

IMPROVEMENT PLANS FOR SUNSTONE PHASE 1 PRIVATE ENTRY 1 AND 2



MONUMENT ID: USDA (1934) 19

U.S. DEPARTMENT OF AGRICULTURE BRASS DISC AT SOUTHWEST
CORNER OF U.S. 95 AND KYLE CANYON ROAD

ELEVATION = 2817.61 FEET, 858.810 METERS
NAVD 88 DATUM

PER THE CITY OF LAS VEGAS BENCHMARK BOOK -
2008 ADJUSTMENT (UPDATED 05/24/2010)

NORTH 00°01'50" WEST, BEING THE BEARING OF THE EAST LINE OF THE NORTHEAST QUARTER (NE1/4) OF SECTION 6, TOWNSHIP 19 SOUTH, RANGE 60 EAST, M.D.M., CITY OF LAS VEGAS, CLARK COUNTY, NEVADA, AS SHOWN BY MAP THEREOF IN FILE 151, PAGE 14 OF SURVEYS IN THE CLARK COUNTY RECORDER'S OFFICE, NEVADA.

EASTLAND COMPANY, LLC
9275 RUSSELL ROAD SUITE
400 LAS VEGAS, NV 89148
PH (702) 821-4808

SLATER HANIFAN GROUP
a WESTWOOD TEAM
5740 S. ARVILLE STREET #216
LAS VEGAS, NV 89118
(702) 284-5300



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SUNSTONE PHASE 1 XXXXX #XXXXX
SUNSTONE PHASE 1 XXXXX #XXXXX
SUNSTONE PHASE 1 XXXXX #XXXXX
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PLAN APPROVAL

CITY ENGINEER--ALLEN E. PAVELKA PE #9029 _____ DATE _____

APPROVAL OF THESE PLANS BY THE CITY ENGINEER IS LIMITED TO THOSE IMPROVEMENTS CONSTRUCTED IN THE DEDICATED OF RIGHT-OF-WAY, AND/OR DEDICATED EASEMENTS. THIS APPROVAL DOES NOT AUTHORIZE CONSTRUCTION OF ANY IMPROVEMENTS THAT DEVIATE FROM ADOPTED STANDARDS AND/OR SPECIFICATIONS EXCEPT THOSE SPECIALLY LISTED UNDER DEVIATIONS FORM STANDARDS. THE ENGINEER SHALL RESOLVE ANY DEVIATION OTHER THAN THOSE LISTED IN DEVIATIONS FROM STANDARDS IN FAVOR OF THE UNIFORM STANDARD DRAWINGS AND SPECIFICATIONS. CLARK COUNTY AREA, NEVADA.

CITY OF LAS VEGAS PLANNING DEPARTMENT DATE

THIS PLAN MEETS THE APPLICABLE STANDARDS OF THE PLANNING DEPARTMENT.

APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES
PROJECT NO. XXXXXX FIRST APPROVED DATE: _____
SHEETS: _____
LVWD APPROVED FIRE FLOW XXXX GPM AT 20 PSI RESIDUAL

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

LAS VEGAS FIRE AND RESCUE DATE

NV ENERGY DATE

NV ENERGY ACKNOWLEDGES THAT WE HAVE RECEIVED YOUR PLANS AND WILL PROVIDE SERVICE TO ALL ELECTRICAL NEEDS ASSOCIATED WITH THIS PROJECT. NV ENERGY RESERVES THE RIGHT TO ADDRESS ANY EXISTING OR FUTURE CONFLICTS ONCE THE FINAL DESIGN IS COMPLETED. THE NEW SERVICE AND THE RESOLUTION OF ANY CONFLICTS WILL BE ACCOMPLISHED PURSUANT TO THE NEVADA PUBLIC UTILITY COMMISSION'S RULES AND REGULATIONS.

CENTRAL TELEPHONE CO, DBA CENTURYLINK DATE

THE AFFIXED CENTRAL TELEPHONE CO, DBA CENTURYLINK APPROVAL DOES NOT ASSUME OR GUARANTEE LIABILITY FOR KNOWN OR UNKNOWN CONFLICTS WITH EXISTING OR PROPOSED IMPROVEMENTS. RESOLUTION OF ANY CONFLICT WILL BE ACCOMPLISHED PURSUANT TO LOCAL ORDINANCES, NEVADA REVISED STATUTES AND/OR PUBLIC UTILITY COMMISSION RULES AND REGULATIONS.

SOUTHWEST GAS CORPORATION DATE

COX COMMUNICATIONS LAS VEGAS, INC. DATE:

Sheet List Table		
SHEET NUMBER	SHEET DESCRIPTION	SHEET TITLE
1	C-1	COVER SHEET
2	C-2	GENERAL NOTES
3	C-3	ABBREVIATIONS, KEY MAP, LEGEND AND QUANTITIES
4	P-1	PLAN AND PROFILE - "E1" 9+00.00 TO "E1" 14+00.
5	P-2	PLAN AND PROFILE - "E1" 14+00.00 TO "E1" 22+00
6	P-3	PLAN AND PROFILE - "E2" 9+00.00 TO "E2" 16+50
7	P-4	STORM DRAIN LATERAL DETAILS
8	D-1	DETAIL SHEET 1
9	D-1	GRADING PLAN

[illegible]

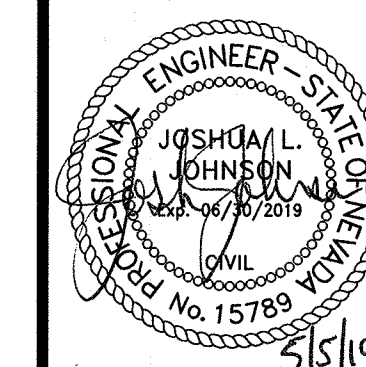
DATE: 05/01/19

DRAFTER: SB/JR

DESIGNER: BC

CHECKED: JJ

PROJECT NO.
EST1910-000



C-1

SHEET 1 OF 9

MATERIALS SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE DESIGN AND CONSTRUCTION STANDARDS/ELECTION SYSTEMS AND THE UNIFORM STANDARD SPECIFICATIONS FOR PUBLIC WORKS' CONSTRUCTION OFF-SITE SPECIFICATION AREA, AS AMENDED. IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO BE AWARE OF THE LATEST EDITIONS OF THESE SPECIFICATIONS.

THE CONTRACTOR'S RESPONSIBILITY TO PERFORM CONSTRUCTION AS PER PLANS, ANY ADDITIONS, DELETIONS, OR CHANGES IS SUBJECT TO THE APPROVAL OF THE CITY ENGINEER.

CURBS WHERE SEWER OR GAS LATERALS PASS UNDER THE CURB

R PIPE SHALL MEET ASTM D-3034 SDR 35 SPECIFICATIONS, INSTALLED WITH SAND BEDDING AND BACKFILL OF TYPE III GRANULAR FILL.

STREETS EIGHTY (80) FOOT R/W AND LARGER SHALL HAVE CONCRETE COLLECTORS. STREETS LESS THAN EIGHTY FEET REQUIRE RETROFIT IF PAVING DOES NOT CONFORM TO CITY STANDARDS AT THE MANHOLE.

IN ORDER TO CONNECT SEWER LATERALS TO EXISTING MAIN LINES UP TO TWELVE INCH (12") DIAMETER, CONNECTIONS TO OR LARGER MAINS SHALL REQUIRE SPECIAL PROCEDURES. IN LINE "Y" SHALL BE ON LINES TWELVE INCHES AND SMALLER.

BE PROTECTED IN ACCORDANCE WITH LVWD STANDARDS WHENEVER A SEWER MAIN CROSSES OVER A WATER MAIN AN EIGHTEEN INCH (18") UNDER A WATER MAIN.

INSTALLING SEWER MAINS THAT WILL BE UNDER THE JURISDICTION OF THE CITY OF LAS VEGAS MUST BE STATE OF NV CONTRACTORS.

THE CITY WILL NOT ACCEPT ANY SEWER MAINS WHICH HAVE A VERTICAL DEFLECTION OF MORE THAN ONE TENTH (0.1) OF AN INCH PER FOOT OF SPAN. ANY SEWER MAINS FOUND TO EXCEED THIS TOLERANCE WILL BE REJECTED AND BE REPLACED TO THE SATISFACTION OF THE CITY ENGINEER PRIOR TO ACCEPTANCE BY THE CITY OF LAS VEGAS. THE CITY ENGINEER RESERVES THE USE OF C-900 PIPE WHICH ALLOWS FOR PIPE DEFLECTION AT THE JOINTS.

STORMWATER MANAGEMENT NOTES

- LAS VEGAS VALLEY WATER DISTRICT**
(LVVWD) STANDARD NOTES

1. NO WORK SHALL BEGIN UNTIL THE WATER PLANS HAVE BEEN APPROVED FOR CONSTRUCTION BY THE LVVMD, FOLLOWING WATER PLAN APPROVAL, NOTICE SHALL BE GIVEN TO THE LVVMD 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 LVVMD INSPECTION. WHEN REQUESTING INSPECTIONS, PLEASE REFER TO THE PROJECT # IDENTIFIED ABOVE.
2. ALL WORK SHALL CONFORM TO LVVMD STANDARD PLATES, DRAWINGS, AND SPECIFICATIONS, AND TO THE 2010 EDITION... OF THE UNIFORM DESIGN AND CONSTRUCTION STANDARDS FOR POTABLE WATER SYSTEMS (UDACS). THE LATEST EDITION OF UDACS SHALL SUPERSEDE ANY CONFLICTS CONTAINED IN THE APPROVED DRAWINGS AND/OR SPECIFICATIONS.
3. ALL WORK, EXCEPT AS MODIFIED BY THESE PLANS OR BY NOTE 2 ABOVE, SHALL BE DONE IN ACCORDANCE WITH THE MOST RECENT DRAFT OR EDITION OF THE UNIFORM STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION OFFSITE IMPROVEMENT, CLARK COUNTY AREA.
4. A SINGLE PIPE MATERIAL SHALL BE USED THROUGHOUT THE PROJECT UNLESS OTHERWISE APPROVED BY THE LVVMD.
5. ALL SERVICE LATERALS TWO (2) INCHES IN DIAMETER AND SMALLER SHALL BE TYPE K COPPER TUBING WITH LVVMD 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 LVVMD DISTRIBUTION SYSTEM.
10. THE CONTRACTOR MUST OBTAIN ALL MATERIALS TWO (2) INCHES AND SMALLER FROM LVVMD CENTRAL STORES, TELEPHONE 258-3152 OR 258-3802, TWO (2) WORKING DAYS PRIOR TO METER PICKUP.
11. ANY INTERRUPTION OF SERVICE MUST BE PERFORMED IN ACCORDANCE WITH UDACS SECTION 3.14.01, AND APPROVED BY THE LVVMD 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 LVVMD 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.

LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES
LVVWD PROJECT # XXXXXX FIRST APPROVED DATE:

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 EDITION; 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 CIVIL PLANS LIBRARY ARE APPROXIMATE. LOCATIONS FOR EXISTING UTILITIES ARE LOCATED ON PLANS ONLY FOR THE CONVENIENCE OF THE CONTRACTOR. EXISTING UTILITY SERVICE LATERALS MAY NOT BE SHOWN ON THE PLANS. THE CONTRACTOR SHALL, AT HIS OWN EXPENSE, LOCATE ALL UNDERGROUND AND OVERHEAD INTERFERENCES WHICH MAY AFFECT HIS OPERATION DURING CONSTRUCTION AND SHALL TAKE THE 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 EXST'RUCTION- TYPE CURB.
8. AC PAVEMENT TO BE ONE-HALF INCH (1/2") ABOVE UP OF ALL GUTTERS AFTER COMPACTION, EXCEPT AT SIDEWALK RAMPS AND CROSS GUTTERS.
9. CURB AND GUTTER FLOW 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 SHALL BE AS SHOWN.
12. ALL GRADING WORK SHALL CONFORM TO THE SLOPS REPORT AS PREPARED BY SOUTHWEST GEOTECHNICAL REPORT #175337, OCTOBER 25, 2007, APPROVED BY THE CITY ENGINEER, AND AS SHOWN ON THESE PLANS.
13. EXIST LOCATION OF ALL SAWJUT 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. 625.350 & A CITY OF LAS VEGAS 2018, APPENDIX D.
15. UTILITY COMPANY METER BOXES, MANHOLE LIDS, VALVE COVERS, ETC. SHALL BE LOCATED OUT OF DRIVEWAYS, DRIVEWAY APPROXS, FLOWLINES, AND CROSSING DRIVEWAYS. PERMIT APPROVAL IS GRANTED BY THE CITY OF LAS VEGAS TO THE CITY ENGINEER, ALL ABOVE GROUND UTILITY APPEARANCES SHALL CONFORM TO THE REQUIREMENTS OF 1912.040.

1. ALL STREET LIGHTING INSTALLATIONS SHALL BE IN ACCORDANCE WITH THE STREET LIGHTING PLANS, THE "UNIFORM STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION OFF-SITE IMPROVEMENTS, CLARK COUNTY AREA, NEVADA", LATEST REVISION, AND THE "UNIFORM STANDARD DRAWINGS FOR PUBLIC WORKS CONSTRUCTION OFF-SITE IMPROVEMENTS, CLARK COUNTY AREA, NEVADA", LATEST REVISION, AND THE ADDITIONAL SPECIFICATIONS AND NOTES TO THE STANDARD DRAWINGS.
2. NO DEVIATION OF STREET LIGHT, PULL BOX, CONDUITS (ETC.) LOCATIONS SHALL BE PERMITTED WITHOUT WRITTEN APPROVAL OF TRAFFIC ENGINEERING AND THE CITY ENGINEER.
3. ALL EXISTING STREET LIGHTING SHALL REMAIN OPERATIONAL DURING CONSTRUCTION.
4. ALL STREET LIGHTING CONDUITS SHALL HAVE AT LEAST ONE GREEN Ø 1/2" THW WIRE INSTALLED, AS TRACER WIRE, WHEN "EMPTY" CONDUIT IS COMPLETELY INSTALLED FROM PO TO PB, IT SHALL HAVE A MINIMUM OF 2 #4 AND 1 #8 THW WIRE WITH THE ENDS TAPPED OR "SAFE OFF" PRIOR TO FINAL INSPECTION.
5. ANY STRUCTURE SUCH AS BLOCK WALLS, CHAIN LINK FENCES, RETAINING WALLS, ETC., SHALL LEAVE A MINIMUM CLEARANCE IN ACCORDANCE WITH THE USD NO. 300.
6. AS-BUILT DRAWINGS SHALL BE SUPPLIED TO THE TFO PRIOR TO ANY PRE-FINAL INSPECTION. THE AS-BUILT DRAWING NEEDS TO BE STAMPED AS-BUILT AND SIGNED BY THE PREPARER.
7. SERVICE POINT SHALL BE COORDINATED WITH ENV ENERGY COMPANY, AND WHEREVER POSSIBLE, BE LOCATED NEAR THE CENTER OF THE CROUET. SERVICE POINTS SHALL BE SHOWN ON THE OWN PLANS.
8. IT SHALL BE ASSUMED THAT IN THE ABSENCE OF AN EXISTING, WORKABLE CROUET TO ATTACH TO, ALL INSTALLATIONS SHALL REQUIRE A NEW SERVICE FOR OPERATION OF THE CROUET.
9. WHEREVER THERE IS AN OVERHEAD UTILITY THAT MAY CONFLICT WITH THE INSTALLATION OF STREET LIGHTING CIRCUITS AND/OR POLES, THESE CONFLICTS MUST BE RESOLVED BETWEEN THE DEVELOPER AND THE UTILITIES INVOLVED, AT NO EXPENSE TO THE CITY OF LAS VEGAS, BEFORE STREETLIGHT BASES ARE INSTALLED.
10. THE CONTRACTOR SHALL FURNISH COMPLETE SERVICE TO TRANSFORMERS AND CONTROL SYSTEMS IF REQUIRED ON PLANS.
11. THE DEVELOPER/OWNER WILL BE REQUIRED TO SUPPLY POWER TO ALL NEW PUBLIC STREET LIGHTS INSTALLED UNDER THIS DESIGN PRIOR TO BOND RELEASE OR PROJECT COMPLETION. THE DEVELOPER/OWNER WILL BE RESPONSIBLE FOR ALL ITEMS ASSOCIATED WITH THE INSTALLATION, MAINTENANCE, REPLACEMENT, MAINTENANCE AND OPERATIONAL COST OF SAID STREET LIGHTS PRIOR TO PROJECT COMPLETION. REFER TO THE PLAN FOR ANY NEW SERVICE REQUIREMENTS. THE TRANSFER OF OWNERSHIP FROM THE DEVELOPER/OWNER TO THE CITY OF LAS VEGAS FOR ALL NEW PUBLIC STREET LIGHTS AND/OR SERVICE/ INSTALLED UNDER THIS PLAN DESIGN WILL BE IN CONNECTION WITH THE PROJECT COMPLETION. THE CITY OF LAS VEGAS WILL BE RESPONSIBLE FOR THE MAINTENANCE AND OPERATIONAL TRANSFERS WITH THE CITY OF LAS VEGAS TRAFFIC ENGINEERING DEPARTMENT (TFO) AT (702) 229-6331.

1. ALL WORK SHALL BE DONE IN STRICT ACCORDANCE WITH THE LAS VEGAS FIRE AND RESCUE ADOPTED FIRE CODE ORDINANCE # 6325 FOR HYDRANT SPECIFICATIONS AND HYDRANT INSTALLATION SPECIFICATIONS.
2. ONLY FIRE HYDRANTS THAT ARE ON THE LAS VEGAS VALLEY WATER DISTRICTS' APPROVED PRODUCTS LIST ARE ALLOWED TO BE INSTALLED.
3. A PERMIT IS REQUIRED FROM LAS VEGAS FIRE AND RESCUE FOR THE INSTALLATION OF ON-SITE WATER LINES AND FIRE HYDRANTS. THE PERMIT AND CONTRACTORS MATERIAL TEST CERTIFICATE FOR UNDERGROUND PIPING WORK SHALL BE OBTAINED FROM THE FIRE PROTECTION ENGINEER BEFORE COMMENCEMENT OF WORK. [FC § 105.7.12]
4. ON ANY RESIDENTIAL OR COMMERCIAL INSTALLATIONS, FIRE HYDRANTS SHALL BE INSTALLED AND FIRE APPARATUS ACCESS ROADS SHALL BE MAINTAINED BEFORE COMMENCEMENT OF ANY COMBUSTIBLE CONSTRUCTION. ALL FIRE HYDRANTS SHALL BE IN GOOD WORKING ORDER AND SHALL BE CAPABLE OF DELIVERING THE REQUIRED FIRE FLOW. [FC § 3.310, § 3.312]
5. TO IDENTIFY THE FIRE HYDRANT LOCATIONS, THE CONTRACTOR SHALL PLACE A BLUE REFLECTIVE MARKER AT THE CENTER LINE OF THE STREET ADJACENT TO THE FIRE HYDRANTS. [FC § 507.5.7.3]
6. ALL UNDERGROUND INSPECTIONS, PRESSURE AND FLUSH VERIFICATIONS OF ALL FIRE HYDRANTS AND FIRE LINES, SHALL BE CONDUCTED BEFORE COVERING THE LINES. CENTER LOADING IS ACCEPTABLE FOR THE HYDRO TESTS WITH PRIOR FIRE PREVENTION APPROVAL. [FC § 106.5]
7. ALL ON-SITE UNDERGROUND WATER MAINS AND MATERIALS SHALL BE U.L. LISTED, A.W.W.A APPROVED AND SHALL BE RATED FOR THE APPROPRIATE WORKING PRESSURE. [FC § 507.2.1, NFPA 24]
8. PAINTING OF CURBS, FIRE HYDRANTS, PADS, PROTECTION OF FIRE HYDRANTS FROM PHYSICAL DAMAGE, AND ALL OTHER WORK NECESSARY PER PLANS SHALL BE COMPLETED BEFORE APPROVAL BY LAS VEGAS FIRE AND RESCUE, FIRE PREVENTION DIVISION. [FC § 507]
9. PRIVATE HYDRANTS SHALL BE PAINTED RED. [FC § 507.5.7.1]
10. PRIOR TO THE FINAL OCCUPANCY, A FIRE FLOW TEST SHALL BE WITNESSED BY LAS VEGAS FIRE AND RESCUE, FIRE PREVENTION DIVISION TO VERIFY AVAILABILITY OF THE REQUIRED FIRE FLOW. [FC § 507]
11. FIRE HYDRANT SPACING SHALL BE AS FOLLOWS: [FC § C102]
 - RESIDENTIAL - 500 FT UNSPRINKLERED; 600 FT SPRINKLERED.
 - COMMERCIAL - 500 FT UNSPRINKLERED; 400 FT SPRINKLERED.

1. IN THE EVENT OF NATURAL GAS EMERGENCIES CALL 911 AND 1-877-860-6020
2. MINIMUM HORIZONTAL AND VERTICAL CLEARANCES BETWEEN NATURAL GAS FACILITIES AND ANY UNDERGROUND UTILITIES AND/OR STRUCTURES, INCLUDING BUT NOT LIMITED TO WATER, SEWER, STORM DRAIN, TELEPHONE, CABLE, AND ELECTRIC SHALL BE AT LEAST 12-INCHES OR GREATER AS DICTATED BY LOCAL CODES AND STANDARDS
 - a) ANY DEVIATION FROM SPECIFIED MINIMUM CLEARANCE MUST BE APPROVED BY ALL AFFECTED UTILITIES AND/OR MUNICIPALITIES
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 STRUCTURES CONTACT 702-365-2099

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 ANY 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 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.

5. 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
A. PAVEMENT AREA SUBGRADE	0.1±	+0.0' TO -0.1'
B. ENGINEERED FILL	0.5±	+0.1' TO -0.1'

COMPACTION TESTING WILL BE PERFORMED BY THE OWNER OR HIS REPRESENTATIVE. COMPACTION SHALL COMPLY WITH THE REQUIREMENTS OF THE ENGINEER.

6. ALL CUT AND FILL SLOPES SHALL BE PROTECTED UNTIL EFFECTIVE EROSION CONTROL HAS BEEN ESTABLISHED.

7. 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.

8. THE CONTRACTOR SHALL MAINTAIN THE STREETS, SIDEWALKS AND ALL OTHER PUBLIC RIGHT-OF-WAY IN A CLEAN, SAFE AND USABLE CONDITION. SPILLS OF OIL OR OTHER 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.

9. IN THE EVENT THAT ANY TEMPORARY CONSTRUCTION ITEM IS REQUIRED THAT IS NOT SHOWN ON THESE DRAWINGS, SUCH ITEM SHALL BE PROVIDED, AS DIRECTED BY THE CITY ENGINEER, AT NO EXPENSE TO THE CITY OF LAS VEGAS. TEMPORARY CONSTRUCTION INCLUDES DITCHES, BERMAS, ROAD SIGNS AND BARRICADES, ETC.

