

ABBREVIATIONS

ABAN - ABANDON	IN - INCH	S - SOUTH/SLOPE
AC - ASPHALTIC CONCRETE	INST - INSTALL	S/C - SAW CUT
ACGR - ASBESTOS	INT - INTERIOR	SCOP - STEEL CYLINDER CONCRETE
& - AND	INV - INVERT	
APN - ASSESSOR PARCEL NUMBER	IRR - IRRIGATION	
APPROX - APPROXIMATE		
ASSY - ASSEMBLY		
AVE - AVENUE		
BC - BACK OF CURB	LB OR L - POUND	
BCR - BACK OF CURVE RETURN	LEN OR L - LENGTH OF CURVATURE	
BD - BOOK/BACK	LF - LINEAR FOOT	
BDO - BUILDING	LG - LONG	
BK - BLOCK	LN - LANE	
BLM - BUREAU OF LAND MANAGEMENT	LT - LEFT/LIGHT	
BLV - BOULEVARD	LVWD - LAS VEGAS VALLEY	
BO - BLOW OFF ASSEMBLY	WATER DISTRICT	
BDC - BACK OF CURB	W - LOWER	
BOT - BOTTOM		
BOW - BACK OF WALK		
BWG - BEARING		
BVC - BEGIN VERTICAL CURVE		
BW - BACK OF WALK		
BWW - BACK WATER VALVE		
C/C - CENTER TO CENTER		
C&G - CURB & GUTTER		
CC - CLARK COUNTY		
CE - COMMON ELEMENT		
CL - CLARK		
CLC - CLARK COUNTY		
CLV - CITY OF LAS VEGAS		
CLW - CITY OF LAS VEGAS		
CO - COUNTY		
COH - CITY OF HENDERSON		
CONC - CONCRETE		
CONT - CONTINUOUS		
COORD - COORDINATE		
COTR - CENTER		
CV - CONTROL VALVE		
Δ - DELTA ANGLE		
D/W OR DWY - DRIVEWAY		
DEPT - DEPARTMENT		
DET - DETAIL		
DEV - DEVELOPMENT		
DG - DESIGN GRADE		
DI - DROP INLET/DUCTILE IRON		
DIA OR Ø - DIAMETER		
DIW - DIAMETER IRON PIPE		
DIP - DUCTILE IRON PIPE		
DIR - DIRECTION		
DIST - DISTANCE		
DNH - DROP MANHOLE		
DN - DOWN		
DR - DRIVE		
DWG - DRAWING		
E - EAST/EDGE		
EA - EACH		
EOP - EXISTING GROUND		
ELEV - ELEVATION		
EQ - EDGE OF PAVEMENT		
EOS - EDGE OF SHOULDER		
EQ - EQUAL OR EQUATION		
EQ SP - EQUALLY SPACED		
ESMT - EASEMENT		
EST - ESTIMATE		
END - END OF VERTICAL CURVE		
EW - EACH WAY		
EXIST - EXISTING		
F/F - FACE TO FACE		
F/C - FACE OF CURB		
FF - FINISHED FLOOR		
FG - FINISHED GRADE		
FI - FIRE HYDRANT		
FIG - FIGURE		
FL OR F - FLOW LINE		
FLR - FLOOR		
FN - FENCE		
FND - FOUND		
FOD - FACE OF CURB		
FOF - FACE OF WALL		
FPM - FEET PER MINUTE		
FPS - FEET PER SECOND		
FT - FOOT OR FEET		
FTG - FOOTING		
FUT - FUTURE		
G/B - GRADE BREAK		
GALV - GALVANIZED		
GB - GRADE BREAK		
GND - GROUND		
GPD - GALLONS PER DAY		
GPH - GALLONS PER HOUR		
GPM - GALLONS PER MINUTE		
GRD - GRADE		
GRT - GRATE		
GV - GATE VALVE		
HORIZ - HORIZONTAL		
HP - HIGH POINT		
HP - HIGH PRESSURE GAS		
HT - HEIGHT		
HWY - HIGHWAY		

GENERAL LEGEND

CENTERLINE	EX. GAS	EXISTING GAS
UNIT BOUNDARY	EX. 10'S	EXISTING SEWER MAIN
PROPOSED 1' GRADE CONTOUR	8'S	PROPOSED SEWER MAIN
PROPOSED 5' GRADE CONTOUR	EX. 36" SD	PROPOSED SEWER LATERAL
EXISTING 1' GRADE CONTOUR	36" SD	EXISTING STORM DRAIN
EXISTING 5' GRADE CONTOUR	EX. 8" W	PROPOSED STORM DRAIN
PROPOSED PROPERTY LINE	8" W	EXISTING WATER MAIN
PROPOSED SETBACK LINE		PROPOSED WATER MAIN
PROPOSED HINGE LINE		PROPOSED FIRE HYDRANT
PROPOSED SWALE		LOT NUMBER
EXISTING CURB AND GUTTER	23	PROPOSED FINISH FLOOR
PROPOSED CURB AND GUTTER	FF=22.1	PROPOSED PAD ELEVATION
RETAINING WALL	12.3	EXISTING STREET LIGHT
GARDEN WALL WITH SOLID GROUT		PROPOSED 100w HPS STREET LIGHT
EXISTING FENCE		PROPOSED 150w HPS STREET LIGHT
EXISTING EDGE OF PAVEMENT		PROPOSED 200w HPS STREET LIGHT
PROPOSED EDGE OF PAVEMENT		PROPOSED 250w HPS STREET LIGHT
PROPOSED STREETLIGHT CONDUIT		PROPOSED 400w HPS STREET LIGHT
PROPOSED NO. 3 1/2 CONCRETE PULL BOX W/ METAL COVER		PROPOSED HANDICAP RAMP

CITY OF LAS VEGAS FIRE DEPARTMENT NOTES

- 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.
- ONLY FIRE HYDRANTS THAT ARE ON THE LAS VEGAS VALLEY WATER DISTRICT'S APPROVED PRODUCTS LIST ARE ALLOWED TO BE INSTALLED.
- 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 § 105.7.12]
- ON ANY RESIDENTIAL OR COMMERCIAL INSTALLATIONS, FIRE HYDRANTS SHALL BE INSTALLED AND ACCESSIBLE TO UTILITIES AS SHOWN. FIREARMS ARE NOT TO BE COMMENCED OF ANY COMBUSTIBLE CONSTRUCTION. ALL FIRE HYDRANTS SHALL BE IN GOOD WORKING ORDER AND SHALL BE CAPABLE OF DELIVERING THE REQUIRED FIRE FLOW. [IFC § 3310, § 3312]
- TO IDENTIFY THE FIRE HYDRANT LOCATIONS, THE CONTRACTOR SHALL PLACE A BLUE REFLECTIVE MARKER AT THE CENTER LINE OF THE STREET ADJACENT TO THE FIRE HYDRANTS. [IFC § 507.5.7.3]
- 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 106.3]
- ALL ON-SITE UNDERGROUND WATER MAINS AND MATERIALS SHALL BE U.L. LISTED, 1/2" MIN. APPROVED AND SHALL BE RATED FOR THE APPROPRIATE WORKING PRESSURE. [IFC § 507.2.1, NFPA 24]
- 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 § 507]
- PRIVATE HYDRANTS SHALL BE PAINTED RED. [IFC § 507.5.7.1]
- 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 § 507]
- FIRE HYDRANT SPACING SHALL BE AS FOLLOWS: [IFC § C102]
 - RESIDENTIAL - 500 FT UNSPRINKLERED; 600 FT SPRINKLERED.
 - COMMERCIAL - 300 FT UNSPRINKLERED; 400 FT SPRINKLERED.
- WHERE THE 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 OF 1000 FT 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 FT ON THAT MORE THAN 2' FIRE HYDRANTS CAN BE OUT OF SERVICE DUE TO A BREAK IN A WATER MAIN. [IFC § C104]
- NO FIRE HYDRANTS SHALL BE LOCATED WITHIN THE RADIUS OF A CUL-DE-SAC OR WITHIN 20 FT OF THE PERIMETER OF THE RADIUS OF THE CUL-DE-SAC.
- NO FIRE HYDRANTS SHALL BE LOCATED WITHIN 6 FT OF ANY CURB RETURN, DRIVEWAY, POWER POLE, STREETLIGHT OR ANY OTHER OBSTRUCTION. [IFC § C102.12]
- 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 § C102.4]
- THE MAXIMUM DISTANCE FROM A FIRE HYDRANT TO A FIRE DEPARTMENT CONNECTION (FDC) SHALL NOT EXCEED 100 FT, AS MEASURED BY AN APPROVED ROUTE. [IFC § C102.7]
- THE MAXIMUM DISTANCE FROM A HYDRANT TO THE END OF A DEAD-END STREET SHALL NOT EXCEED 200 FT. [IFC § C102.6]
- THE (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 § C104]
- 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 § 503.2.3]
- 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 FT SIDE OF THE STREET OR AFTER THE GRADE CHANGE, ADJACENT TO THE STRUCTURES GRADIENT SHALL NOT EXCEED 6%. [IFC § 503.2.7, § 503.2.8]
- THE TURNING RADIUS OF THE FIRE APPARATUS ACCESS ROADS SHALL BE NO LESS THAN 52 FT OUTSIDE AND 28 FT INSIDE TURNING RADIUS. [IFC § 503.2.4]
- VERTICAL CLEARANCE OF ALL FIRE APPARATUS ACCESS ROADS SHALL NOT BE LESS THAN 13FT 6 INS. [IFC § 503.2.1]
- FIRE DEPARTMENT ACCESS ROADS SHALL HAVE A MINIMUM UNOBSTRUCTED WIDTH OF NOT LESS THAN 40 FT 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 LINES THROUGH PARKING LOTS SHALL BE NOT LESS THAN 24 FT. [IFC § 503.2.1.1]
- A FIRE APPARATUS ACCESS ROAD SHALL BE REQUIRED WHEN ANY PORTION OF AN EXTERIOR WALL OF 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 IS SPRINKLERED. [IFC § 503.1.1]
- APPROVED SECONDARY FIRE APPARATUS ACCESS SHALL BE PROVIDED FOR 100 OR MORE DWELLING UNITS, ROADS(S) WITH DEAD-ENDS 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 § 503.1.2]
- 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 § 503.2.5]
- ALL FIRE APPARATUS ACCESS ROADS SHALL BE MARKED BY PLACING APPROVED SIGNS AT THE START OF THE DESIGNATED FIRE LANE, ONE SIGNMENT 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 OR TRUCKS TO BE INSTALLED NO ROUGHER 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 § 503.3]
- 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 § 503.6 AND IFC APPENDIX M.

EFFECTIVE DATE: MARCH 1ST, 2016

CITY OF LAS VEGAS GENERAL NOTES

- 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 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 AS "DEVIATIONS FROM STANDARDS".
- 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, CIVIL PLANS, RECORDS, AND 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.
- 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 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.
- ALL CONSTRUCTION SHALL BE AS SHOWN ON THESE PLANS, ANY REVISIONS SHALL HAVE THE PRIOR WRITTEN APPROVAL OF THE CITY ENGINEER.
- 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.
- PERMITS ARE REQUIRED FOR ANY WORK IN THE PUBLIC RIGHT-OF-WAY. THE CONTRACTOR SHALL SECURE ALL PERMITS AND INSPECTIONS REQUIRED FOR THIS CONSTRUCTION.
- EXPANSION JOINTS REQUIRED, MAXIMUM EVERY 300' IN EXTRUDED-TYPE CURB.
- AC PAVEMENT TO BE ONE-HALF INCH (1/2") ABOVE LIP OF ALL GUTTERS AFTER COMPACTION, EXCEPT AT SIDEWALK RAMPS AND CROSS GUTTERS.
- CURB AND GUTTER FOUND TO BE UNACCEPTABLE TO THE CITY OF LAS VEGAS SHALL BE REMOVED AND REPLACED PER STANDARD DRAWING 216.
- 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.
- 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 THE (COMPANY, REPORT #, DATE) APPROVED BY THE CITY ENGINEER, AND AS SHOWN ON THESE PLANS.
- 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.
- THE CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO PROTECT EXISTING PERMANENT SURVEY MONUMENTS. ANY MONUMENTS DISTURBED SHALL BE REPLACED AND ADJUSTED PER AVAILABLE RECORDS IN ACCORDANCE WITH N.E.S. STATUTE NO. 625.380 & CITY OF LAS VEGAS TITLE 18, APPENDIX D.
- 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:
- 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.
- ASPHALT MIX DESIGN MUST BE SUBMITTED AND APPROVED BY THE CITY ENGINEER PRIOR TO THE PLACEMENT OF ASPHALT WITHIN CITY RIGHT OF WAY.
- 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.
- 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.
- 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.
- SANITARY SEWER AND STORM DRAIN FINAL LOCATION MAP(S) SHALL BE PROVIDED TO THE CITY AND APPROVED PRIOR TO ACCEPTANCE OF FACILITY VIDEO INSPECTION. THE MAP(S) SHALL INCLUDE 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, AND STORM DRAIN MAIN ALIGNMENT, INCLUDING DEFLECTION POINTS. THE LOCATION SHALL BE DESCRIBED BY COORDINATES WHICH SHALL BE BASED ON THE OFFICIAL HORIZONTAL AND VERTICAL CONTROL NETWORKS OF THE CITY OF LAS VEGAS. FINAL LOCATION MAPS MUST BE SEALED AND CERTIFIED BY A NEVADA PROFESSIONAL LAND SURVEYOR TO HAVE POSITIONAL CERTAINITIES OF ± 0.09 METERS (± 0.3 FEET) HORIZONTALLY AND VERTICALLY. A SEPARATE ELECTRONIC COMMON DELIMITED FILE FOR THE SANITARY SEWER AND STORM DRAIN COORDINATES SHALL ALSO ACCOMPANY THE SANITARY SEWER AND STORM DRAIN FINAL LOCATION MAP(S).

OR

SANITARY SEWER AND STORM DRAIN FACILITIES SHOWN ON THESE PLANS SHALL BE USED TO MEET THE REQUIREMENTS OF NRS 455 AND SHALL SHOW AT A MINIMUM THE HORIZONTAL AND VERTICAL (INVERT) LOCATION OF PUBLIC SEWER MANHOLES, STORM DRAIN MANHOLES, STORM DRAIN LATERALS AT THE CONNECTION TO THE STORM DRAIN MAIN AND AT THE CONNECTION TO A DROP INLET, AND THE CONNECTION OF SEWER SERVICE LATERALS TO THE SEWER MAIN AND WHERE THE SEWER SERVICE LATERALS EXIT THE PUBLIC RIGHT-OF-WAY. ANY DEVIATIONS FROM THE INFORMATION SHOWN SHALL BE NOTED AND SUBMITTED AS A REVISION TO THE PLANS AND APPROVED PRIOR TO ACCEPTANCE OF FACILITY VIDEO INSPECTION.

- 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.
- A SEPARATE BORING PERMIT IS REQUIRED FOR ALL BORING ACTIVITIES.

REVISED 02/03/15

STORMWATER RUNOFF MANAGEMENT NOTES

- THE OWNER, SITE DEVELOPER, CONTRACTOR AND/OR THEIR AUTHORIZED AGENTS SHALL EACH DAY OF CONSTRUCTION MAINTAIN CONSTRUCTION DEBRIS, OR OTHER POTENTIAL POLLUTANTS THAT MAY HAVE BEEN DISCHARGED TO, OR ACCUMULATE IN, THE PUBLIC RIGHTS OF WAY OF CLARK COUNTY 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.
- 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 CLARK COUNTY TITLE 24.40 AND THE LAS VEGAS VALLEY CONSTRUCTION SITE BEST MANAGEMENT PRACTICES MANUAL.
- 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 NVRI00000, SECTION III.A.5.
- 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 AND 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 MAY APPLY. SUCH AS SUSPENSION OF LAND DISTURBANCE ACTIVITIES. REFER TO NEVADA STORMWATER GENERAL PERMIT FOR CONSTRUCTION ACTIVITY NVRI00000, SECTION III.A.12.
- 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.

CITY OF LAS VEGAS SEWER NOTES

- 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.
- 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.
- CHISEL "S" OR "G" IN CURBS SHALL MEET OR GAS LATERALS PASS UNDER THE CURB.
- POLYVINYL (PVC) SEWER PIPE SHALL MEET ASTM D-3034 SDR 35 SPECIFICATIONS, INSTALLED WITH SAND BEDDING AND BACKFILL OF TYPE II AGGREGATE BASE.
- ALL MANHOLES PAVED IN STREETS EIGHTY (80') FOOT R/W AND LARGER SPECIFICATIONS, INSTALLED WITH SAND BEDDING AND BACKFILL OF TYPE II AGGREGATE BASE.
- 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" SHALL BE USED ON LINES TWELVE INCHES (12") OR ABOVE.
- 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.
- 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.
- 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.
- INSTALLATION OF CURVED SEWER REQUIRES THE USE OF C-900 PVC PIPE WHICH ALLOWS FOR PIPE DEFLECTION AT THE JOINTS.

REVISED 04/15/10

SOUTHWEST GAS NOTE

CONTRACTOR SHALL CALL SOUTHWEST GAS AT 702-651-2111 FOR STANDBY WHEN EXCAVATING OVER OR NEAR HP GAS LINES.

DEVIATIONS FROM STANDARDS

- CONNECTIVITY RATIO IS 1.25 WHERE 1.3 IS REQUIRED.
- EXISTING POWER POLES TO REMAIN WHERE RELOCATION UNDERGROUND IS REQUIRED.
- LOT WIDTHS LESS THAN 80' (32 LOTS).
- NO STREET LIGHTS ON INTERIOR STREETS.
- THE EQUESTRIAN TRAIL ON ELKHORN ROAD AS SHOWN IF APPROVED BY THE CITY OF LAS VEGAS WILL TAKE ELKHORN ROAD A NON-STANDARD STREET SECTION.

UTILITY DISCLAIMER

EXISTING UTILITY LOCATIONS SHOWN HEREIN ARE APPROXIMATE ONLY. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO DETERMINE THE EXACT EXISTING VERTICAL AND HORIZONTAL LOCATION OF ALL EXISTING UNDERGROUND 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 EXISTING LOCATIONS

SWG GENERAL NOTES

- IN THE EVENT OF NATURAL GAS EMERGENCIES CALL 911 AND 1-877-860-6020.
- 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 FOR VALVE ADJUSTMENT CONTACT 702-668-6107 48 HOURS PRIOR TO CONSTRUCTION.
- IN THE EVENT OF A NATURAL GAS CONFLICT WITH PROPOSED UTILITIES AND/OR STRUCTURES CONTACT 702-365-2009.

Chris Andersen 4/16/18
SOUTHWEST GAS CORPORATION DATE

LAS VEGAS VALLEY WATER DISTRICT (LVVWD) STANDARD NOTES

LVVWD PROJECT # 125985
(REVISED 08/01/2017)

- 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.
- 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.
- 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.
- A SINGLE PIPE MATERIAL SHALL BE USED THROUGHOUT THE PROJECT UNLESS OTHERWISE APPROVED BY THE LVVWD.
- ALL SERVICE LATERALS TWO (2) INCHES IN DIAMETER AND SMALLER SHALL BE TYPE K COPPER TUBING WITH LVVWD APPROVED SERVICE SADDLES.
- ALL WATER METER BOXES SHALL BE LOCATED OUTSIDE OF DRIVEWAY AREAS.
- ALL VALVES SHALL BE LOCATED OUTSIDE OF DRIVEWAYS, VALLEY AND CURB GUTTERS.
- ALL WATER AND STORM DRAIN OR SANITARY SEWER CROSSINGS SHALL CONFORM TO SECTION 2.22 OF THE 2010 EDITION OF THE UDACS.
- ALL WATER FACILITIES AND APPURTENANCES SHALL BE DISINFECTED, PRESSURE TESTED, AND WITH AN ADEQUATE PASSING HEALTH WATER SAMPLE OBTAINED, PRIOR TO OPERATION AND USE.
- 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.
- 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.
- ALL WATER FACILITY CONSTRUCTION MATERIALS USED MUST BE AS LISTED ON THE LVVWD APPROVED PRODUCT'S LIST FOR NEW FACILITIES, LATEST REVISION, OR SPECIFICALLY APPROVED ON THESE PLANS BY SUBMITTING SHOP DRAWINGS.
- TELEPHONE "CALL BEFORE YOU DIG" AT "811" OR 1-800-227-2600.
- THE INSTALLATION OF LVVWD MUNICIPAL WATER FACILITIES WITHIN ALL STREETS IS ASSUMED TO BE IN ACCORDANCE 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 APPROPRIATELY SIZED ASPHALT REPAIR PATCH ON THE STREET SURFACE.

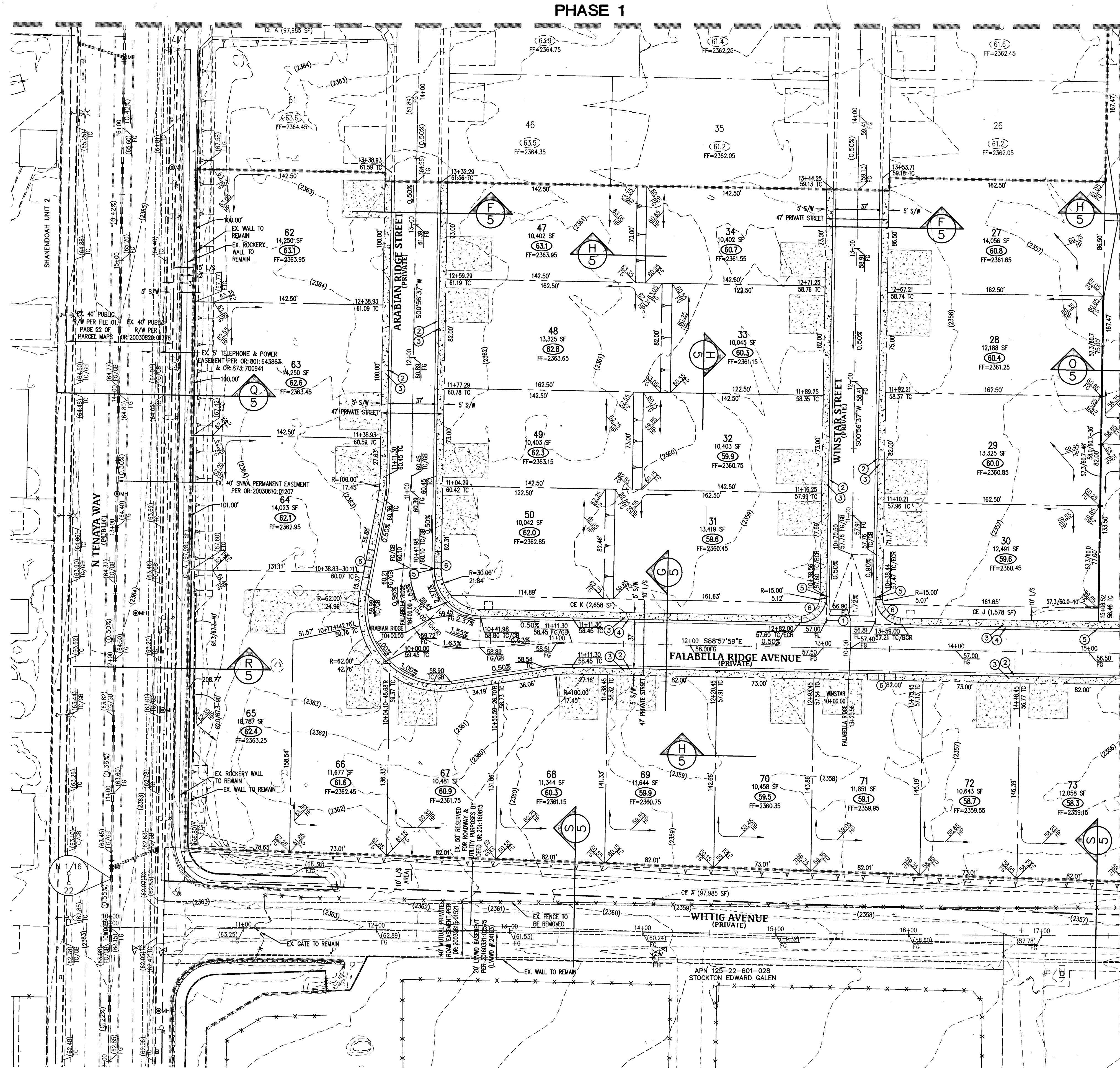
ANY DECORATIVE PAVING SURFACE WITHIN THE STREET IS THE RESPONSIBILITY OF THE OWNER'S ASSOCIATION, OR THE INDIVIDUAL PROPERTY OWNERS IF NO OWNER'S ASSOCIATION IS IN EXISTENCE, OR THE AGENCY HAVING JURISDICTION. DECORATIVE SURFACE MATERIALS PLACED WITHIN THE 10 FOOT EASEMENT ADJUTING A PUBLIC OR PRIVATE 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.

ESTIMATE OF QUANTITIES

SEWER IMPROVEMENTS:	PUBLIC	PRIVATE
4" SEWER		1188 LF
8" SEWER	292 LF	1 EA
SEWER MANHOLE 6 TO 18 FEET		
WATER AND FIRE IMPROVEMENTS:		
6" WATER MAIN	1339 LF	
8" WATER MAIN	2148 LF	
WATER LATERAL	1244 LF	
WATER SERVICE TO LOTS	48 EA	
FIRE HYDRANT	5 EA	
ROADWAY IMPROVEMENTS:		
CURB & GUTTER (TYPE "L" & "A")	736 LF	
CURB & GUTTER ("R" TYPE)	3899 LF	
CROSS GUTTER	1942 SF	
SIDEWALK 4"	23092 SF	
SIDEWALK RAMP	10 EA	
SIDEWALK UNDERDRAN	2 EA	
TYPE II GRAVEL BASE	3018 CY	
2.5" ASPHALTIC CONCRETE PAVING	9287 SY	</

G:\Triton Drawings\007108 Elkhorn Tenaya Urban\Improvements\Phase2\02 007108-ph2-imp-Grading.dwg Date: Tue, 08 Feb 2016 11:11:10am



GRADING NOTES

1. ALL PROPOSED PAD ELEVATIONS AND SWALE ELEVATIONS ARE ROUGH GRADES. ALL OTHER PROPOSED ELEVATIONS ARE FINISHED GRADES.
2. THE GRADING PLANS SHALL BE AT THE PROJECT SITE THROUGHOUT THE COURSE OF CONSTRUCTION.
3. ALL GRADING SHALL BE PERFORMED IN CONFORMANCE WITH THE LINES, GRADES AND DETAILS AS SHOWN ON THESE PLANS. ANY DEVIATION FROM THESE PLANS WILL ONLY BE PERMITTED UPON WRITTEN APPROVAL FROM THE ENGINEER.
4. ALL PADS ARE TO BE GRADED WITHIN $\pm 0.3'$ OF THE ELEVATIONS AS SHOWN ON THE PLANS. GRADING IS NOT COMPLETE UNTIL THE ENGINEER HAS CERTIFIED THAT THE PADS HAVE BEEN GRADED IN SUBSTANTIAL CONFORMANCE TO THE PLANS.
5. ALL FILLMENT OF OVERSIZED MATERIALS AND/OR FILL MATERIALS SHALL BE PER THE SOILS REPORT REFERENCED ON THIS PLAN.

FLOODZONE NOTE

THIS SITE IS LOCATED COMPLETELY WITHIN ZONE X PER FEMA MAP #32003C1745E, PANEL 1745E, DATED NOVEMBER 16, 2011 AND MAP #32003C1745E, PANEL 1745E, DATED SEPTEMBER 27, 2002. ZONE X IS DETERMINED TO BE OUTSIDE THE 100-YEAR FLOODPLAIN.

SOILS INFORMATION

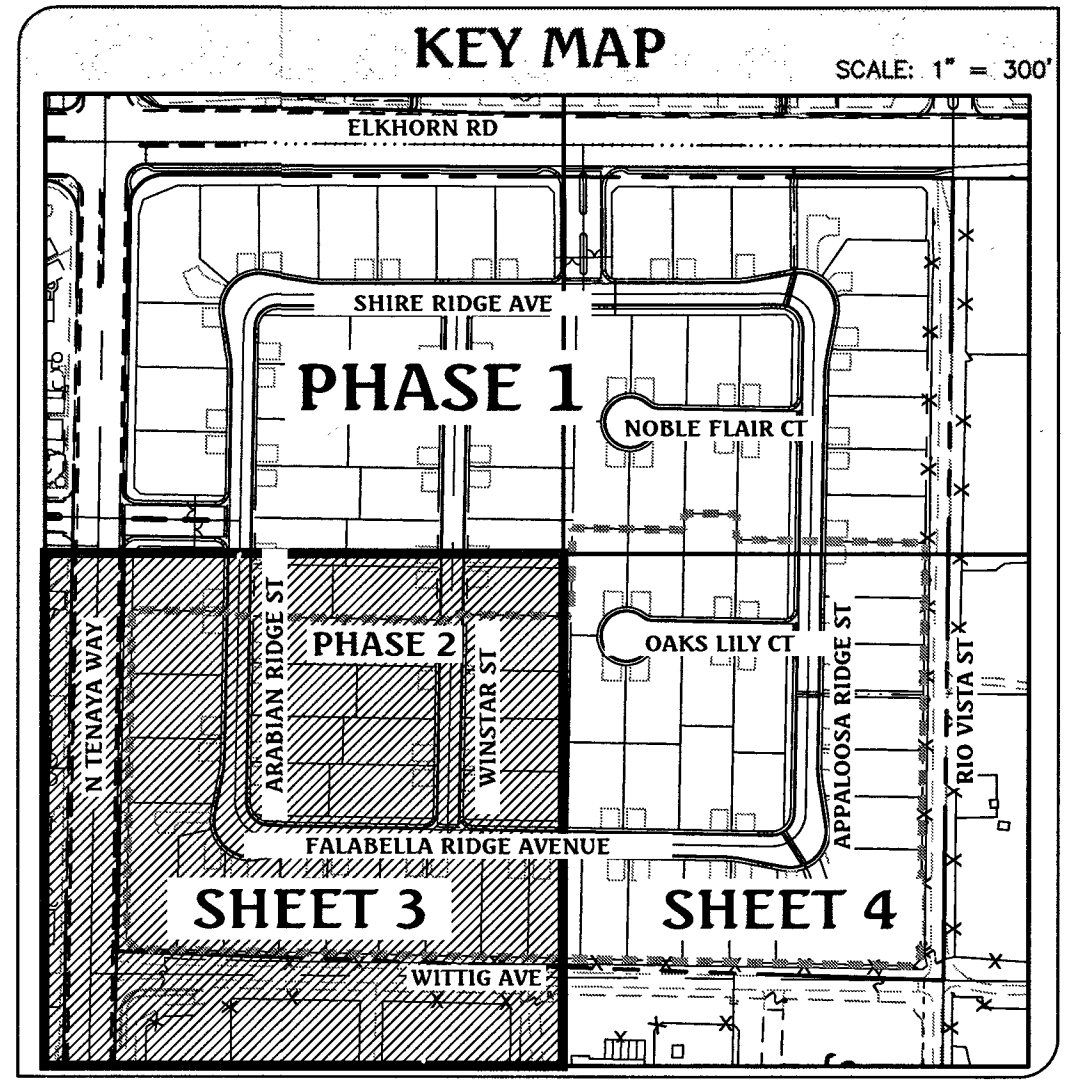
SOILS REPORT DATA
REPORT BY: GEOTEK RESIDENTIAL, LLC
PROJECT NO.: 12902-LVR
DATED: APRIL 27, 2016
PHASE 2 CUT AND FILL DATA
CUT TOTAL: 6,562 CY
FILL TOTAL: 42,763 CY
NET (FILL): 36,200 CY

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

THIS PROJECT WILL BE CONSTRUCTED WITH CONTINUOUS R-TYPE CURB ON THE FRONTAGE OF ALL LOTS

ALL SIDEWALK RAMP "A" AND "B" TRANSITION LENGTHS ARE EQUAL TO 8'

SEE SHEET 4



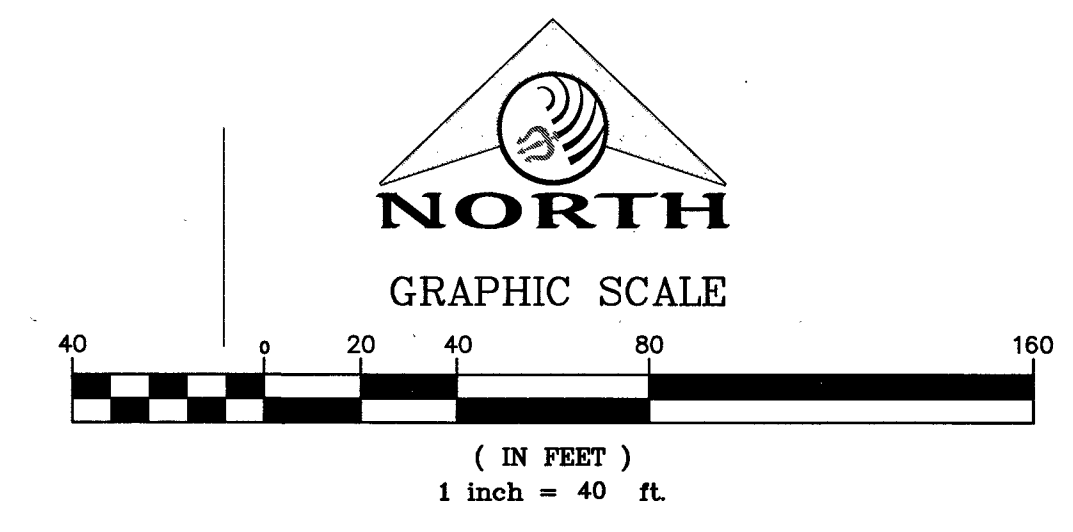
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Avoid cutting underground utility lines. It's costly.

