

CITY OF SPARKS 2023 ALLEY REHABILITATION PROJECT ALLEY E

PWP# WA 2024-034
BID# 23/24-007
NOVEMBER 2023

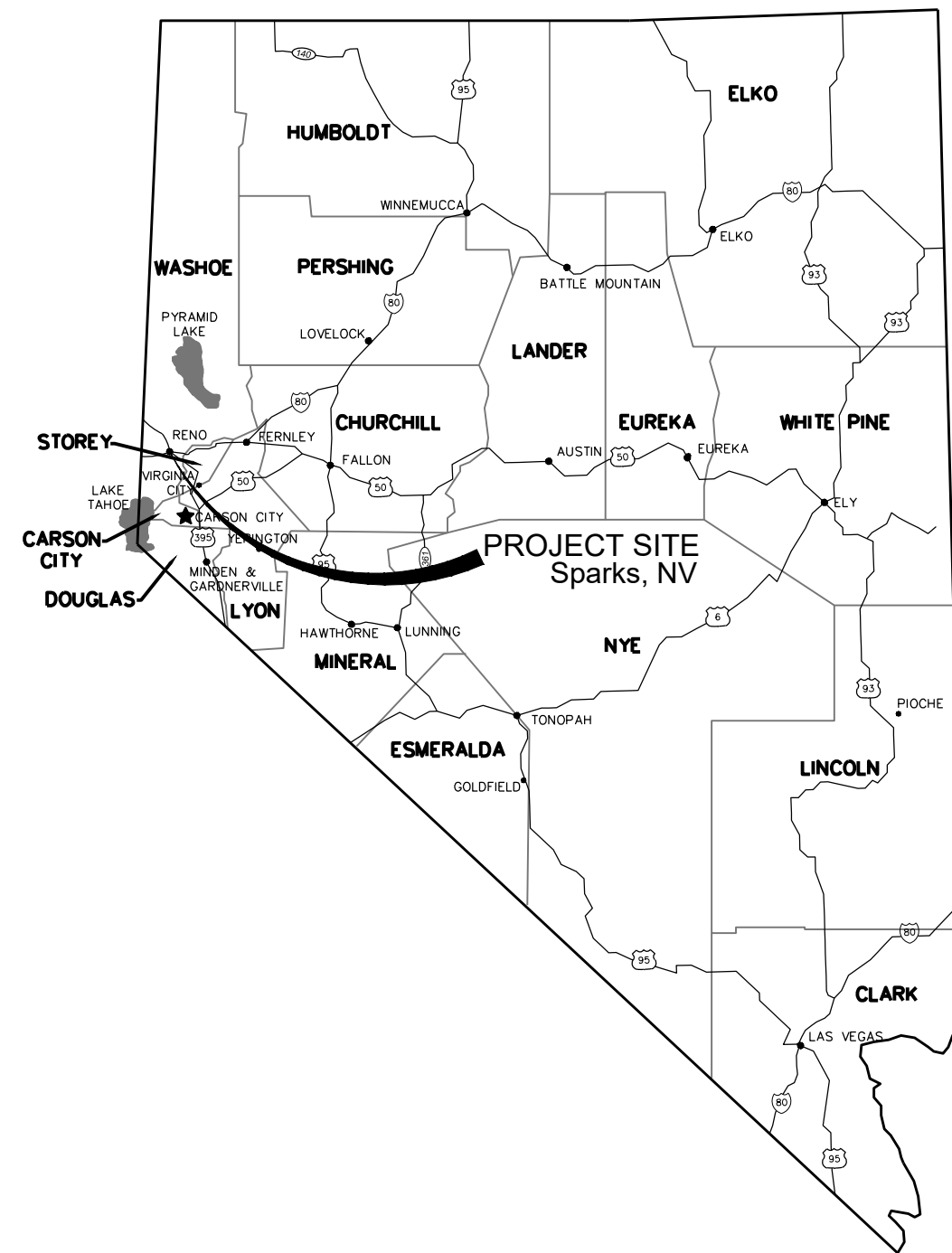


SPARKS CITY COUNCIL

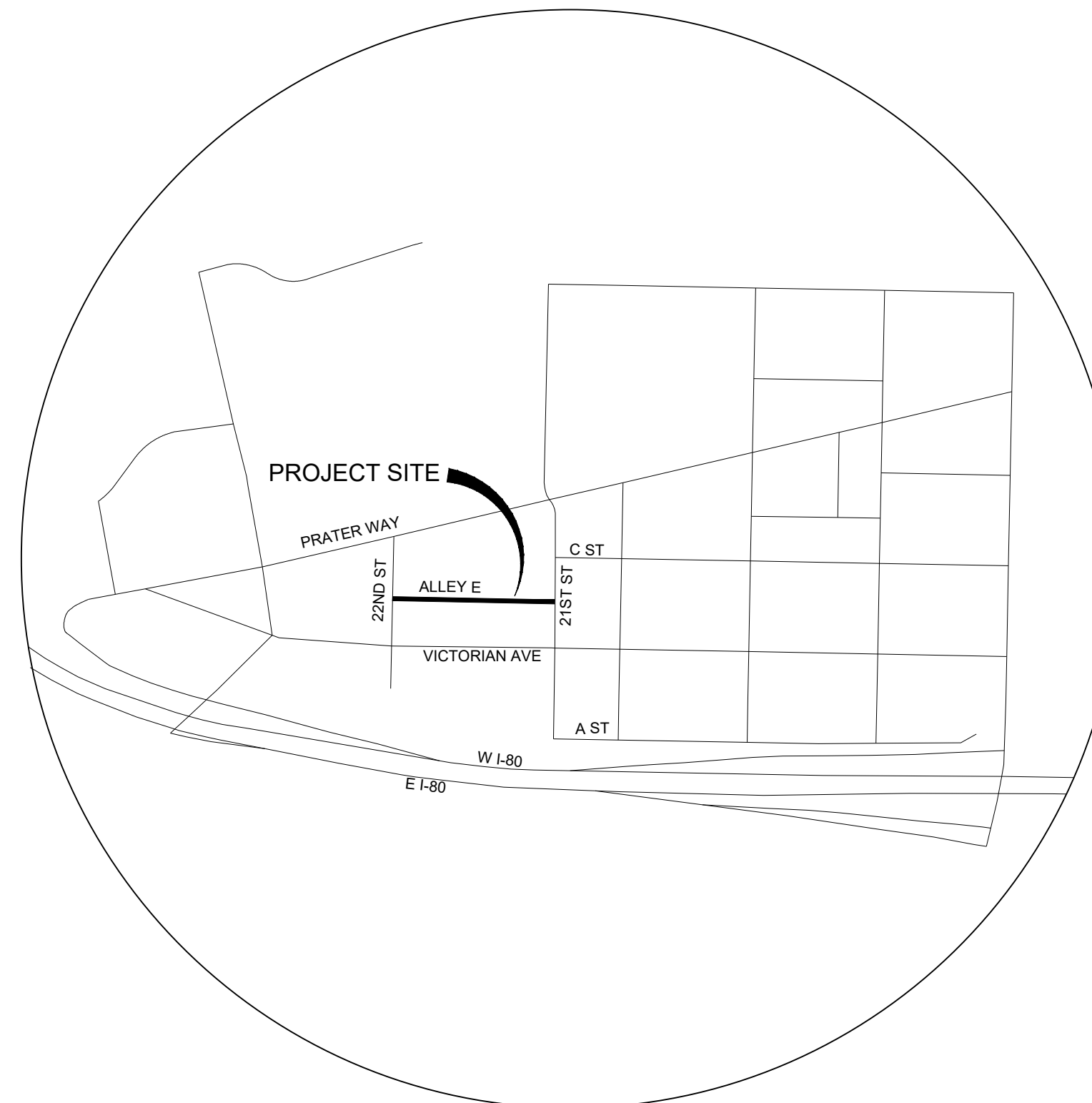
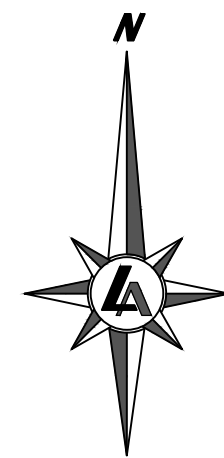
MAYOR _____ ED LAWSON
WARD 1 _____ DONALD ABBOTT
WARD 2 _____ DIAN VANDERWELL
WARD 3 _____ PAUL ANDERSON
WARD 4 _____ CHARLENE BYBEE
WARD 5 _____ KRISTOPHER DAHIR
CITY MANAGER _____ CHRIS CRAWFORTH

APPROVED BY:

JON R. ERICSON, P.E., P.T.O.E. DATE



LOCATION MAP



VICINITY MAP

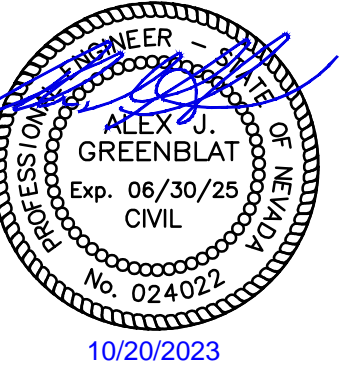
Sheet Index

- C1.0 TITLE SHEET
- C1.1 NOTES, ABBREVIATIONS, AND LEGEND
- C2.0 PROJECT CONTROL AND SHEET INDEX
- C3.0 SURFACE IMPROVEMENT PLAN
- C4.0 GRADING PLAN - 10+00 TO 13+00
- C4.1 GRADING PLAN - 13+00 TO 15+70
- C5.0 UTILITY PLAN - 10+00 TO 13+00
- C5.1 UTILITY PLAN - 13+00 TO 15+70
- D1.0 DETAIL SHEET
- D1.1 DETAIL SHEET
- D1.2 DETAIL SHEET
- D1.3 DETAIL SHEET



950 SANDHILL ROAD, SUITE 100
RENO, NV 89521
TEL: 775.827.6111
WWW.LUMOSINC.COM
INFO@LUMOSINC.COM

© LUMOS & ASSOCIATES, INC. THIS DRAWING IS THE PROPERTY OF LUMOS & ASSOCIATES, INC. USE OR REPRODUCTION OF THIS DRAWING, IN WHOLE OR IN PART, WITHOUT THE WRITTEN PERMISSION OF LUMOS & ASSOCIATES, INC. IS STRICTLY PROHIBITED. THIS DRAWING IS NOT TO BE USED FOR ANY PROJECT OTHER THAN THE PROJECT FOR WHICH IT WAS PREPARED.



CITY OF SPARKS
2023 ALLEY REHABILITATION PROJECT
ALLEY E
TITLE SHEET

NEVADA

WASHOE COUNTY

SPARKS

REV	DATE	DESCRIPTION	BY

**BID SET
NOT FOR CONSTRUCTION**

BAR IS 1 INCH ON ORIGINAL DRAWING
0 N/A

IF NOT ONE INCH ON THIS SHEET,
ADJUST SCALES ACCORDINGLY

C1.0

DRAWN BY: TDA / MEP
DESIGNED BY: TDA
CHECKED BY: AJG
JOB NO.: 10687.000



1-800-227-2600
AVOID CUTTING
UNDERGROUND UTILITIES

LEGEND

EXISTING		PROPOSED
	CONTOUR LINE	
	GROUND ELEVATION	
	TREE	
	ROCK	
	EDGE OF PAVEMENT	
	AC PAVING TO BE REMOVED	
	CURB & GUTTER	
	CONCRETE	
	UTILITY POLE	
	LIGHT	
	GUY WIRE	
	ELECTRIC TRANSFORMER	
	ELECTRIC VAULT	
	ELECTRIC PANEL	
	ELECTRIC CABINET	
	ELECTRIC BOX	
	ELECTRIC METER	
	ELECTRIC GENERATOR	
	ELECTRIC MANHOLE	
	AIR CONDITIONER	
	ELECTRIC OUTLET	
	BOLLARD	
	STORM DRAIN MANHOLE / DROP INLET	
	CATCH BASIN	
	WATER VALVE	
	IRRIGATION CONTROL VALVE WATER	
	METER	
	WATER SPIGOT / HOSE BIB WATER	
	MANHOLE	
	WATER VAULT	
	FIRE HYDRANT	
	GAS VALVE	
	GAS METER	
	TELEPHONE MANHOLE	
	TELEPHONE BOX	
	TELEPHONE VAULT	
	SEWER MANHOLE	
	SEWER CLEANOUT	
	SURVEY MONUMENT	
	CONTROL POINT	
	BARRICADE	
	SIGN	
	RETAINING WALL	
	FENCE	
	GRADE BREAK	
	FLOW LINE	
	SOIL TEST PIT	
	DETAIL CALLOUT	
	COMM LINE	
	GAS LINE	
	ELECTRIC LINE	
	SEWER LINE	
	WATER LINE	
	AIR LINE	
	STORM DRAIN	
	RECLAIMED WATER LINE	
	FOUND SECTION CORNER AS NOTED	
	FOUND 5/8" REBAR AND CAP "PLS 14413" - UNLESS OTHERWISE NOTED SET 5/8" REBAR AND CAP "PLS 17616" - UNLESS OTHERWISE NOTED	

ABBREVIATIONS

AC	ASPHALT CONCRETE	N	NORTH
ACP	ASBESTOS CEMENT PIPE	NAP	NOT A PART
AGG	AGGREGATE	NIP	NOT IN PROJECT
BC	BEGIN CURVE (HORIZONTAL)	NTS	NOT TO SCALE
BOW	BOTTOM OF WALL	OC	ON CENTER
BF, BOF	BOTTOM OF FOOTING	OD	OUTSIDE DIAMETER
BV	BUTTERFLY VALVE	OH	OVERHEAD
BVC	BEGIN VERTICAL CURVE	(P)	PROPOSED
BW	BACK OF WALK	PCC	PORTLAND CEMENT CONCRETE
CB	CATCH BASIN	PG	PAVEMENT
cfs	CUBIC FEET PER SECOND	PI	POINT OF INTERSECTION
CF	CUBIC FEET	PIVC	POINT OF INTERSECTION VERTICAL CURVE
C&G	CURB AND GUTTER	PL	PROPERTY LINE
℄	CENTER LINE	POCC	POINT OF COMPOUND CURVATURE
CL	CLASS / CENTER LINE	POT	POINT OF TANGENCY
CMP	CORRUGATED METAL PIPE	PP	POWER POLE
COMP	COMPACTION	PRC	POINT OF REVERSE CURVE
CONC	CONCRETE	PRVC	POINT OF REVERSE VERTICAL CURVE
CONTR	CONTRACTOR	PVC	POLYVINYL CHLORIDE
CP	CONCRETE PAD	PVMT	PAVEMENT
CTV	CABLE TELEVISION	Q 5	5 YEAR PEAK FLOW
DI	DROP INLET	Q 100	100 YEAR PEAK FLOW
DIA	DIAMETER	R	RADIUS
DWV	DRIVEWAY	RCP	REINFORCED CONCRETE PIPE
E	EAST	REF	REFERENCE
EA	EACH	RET	CURB RETURN
EC	END CURVE (HORIZONTAL)	RP	RADIUS POINT
ELL	ELBOW	RT	RIGHT
ELEC	ELECTRICAL	R/W, ROW	RIGHT-OF-WAY
ELEV	ELEVATION	S=	SLOPE
EVC	END VERTICAL CURVE	S	SOUTH
EX, (E)	EXISTING	SD	STORM DRAIN
EXT	EXTERIOR	SDMH	STORM DRAIN MANHOLE
FCA	FLANGE COUPLING ADAPTER	SL	STREET LIGHT
FE	FINISH ELEVATION	SS	SANITARY SEWER
FES	FLARED END SECTION	SSCO	SANITARY SEWER CLEAN OUT
FF	FINISH FLOOR	SSMH	SANITARY SEWER MANHOLE
FFC	FRONT FACE OF CURB	SSPWC	STANDARD SPEC. FOR PUBLIC WORKS CONSTRUCTION
FG	FINISH GRADE	STA	STATION
FH	FIRE HYDRANT	SW	SIDEWALK
FL	FLOW LINE	TELE	TELEPHONE
FLG	FLANGE	TBO	TEMPORARY BLOW OFF VALVE
fps	FEET PER SECOND	TC	TOP OF CURB, TOP OF CONC
FTG	FOOTING	TG	TOP OF GRADE
G	GAS	TGB	TOP OF BERM
GALV	GALVANIZED	TF, TOF	TOP OF FOOTING
GB	GRADE BREAK	TOW	TOP OF WALL
GDW	GRAVEL DRIVEWAY	TS	TRAFFIC SIGNAL
GD	GROUND	TSCB	TRAFFIC CONTROL SIGNAL BOX
GV	GATE VALVE	TR	TOP OF RAIL
H	HANDICAPPED	TRANS	TRANSITION
HGL	HYDRAULIC GRADE LINE	TYP	TYPICAL
HORIZ	HORIZONTAL	UG/P	UNDER GROUND POWER
HP	HIGH POINT	UNO	UNLESS NOTED OTHERWISE
ID	INSIDE DIAMETER	Vs	VELOCITY AT 5 YEAR PEAK
IE	INVERT ELEVATION	VC	VERTICAL CURVE
INT	INTERSECTION	VEL	VELOCITY
IRR	IRRIGATION	VERT	VERTICAL
LAT	LATERAL	VG	VALLEY GUTTER
LF	LINEAR FEET	W	WEST
LP	LOW POINT	W/G	WATER AND GAS
LT	LEFT	WL	WATER LINE
MAX	MAXIMUM	WM	WATER METER
MDD	MAXIMUM DRY DENSITY	WS	WATER SURFACE
MH	MANHOLE	WV	WATER VALVE
MIN	MINIMUM	WWF	WELDED WIRE FABRIC
MJ	MECHANICAL JOINT	YR	YEAR
MMD	MAXIMUM MARSHALL DENSITY		
MUTCD	MANUAL FOR TRAFFIC CONTROL DEVICES		



Know what's below.
Call before you dig.

NOTES:

GENERAL

- ALL WORK SHALL CONFORM TO THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, 2012 EDITION REVISION 8, 10-19-2018.
- THE CONTRACTOR SHALL REFER TO THE STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION, AS ADOPTED BY THE CITY OF SPARKS, FOR ALL DETAILING NOT SHOWN ON THESE PLANS.
- CONSTRUCTION SHALL COMPLY WITH THESE PLANS AND SPECIFICATIONS AND MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).
- THE CITY OF SPARKS SHALL BE RESPONSIBLE FOR ARRANGING A PRE-CONSTRUCTION JOB SITE CONFERENCE WITH GOVERNING AGENCIES, ALL UTILITY COMPANIES, OWNER'S REPRESENTATIVES, AND THE PROJECT ENGINEER PRIOR TO COMMENCING WORK. THIS MEETING SHALL BE HELD AT LEAST FORTY-EIGHT (48) HOURS, OR TWO (2) BUSINESS DAYS, PRIOR TO THE START OF CONSTRUCTION AND SHALL COMMUNICATE SCHEDULES, CONTRACTORS MEAN AND METHODS, MATERIALS TO BE USED, AND OTHER RELEVANT MATTERS ASSOCIATED WITH THE CONSTRUCTION OF THE PROJECT.
- ALL WORK EITHER DIRECTLY OR INDIRECTLY RELATED TO THE PROJECT SHALL BE COORDINATED WITH THE APPROPRIATE UTILITY SYSTEM MANAGER.
- THE CONTRACTOR SHALL MAINTAIN AN ONSITE RECORD COPY OF ALL DRAWINGS, SPECIFICATIONS, ADDENDA, CHANGE ORDERS, WORK CHANGE DIRECTIVES, FIELD ORDERS, FIELD CHANGES, AND WRITTEN INTERPRETATIONS AND CLARIFICATIONS. RECORDS SHALL BE IN GOOD ORDER AND ANNOTATED TO SHOW CHANGES MADE DURING CONSTRUCTION.
- CONTRACTOR SHALL REFER TO THE PROJECT SPECIFICATIONS REGARDING MATERIAL AND EQUIPMENT SUBMITTAL REQUIREMENTS.
- THE CONTRACTOR SHALL CALL UNDERGROUND SERVICE ALERT AT 1-800-642-2444 TO PROVIDE FIELD LOCATIONS OF UNDERGROUND UTILITIES PRIOR TO THE START OF CONSTRUCTION.
- THE LOCATION OF EXISTING UTILITIES SHOWN ON THESE PLANS ARE BASED ON THE BEST INFORMATION AVAILABLE TO THE ENGINEER. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY PROPOSED POINTS OF CONNECTION AND IN AREAS OF POSSIBLE CONFLICT WITH NEW UTILITY INSTALLATION PRIOR TO BEGINNING CONSTRUCTION. SHOULD THE CONTRACTOR FIND ANY DISCREPANCIES BETWEEN THE CONDITIONS EXISTING IN THE FIELD AND THE INFORMATION SHOWN ON THESE DRAWINGS, THE CONTRACTOR SHALL NOTIFY THE ENGINEER BEFORE PROCEEDING WITH CONSTRUCTION. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROTECT AND MAINTAIN ALL EXISTING UTILITIES WHETHER OR NOT SHOWN ON THE PLAN.
- THE CONTRACTOR SHALL BE RESPONSIBLE TO PROCURE ALL NECESSARY PERMITS, LICENSES, INSURANCE POLICIES, ETC. AS MAY BE NECESSARY TO COMPLY WITH LOCAL, COUNTY, STATE, AND FEDERAL LAWS ASSOCIATED WITH THE PERFORMANCE OF THE WORK, UNLESS OTHERWISE OBTAINED BY THE OWNER.
- CONTRACTOR SHALL REFER TO THE PROJECT SPECIFICATIONS REGARDING PROJECT TRAFFIC CONTROL REQUIREMENTS. ALL TRAFFIC CONTROL PLANS SHALL BE PREPARED BY ATSSA CERTIFIED PERSONNEL.
- THE CONTRACTOR AGREES TO ASSUME SOLE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY, AND FURTHER AGREES THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS IN ACCORDANCE WITH THE PROVISIONS OUTLINED BY THE PROJECT CONTROL AND THE STANDARD SPECIFICATIONS.
- THE CONTRACTOR SHALL BE SOLELY AND COMPLETELY RESPONSIBLE FOR COMPLIANCE WITH ALL APPLICABLE PROVISIONS OF OSHA AND NRS CHAPTER 618.
- THE CONTRACTOR SHALL PURSUE THE WORK IN A CONTINUOUS AND DILIGENT MANNER, CONFORMING TO ALL THE PERTINENT SAFETY REGULATIONS TO ENSURE A TIMELY COMPLETION OF THE PROJECT.
- THE CONTRACTOR SHALL MAINTAIN A CLEAN PROJECT SITE, REMOVING CONSTRUCTION DEBRIS AT THE END OF EACH ACTIVITY DAY. THE CONTRACTOR SHALL MAINTAIN DEBRIS FREE CONSTRUCTION ROUTES, ADJACENT STREETS AND STORM DRAIN SYSTEMS.
- TEMPORARY CONSTRUCTION FENCING SHALL BE PROVIDED AND MAINTAINED BY THE CONTRACTOR THROUGHOUT THE DURATION OF THE PROJECT IN AREAS AS DELINEATED ON THE PLANS OR AS DIRECTED BY THE PROJECT ENGINEER. THE TEMPORARY FENCING SHALL PREVENT CHILDREN AND PETS FROM ENTERING THE CONSTRUCTION AREA, CREATE A VISUAL BARRIER OF THE CONSTRUCTION ACTIVITIES FROM THE ADJACENT RESIDENCE AND YARDS, AND PROTECT VEGETATION FROM CONSTRUCTION EQUIPMENT.
- THE CONTRACTOR SHALL USE ONLY AUTHORIZED SITES FOR STORAGE OF EQUIPMENT AND MATERIALS AND OBTAIN PROPER APPROVALS FROM THE LAND OWNER AND LOCAL GOVERNING AUTHORITY TO DO SO. CONTRACTOR SHALL BE RESPONSIBLE FOR THE SECURITY OF ALL EQUIPMENT AND MATERIALS.
- CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING SURVEY MONUMENTS AND OTHER SURVEY MARKERS DURING CONSTRUCTION. IN THE EVENT A MONUMENT IS DISTURBED, THE CONTRACTOR SHALL HAVE THE MONUMENT REPLACED, AT HIS OWN EXPENSE, BY A LICENSED SURVEYOR IN THE STATE OF NEVADA.
- CONTRACTOR SHALL REFER TO THE PROJECT SPECIFICATIONS REGARDING CONSTRUCTION HOURS.
- ALL FIELD CHANGES MUST BE PRE-APPROVED BY THE CITY OF SPARKS.
- SHOULD IT APPEAR THAT THE WORK TO BE DONE, OR ANY MATTER RELATIVE THERETO, IS NOT SUFFICIENTLY DETAILED OR EXPLAINED ON THESE PLANS, THE CONTRACTOR SHALL CONTACT THE PROJECT ENGINEER FOR SUCH FURTHER EXPLANATIONS AS MAY BE NECESSARY.
- THE OWNER IS RESPONSIBLE FOR FURNISHING QUALIFIED SITE INSPECTIONS AS REQUIRED TO COMPLY WITH LOCAL ORDINANCES.
- A GEOTECHNICAL INVESTIGATION WAS PERFORMED ON THIS PROJECT. ALL RECOMMENDATIONS INCLUDED IN THE REPORT ARE HEREBY MADE A PART OF THE CONSTRUCTION DOCUMENTS UNLESS MODIFIED WITHIN THESE PLANS. INSPECTION AND TESTING DURING CONSTRUCTION SHALL BE REQUIRED IN ACCORDANCE WITH THE RECOMMENDATIONS CONTAINED WITHIN THE REPORT.

TITLE: GEOTECHNICAL INVESTIGATION REPORT - ALLEY E
DATE: JUNE 2022
FIRM: LUMOS & ASSOCIATES, INC.

UNDERGROUND UTILITIES

- THE CONTRACTOR SHALL FIELD VERIFY UTILITY LOCATIONS NEAR OR WITHIN THE CONSTRUCTION LIMITS WITH THE RESPECTIVE UTILITY COMPANIES PRIOR TO BEGINNING CONSTRUCTION. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO ARRANGE FOR THE NECESSARY RELOCATION OF ANY UTILITY. THE CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES INVOLVED AT LEAST FORTY-EIGHT (48) HOURS PRIOR TO BEGINNING WORK.
- NO OTHER UTILITIES MAY BE PLACED IN A WATER OR SEWER TRENCH.
- ALL VALVE BOXES, MANHOLE STRUCTURES, AND CLEAN OUTS SHALL BE MARKED AND ACCESSIBLE AT ALL TIMES.
- CONTRACTOR SHALL SUPPORT TRENCH SIDEWALLS IN ACCORDANCE WITH ALL APPLICABLE LAWS AND GOVERNING SAFETY REGULATIONS. SHEETING OR SHORING SHALL CONFORM TO LOCAL REGULATIONS AND OSHA STANDARDS.
- ENDS OF UNFINISHED PIPE SHALL BE SEALED AT THE END OF EACH DAY.
- PIPE SHALL BE LAID IN THE UPHILL DIRECTION, WITH BELL ENDS UPHILL.

