

STORMWATER RUNOFF MANAGEMENT

(REQUIRED FOR ALL SITES GREATER THAN 1 ACRE (43,560 SQ.FT.))

1. THE OWNER, SITE DEVELOPER, CONTRACTOR AND/OR THEIR AUTHORIZED AGENTS SHALL EACH DAY REMOVE ALL SEDIMENT AND CONSTRUCTION DEBRIS, OR OTHER POTENTIAL POLLUTANTS THAT MAY HAVE BEEN DISCHARGED TO, OR ACCUMULATE IN, THE PUBLIC RIGHTS OF WAYS 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.
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 TITLE 24.40 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 NVRI00000, 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 NVRI00000, 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.

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 CALL 702-668-6107 48 HOURS PRIOR TO CONSTRUCTION.
4. IN THE EVENT OF NATURAL GAS CONFLICT WITH PROPOSED UTILITIES AND/OR STRUCTURES CONTACT 702-365-2099

CAUTION: HIGH PRESSURE GAS

CALL SOUTHWEST GAS AT 702-400-1789 FOR STANDBY WHEN EXCAVATING OVER OR NEAR HIGH PRESSURE GAS LINES 48 HOURS PRIOR TO CONSTRUCTION

SOUTHWEST GAS APPROVAL

Paula Kennedy
SOUTHWEST GAS CORPORATION

3-21-19
DATE

LEGAL DESCRIPTION

ALL GOVERNMENT LOTS 21, 22, 23 AND 26 OF SECTION 18, TOWNSHIP 19 SOUTH, RANGE 60 EAST, N.M.M., CITY OF LAS VEGAS, CLARK COUNTY, NEVADA,
CONTAINING 20.47 ACRES, MORE OR LESS

BENCHMARK

BENCHMARK NUMBER: 6LV018W4

RISET AND PLATE IN TOP OF CURB IN THE NORTHEAST CORNER OF FARM ROAD AND HUALAPAI WAY

ELEVATION = 2856.716 FEET, 870.729 METERS
DATUM = NAVD 88

PER THE CITY OF LAS VEGAS BENCHMARK WEBSITE ON MAY 17, 2018

BASIS OF BEARINGS

NORTH 001°04' WEST, BEING THE BEARING OF THE WEST LINE OF THE NORTHWEST QUARTER (NW1/4) OF THE SOUTHWEST QUARTER (SW1/4) OF SECTION 18, TOWNSHIP 19 SOUTH, RANGE 60 EAST, N.M.M., CITY OF LAS VEGAS, CLARK COUNTY, NEVADA, AS SHOWN BY MAP THEREOF IN BOOK 127, PAGE 24 OF PLATS IN THE CLARK COUNTY RECORDER'S OFFICE, NEVADA

DEVIATIONS FROM STANDARDS

NONE

2.2 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 MANHOLE 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 REDUCED 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.

LAS VEGAS VALLEY WATER DISTRICT (LVVWD) STANDARD NOTES

LVVWD PROJECT # 136145 (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 PLANS, DRAWINGS, AND SPECIFICATIONS, AND TO THE 2010 EDITION OF THE UNIFORM STANDARD SPECIFICATIONS FOR PUBLIC WORKS' CONSTRUCTION OFF-SITE IMPROVEMENTS, CLARK COUNTY AREA.
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 OFF-SITE 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 UOACS.
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 UOACS 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 AS LISTED ON THE LVVWD APPROVED PRODUCTS 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 PATCH ON THE STREET SURFACE.
15. 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 ADJACENT A PUBLIC OR PRIVATE STREET, IF DISTURBED BY THE LVVWD DURING THE REPAIR OR OPERATION OF ITS FACILITIES, WILL BE REPLACED BY THE 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.

16. 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 LEAD PRODUCT MAY NOT BE REUSED.

GRADING NOTES

1. INDICATED GRADES OTHER THAN T.C., F.G. & GUTTER F.L. ARE ROUGH GRADES.
2. THE ROUGH GRADING PLANS SHALL BE ON THE JOB SITE AT ALL TIMES. THE ROUGH GRADING SHALL BE FINISHED IN CONFORMANCE WITH THE LINES AND GRADES SHOWN ON THE PLANS. THE GRADING QUANTITIES ARE BASED ON THE ELEVATION AND DETAILS SHOWN ON THE PLANS. ANY DEVIATIONS FROM THE PLANS WILL RESULT IN QUANTITY CHANGES.
3. CARE SHALL BE EXERCISED IN GRADING CORNER LOTS.
4. ROUGH PAVEMENTS SHALL BE GRADED TO WITHIN 0.1' OF THE PAD ELEVATIONS SHOWN ON THE PLANS. WHEN GRADING IS COMPLETE PER THE PLANS, THE CONTRACTOR SHALL NOTIFY THE ENGINEER SO THAT THE LOTS CAN BE INSPECTED. AT THAT TIME THE ENGINEER SHALL ALSO DECIDE IF ANY ADDITIONAL DITCHES OR BERMS ARE REQUIRED. THE CONTRACTOR IS REQUESTED NOT TO REMOVE ANY OF HIS ROUGH GRADING EQUIPMENT UNTIL HE RECEIVES GRADING APPROVAL FROM THE ENGINEER.
5. SOILS REPORT PREPARED BY ANGLE ENGINEERING, PROJECT NO. 26214-1, DATED 06/06/2018.
6. EARTHWORK QUANTITIES (RAW):
- CUT = 44,425 CUBIC YARDS
- FILL = 36,989 CUBIC YARDS
A) THE ABOVE QUANTITIES DO NOT REFLECT LOSSES DUE TO SUBSIDENCE OR SHRINKAGE.
B) THE ABOVE QUANTITIES DO REFLECT USING NATIVE MATERIAL IN LIEU OF TYPE I GRAVEL BASE MATERIAL FOR STREET SECTIONS.
C) THE ABOVE QUANTITIES DO NOT REFLECT ANY EARTHWORK WHICH MAY BE REQUIRED BY THE ENGINEER TO CONSTRUCT ADDITIONAL PROTECTIVE DITCHES OR BERMS NOT SHOWN ON THESE DRAWINGS.

CITY OF 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 # 6326, FOR HYDRANT SPECIFICATIONS, AND HYDRANT INSTALLATION SPECIFICATIONS.
2. ONLY FIRE HYDRANTS THAT ARE ON THE LAS VEGAS VALLEY WATER DISTRICTS - APPROVED PRODUCTS LIST ARE ALLOWED TO BE INSTALLED.
3. A PERMIT IS REQUIRED FROM LAS VEGAS FIRE AND RESCUE FOR ALL 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 [FC 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 [FC 310, 312]
5. 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. [FC 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. [FC 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. [FC 507.2.1, NFPA 24]
8. PAINTING OF CURBS, FIRE HYDRANTS, PADS, PROTECTION OF FIRE HYDRANTS FROM PHYSICAL DAMAGE, AND ALL OTHER WORK NECESSARY SHALL BE COMPLETED BEFORE APPROVAL BY LAS VEGAS FIRE AND RESCUE, FIRE PREVENTION DIVISION. [FC 507]
9. PRIVATE HYDRANTS SHALL BE PAINTED RED. [FC 507.5.7.1]
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. [FC 507]
11. FIRE HYDRANT SPACING SHALL BE AS FOLLOWS: [FC 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 OF 1,000 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 AN ALTERNATING BASIS. [FC C102.6]
13. 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.
14. NO FIRE HYDRANTS SHALL BE LOCATED WITHIN 6 FT OF ANY CURB RETURN, DRIVEWAY, POWER POLE, STREETLIGHT OR ANY OTHER OBSTRUCTION. [FC 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. [FC C102.4]
16. THE MAXIMUM DISTANCE FROM A FIRE HYDRANT TO A FIRE DEPARTMENT CONNECTION (FDC) SHALL NOT EXCEED 100 FT, AS MEASURED BY AN APPROVED ROUTE. [FC C102.7]
17. THE MAXIMUM DISTANCE FROM A HYDRANT TO THE END OF A DEAD-END STREET SHALL NOT EXCEED 200 FT. [FC C102.6]
18. TWO (2) SOURCES OF SUPPLY ARE REQUIRED WHENEVER THERE ARE 4 OR MORE FIRE HYDRANTS/SPRINKLER HEADS 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. [FC 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. [FC 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%. [FC 503.2.7, 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 RADII. [FC 503.2.4]
22. VERTICAL CLEARANCE OF ALL FIRE APPARATUS ACCESS ROADS SHALL NOT BE LESS THAN 13 FT 6 IN. [FC 503.2.1]
23. 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. [FC 503.2.1.1]
24. 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. THE DISTANCE COULD BE INCREASED TO 250 FT IF THE BUILDING IS SPRINKLERED. [FC 503.1.1]
25. APPROVED SECONDARY FIRE APPARATUS ACCESS SHALL BE PROVIDED FOR 100 OR MORE DWELLING UNITS, ROADS 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. [FC 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. [FC 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 FEET ALONG THE DESIGNATED FIRE LANE. SIGNS TO BE PLACED ON BOTH SIDES OF AN ACCESS ROADWAY IF NEEDED TO PREVENT PARKING ON EITHER SIDE. SIGNS TO BE INSTALLED NO HIGHER THAN 10 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. [FC 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 503.6 AND IFC APPENDIX M.

2.5 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.
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 PRIVATE, PRIVATE OR PUBLIC SHALL BE MAINTAINED IN A CLEAN, SAFE AND USABLE CONDITION.
10. IN THE EVENT THAT ANY TEMPORARY CONSTRUCTION ITEM IS REQUIRED THAT IS NOT SHOWN ON THESE DRAWINGS, THE OWNER AGREES TO PROVIDE AND INSTALL SUCH ITEM AT HIS OWN EXPENSE AND AT THE DIRECTION OF THE CITY ENGINEER. TEMPORARY CONSTRUCTION INCLUDES DITCHES, BERMS, ROAD SIGNS AND BARRICADES, ETC.

UTILITY LOCATION NOTE TO CONTRACTOR

EXISTING UTILITY LOCATIONS SHOWN HEREIN ARE APPROXIMATE ONLY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT 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 PROPER LOCATIONS. CALL BEFORE YOU DIG: 1 (800) 227-2600; SOUTHWEST GAS CORPORATION: 702-400-1789 (STANDBY CONTACT NUMBER)

2.1 CITY OF LAS VEGAS GENERAL NOTES

1. ALL CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH THE "UNIFORM STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION OFF-SITE IMPROVEMENTS, CLARK COUNTY AREA NEVADA", LATEST 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".
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 CITY 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 EXTENDED-TYPE CURB.
8. AC PAVEMENT TO BE ONE-HALF INCH (1/2") ABOVE LIP OF ALL GUTTERS AFTER COMPACTION, EXCEPT AT SIDEWALK RAMP 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 RAMP SHALL BE CONSTRUCTED IN EACH QUADRANT OF AN INTERSECTION PER STANDARD DRAWING 235. EXACT LOCATION OF RAMP SHALL 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.
12. ALL GRADING WORK SHALL CONFORM TO THE SOILS REPORT AS PREPARED BY ANGLE ENGINEERING, REPORT #26214-1, 05/06/2018, APPROVED BY THE CITY ENGINEER, AND AS SHOWN ON THESE PLANS.
13. EXACT LOCATION OF ALL SAWCUT LINES MAY BE ADJUSTED OR DETERMINED IN THE FIELD BY A CITY OF LAS VEGAS ENGINEER. IF ANY PLANS IS NOT CLEARLY SHOWN, OR EXISTING PAVEMENT CONDITION REQUIRES RELOCATIONS.
14. THE CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO PROTECT EXISTING PERMANENT SURVEY MONUMENTS. ANY MONUMENTS DISTURBED SHALL BE REPLACED AND ADJUSTED PER AVAILABLE RECORDS IN ACCORDANCE WITH N.E.S. STATUTE NO. 625.380 & CITY OF LAS VEGAS TITLE 18, APPENDIX D.
15. UTILITY COMPANY METER BOXES, MANHOLE LIDS, VALVE COVERS, ETC., SHALL BE LOCATED OUT OF DRIVEWAYS, DRIVEWAY APRONS, FLOWLINES, AND CROSS GUTTERS UNLESS WRITTEN APPROVAL IS GRANTED BY THE UTILITY COMPANY AND THE CITY ENGINEER.
16. WALL NOTES.
17. ALL WALLS, NEW OR EXISTING, ARE ONLY SHOWN ON CIVIL PLANS FOR THE PURPOSE OF REVIEWING GRADING RELATIONSHIPS, FLOOD CONTROL AND SIGHT DISTANCE AT INTERSECTIONS. NEW WALLS REQUIRE A SEPARATE PERMIT AND INSPECTION BY THE BUILDING DEPARTMENT.
18. CONTRACTOR SHALL ADJUST ALL NEW AND EXISTING MILES, VALVE BOXES, MANHOLE RIMS, AND SEWER CLEAN OUTS, ETC. TO FINISH GRADE AS APPLICABLE WHETHER OR NOT THEY ARE SHOWN ON THE PLANS.
19. 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.
20. 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.
21. 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 THE PUBLIC SEWER MANHOLES, STORM DRAIN MANHOLES AND TRANSITION STRUCTURES. STORM DRAIN LATERALS AT THE CONNECTION TO THE STORM DRAIN MAIN AND 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. 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 MAP(S) 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 SEPARATION ELECTRONIC COMMA DELIMITED FILE FOR THE SANITARY SEWER AND STORM DRAIN COORDINATES SHALL ALSO ACCOMPANY THE SANITARY SEWER AND STORM DRAIN FINAL LOCATION MAP(S).
22. 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.
23. A SEPARATE BORING PERMIT IS REQUIRED FOR ALL BORING ACTIVITIES.

2.3 CITY OF LAS VEGAS TRAFFIC NOTES

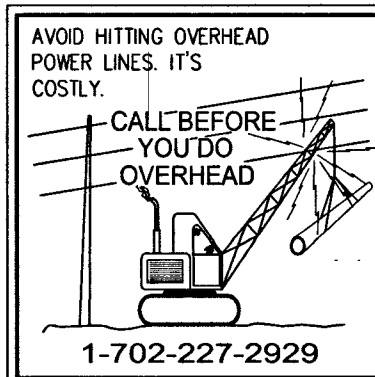
1. ALL CONSTRUCTION SIGNING, BARRICADE, AND TRAFFIC DELINEATION SHALL CONFORM TO THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES", LATEST EDITION.
2. THE STREET SIGN CONTRACTOR SHALL OBTAIN STREET NAMES AND BLOCK NUMBERING FROM THE PLANNING DEPARTMENT PRIOR TO CONSTRUCTION.
3. BEFORE ANY WORK IS STARTED IN THE RIGHT-OF-WAY, THE CONTRACTOR SHALL INSTALL ALL ADVANCE WARNING SIGNS FOR THE CONSTRUCTION ZONE. THE CONTRACTOR SHALL INSTALL TEMPORARY STOP SIGNS AT ALL NEW STREET ENCROACHMENTS INTO EXISTING CITY STREETS WHERE WARRANTED IMMEDIATELY AFTER FIRST GRADING WORK IS ACCOMPLISHED, AND SHALL MAINTAIN SAID SIGNS UNTIL PERMANENT SIGNS ARE INSTALLED.
4. WHEN A DESIGNATED "SAFE ROUTE TO SCHOOL" IS ENCLOSED UPON BY A CONSTRUCTION WORK ZONE OR PUBLIC WORKS STOP SIGN, A NEED FOR STUDENTS TO BE ASSURED 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 LIME 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 TRAFFIC SIGNS SHALL BE FABRICATED WITH DIAMOND GRADE WP CLASS B REFLECTIVE SHEETING OR APPROVED EQUAL. ALL NEW TRAFFIC SIGNS, EXCEPT STREET NAME AND SCHOOL SPEED LIMIT SIGNS, SHALL HAVE 3M SERIES 1150 OR APPROVED EQUIVALENT ANTI-GRAFFITI PROTECTIVE OVERLAY FILM. SCHOOL ZONE SIGNS SHALL HAVE 3M SERIES 1150 ANTI-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 RECONSTRUCTION, AND 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 MSA 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 THE TRAVELING PUBLIC.
12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING CITIZENS AREA TRANSIT (C.A.T.) IF THE CONSTRUCTION INTERRUPTS OR REDUCES 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 OTHERWISE DIRECTED BY THE CITY OF LAS VEGAS TRAFFIC ENGINEER.
15. THE 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.

2.4 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 (USS), AND THE "UNIFORM STANDARD DRAWINGS FOR PUBLIC WORKS CONSTRUCTION OFF-SITE IMPROVEMENTS, CLARK COUNTY AREA, NEVADA" (USS), LATEST REVISION.
2. DESIGN PROFESSIONAL AND CONTRACTOR SHALL VERIFY CITY'S LATEST LED FIXTURE SPECIFICATIONS AND APPROVED FIXTURES PER CITY WEBSITE, UNDER BUILDING AND SAFETY FORMS, PRIOR TO ORDERING MATERIALS.
3. NO DEVIATION OF STREET LIGHT, PULL BOX, CONDUITS ETC., LOCATIONS SHALL BE PERMITTED WITHOUT WRITTEN APPROVAL OF TRAFFIC AND CITY ENGINEER. ANY DEVIATION FROM THE PLAN LOCATION WILL REQUIRE COMPLIANCE WITH SECTION 623 OF THE USS.
4. ALL EXISTING STREET LIGHTING SHALL REMAIN OPERATIONAL DURING CONSTRUCTION IN ACCORDANCE WITH SECTION 623 G.03.01 OF THE USS.
5. ALL EMPTY CONDUIT SHALL HAVE AT LEAST ONE GREEN NO. 8B AND WIRE INSTALLED AS TRACER WIRE IN ACCORDANCE WITH SECTION 623 G.02.01 OF THE USS PRIOR TO BACKFILLING AND FINAL INSPECTION.
6. ANY STRUCTURE SUCH AS BLOCK WALLS, CHAIN LINK FENCES, RETAINING WALLS, ETC., SHALL LEAVE A MINIMUM 12" CLEARANCE IN ACCORDANCE WITH THE CITY OF LAS VEGAS STREET LIGHTING POLICY, SIDEWALK, AND SHALL AT NO TIME COMPLETELY ENCLOSE THE STREET LIGHTING POLE.
7. AS-BUILT DRAWINGS SHALL BE SUPPLIED TO THE TRAFFIC ENGINEERING DIVISION. PRIOR TO ANY PRE-FINAL INSPECTION, THE AS-BUILT DRAWING NEEDS TO BE STAMPED AS-BUILT AND SIGNED BY THE PREPARED.
8. SERVICE POINT SHALL BE COORDINATED WITH NV ENERGY, AND WHEREVER POSSIBLE, BE LOCATED NEAR THE CENTER OF THE DRIVEWAY OR DRIVEWAY APRON. SERVICE POINTS SHALL BE SHOWN ON THE PLANS.
9. WHEREVER THERE IS AN OVERHEAD UTILITY THAT MAY CONFLICT WITH THE INSTALLATION OF STREET LIGHTING CIRCUITS AND/OR POLES, THESE CONFLICTS MUST BE RESOLVED BETWEEN THE DEVELOPER AND THE UTILITIES INVOLVED BEFORE STREETLIGHT BASES ARE INSTALLED. AT NO EXPENSE TO THE CITY OF LAS VEGAS.
10. THE CONTRACTOR SHALL FURNISH COMPLETE CONDUIT, WIRE, ETC. FROM SERVICE TO TRANSFORMERS AND CONTROL SYSTEMS IF REQUIRED ON THE PLANS.

APPROVED FOR CONSTRUCTION

Adam M. Hosh
LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES
PROJECT NO. 136145 FIRST APPROVED DATE: 6-16-19
LVVWD APPROVED FIRE FLOW 1,500 GPM AT 20 PSI RESIDUAL
MAXIMUM AVAILABLE FIRE SPRINKLER FLOW 28 GPM



SLATER HANIFAN GROUP
a Westwood team
16 Las Vegas, NV 89118
PHONE (702) 284-5300
FAX (702) 284-5399

136145

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SPECIAL NOTE

IN THE EVENT THAT ANY TEMPORARY CONSTRUCTION ITEM IS REQUIRED WHICH IS NOT SHOWN ON THESE DRAWINGS, THE OWNER AGREES TO PROVIDE AND INSTALL SUCH ITEM AT HIS OWN EXPENSE AND AT THE DIRECTION OF THE CITY OF LAS VEGAS DEPT. OF PUBLIC WORKS. TEMPORARY CONSTRUCTION ITEMS INCLUDE: PAVEMENT TRANSITIONS, PROTECTIVE DITCHES AND BERMS, ROAD SIGNS AND BARRICADES, ETC.

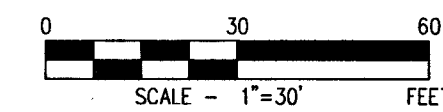
NOTICE TO CONTRACTOR

-QUANTITIES SHOWN ARE ESTIMATES ONLY AND ARE INTENDED TO ILLUSTRATE SCOPE OF WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE EXACT QUANTITIES INVOLVED.

-EXISTING UTILITY LOCATIONS SHOWN HEREIN ARE APPROXIMATE ONLY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT 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 PROPER LOCATIONS. CALL BEFORE YOU DIG. (800) 227-2600

QUANTITIES		PRIVATE	PUBLIC	
DRAINAGE				
1.	5.0" TYPE "CM2" DROP INLET	EA	-	2
2.	18" ROP CLASS III STORM DRAIN	LF	-	43
3.	2.0' CONCRETE U-CHANNEL	EA	-	430
4.	SIDEWALK UNDERDRAIN	LF	-	1
5.				
6.				
7.				
SEWER SYSTEM				
1.	4" PVC SEWER LATERAL (PRIVATE)	LF	1,619	-
2.	8" PVC SEWER PIPE (PUBLIC)	LF	-	2,820
3.	STANDARD 48" SEWER MANHOLE (PUBLIC)	EA	-	12
4.	8" PVC C900 PIPE (PUBLIC)	LF	-	317
5.	BACKWATER VALVE (PRIVATE)	EA	22	-
6.				
7.				
WATER SYSTEM				
1.	FIRE HYDRANT ASSEMBLY W/6" GATE VALVE PER UDACS PLATE NO. 40	EA	-	6
2.	6" PVC WATER PIPE (CLASS 150)	LF	-	78
3.	8" PVC WATER PIPE (CLASS 150)	LF	-	3,318
4.	8" GATE VALVE WITH VALVE BOX PER UDACS PLATE NO. 30 & 39	EA	-	6
5.	8" X 6" TEE PER UDACS PLATE NO. 31	EA	-	6
6.	8" X 8" TEE PER UDACS PLATE NO. 31	EA	-	5
7.	8" 90 DEGREE BEND PER UDACS PLATE NO. 31	EA	-	1
8.	CAP AND 2" BLOW-OFF ASSEMBLY W/CAP PER UDACS PLATE NO. 36	EA	-	3
9.	1" COPPER SERVICE W/ 3/4" METER PER UDACS PLATE NO. 1	EA	-	22
10.	1" COPPER SERVICE W/ 3/4" METER & 1" RPPA PER UDACS PLATE NO. 4 & 8	EA	-	2
11.	1" COPPER SERVICE W/ 3/4" METER PER UDACS PLATE NO. 3	EA	-	37
12.	8" X 10" TEE PER UDACS PLATE NO. 31	EA	-	1
13.	45° VERTICAL BEND PER UDACS PLATE NO. 31	EA	-	6
14.	8" DIP WATER PIPE (CLASS 150)	LF	-	264
15.	10" DIP WATER PIPE	LF	-	22
16.	10" X 8" TAPPING SLEEVE W/ 8" TAPPING VALVE PER UDACS 30, 34, 39, AND SECTION 2.24.01A	EA	-	1
17.				
18.				
19.				
STREET IMPROVEMENTS				
1.	4" A.C. PAVEMENT OVER 4.5" TYPE II AGGREGATE BASE	SY	-	3,900
2.	3" A.C. PAVEMENT OVER 9" TYPE II AGGREGATE BASE	SY	-	74
3.	2" A.C. PAVEMENT OVER 4" TYPE II AGGREGATE BASE	SY	11,589	-
4.	STANDARD 24" TYPE "L" CURB & GUTTER W/6" TYPE I AGGREGATE BASE	LF	-	1,307
5.	STANDARD 30" TYPE "ROLL" CURB & GUTTER W/6" TYPE I AGGREGATE BASE	LF	6,131	-
6.	STANDARD "A" TYPE CURB PER CCAUSD NO. 219	LF	232	-
7.	5' WIDE CONCRETE SIDEWALK W/4" TYPE II AGGREGATE BASE	SF	20,298	-
8.	ADA SIDEWALK RAMPS	EA	12	-
9.	CROSS GUTTER	SF	2,319	-
10.				
11.				
12.				
TRAFFIC SIGNALS				
1.	30" STOP SIGN WITH POST (R1-1)	EA	5	-
2.	9" STREET NAME SIGN (D-3, BROWN W/ WHITE LETTERS)(6 POLES x 2 PER POLE=12)	EA	10	-
3.	BLUE COLORED REFLECTIVE RAISED PAVEMENT MARKER	EA	5	-
4.	36" STOP SIGN WITH POST (R1-1)	EA	1	-
5.	12" STREET NAME SIGN (D-3, BROWN W/ WHITE LETTERS)(6 POLES x 2 PER POLE=12)	EA	2	-
6.	18" TYPE A "NO PARKING FIRE LANE" SIGN	EA	6	-
7.				
8.				
9.				
10.				
DRY UTILITIES				
1.	250W LED LUMINAIRE STREET LIGHT W/ DECORATIVE POLE	EA	-	6
2.	1-1/4" PVC STREET LIGHT CONDUIT WITH (2) #4 AND (1) #8 CONDUCTORS	LF	-	1,012
3.				
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AVOID HITTING OVERHEAD POWER LINES. IT'S COSTLY.		Call before you Dig AND/OR CUTTING UNDERGROUND UTILITY LINES. IT'S COSTLY.
	Call before you UnderGround 1-702-432-5300 FREEMAN & ARTERIAL SYSTEM OF TRANSPORTATION (F.A.S.T.)	Call  OR 1-800-227-2600



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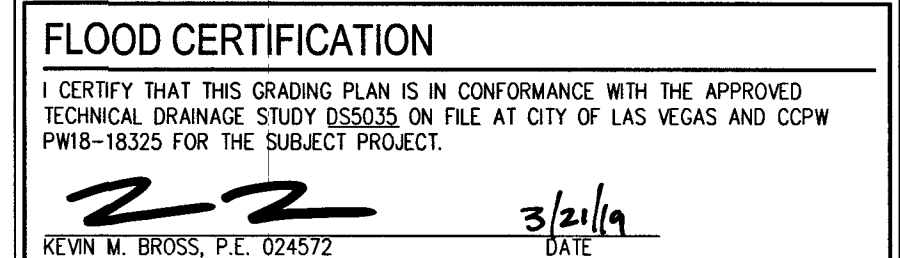
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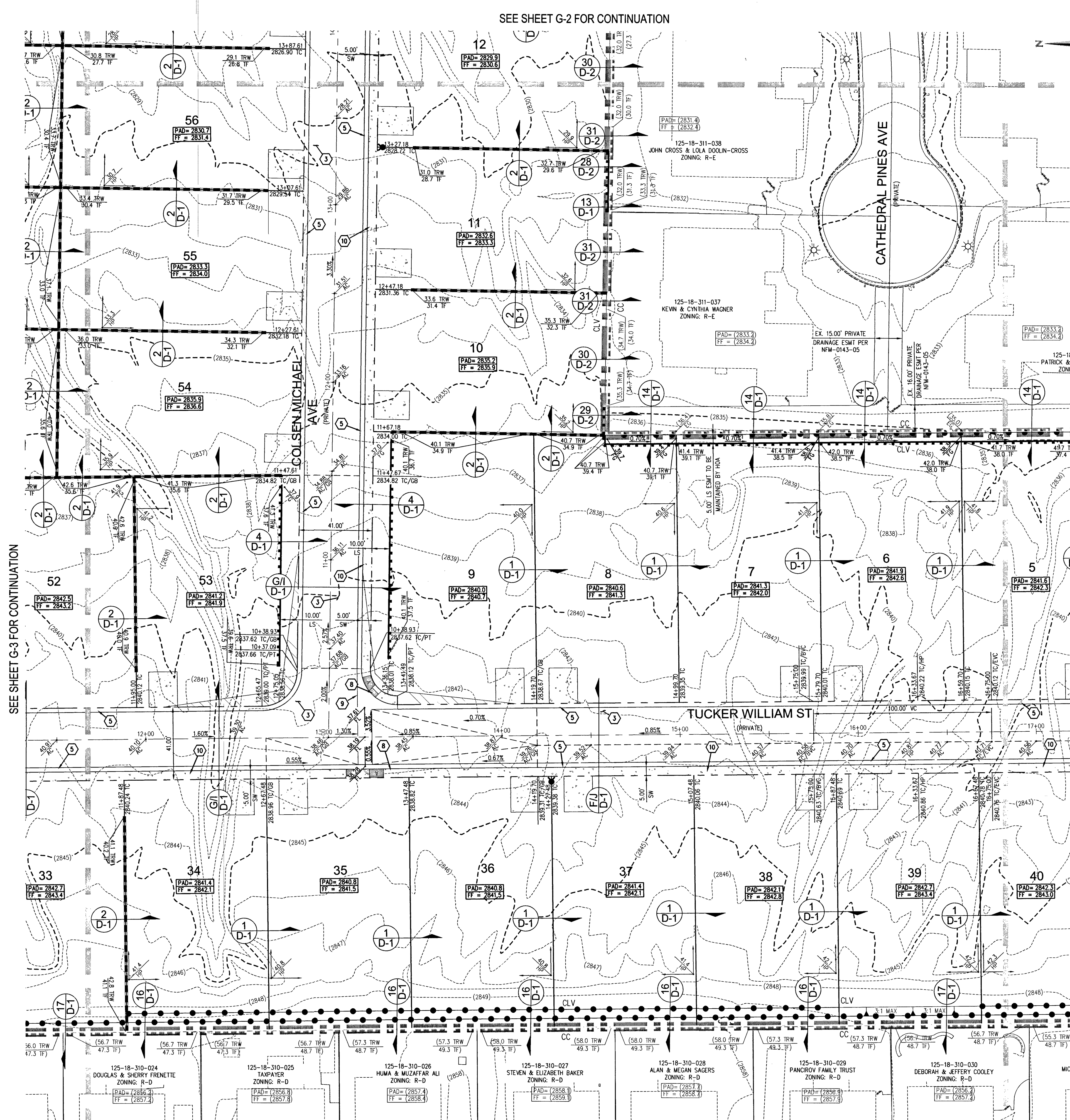
Call

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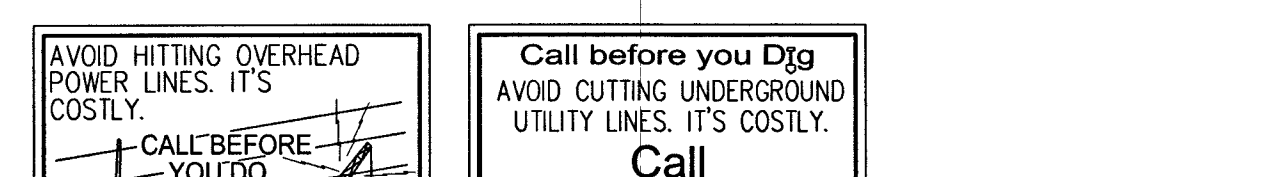
OR

1-800-227-2600





1-702-432-5300
FREEWAY & ARTERIAL SYSTEM
OF TRANSPORTATION (F.A.S.T.)



GRADING NOTES

- 1 INSTALL 4" ASPHALT PAVEMENT OVER 4.5" TYPE II AGGREGATE BASE
- 2 INSTALL 3" ASPHALT PAVEMENT OVER 5" TYPE II AGGREGATE BASE
- 3 INSTALL 2" ASPHALT PAVEMENT OVER 4" TYPE II AGGREGATE BASE
- 4 CONSTRUCT "L" TYPE CURB AND GUTTER PER CCAUSD NO. 216
- 5 CONSTRUCT 30" ROLL CURB AND GUTTER PER CCAUSD NO. 217.1
- 6 CONSTRUCT "A" TYPE CURB PER CCAUSD NO. 219
- 7 CONSTRUCT 10' TRANSITION FROM ROLLED CURB TO "L" TYPE CURB PER DETAIL 46 SHEET D-2
- 8 CONSTRUCT SIDEWALK RAMPS USING ARMOR TILE TRUNCATED DOMES OR EQUIVALENT PER CCAUSD NO. 235, CASE 1
- 9 CONSTRUCT 6" CROSS GUTTER PER CCAUSD NO. 228
- 10 CONSTRUCT 5' WIDE SIDEWALK PER CCAUSD NO. 234 (4" THICK W/ 5" TYPE II AGGREGATE BASE)
- 11 SAWCUT AND MATCH EXISTING IMPROVEMENTS PER CCAUSD NO. 503 & 500.2
- 12 INSTALL 6" HIG TUBULAR STEEL FENCE PER DETAIL 40 ON SHEET D-2
- 13 INSTALL 5' PEDESTRIAN ACCESS GATE PER DETAIL 42 ON SHEET D-2
- 14 INSTALL 12" MINIMUM WIDTH DOUBLE GATES PER DETAIL 41 ON SHEET D-2
- 15 INSTALL 6" HIGH WROUGHT IRON FENCE WITH VEHICLE GATE ELECTRICALLY-POWERED WITH BATTERY BACK-UP AND AVI LOOP
- 16 INSTALL DISPERSED CURB PER DETAIL 43 ON SHEET D-2
- 17 INSTALL BLOCK WALL OPENING PER DETAIL 44 ON SHEET D-2
- 18 EXISTING POWER POLE TO REMAIN
- 19 INSTALL EQUESTRIAN TRAIL
- 20 INSTALL RECREATIONAL FENCE
- 21 EXISTING WROUGHT IRON FENCE TO BE REMOVED
- 22 INSTALL METAL PLATE OVER CONCRETE U-CHANNEL AT EQUESTRIAN TRAIL
- 23 INSTALL 2.0' CONCRETE U-CHANNEL PER DETAIL 47 ON SHEET D-2
- 24 INSTALL 36" RCP SD PER CLV #J0774803
- 25 EXISTING 18" CLASS III RCP SD LATERAL PER CLV #J0774803
- 26 EXISTING DRAIN INLET PER CLV #J0774803
- 27 CONNECT TO EXISTING STORM DRAIN LATERAL AND INSTALL CONCRETE COLLAR PER DETAIL 48 ON SHEET D-2
- 28 INSTALL 18" RCP STORM DRAIN LATERAL
- 29 INSTALL 5.0' TYPE "CM2" DRAIN INLET PER CCAUSD NO. 412.1 AND 421
- 30 EXISTING 48" STORM DRAIN MANHOLE PER CLV #J0774803
- 31 INSTALL SIDEWALK UNDERDRAN PER CCAUSD NO. 236
- 32 CONSTRUCT "L" TYPE CURB AND GUTTER PER CCAUSD NO. 219
- 33 REMOVE EXISTING CHIMNEY WALL AT U-CHANNEL OUTLET

QUANTITIES		PRIVATE	PUBLIC
DRAINAGE			
1.	5.0" TYPE "CM2" DROP INLET	EA	2
2.	18" RCP CLASS III STORM DRAIN	LF	43
3.	2.0" CONCRETE U-CHANNEL	LF	430

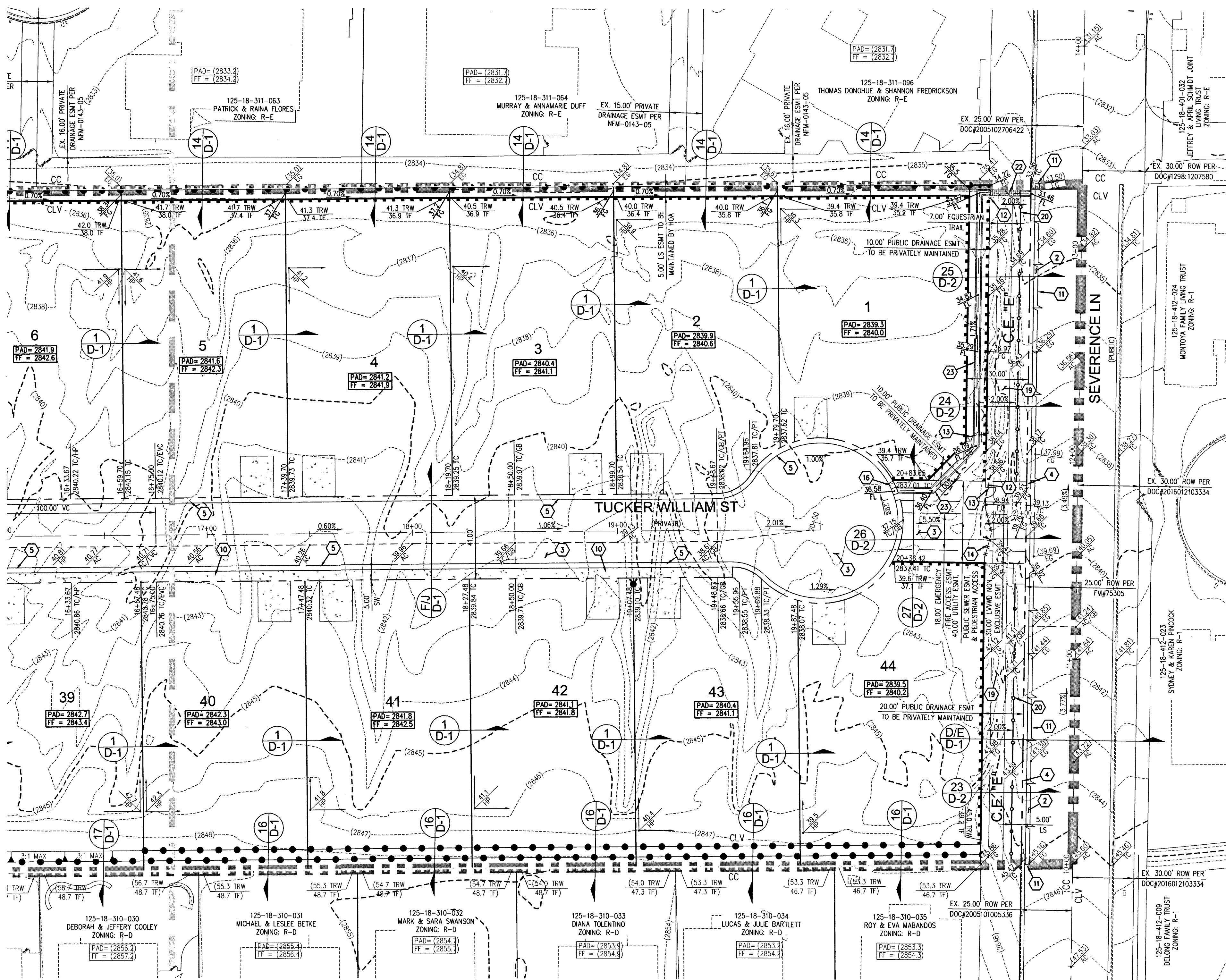
FLOOD CERTIFICATION	
I CERTIFY THAT THIS GRADING PLAN IS IN CONFORMANCE WITH THE APPROVED TECHNICAL DRAINAGE STUDY DSS035, ON FILE AT CITY OF LAS VEGAS AND CCPW PW18-18325 FOR THE SUBJECT PROJECT.	
	3/21/19
KEVIN W. GROSS, P.E. 024572	DATE

Call before you Dig
AVOID CUTTING UNDERGROUND
UTILITY LINES. IT'S COSTLY.
Call

OR
1-800-227-2600

107VS10

SEE SHEET G-4 FOR CONTINUATION



PRIVATE STREET NOTE
ALL PRIVATE STREETS ARE PUBLIC DRAINAGE AND UTILITY EASEMENTS TO BE PRIVATELY MAINTAINED BY HOA.

SURVEY NOTE
OWNER RESPONSIBLE TO PROVIDE SURVEY MONUMENTATION AS SHOWN AND TO REPLACE ALL SURVEY MONUMENTATION DAMAGED, DISTURBED, DESTROYED, OR OBSCURED DURING CONSTRUCTION.

ELEVATION NOTE
ADD 2800 TO ALL SPOT GRADES WHERE THE HUNDREDS AND THOUSANDS PLACES ARE OMITTED FOR ACTUAL ELEVATION (I.E. 01.00 REPRESENTS 2801.00)

SOILS REPORT
SOILS REPORT BY ANGLE ENGINEERING
PROJECT NO. 26214-1 DATED 06/06/2018

EARTHWORKS
EARTHWORK QUANTITIES (RAW):
CUT= 44,425 CU YDS
FILL= 36,969 CU YDS
EXPORTED MATERIAL TO BE DISPOSED OF AT AN APPROVED LICENSED DISPOSAL FACILITY OR AT A SITE WITH AN APPROVED AND ACTIVE GRADING PERMIT.

DISCLAIMER NOTE

- EXISTING UTILITY LOCATIONS SHOWN HEREON ARE APPROXIMATE ONLY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT 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 IN THEIR PROPER LOCATION.
- FOR ROADWAY WIDENING AND HALF STREET IMPROVEMENTS THE CONTRACTOR SHALL VERIFY CROSS SLOPES FROM EXISTING PAVEMENT SAWCUT LINE TO PROPOSED EDGE OF PAVEMENT OR PROJECTED LIP OF CURB PRIOR TO SUBGRADE PREPARATION AND CONSTRUCTION OF PROPOSED CURB LINE. IF MINIMUM OR MAXIMUM CROSS SLOPES DO NOT MEET AGENCY STANDARDS THE CONTRACTOR SHALL NOTIFY THE ENGINEER.

GRADING NOTES

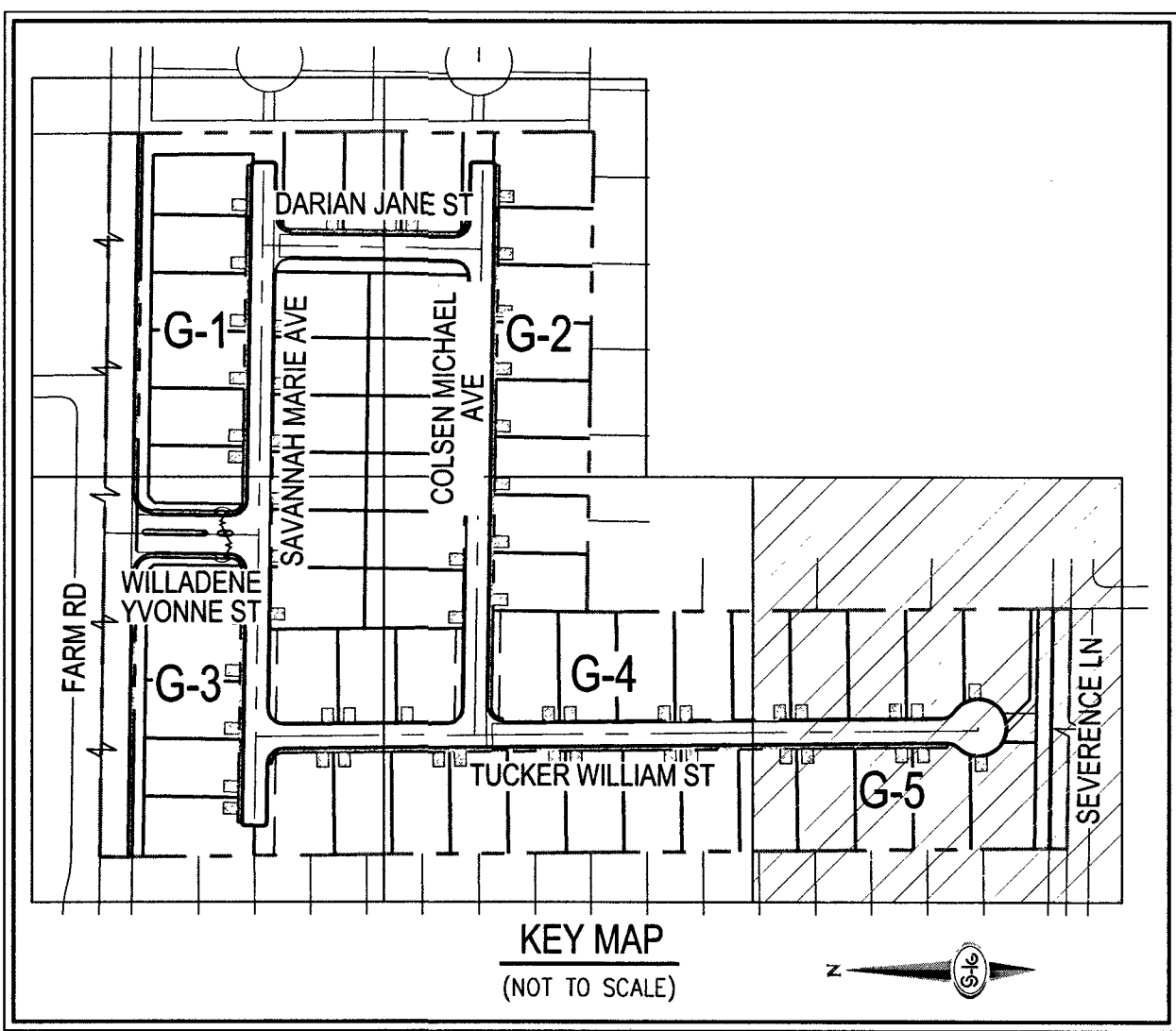
- FINAL GRADES ADJACENT TO STRUCTURES SHALL BE IN CONFORMANCE WITH IBC 2012, SECTION 2304.11.2.2.
- THE CONTRACTOR SHALL VERIFY ALL CONDITIONS AND DIMENSIONS AND REPORT ALL DISCREPANCIES TO THE ENGINEER.
- ALL IMPROVEMENTS TO BE PROTECTED FROM EROSION BY SWPPP.
- MAXIMUM/MINIMUM SLOPES AND MINIMUM STREET SECTIONS NOT TO EXCEED THAT SHOWN ON GEOTECH REPORT.
- SEE DETAIL SHEET FOR STREET SECTIONS AND DETAILS.
- ALL PUBLIC AND PRIVATE DRAINAGE IMPROVEMENTS TO BE BONDED FOR AND INSPECTED.
- CONSTRUCTION OF BLOCK WALLS REQUIRES A SEPARATE BUILDING PERMIT AND APPROVAL BY THE CITY OF LAS VEGAS BUILDING DEPARTMENT.
- CONTRACTOR TO VERIFY LOCATION AND ELEVATION OF EXISTING UTILITY STRUCTURES AND FACILITIES AND NOTIFY ENGINEER OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION. CONTRACTOR TO PROTECT IN PLACE DURING CONSTRUCTION. ENGINEER/OWNER SHALL BE NOTIFIED OF PRIOR DAMAGE TO EXISTING FACILITIES PRIOR TO CONSTRUCTION. CONTRACTOR WILL BE RESPONSIBLE FOR REPAIR/REPLENISHING FACILITIES IF ENGINEER/OWNER IS NOT NOTIFIED OF EXISTING DAMAGE PRIOR TO CONSTRUCTION COMMENCING.
- NO STRUCTURE, VEGETATION, OR OBJECTS OF ANY KIND IS PERMITTED OVER TWENTY-FOUR (24) INCHES IN HEIGHT (MEASURED FROM THE TOP OF THE ADJACENT CURB IF CURB EXIST) WITHIN THE SIGHT VISIBILITY ZONES.
- CURB FLOW LINES LESS THAN 0.60% GRADE SHALL BE WATER TESTED. ANY CURB THAT DOES NOT FLOW SHALL BE REMOVED AND REPLACED AT NO COST TO THE CITY.

LAS VEGAS VALLEY CONSTRUCTION SITE BMP GUIDELINES

(REQUIRED FOR ALL SITES GREATER THAN 1 ACRE (43,560 SQ.FT.))

- 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 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.
- 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 IN THE LAS VEGAS VALLEY CONSTRUCTION SITE BMP GUIDANCE 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 THE NEVADA STORMWATER GENERAL PERMIT FOR CONSTRUCTION ACTIVITY NR100000, 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 A 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 THE NEVADA STORMWATER GENERAL PERMIT FOR CONSTRUCTION ACTIVITY NR100000, 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.

FLOOD ZONE
THE PROJECT SITE IS LOCATED WITHIN A FEMA DESIGNATED ZONE 'X' (UNSHADED) AS DEPICTED ON FLOOD INSURANCE RATE MAP (FIRM) PANELS 32003C1745E & 32003C1750E, DATED SEPTEMBER 27, 2002. A ZONE X (UNSHADED) IS DESCRIBED AS AN AREA DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOOD PLAIN.



GRADING NOTES

- INSTALL 4" ASPHALT PAVEMENT OVER 4.5" TYPE II AGGREGATE BASE
- INSTALL 3" ASPHALT PAVEMENT OVER 9" TYPE II AGGREGATE BASE
- INSTALL 2" ASPHALT PAVEMENT OVER 4" TYPE II AGGREGATE BASE
- CONSTRUCT "L" TYPE CURB AND GUTTER PER CCAUSD NO. 216
- CONSTRUCT 30" ROLL CURB AND GUTTER PER CCAUSD NO. 217.1
- CONSTRUCT "A" TYPE CURB PER CCAUSD NO. 219
- CONSTRUCT 10" TRANSITION FROM ROLLED CURB TO "L" TYPE CURB PER DETAIL 46 SHEET D-2
- CONSTRUCT SIDEWALK RAMPS USING ARMOR TILE TRUNCATED DOMES OR EQUIVALENT PER CCAUSD NO. 235, CASE 1
- CONSTRUCT 8" CROSS GUTTER PER CCAUSD NO. 228
- CONSTRUCT 5" WIDE SIDEWALK PER CCAUSD NO. 234 (4" THICK W/ 5" TYPE II AGGREGATE BASE)
- SAWCUT AND MATCH EXISTING IMPROVEMENTS PER CCAUSD NO. 503 & 500.2
- INSTALL 6" HIGH TUBULAR STEEL FENCE PER DETAIL 40 ON SHEET D-2
- INSTALL 5" PEDESTRIAN ACCESS GATE PER DETAIL 42 ON SHEET D-2
- INSTALL 12" MINIMUM WIDTH DOUBLE GATES PER DETAIL 41 ON SHEET D-2
- INSTALL 6" HIGH WROUGHT IRON FENCE WITH VEHICLE GATE ELECTRICALLY-POWERED WITH BATTERY BACK-UP AND AWM LOOP
- INSTALL DEEPENED CURB PER DETAIL 43 ON SHEET D-2
- INSTALL BLOCK WALL OPENING PER DETAIL 44 ON SHEET D-2
- EXISTING POWER POLE TO REMAIN
- INSTALL EQUESTRIAN TRAIL
- INSTALL RECREATIONAL FENCE
- EXISTING WROUGHT IRON FENCE TO BE REMOVED
- INSTALL METAL PLATE OVER CONCRETE U-CHANNEL AT EQUESTRIAN TRAIL
- INSTALL 2.0" CONCRETE U-CHANNEL PER DETAIL 47 ON SHEET D-2
- EXISTING 36" RCP SD PER CLV #1074803
- INSTALL 18" CLASS III RCP SD LATERAL PER CLV #1074803
- EXISTING DROP INLET PER CLV #1074803
- CONNECT TO EXISTING STORM DRAIN LATERAL AND INSTALL CONCRETE COLLAR PER DETAIL 48 ON SHEET D-2
- INSTALL 18" RCP STORM DRAIN LATERAL
- INSTALL 5.0" TYPE "CM2" DROP INLET PER CCAUSD NO. 412.1 AND 421
- EXISTING 48" STORM DRAIN MANHOLE PER CLV #1074803
- INSTALL SIDEWALK UNDERDRAIN PER CCAUSD NO. 236
- CONSTRUCT "L" TYPE CURB AND GUTTER PER CCAUSD NO. 219
- REMOVE EXISTING CHANNEL WALL AT U-CHANNEL OUTLET

QUANTITIES		PRIVATE	PUBLIC
DRAINAGE			
1. 5.0" TYPE "CM2" DROP INLET	EA	-	2
2. 18" RCP CLASS III STORM DRAIN	LF	-	43
3. 2.0" CONCRETE U-CHANNEL	LF	-	430

FLOOD CERTIFICATION
I CERTIFY THAT THIS GRADING PLAN IS IN CONFORMANCE WITH THE APPROVED TECHNICAL DRAINAGE STUDY D55035 ON FILE AT CITY OF LAS VEGAS AND CCPW PW18-18325 FOR THE SUBJECT PROJECT.

22 3/21/19
KEVIN M. BROSS, P.E. 024572 DATE

FAST
Call before you dig
Underground
1-702-432-5300
FREEWAY & ARTERIAL SYSTEM OF TRANSPORTATION (F.A.S.T.)