CALL 811 OR 1-800-227-2600

FAST
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Underground
1-702-432-5300
FREEWAY AND ARTERIAL SYSTEM OF TRANSPORTATION

AVOID HITTING OVERHEAD POWER LINES. IT'S COSTLY

Call before you Overhead
1-702-227-2929



GRADING LEGEND

(1395)	EX. MAJOR CONTOUR
---	EX. MINOR CONTOUR
---	BOUNDARY LINE
---	PROPERTY LINE
---	STREET CENTERLINE
---	EDGE OF PAVEMENT
---	EXISTING CURB, GUTTER, & SIDEWALK
---	PROPOSED CURB, GUTTER, & SIDEWALK
---	PROPOSED AC PAVING
CC	CLARK COUNTY/CITY OF LAS VEGAS BOUNDARY LINE
CLV	EX. FENCE
X	EX. BLOCK WALL
---	PROPOSED RETAINING WALL
---	TOP OF FOOTING
---	APPROX. WALL LENGTH
---	TOP OF RETAINING WALL
---	PROPOSED SCARP

PUBLIC DRAINAGE EASEMENT

DRAINAGE IMPROVEMENTS:	PUBLIC	PRIVATE
DRAINAGE EASEMENT CONCRETE	6,680 SF	
DRAINAGE EASEMENT BOLLARD	7 EA	
DRAINAGE EASEMENT WROUGHT IRON	204 SF	

BASIS OF BEARING

NORTH 00°56'37" EAST, BEING THE BEARING OF THE WEST LINE OF THE NORTHEAST QUARTER (NE 1/4) OF SECTION 22, TOWNSHIP 19 SOUTH, RANGE 60 EAST, M.D.M., CLARK COUNTY, NEVADA, AS SHOWN BY MAP THEREOF IN FILE IN THE CLARK COUNTY RECORDER'S OFFICE IN FILE 163, PAGE 26 OF SURVEYS.

- CONSTRUCTION NOTES**
1. CONSTRUCT 8" WIDE CROSS GUTTER, PER CCAUSD No. 228
 2. CONSTRUCT "R" TYPE CURB AND GUTTER, PER CCAUSD No. 217.52
 3. CONSTRUCT 5" WIDE SIDEWALK, PER CCAUSD No. 234
 4. CONSTRUCT "L" TYPE CURB AND GUTTER, PER CCAUSD No. 218
 5. 5' TRANSITION FROM L-TYPE CURB/SPANDREL TO R-TYPE CURB
 6. CONSTRUCT SIDEWALK RAMP USING ARMOR TILE TRUNCATED DOMES OR EQUIVALENT, PER CCAUSD No. 235, CASE 1
 7. NOT USED
 8. NOT USED
 9. INSTALL REMOVABLE LOCKING BOLLARDS @ 5' O.C., PER DETAIL C, SHEET 5
 10. CONSTRUCT SIDEWALK DRAIN, PER CCAUSD No. 236

BENCHMARK

CLARK COUNTY BENCHMARK STATION: 6LV90 15S5E6
RIVET AND PLATE IN TOP OF CURB AT THE NORTHWEST CORNER OF RIO VISTA AND ELKHORN ROAD.

ELEVATION = 717.80 METERS (NAVD'88 V.2003)
ELEVATION = 2354.98 US SURVEY FEET (NAVD'88 V.2003)

I CERTIFY THAT THIS GRADING PLAN IS IN CONFORMANCE WITH THE APPROVED DRAINAGE STUDY ON FILE AT THE CITY OF LAS VEGAS FOR THIS PROJECT: CLV# DS4823

James M. Pearce
JAMES M. PEARCE, PE No. 9552
DATE: 2-6-18

DATE: 02/06/18	NO. DESCRIPTION	DATE	APP'D
PM: J. PEARCE			
DRAWN BY: T.E.			
DESIGNED BY: T.E.			
CHECKED BY: T.E.			
ADA CHECKED: T.E.			
JOB NO.: 007108			
SCALE: 1"=40'			

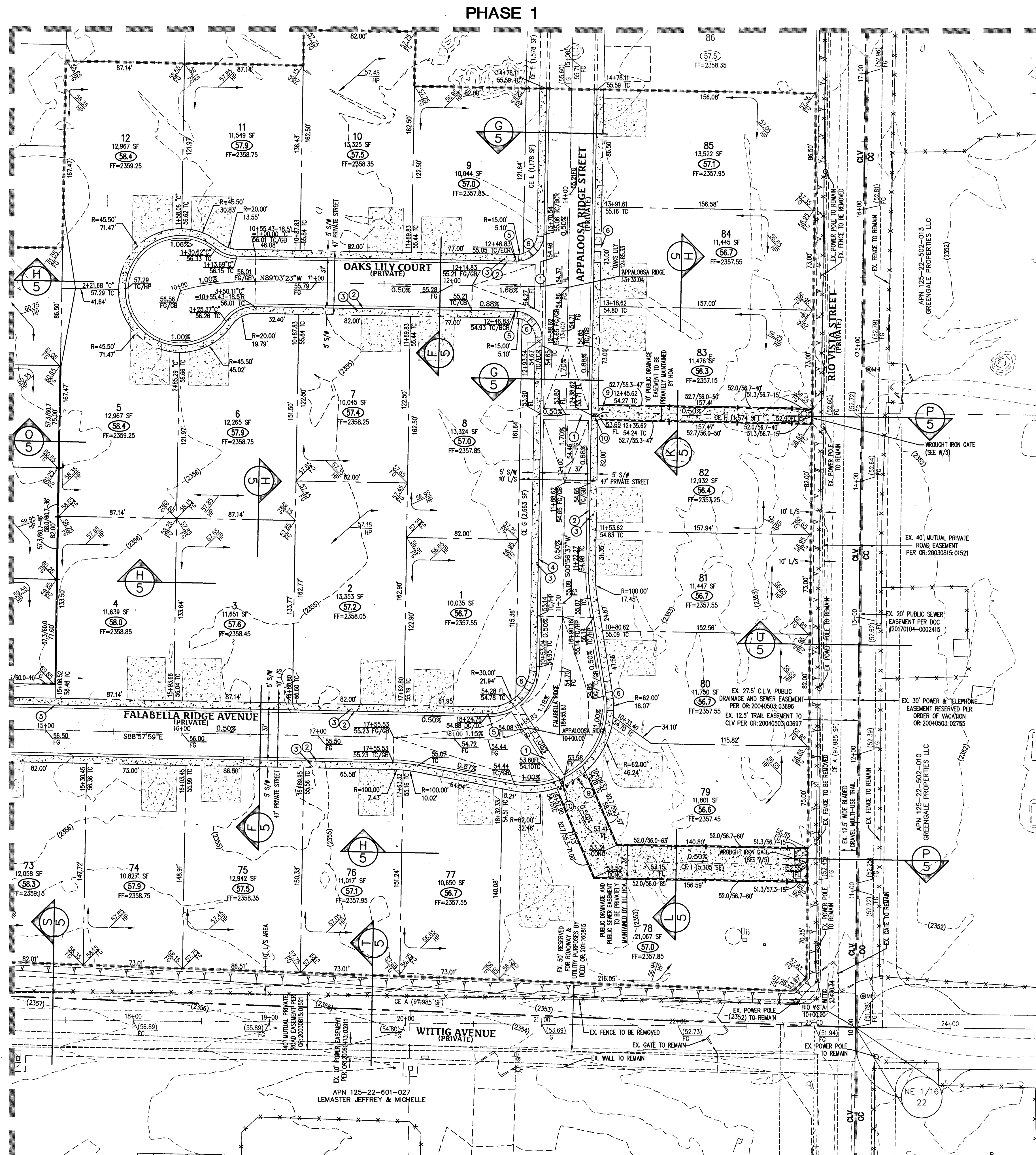
Triton Engineering
Office: (702) 264-1480
6757 W. Charleston Blvd.
Suite 200
Las Vegas, Nevada 89146
www.tritoneng.com

DR HORTON
ELKHORN 40 PHASE 2
GRADING PLAN 1

PROFESSIONAL ENGINEER-SEAL
James M. Pearce
JAMES M. PEARCE, PE No. 9552
CIVIL
2-6-18

SHEET 3 of 21
C.L.V. DWG.# L17-01163

SEE SHEET 3



GRADING NOTES

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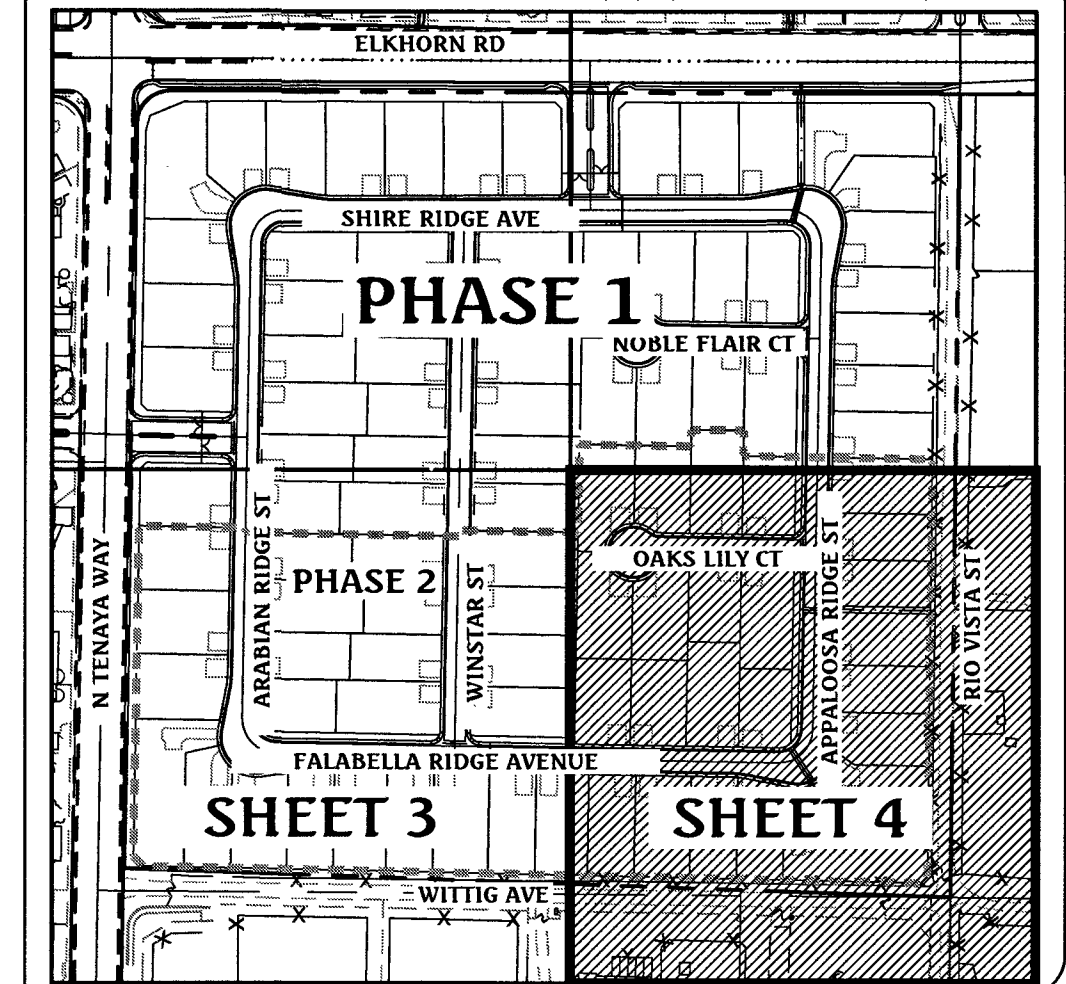
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THIS PROJECT WILL BE CONSTRUCTED WITH CONTINUOUS R-TYPE CURB ON THE FRONTAGE OF ALL LOTS

ALL SIDEWALK RAMP "A" AND "B" TRANSITION LENGTHS ARE EQUAL TO 8'

KEY MAP

SCALE: 1" = 300'



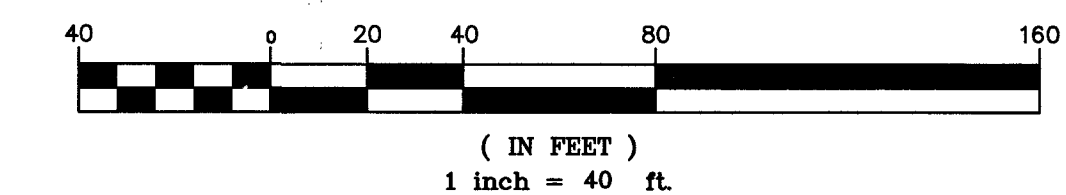
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FREQUENCY AND ARTERIAL SYSTEM OF TRANSPORTATION

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GRAPHIC SCALE



GRADING LEGEND

- EX. MAJOR CONTOUR
- EX. MINOR CONTOUR
- BOUNDARY LINE
- PROPERTY LINE
- STREET CENTERLINE
- EDGE OF PAVEMENT
- EXISTING CURB, GUTTER, & SIDEWALK
- PROPOSED CURB, GUTTER, & SIDEWALK
- PROPOSED AC PAVING
- CLARK COUNTY/CITY OF LAS VEGAS BOUNDARY LINE
- EX. FENCE
- EX. BLOCK WALL
- PROPOSED RETAINING WALL
- TOP OF FOOTING
- APPROX. WALL LENGTH
- TOP OF RETAINING WALL
- PROPOSED SCARP

PUBLIC DRAINAGE EASEMENT

DRAINAGE IMPROVEMENTS:	PUBLIC	PRIVATE
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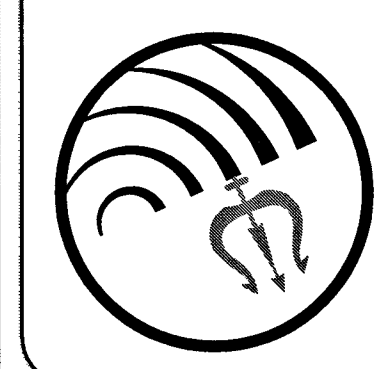
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I CERTIFY THAT THIS GRADING PLAN IS IN CONFORMANCE WITH THE APPROVED DRAINAGE STUDY ON FILE AT THE CITY OF LAS VEGAS FOR THIS PROJECT: CLV# DS4823
JAMES M. PEARCE, PE No. 9552
DATE: 2-6-18

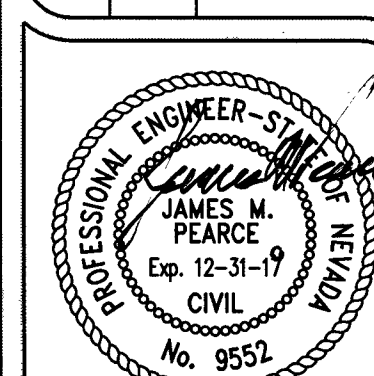
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02/06/18			1"=40'	
DRAWN BY:	T.E.			
DESIGNED BY:	T.E.			
CHECKED BY:	T.E.			
JOB NO.:	007108			

