MAINTENANCE OF TRAFFIC

ITEM 614 - MAINTAINING TRAFFIC

THE MAKING OF THIS IMPROVEMENT REQUIRES THAT THE ROAD BE CLOSED TO THROUGH TRAFFIC. THE CONTRACTOR SHALL DIVERT VEHICULAR ACCESS BY MEANS OF DETOURS. PROPOSED DETOUR ROUTES ARE SHOWN ON THE MAPS ON SHEET 9. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING DETOUR SIGNAGE IN ACCORDANCE WITH ITEM 614, DETOUR SIGNING, AS PER PLAN. THE CONTRACTOR SHALL MAINTAIN SAFE AND SATISFACTORY ACCESS TO ABUTTING PROPERTY.

THE PUBLIC DRIVE ENTRANCE TO THE METROPARKS AT STATION 597+30 LT MAY BE CLOSED DURING CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE ADDITIONAL SIGNAGE TO DETOUR THOSE WITHIN THE PARK TO ANOTHER EXIT.

LENGTH AND DURATION OF LANE CLOSURES AND RESTRICTIONS FOR SR-120 SHALL BE AS PER THE A+B BIDDING CONTRACT TABLE SHOWN ON THIS SHEET. IT IS THE INTENT TO MINIMIZE THE IMPACT TO THE TRAVELING PUBLIC. LANE CLOSURES OR RESTRICTIONS OVER SEGMENTS OF THE PROJECT IN WHICH NO WORK IS ANTICIPATED WITHIN A REASONABLE TIME FRAME, AS DETERMINED BY THE ENGINEER, SHALL NOT BE PERMITTED. THE LEVEL OF UTILIZATION OF MAINTENANCE OF TRAFFIC DEVICES SHALL BE COMMENSURATE WITH THE WORK IN PROGRESS.

NOTICE OF CLOSURE SIGNS (W20-H13) SHALL BE ERECTED BY THE CONTRACTOR PRIOR TO THE SCHEDULED ROAD CLOSURE A MINIMUM OF 14 CALENDAR DAYS PRIOR TO THE CLOSURE.

THE SIGNS SHALL BE ERECTED ON THE RIGHT-HAND SIDE OF THE ROAD FACING TRAFFIC. THEY SHALL BE PLACED SO AS NOT TO INTERFERE WITH THE VISIBILITY OF ANY OTHER TRAFFIC CONTROL SIGNS. THEY SHALL BE ERECTED AT OR NEAR THE POINT OF CLOSURE.

THE SIGN SHALL DISPLAY THE DATE OF THE CLOSURE IN MM-DD FORMAT AND THE NUMBER OF DAYS OF THE CLOSURE. THE LAST LINE OF THE W20-H13 SIGN SHALL LIST A PHONE NUMBER WHICH A MOTORIST MAY CALL FOR ADDITIONAL INFORMATION. THIS PHONE NUMBER SHALL BE 419-373-4428.

ANY CONFLICTING SIGNS SHALL BE COVERED. THIS INCLUDES BUT IS NOT LIMITED TO THE NO LEFT TURN SIGN (R3-2) TURNING WESTBOUND ONTO SR-120 FROM RIVA RIDGE ROAD.

THE RIVA RIDGE ROAD AND SR-120 INTERSECTION MUST BE MAINTAINED EXCEPT FOR A 14 DAY CLOSURE PERIOD TO RECONSTRUCT THE ROADWAY. DAMAGES IN THE AMOUNT OF $2,500 SHALL BE ASSESSED FOR EACH CALENDAR DAY RIVA RIDGE ROAD REMAINS CLOSED BEYOND THE PERMISSIBLE 14 DAY CLOSURE.

THE CONTRACTOR SHALL PROVIDE, ERECT AND MAINTAIN STANDARD 48 X 30 INCH ROAD CLOSED SIGNS, SIGN SUPPORTS, BARRICADES, AND LIGHTS, AS DETAILED IN SCD MT-101.60 AT THE FOLLOWING LOCATIONS DURING PERIODS IN WHICH THE AFFECTED ROADS ARE CLOSED TO TRAFFIC:

- CENTRAL AVENUE JUST EAST OF RIVA RIDGE ROAD INTERSECTION
- CENTRAL AVENUE JUST WEST OF VALLEY VIEW DRIVE INTERSECTION

DETOUR ROUTES:

EXISTING EASTBOUND TRAFFIC SHALL ENTER I-475 NORTHBOUND FROM CENTRAL AVENUE, CONTINUE ON I-475 EASTBOUND AT THE FOLLOWING INTERCHANGE AND EXIT AT SECOR ROAD. TRAFFIC SHALL THEN CONTINUE ON SECOR ROAD SOUTHBOUND UNTIL THEY REACH CENTRAL AVENUE.

EXISTING WESTBOUND TRAFFIC SHALL TAKE SECOR ROAD NORTHBOUND AND ENTER ONTO I-475 WESTBOUND. TRAFFIC SHALL CONTINUE ON I-475 SOUTHBOUND AT THE I-475 AND US-23 INTERCHANGE. TRAFFIC MAY THEN EXIT AT CENTRAL AVENUE.

ALL WORK AND TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH C&MS 614 AND OTHER APPLICABLE PORTIONS OF THE SPECIFICATIONS, AS WELL AS THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES, AND SHALL BE FURNISHED, ERECTED, MAINTAINED, AND REMOVED BY THE CONTRACTOR. PAYMENT FOR ALL LABOR, EQUIPMENT AND MATERIALS SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM 614, MAINTAINING TRAFFIC, UNLESS SEPARATELY ITEMIZED IN THE PLAN.

THE CONTRACTOR SHALL CONTACT THE LOCAL AGENCIES LISTED BELOW A MINIMUM OF 14 DAYS PRIOR TO THE SCHEDULED CLOSURE OF SR 120 TO ALLOW FOR REVISED SIGNAL TIMINGS IN THE VICINITY OF THE PROJECT.

VILLAGE OF OTTAWA HILLS:
JOHN WENZLICK
2125 RICHARDS ROAD
OTTAWA HILLS, OH 43606
PHONE: (419) 536-1111

CITY OF TOLEDO
ENGINEERING SERVICES
DOUGLAS R. STEPHENS P.E.
600 JEFFERSON AVENUE, SUITE 300
PHONE: (419) 245-1315

ITEM 614 - DETOUR SIGNING, AS PER PLAN

THE CONTRACTOR SHALL DIVERT VEHICULAR ACCESS BY MEANS OF DETOURS. PROPOSED DETOUR ROUTES ARE SHOWN ON THE MAPS ON SHEET 9.

ADVANCE TRAFFIC SIGNING AND SUPPORTS, INCLUDING DETOUR SIGNING, CONSTRUCTION WORK ZONE APPROACH SIGNING, BARRICADES AND SIGNS ON BARRICADES SHOWN ON THE PLANS BEYOND THE WORK LIMITS SHALL BE FURNISHED, ERECTED, MAINTAINED, AND SUBSEQUENTLY REMOVED BY THE CONTRACTOR, AND ALL ASSOCIATED COST SHALL BE INCLUDED IN THE LUMP SUM BID FOR ITEM 614 - DETOUR SIGNING, AS PER PLAN.

FLUORESCENT ORANGE TYPE G SIGN SHEETING SHALL BE USED FOR ALL DETOUR AND CONSTRUCTION WARNING SIGNS.

ITEM 614, PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN

THE CONTRACTOR SHALL FURNISH, INSTALL, MAINTAIN AND REMOVE, WHEN NO LONGER NEEDED, A CHANGEABLE MESSAGE SIGN, ON SITE, FOR THE DURATION OF THE PROJECT. THE SIGN SHALL BE OF A TYPE SHOWN ON A LIST OF APPROVED PCMS UNITS AVAILABLE ON THE OFFICE OF MATERIALS MANAGEMENT WEB PAGE. THE LIST CONTAINS CLASS A AND B UNITS WITH MINIMUM LEGIBILITY DISTANCES OF 650 FEET AND 475 FEET, RESPECTIVELY.

EACH SIGN SHALL BE TRAILER-MOUNTED AND EQUIPPED WITH A FUNCTIONAL DIMMING MECHANISM, TO DIM THE SIGN DURING DARKNESS, AND A TAMPER AND VANDAL PROOF ENCLOSURE. EACH SIGN SHALL BE PROVIDED WITH APPROPRIATE TRAINING AND OPERATION INSTRUCTIONS TO ENABLE ON-SITE PERSONNEL TO OPERATE AND TROUBLESHOOT THE UNIT. THE SIGN SHALL ALSO BE CAPABLE OF BEING POWERED BY AN ELECTRICAL SERVICE DROP FROM A LOCAL UTILITY COMPANY. THE PCMS SHALL BE DELINEATED IN ACCORDANCE WITH C&MS 614.03.

THE PROBABLE PCMS LOCATIONS AND WORK LIMITS FOR THOSE LOCATIONS ARE SHOWN ON SHEET(S) OF THE PLAN. PLACEMENT, OPERATION, MAINTENANCE AND ALL ACTIVATION OF THE SIGNS BY THE CONTRACTOR SHALL BE AS DIRECTED BY THE ENGINEER. THE PCMS SHALL BE LOCATED IN A HIGHLY VISIBLE POSITION YET PROTECTED FROM TRAFFIC. THE CONTRACTOR SHALL, AT THE DIRECTION OF THE ENGINEER, RELOCATE THE PCMS TO IMPROVE VISIBILITY OR ACCOMMODATE CHANGED CONDITIONS. WHEN NOT IN USE, THE PCMS SHALL BE TURNED OFF. ADDITIONALLY, WHEN NOT IN USE FOR EXTENDED PERIODS OF TIME, THE PCMS SHALL BE TURNED, FACING AWAY FROM ALL TRAFFIC.

THE ENGINEER SHALL BE PROVIDED ACCESS TO EACH SIGN UNIT AND SHALL BE PROVIDED WITH APPROPRIATE TRAINING AND OPERATION INSTRUCTIONS TO ENABLE ODOT PERSONNEL TO OPERATE AND TROUBLESHOOT THE UNIT, AND TO REVISE SIGN MESSAGES, IF NECESSARY.

THE CONTRACTOR SHALL IMPLEMENT A SYSTEM WHEREBY CHANGEABLE MESSAGES WILL BE IMPLEMENTED WITHIN 2 HOURS FOLLOWING TELEPHONE NOTIFICATION FROM THE PROJECT ENGINEER TO A DESIGNATED PHONE.

ALL MESSAGES TO BE DISPLAYED ON THE SIGN WILL BE PROVIDED BY THE ENGINEER. A LIST OF ALL REQUIRED PRE-PROGRAMMED MESSAGES WILL BE GIVEN TO THE CONTRACTOR AT THE PROJECT PRECONSTRUCTION CONFERENCE. THE SIGN SHALL HAVE THE CAPABILITY TO STORE UP TO 99 MESSAGES. MESSAGE MEMORY OR PRE-PROGRAMMED DISPLAYS SHALL NOT BE LOST AS A RESULT OF POWER FAILURES TO THE ON-BOARD COMPUTER. THE SIGN LEGEND SHALL BE CAPABLE OF BEING CHANGED IN THE FIELD. THREE-LINE PRESENTATION FORMATS WITH UP TO SIX MESSAGE PHASES SHALL BE SUPPORTED. PCMS FORMAT SHALL PERMIT THE COMPLETE MESSAGE FOR EACH PHASE TO BE READ AT LEAST TWICE.

THE PCMS SHALL CONTAIN AN ACCURATE CLOCK AND PROGRAMMING LOGIC WHICH WILL ALLOW THE SIGN TO BE ACTIVATED, DEACTIVATED OR MESSAGES CHANGED AUTOMATICALLY AT DIFFERENT TIMES OF THE DAY FOR DIFFERENT DAYS OF THE WEEK.

THE PCMS UNIT SHALL BE MAINTAINED IN GOOD WORKING ORDER BY THE CONTRACTOR IN ACCORDANCE WITH THE PROVISIONS OF C&MS 614.07. THE CONTRACTOR SHALL, PRIOR TO ACTIVATING THE UNIT, MAKE ARRANGEMENTS, WITH AN AUTHORIZED SERVICE AGENT FOR THE PCMS, TO ASSURE PROMPT SERVICE IN THE EVENT OF FAILURE. ANY FAILURE SHALL NOT RESULT IN THE SIGN BEING OUT OF SERVICE FOR MORE THAN 12 HOURS, INCLUDING WEEKENDS. FAILURE TO COMPLY MAY RESULT IN AN ORDER TO STOP WORK AND OPEN ALL TRAFFIC LANES AND/OR IN THE DEPARTMENT TAKING APPROPRIATE ACTION TO SAFELY CONTROL TRAFFIC. THE ENTIRE COST TO CONTROL TRAFFIC, ACCRUED BY THE DEPARTMENT DUE TO THE CONTRACTOR'S NONCOMPLIANCE, WILL BE DEDUCTED FROM MONEYS DUE, OR TO BECOME DUE THE CONTRACTOR ON HIS CONTRACT.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR 24-HOUR-PER-DAY OPERATION AND MAINTENANCE OF THESE SIGNS ON THE PROJECT
FOR THE DURATION OF THE PHASES WHEN THE PLAN REQUIRES
THEIR USE.

THOSE SIGNS SHOULD BE PLACED AT THE FOLLOWING LOCATIONS:
-NB 475 S OF CENTRAL AVE
-EB CENTRAL AVE W OF 475
-WB 475 E OF SECOR RD
-WB CENTRAL AVE E OF SECOR RD
-EB CENTRAL AVE W OF HOLLAND SYLVANIA RD

PAYMENT FOR THE ABOVE DESCRIBED ITEM SHALL BE AT THE CONTRACT UNIT PRICE. PAYMENT SHALL INCLUDE ALL LABOR, MATERIALS, EQUIPMENT, FUELS, LUBRICATING OILS, SOFTWARE, HARDWARE AND INCIDENTALS TO PERFORM THE ABOVE DESCRIBED WORK.

