

DEPARTMENT OF PUBLIC WORKS

Reviewed By:

John F. ... 8/5/2020
CLV CITY ENGINEER DATE

Michael Sturdina 8/4/2020
CLV PROJECT MANAGER DATE

Tom Parker 8/5/2020
CLV CITY TRAFFIC ENGINEER DATE

John ... 8/6/2020
CLV CONSTRUCTION MANAGER DATE

NTG MFL 6/30/2020
CITY OF NORTH LAS VEGAS DATE

CLARK COUNTY PUBLIC WORKS DATE

SWG UID: 18MSP489 MATT PEDRAZA 7/10/20
SOUTHWEST GAS CORPORATION DATE

BS ... Brad Hektor 6/16/2020
CENTRAL TELEPHONE COMPANY DATE

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

Walter ... 6-16-20
COX COMMUNICATIONS LAS VEGAS, INC. DATE

Barbara ... 7-1-2020
NV ENERGY - DISTRIBUTION DATE

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

Jim Harvey Lisa Harvey 6/16/2020
NV ENERGY - TRANSMISSION DATE

APPROVED FOR CONSTRUCTION
LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES
PROJECT NO. 138071 FIRST APPROVED DATE: 6/16/2020
SHEETS: DT-2, SS-1 TO SS-10

THE SIGNATURE ABOVE ACKNOWLEDGES THAT THE UTILITY COMPANY
REPRESENTATIVE HAS REVIEWED THE PLANS, AND THAT TO THE BEST OF
HIS OR HER KNOWLEDGE THE UTILITY LINES ARE SHOWN IN THE CORRECT
LOCATIONS AND ARE THE CORRECT SIZES. WHILE SUCH DATA HAS BEEN
COLLECTED WITH REASONABLE CARE, THERE IS NO EXPRESSED OR
IMPLIED GUARANTEE THAT THE LOCATIONS ARE EXACT. THE CONTRACTOR
SHALL BEAR THE RESPONSIBILITY OF OBTAINING THE ACTUAL FIELD
LOCATIONS.

THE SIGNATURE ABOVE FURTHER ACKNOWLEDGES THAT THE UTILITY
COMPANY DOES NOT ANTICIPATE CONSTRUCTION OR MAINTENANCE IN
THE PROJECT AREA FOR FIVE (5) YEARS IN CONFORMANCE WITH THE CLV
NO-CUT POLICY.

Mayor:
CAROLYN G. GOODMAN

City Council:
STAVROS S. ANTHONY (Mayor Pro-Tem)
MICHELE FIORE
CEDRIC CREAR
BRIAN KNUDSEN
VICTORIA SEAMAN
OLIVIA DIAZ

City Manager:
SCOTT D. ADAMS

Director of Public Works:
MIKE JANSSEN, P.E., P.T.O.E.

City Engineer:
STEVEN FORD, P.E., C.E.M.



SANDHILL RELIEF SEWER REHABILITATION

Funded By:
CITY OF LAS VEGAS SANITATION FUND



Gerald Wirthlin
Digitally signed
by Gerald Wirthlin
Date: 2022.09.02
09:32:33 -07'00'

CITY OF LAS VEGAS		DESIGNED BY: N/A		DRAWN BY: CTS		CHECKED BY: DRB	
DATE: MAY 2020		SUBMITTAL STAGE:		BID SUBMITTAL			
PREPARED BY: Stantec		3010 W. CHARLESTON BLVD. LAS VEGAS, NV 89102					
NO.		DATE		SHEET		REVISIONS	
1				1			
CV-1		1 OF 27		DRAWING NO.		307V1152	

ASBUILT

CITY OF LAS VEGAS GENERAL NOTES

- ALL CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH THE "UNIFORM STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION OFF-SITE IMPROVEMENTS, CLARK COUNTY AREA, NEVADA", LATEST ISSUE; THE "UNIFORM STANDARD DRAWINGS FOR PUBLIC WORKS CONSTRUCTION, CLARK COUNTY AREA, NEVADA", LATEST REVISED EDITION; THE "SUMMERLIN IMPROVEMENT STANDARDS" FOR WORK IN THE SUMMERLIN AREA, AND OTHER APPLICABLE APPROVED STANDARDS ISSUED BY THE CONTROLLING AGENCY; THE UNIFORM BUILDING CODE; AND ALL LOCAL CITY CODES AND ORDINANCES APPLICABLE, EXCEPT AS NOTED ON THIS SHEET AS "DEVIATIONS FROM STANDARDS".
- THE EXISTENCE AND LOCATION OF ANY OVERHEAD OR UNDERGROUND UTILITY LINES, PIPES, OR STRUCTURES SHOWN ON THESE PLANS ARE OBTAINED BY A RESEARCH OF THE AVAILABLE RECORDS. EXISTING UTILITIES AS SHOWN FROM CLV PLANS LIBRARY ARE APPROPRIATE 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.
- 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.
- ALL CONSTRUCTION SHALL BE AS SHOWN ON THESE PLANS, ANY REVISIONS SHALL HAVE THE PRIOR WRITTEN APPROVAL OF THE CITY ENGINEER.
- TYPE V CEMENT SHALL BE USED IN ALL OFF-SITE CONCRETE WORK. CONCRETE TO BE 3000 P.S.I. MINIMUM @ 28 DAYS. MIX DESIGN TO BE APPROVED BY THE QUALITY CONTROL DIVISION, PRIOR TO THE USE ON THE PROJECT.
- PERMITS ARE REQUIRED FOR ANY WORK IN THE PUBLIC RIGHT-OF-WAY. THE CONTRACTOR SHALL SECURE ALL PERMITS AND INSPECTIONS REQUIRED FOR THIS CONSTRUCTION.
- EXPANSION JOINTS REQUIRED, MAXIMUM EVERY 300' IN EXTRUDED-TYPE CURB.
- AC PAVEMENT TO BE 1/2" ABOVE UP OF ALL GUTTERS AFTER COMPACTION, EXCEPT AT SIDEWALK RAMPS.
- CURB 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.
- SIDEWALK RAMPS SHALL BE CONSTRUCTED IN EACH QUADRANT OF AN INTERSECTION PER USD 236, CASE I. EXACT LOCATION OF RAMPS MAY BE ADJUSTED IN THE FIELD BY A CITY PROJECT REPRESENTATIVE.
- CONTRACTOR SHALL PROVIDE ALL NECESSARY HORIZONTAL AND VERTICAL TRANSITIONS BETWEEN NEW CONSTRUCTION AND EXISTING SURFACES TO PROVIDE FOR PROPER DRAINAGE AND FOR INGRESS AND EGRESS TO NEW CONSTRUCTION. THE EXTENT OF TRANSITIONS TO BE AS SHOWN ON PLANS, OR AS DESIGNATED IN THE FIELD BY CITY PROJECT REPRESENTATIVE.
- 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.
- 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 REVISOR STATUTES 525.350.
- UTILITY COMPANY METER BOXES, MANHOLE LIDS, VALVE COVERS, ETC., SHALL BE LOCATED OUT OF DRIVEWAYS, DRIVEWAY APRONS, FLOWLINES, AND CROSS GUTTERS UNLESS WRITTEN APPROVAL IS GRANTED BY THE AFFECTED UTILITY COMPANY AND THE CITY ENGINEER.
- 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.
- ASPHALT MIX DESIGN MUST BE SUBMITTED AND APPROVED BY THE CITY ENGINEER PRIOR TO THE PLACEMENT OF ASPHALT WITHIN CITY RIGHTS OF WAY.
- 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.
- 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.
- 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.
- NEWLY INSTALLED AND EXISTING UTILITIES EXPOSED DURING CONSTRUCTION SHALL BE SURVEYED AND DOCUMENTED PER SECTION 622 OF THE SPECIAL PROVISIONS.
- CCTV VIDEO INSPECTION IS REQUIRED FOR ALL SEWER AND STORM DRAINS. THE CCTV VIDEO INSPECTIONS NEED TO BE PERFORMED PER THE DESIGN AND CONSTRUCTION STANDARDS FOR WASTEWATER COLLECTION SYSTEMS LATEST EDITION.
- A SEPARATE BORING PERMIT IS REQUIRED FOR ALL BORING ACTIVITIES.

REVISED JULY 23, 2015 (CPM VERSION)

RTC/FAST NOTES

- 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) 604-7073.

RTC TRANSIT NOTES

- THE CONTRACTOR SHALL NOT BE ALLOWED TO CLOSE MORE THAN ONE CONSECUTIVE BUS STOP ON THE SAME SIDE OF THE STREET. TEMPORARY CLOSURES SHALL BE PROVIDED PERSONS WITH (DISABILITY) ACCESSIBLE BEFORE ANY BUS STOP CAN BE CLOSED. THE CONTRACTOR SHALL NOTIFY CARL SCARBROUGH AT (702) 678-1608 OR ERIC TRAASDAHL AT (702) 678-1633, AT LEAST SEVEN WORKING DAYS IN ADVANCE.
- THE CONTRACTOR SHALL SUBMIT A BUS STOP CLOSURES SCHEDULE WITH THE TRAFFIC CONTROL PLAN. THE BUS STOP CLOSURES SCHEDULE SHALL IDENTIFY SPECIFIC DURATIONS AND TIMES OF THE DAY FOR ALL PROPOSED BUS STOP CLOSURES. BUS STOP CLOSURES ARE NOT TO EXCEED TWO CONSECUTIVE STOPS AT ONE TIME, OR MORE THAN 1,000 FEET AT A TIME. PERSONS WITH DISABILITIES SHALL HAVE ACCESS TO BUS STOPS. THE CONTRACTOR SHALL PROVIDE A 100 FOOT LONG BY 10 FEET WIDE GRAVELED TURN OUT AT TEMPORARY BUS STOPS.

REVISED FEBRUARY 14, 2013

BASIS OF BEARINGS

GRID NORTH AS DEFINED BY THE CENTRAL MERIDIAN OF THE NEVADA COORDINATE REFERENCE SYSTEM, LAS VEGAS ZONE, NORTH AMERICAN DATUM OF 1983, SAID MERIDIAN BEING COINCIDENT WITH 114°58' WEST OF THE GREENWICH MERIDIAN. THE REFERENCE FRAME BEING NAD 83 (GORS 2011) EPOCH 2010.0.

LINEAR UNIT: US SURVEY FOOT

DATUM (REFERENCE FRAME) NAD 1983 (GORS 2011) EPOCH 2010.0

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: 200,000.00 M (656,168.6667 FT US)
EASTING AT CENTRAL MERIDIAN: 100,000 M (328,083.3333 FT US)
SCALE FACTOR ON CENTRAL MERIDIAN: 1.0001 (EXACT)

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

BENCHMARK

CITY OF LAS VEGAS BENCHMARK NO. 702303NWS, BEING A RIVET AND PLATE IN THE TOP OF CURB AT THE SOUTHEAST CORNER OF OWENS AND PECOES.
ELEVATION (H) 1814.61 (M) 593.096 NAVD83

CLARK COUNTY BENCHMARK NO. 9C1293NWS, BEING A RIVET AND ROUND ALUMINUM PLATE IN THE TOP OF CURB AT THE NORTHEAST CORNER OF SAHARA AVE AND SLOAN LN.
ELEVATION (H) 1711.87 (M) 561.778 NAVD83

LEGEND

---	LIMIT OF WORK
---	CENTERLINE
---	RIGHT OF WAY LINE
---	PROPERTY LINE
---	AUTHORIZATION TO ENTER PROPERTY (AEP)
---	LANE LINE

ABANDON

AREA LIGHT	SIGN

RTC/FAST ITS LINE	SIGN

CITY OF LAS VEGAS TRAFFIC NOTES

- ALL CONSTRUCTION SIGNING, BARRICADING, AND TRAFFIC DELINEATION SHALL CONFORM TO THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES", LATEST EDITION.
- THE STREET SIGN CONTRACTOR SHALL OBTAIN STREET NAMES AND BLOCK NUMBERING FROM THE PLANNING DEPARTMENT PRIOR TO CONSTRUCTION.
- BEFORE ANY WORK IS STARTED IN THE RIGHT-OF-WAY, THE CONTRACTOR SHALL INSTALL ALL ADVANCE WARNING SIGNS FOR THE CONSTRUCTION ZONE. THE CONTRACTOR SHALL INSTALL TEMPORARY STOP SIGNS AT ALL NEW STREET ENCROACHMENTS INTO EXISTING CITY STREETS WHEN WARRANTED IMMEDIATELY AFTER FIRST GRADING WORK IS ACCOMPLISHED, AND SHALL MAINTAIN SAID SIGNS UNTIL PERMANENT SIGNS ARE INSTALLED.
- WHEN A DESIGNATED "SUGGESTED ROUTE TO SCHOOL" IS ENCLOSED UPON BY A CONSTRUCTION WORK ZONE AND PUBLIC WORKS STAFF IDENTIFIES A NEED FOR STUDENTS TO BE ASSISTED IN THE SAFE CROSSING THROUGH THAT WORK ZONE, THE CONTRACTOR SHALL BE REQUIRED TO PROVIDE A QUALIFIED "CROSSING GUARD". THE GUARD SHALL BE PRESENT FOR THE FULL DURATION OF TIME THAT CHILDREN ARE LIKELY TO BE PRESENT.
- IF THE IMPROVEMENTS NECESSITATE THE OBLITERATION, TEMPORARY OBSTRUCTION, TEMPORARY REMOVAL, OR RELOCATION OF ANY EXISTING TRAFFIC PAVEMENT MARKING, SUCH PAVEMENT MARKING SHALL BE RESTORED OR REPLACED WITH LIKE MATERIALS TO THE SATISFACTION OF THE CITY TRAFFIC ENGINEER.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING AND INSTALLING ALL PERMANENT SIGNS SHOWN ON THE PLANS. ALL NEW TRAFFIC SIGNS SHALL UTILIZE TYPE A RETROREFLECTIVE SHEETING IN ACCORDANCE WITH C0AUS 627 AND 716 AND SHALL HAVE AN ANTI-GRAFFITI PROTECTIVE OVERLAY FILM THAT IS A MATCHING COMPONENT TO, AND OF THE SAME MANUFACTURER AS THE RETROREFLECTIVE SHEETING TO WHICH IT IS APPLIED. STREET NAME SIGNS SHALL CONFORM TO THEIR ENTIRETY TO CURRENT CITY STANDARDS. ALL OTHER SIGNS SHALL BE STANDARD SIZE UNLESS OTHERWISE SPECIFIED ON THE PLANS. ALL SIGN POSTS SHALL BE INSTALLED IN ACCORDANCE WITH THE CURRENT CITY STANDARDS.
- WHEN A PROPOSED STREET LIGHT STANDARD IS LOCATED WITHIN FIVE (5) FEET OF ANY PROPOSED SIGN SHOWN ON THE PLANS TO BE MOUNTED ON A SIGNPOST, THE SIGN SHALL BE MOUNTED ON THE STREET LIGHT STANDARD AND THE SIGNPOST SHALL BE ELIMINATED.
- ALL PERMANENT TRAFFIC CONTROL DEVICES CALLED FOR HEREON SHALL BE IN PLACE AND IN FINAL POSITION PRIOR TO ALLOWING ANY PUBLIC TRAFFIC ONTO THE PORTIONS OF THE ROAD(S) BEING IMPROVED HERE UNDER, REGARDLESS OF THE STATUS OF COMPLETION OF PAVING OR OTHER OFF-SITE IMPROVEMENTS CALLED FOR BY THESE PLANS.
- STREET SIGNS AND STOP SIGNS SHALL BE INSTALLED PER CITY STANDARD SPECIFICATIONS FOR PLACEMENT OF STREET NAME SIGNS.
- THE CONTRACTOR SHALL PROVIDE ALL NECESSARY TRAFFIC CONTROL DEVICES AND FLAGGERS TO INSURE THE SAFETY OF THE PUBLIC IN OR AROUND THE WORK AREA. THE CONTRACTOR SHALL HAVE A CERTIFIED ATSSA TRAFFIC CONTROL TECHNICIAN OR IMSA WORK ZONE SPECIALIST SET UP, MAINTAIN AND/OR REMOVE ALL TRAFFIC CONTROL DEVICES IN THE CITY OF LAS VEGAS RIGHT OF WAY.
- WORK IN PUBLIC STREETS, ONCE BEGUN, SHALL BE EXPEDITED TO COMPLETION SO AS TO PROVIDE MINIMUM INCONVENIENCE TO ADJACENT PROPERTY OWNERS AND TO THE TRAVELING PUBLIC.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING REGIONAL TRANSPORTATION COMMISSION OF SOUTHERN NEVADA (RTC) TRANSIT IF THE CONSTRUCTION INTERRUPTS OR RELOCATES A BUS STOP OR HAS AN ADVERSE EFFECT ON BUS SERVICE ON THAT STREET TO ARRANGE FOR TEMPORARY RELOCATION OF STOP.
- GUARDS SHALL BE OBTAINED BY CONTACTING THE METROPOLITAN POLICE DEPARTMENT SPECIAL EVENTS UNIT (PHONE # 899-3446) WHO WILL PROVIDE OFFICERS PROPERLY TRAINED IN TRAFFIC CONTROL. FEES FOR THE USE OF THESE OFFICERS SHALL BE SET BY METRO AND WILL BE PAID BY THE CONTRACTOR. THE CONTRACTOR IS RESPONSIBLE FOR ALL ARRANGEMENTS WITH METRO.
- ANY WORK WITHIN 300' OF A SIGNALIZED INTERSECTION WILL BE NIGHT WORK, UNLESS DIRECTED BY THE CITY OF LAS VEGAS TRAFFIC ENGINEER.
- THE CONTRACTOR SHALL CONTACT THE TRAFFIC ENGINEERING DIVISION (TRANSPORTATION SECTION) THROUGH THE PROJECTS OFFSITE INSPECTOR PRIOR TO INITIATING PAVING TO RECEIVE DIRECTION FOR ANY PERMANENT OR TEMPORARY MODIFICATIONS TO THE APPROVED DRAWINGS REGARDING FINAL PAVEMENT TRANSITIONS, MARKINGS AND SIGNING THAT ARE REQUIRED TO MATCH ADJACENT ROADWAY SEGMENTS. THE CONTRACTOR SHALL PROVIDE A DRAWING FOR APPROVAL BY THE TRAFFIC ENGINEERING DIVISION DEPICTING ANY ADJUSTMENTS TO THE FINAL PAVEMENT MARKINGS AND SIGNAGE, WHICH MAY INCLUDE OMITTING, ADDING OR MODIFYING PAVEMENT MARKINGS AND TRAFFIC CONTROL SIGNS SUCH THAT ADEQUATE TRANSITIONS AND LANE TERMINATIONS BETWEEN ADJACENT ROADWAY SEGMENTS ARE CONSTRUCTED.

REVISED JUNE 4, 2018

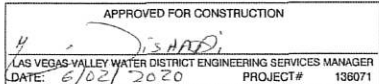
CITY OF LAS VEGAS SEWER NOTES

- ALL CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE DESIGN AND CONSTRUCTION STANDARDS FOR WASTEWATER COLLECTION SYSTEMS AND THE UNIFORM STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION OFF-SITE IMPROVEMENTS, CLARK COUNTY AREA, NEVADA, AS AMENDED. IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO BE AWARE OF THE CONTENTS OF THE ABOVE SPECIFICATIONS.
- IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PERFORM CONSTRUCTION AS PER PLANS. ANY ADDITIONS, DELETIONS, OR CHANGES SHALL FIRST MEET WITH THE APPROVAL OF THE CITY ENGINEER.
- CHISEL "S" OR "G" IN CURBS WHERE SEWER OR GAS LATERALS PASS UNDER THE CURB.
- POLYVINYL (PVC) SEWER PIPE SHALL MEET ASTM D-3034 SDR 35 SPECIFICATIONS, INSTALLED WITH SAND BEDDING AND BACKFILL OF TYPE II AGGREGATE BASE.
- ALL MANHOLES PAVED IN STREETS EIGHTY (80) FOOT R/W AND LARGER 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.
- 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.
- WATER MAINS SHALL BE PROTECTED IN ACCORDANCE WITH LVVWD STANDARDS WHENEVER A SEWER MAIN CROSSES OVER A WATER MAIN OR THE SEWER IS LESS THAN EIGHTEEN INCH (18") UNDER A WATER MAIN.
- ALL CONTRACTORS INSTALLING SEWER MAINS THAT WILL BE UNDER THE JURISDICTION OF THE CITY OF LAS VEGAS MUST BE STATE OF NEVADA CLASS "A" CONTRACTORS.
- THE CITY OF LAS VEGAS WILL NOT ACCEPT ANY SEWER MAINS WHICH HAVE A VERTICAL DEFLECTION OF MORE THAN ONE TENTH (0.1) OF A FOOT FROM THE APPROVED CONSTRUCTION PLANS AT ANY LOCATION. SEWER MAINS FOUND TO EXCEED THIS TOLERANCE WILL HAVE TO BE REPAIRED OR REMOVED OR REPLACED TO THE SATISFACTION OF THE CITY ENGINEER PRIOR TO ACCEPTANCE BY THE CITY OF LAS VEGAS.
- INSTALLATION OF CURVED SEWERS REQUIRES THE USE OF C-900 PVC PIPE WHICH ALLOWS FOR PIPE DEFLECTION AT THE JOINTS.

REVISED JANUARY 13, 2015

LVVWD STANDARD NOTES

- LVVWD PROJECT # 130071
- 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 (268-7171) TWO (2) WORKING DAYS PRIOR TO THE START OF CONSTRUCTION. FOR FUTURE INSPECTIONS, NOTICE MUST BE GIVEN BY 2:00 P.M. THE BUSINESS DAY PRIOR TO THE REQUESTED LVVWD INSPECTION. WHEN REQUESTING INSPECTIONS, PLEASE REFER TO THE PROJECT # IDENTIFIED ABOVE.
 - ALL WORK SHALL CONFORM TO LVVWD STANDARD PLANS, DRAWINGS, AND SPECIFICATIONS, AND TO THE 2010 EDITION OF THE UNIFORM DESIGN AND CONSTRUCTION STANDARDS FOR POTABLE WATER SYSTEMS (UDACS), THE LATEST EDITION OF UDACS SHALL SUPERSEDE ANY CONFLICTS CONTAINED IN THE APPROVED DRAWINGS AND/OR SPECIFICATIONS.
 - ALL WORK, EXCEPT AS MODIFIED BY THESE PLANS OR BY NOTE 2 ABOVE, SHALL BE DONE IN ACCORDANCE WITH THE MOST RECENT DRAFT OR EDITION OF THE UNIFORM STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION OFFSITE IMPROVEMENT, CLARK COUNTY AREA.
 - A SINGLE PIPE MATERIAL SHALL BE USED THROUGHOUT THE PROJECT UNLESS OTHERWISE APPROVED BY THE LVVWD.
 - ALL SERVICE LATERALS TWO (2) INCHES IN DIAMETER AND SMALLER SHALL BE TYPE K COPPER TUBING WITH LVVWD APPROVED SERVICE SADDLES.
 - ALL WATER METER BOXES SHALL BE LOCATED OUTSIDE OF DRIVEWAY AREAS.
 - ALL VALVES SHALL BE LOCATED OUTSIDE OF DRIVEWAYS, VALLEY AND CURB GUTTERS.
 - ALL WATER AND STORM DRAIN OR SANITARY SEWER CROSSINGS SHALL CONFORM TO SECTION 2.22 OF THE 2010 EDITION OF THE UDACS.
 - ALL WATER FACILITIES SHALL BE FILLED, DISINFECTED, PRESSURE TESTED, FLUSHED, FILLED AND AN ACCEPTABLE WATER SAMPLE OBTAINED, PRIOR TO CONNECTION TO THE LVVWD DISTRIBUTION SYSTEM.
 - THE CONTRACTOR MUST OBTAIN ALL METERS TWO (2) INCHES AND SMALLER FROM LVVWD CENTRAL STORES. TELEPHONE 256-3152 OR 258-3802. TWO (2) WORKING DAYS PRIOR TO METER PICKUP.
 - ANY INTERRUPTION OF SERVICE MUST BE PERFORMED IN ACCORDANCE WITH UDACS SECTION 3.14.01, AND APPROVED BY THE LVVWD INSPECTION DIVISION PRIOR TO SHUTDOW. PROPER WRITTEN NOTIFICATION MUST BE GIVEN TO ALL AFFECTED CUSTOMERS.
 - ANY WATER FACILITY CONSTRUCTION MATERIALS USED MUST BE AS LISTED ON THE LVVWD PRE-APPROVED MATERIALS AND MANUFACTURERS LISTING FOR NEW FACILITIES, LATEST REVISION, OR SPECIFICALLY APPROVED ON THESE PLANS.
 - TELEPHONE "CALL BEFORE YOU DIG" AT "911" OR 1-800-227-2800
 - 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 FACILITIES WILL INCLUDE THE PLACEMENT OF ANY APPROPRIATELY SIZED ASPHALT REPAIR PATCH ON THE STREET SURFACE.
 - ANY DECORATIVE PAVING SURFACE WITHIN THE STREET IS THE RESPONSIBILITY OF THE OWNERS ASSOCIATION, OR THE INDIVIDUAL PROPERTY OWNERS IF NO OWNERS 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 CONSTRUCTION OF THE 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.
 - NO LEAD COMPLIANCE NOTE: TO COMPLY WITH THE FEDERAL SAFE DRINKING WATER ACT, ALL WATER WORKS INSTALLED AS TRACER WIRE IN ACCORDANCE WITH SECTION 623 G.03.01 OF THE USFS SHALL BE INSTALLED WITH THE LEAD FREE APPROVED PRODUCT. THE OLD LEADED PRODUCT MAY NOT BE REUSED.



CITY OF LAS VEGAS STREET LIGHT NOTES

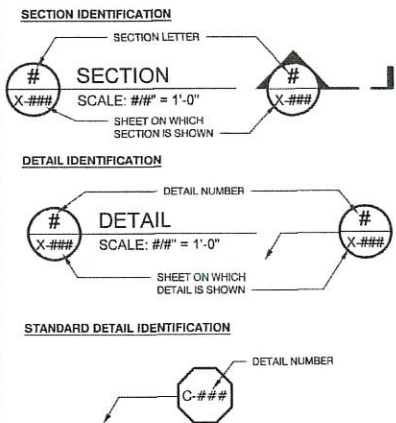
- ALL STREET LIGHTING INSTALLATIONS SHALL BE IN ACCORDANCE WITH THE STREET LIGHTING PLANS, THE "UNIFORM STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION OFF-SITE IMPROVEMENTS, CLARK COUNTY AREA, NEVADA", LATEST REVISION (USFS), AND THE "UNIFORM STANDARD DRAWINGS FOR PUBLIC WORKS CONSTRUCTION OFF-SITE IMPROVEMENTS, CLARK COUNTY AREA, NEVADA" (USD), LATEST REVISION.
- DESIGN PROFESSIONAL AND CONTRACTOR SHALL VERIFY CITY'S LATEST LED FIXTURE SPECIFICATIONS AND APPROVED FIXTURES PER CLV WEBSITE UNDER BUILDING AND SAFETY FORMS, PRIOR TO ORDERING MATERIALS.
- 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 USFS.
- ALL EXISTING STREET LIGHTING SHALL REMAIN OPERATIONAL DURING CONSTRUCTION IN ACCORDANCE WITH SECTION 623 G.03.01 OF THE USFS.
- ALL EMPTY CONDUIT SHALL HAVE AT LEAST ONE GREEN NO. #6 AWG WIRE INSTALLED AS TRACER WIRE IN ACCORDANCE WITH SECTION 623 G.02.01 OF THE USFS PRIOR TO BACKFILLING AND FINAL INSPECTION.
- ANY STRUCTURE SUCH AS BLOCK WALLS, CHAIN LINK FENCES, RETAINING WALLS, ETC., SHALL LEAVE A MINIMUM CLEARANCE IN COMPLIANCE WITH USD NO. 3501 WHEN POLE IS INSTALLED BEHIND SIDEWALK, AND SHALL AT NO TIME COMPLETELY ENCLOSE THE STREET LIGHTING POLE.
- 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.
- SERVICE POINTS SHALL BE COORDINATED WITH NV ENERGY, AND WHEREVER POSSIBLE, BE LOCATED NEAR THE CENTER OF THE CIRCUIT. SERVICE POINTS SHALL BE SHOWN ON THE PLANS.
- THE CONTRACTOR SHALL FURNISH COMPLETE CONDUIT, WIRE, ETC., FROM SERVICE TO TRANSFORMERS AND CONTROL SYSTEMS IF REQUIRED ON THE PLANS OR IN THE SPECIAL PROVISIONS.
- ALL STREET LIGHTING AND TRAFFIC SIGNAL EQUIPMENT REMOVED AND / OR DESIGNATED TO BE SALVAGED SHALL BE DELIVERED BY THE CONTRACTOR TO THE APPROPRIATE CLV SERVICE YARD WITH A MEANS TO UNLOAD. A MINIMUM 24-HOUR NOTICE OF DELIVERY IS REQUIRED. CALL 229-6331 TO SET UP DELIVERY TIME AND LOCATION. REPAIR OF ANY DAMAGE TO EQUIPMENT DURING THIS PROCESS WILL BE THE CONTRACTOR'S RESPONSIBILITY, AT NO ADDITIONAL COST TO THE CITY.