Triton Engineering
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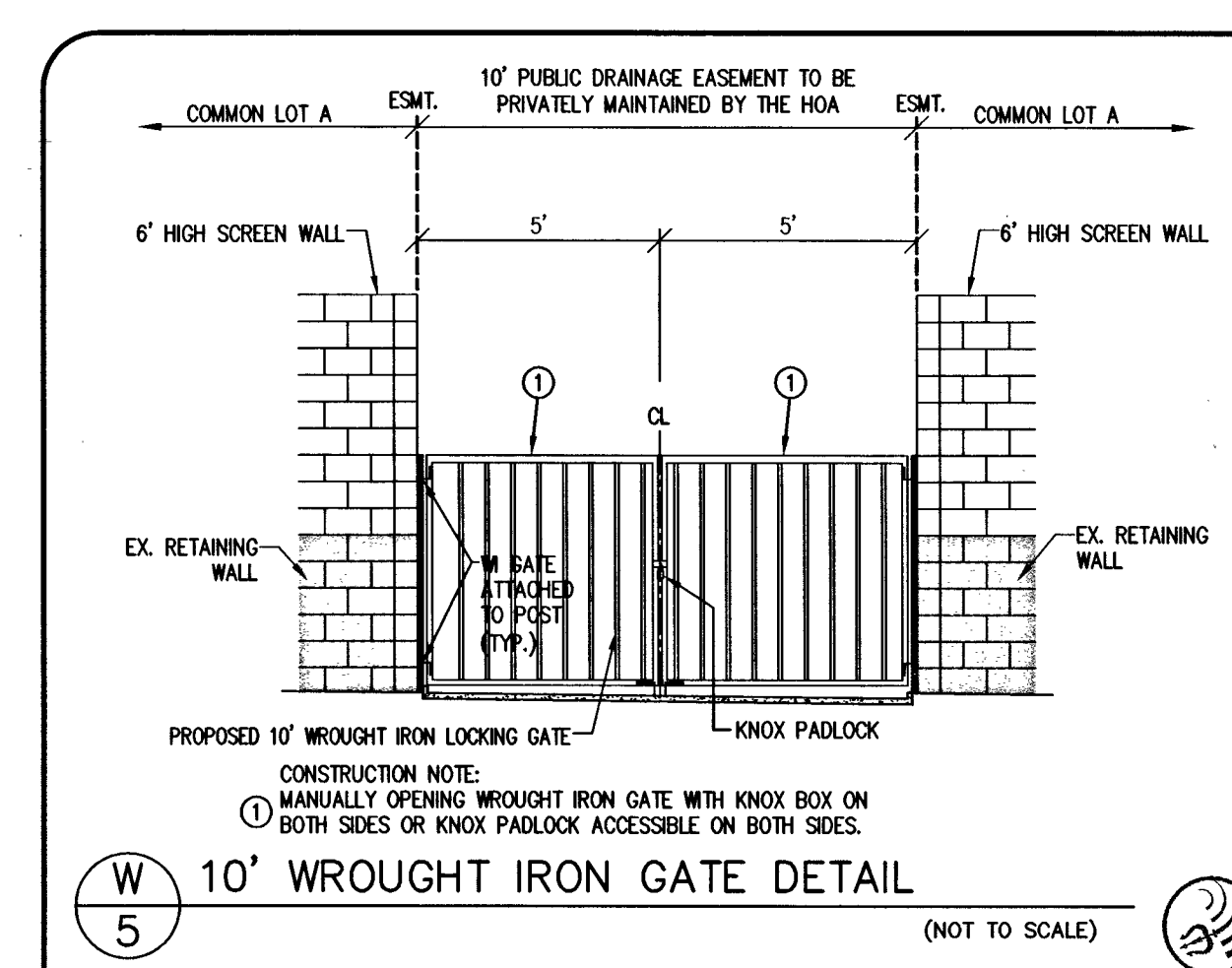
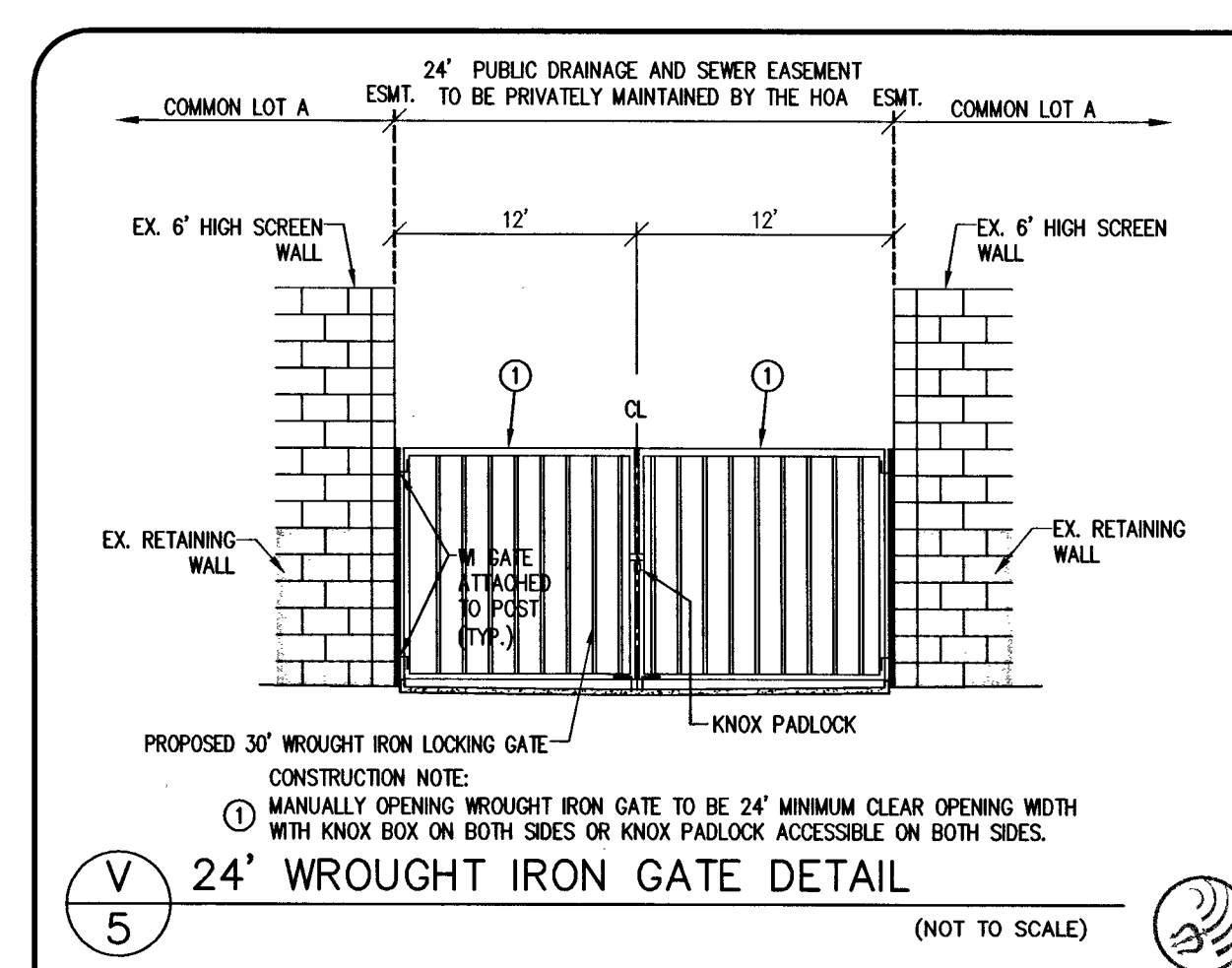
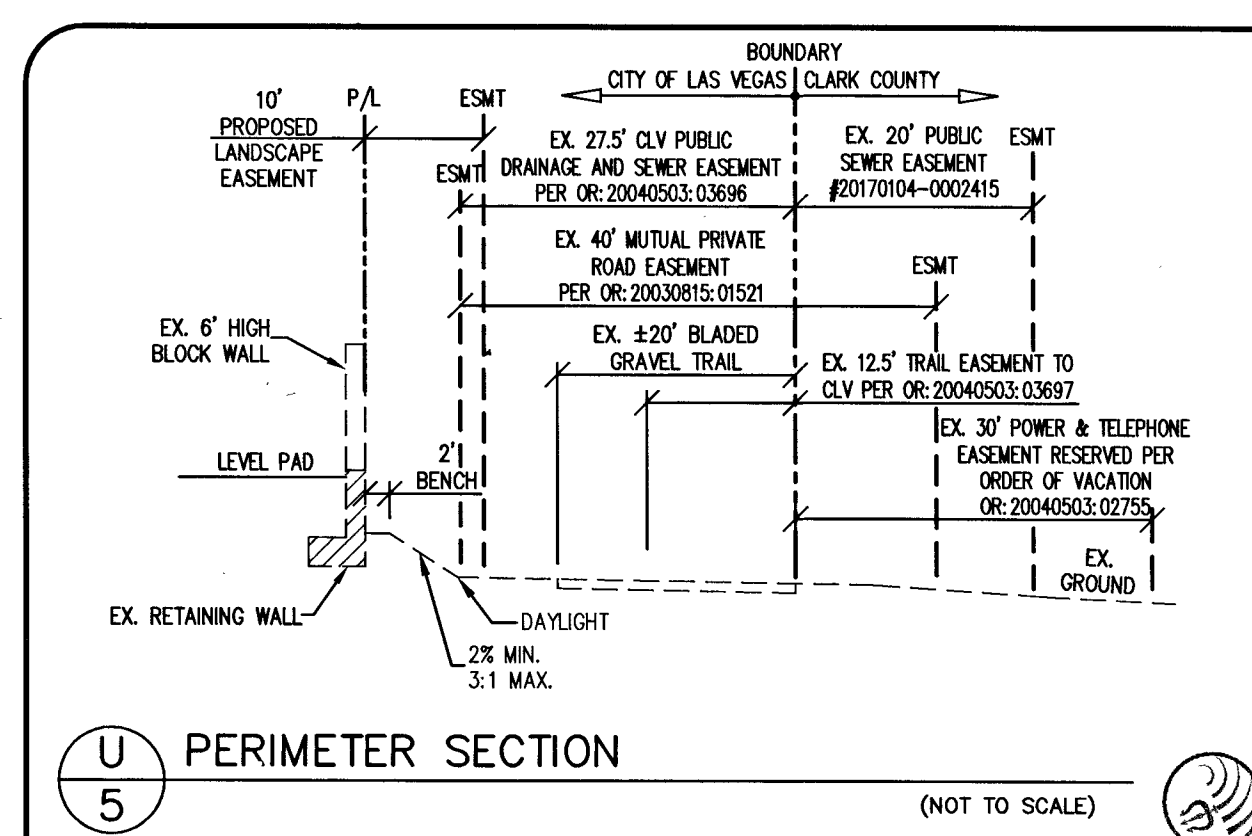
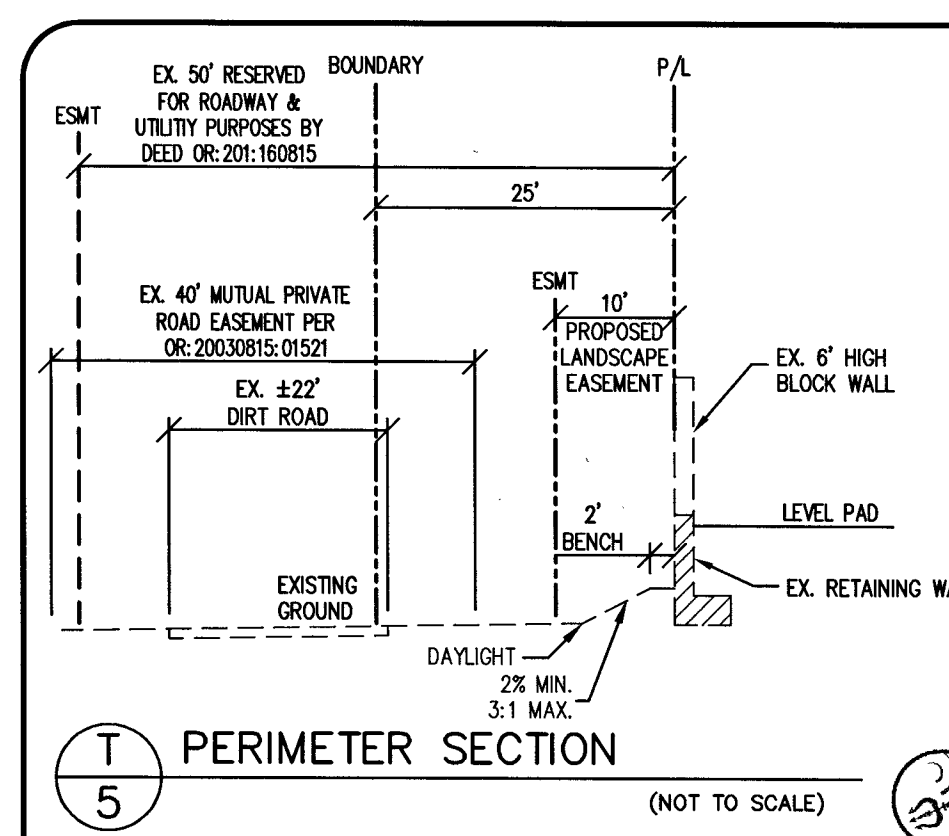
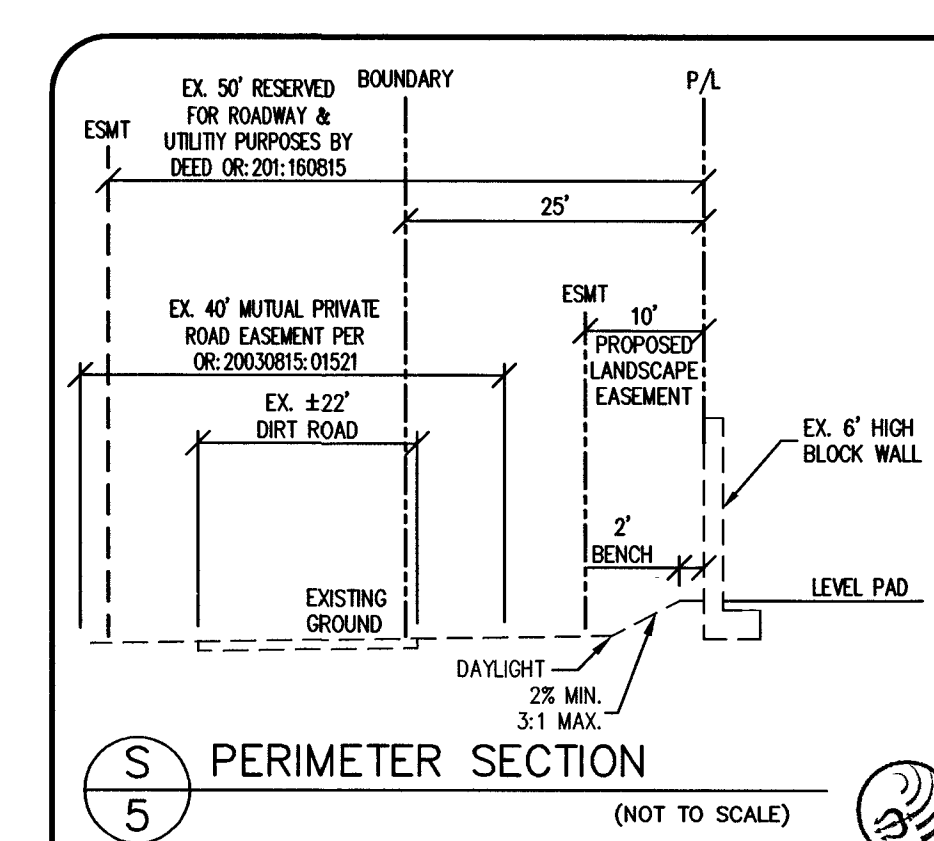
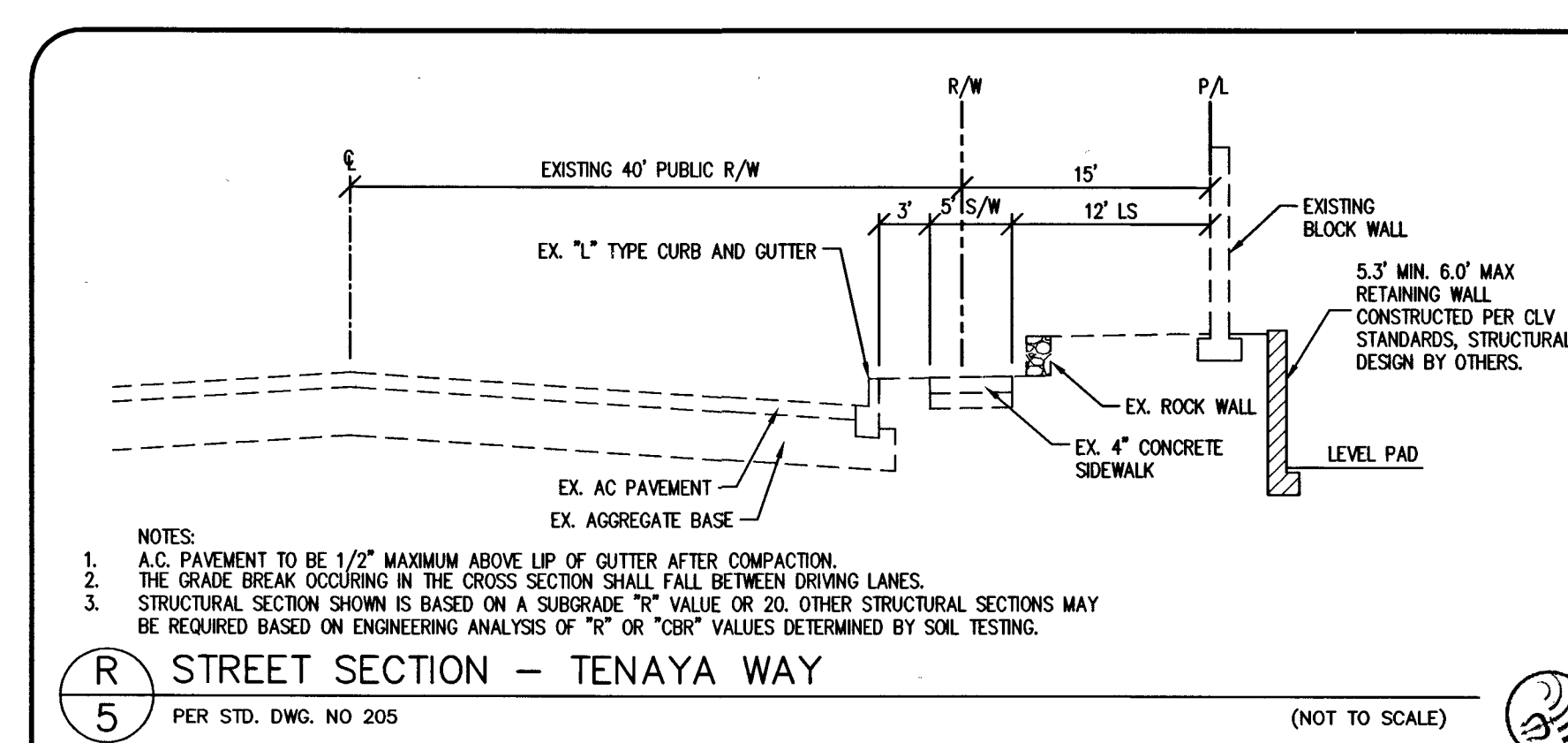
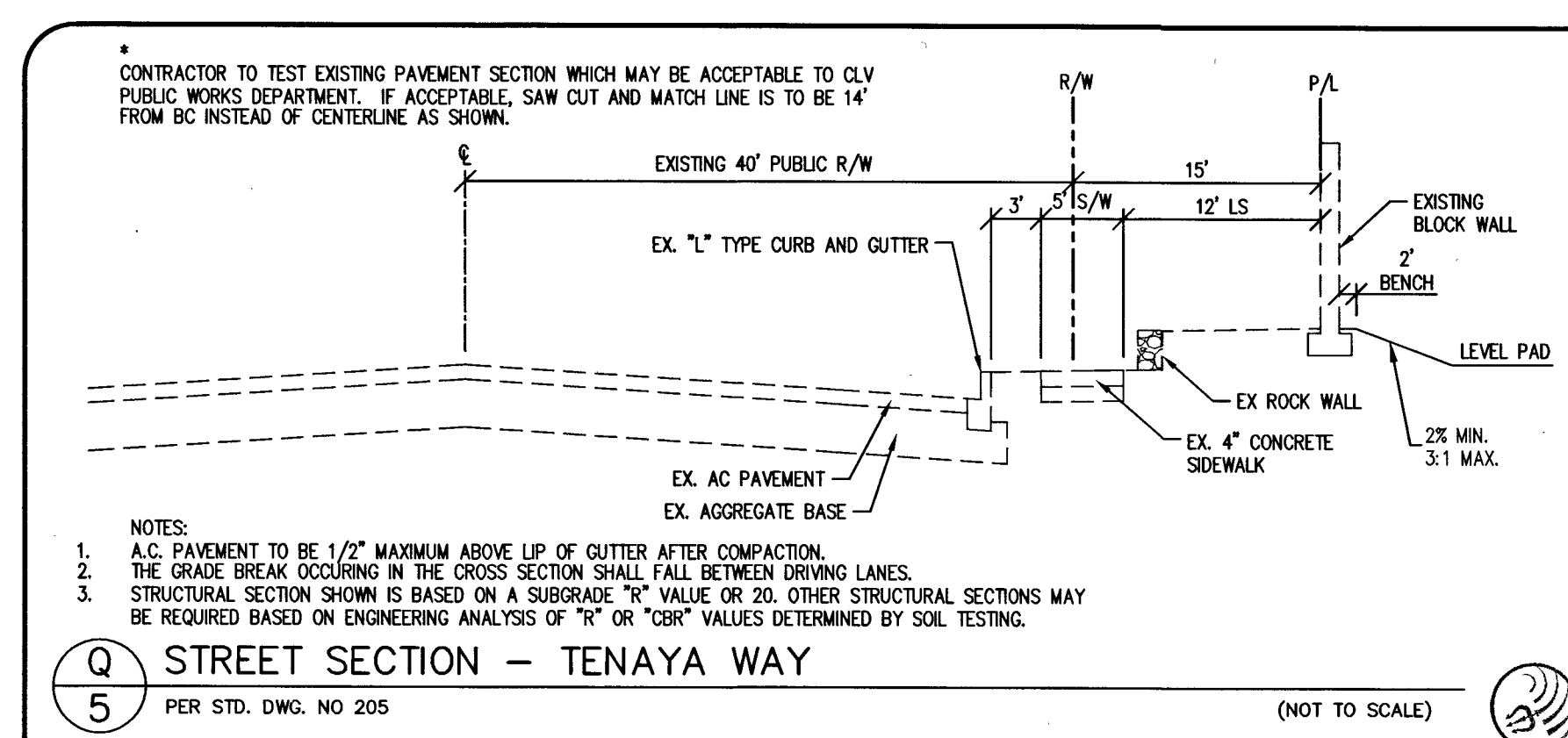
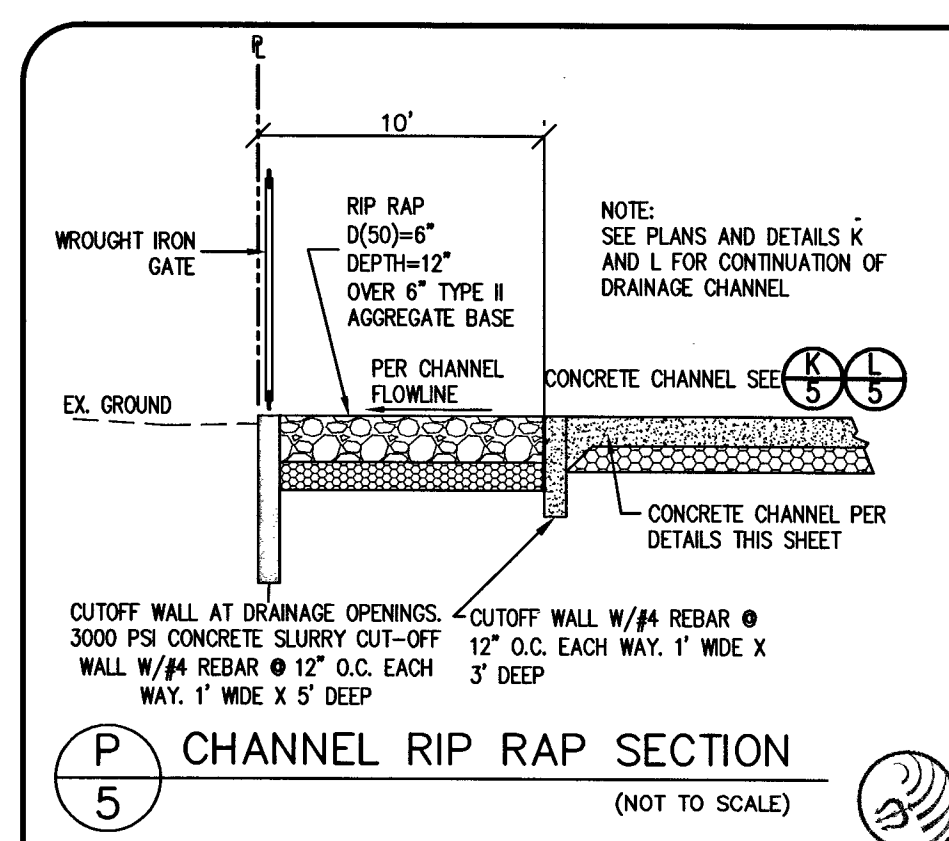
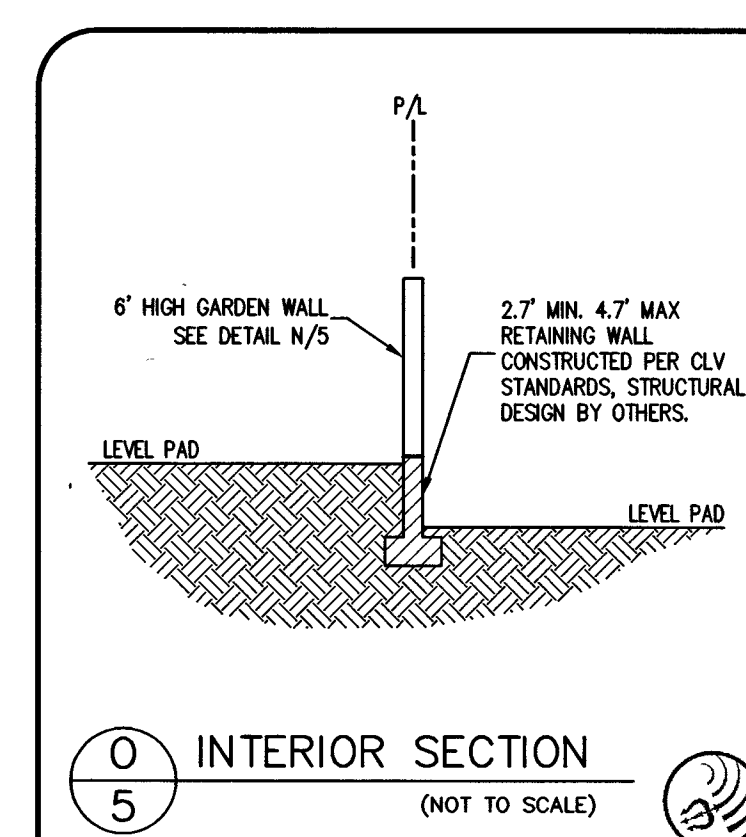
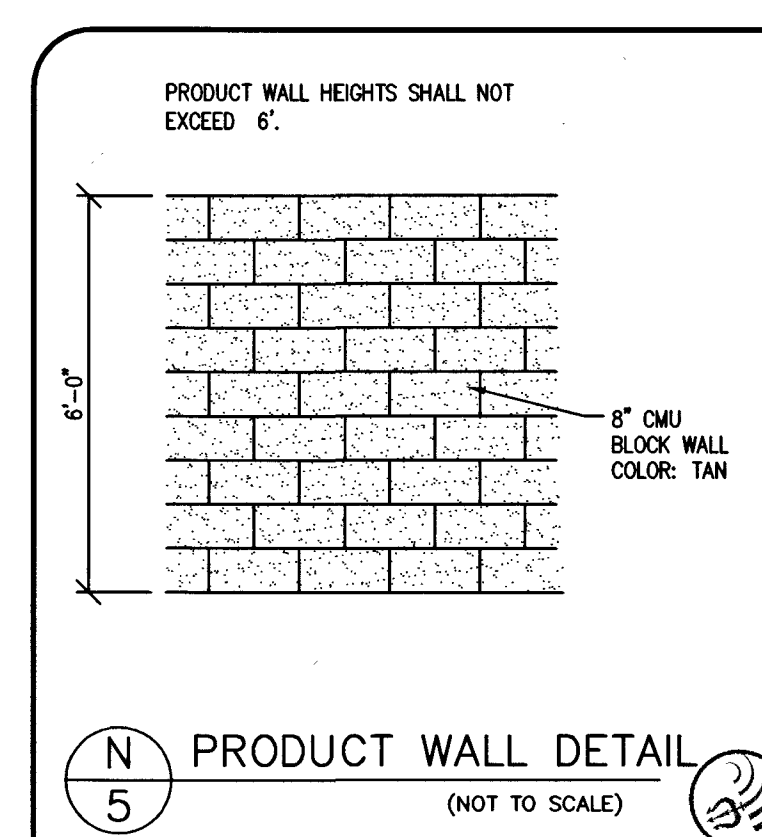
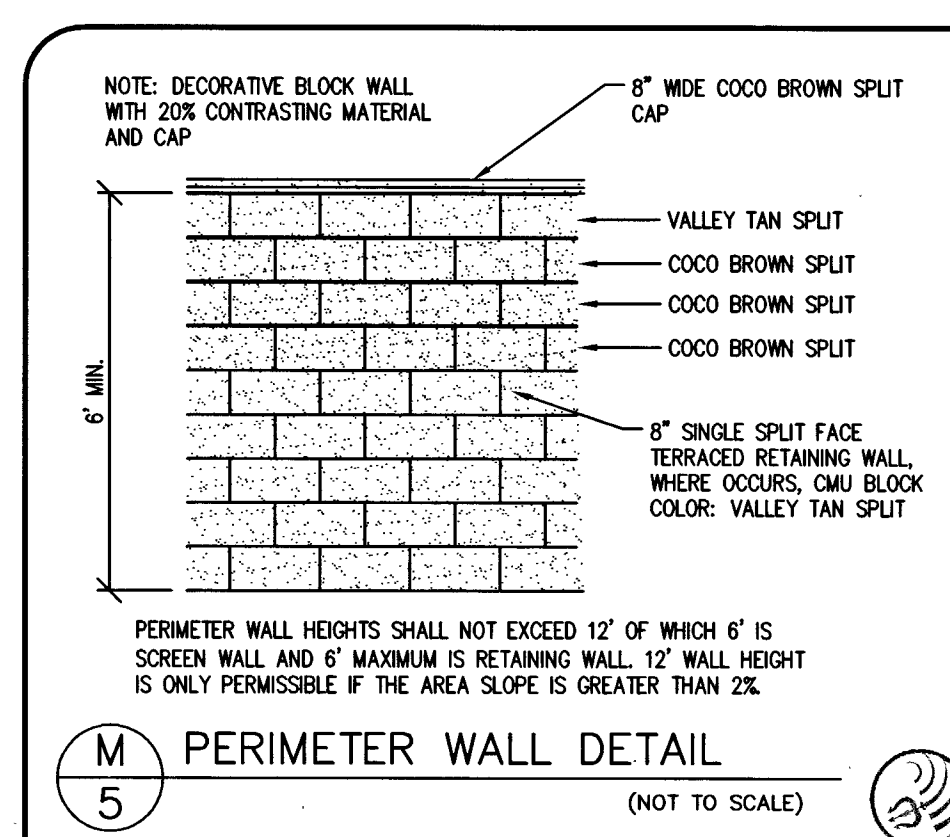
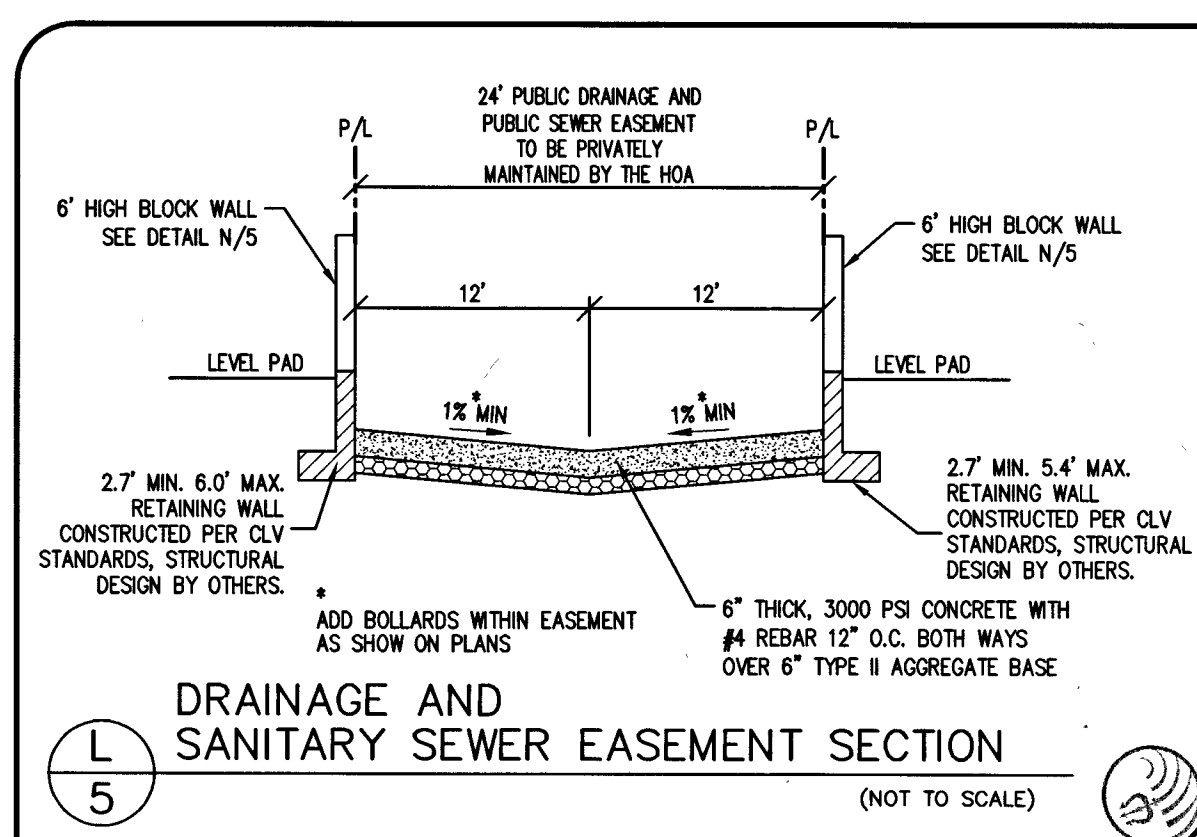
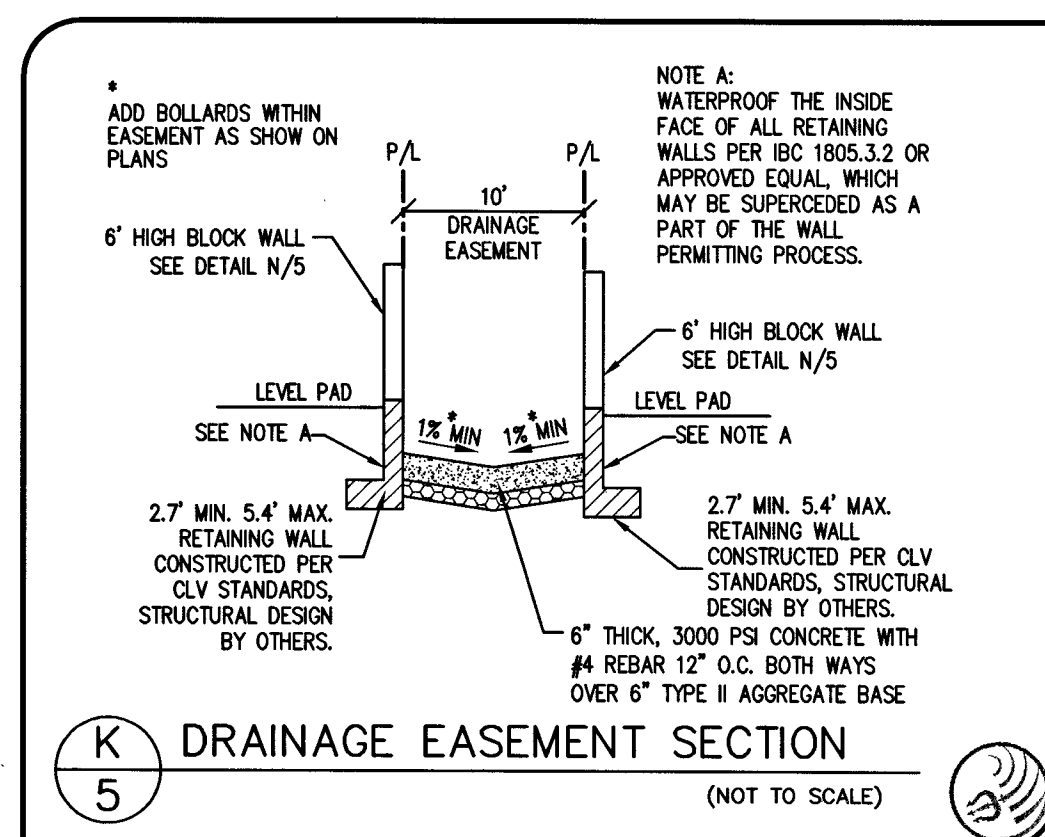
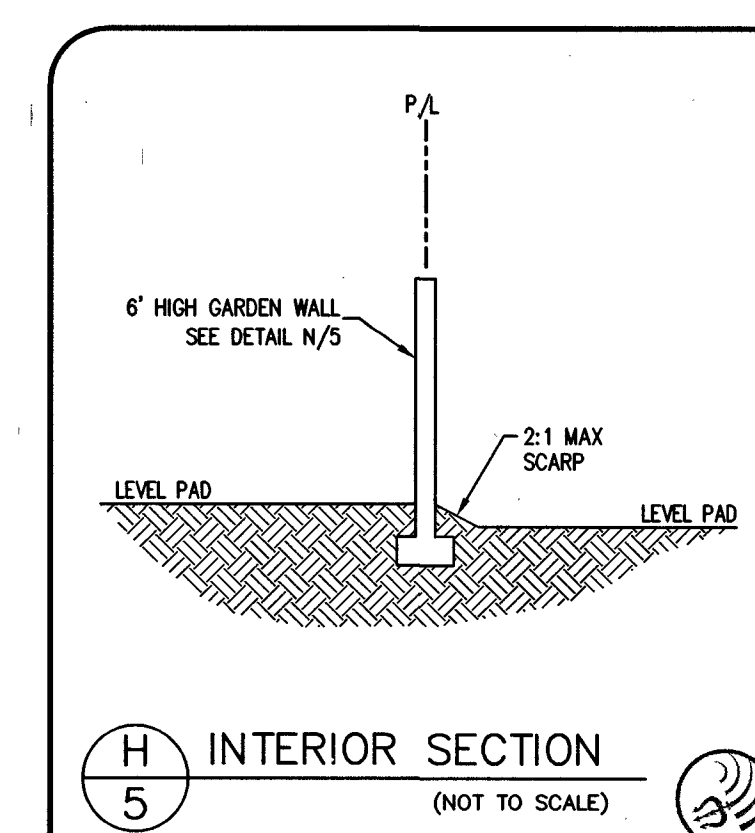
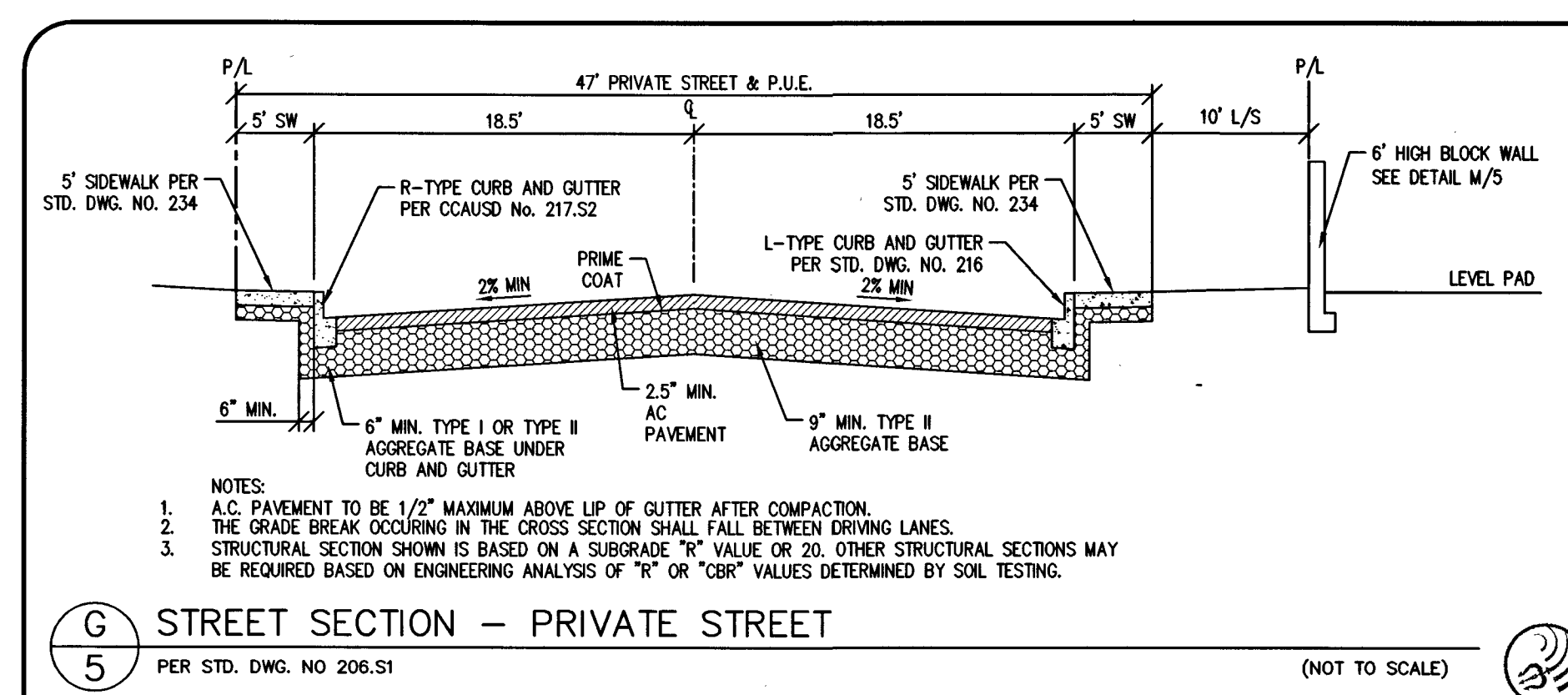
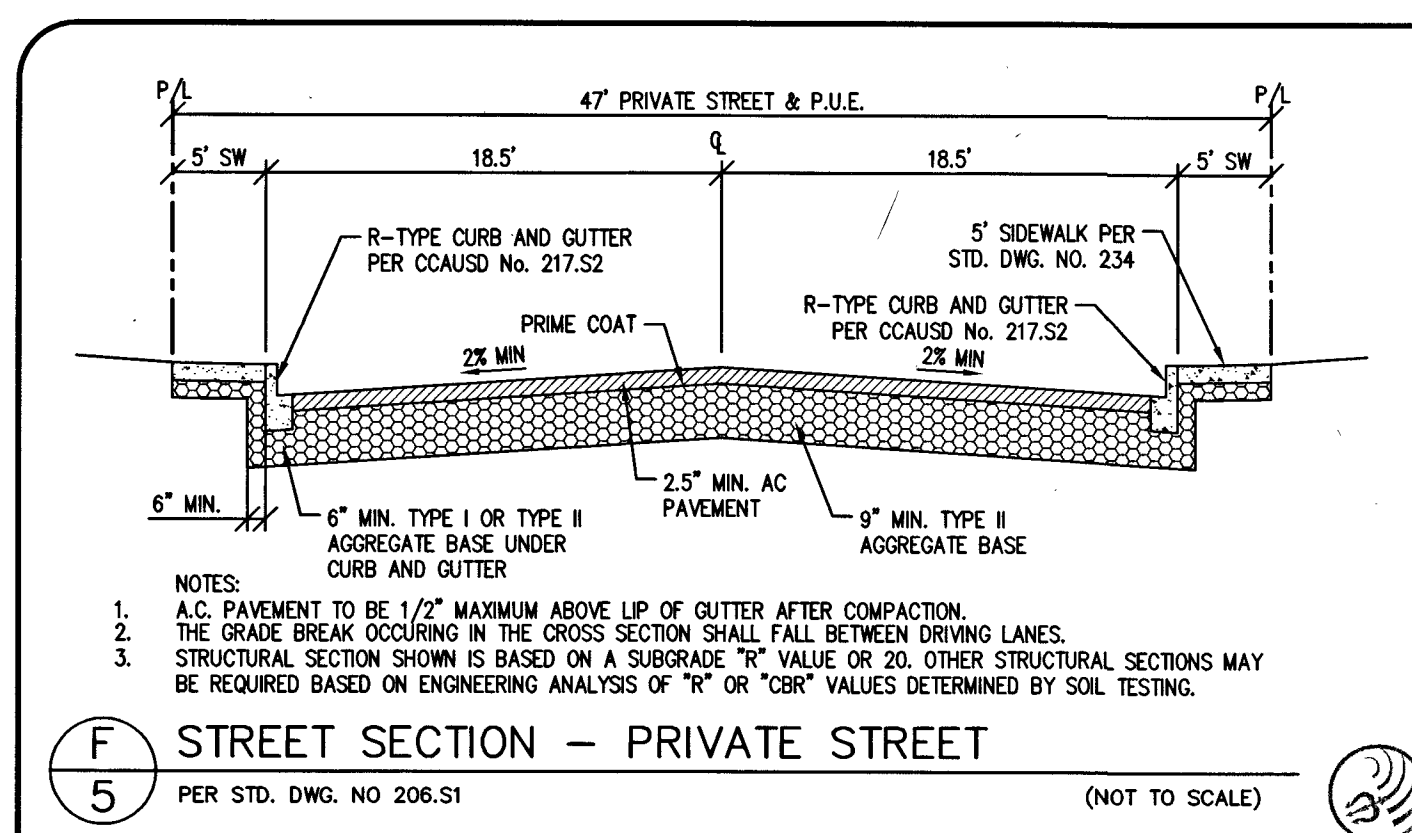
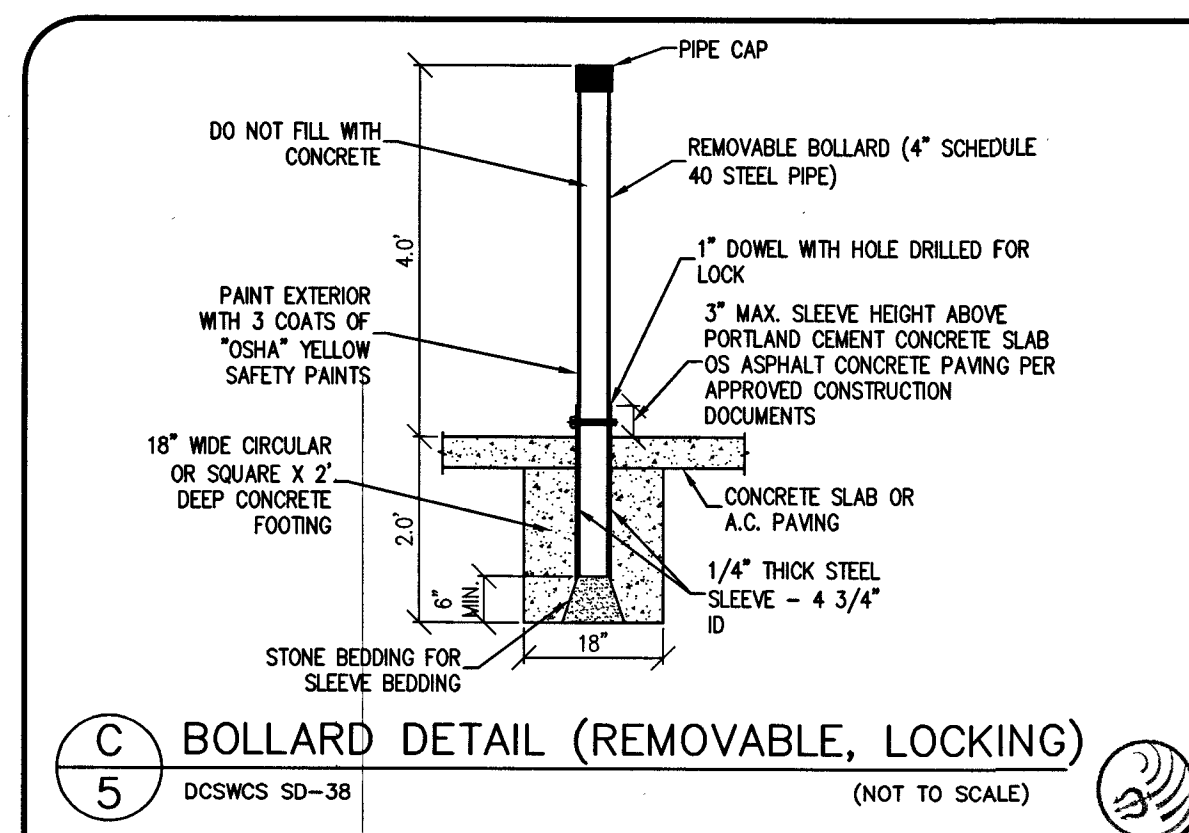


DR. HORTON
ELKHORN 40 PHASE 2

GRADING PLAN II



SHEET 4 OF 21
CLV. DWG.# L17-01163



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utility lines. It's costly.

