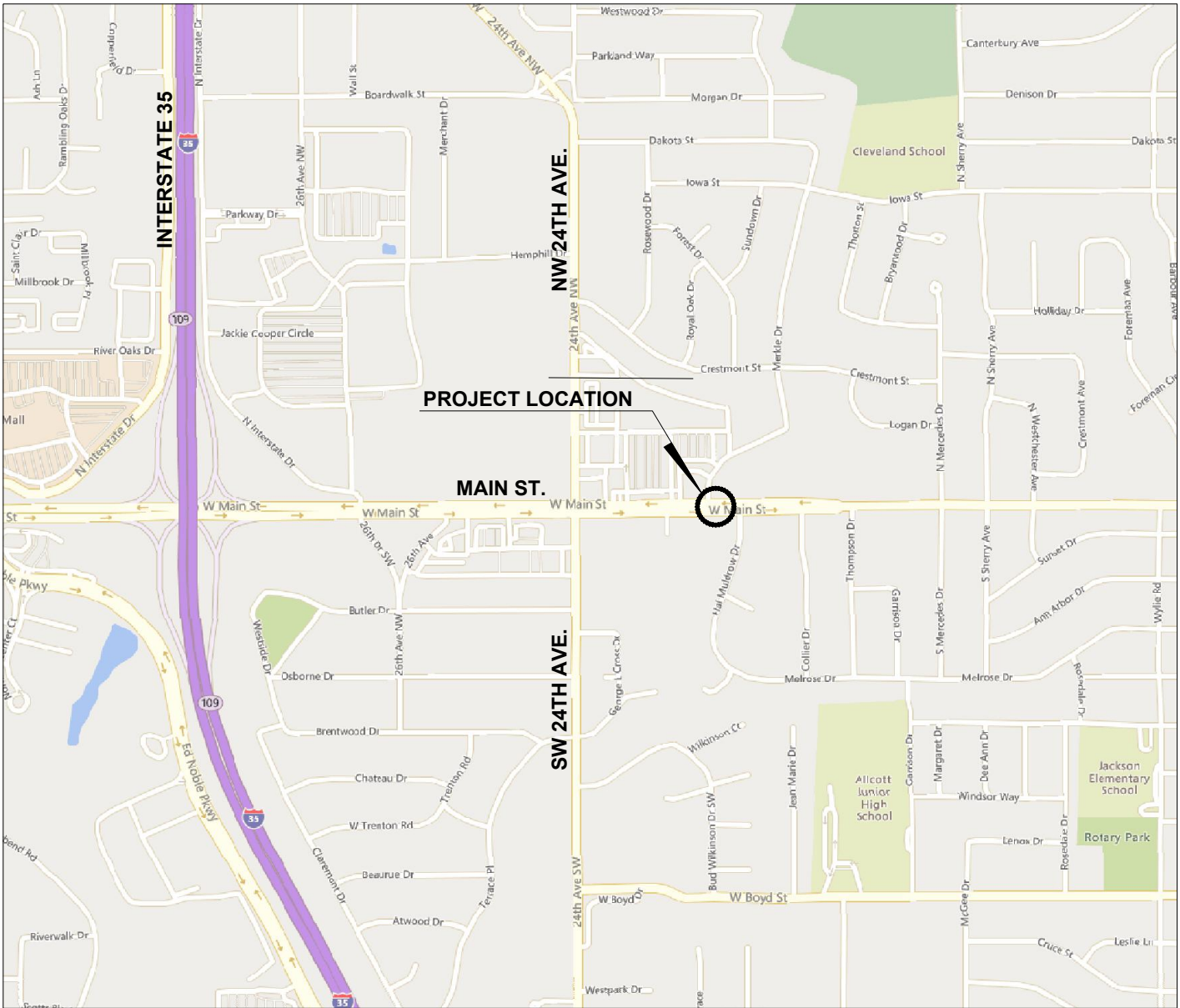


PLAN OF  
BRIDGE REHABILITATION

MAIN STREET BRIDGE OVER MERKLE CREEK (NBI 18911)  
CITY OF NORMAN PROJECT NO. K-2324-152



VICINITY MAP  
1"=500'



The City of  
NORMAN

LARRY KEIKKILA  
Mayor

DARREL PYLE  
City Manager

RICK KNIGHTON  
City Attorney

MICHAEL NASH  
Council Member

JOSHUA A. HINKLE  
Council Member

STEPHEN TYLER  
Council Member

MATTHEW PEACOCK  
Council Member

SHEET INDEX

SHEET NO.	DESCRIPTION
0001	TITLE SHEET
0002-0003	TYPICAL SECTION SHEET
0004	PROJECT LOCATION MAP
AR01	PAY QUANTITIES AND NOTES (ROADWAY)
AB01	PAY QUANTITIES AND NOTES (BRIDGE)
B001-B002	GENERAL PLAN AND ELEVATION SHEETS
B003	RCB BARREL REPAIR DETAILS - WEST CELL
B004	RCB BARREL REPAIR DETAILS - MIDDLE CELL
B005	RCB BARREL REPAIR DETAILS - EAST CELL
B006	RCB BARREL REPAIR DETAILS
R001	EXISTING SITE PLAN
R002	PROPOSED SITE PLAN
R003	PROPOSED GRADING SITE PLAN - NORTH
R004	PROPOSED GRADING SITE PLAN - SOUTH
R005	PLAN AND PROFILE - MAIN STREET
R006	PLAN AND PROFILE - STR. 3 - 10' x 9' RCB
R007	EROSION CONTROL SITE PLAN
R008	DEMOLITION SITE PLAN
R009	STRIPING PLAN
R010	JOINT LAYOUT
R011	SEQUENCE OF CONSTRUCTION
R012-R014	TRAFFIC CONTROL PLAN - PHASE 1 & 2
R015-R017	TRAFFIC CONTROL PLAN - PHASE 3
R018-R022	DETAILS
X001-X004	CROSS SECTION SHEETS

ONE CALL UTILITY LOCATION NUMBER

840-5032  
1-800-522-6543

This number is to be used for information on the location of all underground utilities. Contact this number and other numbers specified in the plans prior to any excavation.

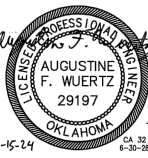


PREPARED BY:  
CEC CORPORATION  
CA32 6/30/26  
OKLAHOMA CITY, OKLAHOMA



KYLE MORSE, P.E.  
OKLA. REG. NO. 27689

11-15-24  
DATE



PREPARED BY:  
CEC CORPORATION  
CA32 6/30/26  
OKLAHOMA CITY, OKLAHOMA



AUGUSTINE F. WUERZT, P.E., S.E.  
OKLA. REG. NO. 29197

11-15-24  
DATE



CEC CORPORATION  
4000 W. MEMPHIS AVE., SUITE 1112  
OKLAHOMA CITY, OKLA. 73112  
P: 405.293.6000  
WWW.CEC-CORP.COM

STATE OF OKLAHOMA  
CEC CORPORATION  
OKLAHOMA CITY, OKLA. 73112  
P: 405.293.6000  
WWW.CEC-CORP.COM

COPYRIGHT © 2024 CEC. ALL RIGHTS RESERVED.  
THIS DOCUMENT IS THE PROPERTY OF CEC CORPORATION.  
NO PART OF THIS DOCUMENT MAY BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, WITHOUT EXPRESS WRITTEN AUTHORIZATION OF CEC CORPORATION.

REVISION HISTORY

NO.	DESCRIPTION	DATE
1	11-15-2024	
2	K-2324-152	
3	KLM	
4	MTD	
5	KLM	
6	AS SHOWN	

MAIN STREET  
BRIDGE REHABILITATION  
NORMAN, OKLAHOMA

SHEET NAME

TITLE SHEET

SHEET NO.

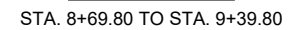
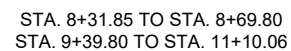
0001

P.E. NO. 35925(01)









CEC CORPORATION  
4655 W. MEMORIAL ROAD  
OKLAHOMA CITY, OKLAHOMA 73142  
P-465-753-4210  
WWW.CONNCTCEC.COM

STATE OF OK CERTIFICATE OF AUTHORIZATION  
CA# 12 EXPIRES: 2026-06-30

COPYRIGHT © 2024 CEC. ALL RIGHTS RESERVED.  
THIS DRAWING IS PROPERTY OF CEC. ANY  
MODIFICATION OR USE OF THIS DRAWING  
WITHOUT EXPRESS WRITTEN AUTHORIZATION OF  
CEC IS PROHIBITED.

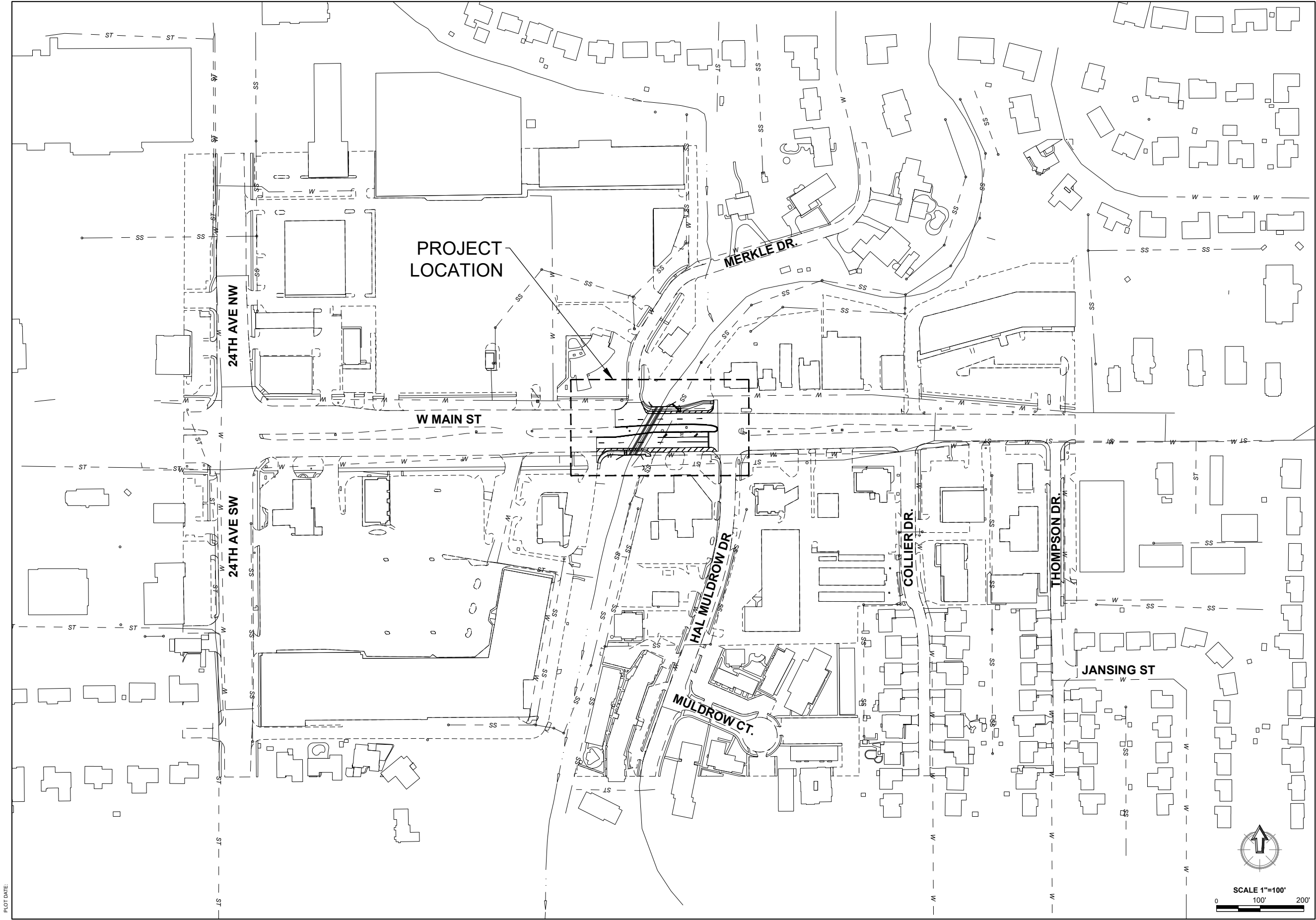


SUBMITTAL:		FINAL PLANS	REVISION HISTORY	
DATE:	11-15-2024		NO.	DESCRIPTION
PROJECT NO:	K-2324-152			DATE
DESIGNED BY:	KLM			
DRAWN BY:	MTD			
APPROVED BY:	KLM			

MAIN STREET  
BRIDGE REHABILITATION  
NORMAN, OKLAHOMA

SHEET NAME  
TYPICAL  
SECTIONS

SHEET  
0003



PLOT DATE:



SCALE 1"=100'  
0 100' 200'

MAIN STREET  
BRIDGE REHABILITATION  
NORMAN, OKLAHOMA

SHEET NAME  
PROJECT  
LOCATION MAP

SHEET  
0004



SUBMITTAL:		FINAL PLANS		REVISION HISTORY	
DATE:	11-15-2024	PROJECT NO:	K-2324-152	NO.	DESCRIPTION
DESIGNED BY:	KLM	DESIGNED BY:	KLM		
DRAWN BY:	MTD	DRAWN BY:	MTD		
APPROVED BY:	KLM	APPROVED BY:	KLM		
SCALE:	AS SHOWN				

CEC CORPORATION  
4625 W. MEDFORD, SUITE 1412  
P.O. BOX 703, OKLAHOMA CITY, OK 73107  
WWW.CEC-CORP.COM  
STATE OF OKLAHOMA CERTIFICATE OF AUTHORIZATION  
KYLE L. MORSE  
27688  
11-15-24  
EXPIRES: 2026-06-30  
COPYRIGHT © 2024 CEC. ALL RIGHTS ARE RESERVED.  
THIS DRAWING OR ANY PART HEREOF IS NOT TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, WITHOUT EXPRESS WRITTEN AUTHORIZATION OF CEC CORPORATION.



ITEM NO.	SPEC NO.	DESCRIPTION	NOTES	UNIT	QUANTITY
1	221(B)	TEMPORARY SILT FENCE	(6)	L.F.	165.00
2	221(C)	TEMPORARY SEDIMENT FILTER		EA.	2.00
3	230(A)	SOLID SLAB SODDING		S.Y.	325.00
4	303(A)	AGGREGATE BASE (TYPE A)		C.Y.	16.00
5	307(K)	STABILIZED SUBGRADE (8")	(1)	S.Y.	2,422.00
6	414(G)	P.C. CONCRETE FOR PAVEMENT (ROADWAY)		C.Y.	509.00
7	509(A)	CLASS AA CONCRETE		C.Y.	38.80
8	511(A)	REINFORCING STEEL		LB.	8,730.00
9	600(B)	AUDIO AND VIDEO RECORDING, PRE AND POST CONST.		LSUM	1.00
10	602(B)	ARTICULATING CONCRETE BLOCK (FLEXAMAT)	(7)	S.Y.	150.00
11	609(A)	COMBINED CURB & GUTTER (8" BARRIER)		L.F.	775.00
12	610(A)	4" CONCRETE SIDEWALK		S.Y.	155.00
13	619(B)	REMOVAL OF CONCRETE PAVEMENT		S.Y.	2,301.00
14	619(B)	REMOVAL OF ASPHALT PAVEMENT		S.Y.	123.00
15	619(B)	REMOVAL OF PIPE RAILING	(4)	L.F.	179.00
16	619(B)	REMOVAL OF SIDEWALK	(4)	S.Y.	183.00
17	619(B)	REMOVAL OF CURB AND GUTTER	(4)	L.F.	851.00
18	619(B)	REMOVAL STRUCTURES AND OBSTRUCTIONS	(4)	LSUM	1.00
19	619(C)	SAWING PAVEMENT	(5)	L.F.	400.00
20	622(A)	PIPE RAILING		L.F.	186.00
21	641	MOBILIZATION		LSUM	1.00
22	642(A)	CONSTRUCTION STAKING (CONSTRUCTION SURVEY)		LSUM	1.00
23	856(A)	TRAFFIC STRIPE (MULTI-POLY.)(4" WIDE)	(2)	L.F.	520.00
24	856(A)	TRAFFIC STRIPE (MULTI-POLY.)(6" WIDE)		L.F.	748.00
25	856(A)	TRAFFIC STRIPE (MULTI-POLY.)(8" WIDE)		L.F.	226.00
26	856(A)	TRAFFIC STRIPE (MULTI-POLY.)(24" WIDE)		L.F.	74.00
27	856(B)	TRAFFIC STRIPE(PAINT)(ARROW)		EA.	2.00
28	856(B)	TRAFFIC STRIPE(PAINT)(WORDS)		EA.	1.00
29	880(J)	CONSTRUCTION TRAFFIC CONTROL	(3)	LSUM	1.00
30		CONCRETE WASHOUT		EA.	1.00

## GENERAL CONSTRUCTION NOTES

1. SYMBOLS AND LEGENDS ARE DIAGRAMMATIC ONLY AND LOCATIONS SHALL BE ADJUSTED FOR EXISTING FIELD CONDITIONS, BUT NO MAJOR ALTERATIONS OR RELOCATIONS WILL BE MADE WITHOUT FIRST CONSULTING WITH THE TRAFFIC ENGINEER DIVISION.
2. ALL BROKEN CONCRETE, WASTE MATERIAL, AND DEBRIS SHALL BECOME THE PROPERTY OF THE CONTRACTOR, AND SHALL BE REMOVED FROM THE LIMITS OF THE PROJECT AND DISPOSED OF IN AN AREA APPROVED BY THE ENGINEER. NO PAYMENT WILL BE MADE FOR THE DISPOSAL OF THIS MATERIAL.
3. THE CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION OF ALL UTILITY LINES AND STRUCTURES, WHETHER SHOWN OR NOT, BOTH PUBLIC AND PRIVATE. ANY DAMAGE TO A UTILITY LINE OR STRUCTURE, BECAUSE OF THE CONTRACTOR'S ACTIONS, SHALL BE REPAIRED SOLELY AT THE CONTRACTOR'S EXPENSE TO A CONDITION AS GOOD OR BETTER THAN THAT PRIOR TO THE DAMAGE.
4. THE CONTRACTOR IS RESPONSIBLE FOR THE PROMPT REPLACEMENT AND/OR REPAIR OF ALL TRAFFIC CONTROL DEVICES AND APPURTENANCES DAMAGED OR DISTURBED DUE TO CONSTRUCTION.
5. CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT ALL BUILT ELEMENTS, INCLUDING BUT NOT LIMITED TO SIDEWALKS AND ACCESS RAMPS COMPLY WITH THE CITY OF NORMAN ADA STANDARD REQUIREMENTS. CONTRACTOR SHALL NOTIFY THE ENGINEER OR ENGINEER'S DESIGNEE FOR ANY DISCREPANCIES BETWEEN DESIGN INFORMATION AND THE CITY OF NORMAN STANDARD REQUIREMENTS PRIOR TO CONSTRUCTION.
6. THE CONTRACTOR IS RESPONSIBLE FOR THE REMOVAL OF ALL PAVEMENT MARKINGS THAT WILL BE IN CONFLICT WITH THE PROPOSED WORK.
7. A WORK ZONE PERMIT MUST BE OBTAINED FROM THE TRAFFIC MANAGEMENT DIVISION AT LEAST TWO (2) WORKING DAYS PRIOR TO THE START OF WORK AND/OR PLACING OR REMOVING ANY BARRICADES OR MODIFYING EXISTING TRAFFIC CONTROL DEVICES.
8. ALL WORK NOT CLASSIFIED AS A CONTRACT PAY ITEM SHALL BE CONSIDERED INCIDENTAL CONSTRUCTION. THE COST FOR SUCH WORK SHALL BE INCLUDED IN THE PRICE BID FOR OTHER ITEMS.
9. ALL DISTURBED, UNPAVED AREAS WITHIN THE PROJECT LIMITS ON EASEMENTS AND RIGHT-OF-WAY SHALL BE SODDED, FERTILIZED, AND WATERED IN ACCORDANCE WITH CITY OF NORMAN STANDARD SPECIFICATIONS SECTION 2104, "SODDING AND SEEDING". SODDED AREAS SHALL BE REPAIRED AND MAINTAINED UNTIL ALL PORTIONS OF THE PROJECT ARE COMPLETE AND APPROVED FOR FINAL ACCEPTANCE. ALL OTHER AREAS DISTURBED AS A RESULT OF THE CONTRACTOR'S ACTIONS SHALL BE RESTORED IN A MANNER ACCEPTABLE TO THE OWNER TO A CONDITION AS GOOD OR BETTER THAN THAT PRIOR TO THE DISTURBANCE AT NO EXPENSE TO THE OWNER.
10. STREETS AND/OR LANES WITHIN THE CONSTRUCTION ZONE MAY BE CLOSED ONLY UPON THE PRIOR APPROVAL OF THE CITY ENGINEER OR HIS DESIGNEE. FOLLOWING APPROVAL, THE CONTRACTOR IS RESPONSIBLE FOR NOTIFYING THE FOLLOWING AT LEAST TWO (2) WORKING DAYS IN ADVANCE OF THE CLOSING.
11. ANY WORK ZONE SPEED LIMIT REDUCTION ON THE CITY OF NORMAN'S STREETS MUST BE APPROVED THROUGH THE CITY TRAFFIC ENGINEER BEFORE ANY SIGNS ARE PLACED.
12. CONSTRUCTION AND DAILY MAINTENANCE OF ALL EROSION CONTROL MEASURES SHALL BE PERFORMED BY THE CONTRACTOR PRIOR TO THE INITIATION OF ANY LAND DISTURBING ACTIVITIES. INSPECTION OF THESE STRUCTURES WILL BE PERFORMED BY THE CITY OF NORMAN ON A REGULAR BASIS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPAIR OR REPLACEMENT OF ALL EROSION CONTROL DEVICES DAMAGED DUE TO CONSTRUCTION.
13. EXCESS EXCAVATED SOIL WILL BECOME THE PROPERTY OF THE CONTRACTOR TO BE DISPOSED OF IN A MANNER APPROVED BY THE ENGINEER.

## GENERAL INTENT NOTES

16. THE PLANS AND REFERENCED CONSTRUCTION SPECIFICATIONS DESCRIBE THE WORK COMPLETED AND IDENTIFY THE WORK TO BE DONE AND THE MATERIALS NECESSARY FOR CONSTRUCTION. THESE PLANS ARE INTENDED TO BE FULLY EXPLANATORY. THE PLAN AND SPECIFICATION DOCUMENTS SHALL BE CONSTRUCTED AND INTERPRETED AS A WHOLE AND THEREFORE, ANYTHING SHOWN, INDICATED OR SPECIFIED IN ONE AND NOT THE OTHER, SHALL BE INTERPRETED AS BEING SHOWN, INDICATED OR SPECIFIED IN BOTH.
17. MINOR DEVIATIONS FROM THE DESIGN LAYOUT ARE ANTICIPATED AND SHALL BE CONSIDERED INCIDENTAL AND INCLUDED AS AN ORDINARY PART OF THE WORK. NO CHANGES THAT ALTER THE CHARACTER OF THE WORK CAN BE MADE OR WILL BE PERMITTED BY THE OWNER WITHOUT THE ISSUANCE OF A CHANGE ORDER.
18. NO PLEA OF IGNORANCE OF EXISTING CONDITIONS OR OF DIFFICULTIES OR CONDITIONS ENCOUNTERED IN THE EXECUTION OF THE WORK WILL BE ACCEPTED AS AN EXCUSE FOR ANY FAILURE OR OMISSION ON THE PART OF THE CONTRACTOR TO FULFILL EVERY DETAIL OF ALL OF THE REQUIREMENTS IN THE CONTRACT DOCUMENTS GOVERNING THE WORK.

## PAY QUANTITY NOTES (ROADWAY)
























1. THE COST FOR STABILIZED SUBGRADE WILL INCLUDE THE COST OF CHEMICAL ADDITIVES, AT A RATE SPECIFIED FOR THE APPROPRIATE SOIL CLASSIFICATION ACCORDING TO ODOT TEST METHOD OHD L-50.
2. QUANTITY SHOWN INCLUDES 748 L.F. TRAFFIC STRIPE (PAINT)(WHITE) AND 520 L.F. TRAFFIC STRIPE (PAINT)(YELLOW) AND WILL BE MEASURED BY THE LINEAR FOOT OF FOUR INCH (4") WIDE TRAFFIC STRIPE.
3. ALL CONSTRUCTION WORK ZONE SIGNS SHALL HAVE FLUORESCENT SHEETING/ THE FLUORESCENT SHEETING SHALL MEET THE REQUIREMENTS OF ASTM D4956 (LATEST REVISION).
4. TO BECOME THE PROPERTY OF AND BE DISPOSED OF BY THE CONTRACTOR IN A MANNER APPROVED BY THE ENGINEER.
5. COST INCLUDES SAWING PAVEMENT IN A MANNER APPROVED BY THE ENGINEER.
6. ESTIMATED QUANTITY FOR TEMPORARY EROSION AND SEDIMENT CONTROL TO BE USED IN MANNER APPROVED BY THE ENGINEER. PRICE BID TO INCLUDE THE COST OF NECESSARY MAINTENANCE, MAINTAINING IN AN UPRIGHT POSITION, REMOVAL OF CONTROL AND SEDEMENT REMOVAL.
7. SHALL BE CONSTRUCTED ON TOP OF SOD AND INSTALLED PER MANUFACTURER RECOMMENDATIONS.
8. SIDEWALK PATH BETWEEN PARAPET WALL AND PIPE RAILING SHALL BE PAID FOR BY CLASS AA CONCRETE AND REINFORCING STEEL. SIDEWALK OUTSIDE OF THESE EXTENTS TO BE PAID BY 4" CONCRETE SIDEWALK.

