

SHEET NUM.					PART.	ITEM	ITEM	GRAND	UNIT	DESCRIPTION	SEE SHEET NO.
88	96	105			01/BRO/BR	EXT	TOTAL				
										LIGHTING CONTINUED	
	1,845				1,845	625	25600	1,845	FT	CONDUIT, 4", 725.04	
	335				335	625	25910	335	FT	CONDUIT CLEANED AND CABLES REMOVED	
	9				9	625	27520	9	EACH	REMOVAL OF LUMINAIRE AND REERECTION	
	1				1	625	29930	1	EACH	MEDIAN JUNCTION BOX	
	9				9	625	32000	9	EACH	GROUND ROD	
	9				9	625	35010	9	EACH	REMOVE AND REERECT EXISTING LIGHT POLE	
	LS				LS	SPECIAL	62540000	LS		MAINTAIN EXISTING LIGHTING	96
	2				2	625	75500	2	EACH	LIGHT POLE FOUNDATION REMOVED	
	LS				LS	625	98200	LS		LIGHTING, MISC.: REMOVE AND REERECT EXISTING UNDERPASS LIGHTING	96
										STRUCTURE OVER 20 FOOT SPAN (CUY-480-2241)	
		LS			LS	202	11203	LS		PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN	104
	533				533	202	22900	533	SY	APPROACH SLAB REMOVED	
	2,854				2,854	202	23500	2,854	SY	WEARING COURSE REMOVED	
	1,007				1,007	202	32800	1,007	SY	CONCRETE SLOPE PROTECTION REMOVED	104
	190				190	203	20000	190	CY	EMBANKMENT	104
	LS				LS	503	11100	LS		COFFERDAMS AND EXCAVATION BRACING	
	495				495	503	21100	495	CY	UNCLASSIFIED EXCAVATION	
	253,008				253,008	509	10000	253,008	LB	EPOXY COATED REINFORCING STEEL	
	8,394				8,394	509	30020	8,394	FT	NO. 4 GFRP DEFORMED BARS	
	7,973				7,973	509	30040	7,973	FT	NO. 6 GFRP DEFORMED BARS	
	424				424	510	10001	424	EACH	DOWEL HOLES WITH NONSHRINK, NONMETALLIC GROUT, AS PER PLAN	104
	8				8	511	33500	8	EACH	SEMI-INTEGRAL DIAPHRAGM GUIDE	
	1,135				1,135	511	34442	1,135	SY	CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK	
	163				163	511	34450	163	CY	CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK (PARAPET)	
	33				33	511	41010	33	CY	CLASS QC1 CONCRETE, PIER ABOVE FOOTINGS	
	1,383				1,383	512	10100	1,383	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	
	6				6	512	33000	6	SY	TYPE 2 WATERPROOFING	
	646				646	SPECIAL	51271500	646	SY	URETHANE TOP COAT SEALER	104
	10,476				10,476	513	20000	10,476	EACH	WELDED STUD SHEAR CONNECTORS	
	1,231				1,231	514	00050	1,231	SF	SURFACE PREPARATION OF EXISTING STRUCTURAL STEEL	
	1,231				1,231	514	00056	1,231	SF	FIELD PAINTING OF EXISTING STRUCTURAL STEEL, PRIME COAT	
	112				112	516	13600	112	SF	1" PREFORMED EXPANSION JOINT FILLER	
	226				226	516	13900	226	SF	2" PREFORMED EXPANSION JOINT FILLER	
	385				385	516	14020	385	FT	SEMI-INTEGRAL ABUTMENT EXPANSION JOINT SEAL	
	42				42	516	14600	42	FT	STRUCTURAL JOINT OR JOINT SEALER, MISC.:COMPRESSED FOAM EXPANSION JOINT SEAL	104
	36				36	516	44100	36	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE)(LOAD PLATE 1'-1" x 1'-4" x 1.5" THICK, NEOPRENE 1'-0" x 1'-3" x 2.498" THICK)	
	36				36	516	44100	36	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE)(LOAD PLATE 1'-5" x 1'-5" x 1.5" THICK, NEOPRENE 1'-4" x 1'-4" x 2.948" THICK)	
	LS				LS	516	47000	LS		JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE	
	101				101	518	21200	101	CY	POROUS BACKFILL WITH GEOTEXTILE FABRIC	
	292				292	518	40000	292	FT	6" PERFORATED CORRUGATED PLASTIC PIPE	
	332				332	518	40012	332	FT	6" NON-PERFORATED CORRUGATED PLASTIC PIPE	104
	6,680				6,680	SPECIAL	51900100	6,680	SF	COMPOSITE FIBER WRAP SYSTEM	104
	93				93	519	11100	93	SF	PATCHING CONCRETE STRUCTURE	
	818				818	526	25001	818	SY	REINFORCED CONCRETE APPROACH SLABS (T=15"), AS PER PLAN	130-131
	298				298	526	90010	298	FT	TYPE A INSTALLATION	
	1,007				1,007	601	21000	1,007	SY	CONCRETE SLOPE PROTECTION	104
										TRAFFIC CONTROL	
	404				404	621	00100	404	EACH	RPM	
	404				404	621	54000	404	EACH	RAISED PAVEMENT MARKER REMOVED	
	3				3	630	79610	3	EACH	SIGN SUPPORT ASSEMBLY, BARRIER MOUNTED	
	6				6	630	81000	6	EACH	MAINLINE REFERENCE MARKER	
	4				4	630	84900	4	EACH	REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL	
	2				2	630	86002	2	EACH	REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL	
	5.28				5.28	646	10010	5.28	MILE	EDGE LINE, 6"	
	7.92				7.92	646	10110	7.92	MILE	LANE LINE, 6"	
	3,852				3,852	646	10310	3,852	FT	CHANNELIZING LINE, 12"	
	2,930				2,930	646	20504	2,930	FT	DOTTED LINE, 6"	

GENERAL SUMMARY

DESIGN AGENCY



DESIGNER

BSB

REVIEWER

DEB 02-25-22

PROJECT ID

114516

SHEET TOTAL

79 133

SHEET NUM.					PART.	ITEM	ITEM	GRAND	UNIT	DESCRIPTION	SEE SHEET NO.	
6	7	8	9	10	13	01/BRO/BR	EXT	TOTAL				
										MAINTENANCE OF TRAFFIC		
				1,000		1,000	519	12300	1,000	SY	PATCHING CONCRETE BRIDGE DECK - TYPE B	
			1,760	240		2,000	614	11110	2,000	HOUR	LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE	
		8,000				8,000	614	11630	8,000	FT	INCREASED BARRIER DELINEATION	
					12	12	614	12380	12	EACH	WORK ZONE IMPACT ATTENUATOR, 24" WIDE HAZARDS, (UNIDIRECTIONAL)	
					2	2	614	12384	2	EACH	WORK ZONE IMPACT ATTENUATOR, 24" WIDE HAZARDS, (BIDIRECTIONAL)	
						LS	614	12420	LS		DETOUR SIGNING	
	4					4	614	12484	4	EACH	WORK ZONE INCREASED PENALTIES SIGN	
				20		20	614	12500	20	EACH	REPLACEMENT SIGN	
				2		2	614	12756	2	EACH	WORK ZONE CROSSOVER LIGHTING SYSTEM	
					210	210	614	12800	210	EACH	WORK ZONE RAISED PAVEMENT MARKER	
					7,637	7,637	614	12801	7,637	EACH	WORK ZONE RAISED PAVEMENT MARKER, AS PER PLAN	8
500				50		550	614	13000	550	CY	ASPHALT CONCRETE FOR MAINTAINING TRAFFIC	
						1,132	614	13310	1,132	EACH	BARRIER REFLECTOR, TYPE 1, ONE-WAY	
			80			80	614	13312	80	EACH	BARRIER REFLECTOR, TYPE 2, ONE-WAY	
			80			1,132	614	13350	1,212	EACH	OBJECT MARKER, ONE WAY	
				12		12	614	18000	12	EACH	MAINTAINING TRAFFIC, MISC.:WORK ZONE ONE-LANE CLOSURE FOR MAINTENANCE REPAIR	10
				12		12	614	18000	12	EACH	MAINTAINING TRAFFIC, MISC.:WORK ZONE TWO-LANE CLOSURE FOR MAINTENANCE REPAIR	10
					29.32	29.32	614	20110	29.32	MILE	WORK ZONE LANE LINE, CLASS I, 6", 642 PAINT	
					29.86	29.86	614	22110	29.86	MILE	WORK ZONE EDGE LINE, CLASS I, 6", 642 PAINT	
					208	208	614	23200	208	FT	WORK ZONE CHANNELIZING LINE, CLASS I, 8", 642 PAINT	
					80,658	80,658	614	23210	80,658	FT	WORK ZONE CHANNELIZING LINE, CLASS I, 12", 642 PAINT	
					14,874	14,874	614	24202	14,874	FT	WORK ZONE DOTTED LINE, CLASS I, 6", 642 PAINT	
					700	700	614	28200	700	FT	WORK ZONE GORE MARKING, CLASS II, 642 PAINT	
					3	3	614	30200	3	EACH	WORK ZONE ARROW, CLASS I, 642 PAINT	
					LS	LS	615	10000	LS		ROADS FOR MAINTAINING TRAFFIC	
					1,100	1,100	615	20000	1,100	SY	PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A	
				5		5	616	10000	5	MGAL	WATER	
			4.5			4.5	618	40601	4.5	MILE	RUMBLE STRIPS, SHOULDER (ASPHALT CONCRETE), AS PER PLAN	9
					16,720	16,720	622	41011	16,720	FT	PORTABLE BARRIER, 50", AS PER PLAN	10
					12,329	12,329	622	41100	12,329	FT	PORTABLE BARRIER, UNANCHORED	
					600	600	622	41110	600	FT	PORTABLE BARRIER, ANCHORED	
				108		108	808	18700	108	SNMT	DIGITAL SPEED LIMIT (DSL) SIGN ASSEMBLY	
				20		20	847	30200	20	CY	FULL DEPTH REPAIR	
											INCIDENTALS	
						LS	614	11000	LS		MAINTAINING TRAFFIC	
						18	619	16020	18	MNTH	FIELD OFFICE, TYPE C	
						LS	623	10001	LS		CONSTRUCTION LAYOUT STAKES AND SURVEYING, AS PER PLAN	5
						LS	624	10000	LS		MOBILIZATION	