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OR
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APPROVED FOR CONSTRUCTION

Y. D. SHADDI

LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES

PROJECT NO. 125985 FIRST APPROVED DATE: 5/6/18

LVWD APPROVED FIRE FLOW 2000 GPM AT 20 PSI RESIDUAL

MAXIMUM AVAILABLE FIRE SPRINKLER FLOW N/A GPM

SHEETS: 1, 2, 5 THRU 13

[illegible]

Triton
Engineering

Office: (702) 254-1480
Fax: (702) 254-3062
www.tritoneng.com

6737 W. Charleston Blvd.
Suite B
Las Vegas, Nevada 89146

DR HORTON

ELKHORN 40 PHASE 2

GRADING DETAILS

PROFESSIONAL ENGINEER-STATE OF NEVADA

JAMES M. PEARCE

Exp. 12-31-19

CIVIL

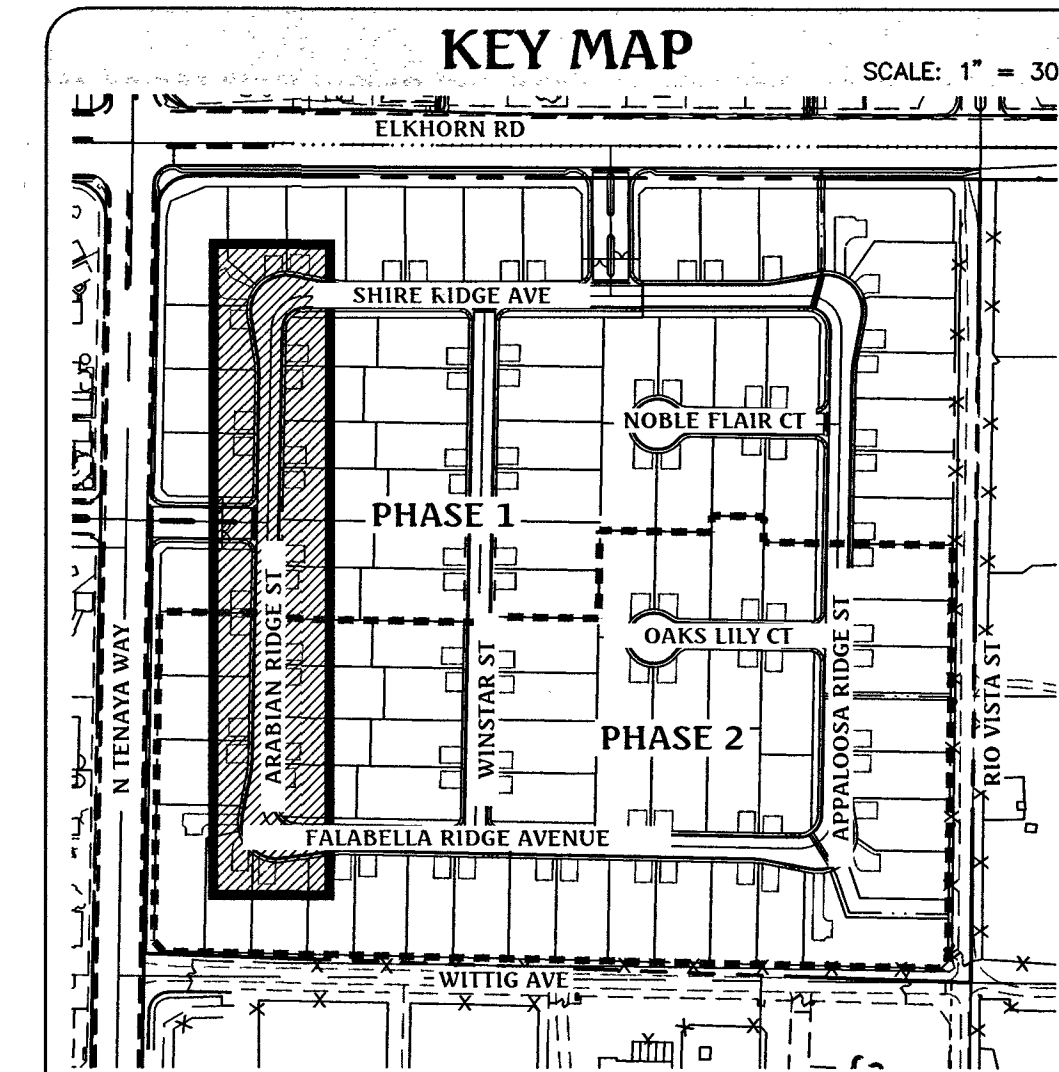
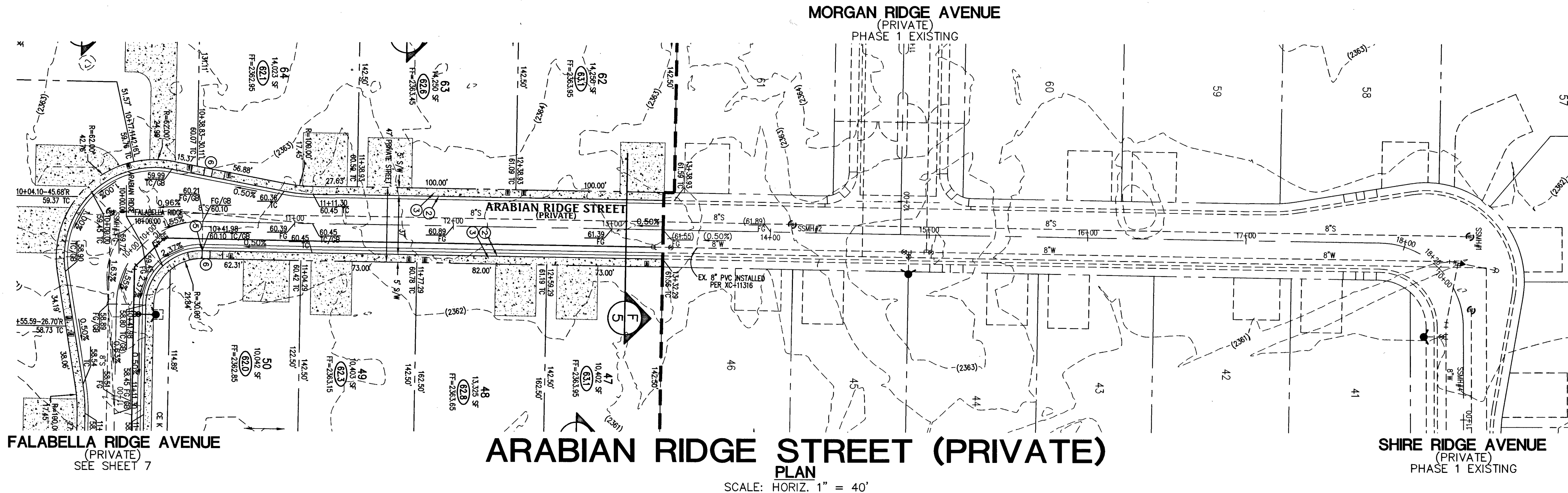
No. 9552

5-2-18

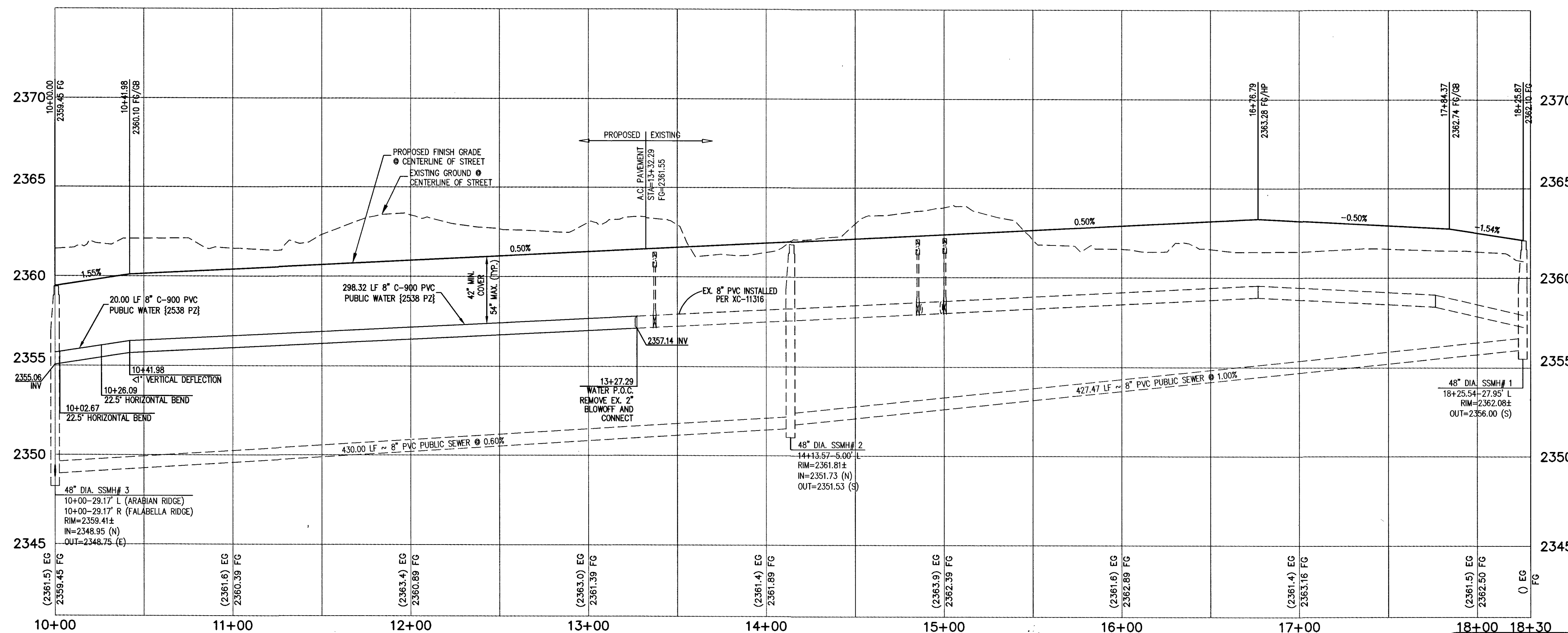
SHEET 5 OF 21

10785059-2

C.L.V. DWG. #



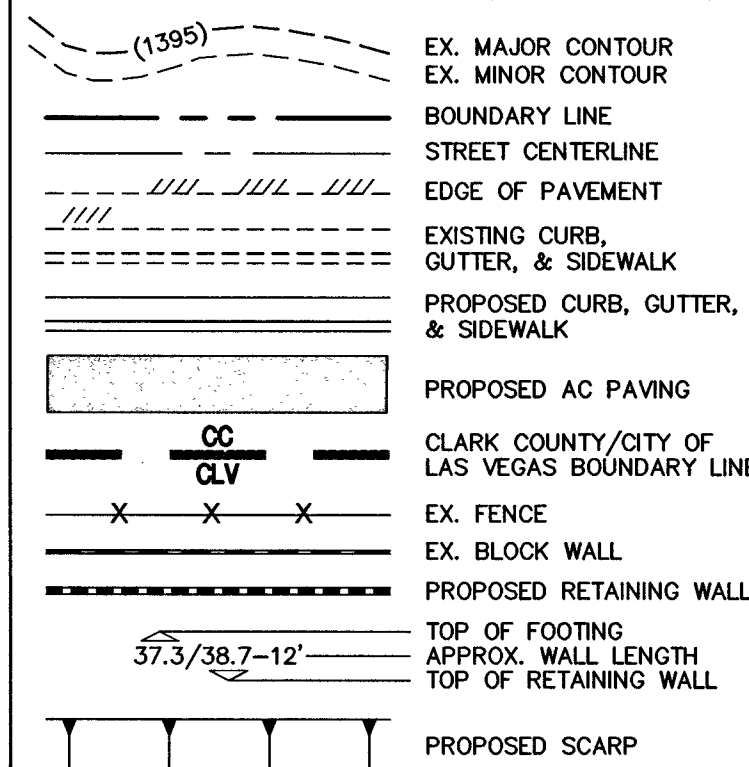
ALL SEWER/STORM DRAINS CROSSING WATER LINES MUST CONFORM TO SECTION 2.22 OF THE UNIFORM DESIGN AND CONSTRUCTION STANDARDS FOR POTABLE WATER SYSTEMS (UDACS) FOR WATER AND STORM MAIN CROSSINGS AND CLEARANCES.



CONSTRUCTION NOTES

1. CONSTRUCT 8" WIDE CROSS GUTTER, PER CCAUSD No. 228
2. CONSTRUCT "R" TYPE CURB AND GUTTER, PER CCAUSD No. 217.S2
3. CONSTRUCT 5" WIDE SIDEWALK, PER CCAUSD No. 234
4. CONSTRUCT "L" TYPE CURB AND GUTTER, PER CCAUSD No. 216
5. 5" TRANSITION FROM L-TYPE CURB/SPANDREL TO R-TYPE CURB
6. CONSTRUCT SIDEWALK RAMP USING ARMOR TILE TRUNCATED DOMES OR EQUIVALENT, PER CCAUSD No. 235, CASE 1
7. NOT USED
8. NOT USED
9. INSTALL REMOVABLE LOCKING BOLLARDS @ 5' O.C., PER DETAIL C, SHEET 5
10. CONSTRUCT SIDEWALK DRAIN, PER CCAUSD No. 236

GRADING LEGEND



BASIS OF BEARING

NORTH 00°56'37" EAST, BEING THE BEARING OF THE WEST LINE OF THE NORTHEAST QUARTER (NE 1/4) OF SECTION 22, TOWNSHIP 19 SOUTH, RANGE 60 EAST, M.D.M., CLARK COUNTY, NEVADA, AS SHOWN BY MAP THEREOF IN FILE IN THE CLARK COUNTY RECORDER'S OFFICE IN FILE 163, PAGE 26 OF SURVEYS.

BENCHMARK

CLARK COUNTY BENCHMARK STATION: 6LV90 15SS66
RIVET AND PLATE IN TOP OF CURB AT THE NORTHWEST CORNER OF RIO VISTA AND ELKHORN ROAD.
ELEVATION = 717.800 METERS (NAVD'88 V.2003)
ELEVATION = 2354.98 US SURVEY FEET (NAVD'88 V.2003)

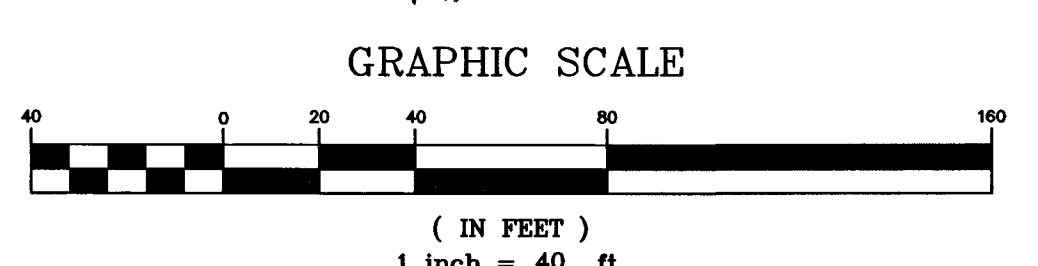
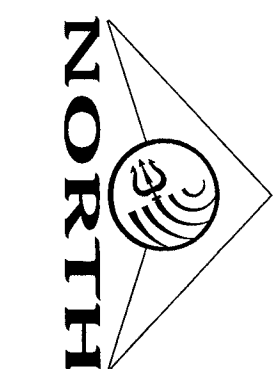
APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES
PROJECT NO. 125985 FIRST APPROVED DATE: 5/1/18
LVWD APPROVED FIRE FLOW 2000 GPM AT 20 PSI RESIDUAL
MAXIMUM AVAILABLE FIRE SPRINKLER FLOW N/A GPM
SHEETS: 1, 2, 5 THRU 13

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

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

AVOID HITTING OVERHEAD POWER LINES. IT'S COSTLY.
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Overhead
1-702-227-2929



Triton Engineering
Office: (702) 254-1480
Suite B, Charleston Blvd., Las Vegas, Nevada 89146
www.tritoneng.com

DR HORTON
ELKHORN 40 PHASE 2
ARABIAN RIDGE STREET
(10+00 - 18+25.87)
PLAN AND PROFILE

PROJ #125985 AGR#116575 QS 125-22-NE XC 11456

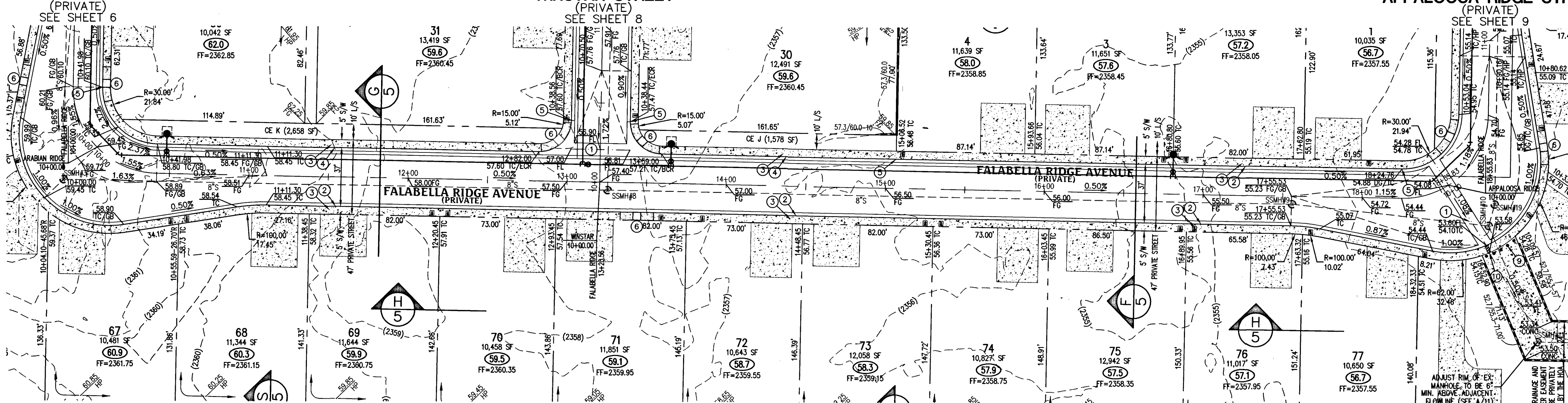
SHEET 6 OF 13
C.L.V. DWG. # L17-01163

DATE	DESCRIPTION	NO.	SCALE
02/05/18	DATE	1	1"=40'
PM: J. PEARCE	DRAWN BY:	T.E.	
DESIGNED BY:	T.E.		
CHECKED BY:	T.E.		
ADA CHECKED:	T.E.		
JOB NO.:	007108		

ARRABIAN RIDGE STREET

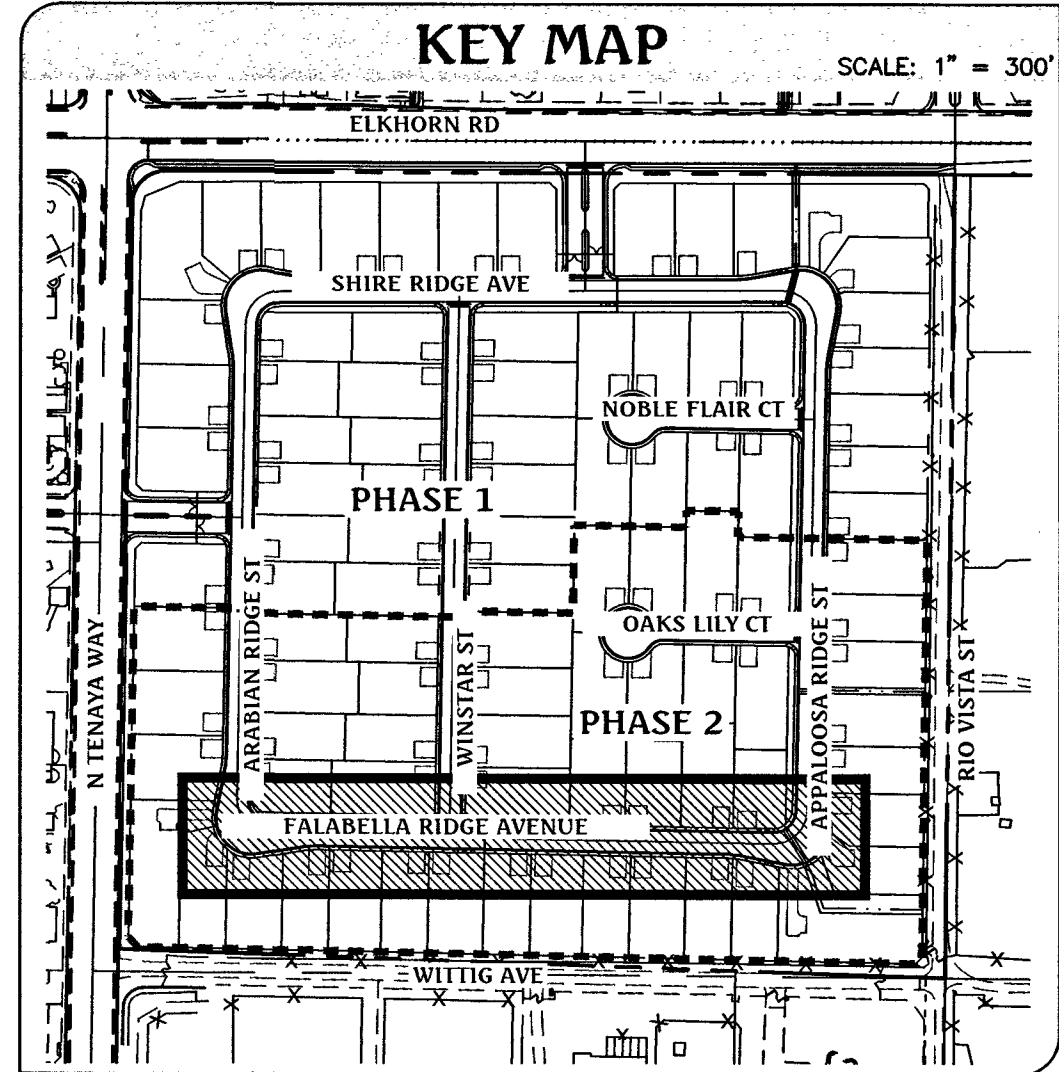
WINSTAR STREET

APPALOOSA RIDGE STREET



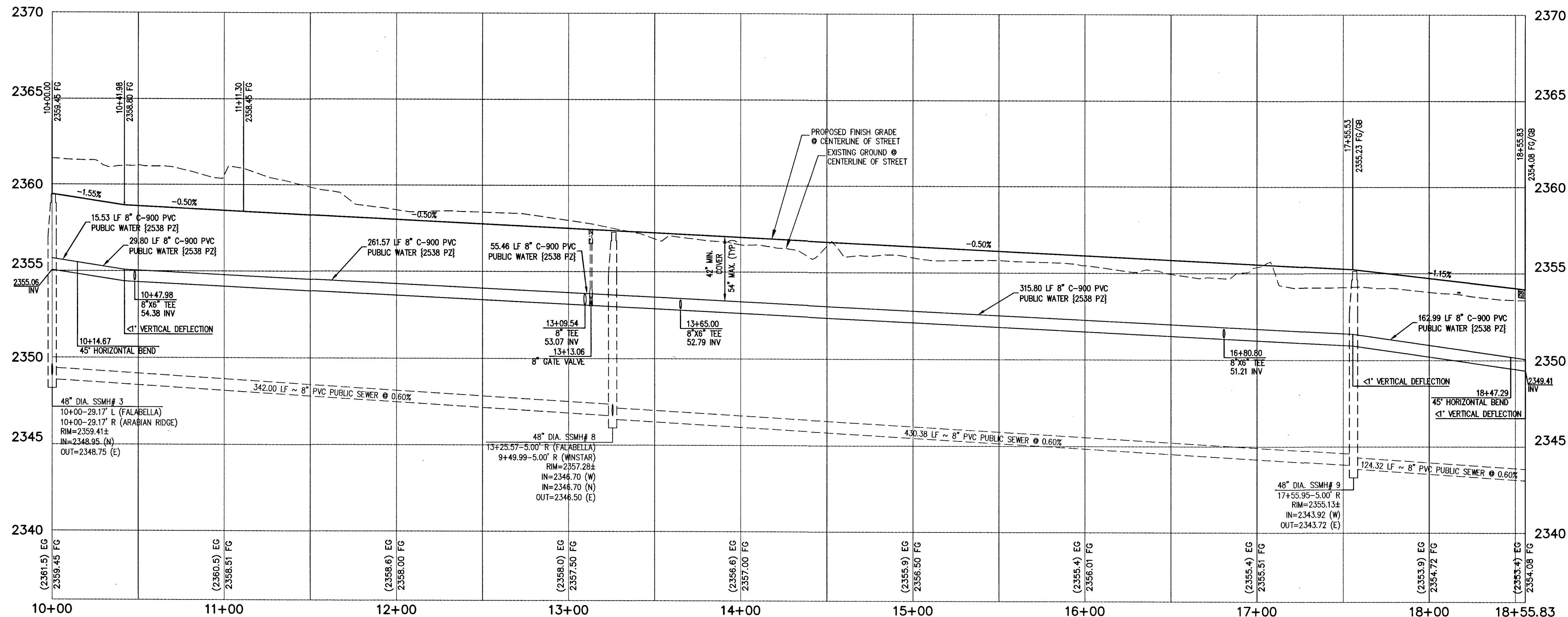
FALABELLA RIDGE AVENUE (PRIVATE)

PLAN
SCALE: HORIZ. 1" = 40'



KEY MAP

SCALE: 1" = 300'



FALABELLA AVENUE (PRIVATE)

PROFILE
SCALE: HORIZ. 1" = 40'
VERT. 1" = 4'

CONSTRUCTION NOTES

1. CONSTRUCT 8" WIDE CROSS GUTTER, PER CCAUSD NO. 228
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7. NOT USED
8. NOT USED
9. INSTALL REMOVABLE LOCKING BOLLARDS @ 5' O.C., PER DETAIL C, SHEET 5
10. CONSTRUCT SIDEWALK DRAIN, PER CCAUSD NO. 236

GRADING LEGEND

- EX. MAJOR CONTOUR
- EX. MINOR CONTOUR
- BOUNDARY LINE
- STREET CENTERLINE
- EDGE OF PAVEMENT
- EXISTING CURB, GUTTER, & SIDEWALK
- PROPOSED CURB, GUTTER, & SIDEWALK
- PROPOSED AC PAVING
- CLARK COUNTY/CITY OF LAS VEGAS BOUNDARY LINE
- EX. FENCE
- EX. BLOCK WALL
- PROPOSED RETAINING WALL
- TOP OF FOOTING
- APPROX. WALL LENGTH
- TOP OF RETAINING WALL
- PROPOSED SCARP

BASIS OF BEARING

NORTH 00°56'37" EAST, BEING THE BEARING OF THE WEST LINE OF THE NORTHEAST QUARTER (NE 1/4) OF SECTION 22, TOWNSHIP 19 SOUTH, RANGE 60 EAST, M.D.M., CLARK COUNTY, NEVADA, AS SHOWN BY MAP THEREOF IN FILE IN THE CLARK COUNTY RECORDER'S OFFICE IN FILE 163, PAGE 26 OF SURVEYS.

BENCHMARK

CLARK COUNTY BENCHMARK STATION: 6LV90 15S56E
RIVET AND PLATE IN TOP OF CURB AT THE NORTHWEST CORNER OF RIO VISTA AND ELKHORN ROAD.
ELEVATION = 717.800 METERS (NAVD'88 V.2003)
ELEVATION = 2354.98 US SURVEY FEET (NAVD'88 V.2003)

APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES
PROJECT NO. 125985 FIRST APPROVED DATE: 5/16/18
LVWD APPROVED FIRE FLOW 2000 GPM AT 20 PSI RESIDUAL
MAXIMUM AVAILABLE FIRE SPRINKLER FLOW N/A GPM
SHEETS: 1, 2, 5 THRU 13

Call before you Dig
Avoid cutting underground utility lines. It's costly.
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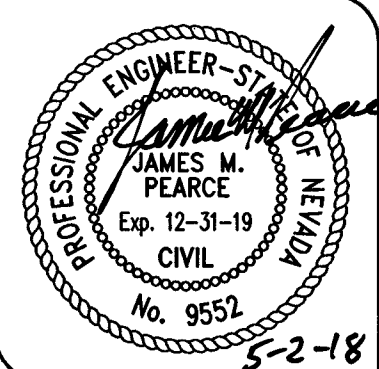
(IN FEET)
1 inch = 40 ft.

