LAS VEGAS FIRE AND RESCUE GENERAL NOTES

1. ALL WORK SHALL BE DONE IN STRICT ACCORDANCE WITH THE LAS VEGAS FIRE AND RESCUE ADOPTED FIRE CODE ORDINANCE #6325 FOR HYDRANT SPECIFICATIONS AND HYDRANT INSTALLATION SPECIFICATIONS.
2. ONLY FIRE HYDRANTS THAT ARE ON THE LAS VEGAS VALLEY WATER DISTRICT'S – APPROVED PRODUCTS LIST ARE ALLOWED TO BE INSTALLED.
3. A PERMIT IS REQUIRED FROM LAS VEGAS FIRE AND RESCUE FOR THE INSTALLATION OF ON-SITE WATER LINES AND FIRE HYDRANTS. THE PERMIT AND CONTRACTORS MATERIAL TEST CERTIFICATE FOR UNDERGROUND PIPING FORM SHALL BE OBTAINED FROM THE FIRE PROTECTION ENGINEER BEFORE COMMENCEMENT OF WORK. [IFC SECTION 105.7.12]
4. 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. [IFC SECTION 3310, SECTION 3312]
5. TO IDENTIFY FIRE HYDRANT LOCATIONS, CONTRACTOR SHALL PLACE A BLUE REFLECTIVE MARKER AT THE CENTER LINE OF STREET ADJACENT TO THE FIRE HYDRANTS [IFC SECTION 507.5.7.3].
6. ALL UNDERGROUND INSPECTIONS, PRESSURE AND FLUSH VERIFICATIONS OF ALL FIRE HYDRANTS AND FIRE LINES, SHALL BE CONDUCTED BEFORE COVERING THE LINES. CENTER LOADING IS ACCEPTABLE FOR THE HYDRO TESTS WITH PRIOR FIRE PREVENTION APPROVAL. [IFC SECTION 106.3]
7. 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. [IFC SECTION 507.2.1]
8. PAINTING OF CURBS, FIRE HYDRANTS, PADS, PROTECTION OF FIRE HYDRANTS FROM PHYSICAL DAMAGE, AND ALL OTHER WORK NECESSARY PER PLANS SHALL BE COMPLETED BEFORE APPROVAL BY LAS VEGAS FIRE AND RESCUE, FIRE PREVENTION DIVISION. [IFC SECTION 507]
9. PRIVATE FIRE HYDRANTS SHALL BE PAINTED RED. [IFC SECTION 507]
10. PRIOR TO THE FINAL OCCUPANCY, A FIRE FLOW TEST SHALL BE WITNESSED BY LAS VEGAS FIRE AND RESCUE, FIRE PREVENTION DIVISION TO VERIFY AVAILABILITY OF THE REQUIRED FIRE FLOW. [IFC SECTION 507]
11. FIRE HYDRANTS SPACING SHALL BE AS FOLLOWS: [IFC SECTION C102]
    RESIDENTIAL – 500 FT UNSPRINKLERED; 600 FT SPRINKLERED.
    COMMERCIAL – 300 FT UNSPRINKLERED; 400 FT SPRINKLERED.
12. WHERE NEW WATER MAINS ARE EXTENDED ALONG STREETS OR NEW STREETS ARE INSTALLED WHERE FIRE HYDRANTS ARE NOT NEEDED FOR PROTECTION OF THE STRUCTURES, FIRE HYDRANTS SHALL BE INSTALLED AT A MAXIMUM 1,000 FOOT SPACING, TO PROVIDE FOR TRANSPORTATION HAZARDS. WHERE STREETS ARE PROVIDED WITH MEDIAN DIVIDERS OR HAVE FOUR (4) OR MORE TRAFFIC LANES AND HAVE A TRAFFIC COUNT OF MORE THAN 30,000 PER DAY, HYDRANTS ARE REQUIRED ON EACH SIDE OF THE STREET SPACED AT 500 FEET ON AN ALTERNATING BASIS. [IFC SECTION C102.8]
13. NO FIRE HYDRANTS SHALL BE LOCATED WITHIN THE RADIUS OF A CUL-DE-SAC OR WITHIN 20 FEET OF THE PERIMETER OF THE RADIUS OF THE CUL-DE-SAC.
14. NO FIRE HYDRANTS SHALL BE LOCATED WITHIN 6 FEET OF ANY CURB RETURN, DRIVEWAY, POWER POLE, STREETLIGHT OR ANY OTHER OBSTRUCTION. [IFC SECTION C102.12]
15. A MAXIMUM DISTANCE FROM A FIRE HYDRANT TO A ONE-TWO FAMILY DWELLING SHALL NOT EXCEED 300 FT, AS MEASURED BY AN APPROVED ROUTE. [IFC SECTION C102.4]
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. [IFC SECTION C102.7]
17. THE MAXIMUM DISTANCE FROM A FIRE HYDRANT TO THE END OF A DEAD-END STREET SHALL NOT EXCEED 200 FT. [IFC SECTION C102.6]
18. TWO (2) SOURCES OF SUPPLY ARE REQUIRED WHENEVER THERE IS 4 OR MORE FIRE HYDRANTS/SPRINKLER LEAD-INS ARE INSTALLED ON A SINGLE SYSTEM. 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. [IFC SECTION C104]
19. 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. [IFC SECTION 503.2.3]
20. THE GRADIENT FOR THE 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. ADJACENT TO THE STRUCTURES GRADIENT SHALL NOT EXCEED 6%. [IFC SECTION 503.2.7, SECTION 503.2.8]
21. THE TURNING RADIUS OF THE FIRE APPARATUS ACCESS ROADS SHALL BE NO LESS THAN 52 FEET OUTSIDE AND 28 FEET INSIDE TURNING RADIUS. [IFC 503.2.4]
22. VERTICAL CLEARANCE OF ALL FIRE APPARATUS ACCESS ROADS SHALL NOT BE LESS THAN 13 FEET 6 INCHES. [IFC SECTION 503.2.1]
23. FIRE DEPARTMENT ACCESS ROADS SHALL HAVE A MINIMUM UNOBSTRUCTED WIDTH OF NOT LESS THAN 40FT FLOW LINE TO FLOW LINE WITH PARALLEL PARKING PERMITTED ON BOTH SIDES. NOT LESS THAN 32 FT WIDE, FLOW LINE TO FLOW LINE, WHERE PARKING IS PERMITTED ONLY ON ONE SIDE OF THE FIRE APPARATUS ACCESS ROAD. NOT LESS THAN 24 FT WIDE, FLOW LINE TO FLOW LINE, WHERE NO PARKING IS PERMITTED ON EITHER SIDE. FIRE LANES THROUGH PARKING LOTS SHALL NOT BE LESS THAN 24 FT. [IFC SECTION 503.2.1.1]
24. A FIRE APPARATUS ACCESS ROAD SHALL BE REQUIRED WHEN ANY PORTION OF AN EXTERIOR WALL FO THE FIRST STORY IS LOCATED MORE THAN 150 FT FROM A FIRE DEPARTMENT VEHICLE ACCESS. THIS DISTANCE COULD BE INCREASED TO 250 FT IF THE BUILDING IIS SPRINKLERED. [IFC SECTION 503.1.1]
25. APPROVED SECONDARY FIRE APPARATUS ACCESS SHALL BE PROVIDED FOR 100 OR MORE DWELLING UNITS, ROAD(S) WITH DEAD-EANDS OR WITH A SINGLE POINT OF ACCESS IN EXCESS OF 600 FT. COMMERCIAL AND INDUSTRIAL DEVELOPMENTS WHERE BUILDINGS EXCEED 2 STORIES OR 30 FEET IN HEIGHT, OR EXCEEDING 62,000 SQUARE FEET IN AREA. [IFC SECTION 503.1.2]
26. ALL DEAD-END FIRE APPARATUS ROADS AND/OR FIRE LANES, PUBLIC OR PRIVATE, IN EXCESS OF 150 FT IN LENGTH SHALL BE PROVIDED WITH AN APPROVED TURN AROUND HAVING A MINIMUM DIAMETER OF 81 FT. [IFC SECTION 503.2.5]
27. 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 OF 100 FT ALONG THE 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 IN STALLED NO HIGHER THAN 10 FT OR LESS THAN 6 FT FROM THE ROADWAY LEVEL. THE CURB ALONG OR ON THE PAVEMENT OR CEMENT (IF NO CURB IS PROVIDED) SHALL BE PAINTED WITH A RED WEATHER RESISTANT PAINT IN ADDITION TO THE SIGNS. [IFC SECTION 503.3]
28. ELECTRICALLY CONTROLLED ACCESS GATES SHALL BE PROVIDED WITH AN APPROVED EMERGENCY VEHICLE DETECTOR/RECEIVER SYSTEM. SAID SYSTEM SHALL BE INSTALLED IN ACCORDANCE WITH THE IFC SECTION 503.6 AND IFC APPENDIX M.

REVISED MARCH 1, 2016

STORMWATER RUNOFF MANAGEMENT

1. THE OWNER, SITE DEVELOPER, CONTRACTOR AND/OR THEIR AUTHORIZED AGENTS SHALL EACH DAY REMOVE ALL SEDIMENT, MUD, CONSTRUCTION DEBRIS, OR OTHER POTENTIAL POLLUTANTS THAT MAY HAVE BEEN DISCHARGED TO, OR ACCUMULATE IN, THE PUBLIC RIGHTS OF WAYS OF THE CITY OF LAS VEGAS AS A RESULT OF CONSTRUCTION ACTIVITIES ASSOCIATED WITH THIS SITE DEVELOPMENT OR CONSTRUCTION PROJECT. SUCH MATERIALS SHALL BE PREVENTED FROM ENTERING THE STORM SEWER SYSTEM.
2. ADDITIONAL CONSTRUCTION SITE DISCHARGE BEST MANAGEMENT PRACTICES MAY BE REQUIRED OF THE OWNER AND HIS OR HER AGENTS DUE TO UNFORESEEN EROSION PROBLEMS OR IF THE SUBMITTED PLAN DOES NOT MEET THE PERFORMANCE STANDARDS SPECIFIED IN THE CITY OF LAS VEGAS AND THE LAS VEGAS VALLEY CONSTRUCTION SITE BEST MANAGEMENT PRACTICES MANUAL.
3. TEMPORARY OR PERMANENT STABILIZATION PRACTICES WILL BE INSTALLED ON DISTURBED AREAS AS SOON AS PRACTICABLE AND NO LATER THAN 14 DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS TEMPORARILY OR PERMANENTLY CEASED. SOME EXCEPTIONS MAY APPLY; REFER TO NEVADA STORMWATER GENERAL PERMIT FOR CONSTRUCTION ACTIVITY NVR100000, SECTION III.A.5.
4. AT A MINIMUM, THE CONTRACTOR OR HIS AGENT SHALL INSPECT ALL DISTURBED AREAS, AREAS USED FOR STORAGE OF MATERIALS AND EQUIPMENT THAT ARE EXPOSED TO PRECIPITATION, VEHICLE ENTRANCE AND EXIT LOCATIONS AND ALL BMPS WEEKLY, AND WITHIN 24 HOURS AFTER ANY ACTUAL RAIN EVENT OF 0.5 INCHES OR MORE. THE CONTRACTOR OR HIS AGENT SHALL UPDATE OR MODIFY THE STORMWATER POLLUTION PREVENTION PLAN AS NECESSARY. SOME EXCEPTIONS TO WEEKLY INSPECTIONS MAY APPLY, SUCH AS SUSPENSION OF LAND DISTURBANCE ACTIVITIES. REFER TO NEVADA STORMWATER GENERAL PERMIT FOR CONSTRUCTION ACTIVITY NVR100000, SECTION III.A.12.
5. ACCUMULATED SEDIMENT IN BMPS SHALL BE REMOVED WITHIN SEVEN DAYS AFTER A STORMWATER RUNOFF EVENT OR PRIOR TO THE NEXT ANTICIPATED STORM EVENT, WHICHEVER IS EARLIER. SEDIMENT MUST BE REMOVED WHEN BMP DESIGN CAPACITY HAS BEEN REDUCED BY 50 PERCENT OR MORE.

LAS VEGAS VALLEY WATER DISTRICT

LVVWD PROJECT # 135667

(REVISED 08/01/2017)

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 2010 EDITION OF THE UNIFORM DESIGN AND CONSTRUCTION STANDARDS FOR POTABLE WATER SYSTEMS (UDACS). THE LATEST EDITION OF UDACS SHALL SUPERSEDE ANY CONFLICTS CONTAINED IN THE APPROVED DRAWINGS AND/OR SPECIFICATIONS.
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 SPECIFICATIONS 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 2.22 OF THE 2010 EDITION OF THE UDACS
9. ALL WATER FACILITIES AND APPURTENANCES SHALL BE DISINFECTED, PRESSURE TESTED, AND HAVE AN ACCEPTABLE PASSING HEALTH WATER SAMPLE OBTAINED, PRIOR TO OPERATION AND USE.
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 PERFORMED IN ACCORDANCE WITH UDACS SECTION 3.14.01, AND 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 LISTED ON THE LVVWD APPROVED PRODUCT'S LIST FOR NEW FACILITIES, LATEST REVISION, OR SPECIFICALLY APPROVED ON THESE PLANS BY SUBMITTING SHOP DRAWINGS.
13. TELEPHONE "CALL BEFORE YOU DIG" AT 811 OR 1-800-227-2600
14. THE INSTALLATION OF LVVWD MUNICIPAL WATER FACILITIES WITHIN ALL STREETS IS ASSUMED TO BE IN COMPLIANCE WITH THE UNIFORM STANDARDS, INCLUDING THE PLACEMENT OF ASPHALT PAVING STREET SURFACES. ANY REPAIR WORK DONE BY THE LVVWD TO THE MUNICIPAL WATER FACILITIES WILL INCLUDE THE PLACEMENT OF AN APPROPRIATELY SIZED ASPHALT REPAIR ON THE STREET SURFACE.

    ANY DECORATIVE PAVING SURFACE WITHIN THE STREET IS THE RESPONSIBILITY OF THE OWNER'S ASSOCIATION, OR THE INDIVIDUAL PROPERTY OWNERS IF NO OWNER'S ASSOCIATION IS IN EXISTENCE, OR THE AGENCY HAVING JURISDICTION. DECORATIVE SURFACE MATERIALS PLACED WITHIN THE TEN FOOT EASEMENT ABUTTING A PUBLIC OR PRIVATE STREET, IF DISTURBED BY THE LVVWD DURING THE REPAIR OR OPERATION OF ITS FACILITIES, WILL BE REPLACED BY LVVWD WITH AN APPROPRIATELY SIZED PLAIN FINISH CONCRETE PATCH. THE LVVWD WILL NOT RESTORE, AND WILL NOT BE RESPONSIBLE FOR THE RESTORATION OF, ANY DECORATIVE PAVING SURFACE WITHIN THE STREET. THE LVVWD WILL NOT ATTEMPT TO MATCH COLOR OR FINISH OF ANY ADJACENT MATERIALS.
15. NO LEAD COMPLIANCE NOTE:
    TO COMPLY WITH THE FEDERAL SAFE DRINKING WATER ACT, ALL WATER WORKS BRASS PRODUCTS PROPOSED TO BE RELOCATED, OR INSTALLED AS NEW MUST BE INSTALLED WITH THE LEAD FREE APPROVED PRODUCT. THE OLD LEADED PRODUCT MAY NOT BE REUSED.

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 ANY ADOPTED SPECIAL AREA STANDARDS.
2. NO DEVIATION OF STREET LIGHT, PULL BOX, CONDUITS (ETC.) LOCATIONS SHALL BE PERMITTED WITHOUT WRITTEN APPROVAL OF THE TRAFFIC ENGINEER AND THE CITY ENGINEER.
3. ALL EXISTING STREET LIGHTING SHALL REMAIN OPERATIONAL DURING CONSTRUCTION.
4. ALL STREET LIGHTING CONDUITS STUB SHALL HAVE AT LEAST ONE GREEN #8 THW WIRE INSTALLED, AS TRACER WIRE. WHEN "EMPTY" CONDUIT IS COMPLETELY INSTALLED FROM PB TO PB, IT SHALL HAVE MINIMUM OF 2 #4 AND 1 #8 THW WIRE WITH THE ENDS TAPED OR "SAFE OFF" PRIOR TO FINAL INSPECTION.
5. ANY STRUCTURE SUCH AS BLOCK WALLS, CHAIN LINK FENCES, RETAINING WALLS, ETC., SHALL LEAVE A MINIMUM CLEARANCE IN ACCORDANCE WITH THE USD NO. 320A.
6. AS-BUILT DRAWINGS SHALL BE SUPPLIED TO THE TEFO PRIOR TO ANY PRE-FINAL INSPECTION. THE AS-BUILT DRAWING NEEDS TO BE STAMPED AS-BUILT AND SIGNED BY THE PREPARER.
7. SERVICE POINT SHALL BE COORDINATED WITH NV ENERGY 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, AT NO EXPENSE TO THE CITY OF LAS VEGAS, BEFORE STREETLIGHT BASES ARE INSTALLED.
10. THE CONTRACTOR SHALL FURNISH COMPLETE SERVICE TO TRANSFORMERS AND CONTROL SYSTEMS IF REQUIRED ON PLANS.
11. THE DEVELOPER/OWNER WILL BE REQUIRED TO SUPPLY POWER TO ALL NEW PUBLIC STREET LIGHTS INSTALLED UNDER THIS DESIGN PRIOR TO BOND RELEASE OR PROJECT COMPLETION. THE DEVELOPER/OWNER WILL BE RESPONSIBLE FOR ALL ITEMS ASSOCIATED WITH THE INSTALLATION, CONSTRUCTION, ENERGIZING, MAINTENANCE AND OPERATIONAL COST OF SAID STREET LIGHTS PRIOR TO PROJECT COMPLETION. REFER TO THE PLAN FOR ANY NEW SERVICE REQUIREMENTS. THE TRANSFER OF OWNERSHIP FROM THE DEVELOPER/OWNER TO THE CITY OF LAS VEGAS FOR ALL NEW PUBLIC STREET LIGHT/S AND/OR SERVICE/S INSTALLED UNDER THIS PLAN WILL BE IN CONJUNCTION WITH THIS PROJECT COMPLETION. COORDINATE ALL MAINTENANCE AND OPERATIONAL TRANSFERS WITH THE CITY OF LAS VEGAS TRAFFIC ENGINEERING DEPARTMENT (TEFO) AT (702) 229-6331.

REVISED 04/15/10

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 PIPE WHICH ALLOWS FOR PIPE DEFLECTION AT THE JOINTS.

REVISED 04/15/10

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 ADVANCED 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. ALL NEW SIGNS SHALL BE FABRICATED WITH DIAMOND GRADE VIP CLASS 6 REFLECTIVE SHEETING OR APPROVED EQUAL. ALL NEW TRAFFIC SIGNS, EXCEPT STREET NAME AND SCHOOL SPEED LIMIT SIGNS, SHALL HAVE 3M SERIES 1160 OR APPROVED EQUIVALENT ANTI-GRAFFITI PROTECTIVE OVERLAY FILM; SCHOOL ZONE SIGNS SHALL HAVE 3M SERIES 1150 ANIT-GRAFFITI PROTECTIVE OVERLAY FILM. 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 (5') FEET 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 HERE UNDER, 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 INSURE 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 SPECIALIST SET UP, MAINTAIN AND/OR REMOVE ALL TRAFFIC CONTROL DEVICES IN THE CITY OF LAS VEGAS RIGHT-OF-WAY.
11. WORK IN PUBLIC STREETS, ONCE BEGUN, SHALL BE EXPEDITED TO COMPLETION SO AS TO PROVIDE MINIMUM INCONVENIENCE TO ADJACENT PROPERTY OWNERS AND TO 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 TO ARRANGE FOR TEMPORARY RELOCATION OF STOP.
13. GUARDS SHALL BE OBTAINED BY CONTACTING THE METROPOLITAN POLICE DEPARTMENT SPECIAL EVENTS UNIT (PHONE # 828-3442) 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.
15. CONTRACTOR SHALL CONTACT THE TRAFFIC ENGINEERING DIVISION (TRANSPORTATION SECTION) THROUGH THE PROJECT'S OFFSITE INSPECTOR PRIOR TO INITIATING PAVING TO RECEIVE DIRECTION FOR ANY PERMANENT OR TEMPORARY MODIFICATIONS TO THE APPROVED DRAWINGS REGARDING FINAL PAVEMENT TRANSITIONS, MARKINGS AND SIGNING THAT ARE REQUIRED TO MATCH ADJACENT ROADWAY SEGMENTS. THE CONTRACTOR SHALL PROVIDE A DRAWING FOR APPROVAL BY THE TRAFFIC ENGINEERING DIVISION DEPICTING ANY ADJUSTMENTS TO THE FINAL PAVEMENT MARKINGS AND SIGNAGE, WHICH MAY INCLUDE OMITTING, ADDING OR MODIFYING PAVEMENT MARKINGS AND TRAFFIC CONTROL SIGNS SUCH THAT ADEQUATE TRANSITIONS AND LANE TERMINATIONS BETWEEN ADJACENT ROADWAY SEGMENTS ARE CONSTRUCTED.

REVISED 4/15/10

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 SHOWN.
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. COMPACTION SHALL COMPLY WITH THE REQUIREMENTS OF THE ENGINEER.
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, SUCH ITEM SHALL BE PROVIDED, AS DIRECTED BY THE CITY ENGINEER, AT NO EXPENSE TO THE CITY OF LAS VEGAS. TEMPORARY CONSTRUCTION INCLUDES DITCHES, BERMS, ROAD SIGNS AND BARRICADES, ETC.

REVISED 4/15/10

SOUTHERN NEVADA - SOUTHWEST GAS CORPORATION

GENERAL NOTES

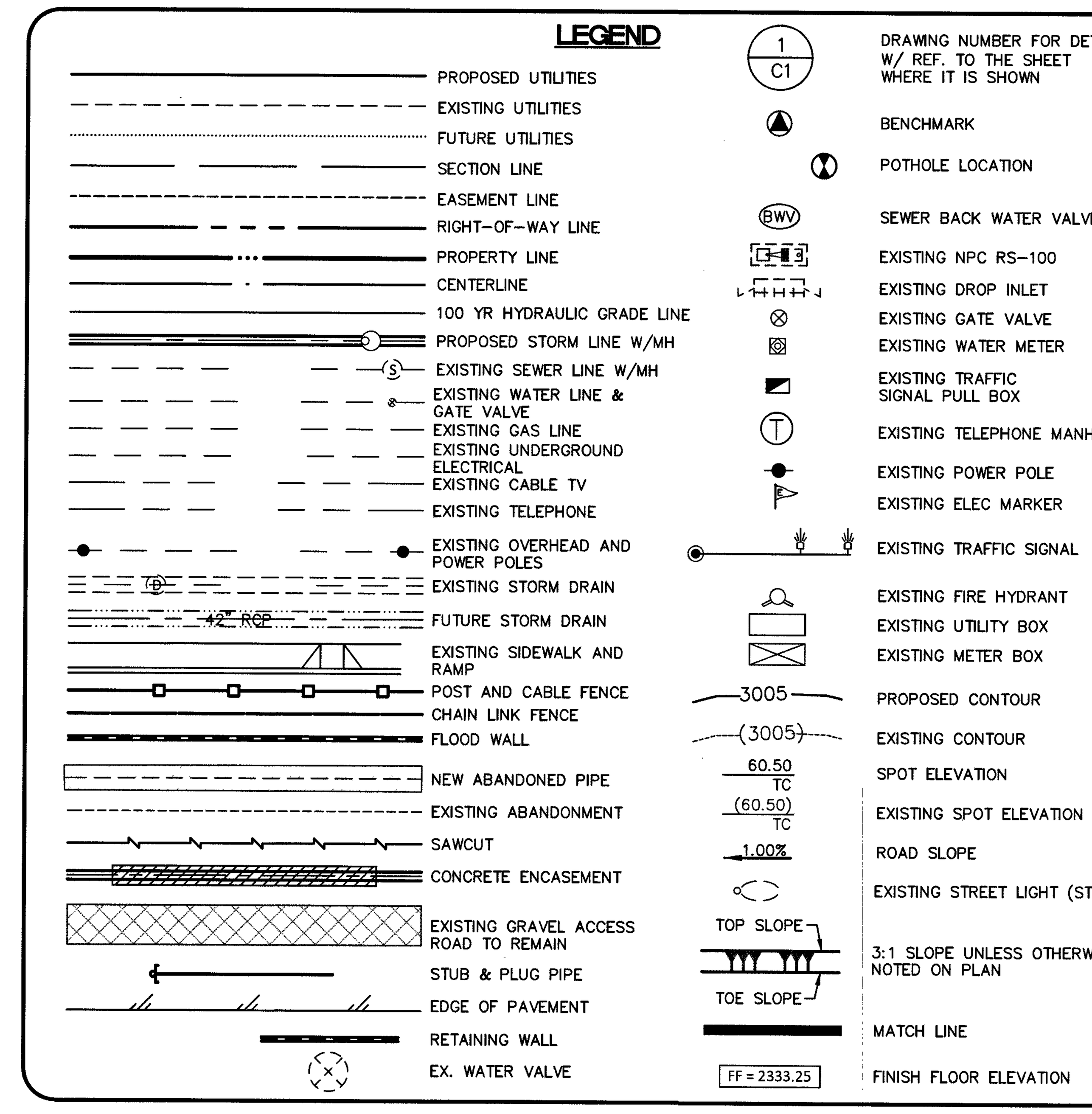
1. **IN THE EVENT OF NATURAL GAS EMERGENCIES CALL 911 AND 1-877-860-6020.**
2. **THERE SHALL BE A MINIMUM HORIZONTAL AND VERTICAL CLEARANCE OF 12-INCHES BETWEEN NATURAL GAS FACILITIES AND ANY UNDERGROUND FACILITIES AND/OR STRUCTURES, INCLUDING BUT NOT LIMITED TO WATER, SEWER, STORM DRAIN, COMMUNICATIONS, AND ELECTRIC.**
3. **FOR VALVE ADJUSTMENT CONTACT 702-668-6107 48 HOURS PRIOR TO CONSTRUCTION.**
4. **IN THE EVENT OF A NATURAL GAS CONFLICT WITH PROPOSED UTILITIES AND/OR STRUCTURES CONTACT 702-365-2099.**

APPROVED FOR CONSTRUCTION

[signature] 5/9/19

SOUTHWEST GAS CORPORATION DATE

LEGEND



ABBREVIATIONS

A	AIR
AC	ASPHALT CONCRETE, ACRE
ACP	ASBESTOS CEMENT PIPE
ADD'L	ADDITIONAL
ADS	ADVANCE DRAINAGE SYSTEM
AP	ANGLE POINT
APN	ASSESSOR'S PARCEL NUMBER
APPROX	APPROXIMATELY
AASHTO	AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS
AVE	AVENUE
AVAR	AIR VALVE, AIR RELEASE ASSEMBLY
AWWA	AMERICAN WATER WORKS ASSOCIATION
BC	BACK OF CURB
BCR	BEGIN CURB RETURN
BLM	BUREAU OF LAND MANAGEMENT
BLVD	BOULEVARD
BM	BENCHMARK
BO	BLOW-OFF
BVCE	BEGIN VERTICAL CURVE ELEVATION
BVCS	BEGIN VERTICAL CURVE STATION
BW	BACK OF SIDEWALK
C, ℄	CENTERLINE
C&G	CURB AND GUTTER
CATV	UNDERGROUND CABLE TV
CCBM	CLARK COUNTY BENCH MARK
CCPW	CLARK COUNTY PUBLIC WORKS
CCTV	CLOSED-CIRCUIT TELEVISION
CCWRD	CLARK COUNTY WATER RECLAMATION DISTRICT
CFS	CUBIC FEET PER SECOND
CIP	CAPITAL IMPROVEMENTS PROJECT, CORRUGATED IRON PIPE
CIPM	CURED-IN-PLACE MANHOLE
CIPP	CURED-IN-PLACE PIPE
CIR	CIRCLE
CLR	CLEAR OR CLEARANCE
CLSM	CONTROLLED LOW STRENGTH MATERIAL
CLV	CITY OF LAS VEGAS
CMP	CORRUGATED METAL PIPE
CMU	CONCRETE MASONRY UNIT
CNLV	CITY OF NORTH LAS VEGAS
CO	CLEANOUT
CONC	CONCRETE
COND	CONDUIT
CONST	CONSTRUCT OR CONSTRUCTION
COORD	COORDINATE
COR	CORNER
CPEP	CORRUGATED POLYETHELYNE PIPE
CT	COURT
CY	CUBIC YARD(S)
Δ	DELTA
DBL	DOUBLE
DCS	DESIGN AND CONSTRUCTION STANDARDS FOR WASTEWATER COLLECTION SYSTEM (LATEST EDITION)
DEFL	DEFLECTION
DG	DESIGN GRADE
DIA, ø	DIAMETER
DIP	DUCTILE IRON PIPE
DIST	DISTANCE
DR	DRIVE
DS	DOWNSPOUT
DTL	DETAIL
DW	DRIVEWAY
DWG	DRAWING
E	EAST
ECR	END CURB RETURN
EG	EXISTING GRADE
ELE,ELEC	ELECTRICAL
ELEV	ELEVATION
EP, EOP	EDGE OF PAVEMENT
ESMT	EASEMENT
EVC	END VERTICAL CURVE
EXIST,EX	EXISTING
FC	FACE OF CURB
FF, FFE	FINISH FLOOR ELEVATION
FG	FINISH GRADE

FH	FIRE HYDRANT
FL	FLOW LINE
FO	FIBER OPTIC
FRP	FIBERGLASS REINFORCED PLASTIC
FS	FINISH SURFACE
FT	FOOT/FEET
FTG	FOOTING
FUT	FUTURE
G	GAS
GA	GAGE, GUY ANCHOR
GB	GRADE BREAK
GND	GROUND
GRD	GRADE, GROUND
H, HGT	HEIGHT
HDPE	HIGH DENSITY POLYETHLENE
HDWL	HEADWALL
HGL	HYDRAULIC GRADE LINE
HORIZ	HORIZONTAL
HP	HIGH POINT, HIGH PRESSURE
HPS	HIGH PRESSURE SODIUM
IBC	INTERNATIONAL BUILDING CODE
INV	INVERT
INT	INTERIM
JT	JOINT
L	LENGTH
L, LT	LEFT
LF	LINEAR FEET
LIP	LIP OF GUTTER
LN	LANE
LP	LIGHT POLE
LSCP	LANDSCAPE
LVVWD	LAS VEGAS VALLEY WATER DISTRICT
MAX	MAXIMUM
ME	MATCH EXISTING
MH	MANHOLE
MIN	MINIMUM
MOD	MODIFY/MODIFIED
MON	MONUMENT
MPH	MILES PER HOUR
N	NORTH
NDOT	NEVADA DEPARTMENT OF TRANSPORTATION
NO	NUMBER
NOSHA	STATE OF NEVADA OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION
NPC	NEVADA POWER COMPANY
NTS	NOT TO SCALE
OC	ON CENTER
OCEWEF	ON CENTER EAST-WEST, EAST-FG
OHC	OVERHEAD COX COMMUNICATION
OHP	OVERHEAD POWER LINE
P	POWER LINE
PB	PULL BOX
PBS	PLANTMIX BITUMINOUS SURFACE
PC	POINT OF CURVE, PRESSURE CLASS
PCC	POINT OF COMPOUND CURVE
PE	PROJECT ENGINEER OR POLYETHYLENE
PED	PEDESTRIAN
PGL	PROFILE GRADE LINE
PH	POTHOLE
PI	POINT OF INTERSECTION
PIV	POST INDICATOR VALVE
PL	PROPERTY LINE
PLCP	POLYURETHANE LINED AND COATED STEEL PIPE
PMF	PAVEMENT MARKING FILM
POB	POINT OF BEGINNING
POC	POINT ON CURVE
P.O.C.	POINT OF CONNECTION
POT	POINT ON TANGENT
PP	POWER POLE
PROP	PROPOSED
PRC	POINT OF REVERSE CURVE
PRVC	POINT OF REVERSE VERTICAL CURVE
PSI	POUNDS PER SQUARE INCH
PT	POINT OF TANGENCY
PVC	POLYVINYL CHLORIDE
PVI	POINT OF VERTICAL INTERSECTION
PVMT	PAVEMENT
PZ	PRESSURE ZONE
R, RAD	RADIAL, RADIUS

R, RT	RIGHT
RCB	REINFORCED CONCRETE BOX
RCP	REINFORCED CONCRETE PIPE
RD	ROAD
RDWY	ROADWAY
REC	RECTANGULAR
REF	REFERENCE
REINF	REINFORCED
REQD	REQUIRED
RIM	TOP OF RIM ELEVATION
RND	ROUND
ROW,R/W	RIGHT OF WAY
RP	RADIUS POINT
RPM	RAISED PAVEMENT MARKERS
RSGV	RESILIENT SEAT GATE VALVE
S	SEWER, SOUTH
SCH	SCHEDULE
SD	STORM DRAIN
SDMH	STORM DRAIN MANHOLE
SECT	SECTION
SF	SQUARE FOOT/FEET
SHLDR	SHOULDER
SHT	SHEET
SIS	SUMMERLIN IMPROVEMENT STANDARDS
SL	STREET LIGHT
SP	SERVICE POINT
SQ	SQUARE
SR	SEWER RECLAIM MAIN
SS	SANITARY SEWER
SSMH	SANITARY SEWER MANHOLE
STA	STATION
ST	STREET
STD	STANDARD
STL	STEEL
STRUCT	STRUCTURE
SVZ	SIGHT VISIBILITY ZONE
SW	SIDEWALK
SWG	SOUTHWEST GAS
T	TELEPHONE OR TOP
TAN	TANGENT
TB	TOP OF BERM
TC	TOP OF CURB
TCE	TEMPORARY CONSTRUCTION ESMT
TEL,TELE	TELEPHONE
TEMP	TEMPORARY
TF	TOP OF FOOTING
TG	TOP OF GRATE
TMH	TOP OF MANHOLE
TOP	TOP OF PIPE
TP	TELEPHONE POLE
TRANS	TRANSITION
TRW	TOP OF RETAINING WALL
TS	TRAFFIC SIGNAL
TW	TOP OF WALL
TYP,(TYP)	TYPICAL
UDACS	UNIFORM DESIGN AND CONSTRUCTION STANDARDS FOR WATER DISTRIBUTION SYSTEMS (LATEST EDITION)
UG	UNDERGROUND
ULT	ULTIMATE
USD, USDCCA, CCAUSD	UNIFORM STD. DRAWINGS FOR PUBLIC WORKS' CONSTRUCTION OFF-SITE IMPROVEMENTS CLARK COUNTY AREA, NEVADA (LATEST EDITION)
UT	UNDERGROUND TELEPHONE
VAR	VARIABLE/VARIES
VC	VERTICAL CURVE
VCP	VITRIFIED CLAY PIPE
VERT	VERTICAL
VG	VALLEY GUTTER
VOL	VOLUME
W	WATER, WEST
W/	WITH
WS	WATER SUPPLY
WT	WEIGHT
WTR	WATER
XING	CROSSING
YD	YARD, YARD DRAIN
Z	PRESSURE ZONE

DEVIATION FROM STANDARDS

1. NONE

APPROVED FOR CONSTRUCTION

[signature]

LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES

PROJECT NO. 135667 FIRST APPROVAL DATE: 5-6-19

ANNE JOHNSON, AIA
architecture • graphic
Anne Johnson, AIA
1489 W Warm Springs Rd, Suite 110, Henderson, Nevada 89014
NV LIC. #5168

GCW
ENGINEERS SURVEYORS
1555 S. RAINBOW BLVD LAS VEGAS, NV 89146
T: 702.804.2000 gcwengineering.com

STATE OF NEVADA – PROFESSIONAL ENGINEER – TODD N. KELLEY – CIVIL – No. 14711 – Exp. 6/30/2019 – 5-1-19

Wardelle Street Townhouses
IFB No. B19012
SE corner of N Wardelle St. and E Harris Ave.
APN # 139-254-100-39, 40, 41
Las Vegas, Nevada, 89101
Southern Nevada Regional Housing Authority, (SNRHA)

IF THE ABOVE DIMENSION DOES NOT MEASURE ONE INCH (1") EXACTLY THIS DRAWING WILL HAVE BEEN ENLARGED OR REDUCED, AFFECTING ALL LABELED SCALES.