DEVIATION FROM STANDARDS

1. ALL CONSTRUCTION SIGNING, BARRICADE, AND TRAFFIC DELINEATION SHALL CONFORM TO THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES", LATEST EDITION.
2. THE STREET SIGN CONTRACTOR SHALL OBTAIN STREET NAMES AND BLOCK NUMBERING FROM THE PLANNING DEPARTMENT PRIOR TO CONSTRUCTION.
3. BEFORE ANY WORK IS STARTED IN THE RIGHT-OF-WAY, THE CONTRACTOR SHALL INSTALL ALL ADVANCE WARNING SIGNS FOR THE CONSTRUCTION ZONE. THE CONTRACTOR SHALL INSTALL TEMPORARY STOP SIGNS AT ALL NEW STREET ENCROACHMENTS INTO EXISTING CITY STREETS WHERE WARRANTED IMMEDIATELY AFTER FIRST GRADING WORK IS ACCOMPLISHED, AND SHALL MAINTAIN SAID SIGNS UNTIL PERMANENT SIGNS ARE INSTALLED.
4. WHEN A DESIGNATED "SUGGESTED ROUTE TO SCHOOL" IS ENCLOSED 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, SIGNAGE REMOVAL OR RELOCATION OF ANY EXISTING TRAFFIC CONTROL DEVICES, SUCH PAYMENT MARKING SHALL BE RESTORED OR REPLACED WITH LIKE MATERIALS TO THE SATISFACTION OF THE CITY TRAFFIC ENGINEER.

4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING AND INSTALLING ALL PERMANENT SIGNS SHOWN ON THE PLANS. ALL NEW TRAFFIC SIGNS SHALL BE FABRICATED WITH DIAMOND GRADE VIP CLASS 8 REFLECTIVE SHEETING OR APPROVED EQUAL. ALL NEW TRAFFIC SIGNS, EXCEPT STREET NAME AND SCHOOL SPEED LIMIT SIGNS, SHALL HAVE, 3M SERIES 1180 OR APPROVED EQUIVALENT ANTI-GRAFFITI PROTECTIVE OVERLAY FILM. SCHOOL ZONE SIGNS SHALL HAVE 3M SERIES 1180 ANTI-GRAFFITI PROTECTIVE OVERLAY FILM. STREET NAME SIGNS SHALL CONFORM IN THEIR ENTIRETY TO CURRENT CITY STANDARDS. ALL OTHER SIGNS SHALL BE STANDARD SIZE UNLESS OTHERWISE SPECIFIED ON THE PLANS. ALL SIGN POSTS SHALL BE INSTALLED IN ACCORDANCE WITH THE CURRENT CITY STANDARDS.
7. WHEN A PROPOSED STREET LIGHT STANDARD IS LOCATED WITHIN FIVE (5) FEET OF ANY PROPOSED SIGN SHOWN ON THE PLANS TO BE MOUNTED ON A SIGNPOST, THE SIGN SHALL BE MOUNTED ON THE STREET LIGHT STANDARD AND THE SIGNPOST SHALL BE ELIMINATED.
8. ALL PERMANENT TRAFFIC CONTROL DEVICES CALLED FOR HEREON SHALL BE IN PLACE AND IN FINAL POSITION PRIOR TO ALLOWING ANY TRAFFIC ON THE PORTIONS OF THE ROADS) 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 MSA WORK ZONE SAFETY SPECIALIST SET UP, MAINTAIN AND/OR REMOVE ALL TRAFFIC CONTROL DEVICES IN THE CITY OF LAS VEGAS RIGHT OF WAY.
11. WORK IN PUBLIC STREETS, ONCE BEGUN, SHALL BE EXPEDITED TO COMPLETION SO AS TO PROVIDE MINIMUM INCONVENIENCE TO ADJACENT PROPERTY OWNERS AND TO THE TRAVELING PUBLIC.
12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING CITIZENS AREA TRANSIT (C.A.T.) TO 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 # 828-3462) TO OBTAIN THE NEAREST PROPERLY TRAINED TRAFFIC CONTROL OFFICERS TO FEES FOR 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.

ALL EXISTING UTILITIES SHALL BE PROTECTED IN PLACE UNLESS OTHERWISE NOTED

[illegible]

1

TEL 5-4"	EXISTING TELEPHONE CABLE	STREET CENTERLINE
12" SS	EXISTING SANITARY SEWER LINE	EASEMENT LINE
12" W	EXISTING WATER LINE	AEP
18" SD	EXISTING STORM DRAIN LINE	PROPOSED SIGN
ELE UG 1-4"	EXISTING UNDERGROUND ELECTRICAL LINE	CONCRETE SURFACE
OHP	EXISTING OVERHEAD POWER LINE	PLANTMIX BITUMINOUS SURFACE
OHP/TEL	EXISTING OVERHEAD POWER AND TELEPHONE LINE	FLOWLINE
4" PE GAS	EXISTING GAS LINE	SAWCUT LINE
CATV	EXISTING CABLE TELEVISION LINE	CONTOUR LINE
	EXISTING CURB & GUTTER	ELEVATION
	EXISTING RIGHT-OF-WAY LINE	STORM DRAIN MANHOLE
	EXISTING PROPERTY LINE	SANITARY SEWER MANHOLE
X X X	EXISTING CHAIN-LINK FENCE	100 WATT STREET LIGHT
SL	EXISTING STREET LIGHT CONDUIT	250 WATT STREET LIGHT
	EXISTING MANHOLE OR VAULT	FAST ITS CONDUIT
	EXISTING VALVE (GAS OR WATER)	FAST P30 PULLBOX
	EXISTING FIRE HYDRANT	FAST TYPE 200 SPLICE VAULT
	EXISTING POWER OR TELEPHONE POLE	
	EXISTING PADMOUNTED SERVICE PEDESTAL	
	EXISTING NV ENERGY TRANSFORMER	
	EXISTING SWING GATE	
	EXISTING STREET LIGHT	
	EXISTING ON-SITE LIGHT	

LEGEND

QUANTITIES

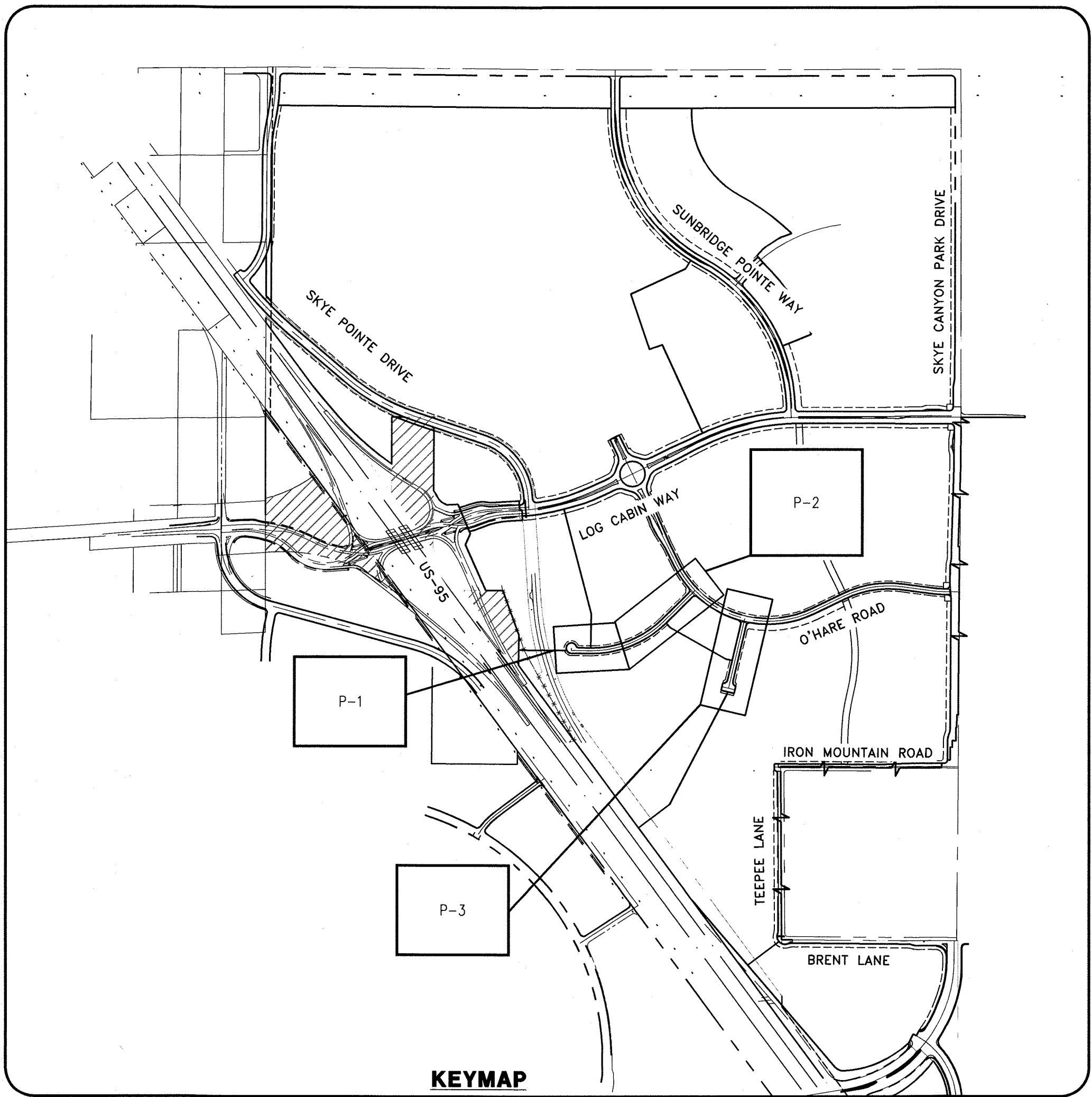
DESCRIPTION	UNIT	TOTAL QUANTITY
CURB & GUTTER (TYPE "L" & "A")	LF	XXX
SIDEWALK 4"	LF	XXX
SIDEWALK RAMP	EA	XXX
CONCRETE ACCESS PAD	SF	XXX
TYPE II GRAVEL BASE	CY	XXX
5" ASPHALTIC CONCRETE PAVING	SY	XXX
UTACS	SY	XXX
PULLBOX	EA	XXX
2" ST/LT CONDUIT	LF	XXX
4" INTERCONNECT CONDUIT - FAST	LF	XXX
STREET LIGHT FOUNDATION (STANDARD BASE)	EA	XXX
P30 PULLBOX - FAST	EA	XXX
TYPE 200 PULL BOX - FAST	EA	XXX
PAVEMENT STRIPING ARTERIAL	LF	XXX
EXCAVATION AND EMBANKMENT	CY	XXX
TYPE II MANHOLE	EA	1
18" RCP	LF	61
36" RCP	LF	552
36" END SECTION	EA	1
RIPRAP	CY	231

