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. 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.
3. ALL EXISTING STREET LIGHTING SHALL REMAIN OPERATIONAL DURING CONSTRUCTION IN ACCORDANCE WITH SECTION 623 G.03.01 OF THE USS.
4. 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.
5. 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.
6. 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.
7. 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.
8. 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.
9. THE CONTRACTOR SHALL FURNISH COMPLETE CONDUIT, WIRE, ETC. FROM SERVICE TO TRANSFORMERS AND CONTROL SYSTEMS IF REQUIRED ON THE PLANS.

REVISED 06/28/2016 (LD VERSION)

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 INCHES (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 AND 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.

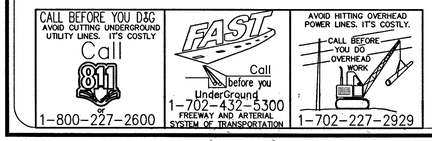
REVISED 01/13/2015

RTC/FAST NOTES

1. CONTRACTOR IS TO MAINTAIN AND KEEP OPERATIONAL ALL EXISTING ITS INFRASTRUCTURE WITHIN THE CONSTRUCTION LIMITS. IF ANY EXISTING ITS INFRASTRUCTURE IS DAMAGED DUE TO CONSTRUCTION, WITHIN THE PROJECT LIMITS, THE CONTRACTOR SHALL IMMEDIATELY CONTACT MR. JESUS "CHUY" MARMOLEJO (RTC/FAST MANAGER TRAFFIC SYSTEMS MAINTENANCE) AT 702-604-7078. CELL OR 702-432-5300 GENERAL.
2. IF ANY EXISTING FIBER OPTIC CABLE IS TO BE CUT OR SPLICED ALONG OR ADJACENT TO THE PROJECT LIMITS, THE CONTRACTOR IS TO CONTACT MR. JESUS "CHUY" MARMOLEJO TWO (2) WEEKS IN ADVANCE FOR SYSTEM SHUTDOWN COORDINATION.

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 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 OR 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 DESIGN TO BE APPROVED BY THE QUALITY CONTROL DIVISION, 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. JOINTS REQUIRED, MAXIMUM EVERY 300' IN EXTRUDED-TYPE CURB.
8. AC PAVEMENT TO BE 1/2" ABOVE LIP OF ALL GUTTERS AFTER COMPACTION, EXCEPT AT SIDEWALK RAMPS.
9. GURB AND GUTTER WITH A GRADE OF LESS THAN FOUR-TENTHS OF ONE PERCENT SHALL BE WATER-TESTED AS SOON AS POSSIBLE AFTER CONSTRUCTION. ANY CURB AND GUTTER FOUND TO BE UNACCEPTABLE TO THE CITY SHALL BE REMOVED AND REPLACED PER USD 216.
10. SIDEWALK RAMPS SHALL BE CONSTRUCTED IN EACH QUADRANT OF AN INTERSECTION PER USD 235; CASE I. EXACT LOCATION OF RAMPS MAY BE ADJUSTED IN THE FIELD BY A CITY PROJECT REPRESENTATIVE.
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. THESE TRANSITIONS TO BE AS SHOWN ON PLANS, OR AS DESIGNATED IN THE FIELD BY CITY PROJECT REPRESENTATIVE.
12. EXACT LOCATION OF ALL SAWCUT LINES MAY BE DETERMINED IN THE FIELD BY A CITY PROJECT REPRESENTATIVE IF LOCATION ON PLANS IS NOT CLEARLY SHOWN, OR EXISTING PAVEMENT CONDITION REQUIRES RELOCATIONS.
13. THE CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO PROTECT EXISTING PERMANENT SURVEY MONUMENTS. ANY MONUMENTS DISTURBED SHALL BE REPLACED, AND SHALL BE DONE ONLY BY A NEVADA PROFESSIONAL LAND SURVEYOR IN ACCORDANCE WITH THE UNIFORM STANDARD DRAWINGS - CLARK COUNTY AREA. A RECORD-OF-SURVEY FOR REPLACEMENT OF PERMANENT SURVEY MONUMENTS SHALL BE SUBMITTED TO THE CITY ENGINEER FOR APPROVAL PRIOR TO RECORDING. THE RECORD-OF-SURVEY SHALL BE PREPARED IN ACCORDANCE WITH NEVADA REVISED STATUTES 625.350.
14. UTILITY COMPANY METER BOXES, MANHOLE LIDS, VALVE COVERS, ETC., SHALL BE LOCATED OUT OF DRIVEWAYS, DRIVEWAY APRONS, FLOWLINES, AND CROSS GUTTER UNLESS WRITTEN APPROVAL IS GRANTED BY THE AFFECTED UTILITY COMPANY AND THE CITY ENGINEER.
15. ALL WALLS, NEW OR EXISTING, ARE ONLY SHOWN ON CIVIL PLANS FOR THE PURPOSE OF REVIEWING GRADING RELATIONSHIPS; FLOOD CONTROL AND SIGHT DISTANCE AT INTERSECTIONS. NEW WALLS REQUIRE A SEPARATE PERMIT AND INSPECTION BY THE CLV BUILDING DEPARTMENT.
16. ASPHALT MIX DESIGN MUST BE SUBMITTED AND APPROVED BY THE CITY ENGINEER PRIOR TO THE PLACEMENT OF ASPHALT WITHIN CITY RIGHTS OF WAY.
17. CONTRACTOR SHALL ADJUST ALL NEW AND EXISTING INLETS, VALVE BOXES, MANHOLE RIMS, SEWER CLEANOUTS, ETC. TO FINISH GRADE AS APPLICABLE WHETHER OR NOT THEY ARE SHOWN ON THE PLANS.
18. MATERIALS, HANDLING AND PLACEMENT OF PORTLAND CEMENT CONCRETE SHALL BE IN ACCORDANCE WITH APPLICABLE SECTIONS OF NDOT AND CLARK COUNTY AREA SPECIFICATIONS (AS APPLICABLE) AND THE PLANS AND DETAILS SHOWN HEREON.
19. WHEN INSTALLING UNDERGROUND FACILITIES THAT REQUIRE UNDERGROUND LOCATING DEVICES SUCH AS MARKER BALLS, LOCATING RIBBON, ETC, THE CONTRACTOR SHALL PROVIDE WRITTEN DOCUMENTATION TO THE ENGINEER CERTIFYING THAT ALL DEVICES HAVE BEEN PLACED AND VERIFIED TO BE IN GOOD WORKING CONDITION PRIOR TO THE CONSTRUCTION OF ANY ROAD BASE.
20. NEWLY INSTALLED AND EXISTING UTILITIES EXPOSED DURING CONSTRUCTION SHALL BE SURVEYED AND DOCUMENTED PER SECTION 622 OF THE SPECIAL PROVISIONS.
21. CCTV VIDEO INSPECTION IS REQUIRED FOR ALL SEWER AND STORM DRAINS. THE CCTV VIDEO INSPECTIONS NEED TO BE PERFORMED PER THE DESIGN AND CONSTRUCTION STANDARDS FOR WASTEWATER COLLECTION SYSTEMS LATEST ADDITION.
22. A SEPARATE BORING PERMIT IS REQUIRED FOR ALL BORING ACTIVITIES.

REVISED 07/23/2015 (CPM VERSION)

SOUTHERN NEVADA - SOUTHWEST GAS CORPORATION 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 ADJUSTMENTS 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.

SWG DISCLAIMER:

THE DATA CONTAINED HEREIN IS PROVIDED FOR INFORMATIONAL PURPOSES ONLY. SOUTHWEST GAS CORPORATION MAKES NO WARRANTIES AND DOES NOT GUARANTEE THE CORRECTNESS, COMPLETENESS, OR USEFULNESS FOR ANY LOSS OR DAMAGE HOWEVER ARISING FROM THE USE OF OR RELIANCE ON THE DATA PROVIDED. THE FIELD LOCATION AND DEPTH OF ALL SOUTHWEST GAS FACILITIES SHOULD BE VERIFIED.

SOUTHWEST GAS CORPORATION DATE

CITY OF LAS VEGAS FIRE DEPARTMENT NOTES

1. ALL WORK SHALL BE DONE IN STRICT ACCORDANCE WITH THE LAS VEGAS FIRE AND RESCUE ADOPTED FIRE CODE ORDINANCE #6325 FOR HYDRANT SPECIFICATIONS AND HYDRANT INSTALLATION SPECIFICATIONS.
2. ONLY FIRE HYDRANTS THAT ARE ON THE LAS VEGAS VALLEY WATER DISTRICT'S - APPROVAL PRODUCTS LIST ARE ALLOWED TO BE INSTALLED.
3. A PERMIT IS REQUIRED FROM LAS VEGAS FIRE AND RESCUE FOR THE INSTALLATION OF ON-SITE WATER LINES AND FIRE HYDRANTS. THE PERMIT AND CONTRACTORS MATERIAL TEST CERTIFICATE FOR UNDERGROUND PIPING FORM SHALL BE OBTAINED FROM THE FIRE PROTECTION ENGINEER BEFORE COMMENCEMENT OF WORK. (IFC § 105.7.12)
4. ON ANY RESIDENTIAL OR COMMERCIAL INSTALLATIONS, FIRE HYDRANTS SHALL BE INSTALLED AND FIRE APPARATUS ACCESS ROADS SHALL BE MAINTAINED BEFORE COMMENCEMENT OF ANY COMBUSTIBLE CONSTRUCTION. ALL FIRE HYDRANTS SHALL BE IN GOOD WORKING ORDER AND SHALL BE CAPABLE OF DELIVERING THE REQUIRED FIRE FLOW. (IFC § 3310, § 3312)
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. (IFC § 507.5.7.3)
6. ALL UNDERGROUND INSPECTIONS, PRESSURE AND FLUSH VERIFICATIONS OF ALL FIRE HYDRANTS AND FIRE LINES, SHALL BE CONDUCTED BEFORE COVERING THE LINES. CENTER LOADING IS ACCEPTABLE FOR THE HYDRO TESTS WITH PRIOR FIRE PREVENTION APPROVAL. (IFC § 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 MUST BE WITNESSED BY THE 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 § C1.02)
    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 THE STRUCTURES, FIRE HYDRANTS SHALL BE INSTALLED AT MAXIMUM 1,000 FOOT SPACING, TO PROVIDE FOR TRANSPORTATION HAZARDS. WHERE STREETS ARE PROVIDED WITH MEDIAN DIVIDERS OR HAVE FOUR (4) OR MORE TRAFFIC LANES AND HAVE A TRAFFIC COUNT OF MORE THAN 30,000 PER DAY, HYDRANTS ARE REQUIRED ON EACH SIDE OF THE STREET SPACED AT 500 FEET ON AND ALTERNATING BASIS. (IFC § C102.8)
13. NO FIRE HYDRANT SHALL BE LOCATED WITHIN THE REQUIRED RADIUS OF A CUL-DE-SAC OR WITHIN 20 FEET OF THE PERIMETER OF THE RADIUS OF THE CUL-DE-SAC.
14. NO FIRE HYDRANTS SHALL BE LOCATED WITHIN 6 FT OF ANY CURB RETURN, DRIVEWAY, POWER POLE, STREET LIGHT 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 FEET, 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 FEET, AS MEASURED BY AN APPROVED ROUTE. (IFC § C102.7)
17. THE MAXIMUM DISTANCE FROM A FIRE HYDRANT TO THE END OF A DEAD-END STREET SHALL NOT EXCEED 200 FEET. (IFC § 102.6)
18. TWO (2) SOURCES OF SUPPLY ARE REQUIRED WHENEVER THERE IS 4 OR MORE FIRE HYDRANTS/SPRINKLER LEAD-INS 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 § C503.2.3)
20. THE GRADIENT FOR THE FIRE APPARATUS ACCESS ROADS SHALL NOT EXCEED 12% ANGLES OF APPROACH AND ANGLES OF DEPARTURE SHALL NOT EXCEED 6% FOR 25 FEET PRIOR TO OR AFTER THE GRADE CHANGE. ADJACENT TO THE STRUCTURES GRADIENT SHALL NOT EXCEED 6% (IFC § 503.2.7, § 503.2.8)
21. THE TURNING RADIUS OF THE FIRE APPARATUS ACCESS ROADS SHALL BE NO LESS THAN 52 FEET OUTSIDE RADIUS AND 28 FEET INSIDE TURNING RADIUS. (IFC § 503.2.4)
22. VERTICAL CLEARANCE OF ALL FIRE APPARATUS ACCESS ROADS SHALL NOT BE LESS THAN 13 FEET 6 INCHES. (IFC § 503.2.1)
23. FIRE DEPARTMENT ACCESS ROADS SHALL HAVE A MINIMUM UNOBSTRUCTED WIDTH OF NOT LESS THAN 40 FT FLOW LINE TO THE 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 BE NOT LESS THAN 24 FT. (IFC § 503.2.1.1)
24. A FIRE APPARATUS ACCESS ROAD SHALL BE REQUIRED WHEN ANY PORTION OF AN EXTERIOR WALL OF THE FIRST STORY IS LOCATED MORE THAN 150 FT FROM A FIRE DEPARTMENT VEHICLE ACCESS. 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 SINGLE POINT OF ACCESS IN EXCESS OF 600 FEET, COMMERCIAL AND INDUSTRIAL DEVELOPMENTS WHERE BUILDINGS EXCEED 2 STORIES OR 30 FEET IN HEIGHTS, OR EXCEEDING 62,000 SQUARE FEET IN AREA. (IFC § 503.1.2)
26. ALL DEAD-END FIRE APPARATUS ACCESS ROADS AND/OR FIRE LANES, PUBLIC OR PRIVATE, IN EXCESS OF 150 FEET IN LENGTH SHALL BE PROVIDED WITH AN APPROVED TURN AROUND AREA HAVING A MINIMUM DIAMETER OF 81 FEET. (IFC § 503.1.2)
27. ALL FIRE APPARATUS ACCESS ROADS SHALL BE MARKED BY PLACING APPROVED SIGNS AT THE START OF THE DESIGNATED FIRE LANES. SIGNS TO BE PLACED ON BOTH SIDES OF AN ACCESS ROADWAY IF NEEDED TO PREVENT PARKING ON EITHER SIDE. SIGNS TO BE INSTALLED NO HIGHER THAN 10 FT OR LESS THAN 6 FT FROM THE ROADWAY LEVEL. THE CURB ALONG OR ON THE PAVEMENT OR CEMENT (IF NO CURB IS PROVIDED) SHALL BE PAINTED WITH A RED WEATHER RESISTANT PAINT IN ADDITION TO THE SIGNS. (IFC § 503.3)
28. ELECTRICALLY CONTROLLED ACCESS GATES SHALL BE PROVIDED WITH AN APPROVED EMERGENCY VEHICLE DETECTOR/RECEIVER SYSTEM. SAID SYSTEM SHALL BE INSTALLED IN ACCORDANCE WITH THE IFC § 503.6 AND IFC APPENDIX M.

STORMWATER RUNOFF MANAGEMENT

1. THE OWNER, SITE DEVELOPER, CONTRACTOR, AND/OR THEIR AUTHORIZED AGENTS SHALL EACH DAY REMOVE ALL SEDIMENT, MUD, CONSTRUCTION DEBRIS, OR OTHER POTENTIAL POLLUTANTS THAT MAY HAVE BEEN DISCHARGED TO, OR ACCUMULATED IN, THE CLARK COUNTY PUBLIC RIGHT OF WAY AS A RESULT OF CONSTRUCTION ACTIVITIES ASSOCIATED WITH THIS SITE DEVELOPMENT OR CONSTRUCTION PROJECT. SUCH MATERIALS SHALL BE PREVENTED FROM ENTERING THE STORM DRAIN 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 BY 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 STORM WATER GENERAL PERMIT FOR CONSTRUCTION ACTIVITY NVR100000, SECTION III.A.5.
4. AT A MINIMUM, THE CONTRACTOR OR HIS AGENT SHALL INSPECT ALL DISTURBED AREAS, AREAS USED FOR STORAGE OF MATERIALS AND EQUIPMENT THAT ARE EXPOSED TO PRECIPITATION, VEHICLE ENTRANCE AND EXIT LOCATIONS, AND ALL BMPS WEEKLY, AND WITHIN 24 HOURS AFTER ANY RAIN EVENT OF 0.5 INCHES OR MORE. THE CONTRACTOR OR HIS AGENT SHALL UPDATE OR MODIFY THE STORM WATER POLLUTION PREVENTION PLAN AS NECESSARY. SOME EXCEPTIONS TO WEEKLY INSPECTIONS MAY APPLY, SUCH AS SUSPENSION OF LAND DISTURBANCE ACTIVITIES. REFER TO THE NEVADA STORM WATER GENERAL PERMIT FOR CONSTRUCTION ACTIVITY NVR100000, SECTION III.A.12.
5. ACCUMULATED SEDIMENT IN BMPS SHALL BE REMOVED WITHIN SEVEN DAYS AFTER A STORM WATER RUNOFF EVENT OR PRIOR TO THE NEXT ANTICIPATED STORM EVENT, WHICHEVER IS EARLIER. SEDIMENT MUST BE REMOVED WHEN BMP DESIGN CAPACITY HAS BEEN REDUCED BY 50 PERCENT OR MORE.

LAS VEGAS VALLEY WATER DISTRICT NOTES

LVVWD PROJECT # 126421

1. NO WORK SHALL BEGIN UNTIL THE WATER PLANS HAVE BEEN APPROVED FOR CONSTRUCTION BY THE LVVWD. FOLLOWING WATER PLAN APPROVAL, NOTICE SHALL BE GIVEN TO THE LVVWD COMMUNICATION SUPPORT CENTER (258-7171) TWO (2) WORKING DAYS PRIOR TO THE START OF CONSTRUCTION. FOR FUTURE INSPECTIONS, NOTICE MUST BE GIVEN BY 2:00 P.M. THE BUSINESS DAY PRIOR TO THE REQUESTED LVVWD INSPECTION. WHEN REQUESTING INSPECTIONS, PLEASE REFER TO THE PROJECT # IDENTIFIED ABOVE.
2. ALL WORK SHALL CONFORM TO LVVWD'S STANDARD PLATES, DRAWINGS, AND SPECIFICATIONS, AND TO THE 2010 EDITION OF THE UNIFORM DESIGN AND CONSTRUCTION STANDARDS FOR POTABLE WATER SYSTEM (UDACS). THE LATEST EDITION OF UDACS SHALL SUPERSEDE ANY CONFLICTS CONTAINED IN THE APPROVAL DRAWINGS AND/OR SPECIFICATIONS.
3. ALL WORK, EXCEPT AS MODIFIED BY THESE PLANS OR BY NOTE 2 ABOVE, SHALL BE DONE IN ACCORDANCE WITH THE MOST RECENT DRAFT OR EDITION OF THE UNIFORM STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION OFFSITE IMPROVEMENT, CLARK COUNTY AREA.
4. A SINGLE PIPE MATERIAL SHALL BE USED THROUGHOUT THE PROJECT UNLESS OTHERWISE APPROVED BY THE LVVWD.
5. ALL SERVICE LATERALS TWO(2) INCHES IN DIAMETER AND SMALLER SHALL BE TYPE K COPPER TUBING WITH LVVWD APPROVED SERVICE SADDLES.
6. ALL WATER METER BOXES SHALL BE LOCATED OUTSIDE OF DRIVEWAY AREAS.
7. ALL VALVES SHALL BE LOCATED OUTSIDE OF DRIVEWAYS, VALLEY AND CURB GUTTERS.
8. ALL WATER AND STORM 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 FROM LVVWD CENTRAL STORES. TELEPHONE 258-3152 OR 258-3802, TWO (2) WORKING DAYS PRIOR TO METER PICKUP.
11. ANY INTERRUPTION OF SERVICE MUST BE PERFORMED IN ACCORDANCE WITH UDACS SECTION 3.14.01, AND APPROVED BY THE LVVWD INSPECTION DIVISION PRIOR TO SHUTDOWN. PROPER WRITTEN NOTIFICATION MUST BE GIVEN TO ALL AFFECTED CUSTOMERS.
12. ALL WATER FACILITY CONSTRUCTION MATERIALS USED MUST BE 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.

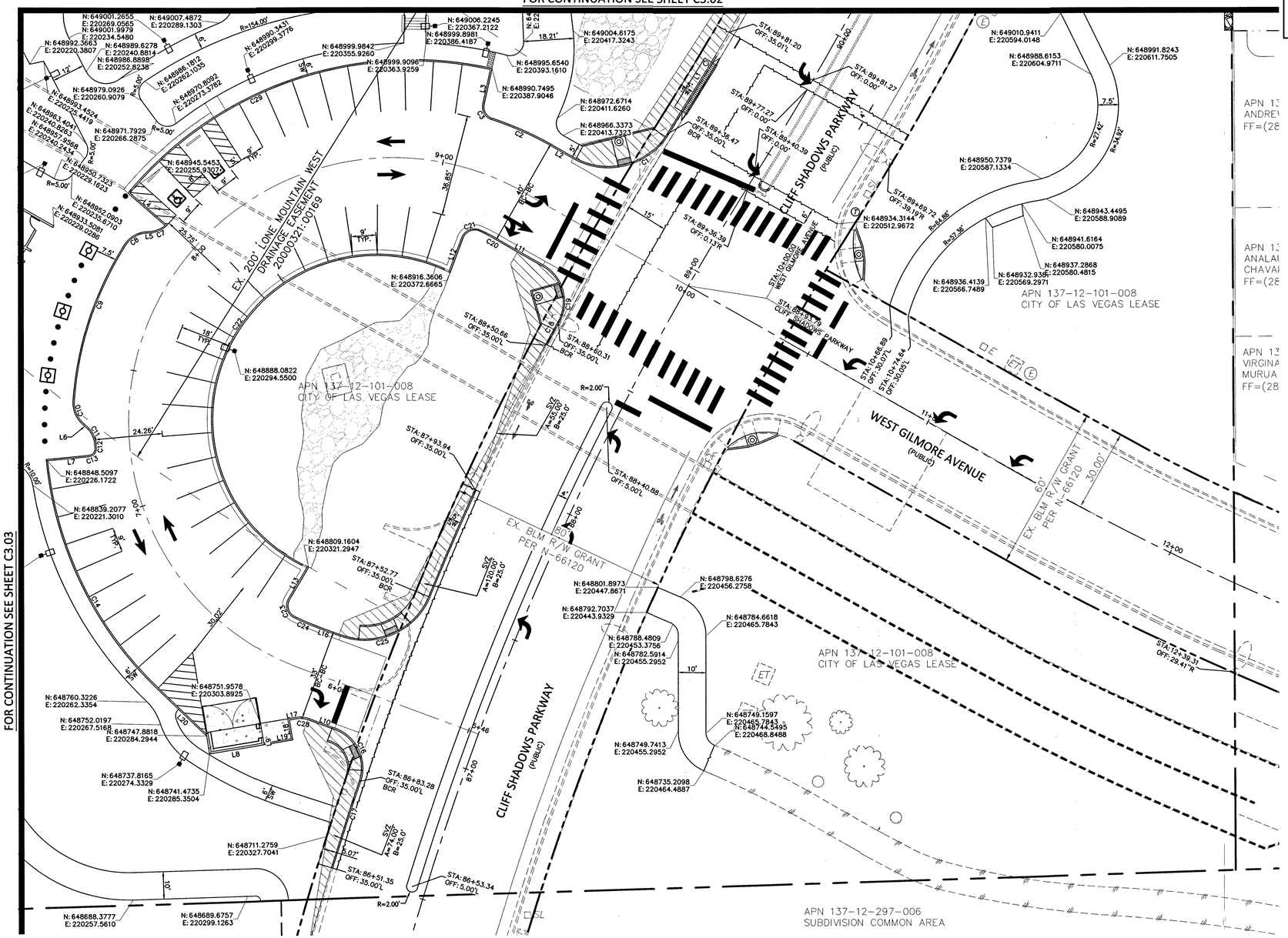
ANY DECORATIVE PAVING SURFACE WITHIN THE STREET IS THE RESPONSIBILITY OF THE OWNER'S ASSOCIATION, OR THE INDIVIDUAL PROPERTY OWNERS IF NO OWNER'S ASSOCIATION IS IN EXISTENCE, OR THE AGENCY HAVING JURISDICTION. DECORATIVE SURFACE MATERIALS PLACED WITHIN THE TEN FOOT EASEMENT ABUTTING A PUBLIC OR PRIVATE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

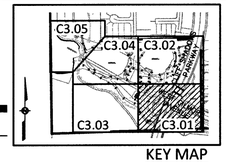
APPROVED FOR CONSTRUCTION

LAS VEGAS

FOR CONTINUATION SEE SHEET C3.02

FOR CONTINUATION SEE SHEET C3.03





KEY MAP
NTS

LINE/CURVE TABLE NOTE:

FOR LINE TABLE SEE SHEET C3.03
FOR CURVE TABLE SEE SHEET C3.03

GRAPHIC SCALE
20 0 10 20
SCALE: 1"=20'

BASIS OF BEARINGS

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

BENCHMARK

PROJECT DATUM: NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).

CITY OF LAS VEGAS BENCHMARK: 7LV0911NES
ELEVATION: 2931.57 (US SURVEY FEET)
893.54 (METERS)

BEING A BLM BRASS CAP (HIGH PT.) SECTION 2/1 OVER 11/12, PI ALEXANDER ROAD & SECTION LINE.

SIGHT VISIBILITY ZONE LEGEND

SIGHT VISIBILITY ZONE

SIGHT VISIBILITY ZONE NOTE:

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

NOTE:

CONTRACTOR RESPONSIBLE TO PROVIDE SURVEY MONUMENTATION PER UNIFORM STANDARD DRAWINGS AND SPECIFICATIONS AND ALL SURVEY MONUMENTATION DAMAGED, DISTURBED, DESTROYED OR OBSCURED DURING CONSTRUCTION, TO BE REPLACED.

CALL BEFORE YOU DIG
AVOID CUTTING UNDERGROUND UTILITY LINES. IT'S COSTLY
Call 811
1-800-227-2600

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

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

COLLINS ENGINEERS ASSUMES NO RESPONSIBILITY FOR EXISTING UTILITY LOCATIONS AND ELEVATIONS. THE UTILITIES SHOWN ON THIS DRAWING HAVE BEEN PLOTTED FROM THE BEST AVAILABLE INFORMATION. IT IS, HOWEVER, THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE LOCATION AND ELEVATION OF ALL UTILITIES PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION. CONTRACTOR TO FIELD VERIFY ALL EXISTING SITE CONDITIONS PRIOR TO CONSTRUCTION. IF A CONFLICT EXISTS BETWEEN WHAT IS SHOWN ON THESE DRAWINGS AND WHAT EXISTS IN THE FIELD, THE CONTRACTOR IS TO NOTIFY THE ARCHITECT OR ENGINEER IMMEDIATELY.

LEGEND

EXISTING	PROPOSED		EXISTING	PROPOSED	
(0.00%)	0.00%	SLOPE			AC PAVEMENT
(0.00) XX	0.00 XX	ELEVATION TAG			6" TYPE "A" CURB
	Ⓓ	STORM MANHOLE			24" TYPE "L" CURB & GUTTER
		DROP INLET			30" ROLL CURB
-00-	-00-	CONTOUR			
		RETAINING WALL			
		SCREEN WALL			

PL-RIGHT-OF-WAY
PL-ADJACENT
CENTERLINE
EASEMENT LINE
FLOW LINE
SAWCUT LINE
GRADE BREAK
MOUNDING
CHAIN LINK FENCE

H:\CAD\LAND\10297\DWG\SHEETS\10297-C3.01-HZC.DWG 08/16/2018 07:23:56 AM

CITY OF LAS VEGAS NEVADA

REVISIONS

CONSULTANT

COLLINS ENGINEERS
3130 S. DURANGO DR., SUITE 404
LAS VEGAS, NV 89117
PHONE: (702) 248-8000
FAX: (702) 248-8070
www.collinsengr.com

DEPARTMENT OF PUBLIC WORKS

GILMORE CLIFF SHADOWS PARK
NEW CITY OF LAS VEGAS PARK

HORIZONTAL CONTROL PLAN

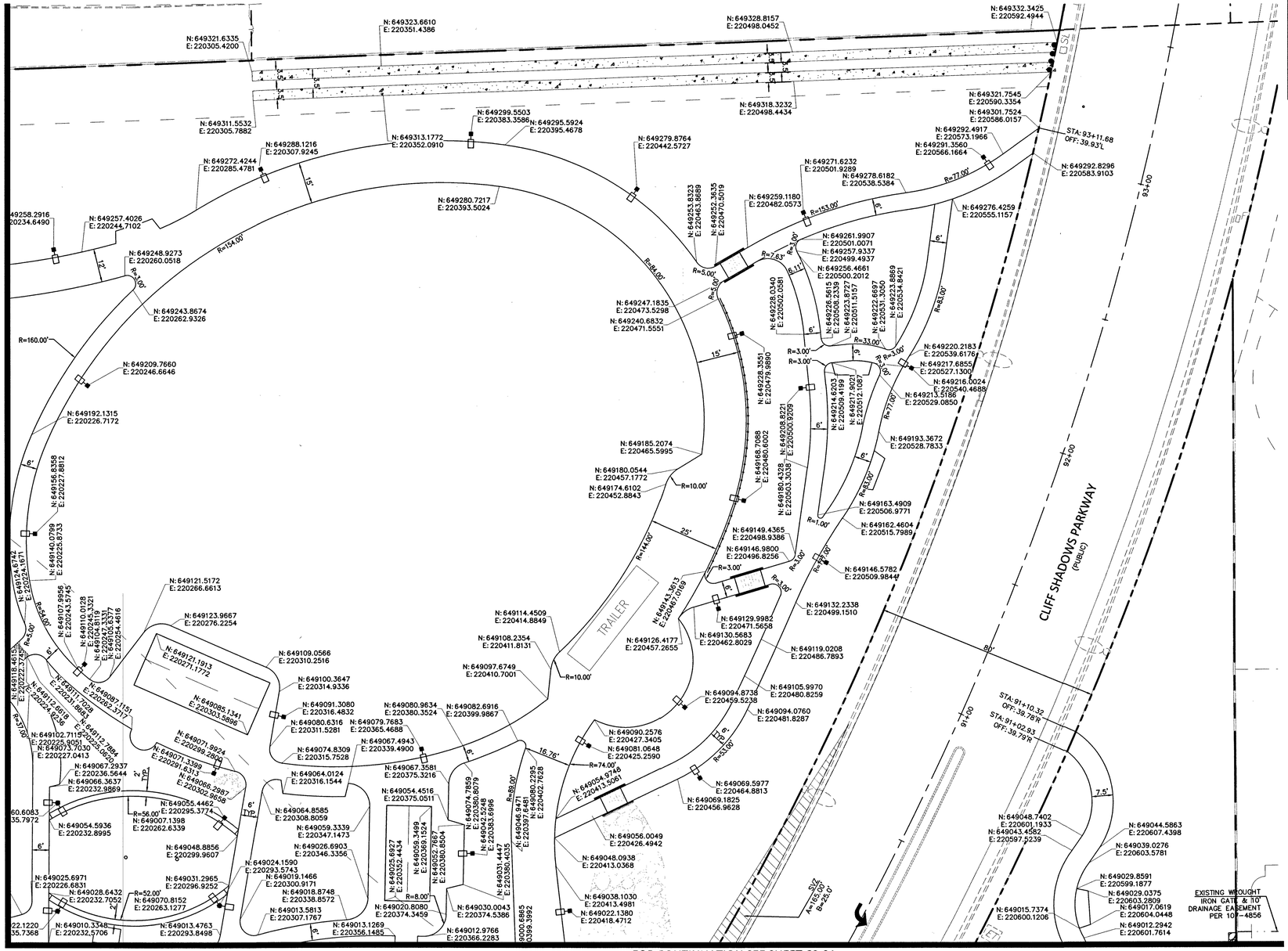
STAMP

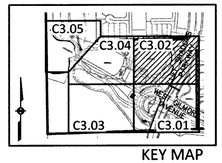
ARMANDO PINEDA
EXP. 12-31-19
CIVIL
NO. 18290
7-19-19

OWNER: CITY OF LAS VEGAS
DEPARTMENT OF PUBLIC WORKS

DEVELOPMENT SERVICES CENTER
333 N. RANCHO DRIVE
LAS VEGAS, NEVADA 89106
PHONE: (702) 229-6276
FAX: (702) 384-4846

DRAWN	DSI
FILE	180101445
DATE	6/18/2018
SCALE	SEE PLAN
BID NO	18.66085.DD
CLV DWG NO	650.116
HANSEN NO	66085
	L18-00891
SHT NO	C3.01





KEY MAP
NTS

GRAPHIC SCALE
20 0 10 20
SCALE: 1"=20'

BASIS OF BEARINGS

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

BENCHMARK

PROJECT DATUM: NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).

CITY OF LAS VEGAS BENCHMARK: 7LV0911NES
ELEVATION: 2931.57 (US SURVEY FEET)
893.54 (METERS)

BEING A BLM BRASS CAP (HIGH PT.) SECTION 2/1 OVER 11/12, PI ALEXANDER ROAD & SECTION LINE.

SIGHT VISIBILITY ZONE LEGEND

SIGHT VISIBILITY ZONE

SIGHT VISIBILITY ZONE NOTE:

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

NOTE:

CONTRACTOR RESPONSIBLE TO PROVIDE SURVEY MONUMENTATION PER UNIFORM STANDARD DRAWINGS AND SPECIFICATIONS AND ALL SURVEY MONUMENTATION DAMAGED, DISTURBED, DESTROYED OR OBSCURED DURING CONSTRUCTION, TO BE REPLACED.

CALL BEFORE YOU DIG
AVOID CUTTING UNDERGROUND UTILITY LINES. IT'S COSTLY
Call 811 or 1-800-227-2600

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

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

COLLINS ENGINEERS ASSUMES NO RESPONSIBILITY FOR EXISTING UTILITY LOCATIONS AND ELEVATIONS. THE UTILITIES SHOWN ON THIS DRAWING HAVE BEEN PLOTTED FROM THE BEST AVAILABLE INFORMATION. IT IS, HOWEVER, THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE LOCATION AND ELEVATION OF ALL UTILITIES PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION. CONTRACTOR TO FIELD VERIFY ALL EXISTING SITE CONDITIONS PRIOR TO CONSTRUCTION. IF A CONFLICT EXISTS BETWEEN WHAT IS SHOWN ON THESE DRAWINGS AND WHAT EXISTS IN THE FIELD, THE CONTRACTOR IS TO NOTIFY THE ARCHITECT OR ENGINEER IMMEDIATELY.

LEGEND

EXISTING	PROPOSED	
(0.00%)	0.00%	SLOPE
(0.00) XX	0.00 XX	ELEVATION TAG
Ⓓ	Ⓓ	STORM MANHOLE
		DROP INLET
-00-	-00-	CONTOUR
		RETAINING WALL
		SCREEN WALL

EXISTING	PROPOSED	
		AC PAVEMENT
		6" TYPE "A" CURB
		24" TYPE "L" CURB & GUTTER
		30" ROLL CURB

	PL-RIGHT-OF-WAY
	PL-ADJACENT
	CENTERLINE
	EASEMENT LINE
	FLOW LINE
	SAWCUT LINE
	GRADE BREAK
	MOUNDING
	CHAIN LINK FENCE

H:\CAD\LAND\10297\DWG\SHEETS\10297-C3.01-HZC.DWG 07/18/2018 02:08:46 PM

CITY OF LAS VEGAS NEVADA

REVISIONS

CONSULTANT

COLLINS ENGINEERS
3130 S. DURANGO DR., SUITE 404
LAS VEGAS, NV 89117
PHONE: (702) 248-8000
FAX: (702) 248-8070
www.collinsengr.com

DEPARTMENT OF PUBLIC WORKS

GILMORE CLIFF SHADOWS PARK
NEW CITY OF LAS VEGAS PARK

HORIZONTAL CONTROL PLAN

STAMP

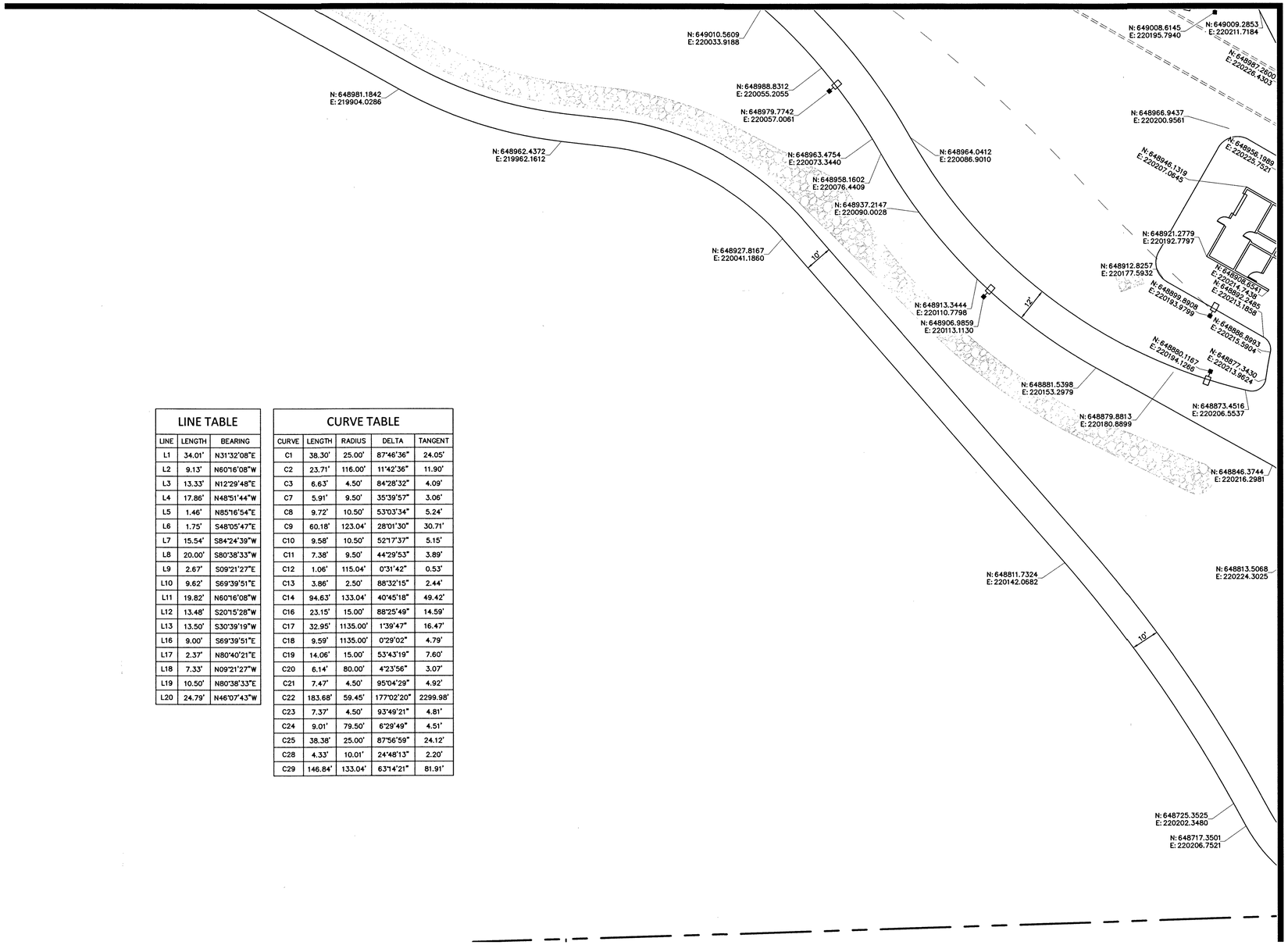
ARMANDO PINEDA
EXP. 12-31-19
CIVIL
NO. 18290
STATE OF NEVADA
PROFESSIONAL ENGINEER
7-19-19

OWNER: CITY OF LAS VEGAS
DEPARTMENT OF PUBLIC WORKS

DEVELOPMENT SERVICES CENTER
333 N. RANCHO DRIVE
LAS VEGAS, NEVADA 89106
PHONE: (702) 229-6276
FAX: (702) 384-4846

DRAWN	DSI
FILE	180101445
DATE	6/18/2018
SCALE	SEE PLAN
BID NO	18.66085.DD
CLV DWG NO	650.116
HANSEN NO	66085
	L18-00891
SHT NO	C3.02

FOR CONTINUATION SEE SHEET C3.04



FOR CONTINUATION SEE SHEET C3.01

LINE TABLE		
LINE	LENGTH	BEARING
L1	34.01'	N31°32'08"E
L2	9.13'	N60°16'08"W
L3	13.33'	N12°29'48"E
L4	17.86'	N48°51'44"W
L5	1.46'	N85°16'54"E
L6	1.75'	S48°05'47"E
L7	15.54'	S84°24'39"W
L8	20.00'	S80°38'33"W
L9	2.67'	S09°21'27"E
L10	9.62'	S69°39'51"E
L11	19.82'	N60°16'08"W
L12	13.48'	S20°15'28"W
L13	13.50'	S30°39'19"W
L16	9.00'	S69°39'51"E
L17	2.37'	N80°40'21"E
L18	7.33'	N09°21'27"W
L19	10.50'	N80°38'33"E
L20	24.79'	N46°07'43"W

CURVE TABLE				
CURVE	LENGTH	RADIUS	DELTA	TANGENT
C1	38.30'	25.00'	87°46'36"	24.05'
C2	23.71'	116.00'	11°42'36"	11.90'
C3	6.63'	4.50'	84°28'32"	4.09'
C7	5.91'	9.50'	35°39'57"	3.06'
C8	9.72'	10.50'	53°03'34"	5.24'
C9	60.18'	123.04'	28°01'30"	30.71'
C10	9.58'	10.50'	52°17'37"	5.15'
C11	7.38'	9.50'	44°29'53"	3.89'
C12	1.06'	115.04'	0°31'42"	0.53'
C13	3.86'	2.50'	88°32'15"	2.44'
C14	94.63'	133.04'	40°45'18"	49.42'
C16	23.15'	15.00'	88°25'49"	14.59'
C17	32.95'	1135.00'	1°39'47"	16.47'
C18	9.59'	1135.00'	0°29'02"	4.79'
C19	14.06'	15.00'	53°43'19"	7.60'
C20	6.14'	80.00'	4°23'56"	3.07'
C21	7.47'	4.50'	95°04'29"	4.92'
C22	183.68'	59.45'	177°02'20"	2299.98'
C23	7.37'	4.50'	93°49'21"	4.81'
C24	9.01'	79.50'	6°29'49"	4.51'
C25	38.38'	25.00'	87°56'59"	24.12'
C28	4.33'	10.01'	24°48'13"	2.20'
C29	146.84'	133.04'	63°14'21"	81.91'

NOTE:

CONTRACTOR RESPONSIBLE TO PROVIDE SURVEY MONUMENTATION PER UNIFORM STANDARD DRAWINGS AND SPECIFICATIONS AND ALL SURVEY MONUMENTATION DAMAGED, DISTURBED, DESTROYED OR OBSCURED DURING CONSTRUCTION, TO BE REPLACED.

CALL BEFORE YOU DIG
AVOID CUTTING UNDERGROUND UTILITY LINES. IT'S COSTLY
Call 811 or 1-800-227-2600

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

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

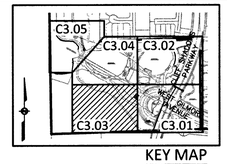
COLLINS ENGINEERS ASSUMES NO RESPONSIBILITY FOR EXISTING UTILITY LOCATIONS AND ELEVATIONS. THE UTILITIES SHOWN ON THIS DRAWING HAVE BEEN PLOTTED FROM THE BEST AVAILABLE INFORMATION. IT IS, HOWEVER, THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE LOCATION AND ELEVATION OF ALL UTILITIES PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION. CONTRACTOR TO FIELD VERIFY ALL EXISTING SITE CONDITIONS PRIOR TO CONSTRUCTION. IF A CONFLICT EXISTS BETWEEN WHAT IS SHOWN ON THESE DRAWINGS AND WHAT EXISTS IN THE FIELD, THE CONTRACTOR IS TO NOTIFY THE ARCHITECT OR ENGINEER IMMEDIATELY.

LEGEND

EXISTING	PROPOSED	
(0.00%)	0.00%	SLOPE
(0.00) XX	0.00 XX	ELEVATION TAG
(D)	(D)	STORM MANHOLE
		DROP INLET
-00-	-00-	CONTOUR
		RETAINING WALL
		SCREEN WALL

EXISTING	PROPOSED	
		AC PAVEMENT
		6" TYPE "A" CURB
		24" TYPE "L" CURB & GUTTER
		30" ROLL CURB

PL-RIGHT-OF-WAY
PL-ADJACENT
CENTERLINE
EASEMENT LINE
FLOW LINE
SAWCUT LINE
GRADE BREAK
MOUNDING
CHAIN LINK FENCE



KEY MAP
NTS

LINE/CURVE TABLE NOTE:
FOR LINE TABLE SEE SHEET C3.03
FOR CURVE TABLE SEE SHEET C3.03

GRAPHIC SCALE
20 0 10 20
SCALE: 1"=20'

BASIS OF BEARINGS

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

BENCHMARK

PROJECT DATUM: NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).

CITY OF LAS VEGAS BENCHMARK: 7LV091NES
ELEVATION: 2931.57 (US SURVEY FEET)
893.54 (METERS)

BEING A BLM BRASS CAP (HIGH PT.) SECTION 2/1 OVER 11/12, PI ALEXANDER ROAD & SECTION LINE.

SIGHT VISIBILITY ZONE LEGEND

SIGHT VISIBILITY ZONE

SIGHT VISIBILITY ZONE NOTE:

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

CITY OF LAS VEGAS NEVADA

REVISIONS

CONSULTANT

COLLINS ENGINEERS
3130 S. DURANGO DR., SUITE 404
LAS VEGAS, NV 89117
PHONE: (702) 248-8000
FAX: (702) 248-8070
www.collinsengr.com

DEPARTMENT OF PUBLIC WORKS

GILMORE CLIFF SHADOWS PARK
NEW CITY OF LAS VEGAS PARK

HORIZONTAL CONTROL PLAN

STAMP

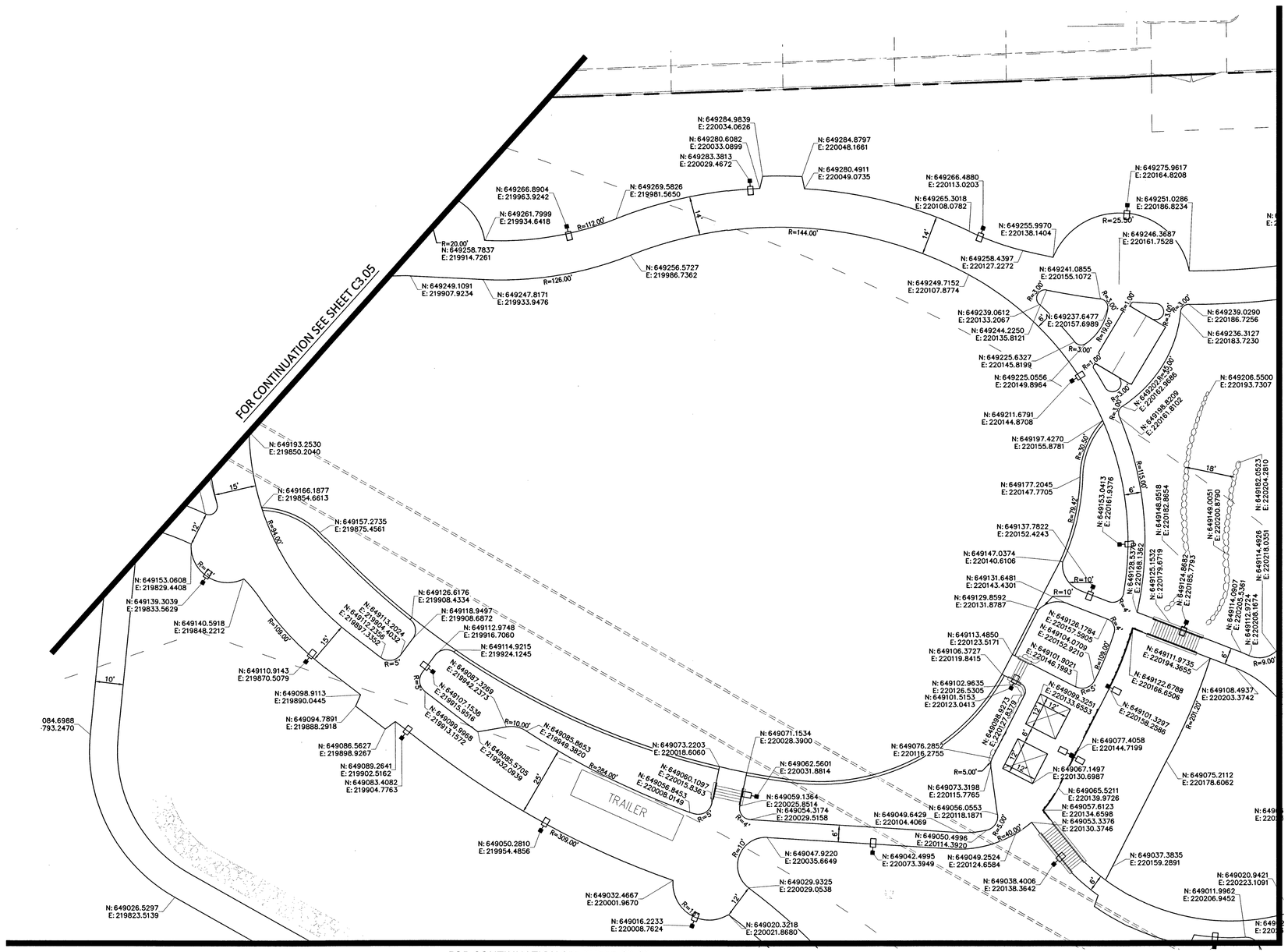
PROFESSIONAL ENGINEER STATE OF NEVADA
ARMANDO PINEDA
EXP. 12-31-19
CIVIL
NO. 18290
7-19-18

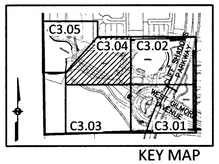
OWNER: CITY OF LAS VEGAS
DEPARTMENT OF PUBLIC WORKS

DEVELOPMENT SERVICES CENTER
333 N. RANCHO DRIVE
LAS VEGAS, NEVADA 89106
PHONE: (702) 229-6276
FAX: (702) 384-4846

DRAWN	DSI
FILE	180101445
DATE	6/18/2018
SCALE	SEE PLAN
BID NO	18.66085.DD
CLV DWG NO	650.116
HANSEN NO	66085
	L18-00891
SHT NO	C3.03

H:\CAD\LAND\10297\DWG\SHEETS\10297-C3.01-HZC.DWG 07/18/2018 02:09:26 PM





LINE/CURVE TABLE NOTE:

FOR LINE TABLE SEE SHEET C3.03
FOR CURVE TABLE SEE SHEET C3.03

GRAPHIC SCALE

20 0 10 20

SCALE: 1"=20'

BASIS OF BEARINGS

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

BENCHMARK

PROJECT DATUM: NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).

CITY OF LAS VEGAS BENCHMARK: 7LV0911NES
ELEVATION: 2931.57 (US SURVEY FEET)
893.54 (METERS)

BEING A BLM BRASS CAP (HIGH PT.) SECTION 2/1 OVER 11/12, PI ALEXANDER ROAD & SECTION LINE.

SIGHT VISIBILITY ZONE LEGEND

SIGHT VISIBILITY ZONE

SIGHT VISIBILITY ZONE NOTE:

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

NOTE:

CONTRACTOR RESPONSIBLE TO PROVIDE SURVEY MONUMENTATION PER UNIFORM STANDARD DRAWINGS AND SPECIFICATIONS AND ALL SURVEY MONUMENTATION DAMAGED, DISTURBED, DESTROYED OR OBSCURED DURING CONSTRUCTION, TO BE REPLACED.

CALL BEFORE YOU D&G
AVOID CUTTING UNDERGROUND UTILITY LINES. IT'S COSTLY
Call 811 before you UnderGround
1-800-227-2600

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

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

COLLINS ENGINEERS ASSUMES NO RESPONSIBILITY FOR EXISTING UTILITY LOCATIONS AND ELEVATIONS. THE UTILITIES SHOWN ON THIS DRAWING HAVE BEEN PLOTTED FROM THE BEST AVAILABLE INFORMATION. IT IS, HOWEVER, THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE LOCATION AND ELEVATION OF ALL UTILITIES PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION. CONTRACTOR TO FIELD VERIFY ALL EXISTING SITE CONDITIONS PRIOR TO CONSTRUCTION. IF A CONFLICT EXISTS BETWEEN WHAT IS SHOWN ON THESE DRAWINGS AND WHAT EXISTS IN THE FIELD, THE CONTRACTOR IS TO NOTIFY THE ARCHITECT OR ENGINEER IMMEDIATELY.

LEGEND

EXISTING	PROPOSED	
(0.00%)	0.00%	SLOPE
(0.00) XX	0.00 XX	ELEVATION TAG
Ⓓ	Ⓓ	STORM MANHOLE
		DROP INLET
--00--	--00--	CONTOUR
		RETAINING WALL
		SCREEN WALL

EXISTING	PROPOSED	
		AC PAVEMENT
		6" TYPE "A" CURB
		24" TYPE "L" CURB & GUTTER
		30" ROLL CURB

	PL-RIGHT-OF-WAY
	PL-ADJACENT
	CENTERLINE
	EASEMENT LINE
	FLOW LINE
	SAWCUT LINE
	GRADE BREAK
	MOUNDING
	CHAIN LINK FENCE

H:\CAD\LAND\10297\DWG\SHEETS\10297-C3.01-HZC.DWG 07/18/2018 02:22:21 PM

CITY OF LAS VEGAS NEVADA

REVISIONS

CONSULTANT

COLLINS ENGINEERS
3130 S. DURANGO DR., SUITE 404
LAS VEGAS, NV 89117
PHONE: (702) 248-8000
FAX: (702) 248-8070
www.collinsengr.com

DEPARTMENT OF PUBLIC WORKS

GILMORE CLIFF SHADOWS PARK
NEW CITY OF LAS VEGAS PARK

HORIZONTAL CONTROL PLAN

STAMP

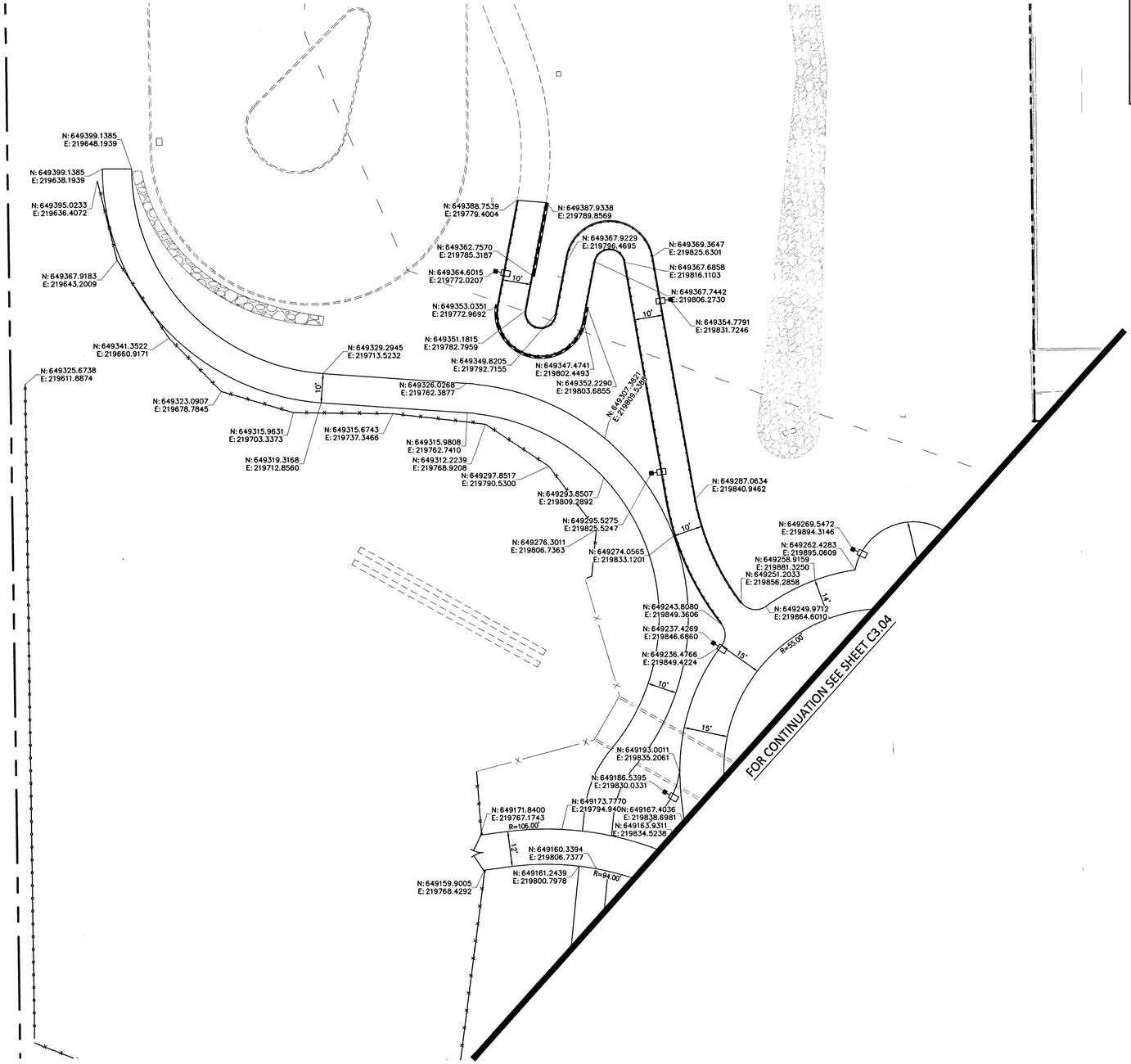
PROFESSIONAL ENGINEER - STATE OF NEVADA
ARMANDO PINEDA
EXP. 12-31-19
CIVIL
NO. 18290
7-19-18

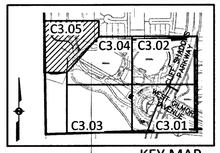
OWNER: CITY OF LAS VEGAS
DEPARTMENT OF PUBLIC WORKS

DEVELOPMENT SERVICES CENTER
333 N. RANCHO DRIVE
LAS VEGAS, NEVADA 89106
PHONE: (702) 229-6276
FAX: (702) 384-4846

DRAWN	DSI
FILE	180101445
DATE	6/18/2018
SCALE	SEE PLAN
BID NO	18.66085.DD
CLV DWG NO	650.116
HANSEN NO	66085
	C18-00891
SHT NO	C3.04

DRAWING AS INSTRUMENTS OF SERVICE ARE THE PROPERTY OF THE DESIGN PROFESSIONAL WHOSE STAMP OF CERTIFICATION APPEARS ON THE DRAWINGS AND SPECIFICATIONS AND ARE NOT TO BE USED IN WHOLE OR IN PART WITHOUT WRITTEN CONSENT OF THE DESIGN PROFESSIONAL. ALL SPECIFICATIONS, DETAILS AND DRAWINGS PREPARED BY THE DESIGN PROFESSIONAL FOR THIS PROJECT ARE INSTRUMENTS OF SERVICE FOR USE SOLELY WITH RESPECT TO THIS PROJECT AND, UNLESS OTHERWISE AGREED TO BY THE DESIGN PROFESSIONAL, SHALL NOT BE USED BY THE OWNER OR OTHERS ON EXTENSIONS OF THIS PROJECT OR ANY OTHER PROJECT. ANY REUSE WITHOUT WRITTEN VERIFICATION OR ADAPTATION BY THE DESIGN PROFESSIONAL FOR THE SPECIFIC PURPOSE INTENDED WILL BE AT THE OWNER'S SOLE RISK AND WITHOUT LIABILITY OR LEGAL EXPOSURE TO THE DESIGN PROFESSIONAL. ANY VERIFICATION OR ADAPTATION WILL ENTITLE THE DESIGN PROFESSIONAL TO FURTHER COMPENSATION AT RATES TO BE AGREED UPON BY OWNER AND DESIGN PROFESSIONAL. ALL DRAWINGS, SPECIFICATIONS, DETAILS AND DRAWINGS PREPARED BY THE DESIGN PROFESSIONAL FOR THIS PROJECT ARE INSTRUMENTS OF SERVICE FOR USE SOLELY WITH RESPECT TO THIS PROJECT AND, UNLESS OTHERWISE AGREED TO BY THE DESIGN PROFESSIONAL, SHALL NOT BE USED BY THE OWNER OR OTHERS ON EXTENSIONS OF THIS PROJECT OR ANY OTHER PROJECT. ANY REUSE WITHOUT WRITTEN VERIFICATION OR ADAPTATION BY THE DESIGN PROFESSIONAL FOR THE SPECIFIC PURPOSE INTENDED WILL BE AT THE OWNER'S SOLE RISK AND WITHOUT LIABILITY OR LEGAL EXPOSURE TO THE DESIGN PROFESSIONAL. ANY VERIFICATION OR ADAPTATION WILL ENTITLE THE DESIGN PROFESSIONAL TO FURTHER COMPENSATION AT RATES TO BE AGREED UPON BY OWNER AND DESIGN PROFESSIONAL.





KEY MAP
NTS

LINE/CURVE TABLE NOTE:

FOR LINE TABLE SEE SHEET C3.03
FOR CURVE TABLE SEE SHEET C3.03

GRAPHIC SCALE

20 0 10 20

SCALE: 1"=20'

BASIS OF BEARINGS

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

BENCHMARK

PROJECT DATUM: NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).

CITY OF LAS VEGAS BENCHMARK: 7LV0911NES
ELEVATION: 2931.57 (US SURVEY FEET)
893.54 (METERS)

BEING A BLM BRASS CAP (HIGH PT.) SECTION 2/1 OVER 11/12, PI ALEXANDER ROAD & SECTION LINE.

SIGHT VISIBILITY ZONE LEGEND

SIGHT VISIBILITY ZONE

SIGHT VISIBILITY ZONE NOTE:

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

NOTE:

CONTRACTOR RESPONSIBLE TO PROVIDE SURVEY MONUMENTATION PER UNIFORM STANDARD DRAWINGS AND SPECIFICATIONS AND ALL SURVEY MONUMENTATION DAMAGED, DISTURBED, DESTROYED OR OBSCURED DURING CONSTRUCTION, TO BE REPLACED.

CALL BEFORE YOU DIG
AVOID CUTTING UNDERGROUND UTILITY LINES. IT'S COSTLY
Call 811 or 1-800-227-2600

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

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

COLLINS ENGINEERS ASSUMES NO RESPONSIBILITY FOR EXISTING UTILITY LOCATIONS AND ELEVATIONS. THE UTILITIES SHOWN ON THIS DRAWING HAVE BEEN PLOTTED FROM THE BEST AVAILABLE INFORMATION. IT IS, HOWEVER, THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE LOCATION AND ELEVATION OF ALL UTILITIES PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION. CONTRACTOR TO FIELD VERIFY ALL EXISTING SITE CONDITIONS PRIOR TO CONSTRUCTION. IF A CONFLICT EXISTS BETWEEN WHAT IS SHOWN ON THESE DRAWINGS AND WHAT EXISTS IN THE FIELD, THE CONTRACTOR IS TO NOTIFY THE ARCHITECT OR ENGINEER IMMEDIATELY.

LEGEND

EXISTING	PROPOSED	
(0.00%)	0.00%	SLOPE
(0.00) XX	0.00 XX	ELEVATION TAG
Ⓓ	Ⓓ	STORM MANHOLE
		DROP INLET
--00--	--00--	CONTOUR
		RETAINING WALL
		SCREEN WALL

EXISTING	PROPOSED	
		AC PAVEMENT
		6" TYPE "A" CURB
		24" TYPE "L" CURB & GUTTER
		30" ROLL CURB

	PL-RIGHT-OF-WAY
	PL-ADJACENT
	CENTERLINE
	EASEMENT LINE
	FLOW LINE
	SAWCUT LINE
	GRADE BREAK
	MOUNDING
	CHAIN LINK FENCE

H:\CAD\LAND\10297\DWG\SHEETS\10297-C3.01-HZC.DWG 07/18/2018 02:22:58 PM

CITY OF LAS VEGAS NEVADA

REVISIONS

CONSULTANT

COLLINS ENGINEERS
3130 S. DURANGO DR., SUITE 404
LAS VEGAS, NV 89117
PHONE: (702) 248-8000
FAX: (702) 248-8070
www.collinsengr.com

DEPARTMENT OF PUBLIC WORKS

GILMORE CLIFF SHADOWS PARK
NEW CITY OF LAS VEGAS PARK

HORIZONTAL CONTROL PLAN

STAMP

PROFESSIONAL ENGINEER - STATE OF NEVADA
ARMANDO PINEDA
EXP. 12-31-19
CIVIL
NO. 18290
7-19-18

OWNER: CITY OF LAS VEGAS
DEPARTMENT OF PUBLIC WORKS

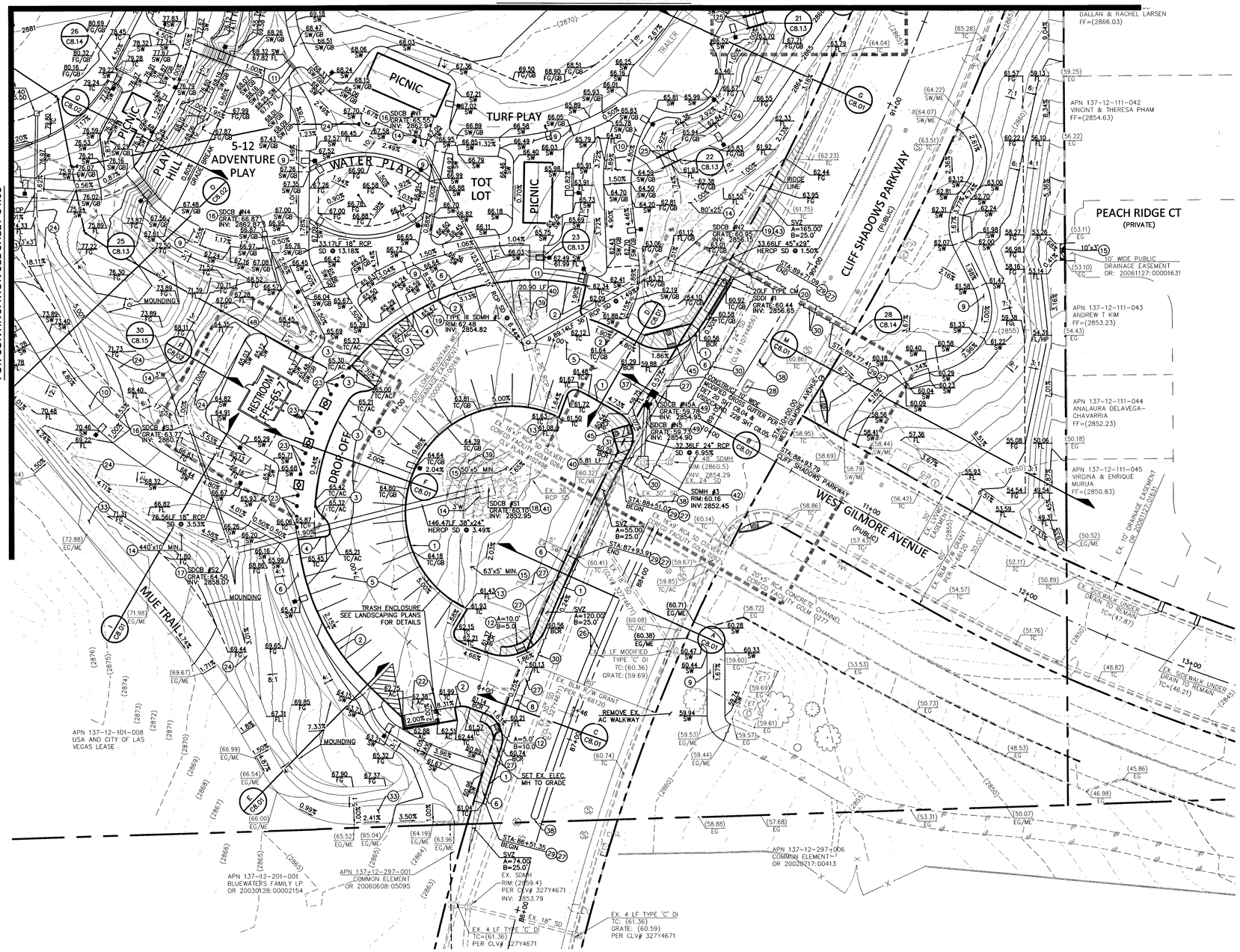
DEVELOPMENT SERVICES CENTER
333 N. RANCHO DRIVE
LAS VEGAS, NEVADA 89106
PHONE: (702) 229-6276
FAX: (702) 384-4846

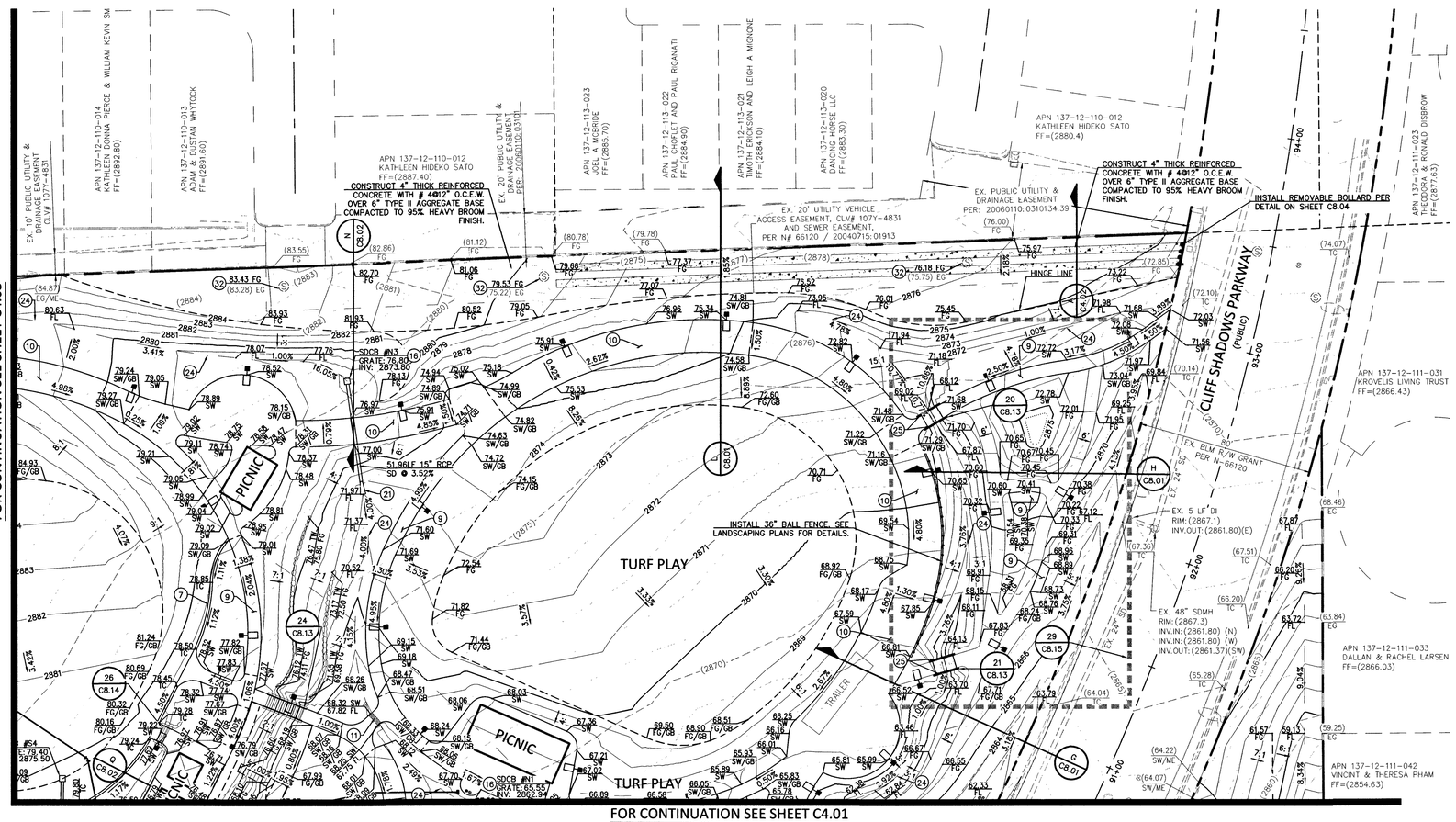
DRAWN	DSI
FILE	180101445
DATE	6/18/2018
SCALE	SEE PLAN
BID NO	18.66085.DD
CLV DWG NO	650.116
HANSEN NO	66085
	L18-00891
SHT NO	C3.05

DRAWINGS, AS INSTRUMENTS OF SERVICE ARE THE PROPERTY OF THE DESIGN PROFESSIONAL WHOSE STAMP OF CERTIFICATION APPEARS ON THE DRAWINGS AND SPECIFICATIONS. ANY USE OR REPRODUCTION IN WHOLE OR IN PART WITHOUT WRITTEN CONSENT OF SUITABLE PROPERTIES COPIES OF THE DRAWINGS AND SPECIFICATIONS FOR THE PROJECT FOR WHICH THEY WERE PREPARED AND NOT FOR THE CONSTRUCTION OF ANOTHER PROJECT OR ADDITIONS TO THIS PROJECT. ANY REUSE WITHOUT WRITTEN VERIFICATION OR ADAPTATION BY THE DESIGN PROFESSIONAL FOR THE SPECIFIC PURPOSE INTENDED WILL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY OR LEGAL EXPOSURE TO THE DESIGN PROFESSIONAL. ANY SUCH VERIFICATION OR ADAPTATION WILL ENTITLE THE DESIGN PROFESSIONAL TO FURTHER COMPENSATION AT RATES TO BE AGREED UPON BY THE OWNER AND DESIGN PROFESSIONAL.

