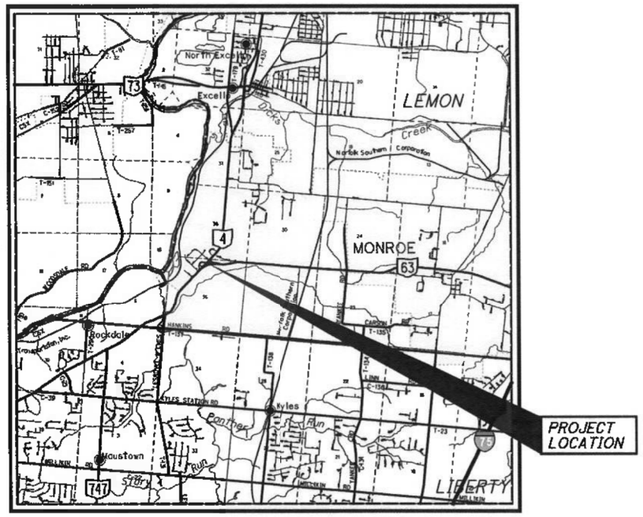
STATE OF OHIO
DEPARTMENT OF TRANSPORTATION

BUT-SR4-15.80

LEMON TOWNSHIP
CITY OF MONROE, OHIO



LOCATION MAP

LATITUDE: N39°26'45" LONGITUDE: W84°25'29"

SCALE IN MILES
0 1 2 3 4

N

PORTION TO BE IMPROVED
INTERSTATE HIGHWAY
FEDERAL ROUTES
STATE ROUTES
COUNTY & TOWNSHIP ROADS
OTHER ROADS

DESIGN DESIGNATION	S.R. 4	S.R. 63
CURRENT ADT (2021)	28,000	29,000
DESIGN YEAR ADT (2033)	32,000	37,000
DESIGN HOURLY VOLUME (2033)	2,900	3,300
DIRECTIONAL DISTRIBUTION	0.56	0.65
TRUCKS (24 HOUR B&C)	0.06	0.08
DESIGN SPEED	55 MPH	60 MPH
LEGAL SPEED	50 MPH	55 MPH
DESIGN FUNCTIONAL CLASSIFICATION:	URBAN PRINCIPAL ARTERIAL	URBAN MAJOR COLLECTOR
NHS PROJECT	YES	NO

DESIGN EXCEPTIONS

N/A

UNDERGROUND UTILITIES
Contact Two Working Days Before You Dig
OHIO811.org Before You Dig
OHIO811, 8-1-1, or 1-800-362-2764
(Non-members must be called directly)

PLAN PREPARED BY:
OHIO DEPT. OF TRANSPORTATION
DISTRICT 8 ENGINEERING
505 SOUTH SR 741 LEBANON, OHIO 45036

ENGINEERS SEAL:

STATE OF OHIO · CHRISTOPHER A. HOWARD · E-62429 · REGISTERED PROFESSIONAL ENGINEER

SIGNED: Chris Howard
DATE: 10-16-20

INDEX OF SHEETS:

STANDARD CONSTRUCTION DRAWINGS

								SUPPLEMENTAL SPECIFICATIONS		SPECIAL PROVISIONS
BP-3.1	01/17/20	AS-1-15	7/17/15	MT-98.28	1/17/20	MT-97.11	1/20/17			
		AS-2-15	1/18/19	MT-98.29	1/17/20	MT-97.12	1/20/17	800-2020	7/17/20	
DM-1.1	7/17/20	PCB-91	7/17/20	MT-99.30	1/17/20			807	7/17/20	
DM-4.1	7/17/20	SBR-1-20	7/17/20	MT-101.60	1/17/20			821	4/20/12	
		SICD-1-96	7/18/14	MT-101.70	1/17/20			848	1/20/17	
BP-4.1	7/19/13	SICD-2-14	7/18/14	MT-101.75	1/17/20			872	4/17/20	
BP-5.1	1/18/19	VPF-1-90	7/20/18	MT-101.90	7/17/20			878	1/17/20	
MGS-1.1	1/19/18			MT-102.20	4/19/19			921	4/20/12	
MGS-2.1	1/19/18	MT-95.30	7/19/19	MT-105.10	1/17/20			832	10/19/18	
MGS-3.1	1/19/18	MT-95.40	1/17/20					846	4/17/15	
MGS-3.2	1/18/13	MT-95.45	1/17/20	TC-42.20	10/18/13					
MGS-4.2	7/19/13	MT-95.50	7/21/17	TC-61.30	7/19/19					
MGS-4.3	1/18/13	MT-95.82	7/19/13	TC-65.10	1/17/14					
MGS-6.1	1/19/18	MT-97.10	4/19/19	TC-65.11	7/21/17					
		MT-98.20	4/19/19							
RM-4.2	4/17/20	MT-98.22	1/17/20	HL-30.32	4/17/20					

PROJECT DESCRIPTION

REHABILITATE BRIDGES BUT-4-15.80 L/R THAT CARRIES SR 4 TRAFFIC OVER SR 63. REHABILITATION TO INCLUDE OVERLAYING THE BRIDGE DECKS, REPLACEMENT OF THE ABUTMENT BEARINGS AND PARAPETS, CONVERSION OF THE ABUTMENTS TO SEMI-INTEGRAL AND PAINTING OF THE STRUCTURAL STEEL.

EARTH DISTURBED AREAS

PROJECT EARTH DISTURBED AREA: 2.00 ACRES
ESTIMATED CONTRACTOR EARTH DISTURBED AREA: 0.2 ACRES
NOTICE OF INTENT EARTH DISTURBED AREA: N/A

NOI NOT REQUIRED

2019 SPECIFICATIONS

THE STANDARD SPECIFICATIONS OF THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION, INCLUDING SUPPLEMENTAL SPECIFICATIONS LISTED IN THE PLANS AND CHANGES LISTED IN THE PROPOSAL SHALL GOVERN THIS IMPROVEMENT.

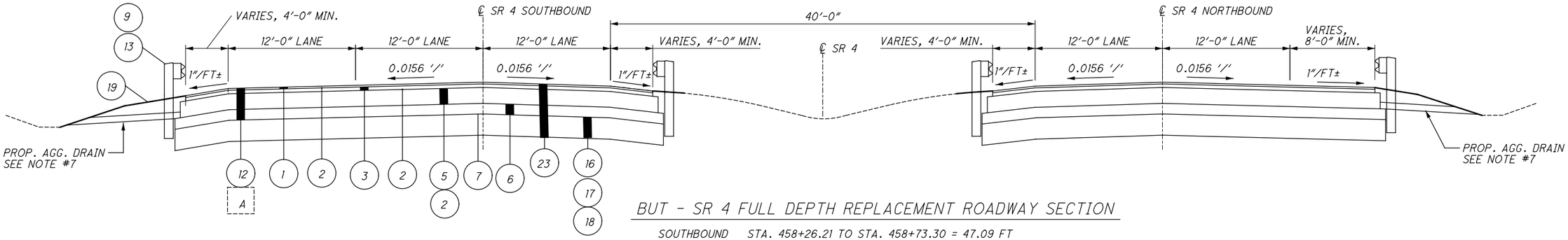
I HEREBY APPROVE THESE PLANS AND DECLARE THAT THE MAKING OF THIS IMPROVEMENT WILL NOT REQUIRE THE CLOSING TO TRAFFIC OF THE HIGHWAY EXCEPT FOR THE SIDE ROADS AS DESCRIBED ON SHEET 9 AND THAT PROVISIONS FOR THE MAINTENANCE AND SAFETY OF TRAFFIC WILL BE AS SET FORTH ON THE PLANS AND ESTIMATES.

APPROVED Tony K Campbell
DATE 10/19/2020 DISTRICT DEPUTY DIRECTOR

APPROVED _____
DATE _____ DIRECTOR, DEPARTMENT OF TRANSPORTATION

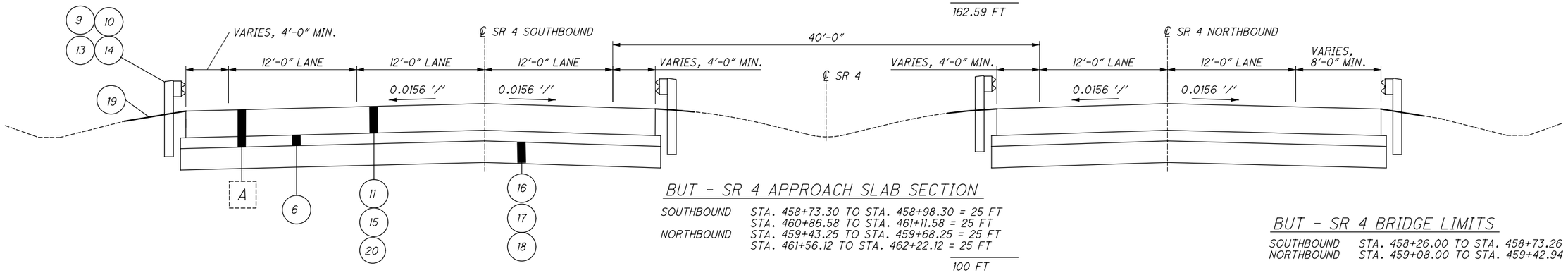
FEDERAL PROJECT NO. E161469
PID NO. 102736
CONSTRUCTION PROJECT NO. -
RAILROAD INVOLVEMENT NONE
BUT-SR4-15.80
1-48

t:\ProjectData\BUT\02736_BUT-SR4-15.80\Design\Roadway\Sheets\02736_GT00.dgn Sheet 10/16/2020 11:33:43 AM choward4



BUT - SR 4 FULL DEPTH REPLACEMENT ROADWAY SECTION

SOUTHBOUND	STA. 458+26.21 TO STA. 458+73.30 = 47.09 FT	
	STA. 461+11.58 TO STA. 461+50.21 = 38.63 FT	
NORTHBOUND	STA. 459+07.38 TO STA. 459+43.25 = 35.87 FT	
	STA. 461+81.12 TO STA. 462+22.12 = 41.00 FT	
		162.59 FT

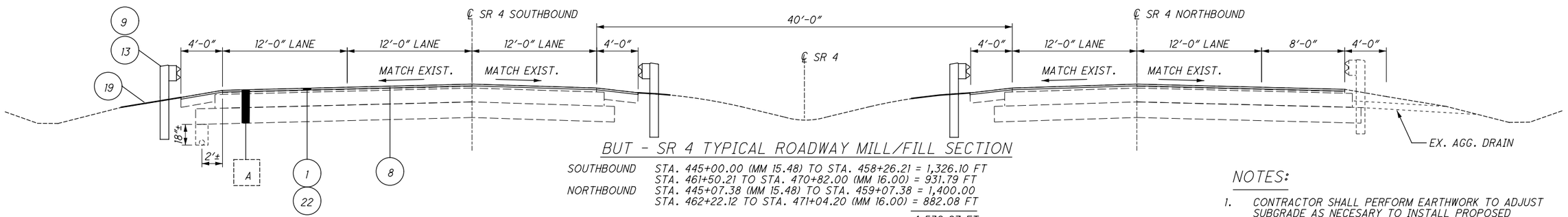


BUT - SR 4 APPROACH SLAB SECTION

SOUTHBOUND	STA. 458+73.30 TO STA. 458+98.30 = 25 FT	
	STA. 460+86.58 TO STA. 461+11.58 = 25 FT	
NORTHBOUND	STA. 459+43.25 TO STA. 459+68.25 = 25 FT	
	STA. 461+56.12 TO STA. 462+22.12 = 25 FT	
		100 FT

BUT - SR 4 BRIDGE LIMITS

SOUTHBOUND	STA. 458+26.00 TO STA. 458+73.26 =
NORTHBOUND	STA. 459+08.00 TO STA. 459+42.94 =



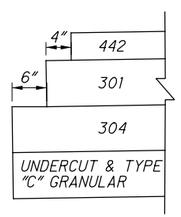
BUT - SR 4 TYPICAL ROADWAY MILL/FILL SECTION

SOUTHBOUND	STA. 445+00.00 (MM 15.48) TO STA. 458+26.21 = 1,326.10 FT	
	STA. 461+50.21 TO STA. 470+82.00 (MM 16.00) = 931.79 FT	
NORTHBOUND	STA. 445+07.38 (MM 15.48) TO STA. 459+07.38 = 1,400.00	
	STA. 462+22.12 TO STA. 471+04.20 (MM 16.00) = 882.08 FT	
		4,539.97 FT

LEGEND:

1. ITEM 442 - 1.50" ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A (448)
2. ITEM 407 - NON-TRACKING TACK COAT PLACED OVER NEW ASPHALT (0.06 GAL/SY)
3. ITEM 442 - 1.75" ASPHALT CONCRETE INTERMEDIATE COURSE, 19MM, TYPE A (448)
4. ITEM 203 - EXCAVATION/EMBANKMENT
5. ITEM 301 - ASPHALT CONCRETE BASE (8", MIN. LIFT THK. = 3")
6. ITEM 304 - 6" AGGREGATE BASE
7. ITEM 204 - SUBGRADE COMPACTION
8. ITEM 407 - NON-TRACKING TACK COAT - PLACED OVER EXISTING ASPHALT (0.09 GAL/SY)
9. ITEM 606 - GUARDRAIL, TYPE MGS, LONG POST
10. ITEM 606 - MGS BRIDGE TERMINAL ASSEMBLY, TYPE 1
11. ITEM 526 - REINFORCED CONCRETE APPROACH SLABS (T=15"), AS PER PLAN
12. ITEM 202 - PAVEMENT REMOVED, ASPHALT (T=12"±)
13. ITEM 202 - GUARDRAIL REMOVED
14. ITEM 202 - BRIDGE TERMINAL ASSEMBLY REMOVED
15. ITEM 202 - APPROACH SLAB REMOVED
16. ITEM 204 - EXCAVATION OF SUBGRADE 12" DEPTH
17. ITEM 204 - GRANULAR MATERIAL, TYPE C
18. ITEM 204 - GEOTEXTILE FABRIC
19. ITEM 659 - SEEDING AND MULCHING
20. ITEM 526 - TYPE A INSTALLATION
21. ITEM 605 - AGGREGATE DRAIN
22. ITEM 254 - ASPHALT PAVEMENT PLANING (T=1.50")
23. ITEM 202 - ASPHALT PAVEMENT REMOVED

[A] EXISTING ASPHALT PAVEMENT



BASE STEP DETAIL
NTS

NOTES:

1. CONTRACTOR SHALL PERFORM EARTHWORK TO ADJUST SUBGRADE AS NECESARY TO INSTALL PROPOSED APPROACH SLABS AND SLEEPER SLABS WITH AGGREGATE BASE AS WELL AS FULL DEPTH ASPHALT PAVEMENT.
2. INSTALL ITEM 442 IN 2" MAX LIFTS.
3. COST FOR MINOR EARTH REGRADING AROUND NEW GUARDRAIL SHALL BE PAID FOR UNDER ITEM 209 - RESHAPING UNDER GUARDRAIL.
4. SAWCUTTING OF ASPHALT SHALL BE INCLUDED WITH ITEM 202 - PAVEMENT REMOVED, ASPHALT FOR PAYMENT.
5. TYPICAL SECTIONS ARE NOT TO SCALE.
6. PAVEMENT MAKEUP SHOWN FOR SOUTHBOUND. NORTHBOUND PAVEMENT MAKEUP IS SIMILAR.
7. INSTALL ONE AGGREGATE DRAIN N.B. AND ONE S.B. AT THE BEGIN FULL DEPTH PAVEMENT. DRAIN FROM OUTSIDE SHOULDER TO EXIST. DRAINAGE SWALE. A TOTAL LENGTH OF 50 FEET OF 605 - AGGREGATE DRAIN HAS BEEN CARRIED TO THE GENERAL SUMMARY.

TYPICAL SECTIONS

BUT-SR4-15.80

ROUNDING

THE ROUNDING AT SLOPE BREAKPOINTS SHOWN ON THE TYPICAL SECTIONS APPLY TO ALL CROSS-SECTIONS EVEN THOUGH OTHERWISE SHOWN.

UTILITIES

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

DUKE ENERGY ELECTRIC (DISTRIBUTION)
2010 DANA AVENUE
CINCINNATI, OHIO 45207
513-458-3855 (CHRIS TEPE)
CHRIS.TEPE@DUKE-ENERGY.COM

DUKE ENERGY ELECTRIC (TRANSMISSION)
139 EAST 4TH STREET, ROOM 552A
CINCINNATI, OHIO 45202
513-287-1266 (TIM MEYER)
TIM.MEYER@DUKE-ENERGY.COM

BP PIPELINES (NORTH AMERICA) INC.
LAND & ROW DEPARTMENT
30 SOUTH WACKER DRIVE, SUITE 900
CHICAGO, ILLINOIS 60606
312-809-3155 (THORIN BURKE)
THORIN.BURKE@BP.COM
(PLEASE SEND ALL UTILITY PLAN REVIEWS TO THE CONTACT PERSON AND THE FOLLOWING SHARED EMAIL ADDRESS: BPPIPELINESROW@BP.COM)

DUKE ENERGY - GAS
139 EAST 4TH STREET, ROOM 460A
CINCINNATI, OHIO 45202
513-287-2517 (MARK BRANSCUM)
MARK.BRANSCUM@DUKE-ENERGY.COM
(PLEASE SEND ALL UTILITY PLAN REVIEWS TO THIS ADDRESS: OH/KYHOUSEBILL@DUKE-ENERGY.COM)

AT&T OHIO
7201 FAR HILLS AVENUE
DAYTON, OHIO 45459
937-296-3588 (HOWARD LAUDERMILK)
HL1596@ATT.COM)

CHARTER COMMUNICATIONS/SPECTRUM
10920 KENWOOD ROAD
BLUE ASH, OHIO 45242
(SEND ALL PLANS/CORRESPONDENCE TO EMAIL BOX FOR DISTRIBUTION: DL-SOUTHERN-OHIO-OUTSIDE-PLANT@CHARTER.COM)

BUTLER COUNTY WATER AND SEWER
130 HIGH STREET
HAMILTON, OHIO 45011
513-887-5699 (MARTHA SHELBY)
SHELBYMA@BUTLERCOUNTYOHIO.ORG

BUTLER COUNTY ENGINEER'S OFFICE
1921 FAIRGROVE AVENUE
HAMILTON, OHIO 45011
513-785-4134 (MARK CONNER)
CONNERM@BCEO.ORG

CITY OF MONROE
1000 HOLMAN AVENUE
MONROE, OHIO 45050
513-539-7374 (GARY MORTON)
MORTONG@MONROEOHIO.ORG

ADVANCED COMMUNICATIONS AND DATA
1800 N. GRAND RIVER AVENUE
LANSING, MICHIGAN 48906
517-999-9999 (JEREMIAH BRAND/NICOLE SPITZLEY)
BRAND.JEREMIAH@ACD.NET
SPITZLEY.NICOLE@ACD.NET
(PLEASE SEND ALL UTILITY PLAN REVIEWS TO THE CONTACT PERSON AND THE FOLLOWING SHARED EMAIL ADDRESS: OSP@ACD.NET)

INDEPENDENTS FIBER NETWORK / COM NET
13888 S. DIXIE DRIVE
WAPAKONETA, OHIO 45895
419-739-3124 (SARAH EMANS)
SEMANS@CNITEAM.COM
(SEND ALL PLANS/CORRESPONDENCE TO EMAIL BOX: OSP@CNITEAM.COM)

METROPOLITAN COMMUNICATIONS GROUP (MCG)
155 COMMERCE PARK DRIVE, SUITE #1
WESTERVILLE, OHIO 43082
614-392-2873 (CHAD HARKNESS)
CHAD.HARKNESS@MCGFIBER.COM

THAYER POWER AND COMMUNICATION LINE
CONSTRUCTION COMPANY, LLC
950 FREEWAY DRIVE N.
COLUMBUS, OHIO 43229
614-379-6419 (TIM LAPOINTE)
TL0695@ATT.COM

REVIEW OF DRAINAGE FACILITIES

BEFORE ANY WORK IS STARTED ON THE PROJECT AND AGAIN BEFORE FINAL ACCEPTANCE BY THE STATE, REPRESENTATIVES OF THE STATE AND THE CONTRACTOR, ALONG WITH LOCAL REPRESENTATIVES, SHALL MAKE AN INSPECTION OF ALL EXISTING SEWERS WHICH ARE TO REMAIN IN SERVICE AND WHICH MAY BE AFFECTED BY THE WORK.

