CITY OF LAS VEGAS STREETLIGHT NOTES

1. ALL STREET LIGHTING INSTALLATIONS SHALL BE IN ACCORDANCE WITH THE STREET LIGHTING PLANS, THE "UNIFORM STANDARD SPECIFICATION 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" (USD), LATEST REVISION.

2. DESIGN PROFESSIONAL AND CONTRACTOR SHALL VERIFY CITY'S LATEST LED FIXTURE SPECIFICATIONS AND APPROVED FIXTURES PER CLV 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 THE 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. #8 AWG 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 CLEARANCE IN COMPLIANCE WITH USD NO. 320A WHEN POLE IS INSTALLED BEHIND 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 PREPARER.

8. SERVICE POINTS SHALL BE COORDINATED WITH NV ENERGY, AND WHEREVER POSSIBLE, BE LOCATED NEAR THE CENTER OF THE CIRCUIT. SERVICEPOINTS SHALL BE SHOWN ON THE PLANS.

9. WHEREVER THERE IS AN OVERHEAD UTILITY THAT MAY CONFLICT WITH THE INSTALLATION OF STREETLIGHTING 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.

REVISED JUNE 4, 2018 (LD VERSION)

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 PROPERTY, PRIVATE OR PUBLIC SHALL BE MAINTAINED IN A CLEAN, SAFE AND USABLE CONDITION.

10. IN THE EVENT THAT ANY TEMPORARY CONSTRUCTION ITEM IS REQUIRED THAT IS NOT SHOWN ON THESE DRAWINGS, THE OWNER AGREES TO PROVIDE AND INSTALL SUCH ITEM AT HIS OWN EXPENSE AND AT THE DIRECTION OF THE CITY ENGINEER. TEMPORARY CONSTRUCTION INCLUDES DITCHES, BERMS, ROAD SIGNS AND BARRICADES, ETC.

REVISED 04/15/10

CITY OF LAS VEGAS SEWER NOTES

1. ALL CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE DESIGN AND CONSTRUCTION STANDARDS FOR WASTEWATER COLLECTION SYSTEMS AND THE UNIFORM STANDARD SPECIFICATIONS FOR PUBLIC WORKS' CONSTRUCTION OFF-SITE IMPROVEMENTS, CLARK COUNTY AREA, NEVADA, AS AMENDED. IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO BE AWARE OF THE CONTENTS OF THE ABOVE SPECIFICATIONS.

2. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PERFORM CONSTRUCTION AS PER PLANS. ANY ADDITIONS, DELETIONS, OR CHANGES SHALL FIRST MEET WITH THE APPROVAL OF THE CITY ENGINEER.

3. CHISEL "S" OR "G" IN CURBS WHERE SEWER OR GAS LATERALS PASS UNDER THE CURB.

4. POLYVINYL (PVC) SEWER PIPE SHALL MEET ASTM D-3034 SDR 35 SPECIFICATIONS, INSTALLED WITH SAND BEDDING AND BACKFILL OF TYPE II AGGREGATE BASE.

5. ALL MANHOLES PAVED IN STREETS EIGHTY (80') FOOT R/W AND LARGER SHALL HAVE CONCRETE COLLARS. STREETS LESS THAN EIGHTY (80') FOOT R/W WILL REQUIRE RETROFIT IF PAVING DOES NOT CONFORM TO CITY STANDARDS AT THE MANHOLE.

6. TEE SADDLES SHALL BE USED TO CONNECT SEWER LATERALS TO EXISTING MAIN LINES UP TO TWELVE INCH (12") DIAMETER. CONNECTIONS TO FIFTEEN INCH (15") OR LARGER MAINS SHALL REQUIRE SPECIAL PROCEDURES. IN LINE "Y"S SHALL BE USED ON LINES TWELVE INCHES (12") OR ABOVE.

7. WATER MAINS SHALL BE PROTECTED IN ACCORDANCE WITH LVVWD STANDARDS WHENEVER A SEWER MAIN CROSSES OVER A WATER MAIN OR THE SEWER IS LESS THAN EIGHTEEN INCH (18") UNDER A WATER MAIN.

8. ALL CONTRACTORS INSTALLING SEWER MAINS THAT WILL BE UNDER THE JURISDICTION OF THE CITY OF LAS VEGAS MUST BE STATE OF NEVADA CLASS "A" CONTRACTORS.

9. THE CITY OF LAS VEGAS WILL NOT ACCEPT ANY SEWER MAINS WHICH HAVE A VERTICAL DEFLECTION OF MORE THAN ONE TENTH (0.1) OF A FOOT FROM THE APPROVED CONSTRUCTION PLANS AT ANY LOCATION. SEWER MAINS FOUND TO EXCEED THIS TOLERANCE WILL HAVE TO BE REPAIRED OR REMOVED OR REPLACED TO THE SATISFACTION OF THE CITY ENGINEER PRIOR TO ACCEPTANCE BY THE CITY OF LAS VEGAS.

10. INSTALLATION OF CURVED SEWER REQUIRES THE USE OF C-900 PIPE WHICH ALLOWS FOR PIPE DEFLECTION AT THE JOINTS.

REVISED 04/15/10

CITY OF LAS VEGAS FIRE DEPARTMENT NOTES

1. ALL WORK SHALL BE DONE IN STRICT ACCORDANCE WITH THE LAS VEGAS FIRE & RESCUE ADOPTED FIRE CODE ORDINANCE #6325 FOR HYDRANT SPECIFICATIONS AND HYDRANT INSTALLATION SPECIFICATIONS.

2. ONLY FIRE HYDRANTS THAT ARE ON THE LAS VEGAS VALLEY WATER DISTRICT'S – APPROVED PRODUCTS LIST ARE ALLOWED TO BE INSTALLED.

3. A PERMIT IS REQUIRED FROM LAS VEGAS FIRE & RESCUE FOR THE INSTALLATION OF ON-SITE WATER LINES AND FIRE HYDRANTS. THE PERMIT AND CONTRACTORS MATERIAL TEST CERTIFICATE FOR UNDERGROUND PIPING FORM SHALL BE OBTAINED FROM THE FIRE PROTECTION ENGINEER <u>BEFORE</u> COMMENCEMENT OF WORK. [IFC § 105.7.12]

4. ON ANY RESIDENTIAL OR COMMERCIAL INSTALLATIONS, FIRE HYDRANTS SHALL BE INSTALLED AND FIRE APPARATUS ACCESS ROADS SHALL BE MAINTAINED <u>BEFORE</u> COMMENCEMENT OF ANY COMBUSTIBLE CONSTRUCTION. ALL FIRE HYDRANTS SHALL BE IN GOOD WORKING ORDER AND SHALL BE CAPABLE OF DELIVERING THE REQUIRED FIRE FLOW. [IFC § 3310, § 3312]

5. TO IDENTIFY THE FIRE HYDRANT LOCATIONS, THE CONTRACTOR SHALL PLACE A BLUE REFLECTIVE MARKER AT THE CENTER LINE OF STREET ADJACENT TO THE FIRE HYDRANTS. [IFC § 507.5.7.3]

6. ALL UNDERGROUND INSPECTIONS, PRESSURE AND FLUSH VERIFICATIONS OF ALL FIRE HYDRANTS AND FIRE LINES, SHALL BE CONDUCTED <u>BEFORE</u> COVERING THE LINES. CENTER LOADING IS ACCEPTABLE FOR THE HYDRO TESTS WITH PRIOR FIRE PREVENTION APPROVAL. [IFC § 106.3]

7. ALL ON-SITE UNDERGROUND WATER MAINS AND MATERIALS SHALL BE U.L. LISTED A.W.W.A. APPROVED AND SHALL BE RATED FOR THE APPROPRIATE WORKING PRESSURE. [IFC § 507.2.1, NFPA 24]

8. PAINTING OF CURBS, FIRE HYDRANTS, PADS, PROTECTION OF FIRE HYDRANTS FROM PHYSICAL DAMAGE, AND ALL OTHER WORK NECESSARY PER PLANS SHALL BE COMPLETED BEFORE APPROVAL BY LAS VEGAS FIRE AND RESCUE, FIRE PREVENTION DIVISION. [IFC § 507]

9. PRIVATE HYDRANTS SHALL BE PAINTED RED. [IFC § 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. [IFC § 507]

11. FIRE HYDRANT SPACING SHALL BE AS FOLLOWS: [IFC § C102]
RESIDENTIAL – 500 FEET UNSPRINKLERED; 600 FEET SPRINKLERED.
COMMERCIAL – 300 FEET UNSPRINKLERED; 400 FEET SPRINKLERED.

12. WHERE THE WATER MAINS ARE EXTENDED ALONG STREETS OR NEW STREETS ARE INSTALLED WHERE FIRE HYDRANTS ARE NOT NEEDED FOR PROTECTION OF STRUCTURES, FIRE HYDRANTS SHALL BE INSTALLED AT A MAXIMUM OF 1000 FT SPACING, TO PROVIDE FOR TRANSPORTATION HAZARDS. WHERE STREETS ARE PROVIDED WITH MEDIAN DIVIDERS OR HAVE FOUR (4) OR MORE TRAFFIC LANES AND HAVE A TRAFFIC COUNT OF MORE THAN 30,000 PER DAY, HYDRANTS ARE REQUIRED ON EACH SIDE OF THE STREET SPACED AT 500 FT ON AN ALTERNATING BASIS. [IFC § C102.8]

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. [IFC § C102.12]

15. A MAXIMUM DISTANCE FROM A FIRE HYDRANT TO A ONE-TWO FAMILY DWELLING SHALL NOT EXCEED 300 FT, AS MEASURED BY AN APPROVED ROUTE. [IFC § 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. [IFC § C102.7]

17. THE MAXIMUM DISTANCE FROM A HYDRANT TO THE END OF A DEAD-END STREET SHALL NOT EXCEED 200 FT. [IFC § C102.6]

18. TWO (2) SOURCES OF SUPPLY ARE REQUIRED WHENEVER THERE IS 4 OR MORE FIRE HYDRANTS/SPRINKLER LEAD-INS ARE INSTALLED ON A SINGLE SYSTEM. SECTIONAL CONTROL VALVES SHALL BE INSTALLED SO THAT NO MORE THAN 2 FIRE HYDRANTS CAN BE OUT OF SERVICE DUE TO A BREAK IN A WATER MAIN. [IFC § C104]

19. ALL FIRE APPARATUS ACCESS ROADS SHALL BE PAVED TO PROVIDE ALL-WEATHER DRIVING CAPABILITIES, AND SHALL BE DESIGNED AND MAINTAINED TO SUPPORT THE IMPOSED LOADS OF THE FIRE APPARATUS. [IFC § 503.2.3]

20. THE GRADIENT FOR THE FIRE APPARATUS ROADS SHALL NOT EXCEED 12%. ANGLES OF APPROACH AND ANGLES OF DEPARTURE SHALL NOT EXCEED 6% FOR 25 FT PRIOR TO OR AFTER THE GRADE CHANGE. ADJACENT TO THE STRUCTURES GRADIENT SHALL NOT EXCEED 6%. [IFC § 503.2.7, § 503.2.8]

21. THE TURNING RADIUS OF THE FIRE APPARATUS ACCESS ROADS SHALL BE NO LESS THAN 52 FT OUTSIDE AND 28 FT INSIDE TURNING RADIUS. [IFC § 503.2.4]

22. VERTICAL CLEARANCE OF ALL FIRE APPARATUS ACCESS ROADS SHALL NOT BE LESS THAN 13 FT 6 INS. [IFC § 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 LANES THROUGH PARKING LOTS SHALL NOT BE LESS THAN 24 FT. [IFC § 503.2.1.1]

24. FIRE APPARATUS ACCESS ROAD SHALL BE REQUIRED WHEN ANY PORTION OF AN EXTERIOR WALL OF THE FIRST STORY IS LOCATED MORE THAN 150 FT FROM A FIRE DEPARTMENT VEHICLE ACCESS. THIS DISTANCE COULD BE INCREASED TO 250 FT IF THE BUILDING IS SPRINKLERED. [IFC § 503.1.1]

25. APPROVED SECONDARY FIRE APPARATUS ACCESS SHALL BE PROVIDED FOR 100 OR MORE DWELLING UNITS, ROAD(S) WITH DEAD-ENDS OR WITH A SINGLE POINT OF ACCESS IN EXCESS OF 600 FT. COMMERCIAL AND INDUSTRIAL DEVELOPMENTS WHERE BUILDINGS EXCEED 2 STORIES OR 30 FT IN HEIGHT, OR EXCEEDING 62,000 SQ FT IN AREA. [IFC § 503.1.2]

26. ALL DEAD-END FIRE APPARATUS ROADS AND/OR FIRE LANES, PUBLIC OR PRIVATE, IN EXCESS OF 150 FT IN LENGTH SHALL BE PROVIDED WITH AN APPROVED TURN AROUND HAVING A MINIMUM DIAMETER OF 81 FT. [IFC § 503.2.5]

27. ALL FIRE APPARATUS ACCESS ROADS SHALL BE MARKED BY PLACING APPROVED SIGNS AT THE START OF THE DESIGNATED FIRE LANE, ONE SIGN AT THE END OF THE FIRE LANE AND WITH SIGNS AT INTERVALS OF 100 FT ALONG THE DESIGNATED FIRE LANES. SIGNS TO BE PLACES ON BOTH SIDES OF AN ACCESS ROADWAY IF NEEDED TO PREVENT PARKING ON EITHER SIDE. SIGNS TO BE INSTALLED NO HIGHER THAN 10FT 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 RED WEATHER RESISTANT PAINT IN ADDITION TO THE SIGNS. [IFC § 503.3]

28. ELECTRONICALLY CONTROLLED ACCESS GATES SHALL BE PROVIDED WITH AN APPROVED EMERGENCY VEHICLE DETECTOR/RECEIVER SYSTEM. SAID SYSTEM SHALL BE INSTALLED IN ACCORDANCE WITH THE IFC § 503.6 AND IFC APPENDIX M.

EFFECTIVE DATE 03-01-2016

DEVIATIONS FROM STANDARDS

NONE.

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 CLV PLANS LIBRARY ARE APPROXIMATE AND FOR RECORD PURPOSES. EXISTING UTILITIES ARE LOCATED ON PLANS ONLY FOR THE CONVENIENCE OF THE CONTRACTOR. EXISTING UTILITY SERVICE LATERALS MAY NOT BE SHOWN ON THE PLANS. THE CONTRACTOR SHALL, AT HIS OWN EXPENSE, LOCATE ALL UNDERGROUND AND OVERHEAD INTERFERENCE'S WHICH MAY AFFECT HIS OPERATION DURING CONSTRUCTION AND SHALL TAKE ALL NECESSARY PRECAUTIONS TO AVOID DAMAGE TO SAME. THE CONTRACTOR SHALL USE EXTREME CAUTION WHEN WORKING NEAR OVERHEAD UTILITIES SO AS TO SAFELY PROTECT ALL PERSONNEL AND EQUIPMENT, AND SHALL BE RESPONSIBLE FOR ALL COST AND LIABILITY IN CONNECTION THEREWITH.

3. THE CONTRACTOR SHALL TAKE ALL PRECAUTIONARY MEASURES NECESSARY TO PROTECT EXISTING UTILITY LINES, STRUCTURES AND STREET IMPROVEMENTS WHICH ARE TO REMAIN IN PLACE, FROM DAMAGE, AND ALL SUCH IMPROVEMENTS OR STRUCTURES DAMAGED BY THE CONTRACTOR'S OPERATIONS SHALL BE REPAIRED OR REPLACED SATISFACTORY TO THE CITY ENGINEER AND OWNING UTILITY COMPANY AT THE EXPENSE OF THE CONTRACTOR.

4. ALL CONSTRUCTION SHALL BE AS SHOWN ON THESE PLANS, ANY REVISIONS SHALL HAVE THE PRIOR WRITTEN APPROVAL OF THE CITY ENGINEER.

5. TYPE V CEMENT SHALL BE USED IN ALL OFF-SITE CONCRETE WORK. CONCRETE TO BE 3000 P.S.I. MINIMUM @ 28 DAYS. MIX DESIGNS TO BE APPROVED BY THE CITY, PRIOR TO THE USE ON THE PROJECT.

6. PERMITS ARE REQUIRED FOR ANY WORK IN THE PUBLIC RIGHT-OF-WAY. THE CONTRACTOR SHALL SECURE ALL PERMITS AND INSPECTIONS REQUIRED FOR THIS CONSTRUCTION.

7. EXPANSION JOINTS REQUIRED, MAXIMUM EVERY 300' IN EXTRUDED-TYPE CURB.

8. AC PAVEMENT TO BE ONE-HALF INCH (½") ABOVE LIP OF ALL GUTTERS AFTER COMPACTION, EXCEPT AT SIDEWALK RAMPS AND CROSS GUTTERS.

9. CURB AND GUTTER FOUND TO BE UNACCEPTABLE TO THE CITY OF LAS VEGAS SHALL BE REMOVED AND REPLACED PER STANDARD DRAWING 216.

10. SIDEWALK RAMPS SHALL BE CONSTRUCTED IN EACH QUADRANT OF AN INTERSECTION PER STANDARD DRAWING 235. EXACT LOCATION OF RAMPS MAY BE ADJUSTED IN THE FIELD BY A CITY INSPECTOR.

11. CONTRACTOR SHALL PROVIDE ALL NECESSARY HORIZONTAL AND VERTICAL TRANSITIONS BETWEEN NEW CONSTRUCTION AND EXISTING SURFACES TO PROVIDE FOR PROPER DRAINAGE AND FOR INGRESS AND EGRESS TO NEW CONSTRUCTION. THE EXTENT OF THE TRANSITIONS TO BE AS SHOWN ON PLANS.

12. ALL GRADING WORK SHALL CONFORM TO THE SOILS REPORT AS PREPARED BY THE (COMPANY,

REPORT #, DATE) APPROVED BY THE CITY ENGINEER, AND AS SHOWN ON THESE PLANS.

13. EXACT LOCATION OF ALL SAWCUT LINES MAY BE ADJUSTED OR DETERMINED IN THE FIELD BY A CITY OF LAS VEGAS ENGINEER IF LOCATION ON PLANS IS NOT CLEARLY SHOWN, OR EXISTING PAVEMENT CONDITION REQUIRES RELOCATIONS.

14. THE CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO PROTECT EXISTING PERMANENT SURVEY MONUMENTS. ANY MONUMENTS DISTURBED SHALL BE REPLACED AND ADJUSTED PER AVAILABLE RECORDS IN ACCORDANCE WITH N.R.S. 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.

WALL NOTES:

16. 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.

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

18. CONTRACTOR SHALL ADJUST ALL NEW AND EXISTING INLETS, VALVE BOXES, MANHOLE RIMS, AND SEWER CLEAN OUTS, ETC. TO FINISH GRADE AS APPLICABLE WHETHER OR NOT THEY ARE SHOWN ON THE PLANS.

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

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.

REVISED 06/04/2018

SOUTHERN NEVADA - SOUTHWEST GAS CORPORATION GENERAL NOTES:

1. IN THE EVENT OF NATURAL GAS EMERGENCIES CALL 911 AND 1-877-860-6020.

2. THERE SHALL BE A MINIMUM HORIZONTAL AND VERTICAL CLEARANCE OF 12-INCHES BETWEEN NATURAL GAS FACILITIES AND ANY UNDERGROUND FACILITIES AND/OR STRUCTURES, INCLUDING BUT NOT LIMITED TO WATER, SEWER, STORM DRAIN, COMMUNICATIONS, AND ELECTRIC.

3. FOR VALVE ADJUSTMENT CONTACT 702-668-6107 48 HOURS PRIOR TO CONSTRUCTION..

4. IN THE EVENT OF A NATURAL GAS CONFLICT WITH PROPOSED UTILITIES AND/OR STRUCTURES CONTACT 702-365-2099.

ALL CIVIL IMPROVEMENT PLANS MUST INCLUDE SOUTHWEST GAS CORPORATION HIGH PRESSURE NOTES ON THE NOTES SHEET AND ALL SHEETS DEPICTING HIGH PRESSURE NATURAL GAS MAINS AS INDICATED BELOW:

CAUTION: HIGH PRESSURE GAS!!
CALL SOUTHWEST GAS AT 702-400-1789 FOR STANBY WHEN EXCAVATING OVER OR NEAR HIGH PRESSURE GAS LINES 48 HOURS PRIOR TO CONSTRUCTION.

CITY OF LAS VEGAS TRAFFIC NOTES

1. ALL CONSTRUCTION SIGNING, BARRICADING, AND TRAFFIC DELINEATION SHALL CONFORM TO THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES", LATEST EDITION.

2. THE STREET SIGN CONTRACTOR SHALL OBTAIN STREET NAMES AND BLOCK NUMBERING FROM THE PLANNING DEPARTMENT PRIOR TO CONSTRUCTION.

3. BEFORE ANY WORK IS STARTED IN THE RIGHT-OF-WAY, THE CONTRACTOR SHALL INSTALL ALL ADVANCE WARNING SIGNS FOR THE CONSTRUCTION ZONE. THE CONTRACTOR SHALL INSTALL TEMPORARY STOP SIGNS AT ALL NEW STREET ENCROACHMENTS INTO EXISTING CITY STREETS WHERE WARRANTED IMMEDIATELY AFTER FIRST GRADING WORK IS ACCOMPLISHED, AND SHALL MAINTAIN SAID SIGNS UNTIL PERMANENT SIGNS ARE INSTALLED.

4. WHEN A DESIGNATED "SUGGESTED ROUTE TO SCHOOL" IS ENCROACHED UPON BY A CONSTRUCTION WORK ZONE AND PUBLIC WORKS STAFF IDENTIFIES A NEED FOR STUDENTS TO BE ASSISTED IN THE SAFE CROSSING THROUGH THAT WORK ZONE, THE CONTRACTOR SHALL BE REQUIRED TO PROVIDE A QUALIFIED "CROSSING GUARD". THE GUARD SHALL BE PRESENT FOR THE FULL DURATION OF TIME THAT CHILDREN ARE LIKELY TO BE PRESENT.

5. IF THE IMPROVEMENTS NECESSITATE THE OBLITERATION, TEMPORARY OBSTRUCTION, TEMPORARY REMOVAL OR RELOCATION OF ANY EXISTING TRAFFIC PAVEMENT MARKING, SUCH PAVEMENT MARKING SHALL BE RESTORED OR REPLACED WITH LIKE MATERIALS TO THE SATISFACTION OF THE CITY TRAFFIC ENGINEER.

6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING AND INSTALLING ALL PERMANENT SIGNS SHOWN ON THE PLANS. ALL NEW TRAFFIC SIGNS SHALL UTILIZE TYPE XI RETROREFLECTIVE SHEETING IN ACCORDANCE WITH CCAUSS 627 AND 716 AND SHALL HAVE AN ANTI-GRAFFITI PROTECTIVE OVERLAY FILM THAT IS A MATCHING COMPONENT TO, AND OF THE SAME MANUFACTURER AS THE RETROREFLECTIVE SHEETING TO WHICH IT IS APPLIED. STREET NAME SIGNS SHALL CONFORM IN THEIR ENTIRETY TO CURRENT CITY STANDARDS. ALL OTHER SIGNS SHALL BE STANDARD SIZE UNLESS OTHERWISE SPECIFIED ON THE PLANS. ALL SIGN POSTS SHALL BE INSTALLED IN ACCORDANCE WITH THE CURRENT CITY STANDARDS.

7. WHEN A PROPOSED STREET LIGHT STANDARD IS LOCATED WITHIN FIVE (5') FEET OF ANY PROPOSED SIGN SHOWN ON THE PLANS TO BE MOUNTED ON A SIGNPOST, THE SIGN SHALL BE MOUNTED ON THE STREET LIGHT STANDARD AND THE SIGNPOST SHALL BE ELIMINATED.

8. ALL PERMANENT TRAFFIC CONTROL DEVICES CALLED FOR HEREON SHALL BE IN PLACE AND IN FINAL POSITION PRIOR TO ALLOWING ANY PUBLIC TRAFFIC ONTO THE PORTIONS OF THE ROAD(S) BEING IMPROVED HERE UNDER, REGARDLESS OF THE STATUS OF COMPLETION OF PAVING OR OTHER OFF-SITE IMPROVEMENTS CALLED FOR BY THESE PLANS.

9. STREET SIGNS AND STOP SIGNS SHALL BE INSTALLED PER CITY STANDARD SPECIFICATIONS FOR PLACEMENT OF STREET NAME SIGNS.

10. THE CONTRACTOR SHALL PROVIDE ALL NECESSARY TRAFFIC CONTROL DEVICES AND FLAGGERS TO INSURE THE SAFETY OF THE PUBLIC IN OR AROUND THE WORK AREA. THE CONTRACTOR SHALL HAVE A CERTIFIED ATSSA TRAFFIC CONTROL TECHNICIAN OR IMSA WORK ZONE SAFETY SPECIALIST SET UP, MAINTAIN AND/OR REMOVE ALL TRAFFIC CONTROL DEVICES IN THE CITY OF LAS VEGAS RIGHT OF WAY.

11. WORK IN PUBLIC STREETS, ONCE BEGUN, SHALL BE EXPEDITED TO COMPLETION SO AS TO PROVIDE MINIMUM INCONVENIENCE TO ADJACENT PROPERTY OWNERS AND TO THE TRAVELING PUBLIC.

12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING REGIONAL TRANSPORTATION COMMISSION OF SOUTHERN NEVADA (RTC). IF THE CONSTRUCTION INTERRUPTS OR RELOCATES A BUS STOP OR HAS AN ADVERSE EFFECT ON BUS SERVICE ON THAT STREET TO ARRANGE FOR TEMPORARY RELOCATION OF STOP.

13. GUARDS SHALL BE OBTAINED BY CONTACTING THE METROPOLITAN POLICE DEPARTMENT SPECIAL EVENTS UNIT (PHONE # 828-3442) WHO WILL PROVIDE OFFICERS PROPERLY TRAINED IN TRAFFIC CONTROL. FEES FOR THE USE OF THESE OFFICERS SHALL BE SET BY METRO AND WILL BE PAID BY THE CONTRACTOR. THE CONTRACTOR IS RESPONSIBLE FOR ALL ARRANGEMENTS WITH METRO.

14. ANY WORK WITHIN 300' OF A SIGNALIZED INTERSECTION WILL BE NIGHT WORK, UNLESS DIRECTED BY THE CITY OF LAS VEGAS TRAFFIC ENGINEER.

15. 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.

<u>REVISED JUNE 4, 2018</u>

LAS VEGAS VALLEY WATER DISTRICT NOTES

LVVWD PROJECT # 135203

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 THE LVVWD STANDARD PLATES, DRAWINGS, AND SPECIFICATIONS, AND TO THE 2010 EDITION OF THE UNIFORM DESIGN AND CONSTRUCTION STANDARDS FOR POTABLE WATER SYSTEMS (UDACS). THE LATEST EDITION OF UDACS SHALL SUPERCEDE ANY CONFLICTS CONTAINED IN THE APPROVED DRAWINGS AND/OR SPECIFICATIONS.
3. ALL WORK, EXCEPT AS MODIFIED BY THESE PLANS OR BY NOTE 2 ABOVE, SHALL BE DONE IN ACCORDANCE WITH THE MOST RECENT DRAFT OR EDITION OF THE UNIFORM STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION 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 UDACS.
9. ALL WATER FACILITIES SHALL BE FILLED, DISINFECTED, PRESSURE TESTED, FLUSHED, FILLED, AND AN ACCEPTABLE WATER SAMPLE OBTAINED, PRIOR TO CONNECTION TO THE LVVWD DISTRIBUTION SYSTEM.
10. THE CONTRACTOR MUST OBTAIN ALL METERS TWO (2) INCHES AND SMALLER FORM 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 U.D.A.C.S. 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 PRE-APPROVED MATERIALS AND MANUFACTURER'S LISTING FOR NEW FACILITIES, LATEST REVISION, OR SPECIFICALLY APPROVED ON THESE PLANS.
13. TELEPHONE "CALL BEFORE YOU DIG" AT "811" OR 1-800-227-2600.
14. THE INSTALLATION OF LAS VEGAS VALLEY WATER DISTRICT (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.

ANY DECORATIVE PAVING SURFACE WITHIN THE STREET IS THE RESPONSIBILITY OF THE OWNER'S ASSOCIATION, OR THE INDIVIDUAL PROPERTY OWNERS IF NO OWNER'S ASSOCIATION IS IN EXISTENCE, OR THE AGENCY HAVING JURISDICTION. DECORATIVE SURFACE MATERIALS PLACED WITHIN THE TEN FOOT EASEMENT ABUTTING A PUBLIC OR PRIVATE STREET, IF DISTURBED BY THE LVVWD DURING THE REPAIR OR OPERATION OF ITS FACILITIES, WILL BE REPLACED BY LVVWD WITH AN APPROPRIATELY SIZED PLAIN FINISH CONCRETE PATCH. THE LVVWD WILL NOT RESTORE, AND WILL NOT BE RESPONSIBLE FOR THE RESTORATION OF, ANY DECORATIVE PAVING SURFACE WITHIN THE STREET. THE LVVWD WILL NOT ATTEMPT TO MATCH COLOR OR FINISH OF ANY ADJACENT MATERIALS.

APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES
PROJECT No. 135203 FIRST APPROVED DATE: 2-13-19

QUANTITIES

DESCRIPTION	PUBLIC QUANTITY	PRIVATE QUANTITY
CURB & GUTTER(TYPE "L"&"A")	450 LF	LF
CROSS GUTTER	2590 SF	SF
SIDEWALK 4"	4553 SF	SF
SIDEWALK RAMP	10 EA	EA
SIDEWALK UNDERDRAIN	5 EA	EA
TYPE II GRAVEL BASE	238 CY	CY
3" ASPHALTIC CONCRETE PAVING	609 SY	SY
5" ASPHALTIC CONCRETE PAVING	27 SY	SY
STREET/STOP SIGNS	5 EA	EA
RIP RAP (D50-08")	156 CY	CY

SEWER QUANTITIES

DESCRIPTION	PUBLIC QUANTITY	PRIVATE QUANTITY
48" SSMH	EA	5 EA
SS CLEAN OUT	EA	1 EA
6" SS	LF	228 LF
8" SS	LF	911 LF
GREASE INTERCEPTOR	EA	1 EA

WATER QUANTITIES

DESCRIPTION	PUBLIC QUANTITY	PRIVATE QUANTITY
2" WATER	81 LF	16 LF
3" WATER	LF	598 LF
4" WATER	LF	90 LF
6" WATER	LF	211 LF
8" WATER	48 LF	2177 LF
12" WATER	291 LF	LF
FIRE HYDRANT	EA	5 EA
GATE VALVE	2 EA	13 EA
8" RPDA	2 EA	EA
2" WATER METER	4 EA	EA
2" RPPA	EA	4 EA

NOTE:

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SAFETY ALERT
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1-702-227-2929
AVOID HITTING UNDERGROUND TRAFFIC SIGNAL AND STREET LIGHT SYSTEM CONDUITS IT'S COSTLY
Call before you UnderGround
1-702-432-5300
FREEWAY AND ARTERIAL SYSTEM OF TRANSPORTATION
Call before you dig
Avoid cutting underground utility lines. It's costly.
Call 811
OR
1-800-227-2600

LEGEND

CL OR SURVEY LINE	EASEMENT LINE	
PROPERTY LINE	SAWCUT LINE	
ROW LINE	SCARP LINE	

DESCRIPTION:	CONTOUR LINES	EDGE OF PAVEMENT	"A" TYPE CURBS	"L" TYPE CURBS	WALLS	FENCES	AC PAVEMENT	CONCRETE	SPOT ELEVATIONS	SIGNS	MANHOLE W/ DESCRIPTION	MANHOLE DESCRIPTIONS	FIRE HYDRANTS	GATE VALVES	REDUCERS	CLEAN OUTS	UTILITY BOX OR VAULT	BACKWATER VALVES	100w HPS STREETLIGHTS	150w HPS STREETLIGHTS
EXISTING:	(2210)								(12.34) BC		Ⓢ	Ⓢ = SANITARY SEWER Ⓓ = STORM DRAIN						BWV		
PROPOSED:	2122								12.34 BC		Ⓢ	Ⓔ = ELECTRICAL Ⓣ = TELEPHONE						BWV		

REVISIONS:

REV.	DESCRIPTION:	DATE:

SEAL: PROFESSIONAL ENGINEER - STATE OF NEVADA, GUY M. MORRIS, EXP. 12-31-19, CIVIL, No. 14526, 11-29-18

DATE: 11-29-18
DRAWN BY: NMG
SUBMITTAL: CLV SUBMITTAL
A/E PROJECT NO. 171208

A/E:
Gensler
3883 Howard Hughes Pkwy
Suite 650
Las Vegas NV 89169
Tel: 702.893.2800
Fax: 702.893.2805

CONSULTANT:
Lochsa engineering
6345 South Jones Blvd.
Suite 100
Las Vegas, NV 89118
Phone (702) 365-9312
Fax (702) 365-9317
www.lochsa.com

CONSTRUCTION MGMT:	DATE:
PROJECT MANAGER:	
COORDINATOR:	
BUILDING DEPARTMENT:	
CODE COMPLIANCE:	
AHERA REVIEW:	

