UTILITIES

LISTED BELOW ARE ALL UTILITIES LOCATED WITHIN THE PROJECT LIMITS TOGETHER WITH THEIR RESPECTIVE OWNERS:

CABLE
BUCKEYE CABLE
4818 ANGOLA ROAD
TOLEDO, OH 43615
419.724.3768

CABLE
BUCKEYE CABLE SYSTEMS
4818 ANGOLA ROAD
TOLEDO, OH 43615
419.724.3768

COUNTY
ERIE COUNTY SEWER
554 RIVER ROAD
HURON, OH 44839
419.433.7303

GAS
OHIO CUMBERLAND GAS
20718 DANVILLE-AMITY ROAD
MOUNT VERNON, OH 43050
740.392.2941

GAS
COLUMBIA GAS OF OHIO
1800 BROAD AVENUE
FINDLAY, OH 45840
419.427.3225

WATER
ERIE COUNTY WATER
2614 COLUMBUS AVENUE
SANDUSKY, OH 44870
419.627.7666

COMMUNICATION
AT&T OHIO
130 N ERIE STREET
TOLEDO, OH 43604
419.245.7244

ELECTRIC
OHIO EDISON
1717 ASHLAND ROAD
MANSFIELD, OH 44905
419.521.6213

THE AFOREMENTIONED UTILITY COMPANIES AND AGENCIES HAVE VARIOUS FACILITIES IN THE AREA THAT WILL REMAIN IN PLACE DURING CONSTRUCTION.

EXTREME CAUTION SHOULD BE EXERCISED IN AREAS WITH UTILITIES. SECTIONS 105.07 AND 107.16 OF THE DEPARTMENT OF TRANSPORTATION CONSTRUCTION AND MATERIAL SPECIFICATIONS REQUIRE, AMONG OTHER THINGS, THAT THE CONTRACTOR COOPERATE WITH ALL UTILITIES LOCATED WITHIN THE LIMITS OF THIS CONSTRUCTION PROJECT AND TAKE RESPONSIBILITY FOR THE PROTECTION OF THE UTILITY PROPERTY AND SERVICES.

EXISTING PLANS

EXISTING PLANS, LISTED BELOW, MAY BE INSPECTED IN THE ODOT DISTRICT THREE OFFICE IN ASHLAND.

TITLE	DATE
ERI/MED-BH-FY2019	2019
D03-BH-FY2009(A)	2009
ERI-2-12.558	1999
ERI-6-7.31	1960

SURVEYING PARAMETERS

PRIMARY PROJECT CONTROL MONUMENTS GOVERN ALL POSITIONING ON ODOT PROJECTS. SEE THE SURVEY INFORMATION SHEET FOR A TABLE CONTAINING PROJECT CONTROL INFORMATION.

USE THE FOLLOWING PROJECT CONTROL, VERTICAL POSITIONING, AND HORIZONTAL POSITIONING PARAMETERS FOR ALL SURVEYING:

PROJECT CONTROL
POSITIONING METHOD: MINIMUM OF FIVE VRS-DERIVED GNSS OBSERVATIONS
MONUMENT TYPE: SURVEY MAG NAIL SET

VERTICAL POSITIONING
ORTHOMETRIC HEIGHT DATUM: NAVD88
GEOID: GEOID12B*

HORIZONTAL POSITIONING
REFERENCE FRAME: NAD83 (2011)
ELLIPSOID: GRS80
MAP PROJECTION: LAMBERT CONFORMAL CONIC
COORDINATE SYSTEM: OHIO STATE PLANE – NORTH ZONE (3401) SCALED BY A COMBINED GRID SCALE AND ELEVATION PROJECT ADJUSTMENT FACTOR ABOUT THE GRID ORIGIN N=0, E=0 COORDINATE
ORIGIN OF COORDINATE SYSTEM: OHIO STATE PLANE, NORTH ZONE

PROJECT COORDINATE UNITS ARE IN U.S. SURVEY FEET, GRID COORDINATE UNITS ARE IN METERS. USE THE FOLLOWING CONVERSION FACTOR:
1 METER = 39.37 INCHES = 3.280833333 U.S. SURVEY FEET
*SUBJECT TO CHANGE BY PROJECT

USE THE POSITIONING METHODS AND MONUMENT TYPE USED IN THE ORIGINAL SURVEY TO RESTORE ALL MONUMENTS RELATED TO PRIMARY PROJECT CONTROL THAT ARE DAMAGED OR DESTROYED BY CONSTRUCTION ACTIVITIES. RESTORE THE DAMAGED OR DESTROYED MONUMENTS IN ACCORDANCE WITH CMS 623.