REVISIONS	DATE

Date:	02/12/2019
Scale:	AS NOTED
Drawn:	DRL
Job:	17008
Sheet:	2 OF 17
Phase:	100% DD

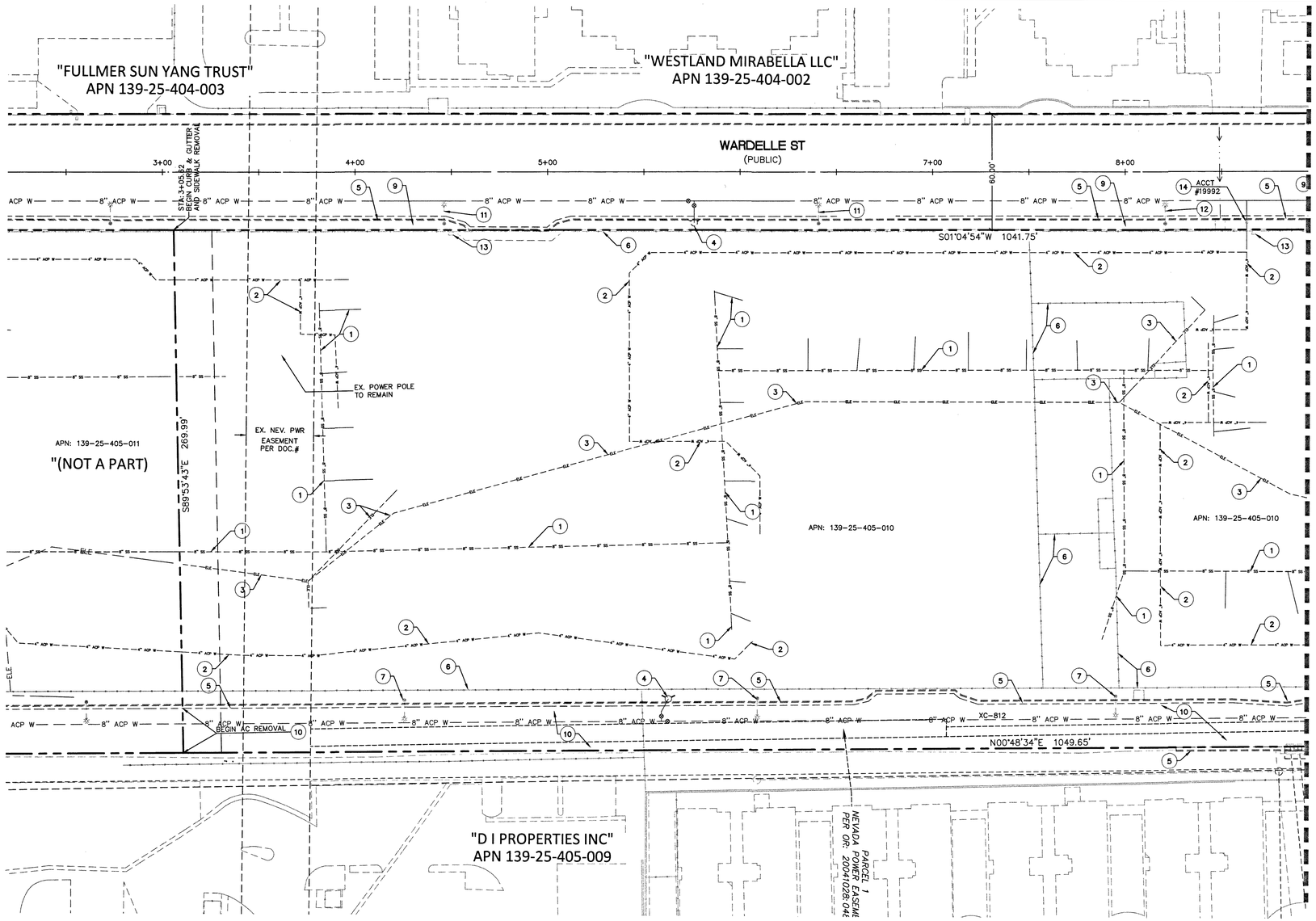
L19-00078
107V7651

CV-2

Plotted On: 04-30-19

GENERAL NOTES AND LEGEND PLAN

PROJ#:135667A QS:139-25-SW



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Call before you Dig
Avoid cutting underground utility lines. It's costly.
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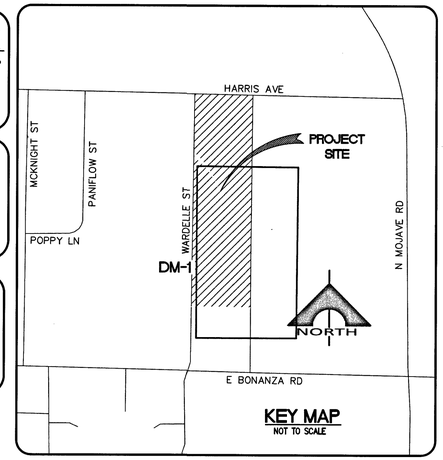
FREEWAY AND ARTERIAL SYSTEM OF TRANSPORTATION



DEMOLITION NOTES

1	REMOVE EXISTING SANITARY SEWER PIPE AND STRUCTURES.
2	REMOVE EXISTING WATER PIPE AND WATER FACILITIES.
3	REMOVE EXISTING ELECTRICAL CONDUITS.
4	REMOVE EXISTING FIRE HYDRANT PER LAS VEGAS FIRE AND RESCUE FIRE PREVENTION DIVISION GUIDELINES. SEE SHT. TR-1 FOR NEW FIRE HYDRANT LOCATIONS
5	REMOVE EXISTING CURB AND GUTTER.
6	REMOVE EXISTING FENCE.
7	REMOVE EXISTING LIGHT POLE
8	REMOVE EXISTING SANITARY SEWER. NOTE: CONTRACTOR TO MAINTAIN THE EXISTING SANITARY SEWER SERVICE DURING CONSTRUCTION. REMOVAL OF THE EXISTING ON-SITE SANITARY SEWER FACILITY SHALL BE COORDINATED WITH THE CITY OF LAS VEGAS SEWER DIVISION PRIOR TO REMOVAL WORK.
9	REMOVE EXISTING SIDEWALK.
10	REMOVE EXISTING AC PAVEMENT.
11	RETAIN AND PROTECT EXISTING STREET LIGHT.
12	RELOCATE EXISTING STREET LIGHT. SEE SHEET TR-1.
13	EX. UTIL. BOX TO BE ABANDONED. CONTRACTOR TO COORDINATE WITH UTILITY PROVIDER.
14	EXISTING WATER METER, ABANDON SERVICE PER UDACS SSEC. 2.17.04.

NORTH

30' 0' 15' 30'
SCALE: 1" = 30'

NOTE:
PROTECT IN PLACE AND ADJUST LVVWD EXISTING FACILITIES TO FINISH GRADE PER UDACS. ALL LVVWD FACILITIES SHALL BE ACCESSIBLE AT ALL TIMES.

BENCHMARK

CITY OF LAS VEGAS BENCHMARK STATION: 8LV0125SSW8

DESCRIPTION: RIVET AND ALUMINUM PLATE IN TOP OF CURB NORTHWEST CORNER OF MANNING STREET AND BONANZA ROAD.

ELEVATION: 554.758 METERS
1820.07 FEET (U.S. SURVEY FEET) NAVD88

BASIS OF BEARINGS

GRID NORTH AS DEFINED BY THE CENTRAL MERIDIAN OF THE NEVADA COORDINATE REFERENCE SYSTEM (NCRS), LAS VEGAS ZONE, NORTH AMERICAN DATUM OF 1983; SAID MERIDIAN BEING COINCIDENT WITH 114°58' WEST OF THE GREENWICH MERIDIAN.

LINEAR UNIT: US SURVEY FOOT (FTUS)

DATUM (REFERENCE FRAME): NAD 83 (2011) EPOCH 2010.00
NEVADA COORDINATE REFERENCE SYSTEM (NCRS)

LAS VEGAS

PROJECTION: TRANSVERSE MERCATOR
STANDARD PARALLEL (AND LATITUDE OF GRID ORGIN): 36°15'00"N
LONGITUDE OF CENTRAL MERIDIAN: 114°58'00"W
NORTHING AT GRID ORIGIN: 200,000.000 M (656,166.6667 FTUS)
EASTING AT CENTRAL MERIDIAN: 100,000.000 M (328,083.3333 FTUS)
SCALE FACTOR ON CENTRAL MERIDIAN: 1.0001 (EXACT)

NOTES:
1. ALL DISTANCES AND BEARINGS SHOWN HEREON ARE PROJECTED (GRID) VALUES BASED ON THE PRECEDING PROJECTION DEFINITION. THE PROJECTION WAS DEFINED SUCH THAT PROJECTED (GRID) DISTANCES ARE EQUIVALENT TO "GROUND" DISTANCES IN THE PROJECT AREA.
2. GRID BEARINGS SHOWN HEREON (OR IMPLIED BY GRID COORDINATES) DO NOT EQUAL GEODETIC BEARINGS DUE TO MERIDIAN CONVERGENCE.

ABANDONMENT OF EXISTING SERVICES 2 INCH AND SMALLER

IF ANY OF THE EXISTING SERVICES ARE INCORRECTLY LOCATED OR NOT TO BE USED WITH THIS PROJECT, THIS PROJECT SHALL BE ABANDON THE LATERALS AT THE CONNECTION TO THE ACTIVE MAIN IN ACCORDANCE WITH UDACS SECTION 2.17.04 A, AND COORDINATE WITH THE LVVWD INSPECTOR.

APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES

PROJECT NO. 135667 FIRST APPROVAL DATE: 5-6-19

ANNE JOHNSON, AIA
architecture • graphic
Anne Johnson, AIA
1489 W Warm Springs Rd, Suite 110, Henderson, Nevada 89014
NV LIC. #5168

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PROFESSIONAL ENGINEER STATE OF NEVADA TODD N. KELLEY Exp. 6/30/2019 CIVIL No. 14711 5-7-19

Wardelle Street Townhouses
IFB No. B19012

SE corner of N Wardelle St. and E Harris Ave.
APN # 139-254-100-39, 40, 41
Las Vegas, Nevada, 89101
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Date:	02/12/2019
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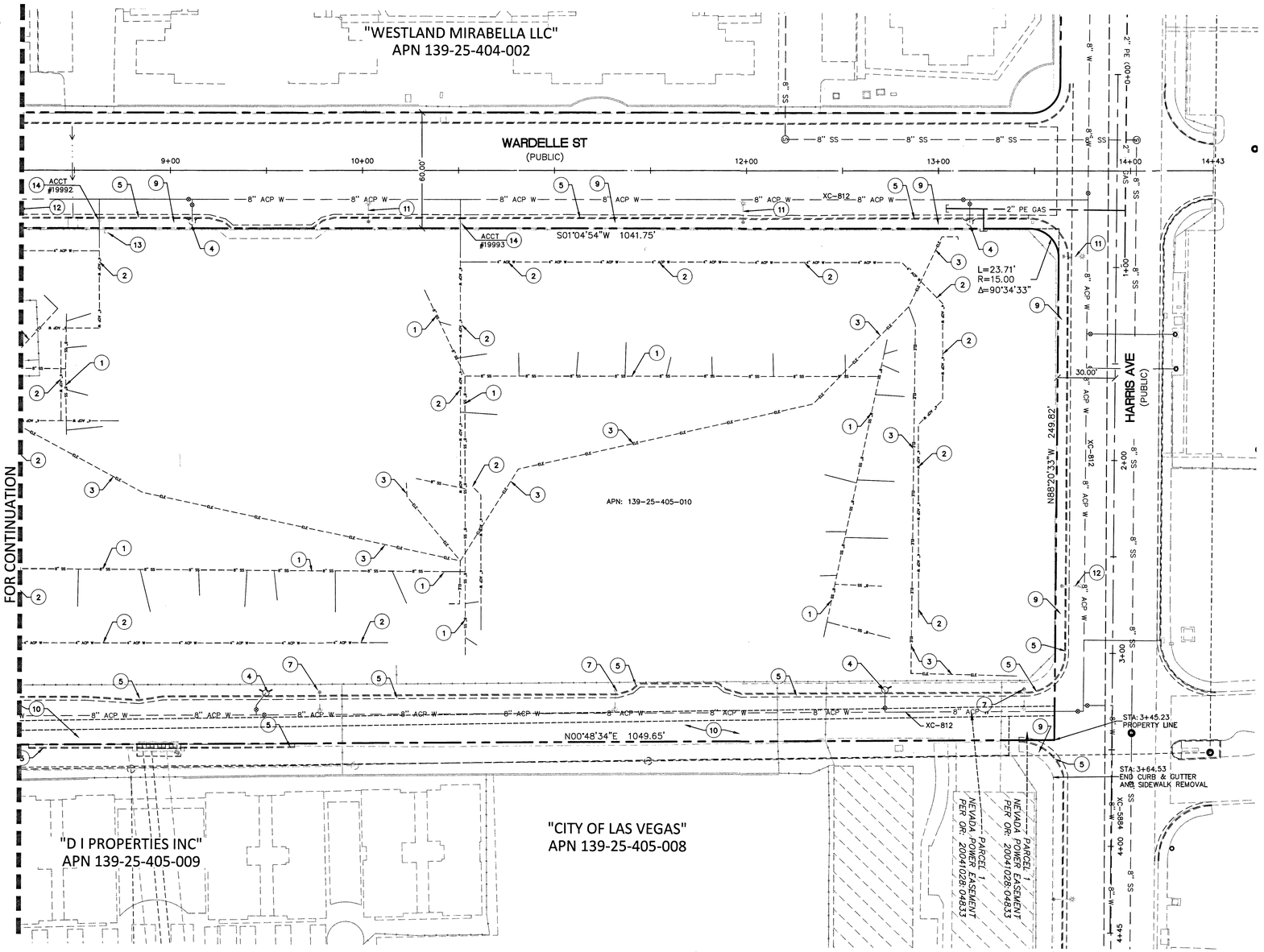
Drawn:	DRL
Job:	17008
Sheet:	3 OF 17
Phase:	100% DD

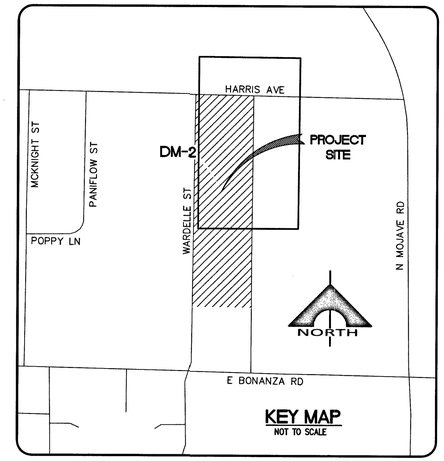
L19-00078
107V7651
DM-1
Plotted On: 04-30-19

DEMOLITION PLAN 1

PROJ#:135667A QS:139-25-SW



MATCHLINE SEE SHEET DM-1
FOR CONTINUATION



KEY MAP
NOT TO SCALE

DEMOLITION NOTES

1	REMOVE EXISTING SANITARY SEWER PIPE AND STRUCTURES.
2	REMOVE EXISTING WATER PIPE AND WATER FACILITIES.
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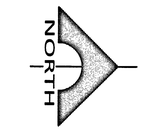

30' 0' 15' 30'
SCALE: 1" = 30'

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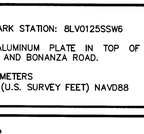

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Job:	17008
Sheet:	4 OF 17
Phase:	100% DD

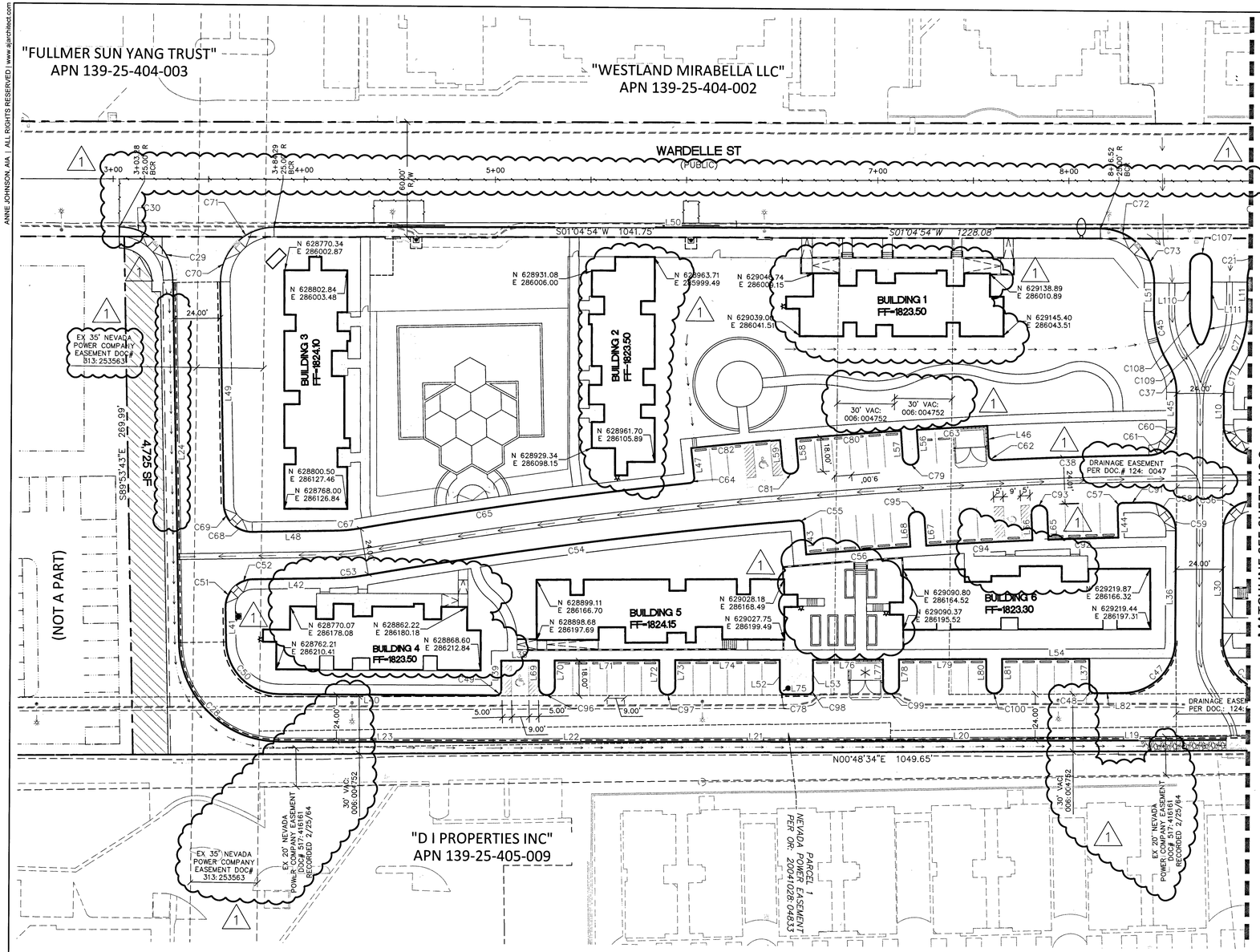
L19-00078
107V7651

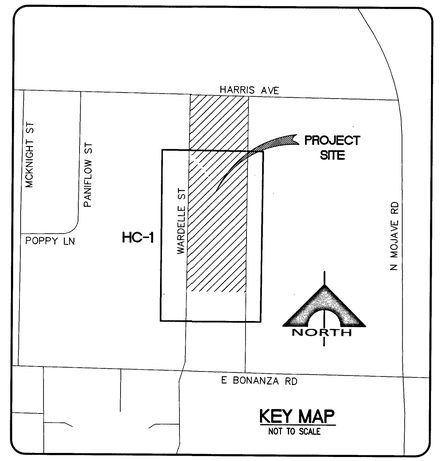
DM-2

Plotted On: 04-30-19

DEMOLITION PLAN 2

PROJ.#:135667A QS:139-25-SW





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REVISION TABLE: AREA	FOR SHEET HC-1 CHANGE
WARDELLE STREET	SAW-CUT LINE MOVED TO STREET CENTERLINE.
BUILDING #1	BUILDING FOOTPRINT CHANGED, REVISED SIDEWALKS, RAMPS, AND WALK-WALLS.
BUILDING #2	BUILDING FOOTPRINT AND SIDEWALKS CHANGED.
BUILDING #4	BUILDING FOOTPRINT CHANGED, SIDEWALK RAMPS, AND WALK-WALLS REVISED FOR ADA ACCESS.
BUILDINGS #5 AND #6 RISER ROOMS	ADDED STAIRS EXITING THE RISER ROOMS.
BUILDING #6	REVISED SIDEWALK, SIDEWALK STEPS, AND RAMPS FOR ADA ACCESS.
EXISTING EASEMENTS	ADDED EASEMENT INFORMATION.
SOUTH ENTRY DRIVEWAY	REMOVED DIAGONAL PARKING STALLS.

BENCHMARK

CITY OF LAS VEGAS BENCHMARK STATION: BLV0125SSW6

DESCRIPTION: RIVET AND ALUMINUM PLATE IN TOP OF CURB NORTHWEST CORNER OF MANNING STREET AND BONANZA ROAD.

ELEVATION: 554.758 METERS
1820.07 FEET (U.S. SURVEY FEET) NAVD88

NOTE:

- TRASH ENCLOSURES PER ARCHITECTURAL PLANS.

BASIS OF BEARINGS

GRID NORTH AS DEFINED BY THE CENTRAL MERIDIAN OF THE NEVADA COORDINATE REFERENCE SYSTEM (NCRS), LAS VEGAS ZONE, NORTH AMERICAN DATUM OF 1983; SAID MERIDIAN BEING COINCIDENT WITH 114°58' WEST OF THE GREENWICH MERIDIAN.

LINEAR UNIT: US SURVEY FOOT (FTUS)

DATUM (REFERENCE FRAME): NAD 83 (2011) EPOCH 2010.00
NEVADA COORDINATE REFERENCE SYSTEM (NCRS)

LAS VEGAS

PROJECTION: TRANSVERSE MERCATOR
STANDARD PARALLEL (AND LATITUDE OF GRID ORGIN): 36°15'00"N
LONGITUDE OF CENTRAL MERIDIAN: 114°58'00"W
NORTHING AT GRID ORIGIN: 200,000.000 M (656,166.6667 FTUS)
EASTING AT CENTRAL MERIDIAN: 100,000.000 M (328,083.3333 FTUS)
SCALE FACTOR ON CENTRAL MERIDIAN: 1.0001 (EXACT)

NOTES:
1. ALL DISTANCES AND BEARINGS SHOWN HEREON ARE PROJECTED (GRID) VALUES BASED ON THE PRECEDING PROJECTION DEFINITION. THE PROJECTION WAS DEFINED SUCH THAT PROJECTED (GRID) DISTANCES ARE EQUIVALENT TO "GROUND" DISTANCES IN THE PROJECT AREA.
2. GRID BEARINGS SHOWN HEREON (OR IMPLIED BY GRID COORDINATES) DO NOT EQUAL GEODETIC BEARINGS DUE TO MERIDIAN CONVERGENCE.

ANNE JOHNSON, AIA
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Anne Johnson, AIA
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NV LIC. #5168

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T: 702.804.2000 gcwengineering.com

STATE OF NEVADA
ENGINEER
TODD N. KELLEY
Exp. 6/30/2021
CIVIL
No. 14171
PROFESSIONAL
1-2-2020

Wardelle Street Townhouses
IFB No. B19012

SE corner of N Wardelle St. and E Harris Ave.
APN # 139-254-100-39, 40, 41
Las Vegas, Nevada, 89101
Southern Nevada Regional Housing Authority, (SNRHA)

IF THE ABOVE DIMENSION DOES NOT MEASURE ONE INCH (1") EXACTLY, THIS DRAWING WILL HAVE BEEN ENLARGED OR REDUCED AFFECTING ALL LABELED SCALES.

	REVISIONS	DATE
1	V.E. REV.	11.21.19

Date:	02/12/2019
Scale:	AS NOTED
Drawn:	DRL
Job:	17008
Sheet:	5 OF 17
Phase:	100% DD

L19-00078
107V7651

HC-1

Plotted On: 12-30-19

HORIZONTAL CONTROL PLAN 1

"WESTLAND MIRABELLA LLC"
APN 139-25-404-002

WARDELLE ST
(PUBLIC)
60.00' R/W

HARRIS AVE
(PUBLIC)
80.00' R/W

BUILDING 12
FF=1823.05

BUILDING 11
FF=1823.40

BUILDING 10
FF=1823.80

BUILDING 9
FF=1823.20

BUILDING 7
ACTIVITY CENTER
FF=1823.20

BUILDING 8
FF=1822.90

S01°04'54"W 1041.75'

N00°48'34"E 1049.65'

N88°20'33"W 249.82'

DRAINAGE EASEMENT
PER DOC.: 124:0047

EX 20' NEVADA POWER COMPANY EASEMENT DOC# 517:416161 RECORDED 2/25/64

30' VAC. 006:004752

NEVADA POWER EASEMENT PER OR: 20041028:04833 PARCEL 1

"CITY OF LAS VEGAS"
APN 139-25-405-008

MATCHLINE SEE SHEET HC-1
FOR CONTINUATION

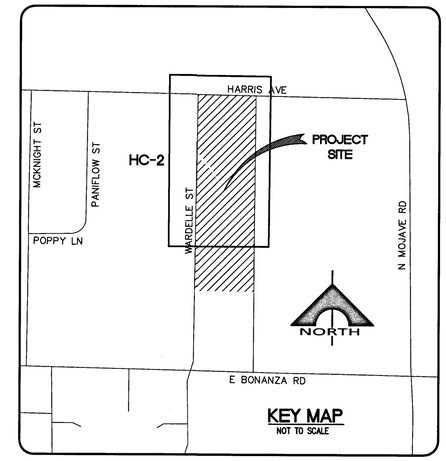
STA: 0+49.98
HARRIS AVE.

STA: 13+92.98
WARDELLE ST.

STA: 6+61.97
ESTABLISHED PER
FOUND MONUMENT
T20S, S¼, S¼, CR61E

FOUND 1 1/2" AL CAP ILLEGIBLE

1/16 SECTION LINE



KEY MAP
NOT TO SCALE

30' 0' 15' 30'
SCALE: 1" = 30'

NORTH

AVOID HITTING OVERHEAD POWER LINES. IT'S COSTLY
CALL BEFORE YOU DIG OVERHEAD
1-702-227-2929

FAST
Call before you UnderGround
1-702-432-5300
FREEWAY AND ARTERIAL SYSTEM OF TRANSPORTATION

Call before you Dig
Avoid cutting underground utility lines. It's costly.
Call 811
OR
1-800-227-2600

REVISION TABLE: **FOR SHEET HC-2**

AREA	CHANGE
WARDELLE STREET	SAW-CUT LINE MOVED TO STREET CENTERLINE.
OFF-SITE HARRIS AVENUE	SAW-CUT LINE MOVED TO BIKE LANE LINE.
BUILDING #7	REVISED SIDEWALK, SIDEWALK STEPS, AND RAMPS FOR ADA ACCESS.
BUILDING #10	BUILDING FOOTPRINT CHANGED, REVISED SIDEWALK, RAMPS, AND WALLS FOR ADA ACCESS.
BUILDING #11	RELOCATED AND FOOTPRINT CHANGED, SIDEWALK, RAMPS, STEPS, AND WALLS REVISED FOR ADA ACCESS.
BUILDING #12	RELOCATED AND FOOTPRINT CHANGED, SIDEWALK, RAMPS, STEPS, AND WALLS REVISED FOR ADA ACCESS.
BUILDING #13	BUILDING REMOVED, REPLACED WITH AN OPEN LANDSCAPE AREA WHERE BUILDING 11 WAS ORIGINALLY LOCATED.
ADA PARKING STALLS	ADDED STALL DIMENSIONS.

BENCHMARK

CITY OF LAS VEGAS BENCHMARK STATION: 8LV0125SSW6

DESCRIPTION: RIVET AND ALUMINUM PLATE IN TOP OF CURB NORTHWEST CORNER OF MANNING STREET AND BONANZA ROAD.

ELEVATION: 554.758 METERS
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BASIS OF BEARINGS

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LINEAR UNIT: US SURVEY FOOT (FTUS)

DATUM (REFERENCE FRAME): NAD 83 (2011) EPOCH 2010.00
NEVADA COORDINATE REFERENCE SYSTEM (NCRS)

LAS VEGAS

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STATE OF NEVADA
REGISTERED PROFESSIONAL ENGINEER
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IFB No. B19012

SE corner of N Wardelle St. and E Harris Ave.
APN # 139-254-100-39, 40, 41
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	REVISIONS	DATE
1	V.E. REVISIONS	11.21.19

Date:	02/12/2019
Scale:	AS NOTED
Drawn:	DRL
Job:	17008
Sheet:	6 OF 17
Phase:	100% DD

L19-00078
107V7651
HC-2
Plotted On: 12-30-19

HORIZONTAL CONTROL PLAN 2

LINE TABLE		
LINE #	LENGTH	DIRECTION
L1	167.89	S88° 20' 33.25"E
L2	21.03	N01° 39' 26.75"E
L3	7.12	N88° 20' 33.25"W
L4	15.50	N86° 44' 38.08"W
L5	15.50	N85° 49' 05.26"W
L6	15.58	N38° 31' 52.17"W
L7	15.71	N79° 20' 26.94"W
L8	15.50	N85° 04' 39.00"W
L9	20.27	N01° 18' 05.50"E
L10	16.88	N88° 38' 30.24"W
L11	15.41	N88° 38' 30.22"W
L12	426.03	N01° 04' 52.63"E
L13	19.29	N87° 25' 04.44"W
L14	26.77	N01° 39' 26.75"E
L15	100.00	S00° 48' 13.45"W
L16	94.00	S00° 48' 13.45"W
L17	94.00	S00° 48' 13.45"W
L18	41.43	S00° 48' 13.45"W
L19	89.60	N00° 48' 13.45"E
L20	94.00	N00° 48' 13.45"E

LINE TABLE		
LINE #	LENGTH	DIRECTION
L21	94.00	N00° 48' 13.45"E
L22	87.78	N00° 48' 13.45"E
L23	100.00	N01° 18' 32.95"E
L24	189.02	S89° 52' 23.06"E
L26	6.92	S88° 20' 33.25"E
L27	15.50	N89° 11' 46.55"W
L28	46.00	N00° 48' 13.45"E
L29	14.50	N89° 11' 46.55"W
L30	57.23	N88° 38' 30.24"W
L31	15.50	N88° 25' 42.19"W
L32	15.50	N85° 25' 30.80"W
L33	14.00	S87° 23' 31.06"E
L34	14.00	N87° 23' 31.06"W
L35	17.32	S88° 20' 33.25"E
L36	57.21	N88° 38' 30.24"W
L37	15.50	N89° 12' 15.52"W
L38	19.97	N00° 47' 44.48"E
L39	15.47	N89° 12' 15.52"W
L40	113.72	S01° 18' 34.68"W
L41	17.74	S89° 52' 23.06"E

LINE TABLE		
LINE #	LENGTH	DIRECTION
L42	43.67	S00° 07' 36.94"W
L43	15.50	N86° 12' 18.22"E
L44	15.50	N89° 37' 12.90"E
L45	18.16	N88° 38' 30.24"W
L46	15.50	S88° 14' 55.88"W
L47	15.50	N85° 05' 12.09"E
L48	43.67	S00° 07' 36.94"W
L49	115.91	S89° 52' 23.06"E
L50	432.23	N01° 04' 52.63"E
L51	14.90	N88° 38' 30.22"W
L52	15.37	S89° 12' 15.52"E
L53	15.50	N89° 13' 53.48"W
L54	46.00	N00° 47' 44.48"E
L55	3.66	N00° 48' 13.45"E
L56	14.00	N87° 24' 56.34"E
L57	14.00	S87° 24' 56.34"W
L58	14.00	N86° 07' 10.39"E
L59	14.00	S86° 07' 10.39"W
L60	15.50	S85° 47' 55.52"E
L61	15.50	N86° 43' 57.31"W

LINE TABLE		
LINE #	LENGTH	DIRECTION
L62	14.00	S87° 23' 10.57"E
L63	14.00	N87° 23' 10.57"W
L64	15.50	N88° 26' 30.21"W
L65	14.00	N88° 46' 25.22"E
L66	14.00	S88° 46' 25.22"W
L67	14.00	N87° 26' 12.62"E
L68	14.00	S87° 26' 12.62"W
L69	13.99	N89° 12' 15.52"W
L70	13.99	S89° 12' 15.52"E
L71	55.03	S00° 47' 44.48"W
L72	14.00	N89° 12' 15.52"W
L73	14.00	S89° 12' 15.52"E
L74	55.00	S00° 47' 44.48"W
L76	36.99	S00° 47' 44.48"W
L77	14.00	N89° 12' 15.52"W
L78	14.00	S89° 12' 15.52"E
L79	46.00	S00° 47' 44.48"W
L80	14.00	N89° 12' 15.52"W
L81	14.00	S89° 12' 15.52"E
L82	14.83	S00° 48' 25.22"W

LINE TABLE		
LINE #	LENGTH	DIRECTION
L83	55.00	S00° 48' 13.45"W
L84	14.00	N89° 12' 15.52"W
L85	14.00	S89° 12' 15.52"E
L86	19.00	S00° 48' 13.45"W
L87	15.50	N89° 12' 15.52"W
L88	47.00	S00° 48' 13.45"W
L89	15.50	S89° 12' 15.52"E
L90	56.00	S00° 48' 13.45"W
L91	14.00	N89° 12' 15.52"W
L92	14.00	S89° 12' 15.52"E
L93	55.00	S00° 48' 13.45"W
L94	14.00	N89° 12' 15.52"W
L95	14.00	S89° 12' 15.52"E
L96	27.55	S00° 48' 13.45"W
L110	24.58	S88° 38' 30.22"E
L111	24.58	N88° 38' 30.22"W

CURVE TABLE			
CURVE #	LENGTH	RADIUS	DELTA
C1	19.99	28.00	040.90
C2	19.99	28.00	040.90
C3	7.96	15.00	030.39
C4	11.59	15.00	044.28
C5	3.92	2.50	089.94
C6	39.01	2785.50	000.80
C7	3.92	2.50	089.94
C8	34.09	52.50	037.21
C9	3.79	2.50	086.87
C10	29.70	70.50	024.14
C11	19.52	70.50	015.86
C12	3.83	2.50	087.84
C13	170.80	2785.50	003.51
C15	3.94	2.46	091.79
C16	37.24	2803.50	000.76
C17	15.26	27.50	031.79
C18	3.92	2.50	089.94
C19	9.89	15.00	037.78
C20	9.73	15.00	037.16
C21	19.92	28.00	040.76

CURVE TABLE			
CURVE #	LENGTH	RADIUS	DELTA
C22	19.92	28.00	040.77
C23	31.62	20.00	090.58
C24	19.99	28.00	040.90
C25	19.99	28.00	040.90
C26	10.84	28.00	022.18
C27	38.23	53.00	041.33
C28	81.38	52.50	088.82
C29	19.76	28.00	040.43
C30	19.76	28.00	040.43
C31	11.68	15.00	044.61
C32	21.76	28.00	044.53
C33	3.93	2.50	090.00
C34	5.50	3.50	090.00
C35	43.46	27.50	090.55
C36	22.71	14.50	089.72
C37	15.26	27.50	031.79
C38	81.05	2785.50	001.67
C39	46.99	2733.22	000.99
C40	3.93	2.50	090.06
C41	186.94	2760.50	003.88

CURVE TABLE			
CURVE #	LENGTH	RADIUS	DELTA
C42	47.18	2803.50	000.96
C43	12.57	4.00	180.00
C44	28.24	2803.50	000.58
C45	29.13	52.50	031.79
C46	39.90	27.50	083.14
C47	42.93	27.50	089.44
C48	3.81	2.50	087.23
C49	3.95	2.50	090.51
C50	42.63	27.50	088.82
C51	9.38	14.50	037.07
C52	9.38	14.50	037.07
C53	15.20	100.00	008.71
C54	228.19	2760.50	004.74
C55	3.93	2.50	090.05
C56	54.99	2741.63	001.15
C57	3.93	2.50	090.06
C58	11.29	14.50	044.61
C59	7.83	14.50	030.95
C60	7.26	14.51	028.68
C61	11.17	14.50	044.14

CURVE TABLE			
CURVE #	LENGTH	RADIUS	DELTA
C62	3.92	2.50	089.94
C63	37.30	2803.50	000.76
C64	3.92	2.50	089.94
C65	175.41	2785.50	003.61
C67	11.40	75.00	008.71
C68	9.38	14.50	037.07
C69	9.38	14.50	037.07
C70	20.22	28.00	041.38
C71	20.22	28.00	041.38
C72	20.06	28.00	041.04
C73	20.06	28.00	041.04
C77	29.13	52.50	031.79
C78	3.93	2.50	090.00
C79	12.57	4.00	180.00
C80	55.42	2803.50	001.13
C81	12.57	4.00	180.00
C82	47.01	2803.50	000.96
C83	18.88	2742.50	000.39
C84	3.93	2.50	090.06
C85	38.99	2760.50	000.81

CURVE TABLE			
CURVE #	LENGTH	RADIUS	DELTA
C86	3.93	2.50	090.06
C87	27.82	2712.93	000.59
C88	12.57	4.00	180.00
C89	3.93	2.50	090.06
C90	20.17	2760.50	000.42
C91	12.91	2760.50	000.27
C92	36.99	2725.88	000.78
C93	12.57	4.00	180.00
C94	55.99	2742.73	001.17
C95	12.57	4.00	180.00
C96	12.57	4.00	180.00
C97	12.57	4.00	180.00
C98	3.93	2.50	090.00
C99	12.57	4.00	180.00
C100	12.57	4.00	180.00
C101	12.57	4.00	180.00
C102	3.93	2.50	089.99
C103	3.93	2.50	090.01
C104	12.57	4.00	180.00
C105	12.57	4.00	180.00

CURVE TABLE			
CURVE #	LENGTH	RADIUS	DELTA
C107	17.33	5.50	180.58
C108	16.93	33.50	028.95
C109	3.20	1.50	122.09
C110	16.93	33.50	028.95

REVISION TABLE:	FOR SHEET HC-3
AREA	CHANGE
HORIZONTAL CONTROL CURB DATA TABLES	LINE AND CURVE CURB DATA UPDATED TO REFLECT THE LATEST CHANGES.

BENCHMARK

CITY OF LAS VEGAS BENCHMARK STATION: 8LV0125SSW6

DESCRIPTION: RIVET AND ALUMINUM PLATE IN TOP OF CURB NORTHWEST CORNER OF MANNING STREET AND BONANZA ROAD.

ELEVATION: 554.758 METERS
1820.07 FEET (U.S. SURVEY FEET) NAVD88

BASIS OF BEARINGS

GRID NORTH AS DEFINED BY THE CENTRAL MERIDIAN OF THE NEVADA COORDINATE REFERENCE SYSTEM (NCRS), LAS VEGAS ZONE, NORTH AMERICAN DATUM OF 1983; SAID MERIDIAN BEING COINCIDENT WITH 114°58' WEST OF THE GREENWICH MERIDIAN.

