

CITY OF SPARKS

4th STREET SEWER & STORM DRAIN

PWP NO. WA-2023-103
 BID # 22/23-014

SPARKS CITY COUNCIL

ED LAWSON	MAYOR
DONALD ABBOTT	WARD ONE
DIAN VANDERWELL	WARD TWO
PAUL ANDERSON	WARD THREE
CHARLENE BYBEE	WARD FOUR
KRISTOPHER DAHIR	WARD FIVE



Jon Ericson
 JON ERICSON, P.E., P.T.O.E.
 CITY ENGINEER

11-9-2022
DATE

ENGINEER'S CERTIFICATE

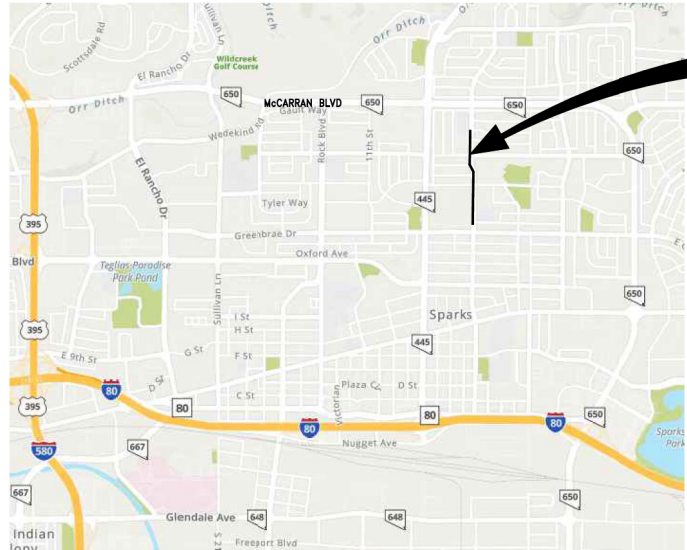
THESE PLANS HAVE BEEN PREPARED IN ACCORDANCE WITH ACCEPTED ENGINEERING PROCEDURES AND GUIDELINES, AND ARE IN SUBSTANTIAL COMPLIANCE WITH APPLICABLE STATUTES, CITY ORDINANCES, STANDARDS AND CITY CODE. IN THE EVENT OF CONFLICT BETWEEN ANY PORTION OF THESE PLANS AND CITY CODE, CITY STANDARDS SHALL TAKE PRECEDENCE.

Shawn W. Jenkins
 SHAWN W. JENKINS, P.E.
 PROJECT ENGINEER

11-09-2022
DATE

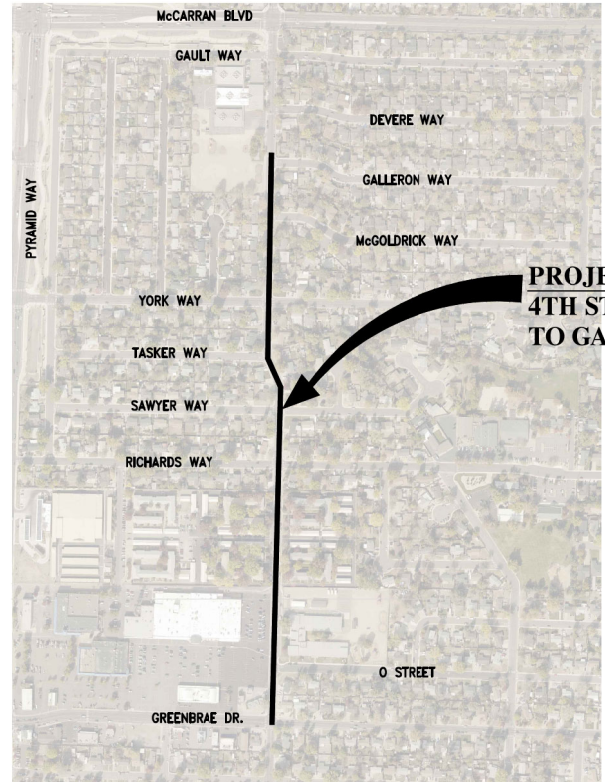


EASTERN SIERRA ENGINEERING
 4515 TOWNE DRIVE, RENO, NV 89521
 TEL: (775) 828-7220, FAX: (775) 828-7221



PROJECT VICINITY MAP
SCALE: NTS

PROJECT LOCATION:
4TH STREET



PROJECT LOCATION MAP
SCALE: NTS

PROJECT LOCATION:
4TH STREET FROM GREENBRAE DRIVE
TO GALLERON WAY

INDEX OF SHEETS

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D1	DETAILS	
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BY	APPROVED	REVISIONS	Date

TITLE	TITLE SHEET
PROJECT	CITY OF SPARKS 4TH STREET SEWER & STORM DRAIN
SPARKS, NV	PWP-WA-2022-XX



EASTERN SIERRA ENGINEERING
 CIVIL ENGINEERING & CONSTRUCTION SERVICES
 4515 TOWNE DRIVE
 RENO, NV 89521
 MAIN: (775) 828-7220
 FAX: (775) 828-7221

FOR BID
 DATE: 11-11-2022

11-11-2022
Designed: BF, BML, DB
Drawn By: JC, MO
Approved By: SWJ
Job No: 22131
Scale: AS SHOWN
Date: 11-11-2022
SHEET No.
C1 OF 15

GENERAL NOTES

- 1. ALL CONSTRUCTION SHALL CONFORM TO THE 2012 EDITION OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION AND THE STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION FOR THE CITY OF SPARKS.
2. CONTRACTOR IS REQUIRED TO OBTAIN ALL NECESSARY PERMITS AND PAY ALL FEES PRIOR TO CONSTRUCTION.
3. IT IS THE INTENT OF THESE PLANS AND SPECIFICATIONS THAT THE WORK PERFORMED UNDER THE CONTRACT SHALL RESULT IN A COMPLETE OPERATING SYSTEM IN SATISFACTORY WORKING CONDITION WITH RESPECT TO THE FUNCTIONAL PURPOSES OF THE INSTALLATION.
4. ALL EXCAVATION AND EMBANKMENT SHALL BE IN ACCORDANCE WITH CITY OF SPARKS STANDARDS AND THE GEOTECHNICAL INVESTIGATION AND PAVEMENT DESIGN REPORT PREPARED BY ESE, DATED 9/30/22.
5. THE CONTRACTOR SHALL MAINTAIN ALL EXISTING DRAINAGE FACILITIES WITHIN THE CONSTRUCTION AREA UNTIL NEW DRAINAGE IMPROVEMENTS ARE IN PLACE AND FUNCTIONAL.
6. THE CONTRACTOR SHALL TAKE ALL NECESSARY AND PROPER PRECAUTIONS TO PROTECT ADJACENT PROPERTIES FROM ANY AND ALL DAMAGE THAT MAY OCCUR FROM STORM WATER RUNOFF AND/OR DEPOSITION OF DEBRIS RESULTING FROM ANY AND ALL WORK IN CONNECTION WITH PROJECT SCOPE.
7. SHOULD ANY PREHISTORIC OR HISTORIC REMAINS OR ARTIFACTS BE DISCOVERED DURING CONSTRUCTION, WORK SHALL TEMPORARILY BE HALTED AT THE SPECIFIC SITE AND THE STATE HISTORIC PRESERVATION OFFICE OF THE DEPARTMENT OF MUSEUMS, LIBRARY AND ARTS, SHALL BE NOTIFIED TO RECORD AND PHOTOGRAPH THE SITE.
8. WORK IN PUBLIC STREETS, ONCE BEGUN, SHALL BE PROSECUTED TO COMPLETION WITHOUT DELAY SO AS TO PROVIDE MINIMUM INCONVENIENCE TO ADJACENT PROPERTY OWNERS AND TO THE TRAVELING PUBLIC.
9. PRIOR TO FINAL ACCEPTANCE AND BOND RELEASES, A CERTIFIED LEGIBLE AS-BUILT DRAWING MUST BE SUBMITTED TO THE CITY OF SPARKS.
10. CONTRACTOR SHALL PROVIDE ALL NECESSARY HORIZONTAL AND VERTICAL TRANSITION BETWEEN NEW CONSTRUCTION AND EXISTING SURFACES TO PROVIDE FOR PROPER DRAINAGE AND OF INGRESS AND EGRESS TO SAID CONSTRUCTION.
11. EXISTING UTILITIES ARE LOCATED ON PLANS FOR THE CONVENIENCE OF THE CONTRACTOR ONLY.
12. CALL UNDERGROUND SERVICE ALERT NORTH (USA NORTH - 811) FOR UTILITY LOCATIONS PRIOR TO CONSTRUCTION.
13. EXACT LOCATION OF ALL SAW-CUT LINES SHALL BE DETERMINED IN THE FIELD BY THE ENGINEER FOR THE CITY OF SPARKS.
14. CONTRACTOR SHALL OBTAIN WRITTEN APPROVAL FROM THE ENGINEER PRIOR TO USING A STAGING AREA WITHIN A RESIDENTIAL NEIGHBORHOOD.
15. ALL EXCESS OR UNSUITABLE MATERIAL SHALL BE DISPOSED OF IN ACCORDANCE WITH CITY AND COUNTY CODES.
16. BEFORE ANY WORK IS STARTED IN STREET RIGHT-OF-WAY, THE CONTRACTOR SHALL INSTALL ALL ADVANCE WARNING SIGNS FOR THE CONSTRUCTION ZONE.
17. PROTECTION AND REPLACEMENT OF SURVEY MONUMENTS OR PROPERTY STAKES NOT DELINEATED ON THE CONTRACT DRAWINGS SHALL BE THE CONTRACTOR'S RESPONSIBILITY.
18. THE CONTRACTOR SHALL TAKE REASONABLE MEASURES TO PROTECT EXISTING IMPROVEMENTS FROM DAMAGE AND ALL SUCH IMPROVEMENTS DAMAGED BY THE CONTRACTOR'S OPERATION SHALL BE REPAIRED OR RECONSTRUCTED TO THE ENGINEER'S SATISFACTION AT THE EXPENSE OF THE CONTRACTOR.

EASTERN SIERRA ENGINEERING (ESE)
4515 TOWNE DRIVE
RENO, NEVADA 89521
SHAWN W JENKINS, P.E., PROJECT ENGINEER
PHONE: (775) 828-7220

- 19. THE CONTRACTOR SHALL BE RESPONSIBLE FOR IMMEDIATE OFF-SITE DISPOSAL OF ALL BITUMINOUS PAVEMENT, CONCRETE AND REINFORCEMENT, AND SPOILS NOT NEEDED FOR BACKFILL AS REQUIRED BY THE ENGINEER AND PER SPECIFICATIONS.
20. THE CONTRACTOR SHALL MAINTAIN ACCESS TO AT LEAST ONE DRIVEWAY TO EACH PROPERTY DURING CONSTRUCTION.
21. THE CONTRACTOR SHALL SUBMIT, FOR APPROVAL, A TRAFFIC CONTROL PLAN TO THE ENGINEER FOR THE CITY OF SPARKS PRIOR TO PERFORMING ANY WORK IN THE PUBLIC RIGHT-OF-WAY.
22. ANY STRIPING DAMAGED OR REMOVED DURING CONSTRUCTION SHALL BE REPLACED AT THE CONTRACTORS EXPENSE TO THE SATISFACTION OF THE ENGINEER.
23. IN ACCORDANCE WITH THE NEVADA DIVISION OF ENVIRONMENTAL PROTECTION (NDEP) GENERAL PERMIT FOR CONSTRUCTION ACTIVITIES; THE CONTRACTOR SHALL HAVE A STORM WATER POLLUTION PREVENTION PLAN (SWPPP) ON SITE AT ALL TIMES. THE CONTRACTOR IS RESPONSIBLE TO MAINTAIN THE BMP'S, CONDUCT SELF INSPECTIONS, AND UPDATE THE SWPPP.

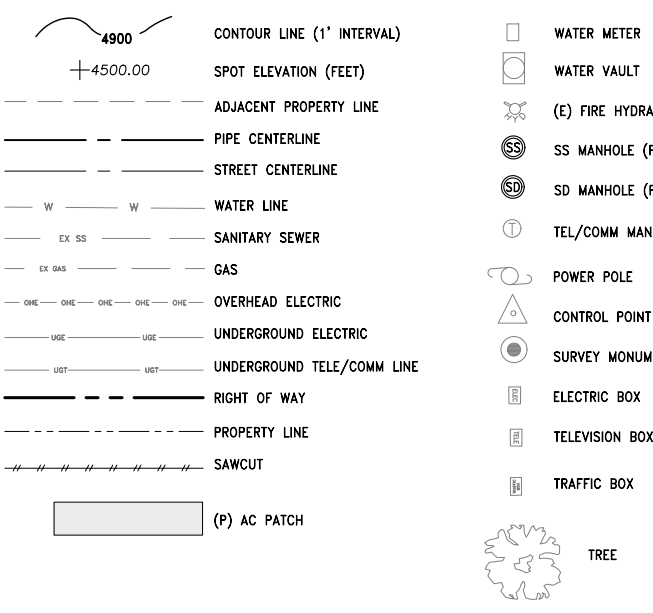
PUBLIC WORKS UTILITY NOTES

- 1. THE CONTRACTOR SHALL SUPPORT AND PROTECT EXISTING UTILITIES WITHIN THE TRENCH SECTION TO THE SATISFACTION OF THE OWNER AGENCY. SUFFICIENT TIME SHALL BE ALLOWED TO THE OWNER AGENCY TO EXECUTE THE PROPER REMOVAL, RELOCATION, OR ADJUSTMENT OF ITS UTILITIES.
2. THE CONTRACTOR SHALL NOTIFY RESIDENTS 48 HOURS PRIOR TO REQUIRING ACCESS TO PRIVATE PROPERTY FOR CONSTRUCTION OF SEWER LINES, MANHOLES AND/OR SEWER LATERALS.
3. CONTRACTOR IS REQUIRED TO OBTAIN A DUST CONTROL PERMIT AND MAINTAIN A DUST CONTROL PROGRAM INCLUDING WATERING OF OPEN AREAS. THE CONTRACTOR SHALL ADHERE TO WASHOE COUNTY AIR POLLUTION REGULATIONS, SECTION 040.030.
4. CONTRACTOR SHALL MAINTAIN AN ON-GOING PROCESS FOR REMOVAL OF ALL SPILLAGE OF EXCAVATED MATERIAL ON ALL PAVED STREETS.
5. PERMITS, APPROVED PLANS, AND BARRICADE PLANS FOR THIS WORK MUST BE ON THE JOB SITE AT ALL TIMES.
6. INSPECTIONS ARE REQUIRED. THE CONTRACTOR SHALL NOTIFY ALL EFFECTED PUBLIC ENTITIES 48 HOURS MINIMUM PRIOR TO COMMENCEMENT OF WORK.
7. COMPACTION TESTS ARE REQUIRED. SOIL TESTING SHALL COMPLY WITH SECTION 336 OF THE STANDARD SPECIFICATIONS.
8. A TEMPORARY PATCH IS TO BE IN PLACE AT THE END OF EACH WORK DAY WHERE THE BACKFILL IN THE TRENCH HAS BEEN COMPLETED AND PRIOR TO OPENING THE WORK AREA BACK TO THE TRAFFIC AND IS TO BE MAINTAINED BY THE CONTRACTOR. A PERMANENT PATCH IS TO BE IN PLACE WITHIN THIRTY (30) DAYS AFTER THE INSTALLATION OF THE TEMPORARY PATCH.
9. ALL TRENCH CROSSINGS AND BACKFILL SHALL MEET THE STANDARD SPECIFICATIONS UNLESS OTHERWISE STATED.
10. CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTION OF ALL MANHOLES AND PIPELINES DURING THE LIFE OF THE CONTRACT. THE CONTRACTOR SHALL SUBMIT A MANHOLE PROTECTION PLAN PRIOR TO CONSTRUCTION.
11. CONTRACTOR TO USE CONTAINMENT DEVICES IN ALL MANHOLES AND CATCH BASINS DURING CONSTRUCTION. CONTRACTOR TO PROTECT CATCH BASINS PER APPROVED SWPPP OR AS PER DETAIL.
12. INSTALL TMWA WATER SECTION REPLACEMENT, CONTRACTOR SHALL NOTIFY TMWA A MINIMUM OF 48 HOURS PRIOR TO SECTION REPLACEMENT. SECTION REPLACEMENTS MAY REQUIRE HORIZONTAL AND/OR VERTICAL REALIGNMENT. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL POTHOLE AND COORDINATE WITH TMWA AND THE ENGINEER TO DETERMINE ALIGNMENT. IF A SECTION REPLACEMENT IS NOT REQUIRED, A SLURRY BACKFILL MAY BE REQUIRED. SEE SPECIFICATION SECTION 500 FOR TMWA WATER CONSTRUCTION.
13. SEWER MAIN OR SEWER LATERAL CROSSINGS UNDER ANY TRANSITE OR CAST IRON MAINS MAY BE REQUIRED TO BE BACKFILLED WITH AN APPROVED SLURRY UNLESS OTHERWISE APPROVED BY THE ENGINEER.
14. SLURRY WATER MAIN TO SPRING LINE IF SEWER LATERAL GOES UNDER WATER MAIN OR IF ABOVE WATER MAIN SLEEVE SEWER LATERAL 10' ON EACH SIDE OF WATER MAIN OR SLURRY ENCASEMENT SEWER LATERAL 10' ON EACH SIDE OF WATER MAIN.