REVISED JUNE 4, 2018 (CPM VERSION)

ABBREVIATIONS

@	AT	MCCP	MORTAR LINED CONCRETE PIPE
ABAN	ABANDON	MIN	MINIMUM
AC	ASPHALTIC CONCRETE	MLCP	MULTI-LAYER COMPOSITE PIPE
ACP	PIPE ASSESSORS PARCEL	N	NORTH
APN	NUMBER	NDOT	NEVADA DEPARTMENT OF TRANSPORTATION
APPROX	APPROXIMATE	NE	NORTHEAST
AVE	AVENUE	NO#	NUMBER
BM	BENCHMARK	NTS	NOT TO SCALE
C/L	CENTERLINE	NV	NEVADA
CATV	CABLE T.V.	NVE	NV ENERGY
CCTV	CABLED CIRCUIT TELEVISION	NW	NORTHWEST
CIPP	CURED-IN-PLACE	OFF	OFFSET
CLV	PIPE CITY OF LAS VEGAS	ONP	OVERHEAD
CONC	CONCRETE	P.I.P.	PROTECT IN PLACE
COND	CONDUCTOR	PB	PULLBOX
CLSM	CONTROLLED LOW STRENGTH MATERIAL	PE	POLYETHYLENE
CLV	CITY OF LAS VEGAS	S/L	PROPERTY LINE
DCSWCS	DESIGN AND CONSTRUCTION STANDARDS FOR WASTEWATER COLLECTION SYSTEMS	PROP	PROPOSED
DIA	DIAMETER	PSI	POUNDS PER SQUARE INCH
DI	DROP INLET	PVC	POLYVINYL CHLORIDE
DIH	DROP INLET	R	RADIUS/RIGHT
DIP	DUCTILE IRON PIPE	RCP	REINFORCED CONCRETE PIPE
DR	DRIVE	RD	ROAD
DWG	DRAWING	R/W, ROW	RIGHT OF WAY
ELEC/E	ELECTRIC/EAST	RTC	REGIONAL TRANSPORTATION COMMISSION
EDGE/EP	EDGE OF PAVEMENT ELEVATION	S	SOUTH
ELV	ELEVATION	SCCP	STEEL CYCLINDER CONCRETE PIPE
ENR	ENGINEER OF RECORD	SD	STORM DRAIN
EXIST/EX	EXISTING	SDMH	STORM DRAIN MANHOLE
FL	FLOWLINE	SS	SANITARY SEWER
FG	FINISHED GRADE	SSMH	SANITARY SEWER MANHOLE
FH	FIRE HYDRANT	ST	STREET
FRP	FIBERGLASS	STA	STATION
FRMP	REINFORCED FIBERGLASS	STD	STANDARD
FRMP	REINFORCED FIBERGLASS	STL	STEEL
FT	FOOT/FEET	SY	SQUARE YARD
Q	QAS	S/W	SIDEWALK
GDR	GEOTECHNICAL DATA REPORT	T	TELEPHONE LINE
GV	GAS VALVE	TEL	TELEPHONE
H/HORZ	HORIZONTAL	THM	TOP OF MANHOLE
HOPE	HIGH DENSITY POLYETHYLENE	TRC	TOP OF RAMP CURB
HP	HIGH PRESSURE	TS	TRAFFIC SIGNAL
IN	INCHES	TYP.	TYPICAL
INV	INVERT	UKN	UNKNOWN
LF	LENGTH/FOOT LINEAL FOOT LINEAR FEET	USDOCA	UNIFORM STD
LN	LANE	USFS	UNIFORM STD SPECIFICATIONS
LVVWD	LAS VEGAS VALLEY WATER DISTRICT	W	WATER
MAX	MAXIMUM	WM	WATER METER
		W	WATER VALVE
		WITH	WITH
		Δ	INCLUDED DELTA ANGLE

REFERENCE SYMBOLS



CALL BEFORE CONSTRUCTION		
BEFORE YOU DIG	USA NORTH	811 OR 800-227-2800
BEFORE YOU UNDERGROUND	F.A.S.T.	702-432-5300
	CLARK COUNTY TRAFFIC OPERATIONS	702-455-7511
	CITY OF LAS VEGAS T.E.F.O.	702-229-6611
BEFORE YOU OVERHEAD	NV ENERGY	702-227-2929



SHEET
GN-1
2 OF 27
DRAWING NO.
307V1152

PREPARED FOR
CITY OF LAS VEGAS
DESIGNED BY: NAN
DRAWN BY: CTS
CHECKED BY: DRB
SUBMITTAL STAGE: BID SUBMITTAL

PREPARED BY
CITY OF LAS VEGAS
DESIGNED BY: NAN
DRAWN BY: CTS
CHECKED BY: DRB
SUBMITTAL STAGE: BID SUBMITTAL



SHEET
GN-1
2 OF 27
DRAWING NO.
307V1152

CITY OF LAS VEGAS FIRE AND RESCUE NOTES

- ALL WORK SHALL BE DONE IN STRICT ACCORDANCE WITH THE LAS VEGAS FIRE AND RESCUE ADOPTED FIRE CODE ORDINANCE #6325 FOR HYDRANT SPECIFICATIONS AND HYDRANT INSTALLATION SPECIFICATIONS.
- ONLY FIRE HYDRANTS THAT ARE ON THE LAS VEGAS VALLEY WATER DISTRICTS APPROVED PRODUCTS LIST ARE ALLOWED TO BE INSTALLED.
- A PERMIT IS REQUIRED FROM LAS VEGAS FIRE AND RESCUE FOR THE INSTALLATION OF ON-SITE WATER LINES AND FIRE HYDRANTS. THE PERMIT AND CONTRACTORS MATERIAL TEST CERTIFICATE FOR UNDERGROUND PIPING FORM SHALL BE OBTAINED FROM THE FIRE PROTECTION ENGINEER BEFORE COMMENCEMENT OF WORK. IFC § 105.7.12
- ON ANY RESIDENTIAL OR COMMERCIAL INSTALLATIONS, FIRE HYDRANTS SHALL BE INSTALLED AND 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
- TO IDENTIFY THE FIRE HYDRANT LOCATIONS, THE CONTRACTOR SHALL PLACE A BLUE REFLECTIVE MARKER AT THE CENTER LINE OF THE STREET ADJACENT TO THE FIRE HYDRANTS. IFC § 507.5.7.3
- ALL UNDERGROUND INSPECTIONS, PRESSURE AND FLUSH VERIFICATIONS OF ALL FIRE HYDRANTS AND FIRE LINES, SHALL BE CONDUCTED BEFORE COVERING THE LINES. CENTER LOADING IS ACCEPTABLE FOR THE HYDRO TESTS WITH PRIOR FIRE PREVENTION APPROVAL. IFC § 105.3
- 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
- PAINTING OF CURBS, FIRE HYDRANTS, PADS, PROTECTION OF FIRE HYDRANTS FROM PHYSICAL DAMAGE, AND ALL OTHER WORK NECESSARY PER PLANS SHALL BE COMPLETED BEFORE APPROVAL BY LAS VEGAS FIRE AND RESCUE, FIRE PREVENTION DIVISION IFC § 507
- PRIVATE HYDRANTS SHALL BE PAINTED RED. IFC § 507.5.7.1
- PRIOR TO THE FINAL OCCUPANCY, A FIRE FLOW TEST SHALL BE WITNESSED BY LAS VEGAS FIRE AND RESCUE, FIRE PREVENTION DIVISION TO VERIFY AVAILABILITY OF THE REQUIRED FIRE FLOW. IFC § 507
- FIRE HYDRANT SPACING SHALL BE AS FOLLOWS. IFC § C102
 - RESIDENTIAL - 500 FT UNSPRINKLERED; 600 FT SPRINKLERED.
 - COMMERCIAL - 300 FT UNSPRINKLERED; 400 FT SPRINKLERED.
- WHERE THE WATER MAINS ARE EXTENDED ALONG STREETS OR NEW STREETS ARE INSTALLED WHERE FIRE HYDRANTS ARE NOT NEEDED FOR PROTECTION OF THE STRUCTURES, FIRE HYDRANTS SHALL BE INSTALLED AT A MAXIMUM OF 1000 FT SPACING, TO PROVIDE FOR TRANSPORTATION HAZARDS. WHERE STREETS ARE PROVIDED WITH MEDIAN DIVIDERS OR HAVE FOUR (4) OR MORE TRAFFIC LANES AND HAVE A TRAFFIC COUNT OF MORE THAN 30,000 PER DAY, HYDRANTS ARE REQUIRED ON EACH SIDE OF THE STREET SPACED AT 500 FT ON AN ALTERNATING BASIS. IFC § C102.8
- NO FIRE HYDRANTS SHALL BE LOCATED WITHIN THE RADIUS OF A CUL-DE-SAC OR WITHIN 20 FT OF THE PERIMETER OF THE RADIUS OF THE CUL-DE-SAC.
- NO FIRE HYDRANTS SHALL BE LOCATED WITHIN 6 FT OF ANY CURB RETURN, DRIVEWAY, POWER POLE, STREETLIGHT OR ANY OTHER OBSTRUCTION. IFC § C102.12
- A MAXIMUM DISTANCE FROM A FIRE HYDRANT TO A ONE-TWO FAMILY DWELLING SHALL NOT EXCEED 300 FT, AS MEASURED BY AN APPROVED ROUTE. IFC § 102.4
- THE MAXIMUM DISTANCE FROM A FIRE HYDRANT TO A FIRE DEPARTMENT CONNECTION (FDC) SHALL NOT EXCEED 100 FT, AS MEASURED BY AN APPROVED ROUTE. IFC § C102.7
- THE MAXIMUM DISTANCE FROM A HYDRANT TO THE END OF A DEAD-END STREET SHALL NOT EXCEED 200 FT. IFC § C102.6
- TWO (2) SOURCES OF SUPPLY ARE REQUIRED WHENEVER THERE IS 4 OR MORE FIRE HYDRANTS/SPRINKLER LEAD-INS ARE INSTALLED ON A SINGLE SYSTEM. SECTIONAL CONTROL VALVES SHALL BE INSTALLED SO THAT NO MORE THAN 2 FIRE HYDRANTS CAN BE OUT OF SERVICE DUE TO A BREAK IN A WATER MAIN. IFC § C104
- ALL FIRE APPARATUS ACCESS ROADS SHALL BE PAVED TO PROVIDE ALL WEATHER DRIVING CAPABILITIES AND SHALL BE DESIGNED AND MAINTAINED TO SUPPORT THE IMPOSED LOADS OF THE FIRE APPARATUS. IFC § 503.2.3
- THE GRADIENT FOR THE FIRE APPARATUS ACCESS ROADS SHALL NOT EXCEED 12%. ANGLES OF APPROACH AND ANGLES OF DEPARTURE SHALL NOT EXCEED 6% FOR 25 FT PRIOR TO OR AFTER THE GRADE CHANGE. ADJACENT TO THE STRUCTURES GRADIENT SHALL NOT EXCEED 6%. IFC § 503.2.7; 503.2.8
- THE TURNING RADIUS OF THE FIRE APPARATUS ACCESS ROADS SHALL BE NO LESS THAN 52 FT OUTSIDE AND 28 FT INSIDE TURNING RADIUS. IFC § 503.2.4
- VERTICAL CLEARANCE OF ALL FIRE APPARATUS ACCESS ROADS SHALL NOT BE LESS THAN 13FT 6 INS. IFC § 503.2.1
- FIRE DEPARTMENT ACCESS ROADS SHALL HAVE A MINIMUM UNOBSTRUCTED WIDTH OF NOT LESS THAN 40 FT FLOW LINE TO FLOW LINE WITH PARALLEL PARKING PERMITTED ON BOTH SIDES. NOT LESS THAN 32 FT WIDE, FLOW LINE TO FLOW LINE, WHERE PARKING IS PERMITTED ONLY ON ONE SIDE OF THE FIRE APPARATUS ACCESS ROAD. NOT LESS THAN 24FT 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
- A FIRE APPARATUS ACCESS ROAD SHALL BE REQUIRED WHEN ANY PORTION OF AN EXTERIOR WALL OF THE FIRST STORY IS LOCATED MORE THAN 150 FT FROM A FIRE DEPARTMENT VEHICLE ACCESS. THIS DISTANCE COULD BE INCREASED TO 250 FT IF THE BUILDING IS SPRINKLERED. IFC § 503.1.1
- APPROVED SECONDARY FIRE APPARATUS ACCESS SHALL BE PROVIDED FOR 100 OR MORE DWELLING UNITS, ROAD(S) WITH DEAD-ENDS OR WITH A SINGLE POINT OF ACCESS IN EXCESS OF 600 FT, COMMERCIAL AND INDUSTRIAL DEVELOPMENTS WHERE BUILDINGS EXCEED 2 STORIES OR 30 FEET IN HEIGHT, OR EXCEEDING 62,000 SQUARE FEET IN AREA. IFC § 503.1.2
- ALL DEAD-END FIRE APPARATUS ROADS AND/OR FIRE LANES, PUBLIC OR PRIVATE, IN EXCESS OF 150 FT IN LENGTH SHALL BE PROVIDED WITH AN APPROVED TURN AROUND HAVING A MINIMUM DIAMETER OF 81 FT. IFC § 503.2.5
- ALL FIRE APPARATUS ACCESS ROADS SHALL BE MARKED BY PLACING APPROVED SIGNS AT THE START OF THE DESIGNATED FIRE LANE, ONE SIGN AT THE END OF THE FIRE LANE AND WITH SIGNS AT INTERVALS OF 100 FT ALONG THE DESIGNATED FIRE LANES. SIGNS TO BE PLACED ON BOTH SIDES OF AN ACCESS ROADWAY IF NEEDED TO PREVENT PARKING 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
- 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.

REVISED MARCH 1, 2016

SOUTHERN NEVADA - SOUTHWEST GAS CORPORATION
GENERAL NOTES

- IN THE EVENT OF NATURAL GAS EMERGENCIES CALL 911 AND 1-877-860-6020
- MINIMUM HORIZONTAL AND VERTICAL CLEARANCES BETWEEN NATURAL GAS FACILITIES AND ANY UNDERGROUND UTILITIES AND/OR STRUCTURES, INCLUDING BUT NOT LIMITED TO WATER, SEWER, STORM DRAIN, COMMUNICATIONS, AND ELECTRIC SHALL BE AT LEAST 12-INCHES OR GREATER AS DICTATED BY LOCAL CODES AND STANDARDS
 - A) ANY DEVIATION FROM SPECIFIED MINIMUM CLEARANCES MUST BE APPROVED BY ALL AFFECTED UTILITIES AND/OR MUNICIPALITIES.
- FOR VALVE ADJUSTMENT CONTACT 702-528-7881 14 DAYS PRIOR TO CONSTRUCTION.
- IN THE EVENT OF A NATURAL GAS CONFLICT WITH PROPOSED UTILITIES AND/OR STRUCTURES CONTACT 702-365-2099.

APPROVED FOR CONSTRUCTION
SOUTHWEST GAS CORPORATION
MATTHEW PEDRAZA SWG UID: 18MJP489 DATE: 07/10/2020

MANHOLE COATING MASTER TABLE

SHEET NO.	SSMH ID	RIM ELEV (FT)	INV ELEV (FT)	APPROXIMATE DEPTH (FT)	DIAMETER (IN)	COMMENTS	DRAWING NO.
OWENS INTERCEPTOR							
SS-1	OW-744	1884.6	1873.5	11.1'	60"	MANHOLE	307V366
SS-1	OW-742	1839.8	1827.3	12.5'	60"	MANHOLE	307V366
SS-2	OW-739	1834.3	1821.6	12.7'	60"	MANHOLE	307V366
SS-2	OW-738	1828.1	1815.1	13.0'	60"	MANHOLE	307V366
SS-2	OW-734	1823.4	1811.8	11.6'	60"	MANHOLE	307V366
SS-3	OW-732	1819.9	1808.5	11.4'	60"	MANHOLE	307V366
SS-3	OW-228	1815.2	1805.5	9.7'	10' x 10'	MANHOLE	307V366
SS-3	OW-1657	1815.0	1805.4	9.7'	48"	MANHOLE	307V366
SS-3	OW-227	1815.0	1805.3	9.7'	48"	MANHOLE	307V366
SS-4	SN-312	1810.7	1801.3	9.4'	9' x 9'	MANHOLE	307V784
SS-4	SN-6	1810.6	1801.4	9.2'	48"	MANHOLE	307V366
SS-5	SN-8	1806.6	1798.1	8.5'	60"	RISER MH	307V366
AREA 3 SN							
SS-5	PL-116	1806.0	1796.5	10'	9' x 12'	DIVERSION BOX	307V758
SS-5	SN-45	1803.5	1794.4	9.1'	60"	MANHOLE	307V926
SS-6	SN-44	1796.7	1792.2	6.5'	72"	MANHOLE	307V926
SS-6	SN-32	1793.2	1779.9	14'	60"	MANHOLE	307V926
AREA 3 EAST							
SS-7	SN-301	1815.0	1808.5	8.5'	48"	MANHOLE	107V3424
SS-7	SN-309	1814.9	1808.2	8.7'	48"	MANHOLE	107V3424
SS-7	SN-245	1814.0	1805.4	8.6'	48"	MANHOLE	307V214
SS-7	SN-47	1813.6	1805.3	8.3'	48"	MANHOLE	307V214
SS-7	SN-220	1812.8	1804.4	8.2'	48"	MANHOLE	307V214
SS-7	SN-286	1811.6	1803.9	7.7'	48"	MANHOLE	307V214
SS-7	SN-201	1811.4	1803.7	7.7'	48"	MANHOLE	307V214
SS-7	SN-181	1810.1	1802.8	7.3'	48"	MANHOLE	307V214
SS-7	SN-46	1809.6	1802.5	7.1'	48"	MANHOLE	307V214
SS-7	SN-162	1809.0	1801.9	7.1'	48"	MANHOLE	307V214
SS-7	SN-43	1807.7	1801.0	6.8'	48"	MANHOLE	307V214
SS-8	SN-42	1806.1	1799.6	6.5'	48"	MANHOLE	307V214
SS-8	SN-41	1804.5	1797.2	7.3'	48"	MANHOLE	307V214
SLOAN LANE WASH							
SS-10	PL-63	1710.5	1700.1	10.5'	18' x 16'	CONCRETE BOX	307V572
SS-10	PL-62	1710.1	1700.1	10'	13' x 12'	CONCRETE BOX	307V572

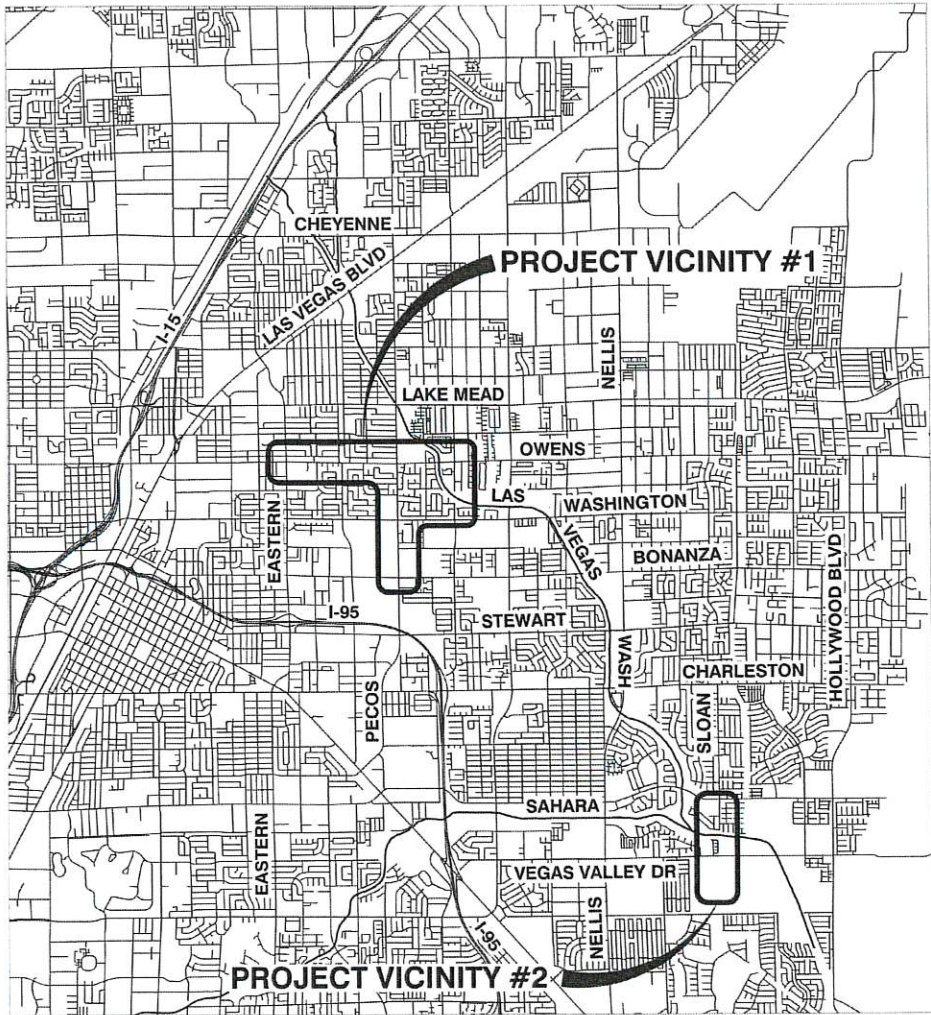
CIPP LINER MASTER TABLE

SHEET NO.	UPSTREAM SSMH	DOWSTREAM SSMH	APPROXIMATE DIAMETER	APPROXIMATE LENGTH*	COMMENTS	DRAWING NO.
SANDHILL OWENS INTERCEPTOR						
SS-1	OW-744	OW-742	39"	886'	RCP	307V366
SS-1 - SS-2	OW-742	OW-739	39"	883'	RCP	307V366
SS-2	OW-739	OW-738	39"	855'	RCP	307V366
SS-2	OW-738	OW-734	42"	868'	RCP	307V366
SS-2 - SS-3	OW-734	OW-732	42"	872'	RCP	307V366
SS-3	OW-732	OW-228	42"	800'	RCP	307V366
SS-3	OW-228	OW-1657	42"	56'	RCP	307V366
SS-3	OW-1657	OW-227	42"	9'	RCP	307V366
SS-3 - SS-4	OW-227	SN-312	45"	872'	RCP	307V366
SS-4	SN-312	SN-6	45"	8'	RCP	307V366
SS-4 - SS-5	SN-6	SN-8	45"	928'	RCP	307V366
SS-5	SN-8	PL-116	45"	134'	RCP	307V366
AREA 3 EAST						
SS-7	SN-301	SN-309	18"	57'	RCP	307V214
SS-7	SN-309	SN-245	18"	237'	RCP	307V214
SS-7	SN-245	SN-47	18"	73'	RCP	307V214
SS-7	SN-47	SN-220	18"	216'	RCP	307V214
SS-7	SN-220	SN-286	18"	203'	RCP	307V214
SS-7	SN-286	SN-201	18"	57'	RCP	307V214
SS-7	SN-201	SN-181	18"	247'	RCP	307V214
SS-7	SN-181	SN-46	18"	115'	RCP	307V214
SS-7	SN-46	SN-162	18"	136'	RCP	307V214
SS-7	SN-162	SN-43	18"	307'	RCP	307V214
SS7 - SS-8	SN-43	SN-42	18"	443'	RCP	307V214
SS-8	SN-42	SN-41	18"	388'	RCP	307V214
SLOAN LANE WASH						
SS-10	PL-61	PL-63	45"	54'	RCP	307V572
SS-10	PL-63E	PL-62E	33"	285'	CML RCP	307V572
SS-10	PL-63W	PL-62W	33"	285'	CML RCP	307V572
SS-10	PL-62	PL-24	45"	79'	RCP	307V572

PIPE EPOXY COATING MASTER TABLE

SHEET NO.	ADJACENT MANHOLE	APPROXIMATE DIAMETER	COATING LENGTH*	COMMENTS	DRAWING NO.
Area 3 SN					
SS-5	PL-116	45"	10'	CIPP LINED RCP	307V926
SS-5	SN-45	45"	10'	CIPP LINED RCP	307V926
SS-5	SN-45	45"	10'	CIPP LINED RCP	307V926
SS-6	SN-32	42"	10'	CIPP LINED RCP	307V926

* CONTRACTOR TO DETERMINE ACTUAL LENGTHS IN THE FIELD.



VICINITY MAP

NOT TO SCALE
NOTE: SEE KEY MAP ON GN-3.

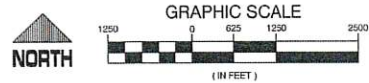
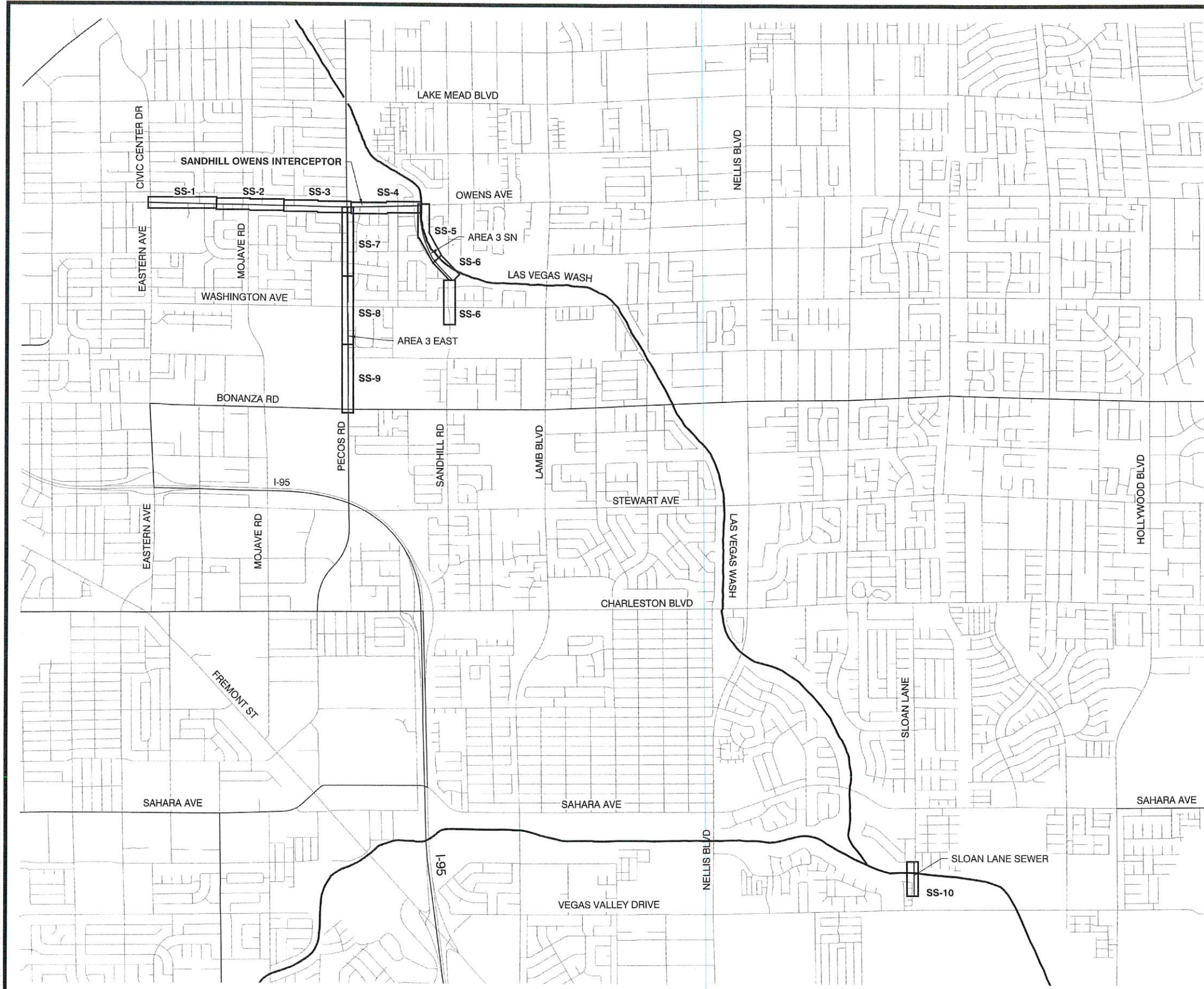
SHEET INDEX