FOR CONTINUATION SEE SHEET C4.02

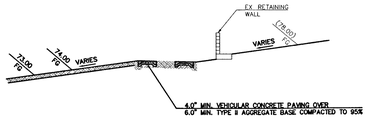
FOR CONTINUATION SEE SHEET C4.03


PICNIC
TURF PLAY
5-12 ADVENTURE PLAY
WATER PLAY
TOT LOT
PICNIC
PLAY HILL
MOUNDING
RESTROOM FF=65.7
DROP-OFF
TRASH ENCLOSURE SEE LANDSCAPING PLANS FOR DETAILS
MUE TRAIL
CLIFF SHADOWS PARKWAY (PUBLIC)
WEST GILMORE AVENUE (PUBLIC)
PEACH RIDGE CT (PRIVATE)
DALLAN & RACHEL LARSEN FF=(2866.03)
APN 137-12-111-042 VINCINT & THERESA PHAM FF=(2854.63)
APN 137-12-111-043 ANDREW T KIM FF=(2853.23)
APN 137-12-111-044 ANALAURA DELAVEGA-CHAVARRIA FF=(2852.23)
APN 137-12-111-045 VIRGINA & ENRIQUE MURUA FF=(2850.83)
APN 137-12-101-008 USA AND CITY OF LAS VEGAS LEASE
APN 137-12-297-001 COMMON ELEMENT OR 20060608:05095
APN 137-12-201-001 BLUEWATERS FAMILY LP OR 20030128:00002154
APN 137-12-297-006 COMMON ELEMENT OR 20020217:00413
SET EX. ELEC MH TO GRADE
REMOVE EX AC WALKWAY
EX. 4 LF TYPE 'C' DI TC=(61.36) GRATE: (60.59) PER CLV# 327Y4671
EX. 4 LF TYPE 'C' DI TC: (61.36) GRATE: (60.59) PER CLV# 327Y4671
EX. 18" SD
EX. 20'x5' RCA CONCRETE CHANNEL PER CLV# 327Y4671 & GOLM 027?
EX. 10' DRAINAGE EASEMENT OR 20061227:01631
EX. SIDEWALK UNDER DRAIN TO REMAIN TC=(47.87)
EX. SIDEWALK UNDER DRAIN TO REMAIN TC=(46.21)
EX. 30' LIVING EASEMENT (2855)
EX. 64' BLM R/W GRANT PER M-66120
EX. 80' BLM R/W GRANT PER M-66120
EX. 10' WIDE PUBLIC DRAINAGE EASEMENT OR: 20061127: 00001631

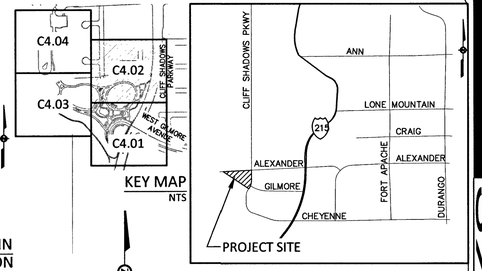


FOR CONTINUATION SEE SHEET C4.03

FOR CONTINUATION SEE SHEET C4.01



A / C4.02 — SS MH ACCESS EASEMENT
NTS



KEY MAP
NTS

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

VICINITY MAP
NTS

STORM DRAIN INFORMATION TABLE

TYPE III SDMH #1
RIM: 2862.5
N: 648958.5201
E: 220355.2706
INV.IN: 2854.82(NE)
INV.IN: 2855.02(NW)
INV.OUT: 2854.82(S)

SDCB #S1
24"X48"
RIM: 2860.1
N: 648877.0878
E: 220331.6181
INV.IN: 2852.95(W)
INV.OUT: 2852.95(E)

SDCB #S2
36"X36"
RIM: 2864.5
N: 648641.7290
E: 220189.4754
INV.IN: 2858.07(N)
INV.OUT: 2858.07(E)

SDCB #S3
24"X24"
RIM: 2863.8
N: 648914.2362
E: 220164.8956
INV.OUT: 2860.77(S)

SDCB #S4
24"X24"
RIM: 2879.4
N: 649087.5427
E: 220080.1651
INV.OUT: 2875.50(S)

SDCB #N1
24"X24"
RIM: 2865.6
N: 649066.8395
E: 220296.9444
INV.OUT: 2862.94(SE)

SDCB #N2
TYPE III MH W/ NEENAH TYPE R2557 GRATE OR EQUAL
RIM: 2861.0
N: 649002.3912
E: 220432.8702
INV.IN: 2856.15(E)
INV.OUT: 2856.15(SW)

SDCB #N3
24"X24"
RIM: 2876.8
N: 649268.9213
E: 220210.3389
INV.OUT: 2873.80(S)

SDCB #N4
DUAL 24"X24"
RIM: 2866.9
N: 649019.8726
E: 220207.8481
INV.IN: 2862.87(N)
INV.OUT: 2862.87(S)

SDCB #N5
36"X36"
RIM: 2859.7
N: 648923.7109
E: 220422.1506
INV.IN: 2854.90(NE)
INV.OUT: 2854.90(S)

SDCB #N5A
36"X36"
RIM: 2859.8
N: 648929.8080
E: 220425.6019
INV.OUT: 2854.95(SW)

SDDI #1
20LF TYPE CM
RIM: 2860.9
N: 648991.8957
E: 220464.8572
INV.OUT: 2856.65(W)

SDMH #5
60" TYPE I MH W/ NEENAH
TYPE R2557 GRATE OR EQUAL
RIM: 2889.5
N: 649309.8949
E: 219872.5595
INV.OUT: 2874.70(S)

BASIS OF BEARINGS

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

BENCHMARK

PROJECT DATUM: NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).

CITY OF LAS VEGAS BENCHMARK: 7LV0911NES
ELEVATION: 2931.57 (US SURVEY FEET)
893.54 (METERS)

BEING A BLM BRASS CAP (HIGH PT.) SECTION 2/1 OVER 11/12, PI ALEXANDER ROAD & SECTION LINE.

CONSTRUCTION NOTES

NO.	ITEM USDCCA: UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA
1	CONSTRUCT TYPE 'L' CURB PER USDCCA NO. 216 SHEET C8.05.
2	CONSTRUCT TYPE 'A' CURB PER DETAIL 1 SHEET C8.02
3	INSTALL "0" CURB, PER DETAIL 2 SHEET C8.02
4	TRANSITION FROM 0" TO 6" CURB PER DETAIL 4 SHEET C8.02.
5	CONSTRUCT 2.5" MIN. AC PAVEMENT OVER 4" MIN. TYPE II AGGREGATE BASE.
6	CONSTRUCT SIDEWALK PER USDCCA NO. 234 SHEET C8.05.
7	CONSTRUCT 12" MOW CURB PER DETAIL 6 SHEET C8.02.
8	CONSTRUCT 8' CROSS GUTTER PER USDCCA NO. 228 SHEET C8.05.
9	CONSTRUCT 4" THICK CONCRETE OVER 6" TYPE II AGGREGATE BASE. WIDTH PER PLAN.
10	CONSTRUCT VEHICULAR CONCRETE PAVING PER DETAIL 17 SHEET C8.04. WIDTH PER PLAN.
11	CONSTRUCT SIDEWALK UNDERDRAIN PER USDCCA No. 236. SHEET C8.06.
12	CONSTRUCT SIDEWALK RAMP PER USDCCA NO. 235, CASE 1 SHEET C8.05.
13	CONSTRUCT CURB OPENING PER DETAIL 5 SHEET C8.02.
14	INSTALL RIP RAP D50=8" MIN., THICKNESS=16", SIDESLOPE=2% MIN./3:1 MAX.
15	INSTALL RIP RAP D50=3" MIN., THICKNESS=6", SIDESLOPE=2% MIN./3:1 MAX.
16	INSTALL 24"x24" JENSEN PRECAST OR EQUAL DROP INLET. REFERENCE DETAIL 9 SHEET C8.03. INCLUDE CONCRETE COLLAR PER USDCCA DWG NO 329 SHEET C8.07 AND CONCRETE STAMP PER USDCCA DWG NO 421 SHEET C8.07.
17	INSTALL 36"x36" JENSEN PRECAST OR EQUAL DROP INLET. REFERENCE DETAIL 10 SHEET C8.03. INCLUDE CONCRETE COLLAR PER USDCCA DWG NO 329 SHEET C8.07 AND CONCRETE STAMP PER USDCCA DWG NO 421 SHEET C8.07.
18	INSTALL 24"x48" DROP INLET PER NDOT DWG. R-4.2.1 SHEET C8.12. INCLUDE CONCRETE COLLAR PER USDCCA DWG NO 329 SHEET C8.07 AND CONCRETE STAMP PER USDCCA DWG NO 421 SHEET C8.07.
19	CONSTRUCT TYPE III STORM DRAIN MANHOLE PER USDCCA #406.1 SHEET C8.07 AND DETAIL 14 SHEET C8.04.
20	INSTALL 20 LF TYPE 'CM' STORM DRAIN DROP INLET PER DETAIL 12 SHEET C8.03. INCLUDE CONCRETE STAMP PER USDCCA DWG NO 421 SHEET C8.07.
21	INSTALL 15" RCP FLARED END SECTION. REFERENCE DETAIL 13 SHEET C8.04
22	CONSTRUCT 7" THICK PCC PAVEMENT REINFORCED W/ #4@12" O.C.E.W. OVER 6" TYPE II AGGREGATE BASE OVER 8" STRUCTURAL FILL. COORDINATE WITH TRASH ENCLOSURE INSTALLATION TO PROVIDE 24" REBAR DOWELS BETWEEN SLABS AT 12" O.C.
23	INSTALL REMOVABLE BOLLARD PER DETAIL 7, SHEET C8.02.
24	CONSTRUCT GRADED SWALE PER DETAIL 3 SHEET C8.02.
25	INSTALL HEADWALL PER NDOT DWG. R-2.5.1 AND R-2.5.1.1 SHEET C8.12.
26	INSTALL TACK-ON ISLAND AS SHOWN PER USDCCA NO. 220.1.S1 SHEET C8.05.
27	REMOVE EXISTING "L" CURB AND GUTTER (SEE PLAN FOR LIMITS)
28	REMOVE EXISTING MEDIAN ISLAND.
29	FIELD VERIFY AND CONNECT TO EXISTING CURB, GUTTER AND SIDEWALK.
30	SAWCUT AS SHOWN ON PLANS AND MATCH EXISTING AC PAVEMENT SECTION.
31	REMOVE EXISTING 20 LF DROP INLET AND EXISTING 24" RCP.
32	SET RIM OF SEWER MANHOLE TO FINISHED GRADE.
33	CONSTRUCT 10' WIDE MULTIUSE EQUESTRIAN (MUE) TRAIL. SEE LANDSCAPING PLANS FOR DETAILS.
34	CONSTRUCT METAL GUARD RAIL PER DETAIL 2 SHEET L2.06.
35	INSTALL METAL HAND RAIL PER DETAIL 2 SHEET L2.06.
36	INSTALL 6' CHAINLINK FENCE PER USDCCA NO. 252 C8.07.
37	RELOCATE EXISTING CATV AND 6" ELECTRICAL CONDUITS AROUND PROPOSED STORM DRAIN CATCH BASINS.
38	CONSTRUCT MEDIAN NOSE PER USDCCA NO. 248 SHEET C8.06.
39	REMOVE AND SALVAGE EXISTING RIP RAP.
40	REMOVE EXISTING RCP SD. LENGTH PER PLAN.
41	REMOVE EXISTING CATCH BASIN.
42	REMOVE EXISTING 60" SDMH AND CONSTRUCT TYPE III STORM DRAIN MANHOLE PER USDCCA #406.1 SHEET C8.07 AND DETAIL 14 SHEET C8.04. INCLUDE CONCRETE STAMP PER USDCCA DWG NO 421 SHEET C8.07.
43	INSTALL NEENAH TYPE R2557 GRATE OR EQUAL AND CONCRETE COLLAR. SEE DETAIL 11 SHEET C8.03 FOR REFERENCE. PLACE CONCRETE STAMP PER USDCCA DWG NO 421 SHEET C8.07.
44	REMOVE EX. NDOT TYPE 2 DROP INLET AND REPLACE WITH NEW 60" TYPE I SDMH PER USDCCA NO. 403.1. INCLUDE CONCRETE STAMP PER USDCCA DWG NO 421 SHEET C8.07.
45	CONSTRUCT MODIFIED SIDEWALK RAMP PER USDCCA NO. 235, CASE 1 SHEET C8.05 AND DETAIL 28 SHEET 14.
46	CONSTRUCT RETAINING WALL PER PROFILE 'A' AND DETAILS ON SHEET C4.11.
47	CONSTRUCT RETAINING WALL PER PROFILE 'B' AND DETAILS ON SHEET C4.11.
48	CONSTRUCT PIPE PENETRATION INTO EXISTING STORM DRAIN BOX PER DETAIL 18 SHEET C8.04
49	INSTALL 36"x36" JENSEN PRECAST OR EQUAL DROP INLET WITH TRAFFIC RATED GRATES. REFERENCE DETAIL 10 SHEET C8.03. PLACE CONCRETE STAMP PER USDCCA DWG NO 421 SHEET C8.07.

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 THE VEGETATION.

GENERAL NOTE:

IT IS THE CONTRACTOR'S RESPONSIBILITY TO FILE A NOTICE OF INTENT/REQUEST TO BE INCLUDED IN THE STORM WATER GENERAL PERMIT, AND SUBMIT THE ASSOCIATED STORM WATER POLLUTION PREVENTION PLAN (SWPPP) AS REQUIRED BY FEDERAL, AND MONITORED BY THE NEVADA DIVISION OF ENVIRONMENTAL PROTECTION.

SIGHT VISIBILITY ZONE LEGEND

SIGHT VISIBILITY ZONE

SIGHT VISIBILITY ZONE NOTE:

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

ALL GRADING WORK SHALL BE IN STRICT ACCORDANCE WITH THE SOILS REPORT FOR THE SITE ENTITLED "GILMORE CLIFF SHADOW PARK".

PROJECT NO.: 304227001, DATED OCTOBER 31, 2017

PREPARED BY:
NINYO & MOORE GEOTECHNICAL & ENVIRONMENTAL SCIENCES CONSULTANTS
6700 PARADISE ROAD, SUITE E
LAS VEGAS, NEVADA 89119
PHONE NO.: (702) 433-0330
FAX NO.: (702) 433-0707

ALL WORK SHALL BE PERFORMED UNDER THE DIRECTION OF A REGISTERED PROFESSIONAL SOILS ENGINEER.

I CERTIFY THAT THIS GRADING PLAN CONFORMS TO THE THE APPROVED DRAINAGE STUDY FOR THIS SITE ON FILE WITH THE CITY OF LAS VEGAS. HANSEN# 66085

ARMANDO PINEDA, P.E. 18290 — DATE 7-19-17

CALL BEFORE YOU DIG
AVOID CUTTING UNDERGROUND UTILITY LINES. IT'S COSTLY
Call 811 or 1-800-227-2600

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

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

COLLINS ENGINEERS ASSUMES NO RESPONSIBILITY FOR EXISTING UTILITY LOCATIONS AND ELEVATIONS. THE UTILITIES SHOWN ON THIS DRAWING HAVE BEEN PLOTTED FROM THE BEST AVAILABLE INFORMATION. IT IS, HOWEVER, THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE LOCATION AND ELEVATION OF ALL UTILITIES PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION. CONTRACTOR TO FIELD VERIFY ALL EXISTING SITE CONDITIONS PRIOR TO CONSTRUCTION. IF A CONFLICT EXISTS BETWEEN WHAT IS SHOWN ON THESE DRAWINGS AND WHAT EXISTS IN THE FIELD, THE CONTRACTOR IS TO NOTIFY THE ARCHITECT OR ENGINEER IMMEDIATELY.

LEGEND

EXISTING	PROPOSED	
(0.00%)	0.00%	SLOPE
(0.00) XX	0.00 XX	ELEVATION TAG
Ⓓ	Ⓓ	STORM MANHOLE
		DROP INLET
-00-	-00-	CONTOUR
		RETAINING WALL
		SCREEN WALL
		AC PAVEMENT
		6" TYPE "A" CURB
		24" TYPE "L" CURB & GUTTER
		30" ROLL CURB
		PL-RIGHT-OF-WAY
		PL-ADJACENT
		CENTERLINE
		EASEMENT LINE
		FLOW LINE
		SAWCUT LINE
		GRADE BREAK
		MOUNDING
		CHAIN LINK FENCE

CITY OF LAS VEGAS NEVADA

REVISIONS

CONSULTANT

COLLINS ENGINEERS
3130 S. DURANGO DR., SUITE 404
LAS VEGAS, NV 89117
PHONE: (702) 248-8000
FAX: (702) 248-8070
www.collinsengr.com

DEPARTMENT OF PUBLIC WORKS

GILMORE CLIFF SHADOWS PARK
NEW CITY OF LAS VEGAS PARK

GRADING PLAN 2

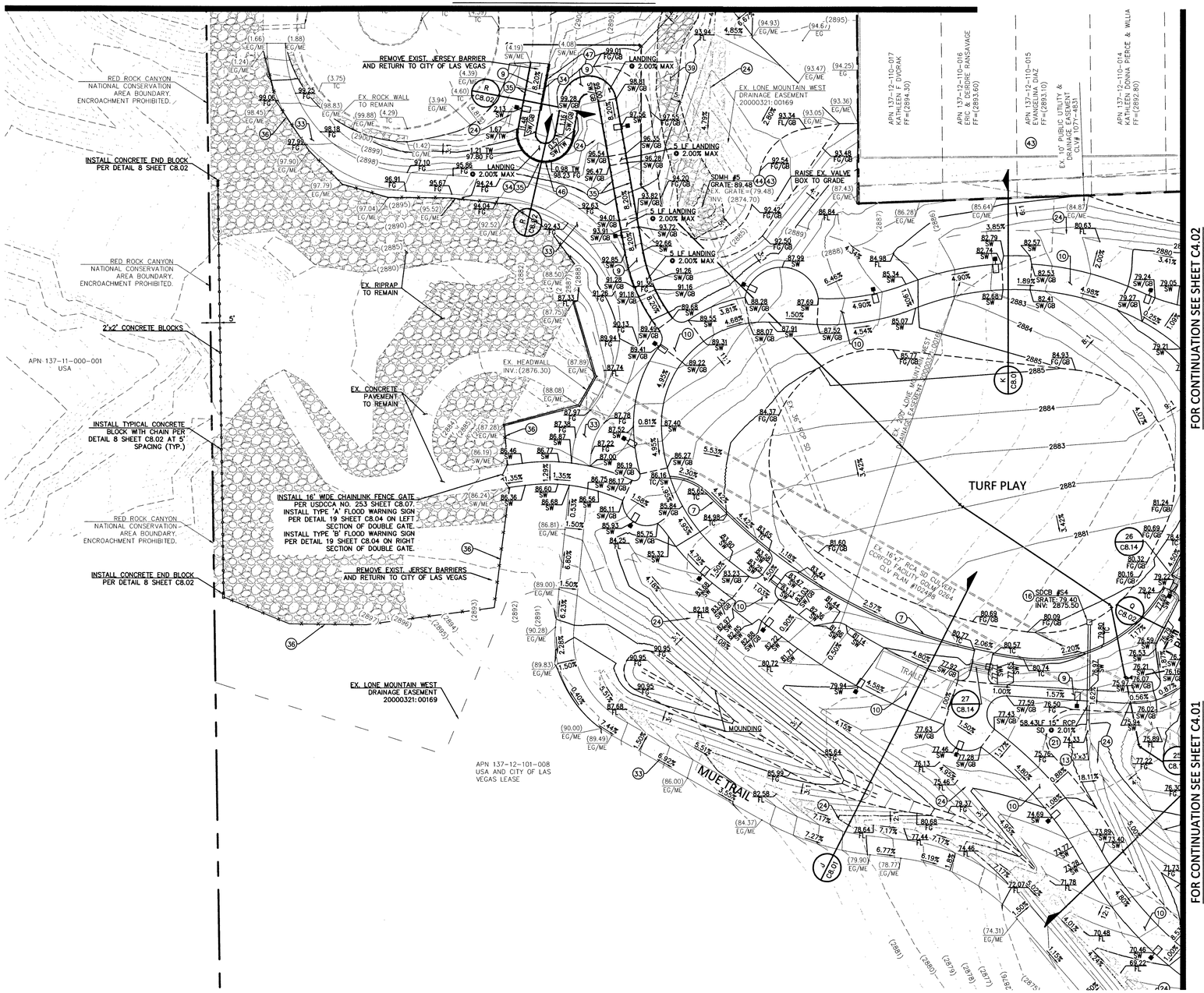
STAMP
PROFESSIONAL ENGINEER - STATE OF NEVADA
ARMANDO PINEDA
EXP. 12-31-19
CIVIL
No. 18290
7-19-17

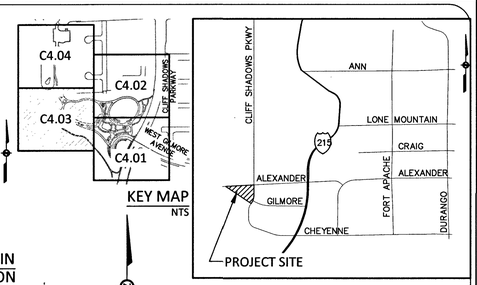
OWNER: CITY OF LAS VEGAS
DEPARTMENT OF PUBLIC WORKS

DEVELOPMENT SERVICES CENTER
333 N. RANCHO DRIVE
LAS VEGAS, NEVADA 89106
PHONE: (702) 229-6276
FAX: (702) 384-4846

DRAWN	DSI
FILE	180101445
DATE	6/18/2018
SCALE	SEE PLAN
BID NO	18.66085.DD
CLV DWG NO	650.116
HANSEN NO	66085 L18-00891
SHT NO	C4.02

H:\CAD\LAND\10297\DWG\SHEETS\10297-C4.01-GRD.DWG 07/18/2018 04:02:57 PM





STORM DRAIN INFORMATION TABLE

TYPE III SDMH #1
RIM: 2862.5
N: 648958.5201
E: 220355.2706
INV.IN: 2854.82(NE)
INV.IN: 2855.02(NW)
INV.OUT: 2854.82(S)

SDCB #S1
24"X48"
RIM: 2860.1
N: 648877.0878
E: 220331.6181
INV.IN: 2852.95(W)
INV.OUT: 2852.95(E)

SDCB #S2
36"X36"
RIM: 2864.5
N: 648841.7290
E: 220189.4754
INV.IN: 2858.07(N)
INV.OUT: 2858.07(E)

SDCB #S3
24"X24"
RIM: 2863.8
N: 648914.2362
E: 220164.8956
INV.OUT: 2860.77(S)

SDCB #S4
24"X24"
RIM: 2879.4
N: 649087.5427
E: 220080.1651
INV.OUT: 2875.50(S)

SDCB #N1
24"X24"
RIM: 2865.6
N: 649066.8395
E: 220296.9444
INV.OUT: 2862.94(SE)

SDCB #N2
TYPE III MH W/ NEENAH TYPE R2557 GRATE OR EQUAL
RIM: 2861.0
N: 649002.3912
E: 220432.8702
INV.IN: 2856.15(E)
INV.OUT: 2856.15(SW)

SDCB #N3
24"X24"
RIM: 2876.8
N: 649268.9213
E: 220210.3389
INV.OUT: 2873.80(S)

SDCB #N4
DUAL 24"X24"
RIM: 2866.9
N: 649019.8726
E: 220207.8481
INV.IN: 2862.87(N)
INV.OUT: 2862.87(S)

SDCB #N5
36"X36"
RIM: 2859.7
N: 648923.7109
E: 220422.1506
INV.IN: 2854.90(NE)
INV.OUT: 2854.90(S)

SDCB #N5A
36"X36"
RIM: 2859.8
N: 648929.8080
E: 220425.6019
INV.OUT: 2854.95(SW)

SDDI #1
20LF TYPE CM
RIM: 2860.9
N: 648991.8957
E: 220464.8572
INV.OUT: 2856.65(W)

SDMH #5
60" TYPE I MH W/ NEENAH TYPE R2557 GRATE OR EQUAL
RIM: 2889.5
N: 649309.8949
E: 219872.5595
INV.OUT: 2874.70(S)

BASIS OF BEARINGS

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

BENCHMARK

PROJECT DATUM: NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).

CITY OF LAS VEGAS BENCHMARK: 7LVD911NES
ELEVATION: 2931.57 (US SURVEY FEET)
893.54 (METERS)

BEING A BLM BRASS CAP (HIGH PT.) SECTION 2/1 OVER 11/12, PI ALEXANDER ROAD & SECTION LINE.

CONSTRUCTION NOTES

NO.	ITEM USDCCA: UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA
1	CONSTRUCT TYPE 'L' CURB PER USDCCA NO. 216 SHEET C8.05.
2	CONSTRUCT TYPE 'A' CURB PER DETAIL 1 SHEET C8.02
3	INSTALL "0" CURB, PER DETAIL 2 SHEET C8.02
4	TRANSITION FROM 0" TO 6" CURB PER DETAIL 4 SHEET C8.02.
5	CONSTRUCT 2.5" MIN. AC PAVEMENT OVER 4" MIN. TYPE II AGGREGATE BASE.
6	CONSTRUCT SIDEWALK PER USDCCA NO. 234 SHEET C8.05.
7	CONSTRUCT 12" MOW CURB PER DETAIL 6 SHEET C8.02.
8	CONSTRUCT 8' CROSS GUTTER PER USDCCA NO. 228 SHEET C8.05.
9	CONSTRUCT 4" THICK CONCRETE OVER 6" TYPE II AGGREGATE BASE. WIDTH PER PLAN.
10	CONSTRUCT VEHICULAR CONCRETE PAVING PER DETAIL 17 SHEET C8.04. WIDTH PER PLAN.
11	CONSTRUCT SIDEWALK UNDERDRAIN PER USDCCA No. 236. SHEET C8.06.
12	CONSTRUCT SIDEWALK RAMP PER USDCCA NO. 235, CASE 1 SHEET C8.05.
13	CONSTRUCT CURB OPENING PER DETAIL 5 SHEET C8.02.
14	INSTALL RIP RAP D50=8" MIN., THICKNESS=16". SIDESLOPE=2% MIN./3:1 MAX.
15	INSTALL RIP RAP D50=3" MIN., THICKNESS=6", SIDESLOPE=2% MIN./3:1 MAX.
16	INSTALL 24"x24" JENSEN PRECAST OR EQUAL DROP INLET. REFERENCE DETAIL 9 SHEET C8.03. INCLUDE CONCRETE COLLAR PER USDCCA DWG NO 329 SHEET C8.07 AND CONCRETE STAMP PER USDCCA DWG NO 421 SHEET C8.07.
17	INSTALL 36"x36" JENSEN PRECAST OR EQUAL DROP INLET. REFERENCE DETAIL 10 SHEET C8.03. INCLUDE CONCRETE COLLAR PER USDCCA DWG NO 329 SHEET C8.07 AND CONCRETE STAMP PER USDCCA DWG NO 421 SHEET C8.07.
18	INSTALL 24"x48" DROP INLET PER NDOT DWG. R-4.2.1 SHEET C8.12. INCLUDE CONCRETE COLLAR PER USDCCA DWG NO 329 SHEET C8.07 AND CONCRETE STAMP PER USDCCA DWG NO 421 SHEET C8.07.
19	CONSTRUCT TYPE III STORM DRAIN MANHOLE PER USDCCA #406.1 SHEET C8.07 AND DETAIL 14 SHEET C8.04.
20	INSTALL 20 LF TYPE 'CM' STORM DRAIN DROP INLET PER DETAIL 12 SHEET C8.03. INCLUDE CONCRETE STAMP PER USDCCA DWG NO 421 SHEET C8.07.
21	INSTALL 15" RCP FLARED END SECTION. REFERENCE DETAIL 13 SHEET C8.04
22	CONSTRUCT 7" THICK PCC PAVEMENT REINFORCED W/ #4@12" O.C.E.W. OVER 6" TYPE II AGGREGATE BASE OVER 8" STRUCTURAL FILL. COORDINATE WITH TRASH ENCLOSURE INSTALLATION TO PROVIDE 24" REBAR DOWELS BETWEEN SLABS AT 12" O.C.
23	INSTALL REMOVABLE BOLLARD PER DETAIL 7, SHEET C8.02.
24	CONSTRUCT GRADED SWALE PER DETAIL 3 SHEET C8.02.
25	INSTALL HEADWALL PER NDOT DWG. R-2.5.1 AND R-2.5.1.1 SHEET C8.12.
26	INSTALL TACK-ON ISLAND AS SHOWN PER USDCCA NO. 220.1.S1 SHEET C8.05.
27	REMOVE EXISTING "L" CURB AND GUTTER (SEE PLAN FOR LIMITS)
28	REMOVE EXISTING MEDIAN ISLAND.
29	FIELD VERIFY AND CONNECT TO EXISTING CURB, GUTTER AND SIDEWALK.
30	SAWCUT AS SHOWN ON PLANS AND MATCH EXISTING AC PAVEMENT SECTION.
31	REMOVE EXISTING 20 LF DROP INLET AND EXISTING 24" RCP.
32	SET RIM OF SEWER MANHOLE TO FINISHED GRADE.
33	CONSTRUCT 10' WIDE MULTIUSE EQUESTRIAN (MUE) TRAIL. SEE LANDSCAPING PLANS FOR DETAILS.
34	CONSTRUCT METAL GUARD RAIL PER DETAIL 2 SHEET L2.06.
35	INSTALL METAL HAND RAIL PER DETAIL 2 SHEET L2.06.
36	INSTALL 6' CHAINLINK FENCE PER USDCCA NO. 252 C8.07.
37	RELOCATE EXISTING CATV AND 6" ELECTRICAL CONDUITS AROUND PROPOSED STORM DRAIN CATCH BASINS.
38	CONSTRUCT MEDIAN NOSE PER USDCCA NO. 248 SHEET C8.06.
39	REMOVE AND SALVAGE EXISTING RIP RAP.
40	REMOVE EXISTING RCP SD. LENGTH PER PLAN.
41	REMOVE EXISTING CATCH BASIN.
42	REMOVE EXISTING 60" SDMH AND CONSTRUCT TYPE III STORM DRAIN MANHOLE PER USDCCA #406.1 SHEET C8.07 AND DETAIL 14 SHEET C8.04. INCLUDE CONCRETE STAMP PER USDCCA DWG NO 421 SHEET C8.07.
43	INSTALL NEENAH TYPE R2557 GRATE OR EQUAL AND CONCRETE COLLAR. SEE DETAIL 11 SHEET C8.03 FOR REFERENCE. PLACE CONCRETE STAMP PER USDCCA DWG NO 421 SHEET C8.07.
44	REMOVE EX. NDOT TYPE 2 DROP INLET AND REPLACE WITH NEW 60" TYPE I SDMH PER USDCCA NO. 403.1. INCLUDE CONCRETE STAMP PER USDCCA DWG NO 421 SHEET C8.07.
45	CONSTRUCT MODIFIED SIDEWALK RAMP PER USDCCA NO. 235, CASE 1 SHEET C8.05 AND DETAIL 28 SHEET 14.
46	CONSTRUCT RETAINING WALL PER PROFILE 'A' AND DETAILS ON SHEET C4.11.
47	CONSTRUCT RETAINING WALL PER PROFILE 'B' AND DETAILS ON SHEET C4.11.
48	CONSTRUCT PIPE PENETRATION INTO EXISTING STORM DRAIN BOX PER DETAIL 18 SHEET C8.04
49	INSTALL 36"x36" JENSEN PRECAST OR EQUAL DROP INLET WITH TRAFFIC RATED GRATES. REFERENCE DETAIL 10 SHEET C8.03. PLACE CONCRETE STAMP PER USDCCA DWG NO 421 SHEET C8.07.

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 THE VEGETATION.

GENERAL NOTE:

IT IS THE CONTRACTOR'S RESPONSIBILITY TO FILE A NOTICE OF INTENT/REQUEST TO BE INCLUDED IN THE STORM WATER GENERAL PERMIT, AND SUBMIT THE ASSOCIATED STORM WATER POLLUTION PREVENTION PLAN (SWPPP) AS REQUIRED BY FEDERAL, AND MONITORED BY THE NEVADA DIVISION OF ENVIRONMENTAL PROTECTION.

SIGHT VISIBILITY ZONE LEGEND

SIGHT VISIBILITY ZONE

SIGHT VISIBILITY ZONE NOTE:

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

ALL GRADING WORK SHALL BE IN STRICT ACCORDANCE WITH THE SOILS REPORT FOR THE SITE ENTITLED "GILMORE CLIFF SHADOW PARK".

PROJECT NO.: 304227001, DATED OCTOBER 31, 2017

PREPARED BY:
NINYO & MOORE GEOTECHNICAL & ENVIRONMENTAL SCIENCES CONSULTANTS
6700 PARADISE ROAD, SUITE E
LAS VEGAS, NEVADA 89119
PHONE NO.: (702) 433-0330
FAX NO.: (702) 433-0707

ALL WORK SHALL BE PERFORMED UNDER THE DIRECTION OF A REGISTERED PROFESSIONAL SOILS ENGINEER.

I CERTIFY THAT THIS GRADING PLAN CONFORMS TO THE THE APPROVED DRAINAGE STUDY FOR THIS SITE ON FILE WITH THE CITY OF LAS VEGAS. HANSEN# 66085

ARMANDO PINEDA, P.E. 18290 — DATE 7-19-18

CALL BEFORE YOU DIG
AVOID CUTTING UNDERGROUND UTILITY LINES. IT'S COSTLY
Call 811 before you UnderGround
1-800-227-2600

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

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

COLLINS ENGINEERS ASSUMES NO RESPONSIBILITY FOR EXISTING UTILITY LOCATIONS AND ELEVATIONS. THE UTILITIES SHOWN ON THIS DRAWING HAVE BEEN PLOTTED FROM THE BEST AVAILABLE INFORMATION. IT IS, HOWEVER, THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE LOCATION AND ELEVATION OF ALL UTILITIES PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION. CONTRACTOR TO FIELD VERIFY ALL EXISTING SITE CONDITIONS PRIOR TO CONSTRUCTION. IF A CONFLICT EXISTS BETWEEN WHAT IS SHOWN ON THESE DRAWINGS AND WHAT EXISTS IN THE FIELD, THE CONTRACTOR IS TO NOTIFY THE ARCHITECT OR ENGINEER IMMEDIATELY.

LEGEND

EXISTING	PROPOSED	
(0.00%)	0.00%	SLOPE
(0.00) XX	0.00 XX	ELEVATION TAG
(1)	(1)	STORM MANHOLE
		DROP INLET
-00-	-00-	CONTOUR
		RETAINING WALL
		SCREEN WALL

EXISTING	PROPOSED	
		AC PAVEMENT
		6" TYPE "A" CURB
		24" TYPE "L" CURB & GUTTER
		30" ROLL CURB

PL-RIGHT-OF-WAY
PL-ADJACENT
CENTERLINE
EASEMENT LINE
FLOW LINE
SAWCUT LINE
GRADE BREAK
MOUNDING
CHAIN LINK FENCE

H:\CAD\LAND\10297\DWG\SHEETS\10297-C4.01-GRD.DWG 07/18/2018 04:03:56 PM

CITY OF LAS VEGAS NEVADA

REVISIONS

CONSULTANT

COLLINS ENGINEERS
3130 S. DURANGO DR., SUITE 404
LAS VEGAS, NV 89117
PHONE: (702) 248-8000
FAX: (702) 248-8070
www.collinsengr.com

DEPARTMENT OF PUBLIC WORKS

GILMORE CLIFF SHADOWS PARK
NEW CITY OF LAS VEGAS PARK

GRADING PLAN 3

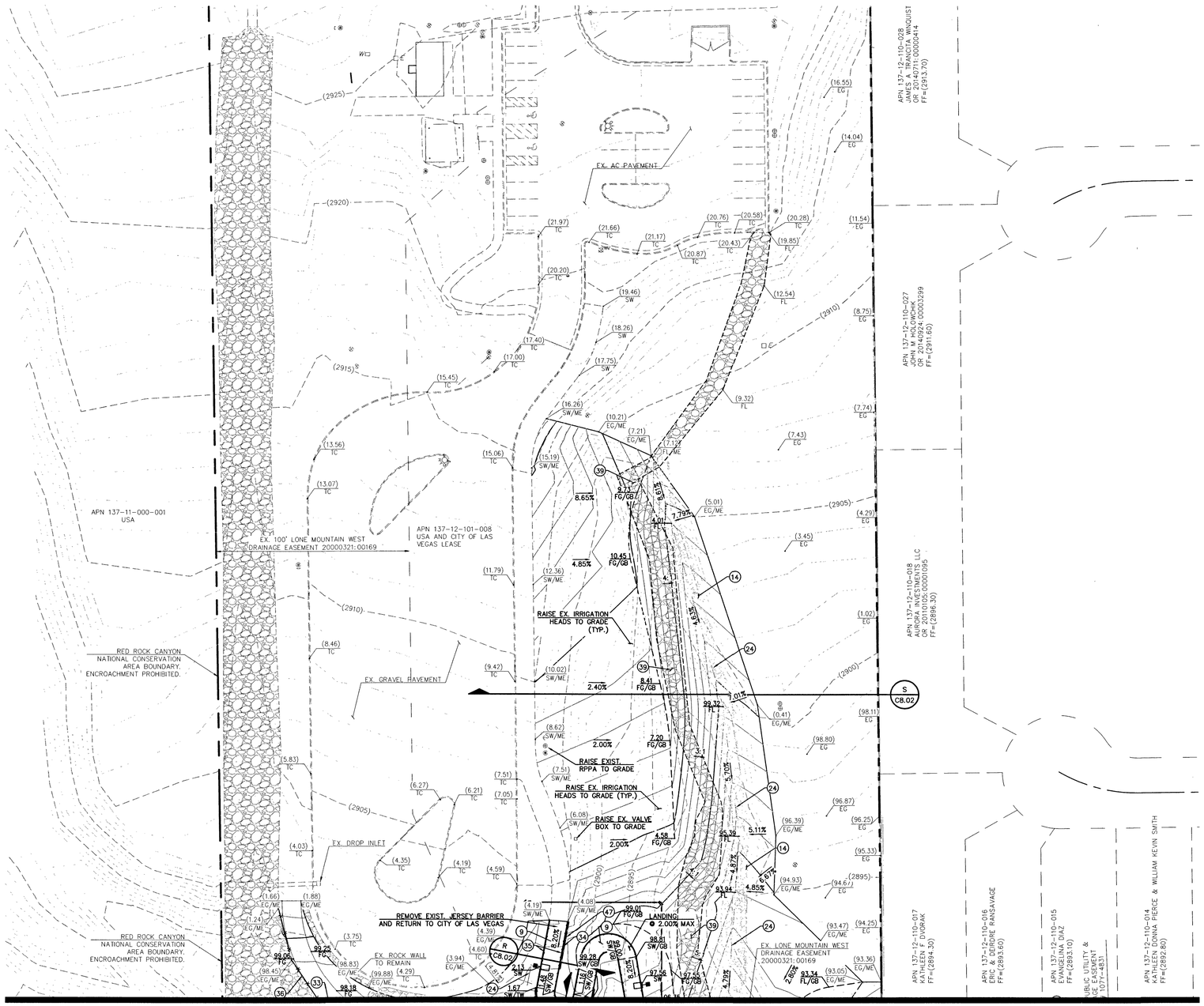
STAMP

ARMANDO PINEDA EXP. 12-31-19 CIVIL NO. 18290 ENGINEER STATE OF NEVADA PROFESSIONAL
7-19-18

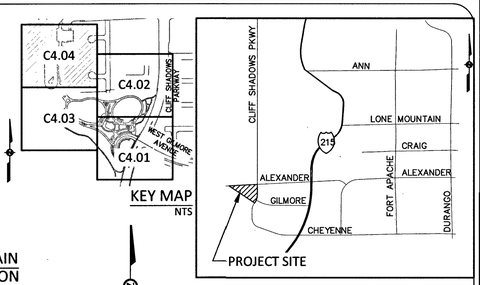
OWNER: CITY OF LAS VEGAS DEPARTMENT OF PUBLIC WORKS

DEVELOPMENT SERVICES CENTER
333 N. RANCHO DRIVE
LAS VEGAS, NEVADA 89106
PHONE: (702) 229-6276
FAX: (702) 384-4846

DRAWN	DSI
FILE	180101445
DATE	6/18/2018
SCALE	SEE PLAN
BID NO	18.66085.DD
CLV DWG NO	650.116
HANSEN NO	66085
	418-00891
SHT NO	C4.03



FOR CONTINUATION SEE SHEET C4.03



KEY MAP NTS

VICINITY MAP NTS

GRAPHIC SCALE

30 0 15 30

SCALE: 1"=30'

STORM DRAIN INFORMATION TABLE

TYPE III SDMH #1
RIM: 2862.5
N: 648958.5201
E: 220355.2706
INV.IN: 2854.82(NE)
INV.IN: 2855.02(NW)
INV.OUT: 2854.82(S)

SDCB #S1
24"X48"
RIM: 2860.1
N: 648577.0878
E: 220331.6181
INV.IN: 2852.95(W)
INV.OUT: 2852.95(E)

SDCB #S2
36"X36"
RIM: 2864.5
N: 648641.7290
E: 220189.4754
INV.IN: 2858.07(N)
INV.OUT: 2858.07(E)

SDCB #S3
24"X24"
RIM: 2863.8
N: 648914.2362
E: 220164.8956
INV.OUT: 2860.77(S)

SDCB #S4
24"X24"
RIM: 2879.4
N: 649087.5427
E: 220080.1651
INV.OUT: 2875.50(S)

SDCB #N1
24"X24"
RIM: 2865.6
N: 649066.8395
E: 220296.9444
INV.OUT: 2862.94(SE)

SDCB #N2
TYPE III MH W/ NEENAH TYPE R2557 GRATE OR EQUAL
RIM: 2861.0
N: 649002.3912
E: 220432.8702
INV.IN: 2856.15(E)
INV.OUT: 2856.15(SW)

SDCB #N3
24"X24"
RIM: 2876.8
N: 649268.9213
E: 220210.3389
INV.OUT: 2873.80(S)

SDCB #N4
DUAL 24"X24"
RIM: 2866.9
N: 649019.8726
E: 220207.8481
INV.IN: 2862.87(N)
INV.OUT: 2862.87(S)

SDCB #N5
36"X36"
RIM: 2859.7
N: 648923.7109
E: 220422.1506
INV.IN: 2854.90(NE)
INV.OUT: 2854.90(S)

SDCB #N5A
36"X36"
RIM: 2859.8
N: 648929.8080
E: 220425.6019
INV.OUT: 2854.95(SW)

SDDI #1
20LF TYPE CM
RIM: 2860.9
N: 648991.8957
E: 220464.8572
INV.OUT: 2856.65(W)

SDMH #5
60" TYPE I MH W/ NEENAH
TYPE R2557 GRATE OR EQUAL
RIM: 2889.5
N: 649309.8949
E: 219872.5595
INV.OUT: 2874.70(S)

BASIS OF BEARINGS

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

BENCHMARK

PROJECT DATUM: NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).

CITY OF LAS VEGAS BENCHMARK: 7LVD911NES
ELEVATION: 2931.57 (US SURVEY FEET)
893.54 (METERS)

BEING A BLM BRASS CAP (HIGH PT.) SECTION 2/1 OVER 11/12, PI ALEXANDER ROAD & SECTION LINE.

CONSTRUCTION NOTES

NO.	ITEM USDCCA: UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA
1	CONSTRUCT TYPE 'L' CURB PER USDCCA NO. 216 SHEET C8.05.
2	CONSTRUCT TYPE 'A' CURB PER DETAIL 1 SHEET C8.02
3	INSTALL "0" CURB, PER DETAIL 2 SHEET C8.02
4	TRANSITION FROM 0" TO 6" CURB PER DETAIL 4 SHEET C8.02.
5	CONSTRUCT 2.5" MIN. AC PAVEMENT OVER 4" MIN. TYPE II AGGREGATE BASE.
6	CONSTRUCT SIDEWALK PER USDCCA NO. 234 SHEET C8.05.
7	CONSTRUCT 12" MOW CURB PER DETAIL 6 SHEET C8.02.
8	CONSTRUCT 8' CROSS GUTTER PER USDCCA NO. 228 SHEET C8.05.
9	CONSTRUCT 4" THICK CONCRETE OVER 6" TYPE II AGGREGATE BASE. WIDTH PER PLAN.
10	CONSTRUCT VEHICULAR CONCRETE PAVING PER DETAIL 17 SHEET C8.04. WIDTH PER PLAN.
11	CONSTRUCT SIDEWALK UNDERDRAIN PER USDCCA No. 236. SHEET C8.06.
12	CONSTRUCT SIDEWALK RAMP PER USDCCA NO. 235, CASE 1 SHEET C8.05.
13	CONSTRUCT CURB OPENING PER DETAIL 5 SHEET C8.02.
14	INSTALL RIP RAP D50=8" MIN., THICKNESS=16". SIDESLOPE=2% MIN./3:1 MAX.
15	INSTALL RIP RAP D50=3" MIN., THICKNESS=6". SIDESLOPE=2% MIN./3:1 MAX.
16	INSTALL 24"x24" JENSEN PRECAST OR EQUAL DROP INLET. REFERENCE DETAIL 9 SHEET C8.03. INCLUDE CONCRETE COLLAR PER USDCCA DWG NO 329 SHEET C8.07 AND CONCRETE STAMP PER USDCCA DWG NO 421 SHEET C8.07.
17	INSTALL 36"x36" JENSEN PRECAST OR EQUAL DROP INLET. REFERENCE DETAIL 10 SHEET C8.03. INCLUDE CONCRETE COLLAR PER USDCCA DWG NO 329 SHEET C8.07 AND CONCRETE STAMP PER USDCCA DWG NO 421 SHEET C8.07.
18	INSTALL 24"x48" DROP INLET PER NDOT DWG. R-4.2.1 SHEET C8.12. INCLUDE CONCRETE COLLAR PER USDCCA DWG NO 329 SHEET C8.07 AND CONCRETE STAMP PER USDCCA DWG NO 421 SHEET C8.07.
19	CONSTRUCT TYPE III STORM DRAIN MANHOLE PER USDCCA #406.1 SHEET C8.07 AND DETAIL 14 SHEET C8.04.
20	INSTALL 20 LF TYPE 'CM' STORM DRAIN DROP INLET PER DETAIL 12 SHEET C8.03. INCLUDE CONCRETE STAMP PER USDCCA DWG NO 421 SHEET C8.07.
21	INSTALL 15" RCP FLARED END SECTION. REFERENCE DETAIL 13 SHEET C8.04
22	CONSTRUCT 7" THICK PCC PAVEMENT REINFORCED W/ #4@12" O.C.E.W. OVER 6" TYPE II AGGREGATE BASE OVER 8" STRUCTURAL FILL. COORDINATE WITH TRASH ENCLOSURE INSTALLATION TO PROVIDE 24" REBAR DOWELS BETWEEN SLABS AT 12" O.C.
23	INSTALL REMOVABLE BOLLARD PER DETAIL 7, SHEET C8.02.
24	CONSTRUCT GRADED SWALE PER DETAIL 3 SHEET C8.02.
25	INSTALL HEADWALL PER NDOT DWG. R-2.5.1 AND R-2.5.1.1 SHEET C8.12.
26	INSTALL TACK-ON ISLAND AS SHOWN PER USDCCA NO. 220.1.S1 SHEET C8.05.
27	REMOVE EXISTING "L" CURB AND GUTTER (SEE PLAN FOR LIMITS)
28	REMOVE EXISTING MEDIAN ISLAND.
29	FIELD VERIFY AND CONNECT TO EXISTING CURB, GUTTER AND SIDEWALK.
30	SAWCUT AS SHOWN ON PLANS AND MATCH EXISTING AC PAVEMENT SECTION.
31	REMOVE EXISTING 20 LF DROP INLET AND EXISTING 24" RCP.
32	SET RIM OF SEWER MANHOLE TO FINISHED GRADE.
33	CONSTRUCT 10' WIDE MULTIUSE EQUESTRIAN (MUE) TRAIL. SEE LANDSCAPING PLANS FOR DETAILS.
34	CONSTRUCT METAL GUARD RAIL PER DETAIL 2 SHEET L2.06.
35	INSTALL METAL HAND RAIL PER DETAIL 2 SHEET L2.06.
36	INSTALL 6' CHAINLINK FENCE PER USDCCA NO. 252 C8.07.
37	RELOCATE EXISTING CATV AND 6" ELECTRICAL CONDUITS AROUND PROPOSED STORM DRAIN CATCH BASINS.
38	CONSTRUCT MEDIAN NOSE PER USDCCA NO. 248 SHEET C8.06.
39	REMOVE AND SALVAGE EXISTING RIP RAP.
40	REMOVE EXISTING RCP SD. LENGTH PER PLAN.
41	REMOVE EXISTING CATCH BASIN.
42	REMOVE EXISTING 60" SDMH AND CONSTRUCT TYPE III STORM DRAIN MANHOLE PER USDCCA #406.1 SHEET C8.07 AND DETAIL 14 SHEET C8.04. INCLUDE CONCRETE STAMP PER USDCCA DWG NO 421 SHEET C8.07.
43	INSTALL NEENAH TYPE R2557 GRATE OR EQUAL AND CONCRETE COLLAR. SEE DETAIL 11 SHEET C8.03 FOR REFERENCE. PLACE CONCRETE STAMP PER USDCCA DWG NO 421 SHEET C8.07.
44	REMOVE EX. NDOT TYPE 2 DROP INLET AND REPLACE WITH NEW 60" TYPE I SDMH PER USDCCA NO. 403.1. INCLUDE CONCRETE STAMP PER USDCCA DWG NO 421 SHEET C8.07.
45	CONSTRUCT MODIFIED SIDEWALK RAMP PER USDCCA NO. 235, CASE 1 SHEET C8.05 AND DETAIL 28 SHEET 14.
46	CONSTRUCT RETAINING WALL PER PROFILE 'A' AND DETAILS ON SHEET C4.11.
47	CONSTRUCT RETAINING WALL PER PROFILE 'B' AND DETAILS ON SHEET C4.11.
48	CONSTRUCT PIPE PENETRATION INTO EXISTING STORM DRAIN BOX PER DETAIL 18 SHEET C8.04
49	INSTALL 36"x36" JENSEN PRECAST OR EQUAL DROP INLET WITH TRAFFIC RATED GRATES. REFERENCE DETAIL 10 SHEET C8.03. PLACE CONCRETE STAMP PER USDCCA DWG NO 421 SHEET C8.07.

SIGHT VISIBILITY ZONE LEGEND

SIGHT VISIBILITY ZONE

SIGHT VISIBILITY ZONE NOTE:

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

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 THE VEGETATION.

GENERAL NOTE:

IT IS THE CONTRACTOR'S RESPONSIBILITY TO FILE A NOTICE OF INTENT/REQUEST TO BE INCLUDED IN THE STORM WATER GENERAL PERMIT, AND SUBMIT THE ASSOCIATED STORM WATER POLLUTION PREVENTION PLAN (SWPPP) AS REQUIRED BY FEDERAL, AND MONITORED BY THE NEVADA DIVISION OF ENVIRONMENTAL PROTECTION.

ALL GRADING WORK SHALL BE IN STRICT ACCORDANCE WITH THE SOILS REPORT FOR THE SITE ENTITLED "GILMORE CLIFF SHADOW PARK".

PROJECT NO.: 304227001, DATED OCTOBER 31, 2017

PREPARED BY:
NINYO & MOORE GEOTECHNICAL & ENVIRONMENTAL SCIENCES CONSULTANTS
6700 PARADISE ROAD, SUITE E
LAS VEGAS, NEVADA 89119
PHONE NO.: (702) 433-0330
FAX NO.: (702) 433-0707

ALL WORK SHALL BE PERFORMED UNDER THE DIRECTION OF A REGISTERED PROFESSIONAL SOILS ENGINEER.

I CERTIFY THAT THIS GRADING PLAN CONFORMS TO THE THE APPROVED DRAINAGE STUDY FOR THIS SITE ON FILE WITH THE CITY OF LAS VEGAS. HANSEN# 66085

ARMANDO PINEDA, P.E. 18290 — 7-19-18 DATE

CALL BEFORE YOU DIG
AVOID CUTTING UNDERGROUND UTILITY LINES. IT'S COSTLY
Call 811 1-800-227-2600

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

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

COLLINS ENGINEERS ASSUMES NO RESPONSIBILITY FOR EXISTING UTILITY LOCATIONS AND ELEVATIONS. THE UTILITIES SHOWN ON THIS DRAWING HAVE BEEN PLOTTED FROM THE BEST AVAILABLE INFORMATION. IT IS, HOWEVER, THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE LOCATION AND ELEVATION OF ALL UTILITIES PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION. CONTRACTOR TO FIELD VERIFY ALL EXISTING SITE CONDITIONS PRIOR TO CONSTRUCTION. IF A CONFLICT EXISTS BETWEEN WHAT IS SHOWN ON THESE DRAWINGS AND WHAT EXISTS IN THE FIELD, THE CONTRACTOR IS TO NOTIFY THE ARCHITECT OR ENGINEER IMMEDIATELY.

LEGEND

EXISTING	PROPOSED	
(0.00)%	0.00%	SLOPE
(0.00) XX	0.00 XX	ELEVATION TAG
Ⓣ	Ⓣ	STORM MANHOLE
		DROP INLET
-00-	-00-	CONTOUR
		RETAINING WALL
		SCREEN WALL
		AC PAVEMENT
		6" TYPE "A" CURB
		24" TYPE "L" CURB & GUTTER
		30" ROLL CURB
		PL-RIGHT-OF-WAY
		PL-ADJACENT
		CENTERLINE
		EASEMENT LINE
		FLOW LINE
		SAWCUT LINE
		GRADE BREAK
		MOUNDING
		CHAIN LINK FENCE

H:\CAD\LAND\10297\DWG\SHEETS\10297-C4.01-GRD.DWG 07/18/2018 04:05:19 PM

CITY OF LAS VEGAS NEVADA

REVISIONS

CONSULTANT

COLLINS ENGINEERS
3130 S. DURANGO DR., SUITE 404
LAS VEGAS, NV 89117
PHONE: (702) 248-8000
FAX: (702) 248-8070
www.collinsengr.com

DEPARTMENT OF PUBLIC WORKS

GILMORE CLIFF SHADOWS PARK
NEW CITY OF LAS VEGAS PARK

GRADING PLAN 3

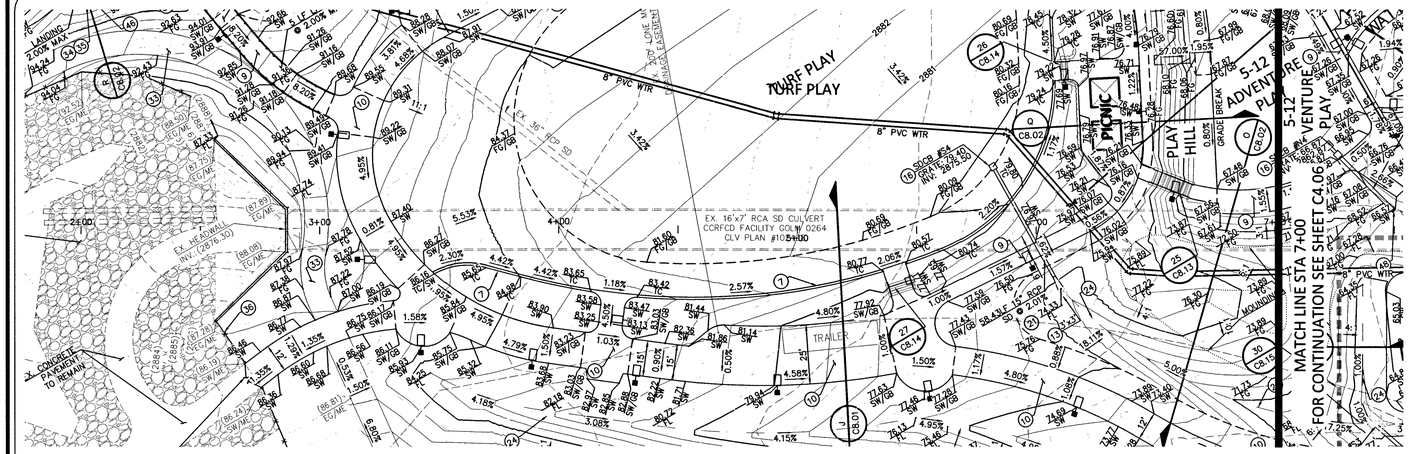
STAMP

PROFESSIONAL ENGINEER - STATE OF NEVADA
ARMANDO PINEDA
EXP. 12-31-19
CIVIL
NO. 18290
7-19-18

OWNER: CITY OF LAS VEGAS DEPARTMENT OF PUBLIC WORKS

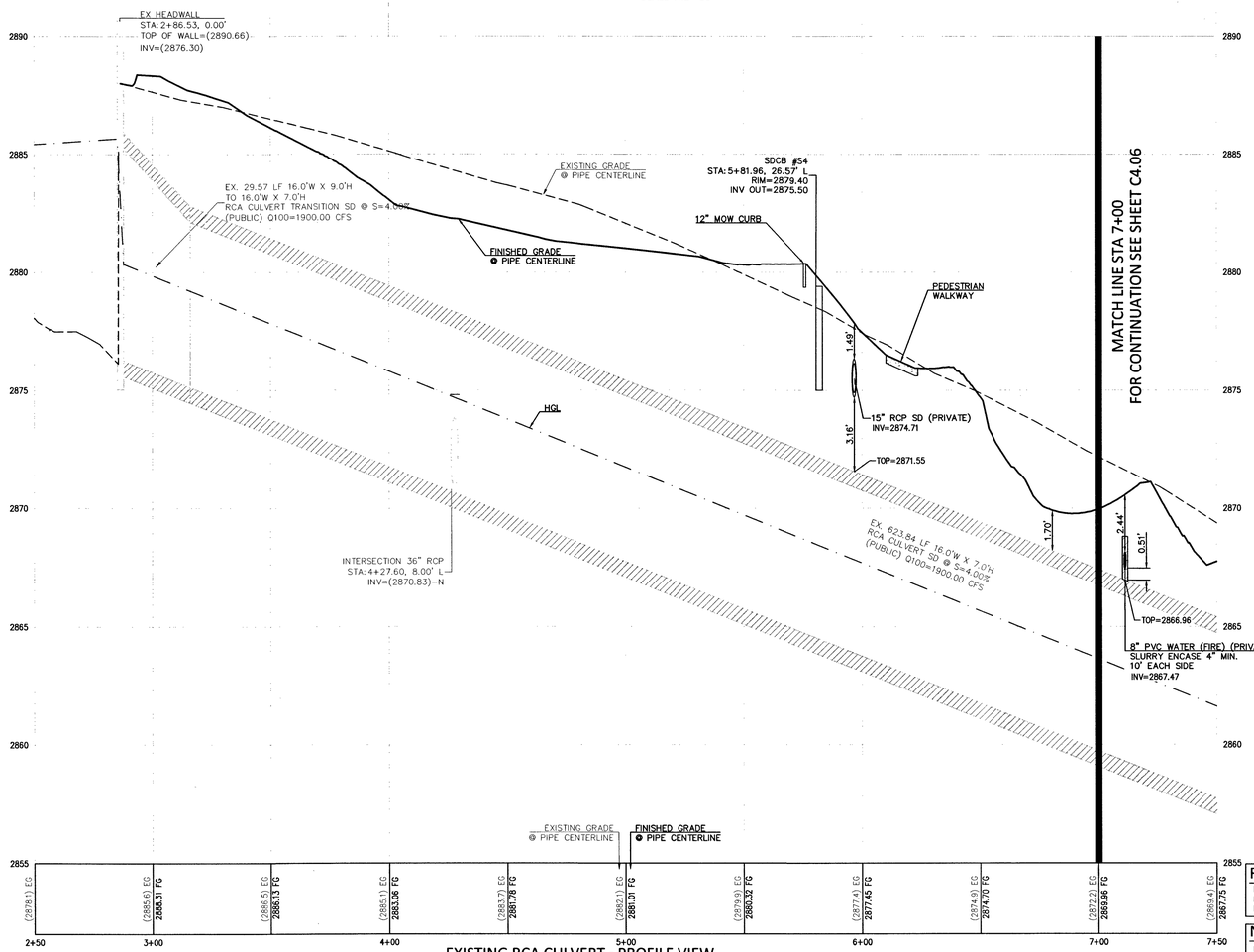
DEVELOPMENT SERVICES CENTER
333 N. RANCHO DRIVE
LAS VEGAS, NEVADA 89106
PHONE: (702) 229-6276
FAX: (702) 384-4846

DRAWN	DSI
FILE	180101445
DATE	6/18/2018
SCALE	SEE PLAN
BID NO	18.66085.DD
CLV DWG NO	650.116
HANSEN NO	66085
	LIB-00891
SHT NO	C4.04



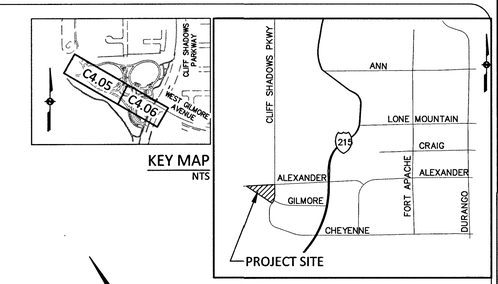
EXISTING RCA CULVERT - PLAN VIEW

SCALE H:1"=30'



EXISTING RCA CULVERT - PROFILE VIEW

SCALE H:1"=30'; V:1"=3'



BASIS OF BEARINGS

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

BENCHMARK

PROJECT DATUM: NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).

CITY OF LAS VEGAS BENCHMARK: 7LVD911NES
ELEVATION: 2931.57 (US SURVEY FEET)
893.54 (METERS)

BEING A BLM BRASS CAP (HIGH PT.) SECTION 2/1 OVER 11/12, PI ALEXANDER ROAD & SECTION LINE.

CONSTRUCTION NOTES

NO.	ITEM USDCCA: UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA
1	CONSTRUCT TYPE 'L' CURB PER USDCCA NO. 216 SHEET C8.05.
2	CONSTRUCT TYPE 'A' CURB PER DETAIL 1 SHEET C8.02
3	INSTALL "0" CURB, PER DETAIL 2 SHEET C8.02
4	TRANSITION FROM 0" TO 6" CURB PER DETAIL 4 SHEET C8.02.
5	CONSTRUCT 2.5" MIN. AC PAVEMENT OVER 4" MIN. TYPE II AGGREGATE BASE.
6	CONSTRUCT SIDEWALK PER USDCCA NO. 234 SHEET C8.05.
7	CONSTRUCT 12" MOW CURB PER DETAIL 6 SHEET C8.02.
8	CONSTRUCT 8' CROSS GUTTER PER USDCCA NO. 228 SHEET C8.05.
9	CONSTRUCT 4" THICK CONCRETE OVER 6" TYPE II AGGREGATE BASE. WIDTH PER PLAN.
10	CONSTRUCT VEHICULAR CONCRETE PAVING PER DETAIL 17 SHEET C8.04. WIDTH PER PLAN.
11	CONSTRUCT SIDEWALK UNDERDRAIN PER USDCCA No. 236. SHEET C8.06.
12	CONSTRUCT SIDEWALK RAMP PER USDCCA NO. 235, CASE 1 SHEET C8.05.
13	CONSTRUCT CURB OPENING PER DETAIL 5 SHEET C8.02.
14	INSTALL RIP RAP D50=8" MIN., THICKNESS=16". SIDESLOPE=2% MIN./3:1 MAX.
15	INSTALL RIP RAP D50=3" MIN., THICKNESS=6". SIDESLOPE=2% MIN./3:1 MAX.
16	INSTALL 24"x24" JENSEN PRECAST OR EQUAL DROP INLET. REFERENCE DETAIL 9 SHEET C8.03. INCLUDE CONCRETE COLLAR PER USDCCA DWG NO 329 SHEET C8.07 AND CONCRETE STAMP PER USDCCA DWG NO 421 SHEET C8.07.
17	INSTALL 36"x36" JENSEN PRECAST OR EQUAL DROP INLET. REFERENCE DETAIL 10 SHEET C8.03. INCLUDE CONCRETE COLLAR PER USDCCA DWG NO 329 SHEET C8.07 AND CONCRETE STAMP PER USDCCA DWG NO 421 SHEET C8.07.
18	INSTALL 24"x48" DROP INLET PER NDOT DWG. R-4.2.1 SHEET C8.12. INCLUDE CONCRETE COLLAR PER USDCCA DWG NO 329 SHEET C8.07 AND CONCRETE STAMP PER USDCCA DWG NO 421 SHEET C8.07.
19	CONSTRUCT TYPE III STORM DRAIN MANHOLE PER USDCCA #406.1 SHEET C8.07 AND DETAIL 14 SHEET C8.04.
20	INSTALL 20 LF TYPE 'CM' STORM DRAIN DROP INLET PER DETAIL 12 SHEET C8.03. INCLUDE CONCRETE STAMP PER USDCCA DWG NO 421 SHEET C8.07.
21	INSTALL 15" RCP FLARED END SECTION. REFERENCE DETAIL 13 SHEET C8.04
22	CONSTRUCT 7" THICK PCC PAVEMENT REINFORCED W/ #4@12" O.C.E.W. OVER 6" TYPE II AGGREGATE BASE OVER 8" STRUCTURAL FILL. COORDINATE WITH TRASH ENCLOSURE INSTALLATION TO PROVIDE 24" REBAR DOWELS BETWEEN SLABS AT 12" O.C.
23	INSTALL REMOVABLE BOLLARD PER DETAIL 7, SHEET C8.02.
24	CONSTRUCT GRADED SWALE PER DETAIL 3 SHEET C8.02.
25	INSTALL HEADWALL PER NDOT DWG. R-2.5.1 AND R-2.5.1.1 SHEET C8.12.
26	INSTALL TACK-ON ISLAND AS SHOWN PER USDCCA NO. 220.1.S1 SHEET C8.05.
27	REMOVE EXISTING "L" CURB AND GUTTER (SEE PLAN FOR LIMITS)
28	REMOVE EXISTING MEDIAN ISLAND.
29	FIELD VERIFY AND CONNECT TO EXISTING CURB, GUTTER AND SIDEWALK.
30	SAWCUT AS SHOWN ON PLANS AND MATCH EXISTING AC PAVEMENT SECTION.
31	REMOVE EXISTING 20 LF DROP INLET AND EXISTING 24" RCP.
32	SET RIM OF SEWER MANHOLE TO FINISHED GRADE.
33	CONSTRUCT 10' WIDE MULTIUSE EQUESTRIAN (MUE) TRAIL. SEE LANDSCAPING PLANS FOR DETAILS.
34	CONSTRUCT METAL GUARD RAIL PER DETAIL 2 SHEET L2.06.
35	INSTALL METAL HAND RAIL PER DETAIL 2 SHEET L2.06.
36	INSTALL 6' CHAINLINK FENCE PER USDCCA NO. 252 C8.07.
37	RELOCATE EXISTING CATV AND 6" ELECTRICAL CONDUITS AROUND PROPOSED STORM DRAIN CATCH BASINS.
38	CONSTRUCT MEDIAN NOSE PER USDCCA NO. 248 SHEET C8.06.
39	REMOVE AND SALVAGE EXISTING RIP RAP.
40	REMOVE EXISTING RCP SD. LENGTH PER PLAN.
41	REMOVE EXISTING CATCH BASIN.
42	REMOVE EXISTING 60" SDMH AND CONSTRUCT TYPE III STORM DRAIN MANHOLE PER USDCCA #406.1 SHEET C8.07 AND DETAIL 14 SHEET C8.04. INCLUDE CONCRETE STAMP PER USDCCA DWG NO 421 SHEET C8.07.
43	INSTALL NEENAH TYPE R2557 GRATE OR EQUAL AND CONCRETE COLLAR. SEE DETAIL 11 SHEET C8.03 FOR REFERENCE. PLACE CONCRETE STAMP PER USDCCA DWG NO 421 SHEET C8.07.
44	REMOVE EX. NDOT TYPE 2 DROP INLET AND REPLACE WITH NEW 60" TYPE I SDMH PER USDCCA NO. 403.1. INCLUDE CONCRETE STAMP PER USDCCA DWG NO 421 SHEET C8.07.
45	CONSTRUCT MODIFIED SIDEWALK RAMP PER USDCCA NO. 235, CASE 1 SHEET C8.05 AND DETAIL 28 SHEET 14.
46	CONSTRUCT RETAINING WALL PER PROFILE 'A' AND DETAILS ON SHEET C4.11.
47	CONSTRUCT RETAINING WALL PER PROFILE 'B' AND DETAILS ON SHEET C4.11.
48	CONSTRUCT PIPE PENETRATION INTO EXISTING STORM DRAIN BOX PER DETAIL 18 SHEET C8.04
49	INSTALL 36"x36" JENSEN PRECAST OR EQUAL DROP INLET WITH TRAFFIC RATED GRATES. REFERENCE DETAIL 10 SHEET C8.03. PLACE CONCRETE STAMP PER USDCCA DWG NO 421 SHEET C8.07.

FLOOD ZONE NOTE:

PER FIRM PANEL 32003C2150E REVISED SEPTEMBER 27, 2002, THE PROJECT SITE IS LOCATED WITHIN NON-SHADED FLOOD ZONE "X". NON-SHADED FLOOD ZONE "X" IS DEFINED BY FEMA AS AN AREA OUTSIDE THE 100-YEAR FLOOD PLAIN.

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 THE VEGETATION.

GENERAL NOTE:

IT IS THE CONTRACTOR'S RESPONSIBILITY TO FILE A NOTICE OF INTENT/REQUEST TO BE INCLUDED IN THE STORM WATER GENERAL PERMIT, AND SUBMIT THE ASSOCIATED STORM WATER POLLUTION PREVENTION PLAN (SWPPP) AS REQUIRED BY FEDERAL, AND MONITORED BY THE NEVADA DIVISION OF ENVIRONMENTAL PROTECTION.

CALL BEFORE YOU DIG
AVOID CUTTING UNDERGROUND UTILITY LINES. IT'S COSTLY
Call 811 or 1-800-227-2600

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

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

COLLINS ENGINEERS ASSUMES NO RESPONSIBILITY FOR EXISTING UTILITY LOCATIONS AND ELEVATIONS. THE UTILITIES SHOWN ON THIS DRAWING HAVE BEEN PLOTTED FROM THE BEST AVAILABLE INFORMATION. IT IS, HOWEVER, THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE LOCATION AND ELEVATION OF ALL UTILITIES PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION. CONTRACTOR TO FIELD VERIFY ALL EXISTING SITE CONDITIONS PRIOR TO CONSTRUCTION. IF A CONFLICT EXISTS BETWEEN WHAT IS SHOWN ON THESE DRAWINGS AND WHAT EXISTS IN THE FIELD, THE CONTRACTOR IS TO NOTIFY THE ARCHITECT OR ENGINEER IMMEDIATELY.

