SUM-77-3227L BRIDGE SUMMARY

CALCULATED: RSN 01/09/22 | CHECKED: SAT 02/03/22 | REVISED: SAT 08/30/22

ITEM	ITEM EXT.	TOTAL PER SPLIT		TOTAL PER PHASE			GRAND TOTAL	UNIT	DESCRIPTION	PHASE 1			PHASE 2	GENERAL	SHEET REF.
		05/IMS/BR	06/IMS/BR	PH 1	PH 2	GEN				ABUT.	PIERS	SUPER			
202	11203		LS			LS	LS		PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN					LS	2
202	22900	334		74	260		334	SY	APPROACH SLAB REMOVED	74			260		
503	21101	135	263	398			398	CY	UNCLASSIFIED EXCAVATION, AS PER PLAN	140	258				18
505	11100		LS			LS	LS		PILE DRIVING EQUIPMENT MOBILIZATION, AS PER PLAN					LS	2
507	00500		850	850			850	FT	12" CAST-IN-PLACE REINFORCED CONCRETE PILES, DRIVEN	850					
507	00550		950	950			950	FT	12" CAST-IN-PLACE REINFORCED CONCRETE PILES, FURNISHED	950					
507	00600		840	840			840	FT	14" CAST-IN-PLACE REINFORCED CONCRETE PILES, DRIVEN		840				
507	00650		960	960			960	FT	14" CAST-IN-PLACE REINFORCED CONCRETE PILES, FURNISHED		960				
509	10001		73,658	73,658			73,658	LB	EPOXY COATED REINFORCING STEEL, AS PER PLAN	6,376	16,261	51,021			3
509	20001		300			300	300	LB	REINFORCING STEEL, REPLACEMENT OF EXISTING REINFORCING STEEL, AS PER PLAN					300	3
509	30020		4,640	4,640			4,640	FT	NO. 4 GFRP DEFORMED BARS			4,640			
510	10001		22	22			22	EACH	DOWEL HOLES WITH NONSHRINK, NONMETALLIC GROUT, AS PER PLAN	22					3
511	34446		158	158			158	CY	CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK			158			
511	34451		42	42			42	CY	CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK (PARAPET), AS PER PLAN			42			3
511	42012		77	77			77	CY	CLASS QC1 CONCRETE WITH QC/QA, PIER ABOVE FOOTINGS		77				
511	44112		54	54			54	CY	CLASS QC1 CONCRETE WITH QC/QA, ABUTMENT NOT INCLUDING FOOTING	54					
511	46512		86	86			86	CY	CLASS QC1 CONCRETE WITH QC/QA, FOOTING	46	40				
512	10101	166	485	651			651	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE), AS PER PLAN	65	307	279			18
512	33000		7	7			7	SY	TYPE 2 WATERPROOFING	7					
512	74000		357	357			357	SY	REMOVAL OF EXISTING COATINGS FROM CONCRETE SURFACES		357				
513	10260		151,800	151,800			151,800	LB	STRUCTURAL STEEL MEMBERS, LEVEL 3			151,800			
513	20000		1,989	1,989			1,989	EACH	WELDED STUD SHEAR CONNECTORS			1,989			
513	95020		LS			LS	LS		STRUCTURAL STEEL, MISC.:					LS	3
514	00060		5,401	5,401			5,401	SF	FIELD PAINTING STRUCTURAL STEEL, INTERMEDIATE COAT			5,401			
514	00066		5,401	5,401			5,401	SF	FIELD PAINTING STRUCTURAL STEEL, FINISH COAT			5,401			
514	00504		2	2			2	MNHR	GRINDING FINS, TEARS, SLIVERS ON EXISTING STRUCTURAL STEEL			2			
514	10000		6	6			6	EACH	FINAL INSPECTION REPAIR			6			
514	27800		LS	LS			LS		FIELD PAINTING, MISC.: REMOVAL AND REPAIR OF EXISTING GALVANIC COATING ON STRUCTURAL STEEL			1			4
516	10010	173	54	90	137		227	FT	ARMORLESS PREFORMED JOINT SEAL	90			137		
516	13600		25	25			25	SF	1" PREFORMED EXPANSION JOINT FILLER	25					
516	13900		99	99			99	SF	2" PREFORMED EXPANSION JOINT FILLER	99					
516	14020		108	108			108	FT	SEMI-INTEGRAL ABUTMENT EXPANSION JOINT SEAL			108			
516	44100		3	3			3	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE) (14"x9.50"x2.96" BEARING WITH 15"x10.50" LOAD PLATE AND BEVELED HP10x42 PEDESTAL)	3					
516	44100		6	6			6	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE) (18"x13"x2.59" BEARING WITH 19"x14" BEVELED LOAD PLATE)		6				
516	44200		3	3			3	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE) (13.50"x11.50"x3.08" BEARING WITH 14.50"x12.50" LOAD PLATE AND BEVELED HP10x42 PEDESTAL)	3					
518	21200		39	39			39	CY	POROUS BACKFILL WITH GEOTEXTILE FABRIC	39					
518	40000		90	90			90	FT	6" PERFORATED CORRUGATED PLASTIC PIPE	90					
518	40010		60	60			60	FT	6" NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS	60					
SPECIAL	51900100		2,020	2,020			2,020	SF	COMPOSITE FIBER WRAP SYSTEM		2,020				18
519	11100	202		202			202	SF	PATCHING CONCRETE STRUCTURE		202				
523	20001		4	4			4	EACH	DYNAMIC LOAD TESTING, AS PER PLAN	2	2				3
523	20501		4	4			4	EACH	RESTRIKE, AS PER PLAN	2	2				3
526	25011	329	108	175	262		437	SY	REINFORCED CONCRETE APPROACH SLABS WITH QC/QA (T=15"), AS PER PLAN	175			262		33
526	90030	173	54	90	137		227	FT	TYPE C INSTALLATION	90			137		
601	20000		487			487	487	SY	CRUSHED AGGREGATE SLOPE PROTECTION					487	
613	41200		17			17	17	CY	LOW STRENGTH MORTAR BACKFILL					17	
625	33000		1			1	1	EACH	STRUCTURE GROUNDING SYSTEM					1	

