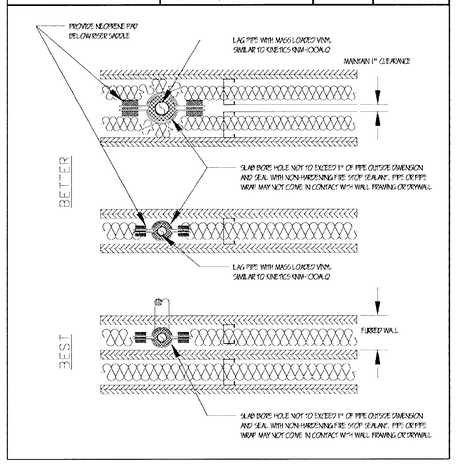
DRAWING TITLE: PLUMBING ISOLATION DETAIL - RISER THROUGH FLOOR SLAB
PROJECT NAME: CORONADO CONDOMINIUMS
PROJECT NO. | DRAWING SCALE: N.T.S. | SHEET NUMBER: P-2
DRAWING PATH: | DRAWING DATE: FEBRUARY 10, 2009
SOUNDLOGIC, LLC



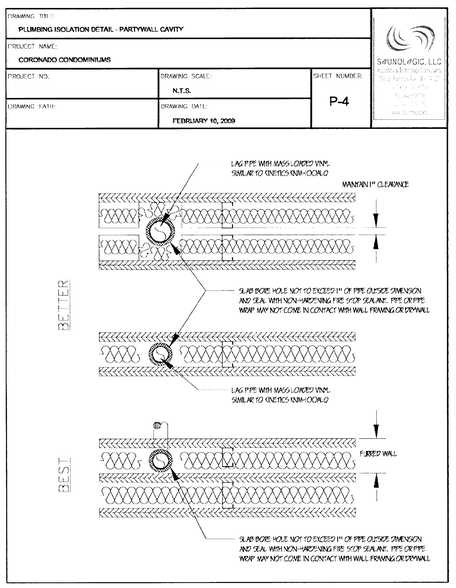
DRAWING TITLE: PLUMBING ISOLATION DETAIL - RISER THROUGH FLOOR SLAB
PROJECT NAME: CORONADO CONDOMINIUMS
PROJECT NO. | DRAWING SCALE: N.T.S. | SHEET NUMBER: P-2
DRAWING PATH: | DRAWING DATE: FEBRUARY 10, 2009
SOUNDLOGIC, LLC



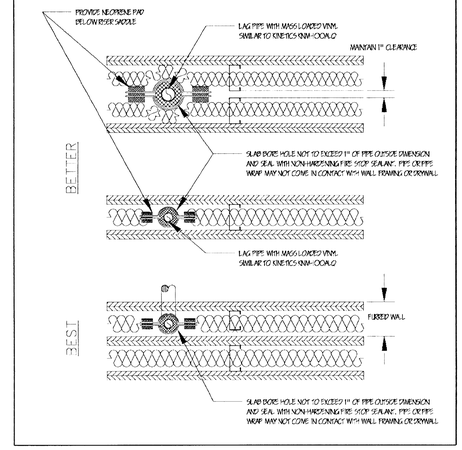
DRAWING TITLE: PLUMBING ISOLATION DETAIL - PARTYWALL CAVITY
PROJECT NAME: CORONADO CONDOMINIUMS
PROJECT NO. | DRAWING SCALE: N.T.S. | SHEET NUMBER: P-3
DRAWING PATH: | DRAWING DATE: FEBRUARY 10, 2009
SOUNDLOGIC, LLC



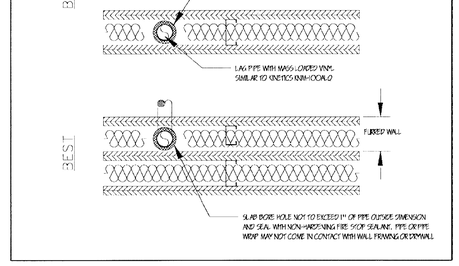
DRAWING TITLE: PLUMBING ISOLATION DETAIL - PARTYWALL CAVITY
PROJECT NAME: CORONADO CONDOMINIUMS
PROJECT NO. | DRAWING SCALE: N.T.S. | SHEET NUMBER: P-4
DRAWING PATH: | DRAWING DATE: FEBRUARY 10, 2009
SOUNDLOGIC, LLC



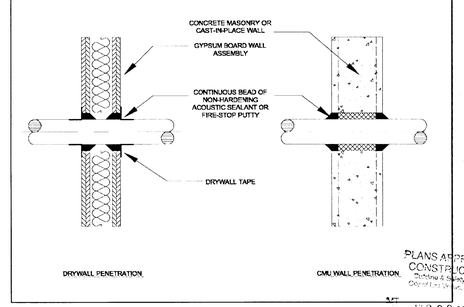
DRAWING TITLE: PLUMBING ISOLATION DETAIL - PARTYWALL CAVITY
PROJECT NAME: CORONADO CONDOMINIUMS
PROJECT NO. | DRAWING SCALE: N.T.S. | SHEET NUMBER: P-3
DRAWING PATH: | DRAWING DATE: FEBRUARY 10, 2009
SOUNDLOGIC, LLC



DRAWING TITLE: PLUMBING ISOLATION DETAIL - PARTYWALL CAVITY
PROJECT NAME: CORONADO CONDOMINIUMS
PROJECT NO. | DRAWING SCALE: N.T.S. | SHEET NUMBER: P-4
DRAWING PATH: | DRAWING DATE: FEBRUARY 10, 2009
SOUNDLOGIC, LLC



DRAWING TITLE: SOUND ISOLATING WALL PENTRATION DETAIL - SINGLE PIPE
PROJECT NAME: CORONADO CONDOMINIUMS
PROJECT NO. | DRAWING SCALE: N.T.S. | SHEET NUMBER: AT-1
DRAWING PATH: | DRAWING DATE: FEBRUARY 10, 2009
SOUNDLOGIC, LLC



PLANS APPROVED CONSTRUCTION
Building & Safety Dept.
Clark County, Nevada
SEP 02 2009
Plumbing, Electrical, Mechanical Work Shown Hereon Is In Compliance With Applicable Codes And Ordinances

CRAIG D. SMITH REGISTERED No. 4967 PROFESSIONAL ENGINEER STATE OF NEVADA

RNM

RNM DESIGN
ARCHITECTURE
PLANNING
LANDSCAPE
GRAPHICS
RNMDESIGN.COM

2 CORPORATE PARK
SUITE 100
IRVINE, CALIFORNIA
92606
949.752.1800
949.833.9603

PROJECT NAME/ADDRESS
CORONADO THE PASEOS
875 PANTARA PLACE
LAS VEGAS, NEVADA

CLIENT
SPINNAKER HOMES
4511 W. CHEYENNE AVE. ST 105
NO. LAS VEGAS, CA 89032
702-873-7773
702-873-7776 FAX

REVISIONS
1 DELTA 1: PLAN CHECK CORRECTION

THESE DRAWINGS AND IMAGES ARE NOT TO BE REPRODUCED OR COPIED IN ANY FORM WITHOUT WRITTEN PERMISSION. COPYRIGHT 2008 RNM DESIGN

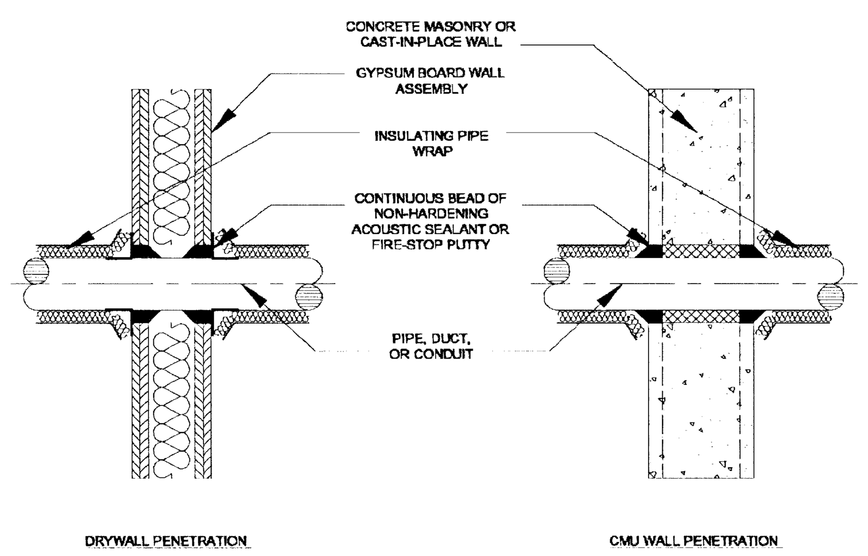
DRAWING TITLE
SOUND REPORT

DRAWING INFORMATION
PROJ. NO: 08041
FIRST SUBMITTAL DATE: 02.24.2009
SCALE: N/A

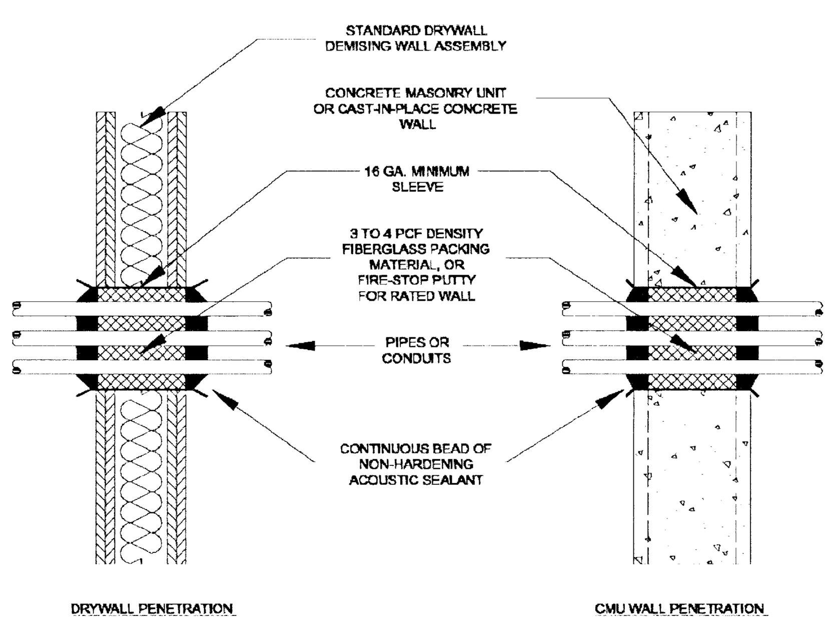
DRAWING NUMBER
F4-1.1

DELTA 2 - PLAN CHECK CORRECTION
05.27.09

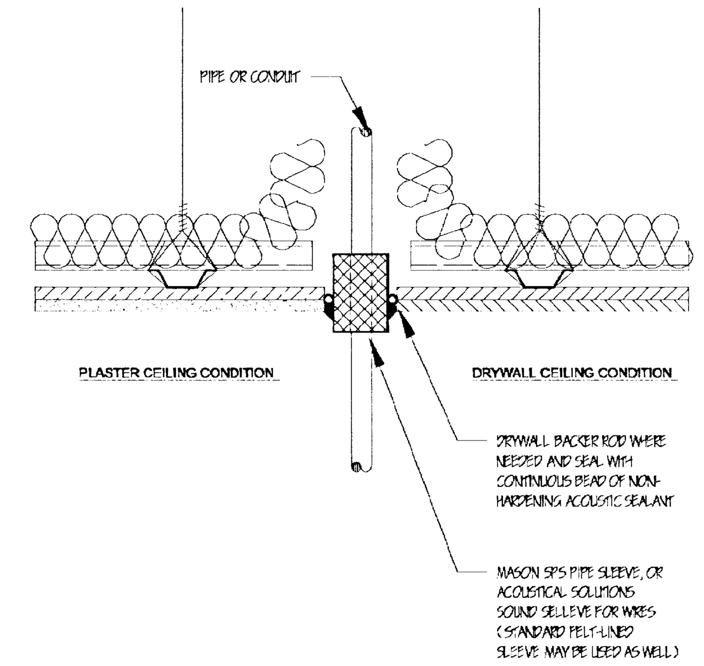
DRAWING TITLE: SOUND ISOLATING WALL PENETRATION DETAIL - PIPE INSULATION			SAUNDLOGIC, LLC
PROJECT NAME: CORONADO CONDOMINIUMS			
PROJECT NO.	DRAWING SCALE: N.T.S.	SHEET NUMBER: AT-2	
DRAWING PATH:	DRAWING DATE: FEBRUARY 10, 2009		



DRAWING TITLE: SOUND ISOLATING WALL PENETRATION DETAIL - MULTIPLE PIPES			SAUNDLOGIC, LLC
PROJECT NAME: CORONADO CONDOMINIUMS			
PROJECT NO.	DRAWING SCALE: N.T.S.	SHEET NUMBER: AT-3	
DRAWING PATH:	DRAWING DATE: FEBRUARY 10, 2009		

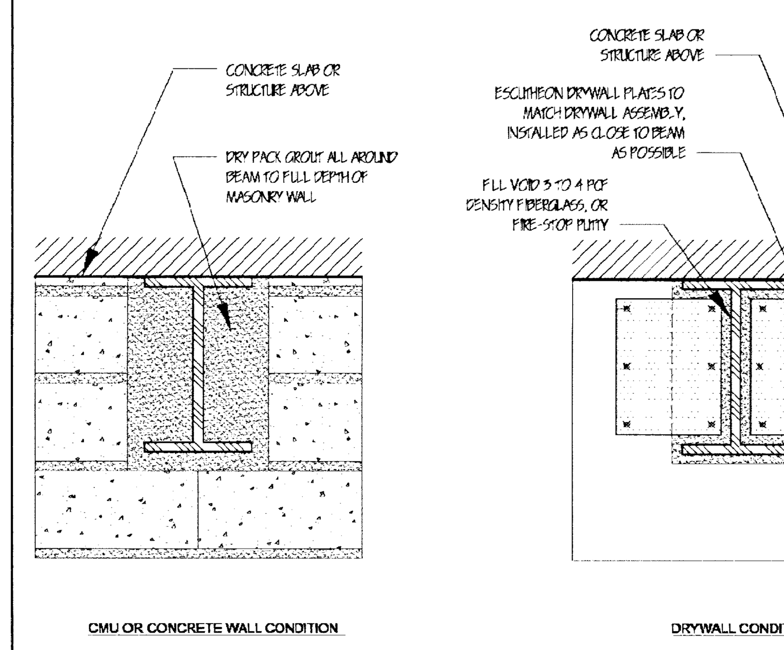


DRAWING TITLE: SOUND ISOLATING CEILING PENETRATION DETAIL			SAUNDLOGIC, LLC
PROJECT NAME: CORONADO CONDOMINIUMS			
PROJECT NO.	DRAWING SCALE: N.T.S.	SHEET NUMBER: AT-4	
DRAWING PATH:	DRAWING DATE: FEBRUARY 10, 2009		

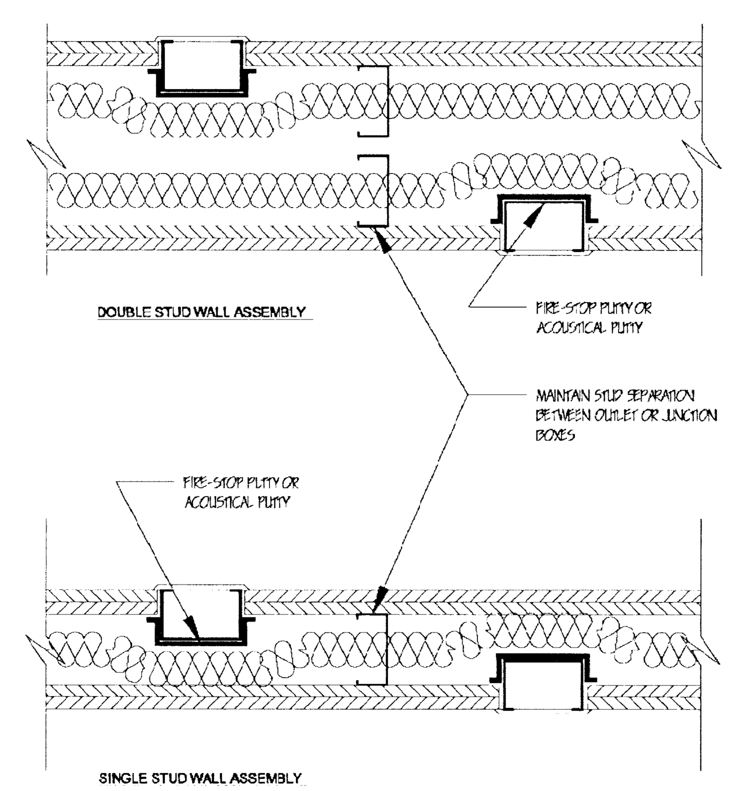


ACCOUSTICAL REPORT - PAGE 5

DRAWING TITLE: SOUND ISOLATING PENETRATION DETAILS - STRUCTURAL MEMBER			SAUNDLOGIC, LLC
PROJECT NAME: CORONADO CONDOMINIUMS			
PROJECT NO.	DRAWING SCALE: N.T.S.	SHEET NUMBER: AT-5	
DRAWING PATH:	DRAWING DATE: FEBRUARY 10, 2009		



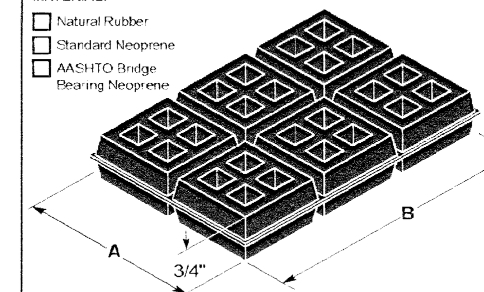
DRAWING TITLE: SOUND ISOLATING WALL OUTLET OR JUNCTION BOX TREATMENT			SAUNDLOGIC, LLC
PROJECT NAME: CORONADO CONDOMINIUMS			
PROJECT NO.	DRAWING SCALE: N.T.S.	SHEET NUMBER: AT-6	
DRAWING PATH:	DRAWING DATE: FEBRUARY 10, 2009		



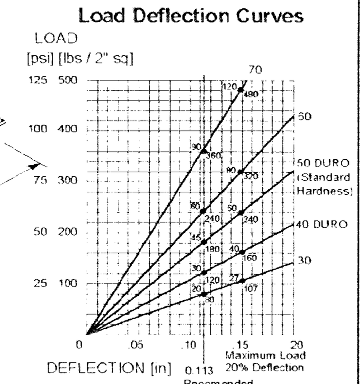
MASON INDUSTRIES, Inc.
Manufacturers of Vibration Control Products
NY Mailing Address: PO Box 410, Smithtown, NY 11787
350 Rabro Drive, Hauppauge, NY 11788, 631/348-0282, FAX 631/348-0279, Info@Mason-Ind.com
2101 W. Crescent Ave. Suite D, Anaheim, CA 92801, 714/535-2727, FAX 714/535-5738, Info@MasonAnaheim.com

CERTIFIED FOR	TYPE
JOB NAME	**Super W**
CUSTOMER	Waffle Pad
CUSTOMER P.O.	
MASON M.I.	
DWG. NO.	

MATERIAL:
☐ Natural Rubber
☐ Standard Neoprene
☐ AASHTO Bridge Bearing Neoprene



FULL SIZED SHEETS are 18 x 18 x 3/4" (450 x 450 x 19mm) consisting of 81 - 2" (50mm) square modules. Actual pad sizes are as scheduled below.



TYPE Super W
LOAD RATINGS per SQUARE

Durometer	Recommended Load per 2×2" sq [lbs]	(kg)	Recommended Load per Area [lbs/in²]	(kg/mm²)	{kPa}	Maximum Load per Area [lbs/in²]	(kg/mm²)	{kPa}
30	[80]	(35)	[20]	(.014)	{138}	[27]	(.019)	{186}
40	[120]	(55)	[30]	(.021)	{207}	[40]	(.028)	{276}
Standard 50	[180]	(80)	[45]	(.032)	{310}	[60]	(.042)	{414}
60	[240]	(110)	[60]	(.042)	{414}	[80]	(.056)	{552}
70	[360]	(165)	[90]	(.063)	{621}	[120]	(.084)	{827}

CERTIFICATION DATA
TAG:
UNIT:
PLAN VIEW OF PAD LOCATION

Hardness of Pad Material to be:	DURO
1	6
2	7
3	8
4	9
5	10
Material for One Set	Sets Required

Type Super W Dimensions ☐mm ☐Inches

A	B

NOTE: SW PADS ARE TO BE EVENLY SPACED ON EACH SIDE.

DWN	CHKD	DATE	DWG NO.

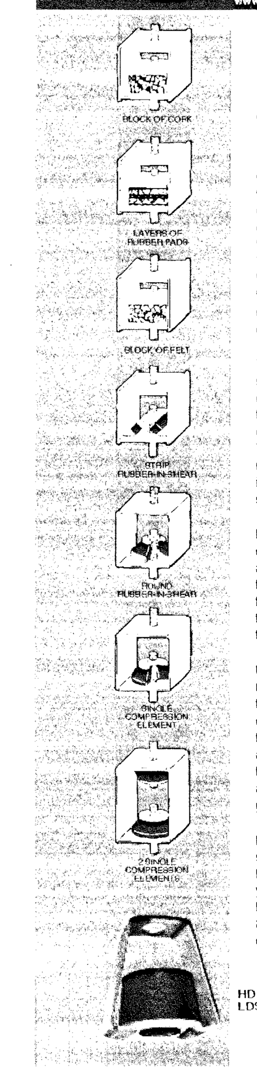
FORM S-403-1c 01/98

ACCOUSTICAL REPORT - PAGE 6

MASON INDUSTRIES, Inc.
Manufacturers of Vibration Control Products
350 Rabro Drive, Hauppauge, NY 11788, 631/348-0282, FAX 631/348-0279, Info@Mason-Ind.com, www.Mason-Ind.com
2101 W. Crescent Ave., Suite D, Anaheim, CA 92801, 714/535-2727, FAX 714/535-5738, Info@MasonAnaheim.com, www.MasonAnaheim.com

SPRING, RUBBER and COMBINATION HANGERS
HANGERS
H-610-8 BULLETIN

All rubber parts are LDS (Low Dynamic Stiffness) Rubber. For information on LDS Rubber, see Bulletin ACS 102-3, page 6



HANGER DEVELOPMENT – PAST TO PRESENT

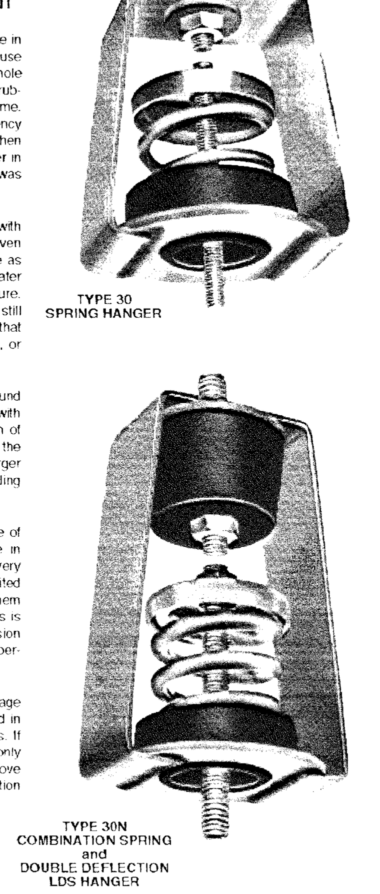
Over fifty years ago, vibration control hangers were in their infancy and it was not uncommon to use isolation materials such as a block of cork with a hole drilled through the center, two or three layers of rubber and cork pads or felt within the hanger frame. These products all gave way to the lower frequency bonded steel strip rubber-in-shear elements and then to round rubber-in-shear designs which were lower in cost and higher in capacity. The next step was equivalent deflection in compression.

The compression elements were designed with straight line deflection curves, so that for a given deflection the frequency would be about the same as the rubber-in-shear. The advantages were greater capacity for the same size and a fail safe feature. The upper steel washer in the rubber element is still made larger than the hole in the hanger box, so that if the rubber burns or fails, the piping, equipment, or suspended ceiling remains captive.

Both the round rubber-in-shear and the round compression hangers were also merchandised with a single deflection element in the top and bottom of the box to provide twice the deflection and lower the frequency. Our company went on to develop a larger taller double deflection element capable of providing this same deflection in one piece.

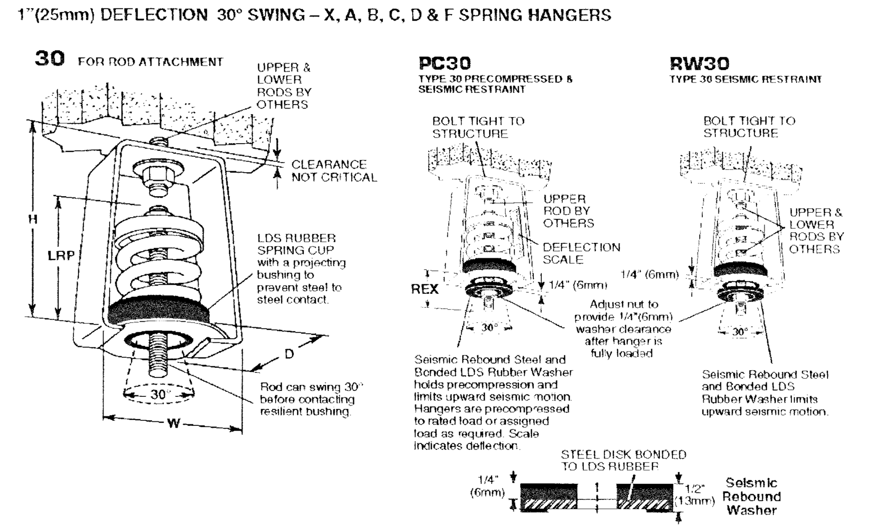
Up until 1965 we manufactured a complete range of 0.2"(5mm) single deflection hangers. They were in the same frequency range as fiberglass and very competitive but we found their performance so limited that we no longer wished to manufacture them although others still do. The only exception to this is the WHR which is still offered for ceiling suspension as a fiberglass substitute or improvement when fiberglass is specified by others.

HD Hangers are double deflection units with average static deflections of 0.4"(10mm). They are molded in LDS because of its excellent aging characteristics. If you wish to isolate primary vibration, they should only be considered for smaller equipment running above 800 RPM in non-critical areas. The principle function of HD Hangers is noise isolation.



30, PC30 & RW30 — MASON INDUSTRIES

1"(25mm) DEFLECTION 30° SWING – X, A, B, C, D & F SPRING HANGERS



Ratings & Dimensions for 1"(25mm) Deflection Spring Hangers (inches (mm))

Type	Size	Rated Capacity (lbs)(kg)	Rated Defl.¹ (in)(mm)	Spring Constant (lbs/in)(kg/cm)	Spring Color	Spring Only OD	Spring Only Free Height	D	H	W	Lower Rod Penetration LRP	Max. Rod Dia. MRO	Rod Extension REX	Vertical "G" Ratings² Tension	Compression
30	X-12	12	1.25	10	Orange									10.0'	10.0'
	X-23	23	1.30	18	Brown									10.0'	10.0'
	X-33	33	1.10	30	Copper									10.0'	10.0'
	X-54	54	1.20	45	White									10.0'	10.0'
	X-75	76	1.02	73	Black	1½	2½	2½	4¼	2⅞	3½	⅜	1¼	10.0'	10.0'
	X-113	113	1.00	113	Brass									10.0'	7.6
	X-130	130	1.00	130	Purple									10.0'	5.6
	X-175	175	1.00	175	Silver									10.0'	4.9
	X-210	210	1.00	210	Blue									9.0	4.1
	A-12	12	1.00	12	Copper									10.0'	10.0'
	A-18	18	1.00	18	Gray	1¾	1⅞	2¾	5¾	3¼	3½	⅜	2¼	10.0'	10.0'
	A-25	25	1.00	25	Orange									10.0'	10.0
PC30	A-41	41	1.18	35	Pink									10.0'	10.0'
	A-56	56	1.14	49	Black	1¾	2¼	2¾	5⅜	3¼	4	⅝	2¼	10.0'	10.0'
	A-73	73	1.06	69	Tan									10.0'	10.0'
	A-95	95	1.01	94	Green									10.0'	10.0'
	B-138	138	1.32	105	White									10.0'	10.0'
	B-222	222	1.16	191	Blue									10.0'	6.6
	B-278	278	1.09	255	Purple	2⅜	2⅞	4	7¼	4¾	4¼	⅝	2¼	10.0'	5.2
	B-336	336	1.00	336	Silver									10.0'	4.3
	B-410	410	1.07	385	Black									10.0'	3.6
RW30	B-540	540	1.00	540	Yellow									10.0'	2.7
	C-630	630	1.13	558	Gray									10.0'	5.4
	C-800	800	1.00	800	Orange	2⅞	3⅝	4	8¾	5¼	5	¾	2¼	7.9	4.0
	C-1010	1010	1.10	920	Green									6.3	3.1
	C-1265	1265	1.00	1265	Red									5.0	2.5
	D-1575	1575	1.23	1280	Pink	3¾	4⅞	4¾	12½	5¾	7	⅞	2½	10.0'	5.0
	D-2150	2150	1.03	2095	Purple									9.0	4.4
	F-2760	2760	1.00	2760	Silver	4½	5⅛	6	12	6½	7	⅞	2½	5.0	4.3

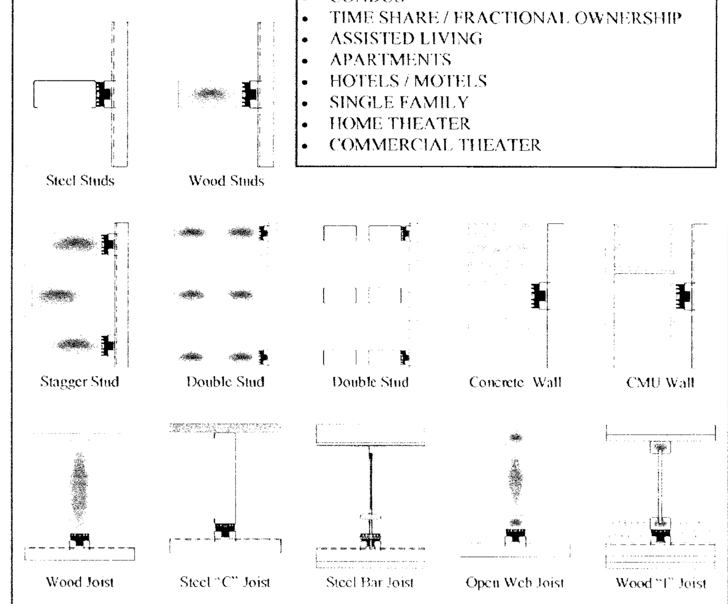
¹All springs have additional travel to solid equal to 50% of Rated Deflection.
²10.0 indicates a rating of 10 G's or greater

4

RSIC PRODUCT GUIDE
THE RSIC SOUND ISOLATION CLIPS

RSIC-1

- UL FIRE RATED FOR OVER 150 ASSEMBLIES
- LOW COST
- HIGH PERFORMANCE
- WALLS
- CEILINGS
- WOOD
- STEEL
- CONCRETE
- CMU
- CONDOS
- TIME SHARE / FRACTIONAL OWNERSHIP
- ASSISTED LIVING
- APARTMENTS
- HOTELS / MOTELS
- SINGLE FAMILY
- HOME THEATER
- COMMERCIAL THEATER

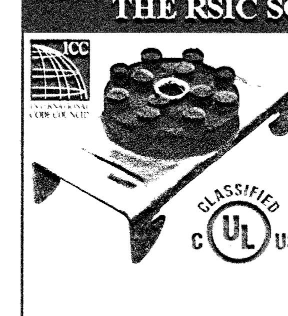


PAC International, Inc. Tel: (866) 774-2100 Fax: (866) 649-2710 Web Site: www.pac-intl.com

VER 051605 PAGE 2

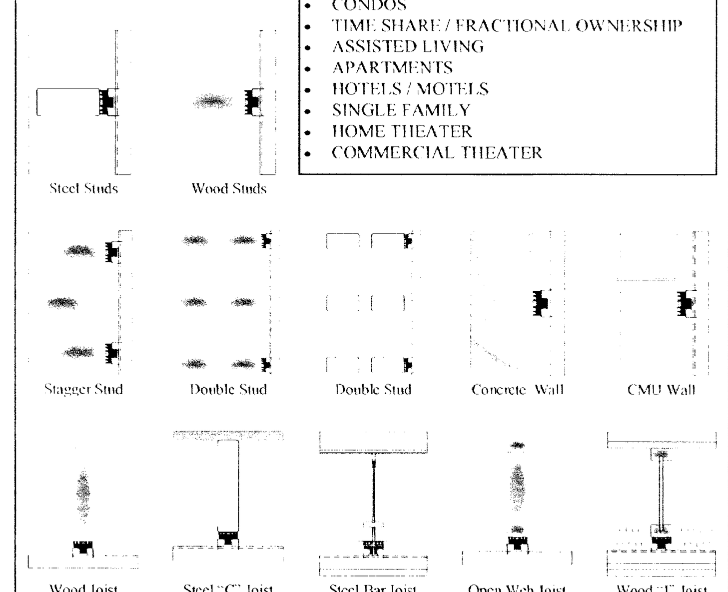
ACCOUSTICAL REPORT - PAGE 7

RSIC PRODUCT GUIDE
THE RSIC SOUND ISOLATION CLIPS



RSIC-1

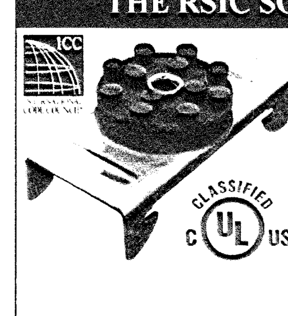
- UL FIRE RATED FOR OVER 150 ASSEMBLIES
- LOW COST
- HIGH PERFORMANCE
- WALLS
- CEILINGS
- WOOD
- STEEL
- CONCRETE
- CMU
- CONDOS
- TIME SHARE / FRACTIONAL OWNERSHIP
- ASSISTED LIVING
- APARTMENTS
- HOTELS / MOTELS
- SINGLE FAMILY
- HOME THEATER
- COMMERCIAL THEATER



PAC International, Inc. Tel: (866) 774-2100 Fax: (866) 649-2710 Web Site: www.pac-intl.com

VER 051605 PAGE 2

RSIC PRODUCT GUIDE
THE RSIC SOUND ISOLATION CLIPS



RSIC-1

- UL FIRE RATED FOR OVER 150 ASSEMBLIES
- LOW COST
- HIGH PERFORMANCE
- WALLS
- CEILINGS
- WOOD
- STEEL
- CONCRETE
- CMU
- CONDOS
- TIME SHARE / FRACTIONAL OWNERSHIP
- ASSISTED LIVING
- APARTMENTS
- HOTELS / MOTELS
- SINGLE FAMILY
- HOME THEATER
- COMMERCIAL THEATER

RSIC-1

The **RSIC-1** is designed for use with various wall or floor-ceiling designs and applications. The RSIC-1 decouples the gypsum board from the structure in wall or floor-ceiling assemblies. The RSIC-1 has been acoustically tested, and adds 15 to 20 STC points and 15 to 20 IIC points to your existing assemblies, reducing the noise transfer by 75 to 100%.

When designed into the wall or floor-ceiling assembly, there can be a substantial cost savings. Wall systems have shown savings of up to $1.00/sq ft. Floor-ceiling systems have shown savings of up to $1.71/sq ft. In both circumstances the RSIC-1 clip increased the acoustical performance. The RSIC-1 can reduce the width of a wall assembly while delivering high acoustical performance.

RSIC-1, the Low Cost, High Performance, Noise Control Solution

PAC International, Inc. Tel: (866) 774-2100 Fax: (866) 649-2710 Web Site: www.pac-intl.com

VER 051605 PAGE 3

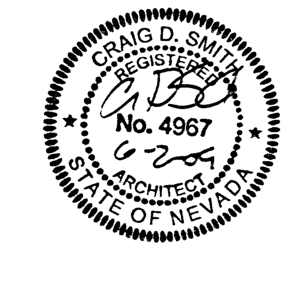
Fire and Acoustic Protection — March 2006

Putty Pads
For Drywall Socket Boxes

are you in the know?

KNAUF DRYWALL

ACCOUSTICAL REPORT - PAGE 8



RNM

RNM DESIGN
ARCHITECTURE
PLANNING
LANDSCAPE
GRAPHICS
RNMDESIGN.COM

2 CORPORATE PARK
SUITE 100
IRVINE, CALIFORNIA
92606
T949.752.1800
F949.833.9603

PROJECT NAME/ADDRESS
CORONADO
THE PASEOS
875 PANTARA PLACE
LAS VEGAS, NEVADA

CLIENT
SPINNAKER
HOMES
4511 W. CHEYENNE AVE. ST 105
NO. LAS VEGAS, CA 89032
702-873-7773
702-873-7776 FAX

REVISIONS
△1 DELTA 1: PLAN CHECK CORRECTION

THESE DRAWINGS AND IMAGES ARE NOT TO BE REPRODUCED OR COPIED IN ANY FORM WITHOUT WRITTEN PERMISSION. COPYRIGHT 2008 RNM DESIGN

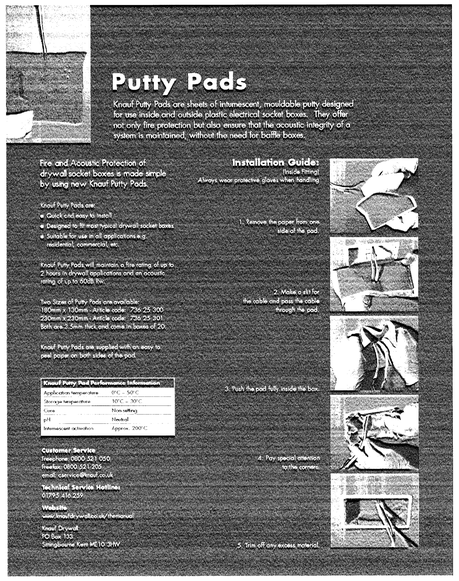
DRAWING TITLE
SOUND
REPORT

DRAWING INFORMATION
PROJ. NO: 08041
FIRST SUBMITTAL DATE: 02.24.2009
SCALE: N/A

PLANS APPROVED
SEP 0 2 2009
Approval Plan is Not a Permit to Violate Any Ordinance

DRAWING NUMBER
F4-1.2

DELTA 2 - PLAN CHECK CORRECTION
05.27.09


Putty Pads
Knauf Putty Pads are sheets of intumescent, mouldable putty designed for use inside and outside plastic electrical socket boxes. They offer not only fire protection but also ensure that the acoustic integrity of a system is maintained, without the need for baffle boxes.
Fire and Acoustic Protection of drywall socket boxes is made simple by using new Knauf Putty Pads.
Knauf Putty Pads are:
- Quick and easy to install
- Designed to fit most typical drywall socket boxes
- Suitable for use in all applications e.g. residential, commercial, etc.

Knauf Putty Pads will maintain a fire rating of up to 2 hours in drywall applications and an acoustic rating of up to 60dB Rw.

Two Sizes of Putty Pads are available:
180mm x 150mm - Article code: 726 25 200
220mm x 220mm - Article code: 726 25 201
Both are 2.5mm thick and come in boxes of 20.

Knauf Putty Pads are supplied with an easy to peel paper on both sides of the pad.

Knauf Putty Pad Performance Information	
Application temperature	0°C - 50°C
Storage temperature	10°C - 30°C
Cure	Non-setting
pH	Neutral
Intumescent activation	Approx. 200°C

Customer Service
Telephone: 0800 521 050
Freefax: 0800 521 205
email: cservice@knauf.co.uk

Technical Service Hotline:
01795 416 259

Website
www.knauf-drywall.co.uk/thermanal

Knauf Drywall
PO Box 155
Sittingbourne Kent ME10 3HW

Installation Guide:
(Inside Fitting)
Always wear protective gloves when handling

1. Remove the paper from one side of the pad.
2. Make a slit for the cable and pass the cable through the pad.
3. Push the pad fully inside the box.
4. Pay special attention to the corners.
5. Trim off any excess material.

KNAUF DRYWALL

CRAIG D. SMITH
REGISTERED
No. 4967
6-2-09
ARCHITECT
STATE OF NEVADA

RNM

RNM DESIGN
ARCHITECTURE
PLANNING
LANDSCAPE
GRAPHICS
RNMDESIGN.COM

2 CORPORATE PARK
SUITE 100
IRVINE, CALIFORNIA
92606
T949.752.1800
F949.833.9603

PROJECT NAME/ADDRESS

CORONADO THE PASEOS
875 PANTARA PLACE
LAS VEGAS, NEVADA

CLIENT

SPINNAKER HOMES
4511 W. CHEYENNE AVE. ST 105
NO. LAS VEGAS, CA 89032
702-873-7773
702-873-7776 FAX

REVISIONS

DELTA 1: PLAN CHECK CORRECTION

THESE DRAWINGS AND IMAGES ARE NOT TO BE REPRODUCED OR COPIED IN ANY FORM WITHOUT WRITTEN PERMISSION. COPYRIGHT 2008 RNM DESIGN

DRAWING TITLE

SOUND REPORT

DRAWING INFORMATION

PROJ. NO: 08041
FIRST SUBMITTAL DATE: 02.24.2009
SCALE: N/A

DRAWING NUMBER

F4-1.3

05.27.09 DELTA 2 - PLAN CHECK CORRECTION

GENERAL STRUCTURAL NOTES

SPECIAL CONDITIONS, REQUIREMENTS AND NOTES TO OWNER, DEVELOPER AND CONTRACTORS

CONTRACTOR, BUILDER AND SUBCONTRACTORS INVOLVED IN ANY FORM OF CONSTRUCTION USING THESE DOCUMENTS SHALL INFORM THE OWNER AND DEVELOPER IN WRITING PRIOR TO CONSTRUCTION OF THE FOLLOWING RESPONSIBILITIES, PERFORMANCE CRITERIA AND LIMITATIONS AND RISKS ASSOCIATED WITH CONSTRUCTION. IF THE OWNER, DEVELOPER OR CONTRACTOR IS NOT ABLE TO ACCEPT RESPONSIBILITIES OR PERFORMANCE CRITERIA AND LIMITATIONS, NOTIFY OUR OFFICE PRIOR TO START OF CONSTRUCTION. IT SHALL BE EXPRESSLY UNDERSTOOD THAT THE ENGINEER IS NOT RESPONSIBLE OR LIABLE FOR THE LACK OF PERFORMANCE OF MATERIALS, SYSTEMS OR DESIGNS NOT BEING LIMITED TO ITEMS OUTLINED BELOW. CONTRACTORS AND SUBCONTRACTORS SHALL THOROUGHLY REVIEW ALL CONDITIONS AND RESPONSIBILITIES STATED IN THESE NOTES, GENERAL STRUCTURAL NOTES, PLANS, SECTIONS AND DETAILS AND SHALL NOTIFY THE ENGINEER AND OWNER IN WRITING PRIOR TO CONSTRUCTION OF ANY CONDITIONS OR RESPONSIBILITIES WHICH ARE NOT ACCEPTABLE OR NOT UNDERSTOOD.

1. DUE TO MOISTURE VARIATIONS AS A RESULT OF AMBIENT CONDITIONS AND MATERIAL CONDITIONS AT TIME OF CONSTRUCTION, WOOD MEMBERS ARE SUSCEPTIBLE TO VOLUME AND SHAPE CHANGES AND DIMENSIONAL VARIATIONS. SPANNING MEMBERS MAY ALSO DEFLECT VERTICALLY OR LATERALLY. SHEATHING, DRYWALL OR ARCHITECTURAL SURFACES SUPPORTED BY WOOD MEMBERS MAY DISTORT, CRACK AND BULGE DUE TO THESE FACTORS.

2. PLAIN CONCRETE, REINFORCED CONCRETE, POST-TENSIONED CONCRETE, OR CONCRETE MASONRY DEVELOP CRACKS. THE CRACKS ARE DUE TO INHERENT SHRINKAGE, CREEP AND RESTRAINING EFFECTS. CRACKS ARE NORMALLY COSMETIC AND THE SYSTEM MAINTAINS SERVICEABILITY AND STRENGTH REQUIREMENTS. JOINTS MAY BE INDICATED TO CONTROL CRACKING, BUT ARE NOT MEANT TO ELIMINATE ALL CRACKING, AS THIS IS NOT PRACTICAL. THE CONTRACTOR SHALL USE ALL STANDARD MEANS TO INSURE PROPER PROTECTION AND CURING OF CEMENTIOUS MATERIALS TO REDUCE CRACKING. SURFACE SPALLING OR EXTREME CRACKING MAY BE CAUSED BY POOR MATERIAL OR PLACEMENT. CONTACT OUR OFFICE FOR POSSIBLE REPAIR REQUIREMENTS.

3. FOUNDATIONS HAVE BEEN DESIGNED WITH POST-TENSIONING REINFORCEMENT TO CONTROL CONCRETE CRACKING AND ASSIST IN DISTRIBUTING IMPOSED LOADS. FOUNDATIONS HAVE NOT BEEN DESIGNED TO MITIGATE SOIL SETTLEMENT OR HEAVE, ACCORDING TO THE POST-TENSIONING INSTITUTE METHOD OR UBC SECTION 1815. RECOMMENDATIONS OF THE SOIL REPORT (SEE BELOW) FOR CONVENTIONALLY REINFORCED FOUNDATIONS HAVE BEEN APPLIED. IT IS EXPRESSLY UNDERSTOOD THAT SOIL PREPARATION AND GRADING SHALL CONFORM TO THE SOIL REPORT RECOMMENDATIONS FOR CONVENTIONAL FOUNDATION. FOUNDATIONS MAY SETTLE OR HEAVE ACCORDING TO SOIL REPORT. SOIL MOVEMENT MAY CAUSE DISTORTION AND DISTRESS TO THE SUPPORTED STRUCTURE.

4. PLYWOOD OR APA RATED SHEATHING (OSB) AS NOTED ON DRAWINGS OR NOTES MAY BE A MINIMUM AS REQUIRED FOR STRUCTURAL LOADS. CONTRACTOR, DEVELOPER AND/OR OWNER SHALL BE RESPONSIBLE FOR SPECIFYING ALTERNATE THICKNESS OR SPAN RATING REQUIREMENTS TO SATISFY ROOFING WARRANTIES, NOISE RESTRICTIONS OR SUPPLEMENTAL DEFLECTION CRITERIA. CONTACT ENGINEER FOR INCREASED NAILING REQUIREMENTS FOR ALTERNATE SHEATHING.

5. VARIATION IN DIMENSIONS MAY OCCUR AS A RESULT OF THERMAL INFLUENCES, NATURAL DEFLECTIONS AND/OR CAMBERS OF MEMBERS. AS A RESULT, QUANTITIES MAY VARY AND ARCHITECTURAL FINISHES MAY BE AT RISK OF COSMETIC VARIATION OR DAMAGE.

6. THE ENGINEER SHALL NOT BE RESPONSIBLE FOR VARIATIONS TO PLANS BETWEEN BID PROCESS AND FINALIZED APPROVED DOCUMENTS RELEASED FOR CONSTRUCTION. ADDITIONS AND ALTERATIONS MAY BE MADE BETWEEN RELEASE OF BID DOCUMENTS AND FINALIZED CONSTRUCTION DOCUMENTS.

7. DESIGNS HAVE BEEN COMPLETED USING THE CODE STATED IN THE BASIS FOR DESIGN. WHERE MORE THAN ONE REFERENCE IS LISTED BELOW, THE REFERENCE THAT CORRESPONDS TO THE CODE STATED IN THE BASIS OF DESIGN SHALL BE USED. OTHER SPECIALIZED CODES OR DIRECTIVES (HUD, OSHA, ASSHTO, ETC.) ARE NOT USED IN THE PREPARATION OF THESE DOCUMENTS AND ARE NOT REFERENCED.

8. THESE DRAWINGS HAVE BEEN PREPARED USING STANDARDS OF PROFESSIONAL CARE AND COMPLETENESS NORMALLY EXERCISED UNDER SIMILAR CIRCUMSTANCES BY REPUTABLE STRUCTURAL ENGINEERS IN THIS OR SIMILAR LOCALITIES. THEY NECESSARILY ASSUME THAT THE WORK DEPICTED WILL BE PERFORMED BY AN EXPERIENCED CONTRACTOR, SUBCONTRACTOR AND/OR WORKPERSONS WHO HAVE A WORKING KNOWLEDGE OF THE APPLICABLE CODE STANDARDS AND REQUIREMENTS AND OF INDUSTRY ACCEPTED STANDARD GOOD PRACTICE. AS NOT EVERY CONDITION OR ELEMENT IS (OR CAN BE) EXPLICITLY SHOWN ON THESE DRAWINGS, IT IS UNDERSTOOD THAT THE CONTRACTOR WILL USE INDUSTRY ACCEPTED STANDARD GOOD PRACTICE FOR ALL WORK NOT EXPLICITLY SHOWN.

9. CALCULATION AND DESIGN OF MISCELLANEOUS NON-STRUCTURAL ITEMS, SUCH AS STAIRS, RAILINGS, NON-STRUCTURAL WALLS AND PREFABRICATED STRUCTURAL ITEMS, SUCH AS FLOOR AND ROOF TRUSSES ARE NOT INCLUDED AND IS TO BE PROVIDED BY OTHERS UNLESS SPECIFICALLY NOTED ON THESE DRAWINGS.

10. THESE DRAWINGS REPRESENT THE FINISHED STRUCTURE. THEY DO NOT INDICATE THE METHOD OF CONSTRUCTION. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DESIGN AND PROVIDE ADEQUATE SHORING, BRACING, FORMWORK, ETC. AS REQUIRED FOR THE PROTECTION OF LIFE AND PROPERTY DURING CONSTRUCTION. CONSTRUCTION MATERIALS SHALL BE UNIFORMLY SPREAD OUT SUCH THAT DESIGN LIVE LOAD PER SQUARE FOOT AS STATED HEREIN IS NOT EXCEEDED. VISITS TO THE SITE BY THE STRUCTURAL ENGINEER SHALL NOT INCLUDE INSPECTION OF THE ABOVE ITEMS.

11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL EXCAVATION PROCEDURES INCLUDING SHORING AND PROTECTION OF ADJACENT PROPERTY, STRUCTURES, STREETS AND UTILITIES IN ACCORDANCE WITH THE LOCAL BUILDING DEPARTMENT. ALL WORK OR CONSTRUCTION SHALL COMPLY WITH ALL APPLICABLE BUILDING CODES, REGULATIONS AND SAFETY REQUIREMENTS.

12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATION OF ALL DIMENSIONS, CONDITIONS AND ELEVATIONS WITH THE ARCHITECTURAL DRAWINGS PRIOR TO START OF CONSTRUCTION. THE CONTRACTOR SHALL INFORM THE ARCHITECT IN WRITING OF ANY DISCREPANCIES OR OMISSIONS NOTED ON THE DRAWINGS. ANY SUCH DISCREPANCY, OMISSION, OR VARIATION NOT REPORTED BEFORE START OF CONSTRUCTION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

13. WHERE REFERENCE IS MADE TO VARIOUS TEST STANDARDS FOR MATERIALS, SUCH STANDARDS SHALL BE THE LATEST EDITION AND/OR ADDENDA.

14. OPTIONS ARE FOR CONTRACTOR'S CONVENIENCE. IF AN OPTION IS USED, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL NECESSARY CHANGES AND SHALL COORDINATE ALL DETAILS.

15. TYPICAL DETAILS AND NOTES SHALL APPLY, THOUGH NOT NECESSARILY INDICATED AT A SPECIFIC LOCATION ON PLANS. WHERE NO DETAILS ARE SHOWN, CONSTRUCTION SHALL CONFORM TO SIMILAR WORK ON THE PROJECT. DETAILS MAY SHOW ONLY ONE SIDE OF CONNECTION OR MAY OMIT INFORMATION FOR CLARITY. WHERE DISCREPANCIES OCCUR IN THESE DRAWINGS, NOTES AND DETAILS ON DRAWINGS SHALL TAKE PRECEDENCE OVER GENERAL STRUCTURAL NOTES AND TYPICAL DETAILS.

16. ALL OPENINGS ARE NOT SHOWN ON THESE DRAWINGS. ESTABLISH AND VERIFY ALL OPENINGS AND INSERTS FOR ARCHITECTURAL, MECHANICAL, PLUMBING AND ELECTRICAL WITH APPROPRIATE TRADES, DRAWINGS AND SUBCONTRACTORS PRIOR TO CONSTRUCTION. OPENINGS MAY REQUIRE ADDITIONAL REINFORCING OR SUPPORTS AS SHOWN ON TYPICAL DETAILS. IF TYPICAL DETAILS FOR ALL CONDITIONS ARE NOT INCLUDED HEREIN, IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO REQUEST IN WRITING ADDITIONAL INFORMATION.

17. ALL INSPECTIONS REQUIRED BY THE BUILDING CODES, LOCAL BUILDING OFFICIALS, OR BY THESE PLANS SHALL BE PROVIDED BY AN INDEPENDENT INSPECTION COMPANY OR, THE BUILDING DEPARTMENT. INSPECTION REQUIREMENTS STATED HEREIN ARE PARTIAL. COMPLETE INSPECTION REQUIREMENTS SHALL BE AS DIRECTED BY THE LOCAL BUILDING DEPARTMENT. SITE VISITS BY THE ENGINEER DO NOT CONSTITUTE AN INSPECTION, UNLESS SPECIFICALLY CONTRACTED FOR.

18. SHOP DRAWINGS SHALL BE SUBMITTED FOR ALL STRUCTURAL ITEMS. SHOP DRAWINGS ARE REVIEWED ONLY FOR GENERAL COMPLIANCE WITH THE STRUCTURAL DRAWINGS. REVIEW DOES NOT INDICATE THAT THE SHOP DRAWINGS ARE CORRECT OR COMPLETE. RESPONSIBILITY FOR CORRECTNESS SHALL REST WITH THE CONTRACTOR. ANY CHANGES, SUBSTITUTIONS, OR DEVIATIONS FROM CONTRACT DRAWINGS SHALL BE CLOUDED. ANY OF THE AFOREMENTIONED SHALL NOT BE CONSIDERED APPROVED AFTER ENGINEER'S REVIEW UNLESS SPECIFICALLY NOTED ACCORDINGLY. THE SHOP DRAWINGS DO NOT SUPERSEDE OR REPLACE THE ORIGINAL CONTRACT DRAWINGS. ANY ENGINEERING PROVIDED BY OTHERS AND SUBMITTED FOR REVIEW SHALL BEAR THE SEAL OF AN APPROPRIATELY REGISTERED ENGINEER. THE ENGINEER SHALL NOT BE RESPONSIBLE FOR THE ADEQUACY OF ENGINEERING DESIGNS PERFORMED BY OTHERS. ALLOW FIVE WORKING DAYS FOR THE ENGINEER'S REVIEW. ONE COPY OF EACH SUBMITTAL WILL BE RETAINED FOR THE ENGINEER'S RECORDS.

BASIS FOR DESIGN

1. BUILDING CODE: 2006 INTERNATIONAL BUILDING CODE (IBC)

2. ROOF LOADS:
   LIVE LOAD (PSF) = 20 AT 4:12 SLOPE OR LESS
   19 AT 5:12 SLOPE OR GREATER
   DEAD LOAD (PSF)= 21 TOTAL; 18 SUPERIMPOSED ON PREFAB TRUSS
   SNOW LOAD = N/A

3. FLOOR LOADS:
   LIVE LOAD (PSF)= 40 TYPICAL FLOOR
   100 BALCONY AND STAIR
   DEAD LOAD (PSF)*= 31 TOTAL
   28 SUPERIMPOSED ON PREFAB TRUSS

*DEAD LOAD ASSUMES ONLY LIGHTWEIGHT FLOOR COVERINGS. NO HEAVIER FLOOR COVERINGS, SUCH AS STONE OR HEAVY TILE SHALL BE USED WITHOUT PRIOR WRITTEN APPROVAL FROM THE STRUCTURAL ENGINEER OF RECORD.

4. WIND LOAD:
   90 MPH, 3-SECOND GUST WIND SPEED
   75 MPH, FASTEST-MILE WIND SPEED
   WIND IMPORTANCE FACTOR, I=1.0
   EXPOSURE B
   INTERNAL PRESSURE COEFFICIENT, GCpi=+/-0.18
   COMPONENT & CLADDING DESIGN PRESSURE = 18 PSF

5. SEISMIC DESIGN DATA:
   SEISMIC USE GROUP I
   MAPPED SPECTRAL RESPONSE ACCELERATIONS: Ss=0.476, S1=0.161
   SPECTRAL RESPONSE COEFFICIENTS: Sds=0.476, Sd1=0.161
   SITE CLASS= D
   SEISMIC DESIGN CATEGORY = D
   BASIC SEISMIC-FORCE-RESISTING SYSTEM
   LIGHT-FRAME WALLS WITH SHEAR PANELS (WOOD PANELS), R=6.5
   DESIGN BASE SHEAR = 0.076 x W
   ANALYSIS PROCEDURE: SIMPLIFIED ANALYSIS PROCEDURE
   ANALYSIS PROCEDURE: EQUIVALENT LATERAL FORCE PROCEDURE
   SEISMIC RESPONSE COEFFICIENT: Cs=0.069

6. FLOOD LOAD: N/A

7. SPECIAL LOADS: N/A

8. MASONRY DESIGN: ALLOWABLE STRESS DESIGN (ASD) OR STRENGTH DESIGN

FOUNDATION NOTES

1. GEOTECHNICAL REPORT:
TERRACON CONSULTING ENGINEERS AND SCIENTISTS
REPORT NO. 64035082, DATED MAY 19, 2003 AND UPDATE LETTER DATED JANUARY 22, 2009

2. FOOTING DEPTH: 12 INCHES BELOW GRADE (SEE BELOW FOR DEFINITION OF GRADE)

3. ALLOWABLE FOOTING BEARING: 2000 PSF. INCREASE AN ADDITIONAL 1000 PSF FOR EACH ADDITIONAL 12 INCHES OF EMBEDMENT UP TO MAX OF 5000 PSF. ONE-THIRD INCREASE FOR SEISMIC OR WIND LOAD COMBINATIONS

4. LATERAL DESIGN SOIL PRESSURE: AT CANTILEVER RETAINING WALLS, AS OCUIRES, 35 PSF/FT ACTIVE PRESSURE (EQUIVALENT FLUID).

5. SLAB-ON-GRADE SUPPORT: 4 INCH LAYER OF SELECT GRANULAR FILL MATERIAL (PER SOIL REPORT) PLACED OVER 8 MIL MINIMUM VISQUEEN MEMBRANE.

6. POST-TENSIONED SLAB CRITERIA: CRITERIA PER PTI METHOD AND IBC SECTION 18
SLAB CRITERIA: SLABS DESIGNED IN ACCORDANCE WITH THE PTI RECOMMENDATIONS FOR NON-EXPANSIVE SOILS (BRAB II).

7. SOIL SULFATE EXPOSURE:
DUE TO WATER-SOLUBLE SULFATE TESTING PER GEOTECHNICAL REPORT, CONTRACTOR TO INSURE THAT CONCRETE IN CONTACT WITH SOILS SHALL BE PROPORTIONED FOR SEVERE SULFATE EXPOSURE ACCORDING TO BC 1904.3. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO UPGRADE CONCRETE COMPOSITION FROM REQUIREMENTS STATED HEREIN AS REQUIRED FOR SULFATE EXPOSURE.

8. ALL FOOTINGS SHALL EXTEND TO DEPTH NOTED ABOVE UNO ON PLANS OR DETAIL. GRADE IS DEFINED AS TOP OF SLAB FOR INTERIOR FOOTINGS, AND LOWEST ADJACENT COMPACTED SUBGRADE (PAD GRADE BEFORE LANDSCAPING) OR NATURAL GRADE WITHIN 5 FEET OF BUILDING FOR PERIMETER FOOTINGS. GRADE IS DEFINED AS TOP OF EXTERIOR PAVING OR CONCRETE WHERE EXTERIOR PAVING OR CONCRETE IS PERMANENTLY LOCATED DIRECTLY ADJACENT TO BUILDING AND EXTENDS AT LEAST 5 FEET FROM BUILDING. LOCATION OF FOUNDATIONS NEAR SLOPES SHALL COMPLY WITH UBC 1806.4/IBC 1805.3. FOOTING EXCAVATIONS SHALL BE CLEAN AND FREE FROM LOOSE DEBRIS, STANDING WATER, OR UNCOMPACTED MATERIAL AT TIME OF CONCRETE PLACEMENT.

9. UNLESS NOTED OTHERWISE IN THE GEOTECHNICAL REPORT, CONCRETE SLABS ON GRADE SHALL BE SUPPORTED ON SELECT FILL MATERIAL AS NOTED ABOVE. FILL MATERIAL SHOULD BE MOISTENED, BUT NOT SATURATED JUST PRIOR TO PLACING CONCRETE. CARE SHALL BE TAKEN IN PLACING SLABS ON GRADE SO AS NOT TO DISTURB FILL MATERIAL OR REINFORCING. VISQUEEN MAY BE OMITTED IF IT IS NOT A REQUIREMENT OF THE GEOTECHNICAL REPORT.

10. SITE PREPARATION AND GRADING REQUIREMENTS OF THE GEOTECHNICAL REPORT AND ANY ADDENDA SHALL BE COMPLETED PRIOR TO CONSTRUCTION OF FOUNDATIONS. ANY TESTS, INSPECTIONS, FIELD OBSERVATIONS, OR APPROVAL FROM THE GEOTECHNICAL ENGINEER SHALL BE PERFORMED PRIOR TO PLACEMENT OF FOUNDATION REINFORCING STEEL OR CONCRETE. ALTERATIONS TO SITE PREPARATION OR GRADING SHALL BE REPORTED TO THE ENGINEER PRIOR TO FOUNDATION CONSTRUCTION.

11. BACKFILL AGAINST FOUNDATION WALLS OR EXTERIOR WALLS BELOW GRADE SHALL NOT BE PLACED UNTIL AFTER THE TOP OF THE WALLS ARE RESTRAINED BY THE COMPLETED INTERIOR FLOOR SYSTEMS.

CONCRETE

1. MINIMUM 28 DAY STRENGTH (f'c) SHALL BE AS FOLLOWS:
   FOUNDATIONS 4500 PSI, W/C = .45 *
   SLABS ON GROUND 4500 PSI, W/C = .45 *

   *INDICATES STRENGTH INCREASED DUE TO SOIL SULFATE EXPOSURE. DESIGN BASED ON 2500 PSI CONCRETE STRENGTH. SEE FOUNDATION NOTES.

2. CONCRETE MIXES SHALL BE DESIGNED BY A CERTIFIED LABORATORY AND APPROVED BY THE ENGINEER. MIX DESIGNS FOR POST-TENSIONED CONCRETE SHALL BE PROPORTIONED SO AS TO MINIMIZE SHRINKAGE CRACKING.

3. ALL CONCRETE SHALL BE REGULAR WEIGHT OF 145 POUNDS PER CUBIC FOOT USING HARDROCK AGGREGATES. AGGREGATE USED IN CONCRETE SHALL CONFORM TO ASTM C33, CONCRETE AGGREGATES.

4. MAXIMUM SLUMP FOR EXTERIOR SLABS SHALL BE 5 INCHES. MAXIMUM SLUMP FOR ALL OTHER CONCRETE SHALL BE 4 INCHES. WATER SHALL BE CLEAN AND POTABLE.

5. PORTLAND CEMENT SHALL CONFORM TO ASTM C150. TYPE V CEMENT SHALL BE USED FOR CONCRETE IN CONTACT WITH EARTH. TYPE II CEMENT MAY BE USED ELSEWHERE. MAXIMUM CHLORIDE ION, PERCENT BY WEIGHT OF CEMENT, SHALL NOT EXCEED 0.06.

6. NO MORE THAN 90 MINUTES SHALL ELAPSE BETWEEN CONCRETE BATCHING AND CONCRETE PLACEMENT, UNLESS APPROVED BY THE ENGINEER OR AUTHORIZED TESTING AGENCY.

7. CONCRETE MIXING, PLACEMENT AND QUALITY SHALL BE PER IBC SECTION 1905, ASTM C94, ASTM C685, AND ACI 302. MECHANICALLY VIBRATE ALL CONCRETE WHEN PLACED, EXCEPT SLABS ON GRADE NEED ONLY BE VIBRATED OR THOROUGHLY RODDED AROUND EMBEDDED STRAPS OR HARDWARE, BOLTS FOR HOLDOWNS, PT ANCHORAGES (AS OCCUR), CURBS AND EDGES OF SLAB STEPS AND UNDER FLOOR DUCTS OR SIMILAR ELEMENTS. REMOVE ALL DEBRIS FROM FORMS BEFORE PLACING CONCRETE. CONCRETE SHALL NOT BE DROPPED THROUGH REINFORCING STEEL (AS IN WALLS AND COLUMNS) SO AS TO CAUSE SEGREGATION OF AGGREGATES. UNCONFINED FALL OF CONCRETE SHALL NOT EXCEED 5 FEET. CARE SHALL BE TAKEN IN PLACING SLABS ON GRADE SO AS NOT TO DISTURB FILL MATERIAL.

8. ALL ITEMS TO BE CAST IN CONCRETE SUCH AS REINFORCING, DOWELS, BOLTS, ANCHORS, PIPES, SLEEVES, ETC. SHALL BE SECURELY POSITIONED IN THE FORMS BEFORE PLACING THE CONCRETE.

9. CONCRETE SLAB ON GRADE CONTROL JOINTS SHALL BE AS SHOWN ON THE FOUNDATION PLAN OR TYPICAL DETAILS. WHERE CONTROL JOINTS ARE NOT SHOWN ON PLANS, ALL CONCRETE SLABS ON GRADE SHALL BE BOUNDED BY KEYED, DOWELED OR SAW-CUT CONTROL JOINTS SUCH THAT THE ENCLOSED AREA DOES NOT EXCEED 260 SQUARE FEET. RATIO OF BOUNDARY DIMENSIONS SHALL NOT EXCEED 1.5:1. KEYED OR DOWELED CONTROL JOINTS NEED ONLY OCCUR AT EXPOSED EDGES DURING POURING. ALL OTHER JOINTS MAY BE SAW CUT. POST-TENSIONED CONCRETE SLABS ON GRADE SHALL NOT HAVE CONTROL JOINTS UNLESS SPECIFICALLY NOTED ON THE PLANS.

10. PIPES OTHER THAN ELECTRICAL CONDUITS SHALL NOT BE EMBEDDED IN STRUCTURAL CONCRETE EXCEPT WHERE SPECIFICALLY APPROVED BY THE ENGINEER. MAXIMUM PIPE SIZE SHALL BE 1/3 OF THE SLAB THICKNESS AND LOCATED AT THE MID-DEPTH. MINIMUM SPACING SHALL BE 3 TIMES THE PIPE DIAMETER. PIPES SHALL NOT IMPAIR THE STRENGTH OF THE MEMBER.

11. PROTECT CONCRETE FROM DAMAGE OR REDUCED STRENGTH DUE TO COLD OR HOT WEATHER IN ACCORDANCE WITH ACI 305 AND 306 AND IBC SECTION 1905. CONTRACTOR SHALL TAKE SPECIAL CURING PRECAUTIONS TO MINIMIZE SHRINKAGE CRACKING OF POST-TENSIONED CONCRETE SLABS.

POST-TENSIONED CONCRETE SLABS-ON-GROUND

1. INFORMATION THIS SECTION APPLIES ONLY TO THE CONSTRUCTION OF POST-TENSIONED CONCRETE SLABS AND FOUNDATIONS ON GROUND. THE ENGINEER SHALL NOT BE RESPONSIBLE FOR EMBEDDED HARDWARE, ANCHOR BOLTS, HOLDOWNS, AND POST BASES, ETC. DESIGNED BY OTHERS. ITEMS NOT SPECIFICALLY DIMENSIONED ON THE PLANS SUCH AS INTERIOR SHEAR WALLS, POSTS, HOLDOWNS, ETC. SHALL BE LOCATED ACCORDING TO APPROVED ARCHITECTURAL PLANS AND DETAILS.

2. INTERIOR TENDON LOCATIONS (AWAY FROM EDGE OF SLAB OR OPENING) ARE TO BE PLACED AT THE APPROXIMATE LOCATION DIMENSIONED ON PLAN. TENDONS MAY BE MOVED LATERALLY APPROXIMATELY 18 INCHES FROM GIVEN DIMENSIONS TO AVOID EMBEDS, BLOCKOUTS, DRILLED ANCHORS, ETC. TENDON LOCATIONS NOT DIMENSIONED ON PLANS SHALL BE PLACED AT APPROXIMATELY EQUAL SPACES BETWEEN DIMENSIONED CONTROL POINTS. VERTICAL PLACEMENT TOLERANCE OF TENDONS SHALL BE .25 INCHES PLUS OR MINUS.

3. ALL TENDON OVERLAPS SHALL BE CENTERED IN DEPTH OF CONCRETE SLAB EXCEPT AT PERIMETER OF FOUNDATION, UNLESS NOTED OTHERWISE. TENDONS ADJACENT TO EDGE OF SLAB AND RUNNING PARALLEL TO EDGE OF SLAB SHALL BE PLACED BELOW TENDON PERPENDICULAR TO EDGE OF SLAB. PLACE BOUNDARY TENDONS BEFORE PLACING REMAINING TENDONS.

4. SECURE ALL TENDONS AT EACH INTERSECTION WITH THE APPROPRIATE CHAIR OR DOBIE BLOCKS. PLASTIC CHAIRS WHICH PROVIDE SADDLE OR SIDE CLIPS FOR THE TENDONS NEED ONLY BE TIED AT EVERY THIRD TENDON INTERSECTION. DOBIE BLOCK OR OTHER CHAIRS WHICH ALLOW TENDONS TO MOVE LATERALLY SHALL BE TIED AT EACH TENDON INTERSECTION. TIE ALL TENDON INTERSECTIONS AT THE PERIMETER OF THE SLAB.

5. PLACEMENT OF MILD STEEL REINFORCEMENT SHALL BE COORDINATED WITH PLACEMENT OF POST-TENSIONING TENDONS. PROPER TENDON PLACEMENT HAS PRIORITY.

6. CONCRETE CONTRACTOR SHALL ENSURE THAT WORKMEN EXERCISE GREAT CARE SO AS NOT TO DISTURB LOCATIONS OF TENDONS DURING CONCRETE PLACEMENT.

7. TENDON STRESSING MAY PROCEED WHEN THE CONCRETE STRENGTH OBTAINS 2000 PSI. STRESS SLABS AS EARLY AS POSSIBLE TO REDUCE SHRINKAGE CRACKS. STRESS ALL TENDONS BEFORE PLACING SECOND STORY FLOOR SHEATHING OR ROOF SHEATHING ON THE FRAMED STRUCTURE. PARTIAL STRESSING (25 % OF ALL TOTAL FORCE) THE DAY AFTER CONCRETE PLACEMENT IS RECOMMENDED FOR ALL CABLES THAT EXCEED 100 FEET IN LENGTH OR WHERE REDUCTION OF SHRINKAGE CRACKING IS DESIRED.

8. ALL TENDON STRESSING OPERATIONS SHALL BE PERFORMED UNDER THE IMMEDIATE CONTROL OF PERSON PROPERLY TRAINED AND EXPERIENCED IN POST-TENSIONING STRESSING OPERATIONS. ALL TENDONS SHALL BE STRESSED BY MEANS OF A HYDRAULIC JACK EQUIPPED WITH A RECENTLY CALIBRATED (WITHIN 60 DAYS) PRESSURE GAUGE. A CURRENT, CERTIFIED CALIBRATION CHART SHALL ACCOMPANY EACH JACK. TENDON STRESSING OPERATOR SHALL MAINTAIN RIGID CONTROL OF GAUGE PRESSURE READINGS AND ELONGATION MEASUREMENTS. MEASURED ELONGATION SHALL CORRESPOND TO THE CALCULATED ELONGATION BY PLUS OR MINUS 10 PERCENT. ANY DISCREPANCIES IN TENDON ELONGATION OR STRESSING OPERATIONS SHALL BE REPORTED TO THE ENGINEER BEFORE CUTTING THE STRESSING ENDS. ADDITIONAL ENGINEERING FEES RELATED TO REVIEW OF ELONGATION'S SHOULD BE THE RESPONSIBILITY OF THE CONTRACTOR. ON TENDONS 25 FEET IN LENGTH OR LESS, GAUGE PRESSURE GOVERNS OVER ELONGATION. DO NOT STAND BEHIND THE JACK DURING STRESSING.

REINFORCING STEEL (FOR CONCRETE AND MASONRY)

1. REINFORCING STEEL SHALL CONFORM TO THE REQUIREMENTS OF ASTM A615. REINFORCING SHALL BE GRADE 60 (FY = 60 KSI) DEFORMED BARS FOR ALL BARS #5 AND LARGER AND ALL BARS USED FOR CONCRETE WALLS, BEAMS, ELEVATED SLABS AND COLUMN PRIMARY REINFORCING. REINFORCING MAY BE GRADE 40 (FY = 40 KSI) DEFORMED BARS FOR ALL BARS #4 AND SMALLER UNLESS NOTED OTHERWISE ON PLANS OR DETAILS. ALL REINFORCING TO BE WELDED SHALL BE ASTM A706, GRADE 60 LOW ALLOY WELDABLE STEEL.

2. WELDED WIRE FABRIC SHALL CONFORM TO THE REQUIREMENTS OF ASTM A185. LAPS IN WELDED WIRE FABRIC SHALL BE MADE SUCH THAT THE OVERLAP, MEASURED BETWEEN OUTERMOST CROSS WIRE OF EACH FABRIC SHEET, IS NOT LESS THAN THE SPACING OF CROSS WIRES PLUS 2 INCHES.

3. PRE-STRESSING STEEL SHALL CONFORM TO ASTM A416, GRADE 270, SEVEN-WIRE LOW RELAXATION STRAND AND THE PCI/PTI PUBLICATION "SPECIFICATION FOR UNBONDED SINGLE STRAND TENDONS" WITH A GUARANTEED ULTIMATE TENSILE STRENGTH OF 41.3 KPS. ALL MATERIAL SHALL BE CLEAN AND FREE FROM RUST. NOMINAL DIAMETER SHALL BE 1/2 INCH. NOMINAL AREA SHALL BE 0.153 SQUARE INCHES. MAXIMUM TEMPORARY JACKING FORCE SHALL NOT EXCEED 33 KIPS.

4. ALL DIMENSIONS SHOWING THE LOCATION OF REINFORCING STEEL NOT NOTED AS "CLEAR" OR "CLR" ARE TO CENTER OF STEEL. MINIMUM COVER FOR NON-PRESTRESSED CONCRETE REINFORCING SHALL BE AS FOLLOWS, UNLESS NOTED OTHERWISE ON PLANS OR DETAILS:

EXPOSURE CONDITION:	MINIMUM COVER:	TOLERANCES (+ / -):
CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH:	3"	3/8"
EXPOSED TO EARTH OR WEATHER:		
#5 AND SMALLER:	1-1/2"	3/8"
#6 AND LARGER:	2"	3/8"
NOT EXPOSED TO WEATHER OR IN CONTACT WITH THE GROUND:		
ROOF SLAB:	1"	1/8"
STRUCTURAL SLABS AND WALLS:	3/4"	1/8"
BEAMS AND COLUMNS (PRIMARY REINFORCEMENT, TIES, STIRRUPS AND SPIRALS):	1-1/2"	3/8"
SLABS ON GRADE:	1-1/2"	1/4"

5. LAP SPLICES OF REINFORCING STEEL IN CONCRETE BEAMS, SLABS AND FOOTINGS SHALL BE ACCORDING TO ACI SECTION 12 OR LAP SCHEDULE, WHERE PRESENT, UNLESS NOTED OTHERWISE. STAGGER SPLICES A MINIMUM OF ONE LAP LENGTH. NO TACK WELDING OF REINFORCING BARS ALLOWED. LATEST ACI CODE AND DETAILING MANUAL APPLY. PROVIDE BENT CORNER BARS TO MATCH AND LAP WITH HORIZONTAL BARS AT ALL CORNERS AND INTERSECTIONS PER TYPICAL DETAILS. VERTICAL WALL BARS SHALL BE SPLICED AT OR NEAR FLOOR LINES. SPLICE BARS TOP BARS AT CENTER LINE OF SPAN AND BOTTOM BARS AT THE SUPPORT IN SPANDRELS, BEAMS, GRADE BEAMS, ETC. UNLESS NOTED OTHERWISE.

6. MECHANICAL SPLICE COUPLERS, FLANGE COUPLERS, THREADED COUPLERS, ETC. SHALL HAVE CURRENT ICC APPROVAL AND SHALL BE CAPABLE OF DEVELOPING 125% OF THE STRENGTH OF THE BAR.

7. ALL REINFORCING SHALL BE BENT COLD. BARS SHALL NOT BE STRAIGHTENED AND RE-BENT. FIELD BENDING OF REBAR SHALL NOT BE ALLOWED UNLESS SPECIFICALLY NOTED.

8. WELDING OF REINFORCING BARS, METAL INSERTS, AND CONNECTIONS SHALL CONFORM WITH AWS D1.4 AND SHALL BE MADE ONLY AT LOCATIONS SHOWN ON PLANS OR DETAILS.

9. REINFORCING BAR SPACING SHOWN ON PLANS ARE AT MAXIMUM ON CENTERS. ALL BARS SHALL BE DETAILED AND PLACED PER CONCRETE REINFORCING STEEL INSTITUTE (CRSI) SPECIFICATIONS AND HANDBOOK. DOWEL ALL VERTICAL REINFORCING TO FOUNDATION. SECURELY TIE ALL BARS IN LOCATION BEFORE PLACING CONCRETE.

10. ANCHORAGE FOR POST-TENSIONING TENDONS SHALL BE MONOSTRAND-TYPE ANCHOR SYSTEM PER ICC ER-4597 OR EQUIVALENT WITH CURRENT ICC APPROVAL USING A DUCTILE IRON CASTING OF AT LEAST 2.25 INCHES BY 4.5 INCHES OF BEARING. POCKET-FORMERS SHALL BE USED ON ALL STRESSING ENDS. THE POCKET-FORMER SHALL PROVIDE ADEQUATE CONCRETE COVERAGE FOR THE ANCHOR AS NOTED ON THE PLANS OR DETAILS. COATING POCKET-FORMERS WITH OIL OR SIMILAR MATERIALS FOR EASE OF REMOVAL IS ACCEPTABLE. ALL DEAD END ANCHORAGES SHALL BE SHOP FABRICATED, PRESEATED WEDGES. FABRICATION AND MANUFACTURER OF THE UNBONDED SYSTEM SHALL BE IN ACCORDANCE WITH THE GUIDE SPECIFICATIONS AS OUTLINED BY THE POST-TENSIONING INSTITUTE.

WOOD

1. SAWN FRAMING LUMBER SHALL COMPLY WITH THE LATEST EDITION OF THE GRADING RULES OF THE WESTERN WOOD PRODUCTS ASSOCIATION OR THE WEST COAST LUMBER INSPECTION BUREAU. ALL SAWN LUMBER SHALL BE STAMPED WITH THE GRADE MARK OF AN APPROVED LUMBER GRADING AGENCY. SAWN LUMBER SHALL HAVE THE FOLLOWING MINIMUM GRADE (UNLESS NOTED OTHERWISE):

2x4 STUDS UP TO 10'-0"	DOUGLAS FIR STUD GRADE
2x4 STUDS OVER 10'-0"	DOUGLAS FIR STANDARD GRADE
2x4 TOP OR BOTTOM PLATES	DOUGLAS FIR STANDARD GRADE
2x6 STUDS UP TO 10'-0"	DOUGLAS FIR STUD GRADE
2x6 STUDS OVER 10'-0"	DOUGLAS FIR NO. 2 GRADE
2x6 TOP OR BOTTOM PLATES	DOUGLAS FIR NO. 2 GRADE
2x4 OR 2x6 BLOCKING	DOUGLAS FIR STANDARD, STUD, NO.2
2x8, 2x10, 2x12 (ALL APPLICATIONS)	DOUGLAS FIR NO 2 GRADE
4x4 (ALL APPLICATIONS)	DOUGLAS FIR NO. STANDARD GRADE
4x6, 4x8, 4x10, 4x12 (ALL APPLICATIONS)	DOUGLAS FIR NO. 2 GRADE
6x6, 6x8, 6x10, 6x12 (ALL APPLICATIONS)	DOUGLAS FIR NO. 1 GRADE

2. GLUE-LAMINATED BEAMS (GLULAM) SHALL BE DOUGLAS FIR COMBINATION 24F-V4 AT SIMPLE SPANS AND 24F-V8 AT CANTILEVER SPANS HAVING THE FOLLOWING MINIMUM PROPERTIES: Fb = 2,400 PSI, Fv = 265 PSI, Fc (PERPENDICULAR) = 650 PSI, E = 1,800,000 PSI. FABRICATION AND HANDLING SHALL CONFORM TO THE LATEST AMERICAN INSTITUTE FOR TIMBER CONSTRUCTION (AITC) AND ASTM STANDARDS. BEAMS SHALL BEAR AN APPROPRIATE GRADE STAMP CLEARLY NOTING ITS DESIGN PROPERTIES. UNLESS CAMBER AND TOLERANCE IS SPECIFICALLY NOTED ON THE DRAWINGS, BEAMS SHALL BE MANUFACTURED WITH MINIMUM UPWARD CAMBER OF 1200 FOOT RADIUS. ERECT WITH CROWN OR CAMBER UP. IN HEADER CONDITIONS (BEAM BUILT INTO WALL) CRIPPLE FRAMING ABOVE HEADER SHALL MAINTAIN CAMBER. HEADER BEAMS MAY HAVE ZERO CAMBER, PROVIDED CRIPPLE FRAMING ABOVE HEADER IS BUILT WITH MINIMUM CAMBER STATED ABOVE.

3. LAMINATED VENEER LUMBER (MICROLAM) SHALL BE WESTERN SPECIES MANUFACTURED IN ACCORDANCE WITH WEYERHAUSER CORPORATION MANUFACTURING STANDARDS AS REFERENCED IN ICC REPORT NO. EGR-1387, OR APPROVED EQUAL, AND SHALL HAVE THE FOLLOWING MINIMUM PROPERTIES: E = 1,900,000 PSI, Fb = 2600 PSI, Fc (PERPENDICULAR) = 750 PSI, Fc (PARALLEL) = 2310 PSI, Fv = 285 PSI. WHEN MULTIPLE MICROLAMS ARE GROUPED TOGETHER, FASTEN WITH 2 ROWS OF 16d COMMON NAILS AT 12" OC. USE 3 ROWS OF 16d COMMON NAILS AT 12" OC FOR DEPTHS 14" OR GREATER. 16" AND 18" DEEP BEAMS ARE TO BE USED IN MULTIPLE MEMBER UNITS ONLY. SEE MANUFACTURER'S RECOMMENDATION WHEN GROUPING 4 MEMBERS TOGETHER OR GROUPING MEMBERS WIDER THAN 1-3/4".

4. ALL PLYWOOD SHALL BE C-D OR C-C SHEATHING CONFORMING TO USVPS PS-1 AND PS-2. PLYWOOD SHALL HAVE EXTERIOR GLUE. LAY UP PLYWOOD WITH FACE GRAIN PERPENDICULAR TO SUPPORTS. PROVIDE BLOCKING AT PANEL EDGES WHERE INDICATED ON PLANS. ALL PLYWOOD SHALL CONFORM TO THE FOLLOWING NOMINAL THICKNESS, SPAN RATING AND NAILING PATTERN UNLESS NOTED OTHERWISE:

THICKNESS:	SPAN RATING:	EDGE NAILING:	FIELD NAILING:
3/8"	24/0	8d AT 6" OC	8d AT 12" OC
7/16"	24/16	8d AT 6" OC	8d AT 12" OC
15/32" (1/2")	32/16	8d AT 6" OC	8d AT 12" OC
3/4" (23/32")	48/24	10d AT 6" OC	10d AT 10" OC
1"	60/48	10d AT 6" OC	10d AT 6" OC
1-1/8"	60/48	10d AT 6" OC	10d AT 6" OC

UNLESS NOTED OTHERWISE ON PLAN (SEE PLAN), ROOF SHEATHING SHALL BE 15/32" MIN AND FLOOR SHEATHING SHALL BE 3/4" MINIMUM, UNLESS NOTED OTHERWISE. AT PANELIZED CONSTRUCTION LAY UP PLYWOOD WITH FACE GRAIN PARALLEL TO SUPPORTS USING 5-PLY PLYWOOD.

5. AMERICAN PLYWOOD ASSOCIATION PERFORMANCE RATED SHEATHING (OSB) MAY BE USED AS AN ALTERNATE TO PLYWOOD WITH PRIOR APPROVAL OF OWNER AND ARCHITECT. RATED SHEATHING SHALL COMPLY WITH ICBO REPORT NO. NER-124 AND SHALL HAVE A SPAN RATING EQUIVALENT TO OR BETTER THAN THE PLYWOOD IT REPLACES. ATTACHMENT AND THICKNESS (WITHIN 1/32") SHALL BE THE SAME AS THE PLYWOOD IT REPLACES. INSTALL PER MANUFACTURER'S RECOMMENDATIONS.

6. DIMENSIONS OF NAILS SHALL CONFORM WITH THE FOLLOWING TABLE:

NAIL SIZE:	SHANK DIA:	LENGTH:
16d COMMON	.162"	3-1/2"
16d SINKER	.148"	3-1/4"
16d BOX	.135"	3-1/2"
P-NAIL	.131"	3-1/4"
10d COMMON	.148"	3"
8d COMMON	.131"	2-1/2"

NAILS ONLY NOTED AS 16d MAY BE COMMON, SINKER OR P-NAIL UNLESS NOTED SPECIFICALLY AS COMMON, SINKER OR P-NAIL. NAILS NOTED ON PLANS OR NOTES AS 10d OR 8d SHALL BE COMMON ONLY. ALL NAILING NOT NOTED SHALL BE ACCORDING TO IBC TABLE 2304.9.1.

7. SOLE PLATES RESTING ON CONCRETE OR MASONRY SHALL BE TREATED DOUGLAS FIR. ANCHOR BOLTS AT SOLE PLATES SHALL BE 1/2" DIA x 7" EMBED. MAXIMUM ANCHOR BOLT SPACING TO BE, INTERIOR: 72" OC, EXTERIOR: 48" OC, UNO ON PLAN, DETAIL OR SCHEDULE. THERE SHALL BE A MINIMUM OF TWO BOLTS PER PIECE WITH ONE BOLT LOCATED NOT MORE THAN 12" OR LESS THAN 7 BOLT DIAMETERS FROM EACH END OF PIECE. HOLDOWN BOLTS SHALL NOT BE CONSIDERED AS ANCHOR BOLTS.

8. INTERIOR SOLE PLATES (5" AWAY FROM EDGE OF CONCRETE OR STEP) MAY BE ANCHORED WITH EXPANSION BOLTS IN LIEU OF ANCHOR BOLTS. EXPANSION BOLTS SHALL BE THE SAME DIAMETER AND SPACING AS ANCHOR BOLTS AND SHALL BE EMBEDDED 2-1/4" FOR 1/2" DIA BOLTS. AT POST-TENSIONED SLABS-ON-GROUND, MONOLITHIC SLAB FOOTING THICKNESS SHOWN ON PLAN OR DETAIL MAY BE REDUCED TO 5-1/4" UNO ON PLANS TO PROVIDE 3" CONCRETE COVER. EXPANSION BOLTS SHALL BE HILTI KWIK BOLT TZ (ICC NO. ESR-1917) OR ITW REDHEAD TRUBOLT (ICC NO. ESR-2251). INSTALL PER MANUFACTURER'S RECOMMENDATIONS AND ICBO REPORT.

9. INTERIOR SOLE PLATE (6" AWAY FROM EDGE OF CONCRETE OR STEP) MAY BE ANCHORED WITH LOW VELOCITY POWER ACTUATED SHOT PINS MANUFACTURED BY HILTI (ICC NO. ESR-1663) OR RAMSET (ICC NO. ESR-1799). INSTALL FASTENER PER MANUFACTURER'S RECOMMENDATIONS AND ICC REPORT. DO NOT SPLIT WOOD PLATE. MONOLITHIC SLAB FOOTING SHOWN ON PLAN OR DETAIL MAY BE OMITTED UNO ON PLAN WHERE SHOT PIN ALTERNATE IS USED.

SPECIFIED ANCHOR BOLT:	ALTERNATE SHOT PIN SPACING .170" SHANK:	.140" SHANK:
1/2" DIA AT 48" OC	9"	6"
1/2" DIA AT 40" OC	7"	--
1/2" DIA AT 24" OC	6"	--

10. DO NOT NOTCH, SLOPE CUT, OR DRILL JOISTS, BEAMS OR LOAD-BEARING STUDS WITHOUT PRIOR APPROVAL OF THE STRUCTURAL ENGINEER THROUGH THE ARCHITECT UNLESS SPECIFIC DETAILS ARE PROVIDED. DOUBLE UP FLOOR JOISTS AND BLOCKING UNDER WALLS THAT RUN PARALLEL TO THE JOISTS. PROVIDE 2" (NOMINAL) SOLID BLOCKING BETWEEN JOISTS AT SUPPORTS.

11. JOIST HANGERS AND OTHER MISCELLANEOUS FRAMING ANCHORS SHALL BE AS MANUFACTURED BY SIMPSON STRONG-TIE COMPANY WITH CURRENT ICC APPROVAL. ATTACH FRAMING ANCHORS TO WOOD PER MANUFACTURER'S RECOMMENDATIONS. USE MAXIMUM NUMBER AND SIZE OF FASTENER WHERE NOT SPECIFICALLY NOTED. USE OF ALTERNATE HARDWARE MANUFACTURER REQUIRES WRITTEN APPROVAL OF THE ENGINEER. VERIFY LOCATION OF HOLDOWNS, POST BASES, ETC. WITH FRAMING TO ENSURE PROPER AND ACCURATE INSTALLATION.

12. ALL BOLTS SHALL BE INSTALLED IN HOLES BORED WITH A BIT 1/16 INCH LARGER THAN THE DIAMETER OF THE BOLT. BOLTS AND NUTS SEATING ON WOOD SHALL HAVE CUT STEEL WASHERS UNDER HEADS AND NUTS. DING THREADS TO PREVENT LOOSENING. LAG SCREWS SHALL BE INSTALLED IN PRE-DRILLED HOLES BY TURNING WITH A WRENCH.

13. HOLDOWN ANCHORS AT INTERIOR ENDS OF SHEAR WALLS (18" MIN AWAY FROM EDGE OF SLAB) MAY BE ANCHORED TO SLAB WITH EPOXY GROUTED A307 ALL-THREAD BAR IN DRILLED HOLE. EMBEDMENT DEPTH AND DIAMETER OF ALL-THREAD BOLT SHALL MATCH DEPTH REQUIREMENT FOR CAST BOLT. USE HILTI HVA OR C-100 ADHESIVE ANCHOR SYSTEM (ICC NO. ER-5369), SIMPSON SET OR ET (ICC NO. 1772 OR 4945), COVERT OPERATION CIA-GEL 7000 (ICC NO. 1702), RAWL OR SIKADUR FOILFAST (ICC NO. 4514) OR RAMSET EPCON (ICC NO. 4285). INSTALL PER ICC REPORT AND MANUFACTURER'S RECOMMENDATION. THICKEN SLAB TO PROVIDE 3 INCHES CONCRETE COVER (MINIMUM) AT LOCATIONS WHERE HOLDOWNS OR EPOXY GROUTED ANCHORS ARE TO BE INSTALLED.

14. PERIMETER HOLDOWNS ANCHORS (WITHIN 18" OF EDGE OF SLAB) ARE TO BE CAST. REPAIR FOR MISLOCATED PERIMETER HOLDOWNS MAY BE ANCHORED TO SLAB WITH EPOXY GROUTED A307 ALL-THREAD BAR IN DRILLED HOLE. EMBEDMENT DEPTH AND DIAMETER OF ALL-THREAD BOLT SHALL MATCH DEPTH REQUIREMENT FOR CAST BOLT. USE ONLY SIMPSON SET (ICC NO. 1772) ADHESIVE ANCHOR SYSTEM ON REPAIR OF ALL PERIMETER HOLDOWN BOLTS. INSTALL PER ICC REPORT AND MANUFACTURER'S RECOMMENDATION.

15. PREFABRICATED WOOD TRUSSES, JOISTS AND GIRDER TRUSSES SHALL BE DESIGNED TO SUPPORT THEIR SELF-WEIGHT, PLUS LIVE LOAD AND SUPERIMPOSED DEAD LOADS. INCLUDING, BUT NOT LIMITED TO, WALLS EITHER PARALLEL OR PERPENDICULAR TO THE SPAN, ALL MECHANICAL AND OTHER EQUIPMENT, AND SHALL BE DESIGNED TO RESIST ALL DRAG FORCES, SHEAR WALL UPLIFT AND DOWNWARD LOADS, AND OTHER SPECIAL LOADS NOTED ON STRUCTURAL, MECHANICAL, PLUMBING, OR ARCHITECTURAL DRAWINGS OR CALCULATIONS. BRIDGING SIZE AND SPACING SHALL BE AS DESIGNATED BY TRUSS MANUFACTURER UNLESS NOTED OTHERWISE. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS, ERECTION DRAWINGS AND DESIGN CALCULATIONS SEALED BY A REGISTERED ENGINEER. SHOP DRAWINGS SHALL SHOW ANY SPECIAL DETAILS REQUIRED AT BEARING POINTS. ALL CONNECTORS SHALL HAVE CURRENT ICBO APPROVAL. THE MANUFACTURER SHALL DESIGN CONNECTION OF TRUSS REQUIRING PREFABRICATED HARDWARE HANGER OR OTHER.

16. PREFABRICATED PLYWOOD WEB I-JOIST/PURLINS (TRUS JOIST MACMILLAN TJI SERIES OR EQUAL) SHALL BE DESIGNED, FABRICATED AND ERECTED IN ACCORDANCE WITH THE LATEST EDITION OF ICC REPORT ESR-1153. CONNECTIONS AND BEARING MATERIAL SHALL BE DESIGNED AND FURNISHED BY JOIST FABRICATOR. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS WITH DESIGN CALCULATIONS SEALED BY AN APPROPRIATELY REGISTERED ENGINEER FOR REVIEW PRIOR TO MANUFACTURE. ADDITIONAL MEMBERS SHALL BE SUPPLIED AS REQUIRED TO SUPPORT MECHANICAL EQUIPMENT.

17. PREFABRICATED OPEN WEB TRUSS (TRUSS JOIST MACMILLAN TJL), SHALL BE DESIGNED, FABRICATED AND ERECTED IN ACCORDANCE WITH THE LATEST EDITION OF ICC REPORT ES-1774. CONNECTIONS AND BEARING MATERIAL SHALL BE DESIGNED AND FURNISHED BY JOIST FABRICATOR. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS WITH DESIGN CALCULATIONS SEALED BY AN APPROPRIATELY REGISTERED ENGINEER FOR REVIEW PRIOR TO MANUFACTURE. ADDITIONAL MEMBERS SHALL BE SUPPLIED AS REQUIRED TO SUPPORT MECHANICAL EQUIPMENT.

18. WHERE BRIDGING INTERFERES WITH MECHANICAL OR OTHER INSTALLATIONS, REMOVE BRIDGING AFTER DECK IS IN PLACE AND REPLACE WITH ADDITIONAL MANUFACTURER SUPPLIED HORIZONTAL STRUT BRACING AT TOP AND BOTTOM CHORDS.

19. DRAWINGS AND DETAILS DO NOT NECESSARILY INDICATE NONSTRUCTURAL BLOCKING, BRACING, DRYWALL BACKING, ETC. ALL SUCH ITEMS SHALL BE ADEQUATELY SECURED TO FRAMING.

20. DUCTS, PIPING, ELECTRICAL CONDUIT, ETC. SHALL NOT BE SUSPENDED FROM 2X_ SUBPURLINS AT PANELIZED ROOFS UNLESS SPECIFICALLY APPROVED IN WRITING BY THE ENGINEER.

DEFERRED SUBMITTALS

1. IN ACCORDANCE WITH THE IBC SECTION 106.3.4.2, SPECIALTY ITEMS, PRE-ENGINEERED COMPONENTS, AND DESIGN/BUILD ELEMENTS MAY BE SUBMITTED FOR APPROVAL BY THE ENGINEER OF RECORD AND THE BUILDING OFFICIAL BY DEFERRED SUBMITTAL. SUCH ITEMS ARE DEFINED AS THOSE SPECIFIED IN CONSTRUCTION DOCUMENTS BUT WHICH REQUIRE DESIGN BY THE MANUFACTURER, SUPPLIER OR INSTALLER.

2. DEFERRED SUBMITTALS ARE REQUIRED FOR THE FOLLOWING:

WOOD TRUSSES
ENGINEERED WOOD JOISTS AND BEAMS
EXIT FACILITIES INCLUDING LANDINGS, STAIRS, HANDRAILS AND GUARDRAILS SUPPORT AND ANCHORAGE OF MECHANICAL, ELECTRICAL AND PLUMBING EQUIPMENT AND COMPONENTS

3. SUBMITTALS SHALL INCLUDE:

a) CALCULATIONS, PREPARED AND SEALED BY AN APPROPRIATELY REGISTERED ENGINEER (THE "SPECIALTY ENGINEER").
b) DIAGRAM PREPARED AND SEALED BY THE SPECIALTY ENGINEER, SHOWING LOAD MAGNITUDES AND LOCATIONS – SEPARATED INTO DEAD, LIVE, WIND AND/OR SEISMIC COMPONENTS – THAT ARE APPLIED TO THE PRIMARY STRUCTURE.
c) ERECTION OR DESIGN DRAWINGS BEARING THE SPECIALTY ENGINEER'S SEAL AND THE ARCHITECT'S STAMP INDICATING HIS REVIEW.

4. SUBMIT ONE (1) REPRODUCIBLE COPY, ONE (1) WET SEALED COPY FOR THE STRUCTURAL ENGINEER OF RECORD'S FILE, AND ADDITIONAL COPIES AS ARE NECESSARY FOR THE BUILDING DEPARTMENT. SUBMITTALS CONTAINING EXCEPTIONS, CORRECTIONS, OR OTHER REVIEW COMMENTS ARE NOT ACCEPTABLE FOR SUBMITTAL TO THE BUILDING DEPARTMENT.