THE CONDITION OF THE EXISTING CONDUITS AND THEIR APPURTENANCE SHALL BE DETERMINED FROM FIELD OBSERVATIONS. RECORDS OF THE INSPECTION SHALL BE KEPT IN WRITING BY THE STATE.

ALL NEW CONDUITS, INLETS, CATCH BASINS, AND MANHOLES CONSTRUCTED AS A PART OF THE PROJECT SHALL BE FREE OF ALL FOREIGN MATTER AND IN A CLEAN CONDITION BEFORE THE PROJECT WILL BE ACCEPTED BY THE STATE.

ALL EXISTING SEWERS INSPECTED INITIALLY BY THE ABOVE MENTIONED PARTIES SHALL BE MAINTAINED AND LEFT IN A CONDITION REASONABLY COMPARABLE TO THAT DETERMINED BY THE ORIGINAL INSPECTION. ANY CHANGE IN THE CONDITION RESULTING FROM THE CONTRACTOR'S OPERATIONS SHALL BE CORRECTED BY THE CONTRACTOR TO THE SATISFACTION OF THE ENGINEER.

PAYMENT FOR ALL OPERATIONS DESCRIBED ABOVE SHALL BE INCLUDED IN THE CONTRACT PRICE FOR ITEM 611 - DRAINAGE STRUCTURE, MISC.: REVIEW OF DRAINAGE FACILITIES (LUMP).

ITEM 201, CLEARING AND GRUBBING, AS PER PLAN

ALTHOUGH THERE ARE NO TREES OR STUMPS SPECIFICALLY MARKED FOR REMOVAL WITHIN THE LIMITS OF THE PROJECT, A LUMP SUM QUANTITY IS INCLUDED IN THE GENERAL SUMMARY FOR ITEM 201 - CLEARING AND GRUBBING, AS PER PLAN.

REMOVE ANY TREES, BRUSH OR STUMPS NOT SPECIFICALLY MARKED FOR REMOVAL IF LOCATED UNDER OR WITHIN TEN FEET OF THE BRIDGE STRUCTURES. REMOVE BRUSH WITHIN THE LIMITS OF STATE RIGHT-OF-WAY. THE REMOVAL OF DEBRIS FROM AROUND THE ABUTMENTS AND/OR PIERS AS DIRECTED BY THE ENGINEER SHALL ALSO BE INCLUDED WITH THIS ITEM FOR PAYMENT. CONTRACTOR SHALL VERIFY POSITIVE DRAINAGE.

ALL PROVISIONS SET FORTH IN THE SPECIFICATIONS UNDER THIS ITEM SHALL BE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM 201, CLEARING AND GRUBBING, AS PER PLAN.

SURVEYING PARAMETERS

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

VERTICAL POSITIONING
ORTHOMETRIC HEIGHT DATUM: NAVD 88
GEOID: GEOID 12A

HORIZONTAL POSITIONING
REFERENCE FRAME: NAD83(CORS96)EPOCH2002.0
ELLIPSOID: GRS80
MAP PROJECTION: LAMBERT CONFORMAL CONIC
COORDINATE SYSTEM: OHIO SOUTH ZONE (SPC 3402)
COMBINED SCALE FACTOR : 1.0000000000
UNITS ARE IN U.S. SURVEY FEET. USE THE FOLLOWING CONVERSION FACTOR: 1 METER = 3.280833333 U.S. SURVEY FEET.

PERMANENT PAVEMENT MARKINGS AND RAISED PAVEMENT MARKERS

ALL EXISTING PAVEMENT MARKINGS AND RAISED PAVEMENT MARKERS ON THE BRIDGE SUPERSTRUCTURES AND APPROACH PAVEMENTS SHALL BE REPLACED AS SHOWN IN THE PLANS. PROPOSED PAVEMENT MARKINGS SHALL BE ITEM 642.

THE CONTRACTOR SHALL REFERENCE ALL EXISTING PAVEMENT MARKINGS AND RAISED PAVEMENT MARKERS BEFORE THE START OF ANY PAVEMENT REMOVAL. THIS WILL BE NECESSARY TO ASSURE CORRECT REPLACEMENT IN THEIR ORIGINAL AND/OR RECONFIGURED LOCATIONS. PAYMENT FOR THIS WORK SHALL BE INCIDENTAL TO THE RESPECTIVE PROPOSED PAVEMENT MARKING AND RPM PAY ITEMS.

ITEM 623 - CONSTRUCTION LAYOUT STAKES & SURVEYING, AS PER PLAN

PRIOR TO THE START OF CONSTRUCTION OPERATIONS, THE CONTRACTOR SHALL REFERENCE THE LENGTH OF THE PROJECT ON BOTH SIDES OF THE ROADWAY, IN A MANNER SATISFACTORY TO THE ENGINEER. THE PAVEMENT SHALL BE REFERENCED IN 25 FOOT INCREMENTS, OR IN INCREMENTS ACCEPTABLE TO THE ENGINEER, IN A SEMI-PERMANENT CONDITION.

SAWCUTTING

SAWCUTTING OF CURB AND/OR PAVEMENT SHALL BE INCIDENTAL TO THE RESPECTIVE PAY ITEM.

BENCHING OF FOUNDATION SLOPES

FOR PROPOSED BENCHING OF THE EMBANKMENT FOUNDATIONS IN CERTAIN AREAS, NO WAIVER OF THE SPECIFICATIONS IS INTENDED. BENCH ALL OTHER SLOPED EMBANKMENT AREAS AS SET FORTH IN 203.05. NO ADDITIONAL PAYMENT WILL BE MADE FOR BENCHING REQUIRED UNDER THE PROVISIONS OF 203.05. BENCHING SHALL NOT DISTURB EXISTING BURRIED UTILITIES.

SEEDING & MULCHING

THE FOLLOWING QUANTITIES ARE PROVIDED TO RESTORE AND PROMOTE GROWTH AND CARE OF PERMANENT SEEDED AREAS:

SEEDING AND REPAIR SEEDING AT BUT-4-15.80 L/R SHALL USE A CLASS 3C MIX PER THE ODOT CMS.

ITEM 659, SEEDING AND MULCHING, TYPE 3C = 298 SQ YD
ITEM 659, REPAIR SEEDING AND MULCHING = 15 SQ YD
ITEM 659, LIME = 0.06 ACRE
ITEM 659, COMMERCIAL FERTILIZER = 0.04 TON
ITEM 659, WATER = 1.6 M. GAL

SEEDING AND MULCHING SHALL BE APPLIED TO ALL AREAS OF EXPOSED SOIL BETWEEN THE RIGHT-OF-WAY LINES, AND WITHIN THE CONSTRUCTION LIMITS FOR AREAS OUTSIDE THE RIGHT-OF-WAY LINES COVERED BY WORK AGREEMENT OR SLOPE EASEMENT. QUANTITY CALCULATIONS FOR SEEDING AND MULCHING ARE BASED ON THESE LIMITS.

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.

NON-USE OF ASBESTOS-CONTAINING MATERIALS

THE CONTRACTOR SHALL AT NO TIME INCORPORATE ANY MATERIALS WHICH ARE COMPOSED OF OR CONTAIN ANY AMOUNT OF ASBESTOS. THE SUBSTITUTION OF MATERIALS WHICH CONTAIN ANY AMOUNTS OF ASBESTOS WILL IN NO CIRCUMSTANCES BE ACCEPTABLE. UPON COMPLETION OF THE PROJECT, THE CONTRACTOR SHALL SUBMIT A WRITTEN STATEMENT OF CERTIFICATION ASSERTING THAT NO ASBESTOS CONTAINING MATERIALS WERE USED IN ANY PORTION OF THE CONSTRUCTION.

GUARDRAIL AND BRIDGE RAILING REFLECTORS

THE CONTRACTOR SHALL PROVIDE TYPE 1 BARRIER REFLECTORS ALONG THE BRIDGE RAILING AND SHALL PROVIDE TYPE 2 BARRIER REFLECTORS ALONG THE STANDARD MGS GUARDRAIL, BRIDGE TERMINAL ASSEMBLIES AND ANCHOR ASSEMBLIES IN ACCORDANCE WITH CMS 626. REFLECTORS SHALL BE SPACED AT 50 FEET MAX.

CALCULATED XXX CHECKED XXX

GENERAL NOTES

BUT-SR4-15.80

SHEET NUM.													PART.	ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
2	4	5	6	7	8	9	15	16	17	18	45		01/NHS/BR						
																		ROADWAY	
	LUMP												LUMP	201	11001	LS		CLEARING AND GRUBBING, AS PER PLAN	4
							227	268					495	202	22900	495	SY	APPROACH SLAB REMOVED	
							322	486					808	202	23000	808	SY	PAVEMENT REMOVED	
										925			925	202	38000	925	FT	GUARDRAIL REMOVED	
										4			4	202	42001	4	EACH	ANCHOR ASSEMBLY REMOVED, TYPE A, AS PER PLAN	5
										2			2	202	42010	2	EACH	ANCHOR ASSEMBLY REMOVED, TYPE E	
										4			4	202	47000	4	EACH	BRIDGE TERMINAL ASSEMBLY REMOVED	
		60											60	203	10000	60	CY	EXCAVATION	
		60											60	203	20000	60	CY	EMBANKMENT	
							601	807					1,408	204	10000	1,408	SY	SUBGRADE COMPACTION	
							200	269					469	204	13000	469	CY	EXCAVATION OF SUBGRADE	
							200	269					469	204	30020	469	CY	GRANULAR MATERIAL, TYPE C	
							632	808					1,440	204	50000	1,440	SY	GEOTEXTILE FABRIC	
		0.1											0.1	209	15050	0.1	MILE	RESHAPING UNDER GUARDRAIL	
										750			750	606	15100	750	FT	GUARDRAIL, TYPE MGS WITH LONG POSTS	
										4			4	606	35002	4	EACH	MGS BRIDGE TERMINAL ASSEMBLY, TYPE 1	
										6			6	606	26150	6	EACH	ANCHOR ASSEMBLY, MGS TYPE E, (MASH 2016)	
										187.5			187.5	606	15550	187.5	FT	GUARDRAIL, BARRIER DESIGN, TYPE MGS	
										1			1	606	60012	1	EACH	IMPACT ATTENUATOR, TYPE 1 (BIDIRECTIONAL)	
		LUMP											LUMP	606	66010	LS		IMPACT ATTENUATOR, MISC.: SAND BARREL SYSTEM	5
																		EROSION CONTROL	
	298												298	659	00540	298	SY	SEEDING AND MULCHING, CLASS 3C	
	15												15	659	14000	15	SY	REPAIR SEEDING AND MULCHING	
	0.04												0.04	659	20000	0.04	TON	COMMERCIAL FERTILIZER	
	0.06												0.06	659	31000	0.06	ACRE	LIME	
	1.6												1.6	659	35000	1.6	MGAL	WATER	
													4,000	832	30000	4,000	EACH	EROSION CONTROL	
																		DRAINAGE	
50													50	605	31100	50	FT	AGGREGATE DRAINS	
	LUMP												LUMP	611	99920	LS		DRAINAGE STRUCTURE, MISC.: REVIEW OF DRAINAGE FACILITIES	
																		PAVEMENT	
		20											20	251	01030	20	CY	PARTIAL DEPTH PAVEMENT REPAIR (442)	
							12,743	12,435	2,244				27,422	254	01000	27,422	SY	PAVEMENT PLANING, ASPHALT CONCRETE, (T=1.5")	
							45	60					105	301	46000	105	CY	ASPHALT CONCRETE BASE, PG64-22	
							95	129					224	304	20000	224	CY	AGGREGATE BASE	
							1,225	1,178	202				2,605	407	20000	2,605	GAL	NON-TRACKING TACK COAT	
							544	534	114				1,192	442	20000	1,192	CY	ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (448)	
							16	24					40	442	20200	40	CY	ASPHALT CONCRETE INTERMEDIATE COURSE, 19 MM, TYPE A (448)	
																		LIGHTING	
											400		400	625	25400	400	FT	CONDUIT, 2", 725.04	
											4		4	625	30510	4	EACH	PULL BOX, 725.06, SIZE 4	
																		TRAFFIC CONTROL	
										82			82	621	00100	82	EACH	RPM	
										82			82	621	54000	82	EACH	RAISED PAVEMENT MARKER REMOVED	
										17			17	626	00110	17	EACH	BARRIER REFLECTOR, TYPE 2, UNIDIRECTIONAL	
									2.08				2.08	642	00104	2.08	MILE	EDGE LINE, 6", TYPE 1	
									1.63				1.63	642	00204	1.63	MILE	LANE LINE, 6", TYPE 1	
									33				33	642	00500	33	FT	STOP LINE, TYPE 1	
									1,092				1,092	642	00404	1,092	FT	CHANNELIZING LINE, 12", TYPE 1	
									442				442	642	00700	442	FT	TRANSVERSE/DIAGONAL LINE, TYPE 1	
									1,567				1,567	642	30000	1,567	FT	REMOVAL OF PAVEMENT MARKING	
									3.71				3.71	642	30030	3.71	MILE	REMOVAL OF PAVEMENT MARKING	
																		STRUCTURE REPAIR (BUT-4-1580 L)	24
																		STRUCTURE REPAIR (BUT-4-1580 R)	25
																		MAINTENANCE OF TRAFFIC	
			500										500	614	11111	500	HOUR	LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE, AS PER PLAN	6
				4									4	614	12380	4	EACH	WORK ZONE IMPACT ATTENUATOR, 24" WIDE HAZARDS, (UNIDIRECTIONAL)	
				LUMP									LUMP	614	12420	LS		DETOUR SIGNING	

CALCULATED CAH CHECKED XXX

GENERAL SUMMARY

BUT-SR4-15.80

SHEET NUM.													PART.	ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
2	4	5	6	7	8	9	15	16	17	18	45		01/NHS/BR						
				16									16	614	12801	16	EACH	WORK ZONE RAISED PAVEMENT MARKER, AS PER PLAN	7
				60									60	614	13310	60	EACH	BARRIER REFLECTOR, TYPE 1, UNIDIRECTIONAL	
				10									10	614	13350	10	EACH	OBJECT MARKER, ONE WAY	
					0.6								0.6	614	20110	0.6	MILE	WORK ZONE LANE LINE, CLASS I, 6", 642 PAINT	
					0.6								0.6	614	20560	0.6	MILE	WORK ZONE LANE LINE, CLASS III, 6", 642 PAINT	
					3.28								3.28	614	22110	3.28	MILE	WORK ZONE EDGE LINE, CLASS I, 6", 642 PAINT	
					1.2								1.2	614	22360	1.2	MILE	WORK ZONE EDGE LINE, CLASS III, 6", 642 PAINT	
					1,092								1,092	614	23210	1,092	FT	WORK ZONE CHANNELIZING LINE, CLASS I, 12", 642 PAINT	
					2,000								2,000	614	24202	2,000	FT	WORK ZONE DOTTED LINE, CLASS I, 6", 642 PAINT	
						LUMP							LUMP	615	10000	LS		ROADS FOR MAINTAINING TRAFFIC	
						250							250	615	20000	250	SY	PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A	
				2,100									2,100	622	41100	2,100	FT	PORTABLE BARRIER, UNANCHORED	
																		INCIDENTALS	
	LUMP												LUMP	614	11000	LS		MAINTAINING TRAFFIC	
	LUMP												LUMP	623	10001	LS		CONSTRUCTION LAYOUT STAKES AND SURVEYING, AS PER PLAN	4
													LUMP	624	10000	LS		MOBILIZATION	

CALCULATED CAH
CHECKED XXX

GENERAL SUMMARY

BUT-SR4-15.80

14A
48

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DESCRIPTION	LOG POINT (MILE)		LENGTH OR AVERAGE LENGTH (L)	BEGIN WIDTH	END WIDTH	AVERAGE WIDTH (W)	TOTAL AREA (A = L x W	202	204	254	301	301	304	407	407	442		204	204	204
								PAVEMENT REMOVED, ASPHALT	SUBGRADE COMPACTION	PAVEMENT PLANING ASPHALT CONCRETE BASE (T=1.50")	2" ASPHALT CONCRETE BASE, PG64-22	6" ASPHALT CONCRETE BASE, PG64-22	6" AGGREGATE BASE	NON-TRACKING TACK COAT @ 0.06 GAL/SQ YD COATS - FULL DEPTH) (MULT.	NON-TRACKING TACK COAT @ 0.09 GAL/SQ YD	1.50" - ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, , TYPE A (448)	1.75" - ASPHALT CONCRETE INTERMEDIATE COURSE, 19 MM, TYPE A (448)	EXCAVATION OF SUBGRADE, 12" DEPTH	GRANULAR MATERIAL, TYPE C	GEOTEXTILE FABRIC, AS PER PLAN
	FROM	TO	FT	FT	FT	FT	SQ FT	SQ YD	SQ YD	SQ YD	CU YD	CU YD	CU YD	GALLON	GALLON	CU YD	CU YD	CU YD	CU YD	SQ YD
BUT-4 NORTHBOUND																				
ASPHALT RESURFACING																				
PVMT. PLANING/TACK/SURFACE	15.480	15.600	633.60	36.00	36.00	36.00	22809.60			2534.4					228.1	105.6				
PVMT. PLANING/TACK/SURFACE	15.600	15.630	158.40	48.00	48.00	48.00	7603.20			844.8					76	35.2				
PVMT. PLANING/TACK/SURFACE	15.630	15.680	264.00	48.00	48.00	48.00	12672.00			1408					126.7	58.7				
PVMT. PLANING/TACK/SURFACE	15.680	15.720	211.20	48.00	76.00	62.00	13094.40			1454.9					130.9	60.6				
PVMT. PLANING/TACK/SURFACE	15.720	15.787	353.76	39.00	36.00	37.50	13266.00			1474					132.7	61.4				
FULL DEPTH ASPHALT																				
PAVEMENT REMOVED	15.787	15.794	36.96	36.00	36.00	36.00	1330.56	147.8												
SURFACE/TACK/INTERMEDIATE (*)	15.787	15.794	36.96	36.00	36.00	36.00	1330.56							8.9		6.2	7.2			
TACK COAT/ASPHALT CONCRETE BASE	15.787	15.794	36.96	36.70	36.70	36.70	1356.43				5.7	17		9.0						
ADDIT'L 2 TACK COATS BETWEEN LIFTS OF AC BASE	15.787	15.794	36.96	36.70	36.70	36.70	1356.43							18.0						
AGGREGATE BASE	15.787	15.794	36.96	37.70	37.70	37.70	1393.39						25.8							
SUBGRADE COMPACTION	15.787	15.794	36.96	39.70	39.70	39.70	1467.31		163											
EXCAVATION OF SUBGRADE, 12" DEPTH	15.787	15.794	36.96	39.70	39.70	39.70	1467.31											54.3	54.3	171.2
REAR APPROACH SLAB																				
APPROACH SLAB (SEE BRIDGE QUANTITIES)	15.794	15.800	31.68	36.00	36.00	36.00	1140.48													
AGGREGATE BASE	15.794	15.800	31.68	37.00	37.00	37.00	1172.16						21.7							
SUBGRADE COMPACTION	15.794	15.800	31.68	39.00	39.00	39.00	1235.52		137.3											
EXCAVATION OF SUBGRADE, 12" DEPTH	15.794	15.800	31.68	39.00	39.00	39.00	1235.52											45.8	45.8	144.3
FORWARD APPROACH SLAB																				
APPROACH SLAB (SEE BRIDGE QUANTITIES)	15.834	15.839	25.00	36.00	36.00	36.00	900.03													
AGGREGATE BASE	15.834	15.839	25.00	37.00	37.00	37.00	925.03						17.1							
SUBGRADE COMPACTION	15.834	15.839	25.00	39.00	39.00	39.00	975.03		108.3											
EXCAVATION OF SUBGRADE, 12" DEPTH	15.834	15.839	25.00	39.00	39.00	39.00	975.03											36.1	36.1	113.9
FULL DEPTH ASPHALT																				
PAVEMENT REMOVED	15.839	15.847	43.64	36.00	36.00	36.00	1571.01	174.6												
SURFACE/TACK/INTERMEDIATE (*)	15.839	15.847	43.64	36.00	36.00	36.00	1571.01							10.5		7.3	8.5			
TACK COAT/ASPHALT CONCRETE BASE	15.839	15.847	43.64	36.70	36.70	36.70	1601.56				5.7	17		10.7						
ADDIT'L 2 TACK COATS BETWEEN LIFTS OF AC BASE	15.839	15.847	43.64	36.70	36.70	36.70	1601.56							21.4						
AGGREGATE BASE	15.839	15.847	43.64	37.70	37.70	37.70	1645.20						30.5							
SUBGRADE COMPACTION	15.839	15.847	43.64	39.70	39.70	39.70	1732.48		192.5											
EXCAVATION OF SUBGRADE, 12" DEPTH	15.839	15.847	43.64	39.70	39.70	39.70	1732.48											64.2	64.2	202.2
ASPHALT RESURFACING																				
PVMT. PLANING/TACK/SURFACE	15.847	16.000	807.84	72.00	40.00	56.00	45239.04			5026.6					452.4	209.4				
TOTALS CARRIED TO GENERAL SUMMARY								322	601	12743	45		95	1225		544	16	200	200	632