ASBESTOS WORK IS:
REQUIRED ☐ NOT REQUIRED ☐

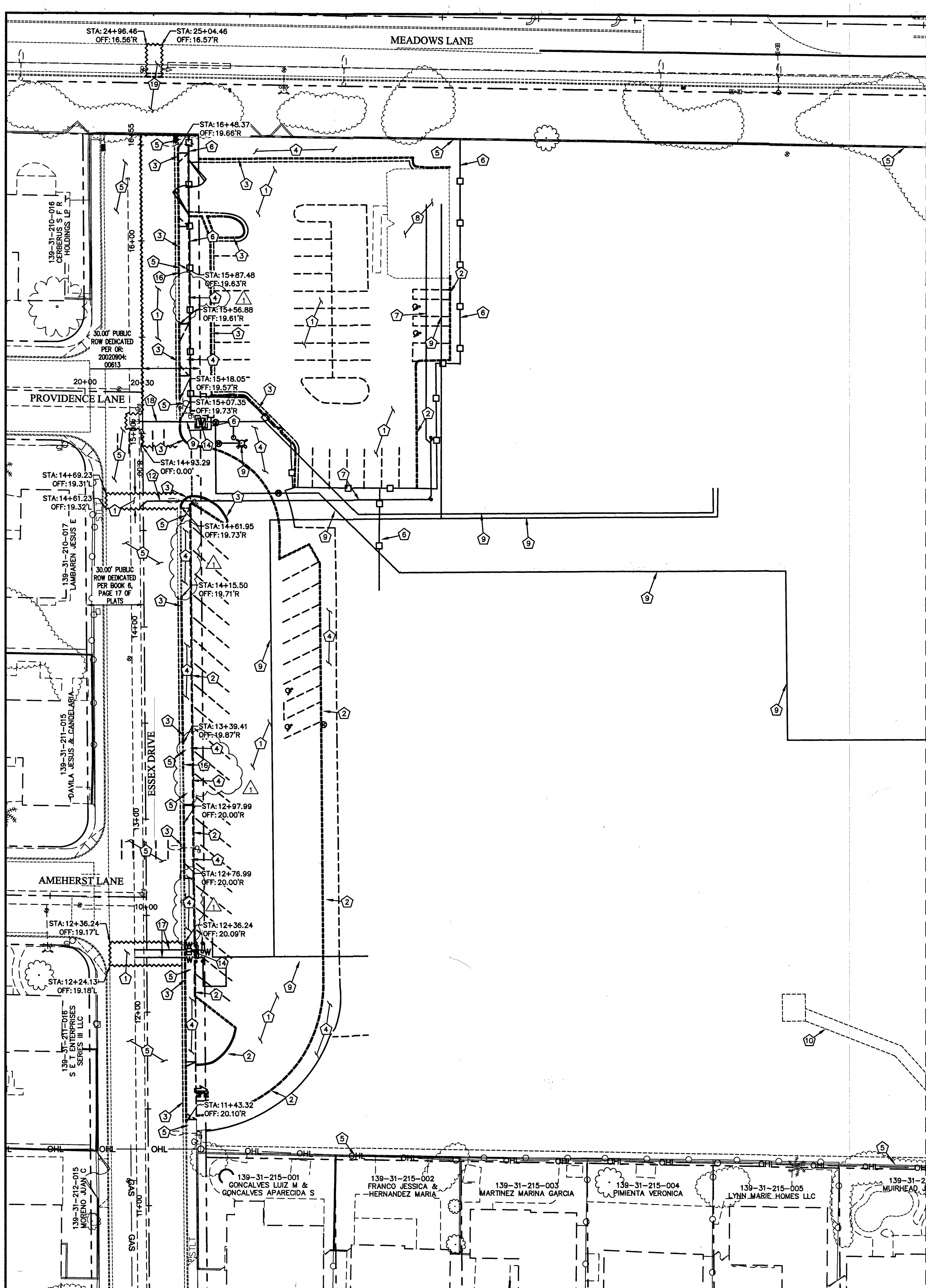
JOB# 0001621

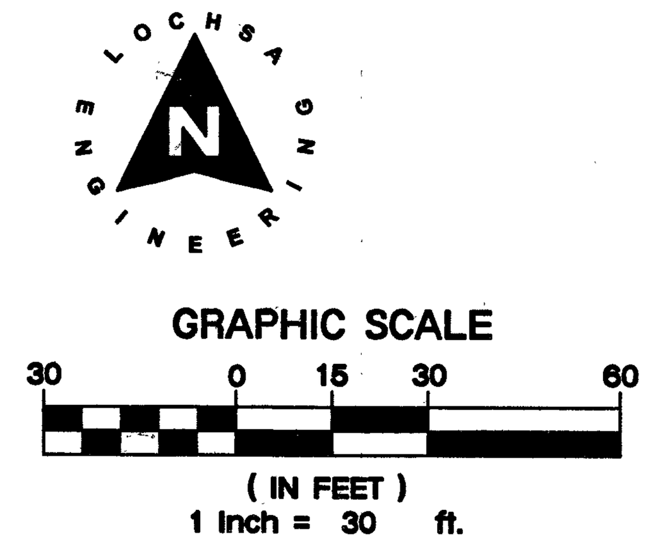
CLARK COUNTY SCHOOL DISTRICT
CONSTRUCTION MANAGEMENT DEPARTMENT 1180 MILITARY TRIBUTE PL HENDERSON NV 89074 PHONE: 702-799-8710

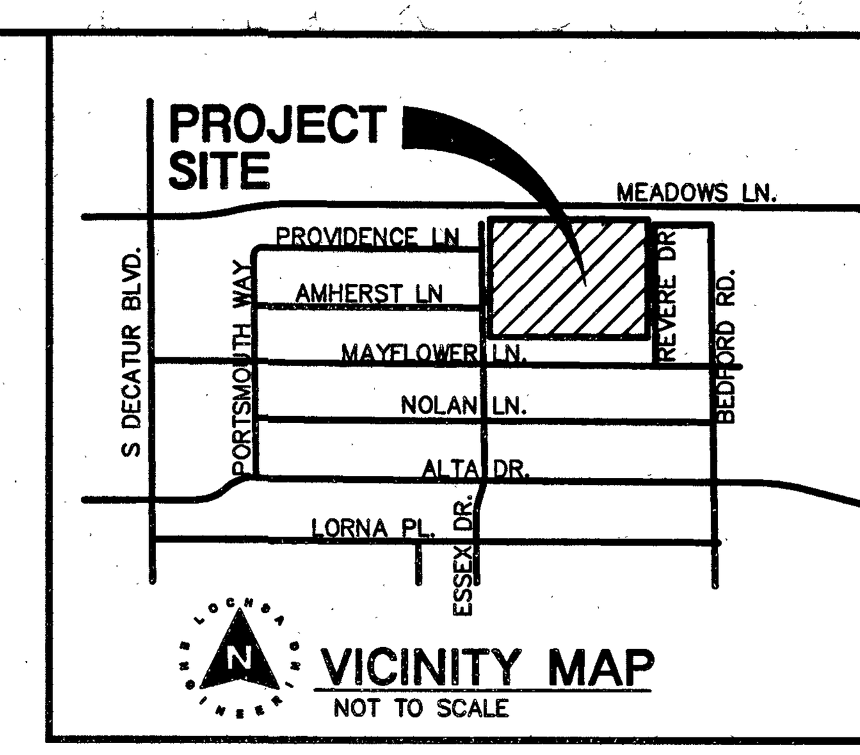
PROJECT: E.W. GRIFFITH ES REPLACEMENT
DRAWING TITLE: GENERAL NOTE SHEET
FACILITY: 412

SHEET NO: L18-02469 C1.02 715-212
SHEET 2 OF 17

PROJ#:135203A QS:139-31-NW







DEMO NOTES:

1. REMOVE AND DISPOSE EX. AC PAVEMENT.
2. REMOVE AND DISPOSE EX. "A" TYPE CURB.
3. REMOVE AND DISPOSE EX. "L" TYPE CURB.
4. REMOVE AND DISPOSE EX. CONC. SIDEWALK.
5. PROTECT IN PLACE.
6. REMOVE AND DISPOSE EX FENCE (FENCE TO REMAIN DURING CONSTRUCITONO.
7. REMOVE EX. SEWER LINE.
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BASIS OF BEARINGS:

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

ZONE: LAS VEGAS ELEVATION ZONE
DATUM (REFERENCE FRAME):
NAD 1983(2011) EPOCH 2010.0
SYSTEM: NEVADA COORDINATE REFERENCE SYSTEM (NCRS)

PROJECTION: TRANSVERSE MERCATOR
STANDARD PARALLEL (AND LATITUDE OF GRID ORIGIN): 36°15'00"N
LONGITUDE OF CENTRAL MERIDIAN: 114°58'00"W
'NORTHING AT GRID ORIGIN: 200,000.00 M (656,166.6667 FEET US)
EASTING AT CENTRAL MERIDIAN: 100,000.00 M (328,083.3333 FEET US)
SCALE FACTOR ON CENTRAL MERIDIAN; 1.0001 (EXACT)

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A.P.N.:
139-31-203-001

BENCHMARK:
CITY OF LAS VEGAS BENCHMARK NO. 2LV0131NW6
BEING A RIVET AND PLATE TOP OF N. SIDE OF MEADOWS LANE 1/4 E. OF DECATUR BLVD.
ELEVATION: 2,180.68 FEET / 664.67362 METERS
NAVD '88

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PROPOSED:	2122								12.34 BC		Ⓢ	Ⓔ = ELECTRICAL Ⓣ = TELEPHONE						BWV		

REVISIONS:

REV.	DESCRIPTION:	DATE:
1	REVISED TO REMOVE ALL SIDEWALK ON ESSEX	4/10/19
	1 APPD BY: LM 5/15/19	

SEAL: PROFESSIONAL ENGINEER STATE OF NEVADA — GUY M. MORRIS — EXP. 12-31-19 — CIVIL — No. 14526 — 05-14-19

DATE: 05/14/19
DRAWN BY: NMG
SUBMITTAL: REVISION 1
A/E PROJECT NO.: 171208

A/E: Gensler — 3883 Howard Hughes Pkwy, Suite 650, Las Vegas NV 89169, Tel: 702.893.2800, Fax: 702.893.2805

CONSULTANT: Lochsa engineering — 6345 South Jones Blvd., Suite 100, Las Vegas, NV 89118 — Phone (702) 365-9312, Fax (702) 365-9317, www.lochsa.com

CONSTRUCTION MGMT: DATE:
PROJECT MANAGER:
COORDINATOR:

BUILDING DEPARTMENT:
CODE COMPLIANCE:
AHERA REVIEW:

ASBESTOS WORK IS:
REQUIRED ☐ NOT REQUIRED ☐

JOB# 0001621

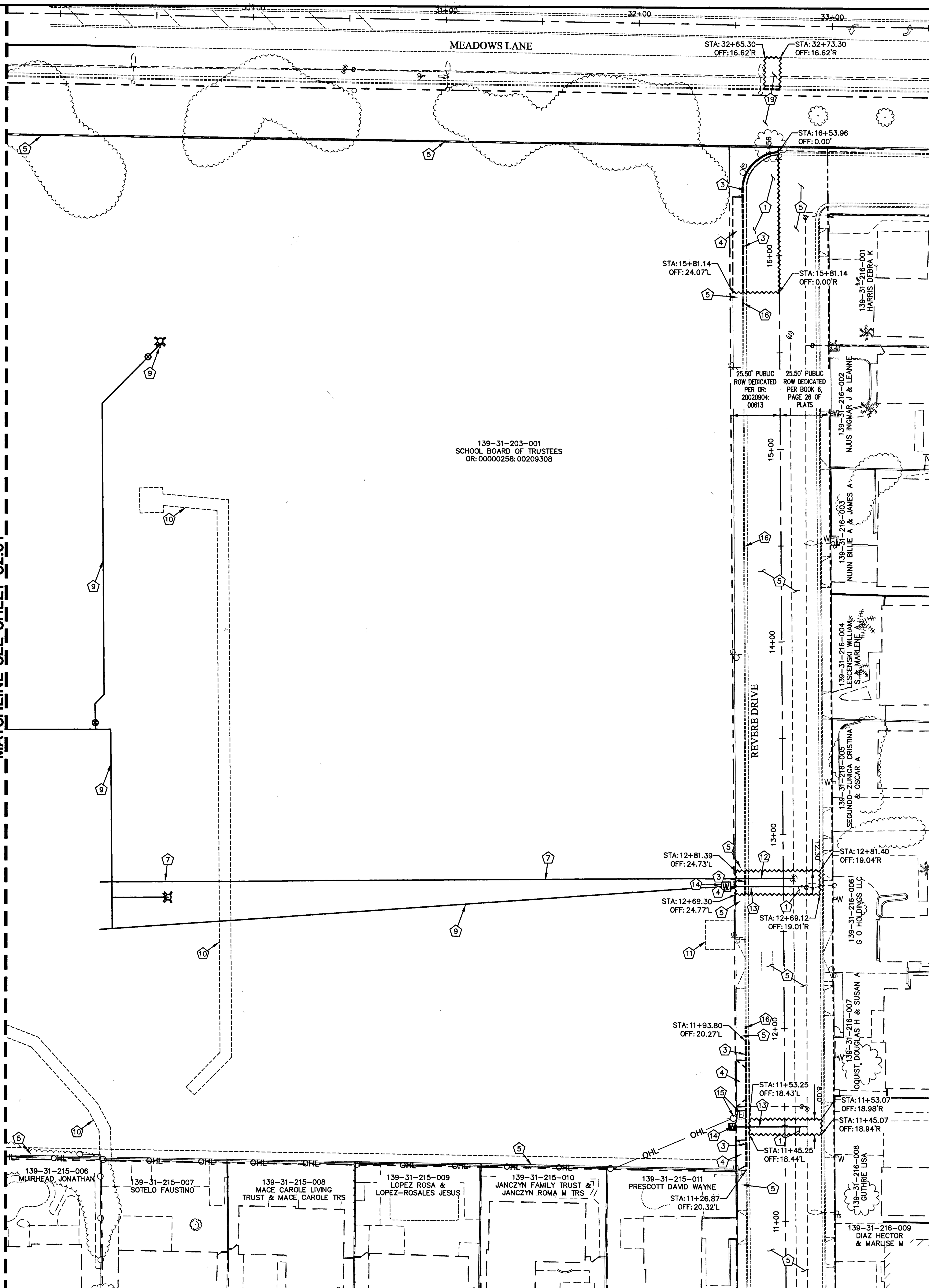
CLARK COUNTY SCHOOL DISTRICT
CONSTRUCTION MANAGEMENT DEPARTMENT 1180 MILITARY TRIBUTE PL. HENDERSON NV 89074 PHONE: 702-799-8710

PROJECT: E.W. GRIFFITH ES REPLACEMENT

DRAWING TITLE: DEMOLITION PLANS SHEET 1 OF 2

FACILITY: 412

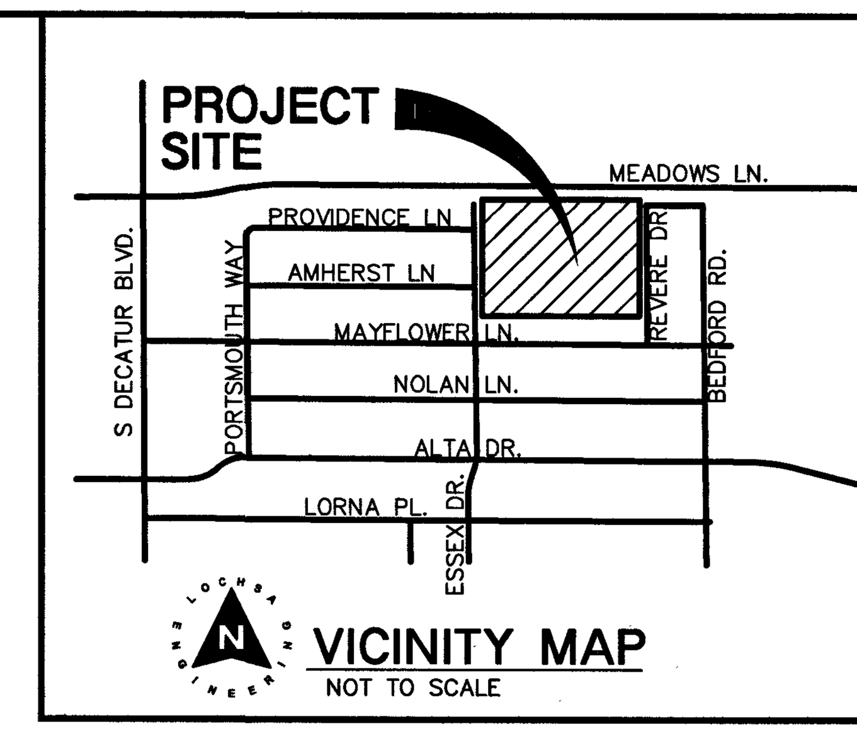
SHEET NO: L18-02469 C2.01 715-212
SHEET 3 OF 17



GRAPHIC SCALE

30 0 15 30 60

(IN FEET)
1 inch = 30 ft.



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PROPERTY LINE
ROW LINE
EASEMENT LINE
SAWCUT LINE
SCARP LINE

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EXISTING:	(2210)								(12.34) BC		Ⓢ
PROPOSED:	2122								12.34 BC		Ⓢ

MANHOLE DESCRIPTIONS
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Ⓔ = ELECTRICAL
Ⓣ = TELEPHONE

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					BWV		
					BWV		

REVISIONS:

REV.	DESCRIPTION:	DATE:

SEAL: GUY M. MORRIS EXP. 12-31-19 CIVIL No. 14526 PROFESSIONAL ENGINEER STATE OF NEVADA 01-04-19

DATE: 01/04/19
DRAWN BY: NMG
SUBMITTAL: NSFM RESUBMITTAL
A/E PROJECT NO. 171208

A/E: Gensler 3883 Howard Hughes Pkwy Suite 650 Las Vegas NV 89169 Tel: 702.893.2800 Fax: 702.893.2805

CONSULTANT: Lochsa engineering 6345 South Jones Blvd. Suite 100 Las Vegas, NV 89118 Phone (702) 365-9312 Fax (702) 365-9317 www.lochsa.com

CONSTRUCTION MGMT:	DATE:
PROJECT MANAGER:	
COORDINATOR:	

BUILDING DEPARTMENT:	
CODE COMPLIANCE:	
AHERA REVIEW:	

ASBESTOS WORK IS:
REQUIRED ☐ NOT REQUIRED ☐

JOB# 0001621

CLARK COUNTY SCHOOL DISTRICT
CONSTRUCTION MANAGEMENT DEPARTMENT 1180 MILITARY TRIBUTE PL HENDERSON NV 89074 PHONE: 702-799-8710

PROJECT: E.W. GRIFFITH ES REPLACEMENT

DRAWING TITLE: DEMOLITION PLANS SHEET 2 OF 2

FACILITY: 412

SHEET NO: L18-02469 C2.02 715-212
SHEET 4 OF 17

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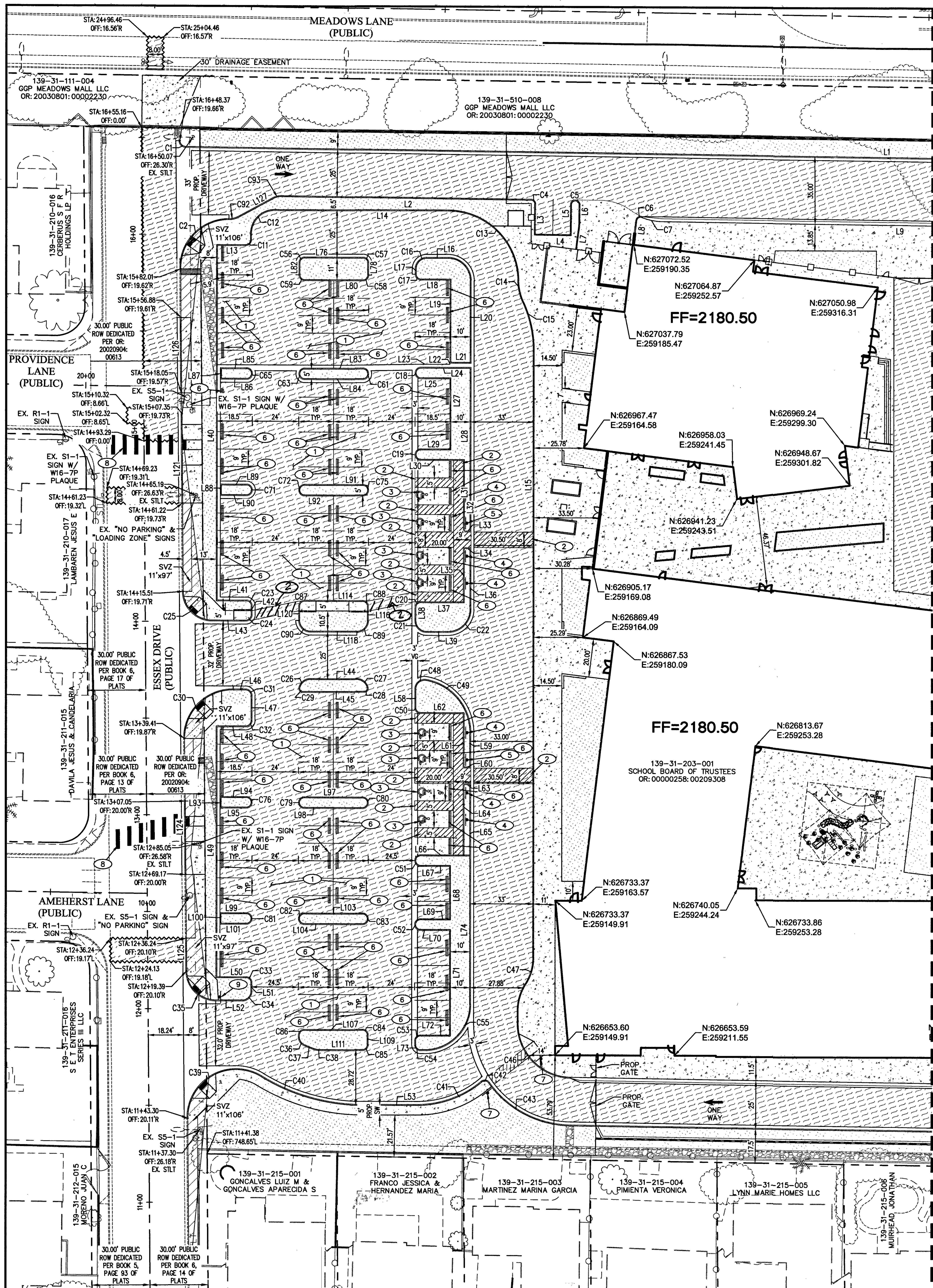
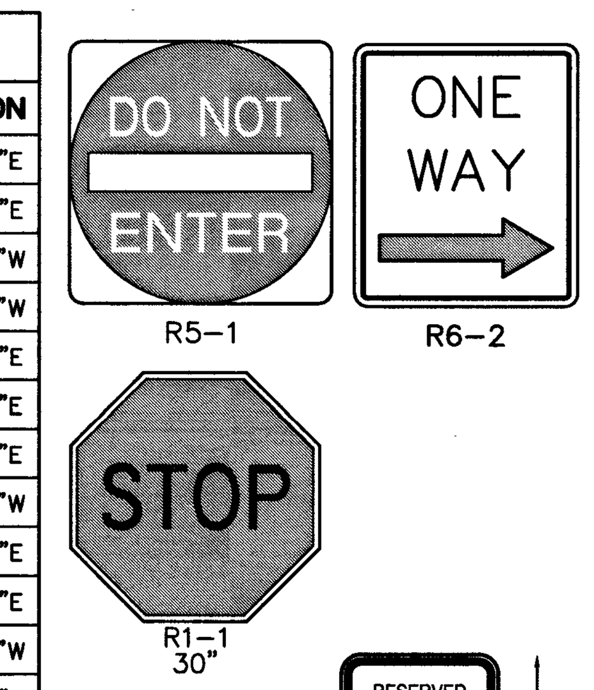
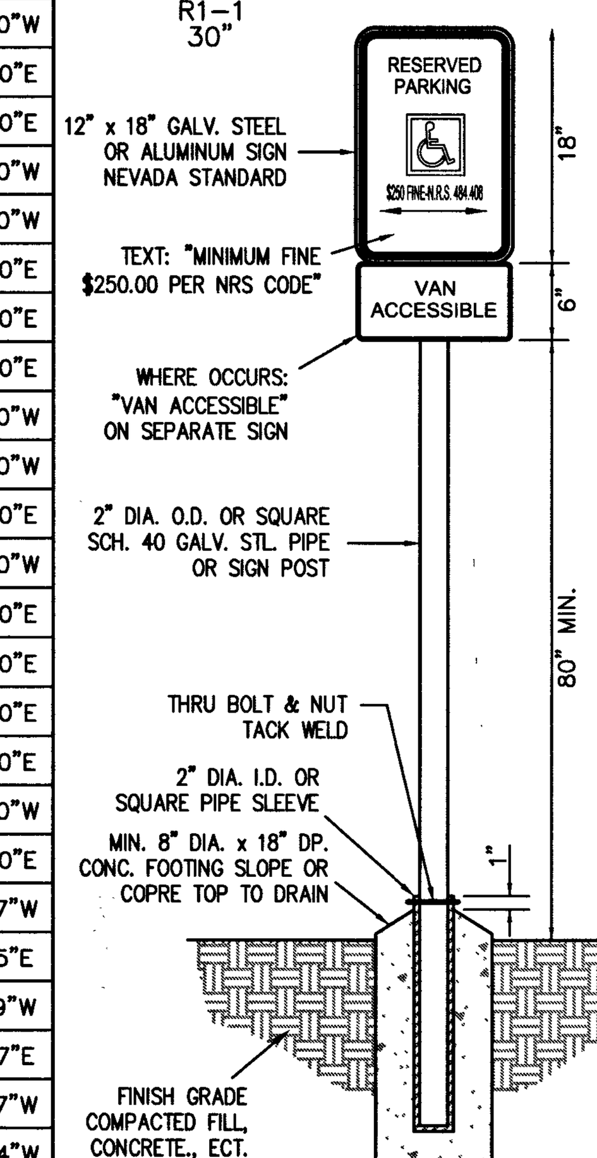


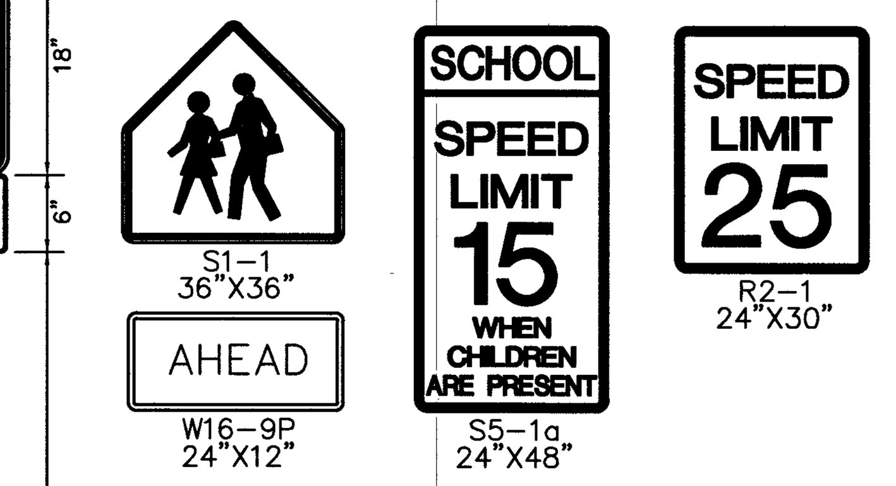
LINE TABLE			LINE TABLE			LINE TABLE		
LINE #	LENGTH	DIRECTION	LINE #	LENGTH	DIRECTION	LINE #	LENGTH	DIRECTION
L1	736.09'	S89°18'42"E	L40	184.00'	S00°00'00"E	L82	6.28'	S00°00'00"E
L2	128.61'	N89°18'42"W	L41	15.50'	N90°00'00"E	L83	30.00'	N90°00'00"E
L3	16.00'	N00°41'18"E	L42	4.50'	S00°00'00"E	L84	30.00'	N90°00'00"W
L4	19.00'	N89°18'42"W	L43	17.16'	N90°00'00"W	L85	13.00'	N90°00'00"W
L5	16.05'	S00°41'18"W	L44	24.00'	N90°00'00"W	L86	13.00'	N90°00'00"E
L6	7.71'	N00°41'18"E	L45	31.81'	N90°00'00"E	L87	5.00'	S00°00'00"E
L7	9.84'	N07°09'48"E	L46	6.39'	N90°00'00"W	L88	5.00'	S00°00'00"E
L8	6.61'	S06°57'52"W	L47	12.63'	N00°00'00"W	L89	13.00'	N90°00'00"W
L9	320.34'	N89°18'42"W	L48	15.00'	N90°00'00"E	L90	13.00'	N90°00'00"E
L10	115.43'	N89°18'42"W	L49	130.00'	N00°00'00"E	L91	30.00'	N90°00'00"E
L13	14.99'	N90°00'00"W	L50	15.50'	N90°00'00"E	L92	30.00'	N90°00'00"W
L14	89.51'	N90°00'00"W	L51	4.50'	S00°00'00"E	L93	5.00'	N00°00'00"E
L15	313.49'	N00°00'00"E	L52	13.71'	N90°00'00"E	L94	13.00'	N90°00'00"E
L16	11.02'	N90°00'00"W	L53	28.01'	S90°00'00"W	L95	13.00'	N90°00'00"W
L17	2.78'	S00°00'00"E	L54	526.27'	S89°14'28"E	L97	30.00'	N90°00'00"W
L18	15.50'	N90°00'00"E	L57	514.94'	N89°14'28"W	L98	30.00'	N90°00'00"E
L19	43.00'	S00°00'00"E	L58	9.71'	S00°00'00"E	L99	13.00'	N90°00'00"E
L20	42.28'	N00°00'00"E	L59	17.56'	N00°00'00"E	L100	5.00'	N00°00'00"E
L21	10.02'	N90°00'00"E	L60	3.02'	N90°00'00"E	L101	13.00'	N90°00'00"W
L22	0.50'	S00°00'00"E	L61	28.00'	S00°00'00"E	L103	30.00'	N90°00'00"W
L23	15.04'	N90°00'00"W	L62	22.50'	N90°00'00"E	L104	30.00'	N90°00'00"E
L24	15.50'	N90°00'00"W	L63	3.02'	N90°00'00"W	L107	30.20'	N90°00'00"W
L25	15.50'	N90°00'00"E	L64	36.50'	S00°00'00"E	L109	5.20'	N00°00'00"E
L27	37.00'	S00°00'00"E	L65	113.57'	N00°00'00"E	L111	21.91'	N90°00'00"E
L28	84.00'	N00°00'00"E	L66	25.52'	N90°00'00"W	L114	30.00'	N90°00'00"E
L29	15.50'	N90°00'00"W	L67	15.50'	N90°00'00"E	L116	7.50'	S00°00'00"E
L30	22.50'	N90°00'00"E	L68	28.00'	S00°00'00"E	L118	24.00'	N90°00'00"W
L31	84.00'	N00°00'00"E	L69	15.50'	N90°00'00"W	L120	7.50'	N00°00'00"E
L32	37.00'	S00°00'00"E	L70	15.50'	S90°00'00"E	L121	46.13'	N00°27'17"W
L33	3.02'	N90°00'00"E	L71	55.00'	S00°00'00"E	L122	16.90'	S00°19'15"E
L34	3.02'	N90°00'00"W	L72	15.54'	N90°00'00"W	L123	12.11'	N00°13'19"W
L35	28.00'	S00°00'00"E	L73	2.07'	S00°00'00"E	L124	37.88'	S00°27'17"E
L36	31.50'	N00°00'00"E	L74	113.57'	N00°00'00"E	L125	16.84'	N00°27'17"W
L37	22.50'	N90°00'00"W	L76	30.00'	N90°00'00"W	L126	38.83'	N00°23'54"W
L38	7.00'	S00°00'04"W	L78	6.28'	N00°00'00"E	L127	20.13'	S61°27'03"W
L39	11.02'	N90°00'00"E	L80	30.00'	N90°00'00"E			

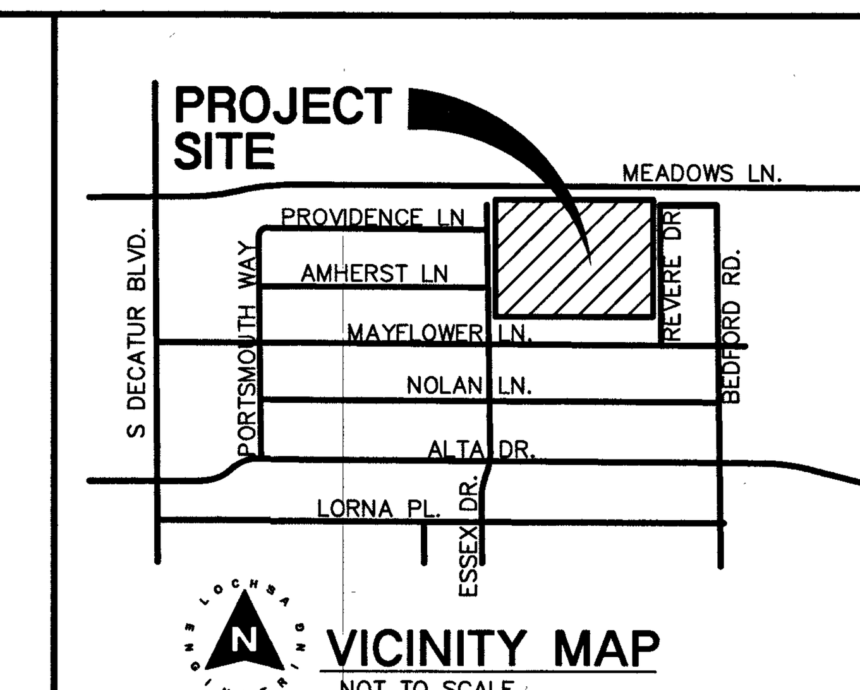
CURVE TABLE				CURVE TABLE				CURVE TABLE			
CURVE #	LENGTH	RADIUS	DELTA	CURVE #	LENGTH	RADIUS	DELTA	CURVE #	LENGTH	RADIUS	DELTA
C1	4.69'	3.00'	089°39'17"	C28	2.68'	1.50'	102°31'10"	C55	36.91'	23.50'	090°00'00"
C2	39.88'	25.00'	091°23'50"	C29	2.68'	1.50'	102°31'10"	C56	3.93'	2.50'	090°00'00"
C3	10.63'	15.00'	040°35'14"	C30	39.51'	25.00'	090°33'14"	C57	3.93'	2.50'	090°00'00"
C4	3.14'	2.00'	090°00'00"	C31	4.71'	3.00'	090°00'00"	C58	3.93'	2.50'	090°00'00"
C5	6.14'	1.95'	180°00'02"	C32	4.71'	3.00'	090°00'00"	C59	3.93'	2.50'	090°00'00"
C6	3.66'	2.00'	104°52'45"	C33	3.93'	2.50'	090°00'00"	C61	7.85'	2.50'	180°00'00"
C7	10.52'	28.50'	021°09'19"	C34	7.07'	4.50'	090°00'00"	C63	7.85'	2.50'	180°00'00"
C8	16.83'	28.50'	033°50'05"	C35	23.44'	15.00'	089°32'25"	C65	7.85'	2.50'	180°00'02"
C9	16.69'	27.50'	034°46'44"	C36	5.24'	4.50'	066°44'46"	C71	7.85'	2.50'	180°00'02"
C10	38.06'	24.50'	089°00'00"	C37	5.18'	75.50'	003°55'52"	C72	7.85'	2.50'	180°00'00"
C11	3.83'	2.53'	086°34'47"	C38	3.20'	9.50'	019°19'22"	C75	7.85'	2.50'	180°00'00"
C12	19.63'	12.50'	090°00'00"	C39	53.12'	25.00'	121°44'37"	C76	7.85'	2.50'	180°00'00"
C13	57.32'	36.53'	089°54'52"	C40	54.85'	100.50'	031°16'22"	C79	7.85'	2.50'	180°00'00"
C14	11.59'	27.50'	024°08'15"	C41	36.46'	52.50'	039°47'17"	C80	7.85'	2.50'	180°00'00"
C15	26.00'	60.50'	024°37'25"	C42	4.11'	2.50'	094°14'26"	C81	7.85'	2.50'	180°00'00"
C16	8.64'	5.50'	090°00'00"	C43	49.22'	52.50'	053°42'42"	C82	7.85'	2.50'	180°00'00"
C17	3.93'	2.50'	090°00'00"	C44	23.24'	15.00'	088°45'33"	C83	7.85'	2.50'	180°00'00"
C18	7.85'	2.50'	180°00'00"	C45	39.61'	25.00'	090°46'36"	C84	3.77'	2.40'	090°00'00"
C19	7.86'	2.50'	180°04'15"	C46	42.83'	27.50'	089°14'28"	C85	3.77'	2.40'	090°00'00"
C20	3.93'	2.50'	089°59'56"	C47	14.63'	25.50'	032°52'35"	C86	3.77'	2.40'	090°00'00"
C21	8.64'	5.50'	090°00'00"	C48	7.85'	4.50'	099°58'03"	C87	3.93'	2.50'	090°00'00"
C22	18.06'	11.50'	090°00'00"	C49	38.41'	27.50'	080°01'57"	C88	3.93'	2.50'	090°00'00"
C23	3.93'	2.50'	090°00'00"	C50	3.93'	2.50'	090°00'00"	C89	8.64'	5.50'	090°00'00"
C24	4.71'	3.00'	090°00'00"	C51	7.85'	2.50'	180°00'00"	C90	8.64'	5.50'	090°00'00"
C25	23.41'	15.00'	089°26'09"	C52	7.92'	2.50'	181°31'00"	C92	5.20'	10.50'	028°23'24"
C26	7.44'	5.50'	077°28'50"	C53	3.93'	2.50'	090°00'00"	C93	4.85'	9.50'	029°14'15"
C27	7.44'	5.50'	077°28'50"	C54	3.93'	2.50'	090°00'00"				





ACCESSIBLE PARKING SIGN
NOT TO SCALE





VICINITY MAP
NOT TO SCALE

STRIPING NOTES:

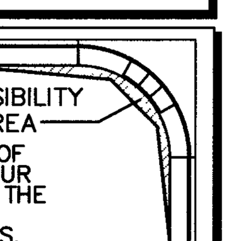
1. INSTALL 9' X 18' PARKING WITH 4" WHITE PAINTED LINES. (TYPICAL)
2. INSTALL 4" WHITE PAINTED HATCH LINES 3' O.C. @ 45°.
3. INSTALL BLUE AND WHITE PAINTED HANDICAP PAVEMENT MARKINGS. PER DETAIL 8 ON C6.01.
4. INSTALL R7-8 "MINIMUM $250 FINE FOR USE BY OTHERS" NRS 484.408 SIGN (12" X 18") PER DETAIL 8 ON C6.01.
5. INSTALL R7-8 "MINIMUM $250 FINE FOR USE BY OTHERS" NRS 484.408 SIGN "VAN ACCESSIBLE" (12" X 18") PER DETAIL 8 ON C6.01.
6. INSTALL PRE-CAST BUMPER BLOCK 2' FROM FACE OF CURB PER CCAUSD No. 238 AND DETAIL 4 ON C6.01
7. INSTALL "DO NOT ENTER" & "ONE WAY" SIGN PER DETAIL ON THIS SHEET.
8. INSTALL 2' WIDE TYPE II FILM WHITE CROSSWALK MARKING PER CCAUSD 254.
9. INSTALL R1-1 SIGN (30") PER DETAIL THIS SHEET.
10. OBLITERATE EX. CROSSWALK.
11. INSTALL R2-1 SIGN (24"x30").
12. INSTALL S5-1a 15 SIGN (24"x48").
13. INSTALL S1-1 SIGN (36"x36") W/ W16-9P PLAQUE (24"x12").