TRAFFIC NOTES

- 1. ANY EXISTING TRAFFIC CONTROL DEVICES AND, OR SIGNS SHALL BE MAINTAINED DURING THE PERIOD OF CONSTRUCTION, AND SHALL BE REPOSITIONED, AS REQUIRED, PER THE ENGINEER, UPON COMPLETION OF THE PROJECT. CONTRACTORS ARE RESPONSIBLE FOR SUBMITTING TRAFFIC CONTROL/BARRICADING PLANS NOT LESS THAN 3 WORKING DAYS BEFORE OBSTRUCTING A PUBLIC RIGHT OF WAY.
2. LOCATION AND DESCRIPTION OF TEMPORARY TRAFFIC CONTROL DEVICES, STREET STRIPING, STREET NAME SIGNS, AND TRAFFIC SIGNALS MUST BE SHOWN ON TRAFFIC CONTROL PLANS SUBMITTED TO THE CITY OF SPARKS FOR APPROVAL. ALL TRAFFIC AND STREET NAME SIGNS MUST COMPLY WITH M.U.T.C.D. STANDARDS.
3. TRAFFIC, SCHOOL, OR STREET SIGNS OF ANY KIND ARE NOT TO BE MOVED FOR ANY REASON WITHOUT FIRST OBTAINING PERMISSION FROM THE CITY OF SPARKS, EXCEPT AS SHOWN ON THESE PLANS. OR AS APPROVED BY THE ENGINEER.
4. THIS PLAN DOES NOT AUTHORIZE CLOSURE OF ANY ROAD OR STREET.

LEGEND



SURVEY NOTES-WAITING FOR SURVEY

- 1. FIELD SURVEY CONDUCTED ON DECEMBER 8, 2021 BY:
BATTLE BORN VENTURES
600 GLEESON WAY
SPARKS, NV 89431
775-813-4934
2. THE LOCATION OF UNDERGROUND UTILITIES SHOWN HEREON ARE FROM SURFACE APPARENT MARKINGS AND FEATURES. UTILITY LOCATIONS ARE SHOWN ONLY FOR CONVENIENCE OF THE CONTRACTOR. THE CONTRACTOR SHALL BEAR FULL RESPONSIBILITY FOR THE PROTECTION OF THE UTILITIES AND BATTLE BORN VENTURES BEARS NO RESPONSIBILITY FOR UTILITIES NOT SHOWN HEREON OR NOT IN THE LOCATION SHOWN HEREON. THIS INCLUDES ALL SERVICE LATERALS OF ANY KIND.
3. CALL UNDERGROUND SERVICE ALERT NORTH (USA NORTH - 811) FOR UTILITY LOCATIONS PRIOR TO CONSTRUCTION.

BASIS OF BEARINGS:

NORTH AMERICAN DATUM OF 1983/94 (NAD 83/94), NEVADA STATE PLANE WEST ZONE. AS DETERMINED WITH REAL TIME KINEMATIC (RTK) GPS OBSERVATIONS, OBSERVED ON DECEMBER 8, 2021, USING TRIMBLE R8 RECEIVER WITH CORRECTION FROM NORTHWEST RENO "RNO1" CONTINUOUSLY OPERATING REFERENCE STATION (CORS) BEING PART OF THE NORTHERN NEVADA REGIONAL MAPPING NETWORK. MODIFIED BY A COMBINATION FACTOR OF 1.0001979390. ALL DIMENSIONS ARE U.S. SURVEY FOOT GROUND DISTANCES.
"RNO1" STATE PLANE GRID, NV WEST ZONE N - 14869133.44 E - 2257346.81 ELEV. - 5102.115 (NAVD 88)
"RNO1" GROUND COORDINATE N - 14872076.62 E - 2257793.63 ELEV - 5102.115 (NAVD 88)

BASIS OF ELEVATIONS:

NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88) AS DETERMINED WITH REAL TIME KINEMATIC (RTK) GPS OBSERVATIONS, OBSERVED ON DECEMBER 8, 2021, USING TRIMBLE R8 RECEIVER WITH CORRECTION FROM NORTHWEST RENO "RNO1" CONTINUOUSLY OPERATING REFERENCE STATION (CORS) BEING PART OF THE NORTHERN NEVADA REGIONAL MAPPING NETWORK. ELEVATIONS WERE REDUCED USING THE GEOID 12A MODEL PROVIDED BY THE NATIONAL GEODETIC SURVEY.

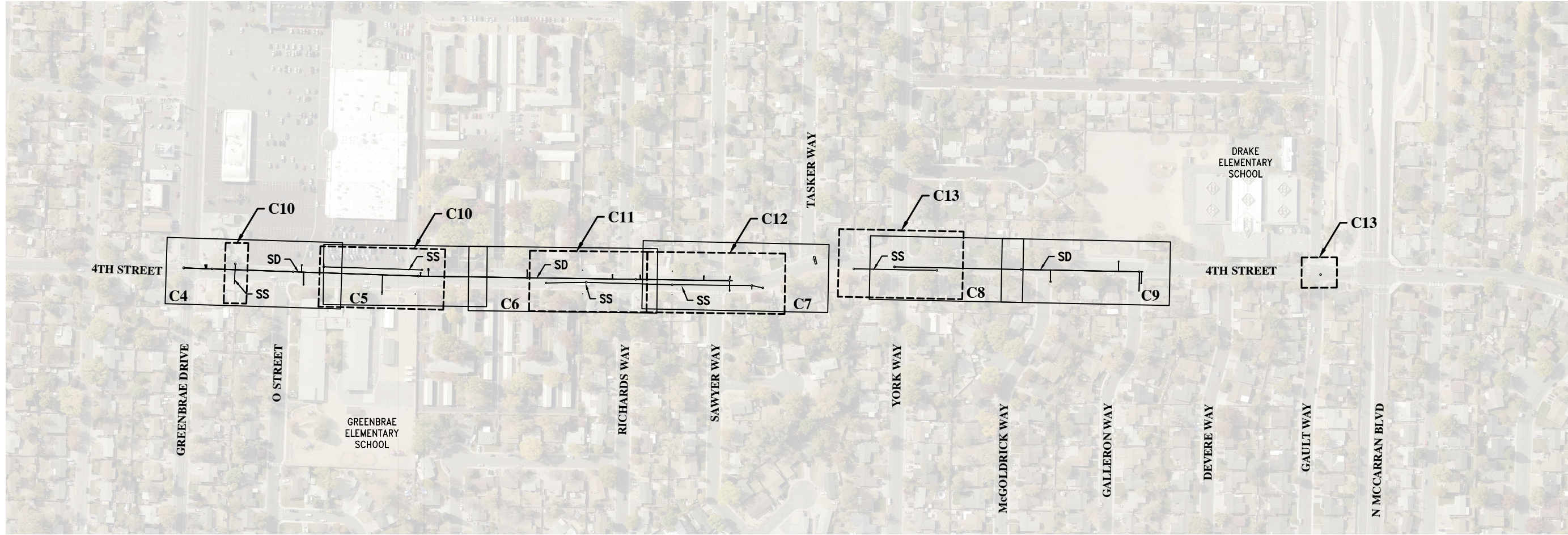
ABBREVIATIONS

Table with 2 columns: Abbreviation and Full Name. Includes entries like AC (Asphaltic Concrete), PC (Point of Curvature), PCC (Portland Cement Concrete), etc.

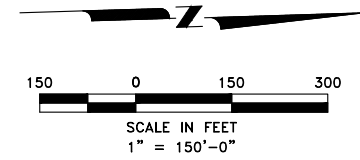
FOR BID
DATE: 11-11-2022

Vertical sidebar containing project title 'CITY OF SPARKS 4TH STREET SEWER & STORM DRAIN', company logo 'EASTERN SIERRA ENGINEERING', engineer seal for Shawn W. Jenkins, and project details including sheet number 'C2 OF 15'.





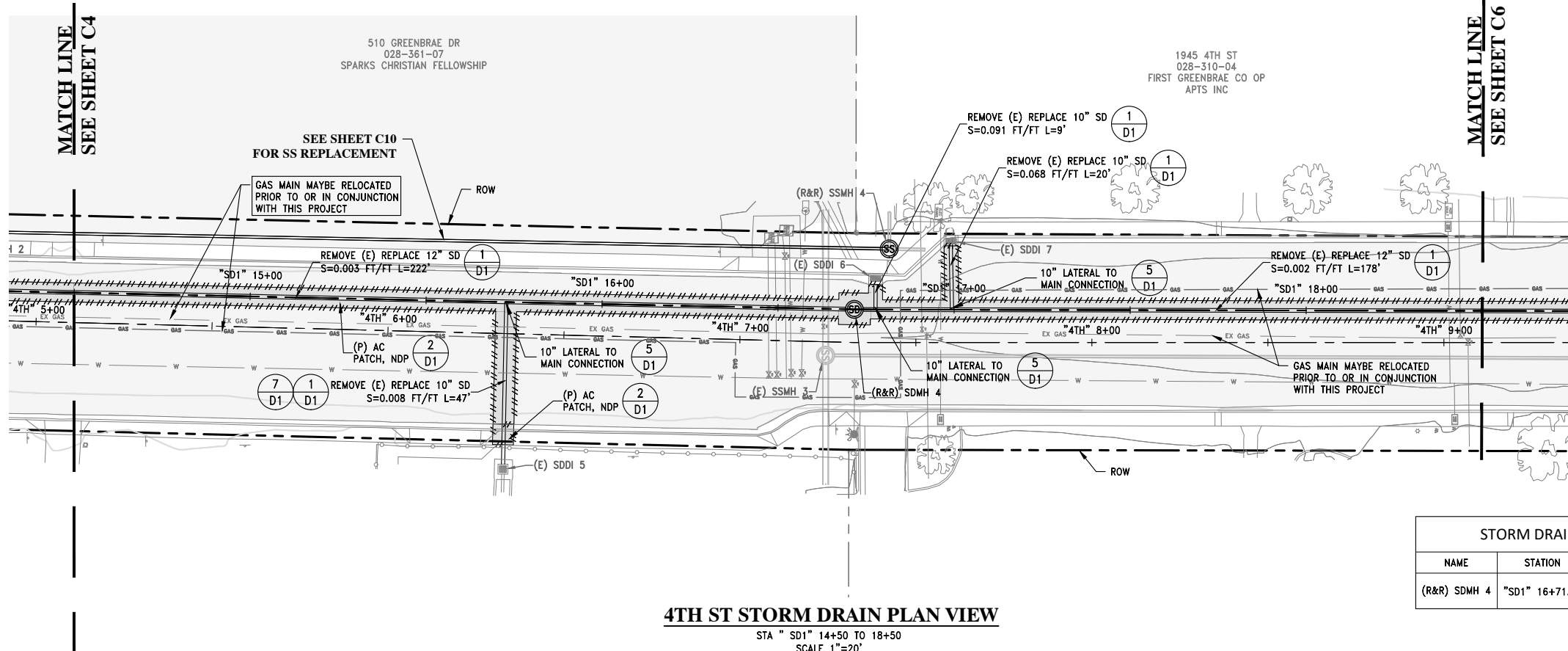
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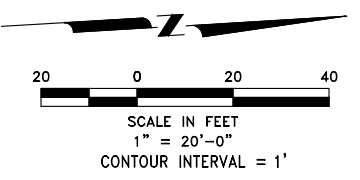
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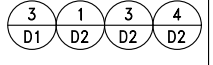
<p>EASTERN SIERRA ENGINEERING CIVIL ENGINEERING & CONSTRUCTION SERVICES 1001 W. WYOMING AVE. SUITE 100 RENO, NV 89521 PHONE: (775) 828-7221 FAX: (775) 828-7221</p>		<p>SHEET INDEX CITY OF SPARKS 4TH STREET SEWER & STORM DRAIN SPARKS, NV</p>		<p>REVISIONS</p>	
<p>PROFESSIONAL ENGINEER STATE OF NEVADA SHAWN W. JENKINS Exp. 6/30/23 CIVIL</p>		No.	Date	BY	
<p>11-11-2022 Designed: BF, BM, DB Drawn By: JC, MO Approved By: SWJ Job No: 22131 Scale: AS SHOWN Date: 11-11-2022</p>		1			
<p>SHEET No. C3 OF 15</p>		2			
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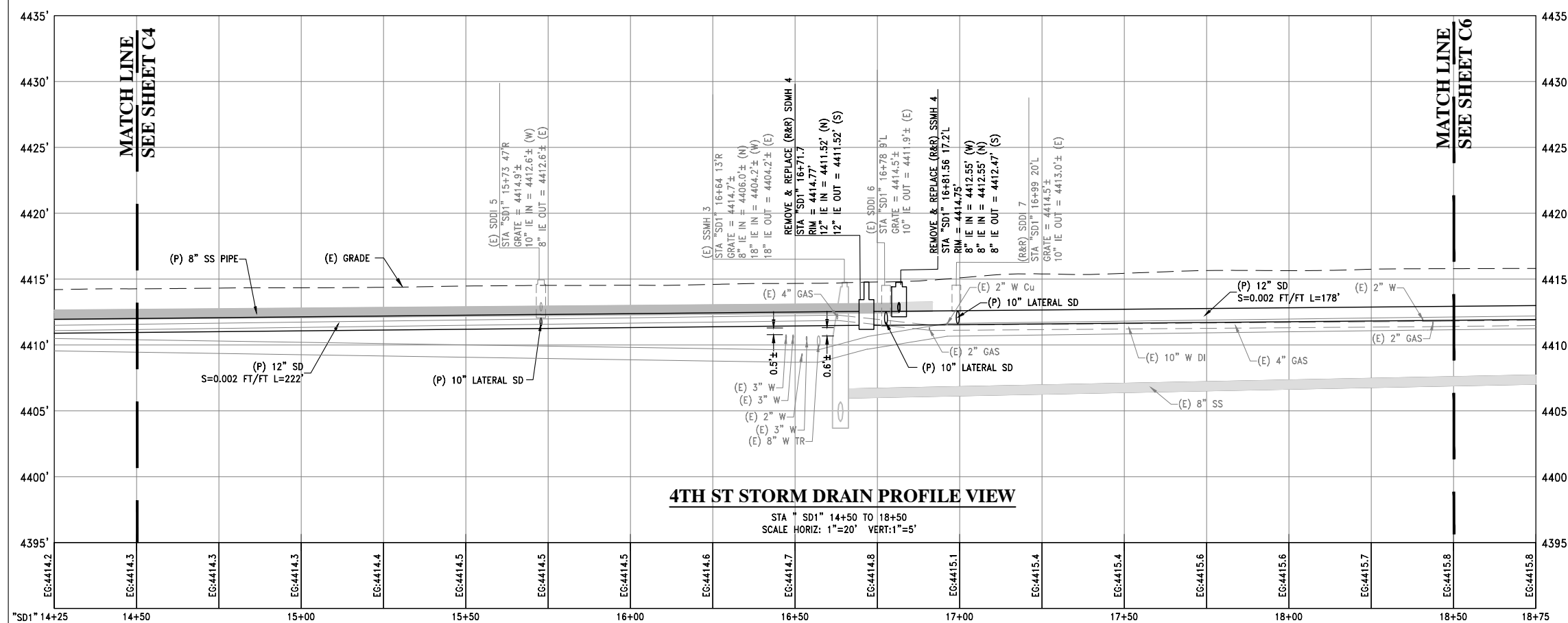
NOTE:
 PRIMARY ALIGNMENT - SD1
 SECONDARY ALIGNMENT - 4TH STREET



STORM DRAIN MANHOLE / INLET LOCATION INDEX				
NAME	STATION	OFFSET	COMMENTS	SIZE
(R&R) SDMH 4	"SD1" 16+71.66	0.0'	REMOVE AND REPLACE (E) TYPE 1 MANHOLE 16" FROM FRAME TO TOP OF FLAT TOP	48"Ø



4TH ST STORM DRAIN PLAN VIEW
 STA "SD1" 14+50 TO 18+50
 SCALE 1"=20'



4TH ST STORM DRAIN PROFILE VIEW
 STA "SD1" 14+50 TO 18+50
 SCALE HORIZ: 1"=20' VERT: 1"=5'

FOR BID
 DATE: 11-11-2022

BY	APPD				
REVISIONS					
No.	Date				
1					
2					
3					
4					
5					

TITLE
 STORM DRAIN PLAN & PROFILE
 STA "SD1" 14+50 TO 18+50

PROJECT
 CITY OF SPARKS
 4TH STREET SEWER & STORM DRAIN

EASTERN SIERRA ENGINEERING
 CIVIL ENGINEERING & CONSTRUCTION SERVICES
 1000 W. WYOMING
 REAR, NV 89521
 PHONE: (775) 828-7221
 FAX: (775) 828-7221