5. THE STRUCTURAL ENGINEER OF RECORD'S REVIEW IS STRICTLY LIMITED TO THE FOLLOWING:

a) THE DRAWINGS AND CALCULATIONS ARE PROPERLY SEALED.
b) THE LOAD CRITERIA IS CONSISTENT WITH THE CONTRACT DOCUMENTS AND INTERNATIONAL BUILDING CODE REQUIREMENTS.
c) THE CONNECTIONS TO THE PRIMARY STRUCTURE ARE CONSISTENT WITH THE PRIMARY DESIGN.
d) THE BASE STRUCTURE IS CAPABLE OF SUPPORTING THE IMPOSED LOADS.

6. IF THE LOADS IMPOSED ON THE STRUCTURE EXCEED THE LOAD ALLOWANCE PROVIDED, THE STRUCTURAL ENGINEER OF RECORD WILL REJECT THE SUBMITTAL. ONLY AT THE OWNER'S WRITTEN DIRECTION WILL MODIFICATIONS TO THE BASE STRUCTURE TO ACCOMMODATE THE SPECIALTY ITEM(S) BE MADE BY THE ENGINEER OF RECORD. DEFERRED SUBMITTAL ITEMS SHALL NOT BE INSTALLED UNTIL THEIR DESIGN AND THE ENGINEER OF RECORD AND THE BUILDING OFFICIAL HAVE APPROVED SUBMITTAL DOCUMENTS.

INSPECTION NOTES

1. IN ADDITION TO THE STANDARD INSPECTIONS BY THE BUILDING OFFICIAL REQUIRED PER IBC CHAPTER 17, THE OWNER SHALL EMPLOY ONE OR MORE SPECIAL INSPECTORS WHO SHALL PROVIDE INSPECTIONS DURING CONSTRUCTION FOR THE TYPES OF WORK LISTED IN THIS SECTION.

2. THE SPECIAL INSPECTOR SHALL BE A QUALIFIED PERSON WHO SHALL DEMONSTRATE COMPETENCE, TO THE SATISFACTION OF THE BUILDING OFFICIAL, FOR INSPECTION OF THE PARTICULAR TYPE OF CONSTRUCTION OR OPERATION REQUIRING SPECIAL INSPECTION.

3. THE SPECIAL INSPECTOR SHALL INSPECT THE WORK ASSIGNED FOR CONFORMANCE WITH THE APPROVED CONTRACT DRAWINGS AND SPECIFICATIONS. SPECIAL INSPECTOR SHALL FURNISH INSPECTION REPORTS TO THE BUILDING OFFICIAL, THE ENGINEER OF RECORD, AND OTHER DESIGNATED PERSONS. ALL DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR FOR CORRECTION, THEN, IF UNCORRECTED, TO THE ENGINEER AND THE BUILDING OFFICIAL. THE SPECIAL INSPECTOR SHALL SUBMIT A FINAL SIGNED REPORT STATING WHETHER THE WORK REQUIRING SPECIAL INSPECTION WAS, TO THE BEST OF THE INSPECTOR'S KNOWLEDGE, IN CONFORMANCE WITH THE APPROVED PLANS AND SPECIFICATIONS AND THE APPLICABLE CODE PROVISIONS.

4. INSPECTORS SHALL INSPECT FROM AN APPROVED SET OF CONTRACT DRAWINGS. SHOP DRAWINGS SHALL NOT BE USED IN LIEU OF THE APPROVED CONTRACT DRAWINGS FOR INSPECTION PURPOSES.

5. TYPES OF WORK TO BE INSPECTED BY THE SPECIAL INSPECTOR ARE AS FOLLOWS:

a) DURING THE TAKING OF TEST SPECIMENS AND PLACING OF REINFORCED CONCRETE AND SHOTCRETE. EXCEPTION: FOUNDATION CONCRETE, OTHER THAN CAST-IN-PLACE DRILLED PILES OR CAISSONS, WHERE THE STRUCTURAL DESIGN IS BASED ON AN f'c NO GREATER THAN 2,500 PSI DOES NOT REQUIRE SPECIAL INSPECTION. FREQUENCY AND TYPE OF TEST SPECIMENS SHALL BE PER IBC SECTION 1905.6.

b) PRIOR TO, AND DURING THE INSTALLATION OF CONCRETE AROUND BOLTS.

c) DURING THE PLACING OF REINFORCING AND PRE-STRESSING TENDONS FOR ALL CONCRETE REQUIRED TO HAVE SPECIAL INSPECTION NOTED ABOVE.

e) DURING ALL STRESSING AND GROUTING OF PRE-STRESSING TENDONS. EXCEPTION: SPECIAL INSPECTOR NEED NOT BE PRESENT CONTINUOUSLY DURING PLACING OF REINFORCING STEEL AND PRE-STRESSING TENDONS, PROVIDED THE SPECIAL INSPECTOR HAS INSPECTED FOR CONFORMANCE TO THE APPROVED DESIGN DRAWINGS AND SPECIFICATIONS PRIOR TO THE CLOSING OF THE FORMS OR THE DELIVERY OF CONCRETE TO THE JOB SITE.

f) DURING ALL EPOXY ANCHORING OPERATIONS FOR BOLTS, REBAR, THREADED ROD, ETC., INCLUDING VERIFICATION OF BOLT OR BAR MATERIALS, HOLE DEPTH AND DIAMETER, HOLE CLEANOUT, EPOXY MIXING AND PLACEMENT PROCEDURES, AND EMBEDMENT DEPTH IN ACCORDANCE THE CONTRACT DRAWINGS AND THE MANUFACTURER'S SPECIFICATIONS AND RECOMMENDATIONS.

g) PERIODIC INSPECTIONS FOR SCREW ATTACHMENT, BOLTING, ANCHORING AND OTHER FASTENING OF COMPONENTS OF THE LATERAL-FORCE-RESISTING SYSTEM, INCLUDING STRUTS, DRAGS, BRACES, HOLDOWNS, SHEARWALLS AND DIAPHRAGMS.

6. CERTIFICATE OF APPROVAL REGARDING MATERIALS AND INSPECTION OF PREFABRICATED ITEMS SHALL BE PROVIDED IN ACCORDANCE WITH IBC SECTION 1703 THE QUALITY ASSURANCE PROGRAM.

SYMBOL LEGEND

PLANS

SYMBOL	DESCRIPTION
	COLUMN SECTIONS
C1/F3	SCHEDULED ITEM OR HARDWARE CALLOUT
TOS 98'-0"	TOP OF ELEVATION
	STEEL STUD OR WOOD STUD WALL
	WOOD SHEAR WALL PER SCHEDULE OR NON-TYPICAL AB SPACING
1	REVISION NUMBER
	SPAN DIRECTION
SL 2"	SLOPE DIRECTION
	LIMITS OF AREA OF CALLOUT (NOT SPAN DIRECTION)
	CONTINUOUS LIMITS OF CALLOUT (NOT SPAN DIRECTION)
	LIMITS OF REINF BARS
4"	STEP IN SLAB ELEVATION
	OPENING
	MECHANICAL UNIT
201	DETAIL CUT IN SECTION
201	DETAIL CUT VIEW DIRECTION
201	DETAIL CUT VIEW DIRECTION
201	DETAIL CUT PLAN VIEW
201	DETAIL REFERENCE

DETAILS

SYMBOL	DESCRIPTION
2	KEYNOTE
	STRUCTURAL PAD GRADE OR NATURAL GRADE
	SELECT FILL OR GRANULAR BACKFILL
	TOP OF LANDSCAPE GRADE. UNCOMPACTED FILL
	CAST IN PLACE CONCRETE
	WOOD SECTION CONTINUOUS
	WOOD SECTION DISCONT. OR BLK
	PLYWOOD OR WOOD SHEATHING

STANDARD ABBREVIATIONS

AB	ANCHOR BOLT
ACI	AMERICAN CONCRETE INSTITUTE
ACS	ALL COMMON SURFACES
AISC	AMERICAN INSTITUTE OF STEEL CONSTRUCTION
AISI	AMERICAN IRON AND STEEL INSTITUTE
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE
ARCH'L	ARCHITECTURAL
ALT	ALTERNATE
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIAL
BFF	BELOW FINISH FLOOR
BO	BOTTOM OF
BOD	BOTTOM OF DECK
B	BOTTOM
BOT	BOTTOM
BM	BOTTOM MOST
BRG	BEARING
C	CHANNEL
CJ	CONTROL JOINT
CJP	COMPLETE JOINT PENETRATION
℄	CENTER LINE
CLR	CLEAR
COL	COLUMN
CONC	CONCRETE
CONT	CONTINUOUS
DIA or Ø	DIAMETER
DIAG	DIAGONAL
DWG	DRAWING
EF	EACH FACE
EL	ELEVATION
EQ	EQUAL
EW	EACH WAY
FF	FINISH FLOOR
FLR	FLOOR
FND	FOUNDATION
FT	FOOT
FTG	FOOTING
GA	GAGE
GSN	GENERAL STRUCTURAL NOTES
HI	HIGH
HORIZ	HORIZONTAL
IBC	INTERNATIONAL BUILDING CODE
ICC	INTERNATIONAL CODE CONFERENCE
ID	INSIDE DIAMETER
INFO	INFORMATION
JT	JOINT
K	KIP (1,000 LBS.)
KSI	KIPS PER SQUARE INCH
L	ANGLE
LLH	LONG LEG HORIZONTAL
LLV	LONG LEG VERTICAL
LO	LOW
MFR	MANUFACTURER
MAX	MAXIMUM
MECH	MECHANICAL
MIN	MINIMUM
MISC	MISCELLANEOUS
NTS	NOT TO SCALE
OC	ON CENTER
OD	OUTSIDE DIAMETER
OPP	OPPOSITE
PL	PLATE
PLF	POUNDS PER LINEAR FOOT
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PAF	POWDER ACTUATED FASTENERS
REQ'D	REQUIRED
SIM	SIMILAR
SPEC	SPECIFICATION
STD	STANDARD
T	TOP
TM	TOP MOST
T&B	TOP AND BOTTOM
T&G	TONGUE AND GROOVE
TO	TOP OF
TOC	TOP OF CONCRETE
TOD	TOP OF DECK
TOF	TOP OF FOOTING
TOL	TOP OF LEDGER
TOP	TOP OF PANEL
TOS	TOP OF STEEL
TOW	TOP OF WALL
TYP	TYPICAL
UBC	UNIFORM BUILDING CODE
UNO	UNLESS OTHERWISE NOTED
VERT	VERTICAL
W	WIDE FLANGE
W/	WITH
W/O	WITHOUT
WT	WEIGHT
WWF	WELDED WIRE FABRIC

THIS DRAWING IS AN INSTRUMENT OF SERVICE AND THE PROPERTY OF MENDENHALL SMITH INC. USE OF THIS DRAWING AND ALL REPRODUCTIONS SHALL BE RESTRICTED TO THE ORIGINAL SITE FOR WHICH IT WAS PREPARED AND SHALL NOT BE USED UNLESS PROPERLY SEALED AND APPROVED. PUBLICATION OF THIS DRAWING BY ANY METHOD IN WHOLE OR PART IS PROHIBITED WITHOUT PERMISSION OF MENDENHALL SMITH INC. WHERE A CONTRACTORS NAME APPEARS ON THIS DRAWING, WORK SHALL BE COMPLETED BY SAID CONTRACTOR EXCEPT BY AGREEMENT WITH SAME CONTRACTOR.

REV	DATE	BY	DESCRIPTION

Mendenhall Smith
STRUCTURAL ENGINEERS
3571 Red Rock Street, Suite A
Las Vegas, Nevada 89103
P.702.367.6725
F.702.367.2727

ENGINEERS SEAL
PROFESSIONAL ENGINEER STATE OF NEVADA
PHILIP J. DE LA MARE
EXP. 12-31-10
CIVIL/STRUCTURAL
No.010087
JUN 0 4 2009

CORONADO
THE PASEOS
LAS VEGAS, NEVADA
FOR
SPINNAKER HOMES

Building & Safety Dept.
City of Las Vegas, Nevada
IN LIEU OF STRUCTURAL REVIEW
PLANS AND CALCULATIONS ARE
DEEMED ACCEPTABLE IF SEALED
AND SIGNED BY A NEVADA LICENSED
CIVIL OR STRUCTURAL ENGINEER

Make no change without approval.
Not a permit to violate any ordinance.

JUN 05 2009

SHEET INDEX

FIRE RISER ROOM COORDINATION 06.02.09	TRUSS SHOP DRAWING COORDINATION 04.10.09	100% SUBMITTAL 03.10.09	SHEET NO.	SHEET TITLE
•	•	•	S1.1	GSN AND INFORMATION
2	1	•	S2.1	EXISTING SLAB RETROFIT - BLDG 100-100R
2	1	•	S2.2	EXISTING SLAB RETROFIT - BLDG 100-200
2	1	•	S3.1	DETAILS

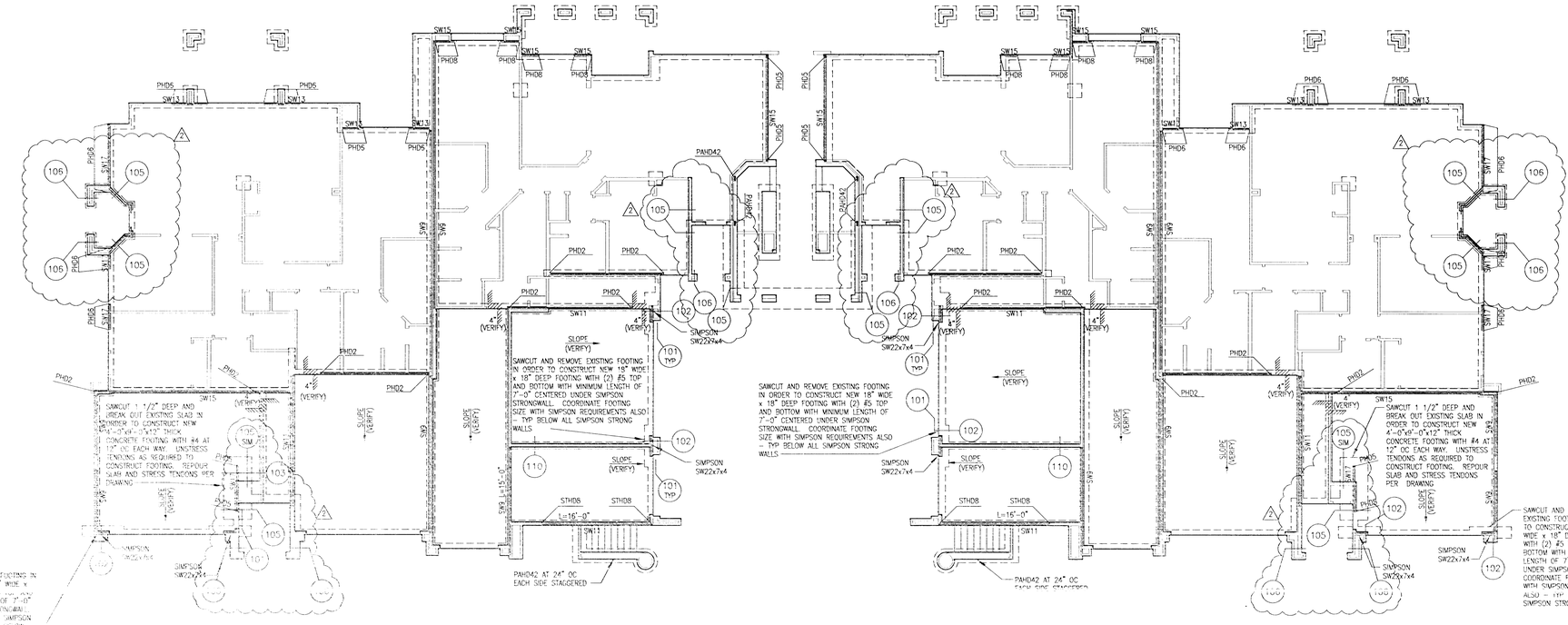
SHEET TITLE:
GENERAL STRUCTURAL NOTES

DATE: MARCH 10, 2009
JOB NO: 03-374.1
DRAWN: ACD
CHECKED: PJD
FILE: RETRO-GS011E03374.1
SHEET NO:
S1.1

THIS DRAWING IS AN INSTRUMENT OF SERVICE AND THE PROPERTY OF MEHDI ZENHALL SMITH INC. USE OF THIS DRAWING AND ALL REPRODUCTIONS SHALL BE RESTRICTED TO THE ORIGINAL SITE FOR WHICH IT WAS PREPARED AND SHALL NOT BE USED UNLESS PROPERLY SEALED AND APPROVED. PUBLICATION OF THIS DRAWING BY ANY METHOD IN WHOLE OR PART IS PROHIBITED WITHOUT PERMISSION. ANY UNAUTHORIZED EDITING OR CHANGE WHICH CONTRACTORS NAME APPEARS ON THIS DRAWING, WORK SHALL BE COMPLETED BY SAID CONTRACTOR EXCEPT BY AGREEMENT WITH SAME CONTRACTOR.

REV	DATE	BY	DESCRIPTION
1	01.13.09	PJD	TRUSS SHOP DRAWING COORD
2	06.12.09	PJD	FIRE RISER ROOM COORD

Mehdi Zenhall Smith STRUCTURAL ENGINEERS
3571 Red Rock Street, Suite A
Las Vegas, Nevada 89103
P.702.367.6725 F.702.367.2727

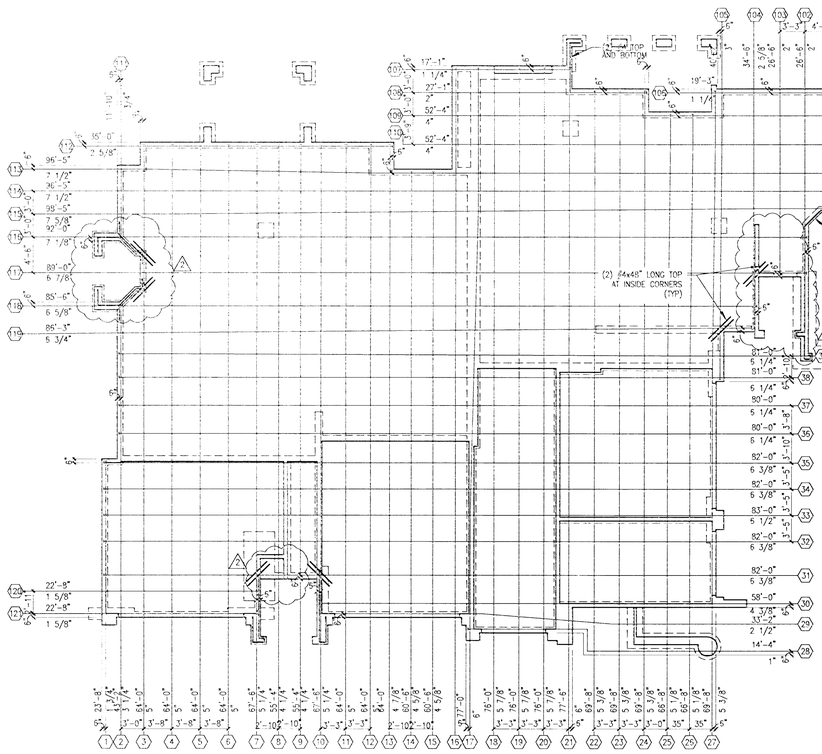


EXISTING SLAB RETROFIT – BUILDING 100

SCALE: 1/8" = 1'-0"

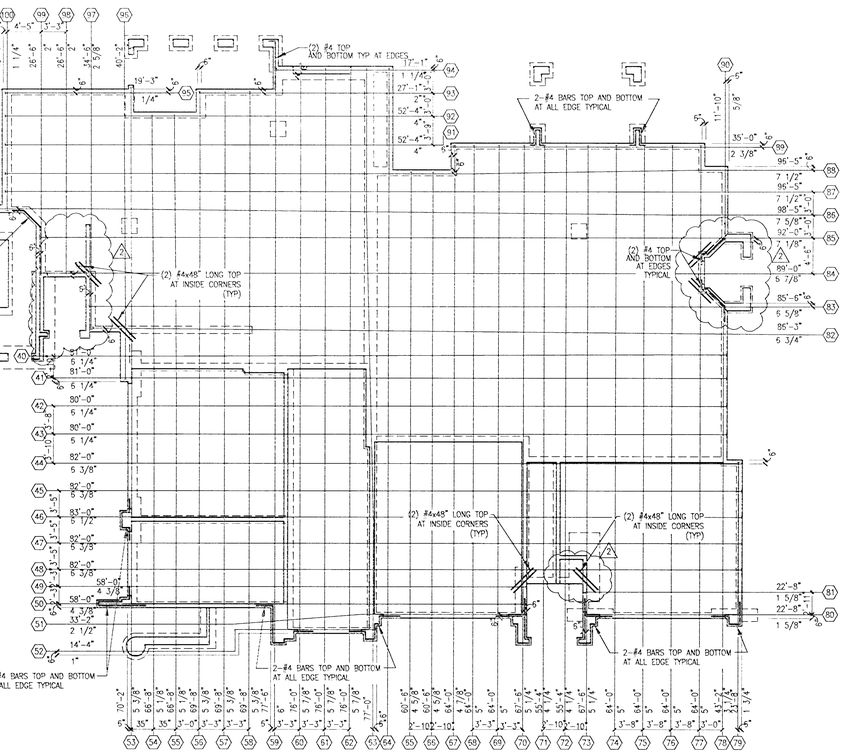
EXISTING SLAB RETROFIT – BUILDING 100 REVERSED

SCALE: 1/8" = 1'-0"



TENDON LAYOUT PLAN – BUILDING 100

SCALE: 1/8" = 1'-0"



TENDON LAYOUT PLAN – BUILDING 100 REVERSED

SCALE: 1/8" = 1'-0"

SHEARWALL (SW) SCHEDULE (SDC D)

1. STUD SPACING 16" OC MAX. STUDS AND BLOCKING AT EDGES SHALL BE 2x NOMINAL. AT SHEARWALL SW16 OR LARGER WHERE PANELS ARE APPLIED TO BOTH SIDES OF WALL, OFFSET PANELS EDGES TO FALL ON DIFFERENT FRAMING OR USE 3x STUDS AND BLOCKING AT PANEL EDGES. AT SHEARWALL SW11 OR LARGER WHERE FRAMING MEMBERS RECEIVE EDGE NAILING FROM ABUTTING PANELS USE 3x STUDS OR BLOCKING. PLYWOOD JOINT AND SILL PLATE NAILING SHALL BE STAGGERED IN ALL CASES. SEE TYPICAL SHEARWALL DETAIL FOR MORE INFORMATION.
2. PROVIDE FULL HEIGHT DOUBLE STUDS AT ENDS OF SHEARWALL, UNLESS NOTED AS POST ON PLANS OR DETAILS. HOLDOWNS AS SPECIFIED ON PLAN SHALL BE ATTACHED TO DOUBLE STUD OR POST PER DETAILS AND MFR RECOMMENDATIONS. SHEARWALLS SW1 THRU SW5 MAY BE CONSTRUCTED WITH ONE END STUD, PROVIDED WALL LENGTH EXCEEDS 8'-0" AND HOLDOWNS ARE NOT SPECIFIED AT ENDS. TRIMMER STUD MAY BE USED AS END STUD AT NON-BEARING WALLS ONLY. STAGGER EDGE NAILING AT DOUBLE STUDS AND 3x MEMBERS. FACE NAIL DOUBLE STUD WITH (2) 16d AT 16" OC.
3. INSTALL PANELS EITHER HORIZ OR VERT, GYPBOARD PANELS LESS THAN 4 FOOT WIDE SHALL BE PLACED ACROSS STUDS. STAGGER VERTICAL JOINTS AT GYPBOARD.
4. PROVIDE CONT DOUBLE 2x TOP PLATE AT ALL SHEARWALLS, EXTERIOR WALLS AND BEARING WALLS. LAP SPLICE TOP PLATE PER TYPICAL DETAIL.
5. SILL PLATE SIZE AND ANCHOR BOLTS AT FOUNDATION PER GSN, DETAILS, AND SCHEDULE. NOMINAL 2x SILL PLATES SHALL BE INSTALLED WITH STEEL PLATE WASHERS, 0.229x3"x3". FOR OPTIONAL SHOT-PIN OR DRILLED BOLTS, SEE GSN. NAILS OR SCREWS SHALL BE STAGGERED AT SILL PLATE ATTACHMENT AT UPPER LEVEL SHEARWALLS.
6. WHERE NOTED ON PLAN, SHEARWALLS SHALL EXTEND BETWEEN OPENINGS OR CORNER OF WALL UNLESS LENGTH IS NOTED. SHEATHING NOT TO BE INTERRUPTED BY INTERSECTING WALLS EXCEPT FOR GYPBOARD SHEARWALLS SW1 THRU SW6.
7. MINIMUM NAIL DIMENSIONS SHALL BE AS FOLLOWS. 3/8" MIN NAIL SPACING FROM PANEL, STUD OR BLOCK EDGE. GYPBOARD NAILS SHALL BE WALLBOARD, COOLER OR OTHER. SCREW ALTERNATE, #6 BUGLE HEAD SCREW WITH SAME SPACING AND LENGTH PERMITTED AT GYPBOARD. DO NOT SUBSTITUTE STAPLES WITHOUT WRITTEN APPROVAL OF ENGINEER.
   5d WALLBOARD = 0.086" DIAx1–5/8" LONGx15/32" HEAD — 8d COMMON = 0.131" DIAx2–1/2" LONG
   5d WALLBOARD = 0.0915" DIAx1–7/8" LONGx19/32" HEAD — 10d COMMON = 0.148" DIAx3" MIN LONG
8. 7/16" OR 15/32" PLYWOOD MAY BE SUBSTITUTED FOR 3/8" PLYWOOD WITHOUT CAPACITY INCREASE. ORIENTED STRAND BOARD (OSB) MAY BE SUBSTITUTED FOR PLYWOOD PER GSN.
9. FOR SW11 THRU SW17 FOUNDATION SILL PLATE SHALL BE 3" NOMINAL THICKNESS OR 2x SILL PLATES WITH ANCHOR BOLTS SPACED AT ONE–HALF THE SPACING SHOWN AND SHALL BE INSTALLED WITH STEEL PLATE WASHERS, 0.229x3"x3".
10. FOUNDATION SILL PLATE SHALL BE 3" NOMINAL THICKNESS ANCHOR BOLTS SHALL BE INSTALLED WITH STEEL PLATE WASHERS, 0.229x3"x3".
11. WHERE 3x STUDS OR BLOCKING IS REQUIRED DOUBLE 2x MEMBERS MAY BE USED. MEMBERS SHALL BE SPLICED WITH: SW11 TO SW15 USE (2) ROWS 16d AT 6" OC STAGGERED; SW15 TO SW20 USE (2) ROWS 16d AT 3" OC STAGGERED.
12. THE HOLE IN THE PLATE WASHER IS PERMITTED TO BE DIAGONALLY SLOTTED WITH A WIDTH OF UP TO 3/16" LARGER THAT THE BOLT DIAMETER AND A SLOT LENGTH NOT TO EXCEED 1 3/4", PROVIDED A STANDARD CUT WASHER IS PLACED BETWEEN THE PLATE WASHER AND THE NUT.

MARK	SHEATHING MATERIAL	EDGE NAILING	FIELD NAILING	SILL PLATE ANCHOR BOLT AT FDN / SILL PLATE NAIL AT FLOOR
SW9	3/8" PLYWOOD BLOCKED ONE SIDE OF WALL	8d COMMON AT 6" OC	8d COMMON AT 12" OC	1/2" DIA AB OR TITAN HD AT 36" OC / 16d COMMON OR SINKER AT 6" OC
SW11	3/8" PLYWOOD BLOCKED ONE SIDE OF WALL	8d COMMON AT 4" OC	8d COMMON AT 12" OC	1/2" DIA AB OR TITAN HD AT 24" OC / 16d COMMON OR SINKER AT 4" OC
SW13	3/8" PLYWOOD BLOCKED ONE SIDE OF WALL	8d COMMON AT 3" OC	8d COMMON AT 12" OC	1/2" DIA AB OR TITAN HD AT 20" OC / 1/4" x 4 SCREW AT 5" OC OR 3/8" x 5" LAG SCREW AT 12" OC
SW15	15/32" PLYWOOD BLOCKED ONE SIDE OF WALL	10d COMMON AT 3" OC	10d COMMON AT 12" OC	1/2" DIA AB OR TITAN HD AT 18" OR 3/4" DIA AT 32" OC / 1/4" x 4 SCREW AT 4" OC OR 3/8" x 5" LAG SCREW AT 10" OC
SW17	15/32" PLYWOOD BLOCKED ONE SIDE OF WALL	10d COMMON AT 2" OC	10d COMMON AT 12" OC	1/2" DIA AB OR TITAN HD AT 12" OR 3/4" DIA AT 24" OC (SEE NOTE 10) / 3/8" x 5" LAG SCREW AT 8" OC UNO ON DETAIL

FOUNDATION PLAN NOTES:

1. CONCRETE SLAB SHALL BE 4" THICK WITH 1/2" DIA TENDONS PER LAYOUT PLAN CENTERED IN SLAB THICKNESS, OVER APPROVED SUBBASE PER GSN.
2. FOOTING EMBEDMENT DEPTH SHALL BE 12" BELOW GRADE AS DEFINED IN GSN UNO ON DETAIL.
3. CONTINUOUS FOOTING WIDTH SHALL BE 12" UNO ON PLAN OR DETAIL.
4. 1 — INDICATE FIXED END PT ANCHOR. INDICATE PT STRESSING ANCHOR. 35'-0" / 2 5/8" (1) INDICATE PT STRESSING ANCHOR WITH TENDON CUT LENGTH (35'-0" INCLUDING 2'-0" WASTE AT STRESSING ANCHOR), EXPECTED ELONGATION (2 5/8"), AND TENDON NUMBER (1). FIXED END AND STRESSING END MAY INTERCHANGE UNO.
5. TYPICAL ANCHOR BOLTS AT EXTERIOR WALLS, FIREWALLS AND SHEARWALLS SHALL BE MINIMUM 1/2" DIA X 10" LONG AT 48" OC (EMBED 7") UNO. SPLICE SILL PLATES PER GSN. EXPANSION BOLTS AND SHOT PINS MAY REPLACE INTERIOR ANCHOR BOLTS PER GSN.
6. 24" OR SW9 — INDICATE NON–TYPICAL ANCHOR BOLT SPACING AT SHEARWALL OR SHEARWALL DESIGNATION WHERE SCHEDULE IS PROVIDED.
7. VERIFY ALL DIMENSIONS AND CONDITIONS WITH ARCH'L DRAWINGS. DIMENSIONS NOT NOTED SHALL BE PER APPROVED ARCH'L DRAWINGS. RESOLVE ANY DISCREPANCIES WITH THE ARCHITECT PRIOR TO CONSTRUCTION.
8. ESTABLISH AND VERIFY SIZE AND LOCATION OF OPENINGS AND INSERTS IN SLAB WITH OTHER DRAWINGS, TRADES AND SUBCONTRACTORS PRIOR TO CONSTRUCTION.
9. DEAD ENDS OF TENDONS MAY BE AT EITHER END OF SLAB AND NEED NOT BE ORIENTED AS SHOWN.
10. SIMPSON SW22 ... DESIGNATES SIMPSON STRONG WALL BY OTHERS.
11. SEE DETAIL 104 FOR NEW POST INSTALLED ANCHORAGE.

Building & Safety Dept. City of Las Vegas, Nevada
IN LIEU OF STRUCTURAL REVIEW OF SHOP DRAWINGS, ARCHITECTURAL AND STRUCTURAL CALCULATIONS ARE REQUIRED. PLANS AND CALCULATIONS SHALL BE SEALED AND SIGNED BY A NEVADA LICENSED ENGINEER. ONLY SEALED PLANS AND CALCULATIONS ARE DEEMED ACCEPTABLE IF SEALED AND SIGNED BY A NEVADA LICENSED CIVIL OR STRUCTURAL ENGINEER
Make no change without approval. Not a permit to violate any ordinance.
JUN 0 4 2009

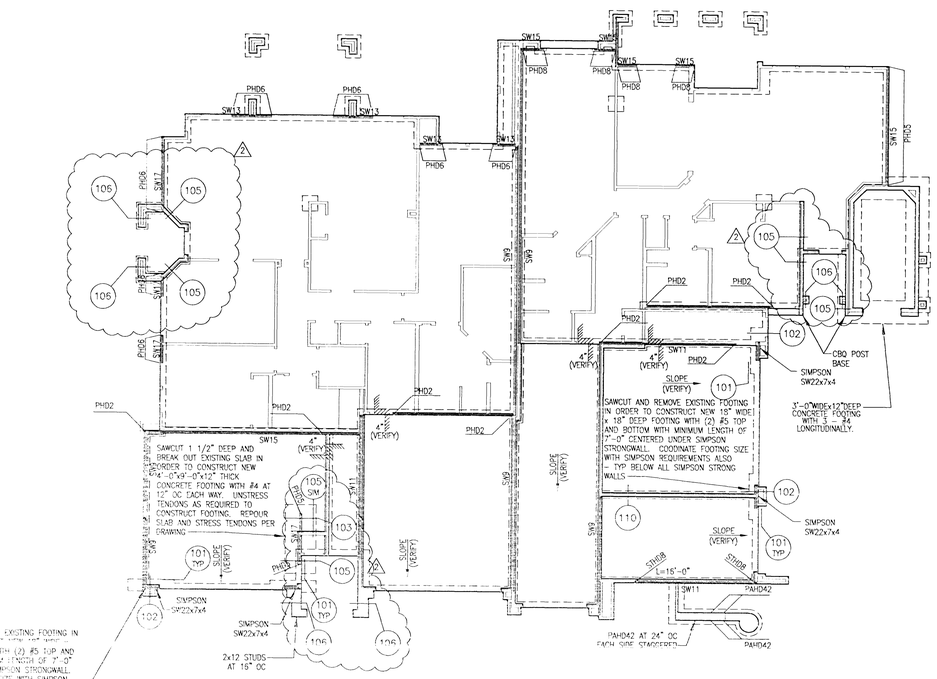
ENGINEER'S SEAL
PROFESSIONAL ENGINEER – STATE OF NEVADA
PHILIP J. DE LA MARE
EXP. 12-31-10
CIVIL STRUCTURAL
No. 010097

JUN 0 4 2009

SHEET TITLE:
EXISTING SLAB RETROFIT FOR 2006 IBC CODE BUILDING 100/100R

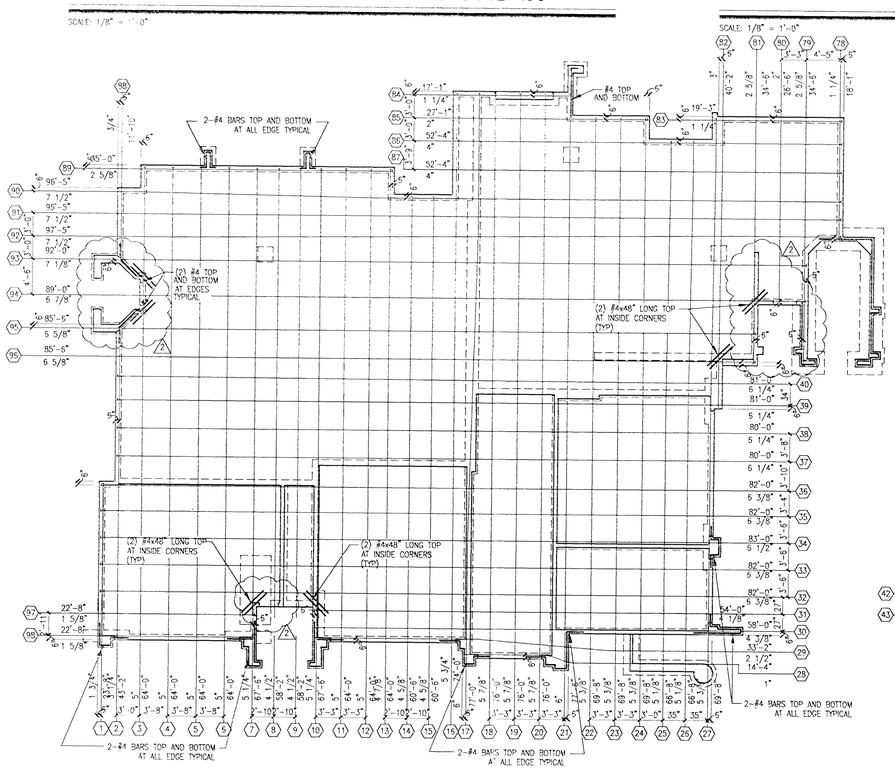
DATE:	MARCH 10, 2009
JOB NO:	03-374.1
DRAWN:	ACD
CHECKED:	PJD
FILE:	RETRO-PS021E03374.1
SHEET NO:	S2.1

CORONADO THE PASEOS
LAS VEGAS, NEVADA
FOR
SPINNAKER HOMES



EXISTING SLAB RETROFIT – BUILDING 100

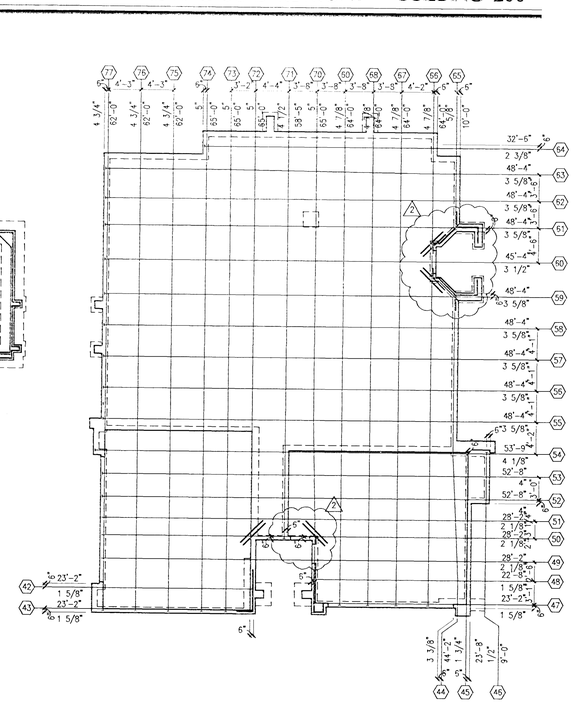
SCALE: 1/8" = 1'-0"



TENDON LAYOUT PLAN – BUILDING 200/100

SCALE: 1/8" = 1'-0"

EXISTING SLAB RETROFIT – BUILDING 200



SHEARWALL (SW) SCHEDULE (SDC D)

1. STUD SPACING 16" OC MAX. STUDS AND BLOCKING AT EDGES SHALL BE 2x NOMINAL. AT SHEARWALL SW16 OR LARGER WHERE PANELS ARE APPLIED TO BOTH SIDES OF WALL, OFFSET PANELS EDGES TO FALL ON DIFFERENT FRAMING OR USE 3x STUDS AND BLOCKING AT PANEL EDGES. AT SHEARWALL SW11 OR LARGER WHERE FRAMING MEMBERS RECEIVE EDGE NAILING FROM ABUTTING PANELS USE 3x STUDS OR BLOCKING. PLYWOOD JOINT AND SILL PLATE NAILING SHALL BE STAGGERED IN ALL CASES. SEE TYPICAL SHEARWALL DETAIL FOR MORE INFORMATION.
2. PROVIDE FULL HEIGHT DOUBLE STUDS AT ENDS OF SHEARWALL, UNLESS NOTED AS POST ON PLANS OR DETAILS. HOLDOWNS AS SPECIFIED ON PLAN SHALL BE ATTACHED TO DOUBLE STUD OR POST PER DETAILS AND MFR RECOMMENDATIONS. SHEARWALLS SW1 THRU SW6 MAY BE CONSTRUCTED WITH ONE END STUD, PROVIDED WALL LENGTH EXCEEDS 8'-0" AND HOLDOWNS ARE NOT SPECIFIED AT ENDS. TRIMMER STUD MAY BE USED AS END STUD AT NON-BEARING WALLS ONLY. STAGGER EDGE NAILING AT DOUBLE STUDS AND 3x MEMBERS. FACE NAIL DOUBLE STUD WITH (2) 16d AT 16" OC.
3. INSTALL PANELS EITHER HORIZ OR VERT, GYPBOARD PANELS LESS THAN 4 FOOT WIDE SHALL BE PLACED ACROSS STUDS. STAGGER VERTICAL JOINTS AT GYPBOARD.
4. PROVIDE CONT DOUBLE 2x TOP PLATE AT ALL SHEARWALLS, EXTERIOR WALLS AND BEARING WALLS. LAP SPLICE TOP PLATE PER TYPICAL DETAIL.
5. SILL PLATE SIZE AND ANCHOR BOLTS AT FOUNDATION PER GSN, DETAILS, AND SCHEDULE. NOMINAL 2x SILL PLATES SHALL BE INSTALLED WITH STEEL PLATE WASHERS, 0.229x3"x3". FOR OPTIONAL SHOT-PIN OR DRILLED BOLTS, SEE GSN. NAILS OR SCREWS SHALL BE STAGGERED AT SILL PLATE ATTACHMENT AT UPPER LEVEL SHEARWALLS.
6. WHERE NOTED ON PLAN, SHEARWALLS SHALL EXTEND BETWEEN OPENINGS OR CORNER OF WALL UNLESS LENGTH IS NOTED. SHEATHING NOT TO BE INTERRUPTED BY INTERSECTING WALLS EXCEPT FOR GYPBOARD SHEARWALLS SW1 THRU SW6.
7. MINIMUM NAIL DIMENSIONS SHALL BE AS FOLLOWS. 3/8" MIN NAIL SPACING FROM PANEL, STUD OR BLOCK EDGE. GYPBOARD NAILS SHALL BE WALLBOARD, COOLER OR OTHER SCREW ALTERNATE #6 BUGLE HEAD SCREW WITH SAME SPACING AND LENGTH PERMITTED AT GYPBOARD. DO NOT SUBSTITUTE STAPLES WITHOUT WRITTEN APPROVAL OF ENGINEER.
   5d WALLBOARD = 0.086" DIAx1-5/8" LONGx15/32" HEAD — 8d COMMON = 0.131" DIAx2-1/2" LONG
   6d WALLBOARD = 0.0915" DIAx1-7/8" LONGx19/32" HEAD — 10d COMMON = 0.148" DIAx3" MIN LONG
8. 7/16" OR 15/32" PLYWOOD MAY BE SUBSTITUTED FOR 3/8" PLYWOOD WITHOUT CAPACITY INCREASE. ORIENTED STRAND BOARD (OSB) MAY BE SUBSTITUTED FOR PLYWOOD PER GSN.
9. FOR SW11 THRU SW17 FOUNDATION SILL PLATE SHALL BE 3" NOMINAL THICKNESS OR 2x SILL PLATES WITH ANCHOR BOLTS SPACED AT ONE-HALF THE SPACING SHOWN AND SHALL BE INSTALLED WITH STEEL PLATE WASHERS, 0.229x3"x3".
10. FOUNDATION SILL PLATE SHALL BE 3" NOMINAL THICKNESS ANCHOR BOLTS SHALL BE INSTALLED WITH STEEL PLATE WASHERS, 0.229x3"x3".
11. WHERE 3x STUDS OR BLOCKING IS REQUIRED DOUBLE 2x MEMBERS MAY BE USED. MEMBERS SHALL BE SPLICED WITH: SW11 TO SW15 USE (2) ROWS 16d AT 6" OC STAGGERED; SW16 TO SW20 USE (2) ROWS 16d AT 3" OC STAGGERED.
12. THE HOLE IN THE PLATE WASHER IS PERMITTED TO BE DIAGONALLY SLOTTED WITH A WIDTH OF UP TO 3/16" LARGER THAT THE BOLT DIAMETER AND A SLOT LENGTH NOT TO EXCEED 1 3/4", PROVIDED A STANDARD CUT WASHER IS PLACED BETWEEN THE PLATE WASHER AND THE NUT.

MARK	SHEATHING MATTERIAL	EDGE NAILING	FIELD NAILING	SILL PLATE ANCHOR BOLT AT FDN SILL PLATE NAIL AT FLOOR
SW9	3/8" PLYWOOD BLOCKED ONE SIDE OF WALL	8d COMMON AT 6" OC	8d COMMON AT 12" OC	1/2" DIA AB OR TITAN HD AT 35" OC 16d COMMON OR SINKER AT 6" OC
SW11	3/8" PLYWOOD BLOCKED ONE SIDE OF WALL	8d COMMON AT 4" OC	8d COMMON AT 12" OC	1/2" DIA AB OR TITAN HD AT 24" OC 16d COMMON OR SINKER AT 4" OC
SW13	3/8" PLYWOOD BLOCKED ONE SIDE OF WALL	8d COMMON AT 3" OC	8d COMMON AT 12" OC	1/2" DIA AB OR TITAN HD AT 20" OC 1/4" x 4 SCREW AT 5" OC OR 3/8" x 6" LAG SCREW AT 12" OC
SW15	15/32" PLYWOOD BLOCKED ONE SIDE OF WALL	10d COMMON AT 3" OC	10d COMMON AT 12" OC	1/2" DIA AB OR TITAN HD AT 16" OR 3/4" DIA AT 32" OC 1/4" x 4 SCREW AT 4" OC OR 3/8" x 6" LAG SCREW AT 10" OC
SW17	15/32" PLYWOOD BLOCKED ONE SIDE OF WALL	10d COMMON AT 2" OC	10d COMMON AT 12" OC	1/2" DIA AB OR TITAN HD AT 12" OR 3/4" DIA AT 24" OC (SEE NOTE 10) 3/8" x 6" LAG SCREW AT 8" OC UNO ON DETAIL

FOUNDATION PLAN NOTES:

1. CONCRETE SLAB SHALL BE 4" THICK WITH 1/2" DIA TENDONS PER LAYOUT PLAN CENTERED IN SLAB THICKNESS, OVER APPROVED SUBBASE PER GSN.
2. FOOTING EMBEDMENT DEPTH SHALL BE 12" BELOW GRADE AS DEFINED IN GSN UNO ON DETAIL.
3. CONTINUOUS FOOTING WIDTH SHALL BE 12" UNO ON PLAN OR DETAIL.
4. INDICATE FIXED END PT ANCHOR.
   INDICATE PT STRESSING ANCHOR
   INDICATE PT STRESSING ANCHOR WITH TENDON CUT LENGTH (35'-0", INCLUDING 2'-0" WASTE AT STRESSING ANCHOR), EXPECTED ELONGATION (2 5/8"), AND TENDON NUMBER (1).
   FIXED END AND STRESSING END MAY INTERCHANGE UNO.
5. TYPICAL ANCHOR BOLTS AT EXTERIOR WALLS, FIREWALLS AND SHEARWALLS SHALL BE MINIMUM 1/2" DIA X 10" LONG AT 48" OC (EMBED 7") UNO. SPLICE SILL PLATES PER GSN. EXPANSION BOLTS AND SHOT PINS MAY REPLACE INTERIOR ANCHOR BOLTS PER GSN.
6. INDICATE NON-TYPICAL ANCHOR BOLT SPACING AT SHEARWALL 24" OR SW9 OR SHEARWALL DESIGNATION WHERE SCHEDULE IS PROVIDED.
7. VERIFY ALL DIMENSIONS AND CONDITIONS WITH ARCH'L DRAWINGS. DIMENSIONS NOT NOTED SHALL BE PER APPROVED ARCH'L DRAWINGS. RESOLVE ANY DISCREPANCIES WITH THE ARCHITECT PRIOR TO CONSTRUCTION.
8. ESTABLISH AND VERIFY SIZE AND LOCATION OF OPENINGS AND INSERTS IN SLAB WITH OTHER DRAWINGS, TRADES AND SUBCONTRACTORS PRIOR TO CONSTRUCTION.
9. DEAD ENDS OF TENDONS MAY BE AT EITHER END OF SLAB AND NEED NOT BE ORIENTED AS SHOWN.
10. SIMPSON SW22 ... DESIGNATES SIMPSON STRONG WALL BY OTHERS.
11. SEE DETAIL 104 FOR NEW POST INSTALLED ANCHORAGE.

THIS DRAWING IS AN INSTRUMENT OF SERVICE AND THE PROPERTY OF MENDENHALL SMITH INC. USE OF THIS DRAWING AND ALL REPRODUCTIONS SHALL BE RESTRICTED TO THE ORIGINAL SITE FOR WHICH IT WAS PREPARED AND SHALL NOT BE USED UNLESS PROPERLY SEALED AND APPROVED. PUBLICATION OF THIS DRAWING BY ANY METHOD IN WHOLE OR PART IS PROHIBITED WITHOUT PERMISSION OF MENDENHALL SMITH INC. WHERE A CONTRACTORS NAME APPEARS ON THIS DRAWING, WORK SHALL BE COMPLETED BY SAID CONTRACTOR EXCEPT BY AGREEMENT WITH SAME CONTRACTOR.

REV	DATE	BY	DESCRIPTION
1	04.10.09	PJD	TRUSS SHOP DRAWING COORD
2	06.12.09	PJD	FIRE RISER ROOM COORD

Mendenhall Smith STRUCTURAL ENGINEERS
3571 Red Rock Street, Suite A
Las Vegas, Nevada 89103
P.702.367.6726
F.702.367.2727

ENGINEER

PROFESSIONAL ENGINEER – STATE OF NEVADA
PHILIP J. DE LA MARE
EXP: 12-31-10
CIVIL/STRUCTURAL
No. 010007

JUN D 4 2009

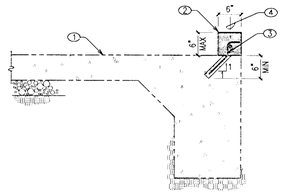
Building & Safety Dept
City of Las Vegas, Nevada
IN LIEU OF STRUCTURAL REVIEW
PLANS AND CALCULATIONS ARE DEEMED ACCEPTABLE IF SEALED AND SIGNED BY A NEVADA LICENSED CIVIL OR STRUCTURAL ENGINEER

Make no changes without approval. Not a permit to violate any ordinance.

CORONADO THE PASEOS
LAS VEGAS, NEVADA
FOR
SPINNAKER HOMES

SHEET TITLE:
EXISTING SLAB RETROFIT FOR 2006 IBC CODE BUILDING 100/200

DATE	MARCH 10, 2009
JOB NO	03-374.1
DRAWN	ACD
CHECKED	PJD
FILE	RETRO-PS022E03374.1
SHEET NO	S2.2

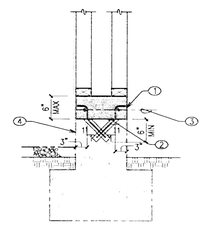


1. EXISTING SLAB AND FOOTING
2. NEW STEM WALL
3. #4 DOWEL AT 16" OC. DRILL AND EPOXY USING SIMPSON SET-XP EPOXY PER MFR RECOMMENDATIONS
4. (1) #4 CONT

NOTE: SPECIAL INSPECTION REQUIRED FOR ALL EPOXY INSTALLATIONS.

105 REPAIR AT STEM WALL

R 105-03-3740XR — NO SCALE

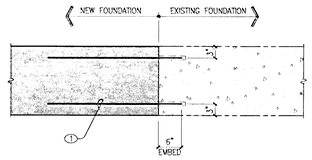


1. NEW STEM WALL
2. #4 DOWEL AT 16" OC. DRILL AND EPOXY USING SIMPSON SET-XP EPOXY PER MFR RECOMMENDATIONS. STAGGER DOWELS TO AVOID INTERFERENCE.
3. (2) #4 CONT
4. EXISTING SLAB AND FOOTING

NOTE: SPECIAL INSPECTION REQUIRED FOR ALL EPOXY INSTALLATIONS.

106 EXTERIOR FOOTING REPAIR AT FRAMED COLUMN

R 106-03-3740XR — NO SCALE

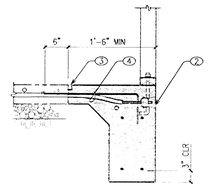


1. REINFORCING PER PLAN, EPOXY GROUT INTO EXISTING FOOTING

NOTE:
1. USE AN APPROVED EPOXY AND FOLLOW MFR'S RECOMMENDATIONS.
2. SPECIAL INSPECTION REQUIRED FOR ALL EPOXY INSTALLATIONS.

101 NEW FOOTING AT EXISTING FOOTING

R 101-03374XR — NO SCALE

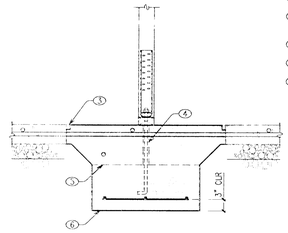


1. EXISTING SLAB TO BE REMOVED
2. RE-ANCHOR TENDON AT EXTERIOR
3. SHALLOW SAW CUT AND BREAK OUT EXISTING SLAB
4. #5 AT 48" OC INTO EPOXY GROUTED DRILLED HOLE

NOTE:
1. IF TENDONS ARE REMOVED, SLAB MAY BE SAW CUT THROUGH ENTIRE THICKNESS.
2. SPECIAL INSPECTION REQUIRED FOR ALL EPOXY INSTALLATIONS

102 PERIMETER FOOTING AT PT SLAB

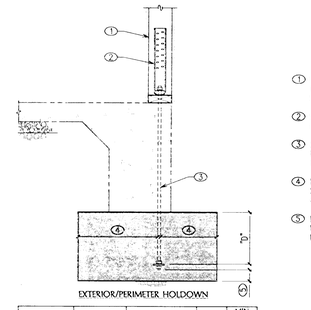
R 102-03374XR — NO SCALE



1. EXISTING SLAB
2. HOLDOWN PER PLAN AS OCCURS
3. SHALLOW SAW CUT AND BREAK OUT EXISTING SLAB
4. 1 1/2" PVC AROUND HOLDOWN BOLT
5. OPTIONAL COLD JOINT
6. CONCRETE FOOTING PER PLAN

103 NEW HOLDOWN AT EXISTING PT SLAB ON GRADE

R 103-03374XR — NO SCALE



1. FULL HEIGHT DOUBLE STUD WITH 16d FACENAIL AT 8" OC UNLESS NOTED AS POST ON PLAN
2. SIMPSON HOLDOWN PER PLAN. INSTALL PER MFR RECOMMENDATIONS
3. A307 ANCHOR BOLT WITH (2) HEX NUTS AND PLATE WASHER PER TABLE
4. ENLARGE FOOTING TO PROVIDE MINIMUM COVER "C" PER TABLE ALL 4 SIDES
5. ENLARGE FOOTING TO PROVIDE 3" MIN CONCRETE COVER BELOW BOLT HEAD

SIMPSON HOLDOWN	ANCHOR DIA	PLATE WASHER	EMBED "D"	MIN COVER "C"
HD2A, HDU2, PHD2, PHD5, HDU4, HDU5	5/8"	2x2x1/4	7"	11"
HD5A	3/4"	2 1/2x2 1/2x5/16	9"	14"
PHD8, HD6A, HD9A, HD8A, HDU8, HD10A	7/8"	2 3/4x2 3/4x3/8	11"	17"
HDU11, HHDQ11, HD14A, HHDQ14, HDU14	1"	3 1/4x3 1/4x1/2	13"	20"
HD15	1 1/4"	4x4x1/2	16"	24"

NOTE:
DESIGN IS BASED ON THE FOLLOWING:
a) ACI 318 APPENDIX D FOR ANCHORS IN CRACKED CONCRETE.

b) MINIMUM f'c=2500 PSI.

c) MAXIMUM ANCHOR TENSION PER AISC TABLE 7-2.

104 TYPICAL HOLDOWN ANCHORAGE

R 104-03-3740XR — NO SCALE

THIS DRAWING IS AN INSTRUMENT OF SERVICE AND THE PROPERTY OF MENDENHALL SMITH, INC. USE OF THIS DRAWING AND ALL REPRODUCTIONS SHALL BE RESTRICTED TO THE ORIGINAL SITE FOR WHICH IT WAS PREPARED AND SHALL NOT BE USED UNLESS PROPERLY SEALED AND APPROVED. PUBLICATION OF THIS DRAWING WITHOUT WRITTEN PERMISSION OF MENDENHALL SMITH, INC. IS PROHIBITED. ANY PUBLICATION OF MENDENHALL SMITH, INC. WHERE A CONTRACTOR'S NAME APPEARS ON THIS DRAWING, WORK SHALL BE COMPLETED BY SAID CONTRACTOR EXCEPT BY AGREEMENT WITH SAME CONTRACTOR.

REV	DATE	BY	DESCRIPTION
1	04.10.09	PJD	TRUSS SHOP DRAWING COORD
2	06.02.09	PJD	FIRE RISER ROOM COORD

Mendenhall Smith ENGINEERS
3571 Red Rock Street, Suite A
Las Vegas, Nevada 89103
P.702.367.6725
F.702.367.0797

ENGINEER'S SEAL

PROFESSIONAL ENGINEER-STATE OF NEVADA
PHILIP J. DE LA MARE
EXP. 12-31-10
CIVIL STRUCTURAL
No. 010067

JUN 0 2 2009

Building & Safety Dept.
City of Las Vegas, Nevada
IN LIEU OF STRUCTURAL REVIEW, PLANS AND CALCULATIONS ARE DEEMED ACCEPTABLE IF SEALED AND SIGNED BY A NEVADA LICENSED CIVIL OR STRUCTURAL ENGINEER

Make no change without approval. Not a permit to violate any ordinance.

CORONADO
THE PASEOS
LAS VEGAS, NEVADA
FOR
SPINNAKER HOMES

SHEET TITLE:
RETROFIT EXISTING PT SLAB DETAILS

DATE:	MARCH 10, 2009
JOB NO:	03-374.1
DRAWN:	ACD
CHECKED: PJD	FILE: RETRO-DS031E03374
SHEET NO:	S3.1

GENERAL STRUCTURAL NOTES

SPECIAL CONDITIONS, REQUIREMENTS AND NOTES TO OWNER, DEVELOPER AND CONTRACTORS

CONTRACTOR, BUILDER AND SUBCONTRACTORS INVOLVED IN ANY FORM OF CONSTRUCTION USING THESE DOCUMENTS SHALL INFORM THE OWNER AND DEVELOPER IN WRITING PRIOR TO CONSTRUCTION OF THE FOLLOWING RESPONSIBILITIES, PERFORMANCE CRITERIA AND LIMITATIONS AND RISKS ASSOCIATED WITH CONSTRUCTION. IF THE OWNER, DEVELOPER OR CONTRACTOR IS NOT ABLE TO ACCEPT RESPONSIBILITIES OR PERFORMANCE CRITERIA AND LIMITATIONS, NOTIFY OUR OFFICE PRIOR TO START OF CONSTRUCTION. IT SHALL BE EXPRESSLY UNDERSTOOD THAT THE ENGINEER IS NOT RESPONSIBLE OR LIABLE FOR THE LACK OF PERFORMANCE OF MATERIALS, SYSTEMS OR DESIGNS NOT BEING LIMITED TO ITEMS OUTLINED BELOW. CONTRACTORS AND SUBCONTRACTORS SHALL THOROUGHLY REVIEW ALL CONDITIONS AND RESPONSIBILITIES STATED IN THESE NOTES, GENERAL STRUCTURAL NOTES, PLANS, SECTIONS AND DETAILS AND SHALL NOTIFY THE ENGINEER AND OWNER IN WRITING PRIOR TO CONSTRUCTION OF ANY CONDITIONS OR RESPONSIBILITIES WHICH ARE NOT ACCEPTABLE OR NOT UNDERSTOOD.

1. DUE TO MOISTURE VARIATIONS AS A RESULT OF AMBIENT CONDITIONS AND MATERIAL CONDITIONS AT TIME OF CONSTRUCTION, WOOD MEMBERS ARE SUSCEPTIBLE TO VOLUME AND SHAPE CHANGES AND DIMENSIONAL VARIATIONS. SPANNING MEMBERS MAY ALSO DEFLECT VERTICALLY OR LATERALLY. SHEATHING, DRYWALL OR ARCHITECTURAL SURFACES SUPPORTED BY WOOD MEMBERS MAY DISTORT, CRACK AND BULGE DUE TO THESE FACTORS.

2. PLAIN CONCRETE, REINFORCED CONCRETE, POST-TENSIONED CONCRETE, OR CONCRETE MASONRY DEVELOP CRACKS. THE CRACKS ARE DUE TO INHERENT SHRINKAGE, CREEP AND RESTRAINING EFFECTS. CRACKS ARE NORMALLY COSMETIC AND THE SYSTEM MAINTAINS SERVICEABILITY AND STRENGTH REQUIREMENTS. JOINTS MAY BE INDICATED TO CONTROL CRACKING, BUT ARE NOT MEANT TO ELIMINATE ALL CRACKING, AS THIS IS NOT PRACTICAL. THE CONTRACTOR SHALL USE ALL STANDARD MEANS TO INSURE PROPER PROTECTION AND CURING OF CEMENTIOUS MATERIALS TO REDUCE CRACKING. SURFACE SPALLING OR EXTREME CRACKING MAY BE CAUSED BY POOR MATERIAL OR PLACEMENT. CONTACT OUR OFFICE FOR POSSIBLE REPAIR REQUIREMENTS.

3. FOUNDATIONS HAVE BEEN DESIGNED WITH POST-TENSIONING REINFORCEMENT TO CONTROL CONCRETE CRACKING AND ASSIST IN DISTRIBUTING IMPOSED LOADS. FOUNDATIONS HAVE NOT BEEN DESIGNED TO MITIGATE SOIL SETTLEMENT OR HEAVE, ACCORDING TO THE POST-TENSIONING INSTITUTE METHOD OR UBC SECTION 1816. RECOMMENDATIONS OF THE SOIL REPORT (SEE BELOW) FOR CONVENTIONALLY REINFORCED FOUNDATIONS HAVE BEEN APPLIED. IT IS EXPRESSLY UNDERSTOOD THAT SOIL PREPARATION AND GRADING SHALL CONFORM TO THE SOIL REPORT RECOMMENDATIONS FOR CONVENTIONAL FOUNDATION. FOUNDATIONS MAY SETTLE OR HEAVE ACCORDING TO SOIL REPORT. SOIL MOVEMENT MAY CAUSE DISTORTION AND DISTRESS TO THE SUPPORTED STRUCTURE.

4. PLYWOOD OR APA RATED SHEATHING (OSB) AS NOTED ON DRAWINGS OR NOTES MAY BE A MINIMUM AS REQUIRED FOR STRUCTURAL LOADS. CONTRACTOR, DEVELOPER AND/OR OWNER SHALL BE RESPONSIBLE FOR SPECIFYING ALTERNATE THICKNESS OR SPAN RATING REQUIREMENTS TO SATISFY ROOFING WARRANTIES, NOISE RESTRICTIONS OR SUPPLEMENTAL DEFLECTION CRITERIA. CONTACT ENGINEER FOR INCREASED NAILING REQUIREMENTS FOR ALTERNATE SHEATHING.

5. VARIATION IN DIMENSIONS MAY OCCUR AS A RESULT OF THERMAL INFLUENCES, NATURAL DEFLECTIONS AND/OR CAMBERS OF MEMBERS. AS A RESULT, QUANTITIES MAY VARY AND ARCHITECTURAL FINISHES MAY BE AT RISK OF COSMETIC VARIATION OR DAMAGE.

6. THE ENGINEER SHALL NOT BE RESPONSIBLE FOR VARIATIONS TO PLANS BETWEEN BID PROCESS AND FINALIZED APPROVED DOCUMENTS RELEASED FOR CONSTRUCTION. ADDITIONS AND ALTERATIONS MAY BE MADE BETWEEN RELEASE OF BID DOCUMENTS AND FINALIZED CONSTRUCTION DOCUMENTS.

7. DESIGNS HAVE BEEN COMPLETED USING THE CODE STATED IN THE BASIS FOR DESIGN. WHERE MORE THAN ONE REFERENCE IS LISTED BELOW, THE REFERENCE THAT CORRESPONDS TO THE CODE STATED IN THE BASIS OF DESIGN SHALL BE USED. OTHER SPECIALIZED CODES OR DIRECTIVES [illegible] ARE NOT USED IN THE PREPARATION OF THESE DOCUMENTS AND ARE NOT REFERENCED.

8. [illegible] DRAWINGS HAVE BEEN PREPARED USING STANDARDS OF PROFESSIONAL CARE AND COMPLETENESS NORMALLY EXERCISED UNDER SIMILAR CIRCUMSTANCES BY REPUTABLE STRUCTURAL ENGINEERS IN [illegible] OR SIMILAR LOCALITIES. THEY NECESSARILY ASSUME THAT THE WORK DEPICTED WILL BE PERFORMED BY AN EXPERIENCED CONTRACTOR, SUBCONTRACTOR AND/OR WORKPERSONS [illegible] A WORKING KNOWLEDGE OF THE APPLICABLE CODE STANDARDS AND REQUIREMENTS AND OF INDUSTRY ACCEPTED STANDARD GOOD PRACTICE. AS NOT EVERY CONDITION OR ELEMENT IS (OR CAN BE) EXPLICITLY SHOWN ON THESE DRAWINGS, IT IS UNDERSTOOD THAT THE CONTRACTOR WILL USE INDUSTRY ACCEPTED STANDARD GOOD PRACTICE FOR ALL WORK NOT EXPLICITLY SHOWN.

9. CALCULATIONS AND DESIGN OF MISCELLANEOUS NON-STRUCTURAL ITEMS, SUCH AS STAIRS, RAILINGS, NON-STRUCTURAL [illegible] AND PRE-ENGINEERED STRUCTURAL ITEMS, SUCH AS JOISTS AND [illegible] TRUSSES ARE NOT [illegible] UNLESS SPECIFICALLY NOTED ON THESE DRAWINGS.

10. THESE DRAWINGS [illegible] THE FINISHED STRUCTURE. THEY DO NOT INDICATE THE METHOD [illegible] ANCHORS, BEARINGS, HOLDOWNS AND [illegible] IT SHALL BE THE CONTRACTOR'S [illegible] CONSTRUCTION [illegible] LOAD PER SQUARE FOOT AS [illegible] TO THE [illegible] STRUCTURAL ENGINEER SHALL NOT [illegible]

11. [illegible] STRUCTURES, STREETS AND UTILITIES IN ACCORDANCE WITH [illegible] ALL WORK OR CONSTRUCTION SHALL COMPLY WITH ALL [illegible] AND SAFETY REQUIREMENTS.

12. [illegible] OR VARIATION NOT REPORTED BEFORE START [illegible] OF THE CONTRACTOR.

13. [illegible] STANDARDS FOR MATERIALS, SUCH STANDARDS SHALL BE [illegible]

14. OPTIONS [illegible] CONVENIENCE. IF AN OPTION IS USED, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL NECESSARY CHANGES AND SHALL COORDINATE ALL DETAILS.

15. TYPICAL DETAILS [illegible] THOUGH NOT NECESSARILY INDICATED AT A SPECIFIC LOCATION [illegible] ARE SHOWN, CONSTRUCTION SHALL CONFORM TO SIMILAR [illegible] SHOW ONLY ONE SIDE OF CONNECTION OR MAY OMIT [illegible] WHERE DISCREPANCIES OCCUR IN THESE DRAWINGS, NOTES AND DETAILS ON DRAWINGS [illegible] GENERAL STRUCTURAL NOTES AND TYPICAL DETAILS.

16. ALL OPENINGS ARE NOT SHOWN ON THESE DRAWINGS. ESTABLISH AND VERIFY ALL OPENINGS AND INSERTS FOR ARCHITECTURAL, MECHANICAL, PLUMBING AND ELECTRICAL WITH APPROPRIATE TRADES, DRAWINGS AND SUBCONTRACTORS PRIOR TO CONSTRUCTION. OPENINGS MAY REQUIRE ADDITIONAL REINFORCING OR SUPPORTS AS SHOWN ON TYPICAL DETAILS. IF TYPICAL DETAILS FOR ALL CONDITIONS ARE NOT INCLUDED HEREIN, IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO REQUEST IN WRITING ADDITIONAL INFORMATION.

17. ALL INSPECTIONS REQUIRED BY THE BUILDING CODES, LOCAL BUILDING OFFICIALS, OR BY THESE PLANS SHALL BE PROVIDED BY AN INDEPENDENT INSPECTION COMPANY OR, THE BUILDING DEPARTMENT. INSPECTION REQUIREMENTS STATED HEREIN ARE PARTIAL. COMPLETE INSPECTION REQUIREMENTS SHALL BE AS DIRECTED BY THE LOCAL BUILDING DEPARTMENT. SITE VISITS BY THE ENGINEER DO NOT CONSTITUTE AN INSPECTION UNLESS SPECIFICALLY CONTRACTED FOR.

18. SHOP DRAWINGS SHALL BE SUBMITTED FOR ALL DEFERRED ITEMS. SHOP DRAWINGS ARE REVIEWED ONLY FOR GENERAL COMPLIANCE WITH THE STRUCTURAL DRAWINGS. REVIEW DOES NOT INDICATE THAT THE SHOP DRAWINGS ARE CORRECT OR COMPLETE. RESPONSIBILITY FOR CORRECTNESS SHALL REST WITH THE CONTRACTOR. ANY CHANGES, SUBSTITUTIONS, OR DEVIATIONS FROM CONTRACT DRAWINGS SHALL BE CLOUDED. ANY OF THE AFOREMENTIONED SHALL NOT BE CONSIDERED APPROVED AFTER ENGINEER'S REVIEW UNLESS SPECIFICALLY NOTED ACCORDINGLY. THE SHOP DRAWINGS DO NOT SUPERSEDE OR REPLACE THE ORIGINAL CONTRACT DRAWINGS. ANY ENGINEERING PROVIDED BY OTHERS AND SUBMITTED FOR REVIEW SHALL BEAR THE SEAL OF AN APPROPRIATELY REGISTERED ENGINEER. THE ENGINEER SHALL NOT BE RESPONSIBLE FOR THE ADEQUACY OF ENGINEERING DESIGNS PERFORMED BY OTHERS. ALLOW FIVE WORKING DAYS FOR THE ENGINEER'S REVIEW. ONE COPY OF EACH SUBMITTAL WILL BE RETAINED FOR THE ENGINEER'S RECORDS.

BASIS FOR DESIGN

1. BUILDING CODE: 2006 INTERNATIONAL BUILDING CODE (IBC)

2. ROOF LOADS: LIVE LOAD (PSF) = 20 AT 4:12 SLOPE OR LESS; 19 AT 5:12 SLOPE OR GREATER
   DEAD LOAD (PSF)= 21 TOTAL; 18 SUPERIMPOSED ON PREFAB TRUSS
   SNOW LOAD = N/A

3. FLOOR LOADS: LIVE LOAD (PSF)= 40 TYPICAL FLOOR; 100 BALCONY AND STAIR
   DEAD LOAD (PSF)*= 31 TOTAL; 28 SUPERIMPOSED ON PREFAB TRUSS

*DEAD LOAD ASSUMES ONLY LIGHTWEIGHT FLOOR COVERINGS. NO HEAVIER FLOOR COVERINGS, SUCH AS STONE OR HEAVY TILE SHALL BE USED WITHOUT PRIOR WRITTEN APPROVAL FROM THE STRUCTURAL ENGINEER OF RECORD.

4. WIND LOAD: 90 MPH, 3-SECOND GUST WIND SPEED
   75 MPH, FASTEST-MILE WIND SPEED
   WIND IMPORTANCE FACTOR, I=1.0
   EXPOSURE B
   INTERNAL PRESSURE COEFFICIENT, GCpi=+/-0.18
   COMPONENT & CLADDING DESIGN PRESSURE = 18 PSF

5. SEISMIC DESIGN DATA:
   SEISMIC USE GROUP I
   MAPPED SPECTRAL RESPONSE ACCELERATIONS: Ss=0.476, S1=0.161
   SPECTRAL RESPONSE COEFFICIENTS: Sds=0.476, Sd1=0.161
   SITE CLASS= D
   SEISMIC DESIGN CATEGORY = D
   BASIC SEISMIC-FORCE-RESISTING SYSTEM
   LIGHT-FRAME WALLS WITH SHEAR PANELS (WOOD PANELS), R=6.5
   DESIGN BASE SHEAR = 0.076 x W
   ANALYSIS PROCEDURE: SIMPLIFIED ANALYSIS PROCEDURE
   ANALYSIS PROCEDURE: EQUIVALENT LATERAL FORCE PROCEDURE
   SEISMIC RESPONSE COEFFICIENT: Cs=0.069

6. FLOOD LOAD: N/A

7. SPECIAL LOADS: N/A

8. MASONRY DESIGN: ALLOWABLE STRESS DESIGN (ASD) OR STRENGTH DESIGN

FOUNDATION NOTES

1. GEOTECHNICAL REPORT:
TERRACON CONSULTING ENGINEERS AND SCIENTISTS
REPORT NO. 64035082, DATED MAY 19, 2003 AND UPDATE LETTER DATED JANUARY 22, 2009

2. FOOTING DEPTH: 12 INCHES BELOW GRADE (SEE BELOW FOR DEFINITION OF GRADE)

3. ALLOWABLE FOOTING BEARING: 2000 PSF. INCREASE AN ADDITIONAL 1000 PSF FOR EACH ADDITIONAL 12 INCHES OF EMBEDMENT UP TO MAX OF 5000 PSF. ONE-THIRD INCREASE FOR SEISMIC OR WIND LOAD COMBINATIONS

4. LATERAL DESIGN SOIL PRESSURE: AT CANTILEVER RETAINING WALLS, AS OCUIRES, 35 PSF/FT ACTIVE PRESSURE (EQUIVALENT FLUID).

5. SLAB-ON-GRADE SUPPORT: 4 INCH LAYER OF SELECT GRANULAR FILL MATERIAL (PER SOIL REPORT) PLACED OVER 8 MIL MINIMUM VISQUEEN MEMBRANE.

6. POST-TENSIONED SLAB CRITERIA: CRITERIA PER PTI METHOD AND IBC SECTION 18
SLAB CRITERIA: SLABS DESIGNED IN ACCORDANCE WITH THE PTI RECOMMENDATIONS FOR NON-EXPANSIVE SOILS (BRAB II).

7. SOIL SULFATE EXPOSURE:
DUE TO WATER-SOLUBLE SULFATE TESTING PER GEOTECHNICAL REPORT, CONTRACTOR TO INSURE THAT CONCRETE IN CONTACT WITH SOILS SHALL BE PROPORTIONED FOR SEVERE SULFATE EXPOSURE ACCORDING TO BC 1904.3. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO UPGRADE CONCRETE COMPOSITION FROM REQUIREMENTS STATED HEREIN AS REQUIRED FOR SULFATE EXPOSURE.

8. ALL FOOTINGS SHALL EXTEND TO DEPTH NOTED ABOVE UNO ON PLANS OR DETAIL. GRADE IS DEFINED AS TOP OF SLAB FOR INTERIOR FOOTINGS, AND LOWEST ADJACENT COMPACTED SUBGRADE (PAD GRADE BEFORE LANDSCAPING) OR NATURAL GRADE WITHIN 5 FEET OF BUILDING FOR PERIMETER FOOTINGS. GRADE IS DEFINED AS TOP OF EXTERIOR PAVING OR CONCRETE WHERE EXTERIOR PAVING OR CONCRETE IS PERMANENTLY LOCATED DIRECTLY ADJACENT TO BUILDING AND EXTENDS AT LEAST 5 FEET FROM BUILDING. LOCATION OF FOUNDATIONS NEAR SLOPES SHALL COMPLY WITH UBC 1806.4/IBC 1805.3. FOOTING EXCAVATIONS SHALL BE CLEAN AND FREE FROM LOOSE DEBRIS, STANDING WATER, OR UNCOMPACTED MATERIAL AT TIME OF CONCRETE PLACEMENT.

9. UNLESS NOTED OTHERWISE IN THE GEOTECHNICAL REPORT, CONCRETE SLABS ON GRADE SHALL BE SUPPORTED ON SELECT FILL MATERIAL AS NOTED ABOVE. FILL MATERIAL SHOULD BE MOISTENED, BUT NOT SATURATED JUST PRIOR TO PLACING CONCRETE. CARE SHALL BE TAKEN IN PLACING SLABS ON GRADE SO AS NOT TO DISTURB FILL MATERIAL OR REINFORCING. VISQUEEN MAY BE OMITTED IF IT IS NOT A REQUIREMENT OF THE GEOTECHNICAL REPORT.

10. SITE PREPARATION AND GRADING REQUIREMENTS OF THE GEOTECHNICAL REPORT AND ANY ADDENDA SHALL BE COMPLETED PRIOR TO CONSTRUCTION OF FOUNDATIONS. ANY TESTS, INSPECTIONS, FIELD OBSERVATIONS, OR APPROVAL FROM THE GEOTECHNICAL ENGINEER SHALL BE PERFORMED PRIOR TO PLACEMENT OF FOUNDATION REINFORCING STEEL OR CONCRETE. ALTERATIONS TO SITE PREPARATION OR GRADING SHALL BE REPORTED TO THE ENGINEER PRIOR TO FOUNDATION CONSTRUCTION.

11. BACKFILL AGAINST FOUNDATION WALLS OR EXTERIOR WALLS BELOW GRADE SHALL NOT BE PLACED UNTIL AFTER THE TOP OF THE WALLS ARE RESTRAINED BY THE COMPLETED INTERIOR FLOOR SYSTEMS.

CONCRETE

1. MINIMUM 28 DAY STRENGTH (f'c) SHALL BE AS FOLLOWS:
   FOUNDATIONS: 4500 PSI, W/C = .45 *
   SLABS ON GROUND: 4500 PSI, W/C = .45 *

   *INDICATES STRENGTH INCREASED DUE TO SOIL SULFATE EXPOSURE. DESIGN BASED ON 2500 PSI CONCRETE STRENGTH. SEE FOUNDATION NOTES.

2. CONCRETE MIXES SHALL BE DESIGNED BY A CERTIFIED LABORATORY AND APPROVED BY THE ENGINEER. MIX DESIGNS FOR POST-TENSIONED CONCRETE SHALL BE PROPORTIONED SO AS TO MINIMIZE SHRINKAGE CRACKING.

3. ALL CONCRETE SHALL BE REGULAR WEIGHT OF 145 POUNDS PER CUBIC FOOT USING HARDROCK AGGREGATES. AGGREGATE USED IN CONCRETE SHALL CONFORM TO ASTM C33, CONCRETE AGGREGATES.

4. MAXIMUM SLUMP FOR EXTERIOR SLABS SHALL BE 5 INCHES. MAXIMUM SLUMP FOR ALL OTHER CONCRETE SHALL BE 4 INCHES. WATER SHALL BE CLEAN AND POTABLE.

5. PORTLAND CEMENT SHALL CONFORM TO ASTM C150. TYPE V CEMENT SHALL BE USED FOR CONCRETE IN CONTACT WITH EARTH. TYPE II CEMENT MAY BE USED ELSEWHERE. MAXIMUM [illegible] OF CEMENT SHALL NOT EXCEED 0.00.

6. NO MORE THAN 90 MINUTES SHALL ELAPSE BETWEEN CONCRETE BATCHING AND CONCRETE PLACEMENT, UNLESS APPROVED BY THE ENGINEER OR AUTHORIZED TESTING AGENCY.

7. CONCRETE MIXING, PLACEMENT AND QUALITY SHALL BE PER IBC SECTION 1905, ASTM C94, ASTM C360, AND ACI 302. MECHANICALLY VIBRATE ALL CONCRETE WHEN PLACED, EXCEPT SLABS ON GRADE [illegible] BE VIBRATED OR THOROUGHLY RODDED AROUND EMBEDDED STRAPS OR [illegible] HOLDOWNS, PT ANCHORAGES (AS OCCUR), CURBS AND EDGES OF SLAB STEPS [illegible] DUCTS OR SIMILAR ELEMENTS. REMOVE ALL DEBRIS FROM FORMS BEFORE [illegible] CONCRETE. CONCRETE SHALL NOT BE DROPPED THROUGH REINFORCING STEEL (AS IN [illegible]) SO AS TO CAUSE SEGREGATION OF AGGREGATES. UNCONFINED FALL OF [illegible] EXCEED 5 FEET. CARE SHALL BE TAKEN IN PLACING SLABS ON GRADE SO AS [illegible] MATERIAL.

8. ALL ITEMS [illegible] CAST IN CONCRETE SUCH AS REINFORCING, DOWELS, BOLTS, ANCHORS, PIPES, SLEEVES, ETC. SHALL BE SECURELY POSITIONED IN THE FORMS BEFORE PLACING THE CONCRETE.

9. CONCRETE SLAB ON GRADE CONTROL JOINTS SHALL BE AS SHOWN ON THE FOUNDATION PLAN OR TYPICAL DETAILS. WHERE CONTROL JOINTS ARE NOT SHOWN ON PLANS, ALL CONCRETE SLABS ON GRADE SHALL BE BOUNDED BY KEYED, DOWELED OR SAW-CUT CONTROL JOINTS SUCH THAT THE ENCLOSED AREA DOES NOT EXCEED 260 SQUARE FEET. RATIO OF BOUNDARY DIMENSIONS SHALL NOT EXCEED 1.5:1. KEYED OR DOWELED CONTROL JOINTS NEED ONLY OCCUR AT EXPOSED EDGES DURING POURING. ALL OTHER JOINTS MAY BE SAW CUT. POST-TENSIONED CONCRETE SLABS ON GRADE SHALL NOT HAVE CONTROL JOINTS UNLESS SPECIFICALLY NOTED ON THE PLANS.

10. PIPES OTHER THAN ELECTRICAL CONDUITS SHALL NOT BE EMBEDDED IN STRUCTURAL CONCRETE EXCEPT WHERE SPECIFICALLY APPROVED BY THE ENGINEER. MAXIMUM PIPE SIZE SHALL BE 1/3 OF THE SLAB THICKNESS AND LOCATED AT THE MID-DEPTH. MINIMUM SPACING SHALL BE 3 TIMES THE PIPE DIAMETER. PIPES SHALL NOT IMPAIR THE STRENGTH OF THE MEMBER.

11. PROTECT CONCRETE FROM DAMAGE OR REDUCED STRENGTH DUE TO COLD OR HOT WEATHER IN ACCORDANCE WITH ACI 305 AND 306 AND IBC SECTION 1905. CONTRACTOR SHALL TAKE SPECIAL CURING PRECAUTIONS TO MINIMIZE SHRINKAGE CRACKING OF POST-TENSIONED CONCRETE SLABS.

POST-TENSIONED CONCRETE SLABS-ON-GROUND

1. INFORMATION THIS SECTION APPLIES ONLY TO THE CONSTRUCTION OF POST-TENSIONED CONCRETE SLABS AND FOUNDATIONS ON GROUND. THE ENGINEER SHALL NOT BE RESPONSIBLE FOR EMBEDDED HARDWARE, ANCHOR BOLTS, HOLDOWNS, AND POST BASES, ETC. DESIGNED BY OTHERS. ITEMS NOT SPECIFICALLY DIMENSIONED ON THE PLANS SUCH AS INTERIOR SHEAR WALLS, POSTS, HOLDOWNS, ETC. SHALL BE LOCATED ACCORDING TO APPROVED ARCHITECTURAL PLANS AND DETAILS.

2. INTERIOR TENDON LOCATIONS (AWAY FROM EDGE OF SLAB OR OPENING) ARE TO BE PLACED AT THE APPROXIMATE LOCATION DIMENSIONED ON PLAN. TENDONS MAY BE MOVED LATERALLY APPROXIMATELY 15 INCHES FROM GIVEN DIMENSIONS TO AVOID EMBEDS, BLOCKOUTS, DRILLED ANCHORS, ETC. TENDON LOCATIONS NOT DIMENSIONED ON PLANS SHALL BE PLACED AT APPROXIMATELY EQUAL SPACES BETWEEN DIMENSIONED CONTROL POINTS. VERTICAL PLACEMENT TOLERANCE OF TENDONS SHALL BE .25 INCHES PLUS OR MINUS.

3. ALL TENDON OVERLAPS SHALL BE CENTERED IN DEPTH OF CONCRETE SLAB EXCEPT AT PERIMETER OF FOUNDATION, UNLESS NOTED OTHERWISE. TENDONS ADJACENT TO EDGE OF SLAB AND RUNNING PARALLEL TO EDGE OF SLAB SHALL BE PLACED BELOW TENDON PERPENDICULAR TO EDGE OF SLAB. PLACE BOUNDARY TENDONS BEFORE PLACING REMAINING TENDONS.

4. SECURE ALL TENDONS AT EACH INTERSECTION WITH THE APPROPRIATE CHAIR OR DOBIE BLOCKS. PLASTIC CHAIRS WHICH PROVIDE SADDLE OR SIDE CLIPS FOR THE TENDONS NEED ONLY BE TIED AT EVERY THIRD TENDON INTERSECTION. DOBIE BLOCK OR OTHER CHAIRS WHICH ALLOW TENDONS TO MOVE LATERALLY SHALL BE TIED AT EACH TENDON INTERSECTION. TIE ALL TENDON INTERSECTIONS AT THE PERIMETER OF THE SLAB.

5. PLACEMENT OF MILD STEEL REINFORCEMENT SHALL BE COORDINATED WITH PLACEMENT OF POST-TENSIONING TENDONS. PROPER TENDON PLACEMENT HAS PRIORITY.

6. CONCRETE CONTRACTOR SHALL ENSURE THAT WORKMEN EXERCISE GREAT CARE SO AS NOT TO DISTURB LOCATIONS OF TENDONS DURING CONCRETE PLACEMENT.

7. TENDON STRESSING MAY PROCEED WHEN THE CONCRETE STRENGTH OBTAINS 2000 PSI. STRESS SLABS AS EARLY AS POSSIBLE TO REDUCE SHRINKAGE CRACKS. STRESS ALL TENDONS BEFORE PLACING SECOND STORY FLOOR SHEATHING OR ROOF SHEATHING ON THE FRAMED STRUCTURE. PARTIAL STRESSING (25 % OF ALL TOTAL FORCE) THE DAY AFTER CONCRETE PLACEMENT IS RECOMMENDED FOR ALL CABLES THAT EXCEED 100 FEET IN LENGTH OR WHERE REDUCTION OF SHRINKAGE CRACKING IS DESIRED.

8. ALL TENDON STRESSING OPERATIONS SHALL BE PERFORMED UNDER THE IMMEDIATE CONTROL OF PERSON PROPERLY TRAINED AND EXPERIENCED IN POST-TENSIONING STRESSING OPERATIONS. ALL TENDONS SHALL BE STRESSED BY MEANS OF A HYDRAULIC JACK EQUIPPED WITH A RECENTLY CALIBRATED (WITHIN 60 DAYS) PRESSURE GAUGE. A CURRENT, CERTIFIED CALIBRATION CHART SHALL ACCOMPANY EACH JACK. TENDON STRESSING OPERATOR SHALL MAINTAIN RIGID CONTROL OF GAUGE PRESSURE READINGS AND ELONGATION MEASUREMENTS. MEASURED ELONGATION SHALL CORRESPOND TO THE CALCULATED ELONGATION BY PLUS OR MINUS 10 PERCENT. ANY DISCREPANCIES IN TENDON ELONGATION OR STRESSING OPERATIONS SHALL BE REPORTED TO THE ENGINEER BEFORE CUTTING THE STRESSING ENDS. ADDITIONAL ENGINEERING FEES RELATED TO REVIEW OF ELONGATION'S SHOULD BE THE RESPONSIBILITY OF THE CONTRACTOR. ON TENDONS 25 FEET IN LENGTH OR LESS, GAUGE PRESSURE GOVERNS OVER ELONGATION. DO NOT STAND BEHIND THE JACK DURING STRESSING.

REINFORCING STEEL (FOR CONCRETE AND MASONRY)

1. REINFORCING STEEL SHALL CONFORM TO THE REQUIREMENTS OF ASTM A615. REINFORCING SHALL BE GRADE 60 (FY = 60 KSI) DEFORMED BARS FOR ALL BARS #5 AND LARGER AND ALL BARS USED FOR CONCRETE WALLS, BEAMS, ELEVATED SLABS AND COLUMN PRIMARY REINFORCING. REINFORCING MAY BE GRADE 40 (FY = 40 KSI) DEFORMED BARS FOR ALL BARS #4 AND SMALLER UNLESS NOTED OTHERWISE ON PLANS OR DETAILS. ALL REINFORCING TO BE WELDED SHALL BE ASTM A706, GRADE 60 LOW ALLOY WELDABLE STEEL.

2. WELDED WIRE FABRIC SHALL CONFORM TO THE REQUIREMENTS OF ASTM A185. LAPS IN WELDED WIRE FABRIC SHALL BE MADE SUCH THAT THE OVERLAP, MEASURED BETWEEN OUTERMOST CROSS WIRE OF EACH FABRIC SHEET, IS NOT LESS THAN THE SPACING OF CROSS WIRES PLUS 2 INCHES.

3. PRE-STRESSING STEEL SHALL CONFORM TO ASTM A416, GRADE 270, SEVEN-WIRE LOW RELAXATION STRAND AND THE PCI/PTI PUBLICATION "SPECIFICATION FOR UNBONDED SINGLE STRAND TENDONS" WITH A GUARANTEED ULTIMATE TENSILE STRENGTH OF 41.3 KPS. ALL MATERIAL SHALL BE CLEAN AND FREE FROM RUST. NOMINAL DIAMETER SHALL BE 1/2 INCH. NOMINAL AREA SHALL BE 0.153 SQUARE INCHES. MAXIMUM TEMPORARY JACKING FORCE SHALL NOT EXCEED 33 KIPS.

4. ALL DIMENSIONS SHOWING THE LOCATION OF REINFORCING STEEL NOT NOTED AS "CLEAR" OR "CLR" ARE TO CENTER OF STEEL. MINIMUM COVER FOR NON-PRESTRESSED CONCRETE REINFORCING SHALL BE AS FOLLOWS, UNLESS NOTED OTHERWISE ON PLANS OR DETAILS:

EXPOSURE CONDITION:	MINIMUM COVER:	TOLERANCES (+ / -):
CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH:	3"	3/8"
EXPOSED TO EARTH OR WEATHER:		
#5 AND SMALLER:	1-1/2"	3/8"
#6 AND LARGER:	2"	3/8"
NOT EXPOSED TO WEATHER OR IN CONTACT WITH THE GROUND:		
ROOF SLAB:	1"	1/8"
STRUCTURAL SLABS AND WALLS:	3/4"	1/8"
BEAMS AND COLUMNS (PRIMARY REINFORCEMENT, TIES, STIRRUPS AND SPIRALS):	1-1/2"	3/8"
SLABS ON GRADE:	1-1/2"	1/4"

5. LAP SPLICES OF REINFORCING STEEL IN CONCRETE BEAMS, SLABS AND FOOTINGS SHALL BE ACCORDING TO ACI SECTION 12 OR LAP SCHEDULE, WHERE PRESENT, UNLESS NOTED OTHERWISE. STAGGER SPLICES A MINIMUM OF ONE LAP LENGTH. NO TACK WELDING OF REINFORCING BARS ALLOWED. LATEST ACI CODE AND DETAILING MANUAL APPLY. PROVIDE BENT CORNER BARS TO MATCH AND LAP WITH HORIZONTAL BARS AT ALL CORNERS AND INTERSECTIONS PER TYPICAL DETAILS. VERTICAL WALL BARS SHALL BE SPLICED AT OR NEAR FLOOR LINES. SPLICE BARS TOP BARS AT CENTER LINE OF SPAN AND BOTTOM BARS AT THE SUPPORT IN SPANDRELS, BEAMS, GRADE BEAMS, ETC. UNLESS NOTED OTHERWISE.

6. MECHANICAL SPLICE COUPLERS, FLANGE COUPLERS, THREADED COUPLERS, ETC. SHALL HAVE CURRENT ICC APPROVAL AND SHALL BE CAPABLE OF DEVELOPING 125% OF THE STRENGTH OF THE BAR.

7. ALL REINFORCING SHALL BE BENT COLD. BARS SHALL NOT BE STRAIGHTENED AND RE-BENT. FIELD BENDING OF REBAR SHALL NOT BE ALLOWED UNLESS SPECIFICALLY NOTED.

8. WELDING OF REINFORCING BARS, METAL INSERTS, AND CONNECTIONS SHALL CONFORM WITH AWS D1.4 AND SHALL BE MADE ONLY AT LOCATIONS SHOWN ON PLANS OR DETAILS.

9. REINFORCING BAR SPACING SHOWN ON PLANS ARE AT MAXIMUM ON CENTERS. ALL BARS SHALL BE DETAILED AND PLACED PER CONCRETE REINFORCING STEEL INSTITUTE (CRSI) SPECIFICATIONS AND HANDBOOK. DOWEL ALL VERTICAL REINFORCING TO FOUNDATION. SECURELY TIE ALL BARS IN LOCATION BEFORE PLACING CONCRETE.

10. ANCHORAGE FOR POST-TENSIONING TENDONS SHALL BE MONOSTRAND-TYPE ANCHOR SYSTEM PER ICC ER-4597 OR EQUIVALENT WITH CURRENT ICC APPROVAL USING A DUCTILE IRON CASTING OF AT LEAST 2.25 INCHES BY 4.5 INCHES OF BEARING. POCKET-FORMERS SHALL BE USED ON ALL STRESSING ENDS. THE POCKET-FORMER SHALL PROVIDE ADEQUATE CONCRETE COVERAGE FOR THE ANCHOR AS NOTED ON THE PLANS OR DETAILS. COATING POCKET-FORMERS WITH OIL OR SIMILAR MATERIALS FOR EASE OF REMOVAL IS ACCEPTABLE. ALL DEAD END ANCHORAGES SHALL BE SHOP FABRICATED, PRESEATED WEDGES. FABRICATION AND MANUFACTURER OF THE UNBONDED SYSTEM SHALL BE IN ACCORDANCE WITH THE GUIDE SPECIFICATIONS AS OUTLINED BY THE POST-TENSIONING INSTITUTE.

WOOD

1. SAWN FRAMING LUMBER SHALL COMPLY WITH THE LATEST EDITION OF THE GRADING RULES OF THE WESTERN WOOD PRODUCTS ASSOCIATION OR THE WEST COAST LUMBER INSPECTION BUREAU. ALL SAWN LUMBER SHALL BE STAMPED WITH THE GRADE MARK OF AN APPROVED LUMBER GRADING AGENCY. SAWN LUMBER SHALL HAVE THE FOLLOWING MINIMUM GRADE (UNLESS NOTED OTHERWISE): △3

2x4 STUDS UP TO 10'-0"	DOUGLAS FIR NO. 2 GRADE
2x4 STUDS OVER 10'-0"	DOUGLAS FIR NO. 2 GRADE
2x4 TOP OR BOTTOM PLATES	DOUGLAS FIR STANDARD GRADE
2x6 STUDS UP TO 10'-0"	DOUGLAS FIR STUD GRADE
2x6 STUDS OVER 10'-0"	DOUGLAS FIR NO. 2 GRADE
2x6 TOP OR BOTTOM PLATES	DOUGLAS FIR NO. 2 GRADE
2x4 OR 2x6 BLOCKING	DOUGLAS FIR STANDARD, STUD, NO.2
2x8, 2x10, 2x12 (ALL APPLICATIONS)	DOUGLAS FIR NO 2 GRADE
4x4 (ALL APPLICATIONS)	DOUGLAS FIR NO. STANDARD GRADE
4x6, 4x8, 4x10, 4x12 (ALL APPLICATIONS)	DOUGLAS FIR NO. 2 GRADE
6x6, 6x8, 6x10, 6x12 (ALL APPLICATIONS)	DOUGLAS FIR NO. 1 GRADE

2. GLUE-LAMINATED BEAMS (GLULAM) SHALL BE DOUGLAS FIR COMBINATION 24F-V4 AT SIMPLE SPANS AND 24F-V8 AT CANTILEVER SPANS HAVING THE FOLLOWING MINIMUM PROPERTIES: Fb = 2,400 PSI, Fv = 265 PSI, Fc (PERPENDICULAR) = 650 PSI, E = 1,800,000 PSI. FABRICATION AND HANDLING SHALL CONFORM TO THE LATEST AMERICAN INSTITUTE FOR TIMBER CONSTRUCTION (AITC) AND ASTM STANDARDS. BEAMS SHALL BEAR AN APPROPRIATE GRADE STAMP CLEARLY NOTING ITS DESIGN PROPERTIES. UNLESS CAMBER AND TOLERANCE IS SPECIFICALLY NOTED ON THE DRAWINGS, BEAMS SHALL BE MANUFACTURED WITH MINIMUM UPWARD CAMBER OF 1200 FOOT RADIUS. ERECT WITH CROWN OR CAMBER UP. IN HEADER CONDITIONS (BEAM BUILT INTO WALL) CRIPPLE FRAMING ABOVE HEADER SHALL MAINTAIN CAMBER. HEADER BEAMS MAY HAVE ZERO CAMBER, PROVIDED CRIPPLE FRAMING ABOVE HEADER IS BUILT WITH MINIMUM CAMBER STATED ABOVE.

3. LAMINATED VENEER LUMBER (MICROLAM) SHALL BE WESTERN SPECIES MANUFACTURED IN ACCORDANCE WITH WEYERHAUSER CORPORATION MANUFACTURING STANDARDS AS REFERENCED IN ICC REPORT NO. ER-1387, OR APPROVED EQUAL, AND SHALL HAVE THE FOLLOWING MINIMUM PROPERTIES: E = 1,900,000 PSI, Fb = 2600 PSI, Fc (PERPENDICULAR) = 750 PSI, Fc (PARALLEL) = 2310 PSI, Fv = 285 PSI. WHEN MULTIPLE MICROLAMS ARE GROUPED TOGETHER, FASTEN WITH 2 ROWS OF 16d COMMON NAILS AT 12" OC. USE 3 ROWS OF 16d COMMON NAILS AT 12" OC FOR DEPTHS 14" OR GREATER. 16" AND 18" DEEP BEAMS ARE TO BE USED IN MULTIPLE MEMBER UNITS ONLY. SEE MANUFACTURER'S RECOMMENDATION WHEN GROUPING 4 MEMBERS TOGETHER OR GROUPING MEMBERS WIDER THAN 1-3/4".