GRADING, EXCAVATION & SURFACE IMPROVEMENTS

- THE CONTRACTOR IS RESPONSIBLE FOR PERFORMING THEIR OWN QUANTITY TAKE-OFF AND SHALL BUDGET THE PROJECT ACCORDINGLY. ALL EXCESS GRADING MATERIALS SHALL BE DISPOSED OF OFFSITE.
- ALL EARTHWORK ACTIVITIES SHALL BE IN ACCORDANCE WITH THE PROJECT'S GEOTECHNICAL REPORT.
- THE SOILS ENGINEER SHALL APPROVE ALL EARTHWORK AND GRADING TO CONFIRM COMPACTION REQUIREMENTS ARE MET.
- CONTRACTOR SHALL PROTECT EXISTING PAVING, CONCRETE, LANDSCAPING, FENCING, MAILBOXES, SIGNS AND ANY OTHER IMPROVEMENTS NOT SPECIFICALLY CALLED OUT FOR REPLACEMENT. CONTRACTOR SHALL REPAIR/REPLACE ANYTHING DAMAGED BY FORCES UNDER THEIR EMPLOY OR CONTRACT.
- ALL ASPHALT CONCRETE SURFACES SHALL BE SAWCUT TWO FEET MINIMUM INSIDE THE EDGE OF PAVEMENT TO A NEAT, STRAIGHT LINE AND REMOVED. THE EXPOSED PAVEMENT TIE-IN EDGES SHALL BE METICULOUSLY CLEANED OF ALL LOOSE MATERIAL AND THEN TREATED WITH BITUMINOUS EMULSION PRIOR TO PAVING. THE EXPOSED BASE MATERIALS SHALL BE GRADED AND RECOMPACTED PRIOR TO PAVING.

ENVIRONMENTAL

- ALL CONSTRUCTION SHALL BE PERFORMED IN COMPLIANCE WITH THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES). CONTRACTOR IS RESPONSIBLE FOR ACQUIRING AND MAINTAINING A SWPPP.
- INSTALLATION AND MAINTENANCE OF EROSION CONTROL MEASURES ARE THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PREVENTION OF EROSION AND SILTATION FROM ENTERING THE STORM DRAIN SYSTEM, NATURAL DRAINAGE COURSES, AND/OR INTRUDING UPON ADJACENT ROADWAYS AND PROPERTIES. EROSION CONTROL MEASURES SHOWN ON THESE PLANS ARE INTENDED AS A GUIDE. ADDITIONAL EROSION CONTROL MEASURES MAY BE REQUIRED AS DETERMINED IN THE FIELD. THIS RESPONSIBILITY SHALL APPLY THROUGHOUT THE COURSE OF CONSTRUCTION AND UNTIL ALL DISTURBED AREAS HAVE BECOME STABILIZED AND SHALL NOT BE LIMITED TO WET WEATHER PERIODS. THE CONTRACTOR IS RESPONSIBLE FOR SWPPP UPDATES.
- THE CONTRACTOR SHALL MAINTAIN AN ON-GOING DUST CONTROL PROGRAM INCLUDING WATERING OF OPEN AREAS, TO CONFORM WITH THE LATEST FEDERAL, STATE, AND COUNTY AIR POLLUTION REGULATIONS. CONTRACTOR IS RESPONSIBLE FOR OBTAINING AND UPDATING DUST CONTROL PERMITS FOR THE PROJECT.
- PROTECTIVE MEASURES AND TEMPORARY DRAINAGE PROVISIONS SHALL BE USED TO PROTECT ADJOINING PROPERTIES DURING CONSTRUCTION OF IMPROVEMENTS.
- AFTER A RAINSTORM, ALL SILT AND DEBRIS SHALL BE REMOVED FROM CHECK BERMS AND DESILTING FACILITIES. GRADED SLOPE SURFACE PROTECTION MEASURES DAMAGED DURING THE RAINSTORM SHALL ALSO BE REPAIRED.
- IF GROUNDWATER IS ENCOUNTERED, THE CONTRACTOR SHALL STOP WORK IMMEDIATELY, PREPARE A DEWATERING PLAN, AND OBTAIN APPROVAL FROM THE PROJECT ENGINEER BEFORE PROCEEDING WITH WORK. DEWATERING ACTIVITIES MAY REQUIRE THE CONTRACTOR TO OBTAIN A DISCHARGE/PUMPING PERMIT FROM THE STATE. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN SUCH PERMITS.
- ALL STREETS SHALL BE MAINTAINED FREE OF DUST AND MUD CAUSED BY GRADING OPERATIONS.



950 SANDHILL ROAD, SUITE 100
RENO, NV 89521
TEL: 775.827.6111

WWW.LUMOSINC.COM
INFO@LUMOSINC.COM

© LUMOS & ASSOCIATES, INC. THIS DRAWING IS THE PROPERTY OF LUMOS & ASSOCIATES, INC. USE OR REPRODUCTION OF THIS DRAWING, IN WHOLE OR IN PART, WITHOUT THE WRITTEN PERMISSION OF LUMOS & ASSOCIATES, INC. IS STRICTLY PROHIBITED. THIS DRAWING IS NOT TO BE USED FOR ANY PROJECT OTHER THAN THE PROJECT FOR WHICH IT WAS PREPARED.



2023 ALLEY REHABILITATION PROJECT
ALLEY E
NOTES, ABBREVIATIONS, AND LEGEND

CITY OF SPARKS

NEVADA

WASHOE COUNTY

SPARKS

REV	DATE	DESCRIPTION	BY

BAR IS 1 INCH ON ORIGINAL DRAWING
0 N/A

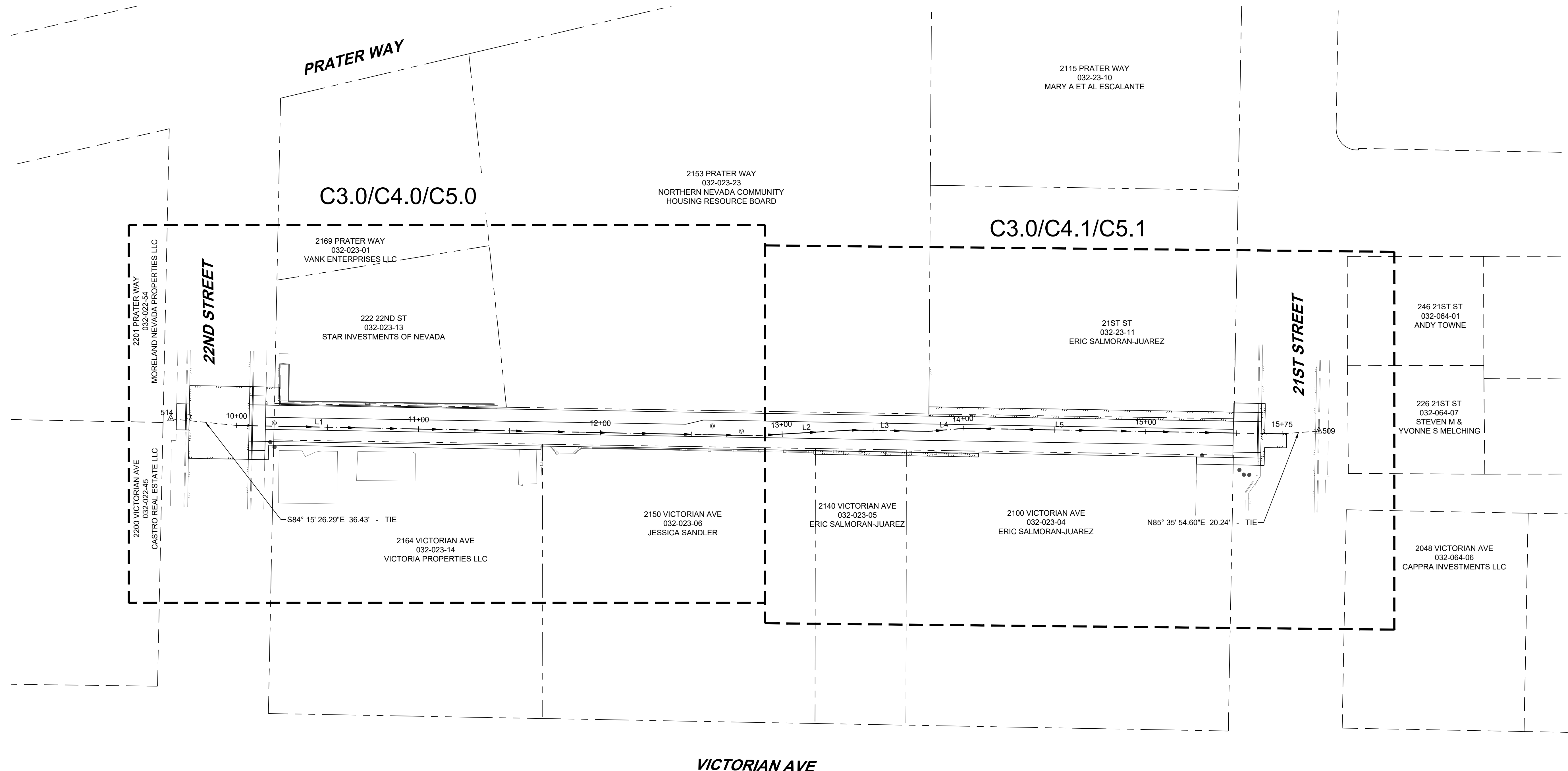
IF NOT ONE INCH ON THIS SHEET,
ADJUST SCALES ACCORDINGLY

C1.1

DRAWN BY: TDA / MEP
DESIGNED BY: TDA
CHECKED BY: AJG
JOB NO.: 10687.000



CITY OF SPARKS
 2023 ALLEY REHABILITATION PROJECT
 ALLEY E
 PROJECT CONTROL AND SHEET INDEX
 SPARKS
 WASHOE COUNTY
 NEVADA



LINE TABLE		
LINE #	LENGTH	DIRECTION
L1	285.00	S88° 52' 14.20"E
L2	53.17	N86° 41' 04.21"E
L3	42.27	S89° 03' 26.88"E
L4	20.00	N85° 17' 51.22"E
L5	174.56	S89° 00' 31.49"E

PROJECT CONTROL

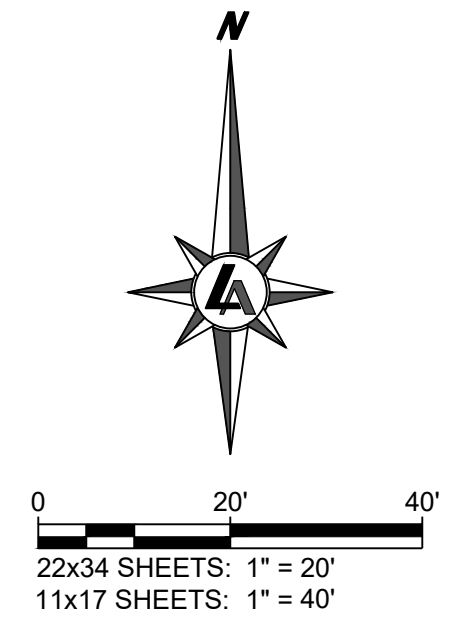
POINT	NORTH	EAST	ELEVATION	DESCRIPTION
509	14870866.69	2290098.35	4434.58	CP MAG NAIL/SHINER
514	14870873.40	2289467.17	4437.74	CP MAG NAIL/SHINER

BASIS OF BEARINGS

THE BASIS OF BEARINGS FOR THIS SURVEY IS NEVADA STATE PLANE COORDINATE SYSTEM, WEST ZONE NAD83(94) BASED UPON REAL TIME KINEMATIC GPS OBSERVATIONS, OBSERVED 4-19-2022 USING A SURVEY GRADE DUAL FREQUENCY GPS RECEIVER FROM THE NORTHERN NEVADA GPS NETWORK MODIFIED BY A COMBINED FACTOR OF 1.000197939, SCALED FROM 0.00N .000E AND CONVERTED TO U.S. SURVEY FEET. ALL DIMENSIONS ON THIS MAP ARE GROUND DISTANCES.

BASIS OF ELEVATIONS

DATUM: NAVD 88
PROJECT BENCHMARK = USC&G BM# G374
HAVING AN ELEVATION OF 4426.65'



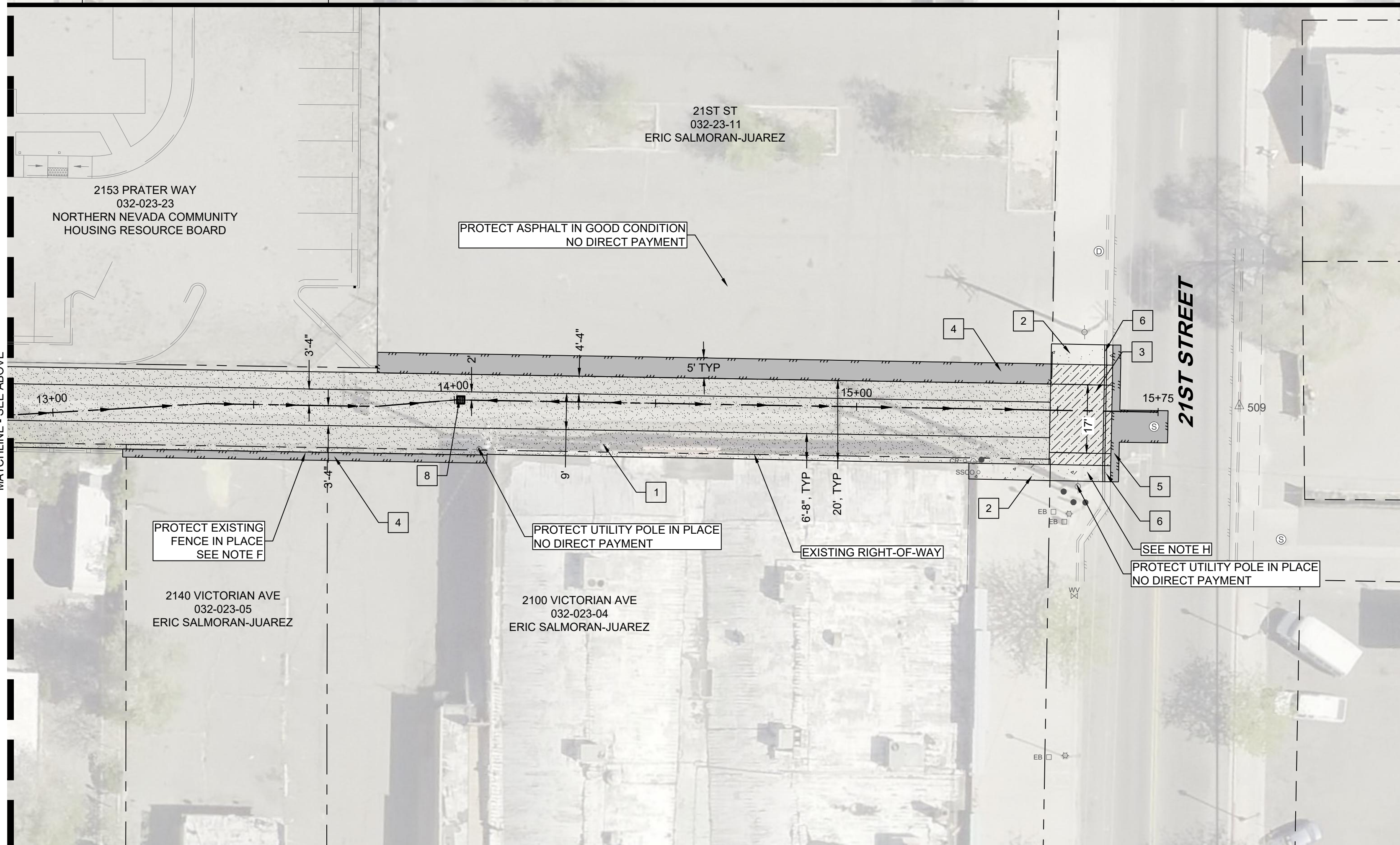
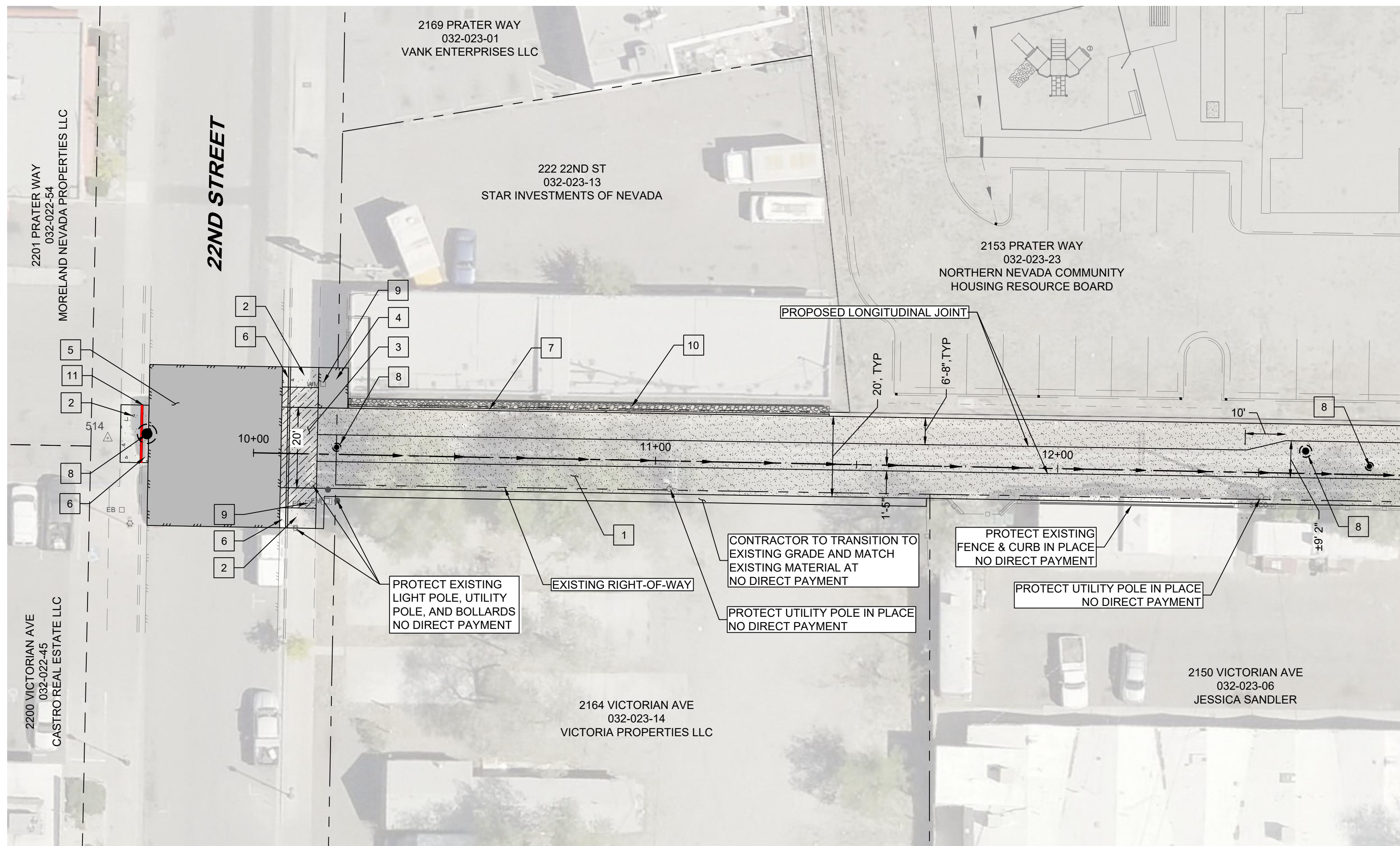
REV	DATE	DESCRIPTION	BY

BAR IS 1 INCH ON ORIGINAL DRAWING
0 N/A
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

C2.0

DRAWN BY: TDA / MEP
DESIGNED BY: TDA
CHECKED BY: AJG
JOB NO.: 10687.000

L:\AP\10687.000 - City of Sparks Pavement Mgmt. Program - Alley E Design\DWG\Sheets\106870000CONTROL.dwg,C2.0, 10/20/2023 03:08 pm, lodams



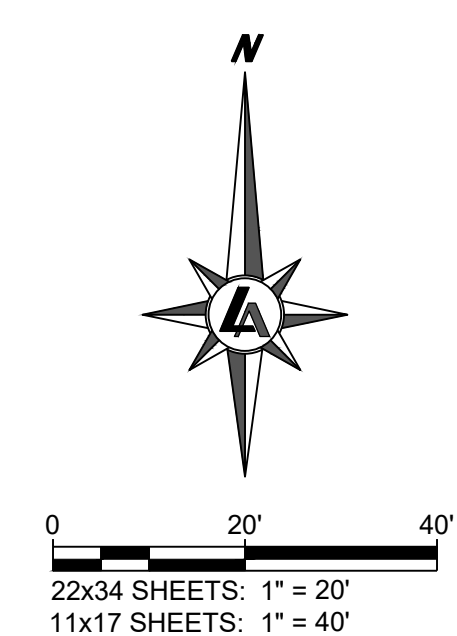
SURFACE IMPROVEMENT NOTES

- A. SURFACE RESTORATION LIMITS ARE ESTIMATED AS SHOWN AND SHALL NOT BE CONSIDERED A MAXIMUM OR MINIMUM AREA. CONTRACTOR SHALL EVALUATE CONSTRUCTION METHODS, DESIGN DETAILS, EQUIPMENTS, SOILS, AND OTHER CONDITIONS TO DETERMINE QUANTITIES.
- B. PROTECT ALL EXISTING STRUCTURES, TREES, UTILITIES, FENCING, BOXES, POLE, ETC. IN PLACE UNLESS NOTED OTHERWISE. IF DAMAGE IS CAUSED BY CONTRACTOR, THEN IT SHALL BE REPLACED AT NO DIRECT PAYMENT.
- C. UNLESS OTHERWISE NOTED, PROTECT AND ADJUST ALL EXISTING UTILITY MANHOLE FRAME AND COVER, VALVE BOXES, AND VAULT COVERS TO NEW FINISH GRADE WITHIN IMPROVEMENT LIMITS.
- D. PAVEMENT PATCHING SHALL MATCH EXISTING THICKNESS, BUT SHALL BE NO MORE THAN 6" AND NO LESS THAN 4". REFER TO PATCHING DETAIL ON SHEET D1.2.
- E. REFERENCE GEOTECHNICAL REPORT AND DETAILS C100 / D1.0 THROUGH C106 / D1.0 FOR ALLEY SECTION DETAILS AND EXISTING ALLEY SECTION CONDITIONS.
- F. CONTRACTOR TO COORDINATE WITH PROPERTY OWNER FOR ACCESS BEHIND FENCE. HAND WORK AC PATCH NEAR FENCE WILL BE REQUIRED IN ORDER TO PROTECT IN PLACE.
- G. EXPANSION JOINTS SHALL BE LOCATED AT ALL INTERFACES OF PCC PAVEMENT WITH PCC CURB, MANHOLES/CATCH BASINS, AND POLES. SEE DETAIL C104 / D1.0.
- H. CONTRACTOR TO MATCH EXISTING CONCRETE COLOR (SEQUOIA SAND) PER CITY OF SPARKS SPECIFICATIONS.

LEGEND

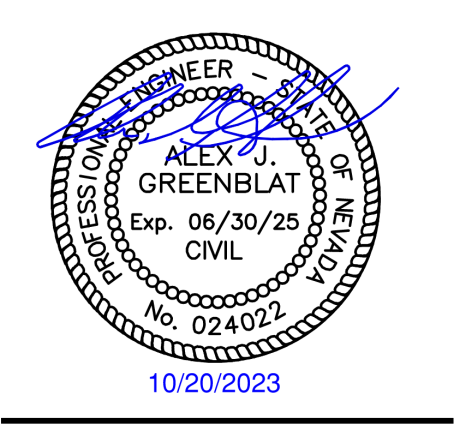
	REMOVE & REPLACE PCC ALLEY	C100 D1.0	C101 D1.0	C102 D1.0	C103 D1.0
	REMOVE & REPLACE SIDEWALK		S-103 D1.2		
	REMOVE & REPLACE COMMERCIAL DRIVEWAY		S-111B D1.2	S-111C D1.2	
	INSTALL AC TRANSITION BEHIND SIDEWALK OR ALLEY		C108 D1.2		
	PERMANENT ASPHALT PATCH		S-115 D1.2		
	REMOVE & REPLACE TYPE 1 PCC CURB & GUTTER		S-109 D1.2		
	INSTALL P.C.C. POST CURB		C114 D1.2		
	INSTALL LANDSCAPING ROCK		C113 D1.3		

SURFACE IMPROVEMENT QUANTITIES			
NO.	DESCRIPTION	UNIT	QUANTITY
1	REMOVE & REPLACE PCC ALLEY	SF	10632
2	REMOVE & REPLACE PCC SIDEWALK	SF	366
3	REMOVE & REPLACE COMMERCIAL DRIVEWAY	SF	1114
4	INSTALL AC TRANSITION BEHIND SIDEWALK OR ALLEY	SF	1100
5	PERMANENT ASPHALT PATCH	SF	1485
6	REMOVE & REPLACE TYPE 1 PCC CURB & GUTTER	LF	33
7	INSTALL P.C.C. POST CURB	LF	124
8	ADJUST NEW MANHOLE OR CATCH BASIN TO FINISH GRADE WITH PCC COLLAR	EA	5
9	ADJUST STANDARD OR TRAFFIC RATED METER BOX TO FINISH GRADE	EA	2
10	INSTALL LANDSCAPING ROCK	LS	1
11	INSTALL RED CURB PAINT	LF	15



950 SANDHILL ROAD, SUITE 100
RENO, NV 89521
TEL: 775.827.6111
WWW.LUMOSINC.COM
INFO@LUMOSINC.COM

© LUMOS & ASSOCIATES, INC. THIS DRAWING IS THE PROPERTY OF LUMOS & ASSOCIATES, INC. USE OR REPRODUCTION OF THIS DRAWING IN WHOLE OR IN PART, WITHOUT THE WRITTEN PERMISSION OF LUMOS & ASSOCIATES, INC. IS STRICTLY PROHIBITED. THIS DRAWING IS NOT TO BE USED FOR ANY PROJECT OTHER THAN THE PROJECT FOR WHICH IT WAS PREPARED.