QUANTITIES

DESCRIPTION	UNIT	TOTAL QUANTITY
8" SEWER	LF	XXX
SEWER MANHOLE 6 TO 18 FEET	EA	XXX
SEWER MANHOLE > 18'	EA	XXX
8" PVC WATER LATERAL	LF	XXX
8" DIP WATER LATERAL	LF	XXX
12" PVC WATER MAIN	LF	XXX
12" DIP WATER MAIN	LF	XXX
6" GATE VALVE	EA	XXX
8" GATE VALVE	EA	XXX
12" GATE VALVE	EA	XXX
8" 45° BEND	EA	XXX
12" X 8" TEE	EA	XXX
6" 45° BEND	EA	XXX
12" 22.5° BEND	EA	XXX
12" 45° BEND	EA	XXX
8" 90° BEND	EA	XXX
CAP WITH 2" BLOW-OFF ASSEMBLY	EA	XXX
FIRE HYDRANT	EA	XXX
12" X 6" REDUCER	EA	XXX
WATER FOMH	EA	XXX
4" C900 PVC IRRIGATION SLEEVE	LF	XXX
6" C900 PVC IRRIGATION SLEEVE	LF	XXX
P30 PULLBOX - CLV	EA	XXX
TYPE 200 PULL BOX - CLV	EA	XXX
4" INTERCONNECT CONDUIT - CLV	LF	XXX

APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES
PROJECT NO. XXXXXX FIRST APPROVED DATE:



KEYMAP

ABBREVIATIONS

ABUT	ABUTMENT	GND	GROUND	R/W	RIGHT-OF-WAY
AC	ALUMINUM CAP/ASPHALTIC CONCRETE	H	HEIGHT	RT	RIGHT
AEP	AUTHORIZATION TO ENTER PROPERTY	HGL	HYDRAULIC GRADE LINE	S	SOUTH
AP	ANGLE POINT	HORIZ	HORIZONTAL	SCH	SCHEDULE
APN	ASSESSORS PARCEL NUMBER	HWY	HIGHWAY	SD	STORM DRAIN
AVE	AVENUE	INV	INVERT	SDMH	STORM DRAIN MANHOLE
BC	BEGIN CURVE/BRASS CAP/BACK OF CURB	ITS	INTELLIGENT TRANSPORTATION SYSTEM	SECT	SECTION
BCR	BEGIN CURB RETURN	JT	JOINT	SF	SQUARE FOOT/FEET
BLVD	BOULEVARD	LF	LINEAR (LINEAL) FEET	SHLDR	SHOULDER
BM	BENCHMARK	LIP	LIP OF GUTTER	SHT	SHEET
BOT	BOTTOM	LT	LEFT	SIM	SIMILAR
BRG	BEARING	LUM	LUMINAIRE	SP	SERVICE POINT
BSW	BACK OF SIDEWALK	LVVWD	LAS VEGAS VALLEY WATER DISTRICT	SPA	SPACING
BVCE	BEGIN VERTICAL CURVE ELEVATION	MAX	MAXIMUM	SO	SQUARE
BVCS	BEGIN VERTICAL CURVE STATION	MH	MANHOLE	SS	SANITARY SEWER
CATV	UNDERGROUND CABLE TV	MIN	MINIMUM	SSMH	SANITARY SEWER MANHOLE
CG	CURB AND GUTTER	MLCP	MULTI-LAYERED COMPOSITE PIPE	STA	STATION
CCSD	DESIGN AND CONSTRUCTION STANDARDS FOR WASTEWATER COLLECTION SYSTEMS	MOD	MODIFY/MODIFIED	STD	STANDARD
CKT	CIRCUIT	MON	MONUMENT	ST	STREET
CLR	CLEAR/CLEARANCE	MPH	MILES PER HOUR	STL	STREET LIGHT
CLBM	CITY OF LAS VEGAS BENCHMARK	N	NORTH	STRUCT	STRUCTURE
CLV	CITY OF LAS VEGAS	NDOT	NEVADA DEPARTMENT OF TRANSPORTATION	SW	SIDEWALK
CMU	CONCRETE MASONRY UNIT	NO	NUMBER	SNBORS	SOUTHERN NEVADA BUILDING OFFICIALS REGIONAL STANDARDS
CONC	CONCRETE	NVE	NV ENERGY	SWG	SOUTHWEST GAS
C/L	CENTERLINE	NTS	NOT TO SCALE	T	TELEPHONE/TOP
COB	CENTER OF BOLLARD	OC	ON CENTER	TAN	TANGENT
COL	COLUMN	OHP	OVERHEAD POWER LINE	TC	TOP OF CURB
CONST	CONSTRUCT/CONSTRUCTION	PAT	PATENT	TEMP	TEMPORARY
COORD	COORDINATE	PB	PULL BOX	TF	TOP OF FOOTING
COR	CORNER	PBS	PLANTMIX BITUMINOUS SURFACE	TG	TOP OF GRATE
CY	CUBIC YARD(S)	PC	POINT OF CURVE, PHOTO CELL	TH	TOP OF MANHOLE
Δ	DELTA	PCC	POINT OF COMPOUND CURVE	TRANS	TRANSITION STRUCTURE
DB	DIRECT BURY	PD	PONDING DEPTH	THW	TOP OF HEADWALL
DBL	DOUBLE	PE	PROJECT ENGINEER/POLYETHYLENE	TRW	TOP OF RETAINING WALL
DI	DROP INLET	PED	PEDESTRIAN	TW	TOP OF WALL
DIA	DIAMETER	PGL	PROFILE GRADE (FG ON CONTROL LINE)	TS	TRAFFIC SIGNAL
DIST	DISTANCE	PH	POT HOLE	TYP	TYPICAL
DR	DRIVE	PI	POINT OF INTERSECTION	UDACS	UNIFORM DESIGN AND CONSTRUCTION STANDARDS FOR WATER DISTRIBUTION SYSTEMS
DW	DRIVEWAY	PKWY	PARKWAY	USDCCA	UNIFORM STD. DRAWINGS FOR PUBLIC WORKS' CONSTRUCTION OFF-SITE IMPROVEMENTS CLARK COUNTY AREA, NEVADA
DWG	DRAWING	PL	PROPERTY LINE	UT	UNDERGROUND TELEPHONE
ECR	END CURB RETURN	PMF	PAVEMENT MARKING FILM	VAR	VARIABLE/VARIES
E	EAST	POB	POINT OF BEGINNING	VC	VERTICAL CURVE
EA	EACH	POC	POINT ON CURVE	VERT	VERTICAL
ESMT	EASEMENT	POE	POINT OF ENDING	VG	VALLEY GUTTER
ECR	END CURB RETURN	POT	POINT ON TANGENT	W	WEST
ELEC	ELECTRICAL	PP	POWER POLE	WY	WAY
ELEV/EL	ELEVATION	PPCB	PORTABLE PRECAST CONCRETE BARRIER RAIL	WT	WEIGHT
EP/EOP	EDGE OF PAVEMENT	PPM	POLYUREA PAVEMENT MARKINGS	XING	CROSSING
EQ	EQUAL	PR	PAIR		
EST	ESTIMATED	PROP	PROPOSED		
EVC	END VERTICAL CURVE	PRC	POINT OF REVERSE CURVE		
EX/EXIST	EXISTING	PRVC	POINT REVERSE VERTICAL CURVE		
EXP	EXPANSION JOINT	PSI	POUNDS PER SQUARE INCH		
EW	EACH WAY	PT	POINT OF TANGENCY		
FC	FACE OF CURB	PVI	POINT OF VERTICAL INTERSECTION		
FG	FINISH GRADE	PVMT	PAVEMENT		
FH	FIRE HYDRANT	R	RADIUS		
FL	FLOW LINE	RCB	REINFORCED CONCRETE BOX		
FO	FIBER OPTIC	RCP	REINFORCED CONCRETE PIPE		
FS	FINISH SURFACE	RD	ROAD		
FT	FOOT/FEET	RDWY	ROADWAY		
FTG	FOOTING	REC	RECTANGULAR		
FW	FACE OF WALL	REIN	REINFORCED		
FYA	FLASHING YELLOW ARROW	REQD	REQUIRED		
G	GAS	RND	ROUND		
GA	GAUGE	RP	RADIUS POINT		
GB	GRADE BREAK	RPM	RAISED PAVEMENT MARKERS		