4. ALL PLYWOOD SHALL BE C-D OR C-C SHEATHING CONFORMING TO USVPS PS-1 AND PS-2. PLYWOOD SHALL HAVE EXTERIOR GLUE. LAY UP PLYWOOD WITH FACE GRAIN PERPENDICULAR TO SUPPORTS. PROVIDE BLOCKING AT PANEL EDGES WHERE INDICATED ON PLANS. ALL PLYWOOD SHALL CONFORM TO THE FOLLOWING NOMINAL THICKNESS, SPAN RATING AND NAILING PATTERN UNLESS NOTED OTHERWISE:

THICKNESS:	SPAN RATING:	EDGE NAILING:	FIELD NAILING:
3/8"	24/0	8d AT 6" OC	8d AT 12" OC
7/16"	24/16	8d AT 6" OC	8d AT 12" OC
15/32" (1/2")	32/16	8d AT 6" OC	8d AT 12" OC
3/4" (23/32")	48/24	10d AT 6" OC	10d AT 10" OC
1"	60/48	10d AT 6" OC	10d AT 6" OC
1-1/8"	60/48	10d AT 6" OC	10d AT 6" OC

UNLESS NOTED OTHERWISE ON PLAN (SEE PLAN), ROOF SHEATHING SHALL BE 15/32" MIN AND FLOOR SHEATHING SHALL BE 3/4" MINIMUM, UNLESS NOTED OTHERWISE. AT PANELIZED CONSTRUCTION LAY UP PLYWOOD WITH FACE GRAIN PARALLEL TO SUPPORTS USING 5-PLY PLYWOOD.

5. AMERICAN PLYWOOD ASSOCIATION PERFORMANCE RATED SHEATHING (OSB) MAY BE USED AS AN ALTERNATE TO PLYWOOD WITH PRIOR APPROVAL OF OWNER AND ARCHITECT. RATED SHEATHING SHALL COMPLY WITH ICBO REPORT NO. NER-124 AND SHALL HAVE A SPAN RATING EQUIVALENT TO OR BETTER THAN THE PLYWOOD IT REPLACES. ATTACHMENT AND THICKNESS (WITHIN 1/32") SHALL BE THE SAME AS THE PLYWOOD IT REPLACES. INSTALL PER MANUFACTURER'S RECOMMENDATIONS.

5. DIMENSIONS OF NAILS SHALL CONFORM WITH THE FOLLOWING TABLE:

NAIL SIZE:	SHANK DIA:	LENGTH:
16d COMMON	.162"	3-1/2"
16d SINKER	.148"	3-1/4"
16d BOX	.135"	3-1/2"
P-NAIL	.131"	3-1/4"
10d COMMON	.148"	3"
8d COMMON	.131"	2-1/2"

NAILS ONLY NOTED AS 16d MAY BE COMMON, SINKER OR P-NAIL UNLESS NOTED SPECIFICALLY AS COMMON, SINKER OR P-NAIL. NAILS NOTED ON PLANS OR NOTES AS 10d OR 8d SHALL BE COMMON ONLY. ALL NAILING NOT NOTED SHALL BE ACCORDING TO IBC TABLE 2304.9.1.

7. SOLE PLATES RESTING ON CONCRETE OR MASONRY SHALL BE TREATED DOUGLAS FIR. ANCHOR BOLTS AT SOLE PLATES SHALL BE 1/2" DIA x 7" EMBED. MAXIMUM ANCHOR BOLT SPACING TO BE, INTERIOR: 72" OC, EXTERIOR: 48" OC, UNO ON PLAN, DETAIL OR SCHEDULE. THERE SHALL BE A MINIMUM OF TWO BOLTS PER PIECE WITH ONE BOLT LOCATED NOT MORE THAN 12" OR LESS THAN 7 BOLT DIAMETERS FROM EACH END OF PIECE. HOLDOWN BOLTS SHALL NOT BE CONSIDERED AS ANCHOR BOLTS.

8. INTERIOR SOLE PLATES (6" AWAY FROM EDGE OF CONCRETE OR STEP) MAY BE ANCHORED WITH EXPANSION BOLTS IN LIEU OF ANCHOR BOLTS. EXPANSION BOLTS SHALL BE THE SAME DIAMETER AND SPACING AS ANCHOR BOLTS AND SHALL BE EMBEDDED 2-1/4" FOR 1/2" DIA BOLTS. AT POST-TENSIONED SLABS-ON-GROUND, MONOLITHIC SLAB FOOTING THICKNESS SHOWN ON PLAN OR DETAIL MAY BE REDUCED TO 5-1/4" UNO ON PLANS TO PROVIDE 3" CONCRETE COVER. EXPANSION BOLTS SHALL BE HILTI KWIK BOLT TZ (ICC NO. ESR-1917) OR ITW REDHEAD TRUBOLT (ICC NO. ESR-2251). INSTALL PER MANUFACTURER'S RECOMMENDATIONS AND ICBO REPORT.

WOOD

9. INTERIOR SOLE PLATE (6" AWAY FROM EDGE OF CONCRETE OR STEP) MAY BE ANCHORED WITH LOW VELOCITY POWER ACTUATED SHOT PINS MANUFACTURED BY HILTI (ICC NO. ESR-1663) OR RAMSET (ICC NO. ESR-1799). INSTALL FASTENER PER MANUFACTURER'S RECOMMENDATIONS AND ICC REPORT. DO NOT SPLIT WOOD PLATE. MONOLITHIC SLAB FOOTING SHOWN ON PLAN OR DETAIL MAY BE OMITTED UNO ON PLAN WHERE SHOT PIN ALTERNATE IS USED.

SPECIFIED ANCHOR BOLT:	ALTERNATE SHOT PIN SPACING .170" SHANK:	.140" SHANK:
1/2" DIA AT 48" OC	9"	6"
1/2" DIA AT 40" OC	7"	--
1/2" DIA AT 24" OC	6"	--

10. DO NOT NOTCH, SLOPE CUT, OR DRILL JOISTS, BEAMS OR LOAD-BEARING STUDS WITHOUT PRIOR APPROVAL OF THE STRUCTURAL ENGINEER THROUGH THE ARCHITECT UNLESS SPECIFIC DETAILS ARE PROVIDED. DOUBLE UP FLOOR JOISTS AND BLOCKING UNDER WALLS THAT RUN PARALLEL TO THE JOISTS. PROVIDE 2" (NOMINAL) SOLID BLOCKING BETWEEN JOISTS AT SUPPORTS.

11. JOIST HANGERS AND OTHER MISCELLANEOUS FRAMING ANCHORS SHALL BE AS MANUFACTURED BY SIMPSON STRONG-TIE COMPANY WITH CURRENT ICC APPROVAL. ATTACH FRAMING ANCHORS TO WOOD PER MANUFACTURER'S RECOMMENDATIONS. USE MAXIMUM NUMBER AND SIZE OF FASTENER WHERE NOT SPECIFICALLY NOTED. USE OF ALTERNATE HARDWARE MANUFACTURER REQUIRES WRITTEN APPROVAL OF THE ENGINEER. VERIFY LOCATION OF HOLDOWNS, POST BASES, ETC. WITH FRAMING TO ENSURE PROPER AND ACCURATE INSTALLATION.

12. ALL BOLTS SHALL BE INSTALLED IN HOLES BORED WITH A BIT 1/16 INCH LARGER THAN THE DIAMETER OF THE BOLT. BOLTS AND NUTS SEATING ON WOOD SHALL HAVE CUT STEEL WASHERS UNDER HEADS AND NUTS. DING THREADS TO PREVENT LOOSENING. LAG SCREWS SHALL BE INSTALLED IN PRE-DRILLED HOLES BY TURNING WITH A WRENCH.

13. HOLDOWN ANCHORS AT INTERIOR ENDS OF SHEAR WALLS (18" MIN AWAY FROM EDGE OF SLAB) MAY BE ANCHORED TO SLAB WITH EPOXY GROUTED A307 ALL-THREAD BAR IN DRILLED HOLE. EMBEDMENT DEPTH AND DIAMETER OF ALL-THREAD BOLT SHALL MATCH DEPTH REQUIREMENT FOR CAST BOLT. USE HILTI HVA OR C-100 ADHESIVE ANCHOR SYSTEM (ICC NO. ER-5369), SIMPSON SET OR ET (ICC NO. 1772 OR 4945), COVERT OPERATION CIA-GEL 7000 (ICC NO. 1702), RAWL OR SIKADUR FOILFAST (ICC NO. 4514) OR RAMSET EPCON (ICC NO. 4285). INSTALL PER ICC REPORT AND MANUFACTURER'S RECOMMENDATION. THICKEN SLAB TO PROVIDE 3 INCHES CONCRETE COVER (MINIMUM) AT LOCATIONS WHERE HOLDOWNS OR EPOXY GROUTED ANCHORS ARE TO BE INSTALLED.

14. PERIMETER HOLDOWNS ANCHORS (WITHIN 18" OF EDGE OF SLAB) ARE TO BE CAST. REPAIR FOR MISLOCATED PERIMETER HOLDOWNS MAY BE ANCHORED TO SLAB WITH EPOXY GROUTED A307 ALL-THREAD BAR IN DRILLED HOLE. EMBEDMENT DEPTH AND DIAMETER OF ALL-THREAD BOLT SHALL MATCH DEPTH REQUIREMENT FOR CAST BOLT. USE ONLY SIMPSON SET (ICC NO. 1772) ADHESIVE ANCHOR SYSTEM ON REPAIR OF ALL PERIMETER HOLDOWN BOLTS. INSTALL PER ICC REPORT AND MANUFACTURER'S RECOMMENDATION.

15. PREFABRICATED WOOD TRUSSES, JOISTS AND GIRDER TRUSSES SHALL BE DESIGNED TO SUPPORT THEIR SELF-WEIGHT, PLUS LIVE LOAD AND SUPERIMPOSED DEAD LOADS. INCLUDING, BUT NOT LIMITED TO, WALLS EITHER PARALLEL OR PERPENDICULAR TO THE SPAN, ALL MECHANICAL AND OTHER EQUIPMENT, AND SHALL BE DESIGNED TO RESIST ALL DRAG FORCES, SHEAR WALL UPLIFT AND DOWNWARD LOADS, AND OTHER SPECIAL LOADS NOTED ON STRUCTURAL, MECHANICAL, PLUMBING, OR ARCHITECTURAL DRAWINGS OR CALCULATIONS. BRIDGING SIZE AND SPACING SHALL BE AS DESIGNATED BY TRUSS MANUFACTURER UNLESS NOTED OTHERWISE. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS, ERECTION DRAWINGS AND DESIGN CALCULATIONS SEALED BY A REGISTERED ENGINEER. SHOP DRAWINGS SHALL SHOW ANY SPECIAL DETAILS REQUIRED AT BEARING POINTS. ALL CONNECTORS SHALL HAVE CURRENT ICBO APPROVAL. THE MANUFACTURER SHALL DESIGN CONNECTION OF TRUSS REQUIRING PREFABRICATED HARDWARE HANGER OR OTHER.

16. PREFABRICATED PLYWOOD WEB I-JOIST/PURLINS (TRUS JOIST MACMILLAN TJI SERIES OR EQUAL) SHALL BE DESIGNED, FABRICATED AND ERECTED IN ACCORDANCE WITH THE LATEST EDITION OF ICC REPORT ESR-1153. CONNECTIONS AND BEARING MATERIAL SHALL BE DESIGNED AND FURNISHED BY JOIST FABRICATOR. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS WITH DESIGN CALCULATIONS SEALED BY AN APPROPRIATELY REGISTERED ENGINEER FOR REVIEW PRIOR TO MANUFACTURE. ADDITIONAL MEMBERS SHALL BE SUPPLIED AS REQUIRED TO SUPPORT MECHANICAL EQUIPMENT.

17. PREFABRICATED OPEN WEB TRUSS (TRUSS JOIST MACMILLAN TJL), SHALL BE DESIGNED, FABRICATED AND ERECTED IN ACCORDANCE WITH THE LATEST EDITION OF ICC REPORT ES-1774. CONNECTIONS AND BEARING MATERIAL SHALL BE DESIGNED AND FURNISHED BY JOIST FABRICATOR. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS WITH DESIGN CALCULATIONS SEALED BY AN APPROPRIATELY REGISTERED ENGINEER FOR REVIEW PRIOR TO MANUFACTURE. ADDITIONAL MEMBERS SHALL BE SUPPLIED AS REQUIRED TO SUPPORT MECHANICAL EQUIPMENT.

18. WHERE BRIDGING INTERFERES WITH MECHANICAL OR OTHER INSTALLATIONS, REMOVE BRIDGING AFTER DECK IS IN PLACE AND REPLACE WITH ADDITIONAL MANUFACTURER SUPPLIED HORIZONTAL [illegible]

19. DRAWINGS AND DETAILS DO NOT NECESSARILY INDICATE NONSTRUCTURAL BLOCKING, BRACING, DRYWALL BACKING, ETC. ALL SUCH ITEMS SHALL BE ADEQUATELY SECURED TO FRAMING.

20. DUCTS, PIPING, ELECTRICAL CONDUIT, ETC. SHALL NOT BE SUSPENDED FROM 2X_ SUBPURLINS AT PANELIZED ROOFS UNLESS SPECIFICALLY APPROVED IN WRITING BY THE ENGINEER.

DEFERRED SUBMITTALS

1. IN ACCORDANCE WITH THE IBC SECTION 106.3.4.2, SPECIALTY ITEMS, PRE-ENGINEERED COMPONENTS, AND DESIGN/BUILD ELEMENTS MAY BE SUBMITTED FOR APPROVAL BY THE ENGINEER OF RECORD AND THE BUILDING OFFICIAL BY DEFERRED SUBMITTAL. SUCH ITEMS ARE DEFINED AS THOSE SPECIFIED IN CONSTRUCTION DOCUMENTS BUT WHICH REQUIRE DESIGN BY THE MANUFACTURER, SUPPLIER OR INSTALLER.

2. DEFERRED SUBMITTALS ARE REQUIRED FOR THE FOLLOWING:

WOOD TRUSSES
ENGINEERED WOOD JOISTS AND BEAMS
EXIT FACILITIES INCLUDING LANDINGS, STAIRS, HANDRAILS AND GUARDRAILS SUPPORT AND ANCHORAGE OF MECHANICAL, ELECTRICAL AND PLUMBING EQUIPMENT AND COMPONENTS

3. SUBMITTALS SHALL INCLUDE:

a) CALCULATIONS, PREPARED AND SEALED BY AN APPROPRIATELY REGISTERED ENGINEER (THE "SPECIALTY ENGINEER").
b) DIAGRAM PREPARED AND SEALED BY THE SPECIALTY ENGINEER, SHOWING LOAD MAGNITUDES AND LOCATIONS -- SEPARATED INTO DEAD, LIVE, WIND AND/OR SEISMIC COMPONENTS -- THAT ARE APPLIED TO THE PRIMARY STRUCTURE.
c) ERECTION OR DESIGN DRAWINGS BEARING THE SPECIALTY ENGINEER'S SEAL AND THE ARCHITECT'S STAMP INDICATING HIS REVIEW.

4. SUBMIT ONE (1) REPRODUCIBLE COPY, ONE (1) WET SEALED COPY FOR THE STRUCTURAL ENGINEER OF RECORD'S FILE, AND ADDITIONAL COPIES AS ARE NECESSARY FOR THE BUILDING DEPARTMENT. SUBMITTALS CONTAINING EXCEPTIONS, CORRECTIONS, OR OTHER REVIEW COMMENTS ARE NOT ACCEPTABLE FOR SUBMITTAL TO THE BUILDING DEPARTMENT.

5. THE STRUCTURAL ENGINEER OF RECORD'S REVIEW IS STRICTLY LIMITED TO THE FOLLOWING:

a) THE DRAWINGS AND CALCULATIONS ARE PROPERLY SEALED.
b) THE LOAD CRITERIA IS CONSISTENT WITH THE CONTRACT DOCUMENTS AND INTERNATIONAL BUILDING CODE REQUIREMENTS.
c) THE CONNECTIONS TO THE PRIMARY STRUCTURE ARE CONSISTENT WITH THE PRIMARY DESIGN.
d) THE BASE STRUCTURE IS CAPABLE OF SUPPORTING THE IMPOSED LOADS.

6. IF THE LOADS IMPOSED ON THE STRUCTURE EXCEED THE LOAD ALLOWANCE PROVIDED, THE STRUCTURAL ENGINEER OF RECORD WILL REJECT THE SUBMITTAL. ONLY AT THE OWNER'S WRITTEN DIRECTION WILL MODIFICATIONS TO THE BASE STRUCTURE TO ACCOMMODATE THE SPECIALTY ITEM(S) BE MADE BY THE ENGINEER OF RECORD. DEFERRED SUBMITTAL ITEMS SHALL NOT BE INSTALLED UNTIL THEIR DESIGN AND THE ENGINEER OF RECORD AND THE BUILDING OFFICIAL HAVE APPROVED SUBMITTAL DOCUMENTS.

INSPECTION NOTES

1. IN ADDITION TO THE STANDARD INSPECTIONS BY THE BUILDING OFFICIAL REQUIRED PER IBC CHAPTER 17, THE OWNER SHALL EMPLOY ONE OR MORE SPECIAL INSPECTORS WHO SHALL PROVIDE INSPECTIONS DURING CONSTRUCTION FOR THE TYPES OF WORK LISTED IN THIS SECTION.

2. THE SPECIAL INSPECTOR SHALL BE A QUALIFIED PERSON WHO SHALL DEMONSTRATE COMPETENCE, TO THE SATISFACTION OF THE BUILDING OFFICIAL, FOR INSPECTION OF THE PARTICULAR TYPE OF CONSTRUCTION OR OPERATION REQUIRING SPECIAL INSPECTION.

3. THE SPECIAL INSPECTOR SHALL INSPECT THE WORK ASSIGNED FOR CONFORMANCE WITH THE APPROVED CONTRACT DRAWINGS AND SPECIFICATIONS. SPECIAL INSPECTOR SHALL FURNISH INSPECTION REPORTS TO THE BUILDING OFFICIAL, THE ENGINEER OF RECORD, AND OTHER DESIGNATED PERSONS. ALL DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR FOR CORRECTION, THEN, IF UNCORRECTED, TO THE ENGINEER AND THE BUILDING OFFICIAL. THE SPECIAL INSPECTOR SHALL SUBMIT A FINAL SIGNED REPORT STATING WHETHER THE WORK REQUIRING SPECIAL INSPECTION WAS, TO THE BEST OF THE INSPECTOR'S KNOWLEDGE, IN CONFORMANCE WITH THE APPROVED PLANS AND SPECIFICATIONS AND THE APPLICABLE CODE PROVISIONS.

4. INSPECTORS SHALL INSPECT FROM AN APPROVED SET OF CONTRACT DRAWINGS. SHOP DRAWINGS SHALL NOT BE USED IN LIEU OF THE APPROVED CONTRACT DRAWINGS FOR INSPECTION PURPOSES.

5. TYPES OF WORK TO BE INSPECTED BY THE SPECIAL INSPECTOR ARE AS FOLLOWS:

a) DURING THE TAKING OF TEST SPECIMENS AND PLACING OF REINFORCED CONCRETE AND SHOTCRETE. EXCEPTION: FOUNDATION CONCRETE, OTHER THAN CAST-IN-PLACE DRILLED PILES OR CAISSONS, WHERE THE STRUCTURAL DESIGN IS BASED ON AN f'c NO GREATER THAN 2,500 PSI DOES NOT REQUIRE SPECIAL INSPECTION. FREQUENCY AND TYPE OF TEST SPECIMENS SHALL BE PER IBC SECTION 1905.6.

b) PRIOR TO, AND DURING THE INSTALLATION OF CONCRETE AROUND BOLTS.

c) DURING THE PLACING OF REINFORCING AND PRE-STRESSING TENDONS FOR ALL CONCRETE REQUIRED TO HAVE SPECIAL INSPECTION NOTED ABOVE.

e) DURING ALL STRESSING AND GROUTING OF PRE-STRESSING TENDONS. EXCEPTION: SPECIAL INSPECTOR NEED NOT BE PRESENT CONTINUOUSLY DURING PLACING OF REINFORCING STEEL AND PRE-STRESSING TENDONS, PROVIDED THE SPECIAL INSPECTOR HAS INSPECTED FOR CONFORMANCE TO THE APPROVED DESIGN DRAWINGS AND SPECIFICATIONS PRIOR TO THE CLOSING OF THE FORMS OR THE DELIVERY OF CONCRETE TO THE JOB SITE.

f) DURING ALL EPOXY ANCHORING OPERATIONS FOR BOLTS, REBAR, THREADED ROD, ETC., INCLUDING VERIFICATION OF BOLT OR BAR MATERIALS, HOLE DEPTH AND DIAMETER, HOLE CLEANOUT, EPOXY MIXING AND PLACEMENT PROCEDURES, AND EMBEDMENT DEPTH IN ACCORDANCE THE CONTRACT DRAWINGS AND THE MANUFACTURER'S SPECIFICATIONS AND RECOMMENDATIONS.

g) PERIODIC INSPECTIONS FOR SCREW ATTACHMENT, BOLTING, ANCHORING AND OTHER FASTENING OF COMPONENTS OF THE LATERAL-FORCE-RESISTING SYSTEM, INCLUDING STRUTS, DRAGS, BRACES, HOLDOWNS, SHEARWALLS AND DIAPHRAGMS.

6. CERTIFICATE OF APPROVAL REGARDING MATERIALS AND INSPECTION OF PREFABRICATED ITEMS SHALL BE PROVIDED IN ACCORDANCE WITH IBC SECTION 1703 THE QUALITY ASSURANCE PROGRAM.

SYMBOL LEGEND

PLANS

- COLUMN SECTIONS
- C1/F3 — SCHEDULED ITEM OR HARDWARE CALLOUT
- TOS 98'-0" — TOP OF ELEVATION
- STEEL STUD OR WOOD STUD WALL
- WOOD SHEAR WALL PER SCHEDULE OR NON-TYPICAL AB SPACING
- REVISION NUMBER
- SPAN DIRECTION
- SL 2" — SLOPE DIRECTION
- LIMITS OF AREA OF CALLOUT (NOT SPAN DIRECTION)
- CONTINUOUS LIMITS OF CALLOUT (NOT SPAN DIRECTION)
- LIMITS OF REINF BARS
- 4" — STEP IN SLAB ELEVATION
- OPENING
- MECHANICAL UNIT
- 201 — DETAIL CUT IN SECTION
- 201 — DETAIL CUT VIEW DIRECTION
- 201 — DETAIL CUT VIEW DIRECTION
- 201 — DETAIL CUT PLAN VIEW
- 201 — DETAIL REFERENCE

DETAILS

- ② — KEYNOTE
- STRUCTURAL PAD GRADE OR NATURAL GRADE
- SELECT FILL OR GRANULAR BACKFILL
- TOP OF LANDSCAPE GRADE UNCOMPACTED FILL
- CAST IN PLACE CONCRETE
- WOOD SECTION CONTINUOUS
- WOOD SECTION DISCONT. OR BLK
- PLYWOOD OR WOOD SHEATHING

STANDARD ABBREVIATIONS

AB	ANCHOR BOLT
ACI	AMERICAN CONCRETE INSTITUTE
ACS	ALL COMMON SURFACES
AISC	AMERICAN INSTITUTE OF STEEL CONSTRUCTION
AISI	AMERICAN IRON AND STEEL INSTITUTE
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE
ARCH'L	ARCHITECTURAL
ALT	ALTERNATE
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIAL
BFF	BELOW FINISH FLOOR
BO	BOTTOM OF
BOD	BOTTOM OF DECK
B	BOTTOM
BOT	BOTTOM
BM	BOTTOM MOST
BRG	BEARING
C	CHANNEL
CJ	CONTROL JOINT
CJP	COMPLETE JOINT PENETRATION
℄	CENTER LINE
CLR	CLEAR
COL	COLUMN
CONC	CONCRETE
CONT	CONTINUOUS
DIA or Ø	DIAMETER
DIAG	DIAGONAL
DWG	DRAWING
EF	EACH FACE
EL	ELEVATION
EQ	EQUAL
EW	EACH WAY
FF	FINISH FLOOR
FLR	FLOOR
FND	FOUNDATION
FT	FOOT
FTG	FOOTING
GA	GAGE
GSN	GENERAL STRUCTURAL NOTES
HI	HIGH
HORIZ	HORIZONTAL
IBC	INTERNATIONAL BUILDING CODE
ICC	INTERNATIONAL CODE CONFERENCE
ID	INSIDE DIAMETER
INFO	INFORMATION
JT	JOINT
K	KIP (1,000 LBS.)
KSI	KIPS PER SQUARE INCH
L	ANGLE
LLH	LONG LEG HORIZONTAL
LLV	LONG LEG VERTICAL
LO	LOW
MFR	MANUFACTURER
MAX	MAXIMUM
MECH	MECHANICAL
MIN	MINIMUM
MISC	MISCELLANEOUS
NTS	NOT TO SCALE
OC	ON CENTER
OD	OUTSIDE DIAMETER
OPP	OPPOSITE
PL	PLATE
PLF	POUNDS PER LINEAR FOOT
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PAF	POWDER ACTUATED FASTENERS
REQ'D	REQUIRED
SIM	SIMILAR
SPEC	SPECIFICATION
STD	STANDARD
T	TOP
TM	TOP MOST
T&B	TOP AND BOTTOM
T&G	TONGUE AND GROOVE
TO	TOP OF
TOC	TOP OF CONCRETE
TOD	TOP OF DECK
TOF	TOP OF FOOTING
TOL	TOP OF LEDGER
TOP	TOP OF PANEL
TOS	TOP OF STEEL
TOW	TOP OF WALL
TYP	TYPICAL
UBC	UNIFORM BUILDING CODE
UNO	UNLESS OTHERWISE NOTED
VERT	VERTICAL
W	WIDE FLANGE
W/	WITH
W/O	WITHOUT
WT	WEIGHT
WWF	WELDED WIRE FABRIC

THIS DRAWING IS AN INSTRUMENT OF SERVICE AND THE PROPERTY OF MENDENHALL SMITH INC. USE OF THIS DRAWING AND ALL REPRODUCTIONS SHALL BE RESTRICTED TO THE ORIGINAL SITE FOR WHICH IT WAS PREPARED AND SHALL NOT BE USED UNLESS PROPERLY SEALED AND APPROVED. PUBLICATION OF THIS DRAWING BY ANY METHOD IN WHOLE OR PART IS PROHIBITED WITHOUT PERMISSION OF MENDENHALL SMITH INC. WHERE A CONTRACTORS NAME APPEARS ON THIS DRAWING, WORK SHALL BE COMPLETED BY SAID CONTRACTOR EXCEPT BY AGREEMENT WITH SAME CONTRACTOR.

REV	DATE	BY	DESCRIPTION
△3	04.03.09	PJD	TRUSS SHOP DRAWING COORD

Mendenhall Smith STRUCTURAL ENGINEERS
3571 Red Rock Street, Suite A
Las Vegas, Nevada 89103
P.702.367.6725
F.702.367.2727

ENGINEERS SEAL
PROFESSIONAL ENGINEER - STATE OF NEVADA
PHILIP J. DE LA MARE
EXP. 12-31-10
CIVIL/STRUCTURAL
No.010087
JUN 0 4 2009

CORONADO
THE PASEOS
LAS VEGAS, NEVADA
FOR
SPINNAKER HOMES

Building & Safety Dept.
City of Las Vegas, Nevada
IN LIEU OF STRUCTURAL REVIEW PLANS AND CALCULATIONS ARE DEEMED ACCEPTABLE IF SEALED AND SIGNED BY A NEVADA LICENSED CIVIL OR STRUCTURAL ENGINEER

Make no change without approval.
Not a permit to violate any ordinance.

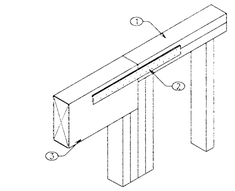
RECEIVED
JUN 05 2009

SHEET INDEX

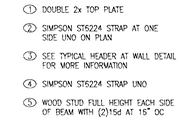
FIRE RISER ROOM COORD 06.02.09	TRUSS SHOP DRAWING COORDINATION 04.09.09	STRUCURAL COORDINATION 03.25.09	STRUCURAL COORDINATION 03.12.09	100% SUBMITTAL 02.24.09	SHEET NO.	SHEET TITLE
•	△3	•	•	•	S1.1	GSN AND INFORMATION
•	•	•	•	•	S1.2	TYPICAL DETAILS
△4	△3	△2	△1	•	S2.1	POST-TENSIONED FOUNDATION PLAN - BLDG 100-100R
△4	△3	△2	△1	•	S2.2	POST-TENSIONED FOUNDATION PLAN - BLDG 100-200
△4	△3	△2	△1	•	S3.1	FRAMING PLANS - BLDG 100-100R
△4	△3	△2	△1	•	S3.2	FRAMING PLANS - BLDG 100-200
•	△3	•	•	•	S4.1	FOUNDATION DETAILS
•	△3	△2	•	•	S5.1	FLOOR FRAMING DETAILS
•	△3	•	•	•	S5.2	FLOOR FRAMING DETAILS
•	△3	△2	•	•	S6.1	ROOF FRAMING DETAILS
•	•	△2	•	•	S6.2	ROOF FRAMING DETAILS

SHEET TITLE:
GENERAL STRUCTURAL NOTES

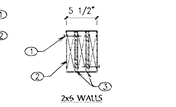
DATE: FEBRUARY 24, 2009
JOB NO.: 03-374.1
DRAWN: ACD
CHECKED: PJD
FILE: GS011E03374.1
SHEET NO.: S1.1



1. DOUBLE 2x TOP PLATE
2. SIMPSON ST6224 STRAP AT ONE SIDE UNO ON PLAN
3. SEE TYPICAL HEADER AT WALL DETAIL FOR MORE INFORMATION
4. SIMPSON ST6224 STRAP UNO
5. WOOD STUD FULL HEIGHT EACH SIDE OF BEAM WITH (2)15d AT 16" OC
6. BUILT UP STUD UNLESS NOTED AS POST ON PLAN. (2)16d AT 16" OC
7. PLYWOOD SPACER AS REQUIRED, 8" LONG AT 24" OC WITH (2)8d
8. FULL HEIGHT STUD AT SIDE AND END OF BEAM WITH (6)16d NAILS TO BEAM AND 16d AT 16" OC STAGGERED TO BEARING STUD OR POST
9. WOOD BEAM



2x4 WALLS



2x6 WALLS

1. 16d STAGGERED AT 16" OC EACH FACE
2. SOLID 2x JOIST
3. MIN 3" LONG PLYWOOD SPACER AT 16" OC

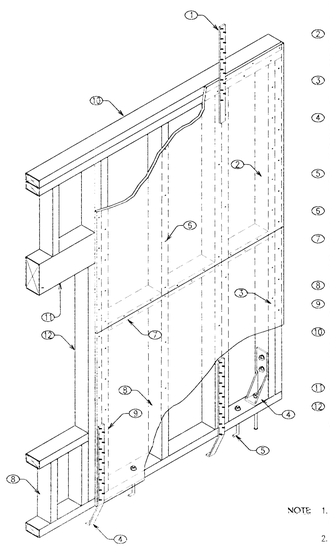
SIMPLE ROOF FRAMING OR ROOF OVERBUILD FRAMING	
SOID HEADER	BUILT-UP HEADER
4x6	(2) 2x8
4x8	(2) 2x10
4x10	(2) 2x12
6x6	(3) 2x8
6x8	(3) 2x10
6x10	(3) 2x12

NOTE: 1. BUILT-UP HEADER MAY BE USED AS AN ALTERNATE TO SOLID 4x AND 5x HEADERS UNO ON PLANS

2. BUILT-UP HEADER ALTERNATE SHALL NOT BE USED IN LIEU OF INTERIOR BEAMS

10 ALTERNATE HEADER SCHEDULE

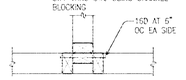
06-010-03374XR — NO SCALE



1. STRAP FROM END OF UPPER LEVEL SHEAR WALL WHERE INDICATED ON PLAN. INSTALL ON DOUBLE STUD UNLESS NOTED AS POST
2. FULL HEIGHT DOUBLE STUDS AT EACH END OF SHEAR WALL UNLESS NOTED AS POST ON PLAN (2) 16d FACE NAIL AT 16" OC
3. EDGE NAILING AT ALL SHEATHING PANEL EDGES. STAGGER NAILS AT DOUBLE STUDS AND 3x MEMBERS
4. HOLDOWN TO FOUNDATION OR STRAP TO LOWER LEVEL AT ENDS OF SHEARWALL AS BELOW STRAP ABOVE AS INDICATED ON PLANS. SEE TYPICAL DETAILS
5. ANCHOR BOLTS TO FOUNDATION OR NAILS OR SCREWS TO LOWER FRAMING PER SHEARWALL SCHEDULE
6. FIELD NAILING AWAY FROM PANEL EDGES
7. SOLID 2x OR 3x BLOCKING AT ALL PLYWOOD PANEL EDGES AND AT GYPBOARD EDGES WHERE REQUIRED. SEE SHEAR WALL SCHEDULE
8. VERTICAL STUDS AT 16" OC
9. PROVIDE ADDITIONAL KING STUDS AT OPENING PER PLANS
10. DOUBLE 2x TOP PLATES PER TYPICAL DETAILS. CONTINUE TOP PLATES OVER HEADER OR STRAP TO HEADER PER TYPICAL DETAILS. SPLICE PER TYPICAL DETAIL
11. WOOD HEADER
12. TRIMMER STUD UNDER HEADER AND SILL. PROVIDE ADDITIONAL TRIMMER WHERE INDICATED ON PLANS

NOTE: 1. SEE SHEARWALL SCHEDULE FOR ADDITIONAL NOTES

2. DO NOT INTERRUPT SHEATHING AT INTERSECTING WALLS EXCEPT FOR SW1 THRU SW5 USING CHANNEL BLOCKING



06 TYPICAL SHEARWALL CONSTRUCTION

06-006-03374XR — NO SCALE

CONNECTION	NAILING
JOIST OR TRUSS BEARING ON SILL OR GIRDER, TOENAIL	(3) 8d COMMON; (3) 0.131"x3"
BRIDGING TO JOIST, TOENAIL EACH END	(2) 8d COMMON; (2) 0.131"x3"
SOLE PLATE TO JOIST OR BLOCKING, FACE NAIL	16d AT 16" OC; 0.131"x3" AT 8" OC
TOP PLATE TO STUD, END NAIL TO EACH STUD	(2) 16d COMMON; (3) 0.131"x3"
STUD TO 2x SOLE PLATE	(4) 8d COMMON TOENAIL OR END NAIL (2) 16d COMMON OR (3) 0.131"x3"
STUD TO 3x SOLE PLATE	(2) 20d BOX END NAIL
DOUBLE STUDS, FACE NAIL	16d AT 24" OC
DOUBLE TOP PLATES, FACE NAIL	16d AT 16" OC
TOP PLATES, INTERSECTIONS, FACE NAIL	2 - 16d
CONTINUOUS HEADER, TWO PIECES	16d AT 16" OC ALONG EACH EDGE
CEILING JOISTS TO PLATE, TOENAIL	(3) 8d COMMON; (51) 0.131"x3"
CONTINUOUS HEADER TO STUD, TOENAIL	(4) 8d COMMON
CEILING JOISTS, LAPS OVER PARTITIONS, FACE NAIL	(3) 16d COMMON; (4) 0.131"x3"
CEILING JOISTS TO PARALLEL RAFTERS, FACE NAIL	(3) 16d COMMON; (4) 0.131"x3"
RAFTER OR TRUSS TO PLATE, TOE NAIL	(3) 8d COMMON; (3) 0.131"x3"
BUILT-UP CORNER STUDS	16d COMMON AT 24" OC; (3) 0.131"x3" AT 16" OC

NOTE: 1. MIN NAILING SPECIFIED HEREIN SHALL BE PROVIDED UNO ON PLANS, DETAILS OR GSN.

2. MINIMUM NAIL SIZE PER GENERAL STRUCTURAL NOTES
3. NAILING NOT NOTED SHALL BE PER IBC TABLE 2304-9-1
4. COMMON OR BOX NAILS ARE PERMITTED TO BE USED EXCEPT WHERE OTHERWISE STATED

01 TYPICAL MINIMUM NAILING

06-001-03374XR — NO SCALE

SIMPLE ROOF FRAMING	
MAXIMUM HORIZONTAL SPAN	JOIST
4'-0"	2X4
9'-6"	2X6
13'-0"	2X8
16'-0"	2X10
19'-6"	2X12

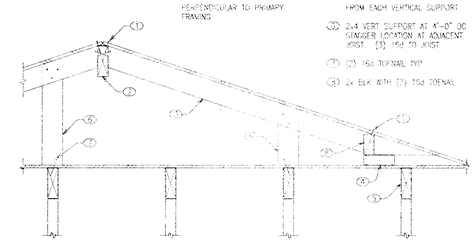
SIMPLE CEILING FRAMING	
MAXIMUM HORIZONTAL SPAN	CEILING JOIST
6'-0"	2X4
12'-0"	2X5
18'-0"	2X8

NOTE: 1. SEE TYPICAL DETAIL AT OVERBUILD AREAS

2. FRAMING NOT BEARING ON SUPPORT SHALL BE HUNG USING SIMPSON LU, U, HU, LSU, LSSU, HHC TYPE HANGERS DESIGNATED FOR THE JOIST SIZE AT SPANS LESS THAN 8'-0" SIMPSON A34 OR 4-16d NAILS MAY BE USED AT SPANS LESS THAN 5'-6", (3) 16d NAILS MAY BE USED.

02 TYPICAL JOIST SCHEDULE FOR SIMPLE FRAMING

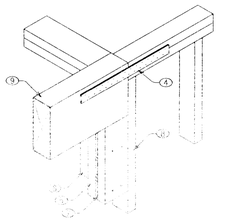
06-002-03374XR — NO SCALE



1. EDGE NAILING
2. 2x4 MIN RIDGE JOIST
3. HEADER PERPENDICULAR TO PRIMARY FRAMING
4. CONT 2x6 VALLEY PLATE WITH (3)16d TO PRIMARY FRAMING
5. PRIMARY FRAMING. TRUSS MFR TO PROVIDE END REACTIONS FROM EACH VERTICAL SUPPORT
6. 2x4 VERT SUPPORT AT 4'-0" OC STAGGER LOCATION AT ADJACENT JOIST. (3) 16d TO JOIST
7. (2) 16d TOENAIL TYP
8. 2x BLK WITH (7) 16d TOENAIL

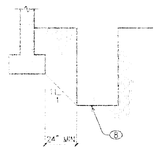
03 TYPICAL OVERBUILD FRAMING

06-003-03374XR — NO SCALE



SHALLOW HUNCH

1. CONCRETE FOOTING OR FOUNDATION
2. SLEEVE. SIZE TO PROVIDE 1 1/2" MIN. CLEARANCE AROUND UTILITY PIPE
3. UTILITY PIPE
4. LEAN CONCRETE FILL. PLACE PRIOR TO FOOTING PLACEMENT. EXTEND CONCRETE AND SLEEVE 1'-0" PAST EACH SIDE FOOTING
5. CLEARANCE EQUAL TO SLEEVE (3" - 12" MIN)
6. 4'-0" MAX WIDTH. WHERE TRENCH WIDTH EXCEEDS 5'-0", NOTIFY STRUCTURAL ENGINEER PRIOR TO PLACEMENT OF FOOTING
7. BACKFILL AND RECOMPACT TRENCH PER SOIL REPORT AND SPECIFICATIONS
8. BOTTOM OF TRENCH PARALLEL TO FOUNDATION SHALL NOT BE CLOSER THAN 1 TO 1 SLOPE FROM BOTTOM EDGE OF FOOTING



24" MIN

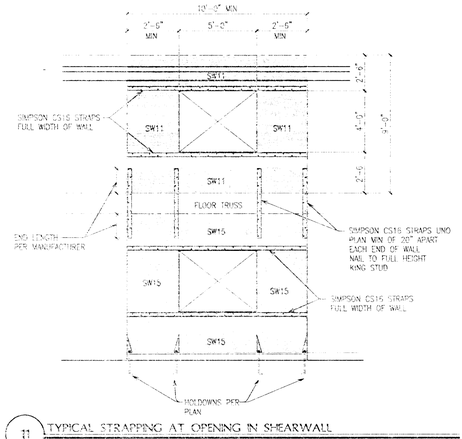
TRENCH PARALLEL TO FOOTING

NOTE: 1. PIPES SHALL NOT PASS THRU FOOTING OR WALL WITHOUT SPECIFIC APPROVAL AND INSTRUCTIONS FROM THE ENGINEER.

2. FOOTING SETTLEMENT OR DIFFERENTIAL MOVEMENT MAY DAMAGE UTILITY PIPES. DETAILS ARE SUGGESTED MEANS OF PROTECTING PIPES. ENGINEER SHALL NOT BE RESPONSIBLE FOR ANY DAMAGE TO PIPES OR FOUNDATIONS

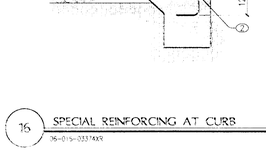
15 TYPICAL UTILITY TRENCH AT CONTINUOUS FOOTING

06-015-03374XR — NO SCALE



11 TYPICAL STRAPPING AT OPENING IN SHEARWALL

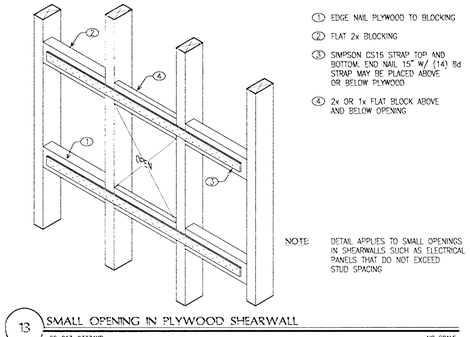
06-011-03374XR — NO SCALE



1. CONCRETE CURB. VERIFY DIMENSIONS AND LOCATION WITH ARCH'L
2. #4 AT 18" OC WHERE CURB HEIGHT EXCEEDS 6". #4 AT 12" OC WHERE CURB HEIGHT EXCEEDS 12"
3. #4 CONT WHERE CURB HEIGHT EXCEEDS 8"

16 SPECIAL REINFORCING AT CURB

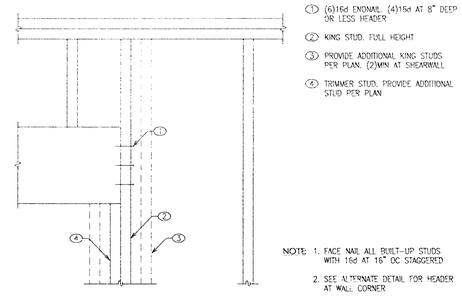
06-016-03374XR — NO SCALE



NOTE: DETAIL APPLIES TO SMALL OPENINGS IN SHEARWALLS SUCH AS ELECTRICAL PANELS THAT DO NOT EXCEED STUD SPACING

13 SMALL OPENING IN PLYWOOD SHEARWALL

06-013-03374XR — NO SCALE



1. (6)16d ENDNAIL (4)16d AT 8" DEEP OR LESS HEADER
2. KING STUD. FULL HEIGHT
3. PROVIDE ADDITIONAL KING STUDS PER PLAN. (2)MIN AT SHEARWALL
4. TRIMMER STUD. PROVIDE ADDITIONAL STUD PER PLAN

NOTE: 1. FACE NAIL ALL BUILT-UP STUDS WITH 16d AT 16" OC STAGGERED

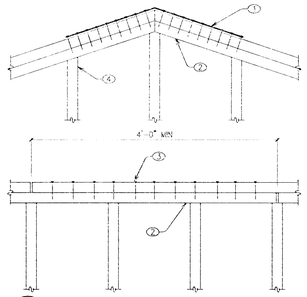
2. SEE ALTERNATE DETAIL FOR HEADER AT WALL CORNER

12 TYPICAL WOOD HEADER AT WOOD STUD WALL

06-012-03374XR — NO SCALE

1. STRAP TYPE HOLDOWN
2. HD OR PHD TYPE HOLDOWN
3. [illegible] FOR BACKING
4. AT BOLTED HD TYPE HOLDOWN COVER STUD MAY BE REQUIRED OVER BOLTS AT CORNER. ADJUST ACCORDINGLY

PLAN - CASE 1 — PLAN - CASE 2



PLAN - CASE 3

NOTES: 1. CASE 1 AND CASE 2 APPLIES TO EXTERIOR SHEATHING. HOLDOWN MAY BE SHAVED (SMALLER HOLDOWN MAY BE ELIMINATED IF 2 HOLDOWNS ARE SHOWN AT CORNER)

2. CASE 3 APPLIES TO INTERIOR SHEATHED SHEARWALL. HOLDOWN CANNOT BE SHAVED

3. SHEATHING SHALL EXTEND TO CORNER

07 TYPICAL HOLDOWN PLACEMENT AT CORNERS

06-007-03374XR — NO SCALE

1. SPLICE AT RIDGE. SIMPSON ST6236
2. DOUBLE 2x TOP PLATE
3. NAILS OVER SPLICE LENGTH PER TABLE BELOW ALTERNATE: SIMPSON ST6236 STRAP TO SIDE

LENGTH OF WALL (BETWEEN CORNERS)	NAILS ALONG SPLICE LENGTH
OVER 30'-0"	(20) 16d
OVER 20'-0"	(12) 16d
OVER 10'-0"	(8) 16d
LESS THAN 10'-0"	(6) 16d

4. MITER CUT STUDS

NOTE

1. SPLICE REQUIRED OVER ALL SHEAR WALLS AND ALL EXTERIOR AND BEARING WALLS
2. SPECIFIC SPLICE REQUIREMENTS DO NOT APPLY TO INTERIOR NON-SHEAR WALLS OR TOP OF PARAPET WALLS UNLESS NOTED OTHERWISE

08 TYPICAL TOP PLATE SPLICE

06-008-03374XR — NO SCALE

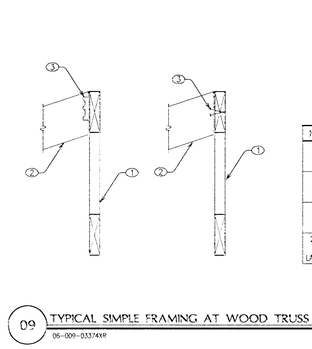
1. STRAP ACROSS W/ SIMPSON ST6236 EACH SIDE OR (2) CS16 EACH SIDE
2. 3/4" OF PLATE MATERIAL TO REMAIN EACH SIDE. IF REMOVED, SNUG FIT 3/4" MINx3" SHIM

PLAN

NOTE: DETAIL USED AT LOCATION WHERE TOP PLATES ARE CUT OR PENETRATED. IF 3/4" OR MORE OF WOOD MATERIAL REMAINS EACH SIDE, STRAP NOT REQ'D. WHERE LESS THAN 3/4" WOOD MATERIAL REMAINS OR WHERE PLATE IS CUT, STRAP AS SHOWN. SHIM REQ'D AT NOTCH IN PLATE

04 STRAP AT DISCONTINUOUS DOUBLE TOP PLATE

06-004-03374XR — NO SCALE

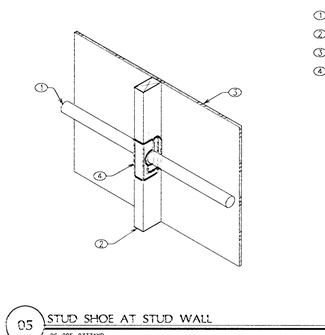


1. PREFAB WOOD ROOF TRUSS, GIRDER TRUSS OR HIP TRUSS
2. WOOD ROOF JOIST OR RAFTER
3. CONNECTION WITH NAILS OR SIMPSON HANGER (SIMPSON LU, U, LUP, LSU OR LSSU TYPE HANGER DESIGNATED FOR THE JOIST SIZE USE SKEWED MODEL AS REQUIRED)

JOIST	CONNECTION
2x4	SIMPSON HANGER OR (3) 16d NAILS OR SIMPSON A34
2x6	SIMPSON HANGER OR (4) 16d NAILS OR SIMPSON A34
2x8	SIMPSON HANGER OR (2) 16d NAILS AND SIMPSON A35
2x10 OR LARGER	SIMPSON HANGER

09 TYPICAL SIMPLE FRAMING AT WOOD TRUSS

06-009-03374XR — NO SCALE



1. MAX 2" DIA PIPE
2. 2x WOOD STUD
3. SHEATHING PER PLAN
4. SIMPSON HSS STUD SHOE. INSTALL PER MFR RECOMMENDATIONS

05 STUD SHOE AT STUD WALL

06-005-03374XR — NO SCALE

THIS DRAWING IS AN INSTRUMENT OF SERVICE AND THE PROPERTY OF MENDENHALL SMITH INC. USE OF THIS DRAWING AND ALL REPRODUCTIONS SHALL BE RESTRICTED TO THE ORIGINAL SITE FOR WHICH IT WAS PREPARED AND SHALL NOT BE USED UNLESS PROPERLY SEALED AND APPROVED. PUBLICATION OF THIS DRAWING BY ANY METHOD IN WHOLE OR PART IS PROHIBITED WITHOUT PERMISSION OF MENDENHALL SMITH INC. WHERE A CONTRACTORS NAME APPEARS ON THIS DRAWING, WORK SHALL BE COMPLETED BY SAID CONTRACTOR EXCEPT BY AGREEMENT WITH SAME CONTRACTOR.

REV	DATE	BY	DESCRIPTION

Mendenhall Smith ENGINEERS
3571 Red Rock Street, Suite A
Las Vegas, Nevada 89103
P/702.367.6725
F/702.367.6726

REGISTERED PROFESSIONAL ENGINEER — STATE OF NEVADA — PHILIP J. DE LA MARE — EXP 12-31-10 — CIVIL STRUCTURAL — No.010081

JUN 0 4 2009

CORONADO
THE PASEOS
LAS VEGAS, NEVADA
FOR
SPINNAKER HOMES

Building & Safety Dept.
City of Las Vegas Nevada
IN LIEU OF STRUCTURAL REVIEW PLANS AND CALCULATIONS ARE DEEMED ACCEPTABLE IF SEALED AND SIGNED BY A NEVADA LICENSED CIVIL OR STRUCTURAL ENGINEER

Make no change without approval. Not a permit to violate any ordinance.

JUN 11, 2009

SHEET TITLE:
TYPICAL DETAILS

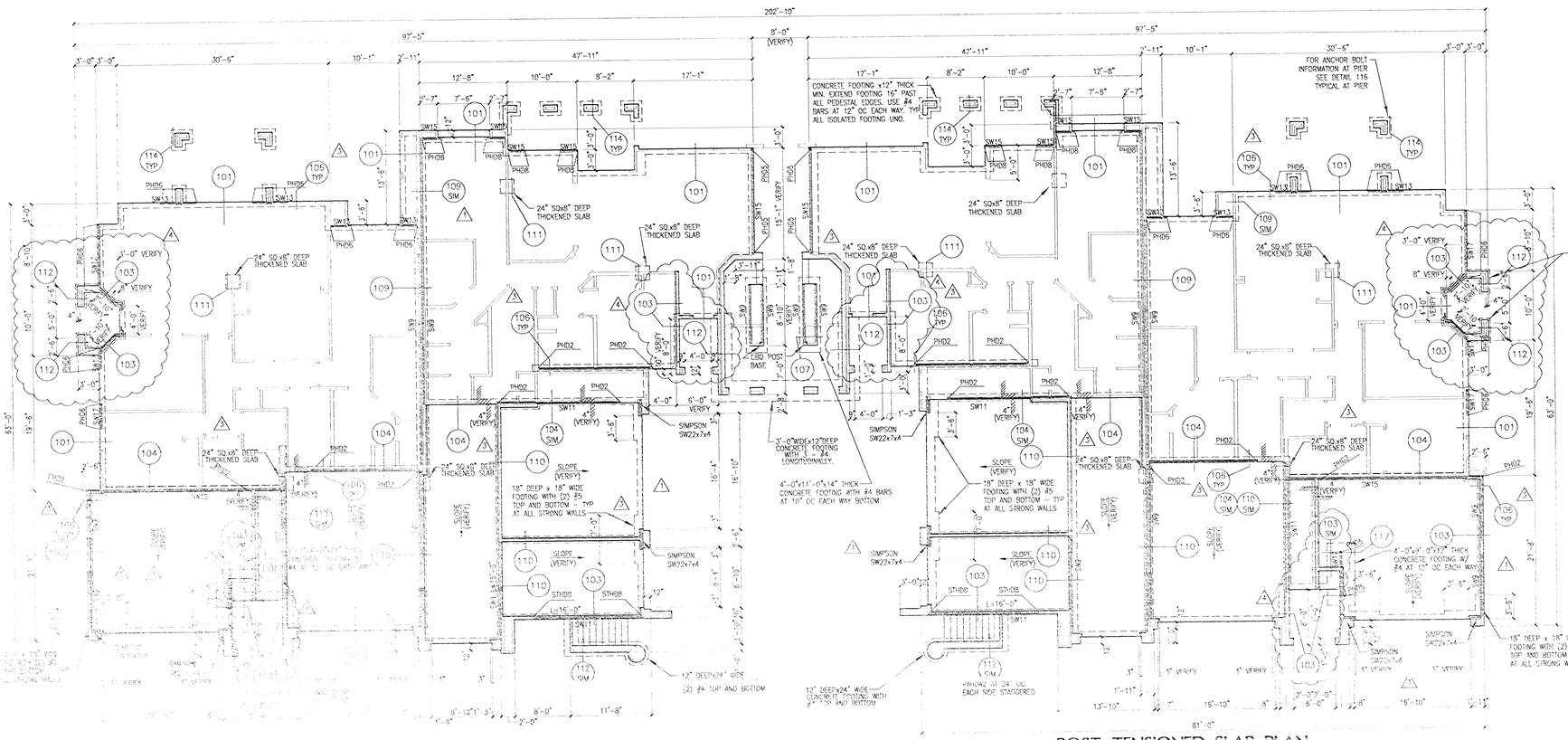
DATE:	FEBRUARY 24, 2009
JOB NO.	03-374.1
DRAWN	ACD
CHECKED	PJD
FILE	DS012E03374.1
SHEET NO.	S1.2

THIS DRAWING IS AN INSTRUMENT OF SERVICE AND THE PROPERTY OF MENDENHALL SMITH INC. USE OF THIS DRAWING, AND ALL REPRODUCTIONS SHALL BE RESTRICTED TO THE ORIGINAL SITE FOR WHICH IT WAS PREPARED AND SHALL NOT BE USED UNLESS PROPERLY SEALED AND APPROVED. PUBLICATION OF THIS DRAWING BY ANY METHOD IN WHOLE OR PART IS PROHIBITED WITHOUT PERMISSION OF MENDENHALL SMITH INC. WHERE CONTRACTORS NAME APPEARS ON THIS DRAWING, WORK SHALL BE COMPLETED BY SAID CONTRACTOR EXCEPT BY AGREEMENT WITH SAME CONTRACTOR.

REV	DATE	BY	DESCRIPTION
1	03.12.09	ACD	STRUCTURAL COORDINATION
2	03.23.09	PJD	STRUCTURAL COORDINATION
3	04.03.09	PJD	TRUSS SHOP DRAWING COORD
4	06.02.09	PJD	FIRE RISER ROOM COORD

Mendenhall Smith
STRUCTURAL ENGINEERS
3571 Red Rock Street, Suite A
Las Vegas, Nevada 89103
P.702.367.6726
E.mail@mendenhallsmith.com

PROFESSIONAL ENGINEER-STATE OF NEVADA
PHILIP J. DE LA MARE
EXP. 12-31-10
CIVIL STRUCTURAL
No. 010007
JUN 04 2009



POST-TENSIONED SLAB PLAN – BUILDING 100

SCALE: 1/8" = 1'-0"

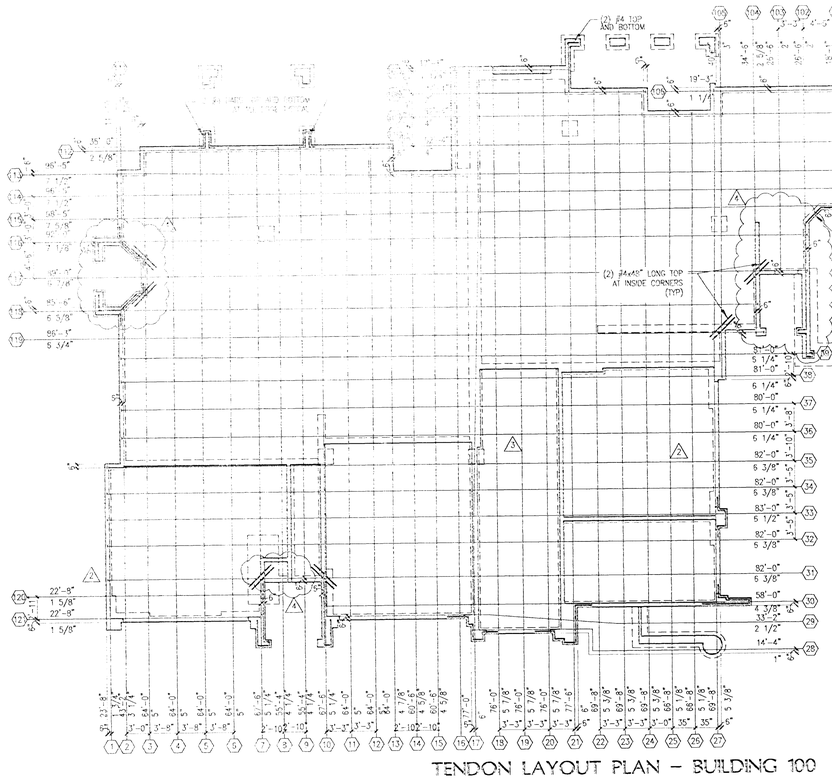
POST-TENSIONED SLAB PLAN – BUILDING 100 REVERSED

SCALE: 1/8" = 1'-0"

SHEARWALL (SW) SCHEDULE (SDC D)

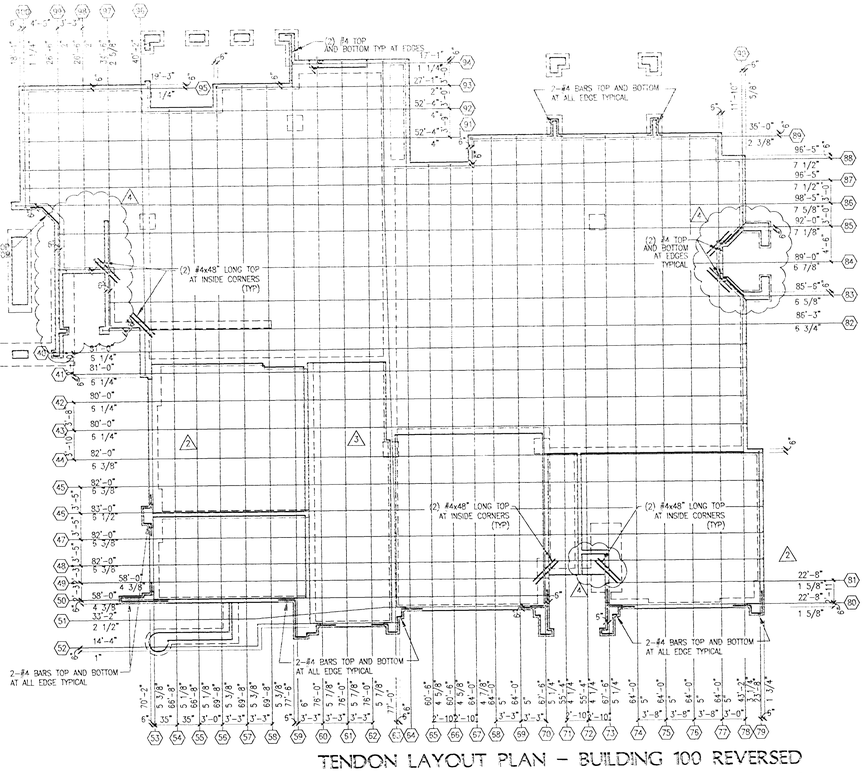
1. STUD SPACING 16" OC MAX. STUDS AND BLOCKING AT EDGES SHALL BE 2x NOMINAL. AT SHEARWALL SW16 OR LARGER WHERE PANELS ARE APPLIED TO BOTH SIDES OF WALL, OFFSET PANELS EDGES TO FALL ON DIFFERENT FRAMING OR USE 3x STUDS AND BLOCKING AT PANEL EDGES. AT SHEARWALL SW11 OR LARGER WHERE FRAMING MEMBERS RECEIVE EDGE NAILING FROM ABUTTING PANELS USE 3x STUDS OR BLOCKING. PLYWOOD JOINT AND SILL PLATE NAILING SHALL BE STAGGERED IN ALL CASES. SEE TYPICAL SHEARWALL DETAIL FOR MORE INFORMATION.
2. PROVIDE FULL HEIGHT DOUBLE STUDS AT ENDS OF SHEARWALL, UNLESS NOTED AS POST ON PLANS OR DETAILS. HOLDOWNS AS SPECIFIED ON PLAN SHALL BE ATTACHED TO DOUBLE STUD OR POST PER DETAILS AND MFR. RECOMMENDATIONS. SHEARWALLS SW1 THRU SW5 MAY BE CONSTRUCTED WITH ONE END STUD, PROVIDED WALL LENGTH EXCEEDS 8'-0" AND HOLDOWNS ARE NOT SPECIFIED AT ENDS. TRIMMER STUD MAY BE USED AS END STUD AT NON-BEARING WALLS ONLY. STAGGER EDGE NAILING AT DOUBLE STUDS AND 3x MEMBERS. FACE NAIL DOUBLE STUD WITH (2) 16d AT 16" OC.
3. INSTALL PANELS EITHER HORIZ OR VERT. GYPBOARD PANELS LESS THAN 4 FOOT WIDE SHALL BE PLACED ACROSS STUDS. STAGGER VERTICAL JOINTS AT GYPBOARD.
4. PROVIDE CONT DOUBLE 2x TOP PLATE AT ALL SHEARWALLS, EXTERIOR WALLS AND BEARING WALLS. LAP SPLICE TOP PLATE PER TYPICAL DETAIL.
5. SILL PLATE SIZE AND ANCHOR BOLTS AT FOUNDATION PER GSN, DETAILS, AND SCHEDULE. NOMINAL 2x SILL PLATES SHALL BE INSTALLED WITH STEEL PLATE WASHERS, 0.229x3"x3". EVEN NOMINAL SHOT-IN OR DRILLED BOLTS, SEE GSN. NAILS OR SCREWS SHALL BE STAGGERED AT SILL PLATE ATTACHMENT AT UPPER LEVEL SHEARWALLS.
6. WHERE NOTED ON PLAN, SHEARWALLS SHALL EXTEND BETWEEN OPENINGS OR CORNER OF WALL UNLESS LENGTH IS NOTED. SHEATHING NOT TO BE INTERRUPTED BY INTERSECTING WALLS EXCEPT FOR GYPBOARD SHEARWALLS SW1 THRU SW5.
7. MINIMUM NAIL DIMENSIONS SHALL BE AS FOLLOWS. 3/8" MIN NAIL SPACING FROM PANEL, STHD OR BLOCK EDGE. GYPBOARD NAILS SHALL BE WALLBOARD, COOLER OR OTHER. SCREW ALTERNATE, #6 BUGLE HEAD SCREW WITH SAME SPACING AND LENGTH PERMITTED AT GYPBOARD. DO NOT SUBSTITUTE STAPLES WITHOUT WRITTEN APPROVAL OF ENGINEER.
   5d WALLBOARD = 0.086" DIAx1-5/8" LONGx1-1/32" HEAD
   6d WALLBOARD = 0.0915" DIAx1-7/8" LONGx1-9/32" HEAD
   8d COMMON = 0.131" DIAx2-1/2" LONG
   10d COMMON = 0.148" DIAx3" MIN LONG
8. 7/16" OR 15/32" PLYWOOD MAY BE SUBSTITUTED FOR 3/8" PLYWOOD WITHOUT CAPACITY REDUCE. ORIENTED STRAND BOARD (OSB) MAY BE SUBSTITUTED FOR PLYWOOD PER GSN.
9. FOR SW11 THRU SW17 FOUNDATION SILL PLATE SHALL BE 3" NOMINAL THICKNESS OR 2x SILL PLATES WITH ANCHOR BOLTS SPACED AT ONE-HALF THE SPACING SHOWN AND SHALL BE INSTALLED WITH STEEL PLATE WASHERS, 0.229x3"x3".
10. FOUNDATION SILL PLATE SHALL BE 3" NOMINAL THICKNESS ANCHOR BOLTS SHALL BE INSTALLED WITH STEEL PLATE WASHERS, 0.229x3"x3".
11. WHERE 3x STUDS OR BLOCKING IS REQUIRED DOUBLE 2x MEMBERS MAY BE USED. MEMBERS SHALL BE SPLICED WITH: SW11 TO SW15 USE (2) ROWS 16d AT 6" OC STAGGERED, SW16 TO SW20 USE (2) ROWS 16d AT 3" OC STAGGERED.
12. THE HOLE IN THE PLATE WASHER IS PERMITTED TO BE DIAGONALLY SLOTTED WITH A WIDTH OF UP TO 3/16" LARGER THAT THE BOLT DIAMETER AND A SLOT LENGTH NOT TO EXCEED 1 3/4", PROVIDED A STANDARD CUT WASHER IS PLACED BETWEEN THE PLATE WASHER AND THE NUT.

MARK	SHEATHING MATERIAL	EDGE NAILING	FIELD NAILING	SILL PLATE ANCHOR BOLT AT FDN / SILL PLATE NAIL AT FLOOR
SW9	3/8" PLYWOOD BLOCKED ONE SIDE OF WALL	8d COMMON AT 6" OC	8d COMMON AT 12" OC	1/2" DIA AB AT 36" OC / 15d COMMON OR SINKER AT 6" OC
SW11	3/8" PLYWOOD BLOCKED ONE SIDE OF WALL	8d COMMON AT 4" OC	8d COMMON AT 12" OC	1/2" DIA AB AT 24" OC / 15d COMMON OR SINKER AT 4" OC
SW13	3/8" PLYWOOD BLOCKED ONE SIDE OF WALL	8d COMMON AT 3" OC	8d COMMON AT 12" OC	1/2" DIA AB AT 20" OC / 1/4" x 4 SCREW AT 5" OC OR 3/8" x 6" LAG SCREW AT 12" OC
SW15	15/32" PLYWOOD BLOCKED ONE SIDE OF WALL	10d COMMON AT 3" OC	10d COMMON AT 12" OC	1/2" DIA AB AT 16" OR 3/4" DIA AT 32" OC / 1/4" X 4 SCREW AT 4" OC OR 3/8" x 6" LAG SCREW AT 10" OC
SW17	15/32" PLYWOOD BLOCKED ONE SIDE OF WALL	10d COMMON AT 2" OC	10d COMMON AT 12" OC	1/2" DIA AB AT 12" OR 3/4" DIA AT 24" OC (SEE NOTE 10) / 3/8" x 6" LAG SCREW AT 8" OC UNO ON DETAIL



TENDON LAYOUT PLAN – BUILDING 100

SCALE: 1/8" = 1'-0"



TENDON LAYOUT PLAN – BUILDING 100 REVERSED

SCALE: 1/8" = 1'-0"

FOUNDATION PLAN NOTES:

1. CONCRETE SLAB SHALL BE 4" THICK WITH 1/2" DIA TENDONS PER LAYOUT PLAN CENTERED IN SLAB THICKNESS, OVER APPROVED SUBBASE PER GSN.
2. FOOTING EMBEDMENT DEPTH SHALL BE 12" BELOW GRADE AS DEFINED IN GSN UNO ON DETAIL.
3. CONTINUOUS FOOTING WIDTH SHALL BE 12" UNO ON PLAN OR DETAIL.
4. INDICATE FIXED END PT ANCHOR.
   INDICATE PT STRESSING ANCHOR.
   INDICATE PT STRESSING ANCHOR WITH TENDON CUT LENGTH (35'-0", INCLUDING 2'-0" WASTE AT STRESSING ANCHOR), EXPECTED ELONGATION (2 5/8"), AND TENDON NUMBER (1).
   FIXED END AND STRESSING END MAY INTERCHANGE UNO.
5. TYPICAL ANCHOR BOLTS AT EXTERIOR WALLS, FIREWALLS AND SHEARWALLS SHALL BE MINIMUM 1/2" DIA X 10" LONG AT 48" OC (EMBED 7") UNO. SPLICE SILL PLATES PER GSN. EXPANSION BOLTS AND SHOT PINS MAY REPLACE INTERIOR ANCHOR BOLTS PER GSN.
6. INDICATE NON-TYPICAL ANCHOR BOLT SPACING AT SHEARWALL 24" OR SW9 OR SHEARWALL DESIGNATION WHERE SCHEDULE IS PROVIDED.
7. VERIFY ALL DIMENSIONS AND CONDITIONS WITH ARCH'L DRAWINGS. DIMENSIONS NOT NOTED SHALL BE PER APPROVED ARCH'L DRAWINGS. RESOLVE ANY DISCREPANCIES WITH THE ARCHITECT PRIOR TO CONSTRUCTION.
8. ESTABLISH AND VERIFY SIZE AND LOCATION OF OPENINGS AND INSERTS IN SLAB WITH OTHER DRAWINGS, TRADES AND SUBCONTRACTORS PRIOR TO CONSTRUCTION.
9. DEAD ENDS OF TENDONS MAY BE AT EITHER END OF SLAB AND NEED NOT BE ORIENTED AS SHOWN.
10. SIMPSON SW22 ... DESIGNATES SIMPSON STRONG WALL BY OTHERS.
11. IF PHD HOLDOWNS ARE UNAVAILABLE USE THE FOLLOWING CONVERSION:
    PHD2 = HDU4
    PHD5 = HDU5
    PHD6 = HDU5
    PHD8 = HDU11 (MIN 4 STUDS) AT ENDS
12. LOWER HOLDOWN FOOTINGS NOT SHOWN FOR CLARITY. SEE DETAIL 106 FOR HOLDOWN CONSTRUCTION WITH ADDED LOWER FOOTING.

Building & Safety Dept.
City of Las Vegas, Nevada
IN LIEU OF STRUCTURAL REVIEW
IN LIEU OF STRUCTURAL CALCULATIONS ARE PLANS AND CALCULATIONS ARE DEEMED ACCEPTABLE IF SEALED AND SIGNED BY A NEVADA LICENSED CIVIL OR STRUCTURAL ENGINEER

Make no change without approval. Not a permit to violate any ordinance.

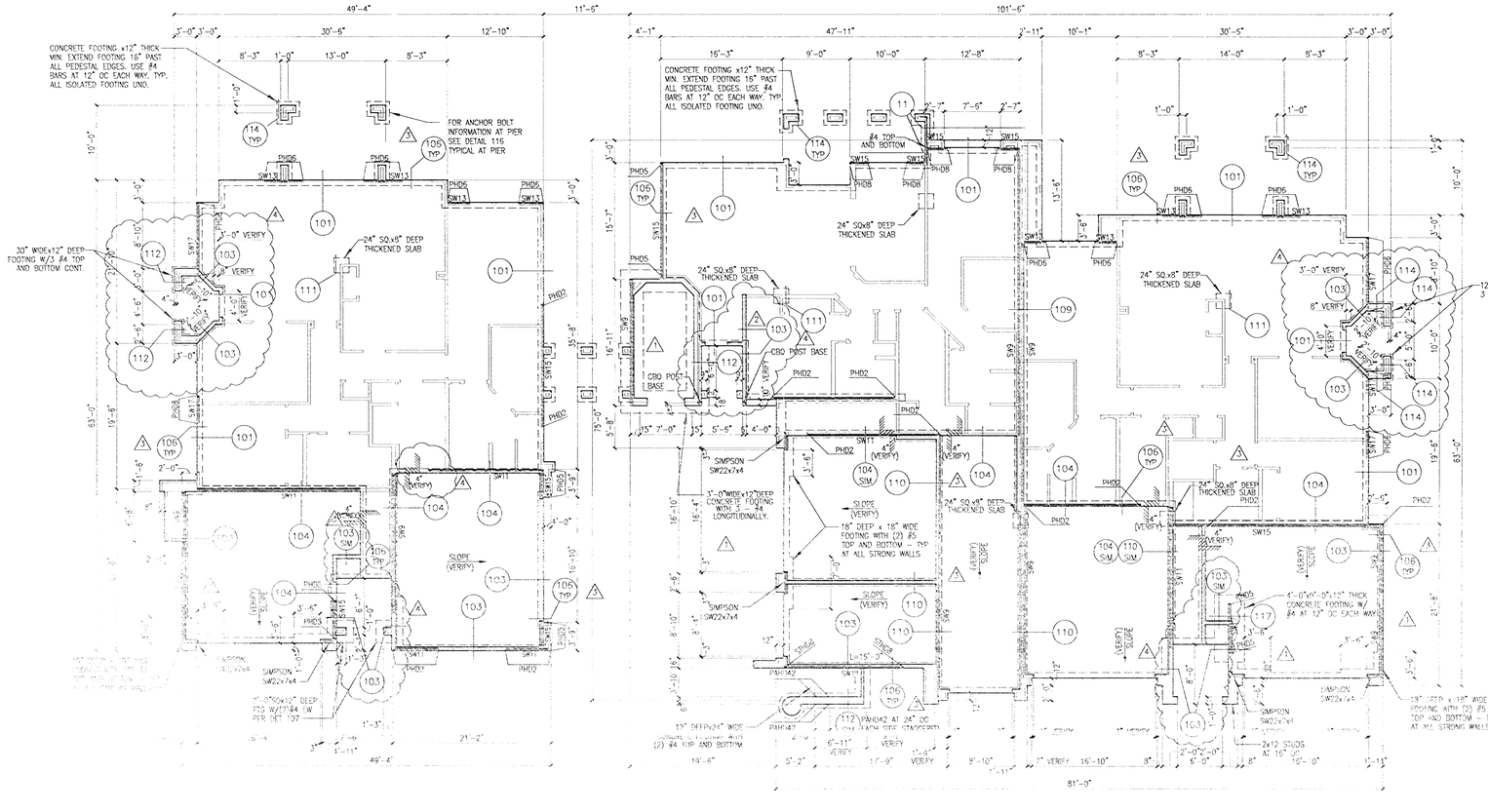
JUN 03 2009

CORONADO
THE PASEOS
LAS VEGAS, NEVADA
FOR
SPINNAKER HOMES

SHEET TITLE:
POST-TENSIONED FOUNDATION PLAN BUILDING 100/100R

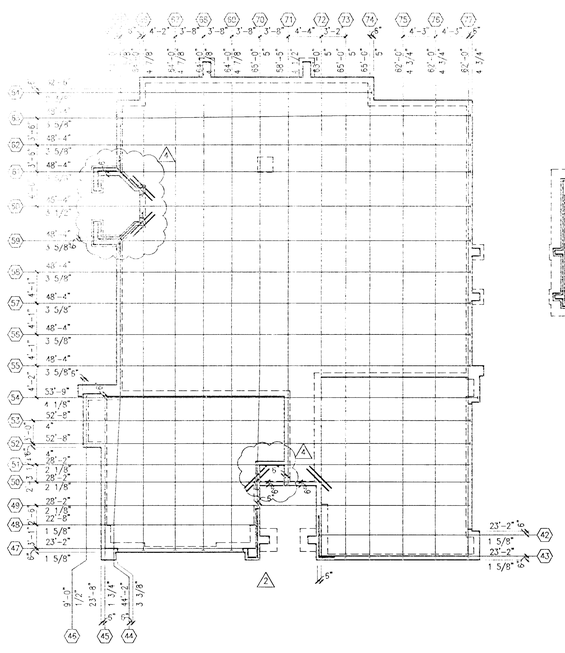
DATE:	FEBRUARY 24, 2009
JOB NO:	03-374.1
DRAWN:	ACD
CHECKED:	PJD
FILE:	PS021E03374.1

SHEET NO:
S2.1



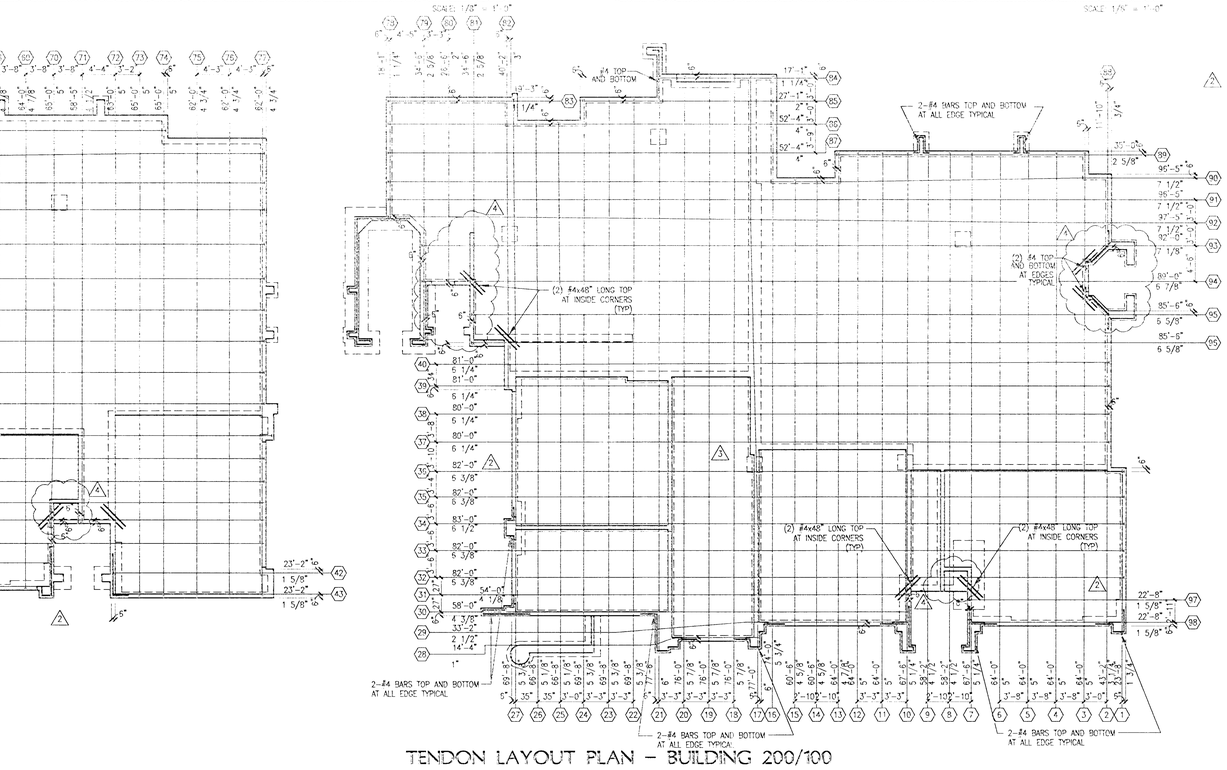
POST-TENSIONED SLAB PLAN – BUILDING 200

SCALE: 1/8" = 1'-0"



POST-TENSIONED SLAB PLAN – BUILDING 100

SCALE: 1/8" = 1'-0"



TENDON LAYOUT PLAN – BUILDING 200/100

SCALE: 1/8" = 1'-0"

SHEARWALL (SW) SCHEDULE (SDC D)

1. STUD SPACING 16" OC MAX. STUDS AND BLOCKING AT EDGES SHALL BE 2x NOMINAL. AT SHEARWALL SW15 OR LARGER WHERE PANELS ARE APPLIED TO BOTH SIDES OF WALL, OFFSET PANELS EDGES TO FALL ON DIFFERENT FRAMING OR USE 3x STUDS AND BLOCKING AT PANEL EDGES. AT SHEARWALL SW11 OR LARGER WHERE FRAMING MEMBERS RECEIVE EDGE NAILING FROM ABUTTING PANELS USE 3x STUDS OR BLOCKING. PLYWOOD JOINT AND SILL PLATE NAILING SHALL BE STAGGERED IN ALL CASES. SEE TYPICAL SHEARWALL DETAIL FOR MORE INFORMATION.
2. PROVIDE FULL HEIGHT DOUBLE STUDS AT ENDS OF SHEARWALL, UNLESS NOTED AS POST ON PLANS OR DETAILS. HOLDOWNS AS SPECIFIED ON PLAN SHALL BE ATTACHED TO DOUBLE STUD OR POST PER DETAILS AND MFR RECOMMENDATIONS. SHEARWALLS SW1 THRU SW3 MAY BE CONSTRUCTED WITH ONE END STUD, PROVIDED WALL LENGTH EXCEEDS 8'-0" AND HOLDOWNS ARE NOT SPECIFIED AT ENDS. TRIMMER STUD MAY BE USED AS END STUD AT NON-BEARING WALLS ONLY. STAGGER EDGE NAILING AT DOUBLE STUDS AND 3x MEMBERS. FACE NAIL DOUBLE STUD WITH (2) 16d AT 16" OC.
3. INSTALL PANELS EITHER HORIZ OR VERT. GYPSBOARD PANELS LESS THAN 4 FOOT WIDE SHALL BE PLACED ACROSS STUDS. STAGGER VERTICAL JOINTS AT GYPSBOARD.
4. PROVIDE CONT DOUBLE 2x TOP PLATE AT ALL SHEARWALLS, EXTERIOR WALLS AND BEARING WALLS. LAP SPLICE BUT PLATE FOR TYPICAL DETAIL.
5. SILL PLATE SIZE AND ANCHOR BOLTS AT FOUNDATION PER GSN, DETAILS AND SCHEDULE. NOMINAL 2x SILL PLATES SHALL BE INSTALLED WITH STEEL PLATE WASHERS, 0.229x3"x3". FOR OPTIONAL SHOT-PIN ON DRILLED BOLTS, SEE GSN. NAILS OR SCREWS SHALL BE STAGGERED AT SILL PLATE ATTACHMENT AT UPPER LEVEL SHEARWALLS.
6. WHERE NOTED ON PLAN, SHEARWALLS SHALL EXTEND BETWEEN OPENINGS OR CORNER OF WALL UNLESS LENGTH IS NOTED. SHEATHING NOT TO BE INTERRUPTED BY INTERSECTING WALLS EXCEPT FOR GYPSBOARD SHEARWALLS SW1 THRU SW3.
7. MINIMUM NAIL DIMENSIONS SHALL BE AS FOLLOWS: 7/8" MIN NAIL SPACING FROM PANEL EDGE OR PLYWOOD SCREW WITH SAME SPACING AND LENGTH PERMITTED AT GYPSBOARD. DO NOT SUBSTITUTE STAPLES WITHOUT WRITTEN APPROVAL OF ENGINEER.
   5d WALLBOARD = 0.086" DIAx1-5/8" LONGx15/32" HEAD — 8d COMMON = 0.131" DIAx2-1/2" LONG
   6d WALLBOARD = 0.0915" DIAx1-7/8" LONGx19/32" HEAD — 10d COMMON = 0.148" DIAx3" MIN LONG
8. 7/16" OR 15/32" PLYWOOD MAY BE SUBSTITUTED FOR 3/8" PLYWOOD WITHOUT CAPACITY INCREASE. ORIENTED STRAND BOARD (OSB) MAY BE SUBSTITUTED FOR PLYWOOD PER GSN.
9. FOR SW11 THRU SW17 FOUNDATION SILL PLATE SHALL BE 3" NOMINAL THICKNESS OR 2x SILL PLATES WITH ANCHOR BOLTS SPACED AT ONE-HALF THE SPACING SHOWN AND SHALL BE INSTALLED WITH STEEL PLATE WASHERS, 0.229x3"x3".
10. FOUNDATION SILL PLATE SHALL BE 3" NOMINAL THICKNESS ANCHOR BOLTS SHALL BE INSTALLED WITH STEEL PLATE WASHERS, 0.229x3"x3".
11. WHERE 3x STUDS OR BLOCKING IS REQUIRED (DOUBLE 2x MEMBERS MAY BE USED). MEMBERS SHALL BE SPLICED WITH SW11 TO SW15 USE (2) ROWS 16d AT 6" OC STAGGERED; SW16 TO SW20 USE (2) ROWS 16d AT 3" OC STAGGERED.
12. THE HOLE IN THE PLATE WASHER IS PERMITTED TO BE DIAGONALLY SLOTTED WITH A WIDTH OF UP TO 3/16" LARGER THAT THE BOLT DIAMETER AND A SLOT LENGTH NOT TO EXCEED 1 3/4". PROVIDED A STANDARD CUT WASHER IS PLACED BETWEEN THE PLATE WASHER AND THE NUT.

MARK	SHEATHING MATERIAL	EDGE NAILING	FIELD NAILING	SILL PLATE ANCHOR BOLT AT FDN / SILL PLATE NAIL AT HDOR
SW9	3/8" PLYWOOD BLOCKED ONE SIDE OF WALL	8d COMMON AT 6" OC	8d COMMON AT 12" OC	1/2" DIA AB AT 36" OC / 16d COMMON OR SINKER AT 6" OC
SW11	3/8" PLYWOOD BLOCKED ONE SIDE OF WALL	8d COMMON AT 4" OC	8d COMMON AT 12" OC	1/2" DIA AB AT 24" OC / 16d COMMON OR SINKER AT 4" OC
SW13	3/8" PLYWOOD BLOCKED ONE SIDE OF WALL	8d COMMON AT 3" OC	8d COMMON AT 12" OC	1/2" DIA AB AT 20" OC / 1/4" x 4 SCREW AT 3" OC OR 5/8" x 6" LAG SCREW AT 12" OC
SW15	15/32" PLYWOOD BLOCKED ONE SIDE OF WALL	10d COMMON AT 3" OC	10d COMMON AT 12" OC	1/2" DIA AB AT 16" OR 3/4" DIA AT 32" OC / 1/4" x 4 SCREW AT 4" OC OR 3/8" x 6" LAG SCREW AT 10" OC
SW17	15/32" PLYWOOD BLOCKED ONE SIDE OF WALL	10d COMMON AT 2" OC	10d COMMON AT 12" OC	1/2" DIA AT 12" OR 3/4" DIA AT 24" OC / 3/8" x 6" LAG SCREW AT 8" OC UNO ON DETAIL

FOUNDATION PLAN NOTES:

1. CONCRETE SLAB SHALL BE 4" THICK WITH 1/2" DIA TENDONS PER LAYOUT PLAN CENTERED IN SLAB THICKNESS, OVER APPROVED SUBGRADE PER GSN.
2. FOOTING EMBEDMENT DEPTH SHALL BE 12" BELOW GRADE AS DEFINED IN GSN UNO ON DETAIL.
3. CONTINUOUS FOOTING WIDTH SHALL BE 12" UNO ON PLAN OR DETAIL.
4. —|— INDICATE FIXED END PT ANCHOR
   —|<— INDICATE PT STRESSING ANCHOR
   INDICATE PT STRESSING ANCHOR WITH TENDON CUT LENGTH (35'-0" INCLUDING 2'-5" WASTE AT STRESSING ANCHOR), EXPECTED ELONGATION (2 5/8"), AND TENDON NUMBER (1)
   FIXED END AND STRESSING END MAY INTERCHANGE UNO.
5. TYPICAL ANCHOR BOLTS AT EXTERIOR WALLS, FIREWALLS AND SHEARWALLS SHALL BE MINIMUM 1/2" DIA X 10" LONG AT 48" OC (EMBED 7") UNO. SPLICE SILL PLATES PER GSN. EXPANSION BOLTS AND SHOT PINS MAY REPLACE INTERIOR ANCHOR BOLTS PER GSN.
6. 24" OR SW9 — INDICATE NON-TYPICAL ANCHOR BOLT SPACING AT SHEARWALL OR SHEARWALL DESIGNATION WHERE SCHEDULE IS PROVIDED.
7. VERIFY ALL DIMENSIONS AND CONDITIONS WITH ARCH'L DRAWINGS. DIMENSIONS NOT NOTED SHALL BE PER APPROVED ARCH'L DRAWINGS. RESOLVE ANY DISCREPANCIES WITH THE ARCHITECT PRIOR TO CONSTRUCTION.
8. ESTABLISH AND VERIFY SIZE AND LOCATION OF OPENINGS AND INSERTS IN SLAB WITH OTHER DRAWINGS, TRADES AND SUBCONTRACTORS PRIOR TO CONSTRUCTION.
9. DEAD ENDS OF TENDONS MAY BE AT EITHER END OF SLAB AND NEED NOT BE ORIENTED AS SHOWN.
10. (3) SIMPSON SW22 ... DESIGNATES SIMPSON STRONG WALL BY OTHERS.
11. IF PHD HOLDOWNS ARE UNAVAILABLE USE THE FOLLOWING CONVERSION:
    PHD2 = HDU4
    PHD5 = HDU5
    PHD6 = HDU5
    PHD8 = HDU11 (MIN 4 STUDS) AT ENDS
12. LOWER HOLDOWN FOOTINGS NOT SHOWN FOR CLARITY. SEE DETAIL 106 FOR HOLDOWN CONSTRUCTION WITH ADDED LOWER FOOTING.

THIS DRAWING IS AN INSTRUMENT OF SERVICE AND THE PROPERTY OF MENDENHALL SMITH INC. USE OF THIS DRAWING AND ALL REPRODUCTIONS SHALL BE RESTRICTED TO THE ORIGINAL SITE FOR WHICH IT WAS PREPARED AND SHALL NOT BE USED UNLESS PROPERLY SEALED AND APPROVED. PUBLICATION OF THIS DRAWING BY ANY METHOD IN WHOLE OR PART IS PROHIBITED WITHOUT PERMISSION OF MENDENHALL SMITH INC. WHERE A CONTRACTORS NAME APPEARS ON THIS DRAWING, WORK SHALL BE COMPLETED BY SAID CONTRACTOR EXCEPT BY AGREEMENT WITH SAME CONTRACTOR.

REV	DATE	BY	DESCRIPTION
1	03.12.09	ACD	STRUCTURAL COORDINATION
2	03.23.09	PJD	STRUCTURAL COORDINATION
3	04.09.09	PJD	TRUSS SHOP DRAWING COORD
4	06.02.09	PJD	FIRE RISER ROOM COORD

Mendenhall Smith
STRUCTURAL ENGINEERS
3571 Red Rock Street, Suite A
Las Vegas, Nevada 89103
P.702.367.6725
F.702.367.6726

PHILIP J. DE LA MARE — EXP. 12-31-10 — CIVIL/STRUCTURAL — No. 010067 — STATE OF NEVADA — REGISTERED PROFESSIONAL ENGINEER

JUN 0 4 2009

Building & Safety Dept.
City of Las Vegas, Nevada
IN LIEU OF STRUCTURAL REVIEW PLANS AND CALCULATIONS ARE DEEMED ACCEPTABLE IF SEALED AND SIGNED BY A NEVADA LICENSED CIVIL OR STRUCTURAL ENGINEER

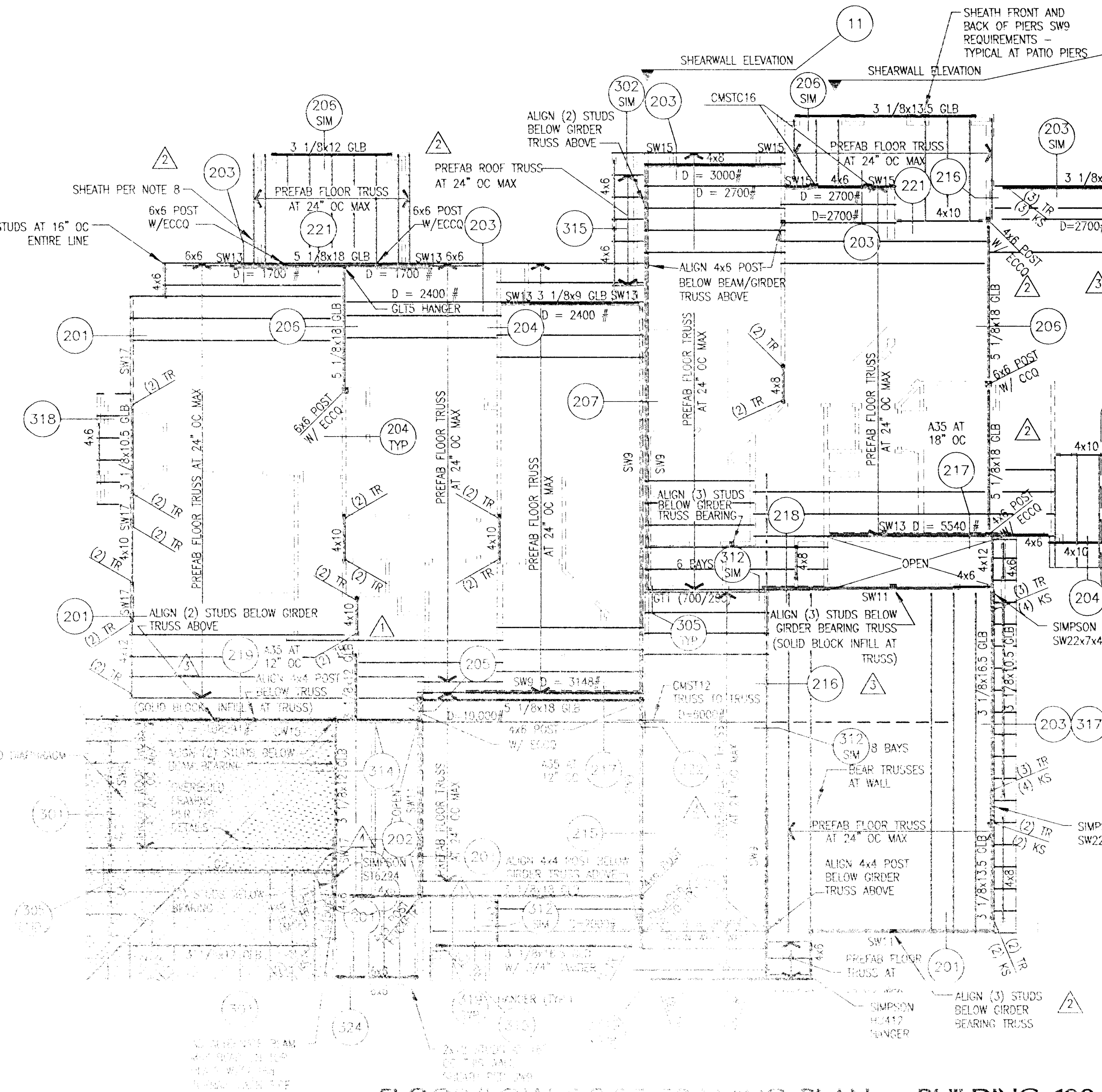
Make no changes without approval. Not a permit to violate any ordinance.