CITY OF SPARKS
 2023 ALLEY REHABILITATION PROJECT
 ALLEY E
 SURFACE IMPROVEMENT PLAN
 WASHOE COUNTY
 SPARKS
 NEVADA

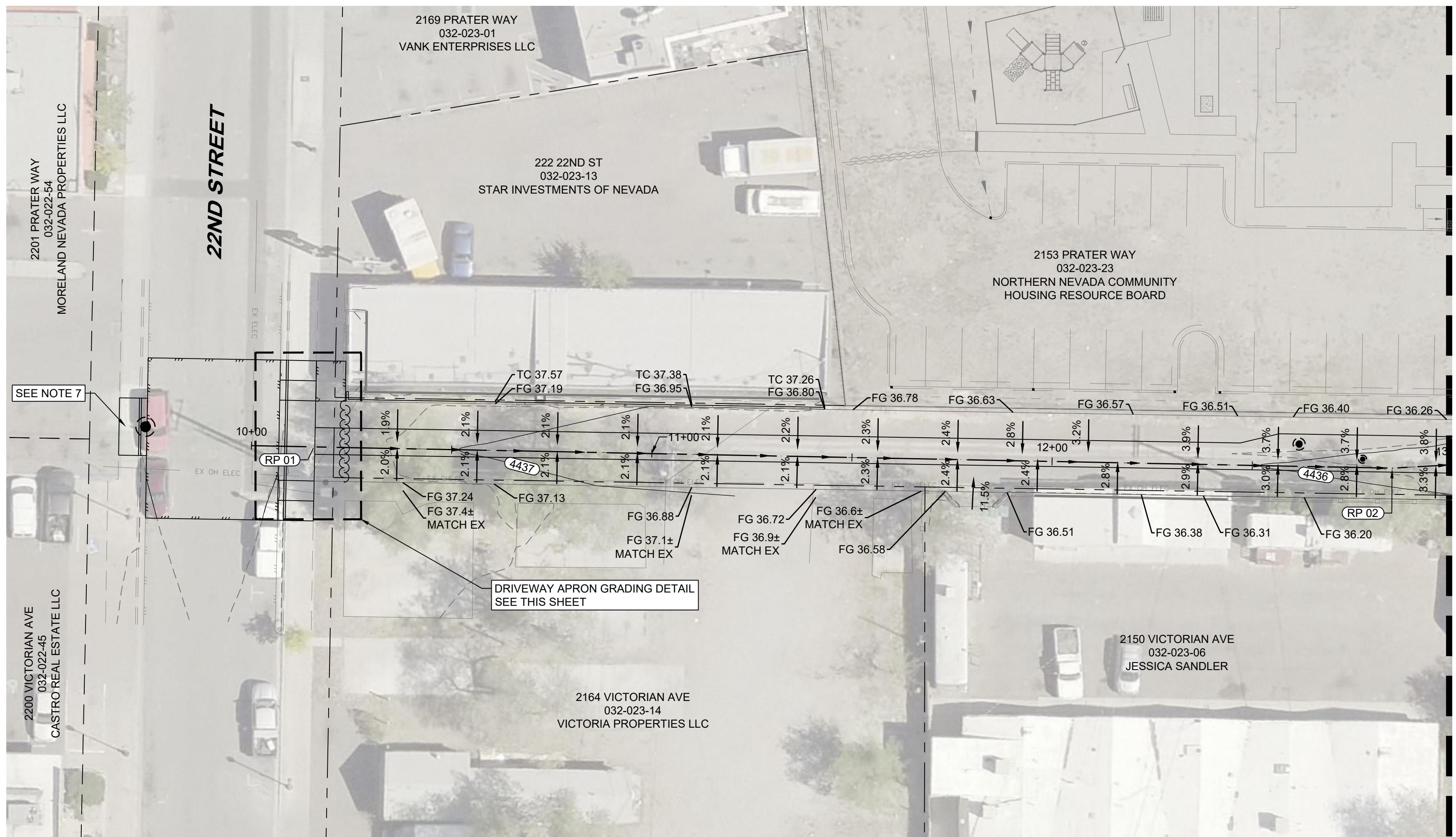
REV	DATE	DESCRIPTION	BY

BAR IS 1 INCH ON ORIGINAL DRAWING
0 N/A
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

C3.0

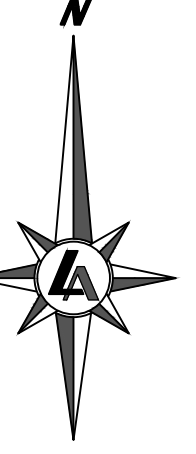
DRAWN BY: TDA / MEP
DESIGNED BY: TDA
CHECKED BY: AJG
JOB NO.: 10687.000

L:\A\Pro\10687.000 - City of Sparks Pavement Mgmt. Program - Alley E Design\DWG\Sheets\06870005\RFACE.dwg,C3.0, 11/03/2023 12:34 pm, tadams

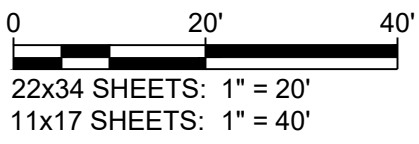


GRADING NOTES

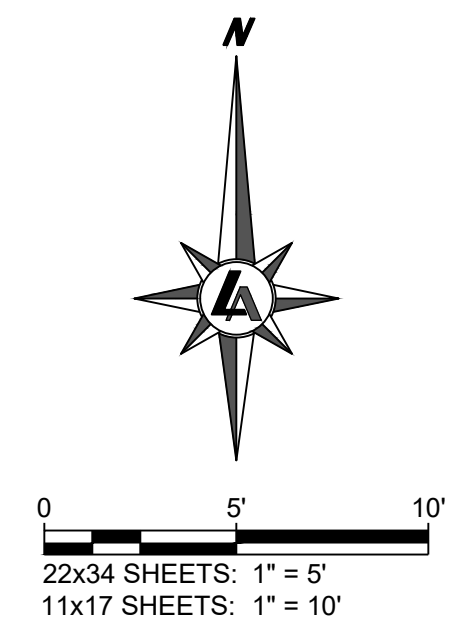
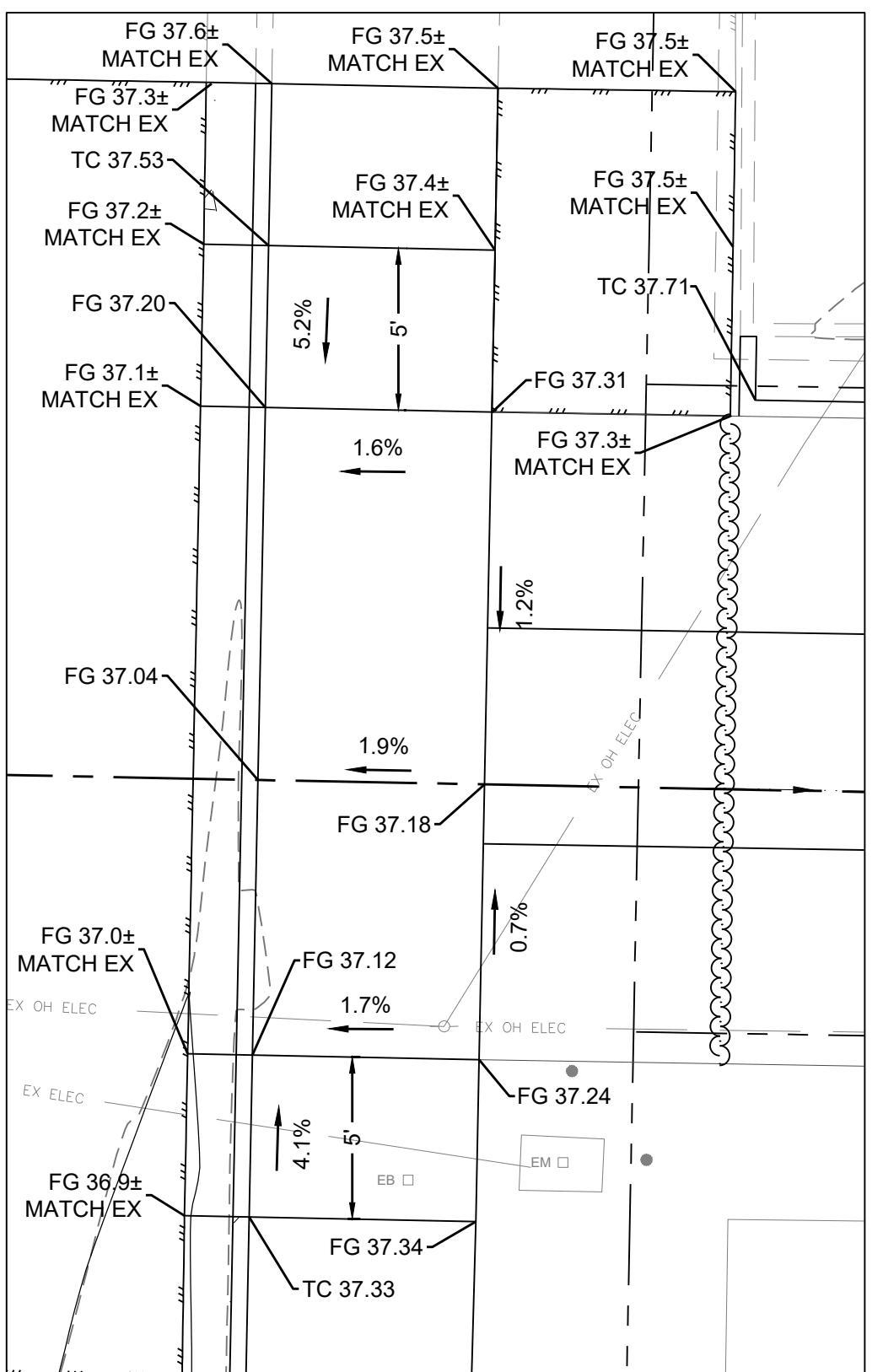
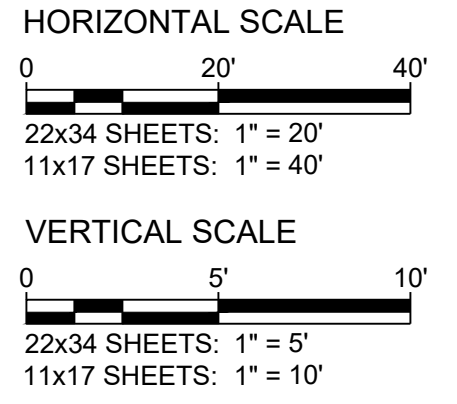
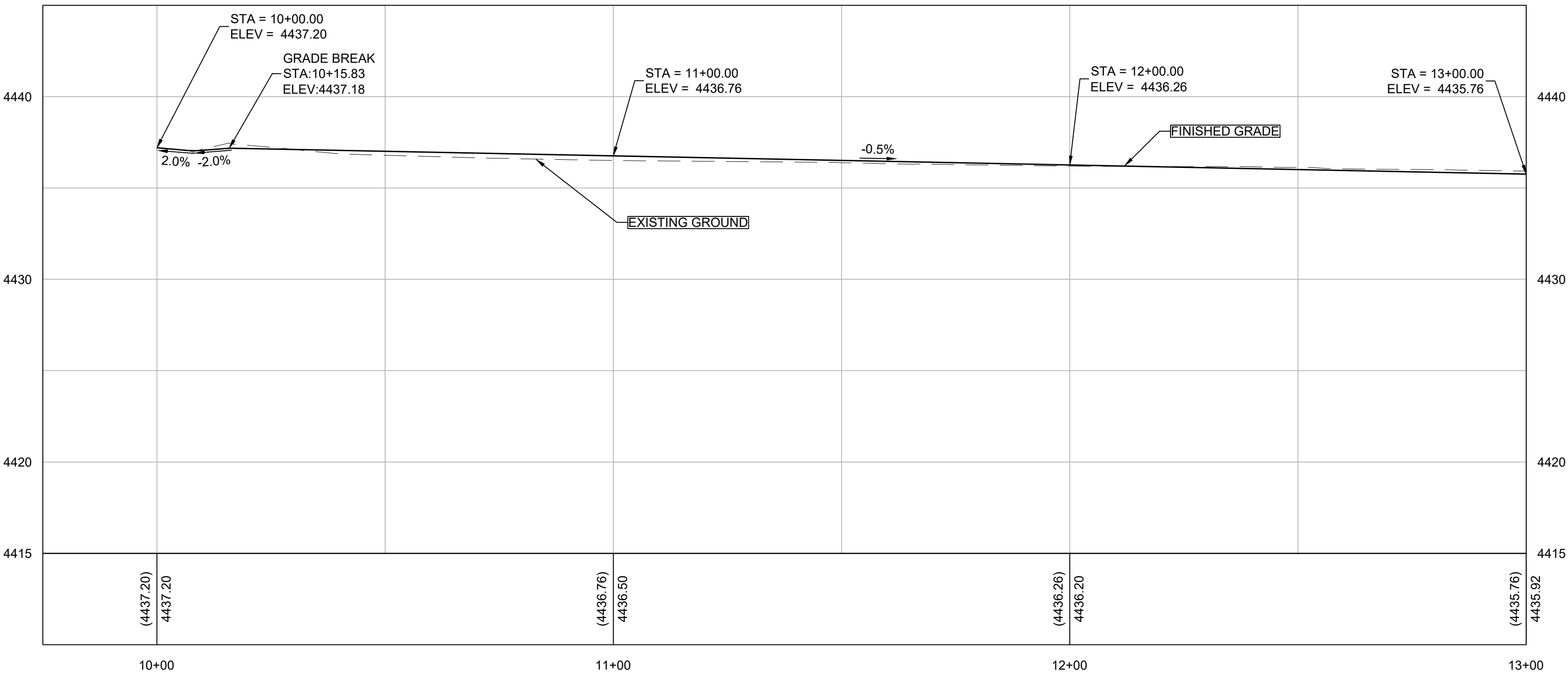
1. EXPANSION JOINTS SHALL BE LOCATED AT ALL INTERFACES OF PCC PAVEMENT WITH PCC CURB, MANHOLES/CATCH BASINS, AND POLES. SEE DETAIL C104 / D1.0
2. SITE GRADING SHALL BE CONSIDERED AS PART OF REMOVAL AND REPLACEMENT OF THE ALLEYWAY SECTION. REFER TO GEOTECHNICAL REPORT FOR OVER-EXCAVATION GUIDELINES.
3. REINFORCE PCC ADJACENT TO MANHOLES, UTILITY POLES, CATCH BASINS, VALVES, ETC. PER DETAIL C106 / D1.0.
4. PROTECT ALL EXISTING FENCING IN PLACE UNLESS NOTED OTHERWISE ON PLANS.
5. BUSHES AND TREES SHALL BE TRIMMED OR REMOVED AS NECESSARY FOR CONSTRUCTION BY AN ISA CERTIFIED ARBORIST. NO DIRECT PAYMENT FOR THIS WORK. COORDINATE WITH CITY OF SPARKS AND PROPERTY OWNER.
6. FOR UTILITY IMPROVEMENTS REFER TO SHEET C5.0 AND C5.1.
7. CONTRACTOR TO MATCH EXISTING CONCRETE GRADES FOR SIDEWALK AND CURB AND GUTTER.
8. ADD 4400 TO ALL ELEVATION CALLOUTS IN PLAN VIEW.



REFERENCE POINT (RP) TABLE		
POINT #	STATION / OFFSET	DESCRIPTION
RP 01	"W" 10+15.83, 0.00	BEGIN FL
RP 02	"W" 12+85.00, 0.00	FL JOG



ALLEY E FLOWLINE - STA:9+75 TO STA:13+00

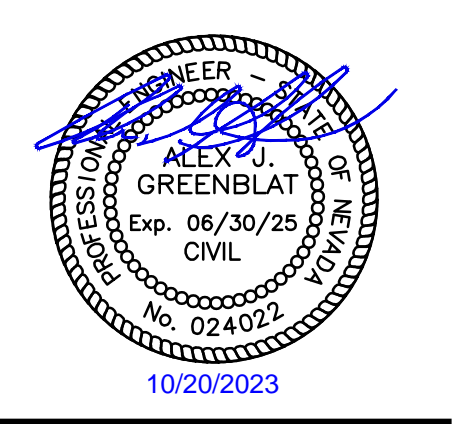


22ND STREET DRIVEWAY APRON GRADING DETAIL



950 SANDHILL ROAD, SUITE 100
RENO, NV 89521
TEL: 775.827.6111
WWW.LUMOSINC.COM
INFO@LUMOSINC.COM

© LUMOS & ASSOCIATES, INC. THIS DRAWING IS THE PROPERTY OF LUMOS & ASSOCIATES, INC. USE OR REPRODUCTION OF THIS DRAWING IN WHOLE OR IN PART, WITHOUT THE WRITTEN PERMISSION OF LUMOS & ASSOCIATES, INC. IS STRICTLY PROHIBITED. THIS DRAWING IS NOT TO BE USED FOR ANY PROJECT OTHER THAN THE PROJECT FOR WHICH IT WAS PREPARED.



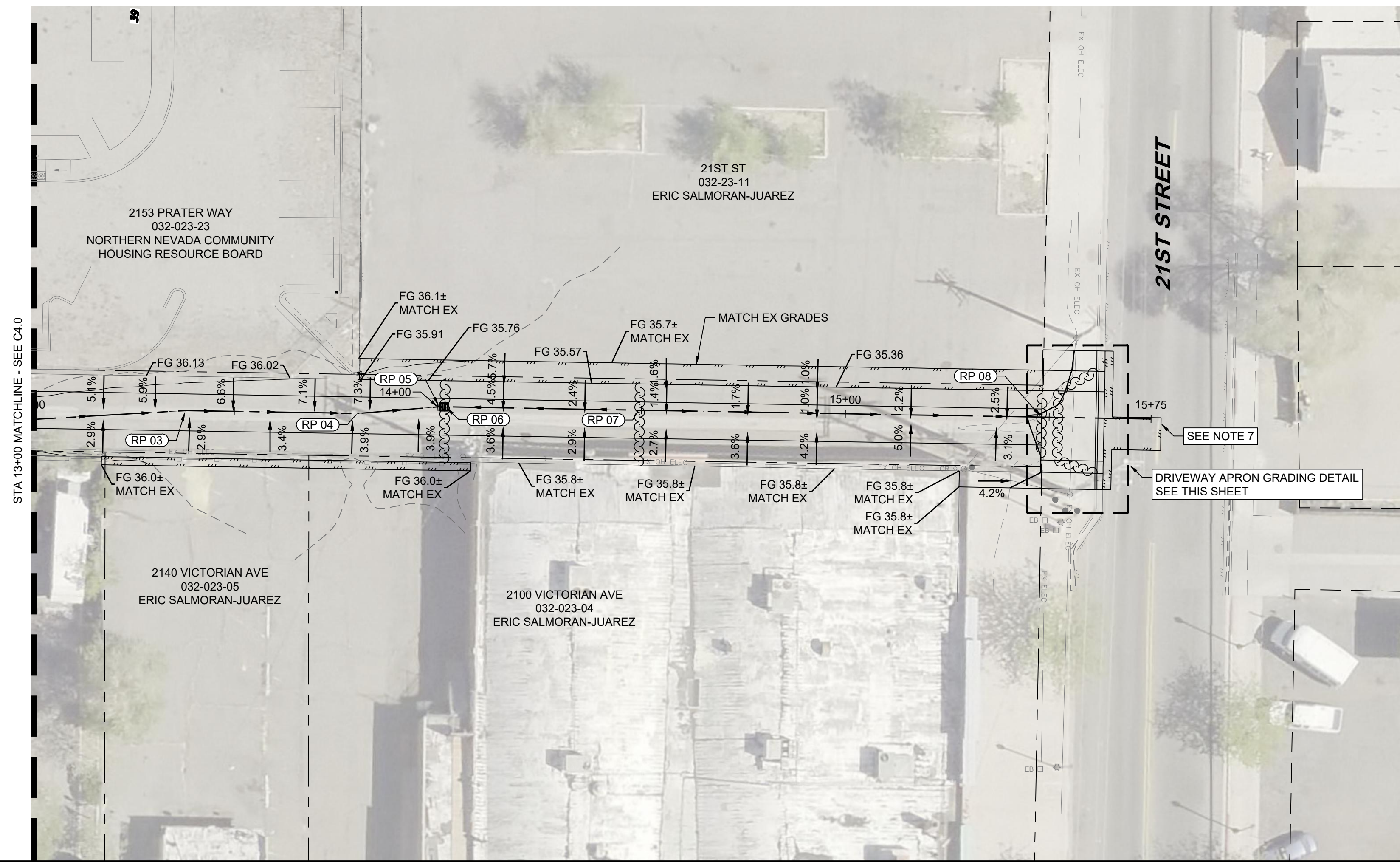
CITY OF SPARKS
 2023 ALLEY REHABILITATION PROJECT
 ALLEY E
 GRADING PLAN - 10+00 TO 13+00
 SPARKS
 WASHOE COUNTY
 NEVADA

REV	DATE	DESCRIPTION	BY

BAR IS 1 INCH ON ORIGINAL DRAWING
0 N/A
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

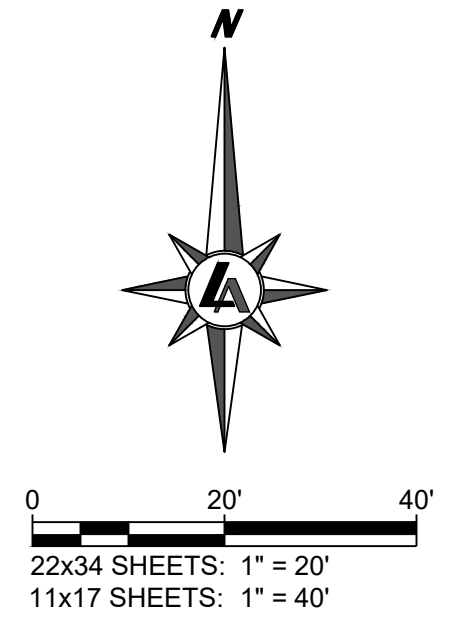
C4.0
DRAWN BY: TDA / MEP
DESIGNED BY: TDA
CHECKED BY: AJG
JOB NO.: 10687.000

L:\A\Proj\10687.000 - City of Sparks Pavement Mgmt. Program - Alley E Design\DWG\Sheets\10687000GRADING.dwg,C4.0, 10/20/2023 03:08 pm, lodams



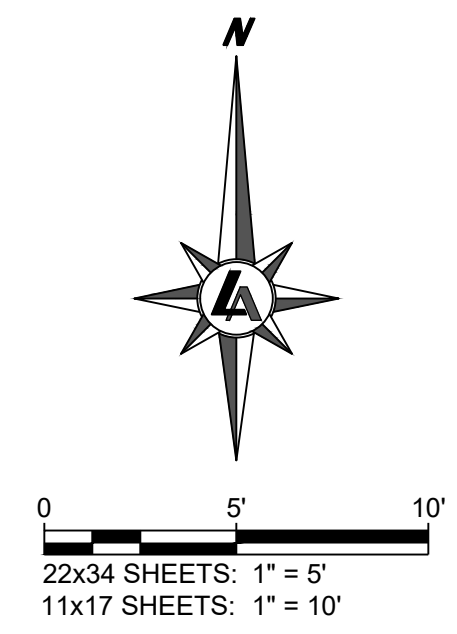
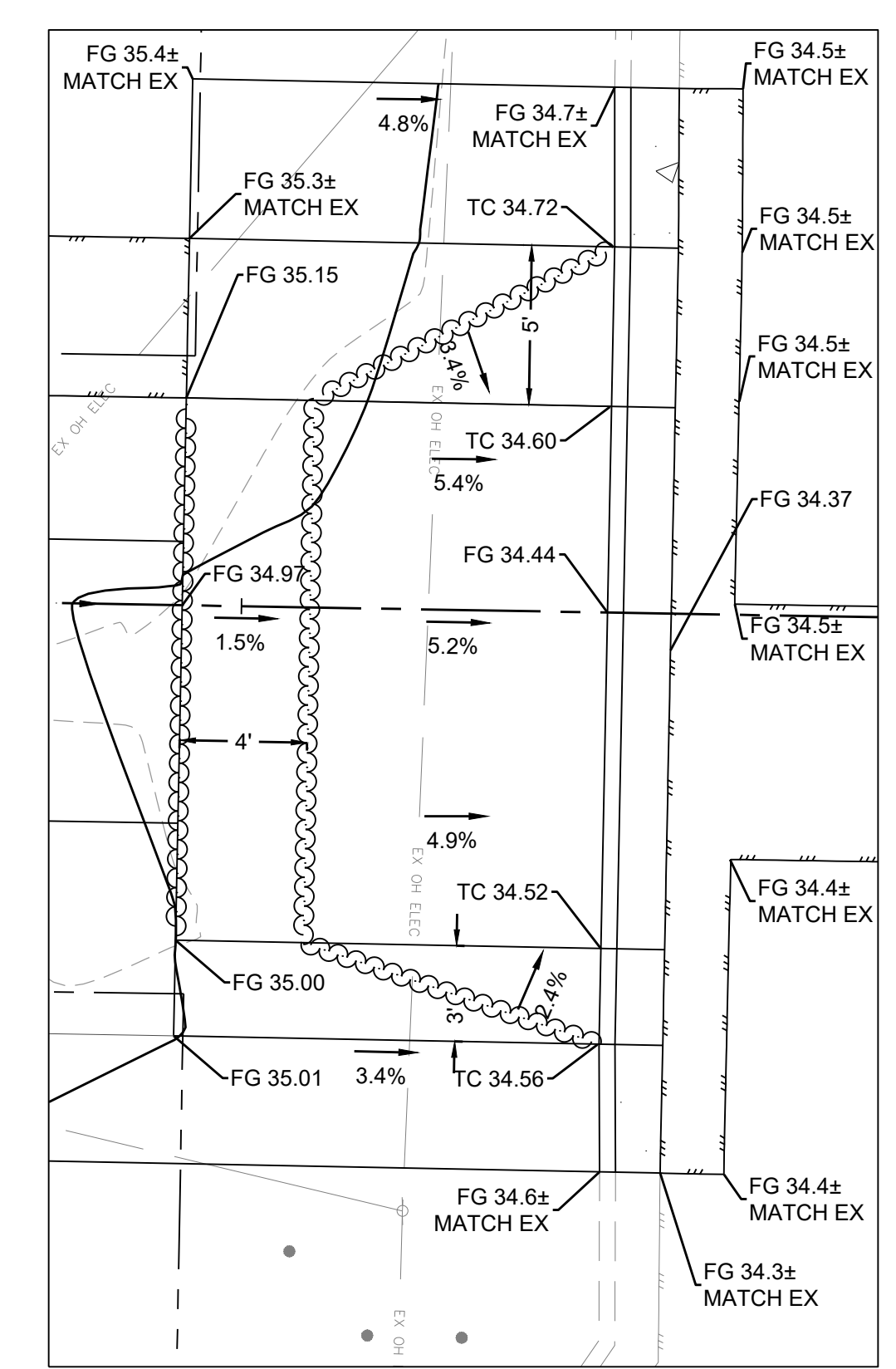
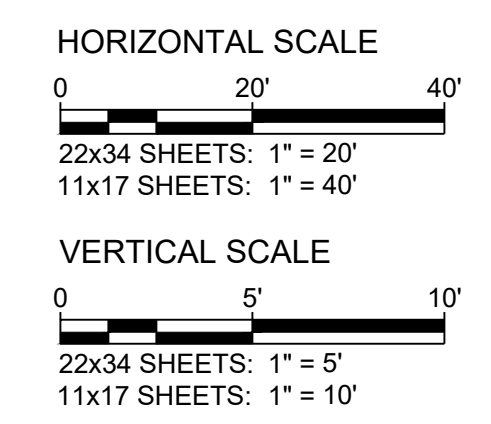
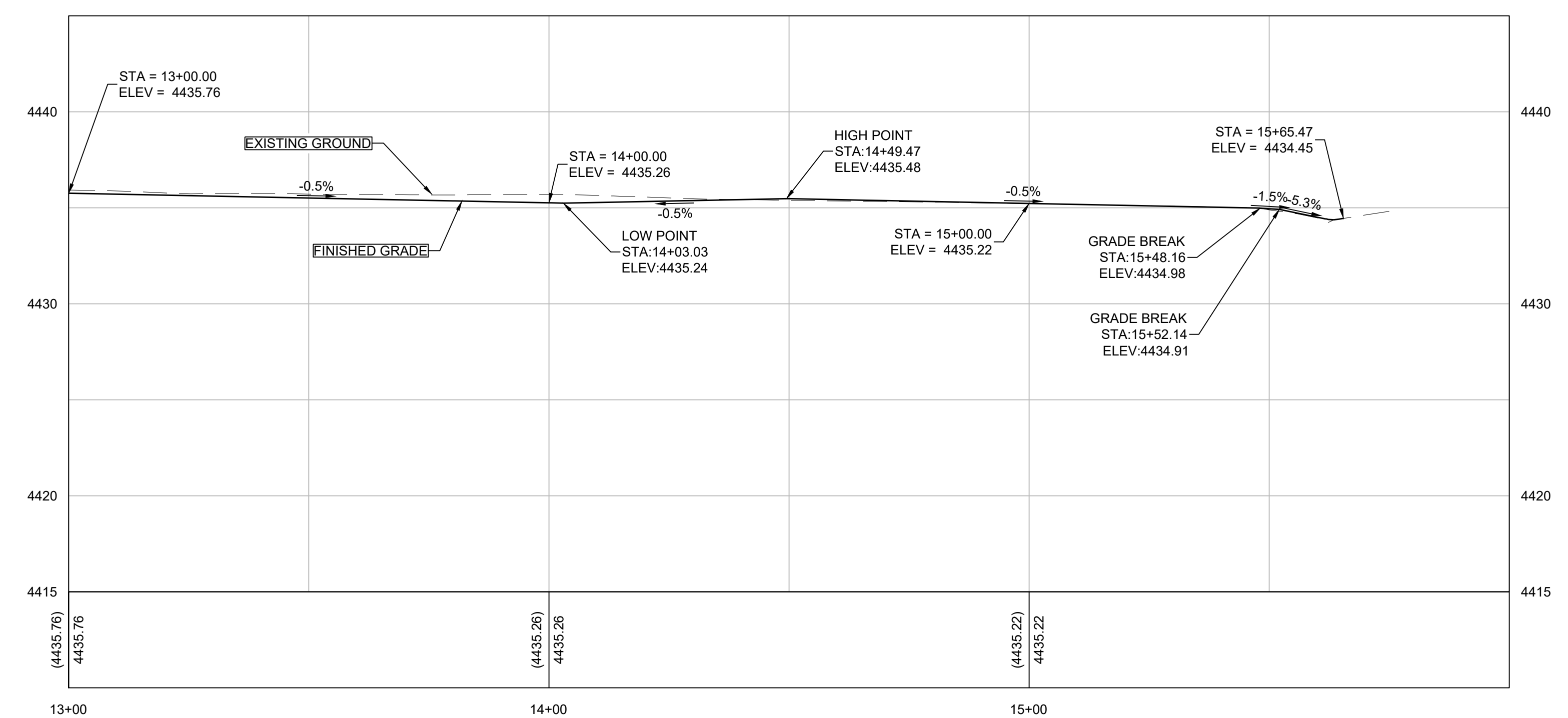
GRADING NOTES

1. EXPANSION JOINTS SHALL BE LOCATED AT ALL INTERFACES OF PCC PAVEMENT WITH PCC CURB, MANHOLES/CATCH BASINS, AND POLES. SEE DETAIL C104 / D1.0
2. SITE GRADING SHALL BE CONSIDERED AS PART OF REMOVAL AND REPLACEMENT OF THE ALLEYWAY SECTION. REFER TO GEOTECHNICAL REPORT FOR OVER-EXCAVATION GUIDELINES.
3. REINFORCE PCC ADJACENT TO MANHOLES, UTILITY POLES, CATCH BASINS, VALVES, ETC. PER DETAIL C106 / D1.0.
4. PROTECT ALL EXISTING FENCING IN PLACE UNLESS NOTED OTHERWISE ON PLANS.
5. BUSHES AND TREES SHALL BE TRIMMED OR REMOVED AS NECESSARY FOR CONSTRUCTION BY AN ISA CERTIFIED ARBORIST. NO DIRECT PAYMENT FOR THIS WORK. COORDINATE WITH CITY OF SPARKS AND PROPERTY OWNER.
6. FOR UTILITY IMPROVEMENTS REFER TO SHEET C5.0 AND C5.1.
7. CONTRACTOR TO MATCH EXISTING CONCRETE GRADES FOR SIDEWALK AND CURB AND GUTTER.
8. ADD 4400 TO ALL ELEVATION CALLOUTS IN PLAN VIEW.