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

Call before you dig
AVOID CUTTING UNDERGROUND UTILITY LINES. IT'S COSTLY.
Call 811
OR
1-800-227-2600

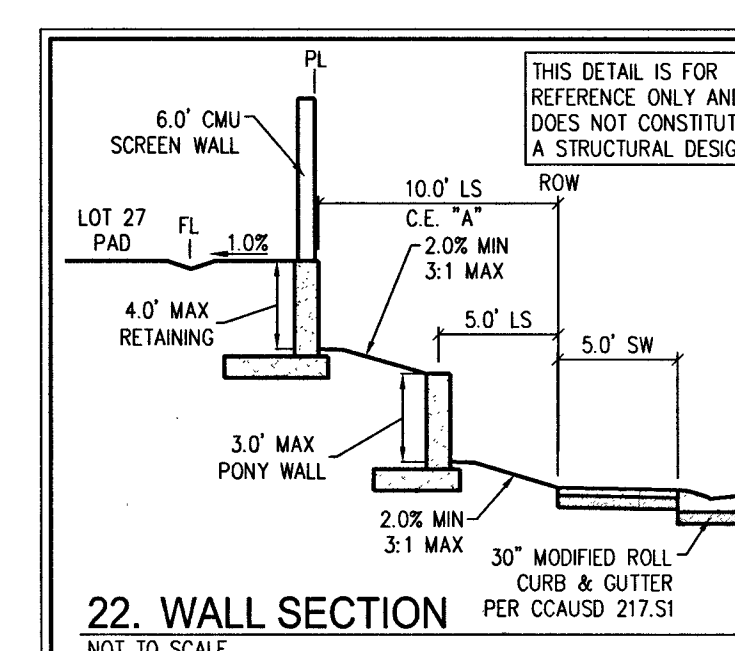
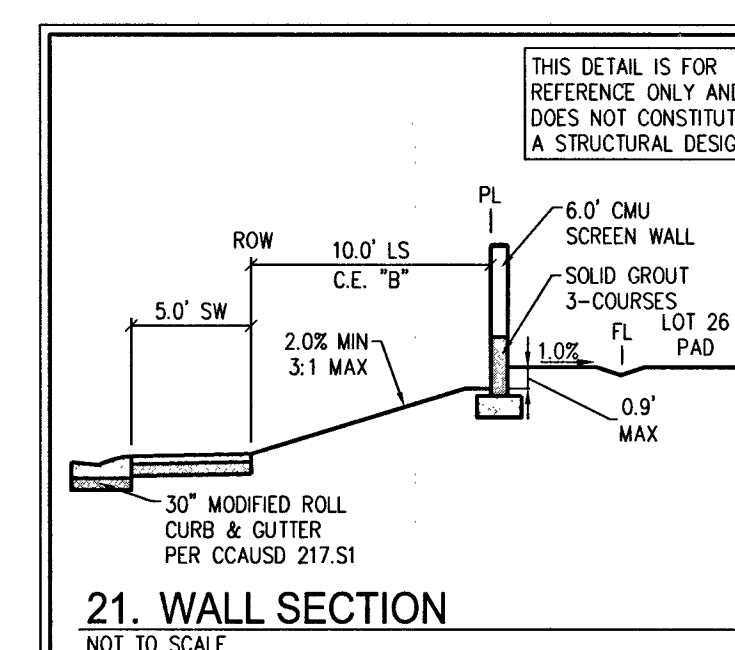
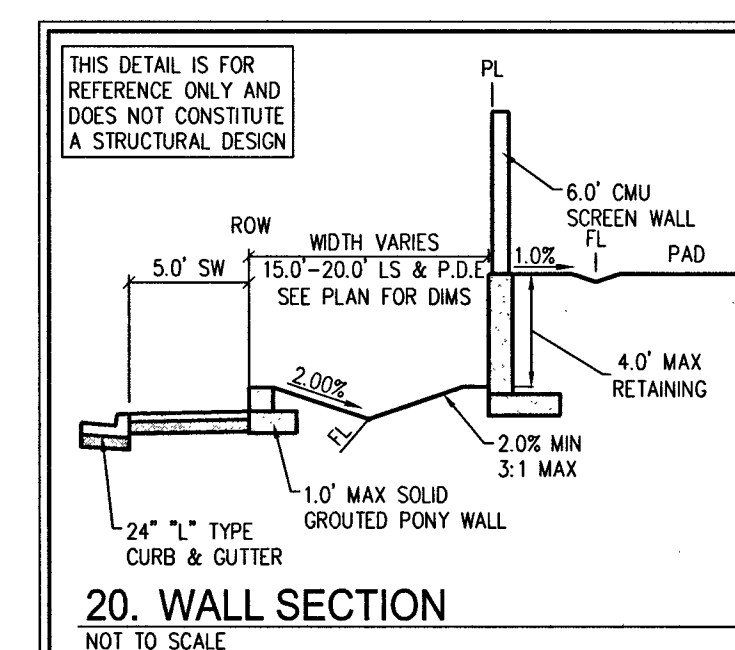
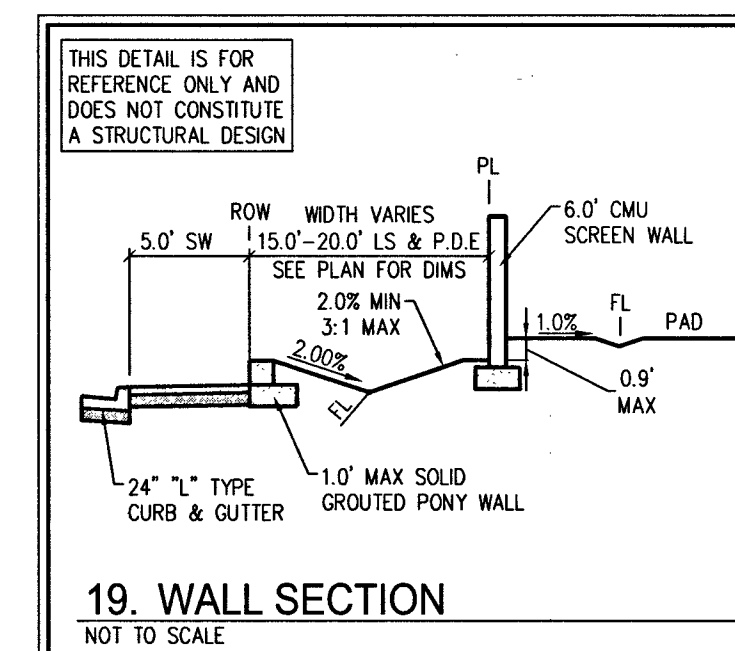
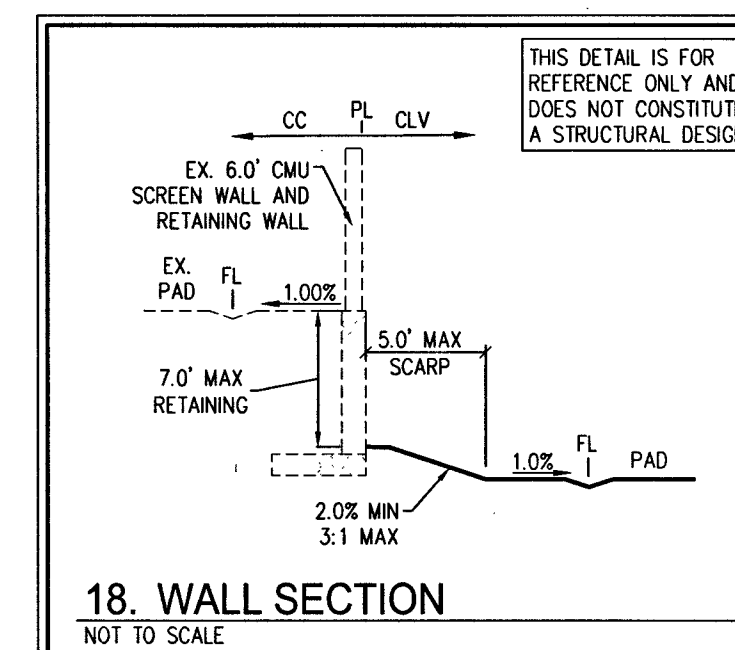
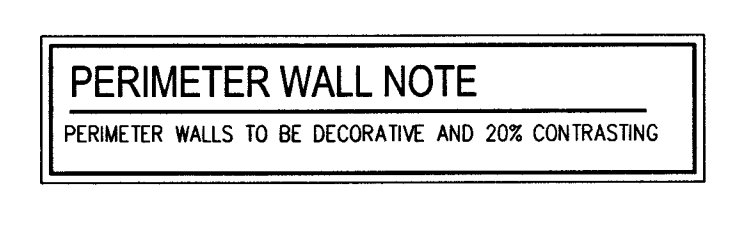
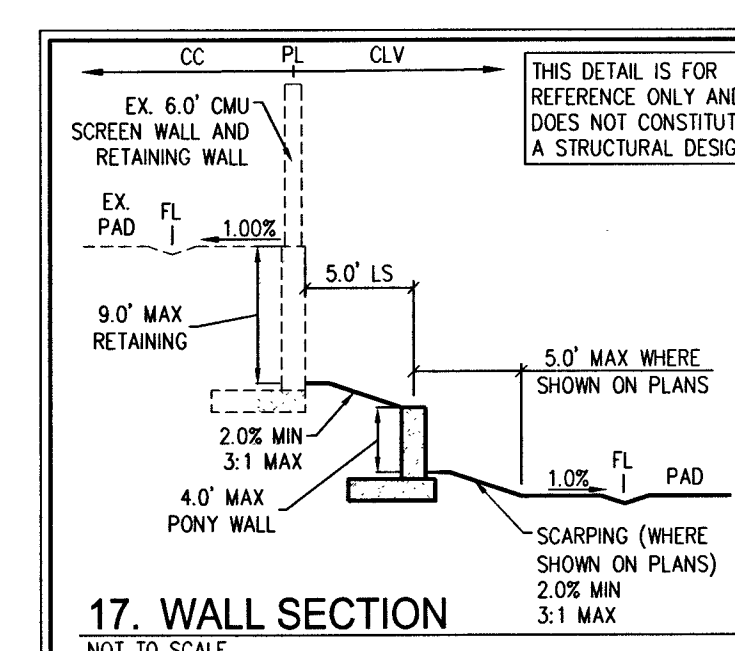
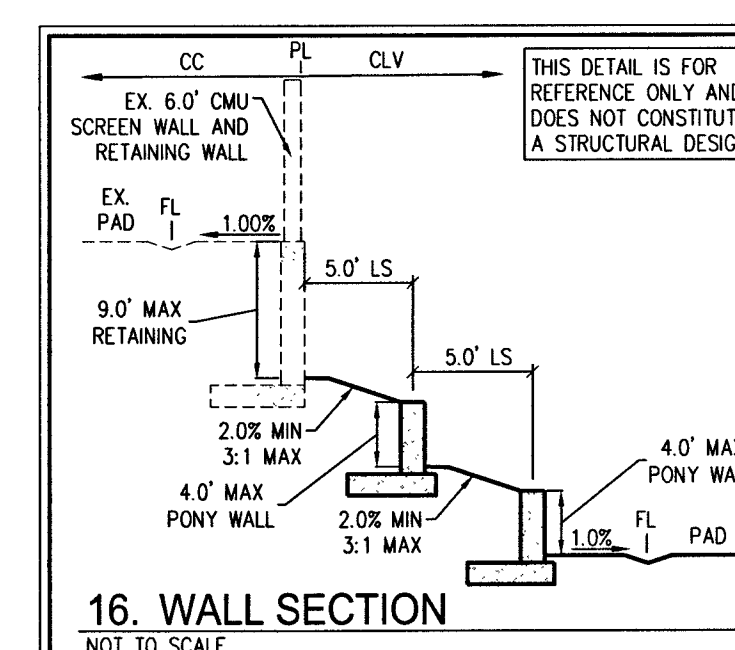
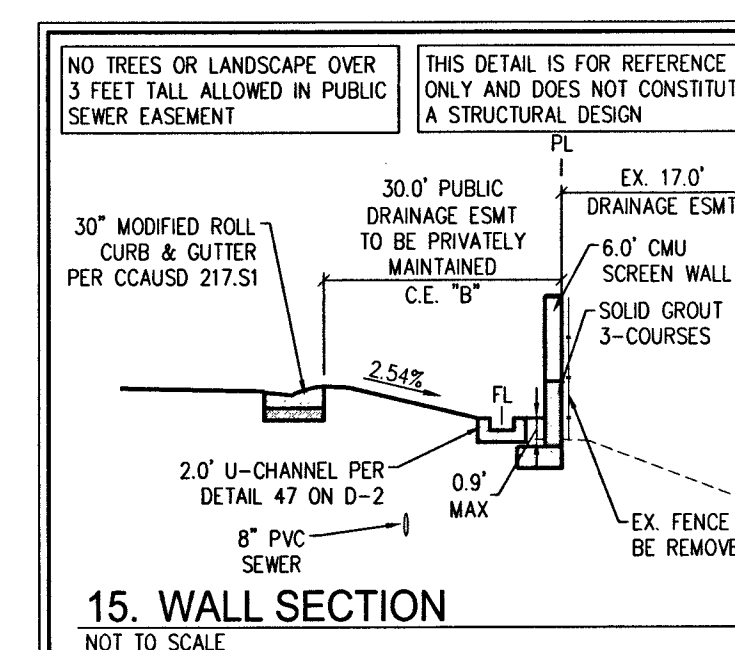
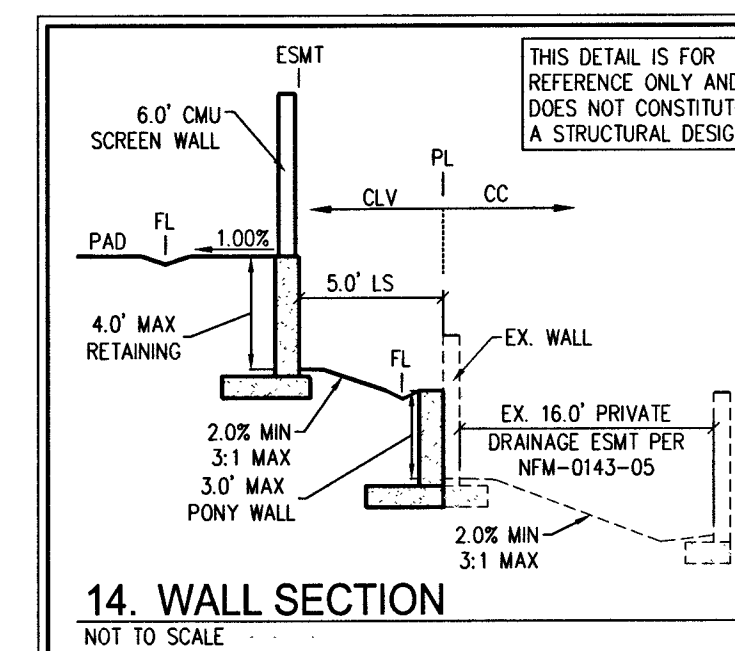
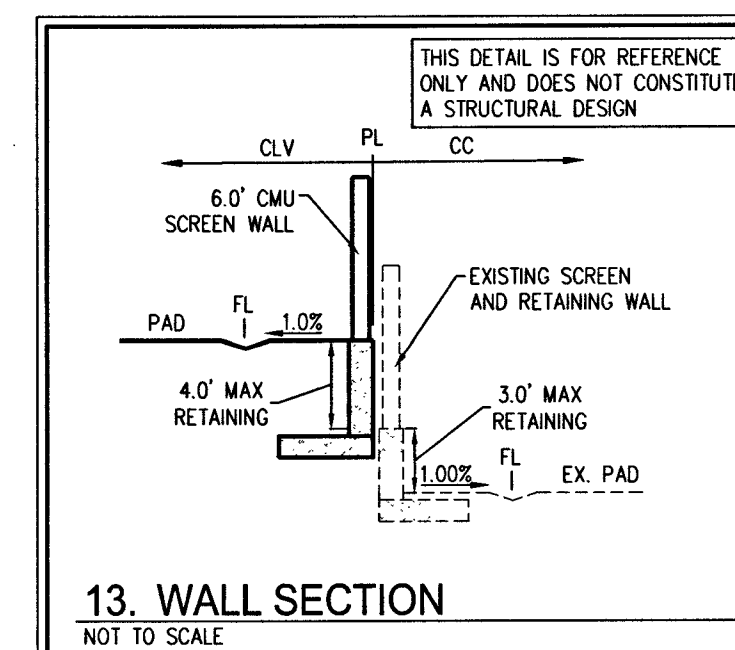
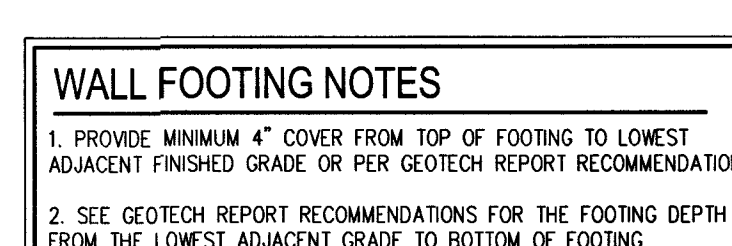
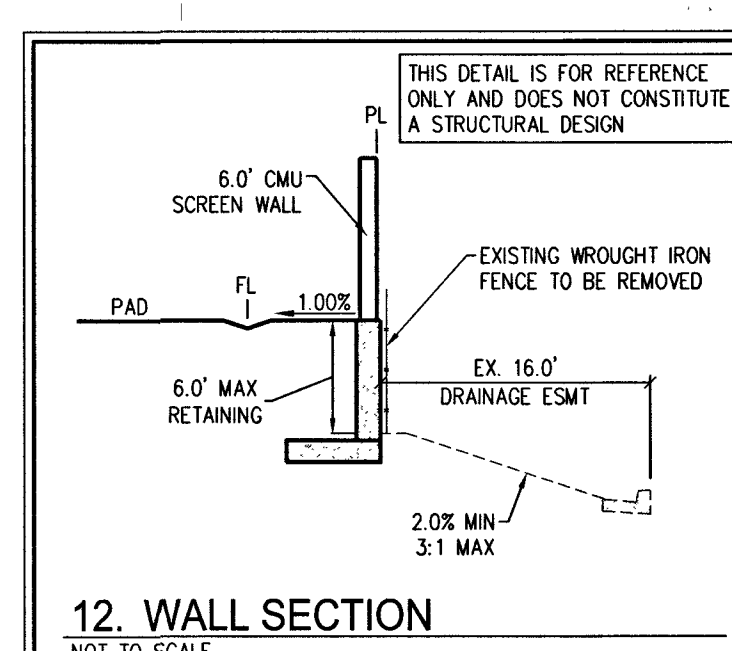
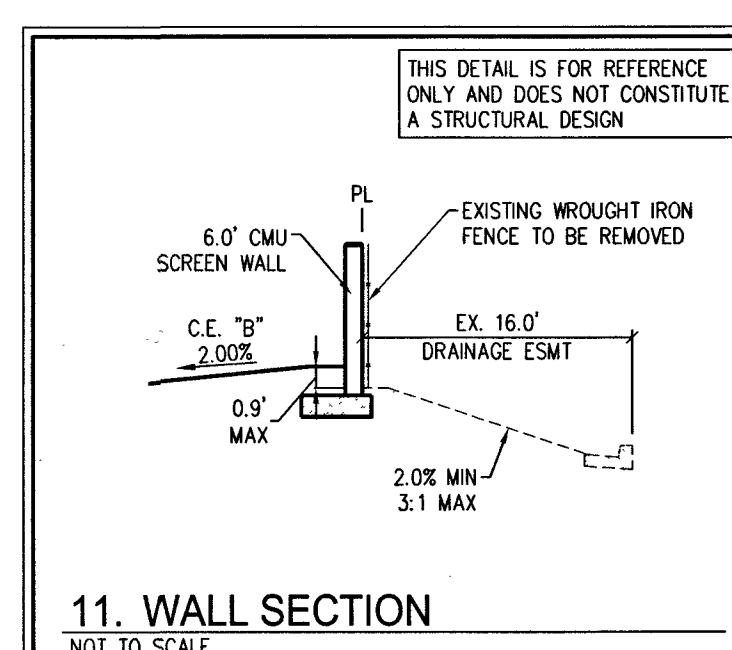
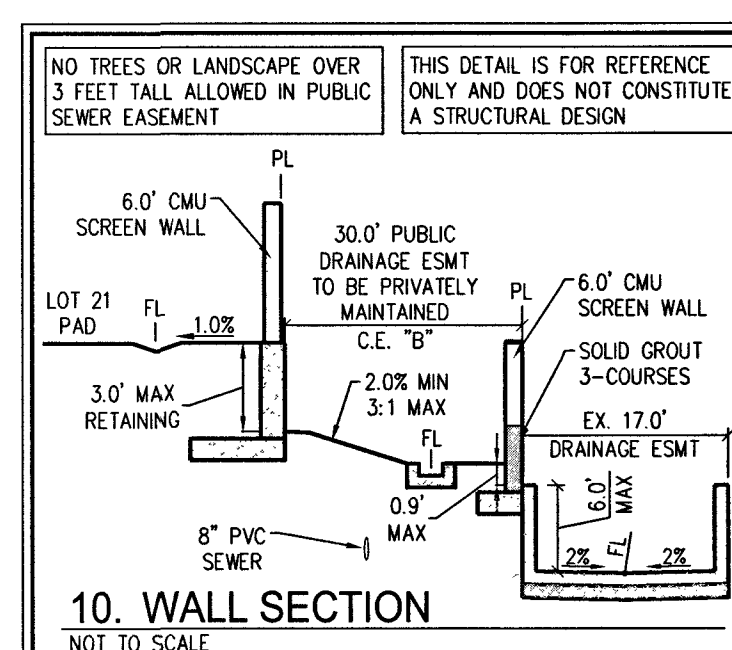
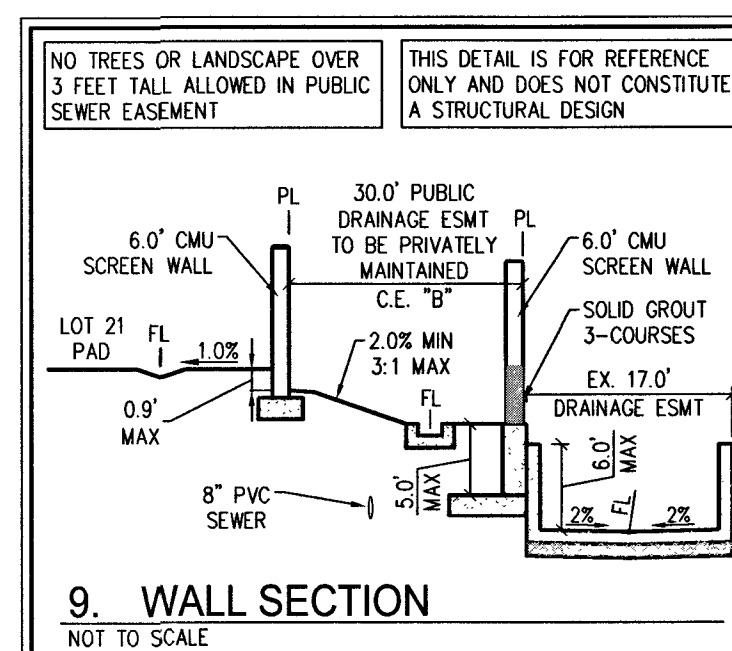
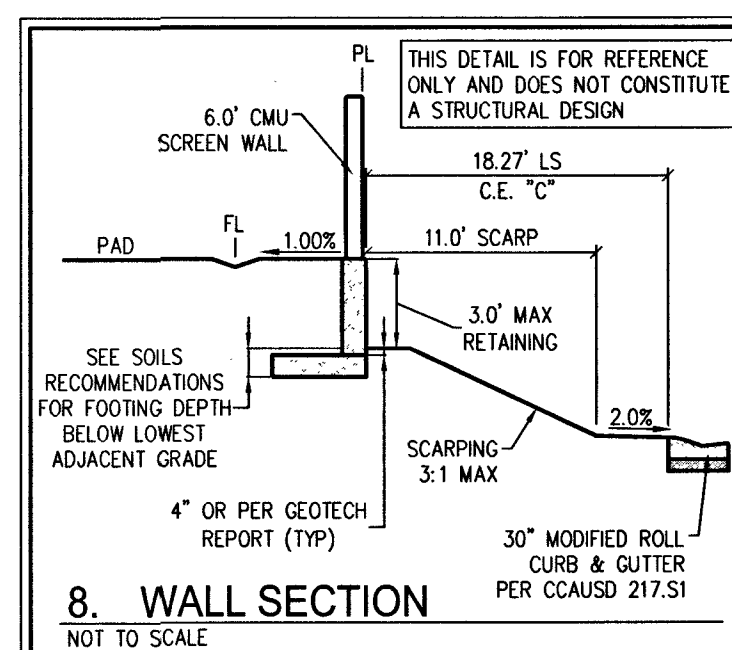
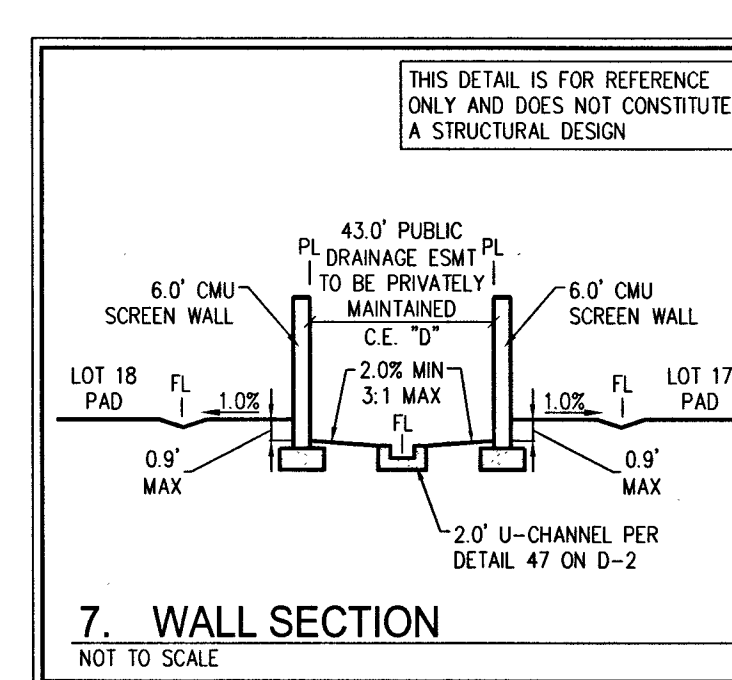
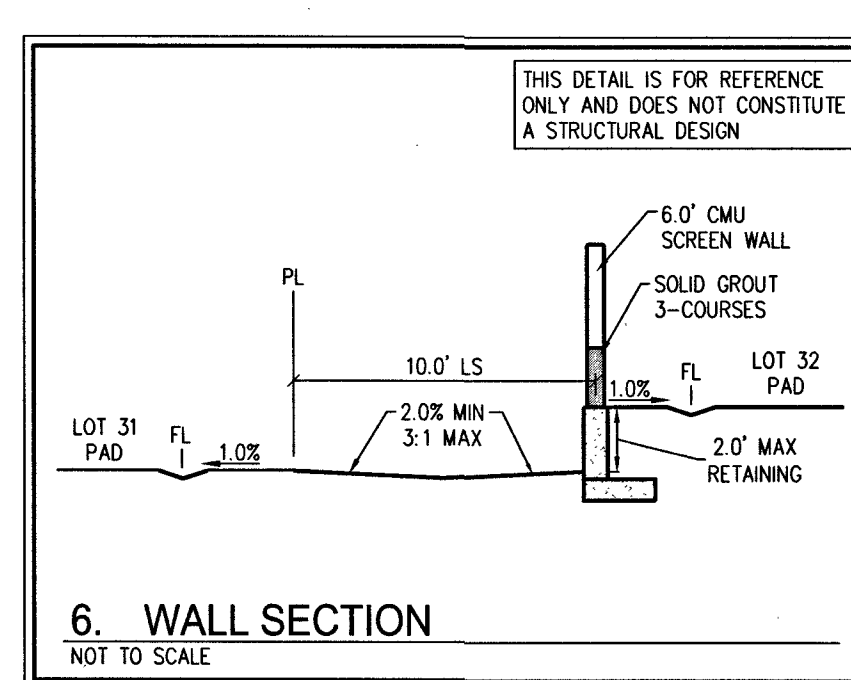
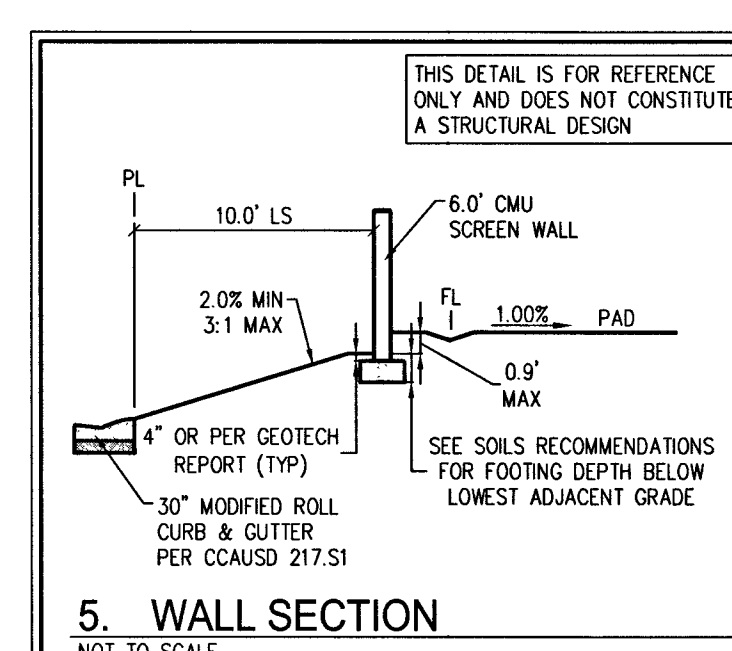
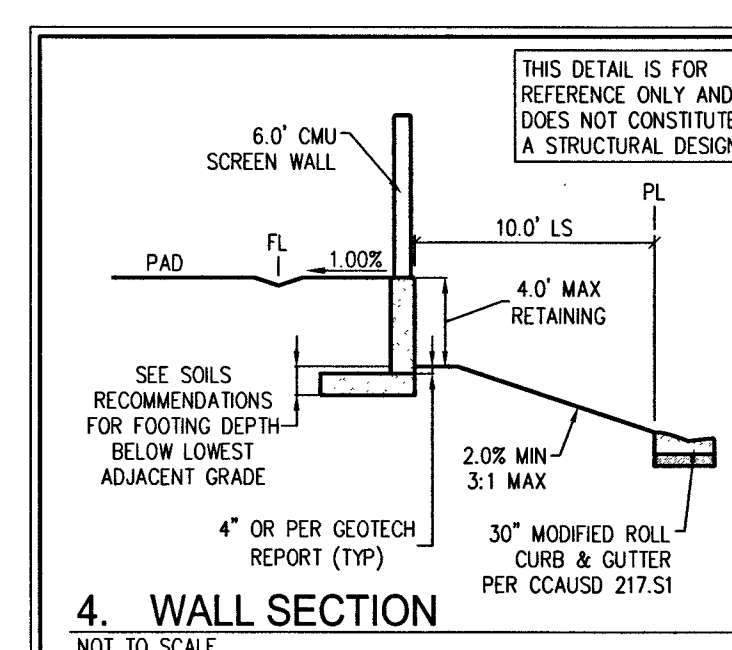
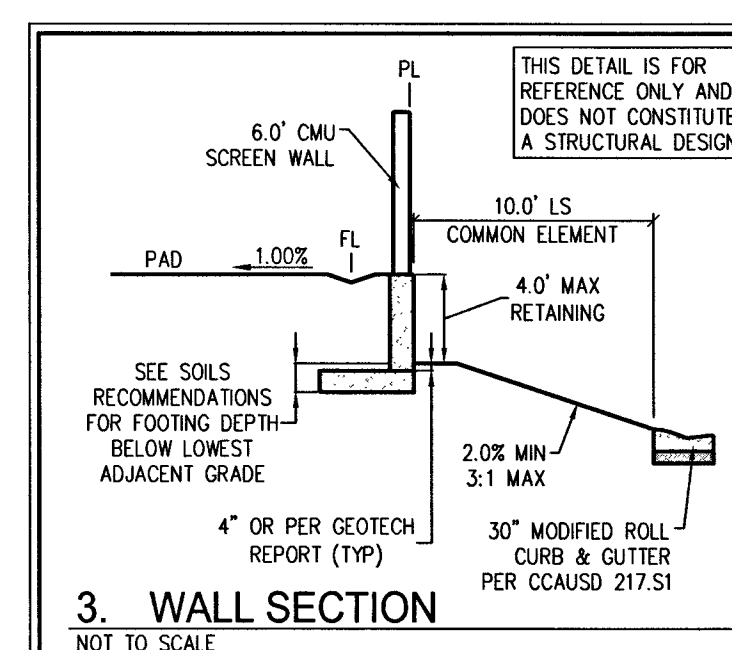
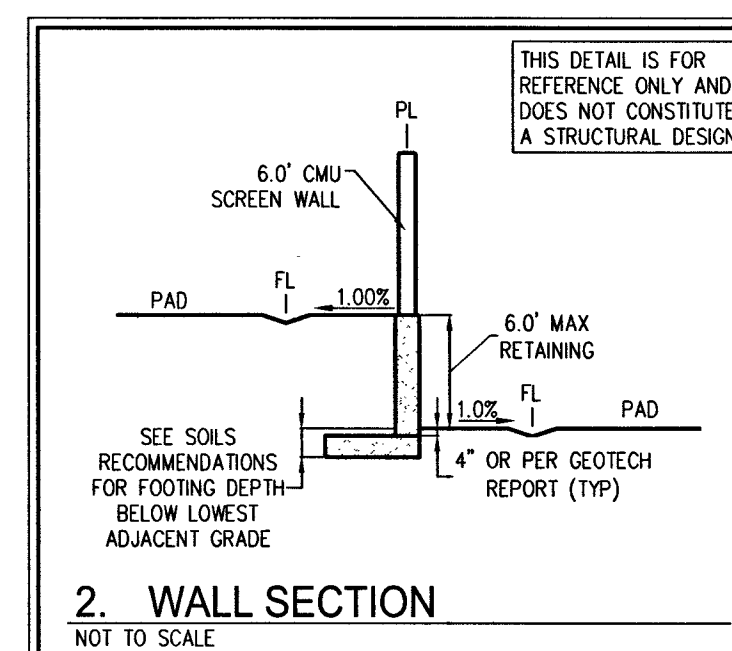
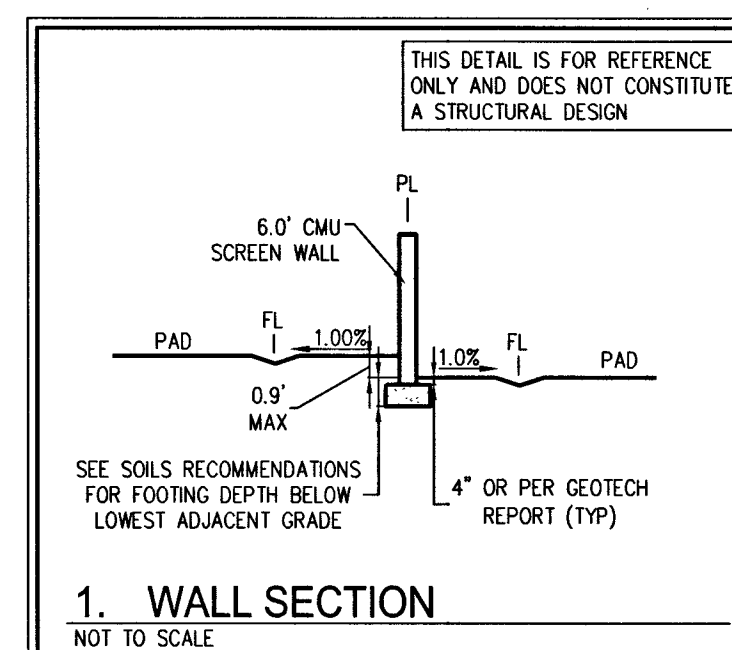
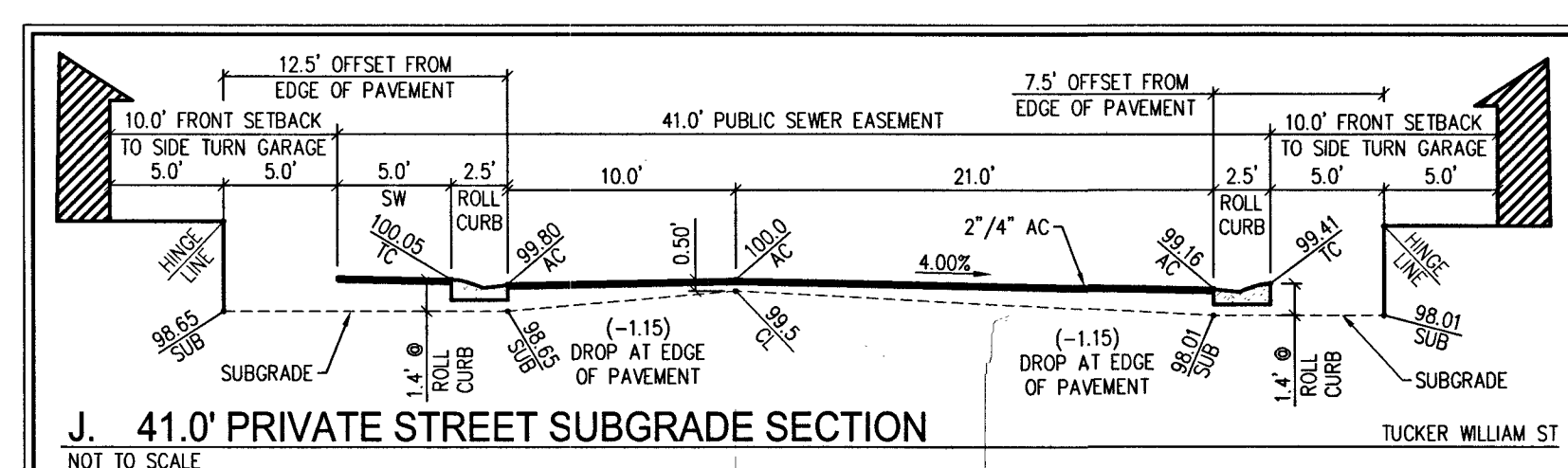
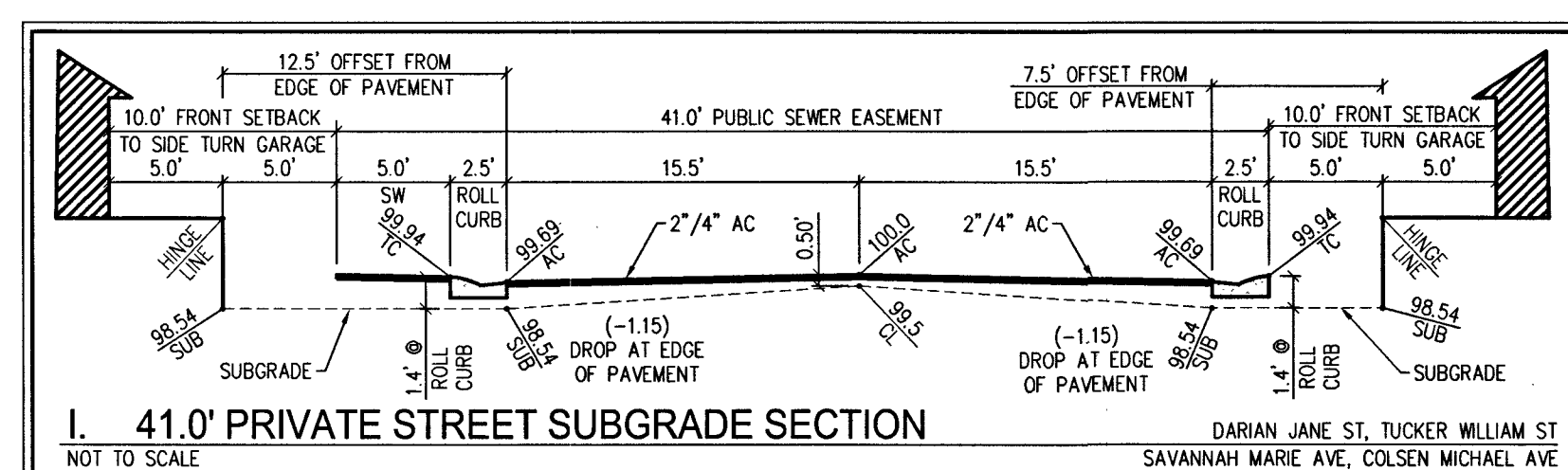
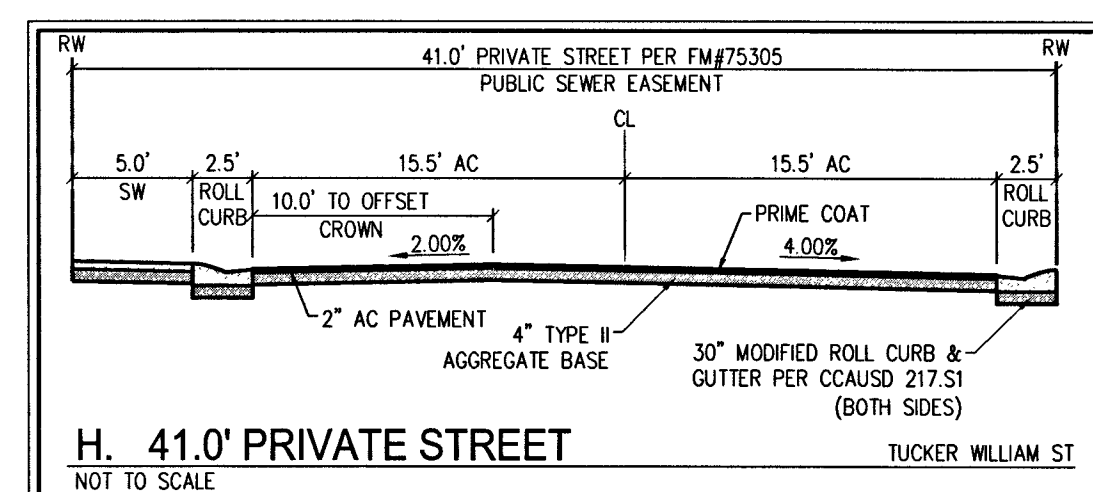
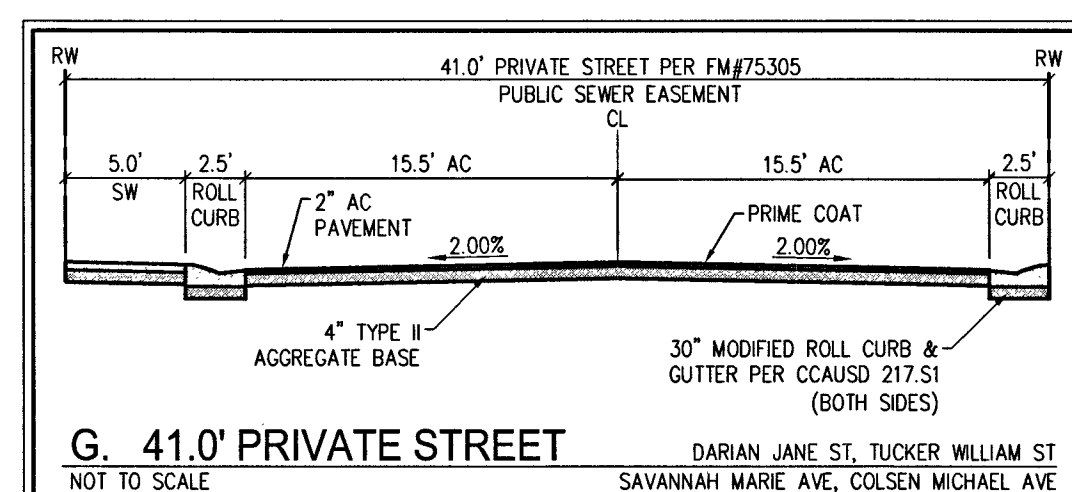
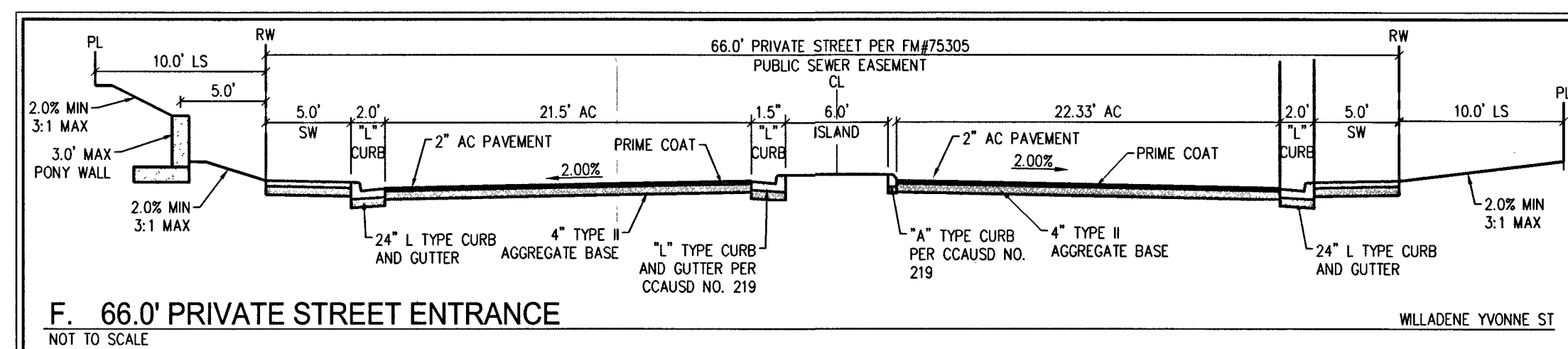
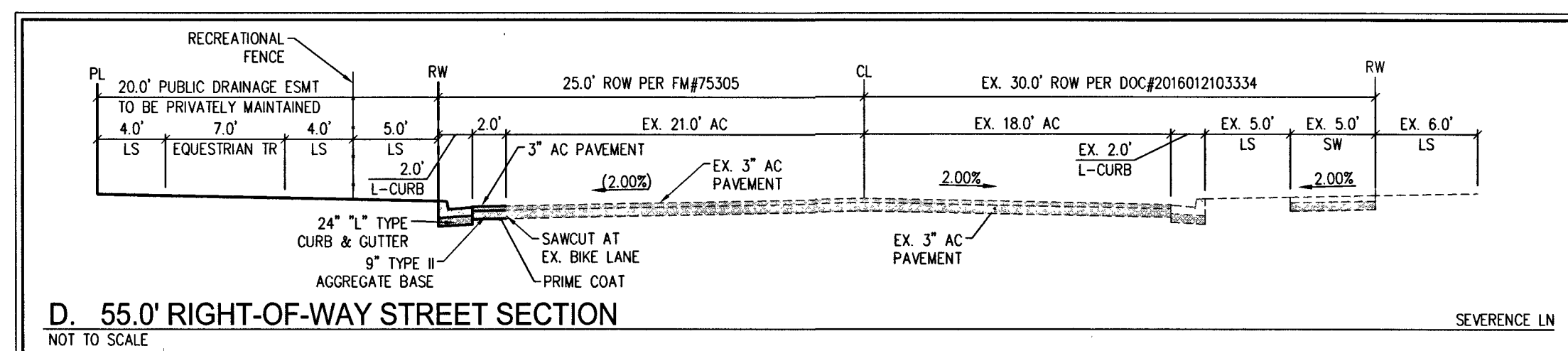
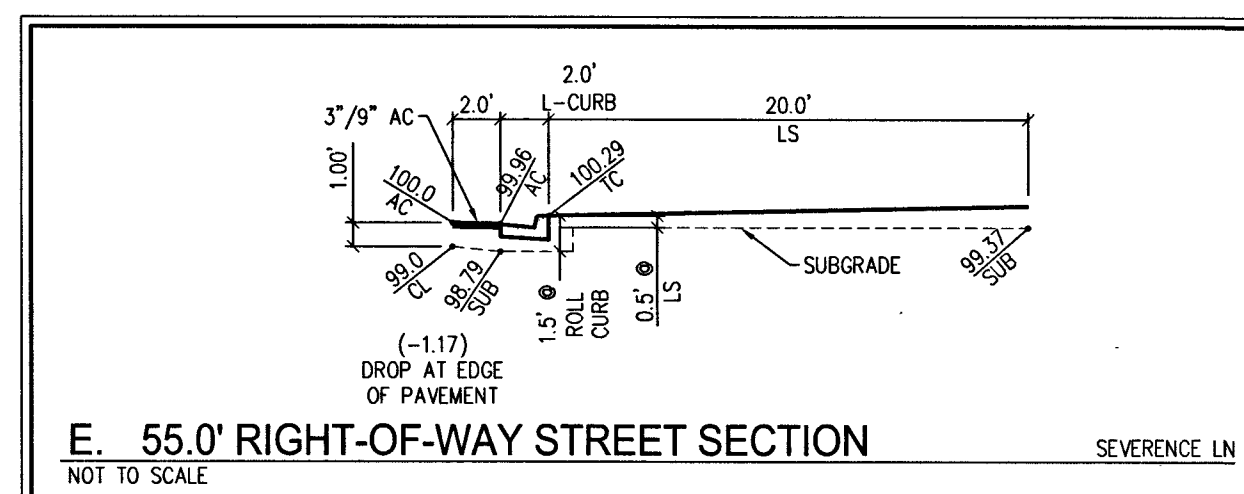
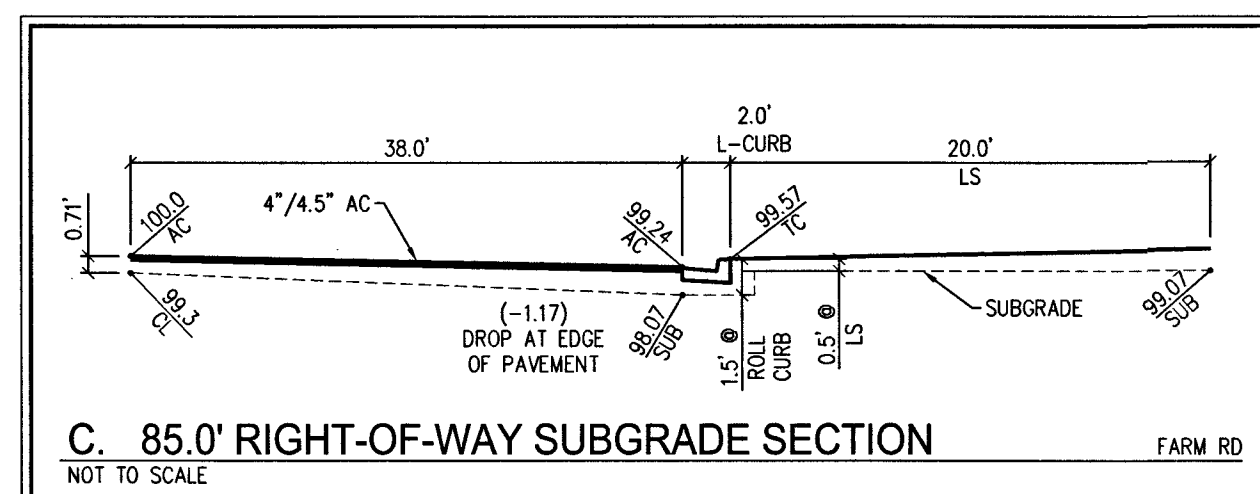
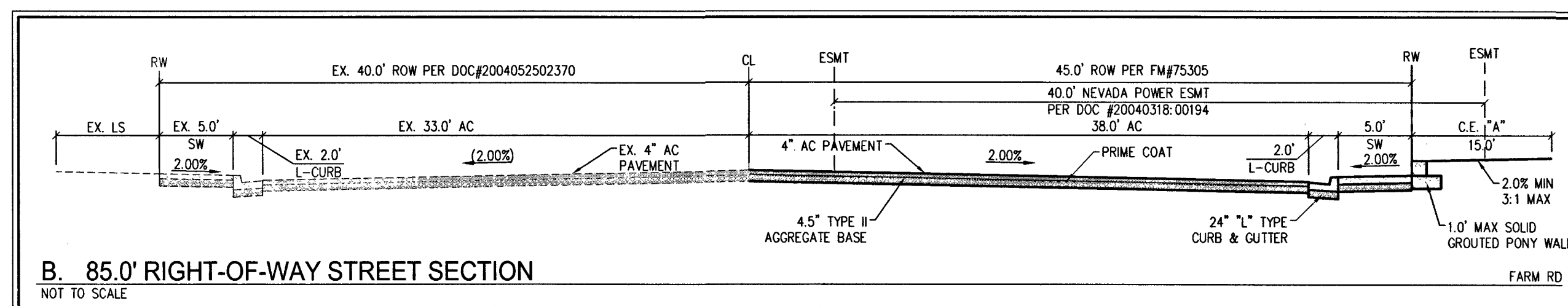
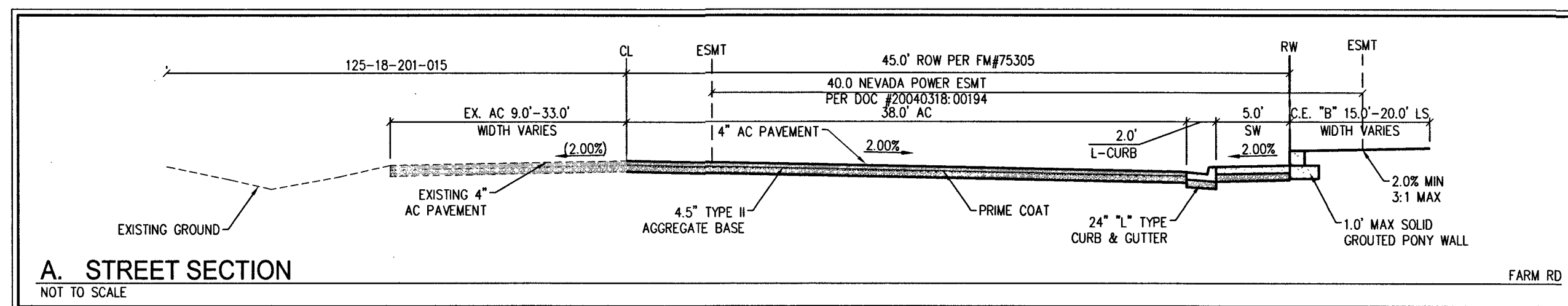
SLATER HANIFAN GROUP
a Westwood team
5740 S. ARVILLE STREET #216, LAS VEGAS, NV 89118
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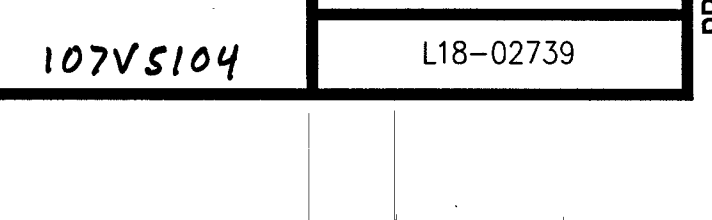
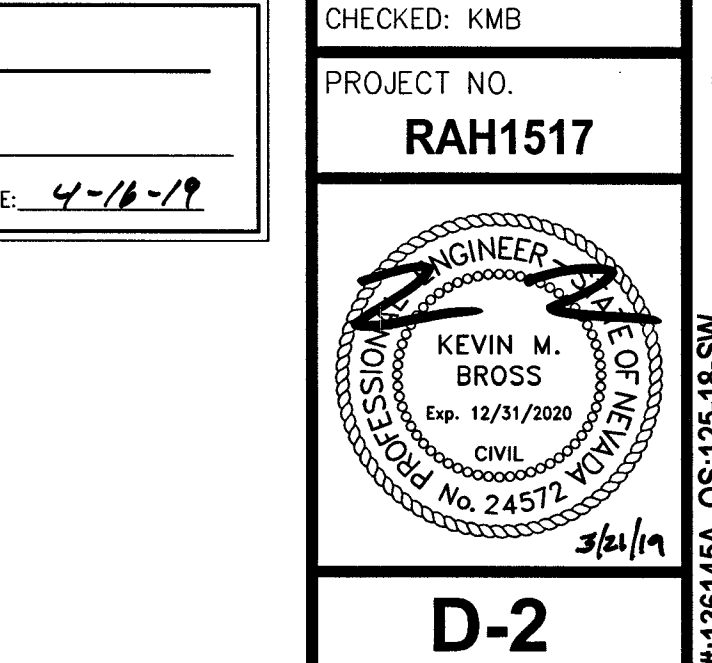
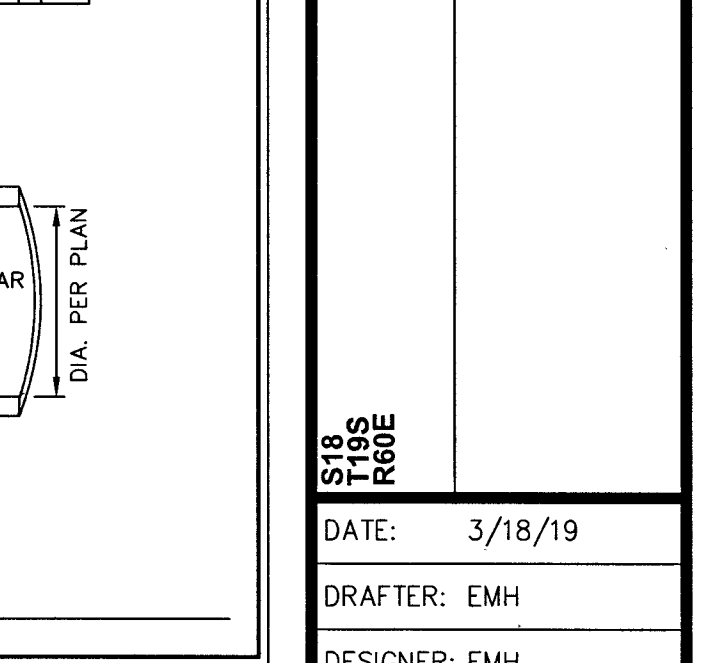
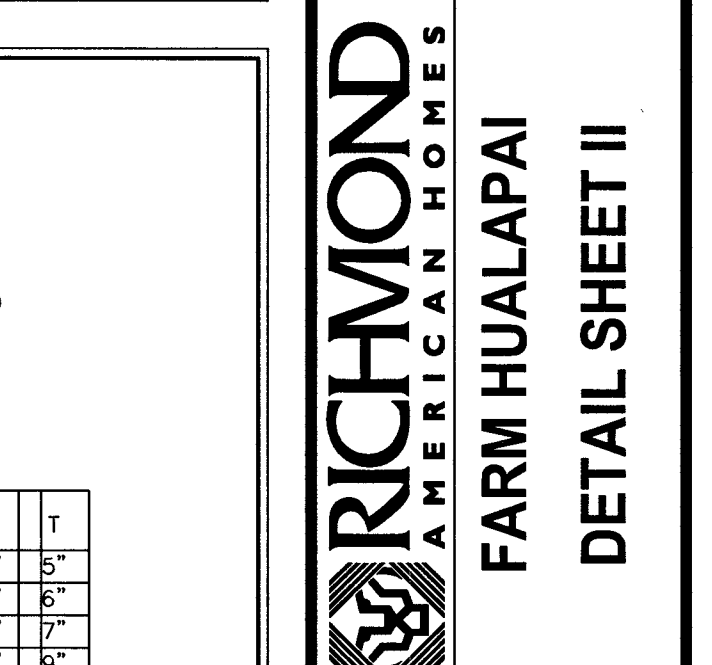