SHEET	TITLE I	TITLE II
CV-1	GENERAL	COVER SHEET
GN-1	GENERAL	NOTES, LEGEND, AND ABBREVIATIONS
GN-2	GENERAL	SHEET INDEX AND GENERAL NOTES
GN-3	GENERAL	KEYMAP
DT-1	CIVIL	STANDARD DETAILS - I
DT-2	CIVIL	STANDARD DETAILS - II
DT-3	CIVIL	STANDARD DETAILS - III
DT-4	CIVIL	STANDARD DETAILS - IV
DT-5	CIVIL	STANDARD DETAILS - V
DT-6	CIVIL	STANDARD DETAILS - VI
SS-1	SANDHILL OWENS INTERCEPTOR	STA 1+00 TO 19+00
SS-2	SANDHILL OWENS INTERCEPTOR	STA 19+00 TO 37+00
SS-3	SANDHILL OWENS INTERCEPTOR	STA 37+00 TO 55+00
SS-4	SANDHILL OWENS INTERCEPTOR	STA 55+00 TO 73+00
SS-5	AREA 3 SN	STA 73+00 TO 88+00
SS-6	AREA 3 SN	STA 88+00 TO 104+00
SS-7	AREA 3 EAST	STA 200+00 TO 217+00
SS-8	AREA 3 EAST	STA 217+00 TO 307+00
SS-9	AREA 3 EAST	STA 307+00 TO 324+00
SS-10	SLOAN LANE SEWER	LAS VEGAS WASH SIPHON
ST-1	STRUCTURAL	GENERAL NOTES AND INSPECTIONS
ST-2	STRUCTURAL	STANDARD DETAILS
DR-1	STRUCTURAL DEMO	DEMOLITION BASE AND TOP PLAN
DR-2	STRUCTURAL DEMO	DEMOLITION SECTIONS
S-1	STRUCTURAL	BASE AND TOP PLAN
S-2	STRUCTURAL	SECTIONS AND DETAILS - I
S-3	STRUCTURAL	SECTIONS AND DETAILS - II

APPROVED FOR CONSTRUCTION
LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES MANAGER
DATE: 7/7/2020
PROJECT# 136071

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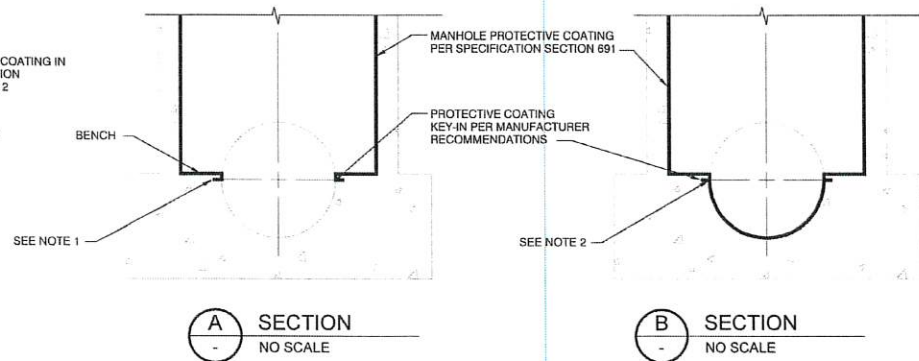
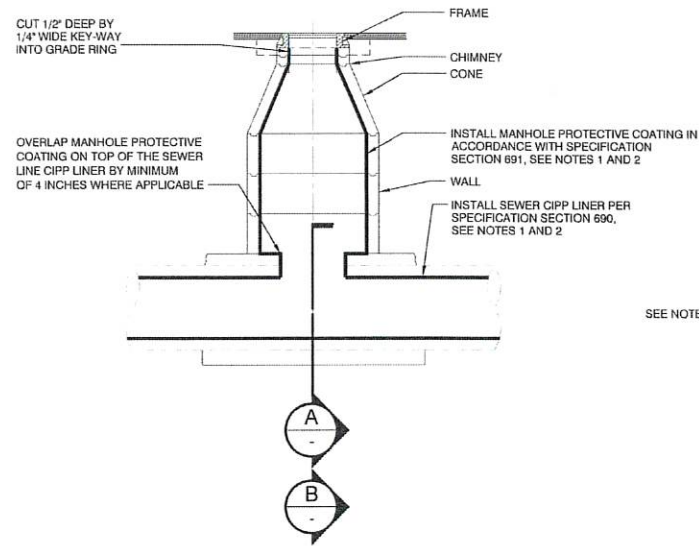
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APPROVED FOR CONSTRUCTION
LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES MANAGER
DATE: 6/6/2020 PROJECT# 135071

PREPARED FOR CITY OF LAS VEGAS		DESIGNED BY: N/A DRAWN BY: CTS CHECKED BY: DRB	
H# 63785 DATE: MAY 2020		SUBMITTAL STAGE: BID SUBMITTAL	
TITLE SANITARY SEWER REHABILITATION SANDHILL RELIEF		SHEET GN-3 4 OF 27 307V1152	
PROFESSIONAL ENGINEER STATE OF NEVADA NICHOLAS A. NATALE Exp 12-31-2021 CIVIL No. 24571 5-26-2020		REVISIONS NO. DATE	

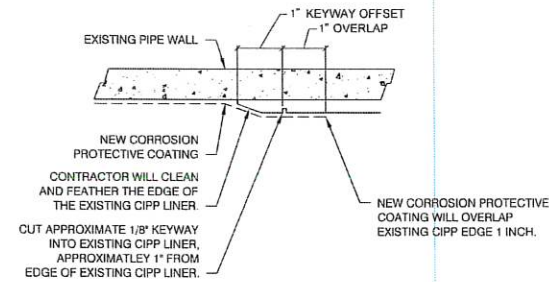
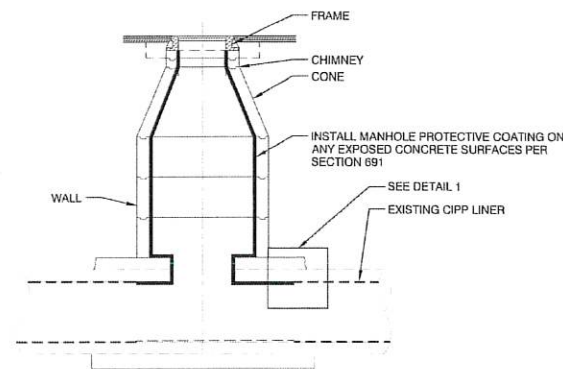
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- NOTES:
1. MANHOLES NOT LINED THROUGH WITH CIPP SEWER LINER SHALL BE COATED WITH PROTECTIVE COATING DOWN TO THE SPRING LINE OF THE SEWER CHANNEL PER SPECIFICATION SECTION 691.
 2. MANHOLES LINED THROUGH WITH CIPP LINER SHALL BE COATED WITH CORROSION PROTECTIVE COATING AND CIPP LINED PER SPECIFICATION SECTION 690 AND 691.

MANHOLE REHABILITATION
NO SCALE

C-901



MANHOLE REHABILITATION WITH NEW CORROSION PROTECTIVE COATING AT EXISTING CIPP LINER
NO SCALE

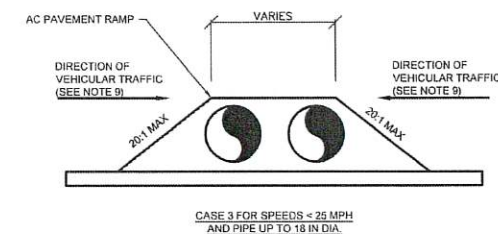
C-902

CALL BEFORE CONSTRUCTION		
BEFORE YOU DIG	USA NORTH	811 OR 800-227-2600
BEFORE YOU UNDERGROUND	F.A.S.T.	702-432-5300
BEFORE YOU OVERHEAD	CLARK COUNTY TRAFFIC OPERATIONS	702-455-7511
	CITY OF LAS VEGAS T.E.F.O.	702-229-6611
	NV ENERGY	702-227-2929

GENERAL NOTES

1. REFER TO SHEET GN-2 FOR OVERALL SHEET LIST.
2. ALL UTILITIES SHOWN ARE APPROXIMATE ONLY AND ALL UTILITIES MAY NOT BE SHOWN. CONTRACTOR MUST FIELD VERIFY PRIOR TO CONSTRUCTION.
3. EXISTING SEWER LATERALS ARE DEPICTED IN PLAN VIEW AND APPROXIMATE ONLY. THE CONTRACTOR SHALL VERIFY AND DOCUMENT EVERY LATERAL IMPACTED BY REHABILITATION WORK PRIOR TO COMMENCING CONSTRUCTION. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL LATERALS WHETHER SHOWN OR NOT.
4. THE CONTRACTOR SHALL REMOVE PROTRUDING LATERAL SEGMENTS PRIOR TO INSTALLING CIPP LINER.
5. THE CONTRACTOR SHALL SUBMIT A BYPASS PLAN PER SPECIAL PROVISION SECTION 695.
6. SEE SHEET GN-2 FOR COMPLETE CIPP AND MH COATING SCHEDULES.
7. INTERNAL DIVERSIONS MAY ALLEVIATE FLOWS SHOWN ON PLANS. FOR ADDITIONAL INFORMATION REFERENCE SPECIAL PROVISION SECTION 695.03.06.

CITY OF LAS VEGAS		SANITARY SEWER REHABILITATION SANDHILL RELIEF		CIVIL STANDARD DETAILS - I	
PREPARED FOR	CITY OF LAS VEGAS	TITLE	SHEET		
BID#	19 63785	DESIGNED BY	NAN	DATE	MAY 2020
DRAWN BY	CTS	SUBMITAL STAGE	BID SUBMITTAL	CHECKED BY	DRB
PREPARED BY	Stantec	PROFESSIONAL ENGINEER STATE OF NEVADA NICHOLAS A. NATALE Exp 12-31-2021 No. 24571 CIVIL 5-25-2020			
SHEET		DT-1			
5 OF 27		DRAWING NO.			
307V1152					



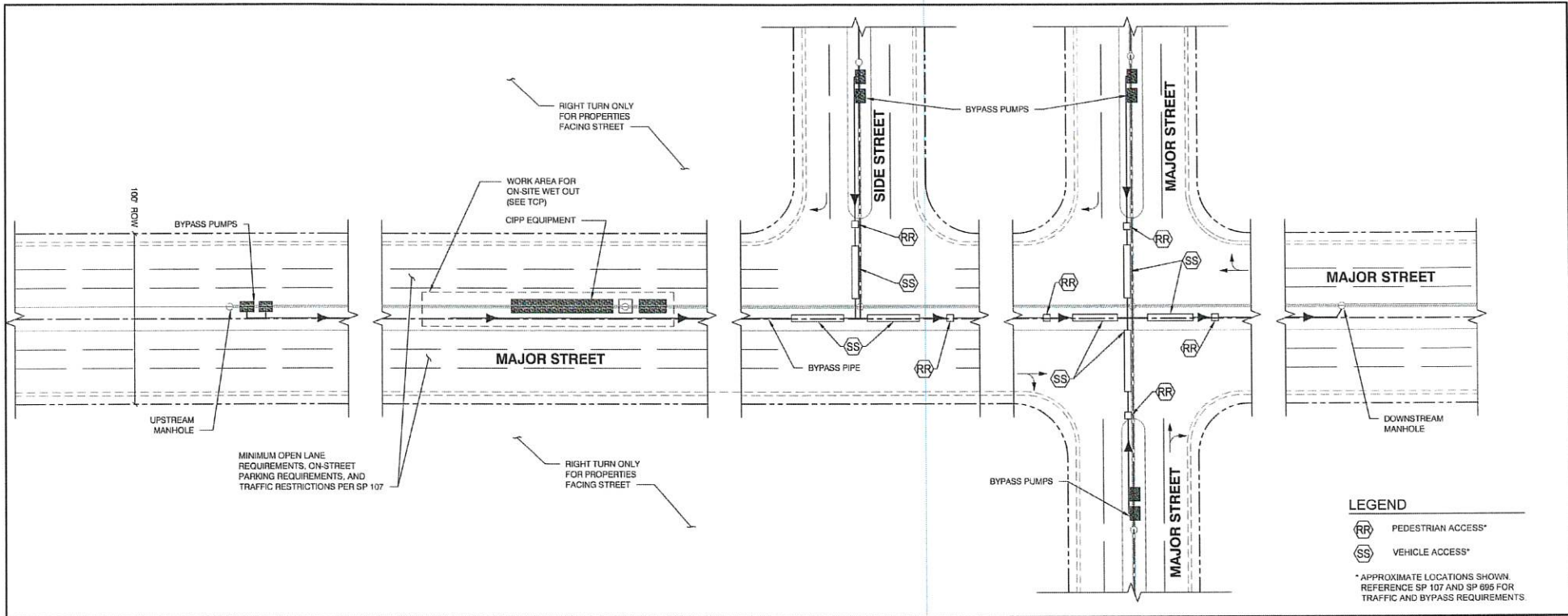
NO SCALE



PRIOR TO COMMENCEMENT OF WORK IN ANY LOCATION WHERE THE CONTRACTOR ELECTS TO TEMPORARILY INSTALL THE BYPASS SEWER LINE BELOW PAVEMENT, A SHOP DRAWING SUBMITTAL INDICATING THE MEANS AND METHOD MUST BE SUBMITTED TO AND APPROVED BY LVVWD FOR SEWER-WATER SEPARATION MITIGATION.

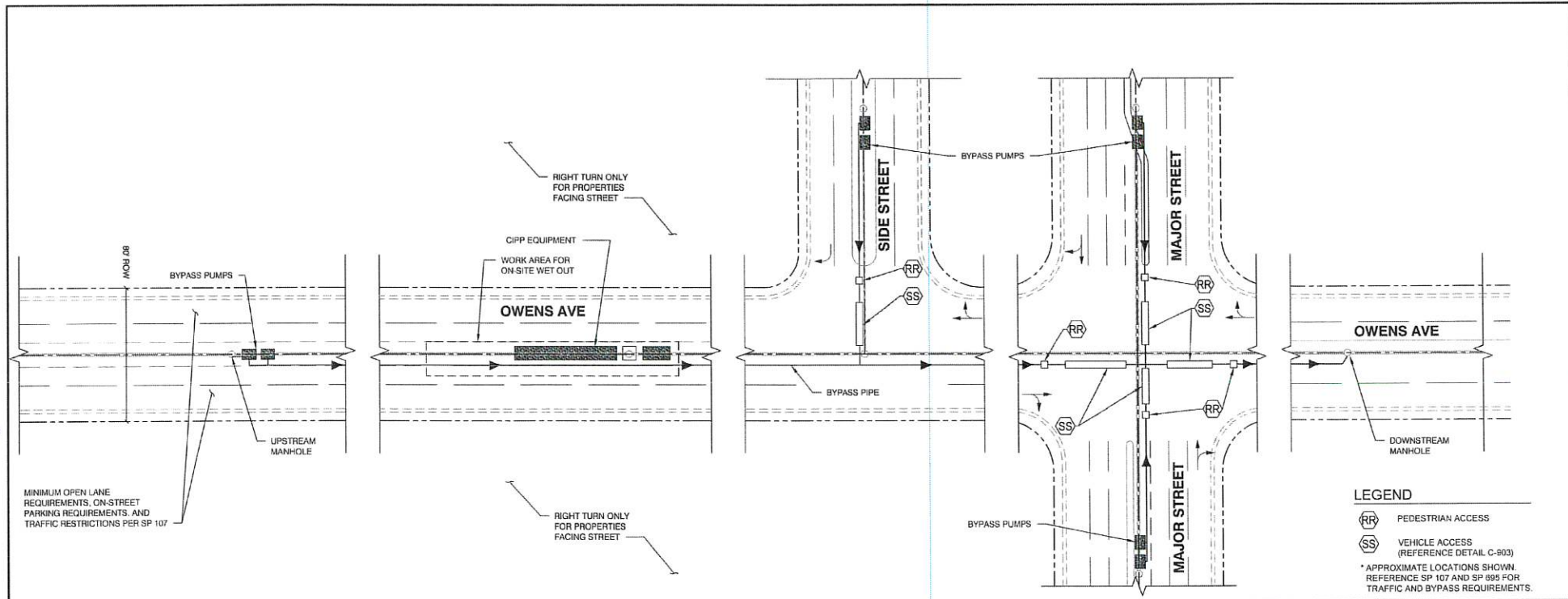
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SHEET
DT-2
6 OF 27
DRAWING NO.
307V1152



TYPICAL BYPASS SCHEMATIC FOR CIPP WORK (100 FT RIGHT-OF-WAY)
NO SCALE

C-904



TYPICAL BYPASS SCHEMATIC FOR CIPP WORK (80 FT RIGHT-OF-WAY)
NO SCALE

C-905

CALL BEFORE CONSTRUCTION		
BEFORE YOU DIG	USA NORTH	811 OR 800-227-2600
	F.A.S.T.	702-432-5300
BEFORE YOU UNDERGROUND	CLARK COUNTY TRAFFIC OPERATIONS	702-455-7511
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- THE CONTRACTOR SHALL SUBMIT A BYPASS PLAN PER SPECIAL PROVISION SECTION 695.
- SEE SHEET GN-2 FOR COMPELTE CIPP AND MH COATING SCHEDULES.
- INTERNAL DIVERSIONS MAY ALLEVATE FLOWS SHOWN ON PLANS. FOR ADDITIONAL INFORMATION REFERENCE SPECIAL PROVISION SECTION 695.03.06.

CITY TRAFFIC NOTES

- TRAFFIC SIGNAL DETECTOR LOOP LOCATIONS SHOWN ON PLANS ARE APPROXIMATE.
- REPLACEMENT OF TRAFFIC SIGNAL LOOPS DAMAGED BY CONTRACTOR SHALL BE INSTALLED IN ACCORDANCE WITH CLV TRAFFIC ENGINEERING DETECTOR LOOP STANDARD DRAWINGS AND SPECIAL PROVISION 623T.02.04.
- LANE CLOSURES REPRESENTED ON THE PLANS ARE PRELIMINARY ONLY AND MAY VARY PENDING CLV TRAFFIC APPROVAL OF TEMPORARY TRAFFIC CONTROL PLAN. ADJACENT JURISDICTION MAY REQUIRE ENCROACHMENT OR APPROVAL OF TRAFFIC CONTROL PLANS. CONTRACTOR SHALL COORDINATE WITH ALL RELEVANT JURISDICTIONS PRIOR TO MOBILIZATION INCLUDING RTC FOR BUS STOP IMPACTS.
- WHERE DAMAGED LOOPS ARE REPLACED, THE CONTRACTOR SHALL MEET WITH THE TRAFFIC ENGINEERING FIELD OPERATION (TEFO) TO VERIFY THAT NO OTHER EXISTING LOOPS WERE DAMAGED DURING THE REPLACEMENT PROCESS, REFER TO SPECIAL PROVISION 107.

SEWER BYPASS NOTES

- THE CONTRACTOR SHALL PREPARE AND SUBMIT A TEMPORARY BYPASS PLAN (TBP) FOR THE BYPASS OPERATION (SEE SPECIAL PROVISION 695). THE CONTRACTOR MUST HAVE AN APPROVED TBP PRIOR TO THE START OF CONSTRUCTION.
- THE CONTRACTOR SHALL PREPARE AND SUBMIT A TEMPORARY BYPASS PLAN WITH A TRAFFIC CONTROL PLAN (TCP) TO THE CITY OF NORTH LAS VEGAS, THE CITY OF LAS VEGAS TRAFFIC ENGINEERING DIVISION, AND CLARK COUNTY PUBLIC WORKS FOR THE WORK (SEE SPECIAL PROVISION 107). THE CONTRACTOR SHALL SUBMIT THE TCP, TOGETHER WITH A COPY OF THE APPROVED BYPASS PLANS TO CITY OF LAS VEGAS AND ALLOW UP TO 15 WORKING DAYS TO REVIEW. THE TCP SHALL ACCOUNT FOR ALL APPROVED BYPASS OPERATIONS. THE CONTRACTOR SHALL NOT MOBILIZE WITHOUT AN APPROVED TCP THAT MATCHES THE APPROVED BYPASS PLAN. THE CONTRACTOR SHALL BE FINED UP TO \$500 PER DAY SHOULD MOBILIZATION OCCUR WITHOUT AN APPROVED TCP THAT CORRESPONDS WITH THE APPROVED BYPASS PLAN.
- THE CONTRACTOR SHALL MAINTAIN DRIVEWAY ACCESS TO THE PUBLIC AND EMERGENCY VEHICLES. DESIGNS FOR MAINTAINING ACCESS WILL BE PREPARED BY THE CONTRACTOR AND SUBMITTED TO THE CONTROLLING AGENCY FOR REVIEW AND APPROVAL. SEE DETAIL C-906 ON SHEET DT-4 FOR DRIVEWAY RAMP.
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- BYPASS PIPING THROUGH SIGNALIZED AND/OR MAJOR INTERSECTIONS SHALL BE INSTALLED USING CUT AND COVER METHODS PER DETAIL C-903 ON SHEET DT-2.
- CONTRACTOR TO REPLACE ALL STRIPING AND TRAFFIC SIGNAL INFRASTRUCTURE INCLUDING ANY LOOP DETECTORS AND UNDERGROUND CONDUIT AFFECTED BY BYPASS PUMPING PIPING AND TRENCHING PER DETAIL C-907 ON SHEET DT-4. CONTRACTOR TO CONFIRM SIGNAL IS OPERATIONAL PRIOR TO CONSTRUCTION. IF SIGNAL CONDUCTORS AND/OR CONDUIT ARE DAMAGED, CONTRACTOR SHALL REPLACE ALL CONDUCTORS FROM THE POINT OF TERMINATION TO THE CABINET WITH NO SPLICES.

PAVEMENT REPLACEMENT NOTES

- LONGITUDINAL CUTS FOR SEWER BYPASS PIPING ARE TO BE RESTORED IN ACCORDANCE WITH USD 500.3 AND 500.4.
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- EXISTING STRIPING DAMAGED BY CONSTRUCTION OR MOBILIZATION IS TO BE REPLACED TO MATCH IN KIND.

		PREPARED BY: Stantec 3010 W. CHARLESTON BLVD. SUITE 100 LAS VEGAS, NV 89102	
PREPARED FOR: CITY OF LAS VEGAS		BID# 19.63785 H# 63785	DESIGNED BY: NAN DRAWN BY: CTS CHECKED BY: DRB
DATE: MAY 2020 SUBMITTAL STAGE: BID SUBMITTAL		NO. DATE REVISIONS	
TITLE: SANITARY SEWER REHABILITATION SANDHILL RELIEF SHEET: CIVIL STANDARD DETAILS - III			
SHEET: DT-3 7 OF 27 DRAWING NO: 307V1152			



WHERE LOOPS ARE INSTALLED, DETECTOR LOOPS SHALL BE PRE-FORMED PER SPECIAL PROVISION 623 T02.04.

LOOP LEAD-IN CABLE SHALL BE PER SPECIAL PROVISION 623 T02.04.

FOR FULL DEPTH PAVEMENT CONSTRUCTION, EMBED OR PLACE PRE-FORMED LOOP DETECTORS ON TOP OF AGGREGATE BASE MATERIAL PER MANUFACTURER'S RECOMMENDATIONS OR AS APPROVED BY THE ENGINEER.

THE DETECTOR CABLE SHALL ENSURE THAT THE LOOP DETECTORS ARE PROPERLY SECURED IN PLACE TO PREVENT MOVEMENT PRIOR TO AND DURING THE INSTALLATION OF PAVING MATERIAL. LOOP DETECTORS SHALL BE CENTERED IN TRAVEL LANES.

ALL LOOP DETECTOR LOCATIONS SHALL BE APPROVED BY THE CLV TRAFFIC ENGINEER PRIOR TO INSTALLATION.

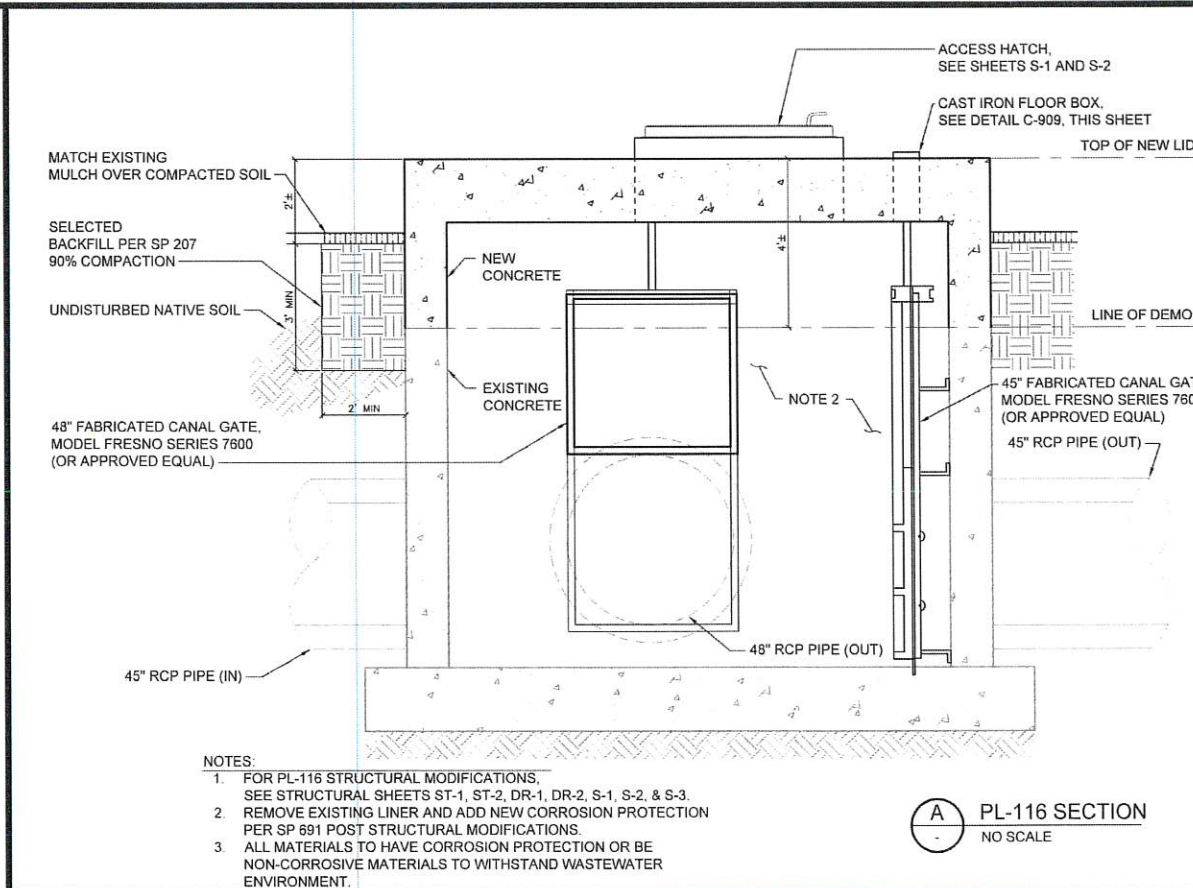
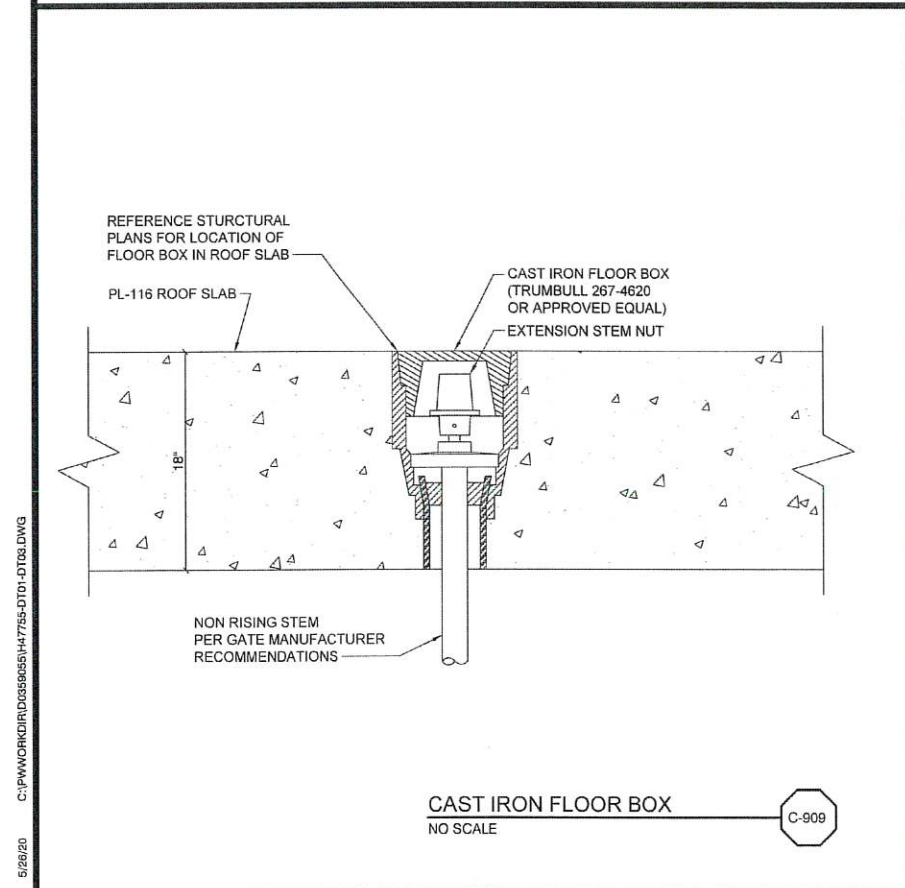
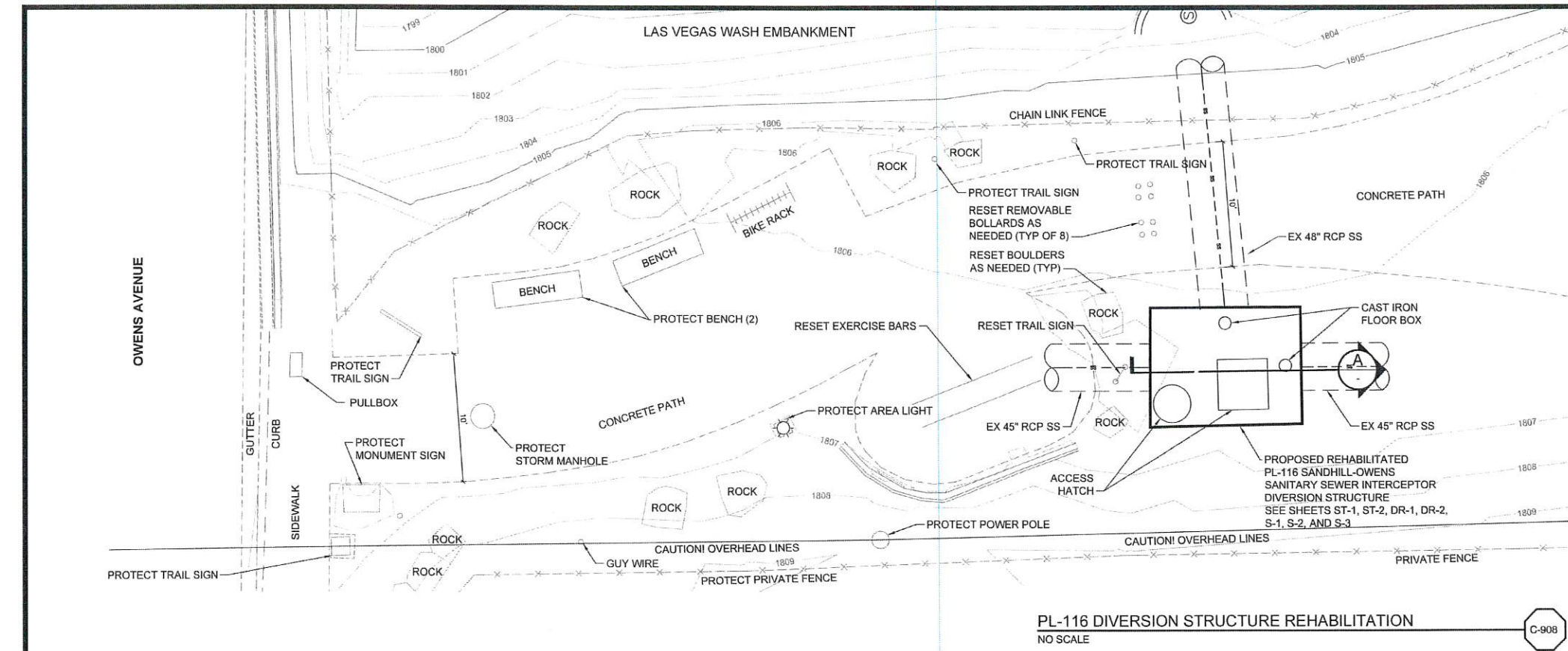
LOOPS AND LOOP LEAD-INS SHALL HAVE HOMERUN TO CABINET AND CONDUIT TO CLV SPECIAL PROVISION 623 T02.04.