UTILITY CONTACTS		
ONG	CORY MODELMOG	551-6689
AT&T	JOE ANDERSON	539-444-1026
OEC	MORGAN EDERER	217-6615
COX COMMUNICATIONS		605-1339
ONE CALL UTILITIES	LOCATE	800-522-6543
NORMAN UTILITY ADMINISTRATION		336-5443

## EXISTING UTILITIES

— <i>W</i> —	WATERLINE
— <i>OHE</i> —	OVERHEAD ELECTRIC
— <i>TUG</i> —	UNDERGROUND TELEPHONE
— <i>FOC</i> —	FIBER OPTIC CABLE
— <i>PUG</i> —	UNDERGROUND POWER
— <i>G</i> —	GAS LINE
— <i>SS</i> —	SANITARY SEWER
— <i>ST</i> —	STORM SEWER

## SYMBOLS

	FIRE HYDRANT		STORM SEWER MANHOLE
	WATER METER		ELECTRIC GUY WIRE
	WATER VALVE		ELECTRIC VAULT
	GAS METER		ELECTRIC PEDESTAL
	GAS VALVE		PULL BOX
	GAS VENT PIPE		POWER POLE
	SANITARY SEWER MANHOLE		LIGHT POLE
	BENCHMARK		MAILBOX
	CONTROL POINT		SIGN
	TELEPHONE VAULT		TREE
	TELEPHONE PEDESTAL		HEDGE/LANDSCAPING
	EXISTING BUILDING		STORM SEWER INLET

PLOT DATE:



CEC CORPORATION  
4555 W. MEMORIAL ROAD  
OKLAHOMA CITY, OKLAHOMA 73142  
P. 405.753.4200  
WWW.CECCORP.COM

STATE OF OK CERTIFICATE OF AUTHORIZATION  
CAN# 32 EXPIRES: 02/20-06-30

COPYRIGHT © 2024 CEC. ALL RIGHTS RESERVED.  
THIS DRAWING IS PROPERTY OF CEC. ANY  
MODIFICATION OR USE OF THIS DRAWING  
WITHOUT EXPRESS WRITTEN AUTHORIZATION OF



SUBMITTAL:		FINAL PLANS		REVISION HISTORY	
DATE:	11-15-2024	NO.	DESCRIPTION		DATE
PROJECT NO:	K/2324-152				
DESIGNED BY:	KLM				
DRAWN BY:	MTD				
APPROVED BY:	KLM				
SCALE:	AS SHOWN				

MAIN STREET  
BRIDGE REHABILITATION  
NORMAN, OKLAHOMA

SHEET NAME  
SUMMARY OF  
PAY QUANTITIES  
& NOTES

SHEET  
AR01



GENERAL NOTES

SPECIFICATIONS -  
COMPLY WITH THE REQUIREMENTS OF THE 2019 OKLAHOMA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, EXCEPT AS MODIFIED BY THE PLANS AND SPECIAL PROVISIONS.

PNEUMATICALLY PLACED MORTAR CONCRETE REPAIR -  
REPAIR AREAS OF DETERIORATED CONCRETE AT THE APPROXIMATE LOCATIONS SHOWN IN PLANS IN ACCORDANCE WITH SECTION 521 OF THE SPECIFICATIONS EXCEPT AS MODIFIED BY THE PLANS. IDENTIFY REPAIR AREAS USING GEOMETRY IN ACCORDANCE WITH FIGURE 513.1 OF THE SPECIFICATIONS TO THE LIMITS OF SOUND CONCRETE AS DETERMINED BY THE ENGINEER. ENSURE DIMENSIONS OF RE-ENTRANT CORNERS ARE AT LEAST 4 INCHES. REMOVE ALL DETERIORATED, LOOSE AND UNSOUND CONCRETE AND DEBRIS LEAVING ONLY SOUND CONCRETE.  
DO NOT USE POWER TOOLS FOR REMOVING LOOSE CONCRETE UNLESS HAND TOOLS PROVE INCAPABLE OF EXCAVATING DETERIORATED CONCRETE TO SOUND CONCRETE AS DETERMINED BY THE ENGINEER. IF POWER TOOLS ARE DEEMED NECESSARY, USE TOOLS OF A SIZE THAT DO NOT EXCESSIVELY REMOVE OR DAMAGE SOUND CONCRETE.  
DO NOT CUT, STRETCH OR CAUSE ADDITIONAL DAMAGE TO REINFORCING STEEL EXPOSED DURING CONCRETE REMOVAL. REPLACE CORROSION-DAMAGED REINFORCING STEEL IF LESS THAN 50% OF THE AREA OF THE SECTION IS REMAINING AFTER BLAST CLEANING. REPLACE OR REPAIR DAMAGED REINFORCING STEEL BY EITHER LAPPING OR PROVIDING MECHANICAL SPLICES IN ACCORDANCE WITH SECTION 511.04.C(3) OF THE SPECIFICATIONS. DO NOT LAP BARS IF THE ENGINEER DETERMINES EXCESSIVE REMOVAL OF SOUND CONCRETE IS REQUIRED.  
PROVIDE CLASS AA CONCRETE IN ACCORDANCE WITH SECTION 701 OF THE SPECIFICATIONS FOR MORTAR/PATCH MATERIAL. ALTERNATIVELY, USE ONE OF THE FOLLOWING REPAIR METHODS WITH THE APPROVAL OF THE ENGINEER: (1) CAST-IN-PLACE CONCRETE, (2) PREPLACED AGGREGATE CONCRETE, (3) FORMED AND PUMPED CONCRETE MORTAR, (4) TROWELED OR DRY PACKED REPAIR MORTAR. PLACE NEW MATERIAL TO THE ORIGINAL NEAT LINES OF THE STRUCTURAL COMPONENT UNDER REPAIR AND FINISHED TO PROVIDE A SURFACE TEXTURE MATCHING THAT OF THE ADJACENT EXISTING CONCRETE.  
SUBMIT A PROPOSED WORK PLAN FOR THE CHOSEN REPAIR METHOD WHICH INCLUDES SURFACE PREPARATION METHODS, MORTAR/PATCH MATERIALS, BONDING AGENTS, MATERIAL PLACING METHODS, AND FINISHING METHODS. REPAIR A TEST AREA TO VERIFY THE EFFECTIVENESS OF THE PROPOSED REPAIR METHOD PRIOR TO COMMENCING WORK. REPLACE FAULTY REPAIRS AT NO ADDITIONAL COST TO THE DEPARTMENT.

DEBRIS REMOVAL -  
REMOVE ALL DEBRIS AND MUCK FROM ALL CELLS OF THE R.C.B. INCLUDE ALL COSTS TO REMOVE AND DISPOSE OF THE DEBRIS IN OTHER ITEM OF WORK.

CALL OKIE -  
NOTIFY THE OKLAHOMA ONE-CALL SYSTEM, INC. 48 HOURS PRIOR TO BEGINNING ANY EXCAVATIONS. OKLAHOMA ONE-CALL SYSTEM, INC. "CALL OKIE" 1-800-522-6543 OR 811.

VERIFICATION OF EXISTING CONDITIONS -  
THE CONTRACTOR IS RESPONSIBLE FOR FULLY UNDERSTANDING THE NATURE OF THE WORK AND CONDITIONS UNDER WHICH THE WORK WILL BE PERFORMED.  
ALL DIMENSIONS OF THE EXISTING BRIDGE COMPONENTS SHOWN ON THE PLANS ARE APPROXIMATE. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS NECESSARY TO CONNECT THE NEW MATERIAL AND SHALL BE SOLELY RESPONSIBLE FOR THE ACCURACY THEREOF.  
USE METHODS CONSISTENT WITH GOOD CONSTRUCTION PRACTICE AND TAKE ALL NECESSARY PRECAUTIONS TO PREVENT DAMAGE TO THE EXISTING BRIDGE AND ATTACHMENTS. ANY DAMAGE TO THE EXISTING BRIDGE STRUCTURE OR ROADWAY DUE TO THE CONTRACTOR'S NEGLIGENCE SHALL BE REPAIRED, AT THE CONTRACTOR'S EXPENSE, TO THE SATISFACTION OF THE ENGINEER.

DESCRIPTION OF WORK

THE BRIDGE WORK CONSISTS OF PATCHING THE CELL WALLS AND WING WALLS WITH PNEUMATICALLY PLACED MORTAR AND SEALING CRACKS. ADDITIONAL WORK ABOVE THE R.C.B. INCLUDES REPLACING PAVEMENT AND SIDEWALKS WITH NEW PARAPETS.

GENERAL CONSTRUCTION NOTES

THE CONTRACTOR SHALL GIVE NOTICE TO THE CITY OF NORMAN IN WRITING, FOURTEEN (14) DAYS BEFORE WORK ON THIS PROJECT BEGINS.  
ALL WORK AND/OR MATERIALS NOT CLASSIFIED AS A "CONTRACT PAY ITEM" SHALL BE CONSIDERED INCIDENTAL AND THE COST THEREOF SHALL BE INCLUDED IN OTHER ITEMS OF WORK.  
THE LOCATION AND DEPTH OF ALL UTILITIES AS SHOWN ON THE THE PLANS ARE APPROXIMATE AND SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION.  
THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO EXISTING UNDERGROUND UTILITIES WITHIN THE PROJECT AREA AS A RESULT OF DIGGING, TRENCHING, BORING, ETC. PRIOR TO DIGGING NEAR THE UTILITIES, THE CONTRACTOR SHALL CALL FOR A LIST OF ALL UNDERGROUND FACILITIES REGISTERED WITH THE FOLLOWING AGENCIES:  
THE LOCAL COUNTY CLERK'S OFFICE  
THE LOCAL CITY GOVERNMENT'S OFFICE  
THE "OKIE" NOTIFICATION CENTER: (405)840-5032 OR (800)522-6543  
THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO THE EXISTING DRAINAGE STRUCTURES TO REMAIN IN PLACE, AND SHALL REPAIR SUCH DAMAGES AT NO ADDITIONAL COST.  
ALL MATERIAL REMOVED SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE DISPOSED OF IN A MANNER APPROVED BY THE ENGINEER, UNLESS OTHERWISE SPECIFIED.

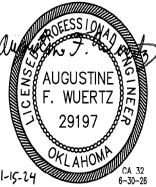
CONTRACT NO. K-2324-152 BRIDGE "A" NBI NO. 18911		PAY QUANTITIES	
W. MAIN STREET OVER MERKLE CREEK REHABILITATION OF EXISTING 3 - 10'x9'x12' LONG R.C.B. SKEW 45° ℄ STA. 9+42.64, SKEW 60° L.F.			
ITEM NO.	ITEM DESCRIPTION	UNIT	TOTAL
504(E) 5500	CONCRETE PARAPET (BR-1, 5)	L.F.	130.0
518(C) 0400	RAPID CURE JOINT SEALANT (BR-1)	L.F.	114.0
520(A) 1200	PREPARATION OF CRACKS, ABOVE WATER (BR-2)	L.F.	161.0
520(C) 1400	EPOXY RESIN, ABOVE WATER (BR-3)	GAL.	13
521(A) 2200	PNEUMATICALLY PLACED MORTAR (BR-2)	S.Y.	63.4
535 7100	CORROSION INHIBITOR (SURFACE APPLIED) (BR-4)	S.Y.	95.1

PAY ITEM NOTES

- (BR-1) PAYMENT TO THE CONTRACTOR WILL BE BASED ON PLAN QUANTITIES.
- (BR-2) REPAIR AREAS AS DIRECTED BY THE ENGINEER. QUANTITY SHOWN IS APPROXIMATE AND SUBJECT TO THE ACTUAL LOCATIONS AND EXTENTS OF REPAIRS DETERMINED IN THE FIELD BY THE ENGINEER. ALL REMOVED MATERIALS SHALL BECOME THE PROPERTY OF THE CONTRACTOR.
- (BR-3) QUANTITY SHOWN FOR EPOXY RESIN ESTIMATED AT 0.080 GALLONS PER FOOT OF CRACK REPAIR.
- (BR-4) APPLY CORROSION INHIBITOR TO AREAS PREPPED TO RECEIVE CONCRETE REPAIR AS SHOWN IN THE PLANS AND AS DIRECTED BY THE ENGINEER AND IN ACCORDANCE WITH SECTION 535. QUANTITY SHOWN IS APPROXIMATE AND SUBJECT TO THE ACTUAL LOCATIONS AND EXTENTS OF CONCRETE REPAIR TO DETERMINED IN THE FIELD BY THE ENGINEER. INCLUDE ALL COST ASSOCIATED WITH APPLICATION INCLUDING ALL MATERIAL, LABOR, EQUIPMENT, AND INCIDENTALS NECESSARY TO COMPLETE THE WORK IN THE CONTRACT UNIT PRICE OF "CORROSION INHIBITOR (SURFACE APPLIED)".
- (BR-5) THE ITEM " CONCRETE PARAPET" INCLUDES 2,760 LBS. OF REINFORCING STEEL AND 12.9 C.Y. OF CLASS AA CONCRETE.



CEC CORPORATION  
6655 W. MEMORIAL ROAD  
OKLAHOMA CITY, OKLAHOMA 73142  
P. 405.934.8000  
WWW.CONNCTEC.COM  
STATE OF OK CERTIFICATE OF AUTHORIZATION  
AUGUSTINE F. WUERTZ  
29197  
COPIES: 10 - 10/25/2024  
THIS DRAWING IS THE PROPERTY OF CEC. ANY  
REPRODUCTION OR USE OF THIS DRAWING  
WITHOUT EXPRESS WRITTEN PERMISSION OF  
CEC IS PROHIBITED.



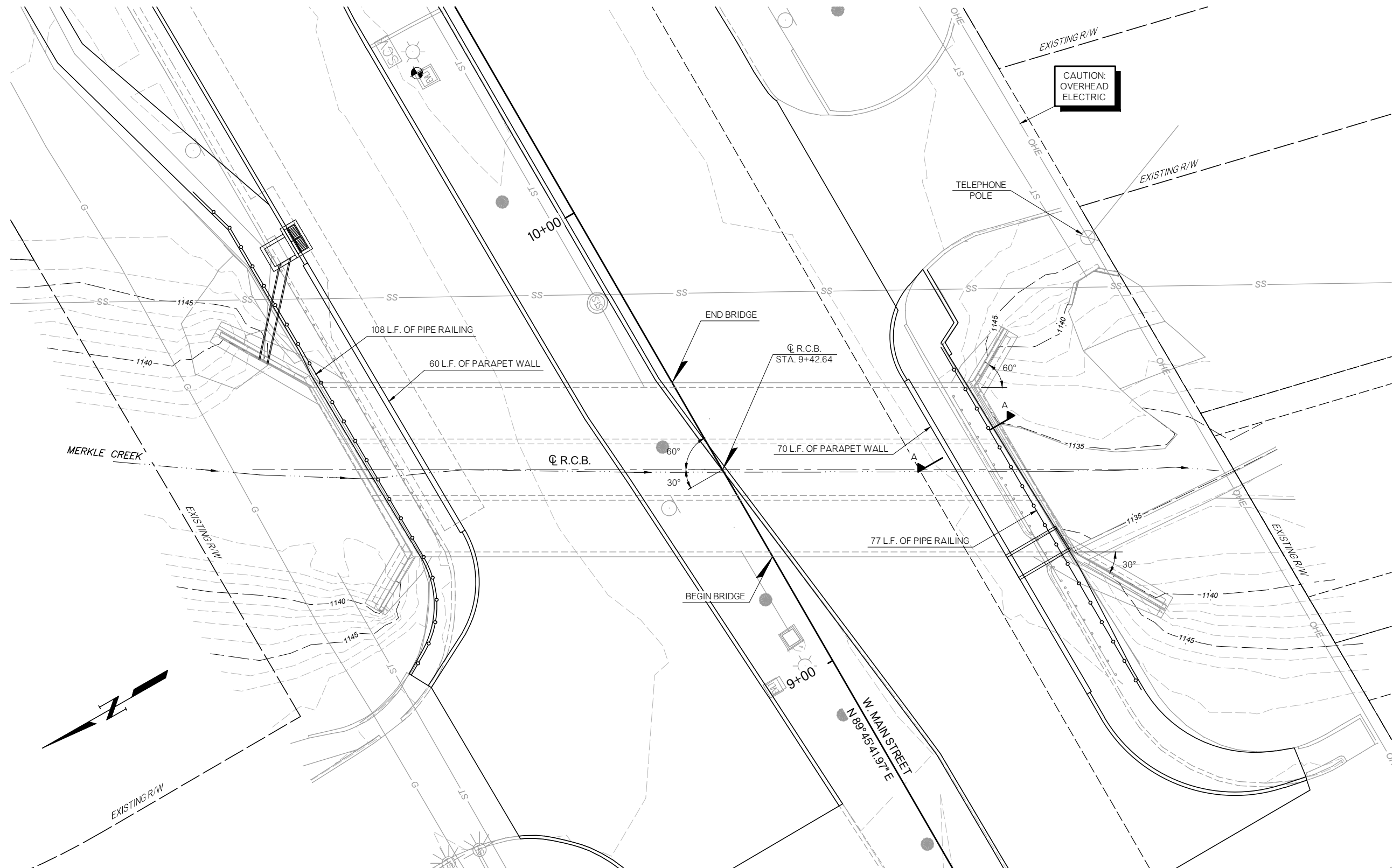
SUBMITTAL:		FINAL PS&E		REVISION HISTORY			
DATE:	11/15/2024	NO.	DESCRIPTION	DATE			
PROJECT NO.:							
DESIGNED BY:	AFW						
DRAWN BY:	DRB						
APPROVED BY:	AFW						
SCALE:	AS SHOWN						

BRIDGE REHABILITATION  
MAIN STREET OVER MERKLE CREEK  
NORMAN, OKLAHOMA

SHEET NAME  
GENERAL NOTES  
AND SUMMARY OF  
PAY QUANTITIES

SHEET  
AB01

N:\OKC\Bridge\Bridge Projects\Production\City of Norman\240367 -W Main St over Merkle Creek Rehab\Drawings\PE.dwg, 10/25/2024 7:02:27 AM, Deanne Brittian



BM #201 CUT "X" ON NE COR OF  
CONC PAD OF PULL BOX  
N = 686463.7  
E = 2125643.4  
ELEV. = 1149.37'

BM #202 BM CUT "X" ON NE COR  
OF CONC PAD OF PULL BOX  
N = 686473.3  
E = 2125861.9  
ELEV. = 1149.29'

PLAN  
1"=10'

**NOTE:**  
FOR DESIGN DATA, INDEX OF SHEETS, ODOT STANDARDS,  
AND SUMMARY OF BRIDGE QUANTITIES, SEE SHEET B002.

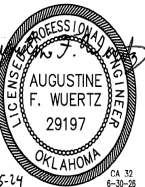
FOR SECTION A-A, PIPE RAILING DETAILS, AND PARAPET  
WALL DETAILS, SEE SHEET B006.



4555 W. MEMORIAL ROAD  
OKLAHOMA CITY, OKLAHOMA 73142  
P: 405.753.4200  
WWW.CONNECTCEC.COM

STATE OF OK CERTIFICATE OF AUTHORIZATION  
CAF: 32 EXPIRES: 2024-06-30

COPYRIGHT © 2023 CEC. ALL RIGHTS RESERVED.  
THIS DRAWING IS PROPERTY OF CEC. ANY  
MODIFICATION OR USE OF THIS DRAWING  
WITHOUT EXPRESS WRITTEN AUTHORIZATION OF  
CEC IS PROHIBITED.



DATE:	11/15/2024	NO.	DESCRIPTION	DATE
PROJECT NO:				
DESIGNED BY:	AFW			
DRAWN BY:	DRB			
APPROVED BY:	AFW			
SCALE:	AS SHOWN			

MAIN STREET OVER MERKLE CREEK  
BRIDGE REHABILITATION  
NORMAN, OKLAHOMA

SHEET NAME  
GENERAL PLAN  
AND ELEVATION  
(1 OF 2)

SHEET  
3001

SUMMARY OF QUANTITIES		
ITEM DESCRIPTION	UNIT	TOTAL
CONCRETE PARAPET	L.F.	130.0
RAPID CURE JOINT SEALANT	L.F.	114.0
PREPARATION OF CRACKS, ABOVE WATER	L.F.	161.0
EPOXY RESIN, ABOVE WATER	GAL.	13
PNEUMATICALLY PLACED MORTAR	S.Y.	63.4
CORROSION INHIBITOR (SURFACE APPLIED)	S.Y.	95.1



## LOAD AND RESISTANCE FACTOR DESIGN

CONCRETE CLASS AA  $f'_c = 4 \text{ K.S.I.}$   
REINFORCING STEEL (GRADE 60)  $f_y = 60 \text{ K.S.I.}$

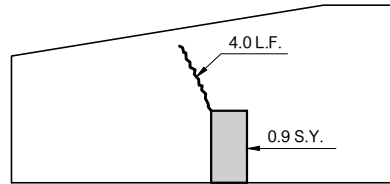
DESIGN: AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 9TH EDITION

AB01	GENERAL NOTES AND SUMMARY OF PAY QUANTITIES (BRIDGE)
B001 - B002	GENERAL PLAN AND ELEVATION
B003 - B006	R.C.B. BARREL REPAIR DETAILS

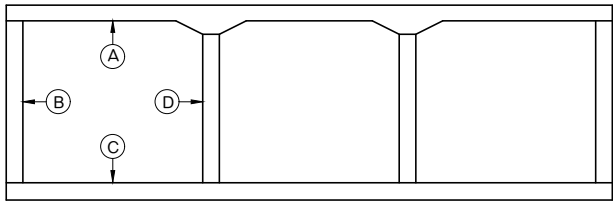
## LECS-5-2

<div style="text-align: center;">    <b>CEC</b><sup>®</sup> </div>						CEC CORPORATION 400 NORTH UNIVERSITY AVENUE OKLAHOMA CITY, OKLAHOMA 73142 WWW.CONNECTCEC.COM													
						STATE OF OK CERTIFICATE OF AUTHORIZATION CAP # 38 EXPIRES 2024-06-30 COPYRIGHT © 2023 CEC. ALL RIGHTS RESERVED. NO REPRODUCTION OR USE OF THIS DRAWING WITHOUT EXPRESS WRITTEN PERMISSION FROM CEC IS PROHIBITED.													
<div style="text-align: center;">             AUGUSTINE F. WUERZT            29197            OKLAHOMA         </div>						11-5-24						CA 12 04-30-25							
BRIDGE REHABILITATION MAIN STREET OVER MERKLE CREEK NORMAN, OKLAHOMA												SUBMITTAL:		FINAL PS&E		REVISION HISTORY			
												DATE:	PROJECT NO.:	NO.	DESCRIPTION	DATE			
													DESIGNED BY: AFW						
													DRAWN BY: DRG						
													APPROVED BY: AFW						
													SCALE:		AS SHOWN				
SHEET NAME												GENERAL PLAN AND ELEVATION (2 OF 2)							
SHEET												B002							

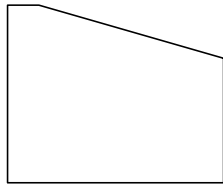




LONG WING SOUTH END

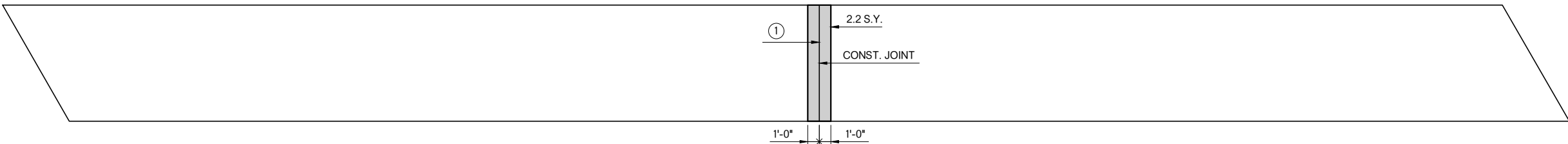
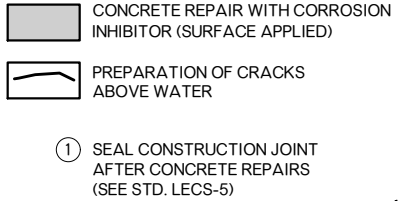


SOUTH END LOOKING NORTH

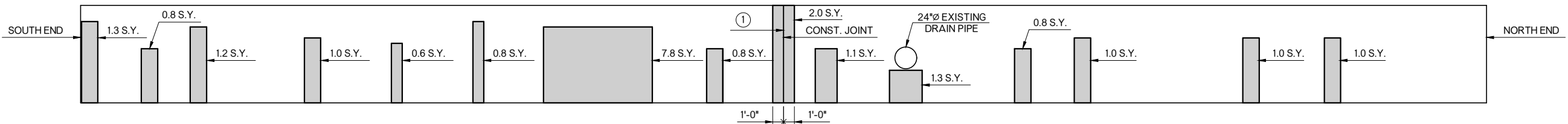


### SHORT WING SOUTH END

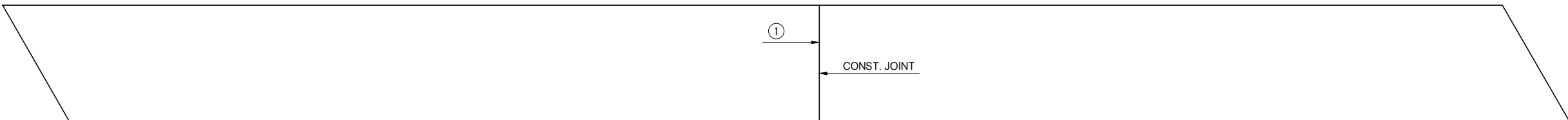
### LEGEND



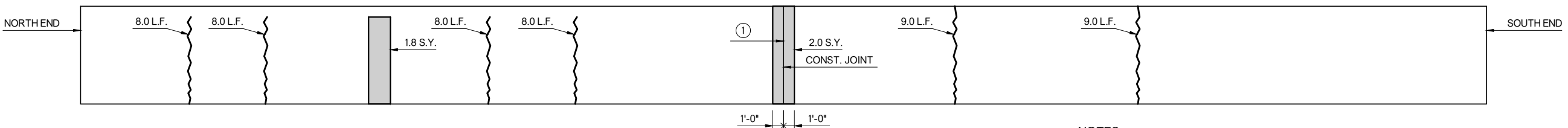
## FACE A LOOKING UP



FACE B LOOKING WEST



FACE C LOOKING DOWN

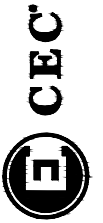


FACE D LOOKING EAST

NOTES:  
FOR SUMMARY OF QUANTITIES, SEE SHEET B002

FOR CONCRETE REPAIR DETAIL, SEE SHEET B006.