GENERAL SUMMARY

DESIGN AGENCY



DESIGNER

BSB

REVIEWER

DEB 02-25-22

PROJECT ID

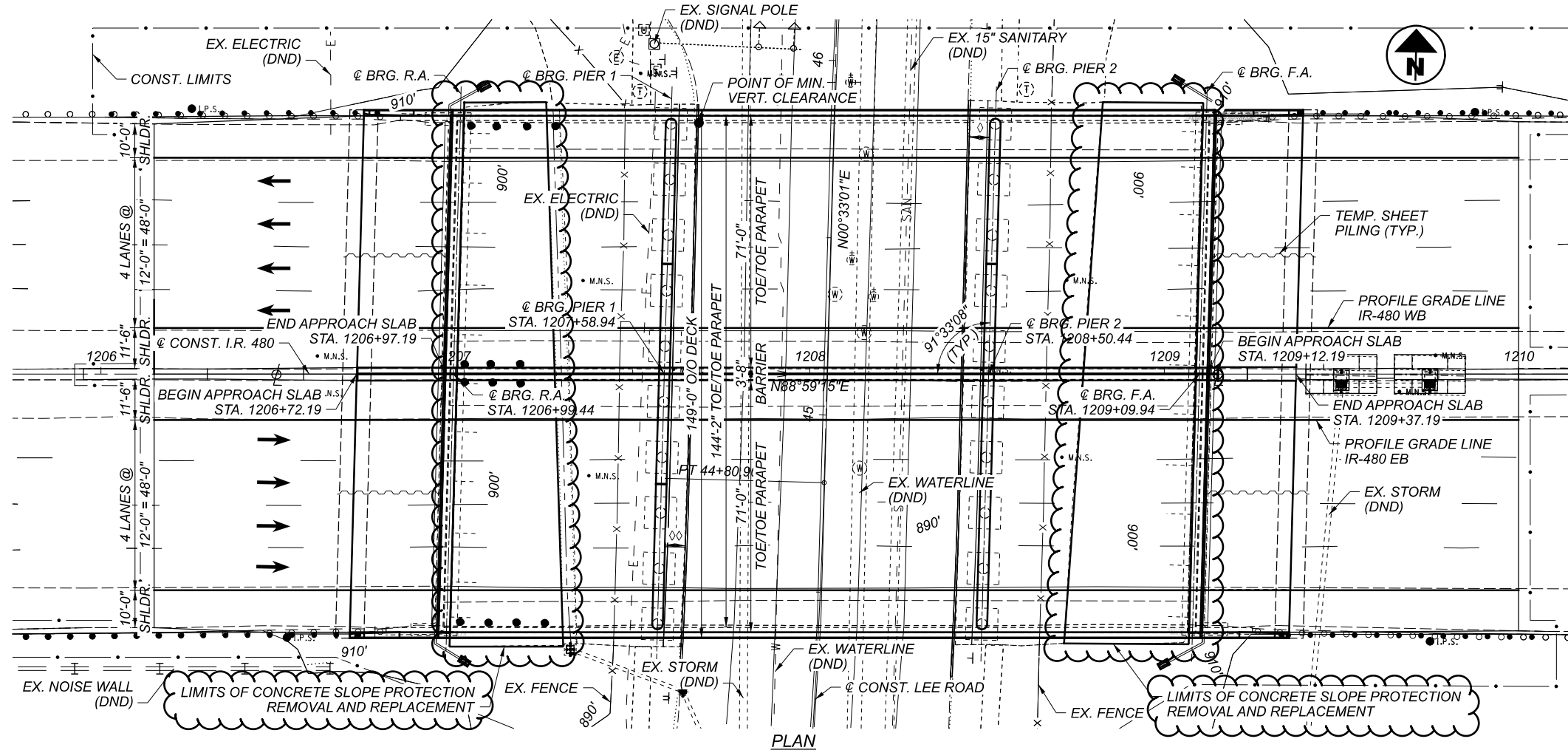
114516

SHEET TOTAL

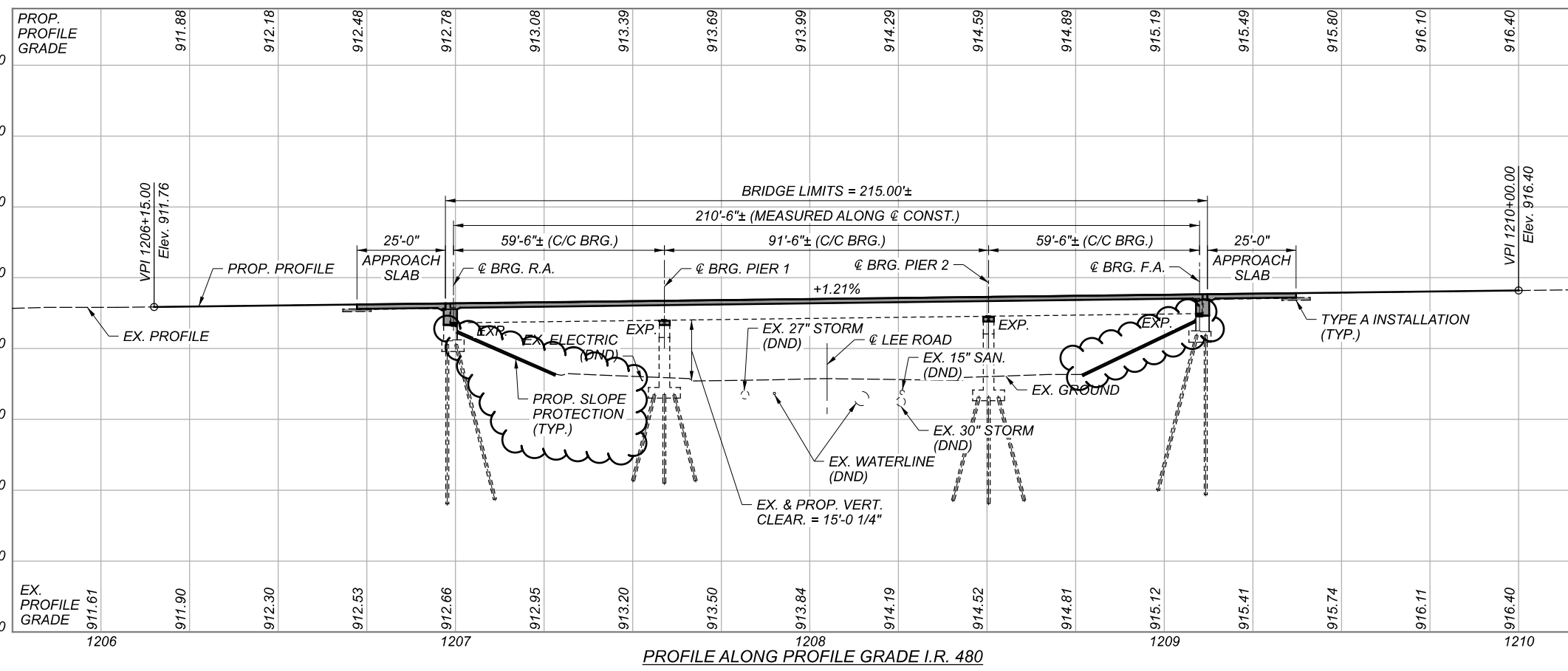
80 133

CUY-480-22.41

MODEL: CLK 480 - Plan 1 (Sheet) PAPER SIZE: 17x11 (in.) DATE: 2022-05-10 TIME: 7:53:44 AM USER: connor.higgins
 (\uss-east-bjg-rup.com)\CN\127052_D12-BH-FY227.0_Production\Worksheets\114516\400-Engineering\Structures\SFN1813404\Sheets\114516_SF1813404_SP001.dgn



PLAN



PROFILE ALONG PROFILE GRADE I.R. 480

BENCHMARK DATA

BM #1 STA.	1208+64.62	ELEV.	896.33	OFFSET	120.46', LT.
BM #2 STA.	1212+18.62	ELEV.	917.78	OFFSET	85.09', RT.
BM #3 STA.	1207+33.24	ELEV.	888.23	OFFSET	187.70', RT.

FOR ADDITIONAL BENCHMARK INFORMATION. SEE ROADWAY PLAN SHEET

NOTES

EARTHWORK LIMITS SHOWN ARE APPROXIMATE. ACTUAL SLOPES SHALL CONFORM TO PLAN CROSS SECTIONS.

EXISTING UTILITIES ARE TO REMAIN UNLESS NOTES OTHERWISE

DESIGN TRAFFIC:

2023 ADT =	170,100	2023 ADTT =	8505
2043 ADT =	186,700	2043 ADTT =	9335
DIRECTIONAL DISTRIBUTION = 55%			

LEGEND

- ◆ BORING LOCATION
- * - PHASE 1 CONSTRUCTION
- ** - PHASE 2 CONSTRUCTION
- 16'-6" REQUIRED MINIMUM VERTICAL CLEARANCE
- 15'-0 1/4" ACTUAL MINIMUM VERTICAL CLEARANCE
- ◇ - EX. & PROP. HORIZONTAL CLEARANCE = 5'-8 11/16"±
- ◇◇ - EX. & PROP. HORIZONTAL CLEARANCE = 5'-7 15/16"±



SITE PLAN
 BRIDGE NO. CUY-480-2241
 I.R. 480 OVER LEE ROAD

EXISTING STRUCTURE

TYPE: CONTINUOUS WELDED STEEL GIRDER WITH REINFORCED CONCRETE DECK AND SUBSTRUCTURE.