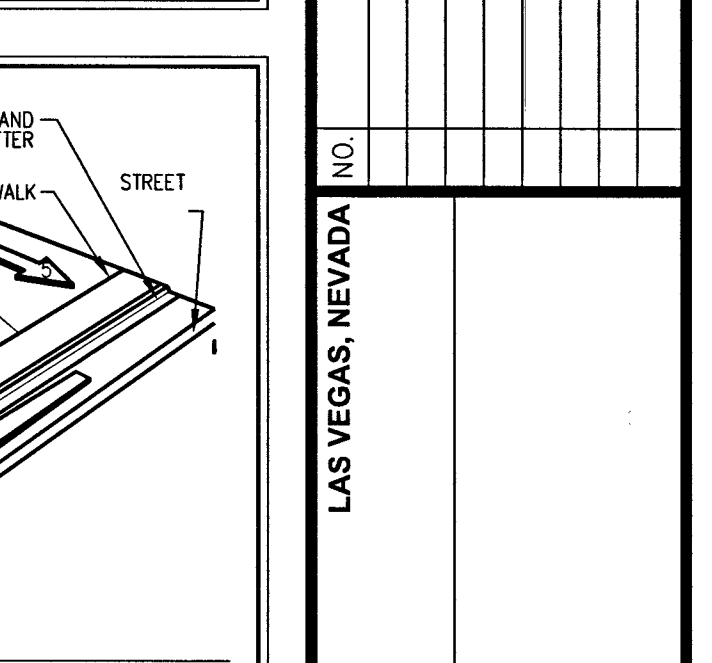
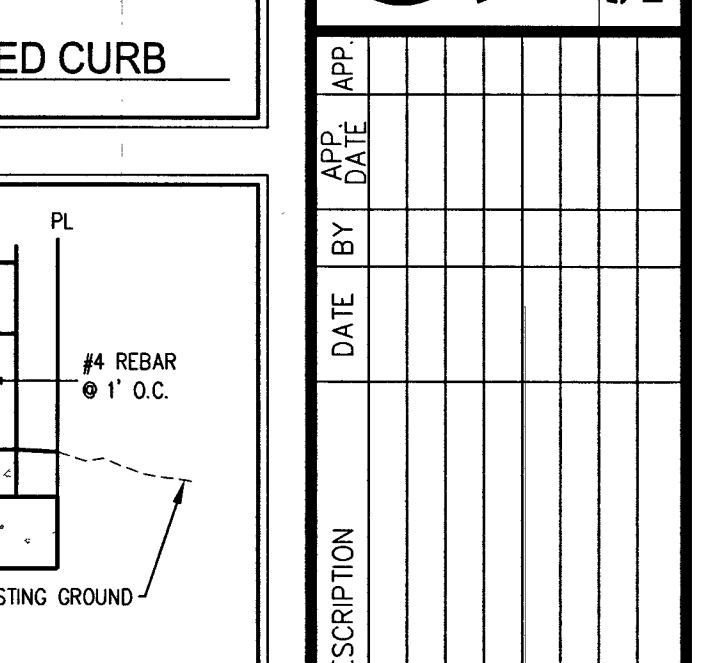
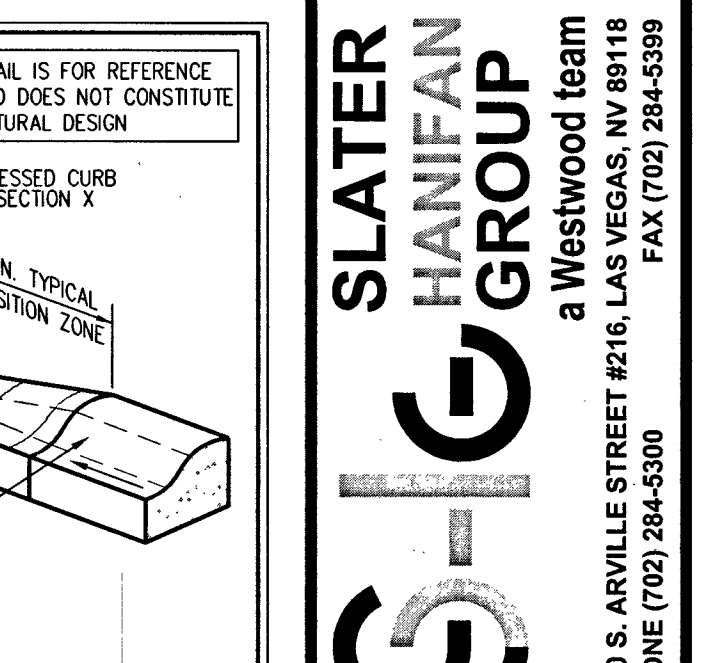
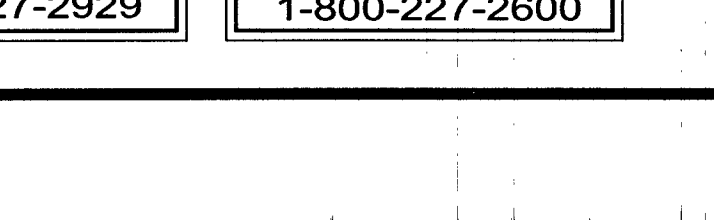
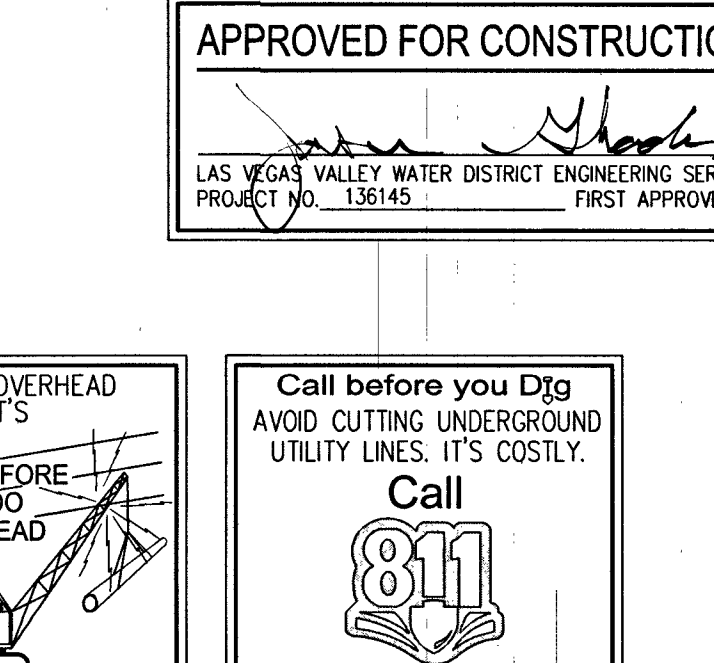
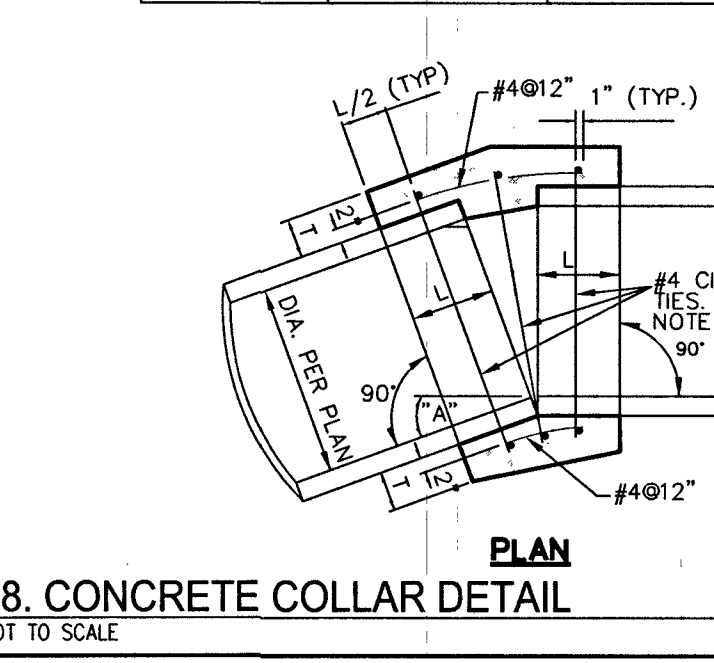
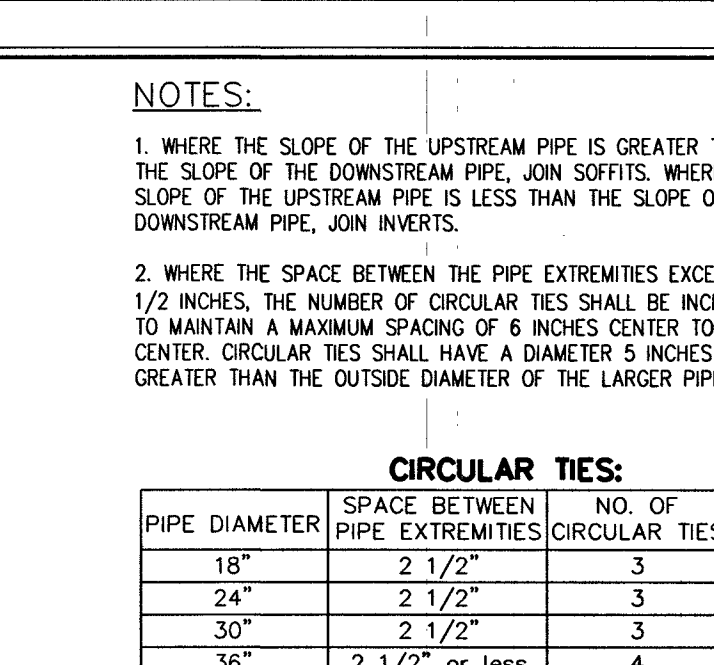
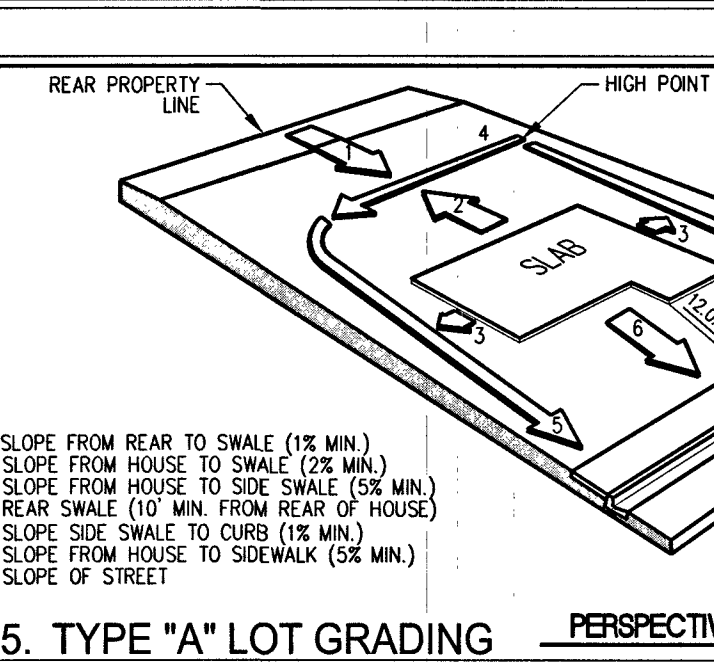
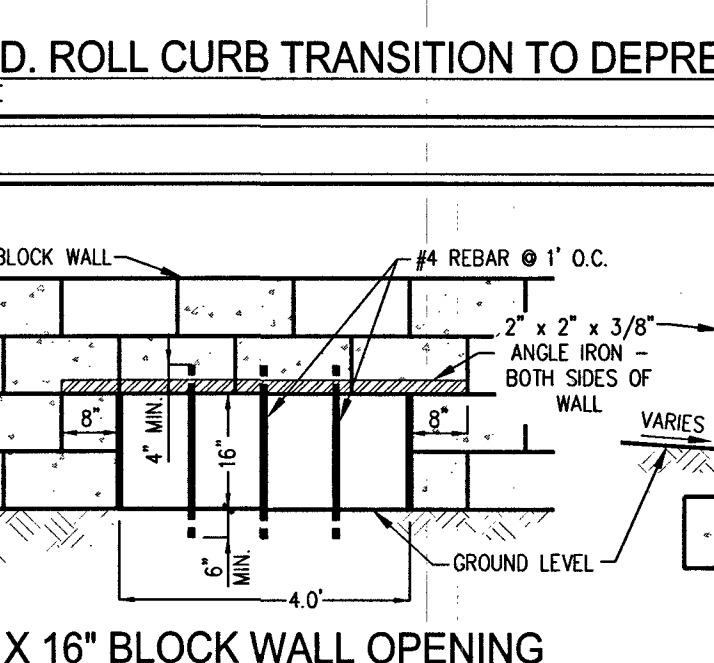
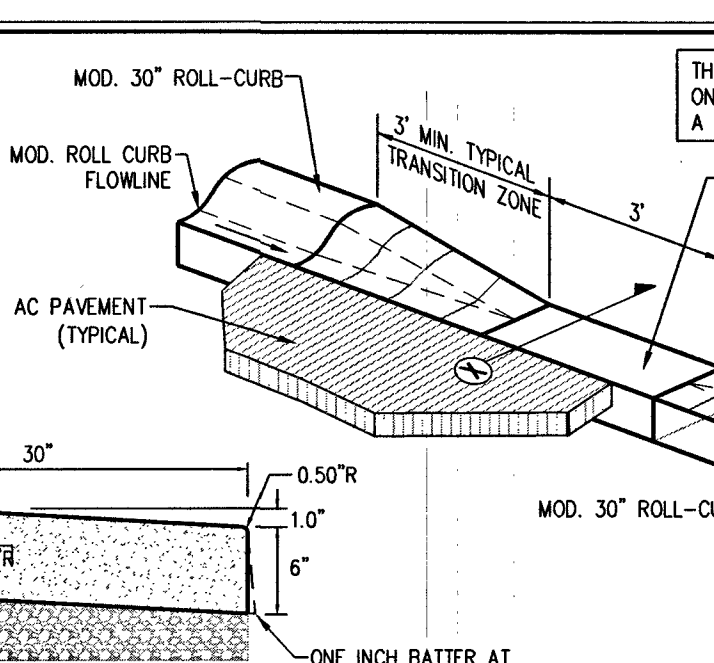
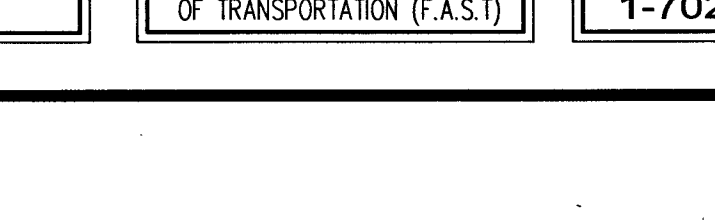
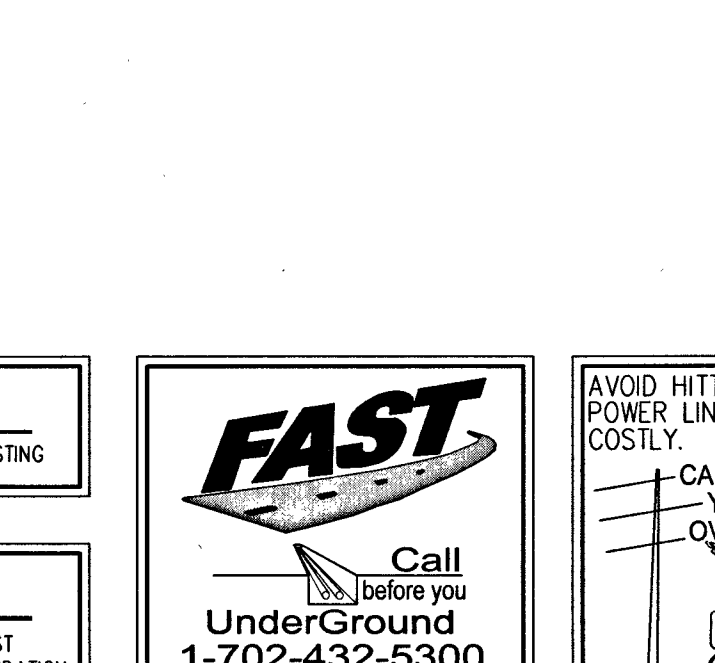
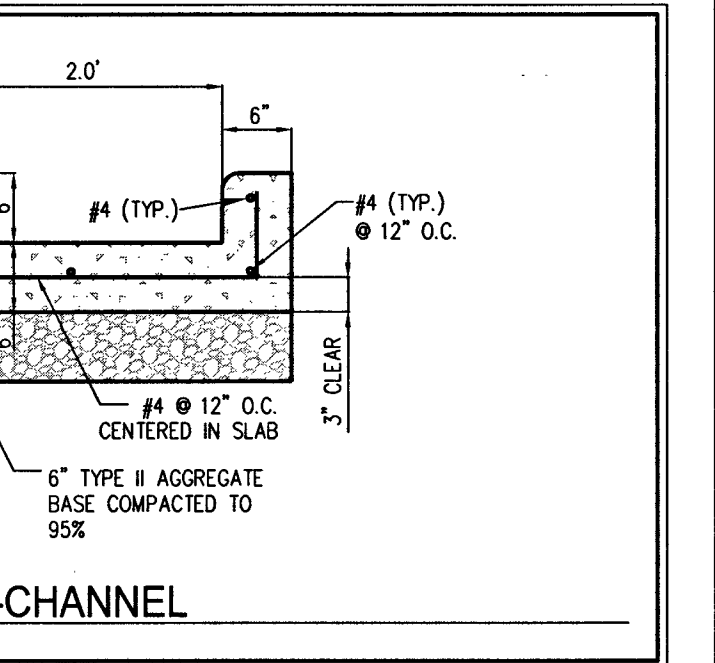
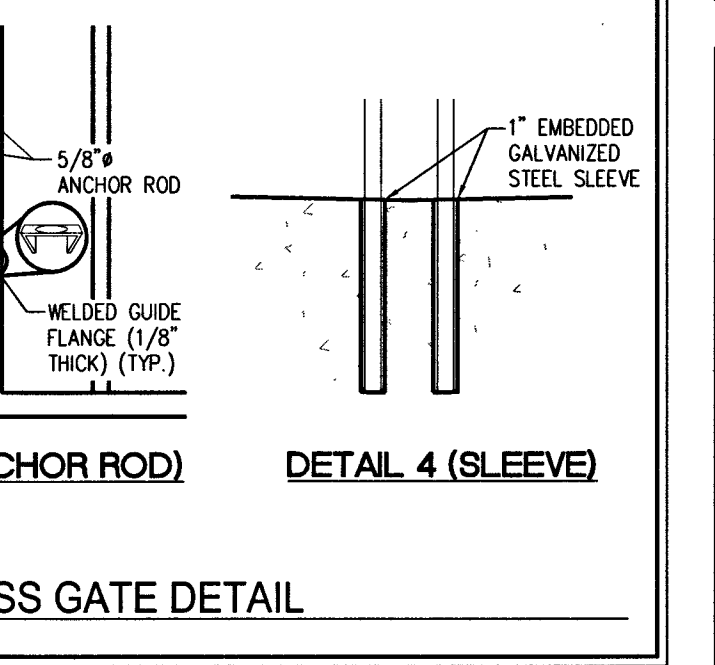
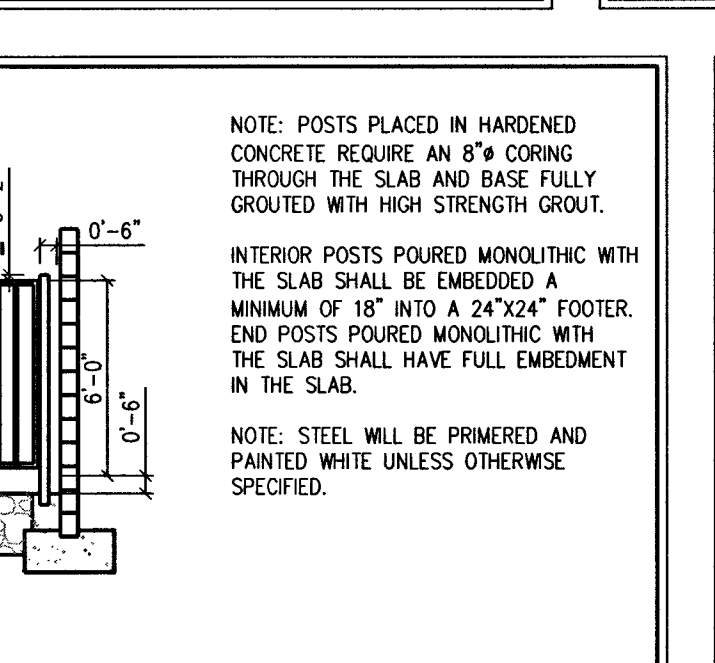
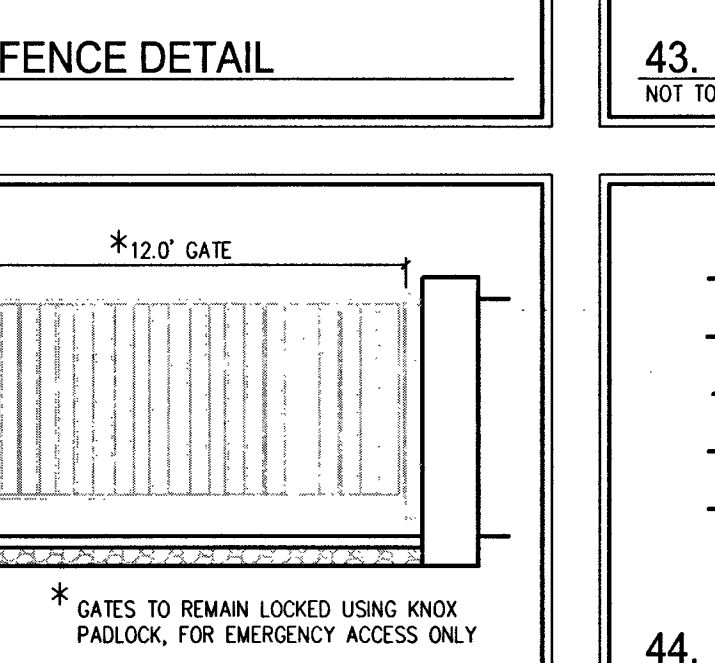
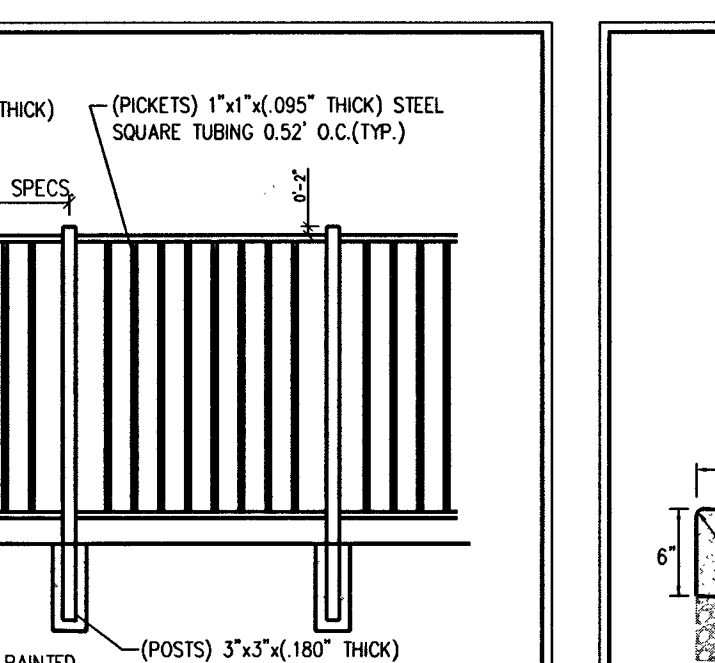
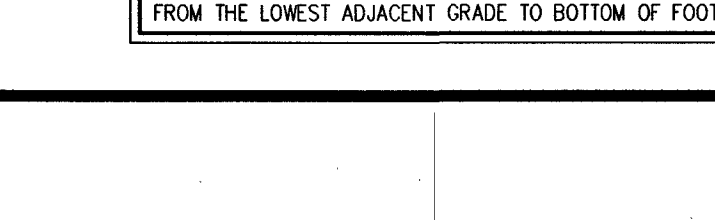
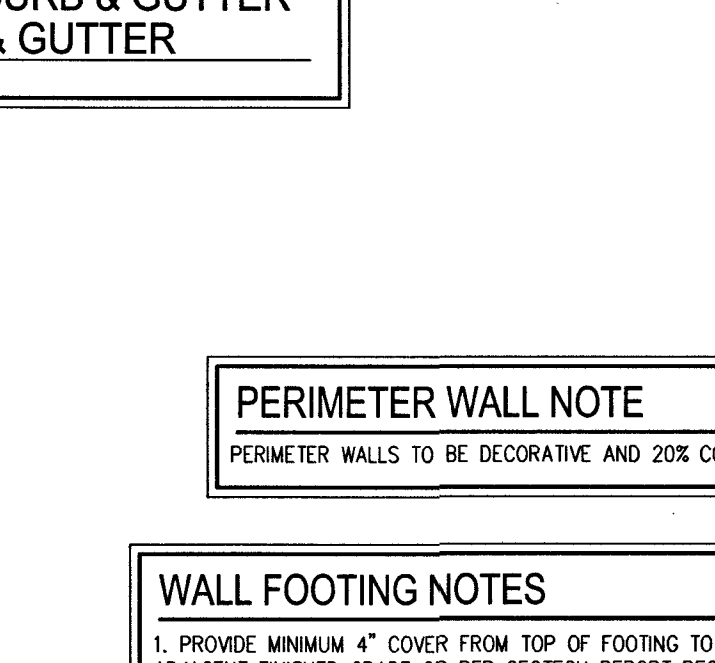
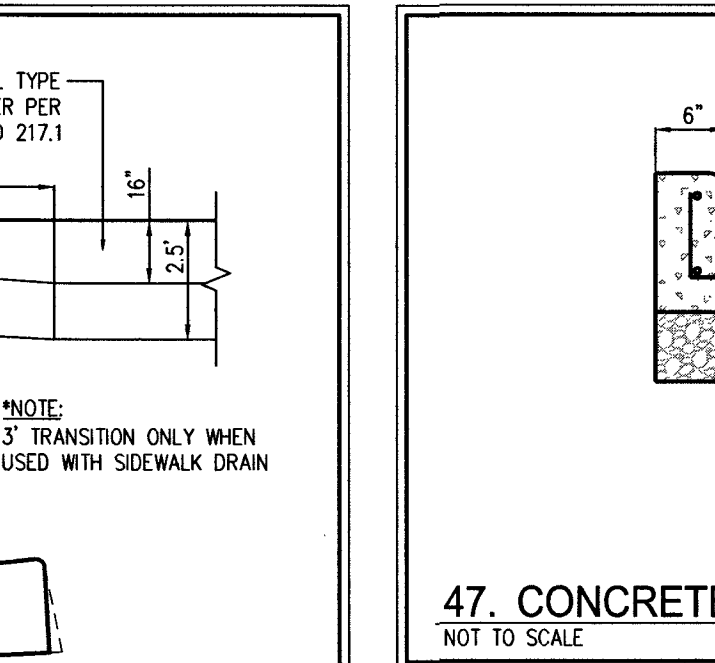
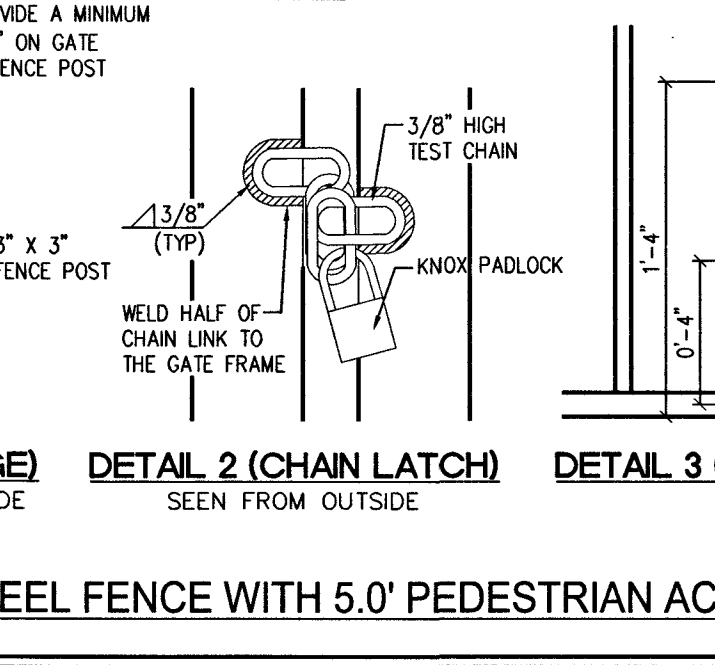
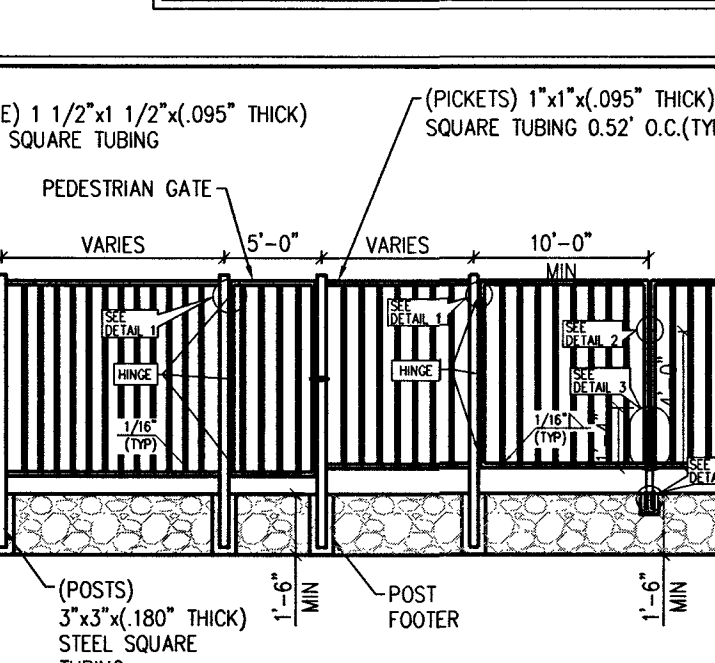
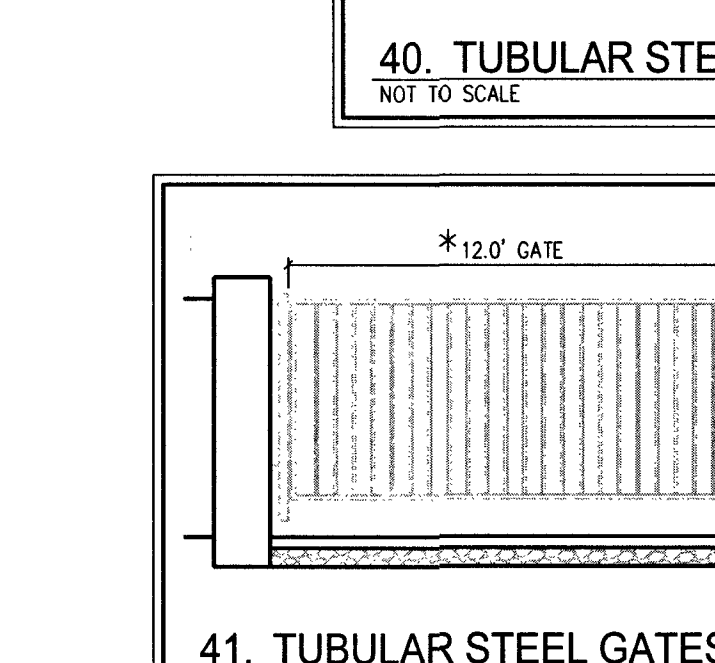
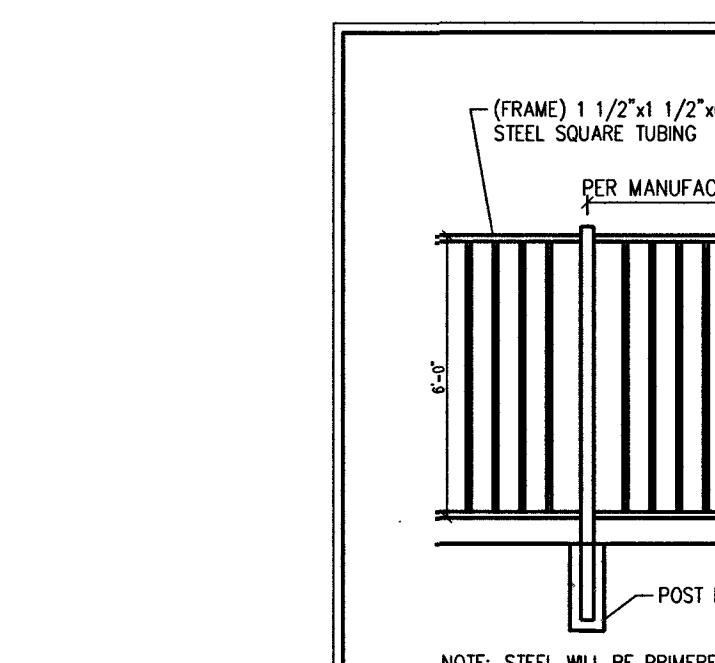
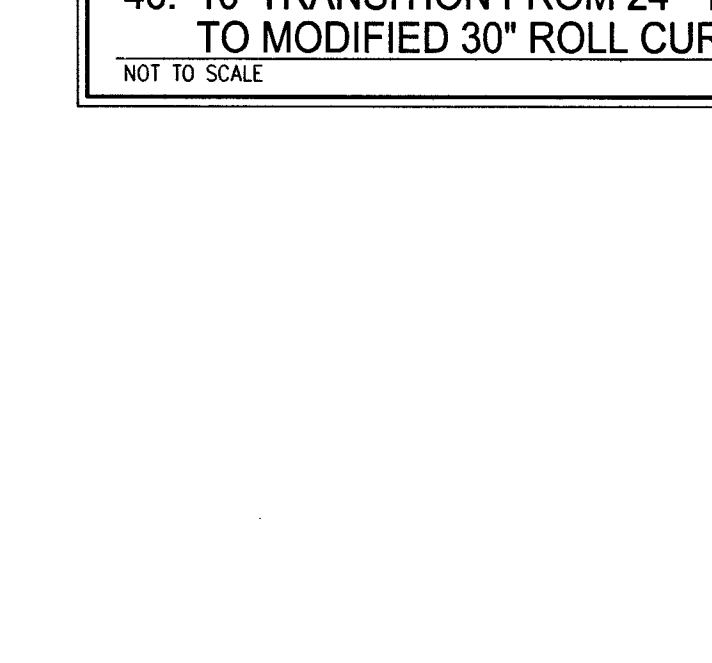
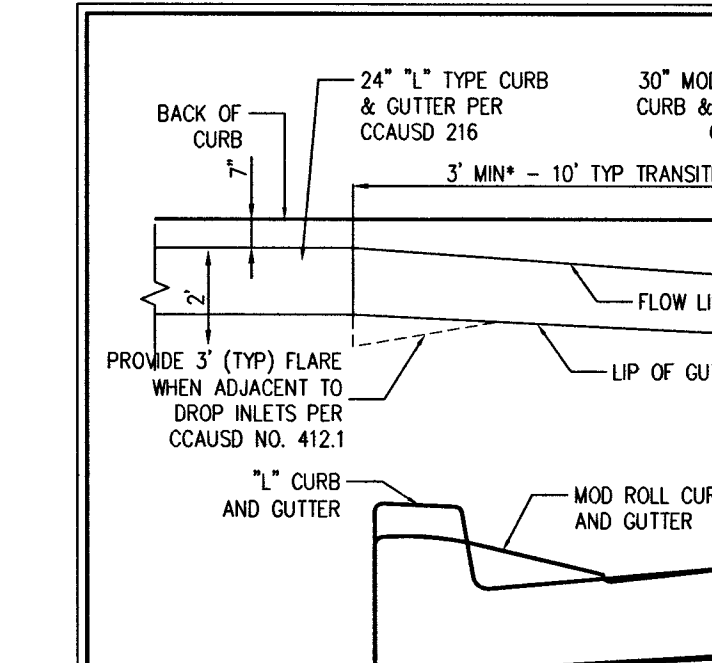
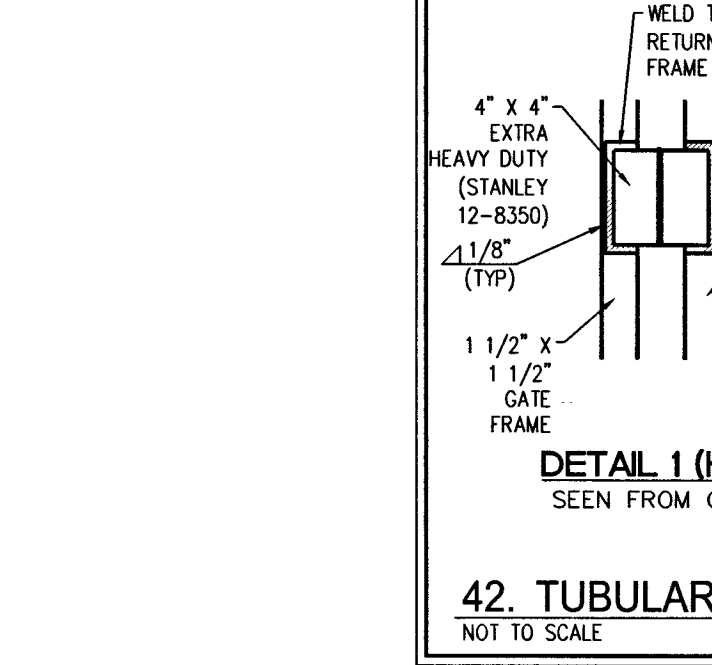
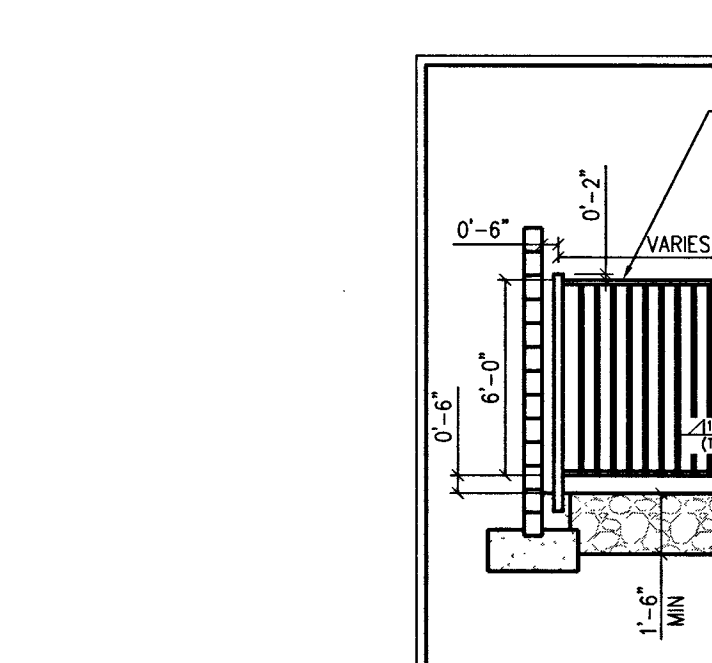
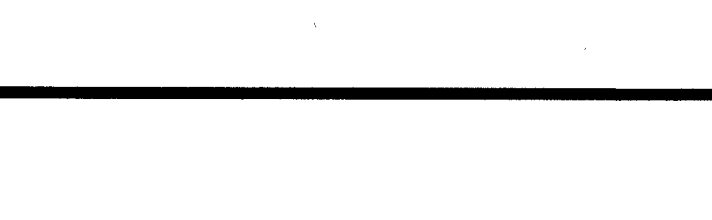
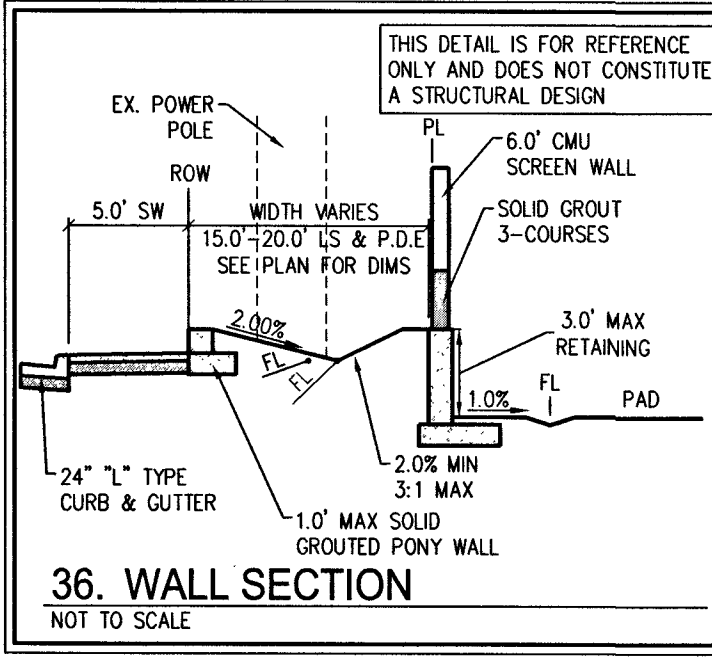
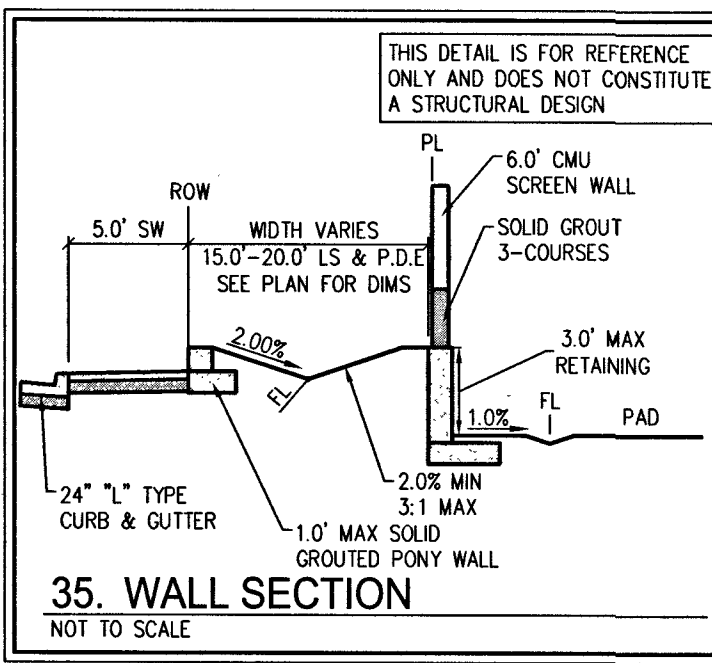
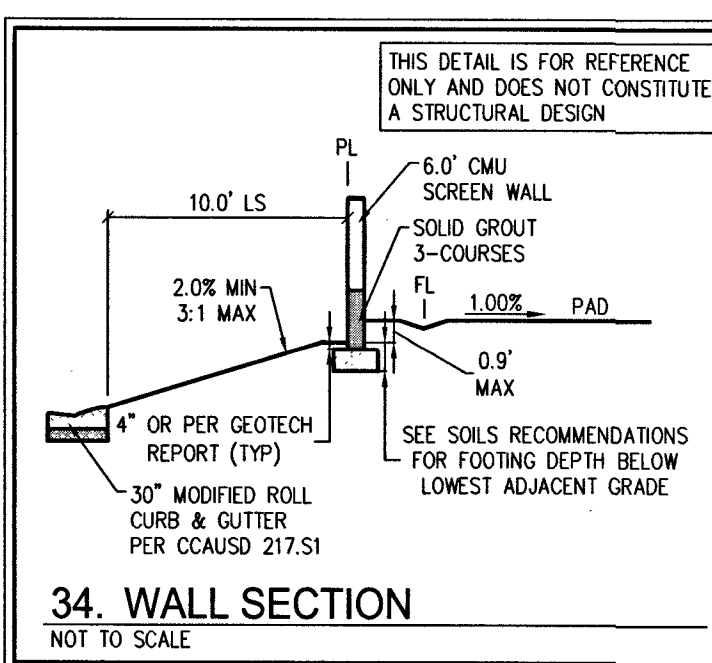
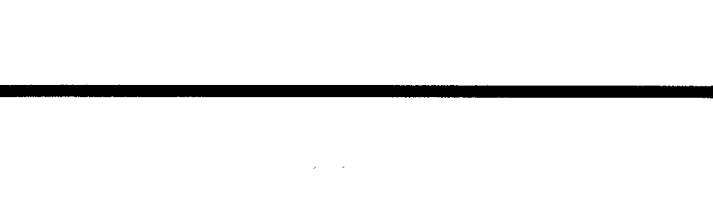
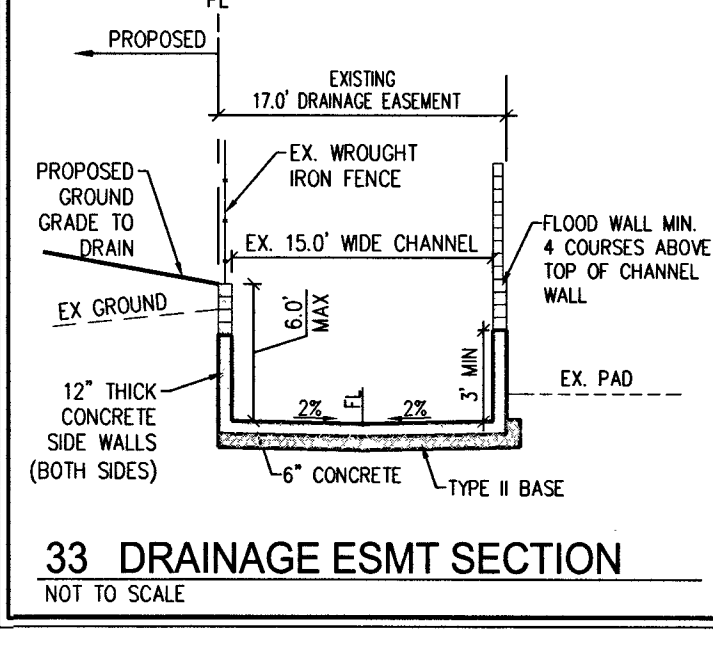
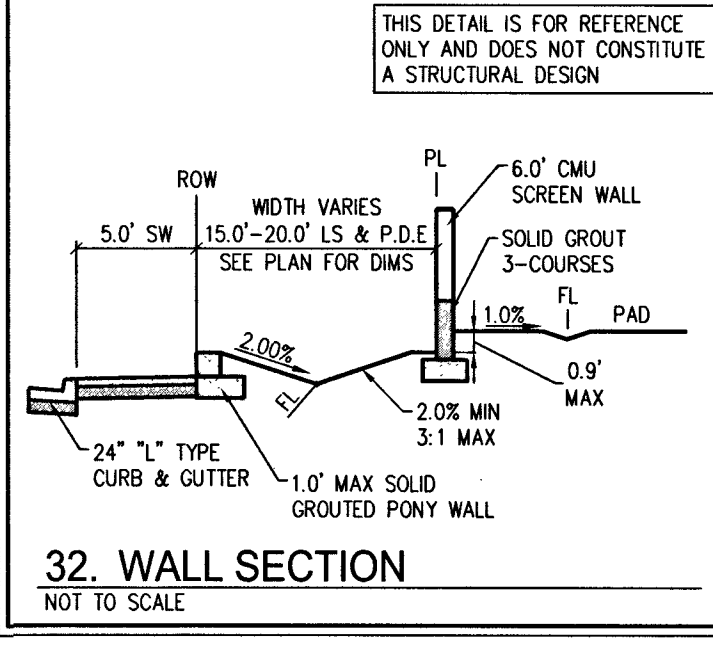
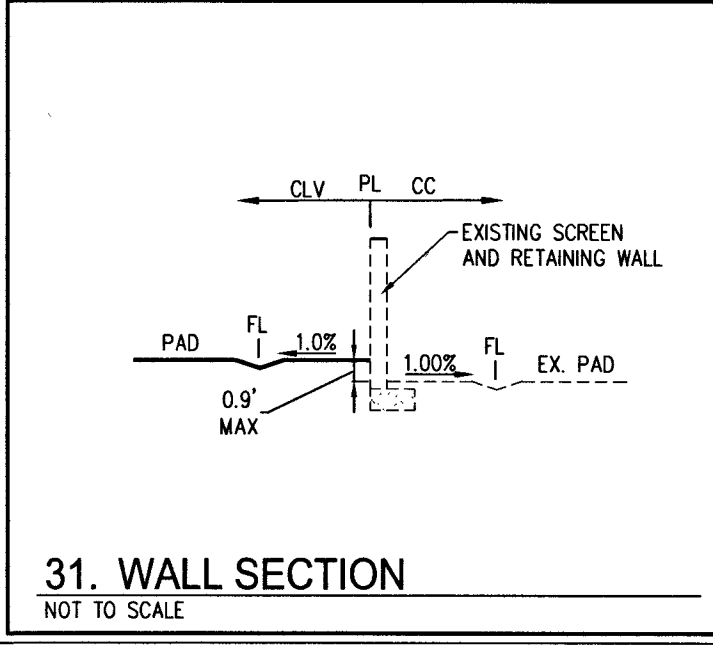
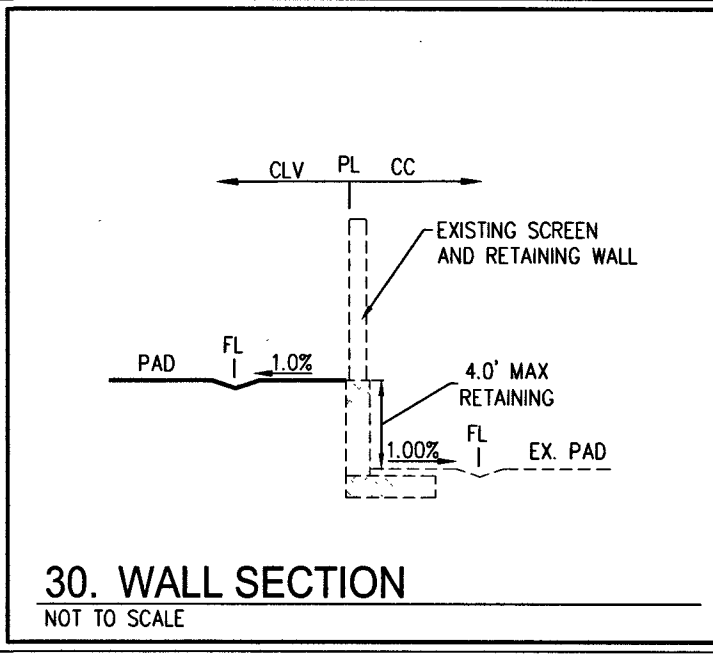
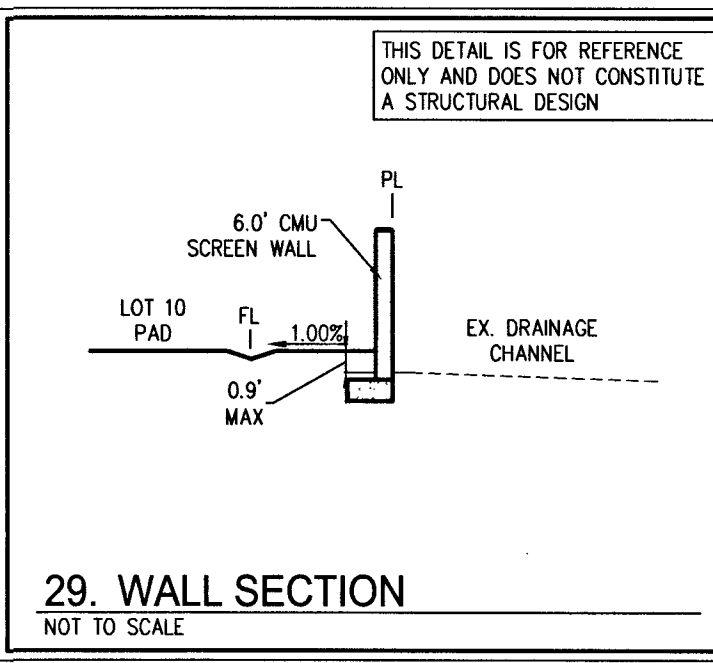
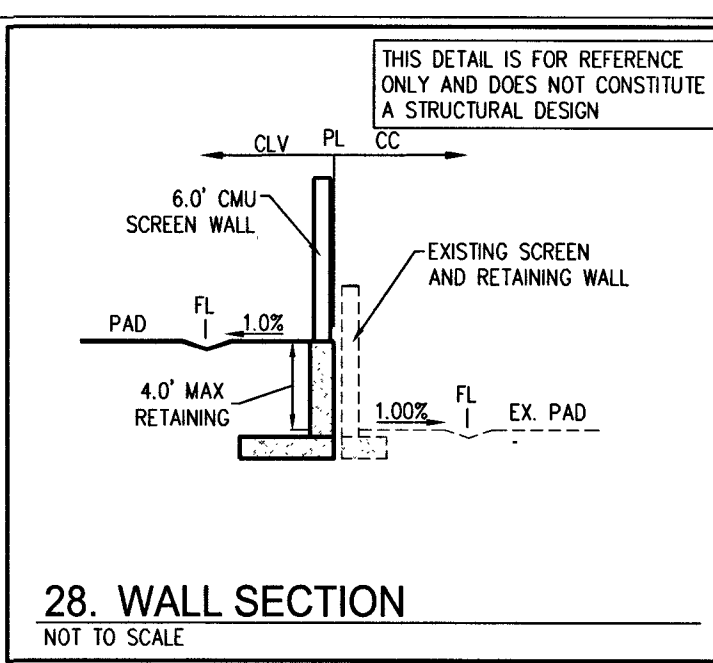
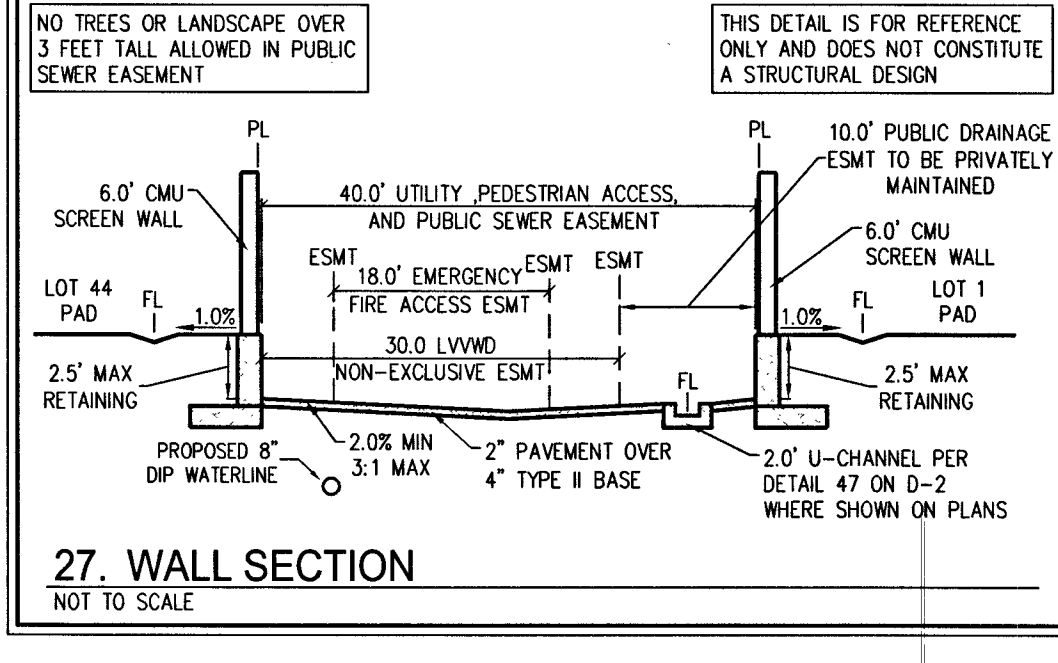
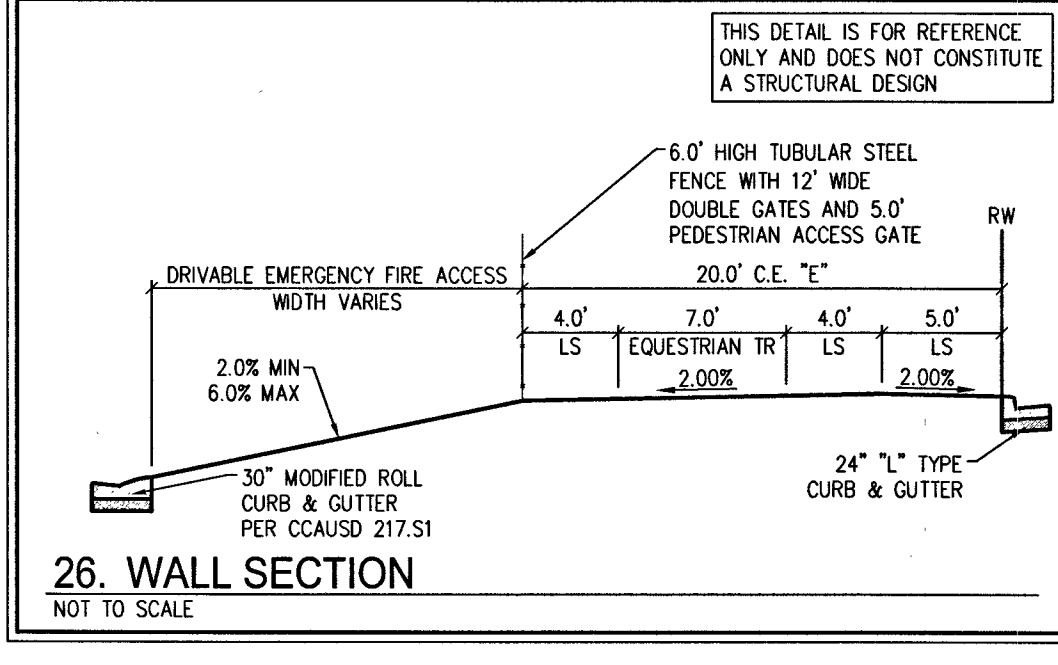
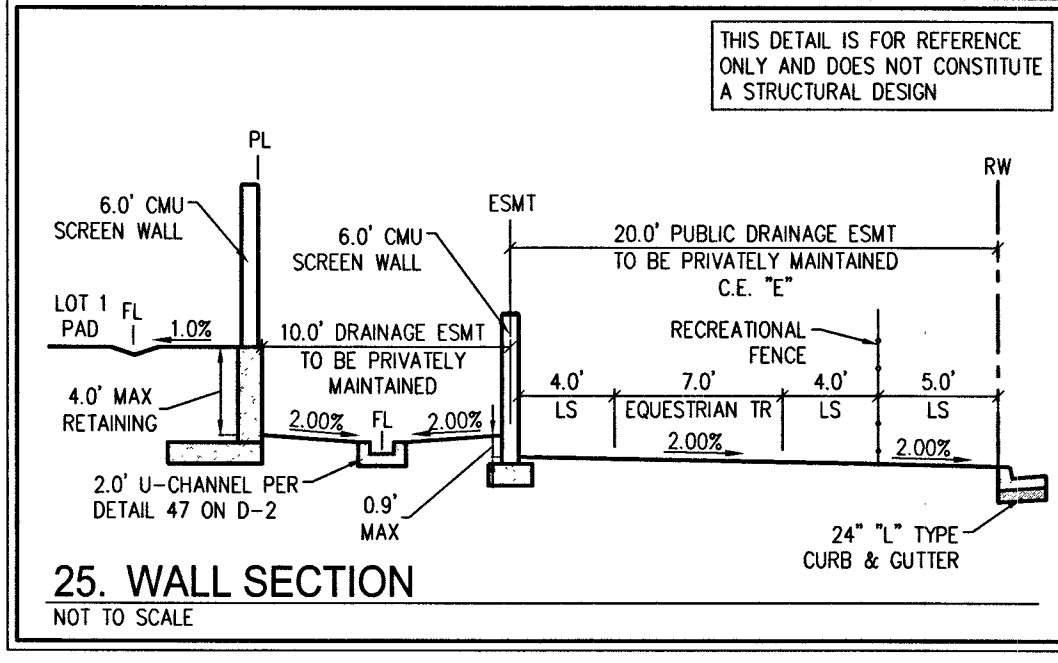
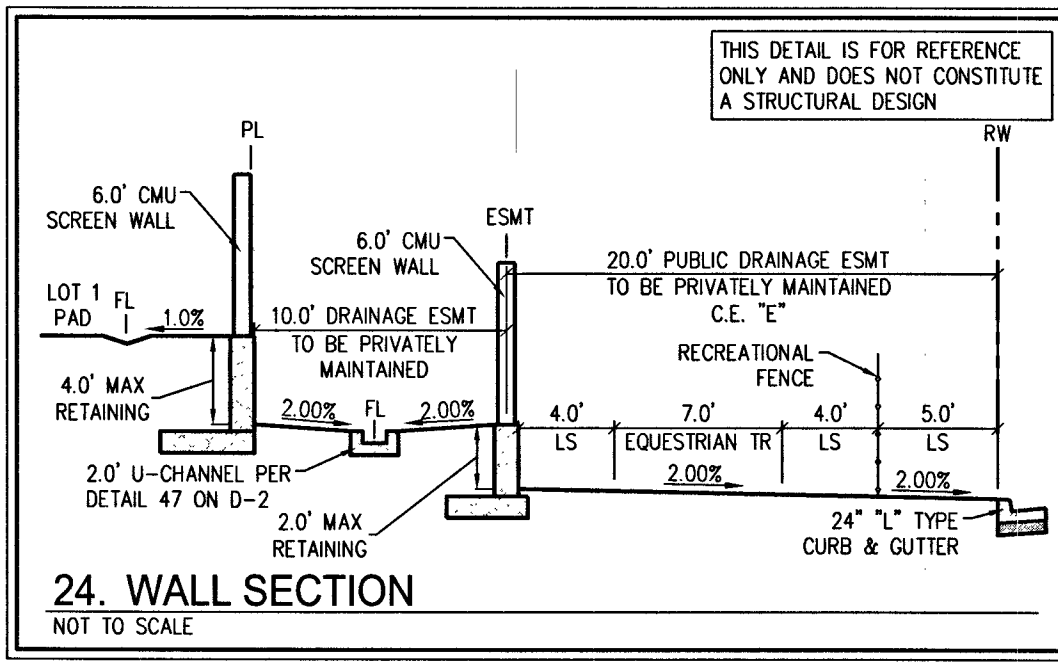
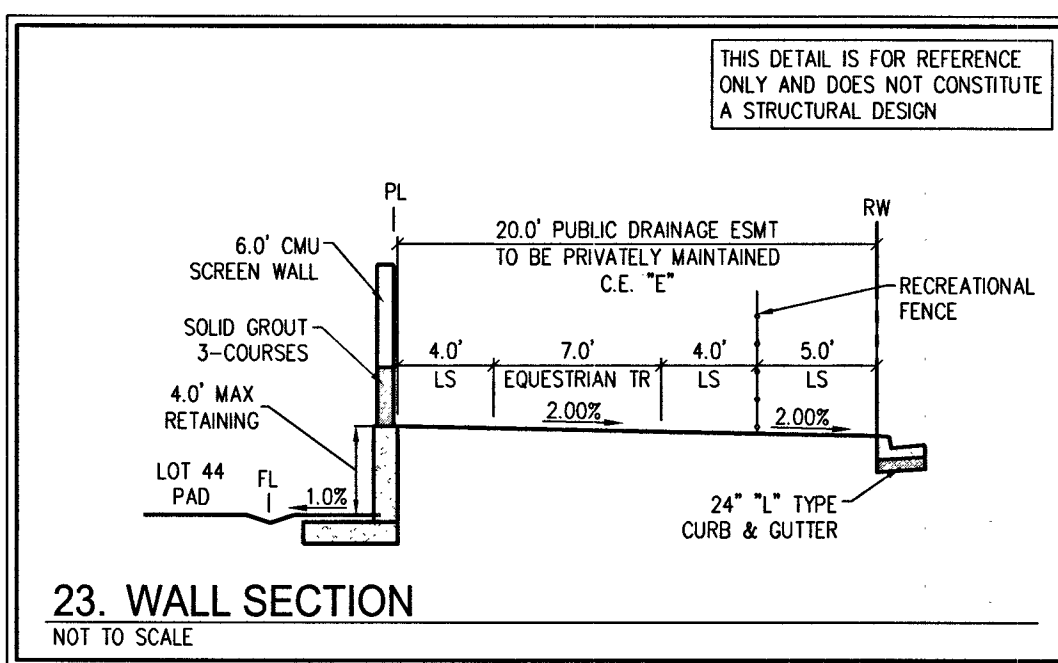
RICHMOND AMERICAN HOMES
FARM HUALAPAI
GRADING PLAN V