ALIGNMENT ABBREVIATIONS

"ER1"	ENTRY ROAD 1
"ER2"	ENTRY ROAD 2

SLATER
HANIFAN
GROUP

a Westwood team

5740 S. ARVILLE STREET #216, LAS VEGAS, NV 89118
PHONE (702) 284-5300 FAX (702) 284-5399

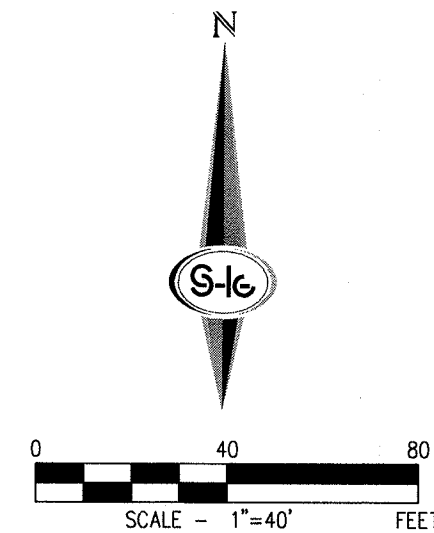
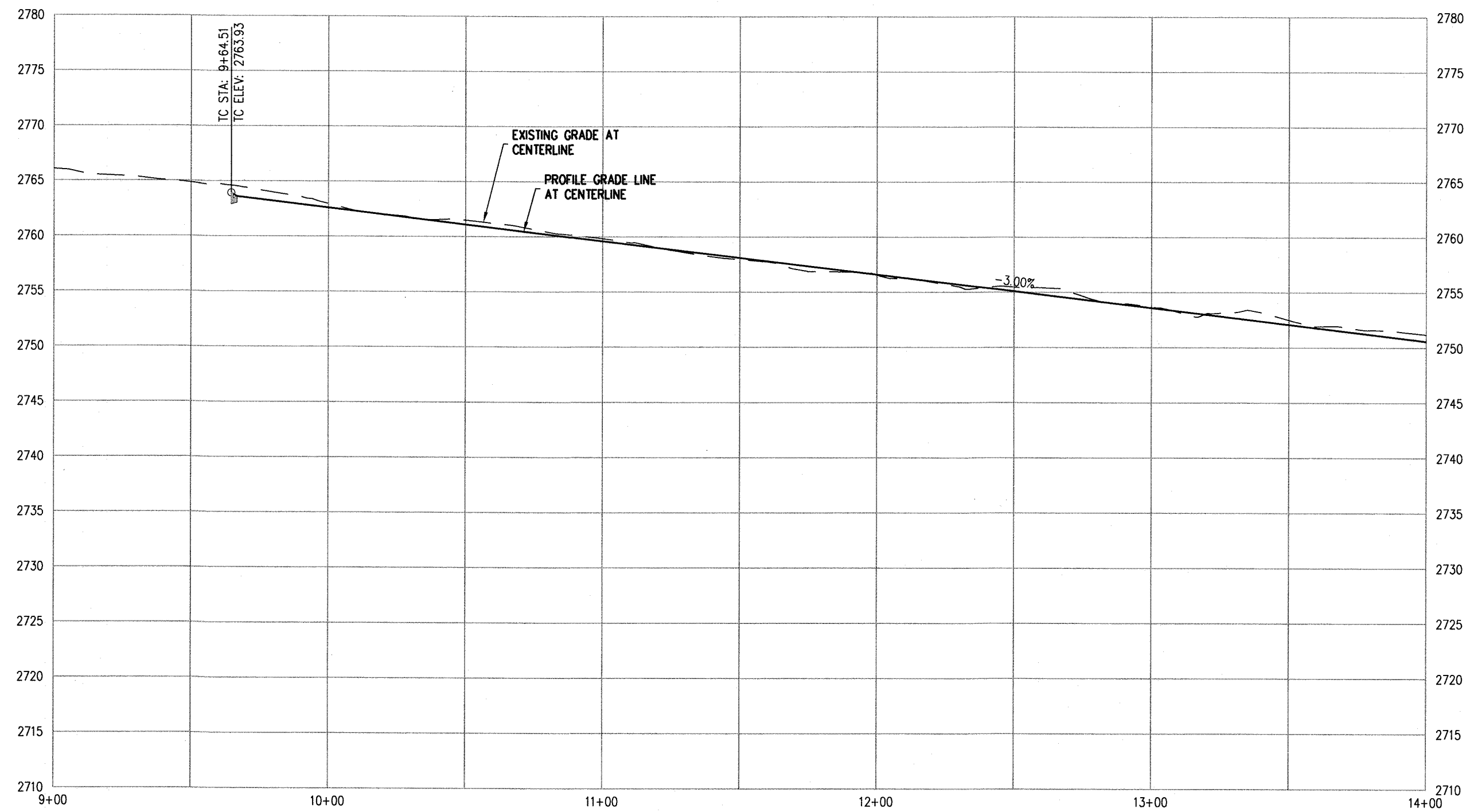
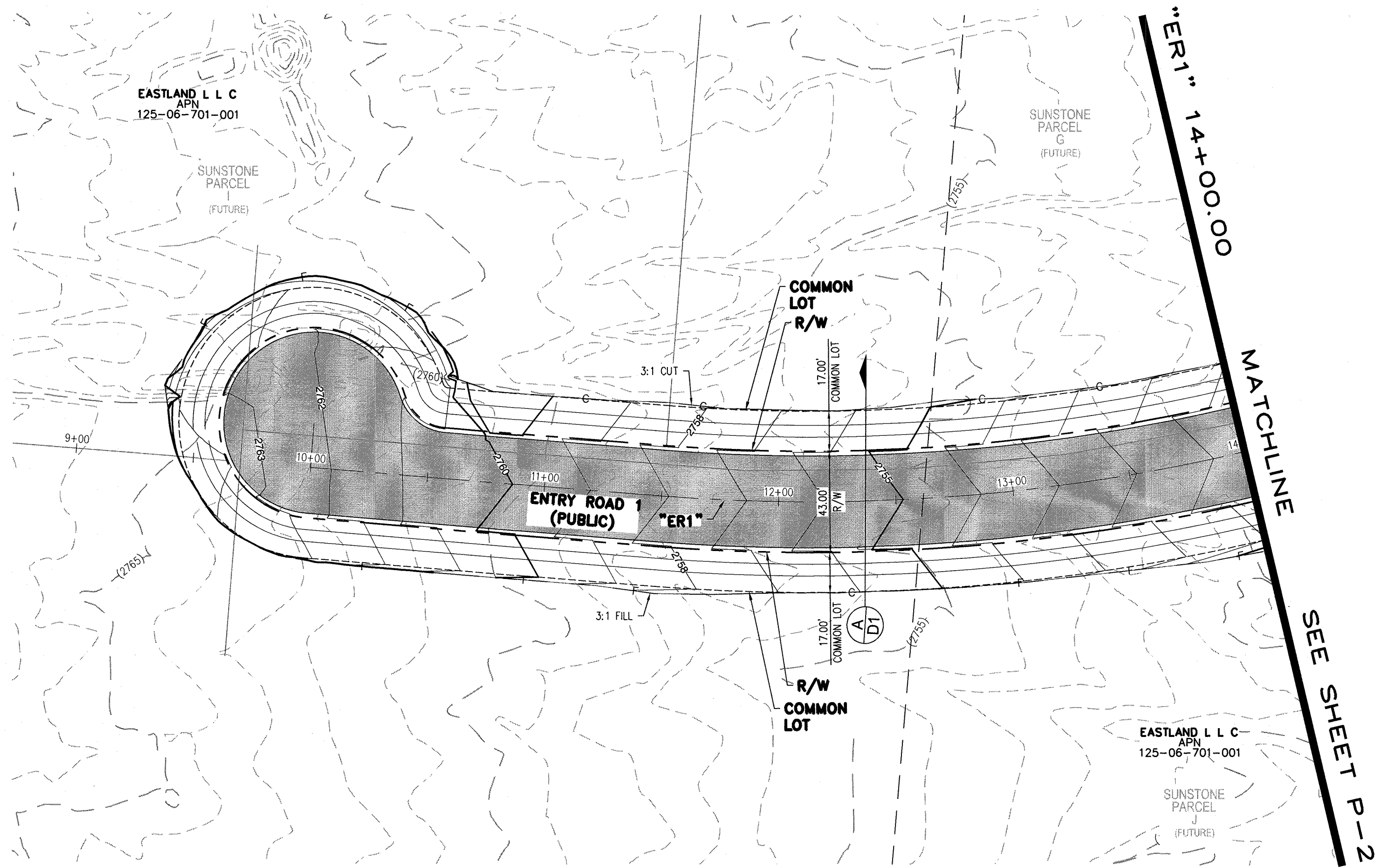
APPROVED FOR CONSTRUCTION

CITY OF LAS VEGAS

EASTLAND COMPANY, LLC

SUNSTONE PHASE 1
PRIVATE ENTRY 1 AND 2
ABBREVIATIONS, KEY MAP, LEGEND AND QUANTITIES

DATE: 05/01/19
DRAFTER: SB/JR
DESIGNER: BC
CHECKED: JJ
PROJECT NO.
EST1910-000
CIVIL ENGINEER - STATE OF NEVADA
JOSHUA L. JOSHUA L. JOSHUA L.
Exp. 06/30/2019
No. 15789
5/5/19
C-3
SHEET 3 OF 9



STORM DRAIN NOTES

1. CONSTRUCT TYPE "CM2" DROP INLET (USDCCA STD. DWG. NO. 412.1 & 421)
2. CONSTRUCT 48" TYPE II MANHOLE (USDCCA STD. DWG. NO. 405)
3. CONSTRUCT 60" TYPE III MANHOLE (USDCCA STD. DWG. NO. 406.1)
4. INSTALL 18" RCP (USDCCA STD. DWG. NO. 503.2)
5. INSTALL 30" RCP (USDCCA STD. DWG. NO. 503.2)
6. INSTALL 36" RCP (USDCCA STD. DWG. NO. 503.2)
7. INSTALL RCP END SECTION (NDOT STD. PLAN R-2.3.1)
8. CONNECT TO STORM DRAIN
9. INSTALL BRICK AND MORTAR PLUG PER DETAIL ON SHEET D-1

NOTES

1. ALL RCP SHALL BE CLASS III UNLESS OTHERWISE SHOWN.
2. ALL PIPE LENGTHS ARE MEASURED ALONG PIPE CENTERLINE TO CENTER OF MANHOLE OR INSIDE EDGE OF DI OR RCB/RCA.
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4. SEE STRUCTURAL PLANS FOR ADDITIONAL STRUCTURAL DETAILS AND CONNECTIONS.
5. ALL PIPES IN PUBLIC ROW ARE PUBLICLY MAINTAINED.
6. ADD SPECIAL INSPECTION REQUIRED FOR PIPE SEGMENTS WITH SACRIFICIAL CONCRETE.
7. SEE UTILITY PLAN AND PROFILE SHEETS FOR UTILITY ADJUSTMENTS AND RELOCATIONS.
8. ALL INTERIM DRAINAGE FACILITIES TO BE PRIVATELY MAINTAINED.

DROP INLET NOTE

WHERE 10 FEET PARALLEL SEPARATION IS NOT PRACTICABLE:

CAST-IN-PLACE MONOLITHIC POUR WITH WATERSTOP BETWEEN SLAB AND WALLS. BASE, WALLS AND TOP TO BE CONSTRUCTED WITH WATERSTOPS, CENTER BULB, OR FLAT STRIP (VINYLEX, GREENSTREAK PLASTIC PRODUCTS OR APPROVED EQUAL).

LEGEND



STORM DRAIN LATERAL # (SEE SHEETS P-4)

I CERTIFY THAT THIS GRADING PLAN IS IN CONFORMANCE WITH THE APPROVED TECHNICAL DRAINAGE STUDY _____ ON FILE AT THE CITY OF LAS VEGAS FOR THE SUBJECT PROJECT

JOSHUA L. JOHNSON, P.E. 15789

DATE

FLOOD ZONE

THE PROJECT SITE IS LOCATED WITHIN A FEMA DESIGNATED ZONE "X" (OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN) ON THE FLOOD INSURANCE RATE MAP (FIRM) PANELS 32003C1735E AND 32003C1750E BOTH DATED SEPTEMBER 27, 2002

NOTE

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

APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES
PROJECT NO. XXXXXX FIRST APPROVED DATE: _____

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

NO.	DESCRIPTION	DATE	BY	APP.