DATE	NO.	DESCRIPTION	DATE	APP'D
02/06/18				
PM: J. PEARCE				
DRAWN BY: T.E.				
DESIGNED BY: T.E.				
CHECKED BY: T.E.				
ADA CHECKED: T.E.				
JOB NO.: 007108				
SCALE: 1"=40'				

Triton Engineering
Office: (702) 254-1480
Suite B 6757 W. Charleston Blvd.
Las Vegas, Nevada 89146
Fax: (702) 254-3062
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DR. HORTON
ELKHORN 40 PHASE 2
FALABELLA RIDGE AVENUE
(10+00 - 18+55.83)
PLAN AND PROFILE



SHEET 7 OF 21
C.L.V. DWG. # L17-01163

PROJ #125985 AGR #116575 QS 725-22-NE XC 11458

Q:\Triton Drawings\007.108 Elkhorn Trench\Drawings\Improvements\Phase2\08 007.108-ph2-imp-Profiles-on-site.dwg daylight Wed, 02 May 2018 - 11:16am

FALABELLA RIDGE AVENUE

(PRIVATE)
SEE SHEET 7

FALABELLA RIDGE AVENUE

(PRIVATE)
SEE SHEET 7

FALABELLA RIDGE AVENUE

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SEE SHEET 7

FALABELLA RIDGE AVENUE

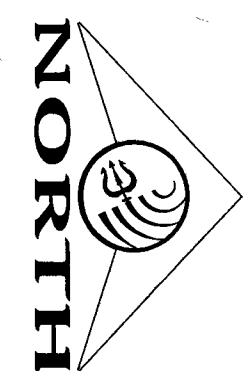
(PRIVATE)
SEE SHEET 7

WINSTAR STREET (PRIVATE)

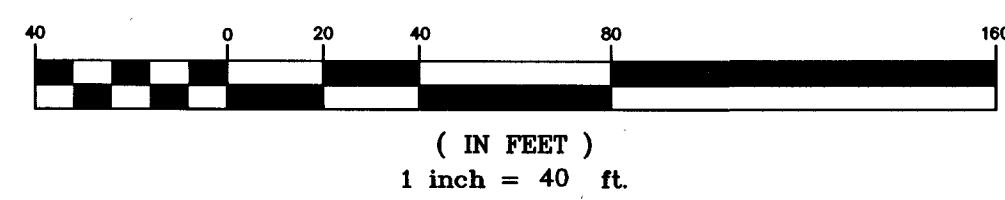
PLAN
SCALE: HORIZ. 1" = 40'

WINSTAR STREET (PRIVATE)

PROFILE
SCALE: HORIZ. 1" = 40'
VERT. 1" = 4'



GRAPHIC SCALE



SHIRE RIDGE AVENUE

(PRIVATE)
PHASE 1 EXISTING

SHIRE RIDGE AVENUE

(PRIVATE)
PHASE 1 EXISTING

SHIRE RIDGE AVENUE

(PRIVATE)
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SHIRE RIDGE AVENUE

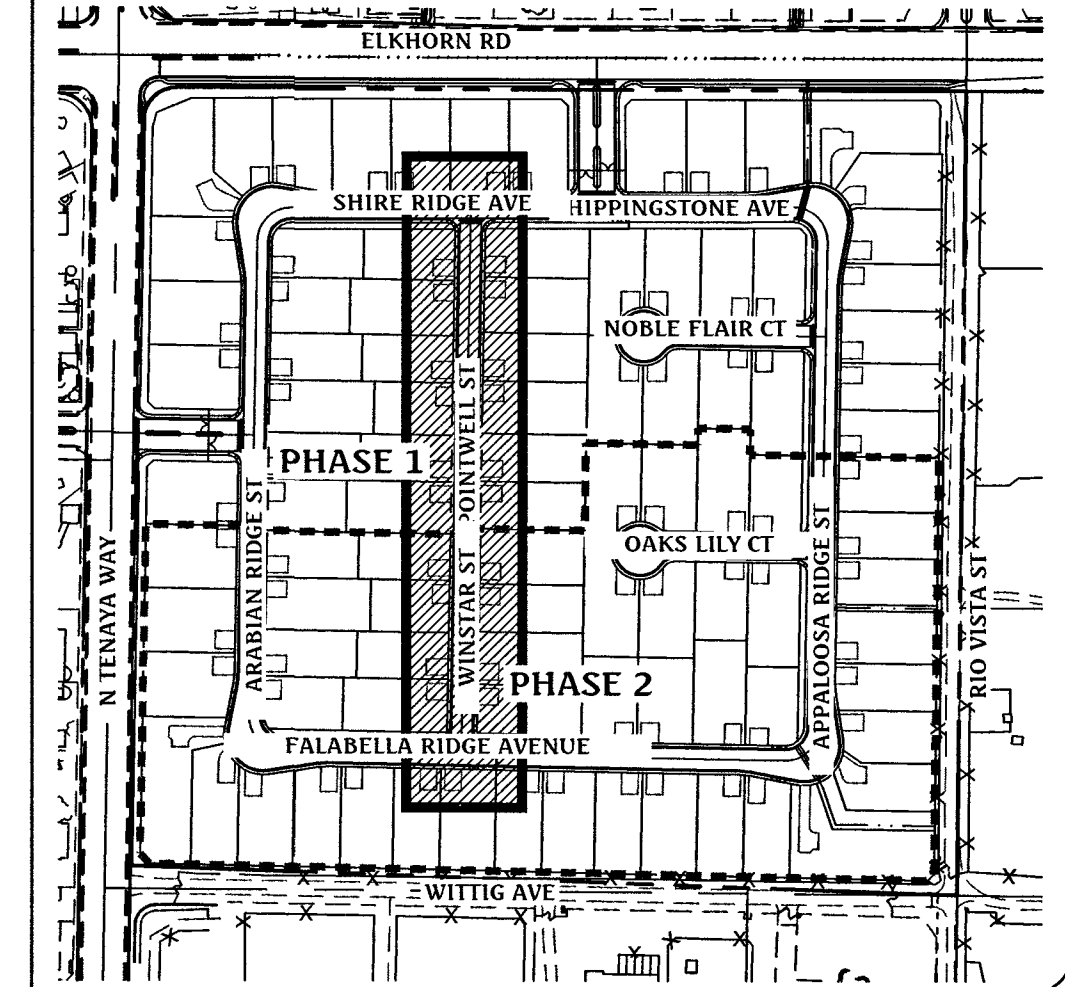
(PRIVATE)
PHASE 1 EXISTING

SHIRE RIDGE AVENUE

(PRIVATE)
PHASE 1 EXISTING

KEY MAP

SCALE: 1" = 300'

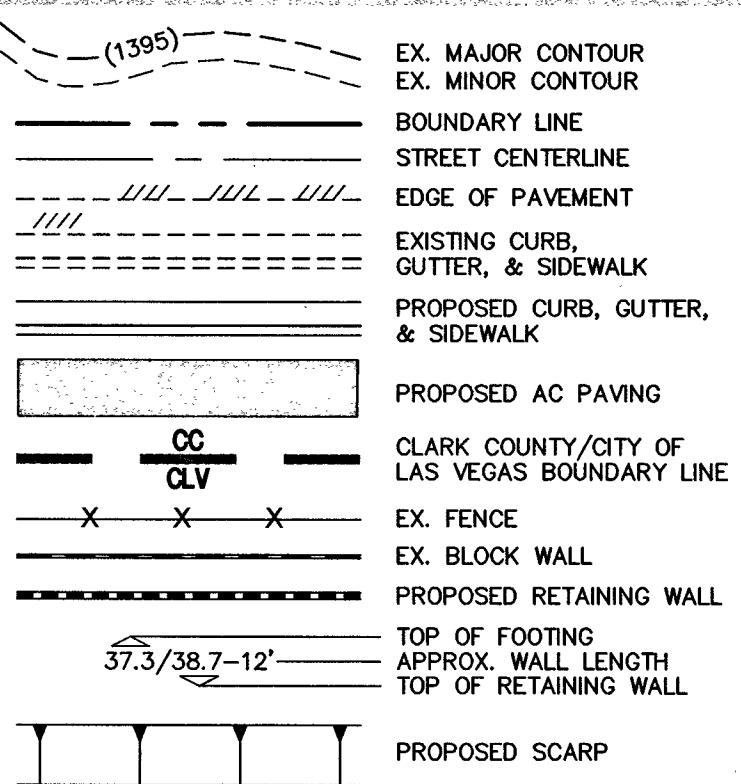


ALL SEWER/STORM DRAINS CROSSING WATER LINES MUST CONFORM TO SECTION 2.22 OF THE UNIFORM DESIGN AND CONSTRUCTION STANDARDS FOR POTABLE WATER SYSTEMS (UDACS) FOR WATER AND STORM MAIN CROSSINGS AND CLEARANCES.

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8. NOT USED
9. INSTALL REMOVABLE LOCKING BOLLARDS 5" O.C., PER DETAIL C, SHEET 5
10. CONSTRUCT SIDEWALK DRAIN, PER CCAUSD No. 236

GRADING LEGEND



BASIS OF BEARING

NORTH 00°58'37" EAST, BEING THE BEARING OF THE WEST LINE OF THE NORTHEAST QUARTER (NE 1/4) OF SECTION 22, TOWNSHIP 19 SOUTH, RANGE 60 EAST, M.D.M., CLARK COUNTY, NEVADA, AS SHOWN BY MAP THEREOF IN FILE IN THE CLARK COUNTY RECORDER'S OFFICE IN FILE 163, PAGE 26 OF SURVEYS.

BENCHMARK

CLARK COUNTY BENCHMARK STATION: 6LV90 15SSE6
RIVET AND PLATE IN TOP OF CURB AT THE NORTHWEST CORNER OF RIO VISTA AND ELKHORN ROAD.
ELEVATION = 717.800 METERS (NAVD'88 V.2003)
ELEVATION = 2354.98 US SURVEY FEET (NAVD'88 V.2003)

APPROVED FOR CONSTRUCTION

[Signature]
LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES
PROJECT NO. 125985 FIRST APPROVED DATE: 5/6/18
LVWD APPROVED FIRE FLOW 2000 GPM AT 20 PSI RESIDUAL
MAXIMUM AVAILABLE FIRE SPRINKLER FLOW N/A GPM
SHEETS: 1, 2, 5 THRU 13

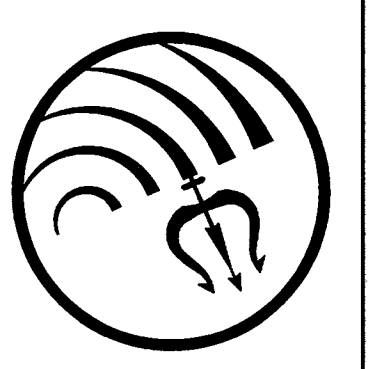
Call before you Dig
Avoid cutting underground utility lines. It's costly.
CALL
811
OR
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FAST
Call before you Dig
Underground
1-702-432-5300
FREEMAN AND ARTERIAL SYSTEM OF TRANSPORTATION

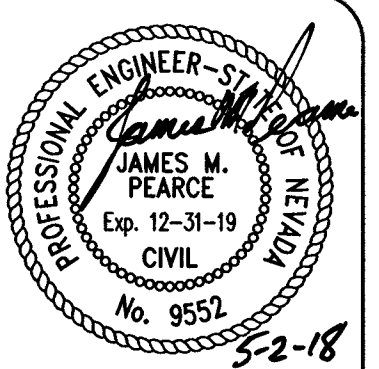
AVOID HITTING OVERHEAD POWER LINES. IT'S COSTLY.
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1-702-227-2929

DATE	NO.	DESCRIPTION	SCALE
02/06/18	1	1"=40'	
02/06/18	2		
02/06/18	3		
02/06/18	4		
02/06/18	5		
02/06/18	6		
02/06/18	7		
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02/06/18	98		
02/06/18	99		
02/06/18	100		

Triton Engineering
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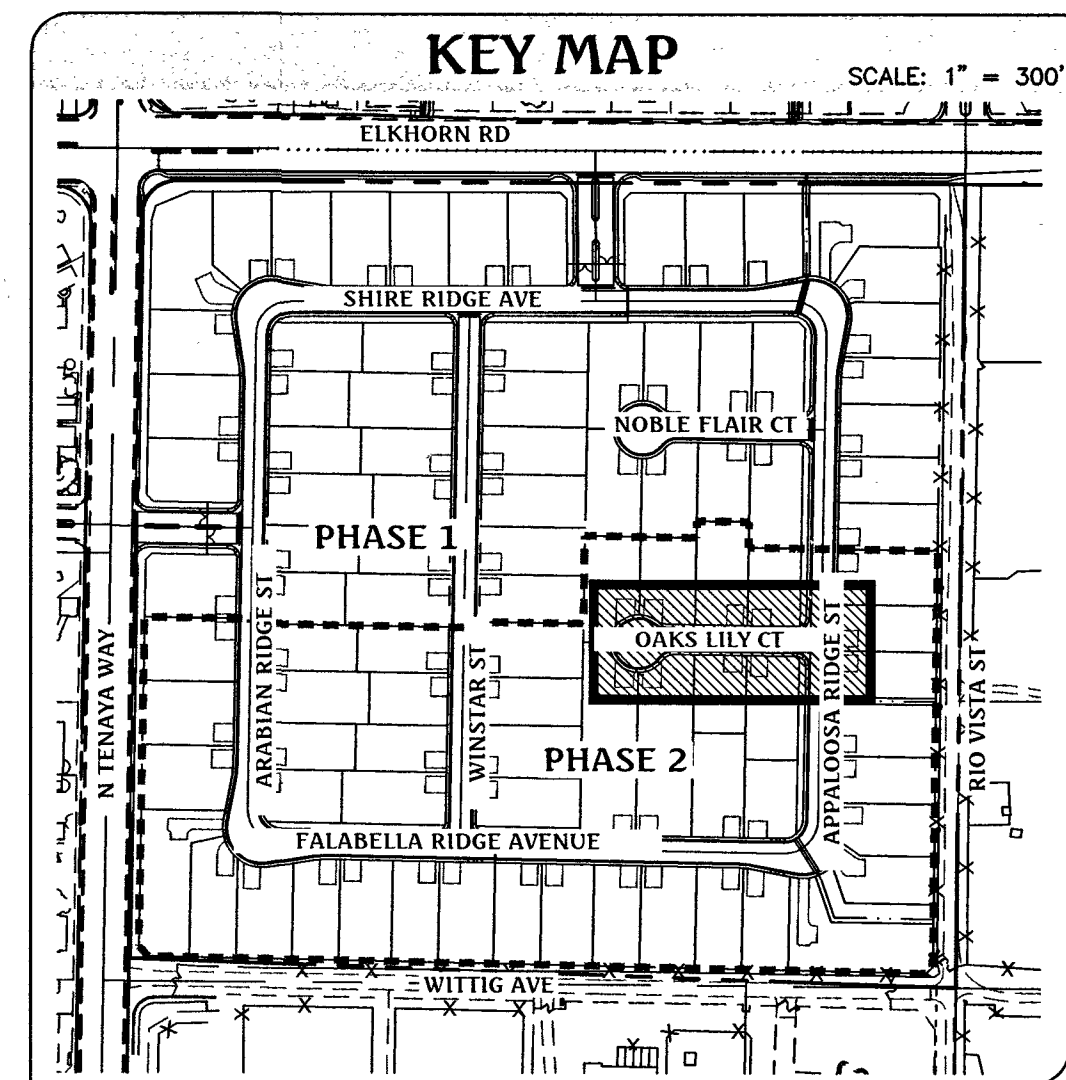
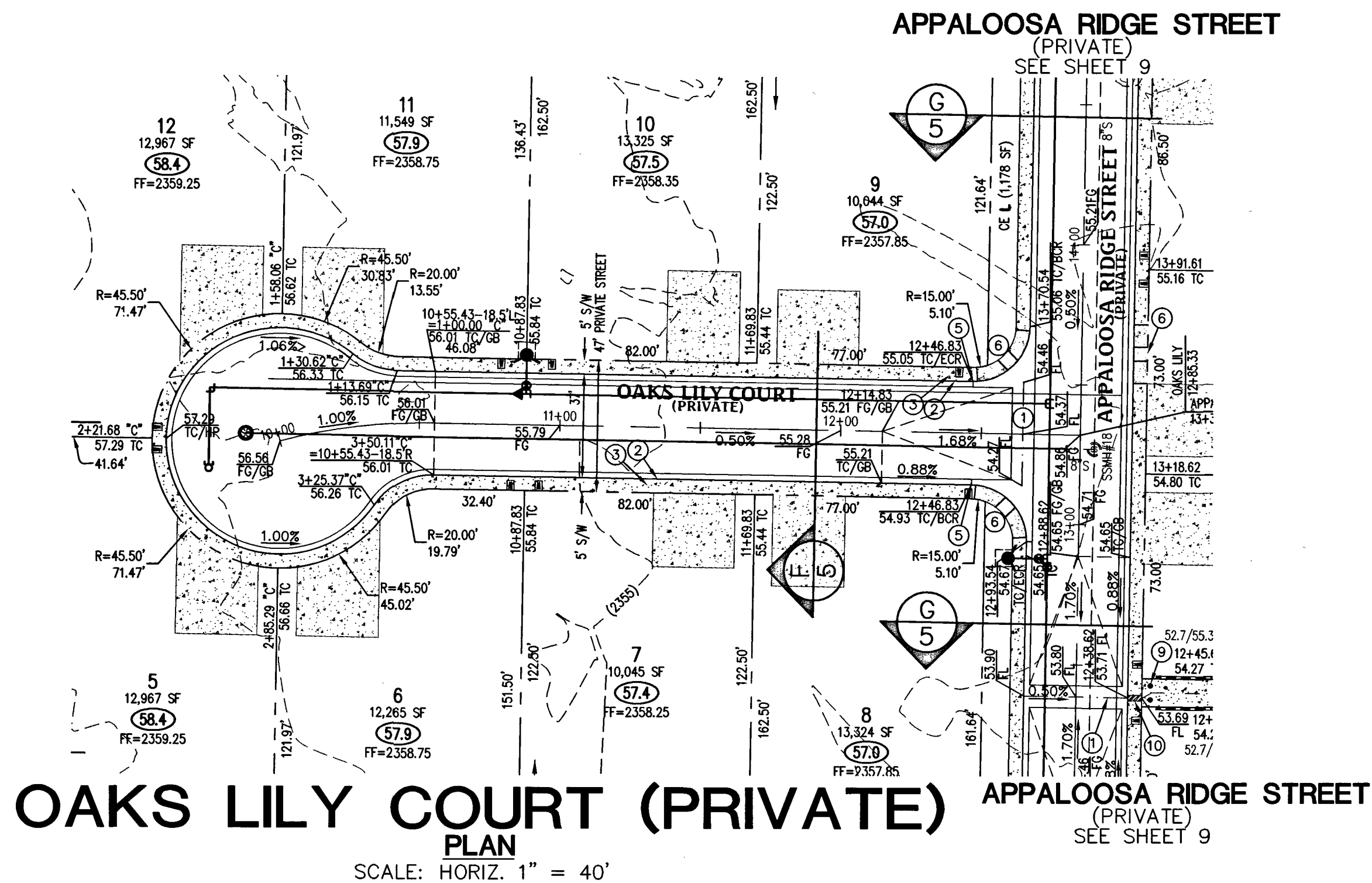


DR HORTON
ELKHORN 40 PHASE 2
WINSTAR STREET
(9+50 - 19+00)
PLAN AND PROFILE

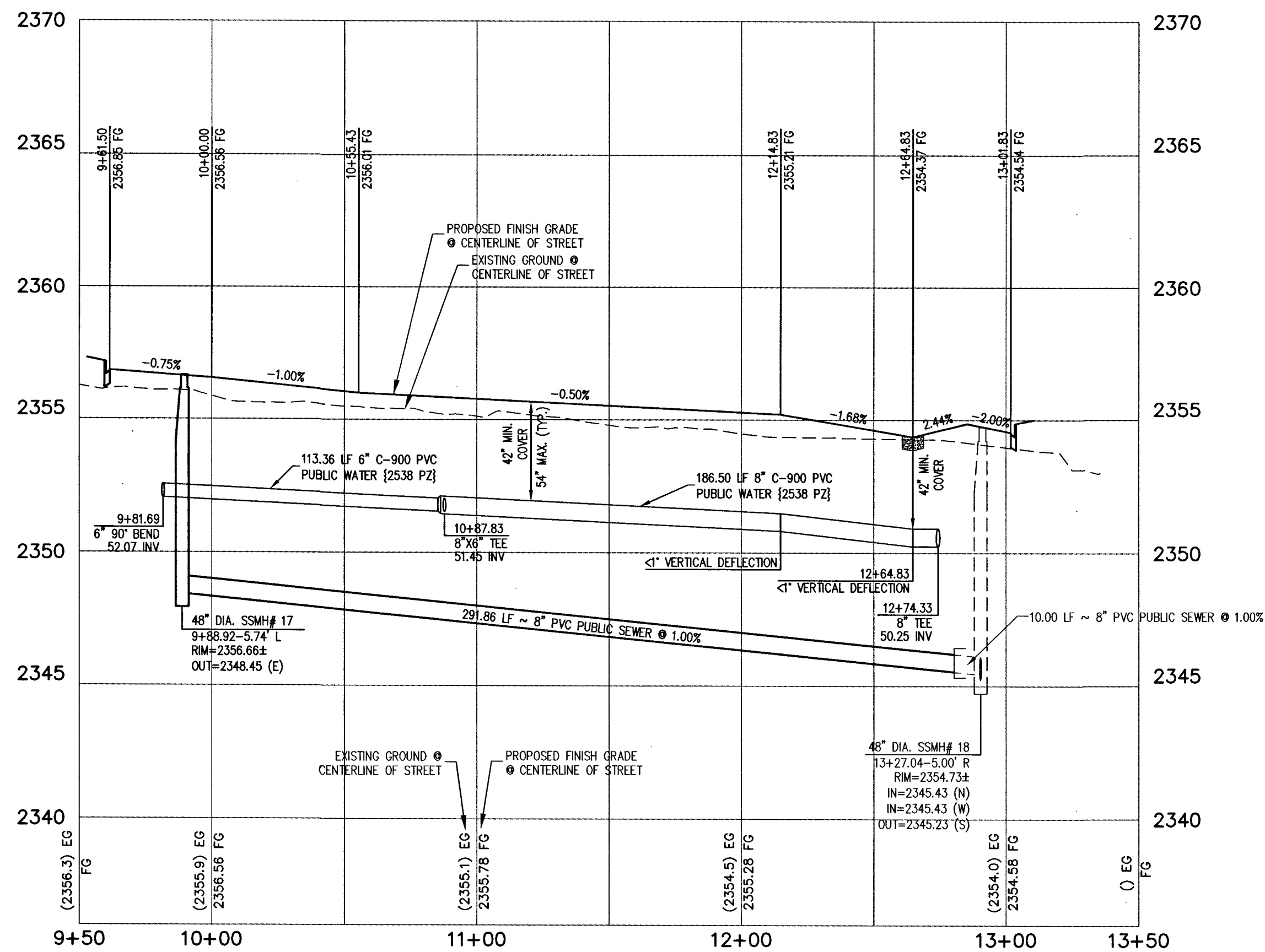


SHEET
8 OF 21
C.L.V. DWG.#
L17-01163

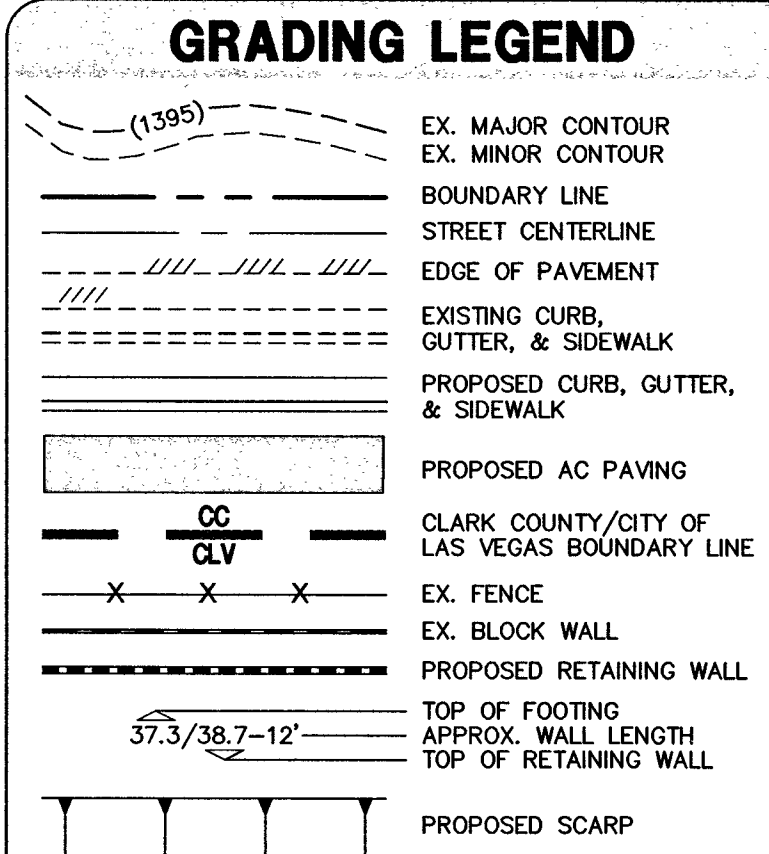
PROJ #125985 AGR #16575 QS 125-22-NE XC 11456



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BASIS OF BEARING

NORTH 00°56'37" EAST, BEING THE BEARING OF THE WEST LINE OF THE NORTHEAST QUARTER (NE 1/4) OF SECTION 22, TOWNSHIP 19 SOUTH, RANGE 60 EAST, M.D.M., CLARK COUNTY, NEVADA, AS SHOWN BY MAP THEREOF IN FILE IN THE CLARK COUNTY RECORDER'S OFFICE IN FILE 163, PAGE 26 OF SURVEYS.

BENCHMARK

CLARK COUNTY BENCHMARK STATION: 6LV90 15SSE8
RIVET AND PLATE IN TOP OF CURB AT THE NORTHWEST CORNER OF RIO VISTA AND ELKHORN ROAD.
ELEVATION = 717.800 METERS (NAVD'88 V.2003)
ELEVATION = 2354.98 US SURVEY FEET (NAVD'88 V.2003)

APPROVED FOR CONSTRUCTION

Di Shari
LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES
PROJECT NO. 125985 FIRST APPROVED DATE: 5/6/18
LVWD APPROVED FIRE FLOW 2000 GPM AT 20 PSI RESIDUAL
MAXIMUM AVAILABLE FIRE SPRINKLER FLOW N/A GPM
SHEETS: 1, 2, 5 THRU 13

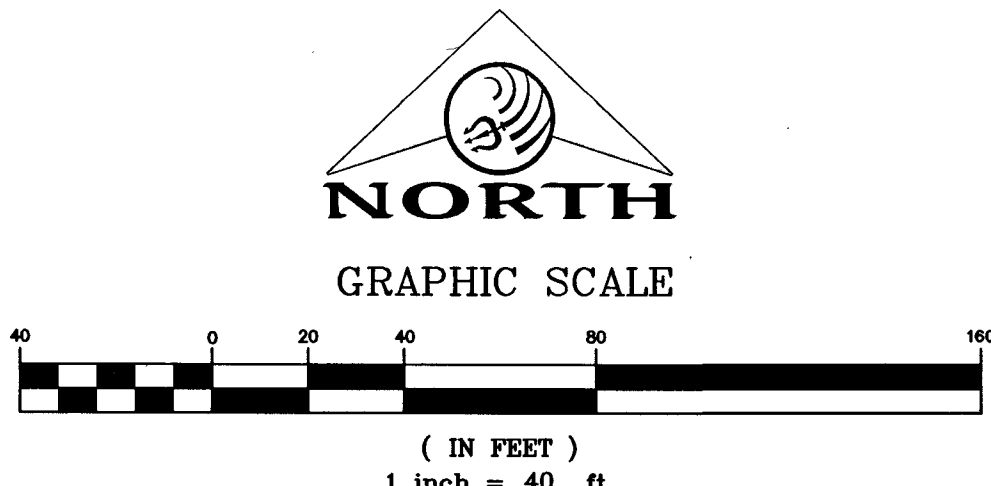
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CALL 811
OR 1-800-227-2600

FAST
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1-702-432-5300
FREEWAY AND ARTERIAL SYSTEM OF TRANSPORTATION

AVOID HITTING OVERHEAD POWER LINES. IT'S COSTLY

Call before you Overhead
1-702-227-2929



DATE: 02/06/18	T.E.	APPROVED
PM: J. PEARCE	T.E.	
DRAWN BY:	T.E.	
DESIGNED BY:	T.E.	
CHECKED BY:	T.E.	
ADA CHECKED:	T.E.	
JOB NO.: 007108		
SCALE: 1"=40'		

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Fax: (702) 254-3062
Las Vegas, Nevada 89146
www.tritong.com



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ELKHORN 40 PHASE 2
OAKS LILY COURT
(9+50 - 13+50)
PLAN AND PROFILE

PROFESSIONAL ENGINEER
JAMES M. PEARCE
Exp. 12-31-19
CIVIL
No. 9552

SHEET 10 OF 21
C.L.V. DWG. # L17-01163

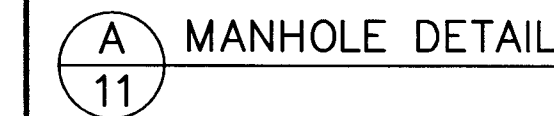
PROJ #125985 AGR #116575 QS 125-22-NE XC 11456



SCALE: HORIZ. 1" = 40'



SCALE: HORIZ. 1" = 40'
VERT. 1" = 4'



- ① CONSTRUCT 8" WIDE CROSS GUTTER,
PER CAUSD NO. 228
- ② CONSTRUCT "R" TYPE CURB AND GUTTER,
PER CAUSD NO. 217-52
- ③ CONSTRUCT 5" WIDE SIDEWALK,
PER CAUSD NO. 234
- ④ CONSTRUCT "L" TYPE CURB AND GUTTER,
PER CAUSD NO. 216
- ⑤ TRANSITION FROM L-TYPE CURB/SPANDREL TO
R-TYPE CURB
- ⑥ CONSTRUCT SIDEWALK RAMP USING ARMOR TILE
TRUNCATED DOWNS OR EQUIVALENT,
PER CAUSD NO. 235, CASE 1
- ⑦ NOT USED
- ⑧ NOT USED
- ⑨ INSTALL REMOVABLE LOCKING BOLLARDS ● 5" O.C.,
PER DETAIL C, SHEET 5
- ⑩ CONSTRUCT SIDEWALK DRAIN,
PER CAUSD NO. 236

Diagram illustrating the cross-section of a street and retaining wall structure, showing various layers and dimensions.