LEGEND

EXISTING	PROPOSED	
(0.00%)	0.00%	SLOPE
(0.00) XX	0.00 XX	ELEVATION TAG
Ⓓ	Ⓓ	STORM MANHOLE
		DROP INLET
		CONTOUR
		RETAINING WALL
		SCREEN WALL

EXISTING	PROPOSED	
		AC PAVEMENT
		6" TYPE "A" CURB
		24" TYPE "L" CURB & GUTTER
		30" ROLL CURB

PL-RIGHT-OF-WAY
PL-ADJACENT
CENTERLINE
EASEMENT LINE
FLOW LINE
SAWCUT LINE
GRADE BREAK
MOUNDING
CHAIN LINK FENCE

CITY OF LAS VEGAS NEVADA

REVISIONS

CONSULTANT

COLLINS ENGINEERS
3130 S. DURANGO DR., SUITE 404
LAS VEGAS, NV 89117
PHONE: (702) 248-8000
FAX: (702) 248-8070
www.collinsengr.com

DEPARTMENT OF PUBLIC WORKS

GILMORE CLIFF SHADOWS PARK
NEW CITY OF LAS VEGAS PARK

EXISTING RCA CULVERT PLAN AND PROFILE
STA 2+50 TO STA 7+00

STAMP

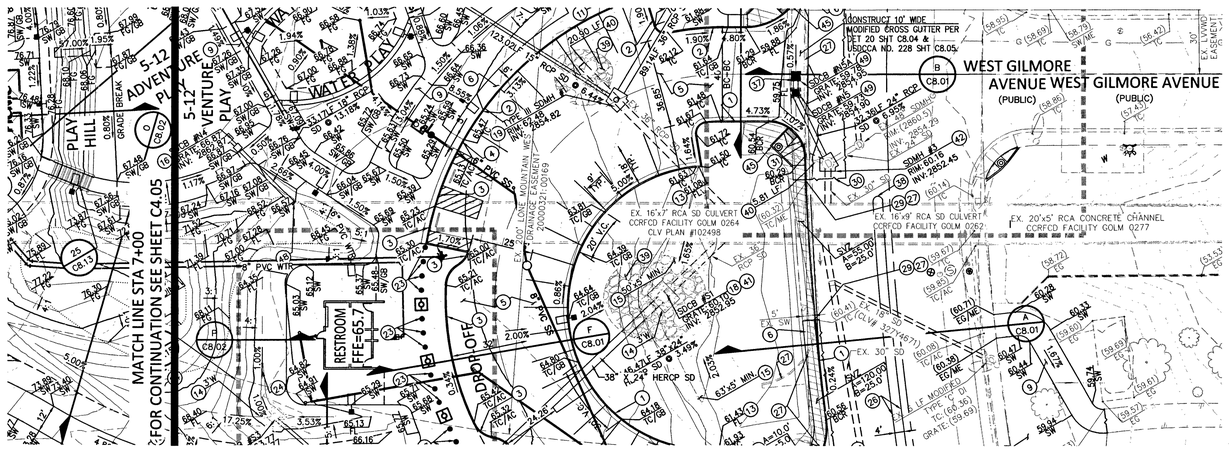
PROFESSIONAL ENGINEER - STATE OF NEVADA
ARMANDO PINEDA
EXP. 12-31-19
CIVIL
NO. 18290
7-14-18

OWNER: CITY OF LAS VEGAS
DEPARTMENT OF PUBLIC WORKS

DEVELOPMENT SERVICES CENTER
333 N. RANCHO DRIVE
LAS VEGAS, NEVADA 89106
PHONE: (702) 229-6276
FAX: (702) 384-4846

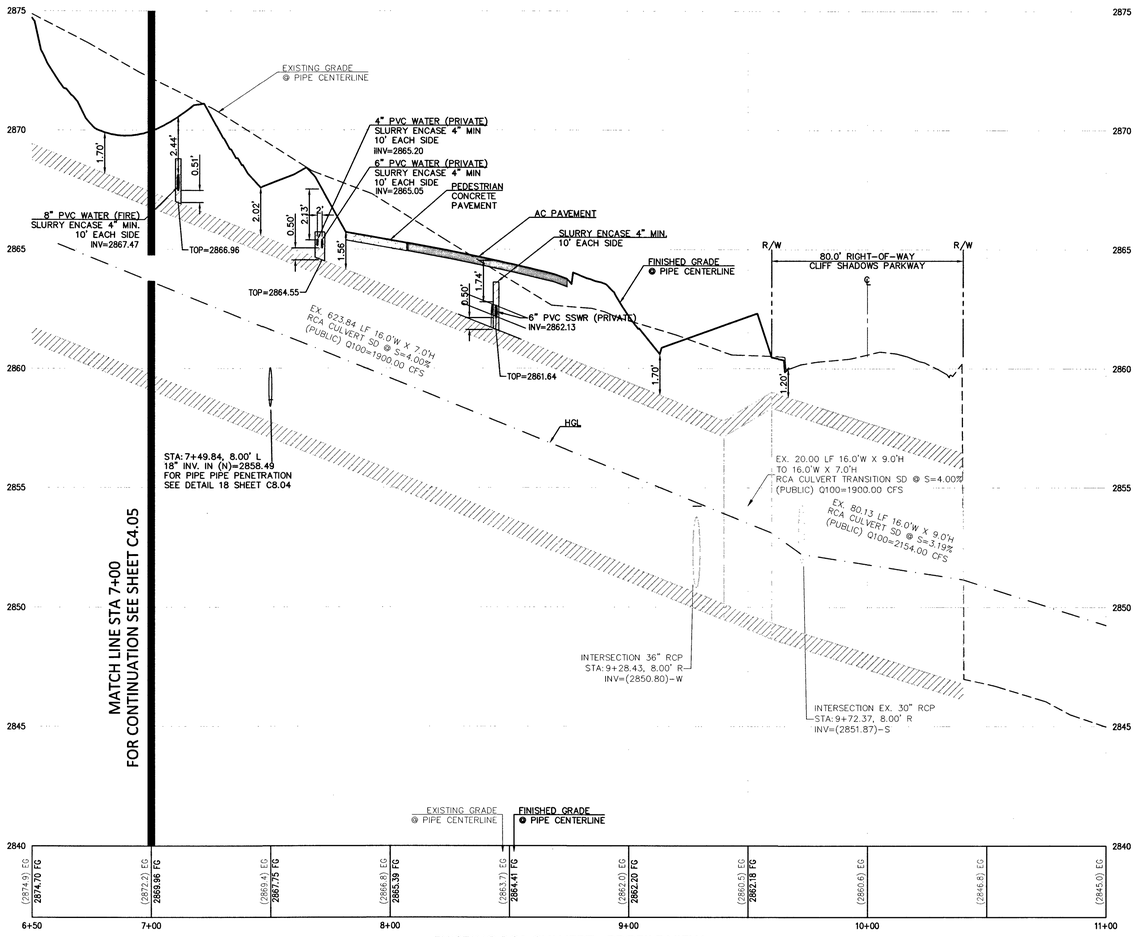
DRAWN	DSI
FILE	180101445
DATE	6/18/2018
SCALE	SEE PLAN
BID NO	18.66085.DD
CLV DWG NO	650.116
HANSEN NO	66085
	C18-0089
SHT NO	C4.05

H:\CAD\LAND\10297\DWG\SHEETS\10297-C4.05-RCA P&P.DWG 07/18/2018 02:34:13 PM



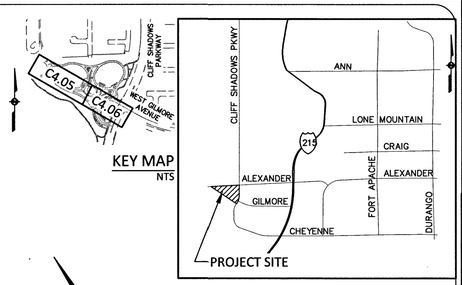
EXISTING RCA CULVERT - PLAN VIEW

SCALE H:1"=30'



EXISTING RCA CULVERT - PROFILE VIEW

SCALE H:1"=30'; V:1"=3'



KEY MAP
NTS

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

VICINITY MAP
NTS

BASIS OF BEARINGS

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

BENCHMARK

PROJECT DATUM: NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).

CITY OF LAS VEGAS BENCHMARK: 7LVD911NES
ELEVATION: 2931.57 (US SURVEY FEET)
893.54 (METERS)

BEING A BLM BRASS CAP (HIGH PT.) SECTION 2/1 OVER 11/12, PI ALEXANDER ROAD & SECTION LINE.

CONSTRUCTION NOTES

NO.	ITEM USDCCA: UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA
1	CONSTRUCT TYPE 'L' CURB PER USDCCA NO. 216 SHEET C8.05.
2	CONSTRUCT TYPE 'A' CURB PER DETAIL 1 SHEET C8.02
3	INSTALL "0" CURB, PER DETAIL 2 SHEET C8.02
4	TRANSITION FROM 0" TO 6" CURB PER DETAIL 4 SHEET C8.02.
5	CONSTRUCT 2.5" MIN. AC PAVEMENT OVER 4" MIN. TYPE II AGGREGATE BASE.
6	CONSTRUCT SIDEWALK PER USDCCA NO. 234 SHEET C8.05.
7	CONSTRUCT 12" MOW CURB PER DETAIL 6 SHEET C8.02.
8	CONSTRUCT 8' CROSS GUTTER PER USDCCA NO. 228 SHEET C8.05.
9	CONSTRUCT 4" THICK CONCRETE OVER 6" TYPE II AGGREGATE BASE. WIDTH PER PLAN.
10	CONSTRUCT VEHICULAR CONCRETE PAVING PER DETAIL 17 SHEET C8.04. WIDTH PER PLAN.
11	CONSTRUCT SIDEWALK UNDERDRAIN PER USDCCA No. 236. SHEET C8.06.
12	CONSTRUCT SIDEWALK RAMP PER USDCCA NO. 235, CASE 1 SHEET C8.05.
13	CONSTRUCT CURB OPENING PER DETAIL 5 SHEET C8.02.
14	INSTALL RIP RAP D50=8" MIN., THICKNESS=16". SIDESLOPE=2% MIN./3:1 MAX.
15	INSTALL RIP RAP D50=3" MIN., THICKNESS=6". SIDESLOPE=2% MIN./3:1 MAX.
16	INSTALL 24"x24" JENSEN PRECAST OR EQUAL DROP INLET. REFERENCE DETAIL 9 SHEET C8.03. INCLUDE CONCRETE COLLAR PER USDCCA DWG NO 329 SHEET C8.07 AND CONCRETE STAMP PER USDCCA DWG NO 421 SHEET C8.07.
17	INSTALL 36"x36" JENSEN PRECAST OR EQUAL DROP INLET. REFERENCE DETAIL 10 SHEET C8.03. INCLUDE CONCRETE COLLAR PER USDCCA DWG NO 329 SHEET C8.07 AND CONCRETE STAMP PER USDCCA DWG NO 421 SHEET C8.07.
18	INSTALL 24"x48" DROP INLET PER NDOT DWG. R-4.2.1 SHEET C8.12. INCLUDE CONCRETE COLLAR PER USDCCA DWG NO 329 SHEET C8.07 AND CONCRETE STAMP PER USDCCA DWG NO 421 SHEET C8.07.
19	CONSTRUCT TYPE III STORM DRAIN MANHOLE PER USDCCA #406.1 SHEET C8.07 AND DETAIL 14 SHEET C8.04.
20	INSTALL 20 LF TYPE "OM" STORM DRAIN DROP INLET PER DETAIL 12 SHEET C8.03. INCLUDE CONCRETE STAMP PER USDCCA DWG NO 421 SHEET C8.07.
21	INSTALL 15" RCP FLARED END SECTION. REFERENCE DETAIL 13 SHEET C8.04
22	CONSTRUCT 7" THICK PCC PAVEMENT REINFORCED W/ #4@12" O.C.E.W. OVER 6" TYPE II AGGREGATE BASE OVER 8" STRUCTURAL FILL. COORDINATE WITH TRASH ENCLOSURE INSTALLATION TO PROVIDE 24" REBAR DOWELS BETWEEN SLABS AT 12" O.C.
23	INSTALL REMOVABLE BOLLARD PER DETAIL 7, SHEET C8.02.
24	CONSTRUCT GRADED SWALE PER DETAIL 3 SHEET C8.02.
25	INSTALL HEADWALL PER NDOT DWG. R-2.5.1 AND R-2.5.1.1 SHEET C8.12.
26	INSTALL TACK-ON ISLAND AS SHOWN PER USDCCA NO. 220.1.S1 SHEET C8.05.
27	REMOVE EXISTING "L" CURB AND GUTTER (SEE PLAN FOR LIMITS)
28	REMOVE EXISTING MEDIAN ISLAND.
29	FIELD VERIFY AND CONNECT TO EXISTING CURB, GUTTER AND SIDEWALK.
30	SAWCUT AS SHOWN ON PLANS AND MATCH EXISTING AC PAVEMENT SECTION.
31	REMOVE EXISTING 20 LF DROP INLET AND EXISTING 24" RCP.
32	SET RIM OF SEWER MANHOLE TO FINISHED GRADE.
33	CONSTRUCT 10' WIDE MULTIUSE EQUESTRIAN (MUE) TRAIL. SEE LANDSCAPING PLANS FOR DETAILS.
34	CONSTRUCT METAL GUARD RAIL PER DETAIL 2 SHEET L2.06.
35	INSTALL METAL HAND RAIL PER DETAIL 2 SHEET L2.06.
36	INSTALL 6' CHAINLINK FENCE PER USDCCA NO. 252 C8.07.
37	RELOCATE EXISTING CATV AND 6" ELECTRICAL CONDUITS AROUND PROPOSED STORM DRAIN CATCH BASINS.
38	CONSTRUCT MEDIAN NOSE PER USDCCA NO. 248 SHEET C8.06.
39	REMOVE AND SALVAGE EXISTING RIP RAP.
40	REMOVE EXISTING RCP SD. LENGTH PER PLAN.
41	REMOVE EXISTING CATCH BASIN.
42	REMOVE EXISTING 60" SDMH AND CONSTRUCT TYPE III STORM DRAIN MANHOLE PER USDCCA #406.1 SHEET C8.07 AND DETAIL 14 SHEET C8.04. INCLUDE CONCRETE STAMP PER USDCCA DWG NO 421 SHEET C8.07.
43	INSTALL NEENAH TYPE R2557 GRATE OR EQUAL AND CONCRETE COLLAR. SEE DETAIL 11 SHEET C8.03 FOR REFERENCE. PLACE CONCRETE STAMP PER USDCCA DWG NO 421 SHEET C8.07.
44	REMOVE EX. NDOT TYPE 2 DROP INLET AND REPLACE WITH NEW 60" TYPE I SDMH PER USDCCA NO. 403.1. INCLUDE CONCRETE STAMP PER USDCCA DWG NO 421 SHEET C8.07.
45	CONSTRUCT MODIFIED SIDEWALK RAMP PER USDCCA NO. 235, CASE 1 SHEET C8.05 AND DETAIL 28 SHEET 14.
46	CONSTRUCT RETAINING WALL PER PROFILE 'A' AND DETAILS ON SHEET C4.11.
47	CONSTRUCT RETAINING WALL PER PROFILE 'B' AND DETAILS ON SHEET C4.11.
48	CONSTRUCT PIPE PENETRATION INTO EXISTING STORM DRAIN BOX PER DETAIL 18 SHEET C8.04
49	INSTALL 36"x36" JENSEN PRECAST OR EQUAL DROP INLET WITH TRAFFIC RATED GRATES. REFERENCE DETAIL 10 SHEET C8.03. PLACE CONCRETE STAMP PER USDCCA DWG NO 421 SHEET C8.07.

APPROVED FOR CONSTRUCTION
LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES
Project No: 126421 First Approved Date: 7/26/18

FLOOD ZONE NOTE:

PER FIRM PANEL 32003C2150E REVISED SEPTEMBER 27, 2002, THE PROJECT SITE IS LOCATED WITHIN NON-SHADED FLOOD ZONE "X". NON-SHADED FLOOD ZONE "X" IS DEFINED BY FEMA AS AN AREA OUTSIDE THE 100-YEAR FLOOD PLAIN.

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 THE VEGETATION.

GENERAL NOTE:

IT IS THE CONTRACTOR'S RESPONSIBILITY TO FILE A NOTICE OF INTENT/REQUEST TO BE INCLUDED IN THE STORM WATER GENERAL PERMIT, AND SUBMIT THE ASSOCIATED STORM WATER POLLUTION PREVENTION PLAN (SWPPP) AS REQUIRED BY FEDERAL, AND MONITORED BY THE NEVADA DIVISION OF ENVIRONMENTAL PROTECTION.

CALL BEFORE YOU D&C
AVOID CUTTING UNDERGROUND UTILITY LINES. IT'S COSTLY
Call 811
1-800-227-2600

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

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

COLLINS ENGINEERS ASSUMES NO RESPONSIBILITY FOR EXISTING UTILITY LOCATIONS AND ELEVATIONS. THE UTILITIES SHOWN ON THIS DRAWING HAVE BEEN PLOTTED FROM THE BEST AVAILABLE INFORMATION. IT IS, HOWEVER, THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE LOCATION AND ELEVATION OF ALL UTILITIES PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION. CONTRACTOR TO FIELD VERIFY ALL EXISTING SITE CONDITIONS PRIOR TO CONSTRUCTION. IF A CONFLICT EXISTS BETWEEN WHAT IS SHOWN ON THESE DRAWINGS AND WHAT EXISTS IN THE FIELD, THE CONTRACTOR IS TO NOTIFY THE ARCHITECT OR ENGINEER IMMEDIATELY.

LEGEND

EXISTING	PROPOSED	
(0.00%)	0.00%	SLOPE
(0.00) XX	0.00 XX	ELEVATION TAG
Ⓓ	Ⓓ	STORM MANHOLE
		DROP INLET
-OO-	-OO-	CONTOUR
		RETAINING WALL
		SCREEN WALL

EXISTING	PROPOSED	
		AC PAVEMENT
		6" TYPE "A" CURB
		24" TYPE "L" CURB & GUTTER
		30" ROLL CURB

PL-RIGHT-OF-WAY
PL-ADJACENT
CENTERLINE
EASEMENT LINE
FLOW LINE
SAWCUT LINE
GRADE BREAK
MOUNDING
CHAIN LINK FENCE

CITY OF LAS VEGAS NEVADA

REVISIONS

CONSULTANT

COLLINS ENGINEERS
3130 S. DURANGO DR., SUITE 404
LAS VEGAS, NV 89117
PHONE: (702) 248-8000
FAX: (702) 248-8070
www.collinsengr.com

PUBLIC WORKS
DEPARTMENT OF PUBLIC WORKS

GILMORE CLIFF SHADOWS PARK
NEW CITY OF LAS VEGAS PARK

EXISTING RCA CULVERT PLAN AND PROFILE
STA 7+00 TO STA 11+00

STAMP
ENGINEER STATE OF NEVADA
ARMANDO PINEDA
EXP. 12-31-19
CIVIL
NO. 18290
7-19-18

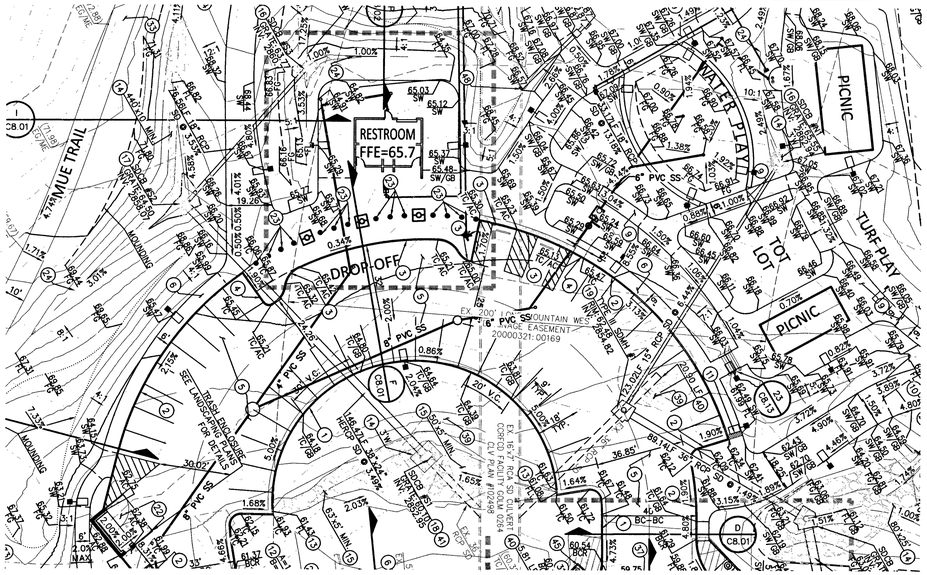
OWNER: CITY OF LAS VEGAS
DEPARTMENT OF PUBLIC WORKS

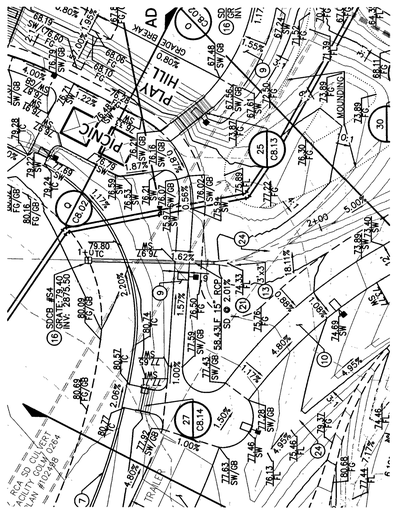
DEVELOPMENT SERVICES CENTER
333 N. RANCHO DRIVE
LAS VEGAS, NEVADA 89106
PHONE: (702) 229-6276
FAX: (702) 384-4846

DRAWN	DSI
FILE	180101445
DATE	6/18/2018
SCALE	SEE PLAN
BID NO	18.66085.DD
CLV DWG NO	650.116
HANSEN NO	66085
	C18-00891
SHT NO	C4.06

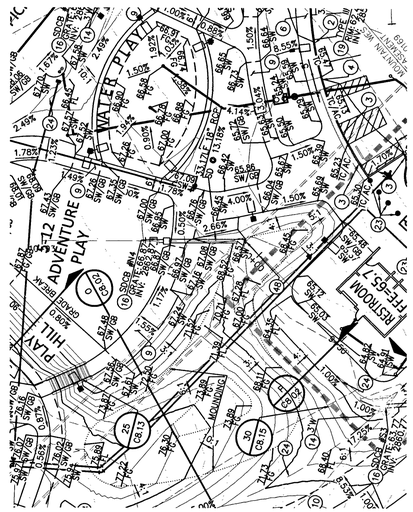
PROJ #126421 QS 137-12-NW

H:\CAD\LAND\10297\DWG\SHEETS\10297-C4.05-RCA P&P.DWG 07/18/2018 02:36:05 PM

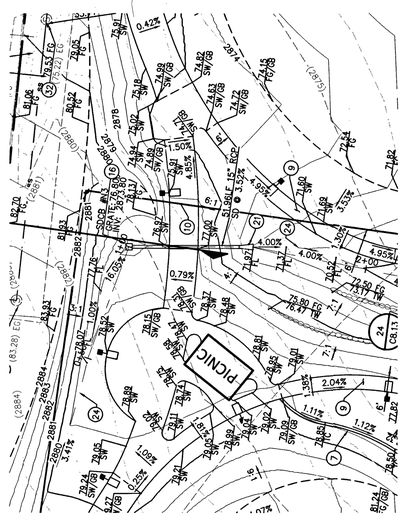

RESTROOM
FFE=65.7
DROP OFF
PICNIC
TOT LOT
TURF PLAY
WATER PLAY
MUE TRAIL
20' P.U.E.
6" PVC SS
20' V.C.
TRASH ENCLOSURE SEE LANDSCAPING PLANS FOR DETAILS
EX. 16' WIDE SOUTHERN NEVADA WATER AUTHORITY EASEMENT 20000321: 00169
EX. 16" PVC SD
EX. 8" PVC SS
EX. 8" PVC SSWR
EX. 12" PVC SD
EX. 18" RCP SD
EX. 24" RCP SD
EX. 30" RCP SD
EX. 36" RCP SD
EX. 42" RCP SD
EX. 48" RCP SD
EX. 54" RCP SD
EX. 60" RCP SD
EX. 66" RCP SD
EX. 72" RCP SD
EX. 84" RCP SD
EX. 96" RCP SD
EX. 108" RCP SD
EX. 120" RCP SD
EX. 132" RCP SD
EX. 144" RCP SD
EX. 156" RCP SD
EX. 168" RCP SD
EX. 180" RCP SD
EX.



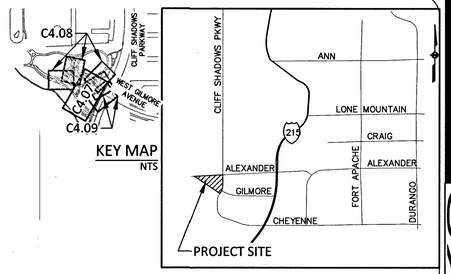
SDCB #S4 - PLAN VIEW
SCALE H:1"=30'



SDCB #N4 - PLAN VIEW
SCALE H:1"=30'



SDCB #N3 - PLAN VIEW
SCALE H:1"=30'



KEY MAP
NTS

VICINITY MAP
NTS

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

BASIS OF BEARINGS

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

BENCHMARK

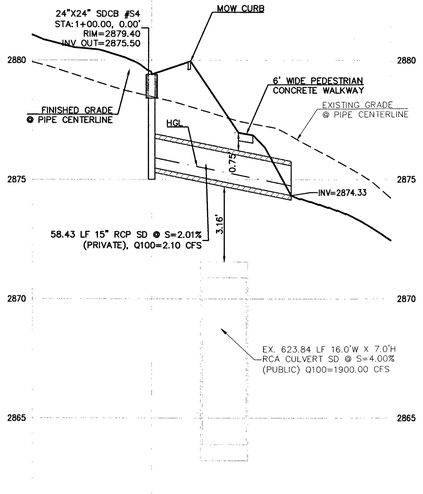
PROJECT DATUM: NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).

CITY OF LAS VEGAS BENCHMARK: 7LV0911NES
ELEVATION: 2931.57 (US SURVEY FEET)
893.54 (METERS)

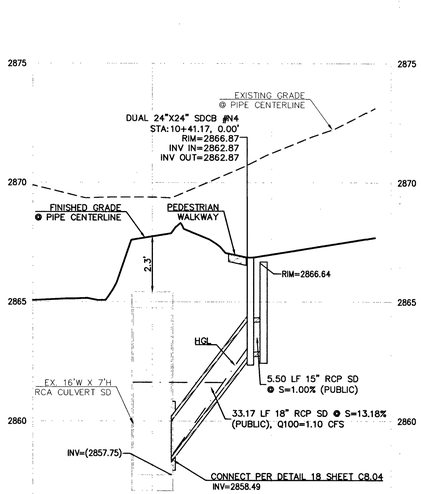
BEING A BLM BRASS CAP (HIGH PT.) SECTION 2/1 OVER 11/12, PI ALEXANDER ROAD & SECTION LINE.

CONSTRUCTION NOTES

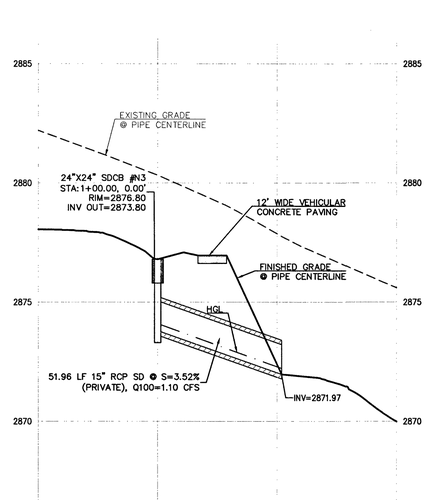
NO.	ITEM USDCCA: UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA
1	CONSTRUCT TYPE 'L' CURB PER USDCCA NO. 216 SHEET C8.05.
2	CONSTRUCT TYPE 'A' CURB PER DETAIL 1 SHEET C8.02
3	INSTALL "0" CURB, PER DETAIL 2 SHEET C8.02
4	TRANSITION FROM 0" TO 6" CURB PER DETAIL 4 SHEET C8.02.
5	CONSTRUCT 2.5" MIN. AC PAVEMENT OVER 4" MIN. TYPE II AGGREGATE BASE.
6	CONSTRUCT SIDEWALK PER USDCCA NO. 234 SHEET C8.05.
7	CONSTRUCT 12" MOW CURB PER DETAIL 6 SHEET C8.02.
8	CONSTRUCT 8' CROSS GUTTER PER USDCCA NO. 228 SHEET C8.05.
9	CONSTRUCT 4" THICK CONCRETE OVER 6" TYPE II AGGREGATE BASE. WIDTH PER PLAN.
10	CONSTRUCT VEHICULAR CONCRETE PAVING PER DETAIL 17 SHEET C8.04. WIDTH PER PLAN.
11	CONSTRUCT SIDEWALK UNDERDRAIN PER USDCCA No. 236. SHEET C8.06.
12	CONSTRUCT SIDEWALK RAMP PER USDCCA NO. 235, CASE 1 SHEET C8.05.
13	CONSTRUCT CURB OPENING PER DETAIL 5 SHEET C8.02.
14	INSTALL RIP RAP D50=8" MIN., THICKNESS=16". SIDESLOPE=2% MIN./3:1 MAX.
15	INSTALL RIP RAP D50=3" MIN., THICKNESS=6". SIDESLOPE=2% MIN./3:1 MAX.
16	INSTALL 24"x24" JENSEN PRECAST OR EQUAL DROP INLET. REFERENCE DETAIL 9 SHEET C8.03. INCLUDE CONCRETE COLLAR PER USDCCA DWG NO 329 SHEET C8.07 AND CONCRETE STAMP PER USDCCA DWG NO 421 SHEET C8.07.
17	INSTALL 36"x36" JENSEN PRECAST OR EQUAL DROP INLET. REFERENCE DETAIL 10 SHEET C8.03. INCLUDE CONCRETE COLLAR PER USDCCA DWG NO 329 SHEET C8.07 AND CONCRETE STAMP PER USDCCA DWG NO 421 SHEET C8.07.
18	INSTALL 24"x48" DROP INLET PER NDOT DWG. R-4.2.1 SHEET C8.12. INCLUDE CONCRETE COLLAR PER USDCCA DWG NO 329 SHEET C8.07 AND CONCRETE STAMP PER USDCCA DWG NO 421 SHEET C8.07.
19	CONSTRUCT TYPE III STORM DRAIN MANHOLE PER USDCCA #406.1 SHEET C8.07 AND DETAIL 14 SHEET C8.04.
20	INSTALL 20 LF TYPE "OM" STORM DRAIN DROP INLET PER DETAIL 12 SHEET C8.03. INCLUDE CONCRETE STAMP PER USDCCA DWG NO 421 SHEET C8.07.
21	INSTALL 15" RCP FLARED END SECTION. REFERENCE DETAIL 13 SHEET C8.04
22	CONSTRUCT 7" THICK PCC PAVEMENT REINFORCED W/ #4@12" O.C.E.W. OVER 6" TYPE II AGGREGATE BASE OVER 8" STRUCTURAL FILL. COORDINATE WITH TRASH ENCLOSURE INSTALLATION TO PROVIDE 24" REBAR DOWELS BETWEEN SLABS AT 12" O.C.
23	INSTALL REMOVABLE BOLLARD PER DETAIL 7, SHEET C8.02.
24	CONSTRUCT GRADED SWALE PER DETAIL 3 SHEET C8.02.
25	INSTALL HEADWALL PER NDOT DWG. R-2.5.1 AND R-2.5.1.1 SHEET C8.12.
26	INSTALL TACK-ON ISLAND AS SHOWN PER USDCCA NO. 220.1.S1 SHEET C8.05.
27	REMOVE EXISTING "L" CURB AND GUTTER (SEE PLAN FOR LIMITS)
28	REMOVE EXISTING MEDIAN ISLAND.
29	FIELD VERIFY AND CONNECT TO EXISTING CURB, GUTTER AND SIDEWALK.
30	SAWCUT AS SHOWN ON PLANS AND MATCH EXISTING AC PAVEMENT SECTION.
31	REMOVE EXISTING 20 LF DROP INLET AND EXISTING 24" RCP.
32	SET RIM OF SEWER MANHOLE TO FINISHED GRADE.
33	CONSTRUCT 10' WIDE MULTIUSE EQUESTRIAN (MUE) TRAIL. SEE LANDSCAPING PLANS FOR DETAILS.
34	CONSTRUCT METAL GUARD RAIL PER DETAIL 2 SHEET L2.06.
35	INSTALL METAL HAND RAIL PER DETAIL 2 SHEET L2.06.
36	INSTALL 6' CHAINLINK FENCE PER USDCCA NO. 252 C8.07.
37	RELOCATE EXISTING CATV AND 6" ELECTRICAL CONDUITS AROUND PROPOSED STORM DRAIN CATCH BASINS.
38	CONSTRUCT MEDIAN NOSE PER USDCCA NO. 248 SHEET C8.06.
39	REMOVE AND SALVAGE EXISTING RIP RAP.
40	REMOVE EXISTING RCP SD. LENGTH PER PLAN.
41	REMOVE EXISTING CATCH BASIN.
42	REMOVE EXISTING 60" SDMH AND CONSTRUCT TYPE III STORM DRAIN MANHOLE PER USDCCA #406.1 SHEET C8.07 AND DETAIL 14 SHEET C8.04. INCLUDE CONCRETE STAMP PER USDCCA DWG NO 421 SHEET C8.07.
43	INSTALL NEENAH TYPE R2557 GRATE OR EQUAL AND CONCRETE COLLAR. SEE DETAIL 11 SHEET C8.03 FOR REFERENCE. PLACE CONCRETE STAMP PER USDCCA DWG NO 421 SHEET C8.07.
44	REMOVE EX. NDOT TYPE 2 DROP INLET AND REPLACE WITH NEW 60" TYPE I SDMH PER USDCCA NO. 403.1. INCLUDE CONCRETE STAMP PER USDCCA DWG NO 421 SHEET C8.07.
45	CONSTRUCT MODIFIED SIDEWALK RAMP PER USDCCA NO. 235, CASE 1 SHEET C8.05 AND DETAIL 28 SHEET 14.
46	CONSTRUCT RETAINING WALL PER PROFILE 'A' AND DETAILS ON SHEET C4.11.
47	CONSTRUCT RETAINING WALL PER PROFILE 'B' AND DETAILS ON SHEET C4.11.
48	CONSTRUCT PIPE PENETRATION INTO EXISTING STORM DRAIN BOX PER DETAIL 18 SHEET C8.04
49	INSTALL 36"x36" JENSEN PRECAST OR EQUAL DROP INLET WITH TRAFFIC RATED GRATES. REFERENCE DETAIL 10 SHEET C8.03. PLACE CONCRETE STAMP PER USDCCA DWG NO 421 SHEET C8.07.



SDCB #S4 - PROFILE VIEW
SCALE H:1"=30'; V:1"=3'



SDCB #N4 - PROFILE VIEW
SCALE H:1"=30'; V:1"=3'



SDCB #N3 - PROFILE VIEW
SCALE H:1"=30'; V:1"=3'

CALL BEFORE YOU DIG
AVOID CUTTING UNDERGROUND UTILITY LINES. IT'S COSTLY
Call 811
1-800-227-2600

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

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

COLLINS ENGINEERS ASSUMES NO RESPONSIBILITY FOR EXISTING UTILITY LOCATIONS AND ELEVATIONS. THE UTILITIES SHOWN ON THIS DRAWING HAVE BEEN PLOTTED FROM THE BEST AVAILABLE INFORMATION. IT IS, HOWEVER, THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE LOCATION AND ELEVATION OF ALL UTILITIES PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION. CONTRACTOR TO FIELD VERIFY ALL EXISTING SITE CONDITIONS PRIOR TO CONSTRUCTION. IF A CONFLICT EXISTS BETWEEN WHAT IS SHOWN ON THESE DRAWINGS AND WHAT EXISTS IN THE FIELD, THE CONTRACTOR IS TO NOTIFY THE ARCHITECT OR ENGINEER IMMEDIATELY.

LEGEND

EXISTING	PROPOSED	
(0.00%)	0.00%	SLOPE
(0.00) XX	0.00 XX	ELEVATION TAG
		STORM MANHOLE
		DROP INLET
		CONTOUR
		RETAINING WALL
		SCREEN WALL

EXISTING	PROPOSED	
		AC PAVEMENT
		6" TYPE "A" CURB
		24" TYPE "L" CURB & GUTTER
		30" ROLL CURB

PL-RIGHT-OF-WAY
PL-ADJACENT
CENTERLINE
EASEMENT LINE
FLOW LINE
SAWCUT LINE
GRADE BREAK
MOUNDING
CHAIN LINK FENCE

FOR THE SITE ENTITLED 'GILMORE CLIFF SHADOW PARK'.

PROJECT NO.: 304227001, DATED OCTOBER 31, 2017

PREPARED BY:
NINYO & MOORE GEOTECHNICAL & ENVIRONMENTAL SCIENCES CONSULTANTS
6700 PARADISE ROAD, SUITE E
LAS VEGAS, NEVADA 89119
PHONE NO.: (702) 433-0330
FAX NO.: (702) 433-0707

ALL WORK SHALL BE PERFORMED UNDER THE DIRECTION OF A REGISTERED PROFESSIONAL SOILS ENGINEER.

CITY OF LAS VEGAS NEVADA

DEPARTMENT OF PUBLIC WORKS

REVISIONS

CONSULTANT

COLLINS ENGINEERS
3130 S. DURANGO DR., SUITE 404
LAS VEGAS, NV 89117
PHONE: (702) 248-8000
FAX: (702) 248-8070
www.collinsengr.com

GILMORE CLIFF SHADOWS PARK
NEW CITY OF LAS VEGAS PARK

STORM DRAIN
PLAN AND PROFILE 2

STAMP

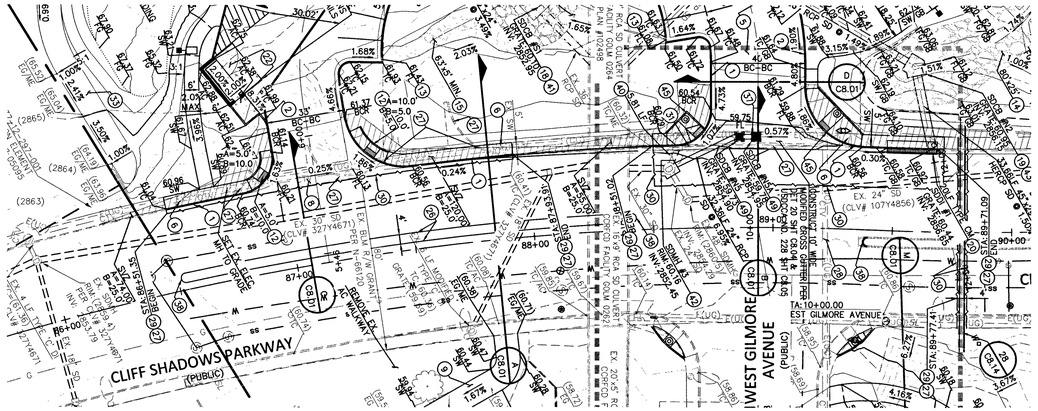
PROFESSIONAL ENGINEER STATE OF NEVADA
ARMANDO PINEDA
EXP. 12-31-19
CIVIL
NO. 18290
1-19-19

OWNER: CITY OF LAS VEGAS
DEPARTMENT OF PUBLIC WORKS

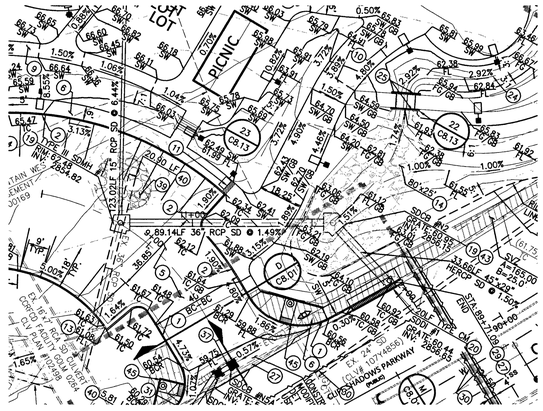
DEVELOPMENT SERVICES CENTER
333 N. RANCHO DRIVE
LAS VEGAS, NEVADA 89106
PHONE: (702) 229-6276
FAX: (702) 384-4846

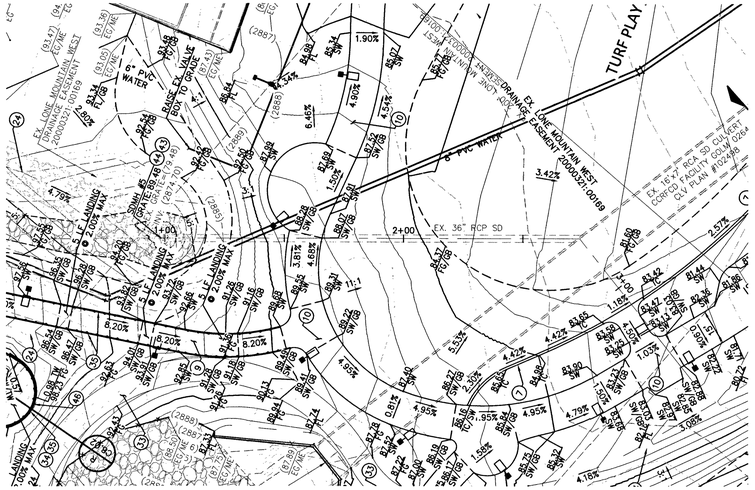
DRAWN	DSI
FILE	180101445
DATE	6/18/2018
SCALE	SEE PLAN
BID NO	18.66085.DD
CLV DWG NO	650.116
HANSEN NO	66085
	C18-06891
SHT NO	C4.08

H:\CAD\LAND\10297\DWG\SHEETS\10297-C4.08-SD P&P.DWG 07/18/2018 02:44:27 PM



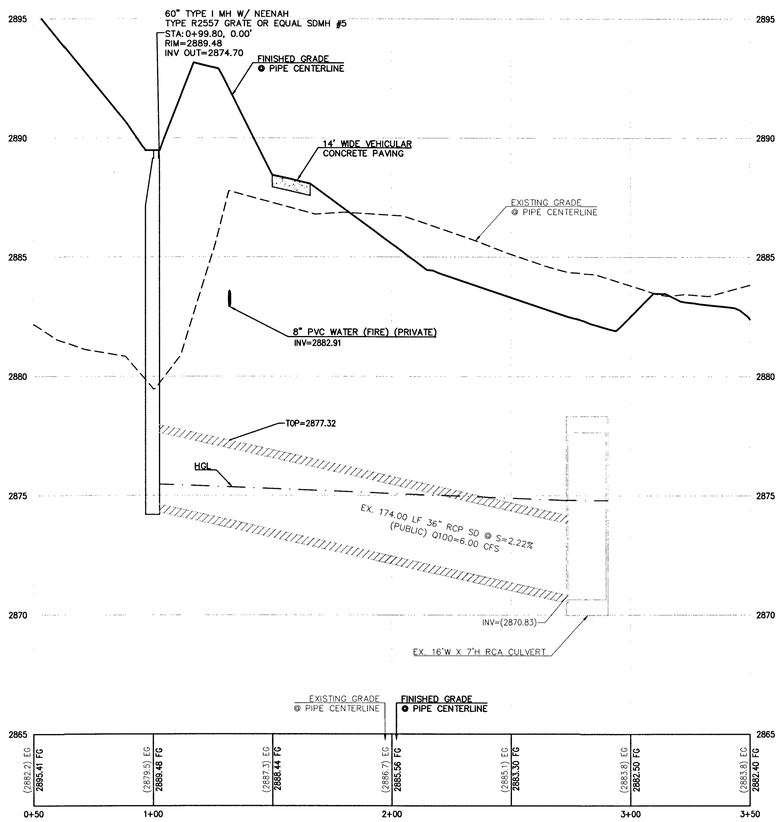
CLIFF SHADOWS PARKWAY - PLAN VIEW
SCALE H:1"=30'


PICNIC
LOT
EX. 24" RCP SD
(CLV# 107Y4856)
89.14LF 36" RCP SD @ 1.49%
EX. 61.71 LF 36" RCP SD @ S=6.51%
(PUBLIC) Q100=64.00 CFS
EX. 8" SDMH #1
EX. 8" SDMH #2
EX. 8" SDMH #3
EX. 8" SDMH #4
EX. 8" SDMH #5
EX. 8" SDMH #6
EX. 8" SDMH #7
EX. 8" SDMH #8
EX. 8" SDMH #9
EX. 8" SDMH #10
EX. 8" SDMH #11
EX. 8" SDMH #12
EX. 8" SDMH #13
EX. 8" SDMH #14
EX. 8" SDMH #15
EX. 8" SDMH #16
EX. 8" SDMH #17
EX. 8" SDMH #18
EX. 8" SDMH #19
EX. 8" SDMH #20
EX. 8" SDMH #21
EX. 8" SDMH #22
EX. 8" SDMH #23
EX. 8" SDMH #24
EX. 8" SDMH #25
EX. 8" SDMH #26
EX. 8" SDMH #27
EX. 8" SDMH #28
EX. 8" SDMH #29
EX. 8" SDMH #30
EX. 8" SDMH #31
EX. 8" SDMH #32
EX. 8" SDMH #33
EX. 8" SDMH #34
EX. 8" SDMH #35
EX. 8" SDMH #36
EX. 8" SDMH #37
EX. 8" SDMH #38
EX. 8" SDMH #39
EX. 8" SDMH #40
EX. 8" SDMH #41
EX. 8" SDMH #42
EX. 8" SDMH #43
EX. 8" SDMH #44
EX. 8" SDMH #45
EX. 8" SDMH #46
EX. 8" SDMH #47
EX. 8" SDMH #48
EX. 8" SDMH #49
EX. 8" SDMH #50
EX. 8" SDMH #51
EX. 8" SDMH #52
EX. 8" SDMH #53
EX. 8" SDMH #54
EX. 8" SDMH #55
EX. 8" SDMH #56
EX. 8" SDMH #57
EX. 8" SDMH #58
EX. 8" SDMH #59
EX. 8" SDMH #60
EX. 8" SDMH #61
EX. 8" SDMH #62
EX. 8" SDMH #63
EX. 8" SDMH #64
EX. 8" SDMH #65
EX. 8" SDMH #66
EX. 8" SDMH #67
EX. 8" SDMH #68
EX. 8" SDMH #69
EX. 8" SDMH #70
EX. 8" SDMH #71
EX. 8" SDMH #72
EX. 8" SDMH #73
EX. 8" SDMH #74
EX. 8" SDMH #75
EX. 8" SDMH #76
EX. 8" SDMH #77
EX. 8" SDMH #78
EX. 8" SDMH #79
EX. 8" SDMH #80
EX. 8" SDMH #81
EX. 8" SDMH #82
EX. 8" SDMH #83
EX. 8" SDMH #84
EX. 8" SDMH #85
EX. 8" SDMH #86
EX. 8" SDMH #87
EX. 8" SDMH #88
EX. 8" SDMH #89
EX. 8" SDMH #90
EX. 8" SDMH #91
EX. 8" SDMH #92
EX. 8" SDMH #93
EX. 8" SDMH #94
EX. 8" SDMH #95
EX. 8" SDMH #96
EX. 8" SDMH #97
EX. 8" SDMH #98
EX. 8" SDMH #99
EX. 8" SDMH #100
EX. 8" SDMH #101
EX. 8" SDMH #102
EX. 8" SDMH #103
EX. 8" SDMH #104
EX. 8" SDMH #105
EX. 8" SDMH #106
EX. 8" SDMH #107
EX. 8" SDMH #108
EX. 8" SDMH #109
EX. 8" SDMH #110
EX. 8" SDMH #111
EX. 8" SDMH #112
EX. 8" SDMH #113
EX. 8" SDMH #114
EX. 8" SDMH #115
EX. 8" SDMH #116
EX. 8" SDMH #117
EX. 8" SDMH #118
EX. 8" SDMH #119
EX. 8" SDMH #120
EX. 8" SDMH #121
EX. 8" SDMH #122
EX. 8" SDMH #123
EX. 8" SDMH #124
EX. 8" SDMH #125
EX. 8" SDMH #126
EX. 8" SDMH #127
EX. 8" SDMH #128
EX. 8" SDMH #129
EX. 8" SDMH #130
EX. 8" SDMH #131
EX. 8" SDMH #132
EX. 8" SDMH #133
EX. 8" SDMH #134
EX. 8" SDMH #135
EX. 8" SDMH #136
EX. 8" SDMH #137
EX. 8" SDMH #138
EX. 8" SDMH #139
EX. 8" SDMH #140
EX. 8" SDMH #141
EX. 8" SDMH #142
EX. 8" SDMH #143
EX. 8" SDMH #144
EX. 8" SDMH #145
EX. 8" SDMH #146
EX. 8" SDMH #147
EX. 8" SDMH #148
EX. 8" SDMH #149
EX. 8" SDMH #150
EX. 8" SDMH #151
EX. 8" SDMH #152
EX. 8" SDMH #153
EX. 8" SDMH #154
EX. 8" SDMH #155
EX. 8" SDMH #156
EX. 8" SDMH #157
EX. 8" SDMH #158
EX. 8" SDMH #159
EX. 8" SDMH #160
EX. 8" SDMH #161
EX. 8" SDMH #162
EX. 8" SDMH #163
EX. 8" SDMH #164
EX. 8" SDMH #165
EX. 8" SDMH #166
EX. 8" SDMH #167
EX. 8" SDMH #168
EX. 8" SDMH #169
EX. 8" SDMH #170
EX. 8" SDMH #171
EX. 8" SDMH #172
EX. 8" SDMH #173
EX. 8" SDMH #174
EX. 8" SDMH #175
EX. 8" SDMH #176
EX. 8" SDMH #177
EX. 8" SDMH #178
EX. 8" SDMH #179
EX. 8" SDMH #180
EX. 8" SDMH #181
EX. 8" SDMH #182
EX. 8" SDMH #183
EX. 8" SDMH #184
EX. 8" SDMH #185
EX. 8" SDMH #186
EX. 8" SDMH #187
EX. 8" SDMH #188
EX. 8" SDMH #189
EX. 8" SDMH #190
EX. 8" SDMH #191
EX. 8" SDMH #192
EX. 8" SDMH #193
EX. 8" SDMH #194
EX. 8" SDMH #195
EX. 8" SDMH #196
EX. 8" SDMH #197
EX. 8" SDMH #198
EX. 8" SDM



SDMH #5 - PLAN VIEW

SCALE H:1"=30'



SDMH #5 - PROFILE VIEW

SCALE H:1"=30'; V:1"=3'

CALL BEFORE YOU D&G
AVOID CUTTING UNDERGROUND UTILITY LINES. IT'S COSTLY.
Call 811
1-800-227-2600

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

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

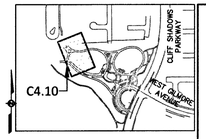
COLLINS ENGINEERS ASSUMES NO RESPONSIBILITY FOR EXISTING UTILITY LOCATIONS AND ELEVATIONS. THE UTILITIES SHOWN ON THIS DRAWING HAVE BEEN PLOTTED FROM THE BEST AVAILABLE INFORMATION. IT IS, HOWEVER, THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE LOCATION AND ELEVATION OF ALL UTILITIES PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION. CONTRACTOR TO FIELD VERIFY ALL EXISTING SITE CONDITIONS PRIOR TO CONSTRUCTION. IF A CONFLICT EXISTS BETWEEN WHAT IS SHOWN ON THESE DRAWINGS AND WHAT EXISTS IN THE FIELD, THE CONTRACTOR IS TO NOTIFY THE ARCHITECT OR ENGINEER IMMEDIATELY.

LEGEND

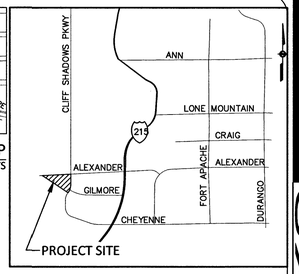
EXISTING	PROPOSED	
(0.00)%	0.00%	SLOPE
(0.00) XX	0.00 XX	ELEVATION TAG
(D)	(D)	STORM MANHOLE
		DROP INLET
--00--	--00--	CONTOUR
		RETAINING WALL
		SCREEN WALL

EXISTING	PROPOSED	
		AC PAVEMENT
		6" TYPE "A" CURB
		24" TYPE "L" CURB & GUTTER
		30" ROLL CURB

	PL-RIGHT-OF-WAY
	PL-ADJACENT
	CENTERLINE
	EASEMENT LINE
	FLOW LINE
	SAWCUT LINE
	GRADE BREAK
	MOUNDING
	CHAIN LINK FENCE



KEY MAP
NTS



VICINITY MAP
NTS

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

BASIS OF BEARINGS

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

BENCHMARK

PROJECT DATUM: NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).

CITY OF LAS VEGAS BENCHMARK: 7LV0911NES
ELEVATION: 2931.57 (US SURVEY FEET)
893.54 (METERS)

BEING A BLM BRASS CAP (HIGH PT.) SECTION 2/1 OVER 11/12, PI ALEXANDER ROAD & SECTION LINE.

CONSTRUCTION NOTES

NO.	ITEM USDCCA: UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA
1	CONSTRUCT TYPE 'L' CURB PER USDCCA NO. 216 SHEET C8.05.
2	CONSTRUCT TYPE 'A' CURB PER DETAIL 1 SHEET C8.02
3	INSTALL "0" CURB, PER DETAIL 2 SHEET C8.02
4	TRANSITION FROM 0" TO 6" CURB PER DETAIL 4 SHEET C8.02.
5	CONSTRUCT 2.5" MIN. AC PAVEMENT OVER 4" MIN. TYPE II AGGREGATE BASE.
6	CONSTRUCT SIDEWALK PER USDCCA NO. 234 SHEET C8.05.
7	CONSTRUCT 12" MOW CURB PER DETAIL 6 SHEET C8.02.
8	CONSTRUCT 8' CROSS GUTTER PER USDCCA NO. 228 SHEET C8.05.
9	CONSTRUCT 4" THICK CONCRETE OVER 6" TYPE II AGGREGATE BASE. WIDTH PER PLAN.
10	CONSTRUCT VEHICULAR CONCRETE PAVING PER DETAIL 17 SHEET C8.04. WIDTH PER PLAN.
11	CONSTRUCT SIDEWALK UNDERDRAIN PER USDCCA No. 236. SHEET C8.06.
12	CONSTRUCT SIDEWALK RAMP PER USDCCA NO. 235, CASE 1 SHEET C8.05.
13	CONSTRUCT CURB OPENING PER DETAIL 5 SHEET C8.02.
14	INSTALL RIP RAP D50=8" MIN., THICKNESS=16". SIDESLOPE=2% MIN./3:1 MAX.
15	INSTALL RIP RAP D50=3" MIN., THICKNESS=6". SIDESLOPE=2% MIN./3:1 MAX.
16	INSTALL 24"x24" JENSEN PRECAST OR EQUAL DROP INLET. REFERENCE DETAIL 9 SHEET C8.03. INCLUDE CONCRETE COLLAR PER USDCCA DWG NO 329 SHEET C8.07 AND CONCRETE STAMP PER USDCCA DWG NO 421 SHEET C8.07.
17	INSTALL 36"x36" JENSEN PRECAST OR EQUAL DROP INLET. REFERENCE DETAIL 10 SHEET C8.03. INCLUDE CONCRETE COLLAR PER USDCCA DWG NO 329 SHEET C8.07 AND CONCRETE STAMP PER USDCCA DWG NO 421 SHEET C8.07.
18	INSTALL 24"x48" DROP INLET PER NDOT DWG. R-4.2.1 SHEET C8.12. INCLUDE CONCRETE COLLAR PER USDCCA DWG NO 329 SHEET C8.07 AND CONCRETE STAMP PER USDCCA DWG NO 421 SHEET C8.07.
19	CONSTRUCT TYPE III STORM DRAIN MANHOLE PER USDCCA #406.1 SHEET C8.07 AND DETAIL 14 SHEET C8.04.
20	INSTALL 20 LF TYPE "CM" STORM DRAIN DROP INLET PER DETAIL 12 SHEET C8.03. INCLUDE CONCRETE STAMP PER USDCCA DWG NO 421 SHEET C8.07.
21	INSTALL 15" RCP FLARED END SECTION. REFERENCE DETAIL 13 SHEET C8.04
22	CONSTRUCT 7" THICK PCC PAVEMENT REINFORCED W/ #4@12" O.C.E.W. OVER 6" TYPE II AGGREGATE BASE OVER 8" STRUCTURAL FILL. COORDINATE WITH TRASH ENCLOSURE INSTALLATION TO PROVIDE 24" REBAR DOWELS BETWEEN SLABS AT 12" O.C.
23	INSTALL REMOVABLE BOLLARD PER DETAIL 7, SHEET C8.02.
24	CONSTRUCT GRADED SWALE PER DETAIL 3 SHEET C8.02.
25	INSTALL HEADWALL PER NDOT DWG. R-2.5.1 AND R-2.5.1.1 SHEET C8.12.
26	INSTALL TACK-ON ISLAND AS SHOWN PER USDCCA NO. 220.1.S1 SHEET C8.05.
27	REMOVE EXISTING "L" CURB AND GUTTER (SEE PLAN FOR LIMITS)
28	REMOVE EXISTING MEDIAN ISLAND.
29	FIELD VERIFY AND CONNECT TO EXISTING CURB, GUTTER AND SIDEWALK.
30	SAWCUT AS SHOWN ON PLANS AND MATCH EXISTING AC PAVEMENT SECTION.
31	REMOVE EXISTING 20 LF DROP INLET AND EXISTING 24" RCP.
32	SET RIM OF SEWER MANHOLE TO FINISHED GRADE.
33	CONSTRUCT 10' WIDE MULTIUSE EQUESTRIAN (MUE) TRAIL. SEE LANDSCAPING PLANS FOR DETAILS.
34	CONSTRUCT METAL GUARD RAIL PER DETAIL 2 SHEET L2.06.
35	INSTALL METAL HAND RAIL PER DETAIL 2 SHEET L2.06.
36	INSTALL 6' CHAINLINK FENCE PER USDCCA NO. 252 C8.07.
37	RELOCATE EXISTING CATV AND 6" ELECTRICAL CONDUITS AROUND PROPOSED STORM DRAIN CATCH BASINS.
38	CONSTRUCT MEDIAN NOSE PER USDCCA NO. 248 SHEET C8.06.
39	REMOVE AND SALVAGE EXISTING RIP RAP.
40	REMOVE EXISTING RCP SD. LENGTH PER PLAN.
41	REMOVE EXISTING CATCH BASIN.
42	REMOVE EXISTING 60" SDMH AND CONSTRUCT TYPE III STORM DRAIN MANHOLE PER USDCCA #406.1 SHEET C8.07 AND DETAIL 14 SHEET C8.04. INCLUDE CONCRETE STAMP PER USDCCA DWG NO 421 SHEET C8.07.
43	INSTALL NEENAH TYPE R2557 GRATE OR EQUAL AND CONCRETE COLLAR. SEE DETAIL 11 SHEET C8.03 FOR REFERENCE. PLACE CONCRETE STAMP PER USDCCA DWG NO 421 SHEET C8.07.
44	REMOVE EX. NDOT TYPE 2 DROP INLET AND REPLACE WITH NEW 60" TYPE I SDMH PER USDCCA NO. 403.1. INCLUDE CONCRETE STAMP PER USDCCA DWG NO 421 SHEET C8.07.
45	CONSTRUCT MODIFIED SIDEWALK RAMP PER USDCCA NO. 235, CASE 1 SHEET C8.05 AND DETAIL 28 SHEET 14.
46	CONSTRUCT RETAINING WALL PER PROFILE 'A' AND DETAILS ON SHEET C4.11.
47	CONSTRUCT RETAINING WALL PER PROFILE 'B' AND DETAILS ON SHEET C4.11.
48	CONSTRUCT PIPE PENETRATION INTO EXISTING STORM DRAIN BOX PER DETAIL 18 SHEET C8.04
49	INSTALL 36"x36" JENSEN PRECAST OR EQUAL DROP INLET WITH TRAFFIC RATED GRATES. REFERENCE DETAIL 10 SHEET C8.03. PLACE CONCRETE STAMP PER USDCCA DWG NO 421 SHEET C8.07.

ALL GRADING WORK SHALL BE IN STRICT ACCORDANCE WITH THE SOILS REPORT FOR THE SITE ENTITLED "GILMORE CLIFF SHADOW PARK".

PROJECT NO.:304227001, DATED OCTOBER 31, 2017

PREPARED BY:
NINYO & MOORE GEOTECHNICAL & ENVIRONMENTAL SCIENCES CONSULTANTS
6700 PARADISE ROAD, SUITE E
LAS VEGAS, NEVADA 89119
PHONE NO.:(702) 433-0330
FAX NO.:(702) 433-0707

ALL WORK SHALL BE PERFORMED UNDER THE DIRECTION OF A REGISTERED PROFESSIONAL SOILS ENGINEER.

CITY OF LAS VEGAS NEVADA

REVISIONS

CONSULTANT

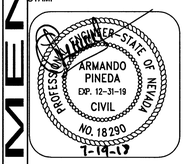
COLLINS ENGINEERS
3130 S. DURANGO DR., SUITE 404
LAS VEGAS, NV 89117
PHONE: (702) 248-8000
FAX: (702) 248-8070
www.collinsengr.com

DEPARTMENT OF PUBLIC WORKS

GILMORE CLIFF SHADOWS PARK
NEW CITY OF LAS VEGAS PARK

STORM DRAIN
PLAN AND PROFILE 4

STAMP

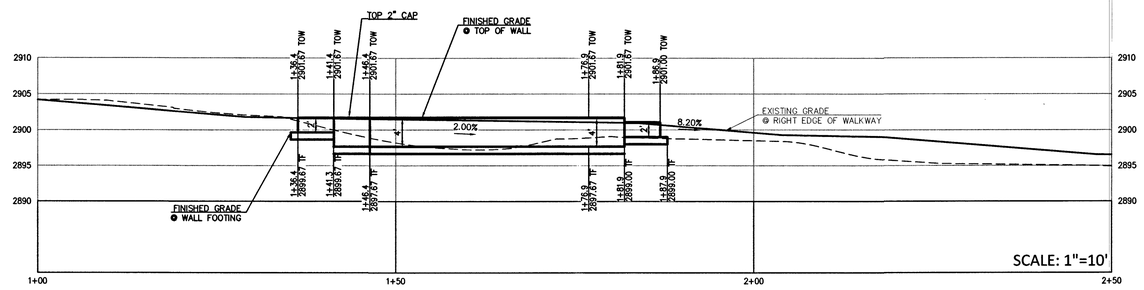


OWNER: CITY OF LAS VEGAS
DEPARTMENT OF PUBLIC WORKS

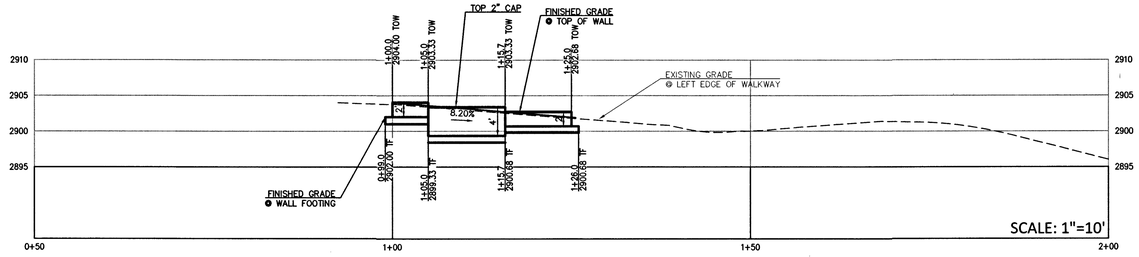
DEVELOPMENT SERVICES CENTER
333 N. RANCHO DRIVE
LAS VEGAS, NEVADA 89106
PHONE: (702) 229-6276
FAX: (702) 384-4846

DRAWN	DSI
FILE	180101445
DATE	6/18/2018
SCALE	SEE PLAN
BID NO	18.66085.DD
CLV DWG NO	650.116
HANSEN NO	66085
	C18-00891
SHT NO	C4.10

H:\CAD\LAND\10297\DWG\SHEETS\10297-C4.10-SD P&P.DWG 07/18/2018 02:49:08 PM



RETAINING WALL PROFILE "A"



RETAINING WALL PROFILE "B"

SOUTHERN NEVADA BUILDING OFFICIALS
REGIONAL STANDARDS

B-100-2
7-7-14
PG. 2 OF 2

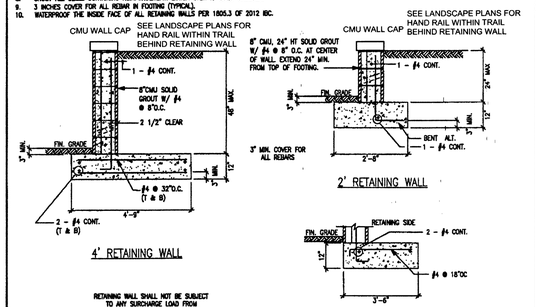
MASONRY RETAINING WALLS NO SCREEN WALL

Clark County	Boulder City	Henderson	Las Vegas
Dept. of Building & Fire Prevention 4701 W Russell Rd Las Vegas, NV 89118 (702) 455-3000	Building Department 401 California Avenue Boulder City, NV 89005 (702) 293-9282	Bldg & Fire Safety Dept. 240 Water Street Henderson, NV 89015 (702) 267-3650	Building & Safety Dept. 333 N. Rancho Drive Las Vegas, NV 89106 (702) 229-6251

REQUIRED INSPECTIONS: (SPECIAL INSPECTION – NONE REQUIRED)
1. FOUNDATION
2. MASONRY PRECROUT
3. FINAL

GENERAL NOTES:
1. ALL WORK SHALL CONFORM TO THE IBC 2012 EDITION AS AMENDED
2. CONCRETE BLOCK MASONRY SHALL COMPLY WITH THE FOLLOWING:
   A. CONCRETE MASONRY SHALL CONFORM TO ASTM C 90, f'm = 1500 PSI
   B. MORTAR: TYPE M – 2500 PSI OR TYPE S – 1800 PSI
   C. GROUT CONFORMS TO ASTM C 476, MINIMUM 2000 PSI
3. THE ULTIMATE COMPRESSIVE STRENGTH REQUIRED FOR FOUNDATION CONCRETE SHALL BE OF 4000 PSI, TYPE V CEMENT, AND 0.45 WATER TO CEMENT RATIO.
4. ALL REINFORCING STEEL SHALL BE GRADE 60, ASTM A615, MIN. LAP SPLICE = 24"
5. NO WATER COURSE OR NATURAL DRAINAGE SHALL BE OBSTRUCTED. FOR RETAINING WALL, PROVIDE 1CF/FT OF CLEAN COARSE GRAVEL WITH 2" DIAMETER WEEP HOLES THROUGH THE WALL AND LINED WITH PVC PIPE AT 8'-0" O.C. ALONG WALL AND PLACED 3" ABOVE THE LOWEST ADJACENT FINISHED GRADE
6. SITE PLAN SHALL BE SUBMITTED FOR REVIEW BEFORE THE PERMIT CAN BE ISSUED
7. CONTROL JOINT SPACING AT 24 FEET (MAX). VERTICAL REBARS SHALL BE LOCATED WITHIN 16 INCHES OF THE END.
8. GROUT ALL CELLS CONTAINING REINFORCEMENT. LOWER STEM IS SOLID GROUTED.
9. 3 INCHES COVER FOR ALL REBAR IN FOOTING (TYPICAL)
10. WATERPROOF THE INSIDE FACE OF ALL RETAINING WALLS PER 1805.3 OF 2012 IBC.

DESIGN CRITERIA
IBC WITH SO. NV AMENDMENTS
WIND LOAD
BASIC WIND SPEED = 105 MPH, EXPOSURE C
Kz = 0.85
Kzt = 1.0
Kd = 0.85
Cf = 1.4
G = 0.85
SEISMIC LOAD
DESIGN SPECTRAL RESPONSE Sds = 0.518g
SEISMIC COEFFICIENTS Sp = 2.5 (ASCE 7-10, 1-133-1
Fp = 0.346g
SEISMIC LOAD DUE TO LATERAL EARTH PRESSURE = 10.1h² (LBS) THE POINT OF APPLICATION IS TAKEN AT 0.5h² ABOVE THE BASE OF THE WALL, WHERE H IS THE HEIGHT OF THE BACKFILL
SOIL PROPERTIES
SITE CLASS = D
ALLOWABLE SOIL BEARING PRESSURE = 1000 PSF
LATERAL EQUIVALENT FLUID PRESSURE OF 45 PSF/FT
PASSIVE PRESSURE = 100 PSF
COEFFICIENT OF FRICTION FOR SLIDING = .25



RETAINING WALL-SPLIT FACE BLOCK
SEE LANDSCAPE PLANS FOR COLOR

North Las Vegas	Pahrump		Clark County School District
Building Department 2250 Las Vegas Blvd. N N. Las Vegas, NV 89030 (702) 633-1577	Building & Fire Safet Dept. 250 N Hwy 160 Suite #3 Pahrump, NV 89060 (775) 751-3373		Building Department 4190 McLeod Drive, 1st Floor Las Vegas, NV 89121 (702) 799-7605

CALL BEFORE YOU DIG
AVOID CUTTING UNDERGROUND UTILITY LINES. IT'S COSTLY
Call 811
1-800-227-2600

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

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

COLLINS ENGINEERS ASSUMES NO RESPONSIBILITY FOR EXISTING UTILITY LOCATIONS AND ELEVATIONS. THE UTILITIES SHOWN ON THIS DRAWING HAVE BEEN PLOTTED FROM THE BEST AVAILABLE INFORMATION. IT IS, HOWEVER, THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE LOCATION AND ELEVATION OF ALL UTILITIES PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION. CONTRACTOR TO FIELD VERIFY ALL EXISTING SITE CONDITIONS PRIOR TO CONSTRUCTION. IF A CONFLICT EXISTS BETWEEN WHAT IS SHOWN ON THESE DRAWINGS AND WHAT EXISTS IN THE FIELD, THE CONTRACTOR IS TO NOTIFY THE ARCHITECT OR ENGINEER IMMEDIATELY.

LEGEND

EXISTING	PROPOSED		EXISTING	PROPOSED	
(0.00%)	0.00%	SLOPE			AC PAVEMENT
(0.00) XX	0.00 XX	ELEVATION TAG			6" TYPE "A" CURB
Ⓓ	Ⓢ	STORM MANHOLE / DROP INLET			24" TYPE "L" CURB & GUTTER
--00--	--00--	CONTOUR			30" ROLL CURB
		RETAINING WALL			
		SCREEN WALL			

PL-RIGHT-OF-WAY
PL-ADJACENT
CENTERLINE
EASEMENT LINE
FLOW LINE
SAWCUT LINE
GRADE BREAK
MOUNDING
CHAIN LINK FENCE

H:\CAD\LAND\10297\DWG\SHEETS\10297-C4.11-RW P&P.DWG- 07/18/2018 02:50:45 PM

CITY OF LAS VEGAS NEVADA

REVISIONS

CONSULTANT

COLLINS ENGINEERS
3130 S. DURANGO DR., SUITE 404
LAS VEGAS, NV 89117
PHONE: (702) 248-8000
FAX: (702) 248-8070
www.collinsengr.com

DEPARTMENT OF PUBLIC WORKS

GILMORE CLIFF SHADOWS PARK
NEW CITY OF LAS VEGAS PARK

RETAINING WALL PROFILES

STAMP

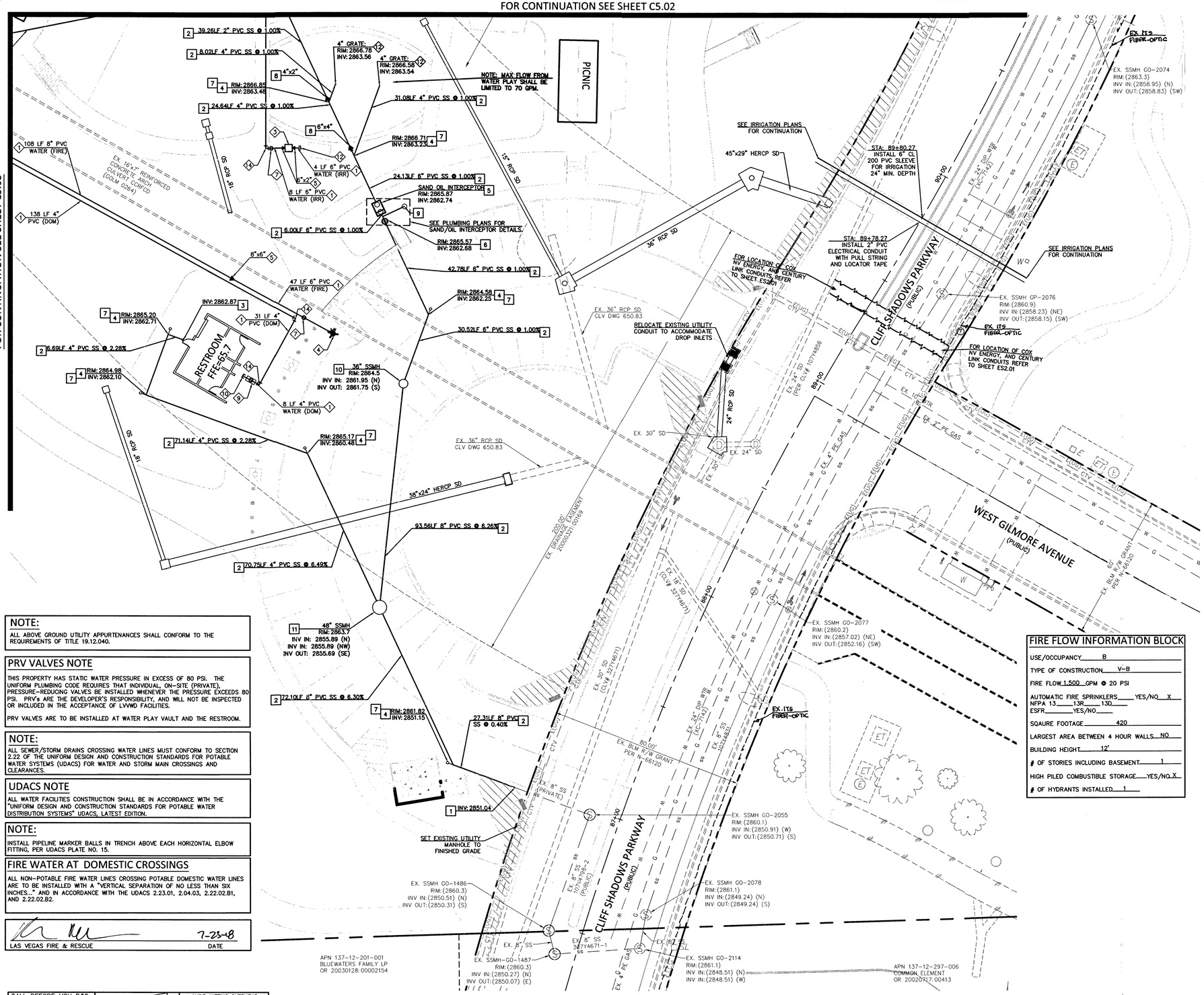
ARMANDO PINEDA
EXP. 12-31-19
CIVIL
NO. 18290
STATE OF NEVADA
PROFESSIONAL ENGINEER
1-14-19

OWNER: CITY OF LAS VEGAS
DEPARTMENT OF PUBLIC WORKS

DEVELOPMENT SERVICES CENTER
333 N. RANCHO DRIVE
LAS VEGAS, NEVADA 89106
PHONE: (702) 229-6276
FAX: (702) 384-4846

DRAWN	DSI
FILE	180101445
DATE	6/18/2018
SCALE	SEE PLAN
BID NO	18.66085.DD
CLV DWG NO	650.116
HANSEN NO	66085 L18-00891
SHT NO	C4.11

DRAWINGS AND SPECIFICATIONS, AS INSTRUMENTS OF SERVICE, ARE THE PROPERTY OF THE CONSULTING PROFESSIONAL AND/OR HIS CONSULTANTS AND SHALL NOT BE USED IN WHOLE OR IN PART WITHOUT WRITTEN CONSENT OF THE PROFESSIONAL. THE PROJECT FOR WHICH THESE INSTRUMENTS ARE MADE IS NOT TO BE CONSTRUCTED IN WHOLE OR IN PART UNLESS ONE OF THE DRAWINGS BEARING THE STAMP AND SIGNATURE OF THE PROFESSIONAL IS ATTACHED. ANY UNAUTHORIZED USE OF THESE INSTRUMENTS SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO THE PROFESSIONAL. ALL TITLES, STATUTORY AND COMMON LAW RIGHTS INCLUDING COPYRIGHT, PROPERTY AND EDITION RIGHTS ARE RESERVED BY THE PROFESSIONAL. THE PROJECT FOR WHICH THESE DRAWINGS AND SPECIFICATIONS ARE PREPARED ARE NOT TO BE CONSTRUCTED IN WHOLE OR IN PART UNLESS ONE OF THE DRAWINGS BEARING THE STAMP AND SIGNATURE OF THE PROFESSIONAL IS ATTACHED. ANY UNAUTHORIZED USE OF THESE INSTRUMENTS SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO THE PROFESSIONAL. ALL TITLES, STATUTORY AND COMMON LAW RIGHTS INCLUDING COPYRIGHT, PROPERTY AND EDITION RIGHTS ARE RESERVED BY THE PROFESSIONAL.