PROFESSIONAL ENGINEER STATE OF NEVADA
 SHAWN W. JENKINS
 Exp. 6/30/23
 CIVIL

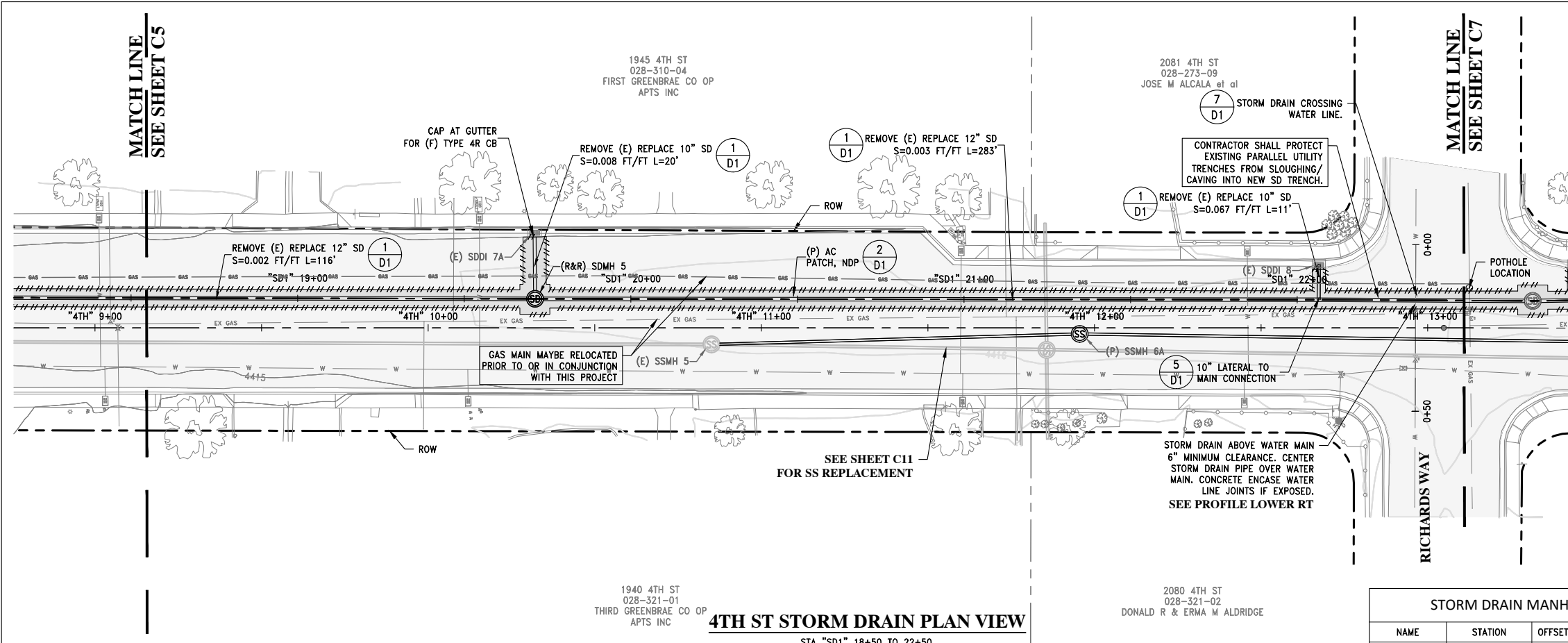
11-11-2022
 Designed: **BF, BM, DB**
 Drawn By: **JC, MO**
 Approved By: **SWJ**
 Job No: **22131**
 Scale: **AS SHOWN**
 Date: **11-11-2022**

USA NORTH 811
 Call 811 Before You Dig

SHEET No. C5 OF 15

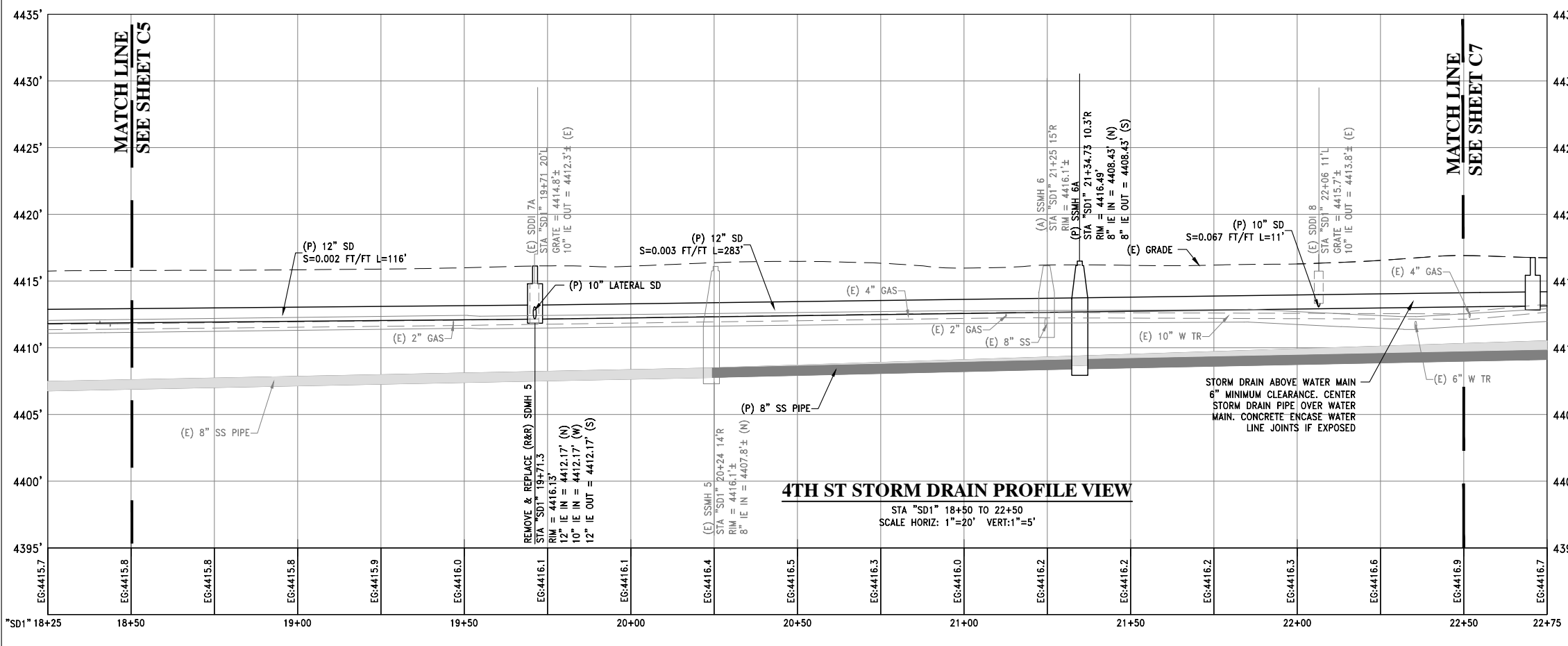
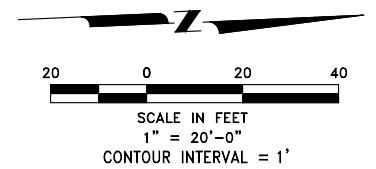
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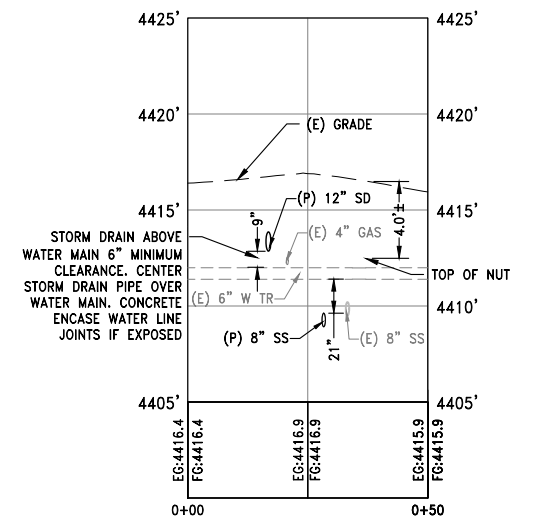


4TH ST STORM DRAIN PLAN VIEW
STA "SD1" 18+50 TO 22+50
SCALE 1"=20'

STORM DRAIN MANHOLE / INLET LOCATION INDEX				
NAME	STATION	OFFSET	COMMENTS	SIZE
(R&R) SDMH 5	"SD1" 19+71.25	0.0'	REMOVE AND REPLACE (E) TYPE 1 MANHOLE 16" FROM FRAME TO TOP OF FLAT TOP	48"Ø



4TH ST STORM DRAIN PROFILE VIEW
STA "SD1" 18+50 TO 22+50
SCALE HORIZ: 1"=20' VERT: 1"=5'



RICHARDS STORM DRAIN AND SANITARY SEWER CROSSING "SD2" 22+36

FOR BID
DATE: 11-11-2022



NOTE:
PRIMARY ALIGNMENT - SD1
SECONDARY ALIGNMENT - 4TH STREET

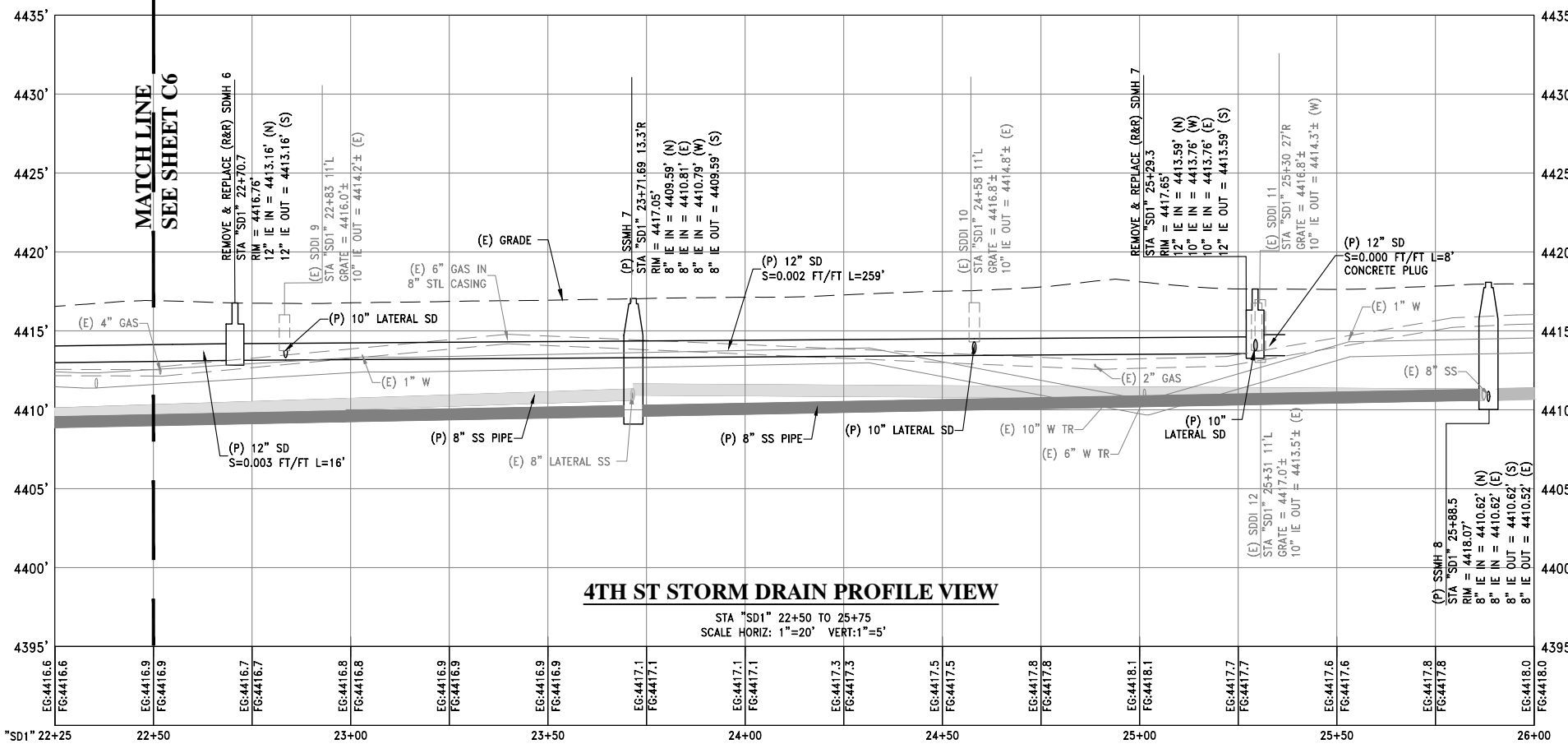
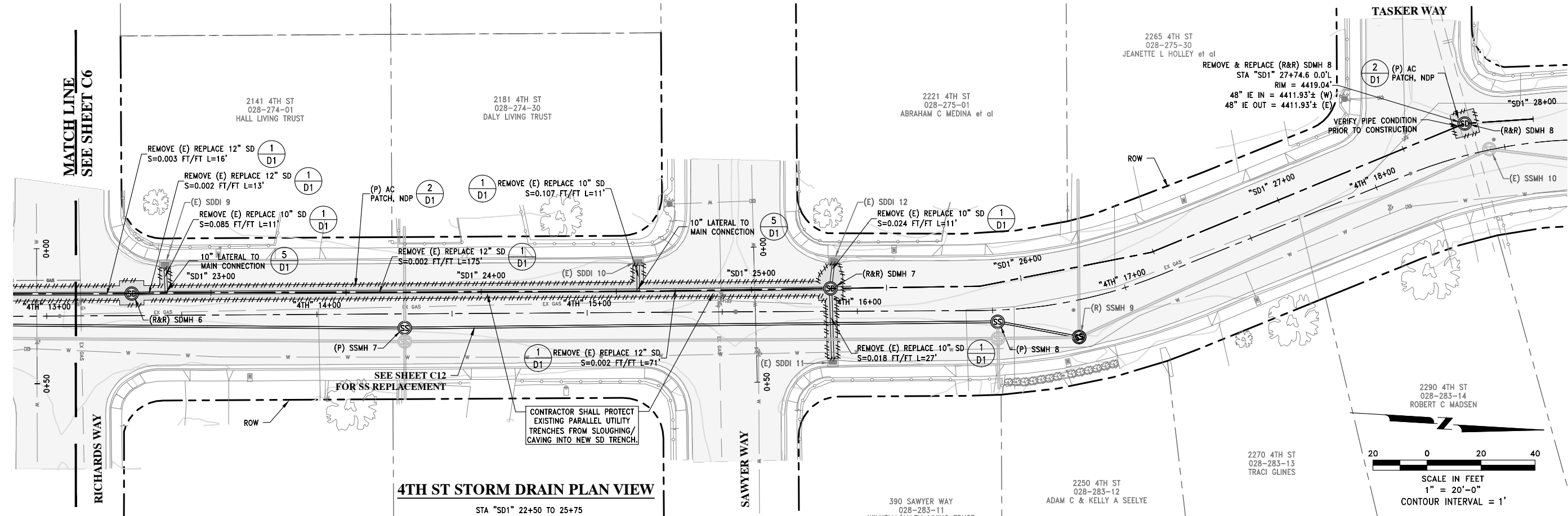
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STORM DRAIN PLAN & PROFILE
STA "SD1" 18+50 TO 22+50
CITY OF SPARKS
4TH STREET SEWER & STORM DRAIN
PWP-WA-2022-XX

EASTERN SIERRA ENGINEERING
CIVIL ENGINEERING & CONSTRUCTION SERVICES
1000 W. HAYDEN BLVD., SUITE 100
RENO, NV 89521
PHONE: (775) 828-7221
FAX: (775) 828-7221

FOR BIDDING
DESIGNED BY: **BF, BM, DB**
DRAWN BY: **JC, MO**
APPROVED BY: **SWJ**
JOB NO.: **22131**
SCALE: **AS SHOWN**
DATE: **11-11-2022**

SHEET No. C6 OF 15



STORM DRAIN MANHOLE / INLET LOCATION INDEX

NAME	STATION	OFFSET	COMMENTS	SIZE
(R&R) SDMH 6	"SD1" 22+70.70	0.0'	REMOVE AND REPLACE (E) TYPE I MANHOLE 16" FROM FRAME TO TOP OF FLAT TOP	48"Ø 3 1 3 4 D1 D2 D2 D2
(R&R) SDMH 7	"SD1" 25+29.30	0.0'	REMOVE AND REPLACE (E) TYPE I MANHOLE 16" FROM FRAME TO TOP OF FLAT TOP	48"Ø 3 1 3 4 D1 D2 D2 D2
(R&R) SDMH 8	"SD1" 27+74.61	0.0'	REMOVE AND REPLACE (E) TYPE IV MANHOLE 16" FROM FRAME TO TOP OF CONE	60"Ø 3 3 4 8 D1 D2 D2 D2

FOR BID
 DATE: 11-11-2022



EASTERN SIERRA ENGINEERING
 CIVIL ENGINEERING & CONSTRUCTION SERVICES
 1001 W. WASHINGTON ST., SUITE 100
 RENO, NV 89501
 TEL: (775) 828-7221 FAX: (775) 828-7221