INCLUDE ALL COSTS ASSOCIATED WITH SEALING  
CONSTRUCTION JOINT IN THE CONTRACT UNIT PRICE  
"RAPID CURE JOINT SEALANT".



CEC CORPORATION  
4555 W. MEMORIAL ROAD  
OKLAHOMA CITY, OKLAHOMA 73142  
P. 405.753.4200  
WWW.CONNECTCEC.COM

STATE OF OK CERTIFICATE OF AUTHORIZATION  
CAN. 32 EXPIRES: 2024-05-30

COPYRIGHT © 2023 CEC. ALL RIGHTS RESERVED.  
THIS DRAWING IS PROPERTY OF CEC. ANY  
MODIFICATION OR USE OF THIS DRAWING  
WITHOUT EXPRESS WRITTEN AUTHORIZATION OF  
CEC IS PROHIBITED.

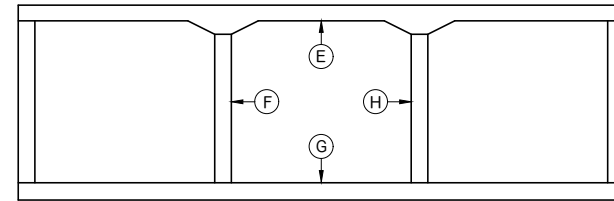


SUBMITTAL:		FINAL PS&E		REVISION HISTORY	
DATE:	11/15/2024	NO.	DESCRIPTION	DATE	
PROJECT NO.:					
DESIGNED BY:	AFW				
DRAWN BY:	DRG				
APPROVED BY:	AFW				

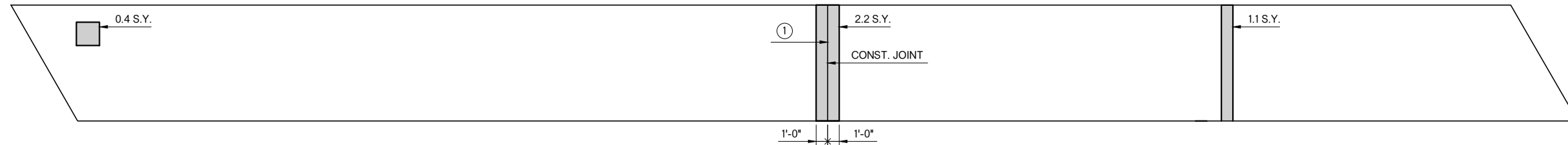
BRIDGE REHABILITATION  
MAIN STREET OVER MERKLE CREEK  
NORMAN, OKLAHOMA

SHEET NAME  
R.C.B. BARREL  
REPAIR DETAILS  
WEST CELL

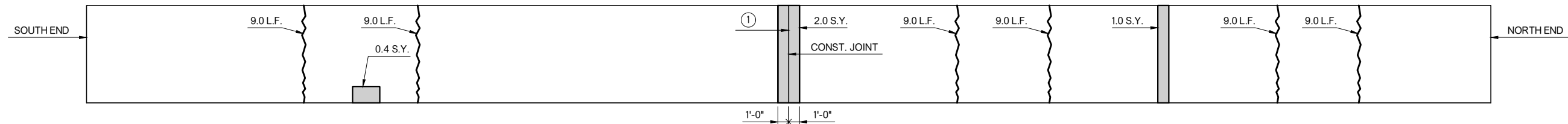
SHEET  
B003



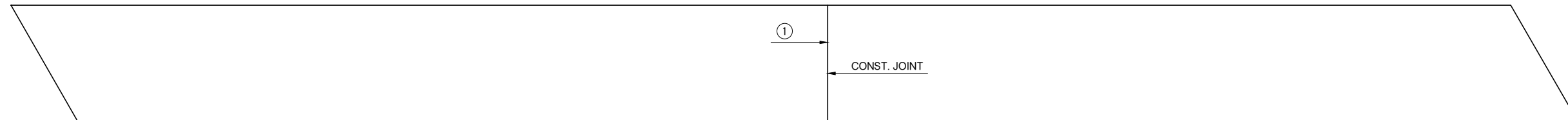
SOUTH END LOOKING NORTH



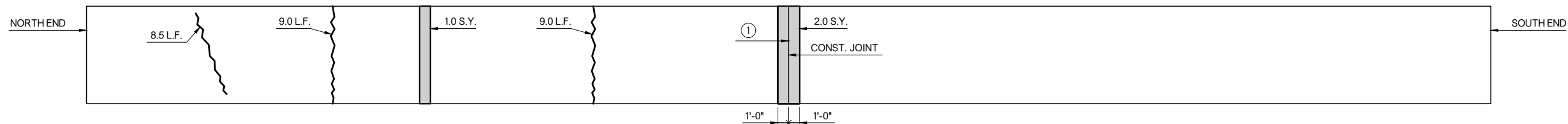
FACE E LOOKING UP



FACE F LOOKING WEST



FACE G LOOKING DOWN



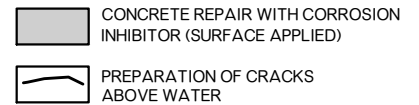
FACE H LOOKING EAST

NOTES:  
FOR SUMMARY OF QUANTITIES, SEE SHEET B002.

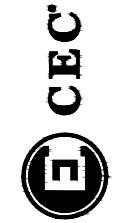
FOR CONCRETE REPAIR DETAIL, SEE SHEET B006.

INCLUDE ALL COSTS ASSOCIATED WITH SEALING  
CONSTRUCTION JOINT IN THE CONTRACT UNIT PRICE  
"RAPID CURE JOINT SEALANT".

LEGEND



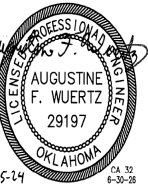
① SEAL CONSTRUCTION JOINT  
AFTER CONCRETE REPAIRS  
(SEE STD. LECS-5)



4555 W. MEMORIAL ROAD  
OKLAHOMA CITY, OKLAHOMA 73142  
P. 405.753.4200  
WWW.CONNECTCEC.COM

STATE OF OK CERTIFICATE OF AUTHORIZATION  
CAN. 32 EXPIRES: 2024-05-30

COPYRIGHT © 2023 CEC. ALL RIGHTS RESERVED  
THIS DRAWING IS PROPERTY OF CEC. ANY  
MODIFICATION OR USE OF THIS DRAWING  
WITHOUT EXPRESS WRITTEN AUTHORIZATION OF  
CEC IS PROHIBITED.

[illegible]

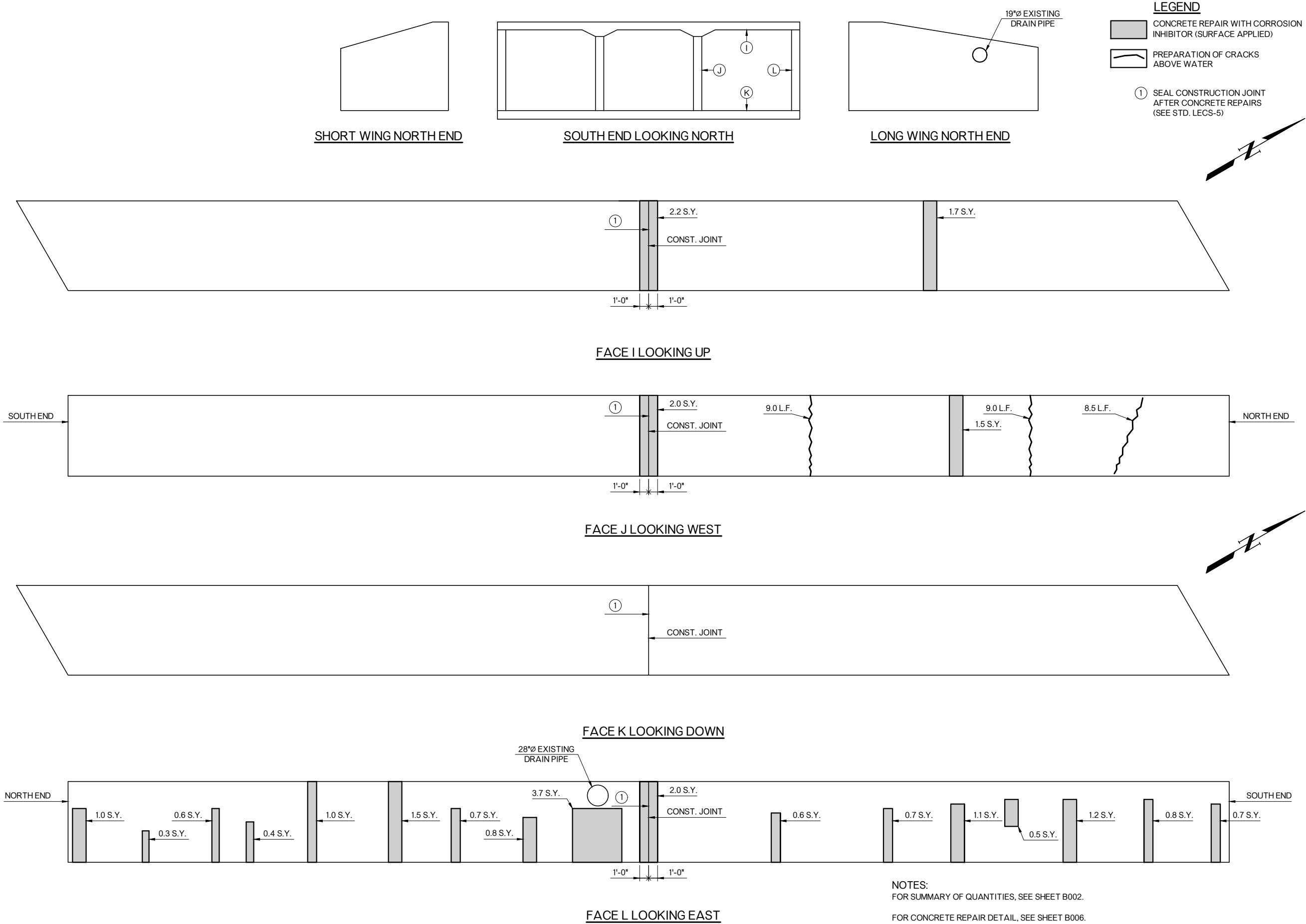
BRIDGE REHABILITATION  
MAIN STREET OVER MERKLE CREEK  
NORMAN, OKLAHOMA

SHEET NAME  
R.C.B. BARREL  
REPAIR DETAILS  
MIDDLE CELL

---

SHEET  
B004

N:\OKC\Bridge Projects\Production\City of Norman\240367 -W Main St over Merkle Creek Rehab\Drawings\B005 east cell.dwg, 10/25/2024 7:00:41 AM, Deanne Brittan



SHORT WING NORTH END

SOUTH END LOOKING NORTH

LONG WING NORTH END

1

2.2 S.Y.

CONST. JOINT

1'-0"

1'-0"

1.7 S.Y.

FACE I LOOKING UP

SOUTH END

1

2.0 S.Y.

CONST. JOINT

1'-0"

1'-0"

9.0 L.F.

9.0 L.F.

8.5 L.F.

1.5 S.Y.

NORTH END

FACE J LOOKING WEST

1

2.0 S.Y.

CONST. JOINT

1'-0"

1'-0"

28"Ø EXISTING  
DRAIN PIPE

FACE K LOOKING DOWN

NORTH END

1

2.0 S.Y.

CONST. JOINT

1'-0"

1'-0"

28"Ø EXISTING  
DRAIN PIPE

1.0 S.Y.

0.6 S.Y.

0.3 S.Y.

0.4 S.Y.

1.0 S.Y.

1.5 S.Y.

0.7 S.Y.

0.8 S.Y.

3.7 S.Y.

0.6 S.Y.

0.7 S.Y.

1.1 S.Y.

0.5 S.Y.

1.2 S.Y.

0.8 S.Y.

0.7 S.Y.

SOUTH END

FACE L LOOKING EAST

NOTES:

FOR SUMMARY OF QUANTITIES, SEE SHEET B002.

FOR CONCRETE REPAIR DETAIL, SEE SHEET B006.

INCLUDE ALL COSTS ASSOCIATED WITH SEALING  
CONSTRUCTION JOINT IN THE CONTRACT UNIT PRICE  
"RAPID CURE JOINT SEALANT".

CEC CORPORATION  
6655 W. MEMORIAL ROAD  
OKLAHOMA CITY, OKLAHOMA 73142  
P. 405.753.4200  
WWW.CONNECTCEC.COM

STATE OF OK CERTIFICATE OF AUTHORIZATION  
AUGUSTINE F. WERTZ  
29197  
OKLAHOMA  
CIVIL ENGINEER  
COPYING OR REPRODUCING THIS DRAWING WITHOUT THE WRITTEN PERMISSION OF CEC IS PROHIBITED.

SUBMITTAL:		FINAL PS&E		REVISION HISTORY	
DATE:	PROJECT NO:	DATE:	PROJECT NO:	NO.	DESCRIPTION
11/15/2024	AFW	11/15/2024	AFW		
	DRB		DRB		
	APPROVED BY: AFW		AS SHOWN		
SCALE:					

BRIDGE REHABILITATION  
MAIN STREET OVER MERKLE CREEK  
NORMAN, OKLAHOMA

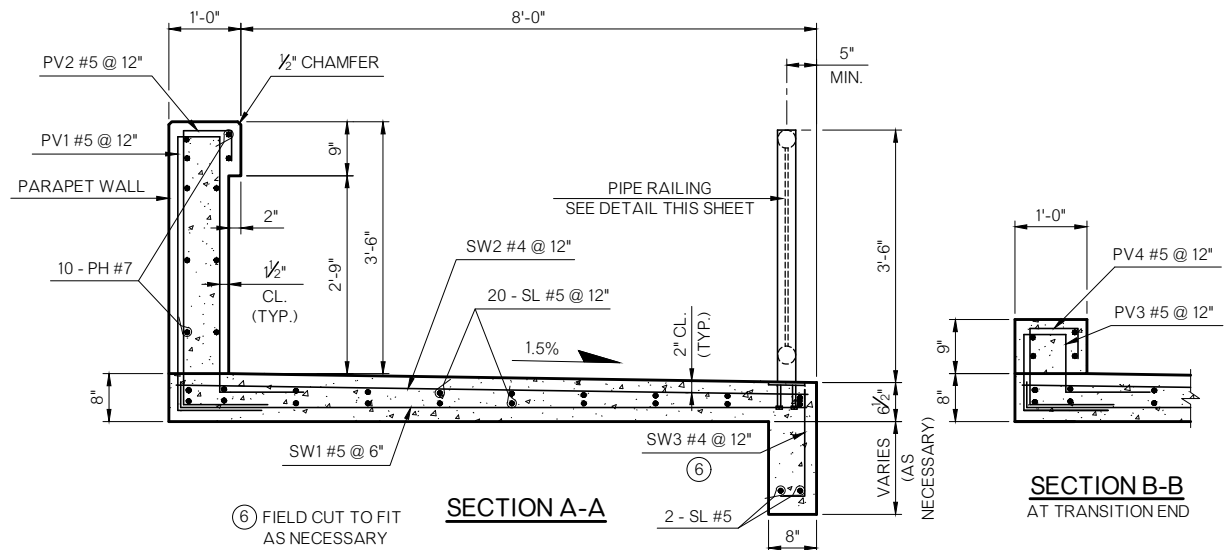
SHEET NAME

R.C.B. BARREL  
REPAIR DETAILS  
EAST CELL

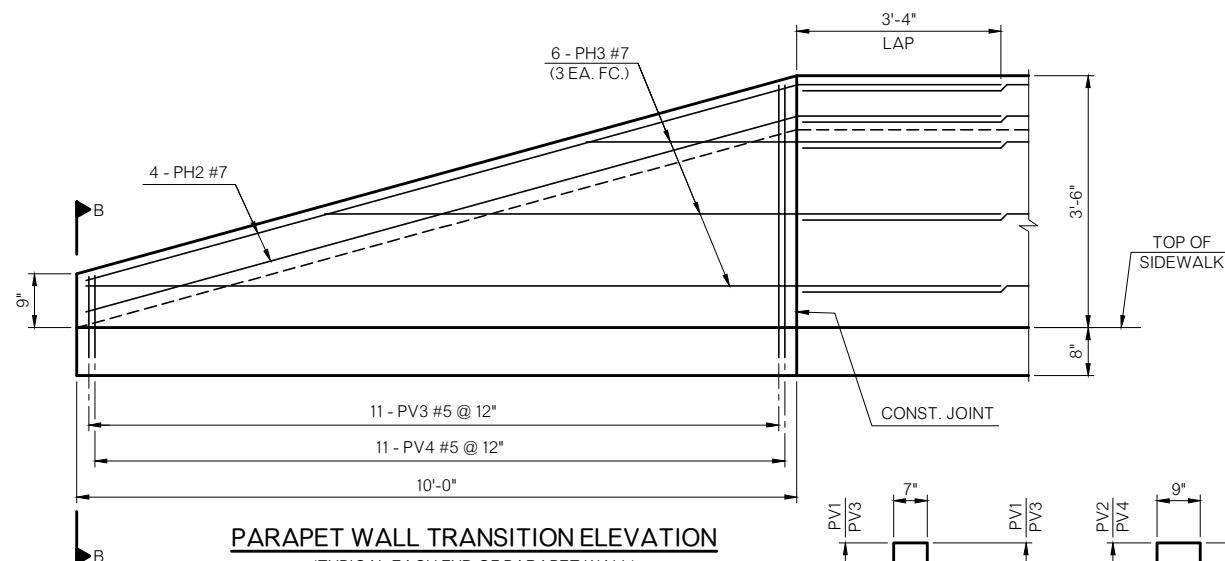
SHEET

B005



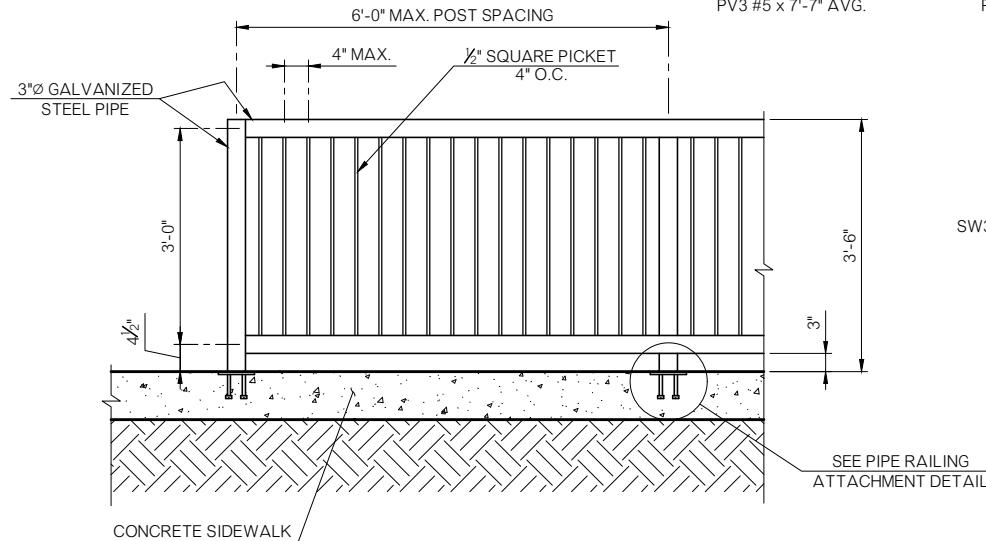
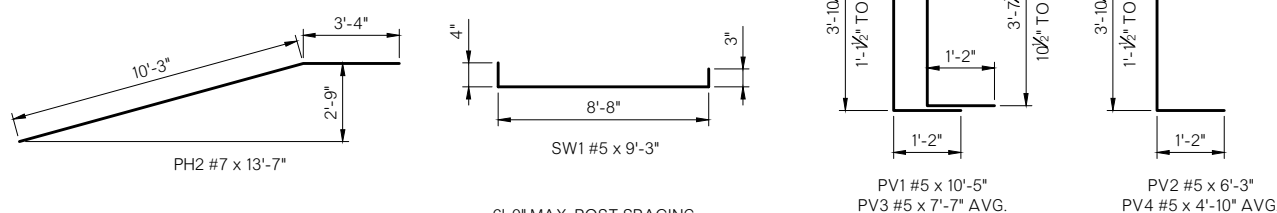


SECTION A-A

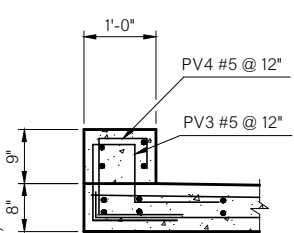


### PARAPET WALL TRANSITION ELEVATION

(TYPICAL EACH END OF PARAPET WALL)  
(ROADWAY FACE SHOWN)



### PIPE RAILING DETAIL



SECTION B-B

AT TRANSITION END

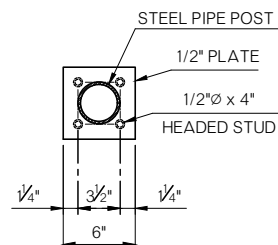
## NORTH PARAPET WALL AND SIDEWALK BAR LIST

	MARK	SIZE	NO.	FORM	LENGTH	LENGTH VARIATION
	PLAIN REINFORCING BARS					
④	PH1	#7	10	STR.	40'-0"	
④	PH2	#7	8	BNT.	13'-7"	
① ④	PH3	#7	12	STR.	9'-8" AVG.	6'-2" TO 13'-2"
⑤	PV1	#5	41	BNT.	10'-5"	
⑤	PV2	#5	41	BNT.	6'-3"	
② ⑤	PV3	#5	22	BNT.	7'-7" AVG.	4'-11" TO 10'-3"
② ⑤	PV4	#5	22	BNT.	4'-10" AVG.	3'-6" TO 6'-2"
⑤	SW1	#5	120	BNT.	9'-3"	
⑤	SW2	#4	60	STR.	8'-8"	
⑤	SW3	#4	60	BNT.	2'-2"	
⑤	SL1	#5	22	STR.	59'-8"	

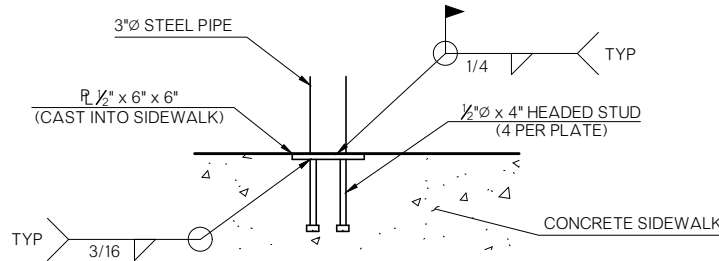
## SOUTH PARAPET WALL AND SIDEWALK BAR LIST

	MARK	SIZE	NO.	FORM	LENGTH	LENGTH VARIATION
	PLAIN REINFORCING BARS					
④	PH2	#7	8	BNT.	13'-7"	
① ④	PH3	#7	12	STR.	9'-8" AVG.	6'-2" TO 13'-2"
④	PH4	#7	10	STR.	50'-0"	
⑤	PV1	#5	51	BNT.	10'-5"	
⑤	PV2	#5	51	BNT.	6'-3"	
② ⑤	PV3	#5	22	BNT.	7'-7" AVG.	4'-11' TO 10'-3"
② ⑤	PV4	#5	22	BNT.	4'-10" AVG.	3'-6" TO 6'-2"
⑤	SW1	#5	140	BNT.	9'-3"	
⑤	SW2	#4	70	STR.	8'-8"	
⑤	SW3	#4	70	BNT.	2'-2"	
③ ⑤	SL2	#5	22	STR.	72'-2"	

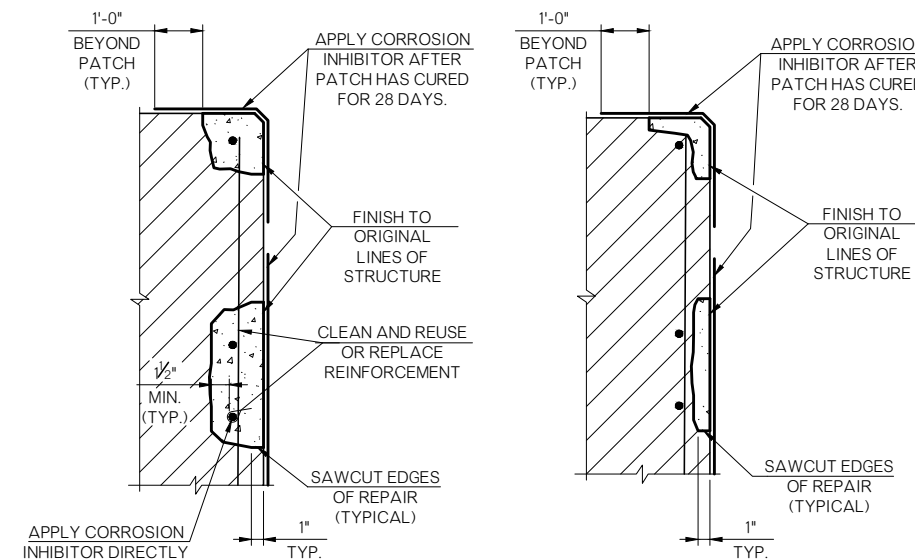
- ① 4 SETS OF 3 BARS
- ② 2 SETS OF 11 BARS
- ③ INCLUDES 1 - 2'-6" LAP
- ④ INCLUDED IN CONTRACT UNIT PRICE OF "CONCRETE PARAPET"
- ⑤ INCLUDED IN CONTRACT UNIT PRICE OF "4" CONCRETE SIDEWALK"



### PIPE RAILING BASE PLATE DETAIL



### PIPE RAILING ATTACHMENT DETAIL



## CONCRETE REPAIR DETAILS

NOTES:

INCLUDE ALL COSTS FOR REPAIRS OF DELAMINATED AND SPALLED CONCRETE INCLUDING MATERIALS, LABOR, EQUIPMENT AND INCIDENTALS FOR SAWCUTS, REMOVAL OF UNSOUND CONCRETE, CLEANING OF REMAINING CONCRETE AND REINFORCING, AND APPLICATION OF REPLACEMENT MATERIAL (REGARDLESS OF MATERIAL TYPE) IN THE CONTRACT UNIT PRICE OF "PNEUMATICALLY PLACED MORTAR".