REFERENCE POINT (RP) TABLE		
POINT #	STATION / OFFSET	DESCRIPTION
RP 03	"W" 13+38.17, 0.00	FL JOG
RP 04	"W" 13+80.44, 0.00	FL JOG
RP 05	"W" 14+00.44, 0.00	FL JOG
RP 06	"W" 14+01.70, 0.00 LT	FL LOW POINT
RP 07	"W" 14+49.50, 0.00 LT	FL HIGH POINT
RP 08	"W" 15+48.16, 0.00 LT	END FL

ALLEY E FLOWLINE - STA:13+00 TO STA:16+00



21ST STREET DRIVEWAY APRON GRADING DETAIL



950 SANDHILL ROAD, SUITE 100
RENO, NV 89521
TEL: 775.827.6111
WWW.LUMOSINC.COM
INFO@LUMOSINC.COM

© LUMOS & ASSOCIATES, INC. THIS DRAWING IS THE PROPERTY OF LUMOS & ASSOCIATES, INC. USE OR REPRODUCTION OF THIS DRAWING IN WHOLE OR IN PART, WITHOUT THE WRITTEN PERMISSION OF LUMOS & ASSOCIATES, INC. IS STRICTLY PROHIBITED. THIS DRAWING IS NOT TO BE USED FOR ANY PROJECT OTHER THAN THE PROJECT FOR WHICH IT WAS PREPARED.



CITY OF SPARKS
 2023 ALLEY REHABILITATION PROJECT
 ALLEY E
 GRADING PLAN - 13+00 TO 15+70
 SPARKS
 WASHOE COUNTY
 NEVADA

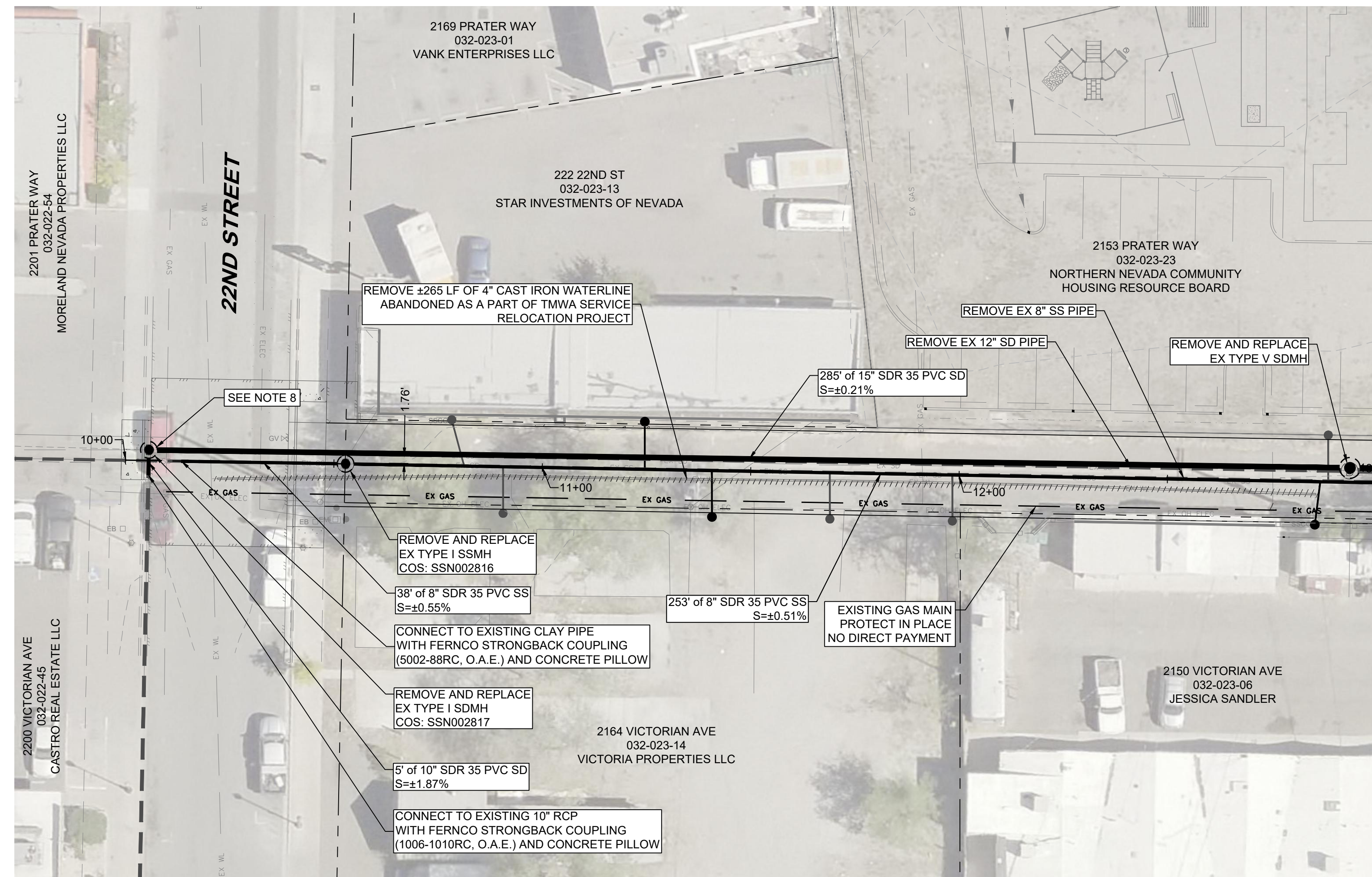
REV	DATE	DESCRIPTION

BAR IS 1 INCH ON ORIGINAL DRAWING
0 N/A
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

C4.1

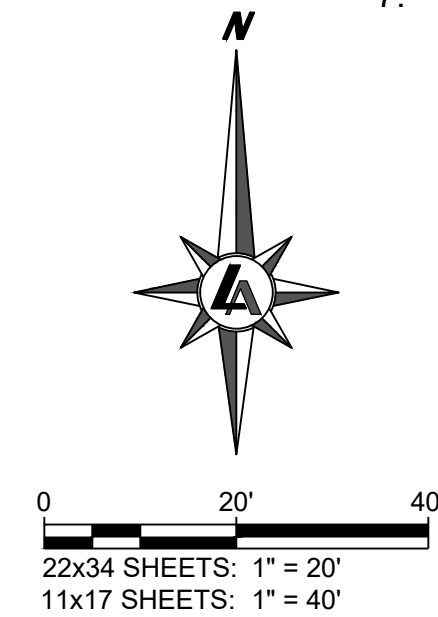
DRAWN BY: TDA / MEP
DESIGNED BY: TDA
CHECKED BY: AJG
JOB NO.: 10687.000

L:\A\Proj\10687.000 - City of Sparks Pavement Mgmt. Program - Alley E Design\DWG\Sheets\0687000GRADING.dwg,C4.1, 10/20/2023 03:08 pm, lodams



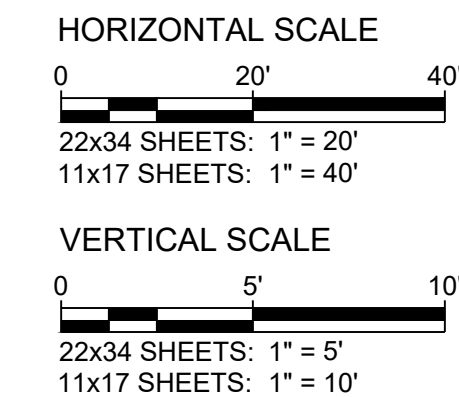
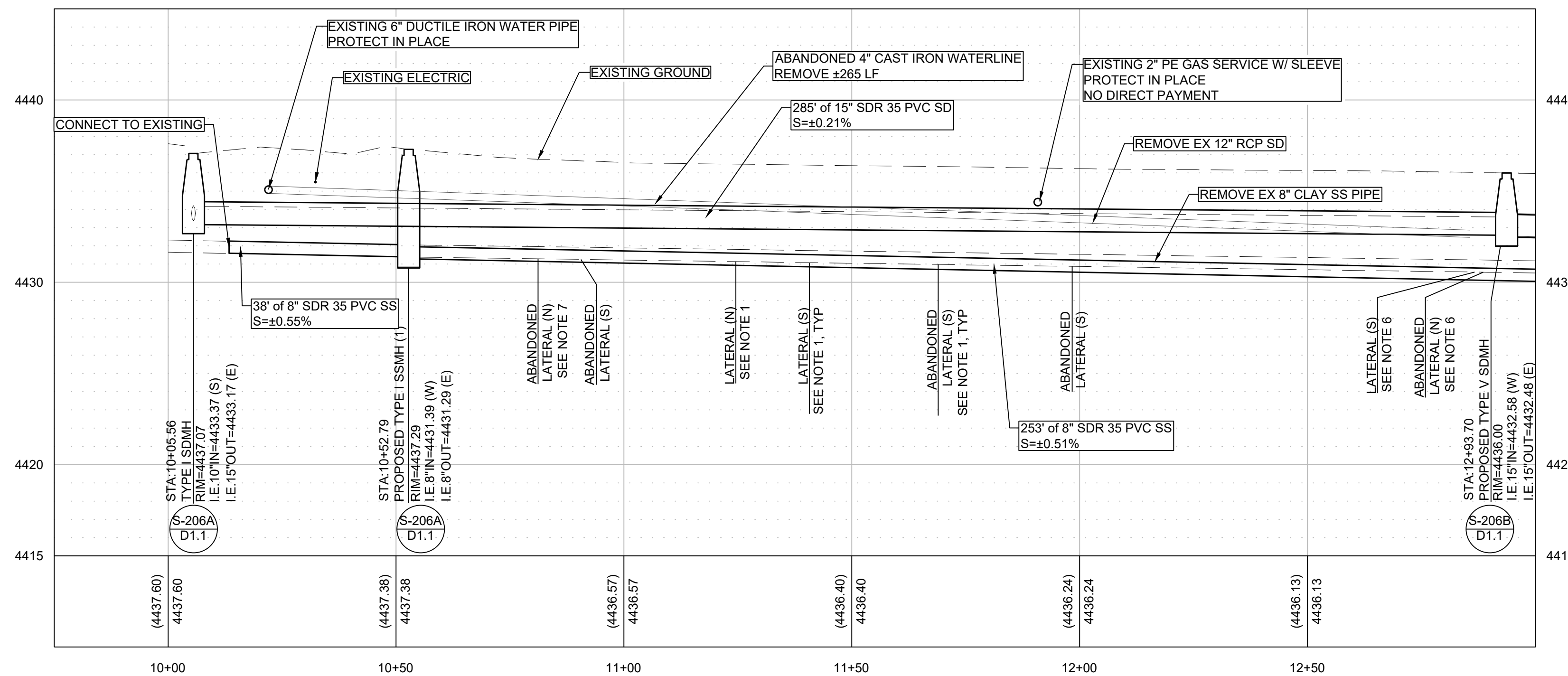
UTILITY NOTES:

1. LATERALS SHOWN AS APPROXIMATE. CONTRACTOR TO VERIFY ALL ACTIVE OR INACTIVE SEWER LATERALS BY DYE, SMOKE, PUSH CAMERA, ETC. AND RECONNECT ALL ACTIVE LATERALS AND INSTALL SANITARY SEWER CLEANOUT PER DETAIL C109 / D1.3.
2. CONTRACTOR TO SETUP MEANS OF BYPASS PUMPING FOR EXISTING FLOWS DURING INSTALLATION OF PROPOSED SANITARY SEWER.
3. CONTRACTOR TO USE STORM DRAIN INLET PROTECTION IN AND/OR AROUND ALL STORM DRAIN MANHOLES AND CATCH BASINS.
4. PROTECTION OF ALL UTILITIES IS THE RESPONSIBILITY OF THE CONTRACTOR. NOTE THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AND FEATURES SHOWN ON THESE DRAWINGS IS APPROXIMATE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO POTHOLE AND VERIFY THE LOCATIONS AND/OR ELEVATIONS PRIOR TO CONSTRUCTION. DISCREPANCIES BETWEEN THE EXISTING CONDITIONS IN THE FIELD AND THE INFORMATION SHOWN ON THESE DRAWINGS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER BEFORE PROCEEDING WITH CONSTRUCTION.
5. CLEANOUTS TO BE INSTALLED AT THE ALLEY EDGE UNLESS SUFFICIENT ROOM IS AVAILABLE BEHIND THE ALLEY EDGE.
6. EXISTING LATERAL TAP AT 12 O'CLOCK. DIRECTION IS APPROXIMATE. CONTRACTOR TO VERIFY.
7. CONTRACTOR TO VERIFY STORM AND SEWER ALIGNMENTS TO ENSURE ADEQUATE SEPARATION EXISTS TO UPSIZE STORM DRAIN TO 15" PIPE. DEFLECTION AT JOINTS MAY BE NECESSARY ADJACENT TO NEW MANHOLES. CONTRACTOR TO DEFLECT PER PIPE MANUFACTURER'S RECOMMENDATIONS.



CITY OF SPARKS
2023 ALLEY REHABILITATION PROJECT
ALLEY E
UTILITY PLAN - 10+00 TO 13+00
NEVADA
SPARKS
WASHOE COUNTY

ALLEY E - STA:9+75 TO STA:13+00



REV	DATE	DESCRIPTION	BY

BID SET
NOT FOR CONSTRUCTION

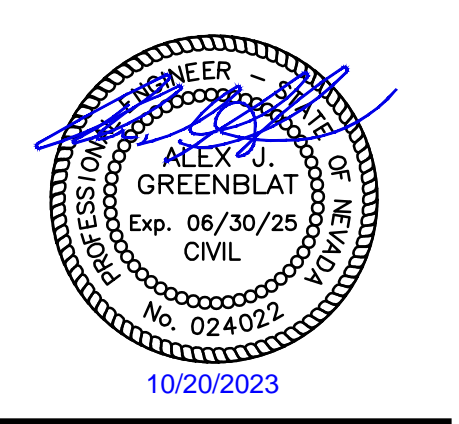
BAR IS 1 INCH ON ORIGINAL DRAWING
0 N/A

IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

C5.0

DRAWN BY: TDA / MEP
DESIGNED BY: TDA
CHECKED BY: AJG
JOB NO.: 10687.000

L:\A\Proj\10687.000 - City of Sparks Pavement Mgmt. Program - Alley E Design\DWG\Sheets\10687000\UTILITY.dwg,C5.0, 10/20/2023 03:08 pm lodams



CITY OF SPARKS
2023 ALLEY REHABILITATION PROJECT
ALLEY E
UTILITY PLAN - 13+00 TO 15+70
SPARKS WASHOE COUNTY NEVADA

REV	DATE	DESCRIPTION	BY

BID SET
NOT FOR CONSTRUCTION

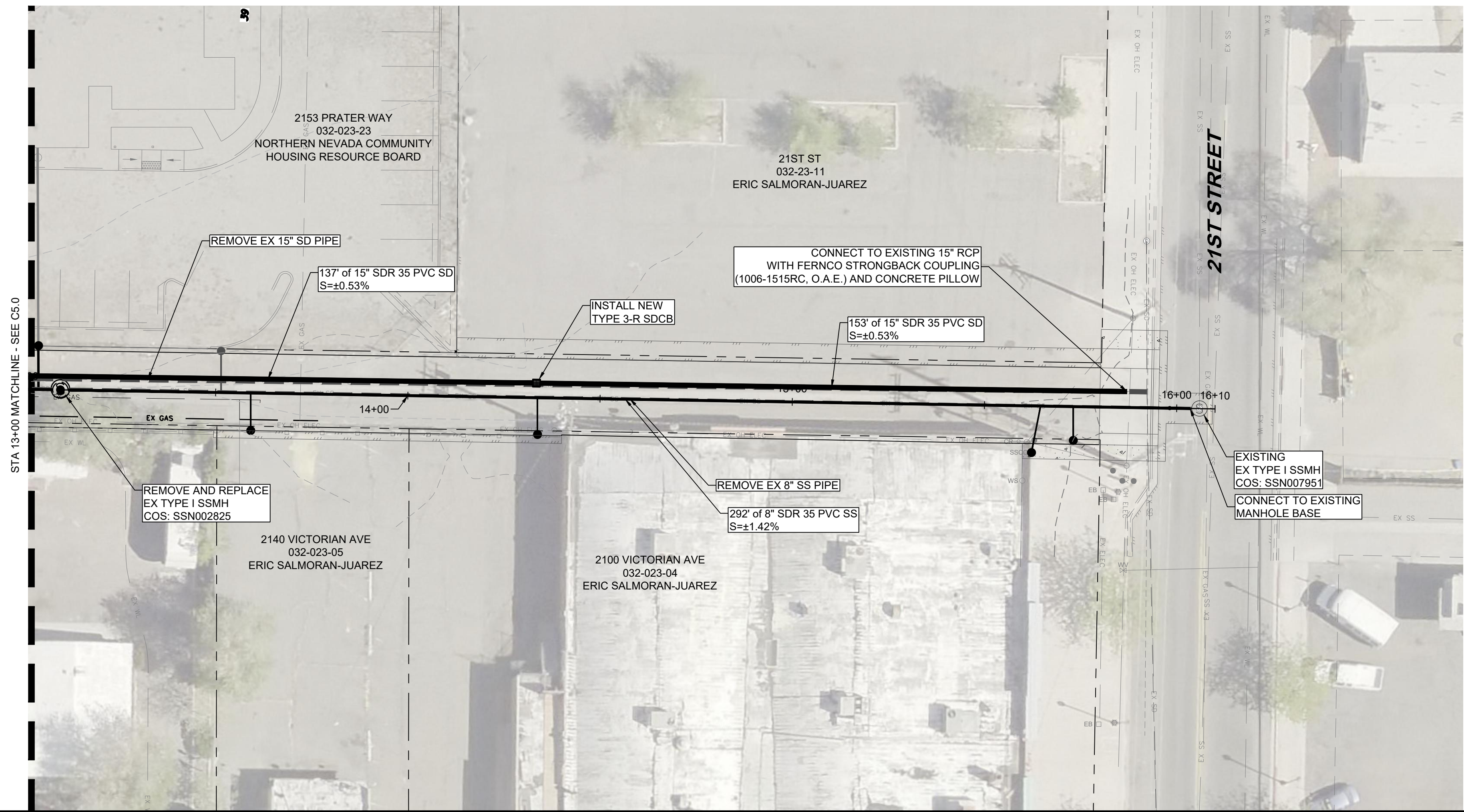
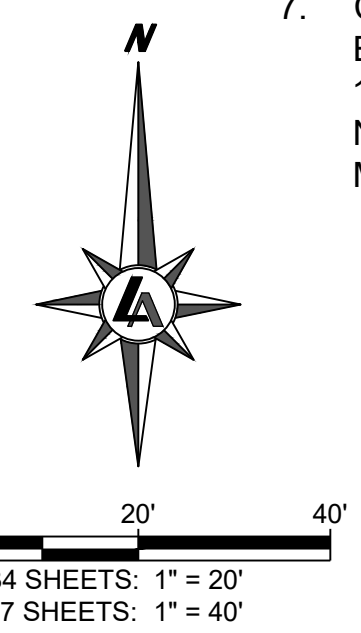
BAR IS 1 INCH ON ORIGINAL DRAWING
0 N/A
IF NOT ONE INCH ON THIS SHEET,
ADJUST SCALES ACCORDINGLY

C5.1

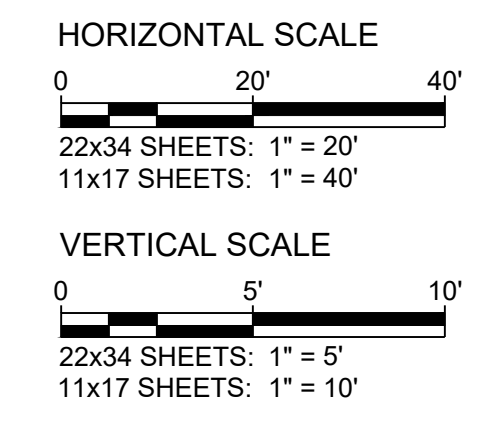
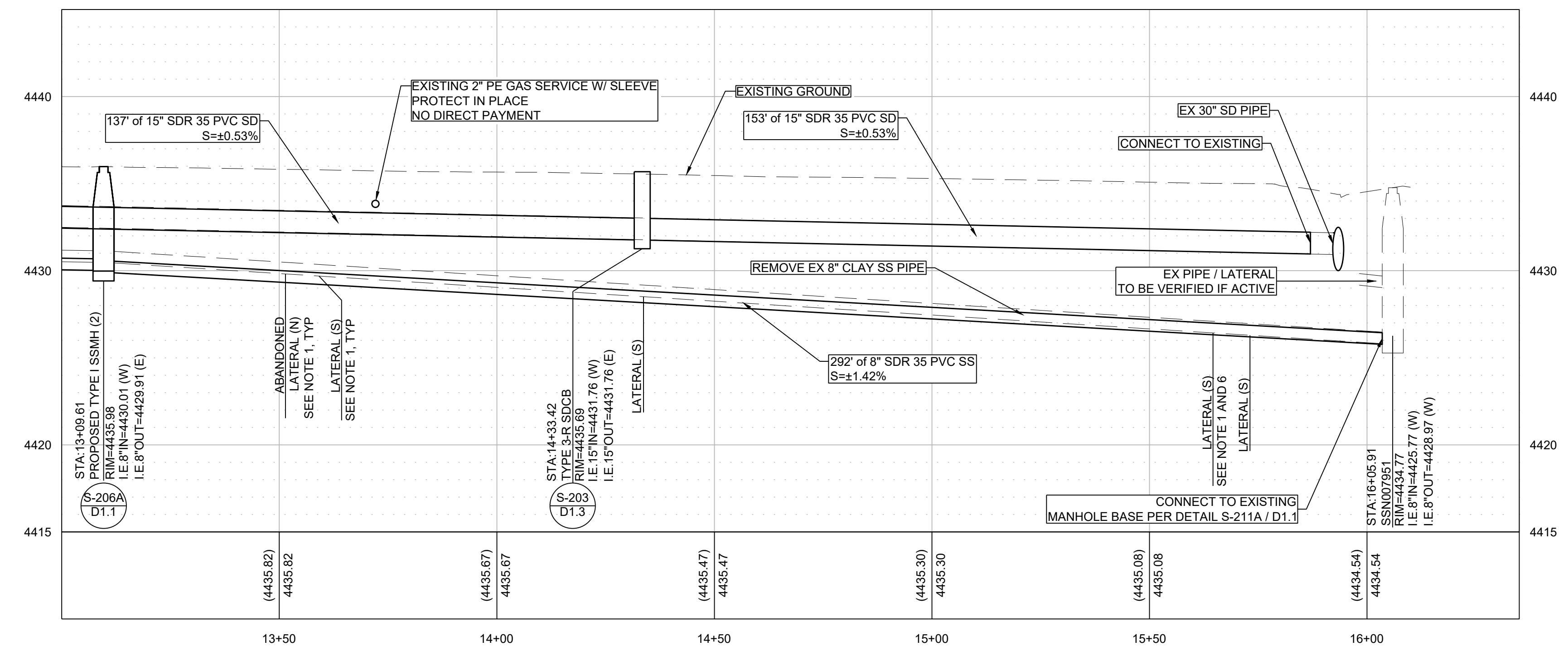
DRAWN BY: TDA / MEP
DESIGNED BY: TDA
CHECKED BY: AJG
JOB NO.: 10687.000

UTILITY NOTES:

- LATERALS SHOWN AS APPROXIMATE. CONTRACTOR TO VERIFY ALL ACTIVE OR INACTIVE SEWER LATERALS BY DYE, SMOKE, PUSH CAMERA, ETC. AND RECONNECT ALL ACTIVE LATERALS AND INSTALL SANITARY SEWER CLEANOUT PER DETAIL C109 / D1.3.
- CONTRACTOR TO SETUP MEANS OF BYPASS PUMPING FOR EXISTING FLOWS DURING INSTALLATION OF PROPOSED SANITARY SEWER.
- CONTRACTOR TO USE STORM DRAIN INLET PROTECTION IN AND/OR AROUND ALL STORM DRAIN MANHOLES AND CATCH BASINS.
- PROTECTION OF ALL UTILITIES IS THE RESPONSIBILITY OF THE CONTRACTOR. NOTE THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AND FEATURES SHOWN ON THESE DRAWINGS IS APPROXIMATE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO POTHOLE AND VERIFY THE LOCATIONS AND/OR ELEVATIONS PRIOR TO CONSTRUCTION. DISCREPANCIES BETWEEN THE EXISTING CONDITIONS IN THE FIELD AND THE INFORMATION SHOWN ON THESE DRAWINGS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER BEFORE PROCEEDING WITH CONSTRUCTION.
- CLEANOUTS TO BE INSTALLED AT THE ALLEY EDGE UNLESS SUFFICIENT ROOM IS AVAILABLE BEHIND THE ALLEY EDGE.
- EXISTING LATERAL TAP AT 12 O'CLOCK. DIRECTION IS APPROXIMATE. CONTRACTOR TO VERIFY.
- CONTRACTOR TO VERIFY STORM AND SEWER ALIGNMENTS TO ENSURE ADEQUATE SEPARATION EXISTS TO UPSIZE STORM DRAIN TO 15" PIPE. DEFLECTION AT JOINTS MAY BE NECESSARY ADJACENT TO NEW MANHOLES. CONTRACTOR TO DEFLECT PER PIPE MANUFACTURER'S RECOMMENDATIONS.