LINEAR UNIT: US SURVEY FOOT (FTUS)

DATUM (REFERENCE FRAME): NAD 83 (2011) EPOCH 2010.00
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LAS VEGAS

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STATE OF NEVADA — PROFESSIONAL ENGINEER — TODD N. KELLEY — No. 14711 — Exp. 9/30/2021 — CIVIL
12-2-2020

Wardelle Street Townhouses
IFB No. B19012

SE corner of N Wardelle St. and E Harris Ave.
APN # 139-254-100-39, 40, 41
Las Vegas, Nevada, 89101
Southern Nevada Regional Housing Authority, (SNRHA)

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	REVISIONS	DATE
1	V.E. REVISIONS	01.21.19

Date:	02/12/2019
Scale:	AS NOTED
Drawn:	DRL
Job:	17008
Sheet:	7 OF 17
Phase:	100% DD

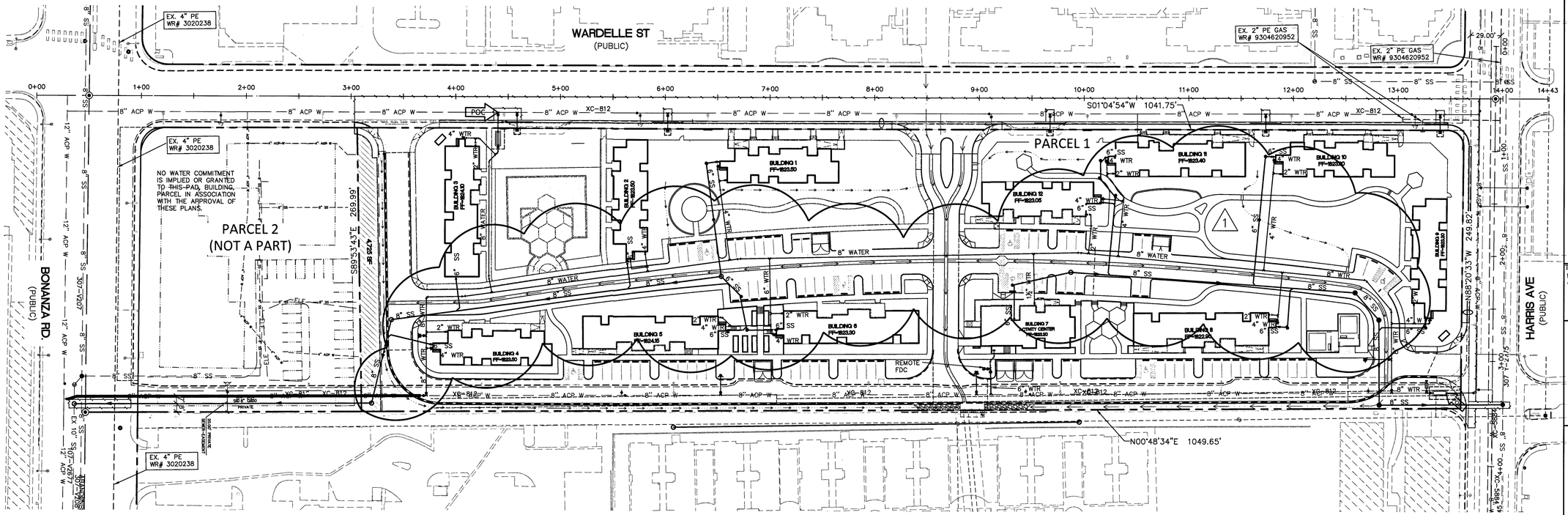
L19-00078
107V7651

HC-3

Plotted On: 12-30-19

HORIZONTAL CONTROL PLAN CURB DATA

"WESTLAND MIRABELLA LLC"
APN 139-25-404-002



"D I PROPERTIES INC"
APN 139-25-405-009

"CITY OF LAS VEGAS"
APN 139-25-405-008

NORTH

AVOID HITTING OVERHEAD POWER LINES. IT'S COSTLY
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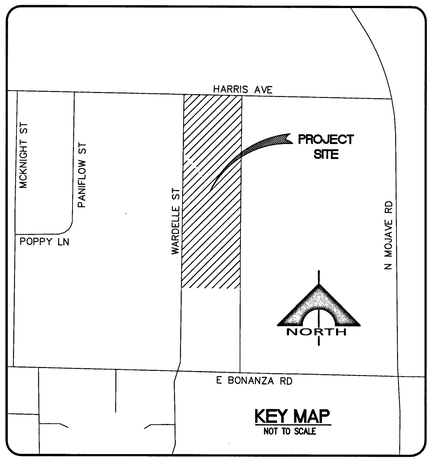
50' 0' 25' 50' 100'
SCALE: 1" = 50'



KEY MAP
NOT TO SCALE

1

REVISION TABLE:	FOR SHEET MU-1
AREA	CHANGE
ALL ON-SITE BUILDINGS	POINT OF CONNECTION AT EACH BUILDING CHANGED FROM INDIVIDUAL UNIT SERVICES, TO A SINGLE CONNECTION POINT FOR SEWER AND WATER AT EACH BUILDING.
SEWER LATERALS	ALL SEWER LATERALS TO EACH BUILDING WERE RE-SIZED FROM 4" TO 6"

APPROVED FOR CONSTRUCTION
1-14-20
LAS VEGAS FIRE AND RESCUE — DATE
FIRE FLOW 1,500 GPM AT 20 PSI RESIDUAL

APPROVED FOR CONSTRUCTION
Van Hall 11/23/20
LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES
PROJECT NO. 135667 FIRST APPROVAL DATE: 5/6/19
LVVWD APPROVED FIRE FLOW: TOTAL 1500 GPM/ONSITE 1500 GPM

SOUTHERN NEVADA - SOUTHWEST GAS CORPORATION
APPROVED FOR CONSTRUCTION
01/30/2020
SOUTHWEST GAS CORP. — DATE

FIRE FLOW CALCULATIONS

BASED ON SQUARE FOOTAGE: 13,020 SQUARE FEET
LARGEST AREA BETWEEN 4-HOUR AREA SEPARATION WALLS: N/A SQUARE FEET
BUILDING HEIGHT: 27 FEET
NUMBER OF STORIES: 2 FLOOR
TYPE OF CONSTRUCTION: TYPE V-B
FULL AUTOMATIC FIRE SPRINKLER SYSTEM: YES 13R 1500 GPM
HIGH PILED COMBUSTIBLE STORAGE: NO

FIRE FLOW REQUIREMENT = 1,500 GPM AT 20 PSI RESIDUAL PRESSURE. SPRINKLER DEMAND GPM/HOSE STREAM GPM REFERENCE AMEND IFC SECTION B105.2

EASEMENT WITH TREES, SHRUBS, DECORATIVE ROCKS, BLOCK WALL OR FENCE

TREES, SHRUBS, OR DECORATIVE ROCKS, AND ANY BLOCK WALL OR OTHER FENCE MATERIAL, SHALL BE DESIGNED AND CONSTRUCTED AROUND THE EASEMENT(S) TO ALLOW THE DISTRICT ACCESS TO THE VAULT(S), BACKFLOW ASSEMBLIES, AND PIPING FROM THE ADJACENT RIGHT-OF-WAY.

REDUCED PRESSURE PRINCIPLE ASSEMBLY (RPPA) (2) 6"

APPROVED REDUCED PRESSURE PRINCIPLE ASSEMBLY(S) SHALL BE INSTALLED. NO WATER SHALL BE TAKEN FROM A SERVICE REQUIRING BACKFLOW PREVENTION UNTIL THE REDUCED PRESSURE PRINCIPLE ASSEMBLY HAS BEEN SUCCESSFULLY TESTED BY LVVWD. ANY BLOCK WALL OR OTHER FENCE MATERIAL SHALL BE DESIGNED AND CONSTRUCTED AROUND THE OUTSIDE OF THE EASEMENTS(S) TO ALLOW THE DISTRICT DIRECT ACCESS FROM THE ADJACENT RIGHT-OF-WAY. EASEMENTS SHALL BE CLEARLY MARKED OR STAKED PRIOR TO THE START OF CONSTRUCTION.

BENCHMARK

CITY OF LAS VEGAS BENCHMARK STATION: BLV0125SSW6

DESCRIPTION: RIVET AND ALUMINUM PLATE IN TOP OF CURB NORTHWEST CORNER OF MANNING STREET AND BONANZA ROAD.

ELEVATION: 554.758 METERS
1820.07 FEET (U.S. SURVEY FEET) NAVD88

BASIS OF BEARINGS

GRID NORTH AS DEFINED BY THE CENTRAL MERIDIAN OF THE NEVADA COORDINATE REFERENCE SYSTEM (NCRS), LAS VEGAS ZONE, NORTH AMERICAN DATUM OF 1983; SAID MERIDIAN BEING COINCIDENT WITH 114°58' WEST OF THE GREENWICH MERIDIAN.

LINEAR UNIT: US SURVEY FOOT (FTUS)

DATUM (REFERENCE FRAME): NAD 83 (2011) EPOCH 2010.00
NEVADA COORDINATE REFERENCE SYSTEM (NCRS)

LAS VEGAS

PROJECTION: TRANSVERSE MERCATOR
STANDARD PARALLEL (AND LATITUDE OF GRID ORGIN): 36°15'00"N
LONGITUDE OF CENTRAL MERIDIAN: 114°58'00"W
NORTHING AT GRID ORIGIN: 200,000.000 M (656,166.6667 FTUS)
EASTING AT CENTRAL MERIDIAN: 100,000.000 M (328,083.3333 FTUS)
SCALE FACTOR ON CENTRAL MERIDIAN; 1.0001 (EXACT)

NOTES:
1. ALL DISTANCES AND BEARINGS SHOWN HEREON ARE PROJECTED (GRID) VALUES BASED ON THE PRECEDING PROJECTION DEFINITION. THE PROJECTION WAS DEFINED SUCH THAT PROJECTED (GRID) DISTANCES ARE EQUIVALENT TO "GROUND" DISTANCES IN THE PROJECT AREA.
2. GRID BEARINGS SHOWN HEREON (OR IMPLIED BY GRID COORDINATES) DO NOT EQUAL GEODETIC BEARINGS DUE TO MERIDIAN CONVERGENCE.

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NV LIC. #5168

GCW
ENGINEERS \ SURVEYORS
1555 S. RAINBOW BLVD LAS VEGAS, NV 89146
T: 702.804.2000 gcwengineering.com

STATE OF NEVADA — PROFESSIONAL ENGINEER — TODD M. KELLEY — No. 14711 — CIVIL — Exp. 6/30/2021
1-2-2020

Wardelle Street Townhouses
IFB No. B19012
SE corner of N Wardelle St. and E Harris Ave.
APN # 139-25-405-100-39, 40, 41
Las Vegas, Nevada, 89101
Southern Nevada Regional Housing Authority, (SNRHA)

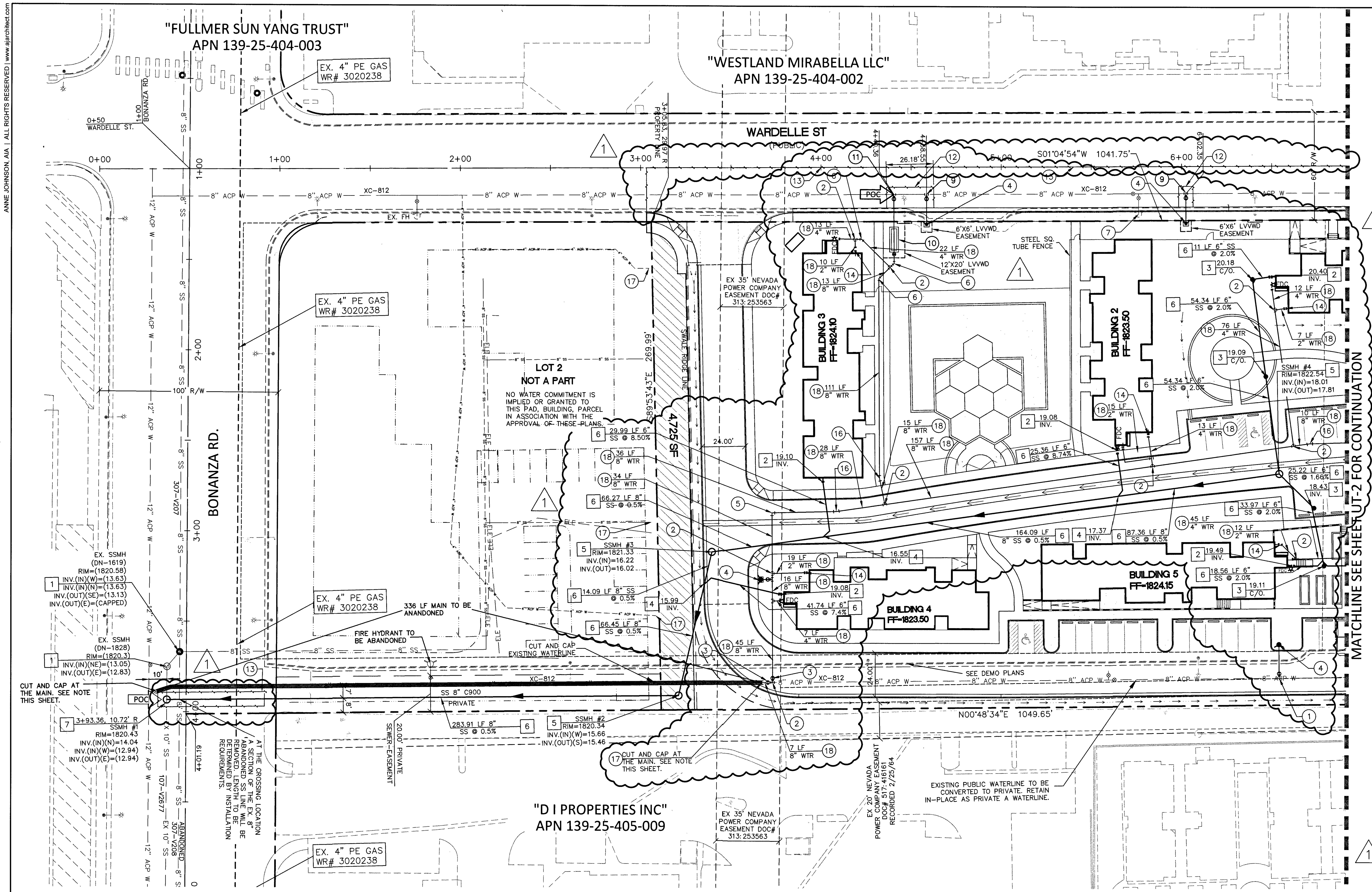
IF THE ABOVE DIMENSION DOES NOT MEASURE ONE INCH (1") EXACTLY THIS DRAWING WILL HAVE BEEN ENLARGED OR REDUCED, AFFECTING ALL LABELED SCALES.

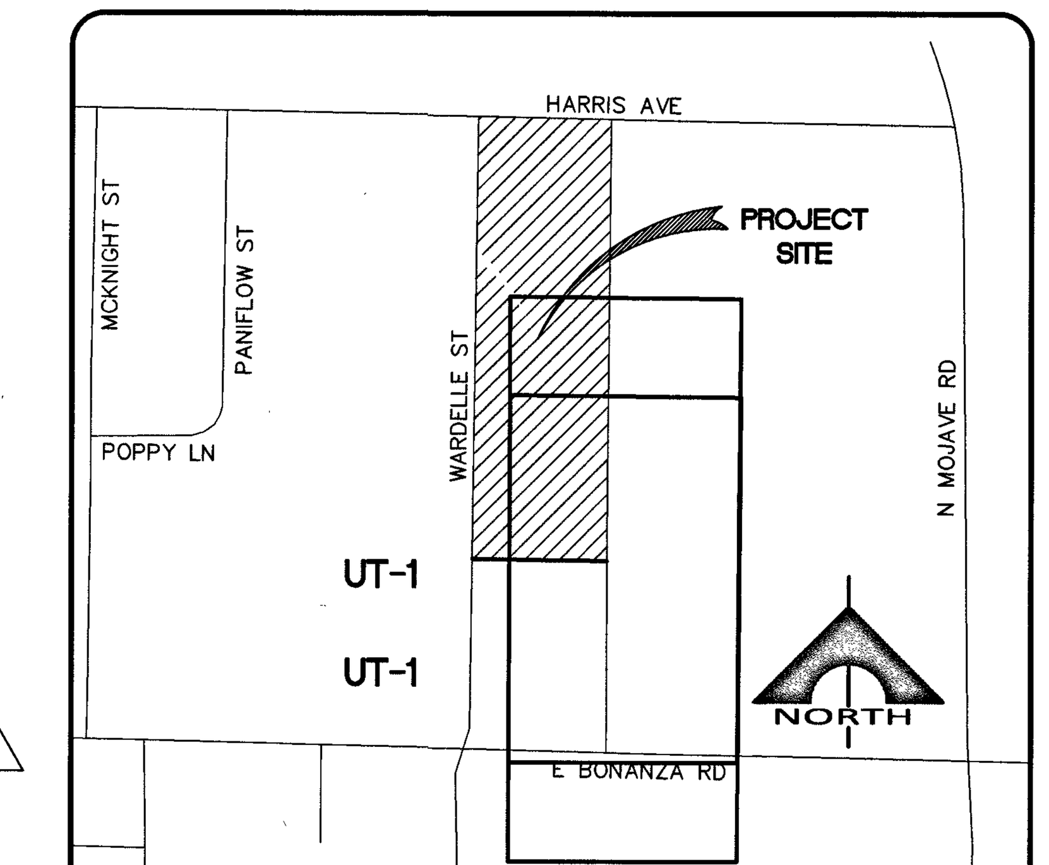
	REVISIONS	DATE
1	V.E. REVS	11.21.19

Date:	02/12/2019
Scale:	AS NOTED
Drawn:	DRL
Job:	17008
Sheet:	8 OF 17
Phase:	100% DD

L19-00078
107V7651
MU-1
Plotted On: 12-30-19

MASTER UTILITY PLAN





KEY MAP
NOT TO SCALE

WATER CONSTRUCTION NOTES

1. INSTALL 8" X 6" TEE PER UDACS PLATE NO. 31.
2. INSTALL TEE PER UDACS PLATE NO. 31, SEE PLAN FOR SIZE.
3. INSTALL GATE VALVE PER UDACS PLATE NO. 30 & 39. SEE PLAN FOR SIZE.
4. INSTALL FIRE HYDRANT ASSEMBLY PER UDACS PLATE NO. 40.
5. INSTALL 90° BEND PER UDACS PLATE NO. 31, SEE PLAN FOR SIZE.
6. INSTALL 45° BEND PER UDACS PLATE NO. 31, SEE PLAN FOR SIZE.
7. REMOVE AND ABANDON EXISTING FIRE HYDRANT ASSEMBLY PER UDACS SECTION 3.21. SEE SHEET TR-1.
8. INSTALL REDUCER PER UDACS PLATE NO. 30, SEE PLAN FOR SIZE.
9. CONNECT TO EXISTING 8" WATER WITH 8"X6" TAPPING SLEEVE AND 6" TAPPING VALVE PER UDACS PLATE NO. 30, 34, 39, & SECTION 2.24.01A.
10. INSTALL 4" OCTAVE METER & 6" RPPA PER DETAIL 1 SHEET DT-3
11. CONNECT TO EXISTING 8" WATER WITH 8"X8" TAPPING SLEEVE AND 8" TAPPING VALVE PER UDACS PLATE NO. 30, 34, 39, & SECTION 2.24.01A.
12. TRENCH BACK FILL, AND COMPACT TO 95%, AND/OR PER APPROVED GEO TECHNICAL REPORT. REPLACE AC PER ½ STREET IMPROVEMENTS SEE NOTE 13.
13. SAW-CUT TO SMOOTH EDGE AND FEATHER IN TO MATCH EXISTING ASPHALT GRADE. PAVEMENT RESTORATION PER CCAUSD DWG. NO. 500.3, 500.5, & 503.
14. POINT OF CONNECTION, SEE PLUMBING PLANS FOR CONTINUATION.
15. INSTALL 22.5° BEND PER UDACS PLATE NO. 31, SEE PLAN FOR SIZE.
16. INSTALL 11.25° BEND PER UDACS PLATE NO. 31, SEE PLAN FOR SIZE.
17. CUT AND CAP.
18. INSTALL PVC WATERLINE PER UDACS PLATE NO. 16 & 17.
19. INSTALL ¾" IRRIGATION STUB, WITH RPPA. SEE LANDSCAPING PLANS FOR CONTINUATION AND DETAILS.
20. REMOVE EXISTING METER AND ABANDON SERVICE PER UDACS SEC. 2.17.04
21. INSTALL WYE CONNECTION PER UDACS PLATE NO. 31, SEE PLAN FOR SIZE.

SEWER CONSTRUCTION NOTES

1. EX. 48" SSMH PER CLV #307-V469A PROTECT IN PLACE.
2. AT BUILDING POINT OF CONNECTIONS, SEE PLUMBING PLANS FOR CONTINUATION.
3. INSTALL CLEANOUT PER DCSWCS STD. DWG. NO. SD-24
4. ALL SANITARY SEWER LATERAL CONNECTING TO SUB-MAIN, OR MAIN SEWER LINE, TO BE CONNECTED WITH WYE JOINTS. PER DCSWCS STD. SD-20.
5. INSTALL 48" SANITARY SEWER MANHOLE PER DCSWCS STD. DWG. NO. SD-1, SD-4, (PRIVATE).
6. INSTALL PVC SANITARY SEWER PVC LINES (PRIVATE), (SEE PLAN FOR SIZE), PER DCSWCS 2.3.2B SPEC., AND DCSWCS SD-17, SD-22, AND SD-25.
7. INSTALL 48" SANITARY SEWER MANHOLE PER DCSWCS STD. DWG. NO. SD-1, SD-4, (PUBLIC).

CONTRACTOR TO FIELD VERIFY SIZE, LOCATION AND INVERT OF EXISTING PIPE, AND NOTIFY ENGINEER OF ANY DISCREPANCIES PRIOR TO NEW SEWER CONSTRUCTION

REVISION TABLE: FOR SHEET UT-1

AREA	CHANGE
ON-SITE BUILDINGS	WATER AND SEWER SERVICES CHANGED FROM INDIVIDUAL SERVICE TO EACH UNIT TO A SINGLE SERVICE FOR EACH BUILDING.
WARDELLE STREET	SAW-CUT LINE MOVED TO STREET CENTERLINE.
HARRIS AVENUE	SAW-CUT LINE MOVED TO BIKE LANE LINE.
UTILITY LINE ANNOTATION	ANNOTATION ADDED TO UTILITY LINES FROM TABLE ON UT-3.
SEWER CONSTRUCTION NOTES	SEWER CONSTRUCTION NOTES WERE UPDATED TO 2019 STANDARD DRAWINGS.
SEWER CLEAN-OUT ADJUSTED BETWEEN BUILDING 5 AND 6.	DUE TO RISER ROOM STEPS ADDED, SEWER CLEAN-OUT, NEEDED TO BE REVISED
BONAZA SEWER	ADDED UTILITY TRENCH SAW-CUT LINE.

30' 0' 15' 30'
SCALE: 1" = 30'
NORTH

DRY UTILITY NOTES (LVVWD)

MAINTAN A MINIMUM 3' PARALLEL SEPARATION. MAINTAIN MINIMUM 12" VERTICAL SEPARATION AT ALL POINTS OF CROSSING.

DISPOSAL OF ASBESTOS CEMENT PIPE

DISPOSAL OF ASBESTOS CEMENT PIPE (ACP) SHALL BE IN ACCORDANCE WITH ALL LOCAL, STATE AND FEDERAL REGULATIONS.

ABANDONED VALVES CUT AND CAP

All valves to be abandoned shall be abandoned in the closed position, unless shown otherwise, be removing a minimum of the top twenty-four (24) inches of the valve box, and then filling the bottom of the box with a minimum of eight (8) inches of sand or Type II aggregate base, the remaining portion of the valve box shall be filled with concrete having a compressive strength of at least two thousand (2,000) psi. the lateral must be cut within one (1) foot of the abandoned valve, or as shown on plans, and capped. in accordance with the provisions of UDACS Plate 31.

FIRE FLOW CALCULATIONS

BASED ON SQUARE FOOTAGE:	13,020	SQUARE FEET
LARGEST AREA BETWEEN 4-HOUR AREA SEPARATION WALLS:	N/A	SQUARE FEET
BUILDING HEIGHT:	27	FEET
NUMBER OF STORIES:	2	FLOOR
TYPE OF CONSTRUCTION:	TYPE V-B	
FULL AUTOMATIC FIRE SPRINKLER SYSTEM:	YES 13 R 250 GPM	
HIGH PILED COMBUSTIBLE STORAGE:	NO	

FIRE FLOW REQUIREMENT = 1,500 GPM AT 20 PSI RESIDUAL PRESSURE. SPRINKLER DEMAND GPM/HOSE STREAM GPM REFERENCE AMEND IFC SECTION B105.2

SOUTHERN NEVADA - SOUTHWEST GAS CORPORATION

APPROVED FOR CONSTRUCTION

SOUTHWEST GAS CORP. 1/30/2020 DATE

APPROVED FOR CONSTRUCTION

LAS VEGAS FIRE AND RESCUE 1-14-20 DATE
FIRE FLOW 1,500 GPM AT 20 PSI RESIDUAL

APPROVED FOR CONSTRUCTION

1/23/20
LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES
PROJECT NO. 135667 FIRST APPROVAL DATE: 5/6/19
LVVWD APPROVED FIRE FLOW: TOTAL 1500 GPM/ONSITE 1500 GPM

REDUCED PRESSURE PRINCIPLE ASSEMBLY (RPPA) (2) 6"

APPROVED REDUCED PRESSURE PRINCIPLE ASSEMBLY(S) SHALL BE INSTALLED. NO WATER SHALL BE TAKEN FROM A SERVICE REQUIRING BACKFLOW PREVENTION UNTIL THE REDUCED PRESSURE PRINCIPLE ASSEMBLY HAS BEEN SUCCESSFULLY TESTED BY LVVWD. ANY BLOCK WALL OR OTHER FENCE MATERIAL SHALL BE DESIGNED AND CONSTRUCTED AROUND THE OUTSIDE OF THE EASMENTS(S) TO ALLOW THE DISTRICT DIRECT ACCESS FROM THE ADJACENT RIGHT-OF-WAY. EASEMENTS SHALL BE CLEARLY MARKED OR STAKED PRIOR TO THE START OF CONSTRUCTION.

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BENCHMARK

CITY OF LAS VEGAS BENCHMARK STATION: 8LV0125SSW6

DESCRIPTION: RIVET AND ALUMINUM PLATE IN TOP OF CURB NORTHWEST CORNER OF MANNING STREET AND BONANZA ROAD.

ELEVATION: 554.758 METERS
1820.07 FEET (U.S. SURVEY FEET) NAVD88

BASIS OF BEARINGS

GRID NORTH AS DEFINED BY THE CENTRAL MERIDIAN OF THE NEVADA COORDINATE REFERENCE SYSTEM (NCRS), LAS VEGAS ZONE, NORTH AMERICAN DATUM OF 1983; SAID MERIDIAN BEING COINCIDENT WITH 114°58' WEST OF THE GREENWICH MERIDIAN.

LINEAR UNIT: US SURVEY FOOT (FTUS)

DATUM (REFERENCE FRAME): NAD 83 (2011) EPOCH 2010.00
NEVADA COORDINATE REFERENCE SYSTEM (NCRS)

LAS VEGAS

PROJECTION: TRANSVERSE MERCATOR
STANDARD PARALLEL (AND LATITUDE OF GRID ORGIN): 36°15'00"N
LONGITUDE OF CENTRAL MERIDIAN: 114°58'00"W
NORTHING AT GRID ORIGIN: 200,000.000 M (656,166.6667 FTUS)
EASTING AT CENTRAL MERIDIAN: 100,000.000 M (328,083.3333 FTUS)
SCALE FACTOR ON CENTRAL MERIDIAN; 1.0001 (EXACT)

NOTES:
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NV LIC. #5168

GCW ENGINEERS \ SURVEYORS
1555 S. RAINBOW BLVD LAS VEGAS, NV 89146
T: 702.804.2000 gcwengineering.com

Wardelle Street Townhouses
IFB No. B19012
SE corner of N Wardelle St. and E Harris Ave.
APN # 139-254-100-39, 40, 41
Las Vegas, Nevada, 89101
Southern Nevada Regional Housing Authority, (SNRHA)

IF THE ABOVE DIMENSION DOES NOT MEASURE ONE INCH (1") EXACTLY, THIS DRAWING WILL HAVE BEEN ENLARGED OR REDUCED, AFFECTING ALL LABELED SCALES.

	REVISIONS	DATE
1	V.E. REV	11.21.19

Date:	02/12/2019
Scale:	AS NOTED
Drawn:	DRL
Job:	17008
Sheet:	9 OF 17
Phase:	100% DD

L19-00078
107V7651
UT-1

UTILITY PLAN 1

Plotted On: 12-30-19

AVOID HITTING OVERHEAD POWER LINES. IT'S COSTLY
CALL BEFORE YOU DO OVERHEAD
1-702-227-2929

FAST
Call before you UnderGround
1-702-432-5300
FREEWAY AND ARTERIAL SYSTEM OF TRANSPORTATION

Call before you Dig
Avoid cutting underground utility lines. It's costly.
Call
OR
1-800-227-2600

"WESTLAND MIRABELLA LLC"
APN 139-25-404-002

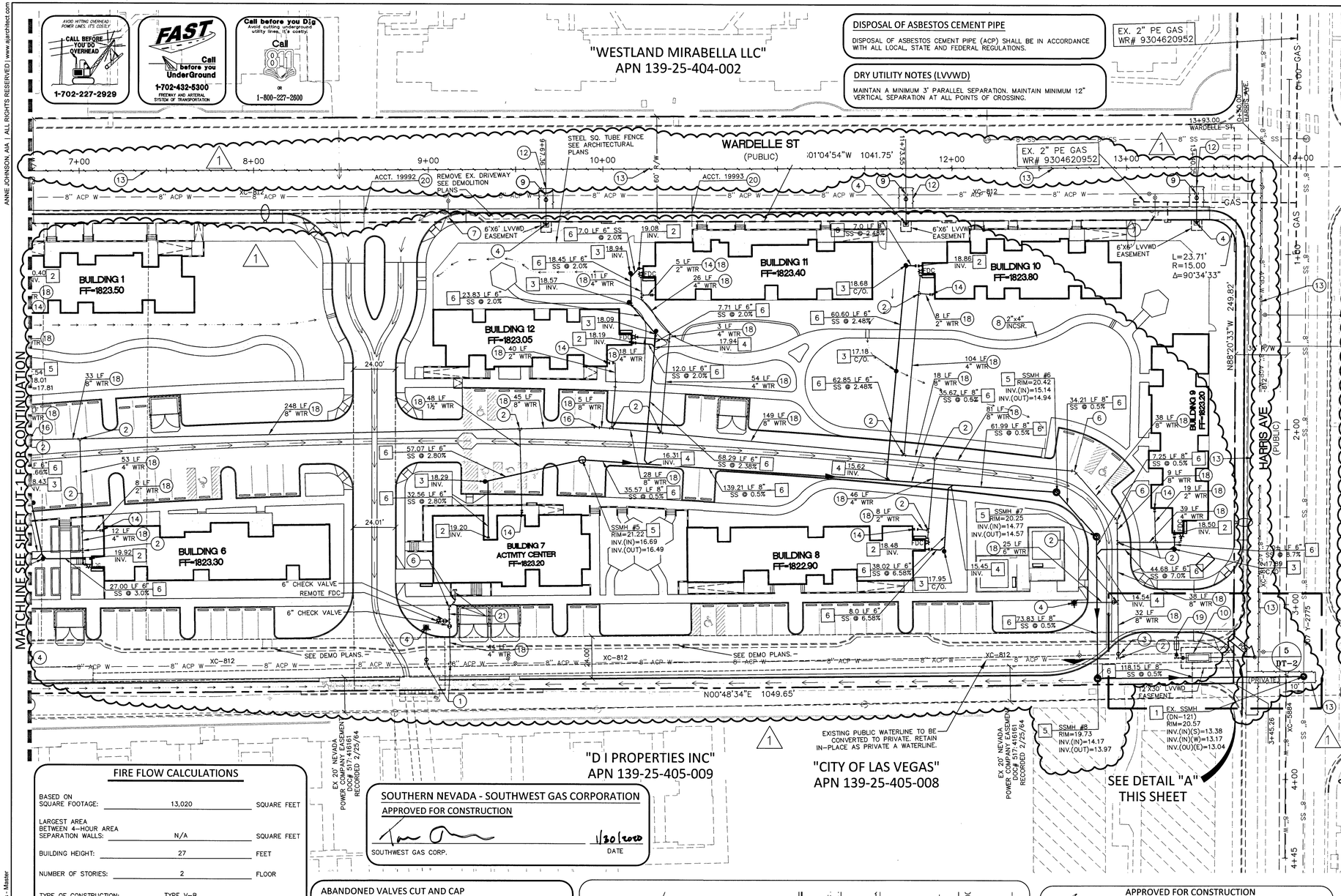
DISPOSAL OF ASBESTOS CEMENT PIPE

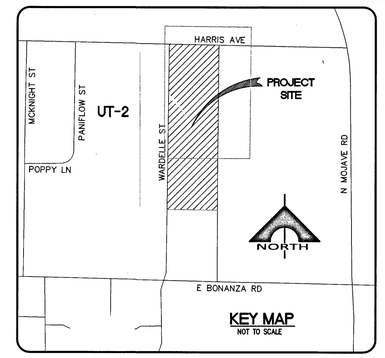
DISPOSAL OF ASBESTOS CEMENT PIPE (ACP) SHALL BE IN ACCORDANCE WITH ALL LOCAL, STATE AND FEDERAL REGULATIONS.

DRY UTILITY NOTES (LVVWD)

MAINTAN A MINIMUM 3' PARALLEL SEPARATION. MAINTAIN MINIMUM 12" VERTICAL SEPARATION AT ALL POINTS OF CROSSING.

EX. 2" PE GAS
WR# 9304620952





KEY MAP
NOT TO SCALE

WATER CONSTRUCTION NOTES

1. INSTALL 8" X 6" TEE PER UDACS PLATE NO. 31.
2. INSTALL TEE PER UDACS PLATE NO. 31, SEE PLAN FOR SIZE.
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15. INSTALL 22.5° BEND PER UDACS PLATE NO. 31, SEE PLAN FOR SIZE.
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17. CUT AND CAP.
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SEWER CONSTRUCTION NOTES

1. EX. 48" SSMH PER CLV #307-V469A PROTECT IN PLACE.
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CONTRACTOR TO FIELD VERIFY SIZE, LOCATION AND INVERT OF EXISTING PIPE, AND NOTIFY ENGINEER OF ANY DISCREPANCIES PRIOR TO NEW SEWER CONSTRUCTION

FIRE FLOW CALCULATIONS

BASED ON SQUARE FOOTAGE:	13,020	SQUARE FEET
LARGEST AREA BETWEEN 4-HOUR AREA SEPARATION WALLS:	N/A	SQUARE FEET
BUILDING HEIGHT:	27	FEET
NUMBER OF STORIES:	2	FLOOR
TYPE OF CONSTRUCTION:	TYPE V-B	
FULL AUTOMATIC FIRE SPRINKLER SYSTEM:	YES 13 R 250 GPM	
HIGH PILED COMBUSTIBLE STORAGE:	NO	

FIRE FLOW REQUIREMENT = 1,500 GPM AT 20 PSI RESIDUAL PRESSURE. SPRINKLER DEMAND GPM/HOSE STREAM GPM REFERENCE AMEND IFC SECTION 8105.2

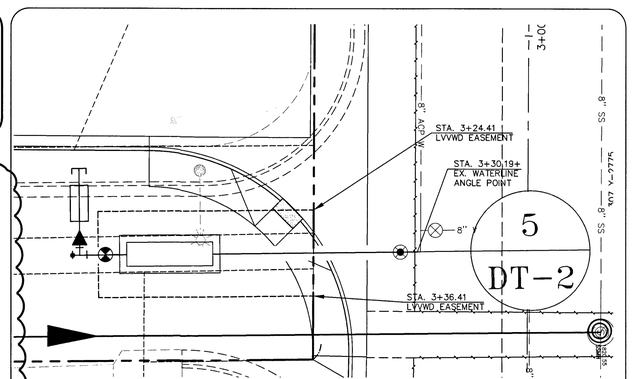
SOUTHERN NEVADA - SOUTHWEST GAS CORPORATION
APPROVED FOR CONSTRUCTION
SOUTHWEST GAS CORP. — DATE 1/30/2020

"D I PROPERTIES INC"
APN 139-25-405-009

"CITY OF LAS VEGAS"
APN 139-25-405-008

ABANDONED VALVES CUT AND CAP

All valves to be abandoned shall be abandoned in the closed position, unless shown otherwise, be removing a minimum of the top twenty-four (24) inches of the valve box, and then filling the bottom of the box with a minimum of eight (8) inches of sand or Type II aggregate base, the remaining portion of the valve box shall be filled with concrete having a compressive strength of at least two thousand (2,000) psi. the lateral must be cut within one (1) foot of the abandoned valve, or as shown on plans, and capped. in accordance with the provisions of UDACS Plate 31.



DETAIL "A" WATER MAIN CONNECTION SECTION

APPROVED FOR CONSTRUCTION
LAS VEGAS FIRE AND RESCUE — DATE 1-14-20
FIRE FLOW 1,500 GPM AT 20 PSI RESIDUAL

APPROVED FOR CONSTRUCTION
LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES
PROJECT NO. 135667 FIRST APPROVAL DATE: 5/6/19
LVVWD APPROVED FIRE FLOW: TOTAL 1500 GPM/ONSITE 1500 GPM

REDUCED PRESSURE PRINCIPLE ASSEMBLY (RPPA) (2) 6"

APPROVED REDUCED PRESSURE PRINCIPLE ASSEMBLY(S) SHALL BE INSTALLED. NO WATER SHALL BE TAKEN FROM A SERVICE REQUIRING BACKFLOW PREVENTION UNTIL THE REDUCED PRESSURE PRINCIPLE ASSEMBLY HAS BEEN SUCCESSFULLY TESTED BY LVVWD. ANY BLOCK WALL OR OTHER FENCE MATERIAL SHALL BE DESIGNED AND CONSTRUCTED AROUND THE OUTSIDE OF THE EASMENTS(S) TO ALLOW THE DISTRICT DIRECT ACCESS FROM THE ADJACENT RIGHT-OF-WAY. EASEMENTS SHALL BE CLEARLY MARKED OR STAKED PRIOR TO THE START OF CONSTRUCTION.

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BENCHMARK

CITY OF LAS VEGAS BENCHMARK STATION: 8LV0125SSW6

DESCRIPTION: RIVET AND ALUMINUM PLATE IN TOP OF CURB NORTHWEST CORNER OF MANNING STREET AND BONANZA ROAD.

ELEVATION: 554.758 METERS
1820.07 FEET (U.S. SURVEY FEET) NAVD88

BASIS OF BEARINGS

GRID NORTH AS DEFINED BY THE CENTRAL MERIDIAN OF THE NEVADA COORDINATE REFERENCE SYSTEM (NCRS), LAS VEGAS ZONE, NORTH AMERICAN DATUM OF 1983; SAID MERIDIAN BEING COINCIDENT WITH 114°58' WEST OF THE GREENWICH MERIDIAN.

LINEAR UNIT: US SURVEY FOOT (FTUS)

DATUM (REFERENCE FRAME): NAD 83 (2011) EPOCH 2010.00
NEVADA COORDINATE REFERENCE SYSTEM (NCRS)

LAS VEGAS

PROJECTION: TRANSVERSE MERCATOR
STANDARD PARALLEL (AND LATITUDE OF GRID ORGIN): 36°15'00"N
LONGITUDE OF CENTRAL MERIDIAN: 114°58'00"W
NORTHING AT GRID ORIGIN: 200,000.000 M (656,166.6667 FTUS)
EASTING AT CENTRAL MERIDIAN: 100,000.000 M (328,083.3333 FTUS)
SCALE FACTOR ON CENTRAL MERIDIAN; 1.0001 (EXACT)

NOTES:
1. ALL DISTANCES AND BEARINGS SHOWN HEREON ARE PROJECTED (GRID) VALUES BASED ON THE PRECEDING PROJECTION DEFINITION. THE PROJECTION WAS DEFINED SUCH THAT PROJECTED (GRID) DISTANCES ARE EQUIVALENT TO "GROUND" DISTANCES IN THE PROJECT AREA.
2. GRID BEARINGS SHOWN HEREON (OR IMPLIED BY GRID COORDINATES) DO NOT EQUAL GEODETIC BEARINGS DUE TO MERIDIAN CONVERGENCE.

REVISION TABLE:	FOR SHEET UT-2
AREA	CHANGE
ON-SITE BUILDINGS	SEWER AND WATER SERVICE CHANGED FROM INDIVIDUAL SERVICES TO EACH UNIT TO A SINGLE SERVICE FOR EACH BUILDING.
WARDELLE STREET	SAW-CUT LINE MOVED TO STREET CENTERLINE.
HARRIS AVENUE	SAW-CUT LINE MOVED TO BIKE LANE LINE.
UTILITY LINE ANNOTATION	ANNOTATION ADDED TO UTILITY LINES FROM TABLES ON UT-3.
SEWER CONSTRUCTION NOTES	SEWER CONSTRUCTION NOTES UPDATED TO 2019 STANDARD DRAWINGS.
SEWER CLEAN-OUT ADJUSTED BETWEEN BUILDING 5 AND 6.	DUE TO RISER ROOM STEPS ADDED, SEWER CLEAN-OUT, NEEDED TO BE REVISED

NORTH
30' 0' 15' 30'
SCALE: 1" = 30'

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architecture • graphic
Anne Johnson, AIA
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NV LIC. #5168

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T: 702.804.2000 gcwengineering.com

STATE OF NEVADA — TODD L. LEY — No. 14711 — PROFESSIONAL ENGINEER — 1-2-2020

Wardelle Street Townhouses
IFB No. B19012

SE corner of N Wardelle St. and E Harris Ave.
APN # 139-25-404-100-39, 40, 41
Las Vegas, Nevada, 89101
Southern Nevada Regional Housing Authority, (SNRHA)

IF THE ABOVE DIMENSION DOES NOT MEASURE ONE INCH (1") EXACTLY THIS DRAWING WILL HAVE BEEN ENLARGED OR REDUCED AFFECTING ALL LABELED SCALES.