PROVIDE REINFORCING SHOWN IN SIDEWALK WITHIN EXTENTS OF PARAPET WALL.

THE SIDEWALK WITHIN THE EXTENDS OF THE PARAPET WALL INCLUDES 8,370 LBS. OF REINFORCING STEEL AND 30.8 C.Y. OF CLASS AA CONCRETE. INCLUDE ALL COSTS ASSOCIATED WITH THE SIDEWALK INCLUDING CLASS AA CONCRETE, REINFORCING STEEL, MATERIALS, LABOR, EQUIPMENT, AND INCIDENTALS IN THE CONTRACT UNIT PRICE OF "4" CONCRETE SIDEWALK".

SEE SHEET 4 FOR PIPE RAILING, SIDEWALK, AND REMOVAL QUANTITIES.

INCLUDE ALL COSTS ASSOCIATED WITH THE PARAPET WALL INCLUDING MATERIALS, LABOR, EQUIPMENT AND INCIDENTALS IN THE CONTRACT UNIT PRICE OF "CONCRETE PARAPET".

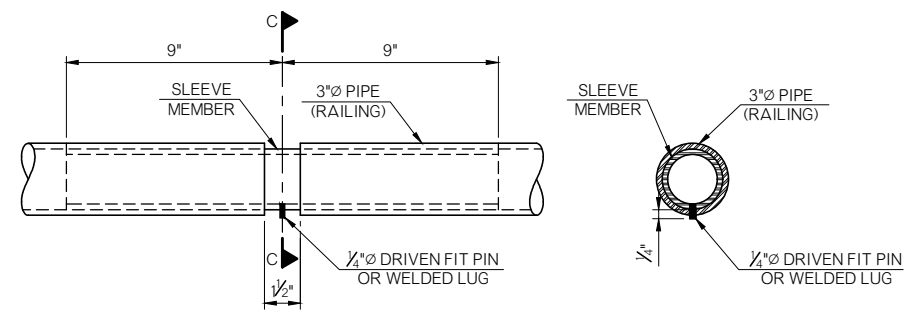
### PIPE RAILING GENERAL NOTES -

PROVIDE STEEL PIPE IN ACCORDANCE WITH ASTM A53 GRADE B AND STEEL PLATE IN ACCORDANCE WITH ASTM A36. USE HEADED STUDS CONFORMING TO AASHTO M169 (ASTM A108), GRADE 1015, 1018 OR 1020.

COMPLETE ALL WELDING AND FABRICATION IN ACCORDANCE WITH SECTION 512.04(B) OF THE ODOT SPECIFICATIONS AND THE LATEST EDITION OF ANSI/AASHTO/AWMS D11 WELDING CODE. USE E70XX ELECTRODES, CLEAN ALL WELDED CONNECTIONS OF LOOSE SCALE, AND ROUND OR CHAMFER ALL EXPOSED EDGES TO +1/16" BY GRINDING.

GALVANIZE ALL COMPONENTS EXCEPT BASE PLATES IN ACCORDANCE WITH AASHTO M111. PROVIDE HOLES IN PIPE RAILING OR BASE PLATES AS NEEDED FOR DRAINAGE AND VENTING. REPAIR ANY GALVANIZED AREAS AFTER FIELD INSTALLATION IN ACCORDANCE WITH ASTM A780. PAINT BASE PLATES WITH AT LEAST TWO (2) COATS OF ZINC-RICH (90% ZINC) PAINT.

INCLUDE ALL COSTS FOR POSTS, RAILINGS, BASE PLATES, EXPANSION JOINTS, HEADED STUDS, WELDING, CLEANING, PAINTING, MATERIALS, LABOR, EQUIPMENT AND INCIDENTALS NECESSARY TO COMPLETE THE WORK, IN THE PRICE PER LINEAR FOOT OF "PIPE RAILING".

ELEVATION

SECTION C-C

## PIPE RAILING EXPANSION JOINT DETAILS

(EXPANSION JOINT SHALL BE AT 30'-0" MAXIMUM SPACING)

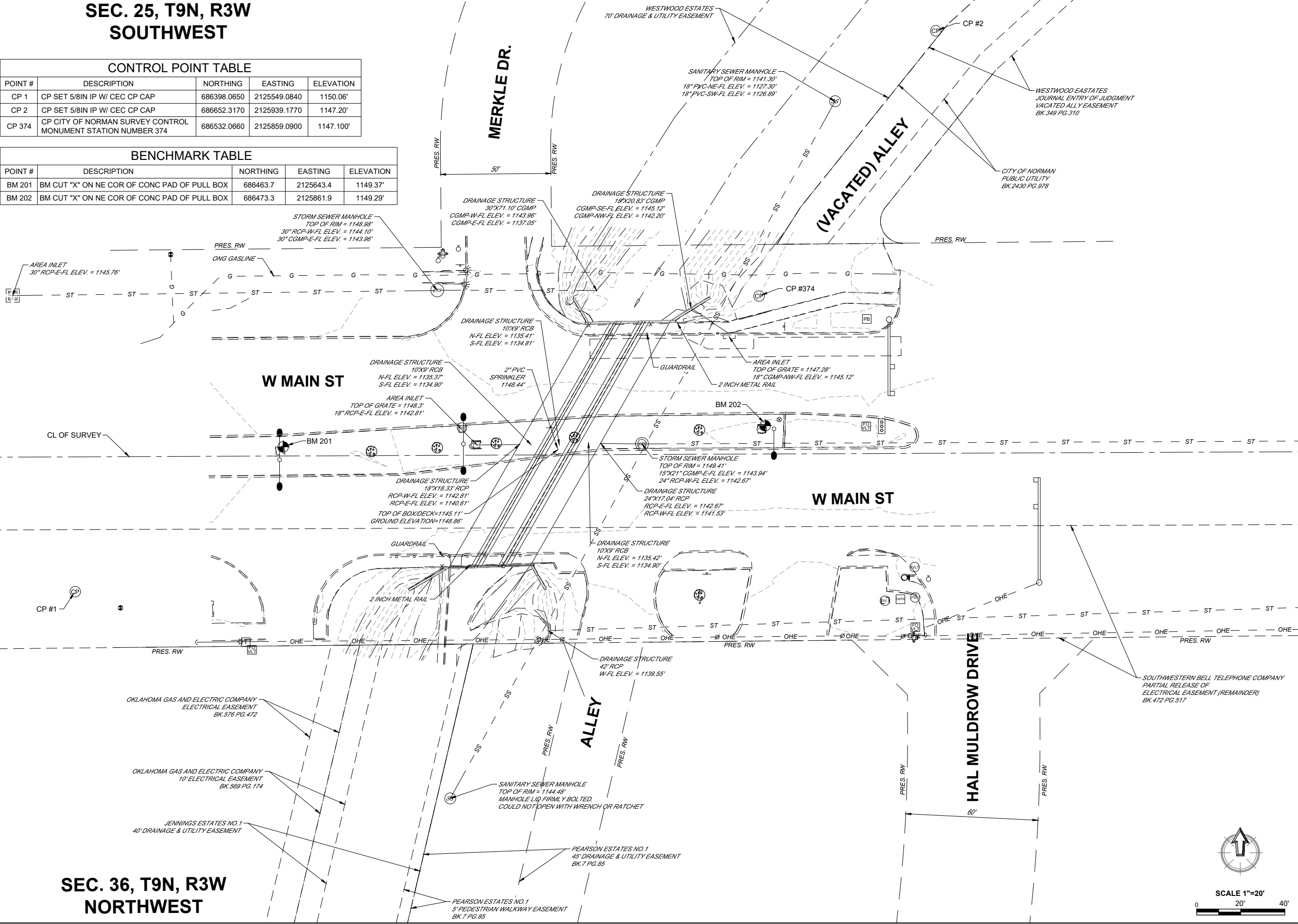
SEC. 25, T9N, R3W  
SOUTHWEST

CONTROL POINT TABLE

POINT #	DESCRIPTION	NORTHING	EASTING	ELEVATION
CP 1	CP SET 5/8IN IP W/ CEC CP CAP	686398.0650	2125549.0840	1150.06'
CP 2	CP SET 5/8IN IP W/ CEC CP CAP	686652.3170	2125939.1770	1147.20'
CP 374	CP CITY OF NORMAN SURVEY CONTROL MONUMENT STATION NUMBER 374	686532.0660	2125859.0900	1147.100'

BENCHMARK TABLE

POINT #	DESCRIPTION	NORTHING	EASTING	ELEVATION
BM 201	BM CUT "X" ON NE COR OF CONC PAD OF PULL BOX	686463.7	2125643.4	1149.37'
BM 202	BM CUT "X" ON NE COR OF CONC PAD OF PULL BOX	686473.3	2125861.9	1149.29'



SEC. 36, T9N, R3W  
NORTHWEST



SCALE 1"=20'



CEC CORPORATION  
4625 W. MEADOWS BLVD.  
OKLAHOMA CITY, OK 73135  
P. 405.333.4000  
WWW.CECOKLAHOMA.COM  
STATE OF OKLAHOMA  
JULY 18, 1906  
ALL RIGHTS RESERVED  
THIS DRAWING IS THE PROPERTY OF CEC. ANY  
REPRODUCTION OR TRANSMISSION OF THIS  
DRAWING WITHOUT EXPRESS WRITTEN AUTHORIZATION OF  
CEC IS PROHIBITED.

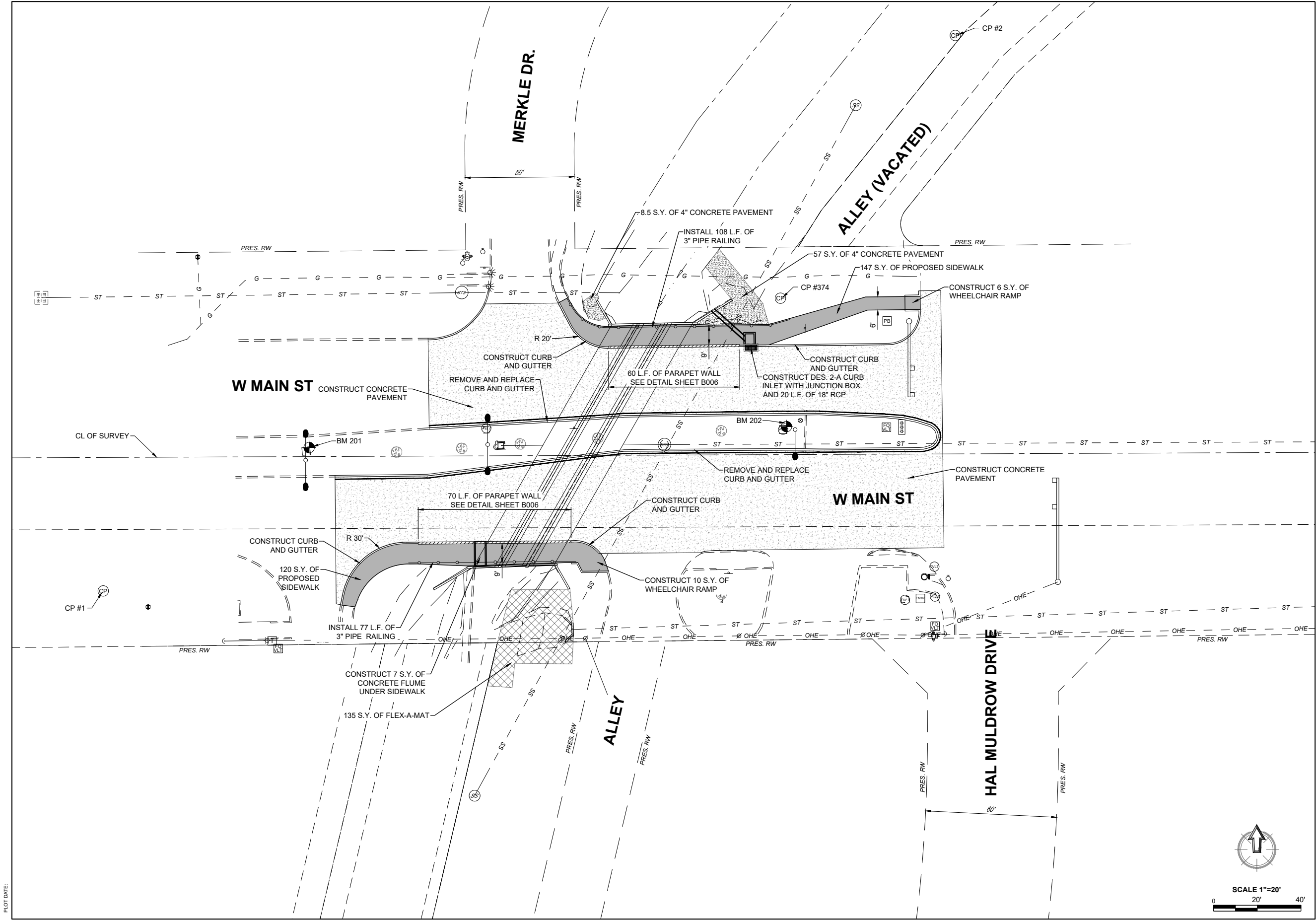


SUBMITTAL	FINAL PLANS		REVISION HISTORY	
	DATE	PROJECT NO.	NO.	DESCRIPTION
DATE:	11-15-2024	K-2324-152		
DESIGNED BY:	KLM			
DRAWN BY:	MTD			
APPROVED BY:	KLM			
SCALE:	AS SHOWN			

MAIN STREET  
BRIDGE REHABILITATION  
NORMAN, OKLAHOMA

SHEET NAME  
EXISTING  
SITEPLAN

SHEET  
R001



PLOT DATE:



SCALE 1"=20'  
0 20' 40'



CEC CORPORATION  
4625 W. MIDLAND, SUITE 1112  
P.O. BOX 703, ADDY, IDAHO 83201  
WWW.CEC-CORP.COM  
STATE OF OKLAHOMA CERTIFICATE OF AUTHORIZATION  
KYLE L. MORSE  
27689  
11-15-2024  
EXPIRES: 2026-06-30  
ALL RIGHTS ARE RESERVED.  
NO PART OF THIS DOCUMENT MAY BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, WITHOUT EXPRESS WRITTEN AUTHORIZATION OF CEC CORPORATION.



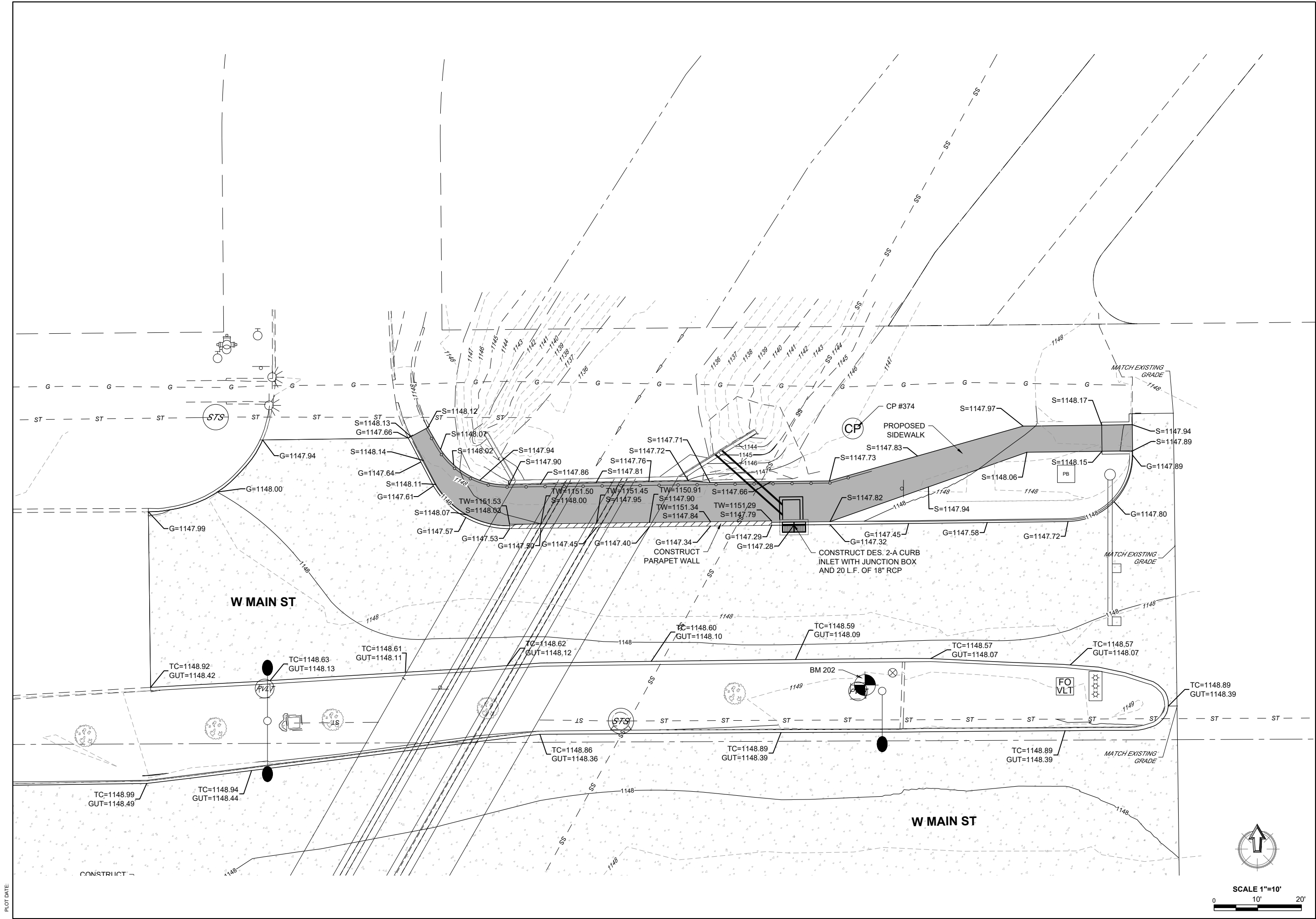
REVISION HISTORY		DATE
NO.	DESCRIPTION	

SUBMITTAL:	FINAL PLANS	SCALE:
DATE: 11-15-2024	DATE: 11-15-2024	AS SHOWN
PROJECT NO: K-2324-152	PROJECT NO: K-2324-152	
DESIGNED BY: KLM	DESIGNED BY: KLM	
DRAWN BY: MTD	DRAWN BY: MTD	
APPROVED BY: KLM	APPROVED BY: KLM	


MAIN STREET  
BRIDGE REHABILITATION  
NORMAN, OKLAHOMA

SHEET NAME  
PROPOSED  
SITEPLAN

SHEET  
R002



PLOT DATE:



CEC CORPORATION  
1655 W. MEMORIAL ROAD  
OKLAHOMA CITY, OKLAHOMA 73142  
P. 405.733.4200  
WWW.CECCTEC.COM

STATE OF OK CERTIFICATE OF AUTHORIZATION  
KYLE L. MORSE  
27689  
11-15-24  
OKLAHOMA

REVISION HISTORY	
NO.	DESCRIPTION

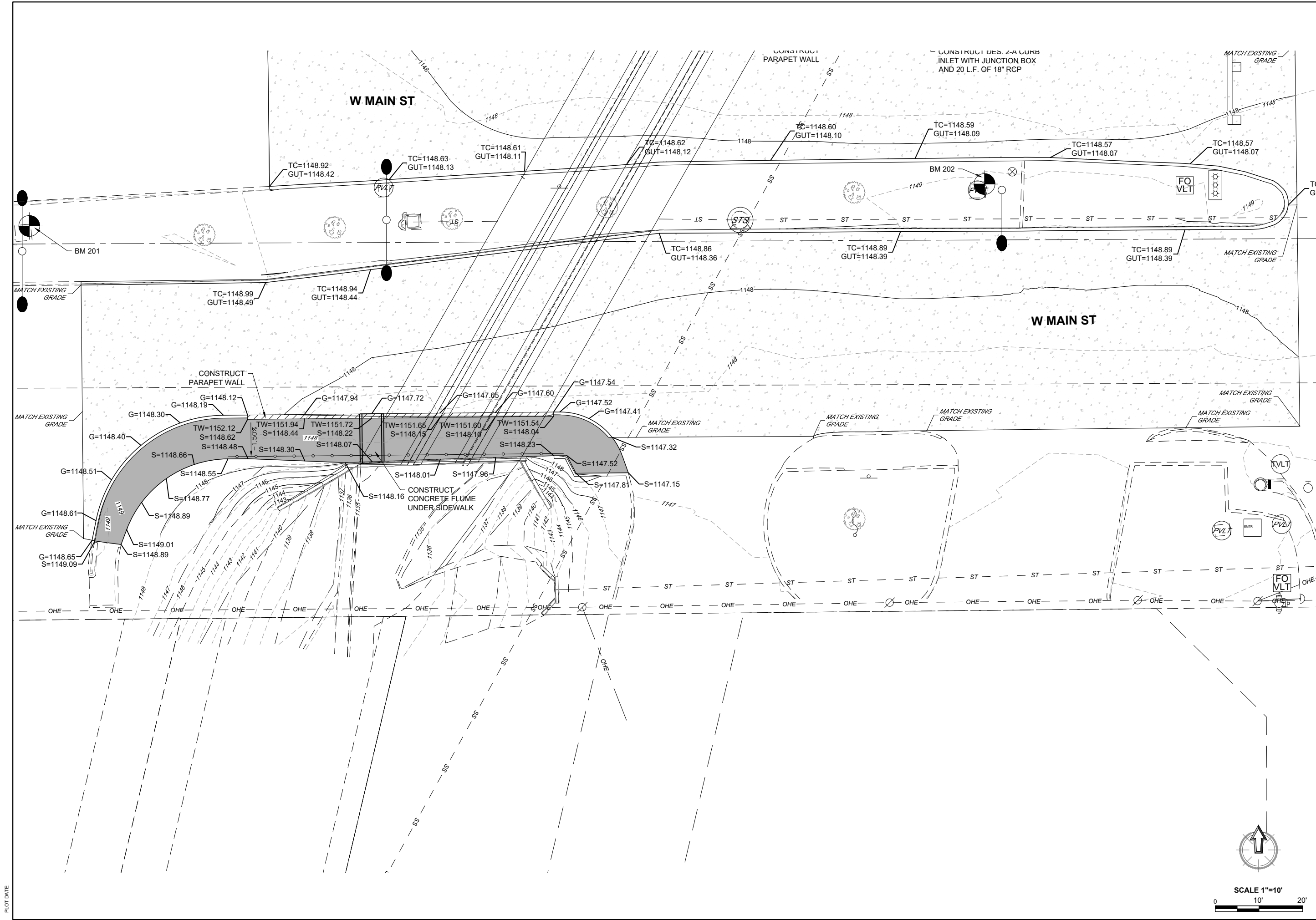
FINAL PLANS	
SUBMITTAL	DATE
	11-15-2024
	PROJECT NO: K-2324-152
	DESIGNED BY: KLM
	DRAWN BY: MTD
	APPROVED BY: KLM
	SCALE: AS SHOWN

MAIN STREET  
BRIDGE REHABILITATION  
NORMAN, OKLAHOMA


SHEET NAME  
GRADING  
SITEPLAN  
NORTH

SHEET  
R003





PLOT DATE:



CEC CORPORATION  
1655 W. MEMORIAL ROAD  
OKLAHOMA CITY, OKLAHOMA 73102  
P. 405.534.2000  
WWW.CECORP.COM

STATE OF OK CERTIFICATE OF AUTHORIZATION  
KYLE L. MORSE  
27689  
11-15-24  
OKLAHOMA

REVISION HISTORY	
NO.	DESCRIPTION

FINAL PLANS	
DATE	DESCRIPTION
11-15-2024	K-2324-152
DESIGNED BY: KLM	
DRAWN BY: MTD	
APPROVED BY: KLM	

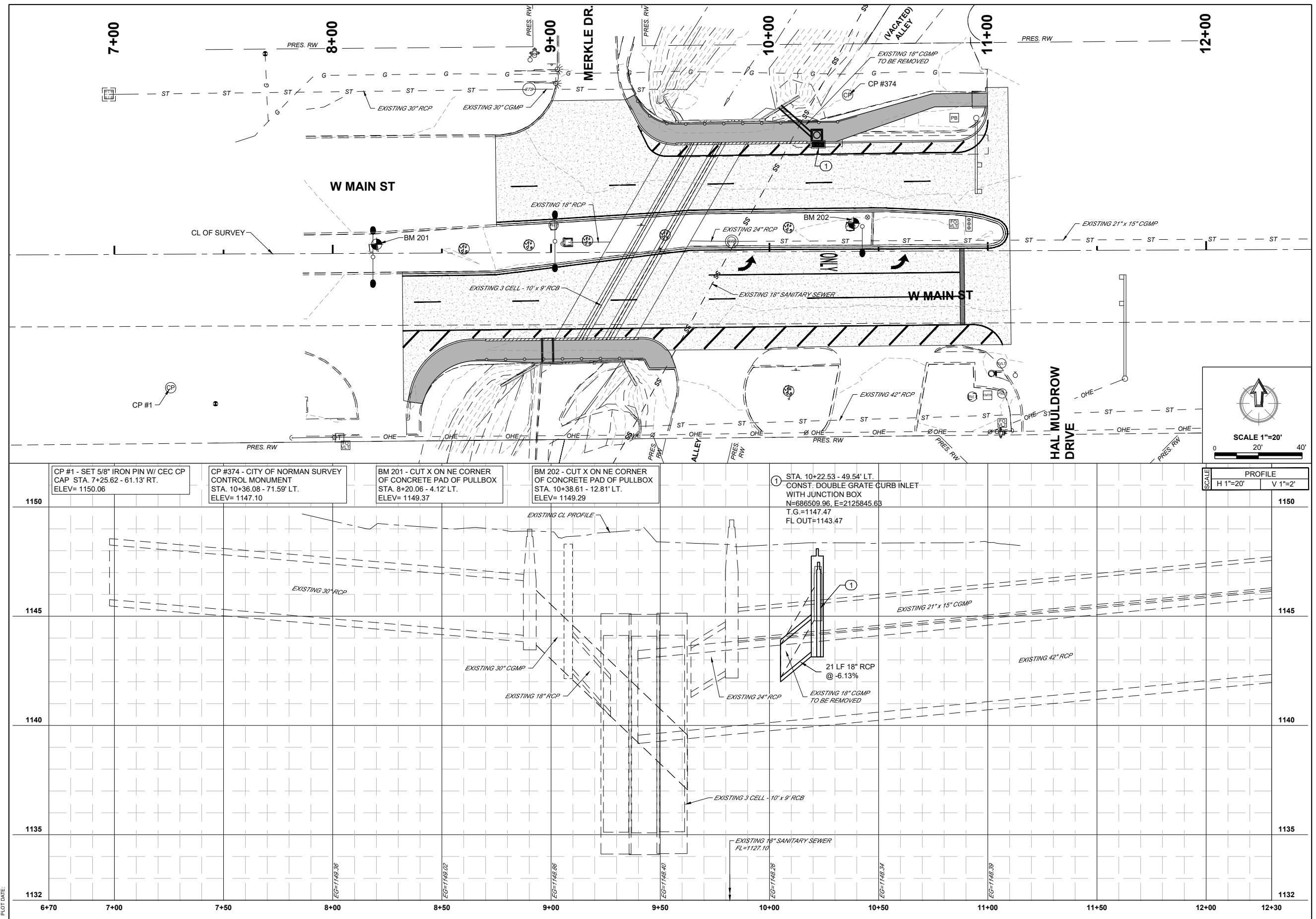
SUBMITTAL	
DATE	DESCRIPTION
11-15-2024	K-2324-152
DESIGNED BY: KLM	
DRAWN BY: MTD	
APPROVED BY: KLM	