ALLEY E - STA:13+00 TO STA:16+35



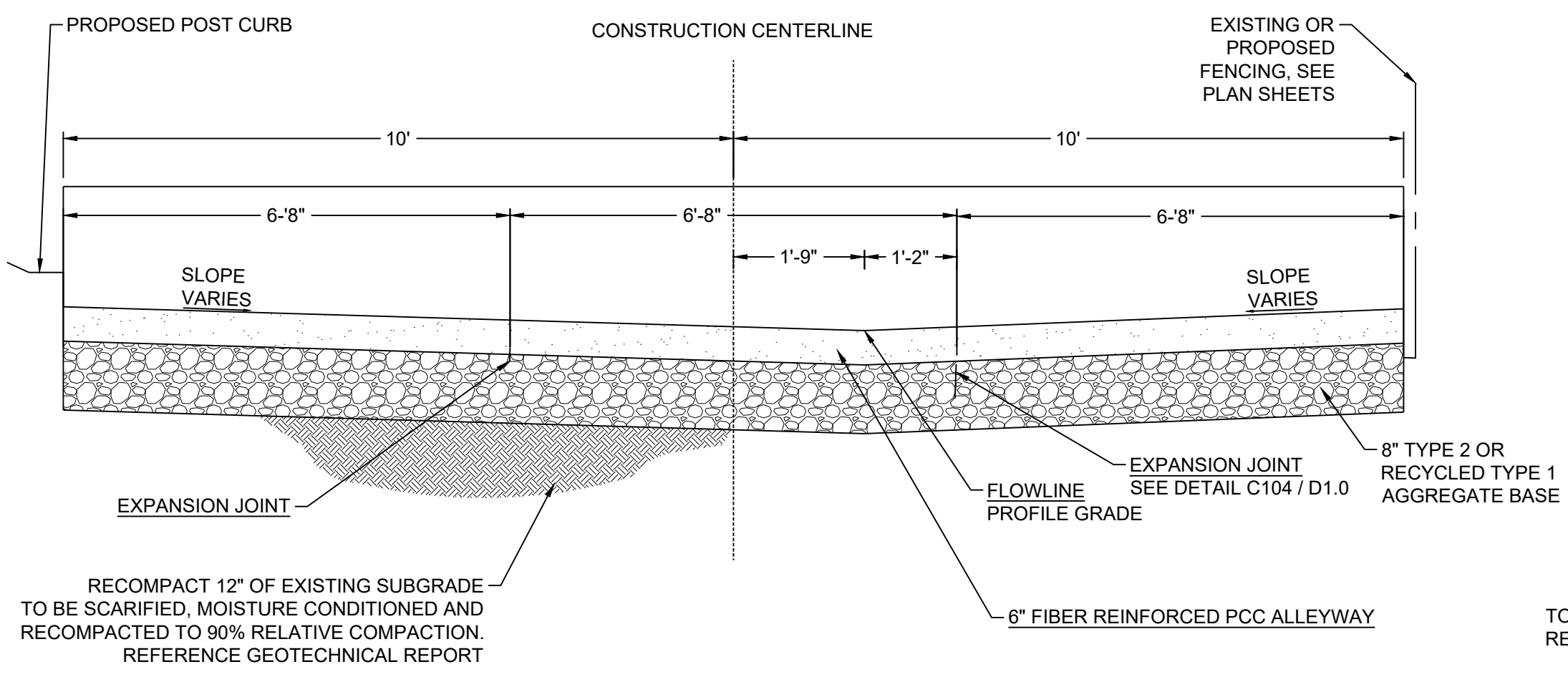
L:\APro\10687.000 - City of Sparks Pavement Mgmt. Program - Alley E Design\DWG\Sheets\10687000\UTILITY.dwg,C5.1, 10/20/2023 03:08 pm lodams



CITY OF SPARKS
2023 ALLEY REHABILITATION PROJECT
ALLEY E
DETAIL SHEET
 WASHOE COUNTY
 NEVADA
 SPARKS

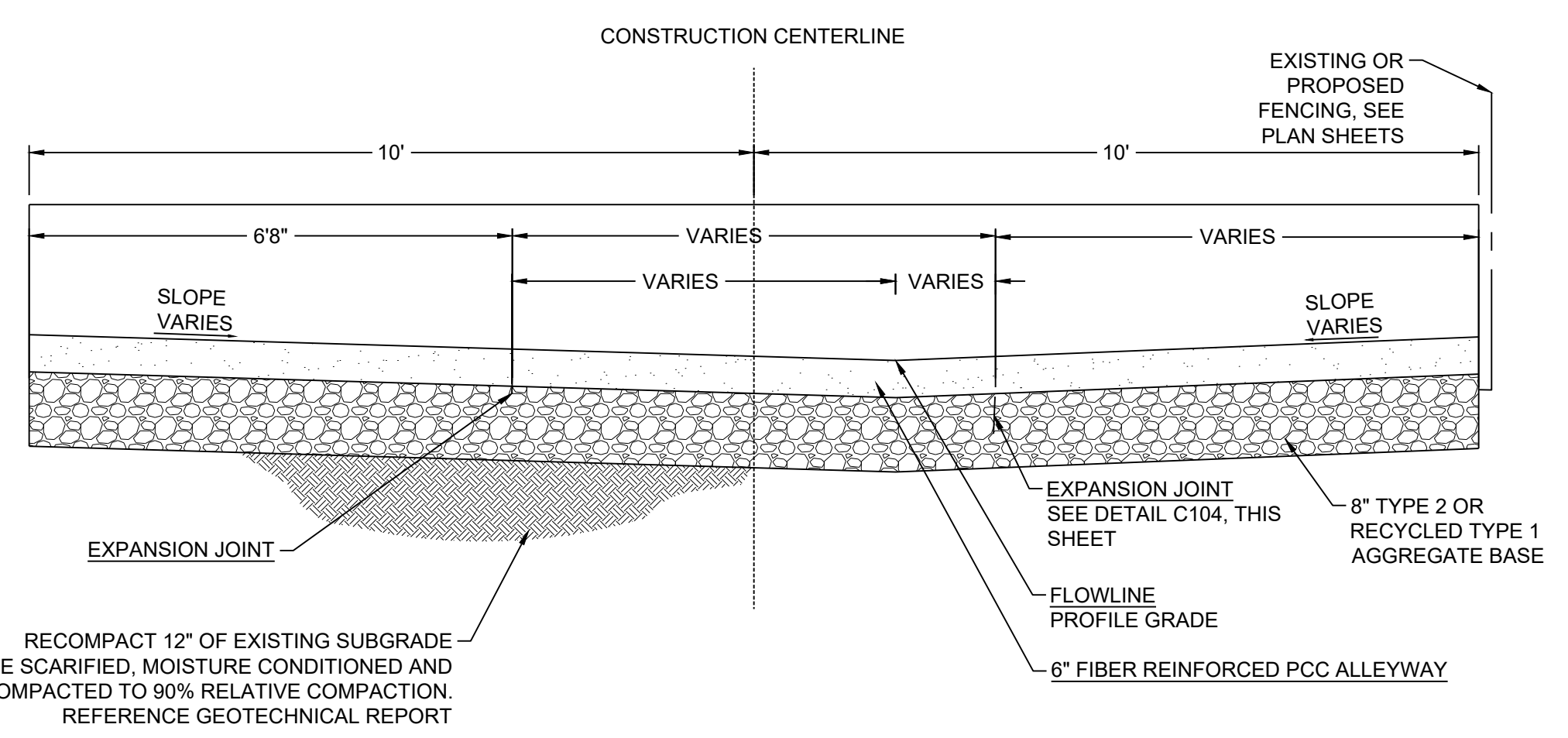
REV	DATE	DESCRIPTION

BAR IS 1 INCH ON ORIGINAL DRAWING
 0 N/A
 IF NOT ONE INCH ON THIS SHEET,
 ADJUST SCALES ACCORDINGLY
D1.0
 DRAWN BY: TDA / MEP
 DESIGNED BY: TDA
 CHECKED BY: AJG
 JOB NO.: 10687.000



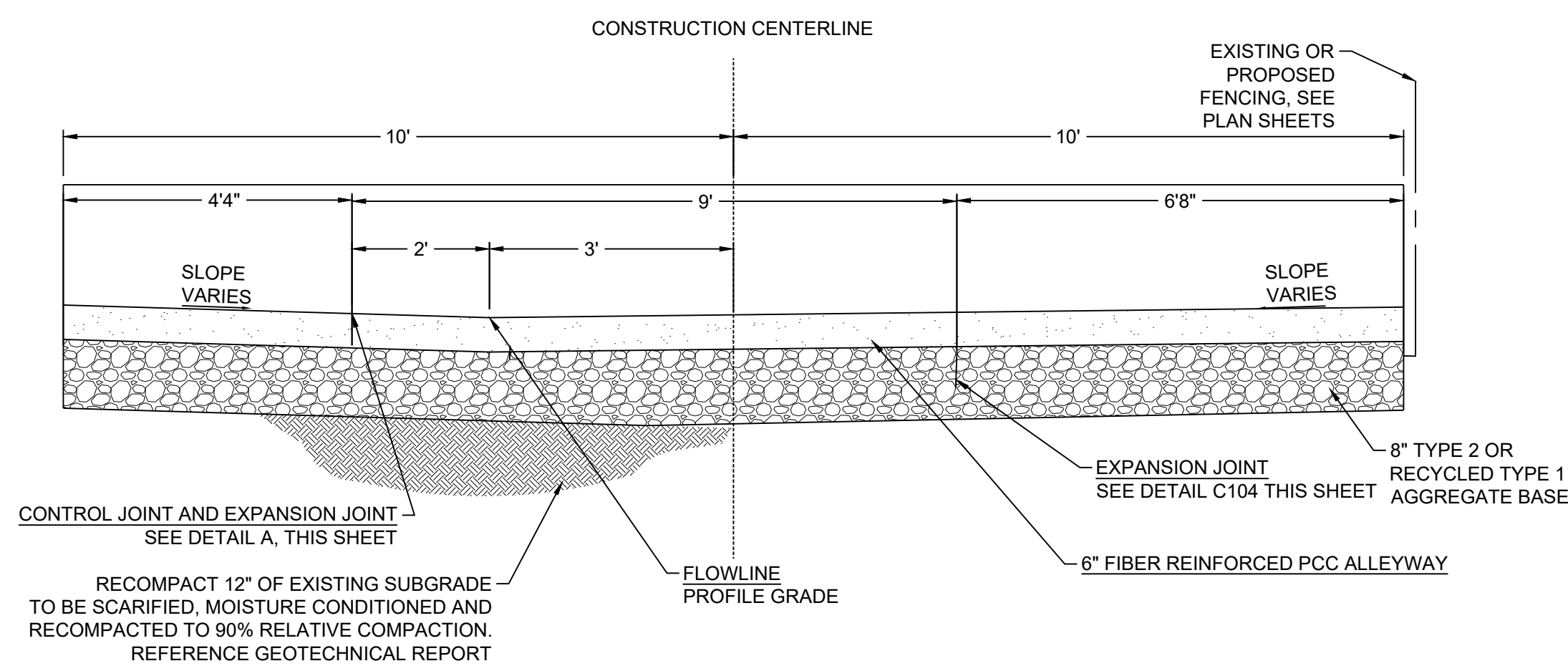
- NOTES:
- CONTRACTOR TO POUR VALLEY GUTTER LIMITS AS SHOWN ON PLAN ABOVE FIRST AND SEPARATELY FROM REMAINING PCC WIDTH.

C100
D1.0 **PROPOSED SECTION OF IMPROVEMENT ALLEY "E"**
STA: 10+15.83 TO 12+46.89 SCALE: NTS



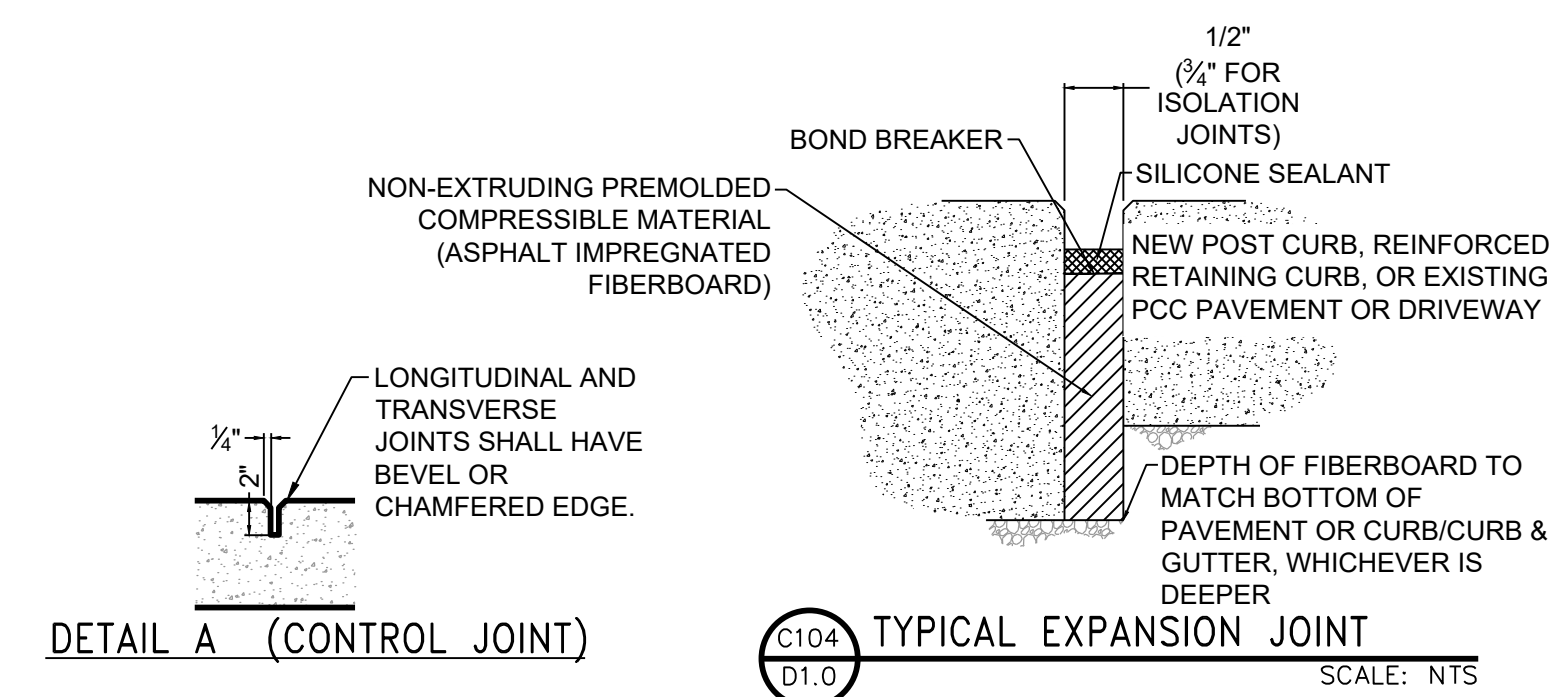
- NOTES:
- CONTRACTOR TO POUR VALLEY GUTTER LIMITS AS SHOWN ON PLAN ABOVE FIRST AND SEPARATELY FROM REMAINING PCC WIDTH.

C101
D1.0 **PROPOSED SECTION OF IMPROVEMENT ALLEY "E"**
STA: 12+46.89 TO 14+00.44 SCALE: NTS

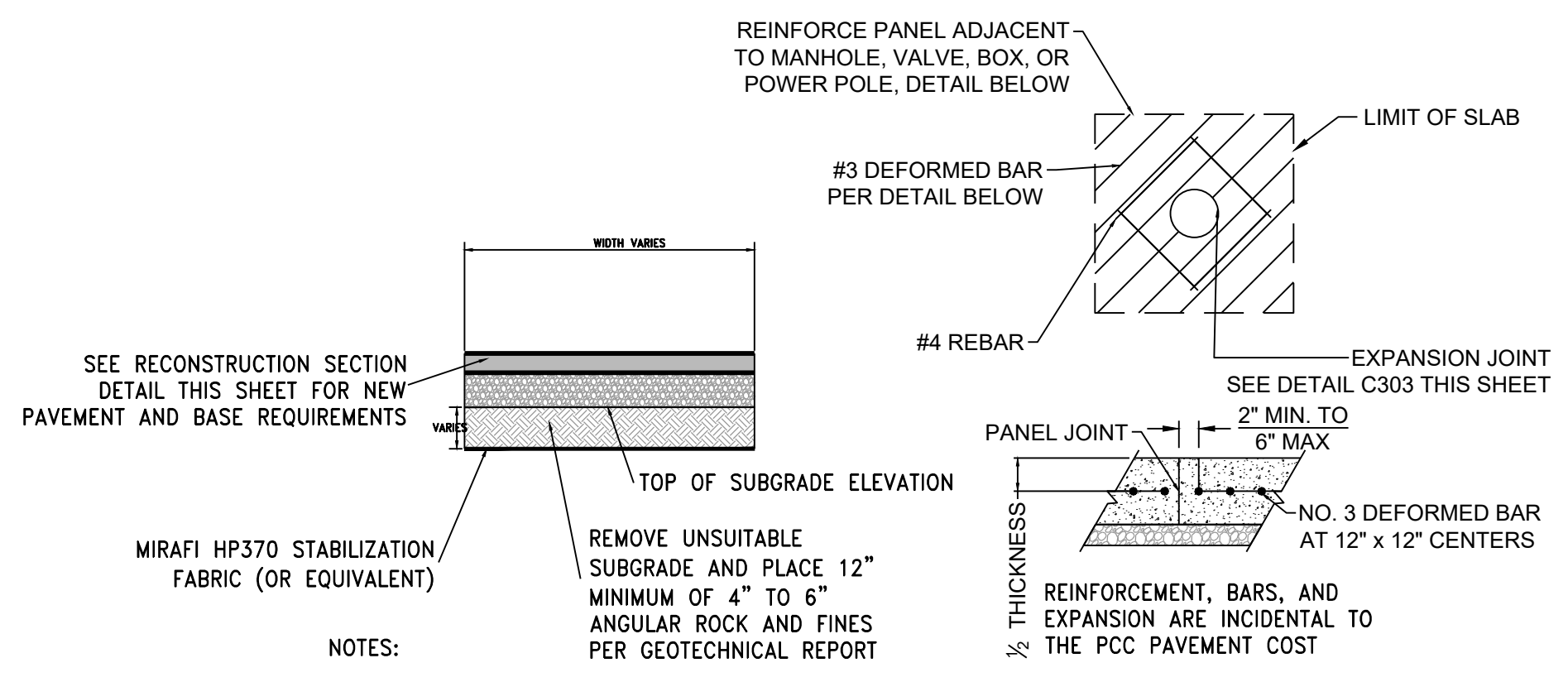


- NOTES:
- CONTRACTOR TO POUR VALLEY GUTTER LIMITS AS SHOWN ON PLAN ABOVE FIRST AND SEPARATELY FROM REMAINING PCC WIDTH.

C102
D1.0 **PROPOSED SECTION OF IMPROVEMENT ALLEY "E"**
STA: 14+00.44 TO 15+48.16 SCALE: NTS



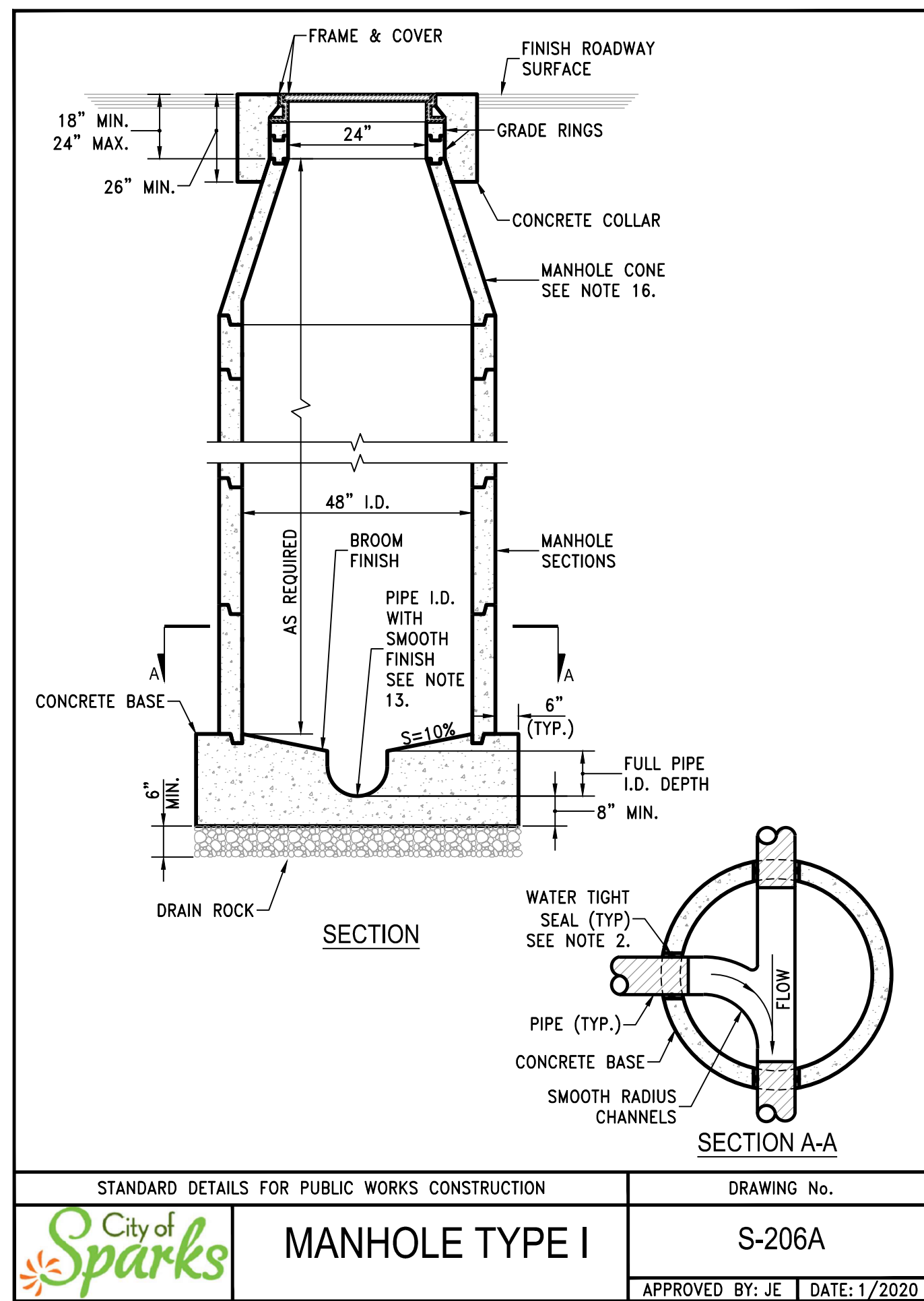
C104
D1.0 **TYPICAL EXPANSION JOINT**
SCALE: NTS



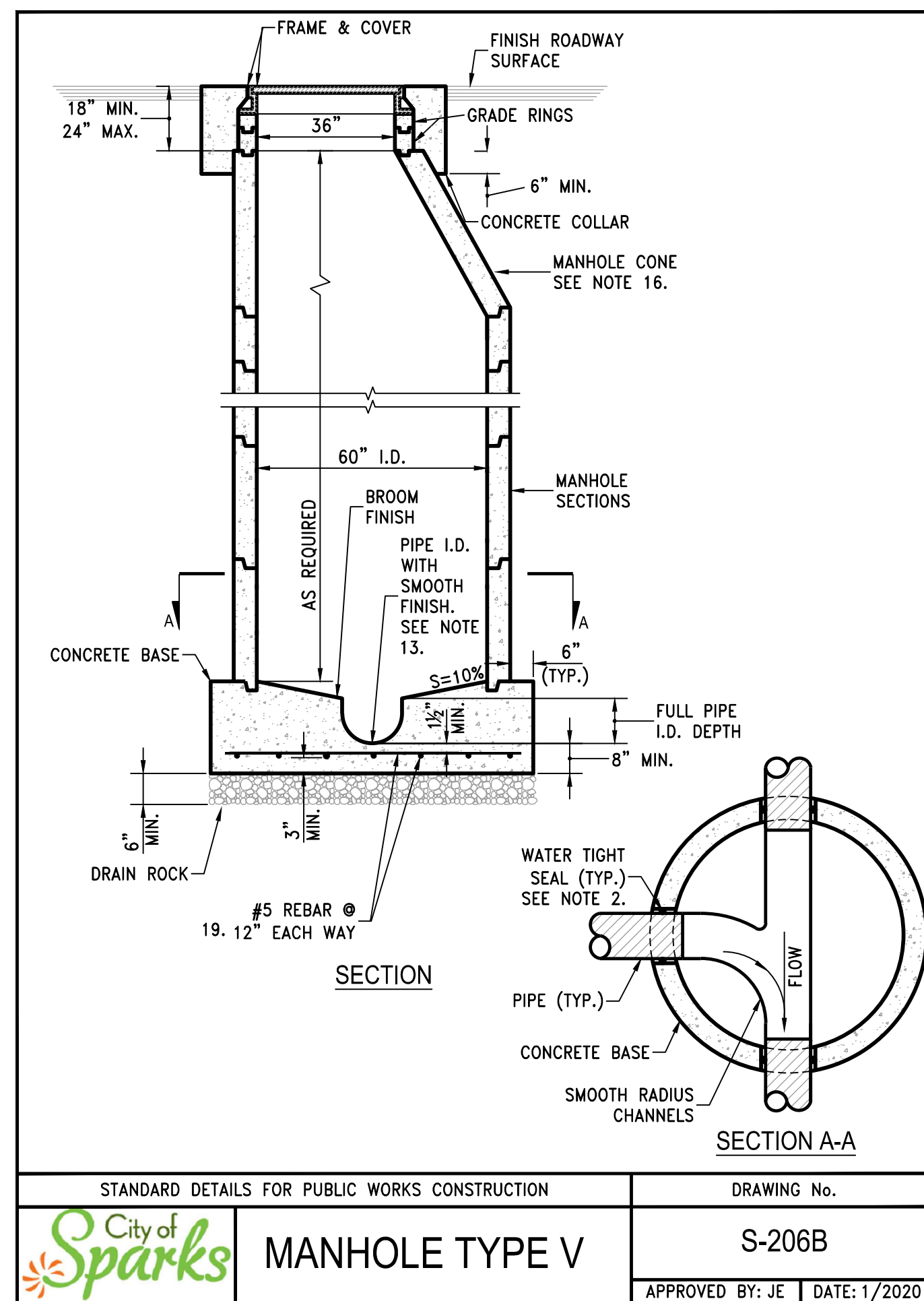
C105
D1.0 **TYPICAL OVER-EXCAVATION SECTION**
SCALE: NTS

C106
D1.0 **REINFORCEMENT DETAIL FOR MANHOLES, VALVES, AND POLES**
SCALE: NTS

L:\A\Pro\10687.000 - City of Sparks Pavement Mgmt. Program - Alley E Design\DWG\Sheets\106870000\DETAILS.dwg, D1.0, 10/20/2023 03:09 pm, lodams