ITEM 202 - APPROACH SLAB REMOVED (T=15"±)

N.B. REAR APPROACH SLAB AREA = (36' x 31.68')/9 = 127 SY
N.B. FORWARD APPROACH SLAB AREA = (36' x 25')/9 = 100 SY
TOTAL = 227 SY

QUANTITY CARRIED TO GENERAL SUMMARY

CALCULATED CAH
CHECKED XXX

ROADWAY SUBSUMMARY

BUT-SR4-15.80

DESCRIPTION	LOG POINT (MILE)		LENGTH OR AVERAGE LENGTH (L)	BEGIN WIDTH	END WIDTH	AVERAGE WIDTH (W)	TOTAL AREA (A = L x W	202	204	254	301	301	304	407	407	442		204	204	204
								PAVEMENT REMOVED, ASPHALT	SUBGRADE COMPACTION	PAVEMENT PLANING ASPHALT CONCRETE BASE (T=1.5")	2" ASPHALT CONCRETE BASE, PG64-22	6" ASPHALT CONCRETE BASE, PG64-22	6" AGGREGATE BASE	NON-TRACKING TACK COAT @ 0.06 GAL/SQ YD	NON-TRACKING TACK COAT @ 0.09 GAL/SQ YD	1.50" - ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, , TYPE A (448)	1.75" - ASPHALT CONCRETE INTERMEDIATE COURSE, 19 MM, TYPE A (448)	EXCAVATION OF SUBGRADE, 12" DEPTH	GRANULAR MATERIAL, TYPE C	GEOTEXTILE FABRIC, AS PER PLAN
	FROM	TO	FT	FT	FT	FT	SQ FT	SQ YD	SQ YD	SQ YD	CU YD	CU YD	CU YD	GALLON	GALLON	CU YD	CU YD	CU YD	CU YD	SQ YD
BUT-4 SOUTHBOUND																				
ASPHALT RESURFACING	15.480	15.600	633.60	44.00	44.00	44.00	27878.40			3097.6					278.8	129.1				
PVMT. PLANING/TACK/SURFACE	15.600	15.630	158.40	48.00	76.00	62.00	9820.80			1091.2					98.2	45.5				
PVMT. PLANING/TACK/SURFACE	15.630	15.690	316.80	38.00	38.00	38.00	12038.40			1337.6					120.4	55.7				
PVMT. PLANING/TACK/SURFACE	15.690	15.710	105.60	100.00	48.00	74.00	7814.40			868.3					78.1	36.2				
PVMT. PLANING/TACK/SURFACE	15.710	15.776	348.48	48.00	48.00	48.00	16727.04			1858.6					167.3	77.4				
FULL DEPTH ASPHALT																				
PAVEMENT REMOVED	15.776	15.785	47.52	48.00	48.00	48.00	2280.96	253.4												
SURFACE/TACK/INTERMEDIATE (*)	15.776	15.785	47.52	48.00	48.00	48.00	2280.96									10.6	12.3			
TACK COAT/ASPHALT CONCRETE BASE	15.776	15.785	47.52	48.70	48.70	48.70	2314.22				7.5	22.5								
ADDITIONAL TACK COAT BETWEEN LIFTS OF AC BASE	15.776	15.785	47.52	48.70	48.70	48.70	2314.22							30.8						
AGGREGATE BASE	15.776	15.785	47.52	49.70	49.70	49.70	2361.74						43.7							
SUBGRADE COMPACTION	15.776	15.785	47.52	51.70	51.70	51.70	2456.78		273											
EXCAVATION OF SUBGRADE, 12" DEPTH	15.776	15.785	47.52	51.70	51.70	51.70	2456.78											91.0	91.0	283.5
REAR APPROACH SLAB																				
APPROACH SLAB (SEE BRIDGE QUANTITIES)	15.785	15.790	25.00	48.00	48.00	48.00	1200.04													
AGGREGATE BASE	15.785	15.790	25.00	49.00	49.00	49.00	1225.04						22.7							
SUBGRADE COMPACTION	15.785	15.790	25.00	51.00	51.00	51.00	1275.04		141.7											
EXCAVATION OF SUBGRADE, 12" DEPTH	15.785	15.790	25.00	51.00	51.00	51.00	1275.04											47.2	47.2	147.2
FORWARD APPROACH SLAB																				
APPROACH SLAB (SEE BRIDGE QUANTITIES)	15.825	15.830	25.00	48.00	48.00	48.00	1200.04													
AGGREGATE BASE	15.825	15.830	25.00	49.00	49.00	49.00	1225.04						22.7							
SUBGRADE COMPACTION	15.825	15.830	25.00	51.00	51.00	51.00	1275.04		141.7											
EXCAVATION OF SUBGRADE, 12" DEPTH	15.825	15.830	25.00	51.00	51.00	51.00	1275.04											47.2	47.2	147.2
FULL DEPTH ASPHALT																				
PAVEMENT REMOVED	15.830	15.838	43.64	48.00	48.00	48.00	2094.68	232.7												
SURFACE/TACK/INTERMEDIATE (*)	15.830	15.838	43.64	48.00	48.00	48.00	2094.68									9.7	11.3			
TACK COAT/ASPHALT CONCRETE BASE	15.830	15.838	43.64	48.70	48.70	48.70	2125.23				7.5	22.5								
ADDITIONAL TACK COAT BETWEEN LIFTS OF AC BASE	15.830	15.838	43.64	48.70	48.70	48.70	2125.23							28.4						
AGGREGATE BASE	15.830	15.838	43.64	49.70	49.70	49.70	2168.87						40.2							
SUBGRADE COMPACTION	15.830	15.838	43.64	51.70	51.70	51.70	2256.15		250.7											
EXCAVATION OF SUBGRADE, 12" DEPTH	15.830	15.838	43.64	51.70	51.70	51.70	2256.15											83.6	83.6	260.4
ASPHALT RESURFACING																				
PVMT. PLANING/TACK/SURFACE	15.838	16.000	855.36	44.00	44.00	44.00	37635.84			4181.8					376.4	174.2				
TOTALS CARRIED TO GENERAL SUMMARY								486	807	12435	60		129	1178		538	24	269	269	838

ITEM 202 - APPROACH SLAB REMOVED (T=15"±)

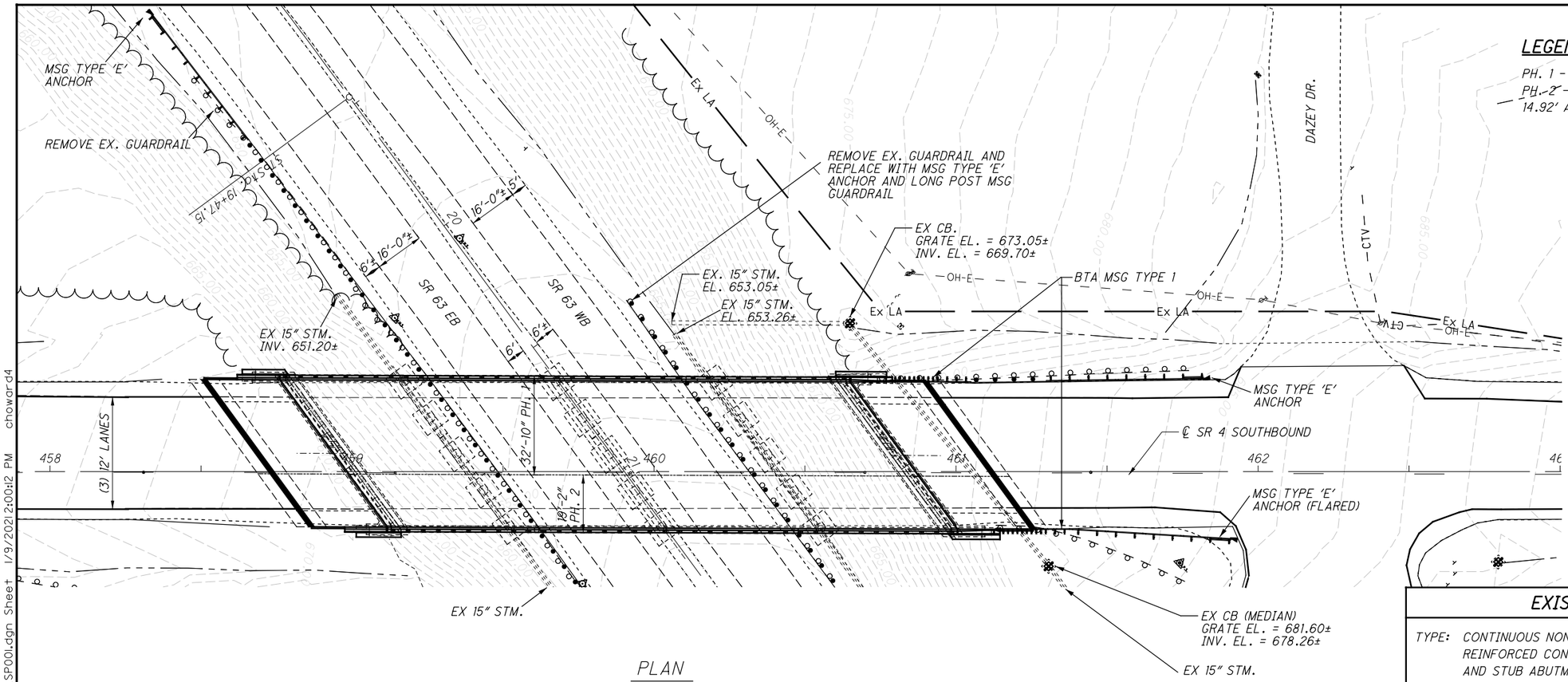
S.B. APPROACH SLAB AREA = (48' x 25')/9 = 134 SY * 2 APPR. SLABS = 268 SY

QUANTITY CARRIED TO GENERAL SUMMARY

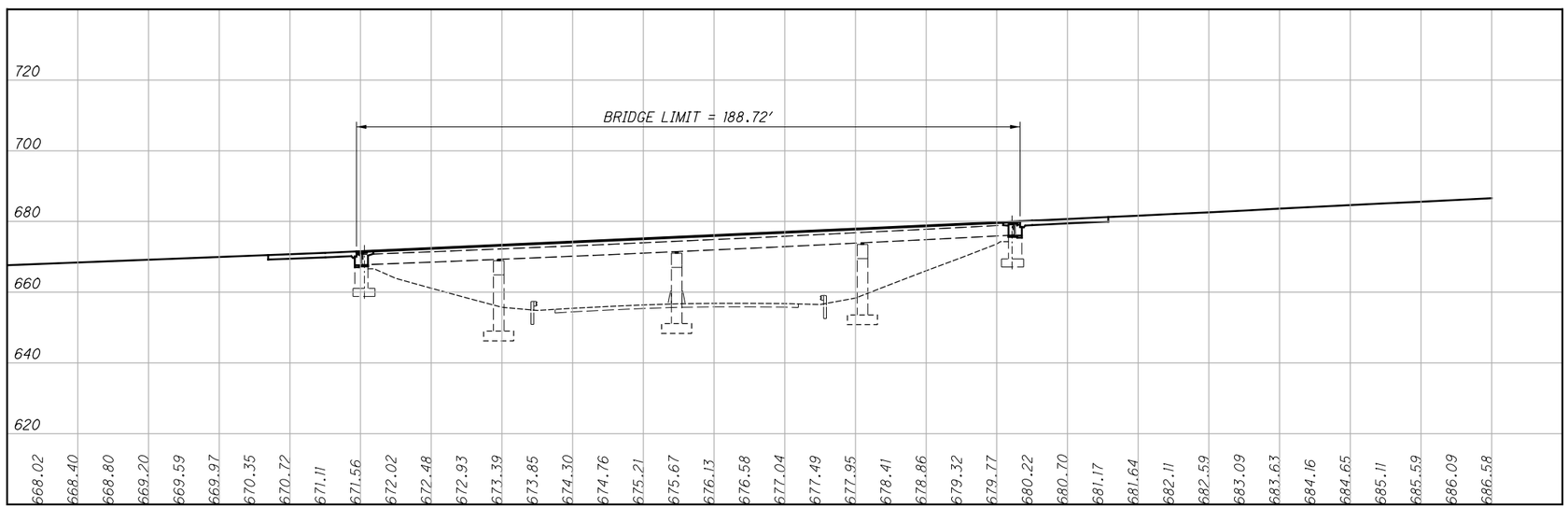
CALCULATED XXX CHECKED XXX

SUBSUMMARY

BUT-SR4-15.80



PLAN



SR 4 SOUTHBOUND PROFILE

EXISTING STRUCTURE

TYPE: CONTINUOUS NON-COMPOSITE STEEL BEAM WITH REINFORCED CONCRETE DECK, CAPP AND COLUMN PIERS AND STUB ABUTMENTS

SPANS: 38.04', 50.33', 52.52', 42.25'
ROADWAY: 49'-0"± TOE/TOE OF PARAPETS
LOADING: CF 400 (57)
SKEW: 36°20'00" R.F.
APPROACH SLABS: 25'-0" (AS-1-15)
ALIGNMENT: TANGENT
CROWN: 0.0156 '/'
STRUCTURAL FILE NUMBER: 0900249
DATE BUILT: 1963 (1996 REHAB)
WEARING SURFACE: 1.25" MICROSILICA CONC, OVERLAY
DISPOSITION: REHABILITATE BRIDGE

PROPOSED STRUCTURE

TYPE: CONTINUOUS NON-COMPOSITE STEEL BEAM WITH REINFORCED CONCRETE DECK, CAPP AND COLUMN PIERS AND SEMI-INTEGRAL ABUTMENTS

SPANS: 38.04', 50.33', 52.52', 42.25'
ROADWAY: 49'-0"± TOE/TOE PARAPET
LOADING: HS20 CASE II AND ALTERNATE MILITARY
SKEW: 36°20'00" R.F.
APPROACH SLABS: 25'-0" LONG (AS-1-15)
ALIGNMENT: TANGENT
CROWN: 0.0156 '/' FT/FT
COORDINATES: LATITUDE N39°26'44"
LONGITUDE W84°25'31"
WEARING SURFACE: 2.25" SDC CONC, OVERLAY

DESIGN AGENCY
OHIO DEPT OF TRANSPORTATION
DISTRICT 8 BRIDGE OFFICE

DESIGNED CAH | DRAWN CAH | REVIEWED XXX | DATE MM/DD/YY
CHECKED GTF | REVISED XXX | STRUCTURE FILE NUMBER 0906249

BUTLER-COUNTY
STA. 0+00
STA. 0+00

SITE PLAN
BRIDGE NO.: BUT-4-1580L
SR 4 SOUTHBOUND OVER SR 63 RAMPS

BUT-SR4-15.80
PID No. 102736

1 / 30

19
48

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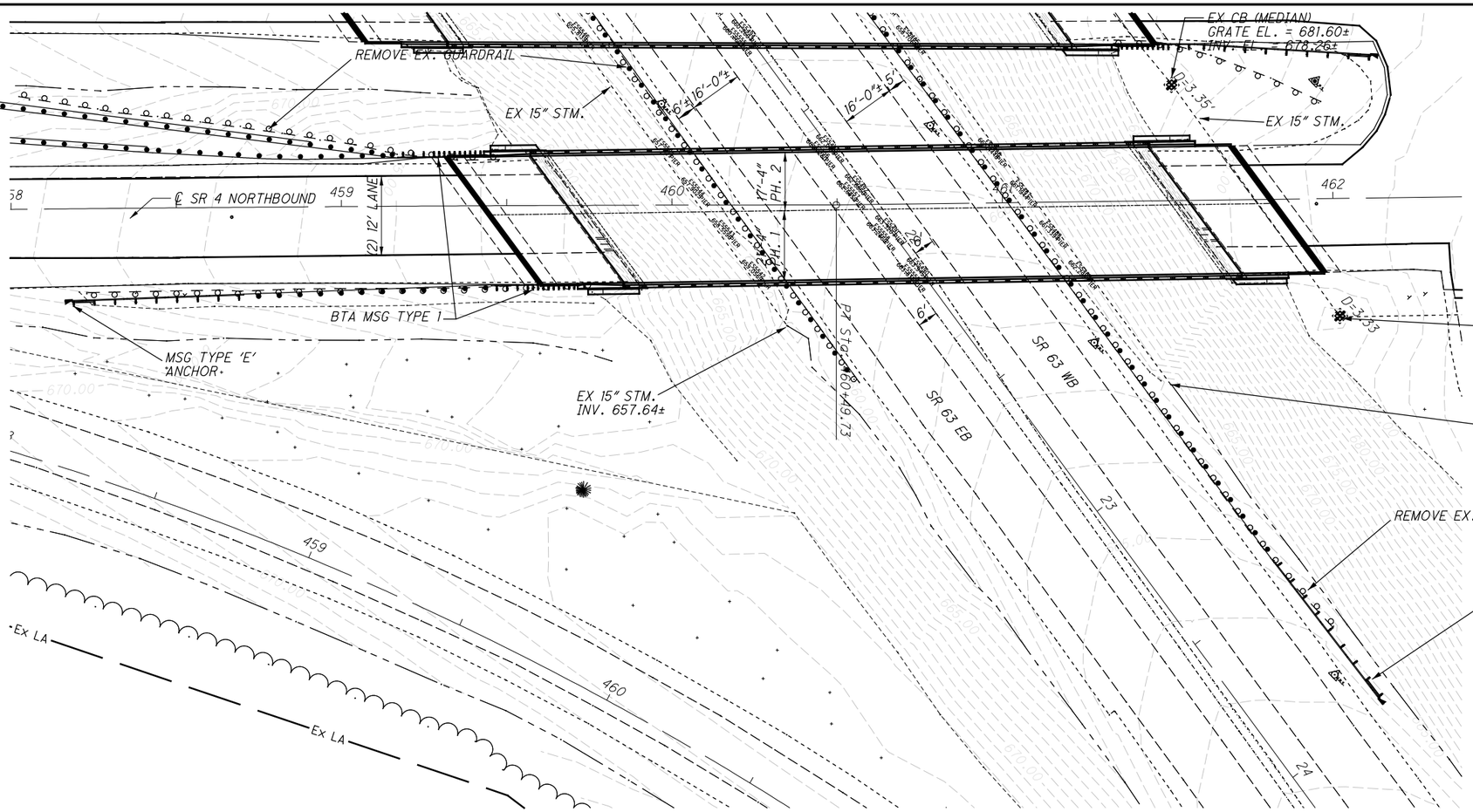
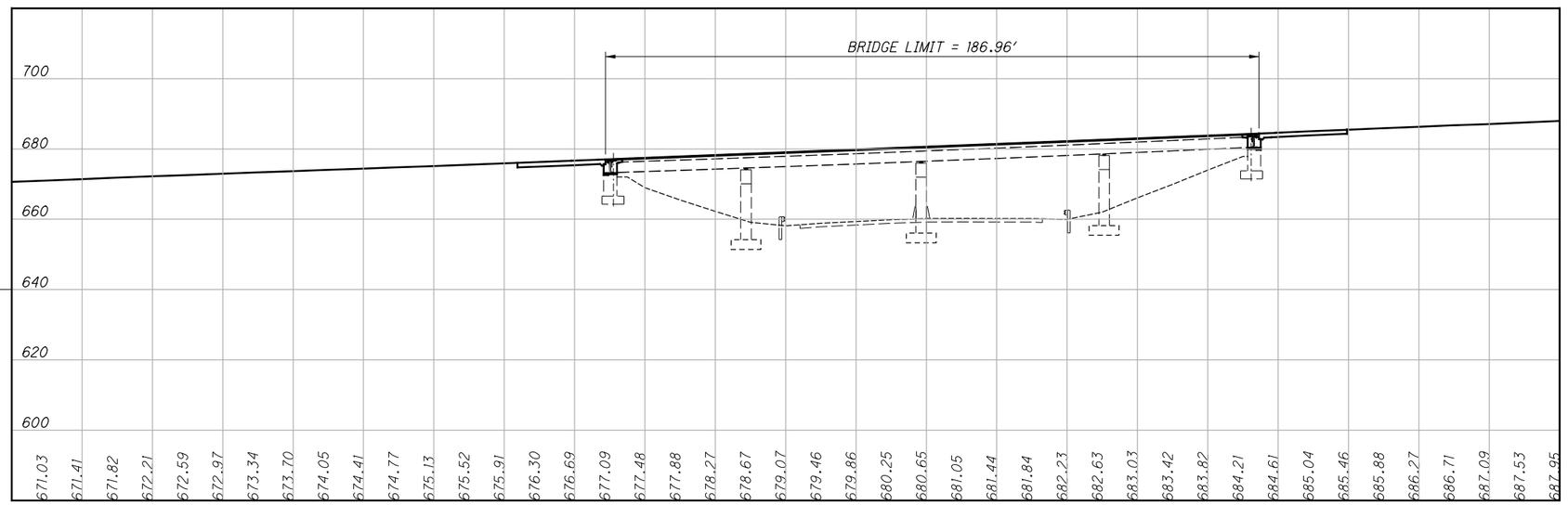