HORIZONTAL CONTROL NOTE:

ALL DIMENSIONS SHOWN ARE TO BACK OF CURB UNLESS NOTED OTHERWISE ON PLANS.

SIGHT VISIBILITY ZONE

NOTE: NO STRUCTURE, VEGETATION, OR OBJECT 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.



BASIS OF BEARINGS:

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

ZONE: LAS VEGAS ELEVATION ZONE
DATUM (REFERENCE FRAME):
NAD 1983(2011) EPOCH 2010.0
SYSTEM: NEVADA COORDINATE REFERENCE SYSTEM (NCRS)

PROJECTION: TRANSVERSE MERCATOR
STANDARD PARALLEL (AND LATITUDE OF GRID ORIGIN): 36°15'00"N
LONGITUDE OF CENTRAL MERIDIAN: 114°58'00"W
'NORTHING AT GRID ORIGIN: 200,000.00 M (656,166.6667 FEET US)
EASTING AT CENTRAL MERIDIAN: 100,000.00 M (328,083.3333 FEET US)
SCALE FACTOR ON CENTRAL MERIDIAN; 1.0001 (EXACT)

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

GRAPHIC SCALE
30 0 15 30 60
(IN FEET)
1 inch = 30 ft.

A.P.N.:

139-31-203-001

BENCHMARK:

CITY OF LAS VEGAS BENCHMARK NO. 2LV0131NW6
BEING A RIVET AND PLATE TOP OF N. SIDE OF MEADOWS LANE 1/4 E. OF DECATUR BLVD.
ELEVATION: 2,180.68 FEET / 664.67362 METERS
NAVD '88

NOTE:

LOCHSA ENGINEERING ASSUMES NO RESPONSIBILITY FOR EXISTING UTILITY LOCATIONS AND ELEVATIONS. THE UTILITIES SHOWN ON THIS PLAN ARE FROM THE BEST AVAILABLE INFORMATION. IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE LOCATION AND ELEVATION OF ALL UTILITIES, INCLUDING BUT NOT LIMITED TO, THE WATER, FIRE, SANITARY SEWER, STORM SEWER, TELEPHONE, POWER, GAS, AND IRRIGATION LINES PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. IF CONFLICT EXISTS IN THE FIELD, THE CONTRACTOR IS TO NOTIFY THE PROJECT ARCHITECT, OWNER'S REPRESENTATIVE AND THE PROJECT ENGINEER IMMEDIATELY.

SAFETY ALERT
Call Before You Overhead
1-702-227-2929
Call before you UnderGround
1-702-432-5300
Call before you dig
Avoid cutting underground utility lines. It's costly.
Call 811 or 1-800-227-2600

LEGEND
CL OR SURVEY LINE
PROPERTY LINE
ROW LINE
EASEMENT LINE
SAWCUT LINE
SCARP LINE

DESCRIPTION:	CONTOUR LINES	EDGE OF PAVEMENT	"A" TYPE CURBS	"L" TYPE CURBS	WALLS	FENCES	AC PAVEMENT	CONCRETE	SPOT ELEVATIONS	SIGNS	MANHOLE W/ DESCRIPTION	MANHOLE DESCRIPTIONS	FIRE HYDRANTS	GATE VALVES	REDUCERS	CLEAN OUTS	UTILITY BOX OR VAULT	BACKWATER VALVES	100w HPS STREETLIGHTS	150w HPS STREETLIGHTS
EXISTING:	(2210)								(12.34) BC		Ⓢ	Ⓢ = SANITARY SEWER Ⓓ = STORM DRAIN						BWV		
PROPOSED:	2122								12.34 BC		Ⓢ	Ⓔ = ELECTRICAL Ⓣ = TELEPHONE						BWV		

REVISIONS:

REV.	DESCRIPTION:	DATE:

SEAL: PROFESSIONAL ENGINEER STATE OF NEVADA GUY M. MORRIS EXP. 12-31-19 CIVIL No. 14526 11-29-18

DATE: 11-29-18 | DRAWN BY: NMG | SUBMITTAL: CLV SUBMITTAL | A/E PROJECT NO. 171208

A/E:
Gensler
3883 Howard Hughes Pkwy
Suite 650
Las Vegas NV 89169
Tel: 702.893.2800
Fax: 702.893.2805

CONSULTANT:
Lochsa engineering
6345 South Jones Blvd.
Suite 100
Las Vegas, NV 89118
Phone (702) 365-9312
Fax (702) 365-9317
www.lochsa.com

CONSTRUCTION MGMT: DATE:
PROJECT MANAGER:
COORDINATOR:
BUILDING DEPARTMENT:
CODE COMPLIANCE:
AHERA REVIEW:

ASBESTOS WORK IS:
REQUIRED ☐ NOT REQUIRED ☐

JOB# 0001621

CLARK COUNTY SCHOOL DISTRICT
CONSTRUCTION MANAGEMENT DEPARTMENT 1180 MILITARY TRIBUTE PL HENDERSON NV 89074 PHONE: 702-799-8710

PROJECT: E.W. GRIFFITH ES REPLACEMENT
DRAWING TITLE: HORIZONTAL CONTROL PLANS SHEET 1 OF 2
FACILITY: 412

SHEET NO: L18-02469 C3.01 715-212
SHEET 5 OF 17

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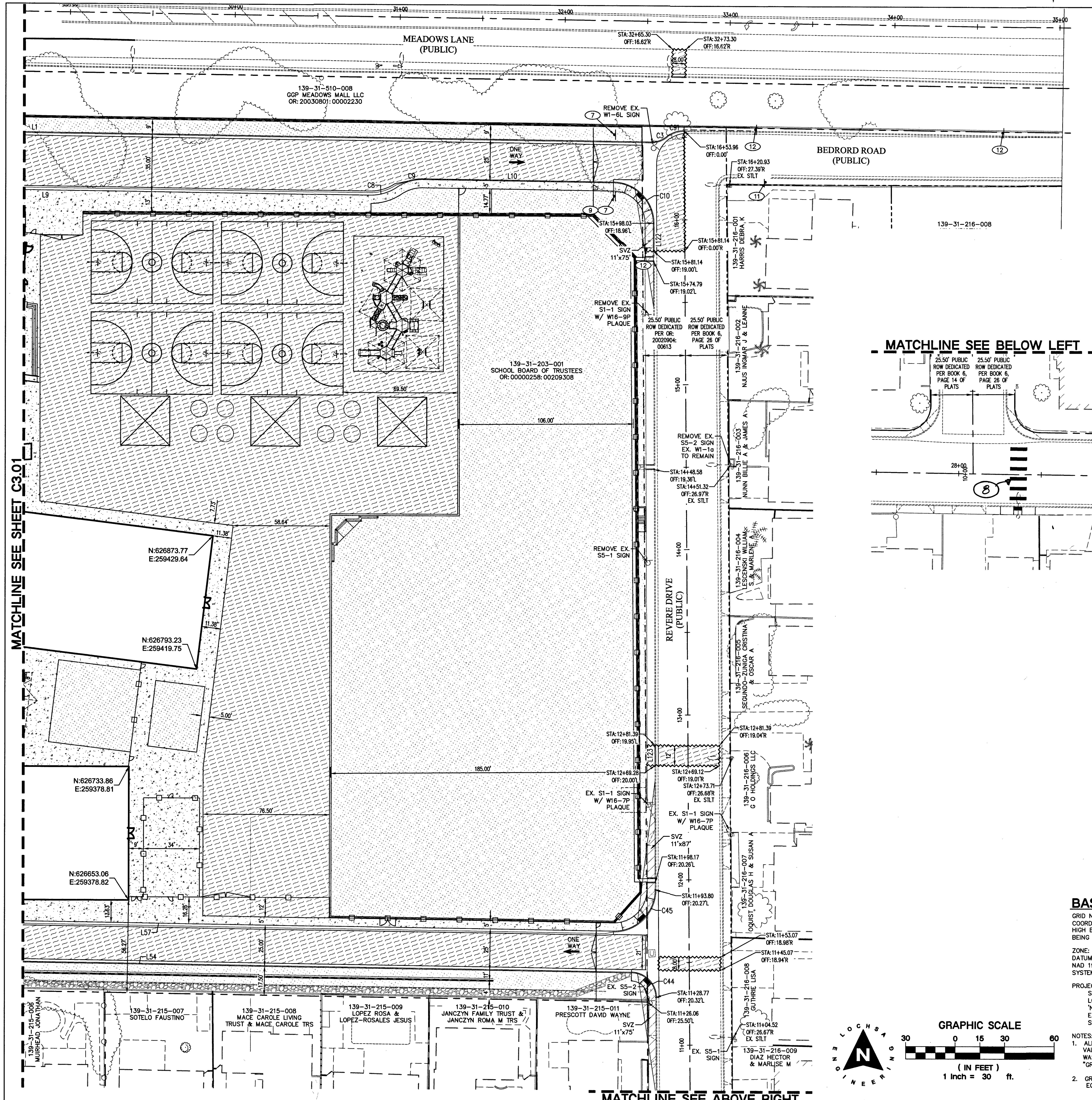

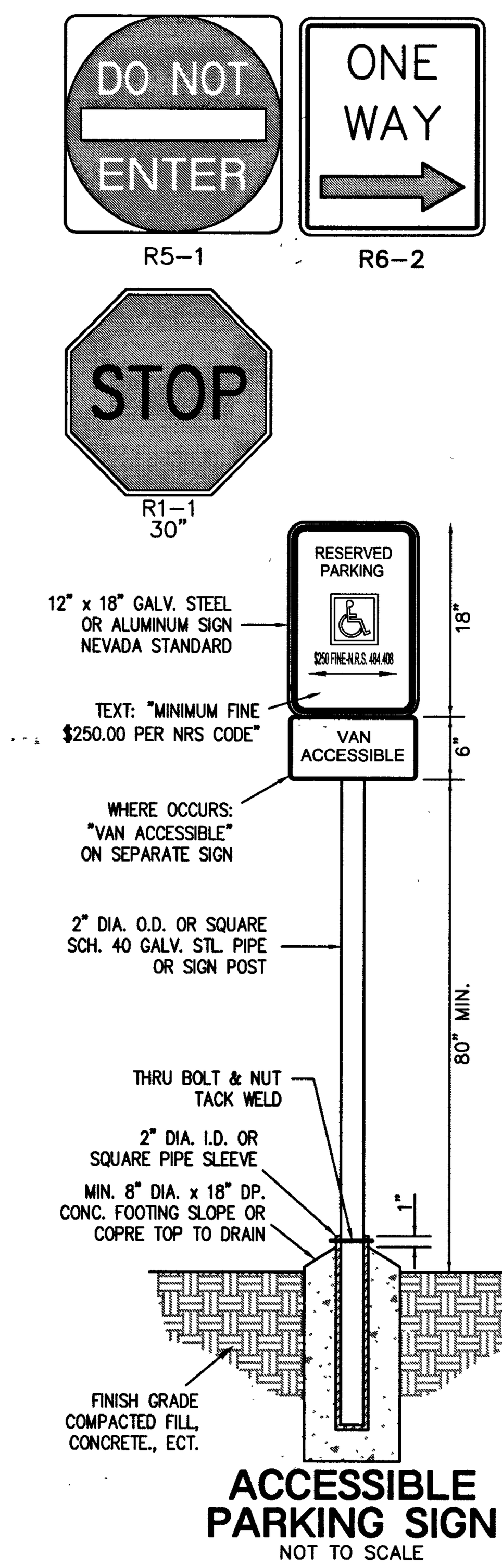

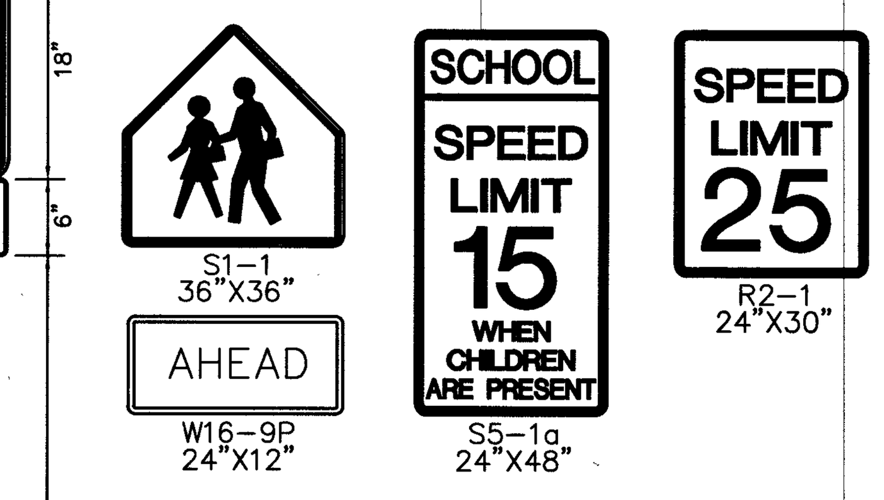

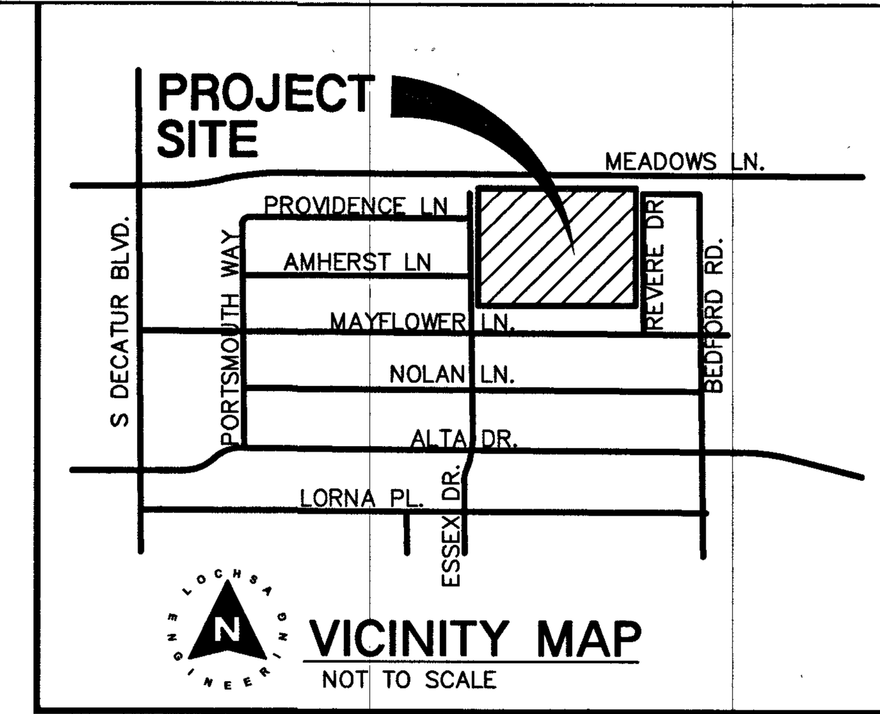

STRIPING NOTES:

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3. INSTALL BLUE AND WHITE PAINTED HANDICAP PAVEMENT MARKINGS. PER DETAIL 8 ON C6.01.
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6. INSTALL PRE-CAST BUMPER BLOCK 2' FROM FACE OF CURB PER CCAUSD No. 238 AND DETAIL 4 ON C6.01
7. INSTALL "DO NOT ENTER" & "ONE WAY" SIGN PER DETAIL ON THIS SHEET.
8. INSTALL 2' WIDE TYPE II FILM WHITE CROSSWALK MARKING PER CCAUSD 254.
9. INSTALL R1-1 SIGN (30") PER DETAIL THIS SHEET.
10. OBLITERATE EX. CROSSWALK.
11. INSTALL R2-1 SIGN (24"x30").
12. INSTALL S5-1a 15 SIGN (24"x48").
13. INSTALL S1-1 SIGN (36"x36") W/ W16-9P PLAQUE (24"x12").

SEE SHEET C3.01 FOR LINE AND CURVE TABLES

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SIGHT VISIBILITY ZONE
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SIGHT VISIBILITY ZONE AREA

BASIS OF BEARINGS:

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

ZONE: LAS VEGAS ELEVATION ZONE
DATUM (REFERENCE FRAME):
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SYSTEM: NEVADA COORDINATE REFERENCE SYSTEM (NCRS)

PROJECTION: TRANSVERSE MERCATOR
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'NORTHING AT GRID ORIGIN: 200,000.00 M (656,166.6667 FEET US)
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A.P.N.:
139-31-203-001

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1-702-227-2929
AVOID HITTING UNDERGROUND TRAFFIC SIGNAL AND STREET LIGHT SYSTEM CONDUITS IT'S COSTLY
Call before you UnderGround
1-702-432-5300
FREEWAY AND ARTERIAL SYSTEM OF TRANSPORTATION
Call before you dig
Avoid cutting underground utility lines. It's costly.
Call 811
OR 1-800-227-2600

LEGEND

CL OR SURVEY LINE	— - —	EASEMENT LINE	- - -
PROPERTY LINE	— —	SAWCUT LINE	∧∧∧∧
ROW LINE	— - - —	SCARP LINE	

DESCRIPTION:	CONTOUR LINES	EDGE OF PAVEMENT	"A" TYPE CURBS	"L" TYPE CURBS	WALLS	FENCES	AC PAVEMENT	CONCRETE	SPOT ELEVATIONS	SIGNS	MANHOLE W/ DESCRIPTION
EXISTING:	(2210)								(12.34) BC		Ⓢ
PROPOSED:	2122								12.34 BC		Ⓢ

MANHOLE DESCRIPTIONS	FIRE HYDRANTS	GATE VALVES	REDUCERS	CLEAN OUTS	UTILITY BOX OR VAULT	BACKWATER VALVES	100w HPS STREETLIGHTS	150w HPS STREETLIGHTS
Ⓢ = SANITARY SEWER Ⓓ = STORM DRAIN Ⓔ = ELECTRICAL Ⓣ = TELEPHONE						BWV		

REVISIONS:

REV.	DESCRIPTION:	DATE:

SEAL: PROFESSIONAL ENGINEER STATE OF NEVADA — GUY M. MORRIS — EXP. 12-31-19 — CIVIL — No. 14526 — 11-29-18

DATE: 11-29-18
DRAWN BY: NMG
SUBMITTAL: CLV SUBMITTAL
A/E PROJECT NO.: 171208

Gensler
3883 Howard Hughes Pkwy
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Las Vegas, NV 89169
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Suite 100
Las Vegas, NV 89118
Phone (702) 365-9312
Fax (702) 365-9317
www.lochsa.com

A/E:
CONSULTANT:

CONSTRUCTION MGMT:	DATE:
PROJECT MANAGER:	
COORDINATOR:	

BUILDING DEPARTMENT:	
CODE COMPLIANCE:	
AHERA REVIEW:	

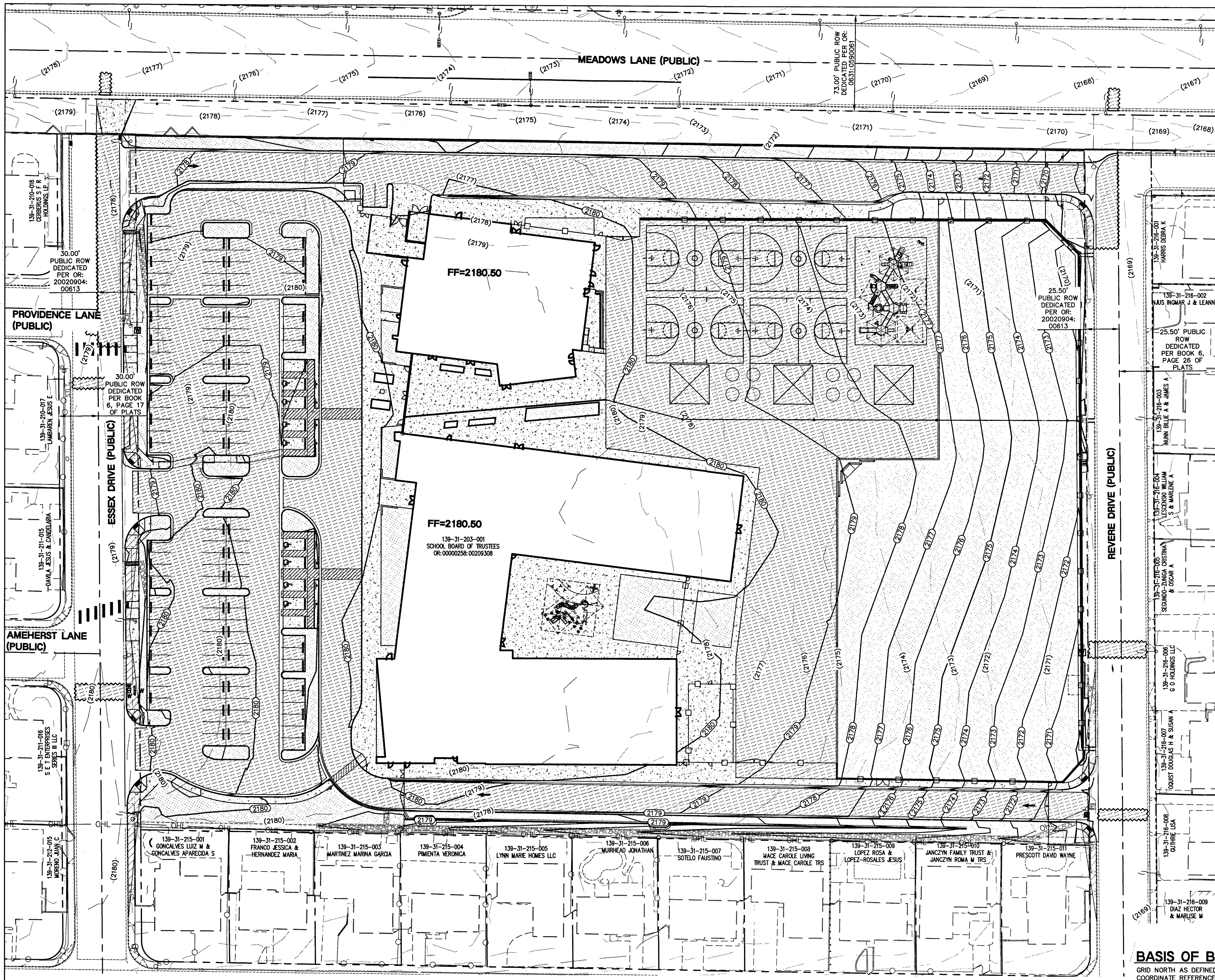
ASBESTOS WORK IS:
REQUIRED ☐ NOT REQUIRED ☐

JOB# 0001621

CLARK COUNTY SCHOOL DISTRICT
CONSTRUCTION MANAGEMENT DEPARTMENT 1180 MILITARY TRIBUTE PL HENDERSON NV 89074 PHONE: 702-799-8710

PROJECT: E.W. GRIFFITH ES REPLACEMENT
DRAWING TITLE: HORIZONTAL CONTROL PLANS SHEET 2 OF 2
FACILITY: 412

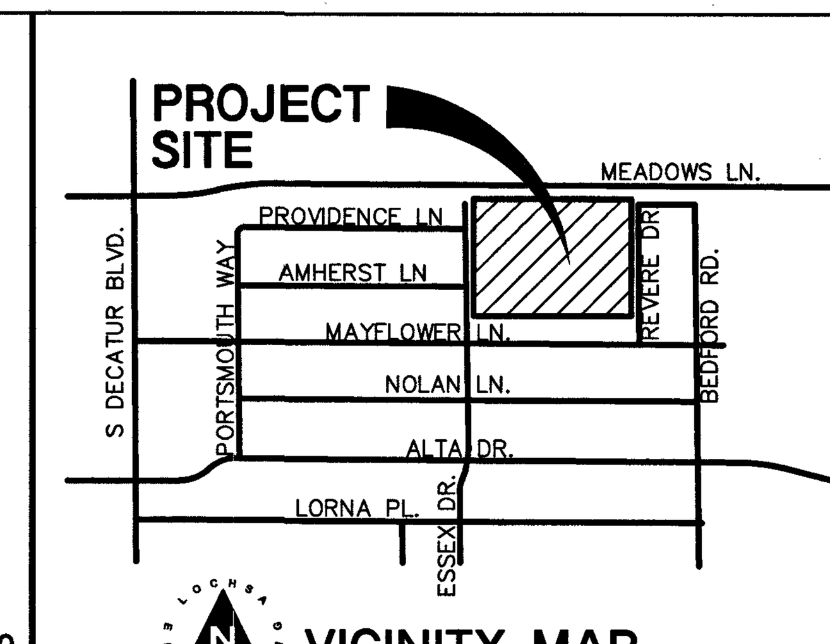
SHEET NO:
L18-02469 C3.02 715-212



GRAPHIC SCALE

40 0 20 40 80

(IN FEET)
1 Inch = 40 ft.



VICINITY MAP
NOT TO SCALE

LAS VEGAS VALLEY CONSTRUCTION SITE BEST MANAGEMENT PRACTICES GUIDANCE MANUAL SECTION 3.5.1 STANDARD NOTES 1-5

1. THE OWNER, SITE DEVELOPER, CONTRACTOR, AND/OR THEIR AUTHORIZED AGENTS SHALL EACH DAY REMOVE ALL SEDIMENT, MUD, CONSTRUCTION DEBRIS, OR OTHER POTENTIAL POLLUTANTS THAT MAY HAVE BEEN DISCHARGED TO, OR ACCUMULATED IN, THE PUBLIC RIGHT-OF-WAY OF THE CITY OF LAS VEGAS AS A RESULT OF CONSTRUCTION ACTIVITIES ASSOCIATED WITH THIS SITE DEVELOPMENT OR CONSTRUCTION PROJECT. SUCH MATERIAL SHALL BE PREVENTED FROM ENTERING THE STORM SEWER SYSTEM.
2. ADDITIONAL CONSTRUCTION SITE DISCHARGE BEST MANAGEMENT PRACTICES MAY BE REQUIRED OF THE OWNER AND HIS OR HER AGENTS DUE TO UNFORESEEN EROSION PROBLEMS OR IF THE SUBMITTED PLAN DOES NOT MEET THE PERFORMANCE STANDARDS SPECIFIED IN THE CITY OF LAS VEGAS AND THE LAS VEGAS VALLEY CONSTRUCTION SITE BMP GUIDANCE 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 THE NEVADA STORMWATER GENERAL PERMIT FOR CONSTRUCTION ACTIVITY NVR10000, 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 RAIN EVENT OR 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 NVR100000, SECTION III.A.12.
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BASIS OF BEARINGS:

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

ZONE: LAS VEGAS ELEVATION ZONE
DATUM (REFERENCE FRAME):
NAD 1983(2011) EPOCH 2010.0
SYSTEM: NEVADA COORDINATE REFERENCE SYSTEM (NCRS)

PROJECTION: TRANSVERSE MERCATOR
STANDARD PARALLEL (AND LATITUDE OF GRID ORIGIN): 36°15'00"N
LONGITUDE OF CENTRAL MERIDIAN: 114°58'00"W
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SCALE FACTOR ON CENTRAL MERIDIAN; 1.0001 (EXACT)

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A.P.N.:

139-31-203-001

BENCHMARK:

CITY OF LAS VEGAS BENCHMARK NO. 2LV0131NW6
BEING A RIVET AND PLATE TOP OF N. SIDE OF MEADOWS LANE 1/4 E. OF DECATUR BLVD.
ELEVATION: 2,180.68 FEET / 664.67362 METERS
NAVD '88

NOTE:

LOCHSA ENGINEERING ASSUMES NO RESPONSIBILITY FOR EXISTING UTILITY LOCATIONS AND ELEVATIONS. THE UTILITIES SHOWN ON THIS PLAN ARE FROM THE BEST AVAILABLE INFORMATION. IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE LOCATION AND ELEVATION OF ALL UTILITIES, INCLUDING BUT NOT LIMITED TO, THE WATER, FIRE, SANITARY SEWER, STORM SEWER, TELEPHONE, POWER, GAS, AND IRRIGATION LINES PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. IF CONFLICT EXISTS IN THE FIELD, THE CONTRACTOR IS TO NOTIFY THE PROJECT ARCHITECT, OWNER'S REPRESENTATIVE AND THE PROJECT ENGINEER IMMEDIATELY.

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JOB# 0001621

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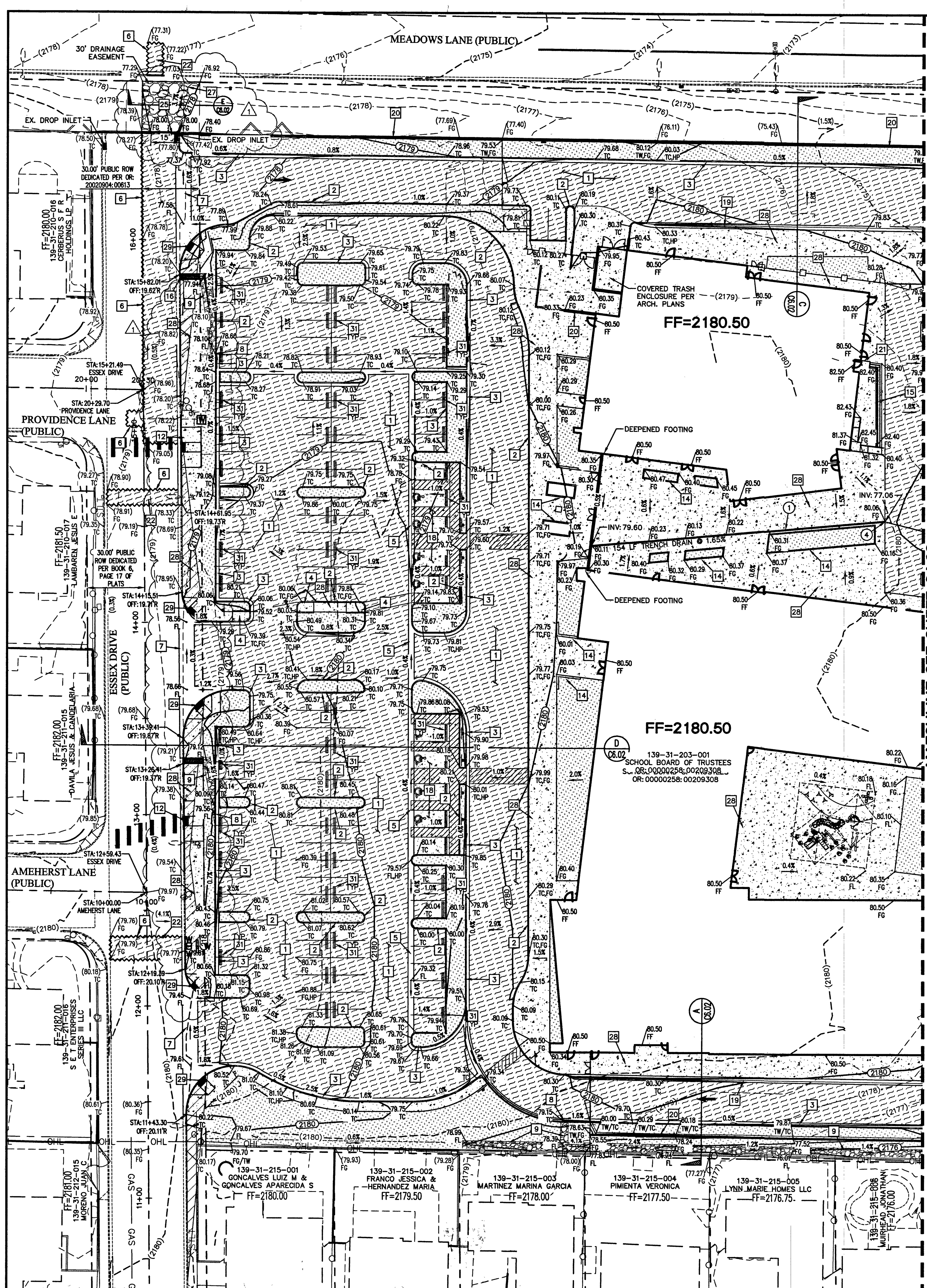
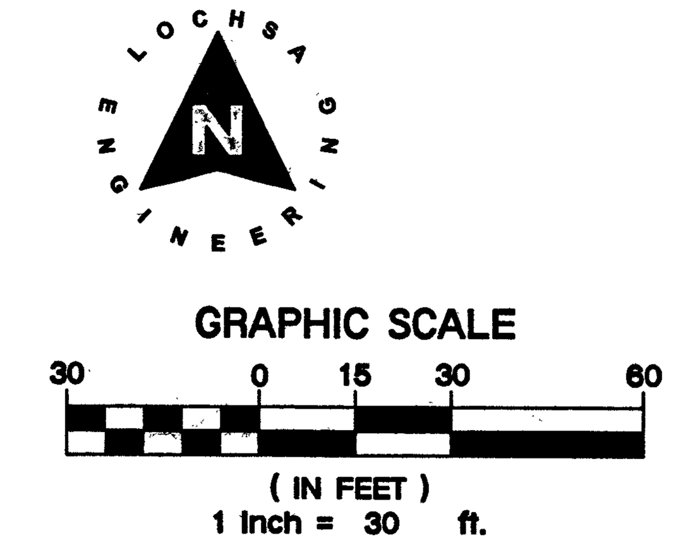
DRAWING TITLE: GRADING PLANS OVERALL
FACILITY: 412

SHEET NO: L18-02469 C4.00 715-212
SHEET 7 OF 17





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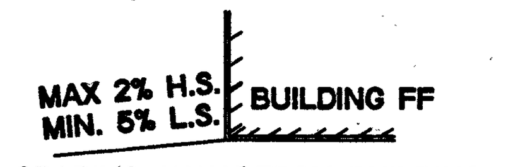
CUT	FILL
1211 CY	23052 CY

NOTE: CUT/FILL QUANTITIES ARE TO FINISHED GRADE & DO NOT INCLUDE MATERIAL THICKNESS'S, FOOTINGS, ETC.