FOR BYPASS PIPING LOOP DETECTOR NOTES REFER TO DETAIL C-903 / SHEET DT-2.

C-907

WHERE LOOPS WILL BE OVERLAP WITH NEW PAVEMENT, LOOP DETECTORS SHALL BE TYPE PLB PRE-FORMED LOOPS AS MANUFACTURED BY RENO & E, AND ALL LOOPS SHALL BE INSTALLED IN THE ROADWAY PRIOR TO PLACEMENT OF THE FINAL FILL. WHERE LOOPS ARE INSTALLED THAT ARE NOT OVERLAP WITH NEW PAVEMENT, LOOPS SHALL BE RENO & E TYPE PLB PRE-FORMED LOOPS. THE TYPE AND SIZE OF THE ROADWAY DETECTOR SHALL BE 18" X 18" X 1/2" TYPE PLB PRE-FORMED LOOPS. THE TYPE AND SIZE OF THE CABLE SHALL BE 6-PAIR 18 AWG MULTIPLE CONDUCTOR CABLE AS SPECIFIED IN SECTION 623 T.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 DESIGNATED TO WHICH IT BELONGS AND APPROVED BY THE TRAFFIC ENGINEER. FOR ADDITIONAL INFORMATION REFER TO SECTION 623 T.02.04 OF THE CLV SPECIAL PROVISIONS FOR ADDITIONAL REQUIREMENTS.

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C:\P\WORK\DIR\DIR\038065\147755-DT01-DT06.DWG
5/28/20

CALL BEFORE CONSTRUCTION		
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BEFORE YOU UNDERGROUND	F.A.S.T.	702-432-5300
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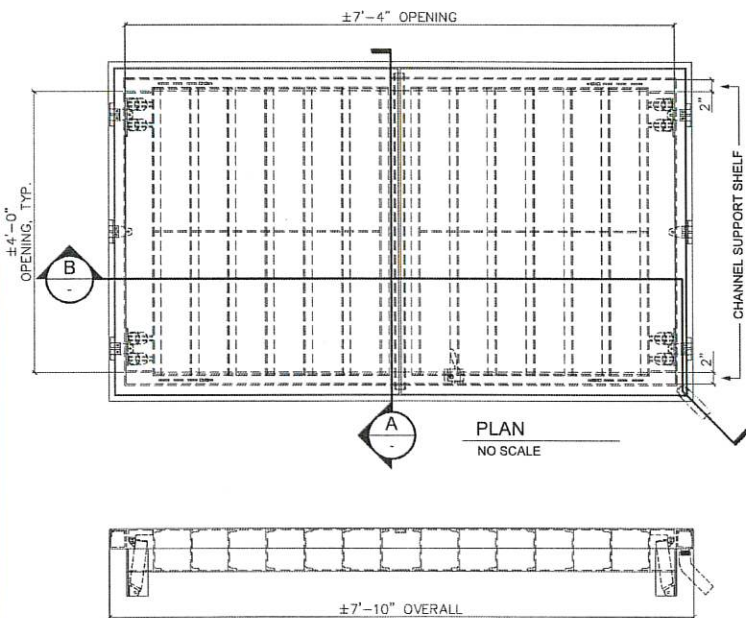
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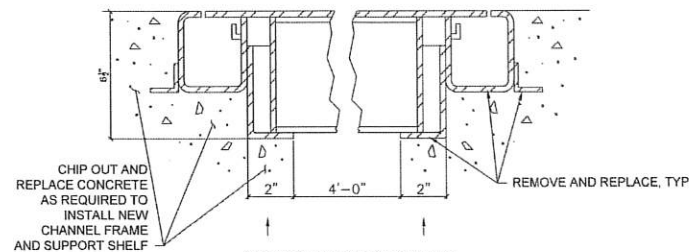
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PREPARED BY Stantec		NO. DATE		REVISIONS							
CITY OF LAS VEGAS		DESIGNED BY: NAN		DRAWN BY: CTS							
BID# 19.63785		DATE: MAY 2020		CHECKED BY: DRB							
SUBMITTAL STAGE: BID SUBMITTAL											
TITLE SANITARY SEWER REHABILITATION SANDHILL RELIEF											
SHEET CIVIL STANDARD DETAILS - V											
DRAWING NO. 307V1152											
DT-5 9 OF 27											

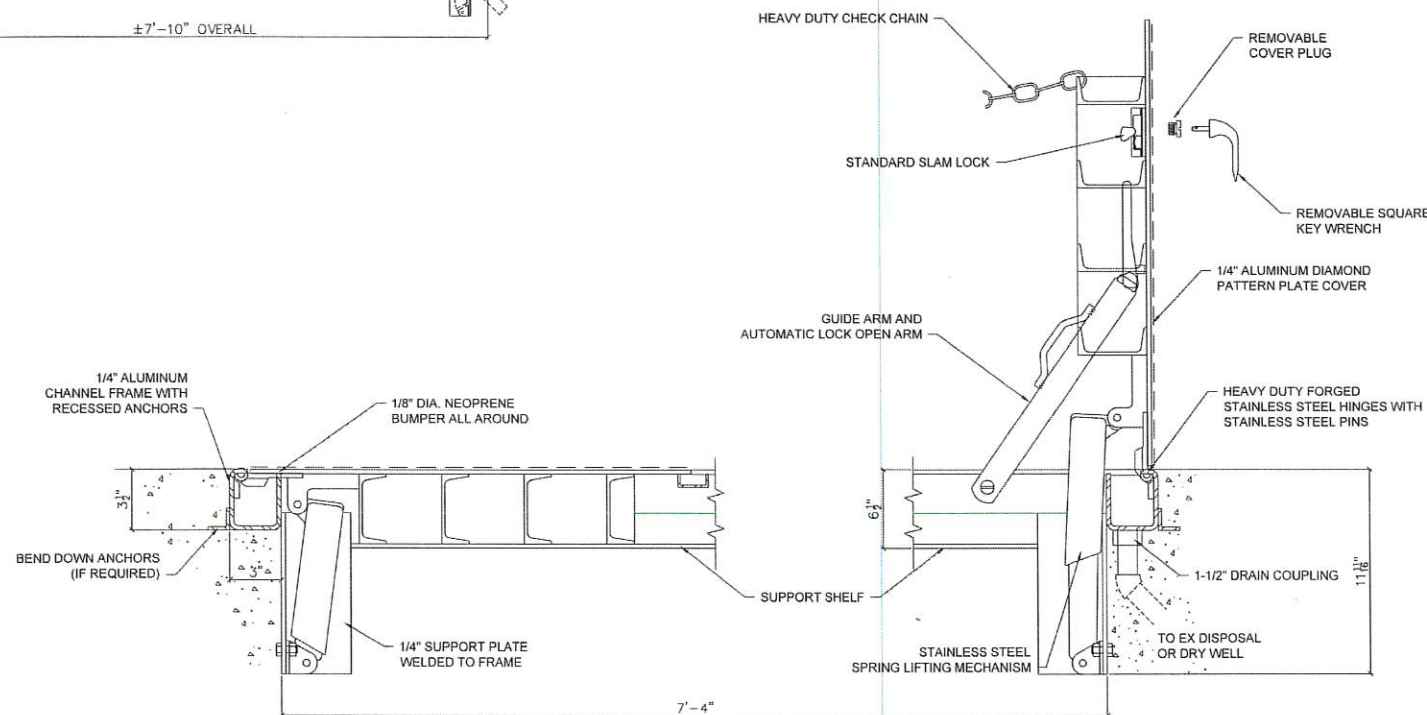
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- NOTES:
1. REPLACEMENT FRAME AND COVER SHALL BE H-20 RATED AND ALL MATERIALS SHALL BE CORROSION RESISTANT OR COATED AS APPLICABLE TO WITHSTAND WASTEWATER ENVIRONMENT.
 2. SUBMIT SHOP DRAWINGS TO THE ENGINEER FOR APPROVAL.
 3. REPAIR ANY DAMAGED COATING RESULTING FROM WORK ACTIVITIES.



A SECTION
NO SCALE



B SECTION
NO SCALE

PL-166 DIVERSION STRUCTURE HATCH REPLACEMENT
NO SCALE

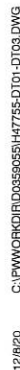
C-910

CALL BEFORE CONSTRUCTION		
BEFORE YOU DIG	USA NORTH	811 OR 800-227-2600
	F.A.S.T.	702-432-5300
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- 7.

CITY OF LAS VEGAS		DESIGNED BY: NAI		CHECKED BY: DBB	
H# 63765		DATE: MAY 2020		SUBMITTAL STAGE: BID SUBMITTAL	
PREPARED FOR		CITY OF LAS VEGAS		SHEET	
TITLE		SANITARY SEWER REHABILITATION SANDHILL RELIEF		CIVIL	
STANDARD DETAILS - VI		CIVIL		STANDARD DETAILS - VI	
PROFESSIONAL ENGINEER		NICHOLAS NATALE		No 24571	
5/26/2020		5/26/2020		5/26/2020	
SHEET		DT-6		10 OF 27	
DRAWING NO.		307V1152			



- ENCASEMENT FOR MANHOLE PL-61
SCALE: 1" = 2'-0"

C-911

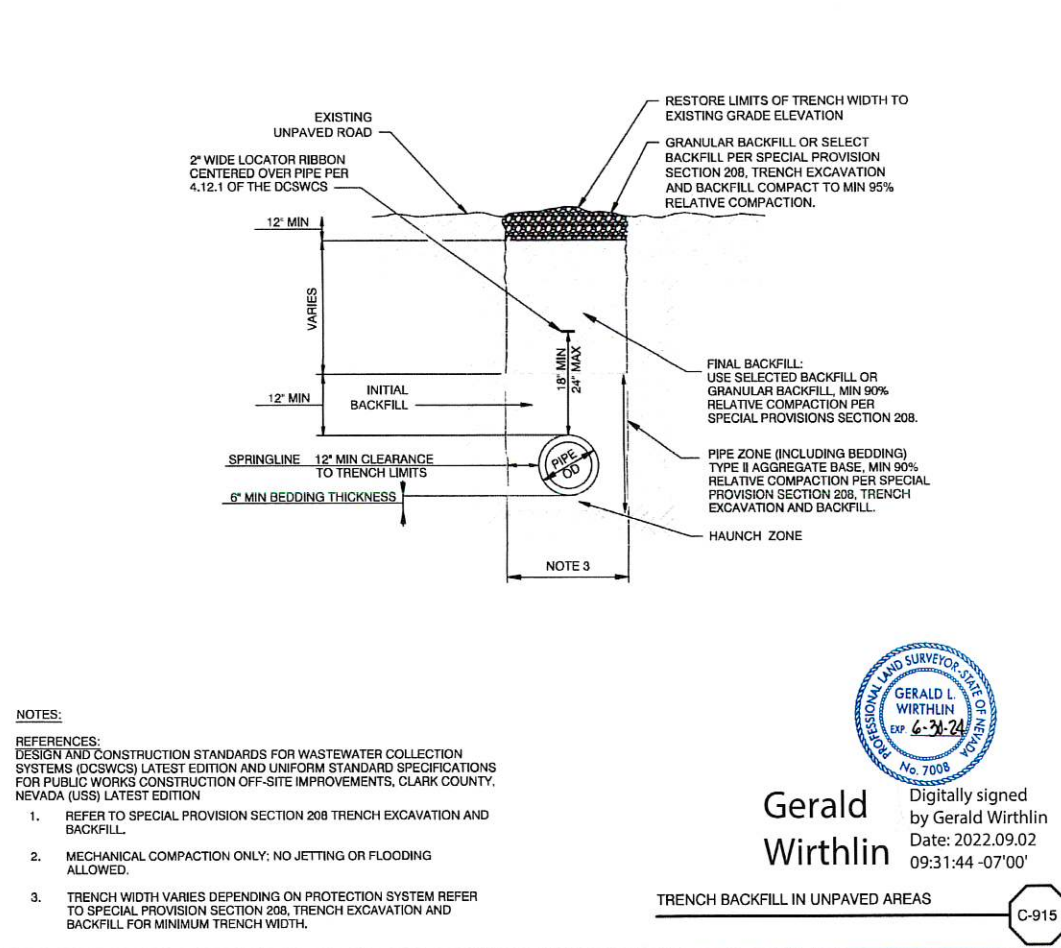
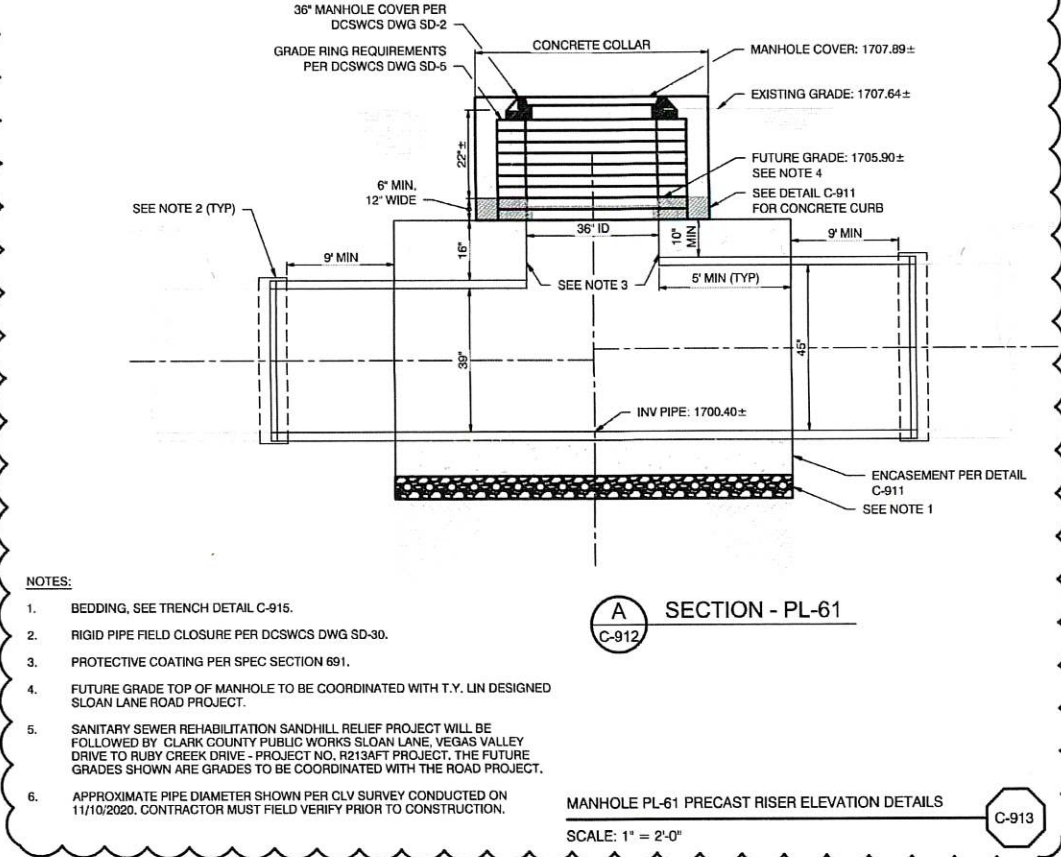
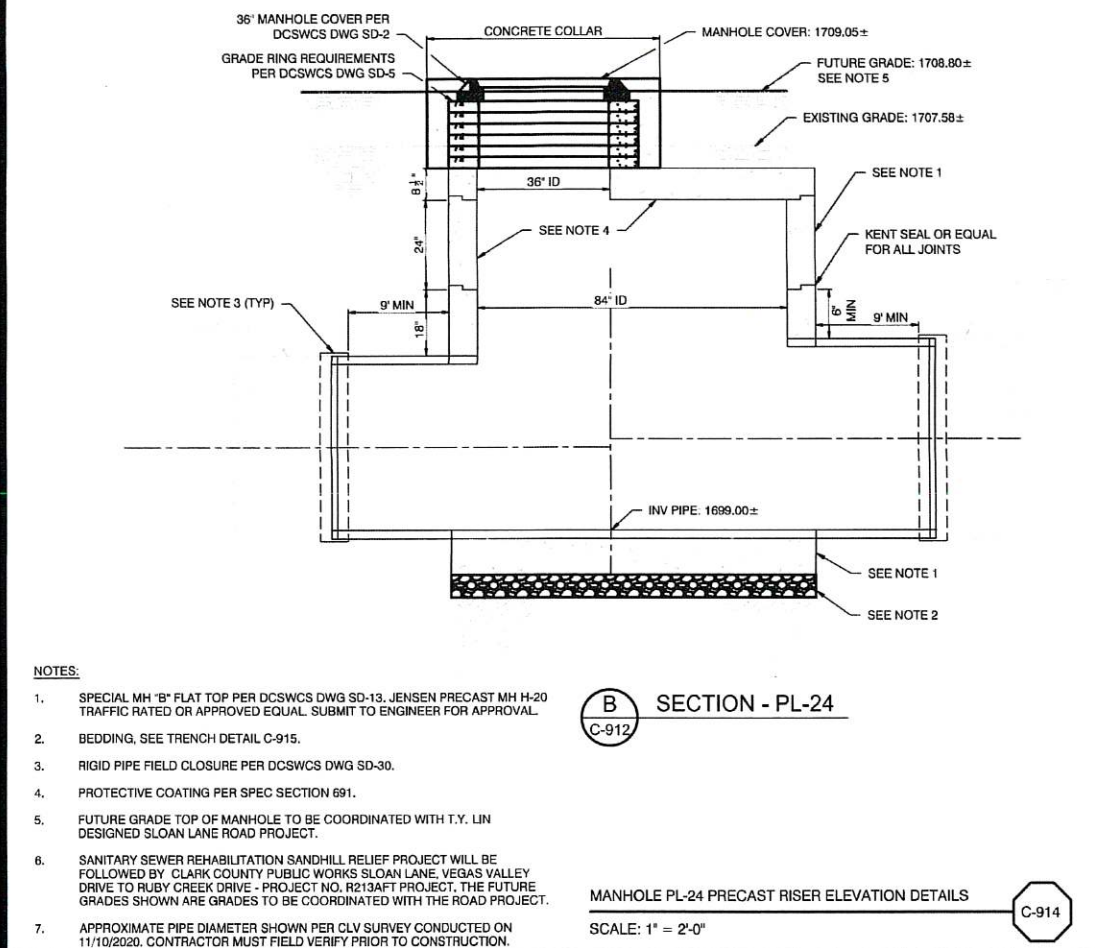
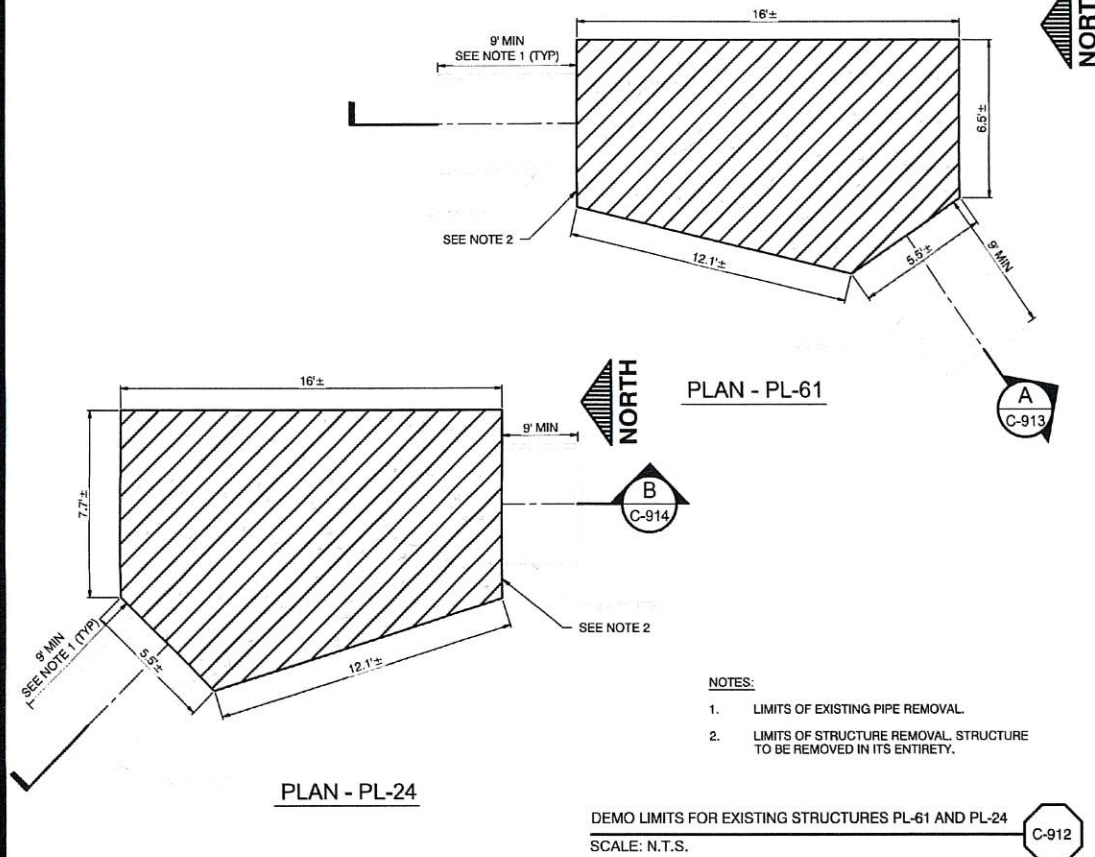

 PREPARED BY
Stantec

 3010 W. CHARLESTON BLVD.
 SUITE 100
 LAS VEGAS, NV 89102

SHEET
DT-6A
10A OF 27A
DRAWING NO.
307V1152

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12/8/20

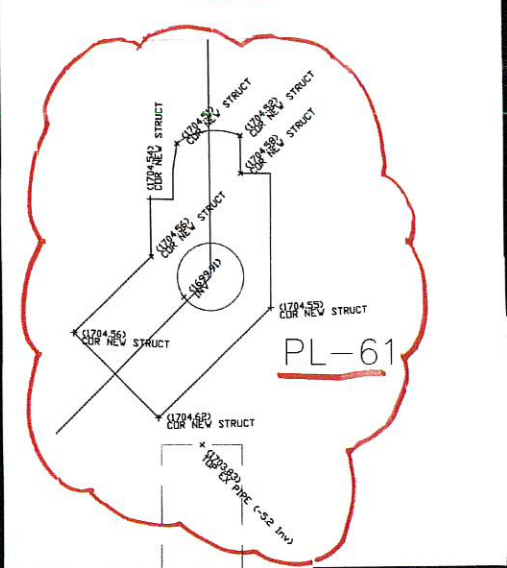
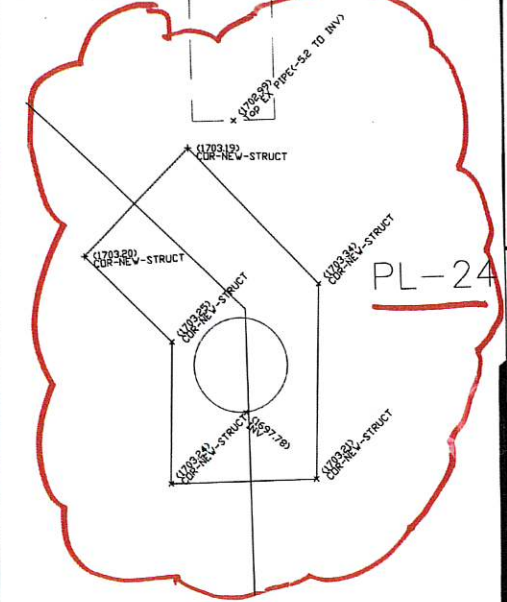


Gerald Wirthlin
Digitally signed by Gerald Wirthlin
Date: 2022.09.02 09:31:44 -07'00'

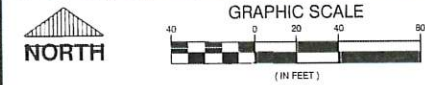
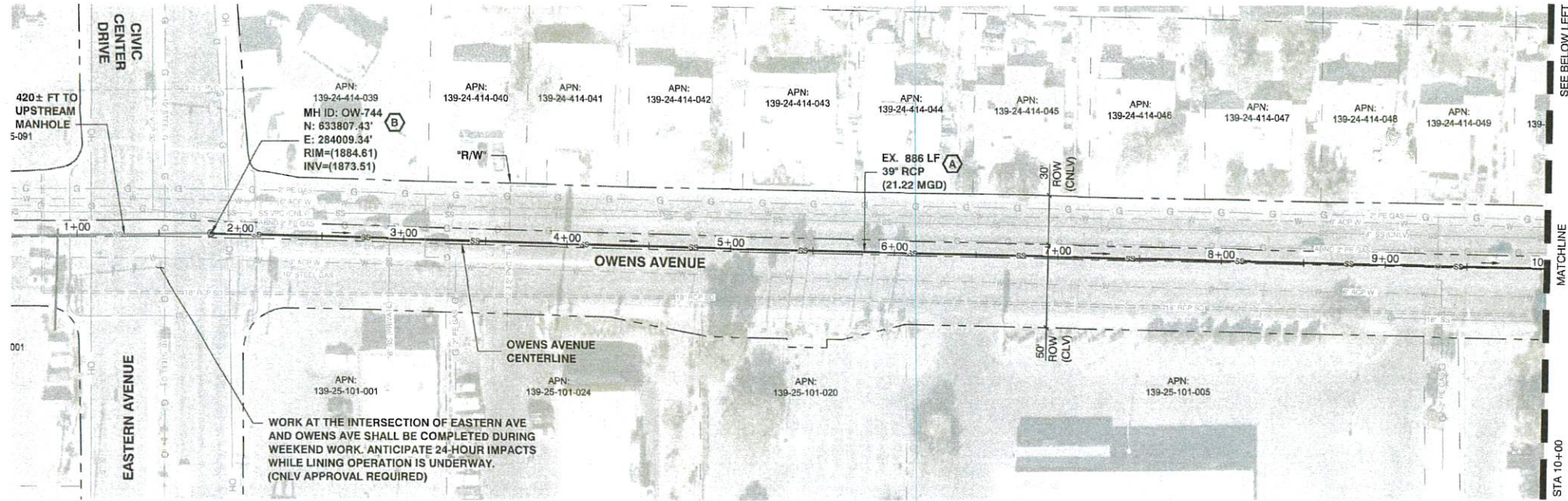
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3. EXISTING SEWER LATERALS ARE DEPICTED IN PLAN VIEW AND APPROXIMATE ONLY. THE CONTRACTOR SHALL VERIFY AND DOCUMENT EVERY LATERAL IMPACTED BY REHABILITATION WORK PRIOR TO COMMENCING CONSTRUCTION. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL LATERALS WHETHER SHOWN OR NOT.
4. THE CONTRACTOR SHALL REMOVE PROTRUDING LATERAL SEGMENTS PRIOR TO INSTALLING CIPP LINER.
5. THE CONTRACTOR SHALL SUBMIT A BYPASS PLAN PER SPECIAL PROVISION SECTION 695.
6. SEE SHEET GN-2 FOR COMPEL CIPP AND MH COATING SCHEDULES.
7. INTERNAL DIVERSIONS MAY ALLEVIATE FLOWS SHOWN ON PLANS. FOR ADDITIONAL INFORMATION REFERENCE SPECIAL PROVISION SECTION 695.03.06.