PLAN



SR 4 NORTHBOUND PROFILE

LEGEND

PH. 1 - PHASE 1 CONSTRUCTION
PH. 2 - PHASE 2 CONSTRUCTION
16.42' ACTUAL MINIMUM VERTICAL CLEARANCE

EXISTING STRUCTURE

TYPE: CONTINUOUS NON-COMPOSITE STEEL BEAM WITH REINFORCED CONCRETE DECK, CAPP AND COLUMN PIERS AND STUB ABUTMENTS

SPANS: 38.04', 50.33', 52.52', 42.25'
ROADWAY: 49'-0"± TOE/TOE OF PARAPETS
LOADING: CF 400 (57)
SKEW: 36°20'00" R.F.
APPROACH SLABS: 25'-0" (AS-1-15)
ALIGNMENT: TANGENT
CROWN: 0.0156 '/'
STRUCTURAL FILE NUMBER: 0900249
DATE BUILT: 1963 (1996 REHAB)
WEARING SURFACE: 1.25" MICROSILICA CONC, OVERLAY
DISPOSITION: REHABILITATE BRIDGE

PROPOSED STRUCTURE

TYPE: CONTINUOUS NON-COMPOSITE STEEL BEAM WITH REINFORCED CONCRETE DECK, CAPP AND COLUMN PIERS AND SEMI-INTEGRAL ABUTMENTS

SPANS: 38'-0",
ROADWAY: 49'-0"± TOE/TOE PARAPET
LOADING: HS20 CASE II AND ALTERNATE MILITARY
SKEW: 36°20'00" R.F.
APPROACH SLABS: 25'-0" LONG (AS-1-15)
ALIGNMENT: TANGENT
CROWN: 0.0156 '/' FT/FT
COORDINATES: LATITUDE
LONGITUDE
WEARING SURFACE: 2.25" SDC CONC, OVERLAY

DESIGN AGENCY
OHIO DEPT OF TRANSPORTATION
DISTRICT 8 BRIDGE OFFICE

DESIGNED	DRAWN	REVIEWED	DATE
CAH	CAH	XXX	MM/DD/YY
CHECKED	REVISED	STRUCTURE FILE NUMBER	
GTF	XXX	0900273	

BUTLER-COUNTY
STA. 0+00
STA. 0+00

SITE PLAN
BRIDGE NO.: BUT-4-1580R
SR 4 NORTHBOUND OVER SR 63 RAMPS

BUT-SR4-15.80
PID No. 102736

2 / 30

2.0
4.8

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ITEM SPECIAL STRUCTURES: CONSULTANT FOR CONCRETE QUALITY CONTROL INCLUDING TESTING AND INSPECTION

ALL CONCRETE SHALL BE TESTED. ALL TESTING, INSPECTION AND QUALITY CONTROL FOR CONCRETE, NOT INCLUDED UNDER QC/QA PAY ITEMS, SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL PROVIDE A CONCRETE TESTING CONSULTANT WITH PREVIOUS EXPERIENCE AND FAMILIARITY IN ODOT PROCEDURES, CONCRETE TESTING REQUIREMENTS AND CONCRETE TESTING DOCUMENTATION. AT LEAST 30 DAYS PRIOR TO CONCRETE PLACEMENT, SUBMIT TO THE ENGINEER FOR APPROVAL, THE PROPOSED CONCRETE TESTING CONSULTANT ALONG WITH THE RESUMES OF THE PROPOSED TESTING PERSONNEL.

TESTING CONCRETE FOR STRUCTURES AND PORTLAND CEMENT CONCRETE PAVEMENT SHALL BE PERFORMED AS OUTLINED IN CONSTRUCTION AND MATERIAL SPECIFICATIONS 455.

THROUGH THE CONTRACTOR, THE CONSULTANT SHALL BE RESPONSIBLE FOR ENSURING THAT ALL CONCRETE PLACED IS IN ACCORDANCE WITH THE SPECIFICATIONS. SUCH WORK SHALL BE IN ACCORDANCE WITH THE APPLICABLE CONSTRUCTION AND MATERIAL SPECIFICATIONS AND THE ODOT CONSTRUCTION INSPECTION MANUAL OF PROCEDURES FOR CONCRETE. THE CONCRETE CONSULTANT SHALL PROVIDE THE NECESSARY TRAINED TECHNICIAN(S) AND EQUIPMENT AND SHALL FURNISH THE PROJECT ENGINEER WITH TWO (2) COPIES OF ALL TEST RESULTS WITHIN 24 HOURS AFTER COMPLETION OF CONCRETE PLACEMENT.

THE TECHNICIANS SHALL BE ACI LEVEL 1 CERTIFIED AND WILL BE REQUIRED TO DEMONSTRATE HIS/HER COMPETENCE AND EXPERIENCE LEVELS TO THE ENGINEER PRIOR TO BEGINNING WORK. THE ENGINEER WILL ORDER THE CONTRACTOR TO REPLACE ANY TECHNICIAN THAT IS NOT VERSED IN THE REQUIRED TESTING PROCEDURE.

THE TECHNICIAN SHALL VERBALLY NOTIFY THE ODOT PROJECT ENGINEER OF ANY FAILING TESTS AND SHALL SUBMIT FOLLOW-UP WRITTEN NOTIFICATION TO THE PROJECT ENGINEER OF REMEDIAL ACTION(S) TAKEN. TESTS SHALL BE TAKEN AS SPECIFIED WITHIN THE CONSTRUCTION AND MATERIAL SPECIFICATIONS, CONCRETE MANUAL OR APPROPRIATE SUPPLEMENTAL SPECIFICATION AS LISTED IN THE PROPOSAL GOVERNING THE PROJECT. IT SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO MAKE IMMEDIATE CORRECTIONS OR ADJUSTMENTS TO THE CONCRETE MIX VIA DIRECT COMMUNICATION WITH THE CONCRETE SUPPLIER'S PLANT PERSONNEL TO MAINTAIN UNINTERRUPTED COMPLIANCE WITH THE SPECIFICATIONS UPON NOTIFICATION OF CONCRETE MIX NON-COMPLIANCE BY THE CONSULTANT TECHNICIAN. THE PROJECT ENGINEER MAY REQUIRE MORE FREQUENT TESTING AS CONDITIONS WARRANT.

UPON COMPLETION OF DAILY CONCRETE PLACEMENT(S), THE CONCRETE CONSULTANT SHALL PROVIDE THE PROJECT ENGINEER WITH DAILY TEST REPORTS, TE-45'S, INSPECTORS DAILY REPORT AND SUPPORTING DOCUMENTATION FOR EACH ITEM OF CONCRETE WORK PERFORMED SEPARATED BY MIX DESIGN. SUBSEQUENTLY, UPON COMPLETION OF AN ENTIRE CONCRETE SPECIFICATION ITEM, THE CONCRETE CONSULTANT SHALL ALSO PROVIDE THE PROJECT ENGINEER WITH TWO (2) COPIES OF AN ADDITIONAL INSPECTION REPORT BY A REGISTERED PROFESSIONAL ENGINEER, STATE OF OHIO, WHICH CONTAINS THE TESTING RESULTS SUMMARY FOR EACH ITEM BY CONTRACT REFERENCE NUMBER AND THE CONSULTANT'S CONCLUSIONS RELATIVE TO SPECIFICATION COMPLIANCE FOR ALL CONCRETE TESTING WORK.

THE ODOT PROJECT ENGINEER RESERVES THE RIGHT TO MAKE UNANNOUNCED QUALITY-CONTROL TESTS TO VERIFY PROCEDURES USED AND RESULTS BEING OBTAINED BY THE CONTRACTOR.

THE CONCRETE TECHNICIAN SHALL WORK UNDER THE DIRECTION OF A REGISTERED PROFESSIONAL ENGINEER, STATE OF OHIO, WHO WILL MONITOR THE CONCRETE TEST RESULTS. THE FINAL INSPECTION REPORTS FOR EACH COMPLETED ITEM SHALL BE SIGNED BY A REGISTERED PROFESSIONAL ENGINEER, STATE OF OHIO, CERTIFYING THAT ALL CONCRETE TESTS PROVIDED BY THE CONTRACTOR MET APPLICABLE CONTRACT REQUIREMENTS. A FINAL REPORT ISSUED BY THE CONSULTING FIRM SHALL CONTAIN A CERTIFIED STATEMENT OF COMPLIANCE WITH ODOT SPECIFICATIONS AND ANY OTHER CONCLUSIONS REGARDING THE CONCRETE MATERIALS INCORPORATED INTO THE PROJECT. SUCH STATEMENT SHALL BE SIGNED BY A REGISTERED PROFESSIONAL ENGINEER, STATE OF OHIO. AND, THE CONCRETE CONSULTANT SHALL BE REQUIRED TO ATTEND MONTHLY PROGRESS MEETINGS AS REQUIRED BY THE PROJECT ENGINEER.

ADDITIONALLY, THE CONTRACTOR SHALL BE REQUIRED TO KEEP A POSTED LIST OF BEAM AND CYLINDER IDENTIFICATION NUMBERS FOR THE PURPOSE OF IDENTIFYING THE CORRESPONDING PLACEMENT LOCATION AND CONCRETE SPECIFICATION ITEM.

PAYMENT SHALL BE BID AS LUMP SUM FOR ITEM SPECIAL STRUCTURES: CONSULTANT FOR CONCRETE QUALITY CONTROL INCLUDING TESTING AND INSPECTION. THE ITEM WILL BE PAID FOR AS FOLLOWS:

UPON APPROVAL OF CONSULTANT 20%
PROGRESSIVE EQUIVALENT PAYMENTS 50%
UPON SUBMISSION OF FINAL REPORT 30%

THE TECHNICIAN SHALL HAVE THE FULL EFFECT AND AUTHORITY OF AN ODOT PROJECT INSPECTOR IN DETERMINING ACCEPTABILITY OF MATERIAL AND CONCRETE PLACEMENT PRACTICES.

CLASS QC3 CONCRETE, MISC.: SUBSTRUCTURE CONCRETE WITH QC/QA, AS PER PLAN

THIS ITEM MODIFIES THE STANDARD 511 CONCRETE FOR STRUCTURES SPECIFICATION TO INCLUDE MACRO-SYNTHETIC AND CORROSION INHIBITORS INTO THE SUBSTRUCTURE CONCRETE. THIS ITEM SHALL CONFORM TO CMS 511 WITH THE FOLLOWING CONDITIONS AND REVISIONS:

PROVIDE MATERIALS CONFORMING TO 511.02 EXCEPT AS MODIFIED BELOW:

PORTLAND CEMENT CONCRETE 499.03, CLASS QC 3 MEETING A DESIGN STRENGTH OF 4,000 PSI, WITH MACRO-SYNTHETIC FIBERS WITH MODIFICATION PER 511.02

FIBERS FOR CONCRETE	ASTM C 1116, TYPE III
CORROSION INHIBITOR	515.15

THE CLASS QC3 CONCRETE FOR THE SUBSTRUCTURE SHALL MEET THE FOLLOWING CRITERIA:
WATER/CEMENT RATIO = 0.40 MAXIMUM; MINIMUM 4 LBS/CY MACRO-SYNTHETIC FIBERS (1.0 IN. MIN. TO 2.5 IN. MAX.) MEETING ASTM C1116 TYPE III SHALL BE ADDED TO THE MIX.

MIX SHALL INCLUDE A MIGRATING CORROSION INHIBITOR AS MANUFACTURED BY AN APPROVED SUPPLIER LISTED ON ODOT'S QUALIFIED APPROVED SUPPLIERS, ITEM 515.15. THE DOSAGE RATE LISTED ON THE ODOT QUALIFIED APPROVED SUPPLIERS LIST WILL APPLY.

THE MACRO-SYNTHETIC FIBERS SHALL BE INCORPORATED INTO THE MIX IN SUCH A WAY THAT NO 'BALLING' OCCURS. UPON INSPECTION OF THE MIX AT THE TIME OF PLACEMENT, IF ANY 'BALLING' OCCURS, THE ENGINEER SHALL REJECT THE

CLASS QC3 CONCRETE, MISC.: SUBSTRUCTURE CONCRETE WITH QC/QA, AS PER PLAN (continued)

REMAINDER OF THE LOAD AT ANY TIME DURING THE POUR. IT IS IMPORTANT TO FOLLOW INDUSTRY STANDARDS AND ASTM SPECIFICATIONS ON THE PREMIXING OF THE CEMENT, AGGREGATE AND MACRO-SYNTHETIC FIBERS PRIOR TO THE ADDITION OF WATER AND ADMIXTURES.

PROVIDE MACRO-SYNTHETIC -FIBERS THAT ARE MONOFILAMENT FIBERS MADE FROM VIRGIN POLYPROPYLENE, POLYETHYLENE, OR CO-POLYMERS THAT ARE INERT TO ALKALI ATTACK. ENSURE THE MACRO-SYNTHETIC FIBERS HAVE A MINIMUM TENSILE STRENGTH OF 70 KSI, A MINIMUM MODULUS OF ELASTICITY OF 800 KSI, A MINIMUM FILAMENT DIAMETER OF 0.012 INCHES, AND ASPECT RATIO BETWEEN 60 AND 100, AND ARE BETWEEN 1.0 AND 2.5 INCHES IN LENGTH.

STORE THE MACRO-SYNTHETIC FIBERS ACCORDING TO THE MANUFACTURE'S RECOMMENDATION AND KEEP THE MATERIAL FREE FROM DUST, DIRT AND MOISTURE.

USE A MINIMUM DOSAGE RATE OF MACRO-SYNTHETIC FIBERS OF 4.0 LBS/CY OF CONCRETE. DETERMINE THE FINAL PROPOSED DOSAGE RATE THROUGH MIX TESTING. ENSURE THE FIBER REINFORCED CONCRETE MEETS OR EXCEEDS A MINIMUM EQUIVALENT FLEXURAL STRENGTH RATIO OF 25% ACCORDING TO ASTM C 1609. ENSURE THE FINAL PROPOSED MIX IS WORKABLE AND ABLE TO BE PRODUCED SUCH THAT BALLING OR CLUMPING OF THE FIBERS IS NOT A PROBLEM AS DETERMINED BY THE ENGINEER. UTILIZE A LABORATORY REGULARLY INSPECTED BY THE CEMENT AND CONCRETE REFERENCE LABORATORY (CCRL) OF THE NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY, OR OTHER APPROVED REFERENCE LABORATORY, TO PERFORM THE TESTING. BEFORE USE, SUBMIT DOCUMENTATION TO THE PROJECT ENGINEER CERTIFYING BOTH THE MACRO-SYNTHETIC FIBERS AND THE MIX MEET OR EXCEED THE REQUIRED PROPERTIES. SAMPLING WILL BE ALLOWED FOR TESTING PURPOSES. A DEMONSTRATION OF THE MIX PRODUCTION OR TRIAL MIX, MAY BE REQUIRED BY THE ENGINEER PRIOR TO PLACING ANY OF THE MIX ON THE PROJECT.

THE BATCH WEIGHTS SHALL BE CORRECTED TO COMPENSATE FOR THE MOISTURE CONTAINED IN THE AGGREGATE AT THE TIME OF USE. A CHEMICAL ADMIXTURE (705.12, TYPE A OR D) SHALL BE USED. THE TRANSIT MIXER CHARGE SHALL BE LIMITED TO 3/4 OF ITS RATED CAPACITY OR 6 CUBIC YARDS, WHICHEVER IS SMALLER. THE FIRST THREE TRANSIT MIXER LOADS ARE REQUIRED TO BE AT THE MINIMUM YARDAGE LISTED ABOVE TO SHOW PROOF OF THE SUCCESSFUL BATCHING OPERATION. AFTER CONSISTENCY IN THE DELIVERED MATERIAL HAS BEEN ESTABLISHED, THE CONCRETE SUPPLIER MAY INCREASE THE BATCH DELIVERED QUANTITIES AS LONG AS THE QUALITY REMAINS ACCEPTABLE TO THE ENGINEER. THE ENGINEER CAN REDUCE THE BATCH LOAD SIZE AT ANY TIME AS NEEDED TO CORRECT/IMPROVE CONCRETE QUALITY.

CONCRETE SUPPLIERS SHOULD RECOGNIZE THAT THE CORROSION INHIBITOR AND ADMIXTURES MAY HAVE AN EFFECT ON STRENGTH, ENTRAINED AIR CONTENT, WORKABILITY, ETC. OF THEIR CONCRETE MIXES. THE CORROSION INHIBITOR IS SUGGESTED TO BE A MCI PRODUCT BY CORTEC OR AN APPROVED EQUAL FROM THE QUALIFIED PRODUCTS LIST. THE CONCRETE SUPPLIER'S CHOICE OF ONE OF THESE CORROSION INHIBITORS DOES NOT ALLEVIATE MEETING DESIGN REQUIREMENTS. PLEASE BE ADVISED THAT SOME PRODUCTS ON THE LIST EFFECT THE DELIVERED MIX PROPERTIES GREATLY WHILE OTHER PRODUCTS DO NOT.

THE CONTRACTOR SHOULD BE ADVISED THAT CONCRETE RETARDING AGENTS MAY NEED TO BE ADDED TO OFFSET THE EFFECTS OF THE MIGRATING CORROSION INHIBITOR SELECTED.

PARAPET REMOVAL

ONCE THE PARAPET IS REMOVED, THE CONTRCACTOR SHALL VERIFY THE THAT THE CONCRETE DECK BELOW THE PARAPET IS STILL SOUND. IF NOT, THE CONTRACTOR SHALL INFORM THE PROJECT ENGINEER IMMEDIATELY WHO WILL DETERMINE IF THERE IS A NEED FOR ADDITIONAL DECK EDGE REPAIR.