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

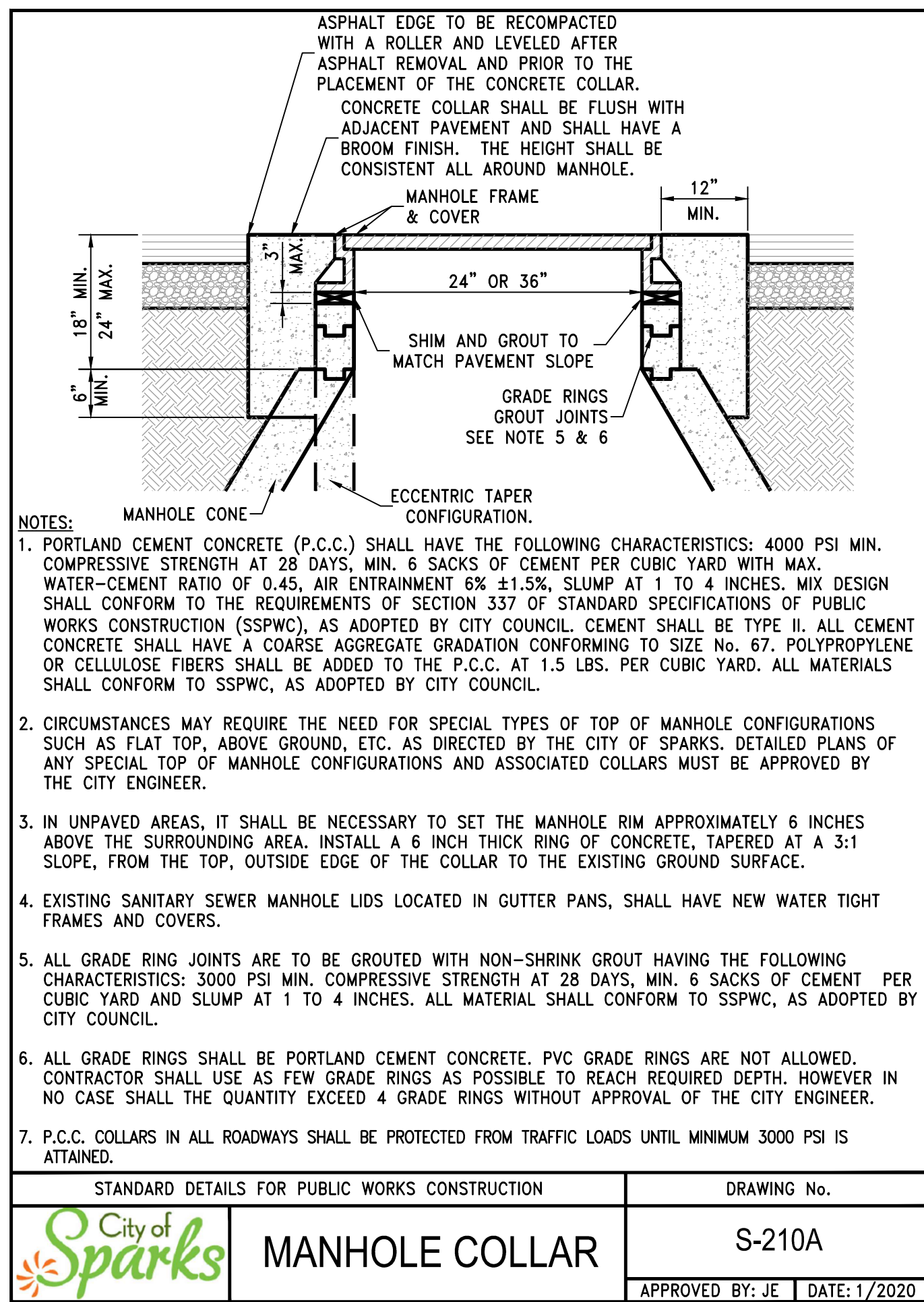


STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION DRAWING No. S-206B
City of Sparks MANHOLE TYPE V
 APPROVED BY: JE DATE: 1/2020

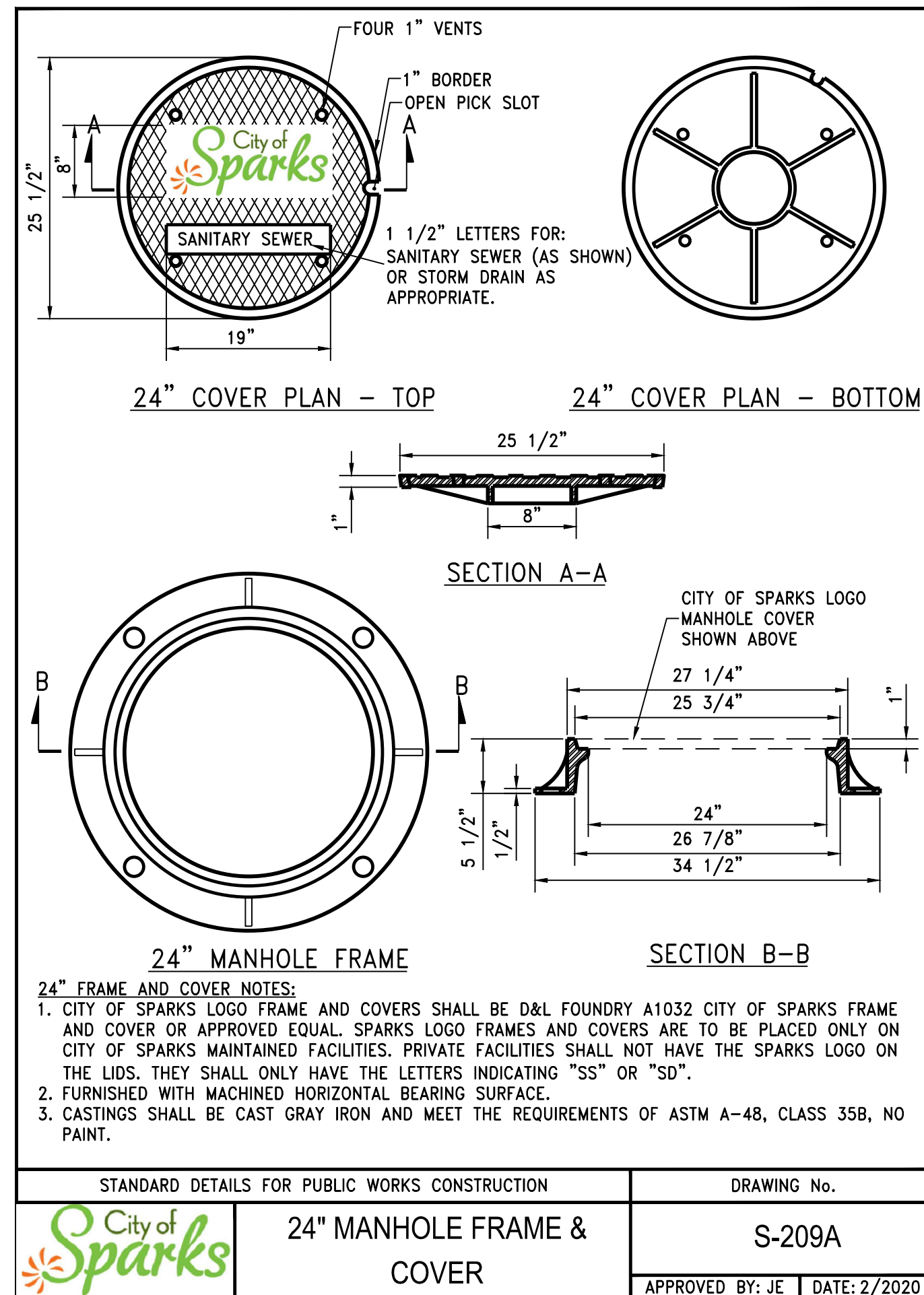
GENERAL MANHOLE NOTES

- 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.
- TYPE IV MANHOLES SHOULD ONLY BE USED AS APPROVED BY CITY ENGINEER
- ALL MANHOLE BARREL JOINTS TO BE RAPPED WITH EXTERNAL JOINT WRAP M-860 OR APPROVED EQUAL.

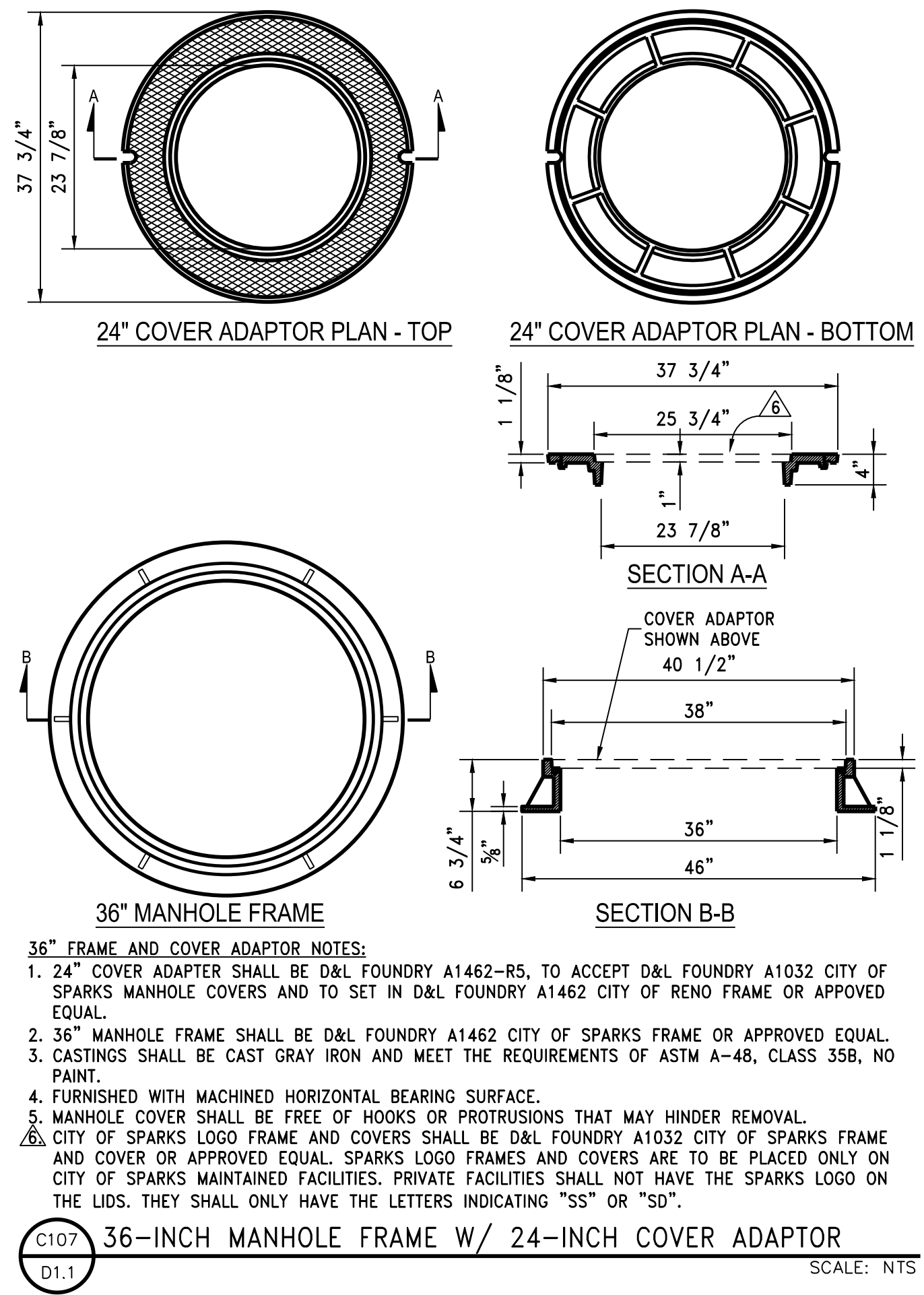
STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION DRAWING No. S-206D
City of Sparks NOTES - MANHOLE TYPE I, TYPE V & TYPE IV
 APPROVED BY: JE DATE: 1/2020



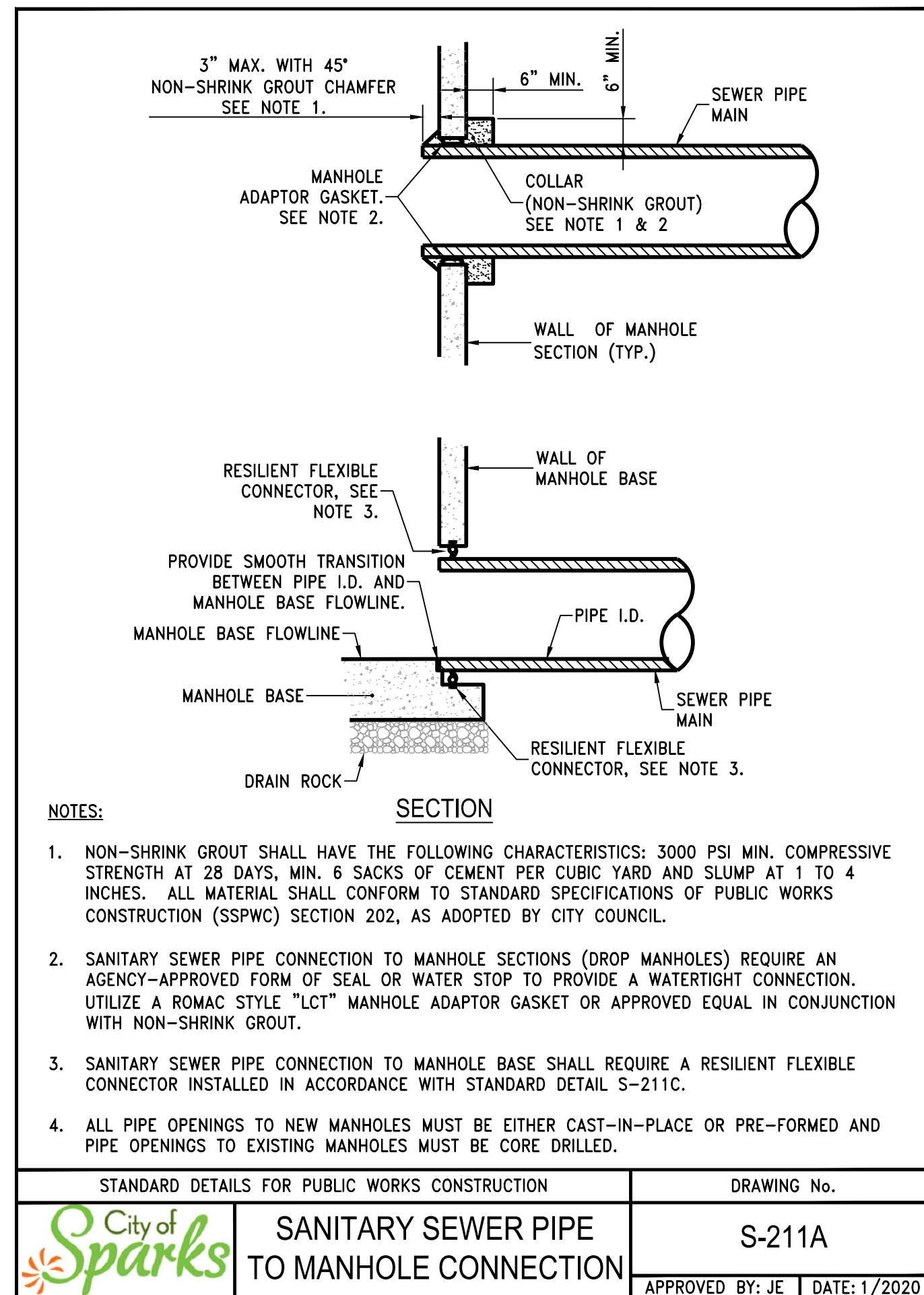
STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION DRAWING No. S-210A
City of Sparks MANHOLE COLLAR
 APPROVED BY: JE DATE: 1/2020



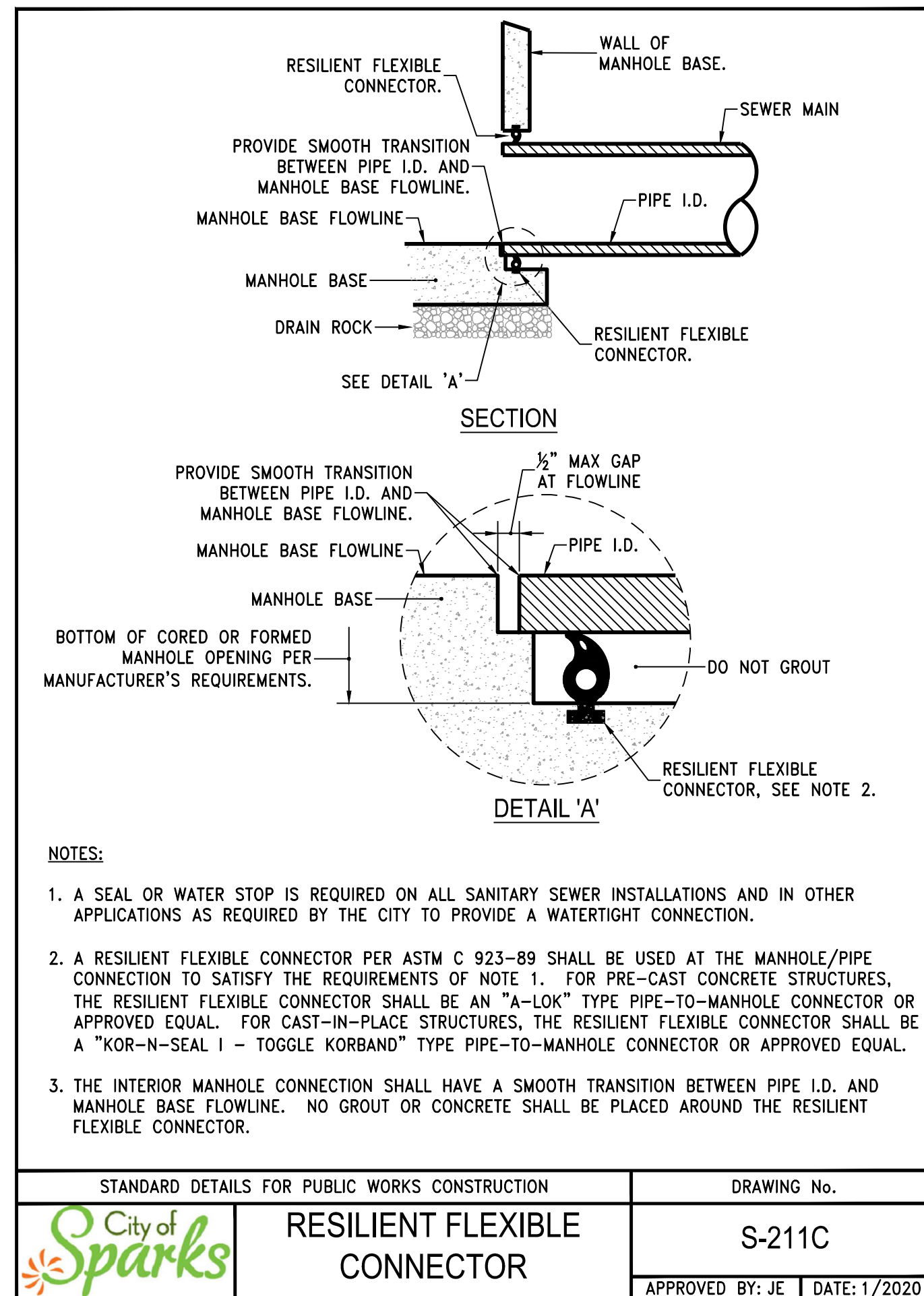
STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION DRAWING No. S-209A
City of Sparks 24" MANHOLE FRAME & COVER
 APPROVED BY: JE DATE: 2/2020



STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION DRAWING No. S-210A
City of Sparks 36-INCH MANHOLE FRAME W/ 24-INCH COVER ADAPTOR
 SCALE: NTS



STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION DRAWING No. S-211A
City of Sparks SANITARY SEWER PIPE TO MANHOLE CONNECTION
 APPROVED BY: JE DATE: 1/2020



STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION DRAWING No. S-211C
City of Sparks RESILIENT FLEXIBLE CONNECTOR
 APPROVED BY: JE DATE: 1/2020