CORONADO THE PASEOS
LAS VEGAS, NEVADA
FOR
SPINNAKER HOMES

PLAN CHK 2009

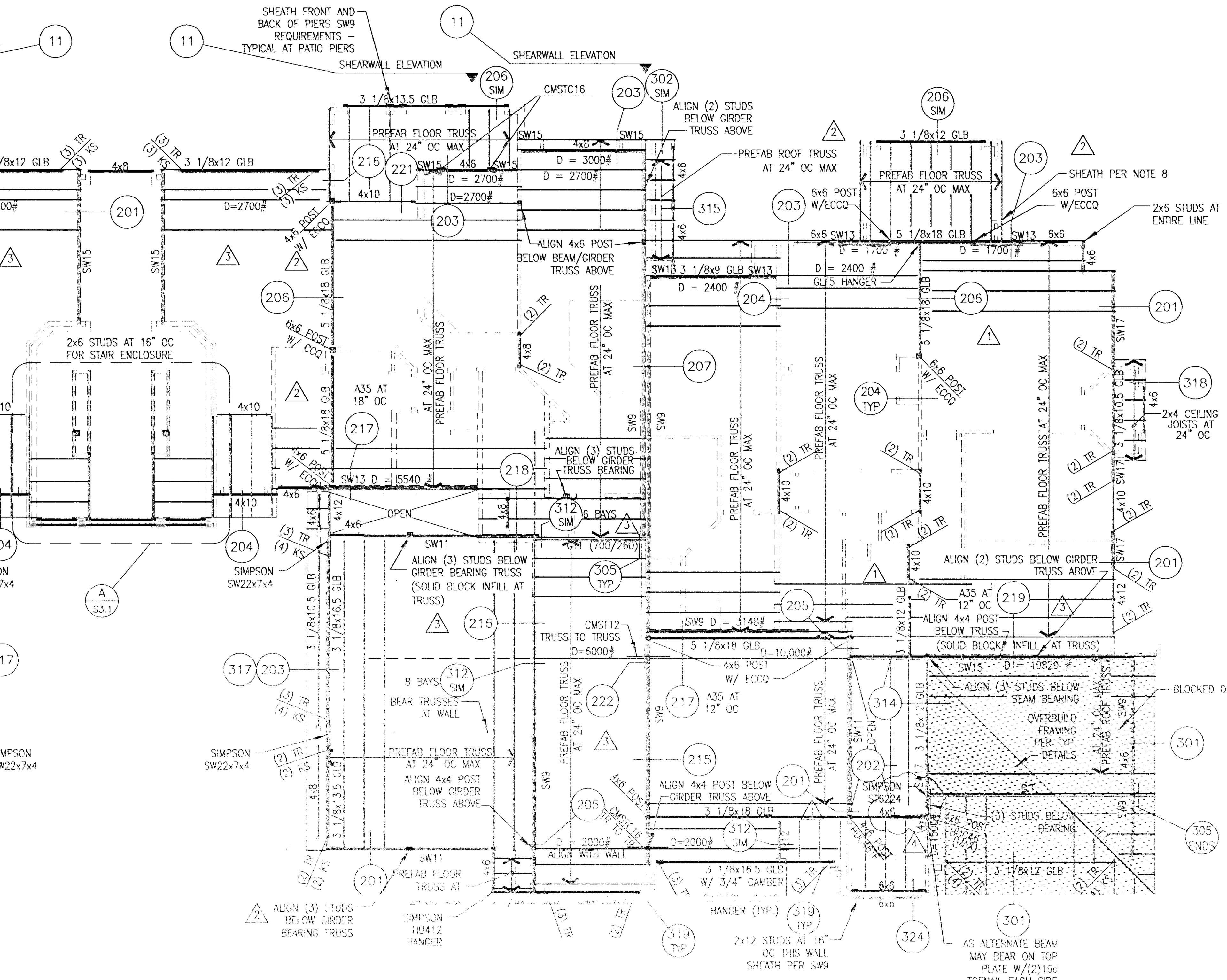
SHEET TITLE
POST-TENSIONED FOUNDATION PLAN BUILDING 100/200

DATE:	FEBRUARY 24, 2009
JOB NO	03-374.1
DRAWN	ACD
CHECKED	PJD
FILE	PS022E03374.1
SHEET NO	S2.2



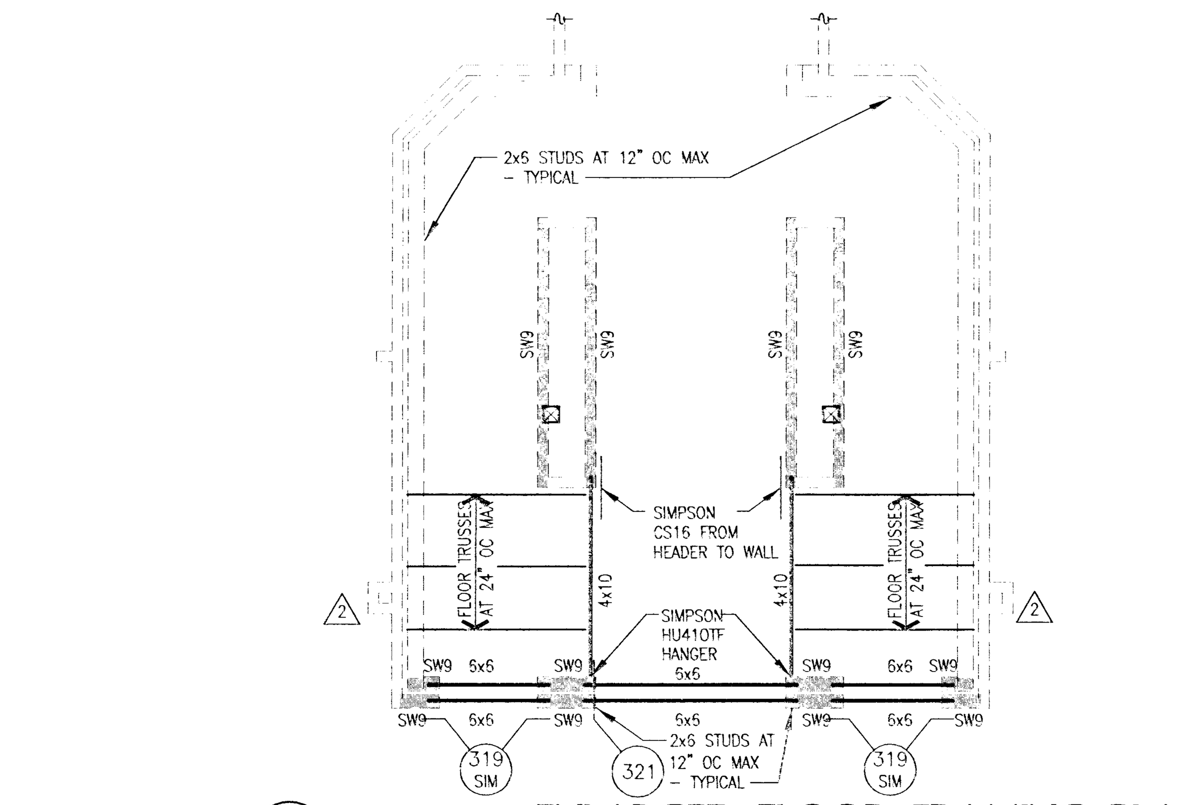
FLOOR/LOW ROOF FRAMING PLAN – BUILDING 100

SCALE: 1/8" = 1'-0"



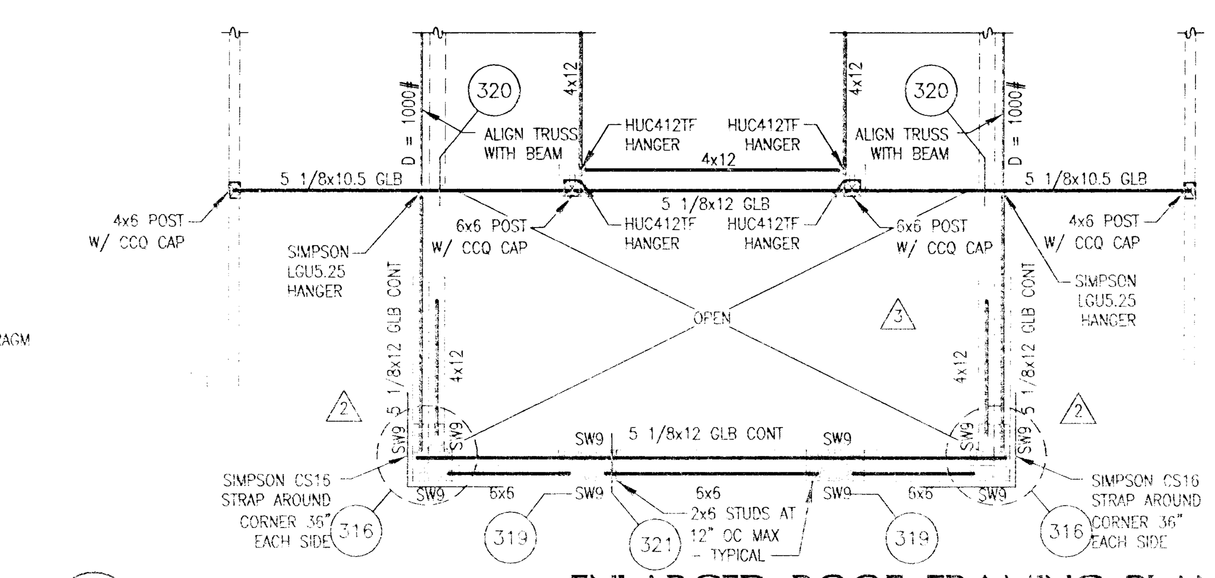
FLOOR/LOW ROOF FRAMING PLAN – BUILDING 100 REVERSED

SCALE: 1/8" = 1'-0"



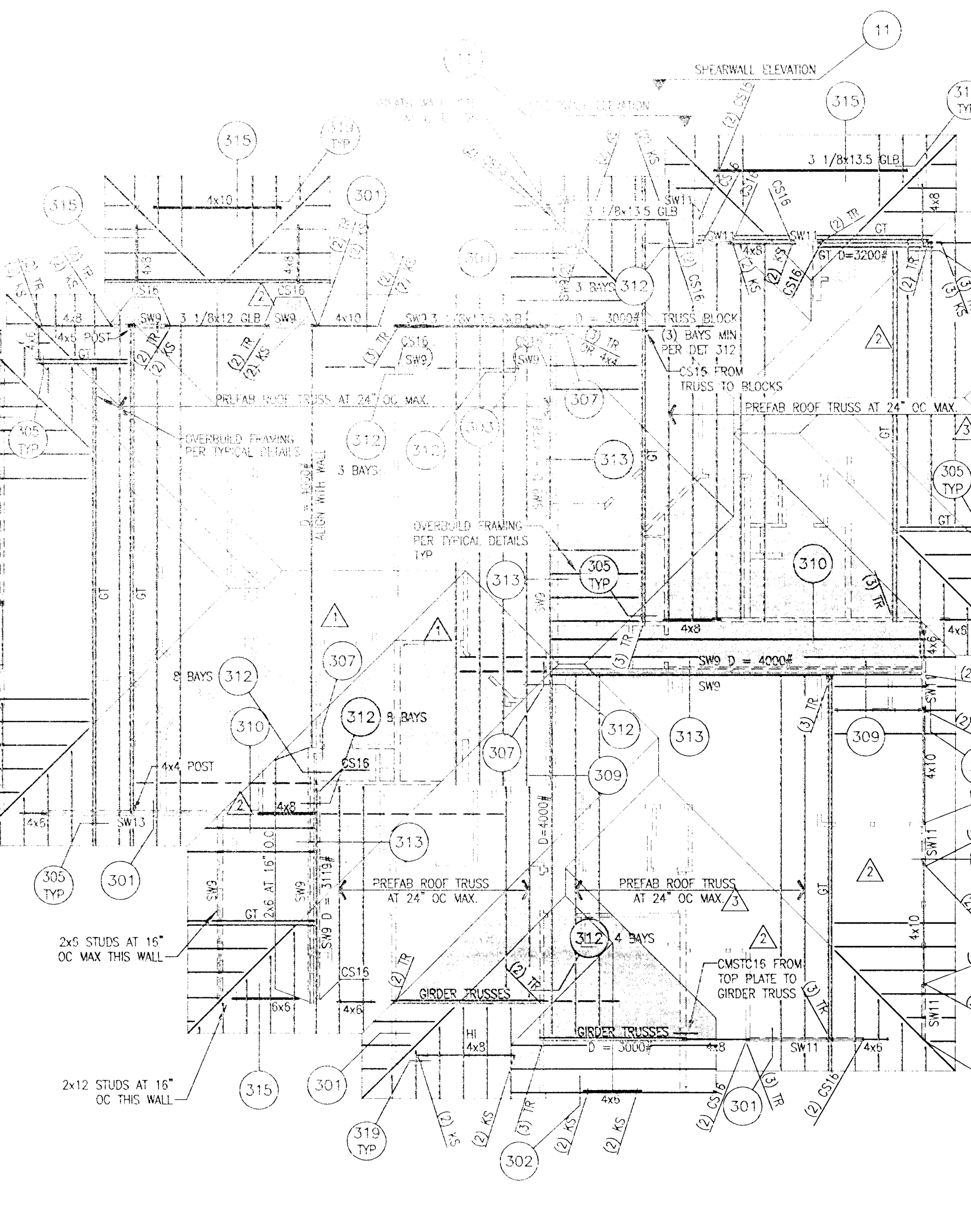
A ENLARGED FLOOR FRAMING PLAN

SCALE: 1/4" = 1'-0"



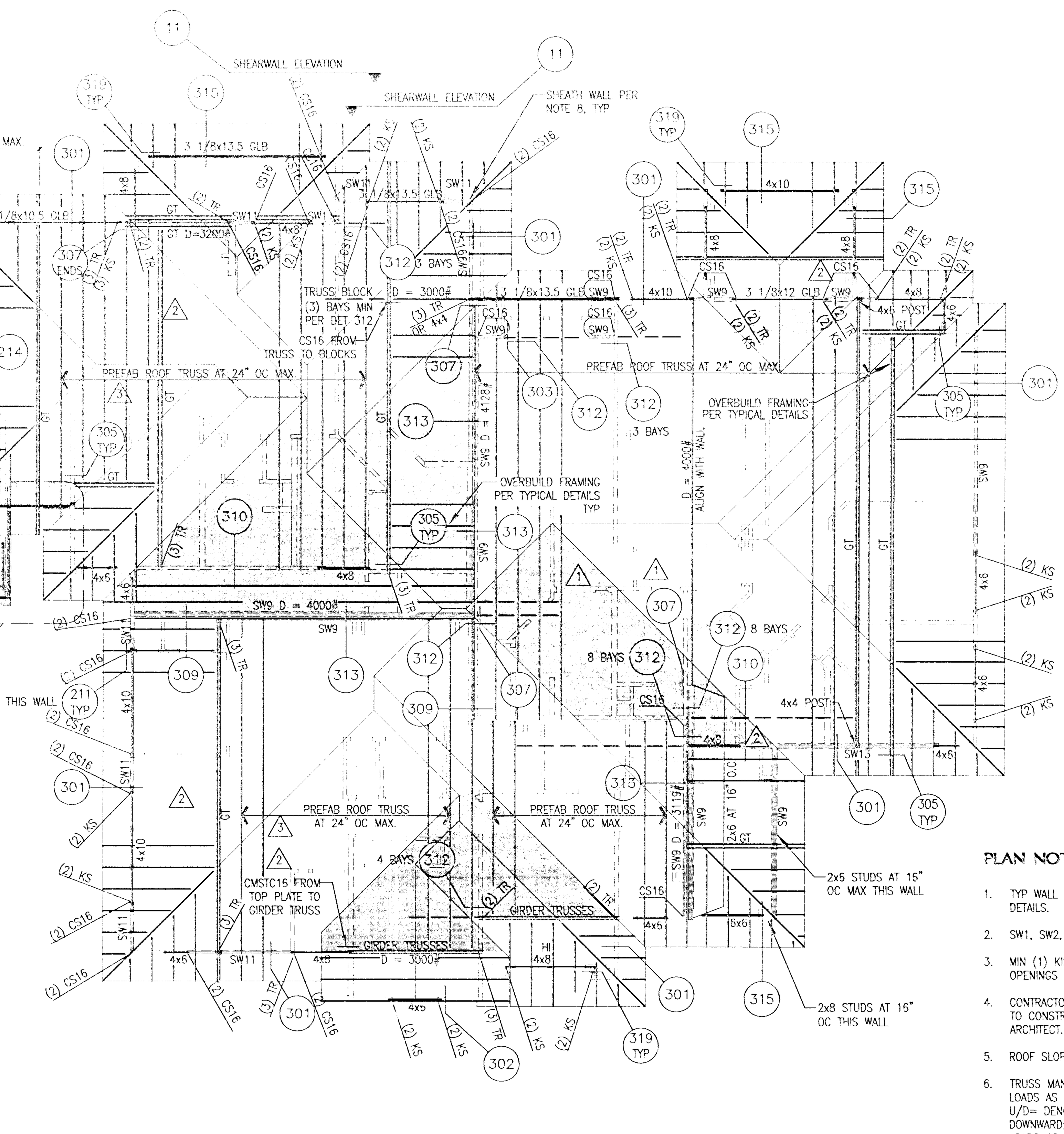
B ENLARGED ROOF FRAMING PLAN

SCALE: 1/4" = 1'-0"



ROOF FRAMING PLAN – BUILDING 100

SCALE: 1/8" = 1'-0"



ROOF FRAMING PLAN – BUILDING 100 REVERSED

SCALE: 1/8" = 1'-0"

SHEARWALL (SW) SCHEDULE (SDC D)

1. STUD SPACING 16" OC MAX. STUDS AND BLOCKING AT EDGES SHALL BE 2x NOMINAL. AT SHEARWALL SW16 OR LARGER WHERE PANELS ARE APPLIED TO BOTH SIDES OF WALL, OFFSET PANELS EDGES TO FALL ON DIFFERENT FRAMING OR USE 3x STUDS AND BLOCKING AT PANEL EDGES. AT SHEARWALL SW11 OR LARGER WHERE FRAMING MEMBERS RECEIVE EDGE NAILING FROM ABUTTING PANELS USE 3x STUDS OR BLOCKING. PLYWOOD JOINT AND SILL PLATE NAILING SHALL BE STAGGERED IN ALL CASES. SEE TYPICAL SHEARWALL DETAIL FOR MORE INFORMATION.
2. PROVIDE FULL HEIGHT DOUBLE STUDS AT ENDS OF SHEARWALL, UNLESS NOTED AS POST ON PLANS OR DETAILS. HOLDOWNS AS SPECIFIED ON PLAN SHALL BE ATTACHED TO DOUBLE STUD OR POST PER DETAILS AND MFR RECOMMENDATIONS. SHEARWALLS SW1 THRU SW6 MAY BE CONSTRUCTED WITH ONE END STUD, PROVIDED WALL LENGTH EXCEEDS 8'-0" AND HOLDOWNS ARE NOT SPECIFIED AT ENDS. TRIMMER STUD MAY BE USED AS END STUD AT NON-BEARING WALLS ONLY. STAGGER EDGE NAILING AT DOUBLE STUDS AND 3x MEMBERS. FACE NAIL DOUBLE STUD WITH (2) 16d AT 16" OC.
3. INSTALL PANELS EITHER HORIZ OR VERT, GYPBOARD PANELS LESS THAN 4 FOOT WIDE SHALL BE PLACED ACROSS STUDS. STAGGER VERTICAL JOINTS AT GYPBOARD.
4. PROVIDE CONT DOUBLE 2x TOP PLATE AT ALL SHEARWALLS, EXTERIOR WALLS AND BEARING WALLS. LAP SPLICE TOP PLATE PER TYPICAL DETAIL.
5. SILL PLATE SIZE AND ANCHOR BOLTS AT FOUNDATION PER GSN, DETAILS, AND SCHEDULE. NOMINAL 2x SILL PLATES SHALL BE INSTALLED WITH STEEL PLATE WASHERS, 0.229x3"x3". FOR OPTIONAL SHOT-PIN OR DRILLED BOLTS, SEE GSN. NAILS OR SCREWS SHALL BE STAGGERED AT SILL PLATE ATTACHMENT AT UPPER LEVEL SHEARWALLS.
6. WHERE NOTED ON PLAN, SHEARWALLS SHALL EXTEND BETWEEN OPENINGS OR CORNER OF WALL UNLESS LENGTH IS NOTED. SHEATHING NOT TO BE INTERRUPTED BY INTERSECTING WALLS EXCEPT FOR GYPBOARD SHEARWALLS SW1 THRU SW6.
7. MINIMUM NAIL DIMENSIONS SHALL BE AS FOLLOWS. 3/8" MIN NAIL SPACING FROM PANEL, STUD OR BLOCK EDGE. GYPBOARD NAILS SHALL BE WALLBOARD, COOLER OR OTHER. SCREW ALTERNATE, #6 BUGLE HEAD SCREW WITH SAME SPACING AND LENGTH PERMITTED AT GYPBOARD. DO NOT SUBSTITUTE STAPLES WITHOUT WRITTEN APPROVAL OF ENGINEER.
   5d WALLBOARD = 0.086" DIAx1-5/8" LONGx15/32" HEAD — 8d COMMON = 0.131" DIAx2-1/2" LONG
   6d WALLBOARD = 0.0915" DIAx1-7/8" LONGx19/32" HEAD — 10d COMMON = 0.148" DIAx3" MIN LONG
8. 7/16" OR 15/32" PLYWOOD MAY BE SUBSTITUTED FOR 3/8" PLYWOOD WITHOUT CAPACITY INCREASE. ORIENTED STRAND BOARD (OSB) MAY BE SUBSTITUTED FOR PLYWOOD PER GSN. △2
9. FOR SW11 THRU SW17 FOUNDATION SILL PLATE SHALL BE 3" NOMINAL THICKNESS OR 2x SILL PLATES WITH ANCHOR BOLTS SPACED AT ONE-HALF THE SPACING SHOWN AND SHALL BE INSTALLED WITH STEEL PLATE WASHERS, 0.229x3"x3".
10. FOUNDATION SILL PLATE SHALL BE 3" NOMINAL THICKNESS ANCHOR BOLTS SHALL BE INSTALLED WITH STEEL PLATE WASHERS, 0.229x3"x3".
11. WHERE 3x STUDS OR BLOCKING IS REQUIRED DOUBLE 2x MEMBERS MAY BE USED. MEMBERS SHALL BE SPLICED WITH: SW11 TO SW15 USE (2) ROWS 16d AT 6" OC STAGGERED; SW15 TO SW20 USE (2) ROWS 16d AT 3" OC STAGGERED.
12. THE HOLE IN THE PLATE WASHER IS PERMITTED TO BE DIAGONALLY SLOTTED WITH A WIDTH OF UP TO 3/16" LARGER THAT THE BOLT DIAMETER AND A SLOT LENGTH NOT TO EXCEED 1 3/4", PROVIDED A STANDARD CUT WASHER IS PLACED BETWEEN THE PLATE WASHER AND THE NUT.

MARK	SHEATHING MATERIAL	EDGE NAILING	FIELD NAILING	SILL PLATE ANCHOR BOLT AT FDN / SILL PLATE NAIL AT FLOOR
SW9	3/8" PLYWOOD BLOCKED ONE SIDE OF WALL	8d COMMON AT 6" OC	8d COMMON AT 12" OC	1/2" DIA AB AT 36" OC / 15d COMMON OR SINKER AT 6" OC
SW11	3/8" PLYWOOD BLOCKED ONE SIDE OF WALL	8d COMMON AT 4" OC	8d COMMON AT 12" OC	1/2" DIA AB AT 24" OC / 15d COMMON OR SINKER AT 4" OC
SW13	3/8" PLYWOOD BLOCKED ONE SIDE OF WALL	8d COMMON AT 3" OC	8d COMMON AT 12" OC	1/2" DIA AB AT 20" OC / 1/4" x 4 SCREW AT 5" OC OR 3/8" x 6" LAG SCREW AT 12" OC
SW15	15/32" PLYWOOD BLOCKED ONE SIDE OF WALL	10d COMMON AT 3" OC	10d COMMON AT 12" OC	1/2" DIA AB AT 16" OR 3/4" DIA AT 32" OC / 1/4" x 4 SCREW AT 4" OC OR 3/8" x 6" LAG SCREW AT 10" OC
SW17	15/32" PLYWOOD BLOCKED ONE SIDE OF WALL	10d COMMON AT 2" OC	10d COMMON AT 12" OC	1/2" DIA AB AT 12" OR 3/4" DIA AT 24" OC (SEE NOTE 10) / 3/8" x 6" LAG SCREW AT 8" OC UNO ON DETAIL

PLAN NOTES:

1. TYP WALL FRAMING UNO ON PLANS, 2X4 AT 16" OC PER TYP DETAILS.
2. SW1, SW2, SW3... INDICATE SHEARWALL SCHEDULE THIS SHEET.
3. MIN (1) KING STUD AND (1) TRIMMER STUD REQUIRED AT ALL OPENINGS UNO.
4. CONTRACTOR TO VERIFY ALL DIMENSIONS AND CONDITIONS PRIOR TO CONSTRUCTION. RESOLVE ANY DISCREPANCIES WITH THE ARCHITECT.
5. ROOF SLOPE AND CRICKET AREAS PER ARCH'L.
6. TRUSS MANUFACTURE TO DESIGN TRUSSES FOR ADDITIONAL LOADS AS NOTED ON THE PLANS, D= DENOTES DRAG LOADS; U/D= DENOTES LOADS WHICH REVERSE DIRECTION, UPWARD OR DOWNWARD; P= DENOTES POINT LOADS. ALIGN TRUSSES WITH LOADS OR PROVIDED BLOCKING AS REQUIRED PER DETAILS.
7. WHERE ALTERNATE SHEARWALLS ARE NOTED ON THE PLAN, USE THE ALTERNATE SHEARWALL THAT MATCHES THE ARCHITECTURAL SHEATHING REQUIREMENTS.
8. SHEATHING FOR SHEARWALLS SHALL BE INSTALLED BEFORE FRAMING OF POPOUT.
9. △3 SIMPSON SW22 ... DESIGNATES SIMPSON STRONG WALL BY OTHERS.

THIS DRAWING IS AN INSTRUMENT OF SERVICE AND THE PROPERTY OF MENDENHALL SMITH INC. USE OF THIS DRAWING AND ALL REPRODUCTIONS SHALL BE RESTRICTED TO THE ORIGINAL SITE FOR WHICH IT WAS PREPARED AND SHALL NOT BE USED UNLESS PROPERLY SEALED AND APPROVED. PUBLICATION OF THIS DRAWING BY ANY METHOD IN WHOLE OR PART IS PROHIBITED WITHOUT PERMISSION OF MENDENHALL SMITH INC. WHERE A CONTRACTORS NAME APPEARS ON THIS DRAWING, WORK SHALL BE COMPLETED BY SAID CONTRACTOR EXCEPT BY AGREEMENT WITH SAME CONTRACTOR.

REV	DATE	BY	DESCRIPTION
1	03.12.09	ACD	STRUCTURAL COORDINATION
2	03.25.09	PJD	STRUCTURAL COORDINATION
3	04.09.09	PJD	TRUSS SHOP DRAWING COORD
4	06.02.09	PJD	FIRE RISER ROOM COORD

MendenhallSmith STRUCTURAL ENGINEERS
3571 Red Rock Street, Suite A
Las Vegas, Nevada 89103
P.702.367.6725
F.702.367.2727

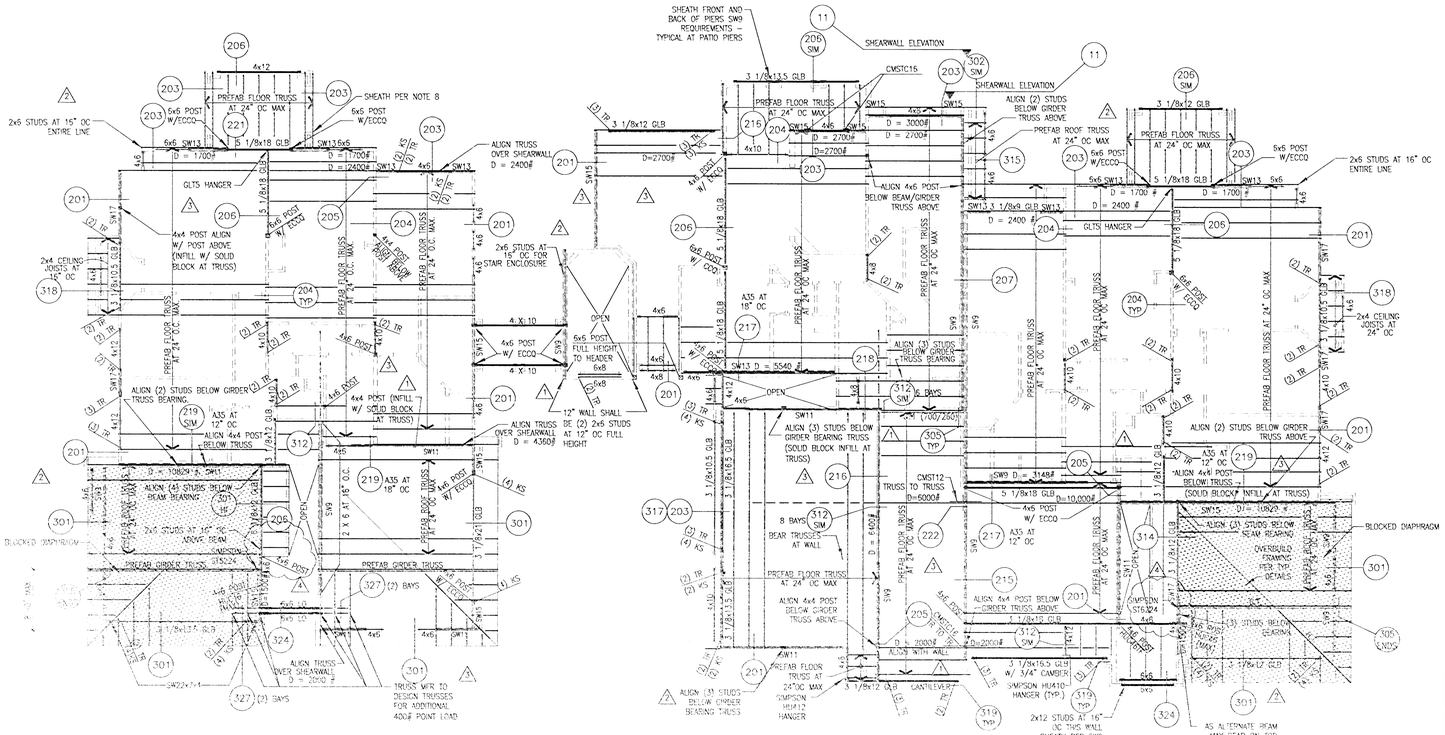
ENGINEERS SEAL
PROFESSIONAL ENGINEER – STATE OF NEVADA
PHILIP J. DE LA MARE
EXP. 12-31-10
CIVIL/STRUCTURAL
No.010087
JUN 0 4 2009

Building & Safety Dept
City of Las Vegas, Nevada
IN LIEU OF STRUCTURAL REVIEW PLANS AND CALCULATIONS ARE DEEMED ACCEPTABLE IF SEALED AND SIGNED BY A NEVADA LICENSED CIVIL OR STRUCTURAL ENGINEER
Make no change without approval. Not a permit to violate any ordinance.
JUN 0 5 2009

CORONADO
THE PASEOS
LAS VEGAS, NEVADA
FOR
SPINNAKER HOMES

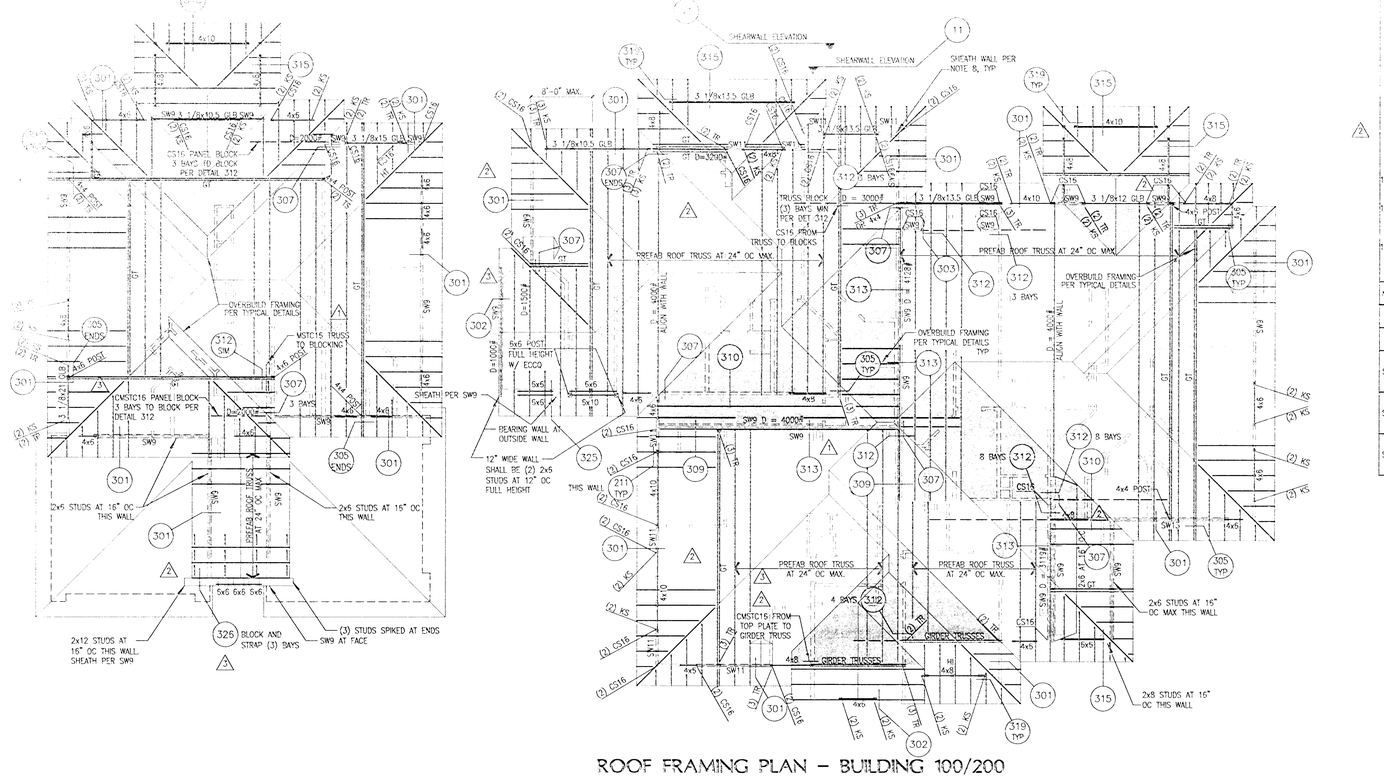
SHEET TITLE:
FRAMING PLANS BUILDING 100/100R

DATE: FEBRUARY 24, 2009	
JOB NO: 03-374.1	
DRAWN: ACD	
CHECKED: PJD	FILE: FS031E03374.1
SHEET NO: S3.1	



FLOOR/LOW ROOF FRAMING PLAN – BUILDING 100/200

SCALE: 1/8" = 1'-0"



ROOF FRAMING PLAN – BUILDING 100/200

SCALE: 1/8" = 1'-0"

SHEARWALL (SW) SCHEDULE (SDC D)

1. STUD SPACING 16" OC MAX. STUDS AND BLOCKING AT EDGES SHALL BE 2x NOMINAL AT SHEARWALL SW16 OR LARGER WHERE PANELS ARE APPLIED TO BOTH SIDES OF WALL, OFFSET PANELS EDGES TO FALL ON DIFFERENT FRAMING OR USE 3x STUDS AND BLOCKING AT PANEL EDGES. AT SHEARWALL SW11 OR LARGER WHERE FRAMING MEMBERS RECEIVE EDGE NAILING FROM ABUTTING PANELS USE 3x STUDS OR BLOCKING. PLYWOOD JOINT AND SILL PLATE NAILING SHALL BE STAGGERED IN ALL CASES. SEE TYPICAL SHEARWALL DETAIL FOR MORE INFORMATION.

2. PROVIDE FULL HEIGHT DOUBLE STUDS AT ENDS OF SHEARWALL, UNLESS NOTED AS POST ON PLANS OR DETAILS. HOLDOWNS AS SPECIFIED ON PLAN SHALL BE ATTACHED TO DOUBLE STUD OR POST PER DETAILS AND MFR RECOMMENDATIONS. SHEARWALLS SW1 THRU SW5 MAY BE CONSTRUCTED WITH ONE END STUD, PROVIDED WALL LENGTH EXCEEDS 8'-0" AND HOLDOWNS ARE NOT SPECIFIED AT ENDS. TRIMMER STUD MAY BE USED AS END STUD AT NON-BEARING WALLS ONLY. STAGGER EDGE NAILING AT DOUBLE STUDS AND 3x MEMBERS. FACE NAIL DOUBLE STUD WALL PER TABLE AT 16" OC.

3. INSTALL PANELS EITHER H/V OR V/H. OVERBOARD PANELS LESS THAN 4 FOOT WIDE SHALL BE PLACED ACROSS STUDS. STAGGER VERTICAL JOINTS AT GYPBOARD.

4. PROVIDE CONT DOUBLE 2x TOP PLATE AT ALL SHEARWALLS, EXTERIOR WALLS AND BEARING WALLS. LAP SPLICE TOP PLATE PER TYPICAL DETAIL.

5. SILL PLATE SIZE AND ANCHOR BOLTS AT FOUNDATION PER GSN, DETAILS, AND SCHEDULE. NOMINAL 2x SILL PLATES SHALL BE INSTALLED WITH STEEL PLATE WASHERS, 0.229"x3"x3". FOR OPTIONAL SHOT-PIN OR DRILLED BOLTS, SEE RSN. NAILS FOR SCHEDS SHALL BE STAGGERED AT SILL PLATE ATTACHMENT AT UPPER LEVEL SHEARWALLS.

6. WHERE NOTED ON PLAN, SHEARWALLS SHALL EXTEND BETWEEN OPENINGS OR CORNER OF WALL UNLESS LENGTH IS NOTED. SHEATHING NOT TO BE INTERRUPTED BY INTERSECTING WALLS EXCEPT FOR GYPBOARD SHEARWALLS (SW1 THRU SW5).

7. MINIMUM NAIL DIMENSIONS SHALL BE AS FOLLOWS: 3/8" MIN WALL SPACING FROM PANEL STUD OR BLOCK EDGE. GYPBOARD NAILS SHALL BE WALLBOARD, COOLER OR OTHER. SCREW ALTERNATE, #6 BUGLE HEAD SCREW WITH SAME SPACING AND LENGTH PERMITTED AT GYPBOARD. DO NOT SUBSTITUTE STAPLES WITHOUT WRITTEN APPROVAL OF ENGINEER.
   6d WALLBOARD = 0.086" DIAx1-5/8" LONG&15/32" HEAD — 8d COMMON = 0.131" DIAx2-1/2" LONG
   6d WALLBOARD = 0.0915" DIAx1-7/8" LONG&19/32" HEAD — 10d COMMON = 0.148" DIAx3" MIN LONG

8. 7/16" OR 15/32" PLYWOOD MAY BE SUBSTITUTED FOR 3/8" PLYWOOD WITHOUT CAPACITY INCREASE. ORIENTED STRAND BOARD (OSB) MAY BE SUBSTITUTED FOR PLYWOOD PER GSN.

9. FOR SW11 THRU SW17 FOUNDATION SILL PLATE SHALL BE 3" NOMINAL THICKNESS OR 2x SILL PLATES WITH ANCHOR BOLTS SPACED AT ONE-HALF THE SPACING SHOWN AND SHALL BE INSTALLED WITH STEEL PLATE WASHERS, 0.229x3"x3".

10. FOUNDATION SILL PLATE SHALL BE 3" NOMINAL THICKNESS ANCHOR BOLTS SHALL BE INSTALLED WITH STEEL PLATE WASHERS, 0.229x3"x3".

11. WHERE 3x STUDS OR BLOCKING IS REQUIRED DOUBLE 2x MEMBERS MAY BE USED. MEMBERS SHALL BE SPLICED WITH SW11 TO SW15 USE (2) ROWS 16d AT 6" OC STAGGERED; SW16 TO SW20 USE (2) ROWS 16d AT 3" OC STAGGERED.

12. THE HOLE IN THE PLATE WASHER IS PERMITTED TO BE DIAGONALLY SLOTTED WITH A WIDTH OF UP TO 3/16" LARGER THAT THE BOLT DIAMETER AND A SLOT LENGTH NOT TO EXCEED 1 3/4", PROVIDED A STANDARD CUT WASHER IS PLACED BETWEEN THE PLATE WASHER AND THE NUT.

MARK	SHEATHING MATERIAL	EDGE NAILING	FIELD NAILING	SILL PLATE ANCHOR BOLT AT FDN
				SILL PLATE NAIL AT FLOOR
SW9	3/8" PLYWOOD BLOCKED ONE SIDE OF WALL	8d COMMON AT 6" OC	8d COMMON AT 12" OC	1/2" DIA AB AT 35" OC
				16d COMMON OR SINKER AT 6" OC
SW11	3/8" PLYWOOD BLOCKED ONE SIDE OF WALL	8d COMMON AT 4" OC	8d COMMON AT 12" OC	1/2" DIA AB AT 24" OC
				16d COMMON OR SINKER AT 4" OC
SW13	3/8" PLYWOOD BLOCKED ONE SIDE OF WALL	8d COMMON AT 3" OC	8d COMMON AT 12" OC	1/2" DIA AB AT 20" OC
				1/4" x 4 SCREW AT 5" OC OR 3/8" x 5" LAG SCREW AT 12" OC
SW15	15/32" PLYWOOD BLOCKED ONE SIDE OF WALL	10d COMMON AT 3" OC	10d COMMON AT 12" OC	1/2" DIA AB AT 15" OR 3/4" DIA AT 32" OC (SEE NOTE 10)
				1/4" x 4 SCREW AT 4" OC OR 3/8" x 5" LAG SCREW AT 10" OC
SW17	15/32" PLYWOOD BLOCKED ONE SIDE OF WALL	10d COMMON AT 2" OC	10d COMMON AT 12" OC	1/2" DIA AB AT 12" OR 3/4" DIA AT 24" OC
				3/8" x 5" LAG SCREW AT 8" OC UNO ON DETAIL

PLAN NOTES:

1. TYP WALL FRAMING UNO ON PLANS, 2X4 AT 15" OC PER TYP DETAILS.
2. SW1, SW2, SW3... INDICATE SHEARWALL SCHEDULE THIS SHEET.
3. MIN (1) KING STUD AND (1) TRIMMER STUD REQUIRED AT ALL OPENINGS UNO.
4. CONTRACTOR TO VERIFY ALL DIMENSIONS AND CONDITIONS PRIOR TO CONSTRUCTION. RESOLVE ANY DISCREPANCIES WITH THE ARCHITECT.
5. ROOF SLOPE AND CRICKET AREAS PER ARCH'L.
6. TRUSS MANUFACTURE TO DESIGN TRUSSES FOR ADDITIONAL LOADS AS NOTED ON THE PLANS. D= DENOTES DRAG LOADS; U/D= DENOTES LOADS WHICH REVERSE DIRECTION, UPWARD OR DOWNWARD; P= DENOTES POINT LOADS. ALIGN TRUSSES WITH LOADS OR PROVIDED BLOCKING AS REQUIRED PER DETAILS.
7. WHERE ALTERNATE SHEARWALLS ARE NOTED ON THE PLAN, USE THE ALTERNATE SHEARWALL THAT MATCHES THE ARCHITECTURAL SHEATHING REQUIREMENTS.
8. SHEATHING FOR SHEARWALLS SHALL BE INSTALLED BEFORE FRAMING OF POPOUT.
9. SIMPSON SW22 ... DESIGNATES SIMPSON STRONG WALL BY OTHERS.

THIS DRAWING IS AN INSTRUMENT OF SERVICE AND THE PROPERTY OF MENDENHALL SMITH, INC. AND SHALL NOT BE USED ON ANY OTHER PROJECT. REPRODUCTIONS SHALL BE RESTRICTED TO THE ORIGINAL SITE FOR WHICH IT WAS PREPARED AND SHALL NOT BE USED UNLESS PROPERLY SEALED AND APPROVED. PUBLICATION OF THIS DRAWING BY ANY METHOD IN WHOLE OR PART IS PROHIBITED WITHOUT PERMISSION OF MENDENHALL SMITH, INC. WHERE A CONTRACTORS NAME APPEARS ON THIS DRAWING, WORK SHALL BE COMPLETED BY SAID CONTRACTOR EXCEPT BY AGREEMENT WITH SAME CONTRACTOR.

REV	DATE	BY	DESCRIPTION
1	03.12.09	ACD	STRUCTURAL COORDINATION
2	03.25.09	PJD	STRUCTURAL COORDINATION
3	04.09.09	PJD	TRUSS SHOP DRAWING COORD
4	06.02.09	PJD	FIRE RISER ROOM COORD

Mendenhall Smith ENGINEERS
3571 Red Rock Street, Suite A
Las Vegas, Nevada 89103
P.702.367.6725
F.702.367.6726

ENGINEER

PROFESSIONAL ENGINEER - STATE OF NEVADA
PHILIP J. DE LA MARE
EXP. 12-31-10
CIVIL STRUCTURAL
No. 010087

JUN 04 2009

CORONADO
THE PASEOS
LAS VEGAS, NEVADA
FOR
SPINNAKER HOMES

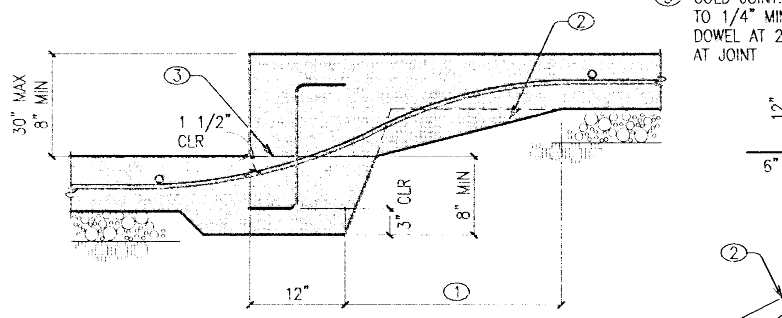
Building & Safety Dept.
City of Las Vegas, Nevada
IN LIEU OF STRUCTURAL REVIEW
PLANS AND CALCULATIONS ARE
DEEMED ACCEPTABLE IF SEALED
AND SIGNED BY A NEVADA LICENSED
CIVIL OR STRUCTURAL ENGINEER.

Make no change without approval.
Not a permit to violate any ordinance.

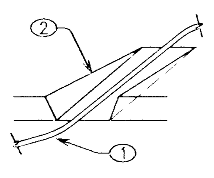
JUN 04 2009

SHEET TITLE:
FRAMING PLANS BUILDING 100/200

DATE:	FEBRUARY 24, 2009
JOB NO	03-374.1
DRAWN	ACD
CHK'D/QLD	PJD
FILE	FS032E03374.1
SHEET NO	S3.2



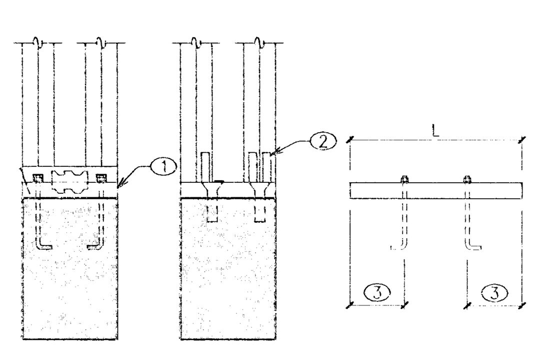
1. SMOOTH TENDON TRANSITION OVER 6 TIMES SLAB STEP
2. TRENCH AROUND TENDON AT TRANSITION. 3" CONCRETE COVER AROUND TENDON
3. COLD JOINT. ROUGHEN TO 1/4" MIN PLACE #4 DOWEL AT 24" OC CENTERED AT JOINT



ISOMETRIC VIEW

115 SLAB STEP AT PT SLAB

06-115-03374XR — NO SCALE



1. WHERE ANCHOR BOLT INTERFERES WITH STUD, USE DOUBLE PLATE. CONNECT PLATES WITH SIMPSON A35 AT 8" OC MAX (ONE A35 AT PLATE 6" LONG OR LESS). OVERLAP PLATE AT CORNER CONDITION AND (2) 16d TOENAIL ENDS. NOTCH OUT STUD OR PLATE FOR ANCHOR BOLT
2. ALTERNATE: SIMPSON MAS OR PA TYPE STRAP. TO SUBSTITUTE FOR EACH ANCHOR BOLT
3. 7" MIN TYP END LENGTH. REDUCE TO 3" MIN AT PLATE LENGTH LESS THAN 2'-0" LONG. CENTER WHERE ONLY ONE ANCHOR BOLT IS USED

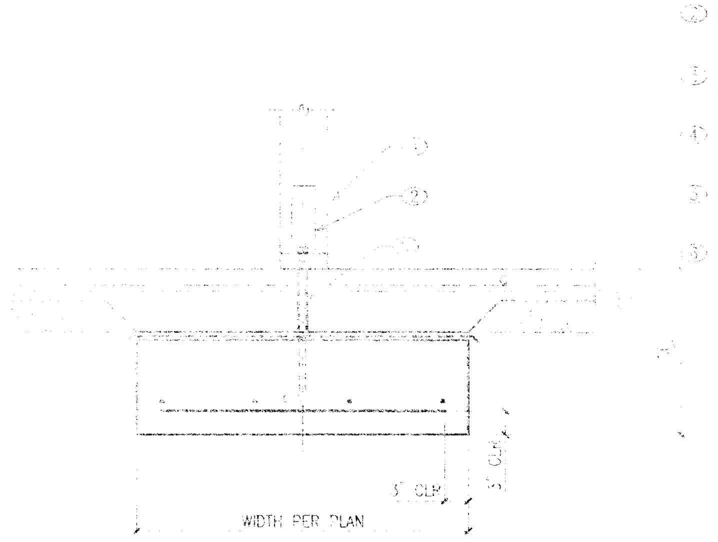
PLATE LENGTH (L)	MINIMUM BOLTS PER PLATE
EQUAL OR GREATER THAN 9"	2
LESS THAN 9"	1
LESS THAN 6"	0*

*REQUIRES DOUBLE PLATE WITH OVER LAPPING CORNERS AT RECTANGULAR OR SQUARE PIER OTHERWISE USE 1 ANCHOR BOLT

NOTE: SEE GSN AND SHEARWALL SCHEDULE (WHERE PRESENT) FOR STANDARD ANCHOR BOLT SPACING AND PLATE SPLICES

116 SILL PLATE ANCHORAGE AT SHORT PIERS

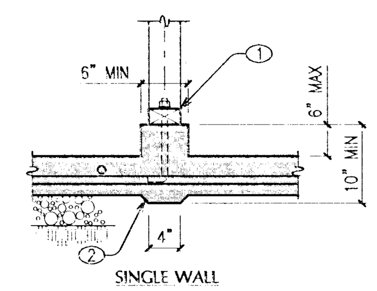
06-116-03374XR — NO SCALE



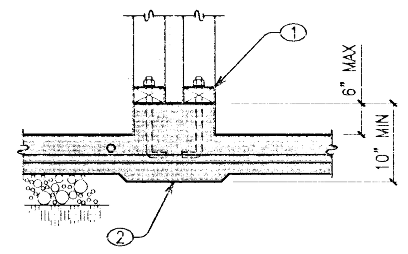
1. POST OR BUILT UP STUDS
2. HOLDOWN HARDWARE WHERE NOTED ON PLAN
3. AS REQUIRED FOR HARDWARE 6" MIN
4. SEE PLAN OR GSN FOR FOOTING EMBED OR TOF
5. ISOLATE FOOTING WITH 2 LAYER VISQUEEN OR BUILDING PAPER
6. PVC SLEEVE AROUND HOLDOWN BOLT

117 ISOLATED FOOTING AT INTERIOR POST

06-117-03374XR — NO SCALE



SINGLE WALL



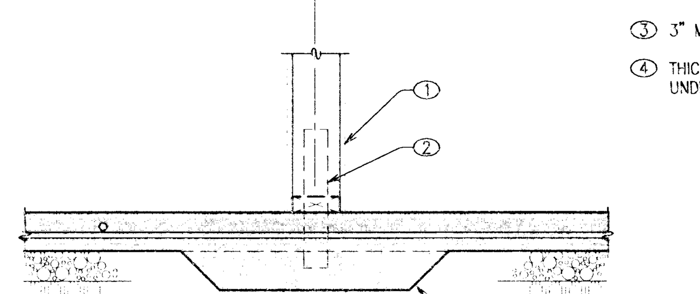
MULTIPLE WALL

1. CONT 2x PLATE WITH 1/2" DIAx7" EMBED AB AT 48" OC UNO ON PLAN OR SW SCHEDULE
2. CONT TRENCH FOOTING TO PROVIDE 3" COVER FOR AB. CENTER UNDER WALL

NOTE: 1. CURB OVER 6" HIGH REQUIRES REINFORCING. SEE TYPICAL DETAIL

110 BEARING OR SHEAR WALL AT PT SLAB

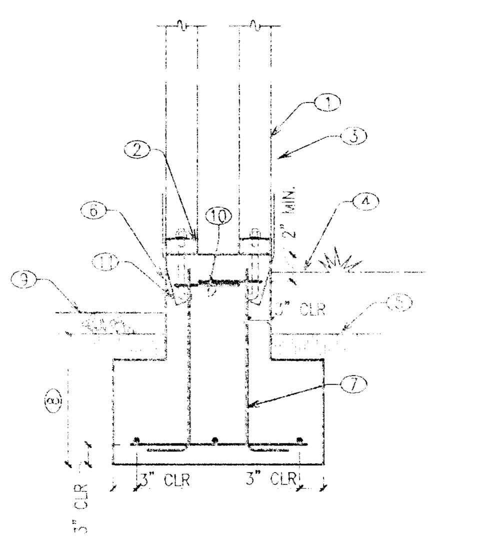
06-110-03374XR — NO SCALE



1. POST OR BUILT UP STUDS
2. EMBEDDED HARDWARE WHERE NOTED ON PLAN
3. 3" MIN COVER AROUND HARDWARE
4. THICKENED SLAB PER PLAN. CENTER UNDER POST

111 THICKENED SLAB AT INTERIOR POST

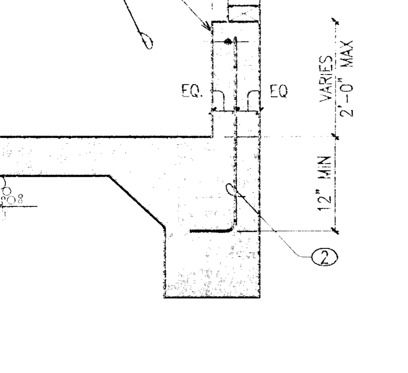
06-111-03374XR — NO SCALE



1. WOOD STUD WALL
2. CONTINUOUS 2X PLATE WITH (2) 1/2" DIA ANCHOR BOLTS PER PLATE
3. SHEATHING AND NAILING PER APPROVED ARCH'L DRAWINGS
4. FINIAL GRADE
5. NATURAL GRADE OR TOP OF COMPACTED SUBGRADE
6. CONCRETE PEDESTAL PER ARCHITECTURAL
7. #4 BARS AT 24" OC
8. EMBEDMENT DEPTH PER SOILS ENGINEEER
9. EXTERIOR SLAB ON GRADE
10. #3 BENT CLOSED STIRRUP AT PERIMETER AROUND ANCHOR BOLTS AT BOX COLUMN PEDESTAL
11. PAHD42 AS OCCURS PER PLAN

112 EXTERIOR FOOTING AT FRAMED COLUMN

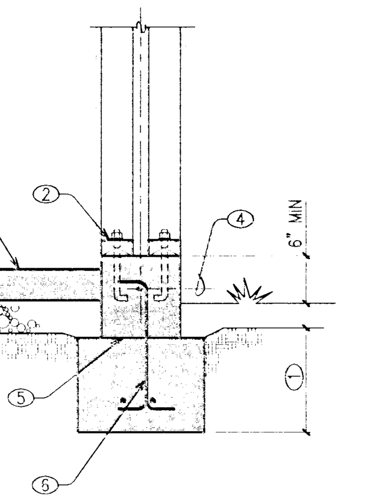
06-112-03374XR — NO SCALE



1. CONCRETE CURB. VERIFY DIMENSIONS AND LOCATION WITH ARCH'L
2. #4 AT 18" OC WHERE CURB HEIGHT EXCEEDS 6". #4 AT 12" OC WHERE CURB HEIGHT EXCEEDS 12"
3. #4 CONT WHERE CURB HEIGHT EXCEEDS 8"

113 SPECIAL REINFORCING AT CURB

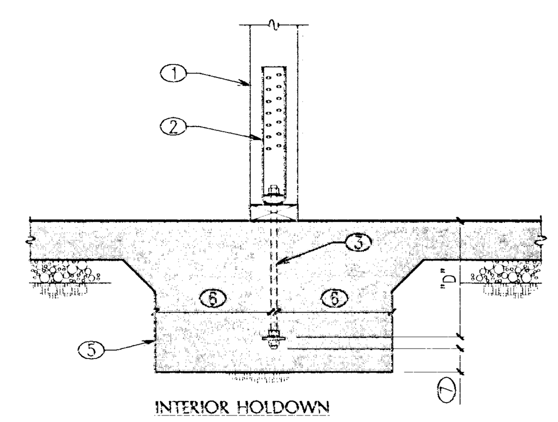
06-113-03374XR — NO SCALE



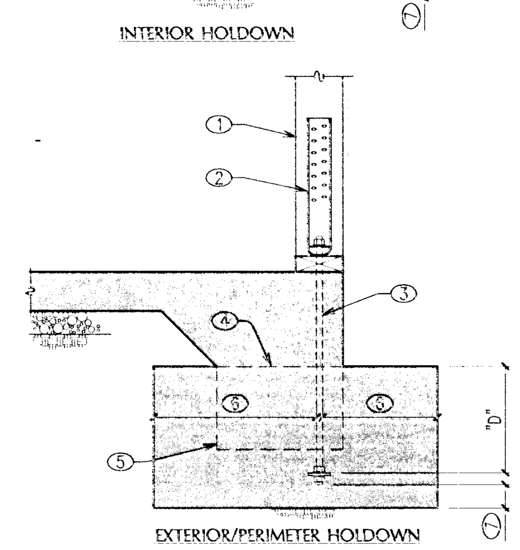
1. SEE PLAN OR GSN FOR FOOTING EMBED OR TOF
2. 2X PLATE WITH 1/2" DIAx7" EMBED AB AT 24" OC UNO ON PLAN OR SCHEDULE
3. EXTERIOR SLAB AS OCCURS. SEE ARCHITECTURAL
4. #4 CONT T&B UNO ON PLAN
5. OPTIONAL COLD JOINT. ROUGHEN SURFACE
6. #4 BENT DOWEL AT 24" OC WHERE OPTIONAL COLD JOINT IS USED

114 EXTERIOR FOOTING AT FRAMED COLUMN

06-114-03374XR — NO SCALE



INTERIOR HOLDOWN



EXTERIOR/PERIMETER HOLDOWN

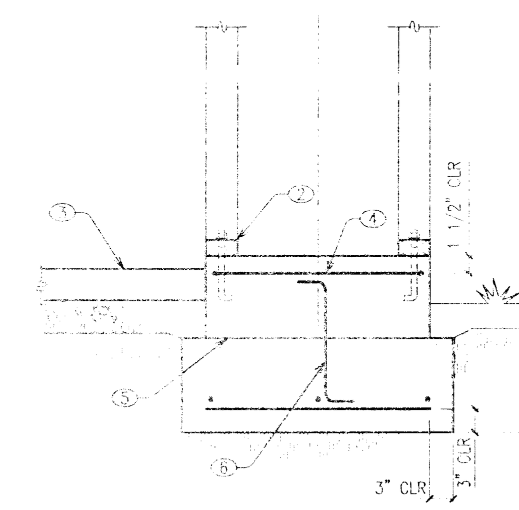
1. FULL HEIGHT DOUBLE STUD WITH 16d FACENAIL AT 8" OC UNLESS NOTED AS POST ON PLAN
2. SIMPSON HOLDOWN PER PLAN. INSTALL PER MFR RECOMMENDATIONS
3. A307 ANCHOR BOLT WITH (2) HEX NUTS AND PLATE WASHER PER TABLE
4. OPTIONAL COLD JOINT PER TYPICAL DETAIL
5. LINE OF CONTINUOUS FOOTING BEYOND. CONTINUE REINFORCING THRU WIDENED FOOTING
6. ENLARGE FOOTING TO PROVIDE MINIMUM COVER "C" PER TABLE ALL 4 SIDES
7. ENLARGE FOOTING TO PROVIDE 3" MIN CONCRETE COVER BELOW BOLT HEAD

SIMPSON HOLDOWN	ANCHOR DIA	PLATE WASHER	EMBED "D"	MIN COVER "C"
HD2A, HDU2, PHD2, PHD5, HDU4, HDU5	5/8"	2x2x1/4	7"	11"
HD5A	3/4"	2 1/2x2 1/2x5/16	9"	14"
PHD5, HD6A, HDQ8, HD8A, HDU8, HD10A	7/8"	2 3/4x2 3/4x3/8	11"	17"
HDU11, HHDQ11, HD14A, HHDQ14, HDU14	1"	3 1/4x3 1/4x1/2	13"	20"
HD15	1 1/4"	4x4x1/2	16"	24"

NOTE:
DESIGN IS BASED ON THE FOLLOWING:
a) ACI 318 APPENDIX D FOR ANCHORS IN CRACKED CONCRETE.
b) MINIMUM f'c=2500 PSI
c) MAXIMUM ANCHOR TENSION PER AISC TABLE 7-2.

106 TYPICAL HOLDOWN ANCHORAGE

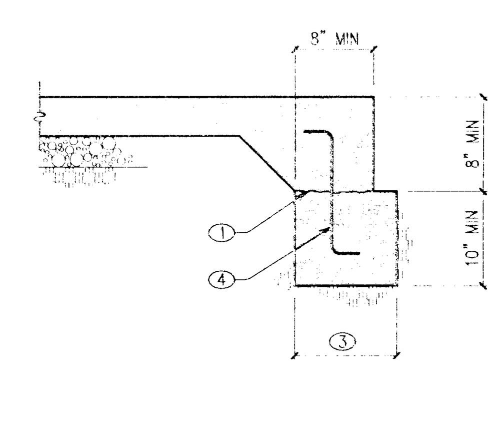
06-106-03374XR — NO SCALE



1. SEE PLAN OR GSN FOR FOOTING EMBED OR TOF
2. 2X PLATE WITH (2) 1/2" DIA ANCHOR BOLTS PER PLATE (OR 24" OC)
3. EXTERIOR SLAB AS OCCURS. SEE ARCHITECTURAL
4. #3 MIN CLOSED TIE OR BENT DOWELS
5. OPTIONAL COLD JOINT. ROUGHEN SURFACE
6. #4 BENT DOWEL WHERE OPTIONAL COLD JOINT IS USED

107 EXTERIOR FOOTING AT FRAMED COLUMN

06-107-03374XR — NO SCALE

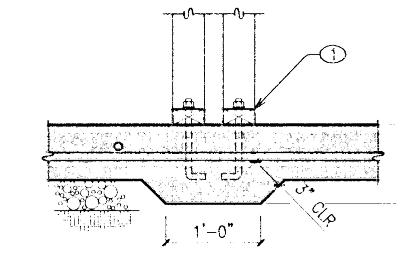


1. COLD JOINT. ROUGHEN SURFACE 1/4" MIN. CLEAN JOINT AND PRE-WET PRIOR TO SECOND POUR
2. ANCHOR BOLTS FOR HOLDOWNS DEEPER THAN SECOND POUR DEPTH SHALL BE EMBEDED IN FIRST POUR OR HOLD DOWN FIRST POUR AROUND BOLT
3. OVERALL FOOTING WIDTH PER DETAIL OR PLAN
4. #4 BENT DOWEL AT 48" OC. LOCATE 2 BARS WITHIN 2'-0" OF OUTSIDE CORNER (4 TOTAL BARS AT OUTSIDE CORNER, 2 EACH SIDE OF CORNER). EMBED DOWEL TO 6" (CENTER BAR AT COLD JOINT + OR − 2")

NOTE: LOCATE DOWEL WITHIN 8" OF HD5A HD6A, PHD5, PHD6, STHD14, HPAHD22, STT22 OR MTT28B HOLDOWNS. LOCATE 2 DOWELS WITHIN 8" OF ANY LARGER HOLDOWN

108 OPTIONAL COLD JOINT AT FOOTING

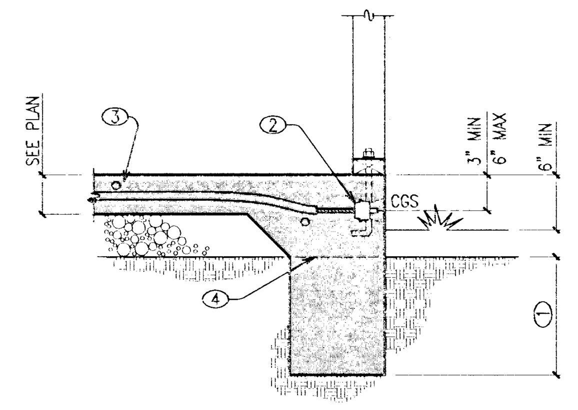
06-108-03374XR — NO SCALE



1. CONT 2x PLATE WITH 1/2" DIAx7" EMBED AB AT 48" OC UNO ON PLAN OR SW SCHEDULE
2. SHOT PIN ALTERNATE WHERE APPLIES PER GSN. FOOTING MAY BE OMITTED AT SHOT PIN ALTERNATE
3. ADJUST PARRALLEL PT TENDON LOCATION AWAY FROM SHOT PIN

109 DOUBLE BEARING OR SHEAR WALL AT PT SLAB

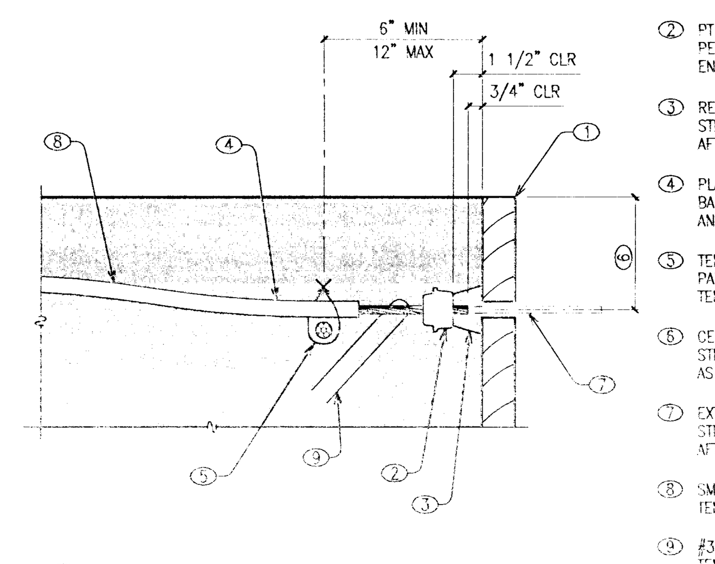
06-109-03374XR — NO SCALE



1. SEE PLAN OR GSN FOR EMBEDMENT
2. PT ANCHORAGE PER TYP DETAIL
3. CENTER TENDONS IN SLAB THICKNESS
4. SEE TYP DETAIL FOR OPTIONAL COLD JOINT AT FOOTING

101 PERIMETER FOOTING AT PT SLAB

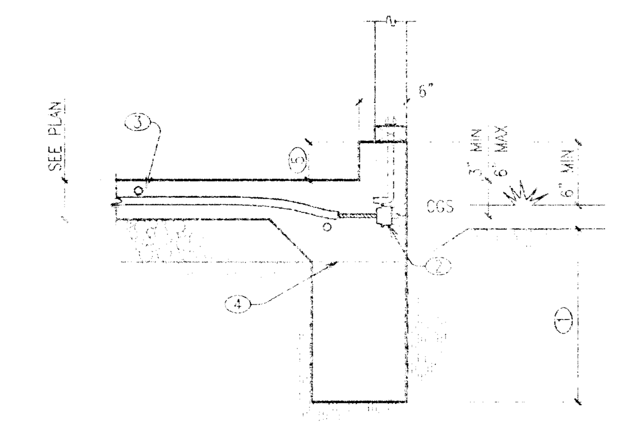
06-10103374XR — NO SCALE



1. FORM BOARD. 13/16" DIA HOLE FOR TENDON EXTENSION AT STRESSING END
2. PT ANCHORAGE WITH SPLIT WEDGES PER GSN. PRESET AT FIXED END. NAIL SIDEWAYS TO FORM BOARD
3. REUSABLE PLASTIC GROMMET AT STRESSING END. GROUT POCKET AFTER STRESSING PER GSN
4. PLASTIC SHEATHING. STRIP BACK 3" MAX AT STRESSING END AND 12" MAX AT FIXED END
5. TENDON PLACED BELOW AND PARALLEL TO FORM BOARD. WIRE TENDONS PER GSN
6. CENTER OF GRAVITY OF PT STRAND (CGS) AT ANCHORAGE AS SHOWN ON DETAILS
7. EXTEND STRANDS 18" MIN AT STRESSING END. CUT PER GSN AFTER STRESSING
8. SMOOTH CURVE TRANSITION OF TENDONS TO SLAB MID-DEPTH UNO
9. #3 HAIRPIN BAR. LOOP AROUND TENDON

102 TYPICAL PT TENDON ANCHOR

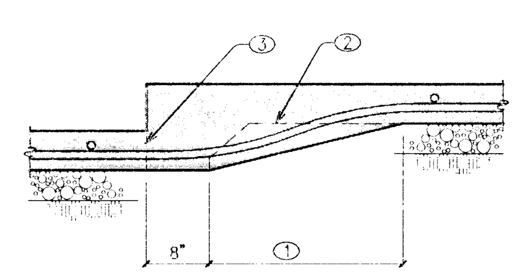
06-102-03374XR — NO SCALE



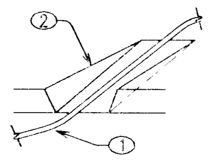
1. SEE PLAN OR GSN FOR EMBEDMENT
2. PT ANCHORAGE PER TYPICAL DETAIL
3. CENTER TENDONS IN SLAB THICKNESS
4. SEE TYPICAL DETAIL FOR REINF AT OPTIONAL COLD JOINT
5. CONCRETE CURB AS OCCURS. SEE PLAN. SEE TYPICAL DETAIL FOR REINFORCING WHERE HEIGHT EXCEEDS 6"

103 PERIMETER FOOTING AT PT SLAB

06-103-03374XR — NO SCALE



1. SMOOTH TENDON TRANSITION OVER 6 TIMES SLAB STEP
2. TRENCH AROUND TENDON AT TRANSITION. 3" CONCRETE COVER AROUND TENDON
3. OPTIONAL COLD JOINT. ROUGHEN TO 1/4" MIN OR PLACE #4x24" DOWEL AT 24" OC CENTERED AT JOINT

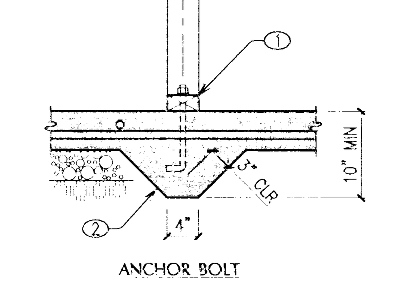


ISOMETRIC VIEW

NOTE: SEE DETAIL 115 WHERE STEP EXCEEDS 8".

104 SMALL SLAB STEP AT PT SLAB

06-104-03374XR — NO SCALE



ANCHOR BOLT

1. CONT 2x PLATE WITH 1/2" DIAx7" EMBED AB AT 48" OC UNO ON PLAN OR SW SCHEDULE
2. CONT TRENCH FOOTING TO RECEIVE AB. CENTER UNDER WALL

105 BEARING OR SHEAR WALL AT PT SLAB

05-105-03374XR — NO SCALE

THIS DRAWING IS AN INSTRUMENT OF SERVICE AND THE PROPERTY OF MENDENHALL SMITH INC. USE OF THIS DRAWING AND ALL REPRODUCTIONS SHALL BE RESTRICTED TO THE ORIGINAL SITE FOR WHICH IT WAS PREPARED AND SHALL NOT BE USED UNLESS PROPERLY SEALED AND APPROVED. PUBLICATION OF THIS DRAWING BY ANY METHOD IN WHOLE OR PART IS PROHIBITED WITHOUT PERMISSION OF MENDENHALL SMITH INC. WHERE A CONTRACTORS NAME APPEARS ON THIS DRAWING, WORK SHALL BE COMPLETED BY SAID CONTRACTOR EXCEPT BY AGREEMENT WITH SAME CONTRACTOR.

REV	DATE	BY	DESCRIPTION
3	04.09.09	PJD	TRUSS SHOP DRAWING COORD

Mendenhall Smith
STRUCTURAL ENGINEERS
3571 Red Rock Street, Suite A
Las Vegas, Nevada 89103
P.702.367.6725
F.702.367.2727

ENGINEERS SEAL

PROFESSIONAL ENGINEER - STATE OF NEVADA
PHILIP J. DE LA MARE
EXP. 12-31-10
CIVIL/STRUCTURAL
No.010097

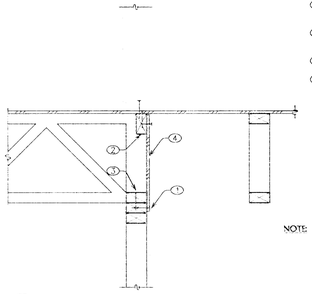
JUN 0 4 2009

CORONADO
THE PASEOS
LAS VEGAS, NEVADA
FOR
SPINNAKER HOMES

Building & Safety Dept
City of Las Vegas, Nevada
IN LIEU OF STRUCTURAL REVIEW PLANS AND CALCULATIONS ARE DEEMED ACCEPTABLE IF SEALED AND SIGNED BY A NEVADA LICENSED CIVIL OR STRUCTURAL ENGINEER
Make no change without approval.
Not a permit to violate any ordinance.
JUN 1 1 2009

SHEET TITLE:
FOUNDATION DETAILS

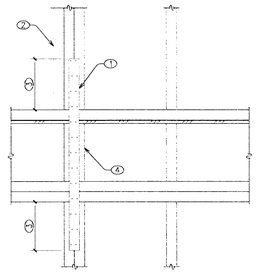
DATE: FEBRUARY 24, 2009	
JOB NO: 03-374.1	
DRAWN: ACD	
CHECKED: PJD	FILE: DS041E03374.1
SHEET NO: S4.1	



1. LAP PLYWOOD RIBBON OVER TOP PLATE
2. CONT LET-IN 2x4 TO RECEIVE EDGE NAILING
3. SOLID 2x BLK W/ (4) 16d
4. PANEL BLOCK PER 204

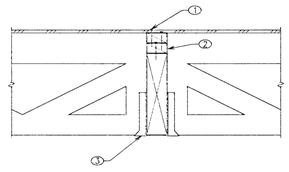
NOTE 1. OMIT PLYWOOD RIBBON WHERE WALL IS NOT SHEAR WALL OR SHEAR WALL NOT IN LINE OF WALL

216 WOOD TRUSS AT INTERIOR WOOD STUD WALL
06-216-03374XR NO SCALE



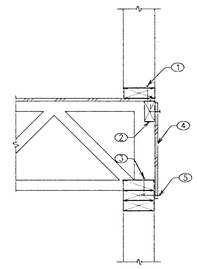
1. SIMPSON STRAP AS INDICATED ON PLAN. ATTACH TO FILL HEIGHT DOUBLE STUD AT END OF SHEARWALL STRAP AROUND TRUSS AT CONDITION OF NO STUD WALL BELOW
2. TRIMMER STUDS AS OCCUR AT OPENING. TRIMMER MAY BE USED AS DOUBLE STUD AT NON-BEARING WALL ONLY
3. END LENGTH AND NAILING PER MFR REQUIRMENTS FOR STRAP
4. INFILL FLOOR TRUSS OR JOIST DEPTH WITH DOUBLE STUD

211 UPPER STORY HOLDOWN STRAP
06-211-03374XR NO SCALE



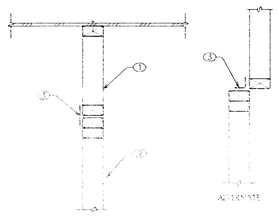
1. EDGE NAILING
2. 2x FILL BLOCK WITH 16d AT 12" OC. NO BLOCK REQUIRED IF TOP OF BEAM IS FLUSH WITH TRUSS
3. HANGER BY TRUSS MFR

206 PREFAB TRUSS AT WOOD BEAM
06-206-03374XR NO SCALE



1. BOT PLATE NAIL PER SW SCHEDULE
2. CONT LET-IN 2x4 TO RECEIVE EDGE NAILING
3. SOLID 2x BLK W/ (4) 16d
4. CONT 3/8" PLYWOOD RIBBON W/ 8d AT 6" OC EDGE AND 12" OC FIELD SPLICE AT TRUSS ONLY
5. LAP PLYWOOD RIBBON OVER TOP PLATE

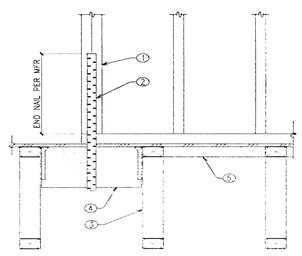
201 WOOD TRUSS AT WOOD STUD WALL
06-201-03374XR NO SCALE



1. PREFAB WOOD TRUSS. DRAG LOAD PER PLAN
2. SHEAR WALL PER PLAN
3. SIMPSON LTP5 OR A35 AT 24" OC UNO ON PLAN

ALTERNATE

217 DRAG TRUSS AT SHEAR WALL
06-217-03374XR NO SCALE

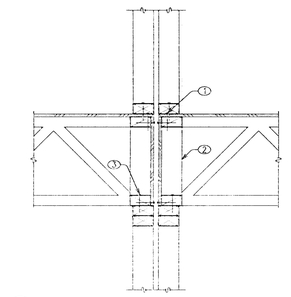


1. DOUBLE STUD WITH 16d FACENAIL AT 8" OC UNLESS NOTED AS POST ON PLAN
2. SIMPSON STRAP PER PLAN. NAIL PER MFR. BEND STRAP AROUND BLOCK AS REQUIRED
3. PREFAB TRUSSES TO BE DESIGNED TO RECEIVE BLOCK AND LOAD
4. 4x12 BLOCK WITH INVERTED SIMPSON HUS412 HANGER ENDS
5. 2x BLOCK CONTINUOUS BELOW SHEAR WALL

END NAIL PER MFR.

NOTE
1. USE ALTERNATE DETAIL WHERE TRUSS IS ALIGNED BELOW SHEAR WALL. SEE PLAN

212 SHEARWALL STAP AT PREFAB TRUSS
06-212-03374XR NO SCALE

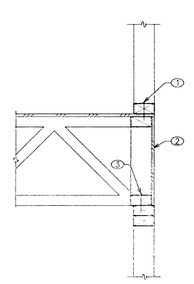


1. EDGE NAIL
2. PREFAB PANEL BLOCK OR 3/8" PLYWOOD PANEL BLOCK. 8d COMMON AT 6" OC

2x4 BLOCK AT 4 SIDES

3. (4) 16d PER PANEL BLOCK

207 WOOD TRUSS AT SEPARATION WALL
06-207-03374XR NO SCALE



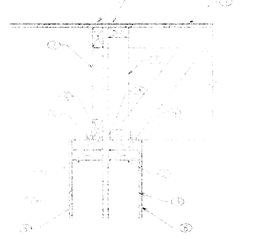
1. BOT PLATE NAIL PER SW SCHEDULE
2. PREFAB PANEL BLOCK OR 3/8" PLYWOOD PANEL BLOCK. 8d COMMON AT 6" OC

2x4 BLK AT 4 SIDES

3. (4) 16d NAIL PER BLOCK

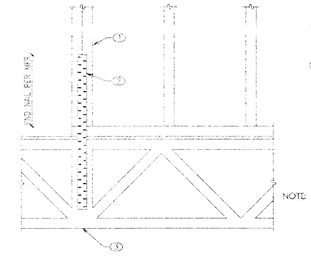
NOTE DETAIL USUALLY OCCURS AT INTERIOR CONDITION. SEE ALTERNATE DETAIL FOR EXTERIOR WALLS

202 WOOD TRUSS AT WOOD STUD WALL
06-202-03374XR NO SCALE



1. PLYWOOD SHEATHING
2. DOUBLE 2X TOP PLATE
3. [illegible]
4. 16d NAILS AT 6" OC TO TOP PLATE EXCEPT WHERE SIMPSON A35 IS REQUIRED PER PLAN
5. EDGE NAILING
6. SIMPSON A35 PER PLAN AT 24" OC MAX
7. PREFAB WOOD TRUSS - MFR TO DESIGN FOR DRAG FORCE ALONG TRUSS PER PLAN
8. WALL SHEATHING AS LOCKING

218 WOOD TRUSS AT WOOD STUD WALL
06-218-03374XR NO SCALE

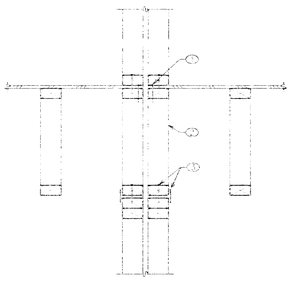


1. DOUBLE STUD WITH 16d FACENAIL AT 8" OC UNLESS NOTED AS POST ON PLAN
2. [illegible] PER MFR. BEND STRAP AROUND TRUSS AS REQUIRED
3. PREFAB TRUSS TO BE DESIGNED TO RECEIVE STRAP AND LOAD

END NAIL PER MFR.

NOTE 1. ALIGN TRUSS BELOW SHEAR WALL WHERE NOTED ON PLAN. WHERE TRUSSES DO NOT ALIGN WITH SHEARWALL SEE ALTERNATE DETAIL

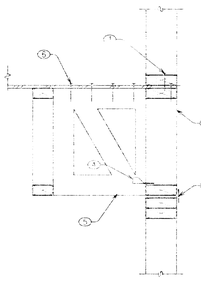
213 SHEARWALL STRAP AT PREFAB TRUSS
06-213-03374XR NO SCALE



1. EDGE NAILING
2. PREFAB WOOD TRUSS. DRAG LOAD PER PLAN
3. 16d AT 6" OC OR SIMPSON LTP5 AT 24" OC

NOTE WALL MAY BE BALLOON FRAMED TO FLOOR SHEATHING PROVIDED WALL SHEATHING IS EXTENDED TO TOP PLATES

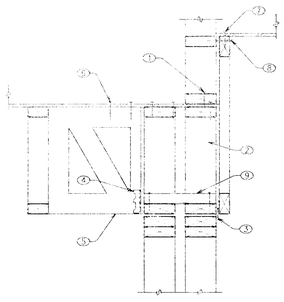
208 WOOD TRUSS AT SEPARATION WALL
06-208-03374XR NO SCALE



1. BOT PLATE NAIL PER SW SCHEDULE
2. PREFAB WOOD TRUSS. DRAG LOAD PER PLAN
3. SIMPSON LTP5 OR A35 AT 24" OC., MAYBE INSTALLED ON EITHER SIDE OF WALL
4. SIMPSON MP5, H3 OR H4 AT BLK TO TRUSS
5. PREFAB BLOCK OR 3/8" PLYWOOD PANEL BLK. 8d COMMON AT 6" OC TO 2x4 BLK AT 4 SIDES AT 48" OC
6. (3) 8d COMMON TO PANEL BLK

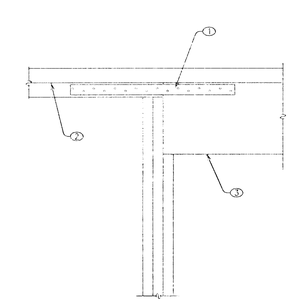
NOTE SEE DETAIL FOR ALTERNATE

203 WOOD TRUSS AT WOOD STUD WALL
06-203-03374XR NO SCALE



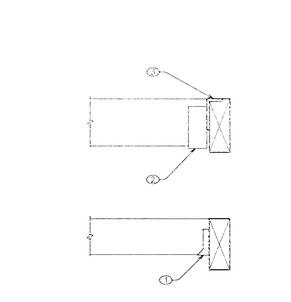
1. BOT PLATE NAIL PER SW SCHEDULE
2. PREFAB WOOD TRUSS. DRAG LOAD PER PLAN
3. SIMPSON LTP5 AT 24" OC. MAYBE INSTALLED ON EITHER SIDE OF WALL
4. SIMPSON A35 WITH #8 SCREWS BLK TO TRUSS
5. PREFAB BLOCK OR 3/8" PLYWOOD PANEL BLK AT 48" OC MAX 8d COMMON AT 6" OC TO 2x4 BLK AT 4 SIDES
6. (3) 8d COMMON TO PANEL BLK
7. EDGE NAILING
8. 16d AT 12" OC
9. 2x4 BRACE WITH (2) 16d EACH END AT 48" OC MAX

219 WOOD TRUSS AT WOOD STUD WALL
06-219-03374XR NO SCALE



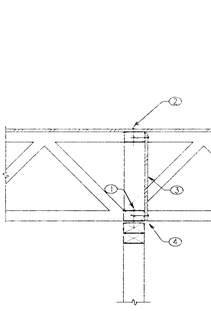
1. CS16 STRAP BEAM TO TOP PLATE (MAY BE INSTALLED ON EITHER SIDE OF WALL)
2. TOP PLATE PER PLAN
3. BEAM PER PLAN

214 STRAP DISCONTINUOUS TOP PLATE TYPICAL
06-214-03374XR NO SCALE



1. LUS TYP HANGER
2. DAP BEAM AS REQ'D
3. SIMPSON FLANGED HANGER PER PLAN

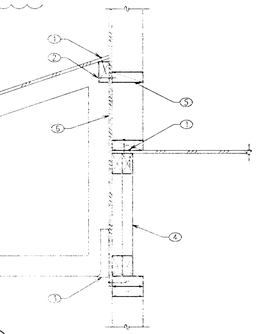
209 WOOD JOIST AT WOOD BEAM
06-209-03374XR NO SCALE



1. (4) 16d PER PANEL BLOCK
2. EDGE NAIL TO PANEL BLOCK
3. 3/8" PLYWOOD PANEL BLOCK. 8d COMMON AT 6" OC TO 2x4 BLOCK AT 4 SIDES
4. GAP TRUSS 3/8" AT NON-BEARING WALL

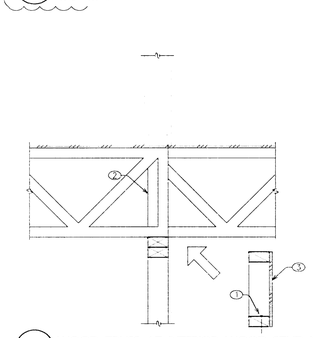
NOTE 1. USED FOR SHEAR TRANSFER. LOCATE PANEL BLOCK AT EVERY BAY OVER SHEAR WALL
2. AT NON SHEAR CONDITION LOCATE PANEL BLOCK PER PLAN
3. INTERIOR BEARING WALL ONLY WHERE NOTED ON PLAN

204 WOOD TRUSS AT WOOD STUD WALL
06-204-03374XR NO SCALE



1. EDGE NAILING
2. 2x BLOCKING WITH (3) 16d PER BLOCK
3. HANGER BY TRUSS MFR
4. WOOD BEAM OR GIRDER TRUSS
5. 2x BLOCKING
6. CONT SHEARWALL AS OCCURS TO LAP OVER TOP PLATE

220 PREFAB TRUSS AT WOOD STUD WALL
06-220-03374XR NO SCALE

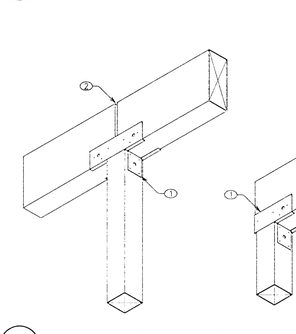


1. (4) 16d PER BLK
2. LAP TRUSSES AT BEARING WALL. TRUSSES MAY BEAR END TO END WITHOUT LAP AT 2x6 WALL OR AS NOTED BY TRUSS MFR
3. 3/8" PLYWOOD PANEL BLOCK. 8d COMMON AT 6" OC

2x4 BLK AT 4 SIDES

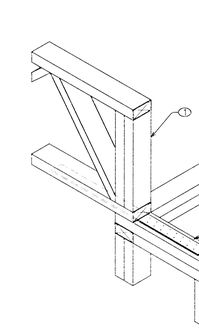
LOCATE PANEL BLOCK AT EVERY BAY OVER SHEAR WALL OR UPPER BEARING WALL. EVERY OTHER BAY AT NON-SHEARWALL. 2x4 BLK TOP CONT BELOW UPPER WALL

215 WOOD TRUSS AT INTERIOR WOOD STUD WALL
06-215-03374XR NO SCALE



1. SIMPSON PC OR EPC TYPE POST CAP UNO ON PLANS
2. BEAM SPLICE AT CENTERLINE AS OCCURS, SEE PLAN

210 WOOD BEAM AT WOOD POST
06-210-03374XR NO SCALE



1. PREFAB TRUSS. DRAG LOAD PER PLAN. ALIGN WITH WALL. EDGE NAIL SHEATHING ALONG TRUSS
2. SIMPSON ST6236 STRAP UNO ON PLAN. NAIL PER MANFR TO TOP PLATE AND TRUSS

205 DRAG TRUSS AT WOOD STUD WALL
06-205-03374XR NO SCALE

THIS DRAWING IS AN INSTRUMENT OF SERVICE AND THE PROPERTY OF MENDENHALL SMITH, INC. USE OF THIS DRAWING AND ALL REPRODUCTIONS SHALL BE RESTRICTED TO THE ORIGINAL SITE FOR WHICH IT WAS PREPARED AND SHALL NOT BE USED UNLESS PROPERLY SEALED AND APPROVED. PUBLICATION OF THIS DRAWING BY ANY METHOD IN WHOLE OR PART IS PROHIBITED WITHOUT PERMISSION OF MENDENHALL SMITH, INC. WHERE A CONTRACTORS NAME APPEARS ON THIS DRAWING, WORK SHALL BE COMPLETED BY SAID CONTRACTOR EXCEPT BY AGREEMENT WITH SAME CONTRACTOR.

REV	DATE	BY	DESCRIPTION
1	03.25.09	PJD	STRUCTURAL COORDINATION
2	04.09.09	PJD	1RH/BS SHOP DRAWING COORD

Mendenhall Smith STRUCTURAL ENGINEERS
3571 Red Rock Street, Suite A
Las Vegas, Nevada 89103
P.702.367.0925
F.702.367.0927

ENGINEER'S SEAL
REGISTERED PROFESSIONAL ENGINEER STATE OF NEVADA
PHILLIP J. DE LA MARE
EXP. 12-31-10
CIVIL/STRUCTURAL
No. 010097

JUN 04 2009

CORONADO THE PASEOS
LAS VEGAS, NEVADA
FOR
SPINNAKER HOMES

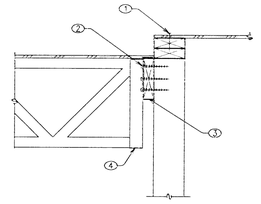
City of Las Vegas, Nevada
IN LIEU OF STRUCTURAL REVIEW PLANS AND CALCULATIONS ARE DEEMED ACCEPTABLE IF SEALED AND SIGNED BY A NEVADA LICENSED CIVIL OR STRUCTURAL ENGINEER

Building & Safety Dept.
Make no change without approval. Not a permit to violate any ordinance.

JUN 04 2009

SHEET TITLE:
FRAMING DETAILS

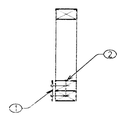
DATE:	FEBRUARY 24, 2009
JOB NO:	03-374.1
DRAWN:	ACD
CHECKED: PJD	FILE: DS051E03374.1
SHEET NO:	S5.1



1. EDGE NAILING
2. FLOOR TRUSS BY OTHERS LET IN TO LEDGER
3. 2x8 LEDGER WITH (3) 1/4"x4 1/2" SDS SCREWS TO EACH STUD
4. HANGER PER JOIST MFR

221 WOOD TRUSS AT WOOD STUD WALL

06-221-03374XR — NO SCALE



1. STRAP PER PLAN
2. 2x BLOCK, NAIL W/ 16d AT 3" OC

NOTE 1. STAGGER TRUSSES TO MAKE SAME ATTACHMENT TO ADJACENT TRUSS.

2. SEE DETAIL 215 FOR ALIGNMENT.

222 STRAP AT WOOD TRUSS

06-222-03374XR — NO SCALE

THIS DRAWING IS AN INSTRUMENT OF SERVICE AND THE PROPERTY OF MENDENHALL SMITH INC. USE OF THIS DRAWING AND ALL REPRODUCTIONS SHALL BE RESTRICTED TO THE ORIGINAL SITE FOR WHICH IT WAS PREPARED AND SHALL NOT BE USED UNLESS PROPERLY SEALED AND APPROVED. PUBLICATION OF THIS DRAWING BY ANY METHOD WHATSOEVER WITHOUT THE PRIOR WRITTEN PERMISSION OF MENDENHALL SMITH INC. SHALL VOID WHERE A CONTRACTORS' NAME APPEARS ON THIS DRAWING, WORK SHALL BE COMPLETED BY SAID CONTRACTOR EXCEPT BY AGREEMENT WITH SAME CONTRACTOR.

REV	DATE	BY	DESCRIPTION
1	04/29/09	PJD	TRUSS SHOP DRAWING COORD

Mendenhall Smith STRUCTURAL ENGINEERS
3571 Red Rock Street, Suite A
Las Vegas, Nevada 89103
P.702.367.8725
F.702.367.8727

ENGINEER

JUN 04 2009

CORONADO
THE PASEOS
LAS VEGAS, NEVADA
FOR
SPINNAKER HOMES

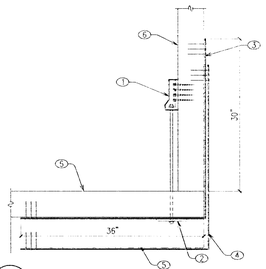
Building & Safety Dept.
City of Las Vegas
IN LIEU OF STRUCTURAL REVIEW
PLANS AND CALCULATIONS ARE
DEEMED ACCEPTABLE IF SEALED
AND SIGNED BY A NEVADA LICENSED
CIVIL OR STRUCTURAL ENGINEER

Make no change without approval.
Not a permit to violate any ordinance.

REVIEWED JUN 11, 2009

SHEET TITLE
FRAMING DETAILS

DATE	FEBRUARY 24, 2009
JOB NO	03-374.1
DRAWN	ACD
CHECKED PJD	FILE DS052E03374.1
SHEET NO	S5.2

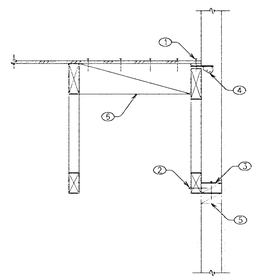


1. SIMPSON HDU8-SDS2.5
2. 6x6x3/8 STEEL PLATE
3. SIMPSON CMST14 STRAP
4. STRAP PER PLAN
5. TOP PLATE OF OUTSIDE WALL
6. BEAMS PER PLAN

NOTE: ALL STRAP NAILS NOT SHOWN FOR CLARITY.

