

CITY OF SPARKS APPROVAL:

[Signature] 4/1/22
 JON R. ERICSON, P.E., P.T.O.E. DATE:
 CITY ENGINEER

CIVIL IMPROVEMENT PLANS

CITY OF SPARKS

GLEN MEADOW DRIVE STORM DRAIN

BID # 21/22-014 / PWP # WA-2022-284

SPARKS, WASHOE COUNTY, NEVADA

OWNER
 CITY OF SPARKS, PUBLIC WORKS
 431 PRATER WAY
 SPARKS, NV 89431
 (775) 353-2271

CIVIL ENGINEER
 ODYSSEY ENGINEERING, INC.
 895 ROBERTA LANE, SUITE 104
 SPARKS, NV 89431
 (775) 359-3303

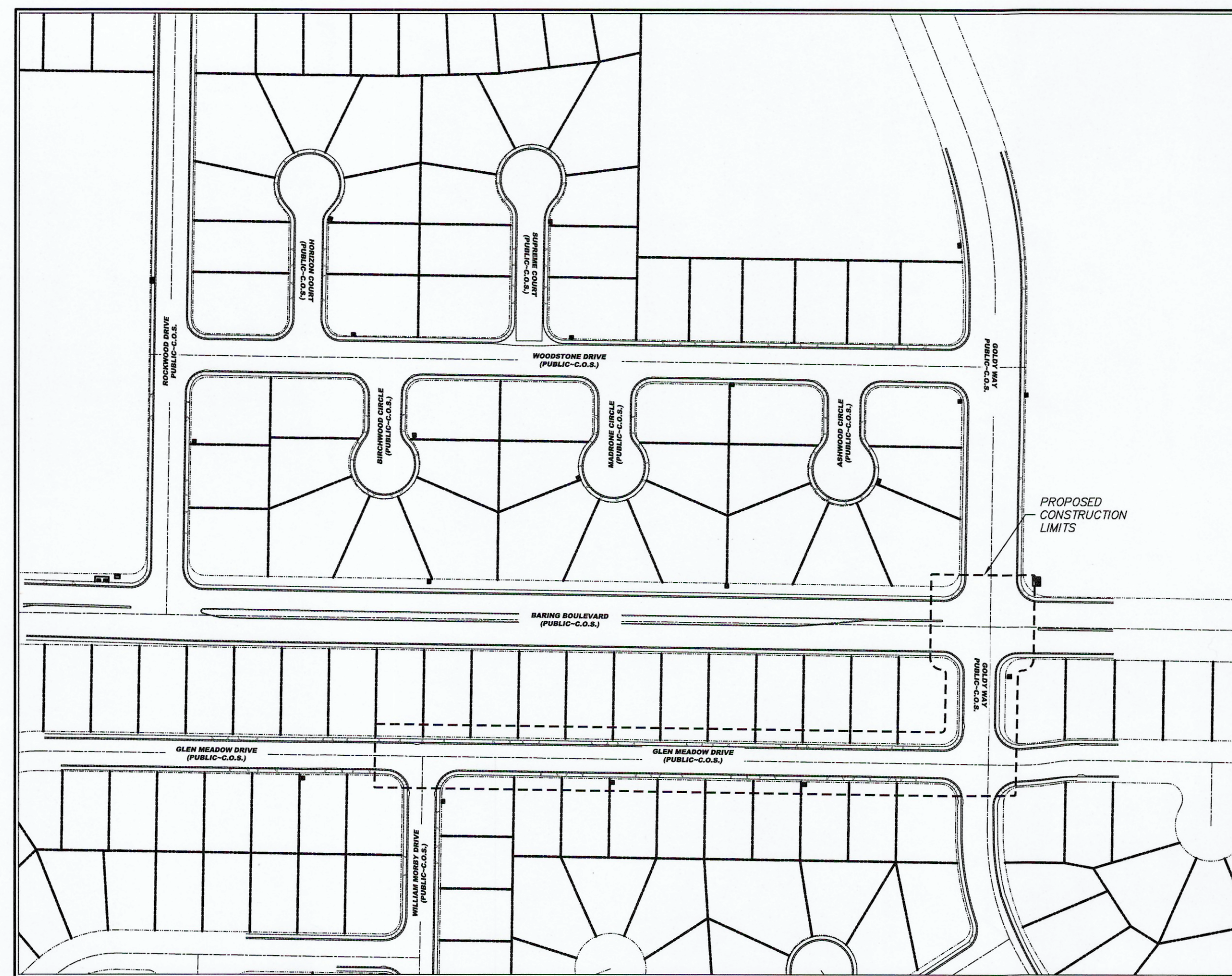
ENGINEER OF RECORD
 BLACK EAGLE CONSULTING, INC.
 1345 CAPITAL BOULEVARD, SUITE A
 RENO, NV 89502
 (775) 359-6600

LIST OF ABBREVIATIONS

A.C.	ASPHALTIC CONCRETE
A.P.	ANGLE POINT
B.C.	BEGIN CURVE
B.F.C.	BACK FACE CURB
B.V.C.	BEGIN VERTICAL CURVE
B.S.	BACK OF SIDEWALK
C.B.	CATCH BASIN
C.	CENTERLINE
CH	CHORD
C.M.P.	CORRUGATED METAL PIPE
CONC.	CONCRETE
CONST.	CONSTRUCT
C.P.	CONCRETE PIPE
D.I.	DROP INLET
DET.	DETAILS
D.W.	
ELEV.	ELEVATION
E.C.	END OF CURVE
E.V.C.	END VERTICAL CURVE
EXST.	EXISTING
E.G.	EXISTING GRADE
F.F.	FINISH FLOOR
F.F.C.	FRONT FACE CURB
F.G.	FINISH GRADE
F.H.	FIRE HYDRANT
F.L.	FLOW LINE
F.V.A.	FLUSH VALVE ASSEMBLY
G.	GAS
G.B.	GRADE BREAK
G.V.	GATE VALVE
HORIZ.	HORIZONTAL
H.P.	HIGH POINT
INT.	INTERSECTION
I.E.	INVERT ELEVATION
L.T.	LEFT
L.	LENGTH
L.F.	LINEAL FEET
L.P.	LOW POINT
L.S.	LIGHT STANDARD
M.H.	MANHOLE
P.	PAD ELEVATION
P.I.	POINT OF INTERSECTION
P.O.	PUSH ON
P.R.C.	POINT OF REVERSE CURVATURE
P.O.T.	POINT OF TANGENT
P.V.C.	POLYVINYL CHLORIDE PIPE
P.	PROPERTY LINE
R	RADIUS
(R)	RADIAL
R	RADIUS
R.E.	RECLAIMED EFFLUENT
REF.	REFERENCE
RET.	RETURN
R.C.P.	REINFORCED CONCRETE PIPE
RT.	RIGHT
R/W	RIGHT OF WAY
S.D.C.O.	STORM DRAIN CLEAN OUT
S.S.C.O.	SANITARY SEWER CLEAN OUT
S.S.	SANITARY SEWER
S.W.	SIDEWALK
SHT.	SHEET
STA.	STATION
S.D.	STORM DRAIN
T	TANGENT
T.C.	TOP OF CURB
T.P.	TOP OF PAVEMENT
TYP.	TYPICAL
VERT.	VERTICAL
V.C.	VERTICAL CURVE
V.P.I.	VERTICAL POINT OF INTERSECTION
W.	WATER
W.C.	WASHOE COUNTY
W.S.E.	WATER SURFACE ELEVATION



VICINITY MAP



SITE LAYOUT

CIVIL SHEET INDEX

C0.0	TITLE SHEET
C0.1	GENERAL NOTES
C1.1	W. GLEN MEADOW DR. DEMO PLAN
C1.2	E. GLEN MEADOW DR. DEMO PLAN
C2.1	W. GLEN MEADOW DRIVE PLAN & PROFILE
C2.2	E. GLEN MEADOW DRIVE PLAN & PROFILE
C2.3	S. GOLDY WAY PLAN & PROFILE
C3.1	PAVEMENT PLAN
C4.1	STRIPING PLAN
C5.1	DETAIL SHEET
C5.2	DETAIL SHEET
C5.3	DETAIL SHEET
C5.4	DETAIL SHEET
C5.5	DETAIL SHEET
C5.6	DETAIL SHEET

TMWA SHEET INDEX

W-1	TITLE SHEET
W-2	PLAN & PROFILE
W-3	DETAILS

NV ENERGY SHEET INDEX

E-1	ELECTRICAL UTILITY RELOCATION SITE PLANE
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BASIS OF BEARINGS

BASED ON THE NEVADA WEST COORDINATE SYSTEM OF 1983 (NAD 83) WITH A GRID TO GROUND FACTOR OF 1.000197939 APPLIED.

BENCHMARK

BASED ON NORTH AMERICAN VERTICAL DATUM OF 1988, (NAVD 88) USING THE CITY OF SPARKS GEODETIC CONTROL NETWORK "BM 85" WITH A PUBLISHED ELEVATION OF 4416.84.

FLOOD ZONE:

THE PROPOSED PROJECT IS LOCATED WITHIN A FEMA UNSHADED ZONE X PER FIRM MAP PANELS 332031C3061G WITH AN EFFECTIVE DATE OF MARCH 16, 2009.

SPECIFICATIONS

ALL CONSTRUCTION SHALL CONFORM TO THE STANDARD SPECIFICATIONS, AND THE LATEST STANDARD DETAILS, FOR PUBLIC WORKS CONSTRUCTION (2012 EDITION AND ANY APPURTENANT SUPPLEMENTS) SPONSORED AND DISTRIBUTED BY RENO, SPARKS, AND WASHOE COUNTY, THE CITY OF RENO PUBLIC WORKS DESIGN MANUAL & SUPPLEMENTAL STANDARD DRAWING DETAILS, REVISED JANUARY, 2009, AND THE GEOTECHNICAL INVESTIGATION ENTITLED "GOLDY WAY AND BARING BOULEVARD STORM DRAIN AND SANITARY SEWER IMPROVEMENTS", PREPARED BY BLACK EAGLE CONSULTING, INCORPORATED., DATED JULY 15TH, 2020.

ENGINEER'S CERTIFICATE

THESE PLANS (SHEETS C0.0 OF 15 THRU C5.6 OF 15) HAVE BEEN PREPARED IN ACCORDANCE WITH ACCEPTED ENGINEERING PROCEDURES AND GUIDELINES, AND ARE IN SUBSTANTIAL COMPLIANCE WITH APPLICABLE STATUTES, CITY ORDINANCES, STANDARDS, AND CITY CODE. IN THE EVENT OF CONFLICT BETWEEN ANY PORTION OF THESE PLANS AND CITY CODE, CITY STANDARDS SHALL PREVAIL.

FRANK A. BIDART, P.E.

P.E. #10504

DATE: SEPT. 2021	DATE	REV.	DESCRIPTION	BY	APPD
DRAWN BY: F.C.W.					
DESIGNED BY: F.C.W.					
CHECKED BY: F.B.					

BID SET
 C.O.S. GLEN MEADOW DRIVE STORM DRAIN TITLE SHEET
 WASHOE
 SPARKS
 NEVADA

895 ROBERTA LANE, SUITE 104, SPARKS, NV 89431
 (775) 359-3303 / ODYSSEY-RENO.COM
 odyssey ENGINEERING INCORPORATED

PROFESSIONAL ENGINEER STATE OF NEVADA
 FRANK A. BIDART
 Exp. 12-31-22
 CIVIL
 No. 10504

SCALE
 HORIZ. ---
 VERT. ---
 JOB NO. ---
 SHEET
 C0.0
 OF
 15



GENERAL NOTES:

- CONTRACTOR SHALL PROVIDE ALL MATERIALS, EQUIPMENT, LABOR, AND INCIDENTALS REQUIRED TO CONSTRUCT THE IMPROVEMENTS AS SHOWN ON THE IMPROVEMENT PLANS AND ALL WORK SHALL BE ACCOMPLISHED IN STRICT ACCORDANCE WITH THE SPECIFICATIONS SET FORTH IN THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, 2012 (ORANGE BOOK 2012), TMAA ENGINEERING & CONSTRUCTION STANDARDS, NV ENERGY GAS AND ELECTRIC STANDARDS, AND THE PROJECT GEOTECHNICAL INVESTIGATION TITLED "GOLDY WAY AND BARING BOULEVARD STORM AND SANITARY SEWER IMPROVEMENTS, SPARKS, NV," DATED JULY 15, 2020, BY BLACK EAGLE CONSULTING, INC.
- ENGINEER WILL PROVIDE CONSTRUCTION SURVEY STAKING OF CRITICAL POINTS AS IDENTIFIED WITH NORTHING AND EASTING COORDINATES, AND/OR STATION OFFSET COORDINATES IN THE IMPROVEMENT PLANS. THESE POINTS INCLUDE MANHOLE(S), CATCH BASIN(S), VALVE(S), TEE(S), AND/OR ELBOWS. ADDITIONAL STAKING AND/OR SURVEY TO CONSTRUCT THE PROJECT, INCLUDING VERTICAL ELEVATION STAKING, SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- THESE PLANS, SHEET C.O.0 OF 19 THROUGH E-1 OF 19 HAVE BEEN PREPARED IN ACCORDANCE WITH ACCEPTED ENGINEERING PROCEDURES AND GUIDELINES, AND ARE IN SUBSTANTIAL COMPLIANCE WITH APPLICABLE STATUTES, CITY ORDINANCES OR STANDARDS, IN THE EVENT OF CONFLICT BETWEEN ANY PORTION OF THESE PLANS AND CITY OF SPARKS, TMAA OR NV ENERGY STANDARDS, THE STANDARDS SHALL APPLY AND THE ENGINEER SHALL BE CONTACTED IMMEDIATELY.
- THE CONTRACTOR SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; AND THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY, AND NOT BE LIMITED TO NORMAL WORKING HOURS; AND THAT THE CONTRACTOR SHALL DEFEND, INDEMNIFY, AND HOLD THE OWNER AND ENGINEER HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING FOR LIABILITY ARISING FROM THE NEGLIGENCE OF THE OWNER OR ENGINEER.
- THE CONTRACTOR SHALL NOTIFY ALL ENTITIES INVOLVED (PUBLIC AND PRIVATE) 48 HOURS PRIOR TO THE BEGINNING OF CONSTRUCTION, AND PROVIDE 48 HOURS PRIOR NOTICE FOR ALL SURVEYING AND INSPECTIONS DURING CONSTRUCTION.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL EXCAVATION AND SHORING PROCEDURES AND CONFORM TO THE LATEST O.S.H.A. REQUIREMENTS.
- THE CONTRACTOR SHALL MAINTAIN AN ONGOING DUST CONTROL PROGRAM, INCLUDING WATERING OF OPEN AREAS, IN ORDER TO CONFORM WITH THE LATEST STATE AND COUNTY AIR POLLUTION REGULATIONS THE CONTRACTOR SHALL HAVE A DUST CONTROL PLAN APPROVED BY THE WASHOE COUNTY HEALTH DISTRICT, AIR POLLUTION CONTROL DIVISION PRIOR TO COMMENCEMENT OF ANY WORK.
- THE CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE, PERMIT AND IMPLEMENT A STORM WATER POLLUTION PREVENTION PLAN (S.W.P.P.P.) IN CONFORMANCE WITH FEDERAL, STATE, AND LOCAL REQUIREMENTS. THE CONTRACTOR SHALL MAINTAIN EXISTING BEST MANAGEMENT PRACTICES (B.M.P.) IMPROVEMENTS THAT ARE IN PLACE, AND SHALL PROVIDE AND MAINTAIN ADDITIONAL B.M.P.'S AS REQUIRED TO IMPLEMENT THE S.W.P.P.P.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DAILY REMOVAL OF ALL CONSTRUCTION MATERIALS SPILLED ON PAVED STREETS, ON-SITE AND OFF-SITE.
- THE CONTRACTOR SHALL PURSUE THE WORK IN A CONTINUOUS AND DILIGENT MANNER, CONFORMING TO ALL PERTINENT SAFETY REGULATIONS, TO INSURE A TIMELY COMPLETION OF THE PROJECT.
- ALL EXISTING UTILITY LOCATIONS, SIZES, AND DESCRIPTIONS AS SHOWN ON THESE DRAWINGS ARE FROM SURFACE OBSERVATIONS USED IN CONNECTION WITH AVAILABLE RECORDS, REFERENCE MAPS, DRAWINGS AND VERBAL STATEMENTS SUPPLIED BY UTILITY COMPANIES, AND MAYBE WHOLLY ACCURATE OR REALIZABLE. THE CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES WHOSE WORK MAY BE AFFECTED BY THE WORK TO OBTAIN ASSISTANCE IN LOCATING EXISTING MAINS AND SERVICE CONNECTIONS. THE CONTRACTOR SHALL ALSO CALL U.S.A. (811) PRIOR TO BEGINNING WORK.
- IT IS THE CONTRACTORS RESPONSIBILITY TO VERIFY ALL EXISTING GRADES PRIOR TO CONSTRUCTION. IF ANY DISCREPANCY OCCURS CONTACT THE ENGINEER IMMEDIATELY.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CONSTRUCTION SIGNING, BARRICADES AND TRAFFIC DELINEATION TO CONFORM TO THE STATE OF NEVADA, DEPARTMENT OF TRANSPORTATION "NEVADA WORK ZONE TRAFFIC CONTROL MANUAL" AND CITY OF SPARKS STANDARDS.
- THE CONTRACTOR SHALL, AT ALL TIMES DURING CONSTRUCTION PROTECT FROM DAMAGE EXISTING IMPROVEMENTS ON AND AROUND THE SITE, INCLUDING, BUT NOT LIMITED TO, PAVEMENT, CURB AND GUTTER, SIDEWALKS, LANDSCAPING, SIGNAGE, STORM, AND SANITARY SEWER, AND ALL UTILITIES. THE CONTRACTOR SHALL ASSUME SOLE RESPONSIBILITY FOR THE REPAIR OF ANY IMPROVEMENTS (EXISTING OR PROPOSED) DAMAGED THROUGHOUT THE COURSE OF CONSTRUCTION.
- THE CONTRACTOR SHALL PROVIDE AND MAINTAIN AT ALL TIMES EMERGENCY ACCESS TO THE PROJECT SITE TO THE SATISFACTION OF THE CITY OF SPARKS FIRE DEPARTMENT.
- THE CONTRACTOR SHALL UPON COMPLETION OF THE PROJECT, PREPARE AND SUBMIT TO THE OWNER RECORD DRAWINGS INDICATING BY DIMENSION AND DESCRIPTION ANY FACILITY CONSTRUCTED CONTRARY TO THAT SHOWN ON THESE PLANS.
- THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS OF ALL MATERIALS TO BE USED ON THE SITE TO INCLUDE, BUT NOT BE LIMITED TO A.C. AND P.C.C. MIX DESIGN, AGGREGATE BASE QUALIFICATIONS, PRECAST CONCRETE, CAST IRON GRATE AND COVERS, AND PIPING TO THE PROJECT ENGINEER FOR APPROVAL PRIOR TO THE MANUFACTURE OR USE OF SUCH ITEMS.
- INSPECTION REQUIREMENTS SHALL BE IN ACCORDANCE WITH CITY OF SPARKS STANDARDS OR THE ORANGE BOOK, WHICH EVER IS THE MORE STRINGENT.
- SHOULD AN OBVIOUS PROBLEM BE OBSERVED, THE ENGINEER OF RECORD SHALL BE INFORMED IMMEDIATELY, AND THE ENGINEER OF RECORD SHALL REQUIRE CORRECTIVE ACTION.

UTILITY NOTES:

- ALL SANITARY SEWER LATERALS SHALL BE 4" PVC (SDR-35) AND SHALL HAVE A MINIMUM GRADE OF 2.00%.
- ALL WATER AND SEWER LINES SHALL HAVE A MINIMUM OF A 10' HORIZONTAL SEPARATION OR AN 18" VERTICAL SEPARATION AT CROSSINGS. IN THE EVENT THAT THE WATER MAIN IS TO CROSS BELOW OR WITHIN 18" OF THE SANITARY SEWER MAIN, THE CONTRACTOR SHALL FOLLOW THE STANDARDS SET FORTH BY TMAA.
- ALL STREET AND COURTS SHOWN HEREON ARE PUBLIC AND MAINTAINED BY THE CITY OF SPARKS.
- ALL MANHOLES ARE TYPE 1-48" OR AS SHOWN ON THE PLANS. ALL CATCH BASINS ARE TYPE 4-R OR AS SHOWN ON THE PLANS.
- PVC SEWER PIPE SHALL BE CLASS SDR-35 UNLESS OTHERWISE NOTED AND CONFORM TO ASTM D3034. INSTALLATION SHALL BE IN ACCORDANCE WITH UNIBELL PLASTIC PIPE ASSOCIATION STANDARD AND RECOMMENDED PRACTICES.
- ALL REINFORCED CONCRETE PIPE SHALL BE CLASS III UNLESS OTHERWISE NOTED.
- ALL EXISTING UTILITIES BEING TIED INTO SHALL BE EXPOSED TO CHECK FOR GRADE CONFORMANCE TO THOSE SHOWN ON THE PLANS. IF A DISCREPANCY OCCURS, CONTACT THE ENGINEER IMMEDIATELY BEFORE PROCEEDING.
- THE CONTRACTOR SHALL HAVE EXISTING UTILITIES LOCATED BY CALLING "USA" TOLL FREE AT (1-800-227-2600).
- GAS AND ELECTRIC SHOWN HEREON ARE SCHEMATIC ONLY. DESIGN SHALL BE BY NV ENERGY.
- THE GAS AND WATER SHALL BE OWNED AND MAINTAINED BY NV ENERGY AND TMAA. CONSTRUCTION OF THE WATER SYSTEM SHALL BE COORDINATED WITH TMAA.
- ALL SANITARY SEWER MAINS ARE TO BE MAINTAINED BY THE CITY OF SPARKS.
- THE CONTRACTOR SHALL PERFORM AN AIR PRESSURE TEST FOR THE SANITARY SEWER MAINS PER THE CITY OF SPARKS REQUIREMENTS. THE TEST SHALL BE PERFORMED IN THE PRESENCE OF THE CITY ENGINEER.
- ALL PVC SANITARY SEWER PIPE SHALL BE BALLED MANDREL TESTED PER CITY OF SPARKS REQUIREMENTS.
- ALL STORM DRAINAGE FACILITIES LOCATED WITHIN THE PUBLIC RIGHT-OF-WAY ARE TO BE MAINTAINED BY THE CITY OF SPARKS.
- REFER TO THE APPROPRIATE STREET IMPROVEMENT SHEET FOR INVERT ELEVATIONS OF ALL SEWER AND STORM DRAIN FACILITIES.
- SEE PROFILE PLANS FOR VERTICAL AND HORIZONTAL DATA.
- ALL PVC WATER PIPE SHALL BE PRESSURE TESTED IN ACCORDANCE WITH TMAA CONSTRUCTION STANDARDS.
- ALL STORM DRAIN LATERALS 15" AND SMALLER SHALL CONNECT TO THE MAIN LINE USING AN INSERT TEE, TEE FITTING OR AT A MANHOLE. CUTTING PIPE, INSERTING LATERAL, AND SEALING WITH CONCRETE SHALL NOT BE ALLOWED.
- ALL EXISTING UNDER GROUND SANITARY SEWER AND STORM DRAIN FACILITIES TO BE ABANDONED IN PLACE SHALL BE GROUT FILLED.

PROJECT ASBESTOS CEMENT PIPE (ACP) REMOVAL, HANDLING AND DISPOSAL REQUIREMENTS:

- IF ASBESTOS CEMENT PIPE (ACP) (AKA TRANSITE), AND/OR PIPE WITH COATINGS CONTAINING ASBESTOS ARE TO BE RETIRED THEY SHALL BE LEGALLY REMOVED, STORED, TRANSPORTED AND DISPOSED OF PER APPLICABLE OSHA, WASHOE COUNTY AND THESE REQUIREMENTS.
- ONLY EMPLOYEES TRAINED AND CURRENTLY CERTIFIED IN THE HANDLING AND DISPOSAL OF ASBESTOS CONTAINING MATERIALS SHALL CONDUCT ANY WORK RELATED TO THE REMOVAL, STORAGE AND DISPOSAL OF ASBESTOS MATERIAL.
 - THE CONTRACTOR SHALL BE REQUIRED TO PROVIDE CURRENT ASBESTOS ABATEMENT CERTIFICATES SUBMITTALS FOR EACH EMPLOYEE THAT WILL CONDUCT WORK ON PIPE CONTAINING ASBESTOS MATERIALS.
 - ANY WORK ON THE REMOVAL OF PIPE CONTAINING ASBESTOS BY UNAUTHORIZED EMPLOYEES NOT CURRENTLY CERTIFIED SHALL RESULT IN AN IMMEDIATE STOP WORK ORDER WITH NO ADDITIONAL COST TO TMAA FOR STANDBY TIME, ADDED DELAYS, BACKFILLING/RE-EXCAVATION, STEEL PLATES AND/OR ANY WORK NEEDED TO SECURE THE SITE UNTIL PROPERLY TRAINED PERSONNEL CAN COMPLETE THE WORK.
- ASBESTOS ABATEMENT, HANDLING, STORAGE AND DISPOSAL PLAN (AAHSD): THE CONTRACTOR SHALL BE REQUIRED TO PROVIDE A AAHSD SUBMITTAL THAT A MINIMUM SHALL CONTAIN THE FOLLOWING:
 - LIST OF ALL EMPLOYEES THAT ARE TRAINED AND CURRENTLY CERTIFIED IN ASBESTOS ABATEMENT, HANDLING AND DISPOSAL.
 - METHOD(S) TO CUT AND REMOVE PIPE MATERIALS CONTAINING ASBESTOS.
 - METHODS TO PROTECT EMPLOYEES AND/OR PUBLIC FROM EXPOSURE.
 - METHODS TO STORE ON-SITE IF NOT GOING DIRECTLY TO LANDFILL.
 - WASTE MANIFEST THAT DOCUMENTS LOCATION REMOVED, QUANTITIES, WHERE/WHEN STORED, WHEN DISPOSED AT LANDFILL AND LANDFILL DISPOSAL TICKET.
 - A "ASBESTOS CEMENT PIPE (AKA TRANSITE) AND/OR PIPE WITH COATINGS CONTAINING ASBESTOS LOG" WILL BE PROVIDED THAT WILL NEED TO BE COMPLETED BY CONTRACTOR FOR EACH LOCATION PIPE CONTAINING ASBESTOS IS REMOVED. THIS LOG DOCUMENTS REMOVAL AND ON-SITE STORAGE IF NOT TAKEN DIRECTLY TO LANDFILL AND IS ADDITION TO THE WASTE MANIFEST THAT DOCUMENTS FINAL DISPOSAL IN AN APPROVED LANDFILL. THIS FORM MUST BE COMPLETED/SIGNED BY THE CONTRACTOR'S DESIGNATED ASBESTOS TRAINED/CERTIFIED PERSONNEL. (PLEASE REFERENCE THE LOG SHEET BELOW)

ASBESTOS CEMENT PIPE (AKA TRANSITE) AND/OR PIPE WITH COATINGS CONTAIN ASBESTOS LOG

DATE OF REMOVAL: _____

LOCATION OF REMOVAL: _____

PIPE DIAMETER AND LENGTH: _____

BROKEN PIECES APPROXIMATE VOLUME (CUBIC FEET): _____

MISC INFORMATION: _____

PIPE BAGGED/WRAPPED: _____

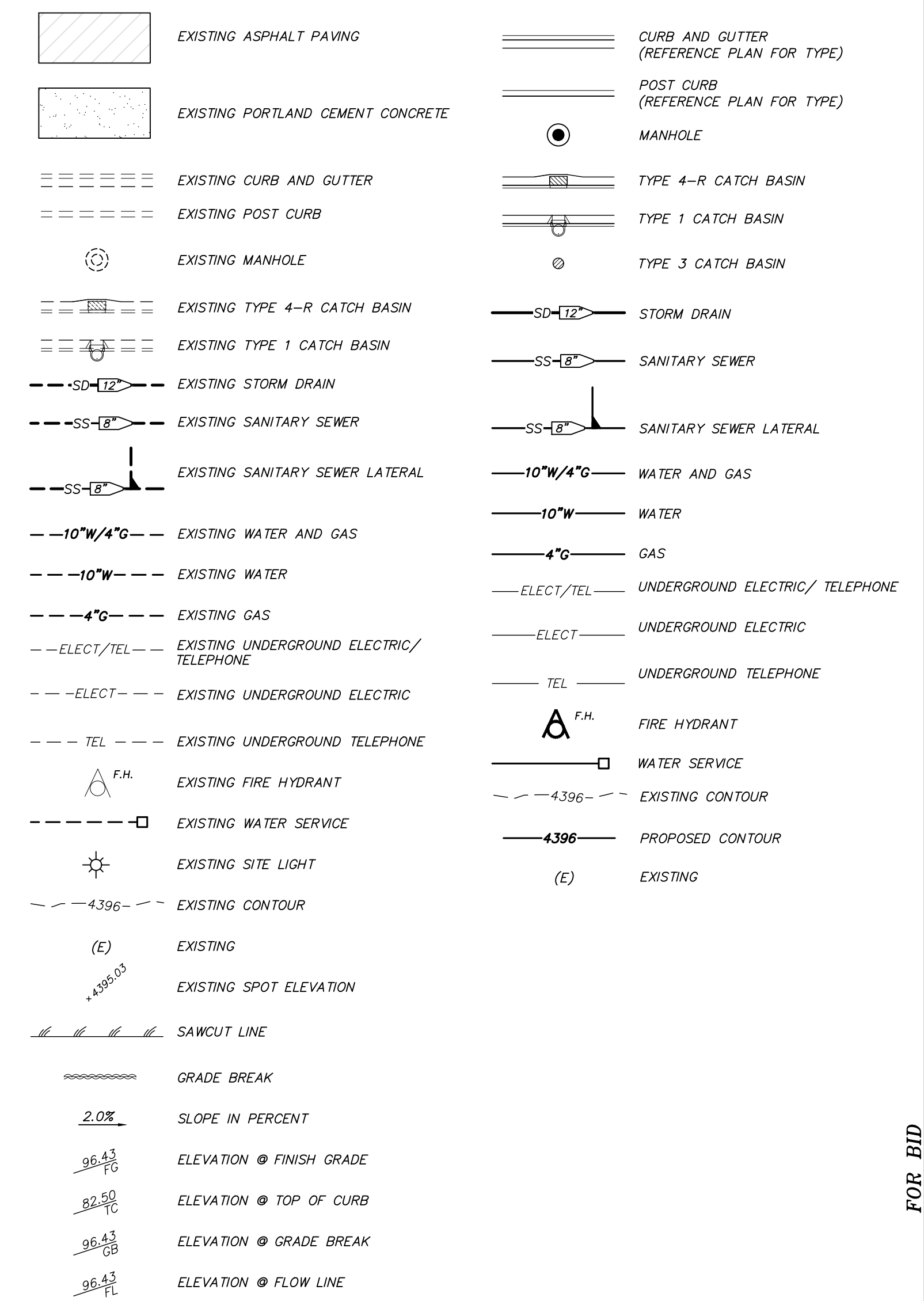
PIPE STORED PRIOR TO LANDFILL (SPECIFY LOCATION BELOW): YES _____ NO _____ DATE _____

ON-SITE DISPOSAL LOCATION PRIOR TO LANDFILL: _____

PRINT ASBESTOS TRAINED/CERTIFIED EMPLOYEE (NAME/NUMBER): _____

EMPLOYEE SIGNATURE (ASBESTOS TRAINED/CERTIFIED) _____ **DATE** _____

GENERAL LEGEND:



REV.	DATE	DESCRIPTION	BY	APP'D

DATE: MAR. 2022	DATE: MAR. 2022
DRAWN BY: E.C.W.	DESIGNED BY: E.C.W.
CHECKED BY: F.B.	