ELEVATION VERIFICATION

ALL ELEVATIONS SHOWN SHALL BE CONSIDERED APPROXIMATE. THE CONTRACTOR SHALL VERIFY ALL ELEVATIONS PRIOR TO CONSTRUCTION TO ENSURE A SMOOTH RIDING ROAD PROFILE ACROSS THE BRIDGE. ANY SURVEY COSTS SHALL BE INCIDENTAL TO THE RESPECTIVE PAY ITEMS.

BRIDGE CLEANING

CLEANING OF BRIDGE DECK AND SCUPPERS SHALL BE CONSIDERED INCIDENTAL TO THE DECK OVERLAY/REPLACEMENT WORK. CLEANING THE ABUTMENT SEATS SHALL BE CONSIDERED INCIDENTAL TO THE ABUTMENT CONVERSION TO SEMI-INTEGRAL. CONTRACTOR SHALL COLLECT AND PROPERLY DISPOSE OF DEBRIS AND 1,500 PSI WASH WATER. CONTRACTOR SHALL PROVIDE ALL BMP'S AS REQUIRED TO MEET ENVIRONMENTAL RESTRICTIONS AND COMMITMENTS AS WELL AS REQUIREMENTS OF THE ODOT CMS, ETC.

CONCRETE, MISC.: DECK EDGE REPAIR

THE CONTRACTOR SHALL REMOVE DAMAGED DECK CONCRETE. EXISTING REINFORCING STEEL SHALL REMAIN IN PLACE. ANY LOOSE REBAR SHALL BE RETIED. REPORT ANY CORRODED REBAR TO THE PROJECT ENGINEER. RECONSTRUCT DECK EDGE WITH 4,500 PSI CONCRETE MEETING THE SAME REQUIREMENTS AS THE CONCRETE USED FOR THE DECK SLAB AND PARAPET REPLACEMENT. THE CONTRACTOR SHALL TAKE CARE NOT TO DAMAGE ANY PORTIONS OF THE DECK THAT WILL REMAIN IN PLACE.

CONCRETE, MISC.: DECK REPAIR FOR BULB ANGLE REMOVAL

THE CONTRACTOR SHALL FILL THE VOIDS CREATED IN THE DECK SLAB CAUSED BY REMOVAL OF THE EXISTING BULB ANGLE. CONCRETE SHALL BE 4,500 PSI AND PLACED TO THE TOP OF THE HYDRO-DEMOLIZED DECK SURFACE. PROVIDE ROUGHENED SURFACE TO PROMOTE PROPER BOND TO THE DECK OVERLAY. CONTRACTOR SHALL TAKE CARE NOT TO DAMAGE ANY PORTIONS OF THE DECK OR SCUPPERS THAT WILL REMAIN IN PLACE.

DESIGN AGENCY
OHIO DEPT OF TRANSPORTATION
DISTRICT 8 BRIDGE OFFICE

DESIGNED	DRAWN	REVIEWED	DATE	STRUCTURE FILE NUMBER
CAH	CAH	XXX	MM/DD/YY	0900249/0900273
CHECKED	REVISED			
GTF	XXX			

STRUCTURE NOTES - 3
BRIDGE NO.: BUT-4-1580 L/R
SR 4 SOUTHBOUND & NORTHBOUND OVER SR 63 RAMPS

BUT-SR4-15.80
PID No. 102736

ESTIMATED QUANTITIES - STRUCTURE No.: BUT-4-1580L								(100% 01/NHS/BR FUNDING)
ITEM	EXTENSION	TOTAL	UNIT	DESCRIPTION	ABUTMENT	PIERS	SUPERSTRUCTURE	GENERAL
202	11203	LS	LUMP	PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN	LUMP		LUMP	
202	98000	LS	LUMP	REMOVAL MISC.: BULB ANGLE DRAINAGE SYSTEM REMOVED			LUMP	
503	11100	LS	LUMP	COFFERDAMS AND EXCAVATION BRACING	LUMP			
503	21100	167	CY	UNCLASSIFIED EXCAVATION	167			
509	10000	23476	LB	EPOXY COATED REINFORCING STEEL	12,103		11,373	
509	20001	200	LB	REINFORCING STEEL, REPLACEMENT OF EXISTING REINFORCING STEEL, AS PER PLAN				200
509	30020	4476	FT	No. 4 GFRP DEFORMED BARS			4,476	
510	10001	1258	EACH	DOWEL HOLES WITH NONSHRINK, NONMETALLIC GROUT,AS PER PLAN	246		1,012	
511	33501	2	EACH	SEMI-INTEGRAL DIAPHRAGM GUIDE, AS PER PLAN	2			
511	53014	141	CY	CLASS QC3 CONCRETE, MISC.: SUPERSTRUCTURE CONCRETE WITH QC/QA, AS PER PLAN			141	
511	53014	37	CY	CLASS QC3 CONCRETE, MISC.: SUBSTRUCTURE CONCRETE WITH QC/QA, AS PER PLAN	37			
511	71100	2	CY	CONCRETE, MISC.: DECK EDGE REPAIR			2	
511	71100	7	CY	CONCRETE, MISC.: DECK REPAIR FOR BULB ANGLE REMOVAL			7	
512	10100	953	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	172	355	426	
512	10300	54	SY	SEALING CONCRETE BRIDGE DECKS WITH HMWM RESIN			54	
512	33000	10	SY	TYPE 2 WATERPROOFING	10			
512	74000	652	SY	REMOVAL OF EXISTING COATINGS FROM CONCRETE SURFACES	172	355	125	
514	00050	14323	SF	SURFACE PREPARATION OF EXISTING STRUCTURAL STEEL			14,323	
514	00056	14323	SF	PAINTING EXISTING STRUCTURAL STEEL, PRIME COAT			14,323	
514	00060	14323	SF	PAINTING STRUCTURAL STEEL, INTERMEDIATE COAT			14,323	
514	00066	14323	SF	PAINTING STRUCTURAL STEEL, FINISH COAT			14,323	
514	00504	22	MNHR	GRINDING OF FINS, TEARS AND SLIVERS ON EXISTING STRUCTURAL STEEL			22	
514	10000	12	EACH	FINAL INSPECTION REPAIR			12	
516	10000	129	FT	PREFORMED ELASTOMERIC COMPRESSION JOINT SEAL			129	
516	13600	17	SF	1" PREFORMED EXPANSION JOINT FILLER			17	
516	13900	88	SF	2" PREFORMED EXPANSION JOINT FILLER			88	
516	14020	145	FT	SEMI-INTEGRAL ABUTMENT EXPANSION JOINT SEAL	145			
516	44101	14	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), AS PER PLAN, 12"x12"x2.70" w/ 14"x14"x1" LOAD PLATE			14	
516	47001	LS	LUMP	JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN			LUMP	
518	21200	62	CY	POROUS BACKFILL WITH GEOTEXTILE FABRIC	62			
518	40000	172	FT	6" PERFORATED CORRUGATED PLASTIC PIPE	172			
518	40010	120	FT	6" NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS	120			
526	25010	284	SY	REINFORCED CONCRETE APPROACH SLABS WITH QC/QA (T=15")				284
526	90010	130	FT	TYPE A INSTALLATION				130
SPECIAL	530E00200	LS	LUMP	STRUCTURES, MISC.: CONSULTANT FOR CONCRETE QUALITY CONTROL INCLUDING TESTING AND INSPECTION	LUMP		LUMP	
607	39900	370	FT	VANDAL PROTECTION FENCE, 6' STRAIGHT, COATED FABRIC			370	
846	00110	45	CF	POLYMER MODIFIED ASPHALT EXPANSION JOINT SYSTEM				45
848	10201	1020	SY	SUPERPLASTICIZED DENSE CONCRETE OVERLAY USING HYDRODEMOLITION, AS PER PLAN (T=2.25")			1,020	
848	20000	1020	SY	SURFACE PREPARATION USING HYDRODEMOLITION			1,020	
848	30201	28	CY	SUPERPLASTICIZED DENSE CONCRETE OVERLAY (VARIABLE THICKNESS), MATERIAL ONLY, AS PER PLAN			28	
848	50000	204	SY	HAND CHIPPING			204	
848	50100	LS	LUMP	TEST SLAB				
848	50320	1020	SY	EXISTING CONCRETE OVERLAY REMOVED (T=1.25")			1,020	

DESIGN AGENCY
OHIO DEPT OF TRANSPORTATION
DISTRICT 8 BRIDGE OFFICE

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STRUCTURE QUANTITIES
BRIDGE NO: BUT-SR4-1580 L
SR 4 SOUTHBOUND OVER SR 63 RAMPS

BUT-SR4-15.80
PID No. 102736

ESTIMATED QUANTITIES - STRUCTURE No.: BUT-4-1580R								(100% 01/NHS/BR FUNDING)
ITEM	EXTENSION	TOTAL	UNIT	DESCRIPTION	ABUTMENT	PIERS	SUPERSTRUCTURE	GENERAL
202	11203	LS	LUMP	PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN	LUMP		LUMP	
202	98000	LS	LUMP	REMOVAL MISC.: BULB ANGLE DRAINAGE SYSTEM REMOVED			LUMP	
503	11100	LS	LUMP	COFFERDAMS AND EXCAVATION BRACING, AS PER PLAN	LUMP			
503	21100	167	CY	UNCLASSIFIED EXCAVATION	167			
509	10000	20964	LB	EPOXY COATED REINFORCING STEEL	10,221		10,743	
509	20001	200	LB	REINFORCING STEEL, REPLACEMENT OF EXISTING REINFORCING STEEL, AS PER PLAN				200
509	30020	4433	FT	No. 4 GFRP DEFORMED BARS			4,433	
510	10001	1248	EACH	DOWEL HOLES WITH NONSHRINK, NONMETALLIC GROUT, AS PER PLAN	246		1,002	
511	33501	2	EACH	SEMI-INTEGRAL DIAPHRAGM GUIDE, AS PER PLAN	2			
511	53014	129	CY	CLASS QC3 CONCRETE, MISC.: SUPERSTRUCTURE CONCRETE WITH QC/QA, AS PER PLAN			129	
511	53014	37	CY	CLASS QC3 CONCRETE, MISC.: SUBSTRUCTURE CONCRETE WITH QC/QA, AS PER PLAN	37			
511	71100	7	CY	CONCRETE, MISC.: DECK REPAIR FOR BULB ANGLE REMOVAL			7	
512	10100	685	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	146	271	268	
512	10300	53	SY	SEALING CONCRETE BRIDGE DECKS WITH HMWM RESIN			53	
512	33000	10	SY	TYPE 2 WATERPROOFING	10			
512	74000	542	SY	REMOVAL OF EXISTING COATINGS FROM CONCRETE SURFACES	146	271	125	
514	00050	12185	SF	SURFACE PREPARATION OF EXISTING STRUCTURAL STEEL			12,185	
514	00056	12185	SF	PAINTING EXISTING STRUCTURAL STEEL, PRIME COAT			12,185	
514	00060	12185	SF	PAINTING STRUCTURAL STEEL, INTERMEDIATE COAT			12,185	
514	00066	12185	SF	PAINTING STRUCTURAL STEEL, FINISH COAT			12,185	
514	00504	19	MNHR	GRINDING OF FINS, TEARS AND SLIVERS ON EXISTING STRUCTURAL STEEL			19	
514	10000	11	EACH	FINAL INSPECTION REPAIR			11	
516	10000	129	FT	PREFORMED ELASTOMERIC COMPRESSION JOINT SEAL			129	
516	13600	17	SF	1" PREFORMED EXPANSION JOINT FILLER			17	
516	13900	88	SF	2" PREFORMED EXPANSION JOINT FILLER			88	
516	14020	145	FT	SEMI-INTEGRAL ABUTMENT EXPANSION JOINT SEAL	145			
516	44101	14	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), AS PER PLAN, 12"x12"x2.70" w/ 14"x14"x1" LOAD PLATE			14	
516	47001	LS	LUMP	JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN			LUMP	
518	21200	62	CY	POROUS BACKFILL WITH GEOTEXTILE FABRIC	62			
518	40000	152	FT	6" PERFORATED CORRUGATED PLASTIC PIPE	152			
518	40010	120	FT	6" NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS	120			
526	25010	227	SY	REINFORCED CONCRETE APPROACH SLABS WITH QC/QA (T=15")				227
526	90010	130	FT	TYPE A INSTALLATION				130
SPECIAL	530E00200	LS	LUMP	STRUCTURES, MISC.: CONSULTANT FOR CONCRETE QUALITY CONTROL INCLUDING TESTING AND INSPECTION	LUMP		LUMP	
607	39900	370	FT	VANDAL PROTECTION FENCE, 6' STRAIGHT, COATED FABRIC			370	
846	00110	35	CF	POLYMER MODIFIED ASPHALT EXPANSION JOINT SYSTEM				35
848	10201	1011	SY	SUPERPLASTICIZED DENSE CONCRETE OVERLAY USING HYDRODEMOLITION, AS PER PLAN (T=2.25")			1,011	
848	20000	1011	SY	SURFACE PREPARATION USING HYDRODEMOLITION			1,011	
848	30201	22	CY	SUPERPLASTICIZED DENSE CONCRETE OVERLAY (VARIABLE THICKNESS), MATERIAL ONLY, AS PER PLAN			22	
848	50000	202	SY	HAND CHIPPING			202	
848	50100	LS	LUMP	TEST SLAB				
848	50320	1011	SY	EXISTING CONCRETE OVERLAY REMOVED			1,011	

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DISTRICT 8 BRIDGE OFFICE

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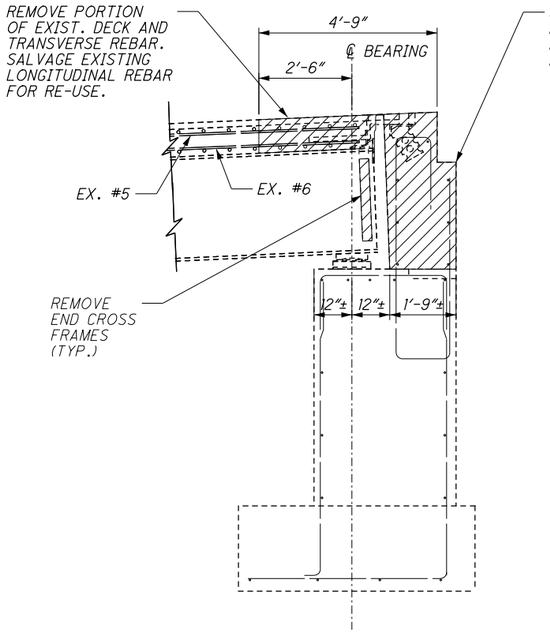
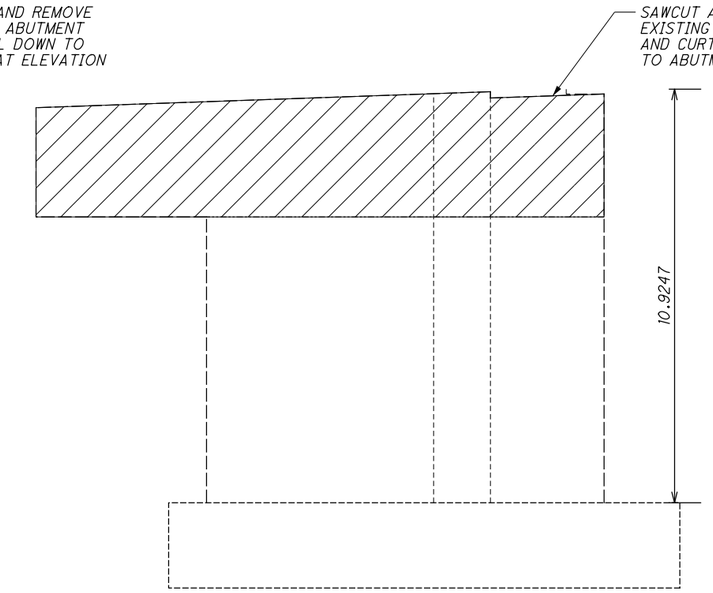
STRUCTURE QUANTITIES
BRIDGE NO: BUT-SR4-1580 R
SR 4 NORTHBOUND OVER SR 63 RAMPS

BUT-SR4-15.80
PID No. 102736



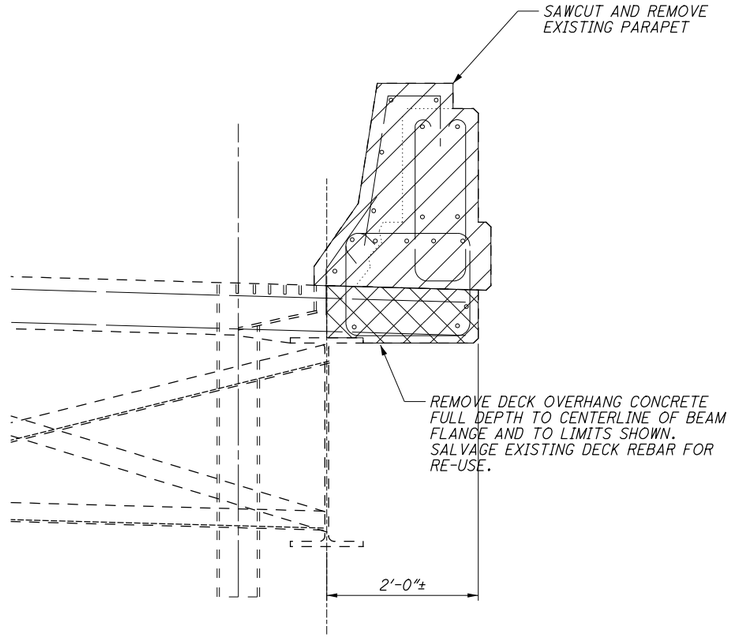
TYPICAL ABUTMENT REMOVAL



TYPICAL ABUTMENT WING WALL REMOVAL

LEGEND

202 - PORTIONS OF STRUCTURE REMOVED



DECK EDGE REMOVAL DETAIL

WEST DECK EDGE REMOVAL - BUT-4-15.80L

(VIEW LOOKING EASTBOUND)

REPAIR VOLUME = 8'*2'*0.916'*1/27 = 0.54 CY

EAST DECK EDGE REMOVAL - BUT-4-15.80L

(VIEW FACING EASTBOUND TRAFFIC)

REPAIR VOLUME = 22'*2'*0.916'*1/27 = 1.49 CY

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DISTRICT 8 BRIDGE OFFICE

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MISC. ABUTMENT DEMOLITION DETAILS

BRIDGE NO.: BUT-4-1580 L/R

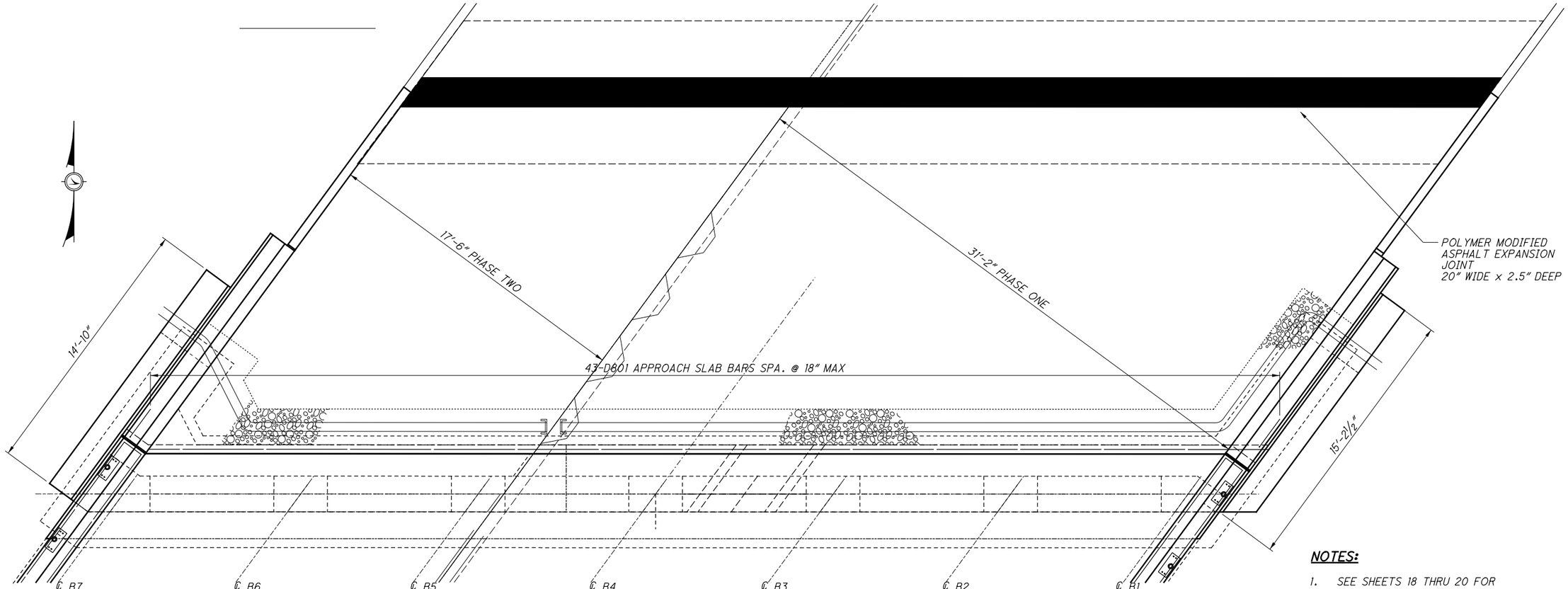
SR 4 SOUTHBOUND & NORTHBOUND OVER SR 63 RAMPS