ESTIMATED QUANTITIES
BRIDGE NO. SUM-77-3227L
IR-77 OVER SR-21 (BRECKSVILLE RD.)

SFN 7704712

DESIGN AGENCY
Gannett Fleming
ENGINEERS AND ARCHITECTS, P.C.
2500 Corporate Exchange Drive
Suite 220
Columbus, OH 43221

DESIGNER	CHECKER
SAT	CTM

REVIEWER MTO 3/22

PROJECT ID 104983 (PRT 2)

SUBSET	TOTAL
5	38

SHEET	TOTAL
223	312

SUM-77-32.27

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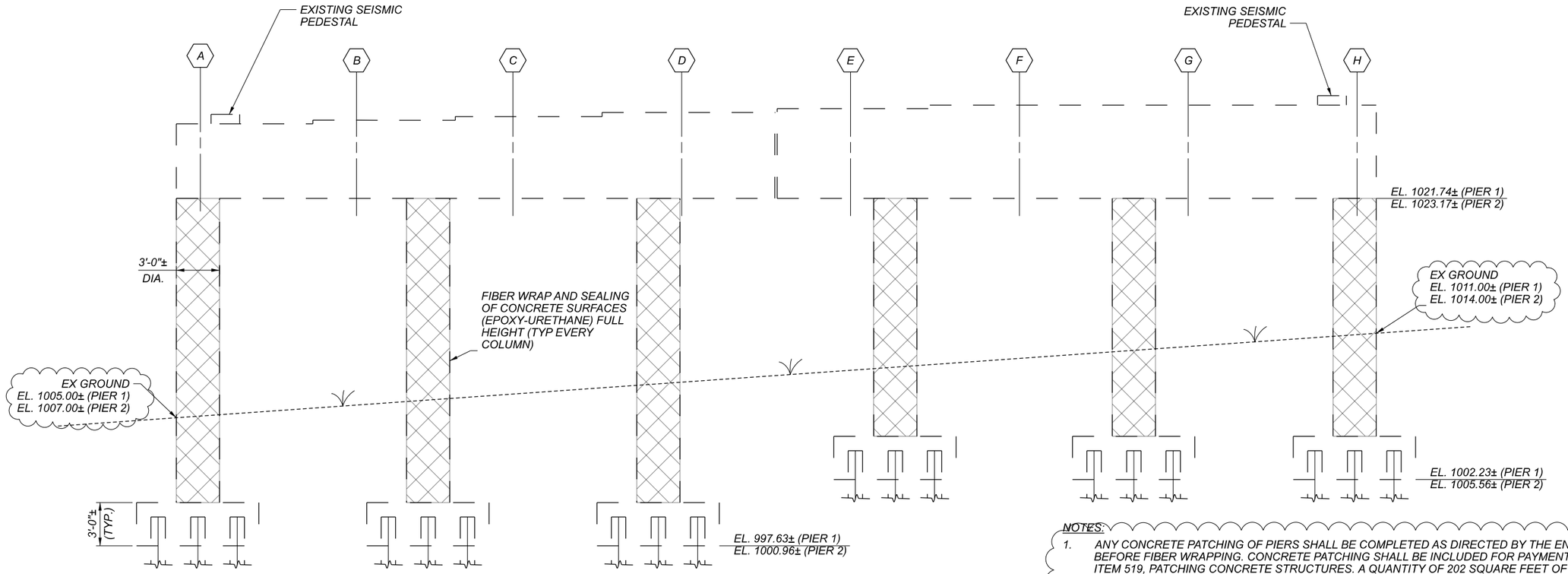

LEGEND:

FIBER WRAP LIMITS

EXISTING PIER ELEVATION

(LOOKING UPSTATION, PIER 1 SHOWN, PIER 2 SIMILAR)

NOTES:

1. ANY CONCRETE PATCHING OF PIERS SHALL BE COMPLETED AS DIRECTED BY THE ENGINEER BEFORE FIBER WRAPPING. CONCRETE PATCHING SHALL BE INCLUDED FOR PAYMENT WITH ITEM 519, PATCHING CONCRETE STRUCTURES. A QUANTITY OF 202 SQUARE FEET OF ITEM 519 - PATCHING CONCRETE STRUCTURES HAS BEEN INCLUDED IN THE ESTIMATED QUANTITIES TO BE USED AS DIRECTED BY THE ENGINEER. THE DEPARTMENT WILL CONSIDER THE COST FOR FILLING SURFACE IRREGULARITIES IN SOUND CONCRETE SUBSTRATE IN ORDER TO PROVIDE A SMOOTH AND CONTINUOUS SURFACE AS INCIDENTAL TO THE COMPOSITE FIBER WRAP SYSTEM.