ITEM 614, PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN (CONTINUED)

A MAXIMUM OF 5 PCMS WILL BE REQUIRED FOR USE AT ONE TIME FOR THE PROJECT.

6 SIGNS X 5 SNMT = 30 SNMT

ITEM 614, PORTABLE CHANGEABLE MESSAGE SIGN, A.P.P. 30 SNMT

ITEM 614 - REPLACEMENT SIGN

FLATSHEET SIGNS FURNISHED BY THE CONTRACTOR IN ACCORDANCE WITH THE REQUIREMENTS OF THE PLANS, SPECIFICATIONS AND PROPOSAL WHICH BECOME DAMAGED BY TRAFFIC FOR REASONS BEYOND THE CONTROL OF THE CONTRACTOR SHALL BE REPLACED IN KIND WHEN ORDERED BY THE ENGINEER. REPLACEMENT SIGNS SHALL BE NEW. OTHER MATERIAL MAY BE IN USED, BUT GOOD, CONDITION SUBJECT TO APPROVAL OF THE ENGINEER.

PAYMENT FOR THE NEW SIGNS SHALL BE MADE AT THE CONTRACT PRICE PER EACH FOR ITEM 614, REPLACEMENT SIGN, AND SHALL INCLUDE THE COST OF REMOVING AND DISPOSING OF DAMAGED SIGNS, HARDWARE AND SUPPORTS, AND PROVIDING THE NECESSARY REPLACEMENT HARDWARE, SUPPORTS, ETC.

AN ESTIMATED QUANTITY OF 5 EACH HAS BEEN PROVIDED IN THE GENERAL SUMMARY.

A+B BIDDING CONTRACT TABLE

USE THE FOLLOWING INFORMATION IN COMBINATION WITH PROPOSAL NOTE 124 DATED 4/17/20 - A+B BIDDING:

THE CONTRACTOR WILL BID THE NUMBER OF CALENDAR DAYS TO COMPLETE THE CRITICAL WORK AS LISTED BELOW.

AFTER COMPLETION OF THE CRICTIAL WORK, ONLY ONE LANE MAY BE CLOSED ON SR 120 IN EACH DIRECTION AS PER SCDS MT-95.31 OR MT-95.32 BETWEEN THE HOURS OF 7:00 PM AND 7:00 AM. DAMAGES IN THE AMOUNT OF $25 PER MINUTE SHALL BE ASSESSED FOR EACH MINUTE A LANE REMAINS CLOSED BEYOND THESE SPECIFIED LIMITS.

A SINGLE LANE MAY BE CLOSED IN EACH DIRECTION OF SR 120 FOR A MAXIMUM DURATION OF 14 CONSECUTIVE CALENDAR DAYS FOR THE PLACEMENT OF THE TEMPORARY ACCESS FILL. DAMAGES IN THE AMOUNT OF $2,500 PER DAY SHALL BE ASSESSED FOR EACH CALENDAR DAY ANY LANES REMAIN CLOSED BEYOND THE PERIOD SPECIFIED ABOVE.

NO EXTENTIONS OF TIME SHALL BE GRANTED FOR DELAYS IN MATERIAL DELIVERIES, UNLESS SUCH DELAYS ARE INDUSTRY-WIDE, OR FOR LABOR STRIKES, UNLESS SUCH STRIKES ARE AREA-WIDE.

DESCRIPTION OF CRITICAL WORK	MINIMUM DAYS	MAXIMUM DAYS	INCENTIVE/ DISINCENTIVE $ PER DAY	MAXIMUM INCENTIVE
ALL WORK ON SR-120 BETWEEN STATIONS 596+35 AND 601+59, EXCLUDING SEALING OF CONCRETE SURFACES	105	150	$7,500	$120,000

NOTIFICATION OF TRAFFIC RESTRICTIONS

THROUGHOUT THE DURATION OF THE PROJECT, THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER IN WRITING OF ALL TRAFFIC RESTRICTIONS AND UPCOMING MAINTENANCE OF TRAFFIC CHANGES. THE CONTRACTOR SHALL ENSURE THE WRITTEN NOTIFICATION IS SUBMITTED IN A TIMELY MANNER TO ALLOW THE PROJECT ENGINEER TO MEET THE REQUIRED TIME FRAMES SET FORTH IN THE TABLE BELOW TO INFORM SPECIAL HAULING PERMITS SECTION (HAULING.PERMITS@DOT.OHIO.GOV) AND THE DISTRICT PUBLIC INFORMATION OFFICE (PIO). THIS NOTIFICATION SHALL BE RECEIVED BY THE PROJECT ENGINEER PRIOR TO THE PHYSICAL SETUP OF ANY APPLICABLE SIGNS OR MESSAGE BOARDS.

INFORMATION SHOULD INCLUDE, BUT IS NOT LIMITED TO, ALL CONSTRUCTION ACTIVITES THAT IMPACT OR INTERFERE WITH TRAFFIC AND SHALL LIST THE SPECIFIC LOCATION, TYPE OF WORK, ROAD STATUS, DATE AND TIME OF RESTRICTION, DURATION OF RESTRICTION, NUMBER OF LANES MAINTAINED, NUMBER OF LANES CLOSED, MINIMUM VERTICAL CLEARANCE, MINIMUM WIDTH OF DRIVABLE PAVEMENT, DETOUR ROUTES, IF APPLICABLE, AND ANY OTHER INFORMATION REQUESTED BY THE PROJECT ENGINEER.

NOTIFICATION TIME TABLE		
ITEM	DURATION OF CLOSURE	NOTICE DUE TO PERMITS & PIO
RAMP AND ROAD CLOSURES	>= 2 WEEKS	21 CALENDAR DAYS PRIOR TO CLOSURE
	> 12 HOURS & < 2 WEEKS	14 CALENDAR DAYS PRIOR TO CLOSURE
	<= 12 HOURS	4 BUSINESS DAYS PRIOR TO CLOSURE
LANE CLOSURES AND RESTRICTIONS	>= 2 WEEKS	14 CALENDAR DAYS PRIOR TO CLOSURE
	< 2 WEEKS	5 BUSINESS DAYS PRIOR TO CLOSURE
START OF CONSTRUCTION AND TRAFFIC PATTERN CHANGES		14 CALENDAR DAYS PRIOR TO IMPLEMENTATION

ANY UNFORESEEN CONDITIONS NOT SPECIFIED IN THE PLANS REQUIRING TRAFFIC RESTRICTIONS SHALL ALSO BE REPORTED TO THE PROJECT ENGINEER USING THE NOTIFICATION TIME TABLE. THE PROJECT ENGINEER WILL FORWARD THIS INFORMATION TO THE FOLLOWING:

DISTRICT PUBLIC INFORMATION OFFICER (PIO) BY PHONE AT: (419) 373-4428 OR EMAIL AT: D02.pio@dot.ohio.gov

DISTRICT PERMIT SECTION BY PHONE AT: (419) 373-4301 OR EMAIL AT: D02.permits@dot.ohio.gov

LUC-120-11.32
MODEL: Sheet PAPERSIZE: 34x22 (in.) DATE: 5/10/2022 TIME: 4:22:01 PM USER: Chay
pw:\\trc-pw.bentley.com:trc-pw-01\Documents\5 - Projects\Ohio Department of Transportation (ODOT)\3\2537 - LUC-120-11.32\4.2_CAD_Design\02940\400-Engineering\MOT\Sheets\02940_MN002.dgn

DESIGN AGENCY
TRC
DESIGNER
MKD
REVIEWER
JTS 10-25-19
PROJECT ID
102940
SHEET P.8
TOTAL 85

SHEET NUM.												PART.	ITEM	ITEM	GRAND	UNIT	DESCRIPTION	SEE
P.5	P.8	P.8A	P.12	P.13	P.14	P.15	P.16	P.17	P.25	P.30		01/NHS/BR		EXT	TOTAL			SHEET NO.
																	TRAFFIC CONTROL	
						66						66	630	03100	66	FT	**GROUND MOUNTED SUPPORT, NO. 3 POST**	
						25						25	630	80100	25	SF	SIGN, FLAT SHEET	
						4						4	630	84900	4	EACH	REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL	
						4						4	630	86002	4	EACH	REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL	
					0.1							0.1	644	00104	0.1	MILE	EDGE LINE, 6"	
					0.18							0.18	644	00204	0.18	MILE	LANE LINE, 6"	
					0.14							0.14	644	00300	0.14	MILE	CENTER LINE	
					200							200	644	00400	200	FT	CHANNELIZING LINE, 8"	
					14							14	644	00500	14	FT	STOP LINE	
					4							4	644	01300	4	EACH	LANE ARROW	
																	STRUCTURE OVER 20 FOOT SPAN (LUC-120-1132C)	
										LS		LS	202	11003	LS		**STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN**	P.30
										232		232	202	22900	232	SY	APPROACH SLAB REMOVED	
										1,014		1,014	202	23500	1,014	SY	WEARING COURSE REMOVED	
										168		168	202	35100	168	FT	PIPE REMOVED, 24" AND UNDER	
										LS		LS	503	11100	LS		COFFERDAMS AND EXCAVATION BRACING	
										LS		LS	503	21300	LS		UNCLASSIFIED EXCAVATION	
										229,062		229,062	509	10000	229,062	LB	EPOXY COATED STEEL REINFORCEMENT	
										2		2	511	33500	2	EACH	SEMI-INTEGRAL DIAPHRAGM GUIDE	
										499		499	511	34446	499	CY	CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK	
										142		142	511	41012	142	CY	CLASS QC1 CONCRETE WITH QC/QA, PIER ABOVE FOOTINGS	
										381		381	511	44112	381	CY	CLASS QC1 CONCRETE WITH QC/QA, ABUTMENT NOT INCLUDING FOOTING	
										139		139	511	46512	139	CY	CLASS QC1 CONCRETE WITH QC/QA, FOOTING	
										105		105	511	51512	105	CY	CLASS QC2 CONCRETE WITH QC/QA, SIDEWALK	
										363		363	512	10050	363	SY	SEALING OF CONCRETE SURFACES (NON-EPOXY)	
										1,139		1,139	512	10100	1,139	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	
										27		27	515	15070	27	EACH	DRAPED STRAND PRESTRESSED CONCRETE BRIDGE I-BEAM MEMBERS, LEVEL 3, TYPE WF36-49 (L = 54'-10")	
										21		21	515	20000	21	EACH	INTERMEDIATE DIAPHRAGMS	
										37		37	516	13600	37	SF	1" PREFORMED EXPANSION JOINT FILLER	
										259		259	516	13900	259	SF	2" PREFORMED EXPANSION JOINT FILLER	
										190		190	516	14020	190	FT	SEMI-INTEGRAL ABUTMENT EXPANSION JOINT SEAL	
										36		36	516	44100	36	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), (BR: 12"x18"x2.50", LP: 13"x19"x0.75")	
										18		18	516	44100	18	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), (BR: 12"x18"x2.50", LP: 13"x19"x1.50")	
										435		435	517	75121	435	FT	RAILING (CONCRETE PARAPET WITH TWIN STEEL TUBE RAILING), AS PER PLAN	P.30
										405		405	517	76300	405	FT	RAILING, MISC.: SHARED USE PATH GALVANIZED AND PAINTED STEEL RAILING	
										260		260	518	21200	260	CY	POROUS BACKFILL WITH GEOTEXTILE FABRIC	
										234		234	518	40000	234	FT	6" PERFORATED CORRUGATED PLASTIC PIPE	
										80		80	518	40011	80	FT	6" NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS, AS PER PLAN	P.30
										77		77	524	94704	77	FT	DRILLED SHAFTS, 36" DIAMETER, INTO BEDROCK	
										119		119	524	94802	119	FT	DRILLED SHAFTS, 42" DIAMETER, ABOVE BEDROCK	
										171		171	524	94804	171	FT	DRILLED SHAFTS, 42" DIAMETER, INTO BEDROCK	
										157		157	524	94902	157	FT	DRILLED SHAFTS, 48" DIAMETER, ABOVE BEDROCK	
										441		441	526	25010	441	SY	REINFORCED CONCRETE APPROACH SLABS WITH QC/QA (T=15")	
										166		166	526	90010	166	FT	TYPE A INSTALLATION	
										15		15	SPECIAL	53000400	15	EACH	STRUCTURES - MISC.: WATERLINE SUPPORT	P.30
										2,176		2,176	SPECIAL	53000600	2,176	SF	STRUCTURES - MISC.: FORMLINER	P.30
										252		252	601	32204	252	CY	ROCK CHANNEL PROTECTION, TYPE C WITH GEOTEXTILE FABRIC	
										33		33	846	00110	33	CF	POLYMER MODIFIED ASPHALT EXPANSION JOINT SYSTEM	
										4		4	894	10000	4	EACH	THERMAL INTEGRITY PROFILING (TIP) TEST	
																	MAINTENANCE OF TRAFFIC	
		40										40	614	11110	40	HOUR	LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE	
	LS											LS	614	12421	LS		DETOUR SIGNING, AS PER PLAN	P.8
	5											5	614	12500	5	EACH	REPLACEMENT SIGN, AS PER PLAN	P.8
	30											30	614	18601	30	SNMT	PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN	P.8
																	INCIDENTALS	
												LS	108	30000	LS		CPM PROGRESS SCHEDULE SHORT DURATION PROJECTS	
	LS											LS	614	11000	LS		MAINTAINING TRAFFIC	
												LS	623	10000	LS		CONSTRUCTION LAYOUT STAKES AND SURVEYING	
												LS	624	10000	LS		MOBILIZATION	