PREPARED FOR	CITY OF LAS VEGAS	BID #	19.63785	DESIGNED BY	NAN	DRAWN BY	JJ	CHECKED BY	DRB
TITLE	SANITARY SEWER REHABILITATION SANDHILL RELIEF	DATE	MAY 2020	SUBMITTAL STAGE	BID SUBMITTAL				
SHEET	CIVIL STANDARD DETAILS - VI-B								
ENGINEER	GERALD L. WIRTHLIN	PROFESSIONAL ENGINEER	STATE OF NEVADA	NO. 7008	EXPIRATION DATE	6-24-24			
DT-6B	10B OF 27B	307V1152							



CALL BEFORE CONSTRUCTION		
BEFORE YOU DIG	USA NORTH	811 OR 800-227-2600
BEFORE YOU UNDERGROUND	F.A.S.T.	702-432-8300
	CLARK COUNTY TRAFFIC OPERATIONS	702-455-7511
	CITY OF LAS VEGAS T.E.F.O.	702-229-6611
BEFORE YOU OVERHEAD	NV ENERGY	702-227-2929

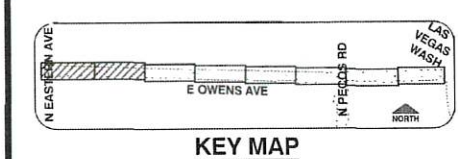
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- CONSTRUCTION NOTES**
- INSTALL CIPP PER SPECIAL PROVISION SECTION 695. CONTRACTOR TO VERIFY LIMITS AND LATERAL CONNECTIONS WITH PRE-CONSTRUCTION INTERNAL INSPECTION.
 - INSTALL MANHOLE CORROSION PROTECTION FROM BENCH TO FRAME PER DETAIL C-901 AND SPECIAL PROVISION SECTION 691.

CIPP LINER TABLE			
UPSTREAM SSMH	DOWNSIDE SSMH	APPROXIMATE DIAMETER*	APPROXIMATE LENGTH**
OW-744	OW-742	39"	885'
OW-742	OW-739	39"	883'

MANHOLE COATING TABLE		
SSMH ID	APPROXIMATE DEPTH (FT)	DIAMETER (IN)
OW-744	11.1'	60"
OW-742	12.5'	60"

CONTRACTOR TO VERIFY ACTUAL PIPE DIAMETER
** CONTRACTOR TO VERIFY ACTUAL PIPE SEGMENT LENGTH



APPROVED FOR CONSTRUCTION
SOUTHWEST GAS CORPORATION
MATTHEW PEDRAZA SWG UID: 18MJP489 DATE: 07/10/2020

APPROVED FOR CONSTRUCTION
LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES MANAGER
DATE: 6/02/2020 PROJECT# 136071

PREPARED FOR
CITY OF LAS VEGAS

DESIGNED BY: NAN
DRAWN BY: CTS
CHECKED BY: DRB

DATE: MAY 2020
SUBMITTAL STAGE: BID SUBMITTAL

PREPARED BY
 Stantec
3010 W. CHARLESTON BLVD.
SUITE 100
LAS VEGAS, NV 89102

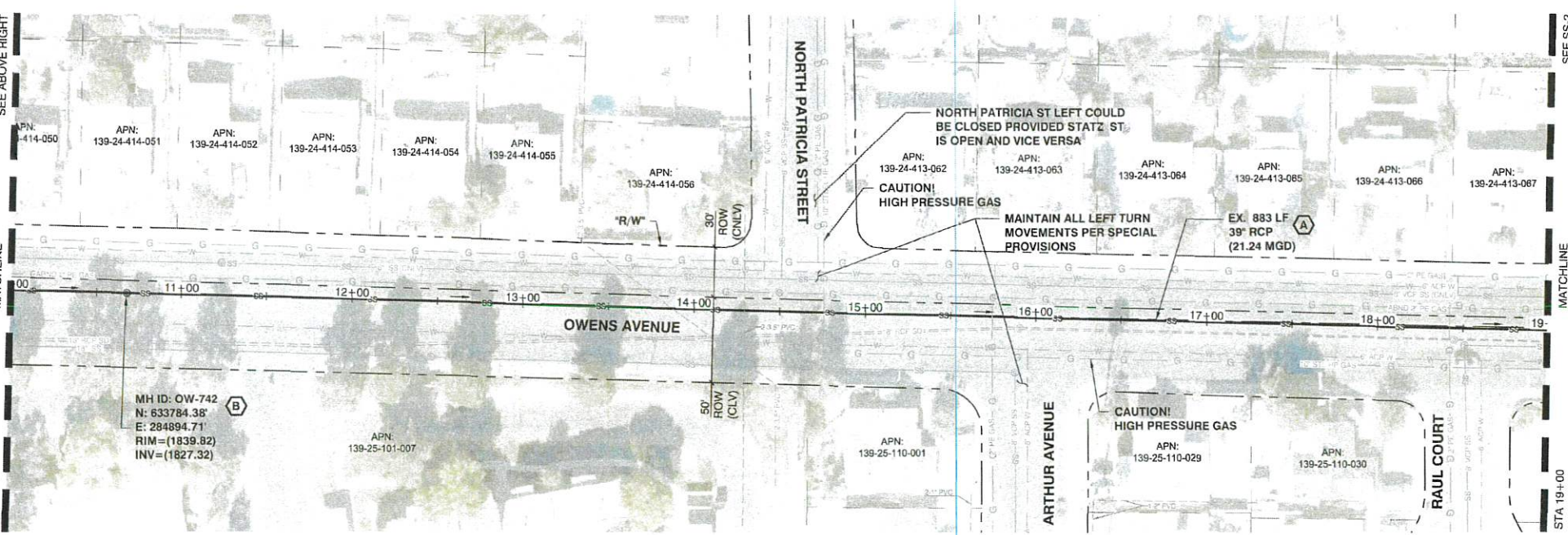
TITLE
**SANITARY SEWER REHABILITATION
SANDHILL RELIEF**

SHEET
SS-1

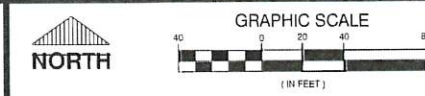
11 OF 27
DRAWING NO
307V1152

PROFESSIONAL ENGINEER STATE OF NEVADA
NICHOLAS A. NATALE
Exp 12-31-2021
No 24571
5-26-2020

REVISIONS
NO. DATE



NOTE
CALL SOUTHWEST GAS AT 702-378-8451 FOR STANDBY WHEN EXCAVATING OVER OR NEAR HIGH PRESSURE GAS LINES 48 HOURS PRIOR TO CONSTRUCTION



CALL BEFORE CONSTRUCTION		
BEFORE YOU DIG	USA NORTH	811 OR 800-227-2600
BEFORE YOU UNDERGROUND	F.A.S.T.	702-432-5300
BEFORE YOU OVERHEAD	CLARK COUNTY TRAFFIC OPERATIONS	702-455-7511
	CITY OF LAS VEGAS T.E.F.O.	702-229-6611
	NV ENERGY	702-227-2529

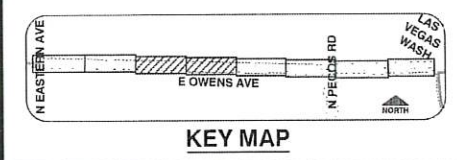
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- CONSTRUCTION NOTES**
- INSTALL CIPP PER SPECIAL PROVISION SECTION 690. CONTRACTOR TO VERIFY LIMITS AND LATERAL CONNECTIONS WITH PRE-CONSTRUCTION INTERNAL INSPECTION.
 - INSTALL MANHOLE CORROSION PROTECTION FROM BENCH TO FRAME PER DETAIL C-901 AND SPECIAL PROVISION SECTION 691.

CIPP LINER TABLE			
UPSTREAM SSMH	DOWNSTEAM SSMH	APPROXIMATE DIAMETER*	APPROXIMATE LENGTH**
OW-739	OW-738	39"	855'
OW-738	OW-734	42"	868'
OW-734	OW-732	42"	872'

MANHOLE COATING TABLE		
SSMH ID	APPROXIMATE DEPTH (FT)	DIAMETER (IN)
OW-739	12.7'	60"
OW-738	13.0'	60"
OW-734	11.6'	60"

* CONTRACTOR TO VERIFY ACTUAL PIPE DIAMETER
** CONTRACTOR TO VERIFY ACTUAL PIPE SEGMENT LENGTH



APPROVED FOR CONSTRUCTION
SOUTHWEST GAS CORPORATION

MATTHEW PEDRAZA SWG UID: 18MJP489 DATE: 07/10/2020

APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES MANAGER
DATE: 6/02/2020 PROJECT# 136071

PREPARED BY
CITY OF LAS VEGAS
H# 63785
DATE: MAY 2020
SUBMITTAL STAGE: BID SUBMITTAL

DESIGNED BY: NAN
DRAWN BY: CTS
CHECKED BY: DBB

REVISIONS

CITY OF LAS VEGAS
300 W. CHARLESTON BLVD
LAS VEGAS, NV 89102

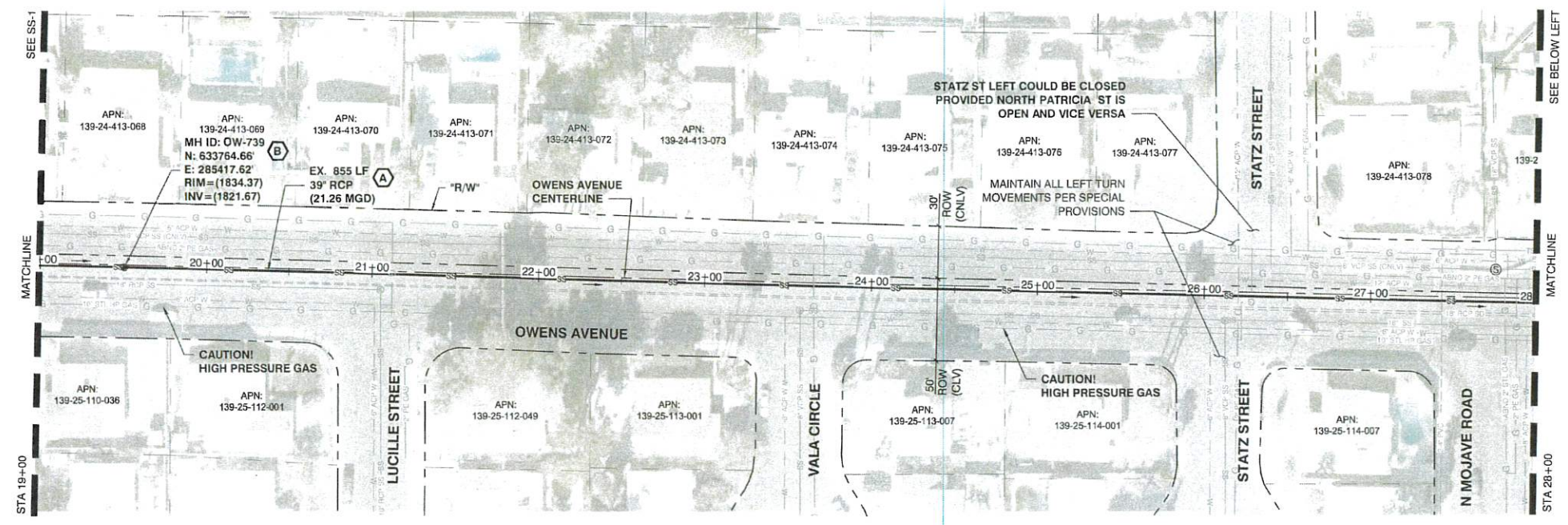
PREPARED BY
Stantec

SANITARY SEWER REHABILITATION
SANDHILL RELIEF

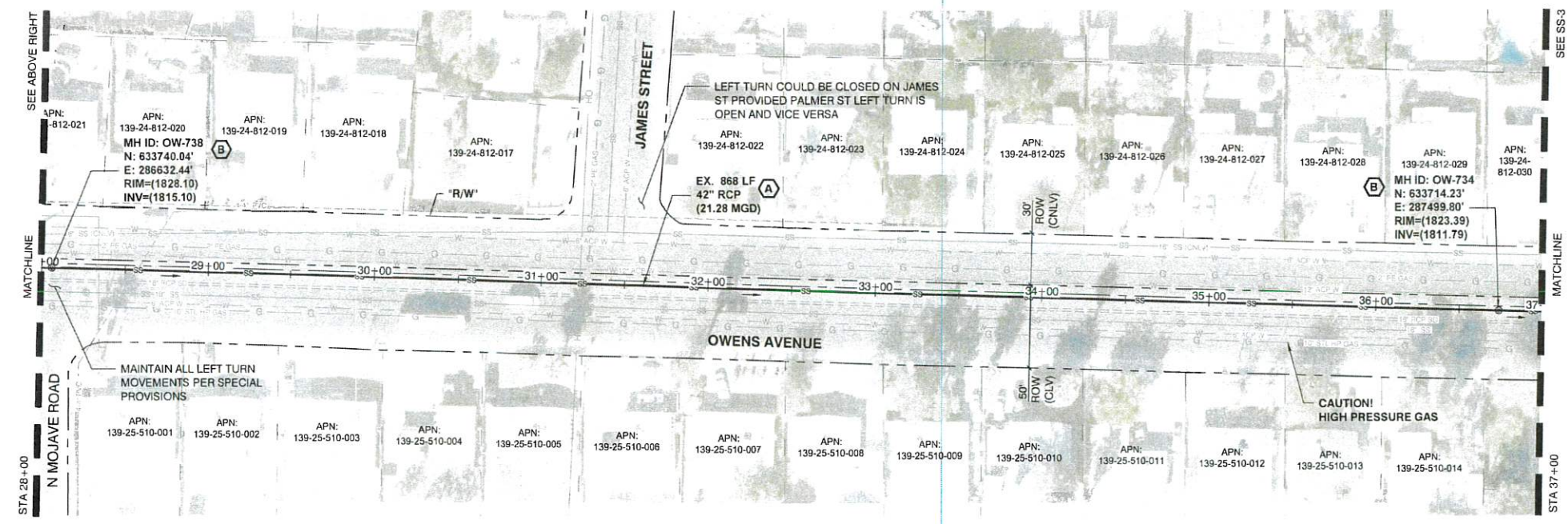
SANDHILL OWENS INTERCEPTOR
STA 19+00 TO 37+00

PROFESSIONAL ENGINEER
NICHOLAS A. NATALE
Exp# 2-21-2021
CIVIL
No 24571
5-25-2020

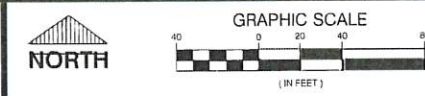
SHEET
SS-2
12 OF 27
DRAWING NO
307V1152



NOTE:
CALL SOUTHWEST GAS AT 702-278-8451 FOR STANDBY WHEN EXCAVATING OVER OR NEAR HIGH PRESSURE GAS LINES 48 HOURS PRIOR TO CONSTRUCTION



NOTE:
CALL SOUTHWEST GAS AT 702-278-8451 FOR STANDBY WHEN EXCAVATING OVER OR NEAR HIGH PRESSURE GAS LINES 48 HOURS PRIOR TO CONSTRUCTION



CALL BEFORE CONSTRUCTION		
BEFORE YOU DIG	USA NORTH	811 OR 300-227-2800
BEFORE YOU UNDERGROUND	F.A.S.T.	702-432-5300
BEFORE YOU OVERHEAD	CLARK COUNTY TRAFFIC OPERATIONS	702-455-7511
	CITY OF LAS VEGAS T.E.F.O.	702-229-5611
	NV ENERGY	702-227-2929

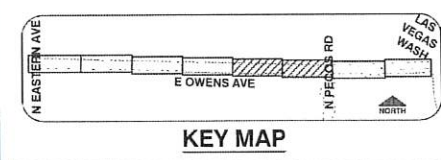
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 - SEE SHEET GN 2 FOR COMPLETE CIPP AND MH COATING SCHEDULES.
 - INTERNAL DIVERSIONS MAY ALLEVIATE FLOWS SHOWN ON PLANS. FOR ADDITIONAL INFORMATION REFERENCE SPECIAL PROVISION SECTION 695.03.05.

- CONSTRUCTION NOTES**
- INSTALL CIPP PER SPECIAL PROVISION SECTION 690. CONTRACTOR TO VERIFY LIMITS AND LATERAL CONNECTIONS WITH PRE-CONSTRUCTION INTERNAL INSPECTION.
 - INSTALL MANHOLE CORROSION PROTECTION FROM BENCH TO FRAME PER DETAIL C-901 AND SPECIAL PROVISION SECTION 691.

CIPP LINER TABLE			
UPSTREAM SSMH	DOWNSTREAM SSMH	APPROXIMATE DIAMETER*	APPROXIMATE LENGTH**
OW-732	OW-228	42"	800'
OW-228	OW-1657	42"	56'
OW-1657	OW-227	42"	9'
OW-227	SN-312	45"	872'

MANHOLE COATING TABLE		
SSMH ID	APPROXIMATE DEPTH (FT)	DIAMETER / AREA
OW-732	11.4'	60"
OW-228	9.7'	100 SF
OW-1657	9.7'	48"
OW-227	9.7'	48"

- * CONTRACTOR TO VERIFY ACTUAL PIPE DIAMETER
** CONTRACTOR TO VERIFY ACTUAL PIPE SEGMENT LENGTH



APPROVED FOR CONSTRUCTION
SOUTHWEST GAS CORPORATION

MATTHEW PEDRAZA SWG UID: 18MJP489 DATE: 07/10/2020

APPROVED FOR CONSTRUCTION

DATE: 6/22/2020 PROJECT # 136071

PREPARED BY
CITY OF LAS VEGAS

DESIGNED BY
NAN

DRAWN BY
CTS

CHECKED BY
DRB

DATE
MAY 2020

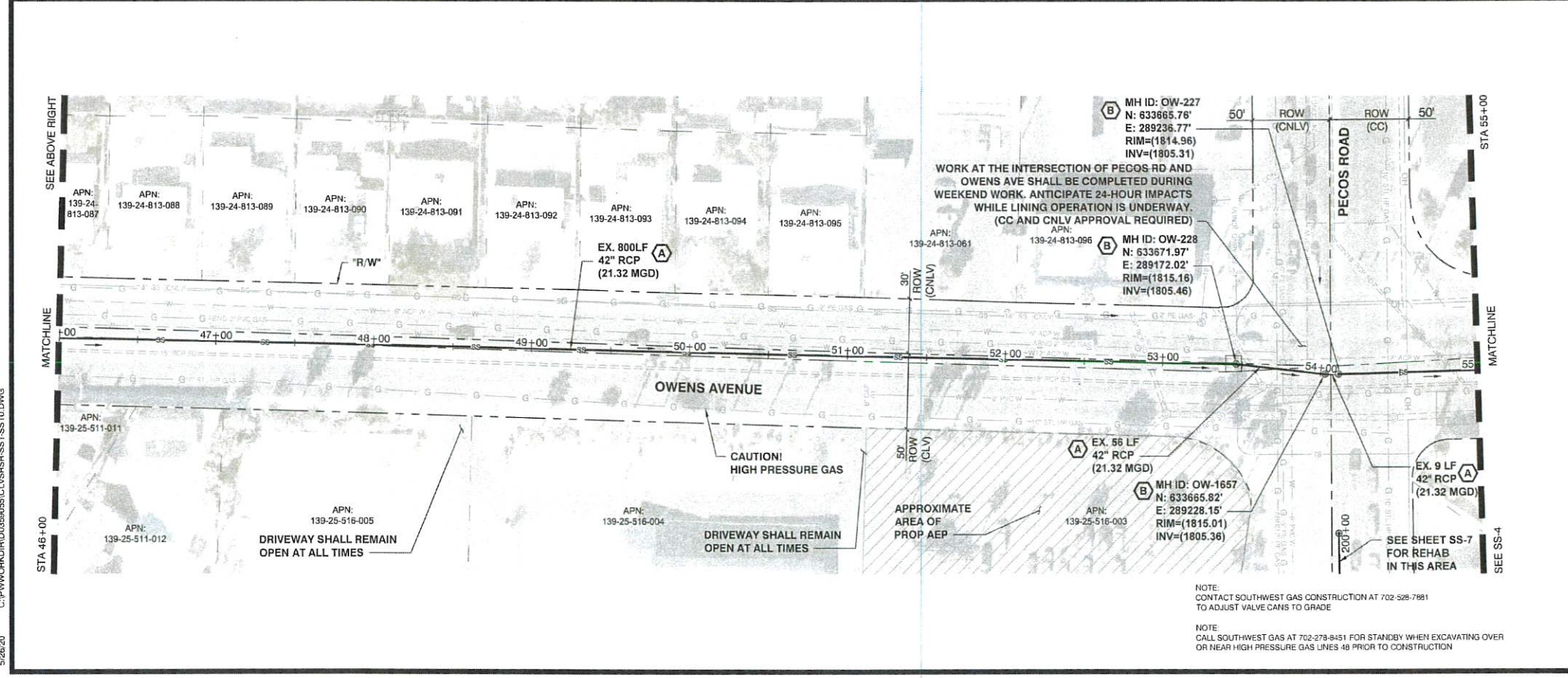
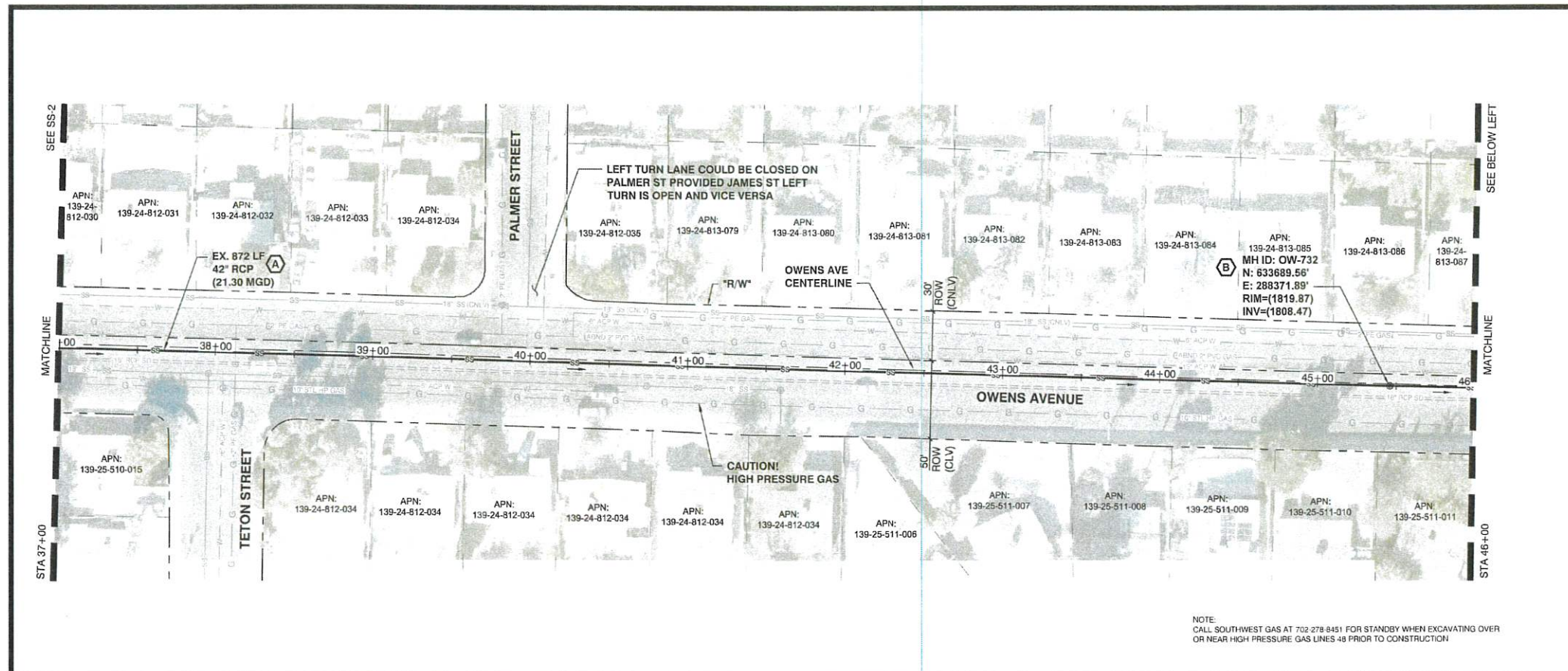
SUBMITTAL STAGE
BID SUBMITTAL

TITLE
SANITARY SEWER REHABILITATION
SANDHILL RELIEF

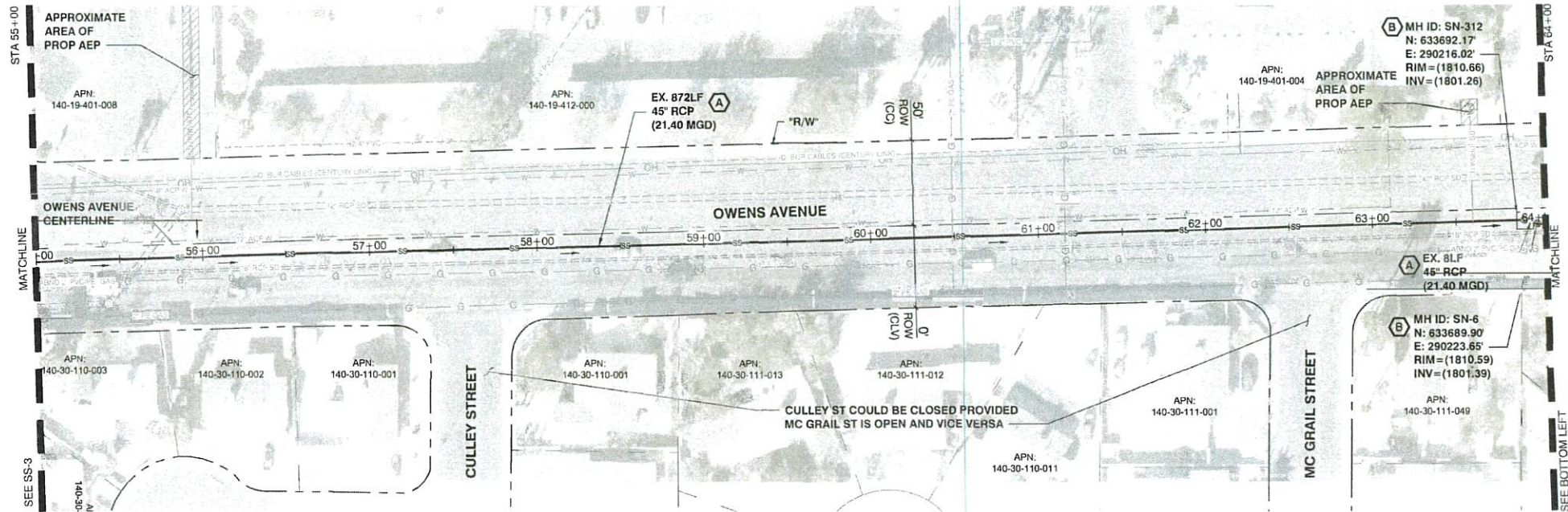
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SS-3