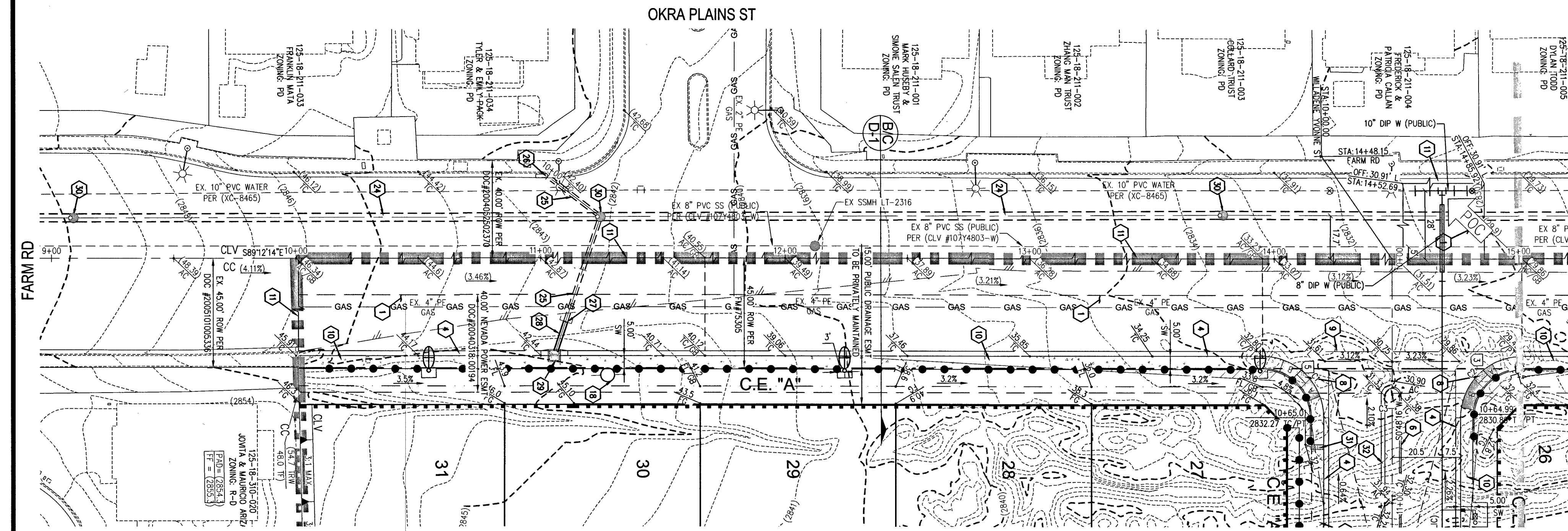
DATE: 3/18/19
DRAFTER: EMH
DESIGNER: EMH
CHECKED: KMB
PROJECT NO. RAH1517

KEVIN M. BROSS
P.E. 024572
Exp. 12/31/2020
CIVIL
3/21/19

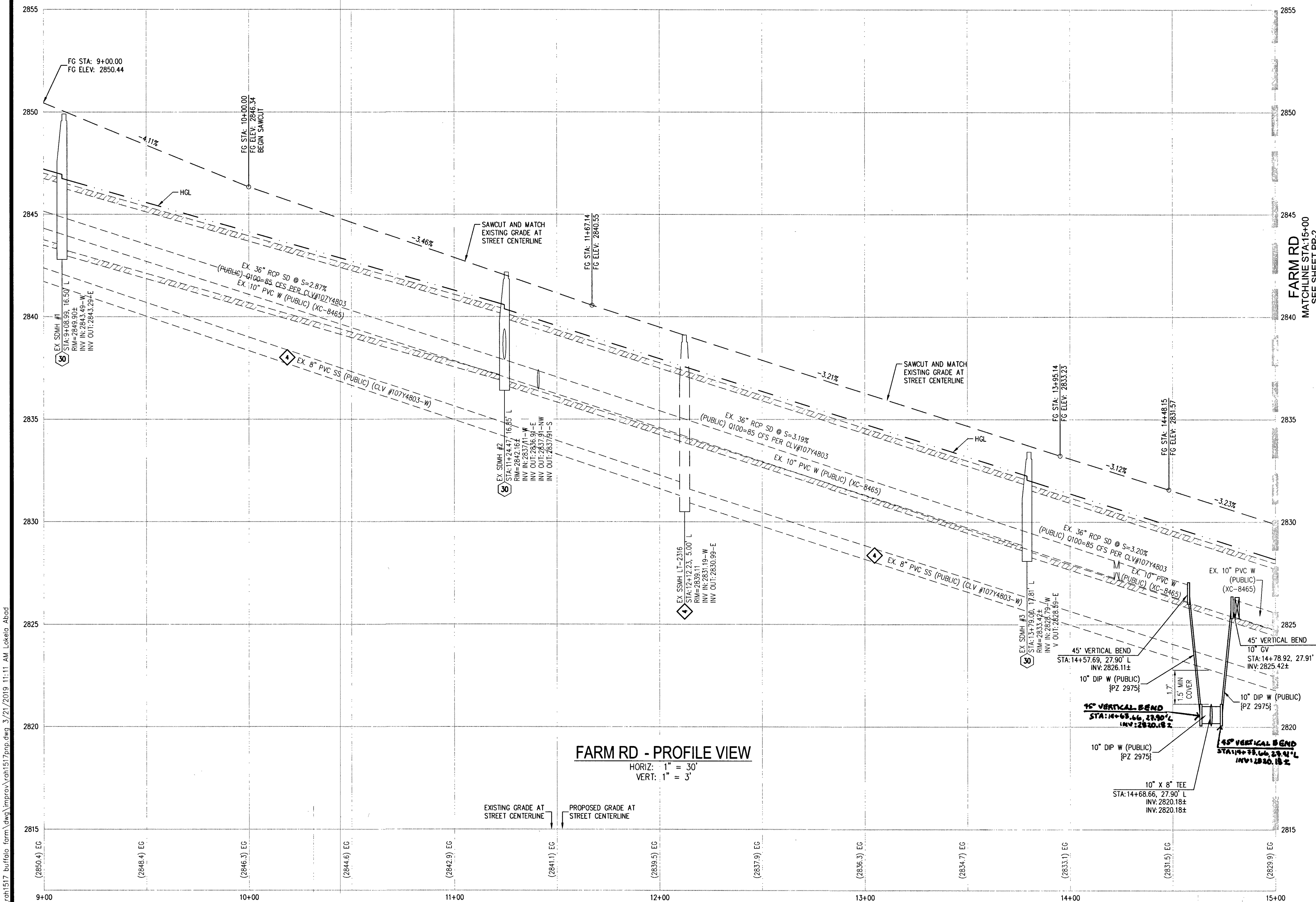
G-5
SHEET 8 OF 34
L18-02739





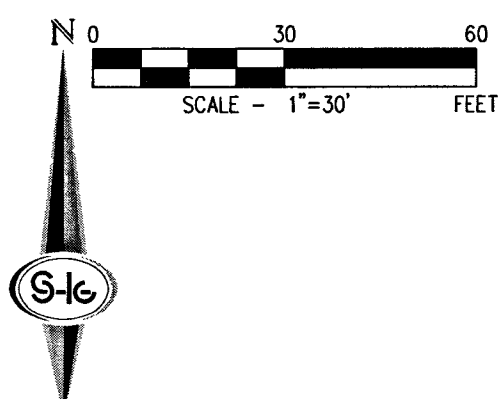


FARM RD - PLAN VIEW
(PUBLIC)



FARM RD - PROFILE VIEW
HORIZ. 1" = 30'
VERT. 1" = 3'

SEE SHEET PP-2 FOR CONTINUATION



CURVE TABLE				
CURVE	LENGTH	RADIUS	DELTA	TANGENT
C1	39.27'	25.00'	90°00'30"	25.00'
C2	39.27'	25.00'	89°59'30"	25.00'
C3	9.42'	3.00'	180°00'00"	INFINITY

RAMP TRANSITION LENGTHS				
RAMP NO.	GRADE %	"A" (FT)	"B" (FT)	"C" (FT)
1	-6 TO -5.01	4.5'	21.5'	
2	-5 TO -4.01	4.5'	15.0'	
3	-4 TO -3.01	4.5'	12.0'	
4	-3 TO -2.01	4.5'	9.5'	
5	-2 TO 2	8.0'	8.0'	
6	2.01 TO 3	9.5'	4.5'	
7	3.01 TO 4	12.0'	4.5'	
8	4.01 TO 5	15.0'	4.5'	
9	5.01 TO 6	21.5'	4.5'	

DISCLAIMER NOTE

- EXISTING UTILITY LOCATIONS SHOWN HEREON ARE APPROXIMATE ONLY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT 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 IN THEIR PROPER LOCATION.
- FOR ROADWAY WIDENING AND HALF STREET IMPROVEMENTS THE CONTRACTOR SHALL VERIFY CROSS SLOPES FROM EXISTING PAVEMENT SAWCUT LINE TO PROPOSED EDGE OF PAVEMENT OR PROJECTED TOP OF CURB PRIOR TO SUBGRADE PREPARATION AND CONSTRUCTION OF PROPOSED CURB LINE. IF MINIMUM OR MAXIMUM CROSS SLOPES DO NOT MEET AGENCY STANDARDS THE CONTRACTOR SHALL NOTIFY THE ENGINEER.

GRADING NOTES

- FINAL GRADES ADJACENT TO STRUCTURES SHALL BE IN CONFORMANCE WITH IBC 2012, SECTION 2304.11.2.2.
- THE CONTRACTOR SHALL VERIFY ALL CONDITIONS AND DIMENSIONS AND REPORT ALL DISCREPANCIES TO THE ENGINEER.
- ALL IMPROVEMENTS TO BE PROTECTED FROM EROSION BY SWPPP.
- MAXIMUM/MINIMUM SLOPES AND MINIMUM STREET SECTIONS NOT TO EXCEED THAT SHOWN ON GEOTECH REPORT.
- SEE DETAIL SHEET FOR STREET SECTIONS AND DETAILS.
- ALL PUBLIC AND PRIVATE DRAINAGE IMPROVEMENTS TO BE BONDED FOR AND INSPECTED.
- CONSTRUCTION OF BLOCK WALLS REQUIRES A SEPARATE BUILDING PERMIT AND APPROVAL BY THE CITY OF LAS VEGAS BUILDING DEPARTMENT.
- CONTRACTOR TO VERIFY LOCATION AND ELEVATION OF EXISTING UTILITY STRUCTURES AND FACILITIES AND NOTIFY ENGINEER OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION. CONTRACTOR TO PROTECT IN PLACE DURING CONSTRUCTION. ENGINEER/OWNER SHALL BE NOTIFIED OF PRIOR DAMAGE TO EXISTING FACILITIES PRIOR TO CONSTRUCTION. CONTRACTOR WILL BE RESPONSIBLE FOR REPAIR/REPLETING FACILITIES IF ENGINEER/OWNER IS NOT NOTIFIED OF EXISTING DAMAGE PRIOR TO CONSTRUCTION COMMENCING.
- NO STRUCTURE, VEGETATION, OR OBJECTS OF ANY KIND IS PERMITTED OVER TWENTY-FOUR (24) INCHES IN HEIGHT (MEASURED FROM THE TOP OF THE ADJACENT CURB IF CURB EXISTS) WITHIN THE SIGHT VISIBILITY ZONES.
- CURB FLOW LINES LESS THAN 0.60% GRADE SHALL BE WATER TESTED. ANY CURB THAT DOES NOT FLOW SHALL BE REMOVED AND REPLACED AT NO COST TO THE CITY.

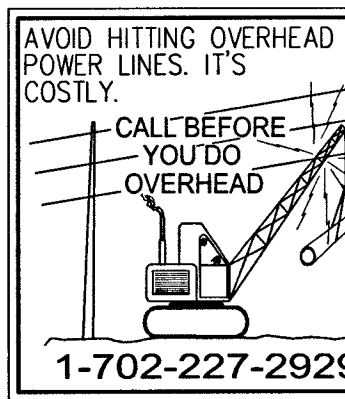
WATER NOTES

- 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 MINIMUM 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.
- REDUCED PRESSURE PRINCIPLE ASSEMBLY (RPP)
APPROVED REDUCED PRESSURE PRINCIPLE ASSEMBLY(S) SHALL BE INSTALLED PER THE UDACS PLATE NO. 8. NO WATER SHALL BE TAKEN FROM A SERVICE REQUIRING BACKFLOW PREVENTION UNTIL THE REDUCED PRESSURE PRINCIPLE ASSEMBLY HAS BEEN SUCCESSFULLY TESTED BY THE LVWD. 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.
- 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.
- FITTINGS SHALL NOT FALL UNDER CURBS, GUTTERS OR SIDEWALK.
- INSTALL PIPELINE MARKER BALLS IN TRENCH ABOVE EACH HORIZONTAL ELBOW FITTING PER UDACS PLATE NO. 15.
- THE LVWD CANNOT GUARANTEE A WATERTIGHT SHUTDOWN WHERE CONNECTIONS OR REPAIRS TO EXISTING FACILITIES ARE REQUIRED. THE CONTRACTOR SHALL ENSURE ALL LABOR AND EQUIPMENT IS AVAILABLE TO REMOVE FUGITIVE WATER THAT MAY IMPED CONSTRUCTION AT ALL TIMES. COORDINATION WITH INSPECTION DIVISION MUST TAKE PLACE PRIOR TO ANY TRIAL SHUTDOWN.
- CONTRACTOR TO INSTALL TEMPORARY SERVICE TO ENSURE PROPER SHUTDOWN IN THE EVENT NO OTHER APPEARANCES ARE AVAILABLE.
- DISCLAIMER: EXISTING UTILITY LOCATIONS SHOWN HEREON ARE APPROXIMATE ONLY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT 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 IN THEIR PROPER LOCATION.

APPROVED FOR CONSTRUCTION

[Signature]
LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES

PROJECT NO. 136145 FIRST APPROVED DATE: 4-11-19
LVWD APPROVED FIRE FLOW 1,500 GPM AT 20 PSI RESIDUAL
MAXIMUM AVAILABLE FIRE SPRINKLER FLOW 26 GPM



CALL SOUTHWEST GAS AT 702-651-2111 FOR STANDBY WHEN EXCAVATING OVER OR NEAR HIGH PRESSURE GAS LINES

GRADING NOTES

- INSTALL 4" ASPHALT PAVEMENT OVER 4.5" TYPE II AGGREGATE BASE
- INSTALL 3" ASPHALT PAVEMENT OVER 9" TYPE II AGGREGATE BASE
- INSTALL 2" ASPHALT PAVEMENT OVER 4" TYPE II AGGREGATE BASE
- CONSTRUCT "L" TYPE CURB AND GUTTER PER CCAUSD NO. 216
- CONSTRUCT 30" ROLL CURB AND GUTTER PER CCAUSD NO. 217.1
- CONSTRUCT "A" TYPE CURB PER CCAUSD NO. 219
- CONSTRUCT 10" TRANSITION FROM ROLLED CURB TO "L" TYPE CURB PER DETAIL 46 SHEET D-2
- CONSTRUCT SIDEWALK RAMPS USING ARMOR TILE TRUNCATED DOMES OR EQUIVALENT PER CCAUSD NO. 235, CASE 1
- CONSTRUCT 8" CROSS GUTTER PER CCAUSD NO. 228
- CONSTRUCT 5' WIDE SIDEWALK PER CCAUSD NO. 234 (4" THICK W/ 5" TYPE II AGGREGATE BASE)
- SAWCUT AND MATCH EXISTING IMPROVEMENTS PER CCAUSD NO. 503 & 500.2
- INSTALL 6" HIGH TUBULAR STEEL FENCE PER DETAIL 40 ON SHEET D-2
- INSTALL 5' PEDESTRIAN ACCESS GATE PER DETAIL 42 ON SHEET D-2
- INSTALL 12" MINIMUM WIDTH DOUBLE GATES PER DETAIL 41 ON SHEET D-2
- INSTALL 6" HIGH WROUGHT IRON FENCE WITH VEHICLE GATE ELECTRICALLY-POWERED WITH BATTERY BACK-UP AND A.V. LOOP
- INSTALL DEPRESSURED CURB PER DETAIL 43 ON SHEET D-2
- INSTALL BLOCK WALL OPENING PER DETAIL 44 ON SHEET D-2
- EXISTING POWER POLE TO REMAIN
- INSTALL EQUESTRIAN TRAIL
- INSTALL RECREATIONAL FENCE
- EXISTING WROUGHT IRON FENCE TO BE REMOVED
- INSTALL METAL PLATE OVER CONCRETE U-CHANNEL AT EQUESTRIAN TRAIL
- INSTALL 20" CONCRETE U-CHANNEL PER DETAIL 47 ON SHEET D-2
- EXISTING 36" RCP SD PER CLV #107Y4803
- INSTALL 18" CLASS III RCP SD LATERAL PER CLV #107Y4803
- EXISTING DROP INLET PER CLV #107Y4803
- CONNECT TO EXISTING STORM DRAIN LATERAL AND INSTALL CONCRETE COLLAR PER DETAIL 48 ON SHEET D-2
- INSTALL 18" RCP STORM DRAIN LATERAL
- INSTALL 5.0" TYPE "CM2" DROP INLET PER CCAUSD NO. 412.1 AND 421
- EXISTING 48" STORM DRAIN MANHOLE PER CLV #107Y4803
- INSTALL SIDEWALK UNDERDRAIN PER CCAUSD NO. 236
- CONSTRUCT "L" TYPE CURB AND GUTTER PER CCAUSD NO. 219
- REMOVE EXISTING CHANNEL WALL AT U-CHANNEL OUTLET

SEWER CONSTRUCTION NOTES

- INSTALL 48" DIAMETER SANITARY SEWER MANHOLE PER DCSWCS SD-1A, SD-1B, SD-4 AND SD-9 WITH 24" SINGLE LID
- INSTALL 8" SANITARY SEWER PIPE (PUBLIC) PER DCSWCS SD-15 AND SD-17
- INSTALL 4" PVC SEWER LATERAL PER DCSWCS SD-22 AND SD-25
- PROTECT SEWER APPURTENANCES IN PLACE. REF. PLANS FOR DETAILS
- FIELD VERIFY LOCATION AND CONNECT TO EXISTING SEWER
- INSTALL 60" DIAMETER SANITARY SEWER MANHOLE WITH CAST-IN-PLACE BASE PER DCSWCS SD-4, SD-7 AND SD-9 W/ CORROSION PROTECTION PER DCSWCS 3.16.8.B
- INSTALL 8" C900 SEWER PIPE (PUBLIC) PER DCSWCS SD-15 AND SD-17
- INSTALL 48" DIAMETER SANITARY SEWER MANHOLE PER DCSWCS SD-4, SD-9, AND SD-13 "B" WITH 24" SINGLE LID
- INSTALL 4" C-900 PVC SANITARY SEWER LATERAL PER DCSWCS SD-17, SD-22, SD-23 AND SD-25

SOUTHWEST GAS APPROVAL

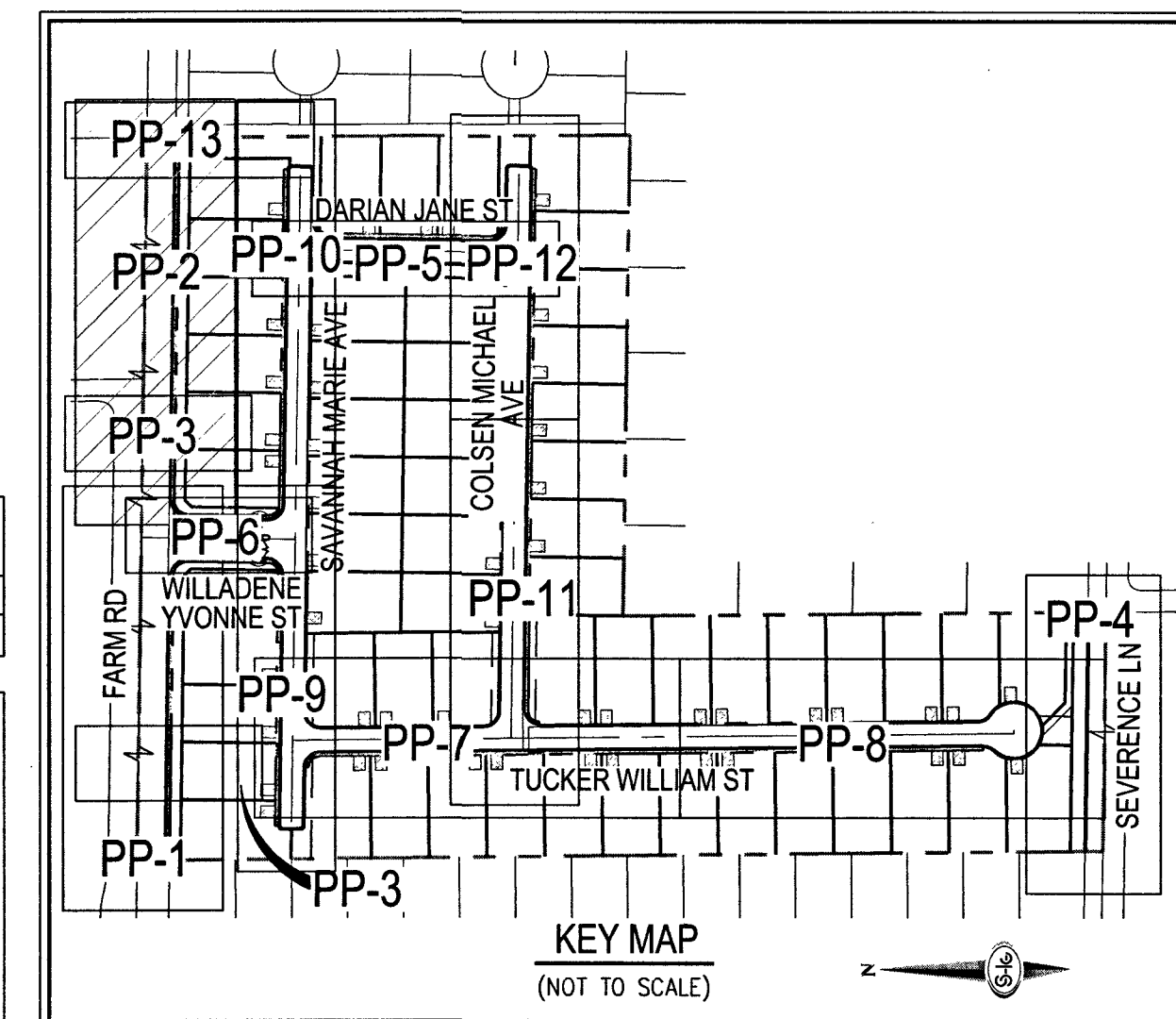
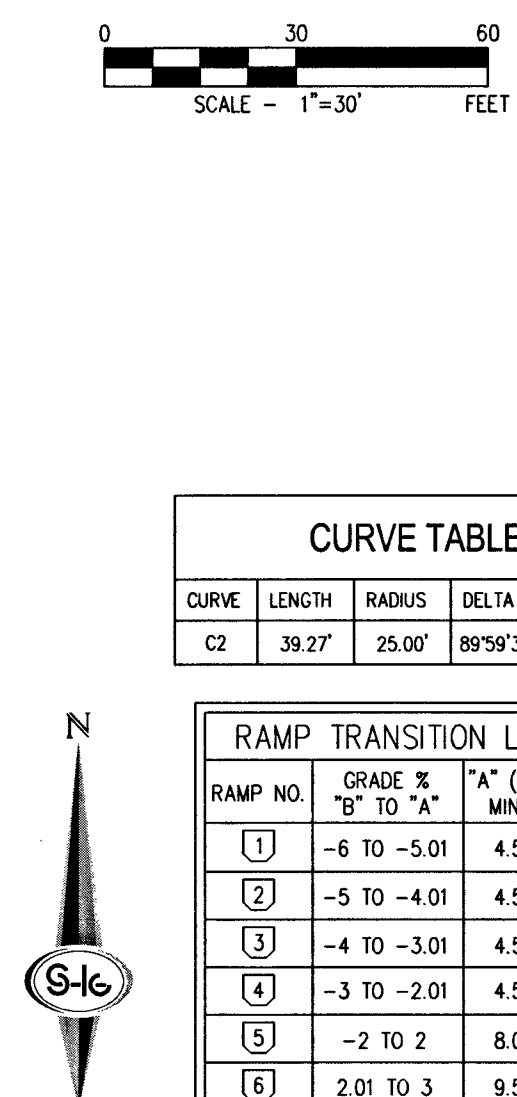
[Signature]
SOUTHWEST GAS CORPORATION DATE: 3-21-19

SLATER HANIFAN GROUP
a Westwood team
5740 S. ARVILLE STREET #216 LAS VEGAS, NV 89118
PHONE (702) 284-5500 FAX (702) 284-5599

RICHMOND AMERICAN HOMES
FARM HUALAPAI
PLAN AND PROFILE - FARM ROAD I

DATE: 3/18/19
DRAFTER: EMH
DESIGNER: EMH
CHECKED: KMB
PROJECT NO. RAH1517

PP-1
SHEET 11 OF 34
L18-02739



CURVE TABLE				
CURVE	LENGTH	RADIUS	DELTA	TANGENT
C2	39.27'	25.00'	89°59'30"	25.00'

RAMP TRANSITION LENGTHS			
RAMP NO.	GRADE % "B" TO "A"	A' (FT) MIN	B' (FT) MIN
1	-6 TO -5.01	4.5'	21.5'
2	-5 TO -4.01	4.5'	15.0'
3	-4 TO -3.01	4.5'	12.0'
4	-3 TO -2.01	4.5'	9.5'
5	-2 TO 2	8.0'	8.0'
6	2.01 TO 3	9.5'	4.5'
7	3.01 TO 4	12.0'	4.5'
8	4.01 TO 5	15.0'	4.5'
9	5.01 TO 6	21.5'	4.5'

CALL SOUTHWEST GAS AT
702-651-2111 FOR STANDARDS
WHEN EXCAVATING OVER OR
NEAR HIGH PRESSURE GAS
LINES

- 1) EXISTING UTILITY LOCATIONS SHOWN HEREON ARE APPROXIMATE ONLY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT 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 IN THEIR PROPER LOCATION.
- 2) FOR ROADWAY WIDENING AND HALF STREET IMPROVEMENTS THE CONTRACTOR SHALL VERIFY CROSS SLOPES FROM EXISTING PAVEMENT SANGUIN LINE TO PROPOSED EDGE OF PAVEMENT OR PROTECTED CURB OF CURB PRIOR TO SUBGRADE PREPARATION AND CONSTRUCTION OF PROPOSED CURB LINE. IF MINIMUM OR MAXIMUM CROSS SLOPES DO NOT MEET AGENCY STANDARDS THE CONTRACTOR SHALL NOTIFY THE ENGINEER.

1. FINAL GRASSES ADJACENT TO STRUCTURES SHALL BE IN CONFORMANCE WITH IBC 2012, SECTION 2304.11.2.2.
2. THE CONTRACTOR SHALL VERIFY ALL CONDITIONS AND DIMENSIONS AND REPORT ALL DISCREPANCIES TO THE ENGINEER.
3. ALL IMPROVEMENTS TO BE PROTECTED FROM EROSION BY SWPPP.
4. MAXIMUM/MINIMUM SLOPES AND MINIMUM STREET SECTIONS NOT TO EXCEED THAT SHOWN ON GEOTECH REPORT.
5. SEE DETAIL SHEET FOR STREET SECTIONS AND DETAILS.
6. ALL PUBLIC AND PRIVATE DRAINAGE IMPROVEMENTS TO BE BONDED FOR AND INSPECTED.
7. CONSTRUCTION OF BLOCK WALLS REQUIRES A SEPARATE BUILDING PERMIT AND APPROVAL BY THE CITY OF LAS VEGAS BUILDING DEPARTMENT.
8. CONTRACTOR TO VERIFY LOCATION AND ELEVATION OF EXISTING UTILITY STRUCTURES AND FACILITIES AND NOTIFY ENGINEER OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION. CONTRACTOR TO PROTECT IN PLACE DURING CONSTRUCTION. ENGINEER/OWNER SHALL BE NOTIFIED OF PRIOR DAMAGE TO EXISTING FACILITIES PRIOR TO CONSTRUCTION. CONTRACTOR WILL BE RESPONSIBLE FOR REPAIR/REPLACING FACILITIES IF ENGINEER/OWNER IS NOT NOTIFIED OF EXISTING DAMAGE PRIOR TO CONSTRUCTION COMMENCING.
9. NO STRUCTURE, VEGETATION, OR OBJECTS OF ANY KIND IS PERMITTED OVER TWENTY-FOUR (24) INCHES IN HEIGHT (MEASURED FROM THE TOP OF THE ADJACENT CURB IF CURB EXISTS) WITHIN THE SIGHT VISIBILITY ZONES.
10. CURB FLOW LINES LESS THAN 0.60% GRADE SHALL BE WATER TESTED. ANY CURB THAT DOES NOT FLOW SHALL BE REMOVED AND REPLACED AT NO COST TO THE CITY.

1. **WATER MAIN JOINT DEFLECTION (PVC 4" - 24"):**
PIPE SHALL BE DEFLECTED AT THE JOINT UNTIL THE MAXIMUM ALLOWABLE DEFLECTION SHALL BE 1/8" PER JOINT WITH A MINIMUM 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.

2. **REDUCED PRESSURE PRINCIPLE ASSEMBLY (1) 1" - 15":**
APPROVED REDUCED PRESSURE PRINCIPLE ASSEMBLY(S) SHALL BE INSTALLED PER THE UDACS 2.07.01 AND 2.07.02. A SERVICE REQUIRING BACKFLOW PREVENTION SHALL BE INSTALLED UNTIL THE REDUCED PRESSURE PRINCIPLE ASSEMBLY HAS BEEN SUCCESSFULLY TESTED BY THE LVWD. ANY BLOCK WALL OR OTHER FENCE MATERIAL SHALL BE DESIGNED AND CONSTRUCTED TO ALLOW EGRESS AND EGRESS OUTSIDE THE CURB OR SIDEWALK. ACCESS FROM THE ADJACENT RIGHT-OF-WAY, EASEMENTS SHALL BE CLEARLY MARKED OR STAKED PRIOR TO THE CONSTRUCTION.

3. **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 SEWER/ STORM MAIN CROSSINGS.**

4. **FITTINGS SHALL NOT FALL UNDER CURBS, GUTTERS OR SIDEWALK.**

5. **INSTALL PIPELINE MARKER BALLS IN TRENCH ABOVE EACH HORIZONTAL ELBOW FITTING PER UDACS 2.07.05.**

6. **THE LVWD CANNOT GUARANTEE A WATERTIGHT SHUTDOWN WHERE CONNECTIONS OR REPAIRS TO EXISTING FACILITIES ARE REQUIRED. THE CONTRACTOR SHALL ENSURE PROPER TIGHTENING AND EQUIPMENT TO BE USED TO AVOID LUGGAGE TO EXISTING FACILITIES. CONSTRUCTION SHALL BE COMPLETED IN A TIMELY MANNER. COORDINATION WITH INSPECTION DIVISION MUST TAKE PLACE PRIOR TO ANY TRIAL SHUTDOWN.**

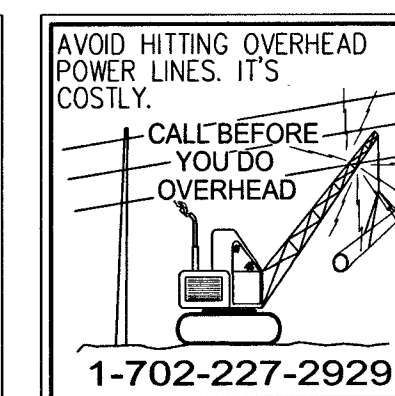
7. **THE CONTRACTOR SHALL BE RESPONSIBLE TO ENSURE PROPER SHUTDOWN. IN THE EVENT NO OTHER APPEARANCES ARE AVAILABLE.**

8. **DISCLAIMER: EXISTING UTILITY LOCATIONS SHOWN ARE APPROXIMATE ONLY. SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THE VERTICAL AND HORIZONTAL LOCATION OF ALL EXISTING UNDERGROUND UTILITIES PRIOR TO COMMENCING CONSTRUCTION. NO REPRESENTATION OR WARRANTIES ARE GIVEN HEREON BY THE ENGINEER. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR ANY DAMAGE NOT SHOWN IN THEIR PROPER LOCATION.**

- 1 INSTALL 4" ASPHALT PAVEMENT OVER 4.5" TYPE II AGGREGATE BASE
- 2 INSTALL 3" ASPHALT PAVEMENT OVER 9" TYPE II AGGREGATE BASE
- 3 INSTALL 2" ASPHALT PAVEMENT OVER 4" TYPE II AGGREGATE BASE
- 4 CONSTRUCT "L" TYPE CURB AND GUTTER PER CCAUSD NO. 216
- 5 CONSTRUCT 30" ROLL CURB AND GUTTER PER CCAUSD NO. 217.1
- 6 CONSTRUCT "AT" TYPE CURB PER CCAUSD NO. 219
- 7 CONSTRUCT 10' TRANSITION FROM ROLLED CURB TO "L" TYPE CURB PER DETAIL 46 SHEET D-2
- 8 CONSTRUCT SIDEWALK RAMPS USING ARMOR TILE TRUNCATED DOMES OR EQUIVALENT PER CCAUSD NO. 235, CASE 1
- 9 CONSTRUCT 8" CROSS CURB PER CCAUSD NO. 228
- 10 CONSTRUCT 5' WIDE SIDEWALK PER CCAUSD NO. 234 (4" THICK W/ 5" TYPE II AGGREGATE BASE)
- 11 SAWCUT AND MATCH EXISTING IMPROVEMENTS PER CCAUSD NO. 503 & 500.2
- 12 INSTALL 6" HIGH TUBULAR STEEL FENCE PER DETAIL 40 ON SHEET D-2
- 13 INSTALL 5' PEDESTRIAN ACCESS GATE PER DETAIL 42 ON SHEET D-2
- 14 INSTALL 12" MINIMUM WOOD DOUBLE GATES PER DETAIL 41 ON SHEET D-2
- 15 INSTALL 6" HIGH WROUGHT IRON FENCE WITH VEHICLE GATE ELECTRICALLY-POWERED WITH BATTERY BACK-UP AND AM LOOP
- 16 INSTALL DEPRESSIONED CURB PER DETAIL 43 ON SHEET D-2
- 17 INSTALL BLOCK WALL OPENING PER DETAIL 44 ON SHEET D-2
- 18 EXISTING POWER POLE TO REMAIN
- 19 INSTALL EQUESTRIAN TRAIL
- 20 INSTALL RECREATIONAL FENCE
- 21 EXISTING WROUGHT IRON FENCE TO BE REMOVED
- 22 INSTALL METAL PLATE OVER CONCRETE U-CHANNEL AT EQUESTRIAN TRAIL
- 23 INSTALL 2.0' CONCRETE U-CHANNEL PER DETAIL 47 ON SHEET D-2
- 24 EXISTING 36" RCP SD PER CLV #107Y4803
- 25 EXISTING 18" CLASS III RCP SD LATERAL PER CLV #107Y4803
- 26 EXISTING DROP INLET PER CLV #107Y4803
- 27 CONNECT TO EXISTING STORM DRAIN LATERAL AND INSTALL CONCRETE COLLAR PER DETAIL 48 ON SHEET D-2
- 28 INSTALL 18" RCP STORM DRAIN LATERAL
- 29 INSTALL 5.0' TYPE "CM2" DROP INLET PER CCAUSD NO. 4121 & 421
- 30 EXISTING 48" STORM DRAIN MANHOLE PER CLV #107Y4803
- 31 INSTALL SIDEWALK UNDERDRAIN PER CCAUSD NO. 236
- 32 CONSTRUCT "L" TYPE CURB AND GUTTER PER CCAUSD NO. 219
- 33 REMOVE EXISTING CHANNEL WALL AT U-CHANNEL OUTLET

1	INSTALL 48" DIAMETER SANITARY SEWER MANHOLE PER DCSWCS SD-1A, SD-11 SD-4 AND SD-9 WITH 24" SINGLE LID
2	INSTALL 8" SANITARY SEWER PIPE (PUBLIC) PER DCSWCS SD-15 AND SD-17
3	INSTALL 4" PVC SEWER LATERAL PER DCSWCS SD-22 AND SD-25
4	PROTECT SEWER APPURTENANCES IN PLACE. REF. PLANS FOR DETAILS
5	FIELD VERIFY LOCATION AND CONNECT TO EXISTING SEWER
6	INSTALL 60" DIAMETER SANITARY SEWER MANHOLE WITH CAST-IN-PLACE BASE PER DCSWCS SD-4, SD-7 AND SD-9 W/ CORROSION PROTECTION PER DCSWCS 3.16.8.8
7	INSTALL 8" CS90 SEWER PIPE (PUBLIC) PER DCSWCS SD-15 AND SD-17
8	INSTALL 48" DIAMETER SANITARY SEWER MANHOLE PER DCSWCS SD-4, SD-9 AND SD-13 WITH 24" SINGLE LID
9	INSTALL 4" C-900 PVC SANITARY SEWER LATERAL PER DCSWCS SD-17, SD-2 SD-23 AND SD-25

Pamela Kennedy
SOUTHWEST GAS CORPORATION



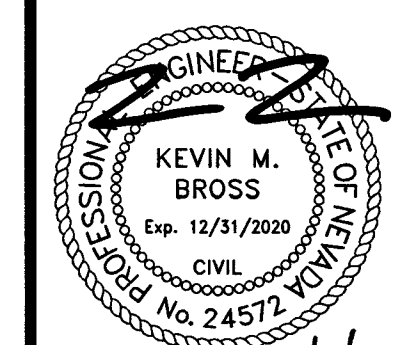
Call before you Dig
AVOID CUTTING UNDERGROUND
UTILITY LINES. IT'S COSTLY.
Call
811
OR
1-800-227-2600

[illegible]

RICHMOND
AMERICAN HOMES

FARM HUALAPAI

PLAN AND PROFILE - FARM ROAD II



PP-2
SHEET 12 OF 34

L18-02739

107V5104



RAMP TRANSITION LENGTHS			
RAMP NO.	GRADE % "B" TO "A"	"A" (F') MIN.	"B" (F') MIN.
1	-6 TO -5.01	4.5'	21.5'
2	-5 TO -4.01	4.5'	15.0'
3	-4 TO -3.01	4.5'	12.0'
4	-3 TO -2.01	4.5'	9.5'
5	-2 TO 2	8.0'	8.0'
6	2.01 TO 3	9.5'	4.5'
7	3.01 TO 4	12.0'	4.5'
8	4.01 TO 5	15.0'	4.5'
9	5.01 TO 6	21.5'	4.5'

1) EXISTING UTILITY LOCATIONS SHOWN HEREON ARE APPROXIMATE ONLY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT 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 IN THEIR PROPER LOCATION.

2) FOR ROADWAY WIDENING AND HALF-STRIP IMPROVEMENTS THE CONTRACTOR SHALL VERIFY CROSS SLOPES FROM EXISTING PAVEMENT SLOPE LINE TO PROPOSED EDGE OF PAVEMENT OR PROPOSED LINE OF CURB PRIOR TO SUBGRADE PREPARATION AND CONSTRUCTION OF PROPOSED CURB LINE. IF MINIMUM OR MAXIMUM CROSS SLOPES DO NOT MEET AGENCY STANDARDS THE CONTRACTOR SHALL NOTIFY THE ENGINEER.

1. FINAL GRASSES ADJACENT TO STRUCTURES SHALL BE IN COMPLIANCE WITH IBC 2012, SECTION 2304.11.2.2.
2. THE CONTRACTOR SHALL VERIFY ALL CONDITIONS AND DIMENSIONS AND REPORT ALL DISCREPANCIES TO THE ENGINEER.
3. ALL IMPROVEMENTS TO BE PROTECTED FROM EROSION BY SWPPP.
4. MAXIMUM/MINIMUM SLOPES AND MINIMUM STREET SECTIONS NOT TO EXCEED THAT SHOWN ON GEOTECH REPORT.
5. SEE DETAIL SHEET FOR STREET SECTIONS AND DETAILS.
6. ALL PUBLIC AND PRIVATE DRAINAGE IMPROVEMENTS TO BE BONDED FOR AND INSPECTED.
7. CONSTRUCTION OF BLOCK WALLS REQUIRES A SEPARATE BUILDING PERMIT AND APPROVAL BY THE CITY OF LAS VEGAS BUILDING DEPARTMENT.
8. CONTRACTOR TO VERIFY LOCATION AND ELEVATION OF EXISTING UTILITY STRUCTURES AND FACILITIES AND NOTIFY ENGINEER OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION. CONTRACTOR TO PROTECT IN PLACE DURING CONSTRUCTION. ENGINEER/OWNER SHALL BE NOTIFIED OF PRIOR DAMAGE TO EXISTING FACILITIES PRIOR TO CONSTRUCTION. CONTRACTOR WILL BE RESPONSIBLE FOR REPAIR/REPLACING FACILITIES IF ENGINEER/OWNER IS NOT NOTIFIED OF EXISTING DAMAGE PRIOR TO CONSTRUCTION COMMENCING.
9. NO STRUCTURE, VEGETATION, OR OBJECTS OF ANY KIND IS PERMITTED OVER TWENTY-FOUR (24) INCHES IN HEIGHT (MEASURED FROM THE TOP OF THE ADJACENT CURB IF CURB EXISTS) WITHIN THE SIGHT VISIBILITY ZONES.
10. CURB FLOW LINES LESS THAN 0.608 GRADE SHALL BE WATER TESTED. ANY CURB THAT DOES NOT FLOW SHALL BE REMOVED AND REPLACED AT NO COST TO THE CITY.

1. WATER MAIN JOINT DEFLECTION (PVC, 4" - 24")
PVC PIPE SHALL BE DEFLECTED AT THE JOINT UNTIL THE MAXIMUM ALLOWABLE DEFLECTION SHALL BE ONE (1) INCH PER JOINT WITH A MINIMUM RADIUS OF CURVATURE OF 1,150 FEET, PER UDCS SECTION 2.17.02.
FOR CHANGES IN DIRECTION EXCEEDING THE MAXIMUM ALLOWABLE JOINT DEFLECTION, FITTINGS SHALL BE USED.

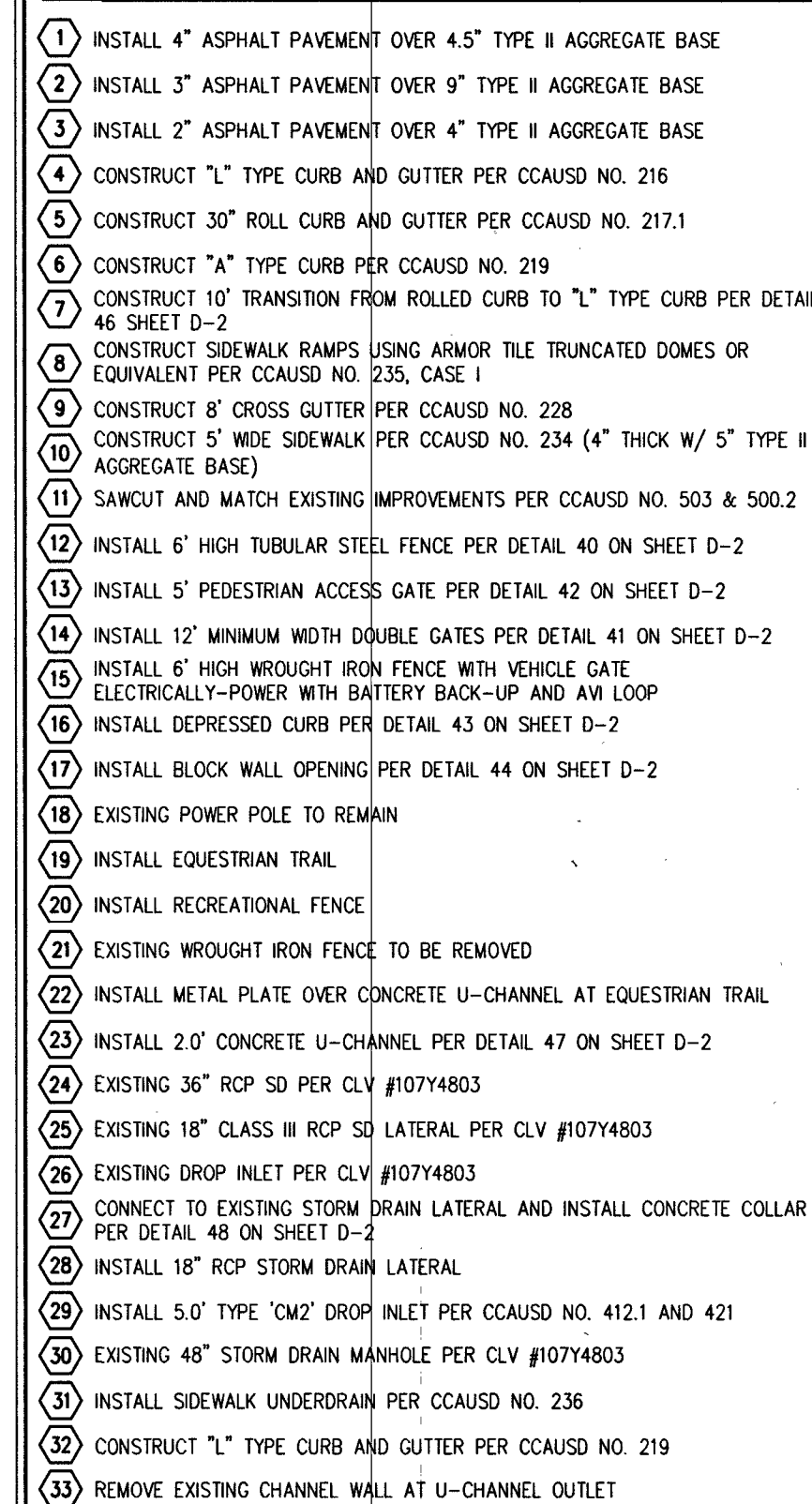
2. REDUCED PRESSURE PRINCIPLE ASSEMBLY (1" - 1")
APPROVED REDUCED PRESSURE PRINCIPLE ASSEMBLY(S) SHALL BE INSTALLED PER THE UDCS SECTION 2.17.03. A SERVICE REQUIRING BACKFLOW PREVENTION SHALL BE INSTALLED UNTIL THE REDUCED PRESSURE PRINCIPLE ASSEMBLY HAS BEEN SUCCESSFULLY TESTED BY THE LVWD. ANY BLOCK WALL OR OTHER FENCE MATERIAL SHALL BE DESIGNED AND CONSTRUCTED TO ALLOW OUTSIDE INSPECTION OF THE REDUCED PRESSURE PRINCIPLE ASSEMBLY FROM THE ADJACENT RIGHT-OF-WAY. EASEMENTS SHALL BE CLEARLY MARKED OR STAKED PRIOR TO THE START OF CONSTRUCTION.

3. WATER MAINS CROSSING WATER LINES MUST CONFORM TO SECTION 2.22 OF THE UNIFORM DESIGN AND CONSTRUCTION STANDARDS FOR POTABLE WATER SYSTEMS (UDCS) FOR WATER AND STORM MAIN CROSSINGS AND CLEANCES.

4. FITTINGS SHALL NOT FAIL UNDER THE FOLLOWING TESTS:
a. INSTALL PIPELINE KAMMER BALLS IN TRENCH ABOVE EACH HORIZONTAL ELBOW FITTING PER UDCS SECTION 2.17.05.
b. THE LVWD CANNOT GUARANTEE A WATERIGHT SHUTDOWN WHERE CONNECTIONS OR REPAIRS TO EXISTING FACILITIES ARE REQUIRED. THE CONTRACTOR SHALL ENSURE ALL LABOR AND EQUIPMENT ARE AVAILABLE TO REPAIR OR REPLACE THE FACILITY WITHIN THE SPECIFIED TIME FRAME. COORDINATION WITH INSPECTION DIVISION MUST TAKE PLACE PRIOR TO ANY TRIAL SHUTDOWN.

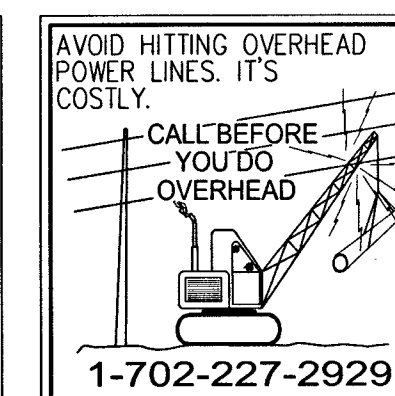
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING THE LVWD OF ANY SHUTDOWNS OR OTHER APPURTENANCES ARE AVAILABLE.

6. DISCLAIMER: EXISTING UTILITY LOCATIONS SHOWN HEREON ARE APPROXIMATE. THEY SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN VERIFICATION OF THE EXISTING 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 THE CONTRACTOR'S FAILURE TO OBTAIN THEIR PROPER LOCATION.