GENERAL SUMMARY

LUC-120-11.32

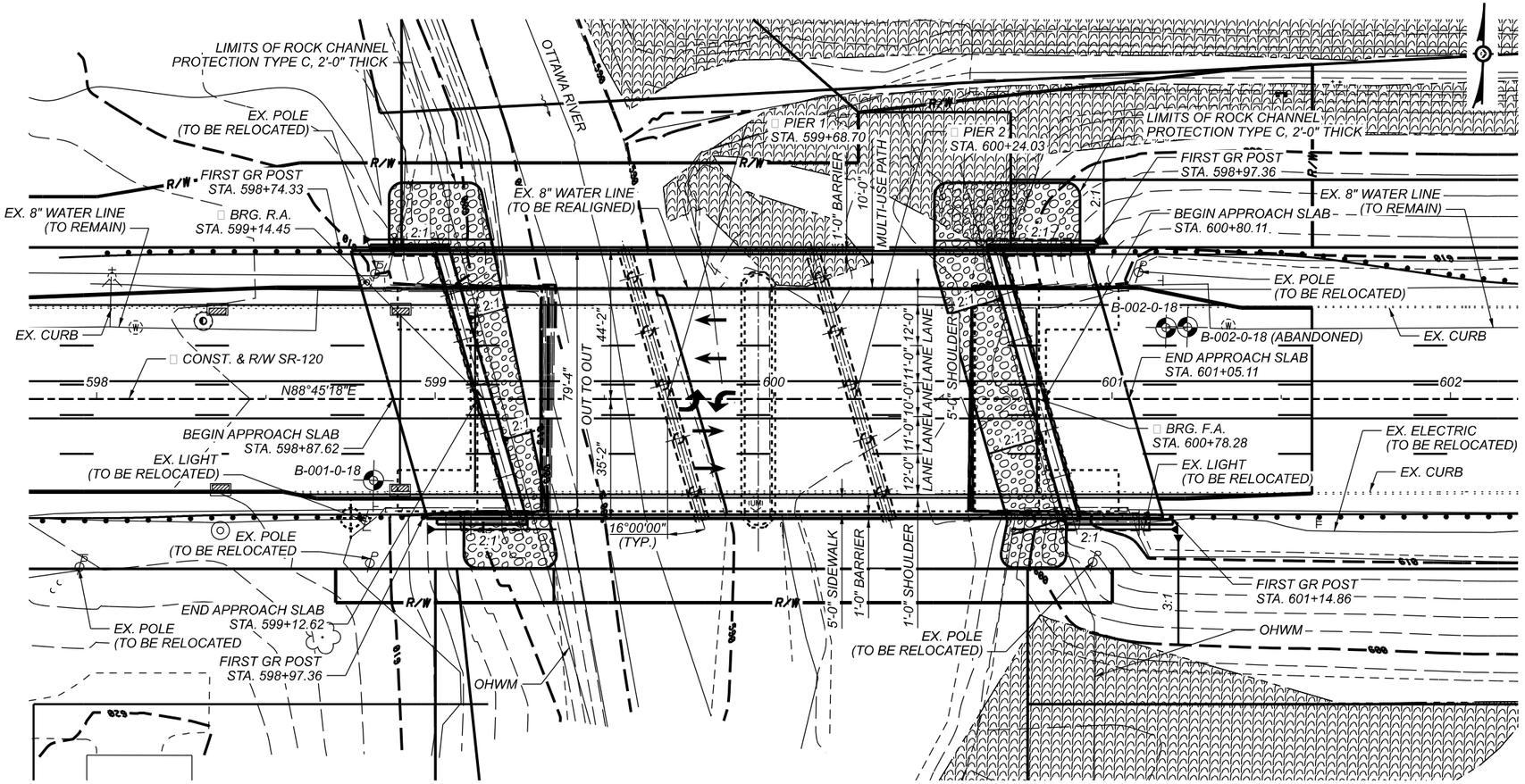
DESIGN AGENCY
TRC

DESIGNER
VVG

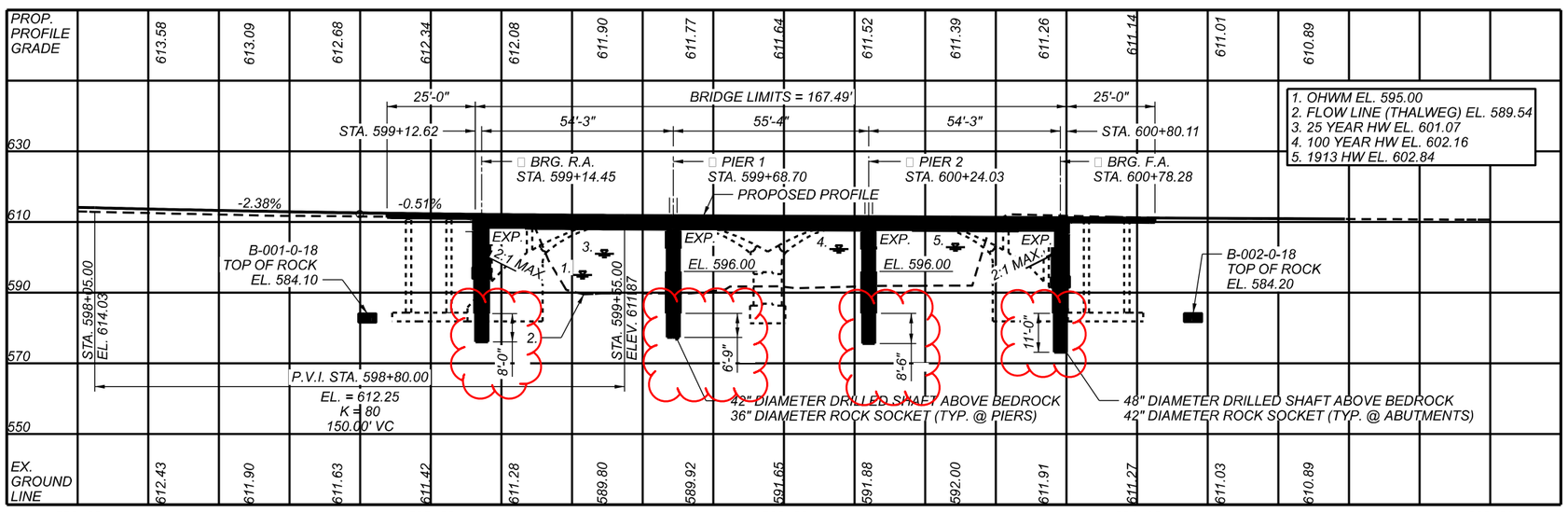
REVIEWER
WAA 02-09-22

PROJECT ID
102940

SHEET P-11 TOTAL 85



PLAN



PROFILE ALONG ℄ CONST. & R/W SR-120

BENCHMARK DATA

BM #1 STA. 597+74.39, EL. 616.16 , OFFSET 34.57' RT.
SET BM SPIKE IN TELE/POWER POLE
BM #2 STA. 602+47.62, EL. 610.78 , OFFSET 51.63' RT.
SET BM SPIKE IN POWER POLE

FOR ADDITIONAL BENCHMARK INFORMATION, SEE ROADWAY PLANS.

NOTES

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

DESIGN TRAFFIC:
2024 ADT = 32,500 2022 ADTT = 3,575
2044 ADT = 37,500 2044 ADTT = 4,125
DIRECTIONAL DISTRIBUTION = 51%

LEGEND

- BORING LOCATION
- ROCK CHANNEL PROTECTION
- EXISTING WETLANDS

HYDRAULIC DATA

DRAINAGE AREA = 131 SQ. MILES
Q (25) = 4,790 CFS V (25) = 3.75 FT/S WSE (25) = 601.02 FT.
Q (100) = 6,160 CFS V (100) = 4.30 FT/S WSE (100) = 602.34 FT.
STRUCTURE CLEARS THE 25 YEAR
DESIGN HW BY 6.87 FEET.

FIRST GUARDRAIL POST STATION

NORTHWEST CORNER = STA. 598+74.52
NORTHEAST CORNER = STA. 600+93.43
SOUTHWEST CORNER = STA. 598+96.76
SOUTHEAST CORNER = STA. 601+15.67

EXISTING STRUCTURE

TYPE: 2-SPAN REINFORCED CONCRETE SPANDREL ARCH WITH A 9 INCH REINFORCED CONCRETE DECK ON SPREAD FOOTINGS FOUNDED ON ROCK

SPANS: 60'± - 60'± SPRINGLINE/SPRINGLINE
ROADWAY: 54'-0"± T/T CURB
LOADING: HS20-44 AND ALTERNATE MILITARY LOADING
SKEW: NONE
WEARING SURFACE: ASPHALT CONCRETE
APPROACH SLABS: 19'-0"±
ALIGNMENT: TANGENT
CROWN: NORMAL (0.0156 FT/FT)
STRUCTURE FILE NUMBER: 4804929
DATE BUILT: 7/1/1928
DISPOSITION: TO BE REPLACED

PROPOSED STRUCTURE

TYPE: 3-SPAN PRESTRESSED CONCRETE I-BEAMS FOUNDED ON SEMI-INTEGRAL ABUTMENTS ON DRILLED SHAFTS AND CAP-AND-COLUMN PIERS ON DRILLED SHAFTS.

SPANS: (3 SPANS @ 53'-2" C/C BRGS)
ROADWAY: 62'-0" TOE/TOE CURB WITH 5'-0" SIDEWALK RIGHT SIDE AND 10'-0" MULTI-USE PATH LEFT SIDE
LOADING: HL-93 AND 60 PSF FWS
SKEW: 16°00'00" RF
WEARING SURFACE: 1" MONOLITHIC CONCRETE
APPROACH SLABS: 25'-0" LONG (AS-1-15 AND AS-2-15)
ALIGNMENT: TANGENT
CROWN: 0.016 FT/FT
COORDINATES: LATITUDE 41°40'36.75"N
LONGITUDE 83°39'37.33"W
DECK AREA: 13,288 SF

SITE PLAN
BRIDGE NO. LUC-120-1132C
OVER THE OTTAWA RIVER

SFN 4804930
DESIGN AGENCY TRC
DESIGNER HM | CHECKER CMH
REVIEWER CEJ 02/2022
PROJECT ID 102940
SUBSET 1 | TOTAL 43
SHEET P. 28 | TOTAL 85

LUC-120-11.32

STANDARD DRAWINGS AND SUPPLEMENTAL SPECIFICATIONS

REFER TO THE FOLLOWING ODOT STANDARD BRIDGE DRAWINGS:

AS-1-15	REVISED	07-17-15
AS-2-15	REVISED	01-18-19
BR-2-15	DATED	07-17-15
GSD-1-19	DATED	01-18-19
PSID-1-13	REVISED	01-17-21
SICD-1-96	REVISED	07-18-14
SICD-2-14	DATED	07-18-14

REFER TO THE FOLLOWING SUPPLEMENTAL SPECIFICATIONS:

SS832	DATED	07-22-22

DESIGN SPECIFICATIONS

THIS STRUCTURE CONFORMS TO THE "LRFD BRIDGE DESIGN SPECIFICATIONS" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 8TH EDITION 2017, AND THE ODOT BRIDGE DESIGN MANUAL, 2020.

LOAD MODIFIER FOR OPERATIONAL IMPORTANCE

OPERATIONAL IMPORTANCE: A LOAD MODIFIER OF 1.0 HAS BEEN ASSUMED FOR THE DESIGN OF THIS STRUCTURE IN ACCORDANCE WITH THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, ARTICLE 1.3.5 AND THE ODOT BRIDGE DESIGN MANUAL.

DESIGN LOADING

DESIGN LOADING: HL-93
FUTURE WEARING SURFACE (FWS) OF 0.060 KIPS/SQ. FT.

DESIGN DATA

CONCRETE CLASS QC2 - COMPRESSIVE STRENGTH 4.5 KSI (SUPERSTRUCTURE)
CONCRETE CLASS QC1 - COMPRESSIVE STRENGTH 4.0 KSI (SUBSTRUCTURE)
CONCRETE CLASS QC5, WITH $\frac{3}{8}$ IN. MAX. AGGREGATE SIZE - COMPRESSIVE STRENGTH 4.0 KSI (DRILLED SHAFT)

REINFORCING STEEL - MINIMUM YIELD STRENGTH 60 KSI
STRUCTURAL STEEL - ASTM A709 GRADE 50 YIELD STRENGTH 50 KSI

CONCRETE FOR PRESTRESSED BEAMS:
COMPRESSIVE STRENGTH (FINAL) - 7.0 KSI
COMPRESSIVE STRENGTH (RELEASE) - 5.0 KSI

WELDED WIRE FABRIC - YIELD STRENGTH 70 KSI

PRESTRESSING STAND:
AREA = 0.217 SQ. IN.
ULTIMATE STRENGTH = 270 KSI
INITIAL STRESS = 202.5 KSI (LOW RELAXATION STRANDS)

DECK PROTECTION METHOD

EPOXY COATED REINFORCING STEEL
2½" CONCRETE COVER

MONOLITHIC WEARING SURFACE

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

ITEM 202, PORTIONS OF STRUCTURE REMOVED, AS PER PLAN:

REMOVE ABUTMENT STEMS AND WINGWALLS ABOVE EL. 592.00 AT THE REAR ABUTMENT AND EL. 589.00 AT THE FORWARD ABUTMENT.

REMOVE PIER TO EL 591.00.

ITEM 530, SPECIAL - FORMLINER:

DESCRIPTION:
CONCRETE FORMLINERS SHALL BE USED ON THE PARAPETS ACCORDING TO THE DETAILS IN THE PLANS.

THE FORMLINER USED SHALL MEET THE DETAILS SHOWN IN THE PLANS FOR STAGGERED (INTERLOCKING) PATTERNS, INCLUDING DEPTH OF RELIEF AND SIZE OF STONE PATTERN. HORIZONTAL JOINTS IN THE STONE PATTERN SHALL BE ALIGNED AND AT THE SAME ELEVATION. THE FINISHED TEXTURE OF THE ROUGH CUT STONE SHALL BE SIMILAR TO THAT OF RUBBED CONCRETE.