2. COLUMN FIBER WRAP MUST ACHIEVE A CONFINING STRESS OF 0.30 KSI FOR THE TOP AND BOTTOM 4 FEET OF COLUMNS, AND 0.150 KSI CONFINING STRESS FOR ALL OTHER COLUMN PORTIONS. CONTRACTOR TO DETERMINE THE WRAPPING REQUIREMENTS (NUMBER OF LAYERS, METHOD OF APPLICATION, ETC.) PER THE MANUFACTURER'S GUIDELINES.
3. SEAL ALL COLUMNS FROM BOTTOM OF CAP TO FINAL GRADE ELEVATION. SEALANT APPLIED TO CONCRETE SURFACES SHALL BE EPOXY-URETHANE. SEALANT APPLIED TO FIBER WRAPPED SURFACES SHALL BE IN COMPLIANCE WITH FIBER WRAP MANUFACTURER REQUIREMENTS FOR PROTECTION AGAINST UV AND SALT SPRAY. IF A SEALER OTHER THAN THE TYPICAL PROJECT EPOXY-URETHANE SEALER IS USED ON FIBER WRAPPED SURFACES, SELECT COLOR OF FIBER WRAP SEALER TO MATCH COLOR OF CONCRETE SURFACE SEALER. THE COST TO SEAL THE COLUMNS SHALL BE INCLUDED IN THE COST OF ITEM 512 - SEALING OF CONCRETE SURFACES (EPOXY-URETHANE), AS PER PLAN INCLUDING ANY SPECIALTY FIBER WRAP SEALANTS THAT MAY BE REQUIRED.
4. EXCAVATION OF SOIL AROUND PIER COLUMNS TO THE TOP OF THE FOOTING AS NECESSARY TO PROPERLY INSTALL THE COMPOSITE FIBER WRAP SYSTEM. EXCAVATION AND BACKFILL AROUND THE PIER COLUMNS TO BE INCLUDED FOR PAYMENT WITH ITEM 503-UNCLASSIFIED EXCAVATION, AS PER PLAN.
5. FOR FURTHER COMPOSITE FIBER WRAP INSTALLATION REQUIREMENTS, REFER TO PN-519.