PROFESSIONAL ENGINEER STATE OF NEVADA
 SHAWN W. JENKINS
 Exp. 6/30/23
 CIVIL
 No. 10194-YOW-RENE

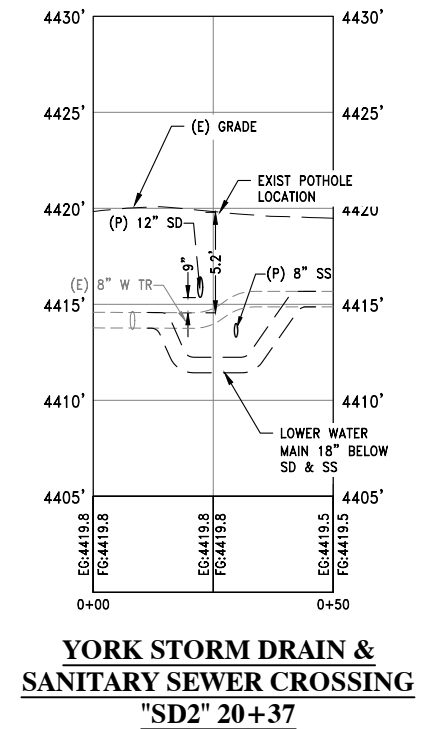
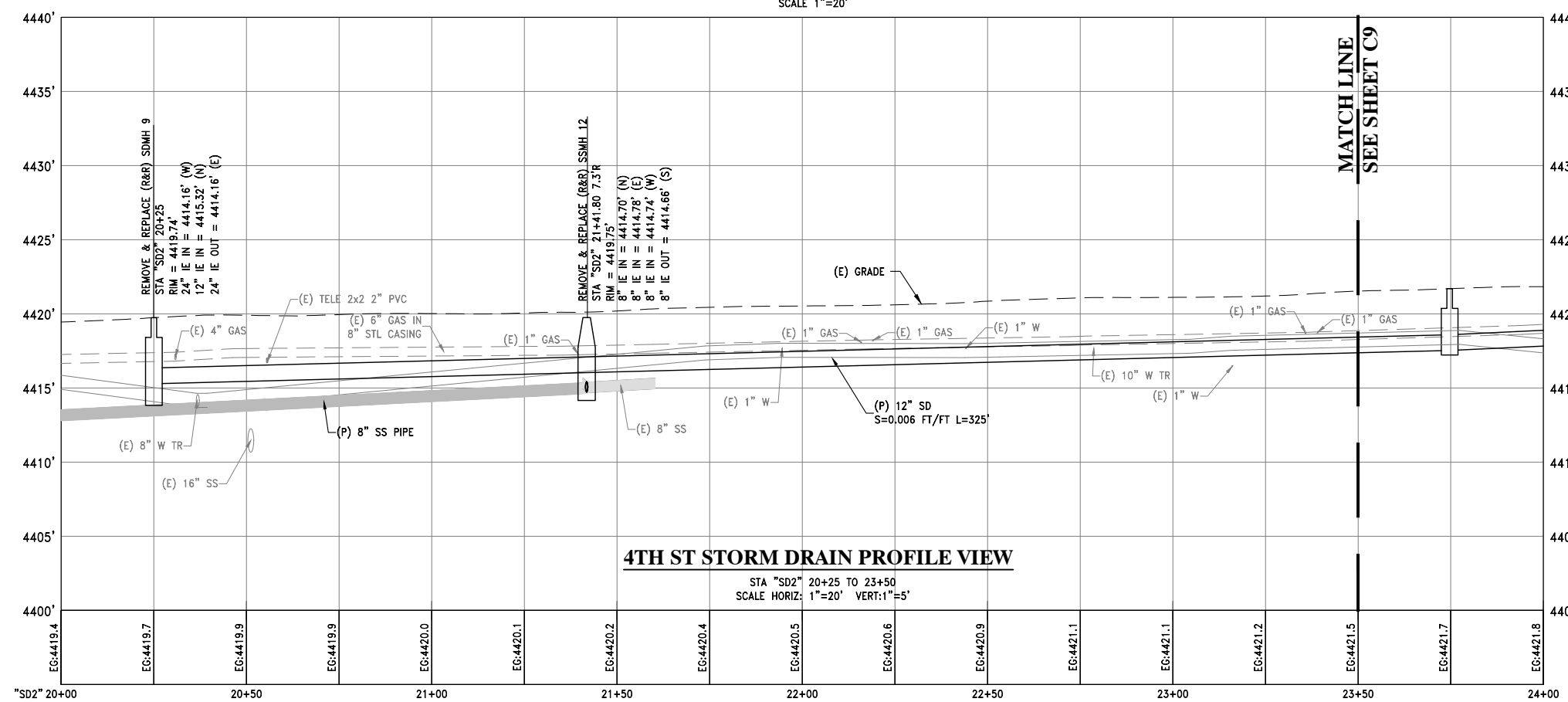
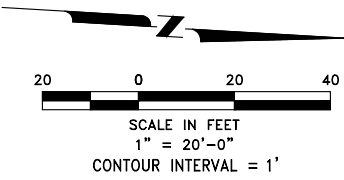
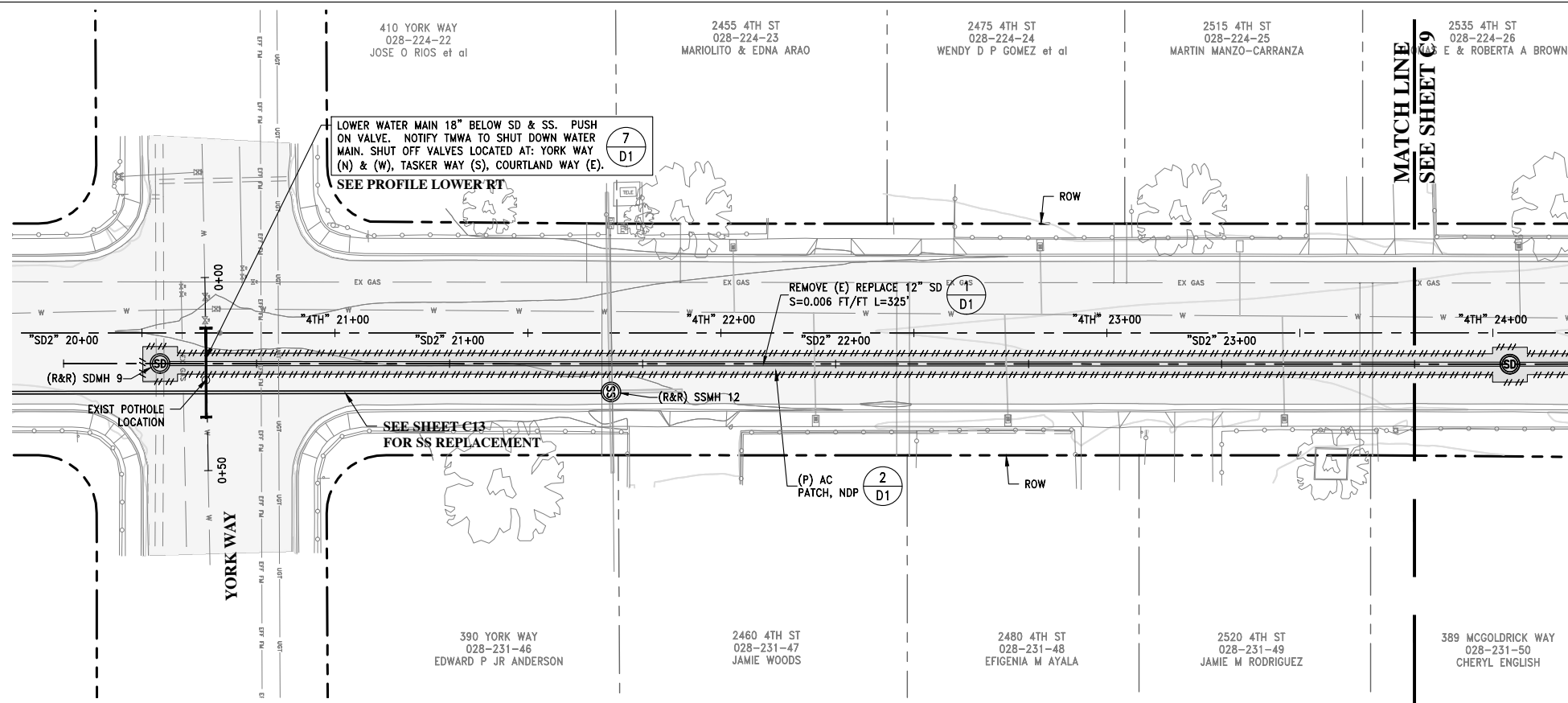
11-11-2022
 Designed: **BF, BM, DB**
 Drawn By: **JC, MO**
 Approved By: **SWJ**
 Job No: **22131**
 Scale: **AS SHOWN**
 Date: **11-11-2022**

SHEET No. C7 OF 15

PROJECT: **STORM DRAIN PLAN & PROFILE STA "SD1" 22+50 TO 25+75**
 CITY OF SPARKS
 4TH STREET SEWER & STORM DRAIN
 PWP-WA-2022-XX
 SPARKS, NV

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FOR BID
DATE: 11-11-2022

REVISIONS

No.	Date	BY	APPD
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3			
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TITLE: STORM DRAIN PLAN & PROFILE
PROJECT: STA "SD2" 20+25 TO 23+50
CITY OF SPARKS
4TH STREET SEWER & STORM DRAIN

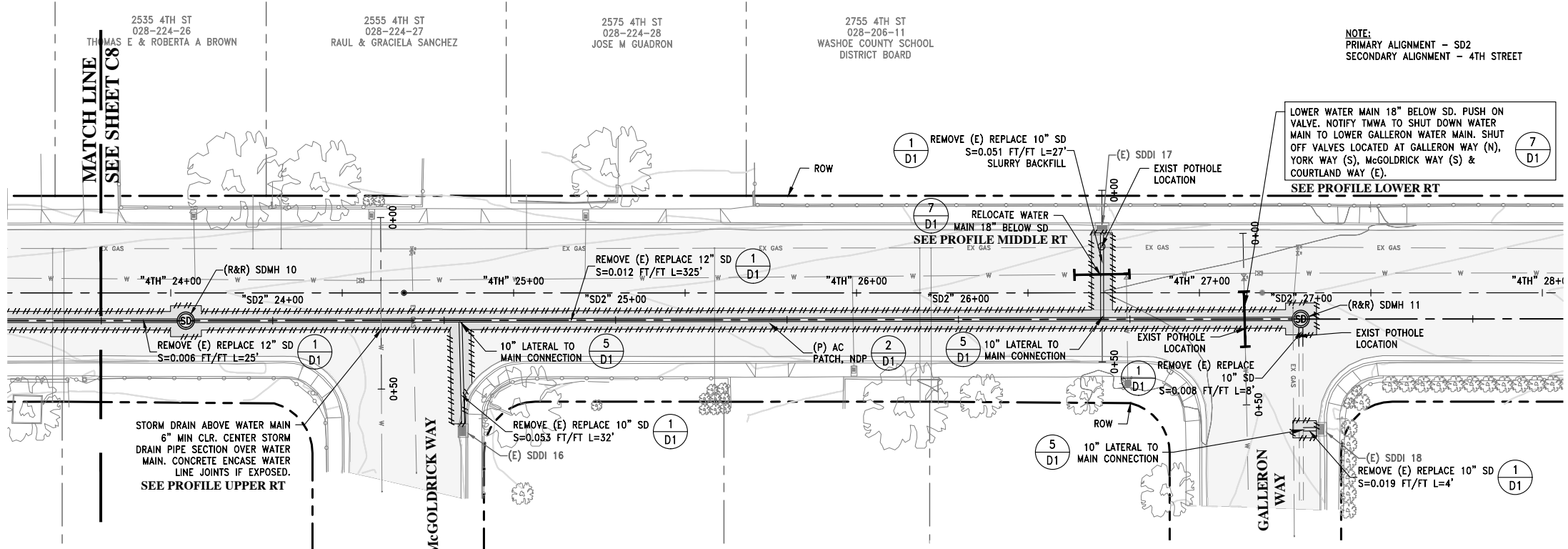
EASTERN SIERRA ENGINEERING
CIVIL ENGINEERING & CONSTRUCTION SERVICES
1001 W. STATE ST. SUITE 100
RENO, NV 89521
PHONE: (775) 828-7221
FAX: (775) 828-7221

PROFESSIONAL ENGINEER STATE OF NEVADA
SHAWN W. JENKINS
Exp. 6/30/23
CIVIL
No. 10194-YOWM

11-11-2022
Designed: BF, BM, DB
Drawn By: JC, MO
Approved By: SWJ
Job No: 22131
Scale: AS SHOWN
Date: 11-11-2022

SHEET No. C8 OF 15



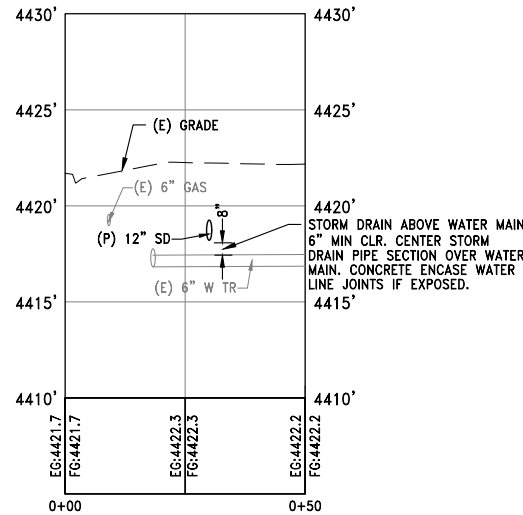
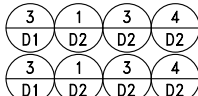


4TH ST STORM DRAIN PLAN VIEW

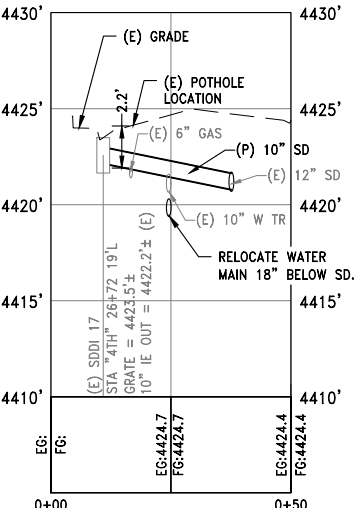
STA "SD2" 23+50 TO 27+50
SCALE 1"=20'

STORM DRAIN MANHOLE / INLET LOCATION INDEX

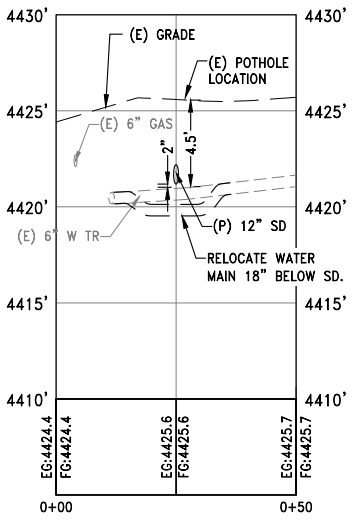
NAME	STATION	OFFSET	COMMENTS	SIZE
(R&R) SDMH 10	"SD2" 23+74.74	0.0'	REMOVE AND REPLACE (E) TYPE 1 MANHOLE 16" FROM FRAME TO TOP OF FLAT TOP	48"Ø
(R&R) SDMH 11	"SD2" 26+99.83	0.0'	REMOVE AND REPLACE (E) TYPE 1 MANHOLE 16" FROM FRAME TO TOP OF FLAT TOP	48"Ø



McGOLDRICK STORM & SANITARY SEWER CROSSING



SSDI 17 GAS & WATER CROSSING "SD2" 26+42



GALLERON STORM DRAIN CROSSING "SD2" 26+83

FOR BID
 DATE: 11-11-2022



BY APPD

No.	Date	REVISIONS
1		
2		
3		
4		
5		

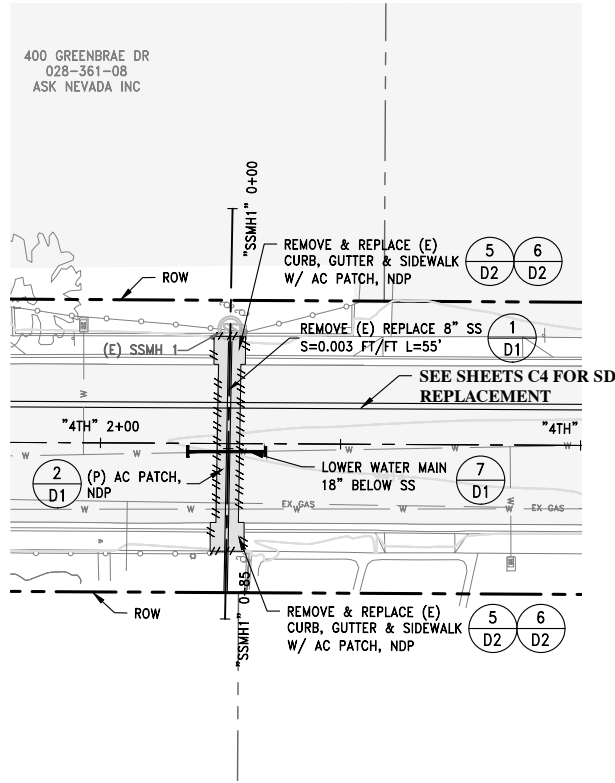
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 PROJECT: CITY OF SPARKS 4TH STREET SEWER & STORM DRAIN

EASTERN SIERRA ENGINEERING
 CIVIL ENGINEERING & CONSTRUCTION SERVICES
 1000 W. STATE ST. SUITE 100
 READING, NV 89421
 PHONE: (775) 828-7221
 FAX: (775) 828-7221