FORMLINERS SHALL MATCH THE DIMENSIONAL SPECIFICATIONS OF THE FOLLOWING MANUFACTURER OR APPROVED EQUAL.

PATTERN #1208 (DRY STACK - CUSTOM RELIEF ¾")
CUSTOM ROCK FORMLINER
2020 W. 7TH STREET
ST. PAUL, MN 55116
800-637-2447
WWW.CUSTOMROCK.COM

THE FORMLINER MANUFACTURER SHALL SUBMIT EVIDENCE OF AT LEAST TWO SIMILAR ARCHITECTURAL CONCRETE CONSTRUCTION PROJECTS WITHIN THE PAST FIVE YEARS FOR A REVIEW AND APPROVAL BY THE ENGINEER. COMPLETE SHOP DRAWINGS DETAILING THE STONE PATTERN SHALL BE SUBMITTED IN ACCORDANCE WITH 501.04 FOR APPROVAL PRIOR TO PLACING ANY CONCRETE WHERE THE FORMLINERS WILL BE USED. SHOP DRAWINGS SHALL INCLUDE FORMLINER INSTALLATION AND CASTING , AND INDICATE FORMLINER BACKUP, REVEAL, AND CHAMFER STRIP LOCATIONS. THE CONTRACTOR SHALL COORDINATE WITH THE FORMLINER MANUFACTURER TO ASSURE UNDERSTANDIG OF FORMLINER USE, TEST PANEL MOCK-UP REQUIREMENTS, AND FINAL CONSTRUCTION PROCEDURES.

MATERIALS:
THE FORMLINER SHALL BE FABRICATED WITH SHAPES THAT ALLOW REMOVAL OF THE FORMS WITHOUT DAMAGE OR VISUAL IMPAIRMENT OF THE CONCRETE, AND SHALL HAVE 1/8" MINIMUM RADII WITH NO SHARP EDGES. THE FORMLINER SHALL BE CAPABLE OF WITHSTANDING APPLIED CONCRETE POUR PRESSURE WITHOUT LEAKAGE, PHYSICAL DEFECT OR VISUAL IMPAIRMENT.

CONSTRUCTION REQUIREMENTS:
FORMLINERS SHALL BE CLEANED BEFORE EACH USE. DAMAGED FORMLINERS WHOSE CONTINUED USE OR REPAIR WOULD NEGATIVELY IMPACT THE AESTHETICS OF THE FINISHED CONCRETE SHALL BE REPLACED. FORMLINER JOINTS SHALL BE SEALED TO PREVENT CEMENT PASTE FROM BLEEDING. FORMLINERS SHALL BE INSTALLED IN ACCORDANCE WITH THE APPROVED SHOP DRAWINGS. CHAMFERED CORNERS SHALL FORM SMOOTH, SOLID, UNBROKEN CONTINUOUS SURFACES WHICH ARE UNIFORMLY STRAIGHT. AN APPROVED COMPATIBLE FORMLINER RELEASE AGENT SHALL BE APPLIED AT A RATE RECOMMENDED BY THE MANUFACTURER.

AS PART OF THIS ITEM, A 7 FOOT LONG SECTION OF PARAPET THAT COMPRISES A MINIMUM OF ONE COMPLETED STONE BLOCK PATTTERN WILL BE CAST BY THE CONTRACTOR FOR APPROVAL BY THE ENGINEER. IF THE SECTION DOES NOT MEET THE ENGINEER'S APPROVAL, THE PROPOSED FORMLINER MAY BE REJECTED. THE SECTION MUST BE APPROVED BEFORE PLACING ANY CONCRETE WHERE THE FORMLINERS WILL BE USED. REJECTION OF THE SECTION WILL REQUIRE CONSTRUCTION OF ANOTHER SECTION UNTIL APPROVAL IS GRANTED. THE PARAPET SECTION SHALL USE ACTUAL PROJECT SPECIFIC MATERIALS, METHODS AND WORKMANSHIP, INCLUDING CONCRETE MIX (CEMENT TYPE, AGGREGATE GRADATION, SLUMP, WATER/CEMENT RATIO, PLASTICIZERS AND ADDITIVES), FORMLINER AND FORMWORK SYSTEMS, INSERTS, FORM RELEASE AGENTS, PLACEMENT RATE, FORM PRESSURES, AND JOINT SEALING, VIBRATING, AND STRIPPING PRACTICES. ANY INTENDED PATCHING OR REPAIR PROCEDURES FOR THE CORRECTION OF MINOR DEFECTS THAT DO NOT RESULT IN REJECTION OF THE ENTIRE PARAPET SHALL BE DEMONSTRATED ON THE SECTION.

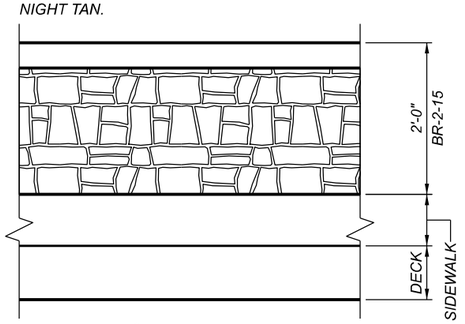
THE ACCEPTED PARAPET SECTION SHALL BE THE STANDARD BY WHICH THE FINAL CONSTRUCTION WILL BE EVALUATED FOR TECHNICAL AND AESTHETIC MERIT. THE PARAPET SECTION SHALL BE CONSTRUCTED AT THE CONSTRUCTION SITE, OR AT AN ALTERNATE LOCATION AGREED UPON BY THE ENGINEER. UPON COMPLETION OF THE FINAL CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVAL AND DISPOSAL OF THE PARAPET SECTION MOCK-UP.

PORTIONS OF THE PARAPET DETAILED IN THE PLAN SET SHALL BE CAST WITH STONE FACING FORMLINER TEXTURE AND BE SEALED WITH ITEM 512 - SEALING OF CONCRETE SURFACES (EPOXY-URETHANE).

METHOD OF MEASUREMENT:
DRY STACK STONE FORMLINERS WILL NOT BE MEASURED INDIVIDUALLY FOR PAYMENT UNDER THIS ITEM.

BASIS OF PAYMENT:
ITEM 530, SPECIAL - FORMLINER, WILL BE PAID FOR AT THE CONTRACT SQ. FT. PRICE. THE WORK SHALL INCLUDE FABRICATION AND ERECTION OF FORMLINERS, PREPARATION OF FORMLINER SHOP DRAWINGS, AND CONSTRUCTION AND REMOVAL OF THE PRE-CONSTRUCTION PARAPET SECTION, AND SHALL INCLUDE ALL LABOR, MATERIALS, EQUIPMENT AND INCIDENTALS REQUIRED TO COMPLETE THIS ITEM.

THE DEPARTMENT WILL PAY FOR SEALING OF CONCRETE SURFACES SEPARATELY UNDER ITEM 512 - SEALING OF CONCRETE SURFACES (EPOXY-URETHANE). THE EPOXY-URETHANE COATING SHALL BE FEDERAL COLOR NO. 20450 - NIGHT TAN.



MAX. RELIEF = ¾" (CUSTOM)
MAX. STONE SIZE = 8" TO 16"

ROCK SOCKET DRILLED SHAFTS

THE MAXIMUM FACTORED LOAD TO BE SUPPORTED BY EACH DRILLED SHAFT IS 554 KIPS AT THE ABUTMENTS AND 1104 KIPS AT THE PIERS. THIS LOAD IS RESISTED BY SIDE RESISTANCE WITHIN A PORTION OF THE BEDROCK SOCKET AND BY TIP RESISTANCE. THE REAR ABUTMENT FACTORED RESISTANCE IS IN EXCESS OF 7,408 KIPS, ASSUMING A MINIMUM EMBEDMENT OF 8 FEET. THE FORWARD ABUTMENT FACTORED RESISTANCE IS IN EXCESS OF 8,466 KIPS, ASSUMING A MINIMUM EMBEDMENT OF 11 FEET. THE PIER 1 FACTORED RESISTANCE IS 5,443 KIPS, ASSUMING A MINIMUM EMBEDMENT OF 11'. THE PIER 2 FACTORED RESISTANCE IS 6,220 KIPS, ASSUMING A MINIMUM EMBEDMENT OF 8.5'. A TEMPORARY CASING WILL BE REQUIRED FOR ALL SHAFTS.

LATERALLY LOADED DRILLED SHAFTS

THE MAXIMUM FACTORED LATERAL LOAD AND BENDING MOMENT TO BE SUPPORTED BY EACH ABUTMENT DRILLED SHAFT ARE 255 KIPS, AND 1,591 KIP-FEET, RESPECTIVELY. THESE LOADS PRODUCE A MAXIMUM FACTORED BENDING MOMENT OF 3,713 KIP-FEET, AND A MAXIMUM FACTORED SHEAR OF 2172 KIPS, WITHIN THE DRILLED SHAFT. THE MAXIMUM FACTORED LATERAL LOAD AND BENDING MOMENT TO BE SUPPORTED BY EACH PIER DRILLED SHAFT ARE 23 KIPS, AND 604 KIP-FEET, RESPECTIVELY. THESE LOADS PRODUCE A MAXIMUM FACTORED BENDING MOMENT OF 793 KIP-FEET, AND A MAXIMUM FACTORED SHEAR OF 502 KIPS, WITHIN THE DRILLED SHAFT.

UTILITY LINES

UTILITY LINES: THE UTILITY(IES) SHALL BARE ALL EXPENSE INVOLVED IN RELOCATING (INSTALLING) THE AFFECTED UTILITY LINES EXCEPT ITEM 202, PIPE REMOVED, 24" AND UNDER AND ITEM 530, STRUCTURES - MISC.: WATERLINE SUPPORT. THE CONTRACTOR AND UTILITY(IES) ARE TO COOPERATE BY ARRANGING THEIR WORK IN SUCH A MANNER THAT INCONVENIENCE TO EITHER WILL BE HELD TO A MINIMUM.

DECK PLACEMENT DESIGN ASSUMPTIONS

THE FOLLOWING ASSUMPTIONS OF CONSTRUCTION MEANS AND METHODS WERE MADE FOR THE ANALYSIS AND DESIGN OF THESUPERSTRUCTURE. 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 2.818 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 IN.
A MAXIMUM DISTANCE FROM THE CENTERLINE OF THE FASCIA GIRDER TO THE FACE OF THE SAFETY HANDRAIL OF 65 IN.

ASBESTOS NOTIFICATION

A CERTIFIED ASBESTOS HAZARD EVALUATION SPECIALIST SURVEYED THE BRIDGE STRUCTURE SCHEDULED FOR DEMOLTION AND/OR REHABILITATION; THE SURVEY DETERMINED THAT NO ASBESTOS IS PRESENT ON THE BRIDGE STRUCTURE. A COPY OF THE OHIO ENVIRONMENTAL PROTECTION AGENCY (OEPA) NOTIFICATION OF DEMOLITION AND RENOVATION FORM, PARTIALLY COMPLETED HAS BEEN ATTACHED TO THE PLANS AS ASBESTOS SPECIAL PROVISIONS. THE CONTRACTOR SHALL COMPLETE THE FORM AND SUBMIT IT TO OHIO EPA AND TO THE ENGINEER AT LEAST TEN (10) WORKING DAYS PRIOR TO THE START OF ANY DEMOLITION AND/OR RENOVATION. BASIS FOR PAYMENT THE CONTRACTOR SHALL FURNISH ALL FEES, LABOR, AND MATERIAL 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.

GENERAL NOTES
BRIDGE NO. LUC-120-1132C
OVER THE OTTAWA RIVER

SFN	4804930
DESIGN AGENCY	TRC
DESIGNER	HM
CHECKER	CMH
REVIEWER	CEJ 02/2022
PROJECT ID	102940
SUBSET	2
TOTAL	43
SHEET	P.•29
TOTAL	85

ITEM 517 - RAILING, MISC.: SHARED USE PATH GALVANIZED AND PAINTED STEEL RAILING

SHOP DRAWINGS:

IN ADDITION TO THE REQUIREMENTS OF 501 AND THE REQUIREMENTS IN THESE NOTES, SUBMIT FOR REVIEW AND ACCEPTANCE, THREE (3) COPIES OF SHOP DRAWINGS, UNLESS ADDITIONAL COPIES ARE REQUESTED. DO NOT BEGIN FABRICATION UNTIL WRITTEN ACCEPTANCE OF THE SUBMITTED DRAWINGS HAS BEEN RECEIVED.

SELECT A FABRICATOR FROM THE PRE-QUALIFIED FABRICATORS LIST IN EFFECT AT THE DATE OF THE CONTRACT LETTING. SELECT A FABRICATOR THAT IS AT LEAST PRE-QUALIFIED AT LEVEL UF. BEFORE OR AT THE PRECONSTRUCTION CONFERENCE, PROVIDE A WRITTEN NOTIFICATION TO THE DISTRICT CONSTRUCTION ENGINEER AND OFFICE OF MATERIALS MANAGEMENT OF THE SELECTED FABRICATORS.

SUBMIT SHOP DRAWINGS PER 501.04, 501.04B AND 501.04C AND PER THE REQUIREMENTS IN THESE NOTES. PREPARE THE SHOP DRAWINGS BY OR UNDER DIRECT SUPERVISORY CONTROL OF AN OHIO REGISTERED PROFESSIONAL ENGINEER HAVING PERSONAL KNOWLEDGE OF AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES AND ITEMS 513 AND 517. THE REGISTERED ENGINEER SHALL SIGN , SEAL AND DATE EACH DRAWING. HAVE QUESTIONS AND COMMENTS ADDRESSED BEFORE SUBMITTING THE SHOP DRAWINGS.