TYPICAL GRADING AWAY FROM BUILDING

STORM DRAIN CONSTRUCTION NOTES:

– NOT ALL NOTES USED ON THIS SHEET –

(1) INSTALL CAST IN PLACE TRENCH DRAIN PER DETAIL 16 ON C6.01.
(2) INSTALL STORM DRAIN CLEAN OUT.
(3) DAYLIGHT STORM DRAIN THROUGH WALL.
(4) CONNECT STORM DRAIN TO TRENCH PER DETAIL ON 16 ON C6.01.

GRADING NOTES:

1. SLOPES 4:1 OR STEEPER AND FINE-GRAINED MATERIALS THAT HAVE BEEN DISTURBED (SANDY AND SILTY MATERIALS) SHOULD BE PROTECTED WITH BURLAP OR OTHER EROSION CONTROL FABRIC/MATERIAL, UNLESS OTHERWISE SPECIFIED BY LANDSCAPE DRAWINGS AND SPECIFICATIONS OR THE SOILS REPORT.
2. CONTRACTOR SHALL DETERMINE HIS OWN FOOTING OR BASEMENT EXCAVATION QUANTITIES, EVEN THOUGH SHOWN ON ROUGH GRADING PLANS. ADDITIONALLY, STRUCTURE BACKFILL COSTS SHOULD BE INCLUDED IN THE COST OF THE STRUCTURE, UNLESS OTHERWISE SPECIFIED IN THE CONTRACT DOCUMENTS.
3. CONTRACTOR SHALL NOTIFY LOCHSA ENGINEERING WITHIN 24 HOURS OF OMISSIONS AND ERRORS DISCOVERED ON PLANS. LOCHSA ENGINEERING WILL NOT BE RESPONSIBLE FOR ANY "CORRECTIVE" WORK DONE BY OTHERS.
4. CONTRACTOR TO ENSURE POSITIVE DRAINAGE. NO PONDING ALLOWED. CONTRACTOR TO FOLLOW RECOMMENDATIONS AS OUTLINED IN THE PROJECT GEOTECHNICAL REPORT, INCLUDING BUT NOT LIMITED TO EXCAVATION, GRADING AND COMPACTION. REFER TO THE REPORT PREPARED BY NINYO & MOORE, PROJECT No. 304289001.

BASIS OF BEARINGS:

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

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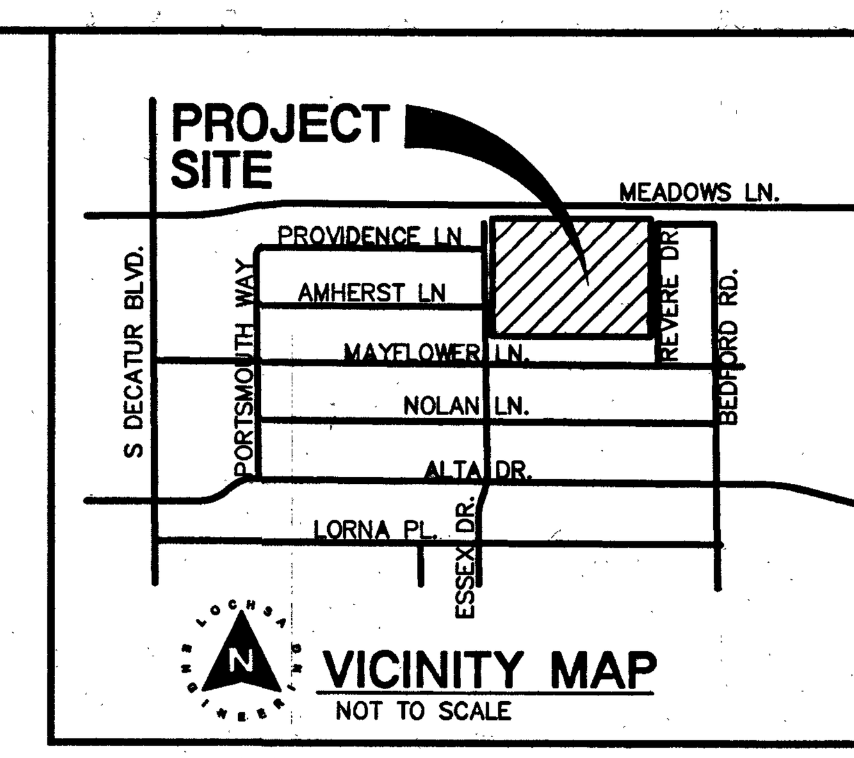

VICINITY MAP
NOT TO SCALE

CONSTRUCTION NOTES:

– ALL CONSTRUCTION TO BE DONE IN ACCORDANCE WITH "CLARK COUNTY AREA UNIFORM STANDARD DRAWINGS (C.C.A.U.S.D.)" LATEST EDITION AND/OR REGULATING ENTITY HAVING JURISDICTION.
– NOT ALL NOTES USED ON THIS SHEET –

[1] CONSTRUCT AC PAVEMENT PER DETAIL 2 ON C6.01.
[2] CONSTRUCT "A" TYPE CURB PER DETAIL 1 ON C6.01.
[3] CONSTRUCT "L" TYPE CURB PER CCAUSD No. 216.
[4] CONSTRUCT ONSITE RAMP PER DETAIL 12 ON C6.01.
[5] CONSTRUCT 3' VALLEY GUTTER PER DETAIL 6 ON C6.01.
[6] SAWCUT AND MATCH EXISTING.
[7] CONSTRUCT COMMERCIAL DRIVEWAY PER CCAUSD 225 WITH CONC. CROSS GUTTER PER CCAUSD No. 228.
[8] CONSTRUCT 2' CURB OPENING PER DETAIL 15 ON C6.01.
[9] INSTALL D50 = 3" RIP RAP. THICKNESS (T) = 6" PER DETAIL 13 ON C6.01.
[10] LAY GUTTER FLAT PER DETAIL 14 ON SHEET C6.01.
[11] ON-SITE CONCRETE PER DETAIL 7 ON SHEET C6.01.
[12] INSTALL CASE I HANDICAP RAMP PER CCAUSD NO. 235. A=8', B=8'
[13] ON-SITE RAMP PER DETAIL 9 ON SHEET C6.01.
[14] INSTALL PLANTER AND SEAT WALLS PER DETAIL ON C7.02. SEE ARCHITECTURAL PLANS FOR LOCATIONS.
[15] CONSTRUCT STAIR ON GRADE PER DETAIL 2 ON C7.02.
[16] CONSTRUCT SIDEWALK DRAIN PER CCAUSD. No. 236.
[17] INSTALL 2' 'U' CHANNEL PER DETAIL 10 ON C6.01
[18] ON-SITE CONCRETE PER DETAIL 7 ON SHEET C6.01. (COLOR BLACK)
[19] CONSTRUCT 30" ROLL CURB PER CCAUSD NO. 217.2.S1.
[20] INSTALL RETAINING WALL PER DETAILS ON C7.02
[21] INSTALL TURNED DOWN SIDEWALK EDGE PER DETAIL 11 ON C6.01.
[22] TRENCH, BACKFILL, AND AC RESTORATION CCAUSD Nos. 503, 500.3, 500.4, AND 500.5.
[23] INSTALL MOW-CURB PER DETAIL 18 ON C6.01.
△1 [24] ~~CONSTRUCT 2' VALLEY GUTTER PER DETAIL 5 ON C6.01.~~
[25] REMOVE AND REPLACE WALL WITH WROUGHT IRON FENCE AS NECESSARY TO PROVIDE 2' TALL X 15' WIDE OPENING
[26] ~~INSTALL MOW-CURB PER DETAIL 19 ON C6.01.~~
[27] ~~INSTALL D50 = 8" RIP RAP. THICKNESS (T) = 16"~~
△1 [28] CONSTRUCT SIDEWALK PER CCAUSD. NO. 234.
[29] ~~INSTALL CASE II HANDICAP RAMP PER CCAUSD~~ NO. 235. A=6.5', B=6.5'
[30] REMOVE EXISTING CURB, GUTER AND SIDEWALK AND INSTALL CASE I HANDICAP RAMP PER CCAUSD NO. 235. A=8', B=8'.
[31] INSTALL PRE-CAST BUMPER BLOCK 2' FROM FACE OF CURB PER CCAUSD No. 238 AND DETAIL 4 ON C6.01

EXISTING UTILITY NOTE:

CONTRACTOR TO ADJUST ALL EXISTING UTILITIES TO MATCH PROPOSED FINISH GRADE ELEVATIONS.

FLOOD ZONE NOTE:

THE PROJECT SITE IS COVERED BY THE FLOOD INSURANCE RATE MAP (FIRM) FOR THE CLARK COUNTY AND INCORPORATED AREAS, NEVADA, COMMUNITY PANEL NUMBER: 32003C2165D, EFFECTIVE DATE: NOVEMBER 16, 2011. THE PROJECT SITE IS WITHIN ZONE "X" (UNSHADED), DESCRIBED BY FEMA AS: "AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN."

GRADING PLAN CERTIFICATION

[signature] 5-14-19
NAME: GUY M. MORRIS PE # 14526 DATE

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

A.P.N.:

139-31-203-001

BENCHMARK:

CITY OF LAS VEGAS BENCHMARK NO. 2LV0131NW6
BEING A RIVET AND PLATE TOP OF N. SIDE OF MEADOWS LANE 1/4 E. OF DECATUR BLVD.
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REVISIONS:

REV.	DESCRIPTION:	DATE:
△1	REVISED DRAINAGE AREA FOR FIELD CONDITIONS AND REPLACE SIDEWALK ALONG ESSEX	4/10/19
	△1 APPD BY: 2m 5/15/19	

SEAL: PROFESSIONAL ENGINEER STATE OF NEVADA — GUY M. MORRIS EXP. 12-31-19 CIVIL No. 14526 — 05-14-19

DATE: 05/14/19
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ASBESTOS WORK IS: REQUIRED ☐ NOT REQUIRED ☐

JOB# 0001621

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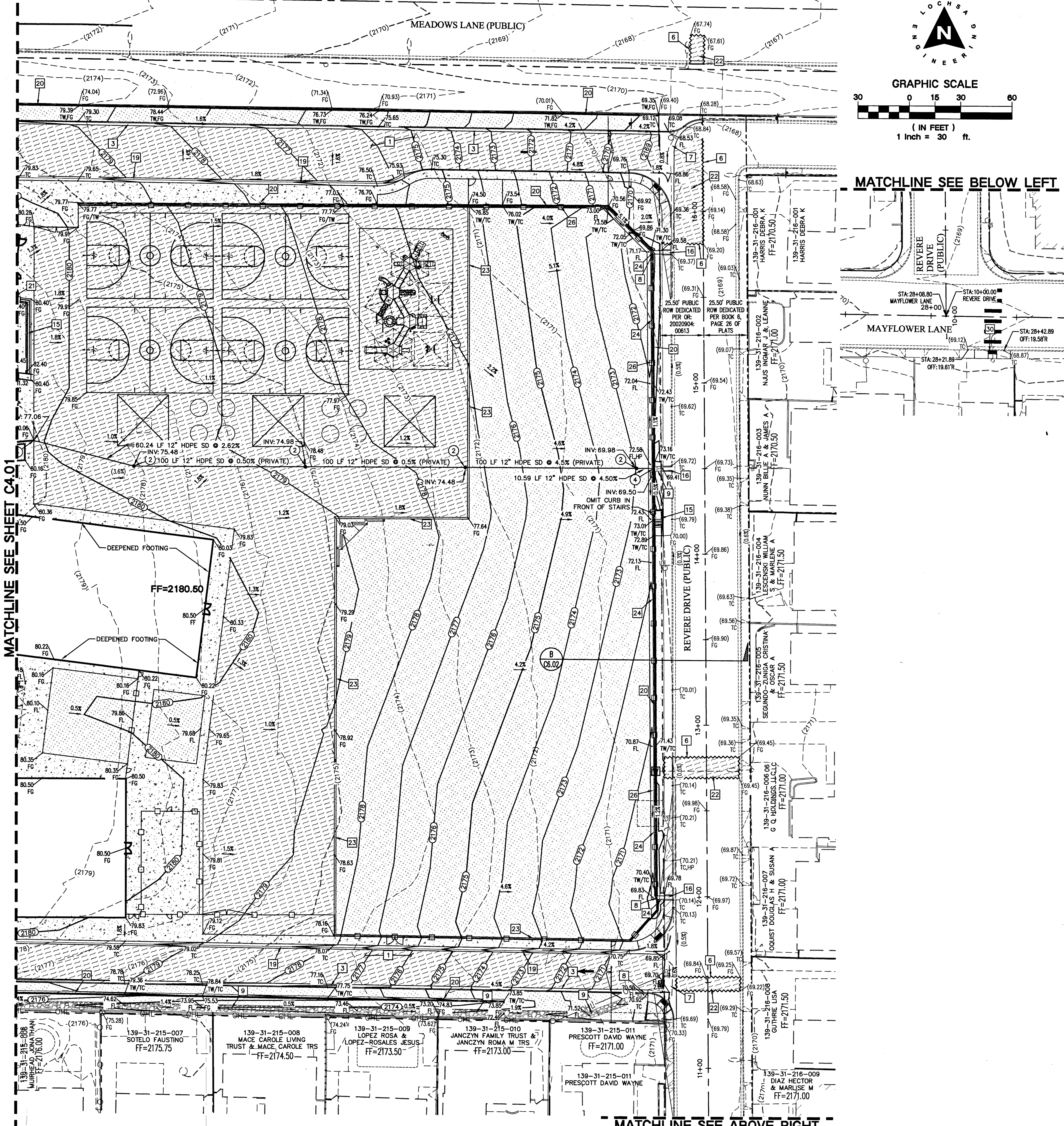

GRAPHIC SCALE

30 0 15 30 60

(IN FEET)
1 inch = 30 ft.

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1. THE OWNER, SITE DEVELOPER, CONTRACTOR, AND/OR THEIR AUTHORIZED AGENTS SHALL EACH DAY REMOVE ALL SEDIMENT, MUD, CONSTRUCTION DEBRIS, OR OTHER POTENTIAL POLLUTANTS THAT MAY HAVE BEEN DISCHARGED TO, OR ACCUMULATED IN, THE PUBLIC RIGHT-OF-WAY OF THE CITY OF LAS VEGAS AS A RESULT OF CONSTRUCTION ACTIVITIES ASSOCIATED WITH THIS SITE DEVELOPMENT OR CONSTRUCTION PROJECT. SUCH MATERIAL SHALL BE PREVENTED FROM ENTERING THE STORM SEWER SYSTEM.
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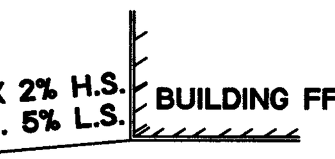
3. TEMPORARY OR PERMANENT STABILIZATION PRACTICES WILL BE INSTALLED ON DISTURBED AREAS AS SOON AS PRACTICABLE AND NO LATER THAN 14 DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS TEMPORARILY OR PERMANENTLY CEASED. SOME EXCEPTIONS MAY APPLY; REFER TO THE NEVADA STORMWATER GENERAL PERMIT FOR CONSTRUCTION ACTIVITY NVR10000, 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 RAIN EVENT OR 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 NVR100000, SECTION III.A.12.
5. ACCUMULATED SEDIMENT IN BMP'S 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.

CUT	FILL
1211 CY	23052 CY

NOTE: CUT/FILL QUANTITIES ARE TO FINISHED GRADE & DO NOT INCLUDE MATERIAL THICKNESS'S, FOOTINGS, ETC.



TYPICAL GRADING AWAY FROM BUILDING

STORM DRAIN CONSTRUCTION NOTES:

- NOT ALL NOTES USED ON THIS SHEET -

(1) INSTALL CAST IN PLACE TRENCH DRAIN PER DETAIL 16 ON C6.01.
(2) INSTALL STORM DRAIN CLEAN OUT.
(3) DAYLIGHT STORM DRAIN THROUGH WALL.
(4) CONNECT STORM DRAIN TO TRENCH PER DETAIL ON 16 ON C6.01.

GRADING NOTES:

1. SLOPES 4:1 OR STEEPER AND FINE-GRAINED MATERIALS THAT HAVE BEEN DISTURBED (SANDY AND SILTY MATERIALS) SHOULD BE PROTECTED WITH BURLAP OR OTHER EROSION CONTROL FABRIC/MATERIAL, UNLESS OTHERWISE SPECIFIED BY LANDSCAPE DRAWINGS AND SPECIFICATIONS OR THE SOILS REPORT.
2. CONTRACTOR SHALL DETERMINE HIS OWN FOOTING OR BASEMENT EXCAVATION QUANTITIES, EVEN THOUGH SHOWN ON ROUGH GRADING PLANS. ADDITIONALLY, STRUCTURE BACKFILL COSTS SHOULD BE INCLUDED IN THE COST OF THE STRUCTURE, UNLESS OTHERWISE SPECIFIED IN THE CONTRACT DOCUMENTS.
3. CONTRACTOR SHALL NOTIFY LOCHSA ENGINEERING WITHIN 24 HOURS OF OMISSIONS AND ERRORS DISCOVERED ON PLANS. LOCHSA ENGINEERING WILL NOT BE RESPONSIBLE FOR ANY "CORRECTIVE" WORK DONE BY OTHERS.
4. CONTRACTOR TO ENSURE POSITIVE DRAINAGE. NO PONDING ALLOWED. CONTRACTOR TO FOLLOW RECOMMENDATIONS AS OUTLINED IN THE PROJECT GEOTECHNICAL REPORT, INCLUDING BUT NOT LIMITED TO EXCAVATION, GRADING AND COMPACTION. REFER TO THE REPORT PREPARED BY NINYO & MOORE, PROJECT No. 304289001.

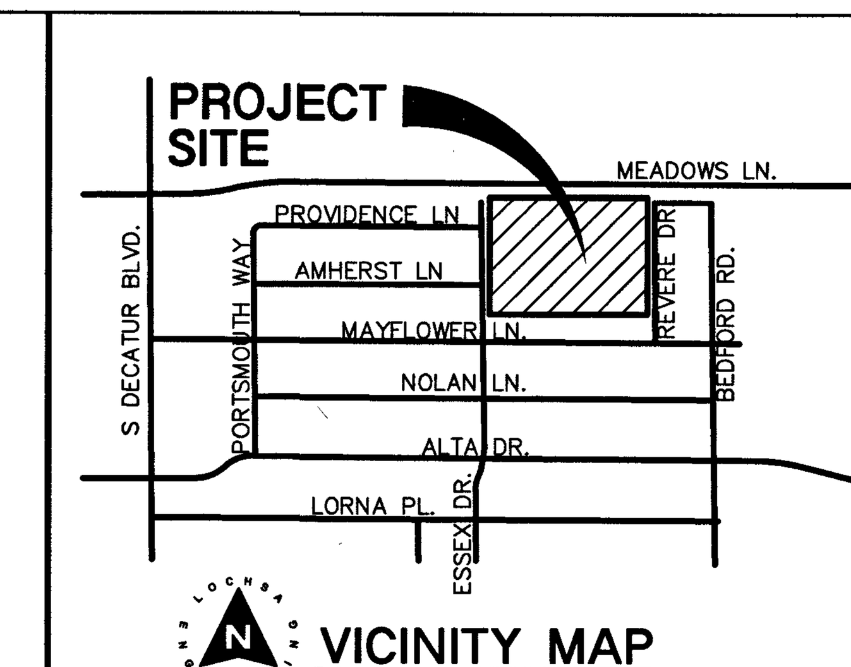
BASIS OF BEARINGS:

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

ZONE: LAS VEGAS ELEVATION ZONE
DATUM (REFERENCE FRAME):
NAD 1983(2011) EPOCH 2010.0
SYSTEM: NEVADA COORDINATE REFERENCE SYSTEM (NCRS)

PROJECTION: TRANSVERSE MERCATOR
STANDARD PARALLEL (AND LATITUDE OF GRID ORIGIN): 36°15'00"N
LONGITUDE OF CENTRAL MERIDIAN: 114°58'00"W
'NORTHING AT GRID ORIGIN: 200,000.00 M (656,166.6667 FEET US)
EASTING AT CENTRAL MERIDIAN: 100,000.00 M (328,083.3333 FEET US)
SCALE FACTOR ON CENTRAL MERIDIAN; 1.0001 (EXACT)

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



VICINITY MAP
NOT TO SCALE

CONSTRUCTION NOTES:

- ALL CONSTRUCTION TO BE DONE IN ACCORDANCE WITH "CLARK COUNTY AREA UNIFORM STANDARD DRAWINGS (C.C.A.U.S.D.)" LATEST EDITION AND/OR REGULATING ENTITY HAVING JURISDICTION.
- NOT ALL NOTES USED ON THIS SHEET -

1. CONSTRUCT AC PAVEMENT PER DETAIL 2 ON C6.01.
2. CONSTRUCT "A" TYPE CURB PER DETAIL 1 ON C6.01.
3. CONSTRUCT "L" TYPE CURB PER CCAUSD No. 216.
4. CONSTRUCT ONSITE RAMP PER DETAIL 12 ON C6.01.
5. CONSTRUCT 3' VALLEY GUTTER PER DETAIL 6 ON C6.01.
6. SAWCUT AND MATCH EXISTING.
7. CONSTRUCT COMMERCIAL DRIVEWAY PER CCAUSD 225 WITH CONC. CROSS GUTTER PER CCAUSD No. 228.
8. CONSTRUCT 2' CURB OPENING PER DETAIL 15 ON C6.01.
9. INSTALL D50 = 3" RIP RAP. THICKNESS (T) = 6" PER DETAIL 13 ON C6.01.
10. LAY GUTTER FLAT PER DETAIL 14 ON SHEET C6.01.
11. ON-SITE CONCRETE PER DETAIL 7 ON SHEET C6.01.
12. INSTALL CASE I HANDICAP RAMP PER CCAUSD NO. 235. A=8', B=8'
13. ON-SITE RAMP PER DETAIL 9 ON SHEET C6.01.
14. INSTALL PLANTER AND SEAT WALLS PER DETAIL ON C7.02. SEE ARCHITECTURAL PLANS FOR LOCATIONS.
15. CONSTRUCT STAIR ON GRADE PER DETAIL 2 ON C7.02.
16. CONSTRUCT SIDEWALK DRAIN PER CCAUSD. No. 236.
17. INSTALL 2' 'U' CHANNEL PER DETAIL 10 ON C6.01
18. ON-SITE CONCRETE PER DETAIL 7 ON SHEET C6.01. (COLOR BLACK)
19. CONSTRUCT 30" ROLL CURB PER CCAUSD NO. 217.2.S1.
20. INSTALL RETAINING WALL PER DETAILS ON C7.02
21. INSTALL TURNED DOWN SIDEWALK EDGE PER DETAIL 11 ON C6.01.
22. TRENCH, BACKFILL, AND AC RESTORATION CCAUSD Nos. 503, 500.3, 500.4, AND 500.5.
23. INSTALL MOW-CURB PER DETAIL 18 ON C6.01.
24. CONSTRUCT 2' VALLEY GUTTER PER DETAIL 5 ON C6.01.
25. REMOVE AND REPLACE WALL AS NECESSARY TO PROVIDE 2' TALL X 15' WIDE WALL OPENING PER STRUCTURAL DETAILS. BOTTOM OF OPENING TO BEGIN AT ELEV. 78.00
26. INSTALL MOW-CURB PER DETAIL 19 ON C6.01.
27. INSTALL D50 = 8" RIP RAP. THICKNESS (T) = 16"
28. CONSTRUCT CONCRETE SECTION PER CCAUSD. NO. 234.
29. INSTALL CASE II HANDICAP RAMP PER CCAUSD NO. 235. A=6.5', B=6.5'
30. REMOVE EXISTING CURB, GUTER AND SIDEWALK AND INSTALL CASE I HANDICAP RAMP PER CCAUSD NO. 235. A=8', B=8'.
31. INSTALL PRE-CAST BUMPER BLOCK 2' FROM FACE OF CURB PER CCAUSD No. 238 AND DETAIL 4 ON C6.01

EXISTING UTILITY NOTE:

CONTRACTOR TO ADJUST ALL EXISTING UTILITIES TO MATCH PROPOSED FINISH GRADE ELEVATIONS.

FLOOD ZONE NOTE:

THE PROJECT SITE IS COVERED BY THE FLOOD INSURANCE RATE MAP (FIRM) FOR THE CLARK COUNTY AND INCORPORATED AREAS, NEVADA, COMMUNITY PANEL NUMBER: 32003C2165D, EFFECTIVE DATE: NOVEMBER 16, 2011. THE PROJECT SITE IS WITHIN ZONE "X" (UNSHADED), DESCRIBED BY FEMA AS: "AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN."

GRADING PLAN CERTIFICATION

NAME: GUY M. MORRIS PE # 14526 DATE 11.29.18

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

A.P.N.:

139-31-203-001

BENCHMARK:

CITY OF LAS VEGAS BENCHMARK NO. 2LV0131NW6
BEING A RIVET AND PLATE TOP OF N. SIDE OF MEADOWS LANE 1/4 E. OF DECATUR BLVD.
ELEVATION: 2,180.68 FEET / 664.67362 METERS
NAVD '88

NOTE:

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SAFETY ALERT
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1-702-227-2929
AVOID HITTING UNDERGROUND TRAFFIC SIGNAL AND STREET LIGHT SYSTEM CONDUITS IT'S COSTLY
Call before you UnderGround
1-702-432-5300
FREEWAY AND ARTERIAL SYSTEM OF TRANSPORTATION 1-800-227-2600
Call before you dig
Avoid cutting underground utility lines. It's costly.
Call 811

LEGEND

CL OR SURVEY LINE
PROPERTY LINE
ROW LINE
EASEMENT LINE
SAWCUT LINE
SCARP LINE

DESCRIPTION:	CONTOUR LINES	EDGE OF PAVEMENT	"A" TYPE CURBS	"L" TYPE CURBS	WALLS	FENCES	AC PAVEMENT	CONCRETE	SPOT ELEVATIONS	SIGNS	MANHOLE W/ DESCRIPTION
EXISTING:	(2210)								(12.34) BC		Ⓢ
PROPOSED:	(2122)								12.34 BC		Ⓢ

MANHOLE DESCRIPTIONS
Ⓢ = SANITARY SEWER
Ⓓ = STORM DRAIN
Ⓔ = ELECTRICAL
Ⓣ = TELEPHONE

FIRE HYDRANTS	GATE VALVES	REDUCERS	CLEAN OUTS	UTILITY BOX OR VAULT	BACKWATER VALVES	100w HPS STREETLIGHTS	150w HPS STREETLIGHTS
					BWV		
					BWV		

REVISIONS:

REV.	DESCRIPTION:	DATE:

SEAL: PROFESSIONAL ENGINEER STATE OF NEVADA GUY M. MORRIS EXP. 12-31-19 CIVIL No. 14526 11-29-18

DATE: 11-29-18
DRAWN BY: NMG
SUBMITTAL: CLV SUBMITTAL
A/E PROJECT NO. 171208

Gensler
3883 Howard Hughes Pkwy
Suite 650
Las Vegas NV 89169
Tel: 702.893.2800
Fax: 702.893.2805

Lochsa engineering
6345 South Jones Blvd.
Suite 100
Las Vegas, NV 89118
Phone (702) 365-9312
Fax (702) 365-9317
www.lochsa.com

A/E:
CONSULTANT:

CONSTRUCTION MGMT:	DATE:
PROJECT MANAGER:	
COORDINATOR:	
BUILDING DEPARTMENT:	
CODE COMPLIANCE:	
AHERA REVIEW:	

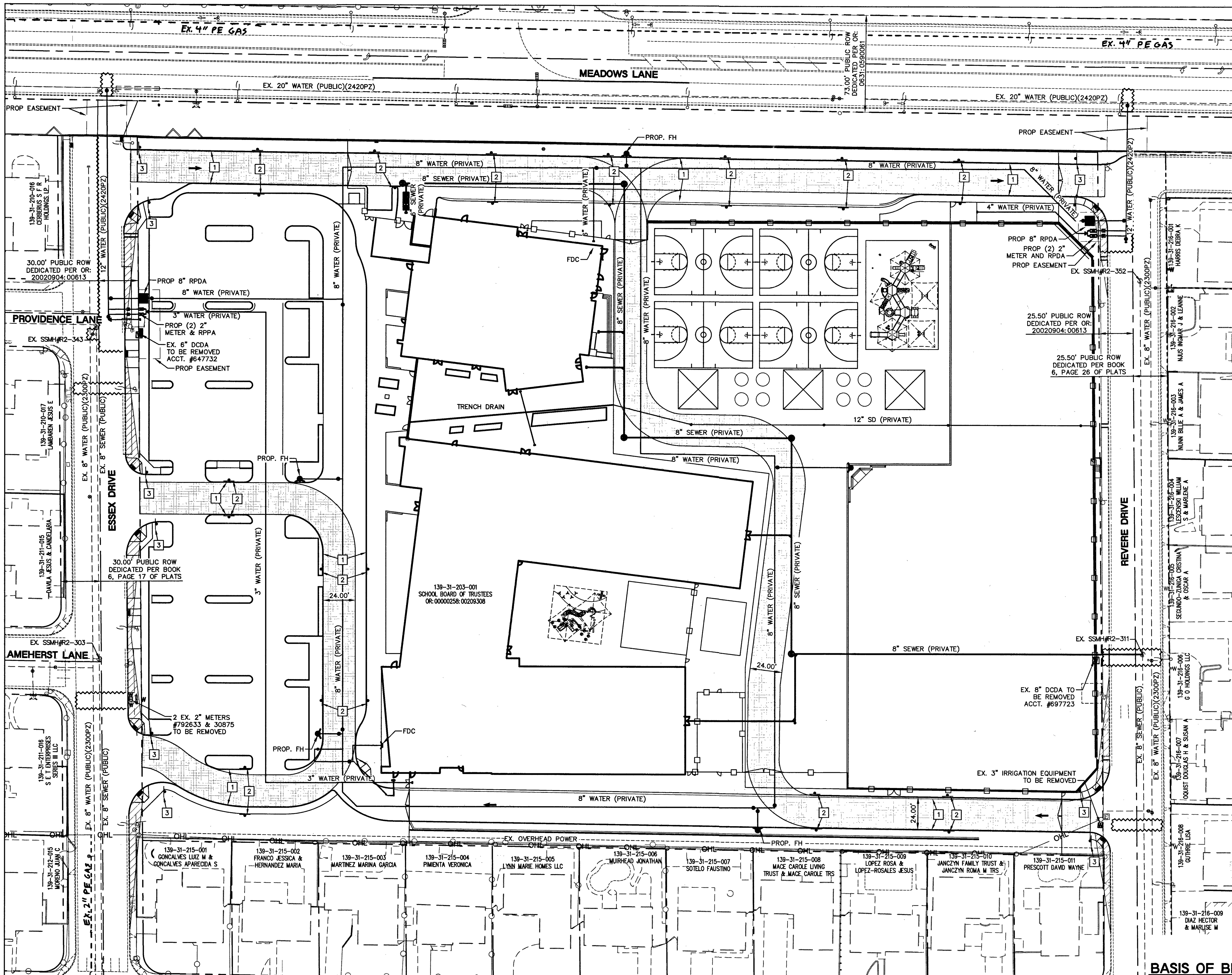
ASBESTOS WORK IS:
REQUIRED ☐ NOT REQUIRED ☐

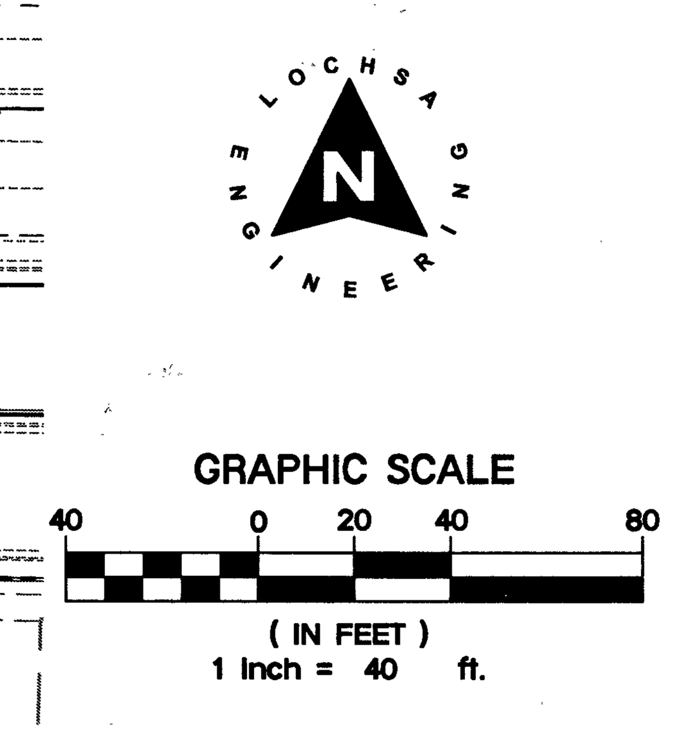
JOB# 0001621

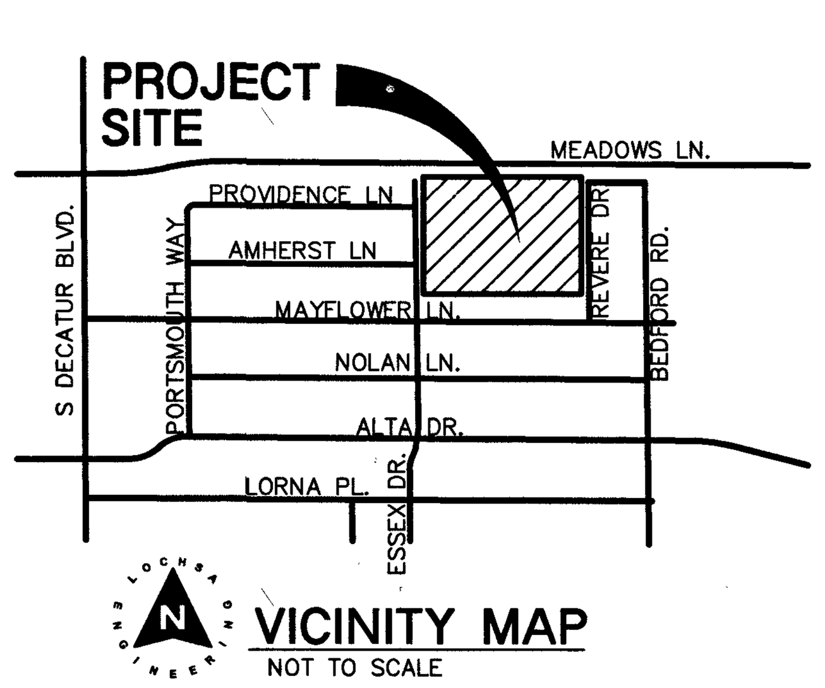
CLARK COUNTY SCHOOL DISTRICT
CONSTRUCTION MANAGEMENT DEPARTMENT 1180 MILITARY TRIBUTE PL HENDERSON NV 89074 PHONE: 702-799-8710

PROJECT: E.W. GRIFFITH ES REPLACEMENT
DRAWING TITLE: GRADING PLANS SHEET 2 OF 2
FACILITY: 412

SHEET NO: L18-02469 C4.02 715-212







VICINITY MAP

NOT TO SCALE

FIRE LANE NOTES:

1. PAINT ENTIRE FACE OF CURB RED PER STANDARDS.
2. INSTALL FIRE SIGN @ A MAXIMUM DISTANCE OF EVERY 100' ALONG THE FIRE LANE PER DETAIL ON C5.01
3. ENTRANCE WARNING SIGN PER DETAIL ON C5.01

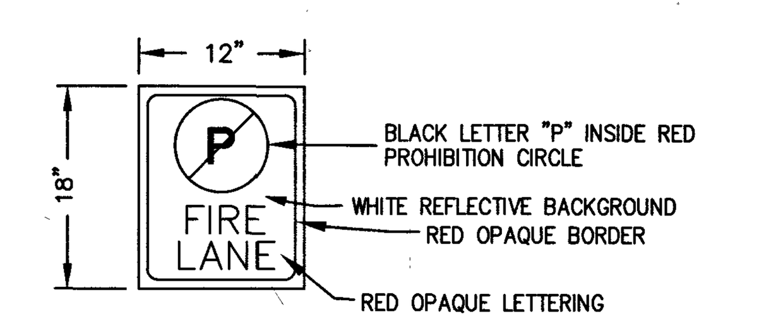
FIRE ACCESS LEGEND:

24' WIDE FIRE TRUCK ACCESSIBLE ROUTE MIN TURNING RADIUS IS 28'/52'

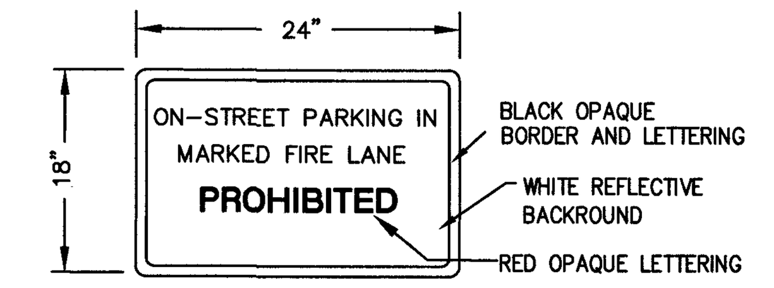
FIRE FLOW CALCULATIONS

BASED ON BUILDING WITH HIGHEST DEMAND:

SQUARE FOOTAGE:	CLASSROOM 78,818 SF, MP BUILDING 15,076 SF
LARGEST AREA BETWEEN 4 HR. AREA SEPARATION WALLS:	N/A
BUILDING HEIGHT:	CLASSROOM 41'-10" MP BUILDING 29'
NUMBER OF STORIES:	2
TYPE OF CONSTRUCTION:	CLASSROOM IIIB, MP BUILDING V-B
OCCUPANCY:	GROUP E EDUCATION
SPRINKLER SYSTEM:	YES
EXPOSURES:	4
ROOF CONSTRUCTION:	SINGLE PLY PVC – CLASS C
FLOW REQUIRED @ 20 PSI RESIDUAL (50% REDUCTION):	3000 GPM
MAX. STORAGE HEIGHT:	N/A
PRESSURE ZONE	2420



"FIRE LANE" SIGN N.T.S.