CITY OF LAS VEGAS

EASTLAND COMPANY, LLC

SUNSTONE PHASE 1
PRIVATE ENTRY 1 AND 2
PLAN AND PROFILE - "ER1" 9+00.00 TO "ER1" 14+00.00

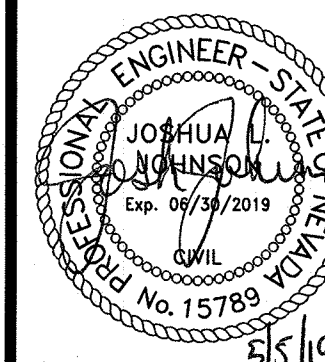
DATE: 05/01/19

DRAFTER: SB/JR

DESIGNER: BC

CHECKED: JJ

PROJECT NO.
EST1910-000

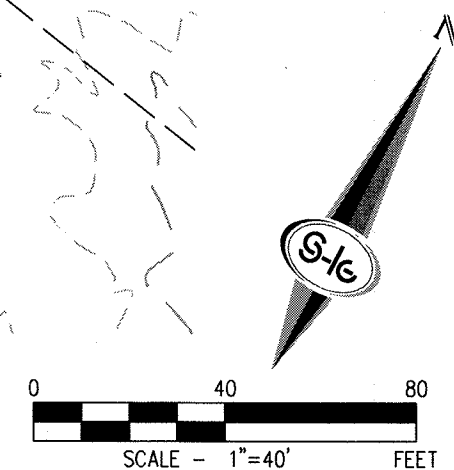
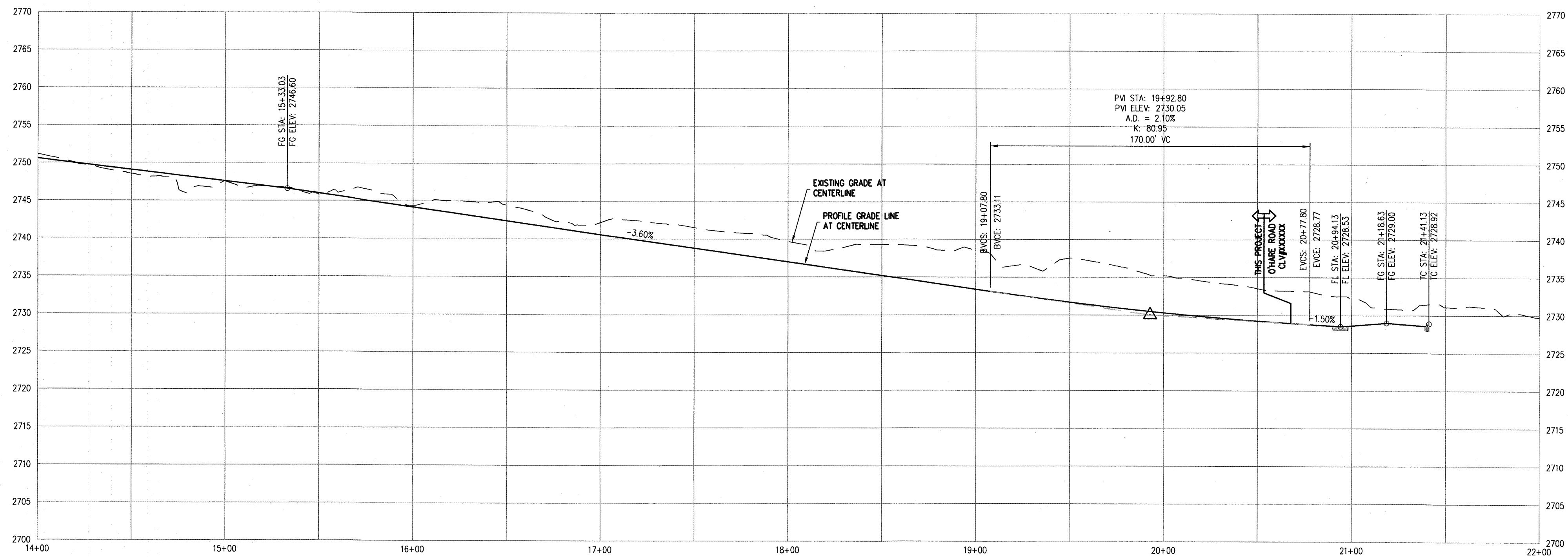
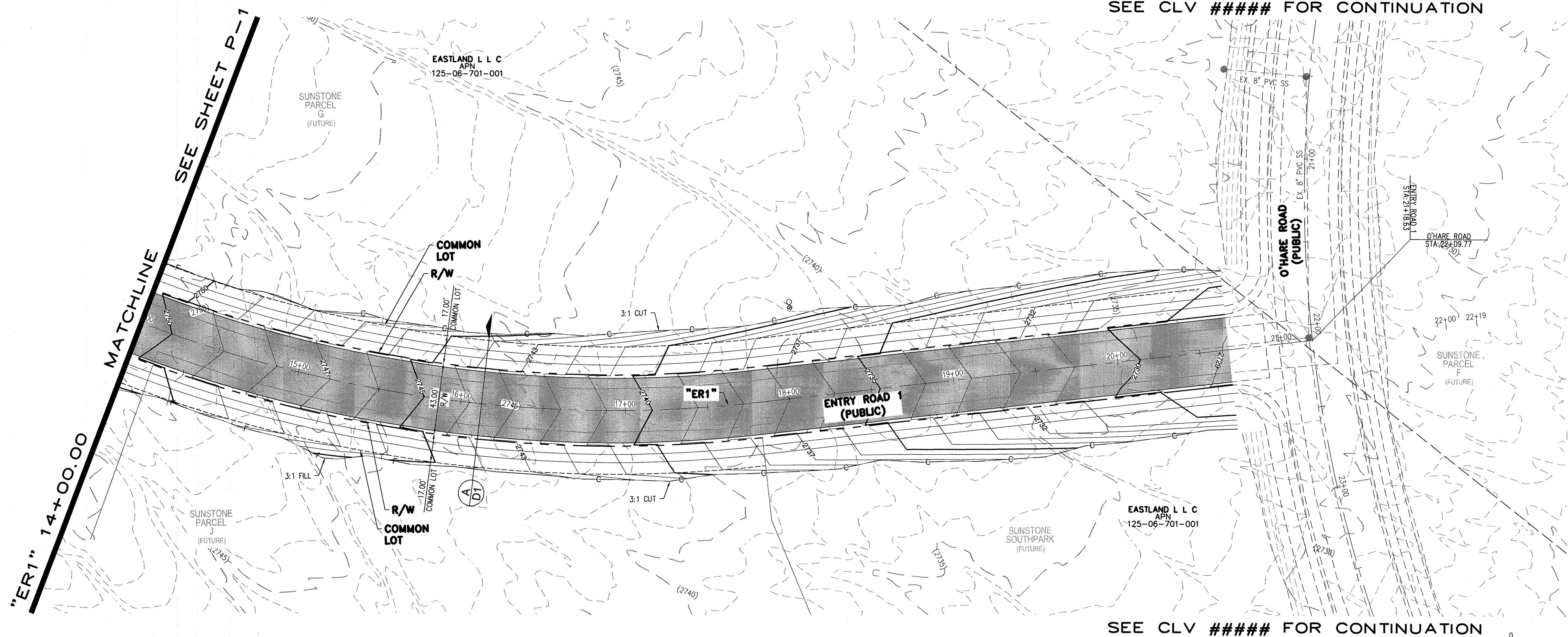


P-1

SHEET 4 OF 9



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STORM DRAIN NOTES

1. CONSTRUCT TYPE "CM2" DROP INLET (USDCCA STD. DWG. NO. 412.1 & 421)
2. CONSTRUCT 48" TYPE II MANHOLE (USDCCA STD. DWG. NO. 405)
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6. INSTALL 36" RCP (USDCCA STD. DWG. NO. 503.2)
7. INSTALL RCP END SECTION (NDOT STD. PLAN R-2.3.1)
8. CONNECT TO STORM DRAIN
9. INSTALL BRICK AND MORTAR PLUG PER DETAIL ON SHEET D-1

NOTES

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3. ALL DROP INLETS SHALL INCLUDE STORM WATER MANAGEMENT STAMP AND DETAIL PER USDCCA STD. DWG. NO. 421.
4. SEE STRUCTURAL PLANS FOR ADDITIONAL STRUCTURAL DETAILS AND CONNECTIONS.
5. ALL PIPES IN PUBLIC ROW ARE PUBLICLY MAINTAINED.
6. ADD SPECIAL INSPECTION REQUIRED FOR PIPE SEGMENTS WITH SACRIFICIAL CONCRETE.
7. SEE UTILITY PLAN AND PROFILE SHEETS FOR UTILITY ADJUSTMENTS AND RELOCATIONS.
8. ALL INTERIM DRAINAGE FACILITIES TO BE PRIVATELY MAINTAINED.

DROP INLET NOTE

WHERE 10 FEET PARALLEL SEPARATION IS NOT PRACTICABLE:
CAST-IN-PLACE MONOLITHIC POUR WITH WATERSTOP BETWEEN SLAB AND WALLS. BASE, WALLS AND TOP TO BE CONSTRUCTED WITH WATERSTOPS, CENTER BULB, OR FLAT STRIP (VINYLEX, GREENSTREAK PLASTIC PRODUCTS OR APPROVED EQUAL).

LEGEND

- 1 STORM DRAIN LATERAL # (SEE SHEETS P-4)

I CERTIFY THAT THIS GRADING PLAN IS IN CONFORMANCE WITH THE APPROVED TECHNICAL DRAINAGE STUDY _____ ON FILE AT THE CITY OF LAS VEGAS FOR THE SUBJECT PROJECT

JOSHUA L. JOHNSON, P.E. 15789 DATE

FLOOD ZONE

THE PROJECT SITE IS LOCATED WITHIN A FEMA DESIGNATED ZONE "X" (OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN) ON THE FLOOD INSURANCE RATE MAP (FIRM) PANELS 32003C1735E AND 32003C1750E BOTH DATED SEPTEMBER 27, 2002

NOTE

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

APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES
PROJECT NO. XXXXXX FIRST APPROVED DATE: _____

SLATER HANIFAN GROUP
a Westwood team
5740 S. ARVILLE STREET #216, LAS VEGAS, NV 89118
PHONE (702) 284-5300 FAX (702) 284-5389

CITY OF LAS VEGAS

EASTLAND COMPANY, LLC

SUNSTONE PHASE 1
PRIVATE ENTRY 1 AND 2
PLAN AND PROFILE - "ER1" 14+00.00 TO "ER1" 22+00.00

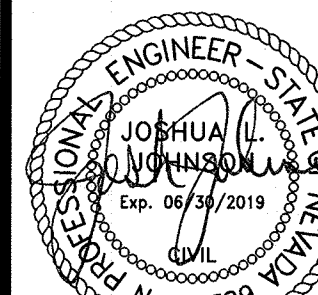
DATE: 05/01/19

DRAFTER: SB/JR

DESIGNER: BC

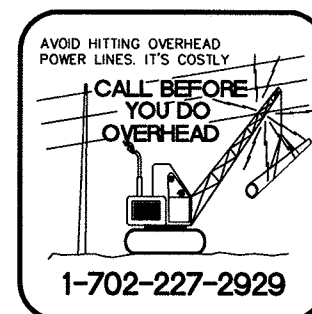
CHECKED: JJ

PROJECT NO.
EST1910-000

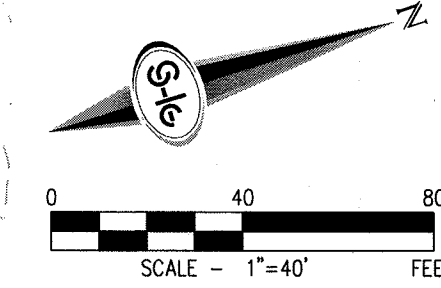


P-2

SHEET 5 OF 9



SEE SHEET G-1



1. CONSTRUCT TYPE "CM2" DROP INLET (USDCCA STD. DWG. NO. 412.1 & 421)
2. CONSTRUCT 48" TYPE III MANHOLE (USDCCA STD. DWG. NO. 405)
3. CONSTRUCT 60" TYPE III MANHOLE (USDCCA STD. DWG. NO. 406.1)
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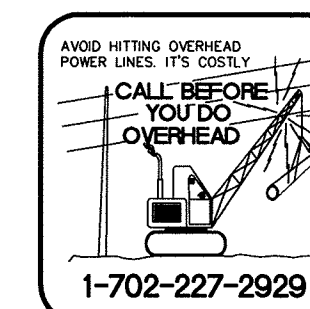
WHERE 10 FEET PARALLEL SEPARATION IS NOT PRACTICABLE:
CAST-IN-PLACE MONOLITHIC POUR WITH WATERSTOP BETWEEN SLAB AND WALLS.
BASE, WALLS AND TOP TO BE CONSTRUCTED WITH WATERSTOPS, CENTER BULB,
OR FLAT STRIP (VINYLEX, GREENSTREAK PLASTIC PRODUCTS OR APPROVED EQUAL).