	REVISIONS	DATE
1	V.E. REVISIONS	11.21.19

Date:	02/12/2019
Scale:	AS NOTED
Drawn:	DRL
Job:	17008
Sheet:	10 OF 17
Phase:	100% DD

L19-00078
107V7651
UT-2

Plotted On: 12-30-19

UTILITY PLAN 2

8" SEWER LINE TABLE			
Line #	Length	MATERIAL	PIPE SLOPE
S1	118.15	PVC	S=0.76%
S2	81.08	PVC	S=0.50%
S3	34.26	PVC	S=0.50%
S4	49.76	PVC	S=0.50%
S5	20.13	PVC	S=0.50%
S6	17.91	PVC	S=0.50%
S7	7.10	PVC	S=0.50%
S8	16.30	PVC	S=0.50%
S9	35.57	PVC	S=0.50%
S10	44.34	PVC	S=0.50%
S11	75.57	PVC	S=0.50%
S12	56.66	PVC	S=0.50%
S21	4.50	PVC	S=0.50%
S22	51.94	PVC	S=0.50%
S23	40.98	PVC	S=0.50%
S24	68.90	PVC	S=0.50%
S25	28.92	PVC	S=0.50%
S27	103.22	PVC	S=0.50%
S101	3.17	PVC	S=0.50%
S111	283.91	PVC	S=0.62%
S112	81.54	PVC	S=0.88%
S136	36.38	PVC	S=0.50%

6" SEWER LINE TABLE			
Line #	Length	MATERIAL	PIPE SLOPE
S28	29.10	PVC	S=1.55%
S29	38.90	PVC	S=1.55%
S30	20.78	PVC	S=1.55%
S31	7.04	PVC	S=1.55%
S32	18.48	PVC	S=1.55%
S33	9.72	PVC	S=1.55%
S34	16.63	PVC	S=1.55%
S35	9.91	PVC	S=1.55%
S36	22.02	PVC	S=1.55%
S37	51.80	PVC	S=2.44%
S38	47.96	PVC	S=1.55%
S39	30.49	PVC	S=1.55%
S40	63.80	PVC	S=1.55%
S41	59.31	PVC	S=1.29%
S42	33.89	PVC	S=1.29%
S43	54.13	PVC	S=1.29%
S44	36.77	PVC	S=1.29%
S45	36.76	PVC	S=1.29%
S46	29.65	PVC	S=2.17%
S47	18.54	PVC	S=2.17%
S48	21.01	PVC	S=2.17%
S49	21.00	PVC	S=2.17%
S50	23.96	PVC	S=2.17%
S51	9.11	PVC	S=2.17%
S53	29.46	PVC	S=2.70%
S54	38.28	PVC	S=2.70%
S55	3.66	PVC	S=2.17%
S56	10.67	PVC	S=1.91%
S57	31.45	PVC	S=1.91%
S58	63.48	PVC	S=1.91%
S102	10.81	PVC	S=1.55%
S103	15.32	PVC	S=1.55%
S104	16.66	PVC	S=1.55%
S108	19.67	PVC	S=1.91%
S126	79.86	PVC	S=2.70%
S127	45.16	PVC	S=1.29%
S128	29.10	PVC	S=2.44%
S129	52.69	PVC	S=2.44%
S130	29.81	PVC	S=2.44%
S131	40.51	PVC	S=3.57%
S132	12.09	PVC	S=3.57%
S133	15.97	PVC	S=3.57%
S137	22.67	PVC	S=3.57%
S138	30.42	PVC	S=2.44%

4" SEWER LINE TABLE			
Line #	Length	MATERIAL	PIPE SLOPE
S59	26.29	PVC	S=20.23%
S60	25.11	PVC	S=19.07%
S61	25.11	PVC	S=17.04%
S62	29.73	PVC	S=15.81%
S63	15.65	PVC	S=26.51%
S64	15.72	PVC	S=26.07%
S65	15.37	PVC	S=24.46%
S66	29.07	PVC	S=15.96%
S67	30.27	PVC	S=15.0%
S68	29.85	PVC	S=14.84%
S69	29.77	PVC	S=15.01%
S70	22.44	PVC	S=23.70%
S71	26.08	PVC	S=20.39%
S72	29.14	PVC	S=16.57%
S73	23.33	PVC	S=9.90%
S74	21.96	PVC	S=6.74%
S75	23.40	PVC	S=3.63%
S76	20.48	PVC	S=16.01%
S77	21.40	PVC	S=8..97%
S78	21.94	PVC	S=3.51%
S79	5.49	PVC	S=67.21%
S80	3.98	PVC	S=71.60%
S81	5.23	PVC	S=21.79%
S82	35.04	PVC	S=9.59%
S83	32.32	PVC	S=9.40%
S84	32.36	PVC	S=7.91%
S85	32.31	PVC	S=6.43%
S86	29.70	PVC	S=11.17%
S87	19.60	PVC	S=5.67%
S88	43.35	PVC	S=5.67%
S90	16.91	PVC	S=2.60%
S91	17.89	PVC	S=9.61%
S92	17.89	PVC	S=6.20%
S93	17.89	PVC	S=3.63%
S94	13.33	PVC	S=2.17%
S95	15.00	PVC	S=19.20%
S96	12.06	PVC	S=17.91%
S97	7.84	PVC	S=13.39%
S98	9.86	PVC	S=13.74%
S99	11.66	PVC	S=17.92%
S100	10.21	PVC	S=12.38%
S107	18.93	PVC	S=2.70%
S109	21.23	PVC	S=5.70%
S110	30.64	PVC	S=5.70%
S113	29.12	PVC	S=18.71%
S114	46.27	PVC	S=12.06%
S115	24.55	PVC	S=14.34%
S116	15.76	PVC	S=2.00%
S117	38.12	PVC	S=15.51%
S120	33.90	PVC	S=2.00%
S121	5.91	PVC	S=46.19%
S122	39.54	PVC	S=5.38%
S124	23.87	PVC	S=2.00%
S125	33.61	PVC	S=2.44%
S134	17.64	PVC	S=12.02%

8" WATERLINE TABLE		
Line #	Length	Direction
W4	37.33	N50°42'04.37"E
W5	274.82	N06°30'56.16"E
W21	35.67	N00°07'36.94"E
W22	265.39	S06°51'10.20"E
W29	14.85	S79°49'53.88"W
W32	12.10	N44°03'49.71"W
W34	37.98	S89°03'49.71"E
W198	13.11	S89°56'41.28"W
W199	33.60	S89°56'41.28"W
W201	325.35	S00°03'18.72"E
W204	78.73	N89°11'03.23"W
W207	93.79	N88°55'07.37"W
W209	110.42	S88°55'06.12"E

6" WATERLINE TABLE		
Line #	Length	Direction
W35	25.01	N00°48'56.77"E
W36	20.84	S89°11'03.23"E
W37	18.60	S89°11'03.23"E
W38	6.53	N00°07'36.94"E
W39	16.50	N88°55'07.37"W
W40	16.50	N88°55'07.37"W
W41	16.50	N88°55'07.37"W
W42	16.50	N88°55'07.37"W
W43	16.50	N88°55'07.37"W

1½" WATERLINE TABLE		
Line #	Length	Direction
W210	46.47	N89°56'41.28"E

4" WATERLINE TABLE		
Line #	Length	Direction
W46	25.53	N01°12'41.83"E
W47	40.07	S82°43'24.46"E
W48	14.67	N83°29'03.84"W
W52	13.95	S89°07'11.09"E
W53	27.32	N00°52'48.91"E
W54	16.29	N51°30'56.16"E
W55	14.79	N88°55'06.12"W
W56	42.74	S83°29'03.84"E
W57	13.58	S01°03'16.55"W
W58	25.41	S88°56'43.45"E
W59	37.29	S89°55'56.40"E
W60	31.05	S01°04'53.88"W
W61	21.23	N89°35'30.97"W
W62	11.30	N02°10'32.16"E
W64	42.05	N89°57'02.87"W
W65	19.71	S45°56'10.29"W
W66	7.47	N43°52'42.12"W
W67	71.71	N88°52'42.12"W
W74	38.05	N46°05'23.81"E
W75	203.58	N00°52'48.91"E

1" WATERLINE TABLE		
Line #	Length	Direction
W80	28.94	N83°29'03.84"W
W81	7.40	N07°07'14.40"E
W82	114.21	N00°15'01.63"E
W92	19.33	N89°56'41.28"E
W93	23.87	N00°03'18.72"W
W96	29.13	N89°55'56.40"W
W99	59.47	N89°56'41.28"E
W101	187.10	S01°03'16.55"W
W109	13.87	S79°49'53.88"W
W110	82.09	N88°55'06.12"W
W115	18.42	S83°08'49.80"W
W116	3.06	N89°45'10.80"W
W117	117.73	S00°15'01.63"W
W124	1.56	N88°55'06.12"W
W127	14.30	S83°08'49.80"W
W128	9.42	N89°55'48.29"W
W130	51.34	N00°02'57.13"E
W205	122.20	N00°15'01.63"E

4" WATERLINE TABLE		
Line #	Length	Direction
W203	13.61	S89°07'11.09"E

¾" WATERLINE TABLE		
Line #	Length	Direction
W134	17.36	S00°02'23.32"W
W135	17.36	S00°02'23.32"W
W136	17.36	S00°02'23.32"W
W137	17.36	S00°02'23.32"W
W138	17.36	S00°02'23.32"W
W139	17.36	S00°02'23.32"W
W140	13.32	S89°07'11.09"E
W141	13.34	S89°07'11.09"E
W142	7.85	S89°07'11.09"E
W143	7.85	S89°07'11.09"E
W144	7.85	S89°07'11.09"E
W145	15.37	N82°43'39.38"W
W146	15.37	S82°41'01.18"E
W147	15.37	S82°41'01.18"E
W148	15.37	S82°41'01.18"E
W149	15.37	S82°41'01.18"E
W150	8.33	N89°54'06.27"W
W151	8.33	N89°55'56.40"W
W152	7.18	N89°54'20.52"W
W153	14.90	S88°55'06.12"E
W154	14.91	S88°55'06.12"E
W155	14.97	S88°55'06.12"E
W156	14.98	S88°55'06.12"E
W157	15.10	S88°55'06.12"E
W158	15.11	S88°55'06.12"E
W159	12.67	N89°56'41.28"E
W160	12.69	N89°56'41.28"E
W161	12.69	N89°56'41.28"E
W162	33.60	N89°56'41.29"E
W163	20.77	N89°55'56.40"W
W164	19.26	N89°56'20.22"W
W165	20.76	N89°55'56.40"W
W166	9.09	S89°29'53.73"E
W167	9.21	S88°56'43.45"E
W168	9.21	S88°56'43.45"E

¾" WATERLINE TABLE		
Line #	Length	Direction
W169	9.21	S88°56'43.45"E
W170	9.21	S88°56'43.45"E
W171	9.21	S88°56'43.45"E
W172	9.21	S88°56'43.45"E
W173	9.21	S88°56'43.45"E
W174	9.21	S88°56'43.45"E
W175	9.21	S88°56'43.45"E
W176	9.73	N89°55'56.40"W
W177	9.40	N89°12'15.52"W
W178	8.75	N89°55'56.40"W
W179	9.68	S00°04'03.60"W
W180	9.28	S00°04'03.60"W
W181	8.90	S00°04'03.60"W
W182	8.76	S00°04'03.60"W
W183	8.72	S00°04'03.60"W
W184	8.72	N02°10'32.16"E
W185	8.72	N02°10'32.16"E
W186	8.72	N02°10'32.16"E
W188	8.72	N02°10'32.16"E
W189	8.72	N02°10'32.16"E
W190	8.72	N02°10'32.16"E
W191	7.01	N89°55'56.40"W
W192	7.02	N89°55'56.40"W
W193	7.02	N89°55'45.51"W
W194	7.02	N89°55'45.51"W
W195	6.60	N89°55'56.40"W
W196	6.61	N89°55'56.40"W
W198	13.11	S89°56'41.28"W
W199	33.60	S89°56'41.28"W

SHEET NOT USE

1

APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES

PROJECT NO. 135667 FIRST APPROVAL DATE: 5-6-19

ALL WATERLINES INDICATED WITHIN THESE TABLES, ARE PVC PER UDACS PLATE NO. 16 & 17, (SEE PLANS FOR SIZE), UNLESS OTHERWISE SPECIFIED.

ALL SEWERLINES INDICATED WITHIN THESE TABLES, ARE PVC SANITARY SEWER LATERALS, (PRIVATE), (SEE PLAN FOR SIZE), PER DCSWCS SD-17, SD-22, AND SD-25. UNLESS OTHERWISE SPECIFIED.

BENCHMARK

CITY OF LAS VEGAS BENCHMARK STATION: BLV0125SSW6

DESCRIPTION: RIVET AND ALUMINUM PLATE IN TOP OF CURB NORTHWEST CORNER OF MANNING STREET AND BONANZA ROAD.

ELEVATION: 554.758 METERS
1820.07 FEET (U.S. SURVEY FEET) NAVD88

BASIS OF BEARINGS

GRID NORTH AS DEFINED BY THE CENTRAL MERIDIAN OF THE NEVADA COORDINATE REFERENCE SYSTEM (NCRS), LAS VEGAS ZONE, NORTH AMERICAN DATUM OF 1983; SAID MERIDIAN BEING COINCIDENT WITH 114°58' WEST OF THE GREENWICH MERIDIAN.

LINEAR UNIT: US SURVEY FOOT (FTUS)

DATUM (REFERENCE FRAME): NAD 83 (2011) EPOCH 2010.00
NEVADA COORDINATE REFERENCE SYSTEM (NCRS)

LAS VEGAS

PROJECTION: TRANSVERSE MERCATOR
STANDARD PARALLEL (AND LATITUDE OF GRID ORGIN): 36°15'00"N
LONGITUDE OF CENTRAL MERIDIAN: 114°58'00"W
NORTHING AT GRID ORIGIN: 200,000.000 M (656,166.6667 FTUS)
EASTING AT CENTRAL MERIDIAN: 100,000.000 M (328,083.3333 FTUS)
SCALE FACTOR ON CENTRAL MERIDIAN; 1.0001 (EXACT)

NOTES:
1. ALL DISTANCES AND BEARINGS SHOWN HEREON ARE PROJECTED (GRID) VALUES BASED ON THE PRECEDING PROJECTION DEFINITION. THE PROJECTION WAS DEFINED SUCH THAT PROJECTED (GRID) DISTANCES ARE EQUIVALENT TO "GROUND" DISTANCES IN THE PROJECT AREA.
2. GRID BEARINGS SHOWN HEREON (OR IMPLIED BY GRID COORDINATES) DO NOT EQUAL GEODETIC BEARINGS DUE TO MERIDIAN CONVERGENCE.

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STATE OF NEVADA — PROFESSIONAL ENGINEER — TODD N. KELLEY — No. 17821 — CIVIL — Exp. 6/30/2021 — 5-1-19

Wardelle Street Townhouses
IFB No. B19012

SE corner of N Wardelle St. and E Harris Ave.
APN # 139-254-100-39, 40, 41
Las Vegas, Nevada, 89101
Southern Nevada Regional Housing Authority, (SNRHA)

IF THE ABOVE DIMENSION DOES NOT MEASURE ONE INCH (1") EXACTLY, THIS DRAWING WILL HAVE BEEN ENLARGED OR REDUCED, AFFECTING ALL LABELED SCALES.

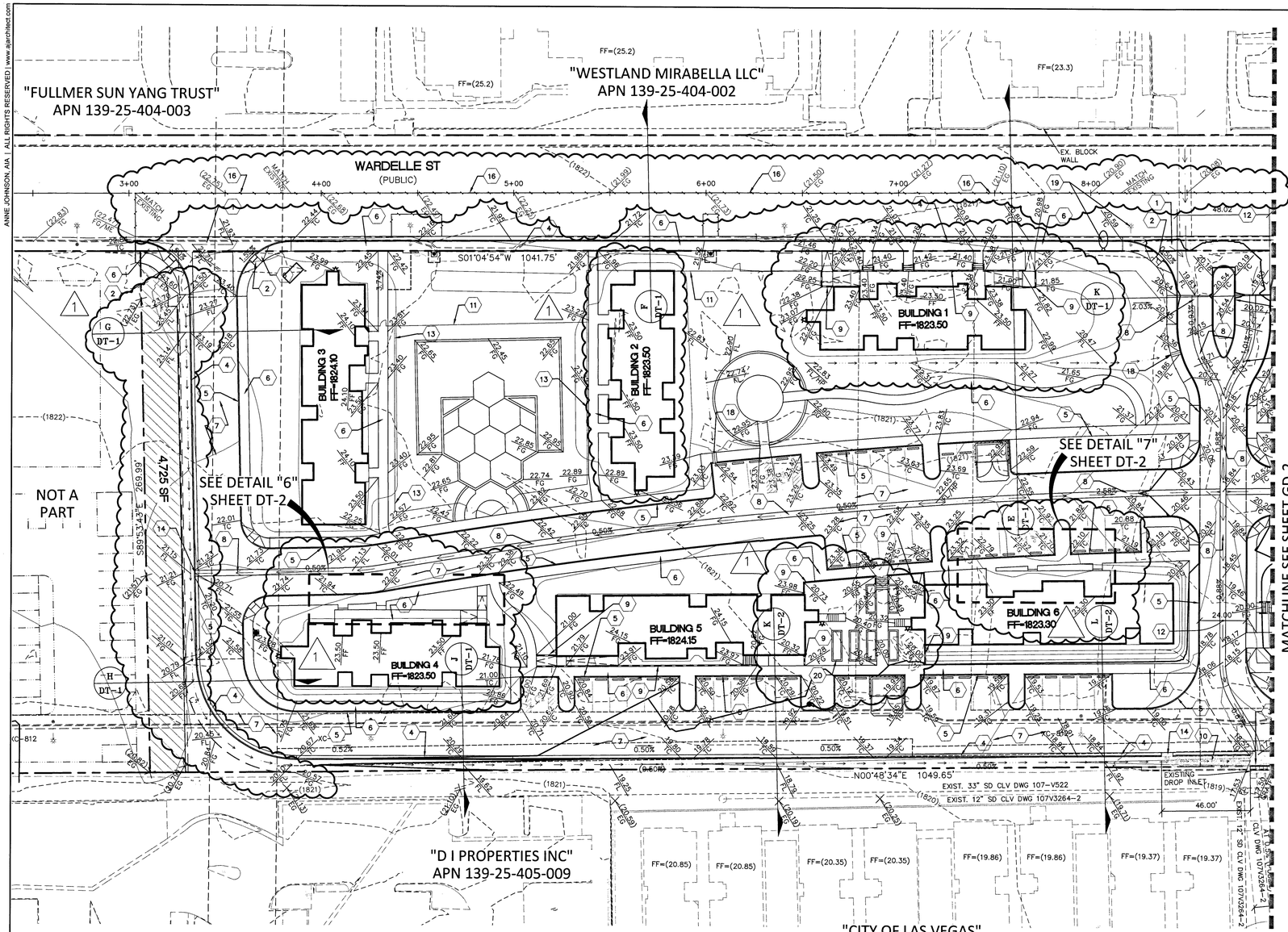
	REVISIONS	DATE
1	SB 2/26/20	

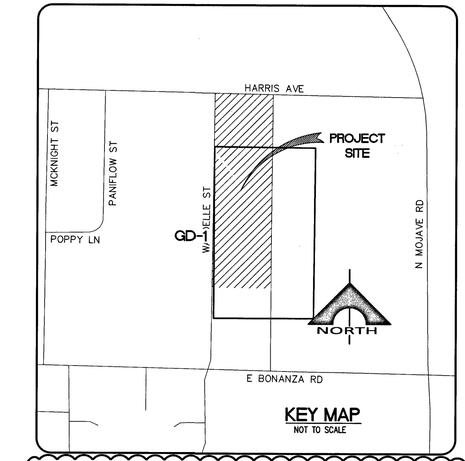
Date:	02/12/2019
Scale:	AS NOTED
Drawn:	DRL
Job:	17008
Sheet:	11 OF 17
Phase:	100% DD

L19-00078
107V7651
UT-3
Plotted On: 04-30-19

UTILITY WATER AND SEWER LINE TABLES.

PRO.#:135667A QS:139-25-SW





KEY MAP
NOT TO SCALE

CONSTRUCTION NOTES

1. INSTALL DRIVEWAY MATCH EX. CURB FL
2. INSTALL SIDEWALK RAMP CASE II ("A", "B" PER PLAN) PER CCAUSD 235, AND/OR (SEE DETAIL 2 ON SHEET DT-3)
3. FOR DETAIL GRADING AT THE EXISTING DROP INLET, SEE DETAIL 4 ON SHEET DT-2.
4. INSTALL "L" CURB & GUTTER PER CCAUSD DWG NO. 216.
5. INSTALL 6" "A" TYPE CURB PER CCAUSD DWG NO. 219.
6. INSTALL 4" THICK CONCRETE WALKWAY PER CCAUSD 234, AND/OR (SEE DETAIL 3 ON SHEET DT-3).
7. INSTALL AC PAVEMENT SECTION PER DETAIL 1 ON SHEET DT-2.
8. INSTALL 3' WIDE CONCRETE VALLEY GUTTER, SEE DETAIL 2 SHEET DT-2.
9. INSTALL RETAINING WALL, SEE ARCHITECTURAL PLANS FOR DETAILS.
10. INSTALL (5.5' WIDE BMP DRAINAGE RIP-RAP SWALE SEE PLAN FOR SIZE).
11. INSTALL TUBULAR STEEL FENCE, AND GATES, SEE ARCHITECTURAL PLANS FOR DETAILS.
12. PUBLIC DRAINAGE EASEMENT TO BE PRIVATELY MAINTAINED BY THE HOA.
13. INSTALL CHAINLINK FENCE, AND GATES, SEE ARCHITECTURAL PLANS FOR DETAILS.
14. CURB OPENING WITH "0" TO 6" CURB TRANSITION FOR "A" AND "L" CURB CONDITIONS PER DETAIL 3 SHEET DT-2
15. INSTALL STEPS SEE ARCHITECTURAL PLANS FOR DETAILS.
16. SAW-CUT TO SMOOTH EDGE AND FEATHER IN TO MATCH EXISTING AC GRADE. PAVEMENT RESTORATION PER CCAUSD DWG. NO. 500.3, 500.5 AND 503.
17. NOT USED.
18. INSTALL SIDEWALK UNDERDRAIN PER CCAUSD DWG NO. 236
19. EXISTING STREET LIGHT TO BE RELOCATED. SEE PLAN FOR NEW LOCATION.
20. FOR LANDSCAPE PLANTERS SEE ARCHITECTURAL PLANS.

NORTH

30' 0' 15' 30'
SCALE: 1" = 30'

1

REVISION TABLE:	FOR SHEET GD-1
AREA	CHANGE
WARDELLE STREET	SAW-CUT LINE MOVED TO STREET CENTERLINE.
HARRIS AVENUE	SAW-CUT LINE MOVED TO BIKE LANE LINE.
SOUTH DRIVE ENTRANCE, & SOUTH LANDSCAPE SWALE	DIAGONAL PARKING STALLS REMOVED, SOUTH DRAINAGE SWALE RE-ALIGNED, RE-GRADED.
BUILDING #1	BUILDING FOOTPRINT CHANGED, REVISED SIDEWALK, STEPS, RAMPS FOR ADA ACCESS.
BUILDING #2	BUILDING FOOTPRINT CHANGED, REVISED SIDEWALK.
BUILDING #4	BUILDING FOOTPRINT CHANGED, REVISED SIDEWALK, STEPS, RAMPS FOR ADA ACCESS. FOR DETAIL GRADING SEE DETAIL 6 ON SHEET DT-2.
BUILDING #6	REVISED SIDEWALK, STEPS, RAMPS FOR ADA ACCESS. FOR DETAIL GRADING SEE DETAIL 7 ON SHEET DT-2.
BUILDINGS #5 AND #6 RISER ROOMS	ADDED STAIRS EXITING THE RISER ROOMS FOR BUILDINGS #5, AND #6.

NOTE:

GRADE TAG DESIGNATIONS

TC – TOP OF CURB
FG – FINISH GRADE
ME – MATCH EXISTING
FL – FLOW LINE
TG – TOP OF GRATE

XX.XX TC | XX.XX FG | XX.XX ME | XX.XX FL | XX.XX TG

DRAINAGE CERTIFICATION

I CERTIFY THAT THIS GRADING PLAN IS IN CONFORMANCE WITH THE APPROVED DRAINAGE STUDY DS #5037 – ON FILE AT THE CITY OF LAS VEGAS FOR THIS PROJECT.

TODD N. KELLEY, PE NO. 14711 — DATE 1-2-2020

NOTE:

PROPERTY OWNER IS RESPONSIBLE TO MAINTAIN THE BEST MANAGEMENT PRACTICE SUCH AS BUT NOT LIMITED TO THE REMOVAL OF ACCUMULATED SEDIMENT AND DEBRIS AND CARE OF THE VEGETATION.

FLOOD ZONE NOTE

THE SITE IS LOCATED ON THE FEDERAL EMERGENCY AGENCY (FEMA) FLOOD INSURANCE RATE MAP (FIRM) CONTAINING COMMUNITY PANEL 32003C2186F, DATED NOVEMBER 16, 2011. THIS PANEL SHOWS THAT THE PROJECT IS LOCATED WITHIN A ZONE "X". ZONE "X" DEFINED AS AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN. THIS PROJECT IS NOT LOCATED WITHIN A FEMA DESIGNATED SPECIAL FLOOD HAZARD AREA.

BENCHMARK

CITY OF LAS VEGAS BENCHMARK STATION: 8LV0125SSW6

DESCRIPTION: RIVET AND ALUMINUM PLATE IN TOP OF CURB NORTHWEST CORNER OF MANNING STREET AND BONANZA ROAD.

ELEVATION: 554.758 METERS
1820.07 FEET (U.S. SURVEY FEET) NAVD88

BASIS OF BEARINGS

GRID NORTH AS DEFINED BY THE CENTRAL MERIDIAN OF THE NEVADA COORDINATE REFERENCE SYSTEM (NCRS), LAS VEGAS ZONE, NORTH AMERICAN DATUM OF 1983; SAID MERIDIAN BEING COINCIDENT WITH 114°58' WEST OF THE GREENWICH MERIDIAN.

LINEAR UNIT: US SURVEY FOOT (FTUS)

DATUM (REFERENCE FRAME): NAD 83 (2011) EPOCH 2010.00
NEVADA COORDINATE REFERENCE SYSTEM (NCRS)

LAS VEGAS

PROJECTION: TRANSVERSE MERCATOR
STANDARD PARALLEL (AND LATITUDE OF GRID ORGIN): 36°15'00"N
LONGITUDE OF CENTRAL MERIDIAN: 114°58'00"W
NORTHING AT GRID ORIGIN: 200,000.000 M (656,166.6667 FTUS)
EASTING AT CENTRAL MERIDIAN: 100,000.000 M (328,083.3333 FTUS)
SCALE FACTOR ON CENTRAL MERIDIAN; 1.0001 (EXACT)

NOTES:
1. ALL DISTANCES AND BEARINGS SHOWN HEREON ARE PROJECTED (GRID) VALUES BASED ON THE PRECEDING PROJECTION DEFINITION. THE PROJECTION WAS DEFINED SUCH THAT PROJECTED (GRID) DISTANCES ARE EQUIVALENT TO "GROUND" DISTANCES IN THE PROJECT AREA.
2. GRID BEARINGS SHOWN HEREON (OR IMPLIED BY GRID COORDINATES) DO NOT EQUAL GEODETIC BEARINGS DUE TO MERIDIAN CONVERGENCE.

FAST — Call before you UnderGround — 1-702-432-5300 — FREEWAY AND ARTERIAL SYSTEM OF TRANSPORTATION

Call before you Dig — Avoid cutting underground utility lines. It's costly. — Call 811 or 1-800-227-2600

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T: 702.804.2000 gcwengineering.com

STATE OF NEVADA — ENGINEER — TODD N. KELLEY — Exp. 6/30/2021 — CIVIL — No. 14711 — PROFESSIONAL — 1-2-2020

Wardelle Street Townhouses
IFB No. B19012

SE corner of N Wardelle St. and E Harris Ave.
APN # 139-254-100-39, 40, 41
Las Vegas, Nevada, 89101
Southern Nevada Regional Housing Authority, (SNRHA)

IF THE ABOVE DIMENSION DOES NOT MEASURE ONE INCH (1") EXACTLY, THIS DRAWING WILL HAVE BEEN ENLARGED OR REDUCED AFFECTING ALL LABELED SCALES.

	REVISIONS	DATE
1	V.E. REVIEW	11.21.19

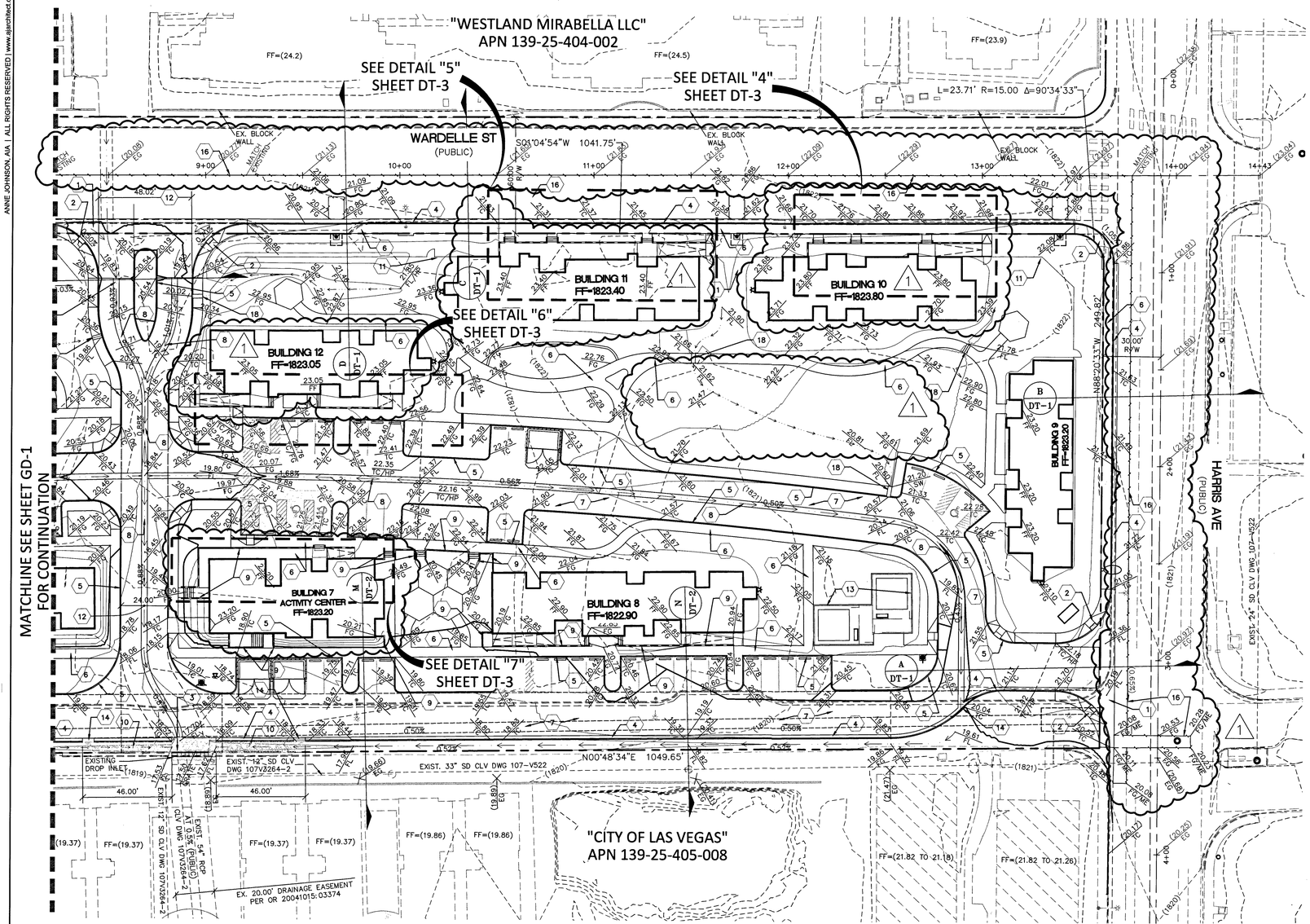
Date:	02/12/2019
Scale:	AS NOTED
Drawn:	DRL
Job:	17008
Sheet:	12 OF 17
Phase:	100% DD

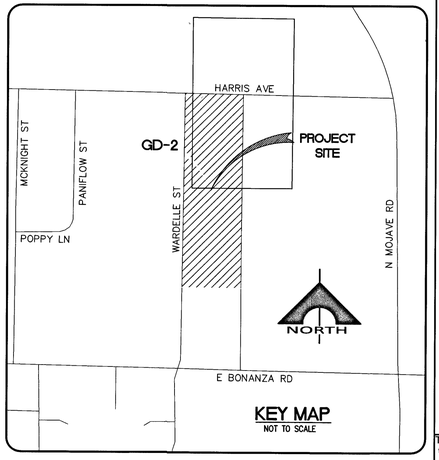
L19-00078
107V7651

GD-1

Plotted On: 12-30-19

GRADING PLAN 1





KEY MAP
NOT TO SCALE

CONSTRUCTION NOTES

1. INSTALL DRIVEWAY MATCH EX. CURB FL
2. INSTALL SIDEWALK RAMP CASE II ("A", "B" PER PLAN) PER CCAUSD 235, AND/OR (SEE DETAIL 2 ON SHEET DT-3)
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9. INSTALL RETAINING WALL, SEE ARCHITECTURAL PLANS FOR DETAILS.
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12. PUBLIC DRAINAGE EASEMENT TO BE PRIVATELY MAINTAINED BY THE HOA.
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17. NOT USED.
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19. EXISTING STREET LIGHT TO BE RELOCATED. SEE PLAN FOR NEW LOCATION.
20. FOR LANDSCAPE PLANTERS SEE ARCHITECTURAL PLANS.

1

REVISION TABLE:	FOR SHEET GD-2
AREA	CHANGE
WARDELLE STREET	SAW-CUT LINE MOVED TO STREET CENTERLINE.
HARRIS AVENUE	SAW-CUT LINE MOVED TO BIKE LANE LINE.
BUILDING #7	REVISED SIDEWALK, STEPS, RAMPS, FOR ADA ACCESS. FOR DETAIL GRADING SEE DETAIL 7 ON SHEET DT-3.
BUILDING #10	BUILDING FOOTPRINT, REVISED SIDEWALK, STEPS, RAMPS, AND WALLS FOR ADA ACCESS. FOR DETAIL GRADING SEE DETAIL 4 ON SHEET DT-3.
BUILDING #11	BUILDING 11 WAS RELOCATED, FOOT-PRINT CHANGED, SIDEWALK, STEPS, RAMPS, AND WALLS ADJUSTED FOR ADA ACCESS. FOR DETAIL GRADING SEE DETAIL 5 ON SHEET DT-3.
BUILDING #12	BUILDING 12 WAS RELOCATED, FOOT-PRINT CHANGED, SIDEWALK, STEPS, RAMPS, AND WALLS ADJUSTED FOR ADA ACCESS. FOR DETAIL GRADING SEE DETAIL 6 ON SHEET DT-3.
BUILDING #13	BUILDING REMOVED, REPLACED WITH AN OPEN LANDSCAPE AREA.

NOTE:

GRADE TAG DESIGNATIONS

TC – TOP OF CURB
FG – FINISH GRADE
ME – MATCH EXISTING
FL – FLOW LINE
TG – TOP OF GRATE

XX.XX TC | XX.XX FG | XX.XX ME | XX.XX FL | XX.XX TG

DRAINAGE CERTIFICATION

I CERTIFY THAT THIS GRADING PLAN IS IN CONFORMANCE WITH THE APPROVED DRAINAGE STUDY DS #5037 – ON FILE AT THE CITY OF LAS VEGAS FOR THIS PROJECT.