FOR BID
 C.O.S. GLEN MEADOW DRIVE
 STORM DRAIN
 GENERAL NOTES
 SPARKS NEVADA
 WASHOE

885 ROBERTA LANE, SUITE 104, SPARKS, NV 89431
 (775) 369-3303 FAX (775) 359-3329
 ODYSSEYRENO.COM

odyssey ENGINEERING INCORPORATED



SCALE	-
HORIZ.	-
VERT.	-
JOB NO.	-
SHEET	C0.1
OF	15



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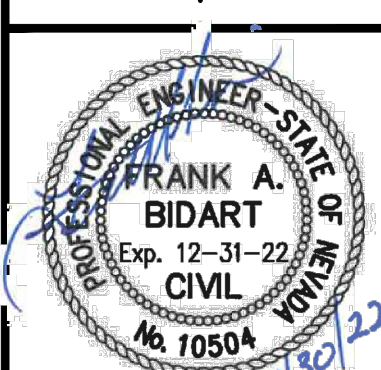
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C.O.S. GLEN MEADOW DRIVE
 STORM DRAIN
 E. GLEN MEADOW DEMO PLAN

SPARKS WASHOE NEVADA

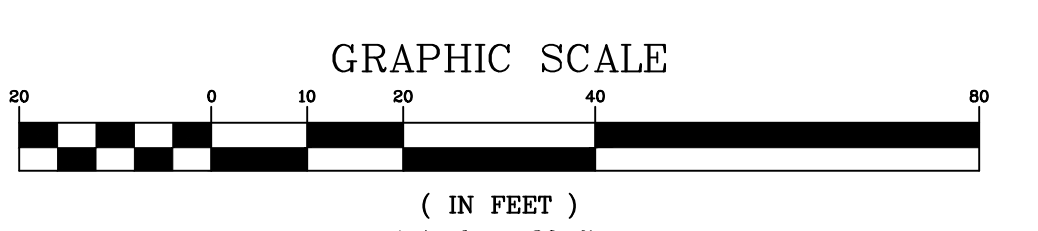
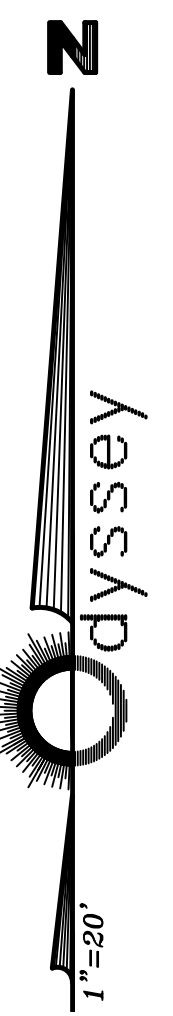
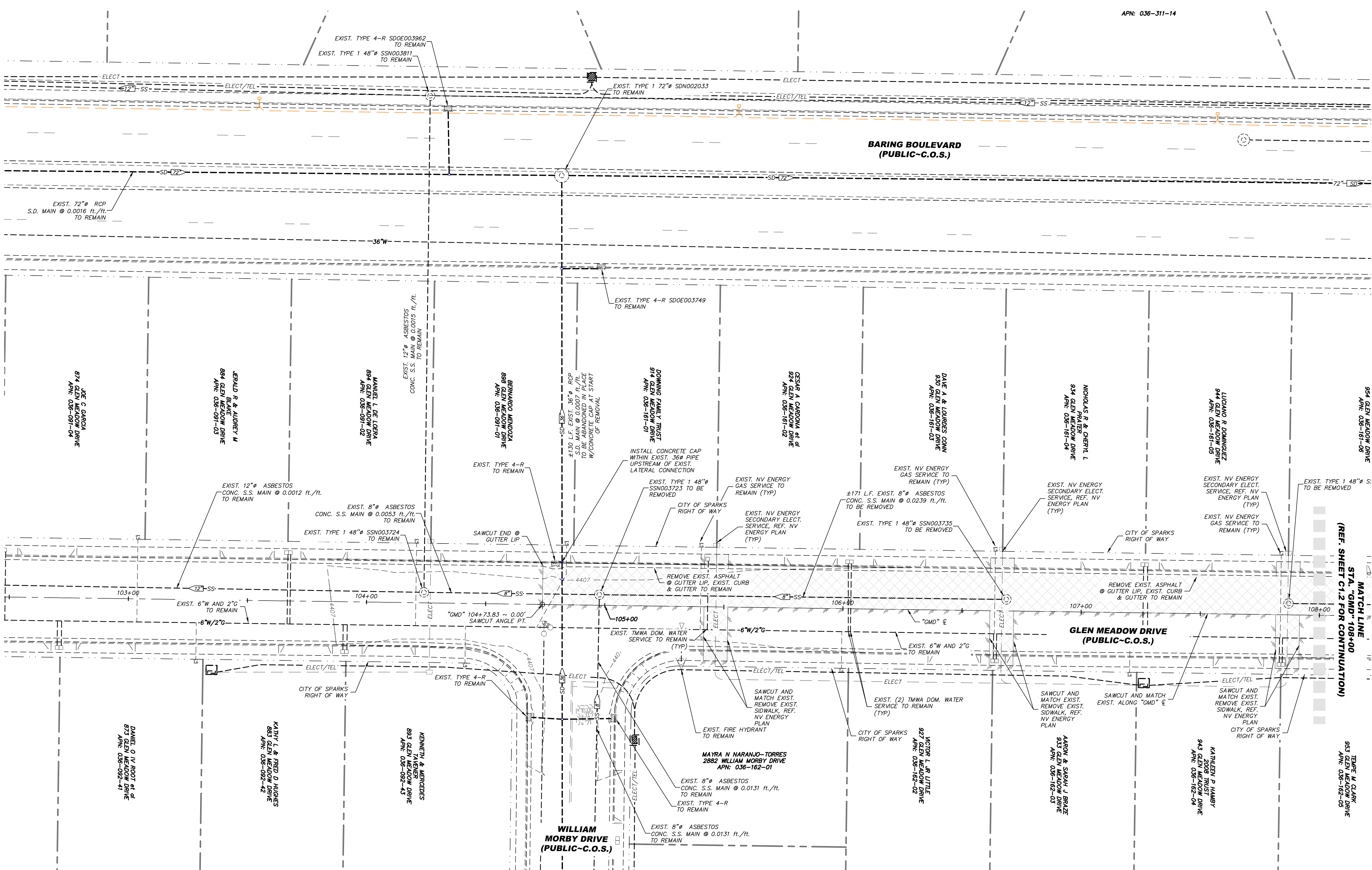
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Odyssey ENGINEERING INCORPORATED



SCALE
 HORIZ. 1"=20'
 VERT. -
 JOB NO. -

SHEET
C1.1
 OF
 15

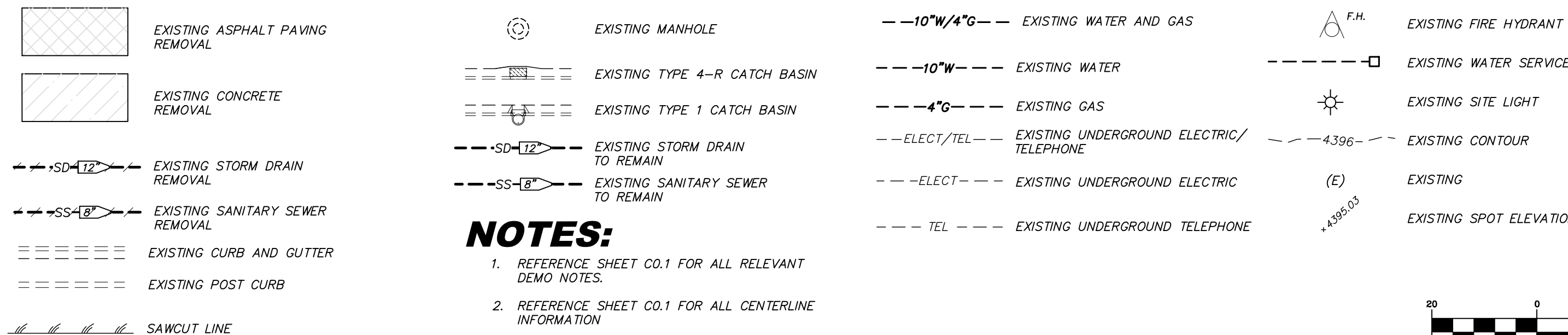


Know what's below.
 Call before you dig.

- NOTES:**
- REFERENCE SHEET C0.1 FOR ALL RELEVANT DEMO NOTES.
 - REFERENCE SHEET C0.1 FOR ALL CENTERLINE INFORMATION
 - REFERENCE NV ENERGY PLAN FOR ELECTRICAL PRIMARY AND SECONDARY REPLACEMENT
 - REFERENCE TMWA PLAN FOR WATER MAIN REMOVAL

- LEGEND:**
- SD--- EXISTING STORM DRAIN REMOVAL
 - SS--- EXISTING SANITARY SEWER REMOVAL
 - 10"W/4"G--- EXISTING WATER AND GAS
 - 10"W--- EXISTING WATER
 - 4"G--- EXISTING GAS
 - ELECT/TEL--- EXISTING UNDERGROUND ELECTRIC/TELEPHONE
 - ELECT--- EXISTING UNDERGROUND ELECTRIC
 - TEL--- EXISTING UNDERGROUND TELEPHONE
 - F.H. EXISTING FIRE HYDRANT
 - 4396--- EXISTING CONTOUR
 - (E) EXISTING
 - 4396.03--- EXISTING SPOT ELEVATION
 - SAWCUT LINE
 - EXISTING TYPE 4-R CATCH BASIN
 - EXISTING TYPE 1 CATCH BASIN
 - EXISTING ASPHALT PAVING REMOVAL
 - EXISTING CONCRETE REMOVAL
 - SD--- EXISTING STORM DRAIN REMOVAL
 - SS--- EXISTING SANITARY SEWER REMOVAL
 - ===== EXISTING CURB AND GUTTER
 - ===== EXISTING POST CURB
 - EXISTING MANHOLE
 - EXISTING WATER SERVICE
 - EXISTING SITE LIGHT
 - EXISTING
 - EXISTING TYPE 4-R CATCH BASIN
 - EXISTING TYPE 1 CATCH BASIN

LEGEND:



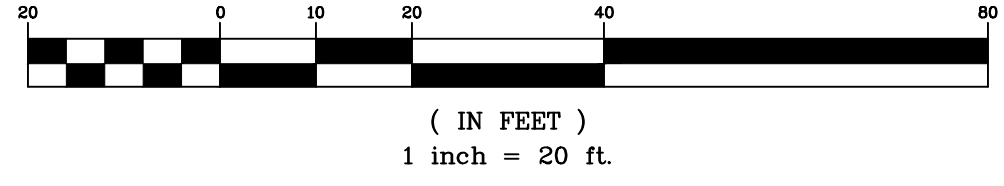
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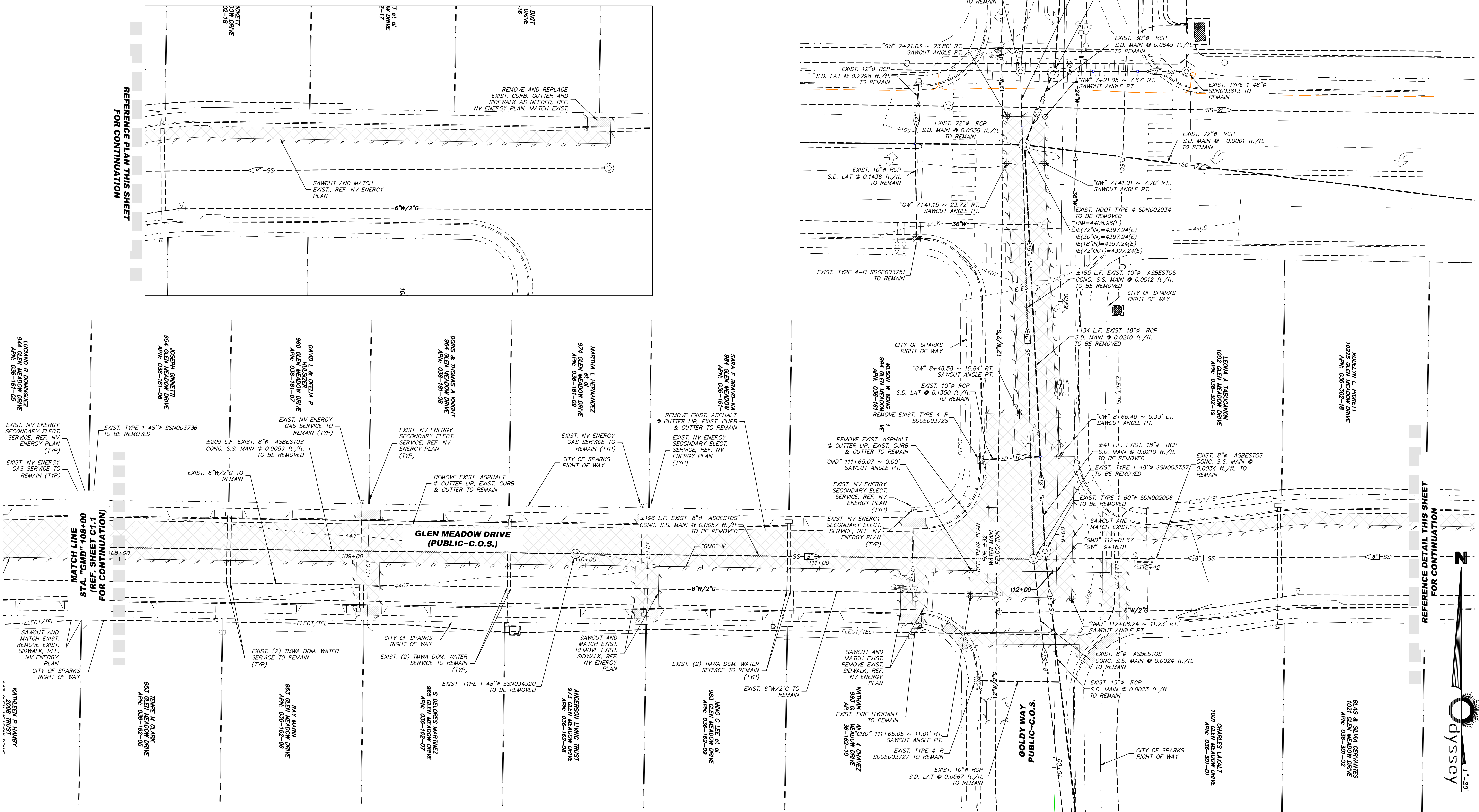
Know what's below.
Call before you dig.

GRAPHIC SCALE



REFERENCE PLAN THIS SHEET FOR CONTINUATION

REFERENCE DETAIL THIS SHEET FOR CONTINUATION



REV.	DATE	DESCRIPTION	BY	APP'D

DATE: SEPT. 2021	DATE: 2021
DRAWN BY: E.C.W.	DRAWN BY: E.C.W.
DESIGNED BY: E.C.W.	DESIGNED BY: E.C.W.
CHECKED BY: F.B.	CHECKED BY: F.B.

FOR BID

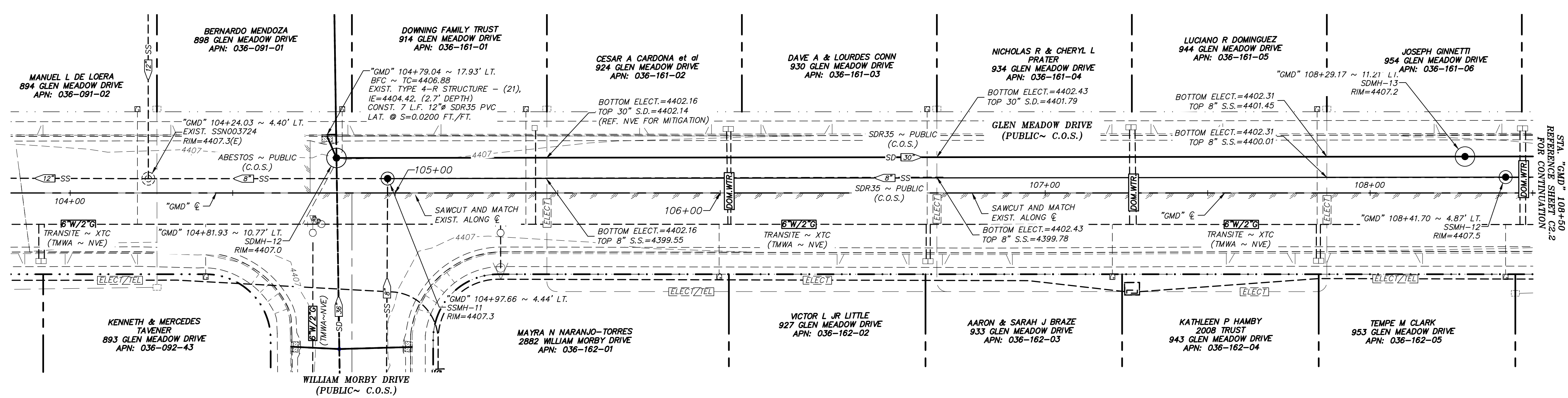
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SPARKS WASHOE NEVADA

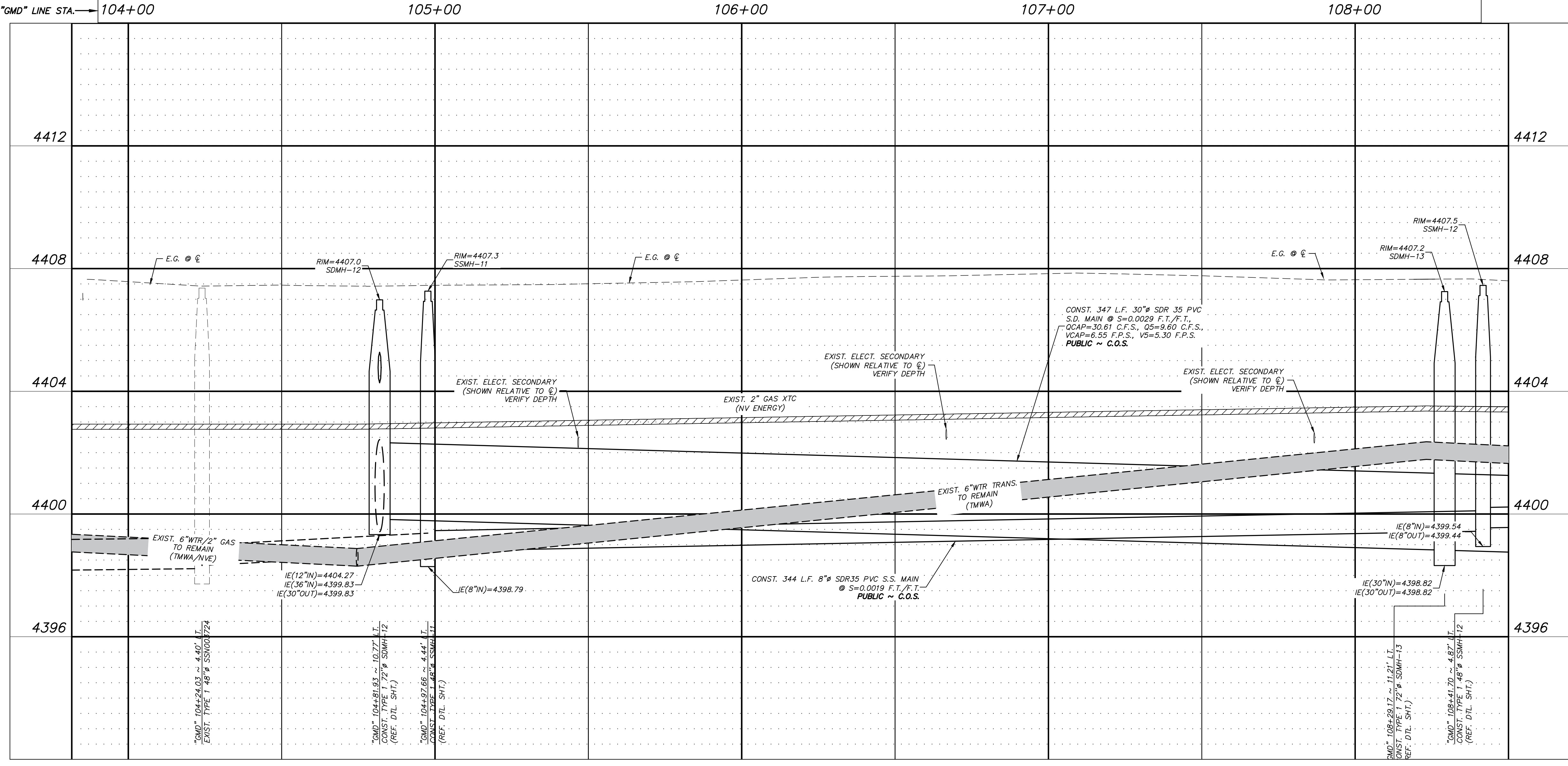
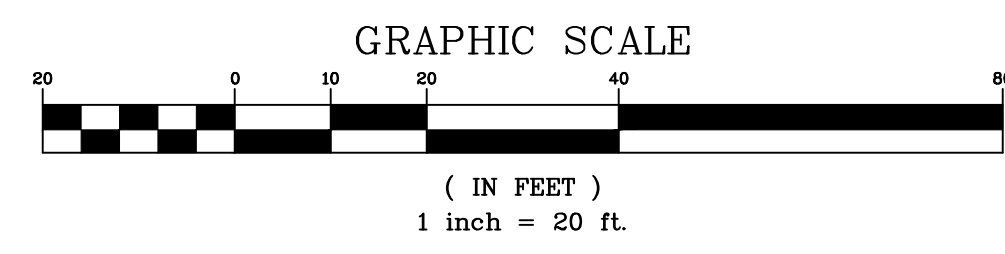
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SCALE
HORIZ. 1"=20'
VERT. -
JOB NO. -
SHEET
C1.2
OF
15



GLEN MEADOW DRIVE (PUBLIC) STA. "GMD" 103+82 TO 108+50



LEGEND:

- CURB AND GUTTER (DASHED IF EXISTING)
- POST CURB (DASHED IF EXISTING)
- MANHOLE (DASHED IF EXISTING)
- TYPE 4-R CATCH BASIN (DASHED IF EXISTING)
- SITE LIGHT
- STORM DRAIN (DASHED IF EXISTING)
- SANITARY SEWER (DASHED IF EXISTING)
- SANITARY SEWER LATERAL (DASHED IF EXISTING)
- WATER AND GAS (DASHED IF EXISTING)
- WATER (DASHED IF EXISTING)
- GAS (DASHED IF EXISTING)
- WATER SERVICE (DASHED IF EXISTING)
- FIRE HYDRANT
- UNDERGROUND ELECTRIC/ TELEPHONE (DASHED IF EXISTING)
- UNDERGROUND ELECTRIC (DASHED IF EXISTING)
- UNDERGROUND TELEPHONE (DASHED IF EXISTING)

BASIS OF BEARING

BASED ON THE NEVADA WEST COORDINATE SYSTEM OF 1983 (NAD 83) WITH A GRID TO GROUND FACTOR OF 1.000197939 APPLIED.

BASIS OF ELEVATION

BASED ON NORTH AMERICAN VERTICAL DATUM OF 1988, (NAVD 88), USING THE CITY OF SPARKS GEODETIC CONTROL NETWORK "BM 106" WITH A PUBLISHED ELEVATION OF 4689.50 AS RECORDED IN RECORD OF SURVEY 3885, FILE NO. 3602264 OF THE WASHOE COUNTY OFFICIAL RECORDS.

FLOOD ZONE

THE PROPOSED PROJECT IS LOCATED WITHIN A FEMA UNSHADED ZONE X PER FIRM MAP PANELS 32031C30546 AND 32031C30606 WITH AN EFFECTIVE DATE OF MARCH 16, 2009.

NOTES:

REFERENCE SHEET C0.1 FOR NOTES

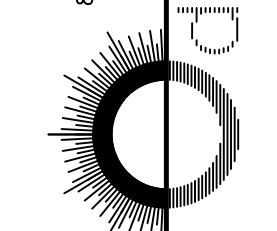



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DATE: MAR. 2022	BY: APP'D						
DRAWN BY: E.C.W.	DESCRIPTION						
DESIGNED BY: E.C.W.	DATE						
CHECKED BY: F.B.	REV.						
<p>FOR BID</p> <p>C.O.S. GLEN MEADOW DRIVE</p> <p>STORM DRAIN</p> <p>W. GLEN MEADOW DR. P & P</p> <p>SPARKS WASHOE NEVADA</p>							
<p>885 ROBERTA LANE, SUITE 104, SPARKS, NV 89431 (775) 369-3303 FAX (775) 359-3329 ODYSSEYRENO.COM</p> <p>FRANK A. BIDART Exp. 12-31-22 CIVIL No. 10504</p>							
<p>SCALE</p> <p>HORIZ. 1"=20'</p> <p>VERT. 1"=2'</p> <p>JOB NO.</p> <p>SHEET C2.1 OF 15</p>							

DATE	BY	APP'D
MAR. 2022		
DRAWN BY:		
DESIGNED BY:		
CHECKED BY:		

FOR BID
 C.O.S. GLEN MEADOW DRIVE
 STORM DRAIN
 E. GLEN MEADOW DR. P & P
 SPARKS NEVADA
 WASHOE

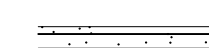
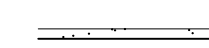
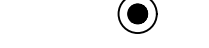
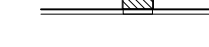

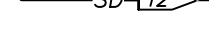



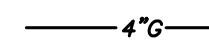
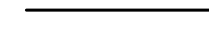





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 FRANK A. BIDART
 Exp. 12-31-22
 CIVIL
 No. 10504

811
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SCALE
 HORIZ. 1"=20'
 VERT. 1"=2'
 JOB NO.
 SHEET
 C2.2
 OF
 15

LEGEND:

-  CURB AND GUTTER (DASHED IF EXISTING)
-  POST CURB (DASHED IF EXISTING)
-  MANHOLE (DASHED IF EXISTING)
-  TYPE 4-R CATCH BASIN (DASHED IF EXISTING)
-  SITE LIGHT
-  STORM DRAIN (DASHED IF EXISTING)
-  SANITARY SEWER (DASHED IF EXISTING)
-  SANITARY SEWER LATERAL (DASHED IF EXISTING)
-  WATER AND GAS (DASHED IF EXISTING)
-  WATER (DASHED IF EXISTING)
-  GAS (DASHED IF EXISTING)
-  WATER SERVICE (DASHED IF EXISTING)
-  FIRE HYDRANT
-  UNDERGROUND ELECTRIC/ TELEPHONE (DASHED IF EXISTING)
-  UNDERGROUND ELECTRIC (DASHED IF EXISTING)
-  UNDERGROUND TELEPHONE (DASHED IF EXISTING)

BASIS OF BEARING

BASED ON THE NEVADA WEST COORDINATE SYSTEM OF 1983 (NAD 83) WITH A GRID TO GROUND FACTOR OF 1.000197939 APPLIED.

BASIS OF ELEVATION

BASED ON NORTH AMERICAN VERTICAL DATUM OF 1988, (NAVD 88) USING THE CITY OF SPARKS GEODETIC CONTROL NETWORK "BM 106" WITH A PUBLISHED ELEVATION OF 4689.50 AS RECORDED IN RECORD OF SURVEY 3885, FILE NO. 3602264 OF THE WASHOE COUNTY OFFICIAL RECORDS.

FLOOD ZONE

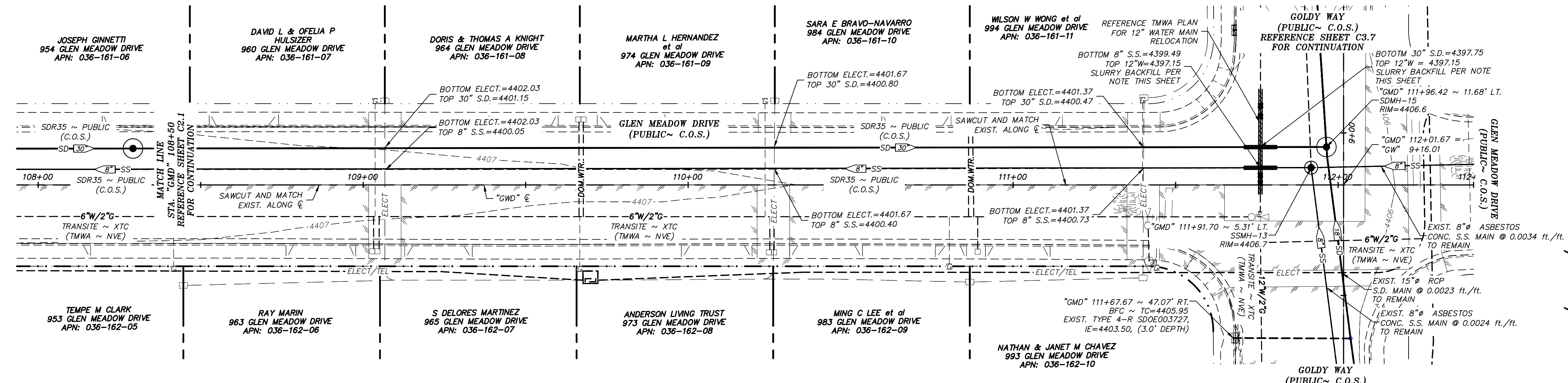
THE PROPOSED PROJECT IS LOCATED WITHIN A FEMA UNSHADED ZONE X PER FIRM MAP PANELS 32031C3054G AND 32031C3060G WITH AN EFFECTIVE DATE OF MARCH 16, 2009.

NOTES:

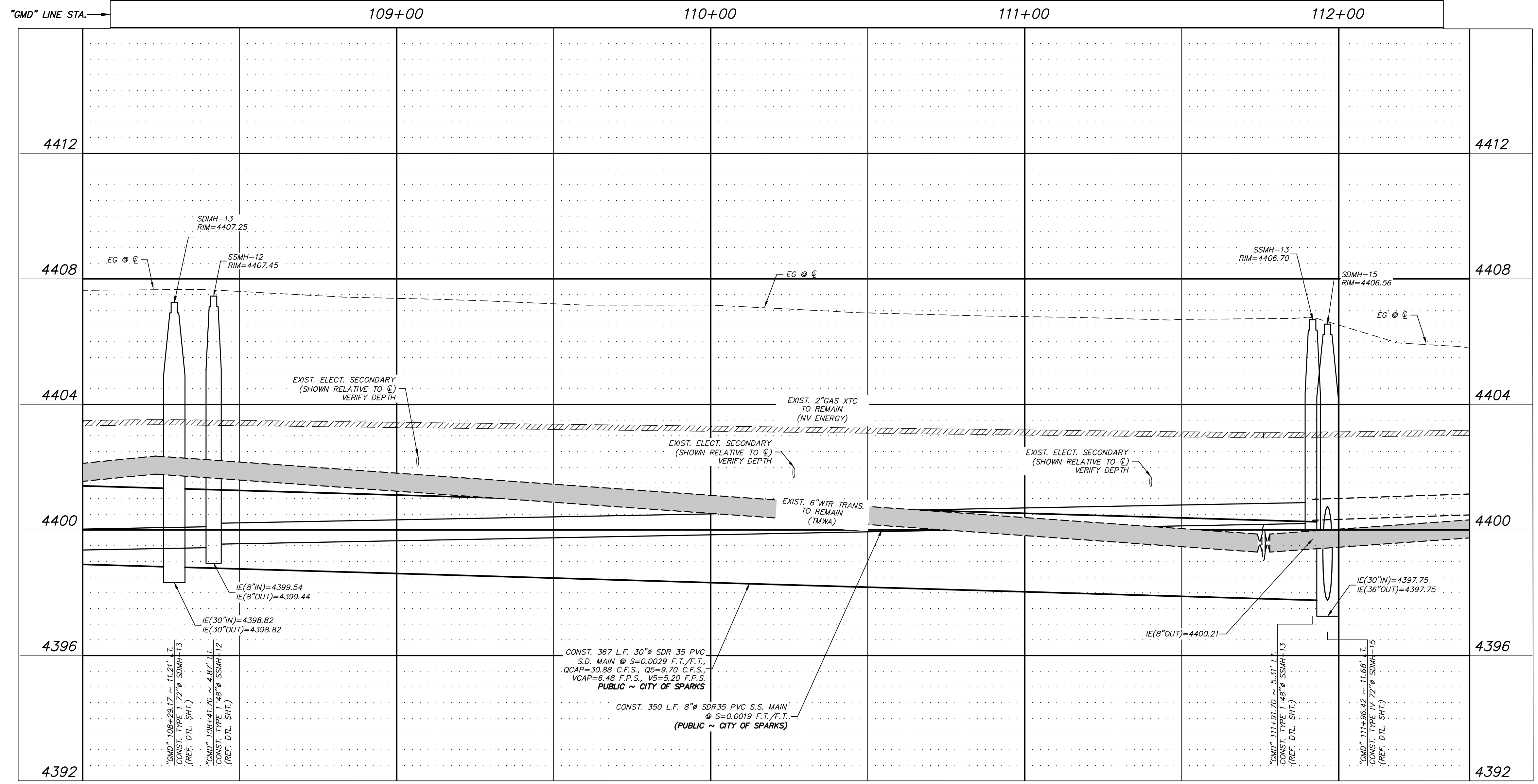
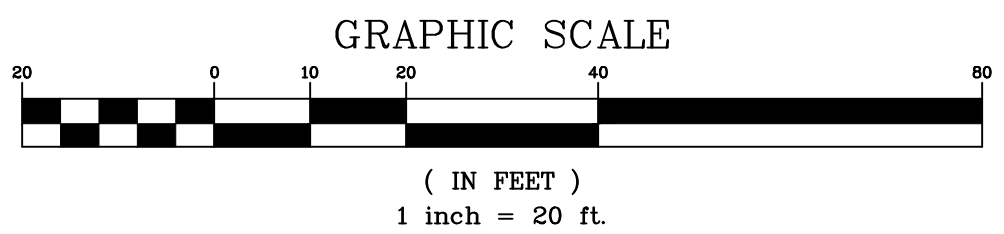
REFERENCE SHEET C0.1 FOR NOTES

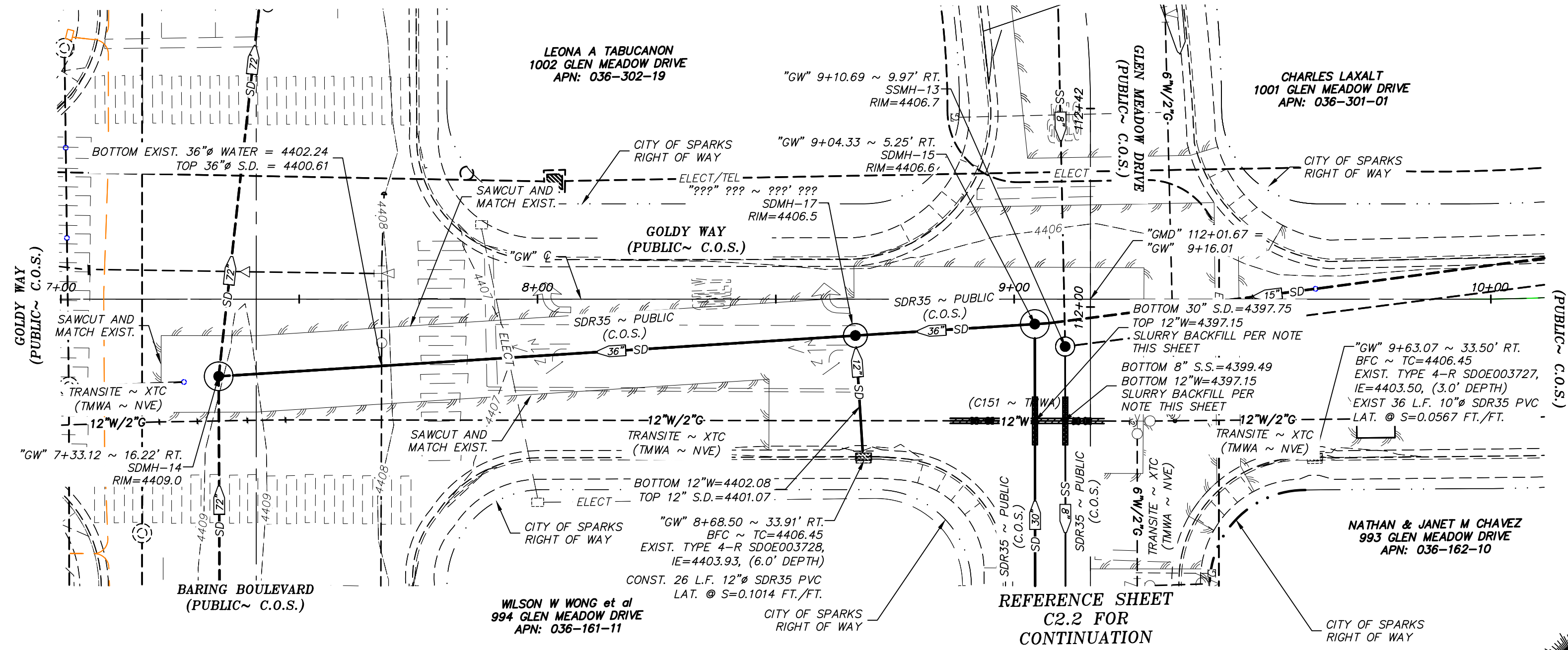
SLURRY BACKFILL NOTE:

CONTRACTOR SHALL INSTALL EXCAVATABLE SLURRY BACKFILL EXTENDING 10' UP AND DOWN STREAM OF PROPOSED WATER MAIN CROSSING. EXCAVATABLE SLURRY SHALL BE INSTALLED WITHIN THE UPPER PIPE ZONE OF 12" WATER MAIN TO SPRING LINE OF THE PROPOSED STORM DRAIN AND SANITARY SEWER INSTALLATIONS

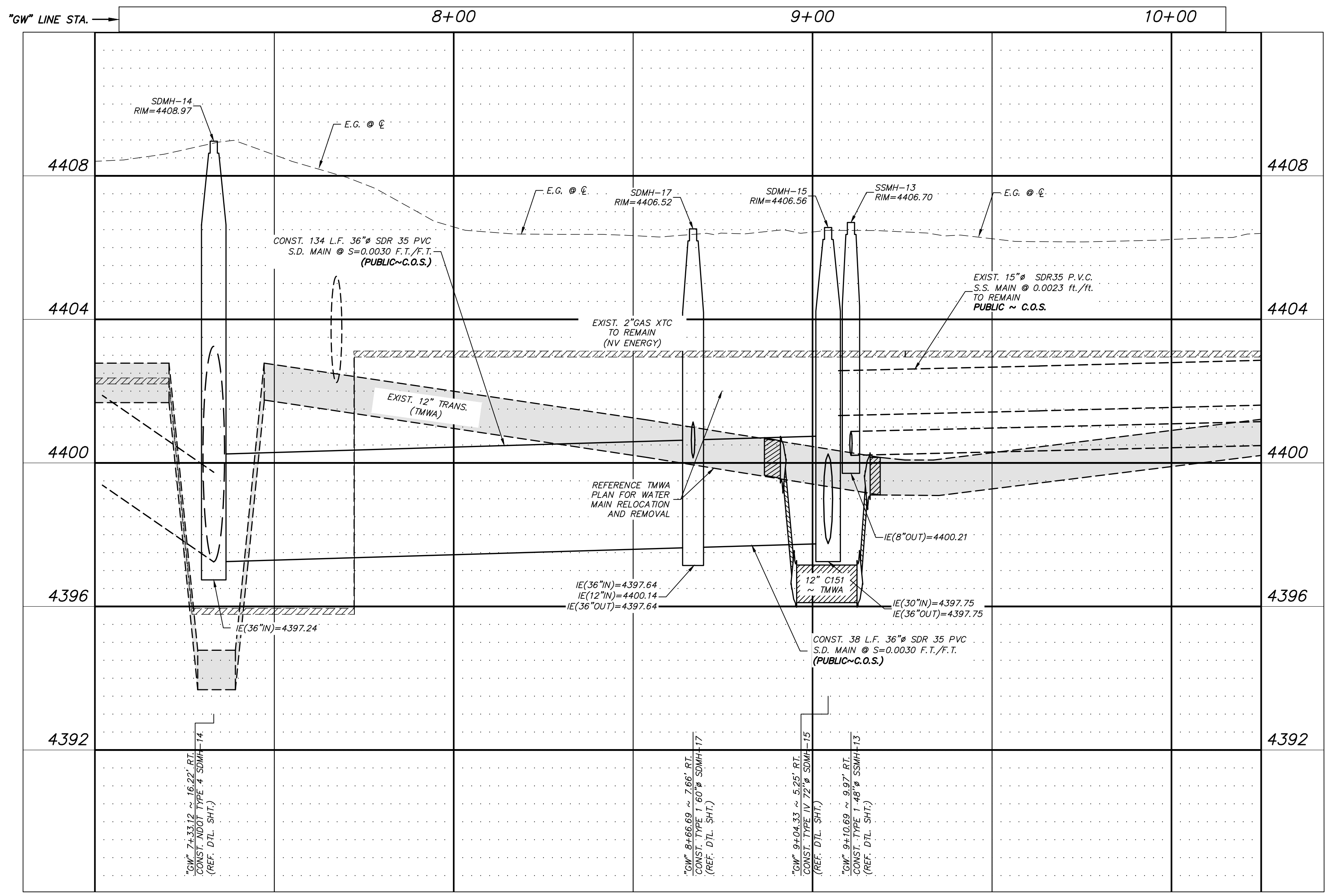
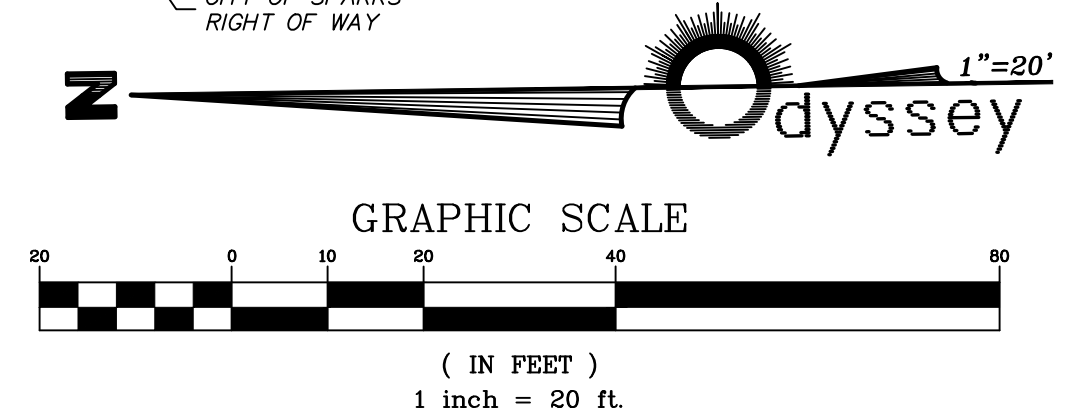


GLEN MEADOW DRIVE (PUBLIC)
STA. "GMD" 108+00 TO 112+42





SOUTH GOLDY WAY (PUBLIC) STA. "GW" 7+00 TO 10+50



LEGEND:

- CURB AND GUTTER (DASHED IF EXISTING)
- POST CURB (DASHED IF EXISTING)
- MANHOLE (DASHED IF EXISTING)
- TYPE 4-R CATCH BASIN (DASHED IF EXISTING)
- STORM DRAIN (DASHED IF EXISTING)
- SANITARY SEWER (DASHED IF EXISTING)
- SANITARY SEWER LATERAL (DASHED IF EXISTING)
- 10"W/4"G WATER AND GAS (DASHED IF EXISTING)
- 10"W WATER (DASHED IF EXISTING)
- 4"G GAS (DASHED IF EXISTING)
- 6"RW RECLAIM IRRIGATION MAIN (DASHED IF EXISTING)
- WATER SERVICE (DASHED IF EXISTING)
- F.H. FIRE HYDRANT
- ELECT./TEL UNDERGROUND ELECTRIC/ TELEPHONE (DASHED IF EXISTING)
- ELECT UNDERGROUND ELECTRIC (DASHED IF EXISTING)
- TEL UNDERGROUND TELEPHONE (DASHED IF EXISTING)
- SITE LIGHT

BASIS OF BEARING

BASED ON THE NEVADA WEST COORDINATE SYSTEM OF 1983 (NAD 83) WITH A GRID TO GROUND FACTOR OF 1.000197939 APPLIED.

BASIS OF ELEVATION

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FLOOD ZONE

THE PROPOSED PROJECT IS LOCATED WITHIN A FEMA UNSHADED ZONE X PER FIRM MAP PANELS 32031C3054G AND 32031C3060G WITH AN EFFECTIVE DATE OF MARCH 16, 2009.

NOTES:

REFERENCE SHEET C0.1 FOR NOTES

SLURRY BACKFILL NOTE:

CONTRACTOR SHALL INSTALL EXCAVATABLE SLURRY BACKFILL EXTENDING 10' UP AND DOWN STREAM OF PROPOSED WATER MAIN CROSSING. EXCAVATABLE SLURRY SHALL BE INSTALLED WITHIN THE UPPER PIPE ZONE OF 12" WATER MAIN TO SPRING LINE OF THE PROPOSED STORM DRAIN AND SANITARY SEWER INSTALLATIONS

DATE: MAR. 2022	BY: E.C.W.	DATE:	BY:	DATE:	BY:	DATE:	BY:
DRAWN BY: E.C.W.	DESIGNED BY: E.C.W.	REV.	DESCRIPTION	DATE	BY:	DATE	BY:
CHECKED BY: F.B.							

FOR BID

C.O.S. GLEN MEADOW DRIVE

STORM DRAIN

S. GOLDY WAY P & P

SPARKS WASHOE NEVADA

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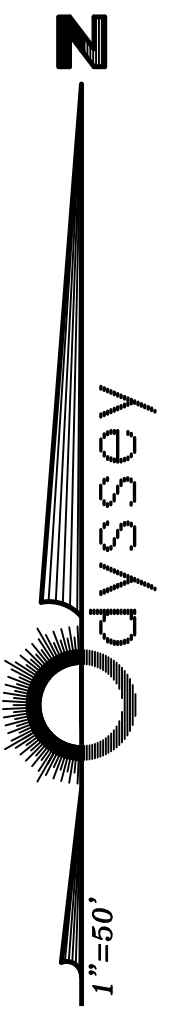
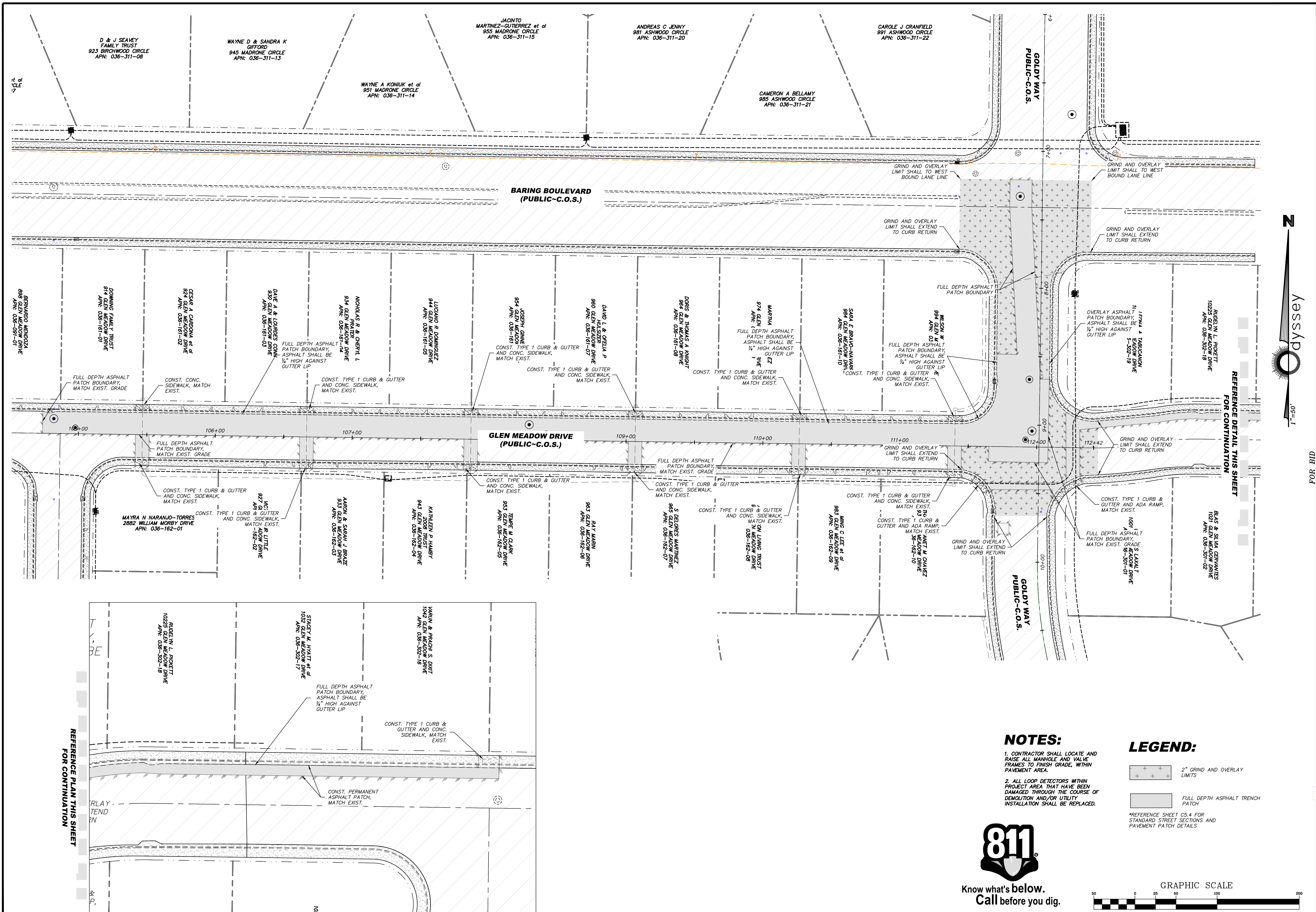
FRANK A. BIDART
Exp. 12-31-22
CIVIL ENGINEER

SCALE
HORIZ. 1"=20'
VERT. 1"=2'

JOB NO.

SHEET
C2.3
OF
15



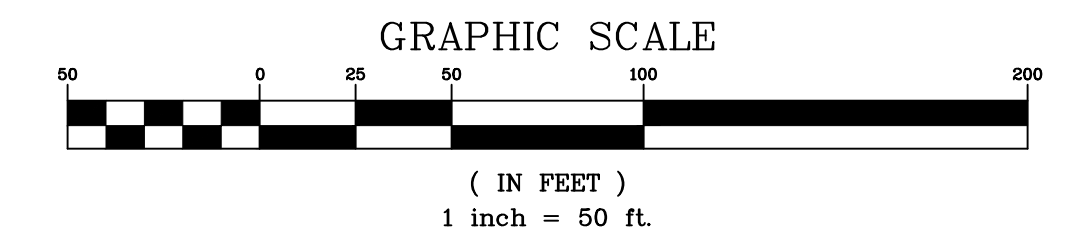


NOTES:

- CONTRACTOR SHALL LOCATE AND RAISE ALL MANHOLE AND VALVE FRAMES TO FINISH GRADE, WITHIN PAVEMENT AREA.
- ALL LOOP DETECTORS WITHIN PROJECT AREA THAT HAVE BEEN DAMAGED THROUGH THE COURSE OF DEMOLITION AND/OR UTILITY INSTALLATION SHALL BE REPLACED.

LEGEND:

- 2" GRIND AND OVERLAY LIMITS
 - FULL DEPTH ASPHALT TRENCH PATCH
- *REFERENCE SHEET CS.4 FOR STANDARD STREET SECTIONS AND PAVEMENT PATCH DETAILS



DATE:	BY:
MAR. 2022	APP'D
DRAWN BY:	DESCRIPTION
E.C.W.	
DESIGNED BY:	DATE
E.C.W.	
CHECKED BY:	REV.
F.B.	

FOR BID

C.O.S. GLEN MEADOW DRIVE
STORM DRAIN
PAVEMENT PLAN

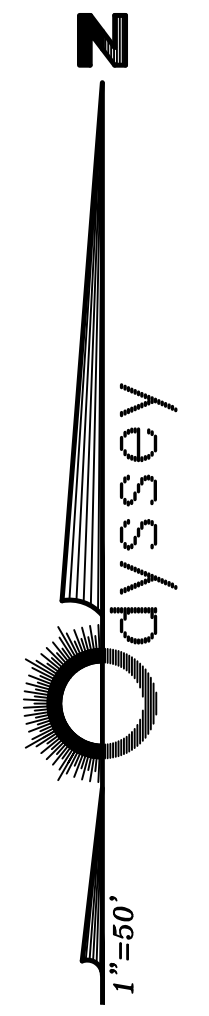
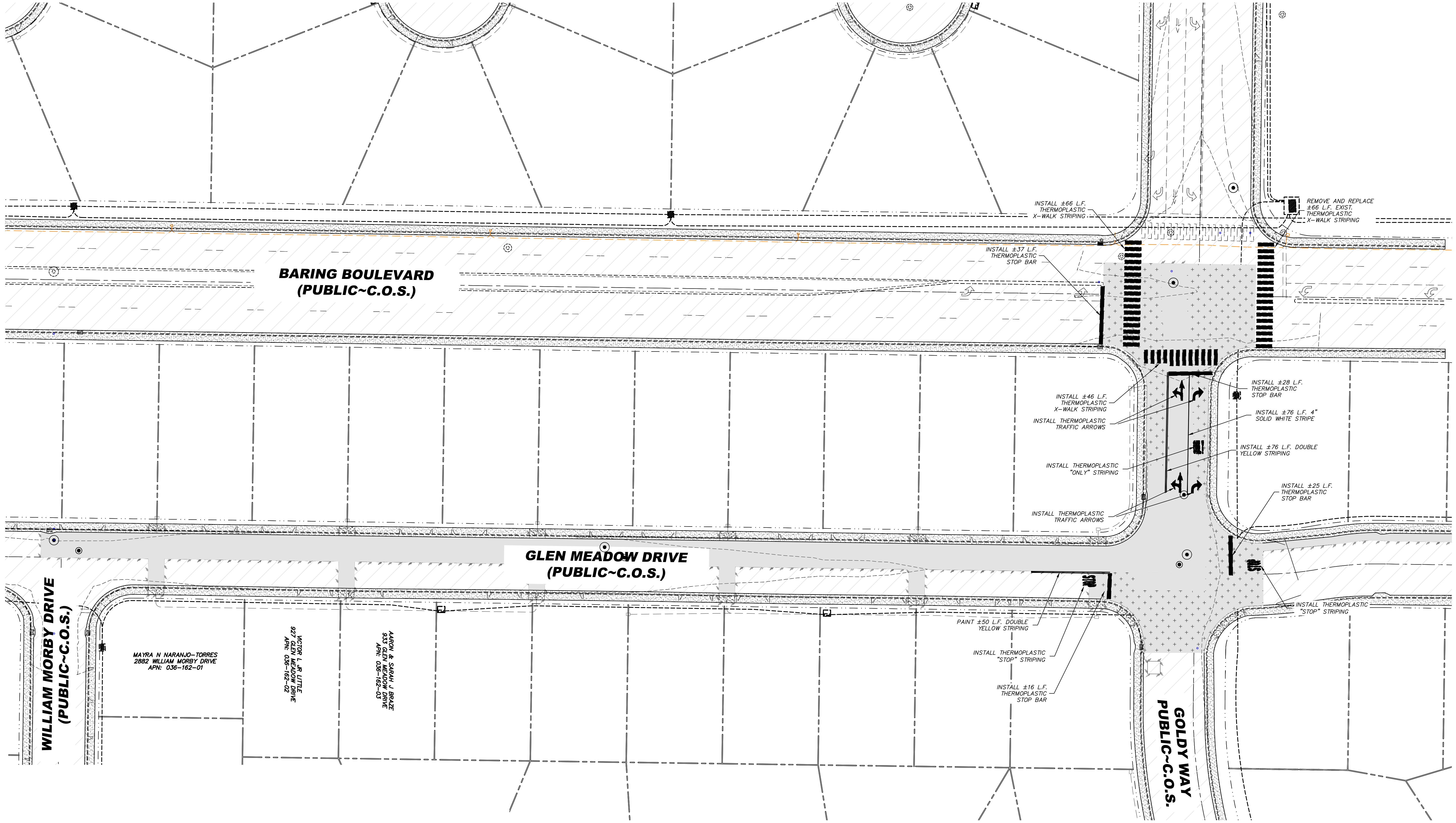
SPARKS WASHOE NEVADA

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FRANK A. BIDART
Exp. 12-31-22
CIVIL
No. 10504

SCALE	HORIZ. 1"=50'
VERT.	-
JOB NO.	-
SHEET	C3.1
OF	15



DATE	REV.	DATE	DESCRIPTION	BY	APP'D
MAR. 2022					
DRAWN BY: E.C.W.					
DESIGNED BY: E.C.W.					
CHECKED BY: F.B.					

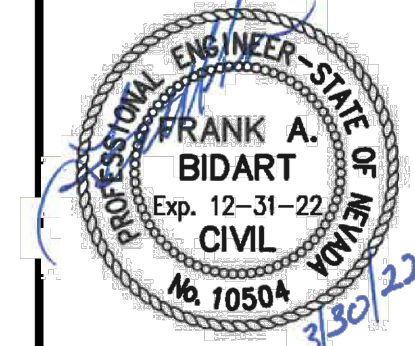
FOR BID

**C.O.S. GLEN MEADOW DRIVE
STORM DRAIN
STRIPING PLAN**

SPARKS WASHOE NEVADA

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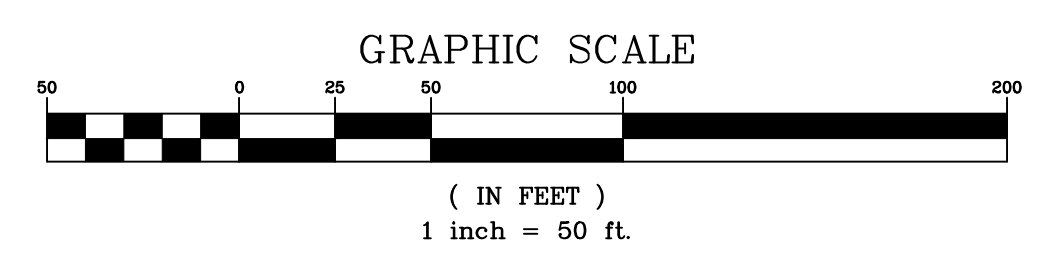


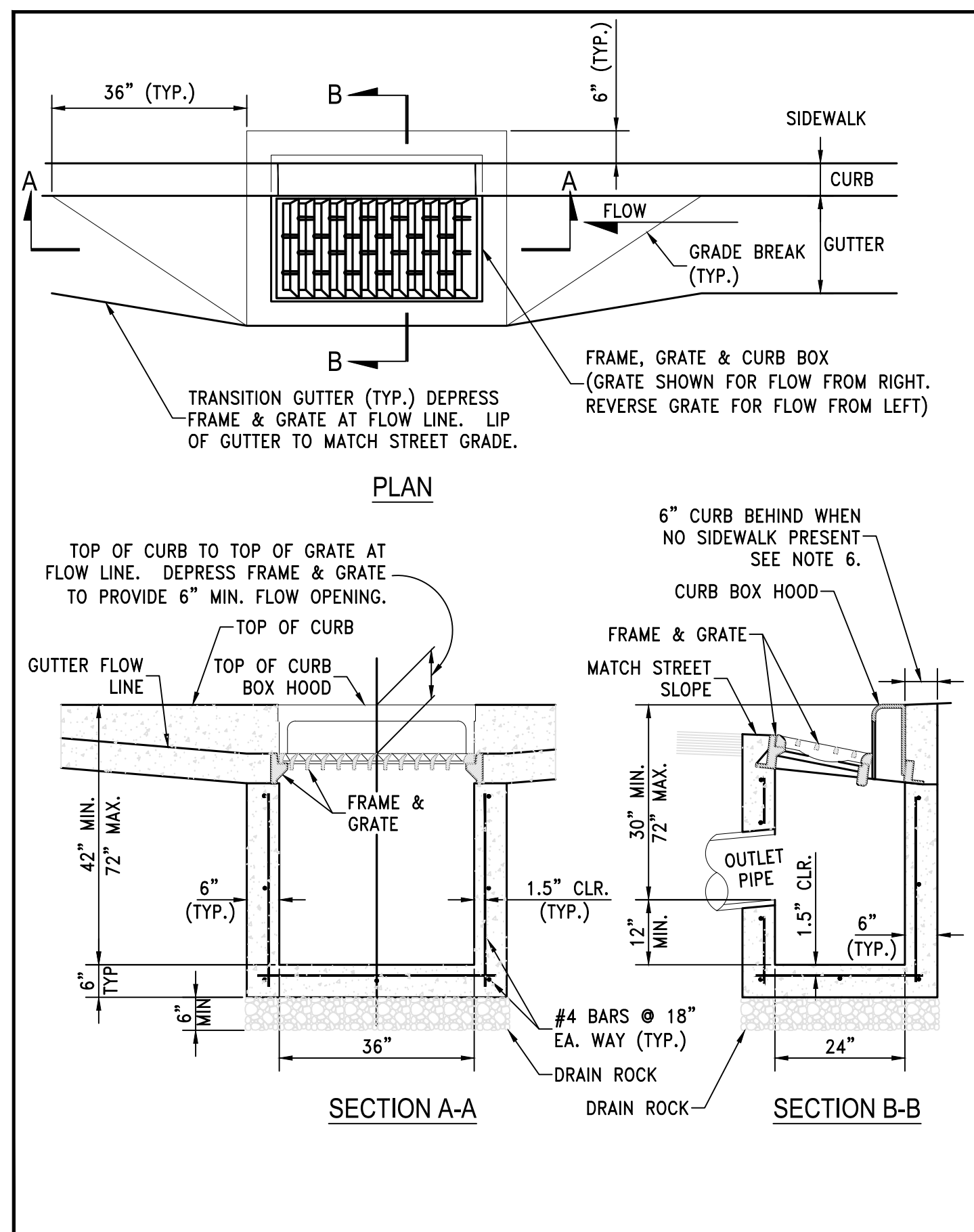
SCALE
HORIZ. 1"=30'
VERT. —
JOB NO. —

SHEET
C4.1
OF
15



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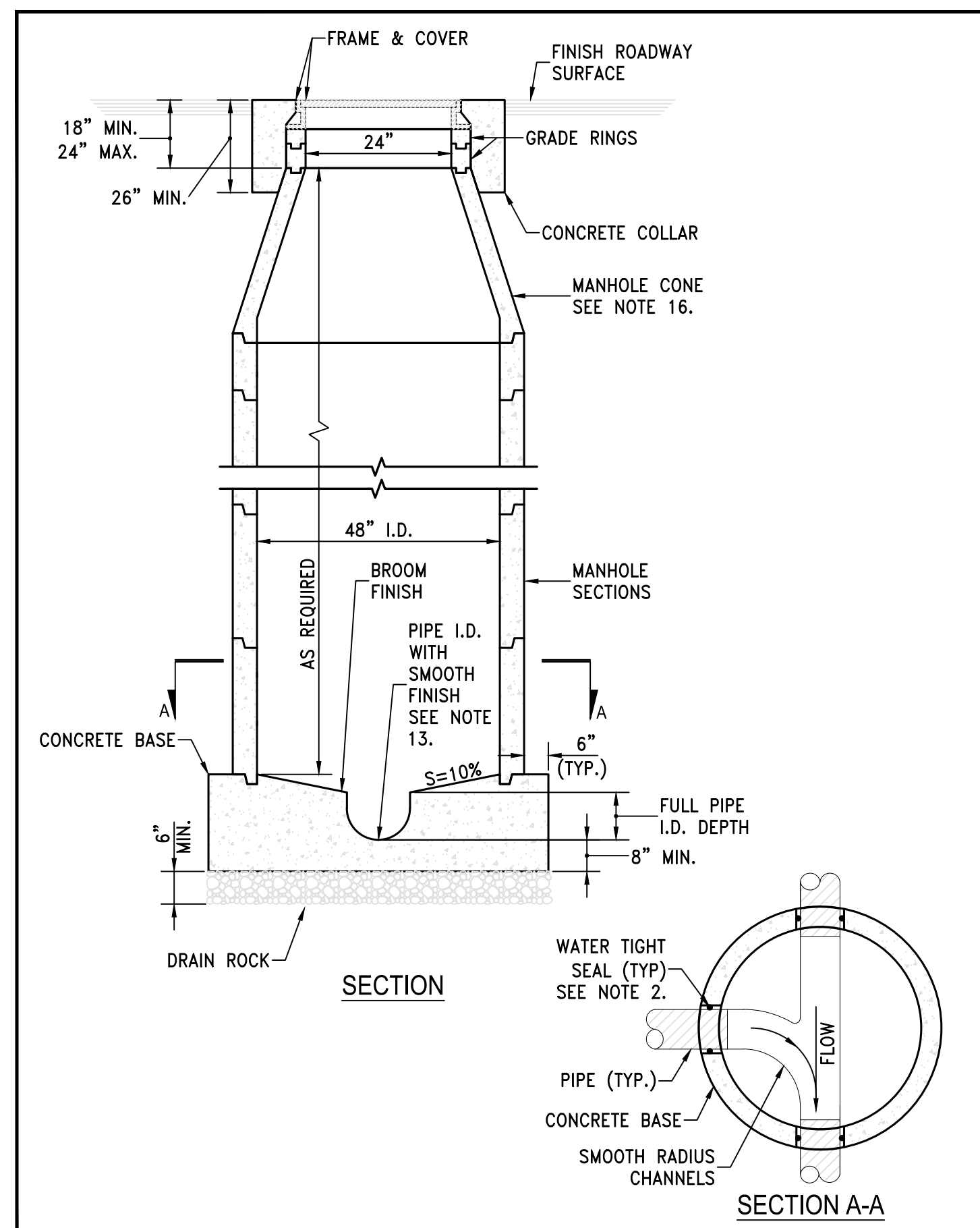




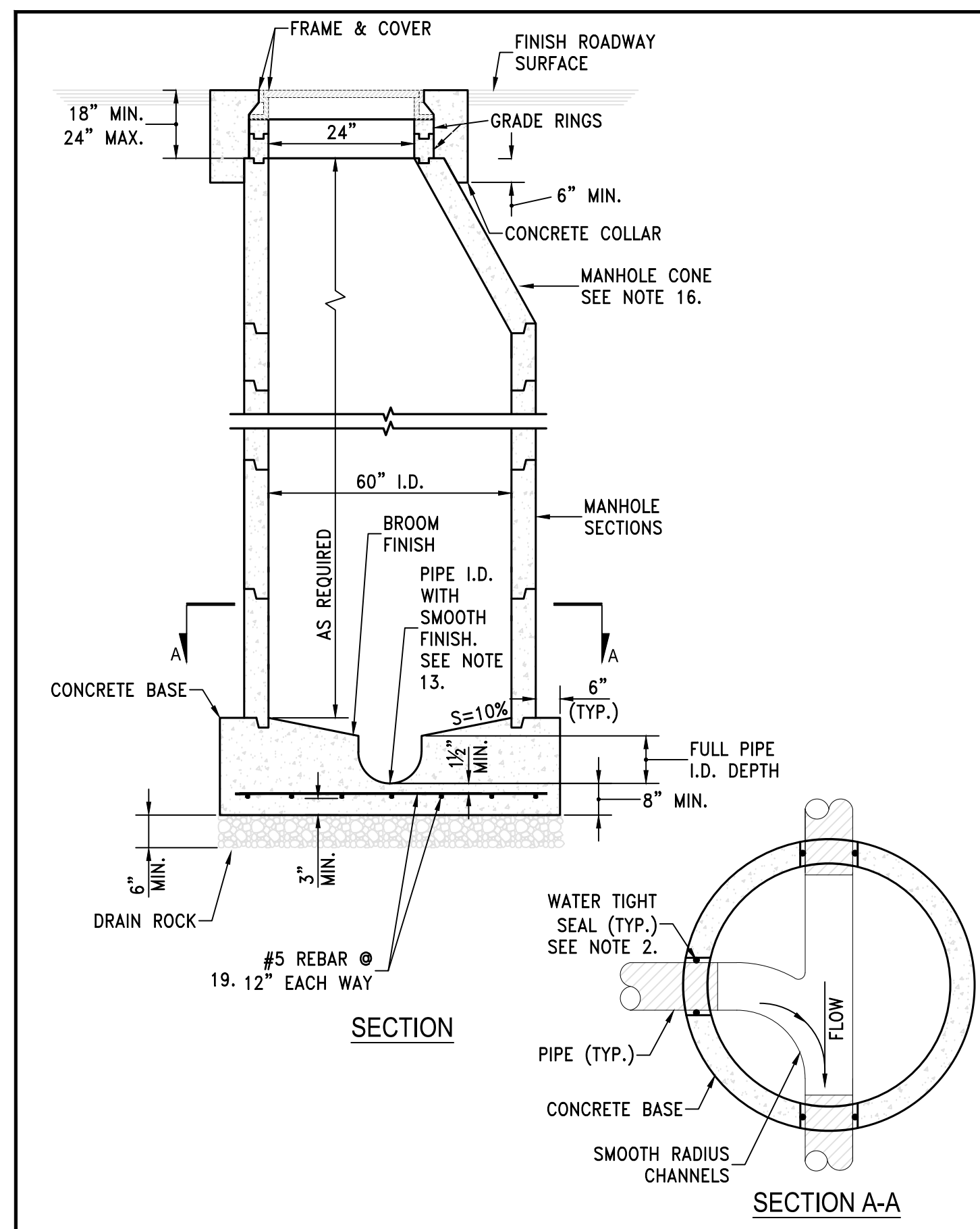
STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION	DRAWING No.
City of Sparks CATCH BASIN TYPE 4-R	S-204A
	APPROVED BY: JE DATE: 1/2020

- NOTES:**
- P.C.C. CURB AND GUTTER TRANSITION SHALL BE PORTLAND CEMENT CONCRETE (P.C.C.) AND SHALL HAVE THE FOLLOWING CHARACTERISTICS: 4000 PSI MIN. COMPRESSIVE STRENGTH AT 28 DAYS, MIN. 6 SACKS OF CEMENT PER CUBIC YARD WITH MAX. WATER-CEMENT RATIO OF 0.45, AIR ENTRAINMENT 6% ±1.5%, SLUMP AT 1 TO 4 INCHES. MIX DESIGN SHALL CONFORM TO THE REQUIREMENTS OF SECTION 3377 OF STANDARD SPECIFICATIONS OF PUBLIC WORKS CONSTRUCTION (SSPWC), AS ADOPTED BY CITY COUNCIL. CEMENT SHALL BE TYPE II. ALL CEMENT CONCRETE SHALL HAVE A COARSE AGGREGATE GRADATION CONFORMING TO SIZE No. 67. POLYPROPYLENE OR CELLULOSE FIBERS SHALL BE ADDED TO THE P.C.C. AT 1.5 LBS. PER CUBIC YARD. ALL MATERIALS SHALL CONFORM TO SSPWC, AS ADOPTED BY CITY COUNCIL.
 - REINFORCING STEEL SHALL BE GRADE 40 AND HAVE 1.5" MINIMUM CLEAR COVER.
 - CONCRETE STRUCTURE MAY BE A CAST-IN-PLACE CONCRETE UNIT UPON APPROVAL OF THE CITY ENGINEER. BASE OF CAST-IN-PLACE CONCRETE UNIT SHALL BE PLACED ON 6" COMPACTED DRAIN ROCK.
 - FRAME, GRATE AND CURB BOX HOOD ASSEMBLY SHALL BE D&L I-3519 WITH TYPE L "VANE GRATE" OR APPROVED EQUAL. GRATE SHALL BE INSTALLED WITH PROPER FLOW DIRECTION. EACH CATCH BASIN SHALL BE CAST WITH A FISH IMAGE AND THE WORDS "NO DUMPING! DRAINS TO RIVERS" IN THE TOP OF EACH CURB HOOD.
 - TILT FRAME & GRATE AS REQUIRED TO ATTAIN 6" MIN. FLOW OPENING & INSTALL DURABLE SHIMS BETWEEN THE CURB BOX & FRAME AS REQUIRED TO MATCH CURB BOX TO TOP OF CURB AND FACE OF CURB (SEE SECTION B-B).
 - WHEN SIDEWALK IS PRESENT CONCRETE BEHIND CURB BOX SHALL BE THICKENED TO THE FULL DEPTH OF THE CURB BOX. IF NO SIDEWALK IS PRESENT, POUR 6" CONCRETE CURB STRUCTURE BEHIND GRATE AND TIE BEAM INTO BOX.
 - ALL CATCH BASINS, PUBLIC OR PRIVATE, SHALL BE PROVIDED WITH A "SUR-TRAP" OIL/WATER SEPARATOR OR APPROVED EQUAL.
 - FRAMES AND GRATES SHALL BE MATCHED TO ACHIEVE A CLOSE TOLERANCE FIT WITH MINIMAL GAPS.
 - CATCH BASIN SHALL NOT BE PLACED WITHIN THE RADIUS OF THE CURB UNLESS OTHERWISE APPROVED BY THE CITY ENGINEER.