1 STORM DRAIN LATERAL # (SEE SHEETS P-4)

FLOOD ZONE
PROJECT SITE IS LOCATED WITHIN A FEMA
UNCLASSIFIED ZONE 'X' (OUTSIDE THE 0.2% ANNUAL
FLOODPLAIN) ON THE FLOOD INSURANCE
RATE MAP (FIRM) PANELS: 32003C1735E AND
32003C1750E BOTH DATED SEPTEMBER 27, 2002

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

LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES
PROJECT NO. XXXXXX FIRST APPROVED DATE:

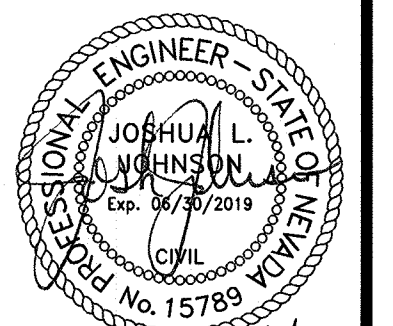
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CITY OF LAS VEGAS	6+50.00
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EASTLAND COMPANY, LLC

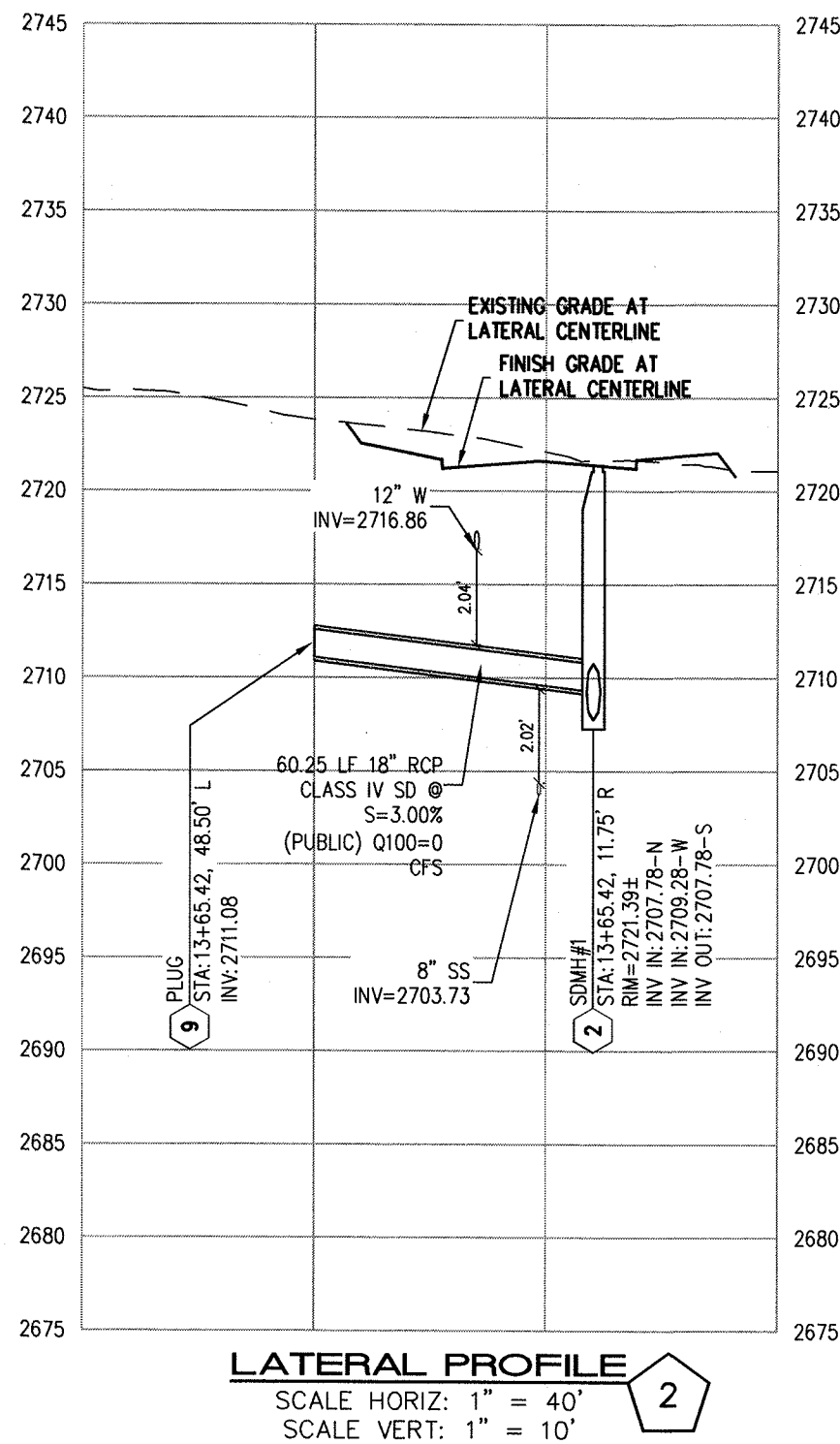
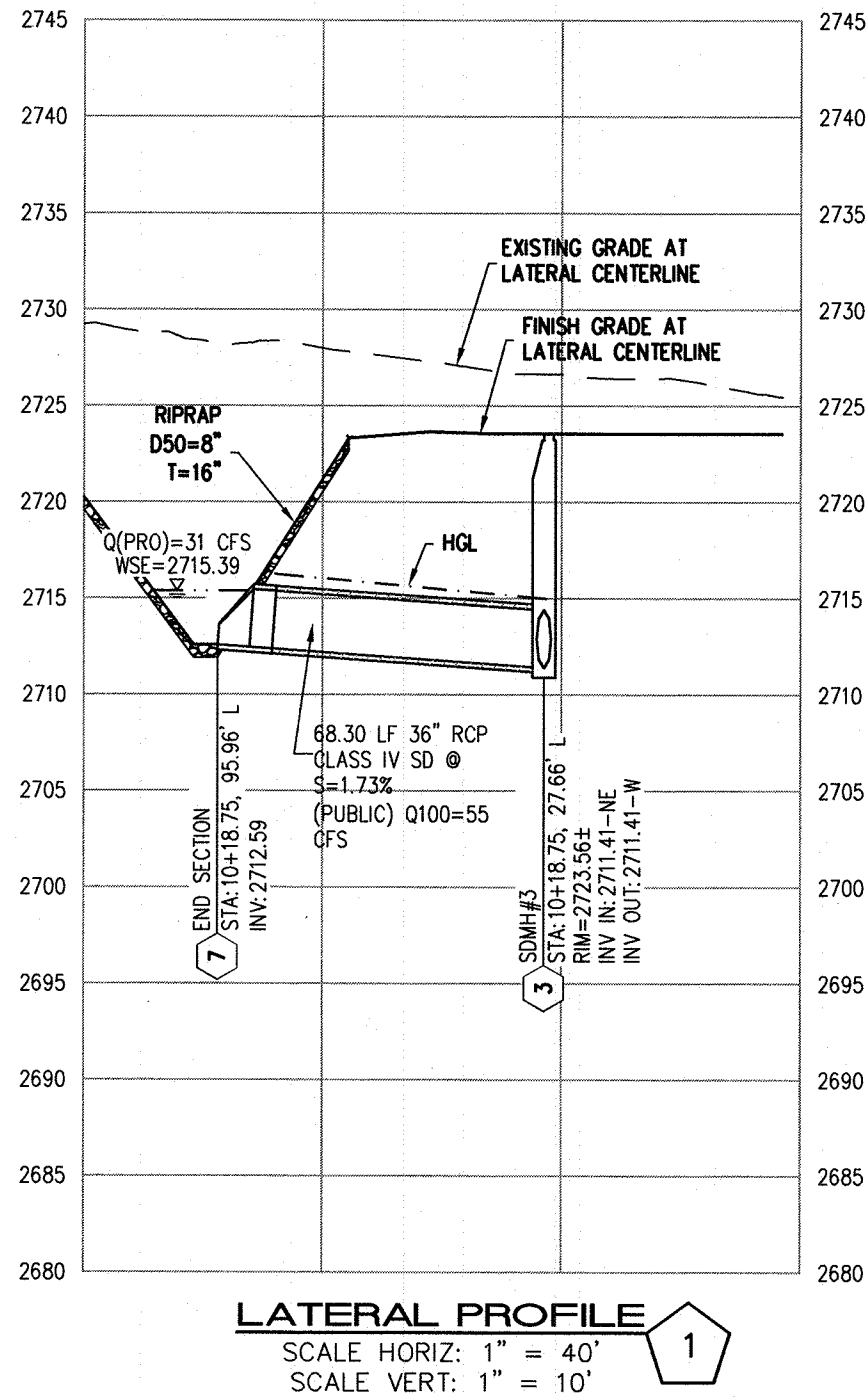
**SUNSTONE PHASE 1
PRIVATE ENTRY 1 AND 2
PLAN AND PROFILE - "ER2" 9+00.00 TO "E"**

DATE:	05/01/19
DRAFTER:	SB/JR
DESIGNER:	BC
CHECKED:	JJ
PROJECT NO.	
EST1910-000	



P-3
SHEET 6 OF 9

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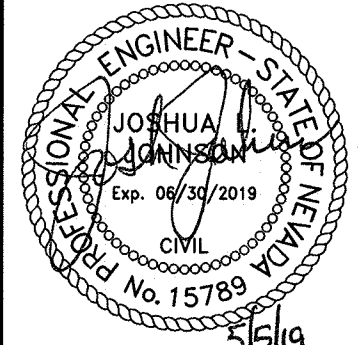