COATING:

GALVANIZE RAILING COMPONENTS IN ACCORDANCE WITH CMS 711.02. AFTER REMOVING HIGH SPOTS, THE GALVANIZED COATING SHALL BE CLEANED PER SSPC-SP1. THE CLEANING SOLUTION SHALL BE AN ALKALINE SOLUTION WITH A PH RANGING FROM A MINIMUM OF 11 TO A MAXIMUM OF 12. THIS SOLUTION CAN BE APPLIED BY IMMERSION, SPRAY OF SOFT NYLON BRUSH. FOLLOWING CLEANING WITH A HOT WATER OR HOT PRESSURE WASHER RINSE. INDIVIDUAL PIECES SHALL BE SEPARATED AND POSITIONED TO FACILITATE DRAINAGE AND DRYING. THE PIECES SHALL BE COMPLETELY DRY BEFORE PROCEEDING.

AFTER CLEANING, THE PIECES SHALL BE ABRASIVE BLASTED PER SSPC-SP7 BRUSH-OFF BLAST CLEANING. THE BLASTING OPERATION SHALL ROUGHEN THE GALVANIZED SURFACE TO AN ANGULAR SURFACE PROFILE OF 0.25 TO 0.50 MILS. THE BLASTING EQUIPMENT, TECHNIQUE AND ABRASIVE MATERIAL SHALL BE SELECTED TO PROVIDE FOR THE SPECIFIED SURFACE PROFILE WITHOUT REMOVAL OF ZING LAYERS. THE FINAL ZINC MILAGE SHALL NOT BE LESS THAN 3.0 MILS. ALL ABRASIVE RESIDUE SHALL BE REMOVED WITH CLEAN COMPRESSED AIR OF OTHER METHODS ACCEPTABLE TO THE DEPARTMENT.

AFTER OBTAINING AN ACCEPTABLE SURFACE PROFILE, SHOP APPLY A TWO (2) COAT PAINT SYSTEM CONSISTING OF EPOXY INTERMEDIATE COAT AND A URETHANE FINISH COAT MEETING THE REQUIREMENTS OF CMS 514. THE FINISH COAT SHALL MATCH FEDERAL COLOR STANDARD NO. 595-27038 (BLACK).

THE EPOXY INTERMEDIATE COATING SHALL BE APPLIED WITHIN 24 HOURS OF THE BRUSH OFF BLASTING. THE COATINGS SHALL BE APPLIED PER CMS 514 EXCEPT THAT THE REQUIREMENTS FOR SURFACE PREPARATION AND PRIMING SHALL NOT BE PERFORMED. THE COATING SHALL BE SHOP APPLIED AS SPECIFIED IN THESE NOTES WITHOUT THE WORK LIMITATIONS SPECIFIED IN CMS 514. FIELD REPAIRS AND TOUCH UPS SHALL FOLLOW WORK LIMITATIONS SPECIFIED PER CMS 514 AND BE AS DIRECTED BY THE ENGINEER.

THE RAILING SHALL BE INSULATED FROM BINDING CHAINS DURING TRANSPORTATION BY THE USE OF SOFTENERS AND ALL HOOKS AND SLINGS THAT ARE USED TO HOIST/ERECT THE STEEL MEMBERS SHALL BE PADDED. THE CONTRACTOR SHALL REPAIR ANY DAMAGE TO THE PAINT SYSTEM CAUSED DURING STORAGE, TRANSPORTATION AND ERECTION PER CMS 514.22.

METHOD OR MEASUREMENT:

THE DEPARTMENT WILL MEASURE THE RAILING BY THE NUMBER OF FEET OF RAILING FROM THE CENTERLINE OF THE FIRST CONCRETE ANCHOR MOUNTED POST TO THE CENTERLINE OF THE LAST CONCRETE ANCHOR MOUNTED POST. THE DEPARTMENT WILL NOT MEASURE ANY PORTIONS OF THE RAIL ELEMENTS EXTENDING BEYOND THE FIRST AND LAST CONCRETE ANCHOR MOUNTED POST.

BASIS OF PAYMENT:

THE COST OF THE RAIL ELEMENTS EXTENDING BEYOND THE MEASURED LIMITS ARE INCLUDED FOR PAYMENT IN THE UNIT PRICE BID FOR THE MEASURED LENGTH.

ALL MATERIALS AND LABOR TO INSTALL THE CONCRETE ANCHORS, INCLUDING THE REINFORCING STEEL, SHALL BE INCLUDED IN THE UNIT BID PRICE FOR THE RAILING.

THE DEPARTMENT WILL PAY FOR ACCEPTED QUANTITIES AT THE CONTRACT PRICE FOR ITEM 517 RAILING, MISC.: SHARED USE PATH GALVANIZED AND PAINTED STEEL RAILING, PER FOOT.

ITEM 894 - THERMAL INTEGRITY PROFILER (T.I.P.) TEST

PERFORM INTEGRITY TESTING ON FOUR (4) OF THE DRILLED SHAFTS, ONE (1) AT EACH SUBSTRUCTURE LOCATION BY THERMAL INTEGRITY PROFILING (TIP). PERFORM TIP TESTING PER ASTM D7949, "STANDARD TEST METHODS FOR THERMAL INTEGRITY PROFILING OF CONCRETE DEEP FOUNDATIONS,"METHOD B, AND PER SUPPLEMENTAL SPECIFICATION 894.

DRILLED SHAFT ROCK SOCKET DRILLING:

IF EVIDENCE OF COBBLES, BOULDERS, VOIDS OR SOIL FILLED ZONES ARE ENCOUNTERED AT OR NEAR THE SPECIFIED SHAFT TIP ELEVATION, THE BOTTOM OF SHAFT SHALL BE EXTENDED TO A DEPTH OF 1 FT INTO THE SLIGHTLY WEATHERED, MODERATELY STRONG TO STRONG DOLOMITE. IF CONDITIONS DIFFER FROM THOSE ANTICIPATED BASED ON AVAILABLE TEST BORING DATA, DRILLED SHAFT INSPECTION REPORT SHOULD BE SUBMITTED TO THE ENGINEER TO DETERMINE ANY POTENTIAL IMPACTS ON THE DESIGN PRIOR TO PLACEMENT OF REINFORCEMENT AND/OR CONCRETE.

GENERAL NOTES
BRIDGE NO. LUC-120-1132C
OVER THE OTTAWA RIVER

SFN 4804930
DESIGN AGENCY TRC
DESIGNER HM | CHECKER CMH
REVIEWER CEJ 02/2022
PROJECT ID 102940
SUBSET 3 | TOTAL 43
SHEET P.-30 | TOTAL 85

ESTIMATED QUANTITIES (01/NHS/BR)

ITEM	EXTENSION	TOTAL	UNIT	DESCRIPTION	ABUT.	PIERS	SUPER.	GEN.	SEE SHEET
202	11003	LS		STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN					2
202	22900	232	SY	APPROACH SLAB REMOVED				232	
202	23500	1014	SY	WEARING COURSE REMOVED			1014		
202	35100	168	FT	PIPE REMOVED, 24" AND UNDER			168		
503	11100	LS		COFFERDAMS AND EXCAVATION BRACING					
503	21300	LS		UNCLASSIFIED EXCAVATION					
509	10000	229,062	LB	EPOXY COATED REINFORCING STEEL	41,699	38,547	148,816		
511	33500	2	EACH	SEMI-INTEGRAL DIAPHRAGM GUIDE	2				
511	34446	499	CY	CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK			499		
511	41012	142	CY	CLASS QC1 CONCRETE WITH QC/QA, PIER ABOVE FOOTINGS		142			
511	44112	381	CY	CLASS QC1 CONCRETE WITH QC/QA, ABUTMENT NOT INCLUDING FOOTING	381				
511	46512	139	CY	CLASS QC1 CONCRETE WITH QC/QA, FOOTING	139				
511	51512	105	CY	CLASS QC2 CONCRETE WITH QC/QA, SIDEWALK			105		
512	10050	363	SY	SEALING OF CONCRETE SURFACES (NON-EPOXY)			363		
512	10100	1139	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	274	201	664		
515	15070	27	EACH	DRAPED STRAND PRESTRESSED CONCRETE BRIDGE I-BEAM MEMBERS, LEVEL 3, TYPE WF36-49 (L = 54'-10")			27		
515	20000	21	EACH	INTERMEDIATE DIAPHRAGMS			21		
516	13600	37	SF	1" PREFORMED EXPANSION JOINT FILLER			37		
516	13900	259	SF	2" PREFORMED EXPANSION JOINT FILLER			105	154	
516	14020	190	FT	SEMI-INTEGRAL ABUTMENT EXPANSION JOINT SEAL	190				
516	44100	18	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), (BR: 12"x18"x2.50", LP: 13"x19"x1.50")	18				20
516	44100	36	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), (BR: 12"x18"x2.50", LP: 13"x19"x0.75")		36			21
517	75121	435	FT	RAILING (CONCRETE PARAPET WITH TWIN STEEL TUBE RAILING), AS PER PLAN			435		38, 38A
517	76300	405	FT	RAILING, MISC.: SHARED USE PATH GALVANIZED AND PAINTED STEEL RAILING			405		3
518	21200	260	CY	POROUS BACKFILL WITH GEOTEXTILE FABRIC	260				
518	40000	234	FT	6" PERFORATED CORRUGATED PLASTIC PIPE	234				
518	40011	80	FT	6" NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS, AS PER PLAN	80				9
524	94704	77	FT	DRILLED SHAFTS, 36" DIAMETER, INTO BEDROCK		77			
524	94802	149	FT	DRILLED SHAFTS, 42" DIAMETER, ABOVE BEDROCK		149			
524	94804	171	FT	DRILLED SHAFTS, 42" DIAMETER, INTO BEDROCK	171				
524	94902	157	FT	DRILLED SHAFTS, 48" DIAMETER, ABOVE BEDROCK	157				
526	25010	441	SY	REINFORCED CONCRETE APPROACH SLABS WITH QC/QA (T=15")				441	
526	90010	166	FT	TYPE A INSTALLATION				166	
SPECIAL	53000400	15	EACH	STRUCTURES - MISC.: WATERLINE SUPPORT			15		33
SPECIAL	53000600	2,176	SF	STRUCTURES - MISC.: FORMLINER			2176		2
601	32204	252	CY	ROCK CHANNEL PROTECTION, TYPE C WITH GEOTEXTILE FABRIC				252	
846	00110	33	CF	POLYMER MODIFIED ASPHALT EXPANSION JOINT SYSTEM				33	
894	10000	4	EACH	THERMAL INTEGRITY PROFILING (TIP) TEST	2	2			

ABBREVIATIONS

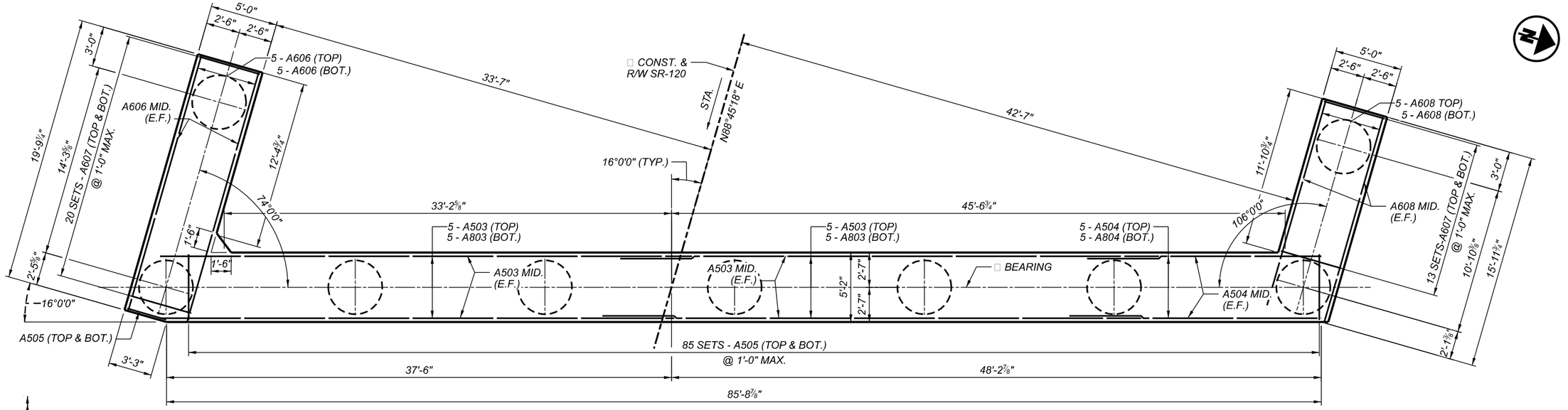
THE FOLLOWING ABBREVIATIONS HAVE BEEN USED THROUGHOUT THESE PLANS TO INDICATE THE DESIGNATIONS CONTAINED IN THE LEGEND BELOW:

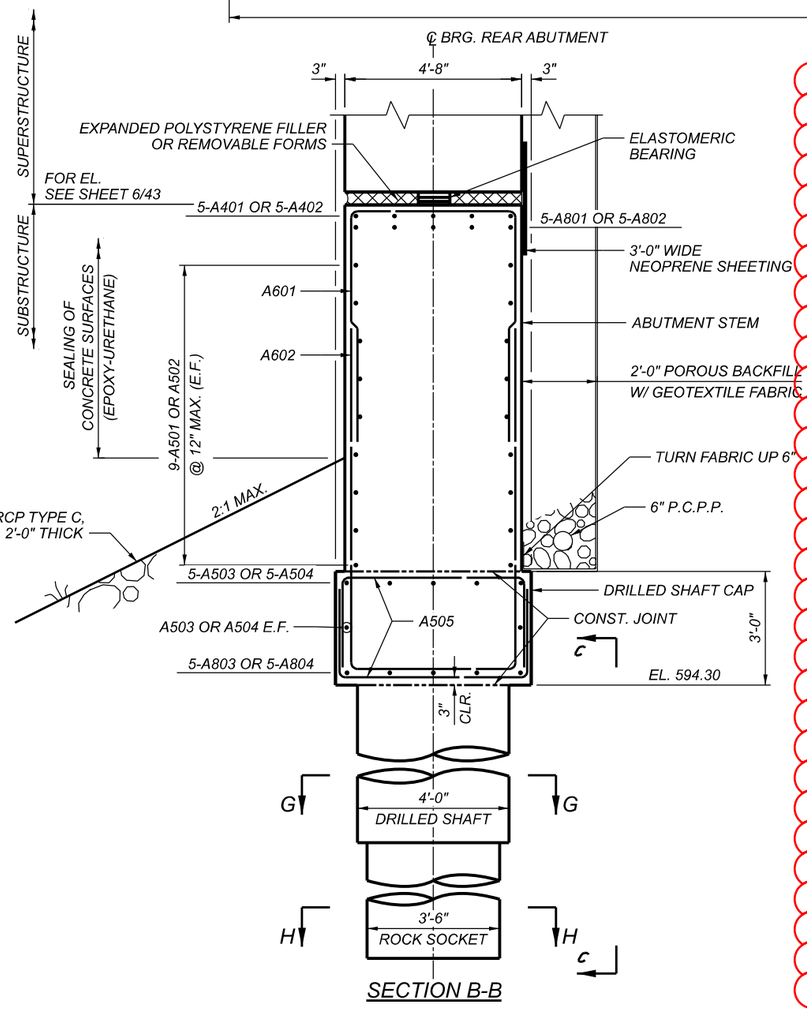
ABUT. - ABUTMENT
ADT - AVERAGE DAILY TRAFFIC
ADTT - AVERAGE DAILY TRUCK TRAFFIC
ALT. - ALTERNATE
APPROX. - APPROXIMATE
ASTM - AMERICAN SOCIETY OF TESTING AND MATERIALS
B.F. - BACK FACE
BOT. - BOTTOM
BRG. - BEARING
℄ - CENTERLINE
C/C - CENTER TO CENTER
CIP - CAST-IN-PLACE
C.J. - CONSTRUCTION JOINT
CLR. - CLEARANCE
CMS - CONSTRUCTION AND MATERIAL SPECIFICATIONS
CONST. - CONSTRUCTION
DIA./ϕ - DIAMETER
DIM. - DIMENSION
DWG. - DRAWING
E.F. - EACH FACE
E/P - EDGE OF PAVEMENT
E/S - EDGE OF SHOULDER
EL. - ELEVATION
EQ. - EQUAL
EX. - EXISTING
EXP. - EXPANSION
F.A. - FORWARD ABUTMENT
F.F. - FRONT FACE
F/F - FACE TO FACE
FTG. - FOOTING
FT/FT - FOOT PER FOOT
FWD. - FORWARD
HORIZ. - HORIZONTAL
I - INTERSTATE ROUTE
JT. - JOINT
LT. - LEFT
MAX. - MAXIMUM
MIN. - MINIMUM
MOT - MAINTENANCE OF TRAFFIC
NB - NORTHBOUND
NO. - NUMBER
N.C.P.P. - NON-PERFORATED CORRUGATED PLASTIC PIPE
O/O - OUT TO OUT
OHWM - ORDINARY HIGH WATER MARK
P.C.P.P - PERFORATED CORRUGATED PLASTIC PIPE
P.E.J.F. - PREFORMED EXPANSION JOINT FILLER
PROP. - PROPOSED
R.A. - REAR ABUTMENT
RT. - RIGHT
R/W - RIGHT OF WAY
SB - SOUTHBOUND
SER. - SERIES OF
SPA. - SPACES OR SPACING
STA. - STATION
STD. - STANDARD
STR. - STRAIGHT
TEMP. - TEMPORARY
T/T - TOE TO TOE
TYP. - TYPICAL
VERT. - VERTICAL

ESTIMATED QUANTITIES
BRIDGE NO. LUC-120-1132C
OVER THE OTTAWA RIVER

SFN 4804930
DESIGN AGENCY TRC
DESIGNER HM | CHECKER CMH
REVIEWER CEJ 02/2022
PROJECT ID 102940
SUBSET 4 | TOTAL 43
SHEET P.•31 | TOTAL 85

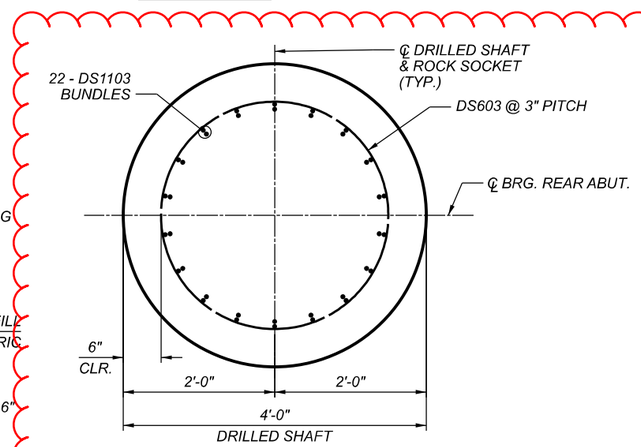
LUC-120-11.32



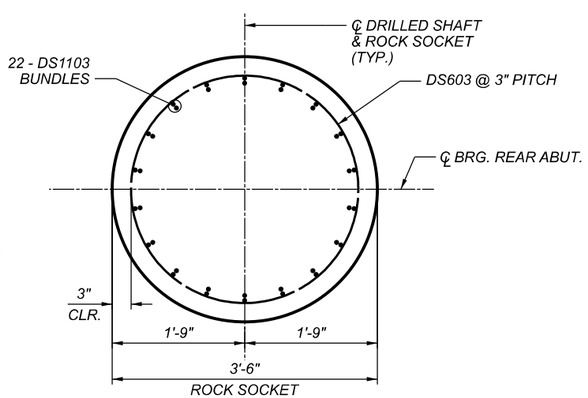


SECTION B-B

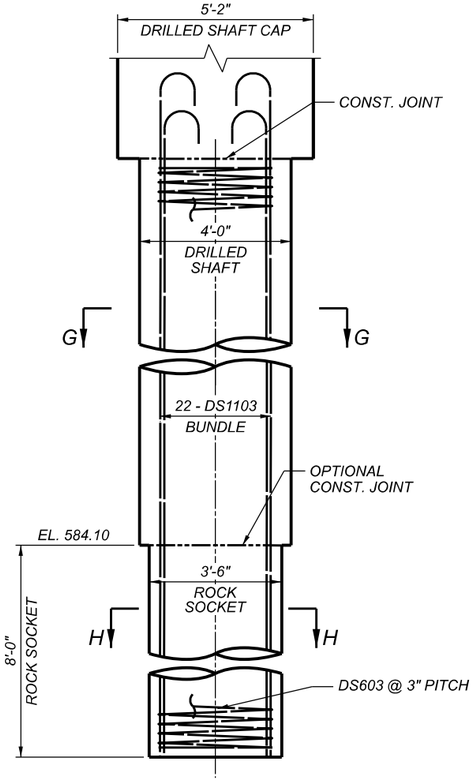
SECTION A-A



SECTION G-G



SECTION H-H



VIEW C-C

NOTE:

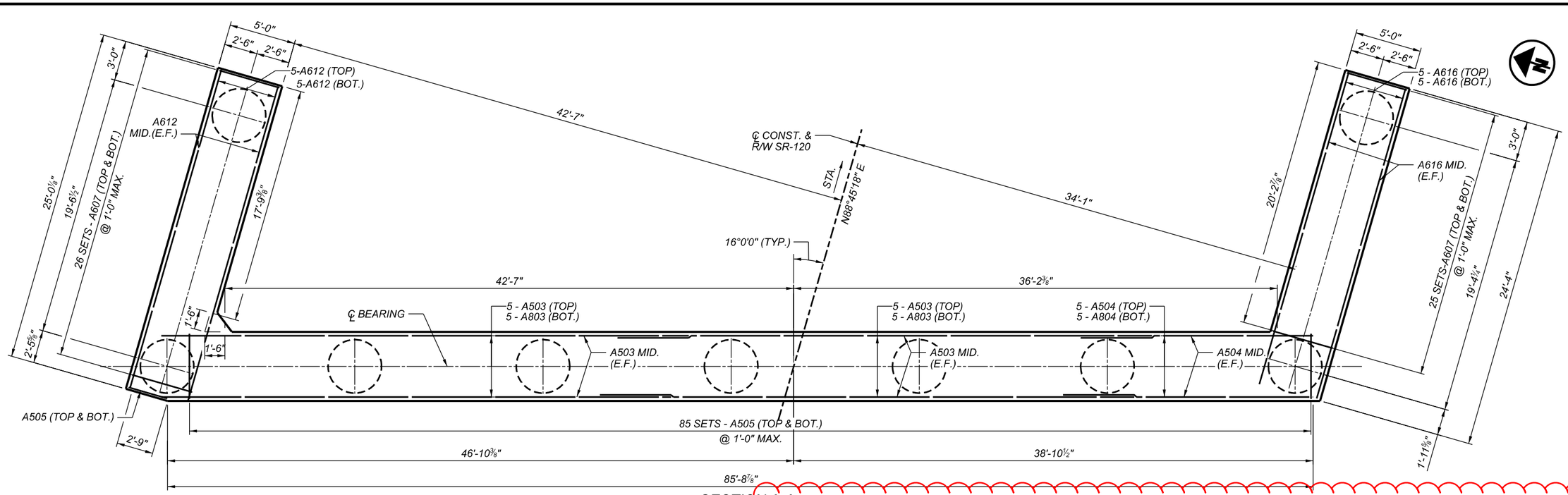
1. FOR LOCATIONS OF SECTIONS A-A AND B-B, SEE SHEET 6/43.

MINIMUM LAP LENGTHS	
NO. 5 BAR	3'-1"
NO. 6 BAR	4'-0"
NO. 8 BAR	5'-3"

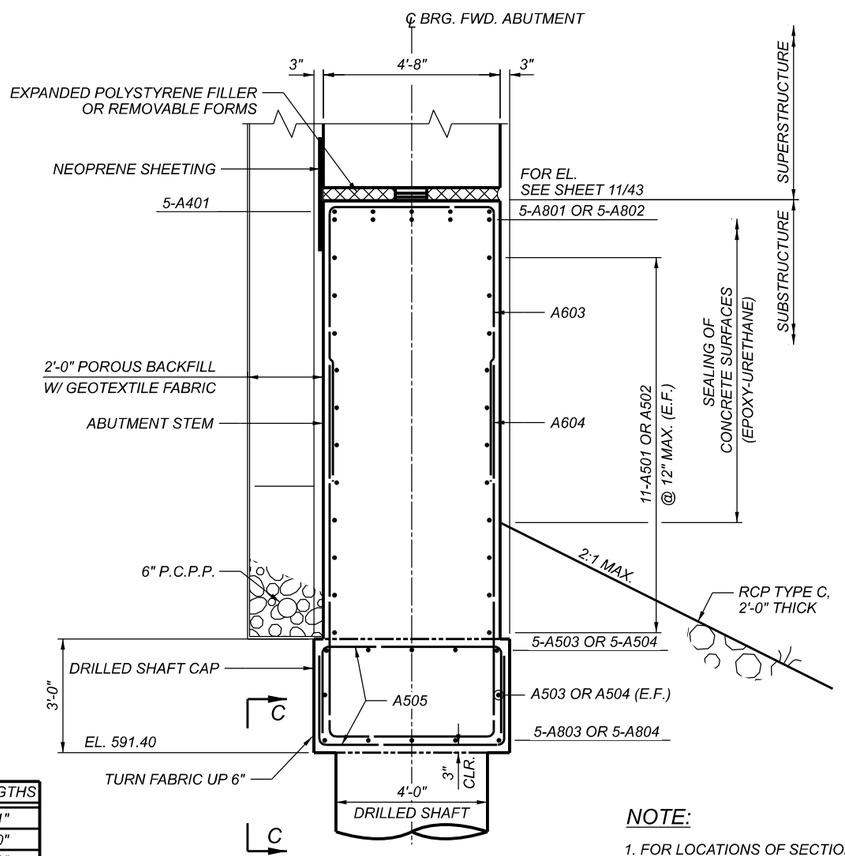
REAR ABUTMENT SECTIONS AND DETAILS
BRIDGE NO. LUC-120-1132C
OVER THE OTTAWA RIVER

SFN 4804930
DESIGN AGENCY TRC
DESIGNER HM | CHECKER CMH
REVIEWER CEJ 02/2022
PROJECT ID 102940
SUBSET 10 | TOTAL 43
SHEET P.•37 | TOTAL 85

LUC-120-11.32



SECTION A-A

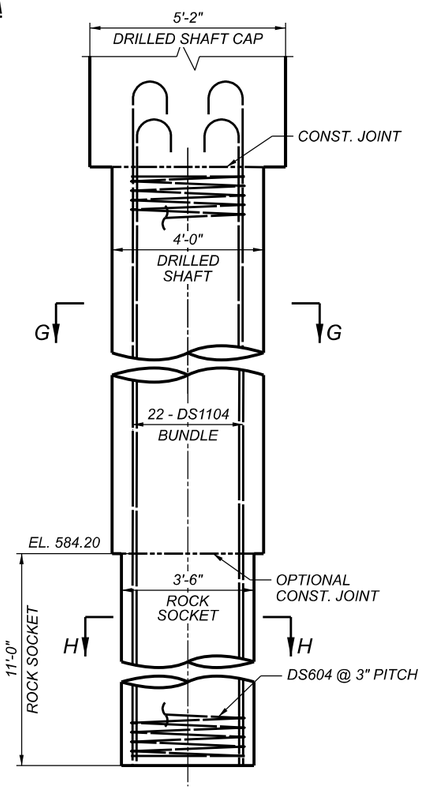


SECTION B-B

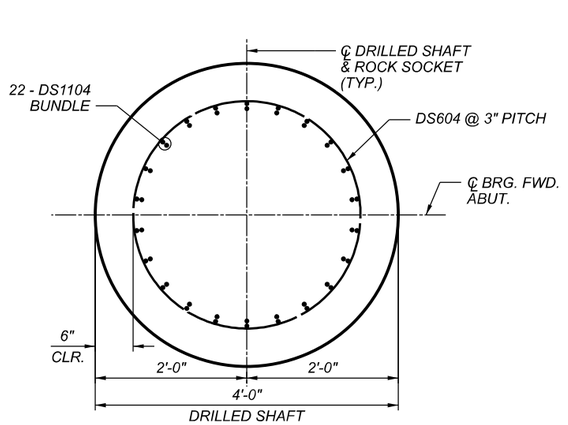
MINIMUM LAP LENGTHS	
NO. 5 BAR	3'-1"
NO. 6 BAR	4'-0"
NO. 8 BAR	5'-3"

NOTE:

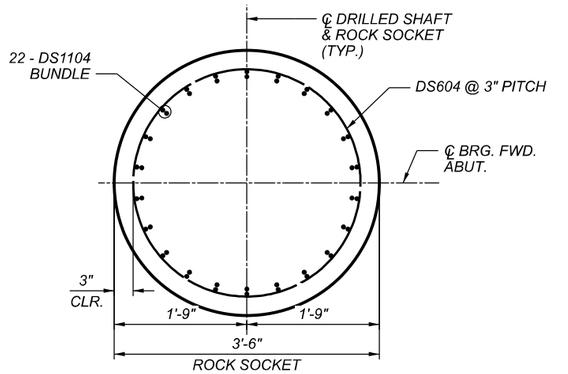
1. FOR LOCATIONS OF SECTIONS A-A AND B-B, SEE SHEET 11/43.