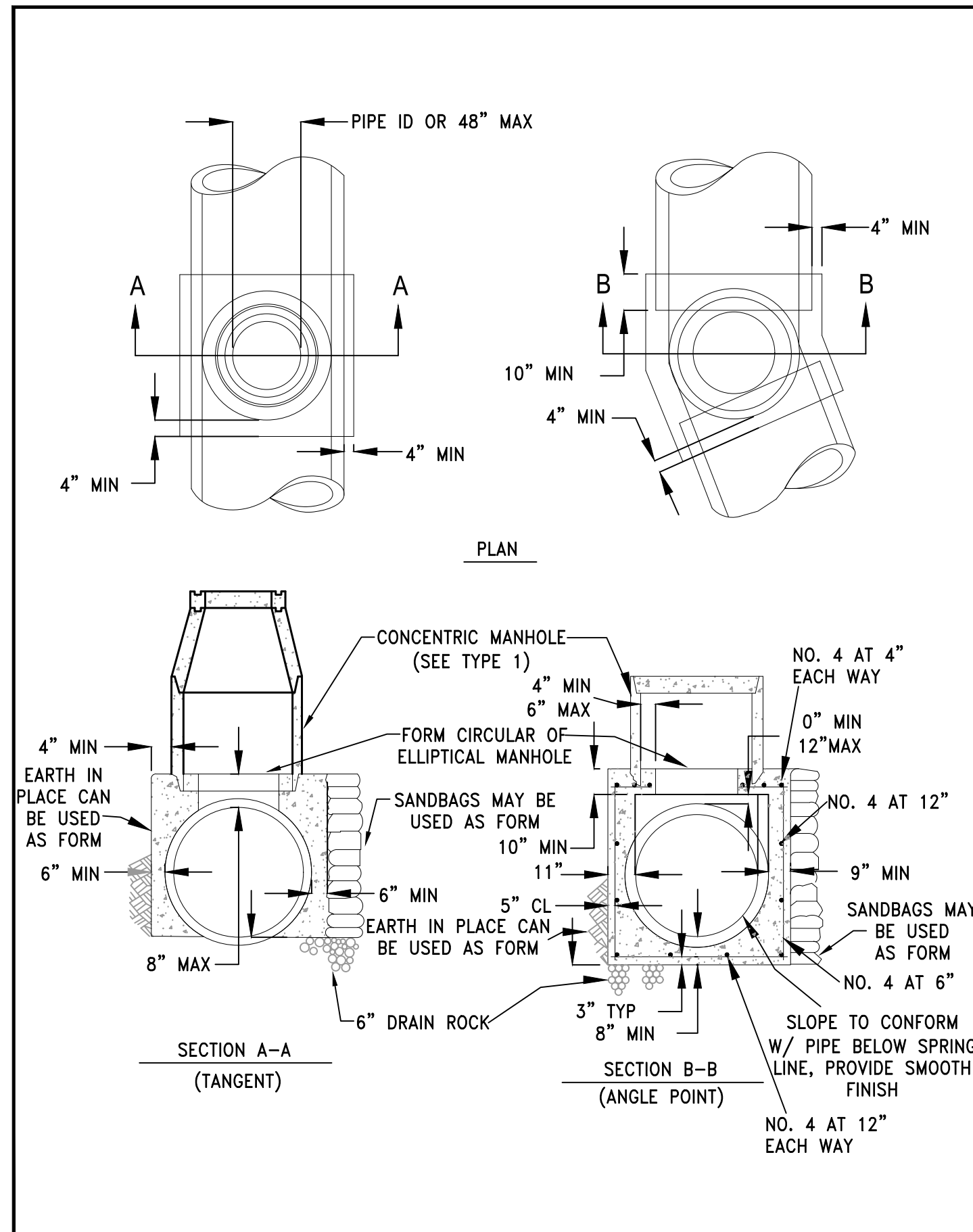
STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION	DRAWING No.
City of Sparks NOTES - CATCH BASIN TYPE 4-R	S-204B
	APPROVED BY: JE DATE: 1/2020



STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION	DRAWING No.
City of Sparks MANHOLE TYPE I	S-206A
	APPROVED BY: JE DATE: 1/2020



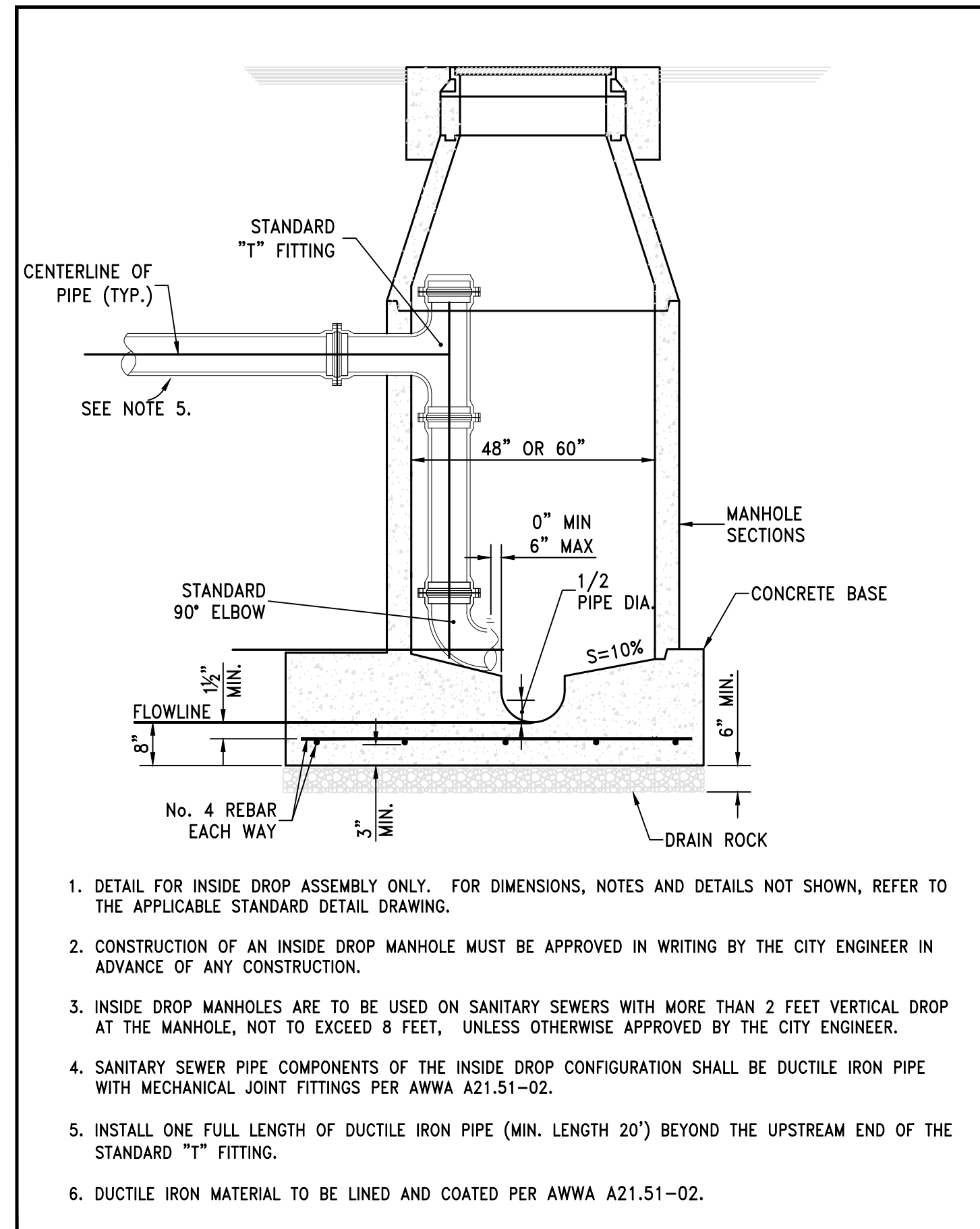
STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION	DRAWING No.
City of Sparks MANHOLE TYPE V	S-206B
	APPROVED BY: JE DATE: 1/2020



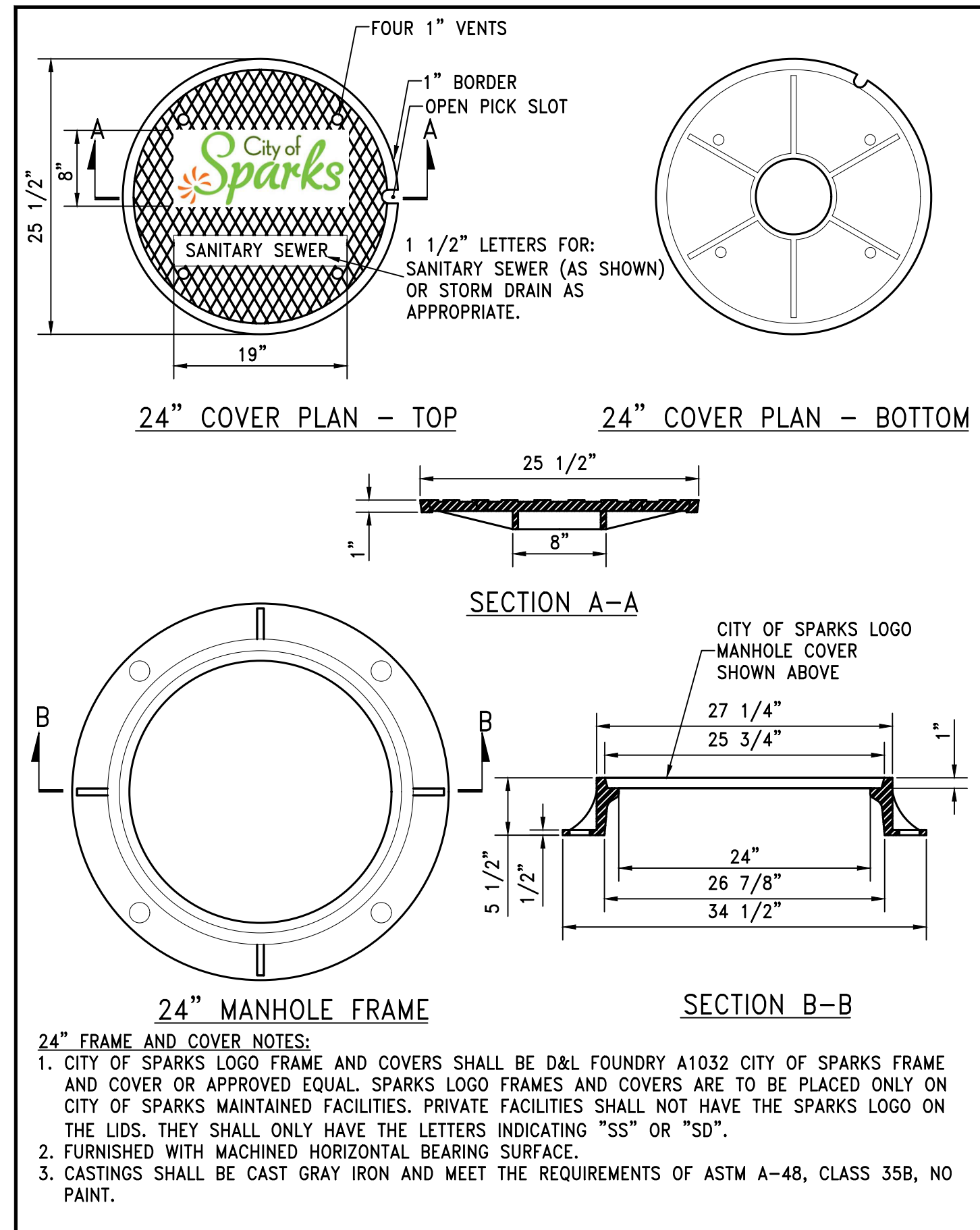
STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION	DRAWING No.
City of Sparks MANHOLE TYPE IV	S-206C
	APPROVED BY: JE DATE: 1/2020

- GENERAL MANHOLE NOTES**
- ALL PRECAST MANHOLE COMPONENTS SHALL CONFORM TO ASTM C-478.
 - PIPES SHALL NOT PROTRUDE MORE THAN 3" INSIDE MANHOLE SECTION AS MEASURED AT THE OUTSIDE EDGES OF THE PIPE, VERTICALLY ALIGNED WITH THE SPRINGLINE. PIPE CONNECTION TO MANHOLE SHALL BE WATERTIGHT PER STANDARD DETAILS S-211A, S-211B AND S-211C.
 - MANHOLE BASE SHALL BE PORTLAND CEMENT CONCRETE (P.C.C.) AND SHALL HAVE THE FOLLOWING CHARACTERISTICS: 3000 PSI MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS, MINIMUM 6 SACKS OF CEMENT PER CUBIC YARD WITH SLUMP AT 1 TO 4 INCHES. ALL MATERIAL SHALL CONFORM TO STANDARD SPECIFICATIONS OF PUBLIC WORKS CONSTRUCTION (SSPWC), AS ADOPTED BY CITY COUNCIL. PRECAST CONCRETE BASE MAY BE USED IN LIEU OF CAST-IN-PLACE BASE.
 - TYPE I MANHOLE TO BE UTILIZED FOR PIPE DIAMETERS OF 12" OR SMALLER AND DEPTHS NOT EXCEEDING 18 FEET.
 - TYPE V MANHOLE TO BE UTILIZED FOR PIPE DIAMETERS OF 15" THROUGH 27" OR DEPTHS EXCEEDING 18 FEET.
 - MANHOLE MATERIALS AND CONSTRUCTION SHALL CONFORM TO THE REQUIREMENTS OF SECTION 204 "MANHOLES AND CATCH BASINS" OF THE STANDARD SPECIFICATIONS.
 - PRECAST MANHOLE SECTIONS, OTHER THAN GRADE RINGS, SHALL BE JOINED WITH FLEXIBLE GASKET MATERIAL SUCH AS "RAM-NEK" OR EQUAL AS PER MANUFACTURER'S RECOMMENDATIONS.
 - EXCAVATION AND BACKFILL SHALL BE AS SPECIFIED FOR "TRENCH EXCAVATION AND BACKFILL" IN SECTION 305 OF THE STANDARD SPECIFICATIONS.
 - EXCAVATION SHALL BE AS NEARLY VERTICAL AS POSSIBLE (SHEET AND SHORE IF SOIL CONDITIONS REQUIRE) IN EXISTING STREET SECTIONS, ALLEY SECTIONS, AND CONFINED AREAS, SUCH AS LIMITED EASEMENTS OR ADJACENT STRUCTURES.
 - MANHOLE PRECAST SECTION LENGTH SHALL BE ARRANGED TO FIT THE REQUIRED DEPTH.
 - NO LATERALS OR PIPES LESS THAN 8" IN DIAMETER SHALL BE CONNECTED TO THE MANHOLE.
 - PRECAST CONCRETE BASE MAY BE USED IN LIEU OF CAST-IN-PLACE BASE.
 - MATCH PIPE INVERTS TO MANHOLE INVERTS WHERE PIPES CONNECT TO MANHOLE BASE.
 - ALL MANHOLES SHALL BE WATERTIGHT.
 - SEE DETAIL FOR INSIDE DROP MANHOLE FOR SANITARY SEWERS WITH MORE THAN 2 FEET VERTICAL DROP AT THE MANHOLE. THE USE OF "OUTSIDE DROP" MANHOLES IS NOT PERMITTED.
 - THE USE OF FLAT TOP MANHOLE CONES REQUIRES PRIOR APPROVAL FROM THE CITY ENGINEER.
 - PRIOR TO BACKFILLING, ALL MANHOLES SHALL BE VACUUM TESTED PER ASTM C-1244.
 - NO STEPS, LADDERS, OR OTHER CLIMBING DEVICES SHALL BE INSTALLED IN THE MANHOLE.
 - REINFORCING STEEL SHALL BE AS SHOWN, WIRED TIGHTLY AT ALL INTERSECTIONS AND EMBEDDED AT LEAST 1 1/2" CLEAR, UNLESS OTHERWISE NOTED.
 - WHEN PIPE CONNECTIONS TO EXISTING MANHOLES ARE ALLOWED, THEY SHALL BE MADE BY CORE DRILLING THE MANHOLE AND CONNECTING THE PIPE PENETRATION PER DETAIL S-211A & S-211B.

STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION	DRAWING No.
City of Sparks NOTES - MANHOLE TYPE I, TYPE V & TYPE IV	S-206D
	APPROVED BY: JE DATE: 1/2020



STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION	DRAWING No.
City of Sparks MANHOLE-INSIDE DROP	S-207
	APPROVED BY: JE DATE: 1/2020



STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION	DRAWING No.
City of Sparks 24" MANHOLE FRAME & COVER	S-209A
	APPROVED BY: JE DATE: 2/2020