BUT-SR4-15.80

PID No. 102736

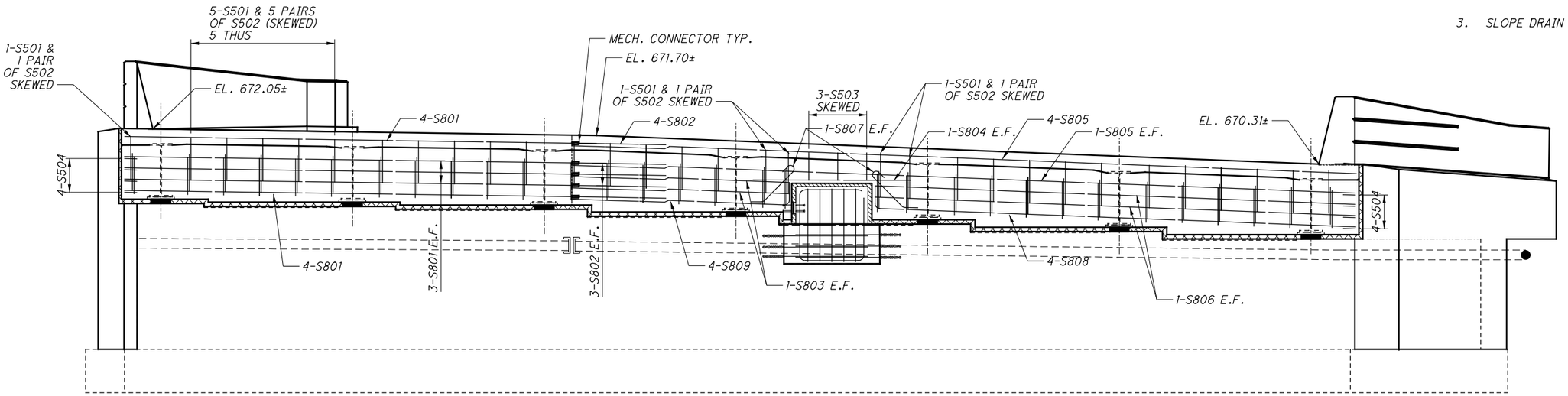
13 / 30

31 / 48



NOTES:

1. SEE SHEETS 18 THRU 20 FOR ABUTMENT DETAILS.
2. FOR ADDITIONAL DETAILS NOT SHOWN, SEE ODOT STD. DWG. SICD-1-96, ODOT STD. DWG. SICD-2-14, AND EXISTING PLANS.
3. SLOPE DRAIN PIPE AT 0.1 FT/FT.



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OHIO DEPT OF TRANSPORTATION
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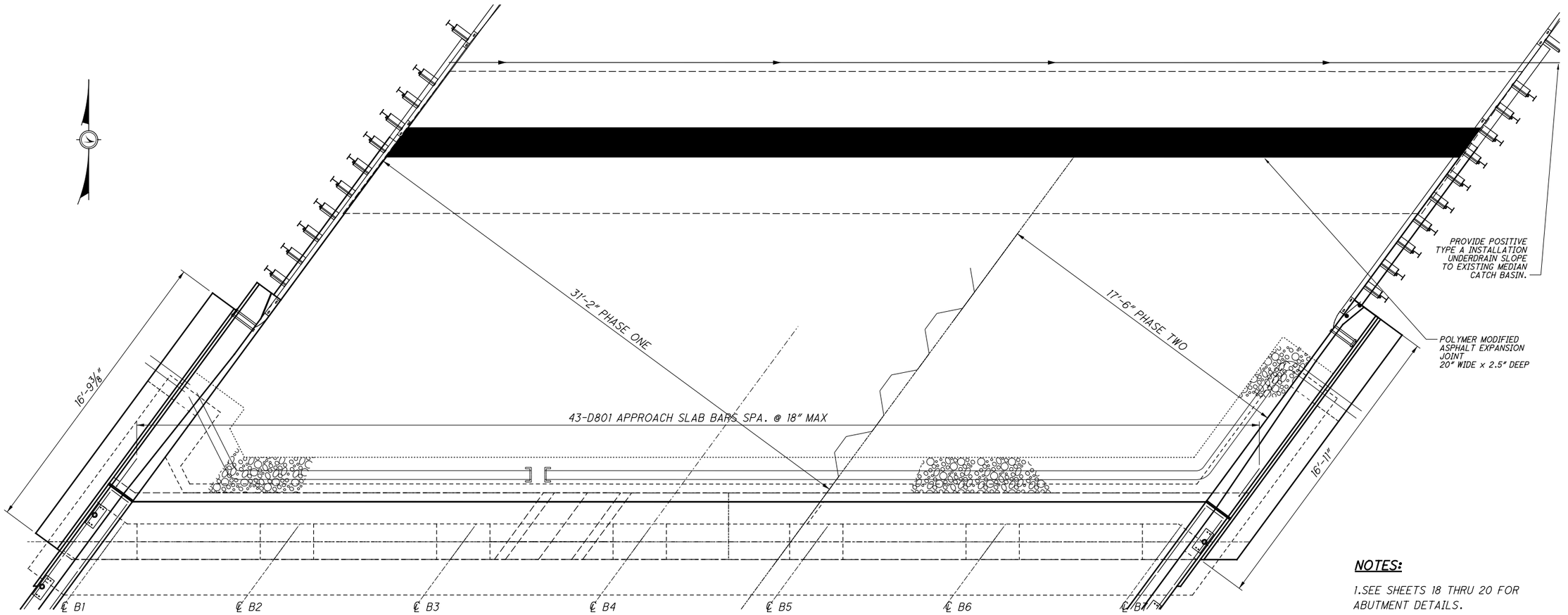
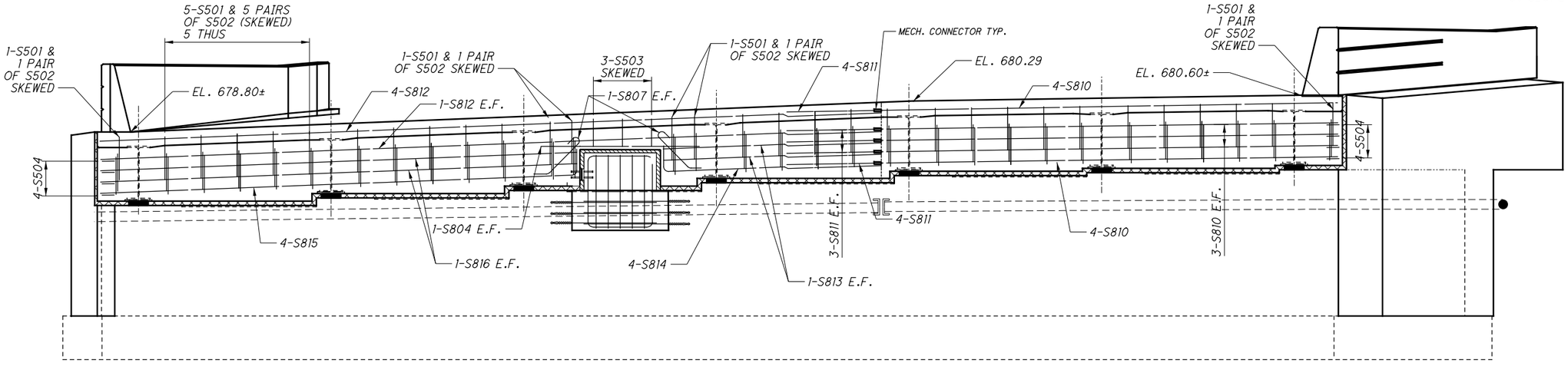
REAR ABUTMENT PLAN

BRIDGE NO.: BUT-4-1580 L
SR 4 SOUTHBOUND OVER SR 63 RAMPS

BUT-SR4-15.80
PID No. 102736





NOTES:

1. SEE SHEETS 18 THRU 20 FOR ABUTMENT DETAILS.

2. FOR ADDITIONAL DETAILS NOT SHOWN, SEE ODOT STD. DWG. SICD-1-96, ODOT STD. DWG. SICD-2-14, AND EXISTING PLANS.

3. SLOPE DRAIN PIPE AT 0.1 FT/FT.

DESIGN AGENCY
OHIO DEPT OF TRANSPORTATION
DISTRICT 8 BRIDGE OFFICE

DESIGNED	DRAWN	REVIEWED	DATE
CAH	CAH	XXX	MM/DD/YY
CHECKED	REVISED	STRUCTURE FILE NUMBER	
GTF	XXX	0900249	

FORWARD ABUTMENT PLAN

BRIDGE NO.: BUT-4-1580 L
SR 4 SOUTHBOUND OVER SR 63 RAMPS

BUT-SR4-15.80
PID No. 102736

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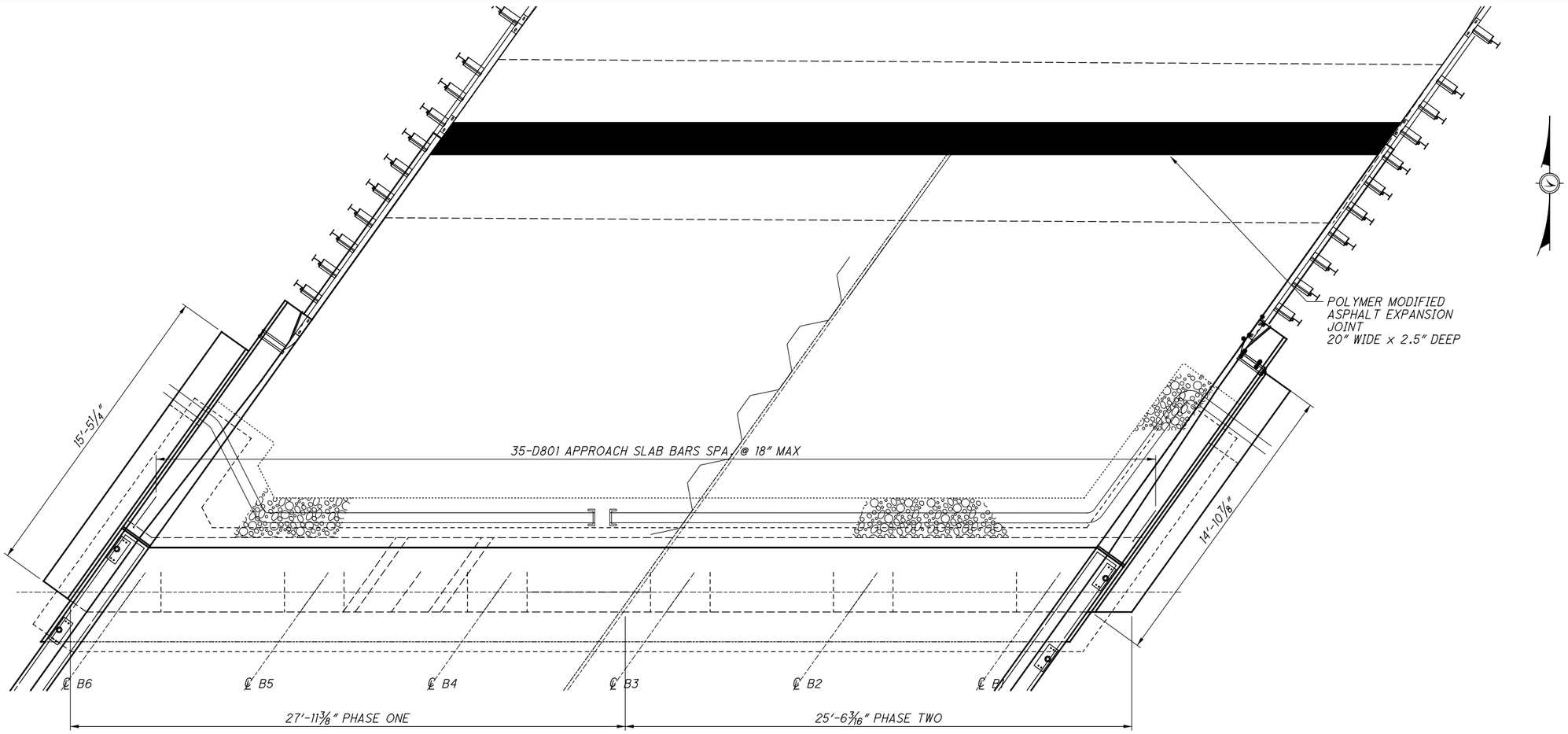

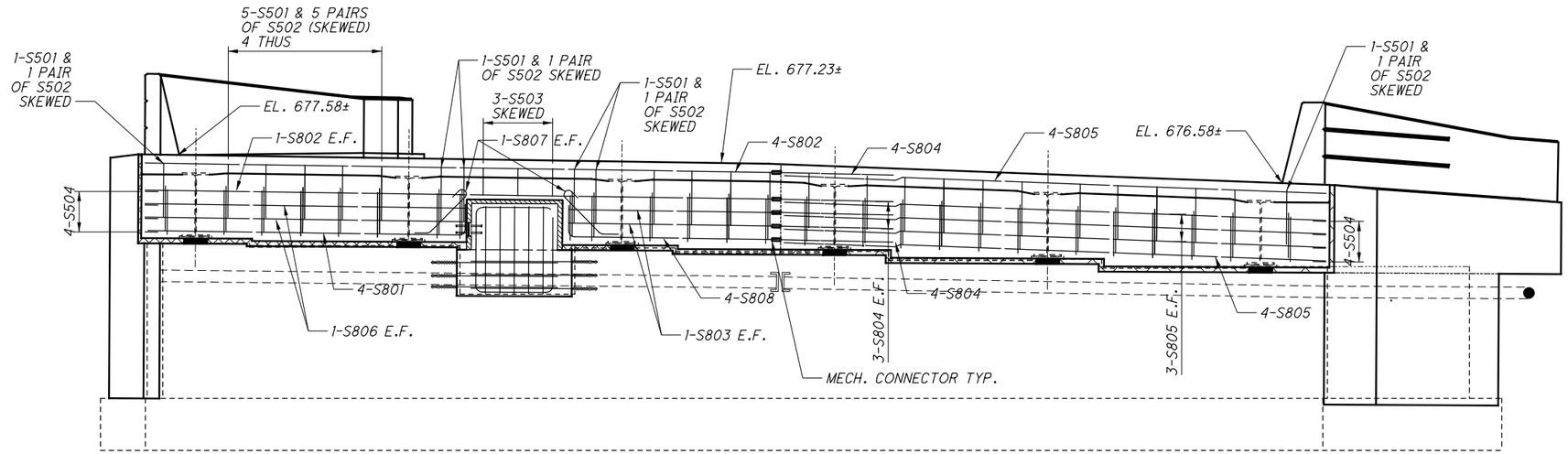

NOTES:

1.SEE SHEETS 18 THRU 20 FOR ABUTMENT DETAILS.

2.FOR ADDITIONAL DETAILS NOT SHOWN, SEE ODOT STD. DWG. SICD-1-96, ODOT STD. DWG. SICD-2-14, AND EXISTING PLANS.

3. SLOPE DRAIN PIPE AT 0.1 FT/FT.

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DISTRICT 8 BRIDGE OFFICE

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REAR ABUTMENT PLAN
BRIDGE NO.: BUT-4-1580 R
SR 4 NORTHBOUND OVER SR 63 RAMPS

BUT-SR4-15.80
PID No. 102736

16 / 30

34
48

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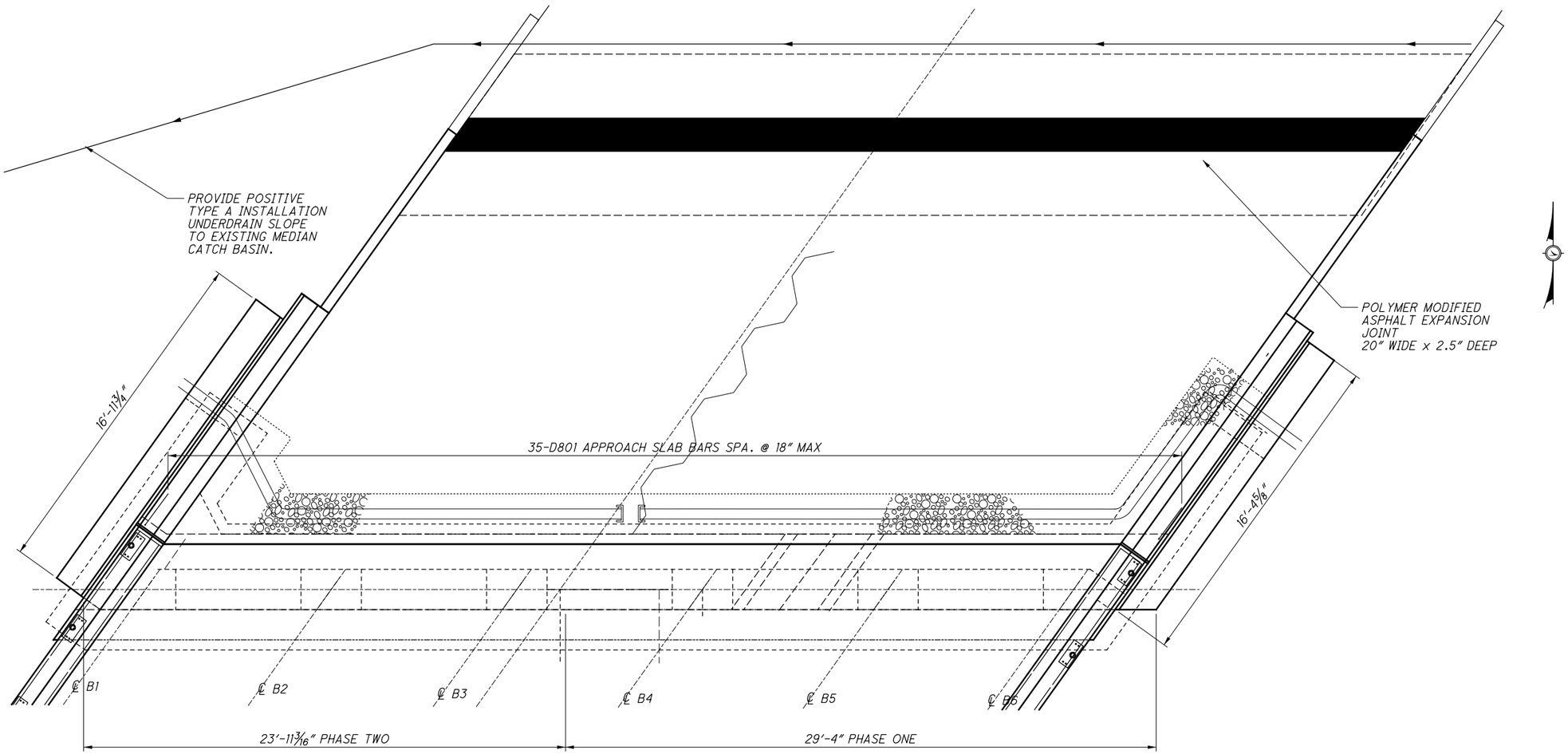

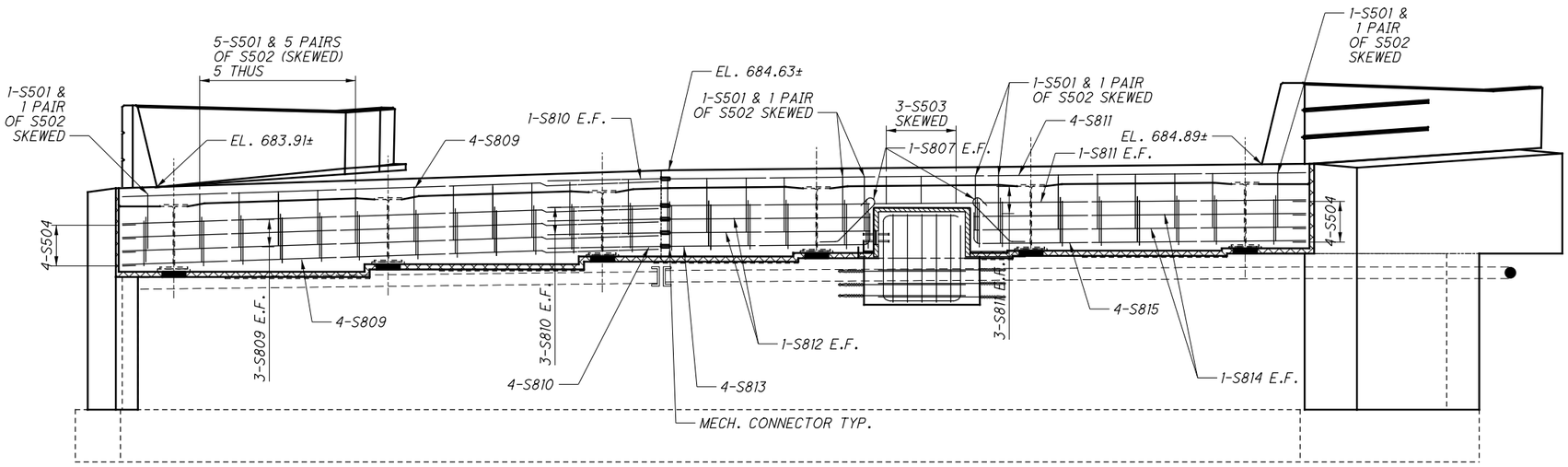

NOTES:

1.SEE SHEETS 18 THRU 20 FOR ABUTMENT DETAILS.