PIER WRAPPING DETAILS
BRIDGE NO. SUM-77-3227L
IR-77 OVER SR-21 (BRECKSVILLE RD.)

SFN 7704712

DESIGN AGENCY
Gannett Fleming
ENGINEERS AND ARCHITECTS, P.C.
2500 Corporate Exchange Drive Suite 220 Columbus, OH 43231

DESIGNER	CHECKER
SAT	CTM

REVIEWER: MTO 3/22

PROJECT ID: 104983 (PRT 2)

SUBSET	TOTAL
18	38

SHEET	TOTAL
236	312

SUM-77-32.27 PENTABLE SUBSET: 4 SUBMITTAL: Trading PDF PLOT DRIVER: OHDOT_PDF_Levels.pltcfg PENTABLE: 104983_OHDOT_Pen.tbl

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SUM-77-3227R BRIDGE SUMMARY

CALCULATED: RSN 01/10/22 | CHECKED: SAT 02/04/22 | REVISED: SAT 08/30/22

ITEM	ITEM EXT.	TOTAL PER SPLIT 05/IMS/BR	TOTAL PER SPLIT 06/IMS/BR	TOTAL PER PHASE PH 3	TOTAL PER PHASE PH 4	TOTAL PER PHASE GEN	GRAND TOTAL	UNIT	DESCRIPTION	PHASE 3 ABUT.	PHASE 3 PIERS	PHASE 3 SUPER	PHASE 4	GENERAL	SHEET REF.
202	11203		LS			LS	LS		PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN					LS	2
202	22900	235		73	162		235	SY	APPROACH SLAB REMOVED	73			162		
503	21101	77	372	449			449	CY	UNCLASSIFIED EXCAVATION, AS PER PLAN	230	219				18
505	11100		LS			LS	LS		PILE DRIVING EQUIPMENT MOBILIZATION, AS PER PLAN					LS	2
507	00500		840	840			840	FT	12" CAST-IN-PLACE REINFORCED CONCRETE PILES, DRIVEN	840					
507	00550		960	960			960	FT	12" CAST-IN-PLACE REINFORCED CONCRETE PILES, FURNISHED	960					
507	00600		840	840			840	FT	14" CAST-IN-PLACE REINFORCED CONCRETE PILES, DRIVEN		840				
507	00650		960	960			960	FT	14" CAST-IN-PLACE REINFORCED CONCRETE PILES, FURNISHED		960				
509	10001		69,246	69,246			69,246	LB	EPOXY COATED REINFORCING STEEL, AS PER PLAN	5,646	18,159	45,441			3
509	20001		300			300	300	LB	REINFORCING STEEL, REPLACEMENT OF EXISTING REINFORCING STEEL, AS PER PLAN					300	3
509	30020		4,195	4,195			4,195	FT	NO. 4 GFRP DEFORMED BARS			4,195			
510	10001		22	22			22	EACH	DOWEL HOLES WITH NONSHRINK, NONMETALLIC GROUT, AS PER PLAN	22					3
511	34446		155	155			155	CY	CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK			155			
511	34451		37	37			37	CY	CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK (PARAPET), AS PER PLAN			37			3
511	42012		86	86			86	CY	CLASS QC1 CONCRETE WITH QC/QA, PIER ABOVE FOOTINGS		86				
511	44112		38	38			38	CY	CLASS QC1 CONCRETE WITH QC/QA, ABUTMENT NOT INCLUDING FOOTING	38					
511	46512		84	84			84	CY	CLASS QC1 CONCRETE WITH QC/QA, FOOTING	44	40				