Key components and dimensions shown:

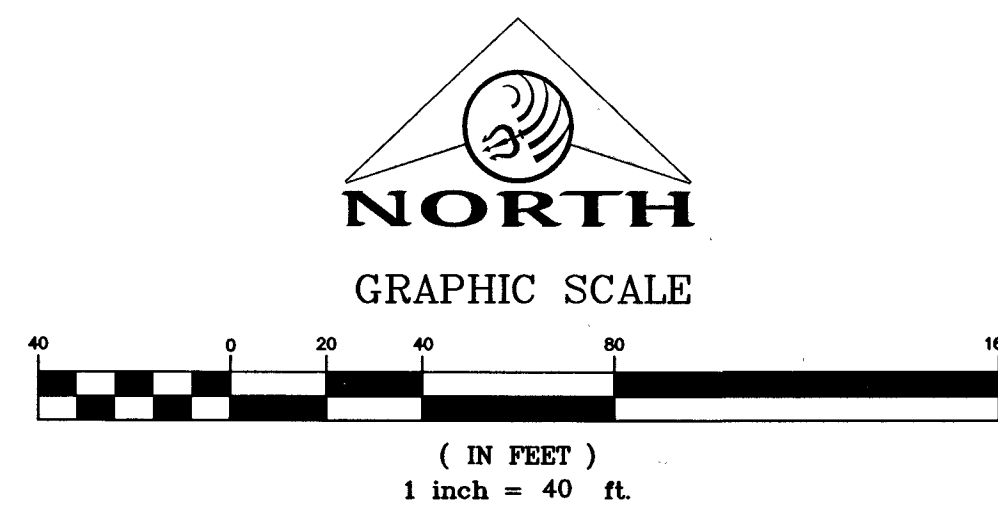
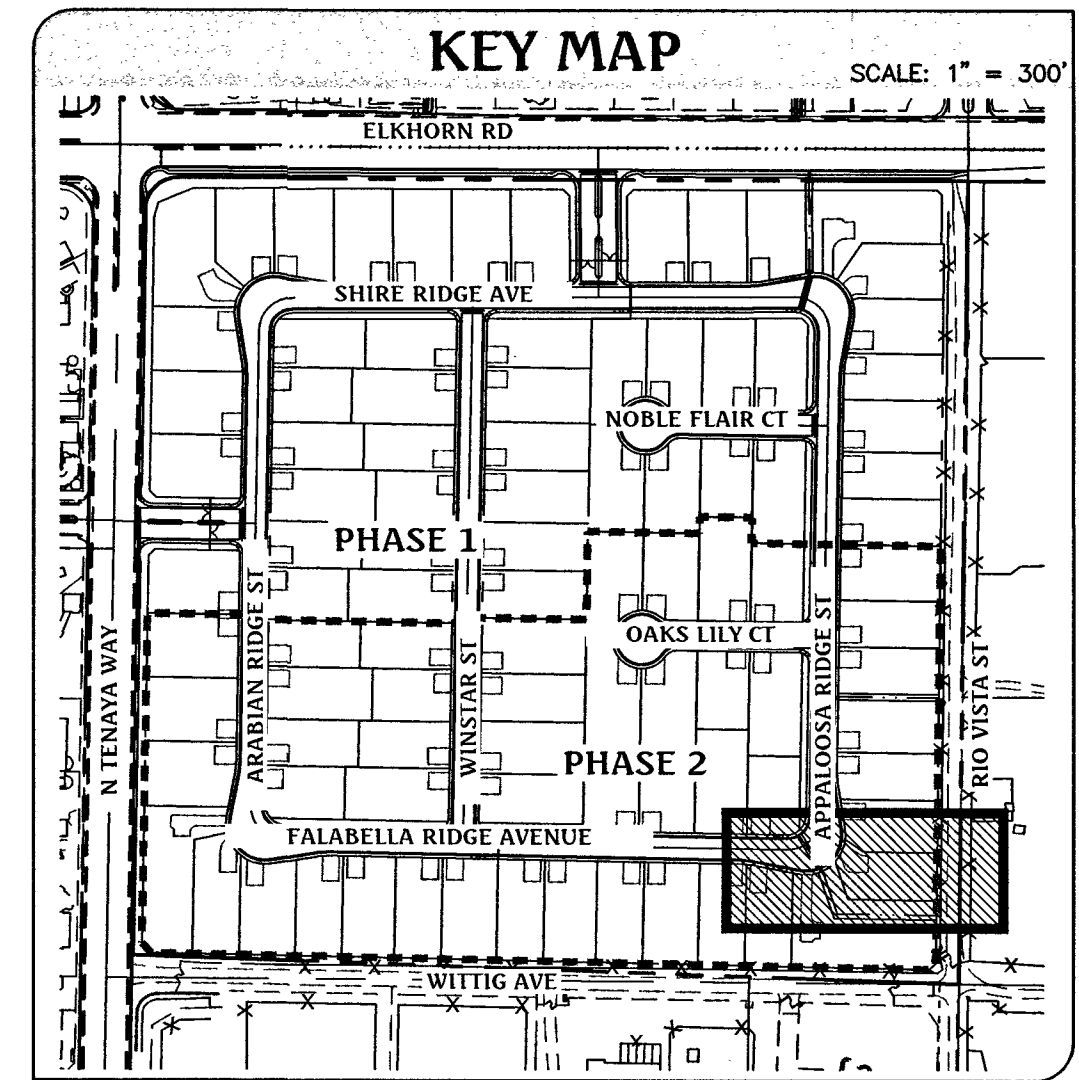
- EX. MAJOR CONTOUR
- EX. MINOR CONTOUR
- BOUNDARY LINE
- STREET CENTERLINE
- EDGE OF PAVEMENT
- EXISTING CURB, GUTTER, & SIDEWALK
- PROPOSED CURB, GUTTER, & SIDEWALK
- PROPOSED ASP PAVING
- CLARK COUNTY/CITY OF LAS VEGAS BOUNDARY LINE
- EX. FENCE
- EX. BLOCK WALL
- PROPOSED RETAINING WALL
- TOP OF FOOTING
- APPROX. WALL LENGTH
- TOP OF RETAINING WALL
- PROPOSED SCARP

Dimensions:

- 1399'
- 57.3/38.7'-12'

NORTH 00°56'37" EAST, BEING THE BEARING OF THE WEST LINE OF THE NORTHEAST QUARTER (NE 1/4) OF SECTION 22, TOWNSHIP 19 SOUTH, RANGE 60 EAST, M.D.M., CLARK COUNTY, NEVADA, AS SHOWN BY MAP THEREOF IN FILE IN THE CLARK COUNTY RECORDER'S OFFICE IN FILE 163, PAGE 26 OF SURVEYS.

CLARK COUNTY BENCHMARK STATION: 6LV90 15S5E6
RIVET AND PLATE IN TOP OF CURB AT THE NORTHWEST
CORNER OF RIO VISTA AND ELKHORN ROAD.
ELEVATION = 717.800 METERS (NAVD'88 V.2003)
ELEVATION = 2354.98 US SURVEY FEET (NAVD'88 V.2003)



4 1 15400i
LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES
PROJECT NO. 125985 FIRST APPROVED DATE: 5/6/18
LVWD APPROVED FIRE FLOW 2000 GPM AT 20 PSI RESIDUAL
MAXIMUM AVAILABLE FIRE SPRINKLER FLOW N/A GPM
SHEETS: 1, 2, 5 THRU 13

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[illegible]

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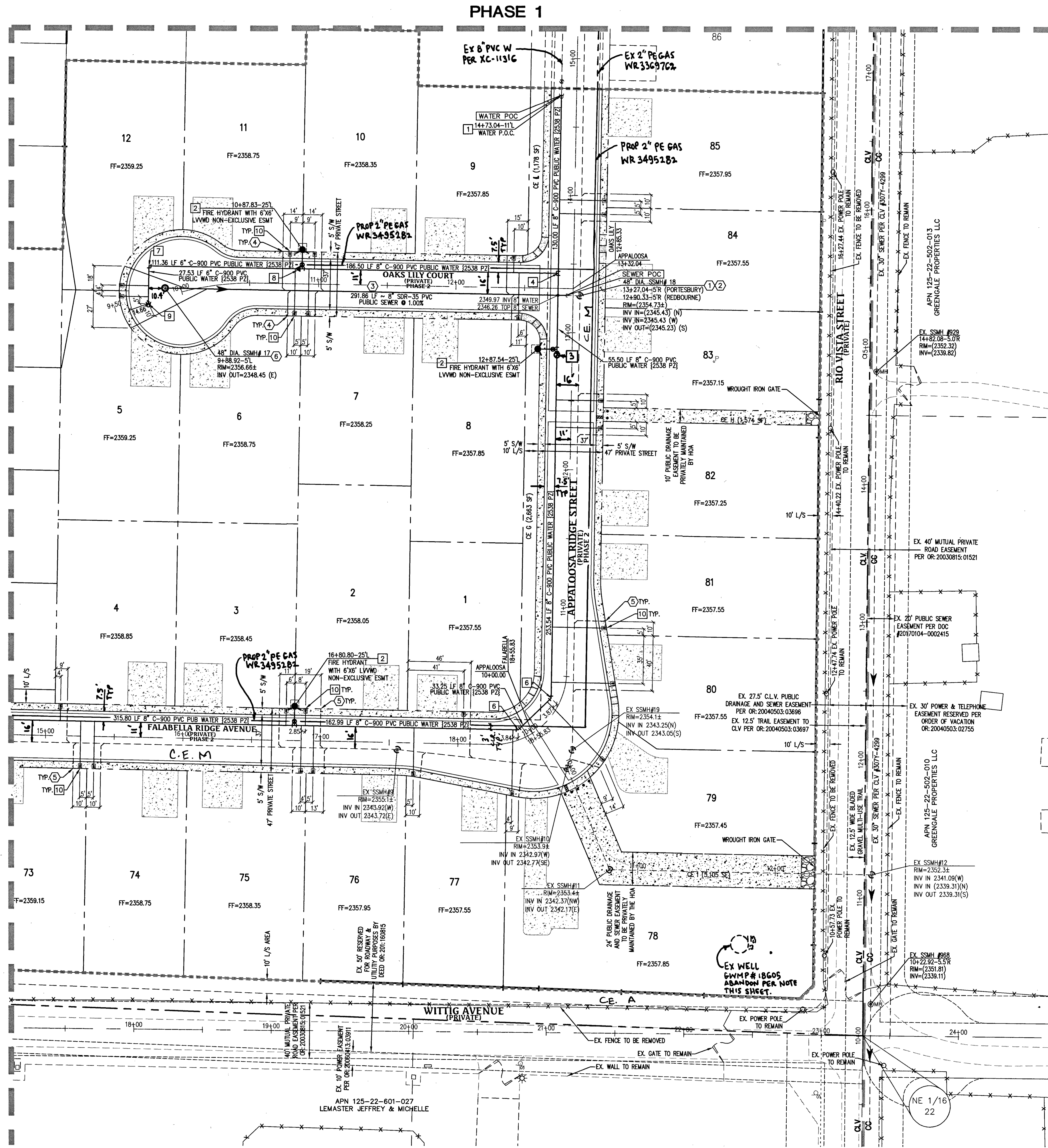
PROFESSIONAL ENGINEER - STATE OF NEVADA
JAMES M. PEARCE
Exp. 12-31-19
CIVIL
No. 9552
5-2-18

SHEET **11** OF 21
10750553-2

C.I.V. DWG.#
L17-01163

Q:\Triton Drawings\007108 Elkhorn Tenaya\Drawings\Improvements\Phase2\08 007108-ph2-imp-Utilities.dwg, Date: Tue, 08 Feb 2016 10:32am

SEE SHEET 12



APPROVED FOR CONSTRUCTION

SOUTHWEST GAS CORPORATION

DATE

BACK WATER VALVE

BACKWATER VALVES REQUIRED PER U.P.C., LATEST EDITION, SECTION 710.0.

TOTAL LOTS REQUIRING BACKWATER VALVES = 0

PRESSURE REDUCING VALVE

LOTS WITHIN 5238 ZONE WITH A FINISH FLOOR ELEVATION LESS THAN 2353.4 WILL REQUIRE A PRV

TOTAL LOTS REQUIRING A PRV = 0

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

HAND DIGGING IS REQUIRED FOR ANY EXCAVATION WITHIN 2 FEET OF THE TOP OF THE EXISTING 60 INCH M.C.P. WATER MAIN AND EXTENDING 10' ON EITHER SIDE.

UTILITY LEGEND

- EX. GAS
- EX. 10" S
- 8" S
- EX. 36" SD
- 36" SD
- EX. 8" W
- 8" W
- PROPOSED UTILITY MANHOLE
- PROPOSED UTILITY MANHOLE
- EXISTING VALVE
- PROPOSED VALVE
- PROPOSED REDUCER
- PROPOSED STANDARD FIRE HYDRANT WITH 6" LATERAL, 6" GATE VALVE, AND TEE
- BACK WATER VALVE
- PRESSURE REDUCING VALVE
- EXISTING STREET LIGHT
- FUTURE STREET LIGHT
- PROPOSED 100w HPS STREET LIGHT
- PROPOSED 150w HPS STREET LIGHT
- PROPOSED 200w HPS STREET LIGHT
- PROPOSED 250w HPS STREET LIGHT
- PROPOSED 400w HPS STREET LIGHT
- PROPOSED CONCRETE DRIVEWAY

PRIVATE WELLS (WITH REVOCABLE RIGHTS) TO BE REMOVED FROM SERVICE

THE EXISTING PRIVATE WELL IS TO BE ABANDONED. THE DISTRICT WATER SERVICE WILL REMAIN IN THE OFF AND LOCKED POSITION UNTIL THE WELL HAS BEEN ABANDONED. THE STATE OF NEVADA DIVISION OF WATER RESOURCES (TELEPHONE NUMBER 702-486-2770) MAY BE CONTACTED FOR INFORMATION CONCERNING REQUIREMENTS AND PROCEDURES FOR ABANDONING WELLS. PROOF FROM THE STATE THAT THE WELL HAS BEEN ABANDONED AND IS NO LONGER FUNCTIONAL WILL BE REQUIRED AS A CONDITION OF PROJECT ACCEPTANCE AND SERVICE ACTIVATION. GWMP# 18605 (ABANDONED PER WELL DRILLERS LOG REPORT #127600)

DRY UTILITY NOTE:

- 1) MAINTAIN MIN. 3' CLR. PARALLEL SEPARATION.
- 2) MAINTAIN MIN. 12" VERTICAL SEPARATION AT ALL POINTS OF CROSSING

WATER NOTES

- 1) POC - REMOVE EX. 8" CAP AND BLOWOFF, CONNECT TO 8" PVC WATER MAIN
- 2) FIRE HYDRANT ASSEMBLY (INCLUDING 6" LATERAL, 6" GATE VALVE AND 8" X 6" TEE), PER UDACS PLATE 40 CONDITION 6
- 3) INSTALL GATE VALVE (SIZE PER PIPE), PER UDACS PLATE No. 30 AND 39
- 4) TEE (SIZE PER PIPE), UDACS PLATE No. 31
- 5) 22.5' BEND (SIZE PER PIPE), PER UDACS PLATE No. 31
- 6) 45' BEND (SIZE PER PIPE), PER UDACS PLATE No. 31
- 7) 90' BEND (SIZE PER PIPE), PER UDACS PLATE No. 31
- 8) INSTALL 8" X 6" REDUCER, PER UDACS PLATE No. 31
- 9) 2' FLOW OFF ASSEMBLY WITH CAP, PER UDACS PLATE No. 36
- 10) INSTALL 1" COPPER WATER SERVICE WITH 3/4" METER, PER UDACS PLATE No. 3 AND SEC 217.01

SEWER NOTES

- 1) POC - CONNECT TO EXISTING SEWER MANHOLE
- 2) EXISTING 48" MANHOLE TO BE PROTECTED IN PLACE
- 3) INSTALL 8" SDR-35 PVC SEWER PIPE
- 4) PER DCSWCS SD-15 AND SD-17
- 5) INSTALL 4" SDR-35 PVC SEWER LATERAL WITH MARKER BALL & CURB MARKING PER DCSWCS SD-22 & SD-25
- 6) EX. 4" SDR-35 PVC SEWER LATERAL WITH MARKER BALL & CURB MARKING, PER DCSWCS SD-22 AND SD-25, CONNECTED TO EXISTING 8" MAIN
- 7) INSTALL 48" MANHOLE WITH PRECAST BASE, PER DCSWCS SD-1A, SD-1B, SD-4, WITH SINGLE 24" LID

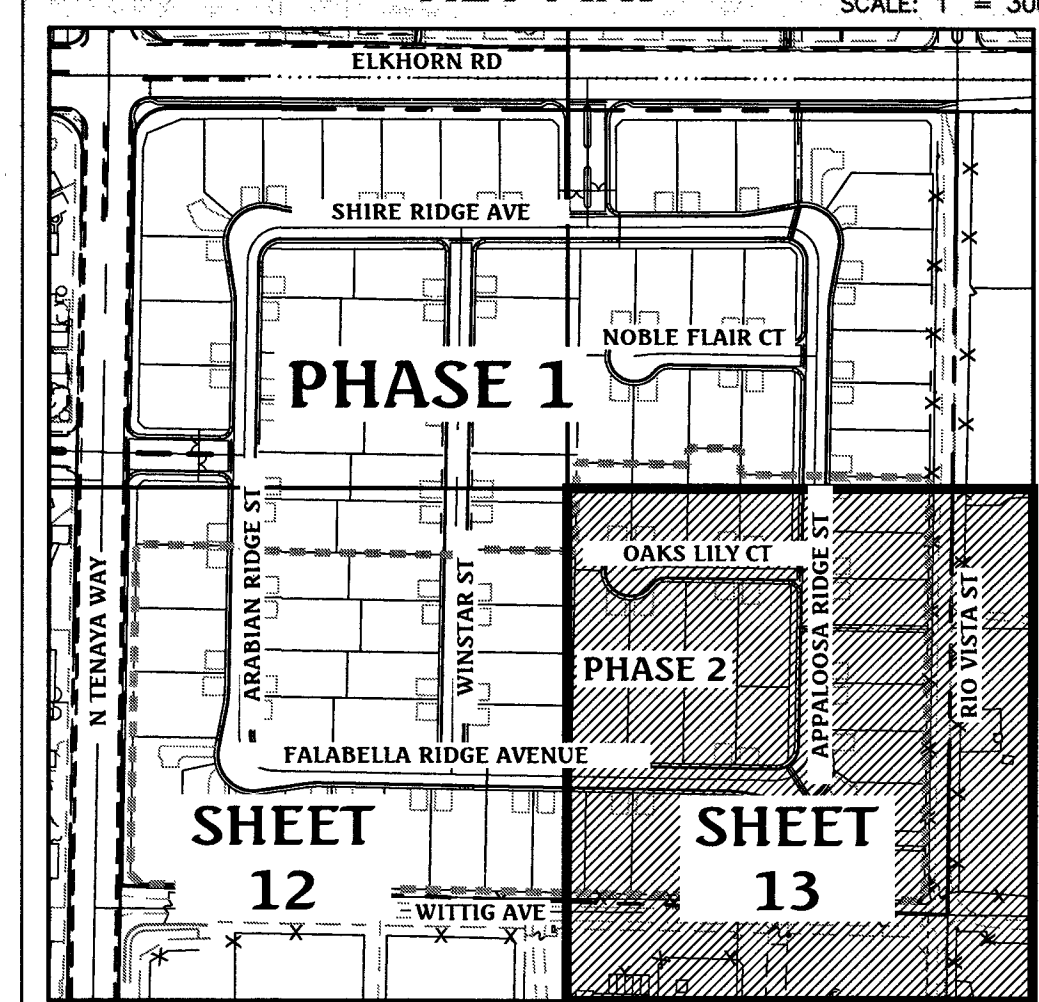
UTILITY CROSSING NOTE

ALL SEWER/STORM DRAINS CROSSING WATER LINES MUST CONFORM TO SECTION 2.22 OF THE UNIFORM DESIGN AND CONSTRUCTION STANDARDS OF POTABLE WATER SYSTEMS (UDACS) FOR WATER AND STORM MAIN CROSSINGS AND CLEARANCES.

WATER MAIN JOINT DEFLECTION (PVC, 4'-24")

PVC PIPE SHALL BE DEFLECTED AT THE JOINT ONLY. THE MAXIMUM ALLOWABLE DEFLECTION SHALL BE ONE (1) DEGREE PER JOINT WITH A MAXIMUM RADIUS OF CURVATURE OF 1,150 FEET, PER UDACS 2.07.01 AND 2.07.02. FOR CHANGES IN DIRECTION EXCEEDING THE MAXIMUM ALLOWABLE JOINT DEFLECTION, FITTINGS SHALL BE USED.

KEY MAP



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OR 1-800-227-2600

FAST
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Underground
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FREEWAY AND ARTERIAL SYSTEM OF TRANSPORTATION

Call before you Overhead
1-702-227-2929



FIRE FLOW CALCULATIONS

THE FIRE FLOW REQUIREMENT IS: 4,750 GALLONS PER MINUTE
20 PSI RESIDUAL PRESSURE. 2000
BASED ON:
SQUARE FOOTAGE: 5,915 SQUARE FEET
LARGEST AREA BETWEEN 4-HOUR AREA SEPARATION WALLS: N/A SQUARE FEET
BUILDING HEIGHT: 21 FEET-7 3/4 INCHES
NUMBER OF STORIES: 1 FLOOR
TYPE OF CONSTRUCTION: V-NON RATED
OCCUPANCY: RESIDENTIAL
FULL AUTOMATIC FIRE SPRINKLER SYSTEM: NO

BASIS OF BEARING

NORTH 00°56'37" EAST, BEING THE BEARING OF THE WEST LINE OF THE NORTHEAST QUARTER (NE 1/4) OF SECTION 22, TOWNSHIP 19 SOUTH, RANGE 60 EAST, M.D.M., CLARK COUNTY, NEVADA, AS SHOWN BY MAP THEREOF IN FILE IN THE CLARK COUNTY RECORDER'S OFFICE IN FILE 163, PAGE 26 OF SURVEYS.

BENCHMARK

CLARK COUNTY BENCHMARK STATION: 6LV90 15S56
RIVET AND PLATE IN TOP OF CURB AT THE NORTHWEST CORNER OF RIO VISTA AND ELKHORN ROAD.
ELEVATION = 717.800 METERS (NAVD'88 V.2003)
ELEVATION = 2354.98 US SURVEY FEET (NAVD'88 V.2003)

FIRE DEPARTMENT APPROVAL

APPROVAL BY THE FIRE DEPARTMENT HAVING JURISDICTION IS REQUIRED PRIOR TO OBTAINING FINAL APPROVAL FROM LVVWD.

APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES MANAGER
PROJECT NO. 125985 FIRST APPROVED DATE: 5/6/18
LVVWD APPROVED FIRE FLOW 2000 GPM AT 20 PSI RESIDUAL
MAXIMUM AVAILABLE FIRE SPRINKLER FLOW: N/A GPM
SHEETS: 1, 2, 5 THRU 13

APPROVALS

LAS VEGAS FIRE AND RESCUE
DATE: 4/12/18

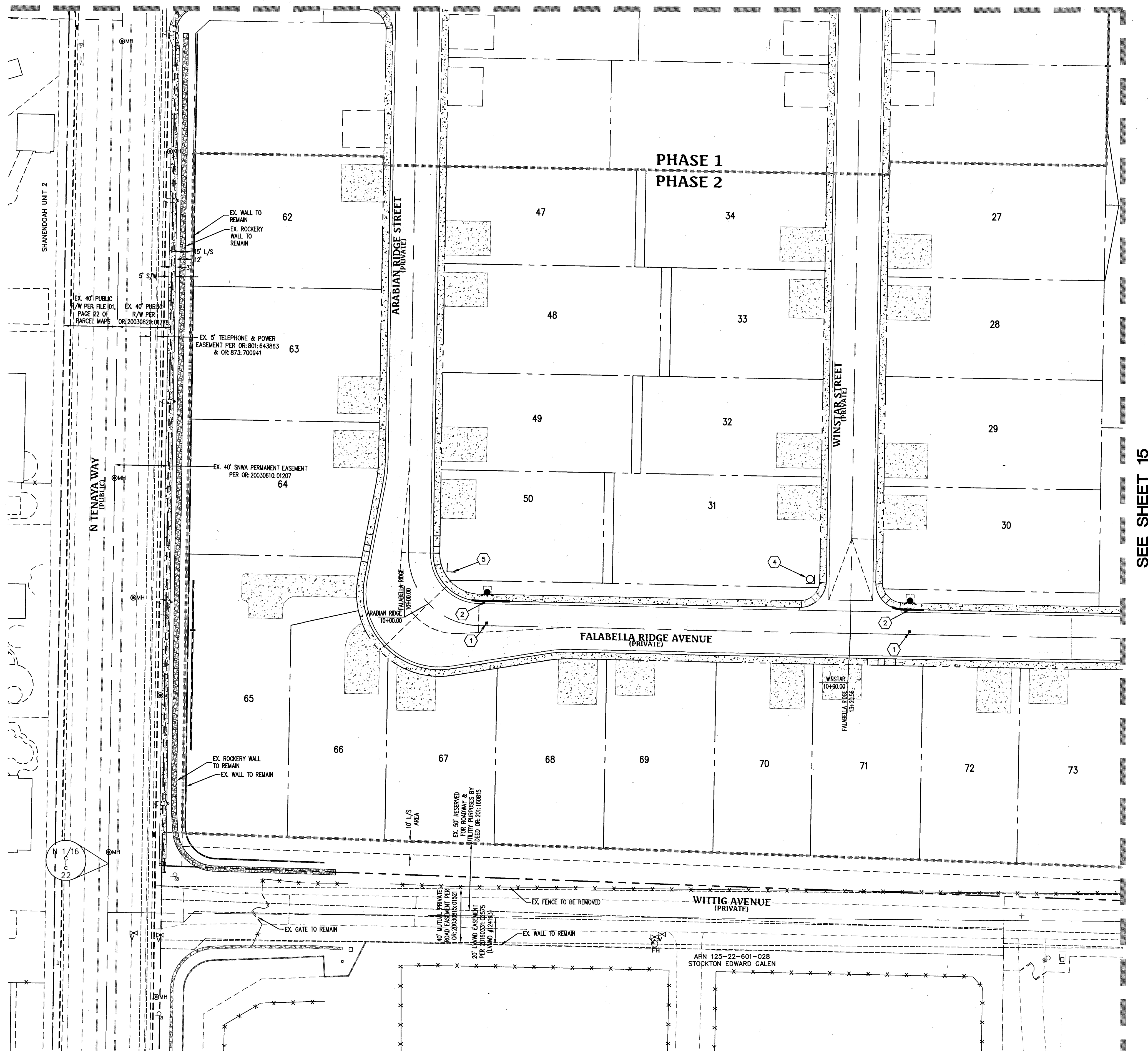
DATE	NO.	DESCRIPTION	DATE	APP'D
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PM: J. PEARCE				
DRAWN BY: T.E.				
DESIGNED BY: T.E.				
CHECKED BY: T.E.				
ADA CHECKED: T.E.				
JOB NO.: 007108				
SCALE: 1"=40'				

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ELKHORN 40 PHASE 2
UTILITY PLAN 11

PROJ. #125985 AGR#116575 QS 25-22-NE XC 11468
SHEET 13 OF 21
C.L.V. DWG. # L17-01163
2-6-18

PHASE 1

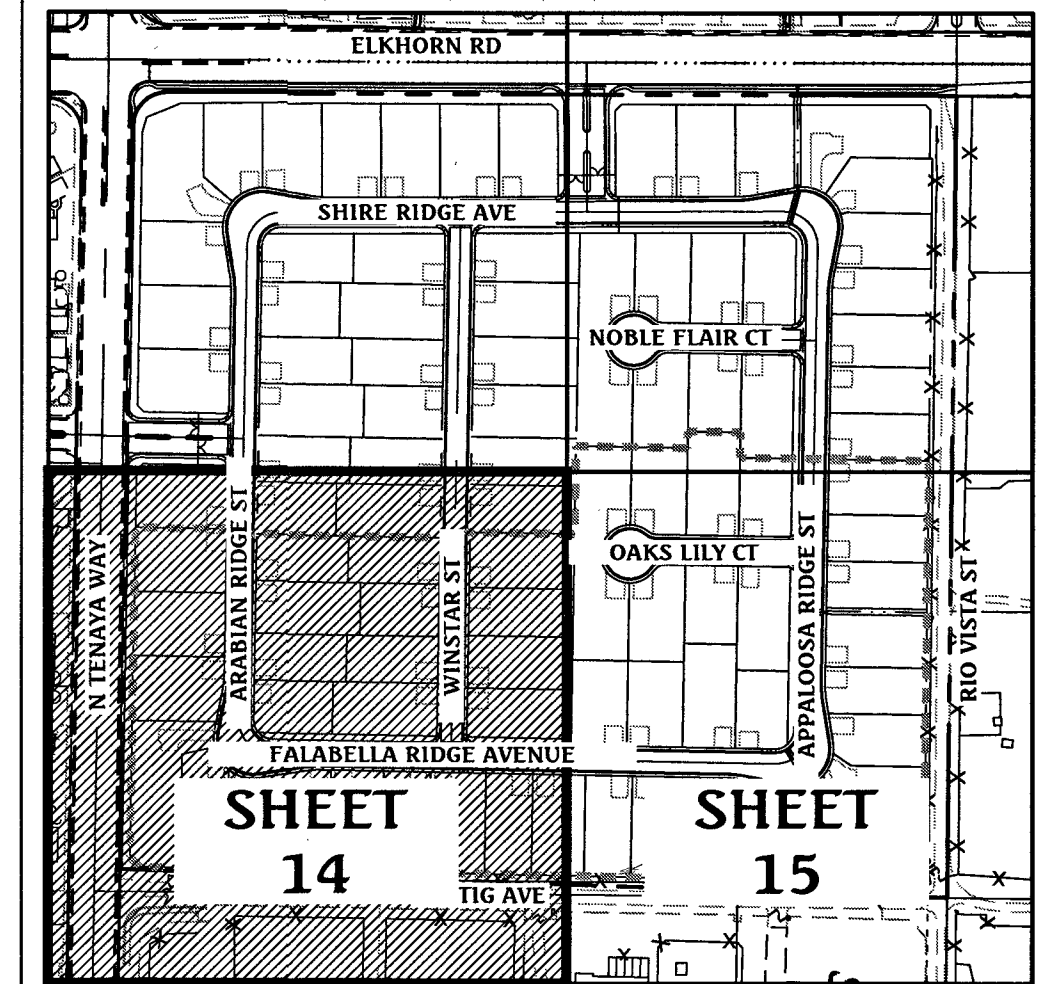


TRAFFIC NOTES

1. INSTALL BLUE COLORED REFLECTIVE RAISED PAVEMENT MARKER 16" FROM CURB FACE ADJACENT TO THE HYDRANT
2. INSTALL RED PAINT ON CURB (IN FRONT OF HYDRANT) IN EACH DIRECTION, CURB LENGTH PERMITTING)
3. SIGHT VISIBILITY ZONES INDICATED WITHIN HATCHED AREAS PER CAOSU 201.2
4. INSTALL 30" R1-1 STOP SIGN AND (2) 9" D-3 STREET NAME SIGNS (PRIVATE STREET SIGNMENTS TO BE WHITE LETTERING ON BROWN BACKGROUND)
5. INSTALL (2) 9" D-3 STREET NAME SIGNS (PRIVATE STREET NAME SIGNS TO BE WHITE LETTERING ON BROWN BACKGROUND)
6. INSTALL RED PAINT ON CURB AS SHOWN
7. INSTALL RB-31 (NO PARKING FIRE LANE) SIGN

KEY MAP

SCALE: 1" = 300'



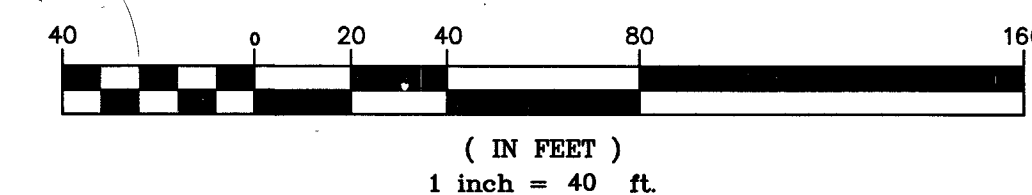
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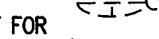
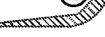
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before you
Overhead
1-702-227-2929



LEGEND

- | | | | |
|---|--|---|--|
|  | <p>SIGHT VISIBILITY ZONE
SEE CAUSAL #201.2
(NOTE: SEE THIS SHEET FOR
DIMENSIONS)</p> |  | <p>EX. L.E.D. STREETLIGHT - GE MODEL
JERSIOBXCS540RAYAL OR EQUIVALENT
(250 WATT EQUIVALENT)</p> |
|  | <p>PROPOSED AC PAVING</p> |  | <p>EX. L.E.D. STREETLIGHT - GE MODEL
JERSIOBXCS540RAYAOB OR EQUIVALENT
(150 WATT EQUIVALENT)</p> |
|  | <p>PROPOSED CONCRETE</p> |  | <p>EX. 4" FAST INTERCONNECT CONDUIT
WITH #8 WIRE & PULL CHORD.</p> |
|  | <p>200 AMP SERVICE
PEDESTAL AND FOUNDATION</p> |  | <p>EX. 2" S/LT CONDUIT WITH
(2) #4 & (1) #8 THW COPPER.</p> |

SVZ NOTE

NO WALLS, FENCES, SHRUBS, UTILITY APPURTENANCES OR ANY OTHER OBJECT, OTHER THAN TRAFFIC CONTROL DEVICES, FIRE HYDRANTS, TREES, AND STREET LIGHT POLES, MAY BE CONSTRUCTED OR INSTALLED WITHIN THE SIGHT VISIBILITY ZONE UNLESS SAID OBJECT IS MAINTAINED AT LESS THAN 24 INCHES IN HEIGHT, MEASURED FROM THE TOP OF CURB, OR WHERE NO CURB EXISTS, A HEIGHT OF 27 INCHES MEASURED FROM THE TOP OF ADJACENT ASPHALT, GRAVEL OR PAVEMENT STREET SURFACE.

BASIS OF BEARING

NORTH 00°56'37" EAST, BEING THE BEARING OF THE WEST LINE OF THE NORTHEAST QUARTER (NE 1/4) OF SECTION 22, TOWNSHIP 19 SOUTH, RANGE 60 EAST, M.D.M., CLARK COUNTY, NEVADA, AS SHOWN BY MAP THEREOF IN FILE IN THE CLARK COUNTY RECORDER'S OFFICE IN FILE 163, PAGE 26 OF SURVEYS.

BENCHMARK

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RIVET AND PLATE IN TOP OF CURB AT THE NORTHWEST CORNER OF
RIO VISTA AND ELKHORN ROAD.