13 OF 27

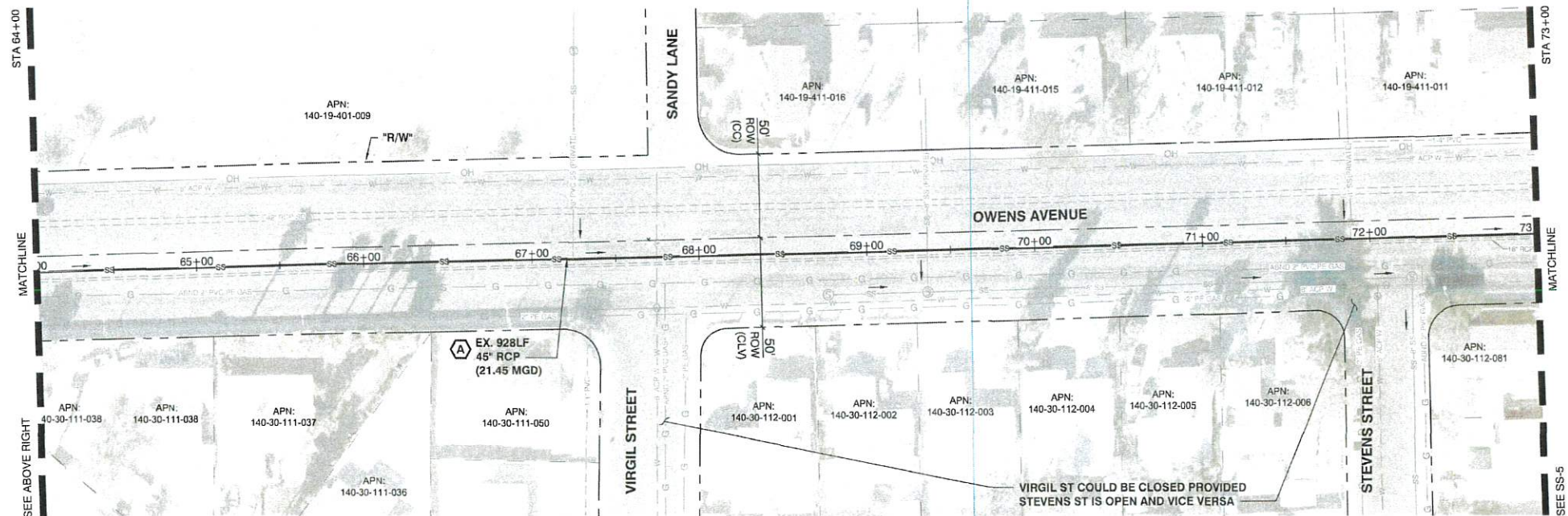
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5/26/20 C:\PW\WORK\DR\035905\CL\USR\SS-SS10.DWG



NOTE:
CALL SOUTHWEST GAS AT 702-278-8451 FOR STANDBY WHEN EXCAVATING OVER
OR NEAR HIGH PRESSURE GAS LINES 48 PRIOR TO CONSTRUCTION



NOTE:
CONTACT SOUTHWEST GAS CONSTRUCTION AT 702-329-7881
TO ADJUST VALVE CANS TO GRADE

NOTE:
CALL SOUTHWEST GAS AT 702-278-8451 FOR STANDBY WHEN EXCAVATING OVER
OR NEAR HIGH PRESSURE GAS LINES 48 PRIOR TO CONSTRUCTION



CALL BEFORE CONSTRUCTION			
BEFORE YOU DIG	USA NORTH	811 OR 800-227-2500	
BEFORE YOU UNDERGROUND	F.A.S.T.	702-432-5300	
	CLARK COUNTY TRAFFIC OPERATIONS	702-455-7511	
	CITY OF LAS VEGAS T.E.F.O.	702-229-5611	
BEFORE YOU OVERHEAD	NV ENERGY	702-227-2909	

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CONSTRUCTION NOTES

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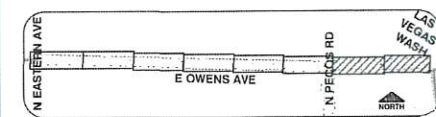
CIPP LINER TABLE

UPSTREAM SSMH	DOWNSTREAM SSMH	APPROXIMATE DIAMETER*	APPROXIMATE LENGTH**
SN-312	SN-6	45"	6'
SN-6	SN-8	45"	928'

MANHOLE COATING TABLE

SSMH ID	APPROXIMATE DEPTH (FT)	DIAMETER (IN)
SN-312	9.4'	9' x 9'
SN-6	9.2'	48"

- * CONTRACTOR TO VERIFY ACTUAL PIPE DIAMETER
** CONTRACTOR TO VERIFY ACTUAL PIPE SEGMENT LENGTH



KEY MAP

APPROVED FOR CONSTRUCTION SOUTHWEST GAS CORPORATION		
MATTHEW PEDRAZA SWG UID: 18MJP489	DATE: 07/10/2020	

APPROVED FOR CONSTRUCTION		
<i>[Signature]</i> LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES MANAGER	DATE: 8/2/2020	PROJECT#: 138071

PREPARED FOR
CITY OF LAS VEGAS

BID # 19-03795
DESIGNED BY: NAN
DATE: MAY 2020
SUBMITTAL STAGE: BID SUBMITTAL

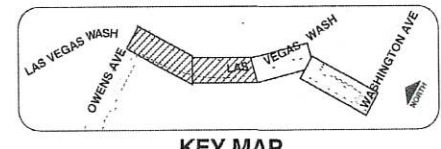
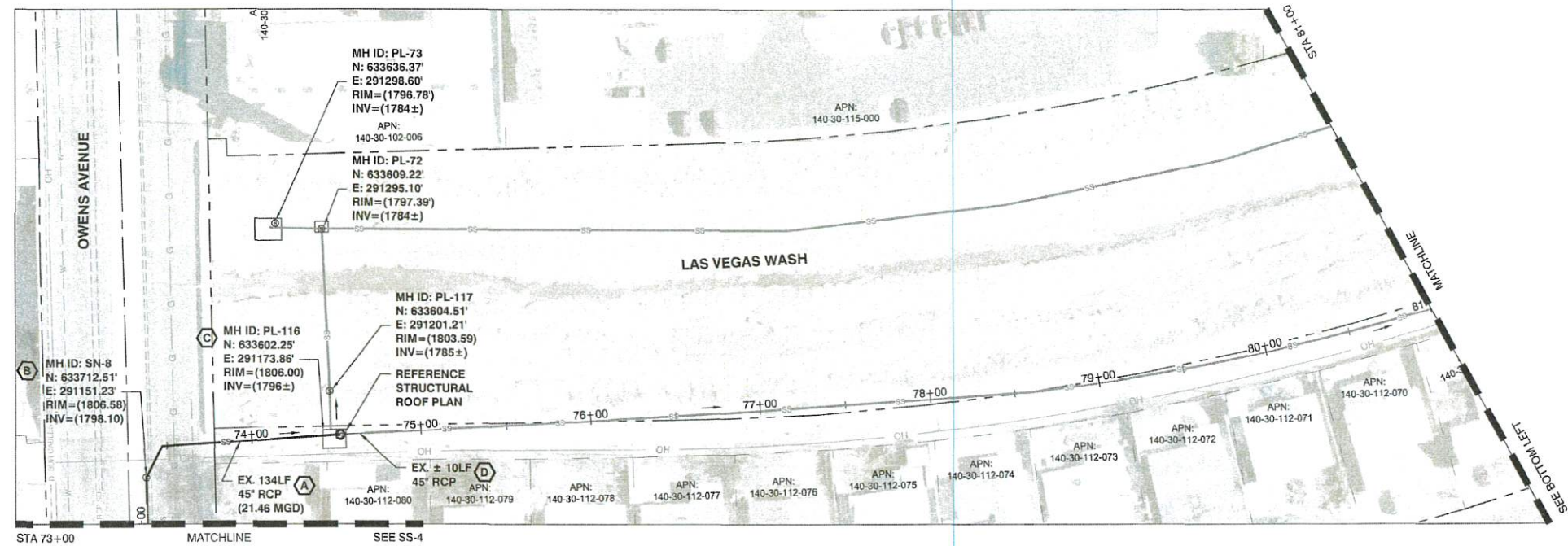
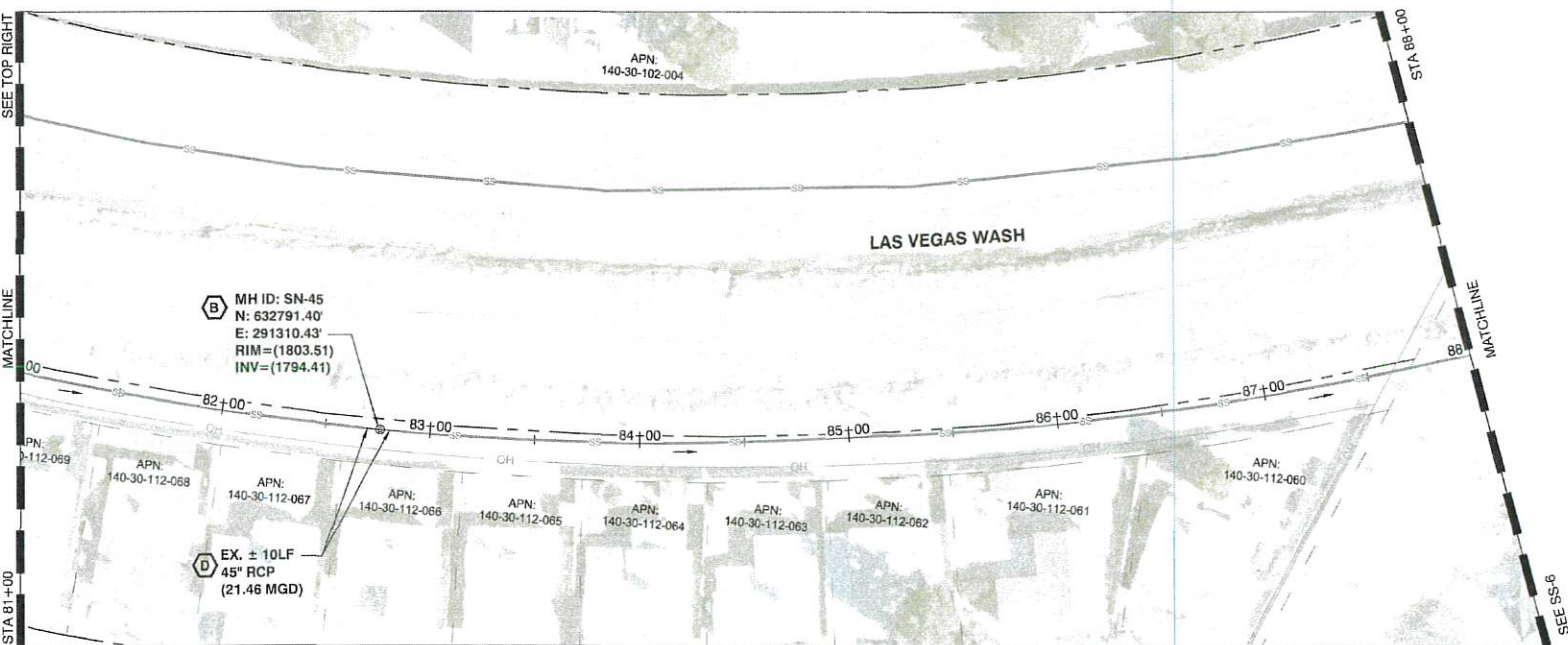
TITLE
**SANITARY SEWER REHABILITATION
SANDHILL RELIEF**

SHEET
**SANDHILL OWENS INTERCEPTOR
STA 55+00 TO 73+00**



5-26-2020
SS-4
14 OF 27
DRAWING NO.
307V1152

5/26/20 C:\P\WORK\DR\036505\CL\SS-5.DWG



APPROVED FOR CONSTRUCTION
LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES MANAGER
DATE: 6/27/2020 PROJECT# 136071

PIPE EPOXY COATING TABLE		
ADJACENT MANHOLE	APPROXIMATE DIAMETER*	COATING LENGTH
PL-116	45"	10'
SN-45	45"	10'
SN-45	45"	10'

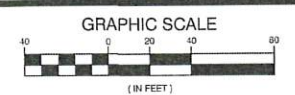
MANHOLE COATING TABLE		
SSMH ID	APPROXIMATE DEPTH (FT)	DIAMETER / AREA
SN-8	8.5'	80"
PL-116	10'	9' x 12'
SN-45	9.1'	60"

UPSTREAM SSMH	DOWNSIDE SSMH	APPROXIMATE DIAMETER*	APPROXIMATE LENGTH**
SN-8	PL-116	45"	134'

- CONSTRUCTION NOTES**
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 - INSTALL MANHOLE CORROSION PROTECTION FROM BENCH TO FRAME PER DETAIL C-901 AND SPECIAL PROVISION SECTION 691.
 - DIVERSION STRUCTURE TO BE MODIFIED. REFERENCE DETAIL C-907 AND STRUCTURAL PLANS.
 - INSTALL CORROSION PROTECTION IN PIPE AND ADJACENT MANHOLE PER DETAIL C-902. (PIPE LENGTH PER PLAN)

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CALL BEFORE CONSTRUCTION		
BEFORE YOU DIG	USA NORTH	911 OR 800-227-2800
BEFORE YOU UNDERGROUND	F.A.S.T.	702-432-5300
	CLARK COUNTY TRAFFIC OPERATIONS	702-455-7511
	CITY OF LAS VEGAS T.E.F.O.	702-229-6611
BEFORE YOU OVERHEAD	NV ENERGY	702-227-2929



TITLE: **SANITARY SEWER REHABILITATION SANDHILL RELIEF**

AREA 3 SN STA 73+00 TO 88+00

PREPARED FOR: **CITY OF LAS VEGAS**

DESIGNED BY: NAN

DRAWN BY: CTS

CHECKED BY: DBB

DATE: MAY 2020

SUBMITTAL STAGE: BID SUBMITTAL

PROFESSIONAL ENGINEER STATE OF NEVADA
NICHOLAS A. NATALE
Exp 2-31-2022
No 24571
5-28-2020

SHEET: **SS-5**

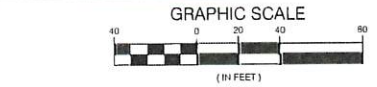
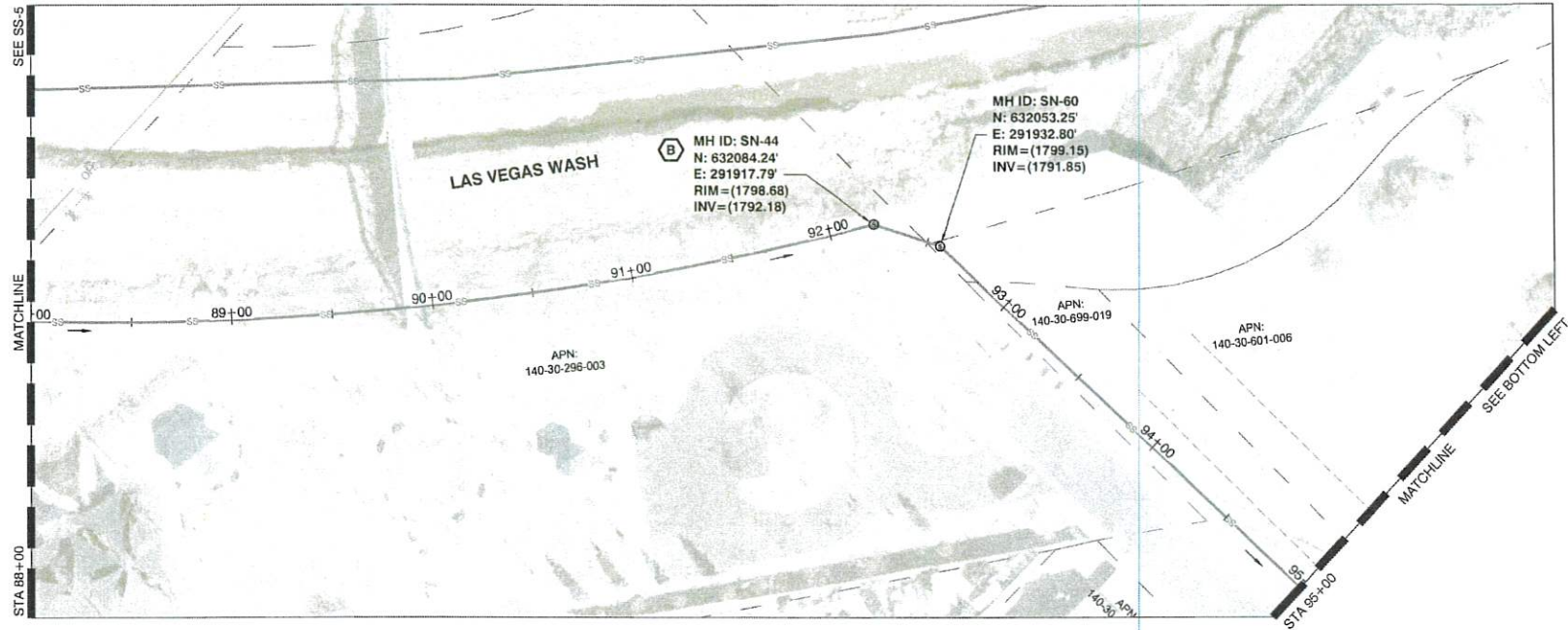
15 OF 27

DRAWING NO: **307V1152**

REVISIONS

NO.	DATE	REVISIONS

PREPARED BY: Stattec
3010 W. CHARLESTON BLVD.
SUITE 100
LAS VEGAS, NV 89102



CALL BEFORE CONSTRUCTION		
BEFORE YOU DIG	USA NORTH	811 OR 800-227-2600
	F.A.S.T.	702-432-5300
BEFORE YOU UNDERGROUND	CLARK COUNTY TRAFFIC OPERATIONS	702-455-7511
	CITY OF LAS VEGAS T.E.F.O.	702-229-6811
BEFORE YOU OVERHEAD	NV ENERGY	702-227-2029

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- CONSTRUCTION NOTES**
- INSTALL MANHOLE CORROSION PROTECTION FROM BENCH TO FRAME PER DETAIL C-901 AND SPECIAL PROVISION SECTION 891.
 - INSTALL CORROSION PROTECTION IN PIPE PER DETAIL C-902. (LENGTH PER PLAN)

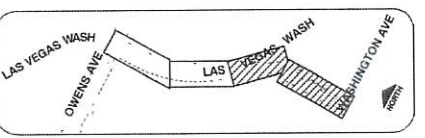
MANHOLE COATING TABLE

SSMH ID	APPROXIMATE DEPTH (FT)	DIAMETER / AREA
SN-44	6.5'	72"
SN-32	14'	60"

PIPE EPOXY COATING TABLE

ADJACENT MANHOLE	APPROXIMATE DIAMETER*	COATING LENGTH
SN-32	42"	10'

- * CONTRACTOR TO VERIFY ACTUAL PIPE DIAMETER
- ** CONTRACTOR TO VERIFY ACTUAL PIPE SEGMENT LENGTH



KEY MAP

APPROVED FOR CONSTRUCTION
SOUTHWEST GAS CORPORATION
MATTHEW PEDRAZA SWG UID: 18MJP489 DATE: 07/10/2020

APPROVED FOR CONSTRUCTION
LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES MANAGER
DATE: 6/22/2020 PROJECT# 136071

PREPARED FOR
CITY OF LAS VEGAS

**SANITARY SEWER REHABILITATION
SANDHILL RELIEF**

PROFESSIONAL ENGINEER STATE OF NEVADA
NICHOLAS A. NATALE
Exp'd 2-31-2020
CIVIL
No. 24571
5-26-2020

SHEET
SS-6
16 OF 27
DRAWING NO.
307V1152

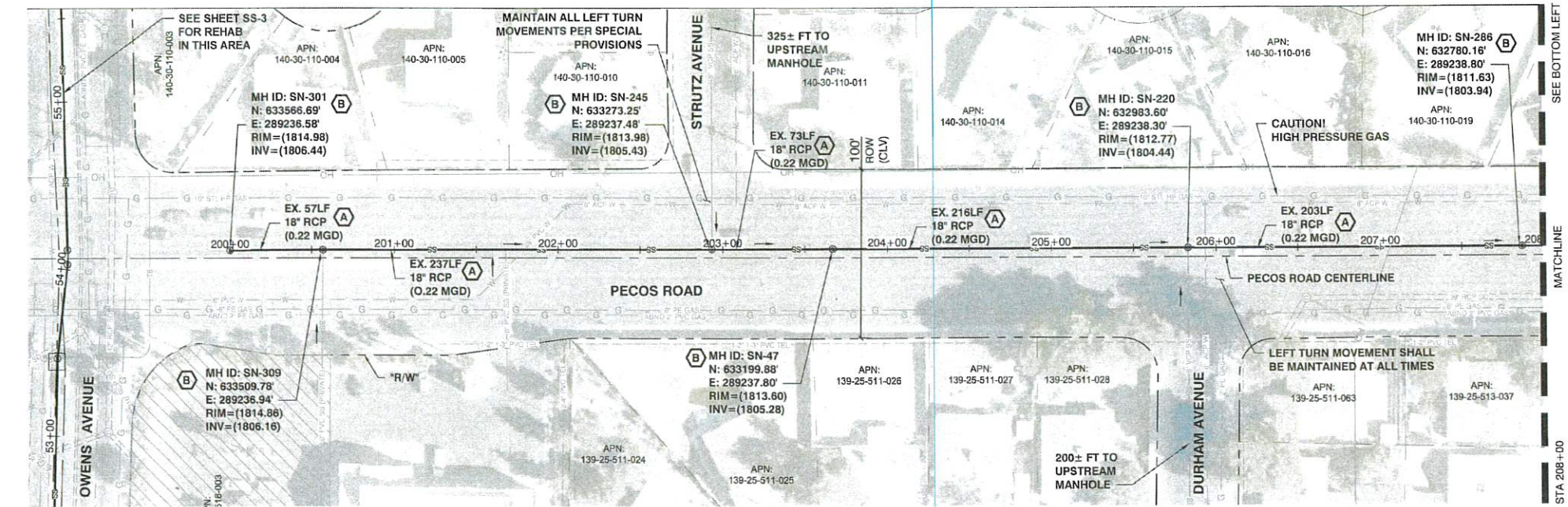
PREPARED BY
Stattec
STATTEC
LAS VEGAS, NV 89102

BID# 19.63795
DESIGNED BY: NAN
DRAWN BY: CTS
CHECKED BY: DRB
SUBMITTAL STAGE:
BID SUBMITTAL

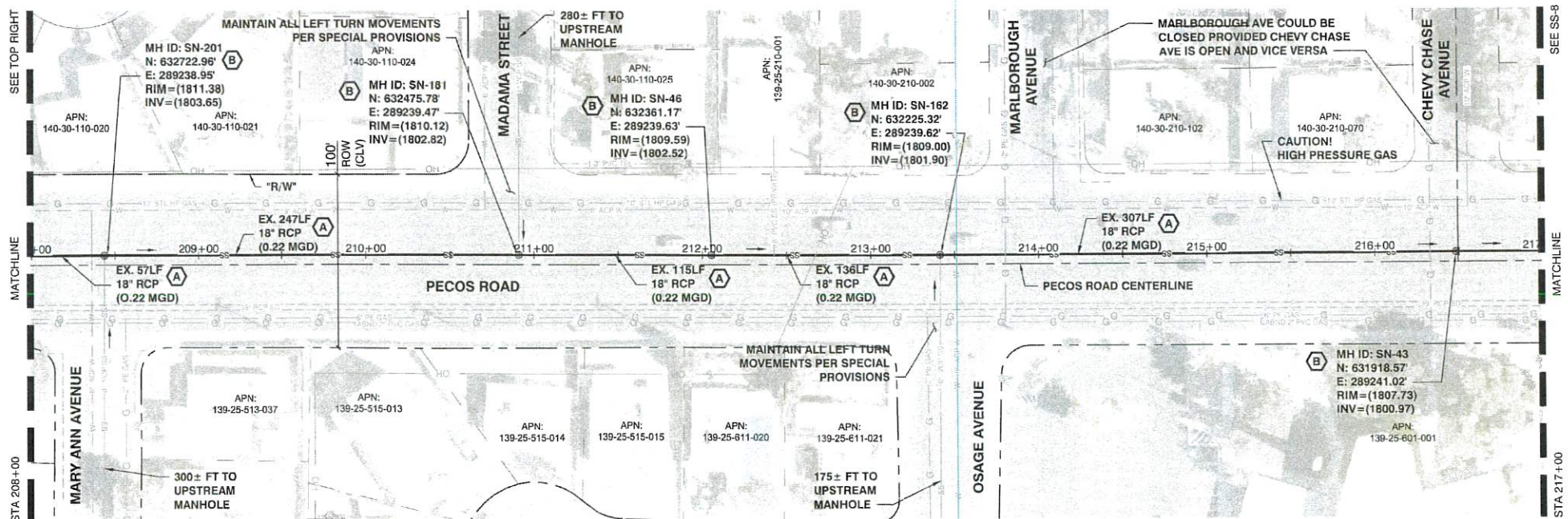
AREA 3 SN
STA 88+00 TO 104+00

NO. DATE REVISIONS

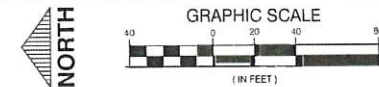
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5/26/20



NOTE:
CONTACT SOUTHWEST GAS CONSTRUCTION AT 702-528-7881
TO ADJUST VALVE CANS TO GRADE



NOTE:
CALL SOUTHWEST GAS AT 702-728-8451 FOR STANDBY WHEN EXCAVATING OVER
OR NEAR HIGH PRESSURE GAS LINES 48 PRIOR TO CONSTRUCTION



CALL BEFORE CONSTRUCTION		
BEFORE YOU DIG	USA NORTH	811 OR 800-227-2600
BEFORE YOU UNDERGROUND	F.A.S.T.	702-432-3300
BEFORE YOU OVERHEAD	CLARK COUNTY TRAFFIC OPERATIONS	702-455-7511
	CITY OF LAS VEGAS T.E.F.O.	702-229-5611
	NV ENERGY	702-227-2929

GENERAL NOTES

- REFER TO SHEET GN-2 FOR OVERALL SHEET LIST.
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- THE CONTRACTOR SHALL REMOVE PROTRUDING LATERAL SEGMENTS PRIOR TO INSTALLING CIPP LINER.
- THE CONTRACTOR SHALL SUBMIT A BYPASS PLAN PER SPECIAL PROVISION SECTION 695.
- SEE SHEET GN-2 FOR COMPLETE CIPP AND MH COATING SCHEDULES.
- INTERNAL DIVERSIONS MAY ALLEVIATE FLOWS SHOWN ON PLANS. FOR ADDITIONAL INFORMATION REFERENCE SPECIAL PROVISION SECTION 695.03.06.

CONSTRUCTION NOTES

- INSTALL CIPP PER SPECIAL PROVISION SECTION 690. CONTRACTOR TO VERIFY LIMITS AND LATERAL CONNECTIONS WITH PRE-CONSTRUCTION INTERNAL INSPECTION.
- INSTALL MANHOLE CORROSION PROTECTION FROM BENCH TO FRAME PER DETAIL C-901 AND SPECIAL PROVISION SECTION 691.