WORK LIMITS

THE WORK LIMITS SHOWN ON THESE PLANS ARE FOR PHYSICAL CONSTRUCTION ONLY. PROVIDE THE INSTALLATION AND OPERATION OF ALL WORK ZONE TRAFFIC CONTROL AND WORK ZONE TRAFFIC CONTROL DEVICES REQUIRED BY THESE PLANS WHETHER INSIDE OR OUTSIDE THESE WORK LIMITS.

ROUTINE MAINTENANCE

BETWEEN THE TIME THAT BIDS ARE TAKEN AND THE START OF CONSTRUCTION, THE MAINTAINING AGENCY MAY ENTER UPON THE PROJECT AND PERFORM ROUTINE MAINTENANCE SUCH AS CRACK SEALING, PATCHING, AND BERM AND SHOULDER REPAIR. THE EFFECTS, IF ANY, OF THE PERFORMANCE OF ROUTINE MAINTENANCE SHALL BE CONSIDERED AS INHERENT IN WORK OF THE CHARACTER PROVIDED FOR IN THE PLAN AND THE RESULTING CONDITIONS SHALL NOT BE CONSIDERED AS DIFFERING MATERIALLY FROM THOSE EXISTING AT THE TIME BIDS WERE TAKEN.

REFERENCES MADE TO STANDARD BRIDGE DRAWINGS AND SUPPLEMENTAL SPECIFICATIONS

SUPPLEMENTAL SPECIFICATION	DATE
849	1/18/2013

EXISTING STRUCTURE VERIFICATION

DETAILS AND DIMENSIONS SHOWN ON THESE PLANS PERTAINING TO THE EXISTING STRUCTURE(S) HAVE BEEN OBTAINED FROM PLANS OF THE EXISTING STRUCTURE(S) AND FROM FIELD OBSERVATIONS AND MEASUREMENTS. CONSEQUENTLY, THEY ARE INDICATIVE OF THE EXISTING STRUCTURE(S) AND THE PROPOSED WORK, BUT THEY SHALL BE CONSIDERED TENTATIVE AND APPROXIMATE. THE CONTRACTOR IS REFERRED TO CMS SECTIONS 102.05, 105.02, AND 513.04.

BASE CONTRACT BID PRICES UPON A RECOGNITION OF THE UNCERTAINTIES DESCRIBED ABOVE AND UPON A PRE-BID EXAMINATION OF THE EXISTING STRUCTURE(S). HOWEVER, THE DEPARTMENT WILL PAY FOR ALL PROJECT WORK BASED UPON ACTUAL DETAILS AND DIMENSIONS THAT HAVE BEEN VERIFIED IN THE FIELD.

DESIGN SPECIFICATIONS

DESIGN SPECIFICATIONS: THIS STRUCTURE CONFORMS TO THE 9TH EDITION OF THE "LRFD BRIDGE DESIGN SPECIFICATIONS" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, AND THE ODOT BRIDGE DESIGN MANUAL, 2020.

DESIGN DATA

DESIGN LOADING: MS18 (CASE I) & THE ALTERNATE MILITARY LOADING
STRUCTURAL STEEL: ASTM A709, GR50 – YIELD STRENGTH 50 KSI

STEEL RESTRAINT OR PRELOAD LIMITS

THE EXISTING STRUCTURAL STEEL IS GRADE ASTM A373. DO NOT SUBJECT ANY PART OF THE STRUCTURE TO A JACKING, PULLING, OR RESTRAINING UNIT STRESS EXCEEDING 16 KSI, OR 50% OF THE YIELD STRESS. THE CONTRACTOR IS RESPONSIBLE FOR MONITORING AND NOT EXCEEDING THESE STRESSES IN THE EXISTING STEEL USING A METHOD APPROVED BY THE ENGINEER.

EXISTING PAINT SYSTEM

THE EXISTING BRIDGE WAS PAINTED IN 2001 WITH A THREE COAT OZEU PAINT SYSTEM. THE FINISH COAT WAS BLUE MEETING FEDERAL COLOR 15056.