PROFESSIONAL ENGINEER STATE OF NEVADA
 SHAWN W. JENKINS
 Exp. 6/30/23
 CIVIL

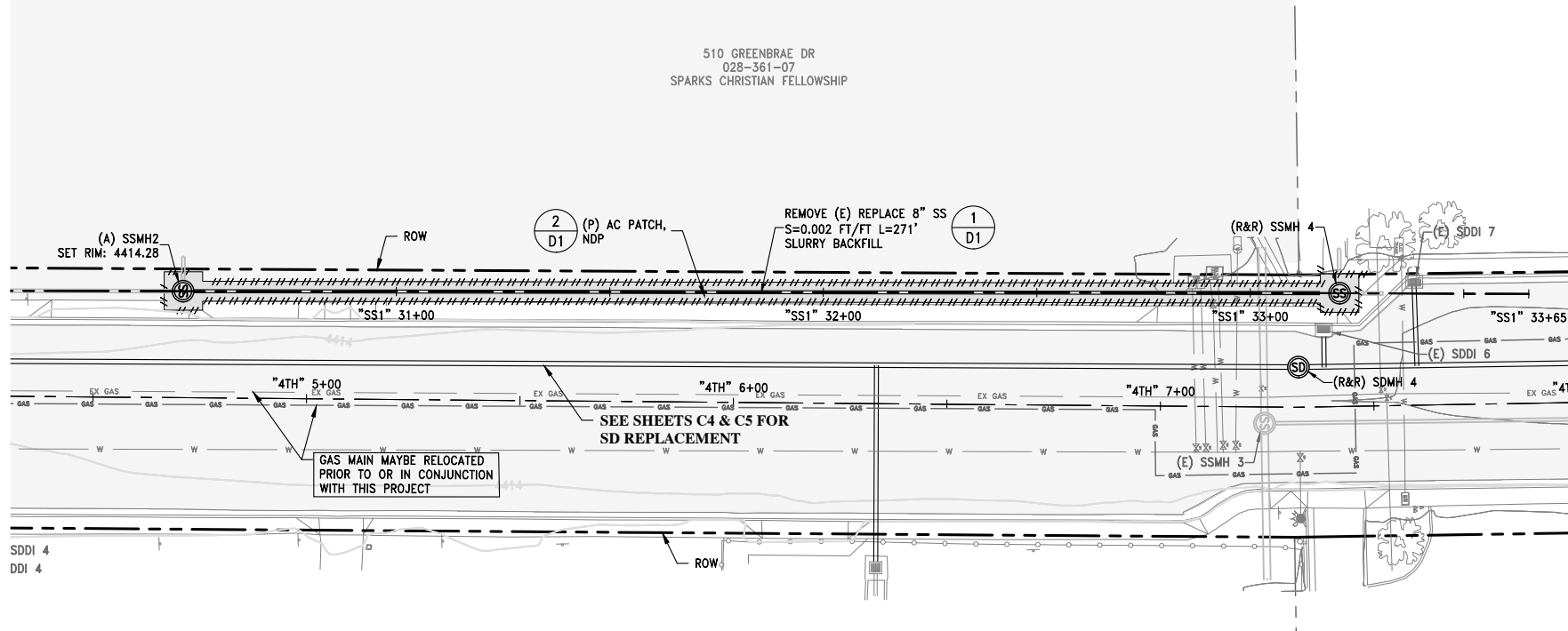
11-11-2022
 Designed: BF, BM, DB
 Drawn By: JC, MO
 Approved By: SWJ
 Job No: 22131
 Scale: AS SHOWN
 Date: 11-11-2022

SHEET No. C9 OF 15



4TH ST SEWER PLAN VIEW

STA "SSMH1" 00+15 TO 00+80
SCALE 1"=20'

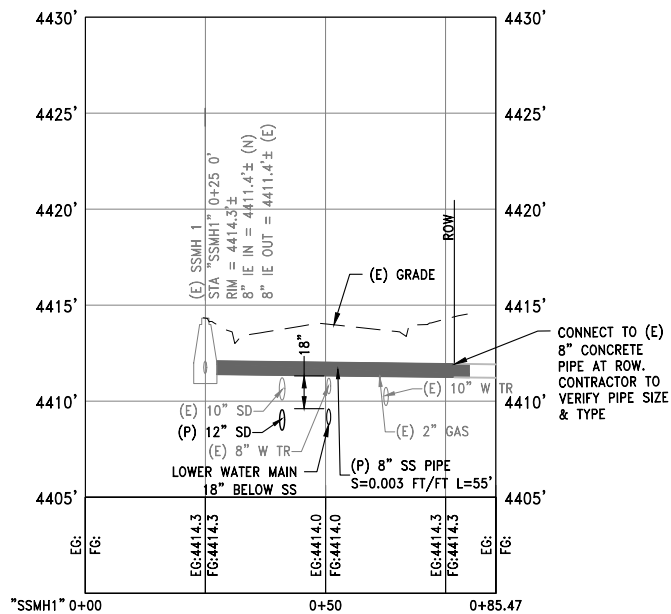
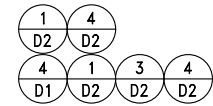
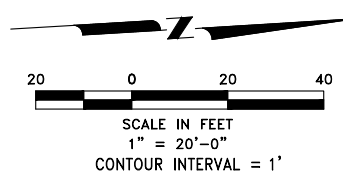


4TH ST SEWER PLAN VIEW

STA "SS1" 30+50 TO 33+21
SCALE 1"=20'

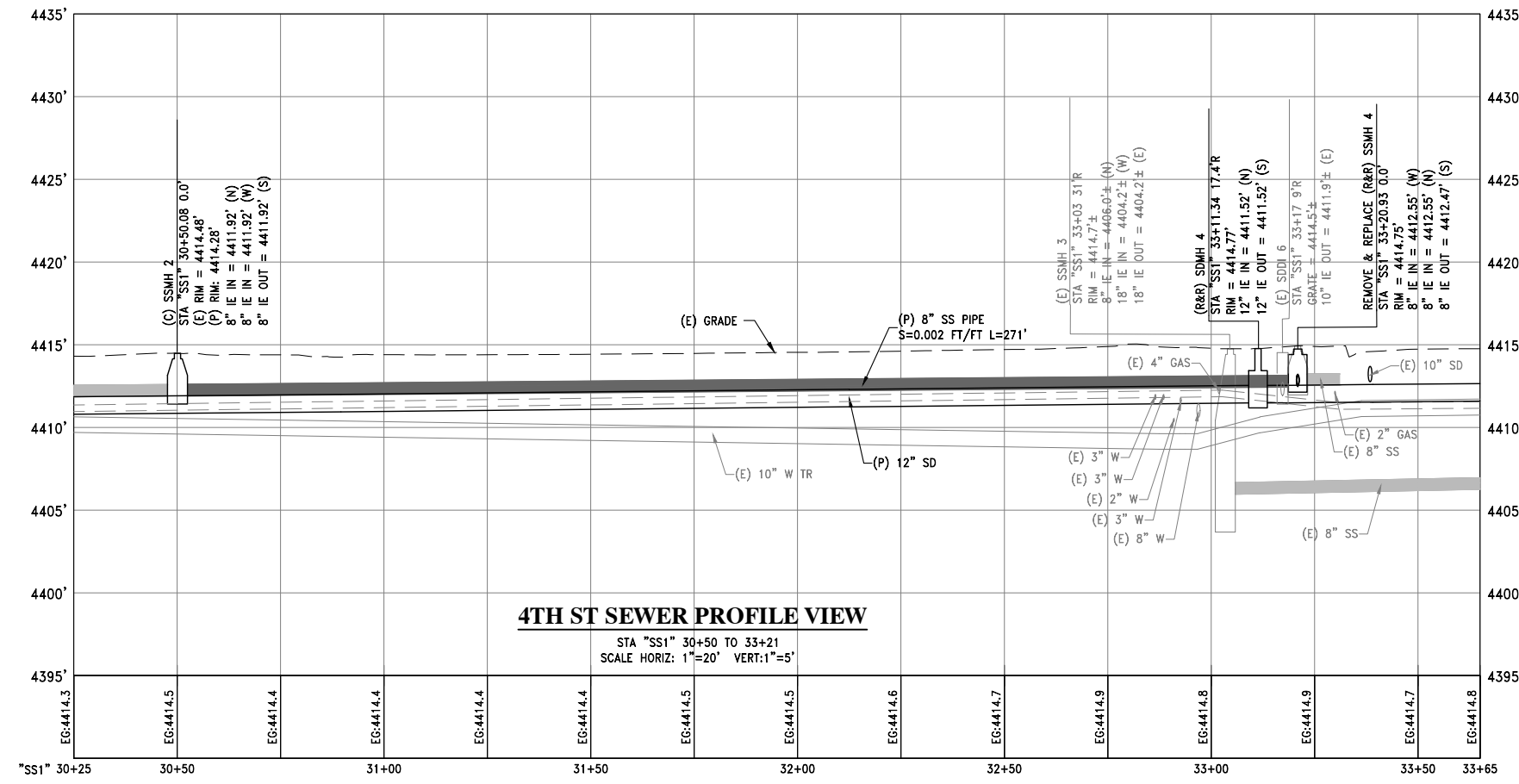
1840 4TH ST
028-373-12
WASHOE COUNTY SCHOOL DISTRICT BOARD

SANITARY SEWER MANHOLE LOCATION INDEX				
NAME	STATION	OFFSET	COMMENTS	SIZE
(A) SSMH 2	"SS1" 30+50.08	0.00'	ADJUST MANHOLE RINGS TO FG: 4414.28'	48"Ø
(R&R) SSMH 4	"SS1" 33+20.93	0.00'	REMOVE & REPLACE (E) SSMH WITH FLAT TOP FLUSH TO SURFACE	48"Ø



4TH ST SEWER PROFILE VIEW

STA "SSMH1" 00+15 TO 00+80
SCALE HORIZ: 1"=20' VERT: 1"=5'



4TH ST SEWER PROFILE VIEW

STA "SS1" 30+50 TO 33+21
SCALE HORIZ: 1"=20' VERT: 1"=5'

FOR BID
DATE: 11-11-2022



BY	APPD	REVISIONS	No.	Date
			1	
			2	
			3	
			4	
			5	

SEWER PLAN & PROFILE
STA "SSMH1" 00+15 TO 00+80
STA "SS1" 30+50 TO 33+21
CITY OF SPARKS
4TH STREET SEWER & STORM DRAIN

TITLE

PROJECT

EASTERN SIERRA ENGINEERING
CIVIL ENGINEERING & CONSTRUCTION SERVICES
1000 W. WASHINGTON BLVD. SUITE 100
RENO, NV 89521
PHONE: (775) 828-7221
FAX: (775) 828-7221

PROFESSIONAL ENGINEER STATE OF NEVADA
SHAWN W. JENKINS
Exp. 6/30/23
CIVIL
No. 10194-YOW-00000000

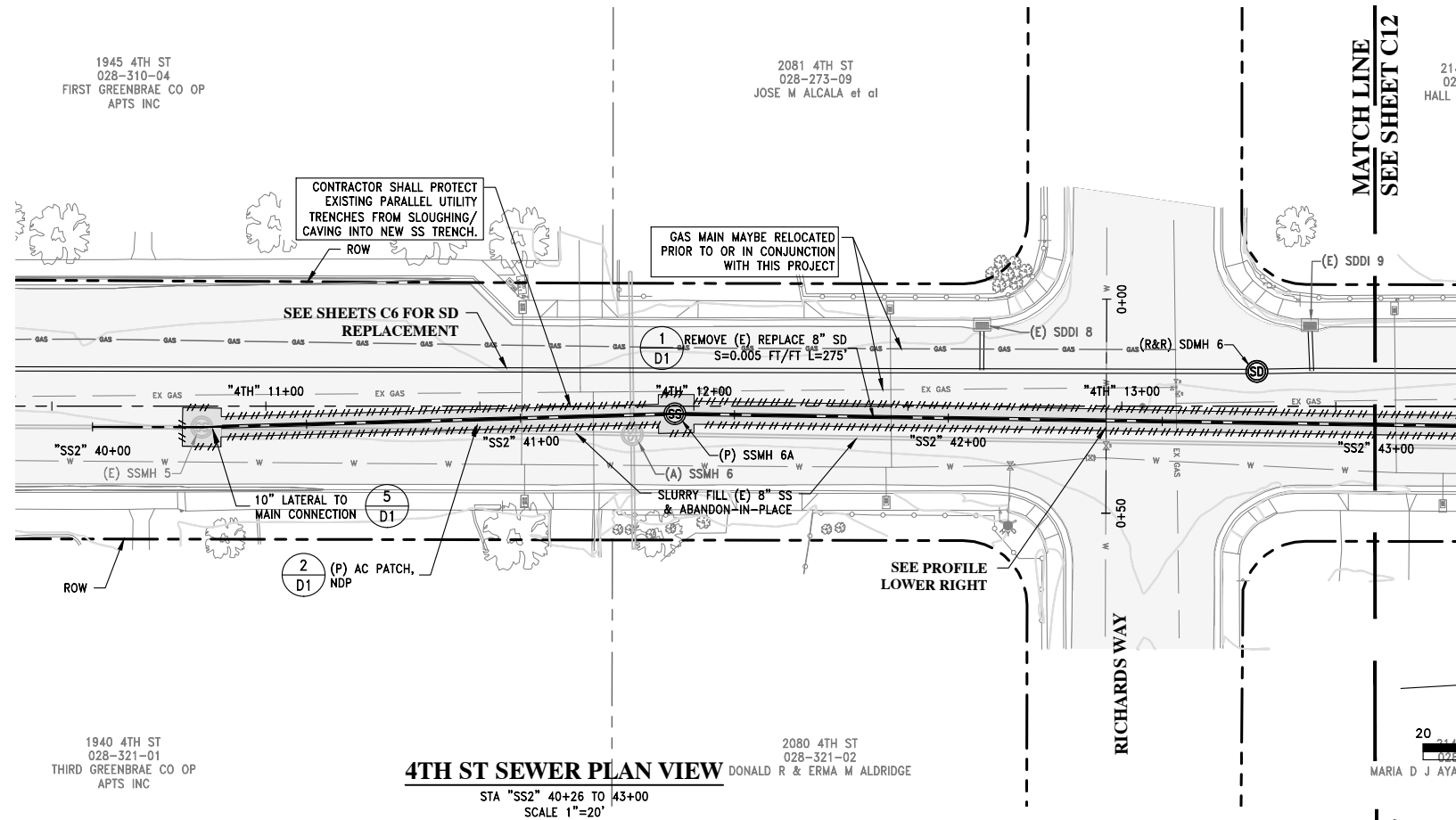
11-11-2022
Designed: BF, BM, DB
Drawn By: JC, MO
Approved By: SWJ
Job No: 22131
Scale: AS SHOWN
Date: 11-11-2022

SHEET No. C10 OF 15

PWP-WA-2022-XX

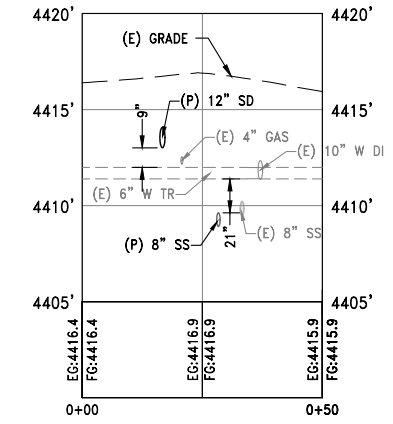
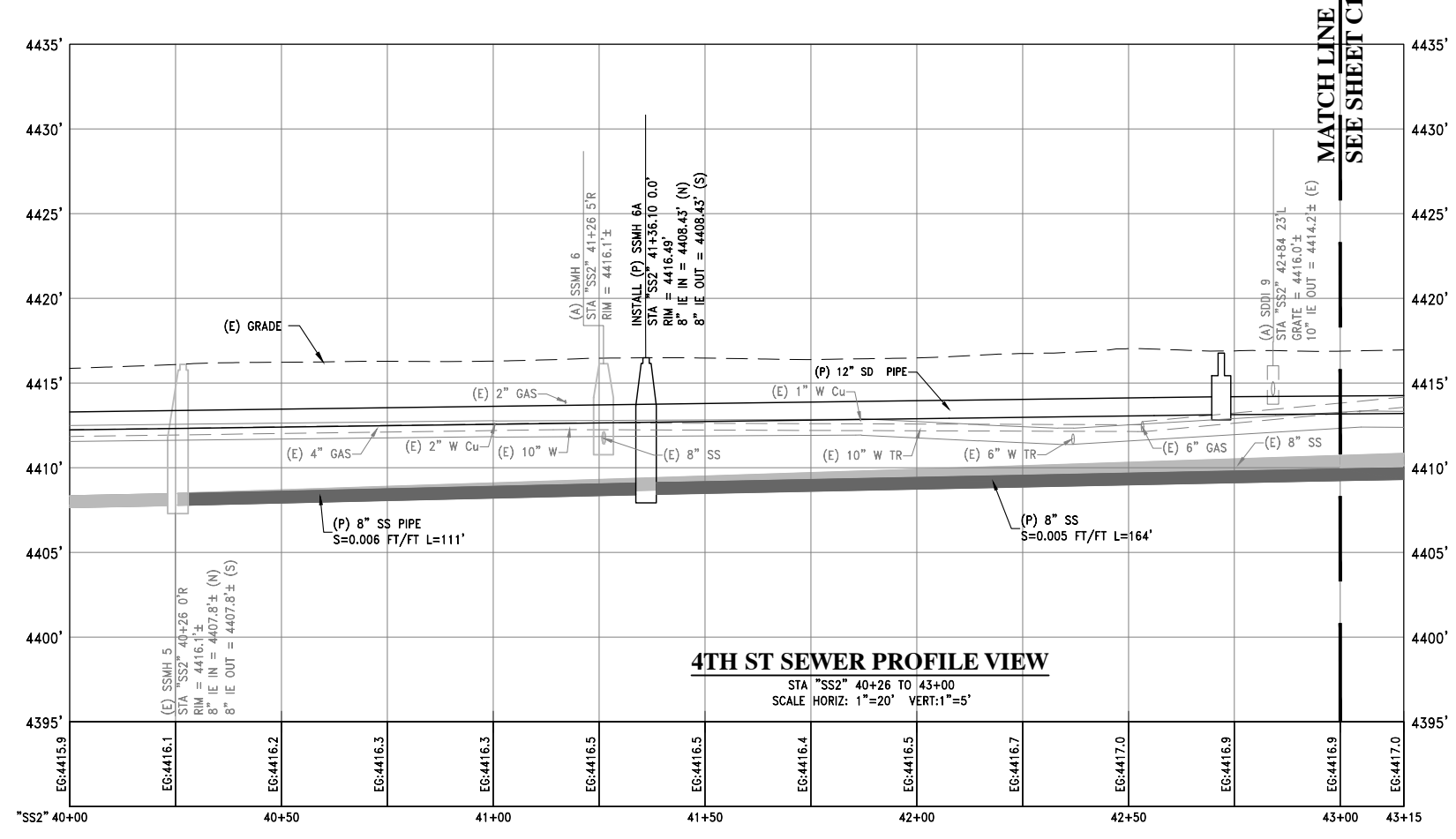
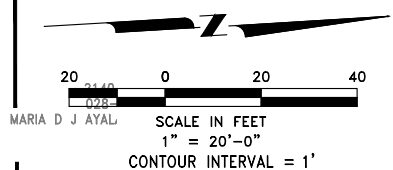
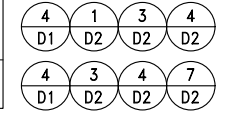
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SANITARY SEWER MANHOLE LOCATION INDEX