ENTRANCE WARNING SIGN N.T.S.

CITY OF LAS VEGAS FIRE DEPARTMENT APPROVAL

BY: [signature] DATE: 12-10-18

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 3000 GPM AT 20 P.S.I. RESIDUAL.

FIRE DEPARTMENT APPROVAL

APPROVAL BY THE FIRE DEPARTMENT HAVING JURISDICTION IS REQUIRED PRIOR TO OBTAINING FINAL APPROVAL FROM THE LAS VEGAS VALLEY WATER DISTRICT.

APPROVED FOR CONSTRUCTION

[signature]

LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES

PROJECT No. 135203 FIRST APPROVED DATE: 2-13-19

LVVWD APPROVED FIRE FLOW 3000 GPM/ONSITE 3000 GPM.

A.P.N.:

139-31-203-001

BENCHMARK:

CITY OF LAS VEGAS BENCHMARK NO. 2LV0131NW6
BEING A RIVET AND PLATE TOP OF N. SIDE OF MEADOWS LANE 1/4 E. OF DECATUR BLVD.
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Call before you UnderGround 1-702-432-5300 FREEWAY AND ARTERIAL SYSTEM OF TRANSPORTATION

Call before you dig. Avoid cutting underground utility lines. It's costly.

Call 811 OR 1-800-227-2600

GENERAL UTILITY NOTES:

1. ALL WATER LINES 4" OR GREATER TO BE CL. 150, C900 PVC. ALL WATER LINES SMALLER THAN 4" TO BE SCH. 40 PVC. ALL WATER LINES CONNECTED TO REMOTE FIRE DEPT. CONNECTIONS TO BE CL. 200, C900 PVC.
2. ALL GRAVITY SANITARY SEWER LINES TO BE SDR-35 PVC. ALL FORCE MAIN SANITARY SEWER LINES TO BE SCH. 40 PVC.
3. STATIC WATER PRESSURE IN ZONE 2420 = 104 PSI±.
4. WATER LINES TO HAVE THRUST BLOCKS CONSTRUCTED PER U.D.A.C.S. PLATE No. 31. THRUST BLOCKS TO BE LOCATED AT ALL ANGLE FITTINGS (BENDS), TEE'S, AND FIRE HYDRANTS. ANCHOR BLOCKS TO BE CONSTRUCTED, PER U.D.A.C.S. PLATE No. 30. ANCHOR BLOCKS TO BE LOCATED AT ALL IN-LINE REDUCERS AND GATE VALVES.
5. WET TAPS TO BE CONSTRUCTED IN CONFORMANCE WITH U.D.A.C.S. PLATE No. 34.
6. THE FIRE SAFETY CONTRACTOR IS RESPONSIBLE FOR ESTABLISHING THE SIZE OF PIPING THAT IS REQUIRED TO CONNECT FROM THE FIRE WATER LOOP TO THE FIRE SPRINKLER RISER. LINE SIZE SHOWN FOR INFORMATION PURPOSES ONLY.
7. TRENCH BACKFILL FOR WATER LINES TO BE CONSTRUCTED PER U.D.A.C.S. PLATE No. 17.
8. TRENCH BACKFILL FOR STORM DRAIN LINES TO BE CONSTRUCTED PER D.C.S.W.C.S. DRAWING No. SD-16.
9. ONLY SEWER LINES AND LATERALS MAY BE INSTALLED IN TRENCHES EXCAVATED FOR SEWER LINES. SEE D.C.S.W.C.S. SECTION 2.2.18 (TYPICAL).
10. WATER AND SEWER SEPARATION OF TRENCHES MUST BE AT LEAST 10' MINIMUM (TYPICAL). SEE D.C.S.W.C.S. SECTION 2.2.21 "A1", U.D.A.C.S. SECTION 2.22.01 "A".
11. CONTRACTOR TO SAWCUT AND REMOVE EXISTING ASPHALT AND CONCRETE AS NECESSARY FOR UTILITY TRENCHES, BACKFILL AND PATCH ALL TRENCHES AS INDICATED ON DETAILS AND/OR ACCORDING TO THE GOVERNING ENTITY.
12. THESE DRAWINGS MAY NOT INDICATE ALL EXISTING BURIED UTILITY LINES. CONTRACTOR IS TO EXERCISE GREAT CARE DURING EXCAVATION IN ORDER TO AVOID MAKING CONTACT WITH ANY EXISTING UTILITY LINES. IF UTILITY LINES ARE DAMAGED BY THE CONTRACTOR, SUCH DAMAGE SHALL BE REPLACED TO THE SATISFACTION OF THE OWNER AT THE CONTRACTOR'S EXPENSE.
13. CONTRACTOR TO LOCATE AND VERIFY SIZE, LINE TYPE, CONDITION, DEPTH, PRESSURE, AND LOCATION OF ALL EXISTING UTILITY LINES WITHIN THE CONSTRUCTION AREA PRIOR TO CONSTRUCTION. THE CIVIL ENGINEER SHALL BE CONTACTED ONCE THE UTILITY LINE IS LOCATED.
14. CONTRACTOR/OWNER TO OBTAIN C.C.P.W. OFF-SITE IMPROVEMENT PERMIT FOR ALL WORK WITHIN PUBLIC RIGHT-OF-WAY.
15. CONTRACTOR TO VERIFY UTILITY STUB LOCATIONS AND SIZE WITH PLUMBING PLANS PRIOR TO INSTALLATION OF NEW UTILITIES.
16. LATERALS SHALL NOT BE CONNECTED INTO STUBS EXTENDING FROM MANHOLES, SERVICE LATERALS 6" OR SMALLER WILL NOT BE ALLOWED TO CONNECT INTO MANHOLES. SEE D.C.S.W.C.S. SECTION 2.2.19 (TYPICAL).
17. ALL EXISTING STREET LIGHTS INDICATED ON THESE PLANS ARE SHOWN FOR INFORMATION PURPOSES ONLY. LOCATION IS APPROXIMATE UNLESS NOTED WITH STATION AND OFFSET.
18. ALL EXISTING GAS LINE LOCATIONS SHOWN ON THESE PLANS ARE APPROXIMATIONS ONLY. PROPOSED GAS LINES SHOWN ON THESE PLANS ARE FOR COORDINATION ONLY. SEE SOUTHWEST GAS PLANS FOR CONSTRUCTION.
19. ALL EXISTING ELECTRICAL LINES SHOWN ON THESE PLANS ARE APPROXIMATIONS ONLY. PROPOSED ELECTRICAL LINES SHOWN ON THESE PLANS ARE FOR COORDINATION ONLY. SEE ELECTRICAL PLANS FOR CONSTRUCTION.
20. SEE LEGEND FOR EXISTING AND PROPOSED UTILITY SYMBOLS.
21. ALL DIMENSIONS TO UTILITIES LINES ARE TO CENTERLINE OF PIPE UNLESS INDICATED OTHERWISE.
22. ALL LINEAR FEET OF STORM DRAIN AND SANITARY SEWER PIPE NOTED ON PLANS IS MEASURED FROM CENTER OF MANHOLE TO CENTER OF MANHOLE.

SOUTHWEST GAS CORPORATION

BY: [signature] DATE: 12/3/18

NOTE:

PROPERTY SITUATED IN PRESSURE ZONE 2420. THIS PROPERTY MAY HAVE STATIC WATER PRESSURE IN EXCESS OF 80 psi. THE UNIFORM PLUMBING CODE REQUIRES THAT INDIVIDUAL, ON-SITE (PRIVATE) PRESSURE REDUCING VALVES (PRV) BE INSTALLED WHENEVER THE PRESSURE EXCEEDS 80 psi. PRV'S ARE THE DEVELOPER'S RESPONSIBILITY AND WILL NOT BE INSPECTED OR INCLUDED IN THE ACCEPTANCE OF L.V.V.W.D. FACILITIES. ESN.041

BASIS OF BEARINGS:

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

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LEGEND

CL OR SURVEY LINE
PROPERTY LINE
ROW LINE
EASEMENT LINE
SAWCUT LINE
SCARP LINE

DESCRIPTION:	CONTOUR LINES	EDGE OF PAVEMENT	"A" TYPE CURBS	"L" TYPE CURBS	WALLS	FENCES	AC PAVEMENT	CONCRETE	SPOT ELEVATIONS	SIGNS	MANHOLE W/ DESCRIPTION	MANHOLE DESCRIPTIONS	FIRE HYDRANTS	GATE VALVES	REDUCERS	CLEAN OUTS	UTILITY BOX OR VAULT	BACKWATER VALVES	100w HPS STREETLIGHTS	150w HPS STREETLIGHTS
EXISTING:	(2210)								(12.34) BC		S	S = SANITARY SEWER D = STORM DRAIN						BWV		
PROPOSED:	2122								12.34 BC		S	E = ELECTRICAL T = TELEPHONE						BWV		

REVISIONS:

REV.	DESCRIPTION:	DATE:

SEAL: GUY M. MORRIS EXP. 12-31-19 CIVIL No. 14526 PROFESSIONAL ENGINEER STATE OF NEVADA 11-29-18

DATE: 11-29-18
DRAWN BY: NMG
SUBMITTAL: CLV SUBMITTAL
A/E PROJECT NO. 171208

A/E:

Gensler
3883 Howard Hughes Pkwy
Suite 650
Las Vegas NV 89169
Tel: 702.893.2800
Fax: 702.893.2805

CONSULTANT:

Lochsa engineering
6345 South Jones Blvd.
Suite 100
Las Vegas, NV 89118
Phone (702) 365-9312
Fax (702) 365-9317
www.lochsa.com

CONSTRUCTION MGMT:	DATE:
PROJECT MANAGER:	
COORDINATOR:	
BUILDING DEPARTMENT:	
CODE COMPLIANCE:	
AHERA REVIEW:	

ASBESTOS WORK IS:
REQUIRED ☐ NOT REQUIRED ☐

JOB# 0001621

CLARK COUNTY SCHOOL DISTRICT

CONSTRUCTION MANAGEMENT DEPARTMENT 1180 MILITARY TRIBUTE PL HENDERSON NV 89074 PHONE: 702-799-8710

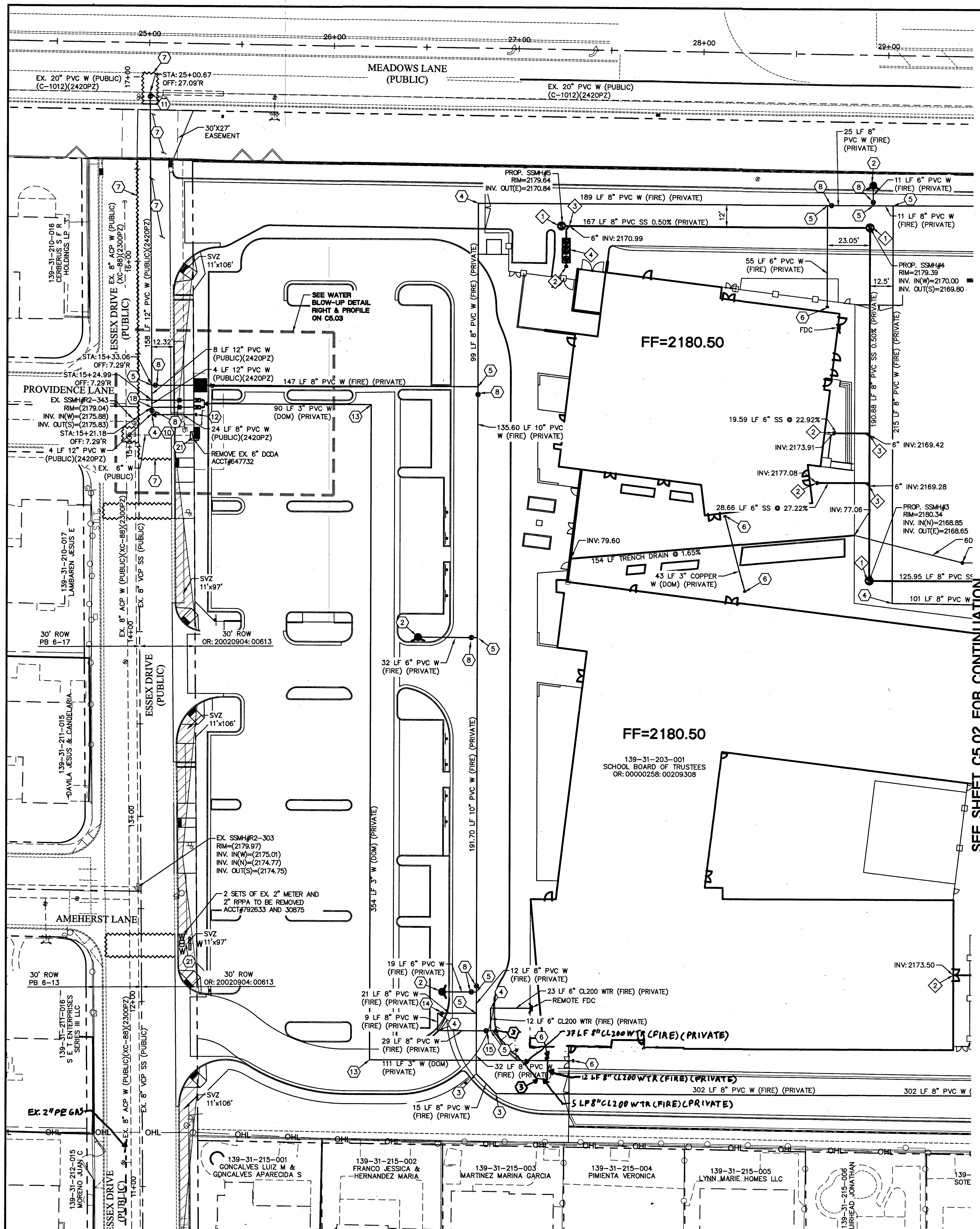
PROJECT: E.W. GRIFFITH ES REPLACEMENT

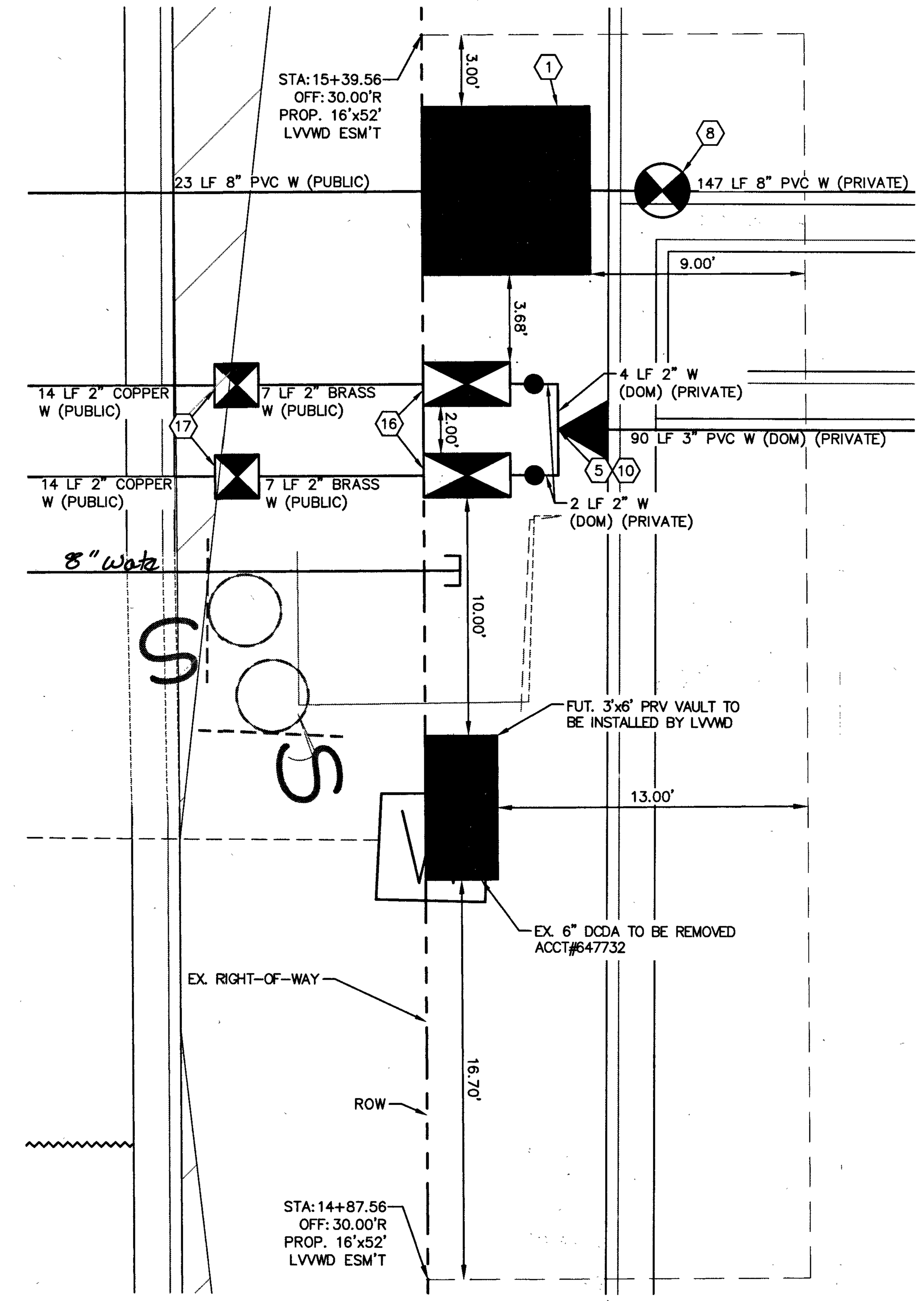
DRAWING TITLE: UTILITY PLANS OVERALL

FACILITY: 412

SHEET NO: L18-02469 C5.00 715-212

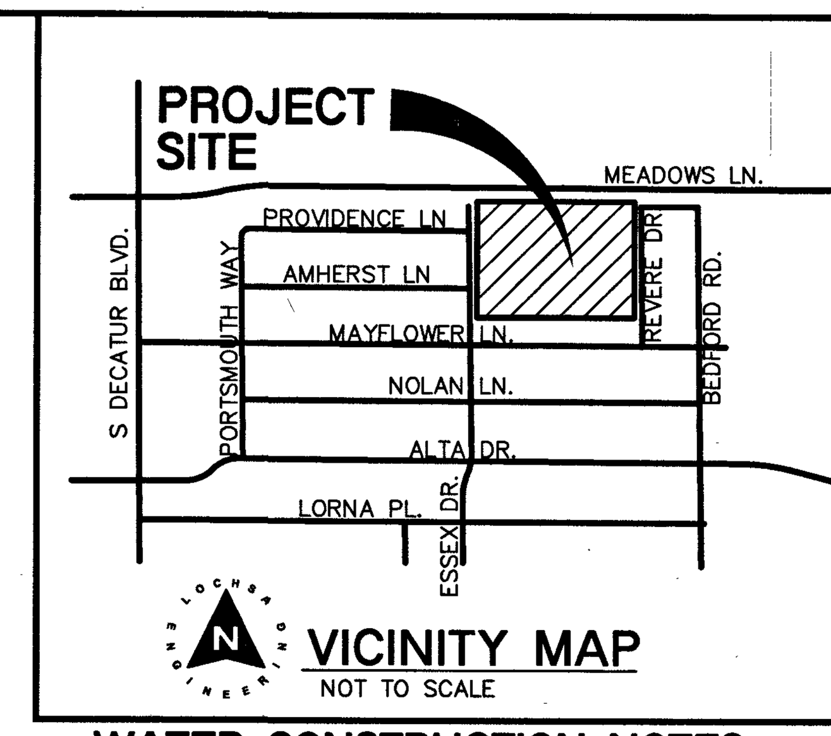
PROJ#:135203A QS:139-31-NW





WATER BLOW UP DETAIL

SCALE: 1"=5'



VICINITY MAP

NOT TO SCALE

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

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

NOTE:

PROTECT IN PLACE AND ADJUST LVVWD EXISTING FACILITIES TO FINISHED GRADE. ALL LVVWD FACILITIES SHALL BE ACCESSIBLE AT ALL TIMES.

WARNING FIRE LINE (NON-POTABLE WATER) ALL EXISTING, RELOCATED OR PROPOSED DCDA/RPDA INSTALLATIONS:

"TO COMPLY WITH THE FEDERAL SAFE DRINKING WATER ACT, THE FIRE LINE, OR ANY OF ITS COMPONENTS, SHALL NOT BE USED FOR POTABLE WATER AT ANY TIME."

REDUCED PRESSURE PRINCIPLE ASSEMBLY (2) 2"

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 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.

NOTE:

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

REDUCED PRESSURE DETECTOR ASSEMBLY (RPDA) (2) 8"

THE REDUCED PRESSURE DETECTOR ASSEMBLIES SHALL BE INSTALLED IN ACCORDANCE WITH THE UDACS PLATE NO. 56. NO WATER SHALL BE TAKEN FROM A SERVICE REQUIRING BACKFLOW PREVENTION UNTIL THE ASSEMBLY HAS BEEN SUCCESSFULLY TESTED BY LVVWD. ANY BLOCK WALL OR OTHER FENCE MATERIAL SHALL BE DESIGNED AND CONSTRUCTED AROUND THE OUTSIDE OF THE EASEMENT(S) SO AS TO ALLOW LVVWD DIRECT ACCESS FROM THE ADJACENT RIGHT-OF-WAY. EASEMENTS SHALL BE CLEARLY MARKED OR STAKED PRIOR TO THE START OF CONSTRUCTION.

NOTE:

CONTRACTOR TO INCLUDE COST OF UNDERGROUND UTILITY DETECTION COMPANY TO LOCATE AND MARK ALL EXISTING UTILITIES PRIOR TO ANY DEMOLITION OR EXCAVATION. ENGINEER TO BE PROVIDED WITH AS-BUILT SKETCH OF EXISTING UTILITIES, AND IS TO BE NOTIFIED IMMEDIATELY OF ANY POTENTIAL CONFLICTS WITH PROPOSED UTILITIES AND/OR FINISHED GRADES.

SOUTHWEST GAS CORPORATION

[signature] 12/3/18

SOUTHWEST GAS CORPORATION — DATE

BASIS OF BEARINGS:

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

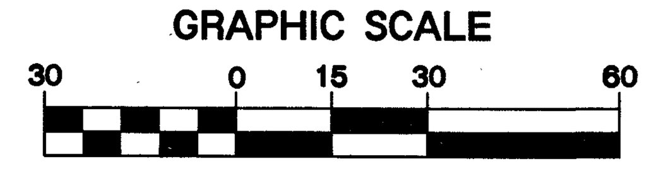
ZONE: LAS VEGAS ELEVATION ZONE
DATUM (REFERENCE FRAME):
NAD 1983(2011) EPOCH 2010.0
SYSTEM: NEVADA COORDINATE REFERENCE SYSTEM (NCRS)

PROJECTION: TRANSVERSE MERCATOR
STANDARD PARALLEL (AND LATITUDE OF GRID ORIGIN): 36°15'00"N
LONGITUDE OF CENTRAL MERIDIAN: 114°58'00"W
NORTHING AT GRID ORIGIN: 200,000.00 M (656,166.6667 FEET US)
EASTING AT CENTRAL MERIDIAN: 100,000.00 M (328,083.3333 FEET US)
SCALE FACTOR ON CENTRAL MERIDIAN: 1.0001 (EXACT)

NOTES:

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

GRAPHIC SCALE



(IN FEET)
1 Inch = 30 ft.

WATER CONSTRUCTION NOTES:

– ALL WATER CONSTRUCTION TO BE DONE IN ACCORDANCE WITH "UNIFORM DESIGN AND CONSTRUCTION STANDARDS FOR WATER DISTRIBUTION SYSTEMS (UDACS)" LATEST EDITION.
– NOT ALL NOTES USED ON THIS SHEET –

1. INSTALL 8" RPDA PER UDACS PLT 56, (AMES – COLT 500N).
2. INSTALL FIRE HYDRANT W/GATE VALVE PER UDACS PLATE NO. 40.
3. INSTALL 45° BEND W/THRUST BLOCK (SAME SIZE AS PIPE) PER UDACS PLATE NO. 31.
4. INSTALL 90° BEND W/THRUST BLOCK (SAME SIZE AS PIPE) PER UDACS PLATE NO. 31.
5. INSTALL TEE (SAME SIZE AS PIPES) W/ THRUST BLOCK PER UDACS NO. 31.
6. STUB & CAP WATER SERVICE. REFER TO PLUMBING PLANS FOR CONTINUATION.
7. SAWCUT, TRENCH AND BACKFILL PER UDACS PLATE NO. 17. REPLACE CURB, GUTTER AND SIDEWALK AS NECESSARY.
8. INSTALL GATE VALVE PER UDACS PLATE NO. 39 AND 30 (SAME SIZE AS PIPE).
9. INSTALL 2" RPPA (IRRIGATION) WITH ENCLOSURE PER UDACS PLATE NO. 8.
10. INSTALL REDUCER (SAME SIZE AS PIPES) W/ ANCHOR BLOCK PER UDACS PLATE NO. 30.
11. INSTALL 20"x12" TAPPING SLEEVE W/ 12" TAPPING VALVE PER UDACS PLATE NO. 34.
12. INSTALL CAP AND BLOW-OFF ASSEMBLY (SAME SIZE AS PIPE) PER UDACS PLATE NO. 36.
13. INSTALL 90° BEND (SAME SIZE AS PIPE).
14. INSTALL POST INDICATOR VALVE.
15. INSTALL CHECK VALVE
16. INSTALL 2" RPPA WITH ENCLOSURE PER UDACS PLATE NO. 8 AND CURB STOP AFTER RPPA.
17. INSTALL 2" WATER METER PER UDACS PLATE NO. 4.
18. INSTALL SERVICE SADDLE CONNECTION (SAME SIZE AS PIPE) WITH CORP. STOP PER UDACS PLATE NO 4.
19. INSTALL 45° BEND (SAME SIZE AS PIPE).
20. STUB & CAP WATER SERVICE. REFER TO IRRIGATION PLANS FOR CONTINUATION.
21. REMOVE EX. METER AND ABANDON LATERAL PER UDACS SEC. 2.17.04.

SEWER CONSTRUCTION NOTES:

– NOT ALL NOTES USED ON THIS SHEET –
ALL GRAVITY SANITARY SEWER LINES TO BE SDR-35 PVC, UNLESS NOTED OTHERWISE.

1. INSTALL 48" SANITARY SEWER MANHOLE PER DCSWCS DWG NO. SD-1A, SD-1B, & SD-4.
2. STUB & CAP SANITARY SEWER SERVICE. REFER TO PLUMBING PLANS FOR CONTINUATION.
3. INSTALL WYE TYPE LATERAL CONNECTION PER DCSWCS DWG. No. SD-22.
4. INSTALL GREASE INTERCEPTOR AND SAMPLING MANHOLES BY OTHERS.
5. SAWCUT, TRENCH AND BACKFILL PER DCSWCS SD-16. REPLACE CURB, GUTTER AND SIDEWALK AS NECESSARY
6. INSTALL SEWER CLEAN-OUT PER DETAIL 4 ON C6.01 WITH TRAFFIC RATED BOX.

NOTE:

CONTRACTOR TO INCLUDE THE COST OF ANY VERTICAL CHANGE IN PIPE DUE TO GRADE CHANGES OR UTILITY CONFLICTS.

CITY OF LAS VEGAS FIRE DEPARTMENT APPROVAL

BY: [signature] DATE: 12-10-18

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 3000 GPM AT 20 P.S.I. RESIDUAL.

FIRE DEPARTMENT APPROVAL

APPROVAL BY THE FIRE DEPARTMENT HAVING JURISDICTION IS REQUIRED PRIOR TO OBTAINING FINAL APPROVAL FROM THE LAS VEGAS VALLEY WATER DISTRICT.

APPROVED FOR CONSTRUCTION

[signature]
LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES
PROJECT No. 135203 FIRST APPROVED DATE: 2-13-19
LVVWD APPROVED FIRE FLOW 3000 GPM/ONSITE 3000 GPM.

A.P.N.:

139-31-203-001

BENCHMARK:

CITY OF LAS VEGAS BENCHMARK NO. 2LV0131NW6
BEING A RIVET AND PLATE TOP OF N. SIDE OF MEADOWS LANE 1/4 E. OF DECATUR BLVD.
ELEVATION: 2,180.68 FEET / 664.67362 METERS
NAVD '88

NOTE:

LOCHSA ENGINEERING ASSUMES NO RESPONSIBILITY FOR EXISTING UTILITY LOCATIONS AND ELEVATIONS. THE UTILITIES SHOWN ON THIS PLAN ARE FROM THE BEST AVAILABLE INFORMATION. IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE LOCATION AND ELEVATION OF ALL UTILITIES, INCLUDING BUT NOT LIMITED TO, THE WATER, FIRE, SANITARY SEWER, STORM SEWER, TELEPHONE, POWER, GAS, AND IRRIGATION LINES PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. IF CONFLICT EXISTS IN THE FIELD, THE CONTRACTOR IS TO NOTIFY THE PROJECT ARCHITECT, OWNER'S REPRESENTATIVE AND THE PROJECT ENGINEER IMMEDIATELY.