CITY OF LAS VEGAS

EASTLAND COMPANY, LLC

SUNSTONE PHASE 1
PRIVATE ENTRY 1 AND 2
STORM DRAIN LATERAL DETAILS

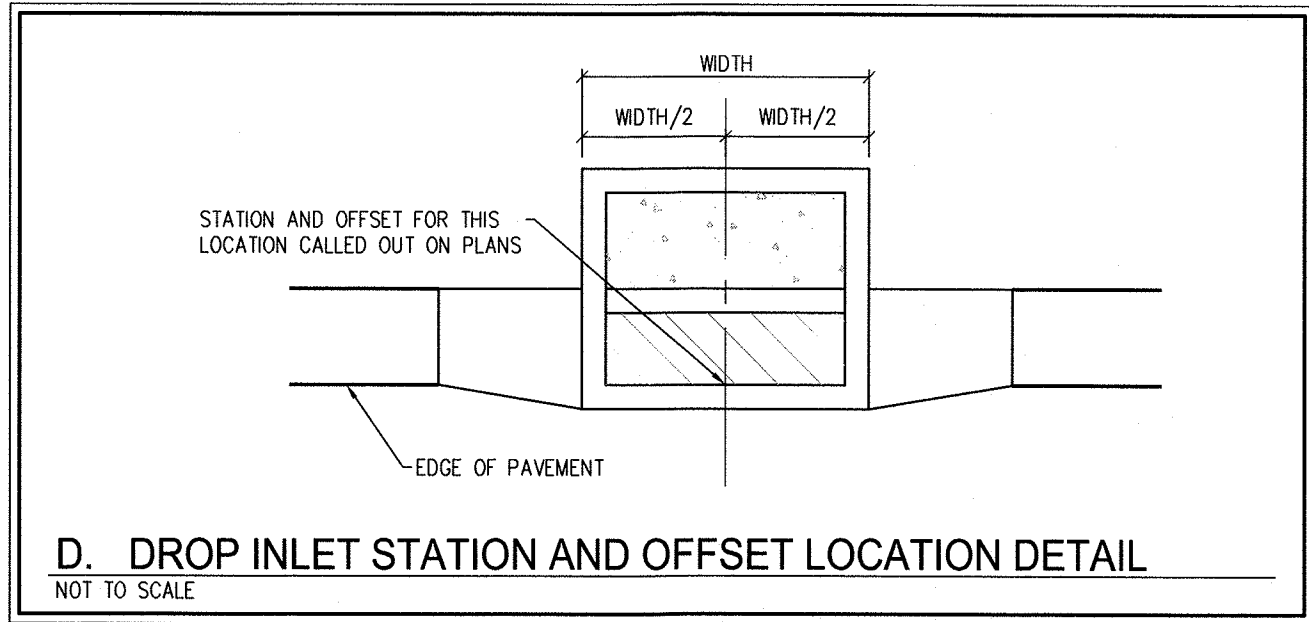
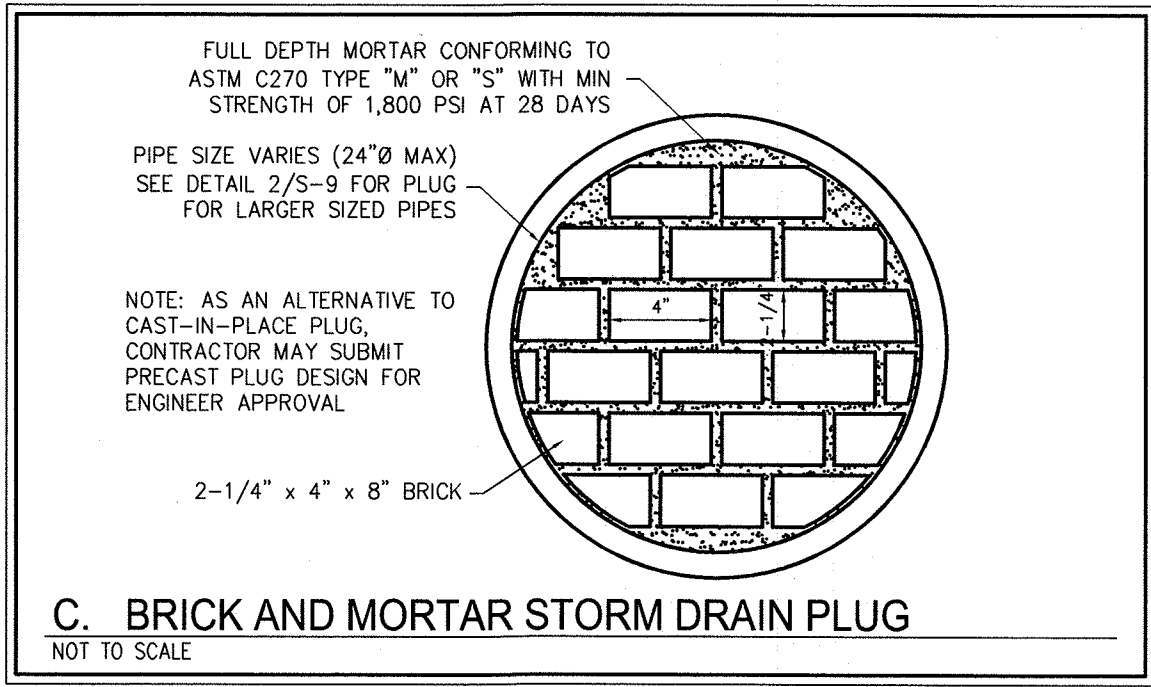
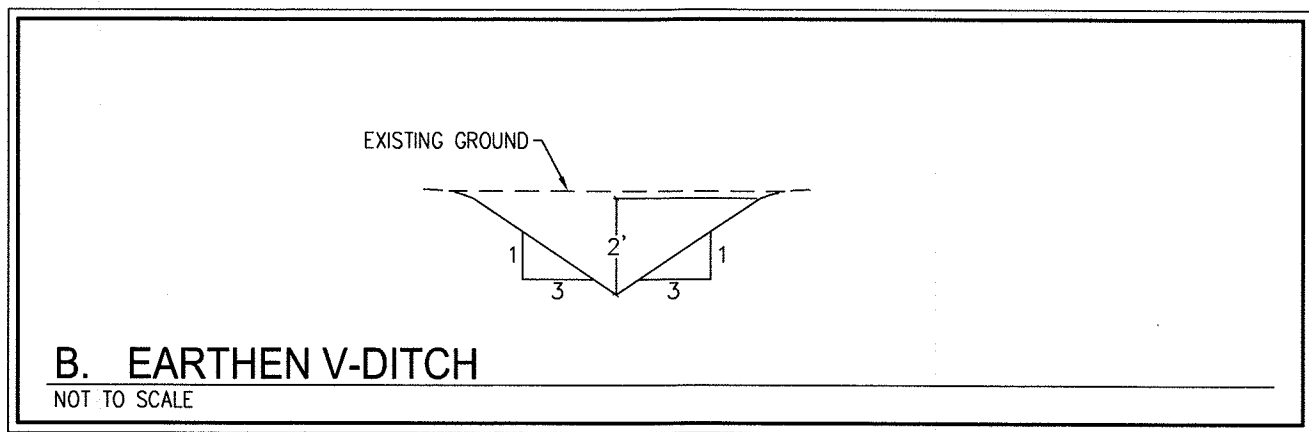
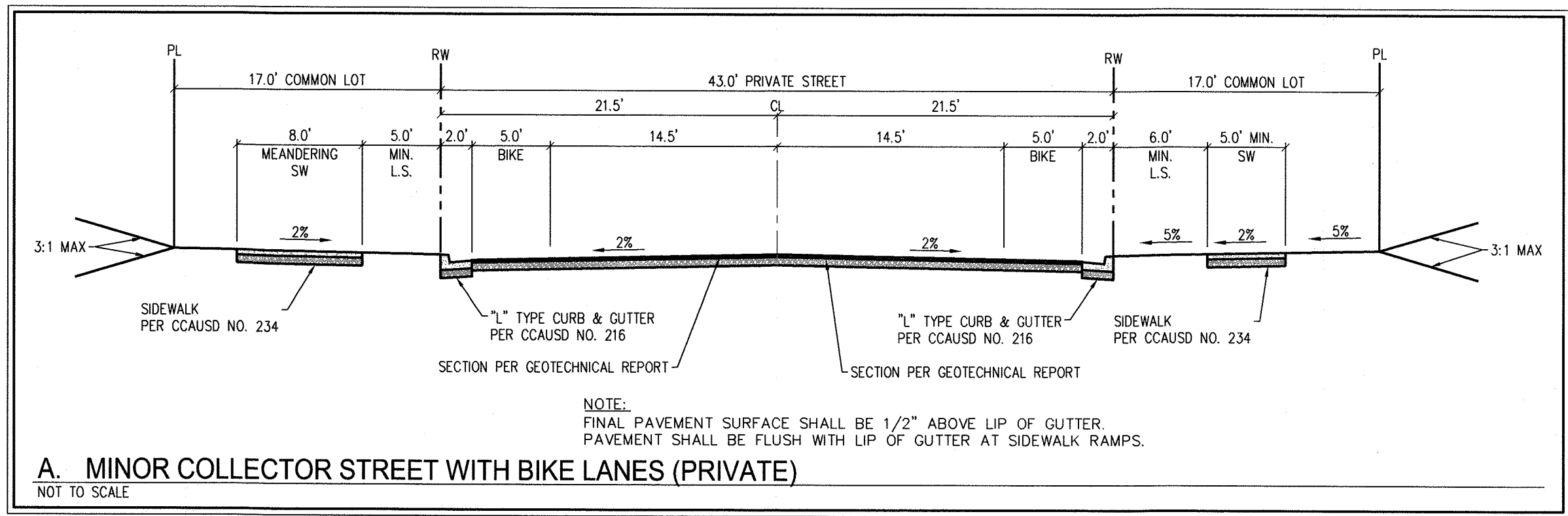
DATE: 05/01/19
DRAFTER: SB/JR
DESIGNER: BC
CHECKED: JJ
PROJECT NO.
EST1910-000



P-4
SHEET 7 OF 9

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

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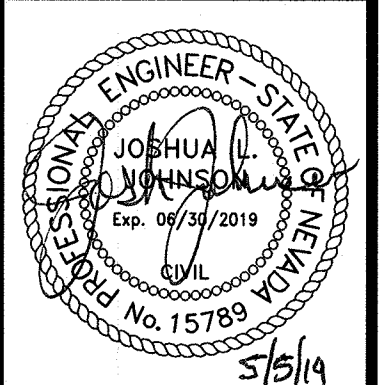
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CITY OF LAS VEGAS

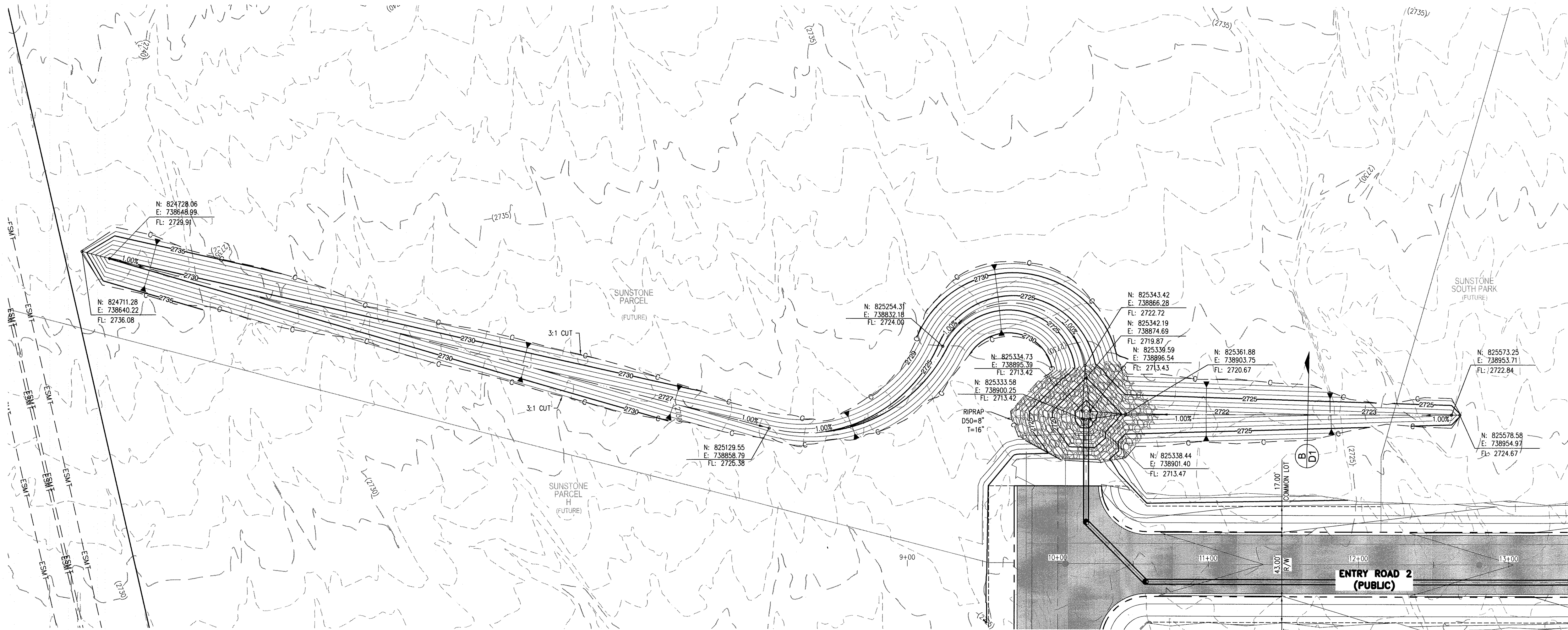
EASTLAND COMPANY, LLC

**SUNSTONE PHASE 1
PRIVATE ENTRY 1 AND 2
DETAIL SHEET 1**

DATE: 05/01/19
DRAFTER: SB/JR
DESIGNER: BC
CHECKED: JJ
PROJECT NO.
EST1910-000



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NO.	DESCRIPTION	DATE	BY	APP.	DATE

EASTLAND COMPANY, LLC
SUNSTONE PHASE 1
PRIVATE ENTRY 1 AND 2
GRADING PLAN

DATE: 05/01/19
DRAFTER: SB/JR
DESIGNER: BC
CHECKED: JJ
PROJECT NO.
EST1910-000