316 BEAM AT CORNER CONDITION

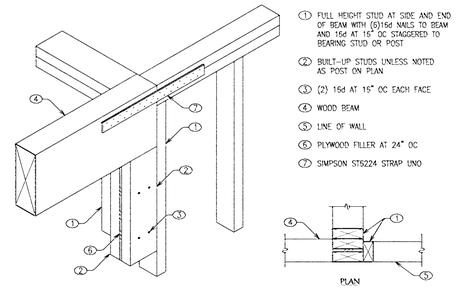
06-316-0337419R — NO SCALE



1. EDGE NAILING
2. 16d AT 12" OC UNO
3. 2x BLOCK AT SHEARWALL
4. SIMPSON H5 AT 24" OC MAX
5. ADDITIONAL 2x BLK AT INTERIOR SW WITH (3)16d FACENAIL
6. 2x BLOCK ONE BAY

311 WOOD TRUSS PARALLEL TO WOOD STUD WALL

06-311-0337419R — NO SCALE

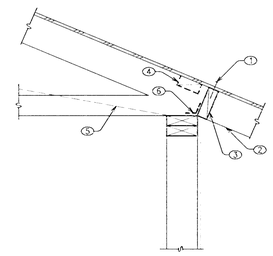


1. FULL HEIGHT STUD AT SIDE AND END OF BEAM WITH (5)16d NAILS TO BEAM AND 16d AT 16" OC STAGGERED TO BEARING STUD OR POST
2. BUILT-UP STUDS UNLESS NOTED AS POST ON PLAN
3. (2) 16d AT 16" OC EACH FACE
4. WOOD BEAM
5. LINE OF WALL
6. PLYWOOD FILLER AT 24" OC
7. SIMPSON ST6224 STRAP UNO

PLAN

306 WOOD BEAM AT CORNER OF WALL

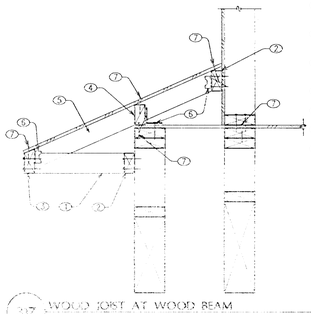
06-306-0337419R — NO SCALE



1. EDGE NAILING
2. TRUSS EXTENSION AS OCCURS. SEE ARCHITECTURAL
3. SOLID 2X BLOCKING
4. WHERE VENTING IS REQUIRED BY ARCHITECTURAL EVERY OTHER BLOCK MAY BE FLAT (MAX)
5. LINE OF SCISSOR TRUSS AS OCCURS
6. SHEAR TRANSFER BY ONE OF 2 OPTIONS UNLESS NOTED OTHERWISE ON PLANS:
   - A. SIMPSON A35 AT 24" OC BEND AS REQUIRED. (2)A35 AT 48" OC WHERE FLAT BLOCK FOR VENTING IS USED
   - B. PLACE MITERED BLOCK VERTICAL OVER TOP PLATE. (3)16d TOENAIL BLOCK TO PLATE. DO NOT USE FLAT VENT BLOCKING

301 WOOD TRUSS AT WOOD STUD WALL

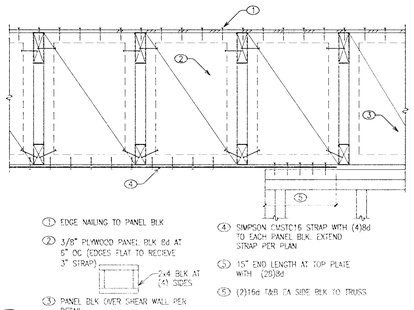
06-301-0337419R — NO SCALE



1. 2x4 AT 24" OC WITH (2) 16d TO LEDGER
2. 2x LEDGER WITH (2) 16d AT EACH STUD
3. 2x6 WITH (2) 16d EACH JOIST, SLOPE CUT TO ROOF SLOPE
4. 2x BLOCKING
5. 2x4 JOIST AT 24" OC MAX
6. SIMPSON A35
7. EDGE NAILING

317 WOOD JOIST AT WOOD BEAM

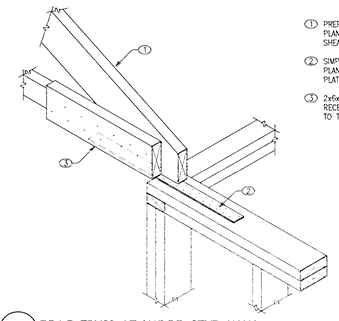
06-317-0337419R — NO SCALE



1. EDGE NAILING TO PANEL BLK
2. 3/8" PLYWOOD PANEL BLK 8d AT 6" OC (EDGES FLAT TO RECIEVE 3" STRAP)
   - 2x4 BLK AT (4) SIDES
3. PANEL BLK OVER SHEAR WALL PER DETAIL
4. SIMPSON CMSTC16 STRAP WITH (4)8d TO EACH PANEL BLK. EXTEND STRAP PER PLAN
5. 15" END LENGTH AT TOP PLATE WITH (26)8d
6. (2)16d T&B EA SIDE BLK TO TRUSS

312 DRAG STRAP AT SHEAR WALL

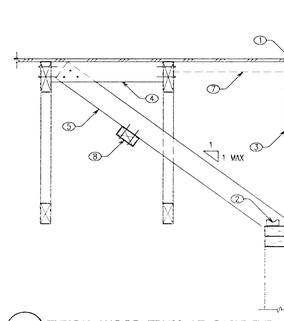
06-312-0337419R — NO SCALE



1. PREFAB TRUSS. DRAG LOAD PER PLAN. ALIGN WITH WALL. EDGE NAIL SHEATHING ALONG TRUSS
2. SIMPSON CMSTC16 STRAP UNO ON PLAN. NAIL PER MANFR TO TOP PLATE AND TRUSS
3. 2x6x2'-0" LONG SPACER BLOCK TO RECEIVE STRAP. (12)16d FACE NAIL TO TRUSS

307 DRAG TRUSS AT WOOD STUD WALL

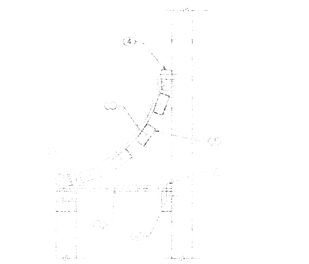
06-307-0337419R — NO SCALE



1. EDGE NAILING
2. SIMPSON H5 TOP PLATE TO BLK
3. END TRUSS. DRAG LOAD PER PLAN
4. 2x BLOCK AT 48" OC WITH (2)16d EACH END
5. 2x4 BRACE TO TOP OF WALL AT 48" OC WITH (3)16d NAIL TO BLK EACH END
6. SIMPSON A35F OR A35 AT 24" OC ATTACH AFTER MAJORITY OF ROOF DEAD LOAD IS PLACED
7. OUTRIGGERS PER ARCH'L AT CANTILEVER CONDITION. FLAT 2x4 AT 24" OC IF NOT SHOWN ON ARCH'L
8. 1x2 OR 2x4 FLAT BRACE WITH (2) 10d AT MID-LENGTH WHERE BRACE LENGTH EXCEEDS 6'-0"

302 TYPICAL WOOD TRUSS AT GABLE END

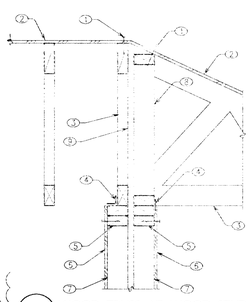
06-302-0337419R — NO SCALE



1. DOUBLE LATH 1/2" MIN SHEATHING
2. 8d AT 6" OC
3. CURVED SHEATHING PANELS WITH 2x NAILING AT 6" OC
4. 2x LEDGER WITH (2)-16d AT EACH STUD

318 PLATFORM FRAMING

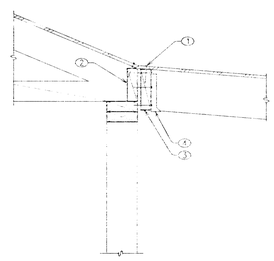
06-318-0337419R — NO SCALE



1. EDGE NAILING
2. PLYWOOD SHEATHING
3. PREFAB WOOD TRUSS – MFR TO DESIGN TRUSS TO TRANSFER UNIFORM FORCES AS REQUIRED
4. SIMPSON A35 OR LTP5 AT 24" OC UNO PER PLAN
5. CONTINUOUS DOUBLE 2X TOP PLATE
6. SHEARWALL SHEATHING AS OCCURS
7. WOOD STUD WALL
8. SHEAR BLOCKING PER TYPICAL DETAILS W/ (3) 16d OR (1) A35F PER BLOCK OR PER DETAIL 319
9. DRAFT STOP PER ARCH'L DRAWINGS

313 WOOD TRUSS AT WOOD STUD WALL

06-313-0337419R — NO SCALE

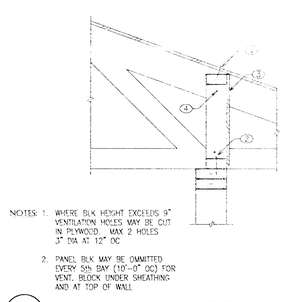


1. EDGE NAILING
2. 2x BLOCK WITH SIMPSON A35 AT 24" OC
3. GUN LEDGER TO WALL SUCH WITH (3) 15d NAILS AT 16" OC
4. SIMPSON LUI HANGER

NOTE: NAIL LEDGER OVER SHEARWALL SHEATHING AS OCCURS

308 WOOD JOIST AT WOOD STUD WALL

06-308-0337419R — NO SCALE



1. EDGE NAILING
2. (4)16d PER PANEL BLK OR SIMPSON A35 AT 24" OC
3. 3/8" PLYWOOD PANEL BLK. 8d COMMONS AT 6" OC TO 2x4 BLK AT (4) SIDES
4. 16d T&B TO TRUSS EACH SIDE

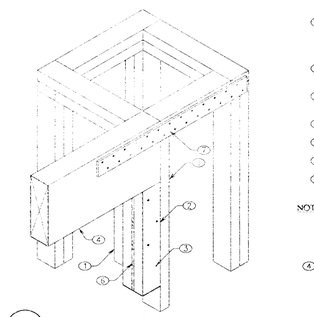
NOTES: 1. WHERE BLK HEIGHT EXCEEDS 9" VENTILATION HOLES MAY BE CUT IN PLYWOOD. MAX 2 HOLES 3" DIA AT 12" OC

2. PANEL BLK MAY BE OMMITTED EVERY 5th BAY (10'-0" OC) FOR VENT. BLOCK UNDER SHEATHING AND AT TOP OF WALL

ISOMETRIC

303 PREFAB TRUSS AT WOOD STUD WALL

06-303-0337419R — NO SCALE



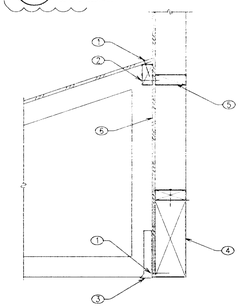
1. FULL HEIGHT STUD AT SIDE AND END OF BEAM WITH (5)16d NAILS TO BEAM AND 16d AT 16" OC STAGGERED TO BEARING STUD OR POST
2. BUILT-UP STUDS UNLESS NOTED AS POST ON PLAN
3. 16d AT 8" OC STAGGERED EACH FACE
4. WOOD BEAM
5. LINE OF WALL
6. PLYWOOD FILLER AT 24" OC
7. CMSTC16 W/ BLOCKING AS REQ'D WRAP AT CORNER AS REQ'D

NOTE: BOX COLUMN WALLS SHOWN GENERICALLY. WALL CONSTRUCTION PER TYPICAL NOTES AND DETAILS

PLAN

319 WOOD BEAM AT CORNER OF BOX COLUMN

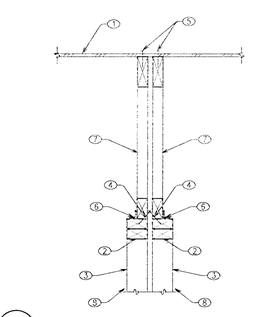
06-319-0337419R — NO SCALE



1. EDGE NAILING
2. 2x BLOCKING WITH (3) 16d PER BLOCK
3. HANGER BY TRUSS MFR
4. WOOD BEAM PER PLAN
5. 2x BLOCKING
6. CONT SHEARWALL SHEATHING

314 PREFAB TRUSS AT WOOD BEAM

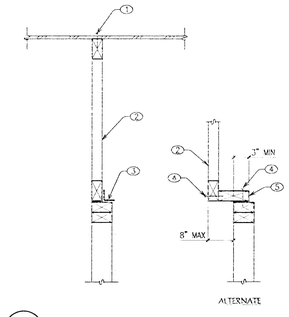
06-314-0337419R — NO SCALE



1. PLYWOOD SHEATHING
2. DOUBLE 2X TOP PLATE
3. WOOD STUD WALL
4. 16d NAILS AT 6" OC TO TOP PLATE EXCEPT WHERE SIMPSON A35 IS REQUIRED PER PLAN
5. EDGE NAILING
6. SIMPSON A35 PER PLAN (AT 24" OC MIN UNO)
7. PREFAB WOOD TRUSS – MFR TO DESIGN FOR DRAG FORCE ALONG TRUSS PER PLAN
8. WALL SHEATHING AS OCCURS

309 WOOD TRUSS AT WOOD STUD WALL

06-309-0337419R — NO SCALE



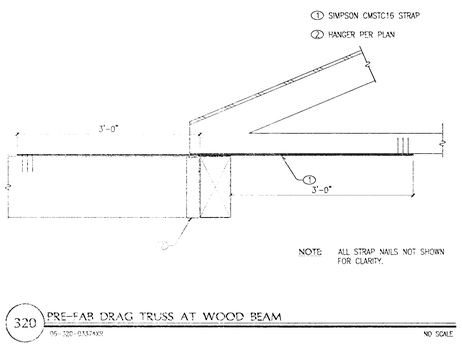
1. EDGE NAILING ALONG TRUSS
2. PREFAB TRUSS. DRAG LOAD PER PLAN
3. SIMPSON A35 OR A35F AT 24" OC UNO ON PLAN
4. 16d AT 5" OC OR A35 AT 24" OC UNO ON PLAN
5. 2x PLATE. 2x8 MAX

3" MIN
8" MAX

ALTERNATE

304 WOOD TRUSS AT SHEARWALL

06-304-0337419R — NO SCALE



1. SIMPSON CMSTC16 STRAP
2. HANGER PER PLAN

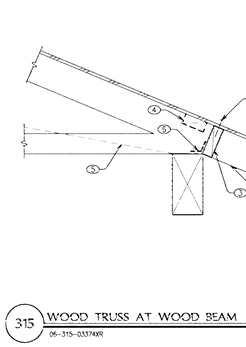
3'-0"

3'-0"

NOTE: ALL STRAP NAILS NOT SHOWN FOR CLARITY.

320 PRE-FAB DRAG TRUSS AT WOOD BEAM

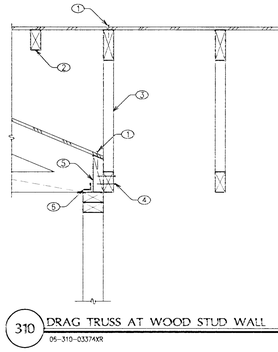
06-320-0337419R — NO SCALE



1. EDGE NAILING
2. TRUSS EXTENSION AS OCCURS. SEE ARCHITECTURAL
3. SOLID 2X BLOCKING
4. WHERE VENTING IS REQUIRED BY ARCHITECTURAL EVERY OTHER BLOCK MAY BE FLAT (MAX)
5. LINE OF SCISSOR TRUSS AS OCCURS
6. SHEAR TRANSFER BY ONE OF 2 OPTIONS UNLESS NOTED OTHERWISE ON PLANS:
   - A. SIMPSON A35 AT 24" OC BEND AS REQUIRED. (2)A35 AT 48" OC WHERE FLAT BLOCK FOR VENTING IS USED
   - B. PLACE MITERED BLOCK VERTICAL OVER BEAM. (3)16d TOENAIL BLOCK TO PLATE. DO NOT USE FLAT VENT BLOCKING

315 WOOD TRUSS AT WOOD BEAM

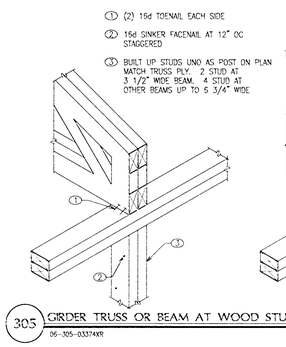
06-315-0337419R — NO SCALE



1. EDGE NAILING
2. FRAMING AT OVERBUILD PER TYPICAL DETAILS
3. PREFAB TRUSS. DRAG LOAD PER PLAN
4. 16d AT 5" OC
5. SOLID 2x BLOCKING
6. SIMPSON A35 AT 24" OC UNO ON PLANS
7. 2x BLOCK IN BETWEEN TRUSSES

310 DRAG TRUSS AT WOOD STUD WALL

06-310-0337419R — NO SCALE



1. (2) 16d TOENAIL EACH SIDE
2. 16d SINKER FACENAIL AT 12" OC STAGGERED
3. BUILT UP STUDS UNO AS POST ON PLAN MATCH TRUSS PLY. 2 STUD AT 3 1/2" WIDE BEAM. 4 STUD AT OTHER BEAMS UP TO 5 3/4" WIDE
4. SLOPE CUT BEAM AT 2:1 RATIO MAX AS REQUIRED

NOTE: CONTINUE STUDS TO FOUNDATION INFILL BLK AT FLOOR TRUSS OR JOIST

305 GIRDER TRUSS OR BEAM AT WOOD STUD WALL

06-305-0337419R — NO SCALE

THIS DRAWING IS AN INSTRUMENT OF SERVICE AND THE PROPERTY OF MENDENHALL, SMITH& INC. USE OF THIS DRAWING AND ALL REPRODUCTIONS SHALL BE RESTRICTED TO THE ORIGINAL SITE FOR WHICH IT WAS PREPARED AND SHALL NOT BE USED UNLESS PROPERLY SEALED AND APPROVED. PUBLICATION OF THIS DRAWING BY ANY METHOD IN WHOLE OR PART IS PROHIBITED WITHOUT PERMISSION OF MENDENHALL, SMITH& INC. WHERE A CONTRACTORS NAME APPEARS ON THIS DRAWING, WORK SHALL BE COMPLETED BY SAID CONTRACTOR EXCEPT BY AGREEMENT WITH SAME CONTRACTOR.

REV	DATE	BY	DESCRIPTION
4	04.08.09	PJD	STRUCTURAL COORDINATION
3	03.26.09	PJD	TRUSS SHOP DRAWING SUBMITTAL

Mendenhall Smith ENGINEERS
STRUCTURAL
3571 Red Rock Street, Suite A
Las Vegas, Nevada 89103
P.702.367.6725
F.702.367.6727

ENGINEER'S SEAL

PHILIP J. DE LA MARE
EXP. 12-31-10
CIVIL STRUCTURAL
No. 010057

JUN 04 2009

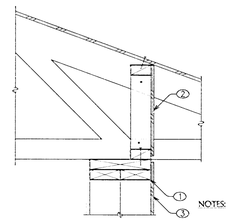
CORONADO
THE PASEOS
LAS VEGAS, NEVADA
FOR
SPINNAKER HOMES

JUN 04 2009
CITY OF LAS VEGAS
BUILDING & SAFETY

City of Las Vegas, Nevada
IN LIEU OF STRUCTURAL REVIEW
PLANS AND CALCULATIONS ARE DEEMED ACCEPTABLE IF SEALED AND SIGNED BY A NEVADA LICENSED CIVIL OR STRUCTURAL ENGINEER
Make no change without approval.
Not a permit to violate any ordinance

SHEET TITLE: FRAMING DETAILS

DATE:	FEBRUARY 24, 2009
JOB NO:	03-374.1
DRAWN:	ACD
CHECKED:	PJD
FILE:	DS0961E03374.1
SHEET NO:	S6.1

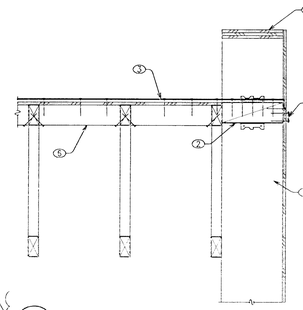


1. DOUBLE 2x6 WALL WITH 2x12 TOP PLATE
2. PANEL BLOCK PER DETAIL 303
3. SHEATHING PER PLAN

NOTES: SEE DETAIL 303 FOR ALL OTHER INFORMATION NOT SHOWN.

325 PREFAB TRUSS AT 12" WOOD STUD WALL

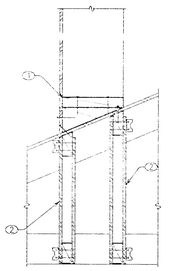
06-325-03374XR — NO SCALE



1. 2x12 STUD WALL (16" OC)
2. 4x12 BLOCK CONT. ATTACH BLOCK WITH A35 AT TOP AND BOTTOM
3. SIMPSON CS16 AT (4) LOCATIONS (SEE PLAN) EXTEND STRAP (3) BAYS. WRAP STRAP AROUND FRONT OF 4x12 BLOCK
4. SIMPSON CMSTC16 STRAP CONTINUOUS
5. PLYWOOD TOP PLATE (BUILT UP 1 1/2" MIN) AT CURVED TOP OF WALL
6. 2x BLOCKS (TOE NAIL TO TRUSSES W/ 15d NAILS)

326 12" WOOD STUD WALL AT ROOF TRUSSES

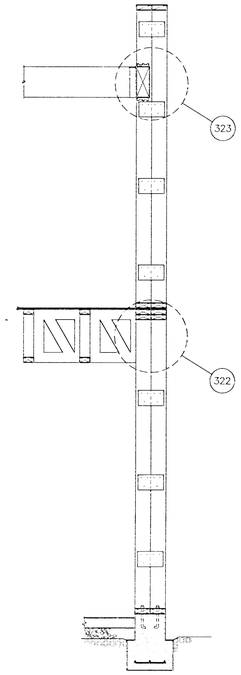
06-326-03374XR — NO SCALE



1. 2x12 STUD WALL WITH BEVELED SIL PLATE AND SIL PLATE ABOVE. NAIL W/ 16d AT 4" OC
2. [illegible] SHEATHING BOTH SIDES (NAIL PER SW9). ATTACH PANEL BLOCKS TO TRUSSES WITH A34 CLIPS TOP AND BOTTOM

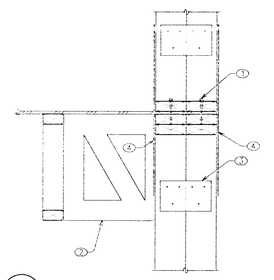
327 12" WOOD WALL AT ROOF TRUSSES

06-327-03374XR — NO SCALE



321 WALL SECTION AT FRAMED COLUMN

06-321-03374XR — NO SCALE

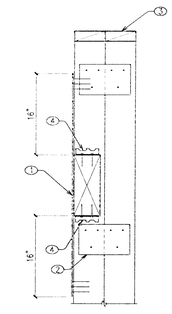


1. 2x PLATE WITH 1/4" DIA x 4 1/2" SDS SCREWS AT 6" OC
2. PANEL BLOCK AT 16" OC (TOENAIL W/ 16d AT TOP AND BOTTOM W/ 3-16d NAILS)
3. 2x BLOCK WITH (3) 16d EACH SIDE PLACED AT 16" OC
4. SIMPSON CS16 STRAP AT 32" OC

NOTE: STRAP NAILS NOT SHOWN FOR CLARITY

322 FLOOR TRUSS AT FRAMED COLUMN

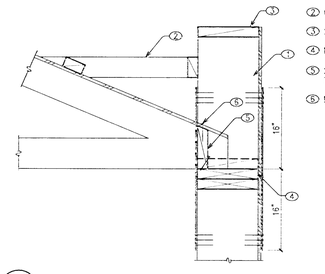
06-322-03374XR — NO SCALE



1. SIMPSON CS16 AT EACH STUD
2. 2x BLOCK WITH (3) 16d EACH SIDE PLACED AT 16" OC
3. SEGMENTED BLOCK AT CURVED TOP OF WALL
4. A35 AT EACH STUD TOP AND BOTTOM

323 WOOD BEAM AT STUD WALL

06-323-03374XR — NO SCALE



1. 2x12 PARAPET W/ CS16 AT EACH STUD BOTH SIDES
2. OVERBUILD PER TYP DETAILS
3. 2X BLOCK AT CURVED TOP
4. DOUBLE TOP PLATE
5. 2x BLOCK WITH (4) 16d TOENAILS TO PLATE
6. EDGE NAILING

324 ROOF TRUSS AT 12" WALL

06-324-03374XR — NO SCALE

Building & Safety Dept.
Structural Review
IN LIEU OF STRUCTURAL REVIEW
PLANS AND CALCULATIONS ARE
DEEMED ACCEPTABLE IF SEALED
AND SIGNED BY A NEVADA LICENSED
CIVIL OR STRUCTURAL ENGINEER

Make no change without approval.
Not a permit to violate any ordinance.

THIS DRAWING IS AN INSTRUMENT OF SERVICE AND THE PROPERTY OF MENDENHALL SMITH INC. USE OF THIS DRAWING AND ALL REPRODUCTIONS SHALL BE RESTRICTED TO THE ORIGINAL SITE FOR WHICH IT WAS PREPARED AND SHALL NOT BE USED UNLESS PROPERLY SEALED AND APPROVED. PUBLICATION OF THIS DRAWING BY ANY METHOD IN WHOLE OR PART IS PROHIBITED WITHOUT PERMISSION OF MENDENHALL SMITH INC. WHERE A CONTRACTORS NAME APPEARS ON THIS DRAWING, WORK SHALL BE COMPLETED BY SAID CONTRACTOR EXCEPT BY AGREEMENT WITH SAME CONTRACTOR.

REV	DATE	BY	DESCRIPTION
2	03.03.09	PJD	STRUCTURAL COORDINATION

Mendenhall Smith ENGINEERS
3571 Red Rock Street, Suite A
Las Vegas, Nevada 89103
P.702.367.6726
F.702.367.2717

ENGINEER
PHILIP J. DE LA MARE
EXP. 12-31-10
CIVIL
STRUCTURAL
No. 010057
JUN 04 2009

CORONADO
THE PASEOS
LAS VEGAS, NEVADA
FOR
SPINNAKER HOMES

JUN 04 2009

SHEET TITLE:
FRAMING DETAILS

DATE:	FEBRUARY 24, 2009
JOB NO:	03-374.1
DRAWN:	ACD
CHECKED: PJD	FILE: DS062E03374.1
SHEET NO:	S6.2

MECHANICAL SPECIFICATIONS

SPLIT SYSTEM GAS SCHEDULE

(Mark symbol: UNIT MARK / NUMBER)

MARK	AIR FLOW (CFM)	E.S.P. (IN. OF W.G.) (SPEED)	NATURAL GAS INPUT (MBH)	FURNACE ELECTRICAL V/PH	FURNACE ELECTRICAL A	FURNACE MANUFACTURER/ MODEL NUMBER OR EQUAL	COOLING COIL TOTAL COOLING CAP. AT ARI (MBH)	COOLING COIL MANUFACTURER/ MODEL NUMBER OR EQUAL	SYMBOL	CONDENSING UNIT ELECTRICAL V/PH	COMPR LRA	COMPR RLA	FAN FLA	MCA	CONDENSING UNIT MANUFACTURER/ MODEL NUMBER OR EQUAL	REMARKS ⚠1
FAU 1	1,640	0.40 HIGH	80	115/1	1/2	CARRIER 58MTB080-16	45.0	CARRIER CAPMP48	CU 1	230/1	137.0	20.2	1.2	26.4	CARRIER 24ABR348	PROVIDE CONDENSATE PUMP FOR PRIMARY CONDENSATE. FOR SECONDARY CONDENSATE PROVIDE FLOAT SHUT-OFF SWITCH. PROVIDE CONCENTRIC VENT KIT FOR FLUE.
FAU 2	1,410	0.40 MED-HIGH	80	115/1	1/2	CARRIER 58MTB080-16	41.0	CARRIER CAPMP42	CU 2	230/1	104.0	19.2	1.4	24.7	CARRIER 24ABR342	PROVIDE CONDENSATE PUMP FOR PRIMARY CONDENSATE. FOR SECONDARY CONDENSATE PROVIDE FLOAT SHUT-OFF SWITCH. PROVIDE CONCENTRIC VENT KIT FOR FLUE.

FURNACE (90% AFUE); CONDENSING UNIT (13 SEER)

⚠1 SEE PLUMBING PLANS FOR CONDENSATE PIPE ROUTING.

EXHAUST FAN SCHEDULE

(Mark symbol: UNIT MARK / NUMBER)

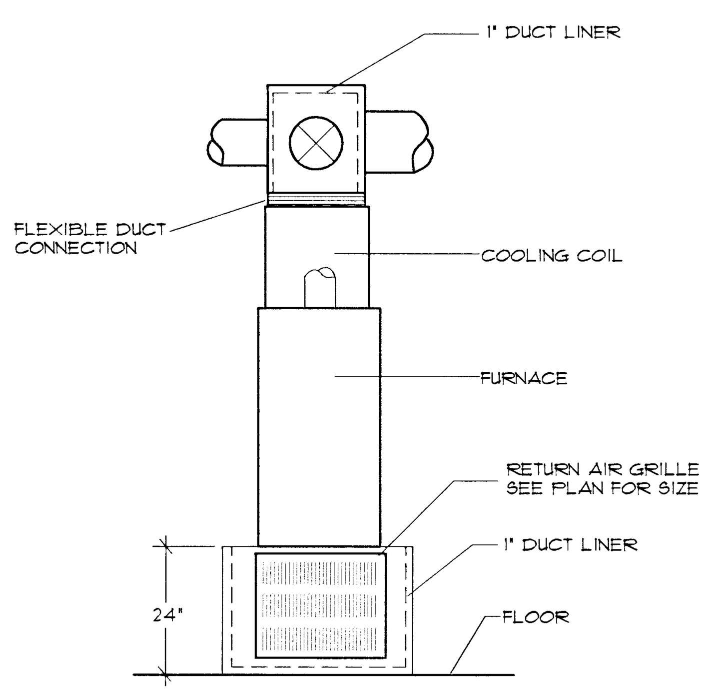
MARK	TYPE	CFM	E.S.P IN W.G.	FAN RPM	ELECTRICAL VOLTS / PHASE / AMPS	MANUFACTURER / MODEL	REMARKS
EF 1	CEILING MOUNTED UTILITY FAN	80	.125	1150	120 / 1 / 0.9	BROAN MODEL S80U	PROVIDE BACKDRAFT DAMPER, ROOF CAP OR WALL CAP W/ BIRD SCREEN AND VENT TO EXTERIOR.
EF 2	CEILING MOUNTED UTILITY FAN	50	.125	1050	120 / 1 / 0.7	BROAN MODEL S50U	PROVIDE BACKDRAFT DAMPER, ROOF CAP OR WALL CAP W/ BIRD SCREEN AND VENT TO EXTERIOR.

⚠2

HEATER SCHEDULE

(Mark symbol: UNIT MARK / NUMBER)

MARK	TYPE	ELECTRICAL VOLTS/PHASE/ MIN. CKT. AMPS	MANUFACTURER / MODEL NUMBER OR EQUAL	WATTS	REMARKS
H 1	WALL MOUNTED	120/1/12.5	QMARK CWH3150	1,500	DO NOT INSTALL HEATER CLOSER THAN 8' FROM FLOOR OR ADJACENT WALL SURFACE.



UPFLOW FURNACE INSTALLATION DETAIL

NO SCALE

1 / M0-0.1

GENERAL

1. THE CONTRACTOR SHALL PROVIDE THE WORK SHOWN ON THE DRAWINGS AND SPECIFIED FOR THEIR INDIVIDUAL SECTIONS OF WORK. THE WORD 'WORK' SHALL MEAN ALL LABOR, TRANSPORTATION, MATERIAL, EQUIPMENT, TOOLS, INSTALLATION, SUPERVISION AND ANY OTHER INCIDENTAL ITEMS OR SERVICES OBVIOUSLY NECESSARY FOR THE PROPER INSTALLATION AND OPERATION OF THE COMPLETE SYSTEMS, WHICH SHALL BE PROVIDED WHETHER OR NOT SPECIFICALLY MENTIONED OR SHOWN.

2. ALL GENERAL CONDITIONS, SPECIAL REQUIREMENTS OR GENERAL REQUIREMENTS OF THE GENERAL CONSTRUCTION SPECIFICATION ARE PART OF THIS SPECIFICATION AND HAVE THE SAME FORCE AND AFFECT AS IF PRINTED HEREIN FULL.

3. THE WORD 'PROVIDE' SHALL MEAN FURNISH AND INSTALL, MAKE ALL FINAL CONNECTIONS AND LEAVE IN AN APPROVED OPERATING CONDITION.

4. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE LATEST EDITION OF THE APPLICABLE UNIFORM BUILDING, MECHANICAL, PLUMBING, ELECTRICAL CODES, AND FEDERAL, STATE, AND LOCAL REGULATIONS.

5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE FOLLOWING: WORKMEN'S IDENTIFICATION AND SAFETY, FIRE PROTECTION, CONTRACTOR'S LIABILITY INSURANCE, SAFETY BARRICADES, WARNING SIGNS AND TRASH REMOVAL.

6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PAYING ALL FEES AND OBTAINING ALL PERMITS AND INSPECTIONS REQUIRED FOR THE WORK.

7. THE CONTRACTOR SHALL CAREFULLY EXAMINE ALL DRAWINGS FOR THE BUILDING AND FOR OTHER TRADES AND SHALL COORDINATE THE WORK WITH ALL OTHER TRADES, INCLUDING BUT NOT LIMITED TO THE CONSTRUCTION DOCUMENTS, SHOP DRAWINGS, ETC. FOR ALL GENERAL CONSTRUCTION, STRUCTURAL, MECHANICAL, AND ELECTRICAL AND SPECIALTY CONTRACTOR WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER FITTING OF MATERIAL INTO THE BUILDING AS PLANNED, WITHOUT INTERFERENCE WITH OTHER WORK, AND SHALL MAKE REASONABLE MODIFICATIONS IN THE LAYOUT AS NEEDED TO PREVENT CONFLICT WITH OTHER TRADES, TO PROVIDE ACCESS AND FOR THE PROPER EXECUTION OF THE WORK.

8. DRAWINGS ARE DIAGRAMMATIC, SMALL SCALE AND INDICATE THE GENERAL ARRANGEMENT OF SYSTEMS AND WORK INCLUDED. CERTAIN COMPONENTS, APPURTENANCES AND RELATED SPECIALTIES ARE NOT SHOWN, AND SHALL BE PROVIDED. IT IS THE INTENT OF THE DRAWING AND SPECIFICATION TO CALL FOR FINISHED WORK, TESTED AND READY FOR OPERATION. DO NOT SCALE DRAWINGS. ARRANGEMENT OF EQUIPMENT AND ROUTING OF PIPES AND DUCTWORK, ETC. INDICATED ON DRAWINGS MAY REQUIRE MODIFICATION DUE TO UNFORSEEN CONDITIONS AND REQUIRED ON SITE REVISIONS DURING CONSTRUCTION (SEE ALSO 'BIDDING').

9. ALL WORK REQUIRED FOR IDENTICAL ITEMS SHOWN ON THE DRAWINGS SHALL BE PROVIDED ALTHOUGH EACH SPECIFIC IDENTICAL ITEM MAY NOT BE SHOWN IN DETAIL.

10. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS AND/OR CATALOG 'CUTS' FOR ALL EQUIPMENT, MATERIALS AND DEVICES FOR REVIEW BY THE ENGINEER. WORK SHALL NOT START UNTIL ALL REVIEWS HAVE BEEN COMPLETED AND THE ITEMS TO BE PROVIDED ARE ACCEPTABLE. ALL MATERIALS AND EQUIPMENT SHALL BE COMMONLY USED ACCEPTABLE GRADES IN THE CONSTRUCTION INDUSTRY AND SHALL BEAR THE 'U.L.' LABEL WHEN APPLICABLE.

11. UPON COMPLETION OF CONSTRUCTION, THE CONTRACTOR SHALL SUPPLY THE ENGINEER WITH FIVE (5) COMPLETE SET OF AS-BUILT DOCUMENTS ACCURATELY SHOWING THE MATERIALS AND EQUIPMENT AS INSTALLED.

12. ALL MATERIALS AND WORKMANSHIP TO BE GUARANTEED FOR MINIMUM OF ONE YEAR FROM DATE OF ACCEPTANCE BY OWNER. REFRIGERATION COMPRESSORS SHALL BE GUARANTEED FOR A MINIMUM OF FIVE YEARS FROM DATE OF OWNER'S ACCEPTANCE. IN ADDITION, THE CONTRACTOR SHALL GUARANTEE THAT THE INSTALLATION WHEN OPERATED IN ACCORDANCE WITH THE CONTRACTOR'S INSTRUCTIONS WILL DEVELOP CAPACITY AND CHARACTERISTICS INDICATED OR SPECIFIED AND WILL FULFILL EACH AND EVERY REQUIREMENT OF THE DRAWINGS AND SPECIFICATIONS, AND SHOULD THE INSTALLATION IN ANY WAY FAIL TO DO SO, THE CONTRACTOR WILL WITHOUT DELAY AND WITHOUT COST TO THE OWNER PROVIDE WHATEVER ADDITIONAL EQUIPMENT, MATERIAL, AND LABOR TO CORRECT THE FAULT AND COMPLY WITH THE REQUIREMENTS OF THE DRAWINGS AND SPECIFICATIONS.

13. CONTRACTOR SHALL CHECK AND VERIFY ALL SIZES, DIMENSIONS, AND CONDITIONS BEFORE STARTING ANY WORK. ANY DEVIATIONS OR PROBLEMS SHALL BE TRANSMITTED TO THE ENGINEER FOR REVIEW.

14. PROVIDE BASE AND COUNTERFLASHING FOR ITEMS PENETRATING THE ROOF.

15. STARTERS AND CONTROLS FOR MOTORS, ETC. TO BE FURNISHED BY MECHANICAL CONTRACTOR. ELECTRICAL CONTRACTOR TO INSTALL THE AFOREMENTIONED ITEMS, AND FURNISH ALL POWER WIRING. ALL CONTROL AND INTERLOCKING WIRING TO BE FURNISHED AND INSTALLED BY MECHANICAL CONTRACTOR.

16. ALL WORK SHOWN IS NEW UNLESS NOTED AS EXISTING.

17. MAINTAIN OCCUPANCY AND FIREWALL SEPARATION INTEGRITY AS REQUIRED. REFER TO ARCHITECTURAL PLANS FOR LOCATIONS OF ALL OCCUPANCY/FIREWALL SEPARATIONS AND SPECIFIC DETAILS FOR CONSTRUCTION. PROVIDE ALL NECESSARY FIRE DAMPERS, ACCESS DOORS, CAULKING, ETC.. FOR APPROVED INSTALLATION.

BIDDING

1. SUBMISSION OF A BID PROPOSAL, DIRECTLY OR INDIRECTLY BY THE CONTRACTOR FOR THIS WORK, SHALL IMPLY THAT THE BIDDER HAS EXAMINED THE JOB SITE AND UNDERSTANDS THE CONDITIONS THAT MAY AFFECT THE PERFORMANCE OF THE WORK. CONTRACTOR IS EXPECTED TO CONTACT ARCHITECT FOR ANY PARTICULAR PROBLEMS AND CLEAR UP ANY POSSIBLE MISUNDERSTANDING BEFORE BID IS SUBMITTED. NO CONSIDERATION OR ALLOWANCE WILL BE GRANTED FOR ANY ALLEGED MISUNDERSTANDING OF THE CONTRACT DOCUMENTS AND THE WORK TO BE ACCOMPLISHED.

2. BASE PROPOSAL ON MANUFACTURERS NAME UNLESS 'OR EQUAL' IS INDICATED.

EXECUTION

1. THE CONTRACTOR SHALL PROVIDE ALL SLEEVES, OPENINGS, CUTTING AND PATCHING NECESSARY FOR THE INSTALLATION OF THE WORK. CUTTING AND PATCHING SHALL BE DONE BY WORKMEN SKILLED IN THE TRADES REQUIRED AND PAID BY THE CONTRACTOR REQUIRING THE WORK COMPLETED.

2. THE CONTRACTOR SHALL PROVIDE ALL RIGGING, HANDLING OF MATERIALS AND EQUIPMENT, AND THE NECESSARY PROTECTION FOR MATERIALS AND EQUIPMENT.

3. TOOLS AND EQUIPMENT WILL BE STORED IN OWNER DESIGNATED AREAS ONLY.

4. THE CONTRACTOR WILL PROTECT THE WORK AND MATERIAL AGAINST DIRT, THEFT, INJURY OR DAMAGE UNTIL ACCEPTED BY OWNER. ALL WORK SHALL BE TURNED OVER TO OWNER CLEAN AND IN PERFECT CONDITION READY FOR SATISFACTORY SERVICE.

5. PIPES AND/OR CONDUITS PASSING THROUGH WALL, FLOORS AND PARTITIONS SHALL BE PROVIDED WITH SLEEVES. SLEEVES PASSING THROUGH WATER PROOFING OR DAMP PROOFING SHALL BE WATER TIGHT. SLEEVES PASSING THROUGH FIRE RATED CONSTRUCTION SHALL BE FIRE PROOFED WITH MATERIAL APPROVED FOR THE RATING OF THE STRUCTURE AND U.L. LISTED.

6. EACH CONTRACTOR SHALL PROVIDE ALL FOUNDATIONS, HANGERS, AND SUPPORTS FOR ALL EQUIPMENT SUPPLIED AND/OR INSTALLED UNDER THEIR WORK. ANY EQUIPMENT WITH MOVING PARTS SHALL BE PROVIDED WITH VIBRATION ISOLATION.

7. ALL EQUIPMENT SHALL BE PROVIDED WITH FACTORY FINISH. ALL REQUIRED PAINTING WILL BE PERFORMED UNDER THE GENERAL CONSTRUCTION SECTION OF THE SPECIFICATIONS.

8. WHERE PIPES OR CONDUITS PASS THROUGH WALLS, FLOORS, OR CEILINGS IN FINISHED AREAS, THEY SHALL BE FURNISHED WITH CHROME PLATED ESCUTCHEON PLATES.

9. AT THE CONCLUSION OF THE JOB, EACH PIECE OF EQUIPMENT, VALVE, SWITCH, STARTER, PANEL, PIPE LINE, CONDUIT, ETC., SHALL BE CLEARLY IDENTIFIED WHETHER EXPOSED OR CONCEALED, COVERED OR UNCOVERED, IN ACCORDANCE WITH OSHA AND ANSI REGULATIONS. IDENTIFY PIPES NEAR EACH VALVE WITH 'BRANDY-PERMA' CODE PIPE TAPE' OR T. & B. WESTLINE 'TEL-A-PIPE' INDICATING DIRECTION OF FLOW, SERVICE, ZONE, AND SIZE. TAPE SHALL BE APPLIED TO PIPE, CONDUIT, OR COVERING. VALVES, CONTROLS, AND DAMPERS SHALL BE IDENTIFIED BY 2-INCH LACQUERED BRASS TAGS WITH STAMPED LETTERS FASTENED WITH 'S' HOOKS OR CHAINS. EQUIPMENT IS TO BE IDENTIFIED AS TO FUNCTION AND PURPOSE BY MEANS OF PERMANENTLY ATTACHED LAMINATED PHENOLIC NAMEPLATES WITH BEVELED EDGES, AND WHITE LETTERS ON BLACK BACKGROUND.

10. AT THE CONCLUSION OF THE WORK, ALL EQUIPMENT AND SYSTEMS SHALL BE CAREFULLY BALANCED, ADJUSTED, AND TESTED TO PROVIDED BALANCED, QUIET-OPERATING, STABLE AND SAFE SYSTEMS. DEMONSTRATE OPERATION OF ALL SYSTEMS TO THE OWNER'S DESIGNATED REPRESENTATIVE.

HVAC

PRODUCTS

1. PROVIDE BALANCING DAMPERS AT EACH SUPPLY AIR CONNECTING TO MAIN DUCTS AND WHEREVER NECESSARY TO FACILITATE AIR BALANCING OF THE DUCT SYSTEM.

2. SEAL ALL DUCT PENETRATIONS THROUGH WALLS, FLOOR AND ROOF. SEAL ALL TRANSVERSE DUCT SEAMS WITH APPROVED MASTIC. DUCT TAPES SHALL NOT BE ALLOWED FOR RIGID DUCTWORK.

3. ALL DUCTWORK SIZES SHOWN ARE FREE AREA DIMENSIONS. ALL ROUND SUPPLY AND RETURN DUCTWORK SHALL BE FLEXIBLE INSULATED WITH R-6 LOW DENSITY DUCT WRAP. EXHAUST DUCTWORK SHALL BE UNINSULATED. DUCTWORK INTERIOR BEHIND DEVICES SHALL BE PAINTED FLAT BLACK.

4. LINE ALL RECTANGULAR DUCTWORK WITH 1" THICK, 1 1/2# DENSITY DUCT LINER. LINING SHALL BE APPLIED TO DUCTWORK WITH FIRE RESISTIVE ADHESIVES, FOSTER 85-10 OR EQUAL AND COPPER OR CADMIUM PLATED MECHANICAL FASTENERS, GRAHAM, OMARK OR EQUAL.

5. FLEXIBLE DUCTWORK, WHERE INDICATED ON THE DRAWINGS SHALL BE INSULATED, WITH PLASTIC VAPOR BARRIER AT INTERIOR AND EXTERIOR, STEEL WIRE COIL REINFORCED. JOINTS SHALL BE BAND-CLAMPED AND TAPE SEALED TO MAINTAIN INTEGRITY OF VAPOR BARRIER. FLEXIBLE INSTALLATION SHALL BE SUPPORTED TO ELIMINATE SAGS.

6. BALANCE ALL DUCTS, DIFFUSERS, AND GRILLES TO OBTAIN THE AIR QUANTITIES AS SHOWN ON PLANS.

7. IN READINGS AND TESTS OF DIFFUSERS, INCLUDE DESIGN AIR QUANTITIES AND AIR QUANTITIES AFTER ADJUSTMENTS. FURNISH OWNER'S REPRESENTATIVE WITH THREE COPIES OF THE FINAL REPORT.

SYMBOL LIST

SYMBOL	ABBR.	DESCRIPTION
	S/A	SUPPLY AIR
	R/A	RETURN AIR
		THERMOSTAT
		SWITCH
		EXHAUST FAN
		ZONE DAMPER
		BYPASS DAMPER

COMFORT ENGINEERING
'COMFORT BY DESIGN'
MECHANICAL • ELECTRICAL • PLUMBING
9175 WEST FLAMINGO ROAD, LAS VEGAS, NEVADA 89147
TEL. (702) 367-0892 FAX 367-1076

STATE OF NEVADA PROFESSIONAL ENGINEER
JOHN D. SPARGO
Exp. 6-30-10
MECHANICAL No. 8943
5/21/09

Project Name:
CORONADO
THE PASEOS
LAS VEGAS, NEVADA

Sheet Name:
MECHANICAL SPECIFICATIONS AND DETAILS

Revisions:

No.	Date	Description	By
1	3/10/09	BLDG. DEPT. COMMENTS.	JDS
2	5/19/09	BLDG. DEPT. COMMENTS.	JDS

RECEIVED
JUN 05 2009

MECH
Job # 09-0003
Checked by: JDS
Drawn by: PM
Date: 01/22/09
Sheet:
M0-0.1

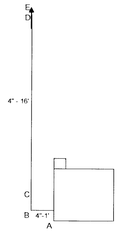
DRYER VENT PRESSURE DROP CALCULATION

BUILDER: SPINNAKER HOMES
PROJECT: CORONADO
PLAN NO.: UNIT A2

SECTION	ITEM	SIZE (inches)	LENGTH (feet)	f/FEET or "C"	VELOCITY (fpm)	VELOCITY PRESSURE (in. W.G.)	PRESSURE DROP (in. W.G.)
A-B	DUCT	4	1.0	0.0100	1400		0.010
B	ELBOW	4		0.3700	1400	0.12	0.044
B-C	DUCT	4	16.0	0.0100	1400		0.160
D	OUTLET	4		0.5500	1400	0.12	0.066
							0.000
							0.000

TOTAL: 0.280

MAXIMUM PRESSURE DROP
LESS THAN 0.30 INCHES W.G.



CORONADO - UNIT A2 - SPINNAKER HOMES

1305 sq ft

COOLING

SURFACE	H.T.M.	ENT/LIVING		DINING		KITCHEN		BED 2		BATH 2		MSTR BED		MSTR WC		TOILET RM		MSTR BATH	
WALL	4.3	376	1616.8	162	696.6			223	958.9			123	528.9			32	137.6	183	786.9
GLASS w	91	15	1365					20	1820			30	2730					8.75	796.25
east	67																		
north	31																		
shaded	31	30	930	54	1674														
south	52	45	2340																
northeast	46																		
northwest	68																		
southeast	66																		
southwest	83																		
DOORS	19	20	380																
SKYLIGHT	102																		
CEILING flat	1.6	340	544	138	220.8	152	243.2	184	294.4	60	96	215	344	54	86.4	20	32	46	73.6
vertical	3.5																		
FLOOR	2	340	680	138	276	152	304	184	368	60	120	215	430	54	108	20	40	46	92
PEOPLE	300	4	1200																
COOKING/EQUIP	1200					1	1200			0.21	256.1							0.25	300
			9055.8		2867		1747		3441		472.1		4033		194.4		209.6		2048.8

HEAT LOSS AND GAIN CALCULATIONS
AS PER ASHRAE CHAPTER 28 USING:
110 DEG. Outside Design Temp.-Summer
50 Deg. Design Temp. Difference-Winter
Walls R= 13
Ceiling R= 30
Floor R= 19
Glass--Double X ___ Single ___

ROOM HEAT TOTAL LOSS 22061 **BTU/HR**
VENTILATION CFM 55x 40 2200
Subtotal 24261
ADD 10% DUCT LOSS 2426.1
TOTAL HEAT LOSS 26688 **BTU/HR**

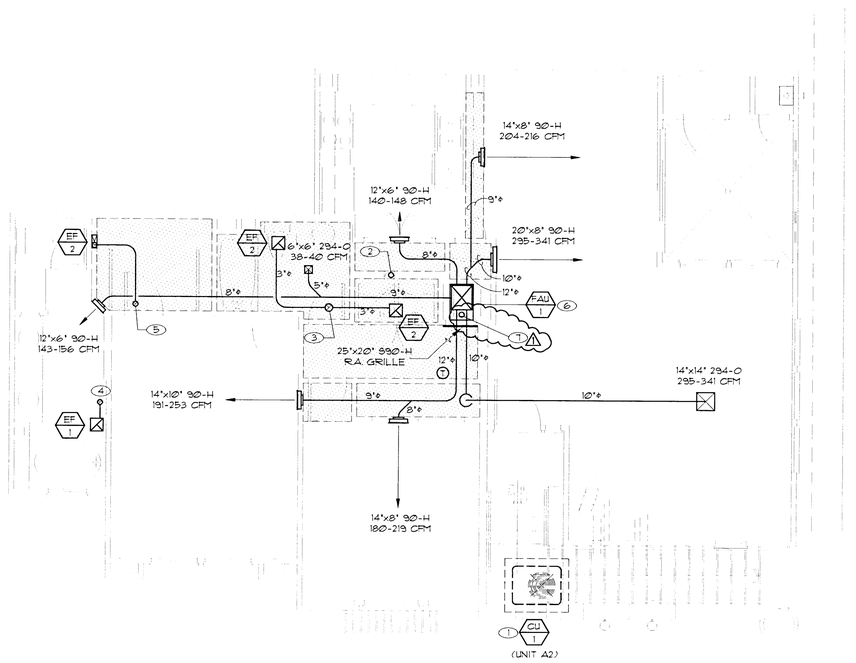
ROOM SENSIBLE HEAT 24069 **BTU/HR**
VENTILATION CFM 38X 40 1520
Subtotal 25589
ADD 10% DUCT LOSS 2558.9
GRAND SENSIBLE HEAT 28148
TOTAL HEAT GAIN (G.S.H.x1.3)= 36593
A.R.I. UNIT SIZE FOR 30EG. TEMP. SWING (T.H.G.x1.2) 43911
MIN. FHA CAPACITY (SIZEx.95)= 41716 **BTU/HR**
MAX. CAPACITY (SIZEx1.15)= 50496 **BTU/HR**

HEATING

SURFACE	H.T.M.	ENT/LIVING		DINING		KITCHEN		BED 2		BATH 2		MSTR BED		MSTR WC		TOILET RM		MSTR BATH	
WALL	2.5	376	940	162	405			223	557.5			123	307.5			32	80	183	457.5
GLASS	50	90	4500					20	1000			30	1500					8.75	437.5
DOORS w ood	120	20	2400																
glass	100			54	5400														
CEILING flat	1.6	340	544	138	220.8	152	243.2	184	294.4	60	96	215	344	54	86.4	20	32	46	73.6
vertical	3																		
FLOOR garage	2	340	680			152	304	184	368	60	120	215	430	54	108	20	40	46	92
perimeter	45																		
			9064		6026		547.2		2220		216		2582		194.4		152		1060.6

UNIT CFM = 1600

EAST-WEST	590	204	140	219	38	237	16	17	139		
NORTH-SOUTH	681	216	148	180	40	174	17	18	125		



(UNIT A2)

UNIT A2

SCALE: 1/4" = 1'-Ø"

M1-1

NOTICE

1. CEILING DIFFUSERS, REGISTERS AND GRILLES J & J TYPE.
2. LINE RECTANGULAR DUCT UNLESS INDICATED OTHERWISE W/ MINIMUM R-6.Ø UNLESS COMPLETELY LOCATED INSIDE BUILDING. THERMAL ENVELOPE.
3. DUCT WORK TO BE CLASS 1 FLEXIBLE DUCT INSULATED WITH MINIMUM R-6.Ø UNLESS COMPLETELY LOCATED INSIDE BUILDING. THERMAL ENVELOPE.
4. ANY DUCT PENETRATING FIRE SEPARATION SHALL BE 26 GAUGE GALVANIZED STEEL.
5. DUCT WORK AS PER ASHRAE STANDARDS.
6. RUN 3/4" CONDENSATE LINE FROM COOLING COIL OUTSIDE AND DOWN TO THE GROUND. RUN 3/4 AUXILIARY DRAIN TO DISCHARGE AT EXTERIOR ENTRY, ABOVE OTHER EXTERIOR DOOR LANDING OR WINDOW.
8. INSULATE SUCTION LINES W/ MIN. R-2, PER 2006 IECC SECTION 403.3
9. PROVIDE ATTIC ACCESS, ATTIC LIGHT, CAT WALK, COMBUSTION AIR AND VENT FURNACE AS REQUIRED BY CODE.
10. IF REQUIRED, VENT KITCHEN HOOD TO EXTERIOR PER MANUFACTURER'S RECOMMENDATIONS.

SHEET NOTES:

1. CONDENSING UNIT UNDER STAIRS
2. 4"ø DRYER VENT UP THRU ROOF TO AN APPROVED VENT CAP.
3. 5"ø EXHAUST DUCT UP THRU ROOF TO AN APPROVED VENT CAP.
4. 4"ø EXHAUST DUCT UP THRU ROOF TO AN APPROVED VENT CAP.
5. 3"ø EXHAUST DUCT UP THRU ROOF TO AN APPROVED VENT CAP.
6. SEE DETAIL 1/M0-01

⚠1 VENT UP THROUGH ROOF.

PLANS APPROVED
PLUMBING/MECHANICAL
Building & Safety
City of Las Vegas
EDS MAR 18 2009
Does Not Include Any Electrical, Electrical Grounding or Fire Alarm
Improvements Shown Are Conceptual Only
Without Approved Plans
Not a Permit to Violate Any Ordinance

RECEIVED
MAR 17 2009
CITY OF LAS VEGAS
PERMITS

COMFORT ENGINEERING
"COMFORT BY DESIGN"
MECHANICAL · ELECTRICAL · PLUMBING
9175 WEST FLAMINGO ROAD, LAS VEGAS, NEVADA 89147
TEL. (702) 387-0992 FAX 387-1076

STATE OF NEVADA
REGISTERED PROFESSIONAL ENGINEER
JOHN D. SPARCO
Exp. 6-30-10
MECHANICAL
No. 9348
3/10/09

Project Name:
CORONADO
THE PASEOS
LAS VEGAS, NEVADA

Sheet Name:
UNIT A2
MECHANICAL PLAN

Revisions:			
No.	Date	Description	By
⚠1	3/10/09	BLDG. DEPT. COMMENTS	JDS

Job # 09-0003
Checked by: JDS
Drawn by: RM
Date: 01/22/09
Sheet:
M1-1.1

CORONADO - UNIT B1 - SPINNAKER HOMES

1475 sq ft

COOLING

SURFACE	H.T.M	MSTR BED		MSTR BATH		TOILET RM		LAUNDRY		BATH 2		DEN/BED 2		ENT/LIVING		DINING		KITCHEN	
WALL	4.3	228	980.4			65	279.5	104	447.2	81	348.3	161	692.3	372	1599.6	66	283.8	97	417.1
GLASS w	91	29	2639											60	5460				
east	67											15	1005	7	469				
north	31																		
shaded	31															40	1240	17.5	542.5
south	52																		
northeast	46																		
northwest	68																		
southeast	66																		
southwest	83																		
DOORS	19							18	342					20	380				
SKYLIGHT	102																		
CEILING flat	1.6																		
vertical	3.5																		
FLOOR	2																		
PEOPLE	300													6	1800				
COOKING/EQUIP	1200			0.43	512.2			0.25	300	0.21	256.1							1	1200
			3619.4		512.2		279.5		1089		604.4		1697		9708.6		1523.8		2159.6

HEAT LOSS AND GAIN CALCULATIONS
AS PER ASHRAE CHAPTER 28 USING:
110 DEG Outside Design Temp.-Summer
50 Deg. Design Temp. Difference-Winter
Walls R= 13
Ceiling R= 30
Floor R= 19
Glass--Double X Single

ROOM HEAT TOTAL LOSS 17920 BTU/HR
VENTILATION CFM .55x 60 3300
Subtotal 21220
ADD 10% DUCT LOSS 2122
TOTAL HEAT LOSS 23342 BTU/HR

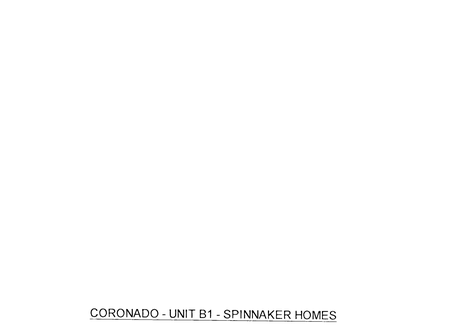
ROOM SENSIBLE HEAT 21194 BTU/HR
VENTILATION CFM .38X 60 2280
Subtotal 23474
ADD 10% DUCT LOSS 2347.4
GRAND SENSIBLE HEAT 25821
TOTAL HEAT GAIN (G.S.H.x1.3)= 33568
A.R.I. UNIT SIZE FOR 3 DEG. TEMP. SWING (T.H.G.x1.2) 40281
MIN. P/A CAPACITY (SIZEx.95)= 38267 BTU/HR
MAX. CAPACITY (SIZEx1.15)= 46325 BTU/HR

HEATING

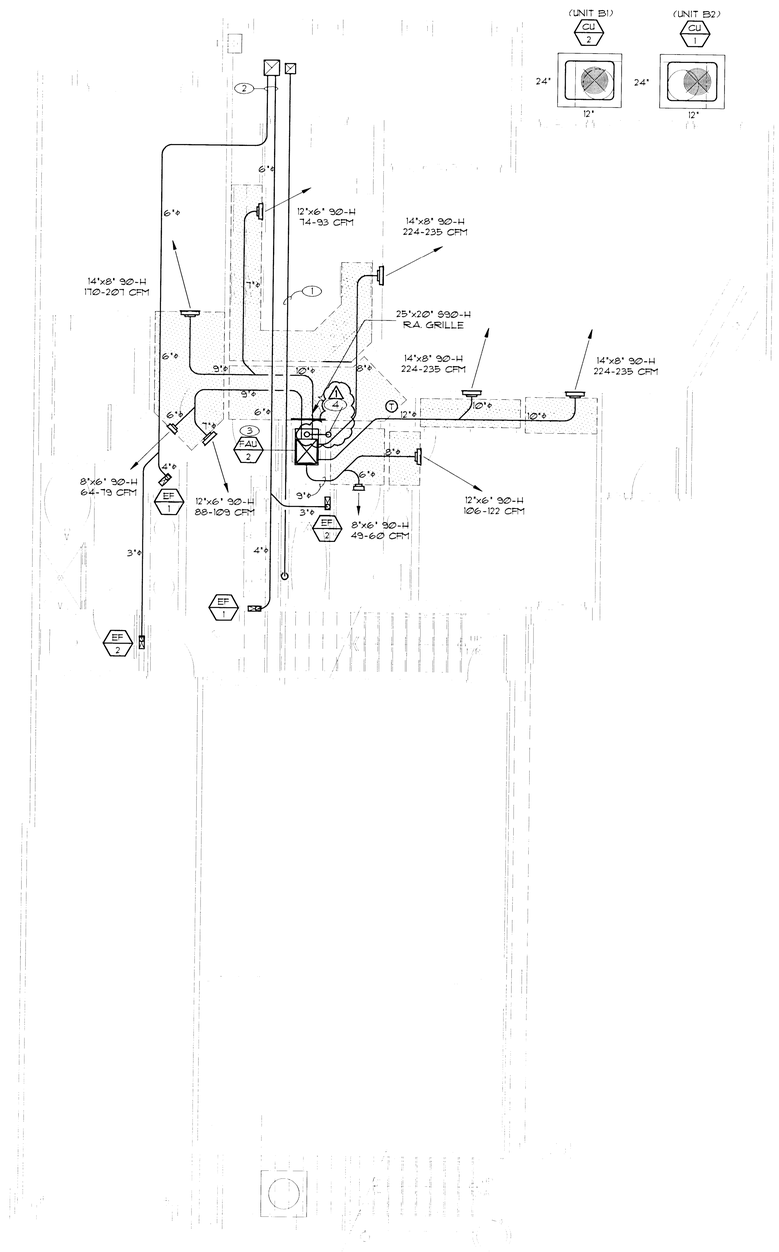
SURFACE	H.T.M	MSTR BED		MSTR BATH		TOILET RM		LAUNDRY		BATH 2		DEN/BED 2		ENT/LIVING		DINING		KITCHEN	
WALL	2.5	228	570			65	162.5	104	260	81	202.5	161	402.5	372	930	66	165	97	242.5
GLASS	50	29	1450									15	750	67	3350			17.5	875
DOORS wood	120							18	2160					20	2400				
glass	100															40	4000		
CEILING flat	1.6																		
vertical	3																		
FLOOR garage	2																		
perimeter	45																		
			2020				162.5		2420		202.5		1153		6680		4165		1117.5

UNIT CFM = 1400

EAST-WEST	207	41	23	88	49	122	601	103	165		
NORTH-SOUTH	170	51	28	109	60	106	543	128	205		



DEN OPTION
SCALE: 1/4" = 1'-0"
B M1-2.1



UNIT B1
SCALE: 1/4" = 1'-0"
A M1-2.1

NOTICE

1. CEILING DIFFUSERS, REGISTERS AND GRILLES J & J TYPE.
2. LINE RECTANGULAR DUCT UNLESS INDICATED OTHERWISE W/ MINIMUM R-6.0 UNLESS COMPLETELY LOCATED INSIDE BUILDING. THERMAL ENVELOPE.
3. DUCT WORK TO BE CLASS 1 FLEXIBLE DUCT INSULATED WITH MINIMUM R-6.0 UNLESS COMPLETELY LOCATED INSIDE BUILDING. THERMAL ENVELOPE.
4. ANY DUCT PENETRATING FIRE SEPARATION SHALL BE 26 GAUGE GALVANIZED STEEL.
5. DUCT WORK AS PER ASHRAE STANDARDS.
6. RUN 3/4" CONDENSATE LINE FROM COOLING COIL OUTSIDE AND DOWN TO THE GROUND. RUN 3/4 AUXILIARY DRAIN TO DISCHARGE AT EXTERIOR ENTRY, ABOVE OTHER EXTERIOR DOOR LANDING OR WINDOW.
8. INSULATE SUCTION LINES W/ MIN. R-2, PER 2006 IECC SECTION 403.3
9. PROVIDE ATTIC ACCESS, ATTIC LIGHT, CAT WALK, COMBUSTION AIR AND VENT FURNACE AS REQUIRED BY CODE.
10. IF REQUIRED, VENT KITCHEN HOOD TO EXTERIOR PER MANUFACTURER'S RECOMMENDATIONS.

SHEET NOTES:

1. 6"ø DRYER VENT TO AN APPROVED VENT TERMINATION
2. 6" EXHAUST DUCTS INTO AN APPROVED TERMINATION
3. SEE DETAIL 1/M2-21
4. VENT UP TROUGH ROOF. SEE M3.1 FOR CONTINUATION.

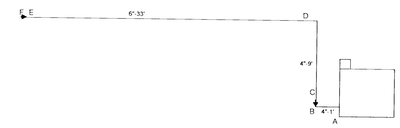
DRYER VENT PRESSURE DROP CALCULATION

BUILDER: SPINNAKER HOMES
TRACT: CORONADO
PLAN NO: UNIT B1

SECTION	ITEM	SIZE (inches)	LENGTH (feet)	f/FEET or "C"	VELOCITY (fpm)	VELOCITY PRESSURE (inches W.G.)	PRESSURE DROP (inches W.G.)
A-B	DUCT	4	1.0	0.0100	1400		0.010
B	ELBOW	4		0.3700	1400	0.12	0.044
C	DUCT	4	9.0	0.0100	1400	0.12	0.001
C-D	TRANSITION	4 TO 6		0.0500	1400		0.010
D	ELBOW	6		0.3700	625	0.03	0.011
D-E	DUCT	6	33.0	0.0013	625		0.043
E-F	TRANSITION	4 TO 6		0.0500	1400	0.12	0.006
F	OUTLET	4		0.5500	1400	0.12	0.066
							0.000
							0.000

TOTAL: 0.192

MAXIMUM PRESSURE
DROP 0.30 INCHES W.G.



PLANS APPROVED
PLUMBING/MECHANICAL
Building & Safety Dept.
City of Las Vegas, Nevada
EDS MAR 18 2008
Does Not Include Architectural, Electrical, Structural or Other
Improvements Which Are Shown
Without Approval Plans Is
Not a Permit to Violate Any Ordinance

RECEIVED
MAR 11 2008
CITY OF LAS VEGAS
PERMITS

COMFORT ENGINEERING
"COMFORT BY DESIGN"
MECHANICAL • ELECTRICAL • PLUMBING 89147
9175 WEST FLAMINGO ROAD, LAS VEGAS, NEVADA
TEL. (702) 387-0892 FAX 387-1076

STATE OF NEVADA — PROFESSIONAL ENGINEER — STEVEN M. DOTY — No. 8943 — Exp. 6-30-10 — MECHANICAL — 3/10/09

Project Name:
CORONADO
THE PASEOS
LAS VEGAS, NEVADA

Sheet Name:
UNIT B1
MECHANICAL PLAN

Revisions:

No.	Date	Description	By
1	3/20/09	BLDG DEPT. COMMENTS	JDS

MECH
Job # 09-0003
Checked by: JDS
Drawn by: EM
Date: 01/22/09
Sheet:
M1-2.1

CORONADO - UNIT B2 - SPINNAKER HOMES

1520 sq ft

COOLING

SURFACE	H.T.M.	MSTR BED		MSTR WIC		MSTR BATH		TOILET RM		LAUNDRY		STAIR		BATH 2		BED 2/DEN		ENT/LIVING		DINING		KITCHEN	
WALL	4.3	228	980.4									51	219.3			161	692.3	376	1616.8	66	283.8	97	417.1
GLASS w	91	30	2730													15	1365	60	5460				
east	67																	10.5	703.5				
north	31																						
shaded	31																			40	1240	18	542.5
south	52											15	780										
northeast	46																						
northwest	68																						
southeast	66																						
southwest	83																						
DOORS	19											20	380										
SKYLIGHT	102																						
CEILING flat	1.6	231	369.6	78	124.8	135	216	30	48	108	172.8	70	112	93	148.8	190	304	335	536	131	209.6	160	256
vertical	3.5																						
FLOOR	2																						
PEOPLE	300																	6	1800				
COOKING/EQUIP	1200					0.4	512.2			0.25	300			0.21	256.01							1	1200
			4080		124.8		728.2		48		472.8		1491		404.81		2361.3		10116		1733		2416

HEAT LOSS AND GAIN CALCULATIONS
AS PER ASHRAE CHAPTER 28 USING:
110 DEG Outside Design Temp - Summer
50 Deg. Design Temp. Difference-Winter
Walls Rx 13
Ceiling Rx 30
Floor Rx 19
Glass - Double X Single ____

ROOM HEAT TOTAL LOSS 18745 BTU/HR
VENTILATION CFM 55x 60 3300
Subtotal 22045
ADD 10% DUCT LOSS 2204.5
TOTAL HEAT LOSS 24250 BTU/HR

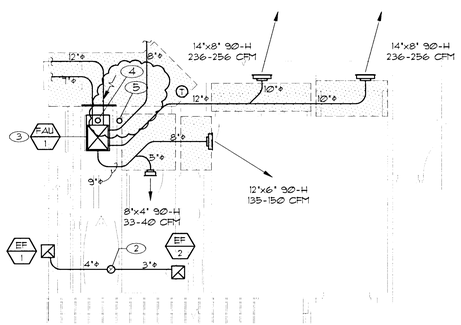
ROOM SENSIBLE HEAT 23976 BTU/HR
VENTILATION CFM 38X 60 2280
Subtotal 26256
ADD 10% DUCT LOSS 2625.6
GRAND SENSIBLE HEAT 28882
TOTAL HEAT GAIN (Q.S.H x1.3) 37547
A.R.I. UNIT SIZE FOR 3DEG TEMP. SWING (T.H.G x1.2) 45056
MIN. FHA CAPACITY (52Ex.95) 42803 BTU/HR
MAX. CAPACITY (52Ex1.15)= 51815 BTU/HR

HEATING

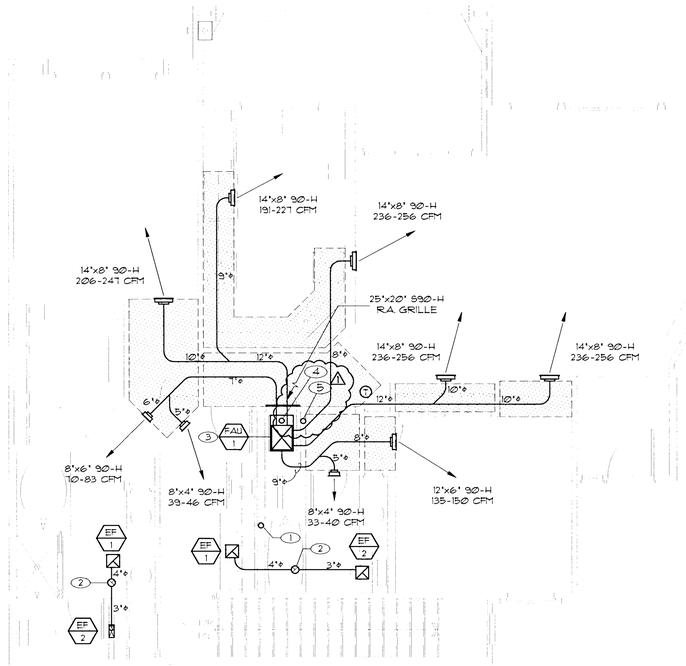
SURFACE	H.T.M.	MSTR BED		MSTR WIC		MSTR BATH		TOILET RM		LAUNDRY		STAIR		BATH 2		BED 2/DEN		ENT/LIVING		DINING		KITCHEN	
WALL	2.5	228	570									51	127.5			161	402.5	376	940	66	165	97	242.5
GLASS	50	30	1500									15	750			15	750	70.5	3525			18	875
DOORS wood	120											20	2400										
glass	100																			40	4000		
CEILING flat	1.6	231	369.6	78	124.8	135	216	30	48	108	172.8	70	112	93	148.8	190	304	335	536	131	209.6	160	256
vertical	3																						
FLOOR garage	2																						
perimeter	45																						
			2439.6		124.8		216		48		172.8		3390		148.8		1456.5		5001		4375		1374

UNIT CFM = 1600

EAST-WEST	247	10	60	4	39	96	33	150	646	123	191	
NORTH-SOUTH	206	12	71	5	46	151	40	135	561	147	227	



DEN OPTION
SCALE: 1/4" = 1'-0"
B M1-3.1



UNIT B2
SCALE: 1/4" = 1'-0"
A M1-3.1

NOTICE

1. CEILING DIFFUSERS, REGISTERS AND GRILLES J & J TYPE.
2. LINE RECTANGULAR DUCT UNLESS INDICATED OTHERWISE W/ MINIMUM R-6.0 UNLESS COMPLETELY LOCATED INSIDE BUILDING. THERMAL ENVELOPE.
3. DUCT WORK TO BE CLASS 1 FLEXIBLE DUCT INSULATED WITH MINIMUM R-6.0 UNLESS COMPLETELY LOCATED INSIDE BUILDING. THERMAL ENVELOPE.
4. ANY DUCT PENETRATING FIRE SEPARATION SHALL BE 26 GAUGE GALVANIZED STEEL.
5. DUCT WORK AS PER ASHRAE STANDARDS.
6. RUN 3/4" CONDENSATE LINE FROM COOLING COIL OUTSIDE AND DOWN TO THE GROUND. RUN 3/4 AUXILIARY DRAIN TO DISCHARGE AT EXTERIOR ENTRY, ABOVE OTHER EXTERIOR DOOR LANDING OR WINDOW.
8. INSULATE SUCTION LINES W/ MIN. R-2, PER 2006 IECC SECTION 403.3
9. PROVIDE ATTIC ACCESS, ATTIC LIGHT, CAT WALK, COMBUSTION AIR AND VENT FURNACE AS REQUIRED BY CODE.
10. IF REQUIRED, VENT KITCHEN HOOD TO EXTERIOR PER MANUFACTURER'S RECOMMENDATIONS.

SHEET NOTES:

1. 4"ø DRYER VENT UP THRU ROOF TO AN APPROVED VENT CAP.
2. 6"ø EXHAUST DUCT UP THRU ROOF TO AN APPROVED VENT CAP.
3. SEE DETAIL 1/M0-01
4. VENT UP THROUGH ROOF.
5. VENT FROM FIRST FLOOR UP THROUGH ROOF.

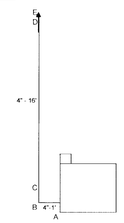
DRYER VENT PRESSURE DROP CALCULATION

BUILDER: SPINNAKER HOMES
PROJECT: CORONADO
PLAN NO.: UNIT B2

SECTION	ITEM	SIZE (inches)	LENGTH (feet)	f/FEET or "C"	VELOCITY (fpm)	VELOCITY PRESSURE (In. W.G.)	PRESSURE DROP (In. W.G.)
A-B	DUCT	4	1.0	0.0100	1400		0.010
B	ELBOW	4		0.3700	1400	0.12	0.044
B-C	DUCT	4	16.0	0.0100	1400		0.160
D	OUTLET	4		0.5500	1400	0.12	0.066
							0.000
							0.000

TOTAL: 0.280

MAXIMUM PRESSURE DROP
LESS THAN 0.30 INCHES W.G



PLANS APPROVED
PLUMBING/MECHANICAL
Building & Safety Dept.
City of Las Vegas, Nevada

EDS MAR 18 2009

Does Not Include Architectural, Electrical, Structural or Civil
Improvements Make No Change
Where's Approval Required
Not a Permit to Violate Any Ordinance

RECEIVED
MAR 11 2009
CITY OF LAS VEGAS
PERMITS

COMFORT ENGINEERING
"COMFORT BY DESIGN"
MECHANICAL - ELECTRICAL - PLUMBING
9115 WEST FLAMINGO ROAD, LAS VEGAS, NEVADA 89147
TEL. (702) 587-0892 FAX 587-1078

STATE OF NEVADA — PROFESSIONAL ENGINEER — JOHN D. SPARGO — Exp. 6-30-10 — No. 8945

Project Name:
CORONADO
THE PASEOS
LAS VEGAS, NEVADA

Sheet Name:
UNIT B2
MECHANICAL PLAN

Revisions:

No.	Date	Description	By
1	3/10/09	BLDG. DEPT. COMMENTS.	JDS

MECH
Job # 09-0003
Checked by: JDS
Drawn by: RM
Date: 01/22/09
Sheet:
M1-3.1

CORONADO - UNIT C1 - SPINNAKER HOMES

1793 sq ft

COOLING

SURFACE	H.T.M	MSTR BED		TOILET RM		MSTR BATH		LAUNDRY		BATH 2		BED 2		DEN/BED 3		ENT/LIVING		DINING		KITCHEN	
WALL	4.3 * *****	87	374.1	32	137.6	88	378.4	41	176.3	135	580.5	202	868.6	97	417.1	279	1199.7	129	554.7		
GLASS w	91 * *****											30	2730	25	2275	7.5	682.5				
east	67 * *****																				
north	33 * *****																				
shaded	31 * *****	15	465													20	620	20	620		
south	52 * *****	15	780													20	1040	20	1040		
northeast	46 * *****																				
northwest	68 * *****																				
southeast	66 * *****																				
southwest	83 * *****																				
DOORS	19 * *****							20	380							20	380				
SKYLIGHT	102 * *****																				
CEILING flat	1.6 * *****																				
vertical	3.5 * *****																				
FLOOR	2 * *****																				
PEOPLE	300 * ******															6	1800				
COOKING/EQUIP	1200 * ****							0.25	300	0.21	256.1									1	1200
			1619.1		137.6		378.4		856.3		836.6		3599		2692.1		5722.2		2214.7		1200

HEAT LOSS AND GAIN CALCULATIONS
AS PER ASHRAE CHAPTER 25 USING:
110 DEG Outside Design Temp.- Summer
50 Deg. Design Temp. Difference-Winter
Walls Rs: 13
Ceiling Rs: 30
Floor Rs: 19
Glass--Double X Single

ROOM/HEAT TOTAL LOSS 18150 **BTU/HR**
VENTILATION CFM 55x 60 3300
Subtotal 21450
ADD 10% DUCT LOSS 2145
TOTAL HEAT LOSS 23595 **BTU/HR**

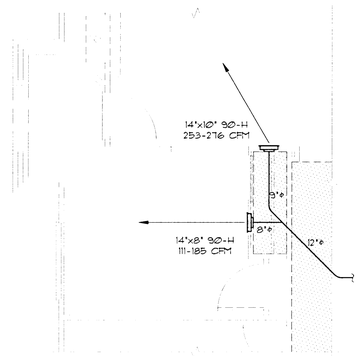
ROOM SENSIBLE HEAT 19256 **BTU/HR**
VENTILATION CFM 38X 60 2280
Subtotal 21536
ADD 10% DUCT LOSS 2153.6
GRAND SENSIBLE HEAT 23689
TOTAL HEAT GAIN (G.S.H.x1.3)= 30796
A.R.I. UNIT SIZE FOR 30DEG TEMP. SWING (T.H.G.x1.2)= 36955
MIN. FHA CAPACITY (SIZEx.95)= 35107 **BTU/HR**
MAX. CAPACITY (SIZEx1.15)= 42455 **BTU/HR**

HEATING

SURFACE	H.T.M	MSTR BED		TOILET RM		MSTR BATH		LAUNDRY		BATH 2		BED 2		DEN/BED 3		ENT/LIVING		DINING		KITCHEN	
WALL	2.5 * *****	87	217.5	32	80	88	220	41	102.5	135	337.5	202	505	97	242.5	279	697.5	129	322.5		
GLASS	50 * *****	30	1500									30	1500	25	1250	27.5	1375	20	1000		
DOORS w ood	120 * *****							20	2400							20	2400				
glass	100 * *****															20	2000	20	2000		
CEILING flat	1.0 * *****																				
vertical	3 * *****																				
FLOOR garage	2 * *****																				
perimeter	45 * *****																				
			1717.5		80		220		2503		337.5		2005		1492.5		6472.5		3322.5		

UNIT CFM = 1600

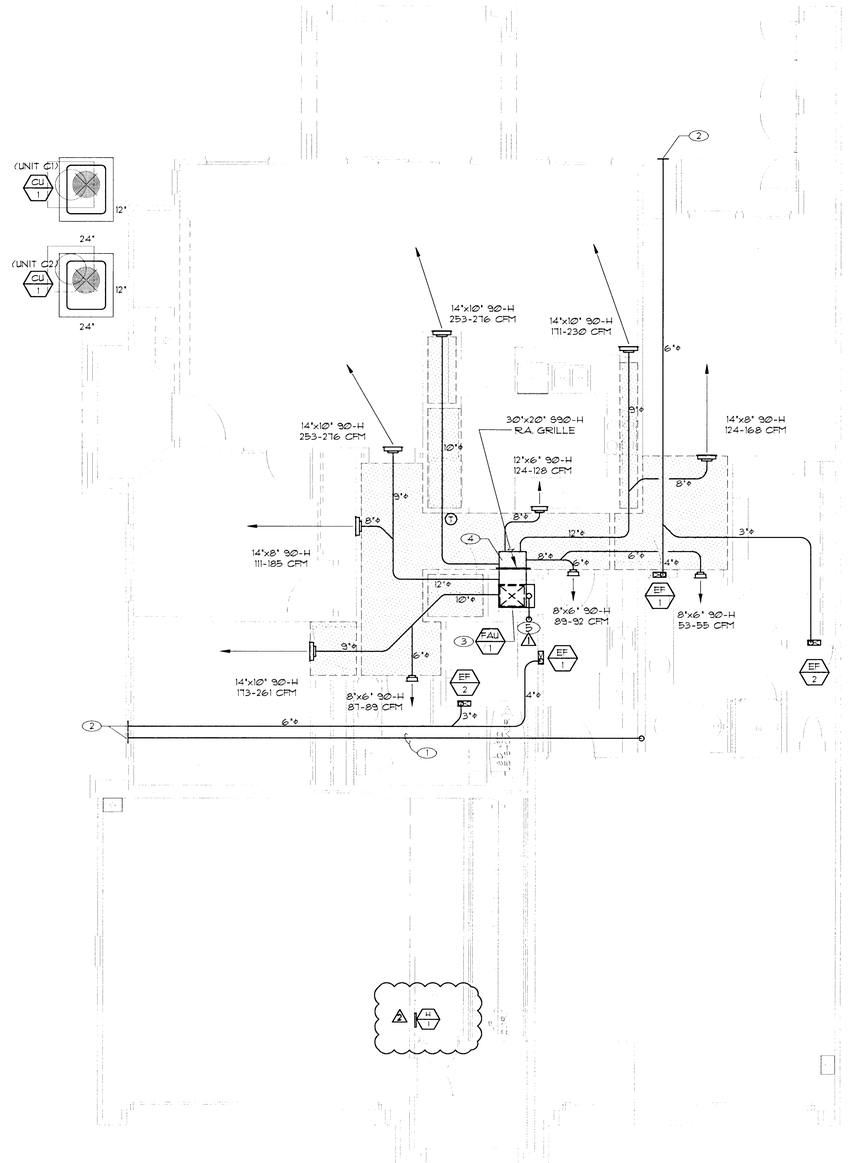
EAST-WEST	124	14	39	89	87	261	155	506	171	124
NORTH-SOUTH	168	15	48	92	89	173	111	552	230	128



BED 3 OPTION

SCALE: 1/4" = 1'-0"

B M1-4.1



UNIT C1

SCALE: 1/4" = 1'-0"

A M1-4.1

NOTICE

1. CEILING DIFFUSERS, REGISTERS AND GRILLES J & J TYPE.
2. LINE RECTANGULAR DUCT UNLESS INDICATED OTHERWISE W/ MINIMUM R-6.0 UNLESS COMPLETELY LOCATED INSIDE BUILDING. THERMAL ENVELOPE.
3. DUCT WORK TO BE CLASS 1 FLEXIBLE DUCT INSULATED WITH MINIMUM R-6.0 UNLESS COMPLETELY LOCATED INSIDE BUILDING. THERMAL ENVELOPE.
4. ANY DUCT PENETRATING FIRE SEPARATION SHALL BE 26 GAUGE GALVANIZED STEEL.
5. DUCT WORK AS PER ASHRAE STANDARDS.
6. RUN 3/4" CONDENSATE LINE FROM COOLING COIL OUTSIDE AND DOWN TO THE GROUND. RUN 3/4 AUXILIARY DRAIN TO DISCHARGE AT EXTERIOR ENTRY, ABOVE OTHER EXTERIOR DOOR LANDING OR WINDOW.
8. INSULATE SUCTION LINES W/ MIN. R-2, PER 2006 IECC SECTION 403.3
9. PROVIDE ATTIC ACCESS, ATTIC LIGHT, CAT WALK, COMBUSTION AIR AND VENT FURNACE AS REQUIRED BY CODE.
10. IF REQUIRED, VENT KITCHEN HOOD TO EXTERIOR PER MANUFACTURER'S RECOMMENDATIONS.

SHEET NOTES:

1. 6"ø DRYER VENT TO AN APPROVED VENT TERMINATION
2. PROVIDE APPROVED WALL CAP
3. SEE DETAIL 1/M0-0.1
4. CONSTRUCT SUPPLY AIR PLENUM AS REQUIRED
5. VENT UP TROUGH ROOF. SEE M5.1 FOR CONTINUATION.

DRYER VENT PRESSURE DROP CALCULATION

BUILDER: SPINNAKER HOMES
TRACT: CORONADO
PLAN NO: UNIT C1

SECTION	ITEM	SIZE (inches)	LENGTH (feet)	# FEET (or "C"	VELOCITY (fpm)	VELOCITY PRESSURE (inches W.G.	PRESSURE DROP (inches W.G.)
A-B	DUCT	4	1.0	0.0100	1400		0.010
B	ELBOW	4		0.3700	1400	0.12	0.044
C	DUCT	4	9.0	0.0100	1400	0.12	0.001
C-D	TRANSITION	4 TO 6		0.0500	1400		0.010
D	ELBOW	6		0.2700	625	0.03	0.011
D-E	DUCT	6	33.5	0.0013	625		0.044
E-F	TRANSITION	4 TO 6		0.0500	1400	0.12	0.006
F	OUTLET	4		0.5500	1400	0.12	0.066
							0.000
							0.000

TOTAL: 0.192

MAXIMUM PRESSURE
DROP 0.30 INCHES W.G.

PLANS APPROVED
PLUMBING/MECHANICAL
DATE: JUN 23 2009
Designer responsible for Mechanical
Note: Approval not valid for any deviations

JUN 04 2009

COMFORT ENGINEERING
"COMFORT BY DESIGN"
MECHANICAL - ELECTRICAL - PLUMBING
9175 WEST FLAMINGO ROAD, LAS VEGAS, NEVADA 89147
TEL. (702) 367-2992 FAX 367-1078

ENGINEER - STATE OF NEVADA - JOHN D. SPARGO - Exp. 6-30-10 - MECHANICAL - No. 8945 - PROFESSIONAL

5/21/09

Project Name:
CORONADO
THE PASEOS
LAS VEGAS, NEVADA

Sheet Name:
UNIT C1
MECHANICAL PLAN

Revisions:

No.	Date	Description	By
1	3/20/09	BLDG DEPT. COMMENTS	JDS
2	5/19/09	BLDG DEPT. COMMENTS	JDS

Job # 09-0003
Checked by: JDS
Drawn by: RM
Date: 01/22/09
Sheet:

M1-4.1

CORONADO - UNIT C2 - SPINNAKER HOMES

1762 sq ft

COOLING

SURFACE	H.T.M.	ENTRY		BATH 2		BED 2		DEN/BED 3		LIVING		DINING		KITCHEN		MSTR BED		MSTR WC		TOILET RM		MSTR BATH		LAUNDRY					
WALL	4.3	70	301	178	765.4	193	829.9	74	318.2	290	1247	95	408.5			123	528.9												
GLASS w	91					30	2730	25	2275	7.5	682.5																		
east	67																												
north	31					4.5	139.5																						
shaded	31									20	620	20	620			6	186												
south	52									20	1040	25	1300			24	1248												
northeast	46																												
northwest	66																												
southeast	66																												
southwest	83																												
DOORS	19	20	380																										
SKYLIGHT	102																												
CEILING flat	1.6	70	112	77	123.2	162	259.2	155	248	351	561.6	176	281.6	201	321.6	263	420.8	83	132.8	28	44.8	108	172.8	88	140.8				
vertical	3.5																												
FLOOR	2																												
PEOPLE	300									6	1800																		
COOKING/EQUIP	1200													1	1200							0.4	512.2	0.25	300				
			793		888.6		3959		2841		5951		2610		1521.6		2383.7		132.8		44.8		685		440.8				

HEAT LOSS AND GAIN CALCULATIONS
AS PER ASHRAE CHAPTER 28 USING:
110 DEG Outside Design Temp.-Summer
50 Deg. Design Temp. Difference-Winter
Walls R= 13
Ceiling R= 30
Floor R= 19
Glass--Double X Single

ROOM HEAT TOTAL LOSS 18877 BTU/HR
VENTILATION CFM 55x 60 3300
Subtotal 22177
ADD 10% DUCT LOSS 2217.7
TOTAL HEAT LOSS 24394 BTU/HR

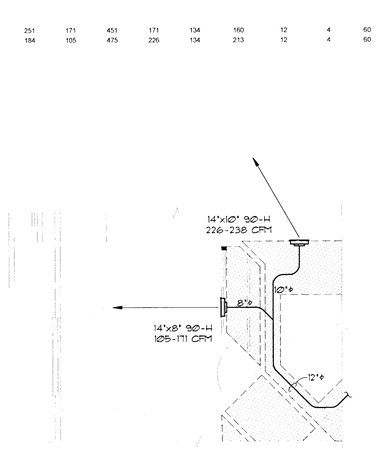
ROOM SENSIBLE HEAT 22251 BTU/HR
VENTILATION CFM 38X 60 2280
Subtotal 24531
ADD 10% DUCT LOSS 2453.1
GRAND SENSIBLE HEAT 26984
TOTAL HEAT GAIN (G.S.H.x1.3)= 35080
A.R.I. UNIT SIZE FOR 3 DEG. TEMP. SWING (T.H.G.x1.2) 42096
MIN. FHA CAPACITY (.5125x.95)= 39991 BTU/HR
MAX. CAPACITY (.5125x1.15)= 49410 BTU/HR

HEATING

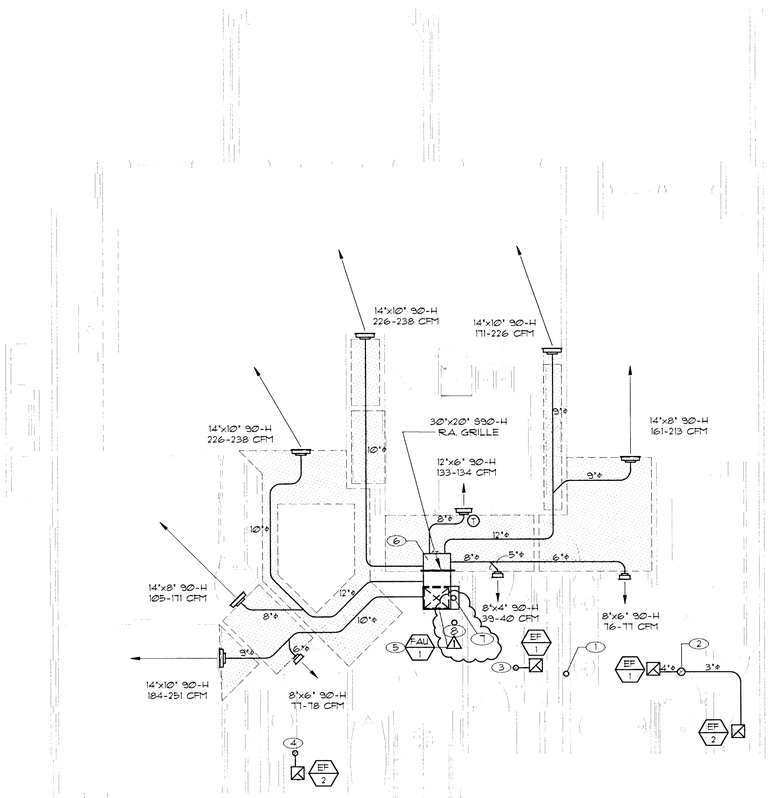
SURFACE	H.T.M.	ENTRY		BATH 2		BED 2		DEN/BED 3		LIVING		DINING		KITCHEN		MSTR BED		MSTR WC		TOILET RM		MSTR BATH		LAUNDRY					
WALL	2.5	70	175	178	445	193	482.5	74	185	290	725	95	237.5			123	307.5												
GLASS	50					35	1725	25	1250	27.5	1375	25	1250			30	1500												
DOORS w ood	120	20	2400																										
glass	100									20	2000	20	2000																
CEILING flat	1.6	70	112	77	123.2	162	259.2	155	248	351	561.6	176	281.6	201	321.6	263	420.8	83	132.8	28	44.8	108	172.8	88	140.8				
vertical	3																												
FLOOR garage	2																												
perimeter	45																												
			2687		568.2		2467		1683		4662		3769		321.6		2228.3		132.8		44.8		172.8		140.8				

UNIT CFM = 1600

EAST-WEST	70	78	251	171	451	171	134	160	12	4	60	39	
NORTH-SOUTH	70	78	184	105	475	226	134	213	12	4	60	39	



BED 3 OPTION
SCALE: 1/4" = 1'-0"
B / M1-5.1



UNIT C2
SCALE: 1/4" = 1'-0"
A / M1-5.1

NOTICE

1. CEILING DIFFUSERS, REGISTERS AND GRILLES J & J TYPE.
2. LINE RECTANGULAR DUCT UNLESS INDICATED OTHERWISE W/ MINIMUM R-6.0 UNLESS COMPLETELY LOCATED INSIDE BUILDING. THERMAL ENVELOPE.
3. DUCT WORK TO BE CLASS 1 FLEXIBLE DUCT INSULATED WITH MINIMUM R-6.0 UNLESS COMPLETELY LOCATED INSIDE BUILDING. THERMAL ENVELOPE.
4. ANY DUCT PENETRATING FIRE SEPARATION SHALL BE 26 GAUGE GALVANIZED STEEL.
5. DUCT WORK AS PER ASHRAE STANDARDS.
6. RUN 3/4" CONDENSATE LINE FROM COOLING COIL OUTSIDE AND DOWN TO THE GROUND. RUN 3/4 AUXILIARY DRAIN TO DISCHARGE AT EXTERIOR ENTRY, ABOVE OTHER EXTERIOR DOOR LANDING OR WINDOW.
8. INSULATE SUCTION LINES W/ MIN. R-2, PER 2006 IECC SECTION 403.3
9. PROVIDE ATTIC ACCESS, ATTIC LIGHT, CAT WALK, COMBUSTION AIR AND VENT FURNACE AS REQUIRED BY CODE.
10. IF REQUIRED, VENT KITCHEN HOOD TO EXTERIOR PER MANUFACTURER'S RECOMMENDATIONS.

SHEET NOTES:

1. 4"ø DRYER VENT UP THRU ROOF TO AN APPROVED VENT CAP.
2. 6"ø EXHAUST DUCT UP THRU ROOF TO AN APPROVED VENT CAP.
3. 4"ø EXHAUST DUCT UP THRU ROOF TO AN APPROVED VENT CAP.
4. 3"ø EXHAUST DUCT UP THRU ROOF TO AN APPROVED VENT CAP.
5. SEE DETAIL 1/M0-0.1
6. CONSTRUCT SUPPLY AIR PLENUM AS REQUIRED
7. VENT UP THROUGH ROOF.
8. VENT FROM FIRST FLOOR UP THROUGH ROOF.

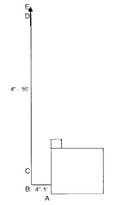
DRYER VENT PRESSURE DROP CALCULATION

BUILDER SPINNAKER HOMES
PROJECT CORONADO
PLAN NO. UNIT C2

SECTION	ITEM	SIZE (inches)	LENGTH (feet)	f/FEET or "C"	VELOCITY (fpm)	VELOCITY PRESSURE (in. W.G.)	PRESSURE DROP (in. W.G.)
A-B	DUCT	4	1.0	0.0100	1400		0.010
B	ELBOW	4		0.3700	1400	0.12	0.044
B-C	DUCT	4	16.0	0.0100	1400		0.160
D	OUTLET	4		0.5500	1400	0.12	0.066
							0.000
							0.000

TOTAL: 0.280

MAXIMUM PRESSURE DROP
LESS THAN 0.30 INCHES W.G.



PLANS APPROVED
PLUMBING/MECHANICAL
Building & Safety Dept.
City of Las Vegas, Nevada

EDS MAR 18 2009

Done Not Include Architectural, Electrical Structural or Civil Site Improvements. Plan Approval Without Approval Plans Is Not a Permit to Violate Any Ordinance

RECEIVED
MAR 17 2009
CITY OF LAS VEGAS
PERMITS

COMFORT ENGINEERING
"COMFORT BY DESIGN"
MECHANICAL - ELECTRICAL - PLUMBING
9175 WEST FLAMINGO ROAD, LAS VEGAS, NEVADA 89147
TEL. (702) 367-0892 FAX 367-1076

STATE OF NEVADA
REGISTERED PROFESSIONAL ENGINEER
JOHN D. SPARGO
Exp. 6-30-10
No. 8945

3/12/09

Project Name:
CORONADO
THE PASEOS
LAS VEGAS, NEVADA

Sheet Name:
UNIT C2
MECHANICAL PLAN

Revisions:

No.	Date	Description	By
1	3/18/09	BLDG. DEPT. COMMENTS	JDS

Job # 09-0003
Checked by: JDS
Drawn by: FM
Date: 01/22/09
Sheet:
M1-5.1

F:\Projects\2009 Projects\09-0003 Spinnaker Homes, Las Vegas\Drawings\M1-5.1 Unit C2 Mech Plan.dwg, 3/12/2009 4:35:50 PM, AV

CORONADO - UNIT C3 - SPINNAKER HOMES

1803 sq ft

COOLING

SURFACE	H.T.M.	ENT/LIVING		DINING		KITCHEN		MSTR BED		MSTR WIC		TOILET RM		MSTR BATH		LAUNDRY		BATH 2		BED 2		DEN/BED 3	
WALL	4.3 *******	279	1199.7	122	524.6			224	963.2	113	485.9	91	391.3	85	378.4	48	206.4	131	563.3	200	860	97	417.1
GLASS e&w	55 *******	7.5	412.5					12	660			4	220							30	1650	25	1375
north	25 *******																						
shaded	25 *******	20	500	20	500																		
south	30 *******	25	750	25	750			30	900														
ne&nw	40 *******																						
se&sw	45 *******																						
Glass Blk w	90 *******																						
Glass Blk n	21 *******																						
DOORS	19 *******	20	380													20	380						
SKYLIGHT	102 *******																						
CEILING flat	1.6 *******																						
vertical	3.5 *******																						
FLOOR	2 *******																						
PEOPLE	300 *******	6	1800																				
COOKING&EQUIP	1200 *******					1	1200							0.21	256.08	0.25	300	0.21	256.08				
			5042.2		1775		1200		2523		485.9		611.3		634.48		886.4		819.38		2510		1792

HEAT LOSS AND GAIN CALCULATIONS
AS PER NESCA MANUAL "J" USING
110 DEG Outside Design Temp.-Summer
50 Deg. Design Temp. Difference-Winter
Walls Rt= 13
Ceiling Rt= 30
Floor Rt= 19
Glass--Double Y ___ Single ___

ROOM HEAT TOTAL LOSS 28341 **BTU/HR**
VENTILATION CFM 55x 60 3300
Subtotal 31641
ADD 10% DUCT LOSS 3164.1
TOTAL HEAT LOSS 34805 **BTU/HR**

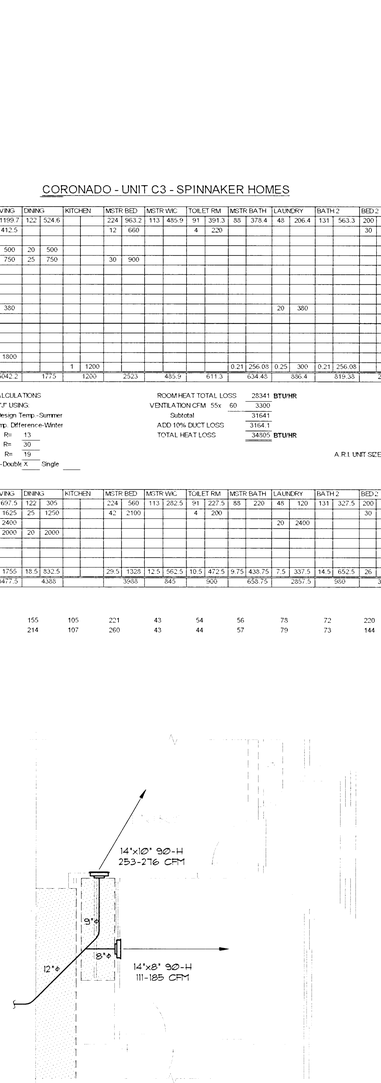
ROOM SENSIBLE HEAT 18280 **BTU/HR**
VENTILATION CFM 38X 60 2280
Subtotal 20560
ADD 10% DUCT LOSS 2056
GRAND SENSIBLE HEAT 22616
TOTAL HEAT GAIN (G.S.H.x1.3)= 29400
A.R.I. UNIT SIZE FOR 3DEG. TEMP. SWING (T.H.G.x1.2)= 35280
MIN. FAN CAPACITY (SIZEx.95)= 33516 **BTU/HR**
MAX. CAPACITY (SIZEx1.15)= 40572 **BTU/HR**

HEATING

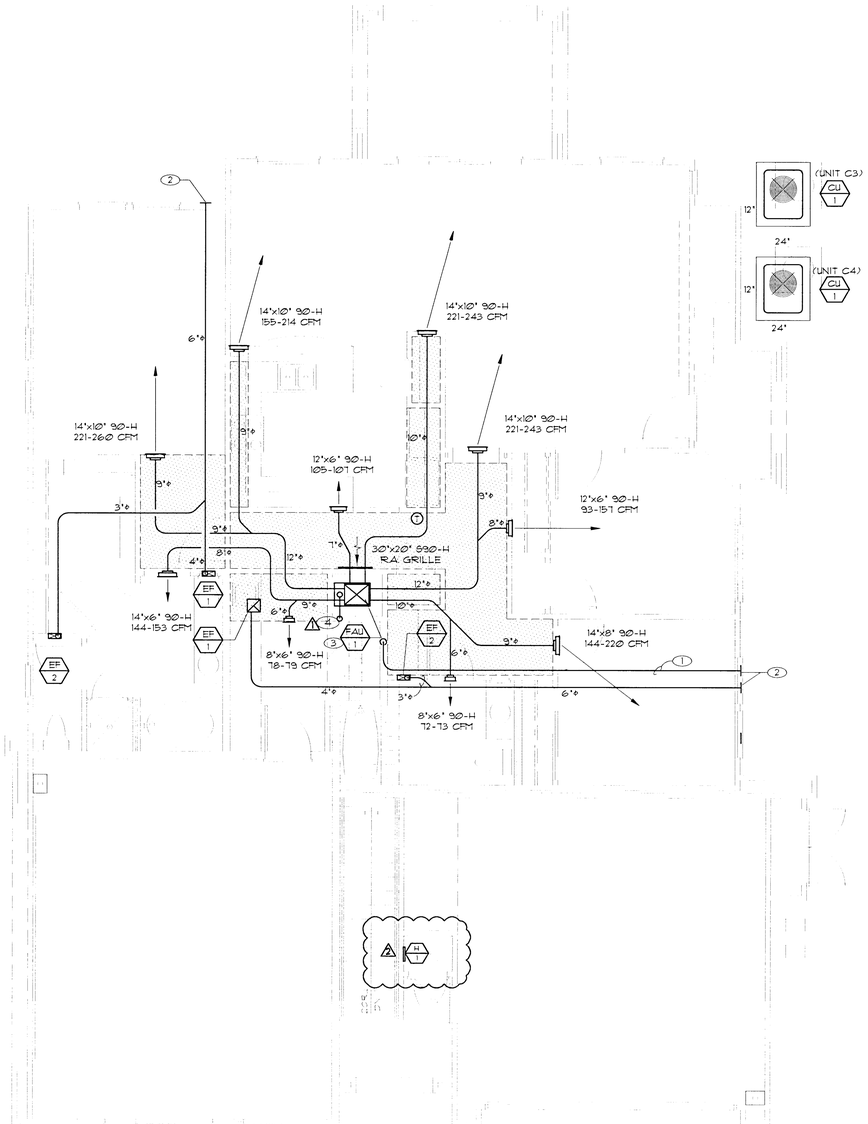
SURFACE	H.T.M.	ENT/LIVING		DINING		KITCHEN		MSTR BED		MSTR WIC		TOILET RM		MSTR BATH		LAUNDRY		BATH 2		BED 2		DEN/BED 3	
WALL	2.5 *******	279	697.5	122	305			224	560	113	282.5	91	227.5	85	220	48	120	131	327.5	200	500	97	242.5
GLASS	50 *******	33	1625	25	1250			42	2100			4	200							30	1500	25	1250
DOORS w wood	120 *******	20	2400													20	2400						
glass	100 *******	20	2000	20	2000																		
CEILING flat	1.6 *******																						
vertical	3 *******																						
FLOOR garage	2 *******																						
perimeter	45 *******	39	1755	18.5	832.5			29.5	1328	12.5	562.5	10.5	472.5	9.75	438.75	7.5	337.5	14.5	652.5	26	1148	14	607.5
			8477.5		4388				3988		845		900		658.75		2857.5		980		3148		2100

UNIT CFM = 1600

EAST-WEST	441	155	105	221	43	54	56	75	72	220	157	
NORTH-SOUTH	456	214	197	260	43	44	57	79	73	144	93	



BED 3 OPTION
SCALE: 1/4" = 1'-0"
B M1-6.1



UNIT C3
SCALE: 1/4" = 1'-0"
A M1-6.1

NOTICE

1. CEILING DIFFUSERS, REGISTERS AND GRILLES J & J TYPE.
2. LINE RECTANGULAR DUCT UNLESS INDICATED OTHERWISE W/ MINIMUM R-6.0 UNLESS COMPLETELY LOCATED INSIDE BUILDING. THERMAL ENVELOPE.
3. DUCT WORK TO BE CLASS 1 FLEXIBLE DUCT INSULATED WITH MINIMUM R-6.0 UNLESS COMPLETELY LOCATED INSIDE BUILDING. THERMAL ENVELOPE.
4. ANY DUCT PENETRATING FIRE SEPARATION SHALL BE 26 GAUGE GALVANIZED STEEL.
5. DUCT WORK AS PER ASHRAE STANDARDS.
6. RUN 3/4" CONDENSATE LINE FROM COOLING COIL OUTSIDE AND DOWN TO THE GROUND. RUN 3/4 AUXILIARY DRAIN TO DISCHARGE AT EXTERIOR ENTRY, ABOVE OTHER EXTERIOR DOOR LANDING OR WINDOW.
8. INSULATE SUCTION LINES W/ MIN. R-2, PER 2006 IECC SECTION 403.3
9. PROVIDE ATTIC ACCESS, ATTIC LIGHT, CAT WALK, COMBUSTION AIR AND VENT FURNACE AS REQUIRED BY CODE.
10. IF REQUIRED, VENT KITCHEN HOOD TO EXTERIOR PER MANUFACTURER'S RECOMMENDATIONS.