ITEM 202 – PORTIONS OF STRUCTURE REMOVED, AS PER PLAN (MAIN MEMBERS)
ITEM 202 – PORTIONS OF STRUCTURE REMOVED, AS PER PLAN (SECONDARY MEMBERS)

MAIN MEMBER
THIS ITEM CONSISTS OF THE REMOVAL OF THE EXISTING MAIN BEAM MEMBER TO THE LIMITS SHOWN IN THE PLANS. THIS INCLUDES THE TEMPORARY SUPPORT OF THE EXISTING MAIN MEMBER WHICH SHALL BE IN ACCORDANCE WITH SUPPLEMENTAL SPECIFICATION 849. FLAME OR SAW CUT PORTIONS OF THE EXISTING MAIN MEMBERS USING A MECHANICAL GUIDE ACCORDING TO C&MS 513.12. PROVIDE SHIELDING AS NECESSARY TO PREVENT DAMAGE TO MAIN OR SECONDARY MATERIALS THAT ARE TO REMAIN. GRIND THE REMAINING CUT SURFACES OF THE EXISTING MEMBERS SMOOTH IN PREPARATION FOR COMPLETE PENETRATION OR FIELD WELDING. PROVIDE A SURFACE FINISH ACCORDING TO ANSI B46.1 OF 250 MIL (TO ACCOMMODATE THE PROPOSED REPLACEMENT MATERIAL).

SECONDARY MEMBERS
THIS ITEM CONSISTS OF THE REMOVAL OF THE EXISTING SECONDARY MEMBERS TO THE LIMITS SHOWN IN THE PLANS. FLAME OR SAW CUT THE EXISTING SECONDARY MEMBERS ACCORDING TO C&MS 513. PROVIDE SHIELDING AS NECESSARY TO PREVENT DAMAGE TO MAIN OR SECONDARY MATERIALS THAT ARE TO REMAIN. GRIND THE REMAINING SURFACES OF THE EXISTING MEMBERS ADJACENT TO THE REMOVED MEMBER SMOOTH IN PREPARATION FOR COMPLETE PENETRATION OR FILLET WELDING. PROVIDE A SURFACE FINISH ACCORDING TO ANSI B46.1 OF 250 MIL (TO ACCOMMODATE THE PROPOSED REPLACEMENT MATERIALS).

ALL MEMBERS
PAYMENT FOR ALL MATERIALS, LABOR, EQUIPMENT, AND INCIDENTALS NEEDED TO COMPLETE THE ABOVE WORK WILL BE MADE AT THE CONTRACT BID PRICE PER POUND FOR ITEM 202 – PORTIONS OF STRUCTURE REMOVED, AS PER PLAN (MAIN MEMBERS) OR ITEM 202 – PORTIONS OF STRUCTURE REMOVED, AS PER PLAN (SECONDARY MEMBERS), RESPECTIVELY.

ITEM 513 – STRUCTURAL STEEL MEMBERS, LEVEL UF, AS PER PLAN (CROSSFRAME MEMBERS)

ALL REQUIREMENTS OF 513 APPLY TO SHOP FABRICATED MEMBERS. PERFORM ALL WORK FOR FIELD FABRICATED MEMBERS ACCORDING TO ITEM 513, EXCEPT AS MODIFIED IN THESE PLANS. THE DEPARTMENT WILL NOT REQUIRE THE CONTRACTOR PERFORMING FIELD FABRICATION TO BE PRE-QUALIFIED AS SPECIFIED IN SUPPLEMENT 1078. SUBMIT A WRITTEN LETTER OF MATERIAL ACCEPTANCE, 501.06, TO THE ENGINEER. PROVIDE SHOP DRAWINGS ACCORDING TO 513.06 OR SUPPLY THE ENGINEER WITH "AS-BUILT" DRAWINGS MEETING 513.06 AFTER COMPLETION OF FIELD FABRICATION. THE ENGINEER WILL REVIEW THE SUBMITTED DRAWINGS FOR CONCURRENCE WITH THE FINAL AS-BUILT CONDITION. IF NECESSARY, THE ENGINEER MAY CONTACT THE OFFICE OF STRUCTURAL ENGINEERING FOR TECHNICAL ASSISTANCE. IF THE ENGINEER IS SATISFIED WITH THE AS-BUILT DRAWINGS AND THE DELIVERED MATERIALS, SUPPLY A COPY OF THE DRAWINGS, STAMPED AND DATED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF OHIO, TO THE STRUCTURAL, WELDING, AND METALS SECTION OF THE OFFICE OF MATERIAL MANAGEMENT FOR RECORD PURPOSES.