LUMOS & ASSOCIATES
 950 SANDHILL ROAD, SUITE 100
 RENO, NV 89521
 TEL: 775.827.6111
 WWW.LUMOSINC.COM
 INFO@LUMOSINC.COM



CITY OF SPARKS
 2023 ALLEY REHABILITATION PROJECT
 ALLEY E
 DETAIL SHEET
 WASHOE COUNTY
 NEVADA
 SPARKS

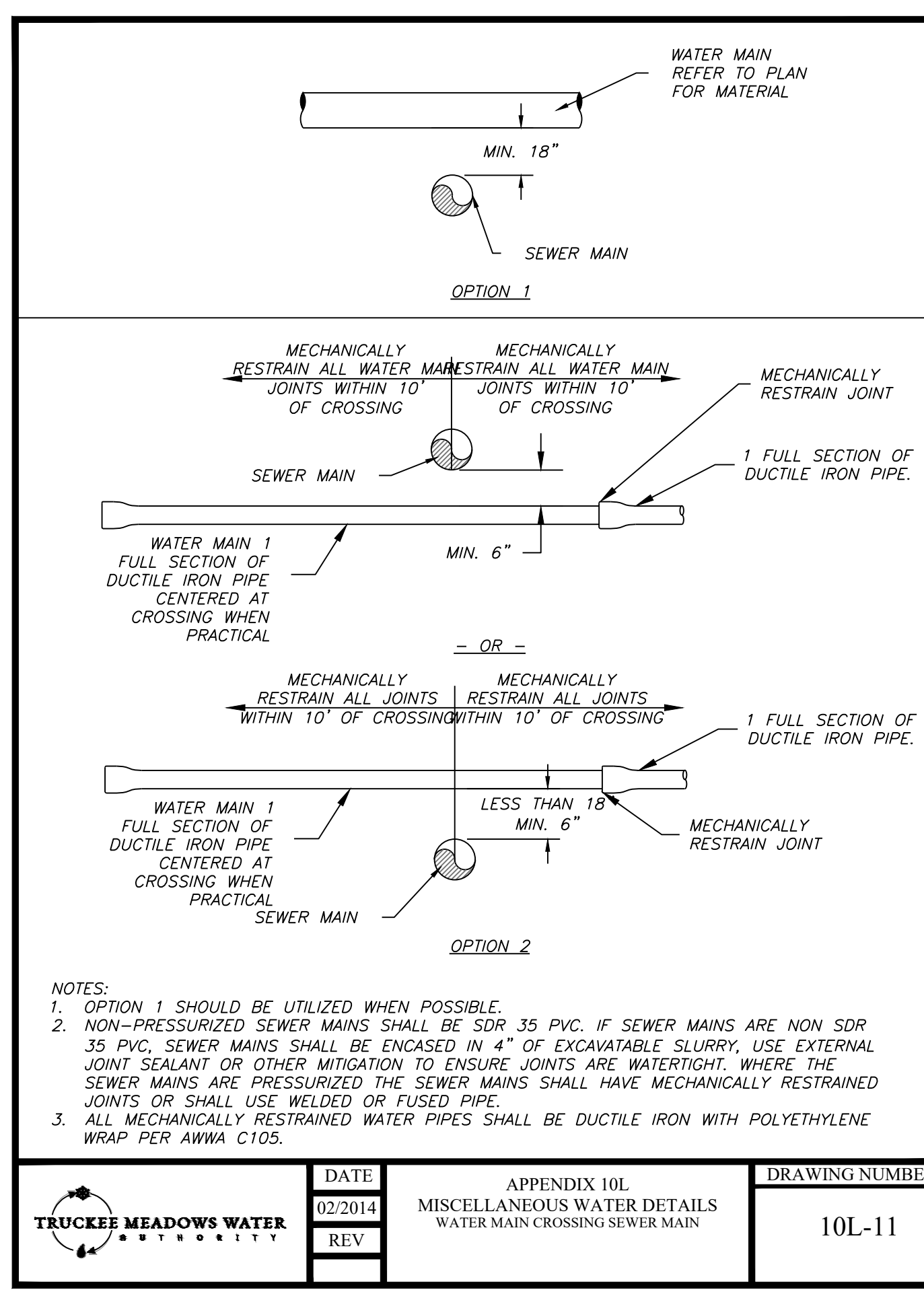
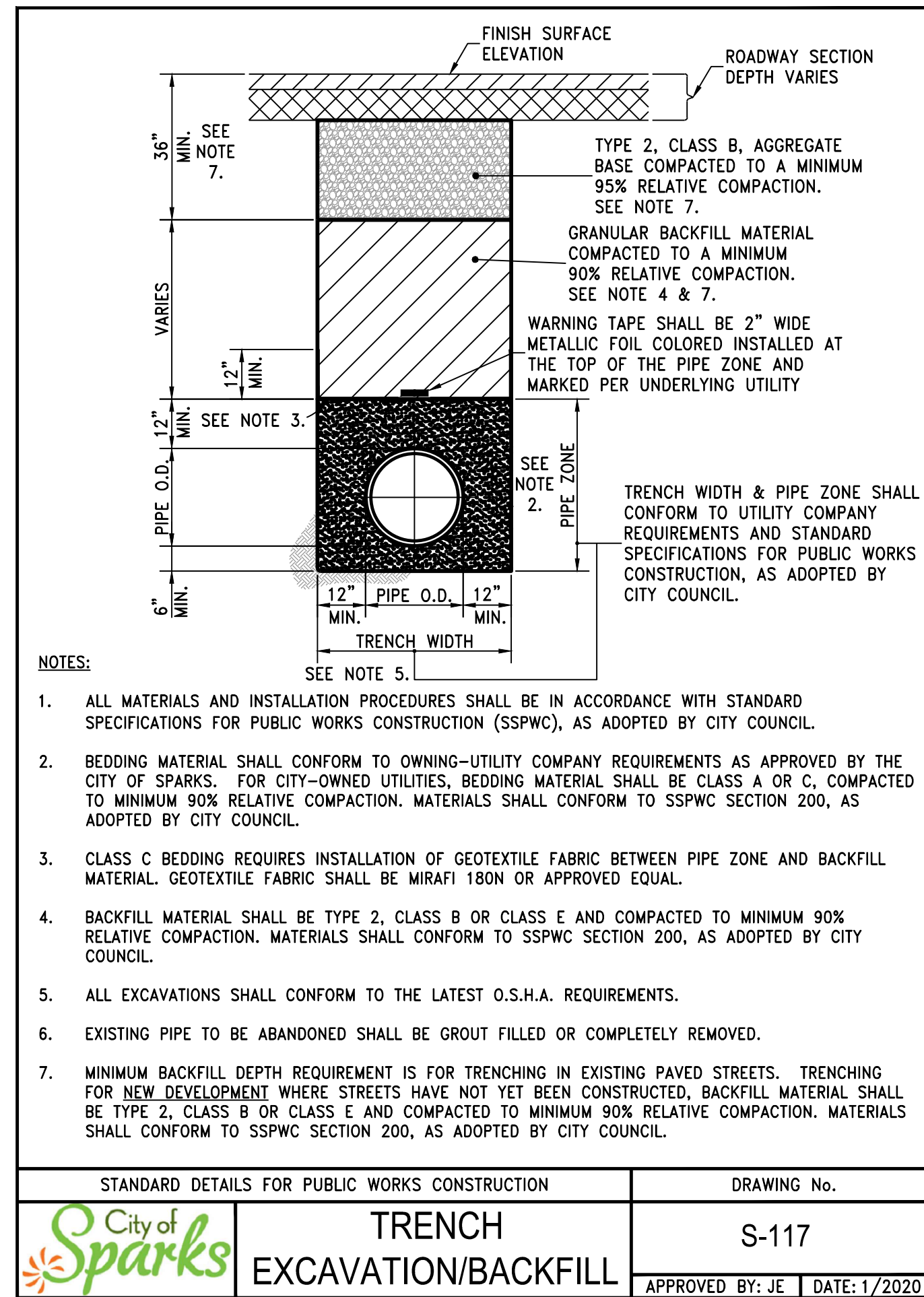
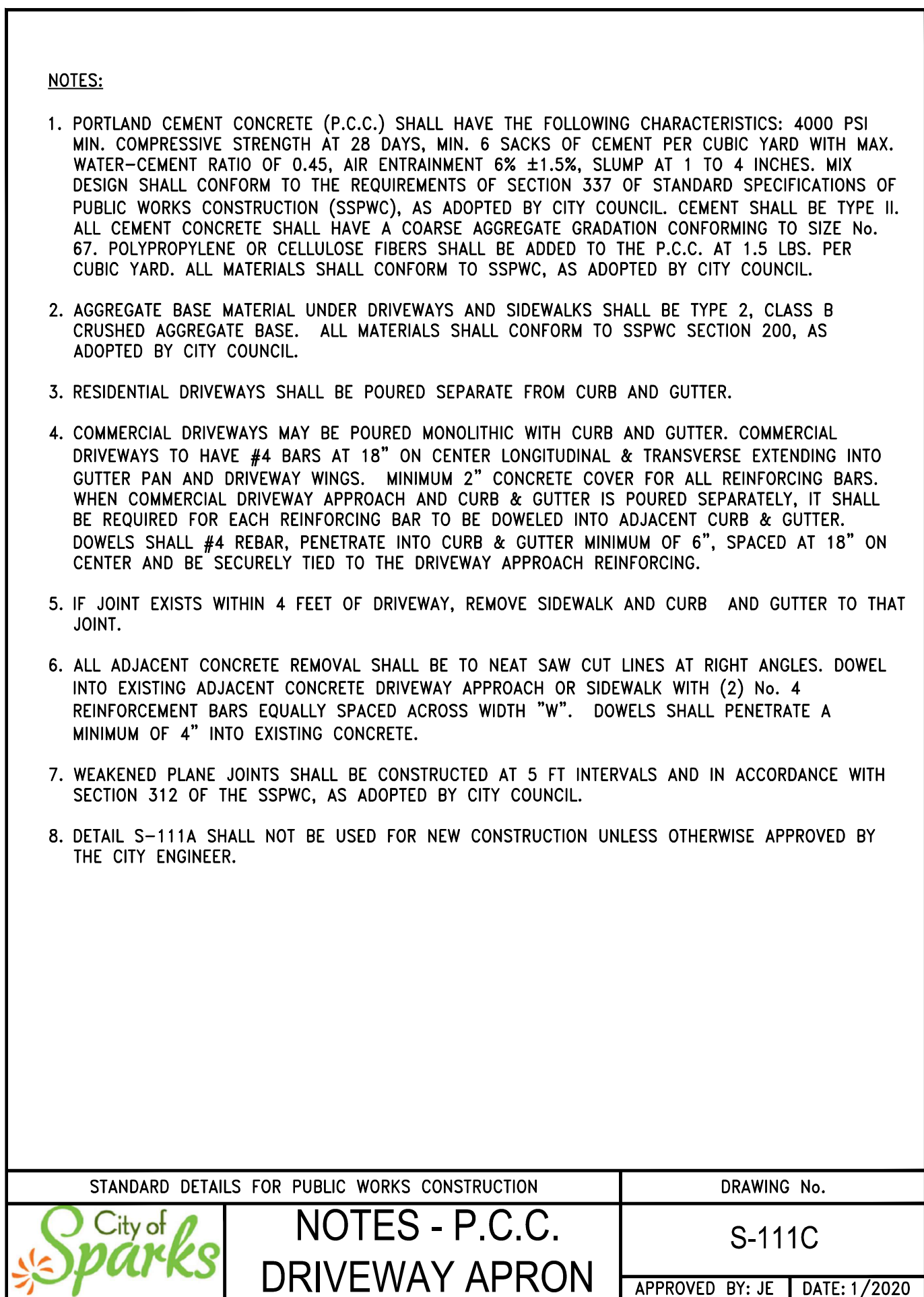
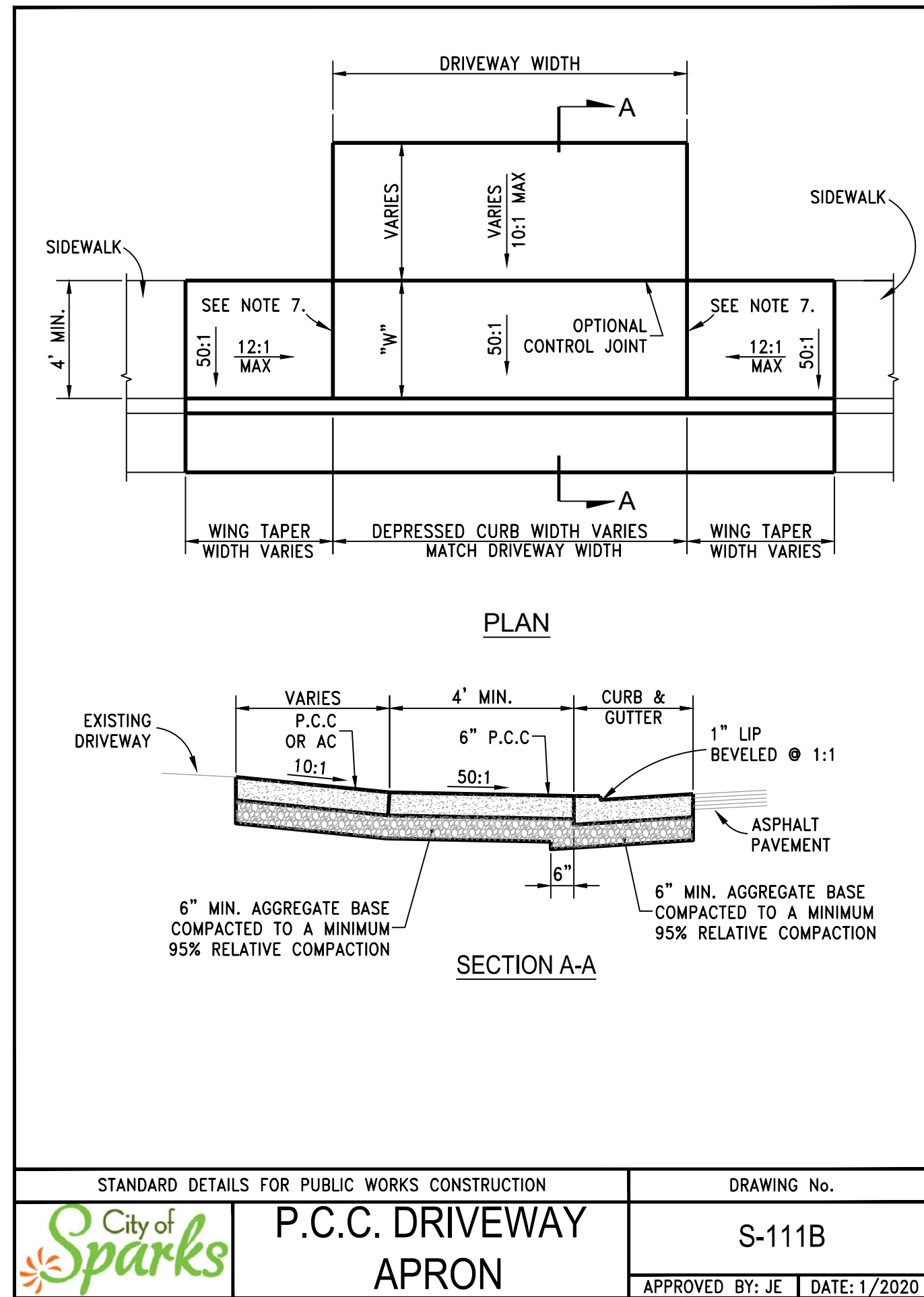
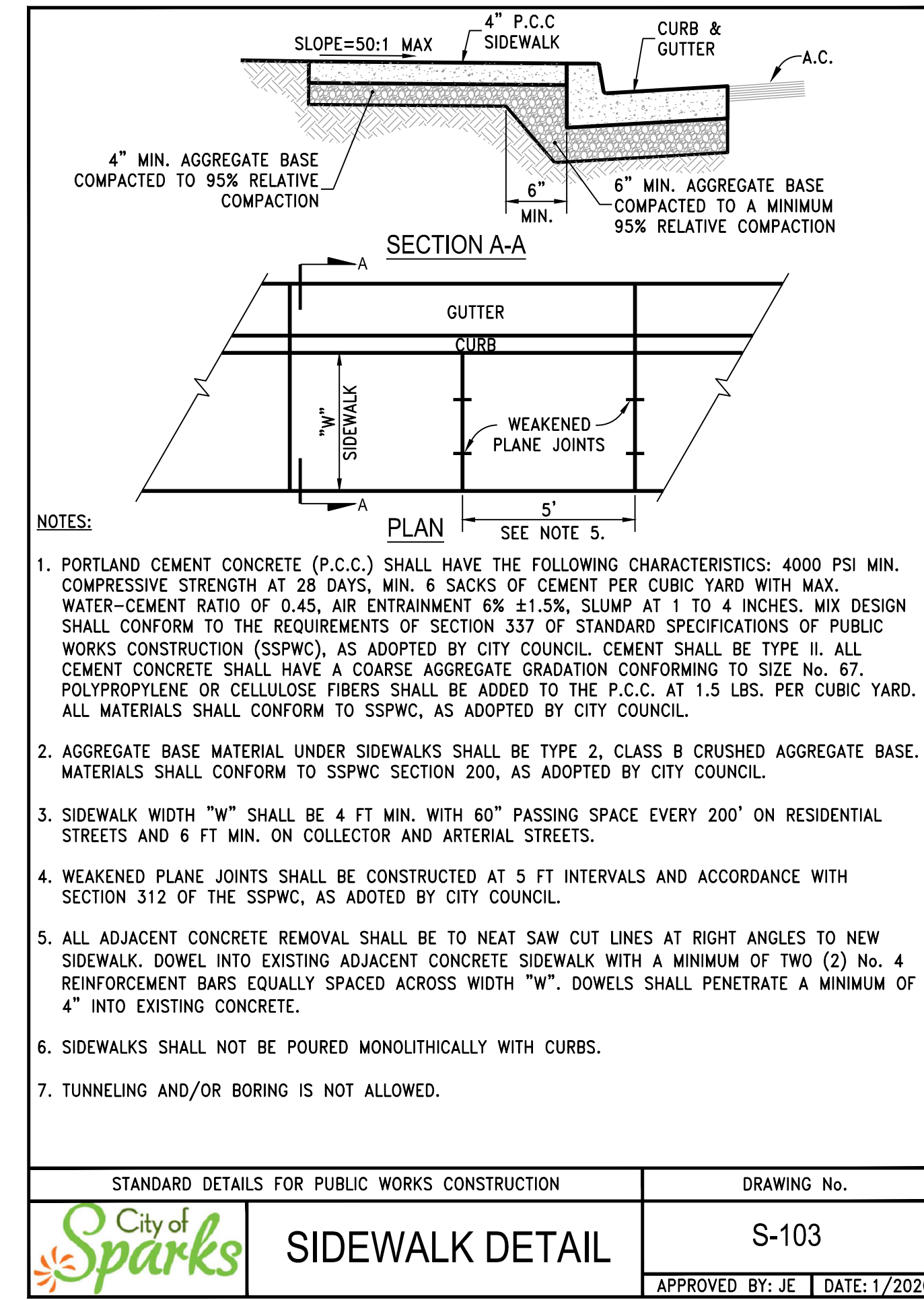
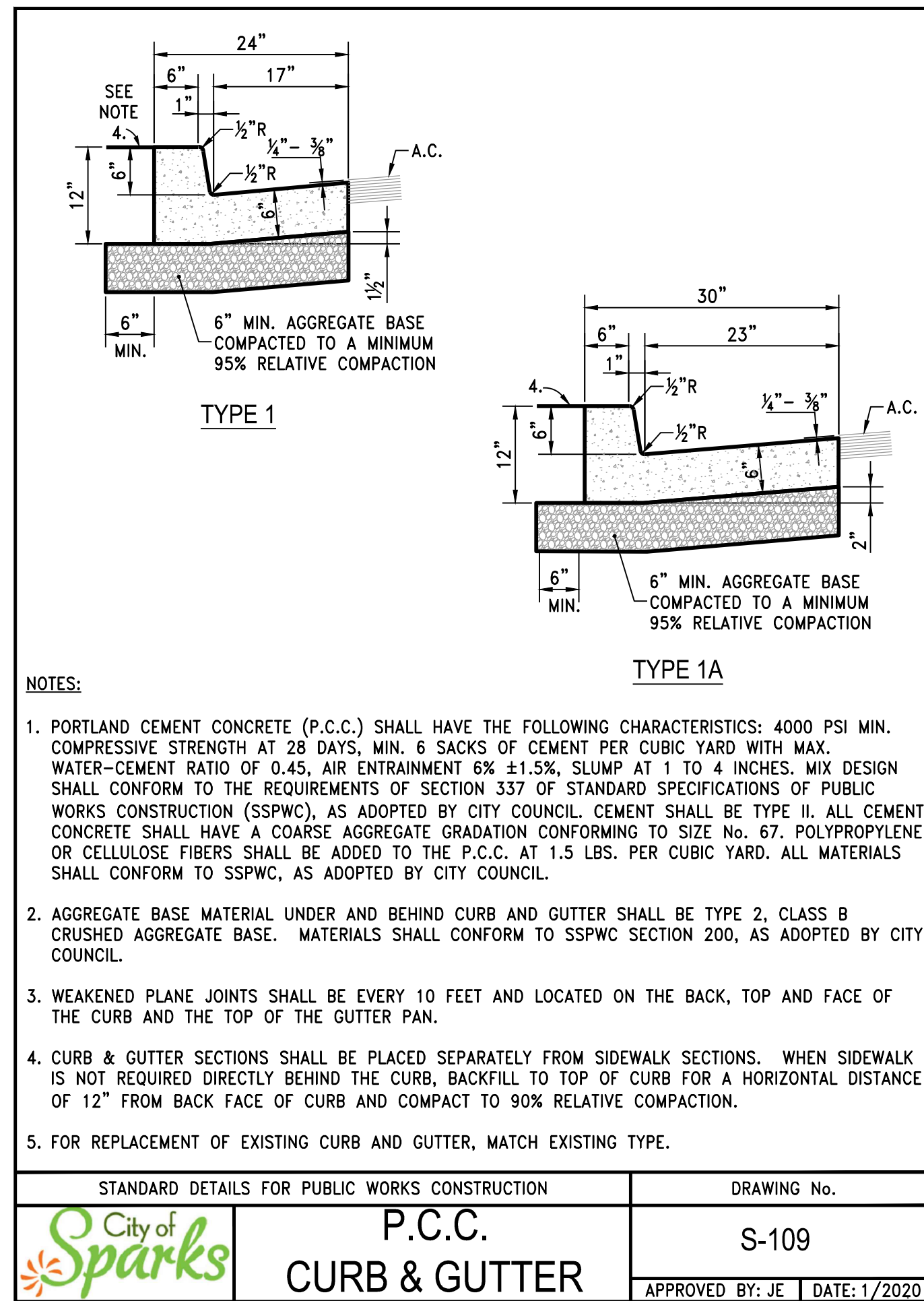
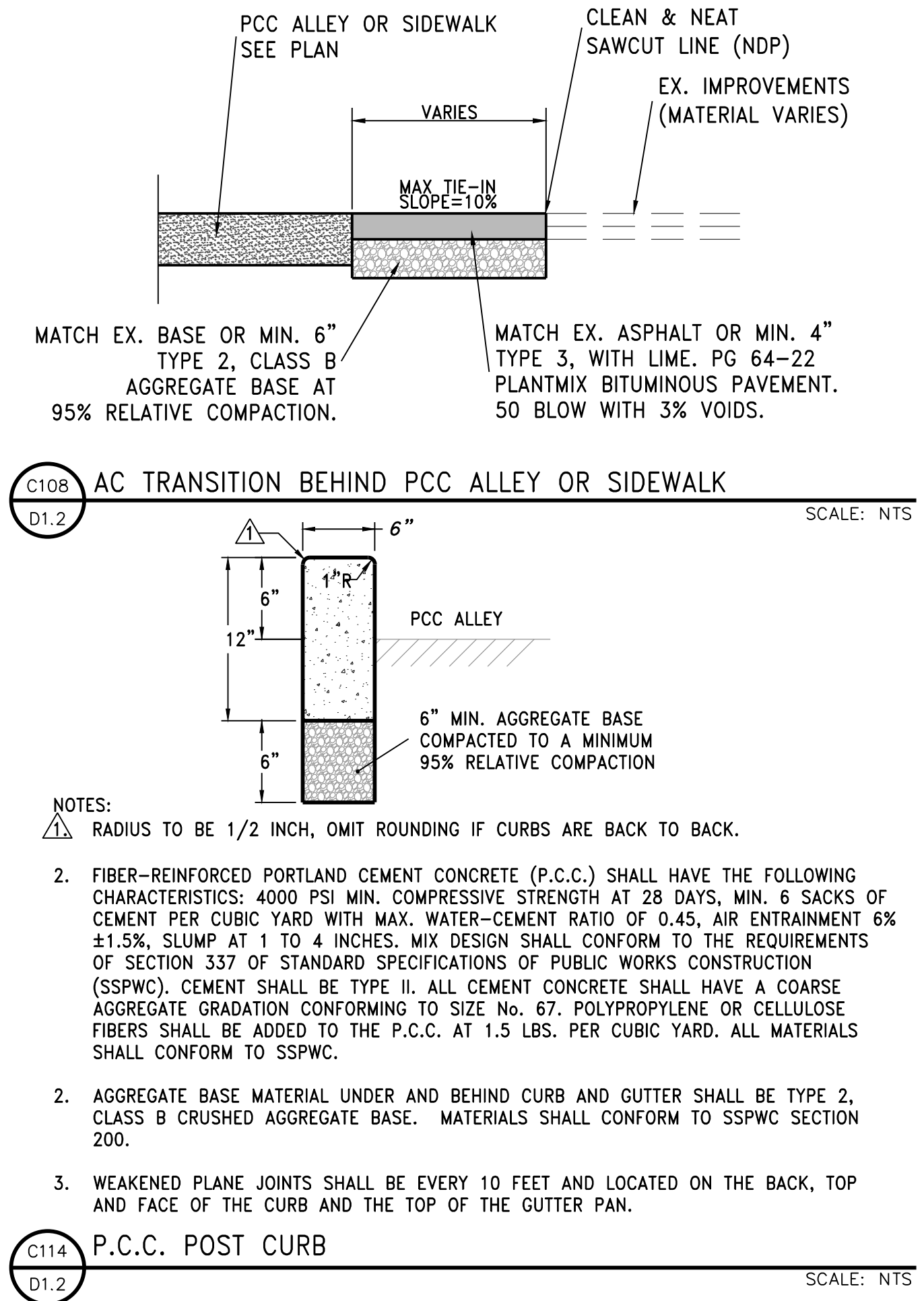
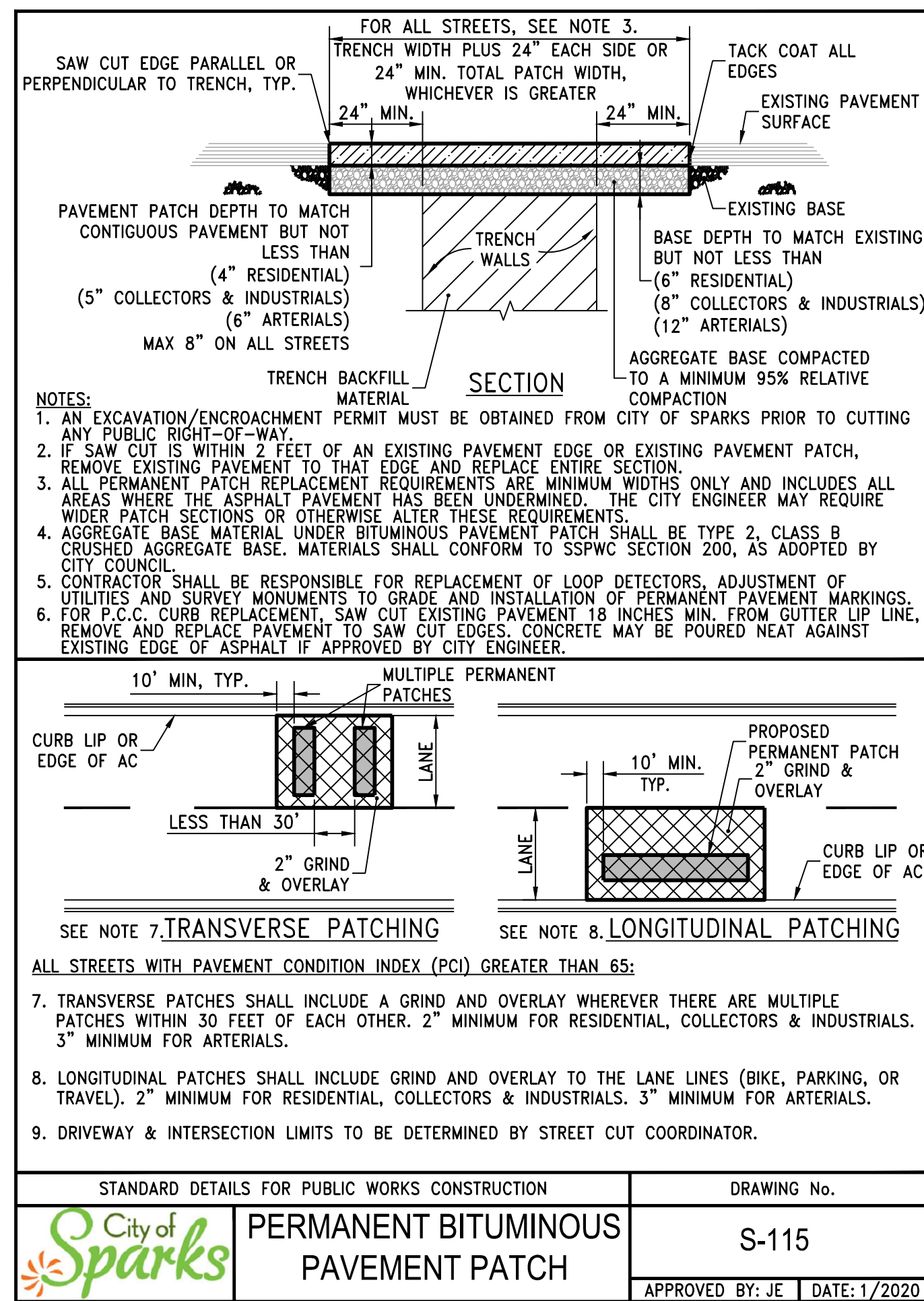
REV	DATE	DESCRIPTION