SHEET NOTES:

1. 6"ø DRYER VENT TO AN APPROVED VENT TERMINATION
2. PROVIDE APPROVED WALL CAP
3. SEE DETAIL 1/M0-0.1
4. VENT UP THROUGH ROOF. SEE M1.1 FOR CONTINUATION.

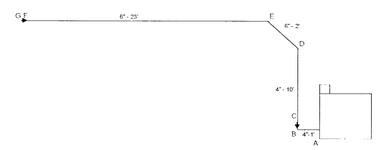
DRYER VENT PRESSURE DROP CALCULATION

BUILDER: SPINNAKER HOMES
TRACT: CORONADO
PLAN NO: UNIT C3

SECTION	ITEM	SIZE (inches)	LENGTH (feet)	f/FEET w/ "C"	VELOCITY (fpm)	VELOCITY PRESSURE (inches W.G.	PRESSURE DROP (inches W.G.)
A-B	DUCT	4	0.5	0.0100	1400		0.005
B	ELBOW	4		0.3700	1400	0.12	0.044
C	DUCT	4	10.0	0.0100	1400		0.100
C-D	TRANSITION	4 TO 6		0.0500	1400	0.01	0.001
D	ELBOW	6		0.3700	625	0.03	0.011
D-E	DUCT	6	2.0	0.0013	625	0.03	0.003
E	ELBOW	6		0.3700	625	0.03	0.011
E-F	DUCT	6	23.0	0.0013	625		0.030
G	OUTLET	6		0.5000	875	0.12	0.066
							0.000
							0.000

TOTAL: 0.271

MAXIMUM PRESSURE DROP
LESS THAN 0.30 INCHES W.G.



PLANS APPROVED
PLUMBING/MECHANICAL
BUILDING DEPARTMENT
DATE JUN 2 3 2009
BY
NOTE: ...

RECEIVED
JUN 11 2009

COMFORT ENGINEERING
"COMFORT BY DESIGN"
MECHANICAL - ELECTRICAL - PLUMBING
9175 WEST FLAMINGO ROAD, LAS VEGAS, NEVADA 89147
TEL. (702) 367-0882 FAX 367-1078

STATE OF NEVADA
PROFESSIONAL ENGINEER
JOHN D. SPARGO
Exp. 6-30-10
No. 8945
5/21/09

Project Name:
CORONADO
THE PASEOS
LAS VEGAS, NEVADA

Sheet Name:
UNIT C3
MECHANICAL PLAN

Revisions:

No.	Date	Description	By
1	3/10/09	BLDG DEPT. COMMENTS.	JDS
2	5/19/09	BLDG DEPT. COMMENTS.	JDS
3			
4			
5			
6			
7			
8			
9			
10			

Job # 03-0003
Checked by: JDS
Drawn by: FM
Date: 01/22/09
Sheet:
M1-6.1

CORONADO - UNIT C4 - SPINNAKER HOMES

1769 sq ft

COOLING

SURFACE	H.T.M.	ENTRY		BATH 2		BED 2		DEN/BED 3		LIVING		DINING		KITCHEN		MSTR BED		MSTR WIC		TOILET RM		MSTR BATH		LAUNDRY					
WALL	4.3	70	301	178	765.4	193	829.9	74	318.2	285	1226	95	408.5			224	963.2	113	485.9	91	391.3	78	335.4	126	541.8				
GLASS e&w	55					30	1650	25	1375	7.5	412.5					12	660			4	220								
north	25					4.5	112.5															8	200						
shaded	25									20	500	20	500																
south	30									25	750	25	750			30	900												
ne&nw	40																												
se&sw	45																												
Glass Blk w	90																												
Glass Blk n	21																												
DOORS	19	20	380																										
SKYLIGHT	102																												
CEILING flat	1.6	70	112	77	123.2	162	259.2	155	248	351	561.6	176	281.6	201	321.6	263	420.8	83	132.8	28	44.8	108	172.8	88	140.8				
vertical	3.5																												
FLOOR	2																												
PEOPLE	300									6	1800																		
COOKING/EQUIP	1200													1	1200									0.25	300				
			793		888.6		2852		1941		5250		1940		1521.6		2944		618.7		656.1		708.2		982.6				

HEAT LOSS AND GAIN CALCULATIONS
AS PER NESCA MANUAL "J" USING:
110 DEG Outside Design Temp - Summer
50 Deg. Design Temp. Difference-Winter
Walls Rᵢ= 13
Ceiling Rᵢ= 30
Floor Rᵢ= 19
Glass--Double X ___ Single ___

ROOM HEAT TOTAL LOSS	19587 BTU/HR
VENTILATION CFM 55x 60	3300
Subtotal	22887
ADD 10% DUCT LOSS	2288.7
TOTAL HEAT LOSS	25175 BTU/HR

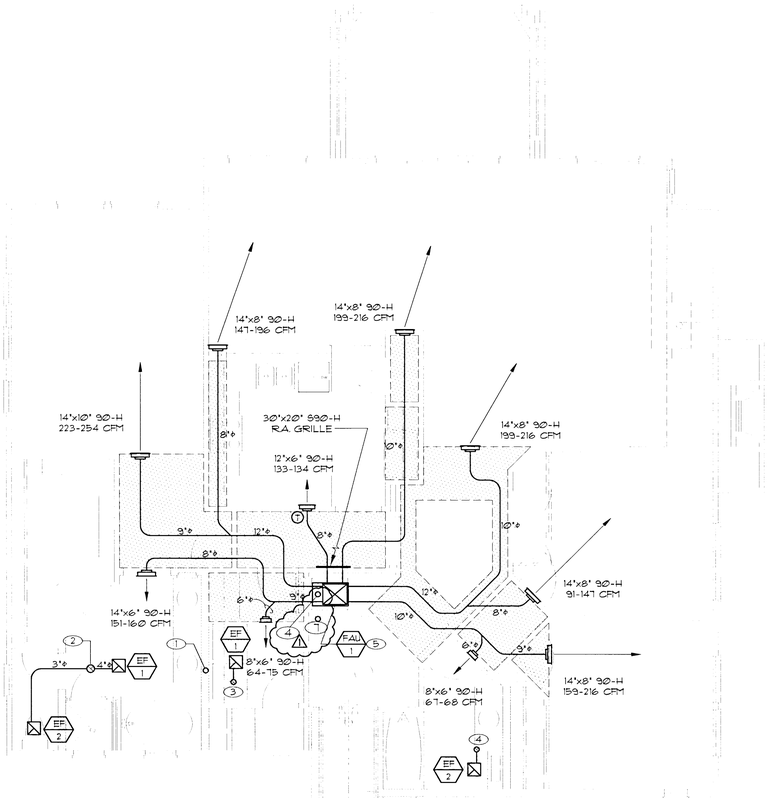
ROOM SENSIBLE HEAT	21095 BTU/HR
VENTILATION CFM 38X 60	2280
Subtotal	23375
ADD 10% DUCT LOSS	2337.5
GRAND SENSIBLE HEAT	25713
TOTAL HEAT GAIN (G.S.H.x1.3)=	33427
A.R.I. UNIT SIZE FOR 30DEG. TEMP. SWING (T.H.G.x1.2)=	40112
MIN. FHA CAPACITY (SIZEx.95)=	38106 BTU/HR
MAX. CAPACITY (SIZEx1.15)=	46129 BTU/HR

HEATING

SURFACE	H.T.M.	ENTRY		BATH 2		BED 2		DEN/BED 3		LIVING		DINING		KITCHEN		MSTR BED		MSTR WIC		TOILET RM		MSTR BATH		LAUNDRY					
WALL	2.5	70	175	178	445	193	482.5	74	185	285	712.5	95	237.5			224	560	113	282.5	91	227.5	78	195	126	315				
GLASS	50					35	1725	25	1250	52.5	2625	45	2250			42	2100			4	200	8	400						
DOORS wood	120	20	2400																										
glass	100																												
CEILING flat	1.6	70	112	77	123.2	162	259.2	155	248	351	561.6	176	281.6	201	321.6	263	420.8	83	132.8	28	44.8	108	172.8	88	140.8				
vertical	3																												
FLOOR garage	2																												
perimeter	45																												
			2687		568.2		2467		1683		3899		2769		321.6		3080.8		415.3		472.3		767.8		455.8				

UNIT CFM = 1600

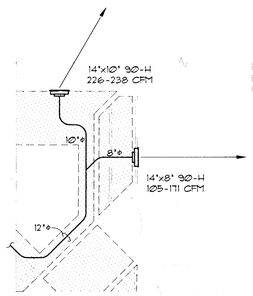
EAST-WEST	60	67	216	147	398	147	115	223	47	50	54	75	
NORTH SOUTH	60	68	159	91	431	196	116	254	47	41	72	64	



UNIT C4

SCALE: 1/4" = 1'-0"

A M1-7.1



BED 3 OPTION

SCALE: 1/4" = 1'-0"

B M1-7.1

NOTICE

1. CEILING DIFFUSERS, REGISTERS AND GRILLES J & J TYPE.
2. LINE RECTANGULAR DUCT UNLESS INDICATED OTHERWISE W/ MINIMUM R-6.0 UNLESS COMPLETELY LOCATED INSIDE BUILDING. THERMAL ENVELOPE.
3. DUCT WORK TO BE CLASS 1 FLEXIBLE DUCT INSULATED WITH MINIMUM R-6.0 UNLESS COMPLETELY LOCATED INSIDE BUILDING. THERMAL ENVELOPE.
4. ANY DUCT PENETRATING FIRE SEPARATION SHALL BE 26 GAUGE GALVANIZED STEEL.
5. DUCT WORK AS PER ASHRAE STANDARDS.
6. RUN 3/4" CONDENSATE LINE FROM COOLING COIL OUTSIDE AND DOWN TO THE GROUND. RUN 3/4 AUXILIARY DRAIN TO DISCHARGE AT EXTERIOR ENTRY, ABOVE OTHER EXTERIOR DOOR LANDING OR WINDOW.
8. INSULATE SUCTION LINES W/ MIN. R-2, PER 2006 IECC SECTION 403.3
9. PROVIDE ATTIC ACCESS, ATTIC LIGHT, CAT WALK, COMBUSTION AIR AND VENT FURNACE AS REQUIRED BY CODE.
10. IF REQUIRED, VENT KITCHEN HOOD TO EXTERIOR PER MANUFACTURER'S RECOMMENDATIONS.

SHEET NOTES:

1. 4"ø DRYER VENT UP THRU ROOF TO AN APPROVED VENT CAP.
2. 6"ø EXHAUST DUCT UP THRU ROOF TO AN APPROVED VENT CAP.
3. 4"ø EXHAUST DUCT UP THRU ROOF TO AN APPROVED VENT CAP.
4. 3"ø EXHAUST DUCT UP THRU ROOF TO AN APPROVED VENT CAP.
5. SEE DETAIL 1/M0-0.1
6. VENT UP THROUGH ROOF.
7. VENT FROM FIRST FLOOR UP THROUGH ROOF.

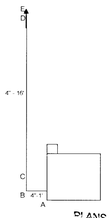
DRYER VENT PRESSURE DROP CALCULATION

BUILDER SPINNAKER HOMES
PROJECT CORONADO
PLAN NO. UNIT C4

SECTION	ITEM	SIZE (inches)	LENGTH (feet)	#FEET or "C"	VELOCITY (fpm)	VELOCITY PRESSURE (in. W.G.)	PRESSURE DROP (in. W.G.)
A-B	DUCT	4	1.0	0.0100	1400		0.010
B	ELBOW	4		0.3700	1400	0.12	0.044
B-C	DUCT	4	16.0	0.0100	1400		0.160
D	OUTLET	4		0.5500	1400	0.12	0.066
							0.000
							0.000

TOTAL: 0.280

MAXIMUM PRESSURE DROP
LESS THAN 0.30 INCHES W.G.



PLANS APPROVED
PLUMBING/MECHANICAL
Building & Safety Dept.
City of Las Vegas

EDC MAR 18 2009

Does Not Authorize Construction to Commence
Shall Not Be Used as an
Inspection Record Document
Without Approved Plans
Not a Permit to Violate Any Ordinance

RECEIVED
MAR 11 2009
CITY OF LAS VEGAS
PERMITS

COMFORT ENGINEERING
"COMFORT BY DESIGN"
MECHANICAL - ELECTRICAL - PLUMBING
9175 WEST FLAMINGO ROAD, LAS VEGAS, NEVADA 89147
TEL: (702) 257-9822 FAX: 257-9705

STATE OF NEVADA — PROFESSIONAL ENGINEER — JOHN D. SPARGO — Exp. 6-30-10 — MECHANICAL — No. 8945 — 5/10/09

Project Name:
CORONADO
THE PASEOS
LAS VEGAS, NEVADA

Sheet Name:
UNIT C4
MECHANICAL PLAN

Revisions:

No.	Date	Description	By
1	3/18/09	BLDG. DEPT COMMENTS	JDS

Job # 09-0003
Checked by: JDS
Drawn by: FM
Date: 01/22/09
Sheet:
M1-7.1

2006 BUILDING IECC CODE REQUIREMENTS

Construction Documentation: An energy code compliance report must accompany plans for review. The information in this document must be accurately reflected on the building plans. All information provided will be field verified by the inspector.

Insulation: All insulation shall be labeled. For blow-in products, one package must be save for field verification. Blow-in insulation certification must be provided prior to building final inspection.
Batts shall not be compressed, and shall be split at electrical wiring and piping interruptions. Batts installed in walls with one side open shall be permanently held in place by wires, strapping or staples.

Windows: All new windows and doors must display NFRC labels, clearly displaying U-values and SHFC coefficients (for glazed areas) for field verification. Re-used/unlabeled windows or doors must meet minimum default values listed in the code.

Skylights: NFRC labels shall be clearly displayed, listing U and SHGC values. Skylight shafts shall be insulated with R-13 insulation, secured in place.

Caulking and Sealants: Exterior joints, seams, or penetrations in the building envelope that are sources of air leakage, shall be sealed with durable caulking materials, closed with gasketing systems, taped or covered with moisture vapor-permeable housewrap. Provide caulking or seal at joint between sill plates of framed exterior walls and foundation. The space between framed rough openings and door or window frames must be foam insulated or caulked. Seal recessed lighting, plumbing, electrical box and wiring penetrations against air infiltration. Exterior doors must be weather-stripped. Insulate and seal behind tub and shower enclosures set against exterior walls. Attic acccesses openings covers must be or gasketed to prevent air leakage.

HVAC System: Mechanical efficiency and capacity of new units must appear on equipment.

1. Thermostats: Devices shall have a deadband range of 5 degrees F within which supply of heating and cooling energy is shut off or reduced to a minimum.
2. Heat Pumps: Systems having a supplementary electrical resistance heaters shall have controls that prevent the heater operation when the heating load is capable of being met by the pump.
3. Ducts and Plenums: All supply and return air plenums shall have all joints and connections securely fastened and sealed with welds, gaskets, mastics, mastic-plus-embedded fabric systems or approved tapes.
4. Supply and return air ducts shall be insulated to a minimum of R-6.0. Ducts in floor trusses shall be insulated to a minimum of R-6.0.
   Exceptions: Ducts or portions thereof located completely inside the building thermal envelope.

Hot water Heaters: Units shall be labeled as to their input rating and efficiency. Heat traps shall be installed on inlet and oulet side when vertical risers are installed. Water heaters equipped with auto-circulating system shall have all piping insulated. Water conserving shower heads shall be installed, 2.5 gal./min. maximum flow rate.

ENERGY SCHEDULE

Builder: Spinnaker Homes
Project: Coronado @ The Paseos
Plan: Building 100 & 100R
Jurisdiction: Las Vegas, NV
Contact:
Permit Number:
Date: 2/12/2009
Total Conditioned Floor Area: 15,710 Sq. Ft.
Construction Type: Single Family Detached
Foundation Type: Slab on Grade

Insulation Component	Type	R-Value	Location
Roof/Ceiling:	2 x 4 - 24" O.C.	30	ATTIC
Roof/Ceiling:			
Wall:	2 x 6 - 16" O.C.	13	EXTERIOR WALL
Wall:	2 x 6 - 16" O.C.	13	GARAGE WALL
Wall:	2 x 4 - 16" O.C.	19	KNEE WALL
Wall:			
Floor:	2 x 4 - 16" O.C.	19	OVER GARAGE
Other:			
Other:	1 3/4" SC	3.03	SOLID CORE DOORS

Fenestration Component	Type	Frame	Area(ft2)	U-Value	SHGC
Window:	SLIDER	VINYL LOW-E	358	0.40	0.35
Window:	FIXED	VINYL LOW-E	223	0.40	0.35
Window:	SING. HUNG	VINYL LOW-E	788.5	0.40	0.35
Window:	CASEMENT	VINYL LOW-E		0.40	0.35
Skylight:	SKYLIGHT	METAL LOW-E		0.75	0.40
Door (Patio):	SLIDER	VINYL LOW-E	428	0.40	0.35
Door (French):	HINGED	WOOD LOW-E		0.40	0.35
Greenhouse:					

Equipment

HVAC		WATER HEATER	
Type:	Gas/Electric	Type of Heater:	See Plumb
A/C tonnage:	See Mech. Plans	Capacity (Gallons):	See Plumb
A/C SEER:	13	Input rating (Btuh):	See Plumb
Furnace Total:	See Mech. Plans	Energy Factor:	See Plumb
AFUE:	78%	Recirculating pump:	See Plumb
Duct Insul.:	R-6.0 in unconditioned & flr. truss spaces; R-4.2 inside Thermal Envelope	Pipe ins:	See Plumb

ENERGY SCHEDULE

Builder: Spinnaker Homes
Project: Coronado @ The Paseos
Plan: Building 200
Jurisdiction: Las Vegas, NV
Contact:
Permit Number:
Date: 2/12/2009
Total Conditioned Floor Area: 11,427 Sq. Ft.
Construction Type: Single Family Detached
Foundation Type: Slab on Grade

Insulation Component	Type	R-Value	Location
Roof/Ceiling:	2 x 4 - 24" O.C.	30	ATTIC
Roof/Ceiling:			
Wall:	2 x 6 - 16" O.C.	13	EXTERIOR WALL
Wall:	2 x 6 - 16" O.C.	13	GARAGE WALL
Wall:	2 x 4 - 16" O.C.	19	KNEE WALL
Wall:			
Floor:	2 x 4 - 16" O.C.	19	OVER GARAGE
Other:			
Other:	1 3/4" SC	3.03	SOLID CORE DOORS

Fenestration Component	Type	Frame	Area(ft2)	U-Value	SHGC
Window:	SLIDER	VINYL LOW-E	329	0.40	0.35
Window:	FIXED	VINYL LOW-E	171	0.40	0.35
Window:	SING. HUNG	VINYL LOW-E	514.25	0.40	0.35
Window:	CASEMENT	VINYL LOW-E		0.40	0.35
Skylight:	SKYLIGHT	METAL LOW-E		0.75	0.40
Door (Patio):	SLIDER	VINYL LOW-E	294	0.40	0.35
Door (French):	HINGED	WOOD LOW-E		0.40	0.35
Greenhouse:					

Equipment

HVAC		WATER HEATER	
Type:	Gas/Electric	Type of Heater:	See Plumb
A/C tonnage:	See Mech. Plans	Capacity (Gallons):	See Plumb
A/C SEER:	13	Input rating (Btuh):	See Plumb
Furnace Total:	See Mech. Plans	Energy Factor:	See Plumb
AFUE:	78%	Recirculating pump:	See Plumb
Duct Insul.:	R-6.0 in unconditioned & flr. truss spaces; R-4.2 inside Thermal Envelope	Pipe ins:	See Plumb

REScheck Software Version 4.1.0
Compliance Certificate

Project Title: Coronado @ The Paseo
Report Date: 02/12/09
Data filename: I:\ACLTDC09\Spinnaker Homes\09-0003 Coronado @ Paseos\IECC\ENVELOPE\Coronado Bldg 100 (2006 IECC).rck

Energy Code: **2006 IECC**
Location: **Las Vegas, Nevada**
Construction Type: **Multifamily**
Conditioned Floor Area: **15710 ft2**
Glazing Area Percentage: **13%**
Heating Degree Days: **2652**
Climate Zone: **3**

Construction Site: Las Vegas, NV
Owner/Agent: Spinnaker Homes
Designer/Contractor:

Compliance: Passes on UA

Maximum UA: **3231** Your Home UA: **2693** = **16.7% Better Than Code** Maximum SHGC: **0.40** Your SHGC: **0.35**

Assembly	Gross Area or Perimeter	Cavity R-Value	Cont. R-Value	Glazing or Door U-Factor	UA
Ceiling: Flat Ceiling or Scissor Truss	9174	30.0	0.0		321
Wall, Exterior: Wood Frame, 16" o.c.	12132	13.0	0.0		831
Window, Slider: Vinyl Frame:Double Pane with Low-E SHGC: 0.35	358			0.400	143
Window, Fixed: Vinyl Frame:Double Pane with Low-E SHGC: 0.35	223			0.400	89
Window, Single Hung: Vinyl Frame:Double Pane with Low-E SHGC: 0.35	789			0.400	316
Door, Patio: Glass SHGC: 0.35	428			0.400	171
Door, Solid Core: Solid	200			0.330	66
Wall, Garage: Wood Frame, 16" o.c.	1190	13.0	0.0		91
Door, Solid Core: Solid	76			0.330	25
Floor of Garage: All-Wood Joist/Truss:Over Unconditioned Space	2610	19.0	0.0		123
Slab On Grade: Slab-On-Grade:Unheated Insulation depth: 0.0'	496		0.0		517

Compliance Statement: The proposed building design described here is consistent with the building plans, specifications, and other calculations submitted with the permit application. The proposed building has been designed to meet the 2006 IECC requirements in REScheck Version 4.1.0 and to comply with the mandatory requirements listed in the REScheck Inspection Checklist.

Name - Title Signature Date

REScheck Software Version 4.1.0
Compliance Certificate

Project Title: Coronado @ The Paseo
Report Date: 02/12/09
Data filename: I:\ACLTDC09\Spinnaker Homes\09-0003 Coronado @ Paseos\IECC\ENVELOPE\Coronado Bldg 200 (2006 IECC).rck

Energy Code: **2006 IECC**
Location: **Las Vegas, Nevada**
Construction Type: **Multifamily**
Conditioned Floor Area: **11427 ft2**
Glazing Area Percentage: **13%**
Heating Degree Days: **2652**
Climate Zone: **3**

Construction Site: Las Vegas, NV
Owner/Agent: Spinnaker Homes
Designer/Contractor:

Compliance: Passes on UA

Maximum UA: **2456** Your Home UA: **2076** = **15.5% Better Than Code** Maximum SHGC: **0.40** Your SHGC: **0.35**

Assembly	Gross Area or Perimeter	Cavity R-Value	Cont. R-Value	Glazing or Door U-Factor	UA
Ceiling: Flat Ceiling or Scissor Truss	8159	30.0	0.0		286
Wall, Exterior: Wood Frame, 16" o.c.	9010	13.0	0.0		620
Window, Slider: Vinyl Frame:Double Pane with Low-E SHGC: 0.35	329			0.400	132
Window, Fixed: Vinyl Frame:Double Pane with Low-E SHGC: 0.35	171			0.400	68
Window, Single Hung: Vinyl Frame:Double Pane with Low-E SHGC: 0.35	514			0.400	206
Door, Patio: Glass SHGC: 0.35	294			0.400	118
Door, Solid Core: Solid	140			0.330	46
Wall, Garage: Wood Frame, 16" o.c.	1041	13.0	0.0		83
Door, Solid Core: Solid	28			0.330	9
Floor of Garage: All-Wood Joist/Truss:Over Unconditioned Space	1305	19.0	0.0		61
Slab On Grade: Slab-On-Grade:Unheated Insulation depth: 0.0'	429		0.0		447

Compliance Statement: The proposed building design described here is consistent with the building plans, specifications, and other calculations submitted with the permit application. The proposed building has been designed to meet the 2006 IECC requirements in REScheck Version 4.1.0 and to comply with the mandatory requirements listed in the REScheck Inspection Checklist.

Name - Title Signature Date

JAN 07 2010

COMFORT ENGINEERING
'COMFORT BY DESIGN'
MECHANICAL • ELECTRICAL • PLUMBING
9175 WEST FLAMINGO ROAD, LAS VEGAS, NEVADA 89147
TEL. (702) 367-0892 FAX 367-1076

STATE OF NEVADA PROFESSIONAL ENGINEER
JOHN D. SPARGO
Exp. 6-30-10
MECHANICAL
No. 8943
2/24/09

Project Name: CORONADO THE PASEOS LAS VEGAS, NEVADA

Sheet Name: ENERGY CALCULATIONS

Revisions:

No.	Date	Description	By

MECH
Job # 09-0003
Checked by: JDS
Drawn by: PM
Date: 01/22/09
Sheet: ES1-0.1

ELECTRICAL SPECIFICATIONS

SCOPE OF WORK:
THE CONTRACTOR SHALL PROVIDE ALL ELECTRICAL EQUIPMENT, MATERIALS AND LABOR NECESSARY FOR A COMPLETE AND OPERABLE ELECTRICAL SYSTEM, INCLUDING BUT NOT LIMITED TO THE FOLLOWING ITEMS, AND SHALL PERFORM WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.

1. COORDINATE WITH POWER, TELEPHONE AND CABLE TV UTILITIES AND SHALL PROVIDE ALL THE NECESSARY LABOR AND MATERIALS REQUIRED THAT ARE NOT PROVIDED BY THE UTILITIES. SEE STANDARDS AND PROJECT DRAWINGS ISSUED BY THE UTILITIES.
2. PROVIDE NEW POWER RECEPTACLES, COMPLETE AS SHOWN ON DRAWINGS OR AS REQUIRED BY APPLICABLE CODES.
3. PROVIDE TELEPHONE AND DATA OUTLETS (IF REQUIRED), COMPLETE INCLUDING CONDUITS (WHERE REQUIRED), WIRES AND/OR CABLES. HOME RUN EACH OUTLET TO THE MAIN TELEPHONE BACKBOARD UNLESS NOTED OTHERWISE.
4. PROVIDE NEW LIGHT FIXTURES AND SWITCHES, COMPLETE AS SHOWN OR AS REQUIRED BY APPLICABLE CODES. BRACE ALL LIGHT OUTLETS ACCORDING TO ELECTRICAL, ELECTRICAL SAFETY AND BUILDING CODE REQUIREMENTS.
5. PROVIDE NEW POWER AND CONTROL WIRING FOR MECHANICAL EQUIPMENT (RTU, HVAC, VAV OR INSTA-HOT UNITS) WHERE REQUIRED OR AS SHOWN ON THE MECHANICAL DRAWINGS, COMPLETE AND INCLUDING BUT NOT LIMITED TO THERMOSTAT AND CONTROL WIRING. CONTRACTOR SHALL PROVIDE WIRING, CONTROL CABLE AND THERMOSTAT CABLE TO EACH UNIT AS REQUIRED OR SHOWN IN THE MECHANICAL DRAWINGS.
6. PROVIDE NEW MAIN SWITCHBOARD, TRANSFORMERS, PANELBOARDS AND SUB-PANELS AS SHOWN OR AS REQUIRED FOR THIS PROJECT.

THE CONTRACTOR SHALL PROVIDE EQUIPMENT AND/OR INCIDENTAL MATERIALS REQUIRED TO COMPLETE THE ELECTRICAL WORK. TYPICAL MATERIALS WHICH MAY BE INCIDENTAL ARE TERMINAL LUGS NOT FURNISHED WITH VENDOR-SUPPLIED EQUIPMENT, COMPRESSION CONNECTORS FOR CABLES, SPLICES, JUNCTION AND TERMINAL BOXES, AND CONTROL WIRES BY VENDOR-FURNISHED EQUIPMENT TO INTERCONNECT WITH OTHER EQUIPMENT.

THE WORK SHALL ALSO INCLUDE THE COMPLETION OF DETAILS OF ELECTRICAL, TELEPHONE, FIRE ALARM, SECURITY AND COMMUNICATION WORK ETC. NOT SHOWN WHICH MAY BE NECESSARY FOR THE SUCCESSFUL OPERATION OF ALL SYSTEMS DESCRIBED ON THE DRAWINGS AND INSTALLED AS PART OF THIS CONTRACT.

CODES, REGULATIONS AND STANDARDS:
THE FOLLOWING INDUSTRY STANDARDS, SPECIFICATIONS AND CODES ARE MINIMUM REQUIREMENTS.

1. THE LATEST NATIONAL ELECTRICAL CODE (NEC), AS ADOPTED AND AMENDED BY THE AUTHORITY HAVING JURISDICTION.
2. THE NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION STANDARDS (NEMA).
3. UNDERWRITERS LABORATORIES INCORPORATED (UL.).
4. AMERICAN STANDARDS ASSOCIATION.
5. BUILDING CODE(S) AS ADOPTED BY THE AUTHORITY HAVING JURISDICTION.

ALL EQUIPMENT AND MATERIALS SHALL BE APPROVED BY AND SHALL BEAR THE LABEL OF UNDERWRITERS LABORATORIES INCORPORATED (UL.) OR BE APPROVED AND LABELED BY AN INDEPENDENT TESTING LABORATORY ACCEPTABLE TO THE AUTHORITY HAVING JURISDICTION.

THE CONSTRUCTION AND INSTALLATION OF THE ELECTRICAL EQUIPMENT AND MATERIALS SHALL COMPLY WITH ALL APPLICABLE PROVISIONS OF THE OSHA SAFETY AND HEALTH STANDARDS (29CFR1910 AND 29CFR1926, AS APPLICABLE), STATE BUILDING STANDARDS, AND APPLICABLE CODES AND REGULATIONS.

INSPECTION OF SITE AND OF OTHER TRADES' DRAWING(S):
PRIOR TO SUBMITTING A BID FOR ELECTRICAL WORK THE CONTRACTOR SHALL VISIT THE SITE OF THE PROPOSED CONSTRUCTION AND SHALL THOROUGHLY ACQUAINT HIMSELF/HERSELF WITH THE EXISTING UTILITIES AND WORKING CONDITIONS TO BE ENCOUNTERED. NO ALLOWANCE WILL BE MADE AFTER CONTRACT AWARD FOR FAILURE TO COMPLY WITH THIS CONDITION PRIOR TO BIDDING.

REFER TO ALL OTHER DRAWINGS THAT PERTAIN TO THIS PROJECT AND REPORT ANY CONFLICTS WITH THE DESIGN AND INTENT OF THESE DOCUMENTS. SEE GENERAL SPECIFICATION NOTES AND CAUTION TO CONTRACTOR (BELOW).

STORAGE AND HANDLING:
DELIVER MATERIALS AND EQUIPMENT TO THE PROJECT IN THE MANUFACTURER'S ORIGINAL, UNOPENED, LABELED CONTAINERS. PROTECT AGAINST MOISTURE, TAMPERING, OR DAMAGE FROM IMPROPER HANDLING, ETC.

ARRANGE FOR TIMELY DELIVERY OF MATERIALS AND EQUIPMENT TO THE JOB SITE IN ORDER TO MINIMIZE THE LENGTH OF TIME BETWEEN DELIVERY AND INSTALLATION.

COVER AND PROTECT ANY MATERIALS WHICH MAY BE AFFECTED BY THE WEATHER WHILE IN TRANSIT OR STORED AT THE PROJECT SITE. ANY MATERIAL FOUND DEFECTIVE OR NOT FUNCTIONAL OR NOT INSTALLED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS MAY BE REJECTED BY THE ENGINEER, OWNER OR AUTHORITY HAVING JURISDICTION.

THE CONTRACTOR SHALL SECURE AND PROTECT ALL MATERIALS AND EQUIPMENT AND BE RESPONSIBLE FOR ANY DAMAGE. ANY DAMAGE OR LOSS THAT MAY OCCUR DURING THIS PERIOD SHALL REPAIRED OR REPLACED TO ITS ORIGINAL CONDITION WITHOUT ADDITIONAL COST TO THE OWNER OR ENGINEER.

CLEANUP:
KEEP THE PREMISES FREE FROM ACCUMULATION OF WASTE MATERIALS OR RUBBISH CAUSED BY EMPLOYEES, OR BY WORK UNDER THIS DIVISION OF THE SPECIFICATIONS. AT THE COMPLETION OF THE WORK, REMOVE ALL SURPLUS MATERIALS, TOOLS, ETC. AND LEAVE THE PREMISES CLEAN (I.E., BROOM CLEAN).

EXCAVATION BACKFILL:
WHERE APPLICABLE, THE CONTRACTOR SHALL PERFORM ALL EXCAVATION AND BACKFILL REQUIRED FOR WORK UNDER THIS DIVISION OF THE SPECIFICATION. TRENCH BOTTOMS SHALL BE GRADED TRUE AND BE FREE OF DEBRIS, STONES OR SOFT SPOTS. USE EXCAVATED MATERIALS FOR BACKFILL UNLESS OFF-SITE MATERIALS ARE DEEMED NECESSARY BY THE OWNER, ARCHITECT, ENGINEER OR AUTHORITY HAVING JURISDICTION. TRENCHING AND BACKFILLING FOR ELECTRICAL AND TELEPHONE UTILITY SERVICES TO THE BUILDING SHALL BE PROVIDED BY THE CONTRACTOR.

DRAWINGS:
THE DRAWINGS INDICATE GENERAL LAYOUT OR ARRANGEMENT AND LOCATIONS OF ELECTRICAL WORK ONLY. DATA PRESENTED ON THESE DRAWINGS ARE AS ACCURATE AS THE ENGINEER CAN DETERMINE. FIELD VERIFICATION IS REQUIRED OF ALL DIMENSIONS, LOCATIONS, LEVELS, ETC. TO SUIT FIELD REVIEW ALL ARCHITECTURAL, STRUCTURAL, MECHANICAL AND OTHER TRADES' DRAWINGS AND ADJUST ALL WORK TO MEET THE REQUIREMENTS OF THE EXISTING FACILITIES AND CONDITIONS. THE ARCHITECTURAL DRAWINGS SHALL TAKE PRECEDENCE OVER ALL OTHER DRAWINGS, UNLESS OTHERWISE CLARIFIED BY THE ARCHITECT OR THE AUTHORITY HAVING JURISDICTION. DISCREPANCIES BETWEEN DIFFERENT PLANS, OR BETWEEN DRAWINGS AND SPECIFICATIONS, OR REGULATIONS AND CODES GOVERNING THE INSTALLATION SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER IN WRITING BEFORE THE DATE OF BID OPENING. IF DISCREPANCIES ARE NOT REPORTED, THE CONTRACTOR SHALL BID THE GREATER QUANTITY OR THE BETTER QUALITY, AND APPROPRIATE ADJUSTMENTS WILL BE MADE AFTER CONTRACT AWARD. CONTRACTOR SHALL RE RESPONSIBLE TO FIELD MEASURE AND CONFIRM MOUNTING HEIGHTS AND LOCATIONS OF ELECTRICAL EQUIPMENT WITH RESPECT TO COUNTERS, RADIATION, ETC. DO NOT SCALE DISTANCE OFF THE ELECTRICAL DRAWINGS, USE ACTUAL BUILDING DIMENSIONS. SEE GENERAL SPECIFICATION NOTES AND CAUTION TO THE CONTRACTOR (BELOW).

IN ALL CASES SWITCHES CONTROLLING LIGHTING ARE TO BE LOCATED ON THE STRIKE SIDE OF THE DOORS UNLESS OTHERWISE REQUIRED. LOCATIONS INDICATED FOR SWITCHES AND OUTLETS ARE APPROPRIATE. OWNER MAY MAKE MINOR RELOCATIONS AT NO ADDITIONAL CHARGE.

EXCAVATION, CUTTING AND FITTING:
PERFORM THE CUTTING, FITTING, REPAIRING, AND FINISHING OF THE WORK NECESSARY FOR THE INSTALLATION OF THE EQUIPMENT OF THIS SECTION. HOWEVER, NO CUTTING OF WORK BY OTHER TRADES OR OF ANY STRUCTURAL MEMBER SHALL BE DONE WITHOUT THE CONSENT OF THE ARCHITECT OR THE AUTHORITY HAVING JURISDICTION.

COORDINATION AND COOPERATION WITH OTHER CONTRACTORS:
COORDINATE AND COOPERATE WITH THE OTHER CONTRACTORS SO THAT ELECTRICAL OUTLETS, CONDUITS, BOXES AND EQUIPMENT WILL BE SAFELY AND PROPERLY INSTALLED. ALL CONDUIT, FIXTURE AND OTHER EQUIPMENT LOCATIONS SHALL BE COORDINATED WITH OTHER TRADES TO AVOID CONFLICT WITH PIPING, DUCTWORK, STRUCTURAL STEEL, BEAMS, TRUSSES OR OTHER OBSTRUCTIONS.

CAREFULLY CHECK THE LOCATIONS OF ALL OUTLET BOXES AND VERIFY THAT THEY HAVE NOT BEEN DAMAGED OR BLOCKED DURING THE INSTALLATION OF MATERIALS AND EQUIPMENT BY OTHER TRADES.

COORDINATE THE LOCATIONS OF TRENCHES AND CONDUITS FOR ELECTRICAL AND TELEPHONE UTILITY SERVICES WITH THE GENERAL CONTRACTOR.

MATERIALS:
ALL MATERIALS SHALL BE NEW AND EQUAL TO THE QUALITY SPECIFIED IN THE PLANS OR SPECIFICATIONS, AND MUST CARRY THE UNDERWRITERS LABORATORIES APPROVAL FOR THE PURPOSE(ES) FOR WHICH THEY ARE USED, IN ADDITION TO MEETING ALL REQUIREMENTS OF THE CURRENT APPLICABLE CODES AND REGULATIONS. UL. LISTINGS OF AN ASSEMBLY SHALL BE FOR THE ENTIRE ASSEMBLY, NOT FOR THE COMPONENTS ALONE.

WIRE AND CABLE:
UNLESS NOTED OTHERWISE, ALL FEEDER AND BRANCH CIRCUIT CONDUCTORS SHALL BE COPPER, 600V, 75 DEGREE C, TYPE THW, THWN, THHN, OR XHHW. ALL INSULATION SHALL BE COLOR CODED PER THE NEC TO PROVIDE PHASE IDENTIFICATION. THE MINIMUM WIRE SIZE SHALL BE NO. 12 AWG. FOR BRANCH CIRCUITS WITH LENGTHS EXCEEDING 100 FEET FROM THE PANEL TO THE CENTER OF THE LOAD, CONDUCTORS SHALL NOT BE SMALLER THAN NO. 10 AWG. ALL CONDUCTORS LARGER THAN NO.10 AWG SHALL BE STRANDED.

COLOR CODING SHALL BE AS FOLLOWS: FOR A 480Y/277 VOLT SYSTEM, PHASE A SHALL BE BROWN, PHASE B SHALL BE ORANGE, PHASE C SHALL BE YELLOW AND THE NEUTRAL SHALL BE GREY. FOR A 208Y/120 VOLT SYSTEM, PHASE A SHALL BE BLACK, PHASE B SHALL BE RED, PHASE C SHALL BE BLUE AND THE NEUTRAL SHALL BE WHITE. FOR A 120/240 VOLT SYSTEM PHASE A SHALL BE BLACK, PHASE B SHALL BE RED AND THE NEUTRAL SHALL BE WHITE. IN ALL SYSTEMS THE EQUIPMENT GROUND SHALL BE GREEN. CONDUCTORS FROM MAIN INCOMING POINT OF CONNECTION (ELECTRICAL) TO SUB PANELS MAY BE ALUMINUM, TYPE SER.

NO WIRES SHALL BE INSTALLED IN THE CONDUIT SYSTEM UNTIL THE CONDUIT SYSTEM IS COMPLETE. USE MINERALAC #100 OR EQUIVALENT AS LUBRICANT TO FACILITATE INSTALLATION OF CONDUCTORS IN THE CONDUIT SYSTEM. CONTRACTOR MAY USE MC CABLE OR NON-METALLIC CABLE PROVIDED THAT MATERIALS AND INSTALLATION ARE IN COMPLIANCE WITH ALL APPLICABLE CODES AND ARE ACCEPTABLE TO THE AUTHORITY HAVING JURISDICTION.

OUTLET, PULL AND JUNCTION BOXES:
WHERE REQUIRED, EACH SWITCH, LIGHT, RECEPTACLE OR OTHER OUTLET SHALL BE PROVIDED WITH A CODE GAGE GALVANIZED STEEL OUTLET BOX. JUNCTION BOXES SHALL BE CODE GAGE GALVANIZED STEEL. OUTLET BOXES SHALL BE OF THE ONE PIECE, KNOCKOUT TYPE.

IN GENERAL, BOXES SHALL BE 4" SQUARE WITH PLASTER RING. PLASTER RINGS SHALL BE SET TO PROVIDE NOT MORE THAN 1/8" FROM WALL SURFACE TO RING. IN NO CASE SHALL PLASTER RING PROJECT BEYOND SURFACE OF WALL. SINGLE GANG RINGS SHALL BE USED FOR 4" BOXES IN UNFINISHED BRICK, AND NO. 180 BOXES MAY BE USED FOR UNFINISHED MASONRY FLUSH WALL OUTLETS.

CENTER ALL OUTLET BOXES IN BLOCK COURSES. BOXES INSTALLED IN POURED CONCRETE FLOORS SHALL BE FLUSH TYPE NON-METALLIC FLOOR BOXES, ROUND OR SQUARE WITH BRASS GASKETED COVERS, UL. LISTED FOR EACH APPLICATION. WHERE BOXES ARE INSTALLED IN FLOORS WITH TILE OR CARPET FLOOR COVERING, THE COVERS SHALL BE OF THE RECESSED TYPE TO ACCOMMODATE THE FLOOR COVERING.

CONDUITS:
ELECTRICAL METALLIC TUBING (EMT), INTERMEDIATE METALLIC CONDUIT (IMC) AND MC CABLE MAY BE USED IN ALL INTERIOR AREAS. ELECTRICAL METALLIC TUBING (EMT) SHALL NOT BE USED IN DIRECT CONTACT WITH THE EARTH, IN CONCRETE SLABS, IN CONCRETE WALLS OR AREAS THAT ARE SUBJECT TO PHYSICAL DAMAGE. ALL HOMERUNS SHALL BE OF EMT, IMC, RGS OR MC CABLE. FLEXIBLE STEEL CONDUITS SHALL BE USED FOR INDOOR FINAL CONNECTIONS TO ALL MECHANICAL EQUIPMENT NOT TO EXCEED THREE FEET AND RECESSED REMOVABLE FLUORESCENT LIGHT FIXTURES NOT TO EXCEED SIX FEET. PROVIDE LIQUID-TIGHT FLEXIBLE CONDUIT ON ALL WEATHER EXPOSED INSTALLATIONS. RACEWAYS UNDER SLAB-ON-GRADE SHALL BE SCHEDULE 40 PVC. TRANSITIONS FROM BELOW TO ABOVE GRADE SHALL BE MADE WITH RGS ELBOWS WITH POLYETHYLENE TAPE, SPIRAL WRAPPED, AT LEAST 1/2" OVERLAP, WRAPPED TO PROVIDE DOUBLE THICKNESS. NO EXCEPTIONS.

WHERE CONDUIT RACEWAYS ENTER OUTLET BOXES, JUNCTION BOXES, FIXTURES OR CABINETS, FIRMLY FASTEN IMC CONDUIT RACEWAYS WITH DOUBLE LOCKNUTS AND BUSHINGS. USE SLIP-ON FITTINGS ON EMT CONDUIT RACEWAYS. FITTING SHOULDERS SHALL SEAT FIRMLY AGAINST THE BOX OR CABINET, WITH ONE LOCKNUT ON THE INSIDE OF BOXES AND CABINETS. USE SNAP-ON CONNECTORS ON MC CABLE RACEWAYS. FIRMLY FASTEN CONDUIT TO THE BUILDING STRUCTURE. RUN EXPOSED CONDUITS PARALLEL TO THE BUILDING LINES, SUPPORTED BY APPROPRIATE HANGERS (UNISTRUT, THOMAS & BETTS, APPLETON OR EQUAL.)

COVER ALL METALLIC CONDUIT IN CONTACT WITH THE EARTH WITH POLYETHYLENE TAPE, SPIRAL WRAPPED, AT LEAST 1/2" OVERLAP WRAPPED TO PROVIDE DOUBLE THICKNESS. TAPE SHALL BE SCOTCH NO. 50. PVC CONDUIT AND DUCTS NOT UNDER BUILDINGS SHALL BE RUN A MINIMUM OF 18" BELOW GRADE, UNLESS OTHERWISE INDICATED, WITH THE EXCEPTION THAT CONDUIT BENDS LARGER THAN 1" IN DIAMETER SHALL BE MADE WITH GALVANIZED STEEL CONDUIT TREATED AS NOTED ABOVE.

WIRING DEVICES:
WALL SWITCHES SHALL BE COMMERCIAL GRADE, AC SILENT TYPE SWITCH, 20A, 120 VOLTS. SPECIFICATION APPLIES TO SINGLE POLE SWITCHES, 3-WAY SWITCHES, OR 4-WAY SWITCHES.

RECEPTACLES SHALL BE COMMERCIAL GRADE, DUPLEX TYPE, NEMA 5-20R, 20-AMPERE, 120-VOLT GROUNDED TYPE. SPECIAL APPLICATION RECEPTACLE SHALL BE AS INDICATED ON PLANS. PROVIDE ISOLATED GROUND DUPLEX RECEPTACLE FOR DATA POWER, IF INDICATED.

GFI RECEPTACLES SHALL BE COMMERCIAL GRADE, DUPLEX, NEMA 5-20R. WEATHERPROOF RECEPTACLES SHALL BE COMMECIAL GRADE, DUPLEX, NEMA 5-20R WITH GFI RECEPTACLE OUTLET.

SWITCHES FOR SWITCHED DUPLEX RECEPTACLES SHOWN ON DRAWINGS SHALL SWITCH ONE RECEPTACLE ONLY.

DEVICE PLATES SHALL BE SMOOTH NYLON, IVORY UNLESS NOTED OTHERWISE.

DEVICES SPECIFIED ABOVE ARE GENERAL RECOMMENDATIONS ONLY. CONTRACTOR MAY USE OTHER TYPES AND COLORS AS APPROVED BY THE OWNER OR ARCHITECT.

LIGHTING FIXTURES:
PROVIDE NEW LIGHTING FIXTURES, WIRED AND CONNECTED AS INDICATED. THE DRAWINGS INDICATE THE PROPOSED FIXTURES FOR EACH LOCATION. PROVIDE LAMPS FOR ALL FIXTURES. ALL H.I.D. LAMPS SHALL BE MADE BY THE SAME MANUFACTURER AND BE FROM THE SAME PRODUCTION RUN. VERIFY CEILING CONSTRUCTION BEFORE ORDERING RECESSED FIXTURES. PROVIDE PLASTER FRAMES AND HANGERS AS REQUIRED. FIXTURE TYPES AND LOCATIONS SHALL BE VERIFIED WITH THE OWNER PRIOR TO ROUGH-IN AND INSTALLATION.

MECHANICAL AND ELECTRICAL COORDINATION:
1. ANY DEVICE WHICH CARRIES THE FULL LOAD CURRENT OF ELECTRICALLY DRIVEN MACHINERY, AS OPPOSED TO CONTROL OR INSTRUMENTATION CURRENT IN THE HOLDING COIL, IS DEFINED AS A POWER CIRCUIT AND IS THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR. CONTROL AND INSTRUMENTATION CIRCUITS CONNECTING HOLDING COILS TO THE AUTOMATIC TEMPERATURE CONTROL SYSTEM ARE THE RESPONSIBILITY OF THE MECHANICAL CONTRACTOR.
2. THE POWER CIRCUIT IS DEFINED AS ALL DEVICES NECESSARY TO OPERATE THE UNIT, AND AS ALL DEVICES REQUIRED BY CODE TO PROTECT AND SERVICE THE UNIT, INCLUDING BRANCH CIRCUIT PROTECTIVE DEVICES, FUSED AND UNFUSED DISCONNECTS, MAGNETIC MOTOR STARTERS WITH RUNNING OVERLOAD AND SINGLE PHASING PROTECTION, AND MAGNETIC CONTACTORS.
3. THE CONTROL AND INSTRUMENTATION CIRCUIT IS DEFINED AS ALL DEVICES NECESSARY TO INTERFACE THE ELECTRICAL POWER CIRCUIT WITH THE AUTOMATIC TEMPERATURE CONTROL SYSTEM, INCLUDING CONDUIT, BOXES, CONDUIT FITTINGS, CONDUCTORS, ELECTRIC AND PNEUMATIC SWITCHES, 'ELECTRIC AND PNEUMATIC RELAYS, AND PNEUMATIC TUBING.
4. OVERCURRENT PROTECTION OF HVAC EQUIPMENT MAY BE PROVIDED BY FUSES, STANDARD CIRCUIT BREAKERS OR CIRCUIT BREAKERS LISTED FOR USE WITH HEATING, AIR CONDITIONING AND REFRIGERATION (HACR) EQUIPMENT. THE CONTRACTOR SHALL FOLLOW THE EQUIPMENT MANUFACTURER'S RECOMMENDATIONS FOR THE TYPE AND SIZE OF OVERCURRENT PROTECTION SERVICES FOR ALL HVAC EQUIPMENT.

SAFETY SWITCHES:
UNLESS OTHERWISE INDICATED ON THE DRAWINGS, SAFETY SWITCHES SHALL BE HEAVY DUTY TYPE, 600 OR 250-VOLT, WITH THE NUMBER OF POLES REQUIRED. SAFETY SWITCHES FOR AIR CONDITIONING USE SHALL BE OF FUSIBLE TYPE WHERE RECOMMENDED BY EQUIPMENT MANUFACTURER. THE SWITCH SHALL BE AS REQUIRED BY CODE AND AS INDICATED ON THE DRAWINGS. WHEN LOCATED OUTSIDE THE BUILDING, THE SWITCHES SHALL BE NEMA 3R. ALL SWITCHES SHALL BE LOCKABLE.

FUSES:
FUSES SHALL BE OF THE SIZE AND RATING INDICATED ON THE DRAWINGS. ALL FUSES SHALL BE AS MANUFACTURED BY COOPER BUSSMAN, OR BY GOULD SHAWMUT. VERIFY FUSE AND SWITCH REQUIREMENTS FOR THE ACTUAL EQUIPMENT BEING SUPPLIED.

MOTOR AND/OR EQUIPMENT WIRING:
ALL MOTORS SHALL BE WIRED TO CONFORM WITH THE MANUFACTURER'S RECOMMENDATIONS AND WITH APPLICABLE CODES. FURNISH NECESSARY MATERIALS, SUCH AS WIRES, CONDUITS, FITTINGS, ETC. REQUIRED BY THE SUPPLIER OF THE MOTOR DRIVEN EQUIPMENT. VERIFY EQUIPMENT LOCATIONS AND DIMENSIONS WITH THE TRADE SUPPLYING THE MOTOR OR EQUIPMENT BEFORE INSTALLING THE CONDUIT AND OUTLET OR JUNCTION BOX.

GUARANTEE:
CONTRACTOR SHALL GUARANTEE ALL MATERIALS FURNISHED AND ALL WORKMANSHIP PERFORMED, FOR A PERIOD OF ONE YEAR FROM THE DATE OF FINAL ACCEPTANCE OF THE WORK BY THE OWNER. ANY DEFECTS ARISING WITHIN THIS PERIOD THAT ARE THE RESULT OF MATERIALS FURNISHED AS PART OF THIS SECTION OR WORKMANSHIP PERFORMED HEREUNDER SHALL BE REPAIRED, REPLACED OR OTHERWISE MADE GOOD TO THE OWNER'S SATISFACTION IN ACCORDANCE WITH ACCEPTABLE INDUSTRY STANDARDS AND PRACTICE. ALL SUCH REPAIR OR REPLACEMENT OF DEFECTIVE WORK AND/OR MATERIALS SHALL BE PERFORMED AT NO ADDITIONAL COST TO THE OWNER.

GENERAL SPECIFICATION NOTES AND CAUTION TO CONTRACTOR:
ALL DRAWINGS, SPECIFICATIONS, SCHEDULES AND OTHER RELATED DOCUMENTS ARE COMPLETE AND ACCURATE ACCORDING TO THE BEST KNOWLEDGE OF HE ENGINEER AND DESIGNER. THE CONTRACTOR SHALL VERIFY THE ACTUAL EQUIPMENT TO BE INSTALLED, INCLUDING ALL ELECTRICAL REQUIREMENTS, INSTALLATION REQUIREMENTS, CLEARANCES, ETC., AND SHALL COORDINATE ALL WORK WITH DRAWINGS PREPARED BY OTHERS.

IN THE EVENT OF CONFLICT BETWEEN CONSTRUCTION DOCUMENTS, CODE ENFORCEMENT AUTHORITIES OR WITH WORK PERFORMED BY OTHER TRADES THAT ARISE AFTER CONSTRUCTION BEGINS, THE CONTRACTOR SHALL IMMEDIATELY INFORM THE ENGINEER IN WRITING AND SHALL REQUEST CLARIFICATION PRIOR TO CONTINUING WITH THE AFFECTED WORK OR ORDERING THE AFFECTED MATERIALS AND/OR EQUIPMENT. THE CONTRACTOR MAY BE REQUIRED TO BEAR ALL COSTS, INCLUDING LIQUIDATED DAMAGES, ASSOCIATED WITH DELAYS IN RESOLVING CONFLICTS THAT ARE NOT BROUGHT TO THE ATTENTION OF THE ENGINEER IN A TIMELY MANNER.

SYMBOL LIST

(NOT ALL SYMBOLS ARE USED)

- FLUORESCENT FIXTURE
- FLUORESCENT FIXTURE WITH EMERGENCY BATTERY BALLAST UNIT
- DOWNLIGHT FIXTURE WITH EMERGENCY BATTERY BALLAST UNIT
- WALL MOUNTED FIXTURE WITH EMERGENCY BATTERY BALLAST UNIT
- DOWNLIGHT FIXTURE
- WALL MOUNTED FIXTURE
- CEILING MOUNTED FIXTURE
- SPOT OR FLOOD LIGHT
- WALL WASHER
- SINGLE FACE EXIT SIGN - UNIVERSAL MOUNTED
- SINGLE FACE EXIT SIGN W/ DIRECTIONAL ARROWS - UNIVERSAL MOUNTED
- DOUBLE FACE EXIT SIGN W/ DIRECTIONAL ARROWS - UNIVERSAL MOUNTED
- DUAL HEADED EMERGENCY UNIT
- COMBO DUAL HEADED EMERGENCY AND EXIT SIGN UNIT
- TRACK LIGHT - NUMBER OF HEADS AS SHOWN
- LETTER INDICATES LIGHT FIXTURE AS INDICATED ON FIXTURE SCHEDULE
- FIXTURE WITH STANDARD SELECTOR UNIT OR APPROVED JUNCTION BOX WITH MODULAR SELECTOR CABLE OR MC CABLE
- S — SINGLE POLE SWITCH @ +48" UNLESS NOTED
- S_{abc} — SWITCH BANK @ +48" UNLESS NOTED. LOWER CASE LETTER INDICATES FIXTURE CONTROLLED.
- S_2 — 2 POLE SWITCH @ +48" UNLESS NOTED
- S_3 — 3-WAY SWITCH @ +48" UNLESS NOTED
- S_4 — 4-WAY SWITCH @ +48" UNLESS NOTED
- S_D — DIMMER SWITCH - SIZE AS REQUIRED @ +48" UNLESS NOTED
- S_S — SWITCH SENSOR @ +48" UNLESS NOTED
- S_M — MANUAL MOTOR STARTER
- OCCUPANCY SENSOR
- SINGLE RECEPTACLE @ +18" UNLESS NOTED
- DUPLEX RECEPTACLE @ +18" UNLESS NOTED
- DOUBLE DUPLEX RECEPTACLE @ +18" UNLESS NOTED
- GFI DUPLEX RECEPTACLE
- GFI DOUBLE DUPLEX RECEPTACLE @ +18" UNLESS NOTE
- FLUSH FLOOR (OR PEDESTAL) DUPLEX RECEPTACLE
- DUPLEX RECEPTACLE - CEILING MOUNTED
- SPECIAL RECEPTACLE @ +18" UNLESS NOTED
- 1/2 SWITCHED RECEPTACLE @ +18" UNLESS NOTED
- PLUG MOLD WITH OUTLETS AS INDICATED
- TELEPHONE OUTLET@ +18" UNLESS NOTED
- DATA OUTLET @ +18" UNLESS NOTED
- COMBINATION TELEPHONE/DATA OUTLET @ +18" UNLESS NOTED
- TELEVISION/SATELLITE COAX OUTLET @ +18" UNLESS NOTED
- DUCT DETECTOR
- HEAT DETECTOR
- SMOKE DETECTOR
- BELL WALL MOUNTED
- MAGNETIC DOOR HOLDER
- FLOW SWITCH
- TAMPER SWITCH
- AUXILIARY SYSTEM TERMINAL CABINET
- SWITCHBOARD, MOTOR CONTROL CENTER OR DISTRIBUTION BOARD
- 120/208V., 3 PHASE, 4 WIRE PANELBOARD
- 277/480V., 3 PHASE, 4 WIRE PANELBOARD
- JUNCTION BOX
- SHUNT TRIP OR PUSHBUTTON STATION
- RELAY
- TRANSFORMER
- TIME SWITCH
- CEILING MOUNTED EXHAUST FAN
- WALL MOUNTED EXHAUST FAN
- FUSED DISCONNECT SWITCH.- SIZE AS INDICATED
- NON-FUSED DISCONNECT SWITCH.- SIZE AS INDICATED
- MECHANICAL EQUIPMENT CONNECTION, SEE SCHED. ON MECH. PLAN
- PHOTOCELL
- PUSHBUTTON TYPE CONTROL STATION
- CONCRETE PULLBOX WITH STEEL HEAVY DUTY TRAFFIC COVER
- FLANGED SCREW DOWN COVERED CABLE TRAY
- CONDUIT RUN CONCEALED IN WALL OR ABOVE CEILING
- CONDUIT RUN BELOW FLOOR OR GRADE
- POWER FLOOR DUCT
- TELEPHONE FLOOR DUCT
- CONDUIT WITH SEAL-OFF FITTING
- OVERHEAD LINE
- CONDUIT RISER
- HOMERUN: TO PANEL A, CIRCUITS 1,3,5
- HOMERUN BELOW FLOOR OR GRADE: TO PANEL A, CIRCUITS 1,3,5
- EXISTING HOMERUN TO REMAIN
- EXISTING HOMERUN TO BE REMOVED
- 1/2" - 2 #12 THHN/THWN UNLESS NOTED
- 1/2" - 3 #12
- 1/2" - 4 #12
- 3/4" - 5 #10
- 3/4" - 6 #10

DOES NOT INCLUDE GROUND WIRE. IF REQUIRED ADD CODE SIZE GROUND

ABBREVIATIONS

A	AMPERE	HID	HIGH INTENSITY DISCHARGE	REC	RECEPTACLE
AC	ALTERNATING CURRENT	HOA	HAND-OFF-AUTOMATIC	RMS	ROOT MEAN SQUARE
A/C	AIR CONDITIONING	HP	HORSEPOWER	SHT	SHEET
ADA	AMERICAN DISABILITIES ACT ABOVE	HPS	HIGH PRESSURE SODIUM	SPECS	SPECIFICATIONS
AFF	FINISHED FLOOR	HVAC	HEATING, VENTILATING, A/C	SPST	SINGLE POLE SINGLE THROW
AFG	ABOVE FINISHED GRADE	HZ	HERTZ - CYCLES PER SECOND	STA	STATION
AMP	AMPERES, AMPERAGE	IMC	INTERMEDIATE METAL CONDUIT	TC	TIME CLOCK
AWG	AMERICAN WIRE GAUGE	J-BOX	JUNCTION BOX	TYP	TYPICAL
BC	BARE COPPER	LC	LIGHTING CONTACTOR	UG	UNDERGROUND
C	CONDUIT	LTG	LIGHTING	UON	UNLESS OTHERWISE NOTED
CB	CIRCUIT BREAKER	MAX	MAXIMUM	V	VOLTAGE, VOLTS
CO	CONDUIT ONLY	MCC	MOTOR CONTROL CENTER	VAC	VOLTS ALTERNATING CURRENT
COMM	COMMUNICATIONS	MCB	MAIN CONTROL BOARD	VFD	VARIABLE FREQUENCY DRIVE
CU	COPPER	MCP	MOTOR CIRCUIT PROTECTOR	W	WATTS, WIRE
DPDT	DOUBLE POLE DOUBLE THROW	MIN	MINIMUM	WP	WEATHERPROOF
DWG	DRAWING	MLO	MAIN LUGS ONLY	XFMR	TRANSFORMER
EC	ELECTRICAL CONTRACTOR	NC	NORMALLY CLOSED	2#10	2 CONDUCTORS AT #10 AWG
EF	EXHAUST FAN	NEC	NATIONAL ELECTRICAL CODE	3/C	3 CONDUCTORS PER CABLE
EM	EMERGENCY	NL	NIGHT LIGHT	(4)4"C	4 EACH 4 INCH CONDUITS
EMT	ELECTRICAL METALLIC TUBING	NO	NORMALLY OPEN	+18"	MOUNTING HEIGHTS ARE TO CENTERLINE OF DEVICE ABOVE FINISH FLOOR OR FINISH GRADE. VERIFY EXACT MOUNTING HEIGHTS PER ADA REQUIREMENTS.
EHU	ELECTRIC HEATING UNIT ELECTRIC	NPCO	NEVADA POWER COMPANY		
EWC	WATER COOLER	NIC	NOT IN CONTRACT		
FLA	FULL LOAD AMPERES (NAMEPLATE)	OC	ON CENTER		
FBO	FURNISHED BY OTHERS	PB	PUSH BUTTON		
FLC	FULL LOAD CURRENT (NEC)	PC	PHOTOCELL		
FLUOR	FLUORESCENT	PH, Ø	PHASE		
GFI	GROUND FAULT INTERRUPTER	PNL	PANEL		
GRND	GROUND	PVC	POLYVINYL CHLORIDE		

PLANS APPROVED ELECTRICAL
Building & Safety Dept.
City of Las Vegas, Nevada
DRM MAR 04 2009
Does Not Include Structural, Architectural, Plumbing/Mechanical or Off-Site Improvements. Make No Change Without Approval. Plan is Not a Permit to Violate Any Ordinance.

GENERAL UNIT PLAN NOTES

1. ALL SMOKE DETECTORS SHALL BE HARDWIRED ON SAME CIRCUIT AND HAVE A BATTERY BACKUP SYSTEM.
2. SMOKE DETECTORS SHALL SOUND AN ALARM AUDIBLE IN ALL SLEEPING AREAS AND BE INTERCONNECTED PER IRC.
3. ALL BRANCH CIRCUITS THAT SUPPLY 125-VOLT, SINGLE PHASE, 15 AND 20 AMP OUTLETS INSTALLED IN DWELLING UNIT BEDROOMS SHALL BE PROTECTED BY AN ARC-FAULT CIRCUIT INTERRUPTER LISTED TO PROVIDE PROTECTION OF ENTIRE BRANCH CIRCUIT. SMOKE DETECTORS SHALL BE INCLUDED IN THE ARC-FAULT CIRCUIT INTERRUPTER PROTECTION OF DWELLING UNIT BEDROOM BRANCH CIRCUITS. NEC ARTICLE 210.12 (B).
4. ALL ATTIC ACCESSES SHALL BE PROVIDED WITH A SWITCHED LIGHT AND 120 VOLT OUTLET AT OR NEAR THE FORCED AIR UNIT.
5. CIRCUITS PROVIDED FOR HVAC AND PLUMBING EQUIPMENT SHALL BE LOCATED PER MECHANICAL DRAWINGS.
6. FEEDERS TO AIR CONDITIONING EQUIPMENT SHALL BE RATED FOR FULL LOAD CURRENT. UNLESS NOTED OTHERWISE, NON-FUSED DISCONNECTS SHALL BE INSTALLED AT AIR CONDITIONING EQUIPMENT LOCATIONS. HACR CIRCUIT BREAKERS/FUSES SHALL BE SIZED IN ACCORDANCE WITH THE HVAC EQUIPMENT MANUFACTURER'S RECOMMENDATIONS. AS INDICATED ON THE PLANS, 120 VAC WEATHERPROOF GFCI RECEPTACLES SHALL BE INSTALLED SO THAT NO HVAC EQUIPMENT IS MORE THAN 25 FEET FROM A RECEPTACLE.
7. WHERE A BOX IS USED AS THE SOLE SUPPORT OF A CEILING-SUSPENDED (PADDLE) FAN, THE BOX SHALL BE LISTED FOR THE APPLICATION AND FOR THE WEIGHT OF THE FAN SUPPORTED. (NEC ART. 314.27(D)).
8. ALL CEILING LIGHT/FAN FIXTURES TO BE CENTERED IN ROOM UNLESS OTHERWISE NOTED.
9. LIGHTING FIXTURES SHOWN ON THESE PLANS INDICATE THE DESIGN INTENT. FINAL APPROVAL OF ALL LUMINARIES SHALL BE BY THE OWNER.
10. SECURITY ALARM SYSTEM DESIGN SHALL BE PROVIDED BY OTHERS.
11. THE ELECTRICAL CONTRACTOR SHALL FOLLOW DRAWINGS FROM NEVADA POWER, SPRINT, AND COX COMMUNICATIONS FOR DRY UTILITY DESIGN.
12. THE ELECTRICAL CONTRACTOR SHALL FURNISH AND INSTALL ALL ELECTRICAL COMPONENTS AND HARDWARE AS REQUIRED BY THE NATIONAL ELECTRICAL CODE, LATEST EDITION, AND SHALL COMPLY WITH THE REQUIREMENTS OF THE INSPECTING AUTHORITY HAVING JURISDICTION.
13. IN EVERY KITCHEN, FAMILY ROOM, DINING ROOM, LIVING ROOM, PARLOR, LIBRARY, DEN, SUN ROOM, BEDROOM, RECREATION ROOM, OR SIMILAR ROOM OR AREA OF DWELLING UNITS, RECEPTACLE OUTLETS SHALL BE INSTALLED IN ACCORDANCE WITH THE GENERAL PROVISIONS SPECIFIED IN THE FOLLOWING ARTICLES: SPACING - 210.52(A)(1), WALL SPACE - 210.52(A)(2), FLOOR RECEPTACLES - 210.52(A)(3).
14. AT COUNTERTOPS IN KITCHEN AND DINING ROOMS OF DWELLING UNITS, RECEPTACLE OUTLETS FOR COUNTER SPACES SHALL BE INSTALLED IN ACCORDANCE WITH THE FOLLOWING ARTICLES: WALL COUNTER SPACE - 210.52(C)(1), ISLAND COUNTER SPACE - 210.52(C)(2), PENINSULAR COUNTER SPACE - 210.52(C)(3), SEPARATE SPACES - 210.52(C)(4), RECEPTACLE OUTLET LOCATIONS 210.52(C)(5).
15. AT LEAST ONE RECEPTACLE OUTLET SHALL BE INSTALLED AT EACH ISLAND COUNTER SPACE WITH A LONG DIMENSION OF 24 INCHES OR GREATER AND A SHORT DIMENSION OF 12 INCHES OR GREATER. THIS OUTLET SHALL SERVE UP TO THE FIRST 4 FEET OF COUNTER SPACE MEASURED HORIZONTALLY IN THE LONG DIMENSION. AN ADDITIONAL OUTLET SHALL BE REQUIRED TO SERVE EACH ADDITIONAL 4 FEET OR FRACTION THEREOF.
16. ALL LUMINARIES (LIGHTING FIXTURES) PERMITTED TO BE INSTALLED WITHIN A ZONE MEASURED 3 FEET HORIZONTALLY AND 8 FEET VERTICALLY FROM THE TOP OF THE BATHTUB RIM OR SHOWER STALL THRESHOLD SHALL BE GFCI PROTECTED (NEC ARTICLE 410.4(D).
17. THE FOLLOWING FASTENED-IN-PLACE APPLIANCES ARE REQUIRED TO HAVE A SEPARATE MINIMUM 20-AMPERE CIRCUIT: DISHWASHER, TRASH COMPACTOR, MICROWAVE OVEN, RANGE HOOD, CLOTHES WASHER, AND HYDRO-MASSAGE BATHTUB. THE CLOTHES WASHER CIRCUIT MAY SERVE ONE (1) ADDITIONAL OUTLET IN THE LAUNDRY AREA. (NEC ARTICLE 210.23(EX4) AS AMENDED).
18. NO MORE THAN 5 DUPLEX RECEPTACLE OUTLETS SERVING THE REQUIRED COUNTERTOP RECEPTACLES SHALL BE INSTALLED ON ANY SMALL APPLIANCE BRANCH CIRCUIT. (NEC ARTICLE 210.23(EX3) AS AMENDED).
19. THE MAXIMUM NUMBER OF OUTLETS ON A 20-AMPERE, 125-VOLT CIRCUIT USED EITHER EXCLUSIVELY FOR LIGHTING FIXTURES OR FOR ANY COMBINATION OF RECEPTACLES AND LIGHTING FIXTURES SHALL BE 12. (SEE EXCEPTIONS) (NEC ART. 210.23(EX2) SNA).
20. RECEPTACLE OUTLETS SHALL NOT BE INSTALLED IN A FACE-UP POSITION IN THE WORK SURFACES OR COUNTERTOPS. (NEC ART. 406.4(E)).
21. ALL INTERIOR AND EXTERIOR STAIRWAYS SHALL BE PROVIDED WITH A MEANS TO ILLUMINATE THE STAIRS, INCLUDING THE LANDINGS AND TREADS. INTERIOR STAIRWAYS SHALL BE PROVIDED WITH AN ARTIFICIAL LIGHT SOURCE LOCATED IN THE IMMEDIATE VICINITY OF EACH LANDING OF THE STAIRWAY. FOR INTERIOR STAIRS THE ARTIFICIAL LIGHT SOURCES SHALL BE CAPABLE OF ILLUMINATING TREADS AND LANDINGS TO LEVELS NOT LESS THAN 1 FOOT-CANDLE MEASURED AT THE CENTER OF TREADS AND LANDINGS. (IRC SECTION R303.6).
22. LUMINAIRES IN CLOTHES CLOSETS SHALL BE INSTALLED IN ACCORDANCE WITH NEC ART. 410.8.

PRIOR TO COMMENCING WORK

1. OBTAIN AND REVIEW ALL OTHER DRAWINGS INCLUDING REFLECTED CEILING PLAN, INTERIOR AND EXTERIOR ELEVATIONS, FURNITURE PLANS AND ALL MILL WORK DRAWINGS. COORDINATE INSTALLATION OF ALL ELECTRICAL DEVICES AND EQUIPMENT PRIOR TO ROUGH-IN.
2. COORDINATE INSTALLATION OF HVAC CONTROLS WITH MECHANICAL. VERIFY ALL REQUIREMENTS WITH EQUIPMENT SUPPLIED.
3. OBTAIN SUBMITTAL AND SHOP DRAWINGS FROM ALL OTHER TRADES AND COORDINATE YOUR INSTALLATION ACCORDINGLY.
4. INSTALLATION SHALL COMPLY WITH ALL CURRENT APPLICABLE CODES AND GOVERNING AGENCIES HAVING JURISDICTION.
5. THOROUGHLY READ AND REVIEW ALL NOTES, SPECIFICATIONS, SYMBOL LISTS, SCHEDULES, ETC.
6. YOU ARE RESPONSIBLE FOR A COMPLETE INSTALLATION IN ACCORDANCE WITH ALL DOCUMENTS. CONTACT YOUR PRIME CONTRACTOR FOR A COMPLETE SET OF DOCUMENTS.

SHEET INDEX

SHEET NUMBER:	SHEET NAME:
E0-0.1	ELECTRICAL SPECIFICATIONS, GENERAL NOTES, LEGEND AND SHEET INDEX
E0-1.1	SITE ELECTRICAL PLAN & SCHEDULES
E1-1.1	UNIT A2 ELECTRICAL PLAN
E1-2.1	UNIT B1 ELECTRICAL PLAN
E1-3.1	UNIT B2 ELECTRICAL PLAN
E1-4.1	UNIT C1 ELECTRICAL PLAN
E1-5.1	UNIT C2 ELECTRICAL PLAN
E1-6.1	UNIT C3 ELECTRICAL PLAN
E1-7.1	UNIT C4 ELECTRICAL PLAN
E10-1.1	BLDG 100/100R ELECTRICAL PLANS
E20-1.1	BLDG 200/100R ELECTRICAL PLANS
E30-1.1	BLDG 100/100R/200 SINGLE LINE DIAGRAMS AND LOAD CALCULATIONS

COMFORT ENGINEERING
'COMFORT BY DESIGN'
MECHANICAL • ELECTRICAL • PLUMBING
9175 WEST FLAMINGO ROAD, LAS VEGAS, NEVADA 89147
TEL. (702) 367-0892 FAX 367-1076

STATE OF NEVADA PROFESSIONAL ENGINEER JOSHUA PENSO ELECTRICAL No. 016473 Exp. 12-31-09
2/24/09

C.L.V.

Project Name:
CORONADO
THE PASEOS
LAS VEGAS, NEVADA

Sheet Name:
ELECTRICAL SPECIFICATIONS, GENERAL NOTES, LEGEND AND SHEET INDEX

33632-C-09

Revisions:
No. Date Description By

ELEC
Job # 09-0003
Checked by: JMP
Drawn by: BG
Date: 01/22/09
Sheet:
E0-0.1

NORTH

SITE ELECTRICAL PLAN

SCALE: 1" = 40'-0"

GENERAL PLAN NOTES

1. ELECTRICAL CONTRACTOR SHALL FOLLOW DRAWINGS FROM RESPECTIVE UTILITY COMPANY FOR DRY UTILITY DESIGN.
2. ALL UNDERGROUND CONDUITS SHALL BE INSTALLED PER NEC TABLE 300.5.
3. ALL UNDERGROUND SERVICE CONDUITS SHALL BE SEALED PER NEC ARTICLE 230.8.
4. ALL FIXTURES AND EQUIPMENT SHALL BE CIRCUITED TO RESPECTIVE HOUSE PANEL AS NOTED. NUMBERS INDICATE CIRCUITING.
5. WIRE SIZE SHALL BE MINIMUM #12 AWG, THHN SOLID COPPER UNLESS OTHERWISE NOTED. PROVIDE GROUND WIRE WHERE REQUIRED BY CODE. INCREASE WIRE SIZE TO COMPENSATE FOR VOLTAGE DROP WHERE TOTAL LENGTH OF ANY BRANCH EXCEEDS 100 FEET.
6. WIRE SIZE SHALL NOT BE LESS THAN CORRESPONDING CIRCUIT BREAKER RATING AS REQUIRED BY CODE.
7. MAXIMUM NUMBER OF UNGROUNDED WIRES IN ANY CONDUIT SHALL BE THREE. ADDITIONAL WIRES ARE ACCEPTABLE IF WIRE SIZE IS INCREASED TO ALLOW FOR DERATING PER CODE. PROVIDE ADDITIONAL WIRES FOR SWITCHING AS REQUIRED.
8. CONDUIT SHALL BE SIZED IN ACCORDANCE WITH THE NATIONAL ELECTRIC CODE.
9. UTILITY COMPANY CONDUITS & ROUTING SHOWN FOR BIDDING PURPOSES ONLY. ACTUAL LOCATION, SIZE & ROUTING SHALL BE DETERMINED BY THE UTILITY COMPANY AND APPROVED BY OWNER. CONTACT UTILITY COMPANY FOR COORDINATION & INSTALLATION REQUIREMENTS.
10. PROVIDE A WARNING SIGN ON THE INCOMING ELECTRICAL EQUIPMENT STATING: WARNING: POTENTIAL ARC-FLASH HAZARDS EXIST WHILE WORKING ON THIS ENERGIZED EQUIPMENT PER NEC SECTION 110.16.
11. ALL EXTERIOR WIRING SHALL BE #10 AWG MINIMUM.
12. ALL EXTERIOR LIGHTS SHALL BE CONTROLLED BY PHOTOCELL 'ON', TIMECLOCK 'OFF'. REFER TO SHEETS E10-1.1 AND E20-1.1 FOR CIRCUITING.
13. ALL EXTERIOR LIGHTING CIRCUITS SHALL BE ROUTED VIA THEIR RESPECTIVE BUILDING LIGHTING CONTACTORS.
14. LOCATIONS OF ALL BUILDING POWER, TELEPHONE AND CATV SERVICES EQUIPMENT SHALL BE COORDINATED WITH OTHER UTILITY COMPANIES PRIOR TO COMMENCING WORK TO AVOID CONFLICTS.

KEYED PLAN NOTES

1. (2) 2"C TO NEAREST TELEPHONE POINT OF SERVICE CONNECTION.
2. (2) 2"C TO NEAREST CATV POINT OF SERVICE CONNECTION.
3. TO NEAREST TRANSFORMER POWER POINT OF SERVICE CONNECTION.
4. 2"C TO NEAREST TELEPHONE POINT OF SERVICE CONNECTION.
5. 2"C TO NEAREST CATV POINT OF SERVICE CONNECTION.
6. PROPOSED UTILITY COMPANY TRANSFORMER LOCATION.

PLANS APPROVED
ELECTRICAL
Building & Safety Dept.
City of Las Vegas, Nevada

DRM JUL 14 2009

Does Not Include Structural, Architectural, Plumbing/Mechanical or Off-Site Improvements. Makes No Change Without Approval. Plan Is Not a Permit to Violate Any Ordinance.

PANEL 'HPX'			SERVICE ENTRANCE						X	SURFACE CIRCUIT BREAKERS		
VOLTS:	240/120		METER							BOLT-ON CIRCUIT BREAKERS		
PANEL AMP RATING:	100A	X	NEMA 1						X	ALUMINUM BUS		
MAIN BREAKER AMP RATING:	MLO		NEMA 3R							COPPER BUS		
MINIMUM KAIC:	22	X	SURFACE MOUNT									
PHASE:	1		FLUSH MOUNT									
WIRE:	3	X	HINGE DOOR									
NEUTRAL:	FULL SIZE		DOOR 'N DOOR							PANEL LOCATION		
GROUND:	GU-SOLID	X	LATCH/LOCK DOOR							SEE SITE PLAN		
CKT NO.	CIRCUIT DESCRIPTION	BKR SIZE	LOAD TYPE	LOADS (VA) A	LOADS (VA) B	LOADS (VA)		LOAD TYPE	BKR SIZE	CIRCUIT DESCRIPTION	CKT NO.
1	ELECTRICAL ROOM LTG	20/1	L	500	////	500	////	F	20/1	TELE EQUIP	2
3	* EXTERIOR LIGHTING	20/1	L	////	1000	500	////	F	20/1	CABLE EQUIP	4
5	* MAINTENANCE RECEPT	20/1	R	180	////	200	////	F	20/1	LTG CONTACTOR	6
7	LTG/EXCPT. FIRE RISER	20/1	L	////	460	////	500	F	20/1	** IRRIG CONTROLLER	8
9	MONITORING PANEL	20/1	F	500	////		////		20/1	SPARE	10
11	FIRE RISER HEATER	20/1	F	////	1500	////			20/1	SPARE	12
13	SPACE			////	////	////				SPACE	14
15	SPACE			////	////	////				SPACE	16
17	SPACE			////	////	////				SPACE	18
19	SPACE			////	////	////				SPACE	20
				1726	3460	1200	1000				
	TOTAL LOAD PER PHASE			3420	4460	54%	BALANCE			TOTAL PANEL DEMAND AMPS =	
	TOTAL PANEL LOAD (W/O DEMAND):			6878							

ABBREVIATIONS:
F=FIXED EQUIPMENT, L=LIGHTING LOAD, M=MOTOR LOAD, ML=LARGEST MOTOR LOAD, R=RECEPTACLE LOAD

SPECIAL PROVISIONS:
* THIS LOAD VARIES PER BUILDING. WORST CASE LOADS SHOWN.
** CONDITION OCCURS ONLY TO RESPECTIVE BUILDING AS DIRECTED BY OWNER.

LIGHT FIXTURE SCHEDULE

TYPE	DESCRIPTION	MANUFACTURER CATALOG NUMBER	VOLTAGE	NO. LAMPS	WATTS PER	LAMP TYPE	REMARKS
A	MATCH EXISTING OR AS DIRECTED BY OWNER	FIXTURE SELECTED BY OWNER, FURNISH AND INSTALLED BY CONTRACTOR	120	1	MAX	MAX	EXTERIOR DECORATIVE FIXTURE. MOUNTING AS DIRECTED BY ARCH
B	MATCH EXISTING OR AS DIRECTED BY OWNER	FIXTURE SELECTED BY OWNER, FURNISH AND INSTALLED BY CONTRACTOR	120	1	140	MAX	MOUNTING HEIGHT TO MATCH EXISTING
C	MATCH EXISTING OR AS DIRECTED BY OWNER	FIXTURE SELECTED BY OWNER, FURNISH AND INSTALLED BY CONTRACTOR	120	2	26	CFM/26	MOUNTING HEIGHT AS DIRECTED BY ARCHITECT
D	MATCH EXISTING OR AS DIRECTED BY OWNER	FIXTURE SELECTED BY OWNER, FURNISH AND INSTALLED BY CONTRACTOR	120	1	MAX	MAX	SURFACE CEILING MOUNTED FIXTURE
E	MATCH EXISTING OR AS DIRECTED BY OWNER	FIXTURE SELECTED BY OWNER, FURNISH AND INSTALLED BY CONTRACTOR	120	1	MAX	MAX	UTILITY LIGHT FOR MAINTENANCE
EA	EMERGENCY SCREEN LIGHT	FIXTURE SELECTED BY OWNER, FURNISH AND INSTALLED BY CONTRACTOR	120	2	1	LED	
X	OR AS DIRECTED BY OWNER	FURNISH AND INSTALLED BY CONTRACTOR	120			TURN SI UNIT	UNIT WITH DUAL HEADS

NOTES:
1. ALL EXTERIOR LIGHTING SHALL HAVE AN EFFICACY OF AT LEAST 45 LUMENS PER WATT, PER 2006 IECC, SECTION 405.4.

JUL 14 2009

COMFORT ENGINEERING
"COMFORT BY DESIGN"
MECHANICAL • ELECTRICAL • PLUMBING
9175 WEST FLAMINGO ROAD, LAS VEGAS, NEVADA 89147
TEL: (702) 367-0882 FAX: 367-1078

STATE OF NEVADA — PROFESSIONAL ENGINEER — JOSHUA PENSO — Exp. 12-31-09 — ELECTRICAL — 5/21/09

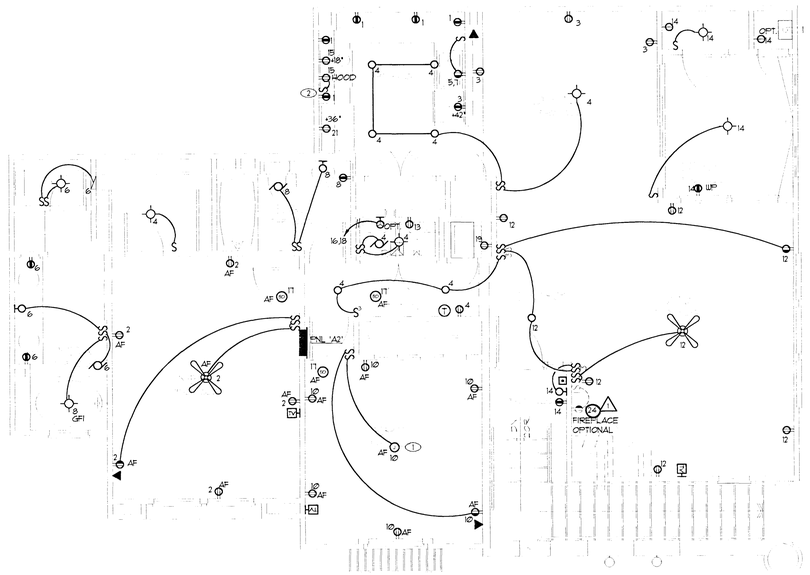
Project Name:
CORONADO
THE PASEOS
LAS VEGAS, NEVADA

Sheet Name:
SITE ELECTRICAL PLAN
AND SCHEDULES

Revisions:

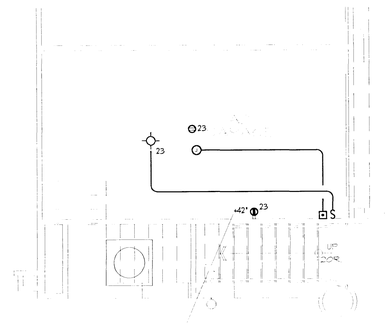
No.	Date	Description	By
1	5-20-09	OWNER REVISION	JMP

ELEC
Job # 09-0003
Checked by: JMP
Drawn by: BG
Date: 01/22/09
Sheet:
E0-1.1



UNIT "A2" ELECTRICAL PLAN

SCALE: 1/4" = 1'-0" (UNIT 'A2R' SIMILAR EXCEPT REVERSED)



UNIT "A2" GARAGE ELECTRICALPLAN

SCALE: 1/4" = 1'-0" (UNIT 'A2R' SIMILAR EXCEPT REVERSED)

E1-1.1

ELECTRICAL LOAD CALCULATION

PROJECT NAME: THE PASEOS - CORONADO
UNIT OR MODEL: UNIT 'A2' SQUARE FOOTAGE: 1,305
SERVICE VOLTAGE: 120/240V

GENERAL LIGHTING LOAD:			
1,305 SQ. FT. x 3 W. / SQ. FT.	= 3,915	W.	
SMALL APPLIANCE LOAD:			
2 CIRCUITS @ 1500 W. EA	= 3,000	W.	
1 LAUNDRY LOADS @ 1500 W.	= 1,500	W.	
TOTAL GEN. LTG. AND SMALL APPL.	= 8,415	W.	
FIRST 3000W. AT 100%	= 3,000	W.	
REMAINING 5,415 W. AT 35% (TABLE 220.42)	= 1,895	W.	
Ø RANGE LOADS (PER NEC TABLE 220.55) (OPT.)	= Ø	W.	
1 DRYER LOADS (PER NEC TABLE 220.54) (GAS)	= 5,000	W.	
FIXED APPLIANCE LOAD:			
1 DISHWASHERS @ 1200 W.	= 1200	W.	
1 GARBAGE DISPOSAL @ 600 W.	= 600	W.	
Ø WATER HEATERS @ 4500 W.	= Ø	W.	
1 MICROWAVES @ 1500 W.	= 1500	W.	
Ø TRASH COMPACTOR @ 800 W.	= Ø	W.	
FIXED APPLIANCE LOAD	= 3,300	W.	
FOUR OR MORE APPLIANCES (NEC ART. 220.53)			
Ø W. x 75%	= Ø	W.	
TOTAL FIXED APPLIANCE LOAD	= 3,300	W.	
HVAC LOADS			
1 CONDENSER UNITS 6,072 W. 4 TON UNIT	= 6,072	W.	
1 FAN COIL UNITS @ 127 W.	= 127	W.	
Ø AUX. HEAT STRIP @ 5,000 W.	= Ø	W.	
Ø.25 x LARGEST MOTOR LOAD	= 1518	W.	
MISCELLANEOUS LOADS			
1 ELECTRIC FIREPLACE	= 4440	W.	
TOTAL LOAD	= 23,352	W.	
TOTAL LOAD 23,352 / 240 VOLTS	= 97	A.	

MINIMUM 125 AMP SERVICE RECOMMENDED

PANEL 'A2'			SERVICE ENTRANCE		SLIP-ON CIRCUIT BREAKERS
VOLTS:	120/240		METER		BOLT-ON CIRCUIT BREAKERS
PANEL AMP RATING:	125	X	NEMA 1	X	ALUMINUM BUS
MAIN BREAKER AMP RATING:	MLO		NEMA 3R		COPPER BUS
MINIMUM KAIC:	10		SURFACE MOUNT		
PHASE:	1	X	FLUSH MOUNT		
WIRE:	3	X	HINGE DOOR		
NEUTRAL:	FULL SIZE		DOOR IN DOOR		PANEL LOCATION
GROUND:	CU-SOLID	X	LATCH/LOCK DOOR		SEE UNIT PLAN

CKT NO.	CIRCUIT DESCRIPTION	BKR SIZE	LOAD TYPE	LOADS (VA) A	LOADS (VA) B	LOADS (VA) A	LOADS (VA) B	LOAD TYPE	BKR SIZE	CIRCUIT DESCRIPTION	CKT NO.
1	SMALL APPLIANCES	20/1			//////	//////			20/1	** BEDRM	2
3	SMALL APPLIANCES	20/1		//////		//////	//////		20/1	HALLWAY/KITCHEN	4
5	* GARBAGE DISPOSAL	20/1			//////		//////		20/1	BATH FAN/LTGS	6
7	* DISHWASHER	20/1		//////		//////			20/1	BATH FAN/LTGS	8
9	AC UNIT	40/2			//////		//////		20/1	** BEDRM	10
11				//////		//////			20/1	GENERAL CKT	12
13	LAUNDRY CKT	20/1			//////		//////		20/1	EXTERIOR CKT	14
15	STOVE/HOOD	20/1		//////		//////			30/2	OPT. DRYER	16
17	** SMOKE DETECTOR	20/1			//////		//////				18
19	FCU	20/1		//////		//////			20/1	SPARE	20
21	REFRIGERATOR	20/1			//////		//////		20/1	SPARE	22
23	GARAGE CKT	20/1		//////		//////			20/1	ELECTRIC FIREPLACE	24

TOTAL LOAD PER PHASE BALANCE
TOTAL PANEL LOAD (W/O DEMAND)

ABBREVIATIONS:
F=FIXED EQUIPMENT, L=LIGHTING LOAD, M=MOTOR LOAD, ML=LARGEST MOTOR LOAD, R=RECEPTACLE LOAD

SPECIAL PROVISIONS:
* PROVIDE APPROVED LOCKING DEVICE.
** PROVIDE AFCI CIRCUIT BREAKER.

SEE UNIT LOAD CALCULATIONS

GENERAL PLAN NOTES

1. ALL FIXTURES AND EQUIPMENT SHALL BE CIRCUITED TO PANEL 'A2'. NUMBERS INDICATE CIRCUITING.
2. WIRE SIZE SHALL NOT BE LESS THAN CORRESPONDING CIRCUIT BREAKER RATING AS REQUIRED BY CODE.
3. VERIFY MOUNTING AND LOCATION OF ALL FIXTURES WITH ARCHITECT PRIOR TO INSTALLATION.
4. REFER TO MECHANICAL DRAWINGS FOR EXACT LOCATIONS OF HVAC EQUIPMENT.
5. ALL UNIT LIGHT FIXTURES TO BE SPECIFIED BY OWNER/DEVELOPER FURNISHED AND INSTALLED BY ELECTRICAL CONTRACTOR.
6. SWITCHES SHALL BE MOUNTED AT A MAXIMUM OF 48" ABOVE FINISHED FLOOR. GENERAL RECEPTACLES, TV AND TELE/COMPUTER OUTLETS SHALL BE MOUNTED AT A MINIMUM OF 15" ABOVE FINISHED FLOOR. INSTALL RECEPTACLE IN KITCHEN AND BATHROOMS 6" ABOVE COUNTER HORIZONTALLY UNLESS NOTED OTHERWISE.
7. FOR HANDICAPPED UNITS, ALL RECEPTACLES AT KITCHEN COUNTERTOP SHALL PROTRUDE ONE INCH FROM WALL AS PER ADA REQUIREMENTS. PROVIDE EXTENSION RINGS AS REQUIRED.

KEYED PLAN NOTES

(1) OPT FAN/LIGHT KIT. PROVIDE PROPER SUPPORT AND BOX PER NEC 314.27 (D) IF INSTALLED.

(2) PROVIDE DOUBLE-GANG BOX WITH EXTENSION RING FOR COMBO SWITCH AND RECEPTACLE. CONDITION OCCURS FOR HANDICAP UNIT ONLY. SWITCH DELETED FOR REGULAR UNIT.