PAYMENT FOR THE REPLACEMENT OF DAMAGED CROSS FRAMES SHALL BE AT THE UNIT BID PRICE PER POUND FOR THE ABOVE ITEM, WHICH INCLUDES ALL LABOR, MATERIAL, EQUIPMENT, AND INCIDENTALS NEEDED TO COMPLETE THIS WORK.

THE FOLLOWING MEMBERS ARE INCLUDED IN THIS ITEM:
CROSS FRAMES: 3" X 3" X 5/16" ANGLE

ITEM 513 – STRUCTURAL STEEL MEMBERS, LEVEL UF, AS PER PLAN (BEAM SECTION REPLACEMENT)

THIS ITEM CONSISTS OF PROVIDING AND INSTALLING THE NEW ROLLED MAIN BEAM MEMBER AS SHOWN IN THE PLANS.

PAYMENT FOR ALL MATERIALS, LABOR, EQUIPMENT, AND INCIDENTALS NEEDED TO COMPLETE THE ABOVE WORK WILL BE MADE AT THE CONTRACT PRICE FOR ITEM 513 – STRUCTURAL STEEL MEMBERS, LEVEL UF, AS PER PLAN (BEAM SECTION REPLACEMENT).

ITEM 516 – JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN

THIS WORK CONSISTS OF RAISING OR REPOSITIONING THE EXISTING STRUCTURE TO THE DIMENSIONS AND REQUIREMENTS DEFINED IN THE PROJECT PLANS.

SUBMIT WORKING DRAWINGS AND CALCULATIONS IN ACCORDANCE WITH CMS 501.05.

IF CRACKING OF THE CONCRETE SUPERSTRUCTURE OR OTHER DAMAGE TO THE STRUCTURE IS VISUALLY OBSERVED DURING THE JACKING OPERATIONS, IMMEDIATELY CEASE THE JACKING OPERATION, NOTIFY THE ENGINEER AND THE DISTRICT BRIDGE ENGINEER, AND INSTALL SUPPORTS TO THE SATISFACTION OF THE ENGINEER. ANALYZE THE DAMAGE AND SUBMIT A METHOD OF CORRECTION TO THE ENGINEER FOR APPROVAL BY THE ENGINEER, DISTRICT BRIDGE ENGINEER, AND THE OFFICE OF STRUCTURAL ENGINEERING AS DEEMED NEEDED BY THE DISTRICT BRIDGE ENGINEER.

THE DEPARTMENT WILL MEASURE THIS WORK ON A LUMP SUM BASIS.

THE DEPARTMENT WILL PAY FOR THE ACCEPTED QUANTITIES AT THE CONTRACT PRICE FOR ITEM 516 – JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN, WHICH WILL INCLUDE THE COST FOR ALL LABOR, MATERIAL, EQUIPMENT, AND INCIDENTALS NEEDED TO COMPLETE THE WORK.

GENERAL NOTES

DESIGN AGENCY
DISTRICT 3
ENGINEERING TEAM FOUR
DESIGNER
KCK
REVIEWER
NRF 6/2020
PROJECT ID
113409
SUBSET 1 TOTAL 2
SHEET 2 TOTAL 10