SPANS: 59'-6"±, 91'-6"±, 59'-6"± (C/C BRG.)

ROADWAY: 144'-0"± F/F PARAPET
3'-0"± BARRIER MEDIAN

LOADING: CF2000 (57) ADEQUATE FOR AASHTO ALTERNATE LOADING

SKEW: 1°33'45" LEFT FORWARD

WEARING SURFACE: 2 1/4" MICRO-SILICA MODIFIED CONCRETE OVERLAY

APPROACH SLABS: AS-1-67 (25' LONG)

ALIGNMENT: TANGENT

CROWN: 0.016 FT/FT

STRUCTURE FILE NUMBER: 1813404

DATE BUILT: 1971

DISPOSITION: TO BE REHABILITATED

PROPOSED STRUCTURE

TYPE: CONTINUOUS WELDED STEEL GIRDER WITH COMPOSITE REINFORCED CONCRETE DECK AND SEMI-INTEGRAL ABUTMENTS AND REINFORCED CONCRETE PIERS

SPANS: 59'-6", 91'-6", 59'-6" (C/C BRG.)

ROADWAY: 144'-2" TOE/TOE PARAPET

VEHICULAR LIVE LOAD: HL93 (SUPERSTRUCTURE)
HS20 (SUBSTRUCTURE)

FUTURE WEARING SURFACE: 0.060 KSF

SKEW: 1°33'08" LEFT FORWARD

WEARING SURFACE: 1" MONOLITHIC CONCRETE

APPROACH SLABS: 25'-0" LONG (AS-1-15, AS-2-15), MODIFIED

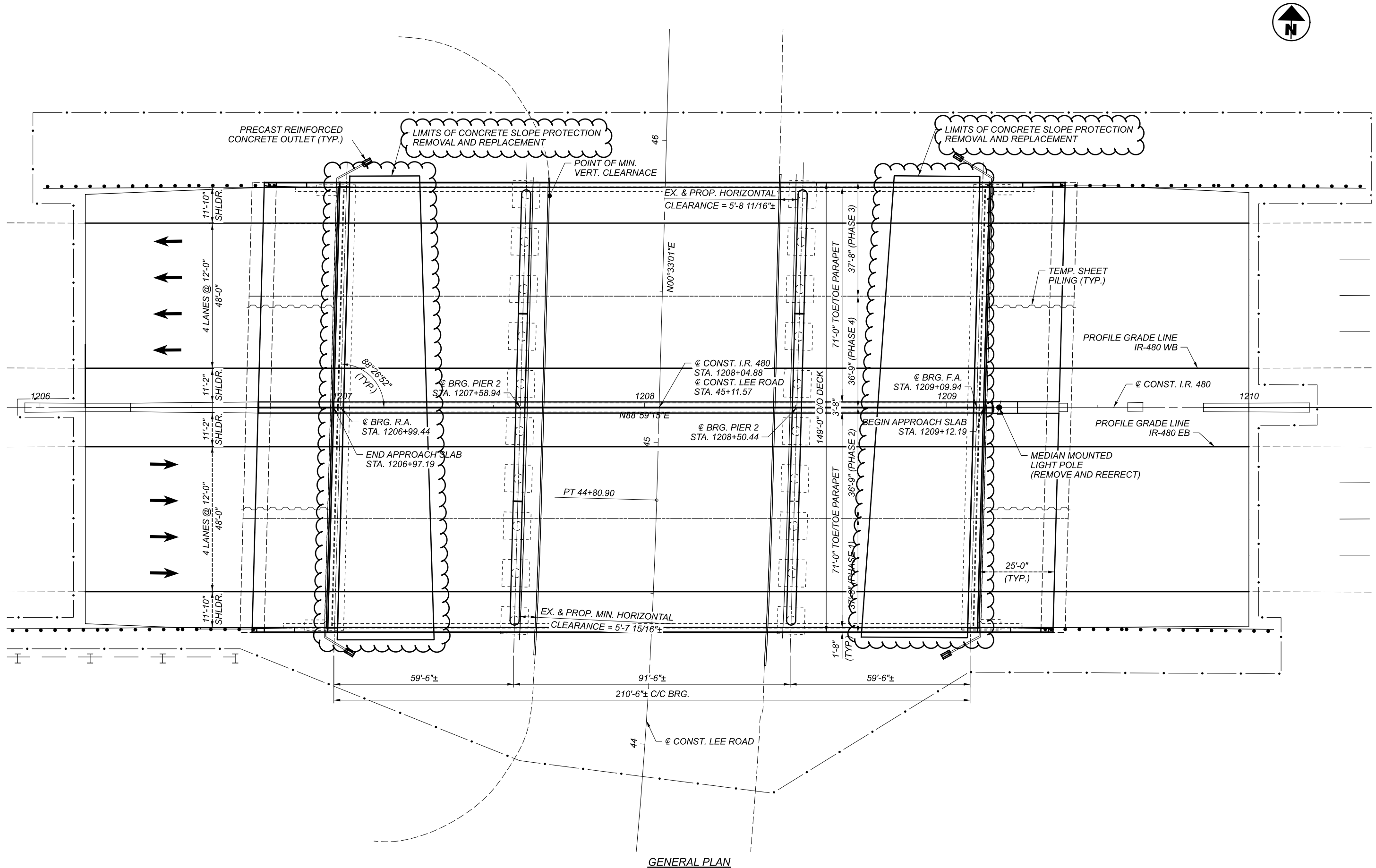
ALIGNMENT: TANGENT

CROWN: 0.0156 FT/FT

DECK AREA: 32,036 SF

COORDINATES: LATITUDE 41° 25' 28.92" N
LONGITUDE 81° 33' 54.84" W

SFN	1813404
DESIGN AGENCY	[BI]
DESIGNER/CHECKER	CDH / IMF
REVIEWER	DEB 02-25-22
PROJECT ID	114516
SUBSET	1 / 32
SHEET	102 / 133



GENERAL PLAN



GENERAL PLAN
 BRIDGE NO. CUY-480-2241
 I.R. 480 OVER LEE ROAD

SFN	1813404
DESIGN AGENCY	[B]
DESIGNER	CDH
CHECKER	IMF
REVIEWER	DEB
PROJECT ID	114516
SUBSET	2
TOTAL	32
SHEET	103
TOTAL	133

STANDARD DRAWINGS AND SUPPLEMENTAL SPECIFICATIONS

REFERENCE SHALL BE MADE TO STANDARD DRAWINGS:

AS-1-15	REVISED	07-17-15
AS-2-15	REVISED	01-18-19
SBR-1-20	REVISED	07-17-20
SBR-2-20	REVISED	01-15-21
SICD-1-21	DATED	01-15-21
SICD-2-14	REVISED	01-15-21

AND TO THE FOLLOWING SUPPLEMENTAL SPECIFICATIONS:

SS800-2019	DATED	04-15-22
------------	-------	----------

DESIGN SPECIFICATIONS:

THIS STRUCTURE CONFORMS TO THE 9TH EDITION OF THE "LRFD BRIDGE DESIGN SPECIFICATION" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 2020 AND THE ODOT BRIDGE DESIGN MANUAL, 2021.

DESIGN LOADING:

VEHICULAR LIVE LOAD:	HL-93 (SUPERSTRUCTURE)
	HS-20 (SUBSTRUCTURE)

FUTURE WEARING SURFACE (FWS) OF 0.060 KIPS/FT²

DESIGN DATA:

CONCRETE CLASS QC2 -	COMPRESSIVE STRENGTH 4.5 KSI (SUPERSTRUCTURE)
CONCRETE CLASS QC1 -	COMPRESSIVE STRENGTH 4 KSI (SUBSTRUCTURE)
REINFORCING STEEL -	MINIMUM YIELD STRENGTH 60 KSI
STRUCTURAL STEEL -	ASTM A36 (EXISTING)

MONOLITHIC WEARING SURFACE

MONOLOTHIC WEARING SURFACE IS ASSUMED, FOR DESIGN PURPOSES, TO BE 1 INCH THICK.

EXISTING STRUCTURE VERIFICATION:

DETAILS AND DIMENSIONS SHOWN ON THESE PLANS PERTAINING TO THE EXISTING STRUCTURE HAVE BEEN OBTAINED FROM PLANS OF THE EXISTING STRUCTURE AND FROM FIELD OBSERVATIONS AND MEASUREMENTS. CONSEQUENTLY, THEY ARE INDICATIVE OF THE EXISTING STRUCTURE AND THE PROPOSED WORK BUT THEY SHALL BE CONSIDERED TENTATIVE AND APPROXIMATE. THE CONTRACTOR IS REFERRED TO C&MS SECTIONS 102.05, 105.02, AND 513.04. BASE CONTRACT BID PRICES UPON A RECOGNITION OF THE UNCERTAINTIES DESCRIBED ABOVE AND UPON A PREBID EXAMINATION OF THE EXISTING STRUCTURE. HOWEVER, THE DEPARTMENT WILL PAY FOR ALL PROJECT WORK BASED UPON ACTUAL DETAILS AND DIMENSIONS THAT HAVE BEEN VERIFIED.