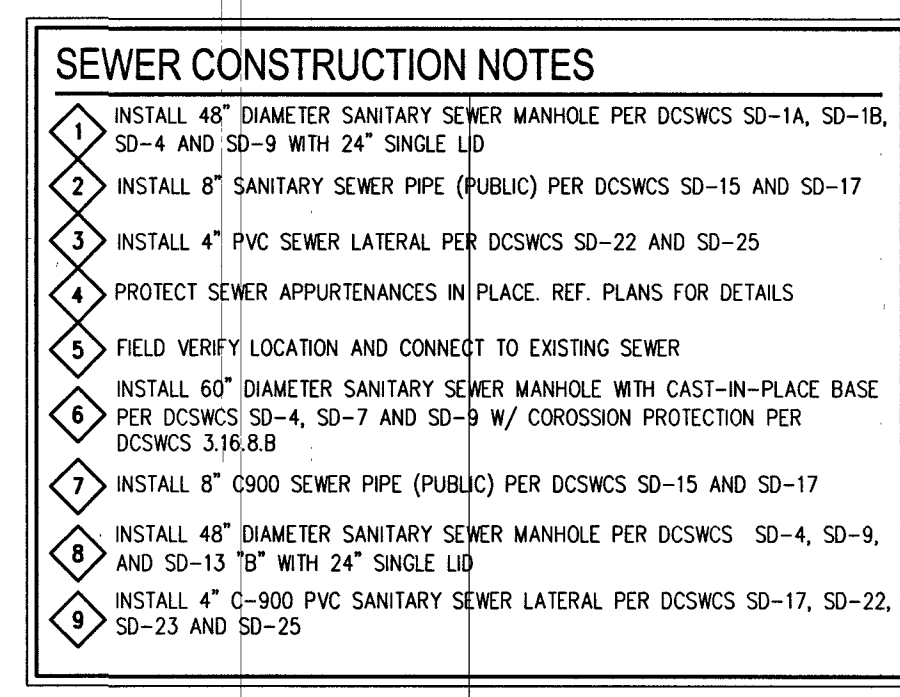
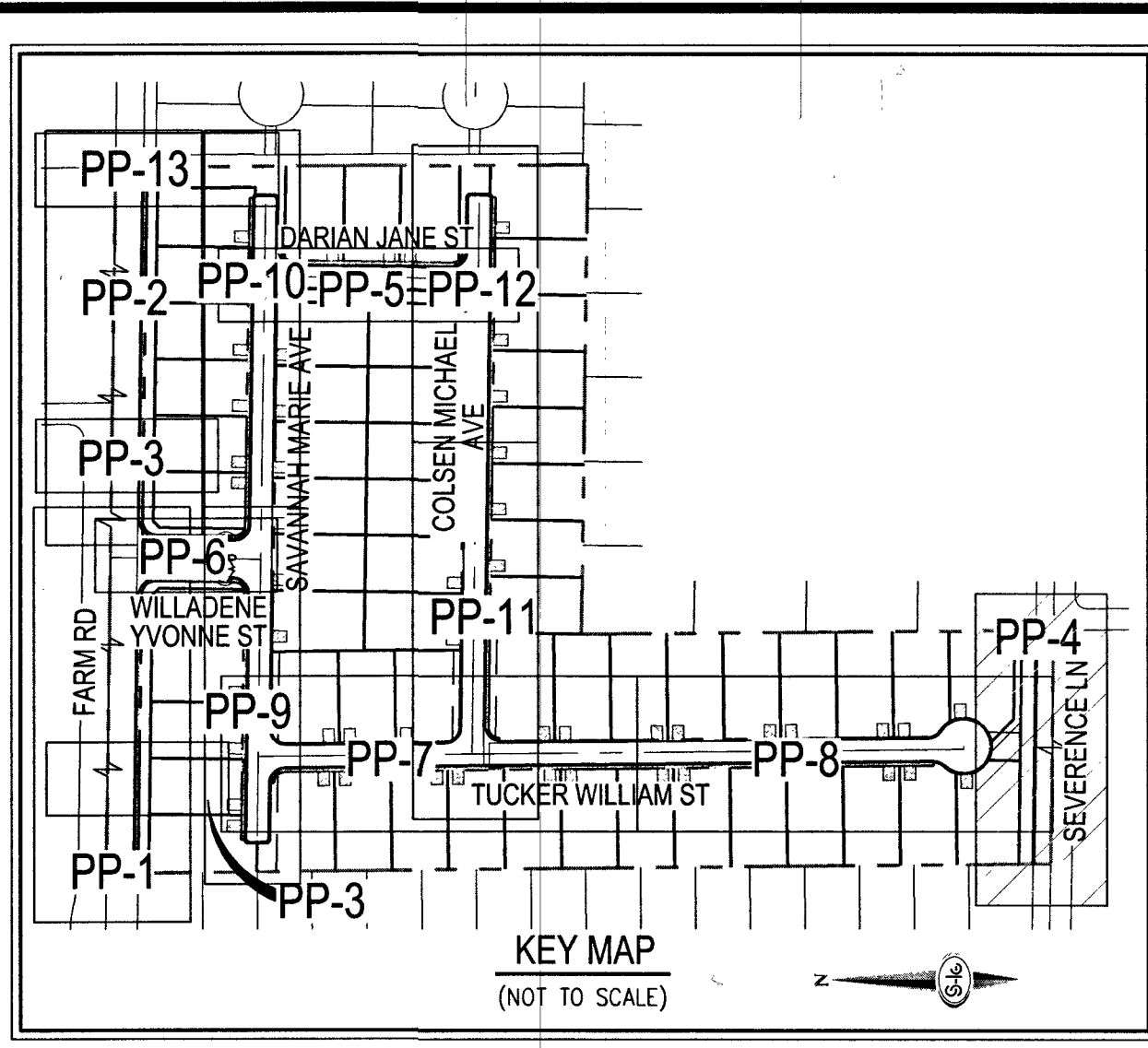
1	INSTALL 48" DIAMETER SANITARY SEWER MANHOLE PER DCSWCS SD-1A, SD-1B SD-4 AND SD-9 WITH 24" SINGLE LID
2	INSTALL 8" SANITARY SEWER PIPE (PUBLIC) PER DCSWCS SD-15 AND SD-17
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7	INSTALL 8" C900 SEWER PIPE (PUBLIC) PER DCSWCS SD-15 AND SD-17
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9	INSTALL 4" C-900 PVC SANITARY SEWER LATERAL PER DCSWCS SD-17, SD-2 SD-23 AND SD-25

<i>Pamela Kennedy</i>	<i>3-21-19</i>
SOUTHWEST GAS CORPORATION	DATE

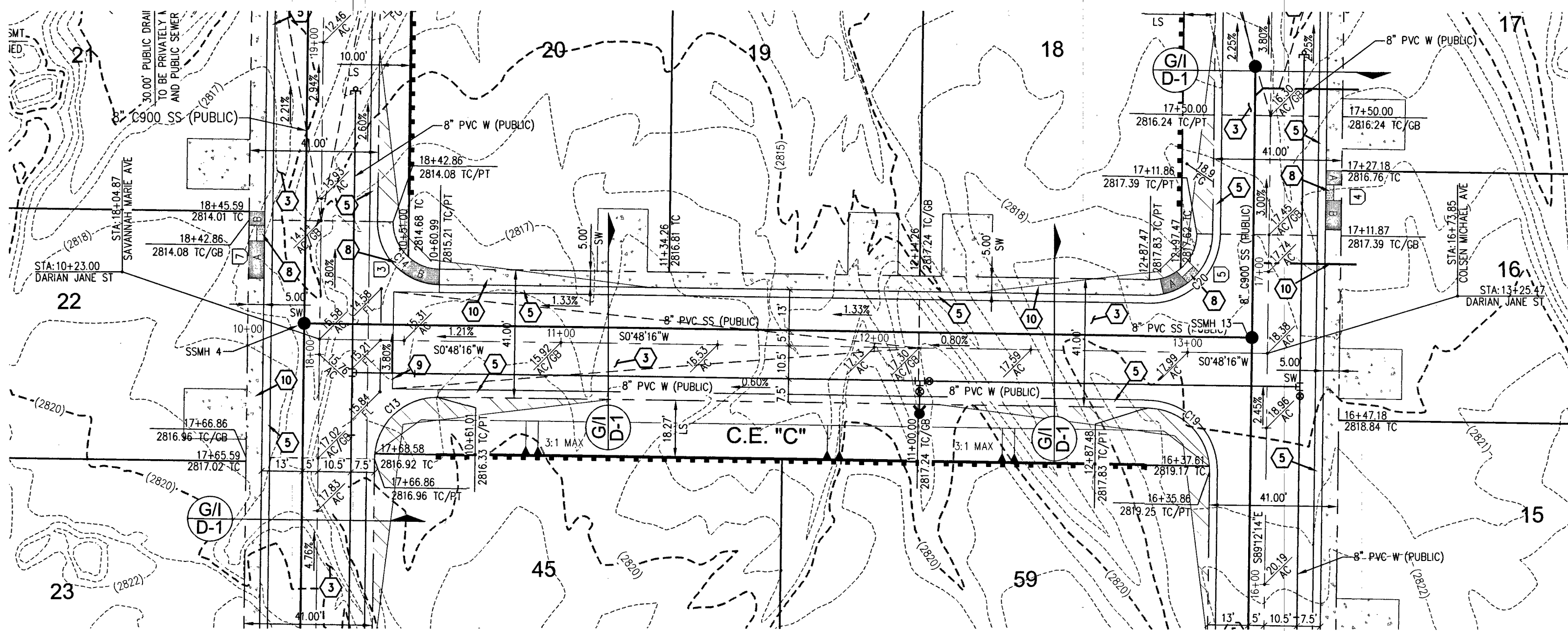


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Call

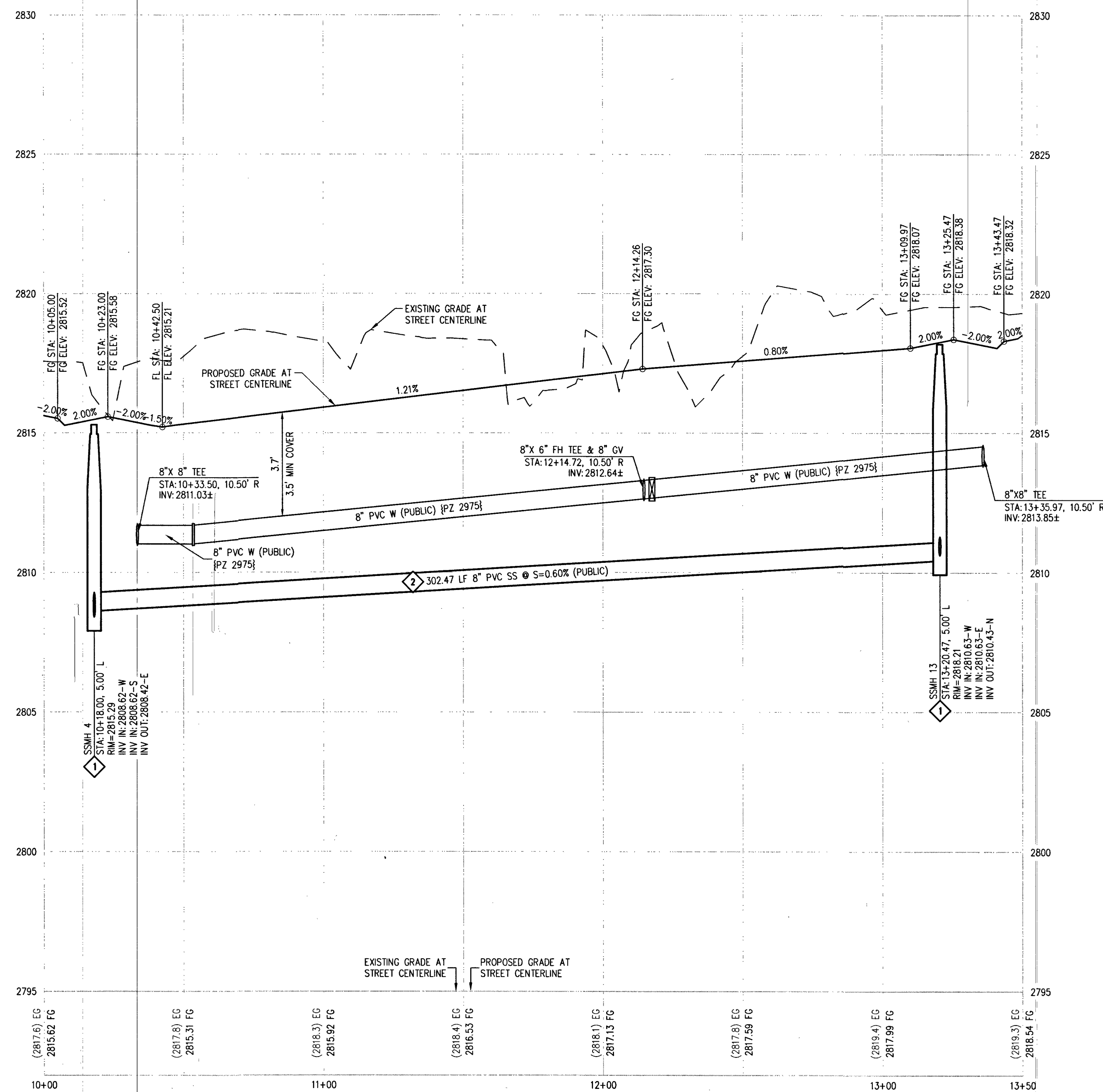
OR
1-800-227-2600



S18 T19S R60E		RICHMOND AMERICAN HOMES		LAS VEGAS, NEVADA		SLATER HANIFAN GROUP a Westwood team	
DATE: 3/18/19		FARM HUALAPAI		740 S. ARVILLE STREET #216, LAS VEGAS, NV 89118		PHONE (702) 284-5300	
DRAFTER: EMH		PLAN AND PROFILE - SEVERENCE LANE		740 S. ARVILLE STREET #216, LAS VEGAS, NV 89118		PHONE (702) 284-5300	
DESIGNER: EMH							
CHECKED: KMB							
PROJECT NO. RAH517							
							
PP-4							
SHEET 14 OF 34							
L18-02739							

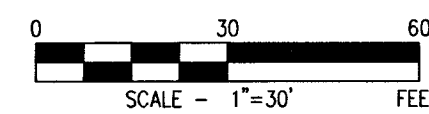


DARIAN JANE ST - PLAN VIEW
(PRIVATE)



DARIAN JANE ST - PROFILE VIEW

HORIZ: 1" = 30'
VERT: 1" = 3'



CURVE TABLE				
CURVE	LENGTH	RADIUS	DELTA	TANGENT
C13	31.42'	20.00'	90°00'30"	20.00'
C14	23.96'	15.00'	89°59'30"	15.00'
C19	31.41'	20.00'	89°59'30"	20.00'
C20	31.42'	20.00'	90°00'30"	20.00'

RAMP TRANSITION LENGTHS				
RAMP NO.	GRADE %	"A" (FT)	"B" (FT)	"C" (FT)
1	-6 TO -5.01	4.5'	21.5'	
2	-5 TO -4.01	4.5'	15.0'	
3	-4 TO -3.01	4.5'	12.0'	
4	-3 TO -2.01	4.5'	9.5'	
5	-2 TO 2	8.0'	8.0'	
6	2.01 TO 3	9.5'	4.5'	
7	3.01 TO 4	12.0'	4.5'	
8	4.01 TO 5	15.0'	4.5'	
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- FOR ROADWAY WIDENING AND HALF STREET IMPROVEMENTS THE CONTRACTOR SHALL VERIFY CROSS SLOPES FROM EXISTING PAVEMENT SAWCUT LINE TO PROPOSED EDGE OF PAVEMENT OR PROJECTED UP OF CURB PRIOR TO SUBGRADE PREPARATION AND CONSTRUCTION OF PROPOSED CURB LINE. IF MINIMUM OR MAXIMUM CROSS SLOPES DO NOT MEET AGENCY STANDARDS THE CONTRACTOR SHALL NOTIFY THE ENGINEER.

GRADING NOTES

- FINAL GRADES ADJACENT TO STRUCTURES SHALL BE IN CONFORMANCE WITH IBC 2012, SECTION 2304.11.2.2.
- THE CONTRACTOR SHALL VERIFY ALL CONDITIONS AND DIMENSIONS AND REPORT ALL DISCREPANCIES TO THE ENGINEER.
- ALL IMPROVEMENTS TO BE PROTECTED FROM EROSION BY SMPPP.
- MAXIMUM/MINIMUM SLOPES AND MINIMUM STREET SECTIONS NOT TO EXCEED THAT SHOWN ON GEOTECH REPORT.
- SEE DETAIL SHEET FOR STREET SECTIONS AND DETAILS.
- ALL PUBLIC AND PRIVATE DRAINAGE IMPROVEMENTS TO BE BONDED FOR AND INSPECTED.
- CONSTRUCTION OF BLOCK WALLS REQUIRES A SEPARATE BUILDING PERMIT AND APPROVAL BY THE CITY OF LAS VEGAS BUILDING DEPARTMENT.
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- NO STRUCTURE, VEGETATION, OR OBJECTS OF ANY KIND IS PERMITTED OVER TWENTY-FOUR (24) INCHES IN HEIGHT (MEASURED FROM THE TOP OF THE ADJACENT CURB IF CURB EXIST) WITHIN THE SIGHT VISIBILITY ZONES.
- CURB FLOW LINES LESS THAN 0.60% GRADE SHALL BE WATER TESTED. ANY CURB THAT DOES NOT FLOW SHALL BE REMOVED AND REPLACED AT NO COST TO THE CITY.

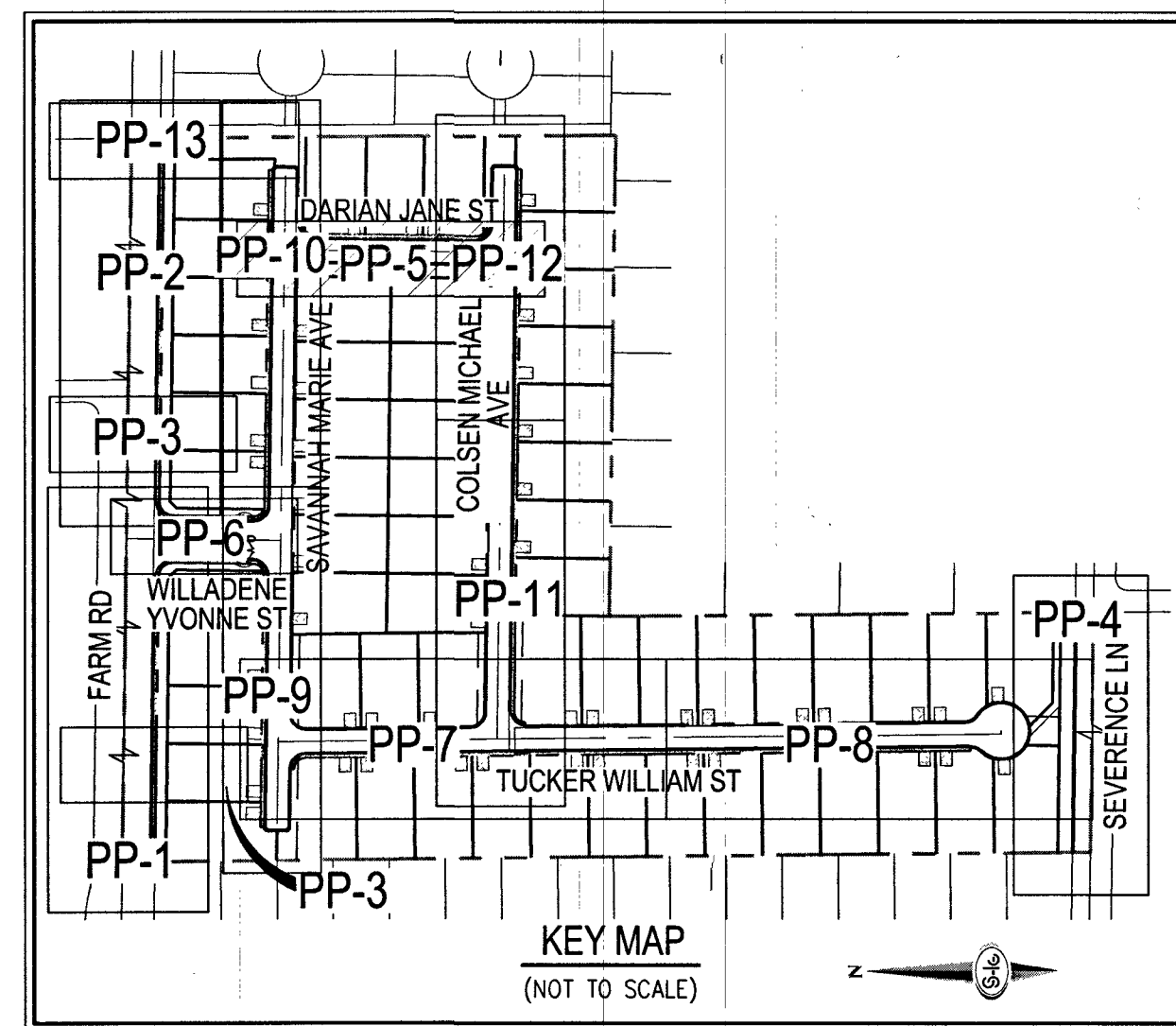
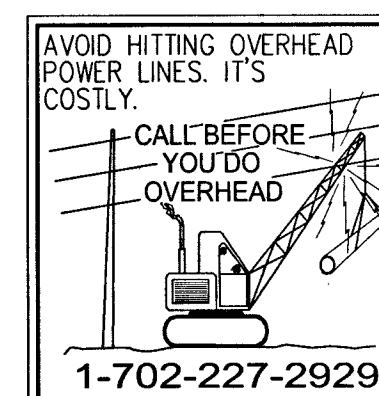
WATER NOTES

- 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 MINIMUM 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.
- REDUCED PRESSURE PRINCIPLE ASSEMBLY (1) 1"
APPROVED REDUCED PRESSURE PRINCIPLE ASSEMBLY(S) SHALL BE INSTALLED PER THE UDACS PLATE NO. 8. NO WATER SHALL BE TAKEN FROM A SERVICE REQUIRING BACKFLOW PREVENTION UNTIL THE REDUCED PRESSURE PRINCIPLE ASSEMBLY HAS BEEN SUCCESSFULLY TESTED BY THE LVWD. ANY BLOCK WALL OR OTHER FENCE MATERIAL SHALL BE DESIGNED AND CONSTRUCTED AROUND THE OUTSIDE OF THE EASEMENT(S) TO ALLOW THE DISTRICT DIRECT ACCESS FROM THE ADJACENT RIGHT-OF-WAY. EASEMENTS SHALL BE CLEARLY MARKED OR STAKED PRIOR TO THE START OF CONSTRUCTION.
- ALL SEWER/STORM DRAIN 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 DRAIN CROSSINGS AND CLEARANCES.
- FITTINGS SHALL NOT FALL UNDER CURBS, GUTTERS OR SIDEWALK.
- INSTALL PIPELINE MARKER BALLS IN TRENCH ABOVE EACH HORIZONTAL ELBOW FITTING PER UDACS PLATE NO. 15.
- THE LVWD CANNOT GUARANTEE A WATERTIGHT SHUTDOWN WHERE CONNECTIONS OR REPAIRS TO EXISTING FACILITIES ARE REQUIRED. THE CONTRACTOR SHALL ENSURE ALL LABOR AND EQUIPMENT IS AVAILABLE TO REMOVE FUGITIVE WATER THAT MAY IMPED CONSTRUCTION AT ALL TIMES. COORDINATION WITH INSPECTION DIVISION MUST TAKE PLACE PRIOR TO ANY TRENCH SHUTDOWN. CONTRACTOR TO INSTALL TEMPORARY SERVICE TO ENSURE PROPER SHUTDOWN IN THE EVENT NO OTHER APPOINTMENTS ARE AVAILABLE.
- DISCLAIMER: EXISTING UTILITY LOCATIONS SHOWN HEREON ARE APPROXIMATE ONLY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT 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 IN THEIR PROPER LOCATION.

APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES

PROJECT NO. 136145 FIRST APPROVED DATE: 4-1-19
LVWD APPROVED FIRE FLOW 1,500 GPM AT 20 PS RESIDUAL
MAXIMUM AVAILABLE FIRE SPRINKLER FLOW 26 GPM



GRADING NOTES

- INSTALL 4" ASPHALT PAVEMENT OVER 4.5" TYPE II AGGREGATE BASE
- INSTALL 3" ASPHALT PAVEMENT OVER 9" TYPE II AGGREGATE BASE
- INSTALL 2" ASPHALT PAVEMENT OVER 4" TYPE II AGGREGATE BASE
- CONSTRUCT "L" TYPE CURB AND GUTTER PER CCAUSD NO. 216
- CONSTRUCT 30" ROLL CURB AND GUTTER PER CCAUSD NO. 217
- CONSTRUCT "A" TYPE CURB PER CCAUSD NO. 219
- CONSTRUCT 10" TRANSITION FROM ROLLED CURB TO "L" TYPE CURB PER DETAIL 46 SHEET D-2
- CONSTRUCT SIDEWALK RAMP USING ARMOR TILE TRUNCATED DOMES OR EQUIVALENT PER CCAUSD NO. 235, CASE 3
- CONSTRUCT 8" GROSS CURB OVER CCAUSD NO. 228
- CONSTRUCT 5" WIDE SIDEWALK PER CCAUSD NO. 234 (4" THICK W/ 5" TYPE II AGGREGATE BASE)
- SAW CUT AND MATCH EXISTING IMPROVEMENTS PER CCAUSD NO. 503 & 500.2
- INSTALL 6" HIGH TUBULAR STEEL FENCE PER DETAIL 40 ON SHEET D-2
- INSTALL 5" PEDESTRIAN ACCESS GATE PER DETAIL 42 ON SHEET D-2
- INSTALL 12" MINIMUM WIDTH DOUBLE GATES PER DETAIL 41 ON SHEET D-2
- INSTALL 6" HIGH WROUGHT IRON FENCE WITH VEHICLE GATE ELECTRICALLY-POWERED WITH BATTERY BACK-UP AND A.V. LOOP
- INSTALL DEPRESSIONED CURB PER DETAIL 43 ON SHEET D-2
- INSTALL BLOCK WALL OPENING PER DETAIL 44 ON SHEET D-2
- EXISTING POWER POLE TO REMAIN
- INSTALL EQUESTRIAN TRAIL
- INSTALL RECREATIONAL FENCE
- EXISTING WROUGHT IRON FENCE TO BE REMOVED
- INSTALL METAL PLATE OVER CONCRETE U-CHANNEL AT EQUESTRIAN TRAIL
- INSTALL 2' CONCRETE U-CHANNEL PER DETAIL 47 ON SHEET D-2
- EXISTING 36" RCP SD PER CLV #107Y4803
- EXISTING 18" CLASS III RCP SD LATERAL PER CLV #107Y4803
- EXISTING DROP INLET PER CLV #107Y4803
- CONNECT TO EXISTING STORM DRAIN LATERAL AND INSTALL CONCRETE COLLAR PER DETAIL 48 ON SHEET D-2
- INSTALL 18" RCP STORM DRAIN LATERAL
- INSTALL 5.0" TYPE "CM2" DROP INLET PER CCAUSD NO. 412.1 AND 421
- EXISTING 48" STORM DRAIN MANHOLE PER CLV #107Y4803
- INSTALL SIDEWALK UNDERDRAIN PER CCAUSD NO. 236
- CONSTRUCT "L" TYPE CURB AND GUTTER PER CCAUSD NO. 219
- REMOVE EXISTING CHANNEL WALL AT U-CHANNEL OUTLET

SEWER CONSTRUCTION NOTES

- INSTALL 48" DIAMETER SANITARY SEWER MANHOLE PER DCSWCS SD-1A, SD-1B, SD-4 AND SD-9 WITH 24" SINGLE LID
- INSTALL 8" SANITARY SEWER PIPE (PUBLIC) PER DCSWCS SD-15 AND SD-17
- INSTALL 4" PVC SEWER LATERAL PER DCSWCS SD-22 AND SD-25
- PROTECT SEWER APPURTENANCES IN PLACE. REF. PLANS FOR DETAILS
- FIELD VERIFY LOCATION AND CONNECT TO EXISTING SEWER
- INSTALL 60" DIAMETER SANITARY SEWER MANHOLE WITH CAST-IN-PLACE BASE PER DCSWCS SD-4, SD-7 AND SD-9 W/ CORROSION PROTECTION PER DCSWCS 3.16.8.B
- INSTALL 8" C900 SEWER PIPE (PUBLIC) PER DCSWCS SD-15 AND SD-17
- INSTALL 48" DIAMETER SANITARY SEWER MANHOLE PER DCSWCS SD-4, SD-9, AND SD-13 "B" WITH 24" SINGLE LID
- INSTALL 4" C-900 PVC SANITARY SEWER LATERAL PER DCSWCS SD-17, SD-22, SD-23 AND SD-25

SLATER HANIFAN GROUP

a Westwood team

5740 S. ARVILLE STREET #216, LAS VEGAS, NV 89118

PHONE (702) 284-5300 FAX (702) 284-5399

DATE: 3/18/19

DRAFTER: EMH

DESIGNER: EMH

CHECKED: KMB

PROJECT NO. RAH1517

PP-5

SHEET 15 OF 34

L18-02739

107VS104

3/21/19

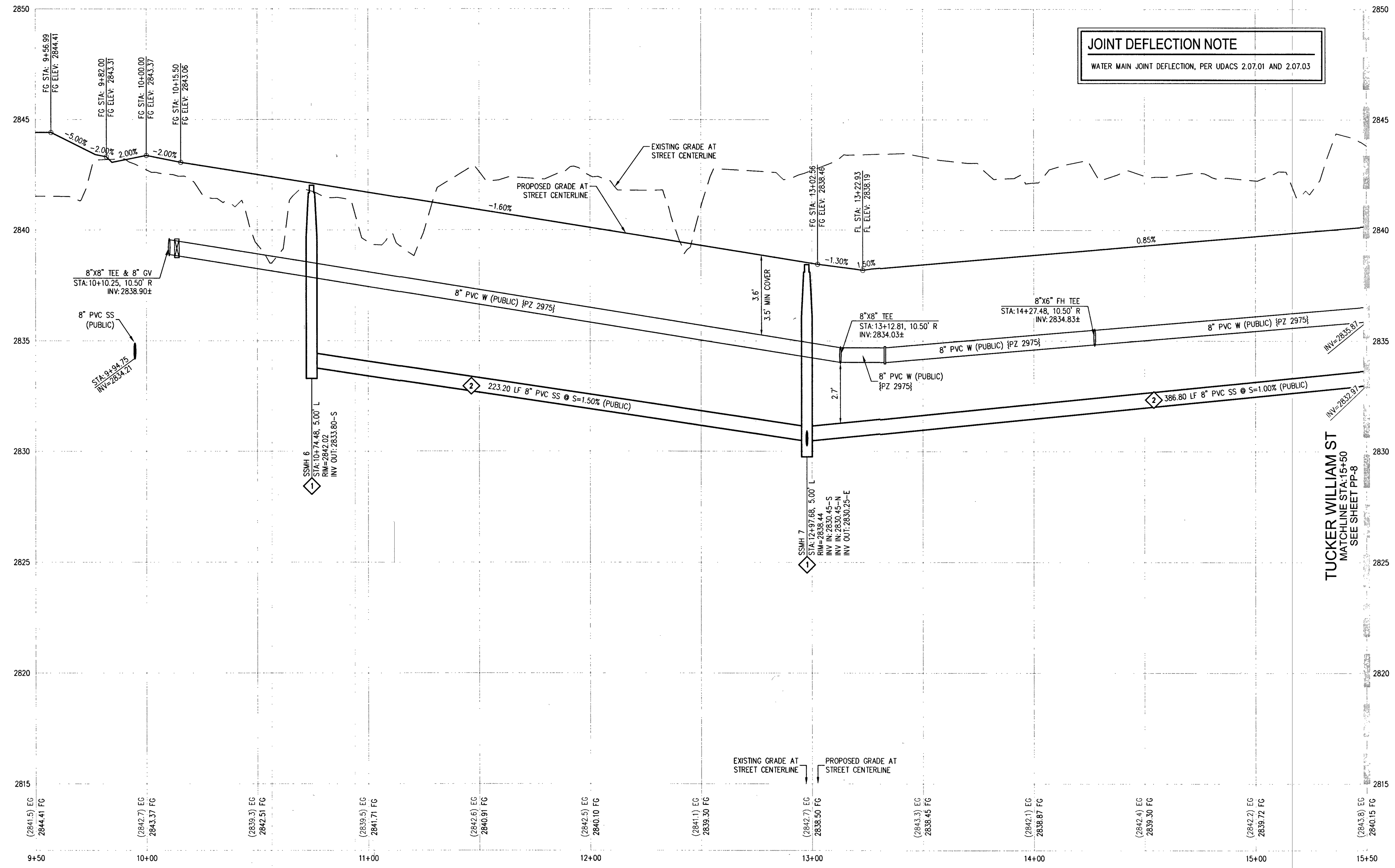
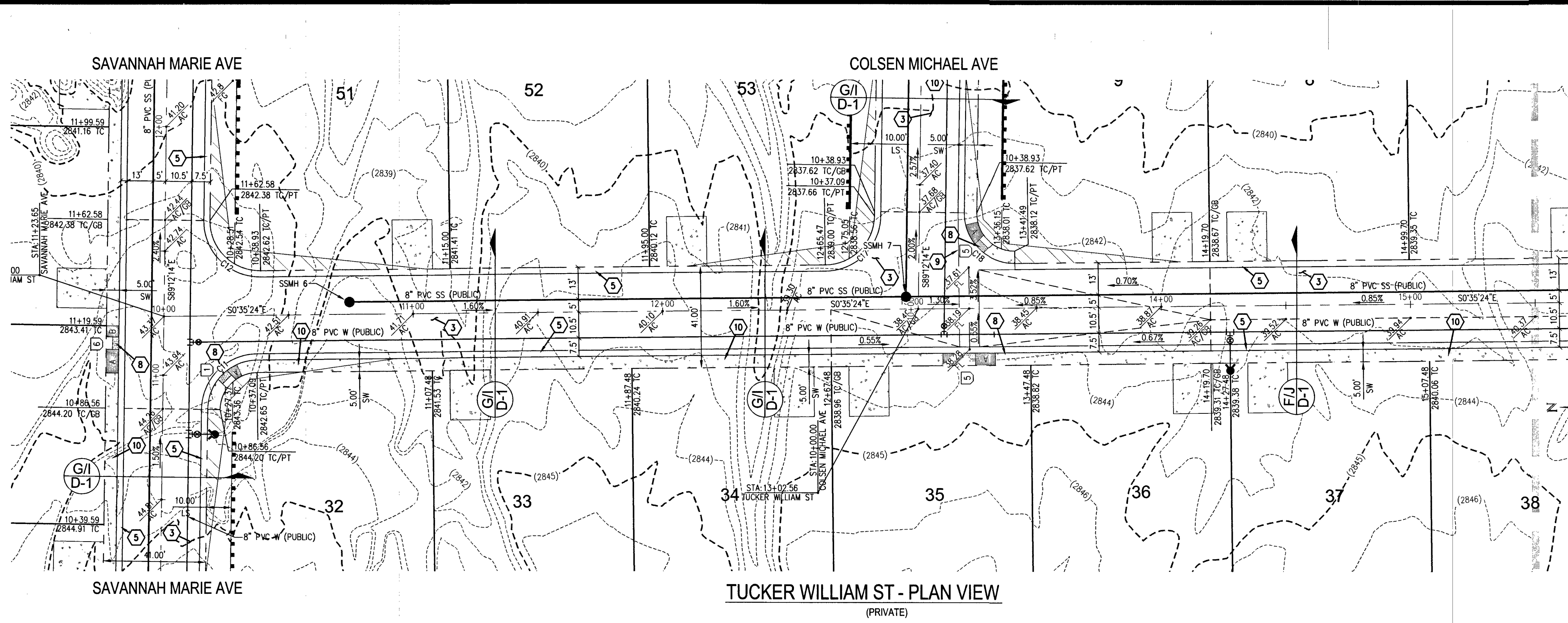
PP-5

SHEET 15 OF 34

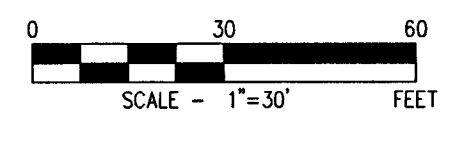
L18-02739

PROJ. # 136145A QS 12-18 SW

107VS104



TUCKER WILLIAM ST
SEE SHEET PP-8 FOR CONTINUATION



CURVE TABLE				
CURVE	LENGTH	RADIUS	DELTA	TANGENT
C11	30.93'	20.00'	88°36'50"	19.52'
C12	31.90'	20.00'	91°23'10"	20.49'
C17	30.93'	20.00'	88°36'50"	19.52'
C18	31.90'	20.00'	91°23'10"	20.49'

RAMP TRANSITION LENGTHS				
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1	-6 TO -5.01	4.5'	21.5'	
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5	-2 TO 2	8.0'	8.0'	
6	2.01 TO 3	9.5'	4.5'	
7	3.01 TO 4	12.0'	4.5'	
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APPROVED FOR CONSTRUCTION

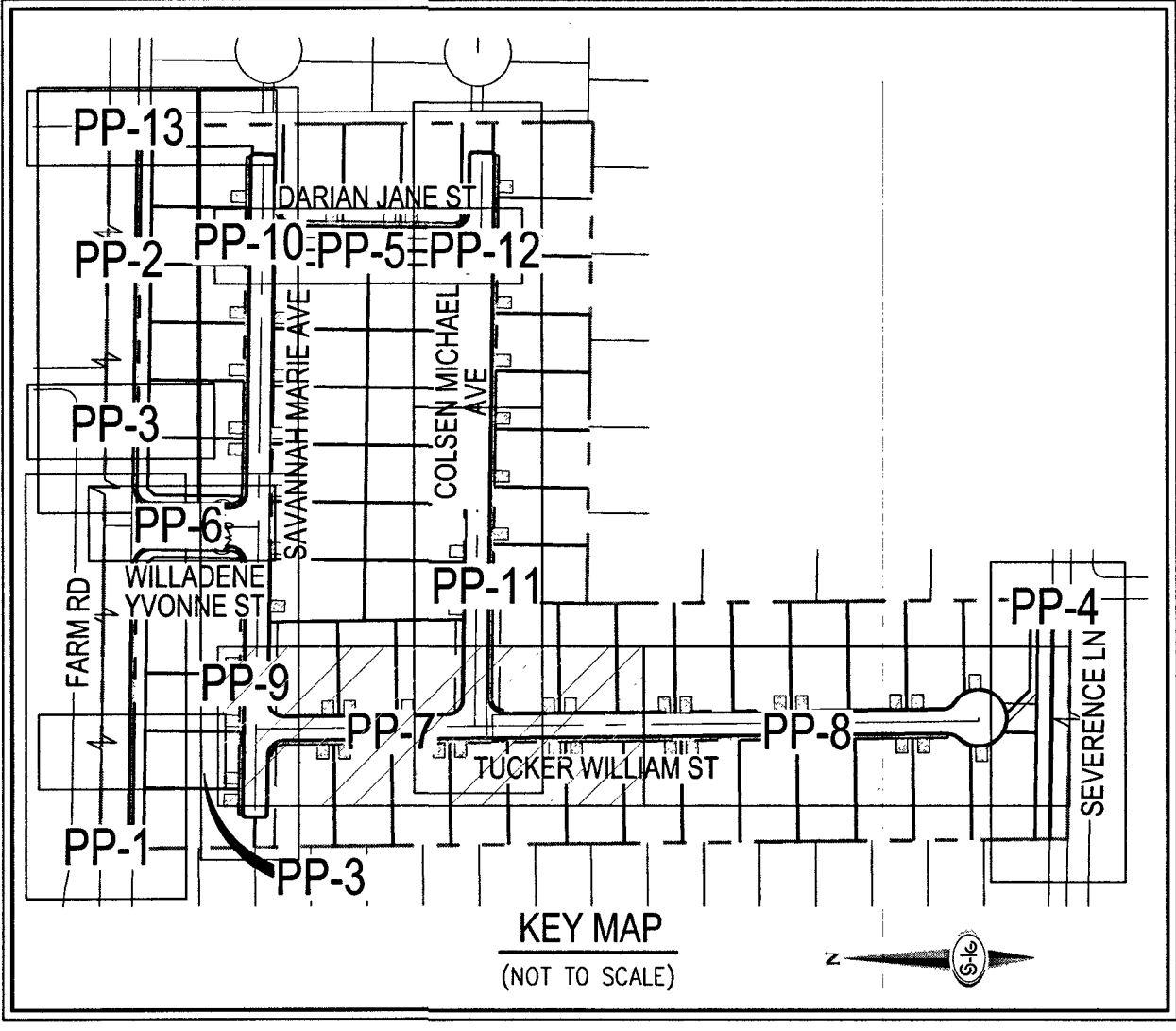
James M. Shook
LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES

PROJECT NO. 136145 FIRST APPROVED DATE: 4-4-19
LVWD APPROVED FIRE FLOW 1,500 GPM AT 20 PSI RESIDUAL
MAXIMUM AVAILABLE FIRE SPRINKLER FLOW 26 GPM

FAST
Call before you dig
UnderGround
1-702-432-5300
FREEWAY & ARTERIAL SYSTEM OF TRANSPORTATION (F.A.S.T.)

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

Call before you dig
AVOID CUTTING UNDERGROUND UTILITY LINES. IT'S COSTLY.
Call 811
OR
1-800-227-2600



- GRADING NOTES**
- INSTALL 4" ASPHALT PAVEMENT OVER 4.5" TYPE II AGGREGATE BASE
 - INSTALL 3" ASPHALT PAVEMENT OVER 9" TYPE II AGGREGATE BASE
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 - CONSTRUCT 30" ROLL CURB AND GUTTER PER CCAUSD NO. 217.1
 - CONSTRUCT "A" TYPE CURB PER CCAUSD NO. 219
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SLATER HANIFAN GROUP
a Westwood team
5740 S. ARVILLE STREET #216, LAS VEGAS, NV 89118
PHONE (702) 284-5300 FAX (702) 284-5399

RICHMOND AMERICAN HOMES
FARM HUALAPAI
PLAN AND PROFILE - TUCKER WILLIAM STREET I

SIB 1188
R001

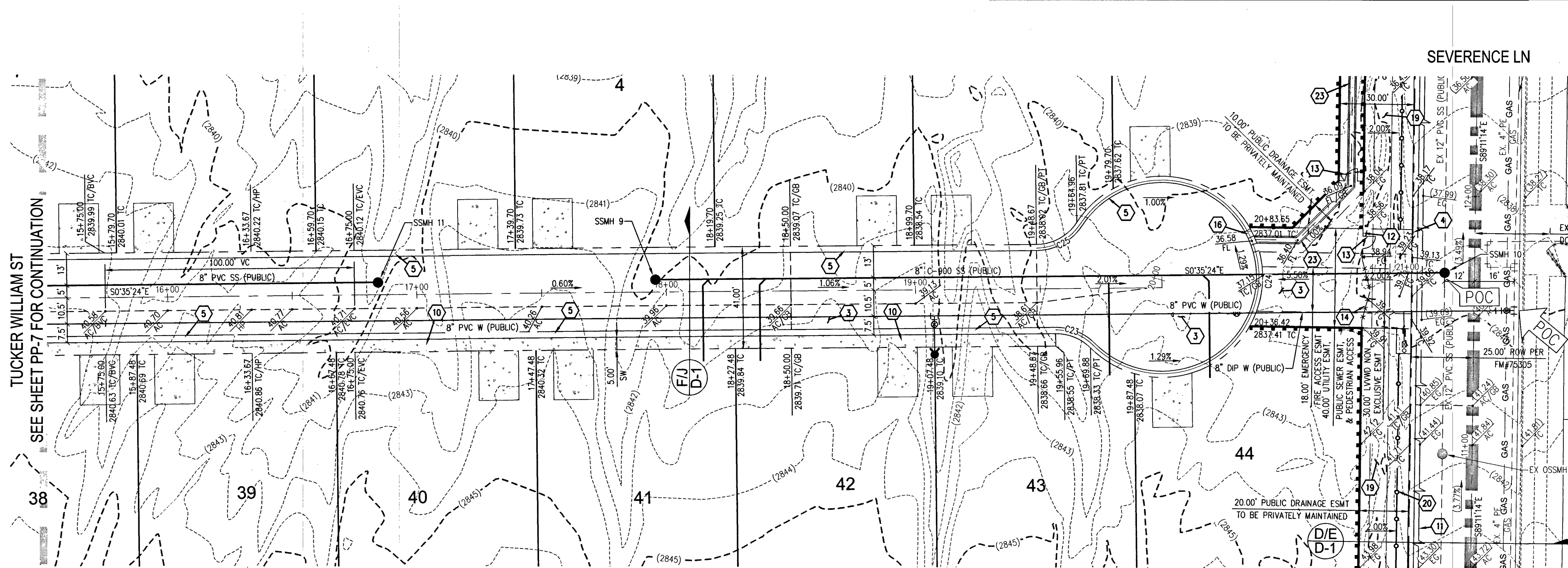
DATE: 3/18/19
DRAFTER: EMH
DESIGNER: EMH
CHECKED: KMB
PROJECT NO. RAH1517

KEVIN M. BROSS
Exp. 12/31/2026
CIVIL
No. 24572 JOVIAN
3/21/19

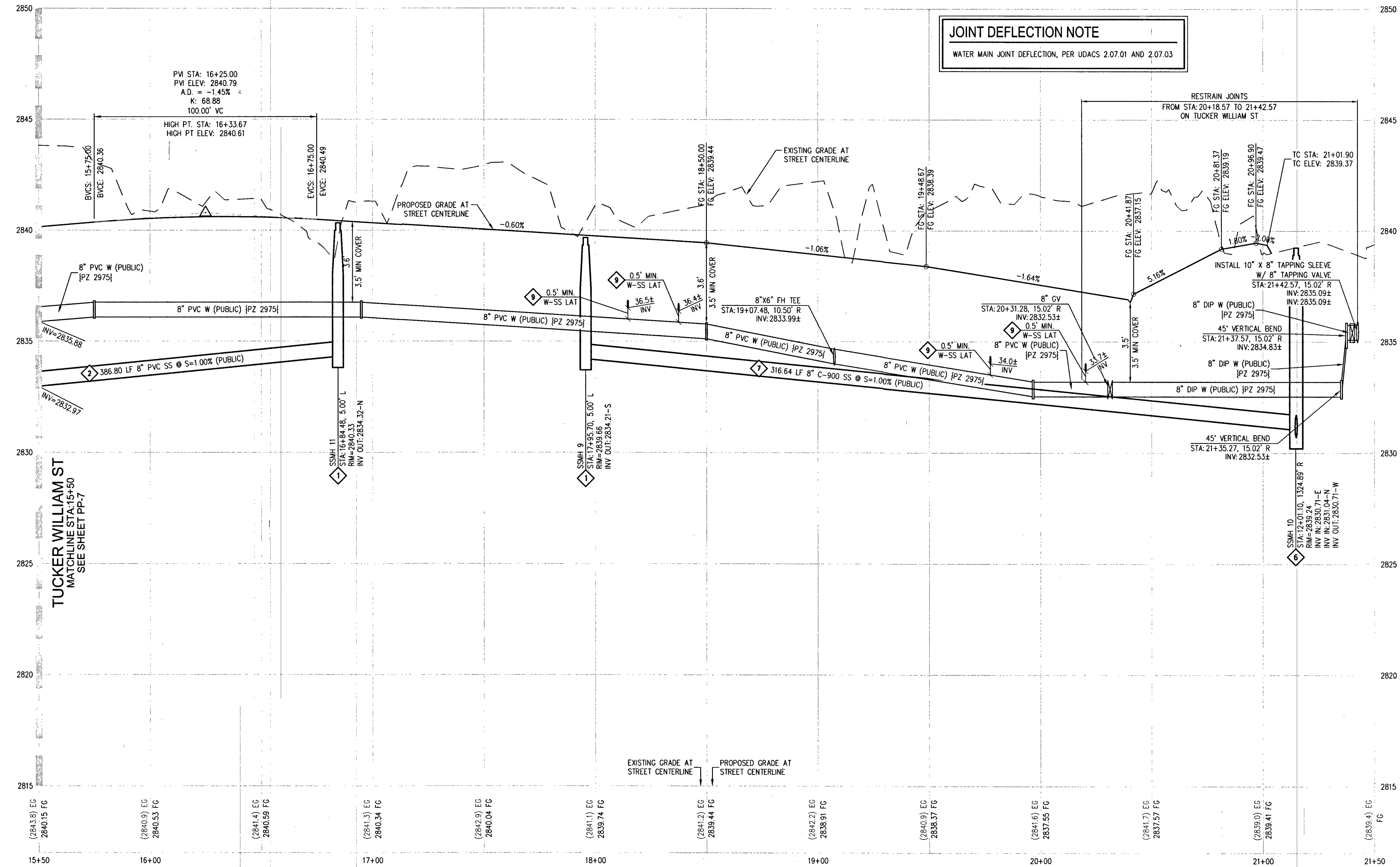
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SHEET 17 OF 34
L18-02739

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TUCKER WILLIAM ST - PLAN VIEW
(PRIVATE)



TUCKER WILLIAM ST - PROFILE VIEW

JOINT DEFLECTION NOTE

WATER MAIN JOINT DEFLECTION, PER UDACS 2.07.01 AND 2.07.03

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APPROVED FOR CONSTRUCTION

James Shady
LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES

PROJECT NO. 136145 FIRST APPROVED DATE: 4-11-19
LVWD APPROVED FIRE FLOW 1,500 GPM AT 20 PSI RESIDUAL
MAXIMUM AVAILABLE FIRE SPRINKLER FLOW 26 GPM

SOUTHWEST GAS APPROVAL

Renele Kennedy 3-21-19
SOUTHWEST GAS CORPORATION DATE



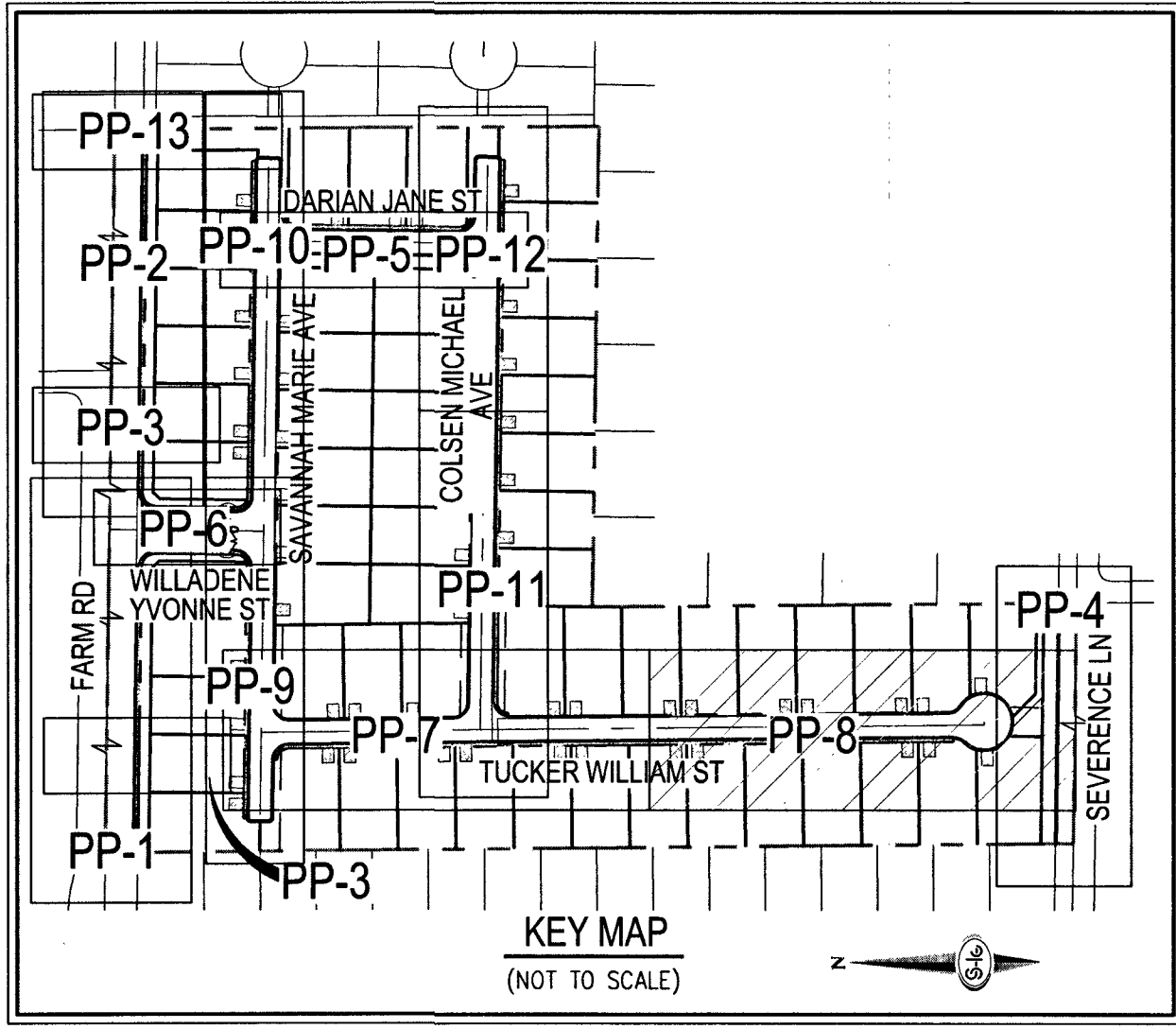
CALL SOUTHWEST GAS AT 702-651-2111 FOR STANDBY WHEN EXCAVATING OVER OR NEAR HIGH PRESSURE GAS LINES

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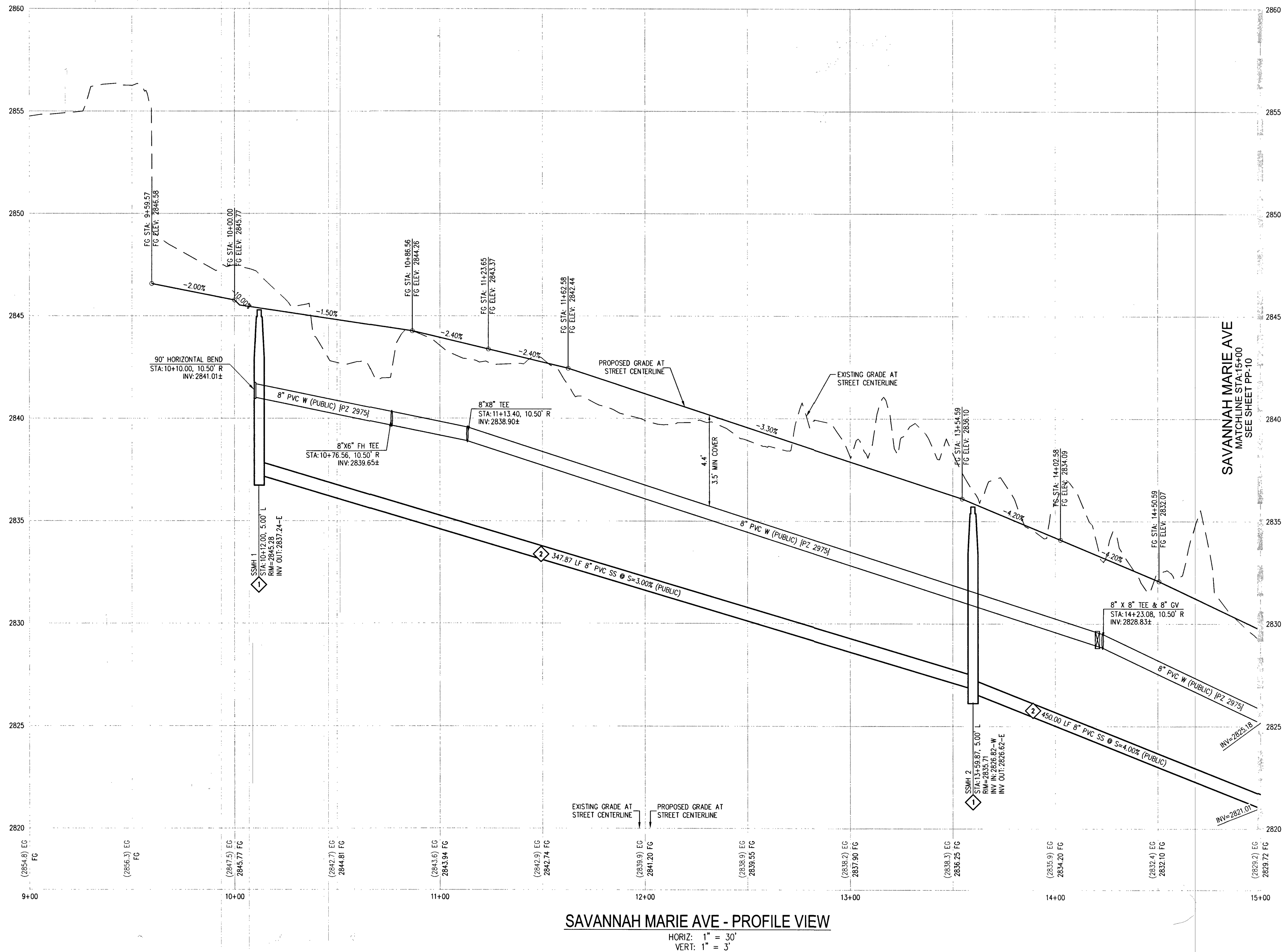
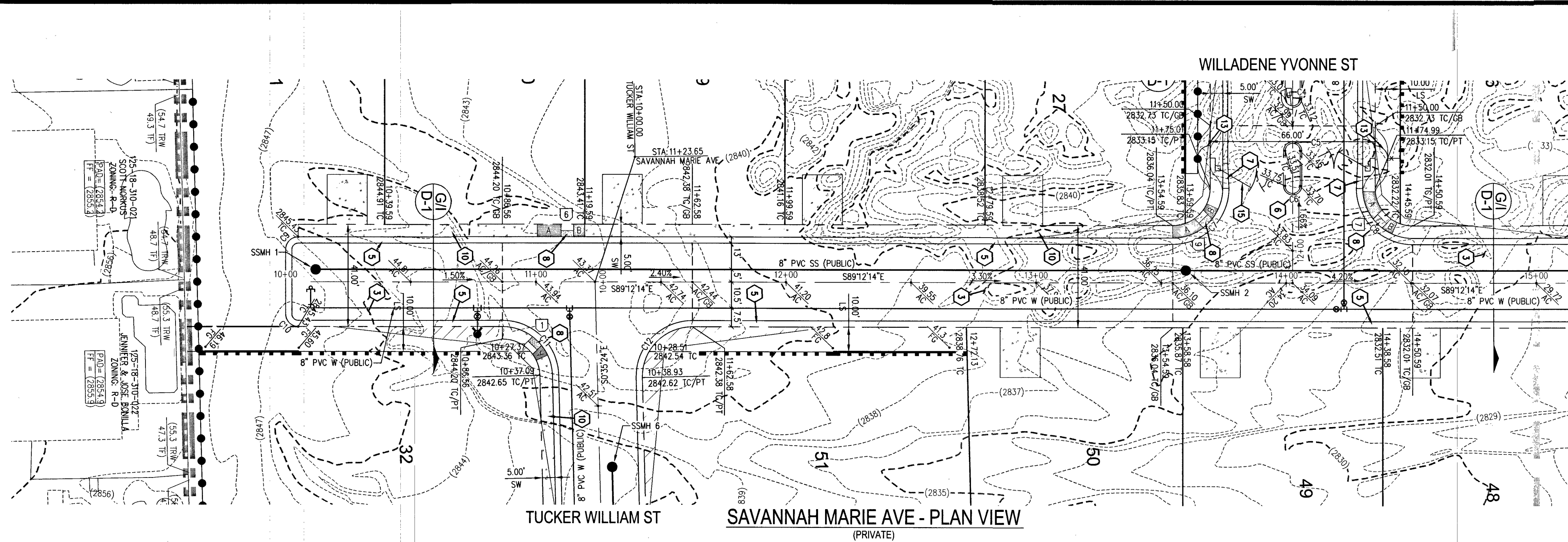


SLATER HANIFAN GROUP
a Westwood team
5740 S. ARVILLE STREET #216, LAS VEGAS, NV 89118
PHONE (702) 284-5390 FAX (702) 284-5399

RICHMOND AMERICAN HOMES
FARM HUALAPAI
PLAN AND PROFILE - TUCKER WILLIAM STREET II

DATE: 3/18/19
DRAFTER: EMH
DESIGNER: EMH
CHECKED: KMB
PROJECT NO. RAH1517

PP-8
SHEET 18 OF 34
L18-02739



CURVE TABLE				
CURVE	LENGTH	RADIUS	DELTA	TANGENT
C4	9.42'	3.00'	180°00'00"	INFINITY
C5	9.42'	3.00'	180°00'00"	INFINITY
C6	9.42'	3.00'	180°00'00"	INFINITY
C7	31.41'	20.00'	89°59'30"	20.00'
C8	31.42'	20.00'	90°00'30"	20.00'
C9	7.85'	5.00'	90°00'00"	5.00'
C10	7.85'	5.00'	90°00'00"	5.00'
C11	30.93'	20.00'	88°36'50"	19.52'
C12	31.90'	20.00'	91°23'10"	20.49'

RAMP TRANSITION LENGTHS				
RAMP NO.	GRADE %	"A" (FT)	"B" (FT)	"C" (FT)
1	-6 TO -5.01	4.5'	21.5'	
2	-5 TO -4.01	4.5'	15.0'	
3	-4 TO -3.01	4.5'	12.0'	
4	-3 TO -2.01	4.5'	9.5'	
5	-2 TO 2	8.0'	8.0'	
6	2.01 TO 3	9.5'	4.5'	
7	3.01 TO 4	12.0'	4.5'	
8	4.01 TO 5	15.0'	4.5'	
9	5.01 TO 6	21.5'	4.5'	

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7. DISCLAIMER: EXISTING UTILITY LOCATIONS SHOWN HEREON ARE APPROXIMATE ONLY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT 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 IN THEIR PROPER LOCATION.

APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES

PROJECT NO. 136145 FIRST APPROVED DATE: 4-16-19

LVWD APPROVED FIRE FLOW 1,500 GPM AT 20 PSI RESIDUAL

MAXIMUM AVAILABLE FIRE SPRINKLER FLOW 26 GPM

FAST

Call before you dig

UnderGround

1-702-432-5300

FREWAY & ARTERIAL SYSTEM OF TRANSPORTATION (F.A.S.T.)

AVOID HITTING OVERHEAD POWER LINES. IT'S COSTLY.

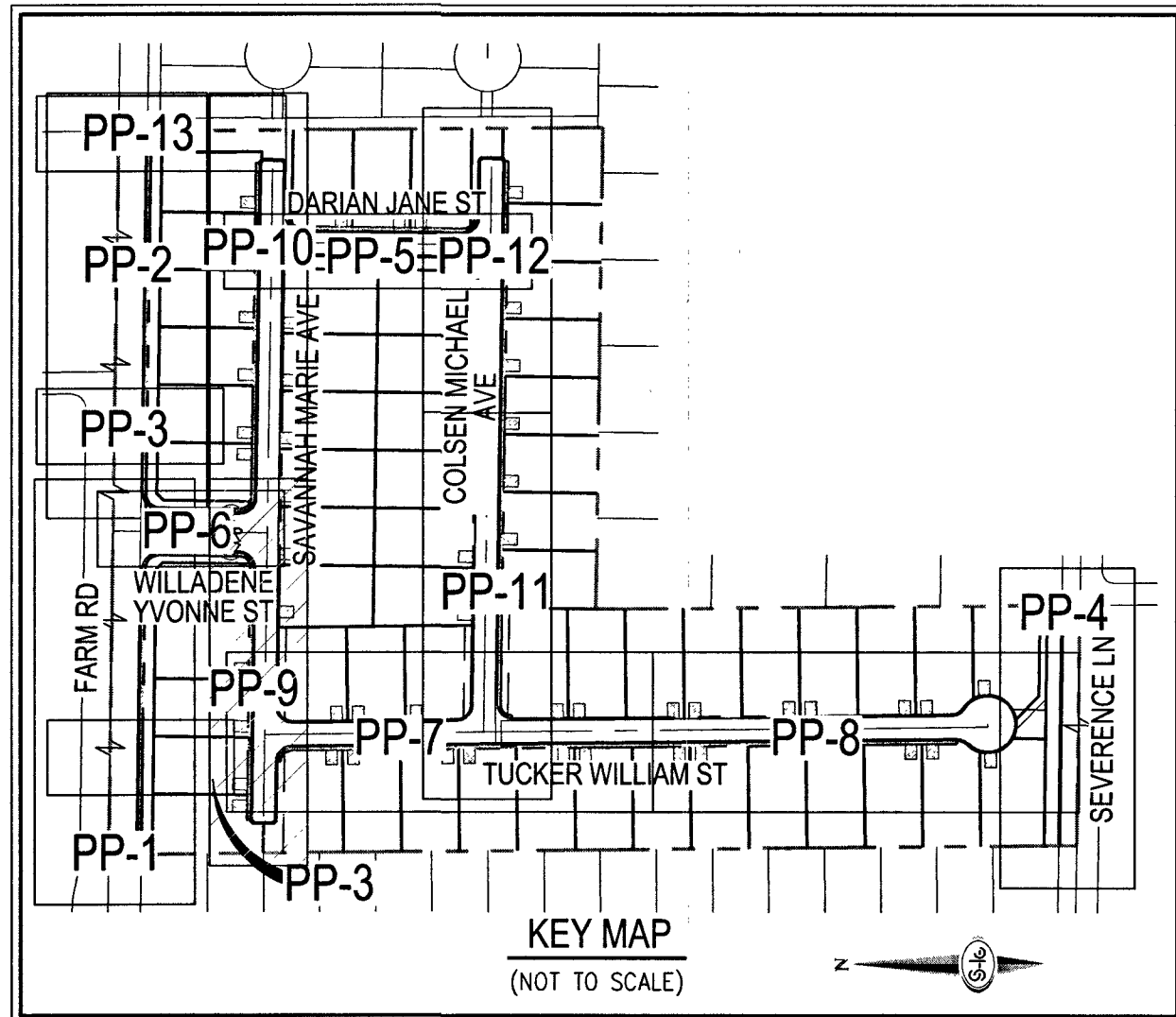
CALL BEFORE YOU DO OVERHEAD

1-702-227-2929

Call before you dig

AVOID CUTTING UNDERGROUND UTILITY LINES. IT'S COSTLY.

Call 811 OR 1-800-227-2600



- GRADING NOTES**
- INSTALL 4" ASPHALT PAVEMENT OVER 4.5" TYPE II AGGREGATE BASE
 - INSTALL 3" ASPHALT PAVEMENT OVER 9" TYPE II AGGREGATE BASE
 - INSTALL 2" ASPHALT PAVEMENT OVER 4" TYPE II AGGREGATE BASE
 - CONSTRUCT "L" TYPE CURB AND GUTTER PER CCAUSD NO. 216
 - CONSTRUCT 30" ROLL CURB AND GUTTER PER CCAUSD NO. 217
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 - CONSTRUCT 10" TRANSITION FROM ROLLED CURB TO "L" TYPE CURB PER DETAIL 46 SHEET D-2
 - CONSTRUCT SIDEWALK RAMPS USING ARMOR TILE TRUNCATED DOMES OR EQUIVALENT PER CCAUSD NO. 235, CASE 1
 - CONSTRUCT 8" GROSS GUTTER PER CCAUSD NO. 228
 - CONSTRUCT 5' WIDE SIDEWALK PER CCAUSD NO. 234 (4" THICK W/ 5" TYPE II AGGREGATE BASE)
 - SAWCUT AND MATCH EXISTING IMPROVEMENTS PER CCAUSD NO. 503 & 500.2
 - INSTALL 6" HIGH TUBULAR STEEL FENCE PER DETAIL 40 ON SHEET D-2
 - INSTALL 5' PEDESTRIAN ACCESS GATE PER DETAIL 42 ON SHEET D-2
 - INSTALL 12" MINIMUM WIDTH DOUBLE GATES PER DETAIL 41 ON SHEET D-2
 - INSTALL 6" HIGH WROUGHT IRON FENCE WITH VEHICLE GATE ELECTRICALLY-POWER WITH BATTERY BACK-UP AND A.V. LOOP
 - INSTALL DEPRESSED CURB PER DETAIL 43 ON SHEET D-2
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 - EXISTING POWER POLE TO REMAIN
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 - EXISTING 36" RCP SD PER CLV #107Y4803
 - EXISTING 18" CLASS III RCP SD LATERAL PER CLV #107Y4803
 - EXISTING DROP INLET PER CLV #107Y4803
 - CONNECT TO EXISTING STORM DRAIN LATERAL AND INSTALL CONCRETE COLLAR PER DETAIL 48 ON SHEET D-2
 - INSTALL 18" RCP STORM DRAIN LATERAL
 - INSTALL 5.0" TYPE "CM2" DROP INLET PER CCAUSD NO. 412.1 AND 421
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 - INSTALL SIDEWALK UNDERDRAIN PER CCAUSD NO. 236
 - CONSTRUCT "L" TYPE CURB AND GUTTER PER CCAUSD NO. 219
 - REMOVE EXISTING CHANNEL WALL AT U-CHANNEL OUTLET

- SEWER CONSTRUCTION NOTES**
- INSTALL 48" DIAMETER SANITARY SEWER MANHOLE PER DCSWCS SD-1A, SD-1B, SD-4 AND SD-9 WITH 24" SINGLE LID
 - INSTALL 8" SANITARY SEWER PIPE (PUBLIC) PER DCSWCS SD-15 AND SD-17
 - INSTALL 4" PVC SEWER LATERAL PER DCSWCS SD-22 AND SD-25
 - PROTECT SEWER APPURTENANCES IN PLACE. REF. PLANS FOR DETAILS
 - FIELD VERIFY LOCATION AND CONNECT TO EXISTING SEWER
 - INSTALL 60" DIAMETER SANITARY SEWER MANHOLE WITH CAST-IN-PLACE BASE PER DCSWCS SD-4, SD-7 AND SD-9 W/ CORROSION PROTECTION PER DCSWCS 3.16.6.6
 - INSTALL 8" C900 SEWER PIPE (PUBLIC) PER DCSWCS SD-15 AND SD-17
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 - INSTALL 4" C-900 PVC SANITARY SEWER LATERAL PER DCSWCS SD-17, SD-22, SD-23 AND SD-25

SLATER HANIFAN GROUP

a Westwood team

5740 S. ARVILLE STREET #216, LAS VEGAS, NV 89118

PHONE (702) 284-5300 FAX (702) 284-5399

RICHMOND AMERICAN HOMES

FARM HUALAPAI

PLAN AND PROFILE - SAVANNAH MARIE AVENUE I

DATE: 3/18/19

DRAFTER: EMH

DESIGNER: EMH

CHECKED: KMB

PROJECT NO. RAH1517

PP-9

SHEET 19 OF 34

L18-02739

3/24/19

KEVIN M. BROSS

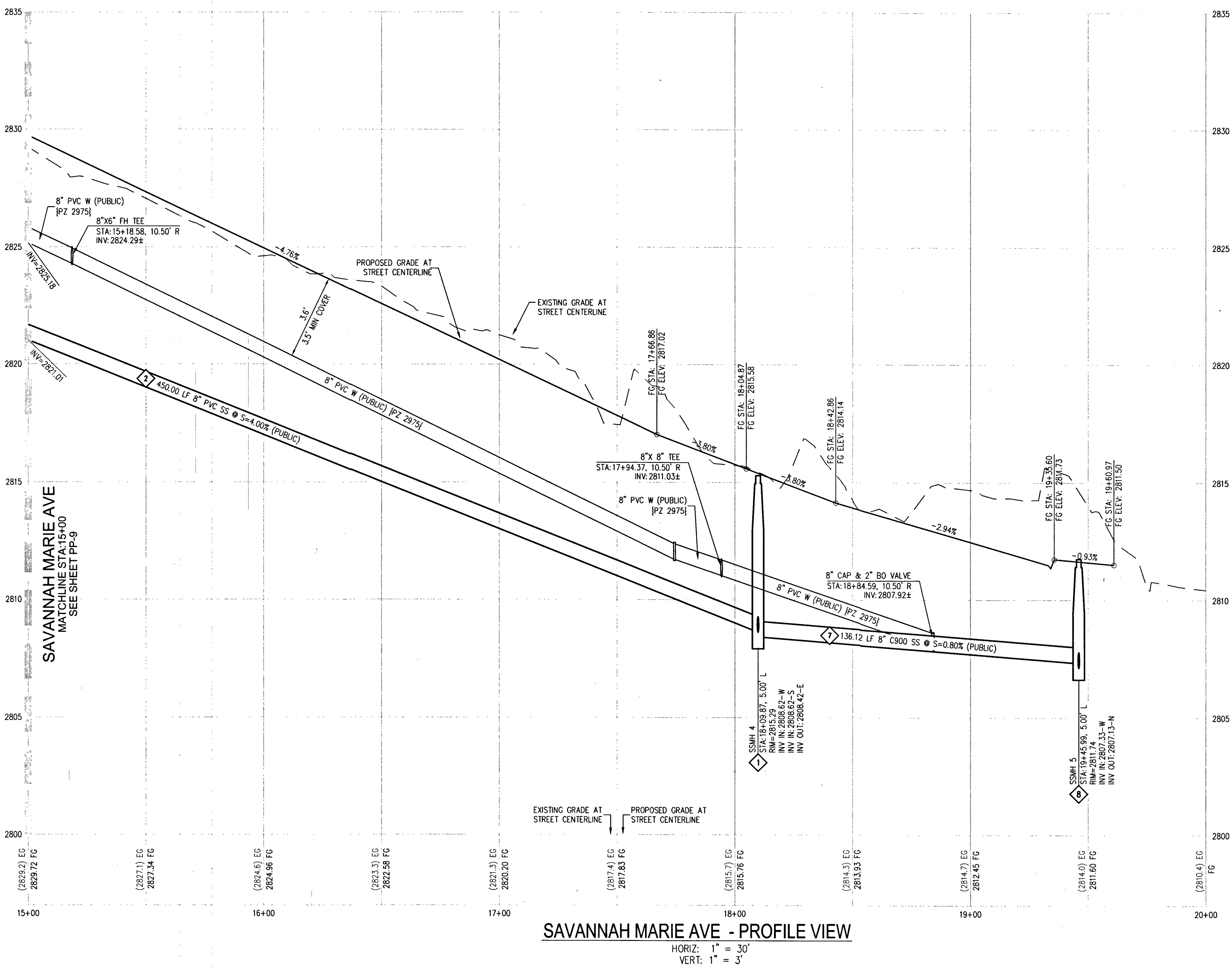
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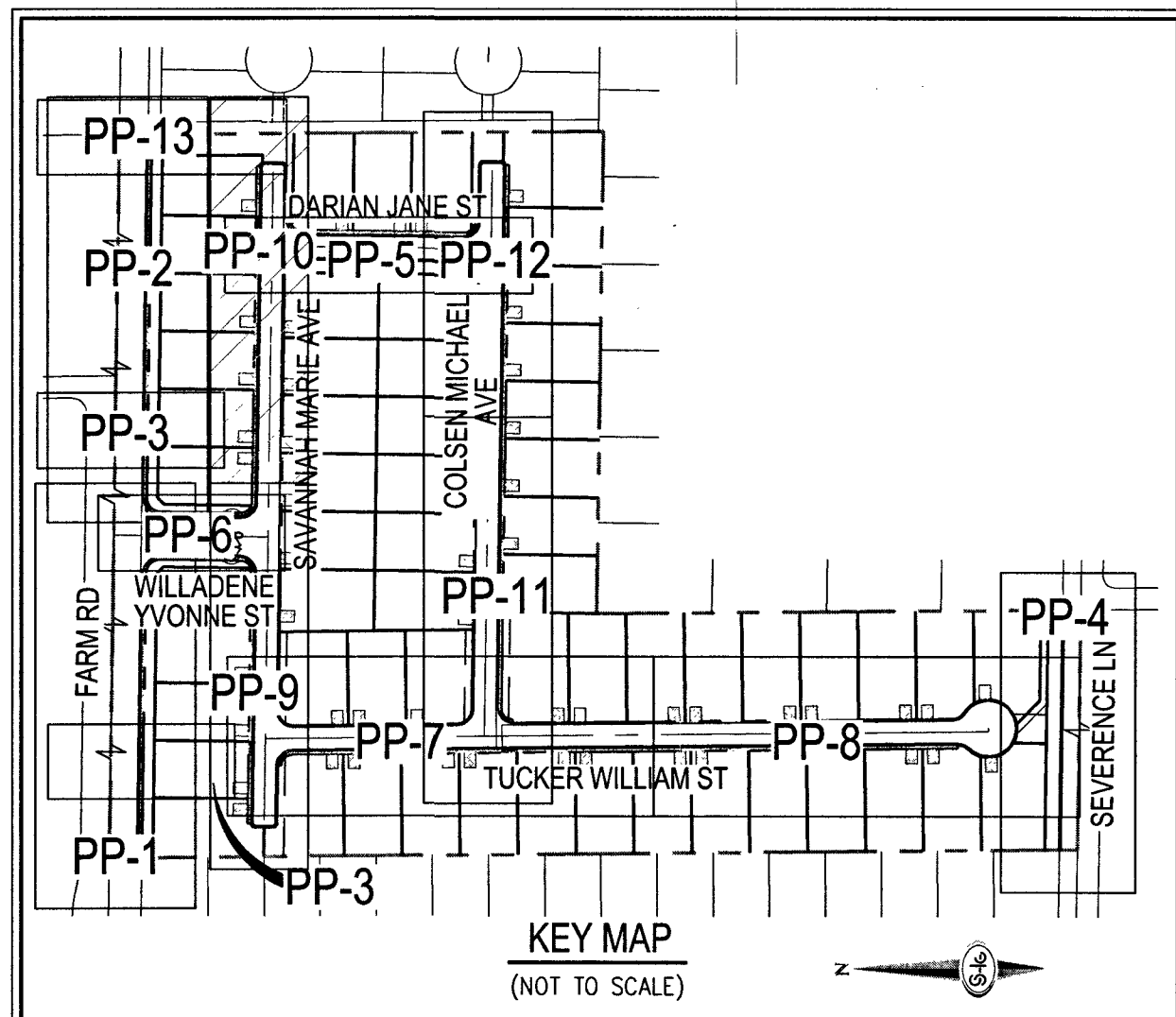
STATE OF NEVADA

PROFESSIONAL ENGINEER

NO. 24572



RAMP TRANSITION LENGTHS			
RAMP NO.	GRADE % "B" TO "A"	"A" (F) MIN.	"B" (F) MIN.
1	-6 TO -5.01	4.5'	21.5'
2	-5 TO -4.01	4.5'	15.0'
3	-4 TO -3.01	4.5'	12.0'
4	-3 TO -2.01	4.5'	9.5'
5	-2 TO 2	8.0'	8.0'
6	2.01 TO 3	9.5'	4.5'
7	3.01 TO 4	12.0'	4.5'
8	4.01 TO 5	15.0'	4.5'
9	5.01 TO 6	21.5'	4.5'



- ## GRADING NOTES
1. FINAL GRADES ADJACENT TO STRUCTURES SHALL BE IN CONFORMANCE WITH IBC 2012, SECTION 2304.11.2.2.
 2. THE CONTRACTOR SHALL VERIFY ALL CONDITIONS AND DIMENSIONS AND REPORT ALL DISCREPANCIES TO THE ENGINEER.
 3. ALL IMPROVEMENTS TO BE PROTECTED FROM EROSION BY SWPPP.
 4. MAXIMUM/MINIMUM SLOPES AND MINIMUM STREET SECTIONS NOT TO EXCEED THAT SHOWN ON GEOTECH REPORT.
 5. SEE DETAIL SHEET FOR STREET SECTIONS AND DETAILS.
 6. ALL PUBLIC AND PRIVATE DRAINAGE IMPROVEMENTS TO BE BONDED FOR AND INSPECTED.
 7. CONSTRUCTION OF BLOCK WALLS REQUIRES A SEPARATE BUILDING PERMIT AND APPROVAL BY THE CITY OF LAS VEGAS BUILDING DEPARTMENT.
 8. CONTRACTOR TO VERIFY LOCATION AND ELEVATION OF EXISTING UTILITY STRUCTURES AND FACILITIES AND NOTIFY ENGINEER OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION. CONTRACTOR TO PROTECT IN PLACE DURING CONSTRUCTION. ENGINEER/OWNER SHALL BE NOTIFIED OF PRIOR DAMAGE TO EXISTING FACILITIES PRIOR TO CONSTRUCTION. CONTRACTOR WILL BE RESPONSIBLE FOR REPAIR/REPLENISHING FACILITIES IF ENGINEER/OWNER IS NOT NOTIFIED OF EXISTING DAMAGE PRIOR TO CONSTRUCTION COMMENCING.
 9. NO STRUCTURE, VEGETATION, OR OBJECTS OF ANY KIND IS PERMITTED OVER TWENTY-FOUR (24) INCHES IN HEIGHT (MEASURED FROM THE TOP OF THE ADJACENT CURB IF CURB EXIST) WITHIN THE SIGHT VISIBILITY ZONES.
 10. CURB FLOW LINE LESS THAN 0.60% GRADE SHALL BE WATER TESTED. ANY CURB THAT DOES NOT FLOW SHALL BE REMOVED AND REPLACED AT NO COST TO THE CITY.

- # WATER NOTES
1. WATER MAIN JUNCTION DEFLECTION (PVC 4" - 24")
PVC PIPE SHALL BE DEFLECTED AT THE JOINT ONLY. THE MAXIMUM ALLOWABLE DEFLECTION SHALL BE 1/8" PER JOINT WITH A MINIMUM RADIUS OF CURVATURE OF 150 FEET. PER UDCAPS 2.07.01 AND 2.07.02.
FOR CHANGES IN DIRECTION EXCEED THE MAXIMUM ALLOWABLE JOINT DEFLECTION, FITTINGS SHALL BE USED.
 2. REDUCED PRESSURE PRINCIPLE ASSEMBLY (1) "1"
APPROVED REDUCED PRESSURE PRINCIPLE ASSEMBLY(S) SHALL BE INSTALLED PER THE UDCAPS REQUIREMENTS FOR REDUCED PRESSURE PRINCIPLE ASSEMBLY SERVICE REQUIRING BACKFLOW PREVENTION UNTIL THE REDUCED PRESSURE PRINCIPLE ASSEMBLY HAS BEEN SUCCESSFULLY TESTED BY THE DISTRICT BLOCK VALVE CLOSURE TEST. THE REDUCED PRESSURE PRINCIPLE ASSEMBLY(S) SHALL BE LOCATED OUTSIDE OF THE EASEMENT(S) TO ALLOW THE DISTRICT DIRECT ACCESS FROM THE ADJACENT RIGHT-OF-WAY. EASEMENTS SHALL BE CLEARLY MARKED OR STAKED PRIOR TO THE BLOCK VALVE CLOSURE TEST.
 3. ALL SEWER/ STORM DRAINS CROSSING WATER LINES MUST CONFORM TO SECTION 2.2.2 OF THE UNIFORM DESIGN AND CONSTRUCTION STANDARDS FOR POTABLE WATER SYSTEMS (UDCAPS) FOR THE DISTRICT FORM MAIN CROSSING.
 4. FITTINGS SHALL NOT FALL UNDER CURBS, OUTLETS OR SIDEWALK.
 5. INSTALL PIPELINE MARKER BALLS IN TRENCH ABOVE EACH HORIZONTAL ELEVATION FITTING PER UDCAPS PLATE NO. 15.
 6. THE LVIVID CAN NOT GUARANTEE A WATERTIGHT SHUTDOWN WHERE CONNECTIONS OR REPAIRS TO EXISTING UTILITY ARE INVOLVED. IT IS THE RESPONSIBILITY OF THE USER TO DETERMINE IF IT IS AVAILABLE TO REMOVE FUGITIVE WATER THAT MAY IMPED CONSTRUCTION AT ALL TIMES. COORDINATION WITH INSPECTION DIVISION MUST TAKE PLACE PRIOR TO ANY TRAIL SHUTDOWN.
 7. THE USER IS RESPONSIBLE TO NOTIFY THE DISTRICT OF ANY PROPOSED SHUTDOWNS THAT NOT HAVE OTHER APPURTENANCES ARE AVAILABLE.
 8. DISCLAIMER: EXISTING UTILITY LOCATIONS SHOWN HEREON ARE APPROXIMATE ONLY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT VERTICAL AND HORIZONTAL LOCATION OF ALL EXISTING UNDERGROUND UTILITIES PRIOR TO COMMENCING CONSTRUCTION. NO ASSUMPTIONS OR RESPONSIBILITY FOR UTILITIES SHOWN ON THEIR PROPER LOCATION.

LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES

PROJECT NO. 136145 FIRST APPROVED DATE: 4-16-19
LVWD APPROVED FIRE FLOW 1,500 GPM AT 20 PSI RESIDUAL
MAXIMUM AVAILABLE FIRE SPRINKLER FLOW 26 GPM



Call before you Dig
AVOID CUTTING UNDERGROUND
UTILITY LINES. IT'S COSTLY.

Call
811
OR
1-800-227-2600

- # GRADING NOTES
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 - 2 INSTALL 3" ASPHALT PAVEMENT OVER 9" TYPE II AGGREGATE BASE
 - 3 INSTALL 2" ASPHALT PAVEMENT OVER 9" TYPE II AGGREGATE BASE
 - 4 CONSTRUCT "L" TYPE CURB AND GUTTER PER CCAUSD NO. 216
 - 5 CONSTRUCT 30" ROLL CURB AND GUTTER PER CCAUSD NO. 217.1
 - 6 CONSTRUCT "A" TYPE CURB PER CCAUSD NO. 219
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 - 26 EXISTING DROP INLET PER CLV #J0774803
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 - 33 REMOVE EXISTING CHAIN WALL AT U-CHANNEL OUTLET

- ## SEWER CONSTRUCTION NOTES
1. INSTALL 48" DIAMETER SANITARY SEWER MANHOLE PER DCSWS SD-1A, SD-1B, SD-18, SD-4-S WITH 24" SINGLE LID
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 3. INSTALL 4" PVC SEWER LATERAL PER DCSWS SD-22 AND SD-25
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 5. FIELD VERIFY LOCATION AND CONNECT TO EXISTING SEWER
 6. INSTALL 60" DIAMETER SANITARY SEWER MANHOLE WITH CAST-IN-PLACE BASE PER DCSWS SD-4, SD-7 AND SD-9 W/ CONCRETE PROTECTION PER DCSWS 3.16.8.B
 7. INSTALL 8" C900 SEWER PIPE (PUBLIC) PER DCSWS SD-15 AND SD-17
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RICHMOND
AMERICAN HOMES

FARM HUALAPAI

PLAN AND PROFILE - SAVANNAH MARIE AVENUE II II

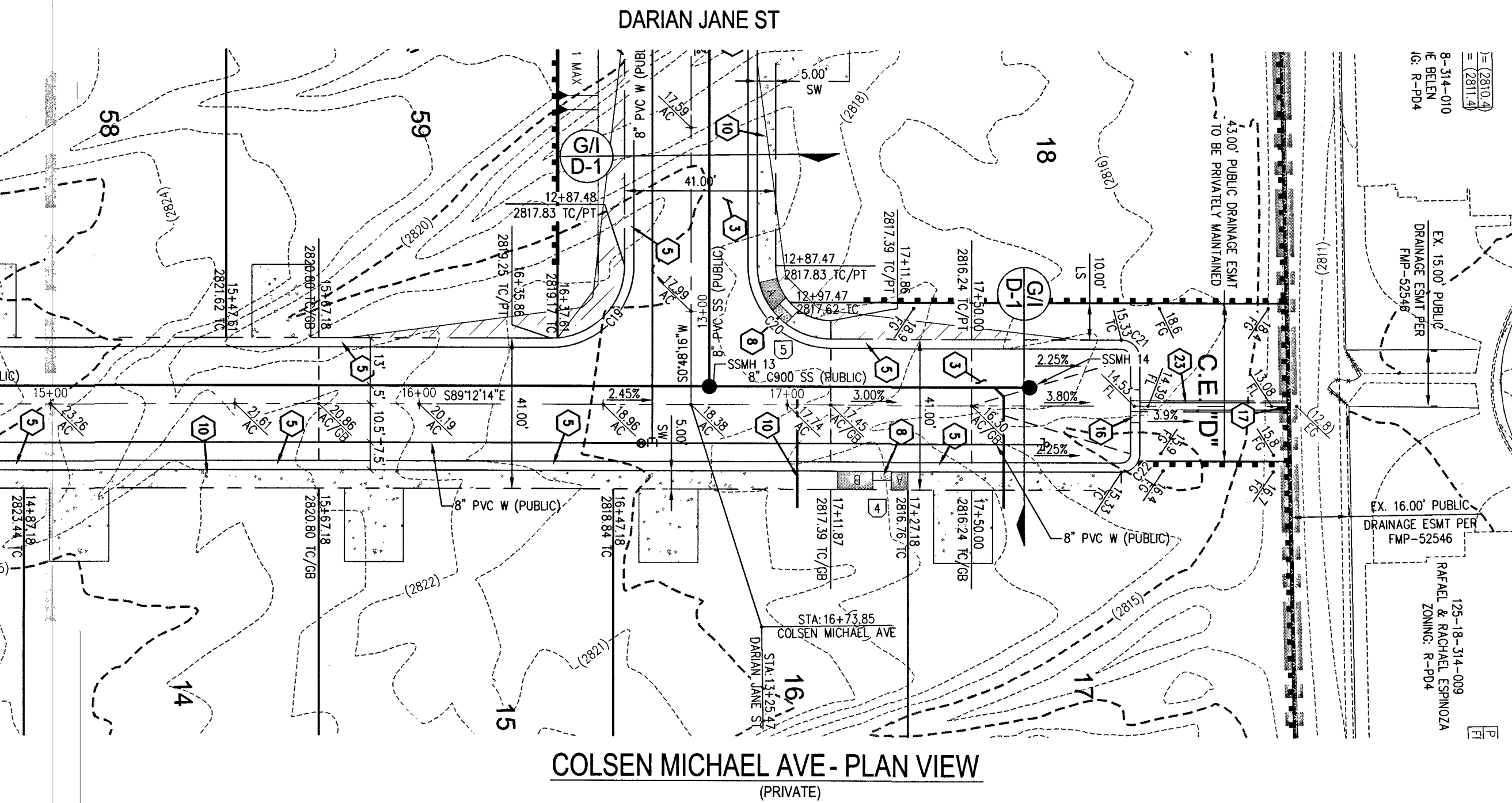
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 DESIGNER: EMH
 CHECKED: KMB
 PROJECT NO. RAH1517

PP-10
 SHEET 20 OF 34

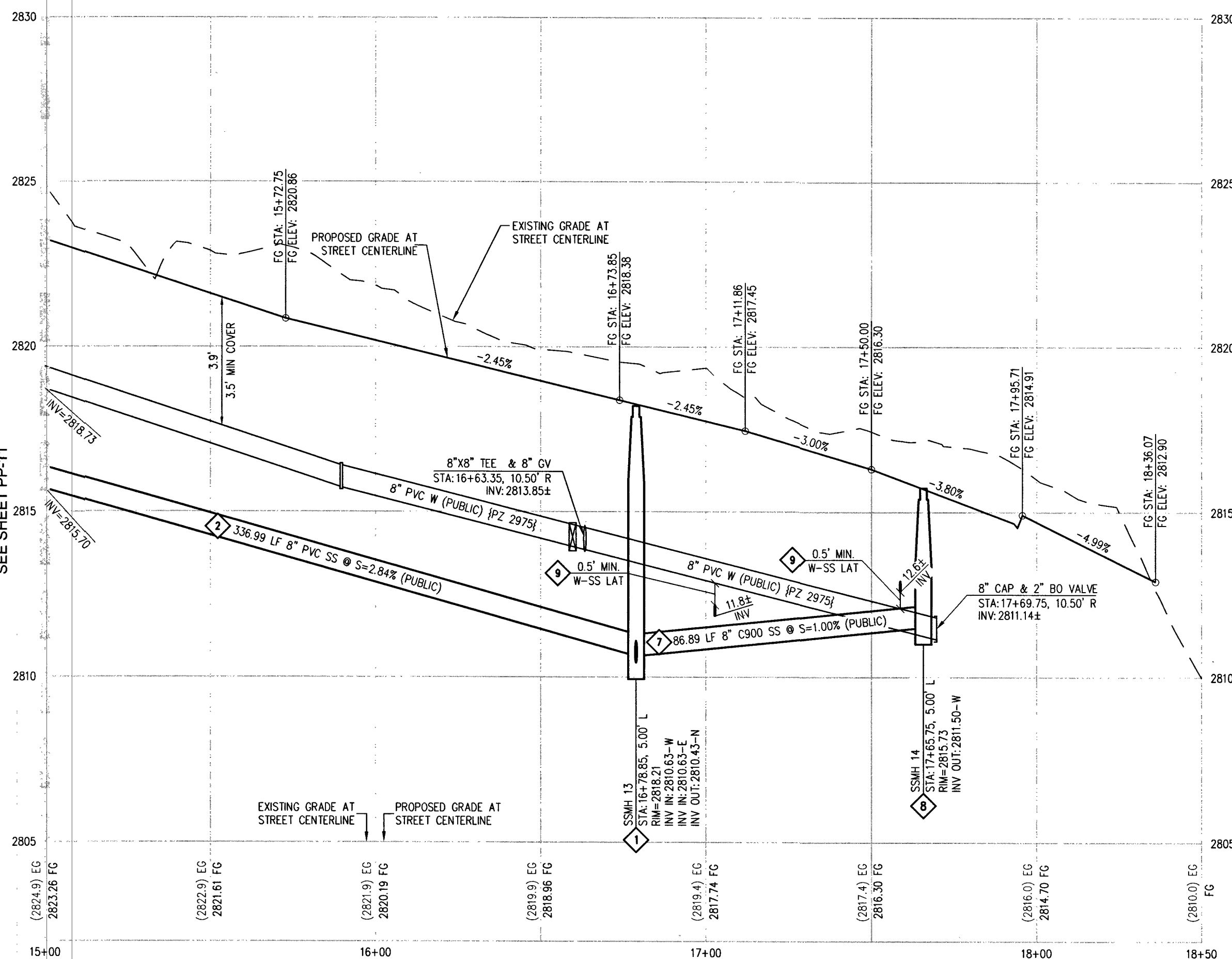
PROJ#:136145A QS:125-18-SW

COLSEN MICHAEL AVE
SEE SHEET PP-11 FOR CONTINUATION

COLSEN MICHAEL AVE
MATCHLINE STA:15+00
SEE SHEET PP-11



COLSEN MICHAEL AVE - PLAN VIEW
(PRIVATE)



COLSEN MICHAEL AVE - PROFILE VIEW

HORIZ: 1" = 30'
VERT: 1" = 3'

0 30 60
SCALE = 1"=30' FEET

CURVE TABLE				
CURVE	LENGTH	RADIUS	DELTA	TANGENT
C19	31.41'	20.00'	89°59'30"	20.00'
C20	31.42'	20.00'	90°00'31"	20.00'
C21	7.85'	5.00'	90°00'00"	5.00'
C22	7.85'	5.00'	90°00'00"	5.00'

RAMP TRANSITION LENGTHS				
RAMP NO.	GRADE %	"A" (FT)	"B" (FT)	"C" (FT)
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- FOR ROADWAY WIDENING AND HALF STREET IMPROVEMENTS THE CONTRACTOR SHALL VERIFY CROSS SLOPES FROM EXISTING PAVEMENT SAWCUT LINE TO PROPOSED EDGE OF PAVEMENT OR PROJECTED UP OR CURB PRIOR TO SUBGRADE PREPARATION AND CONSTRUCTION OF PROPOSED CURB LINE. IF MINIMUM OR MAXIMUM CROSS SLOPES DO NOT MEET AGENCY STANDARDS THE CONTRACTOR SHALL NOTIFY THE ENGINEER.

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WATER NOTES

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FOR CHANGES IN DIRECTION EXCEEDING THE MAXIMUM ALLOWABLE JOINT DEFLECTION, FITTINGS SHALL BE USED.
- REDUCED PRESSURE PRINCIPLE ASSEMBLY (1" - 1")
APPROVED REDUCED PRESSURE PRINCIPLE ASSEMBLY(S) SHALL BE INSTALLED PER THE UDACS PLATE NO. 8. NO WATER SHALL BE TAKEN FROM A SERVICE REQUIRING BACKFLOW PREVENTION UNTIL THE REDUCED PRESSURE PRINCIPLE ASSEMBLY HAS BEEN SUCCESSFULLY TESTED BY THE LVWD. ANY BLOCK WALL OR OTHER FENCE MATERIAL SHALL BE DESIGNED AND CONSTRUCTED AROUND THE OUTSIDE OF THE EASEMENT(S) TO ALLOW THE DISTRICT STREET ACCESS FROM THE ADJACENT RIGHT-OF-WAY. EASEMENTS SHALL BE CLEARLY MARKED OR STAKED PRIOR TO THE START OF CONSTRUCTION.
- ALL SEWER/STORM DRAIN CROSSINGS WATER LINES MUST CONFORM TO SECTION 2.2.2 OF THE UNIFORM DESIGN AND CONSTRUCTION STANDARDS FOR POTABLE WATER SYSTEMS (UDACS) FOR WATER AND STORM MAIN CROSSINGS AND CLEARANCES.
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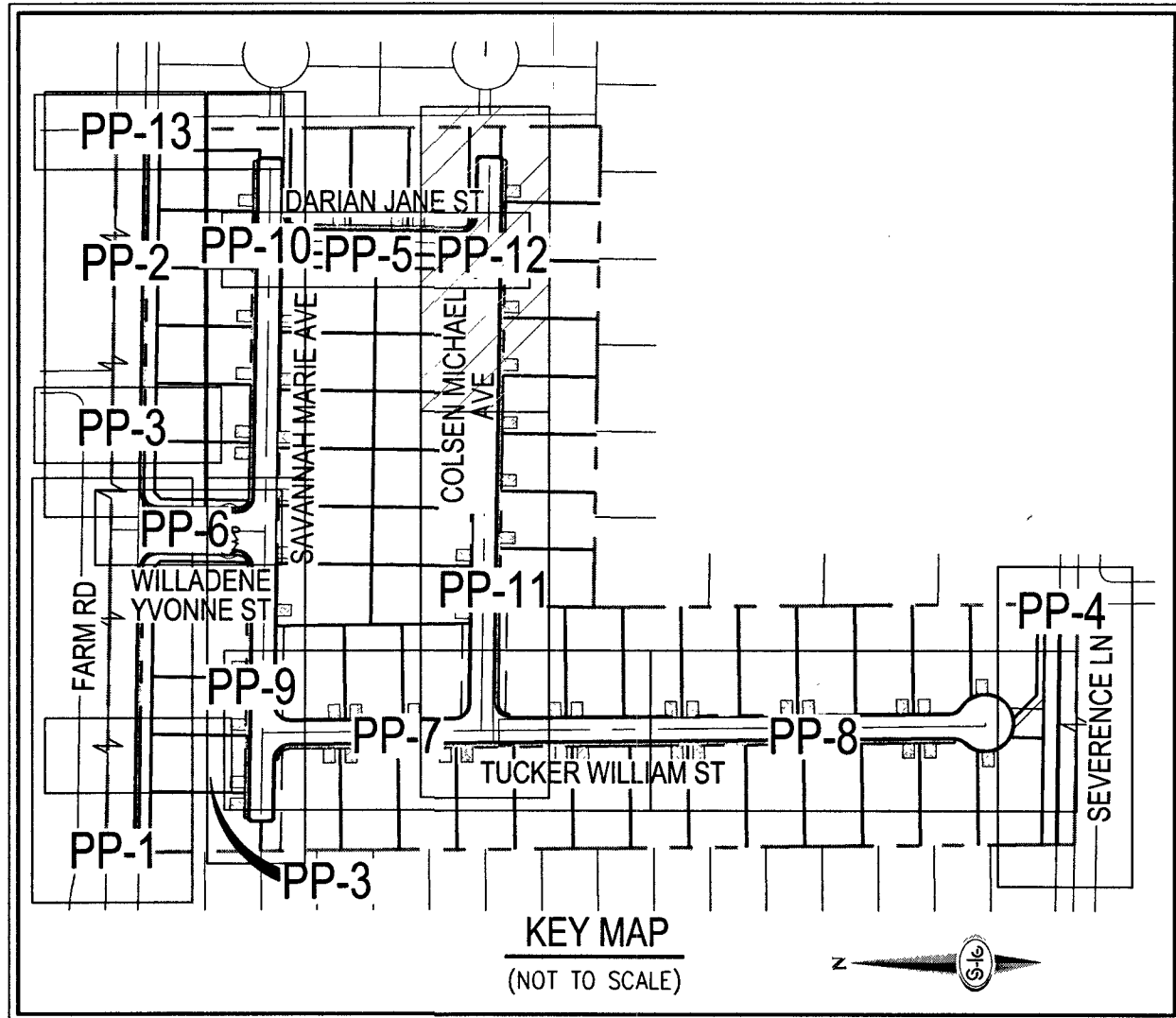
APPROVED FOR CONSTRUCTION

[Signature]
LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES

PROJECT NO. 136145 FIRST APPROVED DATE: 4-11-19
LVWD APPROVED FIRE FLOW 1,500 GPM AT 20 PSI RESIDUAL
MAXIMUM AVAILABLE FIRE SPRINKLER FLOW _____ GPM



CALL SOUTHWEST GAS AT 702-651-2111 FOR STANDBY WHEN EXCAVATING OVER OR NEAR HIGH PRESSURE GAS LINES



KEY MAP
(NOT TO SCALE)

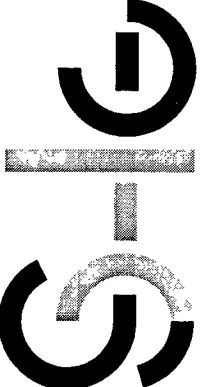
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- EXISTING 36" RCP SD PER CLV #107Y4803
- EXISTING 18" CLASS III RCP SD LATERAL PER CLV #107Y4803
- EXISTING DROP INLET PER CLV #107Y4803
- CONNECT TO EXISTING STORM DRAIN LATERAL AND INSTALL CONCRETE COLLAR PER DETAIL 48 ON SHEET D-2
- INSTALL 18" RCP STORM DRAIN LATERAL
- INSTALL 5.0" TYPE "CM2" DROP INLET PER CCAUSD NO. 412.1 AND 421
- EXISTING 48" STORM DRAIN MANHOLE PER CLV #107Y4803
- INSTALL SIDEWALK UNDERDRAIN PER CCAUSD NO. 236
- CONSTRUCT "L" TYPE CURB AND GUTTER PER CCAUSD NO. 219
- REMOVE EXISTING CHANNEL WALL AT U-CHANNEL OUTLET

SEWER CONSTRUCTION NOTES

- INSTALL 48" DIAMETER SANITARY SEWER MANHOLE PER DCSWCS SD-1A, SD-1B, SD-4 AND SD-9 WITH 24" SINGLE LID
- INSTALL 8" SANITARY SEWER PIPE (PUBLIC) PER DCSWCS SD-15 AND SD-17
- INSTALL 4" PVC SEWER LATERAL PER DCSWCS SD-22 AND SD-25
- PROTECT SEWER APPURTENANCES IN PLACE. REF. PLANS FOR DETAILS
- FIELD VERIFY LOCATION AND CONNECT TO EXISTING SEWER
- INSTALL 60" DIAMETER SANITARY SEWER MANHOLE WITH CAST-IN-PLACE BASE PER DCSWCS SD-4, SD-7 AND SD-9 W/ CORROSION PROTECTION PER DCSWCS 3.16-B-B
- INSTALL 8" C900 SEWER PIPE (PUBLIC) PER DCSWCS SD-15 AND SD-17
- INSTALL 48" DIAMETER SANITARY SEWER MANHOLE PER DCSWCS SD-4, SD-9, AND SD-13 "B" WITH 24" SINGLE LID
- INSTALL 4" C-900 PVC SANITARY SEWER LATERAL PER DCSWCS SD-17, SD-22, SD-23 AND SD-25

SLATER
HANIFAN
GROUP
a Westwood team
5740 S. ARVILLE STREET #216, LAS VEGAS, NV 89118
PHONE (702) 284-5300 FAX (702) 284-5399



DATE	BY	APP.	DATE

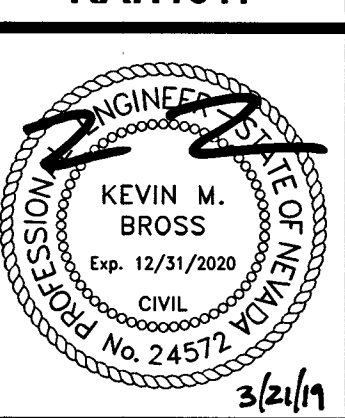
DESCRIPTION	NO.

LAS VEGAS, NEVADA

RICHMOND
AMERICAN HOMES
FARM HUALAPAI

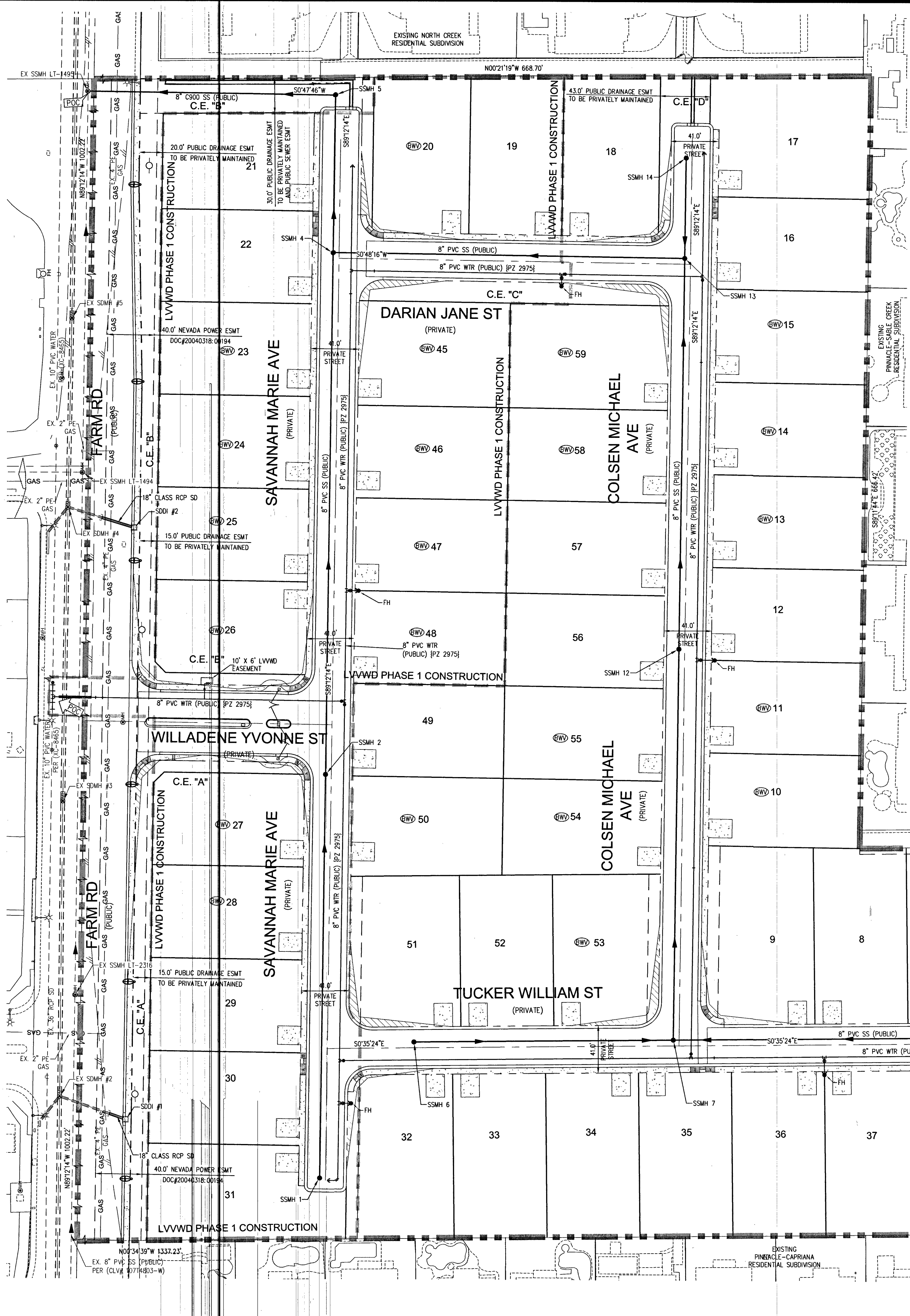
DATE: 3/18/19
DRAFTER: EMH
DESIGNER: EMH
CHECKED: KMB
PROJECT NO. RAH1517

PP-12
SHEET 22 OF 34
L18-02739



107V5104

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LEGEND

- BOUNDARY LINE
- LVWD PHASE 1 CONSTRUCTION
- ROADWAY CENTERLINE
- RIGHT-OF-WAY
- PRIVATE RIGHT-OF-WAY
- LOT LINE
- PROPOSED CURB AND GUTTER
- FUTURE CURB AND GUTTER
- WATER PIPE FITTING
- WATER GATE VALVE
- FIRE HYDRANT
- SANITARY SEWER MANHOLE
- SANITARY SEWER FLOW DIRECTION
- WATER POINT OF CONNECTION
- SEWER POINT OF CONNECTION
- 100W STREETLIGHT
- PRESSURE REDUCING VALVE
- BACKWATER VALVE

SEE SHEET C-3 FOR ABBREVIATIONS AND QUANTITIES

DISCLAIMER NOTES

EXISTING UTILITY LOCATIONS SHOWN HEREON ARE APPROXIMATE ONLY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT 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 IN THEIR PROPER LOCATION.

BENCHMARK

BENCHMARK NUMBER: 6LV0018W4
RIVET AND PLATE IN TOP OF CURB IN THE NORTHEAST CORNER OF FARM ROAD AND HUALAPAI WAY
ELEVATION = 2856.716 FEET, 870.729 METERS
DATUM = NAVD 88
PER THE CITY OF LAS VEGAS BENCHMARK WEBSITE ON MAY 17, 2018

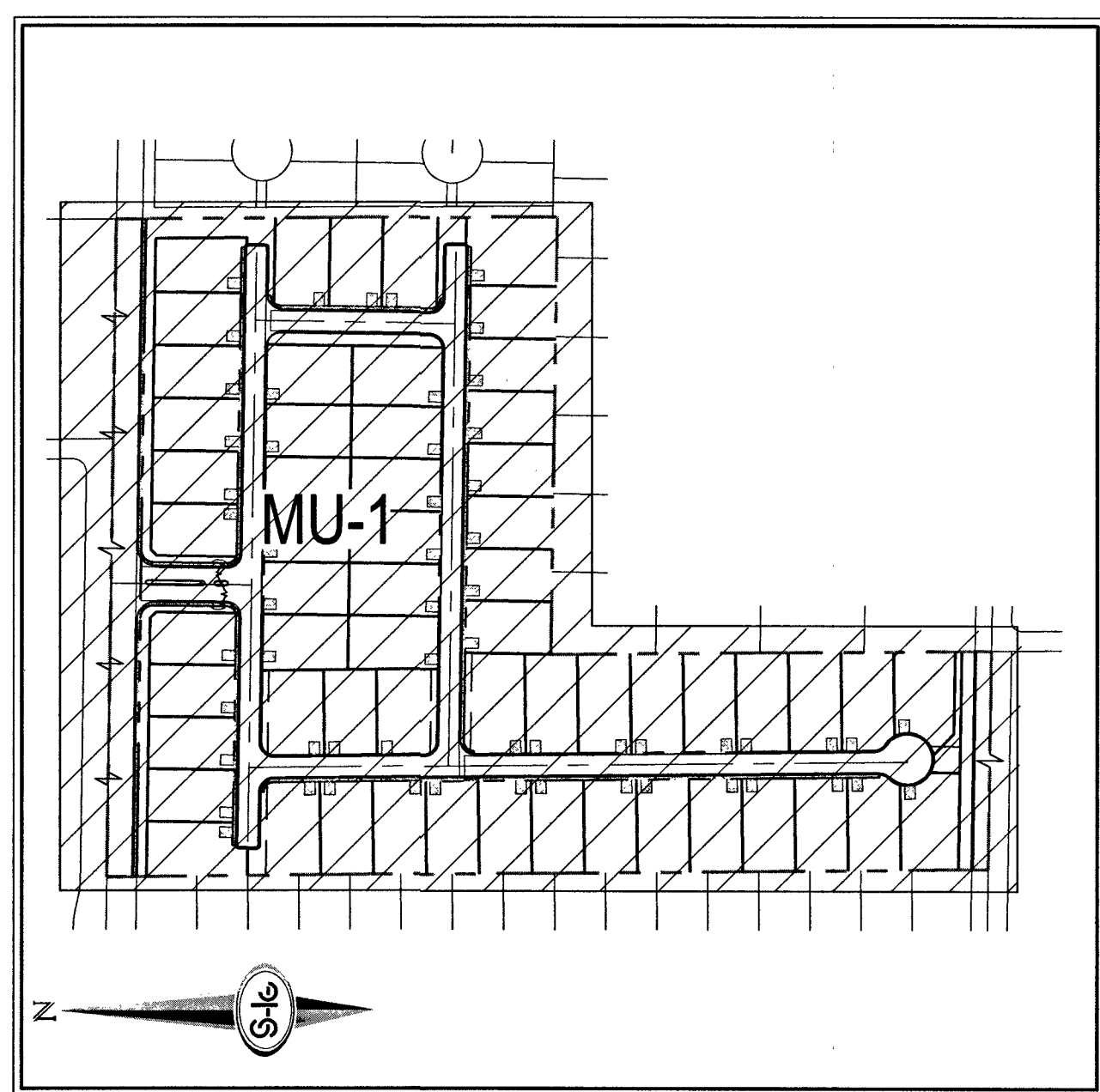
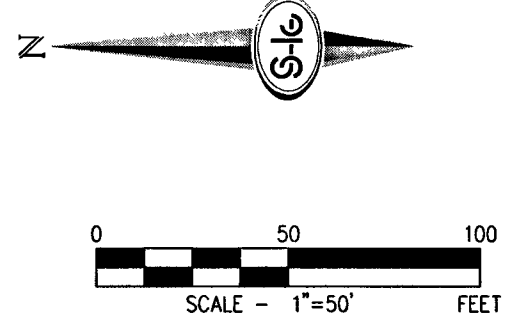
BASIS OF BEARINGS

NORTH 00°19'04" WEST, BEING THE BEARING OF THE WEST LINE OF THE NORTHWEST QUARTER (NW1/4) OF THE SOUTHWEST QUARTER (SW1/4) OF SECTION 18, TOWNSHIP 19 SOUTH, RANGE 60 EAST, M.D.M., CITY OF LAS VEGAS, CLARK COUNTY, NEVADA, AS SHOWN BY MAP THEREOF IN BOOK 127, PAGE 24 OF PLATS IN THE CLARK COUNTY RECORDER'S OFFICE, NEVADA

FIRE FLOW CALCULATIONS

FIRE FLOW 1,500 GPM AT 20 P.S.I. RESIDUAL

USE/OCCUPANCY	SINGLE FAMILY
TYPE OF CONSTRUCTION (IBC)	TYPE V-B
AUTOMATIC FIRE SPRINKLERS	YES
SQUARE FOOTAGE (LVABLE)	<5000
SQUARE FOOTAGE (TOTAL)	<6000
LARGEST AREA BETWEEN 4 HOUR WALLS	N/A
BUILDING HEIGHT	<35
NO OF STORES INCLUDING BASEMENT	2
HIGH PILED COMBUSTIBLE STORAGE	NO
NO OF HYDRANTS INSTALLED	6



FIRE SPRINKLER NOTE

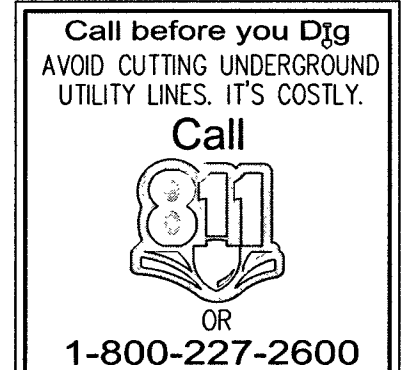
FIRE SPRINKLER SYSTEM SHALL BE PLUMBED TO THE MASTER TOILET. NO EXCEPTIONS ALLOWED.

WATER PRESSURE ZONE NOTE

ALL LOTS ARE SERVED FROM THE PVC WATER MAIN IN THE 2975 WPZ.

TYP. WATER METER SUMMARY TABLE

1. 1" NEW SERVICE W/ 3/4" DUAL ANGLE METER PER UDACS PLATE NO. 1	22
2. 1" NEW SERVICE W/ 3/4" DUAL ANGLE METER PER UDACS PLATE NO. 3	37
3. 3/4" IRRIGATION METER	2



LAS VEGAS FIRE AND RESCUE FIRE DEPARTMENT APPROVED

APPROVAL OF THESE PLANS SHALL NOT BE CONSIDERED TO BE A PERMIT FOR, OR AN APPROVAL OF, ANY VIOLATION OF ANY OF THE PROVISIONS OF THE STATE OR COUNTY LAWS. FIRE FLOW 1,500 GPM AT 20 P.S.I. RESIDUAL.