BASIS OF BEARING

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

BENCHMARK

PROJECT DATUM: NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).

CITY OF LAS VEGAS BENCHMARK: 7LVD911NES
ELEVATION: 2931.57 (US SURVEY FEET)
893.54 (METERS)

BEING A BLM BRASS CAP (HIGH PT.) SECTION 2/1 OVER 11/12, PI ALEXANDER ROAD & SECTION LINE.

WATER CONSTRUCTION NOTES

NO.	ITEM
	UDACS: PLATE NO. PER UNIFORM DESIGN AND CONSTRUCTION STANDARDS FOR WATER DISTRIBUTION SYSTEMS
1	INSTALL WATER LINE (SIZE PER PLAN) PER UDACS PLATE NO. 17 SHEET C8.09.
2	REMOVE EXISTING CAP AND INSTALL WATER LINE (SIZE PER PLAN) PER UDACS PLATE No. 17 SHEET C8.09.
3	INSTALL 2" RPPA PER UDACS PLATE No. 8 SHEET C8.09.
4	INSTALL FIRE HYDRANT ASSEMBLY PER UDACS PLATE NO. 40 SHEET C8.10.
5	INSTALL INCREASER/REDUCER (SIZE PER PLAN) PER UDACS PLATE No. 30 SHEET C8.09.
6	INSTALL 45° BEND (SAME SIZE AS LINE) PER UDACS PLATE No. 31 SHEET C8.09.
7	INSTALL GATE VALVE (SAME SIZE AS LINE) PER UDACS PLATE No. 30 & 39 SHEET C8.10.
8	INSTALL TEE (SIZE PER PLAN) PER UDACS PLATE No. 31 SHEET C8.09.
9	INSTALL A VALVE BOX PER UDACS PLATE No. 39 SHEET C8.09.(SIZE PER PLUMBING PLANS)
10	POINT OF CONNECTION. SEE PLUMBING PLANS FOR CONTINUATION.
11	POINT OF CONNECTION. SEE IRRIGATION PLANS FOR CONTINUATION.
12	POINT OF CONNECTION. SEE WATER PLAY PLANS FOR CONTINUATION.
13	INSTALL 11 ¼° BEND (SAME SIZE AS LINE) PER UDACS PLATE No. 31 SHEET C8.09.
14	INSTALL 90° BEND (SAME SIZE AS LINE) PER UDACS PLATE No. 31 SHEET C8.09.
15	INSTALL 5° BEND (SAME SIZE AS LINE) PER UDACS PLATE No. 31 SHEET C8.09.
16	INSTALL 22 ½° BEND (SAME SIZE AS LINE) PER UDACS PLATE No. 31 SHEET C8.09.
17	POINT OF CONNECTION FOR DRINKING FOUNTAIN. SEE LANDSCAPING PLANS FOR CONTINUATION. DETAIL 1 SHEET L2.01

SEWER CONSTRUCTION NOTES

NO.	ITEM
	*SS STD PER DESIGN AND CONSTRUCTION STANDARDS FOR WASTEWATER COLLECTION SYSTEMS
1	CONNECT TO EXISTING 8" SANITARY SEWER. CONTRACTOR TO CONFIRM INVERT ELEVATION.
2	INSTALL PRIVATE PVC (SDR-35) SANITARY SEWER LINE (SIZE PER PLAN) PER DCSWCS DWG. NO. SD-15 SHEET C8.11.
3	POINT OF CONNECTION. SEE PLUMBING PLANS FOR CONTINUATION AND USE.
4	INSTALL SANITARY SEWER CLEANOUT PER DCSWCS SD-26 SHEET C8.11 (SIZE PER PLAN). "WITH TRAFFIC RATED LID"
5	INSTALL JENSEN PRECAST OR EQUAL 500 GAL SAND-OIL INTERCEPTOR PER SEPARATE PLUMBING PERMIT.
6	INSTALL 2' DIAMETER JENSEN PRECAST OR EQUAL SAMPLE BOX WITH PIPE CONNECTORS PER DETAIL 16 SHEET C8.04.
7	INSTALL WYE PER DCSWCS DWG. SD-22 SHEET C8.11 (SIZE PER PLAN) .
8	INSTALL INCREASER/REDUCER (SIZE PER PLAN)
9	3"ø VENT POLE. SEE DETAIL 13 SHEET C8.03. (SEPARATE PLUMBING PERMIT)
10	INSTALL 36" SHALLOW SSMH 'C' PER DCSWCS DWG. SD-13 (PRIVATE) SHEET C8.11.
11	INSTALL 48" SSMH PER DCSWCS DWG. SD-1A AND SD-1B (PRIVATE) SHEET C8.11.
12	RAISE EXISTING MANHOLE RING AND COVER TO GRADE.
13	POINT OF CONNECTION. SEE LANDSCAPING PLANS FOR DETAILS.

SOUTHWEST GAS CORPORATION — DATE 7-16-18

FIRE FLOW INFORMATION BLOCK

USE/OCCUPANCY B
TYPE OF CONSTRUCTION V-B
FIRE FLOW 1,500 GPM @ 20 PSI
AUTOMATIC FIRE SPRINKLERS ____ YES/NO X
NFPA 13 ____ 13R ____ 130 ____
ESFR ____ YES/NO ____
SQAURE FOOTAGE 420
LARGEST AREA BETWEEN 4 HOUR WALLS NO
BUILDING HEIGHT 12'
OF STORIES INCLUDING BASEMENT 1
HIGH PILED COMBUSTIBLE STORAGE ____ YES/NO X
OF HYDRANTS INSTALLED 1

NOTE:

ALL ABOVE GROUND UTILITY APPURTENANCES SHALL CONFORM TO THE REQUIREMENTS OF TITLE 19.12.040.

PRV VALVES NOTE

THIS PROPERTY HAS STATIC WATER PRESSURE IN EXCESS OF 80 PSI. THE UNIFORM PLUMBING CODE REQUIRES THAT INDIVIDUAL, ON-SITE (PRIVATE), PRESSURE-REDUCING VALVES 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.

PRV VALVES ARE TO BE INSTALLED AT WATER PLAY VAULT AND THE RESTROOM.

NOTE:

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

UDACS NOTE

ALL WATER FACILITIES CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE "UNIFORM DESIGN AND CONSTRUCTION STANDARDS FOR POTABLE WATER DISTRIBUTION SYSTEMS" UDACS, LATEST EDITION.

NOTE:

INSTALL PIPELINE MARKER BALLS IN TRENCH ABOVE EACH HORIZONTAL ELBOW FITTING, PER UDACS PLATE NO. 15.

FIRE WATER AT DOMESTIC CROSSINGS

ALL NON-POTABLE FIRE WATER LINES CROSSING POTABLE DOMESTIC WATER LINES ARE TO BE INSTALLED WITH A "VERTICAL SEPARATION OF NO LESS THAN SIX INCHES.." AND IN ACCORDANCE WITH THE UDACS 2.23.01, 2.04.03, 2.22.02.B1, AND 2.22.02.B2.

LAS VEGAS FIRE & RESCUE — DATE 7-23-18

CALL BEFORE YOU DIG
AVOID CUTTING UNDERGROUND UTILITY LINES. IT'S COSTLY
Call 811 or 1-800-227-2600

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

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

COLLINS ENGINEERS ASSUMES NO RESPONSIBILITY FOR EXISTING UTILITY LOCATIONS AND ELEVATIONS. THE UTILITIES SHOWN ON THIS DRAWING HAVE BEEN PLOTTED FROM THE BEST AVAILABLE INFORMATION. IT IS, HOWEVER, THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE LOCATION AND ELEVATION OF ALL UTILITIES PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION. CONTRACTOR TO FIELD VERIFY ALL EXISTING SITE CONDITIONS PRIOR TO CONSTRUCTION. IF A CONFLICT EXISTS BETWEEN WHAT IS SHOWN ON THESE DRAWINGS AND WHAT EXISTS IN THE FIELD, THE CONTRACTOR IS TO NOTIFY THE ARCHITECT OR ENGINEER IMMEDIATELY.

LEGEND

EXISTING	PROPOSED
(0.00) XXX	0.00 XXX ELEVATION TAG
	DRAIN INLET
	RETAINING WALL
	SCREEN WALL
	UTILITY POLE
	STREET LIGHT
E-S	E-S POWER LINE/POLE
T	T TELEPHONE LINE
W	W WATER LINE
SS	SS SANITARY SEWER LINE
D	D STORM SEWER LINE
G	G GAS LINE
D	D STORM MANHOLE
	FIRE HYDRANT
	FIRE DEPARTMENT CONNECTION
	WATER VALVE
	REDUCER
S	SEWER MANHOLE
	CLEANOUT
	GAS VALVE
	PL-RIGHT-OF-WAY
	PL-ADJACENT
	CENTERLINE
	EASEMENT LINE
	FLOW LINE
	SIGN W/POLE
	SAWCUT LINE
	AREA LIGHT
	WATER METER
	AC PAVEMENT
	6" TYPE "A" CURB
	24" TYPE "L" CURB & GUTTER
	30" ROLL CURB
BWV	BACK WATER VALVE

APPROVED FOR CONSTRUCTION
LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES
Project No.: 126421 — First Approval Date: 7/26/18
LVVWD Approved Fire Flow 1,500 GPM at 20 PSI Residual

CITY OF LAS VEGAS NEVADA

REVISIONS

CONSULTANT
COLLINS ENGINEERS
3130 S. DURANGO DR., SUITE 404
LAS VEGAS, NV 89117
PHONE: (702) 248-8000
FAX: (702) 248-8070
www.collinsengr.com

DEPARTMENT OF PUBLIC WORKS

GILMORE CLIFF SHADOWS PARK
NEW CITY OF LAS VEGAS PARK

UTILITY PLAN 1

STAMP
PROFESSIONAL ENGINEER — STATE OF NEVADA
ARMANDO PINEDA
EXP. 12-31-19
CIVIL
NO. 18290
7-19-18

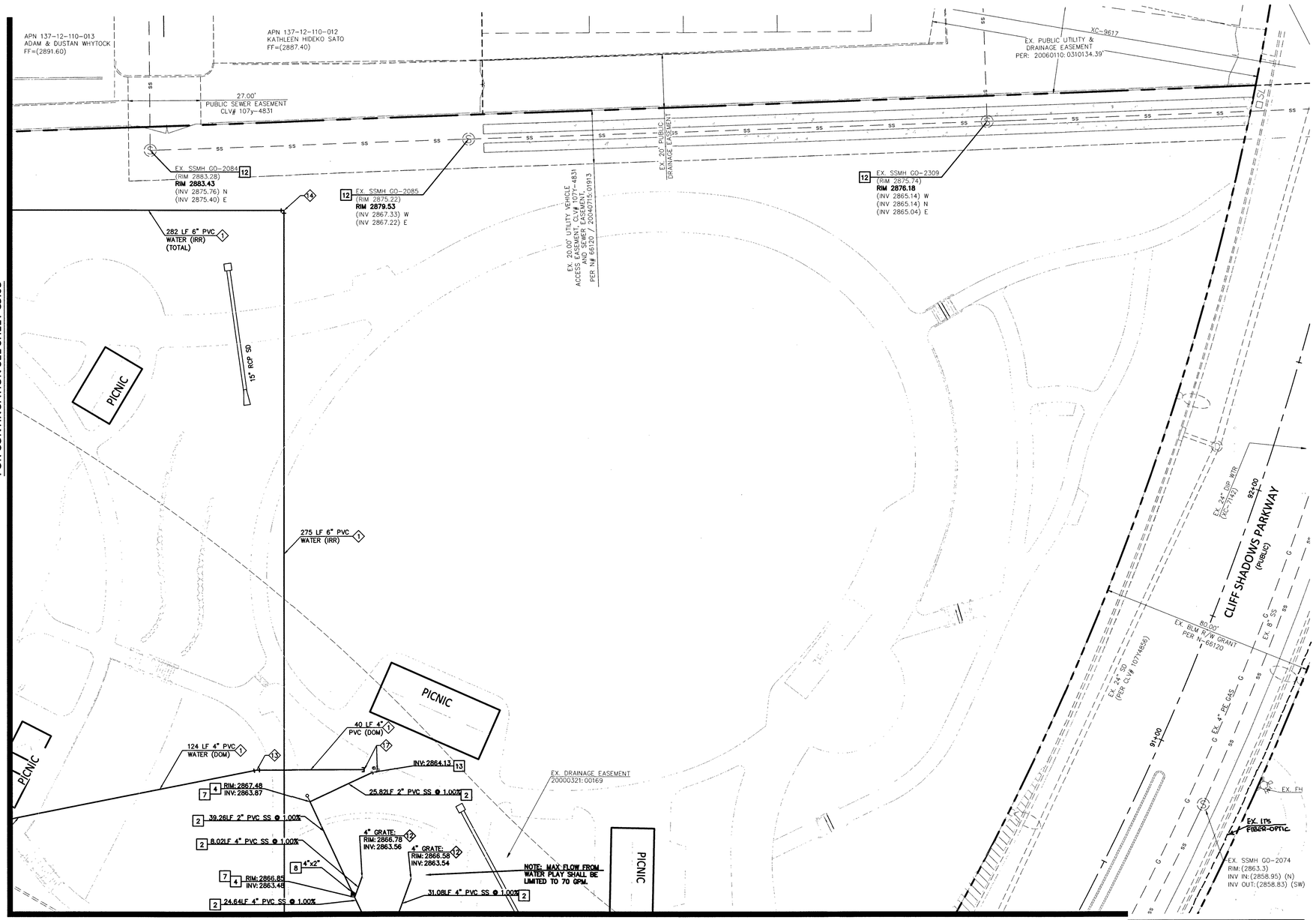
OWNER: CITY OF LAS VEGAS
DEPARTMENT OF PUBLIC WORKS

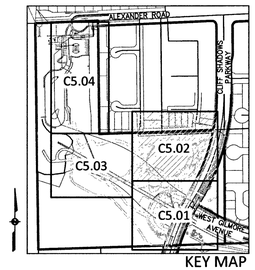
DEVELOPMENT SERVICES CENTER
333 N. RANCHO DRIVE
LAS VEGAS, NEVADA 89106
PHONE: (702) 229-6276
FAX: (702) 384-4846

DRAWN	DSI
FILE	180101445
DATE	6/18/2018
SCALE	SEE PLAN
BID NO	18.66085.DD
CLV DWG NO.	650.116
HANSEN NO	66085
	L18-00891
SHT NO	C5.01

PROJ #126421 QS 137-12-NW

H:\CAD\LAND\10297\DWG\SHEETS\10297-C5.01-UTL.DWG 07/18/2018 03:01:05 PM





KEY MAP
NTS

GRAPHIC SCALE
20 0 10 20
SCALE: 1"=20'

BASIS OF BEARING

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

BENCHMARK

PROJECT DATUM: NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).

CITY OF LAS VEGAS BENCHMARK: 7LV091INES
ELEVATION: 2931.57 (US SURVEY FEET)
893.54 (METERS)

BEING A BLM BRASS CAP (HIGH PT.) SECTION 2/1 OVER 11/12, PI ALEXANDER ROAD & SECTION LINE.

WATER CONSTRUCTION NOTES

NO.	ITEM
	UDACS: PLATE NO. PER UNIFORM DESIGN AND CONSTRUCTION STANDARDS FOR WATER DISTRIBUTION SYSTEMS
1	INSTALL WATER LINE (SIZE PER PLAN) PER UDACS PLATE NO. 17 SHEET C8.09.
2	REMOVE EXISTING CAP AND INSTALL WATER LINE (SIZE PER PLAN) PER UDACS PLATE No. 17 SHEET C8.09.
3	INSTALL 2" RPPA PER UDACS PLATE No. 8 SHEET C8.09.
4	INSTALL FIRE HYDRANT ASSEMBLY PER UDACS PLATE NO. 40 SHEET C8.10.
5	INSTALL INCREASER/REDUCER (SIZE PER PLAN) PER UDACS PLATE No. 30 SHEET C8.09.
6	INSTALL 45° BEND (SAME SIZE AS LINE) PER UDACS PLATE No. 31 SHEET C8.09.
7	INSTALL GATE VALVE (SAME SIZE AS LINE) PER UDACS PLATE No. 30 & 39 SHEET C8.10.
8	INSTALL TEE (SIZE PER PLAN) PER UDACS PLATE No. 31 SHEET C8.09.
9	INSTALL A VALVE BOX PER UDACS PLATE No. 39 SHEET C8.09.(SIZE PER PLUMBING PLANS)
10	POINT OF CONNECTION. SEE PLUMBING PLANS FOR CONTINUATION.
11	POINT OF CONNECTION. SEE IRRIGATION PLANS FOR CONTINUATION.
12	POINT OF CONNECTION. SEE WATER PLAY PLANS FOR CONTINUATION.
13	INSTALL 11 ¼° BEND (SAME SIZE AS LINE) PER UDACS PLATE No. 31 SHEET C8.09.
14	INSTALL 90° BEND (SAME SIZE AS LINE) PER UDACS PLATE No. 31 SHEET C8.09.
15	INSTALL 5° BEND (SAME SIZE AS LINE) PER UDACS PLATE No. 31 SHEET C8.09.
16	INSTALL 22 ½° BEND (SAME SIZE AS LINE) PER UDACS PLATE No. 31 SHEET C8.09.
17	POINT OF CONNECTION FOR DRINKING FOUNTAIN. SEE LANDSCAPING PLANS FOR CONTINUATION. DETAIL 1 SHEET L2.01

SEWER CONSTRUCTION NOTES

NO.	ITEM
	*SS STD PER DESIGN AND CONSTRUCTION STANDARDS FOR WASTEWATER COLLECTION SYSTEMS
1	CONNECT TO EXISTING 8" SANITARY SEWER. CONTRACTOR TO CONFIRM INVERT ELEVATION.
2	INSTALL PRIVATE PVC (SDR-35) SANITARY SEWER LINE (SIZE PER PLAN) PER DCSWCS DWG. NO. SD-15 SHEET C8.11.
3	POINT OF CONNECTION. SEE PLUMBING PLANS FOR CONTINUATION AND USE.
4	INSTALL SANITARY SEWER CLEANOUT PER DCSWCS SD-26 SHEET C8.11 (SIZE PER PLAN). "WITH TRAFFIC RATED LID"
5	INSTALL JENSEN PRECAST OR EQUAL 500 GAL SAND-OIL INTERCEPTOR PER SEPARATE PLUMBING PERMIT.
6	INSTALL 2' DIAMETER JENSEN PRECAST OR EQUAL SAMPLE BOX WITH PIPE CONNECTORS PER DETAIL 16 SHEET C8.04.
7	INSTALL WYE PER DCSWCS DWG. SD-22 SHEET C8.11 (SIZE PER PLAN) .
8	INSTALL INCREASER/REDUCER (SIZE PER PLAN)
9	3"ø VENT POLE. SEE DETAIL 13 SHEET C8.03. (SEPARATE PLUMBING PERMIT)
10	INSTALL 36" SHALLOW SSMH 'C' PER DCSWCS DWG. SD-13 (PRIVATE) SHEET C8.11.
11	INSTALL 48" SSMH PER DCSWCS DWG. SD-1A AND SD-1B (PRIVATE) SHEET C8.11.
12	RAISE EXISTING MANHOLE RING AND COVER TO GRADE.
13	POINT OF CONNECTION. SEE LANDSCAPING PLANS FOR DETAILS.

NOTE:

ALL ABOVE GROUND UTILITY APPURTENANCES SHALL CONFORM TO THE REQUIREMENTS OF TITLE 19.12.040.

PRV VALVES NOTE

THIS PROPERTY HAS STATIC WATER PRESSURE IN EXCESS OF 80 PSI. THE UNIFORM PLUMBING CODE REQUIRES THAT INDIVIDUAL, ON-SITE (PRIVATE), PRESSURE-REDUCING VALVES 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.

PRV VALVES ARE TO BE INSTALLED AT WATER PLAY VAULT AND THE RESTROOM.

NOTE:

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

UDACS NOTE

ALL WATER FACILITIES CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE "UNIFORM DESIGN AND CONSTRUCTION STANDARDS FOR POTABLE WATER DISTRIBUTION SYSTEMS" UDACS, LATEST EDITION.

NOTE:

INSTALL PIPELINE MARKER BALLS IN TRENCH ABOVE EACH HORIZONTAL ELBOW FITTING, PER UDACS PLATE NO. 15.

FIRE WATER AT DOMESTIC CROSSINGS

ALL NON-POTABLE FIRE WATER LINES CROSSING POTABLE DOMESTIC WATER LINES ARE TO BE INSTALLED WITH A "VERTICAL SEPARATION OF NO LESS THAN SIX INCHES.." AND IN ACCORDANCE WITH THE UDACS 2.23.01, 2.04.03, 2.22.02.B1, AND 2.22.02.B2.

LAS VEGAS FIRE & RESCUE — DATE 7-23-18

FIRE FLOW INFORMATION BLOCK

USE/OCCUPANCY B
TYPE OF CONSTRUCTION V-B
FIRE FLOW 1,500 GPM @ 20 PSI
AUTOMATIC FIRE SPRINKLERS ____ YES/NO X
NFPA 13 ____ 13R ____ 13D ____
ESFR ____ YES/NO ____
SQAURE FOOTAGE 420
LARGEST AREA BETWEEN 4 HOUR WALLS NO
BUILDING HEIGHT 12'
OF STORIES INCLUDING BASEMENT 1
HIGH PILED COMBUSTIBLE STORAGE ____ YES/NO X
OF HYDRANTS INSTALLED 1

SOUTHWEST GAS CORPORATION — DATE 7-16-18

APPROVED FOR CONSTRUCTION
LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES
Project No.: 126421 First Approval Date: 7/26/18
LVVWD Approved Fire Flow 1,500 GPM at 20 PSI Residual

CALL BEFORE YOU DIG
AVOID CUTTING UNDERGROUND UTILITY LINES. IT'S COSTLY
Call 811
1-800-227-2600

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

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

COLLINS ENGINEERS ASSUMES NO RESPONSIBILITY FOR EXISTING UTILITY LOCATIONS AND ELEVATIONS. THE UTILITIES SHOWN ON THIS DRAWING HAVE BEEN PLOTTED FROM THE BEST AVAILABLE INFORMATION. IT IS, HOWEVER, THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE LOCATION AND ELEVATION OF ALL UTILITIES PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION. CONTRACTOR TO FIELD VERIFY ALL EXISTING SITE CONDITIONS PRIOR TO CONSTRUCTION. IF A CONFLICT EXISTS BETWEEN WHAT IS SHOWN ON THESE DRAWINGS AND WHAT EXISTS IN THE FIELD, THE CONTRACTOR IS TO NOTIFY THE ARCHITECT OR ENGINEER IMMEDIATELY.

LEGEND

EXISTING	PROPOSED		EXISTING	PROPOSED		EXISTING	PROPOSED		EXISTING	PROPOSED	
(0.00) XXX	0.00 XXX	ELEVATION TAG	—E—	—E—	POWER LINE/POLE			FIRE HYDRANT			PL-RIGHT-OF-WAY
		DRAIN INLET	—T—	—T—	TELEPHONE LINE			FIRE DEPARTMENT CONNECTION			PL-ADJACENT
		RETAINING WALL	—W—	—W—	WATER LINE			WATER VALVE			CENTERLINE
		SCREEN WALL	—SS—	—SS—	SANITARY SEWER LINE			REDUCER			EASEMENT LINE
		UTILITY POLE	—D—	—D—	STORM SEWER LINE			SEWER MANHOLE			FLOW LINE
		STREET LIGHT	—G—	—G—	GAS LINE			CLEANOUT			SIGN W/POLE
					STORM MANHOLE			GAS VALVE			SAWCUT LINE
											AREA LIGHT
											WATER METER

EXISTING	PROPOSED	
		AC PAVEMENT
		6" TYPE "A" CURB
		24" TYPE "L" CURB & GUTTER
		30" ROLL CURB
	BWV	BACK WATER VALVE

CITY OF LAS VEGAS NEVADA

PUBLIC WORKS

DEPARTMENT OF PUBLIC WORKS

REVISIONS

CONSULTANT

COLLINS ENGINEERS
3130 S. DURANGO DR., SUITE 404
LAS VEGAS, NV 89117
PHONE: (702) 248-8000
FAX: (702) 248-8070
www.collinsengr.com

GILMORE CLIFF SHADOWS PARK
NEW CITY OF LAS VEGAS PARK

UTILITY PLAN 2

STAMP

ARMANDO PINEDA
EXP. 12-31-19
CIVIL
NO. 18290
7-19-18

OWNER: CITY OF LAS VEGAS
DEPARTMENT OF PUBLIC WORKS

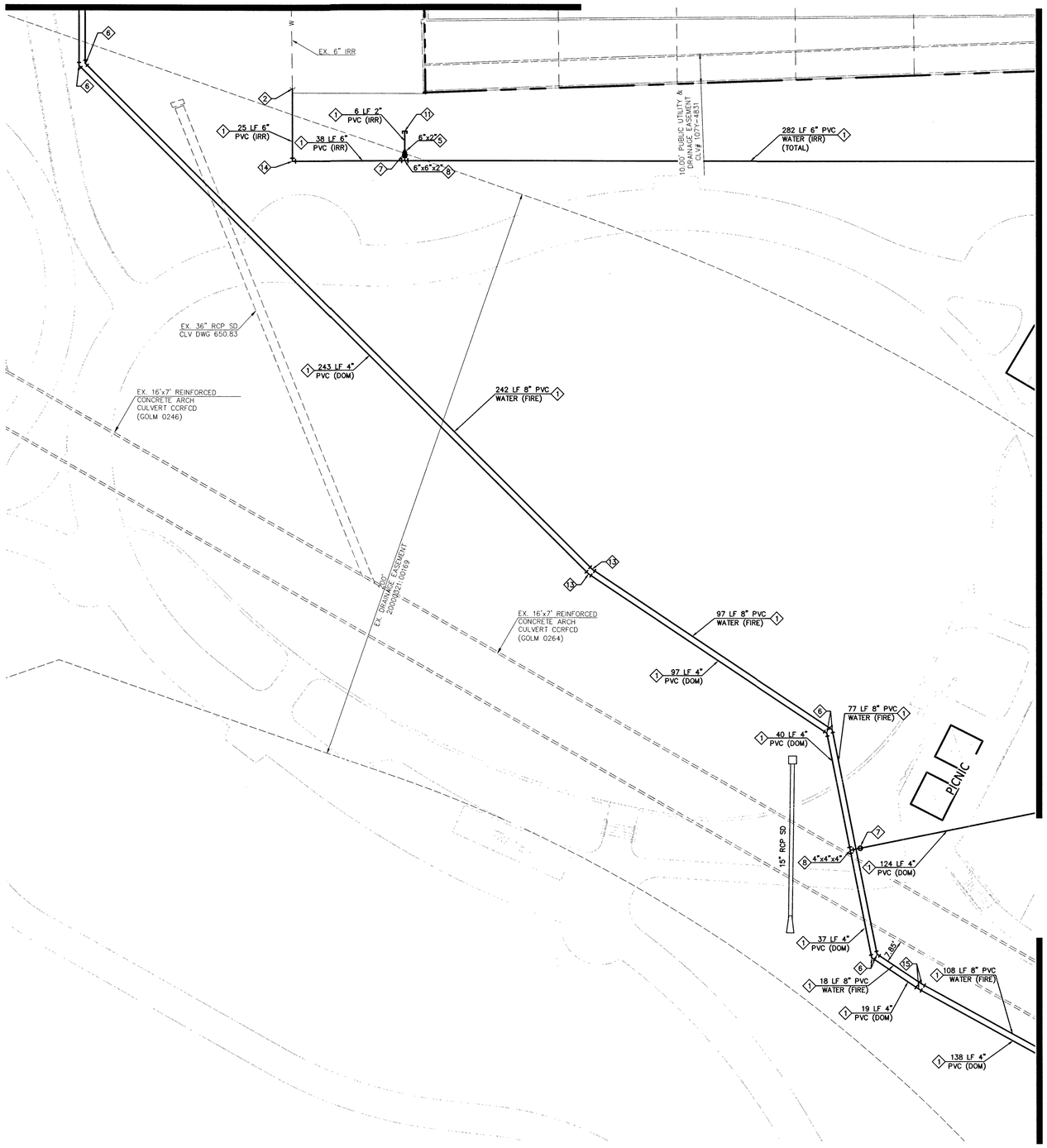
DEVELOPMENT SERVICES CENTER
333 N. RANCHO DRIVE
LAS VEGAS, NEVADA 89106
PHONE: (702) 229-6276
FAX: (702) 384-4846

DRAWN	DSI
FILE	180101445
DATE	6/18/2018
SCALE	SEE PLAN
BID NO	18.66085.DD
CLV DWG NO	650.116
HANSEN NO	66085
SHT NO	C5.02

PROJ #126421 QS 137-12-NW

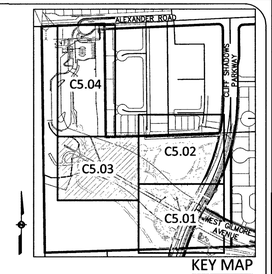
H:\CAD\LAND\10297\DWG\SHEETS\10297-C5.01-UTL.DWG 07/18/2018 03:02:21 PM

FOR CONTINUATION SEE SHEET C5.04



FOR CONTINUATION SEE SHEET C5.02

FOR CONTINUATION SEE SHEET C5.01



KEY MAP
NTS

GRAPHIC SCALE
20 0 10 20
SCALE: 1"=20'

BASIS OF BEARING

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

BENCHMARK

PROJECT DATUM: NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).

CITY OF LAS VEGAS BENCHMARK: 7LVD911NES
ELEVATION: 2931.57 (US SURVEY FEET)
893.54 (METERS)

BEING A BLM BRASS CAP (HIGH PT.) SECTION 2/1 OVER 11/12, PI ALEXANDER ROAD & SECTION LINE.

FIRE FLOW INFORMATION BLOCK

USE/OCCUPANCY	B
TYPE OF CONSTRUCTION	V-B
FIRE FLOW 1,500 GPM @ 20 PSI	
AUTOMATIC FIRE SPRINKLERS NFPA 13 ___ 13R ___ 13D ___ ESFR ___	YES/NO X
SQAURE FOOTAGE	420
LARGEST AREA BETWEEN 4 HOUR WALLS	NO
BUILDING HEIGHT	12'
# OF STORIES INCLUDING BASEMENT	1
HIGH PILED COMBUSTIBLE STORAGE	YES/NO X
# OF HYDRANTS INSTALLED	1

NOTE:
ALL ABOVE GROUND UTILITY APPURTENANCES SHALL CONFORM TO THE REQUIREMENTS OF TITLE 19.12.040.

PRV VALVES NOTE

THIS PROPERTY HAS STATIC WATER PRESSURE IN EXCESS OF 80 PSI. THE UNIFORM PLUMBING CODE REQUIRES THAT INDIVIDUAL, ON-SITE (PRIVATE), PRESSURE-REDUCING VALVES 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.

PRV VALVES ARE TO BE INSTALLED AT WATER PLAY VAULT AND THE RESTROOM.

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

UDACS NOTE

ALL WATER FACILITIES CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE "UNIFORM DESIGN AND CONSTRUCTION STANDARDS FOR POTABLE WATER DISTRIBUTION SYSTEMS" UDACS, LATEST EDITION.

NOTE:
INSTALL PIPELINE MARKER BALLS IN TRENCH ABOVE EACH HORIZONTAL ELBOW FITTING, PER UDACS PLATE NO. 15.

FIRE WATER AT DOMESTIC CROSSINGS

ALL NON-POTABLE FIRE WATER LINES CROSSING POTABLE DOMESTIC WATER LINES ARE TO BE INSTALLED WITH A "VERTICAL SEPARATION OF NO LESS THAN SIX INCHES..." AND IN ACCORDANCE WITH THE UDACS 2.23.01, 2.04.03, 2.22.02.B1, AND 2.22.02.B2.

7-23-18
LAS VEGAS FIRE & RESCUE — DATE

WATER CONSTRUCTION NOTES

NO.	ITEM — UDACS: PLATE NO. PER UNIFORM DESIGN AND CONSTRUCTION STANDARDS FOR WATER DISTRIBUTION SYSTEMS
1	INSTALL WATER LINE (SIZE PER PLAN) PER UDACS PLATE NO. 17 SHEET C8.09.
2	REMOVE EXISTING CAP AND INSTALL WATER LINE (SIZE PER PLAN) PER UDACS PLATE No. 17 SHEET C8.09.
3	INSTALL 2" RPPA PER UDACS PLATE No. 8 SHEET C8.09.
4	INSTALL FIRE HYDRANT ASSEMBLY PER UDACS PLATE NO. 40 SHEET C8.10.
5	INSTALL INCREASER/REDUCER (SIZE PER PLAN) PER UDACS PLATE No. 30 SHEET C8.09.
6	INSTALL 45° BEND (SAME SIZE AS LINE) PER UDACS PLATE No. 31 SHEET C8.09.
7	INSTALL GATE VALVE (SAME SIZE AS LINE) PER UDACS PLATE No. 30 & 39 SHEET C8.10.
8	INSTALL TEE (SIZE PER PLAN) PER UDACS PLATE No. 31 SHEET C8.09.
9	INSTALL A VALVE BOX PER UDACS PLATE No. 39 SHEET C8.09.(SIZE PER PLUMBING PLANS)
10	POINT OF CONNECTION. SEE PLUMBING PLANS FOR CONTINUATION.
11	POINT OF CONNECTION. SEE IRRIGATION PLANS FOR CONTINUATION.
12	POINT OF CONNECTION. SEE WATER PLAY PLANS FOR CONTINUATION.
13	INSTALL 11 ¼° BEND (SAME SIZE AS LINE) PER UDACS PLATE No. 31 SHEET C8.09.
14	INSTALL 90° BEND (SAME SIZE AS LINE) PER UDACS PLATE No. 31 SHEET C8.09.
15	INSTALL 5° BEND (SAME SIZE AS LINE) PER UDACS PLATE No. 31 SHEET C8.09.
16	INSTALL 22 ½° BEND (SAME SIZE AS LINE) PER UDACS PLATE No. 31 SHEET C8.09.
17	POINT OF CONNECTION FOR DRINKING FOUNTAIN. SEE LANDSCAPING PLANS FOR CONTINUATION. DETAIL 1 SHEET L2.01

SEWER CONSTRUCTION NOTES

NO.	ITEM — *SS STD PER DESIGN AND CONSTRUCTION STANDARDS FOR WASTEWATER COLLECTION SYSTEMS
1	CONNECT TO EXISTING 8" SANITARY SEWER. CONTRACTOR TO CONFIRM INVERT ELEVATION.
2	INSTALL PRIVATE PVC (SDR-35) SANITARY SEWER LINE (SIZE PER PLAN) PER DCSWCS DWG. NO. SD-15 SHEET C8.11.
3	POINT OF CONNECTION. SEE PLUMBING PLANS FOR CONTINUATION AND USE.
4	INSTALL SANITARY SEWER CLEANOUT PER DCSWCS SD-26 SHEET C8.11 (SIZE PER PLAN). "WITH TRAFFIC RATED LID"
5	INSTALL JENSEN PRECAST OR EQUAL 500 GAL SAND-OIL INTERCEPTOR PER SEPARATE PLUMBING PERMIT.
6	INSTALL 2' DIAMETER JENSEN PRECAST OR EQUUAL SAMPLE BOX WITH PIPE CONNECTORS PER DETAIL 16 SHEET C8.04.
7	INSTALL WYE PER DCSWCS DWG. SD-22 SHEET C8.11 (SIZE PER PLAN) .
8	INSTALL INCREASER/REDUCER (SIZE PER PLAN)
9	3"ø VENT POLE. SEE DETAIL 13 SHEET C8.03. (SEPARATE PLUMBING PERMIT)
10	INSTALL 36" SHALLOW SSMH 'C' PER DCSWCS DWG. SD-13 (PRIVATE) SHEET C8.11.
11	INSTALL 48" SSMH PER DCSWCS DWG. SD-1A AND SD-1B (PRIVATE) SHEET C8.11.
12	RAISE EXISTING MANHOLE RING AND COVER TO GRADE.
13	POINT OF CONNECTION. SEE LANDSCAPING PLANS FOR DETAILS.

7-16-18
SOUTHWEST GAS CORPORATION — DATE

APPROVED FOR CONSTRUCTION
LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES
Project No.: 126421 First Approval Date: 7/26/18
LVVWD Approved Fire Flow 1,500 GPM at 20 PSI Residual

CALL BEFORE YOU DIG
AVOID CUTTING UNDERGROUND UTILITY LINES. IT'S COSTLY
Call 811 before you UnderGround
1-800-227-2600

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

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

COLLINS ENGINEERS ASSUMES NO RESPONSIBILITY FOR EXISTING UTILITY LOCATIONS AND ELEVATIONS. THE UTILITIES SHOWN ON THIS DRAWING HAVE BEEN PLOTTED FROM THE BEST AVAILABLE INFORMATION. IT IS, HOWEVER, THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE LOCATION AND ELEVATION OF ALL UTILITIES PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION. CONTRACTOR TO FIELD VERIFY ALL EXISTING SITE CONDITIONS PRIOR TO CONSTRUCTION. IF A CONFLICT EXISTS BETWEEN WHAT IS SHOWN ON THESE DRAWINGS AND WHAT EXISTS IN THE FIELD, THE CONTRACTOR IS TO NOTIFY THE ARCHITECT OR ENGINEER IMMEDIATELY.

LEGEND

EXISTING	PROPOSED		EXISTING	PROPOSED		EXISTING	PROPOSED		EXISTING	PROPOSED	
(0.00) XXX	0.00 XXX	ELEVATION TAG	-E-	-E-	POWER LINE/POLE			FIRE HYDRANT			PL-RIGHT-OF-WAY
		DRAIN INLET	-T-	-T-	TELEPHONE LINE			FIRE DEPARTMENT CONNECTION			PL-ADJACENT
		RETAINING WALL	-W-	-W-	WATER LINE			WATER VALVE			CENTERLINE
		SCREEN WALL	-SS-	-SS-	SANITARY SEWER LINE			REDUCER			EASEMENT LINE
		UTILITY POLE	-D-	-D-	STORM SEWER LINE	(S)	(S)	SEWER MANHOLE			FLOW LINE
		STREET LIGHT	-G-	-G-	GAS LINE			CLEANOUT			SIGN W/POLE
			(D)	(D)	STORM MANHOLE			GAS VALVE			SAWCUT LINE
											AREA LIGHT
											WATER METER

EXISTING	PROPOSED	
		AC PAVEMENT
		6" TYPE "A" CURB
		24" TYPE "L" CURB & GUTTER
		30" ROLL CURB
	BWV	BACK WATER VALVE

H:\CAD\LAND\10297\DWG\SHEETS\10297-C5.01-UTL.DWG 07/18/2018 03:03:18 PM

CITY OF LAS VEGAS NEVADA

PUBLIC WORKS

REVISIONS

CONSULTANT

COLLINS ENGINEERS
3130 S. DURANGO DR., SUITE 404
LAS VEGAS, NV 89117
PHONE: (702) 248-8000
FAX: (702) 248-8070
www.collinsengr.com

DEPARTMENT OF PUBLIC WORKS

GILMORE CLIFF SHADOWS PARK
NEW CITY OF LAS VEGAS PARK

UTILITY PLAN 3

STAMP

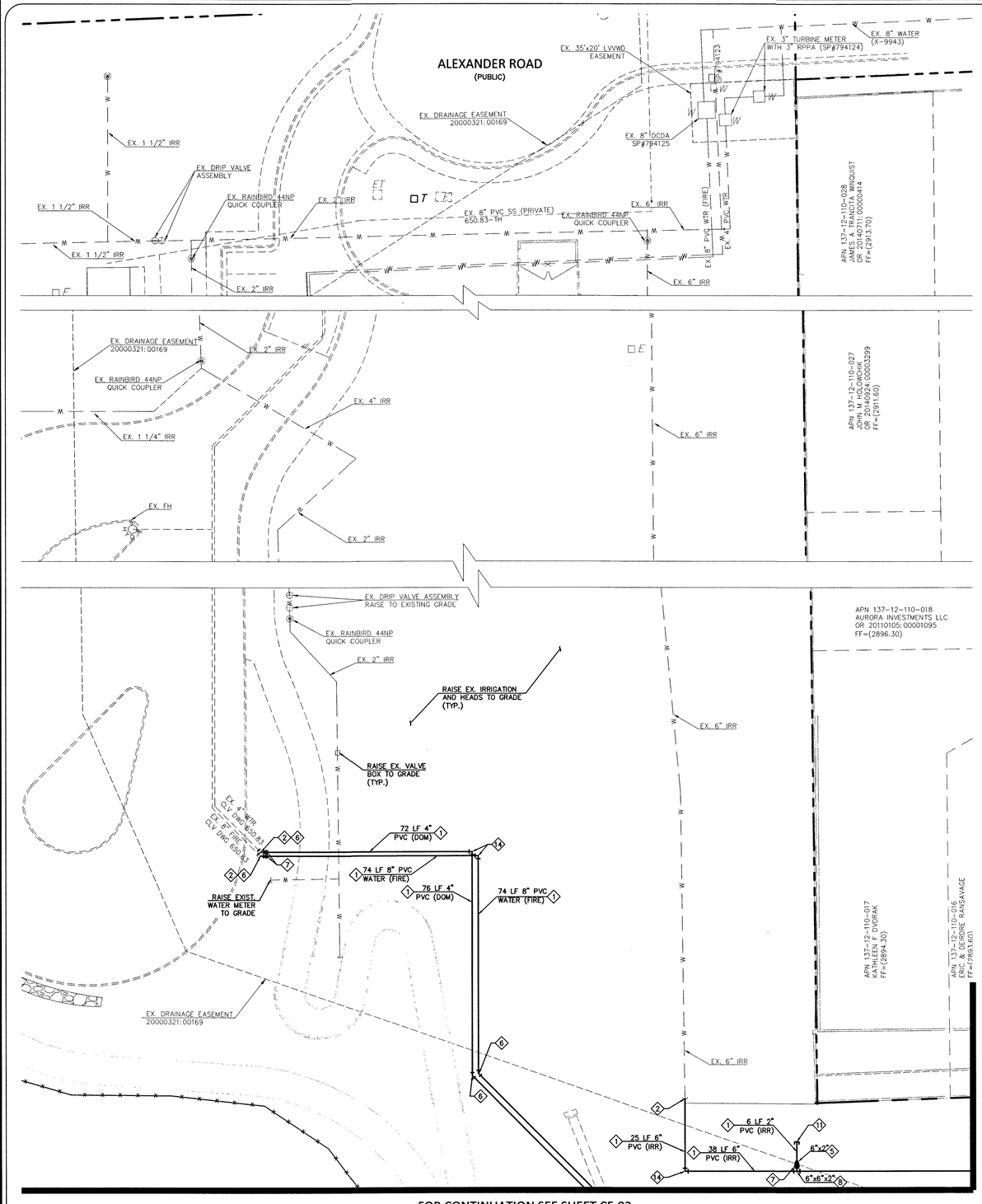
PROFESSIONAL ENGINEER STATE OF NEVADA
ARMANDO PINEDA
EXP. 12-31-19
CIVIL
NO. 18290
7-16-18

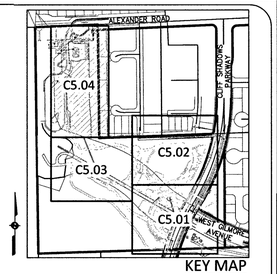
OWNER: CITY OF LAS VEGAS
DEPARTMENT OF PUBLIC WORKS

DEVELOPMENT SERVICES CENTER
333 N. RANCHO DRIVE
LAS VEGAS, NEVADA 89106
PHONE: (702) 229-6276
FAX: (702) 384-4846

DRAWN	DSI
FILE	180101445
DATE	6/18/2018
SCALE	SEE PLAN
BID NO	18.66085.DD
CLV DWG NO	650.116
HANSEN NO	66085 C18-0089
SHT NO	C5.03

PROJ #126421 OS 137-12-NW





KEY MAP
NTS

GRAPHIC SCALE
20 0 10 20
SCALE: 1"=20'

BASIS OF BEARING

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

BENCHMARK

PROJECT DATUM: NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).

CITY OF LAS VEGAS BENCHMARK: 7LV0911NES
ELEVATION: 2931.57 (US SURVEY FEET)
893.54 (METERS)

BEING A BLM BRASS CAP (HIGH PT.) SECTION 2/1 OVER 11/12, PI ALEXANDER ROAD & SECTION LINE.

WATER CONSTRUCTION NOTES

NO.	ITEM
	UDACS: PLATE NO. PER UNIFORM DESIGN AND CONSTRUCTION STANDARDS FOR WATER DISTRIBUTION SYSTEMS
1	INSTALL WATER LINE (SIZE PER PLAN) PER UDACS PLATE NO. 17 SHEET C8.09.
2	REMOVE EXISTING CAP AND INSTALL WATER LINE (SIZE PER PLAN) PER UDACS PLATE No. 17 SHEET C8.09.
3	INSTALL 2" RPPA PER UDACS PLATE No. 8 SHEET C8.09.
4	INSTALL FIRE HYDRANT ASSEMBLY PER UDACS PLATE NO. 40 SHEET C8.10.
5	INSTALL INCREASER/REDUCER (SIZE PER PLAN) PER UDACS PLATE No. 30 SHEET C8.09.
6	INSTALL 45° BEND (SAME SIZE AS LINE) PER UDACS PLATE No. 31 SHEET C8.09.
7	INSTALL GATE VALVE (SAME SIZE AS LINE) PER UDACS PLATE No. 30 & 39 SHEET C8.10.
8	INSTALL TEE (SIZE PER PLAN) PER UDACS PLATE No. 31 SHEET C8.09.
9	INSTALL A VALVE BOX PER UDACS PLATE No. 39 SHEET C8.09.(SIZE PER PLUMBING PLANS)
10	POINT OF CONNECTION. SEE PLUMBING PLANS FOR CONTINUATION.
11	POINT OF CONNECTION. SEE IRRIGATION PLANS FOR CONTINUATION.
12	POINT OF CONNECTION. SEE WATER PLAY PLANS FOR CONTINUATION.
13	INSTALL 11 ¼° BEND (SAME SIZE AS LINE) PER UDACS PLATE No. 31 SHEET C8.09.
14	INSTALL 90° BEND (SAME SIZE AS LINE) PER UDACS PLATE No. 31 SHEET C8.09.
15	INSTALL 5° BEND (SAME SIZE AS LINE) PER UDACS PLATE No. 31 SHEET C8.09.
16	INSTALL 22 ½° BEND (SAME SIZE AS LINE) PER UDACS PLATE No. 31 SHEET C8.09.
17	POINT OF CONNECTION FOR DRINKING FOUNTAIN. SEE LANDSCAPING PLANS FOR CONTINUATION. DETAIL 1 SHEET L2.01

SEWER CONSTRUCTION NOTES

NO.	ITEM
	*SS STD PER DESIGN AND CONSTRUCTION STANDARDS FOR WASTEWATER COLLECTION SYSTEMS
1	CONNECT TO EXISTING 8" SANITARY SEWER. CONTRACTOR TO CONFIRM INVERT ELEVATION.
2	INSTALL PRIVATE PVC (SDR-35) SANITARY SEWER LINE (SIZE PER PLAN) PER DCSWCS DWG. NO. SD-15 SHEET C8.11.
3	POINT OF CONNECTION. SEE PLUMBING PLANS FOR CONTINUATION AND USE.
4	INSTALL SANITARY SEWER CLEANOUT PER DCSWCS SD-26 SHEET C8.11 (SIZE PER PLAN). "WITH TRAFFIC RATED LID"
5	INSTALL JENSEN PRECAST OR EQUAL 500 GAL SAND-OIL INTERCEPTOR PER SEPARATE PLUMBING PERMIT.
6	INSTALL 2' DIAMETER JENSEN PRECAST OR EQUAL SAMPLE BOX WITH PIPE CONNECTORS PER DETAIL 16 SHEET C8.04.
7	INSTALL WYE PER DCSWCS DWG. SD-22 SHEET C8.11 (SIZE PER PLAN) .
8	INSTALL INCREASER/REDUCER (SIZE PER PLAN)
9	3"ø VENT POLE. SEE DETAIL 13 SHEET C8.03. (SEPARATE PLUMBING PERMIT)
10	INSTALL 36" SHALLOW SSMH 'C' PER DCSWCS DWG. SD-13 (PRIVATE) SHEET C8.11.
11	INSTALL 48" SSMH PER DCSWCS DWG. SD-1A AND SD-1B (PRIVATE) SHEET C8.11.
12	RAISE EXISTING MANHOLE RING AND COVER TO GRADE.
13	POINT OF CONNECTION. SEE LANDSCAPING PLANS FOR DETAILS.

FIRE FLOW INFORMATION BLOCK

USE/OCCUPANCY B
TYPE OF CONSTRUCTION V-B
FIRE FLOW 1,500 GPM @ 20 PSI
AUTOMATIC FIRE SPRINKLERS ____ YES/NO X
NFPA 13 ____ 13R ____ 13D ____
ESFR ____ YES/NO ____
SQAURE FOOTAGE 420
LARGEST AREA BETWEEN 4 HOUR WALLS NO
BUILDING HEIGHT 12'
OF STORIES INCLUDING BASEMENT 1
HIGH PILED COMBUSTIBLE STORAGE ____ YES/NO X
OF HYDRANTS INSTALLED 1

NOTE:
ALL ABOVE GROUND UTILITY APPURTENANCES SHALL CONFORM TO THE REQUIREMENTS OF TITLE 19.12.040.

PRV VALVES NOTE
THIS PROPERTY HAS STATIC WATER PRESSURE IN EXCESS OF 80 PSI. THE UNIFORM PLUMBING CODE REQUIRES THAT INDIVIDUAL, ON-SITE (PRIVATE), PRESSURE-REDUCING VALVES 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.

PRV VALVES ARE TO BE INSTALLED AT WATER PLAY VAULT AND THE RESTROOM.

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

UDACS NOTE
ALL WATER FACILITIES CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE "UNIFORM DESIGN AND CONSTRUCTION STANDARDS FOR POTABLE WATER DISTRIBUTION SYSTEMS" UDACS, LATEST EDITION.

NOTE:
INSTALL PIPELINE MARKER BALLS IN TRENCH ABOVE EACH HORIZONTAL ELBOW FITTING, PER UDACS PLATE NO. 15.

FIRE WATER AT DOMESTIC CROSSINGS
ALL NON-POTABLE FIRE WATER LINES CROSSING POTABLE DOMESTIC WATER LINES ARE TO BE INSTALLED WITH A "VERTICAL SEPARATION OF NO LESS THAN SIX INCHES..." AND IN ACCORDANCE WITH THE UDACS 2.23.01, 2.04.03, 2.22.02.B1, AND 2.22.02.B2.

LAS VEGAS FIRE & RESCUE — DATE 7-23-18

SOUTHWEST GAS CORPORATION — DATE 7-16-18

APPROVED FOR CONSTRUCTION
LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES
Project No: 126421 First Approval Date : 7/26/18
LVVWD Approved Fire Flow 1,500 GPM at 20 PSI Residual

CALL BEFORE YOU DIG
AVOID CUTTING UNDERGROUND UTILITY LINES. IT'S COSTLY
Call 811
1-800-227-2600

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

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

COLLINS ENGINEERS ASSUMES NO RESPONSIBILITY FOR EXISTING UTILITY LOCATIONS AND ELEVATIONS. THE UTILITIES SHOWN ON THIS DRAWING HAVE BEEN PLOTTED FROM THE BEST AVAILABLE INFORMATION. IT IS, HOWEVER, THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE LOCATION AND ELEVATION OF ALL UTILITIES PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION. CONTRACTOR TO FIELD VERIFY ALL EXISTING SITE CONDITIONS PRIOR TO CONSTRUCTION. IF A CONFLICT EXISTS BETWEEN WHAT IS SHOWN ON THESE DRAWINGS AND WHAT EXISTS IN THE FIELD, THE CONTRACTOR IS TO NOTIFY THE ARCHITECT OR ENGINEER IMMEDIATELY.

LEGEND

EXISTING	PROPOSED	
(0.00) XXX	0.00 XXX	ELEVATION TAG
		DRAIN INLET
		RETAINING WALL
		SCREEN WALL
		UTILITY POLE
		STREET LIGHT
-E-	-E-	POWER LINE/POLE
-T-	-T-	TELEPHONE LINE
-W-	-W-	WATER LINE
-SS-	-SS-	SANITARY SEWER LINE
-D-	-D-	STORM SEWER LINE
-G-	-G-	GAS LINE
(D)	(D)	STORM MANHOLE
		FIRE HYDRANT
		FIRE DEPARTMENT CONNECTION
W	W	WATER VALVE
		REDUCER
S	S	SEWER MANHOLE
		CLEANOUT
		GAS VALVE
		PL-RIGHT-OF-WAY
		PL-ADJACENT
		CENTERLINE
		EASEMENT LINE
		FLOW LINE
		SIGN W/POLE
		SAWCUT LINE
		AREA LIGHT
		WATER METER
		AC PAVEMENT
		6" TYPE "A" CURB
		24" TYPE "L" CURB & GUTTER
		30" ROLL CURB
	BWV	BACK WATER VALVE

CITY OF LAS VEGAS NEVADA

REVISIONS

CONSULTANT
COLLINS ENGINEERS
3130 S. DURANGO DR., SUITE 404
LAS VEGAS, NV 89117
PHONE: (702) 248-8000
FAX: (702) 248-8070
www.collinsengr.com

DEPARTMENT OF PUBLIC WORKS

GILMORE CLIFF SHADOWS PARK
NEW CITY OF LAS VEGAS PARK

UTILITY PLAN 4

STAMP
PROFESSIONAL ENGINEER - STATE OF NEVADA
ARMANDO PINEDA
EXP. 12-31-19
CIVIL
NO. 18790
7-19-18

OWNER: CITY OF LAS VEGAS
DEPARTMENT OF PUBLIC WORKS

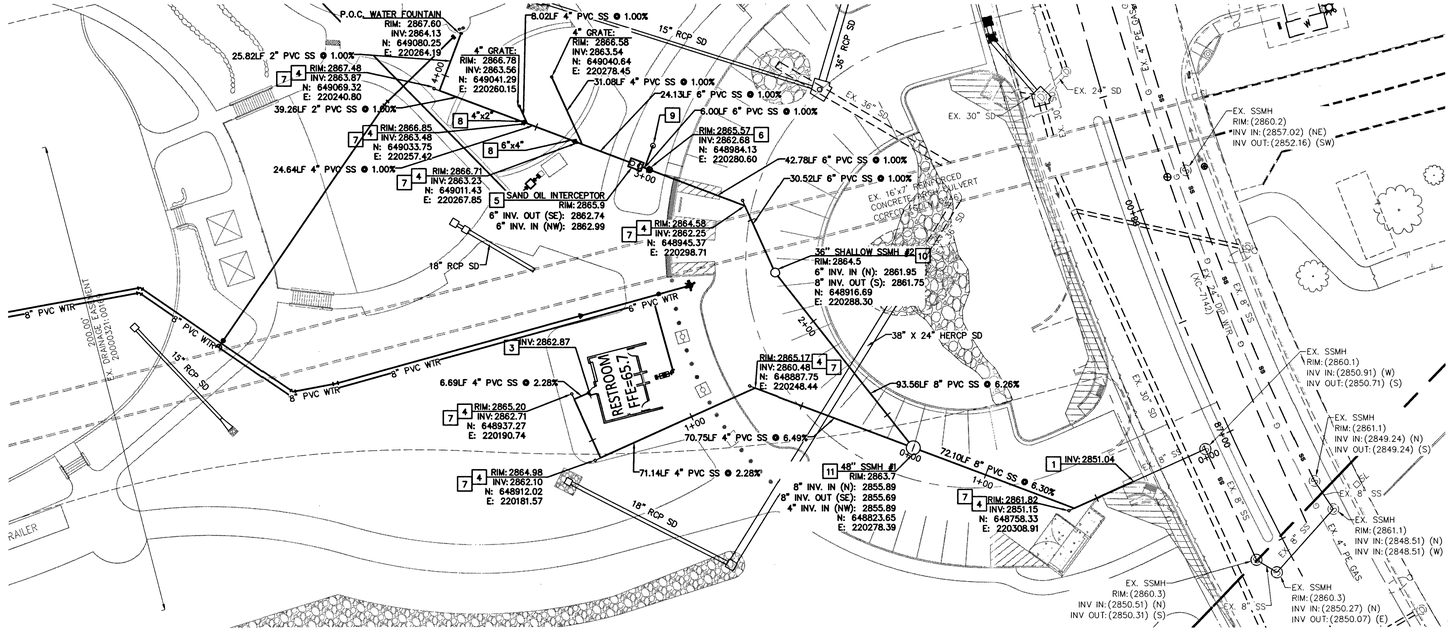
DEVELOPMENT SERVICES CENTER
333 N. RANCHO DRIVE
LAS VEGAS, NEVADA 89106
PHONE: (702) 229-6276
FAX: (702) 384-4846

DRAWN	DSI
FILE	180101445
DATE	6/18/2018
SCALE	SEE PLAN
BID NO	18.66085.DD
CLV DWG NO	650.116
HANSEN NO	66085
	C18-00891
SHT NO	C5.04

QS 137-12-NW
PROJ #126421

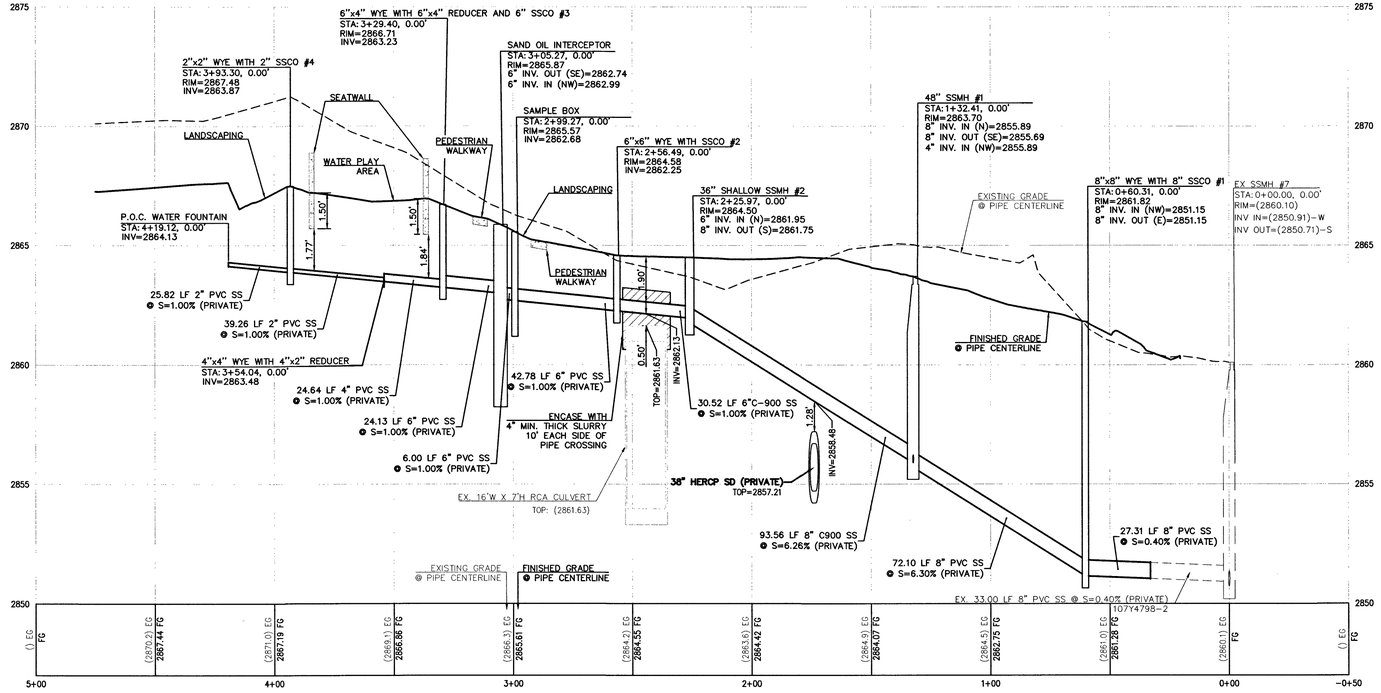
DRAWINGS AS INSTRUMENTS OF SERVICE ARE THE PROPERTY OF THE DESIGN PROFESSIONAL WHOSE STAMP OF CERTIFICATION APPEARS ON THE DRAWINGS AND SPECIFICATIONS AND SHALL NOT BE USED BY ANY OTHER PERSON ON OTHER PROJECTS WITHOUT WRITTEN AGREEMENT WITH THE DESIGN PROFESSIONAL. ALL COPYRIGHTS, LAWS AND OTHER PROTECTIONS OF INTELLECTUAL PROPERTY AS APPLICABLE TO THE DESIGN PROFESSIONAL'S DRAWINGS AND SPECIFICATIONS SHALL BE RESERVED BY THE DESIGN PROFESSIONAL. ANY REPRODUCTION IN WHOLE OR IN PART WITHOUT WRITTEN CONSENT OF THE DESIGN PROFESSIONAL IS STRICTLY PROHIBITED. USE OF THE PROJECT FOR WHICH THESE INSTRUMENTS AND SPECIFICATIONS ARE PREPARED AND FOR THE CONSTRUCTION OF OTHER PROJECTS BY THE OWNER OR OTHERS IS PROHIBITED WITHOUT THE WRITTEN CONSENT OF THE DESIGN PROFESSIONAL. ANY UNAUTHORIZED USE OF THESE INSTRUMENTS AND SPECIFICATIONS SHALL BE AT THE SOLE RISK AND LIABILITY OF THE PARTY USING OR RECEIVING THE BENEFIT OF SUCH USE.

H:\CAD\LAND\10297\DWG\SHEETS\10297-C5.01-UTL.DWG 07/18/2018 03:04:10 PM



SANITARY SEWER - PLAN VIEW

SCALE H:1"=30'



SANITARY SEWER - PROFILE VIEW

SCALE H:1"=30', V:1"=3'

CALL BEFORE YOU DIG
AVOID CUTTING UNDERGROUND UTILITY LINES. IT'S COSTLY
Call 811 or 1-800-227-2600

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

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

COLLINS ENGINEERS ASSUMES NO RESPONSIBILITY FOR EXISTING UTILITY LOCATIONS AND ELEVATIONS. THE UTILITIES SHOWN ON THIS DRAWING HAVE BEEN PLOTTED FROM THE BEST AVAILABLE INFORMATION. IT IS, HOWEVER, THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE LOCATION AND ELEVATION OF ALL UTILITIES PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION. CONTRACTOR TO FIELD VERIFY ALL EXISTING SITE CONDITIONS PRIOR TO CONSTRUCTION. IF A CONFLICT EXISTS BETWEEN WHAT IS SHOWN ON THESE DRAWINGS AND WHAT EXISTS IN THE FIELD, THE CONTRACTOR IS TO NOTIFY THE ARCHITECT OR ENGINEER IMMEDIATELY.

LEGEND

EXISTING	PROPOSED		EXISTING	PROPOSED		EXISTING	PROPOSED		EXISTING	PROPOSED	
(0.00) XXX	0.00 XXX	ELEVATION TAG	-E-	-E-	POWER LINE/POLE			FIRE HYDRANT			PL-RIGHT-OF-WAY
		DRAIN INLET	-T-	-T-	TELEPHONE LINE			FIRE DEPARTMENT CONNECTION			PL-ADJACENT
		RETAINING WALL	-W-	-W-	WATER LINE			WATER VALVE			EASEMENT LINE
		SCREEN WALL	-SS-	-SS-	SANITARY SEWER LINE			REDUCER			CENTERLINE
		UTILITY POLE	-D-	-D-	STORM SEWER LINE			SEWER MANHOLE			FLOW LINE
		STREET LIGHT	-G-	-G-	GAS LINE			CLEANOUT			SIGN W/POLE
					STORM MANHOLE			GAS VALVE			SAWCUT LINE
											AREA LIGHT
											WATER METER

EXISTING	PROPOSED	
		AC PAVEMENT
		6" TYPE "A" CURB
		24" TYPE "A" CURB & GUTTER
		30" ROLL CURB
	BWV	BACK WATER VALVE

GRAPHIC SCALE

30 0 15 30

SCALE: 1"=30'

BASIS OF BEARING

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

BENCHMARK

PROJECT DATUM: NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).

CITY OF LAS VEGAS BENCHMARK: 7LV0911NES
ELEVATION: 2931.57 (US SURVEY FEET)
893.54 (METERS)

BEING A BLM BRASS CAP (HIGH PT.) SECTION 2/1 OVER 11/12, PI ALEXANDER ROAD & SECTION LINE.

WATER CONSTRUCTION NOTES

NO.	ITEM
	UDACS: PLATE NO. PER UNIFORM DESIGN AND CONSTRUCTION STANDARDS FOR WATER DISTRIBUTION SYSTEMS
1	INSTALL WATER LINE (SIZE PER PLAN) PER UDACS PLATE NO. 17 SHEET C8.09.
2	REMOVE EXISTING CAP AND INSTALL WATER LINE (SIZE PER PLAN) PER UDACS PLATE No. 17 SHEET C8.09.
3	INSTALL 2" RPPA PER UDACS PLATE No. 8 SHEET C8.09.
4	INSTALL FIRE HYDRANT ASSEMBLY PER UDACS PLATE NO. 40 SHEET C8.10.
5	INSTALL INCREASER/REDUCER (SIZE PER PLAN) PER UDACS PLATE No. 30 SHEET C8.09.
6	INSTALL 45° BEND (SAME SIZE AS LINE) PER UDACS PLATE No. 31 SHEET C8.09.
7	INSTALL GATE VALVE (SAME SIZE AS LINE) PER UDACS PLATE No. 30 & 39 SHEET C8.10.
8	INSTALL TEE (SIZE PER PLAN) PER UDACS PLATE No. 31 SHEET C8.09.
9	INSTALL A VALVE BOX PER UDACS PLATE No. 39 SHEET C8.09.(SIZE PER PLUMBING PLANS)
10	POINT OF CONNECTION. SEE PLUMBING PLANS FOR CONTINUATION.
11	POINT OF CONNECTION. SEE IRRIGATION PLANS FOR CONTINUATION.
12	POINT OF CONNECTION. SEE WATER PLAY PLANS FOR CONTINUATION.
13	INSTALL 11 ¼° BEND (SAME SIZE AS LINE) PER UDACS PLATE No. 31 SHEET C8.09.
14	INSTALL 90° BEND (SAME SIZE AS LINE) PER UDACS PLATE No. 31 SHEET C8.09.
15	INSTALL 5° BEND (SAME SIZE AS LINE) PER UDACS PLATE No. 31 SHEET C8.09.
16	INSTALL 22 ½° BEND (SAME SIZE AS LINE) PER UDACS PLATE No. 31 SHEET C8.09.
17	POINT OF CONNECTION FOR DRINKING FOUNTAIN. SEE LANDSCAPING PLANS FOR CONTINUATION. DETAIL 1 SHEET L2.01

SEWER CONSTRUCTION NOTES

NO.	ITEM
	*SS STD PER DESIGN AND CONSTRUCTION STANDARDS FOR WASTEWATER COLLECTION SYSTEMS
1	CONNECT TO EXISTING 8" SANITARY SEWER. CONTRACTOR TO CONFIRM INVERT ELEVATION.
2	INSTALL PRIVATE PVC (SDR-35) SANITARY SEWER LINE (SIZE PER PLAN) PER DCSWCS DWG. NO. SD-15 SHEET C8.11.
3	POINT OF CONNECTION. SEE PLUMBING PLANS FOR CONTINUATION AND USE.
4	INSTALL SANITARY SEWER CLEANOUT PER DCSWCS SD-26 SHEET C8.11 (SIZE PER PLAN). *WITH TRAFFIC RATED LID*
5	INSTALL JENSEN PRECAST OR EQUAL 500 GAL SAND-OIL INTERCEPTOR PER SEPARATE PLUMBING PERMIT.
6	INSTALL 2' DIAMETER JENSEN PRECAST OR EQUAL SAMPLE BOX WITH PIPE CONNECTORS PER DETAIL 16 SHEET C8.04.
7	INSTALL WYE PER DCSWCS DWG. SD-22 SHEET C8.11 (SIZE PER PLAN) .
8	INSTALL INCREASER/REDUCER (SIZE PER PLAN)
9	3"ø VENT POLE. SEE DETAIL 13 SHEET C8.03. (SEPARATE PLUMBING PERMIT)
10	INSTALL 36" SHALLOW SSMH 'C' PER DCSWCS DWG. SD-13 (PRIVATE) SHEET C8.11.
11	INSTALL 48" SSMH PER DCSWCS DWG. SD-1A AND SD-1B (PRIVATE) SHEET C8.11.
12	RAISE EXISTING MANHOLE RING AND COVER TO GRADE.
13	POINT OF CONNECTION. SEE LANDSCAPING PLANS FOR DETAILS.