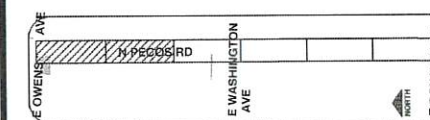
CIPP LINER TABLE

UPSTREAM SSMH	DOWNSTREAM SSMH	APPROXIMATE DIAMETER*	APPROXIMATE LENGTH**
SN-301	SN-309	18"	57
SN-309	SN-245	18"	237
SN-245	SN-47	18"	73
SN-47	SN-220	18"	216
SN-220	SN-286	18"	203
SN-286	SN-201	18"	57
SN-201	SN-181	18"	247
SN-181	SN-46	18"	115
SN-46	SN-162	18"	136
SN-162	SN-43	18"	307
SN-43	SN-42	18"	443

MANHOLE COATING TABLE

SSMH ID	APPROXIMATE DEPTH (FT)	DIAMETER (IN)
SN-301	8.5'	48"
SN-309	8.7'	48"
SN-245	8.6'	48"
SN-47	8.3'	48"
SN-220	8.2'	48"
SN-286	7.7'	48"
SN-201	7.7'	48"
SN-181	7.3'	48"
SN-46	7.1'	48"
SN-162	7.1'	48"
SN-43	6.8'	48"

- * CONTRACTOR TO VERIFY ACTUAL PIPE DIAMETER
** CONTRACTOR TO VERIFY ACTUAL PIPE SEGMENT LENGTH



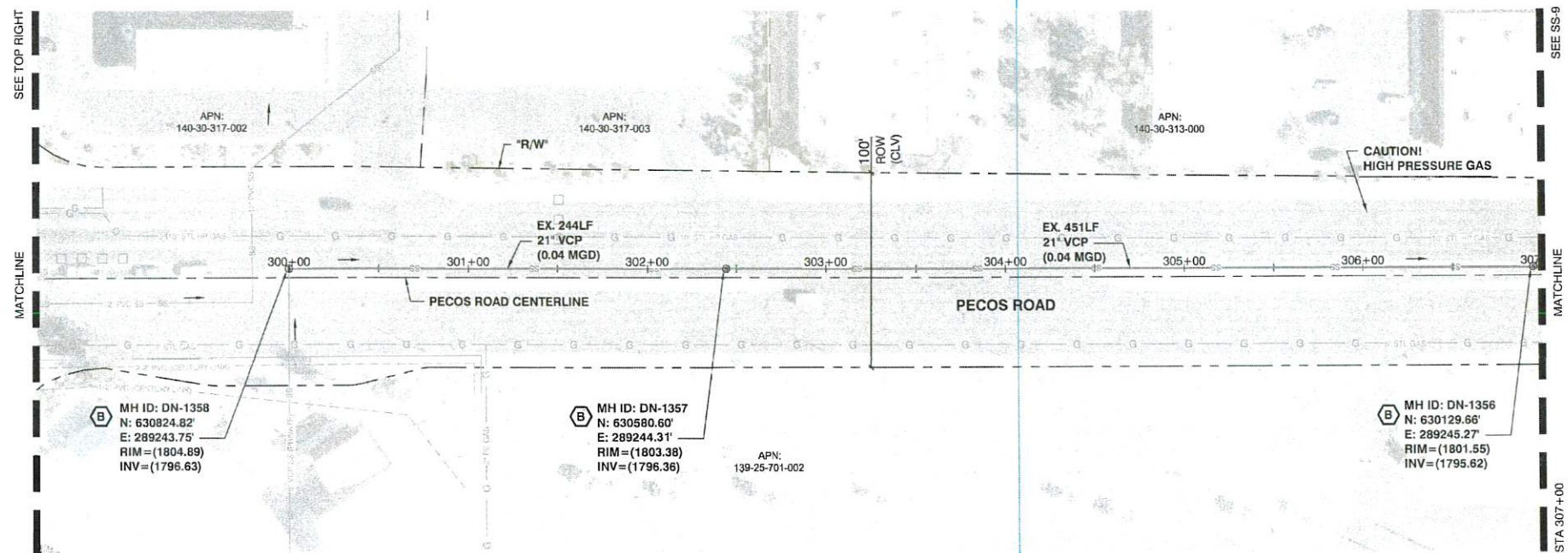
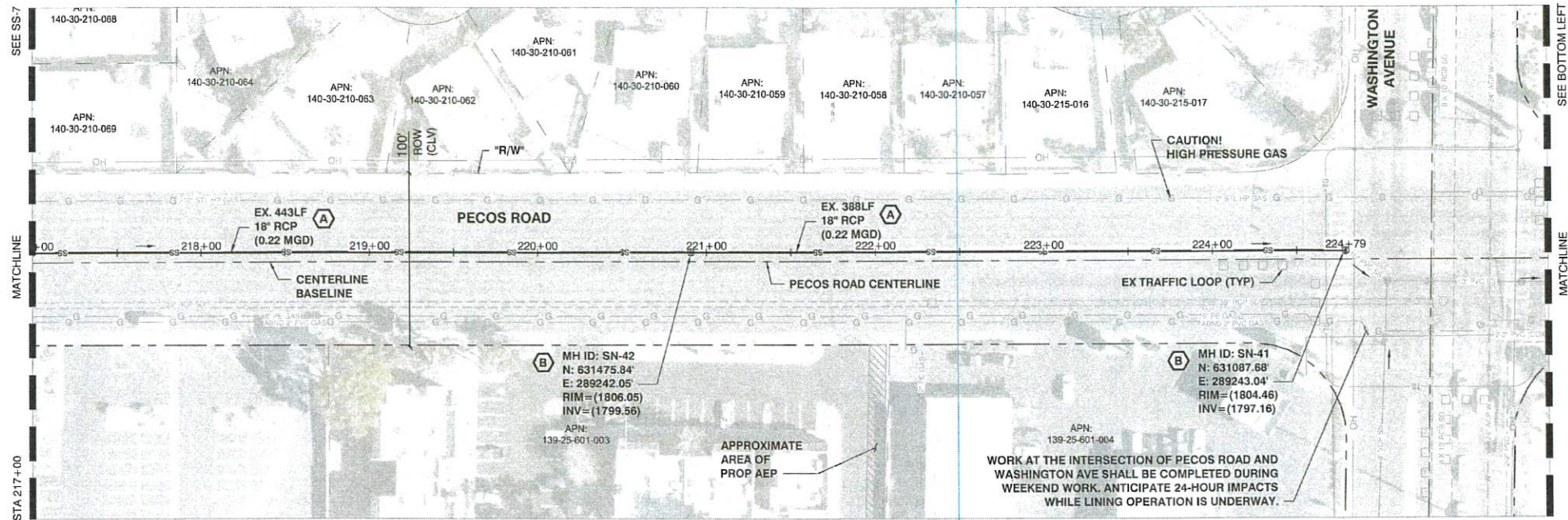
KEY MAP

APPROVED FOR CONSTRUCTION
SOUTHWEST GAS CORPORATION
MATTHEW PEDRAZA SWG UID: 18MJP488 DATE: 07/10/2020

APPROVED FOR CONSTRUCTION
LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES MANAGER
DATE: 6/22/2020 PROJECT# 136071

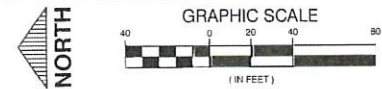
CITY OF LAS VEGAS		PREPARED BY: 3010 W. CHARLSTON BLVD. SUITE 100 LAS VEGAS, NV 89102
DESIGNED BY: NAN		DESIGNED BY: NAN
DRAWN BY: CTS		DRAWN BY: CTS
CHECKED BY: DRB		CHECKED BY: DRB
SUBMITTAL STAGE: BID SUBMITTAL		DATE: MAY 2020
H# 63785		DATE: MAY 2020
TITLE: SANITARY SEWER REHABILITATION SANDHILL RELIEF AREA 3 EAST STA 200+00 TO 217+00		SHEET: SS-7
PROFESSIONAL ENGINEER STATE OF NEVADA No. 24571 CIVIL		DATE: 5-26-2020
PROJECT# 136071		17 OF 27
DRAWING NO. 307V1152		

5/26/20 C:\PW\WORK\DWG\307V11.DWG



NOTE:
CONTACT SOUTHWEST GAS CONSTRUCTION AT 702-528-7551
TO ADJUST VALVE CANS TO GRADE

NOTE:
CALL SOUTHWEST GAS AT 702-278-8451 FOR STANDBY WHEN EXCAVATING OVER
OR NEAR HIGH PRESSURE GAS LINES 48 PRIOR TO CONSTRUCTION



CALL BEFORE CONSTRUCTION		
BEFORE YOU DIG	USA NORTH	811 OR 800-227-2600
BEFORE YOU UNDERGROUND	F.A.S.T.	702-432-5300
	CLARK COUNTY TRAFFIC OPERATIONS	702-455-7511
	CITY OF LAS VEGAS T.E.F.D.	702-229-6611
BEFORE YOU OVERHEAD	NV ENERGY	702-227-2929

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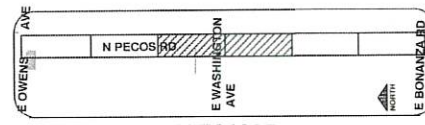
CIPP LINER TABLE

UPSTREAM SSMH	DOWNSTREAM SSMH	APPROXIMATE DIAMETER*	APPROXIMATE LENGTH**
SN-42	SN-41	18"	388'

MANHOLE COATING TABLE

SSMH ID	APPROXIMATE DEPTH (FT)	DIAMETER (IN)
SN-42	6.5'	48"
SN-41	7.3'	48"
DN-1358	8.3'	48"
DN-1357	7.0'	48"
DN-1356	5.9'	48"

- * CONTRACTOR TO VERIFY ACTUAL PIPE DIAMETER
- ** CONTRACTOR TO VERIFY ACTUAL PIPE SEGMENT LENGTH



KEY MAP

APPROVED FOR CONSTRUCTION SOUTHWEST GAS CORPORATION		
MATTHEW PEDRAZA	SWIG UID: 18MJP489	DATE: 07/10/2020

APPROVED FOR CONSTRUCTION		
LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES MANAGER	DATE: 6/02/2020	PROJECT#: 136071

PREPARED FOR
CITY OF LAS VEGAS

BID# 19.63785
DESIGNED BY: NAN
DATE: MAY 2020
DRAWN BY: CTS
SUBMITTAL STAGE:
BID SUBMITTAL
CHECKED BY: DRB

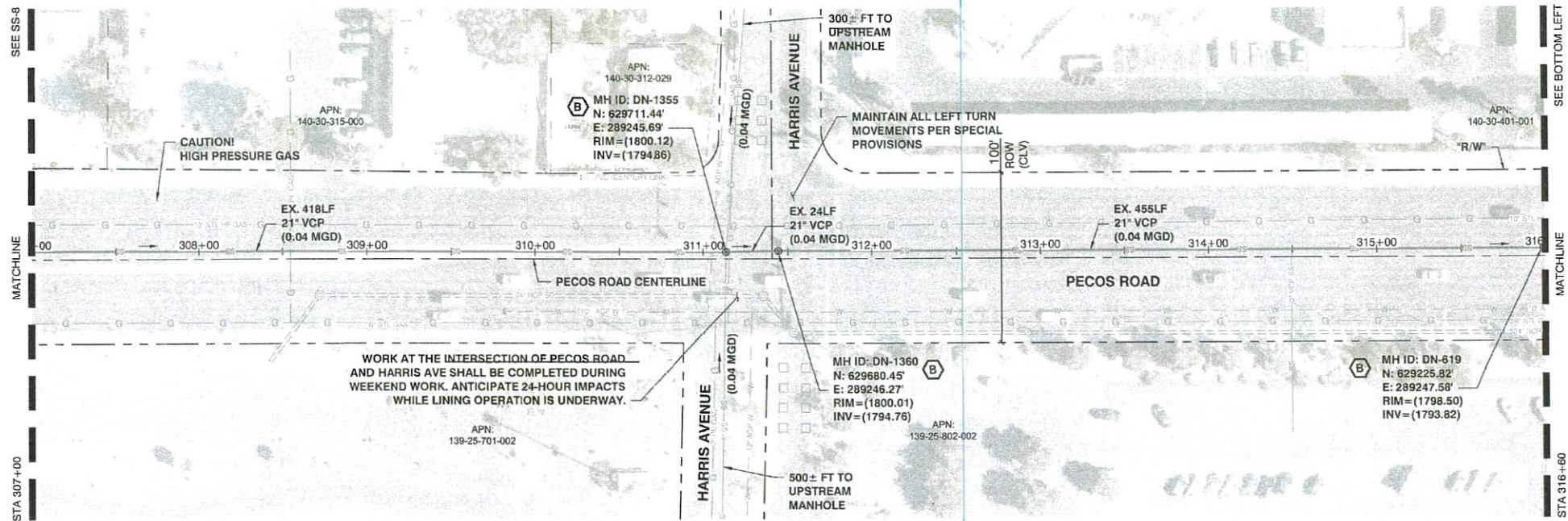
TITLE
**SANITARY SEWER REHABILITATION
SANDHILL RELIEF**

AREA 3 EAST
STA 217+00 TO 307+00



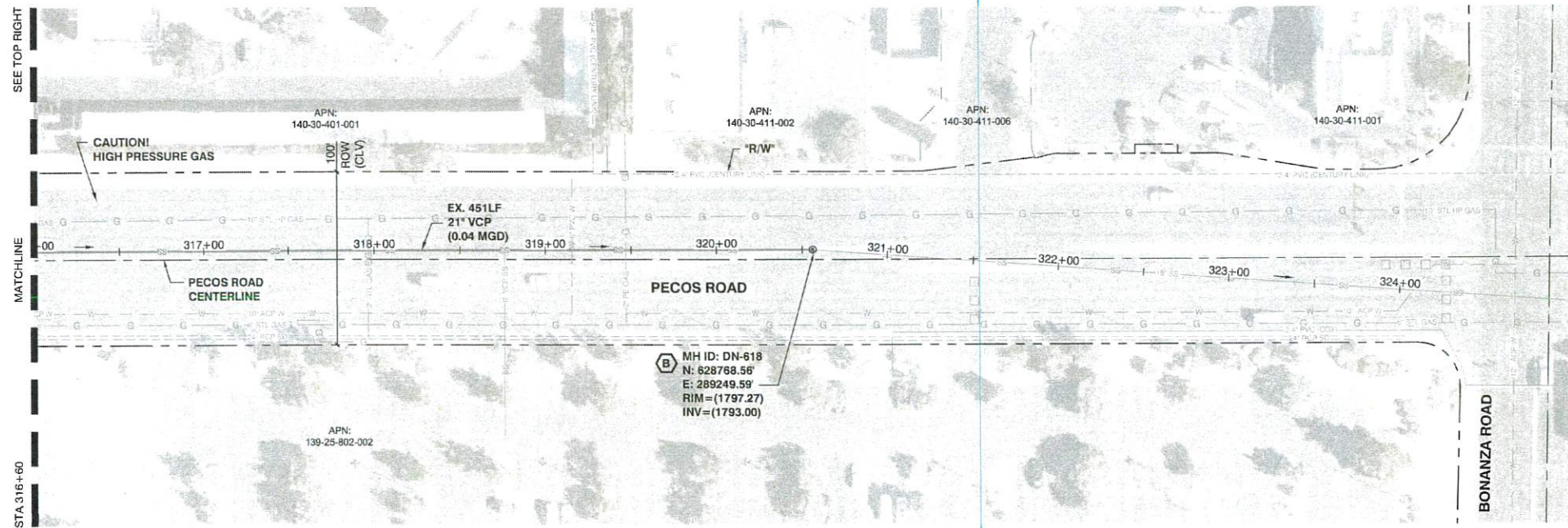
SHEET
SS-8
18 OF 27
DRAWING NO.
307V1152

5/26/20 C:\P\WORK\DR0035025\CL\SS-9\SS-9.DWG

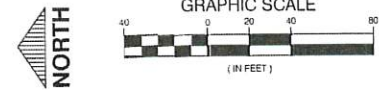


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OR NEAR HIGH PRESSURE GAS LINES 48 PRIOR TO CONSTRUCTION



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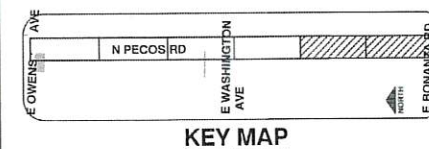
CONSTRUCTION NOTES

- B INSTALL MANHOLE CORROSION PROTECTION FROM BENCH TO FRAME PER DETAIL C-901 AND SPECIAL PROVISION SECTION 691.

MANHOLE COATING TABLE

SSMH ID	APPROXIMATE DEPTH (FT)	DIAMETER (IN)
DN-1355	5.3'	48"
DN-1360	5.3'	48"
DN-619	4.7'	48"
DN-618	4.3'	48"

- * CONTRACTOR TO VERIFY ACTUAL PIPE DIAMETER
- ** CONTRACTOR TO VERIFY ACTUAL PIPE SEGMENT LENGTH



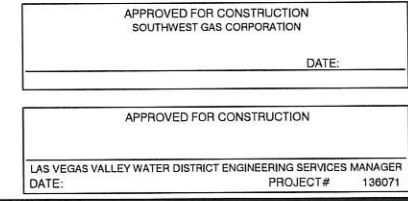
APPROVED FOR CONSTRUCTION
SOUTHWEST GAS CORPORATION

MATTHEW PEDRAZA SWG UID: 18MJP489 DATE: 07/10/2020

APPROVED FOR CONSTRUCTION

4 LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES MANAGER
DATE: 6/02/2020 PROJECT# 136071

PREPARED FOR	CITY OF LAS VEGAS	BID # 19-03785	DESIGNED BY: NAN	DRAWN BY: CTS	CHECKED BY: DRB
TITLE	SANITARY SEWER REHABILITATION SANDHILL RELIEF	DATE: MAY 2020	SUBMITTAL STAGE:	BID SUBMITTAL	
SHEET	AREA 3 EAST STA 307+00 TO 324+00				
PROFESSIONAL ENGINEER STATE OF NEVADA					
5-26-2020					
SS-9					
19 OF 27					
307V1152					



THESE NOTES ARE GENERAL AND APPLY TO THE ENTIRE PROJECT EXCEPT WHERE SPECIFICALLY INDICATED OTHERWISE.

MECHANICAL AND ELECTRICAL EQUIPMENT SUPPORTS, ANCHORAGES, OPENINGS, RECESSES AND REVEALS NOT SHOWN ON THE STRUCTURAL DRAWINGS BUT REQUIRED BY OTHER CONTRACT DRAWINGS, SHALL BE PROVIDED FOR PRIOR TO PLACING CONCRETE.

STRUCTURES HAVE BEEN DESIGNED FOR OPERATIONAL, HYDROSTATIC, AND BACKFILL LOADS ON THE COMPLETED STRUCTURES. THE STRUCTURES HAVE NOT BEEN DESIGNED TO RESIST THESE LOADS WHILE ONLY PARTIALLY CONSTRUCTED. DURING CONSTRUCTION, THE STRUCTURES SHALL BE PROTECTED FROM ALL CONSTRUCTION LOADS BY BRACING AND BALANCING UNTIL ALL STRUCTURAL ELEMENTS ARE IN PLACE, AND ALL CONCRETE HAS REACHED THE SPECIFIED 28 DAY COMPRESSIVE STRENGTH. OVERLOADING OF ANY STRUCTURAL ELEMENT IS PROHIBITED.

EXISTING STRUCTURE DIMENSIONS AND CONFIGURATION ARE BASED ON AS-BUILT DRAWINGS AND ARE APPROXIMATE. THE CONTRACTOR SHALL CONFIRM AND COORDINATE ALL CONTROLLING FIELD DIMENSIONS AND CONDITIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

CONCRETE (EXCEPT PRECAST CONCRETE)

ALL DETAILING, FABRICATION AND PLACING OF REINFORCING BARS, UNLESS OTHERWISE INDICATED, SHALL BE IN ACCORDANCE WITH ACI-315, "MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES", LATEST EDITION.

LOCATION OF ALL CONSTRUCTION JOINTS SHALL BE AS SHOWN ON THE DRAWINGS OR APPROVED BY THE ENGINEER. ALL CONSTRUCTION JOINTS LOCATED ON THE DRAWINGS OR REQUIRED FOR CONSTRUCTION, BUT NOT SHOWN ON THE DRAWINGS, SHALL HAVE A 6" FLATSTRIP WATERSTOP, IF IN CONTACT WITH WATER. IN ADDITION, JOINTS IN ALL SLABS COVERED WITH WATER, SHALL HAVE BOTH A 6" FLATSTRIP WATERSTOP AND A SEALANT GROOVE.

A) IN SLABS #5 RISER BARS AT 36 INCHES OC MAXIMUM TO SUPPORT TOP REINFORCING BARS.

ALL GROUT SHALL BE NON-SHRINK GROUT, UNLESS INDICATED OTHERWISE.

DOWELS SHALL BE WIRED OR OTHERWISE HELD IN POSITION. THEY SHALL NOT BE SHOVED INTO FRESHLY PLACED CONCRETE.

REINFORCING BARS AND ACCESSORIES SHALL NOT BE IN CONTACT WITH ANY PIPE, PIPE FLANGE OR METAL PARTS EMBEDDED IN CONCRETE, A MINIMUM OF 2 INCHES CLEARANCE SHALL BE PROVIDED AT ALL TIMES.

FOR CONCRETE NOT EXPOSED TO WEATHER,
OR IN CONTACT WITH WATER OR EARTH _____ 1 1/2"

GENERAL DESIGN CRITERIA

SEISMIC LOADS: _____	
RISK CATEGORY: _____	III
SEISMIC IMPORTANCE FACTOR (Ia) _____	1.25
SPECTRAL RESPONSE COEFFICIENT (Sds) _____	0.52
SPECTRAL RESPONSE COEFFICIENT (Sd1) _____	0.25
SITE CLASS: _____	D
SEISMIC DESIGN CATEGORY: _____	D

1. EACH CONTRACTOR RESPONSIBLE FOR THE FABRICATION OR CONSTRUCTION OF A MAIN WIND-FORCE-RESISTING SYSTEM OR MAIN SEISMIC-FORCE RESISTING SYSTEM OR COMPONENT LISTED ABOVE SHALL SUBMIT A WRITTEN STATEMENT OF RESPONSIBILITY TO THE BUILDING OFFICIAL AND OWNER PRIOR TO THE COMMENCEMENT OF WORK ON THE SYSTEM OR COMPONENT. THE CONTRACTOR'S STATEMENT OF RESPONSIBILITY SHALL CONTAIN ACKNOWLEDGEMENT OF AWARENESS OF THE SPECIAL REQUIREMENTS CONTAINED IN THE STATEMENT OF SPECIAL INSPECTIONS.

1. SPECIAL INSPECTIONS ARE REQUIRED IN ACCORDANCE WITH THE 2012 IBC CHAPTER 17. THE OWNER SHALL ENGAGE THE SERVICES OF A QUALIFIED SPECIAL INSPECTOR, WHO SHALL BE RESPONSIBLE FOR PROVIDE ALL SERVICES NECESSARY TO MEET THE IBC SPECIAL INSPECTION REQUIREMENTS.
2. SPECIAL INSPECTIONS SHALL BE PROVIDED DURING ALL FABRICATION AND CONSTRUCTION ACTIVITIES IN ACCORDANCE WITH THE NOTES AND SCHEDULES ON THIS DRAWING.
3. ADDITIONAL SPECIAL INSPECTIONS SHALL BE PROVIDED WHERE REQUIRED BY THE 2012 IBC CHAPTER 17.

1. STRUCTURAL OBSERVATIONS SHALL BE PROVIDED IN ACCORDANCE WITH THE 2012 IBC. THE OWNER SHALL EMPLOY THE ENGINEER OF RECORD, HIS/HER DESIGNEE, OR A NEVADA REGISTERED DESIGN PROFESSIONAL TO PERFORM STRUCTURAL OBSERVATIONS, AND WHO SHALL PROVIDE ALL SERVICES NECESSARY TO MEET THE IBC STRUCTURAL OBSERVATIONS REQUIREMENTS.
2. STRUCTURAL OBSERVATIONS SHALL BE PROVIDED DURING ALL FABRICATION AND CONSTRUCTION ACTIVITIES IN ACCORDANCE WITH THE NOTES AND SCHEDULES ON THIS DRAWING.
3. THE CONTRACTOR SHALL NOTIFY THE OWNER AND THE STRUCTURAL OBSERVER AT LEAST 3 BUSINESS DAYS PRIOR TO EACH REQUIRED STRUCTURAL OBSERVATION.

WHEN TO OBSERVE	WHAT TO OBSERVE
CONCRETE CONSTRUCTION	
PRIOR TO THE FIRST CONCRETE POUR, BUT AFTER PLACEMENT OF REINFORCING IS WELL UNDERWAY.	REVIEW AREAS OF PARTICULAR CONCERN SUCH AS HIGHLY CONGESTED AREAS OR ANY MECHANICALLY-COUPLED SPLICES AND CHECK THAT APPROVED PLACING PLANS ARE BEING USED.
	REVIEW ANCHOR BOLT PLACEMENT AND PLACEMENT OF HOLD-DOWN BOLTS OR STEEL EMBEDS.

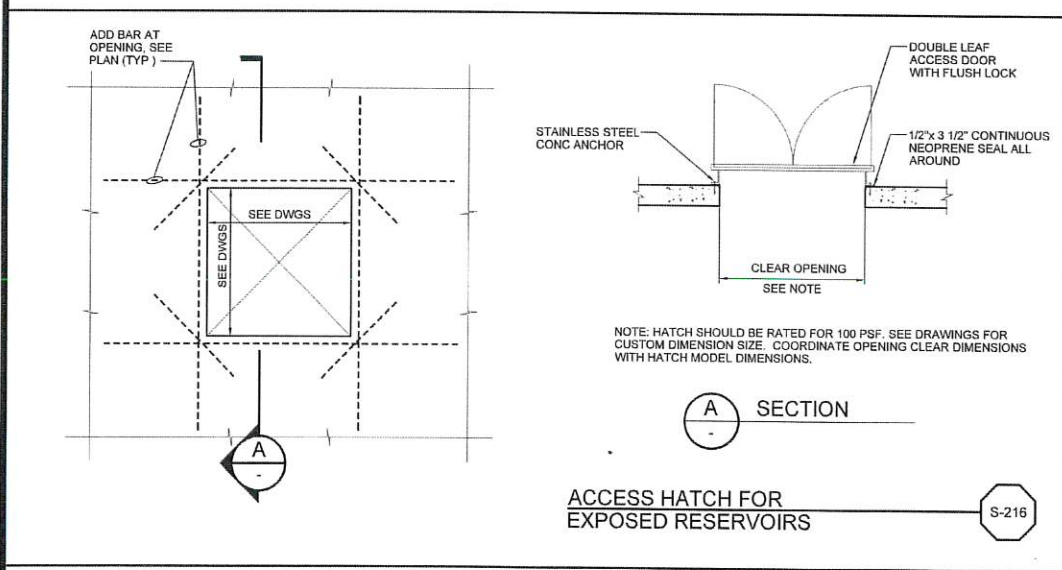
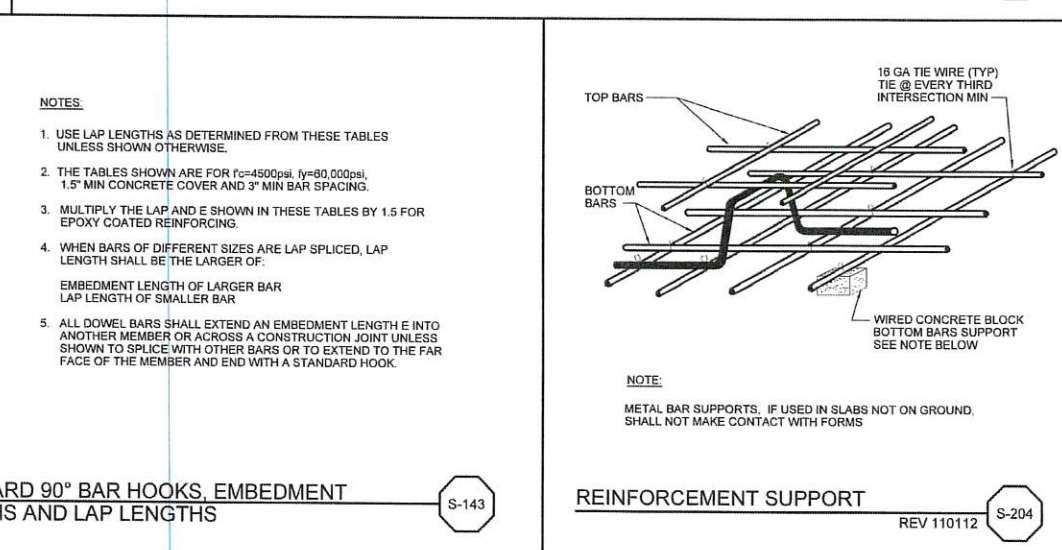
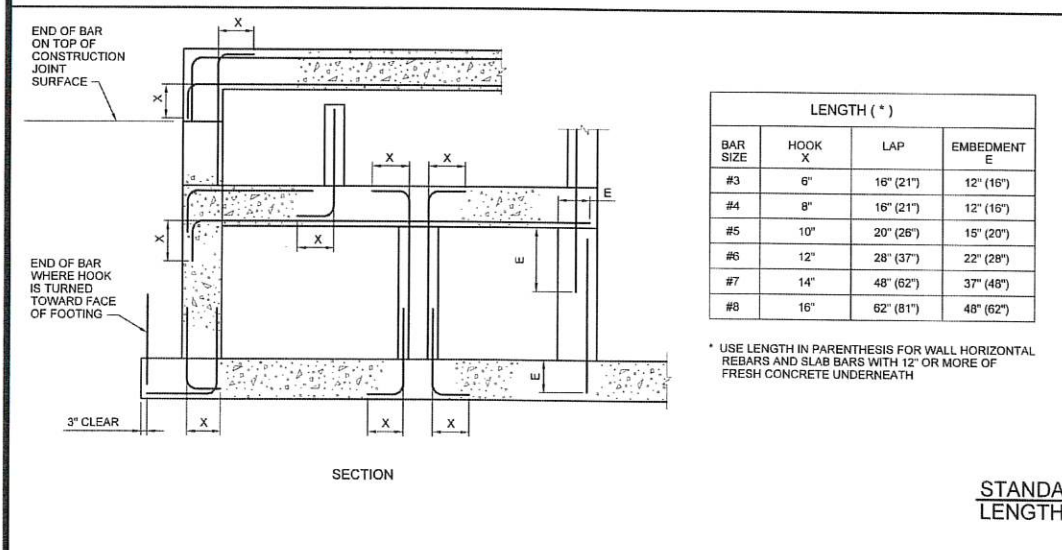
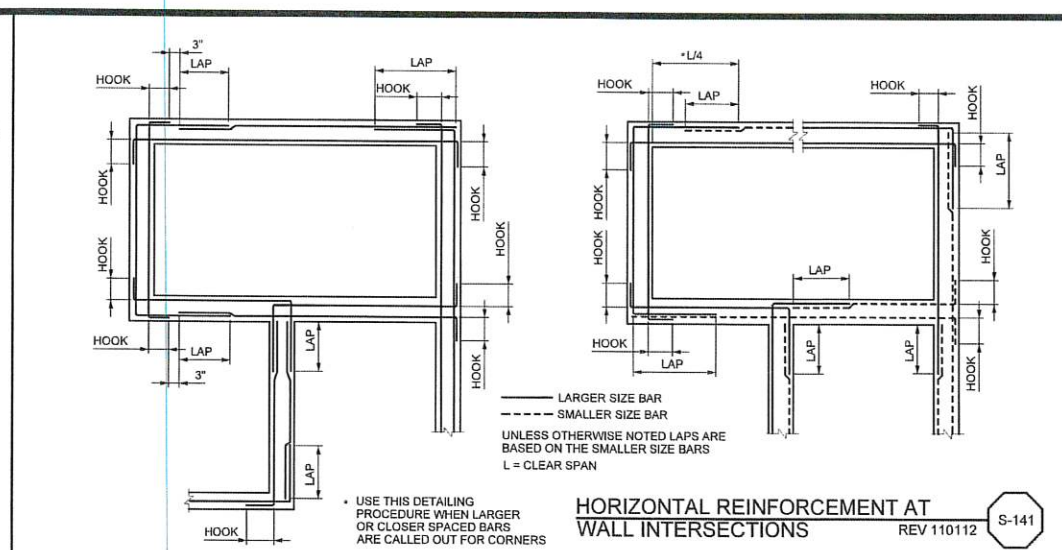
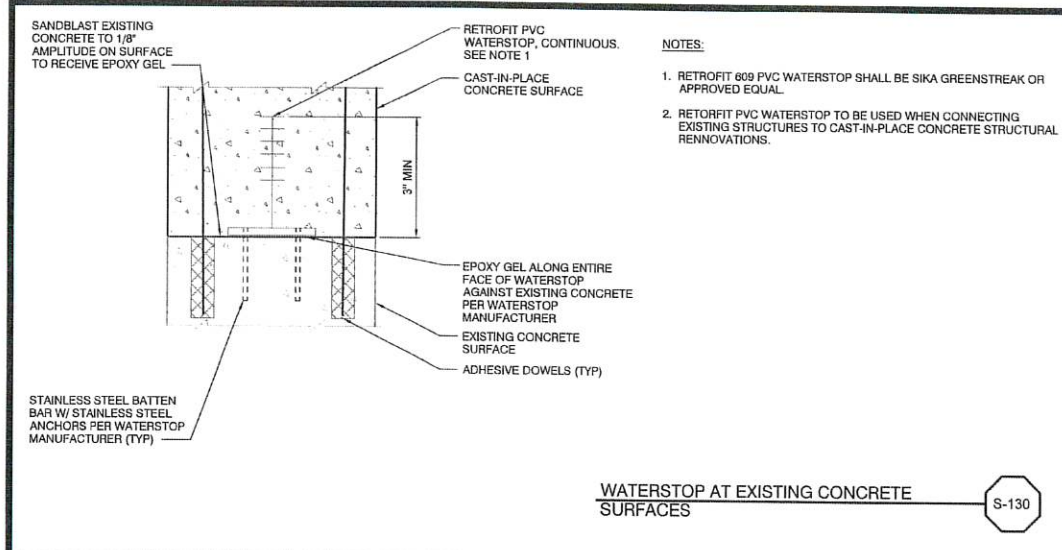
1. SPECIAL INSPECTION FOR CONCRETE CONSTRUCTION SHALL BE IN ACCORDANCE WITH IBC SECTION 1705.3 AND THE FOLLOWING TABLE.