NAME	STATION	OFFSET	COMMENTS	SIZE
(E) SSMH 5	"SS2" 40+25.51	0.00'	24" TO TOP OF CONE PROTECT IN PLACE	48"Ø
(A) SSMH 6	"SS2" 41+26.04	4.53' R	10" TO TOP OF (E) CONE REPLACE (E) 30" CONE WITH 24" CONE AND RINGS REPLACE FRAME & COVER	48"Ø
(P) SSMH 6A	"SS2" 41+36.10	0.00'	(P) TYPE I MANHOLE 16" FROM FRAME TO TOP OF CONE	48"Ø



FOR BID
 DATE: 11-11-2022



BY APPD

REVISIONS

No.	Date	1	2	3	4	5

**SEWER PLAN & PROFILE
 STA "SS2" 40+26 TO 43+00**

**CITY OF SPARKS
 4TH STREET SEWER & STORM DRAIN**

TITLE PROJECT

EASTERN SIERRA ENGINEERING
 CIVIL ENGINEERING & CONSTRUCTION SERVICES
 1010 W. HENRIE BLVD. SUITE 100
 READING, NV 89521
 PHONE: (775) 828-7221
 FAX: (775) 828-7221

FOR BIDDING
 SHAWN W. JENKINS
 Exp. 6/30/23
 CIVIL
 No. 10194-YOWMOR

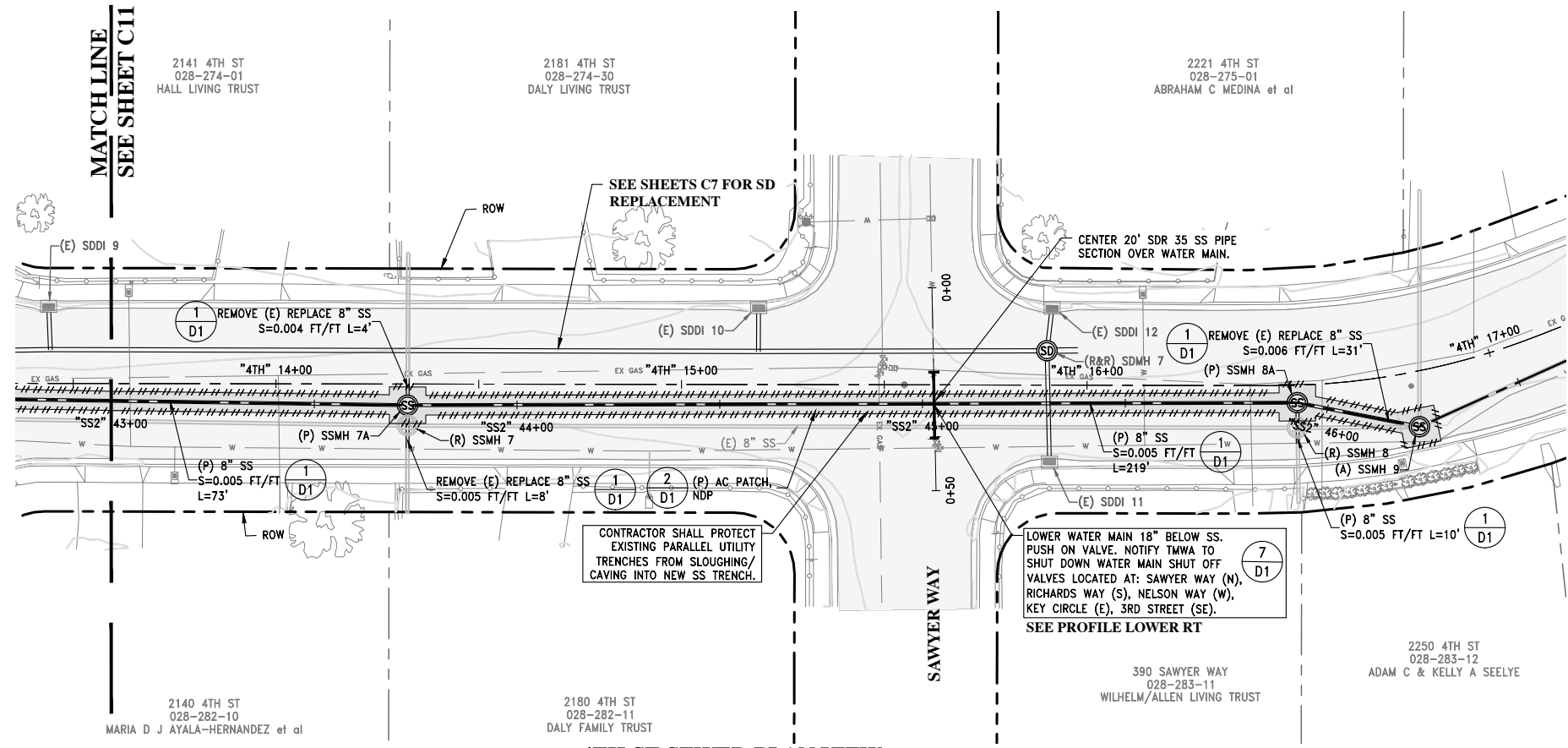
11-11-2022
 Designed: **BF, BM, DB**
 Drawn By: **JC, MO**
 Approved By: **SWJ**
 Job No: **22131**
 Scale: **AS SHOWN**
 Date: **11-11-2022**

SHEET No. **C11** OF **15**

PWP-WA-2022-XX
 SPARKS, NV

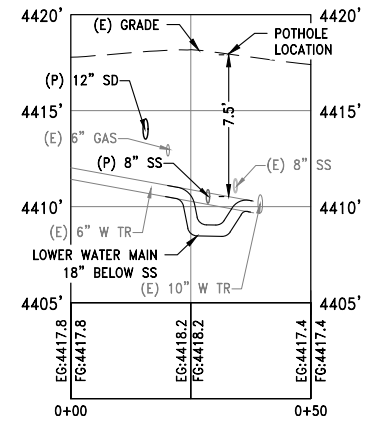
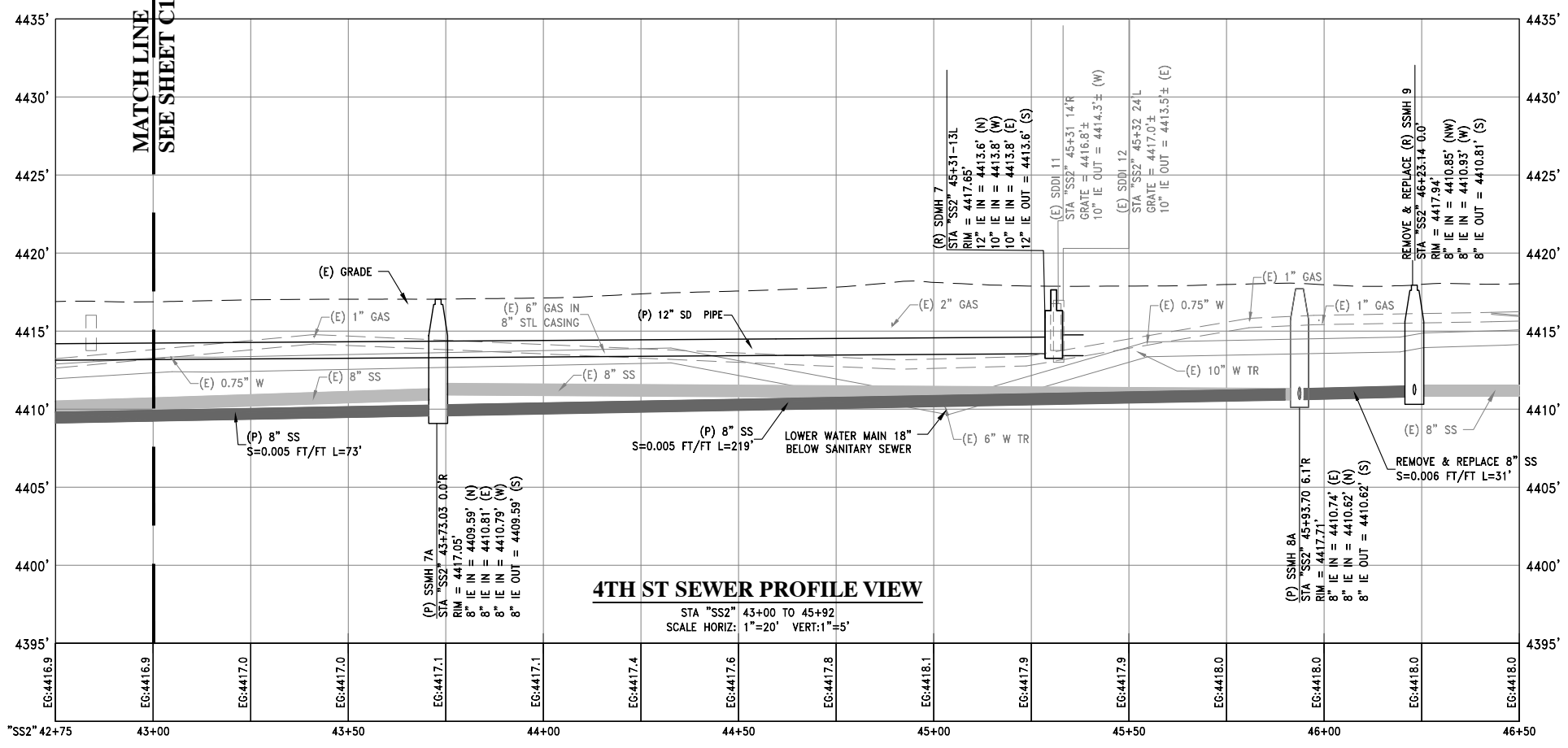
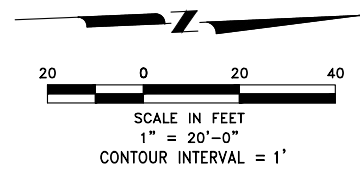
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SANITARY SEWER MANHOLE LOCATION INDEX

NAME	STATION	OFFSET	COMMENTS	SIZE
(P) SSMH 7A	"SS2" 43+73.03	0.00' R	(P) TYPE 1 MANHOLE 16" FROM FRAME TO TOP OF CONE	48"Ø
(R) SSMH 7	"SS2" 43+73.09	5.00' R	REMOVE (E) SSMH	48"Ø
(P) SSMH 8A	"SS2" 45+92.44	0.00'	(P) TYPE 1 MANHOLE 16" FROM FRAME TO TOP OF CONE	48"Ø
(R) SSMH 8	"SS2" 45+93.70	6.09' R	REMOVE (E) SSMH	48"Ø
(A) SSMH 9	"SS2" 46+23.14	0.00'	12" TO TOP OF (E) CONE REPLACE (E) 18" CONE W/ 12" CONE REPLACE FRAME & COVER	48"Ø



FOR BID
DATE: 11-11-2022



BY APPD

REVISIONS

No.	Date	1	2	3	4	5

**SEWER PLAN & PROFILE
STA "SS2" 43+00 TO 45+92**

**CITY OF SPARKS
4TH STREET SEWER & STORM DRAIN**

PROJECT: PWP-WA-2022-XX

TITLE: SPARKS, NV

EASTERN SIERRA ENGINEERING

CIVIL ENGINEERING & CONSTRUCTION SERVICES
1000 W. WILSON BLVD., SUITE 100
RENO, NV 89521
PHONE: (775) 828-7221
FAX: (775) 828-7221

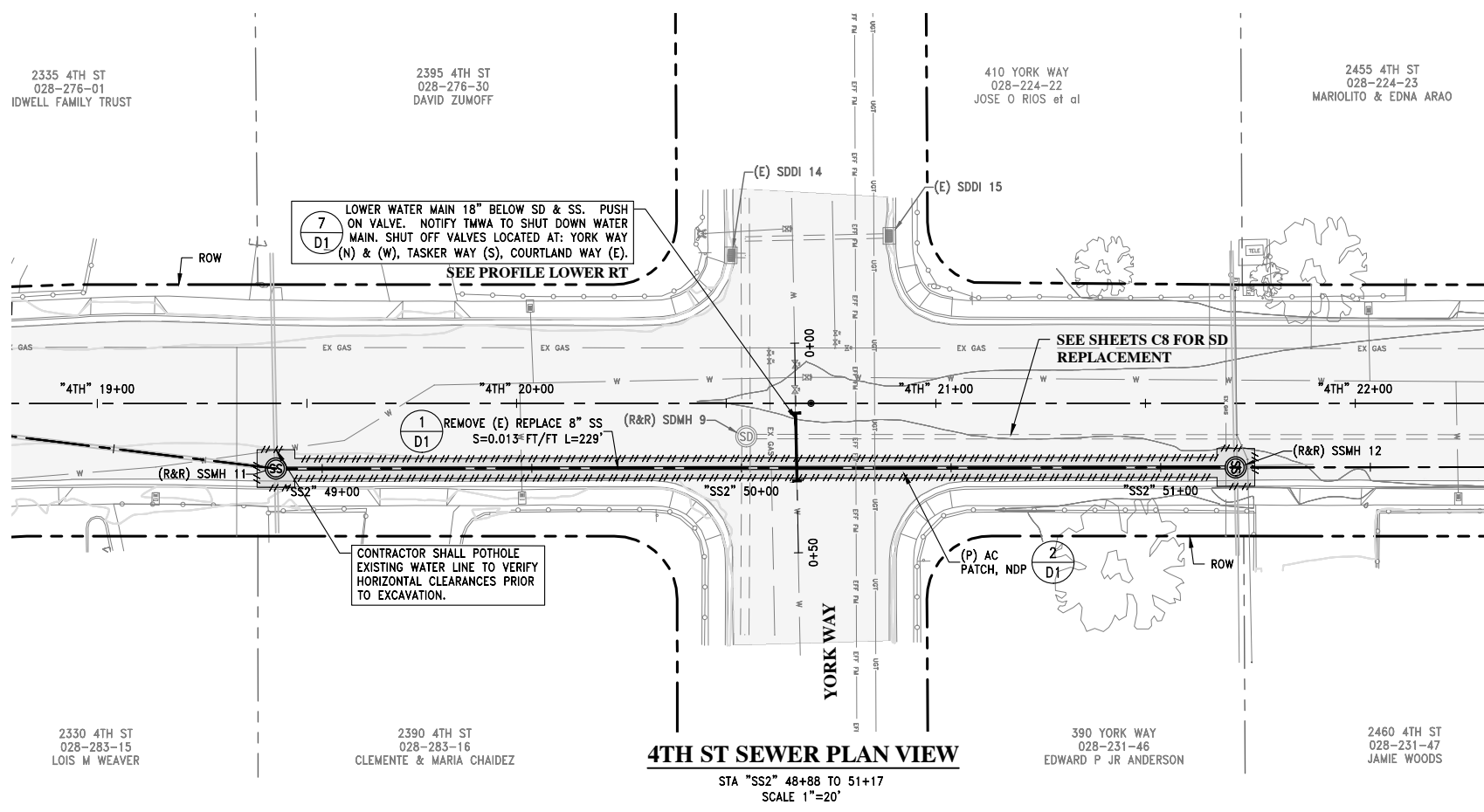
PROFESSIONAL ENGINEER STATE OF NEVADA
SHAWN W. JENKINS
Exp. 6/30/23
CIVIL
No. 10194-YOWM001

11-11-2022
Designed: BF, BM, DB
Drawn By: JC, MO
Approved By: SWJ
Job No: 22131
Scale: AS SHOWN
Date: 11-11-2022