VIEW C-C



SECTION G-G

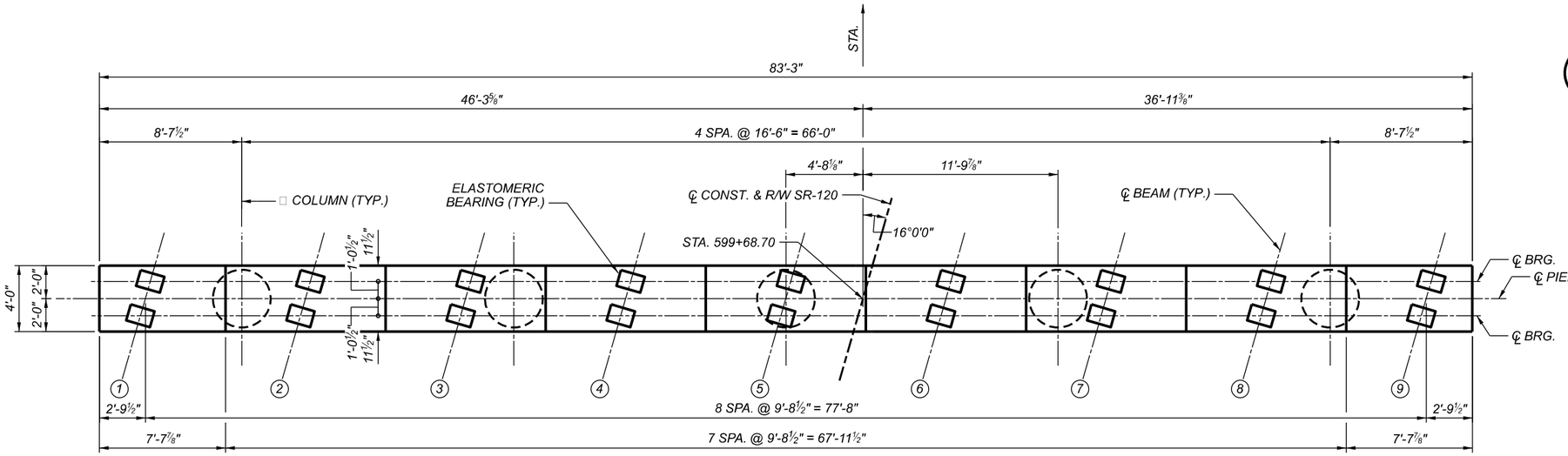


SECTION H-H

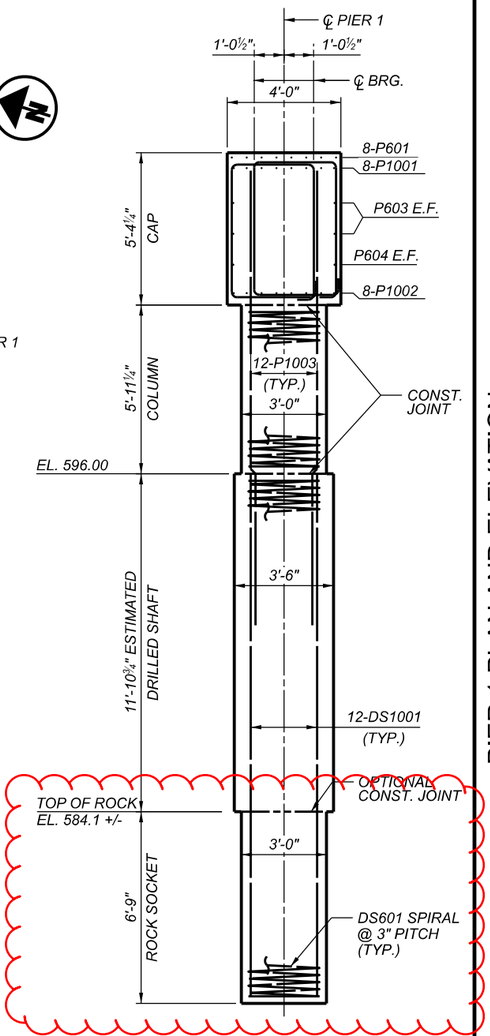
FORWARD ABUTMENT SECTIONS AND DETAILS
BRIDGE NO. LUC-120-1132C
OVER THE OTTAWA RIVER

SFN	4804930
DESIGN AGENCY	TRC
DESIGNER	HM
CHECKER	CMH
REVIEWER	CEJ 02/2022
PROJECT ID	102940
SUBSET	15
TOTAL	43
SHEET	P.-42
TOTAL	85

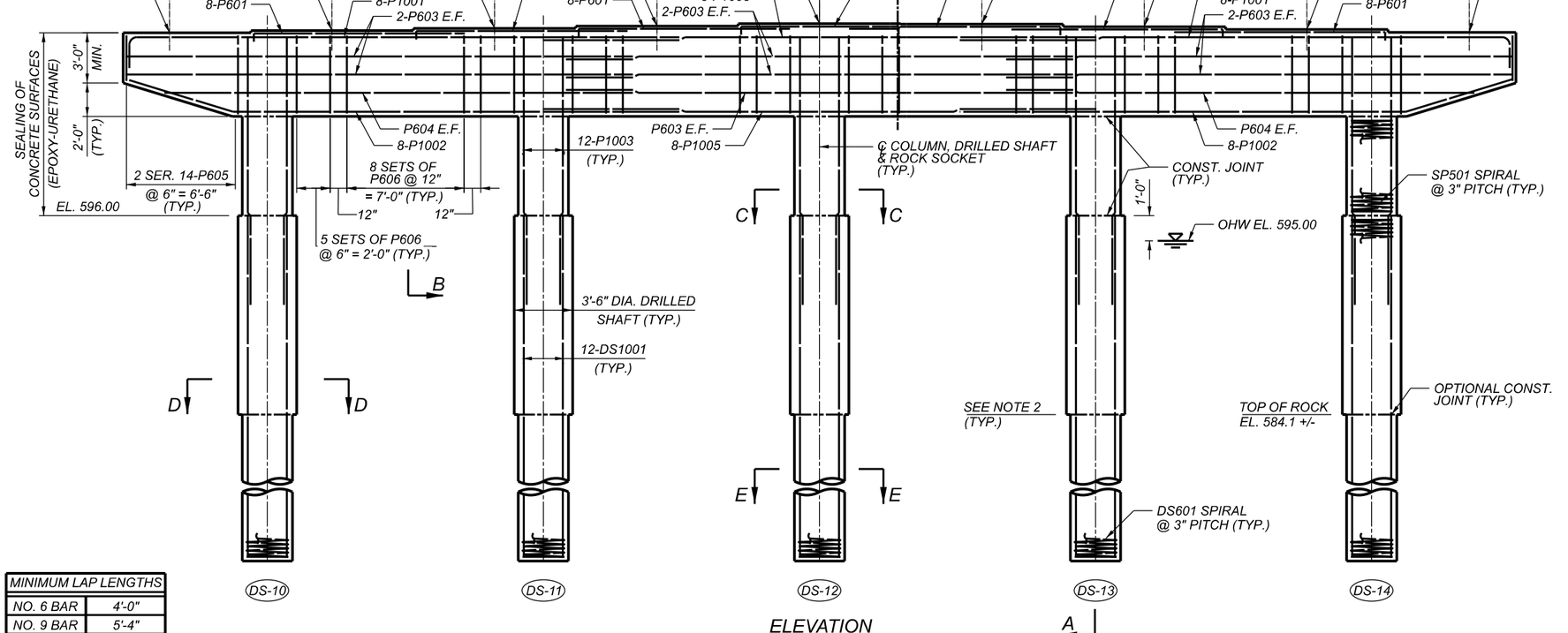
LUC-120-11.32



PLAN



SECTION A-A



ELEVATION

MINIMUM LAP LENGTHS	
NO. 6 BAR	4'-0"
NO. 9 BAR	5'-4"
NO. 10 BAR	8'-2"

LEGEND:

(#) - DENOTES PROPOSED BEAM LINE

(DS-#) - DENOTES PROPOSED DRILLED SHAFT NUMBER

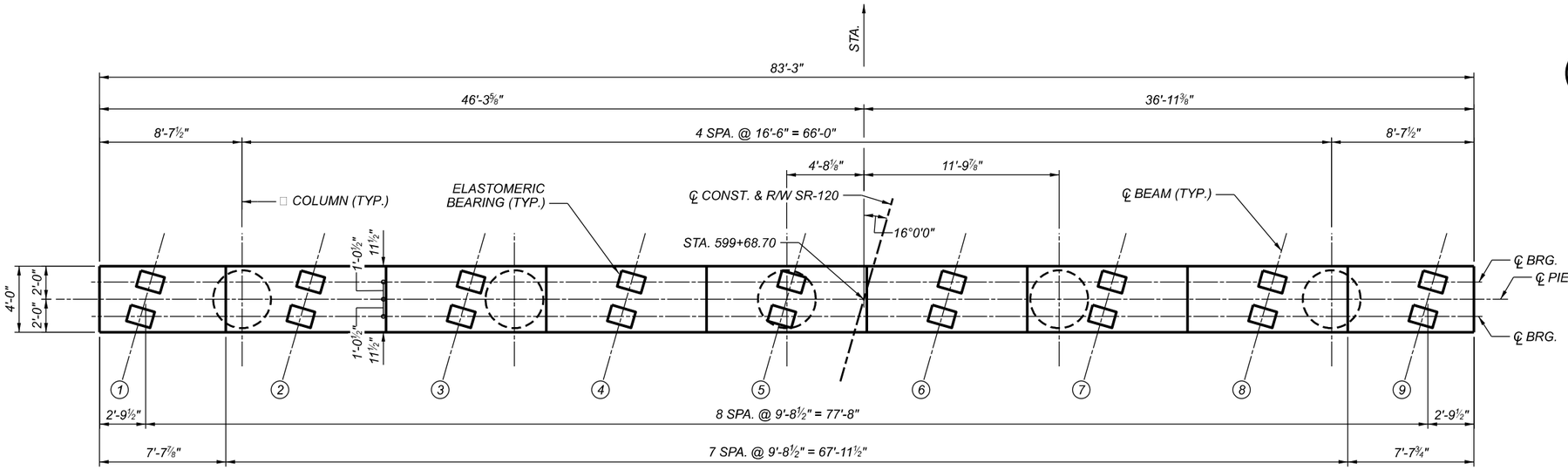
NOTES:

1. FOR ELASTOMERIC BEARING DETAILS, SEE SHEET 21/43.
2. TOP OF BEDROCK SOCKET ELEVATION SHALL BE VERIFIED BY THE CONTRACTOR PER CMS 524.01. REINFORCING STEEL LENGTH FOR THE DRILLED SHAFTS AND BEDROCK SOCKETS SHALL BE ADJUSTED BASED UPON THE ACTUAL ELEVATIONS.
3. FOR SECTIONS B-B THRU E-E, SEE SHEET 19/43.