3/18/19

SOUTHWEST GAS APPROVAL

APPROVAL OF THESE PLANS SHALL NOT BE CONSIDERED TO BE A PERMIT FOR, OR AN APPROVAL OF, ANY VIOLATION OF ANY OF THE PROVISIONS OF THE STATE OR COUNTY LAWS. FIRE FLOW 1,500 GPM AT 20 P.S.I. RESIDUAL.

3-21-19

APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES

PROJECT No. 136145 FIRST APPROVED DATE 4-18-19

LVWD APPROVED FIRE FLOW 1,500 GPM AT 20 PSI RESIDUAL

MAXIMUM AVAILABLE FIRE SPRINKLER FLOW 28 GPM

ESTIMATED AVERAGE DAILY SEWER CONTRIBUTIONS

59 UNITS X 250 GPD/UNIT = 14,750 GPD = 0.01475 MGD

TOTAL PEAK FLOW = 0.01475 X 3.54 (PEAK FACTOR) = 0.05222 MGD

TOTAL PEAK WET-WEATHER FLOW = 0.05222 MGD X 1.25 = 0.06527 MGD

SLATER HANIFAN GROUP
a Westwood team
8740 S. ARVILLE STREET #216, LAS VEGAS, NV 89118
PHONE (702) 284-5390 FAX (702) 284-5399

RICHMOND AMERICAN HOMES

FARM HUALAPAI MASTER UTILITY PLAN

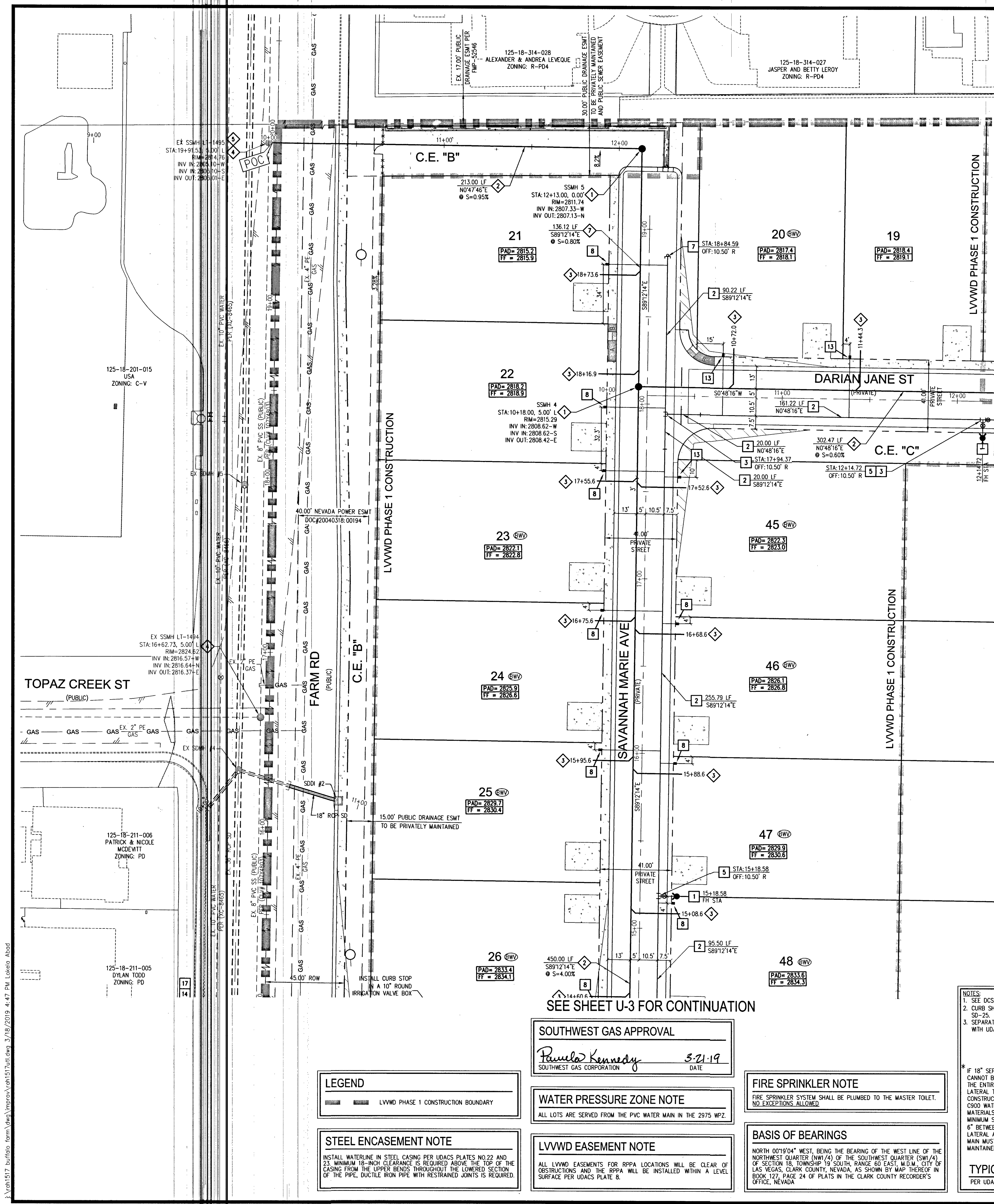
DATE: 3/18/19
DRAFTER: EMH
DESIGNER: EMH
CHECKED: KMB
PROJECT NO. RAH1517

ENGINEER
KEVIN M. BROSS
Exp. 12/31/2020
CIVIL
No. 24572-1
3/18/19

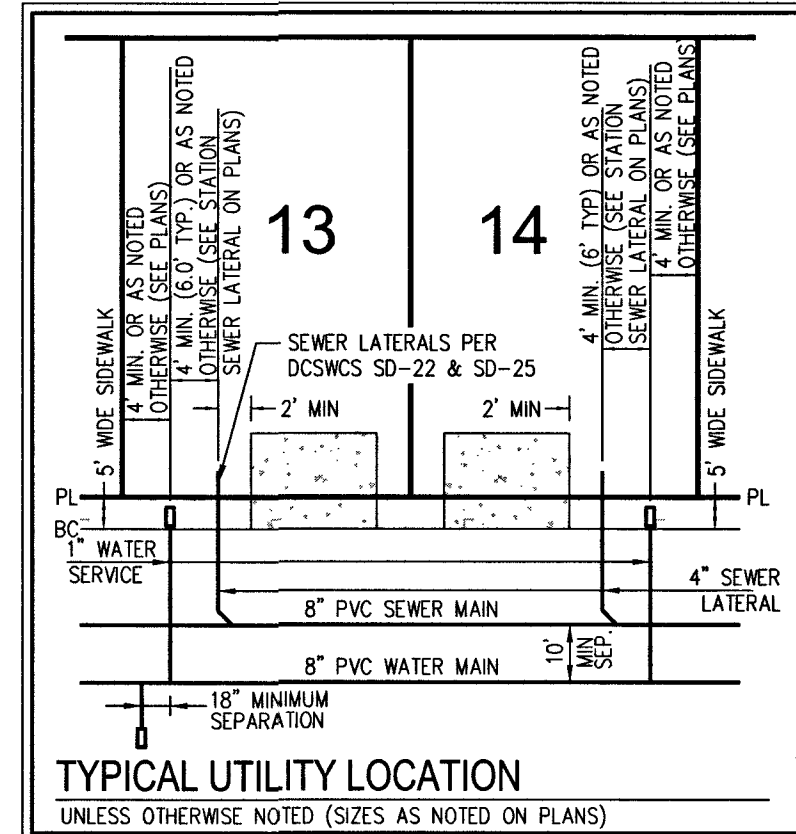
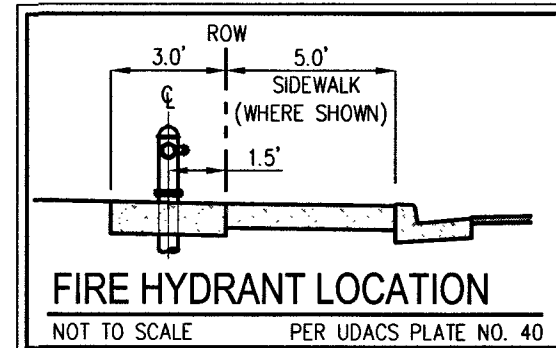
MU-1
SHEET 24 OF 34
L18-02739

107V5104

PROJ#136145A QS-125-18-SW



SEE SHEET U-2 FOR CONTINUATION



FIRE FLOW CALCULATIONS

FIRE FLOW 1,500 GPM AT 20 P.S.I. RESIDUAL

USE/OCCUPANCY	SINGLE FAMILY
TYPE OF CONSTRUCTION (IBC)	TYPE V-B
AUTOMATIC FIRE SPRINKLERS	YES
SQUARE FOOTAGE (LIVABLE)	<5000
SQUARE FOOTAGE (TOTAL)	<6200
LARGEST AREA BETWEEN 4 HOUR WALLS	N/A
BUILDING HEIGHT	<45
NO OF STORIES INCLUDING BASEMENT	2
HIGH PILED COMBUSTIBLE STORAGE	NO
NO OF HYDRANTS INSTALLED	6

BENCHMARK

BENCHMARK NUMBER: 6L9018W4

RIVET AND PLATE IN TOP OF CURB IN THE NORTHEAST CORNER OF FARM ROAD AND HUALAPAI WAY.

ELEVATION = 2856.716 FEET, 870.729 METERS

DATUM = NAVD 88

PER THE CITY OF LAS VEGAS BENCHMARK WEBSITE ON MAY 17, 2018

APPROVED FOR CONSTRUCTION

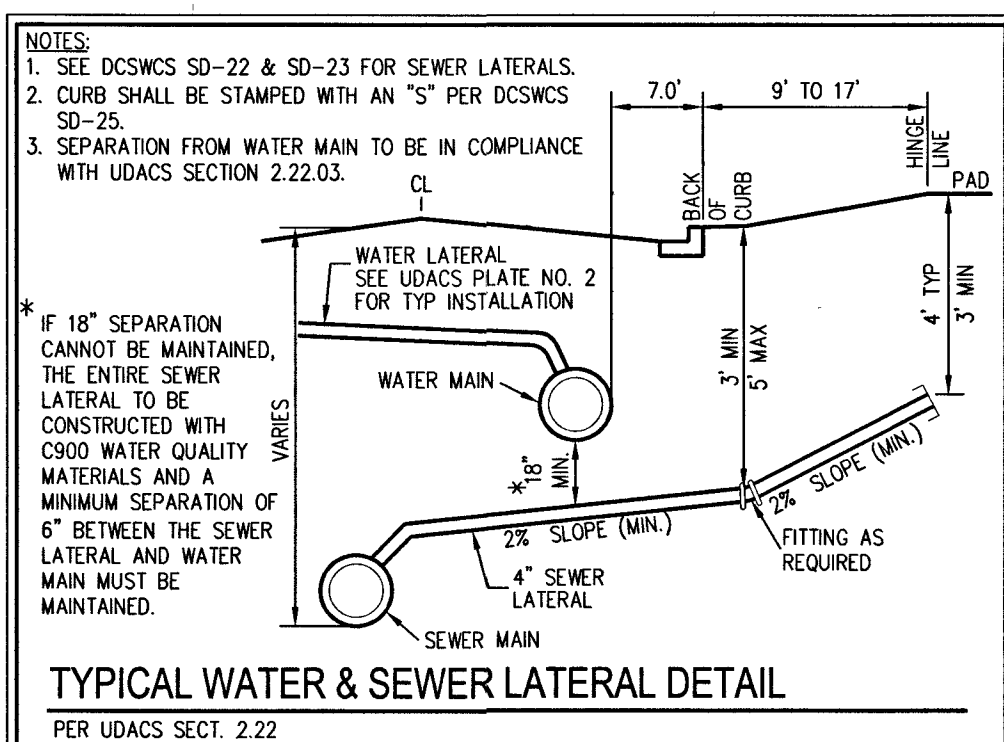
James Shook

LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES

PROJECT NO. 136145, FIRST APPROVED DATE 4-18-19

LVWD APPROVED FIRE FLOW 1,500 GPM AT 20 P.S.I. RESIDUAL

MAXIMUM AVAILABLE FIRE SPRINKLER FLOW 26 GPM



- WATER NOTES**
- INSTALL FIRE HYDRANT ASSEMBLY W/6" GATE VALVE PER UDACS PLATE NO. 40
 - INSTALL 8" PVC WATER PIPE [2975 WP2]
 - INSTALL 8" GATE VALVE WITH VALVE BOX PER UDACS PLATE NO. 30 & 39
 - INSTALL 8" X 8" TEE PER UDACS PLATE NO. 31
 - INSTALL 8" X 6" TEE PER UDACS PLATE NO. 31
 - INSTALL HORIZONTAL 90° BEND PER UDACS PLATE NO. 31
 - INSTALL CAP AND 2" BLOW-OFF VALVE PER UDACS PLATE NO. 36
 - INSTALL 1" COPPER SERVICE W/ 3/4" METER PER UDACS PLATE NO. 1
 - INSTALL 10" X 8" TAPPING SLEEVE WITH 8" TAPPING VALVE PER UDACS PLATE NO. 30, 34, 39 AND SECTION 2.24.01A
 - FIELD VERIFY LOCATION AND CONNECT TO EXISTING WATER
 - INSTALL 1" COPPER SERVICE W/ 3/4" IRRIGATION METER AND 1" RPPA PER UDACS PLATE NO. 4 & 8. SEE 'DETAIL A' ON SHEET U-4
 - INSTALL 1" COPPER SERVICE W/ 3/4" IRRIGATION METER AND 1" RPPA PER UDACS PLATE NO. 4 & 8. SEE 'DETAIL A' ON SHEET U-5
 - INSTALL 1" COPPER SERVICE W/ 3/4" METER PER UDACS PLATE NO. 3
 - INSTALL 45° VERTICAL BEND PER UDACS PLATE NO. 31
 - INSTALL 8" DIP WATER PIPE [2975 WP2]
 - INSTALL 10" DIP WATER PIPE [2975 WP2]
 - INSTALL 10" GATE VALVE WITH VALVE BOX PER UDACS PLATE NO. 30 & 39
 - INSTALL 10" X 8" TEE PER UDACS PLATE NO. 31
 - INSTALL STEEL ENCASMENT FOR WATER LINE PER UDACS 2.22.02B.80. PLATE NO. 22 & 23. SEE STEEL ENCASMENT NOTE ON SHEET U-3

- SEWER CONSTRUCTION NOTES**
- INSTALL 48" DIAMETER SANITARY SEWER MANHOLE PER DCSWS SD-1A, SD-1B, SD-4 AND SD-9 WITH 24" SINGLE LID
 - INSTALL 8" SANITARY SEWER PIPE (PUBLIC) PER DCSWS SD-15 AND SD-17
 - INSTALL 4" PVC SEWER LATERAL PER DCSWS SD-22 AND SD-25
 - PROTECT SEWER APPURTENANCES IN PLACE. REF. PLANS FOR DETAILS
 - FIELD VERIFY LOCATION AND CONNECT TO EXISTING SEWER
 - INSTALL 48" DIAMETER SANITARY SEWER MANHOLE WITH CAST-IN-PLACE BASE PER DCSWS SD-4, SD-7 AND SD-9 W/ CORROSION PROTECTION PER DCSWS 316.6.9
 - INSTALL 8" C-900 SEWER PIPE (PUBLIC) PER DCSWS SD-15 AND SD-17
 - INSTALL 48" DIAMETER SANITARY SEWER MANHOLE PER DCSWS SD-4, SD-9, AND SD-13 "B" WITH 24" SINGLE LID
 - INSTALL 4" C-900 PVC SANITARY SEWER LATERAL PER DCSWS SD-17, SD-22, SD-23 AND SD-25

ESTIMATED AVERAGE DAILY SEWER CONTRIBUTIONS

59 UNITS X 250 GPD/UNIT = 14,750 GPD = 0.01475 MGD

TOTAL PEAK FLOW = 0.01475 X 3.54 (PEAK FACTOR) = 0.05222 MGD

TOTAL PEAK WET-WEATHER FLOW = 0.05222 MGD X 1.25 = 0.06527 MGD

DISCLAIMER NOTE

EXISTING UTILITY LOCATIONS SHOWN HEREON ARE APPROXIMATE ONLY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT 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 IN THEIR PROPER LOCATION.

FAST

Call before you Dig

UnderGround

1-702-432-5300

FREEMAN & ASSOCIATES, INC.

1-702-227-2929

- WATER NOTES**
- WATER MAIN JOINT DEFLECTION (PVC 4" - 24")
 - ALLOWABLE DEFLECTION SHALL BE ONE (1) DEGREE PER JOINT WITH A MINIMUM 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
 - REDUCED PRESSURE PRINCIPLE ASSEMBLY(S) SHALL BE INSTALLED PER THE UDACS PLATE NO. 8. NO WATER SHALL BE TAKEN FROM A SERVICE REQUIRING BACKFLOW PREVENTION UNTIL THE REDUCED PRESSURE PRINCIPLE ASSEMBLY HAS BEEN SUCCESSFULLY TESTED BY THE LVWD. ANY BLOCK WALL OR OTHER FENCE MATERIAL SHALL BE DESIGNED AND CONSTRUCTED AROUND THE OUTSIDE OF THE EASEMENT(S) TO ALLOW THE DISTRICT DIRECT ACCESS FROM THE ADJACENT RIGHT-OF-WAY. EASEMENTS SHALL BE CLEARLY MARKED OR STAKED PRIOR TO THE START OF CONSTRUCTION.
 - 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
 - FITTINGS SHALL NOT FALL UNDER CURBS, GUTTERS OR SIDEWALK.
 - INSTALL PIPELINE MARKER BALLS IN TRENCH ABOVE EACH HORIZONTAL ELBOW FITTING PER UDACS PLATE NO. 15
 - THE LVWD CANNOT GUARANTEE A WATER TIGHT SHUTDOWN WHERE CONNECTIONS OR REPAIRS TO EXISTING FACILITIES ARE REQUIRED. THE CONTRACTOR SHALL ENSURE ALL LABOR AND EQUIPMENT IS AVAILABLE TO REMOVE FUGITIVE WATER THAT MAY IMPEDE CONSTRUCTION AT ALL TIMES. COORDINATION WITH INTERESTED DIVISION MUST TAKE PLACE PRIOR TO ANY TRIAL SHUTDOWN.
 - CONTRACTOR TO INSTALL TEMPORARY SERVICE TO ENSURE PROPER SHUTDOWN IN THE EVENT NO OTHER APPOINTMENTS ARE AVAILABLE
 - CONTROLLED LOW STRENGTH MATERIAL (CLSM) PROTECT WATERLINES IN PLACE WHEREVER A WATERLINE IS ABOVE A STORM DRAIN OR SEWER WHERE COMPACTION REQUIREMENTS UNDER A WATERLINE CANNOT BE MET. BACKFILL TRENCH WITH CLASS 1 CONTROLLED LOW STRENGTH MATERIAL (CLSM) TO THE SPRINGLINE OF THE WATERLINE. THIS REQUIREMENT IS FOR STRUCTURAL SUPPORT ONLY. ADDITIONAL HEALTH REGULATIONS MAY APPLY PER UDACS 2.22
 - ANNUAL SPACE BETWEEN PIPE AND CASING SHALL BE FILLED WITH BACKFILL REQUIREMENTS
 - INSTALL WATERLINE IS STEEL CASING PER UDACS PLATE NO. 21 AND 23. MINIMUM 18-INCH CLEARANCE IS REQUIRED ABOVE THE TOP OF PIPE. DUCTILE IRON PIPE WITH RESTRAINED JOINTS IS REQUIRED. IN ADDITION, THRUST BLOCKS ARE TO BE INSTALLED AT THE UPPER BENDS.

- GENERAL NOTES**
- FINAL GRADES ADJACENT TO STRUCTURES SHALL BE IN CONFORMANCE WITH IBC 2012, SECTION 2304.11.2.2
 - THE CONTRACTOR SHALL VERIFY ALL CONDITIONS AND DIMENSIONS AND REPORT ALL DISCREPANCIES TO THE ENGINEER
 - ALL IMPROVEMENTS TO BE PROTECTED FROM EROSION BY SWPPP
 - ALL PUBLIC AND PRIVATE DRAINAGE IMPROVEMENTS TO BE BONDED FOR AND INSPECTED
 - CONSTRUCTION OF BLOCK WALLS REQUIRES A SEPARATE BUILDING PERMIT AND APPROVAL BY THE CLARK COUNTY BUILDING DEPARTMENT
 - CONTRACTOR TO VERIFY LOCATION AND ELEVATION OF EXISTING UTILITY STRUCTURES AND FACILITIES AND NOTIFY ENGINEER OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION. CONTRACTOR TO PROTECT IN PLACE DURING CONSTRUCTION. ENGINEER/OWNER SHALL BE NOTIFIED OF PRIOR DAMAGE TO EXISTING FACILITIES PRIOR TO CONSTRUCTION. CONTRACTOR WILL BE RESPONSIBLE FOR REPAIR/REPLETING FACILITIES IF ENGINEER/OWNER IS NOT NOTIFIED OF EXISTING DAMAGE PRIOR TO CONSTRUCTION COMMENCING
 - 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 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. THIS RESTRICTION EXTENDS ALONG THE SIGHT VISIBILITY LINE THROUGH LANDSCAPED MEDIANS.
 - IN THE EVENT THAT THE TRAFFIC SIGNAL CONDUITS, LOOP DETECTORS OR OTHER ASSOCIATED EQUIPMENT ARE DAMAGED BY CONTRACTOR, THE CONTRACTOR WILL HIRE AN INSA LEVEL II ELECTRICAL CONTRACTOR TO MAKE REPAIRS PER UNIFORM SPECIFICATION NO. 623.G.01.02

LAS VEGAS FIRE AND RESCUE FIRE DEPARTMENT

APPROVED

James Shook 3/16/19

BY APPROVAL OF THESE PLANS SHALL NOT BE CONSTRUED TO BE A PERMIT FOR, OR AN APPROVAL OF, ANY VIOLATION OF ANY OF THE PROVISIONS OF THE STATE OR COUNTY LAWS, FIRE FLOW 1,500 GPM AT 20 P.S.I. RESIDUAL.

U-1

SHEET 25 OF 34

18-02739

SLATER HANIFAN GROUP

a Westwood team

5740 S. ARVILLE STREET #216, LAS VEGAS, NV 89118

PHONE (702) 384-5300

RICHMOND AMERICAN HOMES

FARM HUALAPAI

UTILITY PLAN I

DATE: 3/18/19

DRAWN: EMH

DESIGNED: EMH

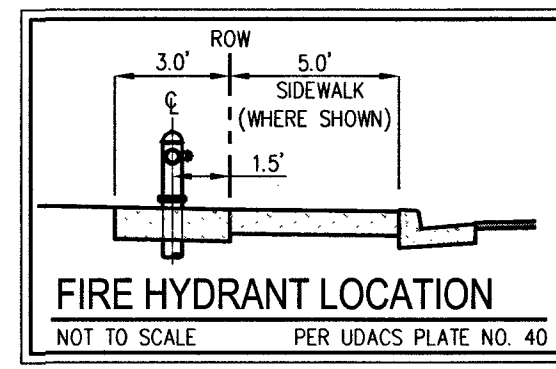
CHECKED: KMB

PROJECT NO. RAH1517

U-1

SHEET 25 OF 34

18-02739



2. WATER MAIN JOINT DEFLECTION (PVC 4" - 24")
PVC PIPE SHALL BE DEFLECTED AT THE JOINT ONLY. THE MAXIMUM ALLOWABLE DEFLECTION SHALL BE ONE (1) INCH PER JOINT. PER JOINT JOINT DEFLECTION CURVATURE SHALL BE 1/50 FEET PER JOINT. JOINT DEFLECTION SHALL BE 1/50 FEET PER JOINT. JOINT DEFLECTION SHALL BE 1/50 FEET PER JOINT.

3. CHANGES IN DIRECTION
CEILING SHALL BE THE MAXIMUM ALLOWABLE JOINT DEFLECTION CURVATURE SHALL BE 1/50 FEET PER JOINT. JOINT DEFLECTION SHALL BE 1/50 FEET PER JOINT. JOINT DEFLECTION SHALL BE 1/50 FEET PER JOINT.

4. REDUCED PRESSURE PIPELINE ASSEMBLY NOTE
APPROVED REDUCED PRESSURE PIPELINE ASSEMBLY SHALL BE USED. WATER SHALL BE TAKEN FROM A SERVICE REGARDING BACKFLOW PREVENTION UNTIL THE WATER MAIN IS TESTED BY THE LVWD. ANY BLOCK WALL OR OTHER FENCE MATERIAL SHALL BE DESIGNED AND CONSTRUCTED AROUND THE OUTSIDE OF THE WATER MAIN. ANY ADJACENT RIGHT-OF-WAY EASEMENTS SHALL BE CLEARLY MARKED OR STAKED PRIOR TO THE START OF CONSTRUCTION.

5. FLOW STATE BRAND CROSSING UNDER LINES SHALL CONFORM TO SECTION 2.22 OF THE UNIFORM DESIGN AND CONSTRUCTION STANDARDS FOR POTABLE WATER SYSTEMS (UWACS) FOR WATER AND SEWER.

6. FITTINGS SHALL NOT FALL UNDER GROUNDS, GUTTERS OR SIDEWALK.

7. INSTALL PIPELINE MARKER BALLS IN TRENCH ABOVE EACH JOINT AND AT 10' INTERVALS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE LVWD. CAN NOT GUARANTEE A WATERTIGHT SHUTDOWN WHERE CONNECTIONS OR REPAIRS TO EXISTING FACILITIES ARE REQUIRED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE LVWD. CAN NOT GUARANTEE A WATERTIGHT SHUTDOWN WHERE CONNECTIONS OR REPAIRS TO EXISTING FACILITIES ARE REQUIRED.

8. AVAILABLE TO REMOVE FUGITIVE WATER THAT MAY IMPROVE THE QUALITY OF THE ENVIRONMENT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE LVWD. CAN NOT GUARANTEE A WATERTIGHT SHUTDOWN WHERE CONNECTIONS OR REPAIRS TO EXISTING FACILITIES ARE REQUIRED.

9. DIVISION SHALL TAKE PLACE PRIOR TO ANY TRENCH SHUTDOWN.

10. CONTRACTOR TO INSTALL TEMPORARY SERVICE TO ENSURE PROPER FLOW. THE CONTRACTOR TO ENSURE ALL APPURTENANCES ARE AVAILABLE.

11. CONTROLLED LOW STRENGTH MATERIAL (CLSM) PROTECT WATERLINES FROM EXISTING OR FUTURE CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE LVWD. CAN NOT GUARANTEE A WATERTIGHT SHUTDOWN WHERE CONNECTIONS OR REPAIRS TO EXISTING FACILITIES ARE REQUIRED.

12. SEWER WORK COMPACTED REQUIREMENTS UNDER A WATERLINE CAN NOT BE MET. BACKFILL TRENCH WITH CLASS 1 CONTROLLED LOW STRENGTH MATERIAL (CLSM). THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE LVWD. CAN NOT GUARANTEE A WATERTIGHT SHUTDOWN WHERE CONNECTIONS OR REPAIRS TO EXISTING FACILITIES ARE REQUIRED.

13. THIS REQUIREMENT IS FOR STRUCTURAL SUPPORT ONLY. ADDITIONAL HEALTH REQUIREMENTS MAY APPLY PER UOAC 2.22.

14. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE LVWD. CAN NOT GUARANTEE A WATERTIGHT SHUTDOWN WHERE CONNECTIONS OR REPAIRS TO EXISTING FACILITIES ARE REQUIRED.

15. CLASS 1 CLSM. SEE UOAC PLATES 17 AND 19. FOR FILLING AND BACKFILL REQUIREMENTS.

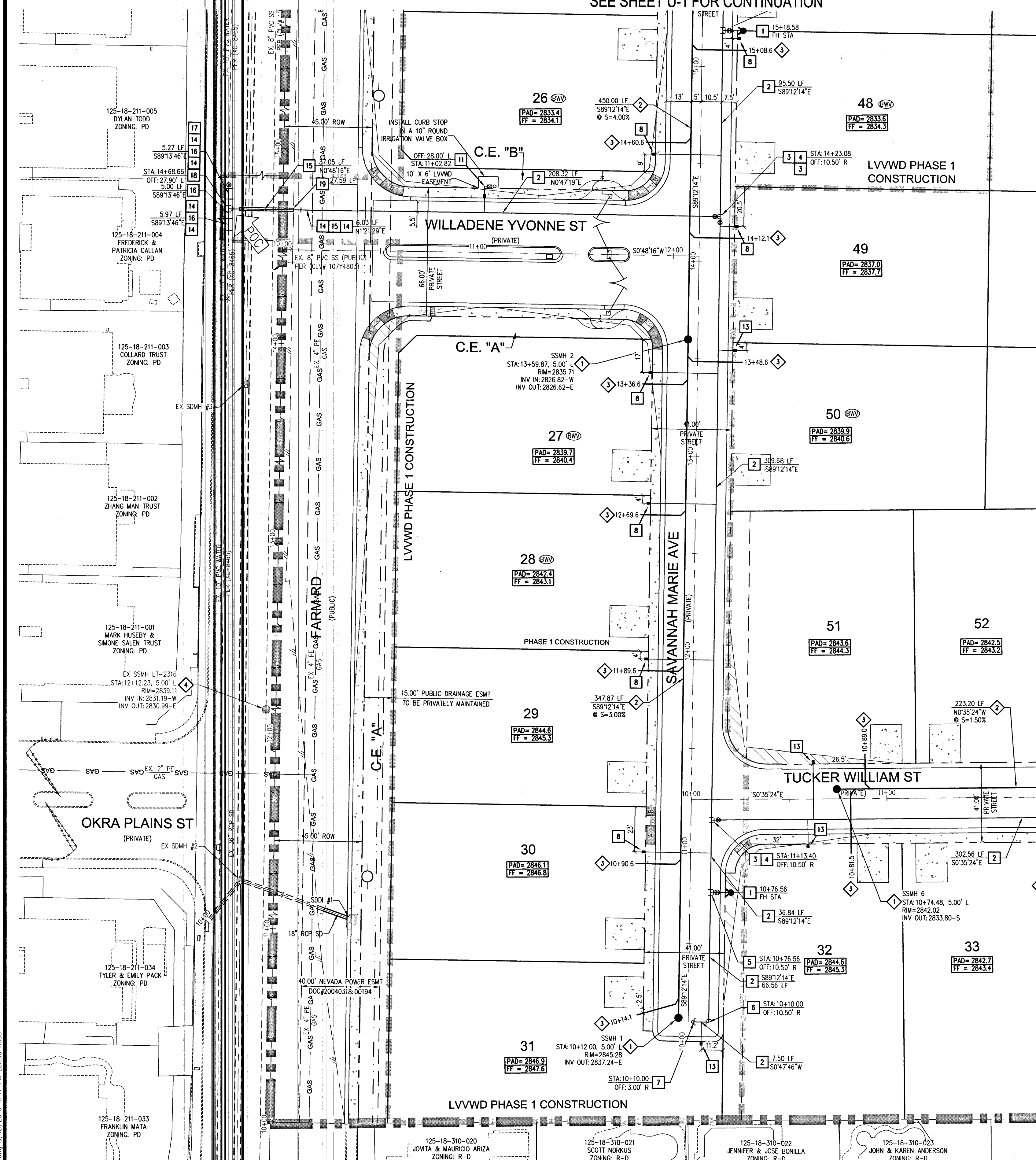
16. INSTALL WATERLINE IS STEEL CASING PER UOAC PLATE NO. 21 AND 23. MINIMUM 18-INCH CASING IS REQUIRED ABOVE THE TOP OF THE WATER MAIN. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE LVWD. CAN NOT GUARANTEE A WATERTIGHT SHUTDOWN WHERE CONNECTIONS OR REPAIRS TO EXISTING FACILITIES ARE REQUIRED.

17. ADDITIONAL THURST BOLTS ARE TO BE INSTALLED AT THE UPPER BORDERS.

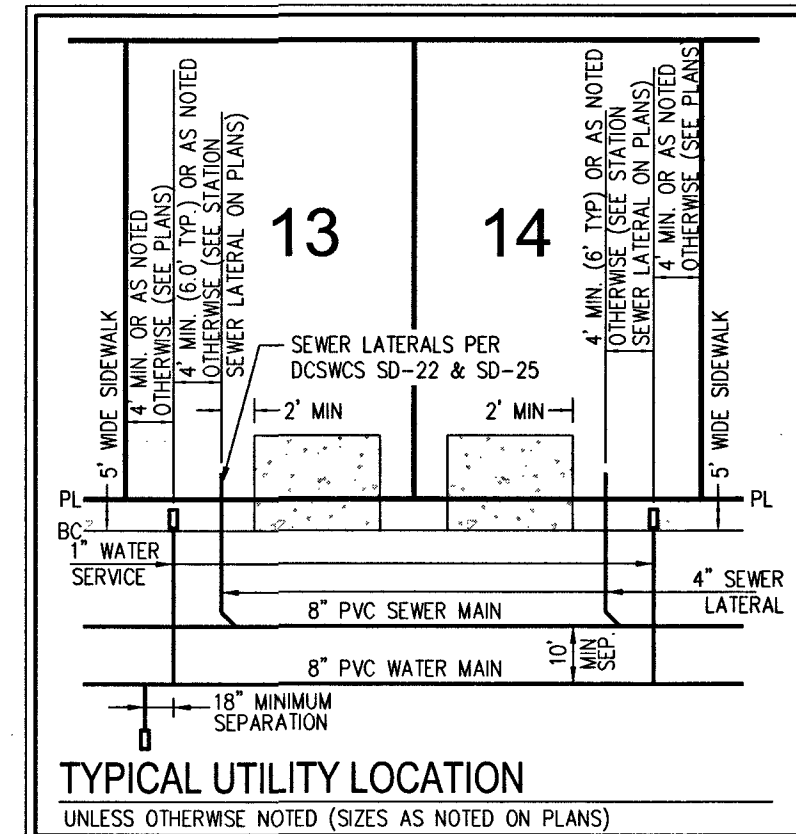
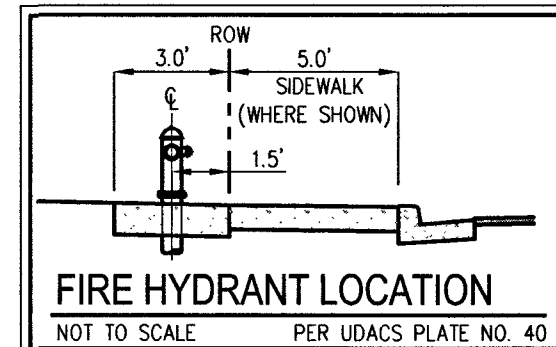
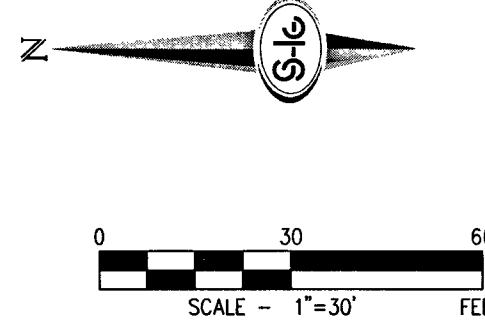
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Call
811
OR
1-800-227-2600

SEE SHEET U-1 FOR CONTINUATION



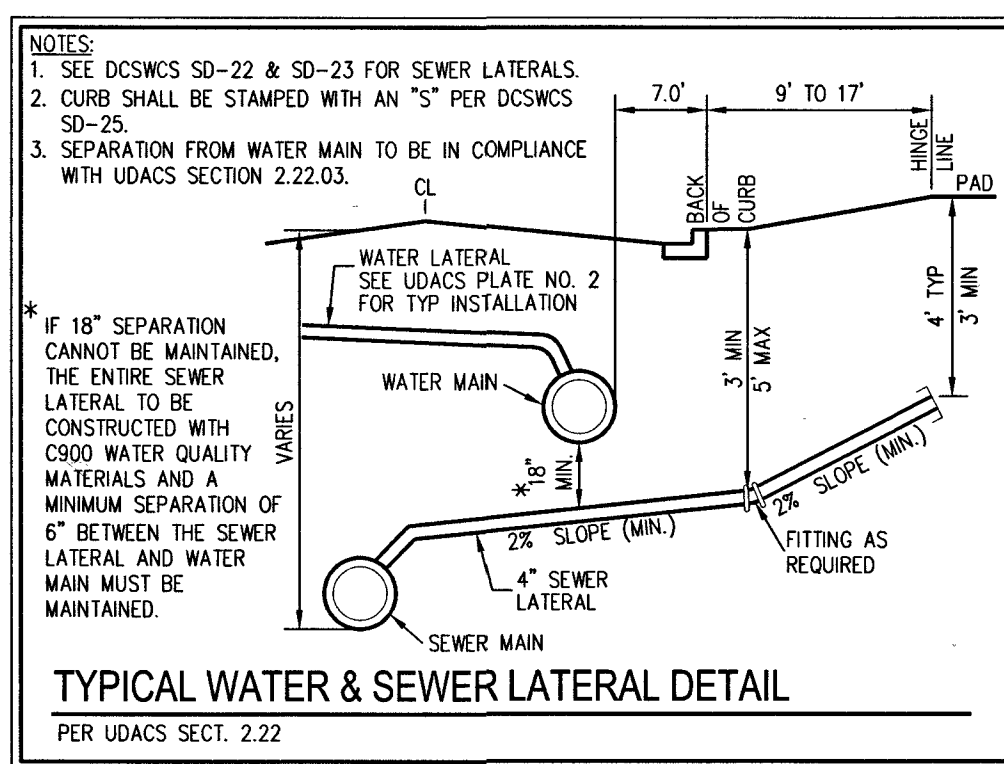
SEE SHEET U-4 FOR CONTINUATION



FIRE FLOW CALCULATIONS	
FIRE FLOW 1,500 GPM AT 20 P.S.I. RESIDUAL	
USE/OCCUPANCY	SINGLE FAMILY
TYPE OF CONSTRUCTION (IBC)	TYPE V-B
AUTOMATIC FIRE SPRINKLERS	YES
SQUARE FOOTAGE (LIVABLE)	<5000
SQUARE FOOTAGE (TOTAL)	<6000
LARGEST AREA BETWEEN 4 HOUR WALLS	N/A
BUILDING HEIGHT	<45
NO OF STORES INCLUDING BASEMENT	2
HIGH PILED COMBUSTIBLE STORAGE	NO
NO OF HYDRANTS INSTALLED	6

BENCHMARK
BENCHMARK NUMBER: 6L9018W4
RIVET AND PLATE IN TOP OF CURB IN THE NORTHEAST CORNER OF FARM ROAD AND HUALAPAI WAY.
ELEVATION = 2856.76 FEET, 870.729 METERS
DATUM = NAVD 88
PER THE CITY OF LAS VEGAS BENCHMARK WEBSITE ON MAY 17, 2018

APPROVED FOR CONSTRUCTION
John Sharkey
LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES
PROJECT NO. 136145, FIRST APPROVED DATE 4-16-19
LVVWD APPROVED FIRE FLOW 1,500 GPM AT 20 PSI RESIDUAL
MAXIMUM AVAILABLE FIRE SPRINKLER FLOW 28 GPM



- WATER NOTES**
1. INSTALL FIRE HYDRANT ASSEMBLY W/6\"/>
 2. INSTALL 8\"/>
 3. INSTALL 8\"/>
 4. INSTALL 8\"/>
 5. INSTALL 8\"/>
 6. INSTALL HORIZONTAL 90° BEND PER UDACS PLATE NO. 31
 7. INSTALL CAP AND 2\"/>
 8. INSTALL 1\"/>
 9. INSTALL 10\"/>
 10. FIELD VERIFY LOCATION AND CONNECT TO EXISTING WATER
 11. 1\"/>
 12. INSTALL 1\"/>
 13. INSTALL 1\"/>
 14. INSTALL 45° VERTICAL BEND PER UDACS PLATE NO. 31
 15. INSTALL 8\"/>
 16. INSTALL 10\"/>
 17. INSTALL 10\"/>
 18. INSTALL STEEL ENCASUREMENT FOR WATER LINE PER UDACS PLATE NO. 22 & 23. SEE STEEL ENCASUREMENT NOTE ON SHEET U-3

- SEWER CONSTRUCTION NOTES**
1. INSTALL 48\"/>
 2. INSTALL 8\"/>
 3. PROTECT SEWER APPURTENANCES IN PLACE. REF. PLANS FOR DETAILS
 4. INSTALL 48\"/>
 5. CAST-IN-PLACE BASE PER DCSWCS SD-4, SD-7 AND SD-9 W/ CORROSION PROTECTION PER DCSWCS 3.16.8.8
 6. INSTALL 8\"/>
 7. INSTALL 48\"/>
 8. INSTALL 4\"/>

ESTIMATED AVERAGE DAILY SEWER CONTRIBUTIONS
59 UNITS X 250 GPD/UNIT = 14,750 GPD = 0.01475 MGD
TOTAL PEAK FLOW = 0.01475 X 3.54 (PEAK FACTOR) = 0.05222 MGD
TOTAL PEAK WET-WEATHER FLOW = 0.05222 MGD X 1.25 = 0.06527 MGD

DISCLAIMER NOTE
EXISTING UTILITY LOCATIONS SHOWN HEREON ARE APPROXIMATE ONLY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT 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 IN THEIR PROPER LOCATION.

- WATER NOTES**
1. WATER MAIN JOINT DEFLECTION (PVC 4\"/>
 2. REDUCED PRESSURE PRINCIPLE ASSEMBLY(S) SHALL BE INSTALLED PER THE UDACS PLATE NO. 8. NO WATER SHALL BE TAKEN FROM A SERVICE REQUIRING BACKFLOW PREVENTION UNTIL THE REDUCED PRESSURE PRINCIPLE ASSEMBLY HAS BEEN SUCCESSFULLY TESTED BY THE LVVWD. ANY BLOCK WALL OR OTHER FENCE MATERIAL SHALL BE DESIGNED AND CONSTRUCTED AROUND THE OUTSIDE OF THE EASEMENT(S) TO ALLOW THE DISTRICT DIRECT ACCESS FROM THE ADJACENT RIGHT-OF-WAY EASEMENTS SHALL BE CLEARLY MARKED OR STAKED PRIOR TO THE START OF CONSTRUCTION
 3. 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
 4. FITTINGS SHALL NOT FALL UNDER CURBS, GUTTERS OR SIDEWALK
 5. INSTALL PIPELINE MARKER BALLS IN TRENCH ABOVE EACH HORIZONTAL ELBOW FITTING PER UDACS PLATE NO. 15
 6. THE LVVWD CANNOT GUARANTEE A WATER TIGHT SHUTDOWN WHERE CONNECTIONS OR REPAIRS TO EXISTING FACILITIES ARE REQUIRED. THE CONTRACTOR SHALL ENSURE ALL LABOR AND EQUIPMENT IS AVAILABLE TO REMOVE FUGITIVE WATER THAT MAY IMPEDE CONSTRUCTION AT ALL TIMES. COORDINATION WITH INSPECTION DIVISION MUST TAKE PLACE PRIOR TO ANY TRIAL SHUTDOWN
 7. CONTRACTOR TO INSTALL TEMPORARY SERVICE TO ENSURE PROPER SHUTDOWN IN THE EVENT NO OTHER APPURTENANCES ARE AVAILABLE
 8. CONTROL LOW STRENGTH MATERIAL (CLSM) PROTECT WATERLINES IN PLACE WHEREVER A WATERLINE IS ABOVE A STORM DRAIN OR SEWER WHERE COMPACTION REQUIREMENTS UNDER A WATERLINE CANNOT BE MET. BACKFILL TRENCH WITH CLASS 1 CONTROLLED LOW STRENGTH MATERIAL (CLSM) TO THE SPRINKLING OF THE WATERLINE. THIS REQUIREMENT IS FOR STRUCTURAL SUPPORT ONLY. ADDITIONAL HEALTH REGULATIONS MAY APPLY PER UDACS 2.22
 9. ANNUAL SPACE BETWEEN PIPE AND CASING SHALL BE FILLED WITH CLASS 1 CLSM. SEE UDACS PLATES 17 AND 19, FOR BEDDING AND BACKFILL REQUIREMENTS
 10. INSTALL STEEL ENCASUREMENT FOR WATER LINE PER UDACS PLATE NO. 22 AND 23. MINIMUM 18-INCH CLEARANCE IS REQUIRED ABOVE THE TOP OF PIPE. DUCTILE IRON PIPE WITH RESTRAINED JOINTS IS REQUIRED. IN ADDITION, THRUST BLOCKS ARE TO BE INSTALLED AT THE UPPER BENDS

- GENERAL NOTES**
1. FINAL GRADES ADJACENT TO STRUCTURES SHALL BE IN CONFORMANCE WITH IBC 2012, SECTION 2304.11.2.2
 2. THE CONTRACTOR SHALL VERIFY ALL CONDITIONS AND DIMENSIONS AND REPORT ALL DISCREPANCIES TO THE ENGINEER
 3. ALL IMPROVEMENTS TO BE PROTECTED FROM EROSION BY SWPPP
 4. ALL PUBLIC AND PRIVATE DRAINAGE IMPROVEMENTS TO BE BONDED FOR AND INSPECTED
 5. CONSTRUCTION OF BLOCK WALLS REQUIRES A SEPARATE BUILDING PERMIT AND APPROVAL BY THE CLARK COUNTY BUILDING DEPARTMENT
 6. CONTRACTOR TO VERIFY LOCATION AND ELEVATION OF EXISTING UTILITY STRUCTURES AND FACILITIES AND NOTIFY ENGINEER OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION. CONTRACTOR TO PROTECT IN PLACE DURING CONSTRUCTION. ENGINEER/OWNER SHALL BE NOTIFIED OF PRIOR DAMAGE TO EXISTING FACILITIES PRIOR TO CONSTRUCTION. CONTRACTOR WILL BE RESPONSIBLE FOR REPAIR/REPLETING FACILITIES IF ENGINEER/OWNER IS NOT NOTIFIED OF EXISTING DAMAGE PRIOR TO CONSTRUCTION COMMENCING
 7. 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 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. THIS RESTRICTION EXTENDS ALONG THE SIGHT VISIBILITY LINE THROUGH LANDSCAPED MEDIANS
 8. IN THE EVENT THAT THE TRAFFIC SIGNAL CONDUITS, LOOP DETECTORS OR ASSOCIATED EQUIPMENT ARE DAMAGED BY CONTRACTOR, THE CONTRACTOR WILL HIRE AN MSA LEVEL II ELECTRICAL CONTRACTOR TO MAKE REPAIRS PER UNIFORM SPECIFICATION NO. 623.G.01.02

LAS VEGAS FIRE AND RESCUE FIRE DEPARTMENT
APPROVED
3/19/19
BY: APPROVAL OF THESE PLANS SHALL NOT BE CONSIDERED TO BE A PERMIT FOR, OR AN APPROVAL OF, ANY VIOLATION OF ANY OF THE PROVISIONS OF THE STATE OR COUNTY LAWS, FIRE FLOW 1,500 GPM AT 20 P.S.I. RESIDUAL.

Call before you Dig
AVOID CUTTING UNDERGROUND UTILITY LINES. IT'S COSTLY.
Call 811
OR
1-800-227-2600

FAST
UnderGround
1-702-432-5300
FREEMAN & MATERIAL SYSTEM OF TRANSPORTATION (F.A.S.T.)
1-702-227-2929

LEGEND
LVVWD PHASE 1 CONSTRUCTION BOUNDARY

SOUTHWEST GAS APPROVAL
Pamela Kennedy 3-21-19
SOUTHWEST GAS CORPORATION DATE

WATER PRESSURE ZONE NOTE
ALL LOTS ARE SERVED FROM THE PVC WATER MAIN IN THE 2975 WPZ.

FIRE SPRINKLER NOTE
FIRE SPRINKLER SYSTEM SHALL BE PLUMBED TO THE MASTER TOILET. NO EXCEPTIONS ALLOWED.

BASIS OF BEARINGS
NORTH 00°19'04\"/>

STEEL ENCASUREMENT NOTE
INSTALL WATERLINE IN STEEL CASING PER UDACS PLATES NO. 22 AND 23. MINIMUM 18-INCH CLEARANCE REQUIRED ABOVE THE TOP OF THE CASING FROM THE UPPER BENDS. MINIMUM 18-INCH CLEARANCE REQUIRED BELOW THE LOWER BENDS OF THE PIPE. DUCTILE IRON PIPE WITH RESTRAINED JOINTS IS REQUIRED.

SLATER HANIFAN GROUP
a Westwood team
5740 S. ARVILLE STREET #216, LAS VEGAS, NV 89118
PHONE (702) 284-5300 FAX (702) 284-5399

RICHMOND AMERICAN HOMES
FARM HUALAPAI
UTILITY PLAN III

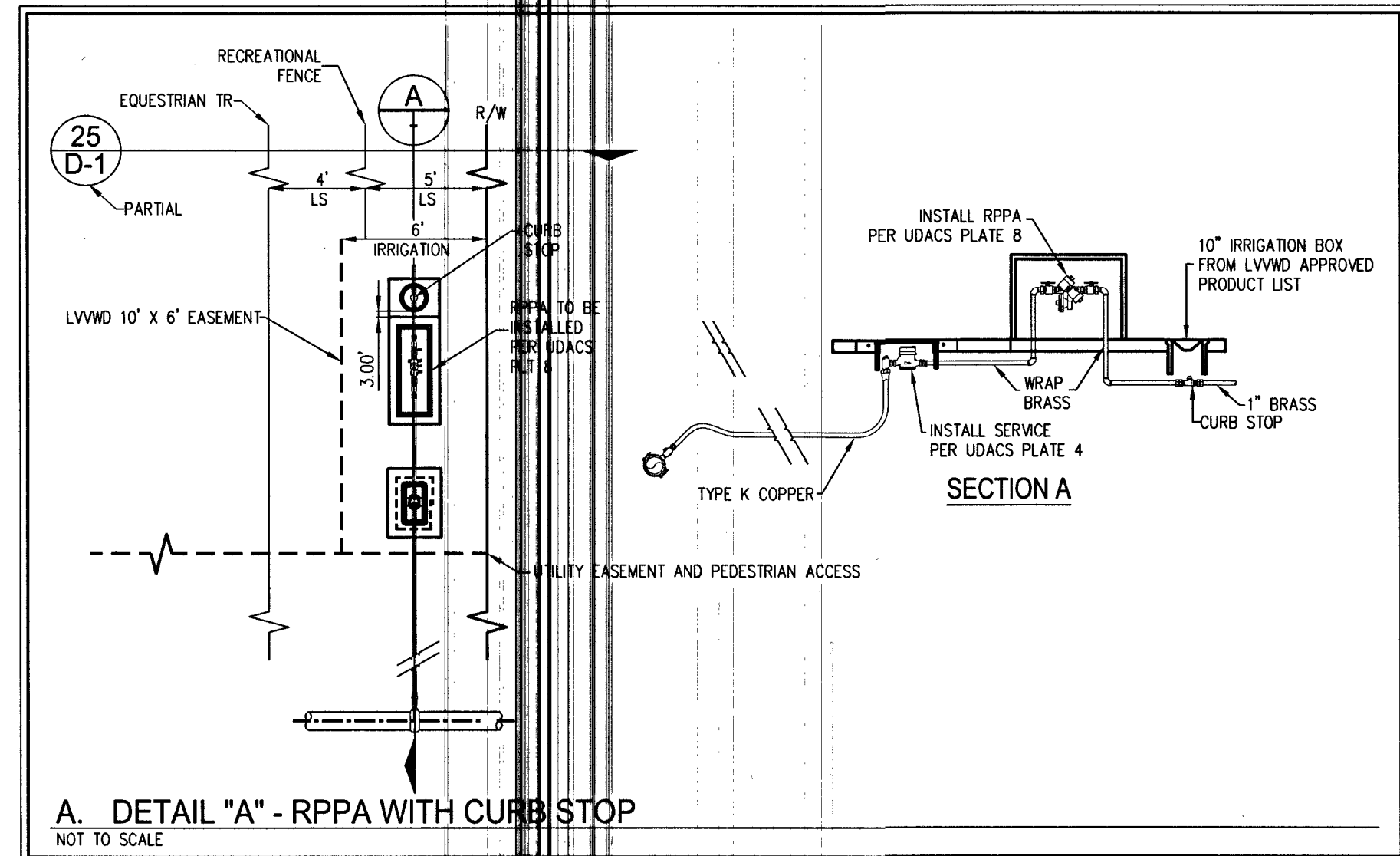
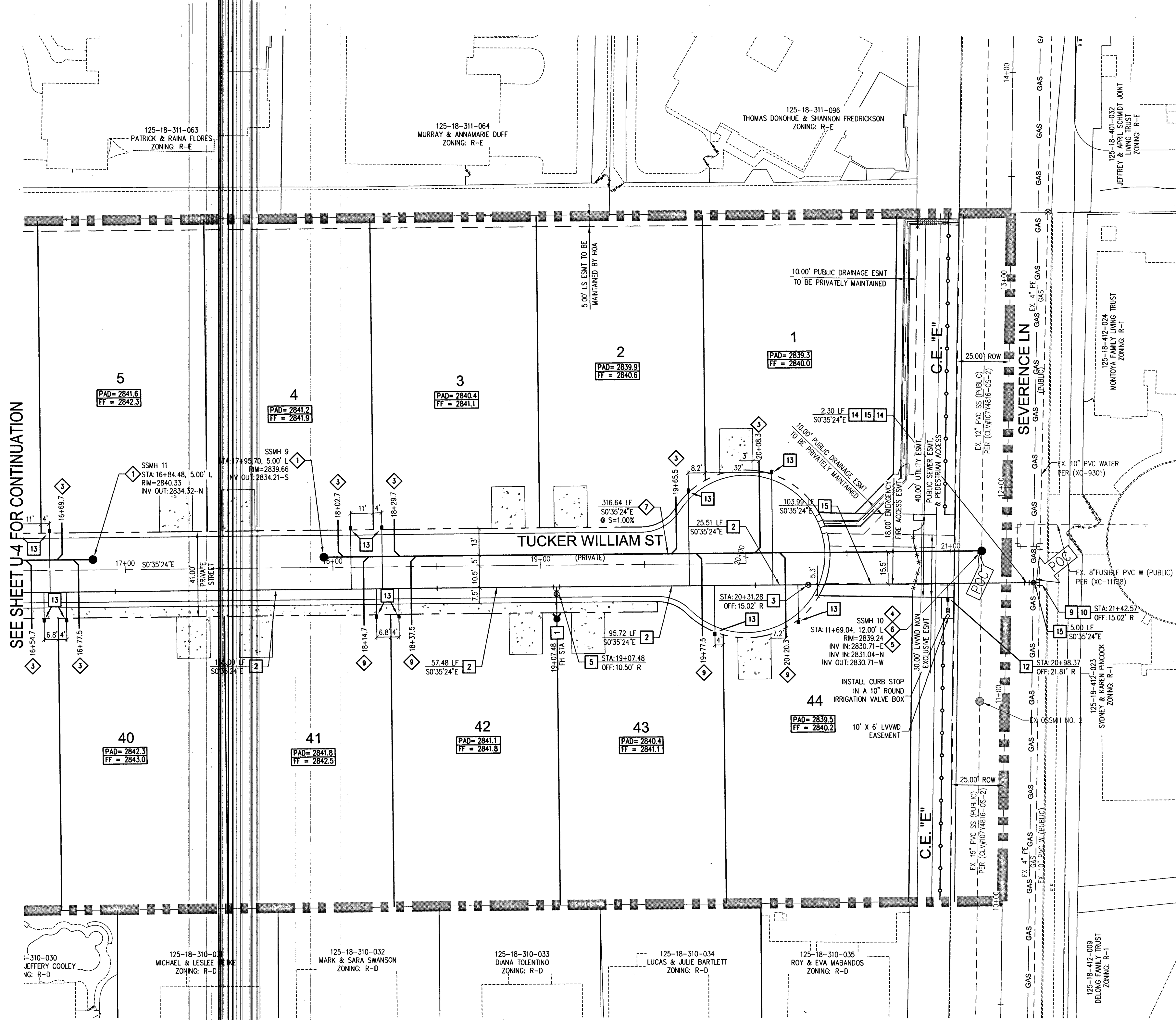
DATE: 3/18/19
DRAFTER: EMH
DESIGNER: EMH
CHECKED: KMB
PROJECT NO. RAH1517

107V S104
L18-02739
U-3
SHEET 27 OF 34

PROJ: 156145A QS: 15-18-SW

107V5104

SEE SHEET U-4 FOR CONTINUATION



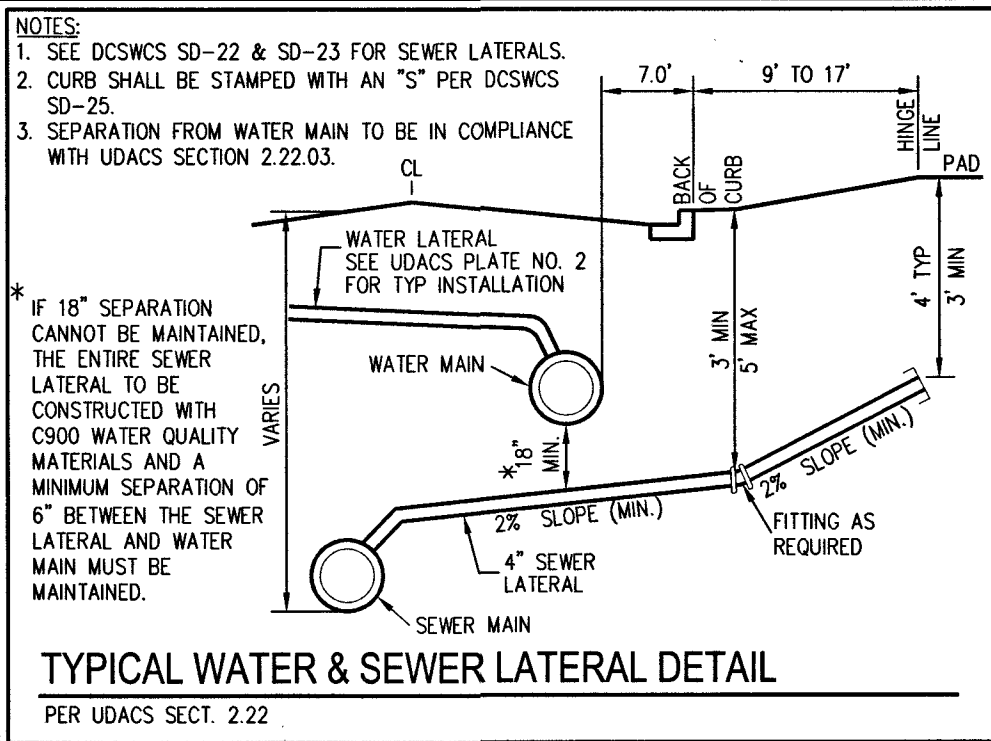
WATER PRESSURE ZONE NOTE
ALL LOTS ARE SERVED FROM THE PVC WATER MAIN IN THE 2975 WPZ.