SAFETY ALERT

Call Before You Overhead — 1-702-227-2929
AVOID HITTING UNDERGROUND TRAFFIC SIGNAL AND STREET LIGHT SYSTEM CONDUITS IT'S COSTLY — Call before you UnderGround — 1-702-432-5300 — FREEWAY AND ARTERIAL SYSTEM OF TRANSPORTATION
Call before you dig — Avoid cutting underground utility lines. It's costly. — Call 811 or 1-800-227-2600

LEGEND

CL OR SURVEY LINE
PROPERTY LINE
ROW LINE
EASEMENT LINE
SAWCUT LINE
SCARP LINE

DESCRIPTION:	CONTOUR LINES	EDGE OF PAVEMENT	"A" TYPE CURBS	"L" TYPE CURBS	WALLS	FENCES	AC PAVEMENT	CONCRETE	SPOT ELEVATIONS	SIGNS	MANHOLE W/ DESCRIPTION	MANHOLE DESCRIPTIONS	FIRE HYDRANTS	GATE VALVES	REDUCERS	CLEAN OUTS	UTILITY BOX OR VAULT	BACKWATER VALVES	100w HPS STREETLIGHTS	150w HPS STREETLIGHTS
EXISTING:	(2210)								12.34 BC		Ⓢ	Ⓢ = SANITARY SEWER; Ⓓ = STORM DRAIN						BWV		
PROPOSED:	2122								12.34 BC		Ⓢ	Ⓔ = ELECTRICAL; Ⓣ = TELEPHONE						BWV		

REVISIONS:

REV.	DESCRIPTION:	DATE:

SEAL: PROFESSIONAL ENGINEER – STATE OF NEVADA — GUY M. MORRIS — EXP. 12-31-19 — CIVIL — No. 14526 — 11-29-18

DATE: 11-29-18
DRAWN BY: NMG
SUBMITTAL: CLV SUBMITTAL
A/E PROJECT NO. 171208

A/E: Gensler — 3883 Howard Hughes Pkwy, Suite 650, Las Vegas NV 89169, Tel: 702.893.2800, Fax: 702.893.2805

CONSULTANT: Lochsa engineering — 6345 South Jones Blvd., Suite 100, Las Vegas, NV 89118 — Phone (702) 365-9312, Fax (702) 365-9317, www.lochsa.com

CONSTRUCTION MGMT: DATE:
PROJECT MANAGER:
COORDINATOR:
BUILDING DEPARTMENT:
CODE COMPLIANCE:
AHERA REVIEW:

ASBESTOS WORK IS: REQUIRED ☐ NOT REQUIRED ☐

JOB# 0001621

CLARK COUNTY SCHOOL DISTRICT
CONSTRUCTION MANAGEMENT DEPARTMENT 1180 MILITARY TRIBUTE PL HENDERSON NV 89074 PHONE: 702-799-8710

PROJECT: E.W. GRIFFITH ES REPLACEMENT

DRAWING TITLE: UTILITY PLANS SHEET 1 OF 2

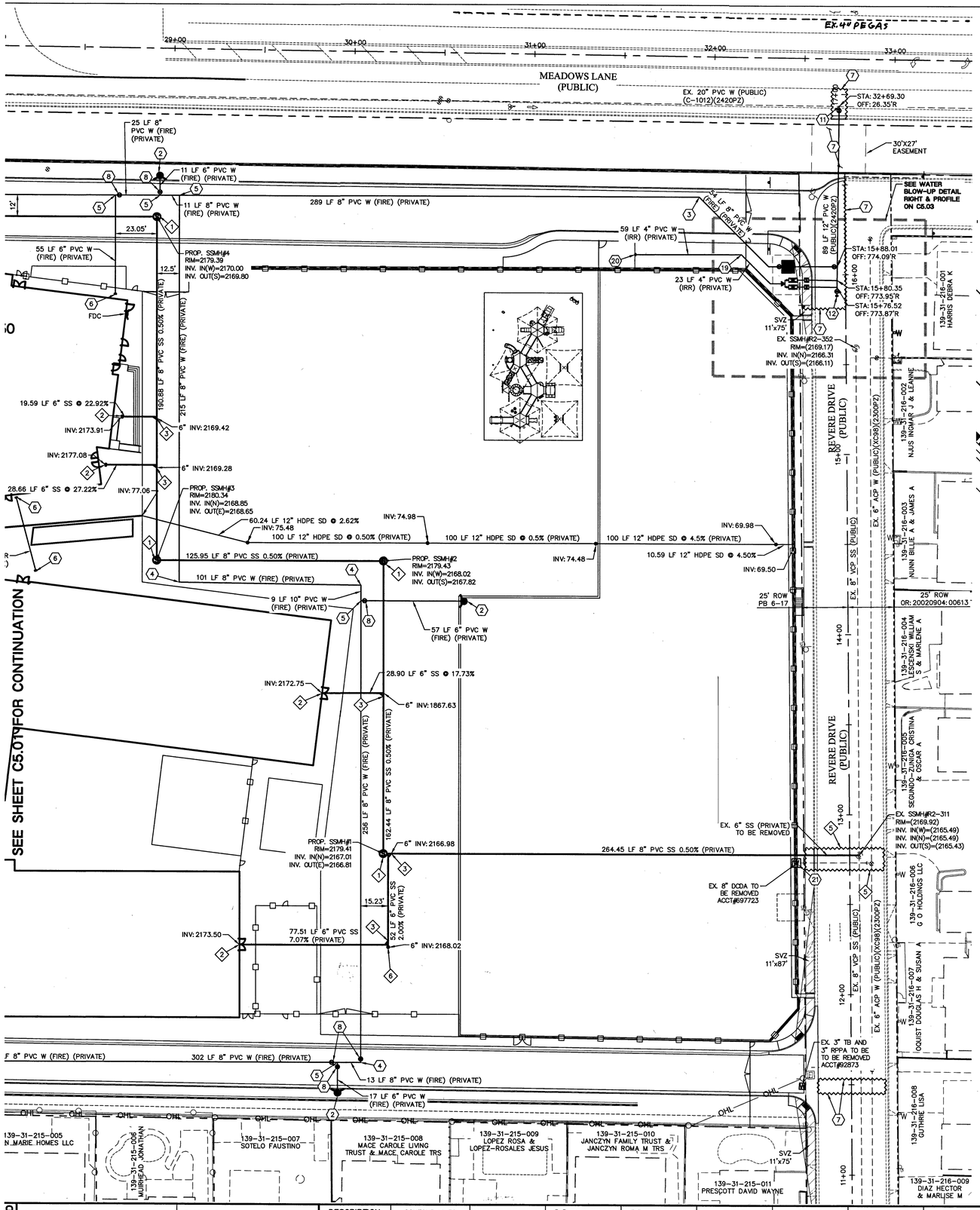
FACILITY: 412

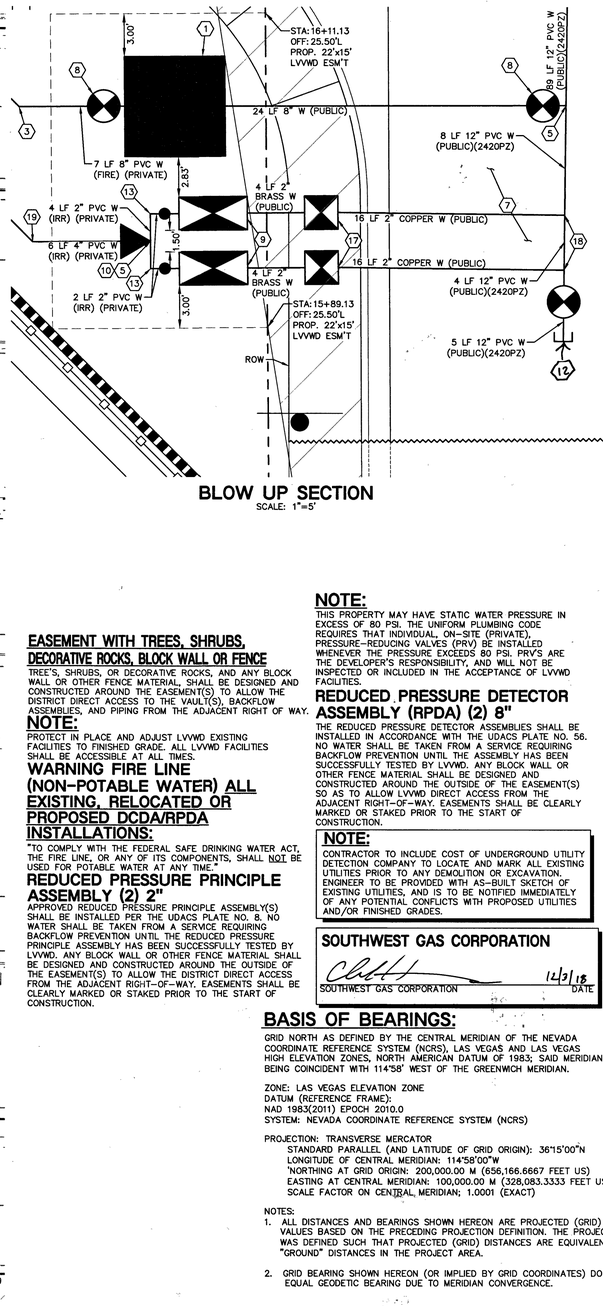
SHEET NO: L18-02469 C5.01 715-212

SHEET 11 OF 17

PROJ#:135203A QS:139-31-NW

11/29/2018 5:21 PM





BLOW UP SECTION
SCALE: 1"=5'

GRAPHIC SCALE
30 0 15 30 60
(IN FEET)
1 inch = 30 ft.

EASEMENT WITH TREES, SHRUBS, DECORATIVE ROCKS, BLOCK WALL OR FENCE
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NOTE:
PROTECT IN PLACE AND ADJUST LVVWD EXISTING FACILITIES TO FINISHED GRADE. ALL LVVWD FACILITIES SHALL BE ACCESSIBLE AT ALL TIMES.

WARNING FIRE LINE (NON-POTABLE WATER) ALL EXISTING, RELOCATED OR PROPOSED DCDA/RPDA INSTALLATIONS:
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REDUCED PRESSURE PRINCIPLE ASSEMBLY (2) 2"
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REDUCED PRESSURE DETECTOR ASSEMBLY (RPDA) (2) 8"
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SOUTHWEST GAS CORPORATION
SOUTHWEST GAS CORPORATION — DATE 12/3/18

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

ZONE: LAS VEGAS ELEVATION ZONE
DATUM (REFERENCE FRAME):
NAD 1983(2011) EPOCH 2010.0
SYSTEM: NEVADA COORDINATE REFERENCE SYSTEM (NCRS)

PROJECTION: TRANSVERSE MERCATOR
STANDARD PARALLEL (AND LATITUDE OF GRID ORIGIN): 36°15'00"N
LONGITUDE OF CENTRAL MERIDIAN: 114°58'00"W
'NORTHING AT GRID ORIGIN: 200,000.00 M (656,166.6667 FEET US)
EASTING AT CENTRAL MERIDIAN: 100,000.00 M (328,083.3333 FEET US)
SCALE FACTOR ON CENTRAL MERIDIAN: 1.0001 (EXACT)

NOTES:
1. ALL DISTANCES AND BEARINGS SHOWN HEREON ARE PROJECTED (GRID) VALUES BASED ON THE PRECEDING PROJECTION DEFINITION. THE PROJECTION WAS DEFINED SUCH THAT PROJECTED (GRID) DISTANCES ARE EQUIVALENT TO "GROUND" DISTANCES IN THE PROJECT AREA.
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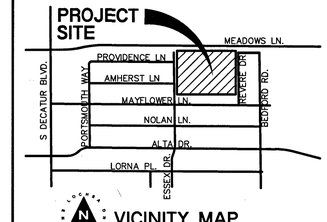

VICINITY MAP
NOT TO SCALE

WATER CONSTRUCTION NOTES:
– ALL WATER CONSTRUCTION TO BE DONE IN ACCORDANCE WITH "UNIFORM DESIGN AND CONSTRUCTION STANDARDS FOR WATER DISTRIBUTION SYSTEMS (UDACS)" LATEST EDITION.
– NOT ALL NOTES USED ON THIS SHEET –
1. INSTALL 8" RPDA PER UDACS PLT 56, (AMES – COLT 500N).
2. INSTALL FIRE HYDRANT W/GATE VALVE PER UDACS PLATE NO. 40.
3. INSTALL 45° BEND W/THRUST BLOCK (SAME SIZE AS PIPE) PER UDACS PLATE NO. 31.
4. INSTALL 90° BEND W/THRUST BLOCK (SAME SIZE AS PIPE) PER UDACS PLATE NO. 31.
5. INSTALL TEE (SAME SIZE AS PIPES) W/ THRUST BLOCK PER UDACS NO. 31.
6. STUB & CAP WATER SERVICE. REFER TO PLUMBING PLANS FOR CONTINUATION.
7. SAWCUT, TRENCH AND BACKFILL PER UDACS PLATE NO. 17. REPLACE CURB, GUTTER AND SIDEWALK AS NECESSARY.
8. INSTALL GATE VALVE PER UDACS PLATE NO. 39 AND 30 (SAME SIZE AS PIPE).
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13. INSTALL 90° BEND (SAME SIZE AS PIPE).
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15. INSTALL CHECK VALVE
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18. INSTALL SERVICE SADDLE CONNECTION (SAME SIZE AS PIPE) WITH CORP. STOP PER UDACS PLATE NO 4.
19. INSTALL 45° BEND (SAME SIZE AS PIPE).
20. STUB & CAP WATER SERVICE. REFER TO IRRIGATION PLANS FOR CONTINUATION.
21. REMOVE EX. METER AND ABANDON LATERAL PER UDACS SEC. 2.17.04.

SEWER CONSTRUCTION NOTES:
– NOT ALL NOTES USED ON THIS SHEET –
ALL GRAVITY SANITARY SEWER LINES TO BE SDR–35 PVC, UNLESS NOTED OTHERWISE.
1. INSTALL 48" SANITARY SEWER MANHOLE PER DCSWCS DWG NO. SD–1A, SD–1B, & SD–4.
2. STUB & CAP SANITARY SEWER SERVICE. REFER TO PLUMBING PLANS FOR CONTINUATION.
3. INSTALL WYE TYPE LATERAL CONNECTION PER DCSWCS DWG. No. SD–22.
4. INSTALL GREASE INTERCEPTOR AND SAMPLING MANHOLES BY OTHERS.
5. SAWCUT, TRENCH AND BACKFILL PER DCSWCS SD–16. REPLACE CURB, GUTTER AND SIDEWALK AS NECESSARY
6. INSTALL SEWER CLEAN–OUT PER DETAIL 4 ON C6.01 WITH TRAFFIC RATED BOX.

NOTE:
CONTRACTOR TO INCLUDE THE COST OF ANY VERTICAL CHANGE IN PIPE DUE TO GRADE CHANGES OR UTILITY CONFLICTS.

CITY OF LAS VEGAS
FIRE DEPARTMENT APPROVAL
BY _____ DATE: 12-10-18
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 3000 GPM AT 20 P.S.I. RESIDUAL.

FIRE DEPARTMENT APPROVAL
APPROVAL BY THE FIRE DEPARTMENT HAVING JURISDICTION IS REQUIRED PRIOR TO OBTAINING FINAL APPROVAL FROM THE LAS VEGAS VALLEY WATER DISTRICT.

APPROVED FOR CONSTRUCTION
LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES
PROJECT No. 135203 FIRST APPROVED DATE: 2-13-19
LVVWD APPROVED FIRE FLOW 3000 GPM/ONSITE 3000 GPM.

A.P.N.:
139-31-203-001

BENCHMARK:
CITY OF LAS VEGAS BENCHMARK NO. 2LV0131NW6
BEING A RIVET AND PLATE TOP OF N. SIDE OF MEADOWS LANE 1/4 E. OF DECATUR BLVD.
ELEVATION: 2,180.68 FEET / 664.67362 METERS
NAVD '88

NOTE:
LOCHSA ENGINEERING ASSUMES NO RESPONSIBILITY FOR EXISTING UTILITY LOCATIONS AND ELEVATIONS. THE UTILITIES SHOWN ON THIS PLAN ARE FROM THE BEST AVAILABLE INFORMATION. IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE LOCATION AND ELEVATION OF ALL UTILITIES, INCLUDING BUT NOT LIMITED TO, THE WATER, FIRE, SANITARY SEWER, STORM SEWER, TELEPHONE, POWER, GAS, AND IRRIGATION LINES PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. IF CONFLICT EXISTS IN THE FIELD, THE CONTRACTOR IS TO NOTIFY THE PROJECT ARCHITECT, OWNER'S REPRESENTATIVE AND THE PROJECT ENGINEER IMMEDIATELY.

REVISIONS:

REV.	DESCRIPTION:	DATE:

SEAL: PROFESSIONAL ENGINEER – STATE OF NEVADA – GUY M. MORRIS – EXP. 12-31-19 – CIVIL – No. 14526 – 11-29-18

DATE: 11-29-18 | DRAWN BY: NMG | SUBMITTAL: CLV SUBMITTAL | A/E PROJECT NO.: 171208

A/E:
Gensler
3883 Howard Hughes Pkwy
Suite 650
Las Vegas NV 89169
Tel: 702.893.2800
Fax: 702.893.2805

CONSULTANT:
Lochsa engineering
6345 South Jones Blvd.
Suite 100
Las Vegas, NV 89118
Phone (702) 365-9312
Fax (702) 365-9317
www.lochsa.com

CONSTRUCTION MGMT:	DATE:
PROJECT MANAGER:	
COORDINATOR:	
BUILDING DEPARTMENT:	
CODE COMPLIANCE:	
AHERA REVIEW:	

ASBESTOS WORK IS:
REQUIRED ☐ NOT REQUIRED ☐

JOB# 0001621

PROJECT: CLARK COUNTY SCHOOL DISTRICT
CONSTRUCTION MANAGEMENT DEPARTMENT 1180 MILITARY TRIBUTE PL HENDERSON NV 89074 PHONE: 702-799-8710
E.W. GRIFFITH ES REPLACEMENT
DRAWING TITLE: UTILITY PLANS SHEET 2 OF 2
FACILITY: 412

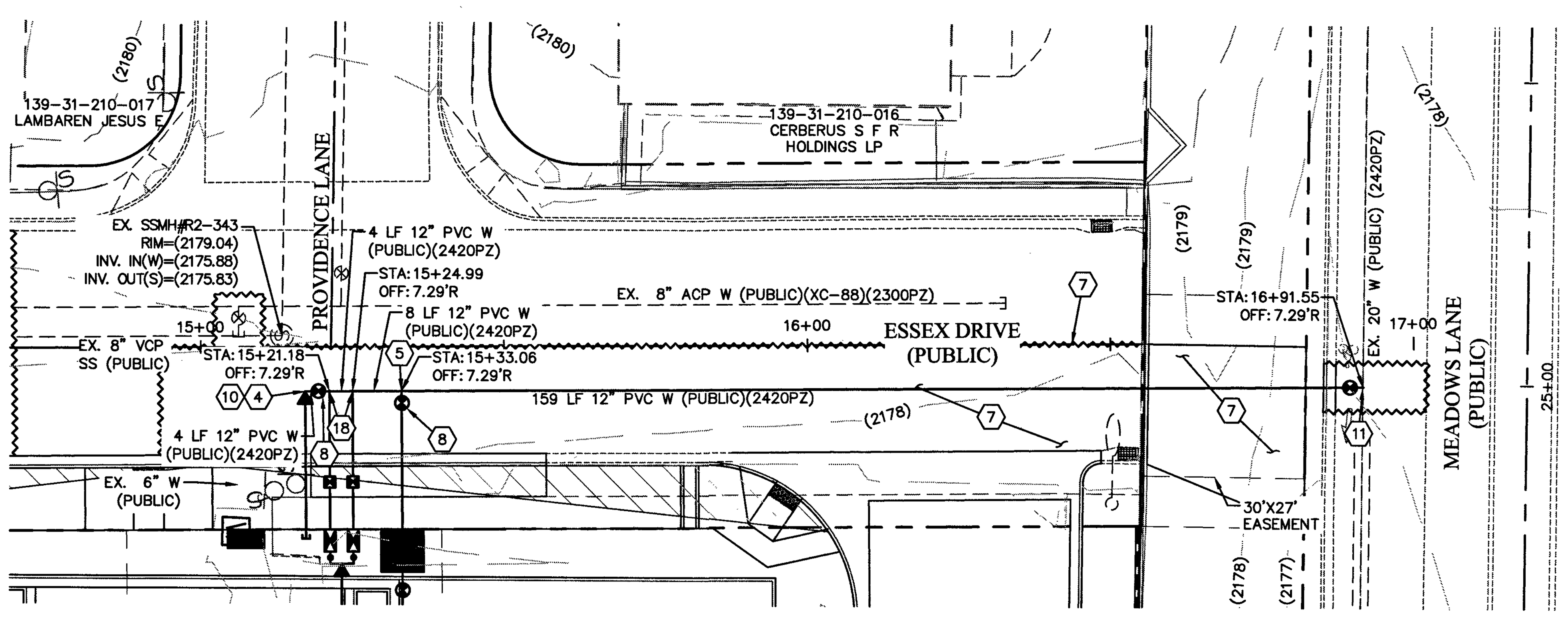
LEGEND

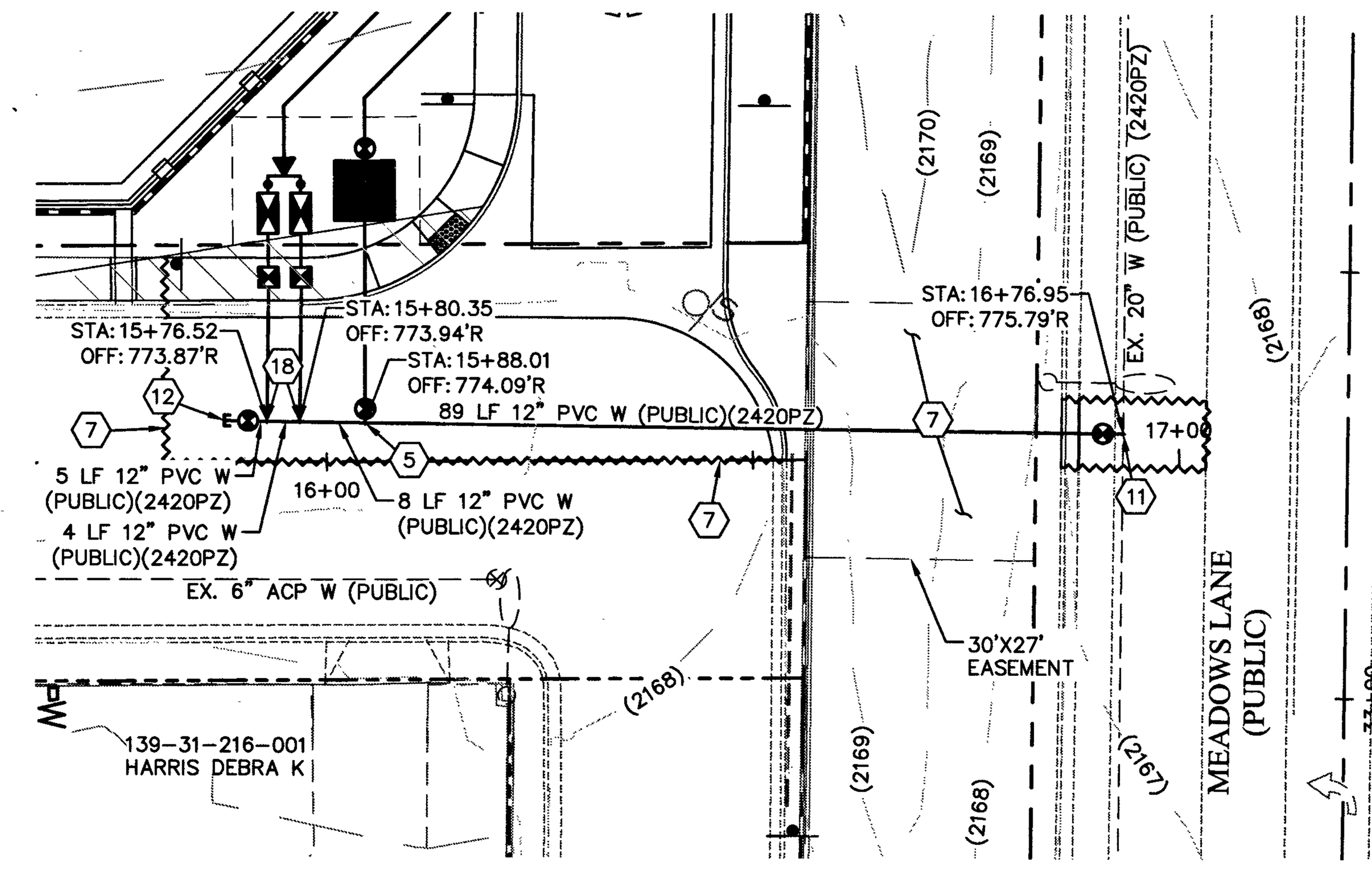
		DESCRIPTION:	CONTOUR LINES	EDGE OF PAVEMENT	"A" TYPE CURBS	"L" TYPE CURBS	WALLS	FENCES	AC PAVEMENT	CONCRETE	SPOT ELEVATIONS	SIGNS	MANHOLE W/ DESCRIPTION
CL OR SURVEY LINE	EASEMENT LINE	EXISTING:	–(2210)–								(12.34) BC		S
PROPERTY LINE	SAWCUT LINE	PROPOSED:	2122								12.34 BC		S
ROW LINE	SCARP LINE												

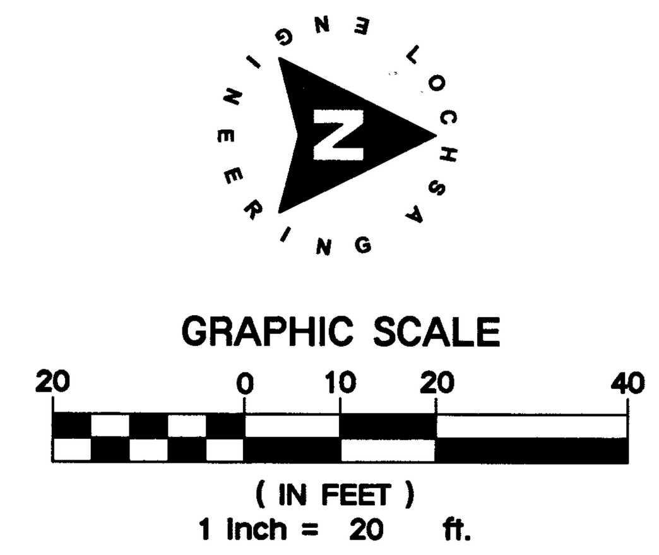
MANHOLE DESCRIPTIONS	FIRE HYDRANTS	GATE VALVES	REDUCERS	CLEAN OUTS	UTILITY BOX OR VAULT	BACKWATER VALVES	100w HPS STREETLIGHTS	150w HPS STREETLIGHTS
(S) = SANITARY SEWER								
(D) = STORM DRAIN						BWV		
(E) = ELECTRICAL						BWV		
(T) = TELEPHONE								

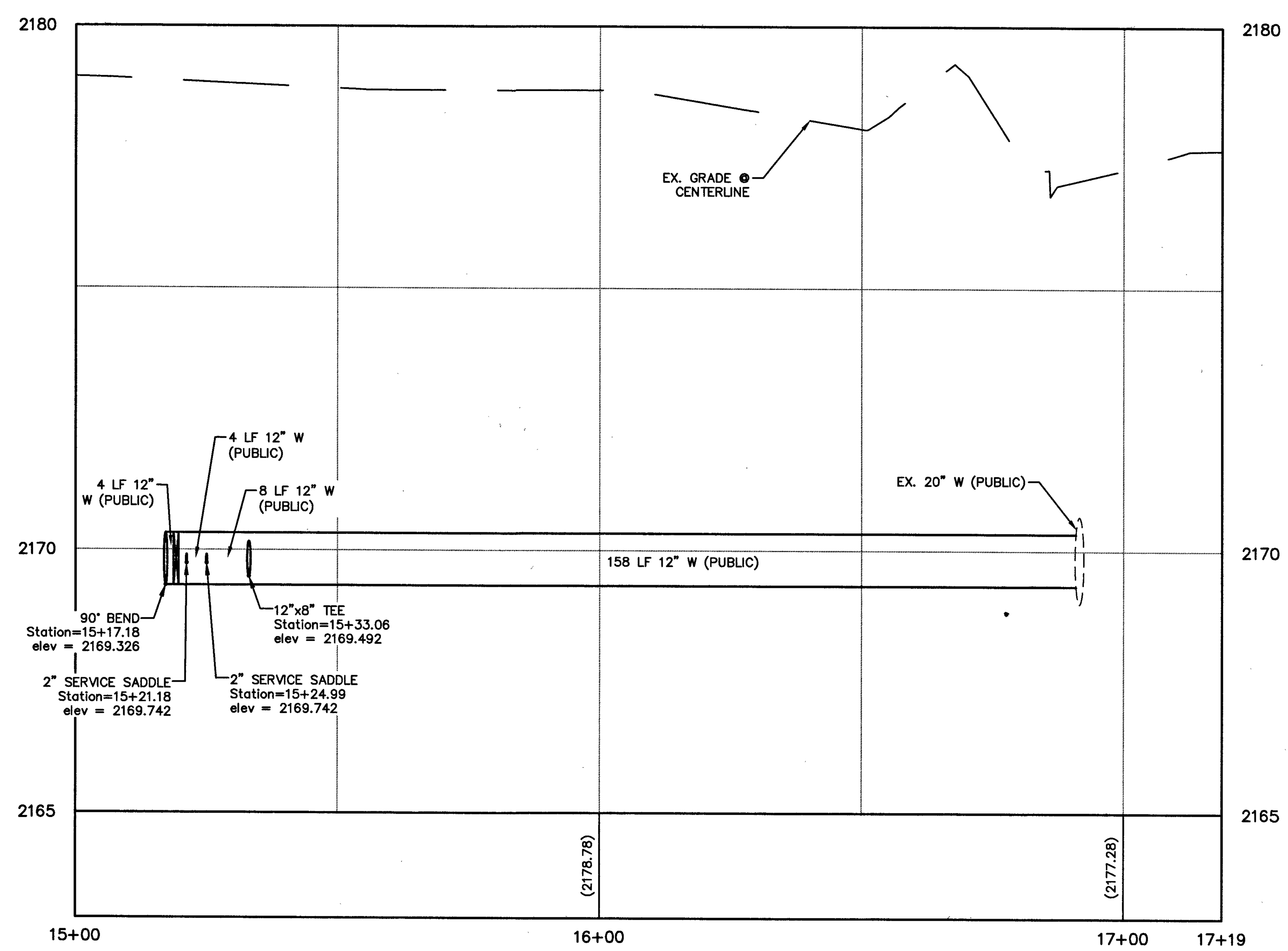
SHEET NO:
418-02469 C5.02 715-212
SHEET 12 OF 17

PROJ.#:135203A QS:139-31-NW

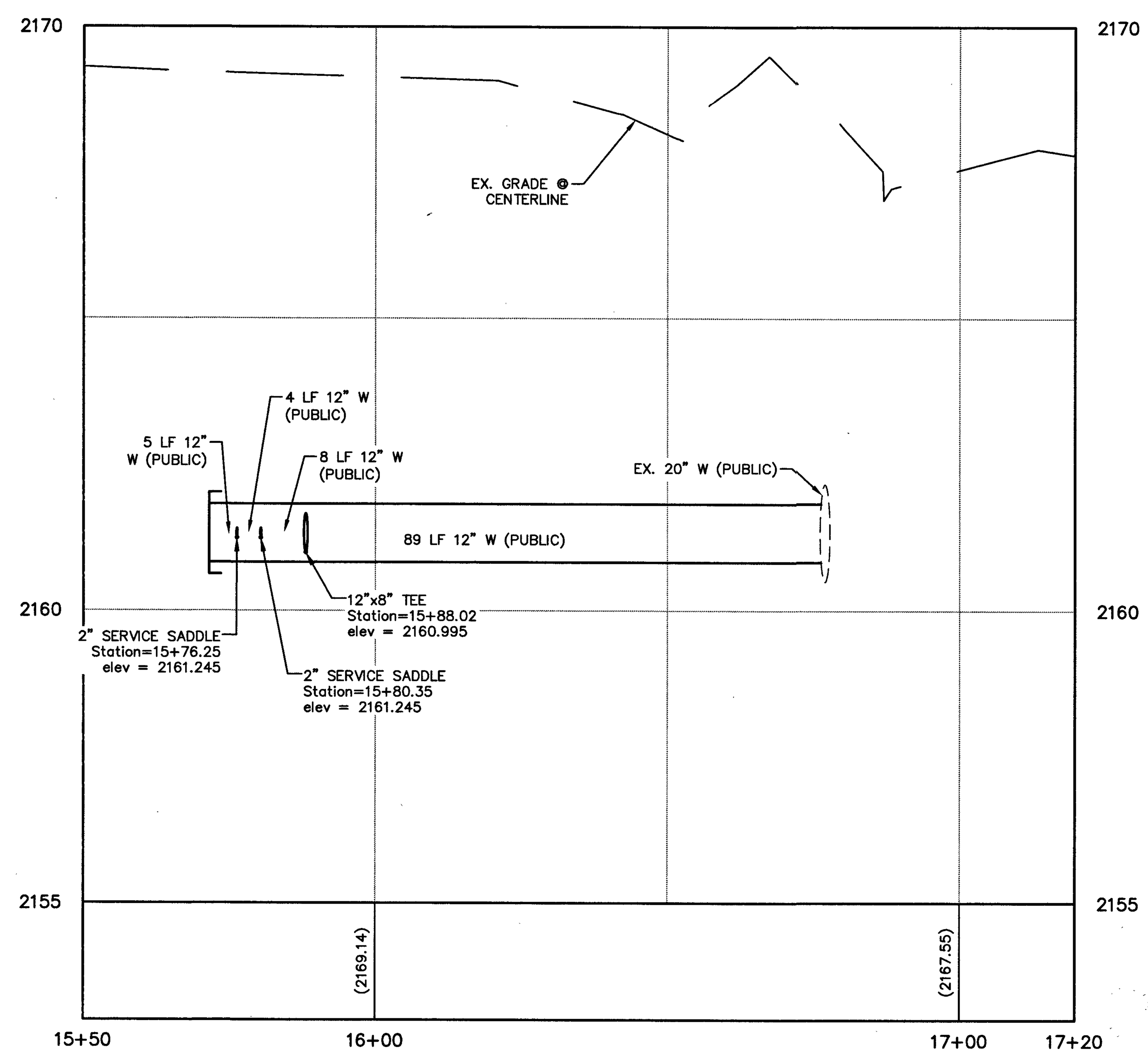




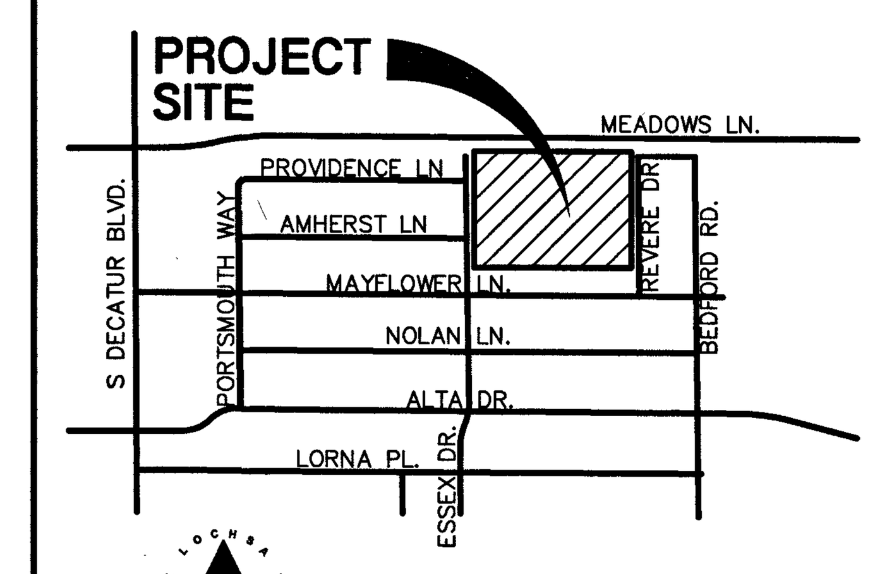




ESSEX DRIVE PROFILE VIEW
HORIZONTAL SCALE: 1"=20'
VERTICAL SCALE: 1"=2'



REVERE DRIVE PROFILE VIEW
HORIZONTAL SCALE: 1"=20'
VERTICAL SCALE: 1"=2'



VICINITY MAP
NOT TO SCALE

WATER CONSTRUCTION NOTES:

– ALL WATER CONSTRUCTION TO BE DONE IN ACCORDANCE WITH "UNIFORM DESIGN AND CONSTRUCTION STANDARDS FOR WATER DISTRIBUTION SYSTEMS (UDACS)" LATEST EDITION.