SHEET No. **C12 OF 15**

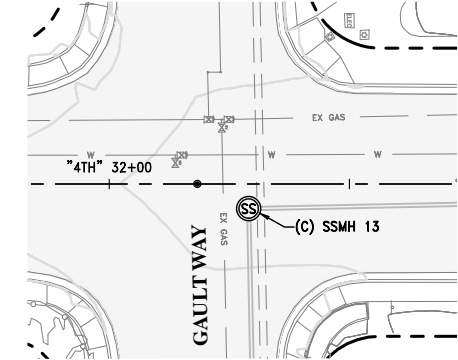
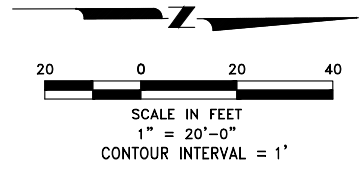
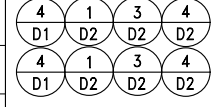
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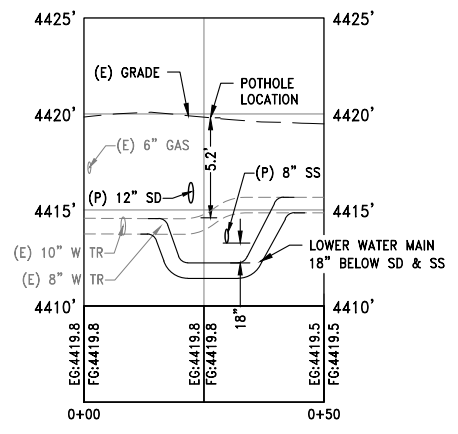
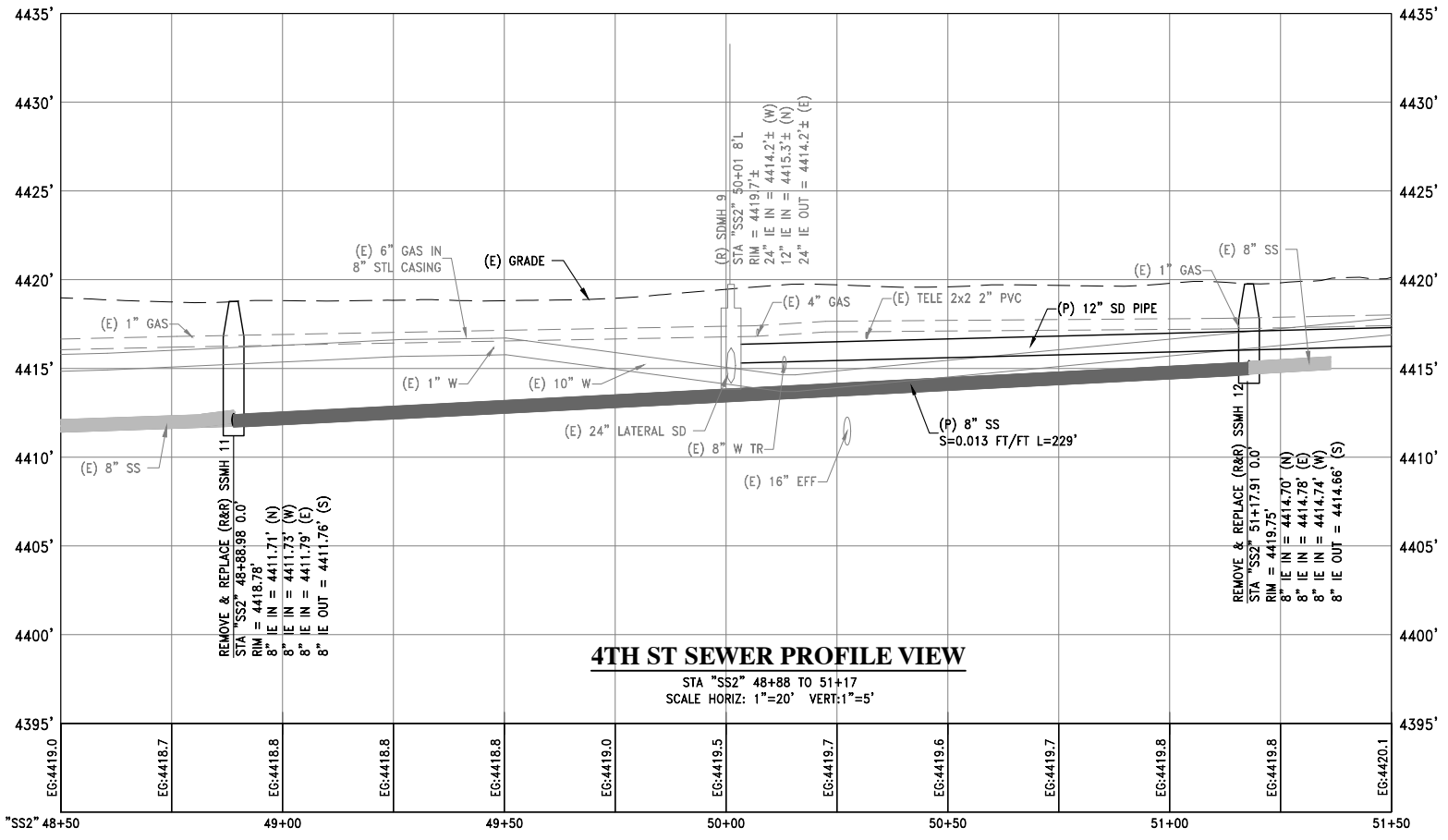


NOTE:
PRIMARY ALIGNMENT - SS2
SECONDARY ALIGNMENT - 4TH STREET

NAME	STATION	OFFSET	COMMENTS	SIZE
(R&R) SSMH 11	"SS2" 48+88.98	0.00'	REMOVE AND REPLACE (E) TYPE 1 MANHOLE 16" FROM FRAME TO TOP OF CONE	48"Ø
(R&R) SSMH 12	"SS2" 51+17.91	0.00'	REMOVE AND REPLACE (E) TYPE 1 MANHOLE 16" FROM FRAME TO TOP OF CONE	48"Ø
(C) SSMH 13	"4TH" 32+29.04	5.15' R	INSTALL NEW MANHOLE COVER	48"Ø



4TH ST SEWER PLAN VIEW
STA "4TH" 32+00 TO 32+50
SCALE 1"=20'

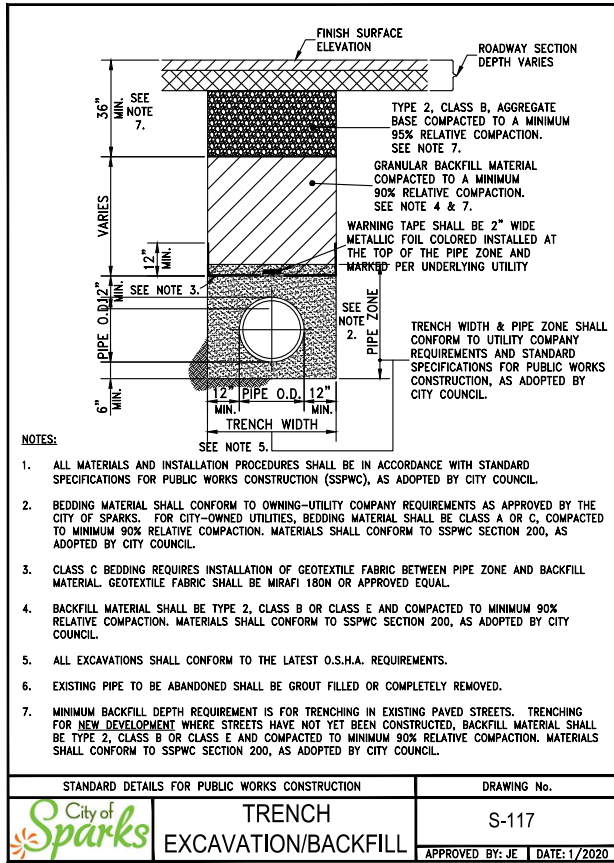


YORK SEWER & WATER CROSSING "SS2" 50+13

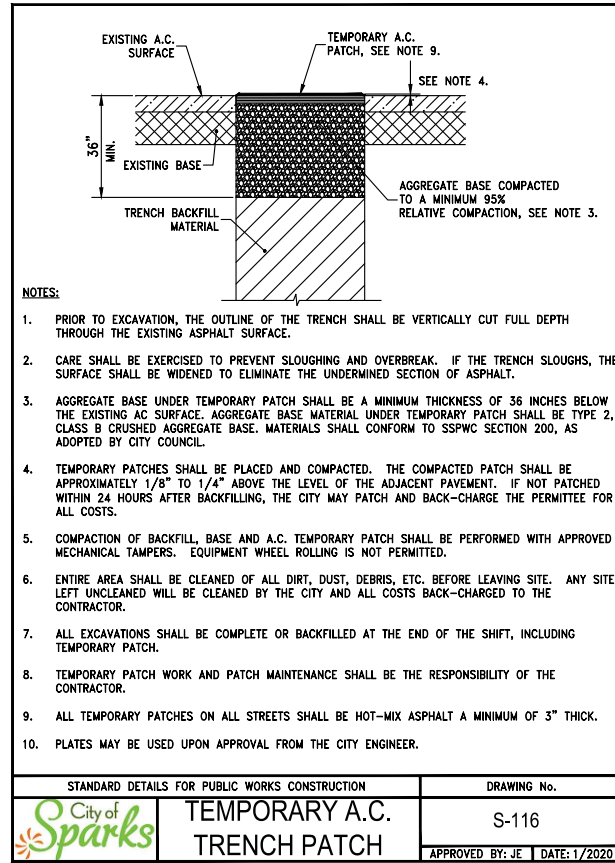
FOR BID
DATE: 11-11-2022



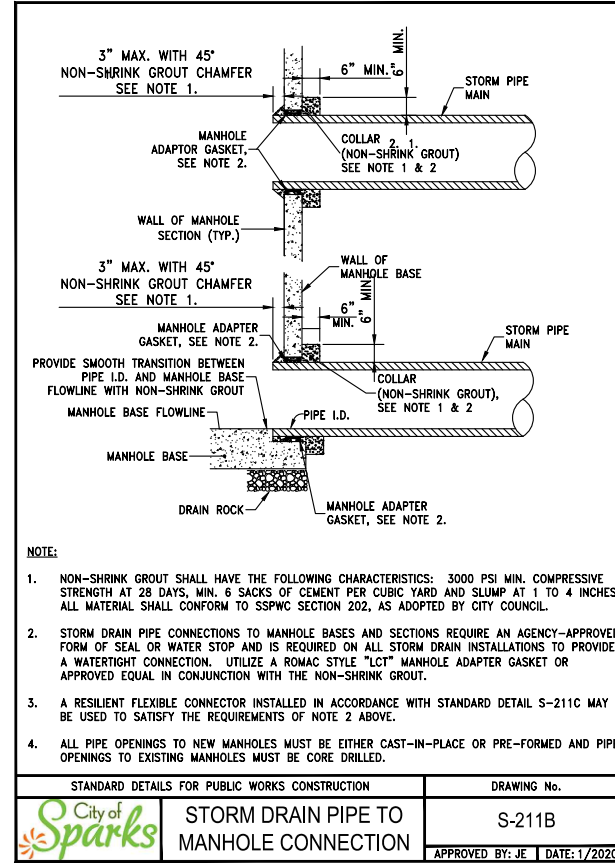
BY	APPD				
REVISIONS					
No.	Date	1	2	3	4
SEWER PLAN & PROFILE STA "SS2" 48+88 TO 51+17 CITY OF SPARKS 4TH STREET SEWER & STORM DRAIN					
EASTERN SIERRA ENGINEERING <small>CIVIL ENGINEERING & CONSTRUCTION SERVICES 1000 W. STATE ST. SUITE 100 RENO, NV 89521 TEL: (775) 828-7221 FAX: (775) 828-7221</small>					
FOR BID DATE: 11-11-2022 11-11-2022 Designed By: BF, BM, DB Drawn By: JC, MO Approved By: SWJ Job No: 22131 Scale: AS SHOWN Date: 11-11-2022					
SHEET No. C13 OF 15					



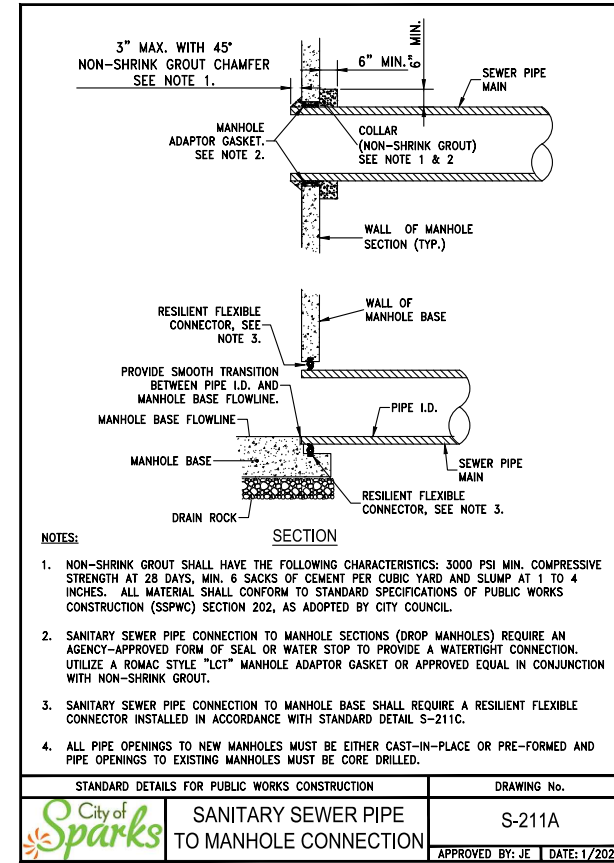
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D1 TRENCH EXCAVATION
SCALE: N.T.S.



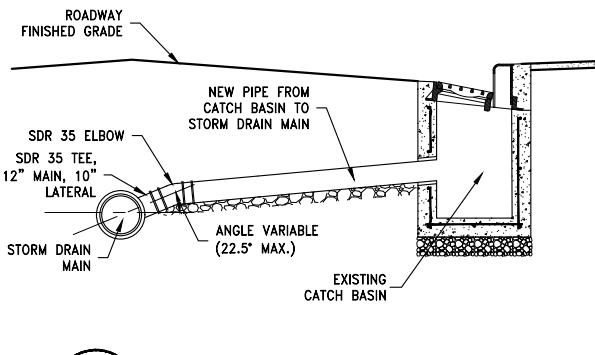
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D1 A.C. PATCH
SCALE: N.T.S.



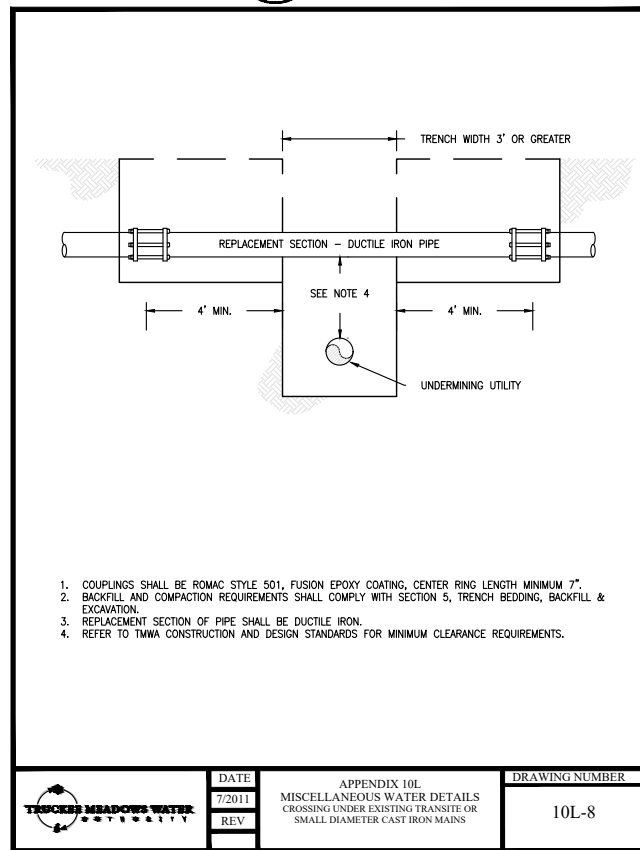
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D1 STORM DRAIN PIPE TO MANHOLE CONNECTION
SCALE: N.T.S.



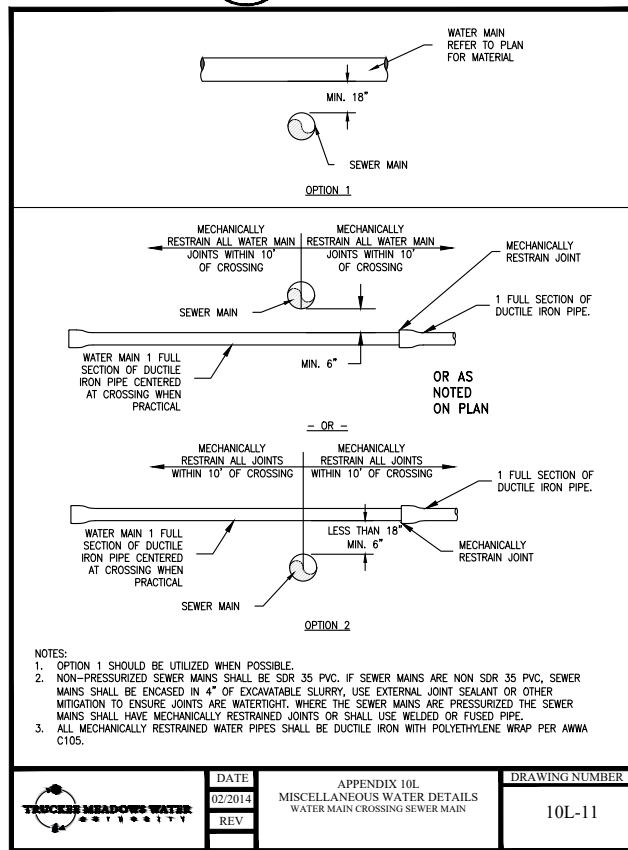
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D1 SANITARY SEWER PIPE TO MANHOLE CONNECTION
SCALE: N.T.S.