512	10101	113	445	558			558	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE), AS PER PLAN	32	275	251			18
512	33000		7	7			7	SY	TYPE 2 WATERPROOFING	7					
512	74000		610	610			610	SY	REMOVAL OF EXISTING COATINGS FROM CONCRETE SURFACES	610					
513	10260		115,881	115,881			115,881	LB	STRUCTURAL STEEL MEMBERS, LEVEL 3			115,881			
513	20000		1,764	1,764			1,764	EACH	WELDED STUD SHEAR CONNECTORS			1,764			
514	00060		5,570	5,570			5,570	SF	FIELD PAINTING STRUCTURAL STEEL, INTERMEDIATE COAT			5,570			
514	00066		5,570	5,570			5,570	SF	FIELD PAINTING STRUCTURAL STEEL, FINISH COAT			5,570			
514	00504		2	2			2	MNHR	GRINDING FINS, TEARS, SLIVERS ON EXISTING STRUCTURAL STEEL			2			
514	10000		6	6			6	EACH	FINAL INSPECTION REPAIR			6			
514	27800		LS	LS			LS		FIELD PAINTING, MISC.: REMOVAL AND REPAIR OF EXISTING GALVANIC COATING ON STRUCTURAL STEEL			1			4
516	10010	132	28	83	77		160	FT	ARMORLESS PREFORMED JOINT SEAL	83			77		
516	13600		25	25			25	SF	1" PREFORMED EXPANSION JOINT FILLER	25					
516	13900		86	86			86	SF	2" PREFORMED EXPANSION JOINT FILLER	86					
516	14020		66	66			66	FT	SEMI-INTEGRAL ABUTMENT EXPANSION JOINT SEAL			66			
516	44100		6	6			6	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE) (14"x10"x2.96" BEARING WITH 15"x11" LOAD PLATE AND BEVELED HP10x42 PEDESTAL)	6					
516	44100		6	6			6	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE) (18"x13"x2.59" BEARING WITH 19"x14" BEVELED LOAD PLATE)		6				
518	21200		39	39			39	CY	POROUS BACKFILL WITH GEOTEXTILE FABRIC	39					
518	40000		78	78			78	FT	6" PERFORATED CORRUGATED PLASTIC PIPE	78					
518	40010		60	60			60	FT	6" NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS	60					
SPECIAL	51900100		1,285	1,285			1,285	SF	COMPOSITE FIBER WRAP SYSTEM		1,285				18
519	11100	129		129			129	SF	PATCHING CONCRETE STRUCTURE		129				
523	20001		4	4			4	EACH	DYNAMIC LOAD TESTING, AS PER PLAN	2	2				3
523	20501		4	4			4	EACH	RESTRIKE, AS PER PLAN	2	2				3
526	25011	234	101	173	162		335	SY	REINFORCED CONCRETE APPROACH SLABS WITH QC/QA (T=15"), AS PER PLAN	173			162		33
526	90030	132	28	83	77		160	FT	TYPE C INSTALLATION	83			77		
601	20000		430			430	430	SY	CRUSHED AGGREGATE SLOPE PROTECTION					430	
613	41200		17			17	17	CY	LOW STRENGTH MORTAR BACKFILL					17	
625	33000		1			1	1	EACH	STRUCTURE GROUNDING SYSTEM					1	

ESTIMATED QUANTITIES
BRIDGE NO. SUM-77-3227R
IR-77 OVER BRECKSVILLE RD.