TODD N. KELLEY, PE NO. 14711 — DATE 2-18-2020

NOTE:

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IFB No. B19012

SE corner of N Wardelle St. and E Harris Ave.
APN # 139-254-100-39, 40, 41
Las Vegas, Nevada, 89101
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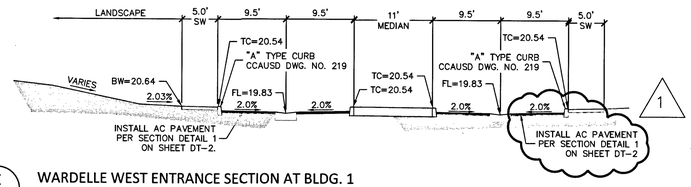
REVISIONS	DATE
1 V.E. REVIEW	11.21.19

Date:	02/12/2019
Scale:	AS NOTED
Drawn:	DRL
Job:	17008
Sheet:	13 OF 17
Phase:	100% DD

L19-00078
107V7651
GD-2

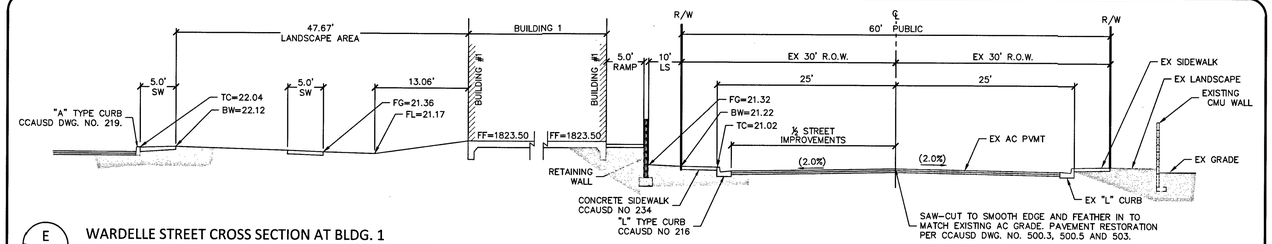
Plotted On: 02-18-20

GRADING PLAN 2



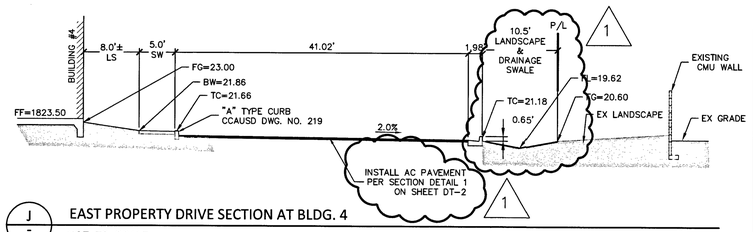
K — WARDELLE WEST ENTRANCE SECTION AT BLDG. 1

NOT TO SCALE



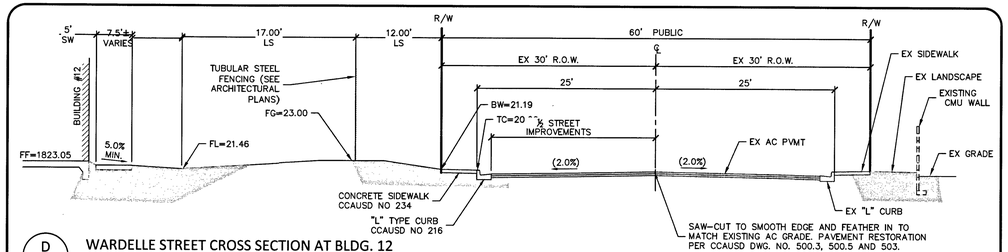
E — WARDELLE STREET CROSS SECTION AT BLDG. 1

NOT TO SCALE



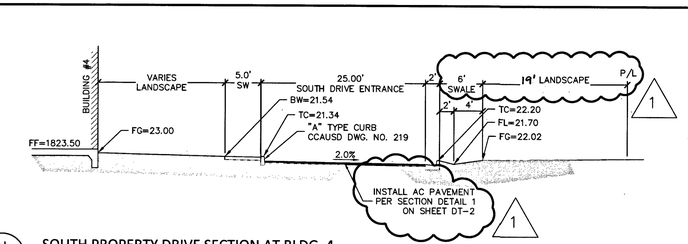
J — EAST PROPERTY DRIVE SECTION AT BLDG. 4

NOT TO SCALE



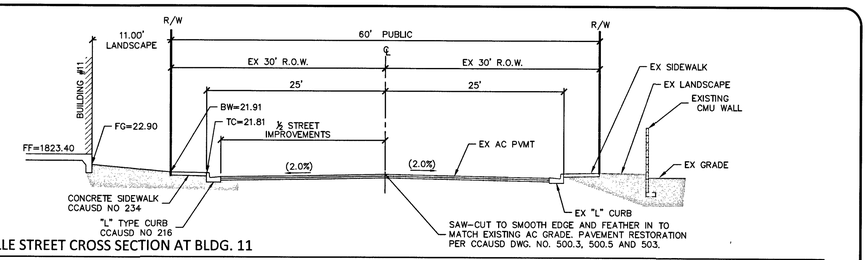
D — WARDELLE STREET CROSS SECTION AT BLDG. 12

NOT TO SCALE



H — SOUTH PROPERTY DRIVE SECTION AT BLDG. 4

NOT TO SCALE



C — WARDELLE STREET CROSS SECTION AT BLDG. 11

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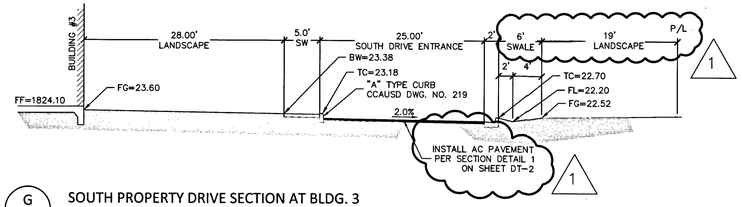
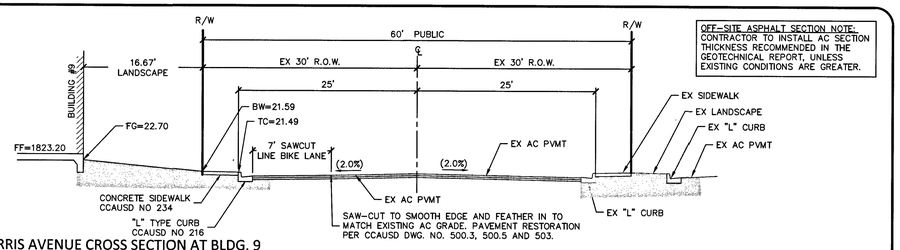


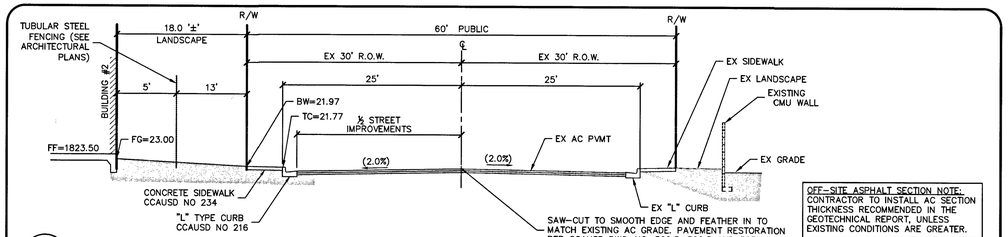
G — SOUTH PROPERTY DRIVE SECTION AT BLDG. 3

NOT TO SCALE



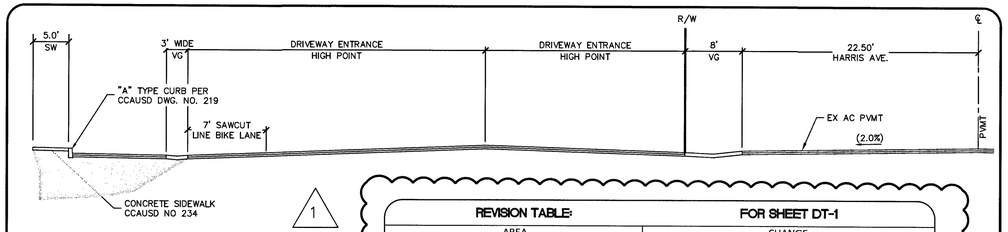
B — HARRIS AVENUE CROSS SECTION AT BLDG. 9

NOT TO SCALE



F — WARDELLE STREET CROSS SECTION AT BLDG. 2

NOT TO SCALE



A — HARRIS AVENUE ENTRANCE SECTION

NOT TO SCALE

REVISION TABLE: AREA	FOR SHEET DT-1 CHANGE
DETAILS G, H, J, K	AC PAVEMENT SECTION CALL-OUT.
DETAIL J	REMOVED RIP-RAP FROM DRAINAGE SWALE TO MATCH GRADING PLANS.

ANNE JOHNSON, AIA
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	REVISIONS	DATE
1	V.E. REVISIONS	01.21.19

Date:	02/12/2019
Scale:	AS NOTED
Drawn:	DRL
Job:	17008
Sheet:	14 OF 17
Phase:	100% DD

L19-00078
107V7651
DT-1

Plotted On: 01-02-20

SECTION AND DETAILS

CONSTRUCTION NOTES

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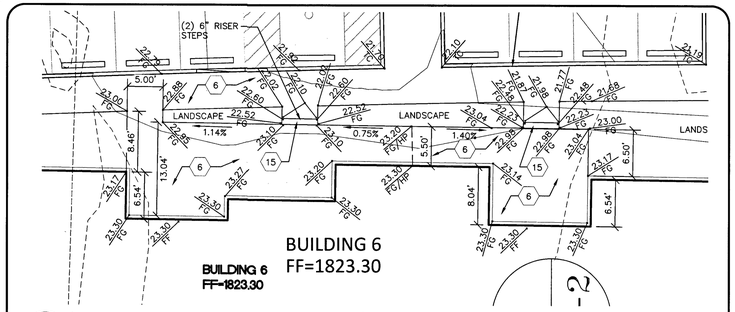
20. FOR LANDSCAPE PLANTERS SEE ARCHITECTURAL PLANS.

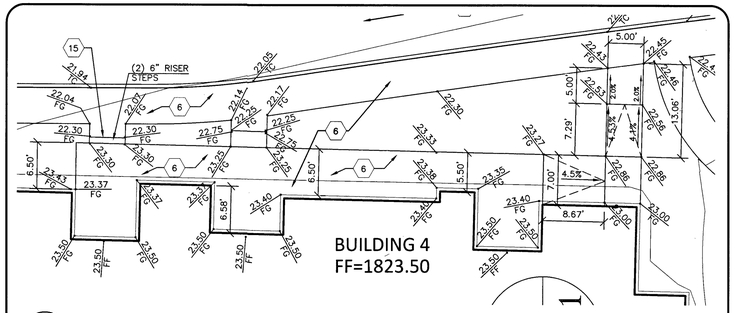
1

REVISION TABLE:	FOR SHEET DT-2
AREA	CHANGE
DETAILS 6 & 7,	ADDED DETAILS FOR ADA ACCESS GRADING.
DETAIL K, L, M, AND N	REMOVED RIP-RAP FROM DRAINAGE SWALE TO MATCH GRADING PLANS.



7 — ADA ACCESS GRADING DETAIL FOR BUILDING 6

NOT TO SCALE

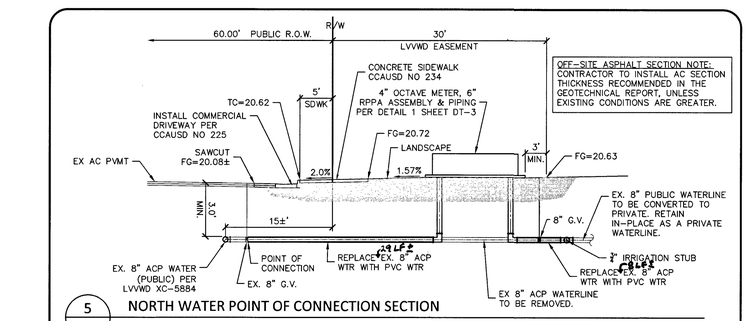


6 — ADA ACCESS GRADING DETAIL FOR BUILDING 4

NOT TO SCALE

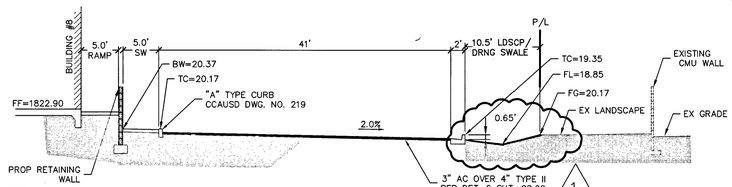
APPROVED FOR CONSTRUCTION
Las Vegas Valley Water District Engineering Services
Project No. 135667 First Approved Date: 5/6/19
LVVWD Approved Fire Flow: Total 1500 GPM / Onsite 1500 GPM

1



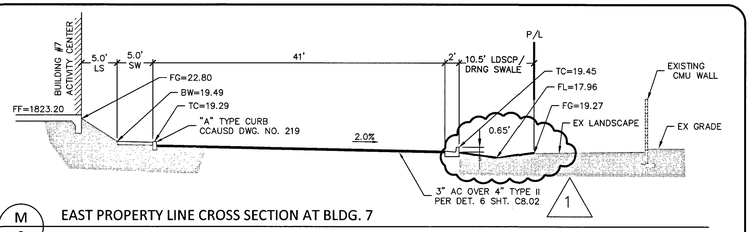
5 — NORTH WATER POINT OF CONNECTION SECTION

NOT TO SCALE



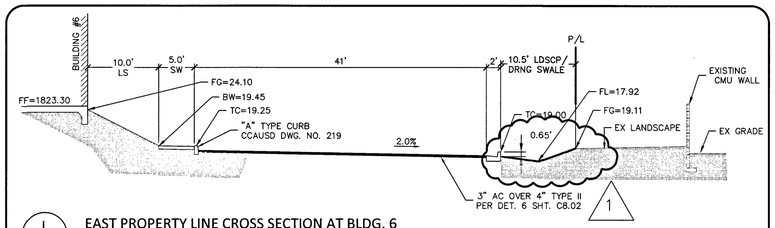
N — EAST PROPERTY LINE CROSS SECTION AT BLDG. 8

NOT TO SCALE



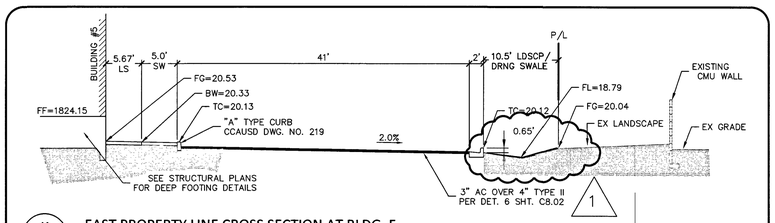
M — EAST PROPERTY LINE CROSS SECTION AT BLDG. 7

NOT TO SCALE



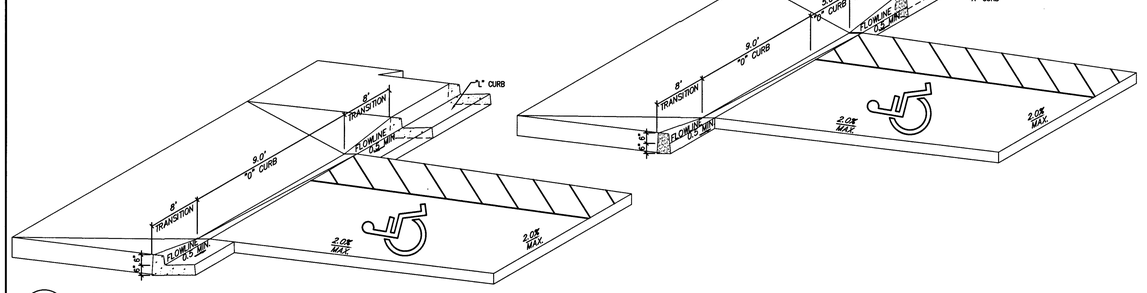
L — EAST PROPERTY LINE CROSS SECTION AT BLDG. 6

NOT TO SCALE



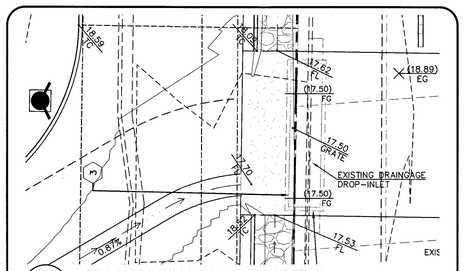
K — EAST PROPERTY LINE CROSS SECTION AT BLDG. 5

NOT TO SCALE



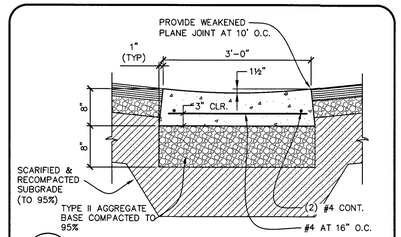
3 — 6" "L" and "A" CURB TO 0" CURB FACE TRANSITION

NOT TO SCALE



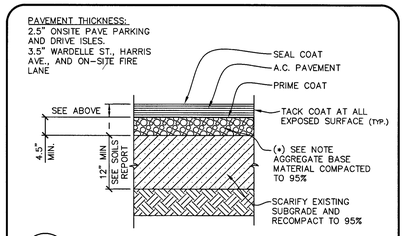
4 — DRAINAGE INLET COLLECTION DETAIL

NOT TO SCALE



2 — 3' WIDE CONCRETE VALLEY GUTTER

NOT TO SCALE



1 — PAVEMENT & CONCRETE SECTION

NOT TO SCALE

* FOR 2" AC OR LESS, BASE MATERIAL SHALL BE TYPE III, ALL OTHER CASES, BASE MATERIAL SHALL BE TYPE II

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STATE OF NEVADA — PROFESSIONAL ENGINEER — TODD N. KELLEY — No. 14717 — Exp. 9/30/2021 — CIVIL
12-2-2019

Wardelle Street Townhouses
IFB No. B19012

SE corner of N Wardelle St. and E Harris Ave.
APN # 139-254-100-39, 40, 41
Las Vegas, Nevada, 89101
Southern Nevada Regional Housing Authority, (SNRHA)

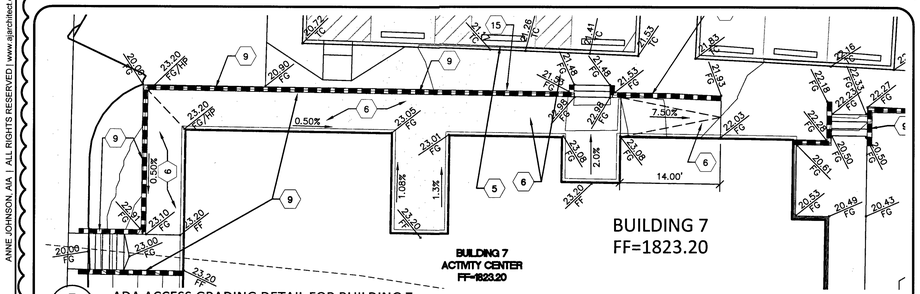
IF THE ABOVE DIMENSION DOES NOT MEASURE ONE INCH (1") EXACTLY, THIS DRAWING WILL HAVE BEEN ENLARGED, OR REDUCED, AFFECTING ALL LABELED SCALES.

	REVISIONS	DATE
1	V.E. REVISIONS	11.21.19

Date:	02/12/2019
Scale:	AS NOTED
Drawn:	DRL
Job:	17008
Sheet:	15 OF 17
Phase:	100% DD

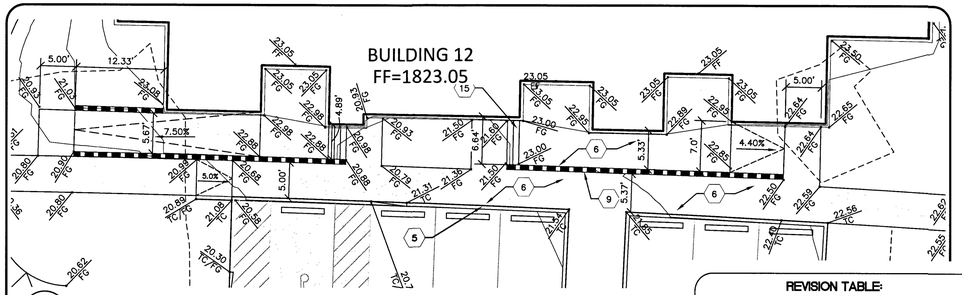
L19-00078
107V7651
DT-2
Plotted On: 12-30-19

SECTION AND DETAILS



7 — ADA ACCESS GRADING DETAIL FOR BUILDING 7

NOT TO SCALE



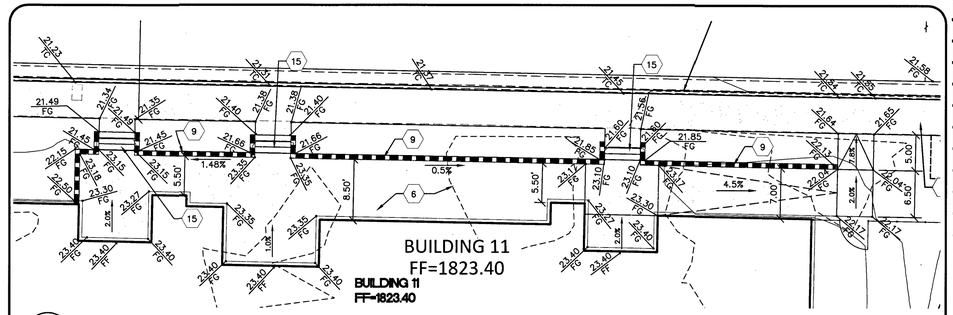
6 — ADA ACCESS GRADING DETAIL FOR BUILDING 12

NOT TO SCALE

CONSTRUCTION NOTES

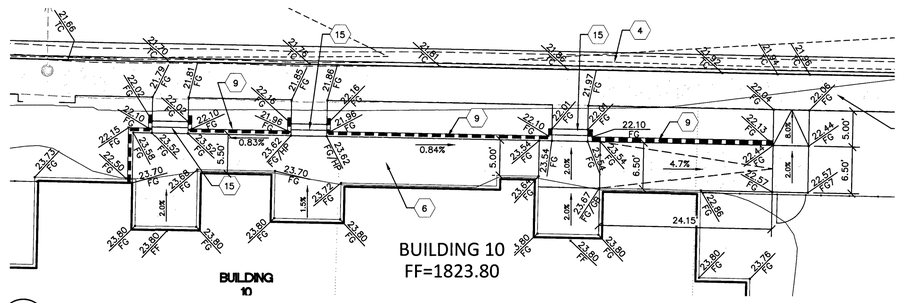
1. INSTALL DRIVEWAY MATCH EX. CURB FL.
2. INSTALL SIDEWALK RAMP CASE II ("A", "B" PER PLAN) PER CCAUSD 235, AND/OR (SEE DETAIL 2 ON SHEET DT-3)
3. FOR DETAIL GRADING AT THE EXISTING DROP INLET, SEE DETAIL 4 ON SHEET DT-2.
4. INSTALL "L" CURB & GUTTER PER CCAUSD DWG NO. 216.
5. INSTALL 6" "A" TYPE CURB PER CCAUSD DWG NO. 219.
6. INSTALL 4" THICK CONCRETE WALKWAY PER CCAUSD 234, AND/OR (SEE DETAIL 3 ON SHEET DT-3).
7. INSTALL AC PAVEMENT SECTION PER DETAIL 1 ON SHEET DT-2.
8. INSTALL 3' WIDE CONCRETE VALLEY GUTTER, SEE DETAIL 2 SHEET DT-2.
9. INSTALL RETAINING WALL, SEE ARCHITECTURAL PLANS FOR DETAILS.
10. INSTALL (5.5' WIDE BMP DRAINAGE RIP-RAP SWALE SEE PLAN FOR SIZE).
11. INSTALL TUBULAR STEEL FENCE, AND GATES, SEE ARCHITECTURAL PLANS FOR DETAILS.
12. PUBLIC DRAINAGE EASEMENT TO BE PRIVATELY MAINTAINED BY THE HOA.
13. INSTALL CHAINLINK FENCE, AND GATES, SEE ARCHITECTURAL PLANS FOR DETAILS.
14. CURB OPENING WITH "0" TO 6" CURB TRANSITION FOR "A" AND "L" CURB CONDITIONS PER DETAIL 3 SHEET DT-2
15. INSTALL STEPS SEE ARCHITECTURAL PLANS FOR DETAILS.
16. SAW-CUT TO SMOOTH EDGE AND FEATHER IN TO MATCH EXISTING AC GRADE. PAVEMENT RESTORATION PER CCAUSD DWG. NO. 500.3, 500.5 AND 503.
17. NOT USED.
18. INSTALL SIDEWALK UNDERDRAIN PER CCAUSD DWG NO. 236
19. EXISTING STREET LIGHT TO BE RELOCATED. SEE PLAN FOR NEW LOCATION.
20. FOR LANDSCAPE PLANTERS SEE ARCHITECTURAL PLANS.

REVISION TABLE:	FOR SHEET DT-3
AREA	CHANGE
DETAILS 4, 5, 6, & 7	ADDED DETAILS FOR ADA ACCESS GRADING



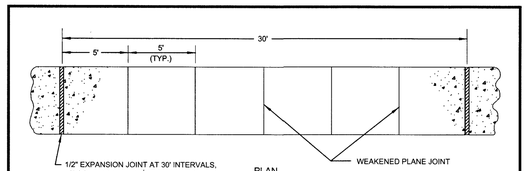
4 — ADA ACCESS GRADING DETAIL FOR BUILDING 11

NOT TO SCALE



5 — ADA ACCESS GRADING DETAIL FOR BUILDING 10

NOT TO SCALE



NOTES:

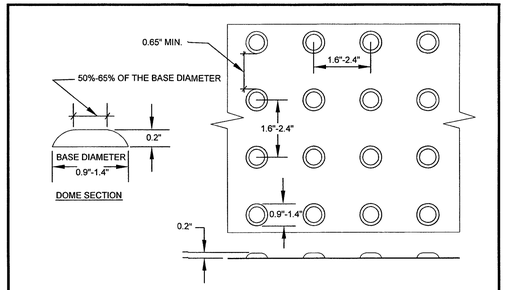
1. ON ALL CURB RETURNS A 1/2" EXPANSION JOINT SHALL BE CONSTRUCTED BETWEEN THE BACK OF CURB AND THE SIDEWALK FOR THE ENTIRE LENGTH OF THE RETURN.
2. THE TYPE II AGGREGATE BASE THICKNESS IS SHOWN ON THE TYPICAL SECTION DRAWINGS 202 - 207.
3. LONGITUDINAL WEAKENED PLANE JOINT REQUIRED AT MIDPOINT OF SIDEWALK 10' OR WIDER.

AGENCY APPROVED	B	C	H	L	M	N

SPECIFICATION REFERENCE		UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA
302	AGGREGATE BASE	SIDEWALK
501	CONCRETE	
502	CONCRETE STRUCTURES	
707	JOINT MATERIAL	
		DATE 01-01-17 | DWG. NO. 234

3 — STANDARD SIDEWALK DESIGN DETAIL

NOT TO SCALE



DETECTABLE WARNING DETAILS (TRUNCATED DOMES)

GRADE (%) "B" TO "A"	"A" (FT) MIN.	"B" (FT) MIN.
-6 TO -5.01	4.5	21.5
-5 TO -4.01	4.5	15.0
-4 TO -3.01	4.5	12.0
-3 TO -2.01	4.5	9.5
-2 TO 2	8.0	8.0
2.01 TO 3	9.5	4.5
3.01 TO 4	12.0	4.5
4.01 TO 5	15.0	4.5
5.01 TO 6	21.5	4.5

TABLE 1. TRANSITION LENGTHS FOR 1:12 SIDE SLOPES

GRADE (%) "B" TO "A"	"A" (FT) MIN.	"B" (FT) MIN.
-6 TO -5.01	4.0	12.5
-5 TO -4.01	4.0	10.0
-4 TO -3.01	4.0	8.5
-3 TO -2.01	4.0	7.5
-2 TO 2	6.5	6.5
2.01 TO 3	7.5	4.0
3.01 TO 4	8.5	4.0
4.01 TO 5	10.0	4.0
5.01 TO 6	12.5	4.0

TABLE 2. TRANSITION LENGTHS FOR 1:10 SIDE SLOPES

NOTE:
CHARTS APPLY TO CURB WITH 6" CURB FACE. IF CURB HAS GREATER THAN A 6" CURB FACE, A SPECIAL DESIGN IS REQUIRED.

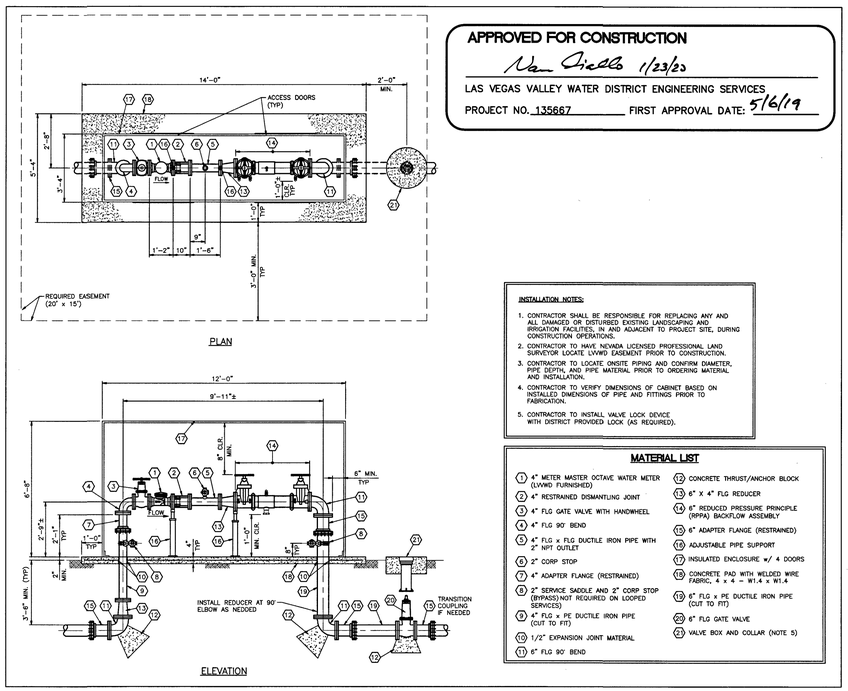
AGENCY APPROVED	B	C	H	L	M	N

SPECIFICATION REFERENCE		UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA
302	AGGREGATE BASE	SIDEWALK RAMP DETAILS
501	CONCRETE	
502	CONCRETE STRUCTURES	
		DATE 6-8-06 | DWG. NO. 235 | SHEET 4 OF 4

2 — TRUNCATED DOME DETAIL

NOT TO SCALE

1



APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES

PROJECT NO. 135667 FIRST APPROVAL DATE: 5/6/19

INSTALLATION NOTES:

1. CONTRACTOR SHALL BE RESPONSIBLE FOR REPLACING ANY AND ALL DAMAGED OR DISTURBED EXISTING LANDSCAPING AND IRRIGATION FACILITIES, IN AND ADJACENT TO PROJECT SITE, DURING CONSTRUCTION OPERATIONS.
2. CONTRACTOR TO HAVE NEVADA LICENSED PROFESSIONAL LAND SURVEYOR LOCATE LVVWD EASEMENT PRIOR TO CONSTRUCTION.
3. CONTRACTOR TO LOCATE ONSITE PIPING AND CONFIRM DIAMETER, PIPE DEPTH, AND PIPE MATERIAL PRIOR TO ORDERING MATERIAL AND INSTALLATION.
4. CONTRACTOR TO VERIFY DIMENSIONS OF CABINET BASED ON INSTALLED DIMENSIONS OF PIPE AND FITTINGS PRIOR TO FABRICATION.
5. CONTRACTOR TO INSTALL VALVE LOCK DEVICE WITH DISTRICT PROVIDED LOCK (AS REQUIRED).

MATERIAL LIST

1	4" METER MASTER OCTAVE WATER METER (LVVWD FURNISHED)	12	CONCRETE THRUST/ANCHOR BLOCK
2	4" RESTRAINED DISMANTLING JOINT	13	6" X 4" FLG REDUCER
3	4" FLG GATE VALVE WITH HANDWHEEL	14	6" REDUCED PRESSURE PRINCIPLE (RPPA) BACKFLOW ASSEMBLY
4	4" FLG 90° BEND	15	6" ADAPTER FLANGE (RESTRAINED)
5	4" FLG x PLG DUCTILE IRON PIPE WITH 2" NPT OUTLET	16	ADJUSTABLE PIPE SUPPORT
6	2" CORP STOP	17	INSULATED ENCLOSURE w/ 4 DOORS
7	4" ADAPTER FLANGE (RESTRAINED)	18	CONCRETE PAD WITH WELDED WIRE FABRIC, 4 x 4 – W1.4 x W1.4
8	2" SERVICE SADDLE AND 2" CORP STOP (BYPASS) NOT REQUIRED ON LOOPED SERVICES)	19	6" FLG x PE DUCTILE IRON PIPE (CUT TO FIT)
9	4" FLG x PE DUCTILE IRON PIPE (CUT TO FIT)	20	6" FLG GATE VALVE
10	1/2" EXPANSION JOINT MATERIAL	21	VALVE BOX AND COLLAR (NOTE 5)
11	6" FLG 90° BEND		

1 — 4" OCTAVE METER & 6" RPPA DETAIL

NOT TO SCALE

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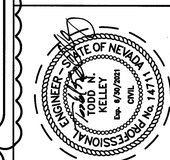


12-2-19

Wardelle Street Townhouses
IFB No. B19012

SE corner of N Wardelle St. and E Harris Ave.
APN # 139-254-100-39, 40, 41
Las Vegas, Nevada, 89101
Southern Nevada Regional Housing Authority, (SNRHA)

IF THE ABOVE DIMENSION DOES NOT MEASURE ONE INCH (1") EXACTLY, THIS DRAWING WILL HAVE BEEN ENLARGED OR REDUCED, AFFECTING ALL LABELED SCALES.

	REVISIONS	DATE
1	V.E. REVISIONS	11.21.19

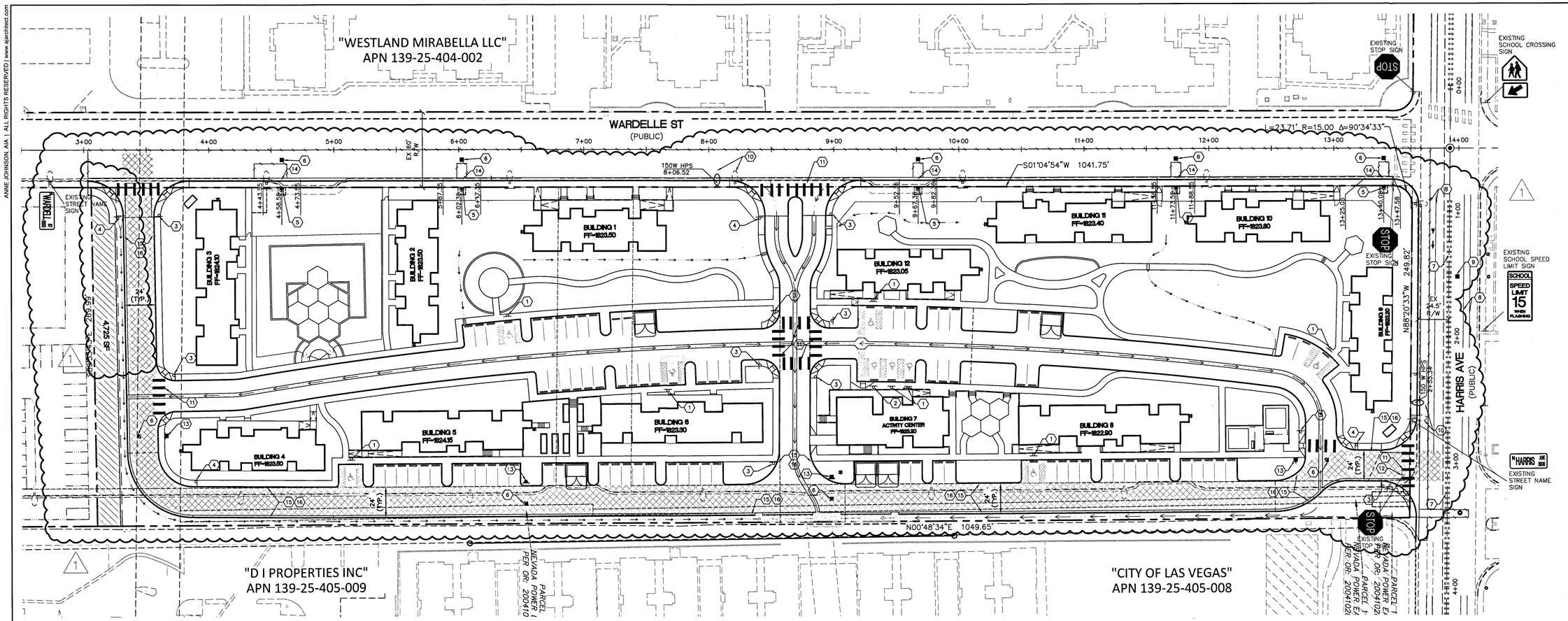
Date:	02/12/2019
Scale:	AS NOTED
Drawn:	DRL
Job:	17008
Sheet:	16 OF 17
Phase:	100% DD

L19-00078
107V7651

DT-3

Plotted On: 12–30–19

SECTION AND DETAILS



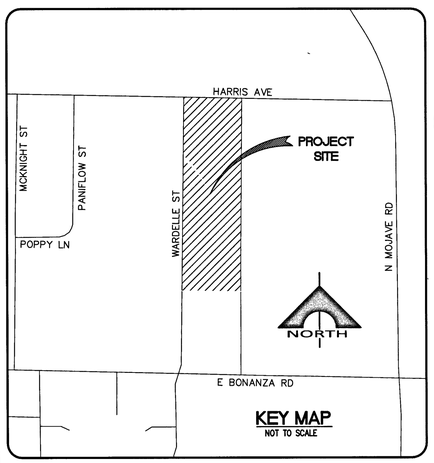
NORTH

AVOID HITTING OVERHEAD POWER LINES. IT'S COSTLY.
CALL BEFORE YOU DO OVERHEAD
1-702-227-2929

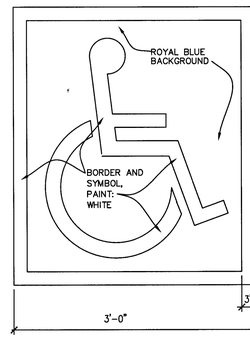
FAST
Call before you UnderGround
1-702-432-5300
FREEWAY AND ARTERIAL SYSTEM OF TRANSPORTATION

Call before you Dig
Avoid cutting underground utility lines. It's costly.
Call 811
OR
1-800-227-2600

40' 0' 20' 40'
SCALE: 1" = 40'

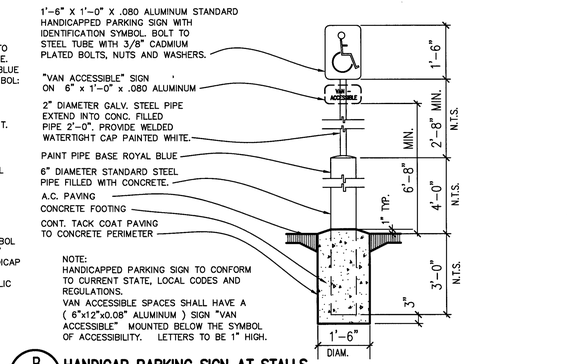


KEY MAP
NOT TO SCALE



NOTES:
1. ALL STROKES TO BE MIN. 3" WIDE. FIELD: ROYAL BLUE BORDER & SYMBOL: WHITE.
2. PROVIDE TWO COATS OF PAINT. DRY BETWEEN COATS.
3. LOCATE SYMBOL AT CENTER OF STALL WHERE SHOWN ON SITE PLAN.
4. HANDICAP SYMBOL TO COMPLY W/ CURRENT HANDICAP REQUIREMENTS OF LOCAL PUBLIC AGENCY, ETC.

A WHEELCHAIR SYMBOL

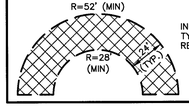


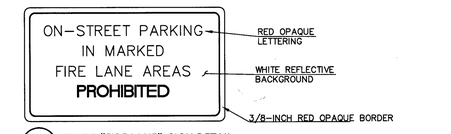
NOTE:
HANDICAPPED PARKING SIGN TO CONFORM TO CURRENT STATE, LOCAL CODES AND REGULATIONS.
VAN ACCESSIBLE SPACES SHALL HAVE A (6"x12"x0.08" ALUMINUM) SIGN "VAN ACCESSIBLE" MOUNTED BELOW THE SYMBOL OF ACCESSIBILITY. LETTERS TO BE 1" HIGH.

B HANDICAP PARKING SIGN AT STALLS

FIRE LANE LEGEND

- INDICATES RED PAINTED CURB WITH "NO PARKING – FIRE LANE" PAINTED EVERY 50 FT. PER LAS VEGAS FIRE & RESCUE FIRE PREVENTION DIVISION GUIDELINES.
- INDICATES PROPOSED LOCATION OF FIRE LANE SIGNS TO BE PLACED AT EVERY ENTRANCE STATING "ON-STREET PARKING IN FIRE LANES PROHIBITED". FIRE LANE SIGNS SHALL CONFORM TO LAS VEGAS FIRE & RESCUE FIRE PREVENTION DIVISION GUIDELINES.
- INDICATES PROPOSED LOCATION OF BLUE FIRE HYDRANT REFLECTIVE MARKER PER LAS VEGAS FIRE & RESCUE FIRE PREVENTION DIVISION GUIDELINES.
- FIRE DEPARTMENT CONNECTION
- INDICATES 24' MINIMUM WIDTH FIRE LANE AND TYPICAL TURNING RADIUS PER LAS VEGAS FIRE & RESCUE FIRE PREVENTION DIVISION GUIDELINES.