– NOT ALL NOTES USED ON THIS SHEET –

1. INSTALL 8" RPDA PER UDACS PLT 56, (AMES – COLT 500N).
2. INSTALL FIRE HYDRANT W/GATE VALVE PER UDACS PLATE NO. 40.
3. INSTALL 45° BEND W/THRUST BLOCK (SAME SIZE AS PIPE) PER UDACS PLATE NO. 31.
4. INSTALL 90° BEND W/THRUST BLOCK (SAME SIZE AS PIPE) PER UDACS PLATE NO. 31.
5. INSTALL TEE (SAME SIZE AS PIPES) W/ THRUST BLOCK PER UDACS NO. 31.
6. STUB & CAP WATER SERVICE. REFER TO PLUMBING PLANS FOR CONTINUATION.
7. SAWCUT, TRENCH AND BACKFILL PER UDACS PLATE NO. 17. REPLACE CURB, GUTTER AND SIDEWALK AS NECESSARY.
8. INSTALL GATE VALVE PER UDACS PLATE NO. 39 AND 30 (SAME SIZE AS PIPE).
9. INSTALL 2" RPPA (IRRIGATION) WITH ENCLOSURE PER UDACS PLATE NO. 8.
10. INSTALL REDUCER (SAME SIZE AS PIPES) W/ ANCHOR BLOCK PER UDACS PLATE NO. 30.
11. INSTALL 20"x12" TAPPING SLEEVE W/ 12" TAPPING VALVE PER UDACS PLATE NO. 34.
12. INSTALL CAP AND BLOW-OFF ASSEMBLY (SAME SIZE AS PIPE) PER UDACS PLATE NO. 36.
13. INSTALL 90° BEND (SAME SIZE AS PIPE).
14. INSTALL POST INDICATOR VALVE.
15. INSTALL CHECK VALVE
16. INSTALL 2" RPPA WITH ENCLOSURE PER UDACS PLATE NO. 8 AND CURB STOP AFTER RPPA.
17. INSTALL 2" WATER METER PER UDACS PLATE NO. 4.
18. INSTALL SERVICE SADDLE CONNECTION (SAME SIZE AS PIPE) WITH CORP. STOP PER UDACS PLATE NO 4.
19. INSTALL 45° BEND (SAME SIZE AS PIPE).
20. STUB & CAP WATER SERVICE. REFER TO IRRIGATION PLANS FOR CONTINUATION.
21. REMOVE EX. METER AND ABANDON LATERAL PER UDACS SEC. 2.17.04.

NOTE:

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

NOTE:

PROTECT IN PLACE AND ADJUST LVVWD EXISTING FACILITIES TO FINISHED GRADE. ALL LVVWD FACILITIES SHALL BE ACCESSIBLE AT ALL TIMES.

FIRE DEPARTMENT APPROVAL

APPROVAL BY THE FIRE DEPARTMENT HAVING JURISDICTION IS REQUIRED PRIOR TO OBTAINING FINAL APPROVAL FROM THE LAS VEGAS VALLEY WATER DISTRICT.

APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES
PROJECT No. 135203 FIRST APPROVED DATE: 2-13-19
LVVWD APPROVED FIRE FLOW 3000 GPM/ONSITE 3000 GPM.

A.P.N.:

139-31-203-001

BENCHMARK:

CITY OF LAS VEGAS BENCHMARK NO. 2LV0131NW6
BEING A RIVET AND PLATE TOP OF N. SIDE OF MEADOWS LANE 1/4 E. OF DECATUR BLVD.
ELEVATION: 2,180.68 FEET / 664.67362 METERS
NAVD '88

NOTE:

LOCHSA ENGINEERING ASSUMES NO RESPONSIBILITY FOR EXISTING UTILITY LOCATIONS AND ELEVATIONS. THE UTILITIES SHOWN ON THIS PLAN ARE FROM THE BEST AVAILABLE INFORMATION. IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE LOCATION AND ELEVATION OF ALL UTILITIES, INCLUDING BUT NOT LIMITED TO, THE WATER, FIRE, SANITARY SEWER, STORM SEWER, TELEPHONE, POWER, GAS, AND IRRIGATION LINES PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. IF CONFLICT EXISTS IN THE FIELD, THE CONTRACTOR IS TO NOTIFY THE PROJECT ARCHITECT, OWNER'S REPRESENTATIVE AND THE PROJECT ENGINEER IMMEDIATELY.

SAFETY ALERT
Call Before You Overhead
1-702-227-2929
AVOID HITTING UNDERGROUND TRAFFIC SIGNAL AND STREET LIGHT SYSTEM CONDUITS IT'S COSTLY
Call before you UnderGround
1-702-432-5300
FREEWAY AND ARTERIAL SYSTEM OF TRANSPORTATION
Call before you dig
Avoid cutting underground utility lines. It's costly.
Call 811
OR
1-800-227-2600

BASIS OF BEARINGS:

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

ZONE: LAS VEGAS ELEVATION ZONE
DATUM (REFERENCE FRAME):
NAD 1983(2011) EPOCH 2010.0
SYSTEM: NEVADA COORDINATE REFERENCE SYSTEM (NCRS)

PROJECTION: TRANSVERSE MERCATOR
STANDARD PARALLEL (AND LATITUDE OF GRID ORIGIN): 36°15'00"N
LONGITUDE OF CENTRAL MERIDIAN: 114°58'00"W
'NORTHING AT GRID ORIGIN: 200,000.00 M (656,166.6667 FEET US)
EASTING AT CENTRAL MERIDIAN: 100,000.00 M (328,083.3333 FEET US)
SCALE FACTOR ON CENTRAL MERIDIAN; 1.0001 (EXACT)

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

LEGEND
CL OR SURVEY LINE
PROPERTY LINE
ROW LINE
EASEMENT LINE
SAWCUT LINE
SCARP LINE

DESCRIPTION:	CONTOUR LINES	EDGE OF PAVEMENT	"A" TYPE CURBS	"L" TYPE CURBS	WALLS	FENCES	AC PAVEMENT	CONCRETE	SPOT ELEVATIONS	SIGNS	MANHOLE W/ DESCRIPTION	MANHOLE DESCRIPTIONS	FIRE HYDRANTS	GATE VALVES	REDUCERS	CLEAN OUTS	UTILITY BOX OR VAULT	BACKWATER VALVES	100w HPS STREETLIGHTS	150w HPS STREETLIGHTS
EXISTING:	(2210)								(12.34) BC		Ⓢ	Ⓢ = SANITARY SEWER; Ⓓ = STORM DRAIN						BWV		
PROPOSED:	2122								12.34 BC		Ⓢ	Ⓔ = ELECTRICAL; Ⓣ = TELEPHONE						BWV		

REVISIONS:

REV.	DESCRIPTION:	DATE:

SEAL: GUY M. MORRIS, CIVIL, No. 14526, EXP. 12-31-19, PROFESSIONAL ENGINEER, STATE OF NEVADA, 11-29-18

DATE: 11-29-18 DRAWN BY: NMG SUBMITTAL: CLV SUBMITTAL A/E PROJECT NO. 171208

A/E: Gensler 3883 Howard Hughes Pkwy Suite 650 Las Vegas NV 89169 Tel: 702.893.2800 Fax: 702.893.2805

CONSULTANT: Lochsa engineering 6345 South Jones Blvd. Suite 100 Las Vegas, NV 89118 Phone (702) 365-9312 Fax (702) 365-9317 www.lochsa.com

CONSTRUCTION MGMT: DATE:
PROJECT MANAGER:
COORDINATOR:
BUILDING DEPARTMENT:
CODE COMPLIANCE:
AHERA REVIEW:

ASBESTOS WORK IS:
REQUIRED ☐ NOT REQUIRED ☐

JOB# 0001621

CLARK COUNTY SCHOOL DISTRICT
CONSTRUCTION MANAGEMENT DEPARTMENT 1180 MILITARY TRIBUTE PL HENDERSON NV 89074 PHONE: 702-799-8710

PROJECT: E.W. GRIFFITH ES REPLACEMENT

DRAWING TITLE: UTILITY PLANS WATER PLAN AND PROFILE

FACILITY: 412

SHEET NO: L18-02469 C5.03 715-212
SHEET 13 OF 17

PROJ#:135203A QS:139-31-NW

11/29/2018 5:21 PM
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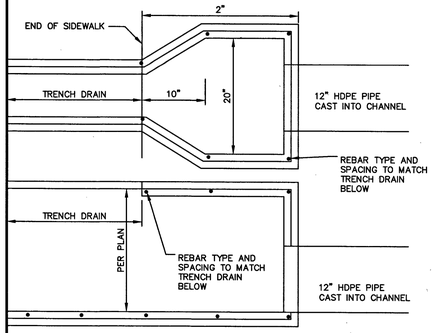
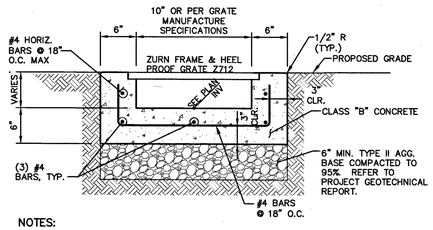


12" SD CONNECTION TO TRENCH DRAIN

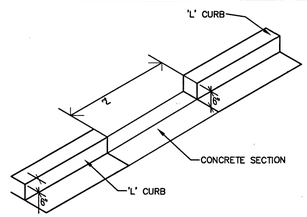


NOTES:

1. WEAKENED PLANE JOINTS REQUIRED AT 10' MAX. SPACING.
2. REFER TO PROJECT GEOTECHNICAL REPORT FOR TYPE II AGGREGATE OR SELECTED MATERIAL DEPTH AND COMPACTION, SUB-GRADE PREPARATION, MEMBRANES AND OTHER PLACEMENT RECOMMENDATIONS.

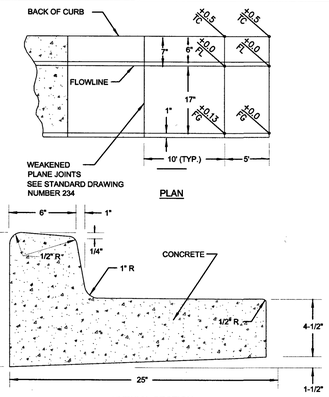
16 TRENCH DRAIN

NOT TO SCALE



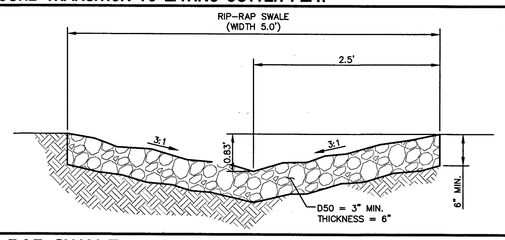
15 2' CURB OPENING

NOT TO SCALE



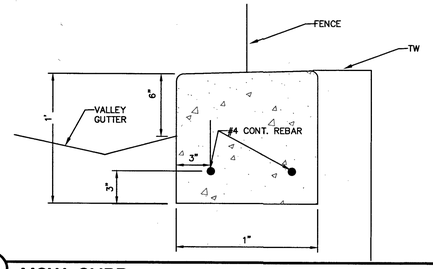
14 "L" CURB TRANSITION TO LAYING GUTTER FLAT

NOT TO SCALE



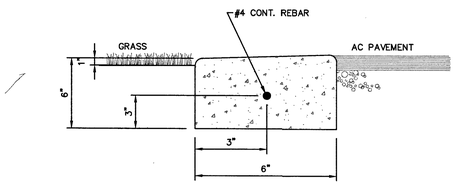
13 RIP-RAP SWALE

NOT TO SCALE



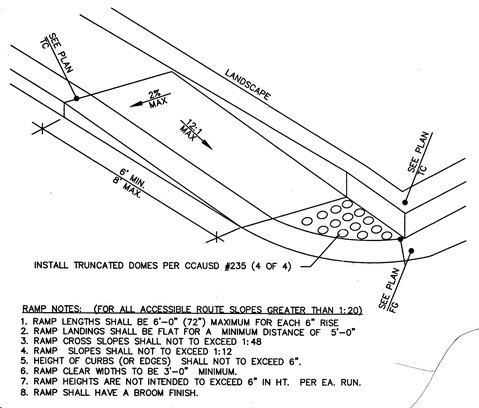
19 MOW-CURB

NOT TO SCALE



18 MOW-CURB

NOT TO SCALE

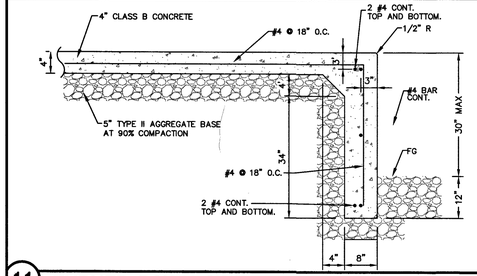


RAMP NOTES: (FOR ALL ACCESSIBLE ROUTE SLOPES GREATER THAN 1:20)

1. RAMP LENGTHS SHALL BE 6'-0" (72") MAXIMUM FOR EACH 6" RISE
2. RAMP LANDINGS SHALL BE FLAT FOR A MINIMUM DISTANCE OF 5'-0"
3. RAMP CROSS SLOPES SHALL NOT TO EXCEED 1:48
4. RAMP SLOPES SHALL NOT TO EXCEED 1:12
5. HEIGHT OF CURBS (OR EDGES) SHALL NOT TO EXCEED 6".
6. RAMP CLEAR WIDTHS TO BE 3'-0" MINIMUM.
7. RAMP HEIGHTS ARE NOT INTENDED TO EXCEED 6" IN HT. PER EA. RUN.
8. RAMP SHALL HAVE A BROOM FINISH.

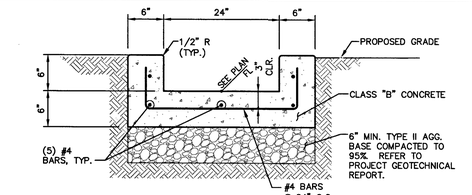
12 ON-SITE RAMP

NOT TO SCALE



11 TURNED DOWN SIDEWALK

NOT TO SCALE

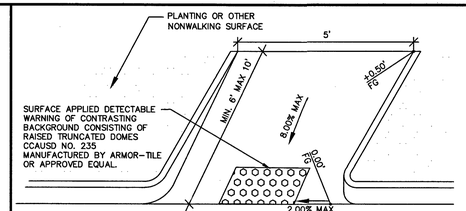


NOTES:

1. EXPANSION JOINTS REQUIRED AT ALL LOCATIONS WHERE CHANNEL MEETS CURB.
2. WEAKENED PLANE JOINTS REQUIRED AT 10' MAX. SPACING.
3. REFER TO PROJECT GEOTECHNICAL REPORT FOR TYPE II AGGREGATE OR SELECTED MATERIAL DEPTH AND COMPACTION, SUB-GRADE PREPARATION, MEMBRANES AND OTHER PLACEMENT RECOMMENDATIONS.

10 24" CONC. U-CHANNEL

NOT TO SCALE

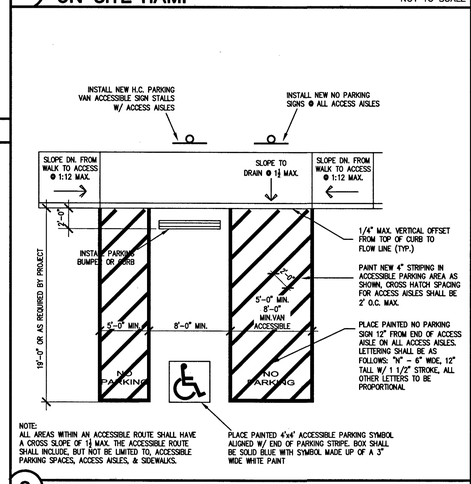


RAMP NOTES: (FOR ALL ACCESSIBLE ROUTE SLOPES GREATER THAN 1:20)

1. RAMP LENGTHS SHALL BE 6'-0" (72") MAXIMUM FOR EACH 6" RISE
2. RAMP LANDINGS SHALL BE FLAT FOR A MINIMUM DISTANCE OF 5'-0"
3. RAMP CROSS SLOPES SHALL NOT TO EXCEED 1:48
4. RAMP SLOPES SHALL NOT TO EXCEED 1:12
5. HEIGHT OF CURBS (OR EDGES) SHALL NOT TO EXCEED 6".
6. RAMP CLEAR WIDTHS TO BE 3'-0" MINIMUM.
7. RAMP HEIGHTS ARE NOT INTENDED TO EXCEED 6" IN HT. PER EA. RUN.
8. RAMP SHALL HAVE A BROOM FINISH.

9 ON-SITE RAMP

NOT TO SCALE

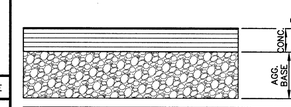


NOTE:
ALL AREAS WITHIN AN ACCESSIBLE ROUTE SHALL HAVE A CROSS SLOPE OF 1% MAX. THE ACCESSIBLE ROUTE SHALL INCLUDE, BUT NOT BE LIMITED TO, ACCESSIBLE PARKING SPACES, ACCESS AISLES, & SIDEWALKS.

PLACE PAINTED 4'x4' ACCESSIBLE PARKING SYMBOL ALIGNED W/ END OF PARKING STRIPE. BOX SHALL BE SOLID BLUE WITH SYMBOL MADE UP OF A 3" WIDE WHITE PAINT

8 ACCESSIBLE PARKING DETAIL

NOT TO SCALE



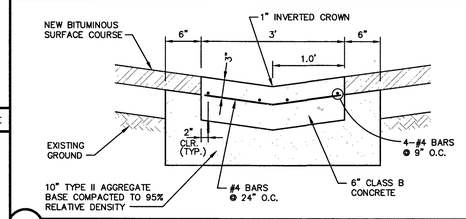
PAVEMENT SECTION AS PROPOSED IN GEOTECHNICAL REPORT PREPARED BY: NINYO AND MOORE PROJ. NO.: 304289001 DATED: 4-20-18

TYPE OF TRAFFIC	ASPHALT (inches)	TYPE II BASE COURSE (inches)
LIGHT DUTY	4	4
HANDICAP PARKING	6	6
TRASH AND HEAVY DUTY	7	6

1. REFER TO PROJECT GEOTECHNICAL REPORT FOR ALL SUB-GRADE PREPARATION AND COMPACTION.

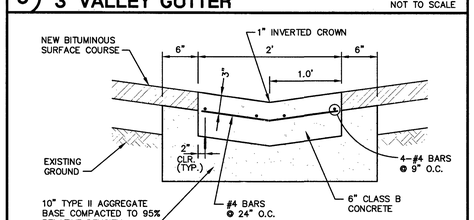
7 CONCRETE PAVEMENT SECTION

NOT TO SCALE



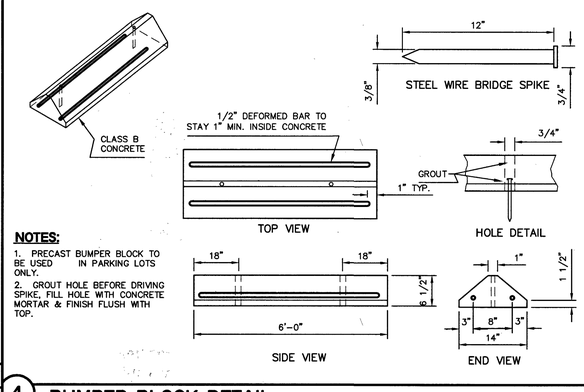
6 3' VALLEY GUTTER

NOT TO SCALE



5 2' VALLEY GUTTER

NOT TO SCALE

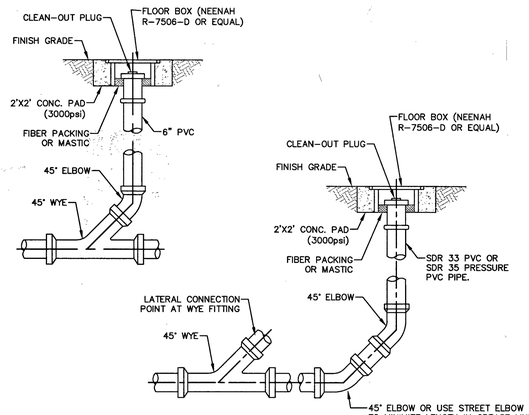


NOTES:

1. PRECAST BUMPER BLOCK TO BE USED IN PARKING LOTS ONLY.
2. GROUT HOLE BEFORE DRIVING SPIKE, FILL HOLE WITH CONCRETE MORTAR & FINISH FLUSH WITH TOP.

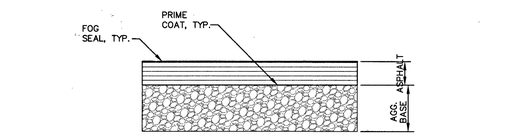
4 BUMPER BLOCK DETAIL

NOT TO SCALE



3 SEWER CLEAN-OUT

NOT TO SCALE



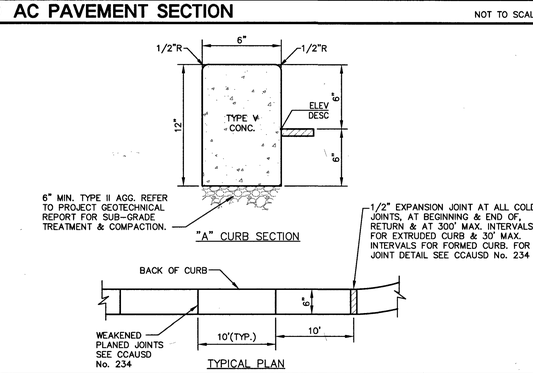
TYPE OF TRAFFIC	ASPHALT (inches)	TYPE II BASE COURSE (inches)
AUTOMOBILE AND PLAYGROUND	2.5	4
DELIVERY TRUCKS	3	5
HEAVY DUTY TRUCK	3	8

1. REFER TO PROJECT GEOTECHNICAL REPORT FOR ALL SUB-GRADE PREPARATION AND COMPACTION.

PAVEMENT SECTION AS PROPOSED IN GEOTECHNICAL REPORT PREPARED BY: NINYO AND MOORE PROJ. NO.: 304289001 DATED: 4-20-18

2 AC PAVEMENT SECTION

NOT TO SCALE



1 ON-SITE "A" TYPE CURB

NOT TO SCALE

REVISIONS:

REV.	DESCRIPTION:	DATE:

SEAL: PROFESSIONAL ENGINEER STATE OF NEVADA GUY M. MORRIS EXP. 12-31-19 CIVIL No. 14576 11-29-18

DATE: 11-29-18
DRAWN BY: NMG
SUBMITTAL: CLV SUBMITTAL
A/E PROJECT NO.: 171208

A/E: Gensler
3883 Howard Hughes Pkwy
Suite 650
Las Vegas, NV 89169
Tel: 702.893.2800
Fax: 702.893.2805

CONSULTANT: Lochsa engineering
6345 South Jones Blvd.
Suite 100
Las Vegas, NV 89118
Phone (702) 365-9312
Fax (702) 365-9317
www.lochsa.com

CONSTRUCTION MGMT:	DATE:
PROJECT MANAGER:	
COORDINATOR:	
BUILDING DEPARTMENT:	
CODE COMPLIANCE:	
AHERA REVIEW:	

ASBESTOS WORK IS: REQUIRED ☐ NOT REQUIRED ☐

JOB# 0001621

CLARK COUNTY SCHOOL DISTRICT
CONSTRUCTION MANAGEMENT DEPARTMENT 1180 MILITARY TRIBUTE PL HENDERSON NV 89074 PHONE: 702-799-8710

PROJECT: E.W. GRIFFITH ES REPLACEMENT

DRAWING TITLE: DETAIL SHEETS DETAIL SHEET 1 OF 2

FACILITY: 412

SHEET NO: L18-02469 C6.01 7/5-212

SHEET 14 OF 17

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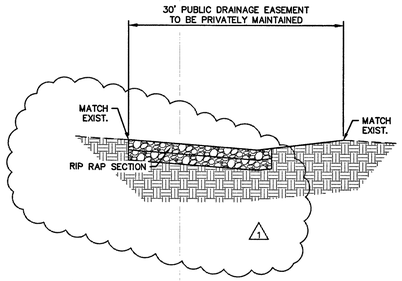
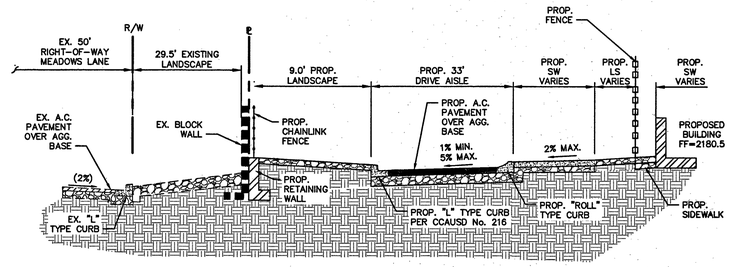
H NOT USED

E DRAINAGE EASEMENT SECTION



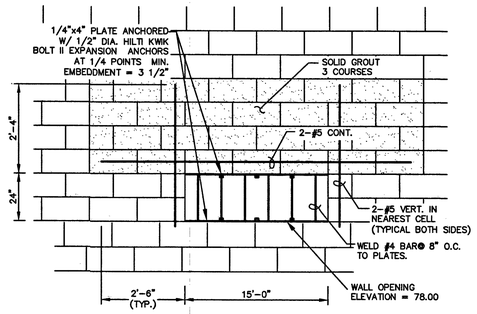
C NORTH SECTION



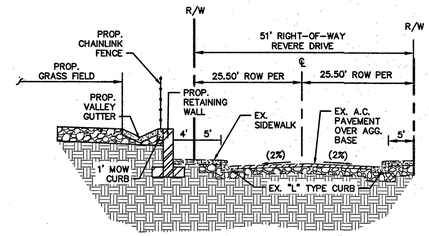
G NOT USED

1 BLOCK WALL OPENING

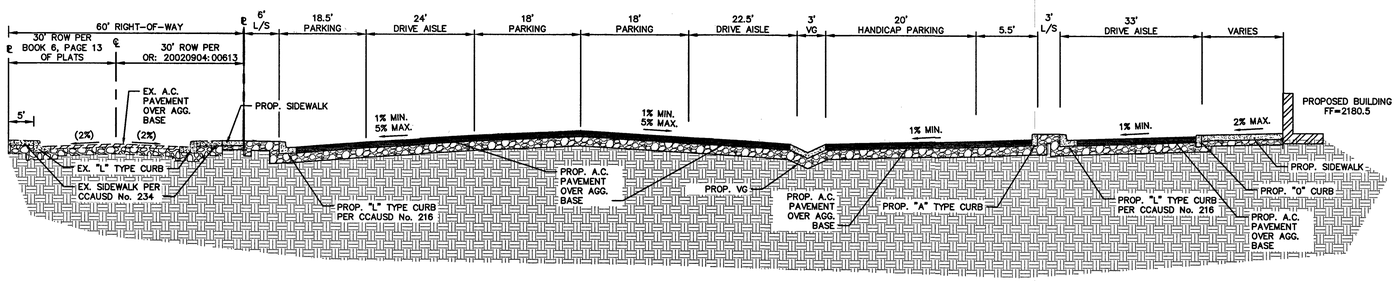
NOT TO SCALE



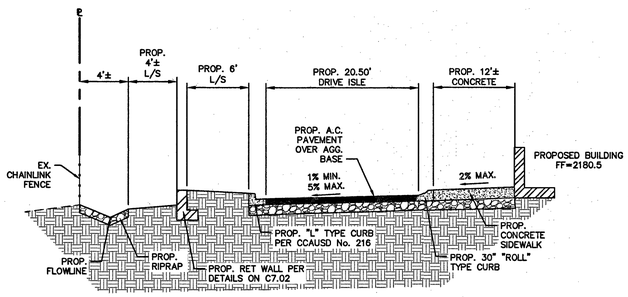
B EAST SECTION



D WEST SECTION



A SOUTH SECTION



REVISIONS:		
REV.	DESCRIPTION:	DATE:
1	REVISED CONCRETE TO RIP-RAP	4/10/19
	△ APPD BY: LM 5/15/19	

SEAL: PROFESSIONAL ENGINEER STATE OF NEVADA — GUY M. MORRIS — EXP. 12-31-19 — CIVIL — No. 14526 — 05-14-19

DATE:	DRAWN BY:	SUBMITTAL:	A/E PROJECT NO.
05/14/19	NMG	REVISION 1	171208

A/E: Gensler — 3883 Howard Hughes Pkwy, Suite 650, Las Vegas NV 89169, Tel: 702.893.2800, Fax: 702.893.2805

CONSULTANT: Lochsa engineering — 6345 South Jones Blvd., Suite 100, Las Vegas, NV 89118, Phone: (702) 365-6572, Fax: (702) 365-6577, www.lochsa.com

CONSTRUCTION MGMT:	DATE:
PROJECT MANAGER:	
COORDINATOR:	
BUILDING DEPARTMENT:	
CODE COMPLIANCE:	
AHERA REVIEW:	

ASBESTOS WORK IS: REQUIRED ☐ NOT REQUIRED ☐

JOB# 0001621

CLARK COUNTY SCHOOL DISTRICT
CONSTRUCTION MANAGEMENT DEPARTMENT 1180 MILITARY TRIBUTE PL. HENDERSON NV 89074 PHONE: 702-799-8710

PROJECT: E.W. GRIFFITH ES REPLACEMENT

DRAWING TITLE: DETAIL SHEETS DETAIL SHEET 2 OF 2

FACILITY: 412

SHEET NO: L18-02469 C6.02 7/5-212

SHEET 15 OF 17

5/14/2019 11:39 AM
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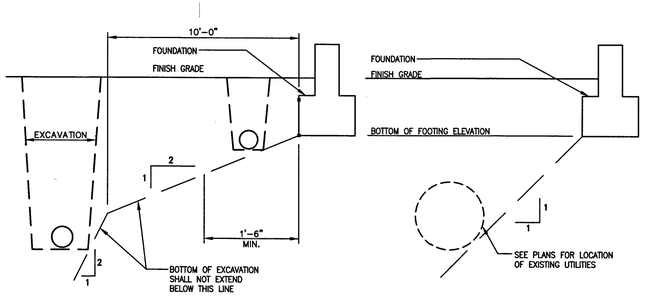
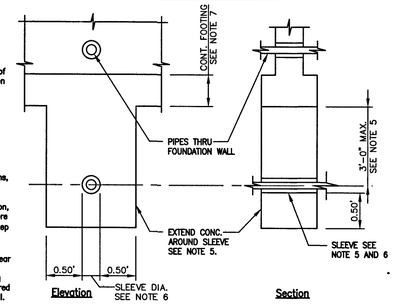


FOUNDATION PARALLEL TO EXCAVATION

EXISTING UTILITY PARALLEL TO FOUNDATION

NOTES:
1. Contractor shall locate bottom of excavation to avoid surcharge on utilities and other foundations.
2. Contractor shall coordinate all excavations with foundation requirements.
3. Step foundation as required per detail 2/–.
4. Contractor shall adhere to the recommendations in the Geotechnical Report and the General Notes, for all excavations, backfill requirements etc.
5. Pipes passing through footings: Less than 3'–0" below foundation, provide sleeve and concrete. More than 3'–0" below foundation, step foundation per detail 2/– to maintain 3'–0" Maximum.
6. Sleeves shall be minimum 1" clear all around pipes, conduit etc.
7. For pipes etc. within the footing thickness, step footing as required to pass pipes through stem wall.



UTILITY (PIPES)

1 FOUNDATION ADJACENT TO EXCAVATIONS AND UTILITIES

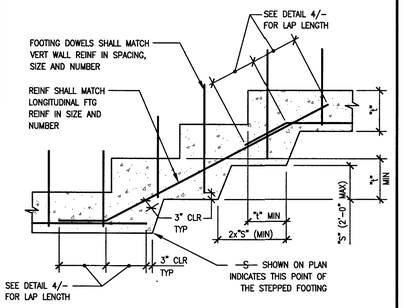
NOT TO SCALE

BAR SIZE	LAP CLASS	f'c = 4500 psi TOP BARS CASE 1	TOP BARS CASE 2	OTHER BARS CASE 1	OTHER BARS CASE 2
#3	A	18	27	14	21
	B	23	34	18	27
#4	A	24	35	18	27
	B	31	46	24	35
#5	A	29	44	23	34
	B	38	57	29	44
#6	A	35	53	27	41
	B	46	68	35	53
#7	A	51	77	40	59
	B	67	100	51	77
#8	A	59	88	45	68
	B	76	114	59	88
#9	A	66	99	51	76
	B	85	128	66	99
#10	A	73	109	56	84
	B	95	142	73	109
#11	A	80	120	62	93
	B	104	156	80	120

NOTES
1. TABLE FOR USE WITH NORMAL WEIGHT HARDROCK CONCRETE AND GRADE 60 UNCOATED REINFORCING BARS. FOR LIGHTWEIGHT AGGREGATE USE 1.3Ω
2. CLASS A – HALF OR LESS OF THE BARS ARE SPLICED WITHIN A REQUIRED LAP LENGTH.
   CLASS B – MORE THAN HALF OF THE BARS ARE SPLICED WITHIN A REQUIRED LAP LENGTH.
3. TOP BARS ARE HORIZONTAL BARS WITH 12" OR MORE OF CONCRETE CAST IN THE MEMBER BELOW THE BAR.
4. FOR BARS ENCLOSED IN STANDARD COLUMN SPIRALS USE 0.75Ω OR 12" MIN.
5. LAP SPLICES OF INDIVIDUAL BARS WITHIN A BUNDLE SHALL BE 1.2Ω FOR THAT BAR IN A 3–BAR BUNDLE AND 1.33 FOR A 4–BAR BUNDLE. ENTIRE BUNDLES SHALL NOT BE LAP SPLICED AT THE SAME LOCATION. SPLICES FOR INDIVIDUAL BARS WITHIN A BUNDLE SHALL BE STAGGERED SUCH THAT THEY DO NOT OVERLAP.Ω
6. Ω – BASIC LAP LENGTH, SHOWN AT LEFT.
7. CASE SELECTION
   –FOR FOUNDATION REINFORCEMENT USE CASE 1 UNO.
   –FOR COLUMN REINF. AND DOWELS USE CASE 1 UNO.
   –FOR BEAM REINF. USE CASE 1 UNO
   –FOR STRUCTURAL SLAB REINF. USE CASE 2 UNO.
   –FOR SLAB ON GRADE REINF. USE CASE 1 UNO.
   –FOR WALL REINF. AND DOWELS USE CASE 1 (EXCEPT AS NOTED BELOW) UNO.
   –FOR WALLS WITH A SINGLE MAT OF STEEL CENTERED IN THE WALL, USE CASE 1 FOR WALL REINFORCEMENT AND DOWELS UNO.
   –FOR CHORD STEEL REINFORCEMENT USE CASE 2 UNO.