SCALE	
AS SHOWN	SCALE

**MAIN STREET  
BRIDGE REHABILITATION**  
NORMAN, OKLAHOMA

SHEET NAME  
GRADING  
SITEPLAN  
SOUTH

SHEET  
R004



PLOT DATE:



CEC CORPORATION  
4555 W. MEMORIAL ROAD  
OKLAHOMA CITY, OKLAHOMA 73142  
P: 405.753.4200  
WWW.CONNECTCEC.COM



SUBMITTAL		FINAL PLANS		REVISION HISTORY	
DATE:	PROJECT NO:	NO.	DESCRIPTION	DATE	
11-15-2024	K-2324-152				
DESIGNED BY:	KULI				
CHECKED BY:	KULI				
APPROVED BY:	KULI				

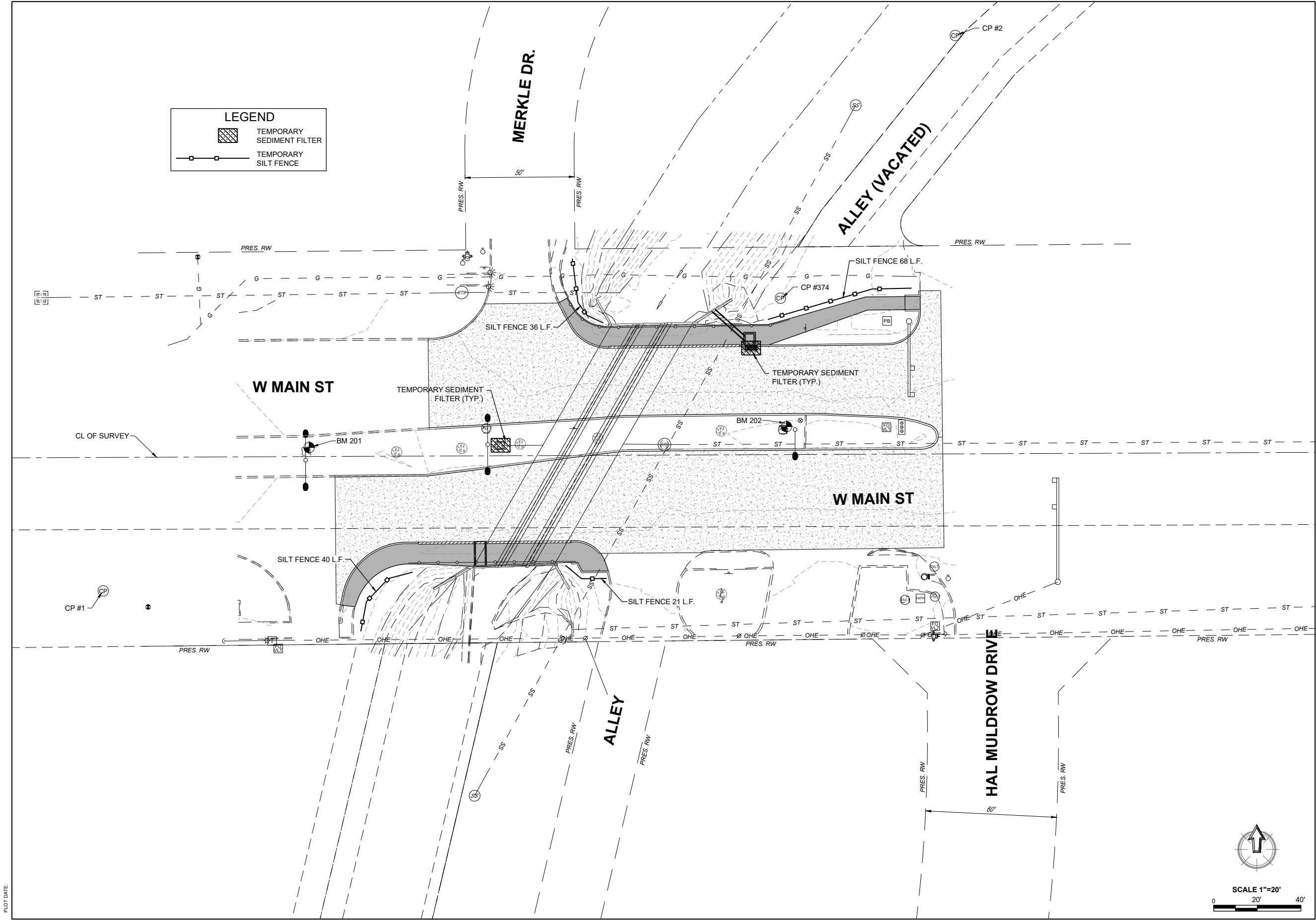
MAIN STREET  
BRIDGE REHABILITATION  
NORMAN, OKLAHOMA

SHEET NAME  
PLAN & PROFILE  
MAIN STREET

SHEET  
R005







PLOT DATE:



CEC CORPORATION  
4625 W. MIDCOT, SUITE 1112  
P.O. BOX 700, OKLAHOMA CITY, OK 73107  
WWW.CEC-OKLAHOMA.COM  
STATE OF OKLAHOMA CERTIFICATE OF AUTHORIZATION  
KYLE L. MORSE  
27688  
11-15-24  
EXPIRES: 11-15-26  
COPYRIGHT © 2024 CEC. ALL RIGHTS RESERVED.  
THIS DRAWING IS THE PROPERTY OF CEC. NO PART OF THIS DRAWING MAY BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, WITHOUT EXPRESS WRITTEN AUTHORIZATION OF CEC. EXCEPT AS SHOWN.



REVISION HISTORY		DATE
NO.	DESCRIPTION	
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		

SUBMITTAL	FINAL PLANS
DATE: 11-15-2024	PROJECT NO: K-2324-152
DESIGNED BY: KLM	DRAWN BY: MTD
APPROVED BY: KLM	SCALE: AS SHOWN

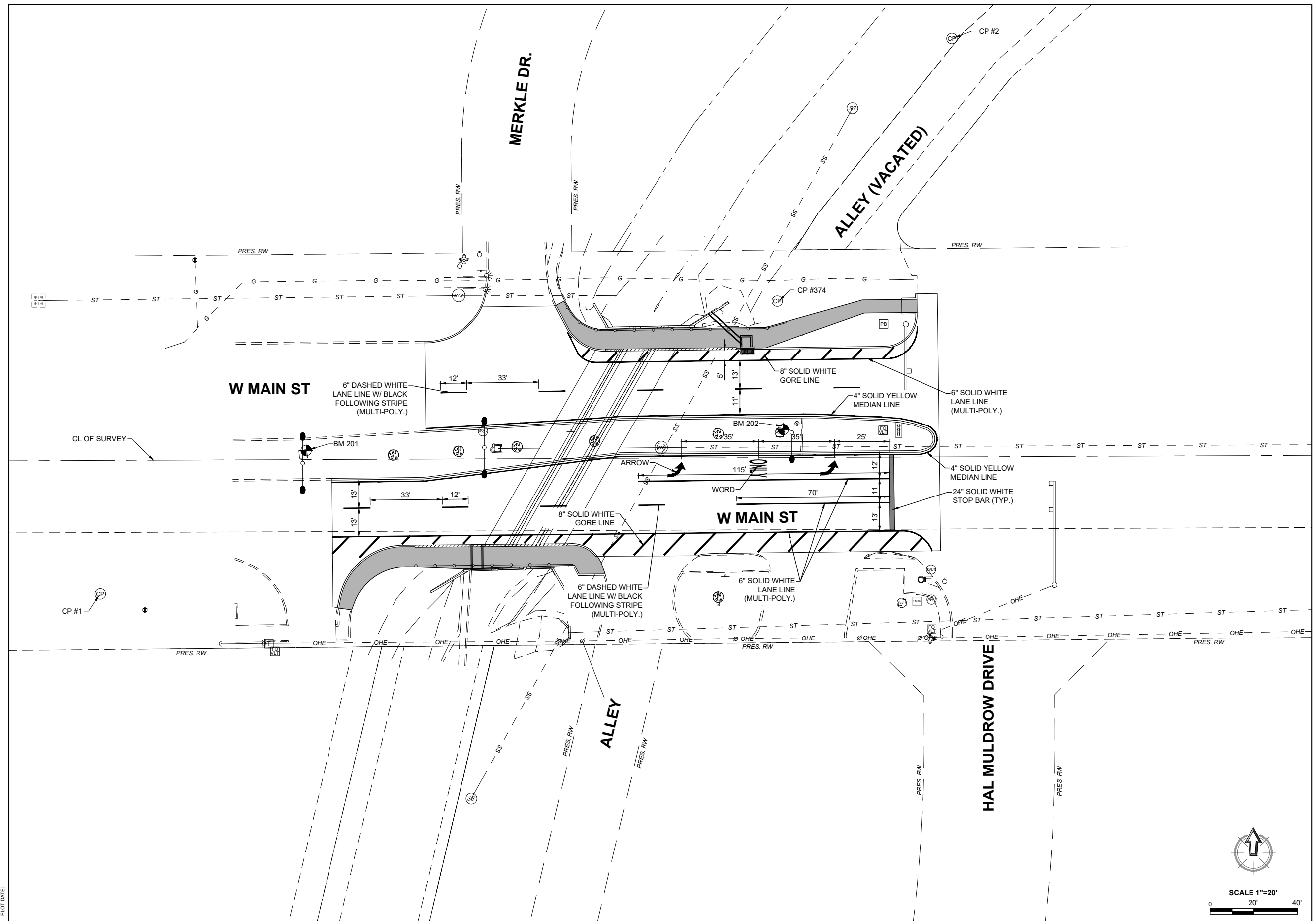
MAIN STREET  
BRIDGE REHABILITATION  
NORMAN, OKLAHOMA

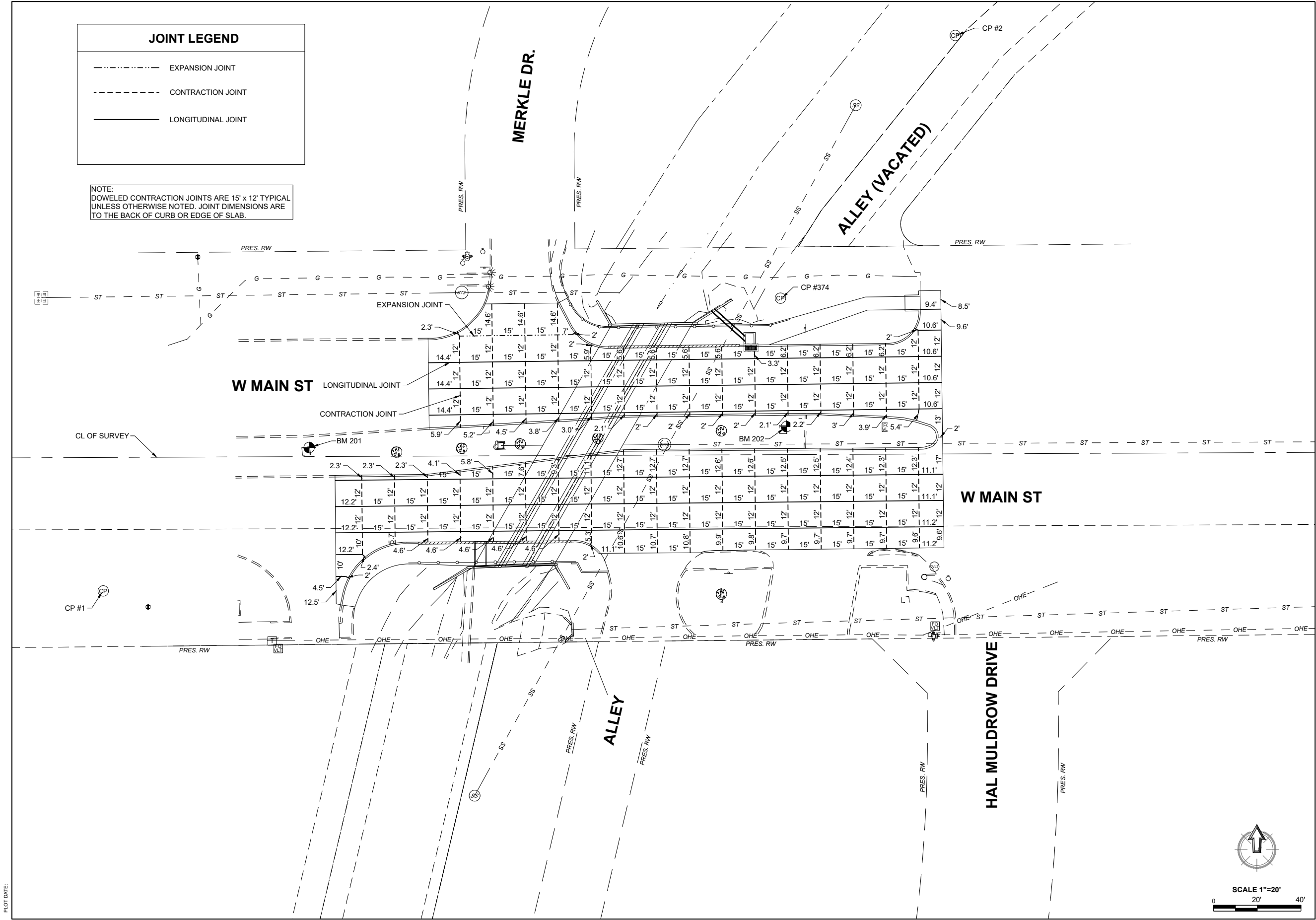
SHEET NAME  
EROSION  
CONTROL  
SITEPLAN

SHEET  
R007










PLOT DATE:



CEC CORPORATION  
4625 W. MIDCORN, SUITE 1142  
OKLAHOMA CITY, OK 73120  
P-405 703 6200  
WWW.CEC-OK.COM

STATE OF OKLAHOMA  
KYLE L. MORSE  
27689  
11-15-2024  
OKLAHOMA

SUBMITTAL:		FINAL PLANS		REVISION HISTORY	
DATE:	11-15-2024	PROJECT NO:	K-2324-152	NO.	DESCRIPTION
DESIGNED BY:	KLM	DRAWN BY:	MTD		
APPROVED BY:	KLM	SCALE:	AS SHOWN		

MAIN STREET  
BRIDGE REHABILITATION  
NORMAN, OKLAHOMA

SHEET NAME  
JOINT LAYOUT

SHEET  
R010

## PHASE 1

- |    |   |
|----|---|
| A. | INSTALL TRAFFIC CONTROL SIGNAGE ALONG MAIN STREET WEST AND EAST OF THE CONSTRUCTION AREA AS SHOWN ON SHEET R012 - R014.                                   |
| B. | INSTALL TRAFFIC CONTROL DEVICES AND STRIPING FOR ONE WAY TRAFFIC GOING WESTBOUND ALONG MAIN STREET FROM THE STA. 7+59.70 TO STA. 14+03.05.                |
| C. | INSTALL TRAFFIC CONTROL DEVICES AND STRIPING FOR ONE WAY TRAFFIC GOING EASTBOUND ALONG MAIN STREET FROM THE STA. 6+83.77 TO STA. 11+11.30.                |
| D. | DRIVEWAY AT MERKLE DRIVE WILL BE CLOSE DURING THE CONSTRUCTION OF PHASE 2, TRAFFIC ACCESS TO MERKLE DRIVE WILL USE THE EXISTING DRIVEWAY AT STA. 7+23.05. |
| E. | SHIFT TRAFFIC ONTO WESTBOUND DETOUR CONFIGURATION FROM STA. 7+59.70 TO STA. 14+03.05.   |
| F. | SHIFT TRAFFIC ONTO EASTBOUND DETOUR CONFIGURATION FROM STA. 6+83.77 TO STA. 11+11.30  |

PHASE 2

- A. WITH TRAFFIC OPERATING IN THE CURRENT CONFIGURATION ALONG MAIN STREET, CONSTRUCT PHASE 2 ON THE NORTH AND SOUTH SIDES OF MAIN STREET AS SHOWN ON SHEET R013.

### PHASE 3

- |    |   |
|----|---|
| A. | TRAFFIC CONTROL SIGNAGE ALONG MAIN STREET WEST AND EAST OF THE CONSTRUCTION AREA WILL REMAIN IN PLACE.  |
| B. | INSTALL TRAFFIC CONTROL DEVICES AND STRIPING FOR PHASE 3 (ONE WAY TRAFFIC GOING WESTBOUND) ALONG MAIN STREET FROM THE STA. 7+59.70 TO STA. 14+03.05<br>INSTALL TRAFFIC CONTROL DEVICES AND STRIPING FOR PHASE 3 (ONE WAY TRAFFIC GOING EASTBOUND) ALONG MAIN STREET FROM THE STA. 6+83.77 TO STA. 11+11.30. |
| C. | SHIFT TRAFFIC ONTO WESTBOUND DETOUR CONFIGURATION FOR PHASE 3 FROM STA. 7+59.70 TO STA. 14+03.05.<br>SHIFT TRAFFIC ONTO EASTBOUND DETOUR CONFIGURATION FOR PHASE 3 FROM STA. 6+83.77 TO STA. 11+11.30.  |
| B. | WITH TRAFFIC OPERATING IN THE CURRENT CONFIGURATION ALONG MAIN STREET, CONSTRUCT PHASE 3 ON THE NORTH AND SOUTH SIDES OF MAIN STREET AS SHOWN ON SHEET R016.  |

PHASE 4

- A. REMOVE TEMPORARY TRAFFIC CONTROL DEVICES AND STRIPING. INSTALL FINAL PROPOSED TRAFFIC CONTROL DEVICES AND STRIPING FOR WESTBOUND AND EASTBOUND TRAFFIC ALONG MAIN STREET.
- B. OPEN ALL ROADWAYS TO NORMAL TRAFFIC OPERATIONS.

PLOT DATE:



CEC CORPORATION  
4655 W. MEMORIAL ROAD  
OKLAHOMA CITY, OKLAHOMA 73142  
P. 405.753.4000  
WWW.CONNECTCEC.COM

---

STATE OF OK CERTIFICATE OF AUTHORIZATION  
CAP 32 EXP. DATE: 2026-06-30

---

COPYRIGHT © 2024 CEC. ALL RIGHTS RESERVED.  
THIS DRAWING IS PROPERTY OF CEC. ANY  
MODIFICATION OR USE OF THIS DRAWING  
WITHOUT EXPRESS WRITTEN AUTHORIZATION OF  
CEC IS PROHIBITED.



FINAL PLANS		REVISION HISTORY	
SUBMITTAL:		NO.	DATE
DATE:	11-15-2024		
PROJECT NO:	K-2324-152		
DESIGNED BY:	KLM		
DRAWN BY:	MTD		
APPROVED BY:	KLM		
SCALE:	AS SHOWN		

**MAIN STREET  
BRIDGE REHABILITATION**  
NORMAN, OKLAHOMA

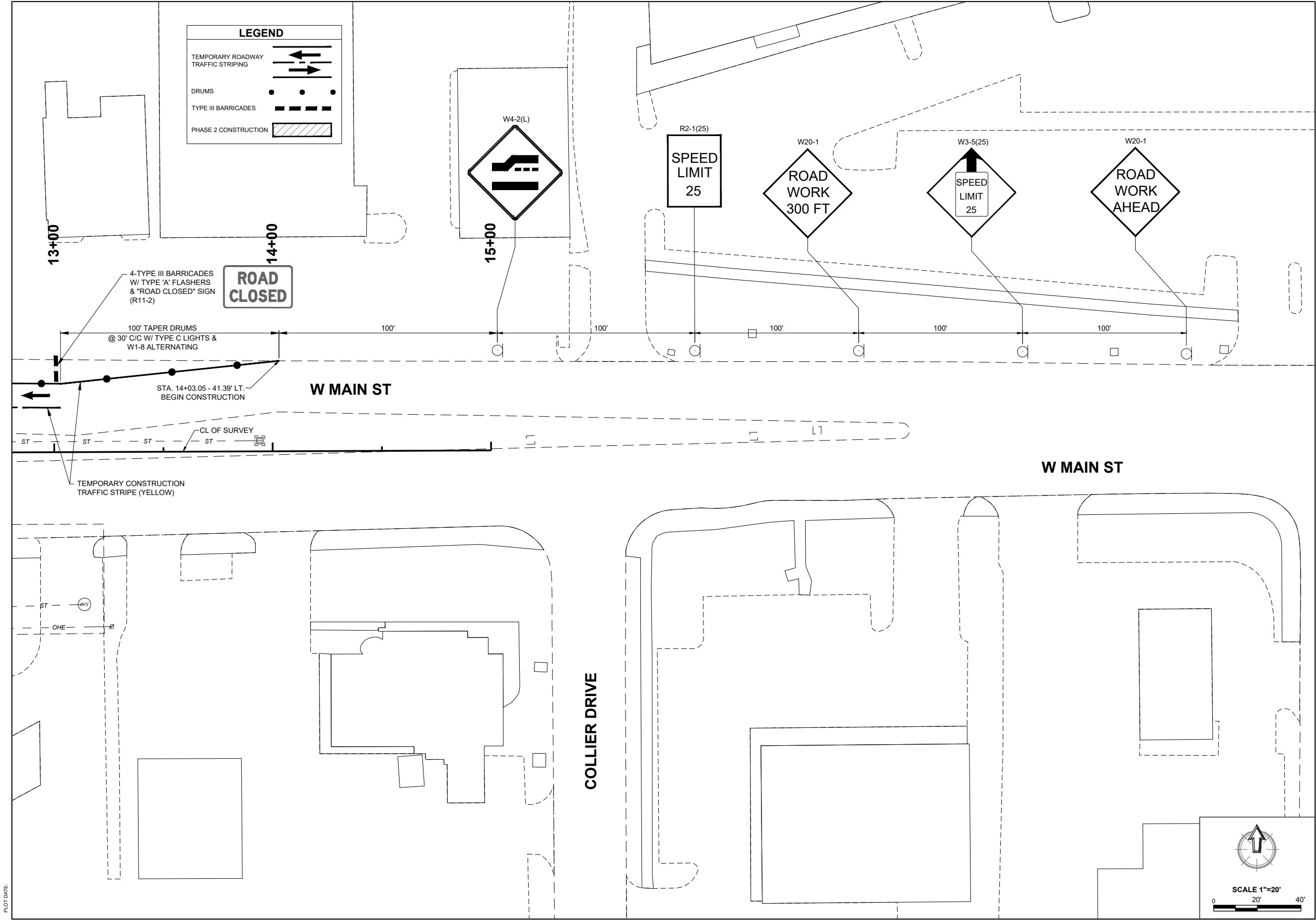
SHEET NAME
SEQUENCE OF CONSTRUCTION

SHEET  
R011









PLOT DATE:

CEC CORPORATION  
4625 W. MEDARD, SUITE 1112  
OKLAHOMA CITY, OKLAHOMA 73106  
P: 405.755.5000  
WWW.CEC-CORP.COM

STATE OF OKLAHOMA  
KYLE L. MORSE  
27689  
11-15-2024  
OKLAHOMA

SUBMITTAL:	FINAL PLANS	REVISION HISTORY	
		NO.	DESCRIPTION
DATE:	11-15-2024		DATE
PROJECT NO:	K-2324-152		
DESIGNED BY:	KLM		
DRAWN BY:	MTD		
APPROVED BY:	KLM		
SCALE:	AS SHOWN		