SFN 7704747

DESIGN AGENCY
Gannett Fleming
ENGINEERS AND ARCHITECTS, P.C.
2500 Corporate Exchange Drive Suite 220 Columbus, OH 43231

DESIGNER	CHECKER
SAT	CTM

REVIEWER: MTO 3/22

PROJECT ID: 104983 (PRT 2)

SUBSET	TOTAL
5	37

SHEET	TOTAL
261	312

SUM-77-32.27

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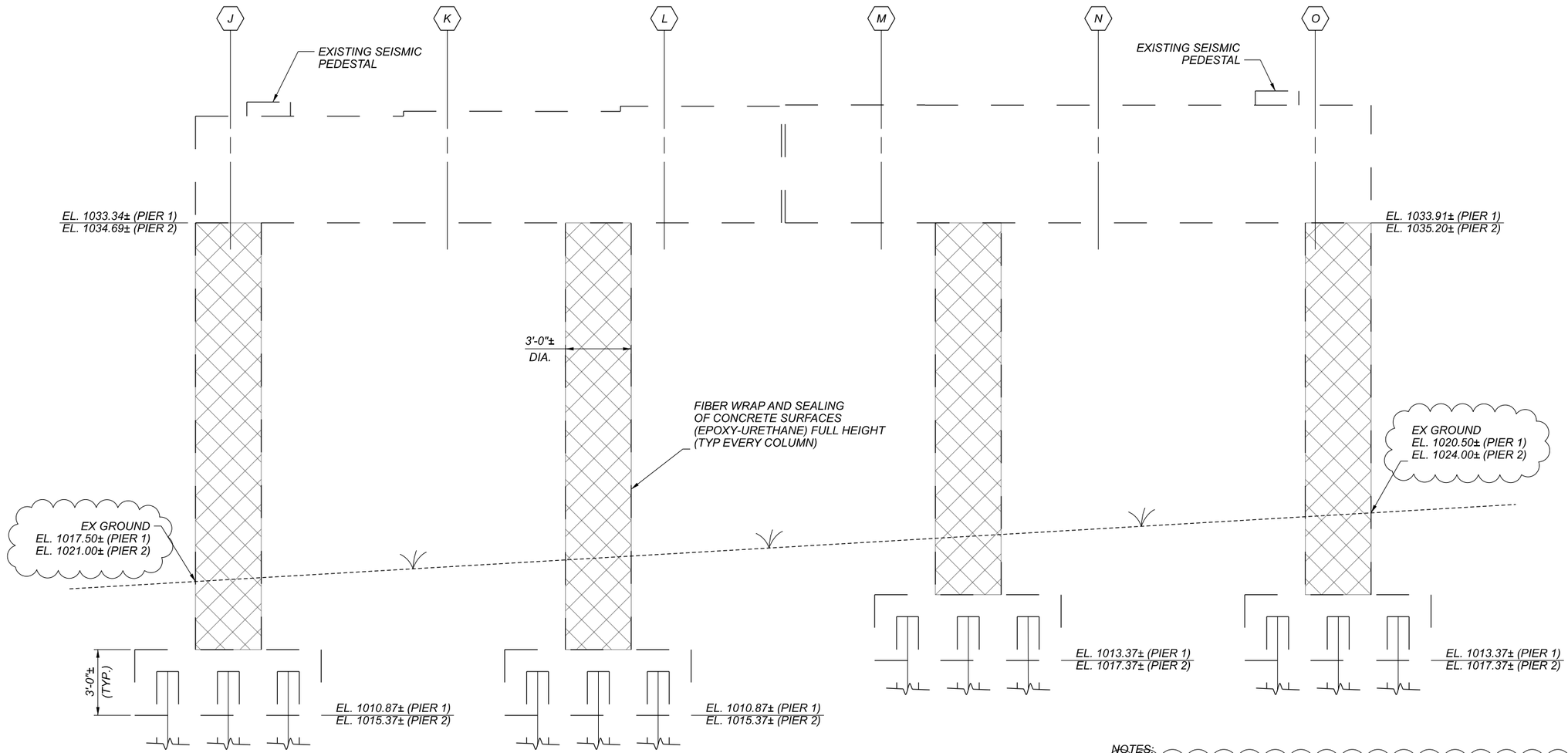