A TYPE B "FIRE LANE" SIGN DETAIL
24"X18"

B R1-1
36"X36"

C TYPE C FIRE LANE SIGN

ON-SITE SIGNAGE CONSTRUCTION NOTES

NO.	ITEM
	UDACS: UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA
1	INSTALL HANDICAP PARKING SIGN–INSTALL R7-8 (12"x16") WITH $100.00 FINE IF USED BY OTHERS. NRS 484-408 ANSI 4.3 AND 4.28/ FOR INSTALLATION SEE USD #249.1.
2	INSTALL R7-8B, VAN ACCESSIBILITY, SIGN
3	INSTALL R1-1 "STOP" SIGN PER USDCCA DWG. NO. 249.1 AND PER DETAIL 'B' ON THIS SHEET.
4	INSTALL TYPE B "FIRE LANE" SIGN PER DETAIL "A" ON THIS SHEET.
5	INSTALL PUBLIC FIRE HYDRANT PER UDACS PLATE NO. 40. PAINT YELLOW.
6	INSTALL BLUE REFLECTIVE RAISE PAVEMENT MARKER.
7	EXISTING TYPE 1 CENTERLINE TO REMAIN.
8	EXISTING BICYCLE LANE LINE WITH MARKINGS TO REMAIN.
9	EXISTING BLUE REFLECTIVE PAVEMENT MARKER TO REMAIN.
10	REMOVE EXISTING STREETLIGHT AND RELOCATION TO NEW LOCATION.
11	INSTALL CROSSWALK MARKINGSS – TYPE 1 PER USDCCA DWG. NO. 254.
12	REMOVE EXISTING STOP SIGN AND RELOCATE TO NEW LOCATION.
13	INSTALL PRIVATE FIRE HYDRANT PER UDACS PLATE NO. 40. PAINT RED.
14	PAINT CURB RED PER IFC 507.5.7.2 (SOUTHERN NEVADA FIRE CODE AMENDMENTS)
15	INSTALL TYPE C FIRE LANE SIGN (CURB PAINT MARKING) AT 50' O.C. ALONG FIRE ACCESS LANE.
16	INSTALL RED PAINTED CURB ALONG FIRE ACCESS LANE.

REVISION TABLE:	FOR SHEET TR-1
AREA	CHANGE
ON-SITE	ADJUSTED BUILDING FOOTPRINTS, AND REMOVED DIAGONAL PARKING STALLS AT THE SOUTH DRIVE ENTRANCE

APPROVED FOR CONSTRUCTION

LAS VEGAS FIRE AND RESCUE
FIRE FLOW 1,500 GPM AT 20 PSI RESIDUAL

DATE:

BENCHMARK

CITY OF LAS VEGAS BENCHMARK STATION: 8LV0125SSW6

DESCRIPTION: RIVET AND ALUMINUM PLATE IN TOP OF CURB NORTHWEST CORNER OF MANNING STREET AND BONANZA ROAD.

ELEVATION: 554.758 METERS
1820.07 FEET (U.S. SURVEY FEET) NAVD88

BASIS OF BEARINGS

GRID NORTH AS DEFINED BY THE CENTRAL MERIDIAN OF THE NEVADA COORDINATE REFERENCE SYSTEM (NCRS), LAS VEGAS ZONE, NORTH AMERICAN DATUM OF 1983; SAID MERIDIAN BEING COINCIDENT WITH 114°58' WEST OF THE GREENWICH MERIDIAN.

LINEAR UNIT: US SURVEY FOOT (FTUS)

DATUM (REFERENCE FRAME): NAD 83 (2011) EPOCH 2010.00
NEVADA COORDINATE REFERENCE SYSTEM (NCRS)

LAS VEGAS

PROJECTION: TRANSVERSE MERCATOR
STANDARD PARALLEL (AND LATITUDE OF GRID ORGIN): 36°15'00"N
LONGITUDE OF CENTRAL MERIDIAN: 114°58'00"W
NORTHING AT GRID ORIGIN: 200,000.000 M (656,166.6667 FTUS)
EASTING AT CENTRAL MERIDIAN: 100,000.000 M (326,083.3333 FTUS)
SCALE FACTOR ON CENTRAL MERIDIAN; 1.0001 (EXACT)

NOTES:
1. ALL DISTANCES AND BEARINGS SHOWN HEREON ARE PROJECTED (GRID) VALUES BASED ON THE PRECEDING PROJECTION DEFINITION. THE PROJECTION WAS DEFINED SUCH THAT PROJECTED (GRID) DISTANCES ARE EQUIVALENT TO "GROUND" DISTANCES IN THE PROJECT AREA.
2. GRID BEARINGS SHOWN HEREON (OR IMPLIED BY GRID COORDINATES) DO NOT EQUAL GEODETIC BEARINGS DUE TO MERIDIAN CONVERGENCE.

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NV LIC. #5168

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REVISIONS	DATE
1 V.E. REVIEW	11.21.19

Date:	02/12/2019
Scale:	AS NOTED
Drawn:	DRL
Job:	17008
Sheet:	17 OF 17
Phase:	100% DD

L19-00078
107V7651

TR-1

Plotted On: 12-30-19

STRIPING AND SIGNAGE PLAN

IMPROVEMENT PLAN FOR WARDELLE STREET TOWNHOUSES

LOT #1 APN # 139-25-405-011
LOT #2 APN # 139-25-405-012
1 57 TOWNHOME UNITS

CITY OF LAS VEGAS GENERAL NOTES

CITY OF LAS VEGAS GENERAL NOTES

1. ALL CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH THE "UNIFORM STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION OFFSITE IMPROVEMENTS, CLARK COUNTY AREA NEVADA", LATEST ISSUE; THE "UNIFORM STANDARD DRAWINGS FOR PUBLIC WORKS CONSTRUCTION, CLARK COUNTY AREA NEVADA"; LATEST REVISED EDITION; THE "SUMMERLIN IMPROVEMENT 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 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 INTERFERENCES 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 REPAIRED OR REPLACED SATISFACTORY TO THE CITY ENGINEER AND OWNING UTILITY COMPANY AT THE EXPENSE OF THE CONTRACTOR.

4. ALL CONSTRUCTION SHALL BE AS 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 DESIGNS TO BE APPROVED BY THE CITY, 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 300' IN EXTRUDED-TYPE CURB.

8. AC PAVEMENT TO BE ONE-HALF INCH (½") 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 STANDARD DRAWING 216.

10. SIDEWALK RAMPS SHALL BE CONSTRUCTED IN EACH QUADRANT OF AN INTERSECTION PER STANDARD DRAWING 235. 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 THE TRANSITIONS TO BE AS SHOWN ON PLANS.

ALL GRADING WORK SHALL CONFORM TO THE SOILS REPORT AS PREPARED BY GEOTEK, INC. PROJECT NO. 14392-LV, OCTOBER 1, 2018 APPROVED BY THE CITY ENGINEER, AND AS SHOWN ON THESE PLANS.

12. 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.

13. 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 NRS.R.S. STATUTE NO. 625.380 & CITY OF LAS VEGAS TITLE 18, APPENDIX D.

14. 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. WALL NOTES:

15. 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 SEPARATE PERMIT AND INSPECTION BY THE BUILDING DEPARTMENT.

16. ASPHALT MIX DESIGN MUST BE SUBMITTED AND APPROVED BY THE CITY ENGINEER PRIOR TO THE PLACEMENT OF ASPHALT WITHIN CITY RIGHT OF WAY.

17. 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.

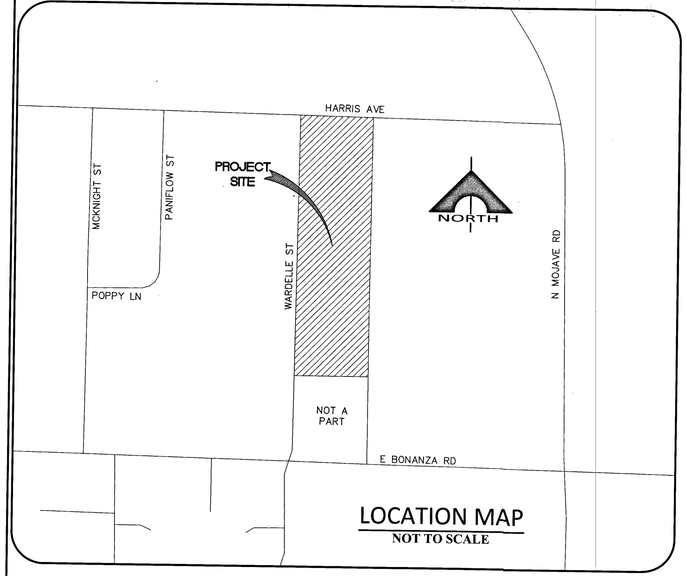
18. MATERIALS, HANDLING AND PLACEMENT OF PORTLAND CEMENT CONCRETE SHALL BE IN ACCORDANCE WITH APPLICABLE SECTIONS OF NDOT OR THE CLARK COUNTY AREA SPECIFICATIONS (AS APPLICABLE) AND THE PLANS AND DETAILS SHOWN HEREON.

19. WHEN INSTALLING UNDERGROUND FACILITIES THAT REQUIRE UNDERGROUND LOCATING DEVICES SUCH AS MARKER BALLS, LOCATING RIBBON, ETC, THE CONTRACTOR SHALL PROVIDE WRITTEN DOCUMENTATION TO OFFSITE INSPECTION AND TESTING CERTIFYING THAT ALL DEVICES HAVE BEEN PLACED AND VERIFIED TO BE IN GOOD WORKING CONDITION PRIOR TO THE CONSTRUCTION OF ANY ROAD BASE.

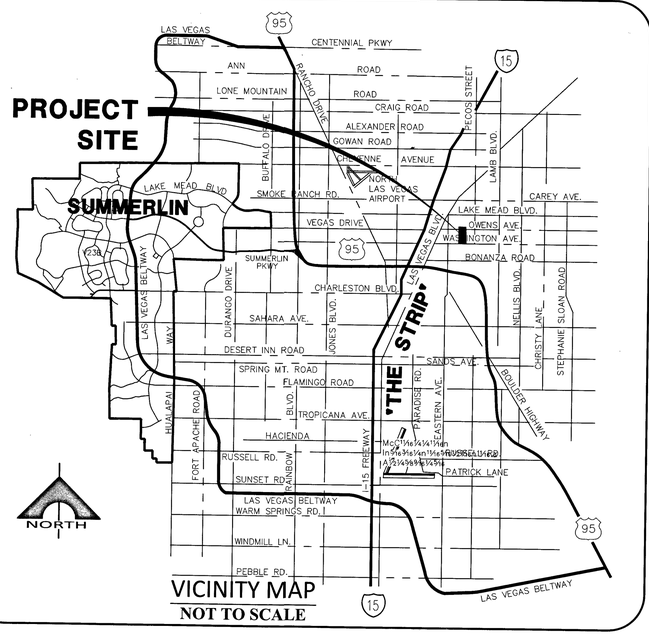
20. AFTER HAUNCHING AND PRIOR TO BACKFILL OPERATIONS WHICH WOULD COVER SANITARY SEWER AND STORM DRAIN FACILITIES, CONTRACTOR IS REQUIRED TO SCHEDULE CLV OPEN-TRENCH UTILITY SURVEY INSPECTION FOR DETERMINATION OF FINAL LOCATION COORDINATES. FACILITIES TO BE LOCATED BY CLV SHALL INCLUDE AT A MINIMUM THE HORIZONTAL AND VERTICAL (INVERT) LOCATION OF PUBLIC SEWER MANHOLES, STORM DRAIN MANHOLES AND TRANSITION STRUCTURES, STORM DRAIN LATERALS AT THE CONNECTION TO THE STORM DRAIN MAIN AND AT THE CONNECTION TO A DROP INLET, THE CONNECTION OF SEWER SERVICE LATERALS TO THE SEWER MAIN AND WHERE THE SEWER SERVICE LATERALS EXIT THE PUBLIC RIGHT-OF-WAY, SEWER AND STORM DRAIN MAIN ALIGNMENT, INCLUDING DEFLECTION POINTS.

21. CCTV VIDEO INSPECTION IS REQUIRED FOR ALL SEWER AND STORM DRAINS. THE CCTV VIDEO INSPECTIONS NEED TO BE PERFORMED PER THE DESIGN AND CONSTRUCTION STANDARDS FOR WASTEWATER COLLECTION SYSTEMS LATEST EDITION.

22. A SEPARATE BORING PERMIT IS REQUIRED FOR ALL BORING ACTIVITIES.
REVISED 06/04/2018



LOCATION MAP
NOT TO SCALE



VICINITY MAP
NOT TO SCALE

SHEET LIST TABLE		
No.	TITLE	DESCRIPTION
1	CV-1	COVER
2	CV-2	GENERAL NOTES AND LEGEND
3	DM-1	DEMOLITION PLAN 1
4	DM-2	DEMOLITION PLAN 2
5	HC-1	HORIZONTAL CONTROL PLAN 1
6	HC-2	HORIZONTAL CONTROL PLAN 2
7	HC-3	HORIZONTAL CONTROL PLAN CURB DATA
8	MU-1	MASTER UTILITY PLAN
9	UT-1	UTILITY PLAN 1
10	UT-2	UTILITY PLAN 2
11	UT-3	NOT USED.
12	GD-1	GRADING PLAN 1
13	GD-2	GRADING PLAN 2
14	DT-1	SECTIONS AND DETAILS PLAN
15	DT-2	SECTIONS AND DETAILS PLAN
16	DT-3	SECTIONS AND DETAILS PLAN
17	TR-1	STRIPING AND SIGNAGE PLAN
18-19	–	NV ENERGY SHEETS 1 – 2
20-21	–	COX COMMUNICATIONS SHEETS 1 – 2
22-24	–	CENTURY LINK SHEETS 1 – 3

1 2

UTILITY/AGENCY APPROVALS

COX COMMUNICATIONS LAS VEGAS, INC. — DATE 3-7-19

CENTRAL TELEPHONE COMPANY DBA CENTURYLINK — DATE 3/7/19

THE AFFIXED CENTURYLINK APPROVAL DOES NOT ASSUME 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.

NV ENERGY — Armando R. — DATE 03/07/19

NEVADA POWER COMPANY ACKNOWLEDGES THAT WE HAVE RECEIVED YOUR PLANS AND WILL PROVIDE SERVICE TO ALL ELECTRICAL NEEDS ASSOCIATED 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 ANY CONFLICTS WILL BE ACCOMPLISHED PURSUANT TO THE NEVADA PUBLIC UTILITY COMMISSION'S RULES AND REGULATIONS.

NV ENERGY – TRANSMISSION ENGINEERING — DATE 3/11/19

SOUTHWEST GAS CORPORATION — DATE 5/9/19

BENCHMARK

CITY OF LAS VEGAS BENCHMARK STATION: 8LV0125SSW6

DESCRIPTION: RIVET AND ALUMINUM PLATE IN TOP OF CURB NORTHWEST CORNER OF MANNING STREET AND BONANZA ROAD.

ELEVATION: 554.758 METERS
1820.07 FEET (U.S. SURVEY FEET) NAVD88

BASIS OF BEARINGS

GRID NORTH AS DEFINED BY THE CENTRAL MERIDIAN OF THE NEVADA COORDINATE REFERENCE SYSTEM (NCRS), LAS VEGAS ZONE, NORTH AMERICAN DATUM OF 1983; SAID MERIDIAN BEING COINCIDENT WITH 114°58' WEST OF THE GREENWICH MERIDIAN.

LINEAR UNIT: US SURVEY FOOT (FTUS)

DATUM (REFERENCE FRAME): NAD 83 (2011) EPOCH 2010.00
NEVADA COORDINATE REFERENCE SYSTEM (NCRS)

LAS VEGAS

PROJECTION: TRANSVERSE MERCATOR
STANDARD PARALLEL (AND LATITUDE OF GRID ORGIN): 36°15'00"N
LONGITUDE OF CENTRAL MERIDIAN: 114°58'00"W
NORTHING AT GRID ORIGIN: 200,000.000 M (656,166.6667 FTUS)
EASTING AT CENTRAL MERIDIAN: 100,000.000 M (328,083.3333 FTUS)
SCALE FACTOR ON CENTRAL MERIDIAN; 1.0001 (EXACT)

NOTES:
1. ALL DISTANCES AND BEARINGS SHOWN HEREON ARE PROJECTED (GRID) VALUES BASED ON THE PRECEDING PROJECTION DEFINITION. THE PROJECTION WAS DEFINED SUCH THAT PROJECTED (GRID) DISTANCES ARE EQUIVALENT TO "GROUND" DISTANCES IN THE PROJECT AREA.
2. GRID BEARINGS SHOWN HEREON (OR IMPLIED BY GRID COORDINATES) DO NOT EQUAL GEODETIC BEARINGS DUE TO MERIDIAN CONVERGENCE.

REVISION TABLE:

1

AREA	FOR SHEET CV-1 CHANGE
UNIT COUNT:	TOWNHOME UNITS REVISED TO 57
OFF-SITE PUBLIC QUANTITIES	UPDATED OFF-SITE QUANTITIES
SHEET LIST TABLE	BY REDUCING WATER AND SEWER CONNECTION POINTS TO EACH BUILDING, UTILITY INFORMATION TABLES ON UT-3 NOT NEEDED. SHOWN AS NOT USED ON THE SHEET INDEX TABLE.
WATER DISTRICT SIGNATURE BLOCK	SIGNATURE BLOCK UPDATED WITH REQUIRED SHEETS

1

OFF-SITE PUBLIC QUANTITIES
(FOR BONDING PURPOSES)

ITEM:	PUBLIC	QTY
3.5" WARDELLE AND HARRIS AC.	2,822	SY
5.0" WARDELLE AND HARRIS TYPE II	145	CY
5.5" BONANZA AC	53	SY
13.5"BONANZA TYPE II AGG. BASE	19	CY
FH PAVEMENT BUTTON (REFLECTIVE)	5	EA
4" SIDEWALK	6,318	SF
SIDEWALK RAMP	6	EA
ADJUST/RELOCATE STREETLIGHT	2	EA
COMMERCIAL DRIVEWAY	1622	SF
SAWCUT	1580	LF
STREET LIGHT RELOCATION	2	EA
SANITARY SEWER MANHOLE	1	EA
6" WATER LINE	184	LF
8" WATER LINE	40	LF
WATER MAIN TAPS	2	EA
FIRE HYDRANT RELOCATION	5	EA
4" OCTAVE METERS W/6" RPPA	2	EA

APPROVED FOR CONSTRUCTION

LAS VEGAS FIRE AND RESCUE
FIRE FLOW 1,500 GPM AT 20 PSI RESIDUAL — DATE: 5-2-19

ALLEN PAVELKA, PE# 9029 — 5-21-19 DATE
CITY ENGINEER
CITY OF LAS VEGAS, NEVADA

APPROVAL OF THESE PLANS 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 "DEVIATIONS FROM STANDARDS" IN FAVOR OF THE UNIFORM STANDARD DRAWINGS AND SPECIFICATIONS CLARK COUNTY AREA NEVADA.

DRAINAGE CERTIFICATION

I CERTIFY THAT THIS GRADING PLAN IS IN CONFORMANCE WITH THE APPROVED DRAINAGE STUDY DS #5037 – ON FILE AT THE CITY OF LAS VEGAS FOR THIS PROJECT.

TODD N. KELLEY, PE NO. 14711 — 3-7-2019 DATE

1

APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES

PROJECT NO. 135667 — FIRST APPROVAL DATE: 5-6-19
LVVWD APPROVED FIRE FLOW 1500 GPM AT 20 PSI RESIDUAL
SHEETS: CV-1, CV-2, DM-1, DM-2, MU-1, UT-1, UT-2, DT-3, DT-2, UT-3

CLV PLANNING DEPARTMENT

THIS PLAN MEETS THE APPLICABLE STANDARDS OF THE CITY OF LAS VEGAS PLANNING DEPARTMENT

PLANNING DEPARTMENT — 052019 DATE

CAUTION TO CONTRACTOR

THE CONTRACTOR SHALL BE RESPONSIBLE TO INVESTIGATE AND VERIFY THE ACTUAL LOCATION AND DEPTH OF ALL EXISTING UNDERGROUND FACILITIES AT LEAST 48 HOURS IN ADVANCE OF THE PERFORMANCE OF ANY WORK.

Call before you Dig
Avoid cutting underground utility lines. It's costly.
Call 811 or 1-800-227-2600

AVOID HITTING OVERHEAD POWER LINES. IT'S COSTLY.
CALL BEFORE YOU DO OVERHEAD
1-702-227-2929

FAST
Call before you UnderGround
1-702-432-5300
FREEWAY AND ARTERIAL SYSTEM OF TRANSPORTATION

BIM Server: bim.ajarchitect.com - BIM Server 2017\08 Wardelle Townhouses\180723 Wardelle Townhouses.rvt

ANNE JOHNSON, AIA
architecture • graphic
Anne Johnson, AIA
1489 W Warm Springs Rd, Suite 110, Henderson, Nevada 89014
NV LIC. #5168

GCW
ENGINEERS \ SURVEYORS
1555 S. RAINBOW BLVD LAS VEGAS, NV 89146
T: 702.804.2000 gcwengineering.com

PROFESSIONAL ENGINEER — STATE OF NEVADA — TODD N. KELLEY — No. 14711 — 3-7-2019

Wardelle Street Townhouses
IFB No. B19012

SE corner of N Wardelle St. and E Harris Ave.
APN # 139-254-100-39, 40, 41
Las Vegas, Nevada, 89101
Southern Nevada Regional Housing Authority, (SNRHA)

IF THE ABOVE DIMENSION DOES NOT MEASURE ONE INCH (1") EXACTLY, THIS DRAWING WILL HAVE BEEN ENLARGED OR REDUCED, AFFECTING ALL LABELED SCALES.

REVISIONS	DATE
1 V.E. REV.	11.21.19
SHEETS: CV-1, HC-1, HC-2, HC-3, MU-1, UT-1, UT-2, UT-3, GD-1, GD-2, DT-1, DT-2, DT-3	
TR-1	1/29/20

ADD NVE, COX & CENTURY LINK SIGS 2/24/20
ADD LVVWD 4/30/20

Date:	02/12/2019
Scale:	AS NOTED
Drawn:	DRL
Job:	17008
Sheet:	1 OF 17
Phase:	100% DD

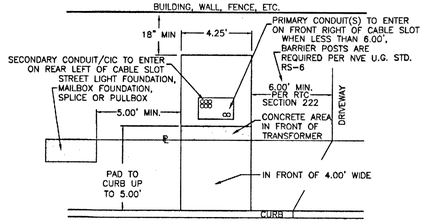
L19-00078
107V7651

CV-1

COVER SHEET

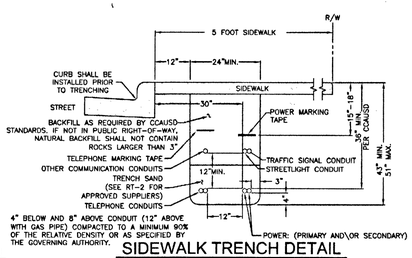
Plotted On: 02/12/19

PROJ#: 135667A QS:139-25-SW



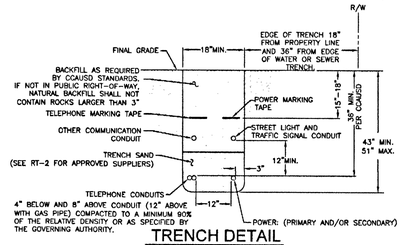
SINGLE-PHASE TRANSFORMER LOCATION DETAIL

NVE U.G. STD. RS-5 & RS-13 (RESIDENTIAL) & RS-19 (COMMERCIAL)



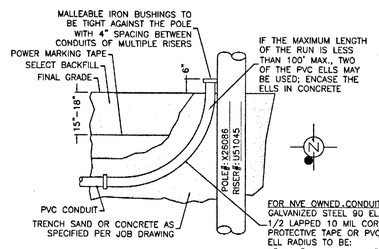
SIDEWALK TRENCH DETAIL

NVE U.G. STD. RT-7 (REV. 10/27/2014)
(RESIDENTIAL OR COMMERCIAL)



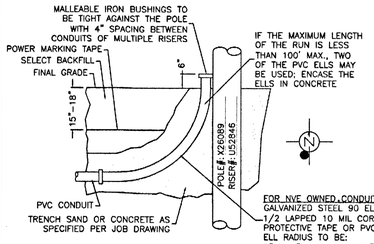
TRENCH DETAIL

NVE U.G. STD. RT-12 (REV. 10/27/2014)
(RESIDENTIAL AND COMMERCIAL)



RISER DETAIL

CONDUIT RUN
PER NVE U.G. STD. RR-1
(TYPICAL)



RISER DETAIL

CONDUIT RUN
PER NVE U.G. STD. RR-1
(TYPICAL)

RTC NOTES:

BACKFILL AND RIGHT OF WAY RESTORATION SHALL CONFORM TO CLARK COUNTY UNIFORM STANDARD DRAWINGS

(1)	500.1	0 TO 5 YEARS PAVEMENT RESTORATION LONGITUDINAL CUT
(2)	500.2	0 TO 5 YEARS PAVEMENT RESTORATION TRANSVERSE CUT
(3)	500.3	OVER 5 YRS PAVEMENT RESTORATION LONGITUDINAL CUT. GREATER THAN 60' R.O.W
(4)	500.4	OVER 5 YRS PAVEMENT RESTORATION LONGITUDINAL CUT. 60' R.O.W OR LESS
(5)	500.5	OVER 5 YRS PAVEMENT RESTORATION TRANSVERSE ALL R.O.W WIDTHS
(6)	501	TYPICAL UNDERGROUND UTILITY LOCATIONS IN RESIDENTIAL STREETS 60' OR LESS R.O.W.
(7)	501.1	TYPICAL UTILITY UNDERGROUND LOCATIONS IN STREETS WITH GREATER THAN 60' R.O.W.
(8)	503	METHOD B FOR RIGID AND FLEXIBLE PIPE TRENCH BACKFILL - PAVED AREAS
(9)	503.1	METHOD A FOR FLEXIBLE PIPE TRENCH BACKFILL - PAVED AREAS
(10)		BACKFILL IN UNPAVED AREA AS REQUIRED BY LOCAL CODE OR AS APPROVED BY AGENCY.
(11)	234	SIDEWALK
(12)	506	UTILITY POTHOLE REPAIR
(13)	216	"L" TYPE CURB AND GUTTER

NV ENERGY SCHEDULING NOTE: DAY (NO LANE BLOCKS)

THIS PROJECT WAS ESTIMATED WITH THE ASSUMPTION THAT ALL THE WORK BEING PERFORMED ON THIS PROJECT BY NV ENERGY CREWS CAN BE DONE DURING THE DAYTIME WITH NO TRAFFIC CONTROL REQUIRED.

GOVERNMENT APPROVAL OF THESE DRAWINGS DOES NOT INDICATE APPROVAL OF TRAFFIC CONTROL. PLEASE REFER TO THE BARRICADE PLAN FOR APPROVED TRAFFIC CONTROL REQUIREMENTS.

CONSTRUCTION / INSPECTION REQUIREMENTS

WORK MUST CONFORM TO NVE ELECTRIC SERVICE STANDARDS, AVAILABLE AT: www.nvenergy.com/business/newconstruction/newconstruction$/servicestandards.cfm

NVE INSPECTOR MUST BE PRESENT TO INSPECT TRENCHING (SCHEDULE AT LEAST 72 HOURS IN ADVANCE) AT EACH OF THE FOLLOWING STAGES:
1. BOTTOM SAND AND CONDUIT INSTALLED
2. TOP SAND INSTALLED
3. BACKFILL INSTALLED

CONDUIT MUST BE MANDRILLED PRIOR TO RELEASE (COORDINATE WITH INSPECTOR).

NVE STAND BY CREW IS REQUIRED WHEN WORKING AT AN ENERGIZED VAULT OR TRANSFORMER. CALL STAND BY NUMBER (SEE TITLE BLOCK) TO SCHEDULE.

NVE ELECTRICAL INSTALLATION WILL NOT BE SCHEDULED UNTIL AFTER THE NVE INSPECTOR HAS COMPLETED THE OFFICIAL RELEASE.

METER(S) WILL NOT BE SET UNTIL ALL OF THE FOLLOWING ARE COMPLETE:
- (INSTRUMENT-RATED ONLY) METERING EQUIPMENT HAS BEEN SUBMITTED TO NVE METERING ENGINEER AND APPROVED. (submittals_southern@nvenergy.com)
- APPLICATION FOR METER SET HAS BEEN SUBMITTED TO NVE'S NEW DEVELOPMENT CENTER. FORM AVAILABLE AT: www.nvenergy.com/brochures_arch/new_construction/meter_set.pdf
- THE LOCAL BUILDING AUTHORITY HAS INSPECTED AND APPROVED THE METERING EQUIPMENT.
- METERING EQUIPMENT IS ACCESSIBLE AND CLEARLY IDENTIFIED WITH PERMANENT MARKINGS. ADDRESSES, SUITE NUMBERS, AND STREET SIGNS ARE POSTED IN PERMANENT LOCATIONS (SEE RPI-G).

TRACK PROJECT STATUS ONLINE WITH NVE'S DEVELOPER DASHBOARD: www.nvenergy.com/business/newconstruction/newconstruction$/developerdashboard.cfm

SOURCE	PROJECT CONNECTED LOAD (3ø)				LOOP
FC OR RISER	PH.	EX: KVA	ADDED KVA	TOTAL KVA	FC OR RISER
X26089	A	0	275	275	X1746
U52846	B	0	50	50	U51045
AR1215	C	0	0	0	AR1215

CIVIL LINETYPE LEGEND

CENTERLINE
PROPERTY LINE/ROW
CURB
EDGE OF PAVEMENT
EDGE OF SIDEWALK
SEWER LINE (S)
WATER LINE (W)
COHW WATER LINE (COHW)
LVVWD WATER LINE (LVVWD)
SNWA WATER LINE (SNWA)
GAS LINE (GAS)
TELEPHONE LINE (TEL)
CABLE TV LINE (CATV)
CABLE TV LINE (FIBER)
STORM DRAIN LINE (SD)
FIRE HYDRANT
SERVICE INDICATOR
SIGNAL LIGHT
STREET LIGHT

SERVICE PANEL SCHEDULE -120/240V V, SINGLE PHASE, 3WIRE (5 TON PER UNIT)				
MTR. PANEL #	MAIN PANEL SIZE	# OF MTRS	E.P.D.	SVC. CABLE SIZE
AC1	600 AMP	1	15 KVA	350 TRI
BLD1	600 AMP	7	22 KVA	350 TRI
BLD2	600 AMP	7	22 KVA	350 TRI
BLD3	600 AMP	7	27 KVA	350 TRI
BLD4	600 AMP	7	22 KVA	350 TRI
BLD5	400 AMP	4	15 KVA	4/0 TRI
BLD6	400 AMP	4	15 KVA	350 TRI
BLD8	400 AMP	4	15 KVA	4/0 TRI
BLD9	600 AMP	7	22 KVA	350 TRI
BLD10	600 AMP	7	22 KVA	350 TRI
BLD11	600 AMP	7	27 KVA	350 TRI
BLD12	600 AMP	7	27 KVA	350 TRI

METER LOCATION & ACCESS REQUIREMENTS

(NV ENERGY STANDARDS RPI-15 & RPI-G)

THIS STANDARD SPECIFIES THE REQUIREMENTS FOR THE LOCATION OF ALL NVENERGY (NVE) METERS AND SERVICE EQUIPMENT WITH THE EXCEPTION OF SINGLE-FAMILY RESIDENTIAL METERS (SEE RPI-2 FOR RESIDENTIAL METERS). REQUIREMENTS IN THIS STANDARD FACILITATE ACCESS TO SERVICE EQUIPMENT BY NVE PERSONNEL FOR PERFORMING OPERATIONS AND MAINTENANCE FUNCTIONS AS WELL AS FOR FIRE AND POLICE AGENCIES IN EMERGENCY SITUATIONS.

METER AND SERVICE ENTRANCE INSTALLATIONS MUST CONFORM TO THE LATEST REVISIONS OF RPI-G AND, SPECIFICALLY, THE "METER ACCESS" AND "METER LOCATIONS" SECTIONS OF RPI-G. THE STANDARD SERVICE POINT WILL BE LOCATED AT THE CORNER OF THE BUILDING NEAREST THE NV ENERGY SUPPLY. ALTERNATE SERVICE POINTS AND METER ROOMS, ALTHOUGH NOT PREFERRED, MAY, AT THE DISCRETION OF NVENERGY, BE ALLOWED PROVIDED THAT THEY MEET THE REQUIREMENTS OF SECTION 6 "ACCESS TO SERVICE EQUIPMENT" AND SECTION 8 "METER ROOMS".

ELECTRIC METER AND SERVICE EQUIPMENT INSTALLATIONS MUST BE READILY ACCESSIBLE TO AUTHORIZED REPRESENTATIVES OF NVE FOR READING, TESTING, AND INSPECTION AT ALL TIMES. CUSTOMER CONTACT WILL NOT BE REQUIRED FOR METER READING. PERMANENT VEHICLE ACCESS TO THE SERVICE EQUIPMENT IS REQUIRED FOR THE INSTALLATION AND MAINTENANCE OF SERVICE CABLES AND METERING EQUIPMENT.

THE SERVICE EQUIPMENT MUST BE ACCESSIBLE 24 HOURS/7 DAYS WITHOUT REQUIRING PASSAGE THROUGH RESTRICTED AREAS OR REQUIRING CUSTOMER CONTACT.

SERVICES 600V AND LESS, THE VEHICLE ACCESS WILL BE A MINIMUM 12' WIDE, 20' HIGH DIRECT PATH TO THE METERING EQUIPMENT.

ALL SERVICES GREATER THAN 600V (PRIMARY SERVICE) OR WHERE THE SERVICES INCLUDE THE INSTALLATION OF THREE-PHASE TRANSFORMERS, SWITCH OR FUSE CABINETS, CAPACITOR BANKS, OR OTHER LARGE EQUIPMENT, THE VEHICLE ACCESS WILL BE A MINIMUM 23' WIDE, WITH NO OVERHEAD OBSTRUCTION.

NVE STANDARDS

GENERAL NOTES:

ANY NOTES LOCATED IN DRAWING AREA TAKE PRECEDENCE OVER STANDARD NOTES.

REFER TO A CURRENT NVEnergy ELECTRIC SERVICE REQUIREMENTS HANDBOOK FOR FURTHER CLARIFICATION OF NVEnergy STANDARDS.

THE APPLICANT SHALL INFORM THE INSPECTOR AT LEAST 48 HOURS BEFORE COMMENCING ANY ITEM OF CONSTRUCTION OR INSTALLATION OF MATERIAL TO ENABLE PROPER INSPECTION OF MATERIALS AND WORKMANSHIP. MAIN TRENCH WIRE PULLS TO BE SCHEDULED 72 HOURS IN ADVANCE OF INSTALLATION. APPLICANT'S PROJECT WILL NOT BE SCHEDULED UNTIL FINAL APPROVAL FROM NVEnergy UNDERGROUND & ELECTRICAL INSPECTORS.

ALL WORK SHALL BE ACCOMPLISHED IN STRICT ACCORDANCE WITH THE SPECIFICATIONS SET FORTH IN THE ELECTRIC SERVICE REQUIREMENTS HANDBOOK, AS CURRENTLY ADOPTED BY NVEnergy. THE CONTRACTOR SHALL SECURE COPIES OF THE AFOREMENTIONED CONSTRUCTION SPECIFICATIONS ON HIS OR HER OWN BEHALF.

SYMBOLS ARE NOT TO SCALE AND DO NOT NECESSARILY REPRESENT ACTUAL LOCATIONS OF FACILITIES.

THIS DRAWING ILLUSTRATES DATA COLLECTED FROM VARIOUS SOURCES AND MAY NOT REPRESENT A SURVEY OF THE PREMISES.

APPLICANT SHALL FIELD DETERMINE POSITION AND DEPTH OF EXISTING UTILITY EQUIPMENT PRIOR TO COMMENCING CONSTRUCTION.

USE CAUTION PRIOR TO EXCAVATION. CHECK TO ENSURE ADDITIONAL DEPTH IS NOT REQUIRED TO ACCOMMODATE GAS AND/OR WATER FACILITIES AND DRAINAGE CHANNELS.

CALL NVEnergy UNDERGROUND INSPECTORS 48 HOURS PRIOR TO START OF CONSTRUCTION FOR TRENCH INSPECTION BEFORE COVERING TRENCH.

ALL NVEnergy CABLE TO BE INSTALLED BEHIND CURB, UNLESS OTHERWISE STATED.

APPLICANT IS RESPONSIBLE FOR STAKING OF PROPERTY CORNERS & ELEVATIONS.

ALL HANDHOLES AND PULLBOXES SHALL BE INSTALLED TO FINISHED GRADE OR 6" ABOVE IF GRADE IS NOT ESTABLISHED.

ANY SUBSTRUCTURE VAULT INSTALLED IN GRAVEL, GRASS, OR BARE GROUND WILL REQUIRE A CONCRETED 8" WIDE AND 6" DEEP COLLAR AROUND BOX IN ACCORDANCE TO RS-G6.

2" PLASTIC CONDUIT BENDS (90', 45') WITH 36" MIN. RADIUS. (USE FIBERGLASS IF CONDUIT LENGTH IS OVER 500')

3" & 4" PLASTIC CONDUIT BENDS (90', 45') WITH 36" MIN. RADIUS. (USE RGS IF CONDUIT LENGTH IS OVER 100')

6" PLASTIC CONDUIT BENDS (90', 45') WITH 48" MIN. RADIUS. (USE RGS IF CONDUIT LENGTH IS OVER 100')

WHEN INSTALLING CONDUIT IN FIELD, USE APPROPRIATE BENDS TO COMPLETE THE INSTALLATION.

DEFLECTION OF CONDUIT BENDS AND CONDUIT NOT TO EXCEED NVEnergy STANDARDS.

EXISTING STUB-OUT/CONDUIT INSTALLED BY PREVIOUS CONTRACTOR / DEVELOPER. NVEnergy DOES NOT GUARANTEE LOCATION, LENGTH, OR ACCESSIBILITY OF EXISTING STUB-OUT/CONDUIT. IF UTILIZING ANY PORTION OF EXISTING CONDUIT, IT MUST BE MANDRELED PRIOR TO FINAL RELEASE.

PREVIOUSLY MANDRELED CONDUIT WHICH HAS BEEN IN THE GROUND FOR OVER 6 MONTHS MUST BE RE-MANDRILLED PRIOR TO FINAL RELEASE.

WHEN NVEnergy FACILITIES ARE TO BE REMOVED, NVEnergy WILL REMOVE ALL WIRES AND EQUIPMENT. NVEnergy IS NOT RESPONSIBLE FOR THE REMOVAL OF CONDUIT RUNS OR SUBSTRUCTURES FROM THE PROPERTY.

NO COVERED PARKING IN FRONT OF EQUIPMENT.

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 ISSUE; THE "UNIFORM STANDARD DRAWINGS FOR PUBLIC WORKS CONSTRUCTION, CLARK COUNTY AREA NEVADA", LATEST ISSUE; AND OTHER APPLICABLE APPROVED STANDARDS ISSUED BY THE CONTROLLING AGENCY; ALL LOCAL CITY CODES AND ORDINANCES APPLICABLE.

FOR PERMITTING ONLY

NVENERGY REQUIRES 24 HOUR ACCESS TO EQUIPMENT

CONDUIT SEALING REQUIREMENT:

CONDUIT SEALING PER NESC AND OR NEC LATEST VERSION.
ALL ELECTRIC CONDUITS ENTERING BUILDING THROUGH OR PENETRATING CONCRETE SLAB SHALL BE SEALED AT BOTH ENDS WITH EXPANDING PLUG(S) AFTER CONDUIT IS MANDRILLED. NVE WILL INSTALL A PERMANENT SEAL, AFTER CONDUCTORS ARE INSTALLED.