FOR BID

C.O.S. GLEN MEADOW DRIVE STORM DRAIN UTILITY DETAILS WASHOE NEVADA SPARKS

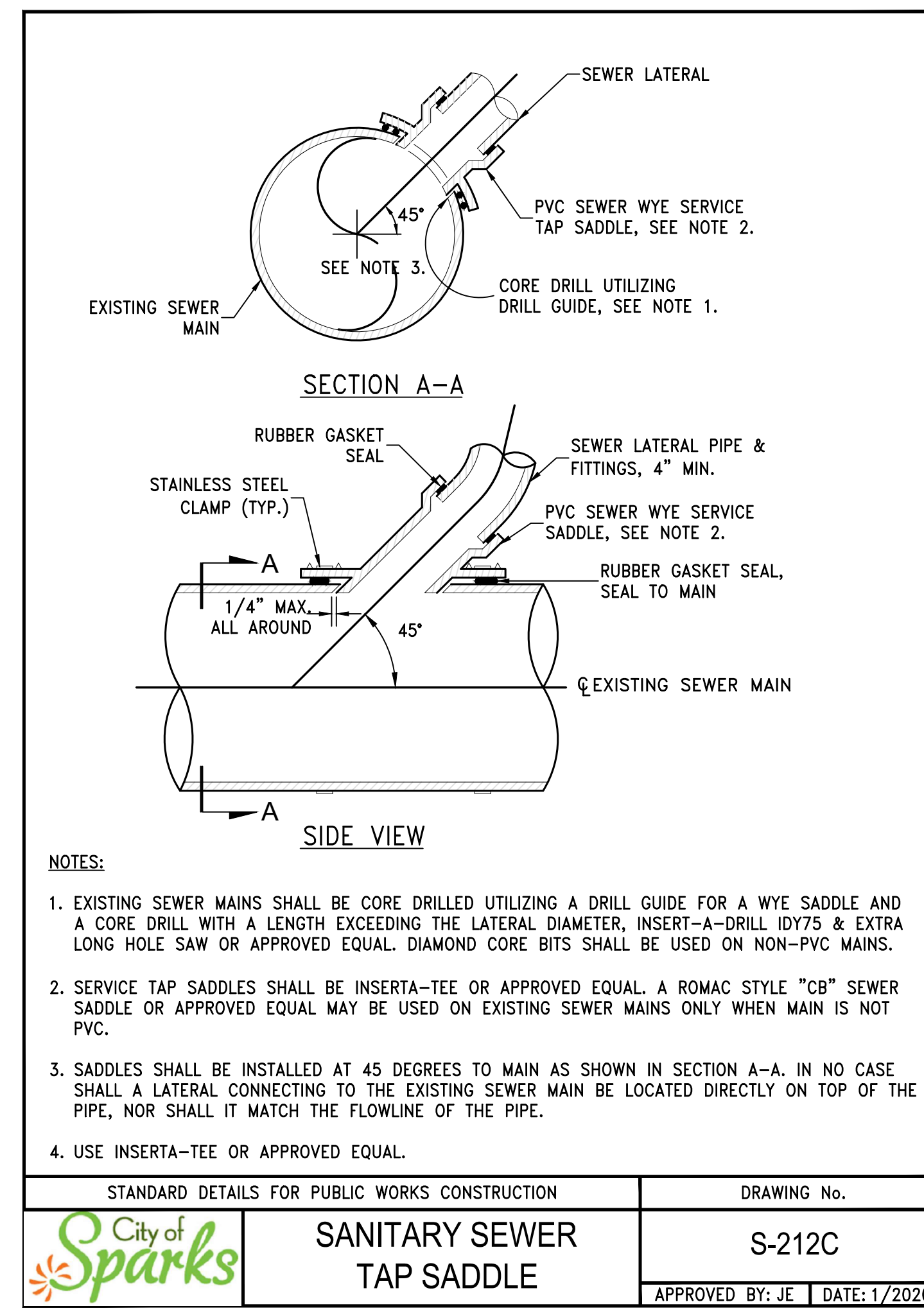
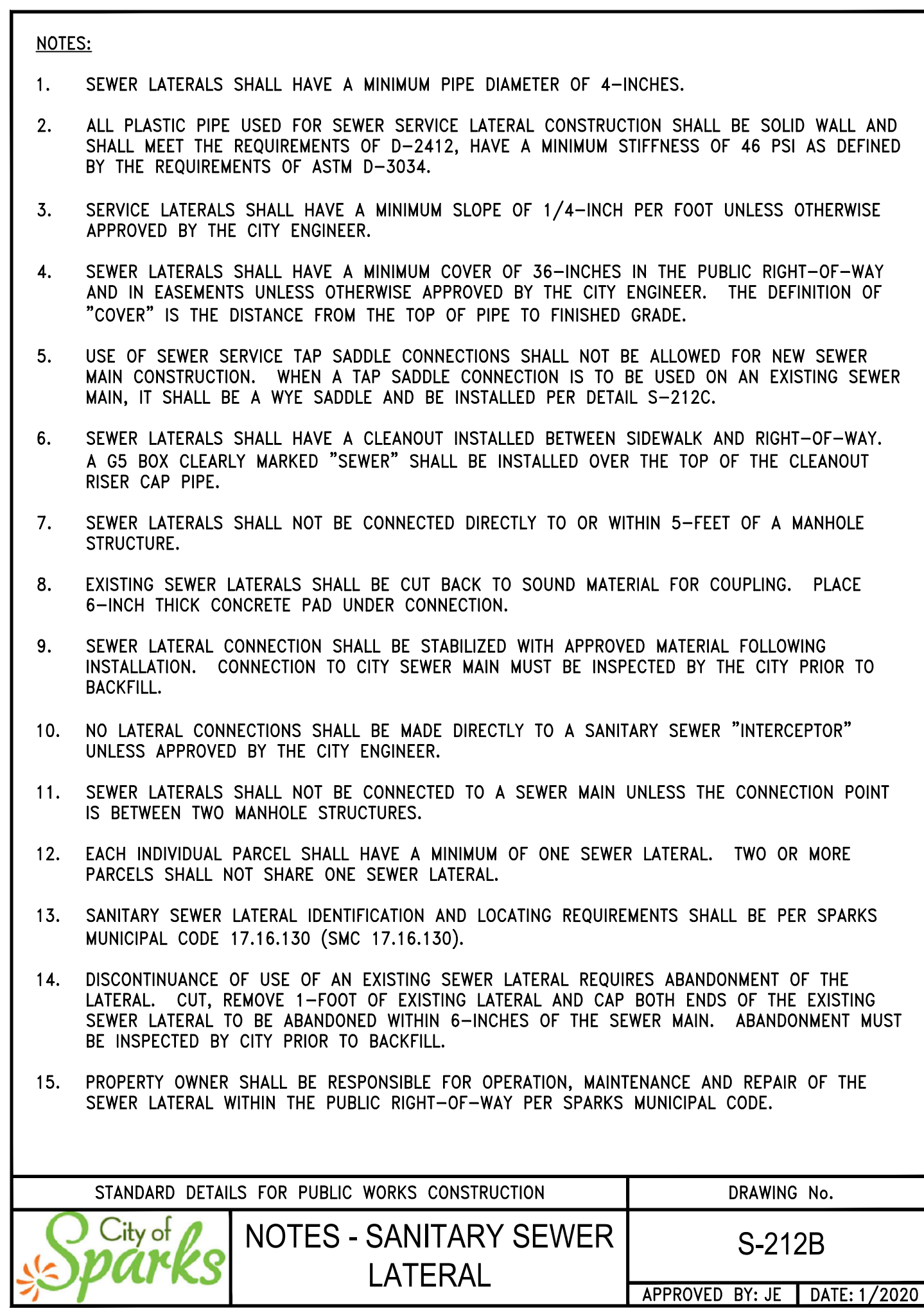
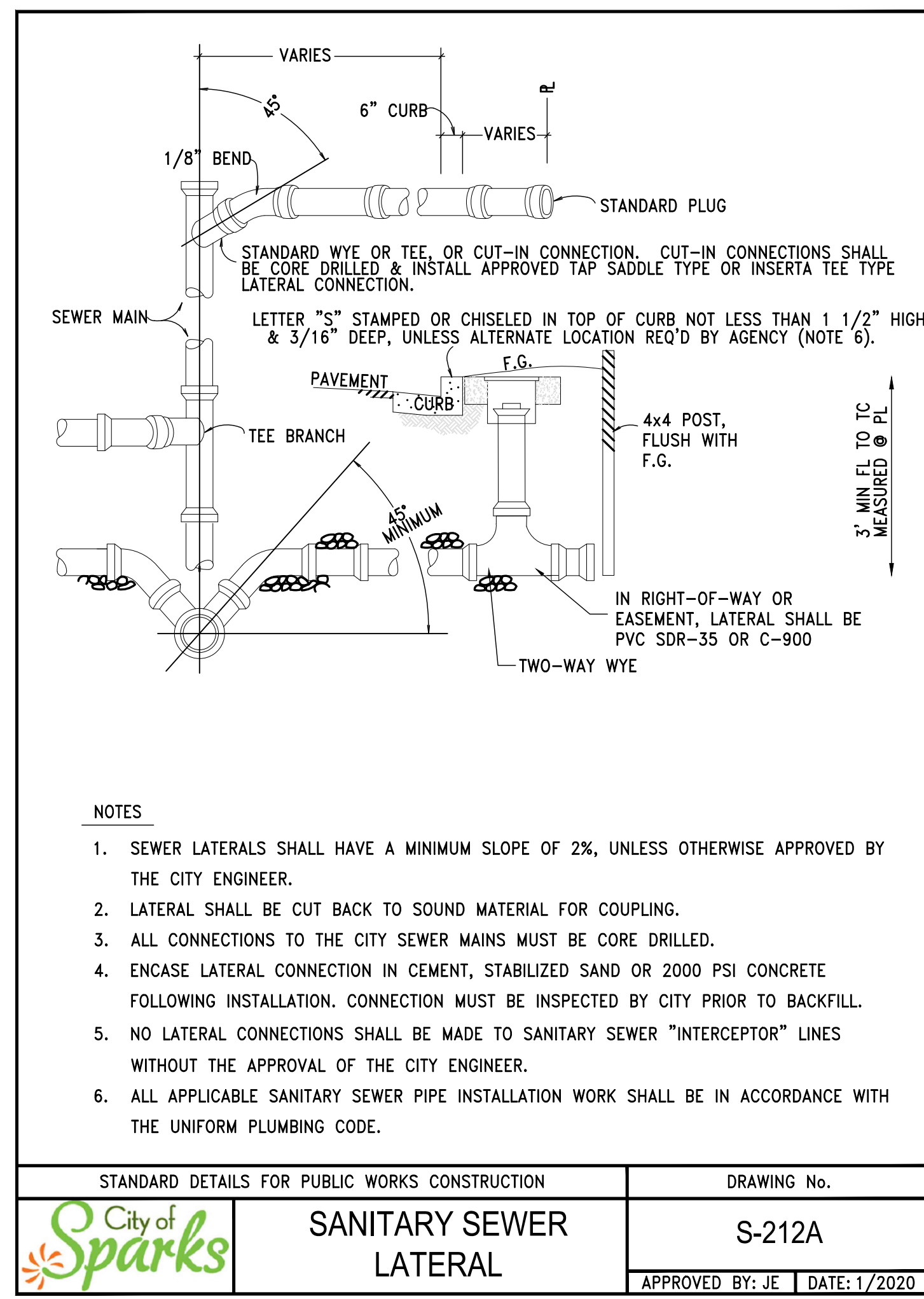
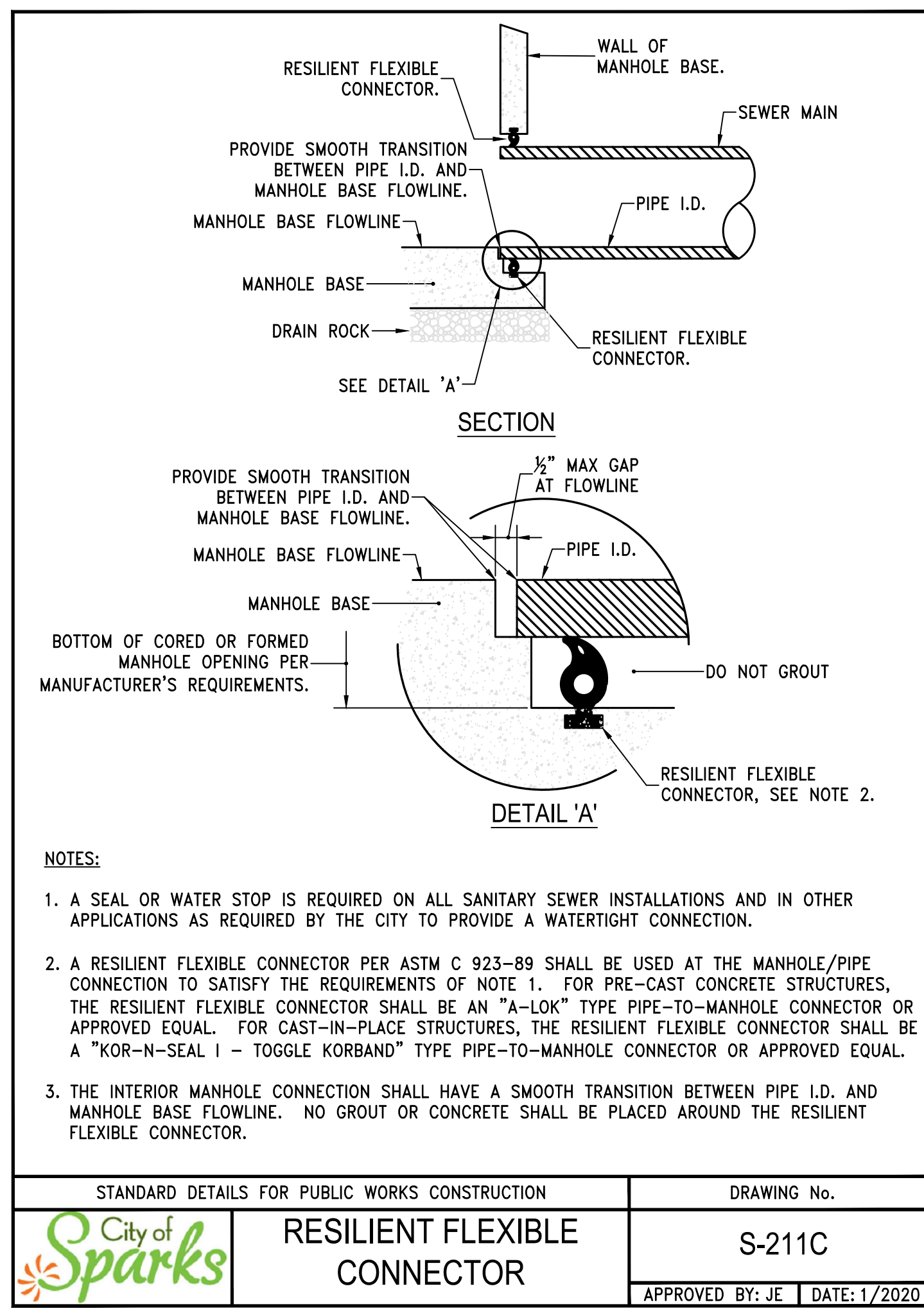
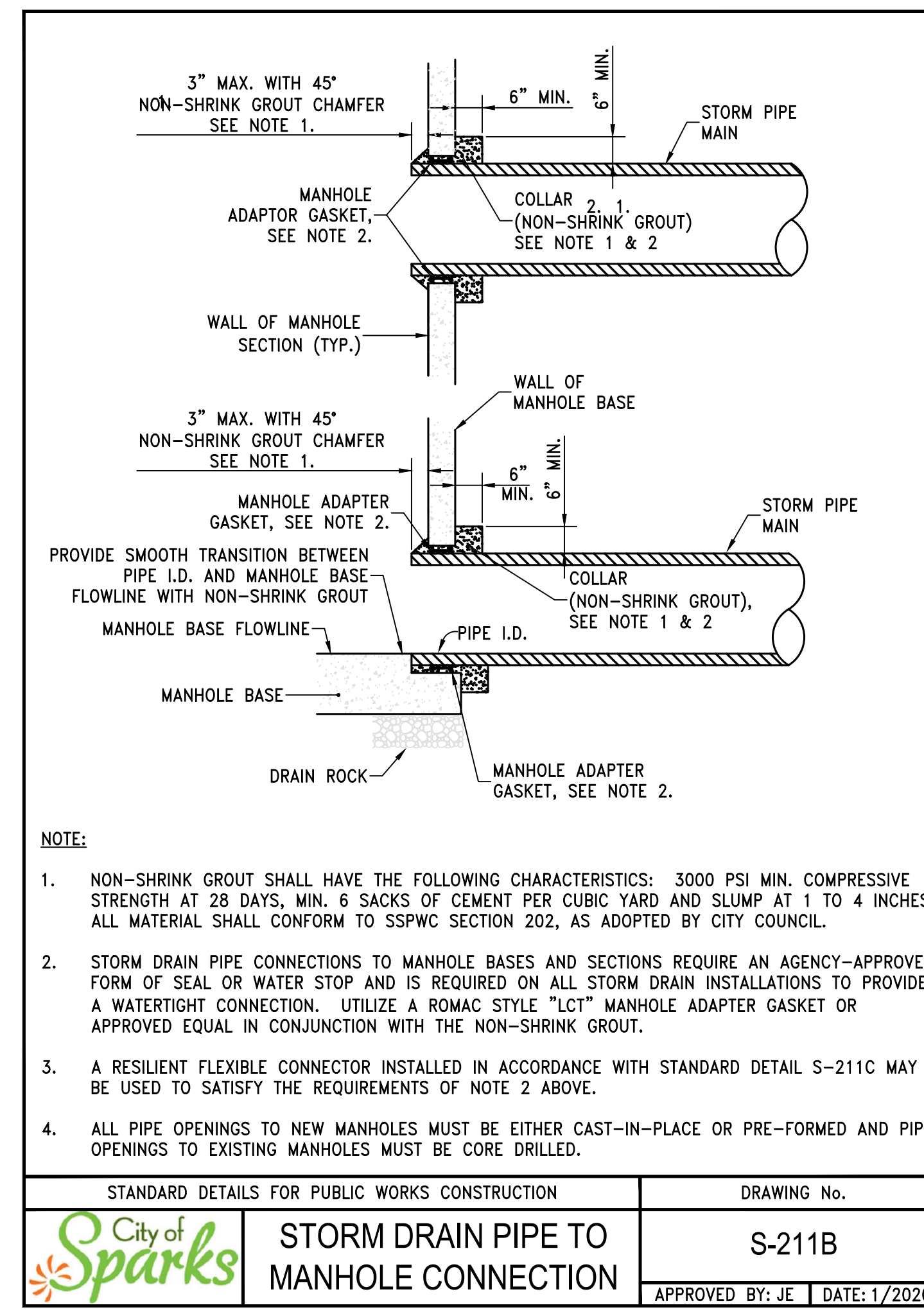
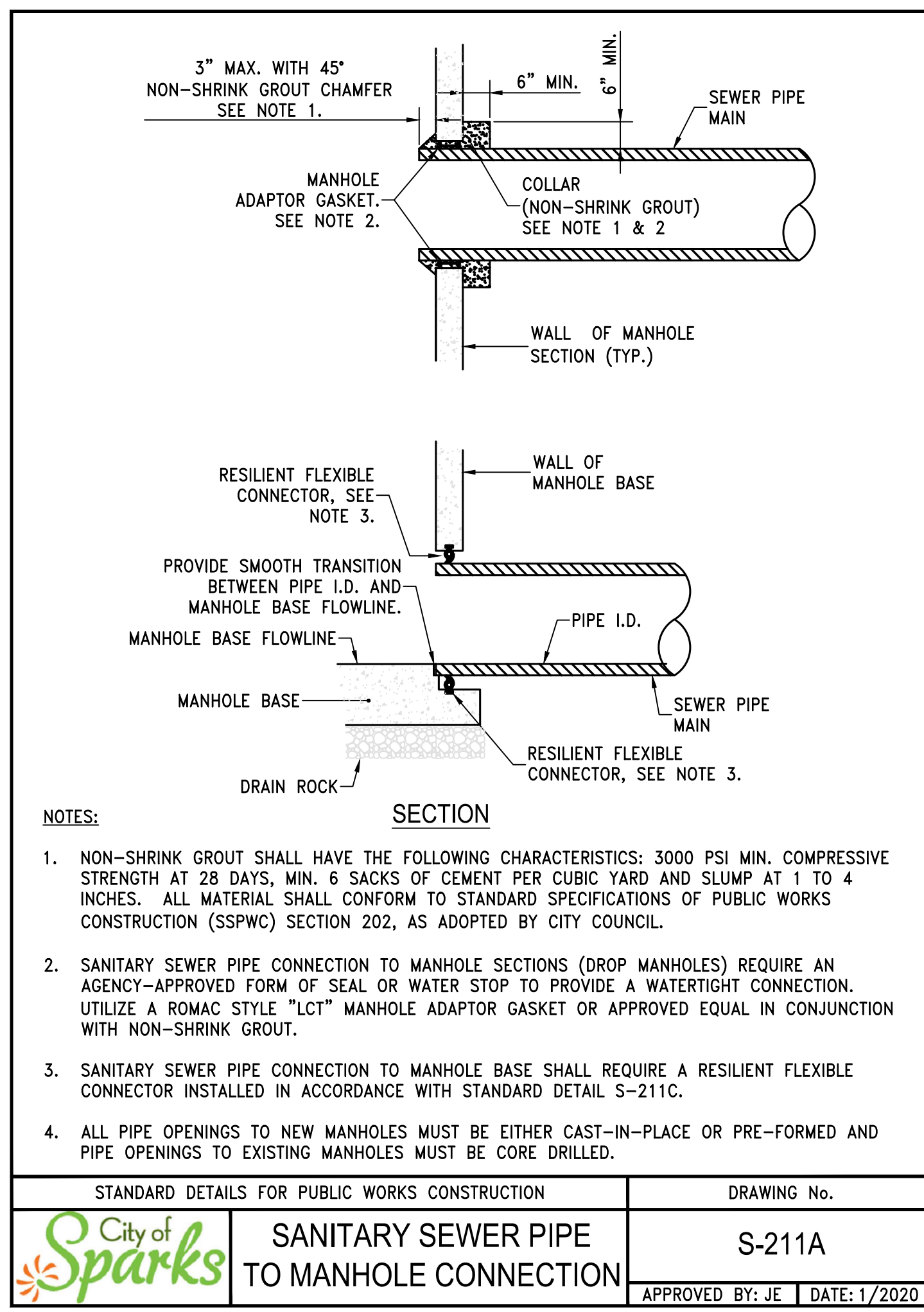
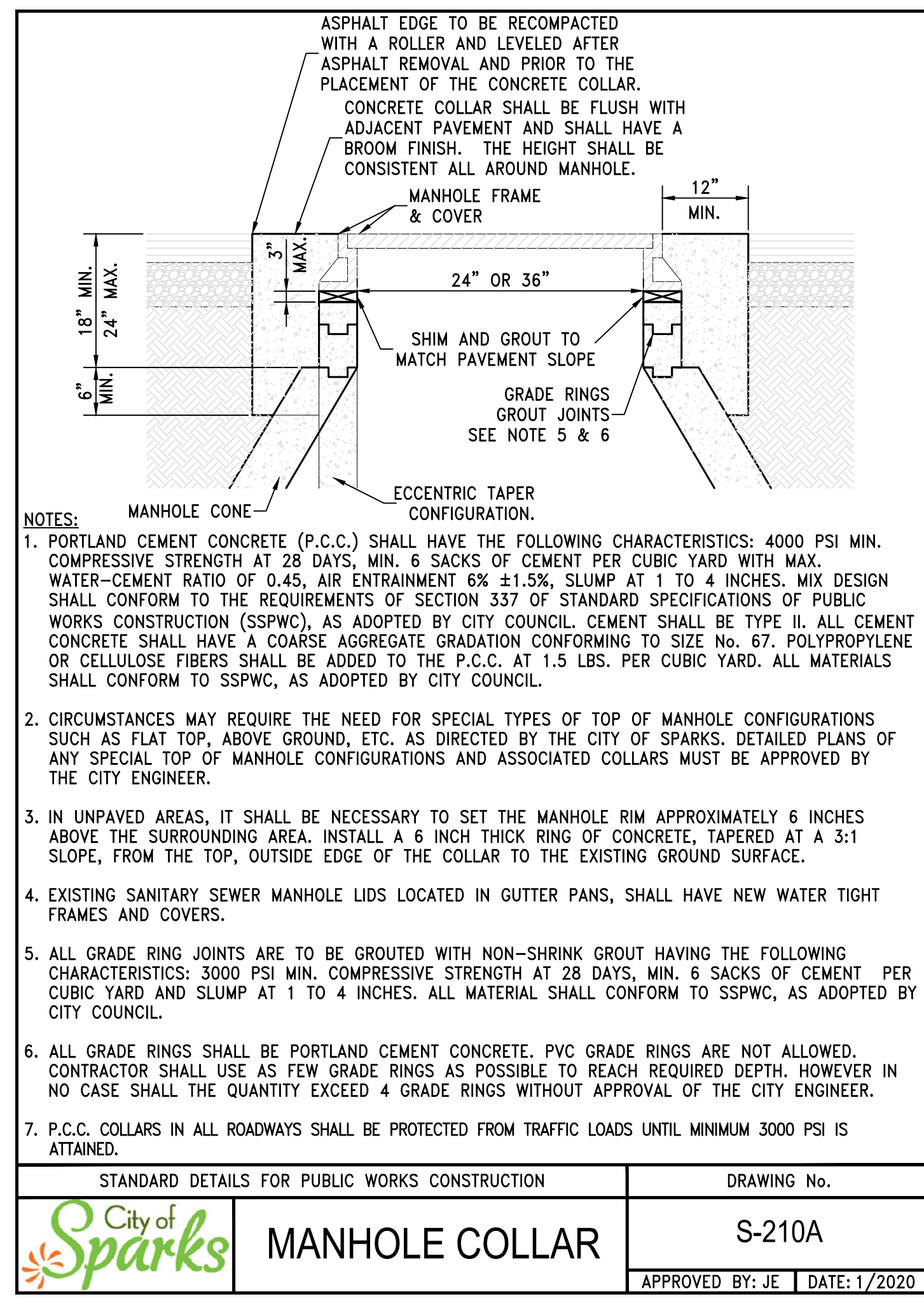
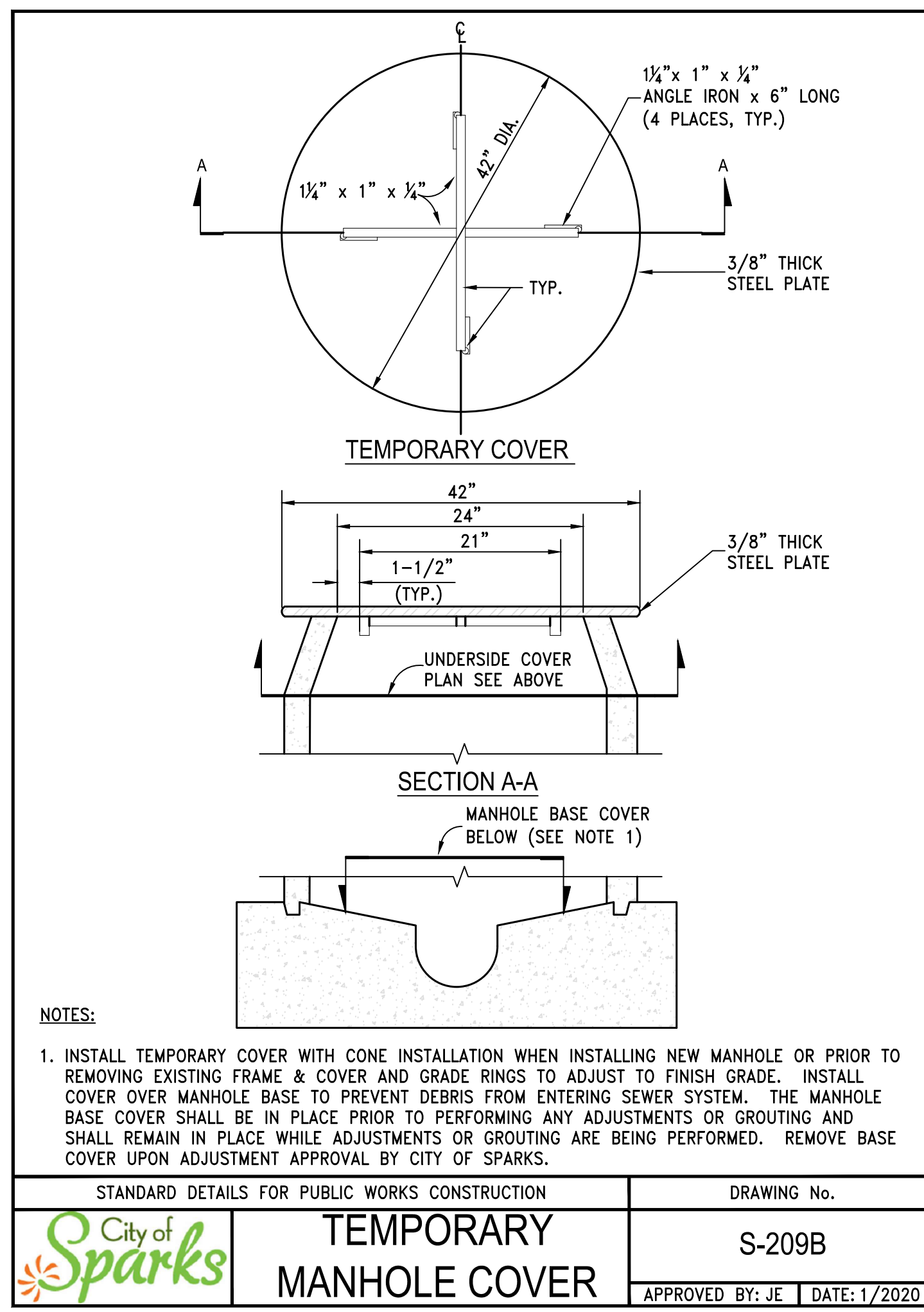
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DRAWN BY: E.C.W.	DESCRIPTION
DESIGNED BY: E.C.W.	DATE
CHECKED BY: F.B.	REV.

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ODYSSEYRENO.COM

odyssey ENGINEERING INCORPORATED

FRANK A. BIDART
Exp. 12-31-22
CIVIL
No. 10504

SCALE
HORIZ. -
VERT. -
JOB NO. -
SHEET
C5.1
OF
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FOR BID

C.O.S. GLEN MEADOW DRIVE STORM DRAIN UTILITY DETAILS

SPARKS WASHOE NEVADA

DATE: MAR-2022
DRAWN BY: E.C.W.
DESIGNED BY: E.C.W.
CHECKED BY: F.B.

DATE: MAR-2022
DRAWN BY: E.C.W.
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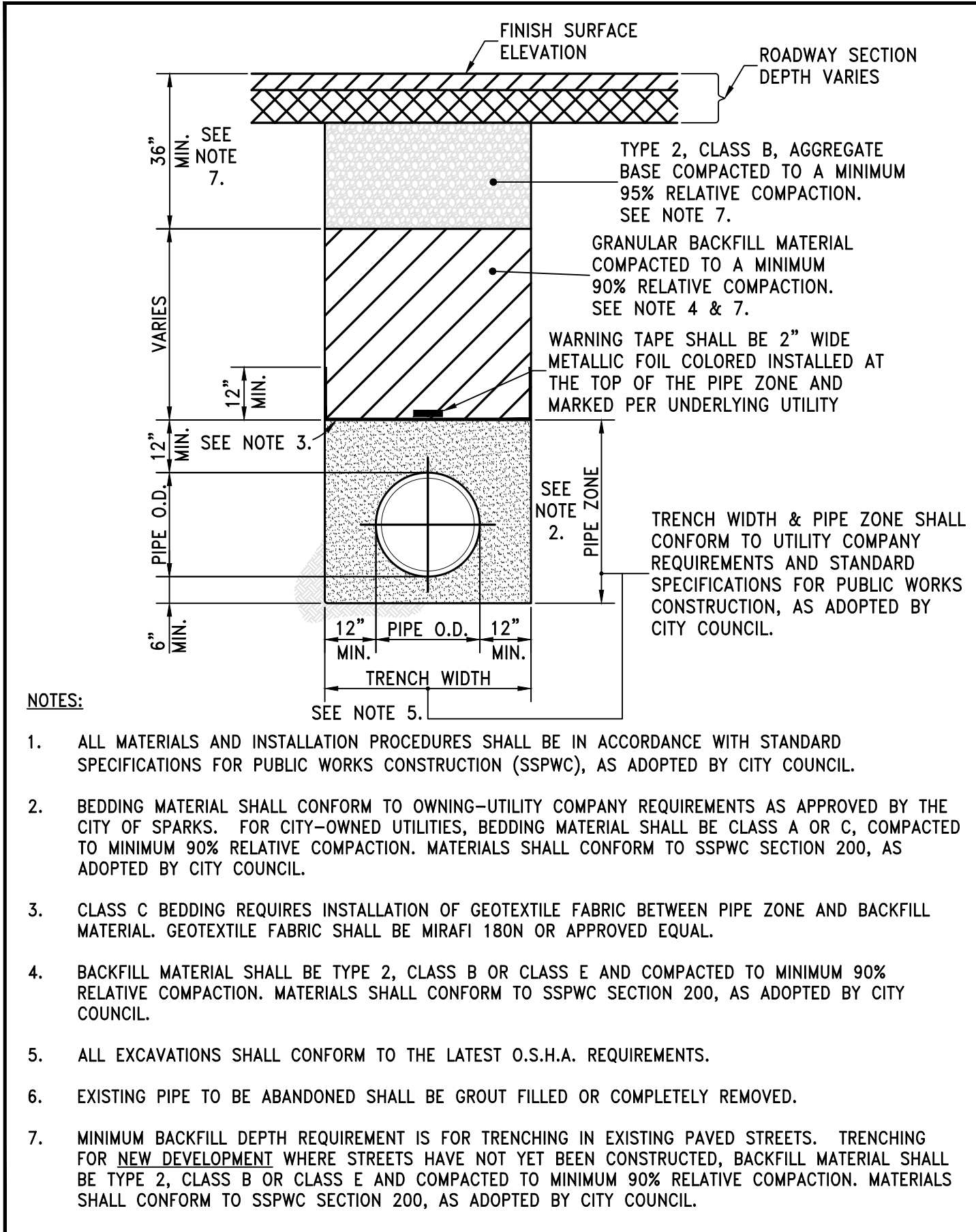
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FRANK A. BIDART
Exp. 12-31-22
CIVIL
No. 10504

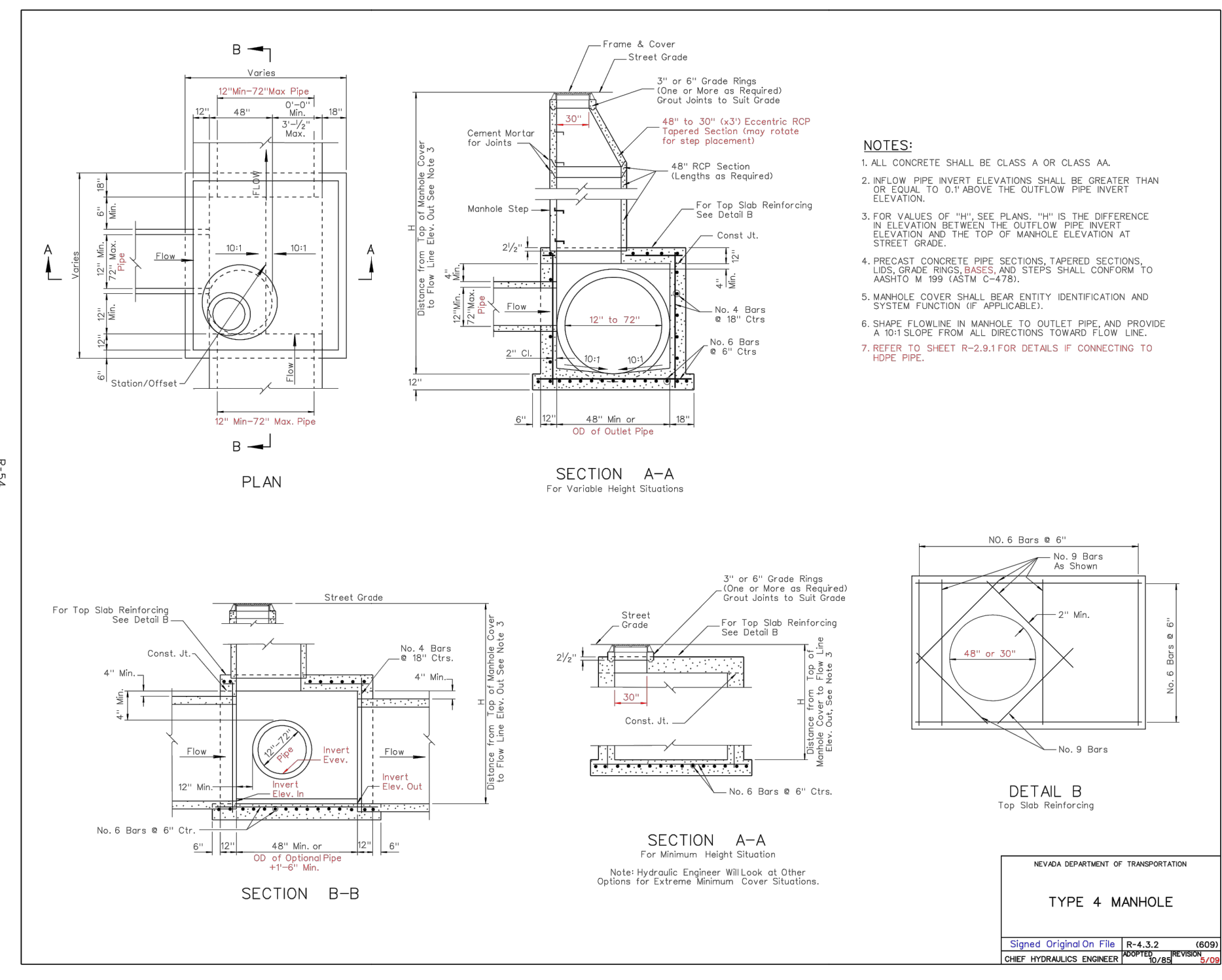
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March 31, 2022 - 09:08 Dwg Name: H:\COS STORM AND SEWER MASTER CIP\Production Drawings\CIP 6-3\C6.0 - CIVIL DETAILS.dwg Updated By: eric



- NOTES:
1. ALL MATERIALS AND INSTALLATION PROCEDURES SHALL BE IN ACCORDANCE WITH STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (SSPWC), AS ADOPTED BY CITY COUNCIL.
 2. BEDDING MATERIAL SHALL CONFORM TO OWNING-UTILITY COMPANY REQUIREMENTS AS APPROVED BY THE CITY OF SPARKS. FOR CITY-OWNED UTILITIES, BEDDING MATERIAL SHALL BE CLASS A OR C, COMPACTED TO MINIMUM 90% RELATIVE COMPACTION. MATERIALS SHALL CONFORM TO SSPWC SECTION 200, AS ADOPTED BY CITY COUNCIL.
 3. CLASS C BEDDING REQUIRES INSTALLATION OF GEOTEXTILE FABRIC BETWEEN PIPE ZONE AND BACKFILL MATERIAL. GEOTEXTILE FABRIC SHALL BE MIRAFI 180N OR APPROVED EQUAL.
 4. BACKFILL MATERIAL SHALL BE TYPE 2, CLASS B OR CLASS E AND COMPACTED TO MINIMUM 90% RELATIVE COMPACTION. MATERIALS SHALL CONFORM TO SSPWC SECTION 200, AS ADOPTED BY CITY COUNCIL.
 5. ALL EXCAVATIONS SHALL CONFORM TO THE LATEST O.S.H.A. REQUIREMENTS.
 6. EXISTING PIPE TO BE ABANDONED SHALL BE GROUT FILLED OR COMPLETELY REMOVED.
 7. MINIMUM BACKFILL DEPTH REQUIREMENT IS FOR TRENCHING IN EXISTING PAVED STREETS. TRENCHING FOR NEW DEVELOPMENT WHERE STREETS HAVE NOT YET BEEN CONSTRUCTED, BACKFILL MATERIAL SHALL BE TYPE 2, CLASS B OR CLASS E AND COMPACTED TO MINIMUM 90% RELATIVE COMPACTION. MATERIALS SHALL CONFORM TO SSPWC SECTION 200, AS ADOPTED BY CITY COUNCIL.



STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION	DRAWING No.
TRENCH EXCAVATION/BACKFILL	S-117
APPROVED BY: JE	DATE: 1/2020



REV.	DATE	DESCRIPTION	BY	APP'D

DATE: 2022 MAR	DRAWN BY: E.C.W.	DESIGNED BY: E.C.W.	CHECKED BY: F.B.
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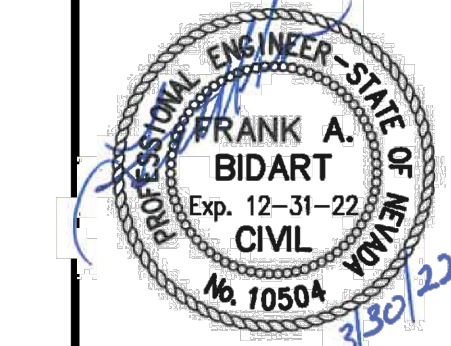
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C.O.S. GLEN MEADOW DRIVE
STORM DRAIN
UTILITY DETAILS

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TEMPORARY A.C. TRENCH PATCH

STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION

DRAWING No. S-116

APPROVED BY: JE | DATE: 1/2020

City of Sparks

ROADWAY SECTIONS

STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION

DRAWING No. S-101A

APPROVED BY: JE | DATE: 2/2020

City of Sparks

NOTES - ROADWAY SECTIONS

STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION

DRAWING No. S-101B

APPROVED BY: JE | DATE: 2/2020

City of Sparks

PERMANENT BITUMINOUS PAVEMENT PATCH

STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION

DRAWING No. S-115

APPROVED BY: JE | DATE: 1/2020

City of Sparks

PEDESTRIAN RAMP - EXISTING SIDEWALKS

STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION

DRAWING No. S-106A

APPROVED BY: JE | DATE: 1/2020

City of Sparks

PEDESTRIAN RAMP - DETAILS

STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION

DRAWING No. S-106F

APPROVED BY: JE | DATE: 1/20

City of Sparks

NOTES - PEDESTRIAN RAMP

STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION

DRAWING No. S-106G

APPROVED BY: JE | DATE: 3/2021

City of Sparks

P.C.C. CURB & GUTTER

STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION

DRAWING No. S-109

APPROVED BY: JE | DATE: 1/2020

City of Sparks

DATE: MAR. 2022
 DRAWN BY: E.C.W.
 DESIGNED BY: E.C.W.
 CHECKED BY: F.B.

DESCRIPTION

DATE

REV.

FOR BID

GLEN MEADOW DRIVE
 STORM DRAIN
 SITE DETAILS

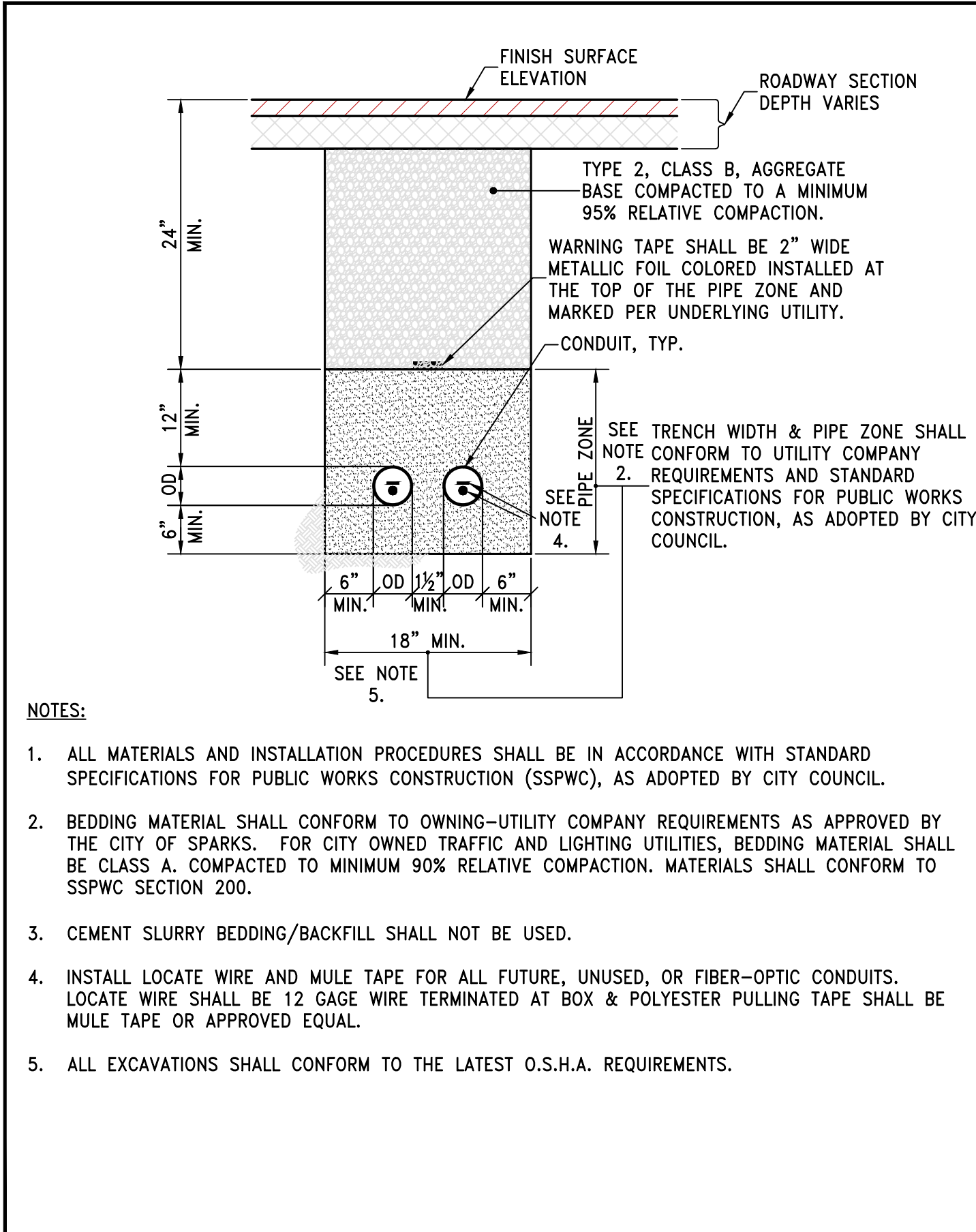
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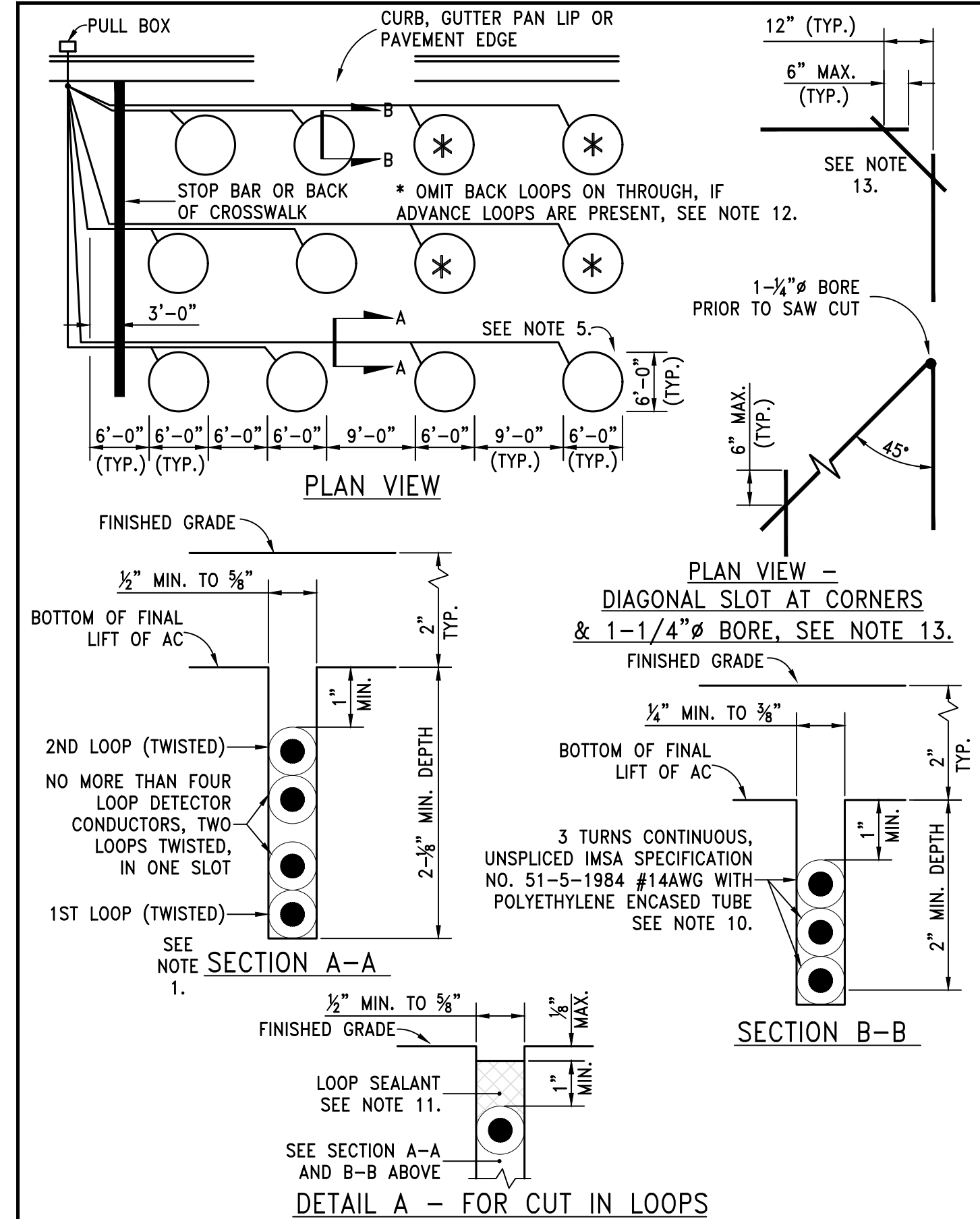
ODYSSEY ENGINEERING INCORPORATED