PROPOSED WORK:

- REMOVE EXISTING CONCRETE RAILING ON THE BRIDGE DECK AND APPROACH RETAINING WALLS.
- REMOVE EXISTING UNDERPASS LIGHTING AND CONSTRUCT TEMPORARY LIGHTING.
- REMOVE EXISTING 1 1/2" ASPHALT WEARING SURFACE, 2 1/4" MSC OVERLAY, AND 8 1/4" CONCRETE BRIDGE DECK, APPROACH SLABS, AND ABUTMENT BACKWALLS.
- INSTALL SHEAR STUDS TO EXISTING STEEL GIRDER.
- CONSTRUCT PIER CAP EXTENSION AND NEW ELASTOMERIC BEARING ASSEMBLIES.
- FIBER WRAP PIER 1 & PIER 2 COLUMNS AND CAPS.
- CONSTRUCT NEW SEMI-INTEGRAL ABUTMENT END DIAPHRAGMS, CONCRETE BRIDGE DECK, AND APPROACH SLABS.
- CONSTRUCT NEW SINGLE SLOPE CONCRETE PARAPETS ON THE BRIDGE DECK AND APPROACH SLABS.
- REERECT EXISTING UNDERPASS LIGHTING LUMINAIRES AND CONSTRUCT CONDUIT CONNECTION TO EXISTING PULL BOXES.
- SEAL EXPOSED SURFACES WITH EPOXY-URETHANE.

ASBESTOS NOTIFICATION

A CERTIFIED ASBESTOS HAZARD EVALUATION SPECIALIST INSPECTED THE BRIDGE STRUCTURE SCHEDULED FOR DEMOLITION AND/OR REHABILITATION. THE SURVEY DETERMINED THAT NO ASBESTOS IS PRESENT ON THE STRUCTURE.

THE DEPARTMENT HAS PROVIDED A COPY OF THE OHIO ENVIRONMENTAL PROTECTION AGENCY (OEPA) NOTIFICATION OF DEMOLITION AND RENOVATION FORM (PARTIALLY COMPLETED) AND THE ASBESTOS INSPECTION REPORT IN THE REFERENCE FILES FOR THIS PROJECT. THE CONTRACTOR SHALL COMPLETE THE FORM AND SUBMIT IT TO THE OEPA AT LEAST TEN (10) WORKING DAYS PRIOR TO THE START OF ANY DEMOLITION AND OR RENOVATION. ONLINE SUBMISSION IS AVAILABLE AT "HTTP://WWW.EPA.OHIO.GOV.ASBESTOS" AND IS ENCOURAGED OR, THE CONTRACTOR SHALL SUBMIT IT TO ONE OF THE ADDRESSES BELOW.

ASBESTOS PROGRAM
OHIO EPA, SAPC
P.O. BOX 1049
COLUMBUS, OH 43216-1049

OR

ASBESTOS PROGRAM
OHIO EPA, DAPC
50 W. TOWN ST., SUITE 700
COLUMBUS, OH 43215

THE FORM SHALL INCLUDE:

- THE CONTRACTORS NAME AND ADDRESS
- THE SCHEDULED DATES FOR THE START AND COMPLETION OF THE STRUCTURE DEMOLITION AND/OR RENOVATION.
- DESCRIPTION OF THE PLANNED DEMOLITION WORK AND THE METHODS TO BE USED.
- ALL NECESSARY FEES.

THE CONTRACTOR SHALL PROVIDE A COPY OF THE COMPLETED NOTIFICATION OF DEMOLITION AND RENOVATION FORM TO THE PROJECT ENGINEER AT LEAST TEN (10) WORKING DAYS PRIOR TO THE START OF ANY DEMOLITION AND/OR RENOVATION.

THE CONTRACTOR SHALL FURNISH ALL FEES, LABOR, AND MATERIALS NECESSARY TO COMPLETE AND SUBMIT THE OEPA NOTIFICATION FORM. PAYMENT FOR THIS WORK SHALL BE INCLUDED IN ITEM 202 - PORTIONS OF STRUCTURE REMOVED, AS PER PLAN.

DECK PLACEMENT DESIGN ASSUMPTIONS:

THE FOLLOWING ASSUMPTIONS OF CONSTRUCTION MEANS AND METHODS WERE MADE FOR THE ANALYSIS AND DESIGN OF THE SUPERSTRUCTURE. THE CONTRACTOR IS RESPONSIBLE FOR THE DESIGN OF THE FALSEWORK SUPPORT SYSTEM WITHIN THESE PARAMETERS AND WILL ASSUME RESPONSIBILITY FOR SUPERSTRUCTURE ANALYSIS FOR DEVIATION FROM THESE DESIGN ASSUMPTIONS.

AN EIGHT WHEEL FINISHING MACHINE WITH A MAXIMUM WHEEL LOAD OF 2.25 KIPS.

A MINIMUM OUT-TO-OUT WHEEL SPACING AT EACH END OF THE MACHINE OF 103".

A MAXIMUM SPACING OF OVERHANG FALSEWORK BRACKETS OF 48".

A MAXIMUM DISTANCE FROM THE CENTERLINE OF THE FASCIA GIRDER TO THE FACE OF THE SAFETY HANDRAIL OF 65".

ITEM 202. PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN:

THIS WORK CONSISTS OF THE REMOVAL OF CONCRETE DECKS INCLUDING CONCRETE BRIDGE RAILINGS, DECK JOINTS AND OTHER APPURTENANCES FROM STEEL SUPPORTING SYSTEMS (GIRDERS, CROSS-FRAMES, ETC.). THE PROVISIONS OF ITEM 202 APPLY EXCEPT AS SPECIFIED BY THE FOLLOWING NOTES. PERFORM WORK CAREFULLY DURING DECK REMOVALS TO PROTECT PORTIONS OF SUCH SYSTEMS THAT ARE TO BE SALVAGED AND INCORPORATED INTO THE PROPOSED STRUCTURE. THE USE OF EXPLOSIVES, HEADACHE BALLS AND/OR HOE RAM TYPE OF EQUIPMENT IS PROHIBITED. SUBMIT CONSTRUCTION PLANS ACCORDING TO C&MS 501.05.

PROTECTION OF STEEL SUPPORT SYSTEMS:

BEFORE DECK SLAB CUTTING IS PERMITTED, DRAW THE OUTLINE OF PRIMARY STEEL MEMBERS IN CONTACT WITH THE BOTTOM OF THE DECK ON THE SURFACE OF THE DECK. DRILL SMALL DIAMETER PILOT HOLES 2 INCHES OUTSIDE THESE LINES TO CONFIRM THE LOCATION OF FLANGE EDGES. DECK CUTS OVER OR WITHIN 2 INCHES OF THE FLANGE EDGES SHALL NOT EXTEND LOWER THAN THE BOTTOM LAYER OF DECK SLAB REINFORCING STEEL. CUTS MADE OUTSIDE 2 INCHES OF FLANGE EDGES MAY EXTEND THE FULL DEPTH OF THE DECK. PERFORM WORK CAREFULLY DURING CUTTING OF THE DECK SLAB TO AVOID DAMAGING STEEL MEMBERS THAT ARE TO BE INCORPORATED INTO THE PROPOSED STRUCTURE. REPLACE OR REPAIR STEEL MEMBERS DAMAGED BY THE DECK SLAB CUTTING OPERATIONS AT NO COST TO THE PROJECT. AT LEAST 7 DAYS BEFORE PERFORMING REPAIR WORK, SUBMIT A PROPOSED REPAIR PLAN, DEVELOPED BY AN OHIO REGISTERED PROFESSIONAL ENGINEER TO THE ENGINEER. OBTAIN THE ENGINEER'S APPROVAL BEFORE PERFORMING REPAIR.

REMOVAL METHODS:

CONTRACTOR MAY REMOVE CONCRETE BY CUTTING AND BY MEANS OF HAND OPERATED PNEUMATIC HAMMERS EMPLOYING POINTED OR BLUNTED CHISEL TYPE TOOLS. FOR REMOVALS OVER STRUCTURAL MEMBERS (STEEL GIRDER, ETC.) THE CONTRACTOR MAY USE A HAMMER HEAVIER THAN 35 POUNDS BUT NOT TO EXCEED 90 POUNDS UNLESS APPROVED BY THE ENGINEER. REMOVAL METHODS OVER STRUCTURAL MEMBERS SHALL ENSURE ADEQUATE DEPTH CONTROL AND PREVENT NICKING OR GOUGING THE PRIMARY STRUCTURAL MEMBERS. DUE TO THE POSSIBLE PRESENCE OF ATTACHMENTS (E.G. FINISHING MACHINE, FORM SUPPORTS, ETC.) TO EXISTING STRUCTURAL MEMBERS, PERFORM WORK CAREFULLY DURING DECK REMOVAL TO AVOID DAMAGING STRUCTURAL MEMBERS THAT ARE TO REMAIN. REPLACE OR REPAIR STRUCTURAL MEMBERS DAMAGED BY THE REMOVAL OPERATIONS AT NO COST TO THE PROJECT. AT LEAST 7 DAYS BEFORE PERFORMING REPAIR WORK, SUBMIT A PROPOSED REPAIR PLAN, DEVELOPED BY AN OHIO REGISTERED PROFESSIONAL ENGINEER TO THE ENGINEER. OBTAIN THE ENGINEER'S APPROVAL BEFORE PERFORMING REPAIR.

EXISTING WELDED ATTACHMENTS:

REMOVE EXISTING WELDED ATTACHMENTS (E.G. FINISHING MACHINE AND FORM SUPPORTS; AND SUPPORTS FOR SCUPPERS WHICH ARE TO BE REMOVED) LOCATED IN THE DESIGNATED TENSION PORTIONS OF THE TOP FLANGES OF EXISTING STEEL MEMBERS AND GRIND THE FLANGE SURFACES SMOOTH. CAREFULLY GRIND PARALLEL TO THE FLANGES.