ELEVATION = 717.800 METERS (NAVD'88 V.2003)
ELEVATION = 2354.98 US SURVEY FEET (NAVD'88 V.2003)

APPROVALS

JK Smith 4/12/18
LAS VEGAS FIRE AND RESCUE DATE

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

[illegible]

DATE : 02/06/18
PM : J. PEARCE
DRAWN BY : T.E.
DESIGNED BY : T.E.
CHECKED BY : T.E.
ADA CHECKED : T.E.
JOB NO. : 007.108
SCALE : 1"=40'

Triton

Engineering

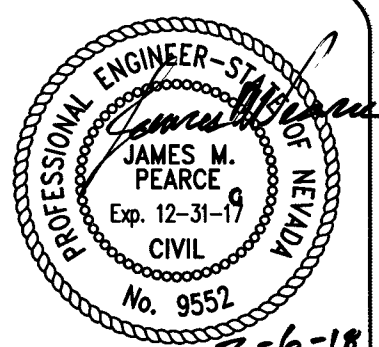
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DR HORTON
ELKHORN 40 PHASE 2

TRAFFIC PLAN I



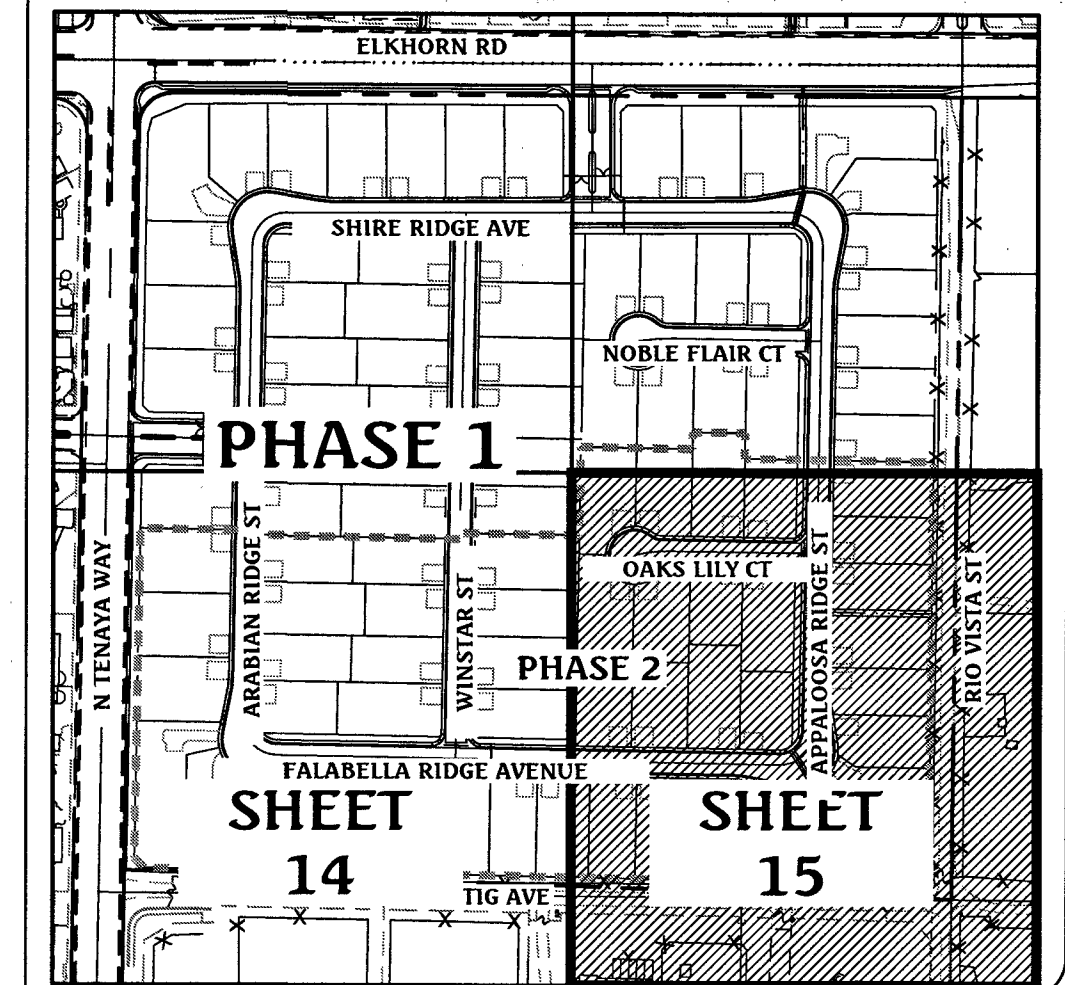
SHEET **14** OF 21
607Y5059-2
C.L.V. DWG.#
L17-01163



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KEY MAP

SCALE: 1" = 300'



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CALL

811

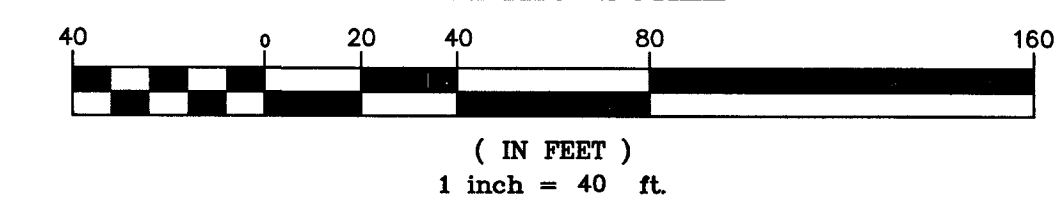
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SYSTEM OF TRANSPORTATION

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Call
before you
Overhead
1-702-227-2929



LEGEND

- | | |
|--|--|
|  <p>SIGHT VISUALITY ZONE
SEE CAUSAU #201.2
(NOTE: SEE SHEET FOR
DIMENSIONS)</p> |  <p>E.E. L.D. STREETLIGHT - GE MODEL
#BXSH0X2540AGRA/08 OR EQUIVALENT
(250 WATT EQUIVALENT)</p> |
|  <p>PROPOSED AC PAVING</p> |  <p>E.E. L.D. STREETLIGHT - GE MODEL
#BXSH0X2540AGRA/08 OR EQUIVALENT
(150 WATT EQUIVALENT)</p> |
|  <p>PROPOSED CONCRETE</p> | <p>EX. 4' FAST INTERCONNECT CONDUIT
WITH #8 WIRE & PULL CHORD.</p> |
|  <p>EX. 200 AMP SERVICE
PEDESTAL AND FOUNDATION</p> | <p>EX. 2" STLT CONDUIT WITH
(2) #4 & (1) #8 THW COPPER.</p> |

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BENCHMARK

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APPROVALS

[Signature]
LAS VEGAS FIRE AND RESCUE

4/12/18
DATE

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

[illegible]

DATE : 02/06/18
PM : J. PEARCE
DRAWN BY : T.E.
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SCALE : 1"=40'

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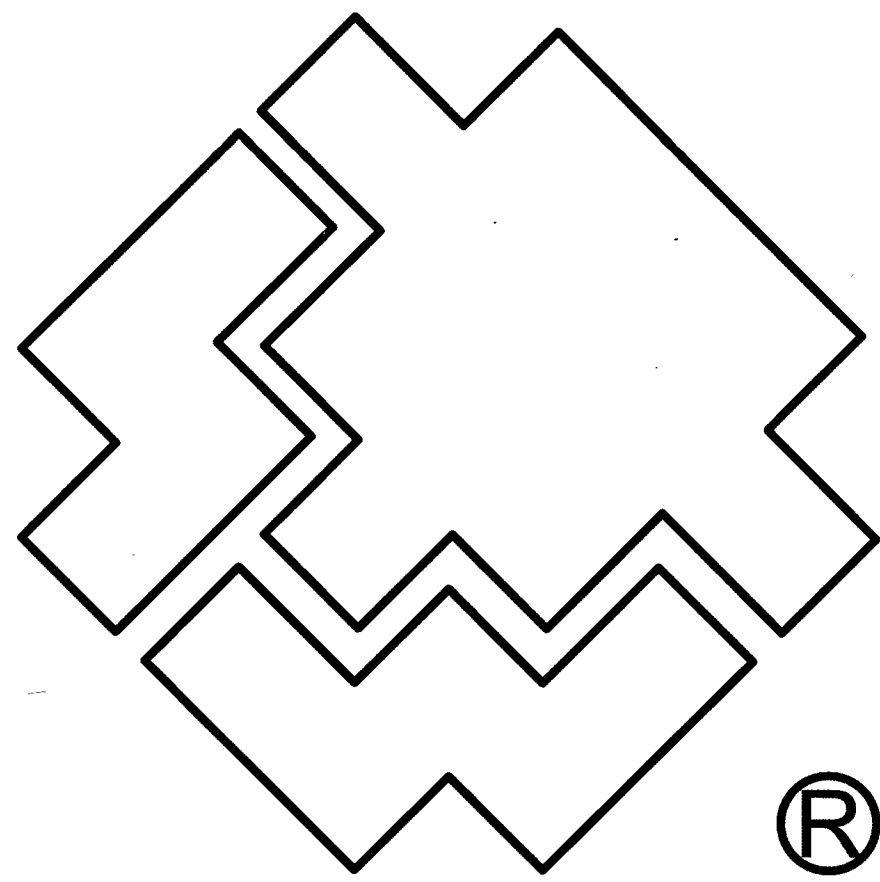
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Suite B
Las Vegas, Nevada 89146

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ELKHORN 40 PHASE 2

TRAFFIC PLAN II

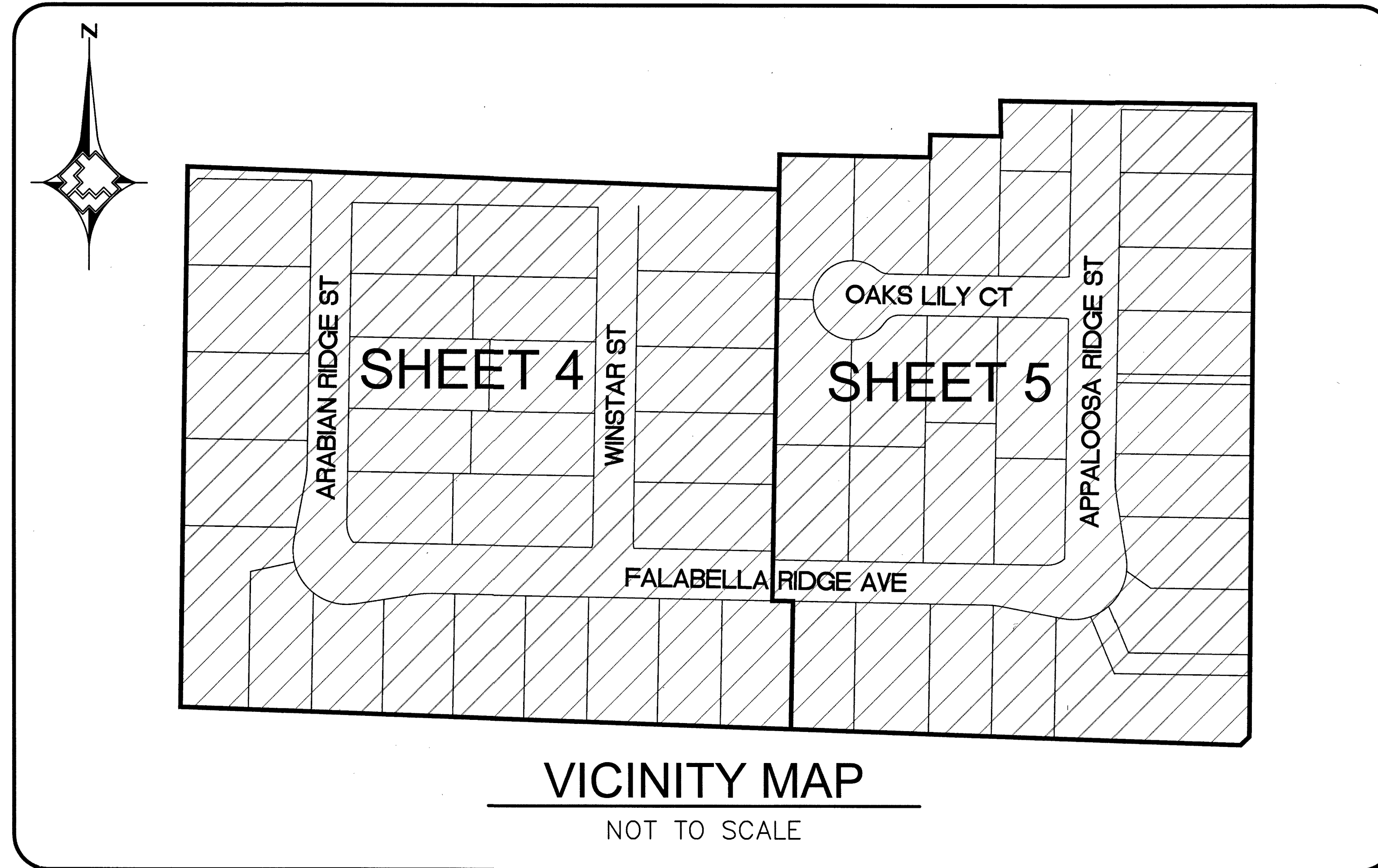
PROFESSIONAL ENGINEER-STATE OF NEVADA
JAMES M. PEARCE
Exp. 12-31-19
CIVIL
No. 9552

SHEET **15** OF 21
C.L.V. DWG.#
L17-01163



SOUTHWEST GAS CORPORATION

ELKHORN 40 PHASE 2
CITY OF LAS VEGAS, NV
WR #3495282



LEGEND

- EXISTING GAS LINE
- GAS LINE TO BE ABANDONED
- EXISTING GAS SERVICE
- PROPOSED MAIN GAS LINE (NEW)
- PROPOSED SERVICE LATERAL (NEW)
- PROPOSED SERVICE LINE (NEW)
- RIGHT OF WAY LINE
- STREET CENTERLINE
- PROPERTY LINE
- BACK OF CURB
- TAX CODE BOUNDARY
- MATCHLINE
- PAVEMENT CUT AND REPAIR
- EXISTING ANODELESS RISER
- EXISTING ANODE RISER
- EXISTING GAS LIGHT
- EXISTING GAS VALVE
- PROPOSED MAIN CALL OUT
- ABANDONED FACILITIES CALL OUT
- GAS DIMENSIONS
- EXCESS FLOW VALVE

SHEET INDEX

- COVER SHEET
- ABBREVIATIONS & NOTES
- MATERIALS & SIGNATURES - PE
- DESIGN PLAN
- DESIGN PLAN
- TYPICAL SWPPP BMPs DETAILS



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Initial: KT Date: 04-12-2018

1. <table border="1"><tr><td>NO.</td><td>DESCRIPTION</td><td>BY</td><td>DATE</td><td>APPVD</td></tr><tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr></table>				NO.	DESCRIPTION	BY	DATE	APPVD						2. <table border="1"><tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr></table>														3. <table border="1"><tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr></table>														4. <table border="1"><tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr></table>														5. <table border="1"><tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr></table>														6. <table border="1"><tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr></table>																									
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SHEET NO: 1 OF 6				SCALE: NTS				DATE: 11/7/2017				DWN. BY: BC&F				CHKD. BY:				APPVD. BY:				TITLE				ELKHORN 40 PHASE 2				COVER SHEET				10/15/2017-2				Sheet 16 of 21				CLV 417-01163																																																			



- RTC STD DWG 503



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

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Initial: KT Date: 04-12-2018

AB	ABANDONED
AC	ASPHALTIC CONCRETE
ACP	ASBESTOS CEMENT PIPE
AIM	AREA ISOLATION MODULE

BLVD	BOULEVARD
BM	BENCHMARK
BMI	BLACK MOUNTAIN INDUSTRIAL
BO	BLOW OFF
BTU	BRITISH THERMAL UNIT
BWC	BASIC WATER COMPANY

COBC	CITY OF BOULDER CITY
CC	CLARK COUNTY
CCAUSD	CLARK COUNTY AREA UNIFORM STANDARD DRAWING
CCRCD	CLARK COUNTY REGIONAL FLOOD CONTROL DISTRICT
CCWRD	CLARK COUNTY WATER RECLAMATION DISTRICT

CIP	CAST IRON PIPE
CL	CENTERLINE
CLV	CITY OF LAS VEGAS
CNLV	CITY OF NORTH LAS VEGAS
COH	CITY OF HENDERSON
CP	CATHODIC PROTECTION

DET	DETAIL
DI	DUCTILE IRON
DIA	DIAMETER
DIMP	DISTRIBUTION INTEGRITY MANAGEMENT PROGRAM
DNR	DOES NOT REGISTER
DWG	DRAWING

EFV	EXCESS FLOW VALVE
EG	EXISTING GROUND
EHDD	EFFECTIVE HEATING DEGREE DAY
ELEC	ELECTRICAL
ELEV	ELEVATION
EMRS	ELECTRONIC MAPPING RECORDS SYSTEM
EPR	ELECTRONIC PRESSURE RECORDERS
ESMT	EASEMENT
EX	EXISTING

FERC	FEDERAL ENERGY REGULATORY COMMISSION
FOS	FACILITY OUT OF SERVICE
FH	FIRE HYDRANT

GIR	GAS INFRASTRUCTURE REPLACEMENT
GPR	GAS PRESSURE REGULATOR

HCA	HIGH CONSEQUENCE AREA
HDD	HEATING DEGREE DAY
HDPE	HIGH DENSITY POLYETHYLENE PIPE
HP	HIGH PRESSURE
HERS	HOME ENERGY RATING SYSTEM
HOP	HISTORIC OPERATING PROCEDURE
HVTT	HIGH VOLUME TAPPING TEE

ID	INSIDE DIAMETER
IN	INCH(ES)
IPS	IRON PIPE SIZE
IS	IDENTIFIED SITE

JT JOINT TRENCH

KRG KERN RIVER GAS COMPANY

LDCPE LARGE DIAMETER COILED POLYETHYLENE PIPE
LWWD LAS VEGAS VALLEY WATER DISTRICT

MAOP	MAXIMUM ALLOWABLE OPERATING PRESSURE
MCFH	THOUSAND CUBIC FEET PER HOUR
MH	MANHOLE
MOP	MAXIMUM OPERATING PRESSURE
MSA	METER SET ASSEMBLY
MVP	MAPPING VERIFICATION PROCEDURE

NAP	NOT A PART
NDOT	NEVADA DEPARTMENT OF TRANSPORTATION
NTSB	NATIONAL TRANSPORTATION SAFETY BOARD
NTS	NOT TO SCALE

OC	ON CENTER
OD	OUTSIDE DIAMETER
OH	OVERHEAD
OHP	OVERHEAD POWER

P	POWER
PAOP	POTENTIAL ALLOWABLE OPERATING PRESSURE
PCC	PORLAND CEMENT CONCRETE
PE	POLYETHYLENE PIPE
PH	POT HOLE
PHMSA	PIPELINE & HAZARDOUS MATERIALS SAFETY ADMINISTRATION
PL	PROPERTY LINE
PIC	POTENTIAL IMPACT CIRCLE
PLS	PRESSURE LIMITING STATION
PP	POWER POLE
PQF	PREQUALIFIED FITTING
PVC	POLYVINYL CHLORIDE

RAM	RISK ASSESSMENT MODEL
RC	REINFORCED CONCRETE
RCP	REINFORCED CONCRETE PIPE

SD	STORM DRAIN
SDMH	STORM DRAIN MANHOLE

SDR STANDARD DIMENSION RATIO
SF SQUARE FOOT
SHT SHEET

SHP	STEEL HIGH PRESSURE PIPE
SMYS	SPECIFIED MAXIMUM YIELD STRESS

SNWA	SOUTHERN NEVADA WATER AUTHORITY
SS	SANITARY SEWER
SST	STAINLESS STEEL

ST	STREET
STA	STATION

STD	STRENGTH TEST DRAWING
STL	STEEL
SWG	SOUTHWEST GAS

SWG	SOUTHWEST GAS
TEL	TELEPHONE

TEL	TELEPHONE
TB	THRUST BLOCK
TOP	TOP OF PIPE

TP	TEST POINT
TRIMP	TRANSMISSION INTEGRITY MANAGEMENT PROGRAM

UDACS UNIFORM DESIGN AND CONSTRUCTION STANDARDS

UOC	UNUSUAL OPERATING CONDITIONS
UOP	UNIT OF PROPERTY

UPRR	UNION PACIFIC RAILROAD
USD	UNIFORM STANDARD DRAWING

VCP VITRIFIED CLAY PIPE
VERT VERTICAL

VG	VALLEY GUTTER
VSP	VINTAGE STEEL PIPE

W	WATER
WMS	WORK MANAGEMENT SYSTEM
WR	WORK REQUEST
WT	WALL THICKNESS
WV	WATER VALVE

YD YARD(S)

1. SUGGESTED GAS LOCATIONS ARE TO CLEAR SUBSTRUCTURES LOCATED IN THE FIELD.
2. ALL PIPELINE CONSTRUCTION SHALL CONFORM TO APPLICABLE JURISDICTION SPECIFICATIONS.
3. DO NOT SCALE THIS DRAWING.
4. SEE AC'S FOR SERVICE REPLACEMENT.
5. CHANGE IN PROPOSED MAIN LOCATION MUST BE AUTHORIZED BY SWG ENGINEER PRIOR TO INSTALLATION.
6. GAS MAINS SHALL BE PURGED PER OPERATIONS MANUAL.
7. ABANDONED SERVICE NO ACTION REQUIRED.
8. REPLACE ALL ACTIVE SERVICES INCLUDING AA, PVC, M7000 PE, M8000 PE, EXCEPT WHERE EXISTING PE 8100 SERVICES ARE VERIFIED, INSPECTED, AND APPROVED FOR TIE-OVER BY SWG INSPECTOR.
9. EXISTING SERVICES, VERIFICATION, AND INSPECTION REQUIRED FROM MAIN TO RISER. TIE INTO NEW MAIN IF APPROVED BY SWG INSPECTOR. REPLACE ALL AA, PVC, M7000 PE, AND M8000 PE SERVICES. PE 8100 SERVICES TO BE VERIFIED, INSPECTED AND APPROVED BY SWG INSPECTOR.
10. EXISTING SERVICES OF UNKNOWN TYPE, SIZE, AND LOCATION TO BE VERIFIED.
11. REPLACEMENT SERVICES TO BE SINGLE OR BRANCHED. NO CROSS-LOT REPLACEMENT SERVICES PERMITTED.
12. REPLACE ALL ANODE RISERS WITH ANODELESS RISERS.
13. ALL EXISTING UTILITY LOCATIONS TO BE VERIFIED PRIOR TO START OF CONSTRUCTION.
14. CONTACT ENGINEERING FOR BYPASS INFORMATION.
15. ALL MAIN TIE-INS REQUIRING TEES ARE TO BE FULL-FLOW TEES UNLESS OTHERWISE STATED.
16. ALL SHORING REQUIREMENTS SHALL CONFORM TO APPLICABLE PORTIONS OF THE OPERATIONS MANUAL.
17. REQUEST FOR SURVEYING AND/OR STAKING WILL BE SUBMITTED TO ENGINEERING 72 HOURS IN ADVANCE, MINIMUM.
20. REPLACE EXISTING SERVICES WITH SIMILAR SIZE UNLESS OTHERWISE NOTED.
21. EFV'S ARE TO BE SIZED AND INSTALLED ON EACH SERVICE PER AC LIST.
22. TRENCHING AND BACKFILL TO CONFORM WITH RTC STANDARD 503 AND STANDARD SPECIFICATIONS 208.
23. MAINTAIN MINIMUM 12" VERTICAL SEPARATION AT ALL POINTS OF CROSSING.
24. MAINTAIN A MINIMUM 3' PARALLEL SEPARATION.
25. ANY EXCAVATION EXPOSING LVVWD FACILITIES 24" IN DIAMETER AND LARGER MUST REMAIN OPEN UNTIL INSPECTED BY LVVWD. NO BACKFILL MATERIAL IS TO BE PLACED IN THE EXCAVATION UNTIL APPROVED BY THE LVVWD INSPECTOR. ANY DAMAGE TO THE FACILITIES MUST BE REPORTED TO LVVWD IMMEDIATELY. CONTRACTOR TO CALL (702) 258-7171 TO SCHEDULE LVVWD INSPECTION.

PAVEMENT REPAIR SHALL CONFORM TO RTC:

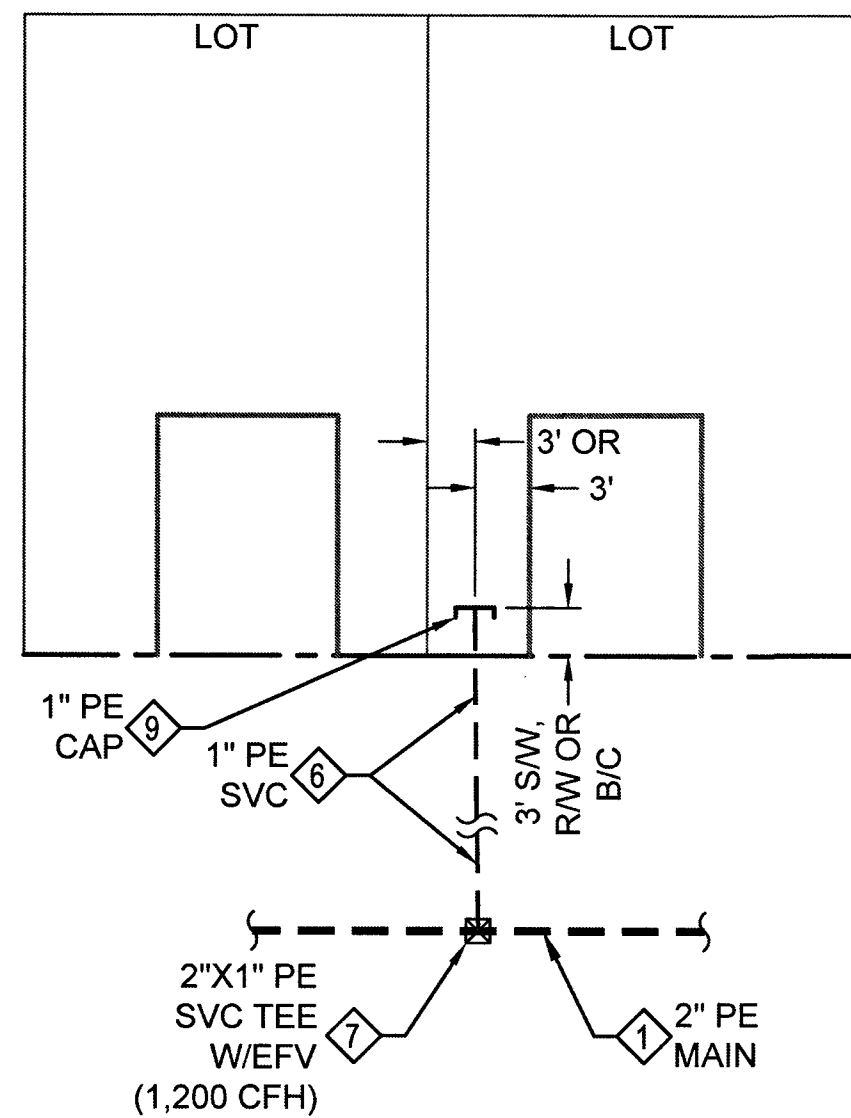
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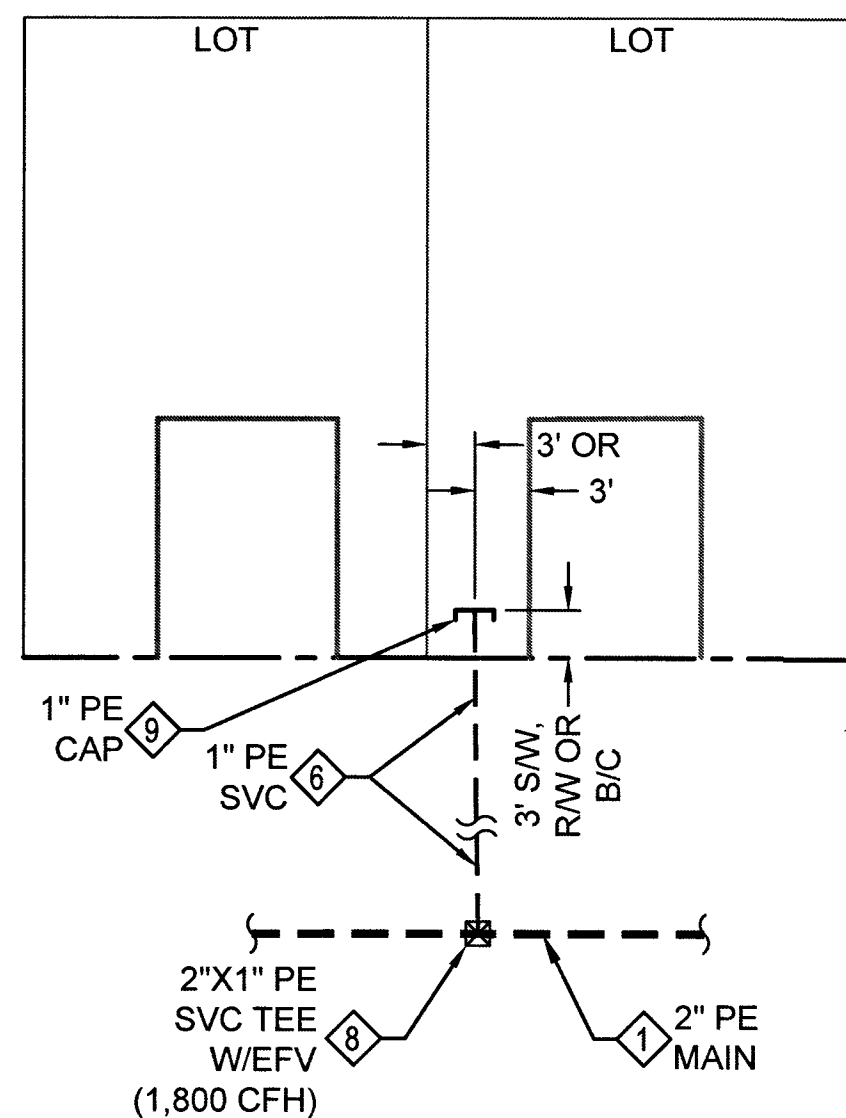
ELKHORN 40 PHASE 2 ABBREVIATIONS AND NOTES

10745059-2 Sheet 17 of 21

CLV L17-01163



A
-
TYPICAL RESIDENTIAL SINGLE SERVICE LATERAL DETAIL
NOT TO SCALE



B
-
TYPICAL RESIDENTIAL BRANCH SERVICE LATERAL DETAIL
NOT TO SCALE

CATHODIC PROTECTION NOTES:

1. NO STEEL WITHIN PROJECT LIMITS. NO CP ACTION REQUIRED.

VISUAL INSPECTION (OQ/PJQ)

SIGNATURE _____

DATE _____

MATERIAL LIST FOR PROPOSED DISTRIBUTION FACILITIES				
ITEM#	QTY. (DESIGN)	QTY. (AS-BUILT)	STOCK ID#	DESCRIPTION
1	2,298'		100-5101	2" PE MAIN
2	2		140-3074	2" PE TEE
3	1		140-3060	2" PE CAP
4	3		140-3532	2" PE COUPLING
5	1		140-3067	2" PE 90° ELBOW
6	875'		101-8526	1" PE SERVICE
7	6		160-8577	2" PE X 1" PE TAP TEE WITH EFV (1,200 CFH)
8	20		160-8394	2" PE X 1" PE TAP TEE WITH EFV (1,800 CFH)
9	26		850-8773	1" PE CAP

SYSTEM D_N_VALLEY_CEN_W

DR. NO. 21DR10002552

SEGMENT M.A.O.P. N/A

SYSTEM M.A.O.P. 60 psig

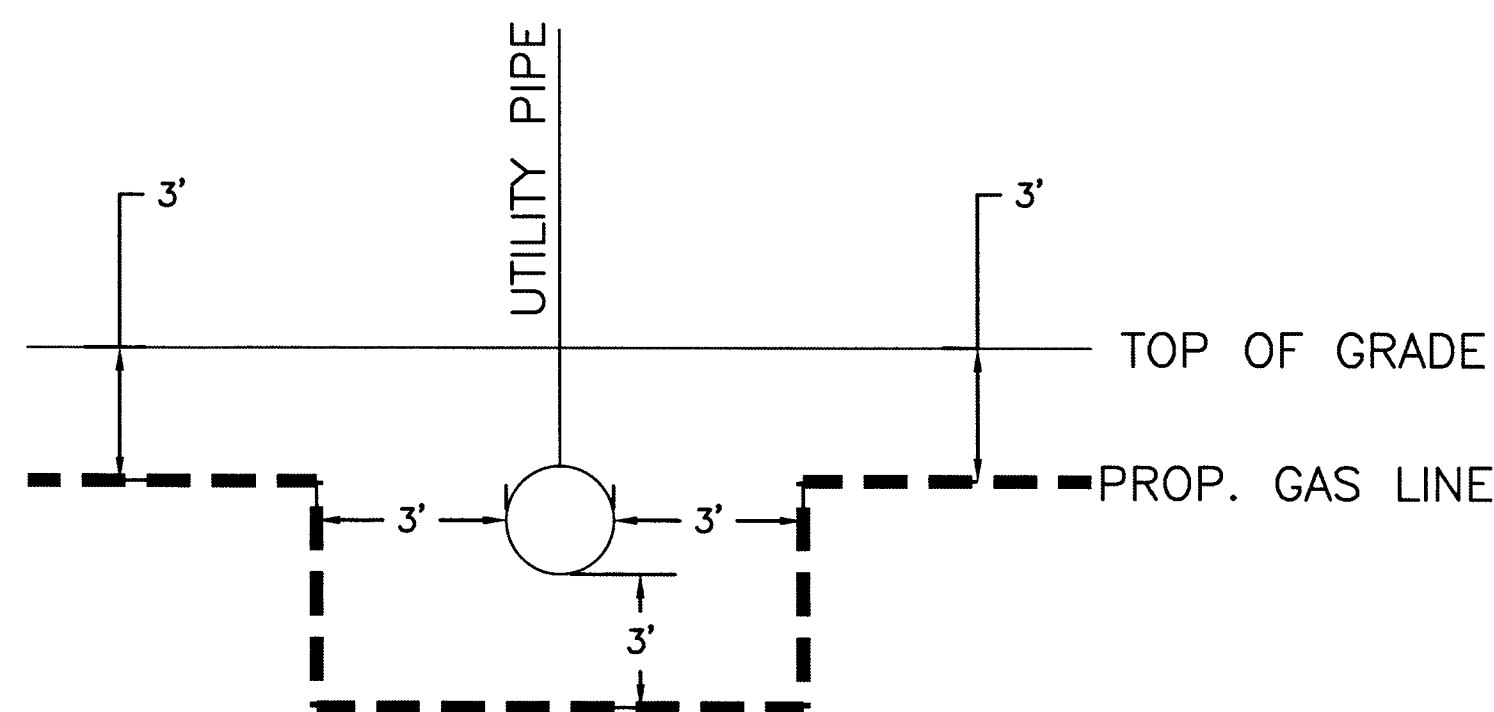
SYSTEM M.O.P. 55 psig

PURGE PLAN WAS COMPLETED IN ACCORDANCE WITH THE OPERATIONS MANUAL GUIDELINES BY:

PRINT: _____ DATE: _____

SIGNATURE: _____

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Initial: KT Date: 04-12-2018



TYPICAL UTILITY CROSSING DETAIL
NOT TO SCALE

AS-BUILT DRAWING-PRESSURE TEST DATA

PIPE DIA. _____ TEST MEDIUM TEST METHOD
PIPE LENGTH _____ ☐ AIR ☐ GAUGE
PIPE TYPE _____ ☐ NITROGEN ☐ CHART
MIN. DURATION _____ ☐ WATER ☐ GAUGE/
PRESS REC SN# ☐ SOAP PRESS REC SN#
TEST PRES. (PSIG) _____ START _____ END _____
TIME _____
DATE _____
PERFORMED BY _____

1.					3760102	2" PE	2,298'		
2.					3800101	1" PE	875'		
3.									
4.									
NO.	DESCRIPTION	BY	DATE	APPVD.					
REVISIONS									
					TAX CODES	UNIT NO.	UNIT TYPE	INSTL. PROPOSED	RETIRED COMPLETED
					PROPERTY UNITS				

AS-BUILT DRAWING-PRESSURE TEST DATA

PIPE DIA. _____ TEST MEDIUM TEST METHOD
PIPE LENGTH _____ ☐ AIR ☐ GAUGE
PIPE TYPE _____ ☐ NITROGEN ☐ CHART
MIN. DURATION _____ ☐ WATER ☐ GAUGE/
PRESS REC SN# ☐ SOAP PRESS REC SN#
TEST PRES. (PSIG) (MAX) _____ (MIN) _____
TIME: (START) _____ (STOP) _____
DATE: (START) _____ (STOP) _____
PERFORMED BY: _____
SVG VERIFIED BY: _____

INDIVIDUAL PERFORMING VISUAL INSPECTION

VISUAL INSPECTION CERTIFICATION
I HAVE VISUALLY INSPECTED ALL HEATED FUSIONS, SOLVENT CEMENT, MECHANICAL JOINTS, AND WELDS THAT I HAVE PERFORMED
NAME _____ DATE _____
AS-BUILTS ACCEPTED BY _____ DATE _____
POSTED BY _____ DATE _____
POSTING QC'D BY _____ DATE _____

CONSTRUCTION

INSPECTOR _____
FOREMAN _____
REVIEWED BY _____
PERMIT INFORMATION
CITY OF LAS VEGAS
TAX CODE: 02-0200

ISOLATION AREA

ISO_21
DIST_365
LOCATION
SEC 22
T19S R60E
M.D.M.