2.FOR ADDITIONAL DETAILS NOT SHOWN, SEE ODOT STD. DWG. SICD-1-96, ODOT STD. DWG. SICD-2-14, AND EXISTING PLANS.

3. SLOPE DRAIN PIPE AT 0.1 FT/FT

FORWARD ABUTMENT PLAN

BRIDGE NO.: BUT-4-1580 R
SR 4 SOUTHBOUND OVER SR 63 RAMPS

DESIGN AGENCY
OHIO DEPT OF TRANSPORTATION
DISTRICT 8 BRIDGE OFFICE

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GTF	XXX	0900273	

BUT-SR4-15.80
PID No. 102736

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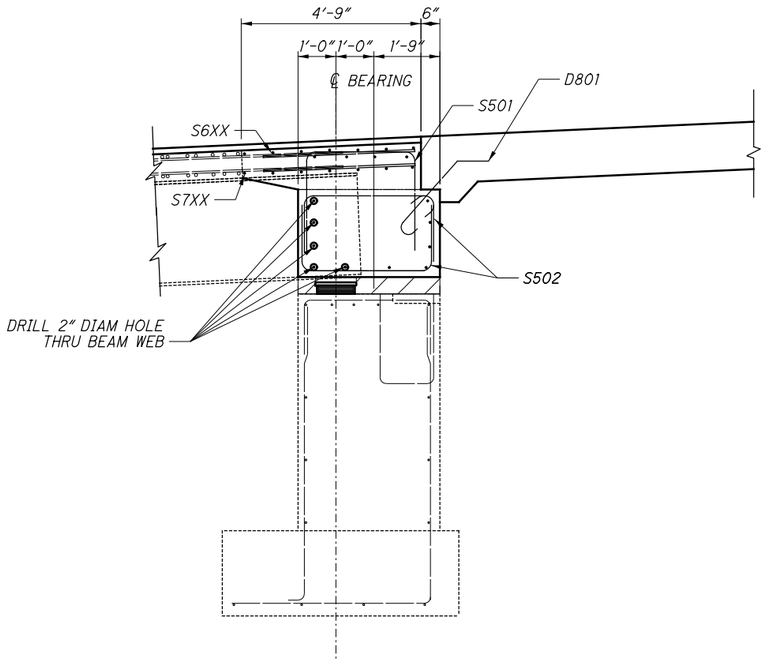
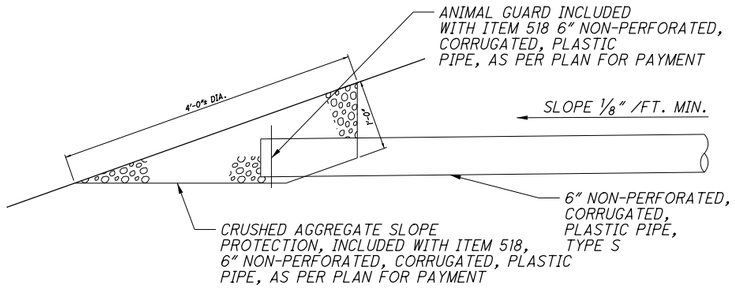
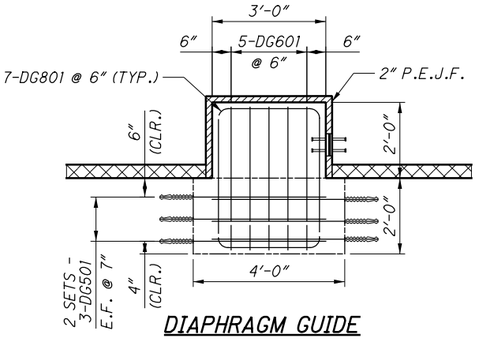


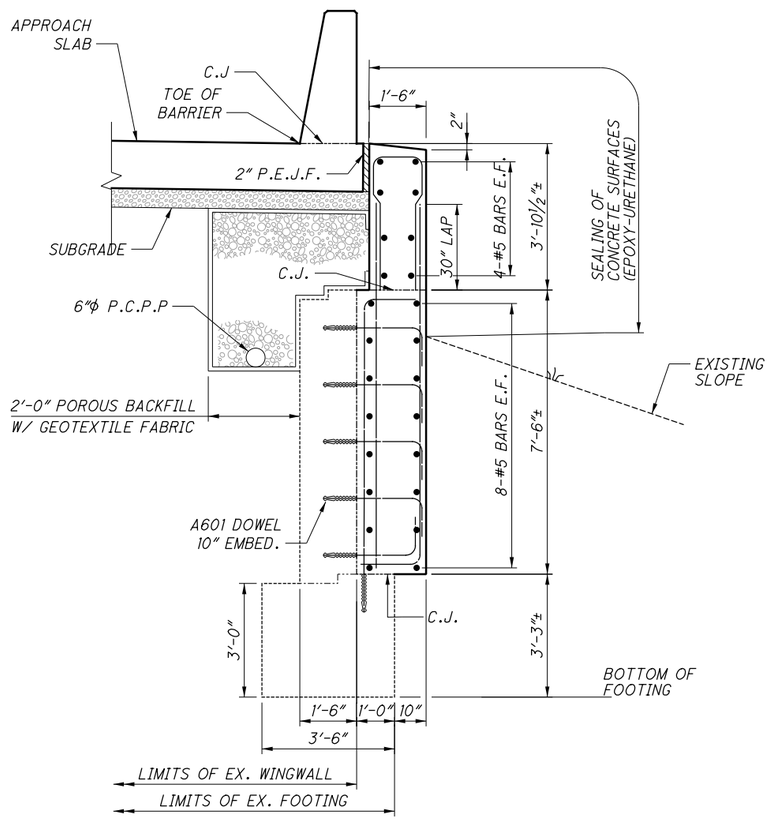


TERMINATION OF 6" N.P.C.P.P. DETAIL



DIAPHRAGM GUIDE

PROVIDE 10" DOWEL EMBEDMENT



TYPICAL WING WALL SECTION

NOTES:

1. MINIMUM EMBEDMENT DEPTH OF DOWELS TO BE 10½ INCHES. FURNISH ONE OF THE FOLLOWING EPOXY TYPES FROM THE FOLLOWING MANUFACTURES/SUPPLIERS: HILTI HIT RE 500, HILTI, 5400 SOUTH 122 ND EAST AVENUE,TULSA, OK 74146, PHONE: (800) 879-6000; POWERS FASTENERS PE1000+EPOXY, POWERS FASTENERS, 2 POWERS LANE, BREWSTER, NY 10509, PHONE: (914) 235-6300; SIMPSON STRONG-TIE EDOT SET-XP, SIMPSON STRONG-TIE, COLUMBUS, OH 43228, PHONE: (800) 899-5099. ALL MATERIALS, LABOR, AND INCIDENTALS REQUIRED FOR THE INSTALLATION OF THE DOWLS SHALL BE INCLUDED UNDER ITEM 510 - DOWEL HOLES WITH NON-SHRINK, NON-METALLIC GROUT, AS PER PLAN.

2. FOR ADDITIONAL ABUTMENT DETAILS, SEE SHEETS 18 & 19.

3. FOR ADDITIONAL DETAILS NOT SHOWN, SEE ODOT STD. DWG. SICD-1-96, ODOT STD. DWG. SICD-2-14, AND EXISTING PLANS.

4. EXISTING PILING NOT SHOWN FOR CLARITY.

5. REINFORCING STEEL MAY REQUIRE FIELD CUTTING OR BENDING TO BE PROPERLY FITTED. PAYMENT IS INCIDENTAL TO THE ITEM.

6. ADDITIONAL REINFORCEMENT, CONCRETE, LABOR AND INCIDENTALS REQUIRED TO FACILITATE THE CONSTRUCTION OF THE SEMI-INTEGRAL DIAPHRAGM GUIDE SHALL BE PAID FOR UNDER ITEM 511 - SEMI-INTEGRAL DIAPHRAGM GUIDE, AS PER PLAN.

7. HP SUPPORTS SHALL NOT BE USED ABOVE PROPOSED BEARINGS TO SUPPORT THE EXISTING BEAMS.

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DISTRICT 8 BRIDGE OFFICE

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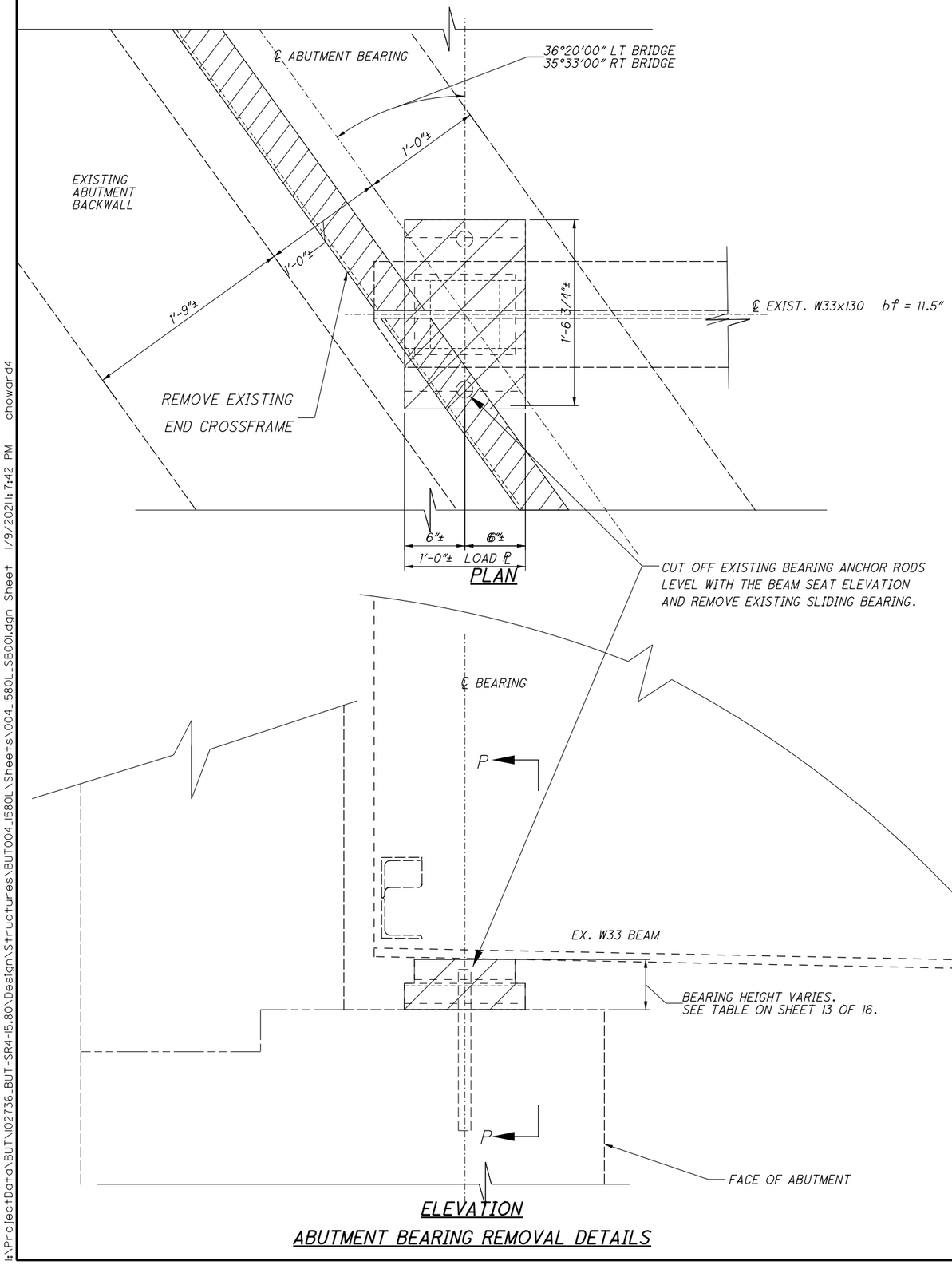
CHECKED	REVISED	STRUCTURE FILE NUMBER	
GTF	XXX	00000	

ABUTMENT DETAILS
BRIDGE NO.: BUT-4-1580 L/R
SR 4 SOUTHBOUND & NORTHBOUND OVER SR 63 RAMPS

BUT-SR4-15.80
PID No. 102736

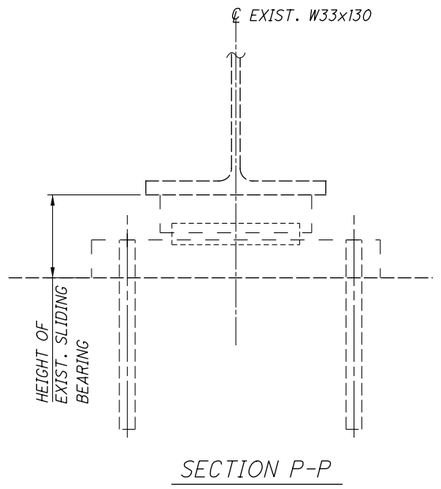


ELEVATION

ABUTMENT BEARING REMOVAL DETAILS

LEGEND

ITEM 202 - PORTIONS OF EXISTING STRUCTURE REMOVED



SECTION P-P

NOTES:

1. STRUCTURAL STEEL FOR ABUTMENT LOAD PLATES SHALL BE PAINTED USING AN OZEU PAINT SYSTEM. INCLUDED WITH ITEM 514 FOR PAYMENT.
2. STRUCTURAL STEEL FOR ABUTMENT LOAD PLATE AND STEEL SHIM PLATES SHALL BE INCLUDED WITH ELASTOMERIC BEARINGS FOR PAYMENT.
3. SEE SHEET 21 FOR ADDITIONAL DETAILS.

ELASTOMERIC BEARINGS

ELASTOMERIC BEARINGS: THE ELASTOMER SHALL HAVE A HARDNESS OF 50 DUROMETER. THE BEARINGS WERE DESIGNED UNDER DIVISION I, SECTION 14.6.6 (METHOD A) OF THE AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES.

WELDING: CONTROL WELDING SO THAT THE PLATE TEMPERATURE AT THE ELASTOMER BONDED SURFACE DOES NOT EXCEED 300° F AS DETERMINED BY USE OF PYROMETRIC STICKS OR OTHER TEMPERATURE MONITORING DEVICES.

BEARING REPOSITIONING: IF STEEL IS ERECTED AT AN AMBIENT TEMPERATURE HIGHER THAN 80° F OR LOWER THAN 40° F AND THE BEARING SHEAR DEFLECTION EXCEEDS 1/6 OF THE BEARING HEIGHT AT 60° (±) 10° F, THE BEAMS SHALL BE RAISED TO ALLOW THE BEARINGS TO RETURN TO THEIR UNDEFORMED SHAPE AT 60° F (±) 10° F.

THE CONTRACTOR IS REQUIRED TO FIELD VERIFY THE EXISTING BOTTOM OF BEAM AND BEAM SEAT ELEVATIONS PRIOR TO JACKING OPERATIONS. THE CONTRACTOR IS TO SUBMIT THE VERIFIED ELEVATIONS TO THE DISTRICT 8 BRIDGE ENGINEER PRIOR TO JACKING. APPROVAL OF THE ELEVATIONS IS NOT REQUIRED.

ANY BEARING SHIM PLATE HEIGHTS OR DIMENSIONS SHOWN SHALL BE CONSIDERED APPROXIMATE AND ARE SHOWN FOR INFORMATION PURPOSES ONLY. THE CONTRACTOR SHALL VERIFY THE HEIGHT OF REQUIRED SHIM PLATE BY MEASURING THE DISTANCE BETWEEN THE BEAM SEAT ELEVATION AND THE BOTTOM OF THE EXISTING BEAM FLANGE AND THEN SUBTRACTING FROM THAT DISTANCE THE THICKNESS OF THE BEARING AND LOAD PLATE.

ANY PLATE THICKNESS ADJUSTMENTS AND/OR SHIMS REQUIRED TO COMPLETE THE BEARINGS INSTALLATIONS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

IN ADDITION TO THE REQUIREMENTS OF 516 AND THE DETAILS SHOWN ON THESE PLANS, THE CONTRACTOR SHALL ASSURE THAT THERE IS A SNUG FIT BETWEEN THE BEARING DEVICE AND BEARING SEAT. THE CONTRACTOR SHALL ASSURE THAT NO BEAMS OR BEARING DEVICES ARE FLOATING.

BASIS OF PAYMENT: THE UNIT PRICE BIDS SHALL INCLUDE ALL MATERIALS, LABOR AND INCIDENTALS NECESSARY TO FURNISH AND INSTALL THE LAMINATED ELASTOMERIC BEARINGS WITH STEEL LOAD PLATES INCLUDING GRINDING OF WELDS AND DRILLING, SETTING AND GROUTING OF ANCHOR RODS. PAYMENT WILL BE MADE AT THE CONTRACT PRICE FOR ITEM 516 - ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), AS PER PLAN.

ALL MATERIAL, EQUIPMENT, LABOR AND ANY MISCELLANEOUS ITEMS REQUIRED TO COMPLETE THE GRINDING OF THE BEAM SEATS AND BEARING REMOVAL SHALL BE INCLUDED WITH ITEM 202 - PORTIONS OF STRUCTURE REMOVED, OVER 20', AS PER PLAN FOR PAYMENT.