TRANSMISSION REQUIREMENTS

COMPLIANCE WITH ALL NESC AND OSHA REQUIREMENTS. MATERIALS AND EQUIPMENT CANNOT BE STOCKPILED UNDER LINES. POLE BOLLARDS ARE REQUIRED AND SHALL BE INSTALLED BY THE OWNER IF PARKING IS WITHIN 10' OF ANY TRANSMISSION STRUCTURE. A 40'X40' SQUARE MUST BE MAINTAINED ON ONE SIDE OF A TANGENT STRUCTURE AND A 20'X20' SQUARE AROUND A DEAD END STRUCTURE TO ALLOW ACCESS FOR MAINTENANCE PURPOSES. CUSTOMER MUST OBTAIN PRIOR APPROVAL FROM TRANSMISSION ENGINEERING FOR FUTURE PROJECTS AND ANY CHANGES OR REVISIONS TO THIS PROJECT INCLUDING BUT NOT LIMITED TO THE FOLLOWING ITEMS:

- PARKING OR STORAGE OF VEHICLES EXCEEDING 8' IN HEIGHT
- COVERED PARKING
- PARKING LIGHTS
- METALLIC FENCES OR BLOCK WALLS
- TRASH ENCLOSURES
- BUILDINGS OR STRUCTURES AND FREE STANDING SIGNS
- SWIMMING POOLS
- PINE AND PALM TREES
- ELEVATION OR GRADE CHANGES

CONTRACTOR SHALL MAINTAIN RADIUS OF 10' PLUS 1:1 SLOPE OF UNDISTURBED SOIL AROUND POLES OR CONTRACTOR WILL NEED TO PROVIDE FOR TRENCH SHORING AND/OR BRACING. CONTRACTOR MAY OBTAIN WAIVER FROM NVE CONSTRUCTION SUPERVISOR.

FIRE HYDRANT CLEARANCE:

6' RADIUS FROM CENTER OF HYDRANT TO ALL ABOVE GROUND PADS AND/OR EQUIPMENT AND ALL MANHOLES AND SWITCHBOXES.
6' RADIUS FROM CENTER OF HYDRANT TO ALL UNDERGROUND HANDHOLES, PULLBOXES AND SPLICEBOXES. ALL PER NVEnergy STD. RS-5

NOTE: ALL THE ABOVE GROUND UTILITY APPURTENANCES SHALL CONFORM TO THE REQUIREMENTS OF CLV UNIFIED DEVELOPMENT CODE TITLE 19.06 AND 19.08

APPROVED FOR CONSTRUCTION

THIS APPROVAL IS FOR WORK IN CLV R/W & EASEMENT ONLY. OBTAINING PERMISSIONS OR EASEMENTS FOR WORK SHOWN ON PRIVATE PROPERTY IS THE RESPONSIBILITY OF THE UTILITY.

APPROVAL BY: Shawn Bolton — DATE: 3/3/20

NVE WILL NOT VERIFY THE EXISTING CONDUIT. CUSTOMER TO ENSURE ITS INTEGRITY AND REPAIR IF NECESSARY.

CUSTOMER NOTE:

UNLESS OTHERWISE NOTED, ALL CONDUIT, BENDS AND SUBSTRUCTURES ARE THE RESPONSIBILITY OF THE CUSTOMERS CONTRACTOR, OR ASSIGNED DCA CONTRACTOR (RESIDENTIAL ONLY)

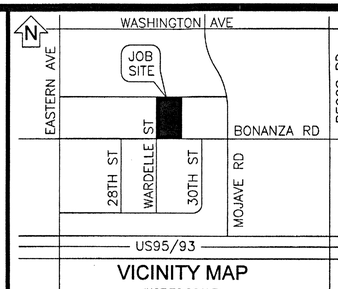
CITY OF LAS VEGAS
PERMIT REQUIRED*

CONTACT CLV LAND DEVELOPMENT (229-6371)
CLV CONSTRUCTION SERVICES MUST BE NOTIFIED 24 HOURS PRIOR TO COMMENCING CONSTRUCTION (229-6337)

HANSEN_____

DATE_____

*NVE INSPECTOR MUST BE NOTIFIED BY FAX 48 HOURS PRIOR TO COMMENCING CONSTRUCTION & WILL VERIFY CITY PERMIT FOR WORK DONE IN STREETS OR SIDEWALK.
FAX PERMIT TO:
LAS VEGAS NORTH (RYAN CENTER): 402-4354
LAS VEGAS SOUTH (BELTWAY CENTER): 402-6864



VICINITY MAP

(NOT TO SCALE)

T,R,S: 20-61-25

APN: 139-25-405-011
139-25-405-012

EVERY EFFORT HAS BEEN MADE TO IDENTIFY ALL NVE FACILITIES. THE CUSTOMER SHALL CONFIRM THE EXISTENCE AND LOCATION OF THESE FACILITIES.

AVOID HITTING OVERHEAD POWER LINES. IT'S COSTLY

CALL 1-702-402-2929

Call before you Dig
Avoid cutting underground utility lines. It's costly.
CALL 811
OR
1-800-227-2600
AND CLARK COUNTY TRAFFIC OPERATIONS
1-702-455-6000

REVISIONS

NO.	DESCRIPTION	DATE	REV BY
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			

STANDARD

PROJECT PURPOSE:

SERVE MULTI-FAMILY RESIDENTIAL ATTACHED COMPLEX
(8) 600A 120/240V 1ø MULTI-METER
(3) 400A 120/240V 1ø MULTI-METER
(1) 600A 120/240V ACTIVITY CENTER

EXHIBIT 'A'

NVEnergy INFORMATION:
COORDINATOR: SHAWHAN, ANTHONY
PHONE: 702-241-9117 D.F. CC
DESIGNER: KERN, ZACHARY
DCA: N/A
INSPECTOR: 702-402-3008 OR UGI@NVENERGY.COM
STAND BY: (702) 402-4450, 4150, 4114, 4117, 4118
DISTRICT: LVN

JPA INFORMATION:
JPA ADMIN PHONE: (702) 595-2551 JPA#: P201215906

CUSTOMER INFORMATION:
APPLICANT: SOUTHERN NEVADA REGIONAL HOUSING AUTHORIT
ENGINEER: GCW
CONTACT: NEAL, JEFF ** 702-368-6500
APPROVAL DATE: 8/19/19

GOVERNMENT INFORMATION:
AGENCY: CLV
APPROVAL DATE: ____

FOR EACH SERVICE POINT (POINT OF DELIVERY), ENERGY FOR EACH TENANT SPACE WILL BE MEASURED THROUGH ONE WATTHOUR METER. ENERGY FOR ALL NON-TENANT SPACE WILL BE MEASURED THROUGH ONE WATTHOUR METER. CONTACT NVE METER OPERATIONS FOR MULTIPLE RATE CLASS INSTALLATIONS.

NVEnergy.

WARDELLE STREET TOWNHOMES

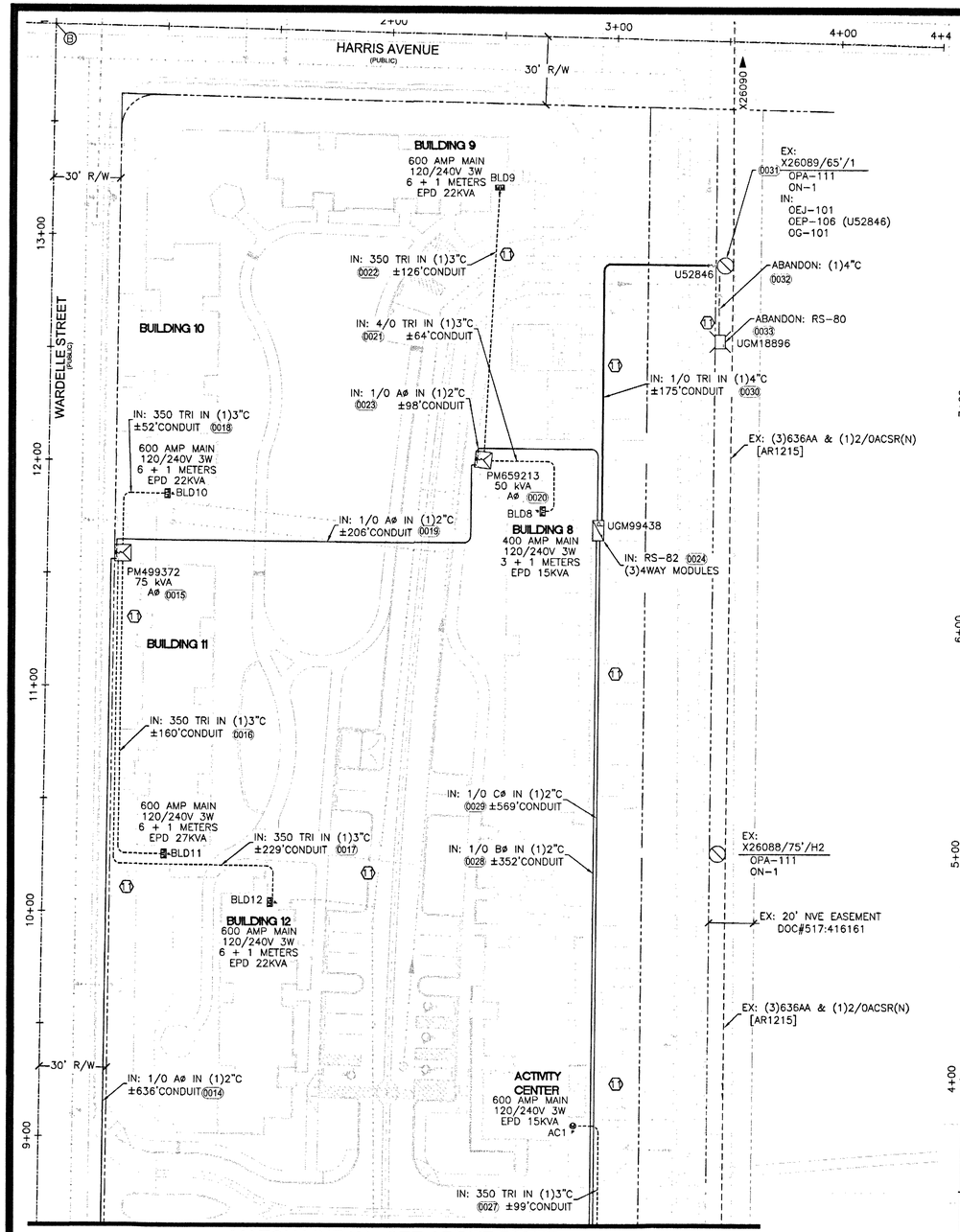
WARDELLE / BONANZA

PROJ #3003114093	SCALE: 1"=30'
SHEET # 1 OF 2	DATE:11/29/2018

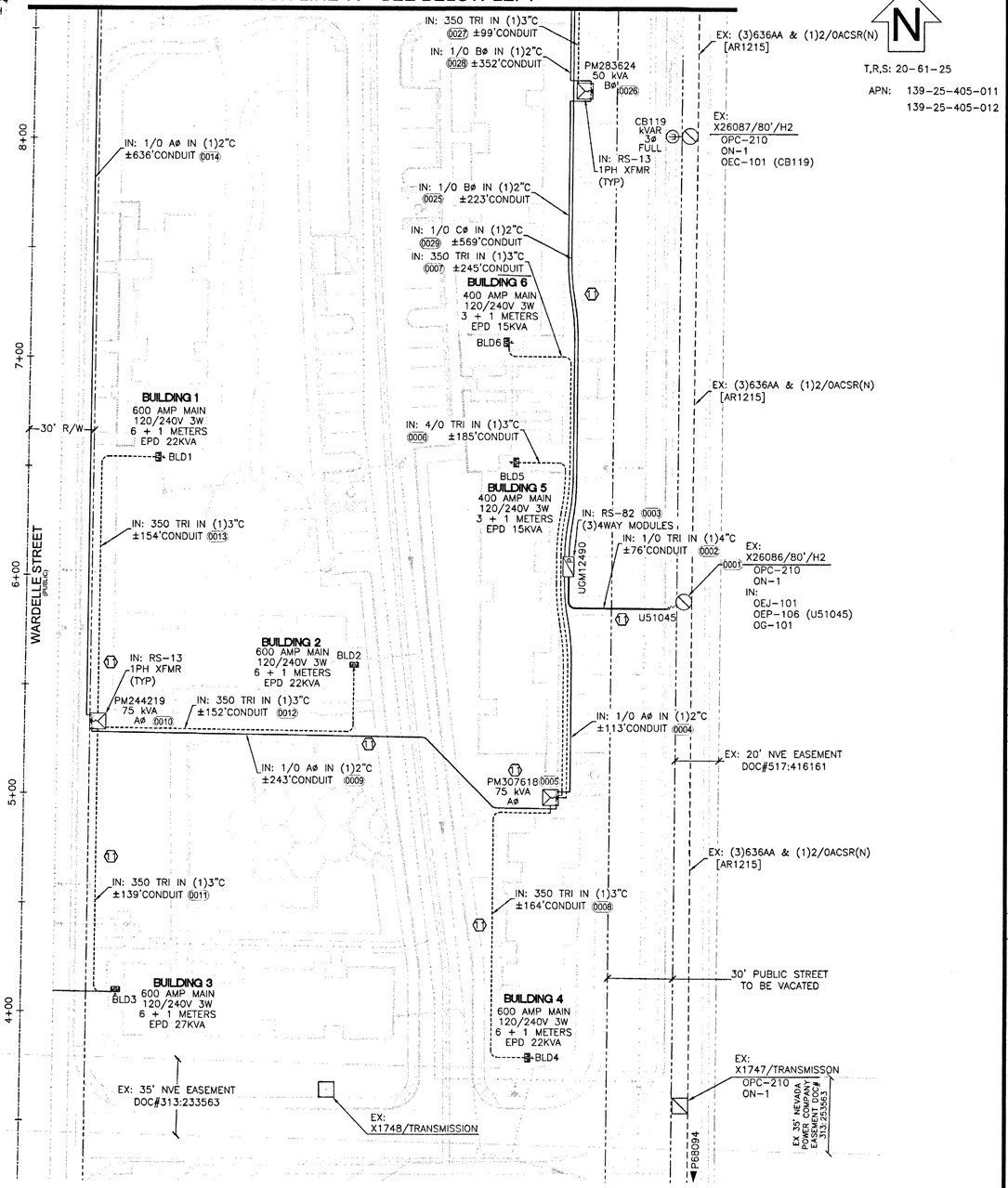
da29085
8/20/2019 9:17 AM

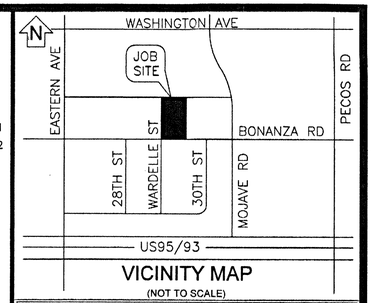
L19-00078 1071765

0 REVISION(S)



MATCH LINE 'A' - SEE ABOVE RIGHT





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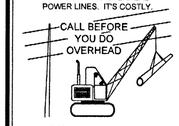

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811

OR
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AND CLARK COUNTY TRAFFIC OPERATIONS
1-702-455-6000

REVISIONS

NO.	DESCRIPTION	DATE	REV BY

STANDARD

PROJECT PURPOSE:

SERVE MULTI-FAMILY RESIDENTIAL ATTACHED COMPLEX
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NVEnergy.

WARDELLE STREET TOWNHOMES

WARDELLE / BONANZA

PROJ #3003114093	SCALE: 1"=30'
SHEET # 2 OF 2	DATE:11/29/2018

8/20/2019 9:17 AM

d529085

CENTERLINE STATION TABLE

#	STREET INTERSECTION	STA	HEADED
(A)	BONANZA RD WARDELLE ST	1+00 0+50	EAST NORTH
(B)	HARRIS AVE WARDELLE ST	0+50 13+90.03	EAST NORTH

STATION TABLE

MAXIMO STATION	CORNER	CENTER LINE STATION	SIDE	OFFSET CL TO BOC	OFFSET CL TO R/W	OFFSET CL TO CLOSEST FACE OF SUBSTRUCTURE	SUBSTRUCTURE INFORMATION
0010	NORTH	5+35.61 FIELD NOTES:	RT	25'	30'	30'	RS-13 - 4.25" X 4.75' OPERATING NUMBER: PM244219 PAGE NUMBER: 2
	SOUTH	5+31.26 FIELD NOTES:	RT	25'	30'	30'	EASEMENT NUMBER: FUTURE TYP. EASEMENT LAYOUT: FUTURE
0015	NORTH	11+61.36 FIELD NOTES:	RT	25'	30'	30'	RS-13 - 4.25" X 4.75' OPERATING NUMBER: PM499372 PAGE NUMBER: 2
	SOUTH	11+57.11 FIELD NOTES:	RT	25'	30'	30'	EASEMENT NUMBER: FUTURE TYP. EASEMENT LAYOUT: FUTURE

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- TRASH ENCLOSURES
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- PINE AND PALM TREES
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SOURCE	PROJECT CONNECTED LOAD (3Ø)			LOOP
FC OR RISER	PH.	EX: KVA	ADDED KVA	TOTAL KVA	FC OR RISER
X26089	A	0	275	275	X1746
U52846	B	0	50	50	U51045
AR1215	C	0	0	0	AR1215

NOTE: ALL THE ABOVE GROUND UTILITY APPURTENANCES SHALL CONFORM TO THE REQUIREMENTS OF CLV UNIFIED DEVELOPMENT CODE TITLE 19.06 AND 19.08

APPROVED FOR CONSTRUCTION

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APPROVAL BY: Shawn Bullock 8/8/20 DATE

FOR PERMITTING ONLY

CITY OF LAS VEGAS
PERMIT REQUIRED*

CONTACT CLV LAND DEVELOPMENT (229-6371)
CLV CONSTRUCTION SERVICES MUST BE NOTIFIED 24 HOURS PRIOR TO COMMENCING CONSTRUCTION (229-6337)

HANSEN_____

DATE_____

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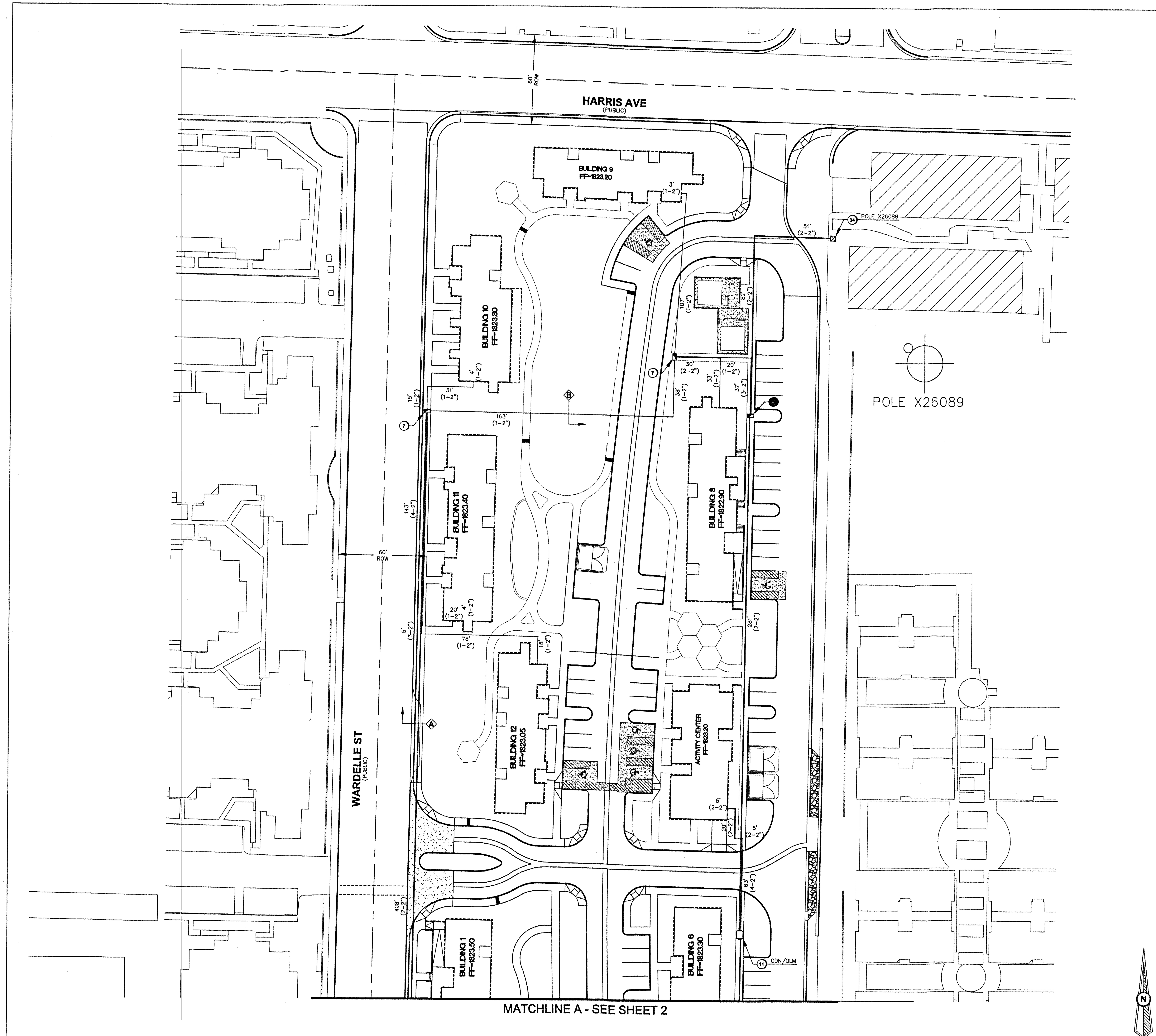
FAX PERMIT TO:
LAS VEGAS NORTH (RYAN CENTER): 402-4354
LAS VEGAS SOUTH (BELTWAY CENTER): 402-6864

L18-00078 1074651

0 REVISION(S)



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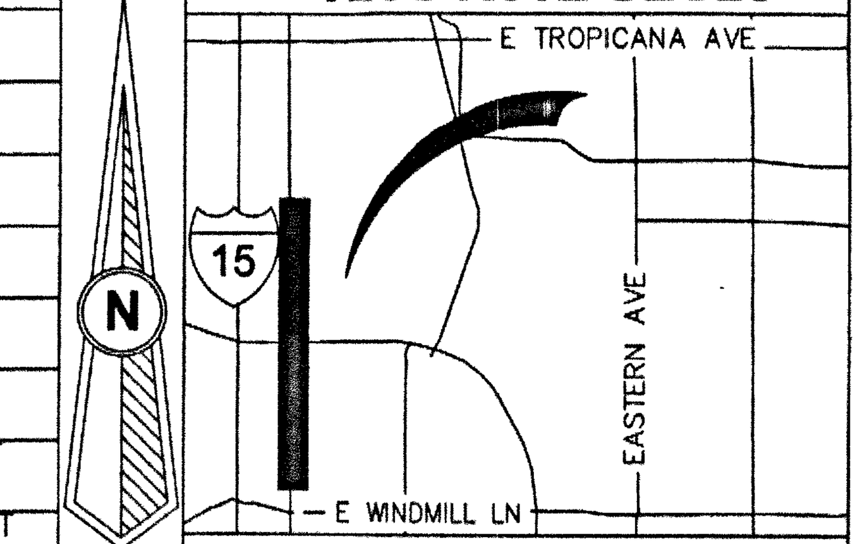

VICINITY MAP

LEGEND

1	▮	INSTALL B-36 PULL BOX (24"X36"X24")
2	▨	EXISTING B-36 PULL BOX (24"X36"X24")
3		INSTALL B-50 PULL BOX (13"X24"X24")
4		EXISTING B-50 PULL BOX (13"X24"X24")
5		INSTALL B-100 PULL BOX (24"X36"X24")
6		EXISTING B-100 PULL BOX (24"X36"X24")
7		INSTALL T-200 CATV VAULT (30"X48"X36")
8		EXISTING T-200 CATV VAULT (30"X48"X36")
9		INSTALL T-400 CATV VAULT (36"X60"X36")
10		EXISTING T-400 CATV VAULT (36"X60"X36")
11		INSTALL T-600 CATV VAULT (48"X72"X36")
12		EXISTING T-600 CATV VAULT (48"X72"X36")
13	▲	INSTALL NEW CATV PEDESTAL
14	△	EXISTING CATV PEDESTAL
15	□	R&R S/W SLAB(S)
16	○	POTHOLE
17	—C—	SIDEWALK/DIRT TRENCH INSTALL WITH FIBER/COAX PULL
18	—C—	ASPHALT MITIGATION/STREET TRENCH WITH FIBER/COAX PULL
19	—B—	PROPOSED BORE WITH FIBER/COAX PULL
20	—X—	EXISTING CATV CONDUIT(S)
21	—OHC—	PROPOSED OVERHEAD FIBER OPTIC CABLE OR COAX INSTALL
22	—XOHC—	EXISTING OVERHEAD FIBER OPTIC CABLE OR COAX
23	— — —	U.G. FIBER/COAX PULL THROUGH EXISTING CONDUIT
24		RIGHT OF WAY LINE
25		LOT/PROPERTY LINE
26		EDGE OF PAVEMENT/ SIDEWALK/CONCRETE
27	P	EXISTING NVE PULL BOX
28	T	EXISTING TELCO PULL BOX
29	TM	EXISTING COMMUNICATION MANHOLE
30	T	EXISTING TELCO POLE
31		EXISTING NVE POLE
32	NVE	EXISTING NVE TRANSMISSION POLE
33	⊗	EXISTING JOINT POLE
34		EXISTING JOINT POLE WITH TRANSFORMER
35		POLE ANCHOR
36		EXISTING NVE TRANSFORMER TRANSFORMER PAD
37	TS	SNWA TEST STATION
38		COX POWER SUPPLY (49"X24"X52")
39	CB	CABINET (RHINO,ODN,OLM)
40		RISER POLE/QUADRANT DETAIL RISER OWNERSHIP NOTED
41		RAILROAD
42	MH	EXISTING MANHOLE (SS),(SD),..ECT
43	- - -	1in CONDUIT LATERAL
44		STORMWATER ASSETS
45		

REVISIONS

REV	DESCRIPTION	DATE	BY
△			
△			
△			
△			

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 ISSUE; THE "UNIFORM STANDARD DRAWINGS FOR PUBLIC WORKS CONSTRUCTION, CLARK COUNTY AREA NEVADA",LATEST ISSUE; AND OTHER APPLICABLE APPROVED STANDARDS ISSUED BY THE CONTROLLING AGENCY; ALL LOCAL CITY CODES AND ORDINANCES APPLICABLE.

APPROVED FOR CONSTRUCTION

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Shawn Bratton — 3/3/20
APPROVAL — DATE

PERMIT #: N/A
DRAWN BY: WTB
DATE: 12/5/2019
SCALE: 1" = 30'
NODE: N/A
PROJECT #: 4050519000PREFCRB
TECH #: 702-545-1601
APPROVED BY: GEOFF PIERCE

COX — BRINGING US CLOSER
1700 VEGAS DRIVE
LAS VEGAS, NEVADA 89106
PHONE: (702) 545-1606
FAX: (702) 545-2606

PROJECT LOCATION: WARDELLE TOWNHOMES WARDELLE ST & HARRIS AVE
SUB-CONTRACTOR: DBA: COX COMMUNICATIONS
ENTITY NOTES: NONE

DISCLAIMER NOTE

UTILITY LOCATIONS SHOWN HEREON ARE APPROXIMATE ONLY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT HORIZONTAL AND VERTICAL LOCATION OF ALL EXISTING UNDERGROUND AND OVERHEAD UTILITIES PRIOR TO COMMENCING CONSTRUCTION. NO REPRESENTATION IS MADE THAT ALL EXISTING UTILITIES ARE SHOWN HEREON. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR UTILITIES NOT SHOWN OR UTILITIES NOT SHOWN IN THEIR PROPER LOCATIONS.

CALL BEFORE YOU DO UNDERGROUND — BEFORE YOU UNDERGROUND 1-702-455-7511 CLARK COUNTY TRAFFIC OPERATIONS AND 1-702-432-5300 LAS VEGAS AREA COMPUTERIZED SYSTEM

AVOID CUTTING UNDERGROUND UTILITY LINES. IT'S COSTLY. CALL 811 BEFORE YOU DIG OR 1-800-227-2600 UNDERGROUND SERVICE (USA)

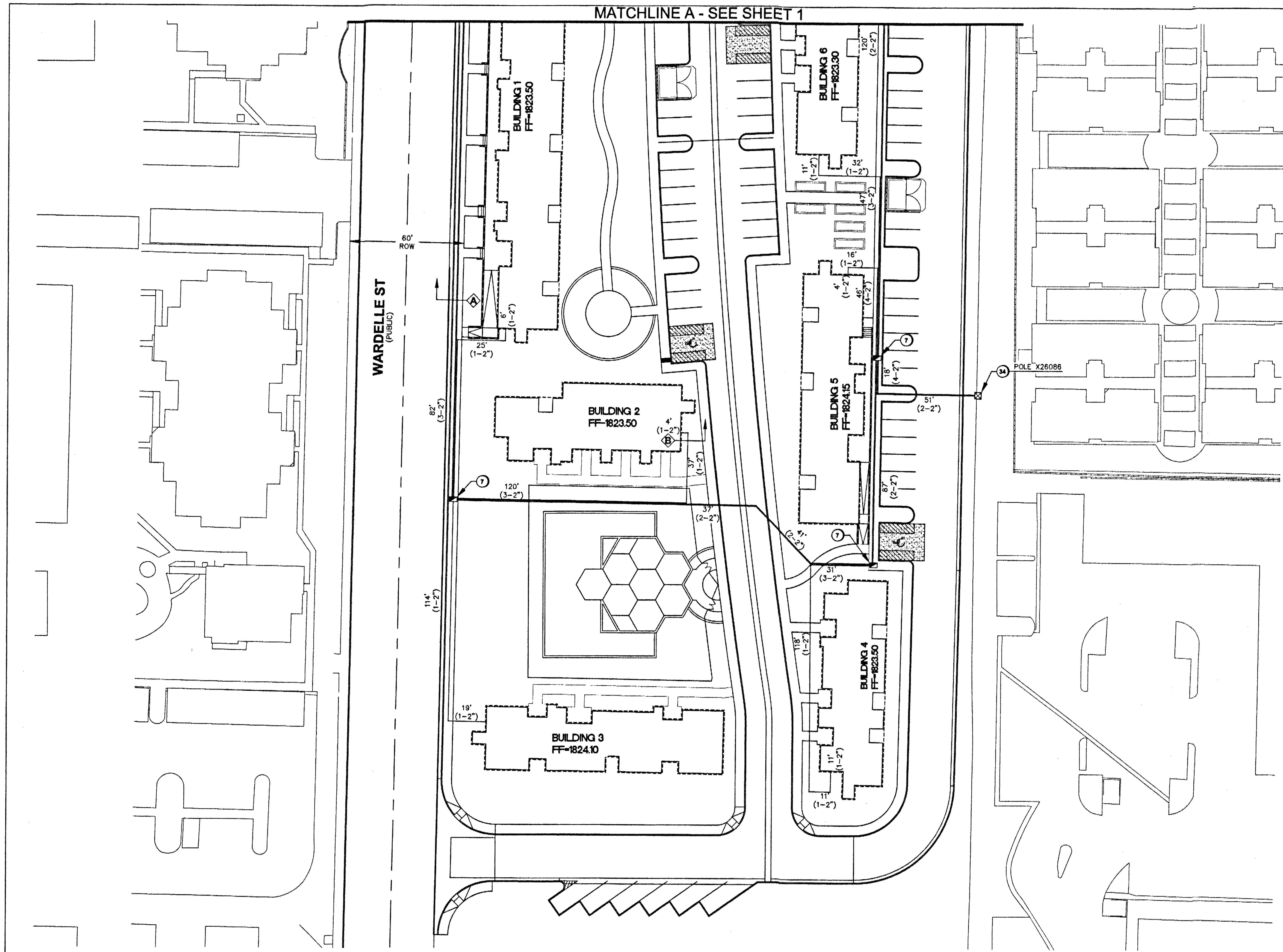
AVOID OVERHEAD POWER LINE CONTACT — CALL BEFORE YOU OVERHEAD 1-702-227-2929 NEVADA POWER ENVIRONMENT AND SAFETY SERVICE DEPARTMENT

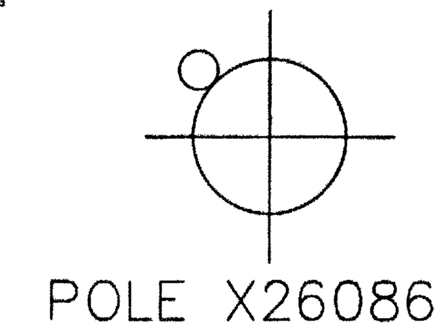
TOTAL BORE	0'
TOTAL DIRT TRENCH	0'
TOTAL ASPHALT TRENCH	0'
TOTAL TRENCH	0'
SIDEWALK REMOVAL/REPAIR	
TOTAL S/W PANELS	0
TOTAL LINEAR FOOTAGE	0'

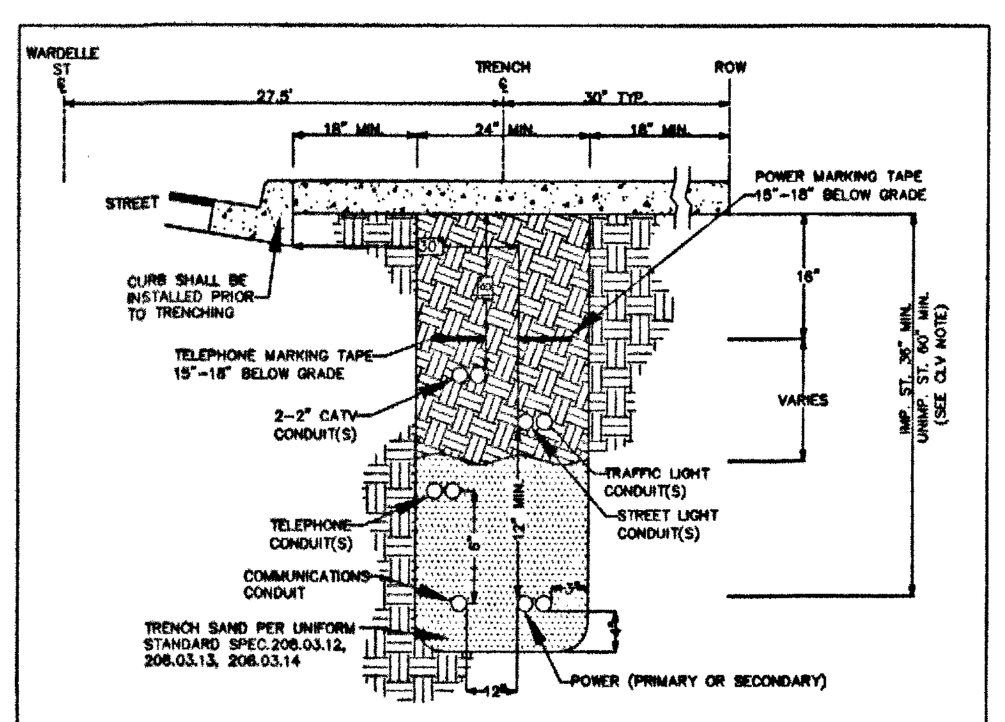
CITY OF LAS VEGAS
333 N. RANCHO DRIVE
LAS VEGAS, NEVADA 89106
(702) 229-6885

SHEET No: 1
Sheet 1 of 2

TrueNet # 14689







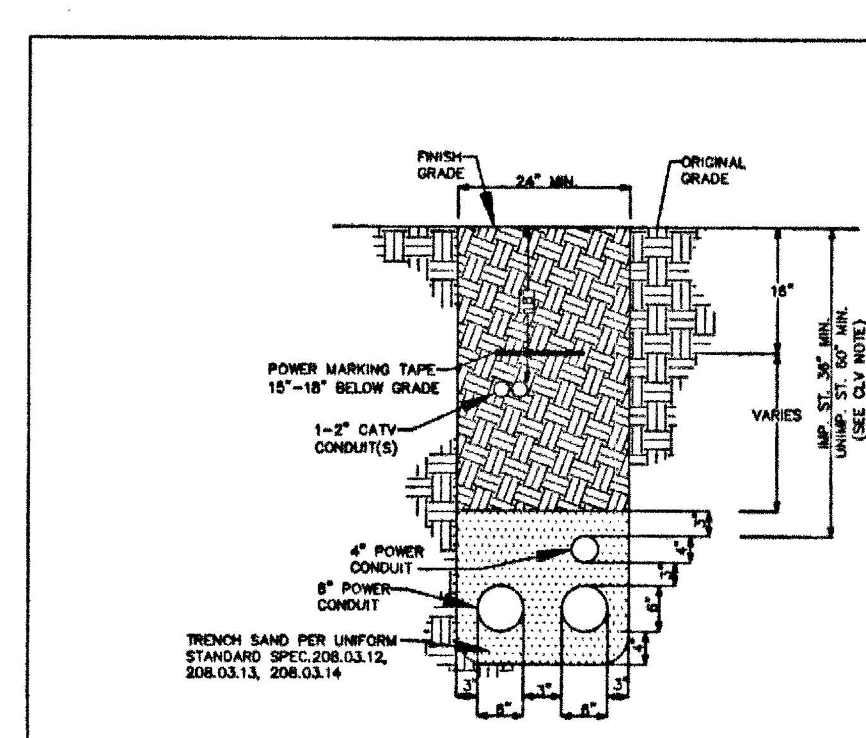
SIDEWALK TRENCH DETAIL (A)

PRIVATE & PROJECT INTERIOR TRENCH
(NOT TO SCALE)

CLV REQUIREMENTS (APPLICABLE WITHIN CITY OF LAS VEGAS LIMITS ONLY):

IMPROVED AREA (IMP. ST.): (LOCATION OF TRENCH)
AREA WILL BE CONSIDERED IMPROVED IF IT MEETS ONE OR MORE OF THE FOLLOWING CRITERIA(s):
- EXISTING PERMANENT PAVEMENT WITH CURB & GUTTER AND/OR ADJACENT PERMANENT SIDEWALK
- WITHIN AN IMPROVED TRAIL AREA
- LIMITS OF CONSTUCTION INSTALL CONCURRENT WITH A PRIVATE OR PUBLIC PROJECT

UNIMPROVED AREA (UNIMP. ST.): (LOCATION OF TRENCH)
ANY OTHER SCENARIO THAT FAILS TO MEET THE IMPROVED AREA CRITERIA(s) WILL BE CONSIDERED AN UNIMPROVED AREA.