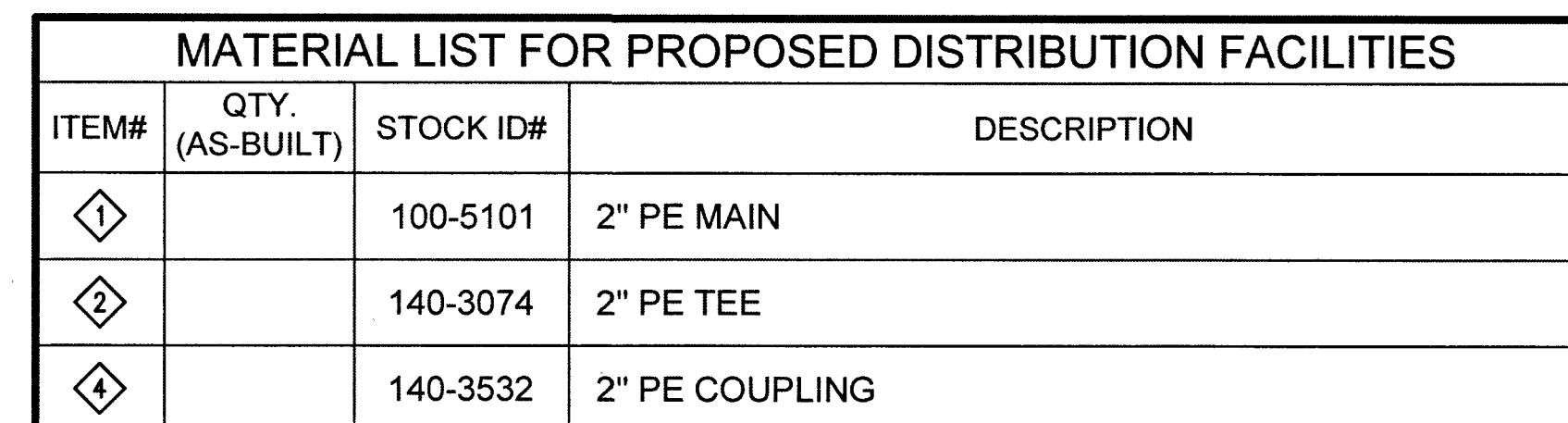
W.R. NO.

3495282
ATLAS #/TILE #
x597y558
x597y560

ENGINEER/TECH: TAMI GARCIA

ACCOUNT REP: MATT MINDER
PROJECT CONTACT: CHRISTOPHER FOLEY
SHEET NO: 3 OF 6
DWN. BY: BC&F
SCALE: NTS
CHKD. BY: _____
DATE: 11/7/2017
APPVD. BY: _____
ELKHORN 40 PHASE 2
MATERIALS AND SIGNATURES - PE
10755059-2 Sheet 18 of 21
CLV L17-01163

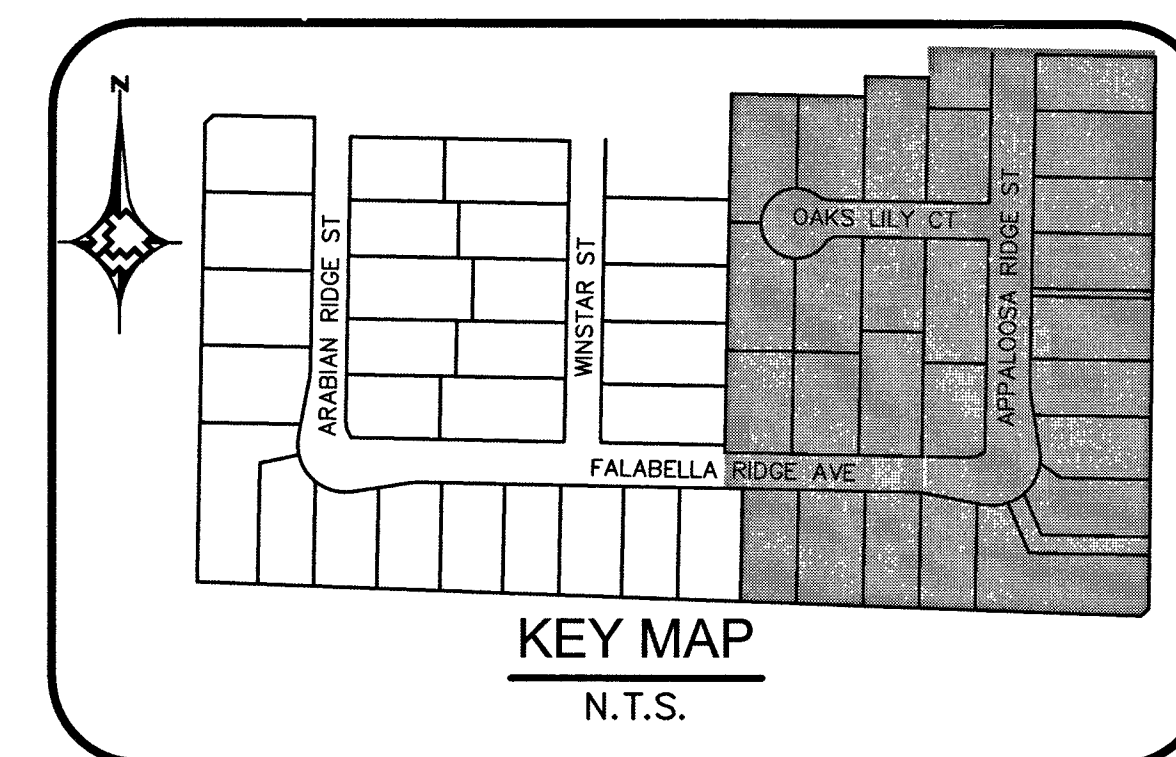




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MATERIAL LIST FOR PROPOSED DISTRIBUTION FACILITIES			
ITEM#	QTY. (AS-BUILT)	STOCK ID#	DESCRIPTION
①		100-5101	2" PE MAIN
②		140-3074	2" PE TEE
③		140-3060	2" PE CAP
④		140-3532	2" PE COUPLING
⑤		140-3067	2" PE 90° ELBOW

RTC NOTES:
PAVEMENT REPAIR SHALL CONFORM TO RTC:
A1 503

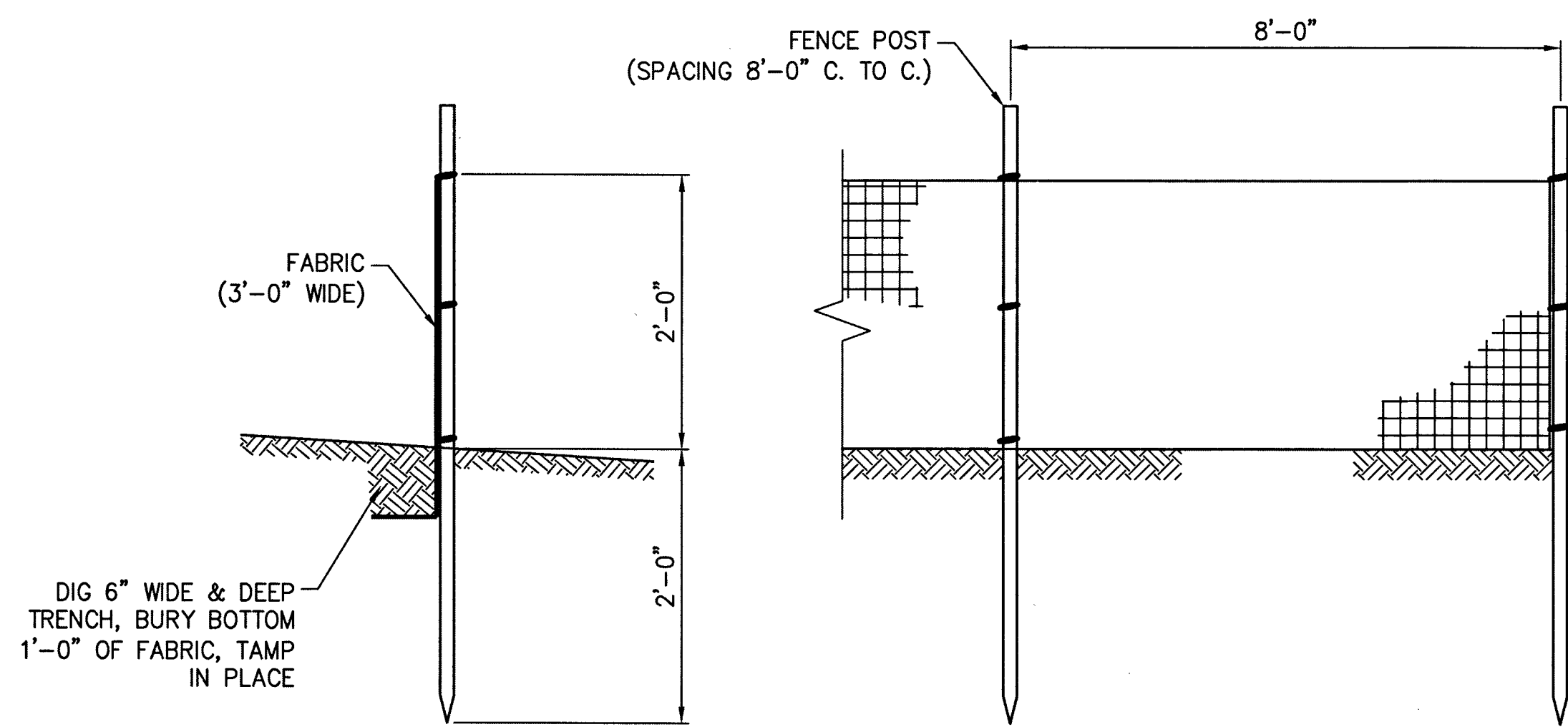
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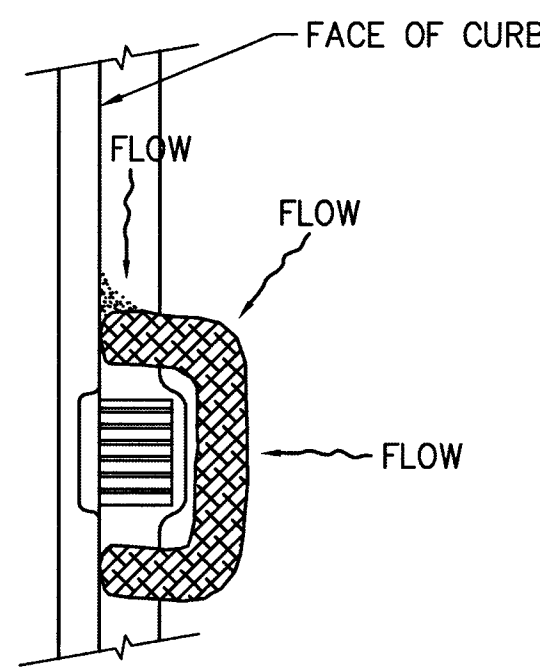
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10785059-2 Sheet 20 of 21
CLV L17-01163

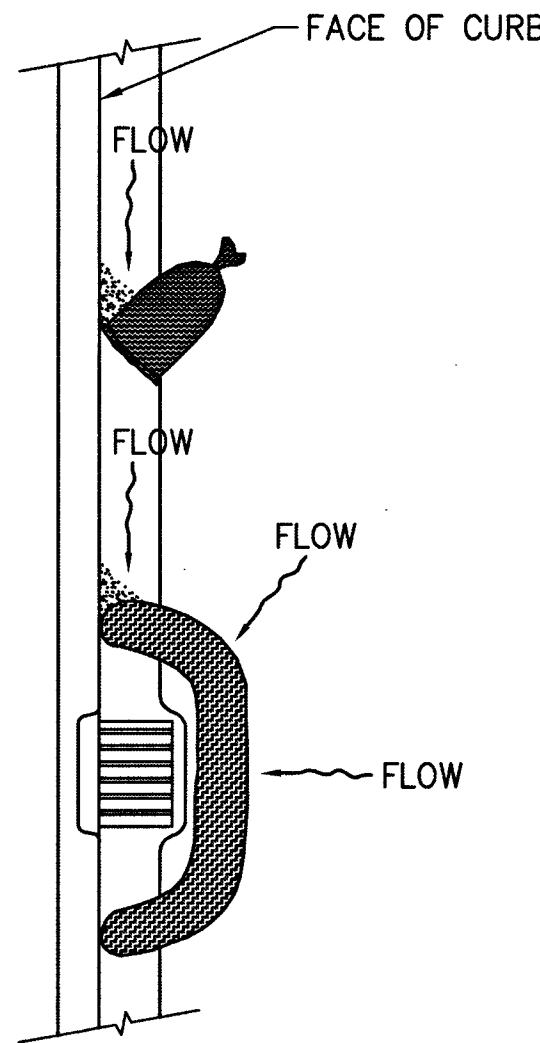
TYPICAL SWPPP BMPs DETAILS



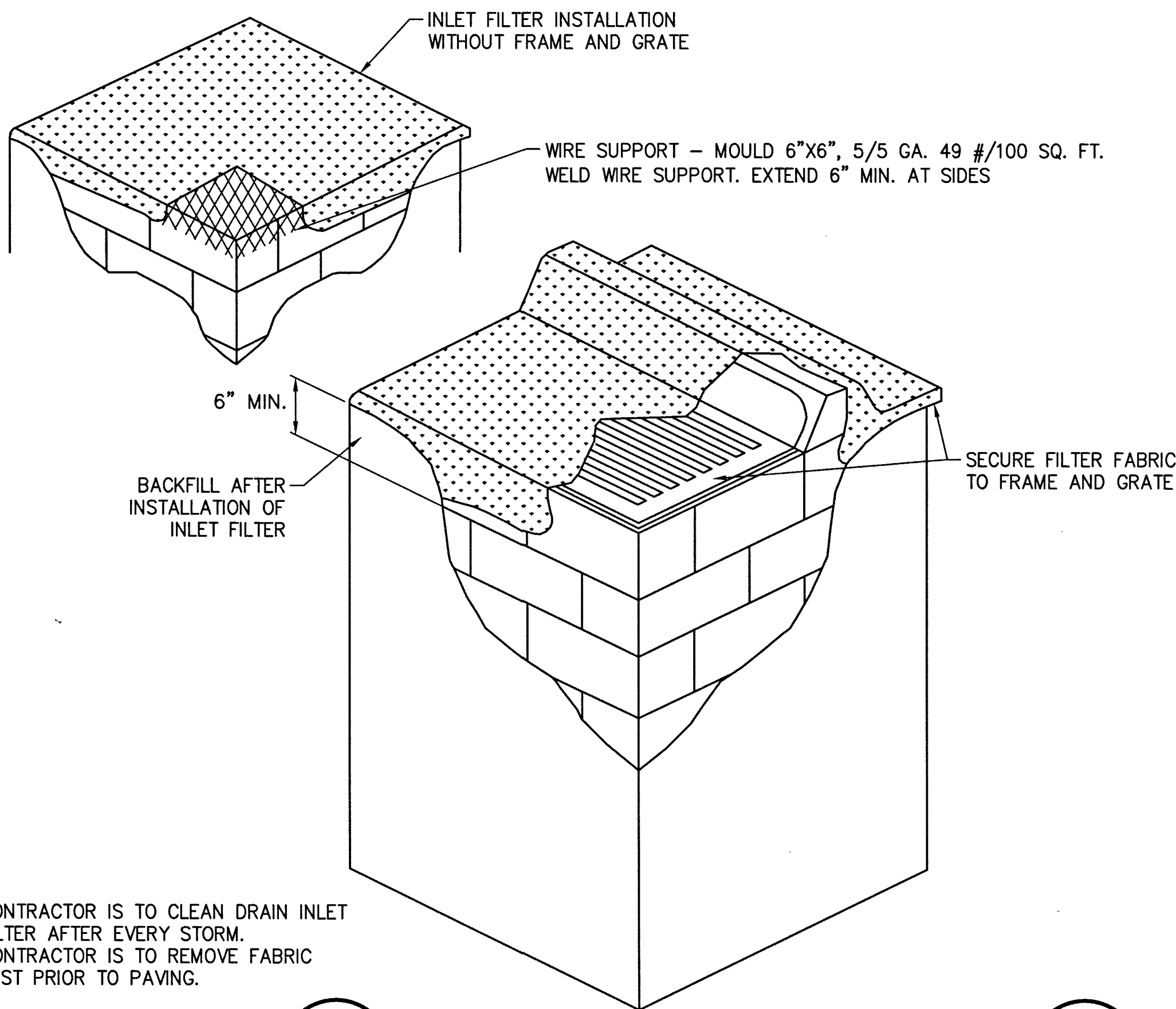
1 SILT FENCE
6 NOT TO SCALE



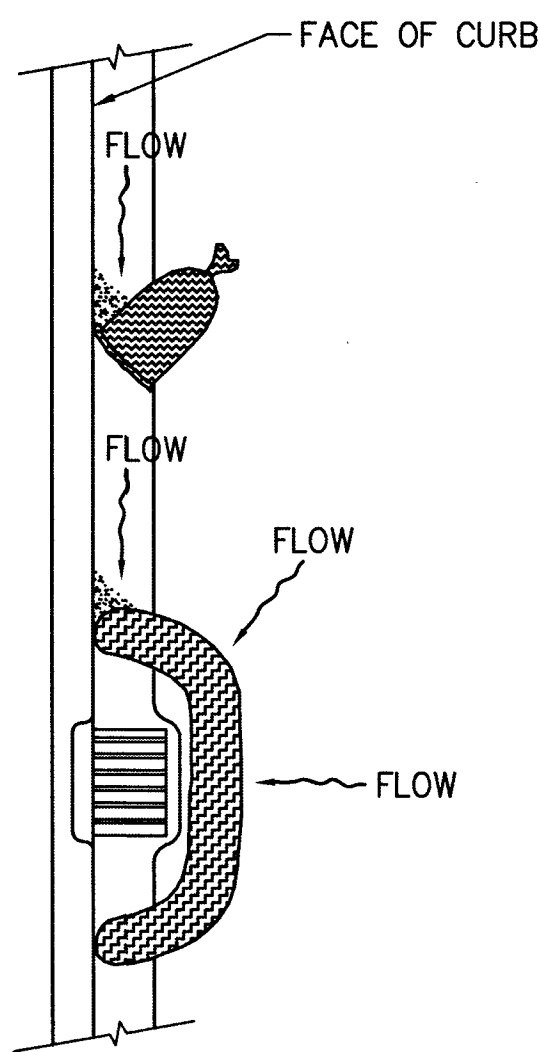
2 FIBER ROLL
6 NOT TO SCALE



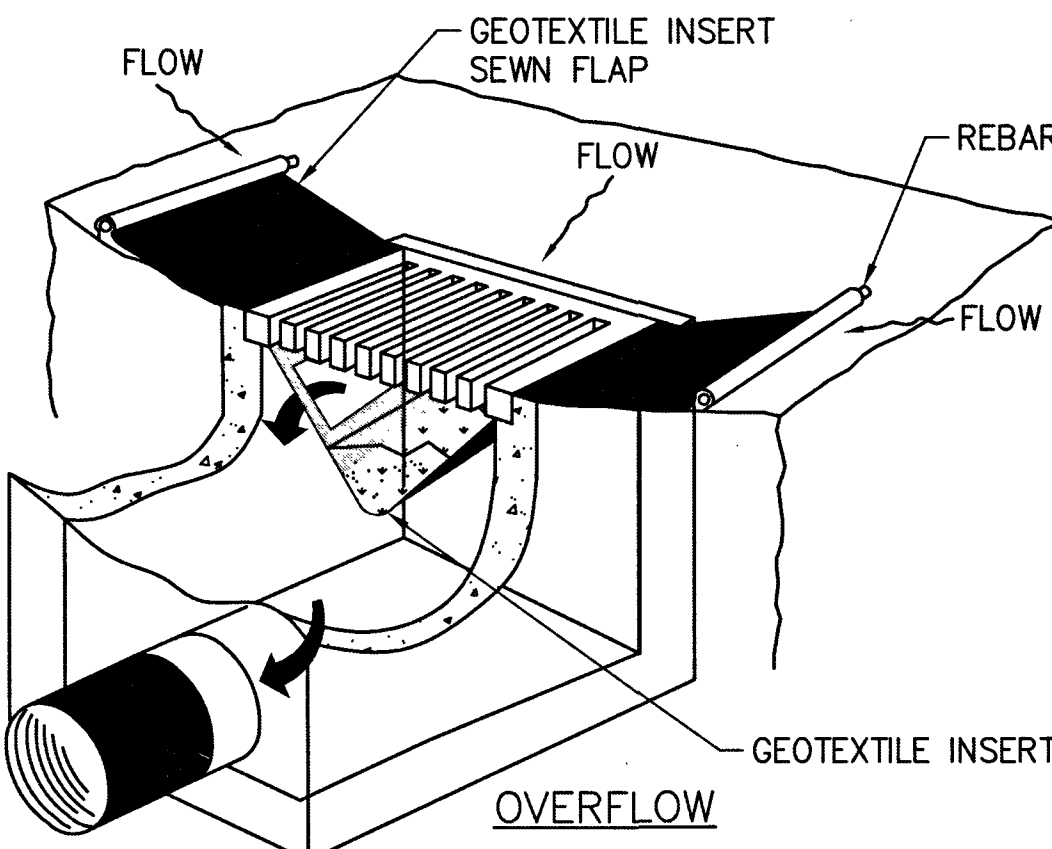
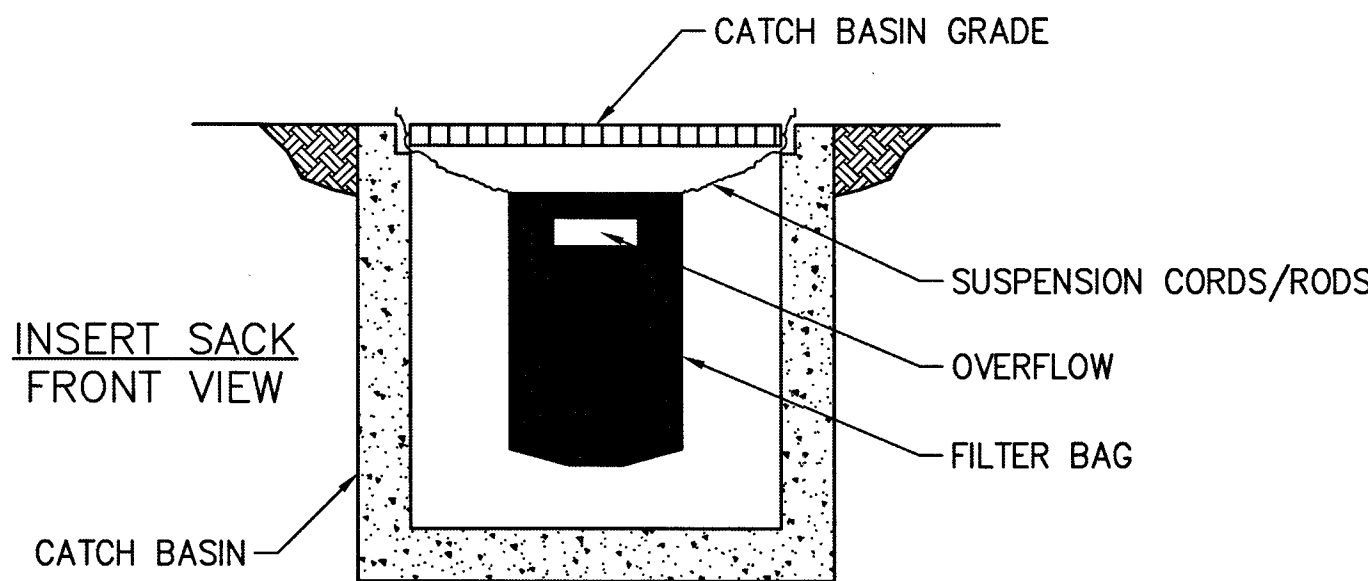
3 SAND BAG / ROLL
6 NOT TO SCALE



4 DRAIN INLET FILTER
6 NOT TO SCALE



5 GRAVEL BAG / ROLL
6 NOT TO SCALE



6 SEDIMENT FILTER BAG
6 NOT TO SCALE

- STORMWATER NOTES
- SOUTHWEST GAS CORPORATION, IT'S CONTRACTOR, AND/OR THEIR AUTHORIZED AGENTS SHALL INSTALL ONE OF THE APPROPRIATE BMPs FOR THE PROTECTION OF EXISTING STORM DRAIN INLETS, WITHIN OR SIGNIFICANTLY NEAR ANY IMPROVED RIGHT-OF-WAY, FROM DEBRIS AND SEDIMENT RESULTING FROM CONSTRUCTION OF NATURAL GAS FACILITIES.
 - SOUTHWEST GAS CORPORATION, IT'S 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 ACCUMULATED IN, THE PUBLIC RIGHTS OF WAY OF CLARK COUNTY 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, USING BEST MANAGEMENT PRACTICES DETAILED ON THIS SHEET.
 - ADDITIONAL CONSTRUCTION SITE DISCHARGE BEST MANAGEMENT PRACTICES MAY BE REQUIRED OF SOUTHWEST GAS CORPORATION, IT'S CONTRACTOR, AND/OR THEIR AUTHORIZED AGENTS DUE TO UNFORESEEN EROSION PROBLEMS OR IF THE LISTED BMPs ON THIS SHEET DO NOT MEET THE PERFORMANCE STANDARDS SPECIFIED IN THE CLARK COUNTY CODE - CHAPTER 24.40/STORM SEWER SYSTEM DISCHARGE AND THE LAS VEGAS VALLEY CONSTRUCTION SITE BMP GUIDANCE MANUAL.
 - 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.

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- NOTE:
- CONTRACTOR IS TO CLEAN DRAIN INLET FILTER AFTER EVERY STORM.
 - CONTRACTOR IS TO REMOVE FABRIC JUST PRIOR TO PAVING.

1. 2. 3. 4.				NO. DESCRIPTION BY DATE APPVD.				REVISIONS				SOUTHWEST GAS CORPORATION				TAX CODES UNIT NO. UNIT TYPE				PROPERTY UNITS				INSTL. RETIRED INSTL. RETIRED PROPOSED COMPLETED				AS-BUILT DRAWING-PRESSURE TEST DATA				TEST MEDIUM TEST METHOD				PIPE DIA. PIPE LENGTH PIPE TYPE MIN. DURATION TEST PRES. (PSIG) (MAX) (MIN) TIME (START) (STOP) DATE (START) (STOP) PERFORMED BY: SNG VERIFIED BY:				INDIVIDUAL PERFORMING VISUAL INSPECTION VISUAL INSPECTION CERTIFICATION				I HAVE VISUALLY INSPECTED ALL HEATED FUSIONS, SOLVENT CEMENT, MECHANICAL JOINTS, AND WELDS THAT HAVE PERFORMED				NAME DATE INSPECTOR FOREMAN REVIEWED BY: PERMIT INFORMATION				CITY OF LAS VEGAS TAX CODE: 02-0200				ISOLATION AREA				W.R. NO.				ENGINEER/TECH: TAMI GARCIA				PHONE: 702-365-2152				ACCOUNT REP: MATT MINDER				PHONE: 520-794-6454				PROJECT CONTACT: CHRISTOPHER FOLEY				PHONE: 702-232-8248				SHEET NO: 6 OF 6				SCALE: NTS				DATE: 11/7/2017				DWN. BY: BC&F				CHKD. BY:				APPVD. BY:				TITLE				ELKHORN 40 PHASE 2				TYPICAL SWPPP BMPs DETAILS				10155051.2 Sheet 21 of 21				CLV L17-01163			
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