ERI-2-10.88

SHEET NUM.							PART.		ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
3	6	8	10				01/NHS/BR							
													EROSION CONTROL	
							1,000		832	30000	1,000	EACH	EROSION CONTROL	
													STRUCTURE REPAIR (ERI-2-1088 LEFT)	
		1,610					1,610		202	11401	1,610	LB	PORTIONS OF STRUCTURE REMOVED, AS PER PLAN (MAIN MEMEBER)	2
		453					453		202	11401	453	LB	PORTIONS OF STRUCTURE REMOVED, AS PER PLAN (SECONDARY MEMEBER)	2
			12				12		512	10601	12	FT	CONCRETE REPAIR BY EPOXY INJECTION, AS PER PLAN	10
		453					453		513	10201	453	LB	STRUCTURAL STEEL MEMBERS, LEVEL UF, AS PER PLAN (CROSSFRAME MEMBERS)	2
		1,610					1,610		513	10201	1,610	LB	STRUCTURAL STEEL MEMBERS, LEVEL UF, AS PER PLAN (BEAM SECTION REPLACEMENT)	2
611							611		514	20001	611	SF	FIELD PAINTING OF DAMAGED STRUCTURAL STEEL, AS PER PLAN (THREE COAT)	3
		LS					LS		516	47001	LS		JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN	2
		LS					LS		849	10001	LS		DAMAGE ASSESSMENT, AS PER PLAN	3
		LS					LS		849	10500	LS		SURFACE PREPARATION	
		5					5		849	10600	5	HOUR	REPAIRING DAMAGED MEMBERS BY GRINDING	
		LS					LS		849	10700	LS		STRAIGHTENING DAMAGED MEMBERS	
													MAINTENANCE OF TRAFFIC	
	16						16		614	11110	16	HOUR	LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE	5
							LS		614	12420	LS		DETOUR SIGNING	
	2						2		614	18600	2	SNMT	PORTABLE CHANGEABLE MESSAGE SIGN	5
													INCIDENTALS	
							LS		614	11000	LS		MAINTAINING TRAFFIC	
							2		619	16000	2	MNTH	FIELD OFFICE, TYPE A	
							LS		623	10000	LS		CONSTRUCTION LAYOUT STAKES AND SURVEYING	
							LS		624	10000	LS		MOBILIZATION	

GENERAL SUMMARY

ERI-2-10.88

MODEL: Sheet PAPERSIZE: 17x11 (in.) DATE: 7/27/2020 TIME: 12:51:43 PM USER: jdark8
pw:\\ohiodot-pw.bentley.com:ohiodot-pw-02\Documents\01 Active Projects\District 03\Erie\113409\400-Engineering\Roadway\Sheets\113409_GG001.dgn