SOUTHWEST GAS CORPORATION — 7.16.18 DATE

APPROVED FOR CONSTRUCTION
LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES
Project No.: 126421 First Approval Date: 7/26/18
LVVWD Approved Fire Flow 1,500 GPM at 20 PSI Residual

CITY OF LAS VEGAS NEVADA

REVISIONS

CONSULTANT

COLLINS ENGINEERS
3130 S. DURANGO DR., SUITE 404
LAS VEGAS, NV 89117
PHONE: (702) 248-8000
FAX: (702) 248-8070
www.collinsengr.com

DEPARTMENT OF PUBLIC WORKS

GILMORE CLIFF SHADOWS PARK
NEW CITY OF LAS VEGAS PARK

SANITARY SEWER PLAN AND PROFILE 1

STAMP

PROFESSIONAL ENGINEER STATE OF NEVADA
ARMANDO PINEDA
EXP. 12-31-19
CIVIL
NO. 18290
7-19-19

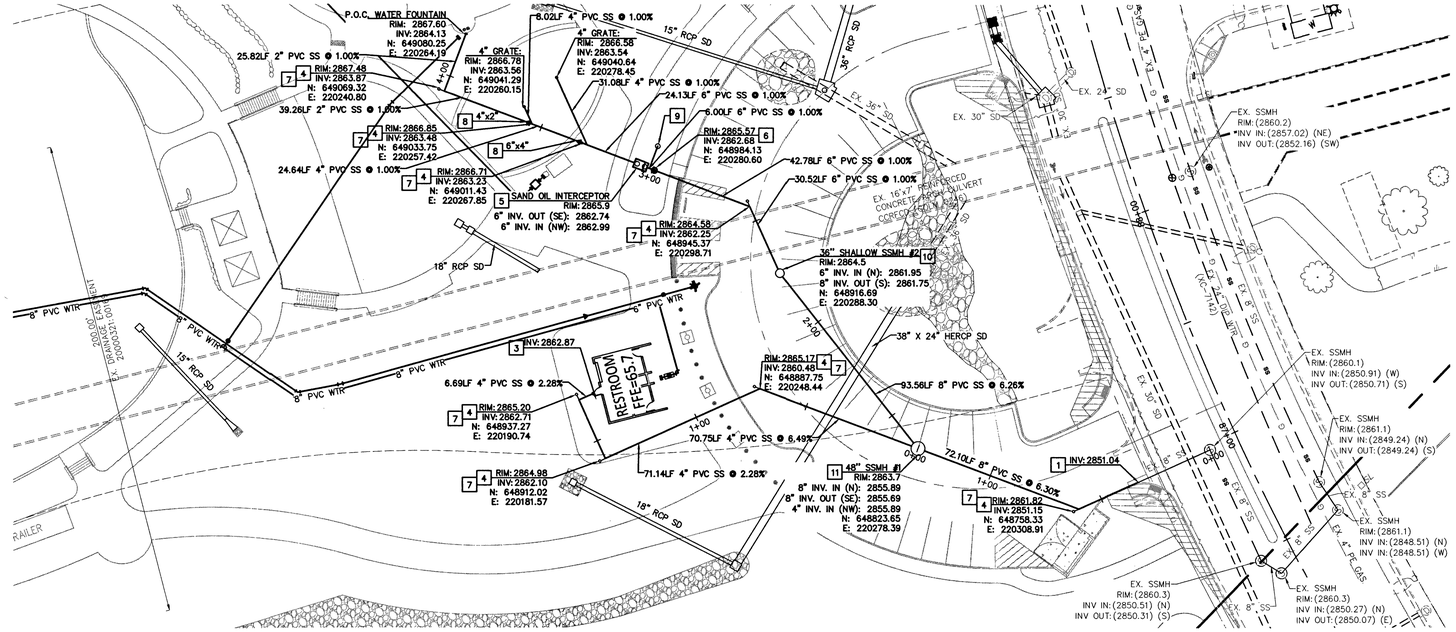
OWNER: CITY OF LAS VEGAS
DEPARTMENT OF PUBLIC WORKS

DEVELOPMENT SERVICES CENTER
333 N. RANCHO DRIVE
LAS VEGAS, NEVADA. 89106
PHONE: (702) 229-6276
FAX: (702) 384-4845

DRAWN	DSI
FILE	180101445
DATE	6/18/2018
SCALE	SEE PLAN
BID NO	18.66085.DD
CLV DWG NO	650.116
HANSEN NO	66085
	L18-00891
SHT NO	C5.05

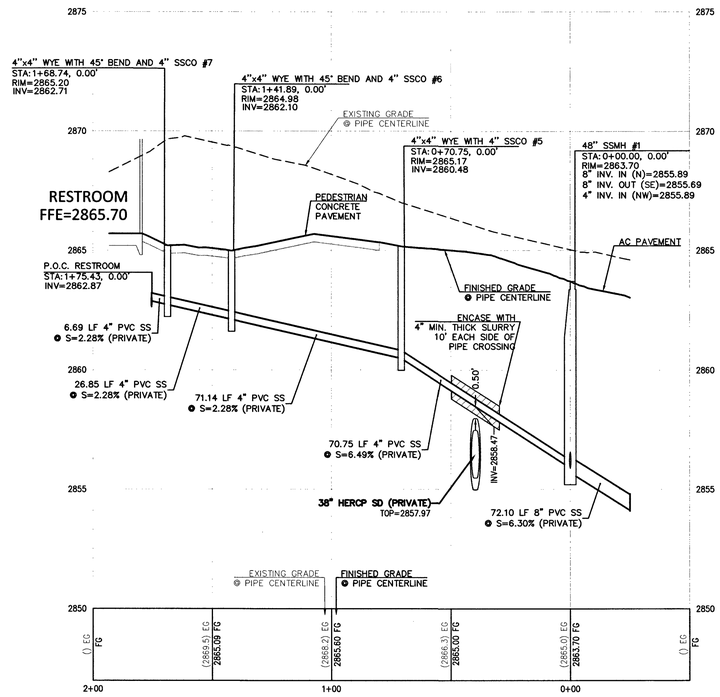
PROJ #126421 QS 137-12-NW

H:\CAD\LAND\10297\DWG\SHEETS\10297-C5.05-SS P&P.DWG 07/18/2018 03:06:59 PM



SANITARY SEWER - PLAN VIEW

SCALE H:1"=30'



RESTROOM SEWER LATERAL - PROFILE VIEW

SCALE H:1"=30'; V:1"=3'

GRAPHIC SCALE

30 0 15 30

SCALE: 1"=30'

BASIS OF BEARING

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

BENCHMARK

PROJECT DATUM: NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).

CITY OF LAS VEGAS BENCHMARK: 7LV0911NES
ELEVATION: 2931.57 (US SURVEY FEET)
893.54 (METERS)

BEING A BLM BRASS CAP (HIGH PT.) SECTION 2/1 OVER 11/12, PI ALEXANDER ROAD & SECTION LINE.

WATER CONSTRUCTION NOTES

NO.	ITEM	UDACS: PLATE NO. PER UNIFORM DESIGN AND CONSTRUCTION STANDARDS FOR WATER DISTRIBUTION SYSTEMS
1		INSTALL WATER LINE (SIZE PER PLAN) PER UDACS PLATE NO. 17 SHEET C8.09.
2		REMOVE EXISTING CAP AND INSTALL WATER LINE (SIZE PER PLAN) PER UDACS PLATE No. 17 SHEET C8.09.
3		INSTALL 2" RPPA PER UDACS PLATE No. 8 SHEET C8.09.
4		INSTALL FIRE HYDRANT ASSEMBLY PER UDACS PLATE NO. 40 SHEET C8.10.
5		INSTALL INCREASER/REDUCER (SIZE PER PLAN) PER UDACS PLATE No. 30 SHEET C8.09.
6		INSTALL 45° BEND (SAME SIZE AS LINE) PER UDACS PLATE No. 31 SHEET C8.09.
7		INSTALL GATE VALVE (SAME SIZE AS LINE) PER UDACS PLATE No. 30 & 39 SHEET C8.10.
8		INSTALL TEE (SIZE PER PLAN) PER UDACS PLATE No. 31 SHEET C8.09.
9		INSTALL A VALVE BOX PER UDACS PLATE No. 39 SHEET C8.09.(SIZE PER PLUMBING PLANS)
10		POINT OF CONNECTION. SEE PLUMBING PLANS FOR CONTINUATION.
11		POINT OF CONNECTION. SEE IRRIGATION PLANS FOR CONTINUATION.
12		POINT OF CONNECTION. SEE WATER PLAY PLANS FOR CONTINUATION.
13		INSTALL 11 ¼° BEND (SAME SIZE AS LINE) PER UDACS PLATE No. 31 SHEET C8.09.
14		INSTALL 90° BEND (SAME SIZE AS LINE) PER UDACS PLATE No. 31 SHEET C8.09.
15		INSTALL 5° BEND (SAME SIZE AS LINE) PER UDACS PLATE No. 31 SHEET C8.09.
16		INSTALL 22 ½° BEND (SAME SIZE AS LINE) PER UDACS PLATE No. 31 SHEET C8.09.
17		POINT OF CONNECTION FOR DRINKING FOUNTAIN. SEE LANDSCAPING PLANS FOR CONTINUATION. DETAIL 1 SHEET L2.01

SEWER CONSTRUCTION NOTES

NO.	ITEM	*SS STD PER DESIGN AND CONSTRUCTION STANDARDS FOR WASTEWATER COLLECTION SYSTEMS
1		CONNECT TO EXISTING 8" SANITARY SEWER. CONTRACTOR TO CONFIRM INVERT ELEVATION.
2		INSTALL PRIVATE PVC (SDR-35) SANITARY SEWER LINE (SIZE PER PLAN) PER DCSWCS DWG. NO. SD-15 SHEET C8.11.
3		POINT OF CONNECTION. SEE PLUMBING PLANS FOR CONTINUATION AND USE.
4		INSTALL SANITARY SEWER CLEANOUT PER DCSWCS SD-26 SHEET C8.11 (SIZE PER PLAN). "WITH TRAFFIC RATED LID"
5		INSTALL JENSEN PRECAST OR EQUAL 500 GAL SAND-OIL INTERCEPTOR PER SEPARATE PLUMBING PERMIT.
6		INSTALL 2' DIAMETER JENSEN PRECAST OR EQUAL SAMPLE BOX WITH PIPE CONNECTORS PER DETAIL 16 SHEET C8.04.
7		INSTALL WYE PER DCSWCS DWG. SD-22 SHEET C8.11 (SIZE PER PLAN) .
8		INSTALL INCREASER/REDUCER (SIZE PER PLAN)
9		3"ø VENT POLE. SEE DETAIL 13 SHEET C8.03. (SEPARATE PLUMBING PERMIT)
10		INSTALL 36" SHALLOW SSMH 'C' PER DCSWCS DWG. SD-13 (PRIVATE) SHEET C8.11.
11		INSTALL 48" SSMH PER DCSWCS DWG. SD-1A AND SD-1B (PRIVATE) SHEET C8.11.
12		RAISE EXISTING MANHOLE RING AND COVER TO GRADE.
13		POINT OF CONNECTION. SEE LANDSCAPING PLANS FOR DETAILS.

SOUTHWEST GAS CORPORATION — 7/16/18 DATE

APPROVED FOR CONSTRUCTION
LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES
Project No. 126421 First Approval Date : 7/26/18
LVVWD Approved Fire Flow 1,500 GPM at 20 PSI Residual

CALL BEFORE YOU DIG
AVOID CUTTING UNDERGROUND UTILITY LINES. IT'S COSTLY
Call 811
1-800-227-2600

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

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

COLLINS ENGINEERS ASSUMES NO RESPONSIBILITY FOR EXISTING UTILITY LOCATIONS AND ELEVATIONS. THE UTILITIES SHOWN ON THIS DRAWING HAVE BEEN PLOTTED FROM THE BEST AVAILABLE INFORMATION. IT IS, HOWEVER, THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE LOCATION AND ELEVATION OF ALL UTILITIES PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION. CONTRACTOR TO FIELD VERIFY ALL EXISTING SITE CONDITIONS PRIOR TO CONSTRUCTION. IF A CONFLICT EXISTS BETWEEN WHAT IS SHOWN ON THESE DRAWINGS AND WHAT EXISTS IN THE FIELD, THE CONTRACTOR IS TO NOTIFY THE ARCHITECT OR ENGINEER IMMEDIATELY.

LEGEND

EXISTING	PROPOSED		EXISTING	PROPOSED		EXISTING	PROPOSED		EXISTING	PROPOSED	
(0.00) XXX	0.00 XXX	ELEVATION TAG	E	E	POWER LINE/POLE			FIRE HYDRANT			PL-RIGHT-OF-WAY
		DRAIN INLET	T	T	TELEPHONE LINE			FIRE DEPARTMENT CONNECTION			PL-ADJACENT
W	W	WATER LINE						WATER VALVE			CENTERLINE
SS	SS	SANITARY SEWER LINE									EASEMENT LINE
D	D	STORM SEWER LINE						REDUCER			FLOW LINE
G	G	GAS LINE						SEWER MANHOLE			SIGN W/POLE
		RETAINING WALL						CLEANOUT			SAWCUT LINE
		SCREEN WALL						GAS VALVE			AREA LIGHT
		UTILITY POLE									WATER METER
		STREET LIGHT									

EXISTING	PROPOSED	
		AC PAVEMENT
		6" TYPE "A" CURB
		24" TYPE "L" CURB & GUTTER
		30" ROLL CURB
	BWV	BACK WATER VALVE

H:\CAD\LAND\10297\DWG\SHEETS\10297-CS.05-SS P&P.DWG 07/18/2018 03:07:46 PM

CITY OF LAS VEGAS
PUBLIC WORKS
DEPARTMENT OF PUBLIC WORKS

REVISIONS

CONSULTANT
COLLINS ENGINEERS
3130 S. DURANGO DR., SUITE 404
LAS VEGAS, NV 89117
PHONE: (702) 248-8000
FAX: (702) 248-8070
www.collinsengr.com

GILMORE CLIFF SHADOWS PARK
NEW CITY OF LAS VEGAS PARK
SANITARY SEWER PLAN AND PROFILE 2

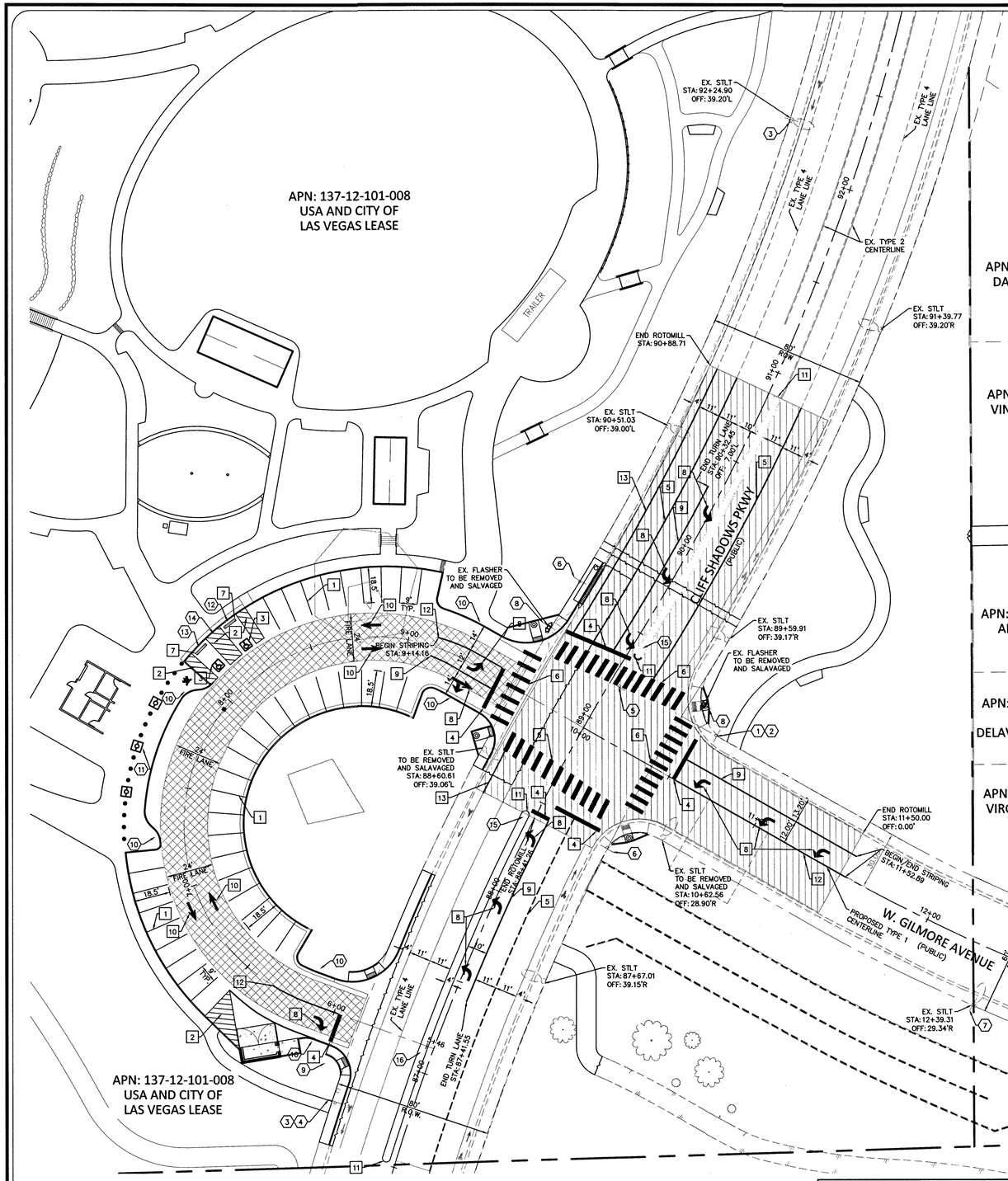
STAMP
PROFESSIONAL ENGINEER - STATE OF NEVADA
ARMANDO PINEDA
EXP. 12-31-19
CIVIL
NO. 18290
7-19-18

OWNER: CITY OF LAS VEGAS
DEPARTMENT OF PUBLIC WORKS
DEVELOPMENT SERVICES CENTER
333 N. RANCHO DRIVE
LAS VEGAS, NEVADA 89106
PHONE: (702) 229-6276
FAX: (702) 384-4846

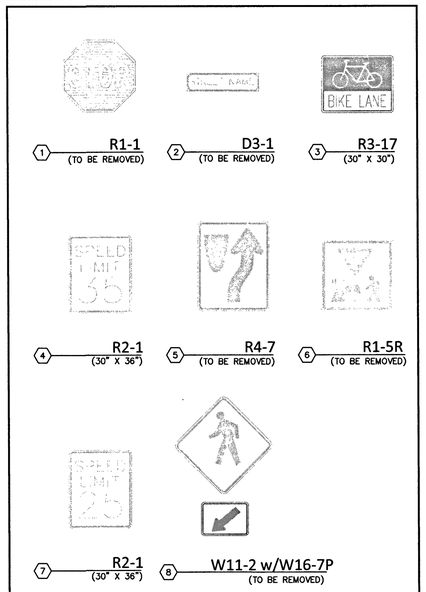
DRAWN	DSI
FILE	180101445
DATE	6/18/2018
SCALE	SEE PLAN
BID NO	18.66085.DD
CLV DWG NO	650.116
HANSEN NO	66085
	L18-00891
SHT NO	C5.06

PROJ #126421 QS 137-12-NW

DRAWINGS, AS INSTRUMENTS OF SERVICE ARE AND SHALL REMAIN THE PROPERTY OF COLLINS ENGINEERS. THE IDEAS AND DESIGNS INCORPORATED HEREIN, AS AN INSTRUMENT OF SERVICE, ARE FOR USE ONLY FOR THE PROJECT FOR WHICH THEY WERE PREPARED AND NOT FOR ANY OTHER PROJECT OR ADDITIONS TO THIS PROJECT AS A CAD FILE. ANY REUSE WITHOUT WRITTEN VERIFICATION OR ADAPTATION BY COLLINS ENGINEERS FOR THE SPECIFIC PURPOSE INTENDED WILL BE AT USER'S SOLE RISK AND WITHOUT LIABILITY OR LEGAL EXPOSURE TO COLLINS ENGINEERS. ANY AND ALL CLAIMS ARISING FROM OR IN CONNECTION WITH SUCH REUSE WILL BE RECEIVED AND ACCEPTED BY THE USER AND BY USER'S SUCCESSORS AND ASSIGNS. USER SHALL INDEMNIFY AND HOLD HARMLESS COLLINS ENGINEERS AND ITS OFFICERS, EMPLOYEES AND CONSULTANTS FROM ALL LOSSES, DAMAGES, LIABILITIES OR COSTS, INCLUDING REASONABLE ATTORNEY'S FEES AND COURT COSTS, ARISING OUT OF OR RESULTING THEREFROM.

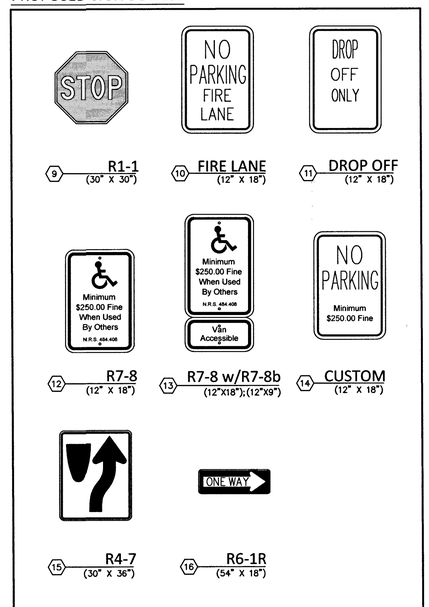


EXISTING SIGN DETAILS



1. R1-1 (30" X 30") (TO BE REMOVED)
2. D3-1 (TO BE REMOVED)
3. R3-17 (30" X 30")
4. R2-1 (30" X 36")
5. R4-7 (TO BE REMOVED)
6. R1-5R (TO BE REMOVED)
7. R2-1 (30" X 36")
8. W11-2 w/W16-7P (TO BE REMOVED)

PROPOSED SIGN DETAILS



9. R1-1 (30" X 30")
10. FIRE LANE (12" X 18")
11. DROP OFF (12" X 18")
12. R7-8 (12" X 18")
13. R7-8 w/R7-8b (12"X18");(12"X9")
14. CUSTOM (12" X 18")
15. R4-7 (30" X 36")
16. R6-1R (54" X 18")

NOTE:
RETURN SALVAGED EQUIPMENT TO THE CITY OF LAS VEGAS. CONTACT: MIKE PERRY AT (702) 229-6448 FOR DELIVERY.

ROTOMILL AREA IN ROW TO A DEPTH OF 1" AND TO BE REPLACED WITH OPEN GRADE

CALL BEFORE YOU DIG
AVOID CUTTING UNDERGROUND UTILITY LINES. IT'S COSTLY
Call 811 or 1-800-227-2600

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

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

COLLINS ENGINEERS ASSUMES NO RESPONSIBILITY FOR EXISTING UTILITY LOCATIONS AND ELEVATIONS. THE UTILITIES SHOWN ON THIS DRAWING HAVE BEEN PLOTTED FROM THE BEST AVAILABLE INFORMATION. IT IS, HOWEVER, THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE LOCATION AND ELEVATION OF ALL UTILITIES PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION. CONTRACTOR TO FIELD VERIFY ALL EXISTING SITE CONDITIONS PRIOR TO CONSTRUCTION. IF A CONFLICT EXISTS BETWEEN WHAT IS SHOWN ON THESE DRAWINGS AND WHAT EXISTS IN THE FIELD, THE CONTRACTOR IS TO NOTIFY THE ARCHITECT OR ENGINEER IMMEDIATELY.

LEGEND

EXISTING	PROPOSED	
(0.00) XXX	0.00 XXX	ELEVATION TAG
		DRAIN INLET
		RETAINING WALL
		SCREEN WALL
		UTILITY POLE
		STREET LIGHT
-E-	-E-	POWER LINE/POLE
-T-	-T-	TELEPHONE LINE
-W-	-W-	WATER LINE
-SS-	-SS-	SANITARY SEWER LINE
-D-	-D-	STORM SEWER LINE
-G-	-G-	GAS LINE
Ⓓ	Ⓓ	STORM MANHOLE
		FIRE HYDRANT
		FIRE DEPARTMENT CONNECTION
		WATER VALVE
		REDUCER
Ⓢ	Ⓢ	SEWER MANHOLE
		CLEANOUT
		GAS VALVE
		PL-RIGHT-OF-WAY
		PL-ADJACENT
		CENTERLINE
		EASEMENT LINE
		FLOW LINE
		SIGN W/POLE
		SAWCUT LINE
		AREA LIGHT
		WATER METER
		AC PAVEMENT
		6" TYPE "A" CURB
		24" TYPE "L" CURB & GUTTER
		30" ROLL CURB
	BWV	BACK WATER VALVE

GRAPHIC SCALE

30 0 15 30
SCALE: 1"=30'

BASIS OF BEARING

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

LINEAR UNIT: US SURVEY FOOT (SFT)
DATUM (REFERENCE FRAME): NAD 1983 (2011) EPOCH 2010
SYSTEM: NEVADA COORDINATE REFERENCE SYSTEM (NCRS)
ZONE: LAS VEGAS
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: 656,166.6667 SFT (200,000.000 M)
EASTING AT CENTRAL MERIDIAN: 328,083.3333 SFT (100,000.000 M)
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.

BENCHMARK

PROJECT DATUM: NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).

CITY OF LAS VEGAS BENCHMARK: 7LV0911NES
BEING A BLM BRASS CAP (HIGH PT.) SECTION 2/1 OVER 11/12, PI ALEXANDER ROAD & SECTION LINE.

ELEVATION: 2931.57 (US SURVEY FEET)
893.54 (METERS)

SIGNAGE CONSTRUCTION NOTES

NO.	ITEM USDCCA: UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA.
1	EXISTING R1-1 (STOP) SIGN TO BE REMOVED. SEE DETAIL HEREON.
2	EXISTING D3-1 (STREET NAME) SIGN TO BE REMOVED. SEE DETAIL HEREON.
3	EXISTING R3-17 (BIKE LANE) SIGN. SEE DETAIL HEREON.
4	EXISTING R2-1 (SPEED LIMIT;35 MPH) SIGN. SEE DETAIL HEREON.
5	EXISTING R4-7 SIGN TO BE REMOVED
6	EXISTING R1-5R SIGN TO BE REMOVED. SEE DETAIL HEREON.
7	EXISTING R2-1 (SPEED LIMIT;25 MPH) SIGN. (TO BE REMOVED) SEE DETAIL HEREON.
8	EXISTING W11-2 & W16-7P (PEDESTRIAN CROSSING) SIGN. SEE DETAIL HEREON.
9	INSTALL R1-1 (STOP) SIGN PER USDCCA NO. 249.1. SEE DETAIL HEREON.
10	INSTALL FIRE LANE SIGN PER USDCCA NO. 249.1. SEE DETAIL HEREON.
11	INSTALL DROP OFF ONLY SIGN PER USDCCA NO. 249.1. SEE DETAIL HEREON.
12	INSTALL SIGN R7-8 ADA ACCESSIBLE PARKING SIGN PER USDCCA NO 249.1. SEE DETAIL HEREON.
13	INSTALL SIGN R7-8A, R7-8B ADA VAN ACCESSIBLE PARKING SIGN PER USDCCA NO. 249.1. SEE DETAIL HEREON.
14	INSTALL CUSTOM "NO PARKING SIGN WITH $250.00 FINE" PER USDCCA NO. 249.1. SEE DETAIL HEREON.
15	INSTALL SIGN R4-7 PER USDCCA NO 249.1. SEE DETAIL HEREON.
16	INSTALL SIGN R6-1R ONE WAY SIGN PER USDCCA NO 249.1. SEE DETAIL HEREON.

STRIPING CONSTRUCTION NOTES

NO.	ITEM USDCCA: UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA.
1	INSTALL 4" WHITE PAINTED PARKING STALL LINE, (TYP.)
2	INSTALL 4" WHITE PAINTED LINE @ 45° AT 3' ON CENTER AS SHOWN.
3	INSTALL ADA PARKING SPACE MARKINGS PER MUTCD FIGURE 3B.22.
4	INSTALL 2' WIDE STOP BAR.
5	INSTALL TYPE 4 LANE LINE PER USDCCA NO 244.1 SEE SHEET C8.06
6	INSTALL CROSSWALK PER USDCCA NO 254. SEE SHEET C8.05
7	INSTALL PRECAST BUMPER BLOCK PER USDCCA DRAWING NO. 238. SEE SHEET C8.06
8	INSTALL ADDED TURN LANE PAVEMENT MARKERS PER USDCCA NO. 246. SEE SHEET C8.06.
9	INSTALL TURN LANE STOARGE LINE PER USDCCA NO. 246. SEE SHEET C8.06.
10	INSTALL PAVEMENT MARKINGS AS SHOWN. 8' TALL.
11	PAINT MEDIAN NOSE REFLECTIVE YELLOW AND INSTALL REFLECTIVE NOSE MARKINGS PER USDCCA NO. 248. SEE SHEET C8.06.
12	INSTALL TYPE 1 CENTERLINE LINE PER USDCCA NO. 244. SEE SHEET C8.06.
13	INSTALL BICYCLE LANE APPROACH PER USDCCA NO. 246.1 SEE SHEET C8.06.

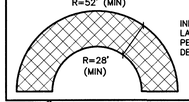
FIRE LANE LEGEND

INDICATES RED PAINTED CURB WITH "NO PARKING – FIRE LANE" PAINTED EVERY 100 FT. PER CITY OF LAS VEGAS FIRE DEPARTMENT GUIDELINES.

INDICATES PROPOSED LOCATION OF FIRE LANE SIGNS TO BE PLACED AT 100' INCREMENTS. FIRE LANE SIGNS SHALL CONFORM TO CITY OF LAS VEGAS FIRE DEPARTMENT GUIDELINES

INSTALL BLUE COLORED REFLECTIVE RAISED PAVEMENT MARKERS ADJACENT TO THE FIRE HYDRANT ON ALL IMPROVED FIRE APPARATUS ACCESS ROADWAYS WITH HARD SURFACES, INCLUDING BOTH PUBLIC AND PRIVATE ROADS, STREETS, OR FIRE LANES:

- ON ROADWAYS WITH NO PARKING PERMITTED ON THE HYDRANT SIDE; EIGHT (8) FEET FROM THE FACE OF THE CURB ON THE HYDRANT SIDE.
- ON ROADWAYS WITH PARKING PERMITTED ON THE HYDRANT SIDE; (16) FEET FROM THE FACE OF THE CURB ON THE HYDRANT SIDE.



INDICATES 24' MINIMUM WIDTH FIRE LANE AND TYPICAL TURNING RADIUS PER CITY OF LAS VEGAS FIRE DEPARTMENT GUIDELINES

7-23-18
LAS VEGAS FIRE & RESCUE DATE

CITY OF LAS VEGAS NEVADA

REVISIONS

CONSULTANT
COLLINS ENGINEERS
3130 S. DURANGO DR., SUITE 404
LAS VEGAS, NV 89117
PHONE: (702) 248-8000
FAX: (702) 248-8070
www.collinsengr.com

DEPARTMENT OF PUBLIC WORKS

GILMORE CLIFF SHADOWS PARK
NEW CITY OF LAS VEGAS PARK

SIGNING & STRIPING PLAN

STAMP
ARMANDO PINEDA
EXP. 12-31-19
CIVIL
NO. 18290
STATE OF NEVADA

OWNER: CITY OF LAS VEGAS
DEPARTMENT OF PUBLIC WORKS

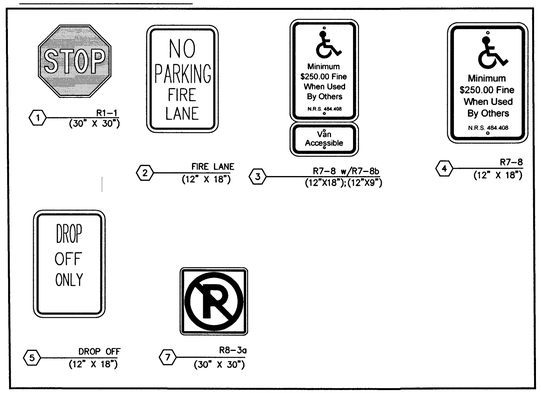
DEVELOPMENT SERVICES CENTER
333 N. RANCHO DRIVE
LAS VEGAS, NEVADA 89106
PHONE: (702) 229-6276
FAX: (702) 384-4846

DRAWN	DSI
FILE	180101445
DATE	6/18/2018
SCALE	SEE PLAN
BID NO	18.66085.DD
CLV DWG NO	650.116
HANSEN NO	66085
	L18-00891
SHT NO	C6.01

DRAWINGS, SPECIFICATIONS, OR DESIGNS ARE THE PROPERTY OF COLLINS ENGINEERS, INC. AND ARE NOT TO BE USED IN WHOLE OR IN PART FOR ANY PROJECT OTHER THAN THE PROJECT FOR WHICH THEY WERE PREPARED AND WITHOUT THE WRITTEN CONSENT OF COLLINS ENGINEERS, INC. ALL RIGHTS RESERVED. COPYRIGHT © 2018 COLLINS ENGINEERS, INC.

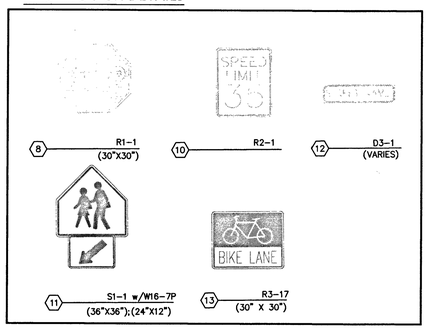
H:\CAD\LAND\10297\DWG\SHEETS\10297-C6.01-STR.DWG 07/18/2018 03:10:30 PM

PROPOSED SIGN DETAILS

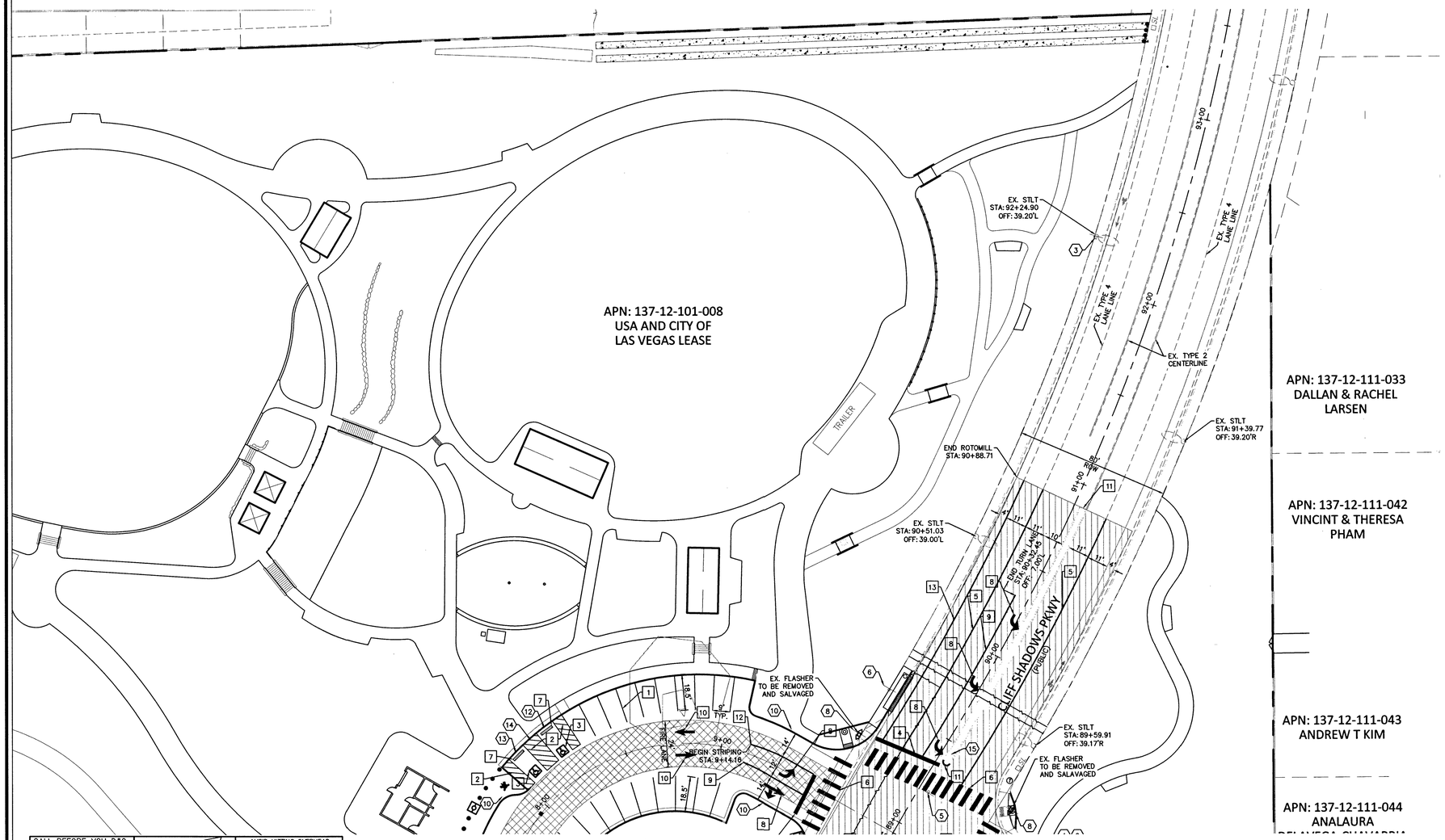


1. R1-1 (30" X 30")
2. FIRE LANE (12" X 18")
3. R7-8 w/R7-8b (12"X18");(12"X9")
4. R7-8 (12" X 18")
5. DROP OFF (12" X 18")
7. R8-3a (30" X 30")

EXISTING SIGN DETAILS



8. R1-1 (30"X30")
10. R2-1
12. D3-1 (VARIES)
11. S1-1 w/W16-7P (36"X36");(24"X12")
13. R3-17 (30" X 30")



CALL BEFORE YOU D&G
AVOID CUTTING UNDERGROUND UTILITY LINES. IT'S COSTLY
Call 811 or 1-800-227-2600

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

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

COLLINS ENGINEERS ASSUMES NO RESPONSIBILITY FOR EXISTING UTILITY LOCATIONS AND ELEVATIONS. THE UTILITIES SHOWN ON THIS DRAWING HAVE BEEN PLOTTED FROM THE BEST AVAILABLE INFORMATION. IT IS, HOWEVER, THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE LOCATION AND ELEVATION OF ALL UTILITIES PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION. CONTRACTOR TO FIELD VERIFY ALL EXISTING SITE CONDITIONS PRIOR TO CONSTRUCTION. IF A CONFLICT EXISTS BETWEEN WHAT IS SHOWN ON THESE DRAWINGS AND WHAT EXISTS IN THE FIELD, THE CONTRACTOR IS TO NOTIFY THE ARCHITECT OR ENGINEER IMMEDIATELY.

LEGEND

EXISTING	PROPOSED	
(0.00) XXX	0.00 XXX	ELEVATION TAG
		DRAIN INLET
		RETAINING WALL
		SCREEN WALL
		UTILITY POLE
		STREET LIGHT
-E-	-E-	POWER LINE/POLE
-T-	-T-	TELEPHONE LINE
-W-	-W-	WATER LINE
-SS-	-SS-	SANITARY SEWER LINE
-D-	-D-	STORM SEWER LINE
-G-	-G-	GAS LINE
Ⓓ	Ⓓ	STORM MANHOLE
		FIRE HYDRANT
		FIRE DEPARTMENT CONNECTION
		WATER VALVE
		REDUCER
Ⓢ	Ⓢ	SEWER MANHOLE
		CLEANOUT
		GAS VALVE
		PL-RIGHT-OF-WAY
		PL-ADJACENT
		CENTERLINE
		EASEMENT LINE
		FLOW LINE
		SIGN W/POLE
		SAWCUT LINE
		AREA LIGHT
		WATER METER
		AC PAVEMENT
		6" TYPE "A" CURB
		24" TYPE "L" CURB & GUTTER
		30" ROLL CURB
BWV	BWV	BACK WATER VALVE

GRAPHIC SCALE

30 0 15 30
SCALE: 1"=30'

BASIS OF BEARING

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

LINEAR UNIT: US SURVEY FOOT (SFT)
DATUM (REFERENCE FRAME): NAD 1983 (2011) EPOCH 2010
SYSTEM: NEVADA COORDINATE REFERENCE SYSTEM (NCRS)
ZONE: LAS VEGAS
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: 656,166.6667 SFT (200,000.000 M)
EASTING AT CENTRAL MERIDIAN: 328,083.3333 SFT (100,000.000 M)
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.

BENCHMARK

PROJECT DATUM: NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).

CITY OF LAS VEGAS BENCHMARK: 7LV0911NES
BEING A BLM BRASS CAP (HIGH PT.) SECTION 2/1 OVER 11/12, PI ALEXANDER ROAD & SECTION LINE.

ELEVATION: 2931.57 (US SURVEY FEET)
893.54 (METERS)

SIGNAGE CONSTRUCTION NOTES

NO.	ITEM USDCCA: UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA.
1	EXISTING R1-1 (STOP) SIGN TO BE REMOVED. SEE DETAIL HEREON.
2	EXISTING D3-1 (STREET NAME) SIGN TO BE REMOVED. SEE DETAIL HEREON.
3	EXISTING R3-17 (BIKE LANE) SIGN. SEE DETAIL HEREON.
4	EXISTING R2-1 (SPEED LIMIT; 35 MPH) SIGN. SEE DETAIL HEREON.
5	EXISTING R4-7 SIGN TO BE REMOVED
6	EXISTING R1-5R SIGN TO BE REMOVED. SEE DETAIL HEREON.
7	EXISTING R2-1 (SPEED LIMIT; 25 MPH) SIGN. (TO BE REMOVED) SEE DETAIL HEREON.
8	EXISTING W11-2 & W16-7P (PEDESTRIAN CROSSING) SIGN. SEE DETAIL HEREON.
9	INSTALL R1-1 (STOP) SIGN PER USDCCA NO. 249.1. SEE DETAIL HEREON.
10	INSTALL FIRE LANE SIGN PER USDCCA NO. 249.1. SEE DETAIL HEREON.
11	INSTALL DROP OFF ONLY SIGN PER USDCCA NO. 249.1. SEE DETAIL HEREON.
12	INSTALL SIGN R7-8 ADA ACCESSIBLE PARKING SIGN PER USDCCA NO 249.1. SEE DETAIL HEREON.
13	INSTALL SIGN R7-8A, R7-8B ADA VAN ACCESSIBLE PARKING SIGN PER USDCCA NO. 249.1. SEE DETAIL HEREON.
14	INSTALL CUSTOM "NO PARKING SIGN WITH $250.00 FINE" PER USDCCA NO. 249.1. SEE DETAIL HEREON.
15	INSTALL SIGN R4-7 PER USDCCA NO 249.1. SEE DETAIL HEREON.
16	INSTALL SIGN R6-1R ONE WAY SIGN PER USDCCA NO 249.1. SEE DETAIL HEREON.

STRIPING CONSTRUCTION NOTES

NO.	ITEM USDCCA: UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA.
1	INSTALL 4" WHITE PAINTED PARKING STALL LINE, (TYP.)
2	INSTALL 4" WHITE PAINTED LINE @ 45' AT 3' ON CENTER AS SHOWN.
3	INSTALL ADA PARKING SPACE MARKINGS PER MUTCD FIGURE 3B.22.
4	INSTALL 2' WIDE STOP BAR.
5	INSTALL TYPE 4 LANE LINE PER USDCCA NO 244.1 SEE SHEET C8.06
6	INSTALL CROSSWALK PER USDCCA NO 254. SEE SHEET C8.05
7	INSTALL PRECAST BUMPER BLOCK PER USDCCA DRAWING NO. 238. SEE SHEET C8.06.
8	INSTALL ADDED TURN LANE PAVEMENT MARKERS PER USDCCA NO. 246. SEE SHEET C8.06.
9	INSTALL TURN LANE STOARGE LINE PER USDCCA NO. 246. SEE SHEET C8.06.
10	INSTALL PAVEMENT MARKINGS AS SHOWN. 8' TALL.
11	PAINT MEDIAN NOSE REFLECTIVE YELLOW AND INSTALL REFLECTIVE NOSE MARKINGS PER USDCCA NO. 248. SEE SHEET C8.06.
12	INSTALL TYPE 1 CENTERLINE LINE PER USDCCA NO. 244. SEE SHEET C8.06.
13	INSTALL BICYCLE LANE APPROACH PER USDCCA NO. 246.1 SEE SHEET C8.06.

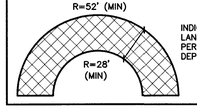
FIRE LANE LEGEND

INDICATES RED PAINTED CURB WITH "NO PARKING – FIRE LANE" PAINTED EVERY 100 FT. PER CITY OF LAS VEGAS FIRE DEPARTMENT GUIDELINES.

INDICATES PROPOSED LOCATION OF FIRE LANE SIGNS TO BE PLACED AT 100' INCREMENTS. FIRE LANE SIGNS SHALL CONFORM TO CITY OF LAS VEGAS FIRE DEPARTMENT GUIDELINES

INSTALL BLUE COLORED REFLECTIVE RAISED PAVEMENT MARKERS ADJACENT TO THE FIRE HYDRANT ON ALL IMPROVED FIRE APPARATUS ACCESS ROADWAYS WITH HARD SURFACES, INCLUDING BOTH PUBLIC AND PRIVATE ROADS, STREETS, OR FIRE LANES:

- ON ROADWAYS WITH NO PARKING PERMITTED ON THE HYDRANT SIDE; EIGHT (8) FEET FROM THE FACE OF THE CURB ON THE HYDRANT SIDE.
- ON ROADWAYS WITH PARKING PERMITTED ON THE HYDRANT SIDE; (16) FEET FROM THE FACE OF THE CURB ON THE HYDRANT SIDE.



INDICATES 24' MINIMUM WIDTH FIRE LANE AND TYPICAL TURNING RADIUS PER CITY OF LAS VEGAS FIRE DEPARTMENT GUIDELINES

ROTOMILL AREA IN ROW TO A DEPTH OF 1" AND TO BE REPLACED WITH OPEN GRADE

CITY OF LAS VEGAS NEVADA

REVISIONS

CONSULTANT

COLLINS ENGINEERS
3130 S. DURANGO DR., SUITE 404
LAS VEGAS, NV 89117
PHONE: (702) 248-8000
FAX: (702) 248-8070
www.collinsengr.com

DEPARTMENT OF PUBLIC WORKS

GILMORE CLIFF SHADOWS PARK
NEW CITY OF LAS VEGAS PARK

SIGNING & STRIPING PLAN

STAMP

PROFESSIONAL ENGINEER STATE OF NEVADA
ARMANDO PINEDA
EXP. 12-31-19
CIVIL
NO. 18290
7-19-18

OWNER: CITY OF LAS VEGAS
DEPARTMENT OF PUBLIC WORKS

DEVELOPMENT SERVICES CENTER
333 N. RANCHO DRIVE
LAS VEGAS, NEVADA 89106
PHONE: (702) 229-6276
FAX: (702) 384-4846

DRAWN	DSI
FILE	180101445
DATE	6/18/2018
SCALE	SEE PLAN
BID NO	18.66085.DD
CLV DWG NO	650.116
HANSEN NO	66085
	L18-00891
SHT NO	C6.02

H:\CAD\LAND\10297\DWG\SHEETS\10297-C6.01-STR.DWG 07/18/2018 03:10:55 PM

CITY OF LAS VEGAS TRAFFIC NOTES (CIP)

1. ALL WORK PERFORMED ON ANY TRAFFIC SIGNAL COMPONENT MUST BE UNDER THE DIRECT ON-SITE SUPERVISION OF AN IMSA CERTIFIED TECHNICIAN. THE LEVEL OF CERTIFICATION REQUIRED SHALL BE LEVEL II.

2. IF THE CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGE TO ALL EXISTING UTILITIES. THE LOCATIONS OF UNDERGROUND UTILITIES AS SHOWN ON THE PLANS ARE APPROXIMATE ONLY. THE CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES TO VERIFY IN THE FIELD THE LOCATIONS OF THEIR INSTALLATIONS 72 HOURS PRIOR TO CONSTRUCTION.

CALL-BEFORE-YOU-OVERHEAD	1-702-227-2929
CALL-BEFORE-YOU-DIG	1-800-227-2600
STREETLIGHTS	1-702-229-6331
F.A.S.T.	1-702-432-5300

3. ALL TRAFFIC SIGNAL INSTALLATIONS SHALL CONFORM TO THE UNIFORM STANDARD DRAWINGS SPECIFICATIONS AND SPECIAL PROVISIONS FOR PUBLIC WORKS' CONSTRUCTION OFF-SITE IMPROVEMENTS, CLARK COUNTY AREA, NEVADA, VOLUMES I AND II, ADOPTED BY THE REGIONAL TRANSPORTATION COMMISSION APRIL 8, 1992 WITH ALL SUBSEQUENT REVISIONS. BRACKET MOUNTED (SIDE MOUNTED) VEHICLE SIGNAL ASSEMBLIES WITH 2 OR MORE SIGNAL HEADS SHALL HAVE AN ADDITIONAL ELBOW AS SHOWN IN UNIFORM STANDARD DRAWING NUMBER 863 AND SHOWN AS OPTION B IN UNIFORM STANDARD DRAWING NUMBER 844, AND SHALL HAVE A MENERALLAC SUPPORT AS SHOWN IN UNIFORM STANDARD DRAWING NUMBER 863 IF ONE OF THE SIGNAL HEADS CONTAINS 4 OR MORE SIGNAL MODULES.

4. SERVICE SHALL HAVE 1-60 AMP SINGLE POLE BREAKER FOR SIGNAL, AND ONE 40 AMP SINGLE POLE BREAKERS FOR STREET LIGHTS. SERVICE SHALL BE 200 AMP PADMOUNT.

5. LINE SIDE OF METER TO BE WIRED WITH THREE #8 AWG THW. LOAD SIDE SHALL BE WIRED WITH FOUR #4 AWG THW (2 BLACK, 2 WHITE AND ONE #8 AWG THW (GREEN).

6. LUMINAIRES ON ALL SIGNAL POLES SHALL BE L.E.D. AS APPROVED BY THE CITY OF LAS VEGAS (CLV). INTERSECTION LIGHTING SHALL MEET THE REQUIREMENTS OF UNIFORM STANDARD DRAWING NUMBER 300.S3. EACH LUMINAIRE SHALL HAVE AN INDIVIDUAL 1000 WATT P.E. CONTROL. FOR LUMINAIRES THERE SHALL BE 2(TWO)-#4 AWG THW CONDUCTORS FROM THE SERVICE TO THE CABINET. IN THE CABINET, THE #4 AWG THW CONDUCTORS SHALL BRANCH OFF INTO #10 AWG THW CONDUCTORS INDIVIDUALLY FUSED WITH 10 AMP FUSES. THERE SHALL BE NO SPLICES BETWEEN THE CABINET AND LUMINAIRE FIXTURES.

7. THE INTERNALLY ILLUMINATED STREET NAME SIGNS SHALL BE WIRED TO THE LUMINAIRES PHOTO CELL FOR CONTROL WITH #10 AWG THW COPPER STRANDED WIRE (TYPICAL). THE SIGN SHALL BE WIRED TO THE LUMINAIRE DIRECTLY ABOVE IT. IN THE EVENT THERE IS NO LUMINAIRE ON THE TRAFFIC SIGNAL POLE, THE 1000 WATT P.E. CONTROL SHALL BE MOUNTED ON THE POLE CAP. ALL NEW ILLUMINATED STREET NAME SIGNS SHALL HAVE LIGHT EMITTING DIODE (LED) LAMPS PER SECTION 623 T.02.16 OF THE SPECIAL PROVISIONS.

8. CHECK CONDUIT AND CABLE SCHEDULE FOR CONDUIT, CABLE, AND WIRE SIZE. VERIFY ALL EXISTING CONDUIT RUNS.

9. ALL PULLBOXES SHALL BE IN ACCORDANCE WITH UNIFORM STANDARD DRAWINGS NO. 705, NO. 706, AND NO. 707.

10. TRAFFIC SIGNAL CABLE SHALL BE 15 OR 25 CONDUCTOR #14 AWG SOLID (TYPICAL) CABLE AND SHALL CONFORM TO IMSA SPEC. NO. 20-1.

11. PEDESTRIAN PUSH BUTTONS SHALL BE AUDIBLE TACTILE "POLARA iN2 iNAVIGATOR" TYPE (2 WIRE SYSTEM) OR CAMPBELL COMPANY WAAPS WIRELESS PEDESTRIAN PUSHBUTTON SYSTEM WITH APC (CONTROLLER) IN ACCORDANCE WITH CITY OF LAS VEGAS SPECIAL PROVISIONS AND SECTION 623 OF THE CCA USS. PUSH BUTTON SIGNS SHALL BE R10-3e PER MUTCD, 2009 EDITION WITH FULL MOUNTING BRACKETS. AS MODIFIED BY THE MANUFACTURER TO FIT ON A 9"X12" SIGN AND SHALL BE PORCELAIN-ENAMELED METAL. ALL PUSH BUTTONS TO BE MOUNTED 42" ABOVE SIDEWALK. THE MAXIMUM HORIZONTAL REACH DISTANCE IS TO BE 10". SIDEWALK RAMPS WILL BE ACCORDING TO U.S.D. NO. 235 (1-4) LATEST EDITION. WHEN AN EXISTING SIGNAL WITH EXISTING AUDIBLE-TACTILE PUSH BUTTONS IS MODIFIED, THE CONTRACTOR SHALL VERIFY NEW PEDESTRIAN PUSH BUTTONS OR CABINET EQUIPMENT MATCHES THE MANUFACTURE AND MODEL OF ANY EXISTING EQUIPMENT SCHEDULED TO REMAIN, TO PROVIDE A FULLY FUNCTIONING SYSTEM. THE CONTRACTOR SHALL PROVIDE AND INSTALL ALL CABINET EQUIPMENT, INCLUDING THE PEDESTRIAN PUSH BUTTON CONTROL UNIT, INTERFACE PANEL AND ANY REQUIRED HARNESSES, TO PROVIDE A FULLY FUNCTIONING SYSTEM.

12. THE ROUTING AND TERMINATION OF CONDUITS AND THE PLACING OF POLES AND CABINETS SHALL BE AS INDICATED ON THE PLANS. ALL CHANGES SHALL BE APPROVED BY THE ENGINEER.

13. MAST ARM R10-12 SIGNS TO BE ADJACENT (NO GAP) TO THE M-5 SIGNAL HEAD. WHERE FLASHING YELLOW ARROW LEFT TURN SIGNALS ARE USED, A MAST ARM R10-12F "LEFT TURN YIELD ON FLASHING YELLOW ARROW" SIGN SHALL BE MOUNTED ADJACENT TO THE M-4 SIGNAL HEAD.

14. TRAFFIC SIGNAL CABINET SHALL BE A TYPE VIII CABINET UNLESS OTHERWISE SPECIFIED IN THE PLANS. THIS IS COMMONLY REFERRED TO AS A "R" CABINET. THE CABINET SHALL CONFORM TO THE CLARK COUNTY AREA UNIFORM STANDARD DRAWINGS AND SPECIFICATIONS AND THE CITY OF LAS VEGAS SPECIAL PROVISIONS. INSTALL CABINET NEAR THE R.O.W. LINE OR AS SHOWN ON THE DRAWINGS. THE TRAFFIC SIGNAL CONTROLLER CABINET, SHALL BE EQUIPPED WITH 16 LOAD BAY POSITIONS, SHALL BE A 48 DETECTOR CHANNEL R CABINET AND SHALL INCLUDE TWO (2) RACK-MOUNTED, 12 SLOT, LOOP DETECTION RACKS, WITH 2 DETECTOR LOOP CHANNELS PER SLOT FULLY WIRED SO THAT ALL CHANNELS ARE USABLE AND 4 CHANNEL SLOTS THAT CAN ACCOMMODATE VIDEO DETECTION CARDS. THE CABINET SHALL CONTAIN A 764 OPTICOM PHASE SELECTOR IN A 760 RACK, WITH A 768 AUXILIARY INTERFACE PANEL MOUNTED IN THE CABINET AND FULLY WIRED FOR GREEN SENSE CAPABILITIES.

15. THE CONTRACTOR SHALL SUPPLY A MALFUNCTION MANAGEMENT UNIT (MMU) TO THE CITY OF LAS VEGAS TRAFFIC SIGNAL REPAIR SHOP A MINIMUM OF FOURTEEN DAYS PRIOR TO SIGNAL TURN-ON OR PRIOR TO CONVERTING TO A NEW PHASING SCHEME, FOR TESTING AND PROGRAMMING PURPOSES. THE MMU SHALL BE A MODEL MMU-16000E AS MANUFACTURED BY BY RENO A&E., OR APPROVED EQUAL. THE CONTRACTOR SHALL DELIVER THE CONTROLLER AND MMU TO, AND PICKUP THE CONTROLLER AT 2985 RONEMUS DRIVE. E. CONTRACTOR SHALL NOTIFY THE TRAFFIC SIGNAL REPAIR SHOP(229-6075) SEVEN DAYS PRIOR TO PICK UP. THE CITY, AT ITS DISCRETION, MAY PROVIDE A DIFFERENT MODEL OF MMU OR CONTROLLER FOR INITIAL TURN-ON, IN WHICH CASE CITY PERSONNEL WILL SWAP THE CONTROLLER OR MMU AFTER THE PROJECT IS ACCEPTED.

16. CONTRACTOR SHALL POTHOLE SIGNAL POLE LOCATIONS PRIOR TO ORDERING OF POLES.

17. ALL MAST ARMS TO BE HOT-DIP GALVANIZED BY THE MANUFACTURER THE MAST ARM IS TO BE FABRICATED WITH END TENON ONLY. THE END TENON SHALL BE FACTORY INSTALLED AND THE REMAINING TENONS SHALL BE FABRICATED IN THE FIELD AT THE LOCATION SHOWN ON THE PLANS OR AS DIRECTED BY THE TRAFFIC ENGINEER AND/OR HIS AUTHORIZED REPRESENTATIVE. FOR TENON FABRICATION DETAILS SEE CLARK COUNTY AREA U.S.D. NO. 808 SHEET 2. ALL WELDING SHALL CONFORM TO AWS D2.0, "SPECIFICATION FOR WELDED HIGHWAYS AND RAILWAY BRIDGES," AND TO ANY ADDITIONAL REQUIREMENTS OF SECTION 623 OF THE SPECIFICATIONS. ALL EXPOSED WELDS, SHALL BE PAINTED AS PROVIDED FOR REPAIRING DAMAGED GALVANIZED SURFACES.

18. ALL VEHICLE AND PEDESTRIAN SIGNAL INDICATIONS SHALL HAVE LIGHT EMITTING DIODE (LED) TYPE INDICATIONS, IN CONFORMANCE TO CITY OF LAS VEGAS SPECIAL PROVISIONS AND TO SECTION 623 OF THE CCA USS. ALL PEDESTRIAN SIGNAL FACES SHALL PROVIDE "WALKING PERSON", "HAND", AND COUNTDOWN" MESSAGES AS PROVIDED BY DURALIGHT MODEL #JXM-400VIEIL OR DIALIGHT MODEL #430-6479-001X, OR APPROVED EQUAL. THE "COUNTDOWN" MESSAGE SHALL NOT FLASH. WHERE EXISTING SIGNAL ARE MODIFIED, THE CONTRACTOR SHALL VERIFY THAT LED PEDESTRIAN INDICATIONS FOR A SPECIFIC PHASE ARE OF THE SAME MANUFACTURE SO THAT THEY FUNCTION CORRECTLY, OR SHALL REPLACE ALL COUNTDOWN PEDESTRIAN INDICATIONS FOR THAT PHASE.

19. VIDEO DETECTION SYSTEMS WILL BE EITHER ITERIS EDGE 2 WITH EDGECONNECT PAK, (IP ADDRESSABLE); PEEK VIDEOTRAK IQ (WITH ETHERNET PORT); OR TRAFICON VIP WITH VIEWCOM (IP ADDRESSABLE). WHEN VIDEO DETECTION IS SPECIFIED ON THE TRAFFIC PLANS. ALL VIDEO DETECTION SYSTEMS WILL BE STAND ALONE SYSTEMS TO INCLUDE ALL NECESSARY EQUIPMENT TO PROGRAM THE VIDEO DETECTION SYSTEM. A PROGRAMMING "MOUSE", KEYPAD OR LAPTOP

COMPUTER (IF REQUIRED FOR PROGRAMMING THE VIDEO DETECTION SYSTEM) AND APPROPRIATE SOFTWARE WILL BE SUPPLIED WITH EACH VIDEO SYSTEM. PERSONAL COMPUTERS (PCs) MAY NOT BE SUBSTITUTED FOR LAPTOPS. A VIDEO MONITOR (COLOR FLAT SCREEN) 9" TO 13" WILL BE SUPPLIED WITH EACH VIDEO DETECTION SYSTEM. EACH VIDEO CAMERA WILL HAVE POWER AND VIDEO CABLE DIRECTLY FROM THE CABINET. COAXIAL CABLE WILL BE TYPE 8281 (SOLID CENTER CONDUCTOR). CAMERAS THAT USE A PREFABRICATED CABLE INTEGRATING POWER AND COAXIAL CABLE INTO A SINGLE WEATHERPROOF CONNECTOR ARE ACCEPTABLE. "BNC" ARE THE ONLY ACCEPTABLE TERMINATION OF COAXIAL CABLES. CAMERAS WILL BE MOUNTED PER MANUFACTURE'S RECOMMENDATIONS AND PER CLV TRAFFIC ENGINEER APPROVAL. VIDEO CAMERAS SHALL BE COLOR AND SHALL BE MOUNTED ON A MINIMUM 6 FOOT RISER ON THE SIGNAL MAST ARM WITH EXTENSION BRACKETS (TYPE AB-0166-5-62 OR EQUIVALENT). THE LOCATION OF THE CAMERA ON THE MAST ARM SHALL BE APPROVE BY THE TRAFFIC SIGNAL SUPERVISOR. A VIDEO FILTER (CX06-BNYC OR EQUIVALENT) WILL BE INSTALLED IN THE SIGNAL CABINET FOR EACH CAMERA VIDEO INPUT. VIDEO DETECTION PROCESSORS AND COMMUNICATIONS CARDS SHALL BE PROVIDED WITH THE LATEST VERSIONS OF THE MANUFACTURES'S SOFTWARE. THE CONTRACTOR SHALL AIM CAMERAS AND PROGRAM AND CONFIGURE THE VIDEO DETECTION PROCESSORS TO PROVIDE A FULLY FUNCTIONING SYSTEM.

CITY OF LAS VEGAS TRAFFIC NOTES (CONTINUATION)

20. WHERE NEW LOOPS WILL BE OVERLAID WITH NEW PAVEMENT, LOOP DETECTORS SHALL BE PREFORMED LOOPS AS MANUFACTURED BY RENO A & E OR NEVER-FAIL LOOP SYSTEMS, AND ALL LOOPS SHALL BE INSTALLED IN THE ROADWAY PRIOR TO PLACEMENT OF THE FINAL PAVEMENT LIFT. WHERE NEW LOOPS ARE INSTALLED THAT ARE NOT OVERLAID WITH NEW PAVEMENT, LOOPS SHALL BE CABLE-IN-DUCT PER SECTION 623 T.02.04.C OF THE CITY OF LAS VEGAS SPECIAL PROVISIONS. LOOP LEAD-IN CABLE SHALL BE 6-PAIR 18 AWG MULTIPLE CONDUCTOR CABLE AS SPECIFIED IN SECTION 623T.02.04 OF THE CLV SPECIAL PROVISIONS. ALL WIRING HARNESSES, RACK POSITIONS, AND LOOP LEAD-IN CABLE SHALL BE CLEARLY MARKED AS TO THE APPROPRIATE PHASE AND LETTER DESIGNATION TO WHICH IT BELONGS AS SHOWN ON THE TRAFFIC SIGNAL PLANS. LOOPS SHALL BE LOCATED AS SHOWN ON THE TRAFFIC SIGNAL PLANS AND APPROVED BY THE CLV TRAFFIC ENGINEERING DIVISION PRIOR TO INSTALLATION. REFER TO SECTION 623T.02.04 OF THE CLV SPECIAL PROVISIONS FOR ADDITIONAL REQUIREMENTS.

21. OPTICAL PREEMPTION UNITS WILL BE GLOBAL TRAFFIC TECHNOLOGIES (ENCODING CAPABLE), MODEL 764 OPTICOM PHASE SELECTOR INSTALLED IN A MODEL 760 RACK WITH A MODEL 768 AUXILIARY INTERFACE PANEL (AIP) MOUNTED IN THE CABINET AND FULLY WIRED FOR GREEN SENSE CAPABILITIES. OPTICAL SENSORS WILL BE MODEL 721 WITH ONE DETECTOR PER DIRECTION, UNLESS SHOWN OTHERWISE IN THE PLANS, AND WILL BE INTERFACED TO THE TRAFFIC SIGNAL CONTROLLER CABINET WITH M-138 CABLE. THE SOUTHBOUND OPTICOM DETECTOR SHALL BE WIRED TO INPUT PREEMPTS ON CHANNEL 1 IN THE PHASE SELECTOR, EASTBOUND ON CHANNEL 2, NORTHBOUND ON CHANNEL 3, AND WESTBOUND ON CHANNEL 4, UNLESS VARIATIONS ARE APPROVED BY THE TRAFFIC SIGNAL SUPERVISOR. WHEN 764 PHASE SELECTORS ARE ADDED TO A CABINET WITHOUT A 768 AIP, THE CONTRACTOR SHALL INSTALL AND WIRE A NEW 768 AIP.

22. IF THE IMPROVEMENTS NECESSITATE THE OBLITERATION, TEMPORARY CONSTRUCTION, TEMPORARY REMOVAL, OR RELOCATION OF ANY EXISTING TRAFFIC PAVEMENT MARKING, SUCH PAVEMENT MARKING SHALL BE RESORTED OR REPLACE AT THE CONTRACTORS EXPENSE TSO THE SATISFACTION OF THE CITY.

23. INTERCONNECT CABLE SHALL BE AS SHOWN IN THE WIRE SCHEDULE.

24. THE CONTRACTOR SHALL INSTALL CROSSWALKS, STOP BARS, STRIPING AND SIGNS AS IDENTIFIED ON THE PLANS.

25. WHERE THE PLANS CALL FOR REMOVAL AND SALVAGE OF EXISTING TRAFFIC SIGNAL EQUIPMENT, THE CONTRACTOR SHALL CALL 702-229-6331 TO SPEAK TO A TRAFFIC FIELD SUPERVISOR TO ARRANGE FOR DELIVERY TIMES AND LOCATIONS.

26. THE CONTRACTOR SHALL MAINTAIN EXISTING SIGNALS THROUGH THE LIFE OF THE PROJECT PER SECTION 623 G.03.01N OF THE CLV SPECIAL PROVISIONS.

REVISED 10/30/17

ADDITIONAL TRAFFIC SIGNAL NOTES

1. NEW CONDUITS SHALL BE INSTALLED IN THE TRENCH SUCH THAT TOP OF CONDUIT SHALL HAVE A MINIMUM COVER OF 30" BELOW ADJACENT EDGE OF PAVEMENT OR ORIGINAL GROUND. WHICHEVER IS LOWER. RADIUS BENDS AND INSTALLATION PER CCA USS 623.

2. ALL STATIONING AND OFFSETS OF TRAFFIC SIGNAL EQUIPMENT ARE APPROXIMATE. CONTRACTOR TO VERIFY LOCATIONS WITH CLV INSPECTOR PRIOR TO PLACEMENT.

3. A #8 GREEN GROUND WIRE SHALL BE RUN FROM GROUND LUG OF EACH SIGNAL POLE TO THE CONTROLLER CABINET AND FROM CONTROLLER CABINET TO THE SERVICE PEDESTAL.

4. SEE SIGNING AND STRIPPING SHEETS FOR FIBER PULLBOXES AND CONDUIT RUNS ALONG PROJECT FRONTAGE.

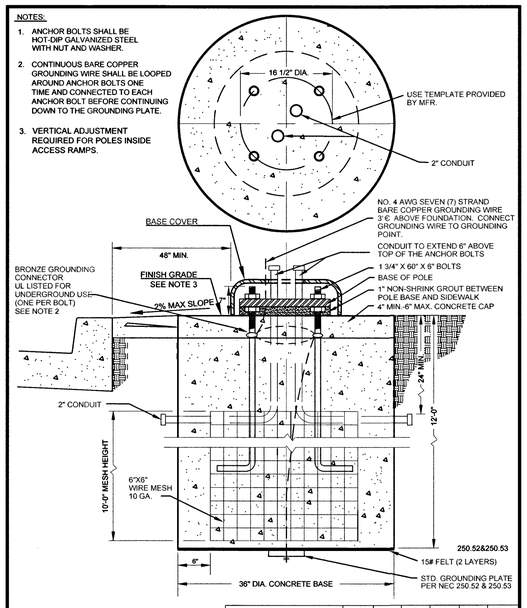
5. MANUAL TRAFFIC CONTROL TO BE PROVIDED DURING PERIODS OF SIGNAL SHUTDOWN USING UNIFORMED TRAFFIC CONTROL OFFICERS.

6. CONDUIT LOCATIONS AS SHOWN ON THE DRAWINGS ARE FOR CLARITY OF RUNS ONLY.

TRAFFIC LEGEND

- PULL BOX
- SIGNAL LUMINAIRE POLE, POST
- ELECTRIC SERVICE PEDESTAL
- CONTROL CABINET
- ILLUMINATED STREET SIGN
- 2E — BIKE DETECTOR LOOP
- DETECTOR LOOP
- HIGH PRESSURE SODIUM LUMINAIRE – 400 WATT
- TRAFFIC SIGNAL INDICATION WITH BACKPLATE
- TRAFFIC SIGNAL INDICATION WITH DIRECTIONAL ARROW AND BACKPLATE
- PRIORITY VEHICLE PREEMPTION OPTICAL DETECTOR (OPTICOM OR APPROVED EQUAL)

NOTES:
1. ANCHOR BOLTS SHALL BE HOT-DIP GALVANIZED STEEL WITH NUT AND WASHER.
2. CONTINUOUS BARE COPPER GROUNDING WIRE SHALL BE LOOPED AROUND ANCHOR BOLTS ONE TIME AND CONNECTED TO EACH ANCHOR BOLT BEFORE CONTINUING DOWN TO THE GROUNDING PLATE.
3. VERTICAL ADJUSTMENT REQUIRED FOR POLES INSIDE ACCESS RAMPS.



PROFESSIONAL ELECTRICAL ENGINEER STAMP ON FILE

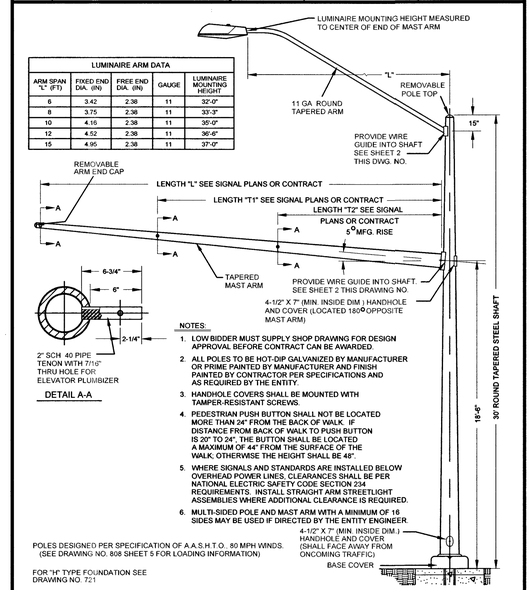
AGENCY APPROVED | B | C | H | L | M | N

SPECIFICATION REFERENCE	
501	PORTLAND CEMENT CONCRETE
623	TRAFFIC SIGNALS & STREETLIGHTING

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

TYPE "H" FOUNDATION

DATE 07-01-15 | DWG. NO. 721



LUMINAIRE ARM DATA				
ARM SPAN "L" (FT)	FIXED END DIA. (IN)	FREE END DIA. (IN)	GAUGE	LUMINAIRE MOUNTING HEIGHT
6	3.42	2.38	11	32'-0"
8	3.75	2.38	11	33'-3"
10	4.16	2.38	11	35'-0"
12	4.52	2.38	11	36'-6"
15	4.95	2.38	11	37'-0"

NOTES:
1. LOW BIDDER MUST SUPPLY SHOP DRAWING FOR DESIGN APPROVAL BEFORE CONTRACT CAN BE AWARDED.
2. ALL POLES TO BE HOT-DIP GALVANIZED BY MANUFACTURER OR PRIME PAINTED BY MANUFACTURER AND FINISH PAINTED BY CONTRACTOR PER SPECIFICATIONS AND AS REQUIRED BY THE ENTITY.
3. HANDHOLE COVERS SHALL BE MOUNTED WITH TAMPER-RESISTANT SCREWS.
4. PEDESTRIAN PUSH BUTTON SHALL NOT BE LOCATED MORE THAN 24" FROM THE BACK OF WALK. IF DISTANCE FROM BACK OF WALK TO PUSH BUTTON IS 20" TO 24", THE BUTTON SHALL BE LOCATED A MAXIMUM OF 44" FROM THE SURFACE OF THE WALK; OTHERWISE THE HEIGHT SHALL BE 48".
5. WHERE SIGNALS AND STANDARDS ARE INSTALLED BELOW OVERHEAD POWER LINES, CLEARANCES SHALL BE PER NATIONAL ELECTRIC SAFETY CODE SECTION 234 REQUIREMENTS. INSTALL STRAIGHT ARM STREETLIGHT ASSEMBLIES WHERE ADDITIONAL CLEARANCE IS REQUIRED.
6. MULTI-SIDED POLE AND MAST ARM WITH A MINIMUM OF 16 SIDES MAY BE USED IF DIRECTED BY THE ENTITY ENGINEER.