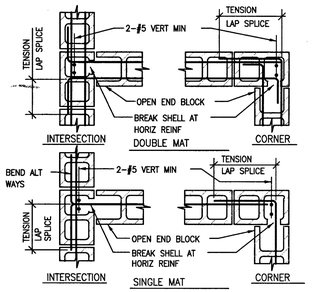
2 STEPPED FOOTING

NOT TO SCALE



3 CMU WALL INTERSECTIONS

NOT TO SCALE



NOTE: TENSION LAP SPLICE=48 BAR DIA

NOTE: APPROVAL OF L–18–00346 DOES NOT CONSTITUTE APPROVAL OF STRUCTURAL DESIGN

4 TENSION LAP SPLICE

IN CONCRETE TENSION LAP SPLICE LENGTHS, Ω (IN INCHES) FOR GRADE 60 UNCOATED BARS

NOT TO SCALE

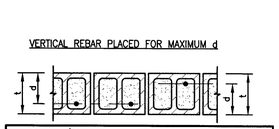
Tension Development and Lap Splice Length (for Masonry only)

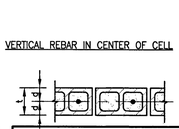
CMU Thickness	Bar Size	Masonry Design Strength f'm = 1500 psi Placement of Bar Center	Edge	f'm = 2000 psi Center	Edge	f'm = 2500 psi Center	Edge	f'm = 3000 psi Center	Edge	f'm = 3500 psi Center	Edge	f'm = 4000 psi Center	Edge
8"	#3	19	19	17	17	15	15	15	15	15	15	15	15
	#4	26	30	22	26	20	23	18	21	17	20	16	19
	#5	32	48	28	42	25	37	23	34	21	32	20	30
	#6	58	100	50	86	45	77	41	71	38	65	36	61
	#7	80	124	70	107	62	96	57	88	53	81	49	76
	#8	114	152	99	131	89	117	81	107	75	99	70	93
	#9	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP
12"	#3	12	13	12	12	12	12	12	12	12	12	12	12
	#4	12	24	12	21	12	18	12	17	12	16	12	15
	#5	14	38	12	33	12	30	12	27	12	25	12	23
	#6	27	74	23	64	21	57	19	52	18	48	17	45
	#7	37	92	32	79	29	71	26	65	24	60	23	56
	#8	57	121	49	105	44	94	40	85	37	79	35	74
	#9	73	136	63	118	56	105	51	96	48	89	45	83

NOTES:
1. All lengths are in inches.
2. For bar placement, edge distance (d Dim.) see detail 5/–.
3. Where 2 bars per cell occur they shall be placed per edge condition see note 2.
4. 6" CMU 2 bars per cell is not permitted.
   8" CMU 2 bars per cell up to #5 are permitted.
   10" CMU 2 bars per cell up to #7 are permitted.
5. NP indicates Not Permitted.
6. #10 and #11 bars where shown on plans or details require a mechanical splice.

5 PLAN DETAIL FOR REBAR PLACEMENT IN MASONRY

NOT TO SCALE

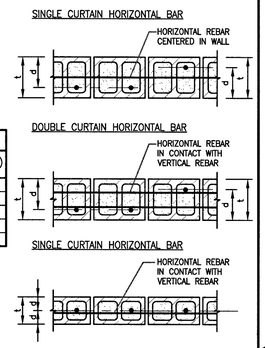




NOMINAL THICKNESS	ACTUAL THICKNESS (t)	d (inches) #3–#6	#7	#8	#9
6" CMU	5 5/8"	3.25	NP	NP	NP
8" CMU	7 5/8"	5.25	5	4.625	NP
10" CMU	9 5/8"	7.25	7	6.625	6.25
12" CMU	11 5/8"	9.25	9	8.625	8.25
16" CMU	15 5/8"	13.25	13	12.625	12.25

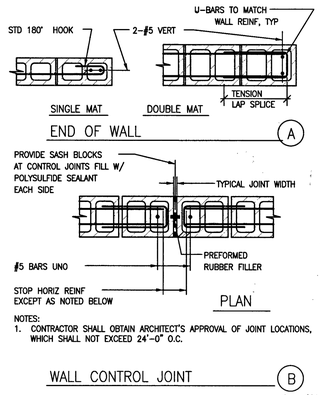
NOMINAL THICKNESS	ACTUAL THICKNESS (t)	d (inches)
6" CMU	5 5/8"	2.8
8" CMU	7 5/8"	3.8
10" CMU	9 5/8"	4.8
12" CMU	11 5/8"	5.8
16" CMU	15 5/8"	7.8

NOTE:
1. Where vertical reinforcing bars occur in a cell, bars shall be secured in place by a bar positioner at the top and bottom, and at the intervals not exceeding 200 diameters.



6 MASONRY WALL DETAILS

NOT TO SCALE

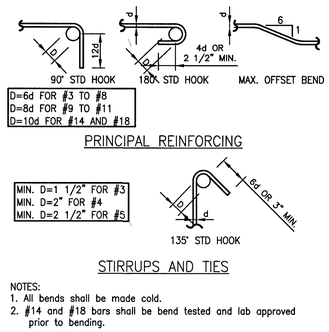


NOTES:
1. CONTRACTOR SHALL OBTAIN ARCHITECT'S APPROVAL OF JOINT LOCATIONS, WHICH SHALL NOT EXCEED 24'–0" O.C.

WALL CONTROL JOINT B

7 BAR BENDS

NOT TO SCALE



PRINCIPAL REINFORCING

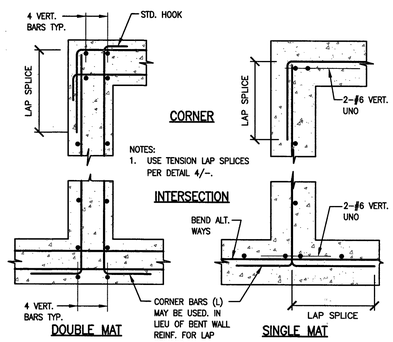
MIN. D=1 1/2" FOR #3
MIN. D=2" FOR #4
MIN. D=2 1/2" FOR #5

STIRRUPS AND TIES

NOTES:
1. All bends shall be made cold.
2. #14 and #18 bars shall be bend tested and lab approved prior to bending.

8 TENSION DEVELOPMENT AND LAP SPLICE LENGTH (FOR MASONRY ONLY)

NOT TO SCALE



9 CONCRETE WALL INTERSECTIONS

NOT TO SCALE

General

1. The Contractor shall verify all dimensions prior to starting construction. The Architect shall be notified of any discrepancies or inconsistencies.
2. Structure noted in the drawings as existing shall be field verified by the Contractor and any discrepancies noted shall be reported to the Architect/Civil Engineer.
3. Do not scale the drawings.
4. Notes and details on the drawings shall take precedence over these general notes, typical details, and the project specifications.
5. Typical details and schedules indicated may not be specifically referenced on the drawings. The Contractor is responsible to determine where each typical detail or schedule applies. If locations are found where no typical detail, typical schedule, or specific detail applies, notify the Architect/Civil Engineer.
6. All work shall conform to the minimum standards of following codes:
   The 2012 edition of the International Building Code (IBC), including Southern Nevada amendments and other regulating agencies which have authority over any portion of the work, and those codes and standard listed in these notes and in the project specifications.
7. The contract Civil drawings and specifications represent the finished structure. They do not indicate the method of construction. Contractor to provide construction means, methods, techniques, sequences and procedures as required. Contractor to provide adequate excavation procedures, shoring, bracing and erection procedures complying with national, state and local safety ordinances. The Contractor shall provide all measures necessary to protect the structure during construction. Such measures shall include, but not be limited to: bracing and shoring for loads due to hydrostatic, earth, wind or seismic forces, construction equipment, etc.
8. Observation visits (site visits) by representatives of Architect/Civil Engineer do not include inspection of construction means and methods. Site visits during construction are not continuous and detailed inspection services which are to be performed by others. Observations are performed solely for the purpose of determining if the Contractor understands design intent shown in the contract drawings. Observations do not guarantee Contractor's performance and are not to be construed as supervision or verification of construction.
9. Notify the Civil Engineer when drawings by others show openings, pockets, etc., not shown on the structural drawings, but which are located in the structural members.
10. All specifications and codes noted shall be the latest approved editions and revisions by the governmental agency having jurisdiction over this project.
11. Contractor shall investigate the site during clearing and earth work operations for filled excavations or buried structures such as cesspools, cisterns, foundations, utilities, etc. If any such structures are found, the Civil Engineer shall be notified immediately.
12. IBC Lateral Loads

Wind Design Data:		
Basic Wind Speed	Vult =	115 mph
	Vasd =	90 mph
Risk Category	II	
Exposure	C	

Earthquake Design Data:			
Risk Category	II		
Seismic Importance Factor	Ie = 1.00		
Mapped Spectral Response Acceleration Parameters			
Ss	0.467g	S1	0.162g
Site Class	C		
Design Spectral Response Acceleration Parameters			
Sds	0.373g	Sd1	0.177g
Seismic Design Category	C		

13. ACI 318–11 Table 4.3.1 Sulfate Exposure (See General Notes – Concrete Item #3 for concrete water cement ratio limits):
    S1
    (Moderate)

Quality Assurance and Special Inspections

Quality Assurance for General Construction

Testing Laboratory: Retained by owner and satisfactory to Architect/Civil Engineer and governing code authority to perform required tests and inspections of this contract and applicable code.

Material Certification: Submit laboratory test reports certifying materials are of identifiable tested stock to owner, testing laboratory, Architect/Civil Engineer and, upon request, to governing code authority. If laboratory test reports cannot be made available, testing laboratory will perform tests as directed by Architect/Civil Engineer. Contractor shall pay testing laboratory for costs related to tests and inspections of unidentifiable materials or materials furnished without laboratory test reports, materials found deficient after initial tests and inspections, or materials replacing deficient materials.

Special inspection in accordance with the requirements of IBC section 1704 and 1705 shall be required for the following elements of general construction.

1. Concrete.
   Testing laboratory will review concrete mix design data and will perform the following concrete tests at frequency indicated in ACI section 5.6:
   (a) Slump tests in compliance with ASTM C143.
   (b) Prepare four test cylinders for compressive strength testing in compliance with ASTM C39, ACI 318 and ACI section 5.6. Test one cylinder at 7 days, two cylinders at 28 days and retain remaining cylinder for tests until completion of project. Determine concrete compressive strength at 28 days based on average of two cylinders tested.
   (c) Entrained air content in compliance with ASTM C231 for air entrained concrete.
2. Bolts and embedded plates installed in concrete.
3. Reinforcing and mechanical reinforcing bar splices:
   (a) During placement.
4. Structural Masonry
5. Excavation and back–filling.

Foundation

1. The design of the foundation system is based on the geotechnical report (and any addenda) prepared by the following company:

Company:	NINYO & MOORE
Report no:	PROJECT NO. 304289001
Dated:	APRIL 20, 2018

   Copies are available for review at the Architect's office and Contractor shall have a copy at the jobsite.
2. The foundation system is designed based on the following:

Allowable Soil Bearing Pressure Continuous Footings Spread Footings	2400 psf *
Equivalent Fluid Pressure Unconstrained	37 pcf
Passive Pressure	300 pcf
Friction Coefficient	0.620

   A 1/3 increase is allowed for seismic or wind loading where asterisk (*) is indicated.
3. The Contractor shall provide for proper dewatering of excavations from surface water, ground water, seepage, etc.
4. The Contractor shall provide for the installation and design of all cribbing, sheathing and shoring required to safely and adequately retain the earth banks and support any existing structures in accordance with all national, state and local safety ordinances.
5. All abandoned utilities, footings, etc., that interfere with the new construction shall be removed. Notify the Structural Engineer should any foundations for existing structures be encountered that are not shown on the structural drawings.
6. Footings shall be placed and estimated according to depths shown on the drawings. Excavations for footings shall be approved by the Geotechnical Engineer prior to placing the concrete and reinforcing. The Contractor shall notify the Geotechnical Engineer when the excavations are ready for inspection. The Geotechnical Engineer shall submit a letter of compliance to the Owner. Should soil encountered at these depths not be approved by the Geotechnical Engineer, footing elevations or footing designs will be altered by change order.
7. All excavations shall be properly backfilled. Footing backfill and utility trench backfill within the building perimeter shall be mechanically compacted in layers, to the approval of the Geotechnical Engineer. See geotechnical report for requirements. Flooding will not be permitted.
8. Sub–base below, slabs on grade shall be supported on natural grade or structural fill as directed in the geotechnical report. See typical details and geotechnical report for vapor barrier and sub–base requirements.

Masonry

1. The masonry units shall conform to ASTM C90 grade N–1 and ASTM Standard C90–09.
2. Mortar and grout shall comply with the provisions of Section 2103 of the IBC
3. Mortar mix shall conform to requirements for ACI 530.1–11 Table SC–1, Type S, and project specifications.
4. Grout shall be coarse grout and shall comply with ACI 530.1–11 and ASTM C476–10. Use sufficient water for grout to flow into all joints of the masonry without segregation.
5. Cement – see notes under 'Concrete' for requirements and type of cement.
6. The design strength f'm shall be 1500 psi unless noted otherwise in the drawings. The f'm shall be verified by the prism method (IBC Section 2105.3).
   The minimum required 28–day compressive strengths for grout, mortar, and block shall be as follows:

Masonry Design Strength						
f'm =	1500 psi	2000 psi	2500 psi	3000 psi	3500 psi	4000 psi
Grout	2000 psi	2500 psi	3125 psi	3750 psi	4375 psi	5000 psi
Mortar	1800 psi	1800 psi	2500 psi	2500 psi	2500 psi	2500 psi
	Type S	Type S	Type M	Type M	Type M	Type M
Block(*)	2000 psi	2500 psi	3125 psi	3750 psi	4375 psi	5000 psi

   * Minimum compressive strength at 28–days on the net area.
   Note: These strengths are minimum requirements only. If greater strengths are required to reach the required f'm for the combined system, these greater strengths shall be used.
7. Mortar and grout mix designs shall be submitted to the Structural Engineer for review. All mix designs shall be designed by a qualified testing laboratory and be wet stamped by a Civil Engineer licensed in the State of Nevada.
8. Testing data by a qualified testing laboratory for the masonry block shall be submitted to the Structural Engineer for review.
9. All masonry shall be solid grouted unless noted otherwise on the drawings.
10. Refer to architectural drawings for surface and height of units, laying pattern and joint type.
11. Grout lift provisions shall be in accordance with ACI 530.1–11 Masonry Standards S–66 Section 3.5.
12. Reinforcing bars shall be ASTM A615, Grade 60, unless noted otherwise. See notes under 'Reinforcing Steel' for additional requirements.
13. Placement of reinforcing bars shall conform to ACI 530.1–11 Masonry standards S–58 Section 3.4. A minimum of 1/2 inch grout between the main reinforcing and masonry units shall be provided.
14. Minimum dimensions of grout spaces and cells shall be in accordance with ACI 530.1–11, S–66, Table 7. All cells shall be in vertical alignment and footing dowels shall align with cells containing vertical reinforcing steel.
15. For reinforcing bar tension development and lap splice lengths in CMU see typical detail 8/–. For reinforcing bar placement in CMU cells see typical detail 5/–.
16. Coring openings in grouted masonry is not permitted.

Reinforcing Steel (for Concrete and Masonry)

1. All reinforcing steel shall be detailed and placed in accordance with the 'Building Code Requirements for Reinforced Concrete' (ACI 318–11) and the 'Manual of Standard Practice for Reinforced Concrete Construction' by CRSI and WCRSI as modified by the project drawings and specifications.
2. Deformed reinforcing bars shall conform to the requirements of ASTM A615 grade 60 and ASTM A706 grade 60 for deformed weldable bars.
3. Welding of reinforcing is permitted only where shown on the drawings or when approved by the structural engineer. Welding of reinforcing bars shall be with low hydrogen electrodes in accordance with the 'Recommended Practices for Welding Reinforcing Steel, Etc.', American Welding Society, AWS D1.4 and IBC section 1705.2.2.1.2 all reinforcing to be welded shall conform to ASTM A706 grade 60 u.n.o.
4. All reinforcing bar bends shall be made cold.
5. Lap splices shall be made only where shown on the structural drawings.
6. Reinforcing dowels between footings and walls shall be the same number, size, spacing and grade as the specified vertical reinforcing, u.n.o.
7. All reinforcing bars shall be marked so their identification can be made when the final in–place inspection occurs.

Concrete

1. All aspects of work pertaining to the concrete construction shall be in accordance with ACI 318–11, 'Building Code Requirements for Structural Concrete' and the latest edition of 'Specifications for Structural Concrete for Buildings', ACI 301, with modifications as noted on the project drawings and\or specifications.
2. Concrete mix designs shall be submitted to the Structural Engineer for review. All mix designs shall be designed by a qualified testing laboratory and shall be wet stamped by a Civil Engineer licensed in the State of Nevada. Base design mix on field experience or trial mixtures as stipulated in IBC Section 1905.3
3. Portland cement shall conform to ASTM C150 Type V where the concrete is in contact with soil. Concrete that will be exposed to sulfate – containing solutions shall comply with IBC Section 1904.3. Severe (S2) and Very Severe (S3) sulfate exposures as identified in the project geotechnical report, the water cement ratio shall not exceed 0.45 and shall not exceed 0.50 for Moderate (S1) sulfate exposure. Type II cement shall be used at all other locations in the structure.
4. Fly ash may be used in concrete mixes. The fly ash shall conform to ASTM C618 Class F. The loss of ignition shall be limited to 2%. The addition rate for fly ash shall be limited to 15% of the cement weight. The contractor shall submit all certificates showing the fly ash is in accordance with the above criteria.
5. Do not use concrete or grout containing chlorides.
6. All concrete exposed to freeze – thaw cycles shall contain 6% +/– 1% of entrained air.
7. Hard rock concrete – aggregate shall conform to all requirements and tests of ASTM C33 and project specifications. Exceptions may be used only with approval of the Structural Engineer. Provide concrete mix design with proven shrinkage characteristics of less than 0.0005 inches/inch.
8. Structural concrete 28–day strengths & types are as follows:

Location of Concrete	Strength, psi	Type
Footings	4,500	Hard Rock

9. The modulus of elasticity of concrete, shall be tested in accordance with ASTM C469 for framed concrete slabs and beams and shall be at least the value given by the equations in section 8.5.1 of ACI 318–11 for the specified concrete 28–day strength.
10. Concrete mixing operations, etc., shall be in accordance with ASTM C94.
11. Concrete placement shall be in accordance with ACI standard 304 and project specifications. Provide keys in construction joints unless detailed otherwise. Thoroughly clean, remove laitance and thoroughly wet and remove standing water in construction joints before placing new concrete. At vertical joints, slush with a coat of neat cement before placing new concrete.
12. Roughen concrete surface to a full amplitude of 1/4 inch where masonry walls intersect concrete or where new concrete interfaces with existing concrete.
13. Clear coverage of concrete over reinforcing bars shall be as follows:

Location of Concrete	Minimum Concrete Cover
Concrete cast against and permanently exposed to earth	3"
Concrete exposed to earth or weather: #6 through #18 bar	2"
#5 bar and smaller	1 1/2"
Concrete not exposed to weather or in contact with ground, UNO:	
Slabs, walls, joists: #14 and #18 bar.	1 1/2"
#11 bar and smaller.	3/4"
Beams, columns: Primary reinforcing, ties stirrups, spirals.	1 1/2"

14. Prior to concrete placement, all reinforcing bars, anchor bolts and other concrete inserts shall be well secured in position.
15. Maintain concrete above 50 degrees Fahrenheit and in a moist condition for a minimum of 7 days after placement unless otherwise accepted by Architect/Structural Engineer.

REVISIONS:

REV.	DESCRIPTION:	DATE:

SEAL: PROFESSIONAL ENGINEER STATE OF NEVADA GUY M. MORRIS EXP. 12–31–19 CIVIL No. 14576 11–29–18

DATE: 11–29–18
DRAWN BY: NMG
SUBMITTAL: CLV SUBMITTAL
A/E PROJECT NO: 171208

A/E: Gensler
3883 Howard Hughes Pkwy
Suite 650
Las Vegas NV 89169
Tel: 702.893.2800
Fax: 702.893.2805

CONSULTANT: Lochsa engineering
Phone (702) 365-9312
Fax (702) 365-9317
www.lochsa.com
6345 South Jones Blvd.
Suite 100
Las Vegas, NV 89118

CONSTRUCTION MGMT: DATE:
PROJECT MANAGER:
COORDINATOR:

BUILDING DEPARTMENT:
CODE COMPLIANCE:
AHERA REVIEW:

ASBESTOS WORK IS:
REQUIRED ☐ NOT REQUIRED ☐

JOB# 0001621

CLARK COUNTY SCHOOL DISTRICT
CONSTRUCTION MANAGEMENT DEPARTMENT 1180 MILITARY TRIBUTE PL HENDERSON NV 89074 PHONE: 702–799–8710

PROJECT: E.W. GRIFFITH ES REPLACEMENT
DRAWING TITLE: DETAIL SHEETS STRUCTURAL DETAILS
FACILITY: 412

SHEET NO:
L18–02469 C7.01 7/5–2/2
SHEET 16 OF 17

11/29/2018 5:28 PM
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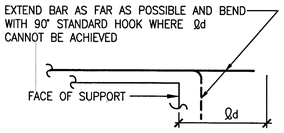
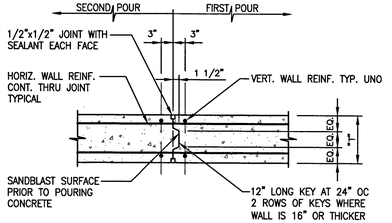
BAR SIZE	f'c = 4500 psi			
	TOP BARS		OTHER BARS	
	CASE 1	CASE 2	CASE 1	CASE 2
#3	18	27	14	21
#4	24	35	18	27
#5	29	44	23	34
#6	35	53	27	41
#7	51	77	40	59
#8	59	88	45	68
#9	66	99	51	76
#10	73	109	56	84
#11	80	120	62	93
#14	99	148	76	114
#18	132	197	101	152

NOTES:
1. Table for use with normal weight hardrock concrete and grade 60 uncoated reinforcing bars. For lightweight aggregate use 1.3ℓd
2. Top bars are horizontal bars with 12" or more of concrete cast in the member below the bar.
3. For bars enclosed in standard column spirals, use 0.75ℓd or 12" min.
4. Development length of individual bars within a bundle shall be 1.2 ℓd for that bar in a 3-bar bundle and 1.33 ℓd for a 4-bar bundle.
5. Compression development length (only where indicated on drawings) For grade 60 bars use 22 bar diameters.
6. Case Selection
   - –For foundation reinforcement use Case 1 uno.
   - –For column reinforcement and dowels use case 1 uno.
   - –For beam reinforcement use Case 1 uno.
   - –For structural slab reinforcement use Case 2 uno.
   - –For slab on grade reinforcement use Case 1 uno.
   - –For wall reinforcement and dowels use Case 1 (Except as noted below) uno.
   - –For walls with a single mat of steel centered in the wall, use Case 1 for wall reinforcement and dowels uno.
   - –For chord steel reinforcement use Case 2 uno.



7 TENSION DEVELOPMENT LENGTH (CONCRETE ONLY)

NOT TO SCALE

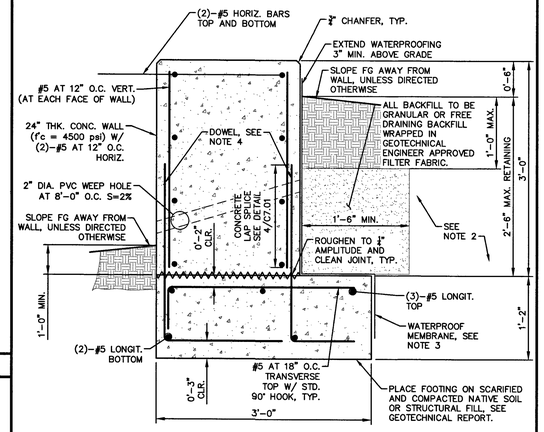


PLAN VIEW OF CONSTRUCTION JOINT

NOTES:
1. Provide construction joints at 40'–0" OC maximum.
2. Location of joints shall be approved by the architect prior to constructing forms or placing concrete.

8 VERTICAL WALL CONSTRUCTION JOINT

NOT TO SCALE

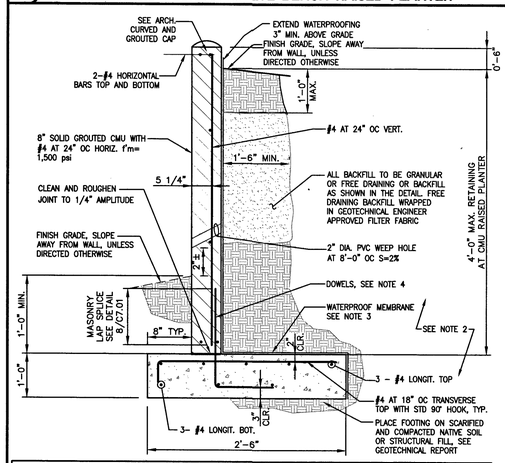


WALL NOTES

NOTES:
1. See detail 8/C7.02 for concrete wall control joint.
2. Structural fill, see geotechnical report for requirements.
3. Apply ECOBASE II or approved equivalent for base protection and protect with Delta MS drain fabric or approved equivalent. Extend weep holes through Delta MS drain fabric into free draining backfill. Seal all crack control/expansion joints with a backer rod and flexible joint sealant on front and back of wall.
4. Provide dowels to match size and spacing of vertical wall reinf. for lap length in concrete see detail 4/C7.01.

5 RETAINING WALL AT CONCRETE BENCH RAISED PLANTER

NOT TO SCALE



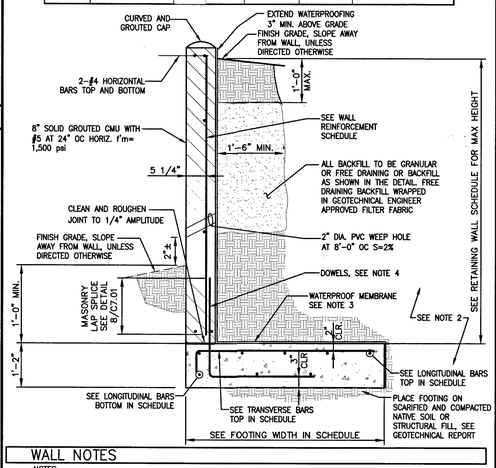
WALL NOTES

NOTES:
1. See detail 6/C7.01 for wall control joint.
2. Structural fill, see geotechnical report for requirements.
3. Apply ECOBASE II or approved equivalent for base protection and protect with Delta MS drain fabric or approved equivalent. Extend weep holes through Delta MS drain fabric into free draining backfill. Seal all crack control/expansion joints with a backer rod and flexible joint sealant on front and back of wall.
4. Provide dowels to match size and spacing of vertical wall reinf. for lap length in CMU see detail 8/C7.01.

6 RETAINING WALL ALONG RAISED PLANTER

NOT TO SCALE

Retaining Wall Schedule (See Detail 4/C7.02)					
Retaining Wall Max Height	Wall Reinforcement	Width of Footing	Footing Reinforcement		
			Longitudinal Bars Top	Longitudinal Bars Bottom	Transverse Bars Top With STD 90° Hook, Typ.
7'-0"	#5 at 16" o.c. Vert and #5 at 24" o.c. Horiz	5'-0"	6-#5	3-#5	#5 at 12" O.C.
5'-0"	#5 at 24" o.c. Vert and #5 at 24" o.c. Horiz	4'-0"	5-#5	3-#5	#5 at 18" O.C.
3'-0"	#5 at 32" o.c. Vert and #5 at 24" o.c. Horiz	2'-0"	3-#5	3-#5	#5 at 18" O.C.



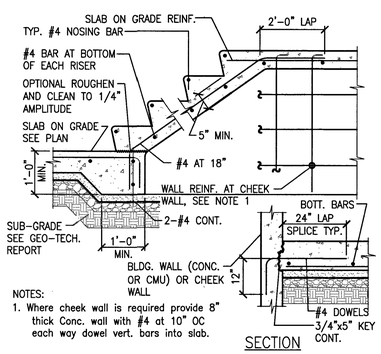
WALL NOTES

NOTES:
1. See detail 6/C7.01 for wall control joint.
2. Structural fill, see geotechnical report for requirements.
3. Apply ECOBASE II or approved equivalent for base protection and protect with Delta MS drain fabric or approved equivalent. Extend weep holes through Delta MS drain fabric into free draining backfill. Seal all crack control/expansion joints with a backer rod and flexible joint sealant on front and back of wall.
4. Provide dowels to match size and spacing of vertical wall reinf. for lap length in CMU see detail 8/C7.01.

4 RETAINING WALL ONSITE "L" FOOTING

NOT TO SCALE

NOTE: APPROVAL OF L–18–00346 DOES NOT CONSTITUTE APPROVAL OF STRUCTURAL DESIGN

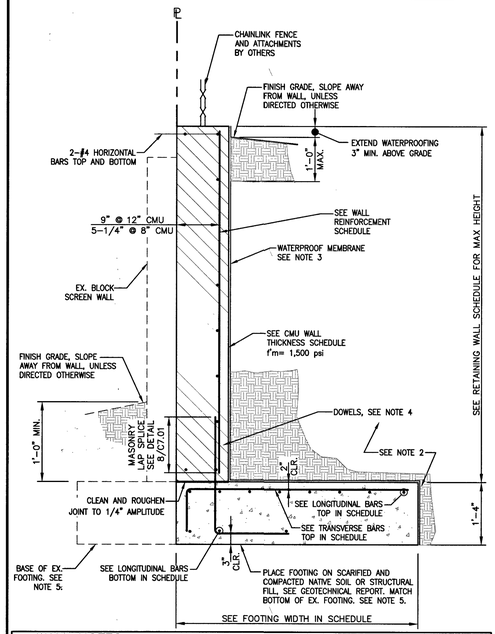


NOTES:
1. Where cheek wall is required provide 8" thick Conc. wall with #4 at 10" OC each way dowel vert. bars into slab.

3 CONCRETE STAIR ON GRADE

NOT TO SCALE

Retaining Wall Schedule (See Detail 2/C7.02)					
CMU Wall Thickness	Retaining Wall Max Height	Wall Reinforcement	Width of Footing	Footing Reinforcement	
				Longitudinal Bars Top	Longitudinal Bars Bottom	Transverse Bars Top With STD 90° Hook, Typ.
12"	6'-6"	#6 at 16" o.c. Vert and #5 at 24" o.c. Horiz	7'-3"	8-#5	3-#5	#5 at 15" O.C.
8"	4'-6"	#6 at 16" o.c. Vert and #5 at 24" o.c. Horiz	5'-0"	6-#5	3-#5	#5 at 18" O.C.
8"	3'-0"	#6 at 16" o.c. Vert and #5 at 24" o.c. Horiz	2'-9"	3-#5	3-#5	#5 at 18" O.C.



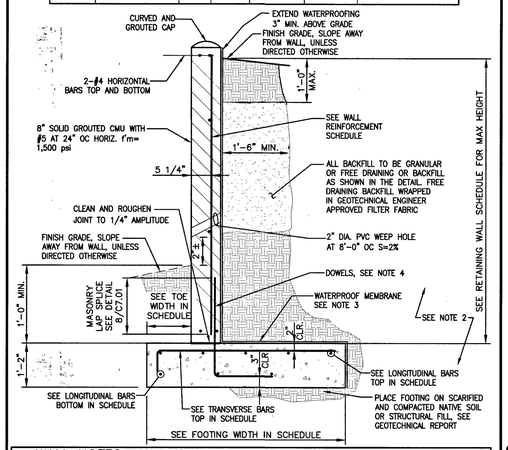
WALL NOTES

NOTES:
1. See detail 6/C7.01 for wall control joint.
2. Structural fill, see geotechnical report for requirements.
3. Apply ECOBASE II or approved equivalent for base protection and protect with Delta MS drain fabric or approved equivalent. Extend weep holes through Delta MS drain fabric into free draining backfill. Seal all crack control/expansion joints with a backer rod and flexible joint sealant on front and back of wall.
4. Provide dowels to match size and spacing of vertical wall reinf. for lap length in CMU see detail 8/C7.01.
5. Contractor to field verify base of existing screen wall footing. Contractor to contact civil engineer if depth causes retaining height to exceed max design.

2 RETAINING WALL ON PROPERTY LINE

NOT TO SCALE

Retaining Wall Schedule (See Detail 1/C7.02)						
Retaining Wall Max Height	Wall Reinforcement	Toe Width	Width of Footing	Footing Reinforcement		
				Longitudinal Bars Top	Longitudinal Bars Bottom	Transverse Bars Top With STD 90° Hook, Typ.
7'-0"	#5 at 16" o.c. Vert and #5 at 24" o.c. Horiz	12"	5'-0"	6-#5	3-#5	#5 at 12" O.C.
5'-0"	#5 at 24" o.c. Vert and #5 at 24" o.c. Horiz	12"	4'-0"	5-#5	3-#5	#5 at 18" O.C.
3'-0"	#5 at 32" o.c. Vert and #5 at 24" o.c. Horiz	8"	2'-0"	3-#5	3-#5	#5 at 18" O.C.



WALL NOTES

NOTES:
1. See detail 6/C7.01 for wall control joint.
2. Structural fill, see geotechnical report for requirements.
3. Apply ECOBASE II or approved equivalent for base protection and protect with Delta MS drain fabric or approved equivalent. Extend weep holes through Delta MS drain fabric into free draining backfill. Seal all crack control/expansion joints with a backer rod and flexible joint sealant on front and back of wall.
4. Provide dowels to match size and spacing of vertical wall reinf. for lap length in CMU see detail 8/C7.01.

1 RETAINING WALL ONSITE

NOT TO SCALE

REVISIONS:

REV.	DESCRIPTION:	DATE:

SEAL: PROFESSIONAL ENGINEER STATE OF NEVADA GUY M. MORRIS EXP. 12–31–19 CIVIL No. 14526 11–29–18

DATE: 11–29–18
DRAWN BY: NMG
SUBMITTAL: CLV SUBMITTAL
A/E PROJECT NO.: 171208

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CONSTRUCTION MGMT: DATE:
PROJECT MANAGER:
COORDINATOR:

BUILDING DEPARTMENT:
CODE COMPLIANCE:
AHERA REVIEW:

ASBESTOS WORK IS:
REQUIRED ☐ NOT REQUIRED ☐

JOB# 0001621

CLARK COUNTY SCHOOL DISTRICT
CONSTRUCTION MANAGEMENT DEPARTMENT 1180 MILITARY TRIBUTE PL HENDERSON NV 89074 PHONE: 702-799-8710

PROJECT: E.W. GRIFFITH ES REPLACEMENT

DRAWING TITLE: DETAIL SHEETS STRUCTURAL WALLS

FACILITY: 412

SHEET NO: L18-02469 C7.02 715-212
SHEET 17 OF 17

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