REGISTERED PROFESSIONAL ENGINEER - STATE OF NEVADA
 FRANK A. BIDART
 Exp. 12-31-22
 CIVIL
 No. 10504

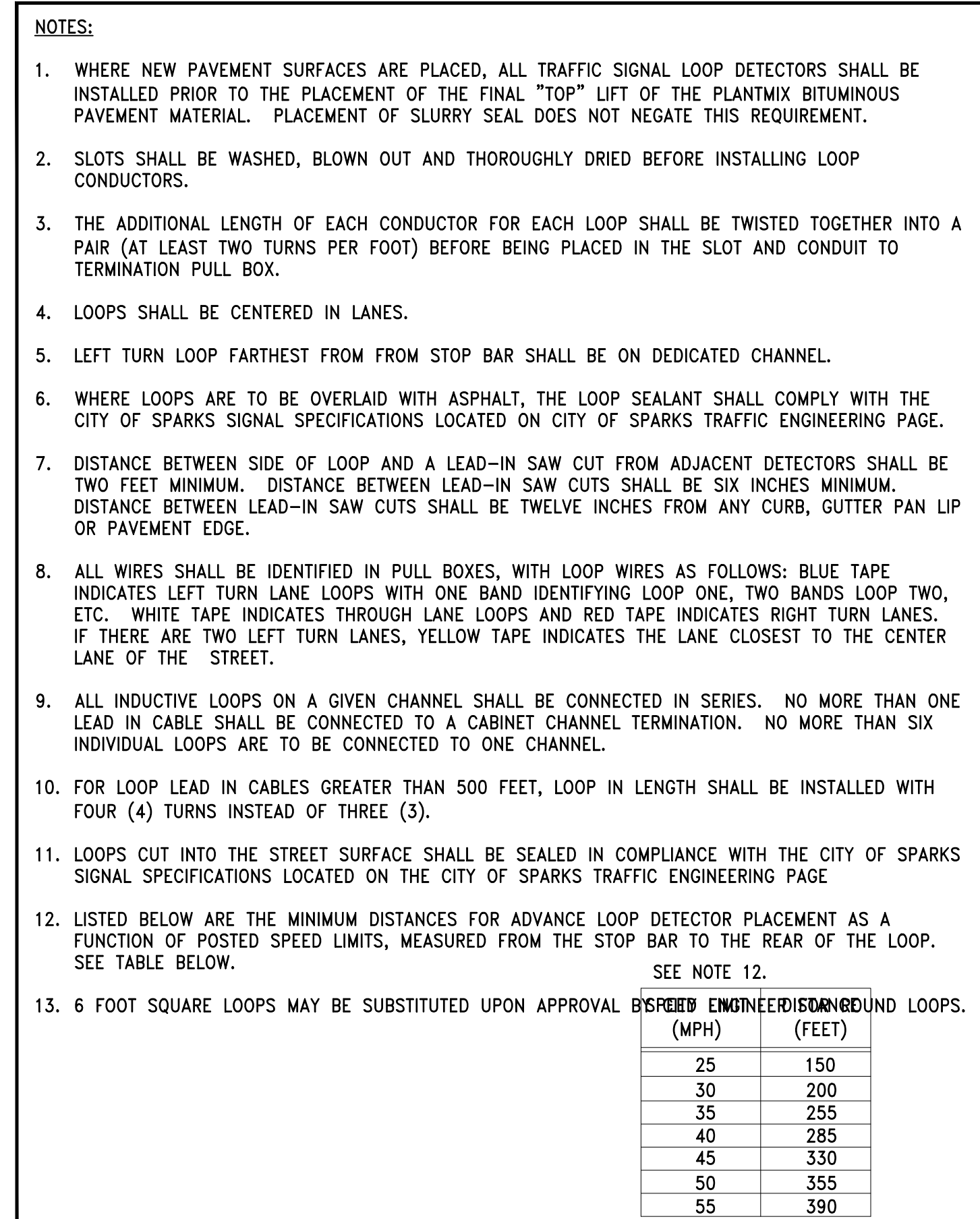
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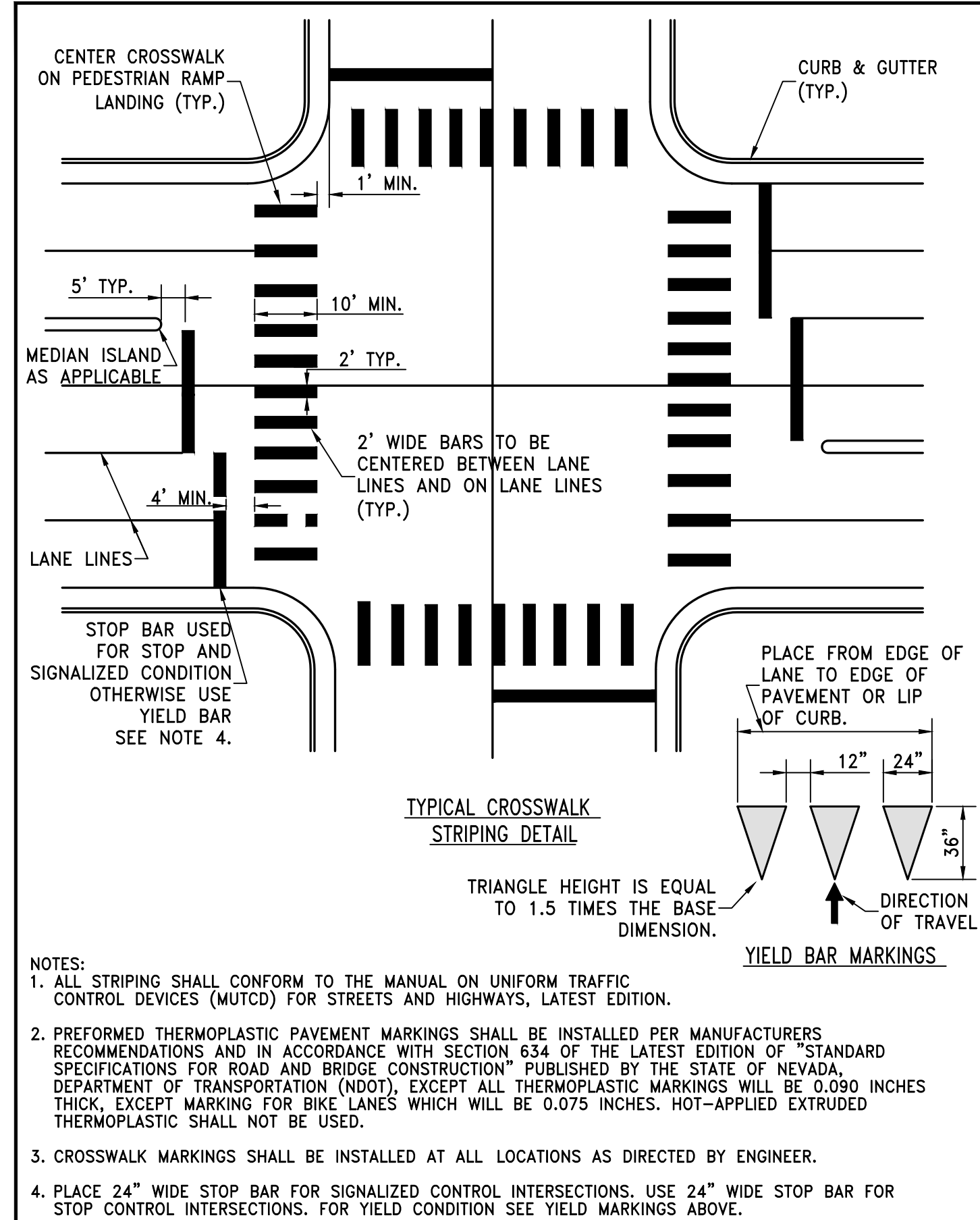
STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION	DRAWING No.
TRAFFIC & LIGHTING CONDUIT TRENCH	S-404
APPROVED BY: JE DATE: 1/2020	



STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION	DRAWING No.
LOOP DETECTOR LAYOUT	S-405A
APPROVED BY: JE DATE: 1/2020	



STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION	DRAWING No.
NOTES - LOOP DETECTOR LAYOUT	S-405B
APPROVED BY: JE DATE: 1/2020	

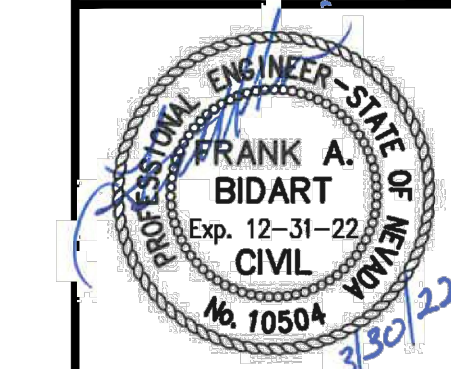


STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION	DRAWING No.
CROSSWALK LEGEND	S-411
APPROVED BY: JE DATE: 1/2020	

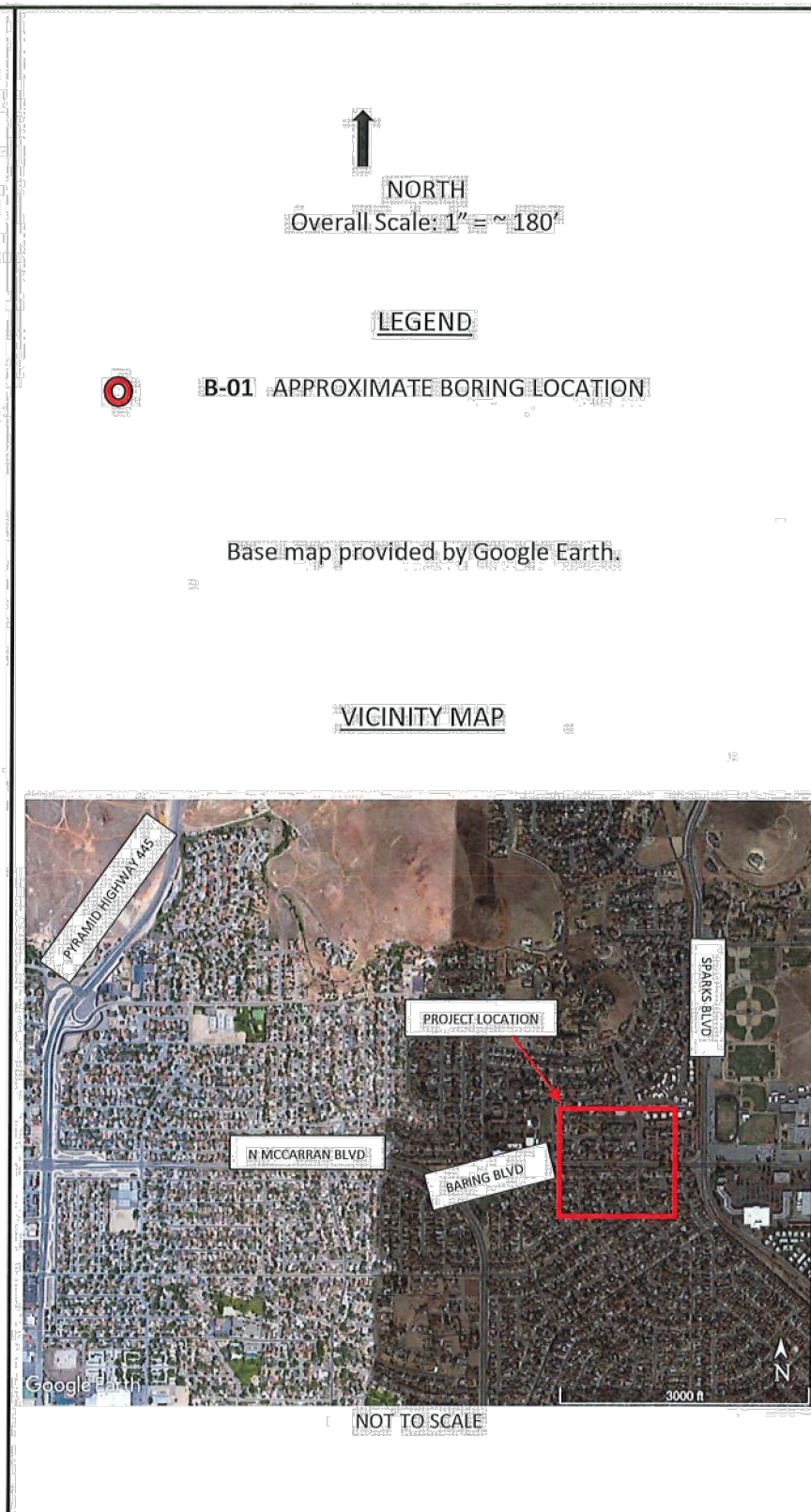
DATE: MAR-2022	BY: APP'D
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DESIGNED BY: E.C.W.	DATE
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WASHOE	
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C.O.S. GLEN MEADOW DRIVE STORM DRAIN TRAFFIC DETAILS	

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Odyssey Engineering
PLOT PLAN
 Goldy Way at Baring Boulevard Storm Drain and Sanitary Sewer Improvements
 Sparks, Nevada

Black Eagle Consulting, Inc.
 Project No. 0117-28-1
 Plate 1

BORING LOG											
BORING NO.: B-01		DATE: 6/11/2020		TYPE OF BORING: Dietrich 120		DEPTH TO GROUND WATER (ft): 8.5		LOGGED BY: KC		GROUND ELEVATION (ft): ~4411	
SAMPLE NO.	SAMPLE TYPE	BLOWS/12"	MOISTURE (%)	PLASTICITY INDEX	DEPTH (ft)	USCS SYMBOL	LITHOLOGY	DESCRIPTION			
						SM	Asphalt Concrete	An approximate 3-inch-thick layer of asphalt concrete.			
						SC	Aggregate Base	An approximate 6-inch-thick layer of aggregate base.			
A	SPT	15			5	CH	Clayey Sand	Brown, moist, medium dense, with an estimated 25% low to medium plasticity fines, 70% fine to coarse sand, and 5% subangular to subrounded gravel up to 1/2 inch in diameter.			
C	MC	11			5	SM	Sandy Fat Clay	Dark brown, moist, stiff, with an estimated 70% medium plasticity fines, 25% fine to coarse sand, and 5% subangular to subrounded gravel up to 1/2 inch in diameter.			
D	SPT	45	36.8	NP	10	ML	Silty Sand	Dark brown, moist, loose, with an estimated 25% non-plastic fines, 70% fine to coarse sand, 5% subangular to subrounded gravel up to 1/2 inch in diameter.			
E	MC	59			10	SC	Sandy Silt	Brown, moist to wet, hard, with 53% non-plastic fines, 31% fine to medium sand, and 11% subangular to subrounded gravel up to 1/2 inch in diameter.			
					15						
					20						

Groundwater depth approximate. Equilibrium not achieved.

Black Eagle Consulting, Inc. 1345 Capital Blvd., Suite A Reno, Nevada 89502-7140 Telephone: (775) 359-6600	Odyssey Engineering Goldy Way at Baring Boulevard Storm Drain and Sanitary Sewer Improvements Sparks, Nevada	PROJECT NO.: 0117-28-1 PLATE: 2 SHEET 1 OF 1
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BORING LOG											
BORING NO.: B-02		DATE: 6/11/2020		TYPE OF BORING: Dietrich 120		DEPTH TO GROUND WATER (ft): 10.0		LOGGED BY: KC		GROUND ELEVATION (ft): ~4411	
SAMPLE NO.	SAMPLE TYPE	BLOWS/12"	MOISTURE (%)	PLASTICITY INDEX	DEPTH (ft)	USCS SYMBOL	LITHOLOGY	DESCRIPTION			
						SM	Asphalt Concrete	An approximate 3-inch-thick layer of asphalt concrete.			
						SC	Aggregate Base	An approximate 6-inch-thick layer of aggregate base.			
A	MC	15			5	SC	Clayey Sand	Black to brown, moist, medium dense, with an estimated 35% medium plasticity fines, 60% fine to coarse sand, and 5% subangular to subrounded gravel up to 1/2 inch in diameter.			
C	SPT	10			5	SC	Clayey Sand	Brown, moist, loose to medium dense, with an estimated 40% low plasticity fines, 55% fine to coarse sand, and 5% subangular to subrounded gravel up to 1/2 inch in diameter.			
D	MC	19			10	SM	Silty Sand	Brown, wet, medium dense, with an estimated 30% non-plastic fines, 65% fine to coarse sand, 5% subangular to subrounded gravel up to 1/2 inch in diameter.			
E	SPT	13			10	SM	Silty Sand	Brown, wet, medium dense, with an estimated 30% non-plastic fines, 65% fine to coarse sand, 5% subangular to subrounded gravel up to 1/2 inch in diameter.			

Groundwater depth approximate. Equilibrium not achieved.

Black Eagle Consulting, Inc. 1345 Capital Blvd., Suite A Reno, Nevada 89502-7140 Telephone: (775) 359-6600	Odyssey Engineering Goldy Way at Baring Boulevard Storm Drain and Sanitary Sewer Improvements Sparks, Nevada	PROJECT NO.: 0117-28-1 PLATE: 2 SHEET 1 OF 1
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BORING LOG											
BORING NO.: B-03		DATE: 6/11/2020		TYPE OF BORING: Dietrich 120		DEPTH TO GROUND WATER (ft): 9.0		LOGGED BY: KC		GROUND ELEVATION (ft): ~4411	
SAMPLE NO.	SAMPLE TYPE	BLOWS/12"	MOISTURE (%)	PLASTICITY INDEX	DEPTH (ft)	USCS SYMBOL	LITHOLOGY	DESCRIPTION			
						SM	Asphalt Concrete	An approximate 3-inch-thick layer of asphalt concrete.			
						CL	Aggregate Base	An approximate 6-inch-thick layer of aggregate base.			
A	AUGER		18.1	18	5	SC	Sandy Lean Clay	Brown, moist, stiff, with 51% medium plasticity fines, 45% fine to coarse sand, and 4% subangular to subrounded gravel up to 1 inch in diameter. Cobble or boulder indicated by drilling response.			
B	MC	20			5	SC	Clayey Sand	Brown, moist to wet, loose to very dense, with an estimated 40% low plasticity fines, 55% fine to coarse sand, and 5% subangular to subrounded gravel up to 1/2 inch in diameter.			
C	SPT	9			5	SC	Clayey Sand	Brown, moist to wet, loose to very dense, with an estimated 40% low plasticity fines, 55% fine to coarse sand, and 5% subangular to subrounded gravel up to 1/2 inch in diameter.			
E	MC	96			10	SM	Silty Sand	Brown, wet, medium dense, with an estimated 15% non-plastic fines, 80% fine to coarse sand, and 5% subangular to subrounded gravel up to 1/2 inch in diameter.			
F	SPT	29			10	SM	Silty Sand	Brown, wet, medium dense, with an estimated 15% non-plastic fines, 80% fine to coarse sand, and 5% subangular to subrounded gravel up to 1/2 inch in diameter.			

Groundwater depth approximate. Equilibrium not achieved.

Black Eagle Consulting, Inc. 1345 Capital Blvd., Suite A Reno, Nevada 89502-7140 Telephone: (775) 359-6600	Odyssey Engineering Goldy Way at Baring Boulevard Storm Drain and Sanitary Sewer Improvements Sparks, Nevada	PROJECT NO.: 0117-28-1 PLATE: 2 SHEET 1 OF 1
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FOR BID

**C.O.S. GLEN MEADOW DRIVE
STORM DRAIN
BORING LOGS**

SPARKS NEVADA

WASHOE

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Odyssey ENGINEERING INCORPORATED

FRANK A. BIDART
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No. 10504
3/30/22

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GENERAL NOTES:

1. CONTRACTOR SHALL PROVIDE ALL MATERIALS, EQUIPMENT, LABOR, AND INCIDENTALS REQUIRED TO CONSTRUCT THE IMPROVEMENTS AS SHOWN ON THE IMPROVEMENT PLANS AND ALL WORK SHALL BE ACCOMPLISHED IN STRICT ACCORDANCE WITH THE SPECIFICATIONS SET FORTH IN THE TFWA ENGINEERING & CONSTRUCTION STANDARDS. THE CONTRACTOR SHALL SECURE COPIES OF THE AFOREMENTIONED CONSTRUCTION SPECIFICATIONS ON HIS/HER OWN BEHALF.

2. LATEST EDITION OF THE TFWA GENERAL CONDITIONS SHALL APPLY AND CAN BE DOWNLOADED FROM TFWA'S WEBSITE AT: http://www.com/about_us/goinbusinesswithtwa

3. THE CONTRACTOR SHALL OBTAIN COPIES OF THE TFWA ENGINEERING & CONSTRUCTION STANDARDS FOR HIS/HER USE. A COPY OF THE STANDARDS SHALL BE AVAILABLE AT THE JOB SITE AT ALL TIMES.

4. INSPECTION WILL BE BY THE ASSIGNED TFWA INSPECTOR. CONTRACTOR IS TO NOTIFY THE TFWA PROJECT REPRESENTATIVE AT LEAST FIVE BUSINESS DAYS BEFORE STARTING CONSTRUCTION.

5. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AND FEATURES AS SHOWN ON THESE IMPROVEMENT PLANS IS BASED ON THE BEST INFORMATION AVAILABLE TO THE ENGINEER. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THESE LOCATIONS AND/OR ELEVATIONS BY POT-Holing AT THE PROPOSED POINTS OF CONNECTION AND IN AREAS OF POSSIBLE CONFLICT PRIOR TO BEGINNING OF CONSTRUCTION. SHOULD THE CONTRACTOR FIND ANY DISCREPANCIES BETWEEN THE CONDITIONS EXISTING IN THE FIELD AND THE INFORMATION SHOWN ON THE IMPROVEMENT PLANS, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE TFWA ENGINEER. CONTRACTOR SHALL POT-HOLE SUFFICIENTLY IN ADVANCE OF CONSTRUCTION TO ALLOW THREE (3) WORKING DAYS FOR TFWA ENGINEERING TO PREPARE A RE-DESIGN PLAN SHOULD A CONFLICT BE ENCOUNTERED. ABSOLUTELY NO STAND-BY TIME WILL BE PAID TO THE CONTRACTOR DURING THIS THREE (3) DAY RE-DESIGN PERIOD.

6. AT LEAST 3 WORKING DAYS BEFORE STARTING CONSTRUCTION, THE CONTRACTOR SHALL CALL UNDERGROUND SERVICE ALERT AT 811 AND REQUEST UTILITY MARKING. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE COST OF REPAIRING EXISTING FACILITIES THAT ARE DAMAGED BY HIS/HER OPERATIONS.

7. ANY DISCREPANCIES BETWEEN THE IMPROVEMENT PLANS AND THE ACTUAL FIELD CONDITIONS SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE TFWA PROJECT MANAGER. PROCEEDING WITH WORK THAT DEVIATES FROM THE PLANS, EXCEPT FOR AN EMERGENCY LIFE-SAFETY CONDITION, SHALL BE AT THE SOLE RISK OF THE CONTRACTOR FOR THE COST TO REPLACE, IF DEEMED UNACCEPTABLE BY THE TFWA PROJECT MANAGER.

8. THE REMOVAL AND DISPOSAL OF EXISTING FACILITIES AND APPURTENANCES REQUIRED TO MAKE CONNECTIONS TO EXISTING MAINS/FACILITIES AND/OR FOR THE INSTALLATION OF NEW WATER FACILITIES SHALL BE CONSIDERED INCIDENTAL TO THE WORK WITH NO DIRECT PAYMENT. THE EXPOSED CUT ENDS OF THESE EXISTING FACILITIES THAT WILL BE ABANDONED IN PLACE SHALL BE PLUGGED WITH CONCRETE OR OTHER METHOD AS APPROVED BY THE TFWA INSPECTOR. COSTS FOR THESE ITEMS SHALL BE INCLUDED IN THE MOST APPROPRIATE BID ITEM. THIS ALSO INCLUDES REMOVAL AND DISPOSAL OF EXISTING VALVE/CURB VALVE BOXES, CONDUCTOR PIPES, METER BOXES, AND ANY OTHER FACILITIES IDENTIFIED IN THE IMPROVEMENT PLANS, INCLUDING BACKFILL WITH TYPE 2, CLASS B CRUSHED AGGREGATE BASE AND PLACEMENT OF TEMPORARY HOT-MIX AC PAVEMENT PATCH PER TYPICAL TRENCH DETAIL.

9. ALL VALVES SHALL BE SUPPORTED WITH A CONCRETE PAD AND COLLAR AS DEPICTED IN TFWA STANDARD DETAIL 104-2. CONCRETE COLLARS SHALL BE PLACED AS A PART OF THE CITY OF SPARKS ROADWAY REHABILITATION WORK AND ARE NOT REQUIRED ON THIS PROJECT. TEMP AC (4" MIN) PATCH SHALL BE PLACED TO SUPPORT VALVES IN THIS WATER MAIN REHABILITATION PROJECT IN LIEU OF CONCRETE COLLARS UNTIL ROADWAY REPAVING WORK IS COMPLETE. ALL VALVES SHALL THEN BE ADJUSTED TO GRADE AND CONCRETE COLLARS SHALL BE PLACED AS REQUIRED.

10. ALL SERVICE TAPS SHALL BE MADE USING A TAPPING MACHINE DESIGNED SPECIALLY FOR TAPPING PURPOSES WITH THE CORRECT CUTTING BIT FOR THE TYPE OF PIPE IN WHICH THE TAP IS TO BE MADE. DRILL WITH HOLE-SAW BIT OR SIMILAR WILL NOT BE PERMITTED UNDER ANY CIRCUMSTANCES. TFWA TO PROVIDE HOT TAP LABOR FOR TAPS GREATER THAN 2".

11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR JOB SITE SAFETY DURING CONSTRUCTION, AND ALL WORK SHALL CONFORM TO PERTINENT SAFETY REGULATIONS AND CODES. FENCE AND OR BARRIERS TO CONSTRUCTION AREA AS REQUIRED TO PROTECT ADJACENT SITES, VEHICULAR TRAFFIC AND PEDESTRIAN TRAFFIC. THE CONTRACTOR SHALL BE SOLELY AND COMPLETELY RESPONSIBLE FOR COMPLIANCE WITH ALL APPLICABLE PROVISIONS OF OSHA AND NRS CHAPTER 618 IN THE CONSTRUCTION PRACTICES FOR ALL EMPLOYEES DIRECTLY ENGAGED IN THE CONSTRUCTION OF THIS PROJECT.

12. LOCATE AND/OR PROTECT ALL EXISTING AND PROPOSED PIPING, UTILITIES, TRAFFIC SIGNAL EQUIPMENT (BOTH ABOVE-GROUND AND BELOW-GROUND).

MATERIAL SPECIFICATIONS:

1. SCOPE THESE MATERIAL SPECIFICATIONS SUPPLEMENT THE TECHNICAL SPECIFICATIONS, THE TRUCKEE MEADOWS WATER AUTHORITY ENGINEERING & CONSTRUCTION STANDARDS, AND THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION "ORANGE BOOK", LATEST EDITION. ANY DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE TFWA PROJECT REPRESENTATIVE FOR RESOLUTION.

2. DUCTILE IRON PIPE, C900 PVC PIPE, AND HIGH DENSITY POLYETHYLENE (HDPE) SERVICE LINE TUBING

2.1 ALL PIPE MATERIALS AND APPURTENANCES SHALL BE PER THE TFWA ENGINEERING & CONSTRUCTION STANDARDS, UNLESS MODIFIED/AMENDED HEREIN. INSTALLATION WORKMANSHIP PRESURE AT 150 PSI, AND DISINFECTION SHALL BE PER THE TFWA ENGINEERING & CONSTRUCTION STANDARDS.

2.2 ALL DUCTILE IRON PIPE SHALL BE CLASS 350 AND MEET THE REQUIREMENTS OF AWWA STANDARDS C151, C104 AND C111 WITH PRESSURE CLASS AS SPECIFIED IN THE IMPROVEMENT PLANS, STANDARD CEMENT LINING, BITUMINOUS COATING, AND SHALL BE NSF-61 CERTIFIED. ALL DUCTILE IRON PIPE SHALL BE POLYETHYLENE ENCASED PER AWWA C105. DUCTILE IRON PIPE SHALL BE EQUIPPED WITH TYTON TIE BELL AND SPOGOT JOINTS. DUCTILE IRON PIPE SHALL BE TYTON JOINT DUCTILE IRON PIPE AS MANUFACTURED BY U.S. PIPE, GRIFFIN TYTON JOINT DUCTILE IRON PIPE AS MANUFACTURED BY GRIFFIN PIPE PRODUCTS CO., INC., OR EQUAL.

2.3 ALL C900 PVC WATER PIPE SHALL BE MANUFACTURED FROM NSF CERTIFIED COMPOUNDS CONFORMING TO ASTM D1784 WITH A CELL CLASSIFICATION OF 12454, AND SHALL BE NSF-61 CERTIFIED. C900 PVC WATER PIPE SHALL MEET ALL THE DIMENSIONAL, CHEMICAL, AND PHYSICAL REQUIREMENTS AS OUTLINED IN AWWA C900 AND WILL BE SUPPLIED IN 20 FOOT LAYING LENGTHS. JOINTS SHALL MEET THE REQUIREMENTS OF ASTM C900 AND SHALL BE FORMED USING RUBBER TECHNOLOGY. GASKETS SHALL MEET THE REQUIREMENTS OF ASTM F477. C900 PVC WATER PIPE SHALL BE PRESSURE CLASS 235 (DR 18) PER AWWA C900. C900 PVC WATER PIPE SHALL BE MANUFACTURED BY ROMAC INDUSTRIES OR ROMAC CORPORATION, VINYLTECH PVC PIPE, NORTH AMERICAN PVC CORPORATION, OR EQUAL. NOTE - C900 PVC WATER PIPE MANUFACTURED BY JM EAGLE WILL NOT BE ACCEPTED BY TFWA FOR THIS PROJECT.

2.4 ALL HIGH DENSITY POLYETHYLENE (HDPE) SERVICE LINE TUBING SHALL BE PRESSURE CLASS 200 (SDR 9) COPPER TUBING SIZE (CTS) PER AWWA C901, AND SHALL BE NSF-61 CERTIFIED.

3. POLYETHYLENE ENCASEMENT POLYETHYLENE ENCASEMENT MATERIAL SHALL CONSIST OF 3 LAYERS OF CO-EXTRUDED LINEAR LOW-DENSITY POLYETHYLENE (LLDPE), MINIMUM 8 MILS THICKNESS, MEETING REQUIREMENTS OF AWWA C901.5. MATERIAL SHALL BE V-BIO ENHANCED POLYETHYLENE ENCASEMENT FOR DUCTILE IRON.

4. FITTINGS FITTINGS SHALL BE DUCTILE IRON AND MEET THE REQUIREMENTS OF AWWA STANDARDS C110/C153 AND C104 WITH END CONFIGURATIONS AS SPECIFIED IN THE IMPROVEMENT PLANS, AND SHALL BE NSF-61 CERTIFIED. ALL FITTINGS SHALL BE POLYETHYLENE ENCASED PER AWWA C105. FITTINGS SHALL BE ASPHALTIC COATED WITH CEMENT-MORTAR LINING PER AWWA C110/C153 AND C104. FOR FITTINGS WHERE CEMENT-MORTAR LININGS ARE NOT NORMALLY SUPPLIED, SUCH AS CAPS, PLUGS, AND SLEEVES, THE INSIDE OF THESE FITTINGS SHALL BE ASPHALTIC COATED PER AWWA C110/C153 CONFORMING TO ALL APPROPRIATE REQUIREMENTS FOR SEAL COAT PER AWWA C104.

GENERAL NOTES CONT.:

STRUCTURES ADJACENT TO STREETS, AND ALL OTHER EXISTING IMPROVEMENTS THROUGHOUT CONSTRUCTION.

13. ALL CONSTRUCTION SHALL BE CLOSELY COORDINATED WITH TFWA SO THAT THE QUALITY OF WORK CAN BE CHECKED FOR APPROVAL.

14. INCORPORATE ADEQUATE DRAINAGE PROCEDURES DURING THE CONSTRUCTION PROCESS TO ELIMINATE EXCESSIVE PONDING AND/OR EROSION.

15. THE CONTRACTOR SHALL MAINTAIN THE SITE IN A NEAT AND ORDERLY MANNER THROUGHOUT THE CONSTRUCTION PROCESS. ALL MATERIALS SHALL BE STORED WITHIN APPROVED CONSTRUCTION AREAS ON PAVED SURFACES ONLY.