POLES DESIGNED PER SPECIFICATION OF A.A.S.H.T.O.. 80 MPH WINDS. (SEE DRAWING NO. 808 SHEET 5 FOR LOADING INFORMATION)

FOR "H" TYPE FOUNDATION SEE DRAWING NO. 721

AGENCY APPROVED | B | C | H | L | M | N

SPECIFICATION REFERENCE	

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

TYPE XX-30 FT.
SIGNAL & LUMINAIRE POLE
(45 FT. OR LESS MAST ARMS)

DATE 9-14-06 | DWG. NO. 808 | SHEET 1 OF 6

PUBLIC WORKS
DEPARTMENT OF PUBLIC WORKS
CITY OF LAS VEGAS NEVADA
COLLINS ENGINEERS
3130 S. DURANGO DR., SUITE 404
LAS VEGAS, NV 89117
PHONE: (702) 248-8000
FAX: (702) 248-8070
www.collinsengr.com

REVISIONS

CONSULTANT

GILMORE CLIFF SHADOWS PARK
NEW CITY OF LAS VEGAS PARK

TRAFFIC SIGNAL NOTES

STAMP

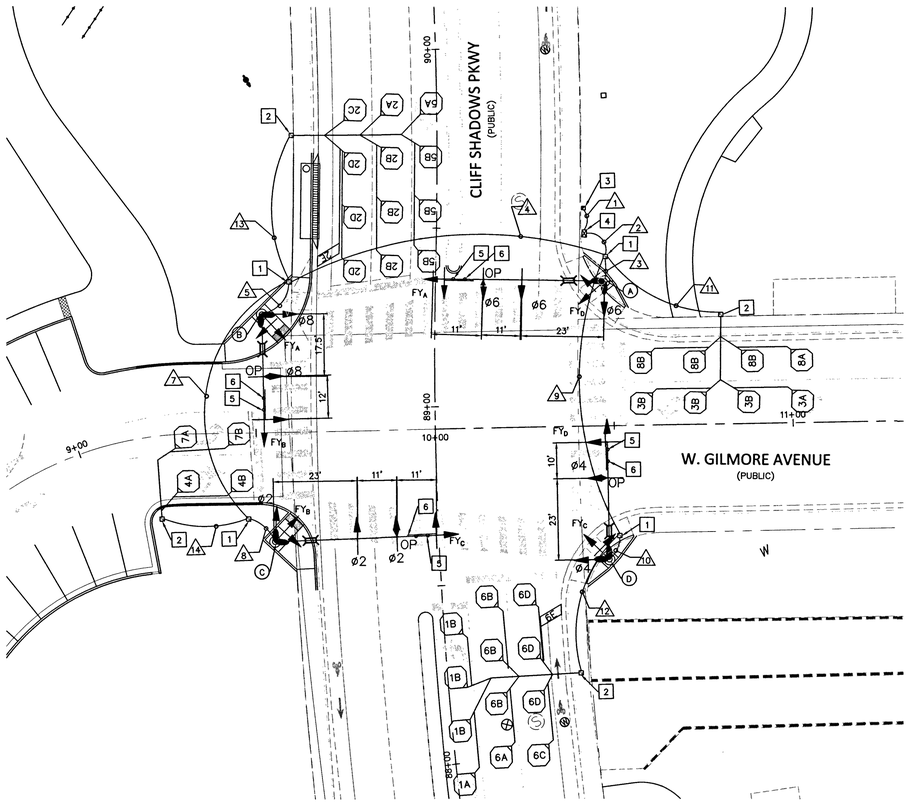
PROFESSIONAL ENGINEER STATE OF NEVADA
ARMANDO PINEDA
EXP. 12-31-19
CIVIL
NO. 18290
7-6-18

OWNER: CITY OF LAS VEGAS
DEPARTMENT OF PUBLIC WORKS

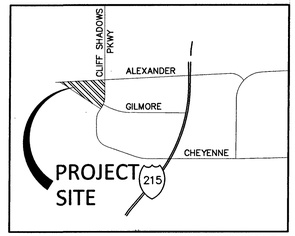
DEVELOPMENT SERVICES CENTER
333 N. RANCHO DRIVE
LAS VEGAS, NEVADA 89106
PHONE: (702) 229-6276
FAX: (702) 384-4846

DRAWN	DSI
FILE	180101445
DATE	6/18/2018
SCALE	SEE PLAN
BID NO	18.66085.DD
CLV DWG NO	650.116
HANSEN NO	66085
	L18-00891
SHT NO	C7.00

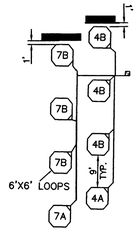
H:\CAD\LAND\10297\DWG\SHEETS\10297-C7.00-SIG.DWG 07/18/2018 03:13:19 PM



LOOP DETECTOR SCHEDULE		
MOVEMENT	LOOP NUMBER	LOOP OPERATION
EB RIGHT/ THRU	4A	"PRESENCE/COUNT" LOOP
	4B	"PRESENCE" LOOP
EB LEFT	7A	"PRESENCE/COUNT" LOOP
	7B	"PRESENCE" LOOP
WB RIGHT/ THRU	8A	"PRESENCE/COUNT" LOOP
	8B	"PRESENCE" LOOP
WB LEFT	3A	"PRESENCE/COUNT" LOOP
	3B	"PRESENCE" LOOP
NB LEFT	1A	"PRESENCE/COUNT" LOOP
	1B	"PRESENCE" LOOP
NB RIGHT/ THRU	6A,6C	"PRESENCE/COUNT" LOOP
	6B,6D,6E	"PRESENCE" LOOP
SB LEFT	5A	"PRESENCE/COUNT" LOOP
	5B	"PRESENCE" LOOP
SB RIGHT/ THRU	2A,2C	"PRESENCE/COUNT" LOOP
	2B,2D,2E	"PRESENCE" LOOP



VICINITY MAP
N.T.S.



LOOP DETECTOR DIMENSIONS

GRAPHIC SCALE

20 0 10 20

SCALE: 1"=20'

BASIS OF BEARING

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

LINEAR UNIT: US SURVEY FOOT (SFT)
DATUM (REFERENCE FRAME): NAD 1983 (2011) EPOCH 2010
SYSTEM: NEVADA COORDINATE REFERENCE SYSTEM (NCRS)
ZONE: LAS VEGAS
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: 656,166.6667 SFT (200,000.000 M)
EASTING AT CENTRAL MERIDIAN: 328,083.3333 SFT (100,000.000 M)
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.

BENCHMARK

PROJECT DATUM: NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).

CITY OF LAS VEGAS BENCHMARK: 7LV0911NES
BEING A BLM BRASS CAP (HIGH PT.) SECTION 2/1 OVER 11/12, PI ALEXANDER ROAD & SECTION LINE.

ELEVATION: 2931.57 (US SURVEY FEET)
893.54 (METERS)

TRAFFIC SIGNAL NOTES

NO.	ITEM USDCCA: UNIFORM STANDARD DRAWING CLARK COUNTY AREA
1	INSTALL No. 7 PULL BOX PER USDCCA DWG. NO. 707, SEE SHEET C8.08.
2	INSTALL No. 5 PULL BOX PER USDCCA DWG. NO. 706, SEE SHEET C8.08.
3	INSTALL 200 AMP SERVICE METER PEDESTAL PER USDCCA DWG NO. 726 & 730, SEE SHEET C8.08.
4	INSTALL NEW TYPE V CABINET PER USDCCA DWG NO. 801, SEE SHEET C8.08.
5	INSTALL SIGN R10-12F (FLASHING YELLOW) PER USDCCA DWG. NO. 818.2, SEE SHEET C8.10. SIGN DETAIL 'HEREON'.
6	INSTALL SIGN R3-4 (NO U-TURN) PER USDCCA DWG. NO. 818.2, SEE SHEET C8.10. SIGN DETAIL 'HEREON'.
7	REMOVE AND SALVAGE 1-A POLE & EQUIPMENT. REMOVE FOUNDATION IN ITS ENTIRETY.
8	INSTALL OPTICOM ON SIGNAL HEAD AS SHOWN.
9	INSTALL GE EVOLVE ERL2 0 21 C3 40 A GRAY ALR LUMINAIRE OR PHILIPS RFL 180W80LED4K G2 R3M UNV DMG RCD GY3 LUMINAIRE. CONNECT LUMINAIRES TO TRAFFIC SIGNAL POWER SOURCE..

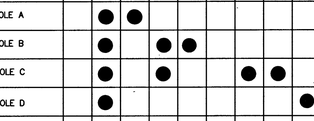
INTERNALLY ILLUMINATED STREET NAME SIGN SCHEDULE

POLE	TYPE	SIGN LEGEND
(A)	DOUBLE FACE	W Gilmore Ave 10600
(B)	DOUBLE FACE	N Cliff Shadows Pkwy 3700
(C)	DOUBLE FACE	W Gilmore Ave 10700
(D)	DOUBLE FACE	N Cliff Shadows Pkwy 3600

8'

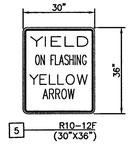
N.T.S.

1. DOUBLE-SIDED ILLUMINATED SIGNS PER SP 623T.02.16.
2. CONTRACTOR SHALL VERIFY STREET BLOCK NUMBERS WITH THE CITY OF LAS VEGAS PLANNING DEPARTMENT.
3. APPROVAL OF SHOP DRAWING OF SIGN FACE LAYOUT BY THE ENGINEER IS REQUIRED PRIOR TO FABRICATION OF SIGN PANELS.
4. STREET NAMES SHALL BE 12" MIXED-CASE LETTERS AS PER MUTCD 2A.13.11 LETTERS FOR CARDINAL DIRECTION, STREET NAME SUFFIX, AND BLOCK NUMBER SHALL BE 5" UPPERCASE.

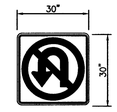


POLE SCHEDULE ((E)-EXISTING)

POLE	LOCATION STATION	POLE TYPE FOUNDATION	SIGNAL ARM QUAD	SIGNAL ARM LENGTH	LUMINAIRE ARM QUAD	LUMINAIRE ARM LENGTH	SIGNALS (VEH.) TYPE	SIGNALS (VEH.) QUAD	SIGNALS (PED.) TYPE	SIGNALS (PED.) QUAD	PED. PUSH BUTTONS QUAD	PED. PUSH BUTTONS ARROW	REMARKS
(A)	CLIFF SHADOWS PARKWAY 89+24.02 47.17' RT	XX / TYPE 'H'	4	45'	3,4	15'	(2) M-2 (1) M-4 (1) B2-43	MA MA 2	W-3T	2	3 4	LT RT	[5], [6], [8], [9]
(B)	CLIFF SHADOWS PARKWAY 89+25.47 48.28' LT	XX / TYPE 'H'	3	35'	2,3	15'	(1) M-2 (1) M-4 (1) B2-43	MA MA 1	W-3T	1	2 3	LT RT	[5], [6], [8], [9]
(C)	CLIFF SHADOWS PARKWAY 88+64.52 45.66' LT	XX / TYPE 'H'	2	45'	1,2	15'	(2) M-2 (1) M-4 (1) B2-43	MA MA 4	W-3T	4	1 2	LT RT	[5], [6], [8], [9]
(D)	CLIFF SHADOWS PARKWAY 88+54.84 47.35' RT	XX / TYPE 'H'	1	35'	1,4	15'	(1) M-2 (1) M-4 (1) B2-43	MA MA 3	W-3T	3	1 4	RT LT	[5], [6], [8], [9]
[illegible]	[illegible]	[illegible]											[7]
[illegible]	[illegible]	[illegible]											[7]

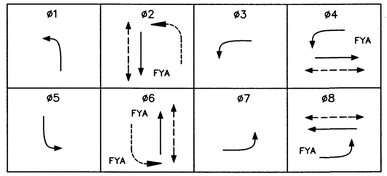


5 R10-12F (30"X36")

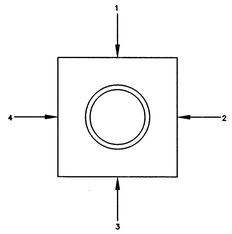


6 R3-4 (30"X30")

PHASE DIAGRAM



FY_A OLA =Ø1+Ø2
FY_B OLB =Ø3+Ø4
FY_C OLC =Ø5+Ø6
FY_D OLD =Ø7+Ø8
SOLID ARROWS ON PHASE LOAD SWITCHES, FLASHING ARROWS ON OL LOAD SWITCHES.



QUADRANT LOCATION

NOTE:
RETURN SALVAGED EQUIPMENT TO THE CITY OF LAS VEGAS. CONTACT: MIKE PERRY AT (702) 229-6448 FOR DELIVERY.

CONDUIT AND WIRE SCHEDULE

WIRE	FROM	TO	VIA CONDUIT 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
(4) #4 AWG THW (2 BLACK, 2 WHITE) (1) #8 AWG THW GROUND (GREEN)	NEW SERVICE PEDESTAL STA:	CONTROLLER CABINET	●															
25 COND #14 AWG, (2) #10 AWG THW, (1) #8 AWG GROUND (GREEN), OP CABLE	CONTROLLER CABINET	POLE A		●	●													
25 COND #14 AWG, (2) #10 AWG THW, (1) #8 AWG GROUND (GREEN), OP CABLE	CONTROLLER CABINET	POLE B		●		●	●											
25 COND #14 AWG, (2) #10 AWG THW, (1) #8 AWG GROUND (GREEN), OP CABLE	CONTROLLER CABINET	POLE C		●		●			●	●								
25 COND #14 AWG, (2) #10 AWG THW, (1) #8 AWG GROUND (GREEN), OP CABLE	CONTROLLER CABINET	POLE D		●							●	●						
6-PAIR 18 AWG MULTI CONDUCTOR LOOP LEAD-IN CABLES	CONTROLLER CABINET	DET 3A,3B		●									●					
6-PAIR 18 AWG MULTI CONDUCTOR LOOP LEAD-IN CABLES	CONTROLLER CABINET	DET 8A,8B		●									●					
6-PAIR 18 AWG MULTI CONDUCTOR LOOP LEAD-IN CABLES	CONTROLLER CABINET	DET 4A,4B		●		●			●							●		
6-PAIR 18 AWG MULTI CONDUCTOR LOOP LEAD-IN CABLES	CONTROLLER CABINET	DET 7A,7B		●		●			●							●		
6-PAIR 18 AWG MULTI CONDUCTOR LOOP LEAD-IN CABLES	CONTROLLER CABINET	DET 1A,1B		●							●			●				
(2) 6-PAIR 18 AWG MULTI CONDUCTOR LOOP LEAD-IN CABLES	CONTROLLER CABINET	DET 6A,6B,6C,6D,6E		●							●			●				
6-PAIR 18 AWG MULTI CONDUCTOR LOOP LEAD-IN CABLES	CONTROLLER CABINET	DET 5A,5B		●		●									●			
(2) 6-PAIR 18 AWG MULTI CONDUCTOR LOOP LEAD-IN CABLES	CONTROLLER CABINET	DET 2A,2B,2C,2D,2E		●		●									●			
CONDUIT SIZE			(1)-2"	(4)-3", (2)-2"	(1)-3"	(2)-3", (2)-2"	(2)-3", (2)-2"	NOT USED	(2)-3", (2)-2"	(2)-3", (2)-2"	(1)-3"	(2)-3", (2)-2"	(1)-2"	(1)-2"	(1)-2"	NOT USED	NOT USED	

XX=EXISTING XX=PROPOSED
X INDICATES EXISTING CONDUIT TO BE REMOVED
O INDICATES EXISTING WIRE/CONDUIT RUNS TO REMAIN
⊗ INDICATES EXISTING CONDUIT RUNS TO REMAIN, WIRE TO BE REPLACED
● INDICATES NEW WIRE/CONDUIT RUNS TO BE ADDED

CITY OF LAS VEGAS NEVADA

REVISIONS

CONSULTANT

COLLINS ENGINEERS
3130 S. DURANGO DR., SUITE 404
LAS VEGAS, NV 89117
PHONE: (702) 248-8000
FAX: (702) 248-8070
www.collinsengr.com

PUBLIC WORKS

DEPARTMENT OF PUBLIC WORKS

GILMORE CLIFF SHADOWS PARK
NEW CITY OF LAS VEGAS PARK

TRAFFIC SIGNAL PLAN

STAMP

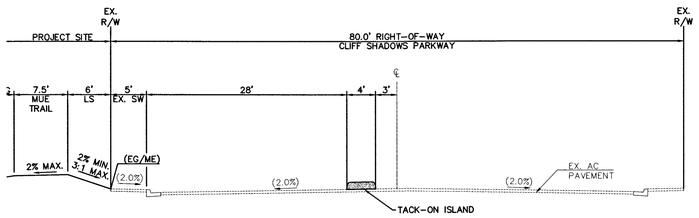
PROFESSIONAL ENGINEER - STATE OF NEVADA
ARMANDO PINEDA
EXP. 12-31-19
CIVIL
NO. 18290
7-19-18

OWNER: CITY OF LAS VEGAS
DEPARTMENT OF PUBLIC WORKS

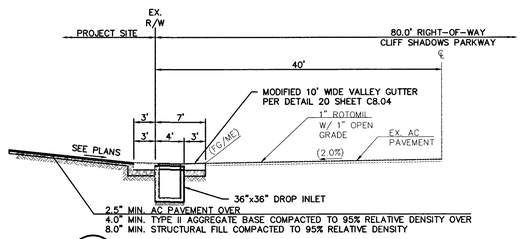
DEVELOPMENT SERVICES CENTER
333 N. RANCHO DRIVE
LAS VEGAS, NEVADA 89106
PHONE: (702) 229-6276
FAX: (702) 384-4846

DRAWN	DSI
FILE	180101445
DATE	6/18/2018
SCALE	SEE PLAN
BID NO	18.66085.DD
CLV DWG NO	650.116
HANSEN NO	66085
	LAB - 00891
SHT NO	C7.01

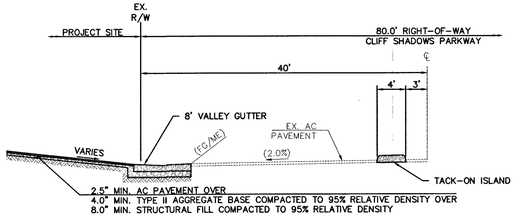
THESE PLANS, AS INSTRUMENTS OF SERVICE, ARE AND SHALL REMAIN THE PROPERTY OF THE ARCHITECT AND THE ARCHITECT SHALL RETAIN ALL COMMON LAW, STATUTORY AND OTHER RESERVED RIGHTS, INCLUDING THE COPYRIGHT THEREIN. THESE PLANS ARE NOT TO BE CHANGED OR COPIED IN ANY FORM OR MANNER WHATSOEVER, NOR ARE THEY TO BE ASSIGNED TO ANY THIRD PARTY, WITHOUT FIRST OBTAINING THE EXPRESS WRITTEN PERMISSION AND CONSENT OF THE ARCHITECT.



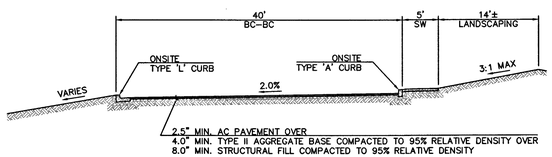
A C8.01 CLIFF SHADOWS PARKWAY (PUBLIC) SECTION
NTS



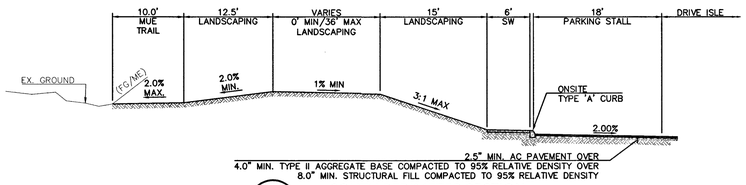
B C8.01 CLIFF SHADOWS NORTH ENTRANCE
TO BE CONSTRUCTED PER STD DETAILS 223 & 228 NTS



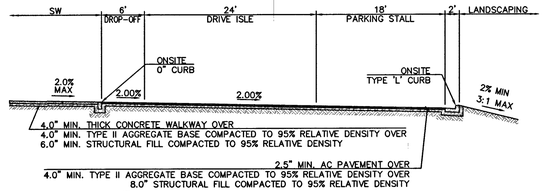
C C8.01 CLIFF SHADOWS SOUTH ENTRANCE
NTS



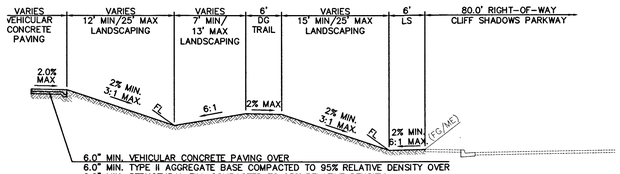
D C8.01 DRIVEWAY SECTION
NTS



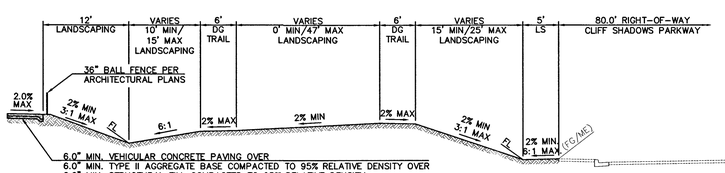
E C8.01 SOUTH PERIMETER SECTION
NTS



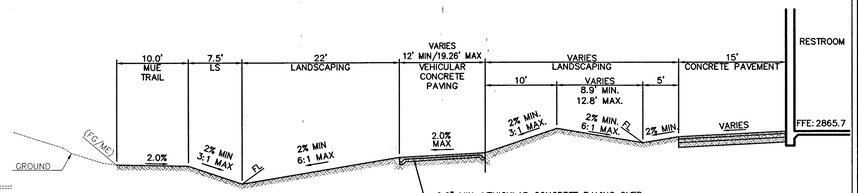
F C8.01 DROP-OFF AREA SECTION
NTS



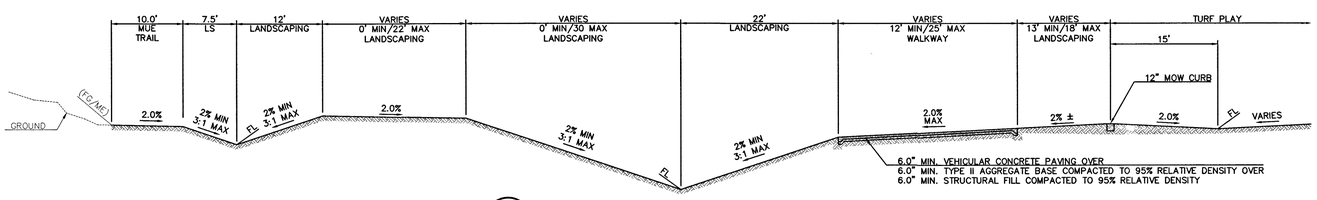
G C8.01 EAST PERIMETER SECTION
NTS



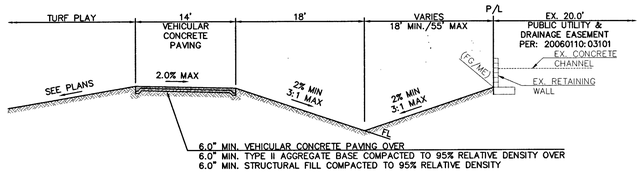
H C8.01 EAST PERIMETER SECTION
NTS



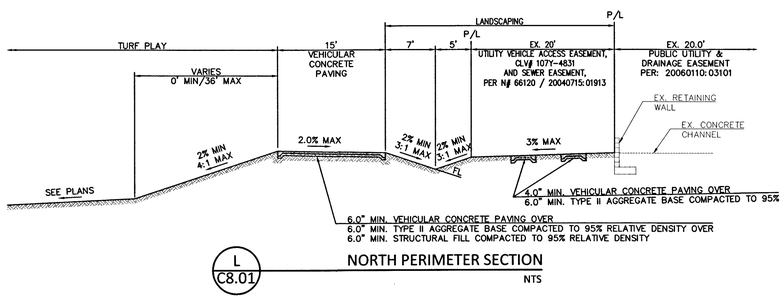
I C8.01 SOUTH PERIMETER SECTION
NTS



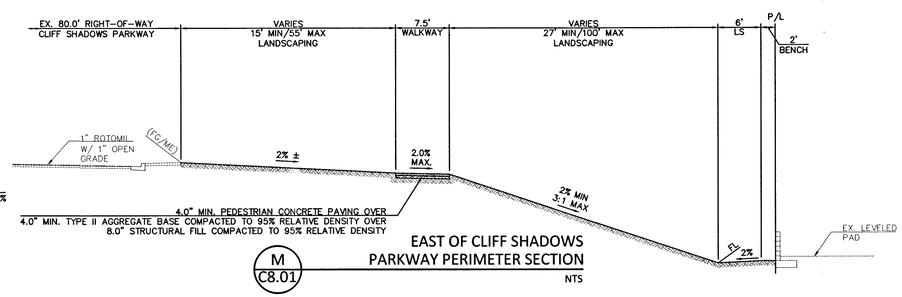
J C8.01 SOUTH PERIMETER SECTION
NTS



K C8.01 NORTH PERIMETER SECTION
NTS



L C8.01 NORTH PERIMETER SECTION
NTS



EAST OF CLIFF SHADOWS PARKWAY PERIMETER SECTION
M C8.01
NTS

DEPARTMENT OF PUBLIC WORKS

GILMORE CLIFF SHADOWS PARK
NEW CITY OF LAS VEGAS PARK

DETAILS SHEET 1

REVISIONS

CONSULTANT

COLLINS ENGINEERS
3130 S. DURANGO DR. SUITE 404
LAS VEGAS, NV 89117
PHONE: (702) 248-8000
FAX: (702) 248-8070
www.collinsengr.com

STAMP

PROFESSIONAL ENGINEER STATE OF NEVADA
ARMANDO PINEDA
EXP. 12-31-19
CIVIL
NO. 18290
7-19-18

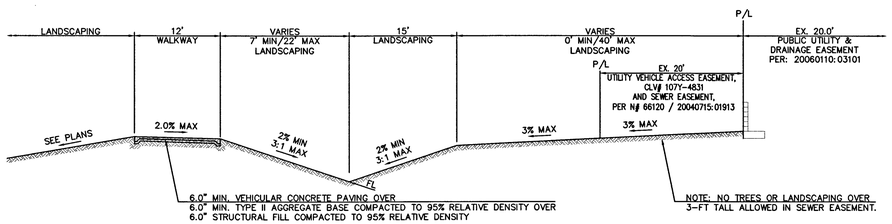
OWNER: CITY OF LAS VEGAS
DEPARTMENT OF PUBLIC WORKS

DEVELOPMENT SERVICES CENTER
333 N. RANCHO DRIVE
LAS VEGAS, NEVADA 89106
PHONE: (702) 229-6276
FAX: (702) 384-4846

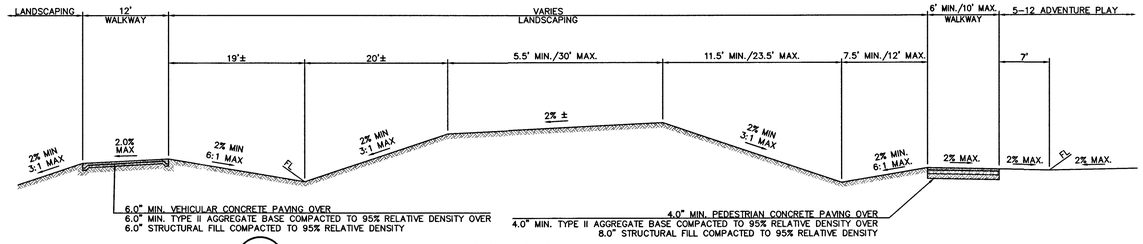
DRAWN	DSI
FILE	180101445
DATE	6/18/2018
SCALE	N.T.S.
BID NO	18.66085.DD
CLV DWG NO	650.116
HANSEN NO	66085
	LIB-00891
SHT NO	C8.01

THESE PLANS AND SPECIFICATIONS ARE THE PROPERTY OF COLLINS ENGINEERS AND SHALL NOT BE USED ON ANY PROJECT OTHER THAN THE SPECIFIC PROJECT FOR WHICH THEY HAVE BEEN PREPARED, EXCEPT BY AGREEMENT IN WRITING AND APPROPRIATE COMPENSATION TO COLLINS ENGINEERS. THESE PLANS AND SPECIFICATIONS SHALL NOT BE LOANED, COPIED OR MADE AVAILABLE TO ANY UNAUTHORIZED PERSONS WITHOUT PRIOR WRITTEN CONSENT OF COLLINS ENGINEERS. VISUAL CONTACT WITH THESE PLANS AND SPECIFICATIONS SHALL CONSTITUTE PRIMA FACIE EVIDENCE OF ACCEPTANCE OF THESE RESTRICTIONS.

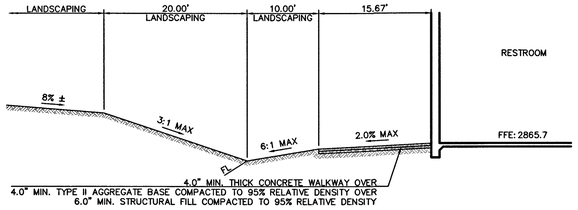
H:\CAD\LAND\10297\DWG\SHEETS\10297-C8.01-DTL.DWG 07/18/2018 03:18:11 PM



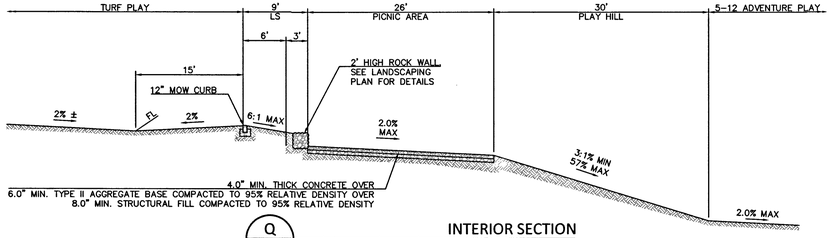
N C8.02 NORTH PERIMETER DETAIL NTS



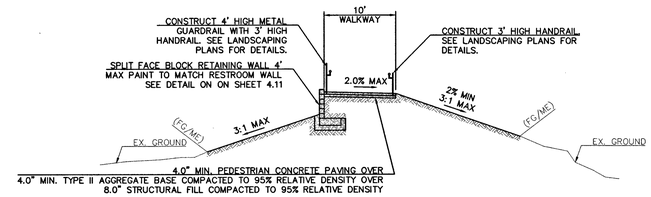
O C8.02 INTERIOR SECTION NTS



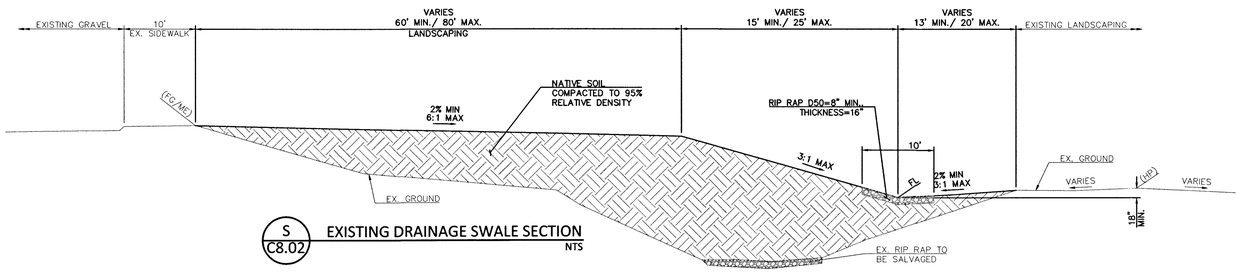
P C8.02 INTERIOR SECTION NTS



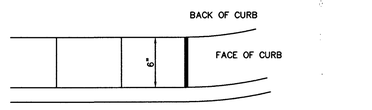
Q C8.02 INTERIOR SECTION NTS



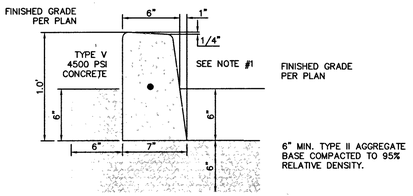
R C8.02 RETAINING WALL DETAIL NTS



S C8.02 EXISTING DRAINAGE SWALE SECTION NTS



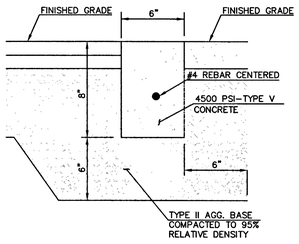
TYPICAL PLAN



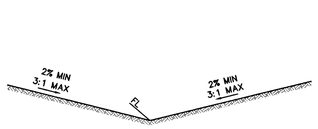
TYPE 'A' CURB SECTION

NOTES:
1. CONTINUOUS #4 REBAR IN RADIUS OF CURB ONLY.

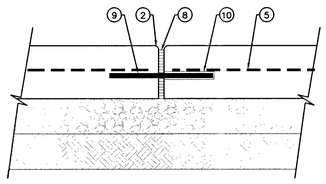
1 C8.02 TYPE 'A' CURB (ONSITE) NTS



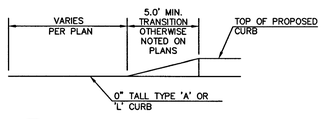
2 C8.02 0" TALL TYPE 'A' CURB NTS



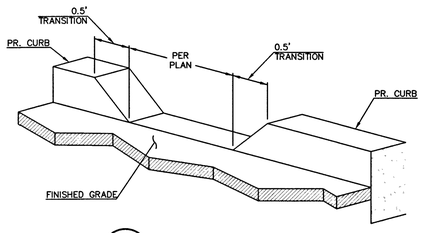
3 C8.02 GRADED SWALE DETAIL N.T.S.



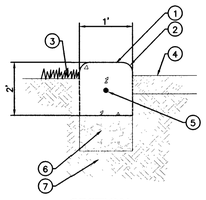
SECTION AT EXPANSION JOINT



4 C8.02 ONSITE CURB TRANSITION NTS



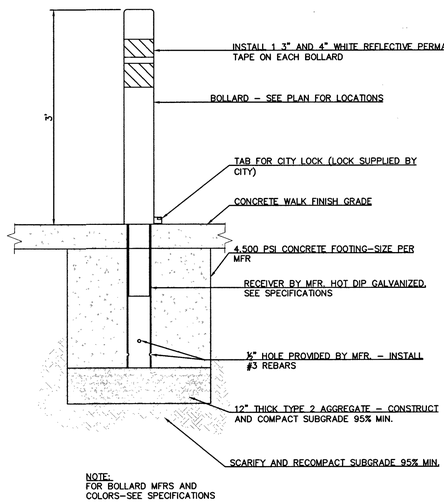
5 C8.02 CURB OPENING NTS



SECTION

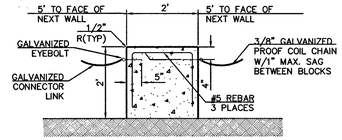
1. CONCRETE MOW CURB WITH MEDIUM BROOM FINISH.CURB MAY BE EXTRUDED OR FORMED IN PLACE.
2. 1/4" RADIUS EDGE, TYP.
3. TURF GRADE. HOLD 1/2" BELOW TOP OF MOW CURB IN SEED OR 1-1/2" FOR SOD (WHERE OCCURS).
4. DG FINISH GRADE OF PLANTER AREA.
5. #4 HORIZONTAL REBAR, CONTINUOUS EXCEPT AT EXPANSION JOINTS. SEE SECTION AT EXPANSION JOINT ABOVE.
6. TYPE II AGGREGATE BASE, COMPACTED 90% MIN.
7. COMPACTED SUBGRADE 90% MIN.
8. INSTALL BITUMINUM FIBER EXPANSION JOINTS AT 30'-0" O.C.MAX AND AT ADJACENT PAVING. INSTALL CONTROL JOINTS AT 6'-0" O.C.
9. 24" #4 REBAR
10. PVC SLEEVE (ONE SIDE)

6 C8.02 12" CONCRETE MOW CURB NTS

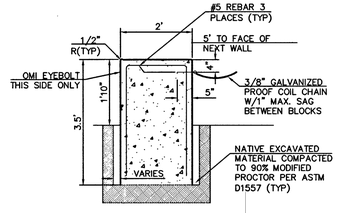


NOTE:
FOR BOLLARD MFRS AND COLORS-SEE SPECIFICATIONS

7 C8.02 REMOVABLE BOLLARD DETAIL NTS



TYPICAL BLOCK DETAIL



END BLOCK

8 C8.02 REINFORCED CHAIN LINK POST MOUNT DETAIL NTS

CITY OF LAS VEGAS NEVADA
PUBLIC WORKS
REVISIONS
CONSULTANT
COLLINS ENGINEERS
3130 S. DURANGO DR., SUITE 404
LAS VEGAS, NV 89117
PHONE: (702) 248-8000
FAX: (702) 248-8070
www.collinsengr.com

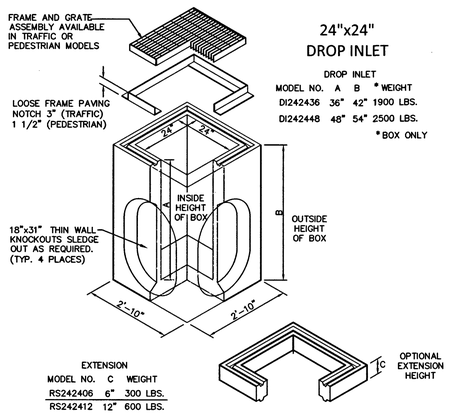
GILMORE CLIFF SHADOWS PARK
NEW CITY OF LAS VEGAS PARK
DETAILS SHEET 2

STAMP
REGISTERED PROFESSIONAL ENGINEER STATE OF NEVADA ARMANDO PINEDA EXP. 12-31-19 CIVIL NO. 18290 7-19-18

OWNER: CITY OF LAS VEGAS
DEPARTMENT OF PUBLIC WORKS
DEVELOPMENT SERVICES CENTER
333 N. RANCHO DRIVE
LAS VEGAS, NEVADA 89106
PHONE: (702) 229-6276
FAX: (702) 384-4846

DRAWN	DSI
FILE	180101445
DATE	6/18/2018
SCALE	N.T.S.
BID NO	18.66085.DD
CLV DWG NO	650.116
HANSEN NO	66085
	L18-00891
SHT NO	C8.02

ALL DRAWINGS, AS INSTRUMENTS OF SERVICE, ARE AND SHALL REMAIN THE PROPERTY OF COLLINS ENGINEERS. ALL REPRODUCTIONS, ELECTRONIC OR OTHERWISE, NOT IN THE DIRECT PURSUANCE OF COLLINS ENGINEERS' CONTRACT WITHOUT THE WRITTEN PERMISSION OF COLLINS ENGINEERS IS PROHIBITED. ANY REUSE OF THESE DRAWINGS AND SPECIFICATIONS SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY OR LEGAL EXPOSURE TO COLLINS ENGINEERS. ALL REPRODUCTIONS TAKEN FROM THESE DRAWINGS AND SPECIFICATIONS SHALL CONTAIN THIS STATEMENT. THE USER OF THESE DRAWINGS AND SPECIFICATIONS SHALL HOLD COLLINS ENGINEERS HARMLESS AND INDEMNIFY COLLINS ENGINEERS FROM AND AGAINST ANY AND ALL LOSS, DAMAGE, LIABILITY AND COSTS, INCLUDING REASONABLE ATTORNEY'S FEES AND COST OF DEFENSE, ARISING IN ANY MANNER FROM ANY USE OF THESE DRAWINGS AND SPECIFICATIONS WITHOUT THE WRITTEN PERMISSION OF COLLINS ENGINEERS.



24"x24"
DROP INLET

DROP INLET

MODEL NO.	A	B	* WEIGHT
DI242436	36"	42"	1900 LBS.
DI242448	48"	54"	2500 LBS.

* BOX ONLY

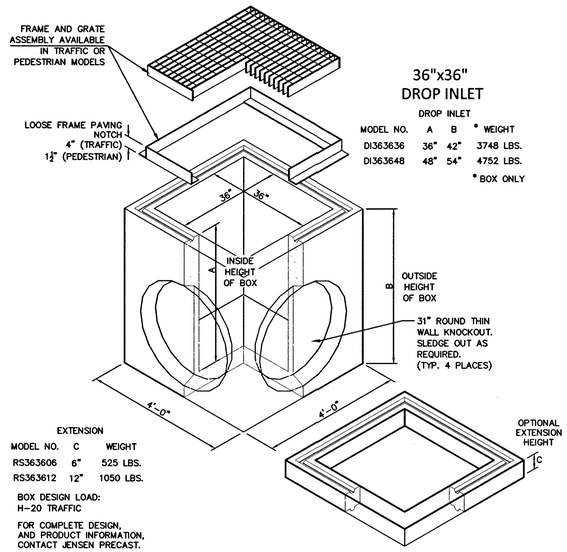
EXTENSION

MODEL NO.	C	WEIGHT
RS242406	6"	300 LBS.
RS242412	12"	600 LBS.

BOX DESIGN LOAD:
H-20 TRAFFIC

FOR COMPLETE DESIGN AND PRODUCT INFORMATION, CONTACT JENSEN PRECAST.

9 / C8.03 — 24"X24" DROP INLET (REFERENCE ONLY) — NTS



36"x36"
DROP INLET

DROP INLET

MODEL NO.	A	B	* WEIGHT
DI363636	36"	42"	3748 LBS.
DI363648	48"	54"	4752 LBS.

* BOX ONLY

EXTENSION

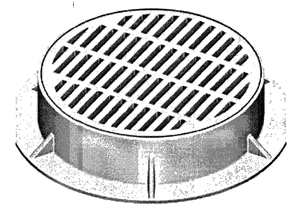
MODEL NO.	C	WEIGHT
RS363606	6"	525 LBS.
RS363612	12"	1050 LBS.

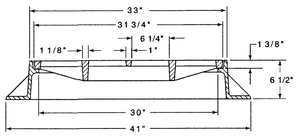
BOX DESIGN LOAD:
H-20 TRAFFIC

FOR COMPLETE DESIGN, AND PRODUCT INFORMATION, CONTACT JENSEN PRECAST.

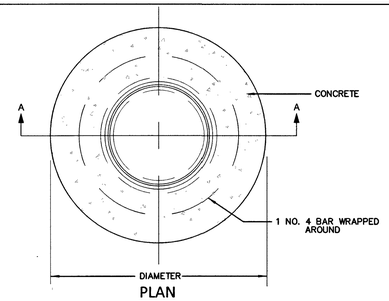
10 / C8.03 — 36"X36" DROP INLET (REFERENCE ONLY) — NTS

NEENAH R-2557
INLET FRAME AND GRATE
OR EQUAL

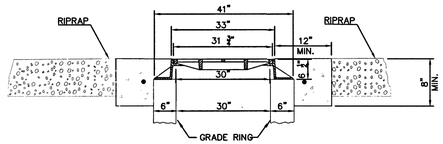




CATALOG NUMBER	GRATE TYPE	SQ. FT. OPEN	WEIR PERIMETER LINEAL FEET
R-2557	G	2.0	8.4

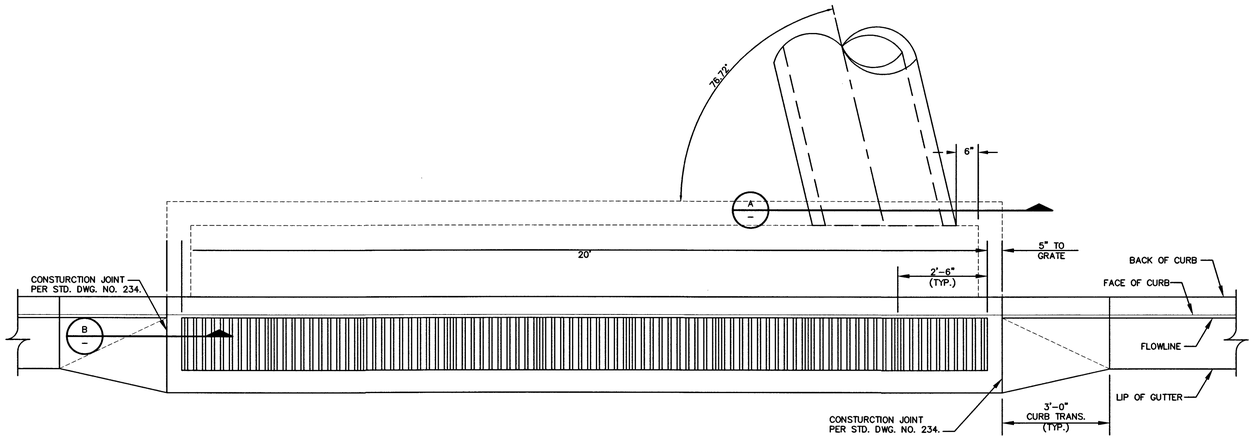


PLAN

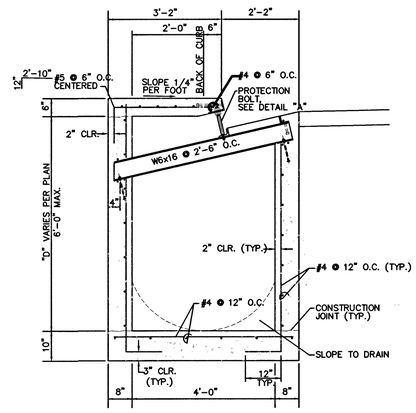


SECTION A-A

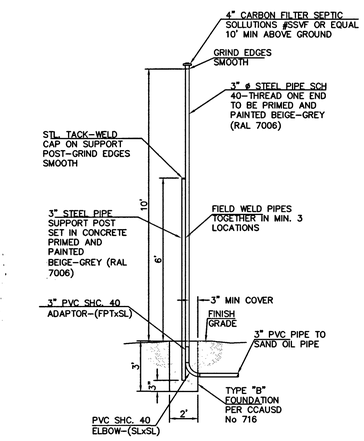
11 / C8.03 — 30" GRATE COLLAR DETAIL — NTS



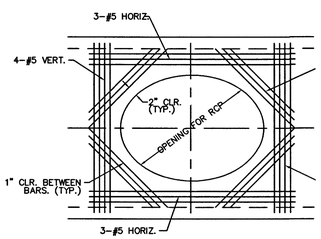
DROP INLET LAYOUT PLAN
SCALE: 1" = 2'



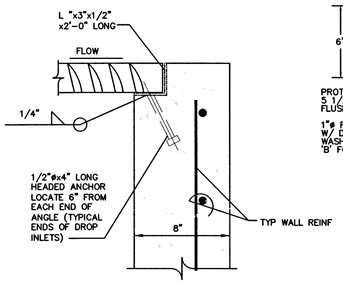
TYPE "CM" DROP INLET SECTION (6' DEEP MAX.)
SCALE: 1" = 2'



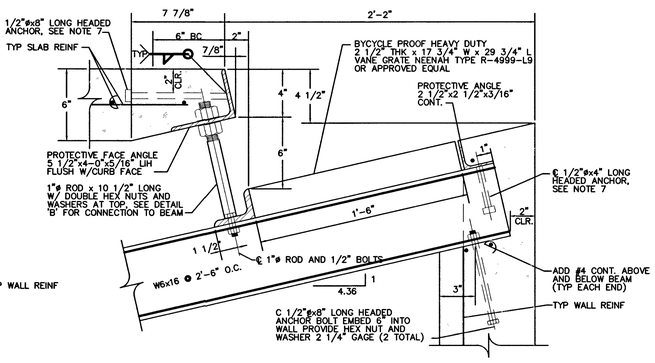
13 / C8.03 — VENT POLE DETAIL — "CONSTRUCT PER BUILDING PLANS" — SCALE: N.T.S.



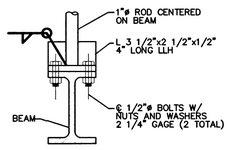
SECTION "A"
SCALE: 1" = 2'



SECTION "B"
SCALE: 1" = 1/2'



PROTECTIVE FACE & ROD - DETAIL "A"
SCALE: 1" = 1/2'



DETAIL "B"
SCALE: 1" = 1/2'

NOTES:

1. ALL EXPOSED METALS SHALL BE HOT DIP GALVANIZED AFTER FABRICATION.
2. PROVIDE 1/2" (MIN.) CLEARANCE ALL AROUND THE STEEL BEAM, DRY PACK AFTER INSTALLATION.
3. WHEN REQUIRED BY LENGTH OF OPENING, PLATE ANGLE MAYBE DELIVERED IN SECTIONS AND BUTT WELDED IN PLACE.
4. ALL GALVANIZING DAMAGED BY WELDING SHALL RECEIVE TWO COATS OF GALVALLOY OR EQUAL.
5. CONCRETE SHALL BE MODIFIED CLASS DA, SEE SPECIAL PROVISIONS SECTION 501.
6. ANGLE ANCHORS SHALL BE EMBEDDED MIDPOINT IN EACH ENDWALL AND EVENLY SPACED. (MAXIMUM SPACING OF 2')

12 / C8.03 — TYPE "CM" DROP INLET DETAIL (6' DEEP MAX.) — SCALE: AS NOTED

CITY OF LAS VEGAS NEVADA

REVISIONS

CONSULTANT

COLLINS ENGINEERS
3130 S. DURANGO DR., SUITE 404
LAS VEGAS, NV 89117
PHONE: (702) 248-8000
FAX: (702) 248-8070
www.collinsengr.com

DEPARTMENT OF PUBLIC WORKS

GILMORE CLIFF SHADOWS PARK
NEW CITY OF LAS VEGAS PARK

DETAILS SHEET 3

STAMP

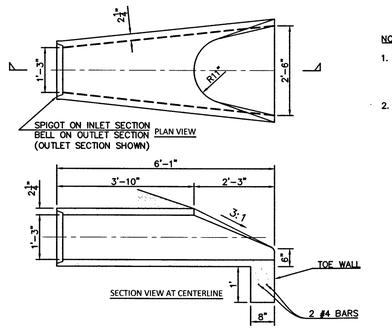
PROFESSIONAL ENGINEER STATE OF NEVADA
ARMANDO PINEDA
EXP. 12-31-19
CIVIL
NO. 18290
7-19-18

OWNER: CITY OF LAS VEGAS
DEPARTMENT OF PUBLIC WORKS

DEVELOPMENT SERVICES CENTER
333 N. RANCHO DRIVE
LAS VEGAS, NEVADA 89106
PHONE: (702) 229-6276
FAX: (702) 384-4846

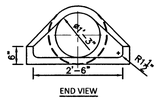
DRAWN	DSI
FILE	180101445
DATE	6/18/2018
SCALE	N.T.S.
BID NO	18.66085.DD
CLV DWG NO	650.116
HANSEN NO	66085
	L18-00891
SHT NO	C8.03

H:\CAD\LAND\10297\DWG\SHEETS\10297-C8.01-DTL.DWG 07/18/2018 03:19:01 PM

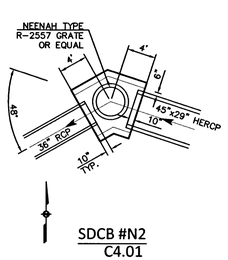


NOTES:

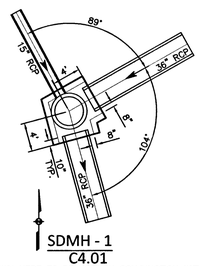
1. REINFORCED CONCRETE PIPE SHALL CONFORM TO ASTM C-76, ASTM-C-443, AASHTO M-170, AND AASHTO M-198.
2. FOR COMPLETE DESIGN AND PRODUCT INFORMATION CONTACT MANUFACTURER.



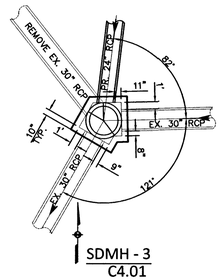
13 / C8.04 — 15" RCP FLARED END SECTION — NTS



SDCB #N2 / C4.01



SDMH - 1 / C4.01

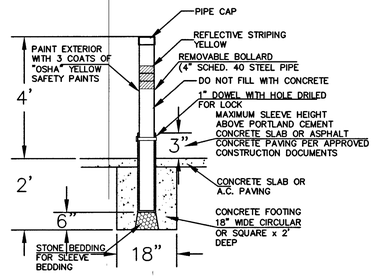


SDMH - 3 / C4.01

**DIMENSIONS SHOWN HERE TO BE USED IN CONJUNCTION WITH TYPE III MANHOLE DETAIL (USDCCA #406 ON SHEET C8.07)

REINFORCEMENT PER USDCCA #406 ON SHEET C8.07.

14 / C8.04 — SDMH GEOMETRIC DETAIL — SCALE: 1"=10'

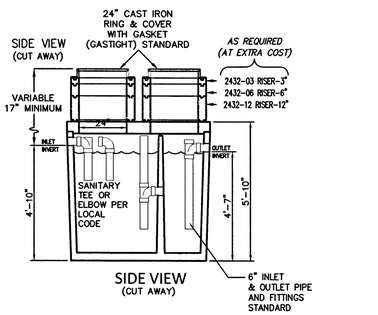


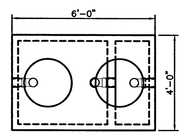
BOLLARD NOTES:

1. PROVIDE 4' CLEAR SPACING BETWEEN BOLLARDS (4.5' ON CENTER).
2. PER DCSWCS SD-38
3. YELLOW REFLECTIVE TAPE SHALL BE PLACED ON EACH FACE OF BOLLARD.

REMOVABLE/LOCKABLE BOLLARD DETAIL

NTS





LIQUID CAPACITY: 500 GALLONS.

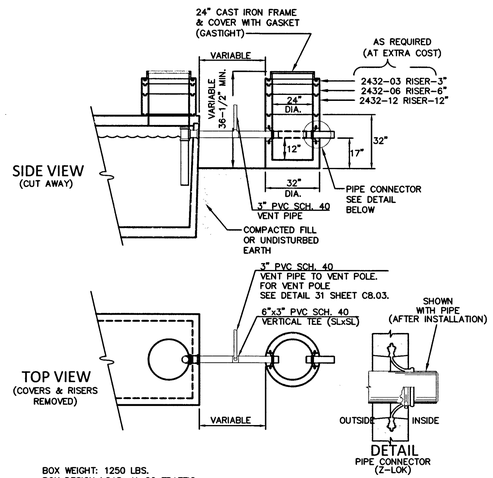
BOX DESIGN LOAD: H-20 TRAFFIC FROM 1' TO 6' OF SOIL COVER.

FOR COMPLETE DESIGN AND PRODUCT INFORMATION CONTACT JENSEN PRECAST.

3/30/01
50050_-P-v1.dwg
©2001 Jensen Precast

JENSEN PRECAST

15 / C8.04 — 500 GAL SAND OIL INTERCEPTOR DETAIL
MODEL JP500EE-SO OR EQUAL
"CONSTRUCT PER BUILDING PLANS" — SCALE: N.T.S.



BOX WEIGHT: 1250 LBS.
BOX DESIGN LOAD: H-20 TRAFFIC

SAMPLE BOX MUST BE PLACED ON SUITABLE BASE OF COMPACTED SOIL OR UNDISTURBED EARTH IN TRAFFIC CONDITION. FOR COMPLETE DESIGN AND PRODUCT INFORMATION, CONTACT JENSEN PRECAST.

PIPE CONNECTOR
CAST INTEGRALLY
IN WALL. WILL ACCEPT
PIPE O.D. (INCHES)

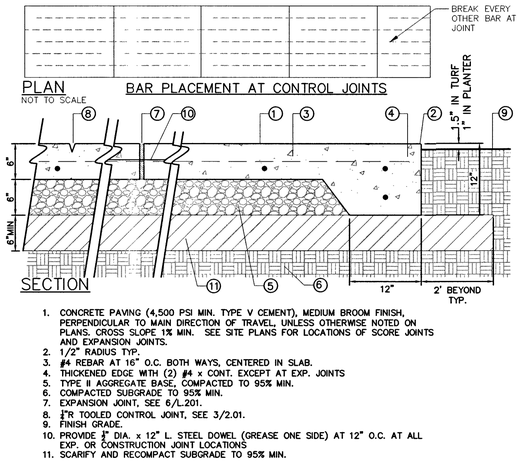
MIN.	MAX.
4.25	6.25

SEE Z-LOK PIPE CONNECTOR PAGE FOR ADDITIONAL INFORMATION

10/19/05
2432Z Sample Box_B.dwg
©2005 Jensen Precast

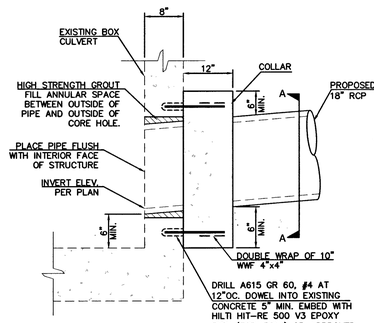
JENSEN PRECAST

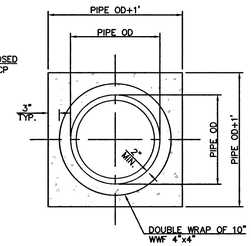
16 / C8.04 — SAMPLE BOX DETAIL
MODEL 2432-Z OR EQUAL
SCALE: N.T.S.



1. CONCRETE PAVING (4,500 PSI MIN. TYPE V CEMENT), MEDIUM BROOM FINISH, PERPENDICULAR TO MAIN DIRECTION OF TRAVEL, UNLESS OTHERWISE NOTED ON PLANS. CROSS SLOPE 1% MIN. SEE SITE PLANS FOR LOCATIONS OF SCORE JOINTS AND EXPANSION JOINTS.
2. 1/2" RADIUS TYP.
3. #4 REBAR AT 16" O.C. BOTH WAYS, CENTERED IN SLAB.
4. THICKENED EDGE WITH (2) #4 x CONT. EXCEPT AT EXP. JOINTS
5. TYPE II AGGREGATE BASE, COMPACTED TO 95% MIN.
6. COMPACTED SUBGRADE TO 95% MIN.
7. EXPANSION JOINT, SEE 6/L.201.
8. 1/2"R TOOLED CONTROL JOINT, SEE 3/2.01.
9. FINISH GRADE.
10. PROVIDE 1" DIA. x 12" L. STEEL DOWEL (GREASE ONE SIDE) AT 12" O.C. AT ALL EXP. OR CONSTRUCTION JOINT LOCATIONS
11. SCARIFY AND RECOMPACT SUBGRADE TO 95% MIN.

17 / C8.04 — VEHICULAR CONCRETE PAVING DETAIL — SCALE: N.T.S.

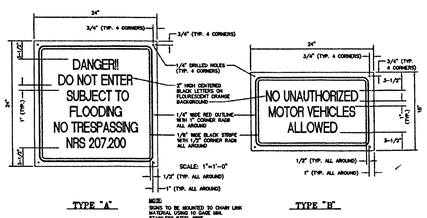




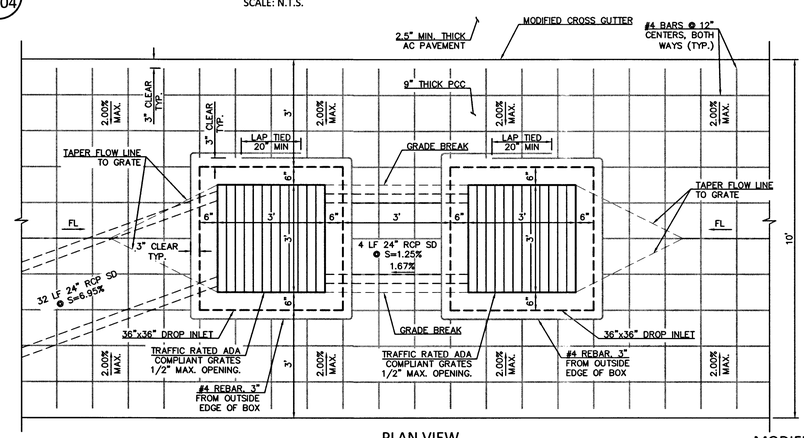
NOTES:

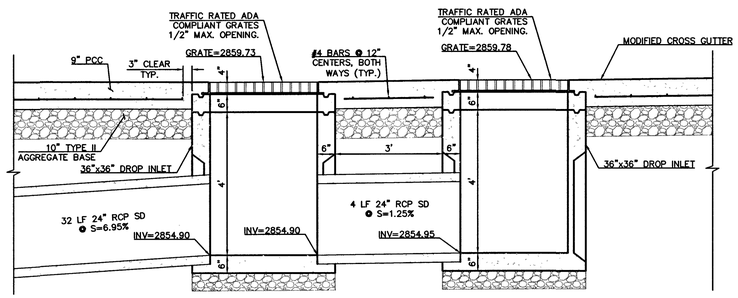
1. MAXIMUM CORE HOLE DIAMETER IS OUTSIDE PIPE DIAMETER + 4 INCHES.
2. COLLAR SHALL EXTEND A MINIMUM OF 6 INCHES BEYOND CORE HOLE.
3. USE GROUT MIX PER NDOT SPEC 706.03.04.

18 / C8.04 — PIPE PENETRATION DETAIL — SCALE: N.T.S.



19 / C8.04 — FLOOD WARNING SIGNS DETAIL — SCALE: N.T.S.





NOTES:

1. SEE DETAIL 28 SHEET C8.14 FOR GRADING INFORMATION.
2. SEE USDCCA DWG. NO 228 SHEET C8.05 FOR ADDITIONAL CONSTRUCTION DETAILS.

20 / C8.04 — MODIFIED 10' WIDE CROSS GUTTER WITH DROP INLETS DETAIL — SCALE: 1" = 2'

SECTION VIEW

CITY OF LAS VEGAS NEVADA

REVISIONS

CONSULTANT

COLLINS ENGINEERS
3130 S. DURANGO DR. SUITE 404
LAS VEGAS, NV 89117
PHONE: (702) 248-8000
FAX: (702) 248-8070
www.collinsengr.com

DEPARTMENT OF PUBLIC WORKS

GILMORE CLIFF SHADOWS PARK
NEW CITY OF LAS VEGAS PARK

DETAILS SHEET 4

STAMP

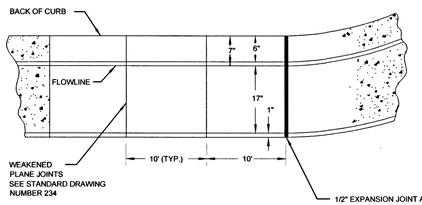
PROFESSIONAL ENGINEER-STATE OF NEVADA
ARMANDO PINEDA
EXP. 12-31-19
CIVIL
NO. 18290
7-19-18

OWNER: CITY OF LAS VEGAS
DEPARTMENT OF PUBLIC WORKS

DEVELOPMENT SERVICES CENTER
333 N. RANCHO DRIVE
LAS VEGAS, NEVADA 89106
PHONE: (702) 229-6276
FAX: (702) 384-4846

DRAWN	DSI
FILE	180101445
DATE	6/18/2018
SCALE	N.T.S.
BID NO	18.66085.DD
CLV DWG NO.	550.116
HANSEN NO	66085
	L18-00891
SHT NO	C8.04

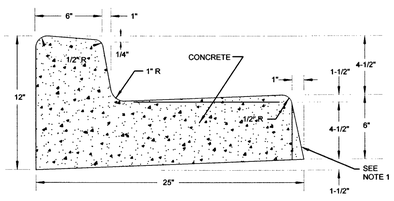
ALL DRAWINGS, DESIGNS, PLANS, SPECIFICATIONS, DOCUMENTS AND WORKS OF SIMILAR NATURE PREPARED BY THE CONSULTANT (AND THE CONSULTANT'S SUBCONSULTANTS AND SUBCONTRACTORS) ARE AND SHALL REMAIN THE PROPERTY OF THE CONSULTANT. THEY ARE NOT TO BE USED BY THE OWNER OR ANYONE ELSE ON OTHER PROJECTS, FOR ADDITIONS TO THIS PROJECT, OR FOR COMPLETION OF THIS PROJECT BY OTHERS, EXCEPT BY AGREEMENT IN WRITING AND WITH APPROPRIATE COMPENSATION TO THE CONSULTANT. ALL DRAWINGS, DESIGNS, PLANS, SPECIFICATIONS, DOCUMENTS AND WORKS OF SIMILAR NATURE PREPARED BY THE CONSULTANT (AND THE CONSULTANT'S SUBCONSULTANTS AND SUBCONTRACTORS) ARE AND SHALL REMAIN THE PROPERTY OF THE CONSULTANT. THEY ARE NOT TO BE USED BY THE OWNER OR ANYONE ELSE ON OTHER PROJECTS, FOR ADDITIONS TO THIS PROJECT, OR FOR COMPLETION OF THIS PROJECT BY OTHERS, EXCEPT BY AGREEMENT IN WRITING AND WITH APPROPRIATE COMPENSATION TO THE CONSULTANT.



PLAN

NOTES:

1. 1" BATTER ON GUTTER FACE OPTIONAL.
2. WHERE LONGITUDINAL SLOPE IS LESS THAN 0.4%, THE FLOW LINE SHALL BE WATER TESTED.



TYPICAL SECTION

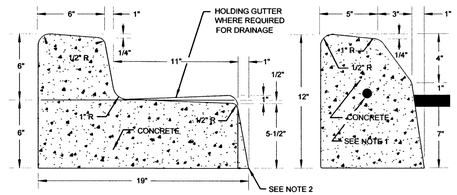
AGENCY APPROVED	B	C	H	L	M	N

SPECIFICATION REFERENCE	
501	CONCRETE
502	CONCRETE STRUCTURES
707	JOINT MATERIAL

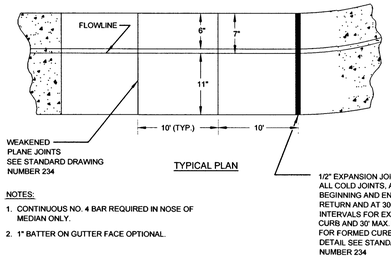
UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

"L" TYPE
CURB AND GUTTER

DATE 12-14-00 | DWG. NO. 216



"L" CURB SECTION "A" CURB SECTION



TYPICAL PLAN

NOTES:

1. CONTINUOUS NO. 4 BAR REQUIRED IN NOSE OF MEDIAN ONLY.
2. 1" BATTER ON GUTTER FACE OPTIONAL.

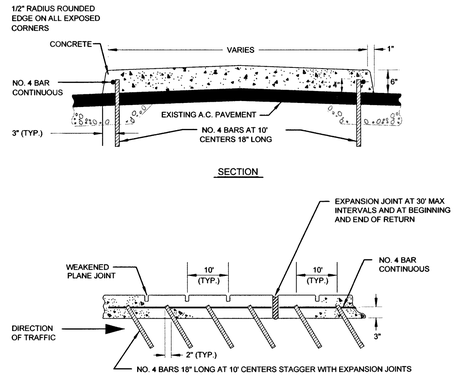
AGENCY APPROVED	B	C	H	L	M	N

SPECIFICATION REFERENCE	
302	AGGREGATE BASE COURSE
501	CONCRETE
707	JOINT MATERIAL

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

"A" AND "L" TYPE
ISLAND CURB

DATE 12-14-00 | DWG. NO. 219



NOTES:

1. FOR EXPANSION JOINT AND WEAKENED PLANE JOINT DETAIL, SEE STANDARD DRAWING NO. 234.
2. WHEN APPROVED BY THE ENGINEER/ENTITY, STRUCTURAL EPOXY ADHESIVE MAY BE USED IN LIEU OF NUMBER 4 DOWEL BAR EXCEPT AT CURB NOSE AND WITHIN 2 FEET OF ANY POINT OF CURVATURE.

AGENCY APPROVED	B	C		L	M	N

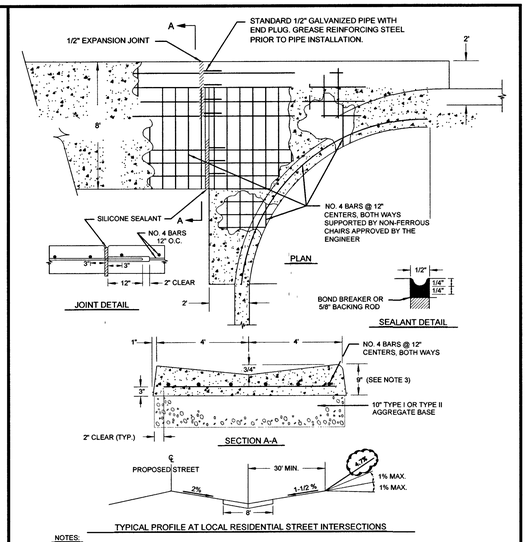
SPECIFICATION REFERENCE	
501	CONCRETE
505	REINFORCING STEEL
707	JOINT MATERIAL

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

SUPPLEMENTAL DRAWING

TACK - ON ISLAND

DATE 01-13-05 | DWG. NO. 220.1.S1



NOTES:

1. FINISHED ASPHALT CONCRETE SURFACE TO BE FLUSH WITH CROSS GUTTER LIP.
2. CONSTRUCTION OF CROSS GUTTER IS NOT ALLOWED ACROSS MAJOR COLLECTOR OR ARTERIAL STREETS.
3. ADJACENT SPANDREL SHALL BE 9" THICK P.C.C.

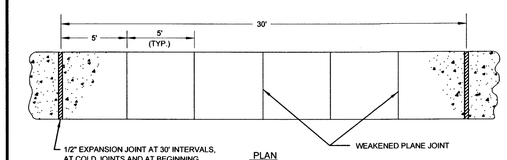
AGENCY APPROVED	B	C	H	L	M	N

SPECIFICATION REFERENCE	
302	AGGREGATE BASE
501	CONCRETE
502	CONCRETE STRUCTURES
505	REINFORCING STEEL
707	EXPANSION JOINT MATERIAL
	TT-S-00153A CLASS A SEALANT

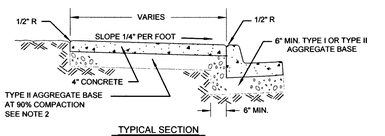
UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

CROSS GUTTER

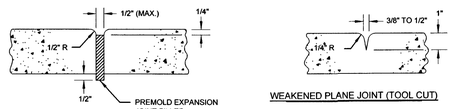
DATE 12-14-00 | DWG. NO. 228



PLAN



TYPICAL SECTION



EXPANSION JOINT WEAKENED PLANE JOINT (TOOL CUT)

NOTES:

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

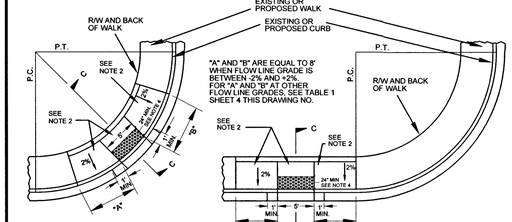
AGENCY APPROVED	B	C	H	L	M	N

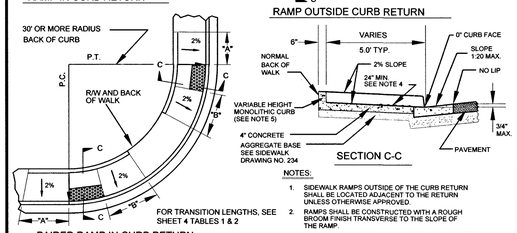
SPECIFICATION REFERENCE	
302	AGGREGATE BASE
501	CONCRETE
502	CONCRETE STRUCTURES
707	JOINT MATERIAL

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

SIDEWALK

DATE 01-01-17 | DWG. NO. 234





NOTES:

1. SIDEWALK RAMPS OUTSIDE OF THE CURB RETURN SHALL BE LOCATED ADJACENT TO THE RETURN UNLESS OTHERWISE APPROVED
2. RAMPS SHALL BE CONSTRUCTED WITH A ROUGH BROOM FINISH TRANSVERSE TO THE SLOPE OF THE RAMP
3. WHEN CONSTRUCTING RAMP WHERE CURB & GUTTER EXISTS, COMPLETELY REMOVE INTERFERING PORTIONS OF EXISTING CURB & GUTTER.
4. DETECTABLE WARNING CONSISTING OF RAISED TRUNCATED DOMES WHICH COMPLY WITH DETAILS ON SHEET 4 OF THIS DRAWING NO. AND CONTRASTING VISUALLY WITH ADJOINING SURFACES SHALL BE PLACED ON BOTTOM PORTION OF RAMP EXTENDING THE FULL WIDTH OF THE RAMP AND TO A MINIMUM DEPTH OF 24 INCHES PAVER BLOCKS PERMITTED ONLY IN THE CITY OF BOULDER CITY FOR DETECTABLE WARNING AREAS.
5. CURB MAY BE PLACED AND IS PREFERRED BEHIND BACK OF WALK IF SUFFICIENT RIGHT-OF-WAY OR EASEMENTS EXIST AND AS APPROVED BY THE ENGINEER.

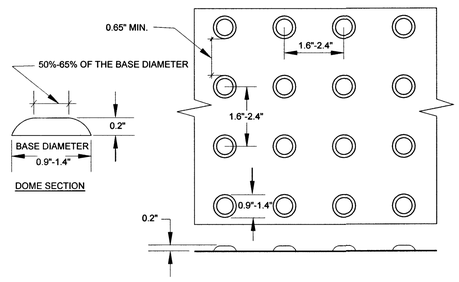
AGENCY APPROVED	B	C	H	L	M	N

SPECIFICATION REFERENCE	
302	AGGREGATE BASE
501	CONCRETE
502	CONCRETE STRUCTURES

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

SIDEWALK RAMP
CASE I

DATE 11-8-07 | DWG. NO. 235 | SHEET 1 OF 4



DETECTABLE WARNING DETAILS (TRUNCATED DOMES)

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

TABLE 1. TRANSITION LENGTHS FOR 1:12 SIDE SLOPES

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

TABLE 2. TRANSITION LENGTHS FOR 1:10 SIDE SLOPES

NOTE:

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

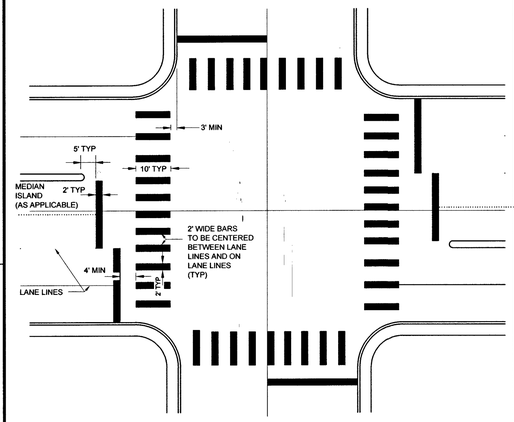
AGENCY APPROVED	B	C	H	L	M	N

SPECIFICATION REFERENCE	
302	AGGREGATE BASE
501	CONCRETE
502	CONCRETE STRUCTURES

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

SIDEWALK RAMP DETAILS

DATE 6-8-06 | DWG. NO. 235 | SHEET 4 OF 4



TYPICAL CROSSWALK STRIPING DETAIL

AGENCY APPROVED	B	C	H	L	M	N

SPECIFICATION REFERENCE	

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

CROSSWALK MARKINGS - TYPE I

DATE 11-12-09 | DWG. NO. 254

CITY OF LAS VEGAS NEVADA

REVISIONS

CONSULTANT

COLLINS ENGINEERS
3130 S. DURANGO DR., SUITE 404
LAS VEGAS, NV 89117
PHONE: (702) 248-8000
FAX: (702) 248-8070
www.collinsengr.com

PUBLIC WORKS

GILMORE CLIFF SHADOWS PARK
NEW CITY OF LAS VEGAS PARK

DETAILS SHEET 5

STAMP

ARMANDO PINEDA
EXP. 12-31-19
CIVIL
NO. 18290
STATE OF NEVADA
7-18-19

OWNER: CITY OF LAS VEGAS
DEPARTMENT OF PUBLIC WORKS

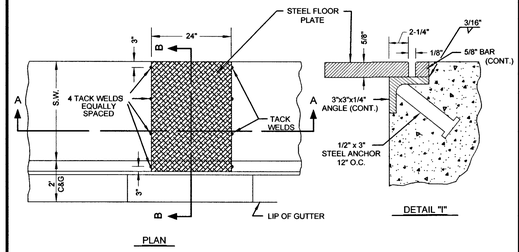
DEVELOPMENT SERVICES CENTER
333 N. RANCHO DRIVE
LAS VEGAS, NEVADA 89106
PHONE: (702) 229-6276
FAX: (702) 384-4846

DRAWN	DSI
FILE	180101445
DATE	6/18/2018
SCALE	N.T.S.
BID NO	18.66085.DD
CLV DWG NO.	550.116
HANSEN NO	66085
	L18-00891
SHT NO	C8.05

DEPARTMENT OF PUBLIC WORKS

ALL DRAWINGS, ARTWORK, DESIGNS AND SPECIFICATIONS INCLUDED IN THESE PLANS ARE THE PROPERTY OF THE ENGINEER, AND ARE NOT TO BE USED IN WHOLE OR IN PART FOR ANY OTHER PROJECT WITHOUT THE WRITTEN AUTHORIZATION OF THE ENGINEER. VISUAL CONTACT WITH THESE PLANS SHALL CONSTITUTE PRIMA FACIE EVIDENCE OF ACCEPTANCE OF THESE RESTRICTIONS.