LVVWD EASEMENT NOTE
ALL LVVWD EASEMENTS FOR RPPA LOCATIONS WILL BE CLEAR OF OBSTRUCTIONS AND THE RPPA WILL BE INSTALLED WITHIN A LEVEL SURFACE PER UDACS PLATE 8.

SOUTHWEST GAS APPROVAL
Pamela Kennedy
SOUTHWEST GAS CORPORATION
DATE: 3-21-19

FIRE SPRINKLER NOTE
FIRE SPRINKLER SYSTEM SHALL BE PLUMBED TO THE MASTER TOILET. NO EXCEPTIONS ALLOWED.

BASIS OF BEARINGS
NORTH 001°04' WEST, BEING THE BEARING OF THE WEST LINE OF THE NORTHWEST QUARTER (NW1/4) OF THE SOUTHWEST QUARTER (SW1/4) OF SECTION 18, TOWNSHIP 19 SOUTH, RANGE 60 EAST, M.D.M., CITY OF LAS VEGAS, CLARK COUNTY, NEVADA, AS SHOWN BY MAP THEREOF IN BOOK 127, PAGE 24 OF PLATS IN THE CLARK COUNTY RECORDER'S OFFICE, NEVADA.



WATER NOTES

1. INSTALL FIRE HYDRANT ASSEMBLY W/ 6" GATE VALVE PER UDACS PLATE NO. 40
2. INSTALL 8" PVC WATER PIPE [2975 WPZ]
3. INSTALL 8" GATE VALVE WITH VALVE BOX PER UDACS PLATE NO. 30 & 39
4. INSTALL 8" x 8" TEE PER UDACS PLATE NO. 31
5. INSTALL 8" x 6" TEE PER UDACS PLATE NO. 31
6. INSTALL HORIZONTAL 90° BEND PER UDACS PLATE NO. 31
7. INSTALL CAP AND 2" BLOW-OFF VALVE PER UDACS PLATE NO. 36
8. INSTALL 1" COPPER SERVICE W/ 3/4" METER PER UDACS PLATE NO. 1
9. INSTALL 10" x 8" TAPPING SLEEVE WITH 8" TAPPING VALVE PER UDACS PLATE NO. 30, 34, 39 AND SECTION 2.24.D1
10. FIELD VERIFY LOCATION AND CONNECT TO EXISTING WATER
11. INSTALL 1" COPPER SERVICE W/ 3/4" IRRIGATION METER AND 1" RPPA PER UDACS PLATE NO. 4 & 8. SEE 'DETAIL A' ON SHEET U-4
12. INSTALL 1" COPPER SERVICE W/ 3/4" IRRIGATION METER AND 1" RPPA PER UDACS PLATE NO. 4 & 8. SEE 'DETAIL A' ON SHEET U-5
13. INSTALL 1" COPPER SERVICE W/ 3/4" METER PER UDACS PLATE NO. 3
14. INSTALL 45° VERTICAL BEND PER UDACS PLATE NO. 31
15. INSTALL 8" DIP WATER PIPE [2975 WPZ]
16. INSTALL 10" DIP WATER PIPE [2975 WPZ]
17. INSTALL 10" GATE VALVE WITH VALVE BOX PER UDACS PLATE NO. 30 & 39
18. INSTALL 10" x 8" TEE PER UDACS PLATE NO. 31
19. INSTALL STEEL ENCASMENT FOR WATER LINE PER UDACS 2.22.02.B.30.0, PLATE NO. 22 & 23. SEE STEEL ENCASMENT NOTE ON SHEET U-3

SEWER CONSTRUCTION NOTES

1. INSTALL 48" DIAMETER SANITARY SEWER MANHOLE PER DCSWS SD-1A, SD-1B, SD-4 AND SD-9 WITH 24" SINGLE LID
2. INSTALL 8" SANITARY SEWER PIPE (PUBLIC) PER DCSWS SD-15 AND SD-17
3. INSTALL 4" PVC SEWER LATERAL PER DCSWS SD-22 AND SD-25
4. PROTECT SEWER APPURTENANCES IN PLACE. REF. PLANS FOR DETAILS
5. FIELD VERIFY LOCATION AND CONNECT TO EXISTING SEWER
6. INSTALL 48" DIAMETER SANITARY SEWER MANHOLE WITH CAST-IN-PLACE BASE PER DCSWS SD-4, SD-7 AND SD-9 W/ CORROSION PROTECTION PER DCSWS 3.16.B.9
7. INSTALL 8" CS90 SEWER PIPE (PUBLIC) PER DCSWS SD-15 AND SD-17
8. INSTALL 48" DIAMETER SANITARY SEWER MANHOLE PER DCSWS SD-4, SD-9, AND SD-13 "B" WITH 24" SINGLE LID
9. INSTALL 4" C-900 PVC SANITARY SEWER LATERAL PER DCSWS SD-17, SD-22, SD-23 AND SD-25

ESTIMATED AVERAGE DAILY SEWER CONTRIBUTIONS

59 UNITS X 250 GPD/UNIT = 14,750 GPD = 0.01475 MGD
TOTAL PEAK FLOW = 0.01475 X 3.54 (PEAK FACTOR) = 0.05222 MGD
TOTAL PEAK WET-WEATHER FLOW = 0.05222 MGD X 1.25 = 0.06527 MGD

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FAST
Call before you Dig
Underground
1-702-432-5300
FIREWAY & AVENUE SYSTEM OF TRANSPORTATION (F.A.S.T.)
1-702-227-2929

WATER NOTES

1. WATER MAIN JOINT DEFLECTION (PVC 4" - 24")
PVC PIPE SHALL BE DEFLECTED AT THE JOINT ONLY. THE MAXIMUM ALLOWABLE DEFLECTION SHALL BE ONE (1) INCH PER JOINT WITH A MINIMUM 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.
2. REDUCED PRESSURE PRINCIPLE ASSEMBLY(S) SHALL BE USED.
APPROVED REDUCED PRESSURE PRINCIPLE ASSEMBLY(S) SHALL BE INSTALLED PER THE UDACS PLATE NO. 8. NO WATER SHALL BE TAKEN FROM A SERVICE REQUIRING BACKFLOW PREVENTION UNTIL THE REDUCED PRESSURE PRINCIPLE ASSEMBLY HAS BEEN SUCCESSFULLY TESTED BY THE LVVWD. ANY BLOCK WALL OR OTHER FENCE MATERIAL SHALL BE DESIGNED AND CONSTRUCTED AROUND THE OUTSIDE OF THE EASEMENT(S) TO ALLOW THE DISTRICT DIRECT ACCESS FROM THE ADJACENT RIGHT-OF-WAY. EASEMENTS SHALL BE CLEARLY MARKED OR STAKED PRIOR TO THE START OF CONSTRUCTION.
3. 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.
4. FITTINGS SHALL NOT FALL UNDER CURBS, GUTTERS OR SIDEWALKS.
5. INSTALL PIPELINE MARKER BALLS IN TRENCH ABOVE EACH HORIZONTAL ELBOW FITTING PER UDACS PLATE NO. 15.
6. THE LVVWD CANNOT GUARANTEE A WATER TIGHT SHUTDOWN WHERE CONNECTIONS OR REPAIRS TO EXISTING FACILITIES ARE REQUIRED. THE CONTRACTOR SHALL ENSURE ALL LABOR AND EQUIPMENT IS AVAILABLE TO REMOVE FUGITIVE WATER THAT MAY IMPERE CONSTRUCTION AT ALL TIMES. COORDINATION WITH INSPECTION DIVISION MUST TAKE PLACE PRIOR TO ANY TRIAL SHUTDOWN.
7. CONTRACTOR TO INSTALL TEMPORARY SERVICE TO ENSURE PROPER SHUTDOWN IN THE EVENT NO OTHER APPURTENANCES ARE AVAILABLE.
8. CONTROLLED LOW STRENGTH MATERIAL (CLSM) PROTECT WATERLINES IN PLACE WHEREVER A WATERLINE IS ABOVE A STORM DRAIN OR SEWER WHERE COMPACTION REQUIREMENTS UNDER A WATERLINE CANNOT BE MET. BACKFILL TRENCH WITH CLASS 1 CONTROLLED LOW STRENGTH MATERIAL (CLSM) TO THE SPRINGLINE OF THE WATERLINE. THIS REQUIREMENT IS FOR STRUCTURAL SUPPORT ONLY. ADDITIONAL HEALTH REGULATIONS MAY APPLY PER UDACS 2.22.
9. ANNUAL SPACE BETWEEN PIPE AND CASING SHALL BE FILLED WITH CLASS 1 CLSM. SEE UDACS PLATES 17 AND 19, FOR BEDDING AND BACKFILL REQUIREMENTS.
10. INSTALL WATERLINE IS STEEL CASING PER UDACS PLATE NO. 21 AND 23. MINIMUM 18-INCH CLEARANCE IS REQUIRED ABOVE THE TOP OF PIPE. DUCTILE IRON PIPE WITH RESTRAINED JOINTS IS REQUIRED. IN ADDITION, THRUST BLOCKS ARE TO BE INSTALLED AT THE UPPER BENDS.

GENERAL NOTES

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7. 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 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. THIS RESTRICTION EXTENDS ALONG THE SIGHT VISIBILITY LINE THROUGH LANDSCAPED MEDIANS.
8. IN THE EVENT THAT THE TRAFFIC SIGNAL CONDUITS, LOOP DETECTORS OR ASSOCIATED EQUIPMENT ARE DAMAGED BY CONTRACTOR, THE CONTRACTOR WILL HIRE AN MSA LEVEL II ELECTRICAL CONTRACTOR TO MAKE REPAIRS PER UNIFORM SPECIFICATION NO. 623.G.01.02.

LAS VEGAS FIRE AND RESCUE FIRE DEPARTMENT
APPROVED
3/19/19

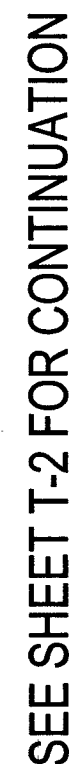
Call before you Dig
Call 811
OR
1-800-227-2600

SLATER HANIFAN GROUP
a Westwood team
5740 S. ARVILLE STREET #216 LAS VEGAS, NV 89118
PHONE (702) 284-5300 FAX (702) 284-5399

RICHMOND AMERICAN HOMES
FARM HUALAPAI
UTILITY PLAN V

DATE: 3/18/19
DRAFTER: EMH
DESIGNER: EMH
CHECKED: KMB
PROJECT NO. RAH1517

U-5
SHEET 29 OF 34
L18-02739

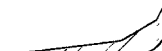


A detailed site map of the proposed development. The map shows five tracts labeled T-1, T-2, T-3, T-4, and T-5. T-1 and T-2 are located in the upper left and center, separated by SAVANNAH MARIE AVE. T-3 is located below T-1, separated by WILLADENE YVONNE ST. T-4 and T-5 are located in the lower right, separated by TUCKER WILLIAM ST. The map also shows several surrounding streets: DARIAN JANE ST to the north, FARRIS RD to the west, COUSEN MICHAEL AVE to the east, and SEVERENCE LN to the south. A north arrow is located in the bottom left corner, pointing towards the top left of the map.

TRAFFIC NOTES

- 1 INSTALL 30" STOP SIGN (R1-1) AND TWO (2) 9" STREET NAME SIGNS (D3-1) (PRIVATELY MAINTAINED)
- 2 INSTALL 36" STOP SIGN (R1-1) AND TWO (2) 12" STREET NAME SIGNS (D3-1) (PRIVATELY MAINTAINED)
- 3 INSTALL BLUE COLORED REFLECTIVE RAISED PAVEMENT MARKER
- 4 PAINT CURB RED (15' EACH SIDE OF FIRE HYDRANT FOR A TOTAL OF 30', CURB LENGTH PERMITTING)
- 5 INSTALL MEDIAN JOE MARKINGS PER CAASUD NO. 248
- 6 EXISTING SIGN TO BE REMOVED
- 7 INSTALL TYPE II CENTRELINE PER CAASUD NO. 244
INSTALL LED STREET LIGHT "QPL" FOR 85' R/W PER CAASUD #320.53 & #314 W/ FOUNDATION PER CAASUD #320 & #321
- 8 INSTALL 1-1/4" STREET LIGHT CONDUIT W/ (2) #4 (1) #6 GND. AVOIDING FIRE HYDRANTS WHERE NEEDED
- 9 PAINT CURB RED PER IFC 503.3.3 AND GENERAL NOTE #27
- 10 INSTALL 18" TYPE I "NO PARKING FIRE LANE" PER IFC 503.3.1
- 11 EXISTING STRIPING TO BE OBLITERATED
- 12 INSTALL TYPE IV LANE LINE PER L17-00976
- 13 EXISTING TYPE IV LANE LINE PER L17-00976
- 14 EXISTING TYPE II CENTRELINE PER L17-00976
- 15 EXISTING 6" SOLID WHITE LINE PER L17-00976
- 16 INSTALL TYPE IV LANE LINE PER CAASUD NO. 244.1
- 17 INSTALL 6" SOLID WHITE LINE PER CAASUD NO. 244.9
INSTALL LED STREET LIGHT "QPL" FOR 80' R/W PER CAASUD #320.53 & #314 W/ FOUNDATION PER CAASUD #320 & #321
- 18 FIELD VERIFY AND CONNECT TO EX. CONDUIT

SIGN LEGEND

	STREET NAME SIGN (PER PRIVATE STREET STDS)
	STOP SIGN W/POST (R1-1)
	TRAFFIC SIGN (AS INDICATED)
	REFLECTIVE RAISED PAVEMENT MARKERS
	SIGHT VISIBILITY ZONE
	EXISTING STRIPING
	PROPOSED STRIPING
	OM3-R SIGN
	"NO PARKING FIRE LANE" SIGN

SEE SHEET C-3 FOR ABBREVIATIONS AND QUANTITIES

BASIS OF BEARINGS

NORTH 00°19'04" WEST, BEING THE BEARING OF THE WEST LINE OF THE NORTHWEST QUARTER (NW1/4) OF THE SOUTHWEST QUARTER (SW1/4) OF SECTION 18, TOWNSHIP 19 SOUTH, RANGE 60 EAST, M.D.M., CITY OF LAS VEGAS, CLARK COUNTY, NEVADA, AS SHOWN BY MAP THEREOF IN BOOK 127, PAGE 24 OF PLATS IN THE CLARK COUNTY RECORDER'S OFFICE, NEVADA

BENCHMARK

BENCHMARK NUMBER: 6LV9018W4

RIVET AND PLATE IN TOP OF CURB IN THE NORTHEAST CORNER OF FARM ROAD AND HUALAPAI WAY.

ELEVATION = 2856.716 FEET, 870.729 METERS
DATUM = NAVD 88

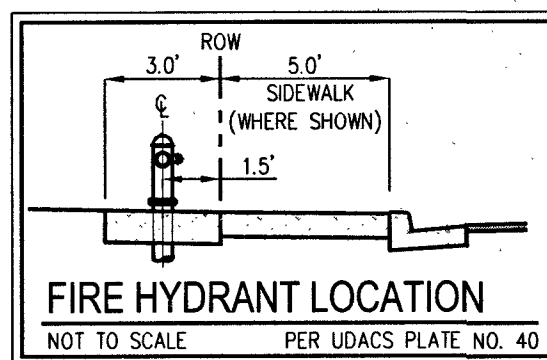
PER THE CITY OF LAS VEGAS BENCHMARK WEBSITE ON MAY 17, 2018

LAS VEGAS FIRE AND RESCUE FIRE DEPARTMENT

APPROVED

BY: [Signature] 2/19/17

APPROVAL OF THESE PLANS SHALL NOT BE CONSTRUED TO BE A PERMIT FOR, OR AN APPROVAL, OF ANY VIOLATION OF ANY OF THE PROVISIONS OF THE STATE OR COUNTY LAWS. FIRE FLOW 1,500 GPM AT 20 P.S.I. RESIDUAL.



AVOID HITTING OVERHEAD
POWER LINES. IT'S
COSTLY.

CALL BEFORE
YOU DO
OVERHEAD

1-702-227-2929

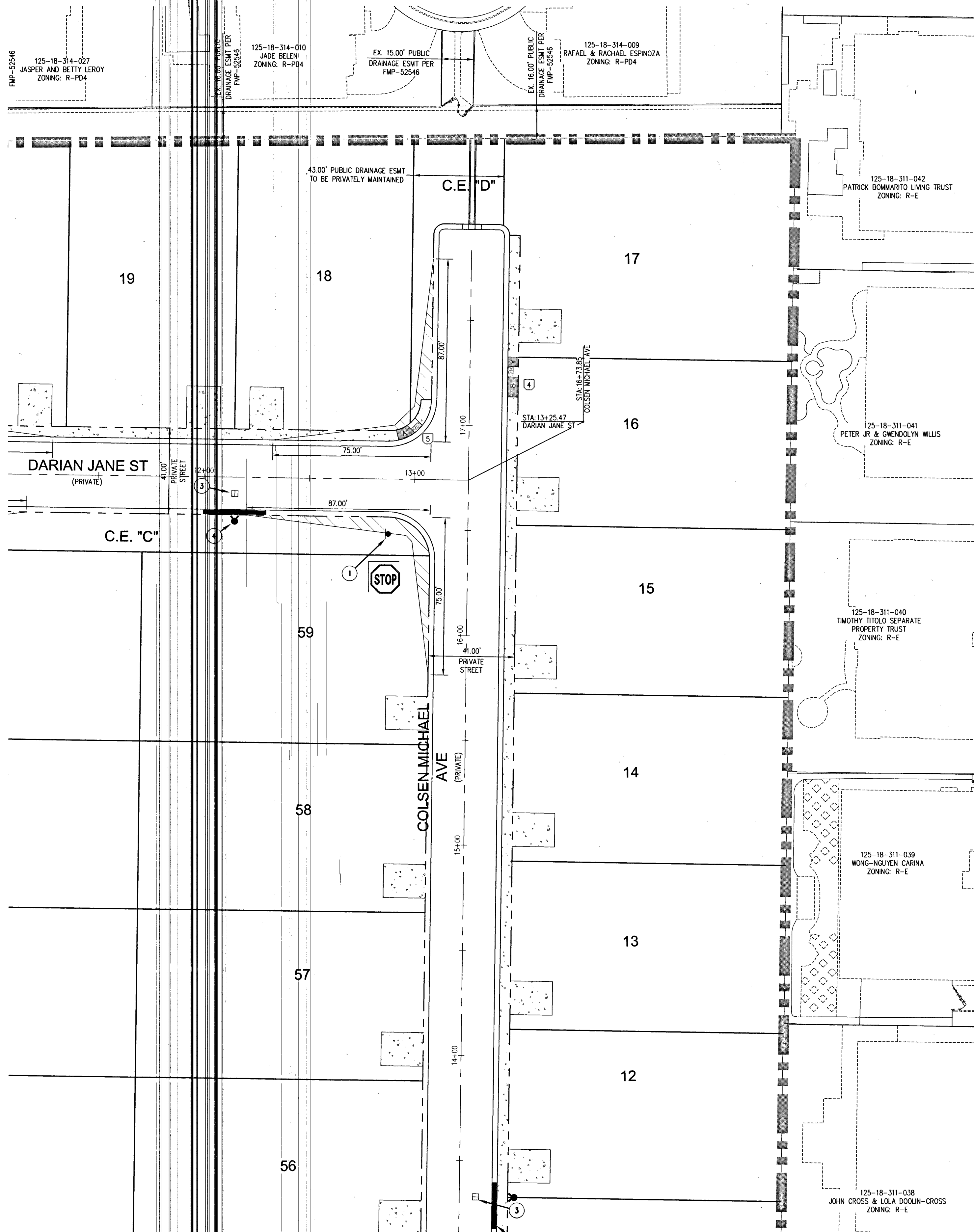
FAST

Call before you
UnderGround
1-702-432-5300
FREEWAY & ARTERIAL SYSTEM
OF TRANSPORTATION (F.A.S.T)

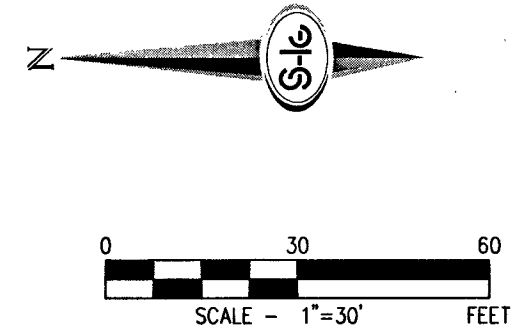
Call before you Dig
AVOID CUTTING UNDERGROUND
UTILITY LINES. IT'S COSTLY.
Call
811
OR
1-800-227-2600

J:\Veh1517\bulletufido form\dwg\Improv\veh1517tr1.dwg 3/18/2019 5:35 PM cskela Abad

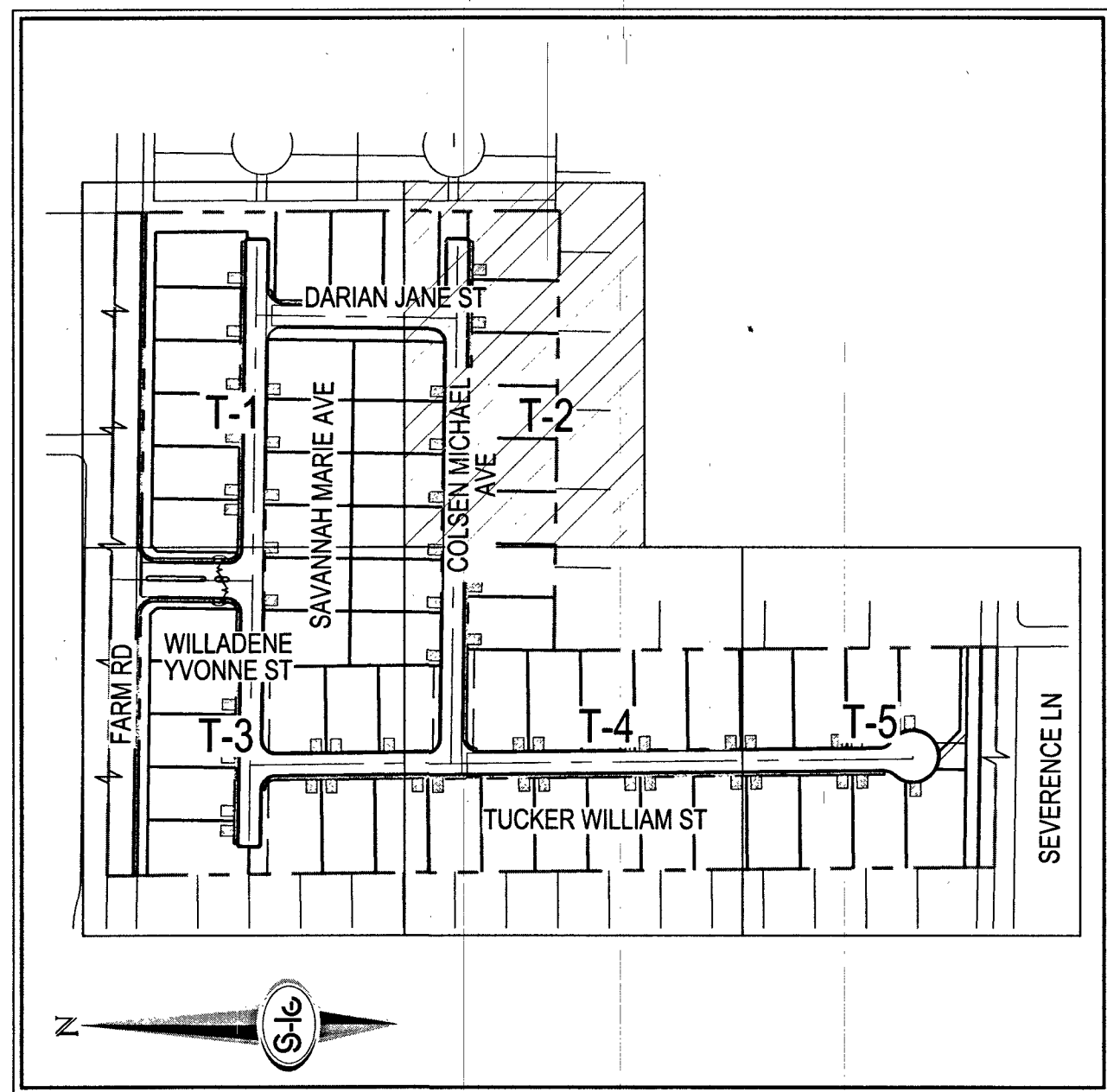
SEE SHEET T-1 FOR CONTINUATION



SEE SHEET T-4 FOR CONTINUATION



RAMP TRANSITION LENGTHS				
RAMP NO.	GRADE %	"A" (FT)	"B" (FT)	MIN.
1	-6 TO -5.01	4.5'	21.5'	
2	-5 TO -4.01	4.5'	15.0'	
3	-4 TO -3.01	4.5'	12.0'	
4	-3 TO -2.01	4.5'	9.5'	
5	-2 TO 2	8.0'	8.0'	
6	2.01 TO 3	9.5'	4.5'	
7	3.01 TO 4	12.0'	4.5'	
8	4.01 TO 5	15.0'	4.5'	
9	5.01 TO 6	21.5'	4.5'	

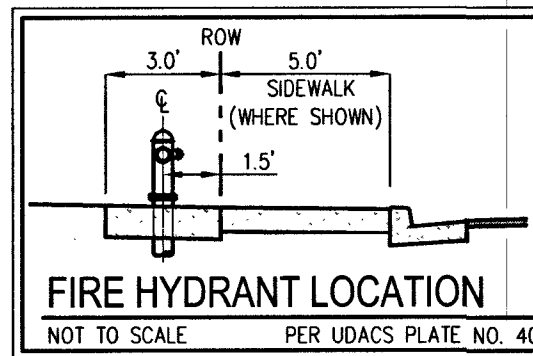


TRAFFIC NOTES

1. INSTALL 30" STOP SIGN (R1-1) AND TWO (2) 9" STREET NAME SIGNS (D3-1) (PRIVATELY MAINTAINED)
2. INSTALL 36" STOP SIGN (R1-1) AND TWO (2) 12" STREET NAME SIGNS (D3-1) (PRIVATELY MAINTAINED)
3. INSTALL BLUE COLORED REFLECTIVE RAISED PAVEMENT MARKER
4. PAINT CURB RED (15' EACH SIDE OF FIRE HYDRANT FOR A TOTAL OF 30', CURB LENGTH PERMITTING)
5. INSTALL MEDIAN NOSE MARKINGS PER CCAUSD NO. 248
6. EXISTING SIGN TO BE REMOVED
7. INSTALL TYPE II CENTERLINE PER CCAUSD NO. 244
8. INSTALL LED STREET LIGHT "OPL" FOR 85' R/W PER CCAUSD #300.53 & #314 W/ FOUNDATION PER CCAUSD #320 & #321
9. INSTALL 1-1/4" STREET LIGHT CONDUIT W/ (2) #4 AND (1) #8 GND. AVOIDING FIRE HYDRANTS WHERE NEEDED
10. PAINT CURB RED PER IFC 503.3 AND GENERAL NOTE #27
11. INSTALL 18" TYPE A "NO PARKING FIRE LANE" PER IFC 503.3.1
12. EXISTING STRIPING TO BE OBLITERATED
13. EXISTING TYPE II LANE LINE PER L17-00976
14. EXISTING TYPE II CENTERLINE PER L17-00976
15. EXISTING 6" SOLID WHITE LINE PER L17-00976
16. INSTALL TYPE IV LANE LINE PER CCAUSD NO. 244.1
17. INSTALL 6" SOLID WHITE LINE PER CCAUSD NO. 244.9
18. INSTALL LED STREET LIGHT "OPL" FOR 80' R/W PER CCAUSD #300.53 & #314 W/ FOUNDATION PER CCAUSD #320 & #321
19. FIELD VERIFY AND CONNECT TO EX. CONDUIT

TRAFFIC GENERAL NOTES

1. REPLACE ALL TRAFFIC CONTROL DEVICES (SIGNS AND/OR PAVEMENT MARKINGS), UNDER CLARK COUNTY'S JURISDICTION, THAT ARE DISTURBED, DESTROYED, MOVED OR MODIFIED BY TRENCHING ACTIVITIES TO CLARK COUNTY'S SATISFACTION. ALL MATERIAL USED SHALL MEET CLARK COUNTY'S SPECIFICATIONS OR WILL BE AN APPROVED EQUIVALENT.
2. IN THE EVENT THAT THE TRAFFIC SIGNAL CONDUITS, LOOP DETECTORS OR ASSOCIATED EQUIPMENT ARE DAMAGED BY CONTRACTOR, THE CONTRACTOR WILL HIRE AN IMSA LEVEL II ELECTRICAL CONTRACTOR TO MAKE REPAIRS PER UNIFORM SPECIFICATION NO. 623.G.01.02
3. 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.
4. THE CONTRACTOR IS TO VERIFY THE ACTUAL FIELD CONDITIONS OF ALL LOTS AND INSTALL SEWER CHECK VALVES WHERE REQUIRED PER THE LATEST EDITION OF THE UNIFORM PLUMBING CODE.
5. FITTINGS SHALL NOT FALL UNDER CURBS, GUTTERS OR SIDEWALK.



SIGN LEGEND

- STREET NAME SIGN (PER PRIVATE STREET SIGNS)
- STOP SIGN W/POST (R1-1)
- TRAFFIC SIGN (AS INDICATED)
- REFLECTIVE RAISED PAVEMENT MARKERS
- SIGHT VISIBILITY ZONE
- EXISTING STRIPING
- PROPOSED STRIPING
- OM3-R SIGN
- "NO PARKING FIRE LANE" SIGN
- SEE SHEET C-3 FOR ABBREVIATIONS AND QUANTITIES

BASIS OF BEARINGS

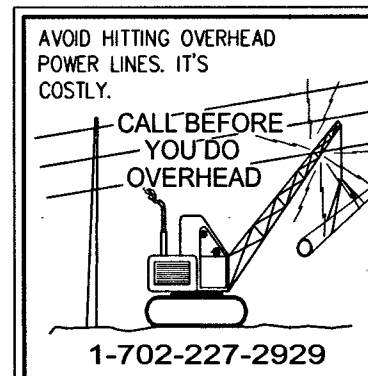
NORTH 00°19'04" WEST, BEING THE BEARING OF THE WEST LINE OF THE NORTHWEST QUARTER (NW1/4) OF THE SOUTHWEST QUARTER (SW1/4) OF SECTION 18, TOWNSHIP 19 SOUTH, RANGE 60 EAST, M.D.M., CITY OF LAS VEGAS, CLARK COUNTY, NEVADA, AS SHOWN BY MAP THEREOF IN BOOK 127, PAGE 24 OF PLATS IN THE CLARK COUNTY RECORDER'S OFFICE, NEVADA

BENCHMARK

BENCHMARK NUMBER: 6LV9016W4
RIVET AND PLATE IN TOP OF CURB IN THE NORTHEAST CORNER OF FARM ROAD AND HUALAPAI WAY.
ELEVATION = 2856.716 FEET, 870.729 METERS
DATUM = NAVD 88
PER THE CITY OF LAS VEGAS BENCHMARK WEBSITE ON MAY 17, 2018

LAS VEGAS FIRE AND RESCUE FIRE DEPARTMENT

APPROVED
BY: *Kevin M. Cross* 3/18/19
APPROVAL OF THESE PLANS SHALL NOT BE CONSIDERED TO BE A PERMIT FOR, OR AN APPROVAL OF, ANY VIOLATION OF ANY OF THE PROVISIONS OF THE STATE OR COUNTY LAWS, FIRE FLOW 1,500 GPM AT 20 P.S.I. RESIDUAL

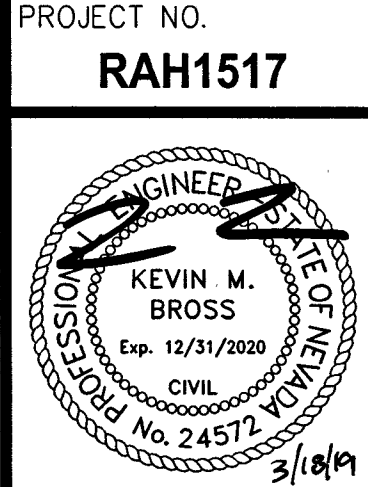


DATE	BY	APP.	DATE

DESCRIPTION	NO.

DATE	3/18/19
DRAFTER	EMH
DESIGNER	EMH
CHECKED	KMB
PROJECT NO.	RAH1517

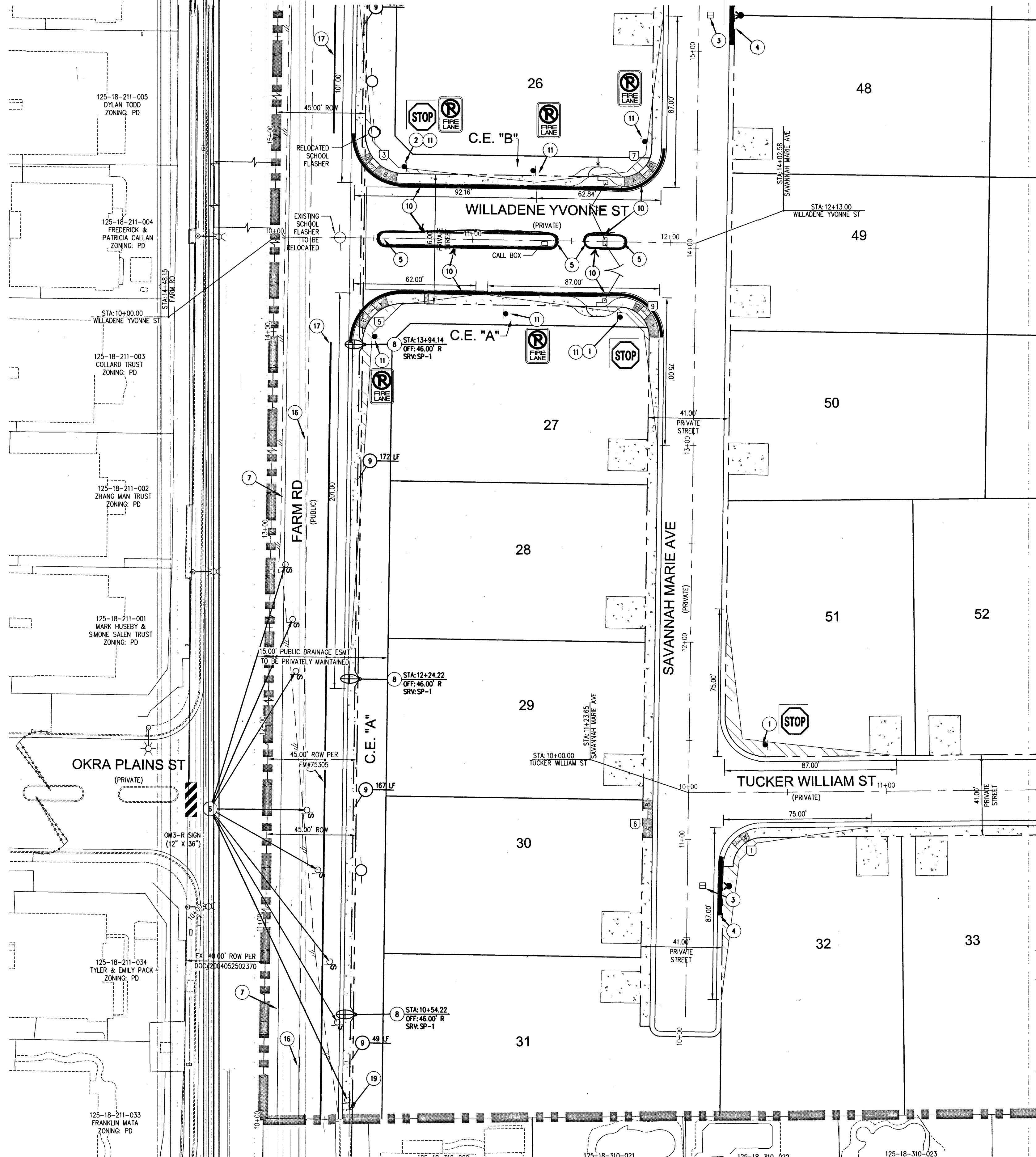
DATE	3/18/19
DRAFTER	EMH
DESIGNER	EMH
CHECKED	KMB
PROJECT NO.	RAH1517



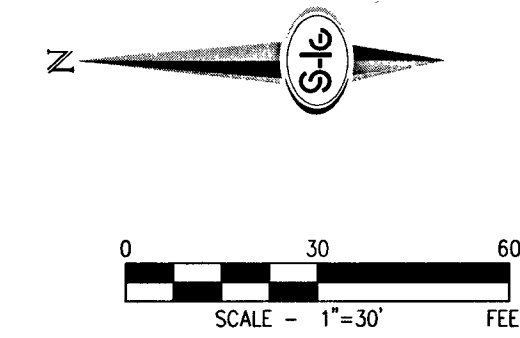
107V5104

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SEE SHEET T-1 FOR CONTINUATION



SEE SHEET T-4 FOR CONTINUATION



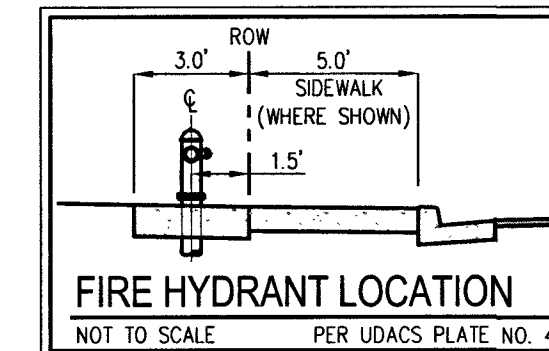
RAMP NO.	GRADE %	"B" TO "A" MIN.	"A" (FT) MIN.	"B" (FT) MIN.
1	-6 TO -5.01	4.5'	21.5'	
2	-5 TO -4.01	4.5'	15.0'	
3	-4 TO -3.01	4.5'	12.0'	
4	-3 TO -2.01	4.5'	9.5'	
5	-2 TO 2	8.0'	8.0'	
6	2.01 TO 3	9.5'	4.5'	
7	3.01 TO 4	12.0'	4.5'	
8	4.01 TO 5	15.0'	4.5'	
9	5.01 TO 6	21.5'	4.5'	

TRAFFIC NOTES

1. INSTALL 30" STOP SIGN (R1-1) AND TWO (2) 9" STREET NAME SIGNS (D3-1) (PRIVATELY MAINTAINED)
2. INSTALL 36" STOP SIGN (R1-1) AND TWO (2) 12" STREET NAME SIGNS (D3-1) (PRIVATELY MAINTAINED)
3. INSTALL BLUE COLORED REFLECTIVE RAISED PAVEMENT MARKER
4. PAINT CURB RED (1" EACH SIDE OF FIRE HYDRANT FOR A TOTAL OF 30" CURB LENGTH PERMITTING)
5. INSTALL MEDIAN NOSE MARKINGS PER CCAUSD NO. 248
6. EXISTING SIGN TO BE REMOVED
7. INSTALL TYPE II CENTERLINE PER CCAUSD NO. 244
8. INSTALL LED STREET LIGHT "OPL" FOR 85' R/W PER CCAUSD #300.53 & #314 W/ FOUNDATION PER CCAUSD #300.53 & #314
9. INSTALL 1-1/4" STREET LIGHT CONDUIT W/ (2) #4 AND (1) #8 GND. AVOIDING FIRE HYDRANTS WHERE NEEDED
10. PAINT CURB RED PER IFC 503.3 AND GENERAL NOTE #27
11. INSTALL 18" TYPE A "NO PARKING FIRE LANE" PER IFC 503.3.1
12. EXISTING STRIPING TO BE OBLITERATED
13. EXISTING TYPE IV LANE LINE PER L17-00976
14. EXISTING TYPE II CENTERLINE PER L17-00976
15. EXISTING 6" SOLID WHITE LINE PER CCAUSD NO. 244.1
16. INSTALL TYPE IV LANE LINE PER CCAUSD NO. 244.1
17. INSTALL 6" SOLID WHITE LINE PER CCAUSD NO. 244.9
18. INSTALL LED STREET LIGHT "OPL" FOR 80' R/W PER CCAUSD #300.53 & #314 W/ FOUNDATION PER CCAUSD #300.53 & #314
19. FIELD VERIFY AND CONNECT TO EX. CONDUIT

TRAFFIC GENERAL NOTES

1. REPLACE ALL TRAFFIC CONTROL DEVICES (SIGNS AND/OR PAVEMENT MARKINGS) UNDER CLARK COUNTY'S JURISDICTION, THAT ARE DISTURBED, DESTROYED, MOVED OR MODIFIED BY TRENCHING ACTIVITIES TO CLARK COUNTY'S SATISFACTION. ALL MATERIAL USED SHALL MEET CLARK COUNTY'S SPECIFICATIONS OR WILL BE AN APPROVED EQUIVALENT.
2. IN THE EVENT THAT THE TRAFFIC SIGNAL CONDUITS, LOOP DETECTORS OR ASSOCIATED EQUIPMENT ARE DAMAGED BY CONTRACTOR, THE CONTRACTOR WILL HIRE AN ILLUMINATED ELECTRICAL CONTRACTOR TO MAKE REPAIRS PER UNIFORM SPECIFICATION NO. 623.G.01.02
3. ALL SEWER/STORM DRAINS CROSSING WATER LINES MUST CONFORM TO SECTION 2.22 OF THE UNIFORM DESIGN AND CONSTRUCTION STANDARDS FOR PORTABLE WATER SYSTEMS (UDACS) FOR WATER AND STORM MAIN CROSSINGS AND CLEARANCES.
4. THE CONTRACTOR IS TO VERIFY THE ACTUAL FIELD CONDITIONS OF ALL LOTS AND INSTALL SEWER CHECK VALVES WHERE REQUIRED PER THE LATEST EDITION OF THE UNIFORM PLUMBING CODE.
5. FITTINGS SHALL NOT FALL UNDER CURBS, GUTTERS OR SIDEWALK.



FIRE HYDRANT LOCATION
NOT TO SCALE PER UDACS PLATE NO. 40

SIGN LEGEND

- STREET NAME SIGN (PER PRIVATE STREET SIGS)
- STOP SIGN W/POST (R1-1)
- TRAFFIC SIGN (AS INDICATED)
- REFLECTIVE RAISED PAVEMENT MARKERS
- SIGHT VISIBILITY ZONE
- EXISTING STRIPING
- PROPOSED STRIPING
- OM3-R SIGN
- "NO PARKING FIRE LANE" SIGN

BASIS OF BEARINGS

NORTH 007°19'04" WEST, BEING THE BEARING OF THE WEST LINE OF THE NORTHWEST QUARTER (NW1/4) OF THE SOUTHWEST QUARTER (SW1/4) OF SECTION 18, TOWNSHIP 19 SOUTH, RANGE 60 EAST, M.D.M., CITY OF LAS VEGAS, CLARK COUNTY, NEVADA, AS SHOWN BY MAP THEREOF IN BOOK 127, PAGE 24 OF PLATS IN THE CLARK COUNTY RECORDER'S OFFICE, NEVADA

BENCHMARK

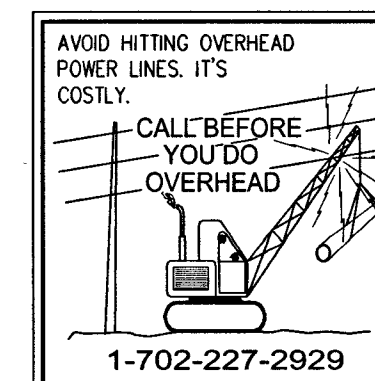
BENCHMARK NUMBER: GLV9018W4
RIVET AND PLATE IN TOP OF CURB IN THE NORTHEAST CORNER OF FARM ROAD AND HUALAPAI WAY.
ELEVATION = 2656.716 FEET, 870.729 METERS
DATA = NAVD 88
PER THE CITY OF LAS VEGAS BENCHMARK WEBSITE ON MAY 17, 2018

LAS VEGAS FIRE AND RESCUE FIRE DEPARTMENT

APPROVED

BY: *[Signature]* 3/18/19

APPROVAL OF THESE PLANS SHALL NOT BE CONSIDERED TO BE A PERMIT FOR, OR AN APPROVAL OF, ANY VIOLATION OF ANY OF THE PROVISIONS OF THE STATE OR COUNTY LAWS, FIRE FLOW 1,500 GPM AT 20 P.S.I. RESIDUAL

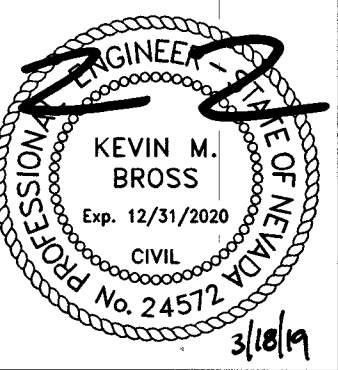


DATE	BY	APP.	DATE

LAS VEGAS, NEVADA

RICHMOND AMERICAN HOMES
FARM HUALAPAI
TRAFFIC PLAN III

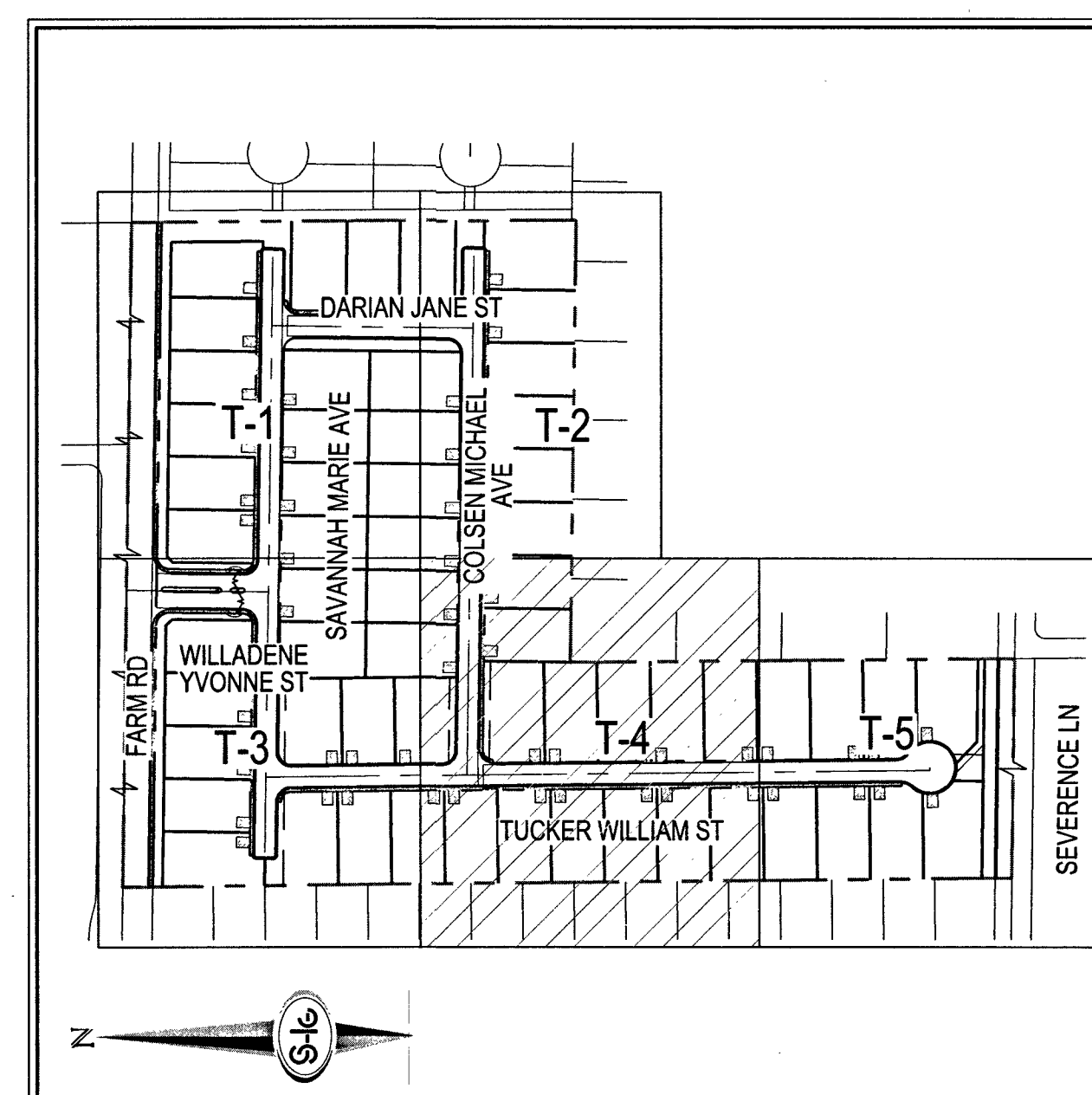
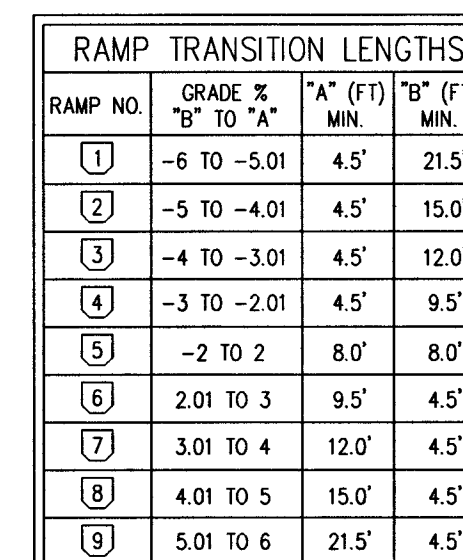
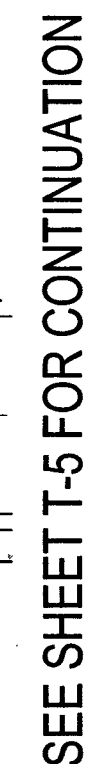
DATE: 3/18/19
DRAFTER: EMH
DESIGNER: EMH
CHECKED: KMB
PROJECT NO. RAH1517



T-3
SHEET 32 OF 34
L18-02739

107V5104

SEE SHEET T-3 FOR CONTINUATION



1. INSTALL 30" STOP SIGN (R1-1) AND TWO (2) 9" STREET NAME SIGNS (D3-1) (PRIVATELY MAINTAINED)
2. INSTALL 36" STOP SIGN (R1-1) AND TWO (2) 12" STREET NAME SIGNS (D3-1) (PRIVATELY MAINTAINED)
3. INSTALL BLUE COLORED REFLECTIVE RAISED PAVEMENT MARKER
4. PAINT CURB RED (1/5) EACH SIDE OF FIRE HYDRANT FOR A TOTAL OF 30" CURB LENGTH PERMITTING)
5. INSTALL MEDIAN NOSE MARKINGS PER C.O. 248
6. EXISTING SIGN TO BE REMOVED
7. INSTALL TYPE II CENTERLINE PER C.O. 244
8. INSTALL LED STREET LIGHT "QPL" FOR 80' R/W PER C.ASD #300.53 & #314 W/ FOUNDATION PER C.ASD #320 & #321
9. INSTALL 1-1/4" STREET LIGHT CONDUIT W/ (2) #4 AND (1) #6 GND. AVOIDING FIRE HYDRANTS WHERE #4
10. PAINT CURB RED PER F.C. 503.3 AND GENERAL NOTE #27
11. INSTALL 18" TYPE "A" NO PARKING FIRE LANE" PER F.C. 503.31
12. EXISTING STRIPING TO BE OBLITERATED
13. EXISTING TYPE IV LANE LINE PER L17-00976
14. EXISTING TYPE II CENTERLINE PER L17-00976
15. EXISTING 6" SOLID WHITE LINE PER L17-00976
16. INSTALL TYPE IV LANE LINE PER C.O. 244.1
17. INSTALL 6" SOLID WHITE LINE PER C.ASD NO. 244.9
18. INSTALL LED STREET LIGHT "QPL" FOR 80' R/W PER C.ASD #300.53 & #314 W/ FOUNDATION PER C.ASD #320 & #321
19. FIELD VERIFY AND CONNECT TO EX. CONDUIT

	STREET NAME SIGN (PER PRIVATE STREET STDS)
	STOP SIGN W/POST (R1-1)
	TRAFFIC SIGN (AS INDICATED)
	REFLECTIVE RAISED PAVEMENT MARKERS
	SIGHT VISIBILITY ZONE
	EXISTING STRIPING
	PROPOSED STRIPING
	OM3-R SIGN
	"NO PARKING FIRE LANE" SIGN

SEE SHEET C-3 FOR ABBREVIATIONS AND QUANTITIES

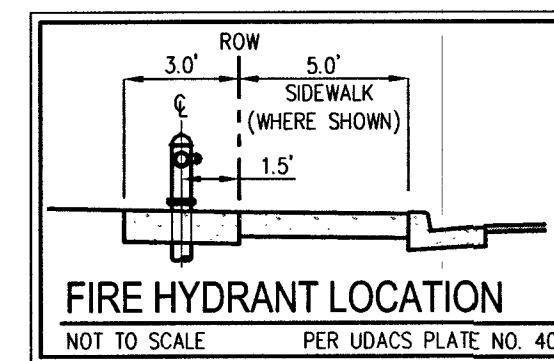
NORTH 00°19'04" WEST, BEING THE BEARING OF THE WEST LINE OF THE NORTHWEST QUARTER (NW1/4) OF THE SOUTHWEST QUARTER (SW1/4) OF SECTION 18, TOWNSHIP 19 SOUTH, RANGE 60 EAST, M.D.M., CITY OF LAS VEGAS, CLARK COUNTY, NEVADA, AS SHOWN BY MAP THEREOF IN BOOK 127, PAGE 24 OF PLATS IN THE CLARK COUNTY RECORDER'S OFFICE, NEVADA

BENCHMARK NUMBER: 6LV9018W4
RIVET AND PLATE IN TOP OF CURB IN THE NORTHEAST
CORNER OF FARM ROAD AND HUALAPAI WAY.
ELEVATION = 2856.716 FEET, 870.729 METERS
DATUM = NAVD 88
PER THE CITY OF LAS VEGAS BENCHMARK WEBSITE ON MAY
17, 2018

APPROVED

BY: *Sanjiv* 3/19/19

APPROVAL OF THESE PLANS SHALL NOT BE CONSTRUED TO BE A PERMIT FOR, OR AN APPROVAL OF, ANY VIOLATION OF ANY OF THE PROVISIONS OF THE STATE OR COUNTY LAWS. FIRE FLOW 1,500 GPM AT 20 P.S.I. RESIDUAL.



Call before you Dig
AVOID CUTTING UNDERGROUND
UTILITY LINES. IT'S COSTLY.

Call
811
OR
1-800-227-2600

[illegible]

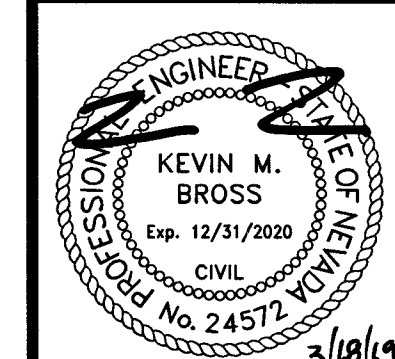
LAS VEGAS, NEVADA

RICHMOND
AMERICAN HOMES

FARM HUALAPAI
TRAFFIC PLAN IV

S18 T19S R00E	
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DATE:	3/18/19
DRAFTER:	EMH
DESIGNER:	EMH
CHECKED:	KMB
PROJECT NO.	
RAH1517	



T-4
SHEET 33 OF 34