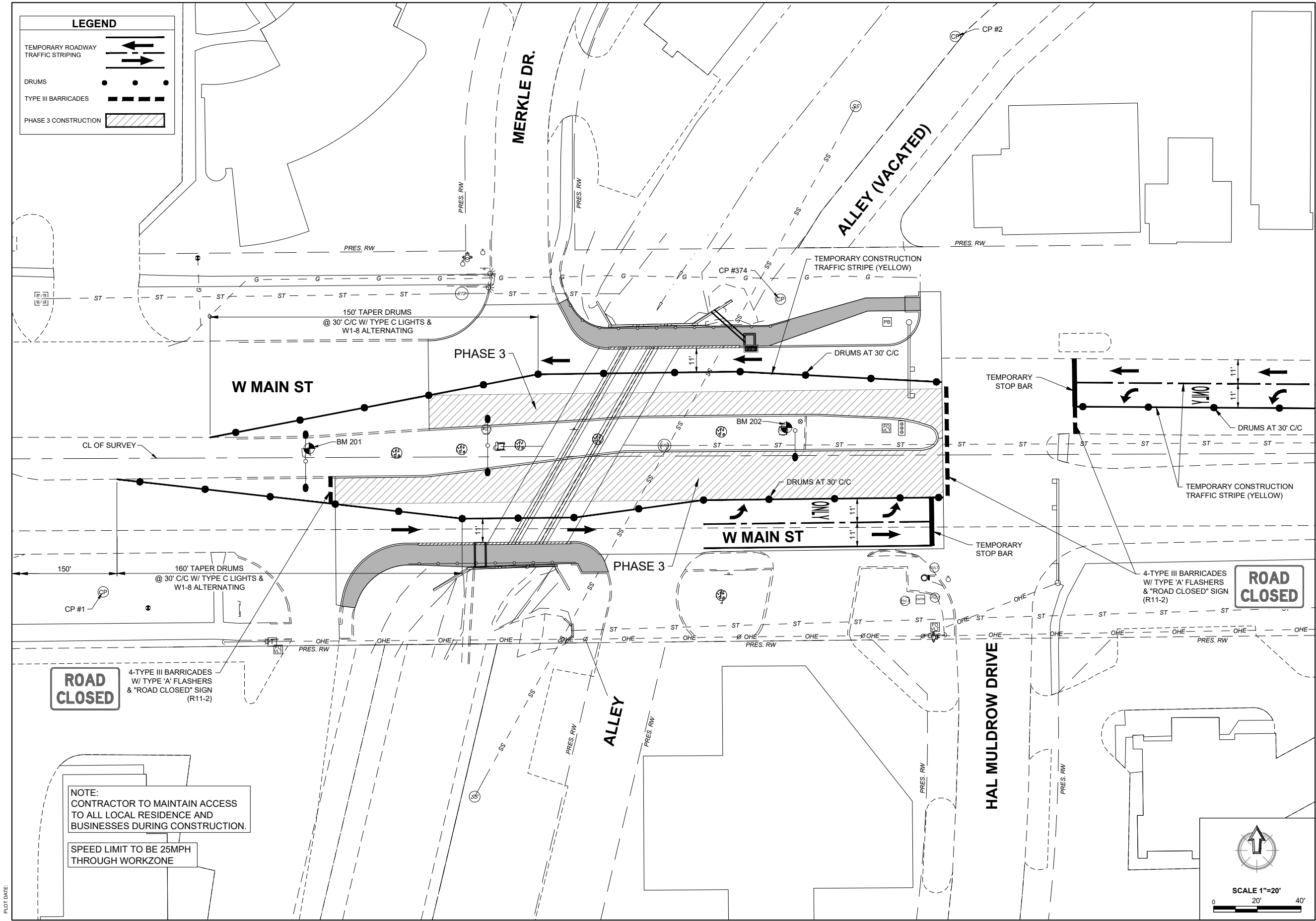
**MAIN STREET  
BRIDGE REHABILITATION**  
NORMAN, OKLAHOMA

SHEET NAME  
**TRAFFIC  
CONTROL PLAN  
PHASE 1 & 2**

SHEET  
**R014**







**CEC**

CEC CORPORATION  
4625 W. MIDLAND, SUITE 1412  
OKLAHOMA CITY, OKLAHOMA 73104  
P: 405.755.5000  
WWW.CEC-CORP.COM

STATE OF OKLAHOMA  
KYLE L. MORSE  
27688  
11-15-2024  
OKLAHOMA

REVISION HISTORY	
NO.	DESCRIPTION

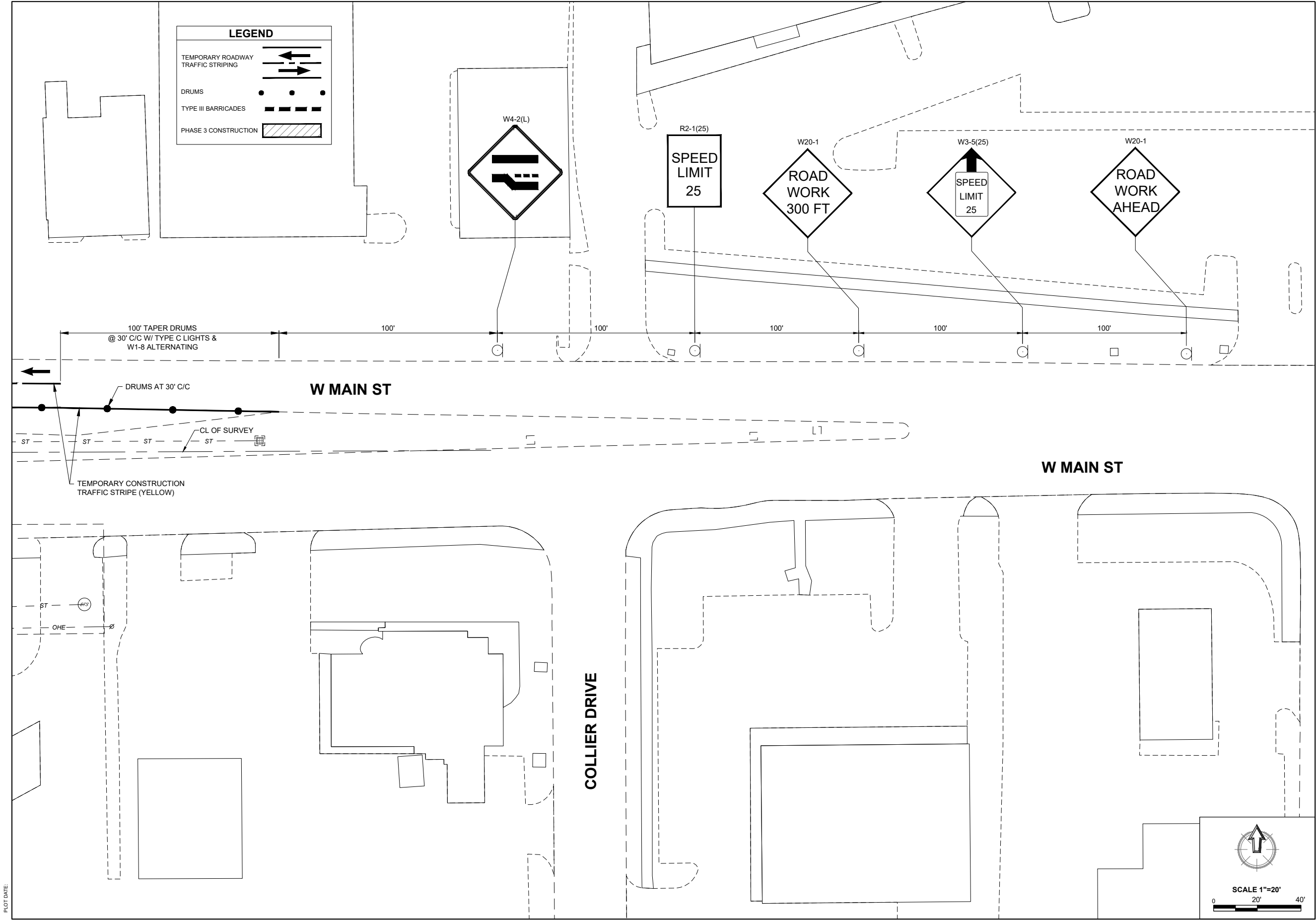
FINAL PLANS	
DATE	DESCRIPTION
11-15-2024	K-2324-152
DESIGNED BY: KLM	
DRAWN BY: MTD	
APPROVED BY: KLM	
SCALE: AS SHOWN	

**MAIN STREET  
BRIDGE REHABILITATION**

NORMAN, OKLAHOMA

SHEET NAME  
**TRAFFIC  
CONTROL PLAN  
PHASE 3**

SHEET  
**R016**



CEC CORPORATION  
4625 W. MEDFORD, SUITE 1112  
OKLAHOMA CITY, OK 73106  
WWW.CEC-CORP.COM

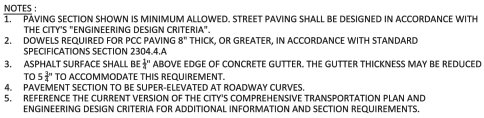
STATE OF OKLAHOMA DEPARTMENT OF TRANSPORTATION  
KYLE L. MORSE  
27689  
11-15-2024  
OKLAHOMA

SUBMITTAL:	FINAL PLANS	REVISION HISTORY	
		NO.	DESCRIPTION
DATE:	11-15-2024		DATE
PROJECT NO:	K-2324-152		
DESIGNED BY:	KLM		
DRAWN BY:	MTD		
APPROVED BY:	KLM		
SCALE:	AS SHOWN		

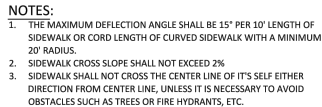
MAIN STREET  
BRIDGE REHABILITATION  
NORMAN, OKLAHOMA

SHEET NAME  
TRAFFIC  
CONTROL PLAN  
PHASE 3

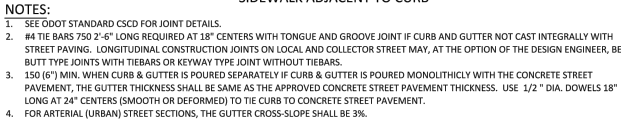
SHEET  
R017



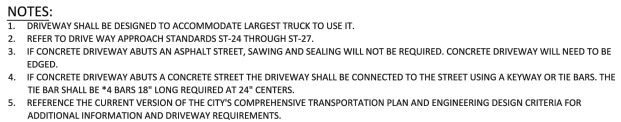
CITY ENGINEER APPROVAL:		CITY OF NORMAN, OKLAHOMA	
APPROVAL DATE:	REVISION DATE: 02/2023	REV. NO. 00	DRAWING NO. S



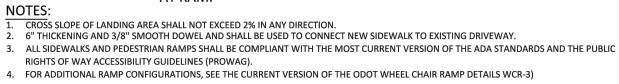
CITY ENGINEER APPROVAL:		CITY OF NORMAN, OKLAHOMA	
APPROVAL DATE:	REVISION DATE: 02/2023	REV. NO. 00	DRAWING NO. ST 14B



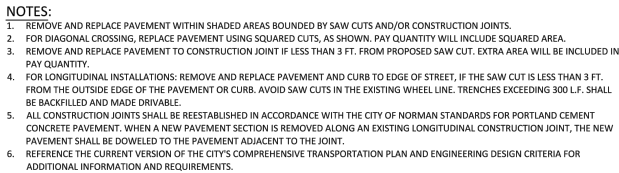
CITY ENGINEER APPROVAL:		CITY OF NORMAN, OKLAHOMA	
APPROVAL DATE:	REVISION DATE: 02/2023	REV. NO. 00	DRAWING NO. S



CITY ENGINEER APPROVAL:		CITY OF NORMAN, OKLAHOMA	
APPROVAL DATE:	REVISION DATE: 02/2023	REV. NO. 00	DRAWING NO. ST 18

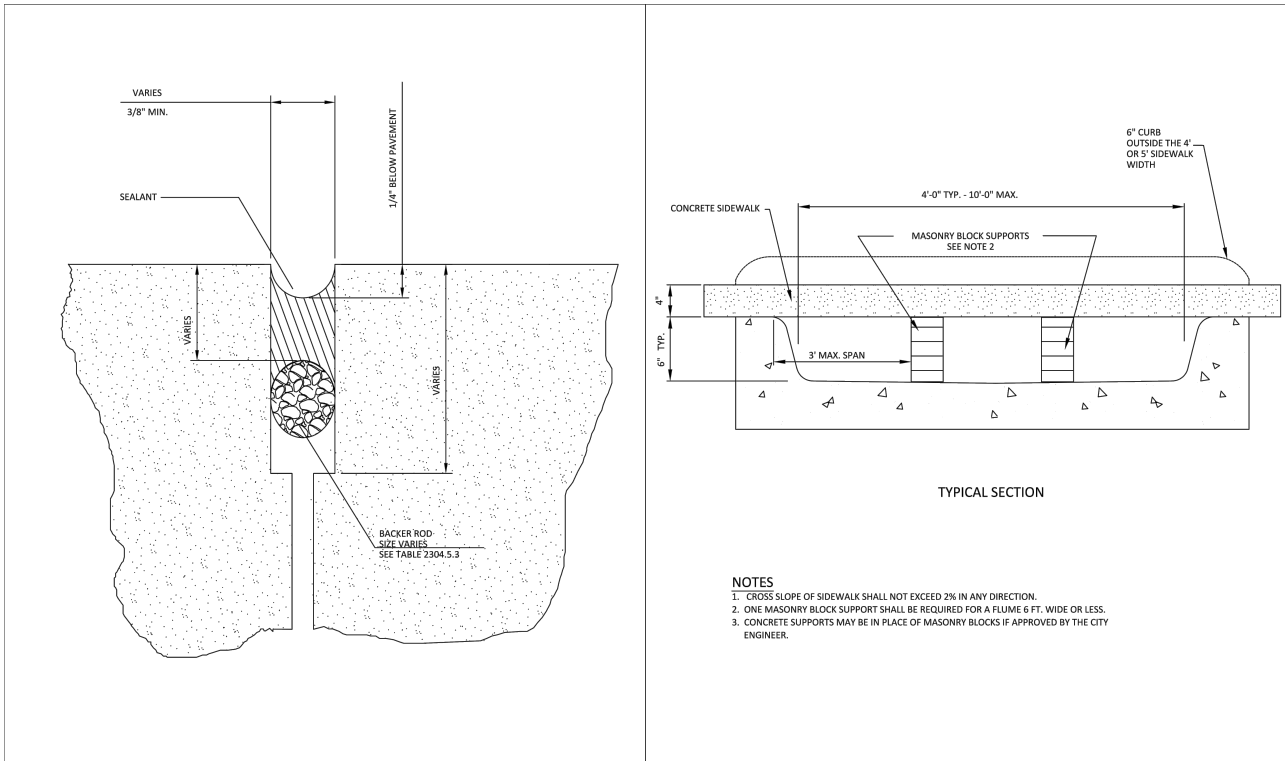


CITY ENGINEER APPROVAL:		CITY OF NORMAN, OKLAHOMA	
APPROVAL DATE:	REVISION DATE: 02/2023	REV. NO. 00	DRAWING NO. ST 14

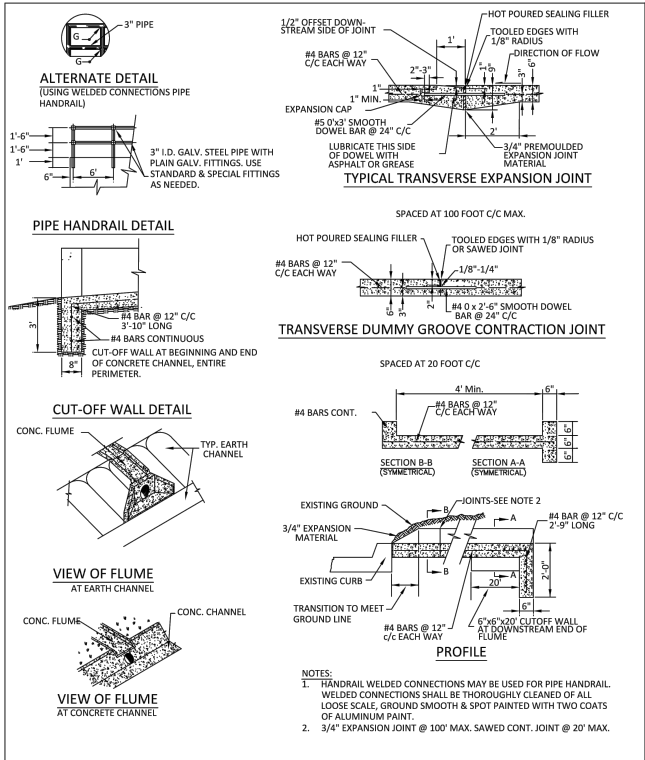


CITY ENGINEER APPROVAL:		CITY OF NORMAN, OKLAHOMA	
APPROVAL DATE:	REVISION DATE: 02/2023	REV. NO. 00	DRAWING NO. ST 20

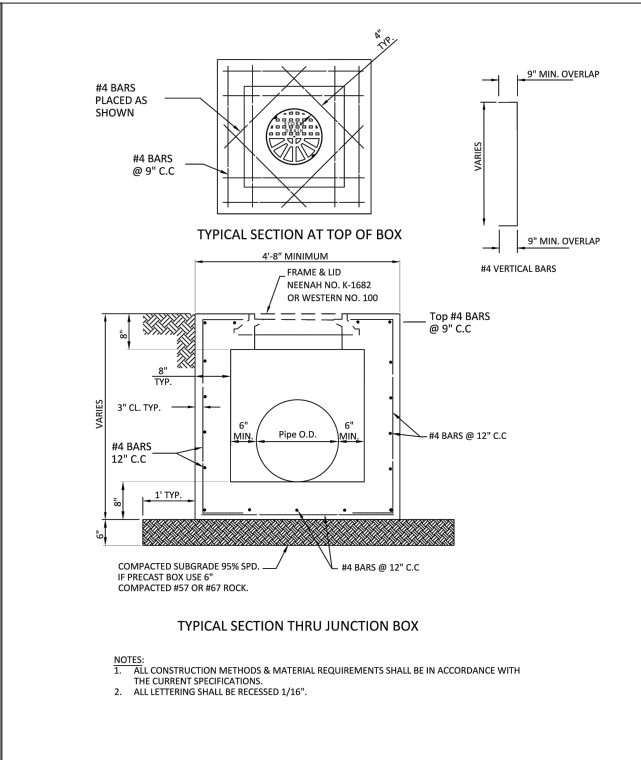
SUBMITTAL:		FINAL PLANS		REVISION HISTORY	
DATE:	11-15-2024	NO.	DESCRIPTION	DATE	
PROJECT NO:	K-2324-152		DESIGNED BY:	KLM	
DRAWN BY:	IMD		APPROVED BY:	KLM	
SCALE:	AS SHOWN				



JOINT SEALING DETAIL				SIDEWALK CROSSING CONCRETE FLUME			
CITY ENGINEER APPROVAL:		CITY OF NORMAN, OKLAHOMA		CITY ENGINEER APPROVAL:		CITY OF NORMAN, OKLAHOMA	
APPROVAL DATE:	REVISION DATE: 02/2023	REV. NO. 00	DRAWING NO. ST 29	APPROVAL DATE:	REVISION DATE: 02/2023	REV. NO. 00	DRAWING NO. ST 34



FLUME & CHANNEL LINER DETAILS				JUNCTION BOX DETAIL			
CITY ENGINEER APPROVAL:		CITY OF NORMAN, OKLAHOMA		CITY ENGINEER APPROVAL:		CITY OF NORMAN, OKLAHOMA	
APPROVAL DATE:	REVISION DATE: 02/2023	REV. NO. 00	DRAWING NO. SD 07	APPROVAL DATE:	REVISION DATE: 02/2023	REV. NO. 00	DRAWING NO. SD 09



CEC

CEC CORPORATION  
4625 W. MEDFORD, ROAD 1412  
OKLAHOMA CITY, OKLAHOMA 73106  
P: 405.755.4200  
WWW.CEC-CORP.COM

STATE OF OKLAHOMA  
KYLE L. MORSE  
27689  
JUL 15 2015  
OKLAHOMA

REGISTERED PROFESSIONAL ENGINEER  
EXPIRATION DATE: 07/15/2025  
CITY OF NORMAN, OKLAHOMA

REVISION HISTORY		FINAL PLANS	
NO.	DESCRIPTION	DATE	SCALE
1		11-15-2024	AS SHOWN
2			
3			
4			
5			
6			
7			
8			
9			
10			

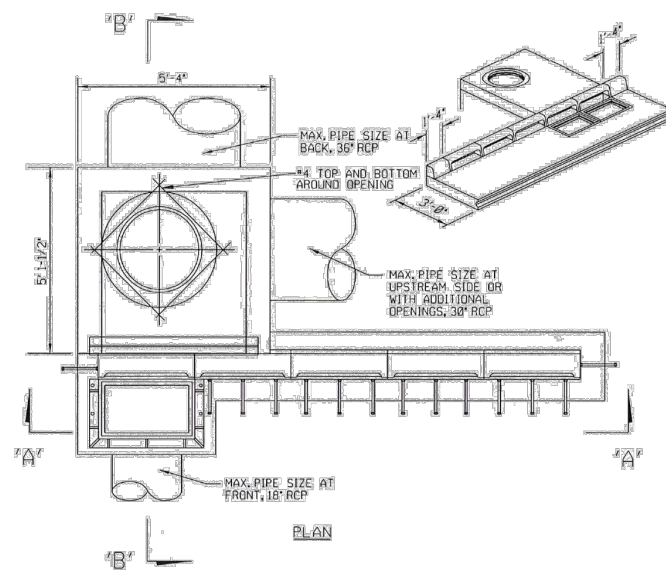
MAIN STREET  
BRIDGE REHABILITATION  
NORMAN, OKLAHOMA

SHEET NAME  
DETAILS

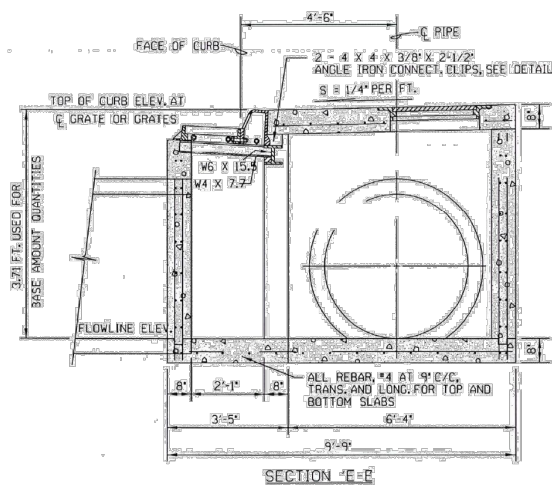
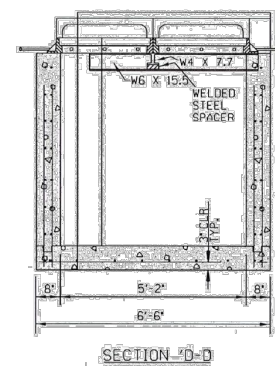
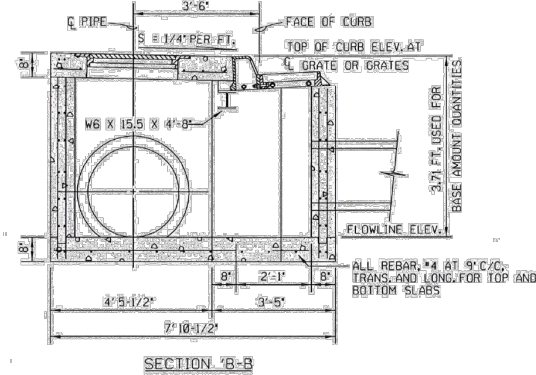
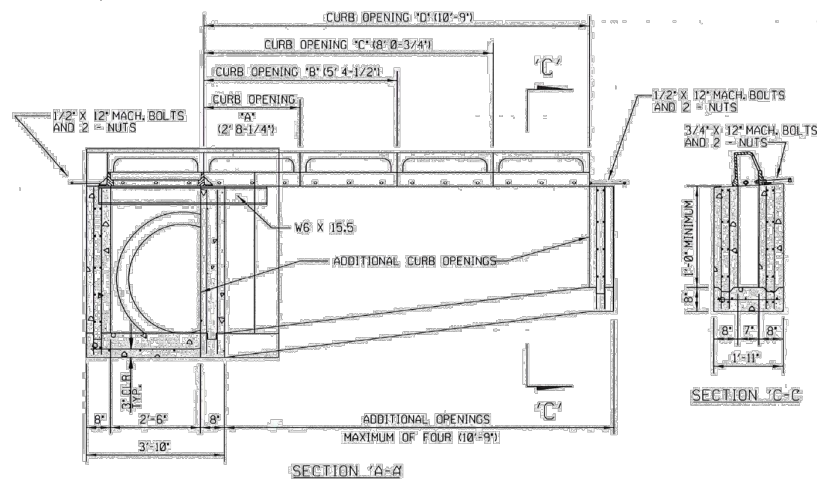
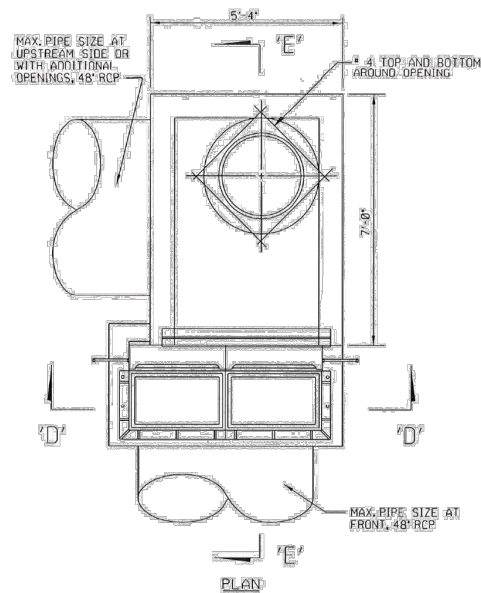
SHEET  
R019



PLOT DATE:

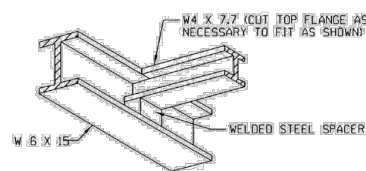


QUANTITIES FOR INLETS							
INLET	CURB OPENING	CLASS "A" CONCRETE	INLET	INLET FRAME AND GRATE	CAST IRON CURB INLET	MAN FRAME AND COVER	
DESIGN	DESIGNATION	CU. YD.	BASE AMT.	ADD'L. C.F. PER VERT. FT.	EACH	EACH	EACH
1 WITH SMALL JUNCT. BOX	"A"	1.50	43.56	15.84	1	1	1
	"B"	1.60	47.34	17.42	1	2	1
	"C"	1.73	55.44	21.03	1	3	1
	"D"	1.86	62.26	24.63	1	4	1
	"E"	1.99	68.03	28.23	1	5	1
2 WITH SMALL JUNCT. BOX	"A"	1.70	47.84	17.40	2	2	1
	"B"	1.83	57.01	21.00	2	3	1
	"C"	1.96	64.86	24.60	2	4	1
	"D"	2.09	71.70	28.20	2	5	1
	"E"	2.21	77.28	31.80	2	6	1
1 WITH LARGE JUNCT. BOX	"A"	2.11	58.44	18.34	1	1	1
	"B"	2.21	64.22	19.93	1	2	1
	"C"	2.34	62.32	23.53	1	3	1
	"D"	2.47	69.14	27.13	1	4	1
	"E"	2.60	74.91	30.73	1	5	1
2 WITH LARGE JUNCT. BOX	"A"	2.31	64.72	19.90	2	2	1
	"B"	2.43	63.89	23.50	2	3	1
	"C"	2.57	71.74	27.10	2	4	1
	"D"	2.69	78.58	30.70	2	5	1
	"E"	2.82	84.16	34.30	2	6	1

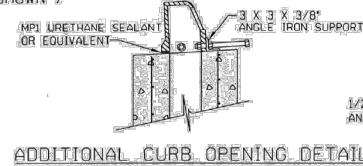


SINGLE GRATE CURB INLET WITH JUNCTION BOX  
(DESIGN 1-D WITH SMALL JUNCTION BOX SHOWN)

ALL REBAR IN WALLS  
#4 @ 12" CTRS. EA. WAY  
(TYPICAL)



I-BEAM CONNECTION DETAIL FOR DOUBLE GRATE

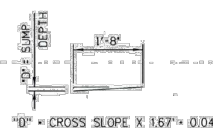


OPENING	LENGTH
"A"	2'-5-3/8"
"B"	5'-1-5/8"
"C"	7'-9-7/8"
"D"	10'-6-1/8"

FRAME AND CURB DETAILS

C.I. CURB HEIGHTS		
TYPE	"A"	"B"
4" MOUNTABLE	4'-1/2"	5'-1/2"
6" MOUNTABLE	6'-1/2"	11'-1/2"
6" BARRIER	6'-1/2"	11'-1/2"
8" BARRIER	8'-1/2"	13'-1/2"

DOUBLE GRATE CURB INLET WITH JUNCTION BOX  
(DESIGN 2 WITH LARGE JUNCTION BOX SHOWN)  
18" THRU 30" LONGITUDINAL PIPE REQUIRES SMALL JUNCTION BOX  
ALL REBAR IN WALLS #4 @ 12" CTRS. EA. WAY (TYPICAL)



ENGINEERING DIVISION, CITY OF NORMAN

STANDARD INLETS AND GRATES W/ ACCESS  
MANHOLE BACK OF CURB

APPROVED BY: CITY ENGINEER

DATE: 02/2023

DRAWING NO: SD 11

MAIN STREET  
BRIDGE REHABILITATION  
NORMAN, OKLAHOMA

SHEET NAME

DETAILS

SHEET

R020

CEC CORPORATION  
4625 W. MEDARD, SUITE 1112  
OKLAHOMA CITY, OK 73120  
P: 405.755.0001  
WWW.CEC-CORP.COM

STATE OF OKLAHOMA DEPARTMENT OF TRANSPORTATION  
OKLAHOMA DIVISION OF HIGHWAYS  
DESIGNED BY: KYLE L. MORSE  
DRAWN BY: MTD  
CHECKED BY: KLM  
APPROVED BY: KLM  
DATE: 04-15-2023  
COPYRIGHT © 2023 CEC. ALL RIGHTS RESERVED.  
THIS DRAWING IS THE PROPERTY OF CEC CORPORATION.  
NO REPRODUCTION OR TRANSMISSION OF THIS DRAWING  
WITHOUT EXPRESS WRITTEN AUTHORIZATION OF  
CEC CORPORATION.