CUT LINE CONSTRUCTION JOINT PREPARATION:

SAW CUT BOUNDARIES OF PROPOSED CONCRETE REMOVALS 1 INCH DEEP. REMOVE CONCRETE TO A ROUGH SURFACE. LEAVE THE EXISTING REINFORCING STEEL, IF REQUIRED IN THE PLANS, IN PLACE. INSTALL DOWEL BARS IF SPECIFIED. PRIOR TO CONCRETE PLACEMENT ABRASIVELY CLEAN JOINT SURFACES AND EXISTING EXPOSED REINFORCEMENT TO REMOVE LOOSE AND DISINTEGRATED CONCRETE AND LOOSE RUST. THOROUGHLY CLEAN THE JOINT SURFACE AND EXPOSED REINFORCEMENT OF ALL DIRT, DUST, RUST OR OTHER FOREIGN MATERIAL BY THE USE OF WATER, AIR UNDER PRESSURE, OR OTHER METHODS THAT PRODUCE SATISFACTORY RESULTS. EXISTING REINFORCING STEEL DOES NOT HAVE TO HAVE A BRIGHT STEEL FINISH BUT REMOVE ALL PACK AND LOOSE RUST. THOROUGHLY DRENCH EXISTING CONCRETE SURFACES WITH CLEAN WATER AND ALLOW TO DRY TO A DAMP CONDITION BEFORE PLACING CONCRETE.

SUBSTRUCTURE CONCRETE REMOVAL:

REMOVE CONCRETE BY MEANS OF APPROVED PNEUMATIC HAMMERS EMPLOYING POINTED AND BLUNT CHISEL TOOLS. HYDRAULIC HOE-RAM TYPE HAMMERS WILL NOT BE PERMITTED. THE WEIGHT OF THE HAMMER SHALL NOT BE MORE THAN 35 POUNDS FOR REMOVAL WITHIN 18 INCHES OF PORTIONS TO BE PRESERVED. OUTSIDE OF THE 18 INCH LIMIT, THE CONTRACTORS MAY USE HAMMERS NOT EXCEEDING 90 POUNDS UPON THE APPROVAL OF THE ENGINEER. DO NOT PLACE PNEUMATIC HAMMERS IN DIRECT CONTACT WITH REINFORCING STEEL THAT IS TO BE RETAINED IN THE REBUILT STRUCTURE.

ITEM 202. PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN (CONT.):

MEASUREMENT & PAYMENT: THE DEPARTMENT WILL MEASURE THE QUANTITY OF REMOVAL ON A LUMP SUM BASIS. THE DEPARTMENT WILL PAY FOR THE ACCEPTED QUANTITIES OF REMOVALS AT THE CONTRACT PRICE FOR ITEM 202 - PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN.

ITEM 510 - DOWEL HOLES WITH NONSHRINK, NONMETALLIC GROUT, AS PER PLAN

PRIOR TO DRILLING DOWEL HOLES, LOCATE ALL EXISTING REINFORCING STEEL WITH AID OF A REINFORCING STEEL BAR LOCATOR (PACHOMETER). IF AN EXISTING BAR IS EXCOUNTERED AT THE SAME LOCATION AS A PROPOSED DOWEL HOLE, MOVE THE DOWEL HOLE TO EITHER SIDE OF THE EXISTING BAR. ALL WORK SHALL BE INCLUDED FOR PAYMENT UNDER ITEM 510, DOWEL HOLES WITH NONSHRINK, NONMETALLIC GROUT, AS PER PLAN.

ITEM SPECIAL - URETHANE TOP COAT SEALER

SEAL ON TOP OF POLYMER REINFORCED FIBER WRAP SYSTEM TO PROTECT THE FIBER FROM THE ELEMENTS, SPECIFICALLY UV RADIATION AND TO GIVE THEM THE FINAL AESTHETIC EFFECT. ALL EQUIPMENT, LABOR, MATERIALS, AND INCIDENTALS REQUIRED TO SEAL ALL OF THE AREAS DETAILED IN THE PLANS SHALL BE INCLUDED FOR PAYMENT UNDER ITEM SPECIAL - URETHANE TOP COAT SEALER.

ITEM 516 - STRUCTURAL JOINT OR JOINT SEALER, MISC.: COMPRESSED FOAM EXPANSION JOINT SEAL

THIS ITEM CONSISTS OF INSTALLING A COMPRESSED FOAM EXPANSION JOINT SEAL AT THE LOCATIONS DETAILED IN THE PLANS. FURNISH A COMPRESSED FOAM EXPANSION JOINT SEAL SIZED FOR THE NOMINAL JOINT OPENING SHOWN IN THE PLANS SUCH AS METAZEAL BY CHASE CORPORATION, EMSEAL 25V BY EMSEAL JOINT SYSTEMS, LTD., OR EQUAL AS APPROVED BY THE ENGINEER.

INSTALL THE COMPRESSED FOAM EXPANSION JOINT SEAL IN ONE PIECE FOR THE FULL HEIGHT OF VERTICAL EXPANSION JOINTS. FOR MEDIAN BARRIER EXPANSION JOINTS WHERE THE SEAL TURNS HORIZONTAL ACROSS THE TOP OF THE MEDIAN BARRIER, FURNISH A SEAL FABRICATED TO THE REQUIRED SHAPE OR MITER AND BOND THE TOP CORNERS IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

PAYMENT FOR ALL EQUIPMENT, LABOR, MATERIALS AND OTHER INCIDENTALS NECESSARY TO COMPLETE THE WORK AS DETAILED IN THE PLANS WILL BE MADE UNDER ITEM 516 - STRUCTURAL JOINT OR JOINT SEALER, MISC.: COMPRESSED FOAM EXPANSION JOINT SEAL.

ITEM SPECIAL - COMPOSITE FIBER WRAP SYSTEM

THIS WORK SHALL CONSIST OF PROVIDING AND INSTALLING A FIBER WRAP SYSTEM INCLUDING PREPARATION, WRAPPING THE PIER, AND ALL INCIDENTALS NECESSARY TO COMPLETE THIS WORK PER THE REQUIREMENTS OF PN519. THE INSTALLATION SHALL BE PER THE MANUFACTURER'S REQUIREMENTS. ALL EQUIPMENT, LABOR, MATERIALS, AND INCIDENTALS NECESSARY TO PERFORM THE REQUIRED WORK SHALL BE INCLUDED FOR PAYMENT UNDER ITEM SPECIAL - COMPOSITE FIBER WRAP SYSTEM.

REPLACEMENT OF EXISTING CONCRETE SLOPE PROTECTION

REMOVE AND REPLACE THE EXISTING CONCRETE SLOPE PROTECTION IN FRONT OF BOTH ABUTMENTS FROM THE FACE OF THE EXISTING ABUTMENT BREASTWALL TO THE BACK OF THE EXISTING PAVED DITCH AT THE TOE OF SLOPE. THE FOLLOWING ESTIMATED QUANTITIES ARE PROVIDED FOR THIS WORK:

ITEM 202 - CONCRETE SLOPE PROTECTION REMOVED	1007 SY
ITEM 601 - CONCRETE SLOPE PROTECTION	1007 SY

PRIOR TO REMOVING EXISTING SLOPE PROTECTION ADJACENT TO THE EXISTING PAVED DITCH, MAKE A FULL-DEPTH SAW CUT AT THE REMOVAL LIMIT. INCLUDE ALL RELATED COSTS FOR SAW CUTTING IN THE UNIT PRICE BID FOR ITEM 202 - CONCRETE SLOPE PROTECTION REMOVED.

WHERE VOIDS EXIST BELOW THE EXISTING SLOPE PROTECTION, PLACE EMBANKMENT AS DIRECTED BY THE ENGINEER. REMOVE AND REPLACE ALL EXISTING 6" DIAMETER ABUTMENT DRAINAGE OUTLET PIPES WHERE THE EXISTING PIPE IS DAMAGED BY THE REMOVAL OF THE EXISTING CONCRETE SLOPE PROTECTION OR IS DETERMINED BY THE ENGINEER TO BE DETERIORATED OR OF INSUFFICIENT LENGTH. A SUGGESTED METHOD OF REPLACEMENT IS TO CUT OFF THE EXISTING NON-PERFORATED PIPE 6" FROM THE FACE OF THE ABUTMENT BREASTWALL AND ATTACH A NEW LENGTH OF NON-PERFORATED PIPE WITH A COUPLING. THE FOLLOWING ESTIMATED QUANTITIES ARE PROVIDED FOR USE AS DIRECTED BY THE ENGINEER:

ITEM 203 - EMBANKMENT	190 CY
ITEM 518 - 6" NON-PERFORATED CORRUGATED PLASTIC PIPE	275 FT

STRUCTURE GENERAL NOTES
BRIDGE NO. CUY-480-2241
I.R. 480 OVER LEE ROAD

SFN 1813404

DESIGN AGENCY



DESIGNER CHECKER
CDH IMF

REVIEWER
DEB 02-25-22

PROJECT ID
114516

SUBSET TOTAL
3 32

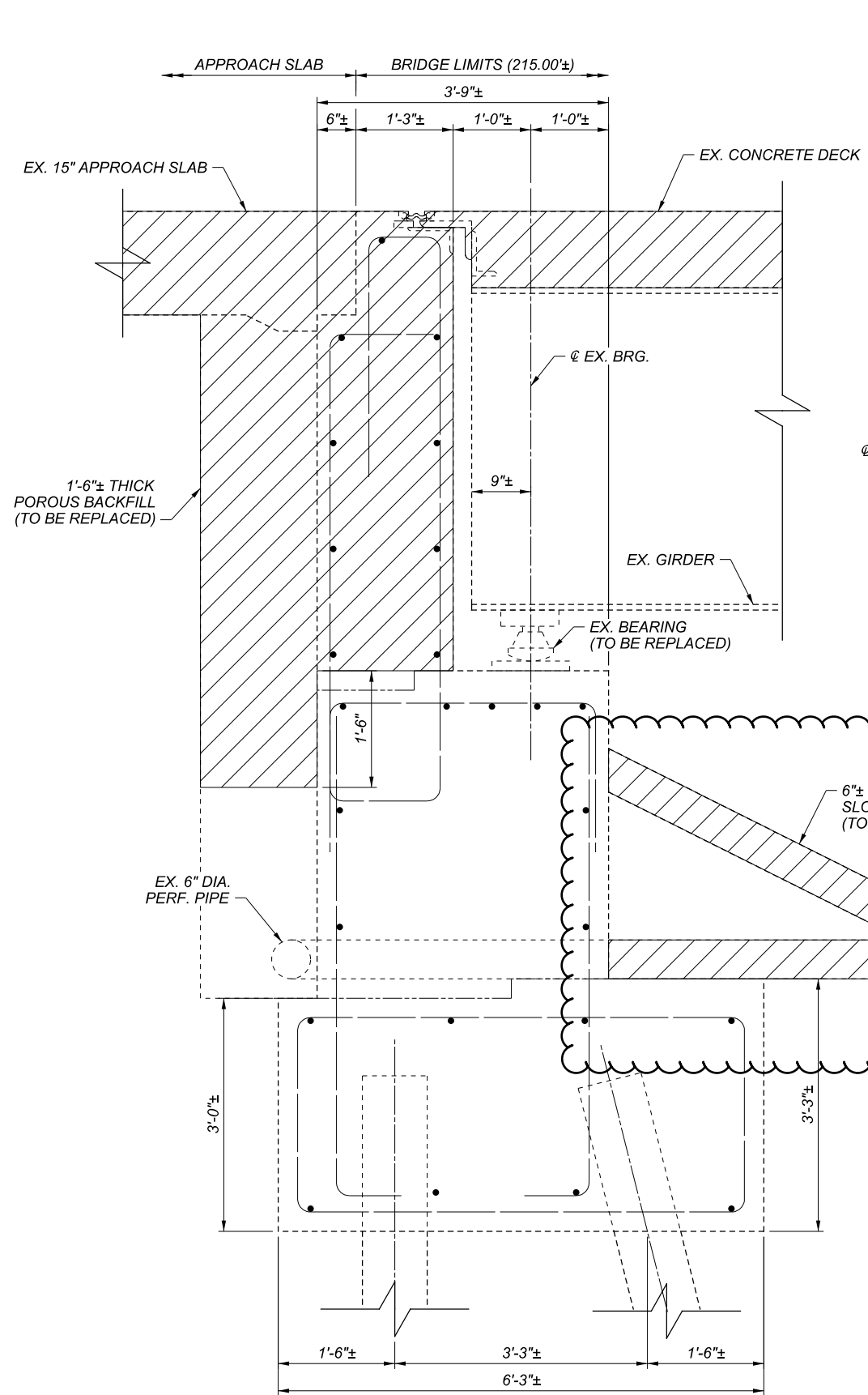
SHEET TOTAL
104 133

ESTIMATED QUANTITIES										
ITEM	EXT.	TOTAL	UNIT	DESCRIPTION	SUPERSTR.	REAR ABUT.	FWD. ABUT.	PIERS.	GENERAL	REF. SHEET
202	11203		LS	PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN						3/32
202	22900	533	SY	APPROACH SLAB REMOVED					533	
202	22600	3,854	SY	WEARING COURSE REMOVED	3,321				533	
202	32800	1,007	SY	CONCRETE SLOPE PROTECTION REMOVED					1,007	3/32
203	20000	190	CY	EMBANKMENT *					190 *	3/32
503	11100		LS	COFFERDAMS AND EXCAVATION BRACING						
503	21100	495	CY	UNCLASSIFIED EXCAVATION		251	244			
509	10000	253,008	LB	EPOXY COATED REINFORCING STEEL	212,221	15,017	15,017	10,753		
509	30020	8,394	FT	NO. 4 GFRP DEFORMED BARS	8,394					
509	30040	7,973	FT	NO. 6 GFRP DEFORMED BARS	7,973					
510	10001	424	EACH	DOWEL HOLES WITH NONSHRINK, NONMETALLIC GROUT, AS PER PLAN				424		3/32
511	33500	8	EACH	SEMI-INTEGRAL DIAPHRAGM GUIDE		4	4			
511	34446	1,135	CY	CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK	1,135					
511	34450	163	CY	CLASS CQ2 CONCRETE WITH QC/QA, BRIDGE DECK (PARAPET)	163					
511	41010	33	CY	CLASS QC1 CONCRETE, PIER ABOVE FOOTINGS				33		
512	10100	1,383	SY	SEALING OF CONCRETE SURFACES (EPOXY URETHANE)	1,187	99	97			
512	33000	6	SY	TYPE 2 WATERPROOFING		3	3			
SPECIAL	51271500	646	SY	URETHANE TOP COAT SEALER				646		3/32
513	20000	10,476	EACH	WELDED STUD SHEAR CONNECTORS	10,476					
514	00050	1,231	SF	SURFACE PREPARATION OF EXISTING STRUCTURAL STEEL	1,231					
514	00056	1,231	SF	FIELD PAINTING OF EXISTING STRUCTURAL STEEL, PRIME COAT	1,231					
516	13600	112	SF	1" PREFORMED EXPANSION JOINT FILLER	43				69	
516	13900	226	SF	2" PREFORMED EXPANSION JOINT FILLER		24	23		179	
516	14020	385	FT	SEMI-INTEGRAL ABUTMENT EXPANSION JOINT SEAL		193	192			
516	14600	42	FT	STRUCTURAL JOINT OR JOINT SEALER, MISC.: COMPRESSED FOAM EXPANSION JOINT SEAL		10	9		23	3/32
516	44100	36	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE) (LOAD PLATE 1'-1" x 1'-4" x 1.5" THICK, NEOPRENE 1'-0" x 1'-3" x 2.498" THICK)		18	18			
516	44100	36	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE) (LOAD PLATE 1'-5" x 1'-5" x 1.5" THICK, NEOPRENE 1'-4" x 1'-4" x 2.948" THICK)				36		
516	47000		LS	JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE						
518	21200	101	CY	POROUS BACKFILL WITH GEOTEXTILE FABRIC		51	50			
518	40000	292	FT	6" PERFORATED CORRUGATED PLASTIC PIPE		146	146			
518	40012	332	FT	6" NON-PERFORATED CORRUGATED PLASTIC PIPE		26	31		275 *	3/32
SPECIAL	51900100	6,680	SF	COMPOSITE FIBER WRAP SYSTEM				6,680		3/32
519	11100	93	SF	PATCHING CONCRETE STRUCTURE				93		
526	25001	818	SY	REINFORCED CONCRETE APPROACH SLAB (T=15"), AS PER PLAN					818	29-30/32
526	90010	298	FT	TYPE A INSTALLATION					298	
601	21000	1,007	SY	CONCRETE SLOPE PROTECTION					1,007	3/32

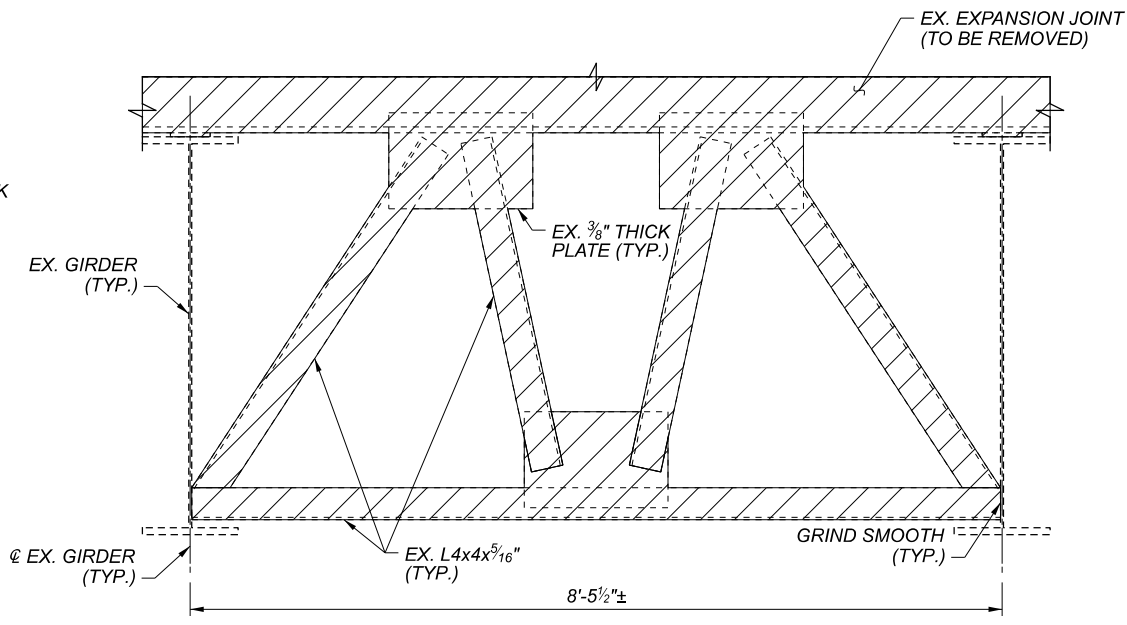
LEGEND:
 * DENOTES ITEM TO BE USED "AS DIRECTED BY THE ENGINEER"