DIRT TRENCH DETAIL (B)

PRIVATE & PROJECT INTERIOR TRENCH
(NOT TO SCALE)

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13	INSTALL NEW CATV PEDESTAL
14	EXISTING CATV PEDESTAL
15	R&R S/W SLAB(S)
16	POTHOLE
17	—C— SIDEWALK/DIRT TRENCH INSTALL WITH FIBER/COAX PULL
18	—C— ASPHALT MITIGATION/STREET TRENCH WITH FIBER/COAX PULL
19	—B— PROPOSED BORE WITH FIBER/COAX PULL
20	—X— EXISTING CATV CONDUIT(S)
21	—OHC— PROPOSED OVERHEAD FIBER OPTIC CABLE OR COAX INSTALL
22	—XOHC— EXISTING OVERHEAD FIBER OPTIC CABLE OR COAX
23	U.G. FIBER/COAX PULL THROUGH EXISTING CONDUIT
24	RIGHT OF WAY LINE
25	LOT/PROPERTY LINE
26	EDGE OF PAVEMENT/ SIDEWALK/CONCRETE
27	P EXISTING NVE PULL BOX
28	T EXISTING TELCO PULL BOX
29	TM EXISTING COMMUNICATION MANHOLE
30	T EXISTING TELCO POLE
31	EXISTING NVE POLE
32	NVE EXISTING NVE TRANSMISSION POLE
33	EXISTING JOINT POLE
34	EXISTING JOINT POLE WITH TRANSFORMER
35	POLE ANCHOR
36	EXISTING NVE TRANSFORMER TRANSFORMER PAD
37	TS SNWA TEST STATION
38	COX POWER SUPPLY (49"X24"X52")
39	CB CABINET (RHINO,ODN,OLM)
40	RISER POLE/QUADRANT DETAIL RISER OWNERSHIP NOTED
41	RAILROAD
42	MH EXISTING MANHOLE (SS),(SD)...ECT
43	-- -- --- 1in CONDUIT LATERAL
44	STORMWATER ASSETS
45	

DISCLAIMER NOTE

UTILITY LOCATIONS SHOWN HEREON ARE APPROXIMATE ONLY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT HORIZONTAL AND VERTICAL LOCATION OF ALL EXISTING UNDERGROUND AND OVERHEAD UTILITIES PRIOR TO COMMENCING CONSTRUCTION. NO REPRESENTATION IS MADE THAT ALL EXISTING UTILITIES ARE SHOWN HEREON. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR UTILITIES NOT SHOWN OR UTILITIES NOT SHOWN IN THEIR PROPER LOCATIONS.

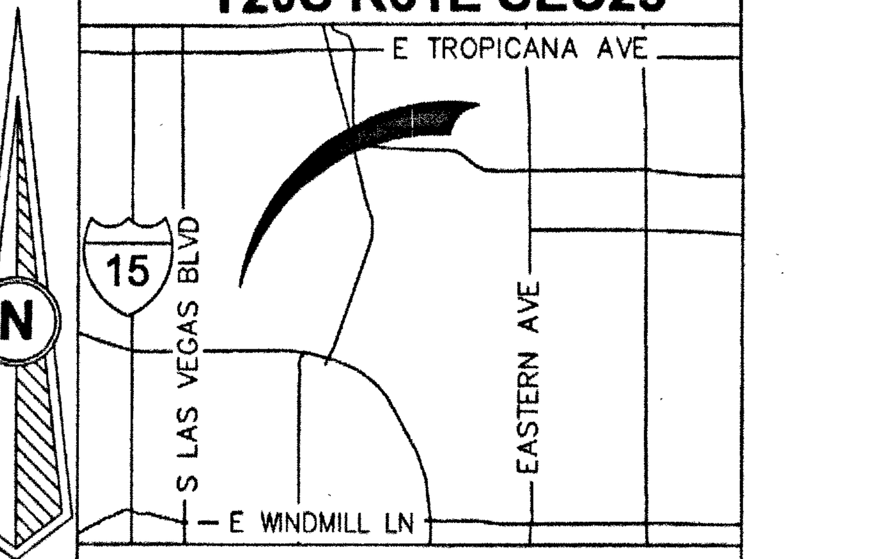
AVOID HITTING UNDERGROUND TRAFFIC SIGNAL SYSTEMS AND STREET LIGHT SYSTEMS CONDUITS IT'S COSTLY
CALL BEFORE YOU DO UNDERGROUND
CALL BEFORE YOU UNDERGROUND
1-702-455-7511
CLARK COUNTY TRAFFIC OPERATIONS
AND
1-702-432-5300
LAS VEGAS AREA COMPUTERIZED SYSTEM

AVOID CUTTING UNDERGROUND UTILITY LINES. IT'S COSTLY.
CALL 811
BEFORE YOU DIG
OR 1-800-227-2600
UNDERGROUND SERVICE (USA)

AVOID OVERHEAD POWER LINE CONTACT
CALL BEFORE YOU OVERHEAD
1-702-227-2929
NEVADA POWER ENVIROMENT AND SAFETY SERVICE DEPARTMENT

TOTAL BORE	0'
TOTAL DIRT TRENCH	0'
TOTAL ASPHALT TRENCH	0'
TOTAL TRENCH	0'
SIDEWALK REMOVAL/REPAIR	
TOTAL S/W PANELS	0
TOTAL LINEAR FOOTAGE	0'

T20S R61E SEC25



VICINITY MAP

REVISIONS

REV	DESCRIPTION	DATE	BY
△			
△			
△			
△			

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 ISSUE; THE "UNIFORM STANDARD DRAWINGS FOR PUBLIC WORKS CONSTRUCTION, CLARK COUNTY AREA NEVADA", LATEST ISSUE; AND OTHER APPLICABLE APPROVED STANDARDS ISSUED BY THE CONTROLLING AGENCY; ALL LOCAL CITY CODES AND ORDINANCES APPLICABLE.

APPROVED FOR CONSTRUCTION

THIS APPROVAL IS FOR WORK IN CLV R/W OR CLV EASEMENT ONLY. OBTAINING PERMISSION OR EASEMENT FOR WORK SHOWN IN PRIVATE PROPERTY IS THE RESPONSIBILITY OF THE UTILITY.

Shaun Boulton — APPROVAL   3/3/20 — DATE

L19-00078
107V7651

PERMIT #: N/A
DRAWN BY: WTB
DATE: 12/5/2019
SCALE: 1" = 30'
NODE: N/A
PROJECT #: 40505190000PREFCRB
TECH #: 702-545-1601
APPROVED BY: GEOFF PIERCE

COX — BRINGING US CLOSER
1700 VEGAS DRIVE
LAS VEGAS, NEVADA 89106
PHONE: (702) 545-1606
FAX: (702) 545-2606

CITY OF LAS VEGAS
333 N. RANCHO DRIVE
LAS VEGAS, NEVADA 89106
(702) 229-6885

PROJECT LOCATION: WARDELLE TOWNHOMES WARDELLE ST & HARRIS AVE

SUB-CONTRACTOR: DBA: COX COMMUNICATIONS

ENTITY NOTES: NONE

SHEET No: 2

Sheet 2 of 2

TrueNet# 14689

GENERAL NOTES FOR T&S

1. ALL CONSTRUCTION SHALL CONFORM TO THE NEVADA DIVISION OF CENTURYLINK SPECIFICATIONS. SEE LATEST ISSUE FOR THE INSTALLATION OF UNDERGROUND RESIDENTIAL DISTRIBUTION TELEPHONE SYSTEM.
2. WHEN EXISTING TELEPHONE FACILITIES (POLES, MANHOLES, PULL BOXES, CONDUIT, TERMINALS, ETC.) ARE AFFECTED BY IMPROVEMENTES AS REQUIRED BY LOCAL ORDINANCE (I.E. STREETS, SIDEWALKS, GUTTERS, ETC.) THE DEVELOPER SHALL BE RESPONSIBLE FOR THE ADJUSTMENT OF THESE FACILITIES AS REQUIRED.
3. TRENCHING, BACKFILLING AND RESTORATION WORK ARE TO BE PROVIDED BY THE DEVELOPER AND SHALL CONFORM TO THE REGIONAL TRANSPORTATION COMMISSION OF SOUTHER NEVADA (RTC) UNIFORM STANDARD DRAWINGS.
4. ALL SUBSTRUCTURE SHOWN AS CENTURYLINK'S RESPONSIBILITY WILL BE REIMBURSED BASED UPON THE STANDARD CONTRACTOR PRICE LIST. CONTRACTOR MUST CONTACT THE CENTURYLINK ENGINEER FOR CURRENT PRICING, PRIOR TO CONSTRUCTION. CONTRACTOR IS TO SUBMIT A PROPOSAL FOR THE IN-PLACE COST OF THE MATERIAL ITEMS. ONCE THE PRICE IS AGREED UPON, CENTURYLINK WILL PROVIDE THE CONTRACTOR A LETTER OF AUTHORIZATION (LOA) TO PROCEED. PAYMENT WILL BE BASED ON "ACTUAL" MATERIAL PLACED. AN AS-BUILT WITH THE ADJUSTED INVOICE MUST BE SUBMITTED TO CENTURYLINK ENGINEERING DEPARTMENT BEFORE PAYMENT IS PROCESSED.
5. ANY CONDUIT PLACED FOR THE DEVELOPER'S CONVENIENCE (I.E. STREET CROSSING, STUB-OUTS FOR FUTURE UNITS) WILL BE PLACED AT DEVELOPER'S EXPENSE.
6. TELEPHONE BOXES ARE TO BE PLACED IN THE SIDEWALK AREA WHENEVER POSSIBLE AND SITUATED TO AVOID DRIVEWAYS. ALL TRENCHING WILL BE OF A MINIMUM DEPTH TO MAINTAIN 36" COVER FROM FINAL GRADES TO TOP OF PIPE (EXCEPT WHEN ENTERING TELEPHONE BOXES), MAINTAIN 12" MINIMUM SEPARATION FROM FOREIGN UTILITIES. BOXES WILL BE ESTABLISHED TO FINISH GRADE.
7. TRENCH AND SUBSTRUCTURE TO A RESIDENCE MUST BE 18" FROM THE SIDE LOT LINE WITH A MINIMUM DEPTH TO MAINTAIN 30" COVER FROM FINISH GRADE AND 12" MINIMUM SEPARATION FROM FOREIGN UTILITIES.
8. CABLE RACKS WILL BE INSTALLED IN ALL 2'-0" X 3'-0" PULL BOXES AND LARGER PER CENTURYLINK SPECIFICATIONS.
9. ALL PULL BOXES (2'-0" X 3'-0" AND LARGER) AND MANHOLES ARE TO BE GROUNDED WITH 3/8" X 1/16" TINNED SOFT COPPER BONDING RIBBON PLACED VERTICALLY AROUND THE BOTTOM OF THE BXD WITH 3' ENDS STUBBED INSIDE.
10. ALL 2.5' X 4' AND 3' X 5' PULL BOXES FOR DIRECT BURIED CABLE MUST BE INTERCEPT TYPE BOXES. BASE PORTION MUST BE SET PRIOR TO CABLE PULL. UPPER PORTION WILL BE PLACED AFTER CABLE PULL AND PRIOR TO SPLICING.
11. IN SOME CASES, A PULL BOX MAY HAVE TO BE RELOCATED FROM THE POSITION SHOWN ON THE DRAWING DUE TO INTERFERENCES WITH OTHER UTILITIES SUCH AS STREET LIGHTS, ETC. IF SUCH RELOCATION IS REQUIRED, THE ENGINEER SHALL BE NOTIFIED PRIOR TO RELOCATION.
12. ALL TELEPHONE BOXES NOT IN SIDEWALK AREAS WILL BE REQUIRED TO HAVE A PROTECTIVE CONCRETE COLLAR, RE-ENFORCED WITH REBAR, POURED AROUND THE TOP PORTION OF THE BOX PER CENTURYLINK SPECIFICATIONS.
13. ALL PEDESTALS WILL BE PLACED NO CLOSER THAN 18" TO THE SIDE OF POWER TRANSFORMERS.
14. WHEN JOINING EXISTING STUB-OUTS, THE LOCATION AND VALIDITY OF THE STUB-OUTS ARE ASSUMED AND BASED OFF RECORDS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT HORIZONTAL AND VERTICAL LOCATION OF THE EXISTING CONDUIT STUB-OUT. THE CONTRACTOR SHALL BE RESPONSIBLE TO LOCATE, PROVE AND PLACE PULL STRING IN THE EXISTING CONDUIT AS PART OF CONNECTING TO THE STUB FOR EXTENSION TO THIS PROJECT. IF THE CONDUIT CANNOT BE PROVED OR IS IDENTIFIED AS BEING DAMAGED THEN THE CONTRACTOR SHALL BE RESPONSIBLE TO REPAIR THE DUCTS WHERE DAMAGED OR INSTALL NEW CONDUIT BACK TO THE EXISTING TRUE POINT OF RE-ENFORCIBLE SERVICE (I.E MANHOLE OR PULL BOX) AT THE DEVELOPER'S EXPENSE.
15. THE CONTRACTOR SHALL PROVE AND MANDREL ALL CONDUIT AFTER BACKFILLING WHILE A CENTURYLINK INSPECTOR IS PRESENT. MANDREL SIZE IS TO BE 1/4" SMALLER THAN THE INSIDE DIAMETER OF THE CONDUIT.
16. THE CONTRACTOR SHALL PROVIDE AND INSTALL A MEASURING TAPE CONSISTING OF WATER PROOF, 400 POUND TENSILE STRENGTH, MARKED IN ONE FOOT OR LESS INCREMENTS IN AT LEAST ONE DUCT OF ALL CONDUIT SECTIONS. ALL OTHER DUCTS IN A MULTIPLE DUCT SYSTEM WILL HAVE A 3/32" JET LINE PULL STRING WITH 400 POUND TENSILE STRENGTH.
17. A POLYETHYLENE DUCT PLUG SHALL BE INSTALLED IN ALL CONDUIT WHERE TERMINATED OR STUBBED.
18. WHEN DESIGNATED IN THE CONTRACT DRAWING(S) WITH A GROUNDED SYMBOL, THE DEVELOPER/ CONTRACTOR SHALL PROVIDE AND INSTALL A #6 AWG STRANDED COPPER WIRE WITH GREEN PVC INSULATION FROM A PULL BOX OR MANHOLE TO THE NEAREST POWER TRANSFORMER WHEN LOCATED WITHIN 50' OR LESS FROM THE SUBSTRUCTURE (EXCEPT 30 BOXES AND SMALLER), LEAVE A 4 FØØT TAILING END INSIDE THE SUBSTRUCTURE AND INCLUDE ALL CLAMPS NECESSARY TO FASTEN THE GROUNDING WIRE TO THE TRANSFORMER GROUND ROD OR COUNTERPOISE. THE GROUND WIRE SHALL ENTER THE SUBSTRUCTURE THROUGH THE 1" PVC GROUND SLEEVE.
19. THE DEVELOPER SHALL PROVIDE A #6 COPPER GROUND WIRE FROM EACH TERMINAL CABINET, BACKBOARD AND/OR NETWORK INTERFACE DEVICE (NID) FOR A SINGLE FAMILY UNIT TO A COMMON GROUND WITH NV ENERGY PER THE NATIONAL ELECTRIC SAFETY CODE SPECIFICATIONS. ALL TERMINAL CABINETS WILL HAVE A 2" METAL RISER.
20. IN ORDER TO INSURE ADEQUATE FACILITIES ARE PROVIDED FOR THIS PROJECT, IT IS IMPERATIVE THAT THIS TRENCH AND SUBSTRUCTURE DESIGN NOT BE CHANGED WITHOUT CENTURYLINK OUTSIDE PLANT ENGINEERING APPROVAL.
21. CALL 702-244-7811 TO SCHEDULE INSPECTIONS 24 HOURS IN ADVANCE. REQUESTS RECEIVED AFTER 11:00AM MAY NOT BE SCHEDULED FOR THE FOLLOWING WORK DAY. ALLOW 48 HOURS ADVANCE NOTICE FOR DIRECT BURIED CABLE INSTALLATIONS IN OPEN TRENCH SECTIONS. THE 48 HOURS BEGINS AFTER THE CENTURYLINK INSPECTOR APPROVES THE OPEN TRENCH.

FIBER TO THE PREMISE - MINIMUM INSIDE WIRING STANDARDS FOR CUSTOMER OWNED PREMISE WIRE (COPW)

SEPARATE CAT-3 OR CAT-5 CABLE FOR VOICE
SEPARATE CAT 5E CABLE FOR DATA

MAXIMUM LENGTH BETWEEN THE ELECTRONICS AND DEMARC IS 328 FT.

ALL COPW OR INSIDE WIRE SHALL BE BROUGHT TO A CENTRAL LOCATION OR SMART PANEL EQUIPPED WITH A #6 GROUND WIRE TO AN MGN AND DEDICATED AC OUTLET IN EACH LIVING UNIT. THEN ONE CAT-3 AND ONE CAT-5 FOR DATA, VOICE AND FUTURE TECHNOLOGY FROM THE SMART PANEL TO THE DEMARC LOCATION. THE DEMARC LOCATION WILL ALSO REQUIRE A #6 GROUND WIRE TO AN MGN AND A DEDICATED 20 AMP AC OUTLET.

IF ANY QUESTIONS, PLEASE CONTACT THE ENGINEER OR INSPECTOR.

APPROVED FOR CONSTRUCTION:

THIS APPROVAL IS FOR WORK IN CLV R/W OR CLV EASEMENTS ONLY. OBTAINING PERMISSIONS OR EASEMENTS FOR WORKSHOWN ON PRIVATE PROPERTY IS THE RESPONSIBILITY OF THE UTILITY.

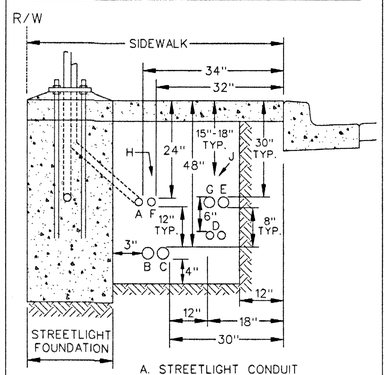
THIS PROJECT HAS BEEN DESIGNED AS JOINT TRENCH WITH NV ENERGY PER THE LATEST NV ENERGY PLAN.

Shawn Boulton — 3/3/20
CITY OF LAS VEGAS APPROVAL — DATE

RTC SOUTHERN NEVADA NOTES:

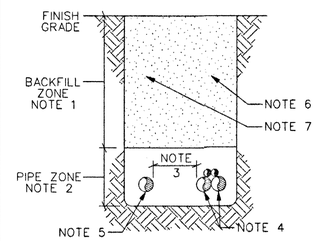
- FOR ASPHALT CUT AND RESTORATION REQUIREMENTS, SEE RTC UNIFORM STANDARD DRAWING SERIES 500.1, 500.2, 500.3, 500.4 AND 500.5
- FOR SIDEWALK REMOVAL AND REPLACEMENT REQUIREMENTS SEE RTC UNIFORM STANDARD DRAWING 234
- FOR TYPICAL U.G. UTILITY LOCATIONS UNDER STREETS AND SIDEWALKS, SEE RTC UNIFORM STANDARD DRAWINGS 501 AND 501.1
- FOR BACKFILL REQUIREMENTS SEE RTC STANDARD DRAWING SEE RTC UNIFORM STANDARD DRAWING 503.1
- SEE COMPLETE RTC UNIFORM STANDARD DRAWINGS FOR FURTHER AGENCY REQUIREMENTS

TYPICAL UNDERGROUND UTILITY LOCATIONS RESIDENTIAL STREETS 60' R/W OR LESS PER R.T.C. U.S.D. #501



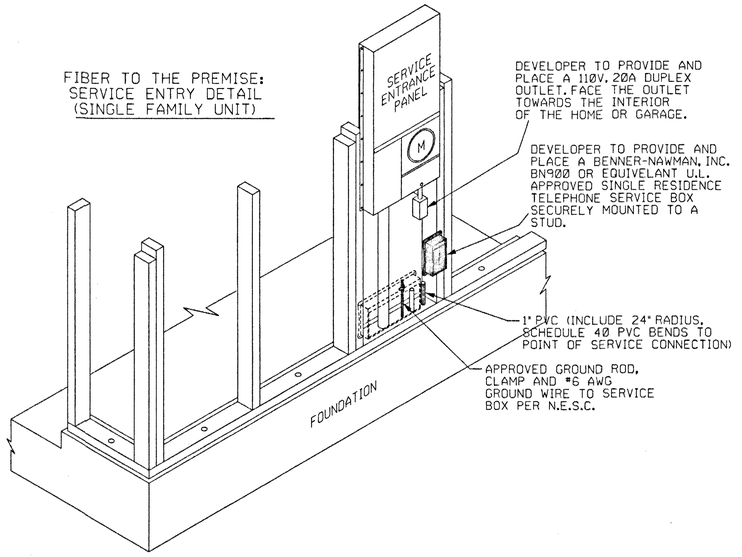
A. STREETLIGHT CONDUIT
B. POWER COMPANY SECONDARY
C. POWER COMPANY PRIMARY
D. TELEPHONE CONDUITS
E. CABLE T.V. CONDUIT
F. TRAFFIC SIGNAL CONDUIT
G. OTHER COMMUNICATIONS CONDUIT
H. POWER MARKING TAPE
J. TELEPHONE MARKING TAPE

PIPE ZONE REQUIREMENTS



1. BACKFILL PER RTC USD 503.1: NO STONES OR LUMPS GREATER THAN 3" PERMITTED IN TRENCH.
2. APPROVED SAND 4" BELOW, 3" ON SIDES AND 8" ABOVE CONDUIT, COMPACTED TO 95% RELATIVE DENSITY.
3. PER NESC: MINIMUM 12" OF WELL TAMPED EARTH OR 3" OF CONCRETE SEPARATION BETWEEN COMMUNICATIONS AND HIGH VOLTAGE ELECTRIC.
4. 1", 2" AND/OR 4" TELEPHONE CONDUIT (COMBINATION OF SIZES AND QTY. VARY)
5. POWER CONDUIT (COMBINATION OF SIZES AND QTY. VARY)
6. TELEPHONE MARKING TAPE 15"-18" BELOW GRADE
7. POWER MARKING TAPE 15"-18" BELOW GRADE

FIBER TO THE PREMISE: SERVICE ENTRY DETAIL (SINGLE FAMILY UNIT)



T & S LEGEND

EXISTING	PROPOSED	
○	○	MANHOLE - INCLUDE REQUIRED GRADE RINGS, RACKING, GROUNDING, STEP RUNGS AND LADDER - REFER TO DRAWING FOR SIZE
▭	▭	400 PULL BOX (3'0" x 5'0" x 4'0" I.D.) - WITH TWO (2) HINGED ALUMINUM TORSION-ASSISTED TRAFFIC RATED LIDS MARKED "TELCO", GALVANIZED STEEL ADJUSTING FRAME, AND FOUR (4) 18 HOLE CABLE RACKS (2 EA. SIDE).
▨	▨	200 PULL BOX (2'6" x 4'0" x 3'0" I.D.) - POLYMER CONCRETE TYPE PULL BOX. 200 PULL BOXES TO BE PROVIDED BY AND DELIVERED TO THE JOB SITE BY CENTURYLINK.
▭	▭	100 PULL BOX (24" x 36" x 36" I.D.) - POLYMER CONCRETE TYPE PULL BOX. 100 PULL BOXES TO BE PROVIDED BY AND DELIVERED TO THE JOB SITE BY CENTURYLINK.
□	□	30 PULL BOX (17" x 30" x 30" I.D.) - CONDUIT PROJECTS = P.C.C. TYPE PULL BOX (ES-30 or T-30CC) DIRECT BURIED PROJECTS = POLYMER TYPE PULL BOX (P-30 or T-30 POLY)
▷	▷	16 HAND HOLE (9" x 15" x 12" I.D.)
		PROPOSED GROUND ATTACHMENT AT POWER TRANSFORMER.
		PROPOSED CENTURYLINK FIBER SPLITTER CABINET.
		PROPOSED BACKBONE CONDUIT: P.V.C. - D.B. (DIRECT BURIAL) GRADE D.B. 60 FOR 1", 2", & 3" / D.B. 100 FOR 4"
—2—		PROPOSED 1" SERVICE CONDUIT (number indicates amount of 1" conduit in each section of trench)
		EXISTING CONDUIT
		PROPOSED TRENCH ROUTE (DIRECT BURIED PROJECTS)

90° RADIAL BENDS:
24" RADIUS FOR 1"
36" RADIUS FOR 2"
48" RADIUS FOR 3" & 4"
SCHEDULE 40 PVC (TYPICAL) OR RIGID GALVANIZED STEEL WITH DOUBLE-WRAPPED 10 MIL. CORROSION PROTECTION TAPE. (AS SHOWN)

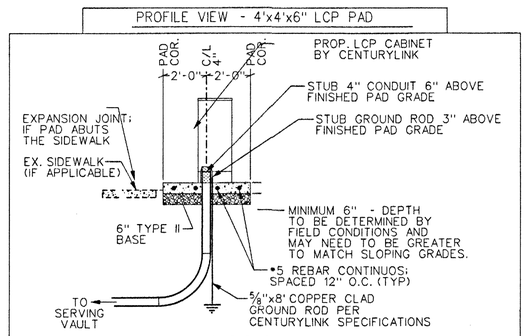
TERMINAL CABINET 48" x 48" x 6" or 8"

TERMINAL CABINET 24" x 24" x 6" or 8"

UNDERWRITER LABORATORY APPROVED, RAIN-TIGHT WITH A NON-LOCKING, SIDE-HINGED DOOR, EQUIPPED INSIDE WITH A ¾" PLYWOOD BACKBOARD (1" SMALLER ON ALL SIDES, CENTERED IN CABINET) SECURED WITH RECESSED MOUNTING HARDWARE AND A # 6 GROUND WIRE CONNECTED TO THE APPROVED COMMUNICATION GROUNDING SOURCE AS DETERMINED BY THE ELECTRICAL ENGINEER FOR THIS BUILDING OR DEVELOPMENT. MOUNT CABINET AT EYE LEVEL A MINIMUM OF 48" ABOVE FINISH GRADE

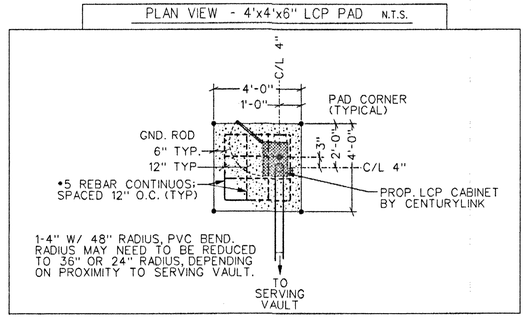
TELEPHONE TERMINAL BACKBOARD (T.T.B.) - 3/4" PLYWOOD BACKBOARD TREATED WITH FIRE RETARDANT PAINT OR SEALER AND A # 6 GROUND WIRE CONNECTED TO THE APPROVED COMMUNICATION GROUNDING SOURCE AS DETERMINED BY THE ELECTRICAL ENGINEER FOR THIS BUILDING OR DEVELOPMENT. BACKBOARDS SMALLER THAN 4' x 8' (ie. 2' x 2' & 4' x 4') SHOULD BE MOUNTED 40" ABOVE THE FLOOR.

PROFILE VIEW - 4'x4'x6" LCP PAD



1-4" W/ 48" RADIUS, PVC BEND. RADIUS MAY NEED TO BE REDUCED TO 36" OR 24" RADIUS, DEPENDING ON PROXIMITY TO SERVING VAULT.

PLAN VIEW - 4'x4'x6" LCP PAD N.T.S.



1-4" W/ 48" RADIUS, PVC BEND. RADIUS MAY NEED TO BE REDUCED TO 36" OR 24" RADIUS, DEPENDING ON PROXIMITY TO SERVING VAULT.

ANY MODIFICATIONS TO THE CENTURYLINK DESIGN MUST BE APPROVED BY THE ENGINEER.

ENGINEER: VERONICA FIGUEROA

TEL#: 702-244-6902

THESE PLANS WILL BE VALID FOR ONLY SIX MONTHS FROM THE DATE OF ISSUE

CITY OF LAS VEGAS PERMIT REQUIRED *

CONTACT CLV LAND DEVELOPMENT (229-6371) CLV CONSTRUCTION SERVICES MUST BE NOTIFIED 24 HOURS PRIOR TO COMMENCING CONSTRUCTION (229-6337)

* CENTURYLINK INSPECTOR WILL VERIFY COUNTY PERMIT FOR WORK DONE WITHIN CLARK COUNTY RIGHT-OF-WAY

INSPECTOR: DATE:

AVOID CUTTING UNDERGROUND UTILITY LINES. IT'S COSTLY.
CALL 811
OR 1-800-227-2600

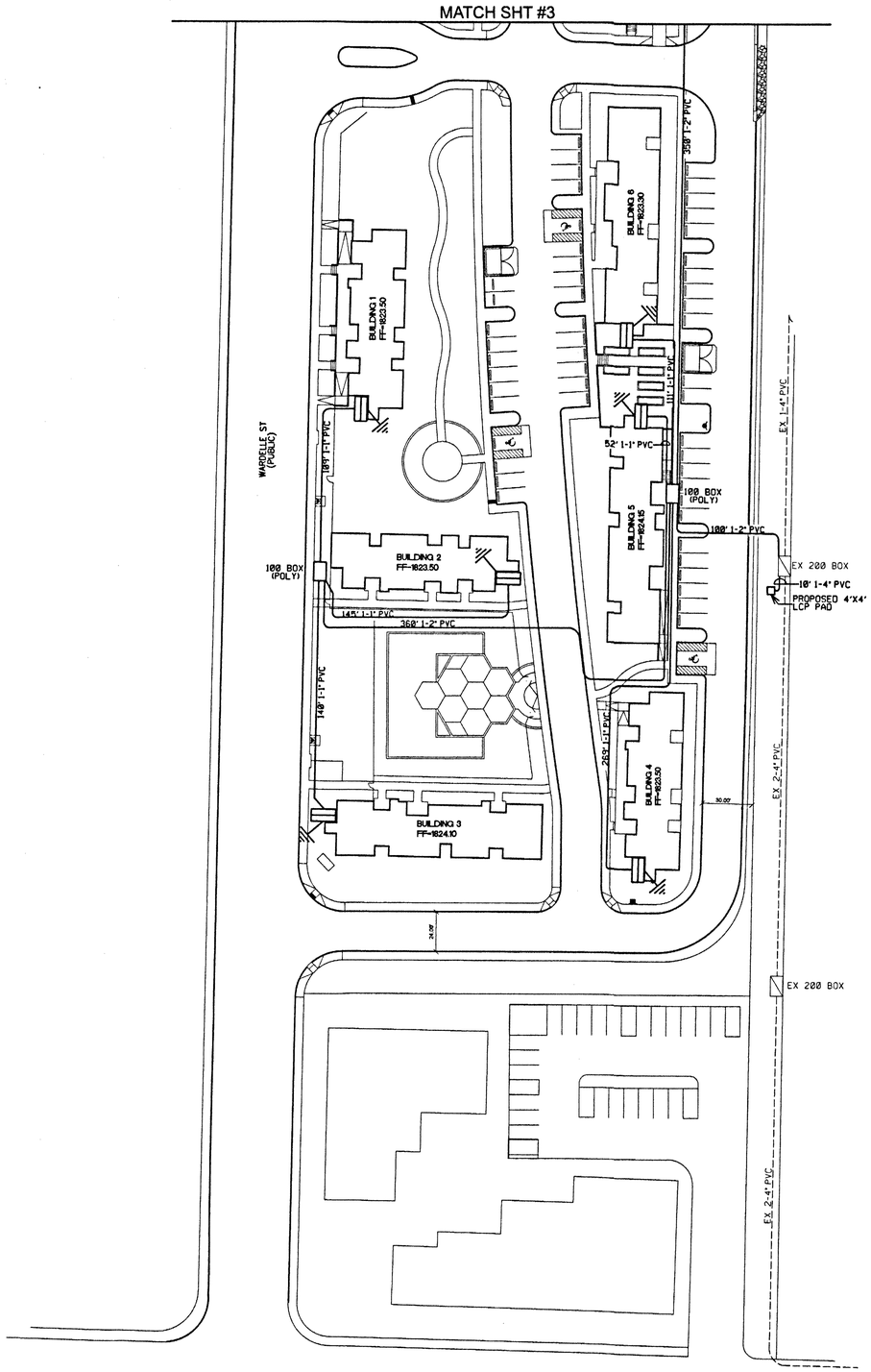
PROJECT NAME:
WARDELLE STREET TOWNHOMES
WARDELLE / BONANZA

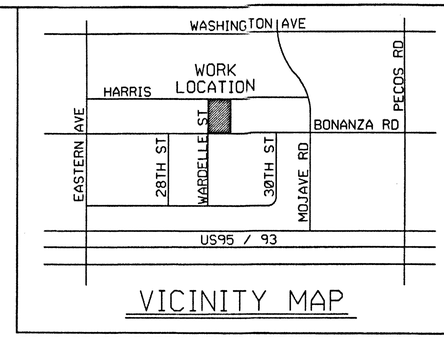
COVER SHEET for
RESIDENTIAL TRENCH & SUBSTRUCTURE
COPPER DESIGN SUBDIVISION
CLARK COUNTY AREAS

W.O. N.612902
ENGINEER: VERONICA FIGUEROA
DATE: 11/07/2019

CenturyLink™ SHT. NO. 1 of 3

L19-00078 107V165L





CONTACT: SOUTHERN NEVADA REGIONAL HOUSING AUTH
CONTACT NAME: JEFF NEAL 702-368-6500
NUMBER OF UNITS: 64

FOR CONSTRUCTION SPECIFICATIONS
SEE CENTURYLINK SPECS

CONST NOTE:
ALL CABINETS ON
DESIGN WILL BE
24"X24"X6" CABINETS
PROVIDED BY DEVELOPER.
NOTE: OUTLET NOT REQ
INSIDE NEMA FOR FTTU BUILDS

DESIGN VALIDITY

THESE PLANS WILL BE VALID FOR ONLY SIX MONTHS FROM THE DATE OF ISSUE

SPECIAL NOTE:

ANY MODIFICATIONS TO THE CENTURYLINK DESIGN MUST BE APPROVED BY THE ENGINEER: VERONICA FIGUEROA
TEL#: 702-244-6902

INSPECTION REQUIREMENT

CALL 244-7811 BETWEEN
7 A.M. AND 3 P.M.
24 HOURS IN ADVANCE FOR
FINAL INSPECTION. CABLE
WILL NOT BE PLACED UNTIL
FINAL INSPECTION IS COMPLETED.

CONSTRUCTION NOTE:
DEVELOPER TO PROVIDE AND PLACE A CENTRALLY LOCATED 30"X14" ALL COMPOSITE MEDIA PANEL (EQ W/ A DUPLEX, NON-GFI, 110V AC PWR OUTLET) AT THE INTERIOR OF EACH UNIT. OPTIONALLY, THE BUILDER MAY PROVISION WALL SPACE IN A BEDROOM CLOSET IN LIEU OF A MEDIA PANEL. NOTE: ALL IN-UNIT STRUCTURE WIRING MUST EMENATE FROM THIS LOCATION.

DEVELOPER TO PROVIDE, PLACE & TERMINATE ALL IN UNIT CAT 5E WIRING AND RJ45 JACKS

NOTE: CENTURYLINK WILL SUPPLY AND DELIVER ALL POLYMER (POLY) TYPE PULL BOXES FOR THIS PROJECT. CONTACT CENTURYLINK ENGINEER, VERONICA FIGUEROA AT 702-244-6902 TO COORDINATE DELIVERY

CENTURYLINK PROPRIETARY

CONSTRUCTION PERMIT REQUIRED BY CONTRACTOR

N

T-20, R-61
S-25, APN 139

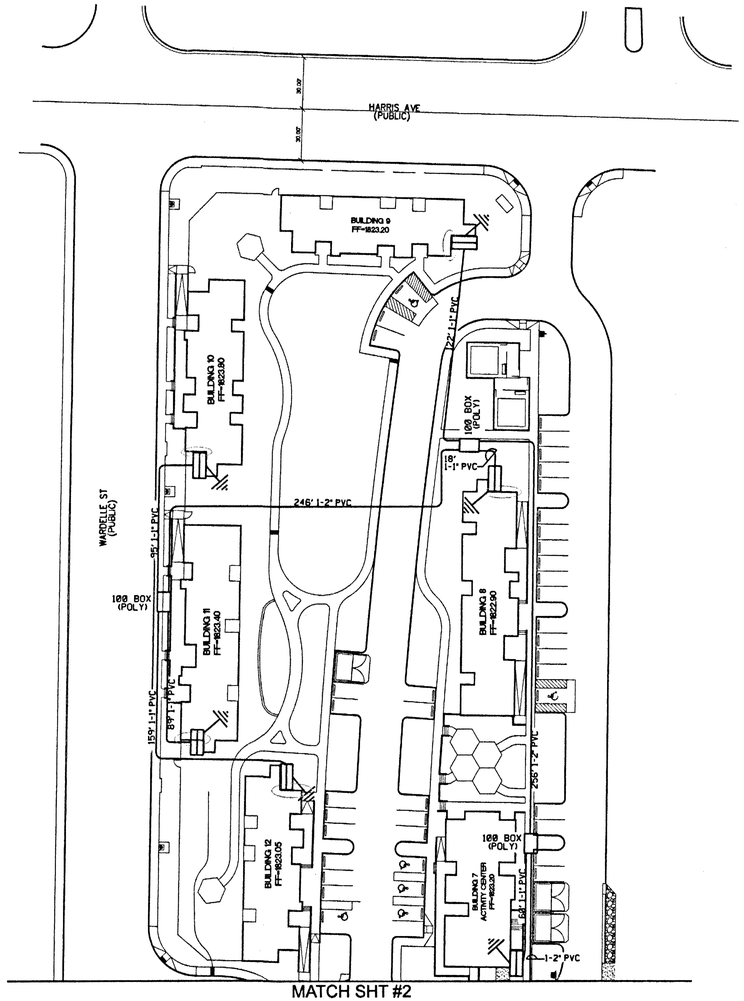
NOTE:
DO NOT START WORK ON THIS PROJECT UNTIL YOUR PROPOSAL HAS BEEN SUBMITTED AND ACCEPTED BY CENTURYLINK

NO.	REVISION	ENGR.	MGR.	DATE:
1	CHNG CONDUIT PATH PER NEW NVE PRINTS	V.FIGUEROA	R.BUTLER	11/07/2019
2				

811 Know what's below. Call before you dig.

CenturyLink™

TITLE: WARDELLE STREET TOWNHOMES		ENG: V. FIGUEROA	W.O. N.612902
T&S DESIGN		PHONE 702-244-6902	C.O. LSVGNVXB
LOC. WARDELLE / BONANZA		APV'D. BY R. BUTLER	ISSUE DATE 11/07/19
L19-00078	107V765L	SCALE 1"= 50'	SHT. NO. 2 of 3



MATCH SHT #2

T-20, R-61
S-25, APN 139

NOTE: CENTURYLINK WILL SUPPLY AND DELIVER ALL POLYMER (POLY) TYPE PULL BOXES FOR THIS PROJECT. CONTACT CENTURYLINK ENGINEER, VERONICA FIGUEROA AT 702-244-6902 TO COORDINATE DELIVERY

NOTE:
DO NOT START WORK ON THIS PROJECT UNTIL YOUR PROPOSAL HAS BEEN SUBMITTED AND ACCEPTED BY CENTURYLINK

NO.	REVISION	ENGR.	MGR.	DATE:
1	CHNG CONDUIT PATH PER NEW NVE PRINTS	V.FIGUEROA	R.BUTLER	11/07/2019
2				

811
Know what's **below.**
Call before you dig.

CENTURYLINK
PROPRIETARY

CONSTRUCTION PERMIT REQUIRED
BY CONTRACTOR

CenturyLink™

TITLE: WARDELLE STREET TOWNHOMES		ENG: V. FIGUEROA	W.O. N.612902
T&S DESIGN		PHONE 702-244-6902	C.O. LSVGNVXB
LOC. WARDELLE / BONANZA		APV'D. BY R. BUTLER	ISSUE DATE 11/07/19
L19-00078 10747651		SCALE 1"= 50'	SHT. NO. 3 of 3