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GTF	XXX	0900249/0900273	

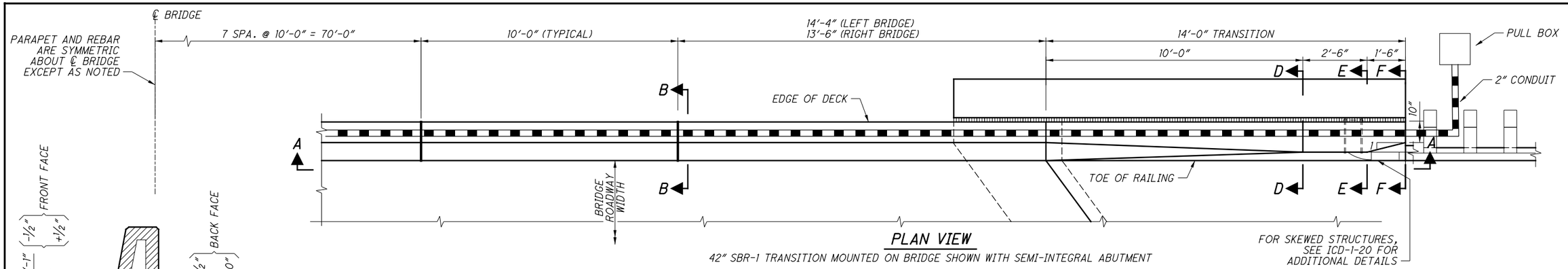
BEARING DETAILS - 1

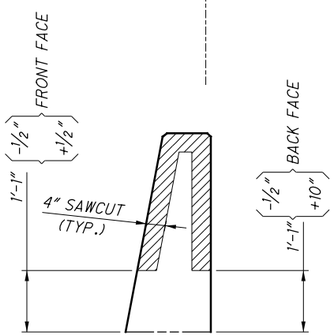
BRIDGE NO.: BUT-4-1580 L/R
SR 4 SOUTHBOUND & NORTHBOUND OVER SR 63 RAMPS

BUT-SR4-15.80
PID No. 102736

23/30

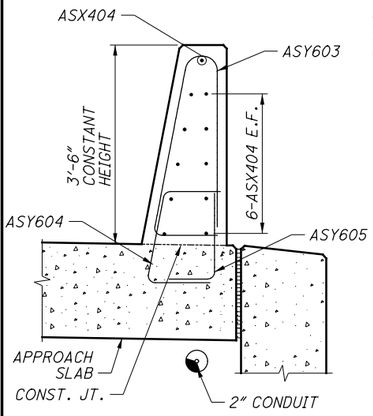
41/48





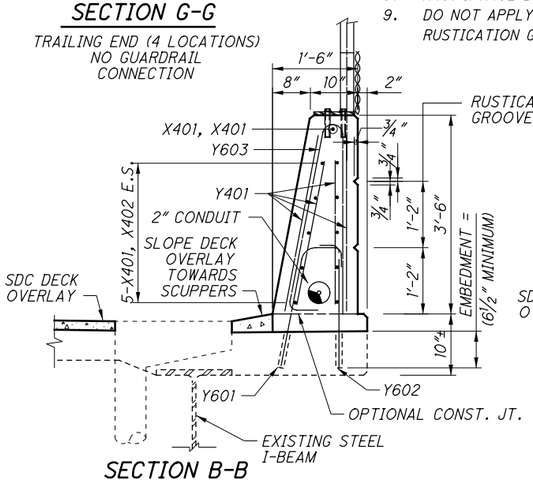
PARAPET SAWCUT DETAIL

SECTION THROUGH SAWCUT
SAWCUT PERIMETER = 5′-9″



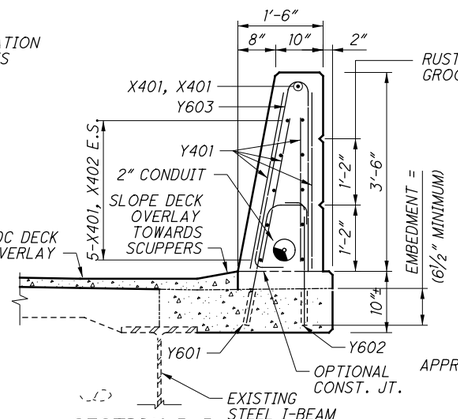
SECTION G-G

TRAILING END (4 LOCATIONS)
NO GUARDRAIL CONNECTION



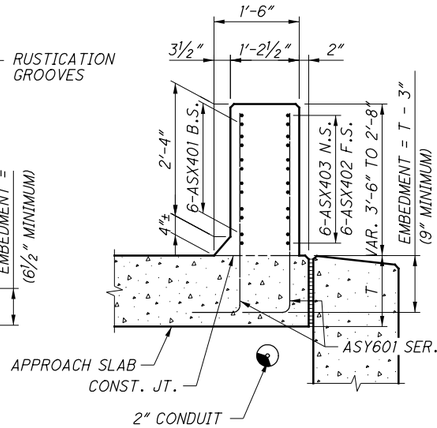
SECTION B-B

REINFORCED CONCRETE DECK ON STEEL I-BEAMS (SAWCUT NOT SHOWN)

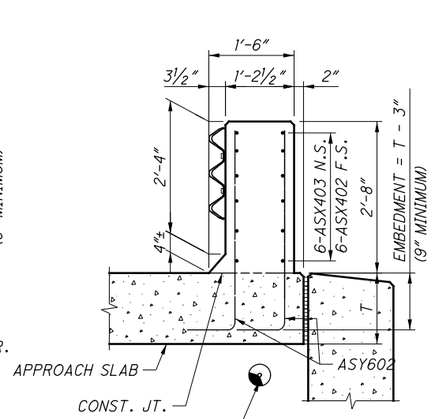


SECTION B-B

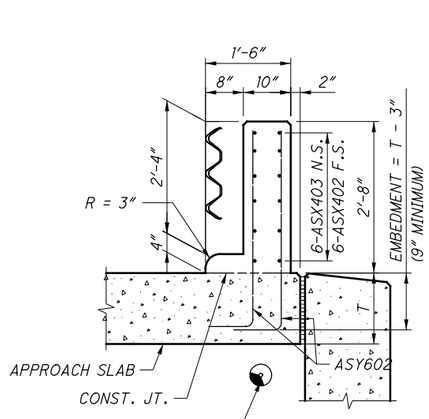
CONCRETE DECK EDGE REPLACEMENT DETAIL



SECTION D-D



SECTION E-E



SECTION F-F

NOTES:

1. SEE STANDARD BRIDGE DRAWING SICD-1-96 FOR ABUTMENT DETAILS.
2. FOR BRIDGE TERMINAL ASSEMBLY, SEE STD. CONSTR. DWGS. MGS-3.1.
3. FOR SAWCUT PERIMETER LENGTH, SEE DETAIL 'A' ON THIS SHEET.
4. SEE THIS SHEET FOR DEFLECTION JOINT DETAILS AND ADDITIONAL NOTES.
5. USE GLASS FIBER REINFORCED POLYMER (GFRP) FOR ALL HORIZONTAL X4__ BARS AND STIFFENING BARS (Y401 & Y402 BARS).
6. TIE Y401 & Y402 STIFFENING BARS LOCATED INSIDE THE VERTICAL REINFORCEMENT AT EACH HORIZONTAL BAR. TIE Y401 & Y402 STIFFENING BARS LOCATED OUTSIDE OF THE VERTICAL REINFORCEMENT AT EACH VERTICAL BAR.
7. PLACE STIFFENING BARS IN ALL SAWCUT PANELS 10′-0″ AND GREATER. DO NOT ADD STIFFENING BARS TO 14′-0″ TRANSITIONS. DO NOT SLIPFORM UNSTIFFENED SAWCUT PANELS. DO NOT OMIT STIFFENING BARS FOR CONVENTIONALLY FORMED CONSTRUCTION.
8. X401 & X402 BARS MAY BE PROVIDED AS EPOXY COATED STEEL REINFORCEMENT IF A GFRP FABRICATED SHAPE IS NOT AVAILABLE.
9. DO NOT APPLY RUSTICATION GROOVES TO MEDIAN SIDE OF BRIDGE AND APPROACH SLAB PARAPETS. EXTEND RUSTICATION GROOVES FROM BRIDGE DECK FOR AN ADDITIONAL 6′-0″ ALONG APPROACH SLAB PARAPETS.

LEGEND:

E.S. =	EACH SIDE
F.S =	FAR SIDE
N.S. =	NEAR SIDE

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DISTRICT 8 BRIDGE OFFICE

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PARAPET DETAILS

BRIDGE NO.: BUT-4-1580 L/R
SR 4 SOUTHBOUND & NORTHBOUND OVER SR 63 RAMPS

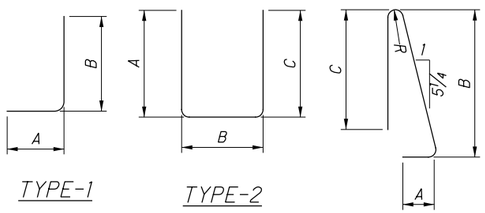
BUT-SR4-15.80
PID No. 102736

MARK	NUMBER TOTAL	LENGTH	WEIGHT	TYPE	DIMENSIONS A	B	C	D	E	R	INC
LEFT BRIDGE SUPERSTRUCTURE											
S601	14	40'-6"	852	STR							
S602	14	23'-6"	494	STR							
S701	14	40'-6"	1159	STR							
S702	14	23'-6"	672	STR							
Y601	492	7'-4"	3762	23	0'-11"	3'-3"	3'-0"			0'-3"	
Y602	492	3'-2"	2340	2	2'-0"	1'-0"	0'-6"				
Y603	492	2'-10"	2094	1	2'-0"	1'-0"					
SUB-TOTAL			11,373								

MARK	NUMBER TOTAL	LENGTH	TOTAL LENGTH	TYPE	DIMENSIONS A	B	C	D	E	R	INC
LEFT BRIDGE SUPERSTRUCTURE (GFRP REBAR)											
X401	132	30'-0"	3,960	STR							
X402	22	23'-5"	516	STR							
SUB-TOTAL			4,476	TOTAL REBAR PAY LENGTH FOR #4 GFRP REBAR							

NOTES:

1. ALL DIMENSIONS ARE OUT TO OUT OF BAR
2. DIMENSIONS ON HOOKS TO BE SHOWN ONLY WHERE NECESSARY TO RESTRICT HOOK SIZE. OTHERWISE STANDARD HOOKS ARE TO BE USED. REFERENCE CMS 509.
3. ALL REINFORCING STEEL CLEARANCES ARE 2" UNLESS OTHERWISE NOTED.
4. SEE SHEET 45 FOR PARAPET TRANSITION REBAR.
5. ALL REBAR SHALL BE STANDARD EPOXY COATED UNLESS NOTED OTHERWISE.



MARK	NUMBER REAR ABUT.	FWD. ABUT.	TOTAL	LENGTH	WEIGHT	TYPE	DIMENSIONS A	B	C	D	E	R	INC
LEFT BRIDGE ABUTMENTS & DIAPHRAGMS													
S501	31	31	62	7'-10"	507	2	2'-3"	3'-7"	2'-3"				
S502	62	62	124	6'-1"	787	1	2'-0"	4'-2 1/2"	2'-0"				
S503	3	3	6	6'-2"	39	2	1'-5"	3'-7"	1'-5"				
S504	8	8	16	7'-0"	117	14	1'-6"	0	3'-3 3/4"	2'-6"	1'-6"		
S801	14		14	23'-2"	866	STR							
S802	14		14	4'-10"	181	STR							
S803	4		4	11'-3"	120	STR							
S804	2	2	4	8'-2"	88	STR							
S805	7		7	40'-7"	759	STR							
S806	4		4	24'-11"	266	STR							
S807	4	4	8	5'-3"	112	18	2'-4"	1'-6"	1'-6"				
S808	4		4	25'-8"	274	1	24'-8"	1'-3"					
S809	4		4	12'-4"	132	1	11'-3"	1'-3"					
S810		14	14	23'-6"	878	STR							
S811		14	14	4'-10"	181	STR							
S812		6	6	40'-3"	645	STR							
S813		4	4	11'-3"	120	STR							
S814		4	4	12'-4"	132	1	11'-3"	1'-3"					
S815		4	4	25'-7"	272	1	24'-6"	1'-3"					
S816		4	4	24'-6"	262	STR							
A501	6	8	14	10'-6"	153	STR							
A502	6	8	14	9'-4"	136	STR							
A503	4		4	14'-10"	62	STR							
A504	4		4	13'-8"	57	STR							
A505	16		16	10'-2"	170	STR							
A506	8		8	14'-6"	121	STR							
A507		4	4	16'-6"	69	STR							
A508		4	4	15'-4"	64	STR							
A509		12	12	10'-3"	128	STR							
A510		8	8	16'-5"	137	STR							
A601	90	90	180	2'-10"	766	16	2'-2"						
A602	11	11	22	9'-5"	311	1	8'-4"	1'-3"					
A603	22	21	43	10'-1"	651	STR							
A604	21	21	42	6'-2"	389	2	2'-8"	1'-2"	2'-8"				
A605	20		20	3'-3"	98	1	2'-3"	1'-2"	2'-3"				
A606	1	1	2	4'-0"	12	1	2'-8"	1'-6"	2'-8"				
A607	11	11	22	7'-6"	248	1	6'-5"	1'-3"					
A608	21	22	43	8'-3"	533	STR							
A609		24	24	6'-10"	246	2	2'-11"	1'-4"	2'-11"				
D801	43	43	86	4'-5"	1014	18	2'-3"	1'-0"	1'-0"				
				SUB-TOTAL	12,103								
DG501	12	12	24	4'-4"	108	STR							
DG601	5	5	10	16'-9"	252	3	4'-2 1/2"	3'-9"					
DG801	7	7	14	6'-1"	227	1	2'-8"	3'-8"					

DIAPHRAGM GUIDE REBAR DESIGNATED "DGXXX" ARE SHOWN FOR INFORMATION PURPOSES ONLY AND ARE INCLUDED WITH THE DIAPHRAGM GUIDE FOR PAYMENT.

DESIGN AGENCY
OHIO DEPT OF TRANSPORTATION
DISTRICT 8 BRIDGE OFFICE

REVIEWED XXX DATE MM/DD/YY
STRUCTURE FILE NUMBER 0900249

DRAWN CAH
REVISED XXX

DESIGNED CAH
CHECKED GTF

REINFORCING STEEL LIST
BRIDGE NO.: BUT-4-1580 L
SR 4 SOUTHBOUND OVER SR 63 RAMPS

BUT-SR4-15.80
PID No. 102736

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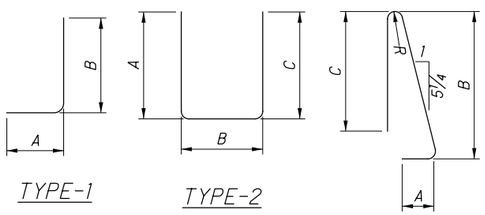
MARK	NUMBER TOTAL	LENGTH	WEIGHT	TYPE	DIMENSIONS A	B	C	D	E	R	INC
LEFT BRIDGE SUPERSTRUCTURE											
S601	14	23'-6"	494	STR							
S602	14	27'-10"	585	STR							
S701	14	23'-6"	672	STR							
S702	14	27'-10"	796	STR							
Y601	492	7'-4"	3762	23	0'-11"	3'-3"	3'-0"			0'-3"	
Y602	492	3'-2"	2340	2	2'-0"	1'-0"	0'-6"				
Y603	492	2'-10"	2094	1	2'-0"	1'-0"					
		SUB-TOTAL	10,743								

MARK	NUMBER TOTAL	LENGTH	TOTAL LENGTH	TYPE	DIMENSIONS A	B	C	D	E	R	INC
LEFT BRIDGE SUPERSTRUCTURE (GFRP REBAR)											
X401	132	30'-0"	3960	STR							
X402	22	21'-6"	473	STR							
		SUB-TOTAL	4,433	TOTAL REBAR PAY LENGTH FOR #4 GFRP REBAR							

NOTES:

1. ALL DIMENSIONS ARE OUT TO OUT OF BAR
2. DIMENSIONS ON HOOKS TO BE SHOWN ONLY WHERE NECESSARY TO RESTRICT HOOK SIZE. OTHERWISE STANDARD HOOKS ARE TO BE USED. REFERENCE CMS 509.
3. ALL REINFORCING STEEL CLEARANCES ARE 2" UNLESS OTHERWISE NOTED.
4. SEE SHEET 45 FOR PARAPET TRANSITION REBAR.
5. ALL REBAR SHALL BE STANDARD EPOXY COATED UNLESS NOTED OTHERWISE.



MARK	NUMBER REAR ABUT.	FWD. ABUT.	TOTAL	LENGTH	WEIGHT	TYPE	DIMENSIONS A	B	C	D	E	R	INC
RIGHT BRIDGE ABUTMENTS & DIAPHRAGMS													
S501	31	31	62	7'-10"	507	2	2'-3"	3'-7"	2'-3"				
S502	62	62	124	6'-1"	787	1	2'-0"	4'-2 1/2"	2'-0"				
S503	3	3	6	6'-2"	39	2	1'-5"	3'-7"	1'-5"				
S504	8	8	16	7'-0"	117	14	1'-6"	0	3'-3 3/4"	2'-6"	1'-6"		
S801	4		4	14'-10"	158	1	13'-9"	1'-3"					
S802	6		6	27'-6"	441	STR							
S803	4		4	9'-2"	98	STR							
S804	14		14	4'-10"	181	STR							
S805	14		14	23'-4"	872	STR							
S806	4		4	13'-9"	147	STR							
S807	4	4	8	5'-3"	112	18	2'-4"	1'-6"	1'-6"				
S808	4		4	10'-2"	109	1	9'-2"	1'-3"					
S809		14	14	22'-11"	857	STR							
S810		14	14	4'-10"	181	STR							
S811		6	6	27'-9"	445	STR							
S812		4	4	9'-0"	96	STR							
S813		4	4	10'-1"	107	1	9'-0"	1'-3"					
S814		4	4	14'-3"	152	STR							
S815		4	4	15'-4"	164	1	14'-3"	1'-3"					
A501	6	8	14	10'-1"	147	STR							
A502	6	8	14	8'-9"	128	STR							
A503		4	4	14'-6"	60	STR							
A504		4	4	13'-4"	56	STR							
A505		16	16	10'-6"	175	STR							
A506		8	8	14'-10"	124	STR							
A507		4	4	16'-1"	67	STR							
A508		4	4	14'-9"	62	STR							
A509			12	10'-10"	136	STR							
A510			8	16'-11"	141	STR							
A601	90	90	180	2'-10"	766	16	2'-2"						
A602	11	11	22	8'-6"	281	1	7'-5"	1'-3"					
A603	21	22	43	8'-2"	527	STR							
A604	21	21	42	6'-3"	394	2	2'-8 1/2"	1'-2"	2'-8 1/2"				
A605	12	12	24	5'-6"	198	2	2'-3"	1'-4"	2'-3"				
A606	1	1	2	5'-10"	18	2	2'-3"	1'-8"	2'-3"				
A607	11	11	22	9'-3"	306	1	8'-2"	1'-3"					
A608			24	6'-8"	240	2	2'-11"	1'-2"	2'-11"				
D801	35	35	70	4'-5"	825	18	2'-3"	1'-0"	1'-0"				
				SUB-TOTAL	10,221								
DG501	12	12	24	4'-4"	108	STR							
DG601	5	5	10	16'-9"	252	3	4'-2 1/2"	3'-9"					
DG801	7	7	14	6'-1"	227	1	2'-8"	3'-8"					

DIAPHRAGM GUIDE REBAR DESIGNATED "DGXXX" ARE SHOWN FOR INFORMATION PURPOSES ONLY AND ARE INCLUDED WITH THE DIAPHRAGM GUIDE FOR PAYMENT.

DESIGN AGENCY
OHIO DEPT OF TRANSPORTATION
DISTRICT 8 BRIDGE OFFICE

REVIEWED XXX DATE MM/DD/YY
STRUCTURE FILE NUMBER 0900273

DRAWN CAH
REVISED XXX

DESIGNED CAH
CHECKED GTF

REINFORCING STEEL LIST
BRIDGE NO.: BUT-4-1580 R
SR 4 NORTHBOUND OVER SR 63 RAMPS

BUT-SR4-15.80
PID No. 102736

30/30

48
48

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