ESTIMATED QUANTITIES
 BRIDGE NO. CUY-480-2241
 I.R. 480 OVER LEE ROAD

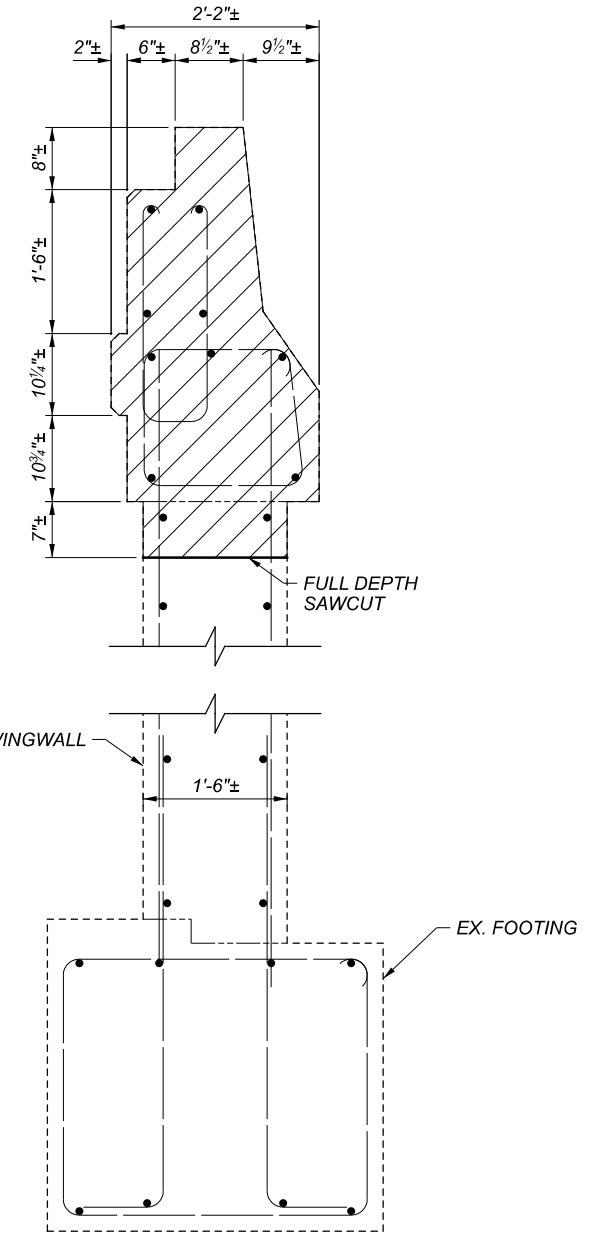
SFN	1813404
DESIGN AGENCY	[BI]
DESIGNER/CHECKER	CDH / IMF
REVIEWER	DEB 02-25-22
PROJECT ID	114516
SUBSET	4 / 32
SHEET	105 / 133



EXISTING ABUTMENT REMOVAL



END CROSSFRAME REMOVAL



EXISTING WINGWALL REMOVAL

LEGEND:



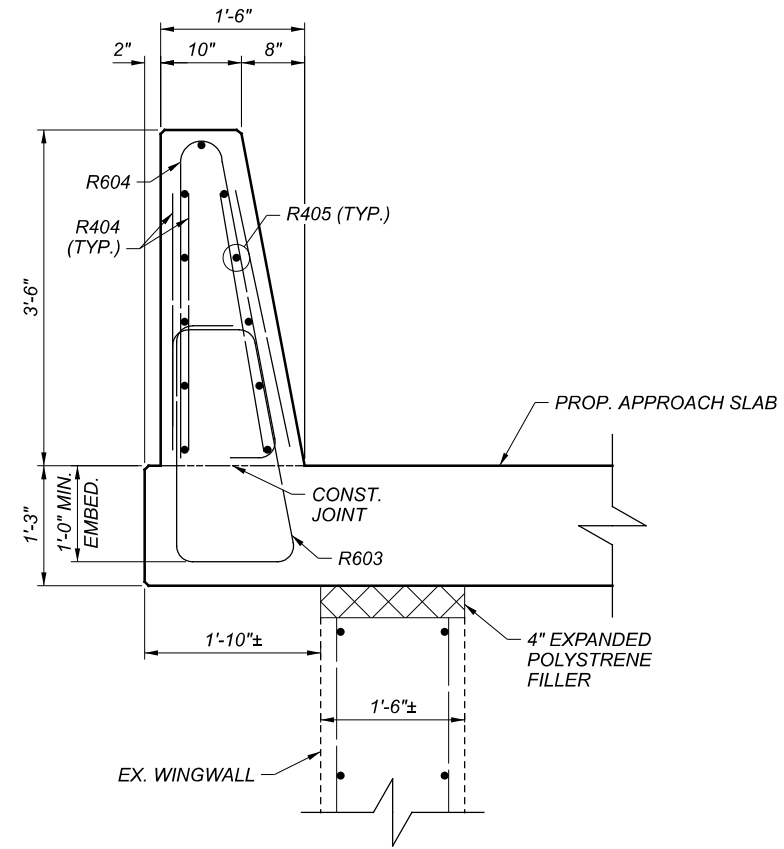
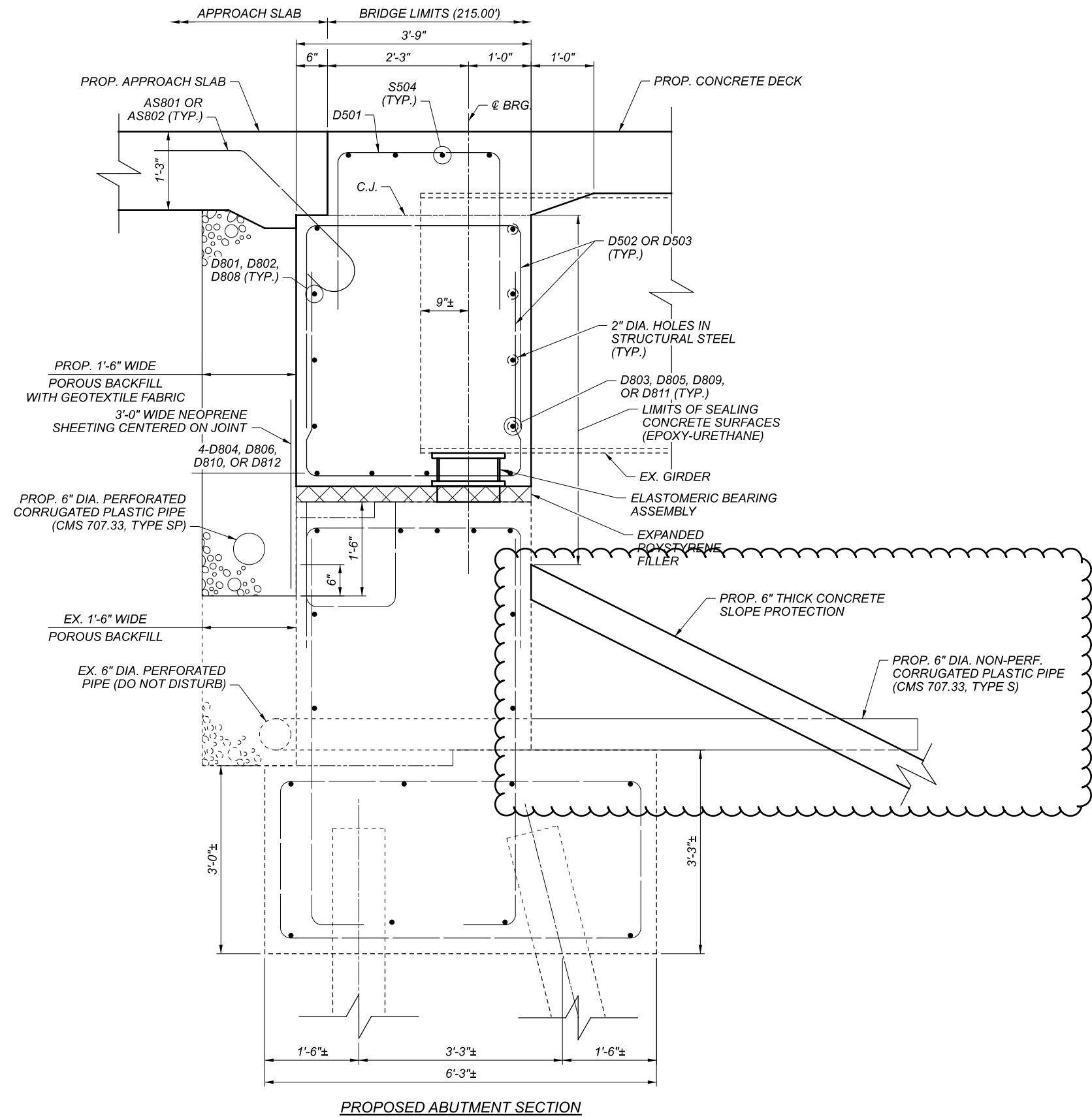
- ITEM 202 - PORTIONS OF STRUCTURE REMOVED, OVER 20' SPAN, AS PER PLAN

NOTES:

1. FOR WINGWALL REMOVAL ELEVATIONS, SEE SHEET 10/32.
2. FOR ABUTMENT PLAN AND ELEVATION, SEE SHEET 11/32.
3. REMOVE AND REPLACE ALL EXISTING 6" DIAMETER ABUTMENT DRAINAGE OUTLET PIPES WHERE THE EXISTING PIPE IS DAMAGED BY THE REMOVAL OF THE EXISTING CONCRETE SLOPE PROTECTION OR IS DETERMINED BY THE ENGINEER TO BE DETERIORATED OR OF INSUFFICIENT LENGTH.