16. THE CONTRACTOR SHALL OBTAIN ALL PERMITS AS REQUIRED BY THE JURISDICTIONAL AGENCY, NOT SPECIFICALLY ADDRESSED IN THE PROJECT MANUAL.

17. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTION OF ALL EXISTING SURVEY MONUMENTS AND SHALL REGRADE ANY MONUMENTS OBLITERATED OR DAMAGED DURING CONSTRUCTION AT HIS EXPENSE. REPLACEMENT SHALL BE PERFORMED BY A LICENSED PROFESSIONAL LAND SURVEYOR.

18. ALL PIPE IDENTIFIED AS CONTAINING ASBESTOS CONTAINING MATERIALS (ACM) (TRANSITE PIPE) THAT IS NO LONGER IN SERVICE AS A RESULT OF THE PROPOSED IMPROVEMENTS SHALL BE REMOVED AND DISPOSED IN ACCORDANCE WITH THE ASBESTOS SPECIFICATIONS WITHIN THIS PLAN SET.

WATER GENERAL NOTES:

1. LOCATE ALL EXISTING UTILITIES WHICH MAY CONFLICT WITH THE NEW WORK IN ADVANCE SO AS TO ALLOW ADJUSTMENT, REALIGNMENT AND/OR REDESIGN OF THE NEW WORK AROUND THE EXISTING UTILITY AND/OR STRUCTURE. UTILITY LINES WHICH CONFLICT WITH THE NEW WORK SHALL BE REROUTED AS REQUIRED AFTER CONSULTATION WITH THE CONTRACTOR. ALL REROUTING SERVICES SHALL BE MADE PERMANENT AFTER ALL NEW WORK HAS BEEN COMPLETED IN ACCORDANCE WITH APPLICABLE STANDARDS. REROUTING OF WATER LINES SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE AWWA STANDARDS.

2. CONTRACTOR SHALL UTILIZE EVERY MEANS POSSIBLE TO MINIMIZE WATER SERVICE OUTAGES TO CUSTOMERS. THE CONTRACTOR SHALL NOTIFY CUSTOMERS OF PLANNED WATER OUTAGES AT LEAST 48 HOURS PRIOR TO AN OUTAGE. THE NOTICE SHALL INCLUDE THAT OUTAGES WILL OCCUR DURING THE DAY BETWEEN 9:00 AM AND 4:00 PM AND NAME AND PHONE NUMBER OF CONTRACTOR FOR QUESTIONS AND CONCERNS. ALL NOTICES SHALL BE POSTED ON NOTICE BOARDS AND PLACED FACING TRAFFIC AT STREET ENTRANCES TO THE PROPOSED WORK AREAS. CONTRACTOR SHALL COORDINATE WITH OWNER FOR A LIST OF AFFECTED CUSTOMERS.

3. THE CONTRACTOR SHALL BE RESPONSIBLE TO PROTECT THE INTEGRITY OF EXISTING WATER LINES DURING CONSTRUCTION.

4. ALL WATER MAINS SHALL BE TESTED FOR PRESSURE AND LEAKAGE PER AWWA C600 & C605 WITH THE EXCEPTION THAT THE PRESSURE LOSS DURING PRESSURE TESTING SHALL BE ZERO PSI. TEST PRESSURE SHALL BE 150 PSI.

5. DUCTILE IRON PIPELINES MUST BE PRESSURE TESTED ACCORDING TO AWWA STANDARD C600 AND PVC PIPELINES MUST BE PRESSURE TESTED ACCORDING TO AWWA STANDARD C605 PER NAC 445A.67145 (7) FOR OTHER MATERIALS, THE PIPELINES MUST BE PRESSURE TESTED IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION PER NAC 445A.67145 (7)(c).

6. BACTERIOLOGICAL TESTING, DISINFECTION, AND FLUSHING, FOR POTABLE WATER LINE CONSTRUCTION, SHALL BE PERFORMED PER AWWA C651. THE OWNER SHALL BE RESPONSIBLE FOR PERFORMING AND FUNDING UP TO TWO (2) BACTERIOLOGICAL TESTS PER RUN OF PIPE CONSTRUCTED. IF MORE THAN TWO TESTS ARE REQUIRED, THE COST SHALL BE PLACED UPON THE CONTRACTOR. TWO (2) BACTERIOLOGICAL TESTS SHALL BE CONDUCTED PER TEST SEGMENT. BACTERIOLOGICAL TEST SAMPLES WILL NOT BE COLLECTED ON FRIDAYS, WEEKENDS, TFWA OBSERVED HOLIDAYS, OR THE DAY BEFORE A TFWA OBSERVED HOLIDAY, UNLESS AUTHORIZED BY THE TFWA INSPECTOR.

7. PER NAC 445A.67145(6), WATER MAIN MUST NOT BE PLACED INTO SERVICE AFTER ITS INITIAL CONSTRUCTION UNTIL:

7.1. THE WATER MAIN HAS BEEN DISINFECTED AND FLUSHED IN ACCORDANCE WITH AWWA STANDARD C651.

7.2. THE DISPOSAL OF ANY SPENT CHLORINE SOLUTIONS MUST BE COORDINATED WITH NDEP'S BUREAU OF WATER POLLUTION CONTROL (BWPC).

7.3. ANALYSES OF THE WATER MAIN WHICH INDICATE THAT THE WATER MEETS PRIMARY DRINKING WATER STANDARDS FOR COLIFORM BACTERIA (ABSENT FOR ALL BACTERIAL TESTS) AND BACTERIOLOGICAL TESTS PERFORMED TO THE BSDW, PER AWWA STANDARD C651, TWO SETS OF CONSECUTIVE SAMPLES MUST BE TAKEN AT LEAST 24 HOURS APART FROM EVERY 1200 FEET OF MAIN, AT THE END OF THE LINE, AND FROM EACH BRANCH.

8. PROVIDE ALL MISCELLANEOUS PIPE, FITTINGS AND APPURTENANCES AS REQUIRED TO COMPLETE THE UTILITY WORK AS SHOWN.

9. CONTRACTOR SHALL SEAL ANY OPENINGS IN UNFINISHED PIPING OR APPURTENANCES AT THE END OF EACH WORKING DAY IN SUCH A MANNER AS TO PREVENT THE ENTRY OF BIRDS, OTHER ANIMALS, DIRT, TRENCH WATER, AND OTHER SOURCES OF POLLUTION OR CONTAMINATION.

10. NOTIFY THE FIRE DEPARTMENT OF FIRE HYDRANTS AFFECTED DURING CONSTRUCTION.

11. PIPELINE DEPTHS SHALL BE INSTALLED PER PLAN TO AVOID ADDITIONAL WORK IN THE WATERLINE AND TO SUPPORT AIR RELIEF VALVE LOCATIONS SHOWN IN THE PLANS.

12. CONTRACTOR SHALL VERIFY CONSTRUCTION METHODS AND OVERALL JOB APPROACH WITH TFWA AND ENGINEER PRIOR TO CONSTRUCTION.

WATER GENERAL NOTES CONT.:

13. SYMBOLS ARE NOT TO SCALE AND DO NOT NECESSARILY REPRESENT ACTUAL LOCATIONS OF FACILITIES.

14. THIS MAP ILLUSTRATES DATA COLLECTED FROM VARIOUS SOURCES AND MAY NOT REPRESENT A SURVEY OF THE PREMISES. NO RESPONSIBILITY IS ASSUMED AS TO THE SUFFICIENCY OR ACCURACY OF THE DATA DISPLAYED HEREON.

15. SOILS RETENTION MAY BE REQUIRED AROUND WATER METER BOXES, FIRE HYDRANTS, AND OTHER FACILITIES IF SLOPES EXCEED 15%.

16. UNUSED SERVICE LATERALS SHALL NOT BE CONNECTED TO NEW MAIN.

17. WATER SYSTEM SHALL CONFORM TO TFWA ENGINEERING & CONSTRUCTION STANDARDS, UNLESS MODIFIED HEREIN.

18. SUBMITTALS FOR ALL WATER PIPES AND APPURTENANCES SHALL BE SUBMITTED AND APPROVED BY TFWA PRIOR TO CONSTRUCTION.

18. PRODUCTS INTENDED FOR CONTACT WITH POTABLE WATER SHALL BE CERTIFIED TO THE REQUIREMENTS OF NSF/ANSI 61 AND BE CERTIFIED LEAD-FREE PER NAC 445A.65825 WHEN APPLICABLE. CERTIFICATION SHALL BE PROVIDED TO TFWA PRIOR TO INSTALLATION OF MATERIALS IN THE FIELD.

ASBESTOS CEMENT PIPE (ACP) REMOVAL, HANDLING AND DISPOSAL REQUIREMENTS:

REFERENCE SHEET C0.1 FOR ASBESTOS/TRANSITE PIPE REMOVAL REQUIREMENTS.

LEGEND

- 11" ELBOW
- 22" ELBOW
- 45" ELBOW
- 90° ELBOW
- AIR RELEASE VALVE
- BACKFLOW PREVENTOR
- CHECK VALVE
- FIRE HYDRANT
- FLUSH VALVE
- METER-DUAL
- METER-SINGLE
- REDUCER
- SERVICE-DUAL
- SERVICE-SINGLE
- TEE
- VALVE

ABBREVIATIONS

- ARY AIR RELEASE VALVE
- ASSY ASSEMBLY
- BOT BOTTOM (OF PIPE)
- BOW BLOW-OFF VALVE
- CL CENTERLINE
- CONST CONSTRUCT
- CTS COPPER TUBE SIZE
- DI OR DIP DIAMETER
- DIA DIA
- DDCA DOUBLE CHECK DETECTOR ASSEMBLY
- EX EXISTING
- FCA FLANGE COUPLING ADAPTER
- FL FIRE HYDRANT
- FLG OR FL FLANGE
- FVA FLUSH VALVE ASSEMBLY
- GV GATE VALVE
- HDPE HIGH DENSITY POLYETHYLENE
- HP HIGH POINT
- IE INVERT ELEVATION
- MJ MECHANICAL JOINT
- MRJ MECHANICALLY RESTRAINED JOINT
- OD OUTSIDE DIAMETER
- PL OR P/L PROPERTY LINE
- PO PUSH ON
- PLIE PUBLIC UTILITY EASEMENT
- PVC POLYVINYL CHLORIDE PIPE
- R RADIUS
- RFCR RESTRAINED FLANGE COUPLING ADAPTER
- RJDP RESTRAINED JOINT DUCTILE IRON PIPE
- ROW OR R/W RIGHT OF WAY
- RPBA REDUCED PRESSURE BACKFLOW ASSEMBLY
- STL STEEL
- STB THURST BLOCK
- TS TEST STATION
- TYP TYPICAL
- W WATER
- W/ WITH
- XING CROSSING

WORK ORDER NO. _____
DESIGNED BY: ADY 2/21
DRAWN BY: ADY 2/21
DATE: MARCH 2022
CHECKED BY: _____
SUBMITTED BY: _____
RECOMMENDED BY: _____
APPROVED BY: _____

TRUCKEE MEADOWS WATER
R U T H O R I T Y
1365 CAPITAL BLVD., PO BOX 30013
SPARKS, NV 89431
PH: 775-834-8000 / FX: 775-834-8003

G.O.S. GLEN MEADOW STORM DRAIN
GOLDY WAY MAIN LOWERING
GENERAL NOTES & SPECIFICATIONS

895 ROBERTA LANE, SUITE 104, SPARKS, NV 89431
(775) 359-3303 FAX (775) 359-3329
odyssey ENGINEERING INCORPORATED

DESIGNER

REGISTERED PROFESSIONAL ENGINEER - STATE OF NEVADA
FRANK A. BIRDART
Exp. 12-31-2022
CIVIL
No. 10504



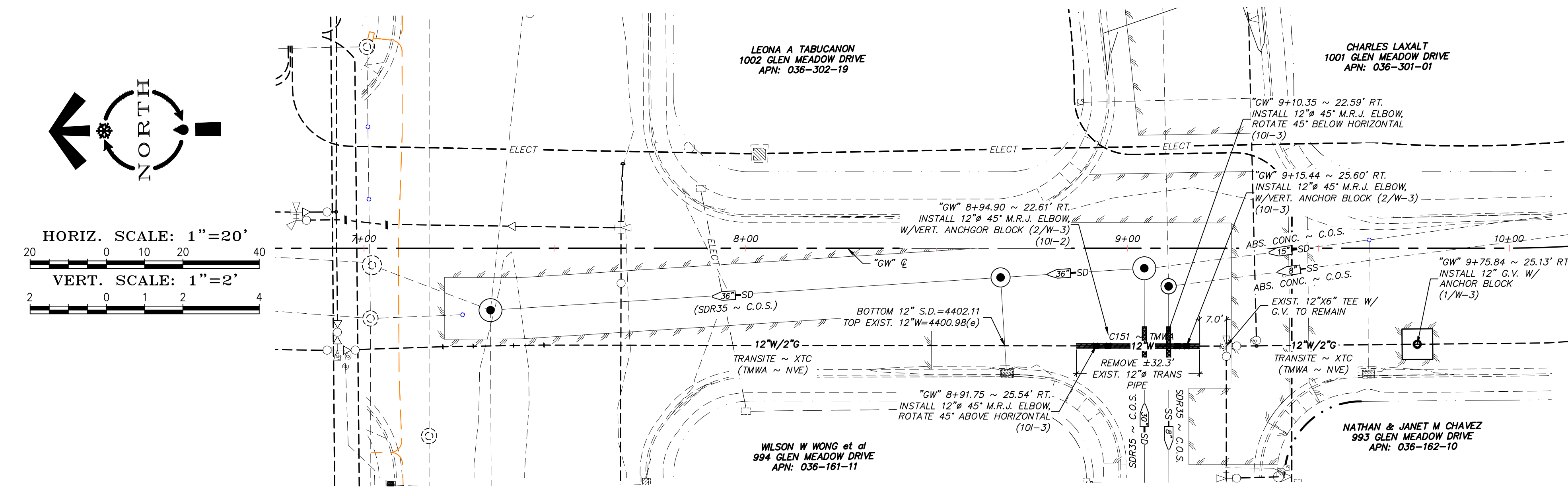
Know what's below. Call before you dig.

CHLORINE DOSAGE

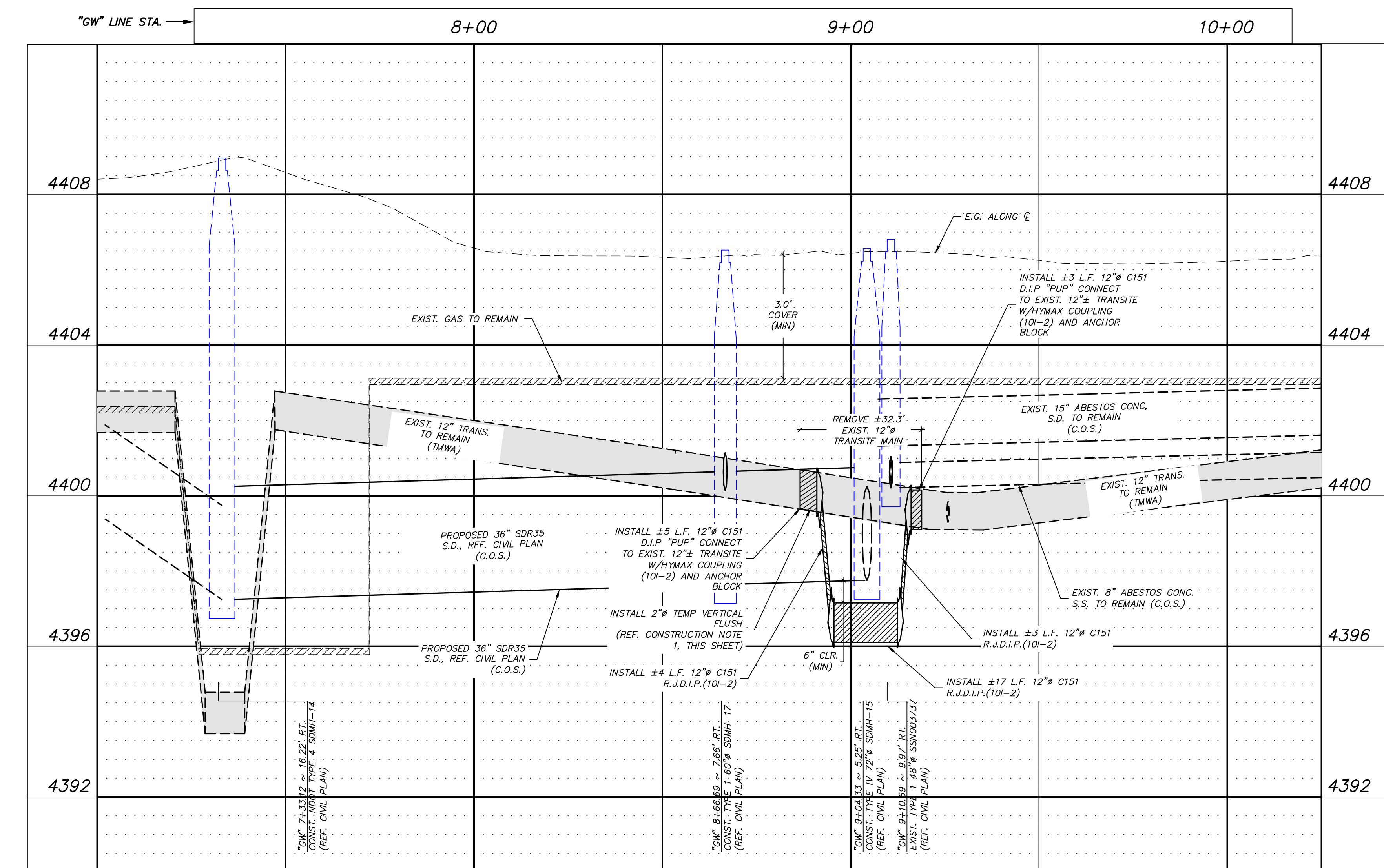
PIPE DIAMETER INCHES	NUMBER OF 5 gram CALCIUM HYPOCHLORITE TABLETS REQUIRED FOR DOSE OF 25mg/L	
	LENGTH OF PIPE SECTION FEET	
6	13 OR LESS	18 20
8	1	1 1
6	1	2 2
10	2	3 3
12	3	4 4

SHEET NUMBER

W-1



GOLDY WAY (PUBLIC)
STA. "GW" 7+00 TO 10+50



NOTES

- INSTALL 2" TEMP VERTICAL FLUSH
- INSTALL 12" X 2" SERVICE SADDLE
- INSTALL 2" CORP STOP

CONTRACTOR TO FURNISH PIPE TO GRADE
 AS REQUIRED, RETIRE FLUSH WITH 2" BRASS
 CAP ONCE TESTING HAS BEEN COMPLETED.

SLURRY BACKFILL NOTE:
 CONTRACTOR SHALL INSTALL EXCAVATABLE SLURRY BACKFILL
 EXTENDING 10' UP AND DOWN STREAM OF PROPOSED
 WATER MAIN CROSSING. EXCAVATABLE SLURRY SHALL BE INSTALLED
 WITHIN THE UPPER PIPE ZONE OF 12" WATER MAIN TO SPRING LINE
 OF THE PROPOSED STORM DRAIN AND SANITARY SEWER
 INSTALLATIONS

895 ROBERTA LANE, SUITE 104, SPARKS, NV 89431
 (775) 359-3303 FAX (775) 359-3329

DESIGNER

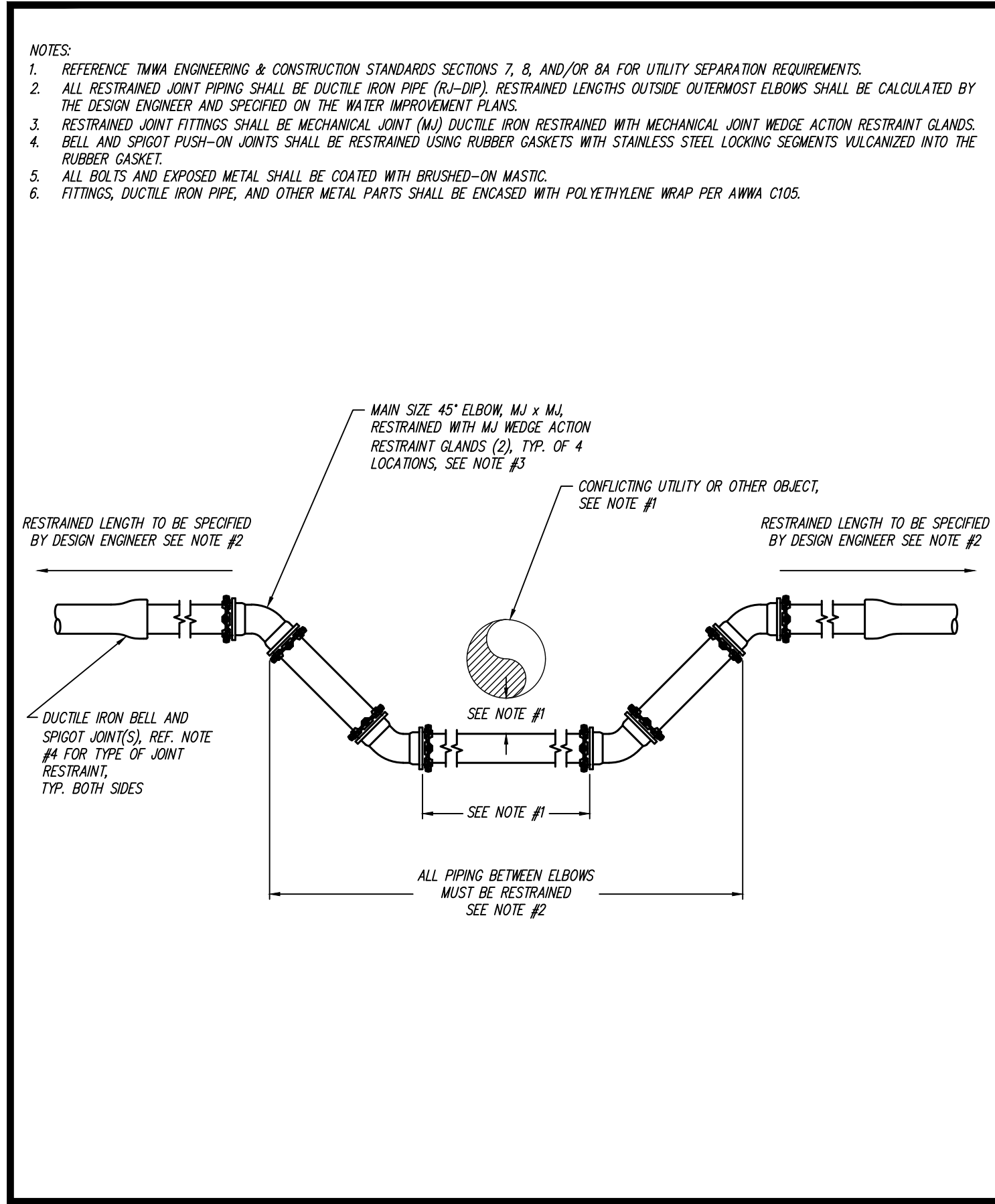


WORK ORDER NO. _____
 DESIGNED BY ODYSSEY ENGINEERING
 DRAWN BY ADJO 2021
 DATE MARCH 2022
 CHECKED BY _____
 SUBMITTED BY _____
 RECOMMENDED BY _____
 APPROVED BY _____

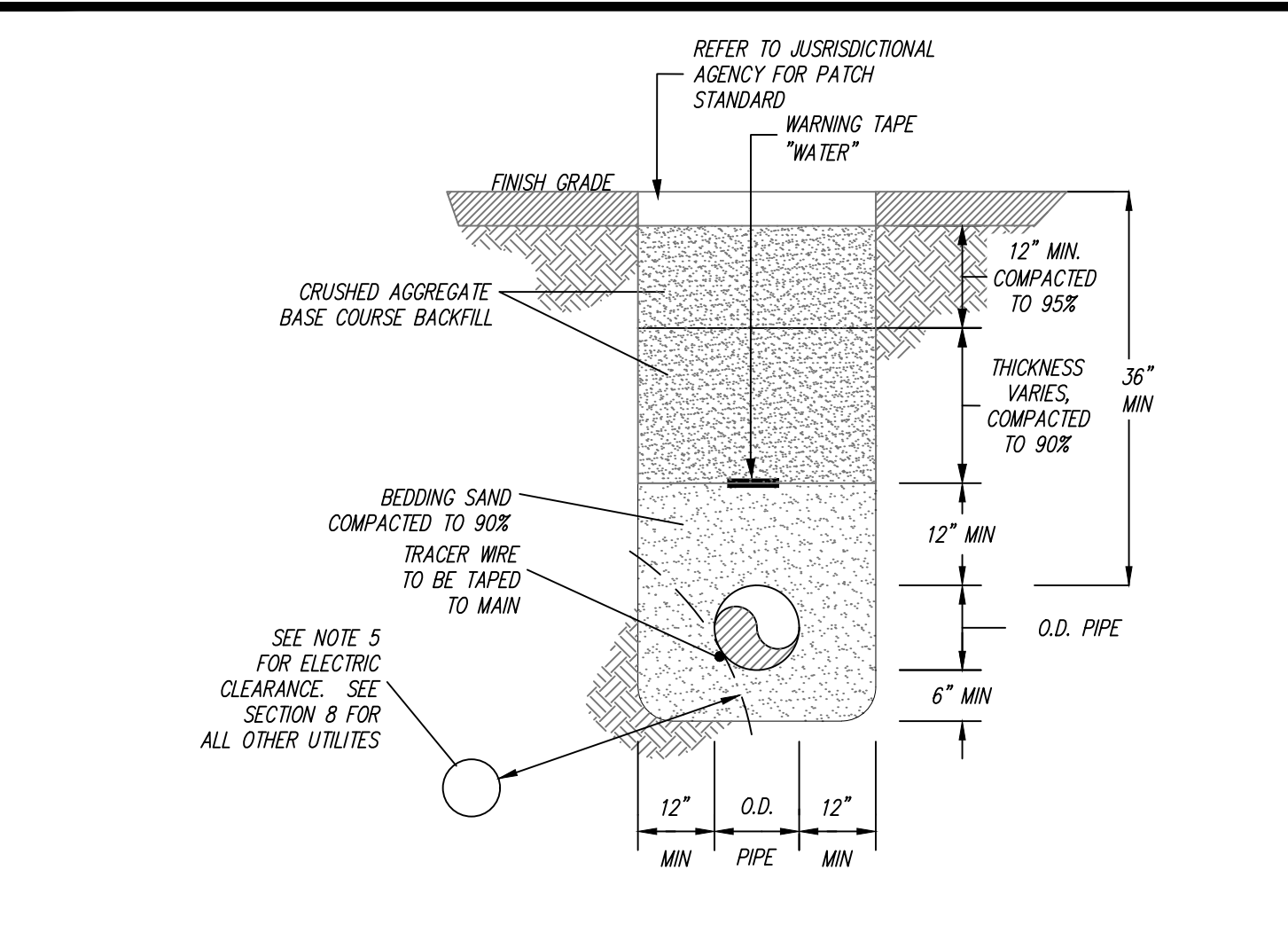
TRUCKEE MEADOWS WATER
 R U T H O R I T Y
 1365 CAPITAL BLVD., PO BOX 30013
 RENO, NEVADA 89505
 PH 775-854-8000 / FX 775-854-8003

**C.O.S. GLEN MEADOW STORM DRAIN
 GOLDY WAY MAIN LOWERING
 DETAILS**

SHEET NUMBER
W-3
 3 OF 3



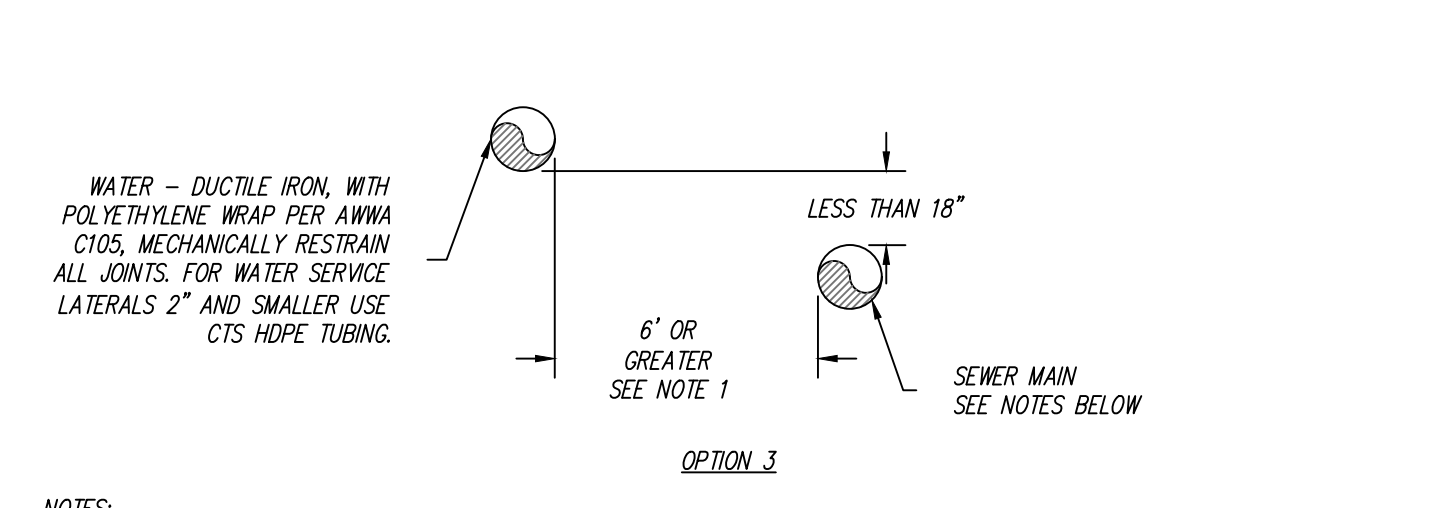
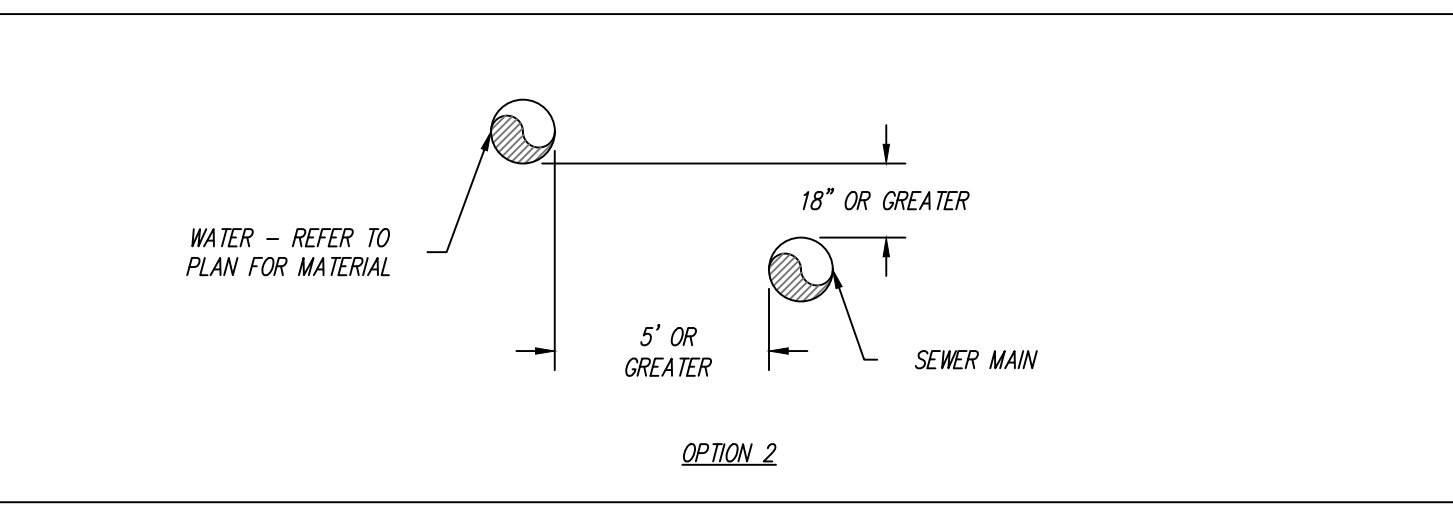
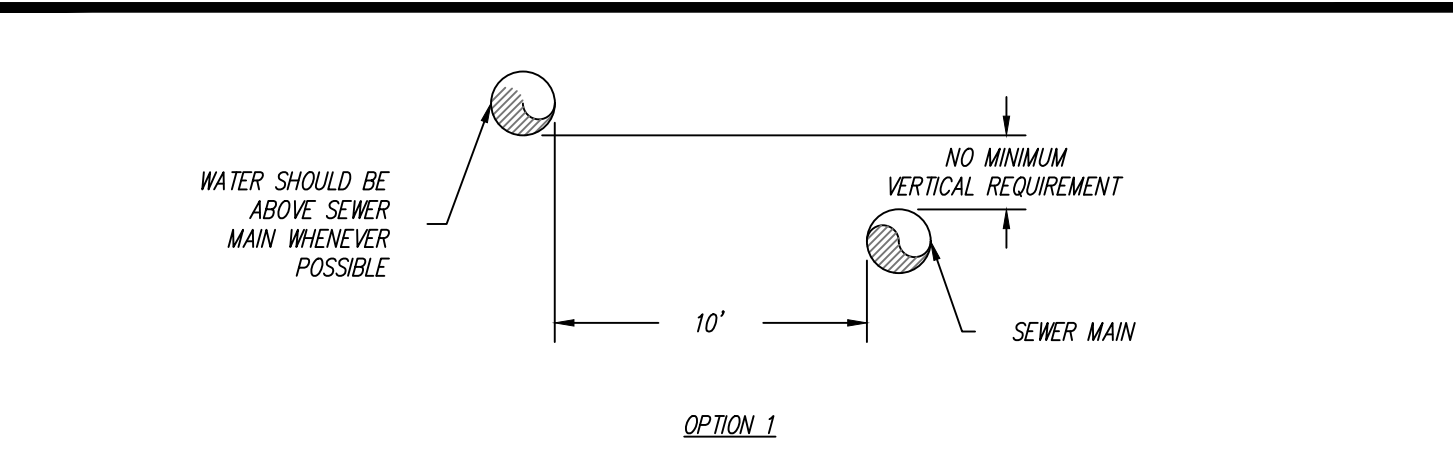
TRUCKEE MEADOWS WATER	DATE: 7/2001	APPENDIX 10I VERTICAL ELBOW INSTALLATION	DRAWING NUMBER: 10I-2
	REV: 7/2011	RESTRAINED JOINT VERTICAL OFFSET UNDER UTILITY OBJECT FOR MAINS 6" TO 12"	



NOTES:

- ALL TRENCHES MUST CONFORM TO APPLICABLE T.M.W.A. CITY, STATE, COUNTY, AND OSHA SPECIFICATIONS AND REQUIREMENTS. IN THE CASE OF CONFLICT, THE MORE RIGID SPECIFICATION OR STANDARD SHALL APPLY.
- BEDDING SAND SHALL BE COMPACTED TO 90% MAXIMUM DENSITY PER SECTION 5.05.03 AND SHALL BE A MINIMUM OF 12" ABOVE AND 6" BELOW THE MAIN. PER SECTION 5 OF T.M.W.A. STANDARDS.
- CRUSHED AGGREGATE BASE COURSE BACKFILL SHALL BE PLACED IN 12" MAXIMUM LOOSE LIFTS. THE TOP 12" SHALL BE COMPACTED TO 95% MAXIMUM DENSITY. THE AREA ABOVE THE BEDDING SAND & BELOW 12" FROM FINISH GRADE SHALL BE COMPACTED TO 90% MAXIMUM DENSITY. PER SECTION 5 OF T.M.W.A. STANDARDS.
- NON-METALLIC BLUE WARNING TAPE SHALL BE PLACED IN ALL TRENCHES AT LEAST 12" ABOVE THE WATER MAIN.
- ELECTRIC UTILITIES MUST BE LOCATED BELOW WATER & MAINTAIN 2" MINIMUM RADIAL CLEARANCE FROM T.M.W.A. WATER FACILITIES. IF 2" RADIAL CLEARANCE CAN NOT BE MET ELECTRIC CONDUIT MUST BE CONCRETE ENCASED AT LEAST 18" EACH SIDE OF WATER CROSSING. FIBER OPTIC AND/OR COMMUNICATION CONDUITS SHALL NOT BE PLACED IN THE SAME TRENCH AS WATER.
- ALL CHANGES MUST BE APPROVED BY THE T.M.W.A. INSPECTOR AND/OR THE T.M.W.A. ENGINEER.
- SEPARATION FOR PIPES IN A JOINT TRENCH SHALL BE A MINIMUM OF 12".
- TRACER WIRE SHALL BE #14 COPPER CLAD STAINLESS STEEL CORE WITH 30 MILS BLUE HDPE INSULATION. ALL WIRE SPLICES SHALL BE MADE USING A SPLIT BOLT CONNECTOR WRAPPED WITH AQUASEAL AND ELECTRIC TAPE. THE CONTRACTOR SHALL INSTALL A 3 POUND ANODE AT EVERY TEST STATION. TEST STATIONS SHALL BE LOCATED ALONG THE MAIN NO MORE THAN 500 FEET APART. REFER TO 10L-9.