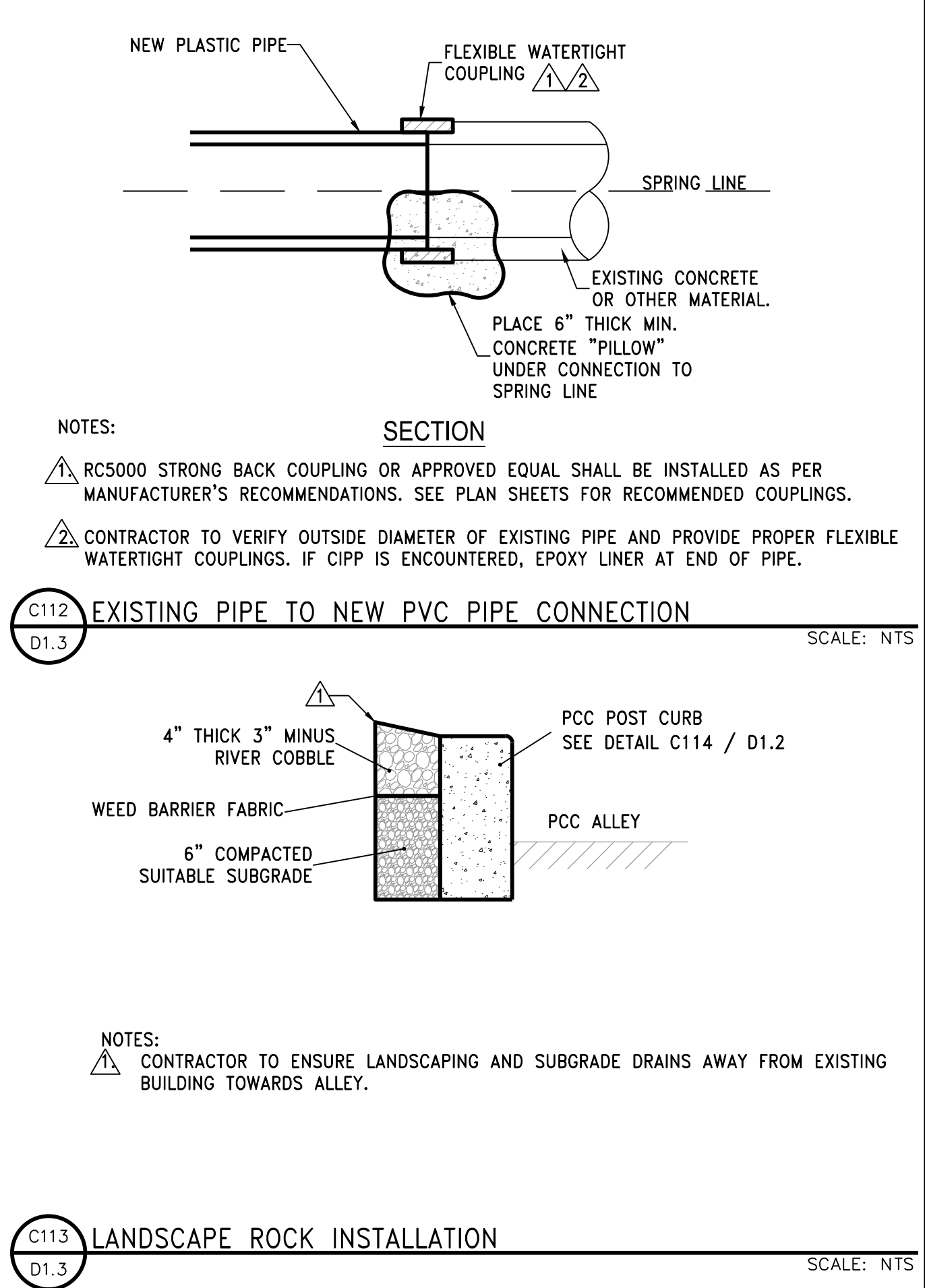
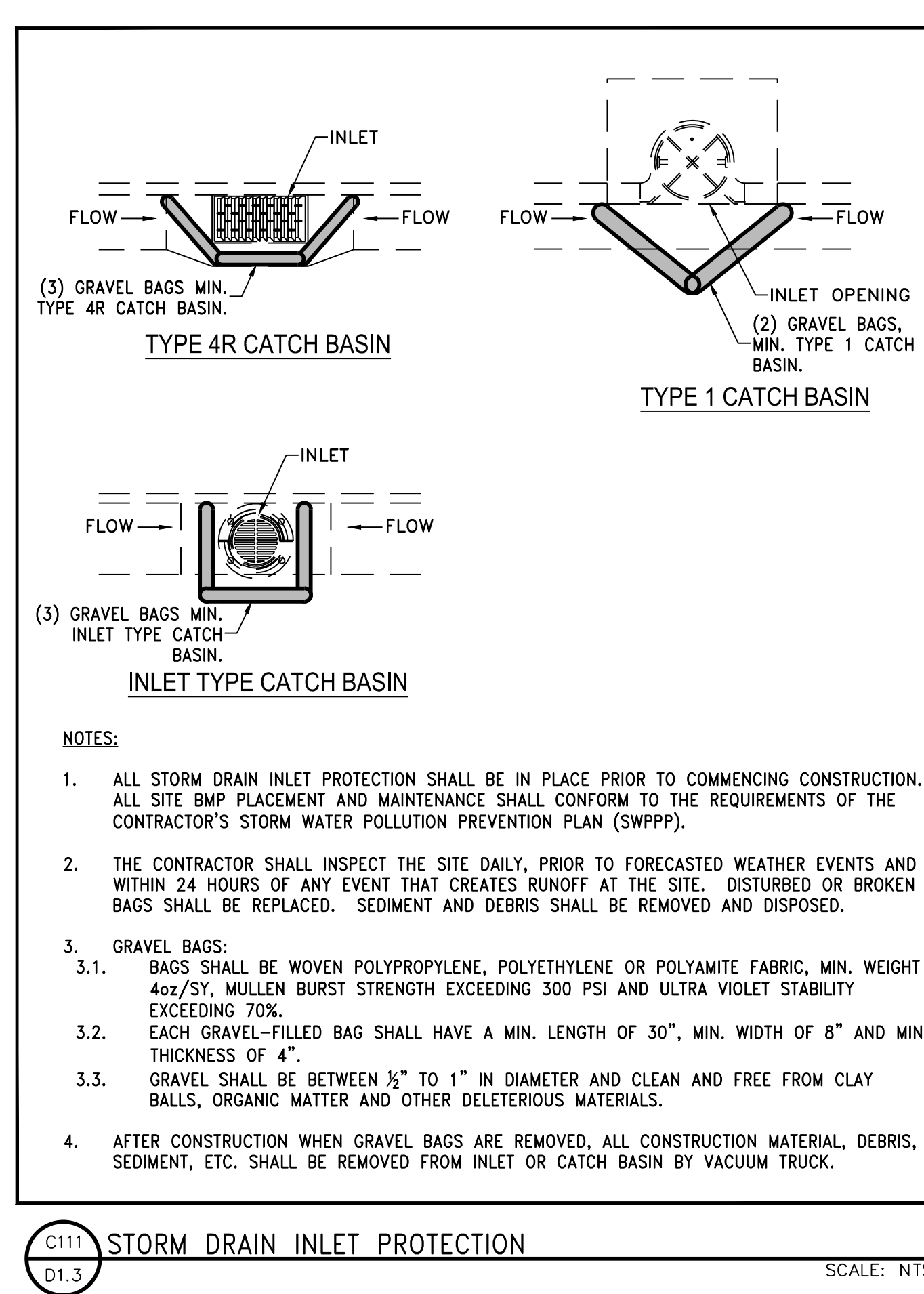
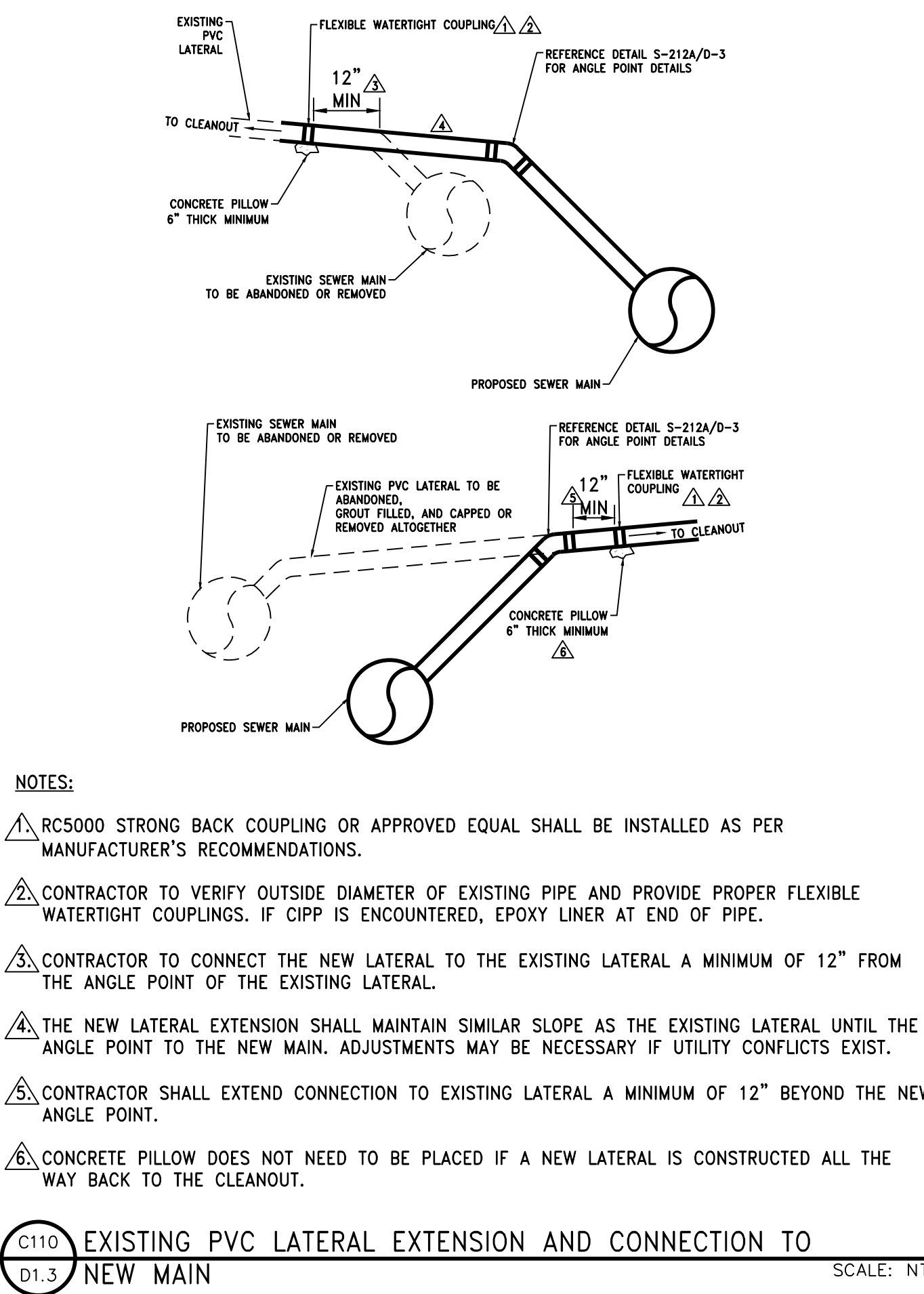
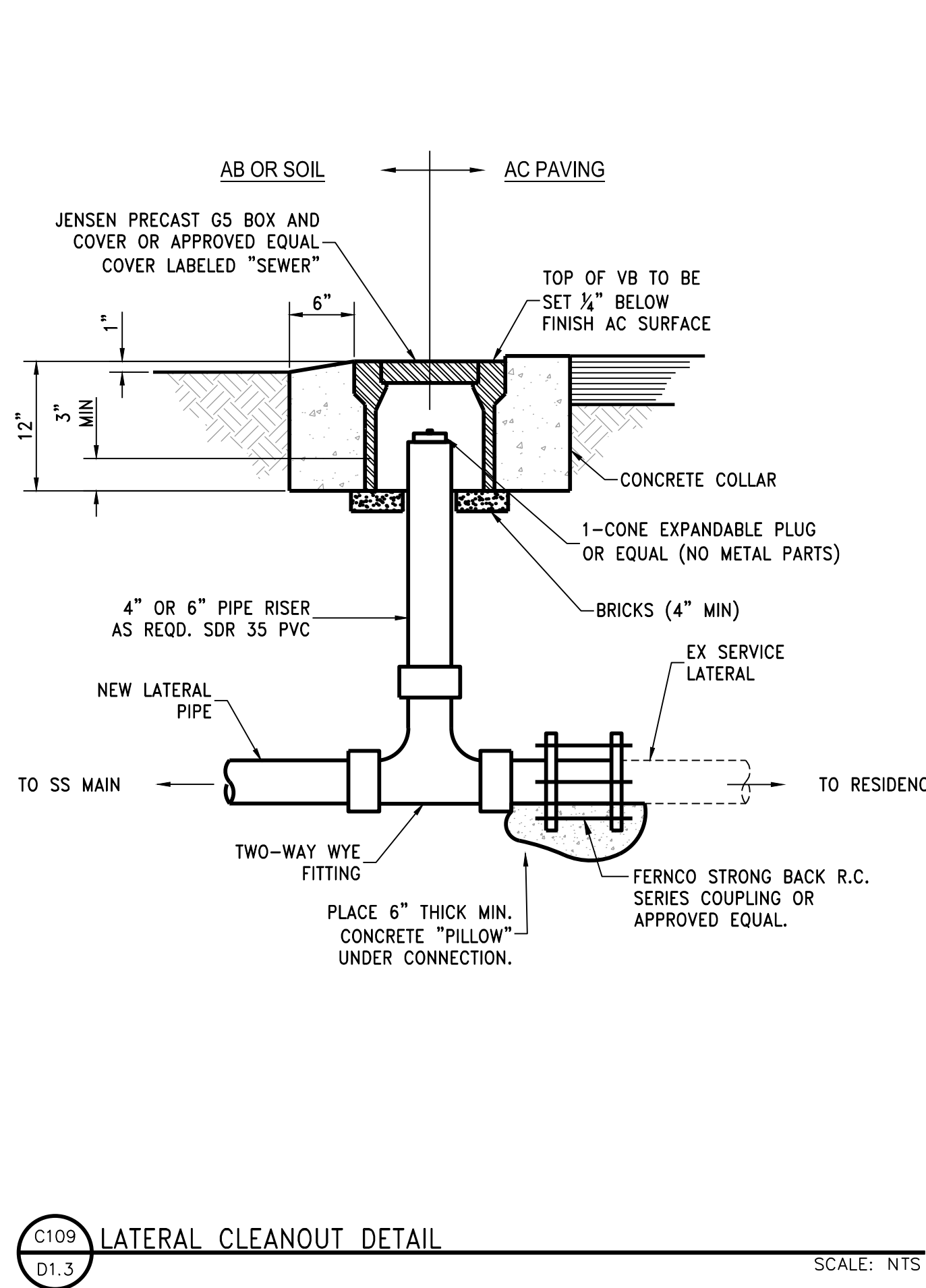
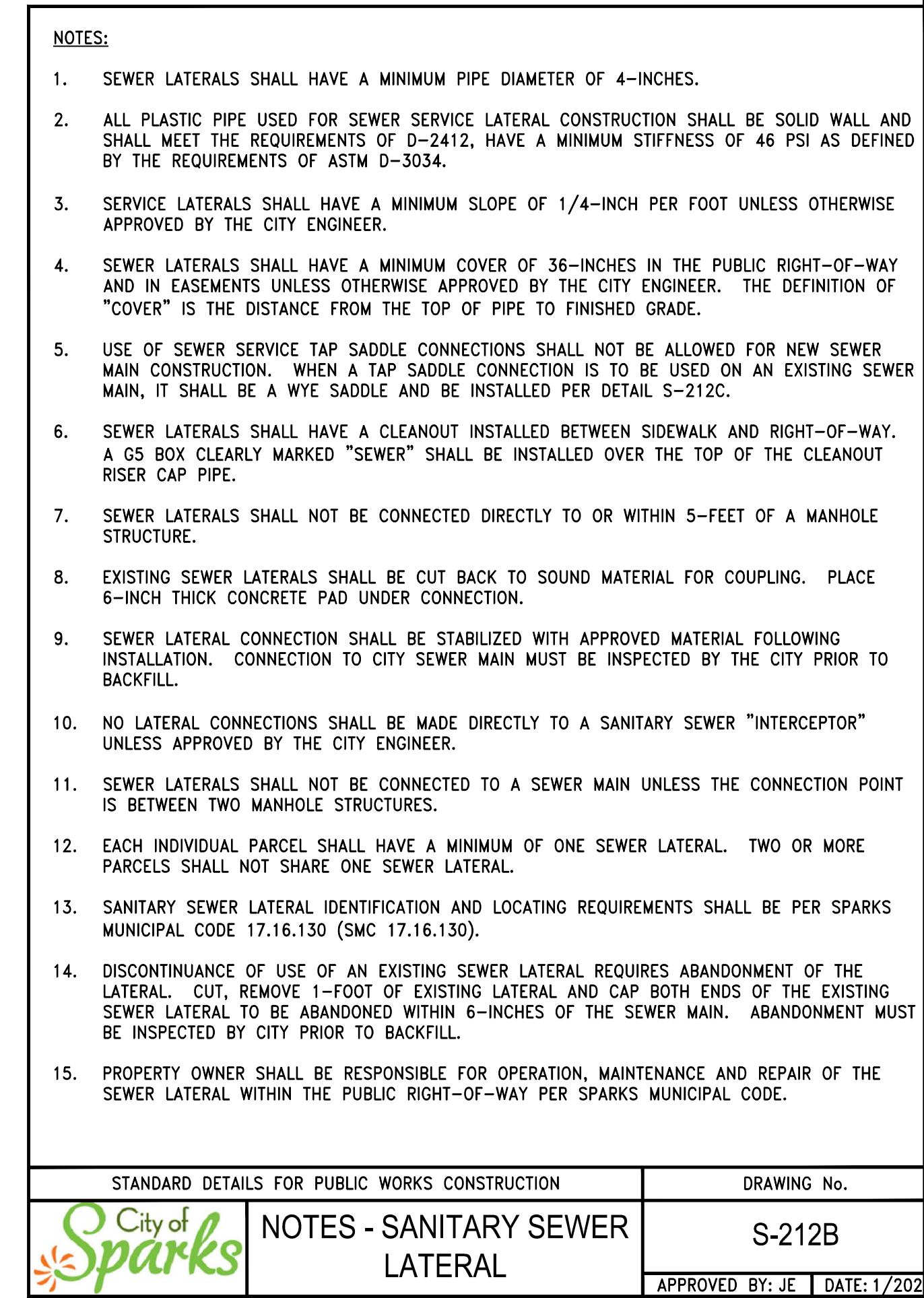
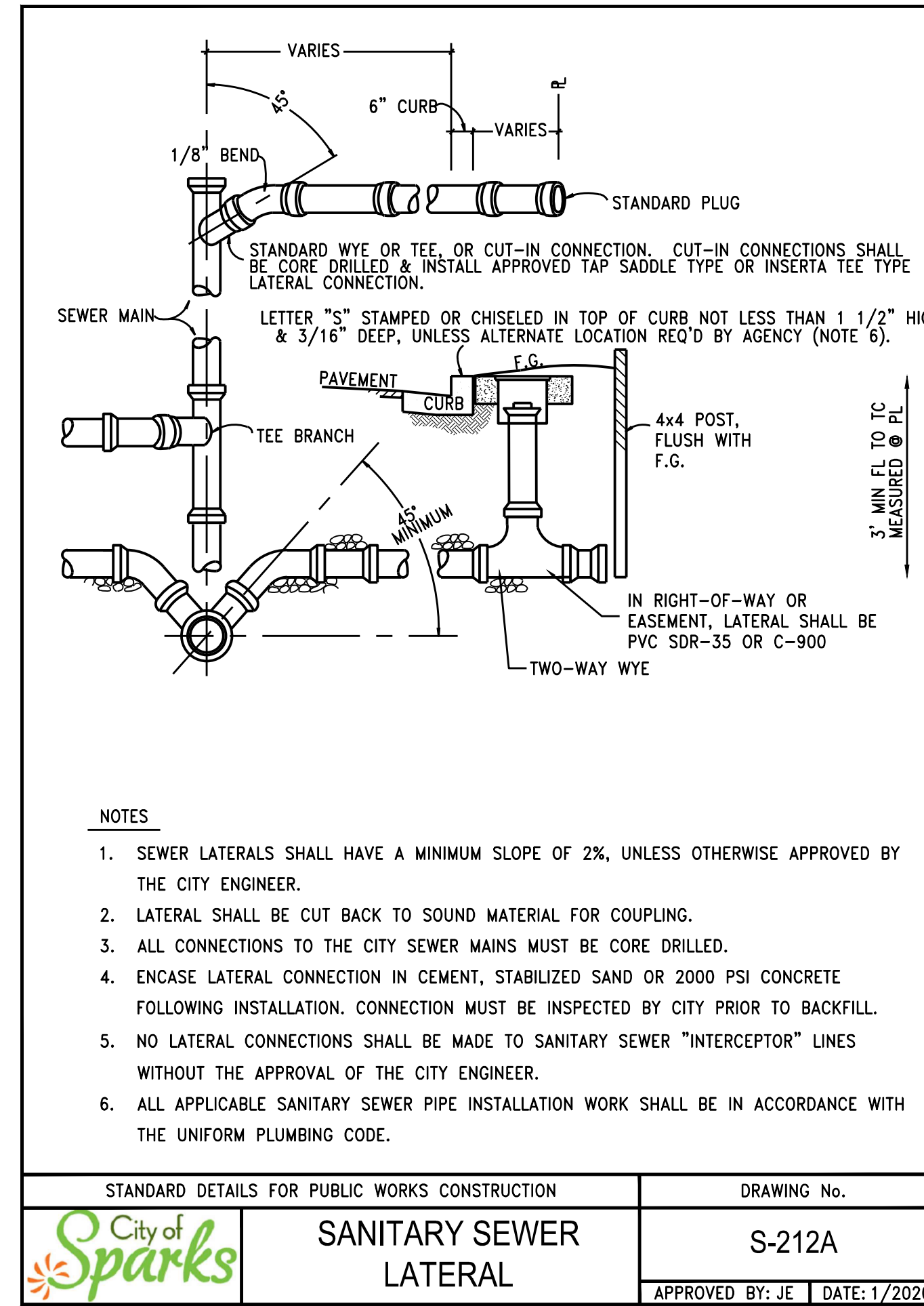
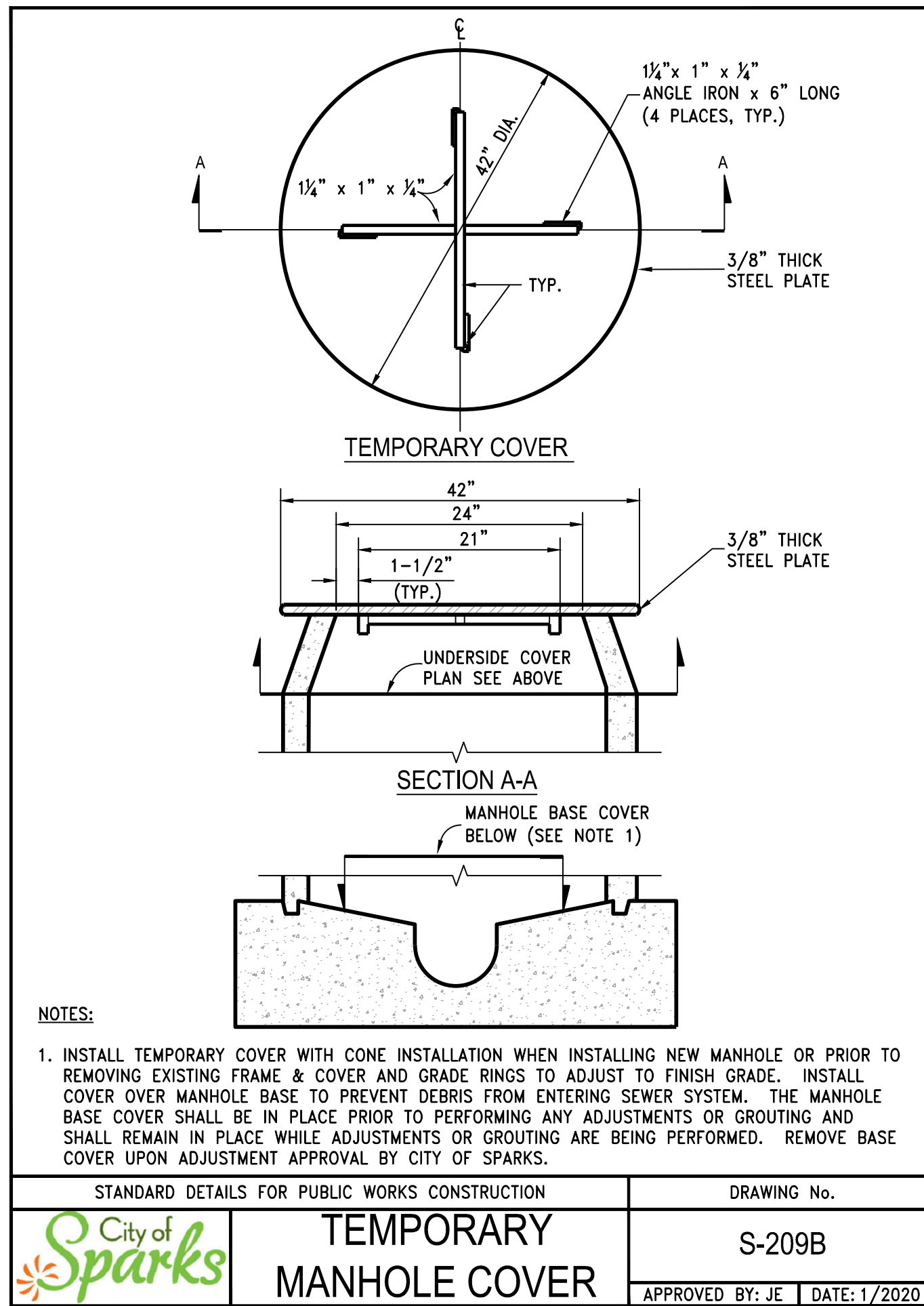
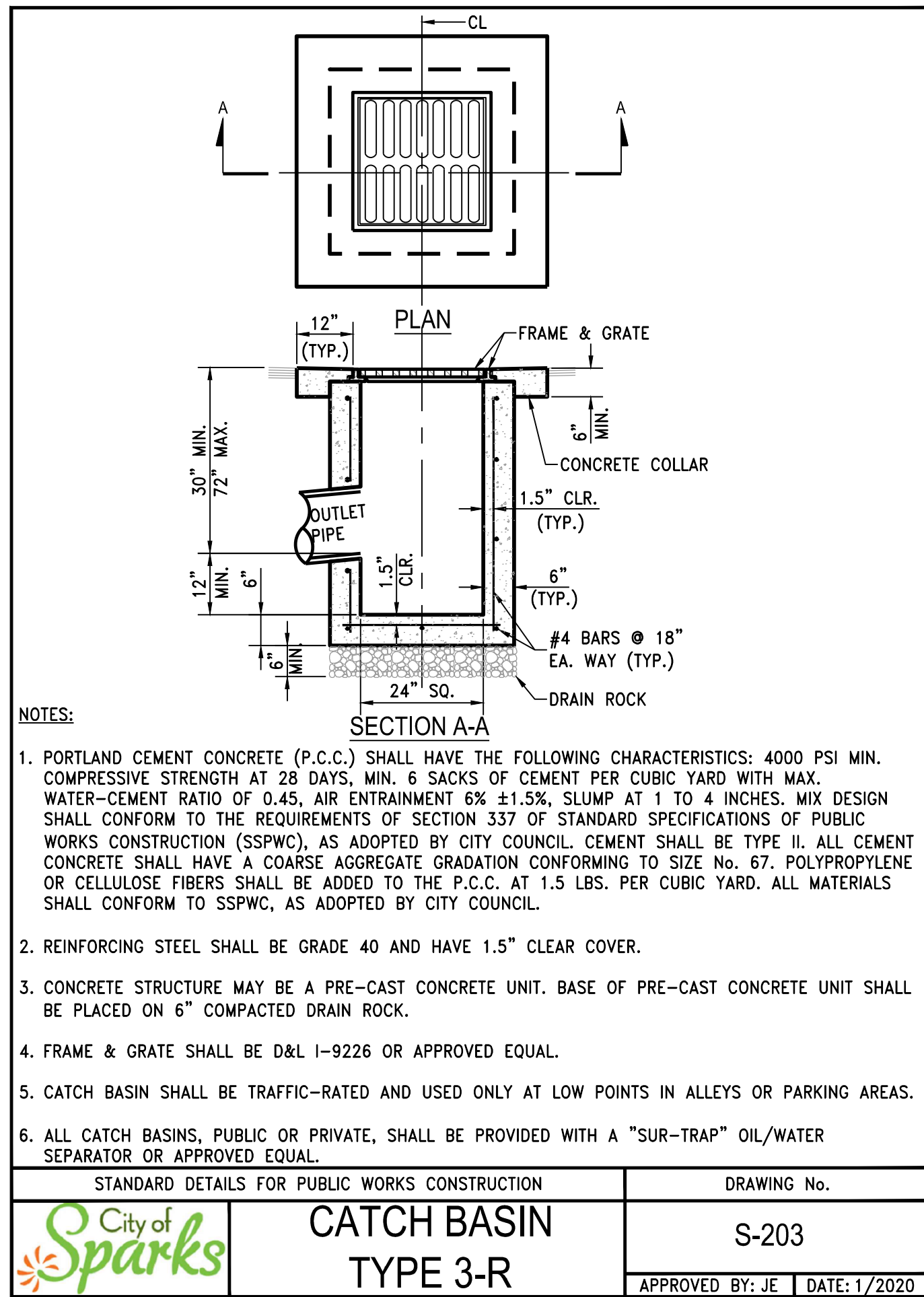
BAR IS 1 INCH ON ORIGINAL DRAWING
 0 N/A
 IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

D1.1

DRAWN BY: TDA / MEP
 DESIGNED BY: TDA
 CHECKED BY: AJG
 JOB NO.: 10687.000

L:\Mapro\10687.000 - City of Sparks Pavement Mgmt. Program - Alley E Design\DWG\Sheets\06870000E\TALS.dwg:01.1
 10/20/2023 03:08 pm lodiana





LUMOS & ASSOCIATES

950 SANDHILL ROAD, SUITE 100
RENO, NV 89521
TEL: 775.827.6111

WWW.LUMOSINC.COM
INFO@LUMOSINC.COM

© LUMOS & ASSOCIATES, INC. THIS DRAWING IS THE PROPERTY OF LUMOS & ASSOCIATES, INC. USE OR REPRODUCTION OF THIS DRAWING, IN WHOLE OR IN PART, WITHOUT THE WRITTEN PERMISSION OF LUMOS & ASSOCIATES, INC. IS STRICTLY PROHIBITED. THIS DRAWING IS NOT TO BE USED FOR ANY PROJECT OTHER THAN THE PROJECT FOR WHICH IT WAS PREPARED.

ALEX J. GREENBLAT
Exp. 06/30/25
CIVIL
No. 024022
10/20/2023

CITY OF SPARKS

2023 ALLEY REHABILITATION PROJECT

ALLEY E

DETAIL SHEET

NEVADA

WASHOE COUNTY

SPARKS

BY

DESCRIPTION

REV. DATE

BID SET

NOT FOR CONSTRUCTION

BAR IS 1 INCH ON ORIGINAL DRAWING

IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

D1.3

DRAWN BY: TDA / MEP
DESIGNED BY: TDA
CHECKED BY: AJG
JOB NO.: 10687.000

L:\A\Pro\10687.000 - City of Sparks Pavement Mgmt. Program - Alley E Design\DWG\Sheets\0687000E\TALS.dwg:DL:3, 10/20/2023 03:09 pm lodoms