H:\CAD\LAND\10297\DWG\SHEETS\10297-C8.05-DTL.DWG 07/18/2018 03:22:05 PM



NOTES:

1. IF WIDTH OF PLATE IS GREATER THAN 24", A SPECIAL DESIGN IS REQUIRED.
2. ALL EXPOSED METAL PARTS SHALL BE GALVANIZED AND ALL GALVANIZING DAMAGED BY FABRICATION OR INSTALLATION SHALL RECEIVE TWO COATS OF ALUMINUM PAINT (GALVONOX OR EQUAL).

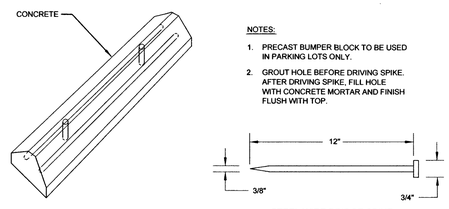
AGENCY APPROVED	B	C	H	L	M	N

SPECIFICATION REFERENCE	
302	BASE AGGREGATES
501	CONCRETE
710	STRUCTURAL STEEL

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

SIDEWALK DRAIN

DATE | DWG. NO. 236



NOTES:

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

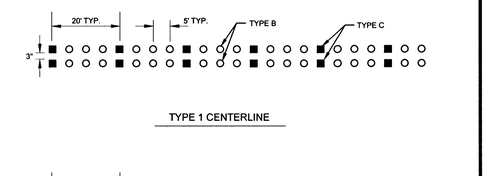
AGENCY APPROVED	B	C	H	L	M	N

SPECIFICATION REFERENCE	
501	CONCRETE
505	REINFORCING STEEL

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

PRECAST BUMPER BLOCK

DATE 12-14-00 | DWG. NO. 238



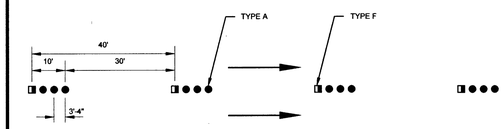
AGENCY APPROVED	B	C	H	L	M	N

SPECIFICATION REFERENCE	
633	PAVEMENT MARKERS

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

TYPICAL CENTERLINE DELINEATION

DATE 6-11-93 | DWG. NO. 244



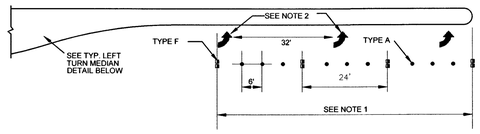
AGENCY APPROVED	B	C	H	L	M	N

SPECIFICATION REFERENCE	
633	PAVEMENT MARKERS

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

TYPICAL LANE LINE DELINEATION

DATE 4-8-99 | DWG. NO. 244.1



NOTES:

1. LENGTH OF STORAGE LINE IS TWO THIRDS OF THE ADDED TURN BAY. (MIN. 100')
2. WHERE ADDITIONAL MOTORIST GUIDANCE IS DEEMED NECESSARY BY THE ENGINEER, INSTALL R3-7R SIGN AND ARROW SYMBOL PAVEMENT MARKINGS FOR THE LENGTH OF THE STORAGE LINE. SYMBOLS SHALL BE APPROVED TYPE II PAVEMENT MARKING FILM.
3. APPROVED TYPE II PAVEMENT MARKING FILM OR RAISED PAVEMENT MARKERS MAY BE USED FOR ADDITIONAL GUIDANCE AT THE DISCRETION OF THE ENGINEER.
4. STORAGE LANE LINE SHALL BE APPROVED TYPE I PAVEMENT MARKING FILM OR IF APPROVED BY THE ENGINEER, RAISED PAVEMENT MARKERS MAY BE USED.

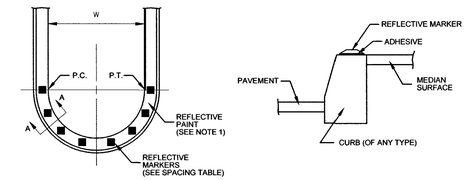
AGENCY APPROVED	B	C	H	L	M	N

SPECIFICATION REFERENCE	
633	PAVEMENT MARKERS
628	PAINTING TRAFFIC STRIPING,
	PAVEMENT MARKINGS...

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

STANDARD PAVEMENT MARKERS ADDED TURN LANE

DATE 06-09-11 | DWG. NO. 246



SPACING TABLE

"W"	NUMBER OF REFLECTORS PER MEDIAN NOSE *
1.0' TO 2.0'	3
2.0' TO 3.0'	4
3.0' TO 4.0'	5
4.0' & GREATER	1 EACH FOR EVERY 1.0' OF CURB LENGTH

* 1 MARKER EACH SHALL BE PLACED ON THE P.C. AND THE P.T. OF THE MEDIAN NOSE; ALL OTHERS SPACED EQUALLY BETWEEN P.T. & P.C.

NOTES:

1. ENTIRE MEDIAN SHALL BE PAINTED WITH REFLECTIVE PAINT, OF SAME COLOR AS REFLECTIVE MARKERS, FROM THE MEDIAN NOSE BACK 5 FEET OR TO THE P.C., WHICHEVER IS GREATER.
2. REFLECTIVE PAVEMENT MARKERS USED ON MEDIAN SHALL CONFORM TO STANDARD DRAWING NO. 247.
3. ORIENTATION OF THE REFLECTIVE MARKERS FACES SHALL BE MADE IN THE FIELD TO ENSURE THAT MARKERS ARE AIMED AT APPROACHING VEHICLES TO BEST ADVANTAGE, ESPECIALLY IN HORIZONTALLY CURVED ROAD SECTIONS.

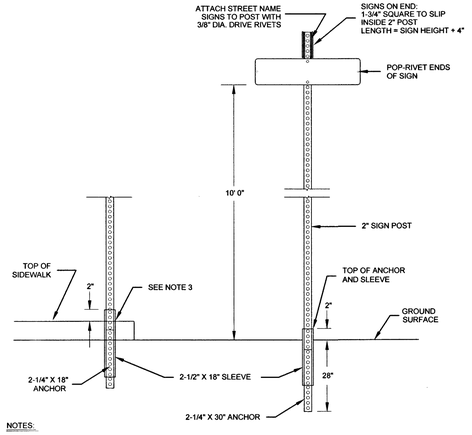
AGENCY APPROVED	B	C	H	L	M	N

SPECIFICATION REFERENCE	
628	PAINTING TRAFFIC STRIPING
633	REFLECTIVE PAVEMENT MARKERS

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

MEDIAN NOSE MARKINGS

DATE 6-11-93 | DWG. NO. 248



NOTES:

1. ALL COMPONENTS SHALL BE SQUARE POST, PERFORATED ON ALL FOUR SIDES.
2. ATTACH ANCHOR AND SLEEVE TOGETHER PRIOR TO DRIVING INTO GROUND. LEAVE AT LEAST ONE HOLE, BUT NO MORE THAN TWO, ABOVE GROUND OR ABOVE SIDEWALK.
3. FOR SIDEWALK INSTALLATION, DRILL SIDEWALK WITH A 3" HOLE, THE CENTER TO BE 6" FROM BACK OF SIDEWALK.
4. ATTACH POST TO ANCHORING SYSTEM BY USING AT LEAST TWO 3/8" DIA. DRIVE RIVETS.
5. PROVIDE 4" MINIMUM LAP BETWEEN POST AND THE ANCHOR/SLEEVE ASSEMBLY.
6. (M) ALL STREET NAME SIGNS SHALL BE 9 INCH STANDARD IN THE CITY OF MESQUITE ONLY.

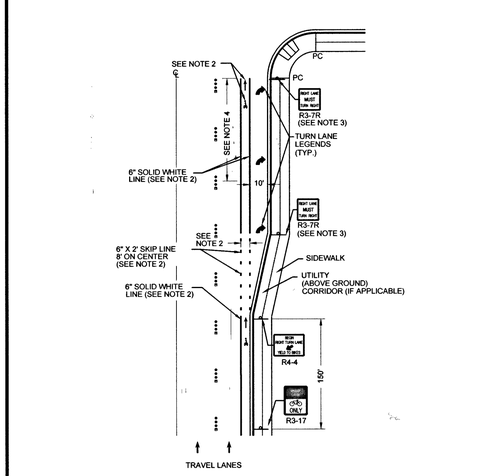
AGENCY APPROVED	B	C	H	L	(M)	N

SPECIFICATION REFERENCE	
631	STREET NAME SIGNS

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

STANDARD STREET NAME SIGN POST INSTALLATION

DATE 5-20-04 | DWG. NO. 249



NOTES:

1. STORAGE LENGTH TO BE DETERMINED BY TRAFFIC ENGINEER.
2. SEE DRAWING NO. 244.9 FOR BIKE LANE LEGEND AND SIGNAGE.
3. WHERE ADDITIONAL MOTORIST GUIDANCE IS DEEMED NECESSARY BY THE TRAFFIC ENGINEER, INSTALL R3-7R SIGN AND ARROW SYMBOL PAVEMENT MARKINGS FOR THE LENGTH OF THE STORAGE LINE. APPROVED TYPE II PAVEMENT MARKING FILM SHALL BE USED FOR SYMBOL MARKINGS.
4. SEE DRAWING NO. 246 NOTE 1 FOR STANDARD PAVEMENT MARKERS ADDED TURN LANE.

AGENCY APPROVED	B	C	H	L	M	N

SPECIFICATION REFERENCE	
628	PAINTING TRAFFIC STRIPING
633	PAVEMENT MARKERS

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

BICYCLE LANE APPROACH TO INTERSECTION WITH EXCLUSIVE RIGHT TURN LANE

DATE 06-09-11 | DWG. NO. 246.1

CITY OF LAS VEGAS NEVADA

REVISIONS

CONSULTANT

COLLINS ENGINEERS
3130 S. DURANGO DR., SUITE 404
LAS VEGAS, NV 89117
PHONE: (702) 248-8000
FAX: (702) 248-8070
www.collinsengr.com

DEPARTMENT OF PUBLIC WORKS

GILMORE CLIFF SHADOWS PARK
NEW CITY OF LAS VEGAS PARK

DETAILS SHEET 6

STAMP

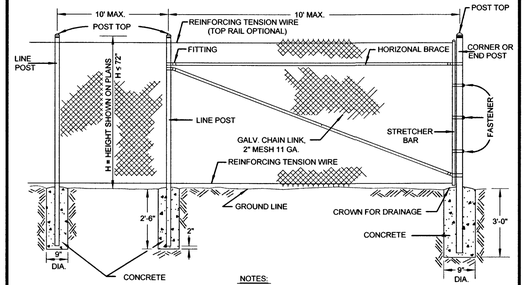
PROFESSIONAL ENGINEER - STATE OF NEVADA
ARMANDO PINEDA
EXP. 12-31-19
CIVIL
NO. 18290
7-19-18

OWNER: CITY OF LAS VEGAS
DEPARTMENT OF PUBLIC WORKS

DEVELOPMENT SERVICES CENTER
333 N. RANCHO DRIVE
LAS VEGAS, NEVADA 89106
PHONE: (702) 229-6276
FAX: (702) 384-4846

DRAWN DSI
FILE 180101445
DATE 6/18/2018
SCALE N.T.S.
BID NO 18.66085.DD
CLV DWG NO 650.116
HANSEN NO 66085
L18-00891
SHT NO C8.06

H:\CAD\LAND\10297\DWG\SHEETS\10297-C8.05-DTL.DWG 07/18/2018 03:22:17 PM

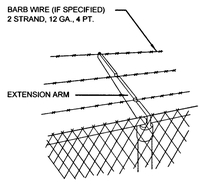


NOTES:

1. FENCING SHALL BE CHAIN LINK AND SHALL CONSIST OF GALVANIZED CHAIN LINK FABRIC ON STEEL POSTS.
   (A) ALL POSTS TOPS SHALL BE FITTED WITH SUITABLE FINIALS.
   (B) BRACES SHALL BE SPACED APPROXIMATELY 12' BELOW TOP OF TERMINAL POSTS AND SHALL EXTEND FROM END, GATE, OR CORNER POSTS TO FIRST ADJACENT LINE POST.
   (C) ALL FITTINGS SHALL BE HOT-DIPPED GALVANIZED MALLEABLE, CAST IRON, OR PRESSED STEEL.
   (D) TOP AND BOTTOM SELVAGES OF THE FENCE SHALL HAVE A TWISTED AND BARBED FINISH.
2. BARBED WIRE, EXTENSION ARMS, AND TOP HORIZONTAL RAILS SHALL BE INSTALLED ONLY WHEN SHOWN ON THE PLANS AND/OR CALLED FOR IN THE SPECIAL PROVISIONS.

TABLE I
FOR CHAIN LINK FENCE 72" AND LESS

LOCATION	MIN. SIZE	MIN. WEIGHT
END, CORNER & PULL	2.351 O.D.	3.10
LINE	2.00 O.D.	2.72
BRACES	1.630 O.D.	2.27
TOP RAIL	1.630 O.D.	2.27



EXTENSION ARM & BARBED WIRE

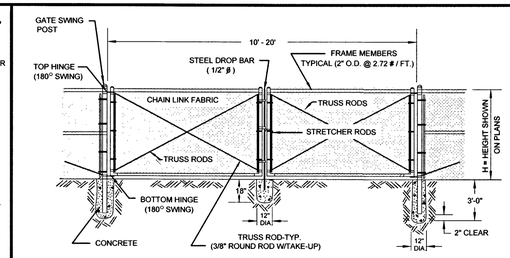
AGENCY APPROVED	B	C	H	L	M	N

SPECIFICATION REFERENCE	
501	CONCRETE
616	FENCING

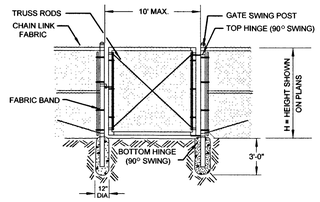
UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

CHAIN LINK FENCE
(72 INCH HIGH OR LESS)

DATE 12-14-00 | DWG. NO. 252



DOUBLE SWING GATE



SINGLE GATE

GATE SWING POST DIA.

GATE SIZE	PIPE DIA.
6' AND LESS	3"O.D. - 5.79 LBS./FT.
6' - 10'	4"O.D. - 9.10 LBS./FT.

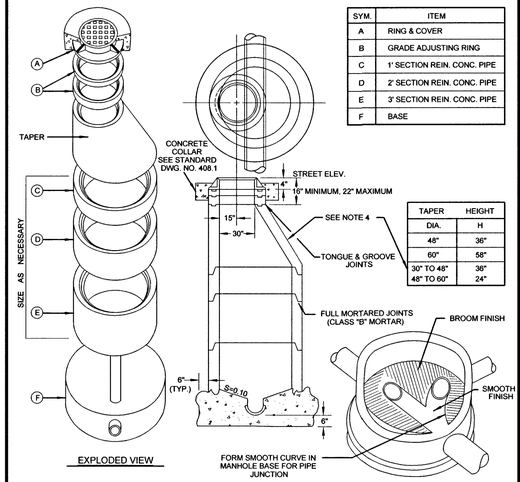
AGENCY APPROVED	B	C	H	L	M	N

SPECIFICATION REFERENCE	
501	CONCRETE
616	FENCING

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

CHAIN LINK GATES

DATE 12-14-00 | DWG. NO. 253



SYM.	ITEM
A	RING & COVER
B	GRADE ADJUSTING RING
C	1' SECTION REIN. CONC. PIPE
D	2' SECTION REIN. CONC. PIPE
E	3' SECTION REIN. CONC. PIPE
F	BASE

TAPER DIA.	HEIGHT H
48"	36"
60"	58"
30" TO 48"	36"
48" TO 60"	24"

NOTES:

1. IN UNIMPROVED NON-TRAFFIC AREAS, TOP OF MANHOLE SHALL BE 6" TO 9" ABOVE GRADE.
2. PIPES SHALL NOT PROTRUDE MORE THAN 3" INSIDE OF MANHOLE SECTION. CONSTRUCT WATER TIGHT CONNECTION TO MANHOLE.
3. PIPE SECTION LENGTHS ARRANGED TO FIT DEPTH.
4. AN OPTIONAL TWO PIECE 30" TO 48" AND 48" TO 60" CONE MAY BE USED.
5. THE USE OF A 30" RING AND COVER SHALL BE APPROVED BY THE ENTITY ENGINEER.

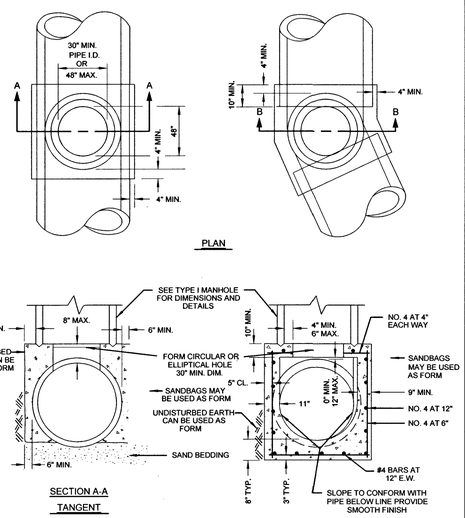
AGENCY APPROVED	B	C	H	L	M	N

SPECIFICATION REFERENCE	
501	CONCRETE & MORTAR
609	CATCH BASINS, MANHOLES & INLETS

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

TYPE I MANHOLE
30 INCH RING AND COVER

DATE 11-10-05 | DWG. NO. 403.1



NOTE:

1. STEPS SHALL BE INSTALLED ON THE UPSTREAM WALL OF THE MANHOLE.
2. THE USE OF A 30" RING AND COVER SHALL BE APPROVED BY THE ENTITY ENGINEER.

AGENCY APPROVED	B	C	H	L	M	N

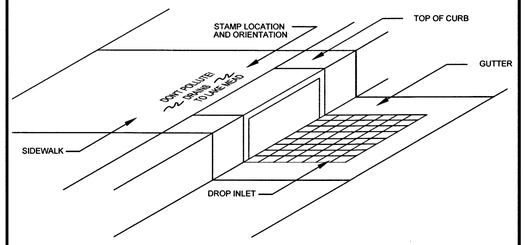
SPECIFICATION REFERENCE	
501	CONCRETE
505	REINFORCING STEEL
609	CATCH BASINS, MANHOLES & INLETS

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

TYPE III MANHOLE
30 INCH RING AND COVER

DATE 11-10-05 | DWG. NO. 406.1

STORMWATER INLET CONCRETE STAMP



NOTES:

1. MESSAGE OR SYMBOL SHALL BE AS SHOWN ON THE DRAWING OR ON THE VERTICAL CURB NEXT TO THE DROP INLET OR AS APPROVED BY THE APPROPRIATE CITY OR COUNTY ENGINEER.
2. LETTERS SHALL BE 1-7/16" IN HEIGHT. THE MESSAGE SHALL BE CENTERED ON THE BACK OF THE INLET OR ON THE TOP OF CURB.
3. CONCRETE SHALL BE STAMPED IN SUCH A WAY AS TO PROVIDE FOR A CLEAR AND LEGIBLE IMAGE. (APPROXIMATE DEPTH OF 1/4").
4. ALL STAMPS SHALL BE APPROVED BY THE CITY OR COUNTY ENGINEER BEFORE BEING USED.
5. STAMP MAY BE PERMANENTLY CAST INTO CAST IRON FRAME OR PRE-CAST CONCRETE PORTIONS OF INLET.
6. WHERE RETROFITTING IS REQUIRED, AN EPOXIED PLACARD BEARING THE MESSAGE AND SYMBOL APPROVED BY THE APPROPRIATE CITY OR COUNTY ENGINEER SHALL BE PERMANENTLY AFFIXED ON THE TOP OF THE ADJACENT CURB.
7. THIS STANDARD IS REQUIRED IN THE LAS VEGAS VALLEY IN WHICH AREA WATER DRAINS TO LAKE MEAD.

AGENCY APPROVED	B	C	H	L	M	N

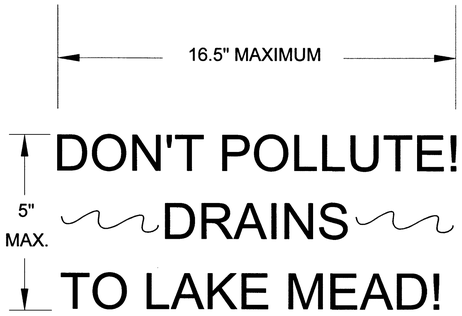
SPECIFICATION REFERENCE	
*	

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

STORM WATER QUALITY MANAGEMENT
STAMP AND SIGN DETAIL

DATE 12-09-10 | DWG. NO. 421 | SHEET 1 OF 3

STAMP MESSAGES AND SYMBOLS



AGENCY APPROVED	B	C	H	L	M	N

SPECIFICATION REFERENCE	
*	

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

STORM WATER QUALITY MANAGEMENT
STAMP AND SIGN DETAIL

DATE 12-09-10 | DWG. NO. 421 | SHEET 2 OF 3



4" PLACARD - COLORS = BLUE AND GREEN

THIS EPOXY PLACARD MESSAGE AND SYMBOL HAS BEEN APPROVED BY THE APPROPRIATE CITY OR COUNTY ENGINEER. ANY OTHER EQUIVALENT MESSAGE AND SYMBOL DESIGNS WILL REQUIRE PRIOR APPROVAL OF THE APPROPRIATE CITY OR COUNTY BEFORE INSTALLATION. THE PLACARD MATERIAL SHALL BE EITHER POLYCARBONATE OR METAL AND THE FINISH SHALL BE UV AND ABRASION RESISTANT.

STORM DRAIN MARKER

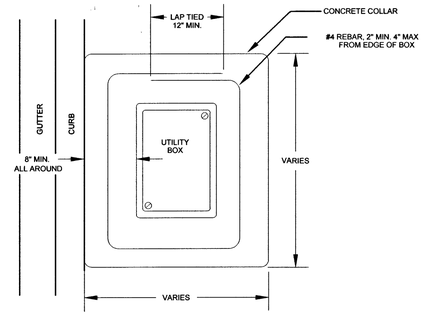
AGENCY APPROVED	B	C	H	L	M	N

SPECIFICATION REFERENCE	

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

STORM WATER QUALITY MANAGEMENT
STAMP AND SIGN DETAIL

DATE 12-09-10 | DWG. NO. 421 | SHEET 3 OF 3



TYPICAL SECTION

AGENCY APPROVED	B	C	H	L	M	N

SPECIFICATION REFERENCE	
501	PORTLAND CEMENT CONCRETE
505	REINFORCING STEEL
623	TRAFFIC SIGNALS & STREETLIGHTING
*	

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

CONCRETE AROUND PULL BOXES
IN UNDEVELOPED AREAS

DATE 12-12-96 | DWG. NO. 329

CITY OF LAS VEGAS NEVADA

REVISIONS

CONSULTANT

COLLINS ENGINEERS
3130 S. DURANGO DR., SUITE 404
LAS VEGAS, NV 89117
PHONE: (702) 248-8000
FAX: (702) 248-8070
www.collinsengr.com

DEPARTMENT OF PUBLIC WORKS

GILMORE CLIFF SHADOWS PARK
NEW CITY OF LAS VEGAS PARK

DETAILS SHEET 7

STAMP

PROFESSIONAL ENGINEER STATE OF NEVADA
ARMANDO PINEDA
EXP. 12-31-19
CIVIL
NO. 18290
7-19-18

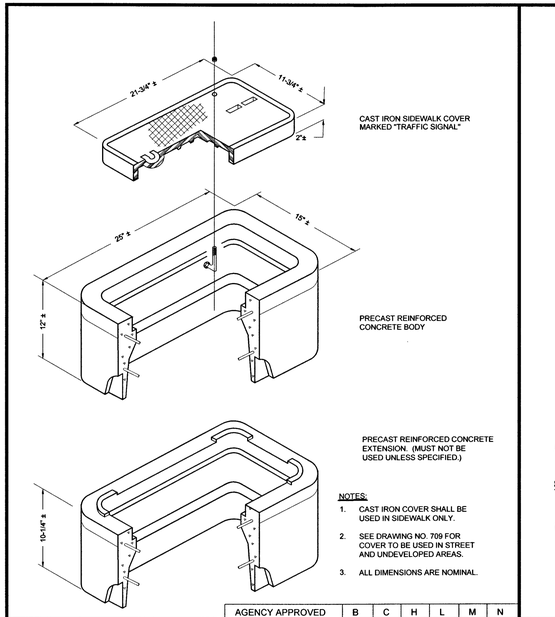
OWNER: CITY OF LAS VEGAS
DEPARTMENT OF PUBLIC WORKS

DEVELOPMENT SERVICES CENTER
333 N. RANCHO DRIVE
LAS VEGAS, NEVADA 89106
PHONE: (702) 229-6276
FAX: (702) 384-4846

DRAWN	DSI
FILE	180101445
DATE	6/18/2018
SCALE	N.T.S.
BID NO	18.66085.DD
CLV DWG NO	950.116
HANSEN NO	66085
	L18-00891
SHT NO	C8.07

THESE PLANS, AS INSTRUMENTS OF SERVICE, ARE THE PROPERTY OF THE CITY OF LAS VEGAS. THEY ARE NOT TO BE USED IN WHOLE OR IN PART FOR ANY OTHER PROJECT WITHOUT THE EXPRESS WRITTEN CONSENT OF THE CITY OF LAS VEGAS. THE REUSE OF THESE PLANS, SPECIFICATIONS, AND/OR ELECTRONIC DATA BY THE OWNER OR ANY OTHER PERSON OR ENTITY ON ANY OTHER PROJECT, OR THE ALTERATION OF THESE PLANS, SPECIFICATIONS, AND/OR ELECTRONIC DATA, WITHOUT THE EXPRESS WRITTEN CONSENT OF THE CITY OF LAS VEGAS, SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO THE CITY OF LAS VEGAS. THE USER SHALL INDEMNIFY AND HOLD HARMLESS THE CITY OF LAS VEGAS AND ITS OFFICERS, EMPLOYEES, AND AGENTS FROM ALL CLAIMS, DAMAGES, LOSSES, AND EXPENSES, INCLUDING ATTORNEY'S FEES, ARISING OUT OF OR RESULTING THEREFROM.

H:\CAD\LAND\10297\DWG\SHEETS\10297-C8.05-DTL.DWG 07/18/2018 03:22:31 PM

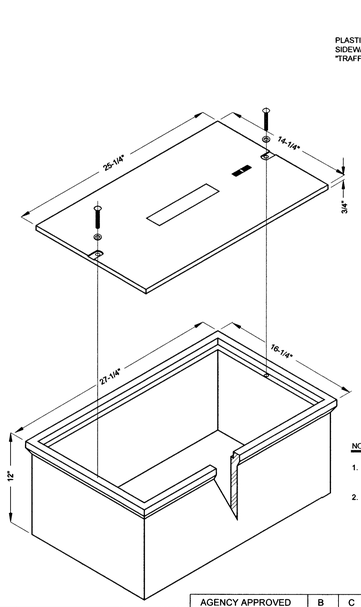


NOTES:

1. CAST IRON COVER SHALL BE USED IN SIDEWALK ONLY.
2. SEE DRAWING NO. 709 FOR COVER TO BE USED IN STREET AND UNDEVELOPED AREAS.
3. ALL DIMENSIONS ARE NOMINAL.

AGENCY APPROVED	B	C	H	L	M	N

SPECIFICATION REFERENCE	UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA
	NO. 5 PULL BOX
DATE	DWG. NO. 706

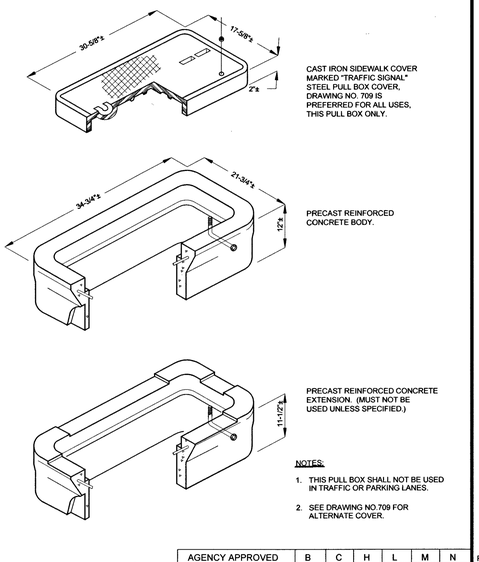


NOTES:

1. THIS PULL BOX SHALL NOT BE USED IN VEHICLE TRAVEL AREAS.
2. PULL BOX TO BE USED IN CONCRETE SIDEWALKS ONLY.

AGENCY APPROVED	B	C	H	L	M	N

SPECIFICATION REFERENCE	UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA
	REINFORCED PLASTIC MORTAR SERVICE BOX ASSEMBLY NO. 5
DATE	DWG. NO. 706.1

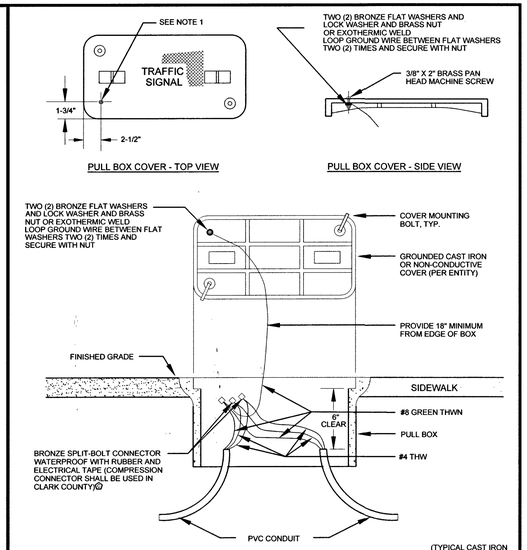


NOTES:

1. THIS PULL BOX SHALL NOT BE USED IN TRAFFIC OR PARKING LANES.
2. SEE DRAWING NO.709 FOR ALTERNATE COVER.

AGENCY APPROVED	B	C	H	L	M	N

SPECIFICATION REFERENCE	UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA
	NO. 7 PULL BOX
DATE	DWG. NO. 707



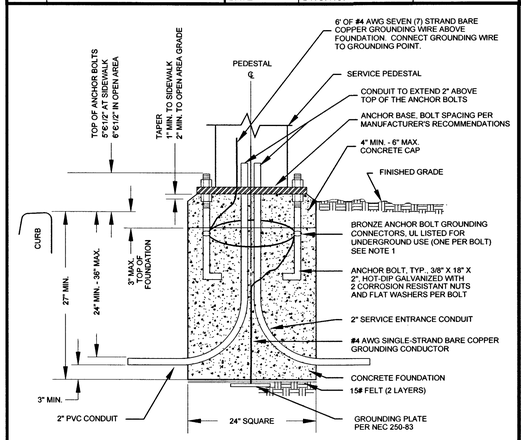
NOTES:

1. PULL BOX LID SHOULD BE TAPPED WITH A 3/8" X 16 COURSE THREAD TAP.
2. FOR TYPICAL NO. 7 PULL BOX COVER GROUNDING, SEE SHEET 1 OF THIS DRAWING NO.

PROFESSIONAL ELECTRICAL ENGINEER STAMP ON FILE

AGENCY APPROVED	B	⬡	H	L	M	N

SPECIFICATION REFERENCE		UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA
623	TRAFFIC SIGNALS & STREETLIGHTING	PULL BOX COVER BONDING DETAIL
DATE 12-12-96	DWG. NO. 709	SHEET 2 OF 2



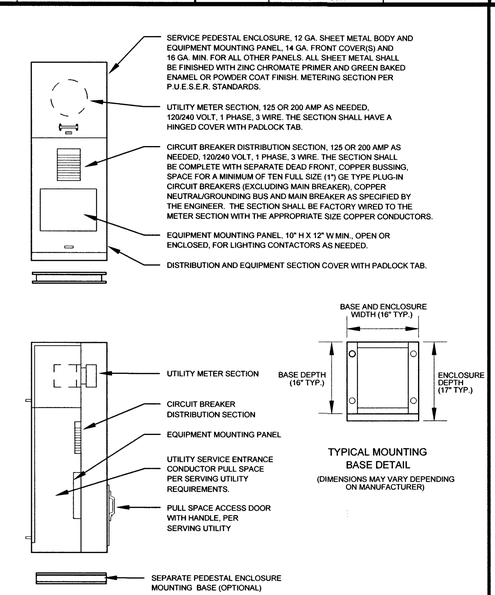
NOTES:

1. BARE COPPER GROUNDING CONDUCTOR SHALL BE LOOPED AROUND ANCHOR BOLTS ONE TIME AND CONNECTED TO EACH ANCHOR BOLT BEFORE CONTINUING DOWN TO THE GROUNDING PLATE.
2. CABINET COVERS SHALL BE PARALLEL WITH CURB.
3. IN AREAS WHERE R/W PERMITS, THE CONCRETE BASE SHALL BE PLACED AT AT THE BACK EDGE OF THE SIDEWALK.
4. CABINET COVERS SHALL OPEN TOWARDS THE STREET WHEN CABINETS ARE LOCATED AT BACK OF WALK. CABINET COVERS SHALL OPEN PARALLEL TO THE SIDEWALK FACING THE DIRECTION OF TRAFFIC WHEN LOCATED WITHIN THE SIDEWALK.

PROFESSIONAL ELECTRICAL ENGINEER STAMP ON FILE

AGENCY APPROVED	B	C	H	L	M	N

SPECIFICATION REFERENCE		UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA
501	PORTLAND CEMENT CONCRETE	SERVICE PEDESTAL FOUNDATION
623	TRAFFIC SIGNALS & STREETLIGHTING	
DATE 9-14-00	DWG. NO. 726	



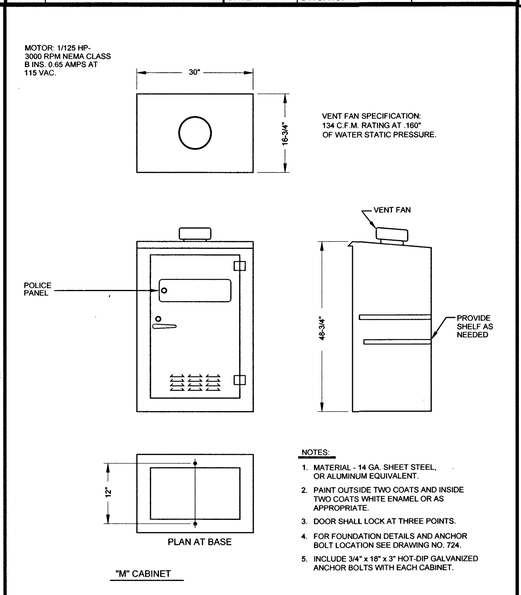
TYPICAL MOUNTING BASE DETAIL

(DIMENSIONS MAY VARY DEPENDING ON MANUFACTURER)

PROFESSIONAL ELECTRICAL ENGINEER STAMP ON FILE

AGENCY APPROVED	B	C	H	L	M	N

SPECIFICATION REFERENCE		UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA
506	STEEL STRUCTURES	SINGLE METER SERVICE PEDESTAL
623	TRAFFIC SIGNALS & STREETLIGHTING	
DATE 8-12-99	DWG. NO. 730	



NOTES:

1. MATERIAL - 14 GA. SHEET STEEL, OR ALUMINUM EQUIVALENT.
2. PAINT OUTSIDE TWO COATS AND INSIDE TWO COATS WHITE ENAMEL OR AS APPROPRIATE.
3. DOOR SHALL LOCK AT THREE POINTS.
4. FOR FOUNDATION DETAILS AND ANCHOR BOLT LOCATION SEE DRAWING NO. 724.
5. INCLUDE 3/4" x 18" x 3" HOT-DIP GALVANIZED ANCHOR BOLTS WITH EACH CABINET.

AGENCY APPROVED	B	C	H	L	M	N

SPECIFICATION REFERENCE	UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA
	TYPE V CABINET
DATE 12-12-96	DWG. NO. 801

DEPARTMENT OF PUBLIC WORKS

CITY OF LAS VEGAS NEVADA

REVISIONS

CONSULTANT

COLLINS ENGINEERS
3130 S. DURANGO DR., SUITE 404
LAS VEGAS, NV 89117
PHONE: (702) 248-8000
FAX: (702) 248-8070
www.collinsengr.com

GILMORE CLIFF SHADOWS PARK
NEW CITY OF LAS VEGAS PARK

DETAILS SHEET 8

STAMP

ENGINEER STATE OF NEVADA
ARMANDO PINEDA
EXP. 12-31-19
CIVIL
NO. 18290
7-19-18

OWNER: CITY OF LAS VEGAS
DEPARTMENT OF PUBLIC WORKS

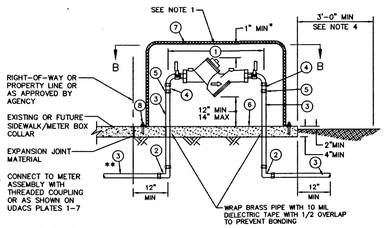
DEVELOPMENT SERVICES CENTER
333 N. RANCHO DRIVE
LAS VEGAS, NEVADA 89106
PHONE: (702) 229-6276
FAX: (702) 384-4846

DRAWN	DSI
FILE	180101445
DATE	6/18/2018
SCALE	N.T.S.
BID NO	18.66085.DD
CLV DWG NO	650.116
HANSEN NO	66085
	L18-00891
SHT NO	C8.08

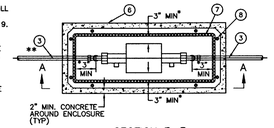
DRAWINGS AS INSTRUMENTS OF SERVICE ARE THE PROPERTY OF THE DESIGN PROFESSIONAL WHETHER THE PROJECT FOR WHICH THEY ARE MADE IS EXECUTED OR NOT. THE DRAWINGS ARE NOT TO BE USED BY ANY PERSON ENTITY OR CORPORATION FOR ANY PURPOSE WHATSOEVER WITHOUT THE WRITTEN PERMISSION OF THE DESIGN PROFESSIONAL. VISUAL CONTACT WITH THESE DRAWINGS AND SPECIFICATIONS SHALL CONSTITUTE PRIMA FACIE EVIDENCE OF ACCEPTANCE OF THESE RESTRICTIONS. ©2018 COLLINS ENGINEERS, INC. ALL RIGHTS RESERVED.

H:\CAD\LAND\10297\DWG\SHEETS\10297-C8.05-DTL.DWG 07/18/2018 03:22:44 PM

UNIFORM DESIGN STANDARDS FOR WATER DISTRIBUTION SYSTEMS



SECTION A–A



SECTION B–B

* INSIDE ENCLOSURE DIMENSIONS

NOTES

1. APPROVED COMPACT BACKFLOW PREVENTION DEVICE INCLUDING ABOVE GRADE PIPING NOT TO BE PAINTED.
2. INSTALL BOLLARDS AS REQUIRED. SEE UDACS PLATE 75.
3. ADDITIONAL TRENCH BACKFILL REQUIREMENTS SEE UDACS PLATES 16, 17, 18, AND 19.
4. IN ORDER TO ALLOW FOR ACCESS AND MAINTENANCE OF BACKFLOW ASSEMBLIES A MINIMUM OF THREE (3) FEET ADJACENT TO BACKFLOW ASSEMBLY PAD SHALL BE LEVEL AND FREE OF SHRUBBERY AND OBSTRUCTIONS (TYP).

** DEPENDING ON CONFIGURATION, ONE (1) BRASS 90° HORIZONTAL BEND (IPF x IPF) MAY BE INSTALLED BETWEEN METER AND BACKFLOW ASSEMBLY.

LEGEND

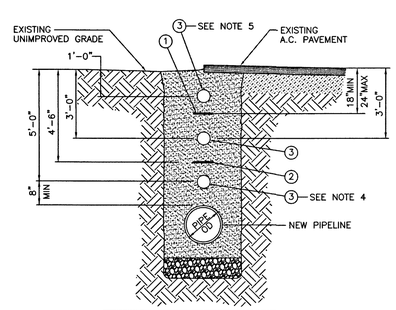
1. APPROVED BACKFLOW ASSEMBLY
2. BRASS 90° BEND – IRON PIPE THREAD (IPF x IPF)
3. BRASS PIPE – STANDARD – TBE
4. BRASS CLOSE NIPPLE
5. BRASS UNION – IRON PIPE THREAD (IPF x IPF) (IF NOT PROVIDED WITH ASSEMBLY)
6. CONCRETE PAD – 3000 PSI (PAD SIZE TO MEET ENCLOSURE MANUFACTURERS SPECIFICATIONS)
7. AGENCY APPROVED ENCLOSURE
8. ANCHOR PER MANUFACTURERS REQUIREMENTS

(IPF = IRON PIPE FEMALE, IPM = IRON PIPE MALE, TBE = THREADED BOTH ENDS)

NOT TO SCALE	FILE NAME: UDACS-8 / DRAWN BY: SDM / CHECKED BY: SPM	BACKFLOW PREVENTION ASSEMBLY 1" - 2" DIAMETER	UDACS PLATE NO. 8 SHEET 1 OF 1

07-08 Plot ● 12/31/08 I:\UDACS\section 5 – standard plates_New Numbered Updated Plates\ave udacs-08.dwg

UNIFORM DESIGN STANDARDS FOR WATER DISTRIBUTION SYSTEMS



1	PIPE LOCATOR RIBBON – 3" WIDTH
2	PIPE LOCATOR RIBBON – 3" WIDTH (INSTALLED WHEN COVER OF NEW PIPELINE IS 7'-0" OR GREATER)
3	LOCATOR BALL – SEE NOTES

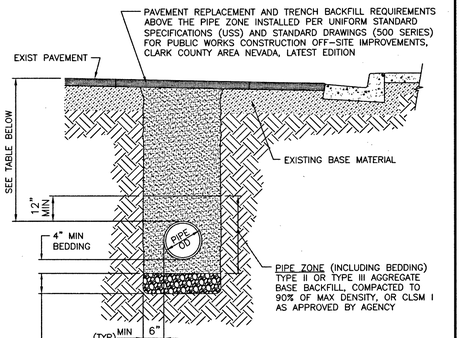
NOTES

1. CENTER PIPE LOCATOR RIBBON IN TRENCH AND PLACE OVER ENTIRE LENGTH OF ALL TYPES, MATERIALS, SIZES AND LOCATIONS OF WATER MAINS.
2. INSTALL LOCATOR BALLS AT ALL HORIZONTAL FITTINGS, REDUCERS, CAPS, TEST STATIONS, AT EACH JOINT ALONG DEFLECTED SECTIONS OF PIPELINE, AND EVERY 400 FEET OF PIPELINE. LOCATOR BALLS SHALL BE AGENCY APPROVED. (NOT ALL AGENCIES REQUIRE LOCATOR BALLS)
3. IF A.C. PAVEMENT EXISTS INSTALL LOCATOR BALL AT 3'-0" (TYP).
4. IF A CUT TO FINISH GRADE IS ANTICIPATED INSTALL LOCATOR BALLS AT BOTH 3'-0" AND 5'-0" (TYP).
5. IF A FILL TO FINISH GRADE IS ANTICIPATED INSTALL LOCATOR BALLS AT BOTH 1'-0" AND 3'-0" (TYP).

NOT TO SCALE	FILE NAME: UDACS-15 / DRAWN BY: SDM / CHECKED BY: SPM	PIPE LOCATOR RIBBON AND LOCATOR BALL INSTALLATION	UDACS PLATE NO. 15 SHEET 1 OF 1

08-15 Plot ● 02/06/09 I:\UDACS\section 5 – standard plates_New Numbered Updated Plates\ave udacs-15.dwg

UNIFORM DESIGN STANDARDS FOR WATER DISTRIBUTION SYSTEMS



NOTE:
FOR TRENCH SECTION NOTES SEE UDACS PLATE 19.

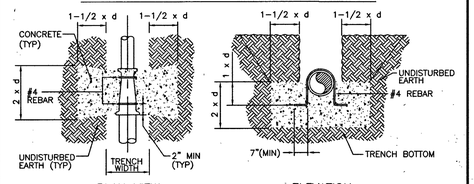
ROW (FEET)	PIPE DIAMETER (INCHES)	MINIMUM DEPTH OF COVER (INCHES)
SIXTY (60) OR LESS	TWELVE (12) AND SMALLER	FORTY–TWO (42)
SIXTY (60) OR LESS	GREATER THAN TWELVE (12)	SIXTY (60)
GREATER THAN SIXTY (60)	TWELVE (12) AND SMALLER	FORTY–EIGHT (48)
GREATER THAN SIXTY (60)	GREATER THAN TWELVE (12)	SIXTY (60)
GREATER THAN SIXTY (60)	GREATER THAN SIXTEEN (16)	SEVENTY–TWO (72) MINIMUM

NOT TO SCALE	FILE NAME: UDACS-17 / DRAWN BY: SDM / CHECKED BY: SPM	TRENCH SECTION BACKFILL SPECIFICATION IMPROVED AREAS	UDACS PLATE NO. 17 SHEET 1 OF 1

08-01 Plot ● 12/31/08 I:\UDACS\section 5 – standard plates_New Numbered Updated Plates\ave udacs-17.dwg

UNIFORM DESIGN STANDARDS FOR WATER DISTRIBUTION SYSTEMS

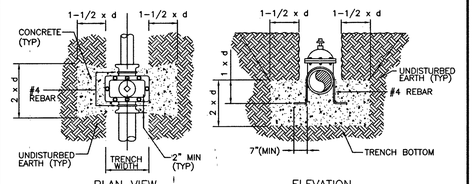
LEGEND: d = LARGER DIAMETER PIPE SIZE



PLAN VIEW ELEVATION

REDUCERS

LEGEND: d = NOMINAL PIPE SIZE



PLAN VIEW ELEVATION

GATE VALVES

NOTES:

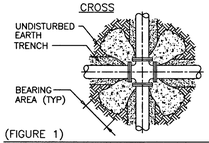
1. ALL CONCRETE SHALL BE 3000 PSI MINIMUM 28 DAYS COMPRESSIVE STRENGTH.
2. ALL VALVES, FITTINGS, AND APPURTENANCES SHALL BE COATED AND WRAPPED IN ACCORDANCE WITH SECTION 3, PROTECTIVE COATINGS.
3. EXPOSED (NOT ENCASED IN CONCRETE) REBAR SHALL BE WRAPPED IN 10 MIL DIELECTRIC TAPE.
4. REBAR SHALL BE FORMED AND INSTALLED TO PROVIDE FULL CONTACT ON THE FITTING TO BE RESTRAINED.

NOT TO SCALE	FILE NAME: UDACS-30 / DRAWN BY: SDM / CHECKED BY: SPM	ANCHOR BLOCK DETAILS FOR IN-LINE REDUCERS OR GATE VALVES 6" THROUGH 12" DIAMETER	UDACS PLATE NO. 30 SHEET 1 OF 1

08-11 Plot ● 12/31/08 I:\UDACS\section 5 – standard plates_New Numbered Updated Plates\ave udacs-30.dwg

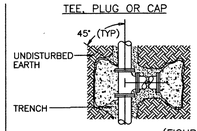
UNIFORM DESIGN STANDARDS FOR WATER DISTRIBUTION SYSTEMS

CROSS



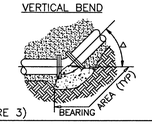
(FIGURE 1)

TEE, PLUG OR CAP



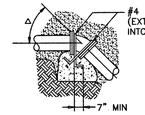
(FIGURE 2)

HORIZONTAL OR UPWARD VERTICAL BEND



(FIGURE 3)

DOWNWARD VERTICAL BEND



(FIGURE 4)

PIPE ID	BEARING AREA IN SQ FT FIGURE 1	FIGURE 2	FIGURE 3, △ 90°	45°	22½°	11¼°	CONC/CU YDS FIGURE 4, △ 45°	22½°	11¼°
4"	2	2	2	2	1	1	1.0	0.5	0.5
6"	2	3	4	2	1	1	1.5	1.0	0.5
8"	3	5	7	4	2	1	3.0	1.5	1.0
10"	4	8	11	6	3	2	4.0	2.5	1.5
12"	6	11	15	8	4	2	6.0	3.0	1.5
							10.5	6.0	3.0
							13.5	7.5	3.5
							16.0	9.0	4.5
							23.5	12.5	6.5

SEE NOTE 9

* #5 REBAR
** #6 REBAR

NOT TO SCALE	FILE NAME: UDACS-31 / DRAWN BY: SDM / CHECKED BY: SPM	THRUST BLOCK INSTALLATION	UDACS PLATE NO. 31 SHEET 1 OF 2

08-12 Plot ● 12/31/08 I:\UDACS\section 5 – standard plates_New Numbered Updated Plates\ave udacs-31.dwg

UNIFORM DESIGN STANDARDS FOR WATER DISTRIBUTION SYSTEMS

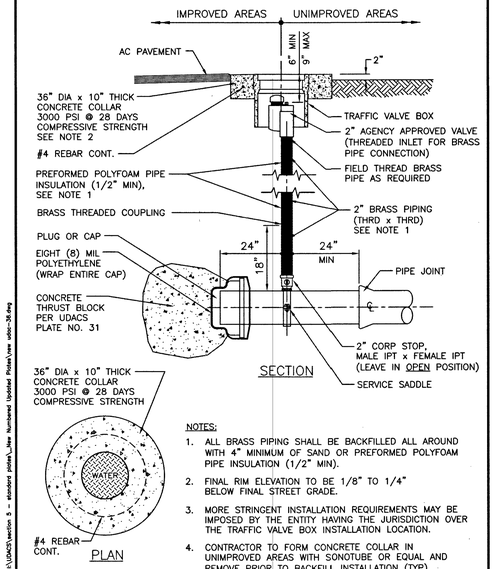
GENERAL NOTES:

1. VALVES, FITTINGS AND APPURTENANCES SHALL BE COATED AND WRAPPED IN ACCORDANCE WITH SECTION 3, PROTECTIVE COATINGS.
2. EXPOSED (NOT ENCASED IN CONCRETE) REBAR SHALL BE WRAPPED IN 10 MIL DIELECTRIC TAPE.
3. REBAR SHALL BE FORMED AND INSTALLED TO PROVIDE FULL CONTACT ON THE FITTING TO BE RESTRAINED.
4. ALL CONCRETE SHALL BE 3000 PSI MINIMUM, 28 DAYS COMPRESSIVE STRENGTH. CONCRETE IS TO BE PLACED AGAINST UNDISTURBED EARTH.
5. THE TABLE BELOW DENOTES MINIMUM BEARING AREA OR VOLUME OF THRUST BLOCK. SPECIAL DESIGN CALCULATIONS ARE TO BE SUBMITTED FOR APPROVAL IF ALLOWABLE SOIL BEARING CAPACITY IS LESS THAN 3000 PSF.
6. ALL VERTICAL SURFACES NOT BEARING AGAINST UNDISTURBED EARTH SHALL BE FORMED.
7. RESTRAINED JOINTS MAY BE UTILIZED IN LIEU OF THRUST BLOCKS WHEN IDENTIFIED ON THE PLANS BY THE ENGINEER AND APPROVED BY THE AGENCY.
8. USE OF 5° BENDS REQUIRES AGENCY APPROVAL AND CAN BE UTILIZED IN HORIZONTAL ORIENTATION ONLY.
9. USE OF THRUST BLOCKS FOR PIPE DIAMETERS GREATER THAN 12" REQUIRES PRIOR AGENCY APPROVAL AND WILL BE EVALUATED ON A CASE BY CASE BASIS.

NOT TO SCALE	FILE NAME: UDACS-31 / DRAWN BY: SDM / CHECKED BY: SPM	THRUST BLOCK INSTALLATION	UDACS PLATE NO. 31 SHEET 2 OF 2

08-12 Plot ● 12/31/08 I:\UDACS\section 5 – standard plates_New Numbered Updated Plates\ave udacs-31.dwg

UNIFORM DESIGN STANDARDS FOR WATER DISTRIBUTION SYSTEMS



SECTION

PLAN

NOTES:

1. ALL BRASS PIPING SHALL BE BACKFILLED ALL AROUND WITH 4" MINIMUM OF SAND OR PREFORMED POLYFOAM PIPE INSULATION (1/2" MIN).
2. FINAL RIM ELEVATION TO BE 1/8" TO 1/4" BELOW FINAL STREET GRADE.
3. MORE STRINGENT INSTALLATION REQUIREMENTS MAY BE IMPOSED BY THE ENTITY HAVING THE JURISDICTION OVER THE TRAFFIC VALVE BOX INSTALLATION LOCATION.
4. CONTRACTOR TO FORM CONCRETE COLLAR IN UNIMPROVED AREAS WITH SONOTUBE OR EQUAL AND REMOVE PRIOR TO BACKFILL INSTALLATION (TYP).

NOT TO SCALE	FILE NAME: UDACS-36 / DRAWN BY: SDM / CHECKED BY: SPM	2" MANUAL BLOW-OFF ASSEMBLY FOR P.V.C. OR D.I. PIPE	UDACS PLATE NO. 36 SHEET 1 OF 1

09-10 Plot ● 02/24/09 I:\UDACS\section 5 – standard plates_New Numbered Updated Plates\ave udacs-36.dwg

CITY OF LAS VEGAS NEVADA

REVISIONS

CONSULTANT

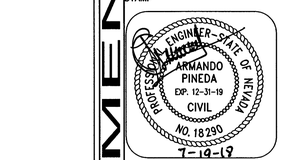
COLLINS ENGINEERS
3130 S. DURANGO DR., SUITE 404
LAS VEGAS, NV 89117
PHONE: (702) 248-8000
FAX: (702) 248-8070
www.collinsengr.com

DEPARTMENT OF PUBLIC WORKS

GILMORE CLIFF SHADOWS PARK
NEW CITY OF LAS VEGAS PARK

DETAILS SHEET 9

STAMP



OWNER: CITY OF LAS VEGAS
DEPARTMENT OF PUBLIC WORKS

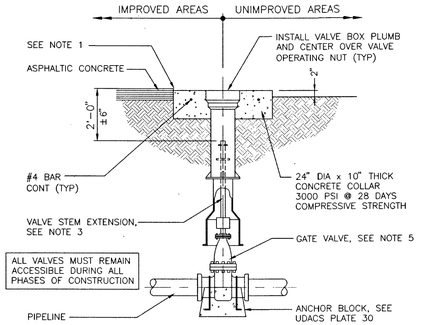
DEVELOPMENT SERVICES CENTER
333 N. RANCHO DRIVE
LAS VEGAS, NEVADA 89106
PHONE: (702) 229-6276
FAX: (702) 384-4846

DRAWN	DSI
FILE	180101445
DATE	6/18/2018
SCALE	N.T.S.
BID NO	18.66085.DD
CLV DWG NO	650.116
HANSEN NO	66085
	C18-00891
SHT NO	C8.09

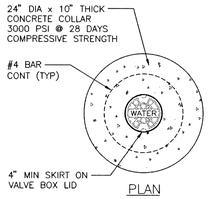
DRAWING AS INSTRUMENT OF SERVICE ARE THE PROPERTY OF THE DESIGN PROFESSIONAL WHETHER THE PROJECT FOR WHICH THEY ARE PREPARED IS EXECUTED OR NOT. THE REUSE OF THE DRAWINGS AND SPECIFICATIONS ON ANY EXTENSION OF THE PROJECT OR ON ANY OTHER PROJECT WITHOUT THE WRITTEN PERMISSION OF THE DESIGN PROFESSIONAL IS PROHIBITED. ALL RIGHTS RESERVED.

H:\CAD\LAND\10297\DWG\SHEETS\10297-C8.05-DTL.DWG 07/18/2018 03:23:03 PM

UNIFORM DESIGN STANDARDS FOR WATER DISTRIBUTION SYSTEMS



SECTION



PLAN

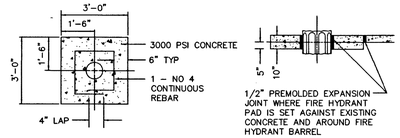
NOTES

1. FINAL RIM ELEVATION TO BE 1/8" TO 1/4" BELOW FINAL STREET GRADE.
2. MORE STRINGENT INSTALLATION REQUIREMENTS MAY BE IMPOSED BY THE ENTITY HAVING THE JURISDICTION OVER THE VALVE BOX INSTALLATION LOCATION.
3. A VALVE STEM EXTENSION SHALL BE PROVIDED TO WITHIN TWO FEET OF FINISHED GRADE WHERE THE DEPTH TO THE OPERATING NUT EXCEEDS FIVE FEET.
4. CONTRACTOR TO FORM CONCRETE COLLAR IN UNIMPROVED AREAS WITH SONOTUBE OR EQUAL AND REMOVE PRIOR TO BACKFILL INSTALLATION (TYP).
5. ALL GATE VALVES TO BE INSTALLED IN VERTICAL POSITION.

NOT TO SCALE	FILE NAME: UDACS-39 DRAWN BY: SDM CHECKED BY: SPM	VALVE BOX INSTALLATION & ADJUSTMENT	UDACS PLATE NO. 39 SHEET 1 OF 1

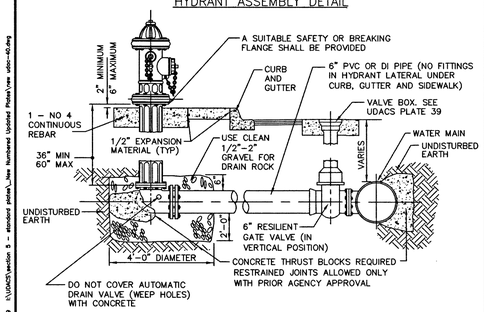
UNIFORM DESIGN STANDARDS FOR WATER DISTRIBUTION SYSTEMS

PAD DETAIL



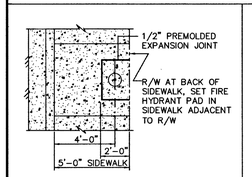
NOTE
SEE SHEET 2 FOR LOCATION OF FIRE HYDRANTS, AND FIRE HYDRANT PADS.

HYDRANT ASSEMBLY DETAIL

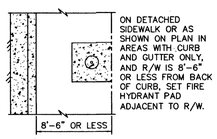


NOT TO SCALE	FILE NAME: UDACS-40 DRAWN BY: SDM CHECKED BY: SPM	FIRE HYDRANT INSTALLATION	UDACS PLATE NO. 40 SHEET 1 OF 3

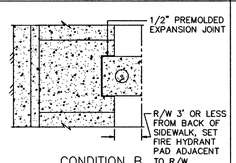
UNIFORM DESIGN STANDARDS FOR WATER DISTRIBUTION SYSTEMS



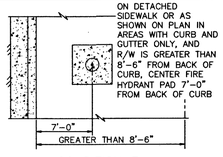
CONDITION A



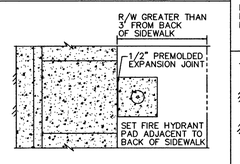
CONDITION D



CONDITION B



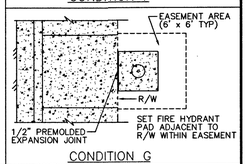
CONDITION E



CONDITION C

IF NO SIDEWALK, CURB AND GUTTER EXISTS, SET FIRE HYDRANT PAD ADJACENT TO R/W AS SHOWN IN CONDITION D ABOVE.

CONDITION F



CONDITION G

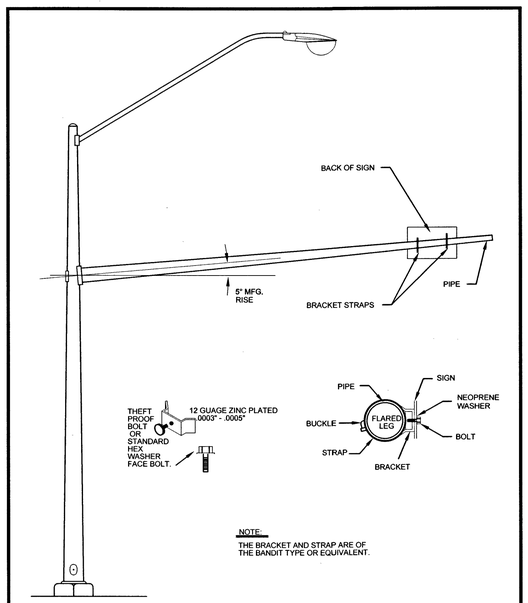
NOT TO SCALE	FILE NAME: UDACS-40 DRAWN BY: SDM CHECKED BY: SPM	FIRE HYDRANT INSTALLATION	UDACS PLATE NO. 40 SHEET 2 OF 3

UNIFORM DESIGN STANDARDS FOR WATER DISTRIBUTION SYSTEMS

NOTES

1. ALL WORK SHALL BE DONE IN STRICT ACCORDANCE WITH THE REQUIREMENTS AND APPROVED FIRE HYDRANT INSTALLATION GUIDES OF THE FIRE DEPARTMENT HAVING JURISDICTION.
2. NO HYDRANT SHALL BE LOCATED WITHIN 25 FEET OF ANY STRUCTURE OR 6 FEET OF A DRIVEWAY, POWER POLE, LIGHT STANDARD, OR ANY OTHER OBSTRUCTION. FOR WALLS, FENCE, AND PLANTER LOCATIONS, A PERIMETER AROUND THE HYDRANT MEASURING A MINIMUM OF 3 FEET FROM ITS CIRCUMFERENCE SHALL BE MAINTAINED CLEAR OF ALL OBSTRUCTIONS AT ALL TIMES. HYDRANTS MUST BE LOCATED A MINIMUM OF 6 FEET AWAY FROM THE BEGINNING OF A TURNING RADIUS.
3. 6" FIRE HYDRANT LATERAL SHALL BE THE SAME PRESSURE CLASS AS THE DISTRIBUTION MAIN.
4. DUCTILE IRON PIPE TO BE ENCASED WITH TWO LAYERS EIGHT MILS THICK POLYETHYLENE FILM. DO NOT ENCASE FIRE HYDRANT BARREL.
5. ALL FIRE HYDRANTS SHALL BE REPAINTED AS REQUIRED IF DAMAGED DURING INSTALLATION.
6. USE OF FIRE HYDRANT BARREL EXTENSIONS MUST HAVE PRIOR AGENCY APPROVAL.
7. MAXIMUM FIRE HYDRANT LATERAL DEFLECTION SEE UDACS SECTIONS 2.07 AND 3.11
8. ADDITIONAL CLEARANCE FROM THE FRONT OF FIRE HYDRANT TO BACK OF CURB MAY BE REQUIRED BY THE AGENCY.

NOT TO SCALE	FILE NAME: UDACS-40 DRAWN BY: SDM CHECKED BY: SPM	FIRE HYDRANT INSTALLATION	UDACS PLATE NO. 40 SHEET 3 OF 3



NOTE:
THE BRACKET AND STRAP ARE OF THE BANDIT TYPE OR EQUIVALENT.

AGENCY APPROVED	B	C	H	L	M	N

SPECIFICATION REFERENCE	UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA
	SIGN MOUNTING ILLUSTRATION
	DATE 4-9-98 DWG. NO. 818.2

CITY OF LAS VEGAS NEVADA

REVISIONS

CONSULTANT

COLLINS ENGINEERS
3130 S. DURANGO DR., SUITE 404
LAS VEGAS, NV 89117
PHONE: (702) 248-8000
FAX: (702) 248-8070
www.collinsengr.com

DEPARTMENT OF PUBLIC WORKS

GILMORE CLIFF SHADOWS PARK
NEW CITY OF LAS VEGAS PARK

DETAILS SHEET 10

STAMP



OWNER: CITY OF LAS VEGAS
DEPARTMENT OF PUBLIC WORKS

DEVELOPMENT SERVICES CENTER
333 N. RANCHO DRIVE
LAS VEGAS, NEVADA 89106
PHONE: (702) 229-6276
FAX: (702) 384-4846

DRAWN	DSI
FILE	180101445
DATE	6/18/2018
SCALE	N.T.S.
BID NO	18.66085.DD
CLV DWG NO.	550.116
HANSEN NO	66085
	L18-00891
SHT NO	C8.10

ARCHITECTURAL WORKS AS INSTRUMENTS OF SERVICE ARE THE PROPERTY OF THE ARCHITECT, WHETHER THE PROJECT FOR WHICH THEY ARE MADE IS EXECUTED OR NOT. THE ARCHITECT RETAINS ALL COMMON LAW, STATUTORY AND OTHER RESERVED RIGHTS, INCLUDING THE COPYRIGHT. ALL DRAWINGS, SPECIFICATIONS, DETAILS, ELECTRONIC DATA, AND OTHER MEDIA PROVIDED BY THE ARCHITECT ARE AND SHALL REMAIN THE EXCLUSIVE PROPERTY OF THE ARCHITECT. THEY ARE NOT TO BE USED BY THE OWNER OR ANY OTHER PERSON OR ENTITY FOR ANY PURPOSE WHATSOEVER WITHOUT THE EXPRESS WRITTEN PERMISSION OF THE ARCHITECT. ANY UNAUTHORIZED USE, REPRODUCTION, OR DISTRIBUTION OF THESE DRAWINGS, SPECIFICATIONS, DETAILS, ELECTRONIC DATA, OR OTHER MEDIA, IN WHOLE OR IN PART, WITHOUT THE EXPRESS WRITTEN PERMISSION OF THE ARCHITECT IS STRICTLY PROHIBITED. UPON REQUEST, THE ARCHITECT WILL GRANT PERMISSION FOR USE ON THE PROJECT AND FOR REPRODUCTION FOR PERMIT AND CONSTRUCTION PURPOSES.

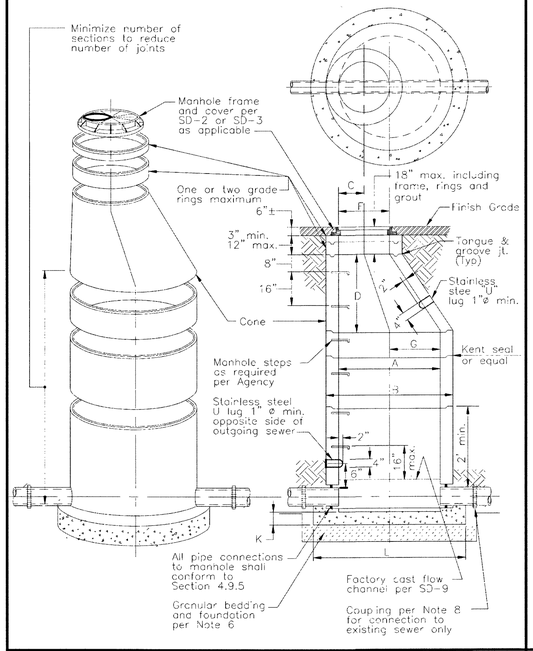
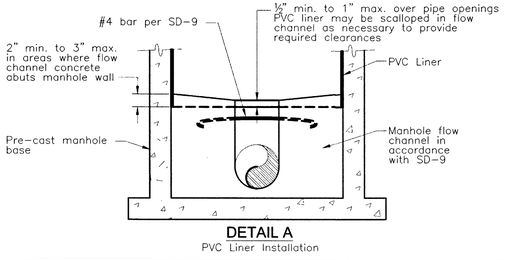


TABLE OF DIMENSIONS												
Size	A	H	C	D*	E	F	G	H	I	J	K	L
48	48	58	18	36	—	36	12				4	62
60	60	72	18	36	—	36	24				8	80
72	72	86	18	36	—	36	36				8	94

* Varies per manufacturer

NOTES:
1. Pre-cast concrete manhole sections and adjusting rings shall conform to ASTM C-478 and Section 4.9.1.
2. Provide interior corrosion protection meeting Agency requirements and Section 2.2.10. See Detail A below for PVC liner installation in pre-cast MH base.
3. In high groundwater areas and where directed by the Agency, seal exterior of pre-cast manhole sections with bitumastic or equal waterproofing coating and provide double Kent Seal or equal joint seals between all pre-cast sections including adjusting rings.
4. Manhole step placement shall conform to OSHA requirements and steps shall be placed 180 degrees from outgoing sewer.
5. In unstable soil conditions and where directed by the Agency, a second pipe joint shall be placed within 3-feet of each manhole connection.
6. Where the trench bottom is undisturbed soil, 4-inches of granular bedding material meeting Agency requirements shall be placed under the pre-cast manhole base. Where the trench bottom has been disturbed and in fill areas, 12-inches of granular bedding meeting Agency requirements shall be placed under the pre-cast manhole base. Provide additional suitable foundation per Section 3.13 and as required by the Agency in areas of unstable trench bottom, wet conditions, over-excavation, rocky french bottom and elsewhere as directed by the Agency.
7. Pre-cast manhole bases shall be used for construction of new sewer systems, whether publicly or privately owned. Pre-cast manhole bases or cast-in-place manhole bases per SD-9 may be used at the contractor's option for new manholes being installed along existing sanitary sewers.
8. Fernco, Mission, or equal flexible rubber couplings conforming to Section 4.9.6 shall be provided for connections to existing sewers where new manholes are installed.



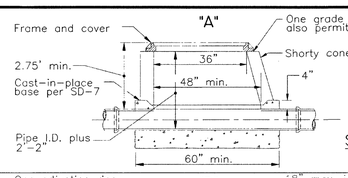
DETAIL A
PVC Liner Installation

STANDARD PRE-CAST MANHOLE

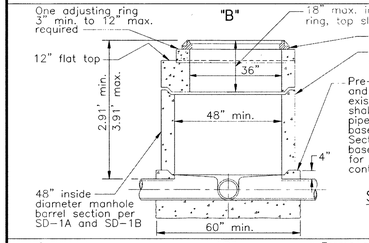
ISSUED: | NUMBER: SD-1A

STANDARD PRECAST MANHOLE

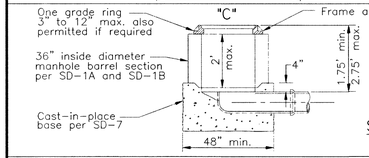
ISSUED: | NUMBER: SD-1B



SPECIAL MH "A"
SHORTY CONE



SPECIAL MH "B"
FLAT TOP

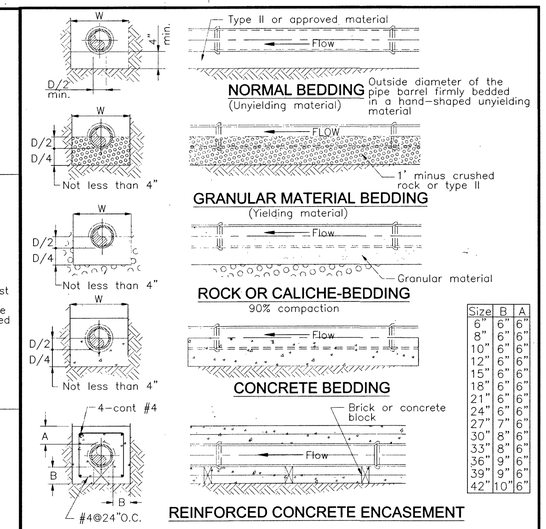


SPECIAL MH "C"
RISER RING

NOTES:
1. **Special shallow manholes may be used upon Agency approval only.**
2. Concrete collar required around manhole frame per SD-4.
3. Manhole frame and cover per SD-2 or SD-3 as applicable.
4. Flow channel per SD-9.
5. For shallow manholes sewer pipe having less than 5-feet of cover shall be C-900 PVC or DIP as required by Agency. The C-900 or DIP pipe shall extend to the next manholes upstream and downstream.
6. Granular bedding and foundation under special shallow manholes shall conform to SD-1A and SD-1B for pre-cast manhole bases and SD-7 for cast-in-place manhole bases.

SPECIAL SHALLOW MANHOLES

ISSUED: | NUMBER: SD-13



Size	B	A
6"	6"	6"
8"	6"	6"
10"	6"	6"
12"	6"	6"
15"	6"	6"
18"	6"	6"
21"	6"	6"
24"	6"	6"
27"	7"	6"
30"	8"	6"
33"	8"	6"
36"	9"	6"
39"	9"	6"
42"	10"	6"

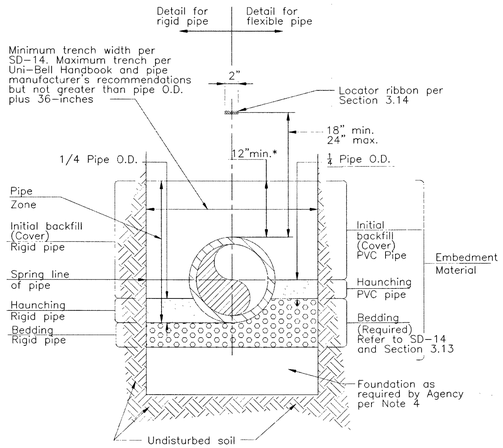
D - Outside diameter of pipe

W - The width of the trench at the top of the flexible pipe shall be the diameter of the pipe plus 16" minimum. In any case, the width shall be sufficient for work in connection with laying, jointing, inspection, placing the bedding and to provide for the safety of workers and shall meet OSHA requirements.