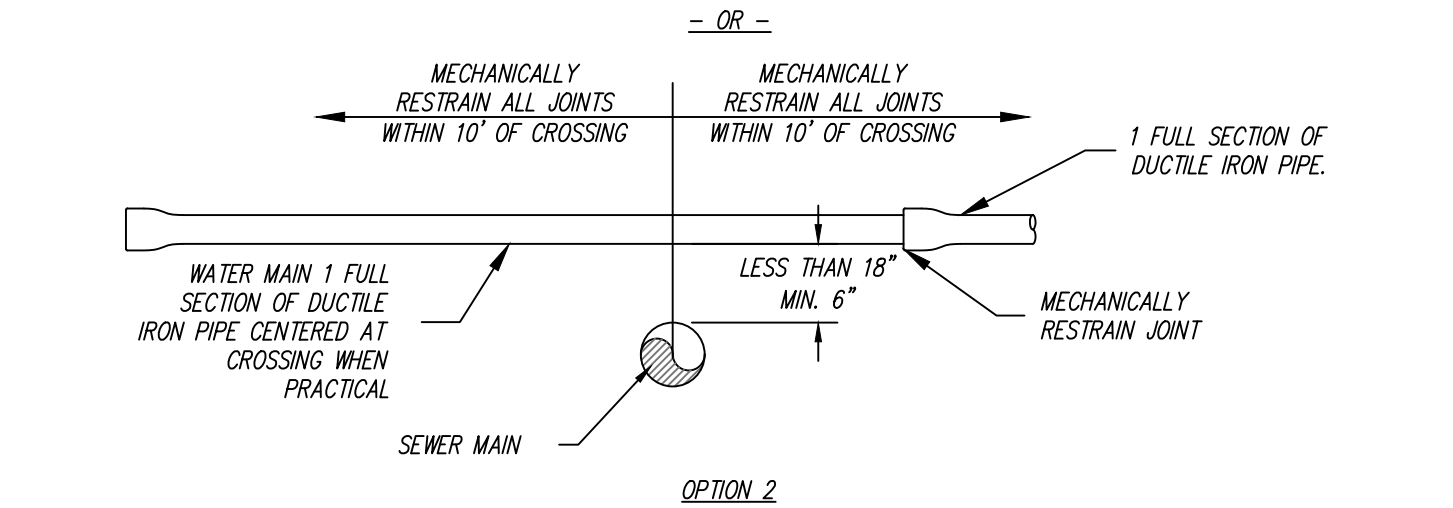
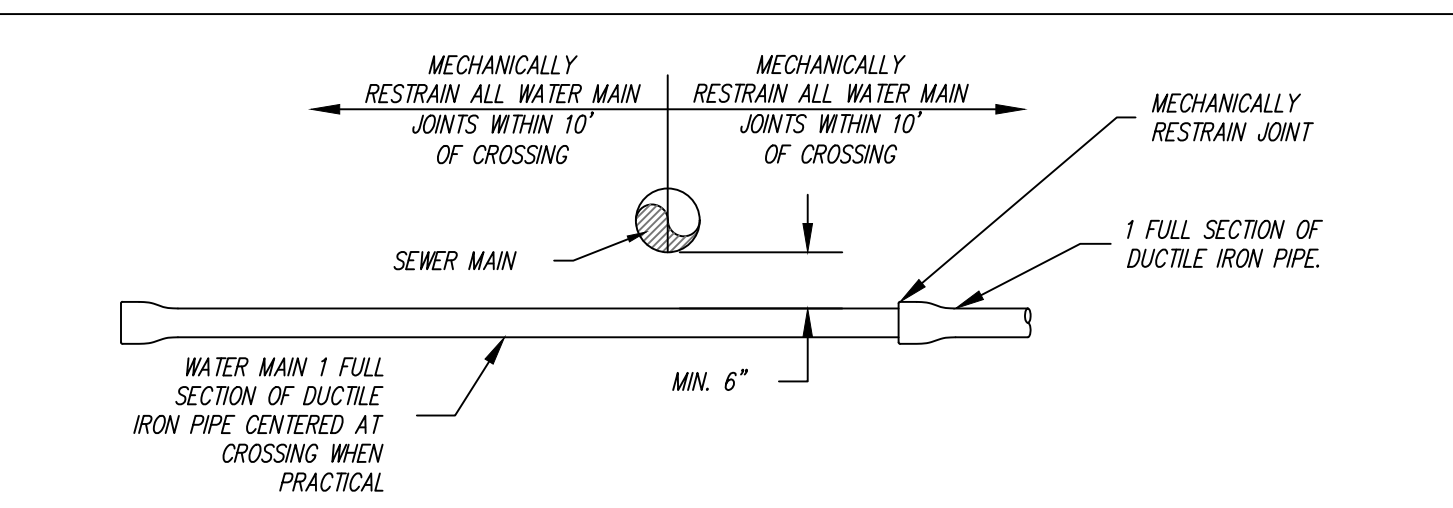
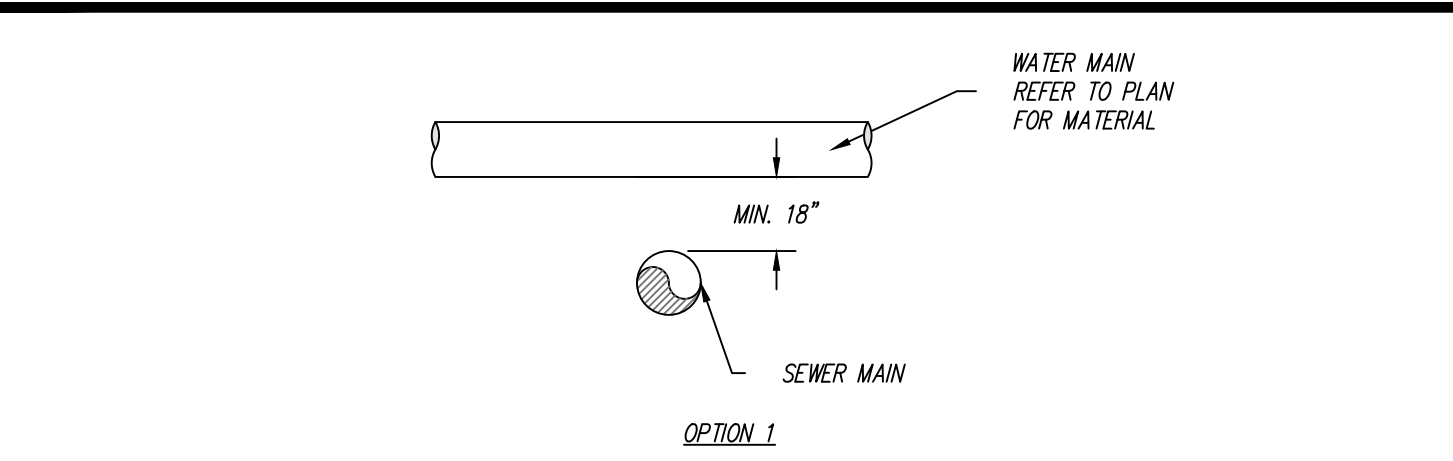
TRUCKEE MEADOWS WATER	DATE: 7/2011	APPENDIX 10L MISCELLANEOUS WATER DETAILS	DRAWING NUMBER: 10L-6
	REV: 02/2014	TRENCH DETAIL WATER ONLY	



NOTES:

- IF SEPARATION IS 10 FEET OR MORE USE OPTION 1.
- NON-PRESSURIZED SEWER MAINS SHALL BE SDR 35 PVC. IF SEWER MAINS ARE NON SDR 35 PVC, SEWER MAINS SHALL BE ENCASED IN 4" OF EXCAVATABLE SLURRY, USE EXTERNAL JOINT SEALANT OR OTHER MITIGATION TO ENSURE JOINTS ARE WATERTIGHT. WHERE THE SEWER MAINS ARE PRESSURIZED, THE SEWER MAINS SHALL HAVE MECHANICALLY RESTRAINED JOINTS OR SHALL USE WELDED OR FUSED PIPE.
- FOR STORM SEWER MAINS WITH A DIAMETER OF 24" OR LARGER, THE SEWER MAINS SHALL BE INSTALLED WITH WATER TIGHT JOINTS THAT USE JOINT SEALANTS OR JOINT GASKETS.

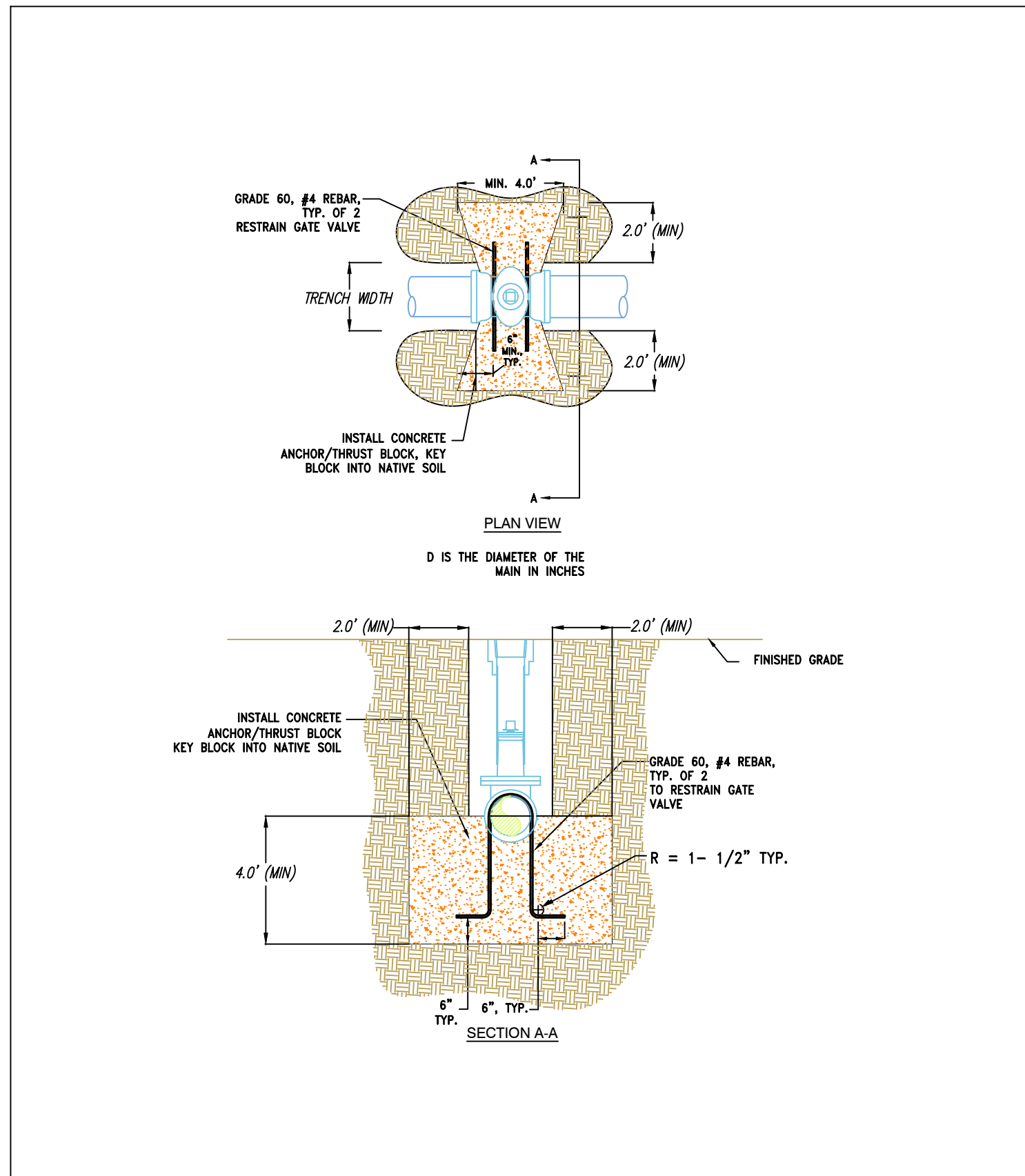
TRUCKEE MEADOWS WATER	DATE: 02/2014	APPENDIX 10L MISCELLANEOUS WATER DETAILS	DRAWING NUMBER: 10L-10
	REV	WATER MAIN OR WATER SERVICE LATERAL PARALLEL TO SEWER MAIN	



NOTES:

- OPTION 1 SHOULD BE UTILIZED WHEN POSSIBLE.
- NON-PRESSURIZED SEWER MAINS SHALL BE SDR 35 PVC. IF SEWER MAINS ARE NON SDR 35 PVC, SEWER MAINS SHALL BE ENCASED IN 4" OF EXCAVATABLE SLURRY, USE EXTERNAL JOINT SEALANT OR OTHER MITIGATION TO ENSURE JOINTS ARE WATERTIGHT. WHERE THE SEWER MAINS ARE PRESSURIZED THE SEWER MAINS SHALL HAVE MECHANICALLY RESTRAINED JOINTS OR SHALL USE WELDED OR FUSED PIPE.
- ALL MECHANICALLY RESTRAINED WATER PIPES SHALL BE DUCTILE IRON WITH POLYETHYLENE WRAP PER AWWA C105.

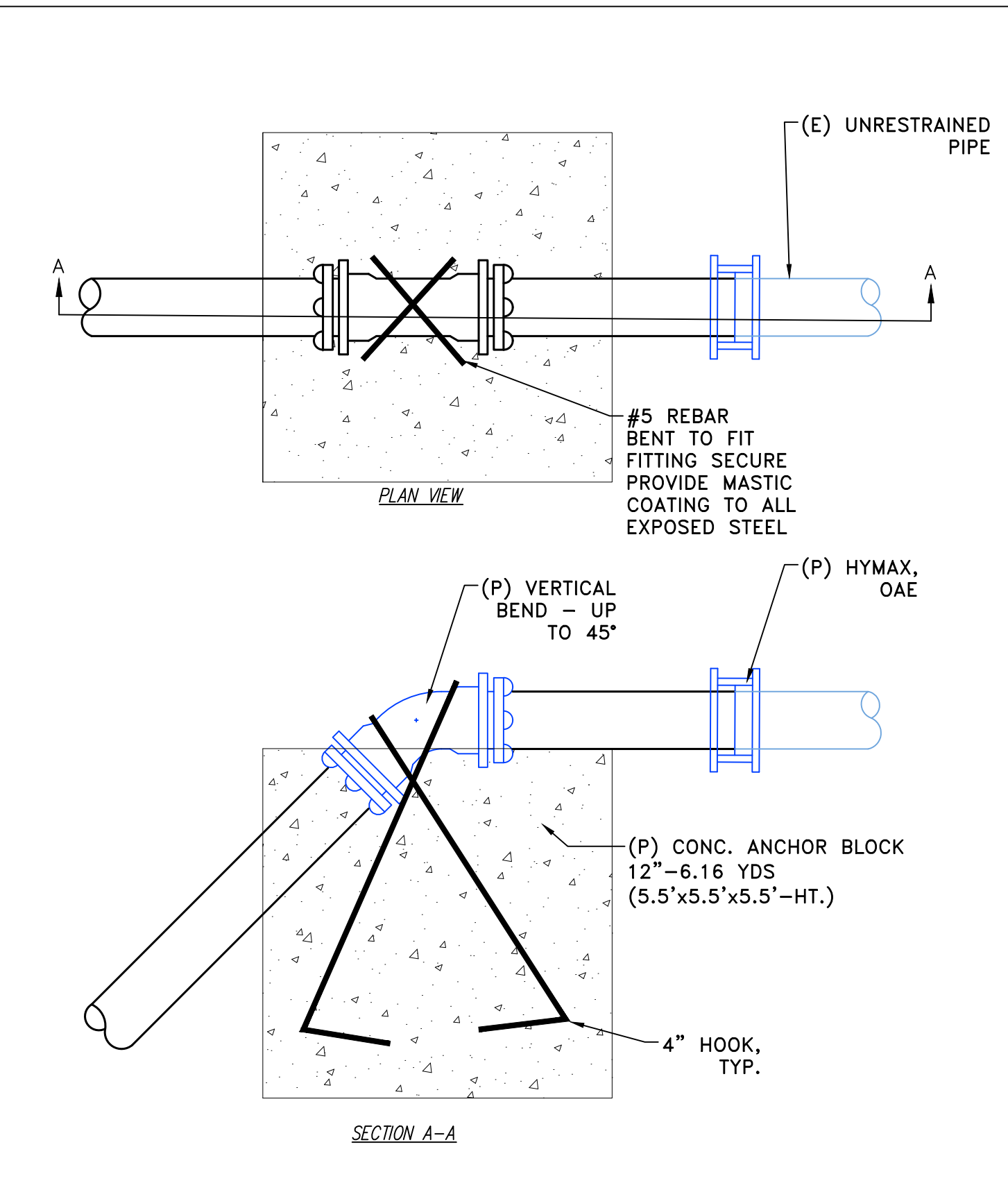
TRUCKEE MEADOWS WATER	DATE: 02/2014	APPENDIX 10L MISCELLANEOUS WATER DETAILS	DRAWING NUMBER: 10L-11
	REV	WATER MAIN CROSSING SEWER MAIN	



ANCHOR BLOCK DIMENSIONS BASED ON WATER PRESSURE OF 150 PSF, SOIL BEARING CAPACITY OF 2,000 PSF AND FACTOR OF SAFETY OF 1.5.

1
W-3

GATE VALVE ANCHOR BLOCK DETAIL



ANCHOR BLOCK DIMENSIONS BASED ON WATER PRESSURE OF 150 PSF, SOIL BEARING CAPACITY OF 2,000 PSF AND FACTOR OF SAFETY OF 1.5.

2
W-3

VERTICAL ANCHOR BLOCK DETAIL

895 ROBERTA LANE, SUITE 104, SPARKS, NV 89431
 (775) 359-3303 FAX (775) 359-3329

odyssey ENGINEERING INCORPORATED

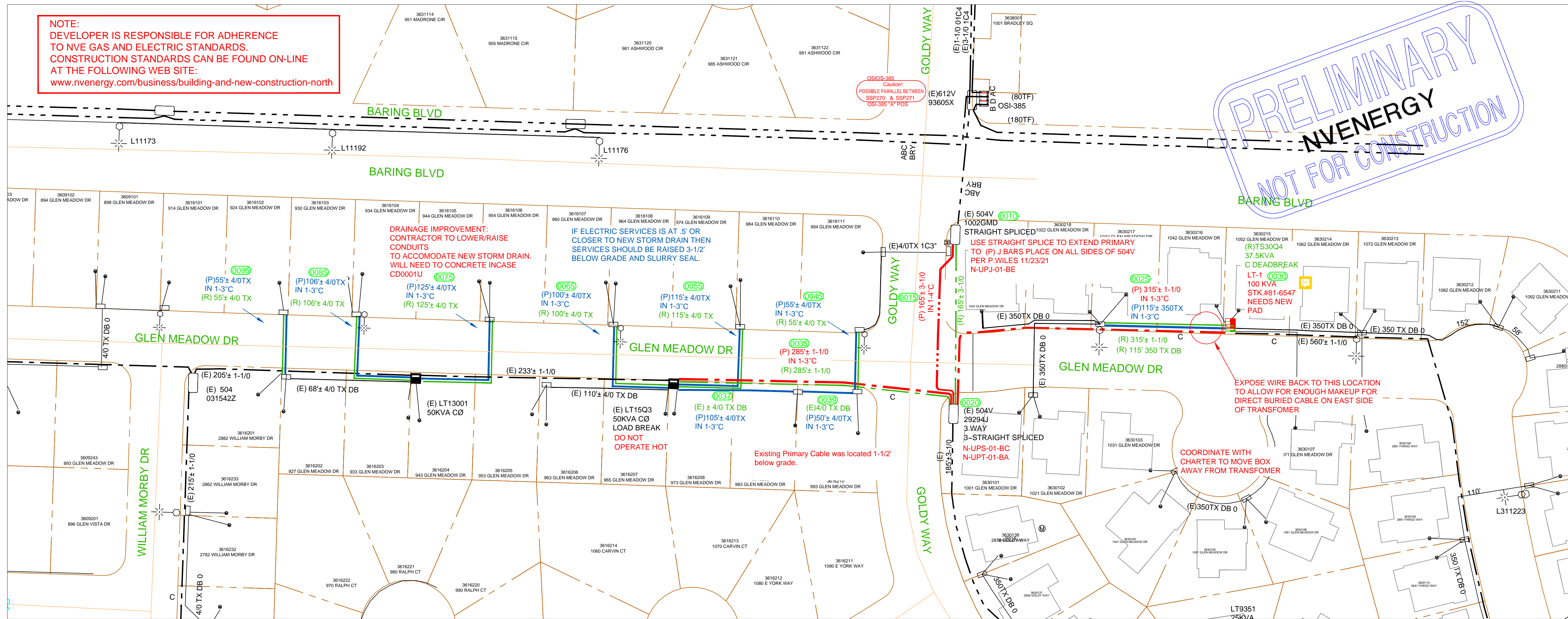
DESIGNER

PROFESSIONAL ENGINEER - STATE OF NEVADA
 FRANK A. BIDART
 Exp. 12-31-22
 CIVIL
 No. 10504
 3/30/22



Know what's below.
 Call before you dig.

NOTE:
DEVELOPER IS RESPONSIBLE FOR ADHERENCE
TO NVE GAS AND ELECTRIC STANDARDS.
CONSTRUCTION STANDARDS CAN BE FOUND ON-LINE
AT THE FOLLOWING WEB SITE:
www.nvenergy.com/business/building-and-new-construction-north



PRELIMINARY
NVENERGY
NOT FOR CONSTRUCTION

DRAWING	DESIGNED BY	DATE
BASE	CD	11/17/21
ELECTRIC	CD	11/17/21
GAS		

REVIEWED BY:			
Utility Designer	Engineer	Design Administrator	Design Facilitator
CARRIE DUESING			

NO.	REVISION	DESCRIPTIONS	DATE	DI
1				
2				
3				
4				
5				
6				
7				

Call before you dig
Call 811
Call before you dig
Call 1-702-227-2929

NV Energy
P.O. Box 10100
R77CSE
Reno, NV, 89520-0024

NV ENERGY CONTACT INFORMATION:
COORDINATOR: CARRIE DUESING
OFFICE: # 775 834-7232
CELL: # 775 846-2003
FAX: #
EMAIL: CARRIE.DUESING@NVENERGY.COM
DESIGNER: CARRIE DUESING
INSPECTION HOTLINE#: 888/999-1556

CUSTOMER CONTACT INFORMATION:
CUSTOMER: NVE
ATTENTION: RUSS LOUIE
PHONE: # 775 834-7733
FAX: #
EMAIL:
CUST REP: #
PHONE: #
EMAIL:

TOWNSHIP-RANGE-SECTION
2020-34
APN#

SOURCE INFORMATION:
228
25KV NORM OUT OF
GREG ST
SUB



VICINITY MAP (NTS)

E-CITY OF
SPARKS-RELO-S&H-NVE

EXHIBIT "A" APPLICANT INSTALLED CONDUIT	AUD#:	GAS#:	FILE#: 3008399569
ELECTRIC DESIGN			
SCALE: 1"=50'			
SHEET#: E.1of1			

THIS IS A DRAINAGE IMPROVEMENT PROJECT
ELECTRICAL CROSSINGS WILL NEED TO BE LOWERED/OR RAISED AS THEY ARE IN
CONFLICT WITH STORM DRAIN

**OUTAGE
REQUIRED**

CITY OF SPARKS ENCROACHMENT
PERMIT NEEDED

NV ENERGY TO FURNISH AND/OR INSTALL:

- APPROX. 165 CKT. FT. 25 KV 3Ø U/G PRIMARY C/O 3-1/0 CABLE IN NEW 1-4" C.
- APPROX. 600 CKT. FT. 25 KV 1Ø U/G PRIMARY C/O 1-1/0 CABLE IN NEW 1-3" C.
- APPROX. 711 CKT. FT. 1Ø U/G SECONDARY BUSS C/O 1-4/0TX, IN 1-3" C (CONDUIT BY CONTRACTOR).
- APPROX. 115 CKT. FT. 1Ø U/G SECONDARY BUSS C/O 1-350TX, IN 1-3" C (CONDUIT BY CONTRACTOR).
- 1 - 1Ø PDM LOAD BREAK TRANSFORMER 100 KVA, 24.9GDY/14.4KV, 240/120V, STK.#81-6547.

NV ENERGY TO REMOVE:

- 165' 3-1/0 U/G CABLE
- 600' 1-1/0 U/G CABLE
- 711' FT. 4/0 CABLE.
- 115' FT. 350TX CABLE.
- 1 - 1Ø PDM DEAD BREAK TRANSFORMER 37.5 KVA, 24.9GDY/14.4KV, 240/120V.

APPLICANT TO FURNISH AND/OR INSTALL:

- 1 - 1Ø TRANSFORMER PAD 44"x48"x6" PER NVE. STD. PE0001U.
- PROPOSED APPROX. 165 FT. 4" PVC PRIMARY CONDUIT.
- PROPOSED APPROX. 600 FT. 3" PVC PRIMARY CONDUIT.
- PROPOSED APPROX. 826 FT. 3" PVC SECONDARY CONDUIT.

APPLICANT IS RESPONSIBLE FOR MANDRELLING CONDUIT AND INSTALLING A PULL LINE THAT MEETS OR EXCEEDS THE FOLLOWING REQUIREMENTS:
- THE PULL LINE WILL BE OF A FLAT DESIGN
- SHALL HAVE A MINIMUM BREAKING STRENGTH OF 400 LBS.
- WILL HAVE SEQUENTIAL FOOTAGE MARKINGS
- EXAMPLES OF PULL LINES THAT MEET THESE REQUIREMENTS (NVE. STK.#95-7305)
- NEPTCO "MULE TAPE" (WP400P)
- CONDUX INTERNATIONAL (08096203)
- SEE NVE VOLUME 17, SECTION 4-CD0001U.

ALL TRENCHING AND BACKFILL PER APPLICABLE NVE. STDS. TE0001, TE0003, TE0004 AND TE0020.
ALL STREET CUT PERMITS AND PAVEMENT CUTTING AND REPLACEMENT AS REQUIRED.
NOTE: ALL CONDUIT INSTALLATIONS BENEATH FOUNDATION AND SLABS TO BE RIGID STEEL OR CONCRETE ENCASED PER NVE STDS. CD0003U.

GENERAL COMMENTS:

CALL NVE INSPECTION REQUEST LINE (775) 834-7520 48 HOURS PRIOR TO START OF ALL OVERHEAD OR UNDERGROUND CONSTRUCTION. (INCLUDE PROJECT NUMBER, NAME AND PHONE NUMBER, AND TYPE OF INSPECTION REQUIRED)

ALL MATERIAL SHALL BE ON THE JOB SITE PRIOR TO THE START OF ANY WORK BY NVE. COMPACTION TESTS REQUIRED PER NVE. STD. SUB01X.

NO TREE SHALL BE PLANTED UNDER OR ADJACENT TO ENERGIZED POWER LINES WHICH, AT MATURITY, SHALL GROW WITHIN 10 FEET OF THE ENERGIZED CONDUCTORS. NOR SHALL ANY PERMANENT STRUCTURE, FENCE, SHRUB OR TREE BE PLANTED CLOSER THAN 10 FEET IN FRONT AND 3 FEET FROM ALL OTHER SIDES OF A PAD MOUNTED TRANSFORMER.

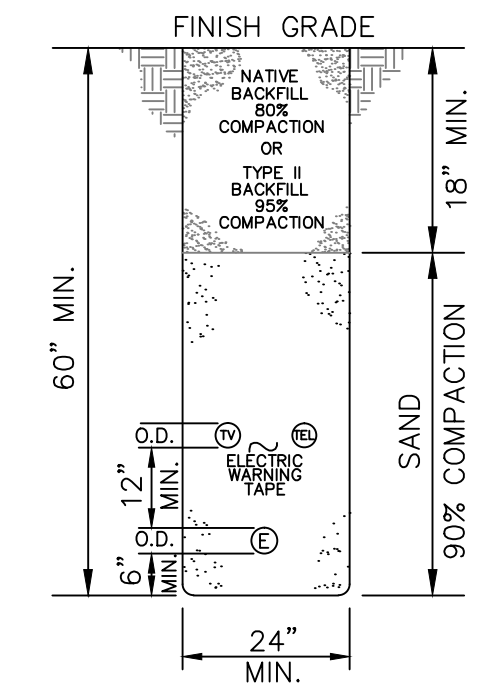
THESE DRAWINGS ARE BASED ON CIVIL PLANS DATED: 12/31/2020
NOTE: DEVELOPER IS RESPONSIBLE FOR ADHERENCE TO NV ENERGY GAS AND ELECTRIC STANDARDS. CONSTRUCTION STANDARDS CAN BE FOUND ON-LINE AT THE FOLLOWING WEB SITE: <http://www.nvenergy.com/account-services/building-and-new-construction>

THIS MAP ILLUSTRATES DATA COLLECTED FROM VARIOUS SOURCES AND MAY NOT REPRESENT A SURVEY OF THE PREMISES. NO RESPONSIBILITY IS ASSUMED AS TO THE SUFFICIENCY OR ACCURACY OF THE DATA DISPLAYED HEREON.

ALL WORK SHALL BE ACCOMPLISHED IN STRICT ACCORDANCE WITH THE SPECIFICATIONS SET FORTH IN THE ELECTRIC DISTRIBUTION GUIDE, VOL. 17 AS CURRENTLY ADOPTED BY NVE. THE CONTRACTOR SHALL SECURE COPIES OF THE FOREMENTIONED CONSTRUCTION SPECIFICATIONS ON HIS OR HER OWN BEHALF.

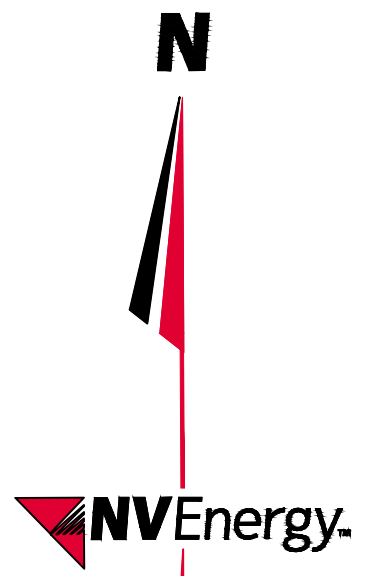
USE CAUTION! PRIOR TO EXCAVATION, CHECK TO ENSURE ADDITIONAL DEPTH IS NOT REQUIRED TO ACCOMMODATE GAS AND/OR WATER FACILITIES.

SYMBOLS ARE NOT TO SCALE AND DO NOT NECESSARILY REPRESENT ACTUAL LOCATIONS OF FACILITIES.



(E) = EXISTING
(P) = PROPOSED
(R) = REMOVE

SYMBOLS ARE NOT TO SCALE AND DO NOT NECESSARILY REPRESENT ACTUAL LOCATIONS OF FACILITIES.



TYP. PRIMARY OR
SECONDARY TRENCH
NTS