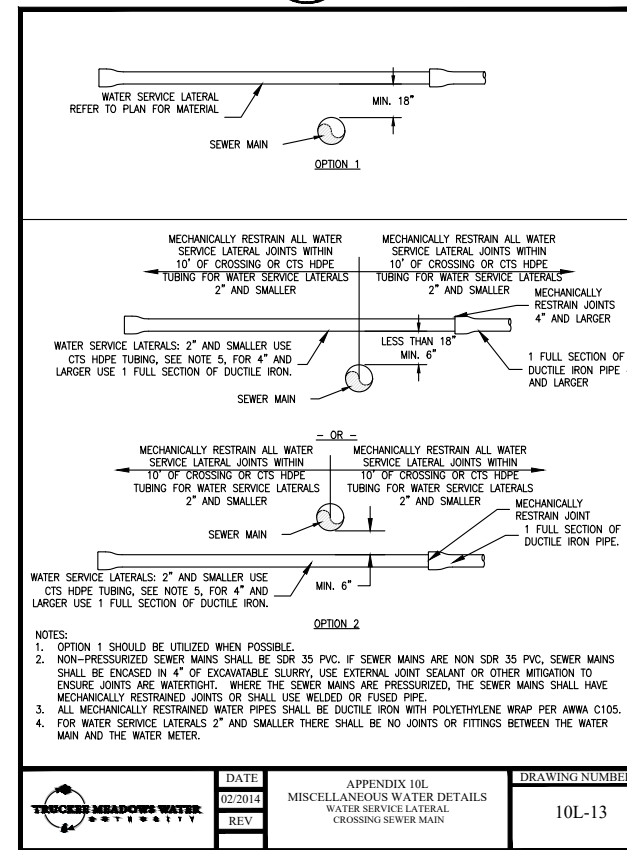
5
D1 LATERAL TO MAIN CONNECTION
SCALE: N.T.S.



6
D1 CROSSING UNDER TRANSITE WATER MAINS
SCALE: N.T.S.



7
D1 WATER MAIN CROSSING SEWER MAIN
SCALE: N.T.S.



8
D1 WATER SERVICE LATERAL CROSSING SEWER MAIN
SCALE: N.T.S.

FOR BID
DATE: 11-11-2022

BY	APPD	REVISIONS
No.	Date	
1		
2		
3		
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DETAILS
CITY OF SPARKS
4TH STREET SEWER & STORM DRAIN
PWP-WA-2022-XX
SPARKS, NY

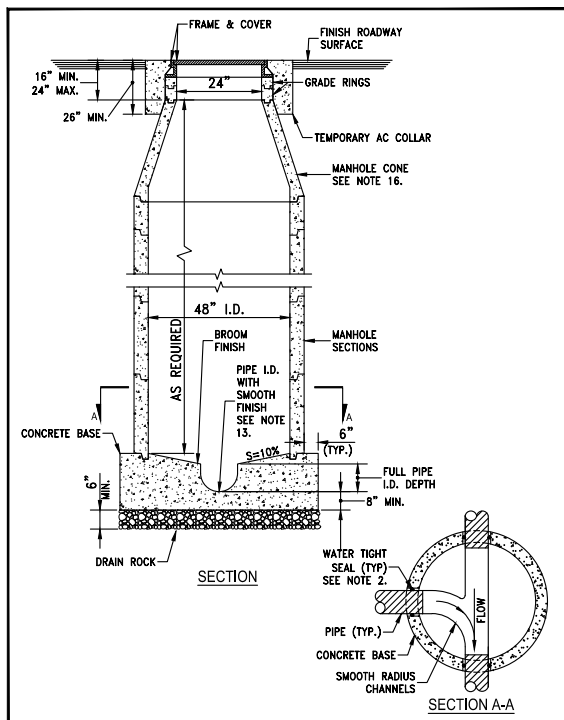
EASTERN SIERRA ENGINEERING
CIVIL ENGINEERING & CONSTRUCTION SERVICES
1000 W. STATE ST. SUITE 100
RENO, NV 89501
PHONE: (775) 928-7221
FAX: (775) 928-7221

PROFESSIONAL ENGINEER STATE OF NEVADA
SHAWN W. JENKINS
Exp. 6/30/23
CIVIL
No. 10194-HOWARD

11-11-2022
Designed: **BF, BM, DB**
Drawn By: **JC, MO**
Approved By: **SWJ**
Job No: **22131**
Scale: **AS SHOWN**
Date: **11-11-2022**

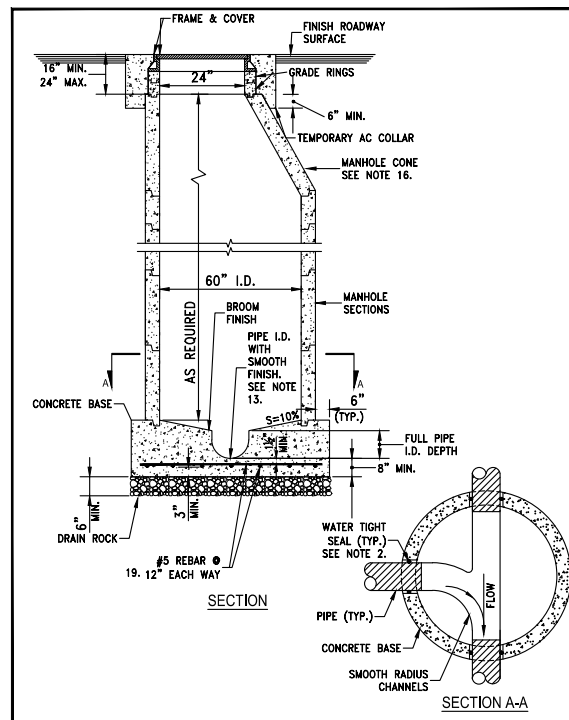
SHEET No.
D1 OF 15





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

1
 D2 MANHOLE TYPE I
 SCALE: NTS



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

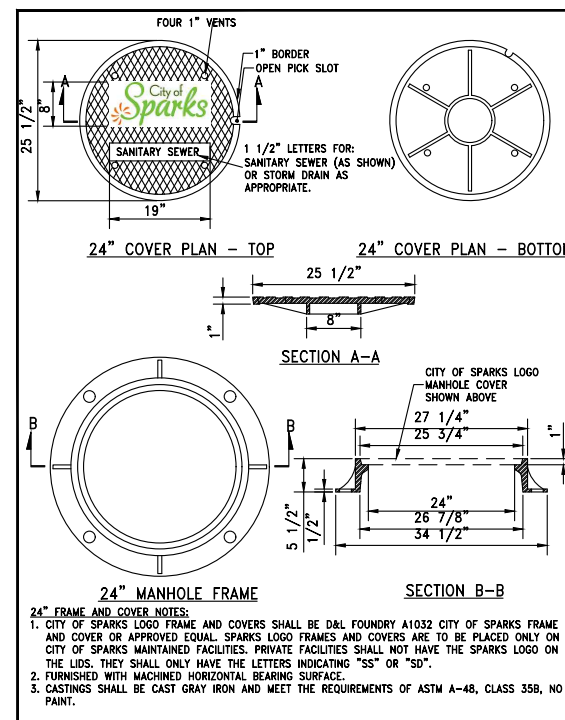
2
 D2 MANHOLE TYPE V
 SCALE: NTS

GENERAL MANHOLE NOTES

1. ALL PRECAST MANHOLE COMPONENTS SHALL CONFORM TO ASTM C-478.
2. 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 WATER TIGHT PER STANDARD DETAILS S-211A, S-211B AND S-211C.
3. MANHOLE BASE SHALL BE PORTLAND CEMENT CONCRETE (P.C.C.) AND SHALL HAVE THE FOLLOWING CHARACTERISTICS: 4000 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.
4. TYPE I MANHOLE TO BE UTILIZED FOR PIPE DIAMETERS OF 12" OR SMALLER AND DEPTHS NOT EXCEEDING 18 FEET.
5. TYPE V MANHOLE TO BE UTILIZED FOR PIPE DIAMETERS OF 15" THROUGH 27" OR DEPTHS EXCEEDING 18 FEET.
6. MANHOLE MATERIALS AND CONSTRUCTION SHALL CONFORM TO THE REQUIREMENTS OF SECTION 204 "MANHOLES AND CATCH BASINS" OF THE STANDARD SPECIFICATIONS.
7. 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.
8. EXCAVATION AND BACKFILL SHALL BE AS SPECIFIED FOR "TRENCH EXCAVATION AND BACKFILL" IN SECTION 305 OF THE STANDARD SPECIFICATIONS.
9. 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.
10. MANHOLE PRECAST SECTION LENGTH SHALL BE ARRANGED TO FIT THE REQUIRED DEPTH.
11. NO LATERALS OR PIPES LESS THAN 8" IN DIAMETER SHALL BE CONNECTED TO THE MANHOLE.
12. PRECAST CONCRETE BASE MAY BE USED IN LIEU OF CAST-IN-PLACE BASE.
13. MATCH PIPE INVERTS TO MANHOLE INVERTS WHERE PIPES CONNECT TO MANHOLE BASE.
14. ALL MANHOLES SHALL BE WATER TIGHT.
15. 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.
16. THE USE OF FLAT TOP MANHOLE CONES REQUIRES PRIOR APPROVAL FROM THE CITY ENGINEER.
17. PRIOR TO BACKFILLING, ALL MANHOLES SHALL BE VACUUM TESTED PER ASTM C-1244.
18. NO STEPS, LADDERS, OR OTHER CLIMBING DEVICES SHALL BE INSTALLED IN THE MANHOLE.
19. REINFORCING STEEL SHALL BE AS SHOWN, WIRED TIGHTLY AT ALL INTERSECTIONS AND EMBEDDED AT LEAST 1 1/2" CLEAR, UNLESS OTHERWISE NOTED.
20. 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.
21. TYPE IV MANHOLES SHOULD ONLY BE USED AS APPROVED BY CITY ENGINEER

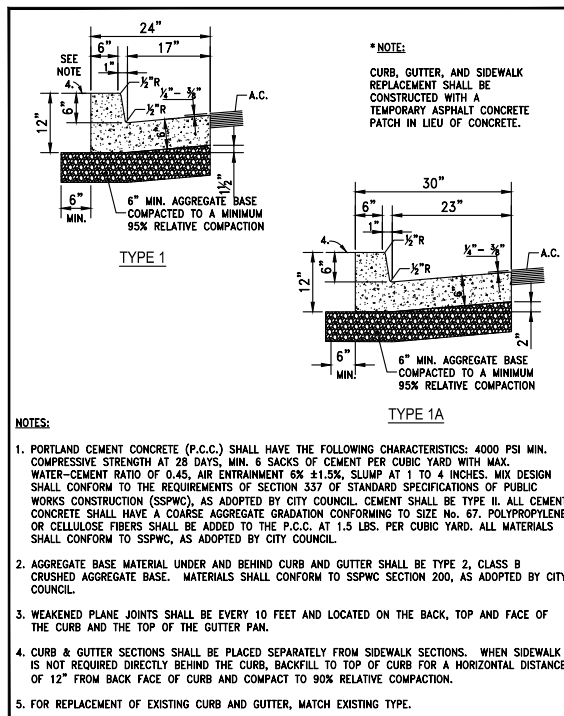
STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION DRAWING No. S-206D
City of Sparks NOTES - MANHOLE TYPE I, TYPE V & TYPE IV
 APPROVED BY: JE DATE: 1/2020

3
 D2 MANHOLE NOTES
 SCALE: NTS



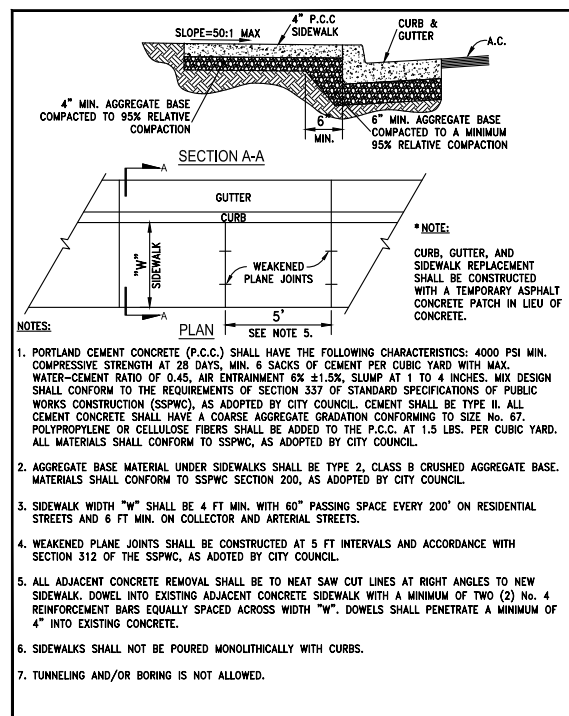
STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION DRAWING No. S-209A
City of Sparks 24" MANHOLE FRAME & COVER
 APPROVED BY: JE DATE: 1/2020

4
 D2 24" MANHOLE COVER
 SCALE: N.T.S.



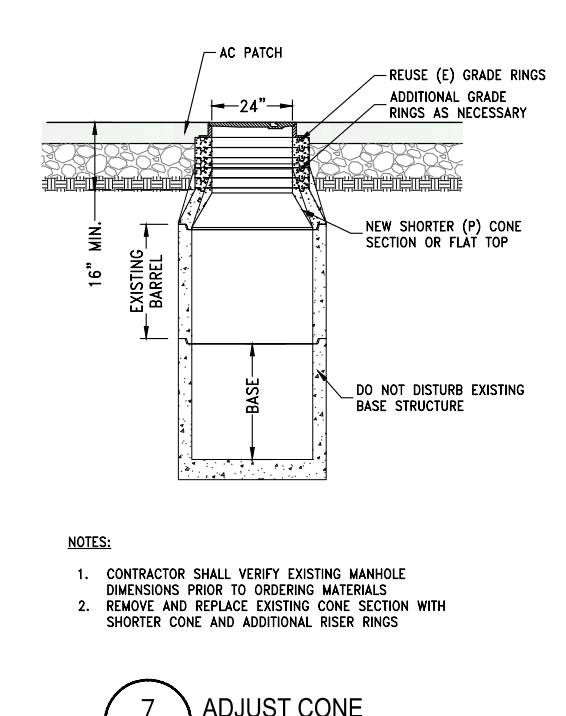
STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION DRAWING No. S-109
City of Sparks P.C.C. CURB & GUTTER
 APPROVED BY: JE DATE: 1/2020

5
 D2 CURB & GUTTER
 SCALE: N.T.S.



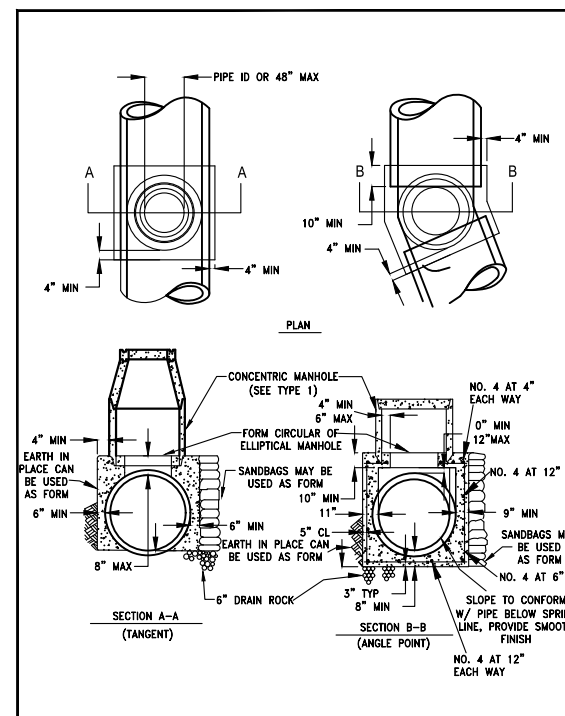
STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION DRAWING No. S-103
City of Sparks SIDEWALK DETAIL
 APPROVED BY: JE DATE: 1/2020

6
 D2 SIDEWALK DETAIL
 SCALE: N.T.S.



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

7
 D2 ADJUST CONE
 SCALE: NTS



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

8
 D2 MANHOLE TYPE IV
 SCALE: N.T.S.

FOR BID
 DATE: 11-11-2022



BY	APPD				
REVISIONS					
No.	Date	1	2	3	4
DETAILS					
CITY OF SPARKS					
4TH STREET SEWER & STORM DRAIN					
PWP-WA-2022-XX					
EASTERN SIERRA ENGINEERING					
CIVIL ENGINEERING & CONSTRUCTION SERVICES 10101 HAYWARD ROAD, NV 89521 PHONE: (775) 828-7221 FAX: (775) 828-7221					
FOR BID DATE: 11-11-2022 11-11-2022 Designed: BF, BM, DB Drawn By: JC, MO Approved By: SWJ Job No: 22131 Scale: AS SHOWN Date: 11-11-2022					
SHEET No.					
D2 OF 15					