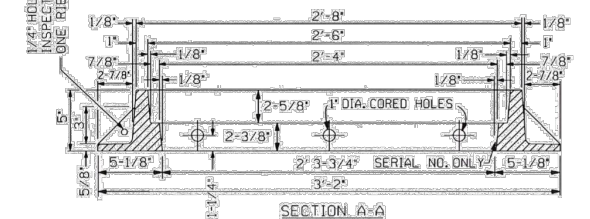
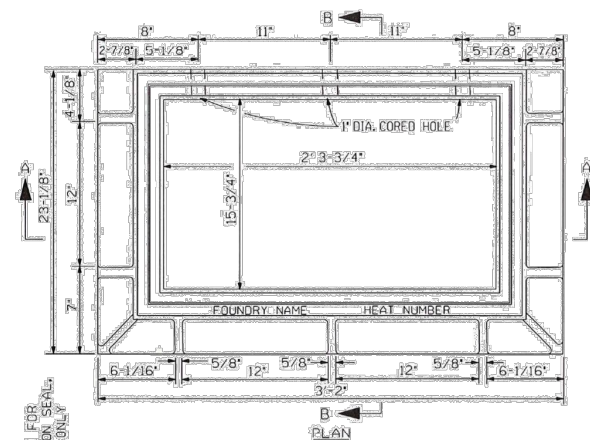
FINAL PLANS		REVISION HISTORY	
SUBMITTAL:	NO.	DESCRIPTION	DATE
DATE:	11-15-2024		
PROJECT NO.:	K-2324-152		
DESIGNED BY:	CELESTINE B. WILSON		
CHECKED BY:	CELESTINE B. WILSON		
DRAWN BY:	CELESTINE B. WILSON		
APPROVED BY:	KLM		
SCALE:	AS SHOWN		

MAIN STREET  
BRIDGE REHABILITATION  
NORMAN, OKLAHOMA

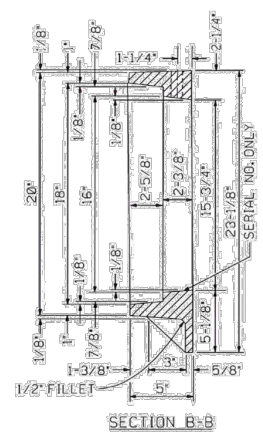
SHEET NAME

DETAILS

SHEET  
R021

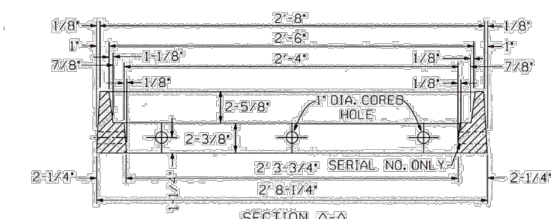
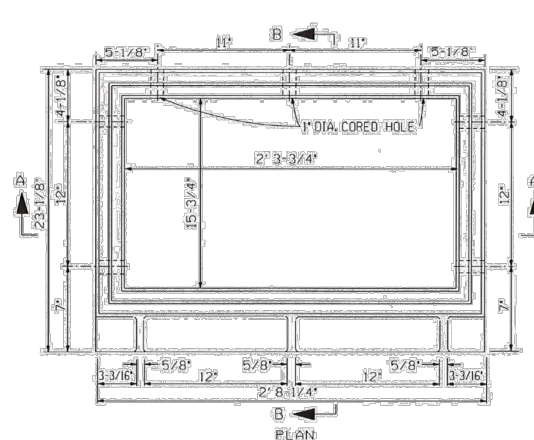


STORM SEWER INLET FRAME TYPE "A"  
FOR INLET DESIGN NO. 1  
FOR USE WITH TYPE "A" GRATE



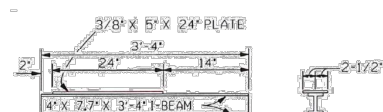
SECTION B-B

NOTE:  
ONLY ONE TYPE A FRAME IS REQUIRED FOR  
INLET DESIGN NO. 1  
WEIGHT = 252 LBS.

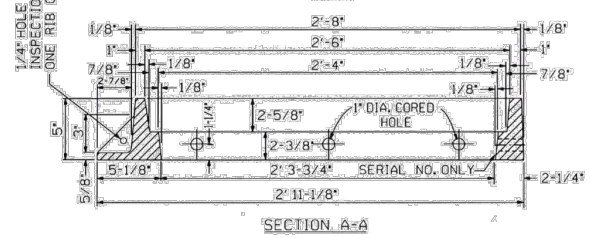
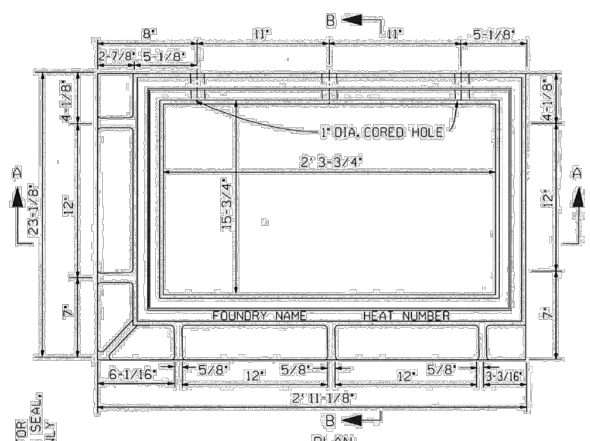


STORM SEWER INLET FRAME TYPE "C"  
FOR INLET DESIGN NO. 3  
FOR USE WITH TYPE "A" GRATE

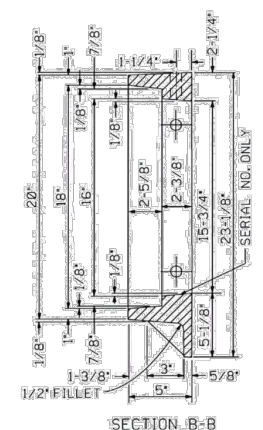
NOTE:  
TWO TYPE "B" FRAMES AND ONE TYPE "C" FRAME  
ARE REQUIRED FOR INLET DESIGN 3  
WEIGHT = 217 LBS.



**I-BEAM SUPPORT**  
TO BE USED WHEN STRUCTURE  
IS BUILT ON CURVED CURB



STORM SEWER INLET FRAME TYPE "B"  
FOR INLET DESIGN NO. 2 AND 3  
FOR USE WITH TYPE "A" GRATE



SECTION B-B

NOTE:  
MAKE ONE FRAME AS SHOWN AND ONE  
REVERSED FOR DOUBLE FRAMES.  
WEIGHT = 234 LBS.

TOLERANCES	INCHES	
	PLUS	MINUS
DIAMETER OF ROUND LIDS AND FRAME RECESS FOR ROUND LIDS	1/16"	1/16"
LENGTH AND WIDTH OF SQUARE OR RECTANGULAR LIDS	1/16"	1/8"
LENGTH AND WIDTH OF FRAME RECESS FOR SQUARE OR RECTANGULAR LIDS	1/8"	1/16"
METAL THICKNESS	1/16"	1/16"
ALL OTHER DIMENSIONS	1/8"	1/8"

ENGINEERING DIVISION, CITY OF NORMAN

## STANDARD STORMWATER FRAMES

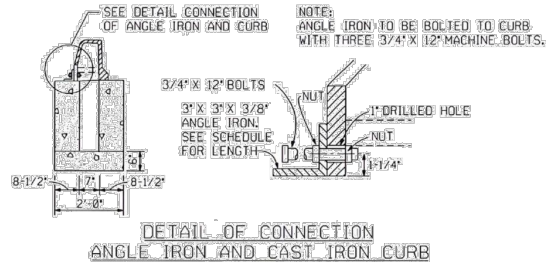
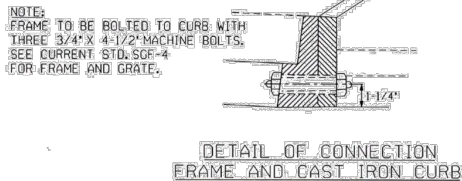
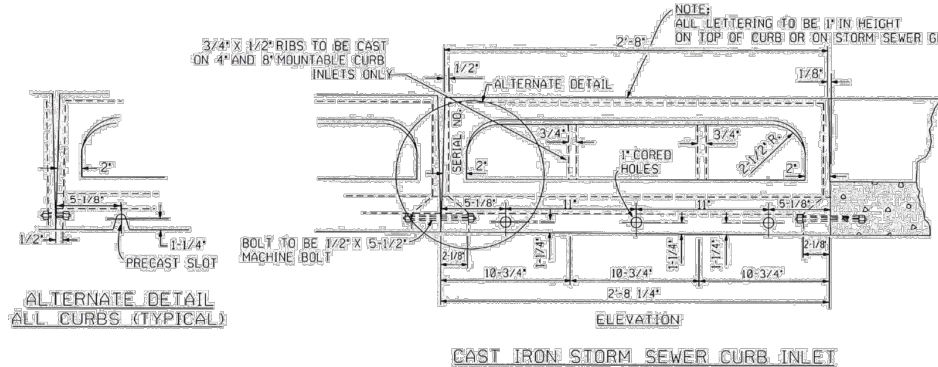
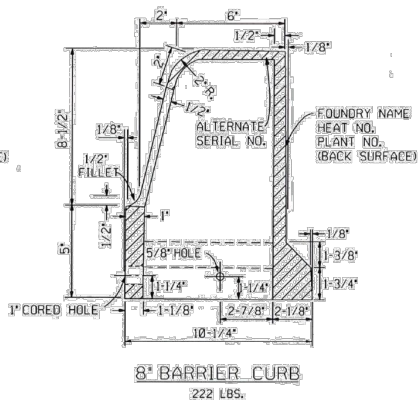
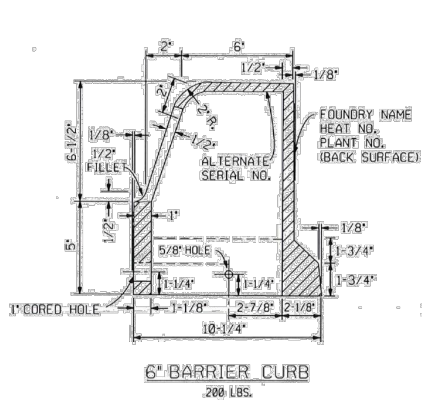
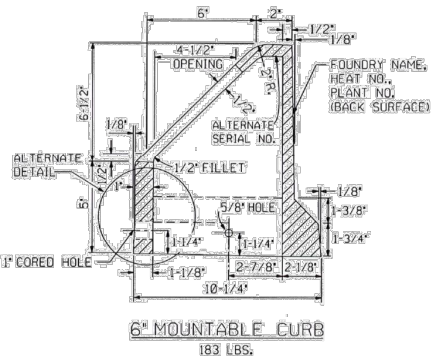
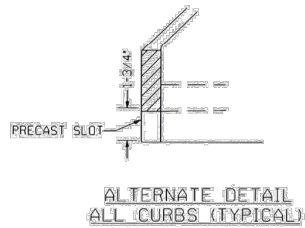
APPROVED BY: \_\_\_\_\_  
CITY ENGINEER

DATE: 02/2023

DRAWING NO: SD 14



PLOT DATE:



TOLERANCES	INCHES	
	PLUS	MINUS
DIAMETER OF ROUND LIDS AND FRAME RECESS FOR ROUND LIDS	1/16	1/16
LENGTH AND WIDTH OF SQUARE OR RECTANGULAR LIDS	1/16	1/8
LENGTH AND WIDTH OF FRAME RECESS FOR SQUARE OR RECTANGULAR LIDS	1/8	1/16
METAL THICKNESS	1/16	1/16
ALL OTHER DIMENSIONS	1/8	1/8

SCHEDULE					
INLET DESIGN	CURB OPENING DESIGNATION	INLET FRAME AND GRATE EACH	CAST IRON CURB INLET EACH	NO.	ANGLE IRON
					LENGTH
1	A	1	2	1	2'-5 3/8"
	B	1	3	1	5'-1 5/8"
	C	1	4	1	7'-9 7/8"
	2A	1	3	2	2'-5 3/8"
	A-B	1	4	2	2'-5 3/8"
	A-C	1	5	2	2'-5 3/8"
	2B	1	5	2	5'-1 5/8"
	B-C	1	6	2	5'-1 5/8"
	2-C	1	7	2	7'-9 7/8"
	2	2	2		
2	B	2	4	1	5'-1 5/8"
	D	2	6	1	10'-6 1/8"
	2B	2	6	2	5'-1 5/8"
	B-D	2	8	2	5'-1 5/8"
	2D	2	10	2	10'-6 1/8"
	3	3	3		
	B	3	5	1	5'-1 5/8"
	D	3	7	1	10'-6 1/8"
	2B	3	7	2	5'-1 5/8"
	B-D	3	9	2	5'-1 5/8"
3	2D	3	11	2	10'-6 1/8"

NOTE: CONFIGURATIONS ARE NOT LIMITED TO THOSE SHOWN ABOVE.

ENGINEERING DIVISION, CITY OF NORMAN

STANDARD CAST IRON CURB

APPROVED BY: \_\_\_\_\_  
CITY ENGINEER

DATE: 02/2023

DRAWING NO: SD 15

MAIN STREET  
BRIDGE REHABILITATION  
NORMAN, OKLAHOMA

SHEET NAME  
DETAILS

SHEET  
R022



CEC CORPORATION  
4625 W. MEDARD, ROAD 1412  
OKLAHOMA CITY, OK 73120  
P: 405.755.0001  
WWW.CEC-OK.COM

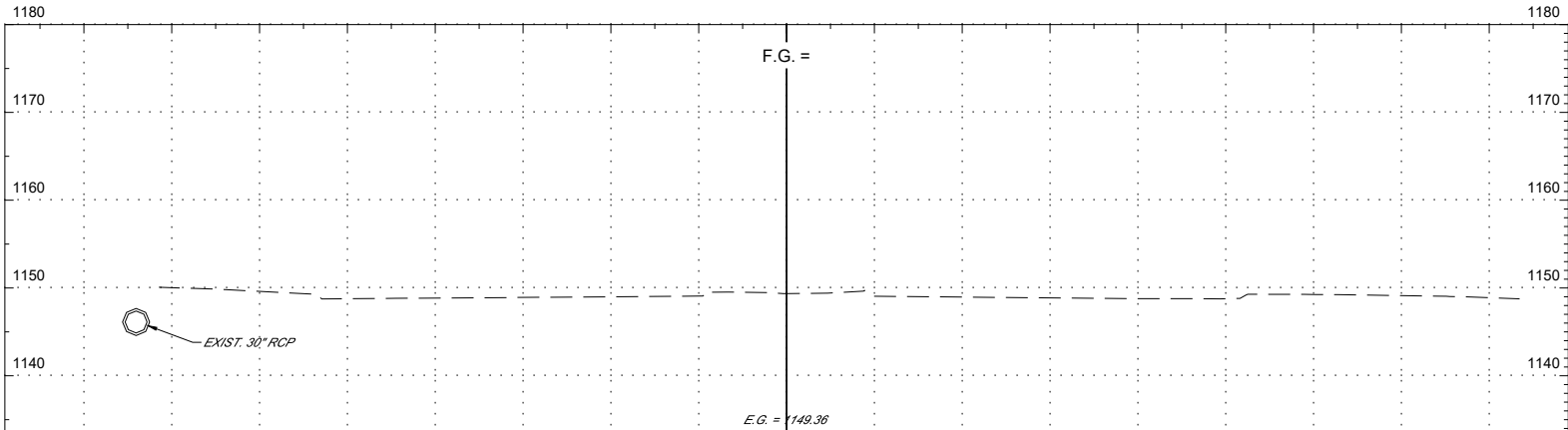
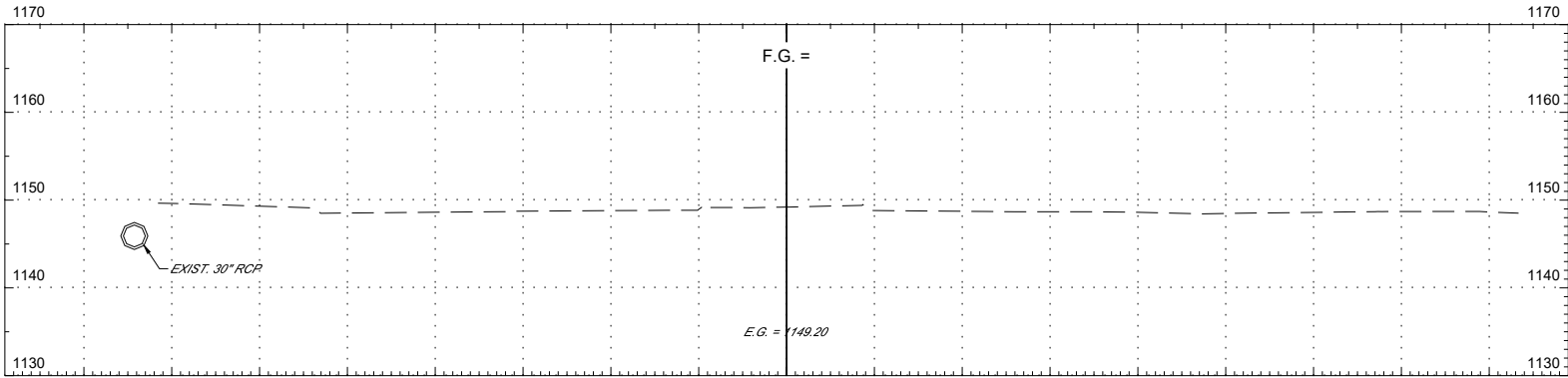
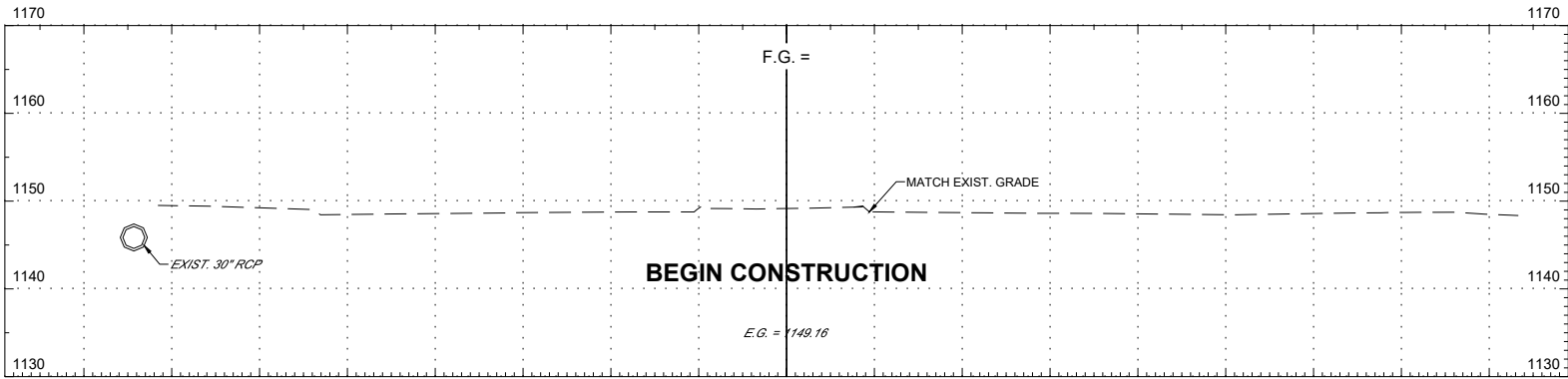
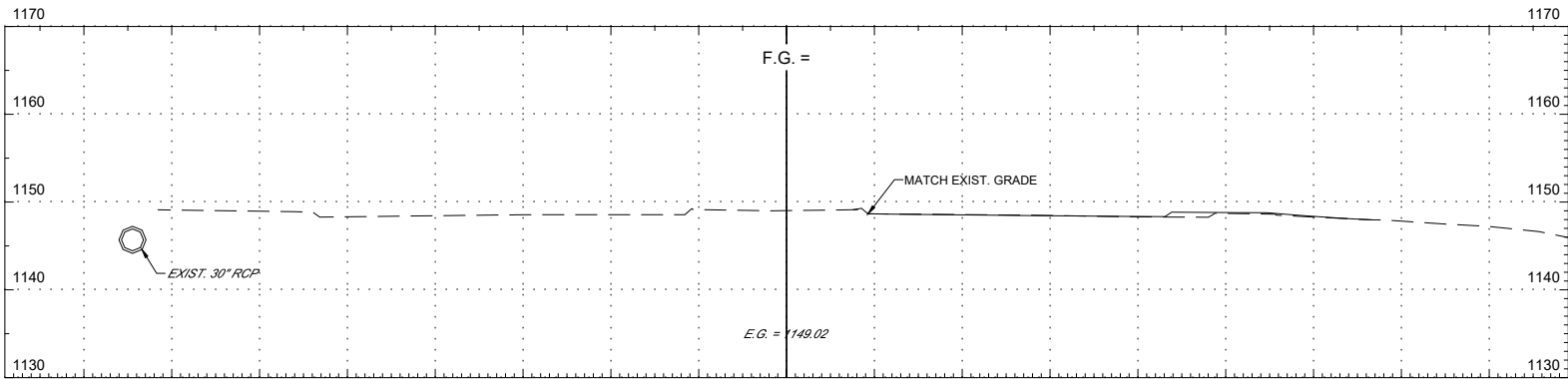
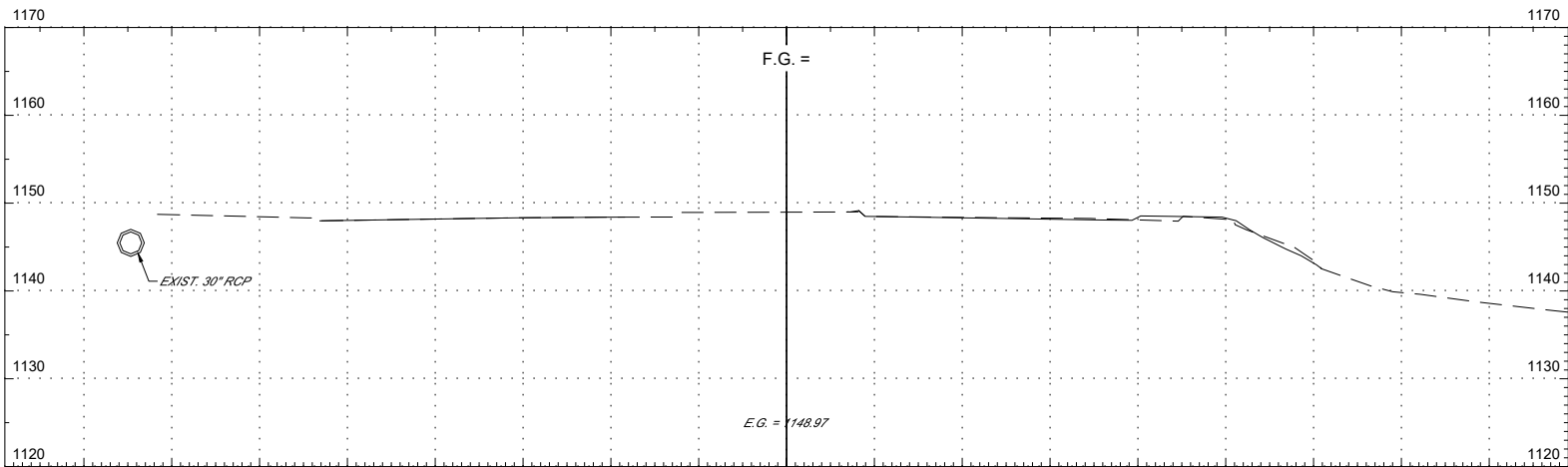
STATE OF OKLAHOMA DEPARTMENT OF TRANSPORTATION  
OKLAHOMA DIVISION OF HIGHWAYS  
DESIGNED BY: KLM  
DRAWN BY: MTD  
APPROVED BY: KLM  
SCALE: AS SHOWN