VERIFICATION AND INSPECTION	INSPECTION		REFERENCED STANDARD (A)	IBC REFERENCE
	CONTINUOUS	PERIODIC		
INSPECTION OF REINFORCING STEEL, INCLUDING PRESTRESSING STEEL, AND PLACEMENT.	-	X	ACI 318: 3.5, 7.1 - 7.7	1910.4
INSPECTION OF REINFORCING STEEL WELDING IN ACCORDANCE WITH TABLE 1705.2.2 ITEM 2b.	-	-	AWS D1.4 ACI 318: 3.5.2	-
INSPECTION OF ANCHORS CAST IN CONCRETE WHERE ALLOWABLE LOADS HAVE BEEN INCREASED OR WHERE STRENGTH DESIGN IS USED.	-	X	ACI 318 - 8.1.3, 21.2.8	1908.5, 1908.1
INSPECTION OF ANCHORS POST-INSTALLED IN HARDENED CONCRETE MEMBERS (B).	-	X	ACI 318- 3.8.6, 8.1.3, 21.2.8	1909.1
VERIFYING USE OF REQUIRED DESIGN MIX.	-	X	ACI 318: CH. 4, 5.2 - 5.4	1904.2, 1910.2, 1910.3
AT THE TIME FRESH CONCRETE IS SAMPLED TO FABRICATE SPECIMENS FOR STRENGTH TESTS, PERFORM SLUMP AND AIR CONTENT TESTS, AND DETERMINE THE TEMPERATURE OF THE CONCRETE.	X	-	ASTM C 172 ASTM C 31 ACI 318: 5.6, 5.8	1910.10
INSPECTION OF CONCRETE AND SHOTCRETE PLACEMENT FOR PROPER APPLICATION TECHNIQUES.	X	-	ACI 318: 5.9, 5.10	1910.6, 1910.7, 1910.8
INSPECTION FOR MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES.	-	X	ACI 318: 5.11 - 5.13	1910.9
ERECTION OF PRECAST CONCRETE MEMBERS	-	X	ACI 318: CH. 16	-
INSPECTION OF PRESTRESSED CONCRETE				
A. APPLICATION OF PRESTRESSING FORCES.	X		ACI 318: 18.20	-
B. GROUTING OF BONDED PRESTRESSING TENDONS IN THE SEISMIC FORCE-RESISTING SYSTEM.	X	-	ACI 318: 18.18.4	
VERIFICATION OF IN-SITU CONCRETE STRENGTH PRIOR TO REMOVAL OF SHORES AND FORMS FROM BEAMS AND STRUCTURAL SLABS.	-	X	ACI 318: 6.2	-
INSPECT FORMWORK FOR SHAPE, LOCATION AND DIMENSIONS OF THE CONCRETE MEMBER BEING FORMED.	-	X	ACI 318: 6.1.1	-

(B) SPECIFIC REQUIREMENTS FOR SPECIAL INSPECTION SHALL BE INCLUDED IN THE RESEARCH REPORT FOR THE ANCHOR ISSUED BY AN APPROVED SOURCE IN ACCORDANCE WITH ACI 355.2 OR OTHER QUALIFICATION PROCEDURES. WHERE SPECIFIC REQUIREMENTS ARE NOT PROVIDED, SPECIAL INSPECTION REQUIREMENTS SHALL BE SPECIFIED BY THE REGISTERED DESIGN PROFESSIONAL AND SHALL BE APPROVED BY THE BUILDING OFFICIAL PRIOR TO COMMENCEMENT OF THE WORK.

VERIFICATION AND INSPECTION	INSPECTION	
	CONTINUOUS	PERIODIC
VERIFY MATERIALS BELOW FOOTINGS AND SHALLOW FOUNDATIONS ARE ADEQUATE TO ACHIEVE THE DESIGN BEARING CAPACITY.	-	X
VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIAL.	-	X
PERFORM CLASSIFICATION AND TESTING OF CONTROLLED FILL MATERIALS.	-	X
VERIFY USE OF PROPER MATERIALS, DENSITIES AND LIFT THICKNESSES DURING PLACEMENT AND COMPACTION OF CONTROLLED FILL.	X	-
PRIOR TO PLACEMENT OF CONTROLLED FILL, OBSERVE SUBGRADE AND VERIFY THAT SITE HAS BEEN PREPARED PROPERLY.	-	X

	TITLE SANITARY SEWER REHABILITATION SANDHILL RELIEF		PREPARED FOR CITY OF LAS VEGAS			1 1/8/2018	90% PLAN SUBMITTAL
	SHEET ST-1 21 OF 27 DRAWING NO. 307V1152	GENERAL NOTES AND INSPECTIONS STRUCTURAL	BID # 19.63785 DATE: MAY 2020 SUBMITTAL STAGE: BID SUBMITTAL	DESIGNED BY: JB DRAWN BY: RMJ CHECKED BY: DR			



90% PLAN SUBMITTAL

11/8/2018

NO. DATE

REVISIONS

PREPARED BY
3010 W. CHARLESTON BLVD.
SUITE 100
LAS VEGAS, NV 89102
Stantec

PREPARED FOR
CITY OF LAS VEGAS

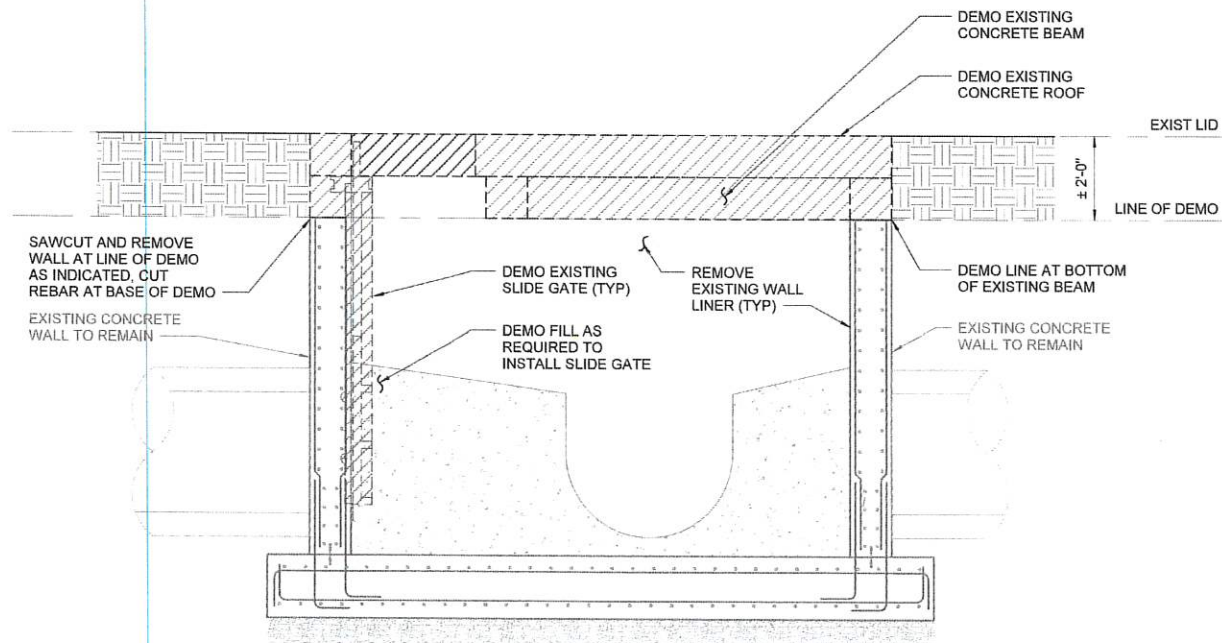
BID# 16-03785
H# 63785
DATE: MAY 2020
SUBMITTAL STAGE:
BID SUBMITTAL

DESIGNED BY: JB
DRAWN BY: RB
CHECKED BY: DR

TITLE
**SANITARY SEWER REHABILITATION
SANDHILL RELIEF**

SHEET
**STRUCTURAL
STANDARD DETAILS**

SHEET
ST-2
22 OF 27
DRAWING NO.
307V1152



1 PL-116 VAULT SECTION
DR-1 SCALE: 1/2" = 1'-0"

GENERAL SHEET NOTES

1. EXISTING STRUCTURE DIMENSIONS AND CONFIGURATION ARE BASED ON AS-BUILT DRAWINGS AND ARE APPROXIMATE. THE CONTRACTOR SHALL CONFIRM AND COORDINATE ALL CONTROLLING FIELD DIMENSIONS AND CONDITIONS BEFORE ORDERING OR FABRICATING ANY MATERIALS.
2. FOR EXISTING DIMENSIONS AND CONDITIONS, REFER TO RECORD DRAWINGS AND FIELD VERIFY.



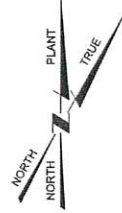
SHEET
DR-2
24 OF 27
DRAWING NO.
307V1152

TITLE
**SANITARY SEWER REHABILITATION
SANDHILL RELIEF
STRUCTURAL DEMOLITION
SECTIONS**

PREPARED FOR
CITY OF LAS VEGAS
H/W 63785
DATE: MAY 2020
SUBMITTAL STAGE:
BID SUBMITTAL

DESIGNED BY: JB
DRAWN BY: RM
CHECKED BY: DR
PREPARED BY
Statitec
307V, CHARLESTON BLVD.
LAS VEGAS, NV 89102

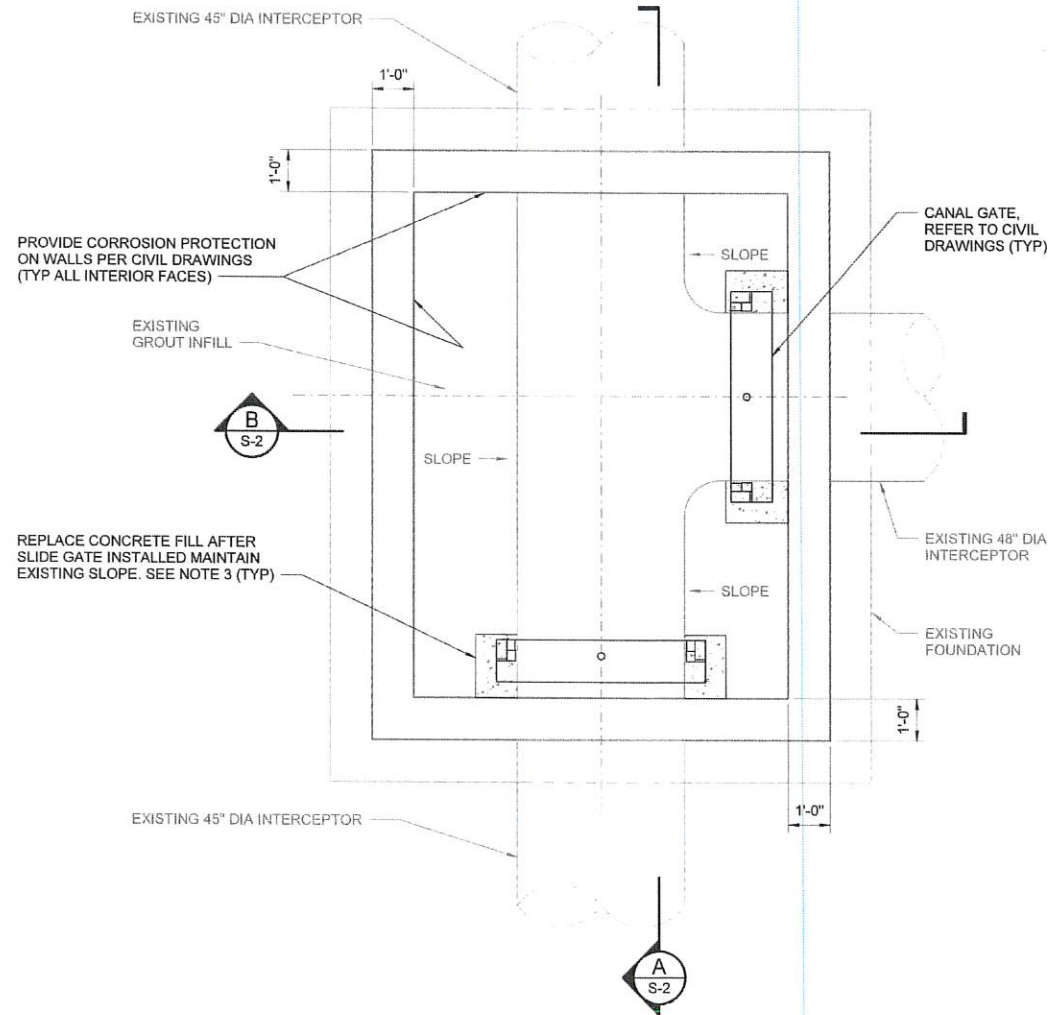
NO.	DATE	REVISIONS



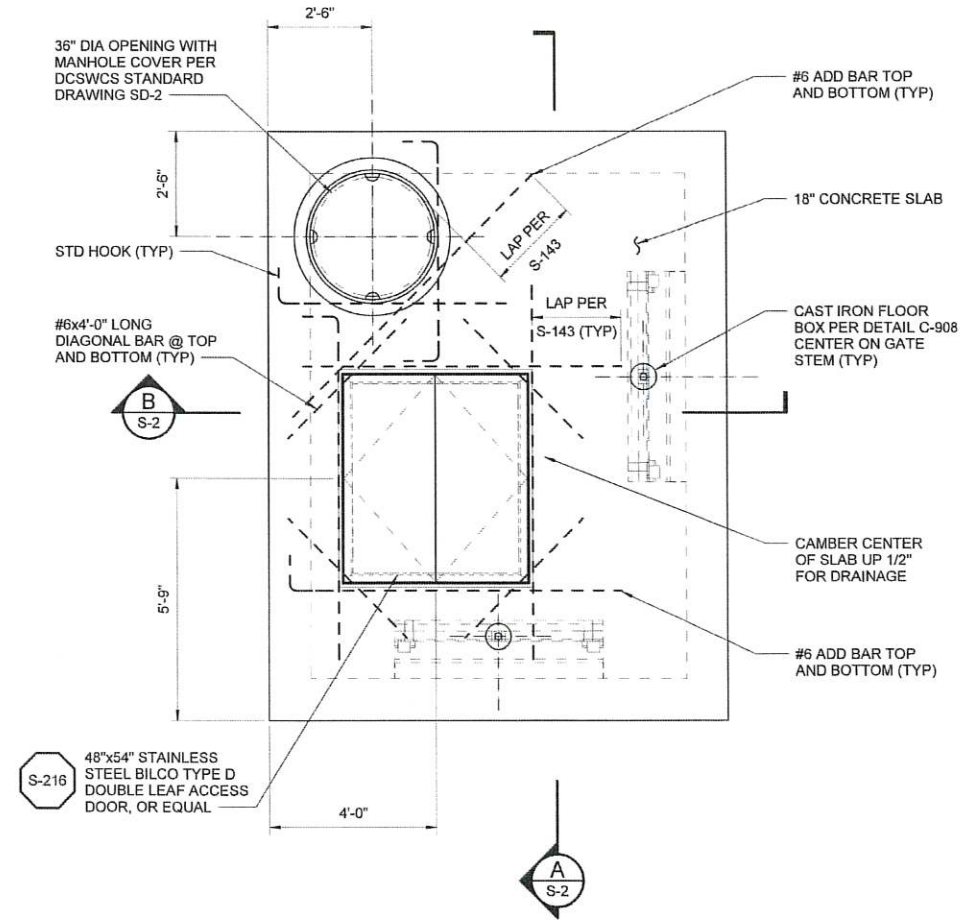
DATE :

USER : RM

B:\0358079\Sandhill Interceptor Manhole.rvt



PL-116 BASE PLAN
SCALE: 1/2" = 1'-0"



PL-116 TOP PLAN
SCALE: 1/2" = 1'-0"

GENERAL SHEET NOTES

1. EXISTING STRUCTURE DIMENSIONS AND CONFIGURATION ARE BASED ON AS-BUILT DRAWINGS AND ARE APPROXIMATE. THE CONTRACTOR SHALL CONFIRM AND COORDINATE ALL CONTROLLING FIELD DIMENSIONS AND CONDITIONS BEFORE ORDERING OR FABRICATING ANY MATERIALS.
2. FOR EXISTING DIMENSIONS AND CONDITIONS, REFER TO RECORD DRAWINGS AND FIELD VERIFY.
3. AFTER CANAL GATE INSTALLATION IS COMPLETE, APPLY BONDING AGENT ACCORDING TO MANUFACTURER DATA AND REPLACE CONCRETE FILL. BONDING AGENT TO BE SIKA ARMATEC 110 EPOCEM OR APPROVED EQUAL.



PREPARED FOR
CITY OF LAS VEGAS
H# 63785
DATE: MAY 2020
SUBMITTAL STAGE:
BID SUBMITTAL

BID# 19-63785
DESIGNED BY: JB
DRAWN BY: RM
CHECKED BY: DR

TITLE
**SANITARY SEWER REHABILITATION
SANDHILL RELIEF**
SHEET
**STRUCTURAL
BASE AND TOP PLAN**

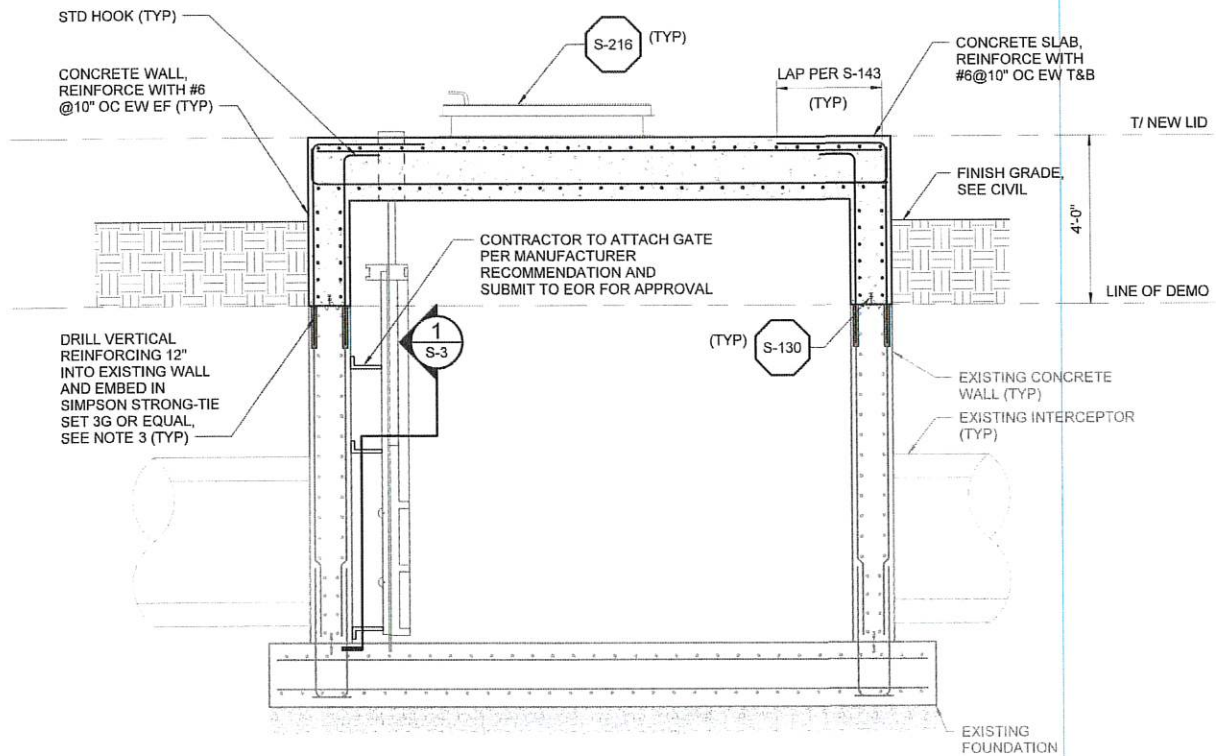


SHEET
S-1
25 OF 27
DRAWING NO.
307V1152

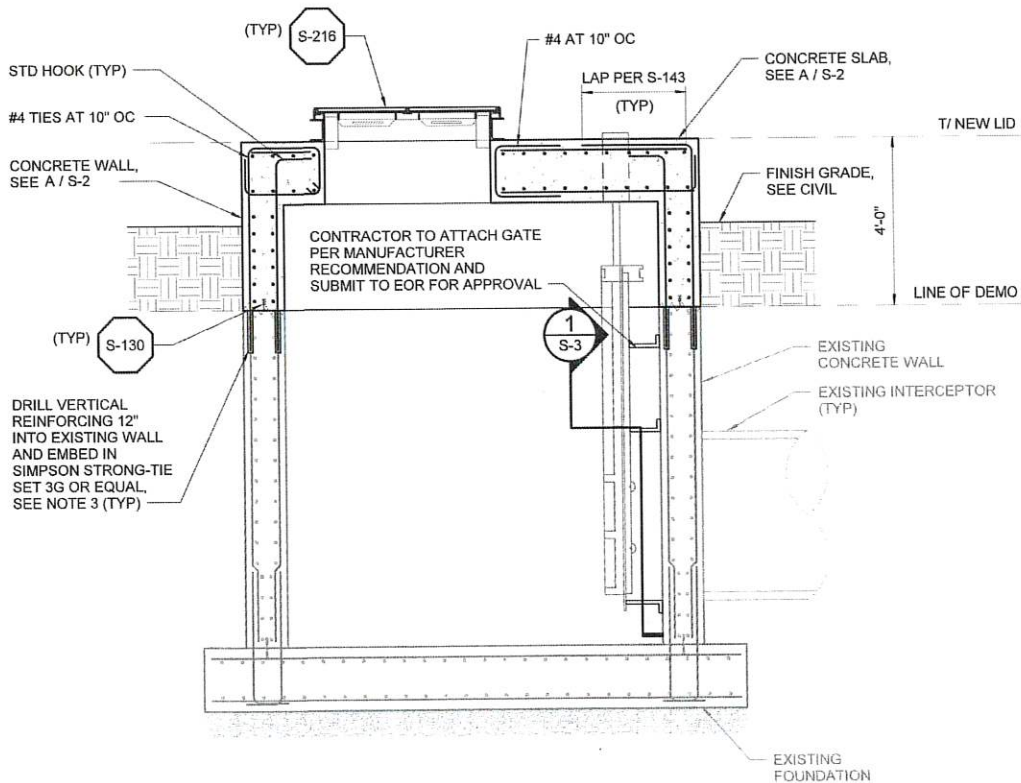
DATE :

USER : RM

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A PL-116 VAULT SECTION
S-1 SCALE: 1/2" = 1'-0"



B PL-116 VAULT SECTION
S-1 SCALE: 1/2" = 1'-0"

GENERAL SHEET NOTES

1. EXISTING STRUCTURE DIMENSIONS AND CONFIGURATION ARE BASED ON AS-BUILT DRAWINGS AND ARE APPROXIMATE. THE CONTRACTOR SHALL CONFIRM AND COORDINATE ALL CONTROLLING FIELD DIMENSIONS AND CONDITIONS BEFORE ORDERING OR FABRICATING ANY MATERIALS.
2. FOR EXISTING DIMENSIONS AND CONDITIONS, REFER TO RECORD DRAWINGS AND FIELD VERIFY.
3. DO NOT DRILL THROUGH EXISTING REINFORCING. IF EXISTING REINFORCING IS ENCOUNTERED, STOP DRILLING, ABANDON HOLE, REPAIR SOLID WITH REPAIR MORTAR, AND MOVE HOLE TO MISS EXISTING REINFORCING. REPAIR MORTAR TO BE SIKATOP-123 PLUS OR APPROVED EQUAL.



PREPARED BY
STATTEC
3010 W. CHARLESTON BLVD.
LAS VEGAS, NV 89102

PREPARED FOR
CITY OF LAS VEGAS

BID# 19.03765
H# 63765

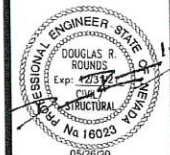
DESIGNED BY: JB
DATE: MAY 2020

DRAWN BY: RM
SUBMITTAL STAGE:

BID SUBMITTAL
CHECKED BY: DR

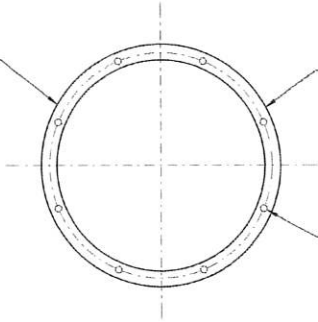
TITLE
SANITARY SEWER REHABILITATION
SANDHILL RELIEF

STRUCTURAL
SECTIONS AND DETAILS - I



SHEET
S-2
26 OF 27
DRAWING NO.
307V1152

REPAIR CONCRETE SURFACE
WITH SURFACE REPAIR
MORTAR AS REQUIRED TO
PROVIDE A SMOOTH
SURFACE TO ATTACH
NEOPRENE SEAL. REPAIR
MORTAR TO BE SIKATOP-123
PLUS OR APPROVED EQUAL



PROVIDE 1/2" NEOPRENE
SEAL BETWEEN RING
AND CONCRETE

3/4" DIA SS EXPANSION
ANCHOR, SEE MANUFACTURER
DRAWINGS FOR BOLT PATTERN.
SEE NOTE 3 ON S-2. PROVIDE
NEW HOLE IN GATE FLANGE 1"
CLEAR FROM ABANDONED HOLE

1
S-2
DETAIL
SCALE: 3/4" = 1'-0"



SHEET
S-3
27 OF 27
DRAWING NO.
307V1152

TITLE
**SANITARY SEWER REHABILITATION
SANDHILL RELIEF**
SHEET
**STRUCTURAL
SECTIONS AND DETAILS - II**

PREPARED FOR
CITY OF LAS VEGAS
H# 63765
DATE: MAY 2020
SUBMITTAL STAGE:
BID SUBMITTAL

DESIGNED BY: JB
DRAWN BY: RM
CHECKED BY: DR
PREPARED BY
 Stantec
1000 CHARLESTON BLVD.
SUITE 100
LAS VEGAS, NV 89102

NO.	DATE	REVISIONS