NOTES:
1. All concrete to be type V, 3000 psi per Section 4.11.
2. In all of the above examples, bedding shall conform to Section 3.13.
3. For PVC pipe, bedding shall also conform to Uni-Bell PVC Pipe Association Handbook and pipe manufacturer's recommendations.
4. DIP shall be wrapped with a double layer of 8 mil poly-wrap.

PIPE BEDDING METHODS

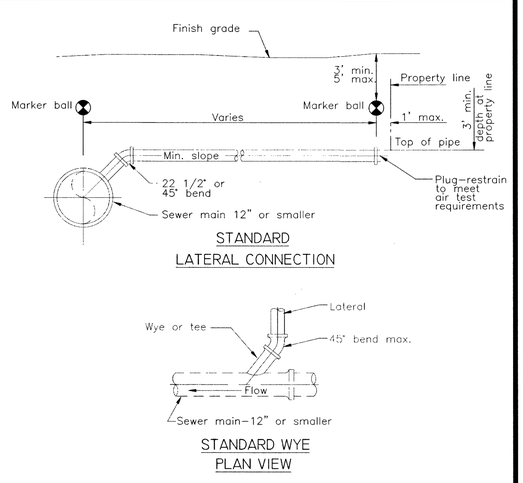
ISSUED: | NUMBER: SD-14



NOTES:
1. See Section 3.13 for other pipe bedding, haunching, cover and backfill requirements.
2. The trench width for flexible pipe shall be as indicated on SD-14 and for rigid pipe, refer to Section 3.13.
3. Bedding, haunching and initial cover for PVC pipe shall conform to the requirements of the Uni-Bell Handbook of PVC pipe, latest edition, and the pipe manufacturer's recommendations.
4. Provide suitable foundation per Section 3.13 and as required by the Agency in areas of unstable trench bottom, wet conditions, over-excavation, rocky trench bottom and elsewhere as directed by the Agency.
5. Trench wall support shall conform to OSHA requirements.

PIPE BEDDING, HAUNCH SUPPORT & INITIAL COVER

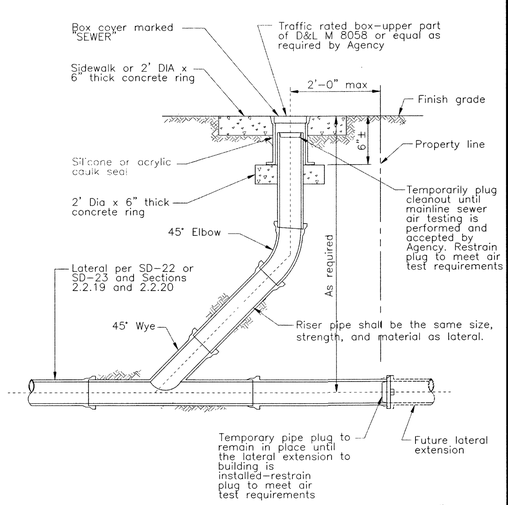
ISSUED: | NUMBER: SD-15



NOTES:
1. All construction shall conform to Section 3.17.
2. All concrete shall be 3000# minimum in accordance with Section 4.11.
3. 22 1/2" or 45° bend may be rotated at sewer main only.
4. Lateral connections shown are limited to main line sanitary sewers 12-inches in diameter or smaller unless otherwise directed by Agency.
5. Place locator ribbon per SD-15 above lateral along its full length.
6. Place marker ball per Section 3.14 and Section 4.12.3 over lateral at connection to main and at upstream end of lateral at property line. Marker ball shall be 3' min. below finish grade where possible.

LATERAL CONNECTION TO SEWER MAIN 12" DIA AND SMALLER

ISSUED: | NUMBER: SD-22



NOTES:
1. Provide cleanouts for laterals where directed by Agency.
2. Marker ball at upstream end of lateral may be deleted for laterals with cleanouts.

LATERAL CLEANOUT

ISSUED: | NUMBER: SD-26

DEPARTMENT OF PUBLIC WORKS

CITY OF LAS VEGAS NEVADA

REVISIONS

CONSULTANT

COLLINS ENGINEERS
3130 S. DURANGO DR., SUITE 404
LAS VEGAS, NV 89117
PHONE: (702) 248-8000
FAX: (702) 248-8070
www.collinsengr.com

GILMORE CLIFF SHADOWS PARK
NEW CITY OF LAS VEGAS PARK

DETAILS SHEET 11

STAMP

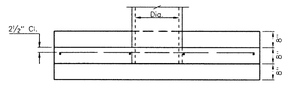
PROFESSIONAL ENGINEER - STATE OF NEVADA
ARMANDO PINEDA
EXP. 12-31-19
CIVIL
NO. 18290
7-19-19

OWNER: CITY OF LAS VEGAS
DEPARTMENT OF PUBLIC WORKS

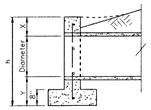
DEVELOPMENT SERVICES CENTER
333 N. RANCHO DRIVE
LAS VEGAS, NEVADA 89106
PHONE: (702) 229-6276
FAX: (702) 384-4846

DRAWN	DSI
FILE	180101445
DATE	6/18/2018
SCALE	N.T.S.
BID NO	18.66085.DD
CLV DWG NO	650.116
HANSEN NO	66085
	18-00891
SHT NO	C8.11

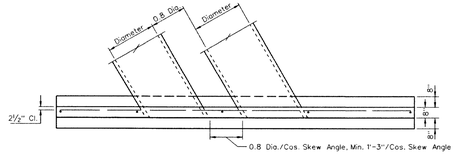
H:\CAD\LAND\10297\DWG\SHEETS\10297-C8.05-DTL.DWG 07/18/2018 03:24:34 PM



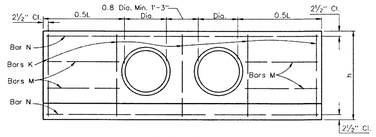
PLAN
SINGLE RCP/HDPE



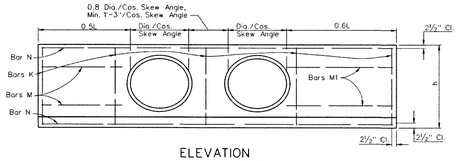
SECTION
FOR ALL HEADWALLS



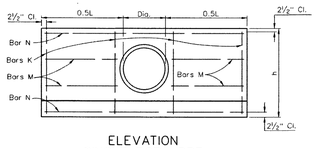
PLAN
DOUBLE RCP/HDPE



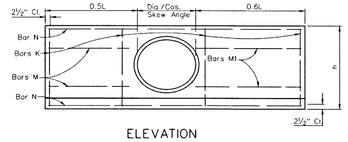
ELEVATION
DOUBLE RCP/HDPE



ELEVATION
DOUBLE RCP/HDPE



ELEVATION
SINGLE RCP/HDPE
0° SKEW



ELEVATION
SINGLE RCP/HDPE
15° TO 45° SKEW

SHEET 1 OF 2
STATE OF NEVADA
DEPARTMENT OF TRANSPORTATION

CULVERT HEADWALLS
12" TO 36" RCP/HDPE

R-2.5.1	(502)	Signed Original On File
ADOPTED 8/69	REVISED 5/09	CHIEF HYDRAULICS ENGR.

R-27

QUANTITIES SHOWN BELOW ARE FOR ONE HEADWALL.

RCP/ HDPE SIZE DIA.	LENGTH OF REINFORCING BARS																	
	SINGLE RCP/HDPE						SINGLE OR DOUBLE RCP/HDPE							DOUBLE RCP/HDPE				
	0°-45°	0°	15°	30°	45°		0°	15°		30°		45°		0°-45°	0°	15°	30°	45°
	NO. 4	NO. 5	NO. 5	NO. 5	NO. 5		NO. 4	NO. 4		NO. 4		NO. 4		NO. 4	NO. 5	NO. 5	NO. 5	NO. 5
	K	N	N	N	N		M	M1		M		M1		K	N	N	N	N
12"	6'-2"-9"	2'-4"-9"	2'-5"-2"	2'-5"-4"	2'-5"-7"		2'-0"-7"	1'-8"-5"		1'-9"-2"		1'-8"-1"		3'-2"-9"	2'-6"7"			
15"	6'-3"-1"	2'-6"	2'-6"-6"	2'-6"-8"	2'-7"		2'-0"-7"	1'-8"-7"		1'-9"-2"		1'-8"-3"		3'-2"-1"	2'-6"-6"	2'-6"-9"	2'-6"-11"	2'-6"-9"
18"	6'-3"-4"	2'-7"	2'-7"-8"	2'-7"-10"	2'-8"-2"		2'-0"-5"	2'-0"-3"		2'-0"-7"		2'-0"-1"		3'-2"-4"	2'-6"-9"	2'-6"-11"	2'-7"-2"	2'-7"-1"
21"	6'-3"-8"	2'-8"	2'-8"-9"	2'-8"-11"	2'-9"-5"		2'-0"-9"	2'-0"-7"		2'-0"-6"		2'-0"-3"		3'-2"-8"	2'-6"-11"	2'-7"-2"	2'-7"-7"	2'-7"-10"
24"	6'-3"-11"	2'-9"	2'-9"-10"	2'-10"-1"	2'-10"-7"		2'-0"-2"	2'-0"		2'-0"-11"		2'-0"-8"		3'-2"-11"	2'-7"-2"	2'-7"-7"	2'-8"-2"	2'-8"-5"
27"	6'-4"-2"	2'-10"	2'-10"-11"	2'-11"-2"	2'-11"-9"		2'-0"-6"	2'-0"-4"		2'-0"-3"		2'-0"-4"		3'-3"-4"	2'-7"-5"	2'-7"-11"	2'-8"-5"	2'-8"-8"
30"	6'-4"-6"	2'-11"-3"	2'-12"-3"	2'-12"-7"	2'-13"-2"		2'-0"-4"	2'-0"-1"		2'-0"-5"		2'-0"-8"		3'-3"-6"	2'-8"-1"	2'-8"-5"	2'-8"-11"	2'-9"-2"
33"	6'-4"-10"	2'-12"-3"	2'-13"-4"	2'-13"-8"	2'-14"-4"		2'-0"-3"	2'-0"-1"		2'-0"-5"		2'-0"-9"		3'-3"-9"	2'-8"-6"	2'-8"-11"	2'-9"-5"	2'-9"-9"
36"	6'-5"-1"	2'-13"-3"	2'-14"-5"	2'-14"-9"	2'-15"-7"		2'-0"-1"	2'-0"		2'-0"-4"		2'-0"-8"		3'-3"-11"	2'-8"-11"	2'-9"-4"	2'-9"-10"	2'-10"-3"

QUANTITIES SHOWN BELOW ARE FOR TWO HEADWALLS.

RCP/ HDPE SIZE DIA.	RCP/ HDPE AREA SQ FT	SINGLE RCP/HDPE								DOUBLE RCP/HDPE								X	Y	L	h
		0° SKEW		15° SKEW		30° SKEW		45° SKEW		0° SKEW		15° SKEW		30° SKEW		45° SKEW					
		CONC CU YD	STEEL LB	CONC CU YD	STEEL LB	CONC CU YD	STEEL LB	CONC CU YD	STEEL LB	CONC CU YD	STEEL LB	CONC CU YD	STEEL LB	CONC CU YD	STEEL LB	CONC CU YD	STEEL LB				
12"	0.79	1.00	46	1.09	49	1.10	49	1.14	50	1.41	59	1.52	62	1.58	64	1.73	67	10"	1'-2"	4'	3'
15"	1.23	1.32	55	1.45	58	1.47	59	1.52	60	1.80	70	1.93	73	2.01	75	2.18	79	10¼"	1'-2¼"	5'	3'-3½"
18"	1.77	1.62	69	1.77	73	1.80	74	1.85	75	2.15	85	2.31	89	2.40	91	2.60	96	10½"	1'-2½"	5'-9"	3'-7"
21"	2.41	1.95	77	2.13	82	2.16	83	2.23	85	2.59	95	2.79	101	2.90	103	3.13	108	10¾"	1'-2¾"	6'-6"	3'-10½"
24"	3.14	2.27	96	2.48	102	2.52	103	2.60	105	3.01	116	3.24	122	3.37	125	3.64	131	11"	1'-3"	7'-3"	4'-2"
27"	3.98	2.62	105	2.86	111	2.90	112	2.99	114	3.48	128	3.75	134	3.89	137	4.21	144	11"	1'-3"	8'	4'-5"
30"	4.91	3.08	117	3.37	123	3.41	124	3.44	127	4.07	141	4.38	148	4.55	152	4.90	159	11¼"	1'-3½"	9'	4'-9"
33"	5.94	3.50	125	3.82	132	3.87	134	3.98	137	4.62	153	4.98	160	5.17	164	5.56	172	11¾"	1'-3¾"	9'-9"	5'-1½"
36"	7.07	3.93	161	4.29	169	4.34	171	4.47	174	5.19	190	5.59	200	5.80	204	6.24	213	1'	1'-4"	10'-6"	5'-4"

NOTES:

1. Concrete shall be class A or AA.
2. Reinforcing steel shall be deformed bars with maximum spacing of 18 inches set 2 ½ inches clear of surface of concrete except as noted. Bar ends shall be kept 1½ inches clear of surface of concrete. Reinforcing bars may be cut and bent in field.
3. Footings shown are of minimum depth and shall be extended if soil is unsuitable or liable to scour.
4. Culvert pipes to be set on a skew shall be mitered when headwalls are constructed. When headwalls are not constructed the pipes shall not be mitered except in overflow section.
5. For estimating headwall quantities on skewed culverts:
   0° to 10° – use quantities for 0° skew.
   11° to 25° – use quantities for 15° skew.
   26° to 40° – use quantities for 30° skew.
   41° to 55° – use quantities for 45° skew.
   over 55° – calculate quantities required.
   Culverts should be installed on 5° increments where it is feasible.
6. Dimensions X,Y,L, and h to remain constant regardless of minor variations in wall thickness due to class or type of pipe used.
7. See sheet R-2.9.1 for details if connecting to HDPE pipe.

SHEET 2 OF 2
STATE OF NEVADA
DEPARTMENT OF TRANSPORTATION

CULVERT HEADWALLS
12" TO 36" RCP/HDPE

R-2.5.1.1	(502)	Signed Original On File
ADOPTED 8/69	REVISED 5/09	CHIEF HYDRAULICS ENGR.

R-28

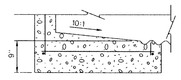
BILL OF MATERIALS (RCP HDPE CMP)

PIPE SIZE (INCH)	SINGLE (ONE GRATE)					DOUBLE (TWO GRATES)					TRIPLE (THREE GRATES)				
	* CONCRETE (CY)		* REINF. (LB.)			* CONCRETE (CY)		* REINF. (LB.)			* CONCRETE (CY)		* REINF. (LB.)		
	BASE QUAN. (H MIN.)	ADD RATE (CY/FT)	BASE QUAN. (H MIN.)	ADD RATE (LB/FT)	STR STEEL (LB)	BASE QUAN. (H MIN.)	ADD RATE (CY/FT)	BASE QUAN. (H MIN.)	ADD RATE (LB/FT)	STR STEEL (LB)	BASE QUAN. (H MIN.)	ADD RATE (CY/FT)	BASE QUAN. (H MIN.)	ADD RATE (LB/FT)	STR STEEL (LB)
≤15	0.71	0.19	36	10	211	1.06	0.26	50	13	397	1.41	0.33	70	17	583
18	0.89	0.20	40	10	306	1.31	0.28	56	13	574	1.72	0.35	77	18	842
24	1.08	0.22	58	12	349	1.56	0.30	80	15	652	2.04	0.37	105	20	956
30	1.28	0.24	63	12	390	1.83	0.31	86	16	729	2.38	0.39	113	20	1068
36	1.50	0.26	67	13	524	2.11	0.33	92	16	980	2.72	0.41	120	21	1435
42	1.71	0.28	90	15	575	2.39	0.35	120	18	1073	3.07	0.43	154	22	1571
48	1.94	0.30	95	15	707	2.68	0.37	127	18	1329	3.42	0.44	163	23	1951

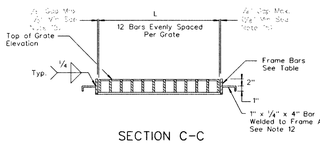
*The Concrete And Reinforcing Quantities Are Based On The H Min. Shown. Increase The Concrete And Reinforcing Base Quantity By The Corresponding Add Rate (Per Foot Of Increased H) If The H Specified Is Larger Than H Min.

TABLE OF DIMENSIONS (RCP HDPE CMP)

PIPE SIZE (INCH)	A	H Min. (FT)	MAIN BARS (INCH)	FRAME ANGLES (INCH)	FRAME BARS (INCH)	L (FT)		
						SINGLE GRATE	DOUBLE GRATE	TRIPLE GRATE
≤15	2'	2.50	3½ X ⅜	4 X 3 X ⅜	6 X ⅜	2'	4'	6'
18	2'-6"	3.00	4½ X ⅜	5 X 3 X ⅜	5 X ⅜	2'	4'	6'
24	3'	3.50	4½ X ⅜	5 X 3 X ⅜	5 X ⅜	2'	4'	6'
30	3'-6"	4.00	4½ X ⅜	5 X 3 X ⅜	5 X ⅜	2'	4'	6'
36	4'	4.50	5½ X ⅜	6 X 3½ X ⅜	6 X ⅜	2'	4'	6'
42	4'-6"	5.00	5½ X ⅜	6 X 3½ X ⅜	6 X ⅜	2'	4'	6'
48	5'	5.50	5½ X ⅞	6 X 3½ X ⅜	6 X ⅜	2'	4'	6'

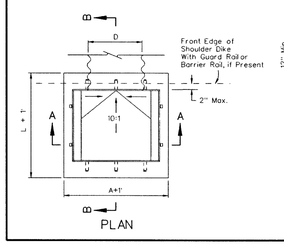


SECTION B-B

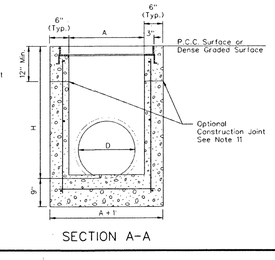


SECTION D-D

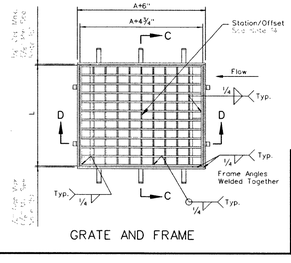
SECTION C-C



PLAN



SECTION A-A



GRATE AND FRAME

NOTES:

1. All concrete shall be class A or AA.
2. Reinforcing steel shall be No.4 bars with maximum spacing at 18 inch centers, wired tightly at all intersections and embedded 2 inches clear of all concrete surfaces.
3. Exposed edges of concrete shall be chamfered 1 inch.
4. Dimensions may be varied to fit local conditions if ordered by the engineer.
5. Commercial prefabricated gratings approved by the bridge division may be used in lieu of the field-welded grating shown.
6. Extreme low cover situations to be reviewed by hydraulics engineer.
7. Slope catch basin floors 10:1 from all directions toward outlet pipe. If basin is used as a junction, shape flow line(s) to outlet pipe and provide a 10:1 slope to flow line(s).
8. See sheet R-2.9.1 for details if connecting HDPE pipe.
9. A single Type 2 drop inlet shall be constructed unless a double or triple is specified.
10. Single grate configuration shown for clarity. Outside dimensions of each grate shall measure 2' feet by A+4¾".
11. Run rebar continuous thru construction joint. Joint must be a minimum of 3 inches from horizontal bars.
12. Weld one tab on ℄ of grate and remaining two tabs 6 inches from edge of frame. Six tabs per inlet, three tabs on each side
13. Weld tabs 6 inches from edge of frame. Four tabs per grate, two on each side.
14. For multiple grate assemblies, the station/offset is to the center of the curb opening inlet located at "A".
15. Grate is to fit in the frame and not easily removed. If the slot width in the grate is 2" or greater then ¾ ø rebar shall be welded to the grate and frame with a removable bar perpendicular to the longitudinal direction of the slot openings. If the slot width is 1½" or less may be welded flush to the top of the frame to reduce the gap to 1" or less.
16. Additional pipe penetrations may be placed in any wall. Pipe penetrations are to be in the center of the curb wall and shall meet specified criteria.

STATE OF NEVADA
DEPARTMENT OF TRANSPORTATION

DROP INLET
TYPE 2

R-4.2.1	(609)	Signed Original On File
ADOPTED 11/70	REVISED 10/15	CHIEF HYDRAULICS ENGR.

R-43

H:\CAD\LAND\10297\DWG\SHEETS\10297-C8.05-DTL.DWG 07/18/2018 03:25:04 PM

CITY OF LAS VEGAS NEVADA

REVISIONS

CONSULTANT

COLLINS ENGINEERS
3130 S. DURANGO DR., SUITE 404
LAS VEGAS, NV 89117
PHONE: (702) 248-8000
FAX: (702) 248-8070
www.collinsengr.com

DEPARTMENT OF PUBLIC WORKS

GILMORE CLIFF SHADOWS PARK
NEW CITY OF LAS VEGAS PARK

DETAILS SHEET 12

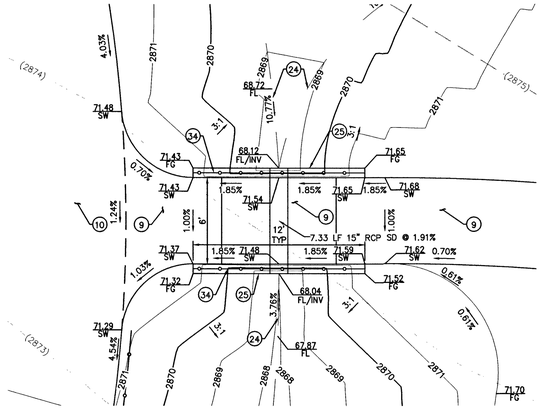
STAMP

ENGINEER – STATE OF NEVADA
ARMANDO PINEDA
EXP. 12-31-19
CIVIL
NO. 18290
7-19-18

OWNER: CITY OF LAS VEGAS
DEPARTMENT OF PUBLIC WORKS

DEVELOPMENT SERVICES CENTER
333 N. RANCHO DRIVE
LAS VEGAS, NEVADA 89106
PHONE: (702) 229-6276
FAX: (702) 384-4846

DRAWN	DSI
FILE	180101445
DATE	6/18/2018
SCALE	N.T.S.
BID NO	18.66085.DD
CLV DWG NO	650.116
HANSEN NO	66085
	L18-00891
SHT NO	C8.12



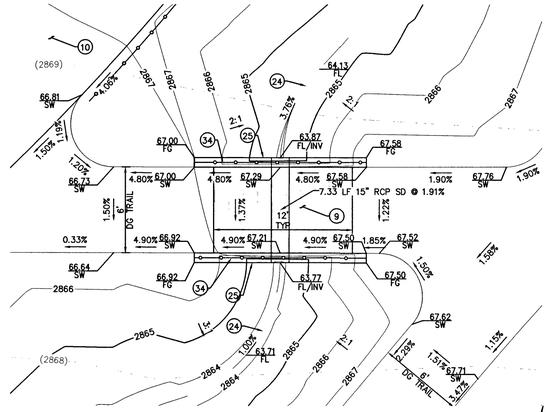
20 C8.13 FAUX PEDESTRIAN BRIDGE 1 DETAIL

SCALE: 1" = 5'

GRAPHIC SCALE

5 0 2.5 5

SCALE: 1"=5'



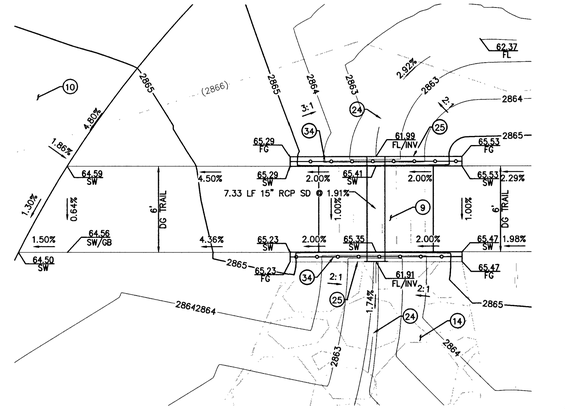
21 C8.13 FAUX PEDESTRIAN BRIDGE 2 DETAIL

SCALE: 1" = 5'

GRAPHIC SCALE

5 0 2.5 5

SCALE: 1"=5'



22 C8.13 FAUX PEDESTRIAN BRIDGE 3 DETAIL

SCALE: 1" = 5'

GRAPHIC SCALE

5 0 2.5 5

SCALE: 1"=5'

23 C8.13 PICNIC AREA STAIRS DETAIL

SCALE: 1" = 5'

GRAPHIC SCALE

5 0 2.5 5

SCALE: 1"=5'

24 C8.13 5-12 ADVENTURE PLAY STAIRS DETAIL

SCALE: 1" = 5'

GRAPHIC SCALE

5 0 2.5 5

SCALE: 1"=5'

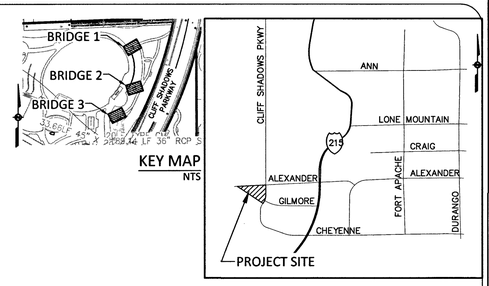
25 C8.13 PLAY HILL STAIRS DETAIL

SCALE: 1" = 5'

GRAPHIC SCALE

5 0 2.5 5

SCALE: 1"=5'



KEY MAP NTS

VICINITY MAP NTS

BASIS OF BEARINGS

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

BENCHMARK

PROJECT DATUM: NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).

CITY OF LAS VEGAS BENCHMARK: 7LV091INES
ELEVATION: 2931.57 (US SURVEY FEET)
893.54 (METERS)

BEING A BLM BRASS CAP (HIGH PT.) SECTION 2/1 OVER 11/12, PI ALEXANDER ROAD & SECTION LINE.

CONSTRUCTION NOTES

NO.	ITEM USDCCA: UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA
1	CONSTRUCT TYPE 'L' CURB PER USDCCA NO. 216 SHEET C8.05.
2	CONSTRUCT TYPE 'A' CURB PER DETAIL 1 SHEET C8.02
3	INSTALL "0" CURB, PER DETAIL 2 SHEET C8.02
4	TRANSITION FROM 0" TO 6" CURB PER DETAIL 4 SHEET C8.02.
5	CONSTRUCT 2.5" MIN. AC PAVEMENT OVER 4" MIN. TYPE II AGGREGATE BASE.
6	CONSTRUCT SIDEWALK PER USDCCA NO. 234 SHEET C8.05.
7	CONSTRUCT 12" MOW CURB PER DETAIL 6 SHEET C8.02.
8	CONSTRUCT 8' CROSS GUTTER PER USDCCA NO. 228 SHEET C8.05.
9	CONSTRUCT 4" THICK CONCRETE OVER 6" TYPE II AGGREGATE BASE. WIDTH PER PLAN.
10	CONSTRUCT VEHICULAR CONCRETE PAVING PER DETAIL 17 SHEET C8.04. WIDTH PER PLAN.
11	CONSTRUCT SIDEWALK UNDERDRAIN PER USDCCA No. 236. SHEET C8.06.
12	CONSTRUCT SIDEWALK RAMP PER USDCCA NO. 235, CASE 1 SHEET C8.05.
13	CONSTRUCT CURB OPENING PER DETAIL 5 SHEET C8.02.
14	INSTALL RIP RAP D50=8" MIN., THICKNESS=16". SIDESLOPE=2% MIN./3:1 MAX.
15	INSTALL RIP RAP D50=3" MIN., THICKNESS=6". SIDESLOPE=2% MIN./3:1 MAX.
16	INSTALL 24"x24" JENSEN PRECAST OR EQUAL DROP INLET. REFERENCE DETAIL 9 SHEET C8.03. INCLUDE CONCRETE COLLAR PER USDCCA DWG NO 329 SHEET C8.07 AND CONCRETE STAMP PER USDCCA DWG NO 421 SHEET C8.07.
17	INSTALL 36"x36" JENSEN PRECAST OR EQUAL DROP INLET. REFERENCE DETAIL 10 SHEET C8.03. INCLUDE CONCRETE COLLAR PER USDCCA DWG NO 329 SHEET C8.07 AND CONCRETE STAMP PER USDCCA DWG NO 421 SHEET C8.07.
18	INSTALL 24"x48" DROP INLET PER NDOT DWG. R-4.2.1 SHEET C8.12. INCLUDE CONCRETE COLLAR PER USDCCA DWG NO 329 SHEET C8.07 AND CONCRETE STAMP PER USDCCA DWG NO 421 SHEET C8.07.
19	CONSTRUCT TYPE III STORM DRAIN MANHOLE PER USDCCA #406.1 SHEET C8.07 AND DETAIL 14 SHEET C8.04.
20	INSTALL 20 LF TYPE 'CM' STORM DRAIN DROP INLET PER DETAIL 12 SHEET C8.03. INCLUDE CONCRETE STAMP PER USDCCA DWG NO 421 SHEET C8.07.
21	INSTALL 15" RCP FLARED END SECTION. REFERENCE DETAIL 13 SHEET C8.04
22	CONSTRUCT 7" THICK PCC PAVEMENT REINFORCED W/ #4@12" O.C.E.W. OVER 6" TYPE II AGGREGATE BASE OVER 8" STRUCTURAL FILL. COORDINATE WITH TRASH ENCLOSURE INSTALLATION TO PROVIDE 24" REBAR DOWELS BETWEEN SLABS AT 12" O.C.
23	INSTALL REMOVABLE BOLLARD PER DETAIL 7, SHEET C8.02.
24	CONSTRUCT GRADED SWALE PER DETAIL 3 SHEET C8.02.
25	INSTALL HEADWALL PER NDOT DWG. R-2.5.1 AND R-2.5.1.1 SHEET C8.12.
26	INSTALL TACK-ON ISLAND AS SHOWN PER USDCCA NO. 220.1.S1 SHEET C8.05.
27	REMOVE EXISTING "L" CURB AND GUTTER (SEE PLAN FOR LIMITS)
28	REMOVE EXISTING MEDIAN ISLAND.
29	FIELD VERIFY AND CONNECT TO EXISTING CURB, GUTTER AND SIDEWALK.
30	SAWCUT AS SHOWN ON PLANS AND MATCH EXISTING AC PAVEMENT SECTION.
31	REMOVE EXISTING 20 LF DROP INLET AND EXISTING 24" RCP.
32	SET RIM OF SEWER MANHOLE TO FINISHED GRADE.
33	CONSTRUCT 10' WIDE MULTIUSE EQUESTRIAN (MUE) TRAIL. SEE LANDSCAPING PLANS FOR DETAILS.
34	CONSTRUCT METAL GUARD RAIL PER DETAIL 2 SHEET L2.06.
35	INSTALL METAL HAND RAIL PER DETAIL 2 SHEET L2.06.
36	INSTALL 6' CHAINLINK FENCE PER USDCCA NO. 252 C8.07.
37	RELOCATE EXISTING CATV AND 6" ELECTRICAL CONDUITS AROUND PROPOSED STORM DRAIN CATCH BASINS.
38	CONSTRUCT MEDIAN NOSE PER USDCCA NO. 248 SHEET C8.06.
39	REMOVE AND SALVAGE EXISTING RIP RAP.
40	REMOVE EXISTING RCP SD. LENGTH PER PLAN.
41	REMOVE EXISTING CATCH BASIN.
42	REMOVE EXISTING 60" SDMH AND CONSTRUCT TYPE III STORM DRAIN MANHOLE PER USDCCA #406.1 SHEET C8.07 AND DETAIL 14 SHEET C8.04. INCLUDE CONCRETE STAMP PER USDCCA DWG NO 421 SHEET C8.07.
43	INSTALL NEENAH TYPE R2557 GRATE OR EQUAL AND CONCRETE COLLAR. SEE DETAIL 11 SHEET C8.03 FOR REFERENCE. PLACE CONCRETE STAMP PER USDCCA DWG NO 421 SHEET C8.07.
44	REMOVE EX. NDOT TYPE 2 DROP INLET AND REPLACE WITH NEW 60" TYPE I SDMH PER USDCCA NO. 403.1. INCLUDE CONCRETE STAMP PER USDCCA DWG NO 421 SHEET C8.07.
45	CONSTRUCT MODIFIED SIDEWALK RAMP PER USDCCA NO. 235, CASE 1 SHEET C8.05 AND DETAIL 28 SHEET 14.
46	CONSTRUCT RETAINING WALL PER PROFILE 'A' AND DETAILS ON SHEET C4.11.
47	CONSTRUCT RETAINING WALL PER PROFILE 'B' AND DETAILS ON SHEET C4.11.
48	CONSTRUCT PIPE PENETRATION INTO EXISTING STORM DRAIN BOX PER DETAIL 18 SHEET C8.04
49	INSTALL 36"x36" JENSEN PRECAST OR EQUAL DROP INLET WITH TRAFFIC RATED GRATES. REFERENCE DETAIL 10 SHEET C8.03. PLACE CONCRETE STAMP PER USDCCA DWG NO 421 SHEET C8.07.

CALL BEFORE YOU DIG
AVOID CUTTING UNDERGROUND UTILITY LINES. IT'S COSTLY
Call 811 or 1-800-227-2600

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

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

COLLINS ENGINEERS ASSUMES NO RESPONSIBILITY FOR EXISTING UTILITY LOCATIONS AND ELEVATIONS. THE UTILITIES SHOWN ON THIS DRAWING HAVE BEEN PLOTTED FROM THE BEST AVAILABLE INFORMATION. IT IS, HOWEVER, THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE LOCATION AND ELEVATION OF ALL UTILITIES PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION. CONTRACTOR TO FIELD VERIFY ALL EXISTING SITE CONDITIONS PRIOR TO CONSTRUCTION. IF A CONFLICT EXISTS BETWEEN WHAT IS SHOWN ON THESE DRAWINGS AND WHAT EXISTS IN THE FIELD, THE CONTRACTOR IS TO NOTIFY THE ARCHITECT OR ENGINEER IMMEDIATELY.

LEGEND

EXISTING	PROPOSED	
(0.00%)	0.00%	SLOPE
(0.00) XX	0.00 XX	ELEVATION TAG
(D)	(D)	STORM MANHOLE
		DROP INLET
		CONTOUR
		RETAINING WALL
		SCREEN WALL

EXISTING	PROPOSED	
		AC PAVEMENT
		6" TYPE "A" CURB
		24" TYPE "L" CURB & GUTTER
		30" ROLL CURB

PL-RIGHT-OF-WAY
PL-ADJACENT
CENTERLINE
EASEMENT LINE
FLOW LINE
SAWCUT LINE
GRADE BREAK
MOUNDING
CHAIN LINK FENCE

H:\CAD\LAND\10297\DWG\SHEETS\10297-C8.13-DTL GRD.DWG 07/18/2018 03:28:17 PM

CITY OF LAS VEGAS NEVADA

REVISIONS

CONSULTANT

COLLINS ENGINEERS
3130 S. DURANGO DR. SUITE 404
LAS VEGAS, NV 89117
PHONE: (702) 248-8000
FAX: (702) 248-8070
www.collinsengr.com

DEPARTMENT OF PUBLIC WORKS

GILMORE CLIFF SHADOWS PARK
NEW CITY OF LAS VEGAS PARK

GRADING DETAILS SHEET 1

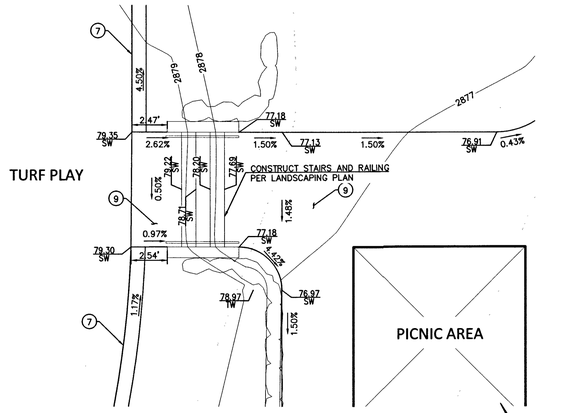
STAMP

ARMANDO PINEDA
EXP. 12-31-19
CIVIL
NO. 18290
7-19-19

OWNER: CITY OF LAS VEGAS
DEPARTMENT OF PUBLIC WORKS

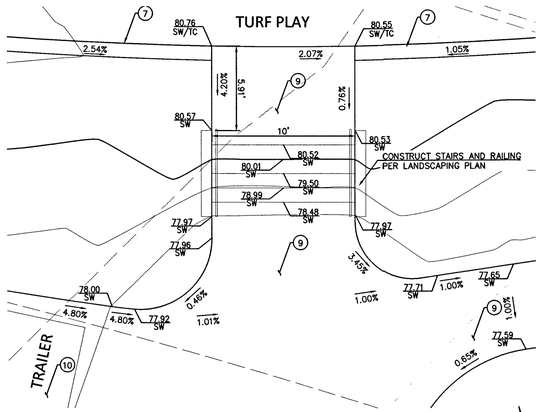
DEVELOPMENT SERVICES CENTER
333 N. RANCHO DRIVE
LAS VEGAS, NEVADA 89106
PHONE: (702) 229-6276
FAX: (702) 384-4846

DRAWN	DSI
FILE	180101445
DATE	6/18/2018
SCALE	SEE PLAN
BID NO	18.66085.DD
CLV DWG NO	650.116
HANSEN NO	66085
	C18-00891
SHT NO	C8.13



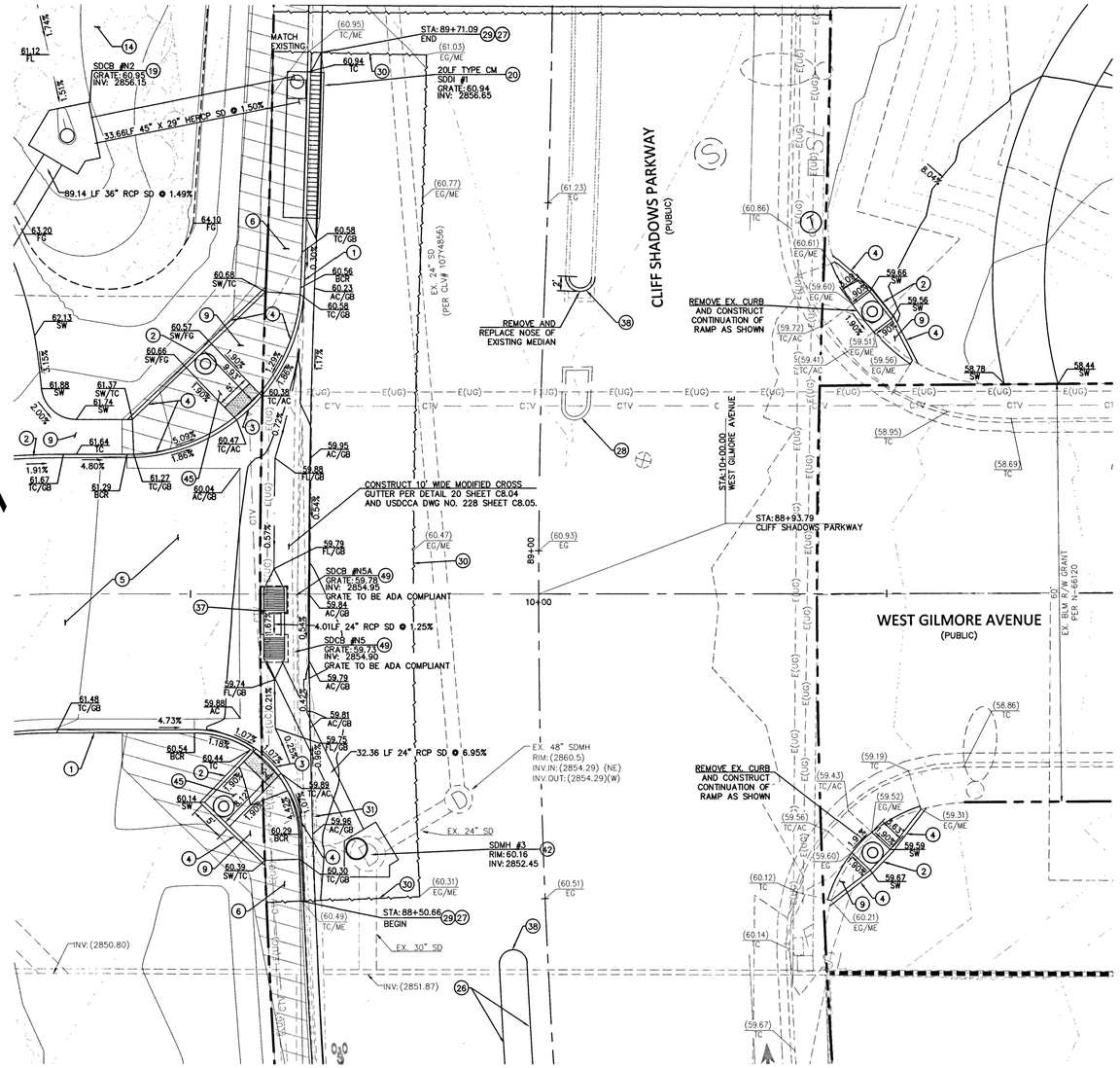
26 C8.14 TURF PLAY STAIRS DETAIL
SCALE: 1" = 5'

GRAPHIC SCALE
5 0 2.5 5
SCALE: 1"=5'



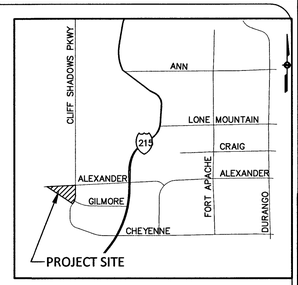
27 C8.14 TURF PLAY AREA STAIRS DETAIL
SCALE: 1" = 5'

GRAPHIC SCALE
5 0 2.5 5
SCALE: 1"=5'



28 C8.14 CLIFF SHADOWS PARKWAY & GILMORE AVENUE INTERSECTION
SCALE: 1" = 10'

GRAPHIC SCALE
10 0 5 10
SCALE: 1"=10'



VICINITY MAP
NTS

BASIS OF BEARINGS

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

BENCHMARK

PROJECT DATUM: NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).

CITY OF LAS VEGAS BENCHMARK: 7LV0911NES
ELEVATION: 2931.57 (US SURVEY FEET)
893.54 (METERS)

BEING A BLM BRASS CAP (HIGH PT.) SECTION 2/1 OVER 11/12, PI ALEXANDER ROAD & SECTION LINE.

CONSTRUCTION NOTES

NO.	ITEM USDCCA: UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA
1	CONSTRUCT TYPE 'L' CURB PER USDCCA NO. 216 SHEET C8.05.
2	CONSTRUCT TYPE 'A' CURB PER DETAIL 1 SHEET C8.02
3	INSTALL "0" CURB, PER DETAIL 2 SHEET C8.02
4	TRANSITION FROM 0" TO 6" CURB PER DETAIL 4 SHEET C8.02.
5	CONSTRUCT 2.5" MIN. AC PAVEMENT OVER 4" MIN. TYPE II AGGREGATE BASE.
6	CONSTRUCT SIDEWALK PER USDCCA NO. 234 SHEET C8.05.
7	CONSTRUCT 12" MOW CURB PER DETAIL 6 SHEET C8.02.
8	CONSTRUCT 8' CROSS GUTTER PER USDCCA NO. 228 SHEET C8.05.
9	CONSTRUCT 4" THICK CONCRETE OVER 6" TYPE II AGGREGATE BASE. WIDTH PER PLAN.
10	CONSTRUCT VEHICULAR CONCRETE PAVING PER DETAIL 17 SHEET C8.04. WIDTH PER PLAN.
11	CONSTRUCT SIDEWALK UNDERDRAIN PER USDCCA No. 236. SHEET C8.06.
12	CONSTRUCT SIDEWALK RAMP PER USDCCA NO. 235, CASE 1 SHEET C8.05.
13	CONSTRUCT CURB OPENING PER DETAIL 5 SHEET C8.02.
14	INSTALL RIP RAP D50=8" MIN., THICKNESS=16". SIDESLOPE=2% MIN./3:1 MAX.
15	INSTALL RIP RAP D50=3" MIN., THICKNESS=6". SIDESLOPE=2% MIN./3:1 MAX.
16	INSTALL 24"x24" JENSEN PRECAST OR EQUAL DROP INLET. REFERENCE DETAIL 9 SHEET C8.03. INCLUDE CONCRETE COLLAR PER USDCCA DWG NO 329 SHEET C8.07 AND CONCRETE STAMP PER USDCCA DWG NO 421 SHEET C8.07.
17	INSTALL 36"x36" JENSEN PRECAST OR EQUAL DROP INLET. REFERENCE DETAIL 10 SHEET C8.03. INCLUDE CONCRETE COLLAR PER USDCCA DWG NO 329 SHEET C8.07 AND CONCRETE STAMP PER USDCCA DWG NO 421 SHEET C8.07.
18	INSTALL 24"x48" DROP INLET PER NDOT DWG. R-4.2.1 SHEET C8.12. INCLUDE CONCRETE COLLAR PER USDCCA DWG NO 329 SHEET C8.07 AND CONCRETE STAMP PER USDCCA DWG NO 421 SHEET C8.07.
19	CONSTRUCT TYPE III STORM DRAIN MANHOLE PER USDCCA #406.1 SHEET C8.07 AND DETAIL 14 SHEET C8.04.
20	INSTALL 20 LF TYPE "CM" STORM DRAIN DROP INLET PER DETAIL 12 SHEET C8.03. INCLUDE CONCRETE STAMP PER USDCCA DWG NO 421 SHEET C8.07.
21	INSTALL 15" RCP FLARED END SECTION. REFERENCE DETAIL 13 SHEET C8.04
22	CONSTRUCT 7" THICK PCC PAVEMENT REINFORCED W/ #4@12" O.C.E.W. OVER 6" TYPE II AGGREGATE BASE OVER 8" STRUCTURAL FILL. COORDINATE WITH TRASH ENCLOSURE INSTALLATION TO PROVIDE 24" REBAR DOWELS BETWEEN SLABS AT 12" O.C.
23	INSTALL REMOVABLE BOLLARD PER DETAIL 7, SHEET C8.02.
24	CONSTRUCT GRADED SWALE PER DETAIL 3 SHEET C8.02.
25	INSTALL HEADWALL PER NDOT DWG. R-2.5.1 AND R-2.5.1.1 SHEET C8.12.
26	INSTALL TACK-ON ISLAND AS SHOWN PER USDCCA NO. 220.1.S1 SHEET C8.05.
27	REMOVE EXISTING "L" CURB AND GUTTER (SEE PLAN FOR LIMITS)
28	REMOVE EXISTING MEDIAN ISLAND.
29	FIELD VERIFY AND CONNECT TO EXISTING CURB, GUTTER AND SIDEWALK.
30	SAWCUT AS SHOWN ON PLANS AND MATCH EXISTING AC PAVEMENT SECTION.
31	REMOVE EXISTING 20 LF DROP INLET AND EXISTING 24" RCP.
32	SET RIM OF SEWER MANHOLE TO FINISHED GRADE.
33	CONSTRUCT 10' WIDE MULTIUSE EQUESTRIAN (MUE) TRAIL. SEE LANDSCAPING PLANS FOR DETAILS.
34	CONSTRUCT METAL GUARD RAIL PER DETAIL 2 SHEET L2.06.
35	INSTALL METAL HAND RAIL PER DETAIL 2 SHEET L2.06.
36	INSTALL 6' CHAINLINK FENCE PER USDCCA NO. 252 C8.07.
37	RELOCATE EXISTING CATV AND 6" ELECTRICAL CONDUITS AROUND PROPOSED STORM DRAIN CATCH BASINS.
38	CONSTRUCT MEDIAN NOSE PER USDCCA NO. 248 SHEET C8.06.
39	REMOVE AND SALVAGE EXISTING RIP RAP.
40	REMOVE EXISTING RCP SD. LENGTH PER PLAN.
41	REMOVE EXISTING CATCH BASIN.
42	REMOVE EXISTING 60" SDMH AND CONSTRUCT TYPE III STORM DRAIN MANHOLE PER USDCCA #406.1 SHEET C8.07 AND DETAIL 14 SHEET C8.04. INCLUDE CONCRETE STAMP PER USDCCA DWG NO 421 SHEET C8.07.
43	INSTALL NEENAH TYPE R2557 GRATE OR EQUAL AND CONCRETE COLLAR. SEE DETAIL 11 SHEET C8.03 FOR REFERENCE. PLACE CONCRETE STAMP PER USDCCA DWG NO 421 SHEET C8.07.
44	REMOVE EX. NDOT TYPE 2 DROP INLET AND REPLACE WITH NEW 60" TYPE I SDMH PER USDCCA NO. 403.1. INCLUDE CONCRETE STAMP PER USDCCA DWG NO 421 SHEET C8.07.
45	CONSTRUCT MODIFIED SIDEWALK RAMP PER USDCCA NO. 235, CASE 1 SHEET C8.05 AND DETAIL 28 SHEET 14.
46	CONSTRUCT RETAINING WALL PER PROFILE 'A' AND DETAILS ON SHEET C4.11.
47	CONSTRUCT RETAINING WALL PER PROFILE 'B' AND DETAILS ON SHEET C4.11.
48	CONSTRUCT PIPE PENETRATION INTO EXISTING STORM DRAIN BOX PER DETAIL 18 SHEET C8.04
49	INSTALL 36"x36" JENSEN PRECAST OR EQUAL DROP INLET WITH TRAFFIC RATED GRATES. REFERENCE DETAIL 10 SHEET C8.03. PLACE CONCRETE STAMP PER USDCCA DWG NO 421 SHEET C8.07.

CALL BEFORE YOU DIG
AVOID CUTTING UNDERGROUND UTILITY LINES. IT'S COSTLY
Call 811 or 1-800-227-2600

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

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

COLLINS ENGINEERS ASSUMES NO RESPONSIBILITY FOR EXISTING UTILITY LOCATIONS AND ELEVATIONS. THE UTILITIES SHOWN ON THIS DRAWING HAVE BEEN PLOTTED FROM THE BEST AVAILABLE INFORMATION. IT IS, HOWEVER, THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE LOCATION AND ELEVATION OF ALL UTILITIES PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION. CONTRACTOR TO FIELD VERIFY ALL EXISTING SITE CONDITIONS PRIOR TO CONSTRUCTION. IF A CONFLICT EXISTS BETWEEN WHAT IS SHOWN ON THESE DRAWINGS AND WHAT EXISTS IN THE FIELD, THE CONTRACTOR IS TO NOTIFY THE ARCHITECT OR ENGINEER IMMEDIATELY.

LEGEND

EXISTING	PROPOSED	
(0.00%)	0.00%	SLOPE
(0.00) XX	0.00 XX	ELEVATION TAG
Ⓓ	Ⓓ	STORM MANHOLE
		DROP INLET
-00-	-00-	CONTOUR
		RETAINING WALL
		SCREEN WALL

EXISTING	PROPOSED	
		AC PAVEMENT
		6" TYPE "A" CURB
		24" TYPE "L" CURB & GUTTER
		30" ROLL CURB

PL-RIGHT-OF-WAY
PL-ADJACENT
CENTERLINE
EASEMENT LINE
FLOW LINE
SAWCUT LINE
GRADE BREAK
MOUNDING
CHAIN LINK FENCE

H:\CAD\LAND\10297\DWG\SHEETS\10297-C8.13-DTL GRD.DWG 07/18/2018 03:32:28 PM

CITY OF LAS VEGAS NEVADA

PUBLIC WORKS
DEPARTMENT OF PUBLIC WORKS

REVISIONS

CONSULTANT
COLLINS ENGINEERS
3130 S. DURANGO DR., SUITE 404
LAS VEGAS, NV 89117
PHONE: (702) 248-8000
FAX: (702) 248-8070
www.collinsengr.com

GILMORE CLIFF SHADOWS PARK
NEW CITY OF LAS VEGAS PARK

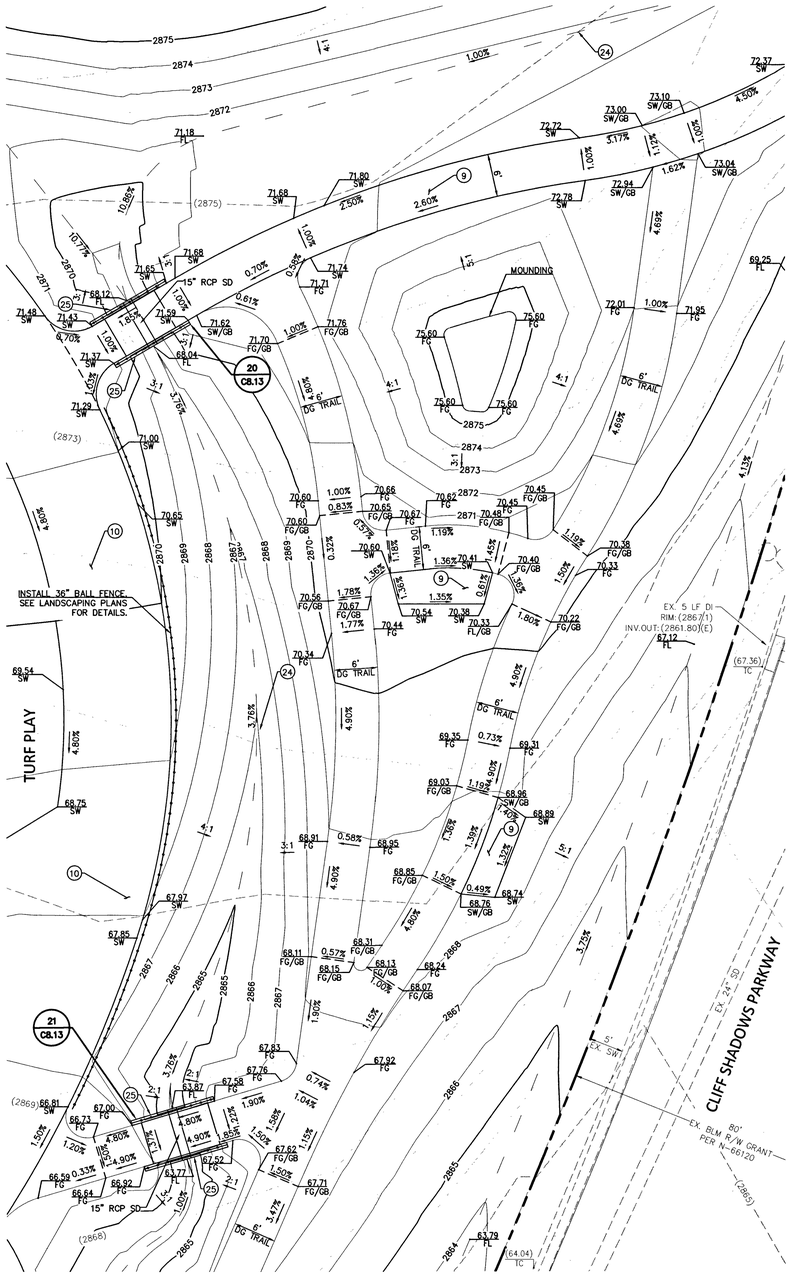
GRADING DETAILS SHEET 2

STAMP
PROFESSIONAL ENGINEER STATE OF NEVADA
ARMANDO PINEDA
EXP. 12-31-19
CIVIL
NO. 18290
7-19-19

OWNER: CITY OF LAS VEGAS
DEPARTMENT OF PUBLIC WORKS

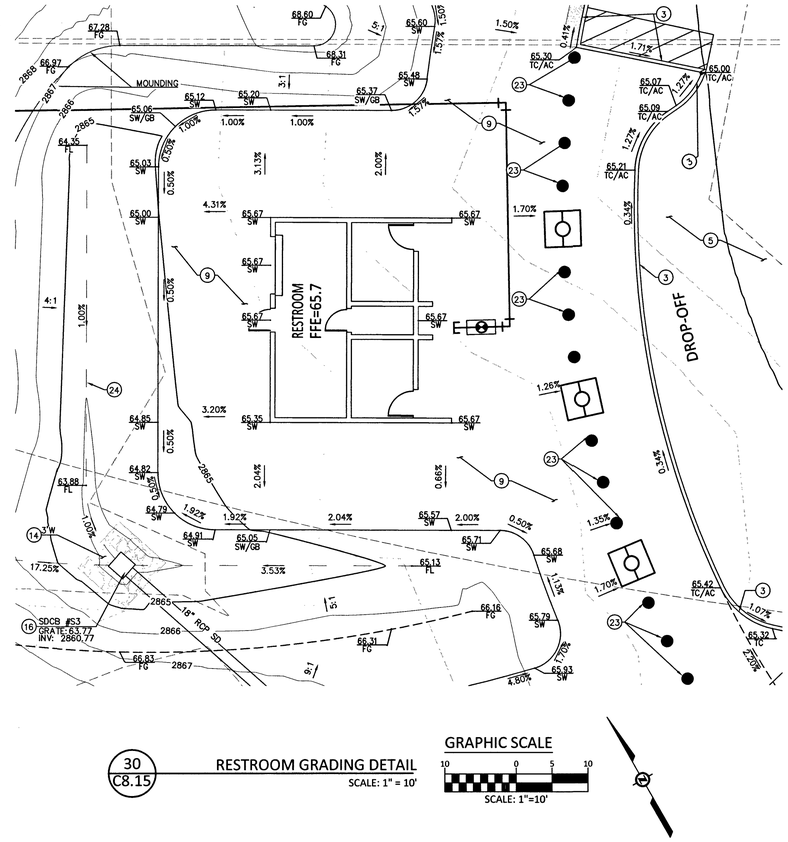
DEVELOPMENT SERVICES CENTER
333 N. RANCHO DRIVE
LAS VEGAS, NEVADA 89106
PHONE: (702) 229-6276
FAX: (702) 384-4846

DRAWN	DSI
FILE	180101445
DATE	6/18/2018
SCALE	SEE PLAN
BID NO	18.66085.DD
CLV DWG NO.	650.116
HANSEN NO	66085
	18-00891
SHT NO	C8.14



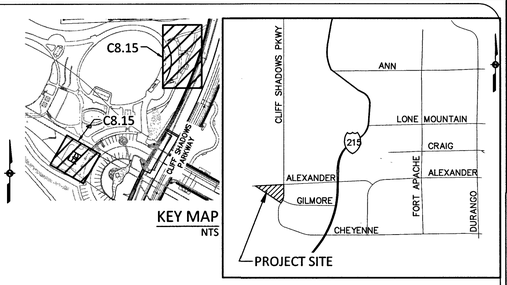
29 C8.15 DG TRAIL GRADING DETAIL
SCALE: 1" = 10'

GRAPHIC SCALE
10 0 5 10
SCALE: 1"=10'



30 C8.15 RESTROOM GRADING DETAIL
SCALE: 1" = 10'

GRAPHIC SCALE
10 0 5 10
SCALE: 1"=10'



KEY MAP
NTS

VICINITY MAP
NTS

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

BENCHMARK

PROJECT DATUM: NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).

CITY OF LAS VEGAS BENCHMARK: 7LV0911NES
ELEVATION: 2931.57 (US SURVEY FEET)
893.54 (METERS)

BEING A BLM BRASS CAP (HIGH PT.) SECTION 2/1 OVER 11/12, PI ALEXANDER ROAD & SECTION LINE.

CONSTRUCTION NOTES

NO.	ITEM USDCCA: UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA
1	CONSTRUCT TYPE 'L' CURB PER USDCCA NO. 216 SHEET C8.05.
2	CONSTRUCT TYPE 'A' CURB PER DETAIL 1 SHEET C8.02
3	INSTALL "0" CURB, PER DETAIL 2 SHEET C8.02
4	TRANSITION FROM 0" TO 6" CURB PER DETAIL 4 SHEET C8.02.
5	CONSTRUCT 2.5" MIN. AC PAVEMENT OVER 4" MIN. TYPE II AGGREGATE BASE.
6	CONSTRUCT SIDEWALK PER USDCCA NO. 234 SHEET C8.05.
7	CONSTRUCT 12" MOW CURB PER DETAIL 6 SHEET C8.02.
8	CONSTRUCT 8' CROSS GUTTER PER USDCCA NO. 228 SHEET C8.05.
9	CONSTRUCT 4" THICK CONCRETE OVER 6" TYPE II AGGREGATE BASE. WIDTH PER PLAN.
10	CONSTRUCT VEHICULAR CONCRETE PAVING PER DETAIL 17 SHEET C8.04. WIDTH PER PLAN.
11	CONSTRUCT SIDEWALK UNDERDRAIN PER USDCCA No. 236. SHEET C8.06.
12	CONSTRUCT SIDEWALK RAMP PER USDCCA NO. 235, CASE 1 SHEET C8.05.
13	CONSTRUCT CURB OPENING PER DETAIL 5 SHEET C8.02.
14	INSTALL RIP RAP D50=8" MIN., THICKNESS=16". SIDESLOPE=2% MIN./3:1 MAX.
15	INSTALL RIP RAP D50=3" MIN., THICKNESS=6". SIDESLOPE=2% MIN./3:1 MAX.
16	INSTALL 24"x24" JENSEN PRECAST OR EQUAL DROP INLET. REFERENCE DETAIL 9 SHEET C8.03. INCLUDE CONCRETE COLLAR PER USDCCA DWG NO 329 SHEET C8.07 AND CONCRETE STAMP PER USDCCA DWG NO 421 SHEET C8.07.
17	INSTALL 36"x36" JENSEN PRECAST OR EQUAL DROP INLET. REFERENCE DETAIL 10 SHEET C8.03. INCLUDE CONCRETE COLLAR PER USDCCA DWG NO 329 SHEET C8.07 AND CONCRETE STAMP PER USDCCA DWG NO 421 SHEET C8.07.
18	INSTALL 24"x48" DROP INLET PER NDOT DWG. R-4.2.1 SHEET C8.12. INCLUDE CONCRETE COLLAR PER USDCCA DWG NO 329 SHEET C8.07 AND CONCRETE STAMP PER USDCCA DWG NO 421 SHEET C8.07.
19	CONSTRUCT TYPE III STORM DRAIN MANHOLE PER USDCCA #406.1 SHEET C8.07 AND DETAIL 14 SHEET C8.04.
20	INSTALL 20 LF TYPE 'CM' STORM DRAIN DROP INLET PER DETAIL 12 SHEET C8.03. INCLUDE CONCRETE STAMP PER USDCCA DWG NO 421 SHEET C8.07.
21	INSTALL 15" RCP FLARED END SECTION. REFERENCE DETAIL 13 SHEET C8.04
22	CONSTRUCT 7" THICK PCC PAVEMENT REINFORCED W/ #4@12" O.C.E.W. OVER 6" TYPE II AGGREGATE BASE OVER 8" STRUCTURAL FILL. COORDINATE WITH TRASH ENCLOSURE INSTALLATION TO PROVIDE 24" REBAR DOWELS BETWEEN SLABS AT 12" O.C.
23	INSTALL REMOVABLE BOLLARD PER DETAIL 7, SHEET C8.02.
24	CONSTRUCT GRADED SWALE PER DETAIL 3 SHEET C8.02.
25	INSTALL HEADWALL PER NDOT DWG. R-2.5.1 AND R-2.5.1.1 SHEET C8.12.
26	INSTALL TACK-ON ISLAND AS SHOWN PER USDCCA NO. 220.1.S1 SHEET C8.05.
27	REMOVE EXISTING "L" CURB AND GUTTER (SEE PLAN FOR LIMITS)
28	REMOVE EXISTING MEDIAN ISLAND.
29	FIELD VERIFY AND CONNECT TO EXISTING CURB, GUTTER AND SIDEWALK.
30	SAWCUT AS SHOWN ON PLANS AND MATCH EXISTING AC PAVEMENT SECTION.
31	REMOVE EXISTING 20 LF DROP INLET AND EXISTING 24" RCP.
32	SET RIM OF SEWER MANHOLE TO FINISHED GRADE.
33	CONSTRUCT 10' WIDE MULTIUSE EQUESTRIAN (MUE) TRAIL. SEE LANDSCAPING PLANS FOR DETAILS.
34	CONSTRUCT METAL GUARD RAIL PER DETAIL 2 SHEET L2.06.
35	INSTALL METAL HAND RAIL PER DETAIL 2 SHEET L2.06.
36	INSTALL 6' CHAINLINK FENCE PER USDCCA NO. 252 C8.07.
37	RELOCATE EXISTING CATV AND 6" ELECTRICAL CONDUITS AROUND PROPOSED STORM DRAIN CATCH BASINS.
38	CONSTRUCT MEDIAN NOSE PER USDCCA NO. 248 SHEET C8.06.
39	REMOVE AND SALVAGE EXISTING RIP RAP.
40	REMOVE EXISTING RCP SD. LENGTH PER PLAN.
41	REMOVE EXISTING CATCH BASIN.
42	REMOVE EXISTING 60" SDMH AND CONSTRUCT TYPE III STORM DRAIN MANHOLE PER USDCCA #406.1 SHEET C8.07 AND DETAIL 14 SHEET C8.04. INCLUDE CONCRETE STAMP PER USDCCA DWG NO 421 SHEET C8.07.
43	INSTALL NEENAH TYPE R2557 GRATE OR EQUAL AND CONCRETE COLLAR. SEE DETAIL 11 SHEET C8.03 FOR REFERENCE. PLACE CONCRETE STAMP PER USDCCA DWG NO 421 SHEET C8.07.
44	REMOVE EX. NDOT TYPE 2 DROP INLET AND REPLACE WITH NEW 60" TYPE I SDMH PER USDCCA NO. 403.1. INCLUDE CONCRETE STAMP PER USDCCA DWG NO 421 SHEET C8.07.
45	CONSTRUCT MODIFIED SIDEWALK RAMP PER USDCCA NO. 235, CASE 1 SHEET C8.05 AND DETAIL 28 SHEET 14.
46	CONSTRUCT RETAINING WALL PER PROFILE 'A' AND DETAILS ON SHEET C4.11.
47	CONSTRUCT RETAINING WALL PER PROFILE 'B' AND DETAILS ON SHEET C4.11.
48	CONSTRUCT PIPE PENETRATION INTO EXISTING STORM DRAIN BOX PER DETAIL 18 SHEET C8.04
49	INSTALL 36"x36" JENSEN PRECAST OR EQUAL DROP INLET WITH TRAFFIC RATED GRATES. REFERENCE DETAIL 10 SHEET C8.03. PLACE CONCRETE STAMP PER USDCCA DWG NO 421 SHEET C8.07.

FLOOD ZONE NOTE:

PER FIRM PANEL 32003C2150E REVISED SEPTEMBER 27, 2002, THE PROJECT SITE IS LOCATED WITHIN NON-SHADED FLOOD ZONE "X". NON-SHADED FLOOD ZONE "X" IS DEFINED BY FEMA AS AN AREA OUTSIDE THE 100-YEAR FLOOD PLAIN.

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 THE VEGETATION.

GENERAL NOTE:

IT IS THE CONTRACTOR'S RESPONSIBILITY TO FILE A NOTICE OF INTENT/REQUEST TO BE INCLUDED IN THE STORM WATER GENERAL PERMIT, AND SUBMIT THE ASSOCIATED STORM WATER POLLUTION PREVENTION PLAN (SWPPP) AS REQUIRED BY FEDERAL, AND MONITORED BY THE NEVADA DIVISION OF ENVIRONMENTAL PROTECTION.

ALL GRADING WORK SHALL BE IN STRICT ACCORDANCE WITH THE SOILS REPORT FOR THE SITE ENTITLED "GILMORE CLIFF SHADOW PARK".

PROJECT NO.: 304227001, DATED OCTOBER 31, 2017

PREPARED BY:
NINYO & MOORE GEOTECHNICAL & ENVIRONMENTAL SCIENCES CONSULTANTS
6700 PARADISE ROAD, SUITE E
LAS VEGAS, NEVADA 89119
PHONE NO.: (702) 433-0330
FAX NO.: (702) 433-0707

ALL WORK SHALL BE PERFORMED UNDER THE DIRECTION OF A REGISTERED PROFESSIONAL SOILS ENGINEER.

I CERTIFY THAT THIS GRADING PLAN CONFORMS TO THE THE APPROVED DRAINAGE STUDY FOR THIS SITE ON FILE WITH THE CITY OF LAS VEGAS. HANSEN# 66085

ARMANDO PINEDA, P.E. 18290 — 7-19-18 DATE

CALL BEFORE YOU DIG
AVOID CUTTING UNDERGROUND UTILITY LINES. IT'S COSTLY
Call 811 or 1-800-227-2600

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

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

COLLINS ENGINEERS ASSUMES NO RESPONSIBILITY FOR EXISTING UTILITY LOCATIONS AND ELEVATIONS. THE UTILITIES SHOWN ON THIS DRAWING HAVE BEEN PLOTTED FROM THE BEST AVAILABLE INFORMATION. IT IS, HOWEVER, THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE LOCATION AND ELEVATION OF ALL UTILITIES PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION. CONTRACTOR TO FIELD VERIFY ALL EXISTING SITE CONDITIONS PRIOR TO CONSTRUCTION. IF A CONFLICT EXISTS BETWEEN WHAT IS SHOWN ON THESE DRAWINGS AND WHAT EXISTS IN THE FIELD, THE CONTRACTOR IS TO NOTIFY THE ARCHITECT OR ENGINEER IMMEDIATELY.

LEGEND

EXISTING	PROPOSED	
(0.00%)	0.00%	SLOPE
(0.00) XX	0.00 XX	ELEVATION TAG
(D)	D	STORM MANHOLE
		DROP INLET
--00--	--00--	CONTOUR
		RETAINING WALL
		SCREEN WALL
		AC PAVEMENT
		6" TYPE "A" CURB
		24" TYPE "L" CURB & GUTTER
		30" ROLL CURB
		PL-RIGHT-OF-WAY
		PL-ADJACENT
		CENTERLINE
		EASEMENT LINE
		FLOW LINE
		SAWCUT LINE
		GRADE BREAK
		MOUNDING
		CHAIN LINK FENCE

CITY OF LAS VEGAS NEVADA

REVISIONS

CONSULTANT

COLLINS ENGINEERS
3130 S. DURANGO DR., SUITE 404
LAS VEGAS, NV 89117
PHONE: (702) 248-8000
FAX: (702) 248-8070
www.collinsengr.com

DEPARTMENT OF PUBLIC WORKS

GILMORE CLIFF SHADOWS PARK
NEW CITY OF LAS VEGAS PARK

GRADING DETAILS SHEET 3

STAMP

ENGINEER - STATE OF NEVADA
ARMANDO PINEDA
EXP. 12-31-19
CIVIL
NO. 18290
PROFESSIONAL
7-19-19

OWNER: CITY OF LAS VEGAS
DEPARTMENT OF PUBLIC WORKS

DEVELOPMENT SERVICES CENTER
333 N. RANCHO DRIVE
LAS VEGAS, NEVADA 89106
PHONE: (702) 229-6276
FAX: (702) 384-4846

DRAWN	DSI
FILE	180101445
DATE	6/18/2018
SCALE	SEE PLAN
BID NO	18.66085.DD
CLV DWG NO.	650.116
HANSEN NO	66085
	L18-00891
SHT NO	C8.15

THESE PLANS AND ALL ASSOCIATED DOCUMENTS ARE AND SHALL REMAIN THE PROPERTY OF COLLINS ENGINEERS, INC. THEY ARE NOT TO BE USED IN WHOLE OR IN PART FOR ANY OTHER PROJECT WITHOUT THE WRITTEN AUTHORIZATION OF COLLINS ENGINEERS, INC. ALL COPYRIGHTS, COMMON LAW, STATUTORY AND OTHER RESERVED RIGHTS IN THE PROJECT, INCLUDING THE RIGHT TO COPY OR OBTAIN COPYRIGHT, ARE RESERVED BY COLLINS ENGINEERS, INC. ALL ASSOCIATIONS, ARRANGEMENTS OR CONCEPTS DISCLOSED IN THESE PLANS AND ASSOCIATED DOCUMENTS ARE CONFIDENTIAL AND PROPRIETARY TO COLLINS ENGINEERS, INC. AND SHALL NOT BE DISCLOSED TO ANY OTHER PERSON OR ENTITY WITHOUT THE WRITTEN CONSENT OF COLLINS ENGINEERS, INC. THE VISUAL AND VERBAL DISCLOSURE, COPYING OR DISTRIBUTION OF THESE PLANS AND ASSOCIATED DOCUMENTS WITHOUT THE WRITTEN CONSENT OF COLLINS ENGINEERS, INC. IS STRICTLY PROHIBITED. SUBMISSION OR PUBLIC DISCLOSURE OF THESE PLANS AND ASSOCIATED DOCUMENTS FOR APPROVAL OR OTHER PURPOSES SHALL NOT BE CONSTRUED AS PUBLICATION IN DEROGATION OF COLLINS ENGINEERS, INC. COMMON LAW COPYRIGHT OR OTHER RESERVED RIGHTS.

H:\CAD\LAND\10297\DWG\SHEETS\10297-C8.15-DTL GRD.DWG 07/18/2018 04:13:52 PM