DESIGN AGENCY
DISTRICT 3
ENGINEERING TEAM FOUR

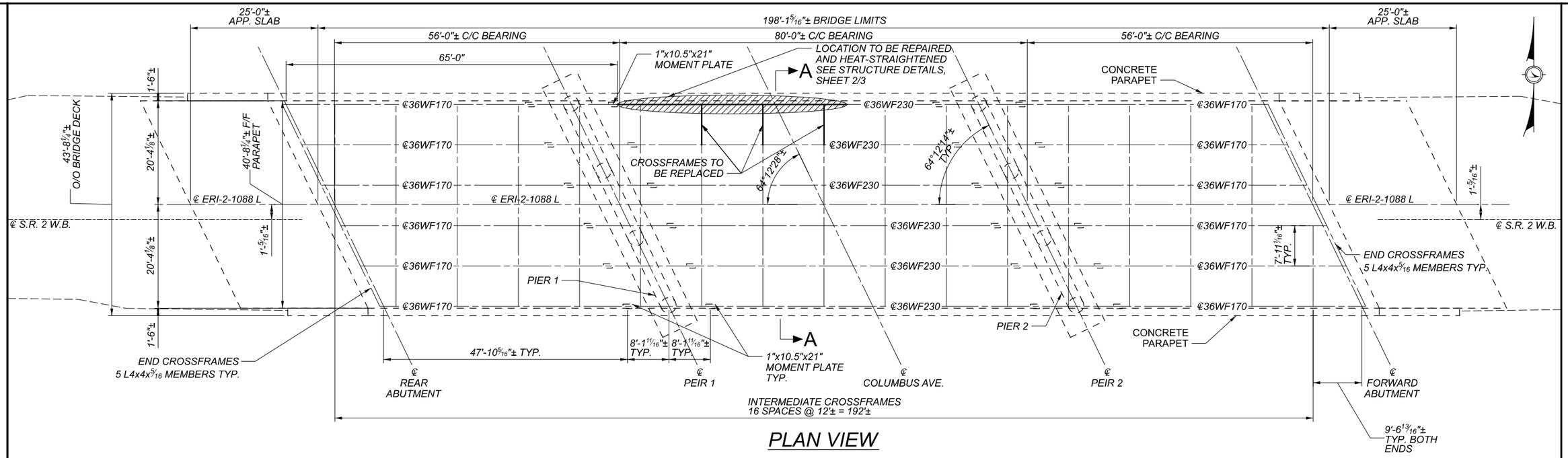
DESIGNER
KCK

REVIEWER
NRF 6/2020

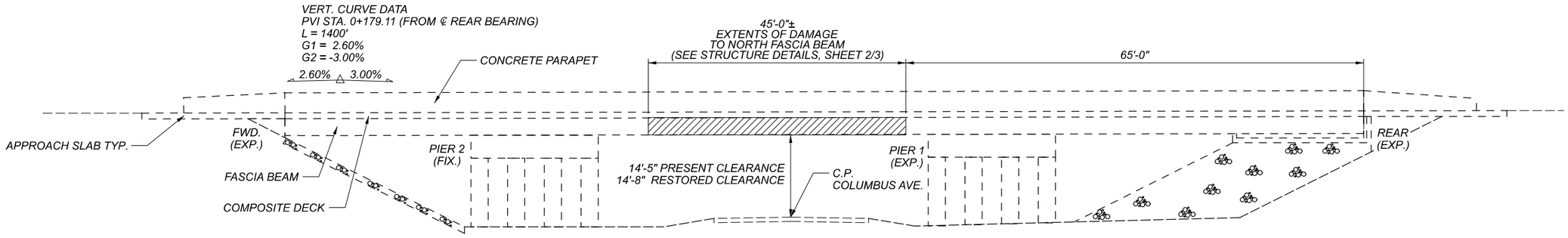
PROJECT ID
113409

SUBSET	TOTAL
1	1

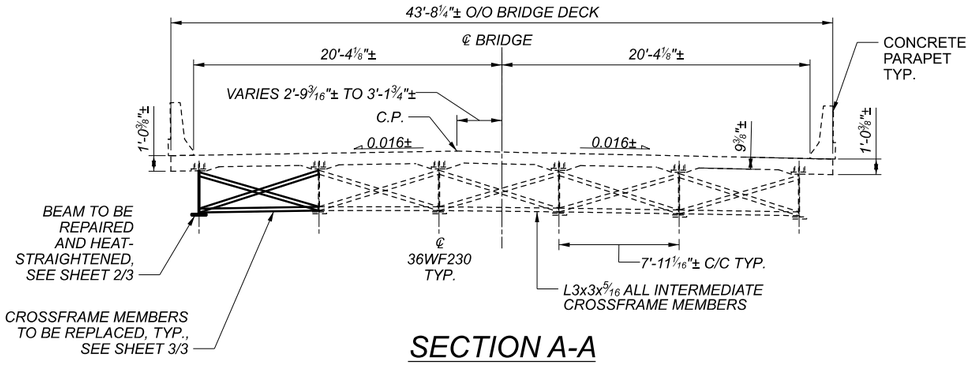
SHEET	TOTAL
7	10



PLAN VIEW



ELEVATION VIEW (FACING SOUTH)



SECTION A-A

STRUCTURE ESTIMATED QUANTITIES

ITEM	ITEM EXT.	QTY	UNIT	DESCRIPTION
202	11401	1610	LB	PORTIONS OF STRUCTURE REMOVED, AS PER PLAN (MAIN MEMEBER)
202	11401	453	LB	PORTIONS OF STRUCTURE REMOVED, AS PER PLAN (SECONDARY MEMEBER)
512	10601	12	FT	CONCRETE REPAIR BY EPOXY INJECTION, AS PER PLAN
513	10201	453	LB	STRUCTURAL STEEL MEMBERS, LEVEL UF, AS PER PLAN (CROSSFRAME MEMBERS)
513	10201	1610	LB	STRUCTURAL STEEL MEMBERS, LEVEL UF, AS PER PLAN (BEAM SECTION REPLACEMENT)
514	20001	611	SF	FIELD PAINTING OF DAMAGED STRUCTURAL STEEL, AS PER PLAN (THREE COAT)
516	47001	LS		JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN
849	10001	LS		DAMAGE ASSESSMENT, AS PER PLAN
849	10500	LS		SURFACE PREPARATION
849	10600	5	HOUR	REPAIRING DAMAGED MEMBERS BY GRINDING
849	10700	LS		STRAIGHTENING DAMAGED MEMBERS

ALL QUANTITIES CARRIED TO THE GENERAL SUMMARY

STRUCTURE DETAILS
STRUCTURE PLAN AND ELEVATION
STRUCTURE ERI-2-1089L

SFN 2200848
DESIGN AGENCY
DESIGNER JNC | CHECKER KCK
REVIEWER NRF 06/01/20
PROJECT ID 113409
SUBSET 1 | TOTAL 3
SHEET 8 | TOTAL 10

ERI-2-10.88