EXISTING PIER ELEVATION

(LOOKING UPSTATION, PIER 1 SHOWN, PIER 2 SIMILAR)

LEGEND:

FIBER WRAP LIMITS

NOTES:

1. ANY CONCRETE PATCHING OF PIERS SHALL BE COMPLETED AS DIRECTED BY THE ENGINEER BEFORE FIBER WRAPPING. CONCRETE PATCHING SHALL BE INCLUDED FOR PAYMENT WITH ITEM 519, PATCHING CONCRETE STRUCTURES. A QUANTITY OF 129 SQUARE FEET OF ITEM 519 - PATCHING CONCRETE STRUCTURES HAS BEEN INCLUDED IN THE ESTIMATED QUANTITIES TO BE USED AS DIRECTED BY THE ENGINEER. THE DEPARTMENT WILL CONSIDER THE COST FOR FILLING SURFACE IRREGULARITIES IN SOUND CONCRETE SUBSTRATE IN ORDER TO PROVIDE A SMOOTH AND CONTINUOUS SURFACE AS INCIDENTAL TO THE COMPOSITE FIBER WRAP SYSTEM.
2. COLUMN FIBER WRAP MUST ACHIEVE A CONFINING STRESS OF 0.30 KSI FOR THE TOP AND BOTTOM 4 FEET OF COLUMNS, AND 0.150 KSI CONFINING STRESS FOR ALL OTHER COLUMN PORTIONS. CONTRACTOR TO DETERMINE THE WRAPPING REQUIREMENTS (NUMBER OF LAYERS, METHOD OF APPLICATION, ETC.) PER THE MANUFACTURER'S GUIDELINES.
3. SEAL ALL COLUMNS FROM BOTTOM OF CAP TO FINAL GRADE ELEVATION. SEALANT APPLIED TO CONCRETE SURFACES SHALL BE EPOXY-URETHANE. SEALANT APPLIED TO FIBER WRAPPED SURFACES SHALL BE IN COMPLIANCE WITH FIBER WRAP MANUFACTURER REQUIREMENTS FOR PROTECTION AGAINST UV AND SALT SPRAY. IF A SEALER OTHER THAN THE TYPICAL PROJECT EPOXY-URETHANE SEALER IS USED ON FIBER WRAPPED SURFACES, SELECT COLOR OF FIBER WRAP SEALER TO MATCH COLOR OF CONCRETE SURFACE SEALER. THE COST TO SEAL THE COLUMNS SHALL BE INCLUDED IN THE COST OF ITEM 512 - SEALING OF CONCRETE SURFACES (EPOXY-URETHANE), AS PER PLAN INCLUDING ANY SPECIALTY FIBER WRAP SEALANTS THAT MAY BE REQUIRED.
4. EXCAVATE THE SOIL AROUND THE PIER COLUMNS TO THE TOPS OF THE FOOTINGS AS NECESSARY TO PROPERLY INSTALL THE COMPOSITE FIBER WRAP SYSTEM. EXCAVATION AND BACKFILL AROUND THE PIER COLUMNS TO BE INCLUDED FOR PAYMENT WITH ITEM 503 - UNCLASSIFIED EXCAVATION, AS PER PLAN.
5. FOR COMPOSITE FIBER WRAP INSTALLATION REQUIREMENTS, REFER TO PN-519.

PIER WRAPPING DETAILS
BRIDGE NO. SUM-77-3227R
IR-77 OVER BRECKSVILLE RD.

SFN 7704747

DESIGN AGENCY
Gannett Fleming
ENGINEERS AND ARCHITECTS, P.C.
2500 Corporate Exchange Drive, Suite 200, Columbus, OH 43231

DESIGNER	CHECKER
SAT	CTM

REVIEWER: MTO 3/22

PROJECT ID: 104983 (PRT 2)

SUBSET	TOTAL
18	37

SHEET	TOTAL
274	312

SUM-77-32.27 PENTABLE SUBSET: [5] SUBMITTAL: Trading PDF PLOT DRIVER: OHDOT_PDF_Levels.pltcfg PENTABLE: 104983_OHDOT_Pen.tbl

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