PLANS APPROVED
ELECTRICAL
Building & Safety Dept.
City of Las Vegas, Nevada
DRM JUL 17 2009
Does Not Include Structural, Architectural, Plumbing/Mechanical or Fire Sprinkler Improvements. Must Be Changed Without Approval From The Not a Permit to Violate Any Ordinance

RECEIVED
JUL 09 2009

COMFORT ENGINEERING
"COMFORT BY DESIGN"
MECHANICAL • ELECTRICAL • PLUMBING
9175 WEST FLAMINGO ROAD, LAS VEGAS, NEVADA 89147
TEL (702) 367-0892 FAX 367-1076

STATE OF NEVADA
PROFESSIONAL ENGINEER
JOSHUA M. PRUSO
No. 12-31-09
ELECTRICAL
No. 016547
6/22/09

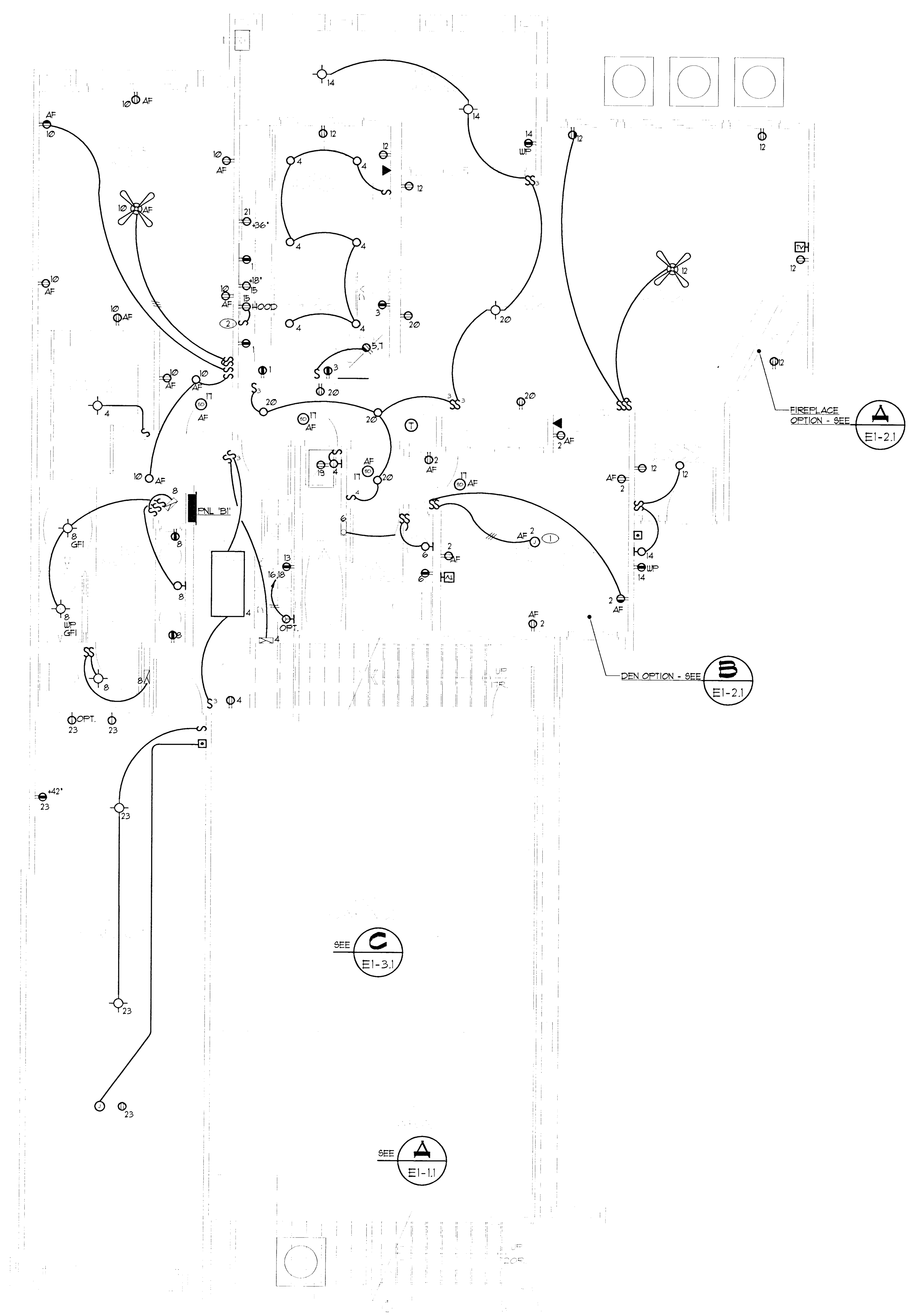
Project Name:
CORONADO
THE PASEOS
LAS VEGAS, NEVADA

Sheet Name:
UNIT A2
ELECTRICAL PLAN

Revisions:

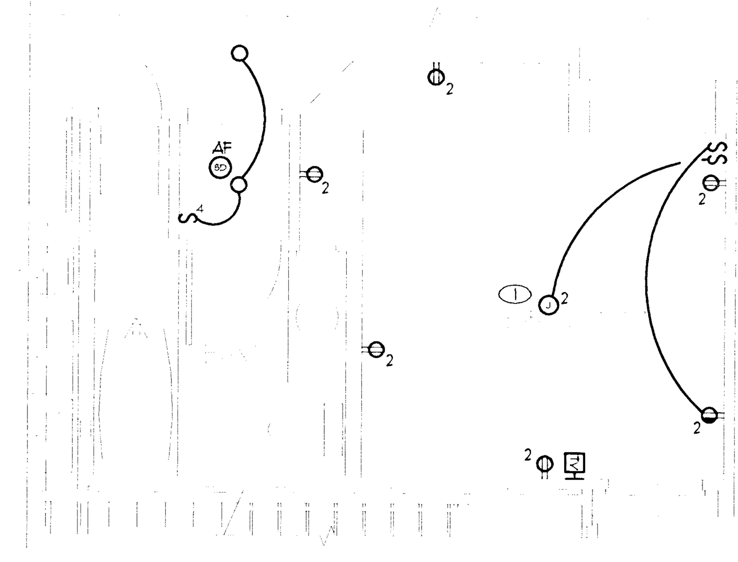
No.	Date	Description	By
1	5-20-09	OWNER REVISION	JMP
2	6-22-09	PLAN CK COMMENTS	JMP

Job # 03-0003
Checked by: JMP
Drawn by: BG
Date: 01/22/09
Sheet:
E1-1.1



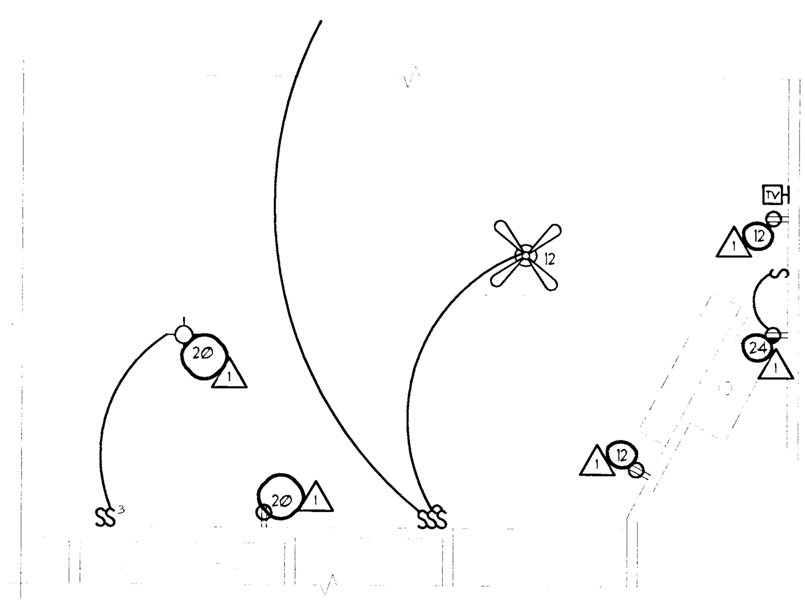
UNIT "B1" ELECTRICAL PLAN

SCALE: 1/4" = 1'-0" (UNIT 'A2R' SIMILAR EXCEPT REVERSED)



DEN OPTION (B, E1-2.1)

SCALE: 1/4" = 1'-0"



FIREPLACE OPTION (A, E1-2.1)

SCALE: 1/4" = 1'-0"

GENERAL PLAN NOTES

1. ALL FIXTURES AND EQUIPMENT SHALL BE CIRCUITED TO PANEL 'B1'. NUMBERS INDICATE CIRCUITING.
2. WIRE SIZE SHALL NOT BE LESS THAN CORRESPONDING CIRCUIT BREAKER RATING AS REQUIRED BY CODE.
3. VERIFY MOUNTING AND LOCATION OF ALL FIXTURES WITH ARCHITECT PRIOR TO INSTALLATION.
4. REFER TO MECHANICAL DRAWINGS FOR EXACT LOCATIONS OF HVAC EQUIPMENT.
5. ALL UNIT LIGHT FIXTURES TO BE SPECIFIED BY OWNER/DEVELOPER FURNISHED AND INSTALLED BY ELECTRICAL CONTRACTOR.
6. SWITCHES SHALL BE MOUNTED AT A MAXIMUM OF 48" ABOVE FINISHED FLOOR. GENERAL RECEPTACLES, TV AND TELE/COMPUTER OUTLETS SHALL BE MOUNTED AT A MINIMUM OF 15" ABOVE FINISHED FLOOR. INSTALL RECEPTACLE IN KITCHEN AND BATHROOMS 6" ABOVE COUNTER HORIZONTALLY UNLESS NOTED OTHERWISE.
7. FOR HANDICAPPED UNITS, ALL RECEPTACLES AT KITCHEN COUNTERTOP SHALL PROTRUDE ONE INCH FROM WALL AS PER ADA REQUIREMENTS. PROVIDE EXTENSION RINGS AS REQUIRED.

KEYED PLAN NOTES

(1) OPT FAN/LIGHT KIT. PROVIDE PROPER SUPPORT AND BOX PER NEC 314.27 (D) IF INSTALLED.

(2) PROVIDE SWITCH WITH EXTENSION RING. CONDITION OCCURS FOR HANDICAP UNIT ONLY. WALL SWITCH DELETED FOR REGULAR UNIT.

ELECTRICAL LOAD CALCULATION

PROJECT NAME: THE PASEOS - CORONADO
UNIT OR MODEL: UNIT 'B1' SQUARE FOOTAGE: 1,475
SERVICE VOLTAGE: 120/240V

GENERAL LIGHTING LOAD:
1,475 SQ. FT. x 3 W. / SQ. FT. = 4,425 W.
SMALL APPLIANCE LOAD:
2 CIRCUITS @ 1500 W. EA = 3,000 W.
1 LAUNDRY LOADS @ 1500 W. = 1,500 W.
TOTAL GEN. LTG. AND SMALL APPL. = 8,925 W.

FIRST 3000W. AT 100% = 3,000 W.
REMAINING 5,925 W. AT 35% (TABLE 220.42) = 2,074 W.
0 RANGE LOADS (PER NEC TABLE 220.55) (GAS) = 0 W.
1 DRYER LOADS (PER NEC TABLE 220.54) (OPT.) = 5,000 W.

FIXED APPLIANCE LOAD:
1 DISHWASHERS @ 1,200 W. = 1,200 W.
1 GARBAGE DISPOSAL @ 600 W. = 600 W.
0 WATER HEATERS @ 4,500 W. = 0 W.
1 MICROWAVES @ 1,500 W. = 1,500 W.
0 TRASH COMPACTOR @ 800 W. = 0 W.
FIXED APPLIANCE LOAD = 3,300 W.
FOUR OR MORE APPLIANCES (NEC ART. 220.53)
0 W. x 75% = 0 W.
TOTAL FIXED APPLIANCE LOAD = 3,300 W.

HVAC LOADS
1 CONDENSER UNITS 5,681 W. 3.5 TON UNIT = 5,681 W.
1 FAN COIL UNITS @ 1,127 W. = 1,127 W.
0 AUX. HEAT STRIP @ 5,000 W. = 0 W.

0.25 x LARGEST MOTOR LOAD = 1,420 W.

MISCELLANEOUS LOADS
1 ELECTRIC FIREPLACE = 1,440 W. (1)

TOTAL LOAD = 23,042 W.

TOTAL LOAD 23,042 / 240 VOLTS = 96 A.

MINIMUM 125 AMP SERVICE RECOMMENDED

PLANS APPROVED
ELECTRICAL
Building & Safety Dept.
City of Las Vegas, Nevada
DRM JUL 14 2009
Does Not Include Structural, Architectural, Plumbing/Mechanical or Off-Site Improvements. Make No Change Without Approval. Plan Is Not a Permit to Violate Any Ordinance.

PANEL 'B1'

VOLTS:	120/240		SERVICE ENTRANCE	× SLIP-ON CIRCUIT BREAKERS
PANEL AMP RATING:	125	×	METER / NEMA 1	BOLT-ON CIRCUIT BREAKERS
MAIN BREAKER AMP RATING:	MLO		NEMA 3R	× ALUMINUM BUS
MINIMUM KAIC:	10		SURFACE MOUNT	COPPER BUS
PHASE:	1	×	FLUSH MOUNT	
WIRE:	3	×	HINGE DOOR	
NEUTRAL:	FULL SIZE		DOOR IN DOOR	PANEL LOCATION
GROUND:	CU-SOLID	×	LATCH/LOCK DOOR	SEE UNIT PLAN

CKT NO.	CIRCUIT DESCRIPTION	BKR SIZE	LOAD TYPE	LOADS (VA) A	LOADS (VA) B	LOADS (VA) A	LOADS (VA) B	LOAD TYPE	BKR SIZE	CIRCUIT DESCRIPTION	CKT NO.
1	SMALL APPLIANCES	20/1			/////		/////		20/1	*** BEDRM/DEN OPTION	2
3	SMALL APPLIANCES	20/1		/////		/////			20/1	HALLWAY/KITCHEN	4
5	* GARBAGE DISPOSAL	20/1			/////		/////		20/1	BATH FAN/LTGS	6
7	* DISHWASHER	20/1		/////		/////			20/1	BATH FAN/LTGS	8
9	AC UNIT	30/2			/////		/////		20/1	** BEDRM	10
11				/////		/////			20/1	GENERAL CKT	12
13	WASHER	20/1			/////		/////		20/1	EXTERIOR CKT	14
15	STOVE/HOOD	20/1		/////		/////			30/2	OPT. DRYER	16
17	** SMOKE DETECTOR	20/1			/////		/////				18
19	FCU	20/1		/////		/////			20/1	GENERAL CKT	20
21	REFRIGERATOR	20/1			/////		/////		20/1	~~SPARE~~	22
23	GARAGE CKT	20/1		/////		/////			20/1	ELECTRIC FIREPLACE (1)	24

TOTAL LOAD PER PHASE | | BALANCE
TOTAL PANEL LOAD (W/O DEMAND)

ABBREVIATIONS:
F=FIXED EQUIPMENT, L=LIGHTING LOAD, M=MOTOR LOAD, ML=LARGEST MOTOR LOAD, R=RECEPTACLE LOAD

SPECIAL PROVISIONS:
* PROVIDE APPROVED LOCKING DEVICE.
** PROVIDE AFCI CIRCUIT BREAKER.
*** PROVIDE AFCI CIRCUIT BREAKER FOR BEDRM ONLY AND REGULAR CIRCUIT BREAKER FOR DEN OPTION.

SEE UNIT LOAD CALCULATIONS

COMFORT ENGINEERING
'COMFORT BY DESIGN'
MECHANICAL • ELECTRICAL • PLUMBING
9175 WEST FLAMINGO ROAD, LAS VEGAS, NEVADA 89147
TEL. (702) 367-0892 FAX 367-1076

PROFESSIONAL ENGINEER - STATE OF NEVADA
JOSHUA PENSO
ELECTRICAL No. 016473
Exp. 12-31-09
5/21/09

Project Name:
CORONADO
THE PASEOS
LAS VEGAS, NEVADA

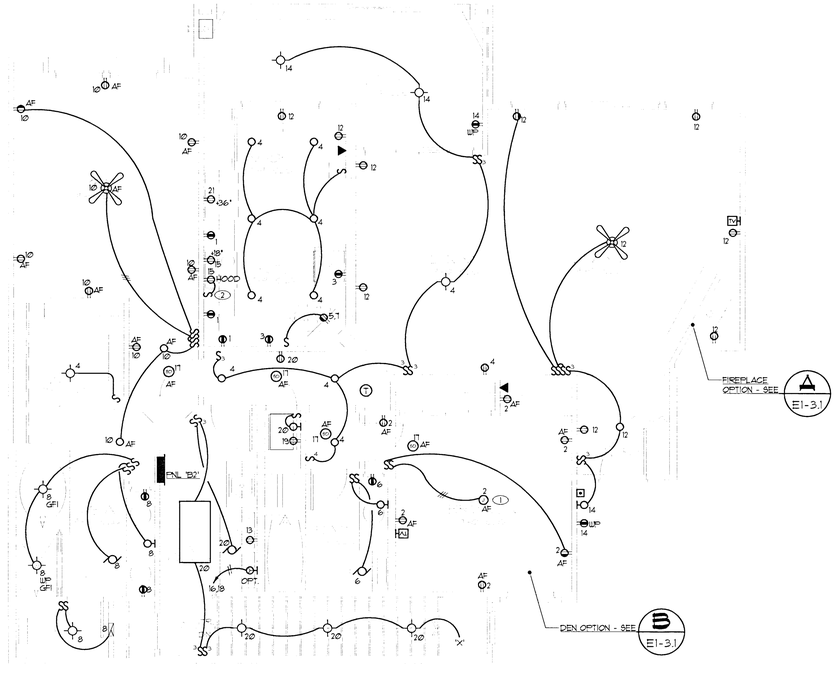
Sheet Name:
UNIT B1
ELECTRICAL PLAN

Revisions:

No.	Date	Description	By
1	5-20-09	OWNER REVISION	JMP

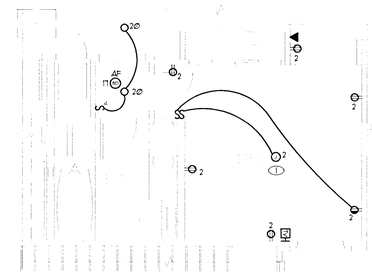
JUN 05 2009

ELEC
Job # 09-0003
Checked by: JMP
Drawn by: BG
Date: 01/22/09
Sheet:
E1-2.1



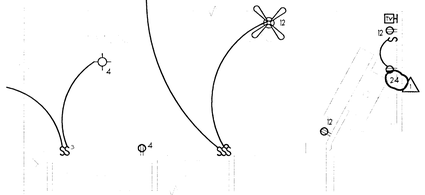
UNIT "B2" ELECTRICAL PLAN

SCALE: 1/4" = 1'-0" (UNIT 'A2R' SIMILAR EXCEPT REVERSED)



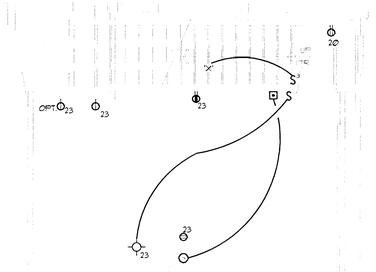
DEN OPTION

SCALE: 1/4" = 1'-0" B E1-3.1



FIREPLACE OPT.

SCALE: 1/4" = 1'-0" A E1-3.1



UNIT "B2" GARAGE ELECTRICALPLAN C

SCALE: 1/4" = 1'-0" (UNIT 'B2R' SIMILAR EXCEPT REVERSED) E1-3.1

GENERAL PLAN NOTES

1. ALL FIXTURES AND EQUIPMENT SHALL BE CIRCUITED TO PANEL 'B2'. NUMBERS INDICATE CIRCUITING.
2. WIRE SIZE SHALL NOT BE LESS THAN CORRESPONDING CIRCUIT BREAKER RATING AS REQUIRED BY CODE.
3. VERIFY MOUNTING AND LOCATION OF ALL FIXTURES WITH ARCHITECT PRIOR TO INSTALLATION.
4. REFER TO MECHANICAL DRAWINGS FOR EXACT LOCATIONS OF HVAC EQUIPMENT.
5. ALL UNIT LIGHT FIXTURES TO BE SPECIFIED BY OWNER/DEVELOPER FURNISHED AND INSTALLED BY ELECTRICAL CONTRACTOR.
6. SWITCHES SHALL BE MOUNTED AT A MAXIMUM OF 48" ABOVE FINISHED FLOOR. GENERAL RECEPTACLES, TV AND TELE/COMPUTER OUTLETS SHALL BE MOUNTED AT A MINIMUM OF 15" ABOVE FINISHED FLOOR. INSTALL RECEPTACLE IN KITCHEN AND BATHROOMS 6" ABOVE COUNTER HORIZONTALLY UNLESS NOTED OTHERWISE.
7. FOR HANDICAPPED UNITS, ALL RECEPTACLES AT KITCHEN COUNTERTOP SHALL PROTRUDE ONE INCH FROM WALL AS PER ADA REQUIREMENTS. PROVIDE EXTENSION RINGS AS REQUIRED.

KEYED PLAN NOTES

(1) OPT FAN/LIGHT KIT. PROVIDE PROPER SUPPORT AND BOX PER NEC 314.27 (D) IF INSTALLED.

(2) PROVIDE SWITCH WITH EXTENSION RING. CONDITION OCCURS FOR HANDICAP UNIT ONLY. WALL SWITCH DELETED FOR REGULAR UNIT.

PLANS APPROVED
ELECTRICAL
Building & Safety Dept.
City of Las Vegas, Nevada

DRM JUL 14 2009

Does Not Include Structural, Architectural, Plumbing/Mechanical or On-Site Improvements. Make No Change Without Approval. Plan is Not a Permit to Violate Any Ordinance.

ELECTRICAL LOAD CALCULATION

PROJECT NAME: THE PASEOS - CORONADO
UNIT OR MODEL: UNIT 'B2' SQUARE FOOTAGE: 1520
SERVICE VOLTAGE: 120/240V

GENERAL LIGHTING LOAD:			
1520 SQ. FT. x 3 W. / SQ. FT.	= 4560 W.		
SMALL APPLIANCE LOAD:			
2 CIRCUITS @ 1500 W. EA	= 3000 W.		
1 LAUNDRY LOADS @ 1500 W.	= 1500 W.		
TOTAL GEN. LTG. AND SMALL APPL.	= 9060 W.		
FIRST 3000W. AT 100%	= 3000 E.		
REMAINING 6060 W. AT 35% (TABLE 220.42)	= 2121 E.		
@ RANGE LOADS (PER NEC TABLE 220.55) (GAS)	= @ E.		
1 DRYER LOADS (PER NEC TABLE 220.54) (OPT.)	= 5000 E.		
FIXED APPLIANCE LOAD:			
1 DISHWASHERS @	1200 W.	= 1200 W.	E.
1 GARBAGE DISPOSAL @	600 W.	= 600 W.	E.
@ WATER HEATERS @	4500 W.	= @ W.	E.
1 MICROWAVES @	1500 W.	= 1500 W.	E.
@ TRASH COMPACTOR @	800 W.	= @ W.	E.
FIXED APPLIANCE LOAD		= 3300 W.	E.
FOUR OR MORE APPLIANCES (NEC ART. 220.53)			
@ W. x 75%	= @ W.		E.
TOTAL FIXED APPLIANCE LOAD		= 3300 W.	E.
HVAC LOADS			
1 CONDENSER UNITS	6072 W.	4 TON UNIT	= 6072 E. E.
1 FAN COIL UNITS @	127 W.		= 127 E. E.
@ AUX. HEAT STRIP @	5000 W.		= @ E. E.
@25 x LARGEST MOTOR LOAD			= 1518 E.
MISCELLANEOUS LOADS			
1 ELECTRIC FIREPLACE			= 1440 E.
TOTAL LOAD			= 23578 E.
TOTAL LOAD 23578 / 240 VOLTS			= 98 A.
MINIMUM 125 AMP SERVICE RECOMMENDED			

PANEL 'B2'

VOLTS:	120/240		SERVICE ENTRANCE	X	SLIP-ON CIRCUIT BREAKERS
PANEL AMP RATING:	125	X	METER		BOLT-ON CIRCUIT BREAKERS
MAIN BREAKER AMP RATING:	MLO		NEMA 1	X	ALUMINUM BUS
MINIMUM KAIC:	10		NEMA 3R		COPPER BUS
PHASE:	1	X	SURFACE MOUNT		
WIRE:	3	X	FLUSH MOUNT		
NEUTRAL:	FULL SIZE	X	HINGE DOOR		
GROUND:	CU-SOLID		DOOR IN DOOR		PANEL LOCATION
		X	LATCH/LOCK DOOR		SEE UNIT PLAN

CKT NO.	CIRCUIT DESCRIPTION	BKR SIZE	LOAD TYPE	LOADS (VA) A	LOADS (VA) B	LOAD TYPE	BKR SIZE	CIRCUIT DESCRIPTION	CKT NO.
1	SMALL APPLIANCES	20/1			//////		20/1	*** BEDRM/DEN OPTION	2
3	SMALL APPLIANCES	20/1		//////			20/1	HALLWAY/KITCHEN	4
5	* GARBAGE DISPOSAL	20/1			//////		20/1	BATH FAN/LTGS	6
7	* DISHWASHER	20/1		//////			20/1	BATH FAN/LTGS	8
9	AC UNIT	30/2			//////		20/1	** BEDRM	10
11				//////			20/1	GENERAL CKT	12
13	WASHER	20/1			//////		20/1	EXTERIOR CKT	14
15	STOVE/HOOD	20/1		//////			30/2	OPT. DRYER	16
17	** SMOKE DETECTOR	20/1			//////				18
19	FCU	20/1		//////			20/1	GENERAL CKT	20
21	REFRIGERATOR	20/1			//////		20/1	SPARE	22
23	GARAGE CKT	20/1		//////			20/1	ELECTRIC FIREPLACE	24

TOTAL LOAD PER PHASE | BALANCE
TOTAL PANEL LOAD (W/O DEMAND)

ABBREVIATIONS:
F=FIXED EQUIPMENT, L=LIGHTING LOAD, M=MOTOR LOAD, ML=LARGEST MOTOR LOAD, R=RECEPTACLE LOAD

SPECIAL PROVISIONS:
* PROVIDE APPROVED LOCKING DEVICE.
** PROVIDE AFCI CIRCUIT BREAKER.
*** PROVIDE AFCI CIRCUIT BREAKER FOR BEDRM ONLY AND REGULAR CIRCUIT BREAKER FOR DEN OPTION.

SEE UNIT LOAD CALCULATIONS

COMFORT ENGINEERING
"COMFORT BY DESIGN"
MECHANICAL • ELECTRICAL • PLUMBING 89147
9175 WEST FLAMINGO ROAD, LAS VEGAS, NEVADA
TEL. (702) 397-0992 FAX 397-1076

STATE OF NEVADA · REGISTERED PROFESSIONAL ENGINEER · JOSHUA M. PRICE · No. 015617 · ELECTRICAL · Exp. 12-31-09 · 5/21/09

CORONADO
THE PASEOS
LAS VEGAS, NEVADA

Project Name:

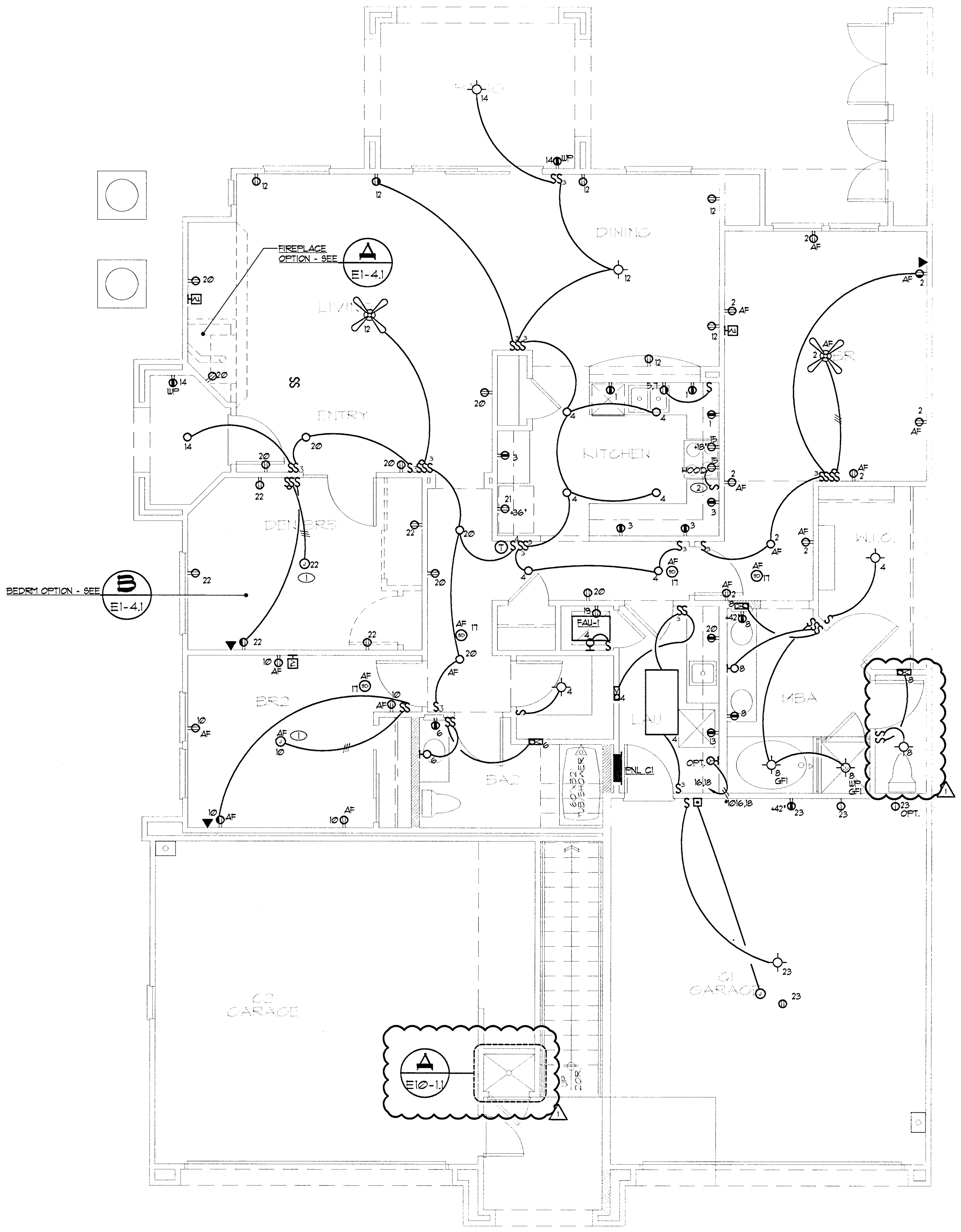
UNIT B2
ELECTRICAL PLAN

Sheet Name:

Revisions:

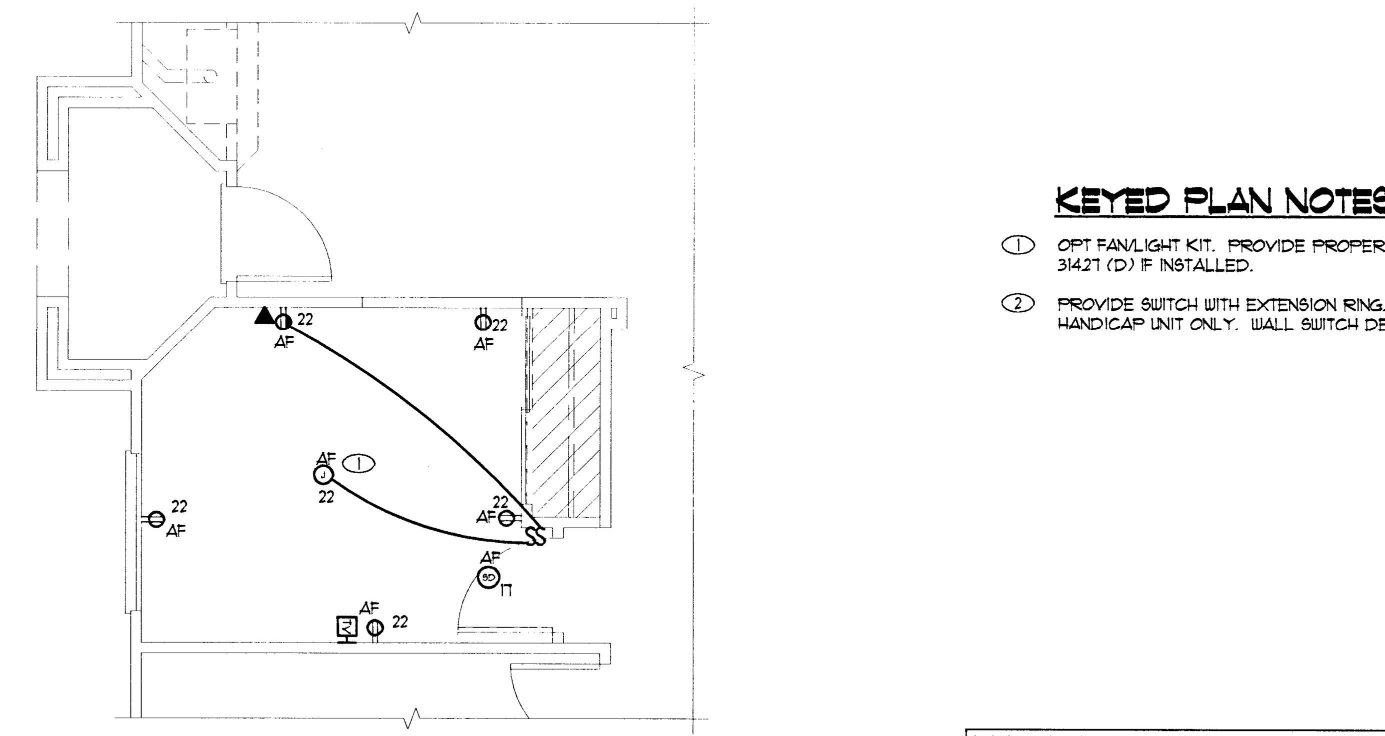
No.	Date	Description	By
1	5-20-09	OWNER REVISION	JMP

BJG
Job # 09-0003
Checked by: JMP
Drawn by: BG
Date: 01/22/09
Sheet:
E1-3.1



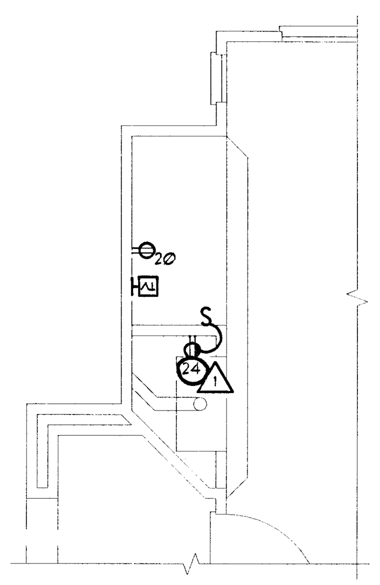
UNIT "C1" ELECTRICAL PLAN

SCALE: 1/4" = 1'-0" (UNIT 'A2R' SIMILAR EXCEPT REVERSED)



BEDRM 3 OPT.

SCALE: 1/4" = 1'-0" (B / E1-4.1)



FIREPLACE OPT.

SCALE: 1/4" = 1'-0" (A / E1-4.1)

GENERAL PLAN NOTES

1. ALL FIXTURES AND EQUIPMENT SHALL BE CIRCUITED TO PANEL 'C1'. NUMBERS INDICATE CIRCUITING.
2. WIRE SIZE SHALL NOT BE LESS THAN CORRESPONDING CIRCUIT BREAKER RATING AS REQUIRED BY CODE.
3. VERIFY MOUNTING AND LOCATION OF ALL FIXTURES WITH ARCHITECT PRIOR TO INSTALLATION.
4. REFER TO MECHANICAL DRAWINGS FOR EXACT LOCATIONS OF HVAC EQUIPMENT.
5. ALL UNIT LIGHT FIXTURES TO BE SPECIFIED BY OWNER/DEVELOPER FURNISHED AND INSTALLED BY ELECTRICAL CONTRACTOR.
6. SWITCHES SHALL BE MOUNTED AT A MAXIMUM OF 48" ABOVE FINISHED FLOOR. GENERAL RECEPTACLES, TV AND TELE/COMPUTER OUTLETS SHALL BE MOUNTED AT A MINIMUM OF 15" ABOVE FINISHED FLOOR. INSTALL RECEPTACLE IN KITCHEN AND BATHROOMS 6" ABOVE COUNTER HORIZONTALLY UNLESS NOTED OTHERWISE.
7. FOR HANDICAPPED UNITS, ALL RECEPTACLES AT KITCHEN COUNTERTOP SHALL PROTRUDE ONE INCH FROM WALL AS PER ADA REQUIREMENTS. PROVIDE EXTENSION RINGS AS REQUIRED.

KEYED PLAN NOTES

1. OPT FAN/LIGHT KIT. PROVIDE PROPER SUPPORT AND BOX PER NEC 314.27 (D) IF INSTALLED.
2. PROVIDE SWITCH WITH EXTENSION RING. CONDITION OCCURS FOR HANDICAP UNIT ONLY. WALL SWITCH DELETED FOR REGULAR UNIT.

PLANS APPROVED
ELECTRICAL
Building & Safety Dept.
City of Las Vegas, Nevada
DRM JUL 14 2009
Does Not Include Structural, Architectural, Plumbing/Mechanical or Off-Site Improvements. Make No Change Without Approval. Plan Is Not a Permit to Violate Any Ordinance.

ELECTRICAL LOAD CALCULATION

PROJECT NAME: THE PASEOS - CORONADO
UNIT OR MODEL: UNIT 'C1' SQUARE FOOTAGE: 1,793
SERVICE VOLTAGE: 120/240V

GENERAL LIGHTING LOAD:
1,793 SQ. FT. x 3 W. / SQ. FT. = 5,379 W.
SMALL APPLIANCE LOAD:
2 CIRCUITS @ 1500 W. EA = 3,000 W.
1 LAUNDRY LOADS @ 1500 W. = 1,500 W.
TOTAL GEN. LTG. AND SMALL APPL. = 9,879 W.

FIRST 3000W. AT 100% = 3,000 W.
REMAINING 6,879 W. AT 35% (TABLE 220.42) = 2,408 W.
0 RANGE LOADS (PER NEC TABLE 220.55) (GAS) = 0 W.
1 DRYER LOADS (PER NEC TABLE 220.54) (OPT.) = 5,000 W.

FIXED APPLIANCE LOAD:
1 DISHWASHERS @ 1,200 W. = 1,200 W.
1 GARBAGE DISPOSAL @ 600 W. = 600 W.
0 WATER HEATERS @ 4,500 W. = 0 W.
1 MICROWAVES @ 1,500 W. = 1,500 W.
0 TRASH COMPACTOR @ 800 W. = 0 W.
FIXED APPLIANCE LOAD = 3,300 W.
FOUR OR MORE APPLIANCES (NEC ART. 220.53)
0 W. x 75% = 0 W.
TOTAL FIXED APPLIANCE LOAD = 3,300 W.

HVAC LOADS
1 CONDENSER UNITS 6,072 W. 4 TON UNIT = 6,072 W.
1 FAN COIL UNITS @ 1,127 W. = 1,127 W.
0 AUX. HEAT STRIP @ 5,000 W. = 0 W.

0.25 x LARGEST MOTOR LOAD = 1,518 W.

MISCELLANEOUS LOADS
1 ELECTRIC FIREPLACE = 1,440 W. (revision 1)

TOTAL LOAD = 23,865 W.

TOTAL LOAD 23,865 / 240 VOLTS = 99 A.

MINIMUM 125 AMP SERVICE RECOMMENDED

PANEL 'C1'

VOLTS:	120/240		SERVICE ENTRANCE	X	SLIP-ON CIRCUIT BREAKERS
PANEL AMP RATING:	125		METER		BOLT-ON CIRCUIT BREAKERS
MAIN BREAKER AMP RATING:	MLO	X	NEMA 1	X	ALUMINUM BUS
MINIMUM KAIC:	10		NEMA 3R		COPPER BUS
PHASE:	1		SURFACE MOUNT		
WIRE:	3	X	FLUSH MOUNT		
NEUTRAL:	FULL SIZE	X	HINGE DOOR		
GROUND:	CU-SOLID		DOOR IN DOOR		PANEL LOCATION
		X	LATCH/LOCK DOOR		SEE UNIT PLAN

CKT NO.	CIRCUIT DESCRIPTION	BKR SIZE	LOAD TYPE	LOADS (VA) A	LOADS (VA) B	LOADS (VA) A	LOADS (VA) B	LOAD TYPE	BKR SIZE	CIRCUIT DESCRIPTION	CKT NO.
1	SMALL APPLIANCES	20/1			/////		/////		20/1	** BEDRM	2
3	SMALL APPLIANCES	20/1		/////		/////			20/1	HALLWAY/KITCHEN	4
5	* GARBAGE DISPOSAL	20/1			/////		/////		20/1	BATH FAN/LTGS	6
7	* DISHWASHER	20/1		/////		/////			20/1	BATH FAN/LTGS	8
9	AC UNIT	30/2			/////		/////		20/1	** BEDRM	10
11				/////		/////			20/1	GENERAL CKT	12
13	WASHER	20/1			/////		/////		20/1	EXTERIOR CKT	14
15	STOVE/HOOD	20/1		/////		/////			30/2	OPT. DRYER	16
17	** SMOKE DETECTOR	20/1			/////		/////				18
19	FCU	20/1		/////		/////			20/1	GENERAL CKT	20
21	REFRIGERATOR	20/1			/////		/////		20/1	~~*** DEN/BEDRM OPTION~~	22
23	GARAGE CKT	20/1		/////		/////			20/1	ELECTRIC FIREPLACE	24

TOTAL LOAD PER PHASE
TOTAL PANEL LOAD (W/O DEMAND)
BALANCE

ABBREVIATIONS:
F=FIXED EQUIPMENT, L=LIGHTING LOAD, M=MOTOR LOAD, ML=LARGEST MOTOR LOAD, R=RECEPTACLE LOAD

SPECIAL PROVISIONS:
* PROVIDE APPROVED LOCKING DEVICE.
** PROVIDE AFCI CIRCUIT BREAKER.
*** PROVIDE AFCI CIRCUIT BREAKER FOR BEDRM OPTION ONLY.

SEE UNIT LOAD CALCULATIONS

JUN 05 2009

COMFORT ENGINEERING
'COMFORT BY DESIGN'
MECHANICAL • ELECTRICAL • PLUMBING
9175 WEST FLAMINGO ROAD, LAS VEGAS, NEVADA 89147
TEL. (702) 367-0892 FAX 367-1076

PROFESSIONAL ENGINEER - STATE OF NEVADA
JOSHUA PENSO
Exp. 12-31-09
ELECTRICAL
No. 016473
5/21/09

Project Name:
CORONADO
THE PASEOS
LAS VEGAS, NEVADA

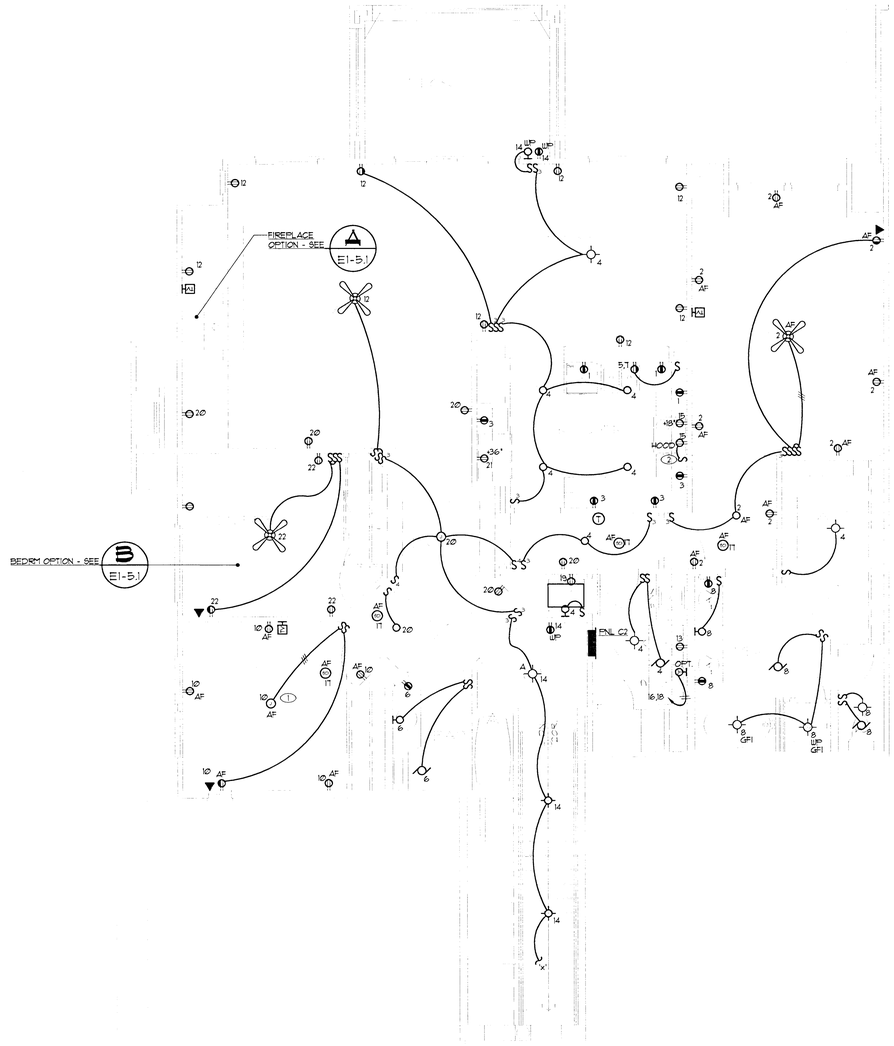
Sheet Name:
UNIT C1
ELECTRICAL PLAN

Revisions:

No.	Date	Description	By
1	5-20-09	OWNER REVISION	JMP

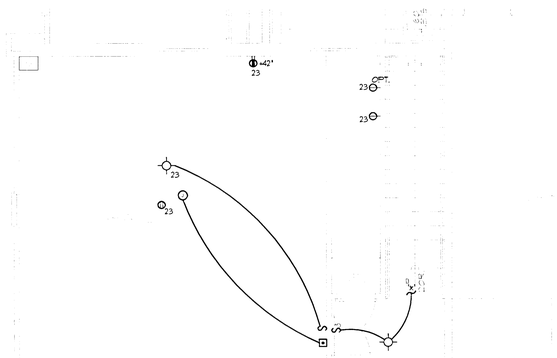
ELEC
Job # 09-0003
Checked by: JMP
Drawn by: BG
Date: 01/22/09
Sheet:
E1-4.1

I:\ACLTD009\Spinnaker Homes\09-0003 Coronado @ Paseos\ELEC\E141.dwg, 2009-05-21 14:10, leonard



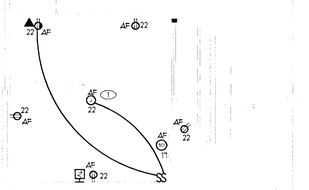
UNIT "C2" ELECTRICAL PLAN

SCALE: 1/4" = 1'-0" (UNIT 'C2R' SIMILAR EXCEPT REVERSED)



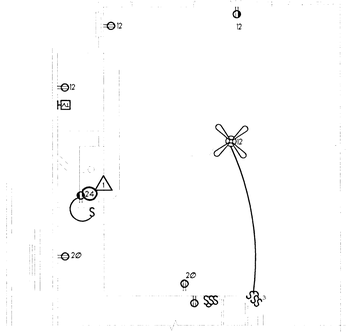
UNIT "C2" GARAGE ELECTRICAL PLAN (C) E1-5.1

SCALE: 1/4" = 1'-0" (UNIT 'C2R' SIMILAR EXCEPT REVERSED)



BEDRM 3 OPT. (B) E1-5.1

SCALE: 1/4" = 1'-0"



FIREPLACE OPT. (A) E1-5.1

SCALE: 1/4" = 1'-0"

GENERAL PLAN NOTES

1. ALL FIXTURES AND EQUIPMENT SHALL BE CIRCUITED TO PANEL 'C2'. NUMBERS INDICATE CIRCUITING.
2. WIRE SIZE SHALL NOT BE LESS THAN CORRESPONDING CIRCUIT BREAKER RATING AS REQUIRED BY CODE.
3. VERIFY MOUNTING AND LOCATION OF ALL FIXTURES WITH ARCHITECT PRIOR TO INSTALLATION.
4. REFER TO MECHANICAL DRAWINGS FOR EXACT LOCATIONS OF HVAC EQUIPMENT.
5. ALL UNIT LIGHT FIXTURES TO BE SPECIFIED BY OWNER/DEVELOPER FURNISHED AND INSTALLED BY ELECTRICAL CONTRACTOR.
6. SWITCHES SHALL BE MOUNTED AT A MAXIMUM OF 48" ABOVE FINISHED FLOOR. GENERAL RECEPTACLES, TV AND TELE/COMPUTER OUTLETS SHALL BE MOUNTED AT A MINIMUM OF 15" ABOVE FINISHED FLOOR. INSTALL RECEPTACLE IN KITCHEN AND BATHROOMS 6" ABOVE COUNTER HORIZONTALLY UNLESS NOTED OTHERWISE.
7. FOR HANDICAPPED UNITS, ALL RECEPTACLES AT KITCHEN COUNTERTOP SHALL PROTRUDE ONE INCH FROM WALL AS PER ADA REQUIREMENTS. PROVIDE EXTENSION RINGS AS REQUIRED.

KEYED PLAN NOTES

1. OPT FAN/LIGHT KIT. PROVIDE PROPER SUPPORT AND BOX PER NEC 314.27 (D) IF INSTALLED.
2. PROVIDE SWITCH WITH EXTENSION RING. CONDITION OCCURS FOR HANDICAP UNIT ONLY. WALL SWITCH DELETED FOR REGULAR UNIT.

ELECTRICAL LOAD CALCULATION

PROJECT NAME:	THE PASEOS - CORONADO			
UNIT OR MODEL:	UNIT 'C2'	SQUARE FOOTAGE:	1,162	
SERVICE VOLTAGE:	120/240V			
GENERAL LIGHTING LOAD:				
1,162 SQ. FT. x 3	W. / SQ. FT.	= 3,486	W.	
SMALL APPLIANCE LOAD:				
2 CIRCUITS @ 1500	W. EA	= 3,000	W.	
1 LAUNDRY LOADS @ 1500	W.	= 1,500	W.	
TOTAL GEN. LTG. AND SMALL APPL.		= 9,186	W.	
FIRST 3000W AT 100%		= 3,000	W.	
REMAINING 6,186 W. AT 35%	(TABLE 220.42)	= 2,375	W.	
@ RANGE LOADS (PER NEC TABLE 220.55)	(GAS)	= @	W.	
1 DRYER LOADS (PER NEC TABLE 220.54)	(OPT.)	= 5,000	W.	
FIXED APPLIANCE LOAD:				
1 DISHWASHERS @	1,200 W.	= 1,200	W.	
1 GARBAGE DISPOSAL @	600 W.	= 600	W.	
@ WATER HEATERS @	4,500 W.	= @	W.	
1 MICROWAVES @	1,500 W.	= 1,500	W.	
@ TRASH COMPACTOR @	800 W.	= @	W.	
FIXED APPLIANCE LOAD		= 3,300	W.	
FOUR OR MORE APPLIANCES (NEC ART. 220.53)				
@ W. x 75%		= @	W.	
TOTAL FIXED APPLIANCE LOAD		= 3,300	W.	
HVAC LOADS				
1 CONDENSER UNITS	6,155 W. 4 TON UNIT	= 6,155	W.	
1 FAN COIL UNITS @	1,271 W.	= 1,271	W.	
@ AUX. HEAT STRIP @	5,000 W.	= @	W.	
@.25 x LARGEST MOTOR LOAD		= 1,539	W.	
MISCELLANEOUS LOADS				
1 ELECTRIC FIREPLACE		= 1,440	W.	
TOTAL LOAD		= 23,936	W.	
TOTAL LOAD 23,936 / 240 VOLTS		= 100	A.	
MINIMUM 125 AMP SERVICE RECOMMENDED				

PLANS APPROVED
ELECTRICAL
Building & Safety Dept.
City of Las Vegas, Nevada

DRM JUL 14 2009

Does Not Include Structural, Architectural
Plumbing/Mechanical or Off-Site
Improvements. Make No Change
Without Approval. Plan is
Not a Permit to Violate Any Ordinance

PANEL 'C2'

VOLTS:	120/240		SERVICE ENTRANCE	X	SLIP-ON CIRCUIT BREAKERS
PANEL AMP RATING:	125		METER		BOLT-ON CIRCUIT BREAKERS
MAIN BREAKER AMP RATING:	M.L.O.	X	NEMA 1	X	ALUMINUM BUS
MINIMUM KAIC:	10		NEMA 3R		COPPER BUS
PHASE:	1		SURFACE MOUNT		
WIRE:	3	X	FLUSH MOUNT		
NEUTRAL:	FULL SIZE	X	HINGE DOOR		
GROUND:	CU-SOLID		DOOR N DOOR		PANEL LOCATION
		X	LATCH/LOCK DOOR		SEE UNIT PLAN

CKT NO.	CIRCUIT DESCRIPTION	BKR SIZE	LOAD TYPE	LOADS (VA) A	LOADS (VA) B	LOADS (VA) A	LOADS (VA) B	LOAD TYPE	BKR SIZE	CIRCUIT DESCRIPTION	CKT NO.
1	SMALL APPLIANCES	20/1			//////		//////		20/1	** BEDRM	2
3	SMALL APPLIANCES	20/1		//////		//////			20/1	HALLWAY-KITCHEN	4
5	* GARBAGE DISPOSAL	20/1			//////		//////		20/1	BATH FAN/LTGS	6
7	* DISHWASHER	20/1		//////		//////			20/1	BATH FAN/LTGS	8
9	AC UNIT	30/2			//////		//////		20/1	** BEDRM	10
11				//////		//////			20/1	GENERAL CKT	12
13	WASHER	20/1			//////		//////		20/1	EXTERIOR CKT	14
15	STOVE/HOOD	20/1		//////		//////			30/2	OPT. DRYER	16
17	** SMOKE DETECTOR	20/1			//////		//////				18
19	FCU	20/1		//////		//////			20/1	GENERAL CKT	20
21	REFRIGERATOR	20/1			//////		//////		20/1	*** RECEPTACLE OPT. CKT	22
23	GARAGE CKT	20/1		//////		//////			20/1	ELECTRIC FIREPLACE	24

TOTAL LOAD PER PHASE ____ ____ BALANCE
TOTAL PANEL LOAD (W/O DEMAND) ____

ABBREVIATIONS:
F=FIXED EQUIPMENT, L=LIGHTING LOAD, M=MOTOR LOAD, ML=LARGEST MOTOR LOAD, R=RECEPTACLE LOAD

SPECIAL PROVISIONS:
* PROVIDE APPROVED LOCKING DEVICE.
** PROVIDE AFCI CIRCUIT BREAKER.
*** PROVIDE AFCI CIRCUIT BREAKER FOR BEDRM OPTION ONLY.

SEE UNIT LOAD CALCULATIONS

JUN 05 2009

COMFORT ENGINEERING
"COMFORT BY DESIGN"
MECHANICAL • ELECTRICAL • PLUMBING
9175 WEST FLAMINGO ROAD, LAS VEGAS, NEVADA 89147
TEL. (702) 367-3892 FAX 367-1076

STATE OF NEVADA REGISTERED PROFESSIONAL ENGINEER JAMES M. PISHA No. 12-31-09 ELECTRICAL No. 015434 5/27/09

Project Name:
CORONADO
THE PASEOS
LAS VEGAS, NEVADA

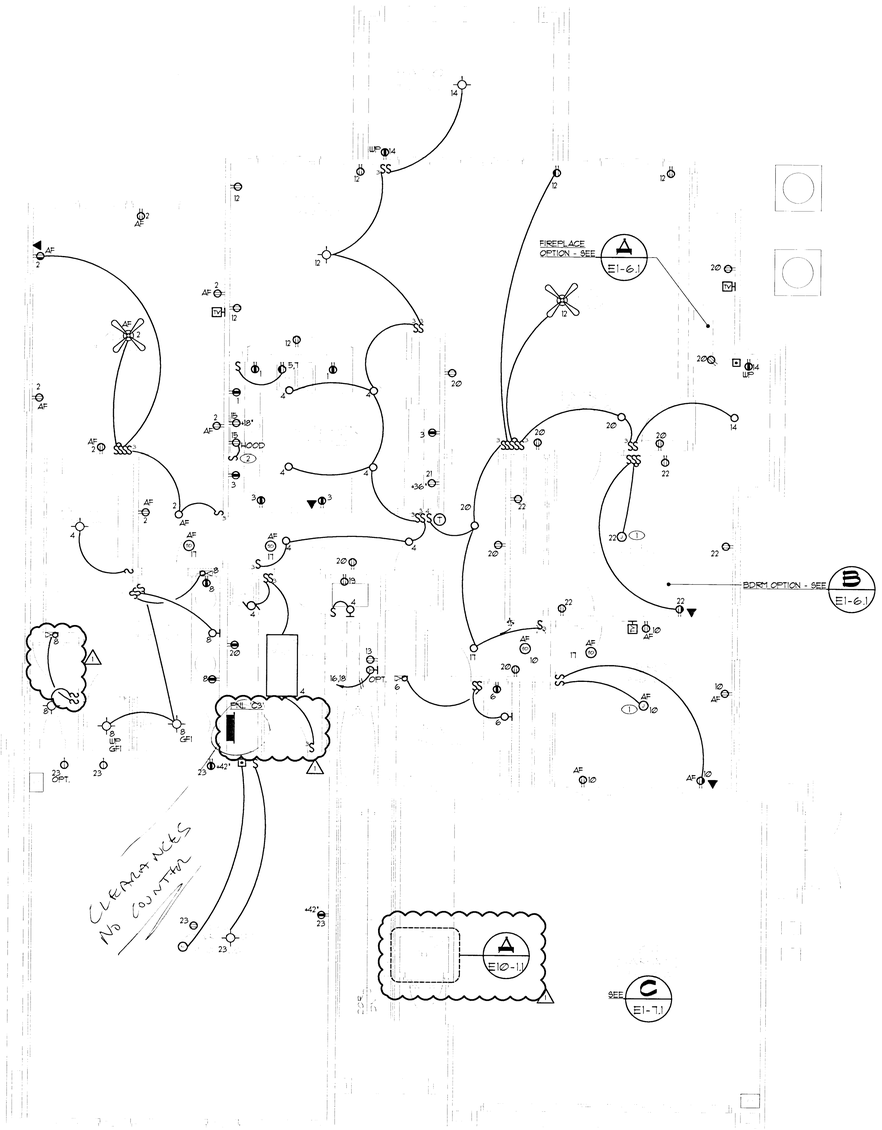
Sheet Name:
UNIT C2
ELECTRICAL PLAN

Revisions:

No.	Date	Description	By
1	5-20-09	OWNER REVISION	JMP

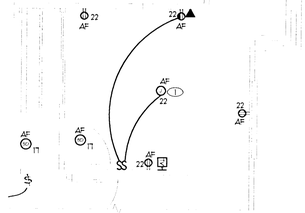
ELEC
Job # 09-0003
Checked by: JMP
Drawn by: BG
Date: 01/22/09
Sheet:
E1-5.1

I:\JOBS\2009\09-0003 Coronado @ Paseos\ELEC\Coronado @ Paseos ELEC PLOT.dwg, 2009-06-05 12:11:36, HP



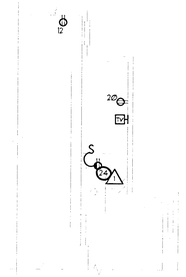
UNIT "C3" ELECTRICAL PLAN

SCALE: 1/4" = 1'-0" (UNIT 'C3R' SIMILAR EXCEPT REVERSED)



BEDRM 3 OPT.

SCALE: 1/4" = 1'-0" — E1-6.1



FIREPLACE OPT.

SCALE: 1/4" = 1'-0" — E1-6.1

GENERAL PLAN NOTES

1. ALL FIXTURES AND EQUIPMENT SHALL BE CIRCUITED TO PANEL 'C3'. NUMBERS INDICATE CIRCUITING.
2. WIRE SIZE SHALL NOT BE LESS THAN CORRESPONDING CIRCUIT BREAKER RATING AS REQUIRED BY CODE.
3. VERIFY MOUNTING AND LOCATION OF ALL FIXTURES WITH ARCHITECT PRIOR TO INSTALLATION.
4. REFER TO MECHANICAL DRAWINGS FOR EXACT LOCATIONS OF HVAC EQUIPMENT.
5. ALL UNIT LIGHT FIXTURES TO BE SPECIFIED BY OWNER/DEVELOPER FURNISHED AND INSTALLED BY ELECTRICAL CONTRACTOR.
6. SWITCHES SHALL BE MOUNTED AT A MAXIMUM OF 48" ABOVE FINISHED FLOOR. GENERAL RECEPTACLES, TV AND TELE/COMPUTER OUTLETS SHALL BE MOUNTED AT A MINIMUM OF 15" ABOVE FINISHED FLOOR. INSTALL RECEPTACLE IN KITCHEN AND BATHROOMS 6" ABOVE COUNTER HORIZONTALLY UNLESS NOTED OTHERWISE.
7. FOR HANDICAPPED UNITS, ALL RECEPTACLES AT KITCHEN COUNTERTOP SHALL PROTRUDE ONE INCH FROM WALL AS PER ADA REQUIREMENTS. PROVIDE EXTENSION RINGS AS REQUIRED.

KEYED PLAN NOTES

(1) OPT FAN/LIGHT KIT. PROVIDE PROPER SUPPORT AND BOX PER NEC 314.27 (D) IF INSTALLED.

(2) PROVIDE SWITCH WITH EXTENSION RING. CONDITION OCCURS FOR HANDICAP UNIT ONLY. WALL SWITCH DELETED FOR REGULAR UNIT.

PLANS APPROVED
ELECTRICAL
Building & Safety Dept.
City of Las Vegas, Nevada

DRM JUL 14 2009

Does Not Include Structural, Architectural, Plumbing/Mechanical or Off-Site Improvements. Make No Change Without Approval. Plan is Not a Permit to Violate Any Ordinance

ELECTRICAL LOAD CALCULATION

PROJECT NAME: THE PASEOS - CORONADO
UNIT OR MODEL: UNIT 'C3' SQUARE FOOTAGE: 1,803
SERVICE VOLTAGE: 120/240V

GENERAL LIGHTING LOAD:			
1,803 SQ. FT. x 3 W. / SQ. FT.	= 5,409	W.	
SMALL APPLIANCE LOAD:			
2 CIRCUITS @ 1500 W. EA	= 3,000	W.	
1 LAUNDRY LOADS @ 1500 W.	= 1,500	W.	
TOTAL GEN. LTG. AND SMALL APPL.	= 9,909	W.	
FIRST 3000W. AT 100%	= 3,000	W.	
REMAINING 6,909 W. AT 35% (TABLE 220.42)	= 2,418	W.	
Ø RANGE LOADS (PER NEC TABLE 220.55) (GAS)	= Ø	W.	
1 DRYER LOADS (PER NEC TABLE 220.54) (OPT.)	= 5,000	W.	
FIXED APPLIANCE LOAD:			
1 DISHWASHERS @ 1200 W.	= 1,200	W.	
1 GARBAGE DISPOSAL @ 600 W.	= 600	W.	
Ø WATER HEATERS @ 4500 W.	= Ø	W.	
1 MICROWAVES @ 1500 W.	= 1,500	W.	
Ø TRASH COMPACTOR @ 800 W.	= Ø	W.	
FIXED APPLIANCE LOAD	= 3,300	W.	
FOUR OR MORE APPLIANCES (NEC ART. 220.53)			
Ø W. x 75%	= Ø	W.	
TOTAL FIXED APPLIANCE LOAD	= 3,300	W.	
HVAC LOADS			
1 CONDENSER UNITS 6,155 W. 4 TON UNIT	= 6,155	W.	
1 FAN COIL UNITS @ 1,171 W.	= 1,171	W.	
Ø AUX. HEAT STRIP @ 5,000 W.	= Ø	W.	
Ø.25 x LARGEST MOTOR LOAD	= 1,539	W.	
MISCELLANEOUS LOADS			
1 ELECTRIC FIREPLACE	= 1,440	W.	
TOTAL LOAD	= 23,978	W.	
TOTAL LOAD 23,978 / 240 VOLTS	= 100	A.	

MINIMUM 125 AMP SERVICE RECOMMENDED

PANEL 'C3'			SERVICE ENTRANCE			SLIP-ON CIRCUIT BREAKERS				
VOLTS:	120/240		METER		X	BOLT-ON CIRCUIT BREAKERS				
PANEL AMP RATING:	125	X	NEMA 1		X	ALUMINUM BUS				
MAIN BREAKER AMP RATING:	MLO		NEMA 3R			COPPER BUS				
MINIMUM KAIC:	10		SURFACE MOUNT							
PHASE:	1	X	FLUSH MOUNT							
WIRE:	3	X	HINGE DOOR							
NEUTRAL:	FULL SIZE		DOOR IN DOOR			PANEL LOCATION				
GROUND:	CU-SOLID	X	LATCH/LOCK DOOR			SEE UNIT PLAN				

CKT NO.	CIRCUIT DESCRIPTION	BKR SIZE	LOAD TYPE	LOADS (VA) A	LOADS (VA) B	LOADS (VA) A	LOADS (VA) B	LOAD TYPE	BKR SIZE	CIRCUIT DESCRIPTION	CKT NO.
1	SMALL APPLIANCES	20/1		//////		//////			20/1	** BEDRM	2
3	SMALL APPLIANCES	20/1		//////		//////			20/1	HALLWAY/KITCHEN	4
5	** GARBAGE DISPOSAL	20/1		//////		//////			20/1	BATH FAN/LTGS	6
7	** DISHWASHER	20/1		//////		//////			20/1	BATH FAN/LTGS	8
9	AC UNIT	30/2		//////		//////			20/1	** BEDRM	10
11				//////		//////			20/1	GENERAL CKT	12
13	WASHER	20/1		//////		//////			20/1	EXTERIOR CKT	14
15	STOVE/HOOD	20/1		//////		//////			30/2	OPT. DRYER	16
17	** SMOKE DETECTOR	20/1		//////		//////					18
19	FCU	20/1		//////		//////			20/1	GENERAL CKT	20
21	REFRIGERATOR	20/1		//////		//////			20/1	** BEDRM OPTION CKT	22
23	GARAGE CKT	20/1		//////		//////			20/1	ELECTRIC FIREPLACE	24

TOTAL LOAD PER PHASE | BALANCE
TOTAL PANEL LOAD (W/O DEMAND)

ABBREVIATIONS:
F=FIXED EQUIPMENT, L=LIGHTING LOAD, M=MOTOR LOAD, ML=LARGEST MOTOR LOAD, R=RECEPTACLE LOAD

SPECIAL PROVISIONS:
* PROVIDE APPROVED LOCKING DEVICE.
** PROVIDE AFCI CIRCUIT BREAKER.
*** PROVIDE AFCI CIRCUIT BREAKER FOR BEDRM OPTION ONLY.

SEE UNIT LOAD CALCULATIONS

RUN: Oct 5, 2009

COMFORT ENGINEERING
"COMFORT BY DESIGN"
MECHANICAL - ELECTRICAL - PLUMBING
9175 WEST FLAMINGO ROAD, LAS VEGAS, NEVADA 89147
TEL. (702) 387-3882 FAX 387-1078

STATE OF NEVADA — JOSHUA PENSO — Exp. 12-31-09 — ELECTRICAL — PROFESSIONAL ENGINEER — 5/22/09

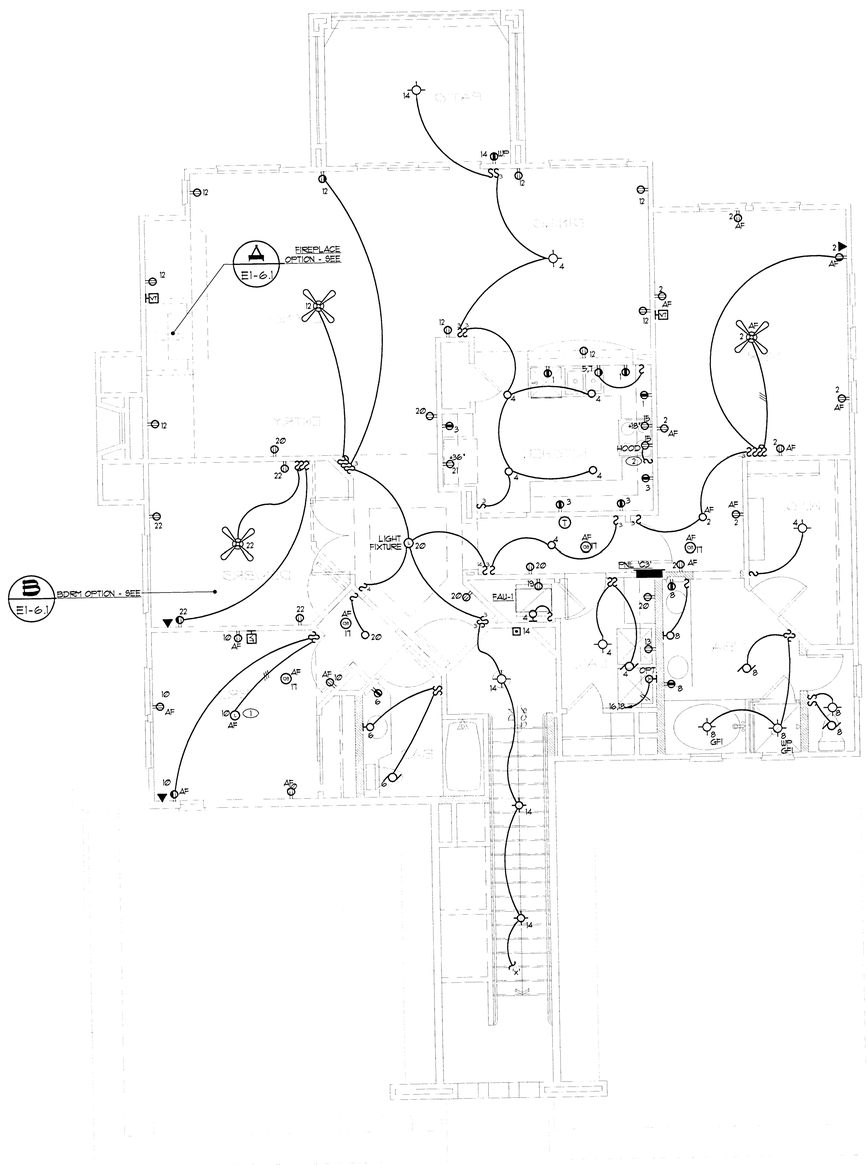
Project Name:
CORONADO
THE PASEOS
LAS VEGAS, NEVADA

Sheet Name:
UNIT C3
ELECTRICAL PLAN

Revisions:

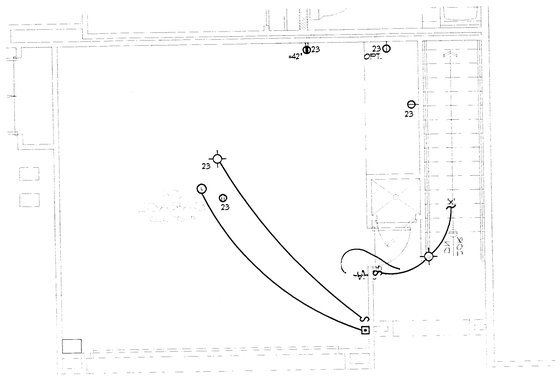
No.	Date	Description	By
1	5-20-09	OWNER REVISION	JMP

ELEC
Job # 09-0003
Checked by: JMP
Drawn by: BG
Date: 01/22/09
Sheet:
E1-6.1



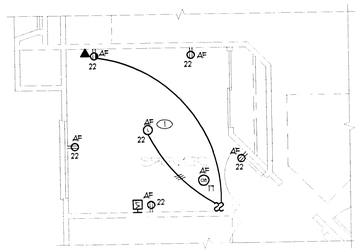
UNIT "C4" ELECTRICAL PLAN

SCALE: 1/4" = 1'-0" (UNIT 'C4R' SIMILAR EXCEPT REVERSED)



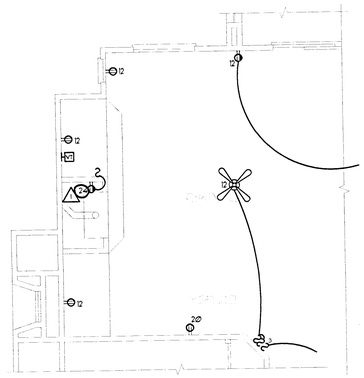
UNIT "C4" GARAGE ELECTRICALPLAN

SCALE: 1/4" = 1'-0" (C) E1-7.1 (UNIT 'C4R' SIMILAR EXCEPT REVERSED)



BEDRM 3 OPT.

SCALE: 1/4" = 1'-0" (B) E1-7.1



FIREPLACE OPT.

SCALE: 1/4" = 1'-0" (A) E1-7.1

GENERAL PLAN NOTES

1. ALL FIXTURES AND EQUIPMENT SHALL BE CIRCUITED TO PANEL 'C4'. NUMBERS INDICATE CIRCUITING.
2. WIRE SIZE SHALL NOT BE LESS THAN CORRESPONDING CIRCUIT BREAKER RATING AS REQUIRED BY CODE.
3. VERIFY MOUNTING AND LOCATION OF ALL FIXTURES WITH ARCHITECT PRIOR TO INSTALLATION.
4. REFER TO MECHANICAL DRAWINGS FOR EXACT LOCATIONS OF HVAC EQUIPMENT.
5. ALL UNIT LIGHT FIXTURES TO BE SPECIFIED BY OWNER/DEVELOPER FURNISHED AND INSTALLED BY ELECTRICAL CONTRACTOR.
6. SWITCHES SHALL BE MOUNTED AT A MAXIMUM OF 48" ABOVE FINISHED FLOOR. GENERAL RECEPTACLES, TV AND TELE/COMPUTER OUTLETS SHALL BE MOUNTED AT A MINIMUM OF 15" ABOVE FINISHED FLOOR. INSTALL RECEPTACLE IN KITCHEN AND BATHROOMS 6" ABOVE COUNTER HORIZONTALLY UNLESS NOTED OTHERWISE.
7. FOR HANDICAPPED UNITS, ALL RECEPTACLES AT KITCHEN COUNTERTOP SHALL PROTRUDE ONE INCH FROM WALL AS PER ADA REQUIREMENTS. PROVIDE EXTENSION RINGS AS REQUIRED.

KEYED PLAN NOTES

1. OPT FAN/LIGHT KIT. PROVIDE PROPER SUPPORT AND BOX PER NEC 314.27 (D) IF INSTALLED.
2. PROVIDE SWITCH WITH EXTENSION RING. CONDITION OCCURS FOR HANDICAP UNIT ONLY. WALL SWITCH DELETED FOR REGULAR UNIT.

PLANS APPROVED
ELECTRICAL
Building & Safety Dept.
City of Las Vegas, Nevada

DRM JUL 14 2009

Does Not Include Structural, Architectural, Plumbing/Mechanical or Off-Site Improvements. Make No Change Without Approval. Plan is Not a Permit to Violate Any Ordinance.

ELECTRICAL LOAD CALCULATION

PROJECT NAME: THE PASEOS - CORONADO
UNIT OR MODEL: UNIT 'C4' SQUARE FOOTAGE: 1,769
SERVICE VOLTAGE: 120/240V

GENERAL LIGHTING LOAD:			
1,769 SQ. FT. x 3 W. / SQ. FT.	= 5,307	E.	
SMALL APPLIANCE LOAD:			
2 CIRCUITS @ 1500 W. EA	= 3,000	E.	
1 LAUNDRY LOADS @ 1500 W.	= 1,500	E.	
TOTAL GEN. LTG. AND SMALL APPL.	= 9,807	E.	E.
FIRST 3000W. AT 100%	= 3,000	E.	E.
REMAINING 6,807 W. AT 35% (TABLE 220.42)	= 2,382	E.	E.
@ RANGE LOADS (PER NEC TABLE 220.55) (GAS)	= @	E.	E.
1 DRYER LOADS (PER NEC TABLE 220.54) (OPT.)	= 5,000	E.	E.
FIXED APPLIANCE LOAD:			
1 DISHWASHERS @	1200 W.	= 1,200	E. E.
1 GARBAGE DISPOSAL @	600 W.	= 600	E. E.
@ WATER HEATERS @	4500 W.	= @	E. E.
1 MICROWAVES @	1500 W.	= 1,500	E. E.
@ TRASH COMPACTOR @	800 W.	= @	E. E.
FIXED APPLIANCE LOAD		= 3,300	E. E.
FOUR OR MORE APPLIANCES (NEC ART. 220.53)			
@ W. x 75%	= @	E.	
TOTAL FIXED APPLIANCE LOAD	= 3,300	E.	
HVAC LOADS			
1 CONDENSER UNITS 6,155 W. 4 TON UNIT	= 6,155	E.	
1 FAN COIL UNITS @ 1,121 W.	= 1,121	E.	E.
@ AUX. HEAT STRIP @ 5,000 W.	= @	E.	E.
@.25 x LARGEST MOTOR LOAD	= 1,539	E.	
MISCELLANEOUS LOADS			
1 ELECTRIC FIREPLACE	= 1,440	E.	
TOTAL LOAD	= 23,943	E.	
TOTAL LOAD 23,943 / 240 VOLTS	= 100	A.	
MINIMUM 125 AMP SERVICE RECOMMENDED			

PANEL 'C4'														
VOLTS:	120/240			SERVICE ENTRANCE			X	SLIP-ON CIRCUIT BREAKERS						
PANEL AMP RATING:	125			METER				BOLT-ON CIRCUIT BREAKERS						
MAIN BREAKER AMP RATING:	M.L.O.		X	NEMA 1			X	ALUMINUM BUS						
MINIMUM KAIC:	10			NEMA 3R				COPPER BUS						
PHASE:	1			SURFACE MOUNT										
WIRE:	3		X	FLUSH MOUNT										
NEUTRAL:	FULL SIZE		X	HINGE DOOR				PANEL LOCATION						
GROUND:	CU-SOLID			DOOR IN DOOR				SEE UNIT PLAN						
			X	LATCH/LOCK DOOR										
CKT NO.	CIRCUIT DESCRIPTION	BKR SIZE	LOAD TYPE	LOADS (VA) A	LOADS (VA) B	LOADS (VA) A	LOADS (VA) B	LOAD TYPE	BKR SIZE	CIRCUIT DESCRIPTION	CKT NO.			
1	SMALL APPLIANCES	20/1		//////			//////		20/1	** BEDRM	2			
3	SMALL APPLIANCES	20/1		//////		//////			20/1	HALLWAY/KITCHEN	4			
5	** GARBAGE DISPOSAL	20/1		//////			//////		20/1	BATH FAN/LTGS	6			
7	** DISHWASHER	20/1			//////	//////			20/1	BATH FAN/LTGS	8			
9	AC UNIT	30/2		//////			//////		20/1	** BEDRM	10			
11					//////	//////			20/1	GENERAL CKT	12			
13	WASHER	20/1		//////			//////		20/1	EXTERIOR CKT	14			
15	STOVE/HOOD	20/1			//////	//////			30/2	OPT. DRYER	16			
17	** SMOKE DETECTOR	20/1		//////			//////				18			
19	FCU	20/1			//////	//////			20/1	GENERAL CKT	20			
21	REFRIGERATOR	20/1		//////			//////		20/1	** BEDRM OPTION CKT	22			
23	GARAGE CKT	20/1			//////	//////			20/1	ELECTRIC FIREPLACE	24			
	TOTAL LOAD PER PHASE						BALANCE							
	TOTAL PANEL LOAD (W/O DEMAND)													

ABBREVIATIONS:
F=FIXED EQUIPMENT, L=LIGHTING LOAD, M=MOTOR LOAD, ML=LARGEST MOTOR LOAD, R=RECEPTACLE LOAD

SPECIAL PROVISIONS:
SEE UNIT LOAD CALCULATIONS
* PROVIDE APPROVED LOCKING DEVICE.
** PROVIDE AFCI CIRCUIT BREAKER
*** PROVIDE AFCI CIRCUIT BREAKER FOR BEDRM OPTION ONLY.

RUN DATE: JUL 14, 2009

COMFORT ENGINEERING
"COMFORT BY DESIGN"
MECHANICAL • ELECTRICAL • PLUMBING
9175 WEST FLAMINGO ROAD, LAS VEGAS, NEVADA 89147
TEL. (702) 367-0892 FAX 367-1076

STATE OF NEVADA — REGISTERED PROFESSIONAL ENGINEER — JOSHUA PENSO — Exp. 12-31-09 — ELECTRICAL — No. 015647 — 5/27/09

CORONADO
THE PASEOS
LAS VEGAS, NEVADA

Project Name:

UNIT C4
ELECTRICAL PLAN

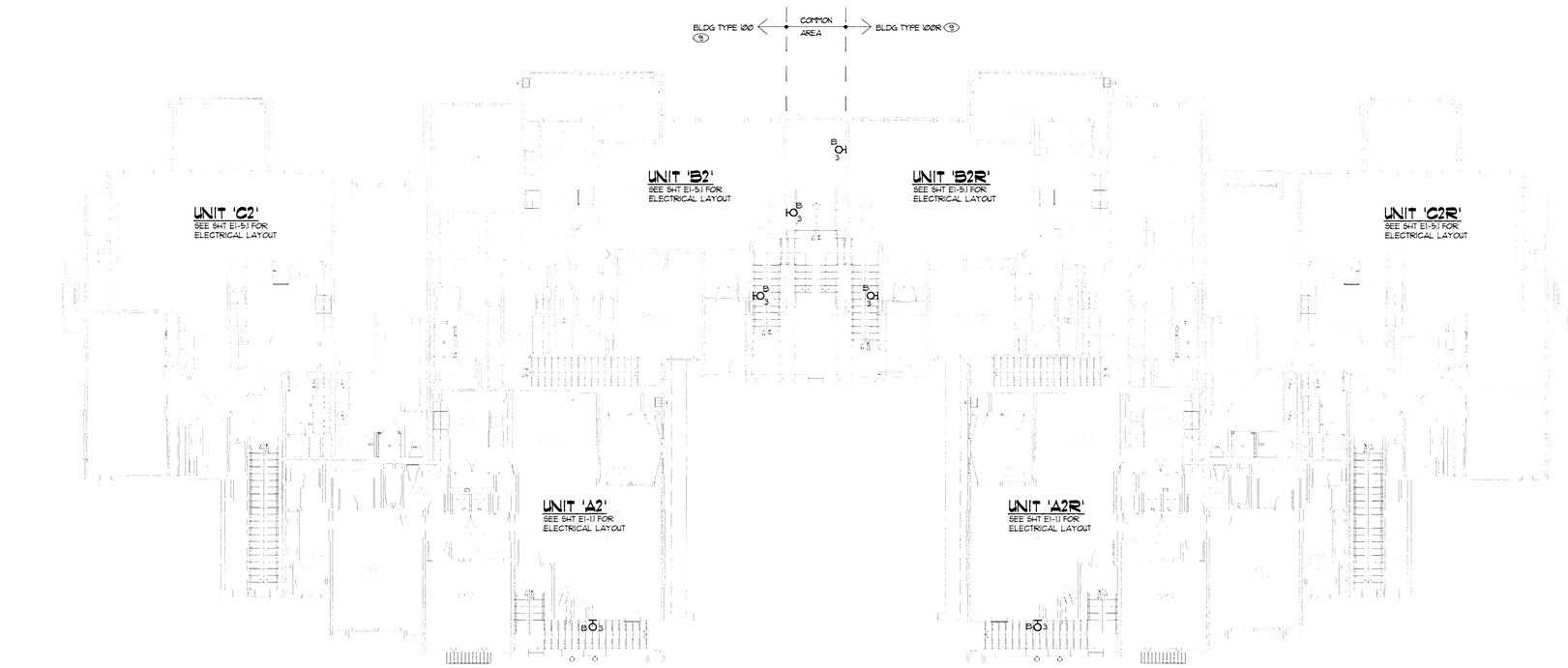
Sheet Name:

Revisions:

No.	Date	Description	By
1	5-20-09	OWNER REVISION	JMP

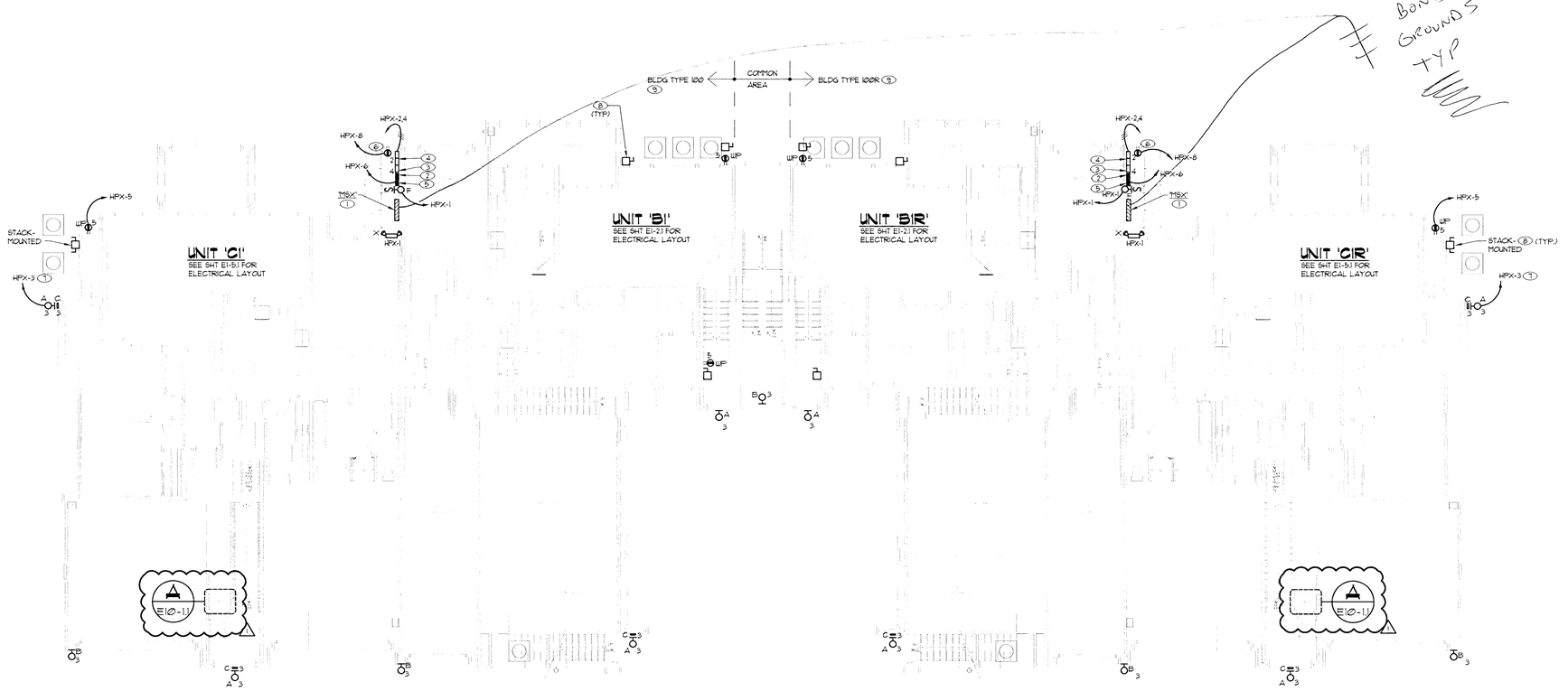
ELEC
Job # 09-0003
Checked by: JMP
Drawn by: SG
Date: 01/22/09
Sheet:
E1-7.1

K:\ACAD\09-0003\Working Drawings\09-0003 Coronado @ Paseos\ELEC\E1-7.1.dwg 2009-05-21 16:11 leonard



BLDG TYPE 100/100R - 2ND LEVEL OVERALL ELECTRICAL PLAN

SCALE: 1/8" = 1'-0" (TYPICAL FOR BLDG NUMBERS 1, 2, 29, 30, 31, 32, 33 & 34)



BLDG TYPE 100/100R - 1ST LEVEL OVERALL ELECTRICAL PLAN

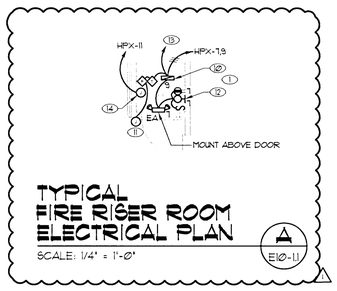
SCALE: 1/8" = 1'-0" (TYPICAL FOR BLDG NUMBERS 1, 2, 29, 30, 31, 32, 33 & 34)

GENERAL PLAN NOTES

1. THE ELECTRICAL CONTRACTOR SHALL FURNISH AND INSTALL ALL ELECTRICAL COMPONENTS AND HARDWARE AS REQUIRED BY THE NATIONAL ELECTRICAL CODE, LATEST EDITION, SOUTHERN NEVADA AMENDMENTS, AND SHALL COMPLY WITH THE REQUIREMENTS OF THE INSPECTING AUTHORITY HAVING JURISDICTION.
2. SEE SITE ELECTRICAL PLAN, SHEET E0.1, FOR LOCATIONS AND CIRCUITING OF EXTERIOR BUILDING MOUNTED LIGHTS.
3. PROVIDE FIRE STOPPING AND CAULKINGS AT FIRE RATED WALL AND CEILING PENETRATIONS AS REQUIRED TO MAINTAIN FIRE RATING OF THE CONSTRUCTION.
4. VERIFY MOUNTING AND LOCATION OF ALL FIXTURES WITH ARCHITECT PRIOR TO INSTALLATION.
5. ALL EMERGENCY, EXIT AND NIGHT LIGHT BATTERY UNITS SHALL BE PROVIDED WITH UNSWITCHED HOT.
6. REFER TO SHEET E0.1 FOR TYPICAL HOUSE PANEL SCHEDULE.
7. SWITCHGEAR DIMENSIONS WERE BASED ON SQUARE-D' (MP) 4 (EZ) METER-PAK EQUIPMENT.

KEYED PLAN NOTES

1. ELECTRICAL SWITCHGEAR 'MSX'. REFER TO SITE ELECTRICAL PLANS FOR EXACT LOCATION. SEE SINGLE LINE DIAGRAM FOR MORE DETAILS.
2. LOCKABLE NEMA 1 HOUSE PANEL 'HPX'. SEE SHEET E0.1 FOR EXACT LOCATION AND DESIGNATION.
3. PROVIDE 2'-0"X2'-6" NEMA 1 RATED TELEPHONE CABINET WITH LOCKABLE HINGED COVER AND 3/4" THK FIRE RATED PLYWOOD BACKBOARD AND QUAD RECEPTACLE WITHIN. PROVIDE 3/4"C-1 #6 INSULATED CU GROUND TO BUILDING GROUND.
4. PROVIDE 2'-0"X2'-6" NEMA 1 RATED CABLE CABINET WITH LOCKABLE HINGED COVER AND 3/4" THK FIRE RATED PLYWOOD BACKBOARD AND QUAD RECEPTACLE WITHIN. PROVIDE 3/4"C-1 #6 INSULATED CU GROUND TO BUILDING GROUND.
5. PROVIDE NEMA 1 RATED LIGHTING CONTACTOR 'LCX' WITH PHOTOCELL 'ON', TIMECLOCK 'OFF' CONTROL MOUNTED UNDER HOUSE PANEL.
6. VERIFY EXACT LOCATION OF IRRIGATION CONTROLLER WITH ARCHITECT AND/OR OWNER'S REPRESENTATIVE PRIOR TO ROUGH-IN ONLY WHEN REQUIRED.
7. ROUTE VIA RESPECTIVE BUILDING LIGHTING CONTACTOR.
8. 30/2, WP DISCONNECT SWITCH FOR MECHANICAL CONDENSING UNIT. REFER TO UNIT PANEL SCHEDULE FOR RESPECTIVE CIRCUITING.
9. ALL EXTERIOR LIGHTING WITHIN THIS AREA SHALL BE CIRCUITED TO RESPECTIVE HOUSE PANEL.
10. FIRE MONITORING PANEL WITH BATTERY BACK-UP. PROVIDED BY FIRE PROTECTION CONTRACTOR.
11. WEATHERPROOF FLUSH WALL MOUNTED JUNCTION BOX FOR CONNECTION TO FIRE ALARM HORN STROBE. PROVIDE AS PER LOCAL FIRE DEPARTMENT REQUIREMENTS.
12. PROVIDE SURFACE MOUNTED LIGHT FIXTURE SELECTED BY OWNER, FURNISHED AND INSTALLED BY CONTRACTOR. ALLOW 100 WATTS MAXIMUM.
13. 3/4"C AS REQUIRED TO EACH BUILDING TELEPHONE BACKBOARD.
14. J-BOX FOR FIRE RISER HEATER.



TYPICAL FIRE RISER ROOM ELECTRICAL PLAN

SCALE: 1/4" = 1'-0" E10-1.1

PLANS APPROVED
ELECTRICAL
Building & Safety Dept.
City of Las Vegas, Nevada

DRM JUL 14 2009

Does Not Include Structural, Architectural, Plumbing/Mechanical or Off-Site Improvements. Make No Change Without Approval. Plan is Not a Permit to Violate Any Ordinance.

RUN 6.5. 2009

COMFORT ENGINEERING
"COMFORT BY DESIGN"
MECHANICAL - ELECTRICAL - PLUMBING
9175 WEST FLAMINGO ROAD, LAS VEGAS, NEVADA 89147
TEL. (702) 367-0892 FAX 367-1076

STATE OF NEVADA — REGISTERED PROFESSIONAL ENGINEER — JOSHUA PENSO — Exp. 12-31-09 — ELECTRICAL — No. 016190 — 5/27/09

CORONADO
THE PASEOS
LAS VEGAS, NEVADA

Project Name:

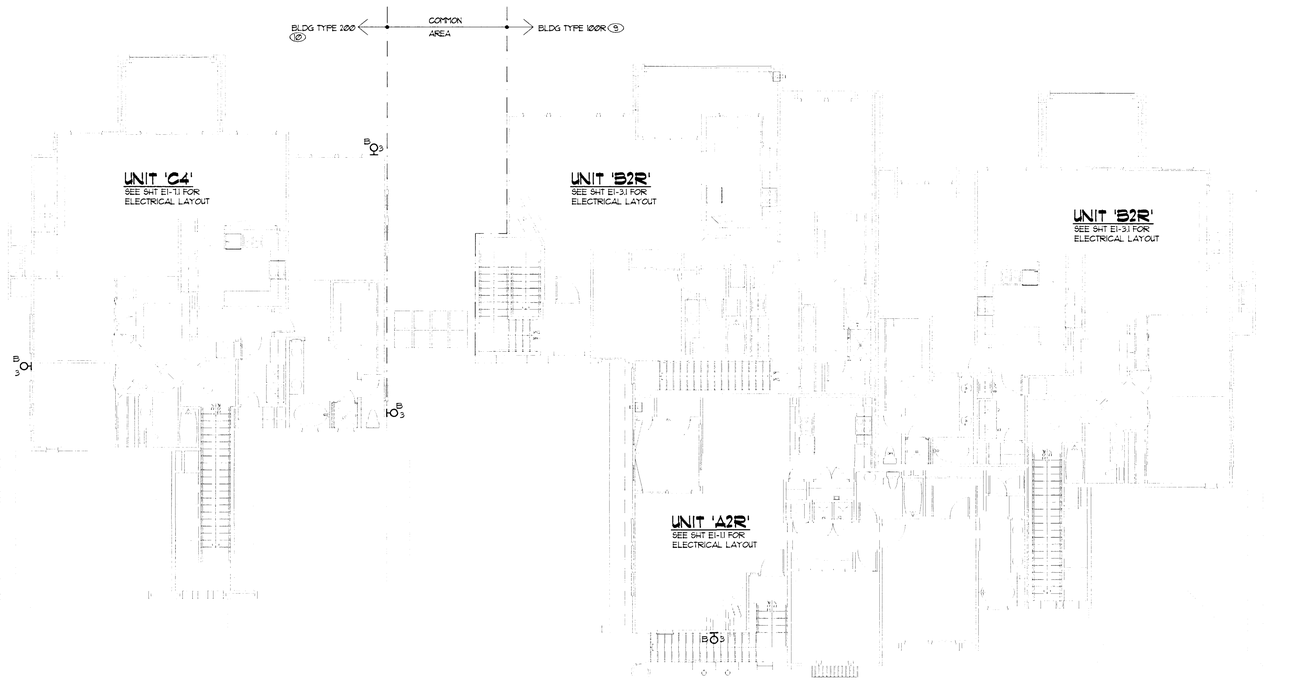
Sheet Name: BUILDING 100/100R 1ST AND 2ND LEVEL ELECTRICAL PLANS

Revisions:

No.	Date	Description	By
1	5-20-09	OWNER REVISION	JMP

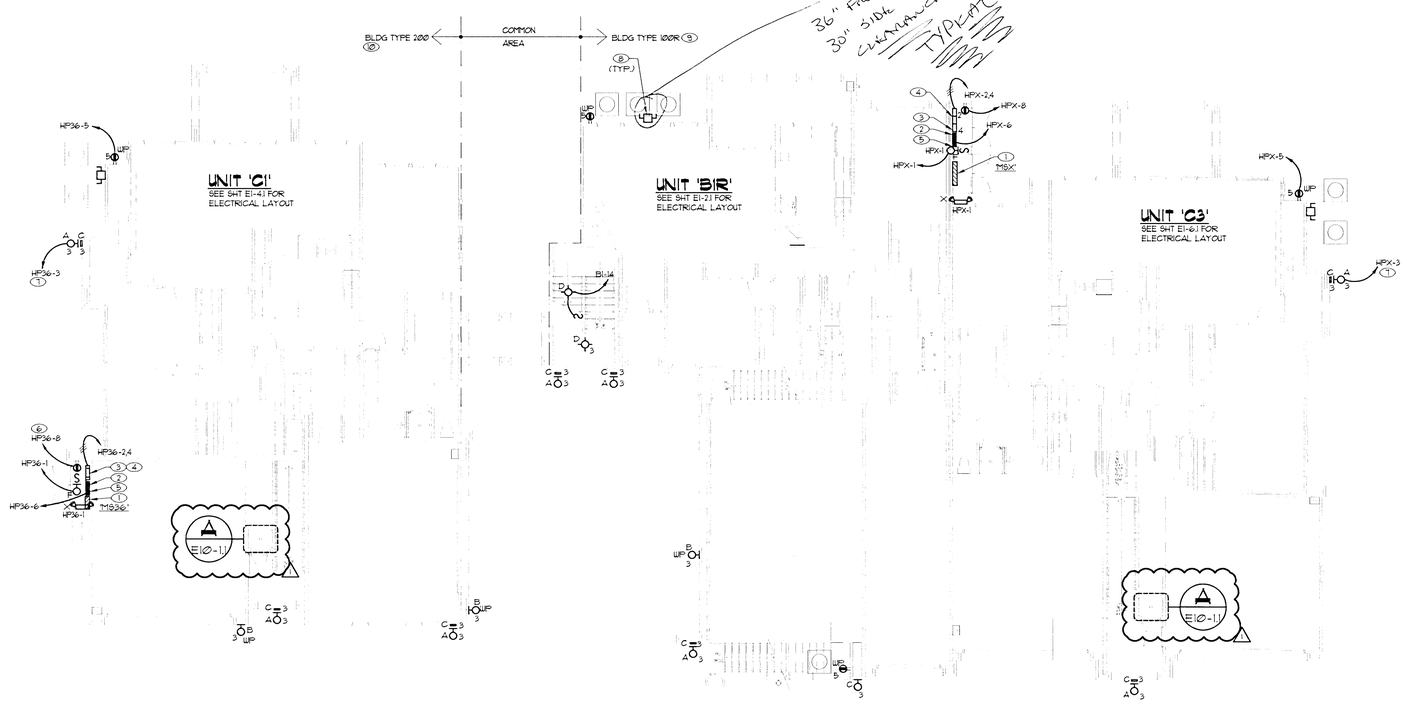
Job # 09-0003
Checked by: JMP
Drawn by: BG
Date: 01/22/09
Sheet:

E10-1.1



BLDG 100R/200 - 2ND LEVEL OVERALL ELECTRICAL PLAN

SCALE: 1/8 = 1'-0" (TYPICAL FOR BUILDING NUMBER 35 & 36)



BLDG 100R/200 - 1ST LEVEL OVERALL ELECTRICAL PLAN

SCALE: 1/8 = 1'-0" (TYPICAL FOR BUILDING NUMBER 35 & 36)

GENERAL PLAN NOTES

1. THE ELECTRICAL CONTRACTOR SHALL FURNISH AND INSTALL ALL ELECTRICAL COMPONENTS AND HARDWARE AS REQUIRED BY THE NATIONAL ELECTRICAL CODE, LATEST EDITION, SOUTHERN NEVADA AMENDMENTS, AND SHALL COMPLY WITH THE REQUIREMENTS OF THE INSPECTING AUTHORITY HAVING JURISDICTION.
2. SEE SITE ELECTRICAL PLAN, SHEET E0.1, FOR LOCATIONS AND CIRCUITING OF EXTERIOR BUILDING MOUNTED LIGHTS.
3. PROVIDE FIRE STOPPING AND CAULKINGS AT FIRE RATED WALL AND CEILING PENETRATIONS AS REQUIRED TO MAINTAIN FIRE RATING OF THE CONSTRUCTION.
4. VERIFY MOUNTING AND LOCATION OF ALL FIXTURES WITH ARCHITECT PRIOR TO INSTALLATION.
5. ALL EMERGENCY, EXIT AND NIGHT LIGHT BATTERY UNITS SHALL BE PROVIDED WITH UNSWITCHED HOT.
6. REFER TO SHEET E0.1 FOR TYPICAL HOUSE PANEL SCHEDULE.
7. SWITCHGEAR DIMENSIONS WERE BASED ON SQUARE-D' (MP) 4 (EZ) METER-PAK EQUIPMENT.