DESIGNER	CHECKER
CDH	IMF
REVIEWER	DEB
PROJECT ID	114516
SUBSET	TOTAL
9	32
SHEET	TOTAL
110	133

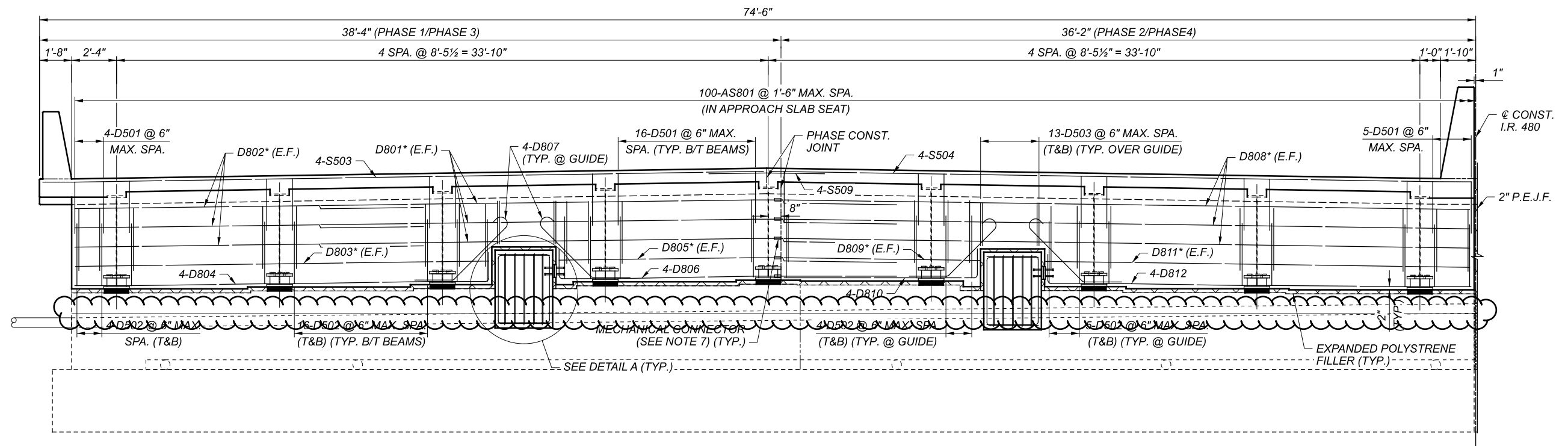


PROPOSED WINGWALL SECTION
 APPROACH SLAB REINFORCING NOT SHOWN FOR CLARITY

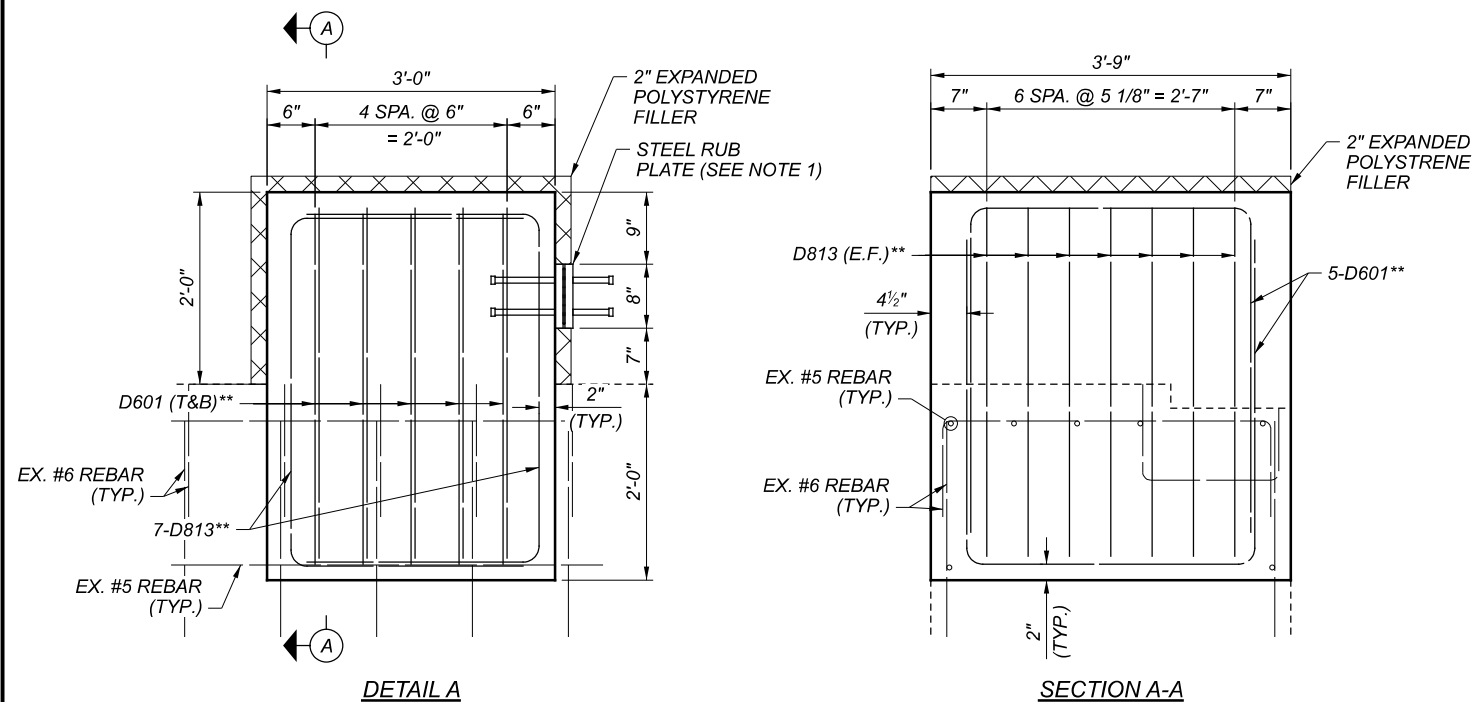
NOTES:

- FOR ABUTMENT PLAN AND ELEVATION, SEE SHEET 11/32.
- FOR DIAPHRAGM REINFORCEMENT ELEVATION, SEE SHEET 18/32.





TYPICAL ABUTMENT DIAPHRAGM ELEVATION
 SYMMETRICAL ABOUT @ CONSTRUCTION I.R. 480
 FORWARD ABUTMENT SHOWN, REAR ABUTMENT SIMILAR



LAP SPLICE LENGTH	
#8	5'-4"

LEGEND:

- * - PLACE THE REINFORCING ON NEAR FACE THROUGH HOLES IN STRUCTURAL STEEL.
- ** - EXISTING REINFORCEMENT HAS BEEN LOCATED FROM EXISTING PLANS. ADJUST LOCATION OF PROPOSED REINFORCEMENT AS DIRECTED BY ENGINEER TO AVOID CONFLICTS WITH EXISTING REINFORCEMENT.

NOTES:

1. STEEL RUB PLATE SHALL BE LOCATED ON THE NORTH SIDE OF THE DIAPHRAGM GUIDE AT BOTH THE REAR AND FORWARD ABUTMENTS. STUDS SHALL BE 3/4"x8" END WELDED STUDS ON THE FACE INSIDE OF THE DIAPHRAGM GUIDE AND 3/4"x5" END WELDED STUD ON THE FACE EXPOSED TO THE DIAPHRAGM.
2. FOR ADDITIONAL NOTES AND DETAILS, SEE ODOT STD. DWGS. SICD-1-21 AND SICD-2-14.
3. PLACE THE DIAPHRAGM CONCRETE ENCASING THE STRUCTURAL MEMBER ENDS OF AN INDIVIDUAL PHASE WITH THE DECK CONCRETE.
4. VERTICAL REINFORCING STEEL TO BE PLACED PARALLEL TO @ CONSTRUCTION I.R. 480. HORIZONTAL REINFORCING STEEL TO BE PLACED PARALLEL TO @ BEARING.
5. FOR ABUTMENT AND DIAPHRAGM SECTIONS, SEE SHEET 12/32.
6. FOR REINFORCING STEEL LIST, SEE SHEET 31/32.
7. MECHANICAL CONNECTORS PER THE REQUIREMENTS OF CMS 509 SHALL BE USED FOR ALL NO. 8 BARS AT THE PHASE CONSTRUCTION JOINT. THE CONTRACTOR SHALL HAVE THE OPTION TO LAP SPLICE THE NO. 8 BARS ON THE FRONT FACE (BRIDGE SIDE) OF THE DIAPHRAGM PER THE DIAGRAM ON SHEET 31/32 AT NO ADDITIONAL COST TO THE STATE. ALL EQUIPMENT, LABOR, MATERIALS AND OTHER INCIDENTALS NECESSARY TO INSTALL THE MECHANICAL CONNECTORS SHALL BE INCLUDED FOR PAYMENT WITH ITEM 509 - EPOXY COATED REINFORCING STEEL.
8. FOR PHASE CONSTRUCTION DETAILS, SEE SHEET 5/32 THROUGH 7/32.

TYPICAL ABUTMENT DIAPHRAGM ELEVATION
 BRIDGE NO. CUY-480-2241
 I.R. 480 OVER LEE ROAD

SFN 1813404
 DESIGN AGENCY



DESIGNER/CHECKER	
CDH	IMF
REVIEWER	
DEB	02-25-22
PROJECT ID	
114516	
SUBSET	TOTAL
18	32
SHEET	TOTAL
119	133

CUY-480-22.41

MODEL: Sheet PAPER: 17x11 (in.) DATE: 2022-05-10 TIME: 7:53:53 AM USER: cmorrigins
 (\\us-east-1-bjrgroup.com\jcm\127052_D12-BH-FY227_0_Production\Worksheets\114516\400-Engineering\Structures\SFN1813404\Sheets\114516_SF1813404_SD002.dgn)