CEC CORPORATION  
4625 W. MEDARD, ROAD 1412  
OKLAHOMA CITY, OK 73120  
P: 405.755.0001  
WWW.CEC-OK.COM

STATE OF OKLAHOMA DEPARTMENT OF TRANSPORTATION  
OKLAHOMA DIVISION OF HIGHWAYS  
DESIGNED BY: KLM  
DRAWN BY: MTD  
APPROVED BY: KLM  
SCALE: AS SHOWN

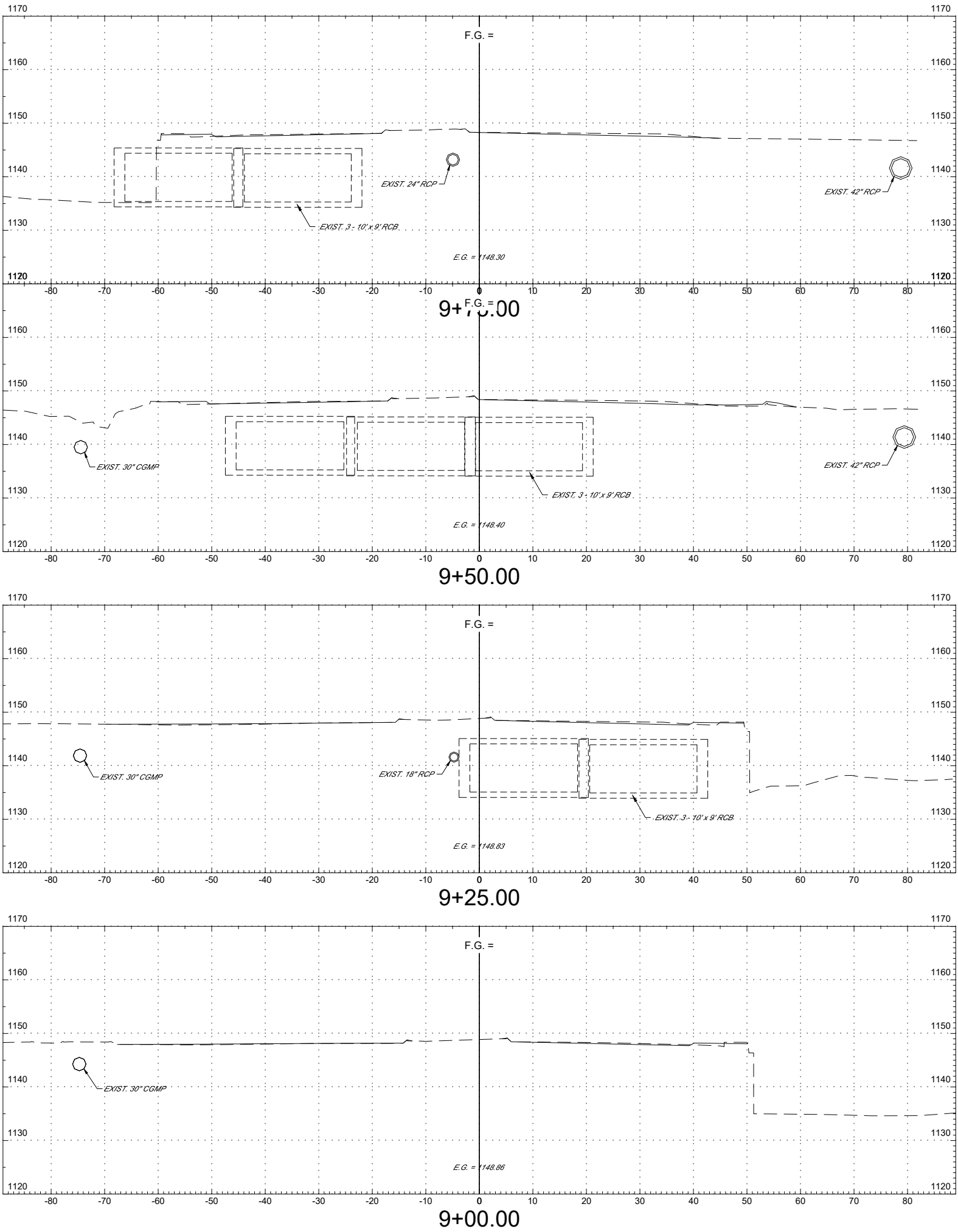



PLOT DATE:



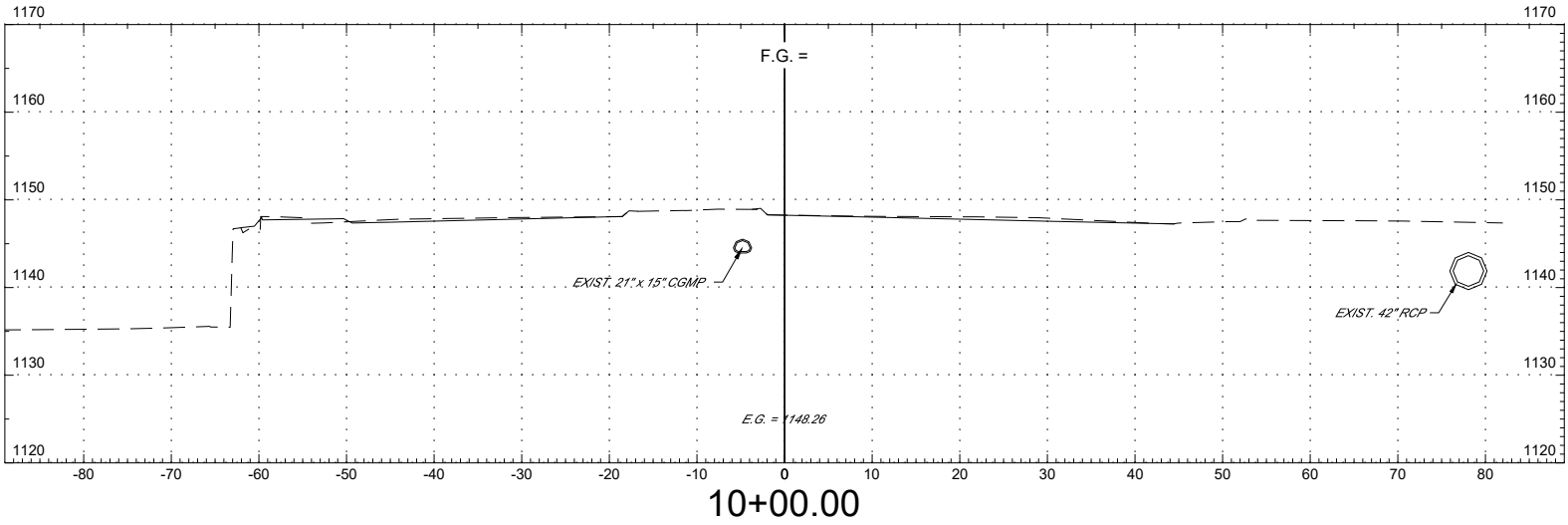
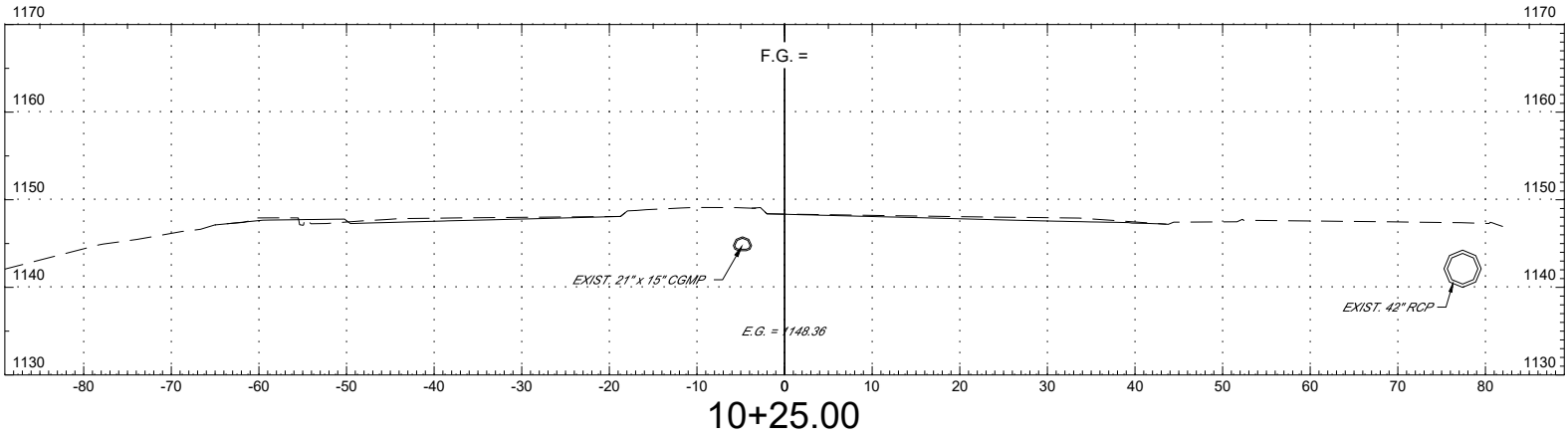
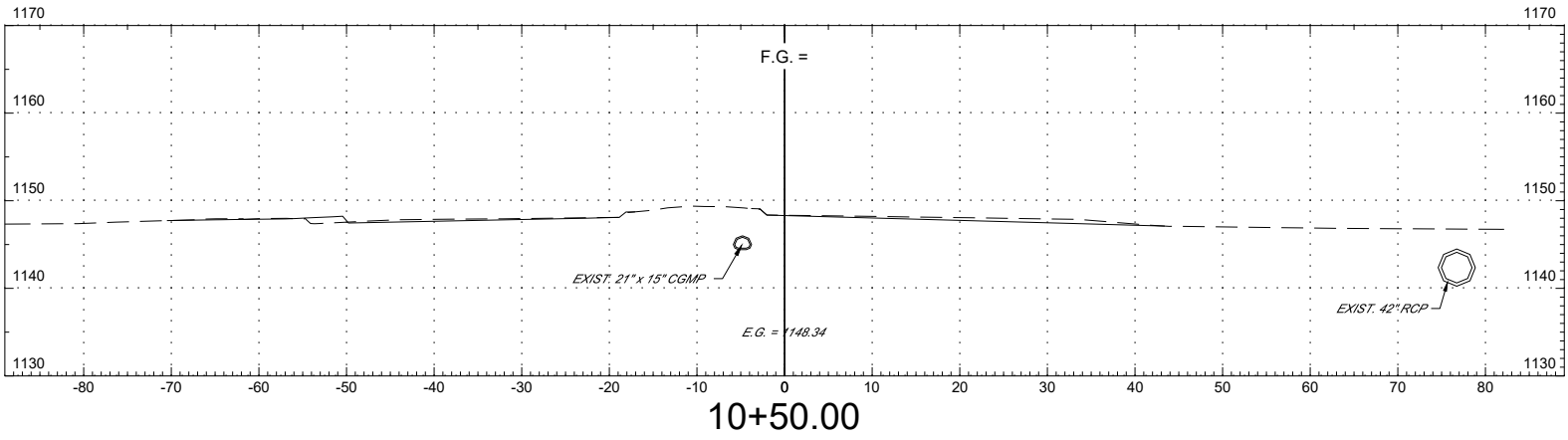
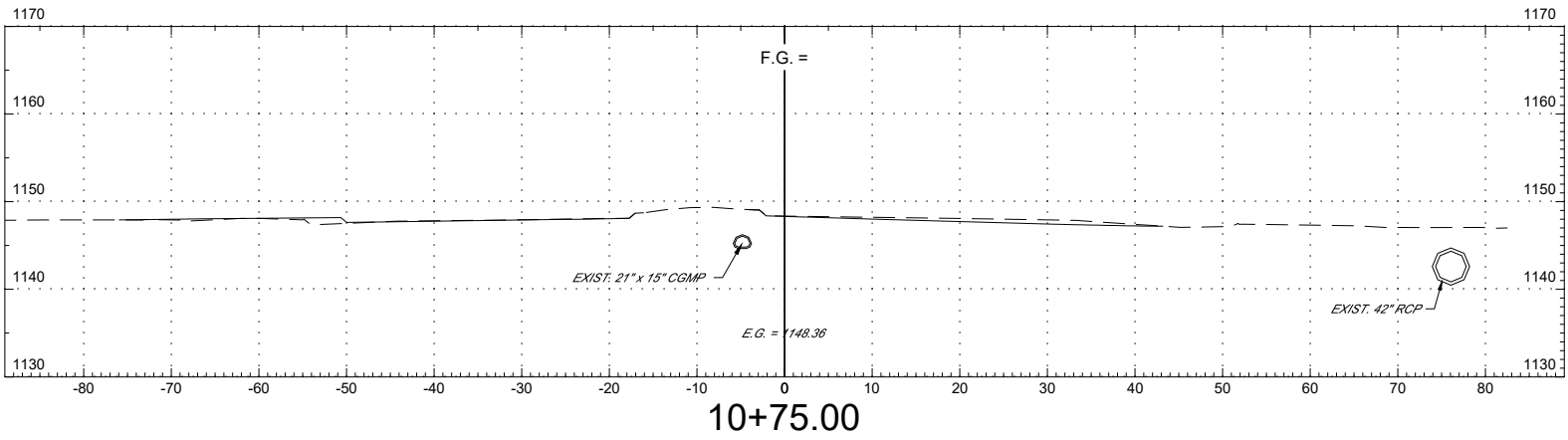
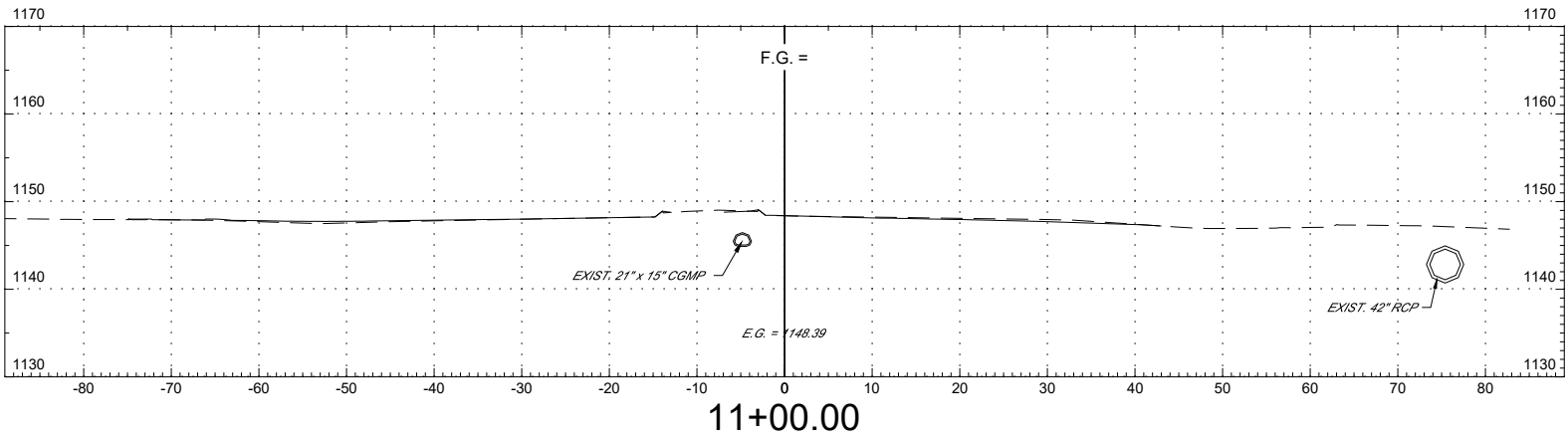
CROSS SECTIONS SHEET X001	SHEET NAME	MAIN STREET BRIDGE REHABILITATION NORMAN, OKLAHOMA	SUBMITTAL:	FINAL PLANS	REVISION HISTORY			
			DATE:	11-15-2024	NO.	DESCRIPTION	DATE	
			PROJECT NO:	K-2324-152				
			DESIGNED BY:	KLM				
			DRAWN BY:	MTD				
	APPROVED BY:	KLM						
	SCALE:	AS SHOWN						
						<div>CEC CORPORATION 4555 W. MEMORIAL ROAD OKLAHOMA CITY, OKLAHOMA 73142 P: 405.753.4200 WWW.CONNECTCEC.COM</div> <div>STATE OF OK CERTIFICATE OF AUTHORIZATION CA# 32 EXPIRES: 2026-06-30</div> <div>COPYRIGHT © 2024 CEC. ALL RIGHTS RESERVED. THIS DRAWING IS PROPERTY OF CEC. ANY MODIFICATION OR USE OF THIS DRAWING WITHOUT EXPRESS WRITTEN AUTHORIZATION OF CEC IS PROHIBITED.</div>		

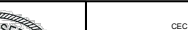
PLOT DATE:



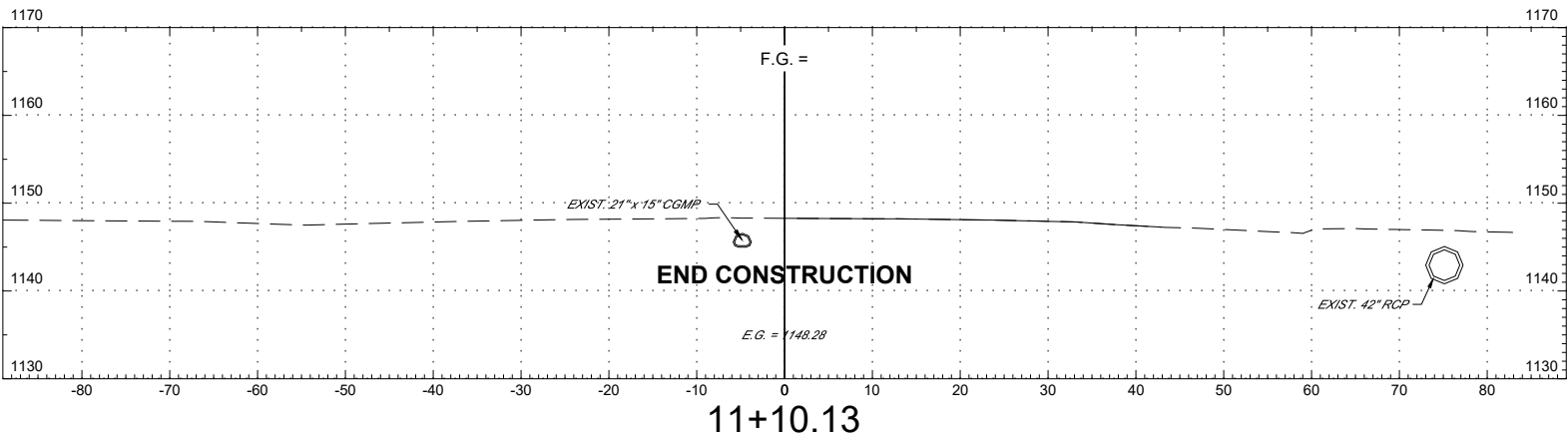
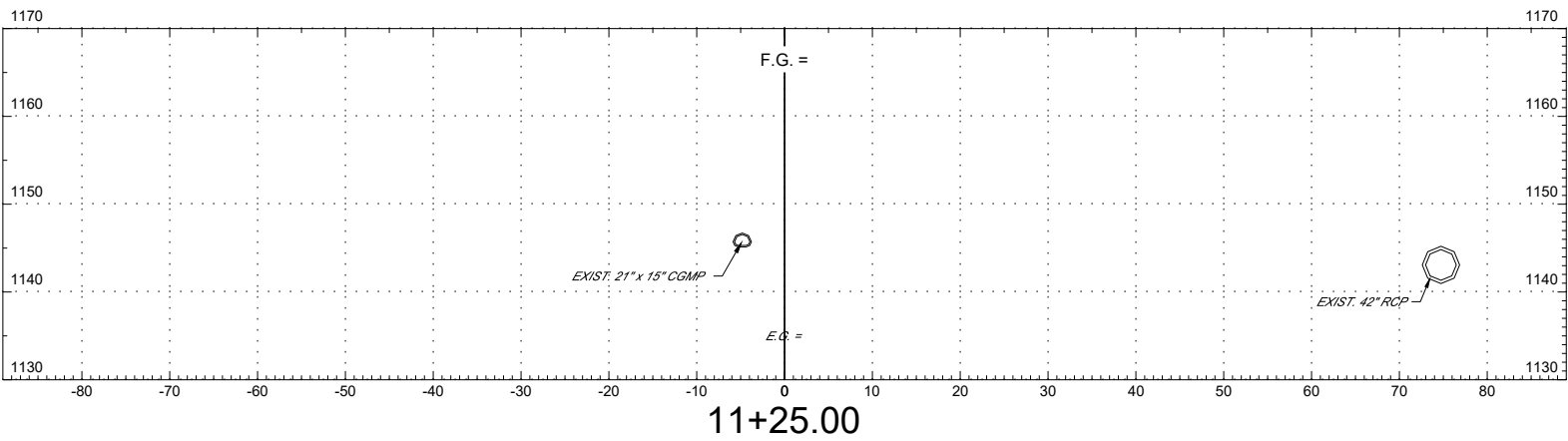
X002	SHEET	CROSS SECTIONS	SHEET NAME	MAIN STREET BRIDGE REHABILITATION  NORMAN, OKLAHOMA	SUBMITTAL:	FINAL PLANS	REVISION HISTORY				<div>CEC CORPORATION 4555 W. MEMORIAL ROAD OKLAHOMA CITY, OKLAHOMA 73142 P: 405.753.4200 WWW.CONNECTCEC.COM</div> <div>STATE OF OK CERTIFICATE OF AUTHORIZATION CA# 32 EXPIRES: 2026-06-30</div> <div>COPYRIGHT © 2024 CEC. ALL RIGHTS RESERVED. THIS DRAWING IS PROPERTY OF CEC. ANY MODIFICATION OR USE OF THIS DRAWING WITHOUT EXPRESS WRITTEN AUTHORIZATION OF CEC IS PROHIBITED.</div>
					DATE:	11-15-2024	NO.	DESCRIPTION	DATE		
					PROJECT NO:	K-2324-152					
					DESIGNED BY:	KLM					
					DRAWN BY:	MTD					
					APPROVED BY:	KLM					
					SCALE:	AS SHOWN					

PLOT DATE:



X003	SHEET	CROSS SECTIONS	SHEET NAME	MAIN STREET BRIDGE REHABILITATION  NORMAN, OKLAHOMA	SUBMITTAL:	FINAL PLANS	REVISION HISTORY				<div>CEC CORPORATION 4555 W. MEMORIAL ROAD OKLAHOMA CITY, OKLAHOMA 73142 P: 405.753.4200 WWW.CONNECTCEC.COM</div> <div>STATE OF OK CERTIFICATE OF AUTHORIZATION CA# 32 EXPIRES: 2026-06-30</div> <div>COPYRIGHT © 2024 CEC. ALL RIGHTS RESERVED. THIS DRAWING IS PROPERTY OF CEC. ANY MODIFICATION OR USE OF THIS DRAWING WITHOUT EXPRESS WRITTEN AUTHORIZATION OF CEC IS PROHIBITED.</div>
					DATE:	11-15-2024	NO.	DESCRIPTION	DATE		
					PROJECT NO:	K-2324-152					
					DESIGNED BY:	KLM					
					DRAWN BY:	MTD					
					APPROVED BY:	KLM					
					SCALE:	AS SHOWN					

PLOT DATE:



SHEET X004	CROSS SECTIONS	SHEET NAME	MAIN STREET BRIDGE REHABILITATION NORMAN, OKLAHOMA	SUBMITTAL:	FINAL PLANS	REVISION HISTORY		
				DATE:	11-15-2024	NO.	DESCRIPTION	DATE
				PROJECT NO:	K-2324-152			
				DESIGNED BY:	KLM			
				DRAWN BY:	MTD			
APPROVED BY:		KLM						
SCALE:		AS SHOWN						
		<div>CEC CORPORATION 4555 W. MEMORIAL ROAD OKLAHOMA CITY, OKLAHOMA 73142 P: 405.753.4200 WWW.CONNECTCEC.COM</div> <div>STATE OF OK CERTIFICATE OF AUTHORIZATION CA# 32 EXPIRES: 2026-06-30</div> <div>COPYRIGHT © 2024 CEC. ALL RIGHTS RESERVED. THIS DRAWING IS PROPERTY OF CEC. ANY MODIFICATION OR USE OF THIS DRAWING WITHOUT EXPRESS WRITTEN AUTHORIZATION OF CEC IS PROHIBITED.</div> <div> CEC®</div>						