KEYED PLAN NOTES

1. ELECTRICAL SWITCHGEAR 'MSX'. REFER TO SITE ELECTRICAL PLANS FOR EXACT LOCATION. SEE SINGLE LINE DIAGRAM FOR MORE DETAILS.
2. LOCKABLE NEMA 1 HOUSE PANEL 'HPX'. SEE SHEET E0.1 FOR EXACT LOCATION AND DESIGNATION.
3. PROVIDE 12"X12"X6" NEMA 1 RATED TELEPHONE CABINET WITH LOCKABLE HINGED COVER AND 3/4" THK FIRE RATED PLYWOOD BACKBOARD AND QUAD RECEPTACLE WITHIN. PROVIDE 3/4"C-1 Ø INSULATED CU GROUND TO BUILDING GROUND.
4. PROVIDE 12"X12"X6" NEMA 1 RATED CABLE CABINET WITH LOCKABLE HINGED COVER AND 3/4" THK FIRE RATED PLYWOOD BACKBOARD AND QUAD RECEPTACLE WITHIN. PROVIDE 3/4"C-1 Ø INSULATED CU GROUND TO BUILDING GROUND.
5. PROVIDE NEMA 1 RATED LIGHTING CONTACTOR 'LCX' WITH PHOTOCELL 'ON', TIMECLOCK 'OFF' CONTROL MOUNTED UNDER HOUSE PANEL.
6. VERIFY EXACT LOCATION OF IRRIGATION CONTROLLER WITH ARCHITECT AND/OR OWNER'S REPRESENTATIVE PRIOR TO ROUGH-IN ONLY WHEN REQUIRED.
7. ROUTE VIA RESPECTIVE BUILDING LIGHTING CONTACTOR.
8. 30/2, WP DISCONNECT SWITCH FOR MECHANICAL CONDENSING UNIT. REFER TO UNIT PANEL SCHEDULE FOR RESPECTIVE CIRCUITING.
9. ALL EXTERIOR LIGHTING WITHIN THIS AREA SHALL BE CIRCUITED TO HOUSE PANEL 'HP35'.
10. ALL EXTERIOR LIGHTING WITHIN THIS AREA SHALL BE CIRCUITED TO HOUSE PANEL 'HP36'.

PLANS APPROVED
ELECTRICAL
Building & Safety Dept.
City of Las Vegas, Nevada

DRW JUL 14 2009

Does Not Include Structural, Architectural, Plumbing/Mechanical or Off-Site Improvements. Make No Changes Without Approval. Plan is Not a Permit to Violate Any Ordinance.

JUN 04, 2009

COMFORT ENGINEERING
"COMFORT BY DESIGN"
MECHANICAL • ELECTRICAL • PLUMBING
9175 WEST FLAMINGO ROAD, LAS VEGAS, NEVADA 89147
TEL (702) 361-6883 FAX 367-1078

STATE OF NEVADA — JOSHUA PENSO — Exp. 12-31-09 — ELECTRICAL ENGINEER — PROFESSIONAL ENGINEER — No. 15647 — 5/21/09

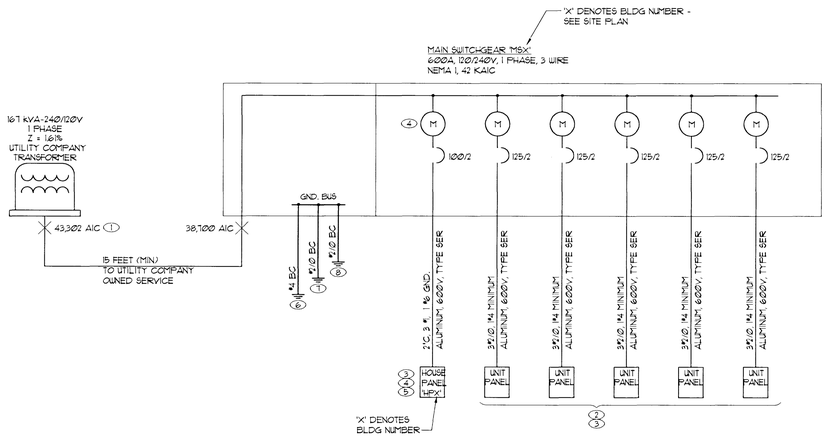
Project Name:
CORONADO
THE PASEOS
LAS VEGAS, NEVADA

Sheet Name:
BUILDING - 200
1ST AND 2ND LEVEL
ELECTRICAL PLANS

Revisions:

No.	Date	Description	By
1	5-20-09	OWNER REVISION	JMP

ELEC
Job # 09-0003
Checked by: JMP
Drawn by: EG
Date: 01/22/09
Sheet:
E20-1.1



BUILDING TYPE 100 SINGLE LINE DIAGRAM (100R SIMILAR)

NOT TO SCALE (BUILDING NUMBER 1, 2, 29, 30, 31, 32, 33, 34 & 35)

ELECTRICAL LOAD CALCULATION

PROJECT NAME: THE PASEOS-CORONADO
UNIT OR MODEL: BLDG 100 - MSX'
SERVICE VOLTAGE: 120/240V

GENERAL LIGHTING LOAD:

UNIT	NO.	SQ FT		
A1	1	1309	=	1309
B1	1	1475	=	1475
B2	1	1520	=	1520
C1	1	1793	=	1793
C2	1	1762	=	1762
	5			1855

7,855 SQ. FT. x 3 W. / SQ. FT. = 23,565 E.
SMALL APPLIANCE LOAD:
10 CIRCUITS @ 1500 W. EA = 15,000 E.
5 LAUNDRY LOADS @ 1500 W. = 7,500 E.
TOTAL GEN. LTG. AND SMALL APPL. = 46,065 E.

FIRST 3000W. AT 100% = 3,000 E.
NEXT 43,065 W. AT 35% (TABLE 220.42) = 15,073 E.
REMAINING Ø W. AT 25% (TABLE 220.42) = Ø E.
Ø RANGE LOADS (PER NEC TABLE 220.55) (GAS) = Ø E.
5 DRYER LOADS (PER NEC TABLE 220.54) (OPT.) = 21,250 E.

FIXED APPLIANCE LOAD:

5	DISHWASHERS @	1200	E.	= 6,000	E.
5	GARBAGE DISPOSAL @	800	E.	= 4,000	E.
Ø	WATER HEATERS @	4500	W.	= Ø	E.
5	MICROWAVES @	1500	E.	= 7,500	E.
Ø	TRASH COMPACTOR @	800	E.	= Ø	E.

FIXED APPLIANCE LOAD = 17,500 E.
FOUR OR MORE APPLIANCES (NEC ART. 220.53)
17,500 W. x 75% = 13,125 E.
TOTAL FIXED APPLIANCE LOAD = 13,125 E.

HVAC LOADS

4	CONDENSER UNITS	6,155	W.	4 TON UNIT	= 24,620 E.
1	CONDENSER UNITS	5,197	E.	3.5 TON UNIT	= 5,197 E.
5	FAN COIL UNITS @	1,127	E.	3.5 TON UNIT	= 5,635 E.
Ø	AUX. HEAT STRIP @	5,000	W.		= Ø E.

Ø.25 x LARGEST MOTOR LOAD = 1,539 E.

MISCELLANEOUS LOADS
1 HOUSE PANEL 10,000 W. = 10,000 E.

TOTAL LOAD = 99,439 E.

TOTAL LOAD 99,439 / 240 VOLTS = 414 A.

MINIMUM 600 AMP SERVICE RECOMMENDED

ELECTRICAL LOAD CALCULATION

PROJECT NAME: THE PASEOS-CORONADO - BLDG 200B
UNIT OR MODEL: BLDG 200 - MB36'
SERVICE VOLTAGE: 120/240V

GENERAL LIGHTING LOAD:

UNIT	NO.	SQ FT		
C3	1	1803	=	1803
C4	1	1769	=	1769
	2			3572

3,572 SQ. FT. x 3 W. / SQ. FT. = 10,716 E.
SMALL APPLIANCE LOAD:
4 CIRCUITS @ 1500 W. EA = 6,000 E.
2 LAUNDRY LOADS @ 1500 W. = 3,000 E.
TOTAL GEN. LTG. AND SMALL APPL. = 19,716 E.

FIRST 3000W. AT 100% = 3,000 E.
NEXT 16,716 W. AT 35% (TABLE 220.42) = 5,851 E.
REMAINING Ø W. AT 25% (TABLE 220.42) = Ø E.
Ø RANGE LOADS (PER NEC TABLE 220.55) (GAS) = Ø E.
2 DRYER LOADS (PER NEC TABLE 220.54) (OPT.) = 10,000 E.

FIXED APPLIANCE LOAD:

2	DISHWASHERS @	1200	E.	= 2,400	E.
2	GARBAGE DISPOSAL @	800	E.	= 1,600	E.
Ø	WATER HEATERS @	4500	E.	= Ø	E.
2	MICROWAVES @	1500	E.	= 3,000	E.
Ø	TRASH COMPACTOR @	800	E.	= Ø	E.

FIXED APPLIANCE LOAD = 7,000 E.
FOUR OR MORE APPLIANCES (NEC ART. 220.53)
7,000 W. x 75% = 5,250 E.
TOTAL FIXED APPLIANCE LOAD = 5,250 E.

HVAC LOADS

2	CONDENSER UNITS	6,155	E.	4 TON UNIT	= 12,310 E.
2	FAN COIL UNITS @	1,127	W.	3.5 TON UNIT	= 2,254 E.
Ø	AUX. HEAT STRIP @	5,000	W.		= Ø E.

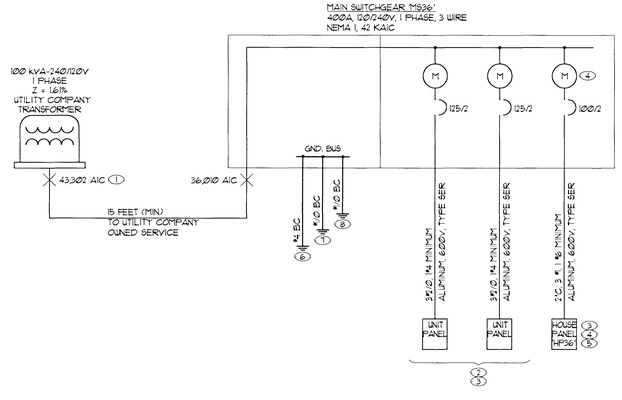
Ø.25 x LARGEST MOTOR LOAD = 1,539 E.

MISCELLANEOUS LOADS
1 HOUSE PANEL 12,000 W. = 12,000 E.

TOTAL LOAD = 52,203 E.

TOTAL LOAD 52,203 / 240 VOLTS = 218 A.

MINIMUM 400 AMP SERVICE RECOMMENDED



BUILDING TYPE 200 SINGLE LINE DIAGRAM

NOT TO SCALE (BUILDING NUMBER 36 ONLY)

THE DESIGN PROFESSIONAL HAS PERFORMED ALL THE REQUIRED VOLTAGE DROP CALCULATIONS FOR ALL BRANCH CIRCUITS AND FEEDERS PER THE 2005 NATIONAL ELECTRICAL CODE, ARTICLE 210.19.A.(1) FPN NO. 4.

THE DESIGN PROFESSIONAL HAS PERFORMED ALL THE REQUIRED SHORT CIRCUIT CALCULATIONS AND THE AIC RATING INDICATED FOR EACH DEVICE IS ADEQUATE TO PROTECT THE EQUIPMENT AND THE ELECTRICAL SYSTEM.

SINGLE LINE DIAGRAM NOTES:

(1) MAXIMUM FAULT CURRENT AT TRANSFORMERS SHALL BE DETERMINED AND FURNISHED BY UTILITY COMPANY. PRELIMINARY INFORMATION INDICATES MAXIMUM AVAILABLE FAULT CURRENT IS 43,302 AMPS BASED UPON A 167 KVA OR 100 KVA TRANSFORMER.

(2) THE MAXIMUM VOLTAGE DROP SEEN BY THE UNIT ELECTRICAL PANELS RATED AT 125A WILL BE 3.00%, FOR A DISTANCE AS DEFINED IN TABLE "A" BELOW, USING CURRENT CARRYING ALUMINUM FEEDER CONDUCTORS PER NEC TABLE 310.16 FOR 125 AMPS, ASSUMING A MAXIMUM LOAD OF 104A. THE ELECTRICAL CONTRACTOR SHALL DETERMINE THE FINAL LENGTH OF FEEDER RUN AND USE APPROPRIATE CONDUCTOR SIZES. THE PANEL GROUND CONDUCTOR SHALL BE INCREASED IN SIZE TO ACCOMMODATE VOLTAGE DROP. THIS INCREASE SHALL BE PROPORTIONAL TO THE BASE GROUND WIRE APPLICATION FOR A 125A (*A) ALUMINUM WIRE FEEDER SERVICE GROUND AS NEC LISTED TABLE 250-122 AND 250-122 B.

TABLE "A" MAX. DISTANCE WIRE SIZE (FEET)				
ALL BUILDINGS	2/0	3/0	4/0	
WORST CASE UNIT ELECTRICAL LOAD (104A)	215	265	345	

(3) IT IS NECESSARY TO HAVE THE INDIVIDUAL ELECTRICAL SUB PANELS CIRCUIT BREAKERS SERIES RATED WITH THE FEEDER CIRCUIT BREAKER. ALL SUB PANELS CIRCUIT BREAKERS SHALL BE OF THE SAME MANUFACTURER AS THE FEEDER BREAKER AND SHALL BE BRACED AT 10 KAIC.

(4) PROVIDE ENGRAVED NAMEPLATE TO READ 'HOUSE METER' AND/OR 'HOUSE PANEL' RESPECTIVELY.

(5) REFER TO ELECTRICAL SITE PLAN ON SHEET E1.1 FOR RESPECTIVE BUILDING HOUSE PANEL DESIGNATION.

(6) CONCRETE ENCASED ELECTRODE (UFER)

(7) METAL BUILDING FRAME OR STRUCTURE.

(8) METAL UNDERGROUND COLD WATER PIPE.

PLANS APPROVED
ELECTRICAL
Building & Safety Dept.
City of Las Vegas, Nevada
DRAW JUL 14 2009
Does Not Include Structural, Architectural, Plumbing/Mechanical or Off-Site Improvements. Make No Change Without Approval. Plan is Not a Permit to Violate Any Ordinance

PLANS APPROVED
ELECTRICAL
Building & Safety Dept.
City of Las Vegas, Nevada
MAR 06 2009
Does Not Include Structural, Architectural, Plumbing/Mechanical or Off-Site Improvements. Make No Change Without Approval. Plan is Not a Permit to Violate Any Ordinance

COMFORT ENGINEERING
"COMFORT BY DESIGN"
MECHANICAL - ELECTRICAL - PLUMBING
9175 WEST FLAMINGO ROAD, LAS VEGAS, NEVADA
TEL. (702) 367-0282 FAX 367-1

JOSHUA PENSO
Exp. 12-31-09
PROFESSIONAL ELECTRICAL ENGINEER
STATE OF NEVADA
2/24/09

Project Name:
CORONADO
THE PASEOS
LAS VEGAS, NEVADA

Sheet Name:
BUILDING -100/100R/200
SINGLE LINE DIAGRAMS
AND LOAD CALCULATIONS

Revisions:

No.	Date	Description	By

ELEC
Job # 09-0003
Checked by: JMP
Drawn by: EG
Date: 01/22/09
Sheet:
E30-1.1

BUILDING '100'
APPX. A-4 WATER CALCULATION

QTY.	TYPE	F.U.	TOTAL
10	WC	2.5	25
15	LAV	1	15
4	SH/HEAD	2	8
10	BT	4	40
3	HB	2.5+3	5.5
5	KS/DW	3	15
4	LS	1.5	6
5	CW	4	20
		TOTAL F.U.	134.5
		MAX G.P.M	52

LOSSES
BLDG. HEIGHT 20 ft.
FEET x 0.43 P.S.I. / FEET 8.6 psi.
MIN. FIX. PRESSURE 25 psi.
TOTAL 33.6 psi.

DEVELOPED LENGTH TO FURTHEST FIXTURE 250 ft.
FITTING LOSS TOTAL 50 ft.
TOTAL 300 ft.

MIN. SITE PRESSURE 5' FROM BUILDING 60 psi.
BLDG. PRESSURE LOSS 33.6 psi.
PRESSURE AVAILABLE FOR FRICTION LOSS 26.4 psi.

MAXIMUM ALLOWABLE 26.4 psi.
PRESSURE DROP 300 ft.

8.80 psi.
PER 100 FT. 100 ft.

2" DIAMETER MAIN SELECTED
PER CHART A-4 U.P.C.

WATER SIZE CHART MAX. 8 FT/SEC AND 8.8 PSI LOSS/100 FT				
DIAMETER	GPM		F.U. (TANK)	
(INCHES)	MIN	MAX	MIN	MAX
0.5	0	2	0	1
0.75	3	8	2	10
1	9	17	11	24
1.25	18	31	25	54
1.5	32	44	55	103
2	45	78	104	264

BUILDING '200'
APPX. A-4 WATER CALCULATION

QTY.	TYPE	F.U.	TOTAL
4	WC	2.5	10
6	LAV	1	6
2	SH/HEAD	2	4
4	BT	4	16
3	HB	2.5+2	4.5
2	KS/DW	3	6
1	LS	1.5	1.5
2	CW	4	8
		TOTAL F.U.	56
		MAX G.P.M	31

LOSSES
BLDG. HEIGHT 20 ft.
FEET x 0.43 P.S.I. / FEET 8.6 psi.
MIN. FIX. PRESSURE 25 psi.
TOTAL 33.6 psi.

DEVELOPED LENGTH TO FURTHEST FIXTURE 250 ft.
FITTING LOSS TOTAL 50 ft.
TOTAL 300 ft.

MIN. SITE PRESSURE 5' FROM BUILDING 60 psi.
BLDG. PRESSURE LOSS 33.6 psi.
PRESSURE AVAILABLE FOR FRICTION LOSS 26.4 psi.

MAXIMUM ALLOWABLE 26.4 psi.
PRESSURE DROP 300 ft.

8.80 psi.
PER 100 FT. 100 ft.

1-1/2" DIAMETER MAIN SELECTED
PER CHART A-4 U.P.C.

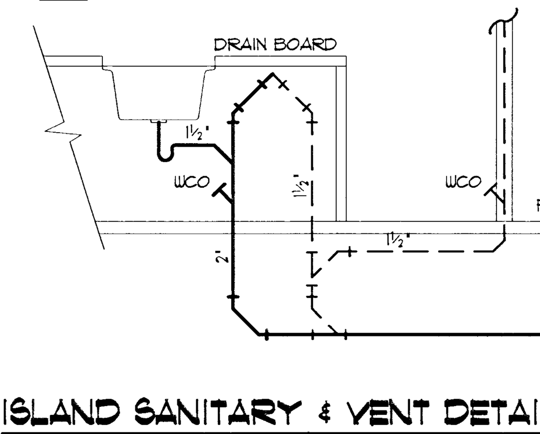
WATER SIZE CHART MAX. 8 FT/SEC AND 8.8 PSI LOSS/100 FT				
DIAMETER	GPM		F.U. (TANK)	
(INCHES)	MIN	MAX	MIN	MAX
0.5	0	2	0	1
0.75	3	8	2	10
1	9	17	11	24
1.25	18	31	25	54
1.5	32	44	55	103
2	45	78	104	264

SYMBOL LIST

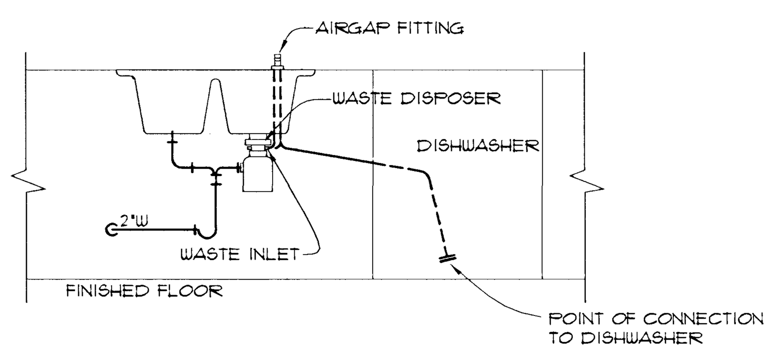
SYMBOL	ABBR.	DESCRIPTION
—— G ——	G	GAS PIPING
—— – – ——	HW	HOT WATER PIPING
—— – – – ——	HWR	HOT WATER RETURN PIPING
—— – ——	CW	COLD WATER PIPING
—— · ——	RCW	RAW COLD WATER PIPING
———	S	SANITARY PIPING
– – – –	V	VENT PIPING
—— CD ——	CD	CONDENSATE DRAIN PIPING
	S.O.V.	SHUT-OFF VALVE
		CHECK VALVE
		GAS COCK
		UNION
		PIPE CAP & STUB-OUT
	CO	WALL CLEAN OUT
	2WCO	TWO-WAY CO
	COTG	CLEANOUT TO GRADE

ABBR.	DESCRIPTION
WH	WATER HEATER
L	LAVATORY
WC	WATER CLOSET
KS	KITCHEN SINK
SS	SERVICE SINK
HB	HOSEBIBB
BT	BATHTUB
SH	SHOWER
V.T.R.	VENT THRU ROOF
A.F.F.	ABOVE FINISHED FLOOR
C.W.V.	COMBINATION WASTE & VENT
	PLUMBING DETAIL REFERENCE
	PLUMBING PIPING RISER REF.

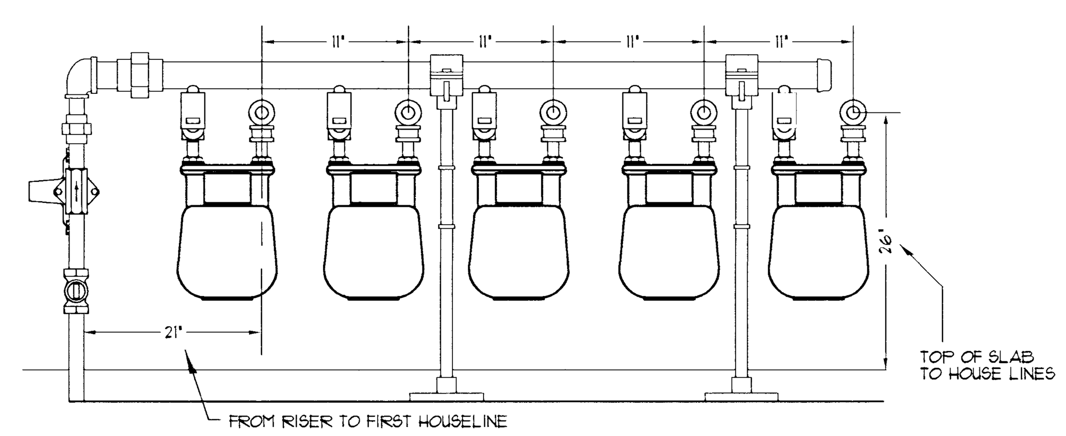
NOTE: INSTALL ISLAND VENT PER 2006 UPC 909.0



ISLAND SANITARY & VENT DETAIL (2 / P0-0.1)
NO SCALE



KITCHEN SINK & DISHWASHER SAN DETAIL (3 / P0-0.1)
NO SCALE



5 METER MANIFOLD
MINIMUM OVERALL INSTALLATION
LENGTH: 6 FEET

5 GAS METER MANIFOLD DETAIL (4 / P0-0.1)
NO SCALE

PART 1 - GENERAL

A. SCOPE

1. THE WORK INCLUDED IN THIS SECTION CONSISTS OF LABOR, MATERIALS, AND EQUIPMENT NECESSARY FOR THE INSTALLATION OF A COMPLETE PLUMBING SYSTEM AS INDICATED ON THE DRAWINGS AND AS DESCRIBED HEREIN. INSTALL A SYSTEM IN PERFECT WORKING ORDER AND IN FULL ACCORDANCE WITH THE INTENT AND MEANING OF THE DRAWINGS AND SPECIFICATIONS. THE WORK IN GENERAL CONSISTS OF FURNISHING AND INSTALLING NEW PLUMBING FIXTURES AND TRIM INCLUDING CONNECTION OF NEW WASTE, VENT AND WATER PIPING TO EXISTING SERVICES AS REQUIRED TO PUT NEW FIXTURE INTO SERVICE.

B. PERMITS AND INSPECTIONS

1. OBTAIN AND PAY REQUIRED PERMITS AND LICENSES. WHEN REQUIRED BY CODE, WORK MUST BE INSPECTED AND APPROVED BY LOCAL AUTHORITIES. PRIOR TO FINAL APPROVAL, FURNISH ARCHITECT WITH CERTIFICATES OF INSPECTION AND APPROVALS BY LOCAL AUTHORITIES.

C. CODES, REGULATIONS, AND STANDARDS

1. THE INSTALLATION SHALL COMPLY WITH APPLICABLE LOCAL AND STATE CODES.

2. THE FOLLOWING INDUSTRY STANDARDS, SPECIFICATIONS, AND CODES ARE MINIMUM REQUIREMENTS:

a. IBC - 2006 INTERNATIONAL BUILDING CODE

b. UMC - 2006 UNIFORM MECHANICAL CODE

c. UPC - 2006 UNIFORM PLUMBING CODE

d. ANSI - AMERICAN NATIONAL STANDARDS INSTITUTE

e. NFPA - NATIONAL FIRE PROTECTION ASSOCIATION

PART 2 - PRODUCTS AND MATERIALS

A. GENERAL PRODUCTS

1. FURNISH AND INSTALL NEW PRODUCTS OF ESTABLISHED AND REPUTABLE MANUFACTURERS. ITEMS OF EQUIPMENT USED FOR THE SAME PURPOSE SHALL BE OF THE SAME MANUFACTURER.

2. SYSTEMS SHALL BE COMPLETE AND OPERABLE. ANY ACCESSORIES REQUIRED FOR OPERATION OF THE SYSTEMS SHALL BE INCLUDED AS THOUGH SPECIFICALLY INDICATED TO BE PROVIDED. PROVIDE SHUT-OFF VALVES FOR SUPPLY LINES TO EACH INDIVIDUAL ITEM OF EQUIPMENT. VALVES SHALL BE CONCEALED WITHIN FIXTURE OR EQUIPMENT WHERE POSSIBLE.

3. SPECIFIC REFERENCE TO A MANUFACTURER'S PRODUCT IN ONLY TO ESTABLISH TYPE, QUALITY, AND PERFORMANCE REQUIRED. THESE QUALIFICATIONS ARE IN ADDITION TO THE REQUIREMENTS SHOWN ON THE PLANS AND ELSEWHERE IN THESE SPECIFICATIONS. LISTING OF ALTERNATE EQUIPMENT MANUFACTURERS SHALL NOT BE CONSTRUED AS AN UNCONDITIONAL APPROVAL OF PRODUCTS OF THOSE MANUFACTURERS.

B. PIPING MATERIALS

1. SOIL, WASTE, VENT AND STORM DRAIN PIPING AND FITTINGS SHALL BE:

a. HUBLESS SERVICE WEIGHT CAST IRON CISPI 301. JOINTS BURIED BELOW GRADE SHALL BE MG NO-HUB CAST-IRON COUPLING OR CLAMP-ALL STAINLESS STEEL COUPLING; ABOVE GRADE SHALL BE STAINLESS STEEL CLAMP AND SHIELD ASSEMBLIES.

b. WHERE PLASTIC IS ALLOWED: ABS IAPMO (IS 5-2003) OR PVC IAPMO (IS 9-2003) PAINT WITH LATEX PAINT WHERE EXPOSED.

2. DOMESTIC WATER PIPING BELOW GRADE

a. COPPER TUBING: ASTM B88, TYPE 'L', HARD DRAWN. FITTINGS: ANSI/ASME B16.29, WROUGHT COPPER. JOINTS: AWS A5.8 BCuP SILVER BRAZE.

b. COPPER TUBING: ASTM B88, TYPE 'L' ANNEALED. NO JOINTS.

c. COPPER TUBING BURIED BELOW GRADE SHALL BE ENCLOSED IN POLYETHYLENE PROTECTIVE SLEEVING EQUAL TO WESTFLEX POLY-SLEEVE.

3. DOMESTIC WATER PIPING ABOVE GRADE

a. COPPER TUBING: ASTM B88, TYPE 'L', HARD DRAWN. FITTINGS: ANSI/ASME B16.23, CAST BRONZE, OR ANSI/ASME B16.29, WROUGHT COPPER. JOINTS: SOLDER AND FLUXES SHALL HAVE A LEAD CONTENT OF LESS THAN 0.2 OF 1 PERCENT.

4. COOLING COIL CONDENSATE DRAIN PIPING

a. COPPER TUBING: ASTM B306, DWV. FITTINGS: ASME B16.23, CAST BRONZE, OR ASME B16.29, WROUGHT COPPER. JOINTS: ASTM B32, SOLDER, GRADE 50B. WHERE BRANCH DRAINS ARE SMALLER THAN AVAILABLE SIZES IN DWV, USE ASTM B88, TYPE 'M', HARD DRAWN COPPER.

5. WATER VALVES

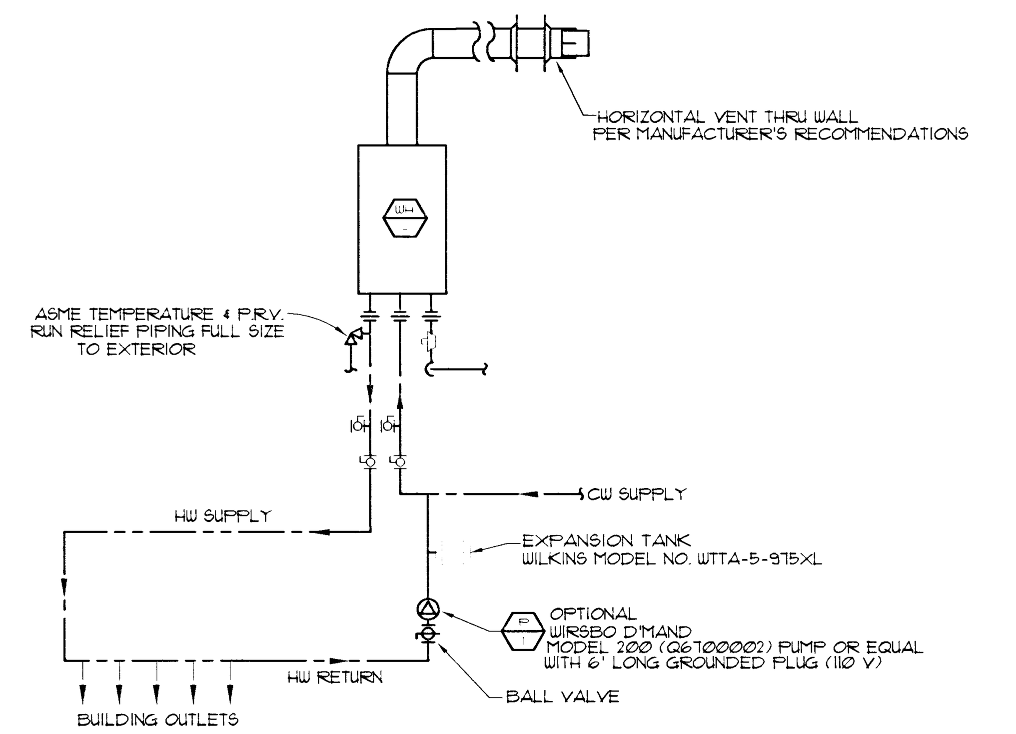
a. SHALL HAVE THE MANUFACTURER'S NAME AND PRESSURE RATING CLEARLY MARKED ON OUTSIDE OF BODY. PROVIDE VALVES SUITABLE TO CONNECT TO ADJOINING PIPE AS SPECIFIED FOR PIPE JOINTS. USE PIPE SIZE GATE VALVES WITH RISING STEM OR BALL VALVES. VALVES SHALL BE 125 # CLASS.

C. PIPING INSULATION

1. INSULATE HOT WATER AND HOT WATER RETURN PIPING IN 1-INCH THICK MOLDED FIBERGLASS WITH FACTORY JACKET HAVING SELF-SEALING LAPS.

2. FOR EXTERIOR COLD WATER PIPING, PROVIDE VAPOR BARRIER JACKET. INSULATE FITTINGS, JOINTS, AND VALVES WITH INSULATION OF LIKE MATERIAL AND THICKNESS AS ADJOINING PIPE AND FINISH WITH GLASS MESH REINFORCED VAPOR BARRIER CEMENT. COVER WITH STAINLESS STEEL JACKET WITH SEAMS LOCATED ON BOTTOM SIDE OF HORIZONTAL PIPING.

3. FOR INTERIOR CONDENSATE DRAIN PIPING, INSULATE WITH 1-INCH THICK GLASS FIBER INSULATION WITH FACTORY APPLIED WHITE JACKET, MANVILLE MICRO-LOK 850 AP OR APPROVED EQUAL.



NOTE: REFER TO ELECTRICAL DRAWINGS FOR OPTIONAL PUSH BUTTONS AND/OR SENSOR LOCATIONS.

SINGLE INTERIOR TANKLESS WATER HEATER DETAIL WITH OPTIONAL RECIRCULATING PUMP (1 / P0-0.1)
NO SCALE

D. CLEANOUTS

1. EXTERIOR SURFACED OR UNSURFACED AREAS: LINE TYPE WITH PREFABRICATED YARD BOX WITH A REMOVABLE LID MARKED 'SEWER' SET FLUSH WITH FINISHED GRADE. (MATERIALS SPECIFIED UNDER PART 2, PARAGRAPH B).

2. INTERIOR FINISHED FLOOR AREAS: TWO PIECE BODY WITH DOUBLE DRAINAGE FLANGE, WEEP HOLES, REVERSIBLE CLAMPING COLLAR, AND ADJUSTABLE NICKEL-BRONZE, ROUND SCORIATED COVER IN SERVICE AREAS AND ROUND OR SQUARE WITH DEPRESSED COVER TO ACCEPT FLOOR FINISH IN FINISHED FLOOR AREAS. (MATERIALS SPECIFIED UNDER PART 2, PARAGRAPH B).

3. INTERIOR FINISHED WALL AREAS: LINE TYPE WITH PRIME COATED STEEL ACCESS COVER SECURED WITH MACHINE SCREW. (MATERIALS SPECIFIED UNDER PART 2, PARAGRAPH B).

4. INTERIOR UNFINISHED ACCESSIBLE AREAS: CAULKED OR THREADED TYPE. PROVIDE BOLTED STACK CLEANOUTS ON VERTICAL RAINWATER LEADERS. (MATERIALS SPECIFIED UNDER PART 2, PARAGRAPH B).

E. PLUMBING FIXTURES

1. THE FOLLOWING IS A LIST OF MANUFACTURERS WHOSE EQUIPMENT IS ACCEPTABLE AND IS SUBJECT TO CONFORMANCE WITH THE DRAWINGS AND SPECIFICATIONS. CAREFUL CHECKING MUST BE MADE TO VERIFY THAT EQUIPMENT WILL MEET REQUIREMENTS, SPACE AND WEIGHT ALLOCATIONS.

a. ROOF AND OVERFLOW DRAINS: ZURN, J.R. SMITH, MIFAB

b. WALL HYDRANT: ZURN, WOODFORD, J.R. SMITH

PART 3 - EXECUTION

A. GENERAL

1. INSTALL MATERIALS AND EQUIPMENT IN AN ARRANGEMENT THAT WILL GIVE THE GREATEST PRACTICAL EASE OF OPERATION AND SERVICE TO THE OWNER.

2. INSTALL EQUIPMENT IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDED INSTALLATION PRACTICES.

3. PERFORM WORK IN ACCORDANCE WITH THE BEST TRADE PRACTICES. INSTALL MATERIALS AND EQUIPMENT SQUARELY WITH THE BUILDING LINES. PROVIDE RIGID PERMANENT BASES AND SUPPORTS FOR WORK. CONSTRUCT AND BRACE EQUIPMENT, PIPING, ETC., SO THAT THERE WILL BE NO VIBRATION AND/OR RATTLING WHEN THE SYSTEM IS IN OPERATION.

4. COVER AND PROTECT EQUIPMENT AND MATERIALS FROM WEATHER, THEFT, ETC., UNTIL DATE OF COMPLETION. PLUG AND/OR CAP OPEN ENDS OF INSTALLED PIPING AND/OR DUCTWORK PENDING EXTENSION OR FINAL CONNECTION.

B. INSTALLATION

1. CONCEAL PIPING IN WALLS, FURRED SPACES, PIPE SPACES, OR ABOVE SUSPENDED CEILINGS, AS SHOWN ON THE DRAWINGS. GROUP PIPING WHEREVER PRACTICAL. INSTALL UNIFORMLY IN STRAIGHT PARALLEL LINES, SQUARELY WITH THE BUILDING LINES.

2. SUPPORT HORIZONTAL PIPING WITH PIPE HANGERS. DO NOT USE PERFORATED METAL TAPE. ARRANGE PIPING SO THAT THERMAL EXPANSION DOES NOT CAUSE STRESS. INSTALL AND SECURE PIPING SO THAT HOT AND COLD LINES, AND LINES OF DISSIMILAR METALS, ARE NOT IN CONTACT.

3. VERIFY EQUIPMENT DIMENSIONS AND REQUIREMENTS FOR ROUGH-IN WORK. BENDING OR OFFSETTING OF FINISHED PIPING CONNECTIONS AND 'COCKING' OF FITTINGS OR TRIM WILL NOT BE ACCEPTABLE. DO NOT SUPPORT ANY PIPING WEIGHT FROM EQUIPMENT.

4. SANITARY: LAY PIPING AT A UNIFORM GRADE. MAKE JOINTS CLOSE AND SQUARE. USE FITTINGS FOR TURNS AND OFFSETS. UNIFORMLY GRADE AND COMPACT TRENCHES PRIOR TO LAYING PIPING. PROVIDE CONTINUOUS SUPPORT FOR PIPING.

5. CONDENSATE DRAIN: AT CONNECTION TO COIL DRAIN PAN, PROVIDE A RUNNING TRAP, WITH VENT SAME SIZE AS BRANCH DRAIN.

6. VENTS THROUGH ROOF SHALL BE SEALED WITH WEATHERPROOF FLASHING CONSTRUCTED OF LEAD OR SHEET METAL COMPATIBLE WITH THE ROOFING SYSTEM SPECIFIED BY THE ARCHITECT. FOR TILE ROOFS, FLASHING SHALL BE COMPATIBLE WITH THE SIZE AND SHAPE OF THE TILE.

7. PIPING CONNECTIONS TO PLUMBING FIXTURES, EXPOSED PIPING AND FITTINGS SHALL BE CHROME PLATED.

C. TESTING REQUIREMENTS

1. TEST SYSTEM IN ACCORDANCE WITH APPLICABLE CODES, REGULATIONS, ORDINANCES, ETC., IN PARTICULAR THE UPC.

2. IF ANY TEST SHOWS THE WORK TO BE DEFECTIVE IN ANY WAY OR AT VARIANCE WITH SPECIFICATION REQUIREMENTS, MAKE NECESSARY CHANGES AND REMEDY DEFECTS.

3. TEST PIPING SYSTEMS AFTER INSTALLATION AND PRIOR TO BEING PUT INTO USE, COVERED OR CONCEALED BY INSULATION, BACKFILLING OR BUILDING CONSTRUCTION.

D. DISINFECTION OF DOMESTIC WATER PIPING SYSTEM

1. DISINFECT WATER PIPING IN STRICT CONFORMANCE WITH THE REQUIREMENTS OF THE STATE OF NEVADA 'WATER SUPPLY REGULATIONS' AND UPC. PROVIDE WRITTEN CONFIRMATION TO OWNER'S REPRESENTATIVE THAT THIS WORKS HAS BEEN COMPLETED.

PLUMBING SHEET INDEX

SHEET NUMBER:	SHEET NAME:
P0-0.1	PLUMBING SPECIFICATIONS, DETAILS, SCHEDULES, SYMBOL LIST AND SHEET INDEX
P1-1.1	UNITS A2, B1 AND B2 DOMESTIC WATER PLANS
P1-2.1	UNITS C1 AND C2 DOMESTIC WATER PLANS
P10-1.1	BUILDING '100' 1ST LEVEL PLUMBING PLAN
P10-1.2	BUILDING '100' 2ND LEVEL PLUMBING PLAN
P10-1.3	BUILDING '100' 1ST LEVEL GAS PLAN
P10-1.4	BUILDING '100' 2ND LEVEL GAS PLAN
P20-1.1	BUILDING '200' PLUMBING PLANS
P20-1.2	BUILDING '200' GAS PLANS

PLANS APPROVED
PLUMBING/MECHANICAL
Building & Safety Dept.
City of Las Vegas, Nevada

EDS MAR 18 2008

Does Not Include Architectural, Electrical, Structural or Off-Site Improvements Make No Change Without Approval Plan Is Not a Permit to Violate Any Ordinance

RECEIVED
FEB 27 2008
City of Las Vegas

THESE PLANS WERE CHECKED UNDER THE 2006 IBC/IRC, 2006 UPC AND UMC AND THE 2005 NEC

TANKLESS WATER HEATER SCHEDULE

(MARK / NUMBER)

SYMBOL	MANUFACTURER/ MODEL NUMBER OR EQUAL	TYPE OF GAS	GAS INPUT (CFH)	REMARKS
WH 1	RINNAI R75LSi	NATURAL	180	INSTALL PER MANUFACTURER'S RECOMMENDATIONS
WH 2	RINNAI R75LSi	NATURAL	180	INSTALL PER MANUFACTURER'S RECOMMENDATIONS
WH 3	RINNAI R75LSi	NATURAL	180	INSTALL PER MANUFACTURER'S RECOMMENDATIONS
WH 4	RINNAI R75LSi	NATURAL	180	INSTALL PER MANUFACTURER'S RECOMMENDATIONS
WH 5	RINNAI R75LSi	NATURAL	180	INSTALL PER MANUFACTURER'S RECOMMENDATIONS
WH 6	RINNAI R75LSi	NATURAL	180	INSTALL PER MANUFACTURER'S RECOMMENDATIONS
WH 7	RINNAI R75LSi	NATURAL	180	INSTALL PER MANUFACTURER'S RECOMMENDATIONS

COMFORT ENGINEERING
'COMFORT BY DESIGN'
MECHANICAL • ELECTRICAL • PLUMBING
9175 WEST FLAMINGO ROAD, LAS VEGAS, NEVADA 89147
TEL. (702) 367-0892 FAX 367-1076

PROFESSIONAL ENGINEER - STATE OF NEVADA
JOHN D. SPARGO
Exp. 6-30-10
MECHANICAL
No. 8943
2/24/09

C.L.V.

Project Name:
CORONADO
THE PASEOS
LAS VEGAS, NEVADA

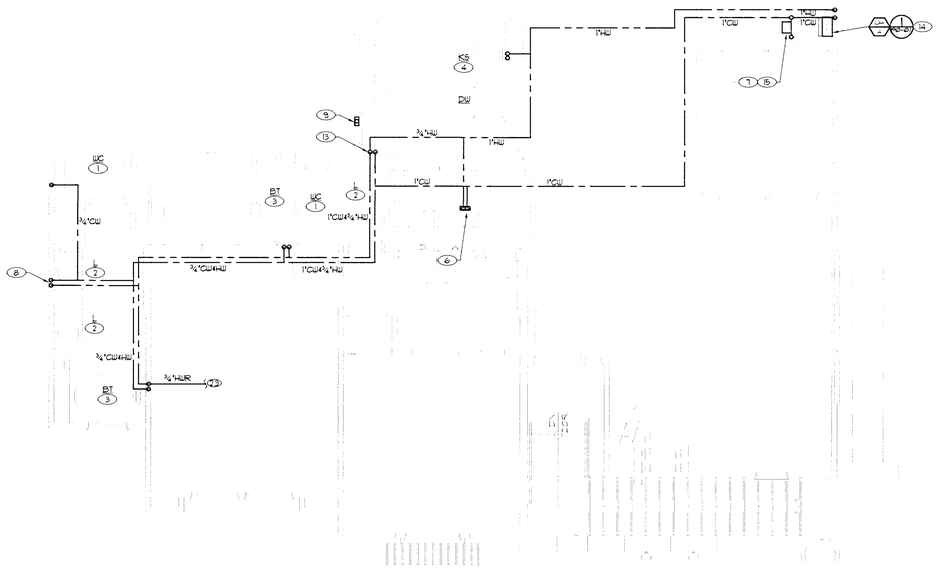
Sheet Name:
PLUMBING SPECIFICATIONS, DETAILS, SCHEDULES SYMBOL LIST AND SHEET INDEX

33632-C-09

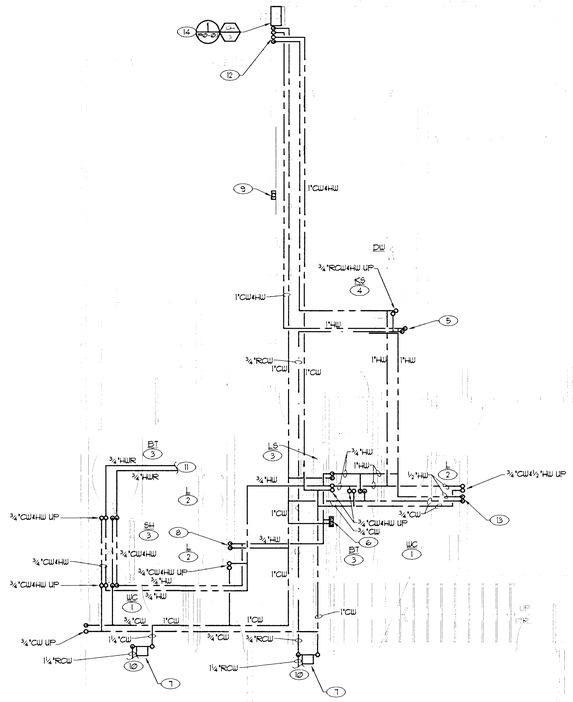
Revisions:

No.	Date	Description	By
△			
△			
△			
△			
△			
△			
△			
△			
△			

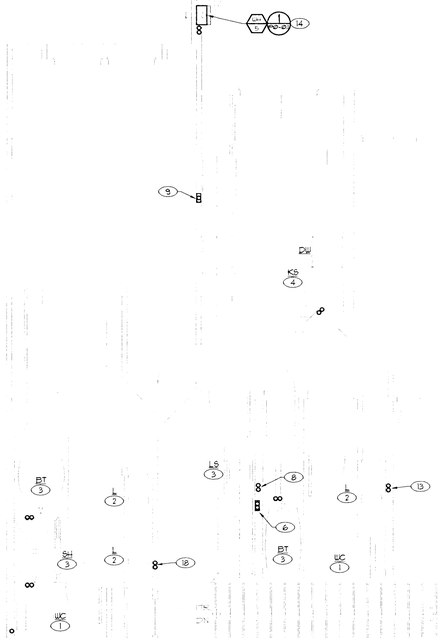
PLUMB
Job # 09-0003
Checked by: JDS
Drawn by: CMB
Date: 01/22/09
Sheet:
P0-0.1



UNIT A
SCALE: 1/4" = 1'-0"
C
P1-1.1



UNIT B1
SCALE: 1/4" = 1'-0"
A
P1-1.1



UNIT B2
SCALE: 1/4" = 1'-0"
B
P1-1.1

NOTICE

WATER PIPING IS ROUTED ABOVE FIRST FLOOR CEILING SPACE AND RISES FROM 'B1' TO UNIT 'B2'.

NOTES

1. ¾" CW.
2. ½" CW&HW.
3. ¾" CW&HW.
4. ¾" RCW & HW. PROVIDE ½" RCW STUB-OUT.
5. ¾"RCW&HW DOWN WALL. ROUTE UNDERCOUNTER TO KITCHEN SINK.
6. PROVIDE DUAL DRAIN PORT BOX WITH ¾" CW&HW.
7. PROVIDE DRAIN FOR OPTIONAL WATER SOFTENER ROUTE ABOVE TO DUAL DRAIN PORT WASHER BOX, PROVIDE FIRESTOP AS REQ. ½" DRAIN REQUIRED IF LINEAR DISTANCE IS UNDER 50', ¾" DRAIN FOR OVER 50'. 10' MAXIMUM FOR VERTICAL DRAIN.
8. ¾" CW&HW IN WALL DISTRIBUTE TO FIXTURES.
9. PROVIDE ½" PIPING FROM KITCHEN SINK OR REVERSE OSMOSIS SYSTEM TO REFRIGERATOR WATER BOX.
10. REFER TO SHEET P10-1.1 FOR CONTINUATION.
11. OPTIONAL ¾"HWR BACK TO WATER HEATER.
12. 1"CW UP TO SECOND FLOOR WATER HEATER. 1"HW DOWN FROM SECOND FLOOR WATER HEATER TO ABOVE FIRST FLOOR CEILING.
13. ¾"CW AND ½"HW IN WALL DISTRIBUTE TO FIXTURES.
14. 3/4" T&P RELIEF DRAIN TYPE "M" HARD COPPER PIPING TO OUTSIDE TO SPILL AT 6" AFG.

COMFORT ENGINEERING
"COMFORT BY DESIGN"
MECHANICAL - ELECTRICAL - PLUMBING
9175 WEST FLAMINGO ROAD, LAS VEGAS, NEVADA 89147
TEL. (702) 367-0892 FAX 367-1076

PROFESSIONAL ENGINEER - STATE OF NEVADA
JOHN D. SPARGO
Exp. 6-30-10
MECHANICAL
No. 8943
2/24/09

Project Name:
CORONADO
THE PASEOS
LAS VEGAS, NEVADA

Sheet Name:
UNITS A2, B1 AND B2
DOMESTIC WATER PLANS

PLANS APPROVED
PLUMBING/MECHANICAL
Building & Safety Dept.
City of Las Vegas, Nevada

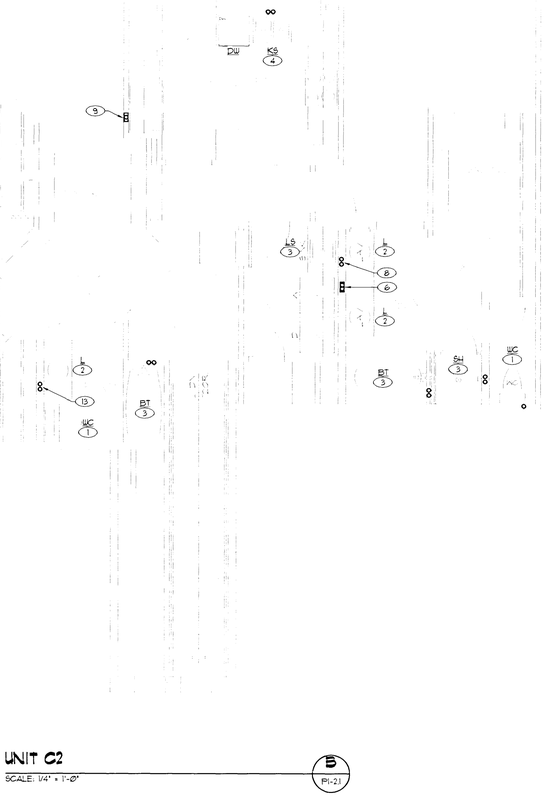
EDS MAR 18 2008

Does Not Include Additional Electrical Structural or Civil
Improvements Subject to Change
Without Approval Plans
Not a Permit to Violate Any Ordinance

Revisions:

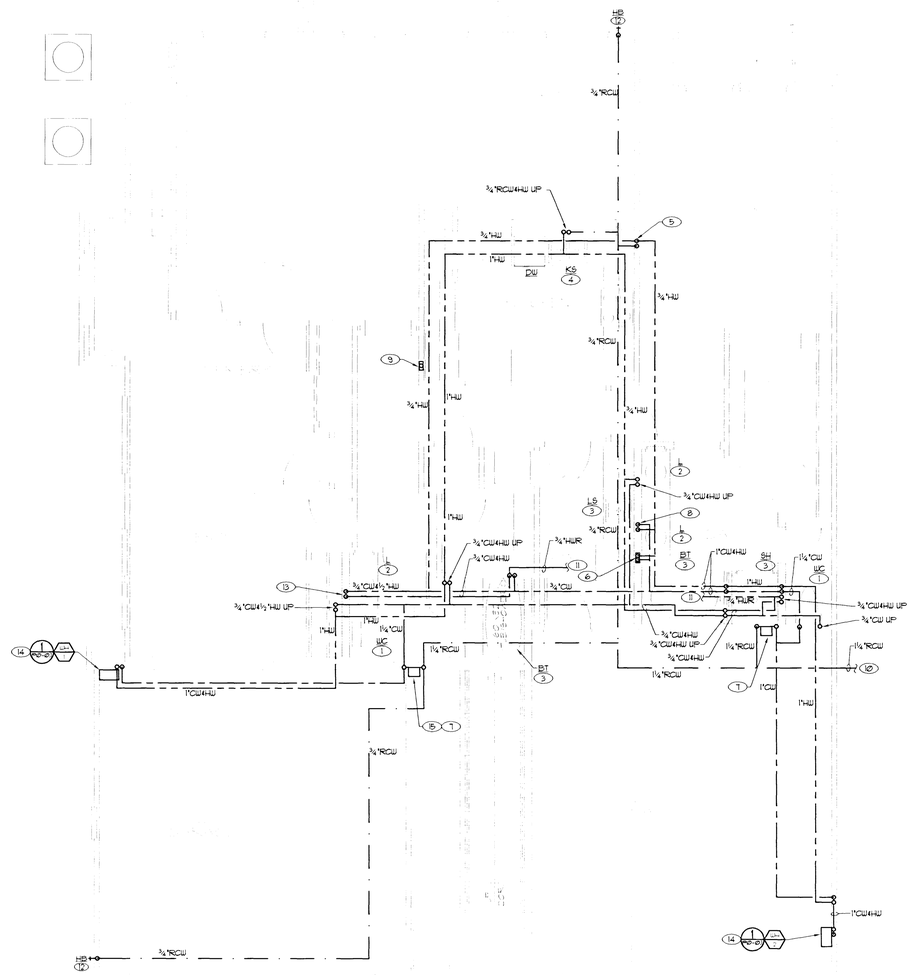
No.	Date	Description	By

PLUMB
Job # 09-0003
Checked by: JDS
Drawn by: CMB
Date: 01/22/09
Sheet:
P1-1.1



UNIT C2

SCALE: 1/4" = 1'-0"



UNIT C1

SCALE: 1/4" = 1'-0"

NOTICE

WATER PIPING IS ROUTED ABOVE FIRST FLOOR CEILING SPACE AND RISES FROM 'C1' TO UNIT 'C2'.

NOTES

1. ¾" CW.
2. ½" CW4HU.
3. ¾" CW4HU.
4. ¾" RCW 4 HU. PROVIDE ½" RCW STUB-OUT.
5. ¾"RCW4HU DOWN WALL. ROUTE UNDERCOUNTER TO KITCHEN SINK.
6. PROVIDE DUAL DRAIN PORT BOX WITH ¾" CW4HU.
7. PROVIDE DRAIN FOR OPTIONAL WATER SOFTENER ROUTE ABOVE TO DUAL DRAIN PORT WASHER BOX. PROVIDE FIRESTOP AS REQ. ½" DRAIN REQUIRED IF LINEAR DISTANCE IS UNDER 50'; ¾" DRAIN FOR OVER 50'. 10' MAXIMUM FOR VERTICAL DRAIN.
8. ¾" CW4HU IN WALL DISTRIBUTE TO FIXTURES.
9. PROVIDE ½" PIPING FROM KITCHEN SINK OR REVERSE OSMOSIS SYSTEM TO REFRIGERATOR WATER BOX.
10. REFER TO SHEET P1Ø-1.1 FOR CONTINUATION.
11. OPTIONAL ¾"HUR BACK TO WATER HEATER.
12. ¾" RCW TO HB WITH FREEZE PROTECTION AND VACUUM BREAKER.
13. ¾"CW AND ½"HU IN WALL DISTRIBUTE TO FIXTURES.
14. 3/4" T&P RELIEF DRAIN TYPE "M" HARD COPPER PIPING TO OUTSIDE TO SPILL AT 6" A.F.G.

COMFORT ENGINEERING
"COMFORT BY DESIGN"
MECHANICAL - ELECTRICAL - PLUMBING
9175 WEST FLAMINGO ROAD, LAS VEGAS, NEVADA 89147
TEL. (702) 367-0892 FAX 367-1076

Project Name:

CORONADO
THE PASEOS
LAS VEGAS, NEVADA

Sheet Name:

UNITS C1 AND C2
DOMESTIC WATER PLANS

PLANS APPROVED
PLUMBING/MECHANICAL
Building & Safety Dept.
City of Las Vegas

EDS MAR 18 2009

Does Not Relieve Applicant of Responsibility of Compliance with Codes, Ordinances, Laws, Regulations or Requirements of Any Other Agency. Not a Permit to Violate Any Ordinance

Revisions:

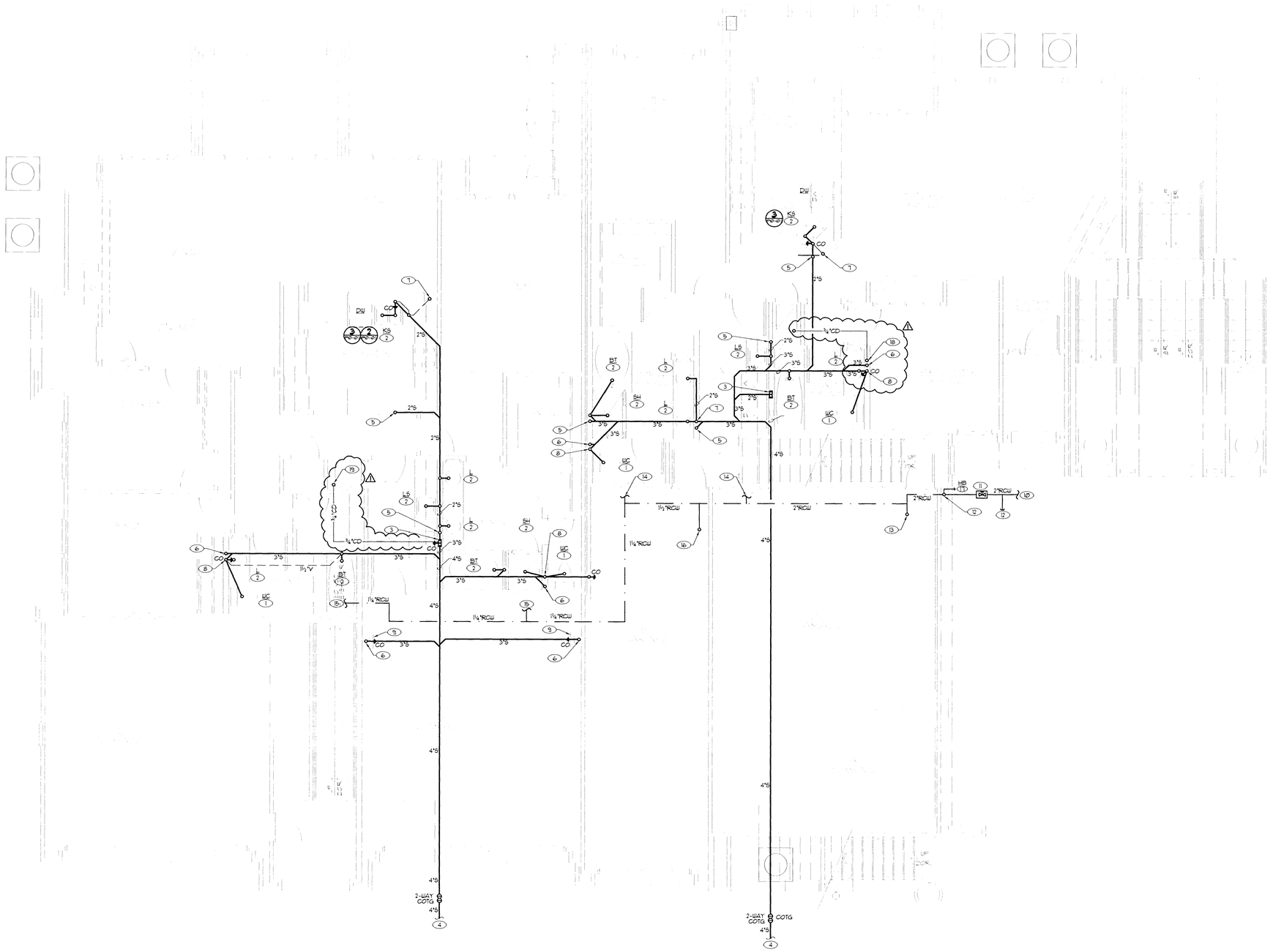
No	Date	Description	By

PLANS

Job # Ø9-ØØØ3
Checked by: JDS
Drawn by: CMB
Date: Ø1/22/Ø9

Sheet:

P1-2.1



BUILDING '100' 1ST LEVEL PLUMBING PLAN

SCALE: 1/4" = 1'-0"

A
P10-1.1

NOTICE

WATER PIPING IS ROUTED ABOVE FIRST FLOOR CEILING SPACE.

NOTES

1. 3" S AND 2" V.
2. 2" S AND 1-1/2"V.
3. PROVIDE (DUAL DRAIN PORT BOX) WITH 2" S AND 1-1/2" V.
4. SEE CIVIL SITE PLAN FOR CONTINUATION.
5. 2"S DOWN FROM ABOVE.
6. 3"S DOWN FROM ABOVE.
7. 1½"V UP.
8. 2"V UP.
9. PROVIDE CHASE FOR 3"S PIPING DOWN FROM SECOND FLOOR.
10. 2" RCW, SIZED PER APPENDIX 'A'.
11. 2" SHUT-OFF VALVE IN CONCRETE YARD BOX PROVIDE SCORIATED CAST IRON COVER. VERIFY EXACT LOCATION WITH ARCHITECT.
12. 2"RCW UP TO ABOVE FIRST FLOOR CEILING SPACE.
13. 1"RCW UP. REFER TO C/P1-1.1 FOR CONTINUATION.
14. REFER TO A/P1-1.1 FOR CONTINUATION.
15. REFER TO A/P1-2.1 FOR CONTINUATION.
16. ½"RCW UP. REFER TO C/P1-1.1 FOR CONTINUATION.
17. ½" RCW TO HB WITH FREEZE PROTECTION AND VACUUM BREAKER.
18. ROUTE ¾"CD FROM FAU TO LAVATORY TAILPIECE.
19. ROUTE ¾" CONDENSATE DRAIN PIPING FROM FAU TO DUAL DRAIN PORT BOX.

PLANS APPROVED
PLUMBING/MECHANICAL
Building & Safety Dept.
City of Las Vegas, Nevada

EDC MAR 18 2009

Does Not Include Architectural, Electrical, Structural or Civil Site Improvements Made To Change Without Approval Plan Is Not a Permit to Violate Any Ordinance

RECEIVED
MAR 11 2009
CITY OF LAS VEGAS
PERMITS

COMFORT ENGINEERING
"COMFORT BY DESIGN"
MECHANICAL - ELECTRICAL - PLUMBING
9175 WEST FLAMINGO ROAD, LAS VEGAS, NEVADA 89147
TEL. (702) 367-0892 FAX 367-1076

PROFESSIONAL ENGINEER - STATE OF NEVADA
JOHN D. SPARGO
Exp. 6-30-10
MECHANICAL
No. 8945
3/10/09

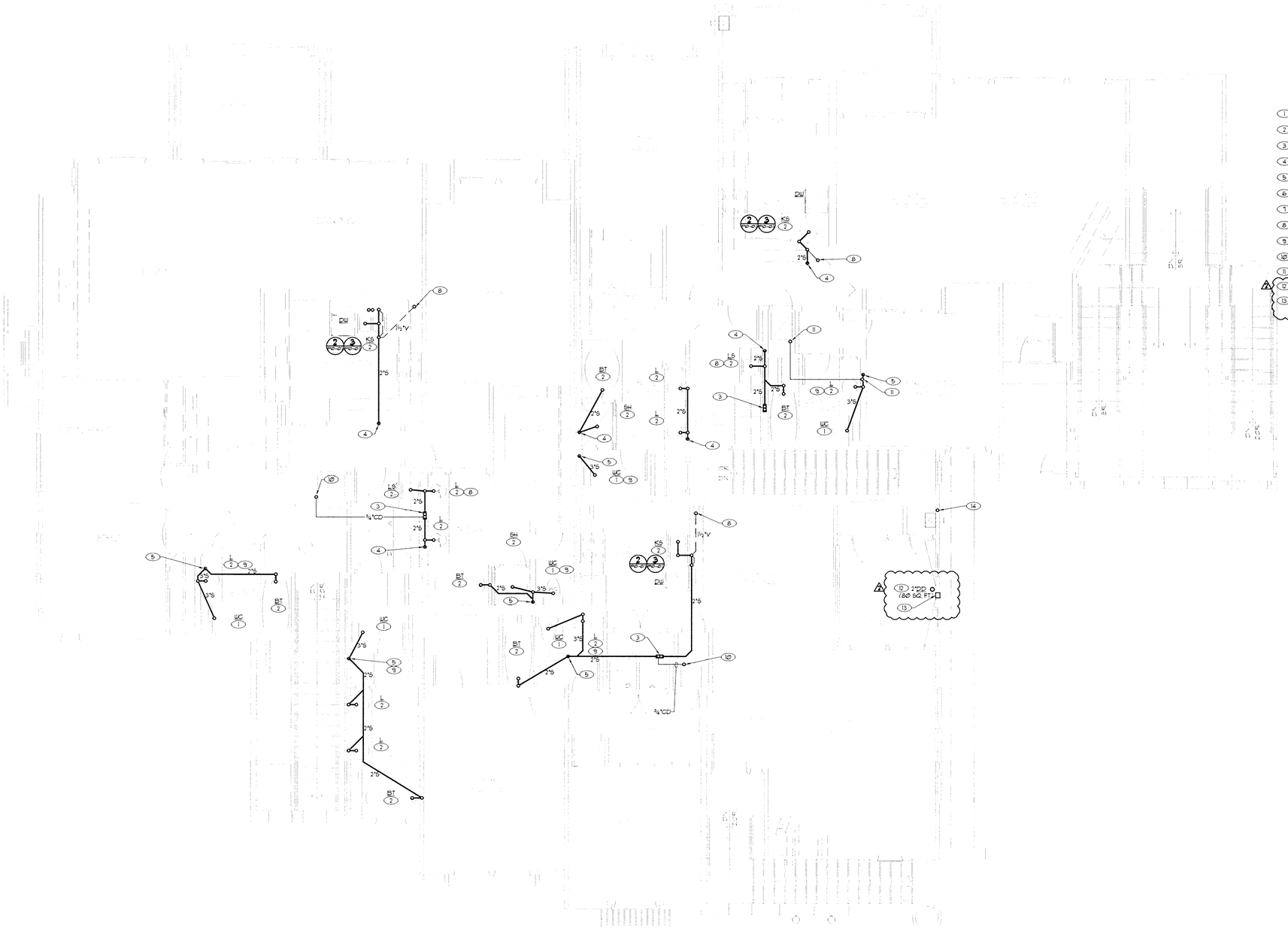
Project Name:
CORONADO
THE PASEOS
LAS VEGAS, NEVADA

Sheet Name:
BUILDING 100
FIRST LEVEL
PLUMBING PLAN

Revisions:

No.	Date	Description	By
1	3/05/09	BUILDING DEPT. COM.	CMB

PLUMB
Job # 09-0003
Checked by: JDS
Drawn by: CMB
Date: 01/22/09
Sheet:
P10-1.1



NOTES

1. 3" S AND 2" V.
2. 2" S AND 1-1/2"V.
3. PROVIDE (DUAL DRAIN PORT BOX) WITH 2" S AND 1-1/2" V.
4. 2"S DOWN.
5. 3"S DOWN.
6. 1½"V UP FROM BELOW.
7. 2"V UP FROM BELOW.
8. 1½"VTR.
9. 2"VTR.
10. ROUTE ¾" CONDENSATE DRAIN PIPING FROM FAU TO DUAL DRAIN PORT BOX.
11. ROUTE ¾"CD FROM FAU TO LAVATORY TAILPIECE.
12. 2" DRAIN FROM DECK DRAIN ROUTED TO SPILL ONTO LOWER ROOF.
13. 6"X4" SCUPPER AND 6"X4" LEADER TO 6"X6" DRAIN PIPE TO SPILL TO LOWER ROOF.

BUILDING '100' 2ND LEVEL PLUMBING PLAN

SCALE: 1/4" = 1'-0"

A P10-12

PLANS APPROVED
PLUMBING/MECHANICAL
Building & Safety Engineering
City of Las Vegas
Date JUN 2 3 2008
Work Permit to Visitor Any Reference

RECEIVED
JUN 1 ...
CITY OF LAS VEGAS
DEPARTMENT

COMFORT ENGINEERING
"COMFORT BY DESIGN"
MECHANICAL • ELECTRICAL • PLUMBING
9175 WEST FLAMINGO ROAD, LAS VEGAS, NEVADA 89147
TEL. (702) 367-0892 FAX 367-1076

STATE OF NEVADA
JOHN D. SPARGO
Exp. 6-30-10
MECHANICAL
No. 8943
PROFESSIONAL ENGINEER
6/15/09

Project Name:
CORONADO
THE PASEOS
LAS VEGAS, NEVADA

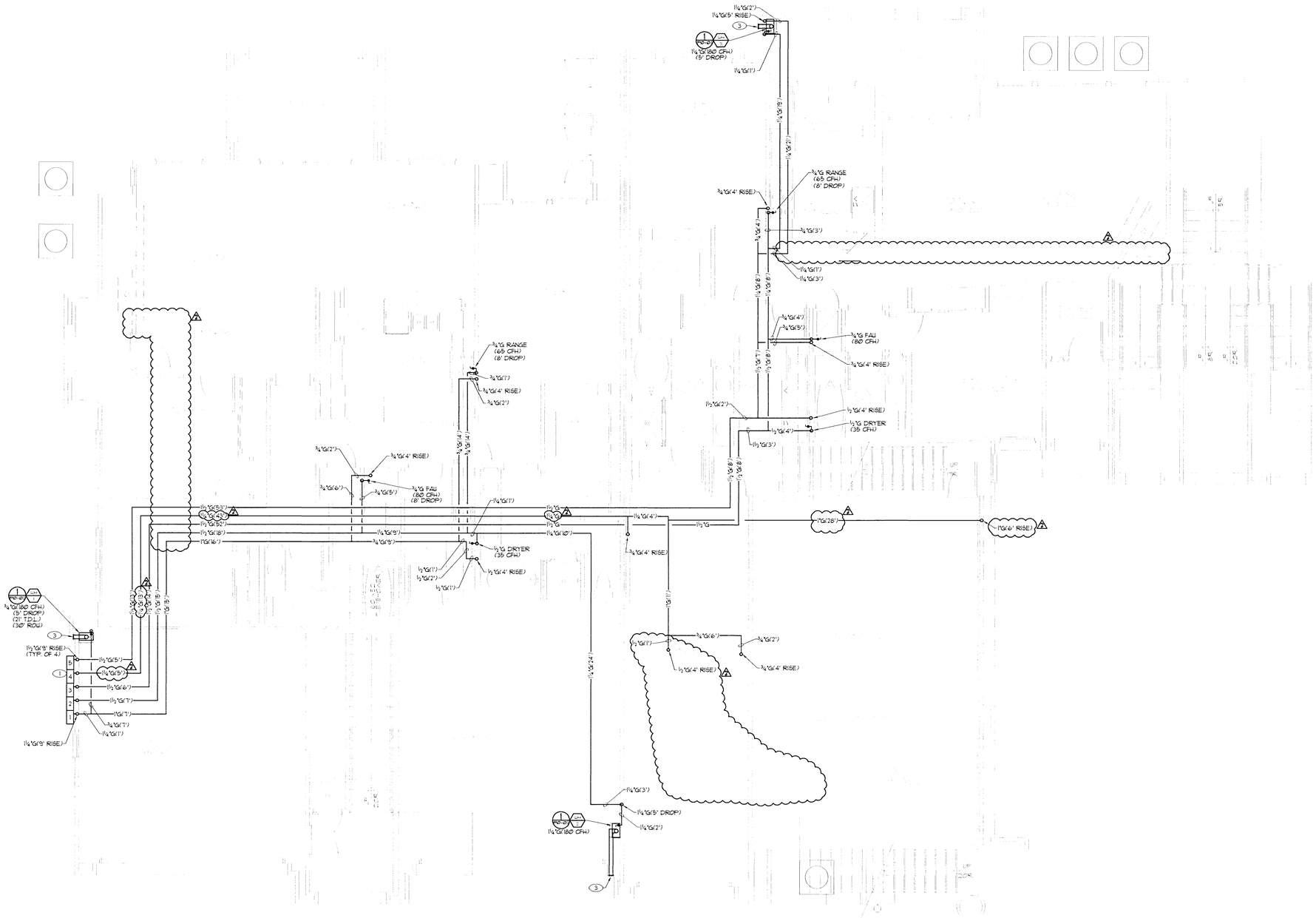
Sheet Name:
BUILDING 100
SECOND LEVEL
PLUMBING PLAN

Revisions:

No.	Date	Description	By
1	3/05/09	BUILDING DEPT. COM.	CMB
2	5/19/09	OWNER CHANGES	CMB

PLUMB

Job # 09-0003
Checked by: JDS
Drawn by: CMB
Date: 01/22/09
Sheet:
P10-1.2



BUILDING '100' 1ST LEVEL GAS PLAN

SCALE: 1/4" = 1'-0"

A
P10-1.3

NOTICE

GAS PIPING IS ROUTED ABOVE FIRST FLOOR CEILING SPACE.

NOTES

1. GAS METER LOCATION TO BE VERIFIED WITH GAS SUPPLIER.
2. METER 1: TOTAL DEMAND AT 360 CFH, 118 FT. FROM METER TO FURTHEST FIXTURE, (RANGE 65 CFH), 1¼" GAS SUPPLY REQUIRED. SIZED PER TABLE 12-8 U.P.C. (80 FT. ROW)
2. METER 2: TOTAL DEMAND AT 360 CFH, 102 FT. FROM METER TO FURTHEST FIXTURE, (WH 180 CFH), 1½" GAS SUPPLY REQUIRED. SIZED PER TABLE 12-8 U.P.C. (125 FT. ROW)
2. METER 3: TOTAL DEMAND AT 360 CFH, 134 FT. FROM METER TO FURTHEST FIXTURE, (WH 180 CFH), 1½" GAS SUPPLY REQUIRED. SIZED PER TABLE 12-8 U.P.C. (150 FT. ROW)

   METER 4: TOTAL DEMAND AT 360 CFH, 97 FT. FROM METER TO FURTHEST FIXTURE, (FAU, 80 CFH), 1¼" GAS SUPPLY REQUIRED. SIZED PER TABLE 12-8 U.P.C. (100 FT. ROW)

   METER 5: TOTAL DEMAND AT 360 CFH, 133 FT. FROM METER TO FURTHEST FIXTURE, (WH 180 CFH), 1½" GAS SUPPLY REQUIRED. SIZED PER TABLE 12-8 U.P.C. (150 FT. ROW)
2. NOT USED.
3. HORIZONTAL VENT THRU WALL PER MANUFACTURER'S RECOMMENDATIONS.

PLANS APPROVED
PLUMBING MECHANICAL
EDC JUN 23 2008

RECEIVED
JUN 10 2009
CITY OF LAS VEGAS
PERMITS

COMFORT ENGINEERING
"COMFORT BY DESIGN"
MECHANICAL • ELECTRICAL • PLUMBING
9175 WEST FLAMINGO ROAD, LAS VEGAS, NEVADA 89147
TEL. (702) 367-0892 FAX 367-1076

PROFESSIONAL ENGINEER - STATE OF NEVADA
JOHN D. SPARGO
Exp. 6-30-10
MECHANICAL
No. 8945
6/15/09

Project Name:
CORONADO
THE PASEOS
LAS VEGAS, NEVADA

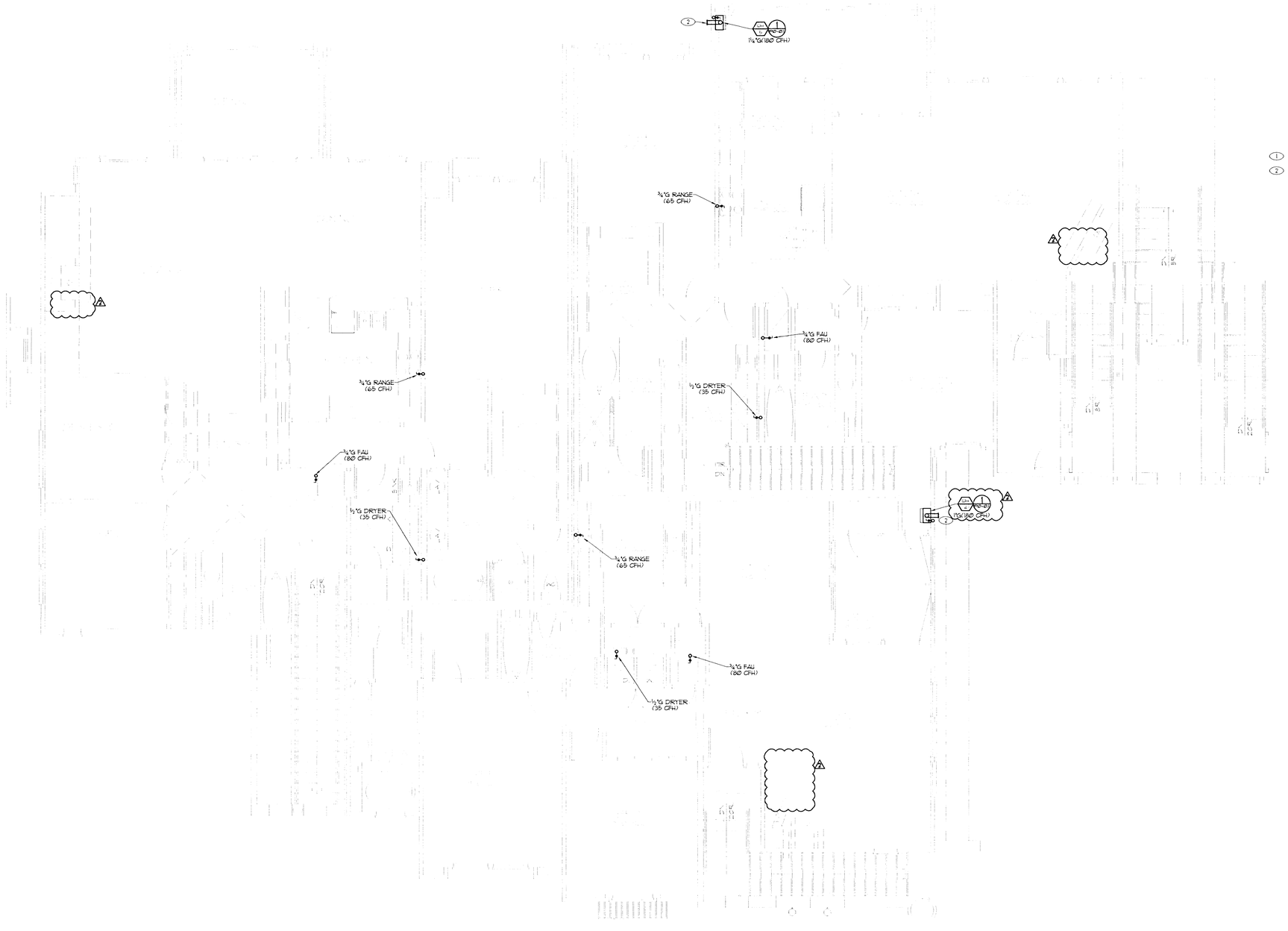
Sheet Name:
BUILDING 100
FIRST LEVEL
GAS PLAN

Revisions:

No.	Date	Description	By
1	3/05/09	BUILDING DEPT. COM.	CMB
2	5/19/09	OWNER CHANGES	CMB

PLUMB

Job # 09-0003
Checked by: JDS
Drawn by: CMB
Date: 01/22/09
Sheet:
P10-1.3



NOTES

1. PROVIDE LOOSEKEY S.O.V. WITHIN 3 FT. OF FIREPLACE.
2. HORIZONTAL VENT THRU WALL PER MANUFACTURER'S RECOMMENDATIONS.

BUILDING '100' 2ND LEVEL GAS PLAN

SCALE: 1/4" = 1'-0"

A P10-1.4

PLANS APPROVED
PLUMBING/MECHANICAL

JUN 23 2009

RECEIVED
JUN 1 6 2009
CITY OF LAS VEGAS
PERMITS

COMFORT ENGINEERING
"COMFORT BY DESIGN"
MECHANICAL • ELECTRICAL • PLUMBING
9175 WEST FLAMINGO ROAD, LAS VEGAS, NEVADA 89147
TEL. (702) 367-0892 FAX 367-1076

PROFESSIONAL ENGINEER - STATE OF NEVADA
JOHN D. SPARGO
Exp. 6-30-10
MECHANICAL
No. 8943
6/15/09

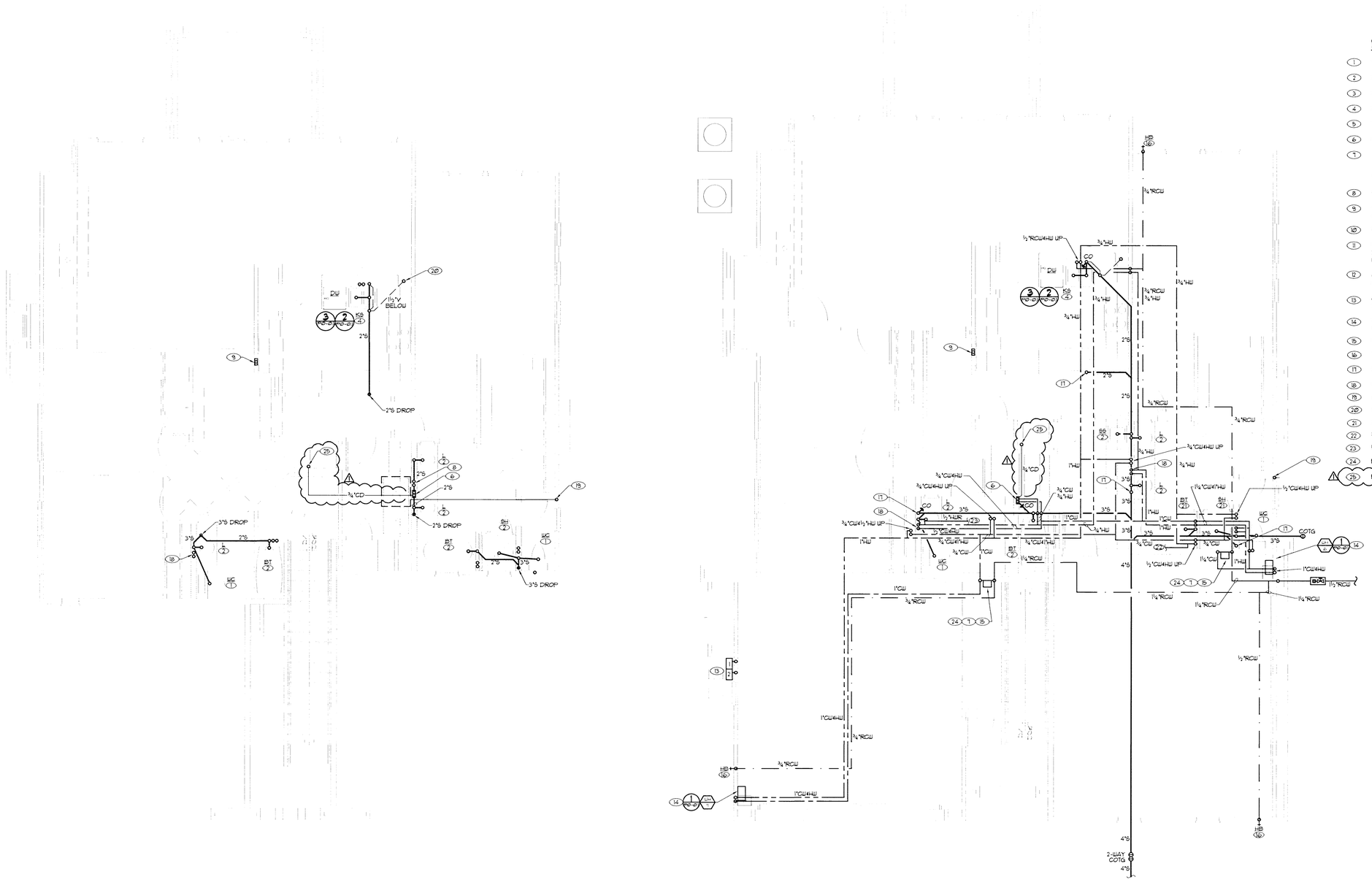
Project Name:
CORONADO
THE PASEOS
LAS VEGAS, NEVADA

Sheet Name:
BUILDING 100
SECOND LEVEL
GAS PLAN

Revisions:

No.	Date	Description	By
1	3/05/09	BUILDING DEPT. COM.	CMB
2	5/19/09	OWNER CHANGES	CMB

PLUMB
Job # 09-0003
Checked by: JDS
Drawn by: CMB
Date: 01/22/09
Sheet:
P10-1.4



BUILDING '200' 2ND LEVEL PLUMBING PLAN (B / P20-11)
SCALE: 1/4" = 1'-0"

BUILDING '200' 1ST LEVEL PLUMBING PLAN (A / P20-11)
SCALE: 1/4" = 1'-0"

NOTES

1. 3" S, 2" V, ¾" CW.
2. 2" S, 1-1/2"V, ½" CW4HW.
3. 2" VTR.
4. 2" S, 1-½" V, ½" RCW 4 HW. PROVIDE ½" RCW STUB-OUT.
5. 1-1/2" VTR.
6. PROVIDE (DUAL DRAIN PORT BOX) WITH 2" S, 1-½" V, ½" CW4HW.
7. PROVIDE DRAIN FOR FUTURE WATER SOFTENER ROUTE ABOVE TO DUAL DRAIN PORT WASHER BOX, PROVIDE FIRESTOP AS REQ. ½" DRAIN REQUIRED IF LINEAR DISTANCE IS UNDER 50', ¾" DRAIN FOR OVER 50'. 10' MAXIMUM FOR VERTICAL DRAIN.
8. ¾" CW4HW IN WALL DISTRIBUTE TO FIXTURES.
9. PROVIDE ½" PIPING FROM KITCHEN SINK OR REVERSE OSMOSIS SYSTEM TO REFRIGERATOR WATER BOX.
10. SEE CIVIL SITE PLAN FOR CONTINUATION.
11. 1" RCW FROM ¾" METER (MIN.) AT STREET TO S.O.V. , DOMESTIC WATER SIZED PER TABLE "L" U.P.C. (150 FT. COLUMN) W/ MIN METER PRESSURE @ OR ABOVE 46 P.S.I.
12. CAPPED ¾" CW LANDSCAPE STUB WITH SHUT OFF VALVE IN YARD BOX, PROVIDE BACKFLOW PREVENTION AS REQUIRED.
13. GAS METER LOCATION TO BE VERIFIED WITH GAS SUPPLIER. SEE SHEET P20-12
14. 3/4" T&P RELIEF DRAIN TYPE "M" HARD COPPER PIPING TO OUTSIDE TO SPILL AT 6" A.F.G.
15. PROVIDE PIPING FOR WATER SOFTENER LOOP.
16. ¾" RCW TO HB WITH FREEZE PROTECTION AND VACUUM BREAKER.
17. SEWER FROM ABOVE
18. ½"CW4HW IN WALL DISTRIBUTE TO FIXTURES.
19. 1"Ø DRAIN FROM CLOTHESWASHER DRAIN PAN TO EXTERIOR.
20. 1½"V UP FROM BELOW. 1½"VTR.
21. 2" S, 1-1/2"V, ¾" CW4HW.
22. ¾"HWR BACK TO WATER HEATER.
23. ½"HWR BACK TO WATER HEATER.
24. PROVIDE UNIT SHUT OFF VALVE ACCESSABLE FROM GARAGE.
25. ROUTE ¾" CONDENSATE DRAIN PIPING FROM FAU TO DUAL DRAIN PORT BOX.

PLANS APPROVED
PLUMBING/MECHANICAL
Building & Safety Dept.
City of Las Vegas, Nevada

EDS MAR 1 6 2009

Does Not Include Architectural, Electrical, Structural or Civil Use
Improvements Made Prior Change
Without Approval Of Plans
Not a Permit to Violate Any Ordinance

RECEIVED
MAR 1 1 2009
CITY OF LAS VEGAS
PERMITS

COMFORT ENGINEERING
"COMFORT BY DESIGN"
MECHANICAL • ELECTRICAL • PLUMBING
9175 WEST FLAMINGO ROAD, LAS VEGAS, NEVADA 89147
TEL. (702) 367-0892 FAX 367-1076

PROFESSIONAL ENGINEER - STATE OF NEVADA
JOHN D. SPARGO
Exp. 6-30-10
MECHANICAL
No. 8945
3/10/09

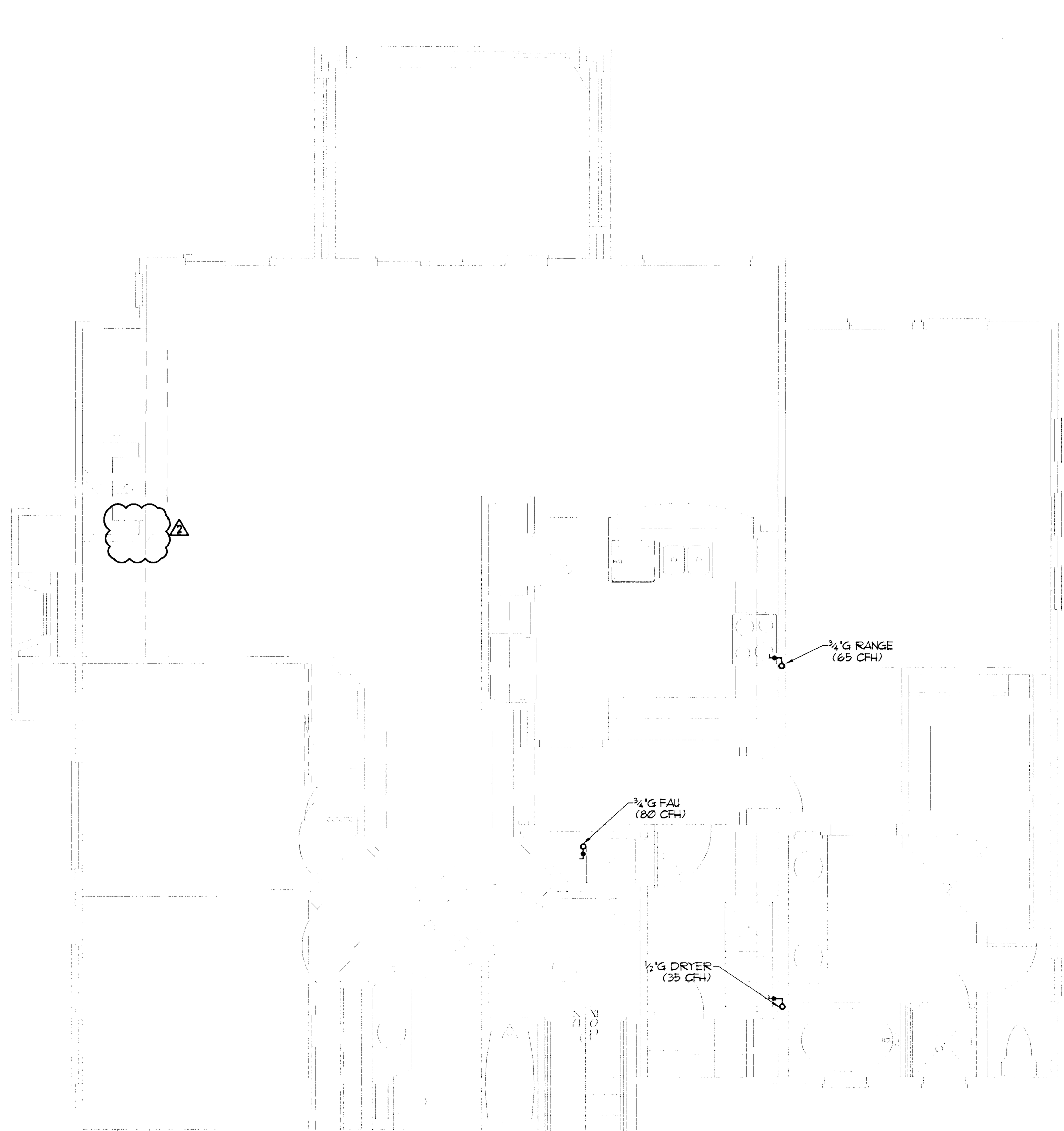
Project Name:
CORONADO
THE PASEOS
LAS VEGAS, NEVADA

Sheet Name:
BUILDING 200
PLUMBING PLANS

Revisions:

No.	Date	Description	By
1	3/05/09	BUILDING DEPT. COM.	CMB

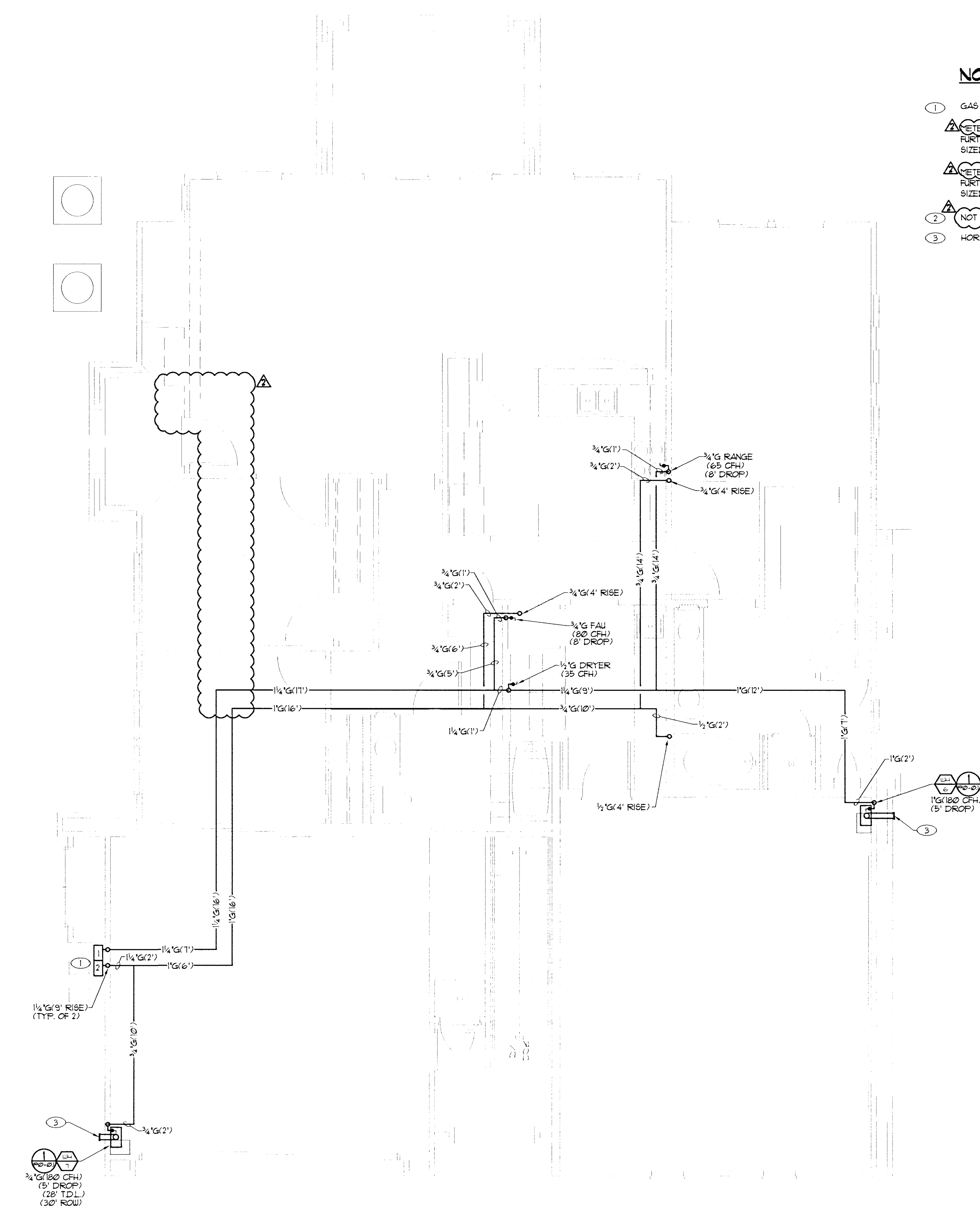
PLUMB
Job # 09-0003
Checked by: JDS
Drawn by: CMB
Date: 01/22/09
Sheet:
P20-1.1



BUILDING '200' 2ND LEVEL GAS PLAN

SCALE: 1/4" = 1'-0"

B
P20-1.1



BUILDING '200' 1ST LEVEL GAS PLAN

SCALE: 1/4" = 1'-0"

A
P20-1.1

NOTES

1. GAS METER LOCATION TO BE VERIFIED WITH GAS SUPPLIER.
   - △2 METER 1: TOTAL DEMAND AT 360 CFH, 84 FT. FROM METER TO FURTHEST FIXTURE, (WH 180 CFH), 1¼" GAS SUPPLY REQUIRED. SIZED PER TABLE 12-8 U.P.C. (90 FT. ROW)
   - △2 METER 2: TOTAL DEMAND AT 360 CFH, 79 FT. FROM METER TO FURTHEST FIXTURE, (RANGE 65 CFH), 1¼" GAS SUPPLY REQUIRED. SIZED PER TABLE 12-8 U.P.C. (90 FT. ROW)
2. △2 NOT USED.
3. HORIZONTAL VENT THRU WALL PER MANUFACTURER'S RECOMMENDATIONS.

COMFORT ENGINEERING
'COMFORT BY DESIGN'
MECHANICAL • ELECTRICAL • PLUMBING
9175 WEST FLAMINGO ROAD, LAS VEGAS, NEVADA 89147
TEL. (702) 367-0892 FAX 367-1076

PROFESSIONAL ENGINEER – STATE OF NEVADA
JOHN D. SPARGO
Exp. 6-30-10
MECHANICAL
No. 8943
5/21/09

Project Name:
CORONADO
THE PASEOS
LAS VEGAS, NEVADA

Sheet Name:
BUILDING 200
GAS PLANS

PLANS APPROVED
PLUMBING/MECHANICAL
EDS JUN 23 2009

JUN 05 2009

Revisions:			
No.	Date	Description	By
1	3/05/09	BUILDING DEPT. COM.	CMB
2	5/19/09	OWNER CHANGES	CMB

PLUMB
Job # 09-0003
Checked by: JDS
Drawn by: CMB
Date: 01/22/09
Sheet:
P20-1.2

ker Homes\09-0003 Coronado @ Paseos\PLUMB\09-0003 CORONADO Plumb.dwg, 5/21/2009 7:16:28 AM, TDS '00.pc3