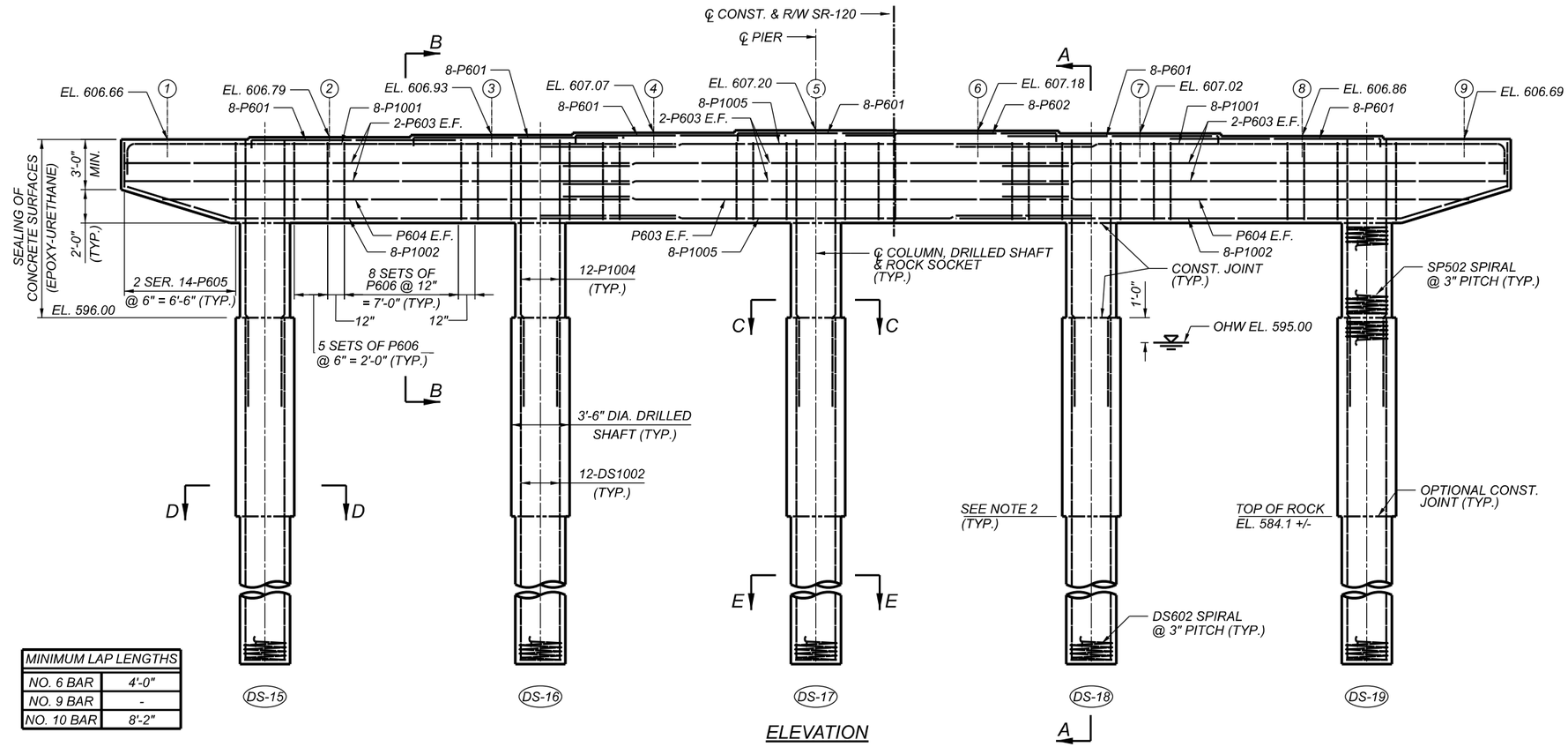
PIER 1 PLAN AND ELEVATION
BRIDGE NO. LUC-120-1132C
OVER THE OTTAWA RIVER

SFN	4804930
DESIGN AGENCY	TRC
DESIGNER	CMH
CHECKER	HM
REVIEWER	CEJ 02/2022
PROJECT ID	102940
SUBSET	17
TOTAL	43
SHEET	P.44
TOTAL	85

LUC-120-11.32

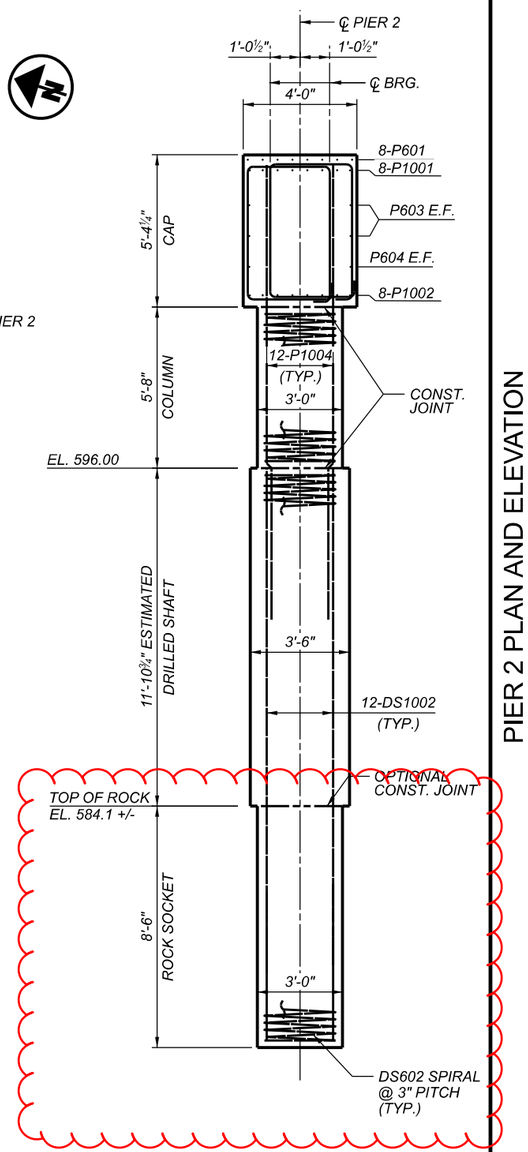


PLAN



ELEVATION

MINIMUM LAP LENGTHS	
NO. 6 BAR	4'-0"
NO. 9 BAR	-
NO. 10 BAR	8'-2"



SECTION A-A

LEGEND:

(#) - DENOTES PROPOSED BEAM LINE

(DS-#) - DENOTES PROPOSED DRILLED SHAFT NUMBER

NOTES:

1. FOR ELASTOMERIC BEARING DETAILS, SEE SHEET 21/43.
2. TOP OF BEDROCK SOCKET ELEVATION SHALL BE VERIFIED BY THE CONTRACTOR PER CMS 524.01. REINFORCING STEEL LENGTH FOR THE DRILLED SHAFTS AND BEDROCK SOCKETS SHALL BE ADJUSTED BASED UPON THE ACTUAL ELEVATIONS.
3. FOR SECTIONS B-B THRU E-E, SEE SHEET 19/43.

PIER 2 PLAN AND ELEVATION
BRIDGE NO. LUC-120-1132C
OVER THE OTTAWA RIVER

SFN 4804930

DESIGN AGENCY TRC

DESIGNER	CHECKER
CMH	HM

REVIEWER CEJ 02/2022

PROJECT ID 102940

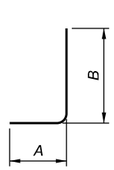
SUBSET	TOTAL
18	43

SHEET	TOTAL
P.45	85

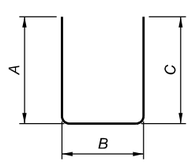
LUC-120-11.32

MARK	NUMBER TOTAL	LENGTH	WEIGHT	TYPE	DIMENSIONS A	B	C	D	E	R	INC
REAR ABUTMENT											
A401	30	12'-1"	242	1	0'-8"	11'-6"					
A402	5	10'-5"	35	2	0'-8"	9'-4"	0'-8"				
A501	50	40'-0"	2086	STR							
A502	18	8'-9"	164	STR							
A504	7	12'-1"	88	STR							
A505	172	9'-11"	1779	2	2'-8"	4'-10"	2'-8"				
A506	8	26'-2"	218	STR							
A507	2	24'-10"	52	STR							
A508	2	22'-3"	46	STR							
A509	2	19'-7"	41	STR							
A510	20	18'-2"	379	STR							
	2 SR	6'-3"			2'-8"		2'-8"				
A511	OF	TO	135	2	TO	1'-2"	TO				0'-3 ¼"
	8	9'-11"			4'-6"		4'-6"				
A512	35	10'-7"	386	2	4'-10"	1'-2"	4'-10"				
A513	8	23'-2"	193	STR							
A514	2	21'-10"	46	STR							
A515	2	19'-4"	40	STR							
A516	2	16'-9"	35	STR							
A517	20	14'-7"	304	STR							
A534	4	11'-4"	47	19	3'-1"	8'-0"	2'-2"				
A601	111	22'-2"	3696	2	9'-1"	4'-4"	9'-1"				
A602	111	19'-0"	3168	2	7'-6"	4'-4"	7'-6"				
A605	35	33'-0"	1735	2	16'-1"	1'-2"	16'-1"				
A606	12	19'-5"	350	STR							
A607	74	9'-8"	1074	2	2'-8"	4'-8"	2'-8"				
A608	12	15'-7"	281	STR							
A801	10	40'-0"	1068	STR							
A802	5	13'-3"	177	STR							
A803	10	40'-0"	1068	STR							
A804	5	16'-7"	221	STR							
*DS603	9	698'-11"	9448	27	0'-3"	3'-0"	18'-2"				
*DS1103	396	21'-11"	46112	16	20'-4"						
		SUB-TOTAL	19,154								

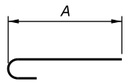
MARK	NUMBER TOTAL	LENGTH	WEIGHT	TYPE	DIMENSIONS A	B	C	D	E	R	INC
FORWARD ABUTMENT											
A401	30	12'-1"	242	1	0'-8"	11'-6"					
A402	5	10'-6"	35	2	0'-8"	9'-4"	0'-8"				
A501	58	40'-0"	2420	STR							
A502	22	8'-9"	201	STR							
A504	7	12'-1"	88	STR							
A505	172	9'-11"	1779	2	2'-8"	4'-10"	2'-8"				
A520	8	31'-5"	262	STR							
A521	2	29'-1"	61	STR							
A522	2	25'-3"	53	STR							
A524	24	23'-5"	586	STR							
	2 SR	6'-3"			2'-8"		2'-8"				
A525	OF	TO	128	2	TO	1'-2"	TO				0'-2 ½"
	8	9'-1"			4'-1"		4'-1"				
A526	50	9'-9"	508	2	4'-5"	1'-2"	4'-5"				
A527	8	31'-8"	264	STR							
A528	2	29'-4"	61	STR							
A529	2	25'-6"	53	STR							
A531	24	23'-1"	578	STR							
A534	4	11'-4"	47	19	3'-1"	8'-0"	2'-2"				
A603	111	26'-2"	4363	2	11'-1"	4'-4"	11'-1"				
A604	111	19'-0"	3168	2	7'-6"	4'-4"	7'-6"				
A607	102	9'-8"	1481	2	2'-8"	4'-8"	2'-8"				
A611	50	36'-8"	2754	2	17'-11"	1'-2"	17'-11"				
A612	12	24'-8"	445	STR							
A616	12	24'-1"	434	STR							
A801	10	40'-0"	1068	STR							
A802	5	13'-3"	177	STR							
A803	10	40'-0"	1068	STR							
A804	5	16'-7"	221	STR							
*DS604	9	698'-11"	9448	27	0'-3"	3'-0"	18'-2"				
*DS1104	396	21'-11"	46112	16	20'-4"						
		SUB-TOTAL	22,545								



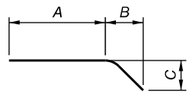
TYPE-1



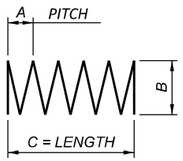
TYPE-2



TYPE-16



TYPE-19



TYPE-27

LEGEND:

* - FOR INFORMATION ONLY. BARS TO BE INCLUDED WITH ITEM 524, DRILLED SHAFTS, 48" DIAMETER, ABOVE BEDROCK.

NOTES:

1. THE BAR SIZE NUMBER IS SPECIFIED ON THE PLANS IN THE BAR MARK COLUMN. THE FIRST DIGIT WHERE THREE DIGITS ARE USED, AND THE FIRST TWO DIGITS WHERE FOUR ARE USED, INDICATES THE BAR SIZE NUMBER. FOR EXAMPLE, P601 IS A NO. 6 BAR. BAR DIMENSIONS SHOWN ARE OUT TO OUT UNLESS OTHERWISE NOTED.

2. ALL REINFORCING STEEL TO BE EPOXY COATED.

REINFORCING STEEL LIST
BRIDGE NO. LUC-120-1132C
OVER THE OTTAWA RIVER

SFN 4804930

DESIGN AGENCY TRC

DESIGNER	CHECKER
HM	CMH

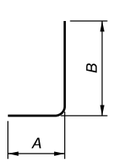
REVIEWER CEJ 02/2022

PROJECT ID 102940

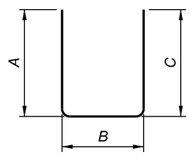
SUBSET	TOTAL
41	43

SHEET	TOTAL
P. 68	85

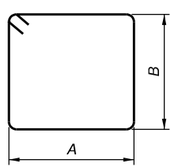
MARK	NUMBER TOTAL	LENGTH	WEIGHT	TYPE	DIMENSIONS A	B	C	D	E	R	INC
PIER 1											
SP501	5	197'-7"	1030	27	0'-3"	2'-6"	5'-8"				
P601	48	13'-6"	973	1	1'-0"	12'-8"					
P602	8	11'-0"	132	2	1'-0"	9'-4"	1'-0"				
P603	14	30'-4"	638	STR							
P604	4	28'-0"	168	STR							
	4 SR	12'-0"				2'-8"					
P605	OF	TO	1171	3	2'-11"	TO					0'-1 ¾"
	14	15'-10"				4'-7"					
P606	144	15'-10"	3425	3	2'-11"	4'-7"					
P1001	16	34'-7"	2381	1	1'-10"	33'-1"					
P1002	16	33'-6"	2306	19	26'-7"	6'-8"	2'-0"				
P1003	60	18'-9"	4841	STR							
P1005	16	33'-1"	2278	STR							
*DS601	5	592'-11"	4453	27	0'-3"	2'-6"	18'-7"				
*DS1001	60	18'-7"	4798	STR							
		SUB-TOTAL	19,343								
PIER 2											
SP502	5	187'-4"	977	27	0'-3"	2'-6"	5'-4"				
P601	48	13'-6"	973	1	1'-0"	12'-8"					
P602	8	11'-0"	132	2	1'-0"	9'-4"	1'-0"				
P603	14	30'-4"	638	STR							
P604	4	28'-0"	168	STR							
	4 SR	12'-0"				2'-8"					
P605	OF	TO	1171	3	2'-11"	TO					0'-1 ¾"
	14	15'-10"				4'-7"					
P606	144	15'-10"	3425	3	2'-11"	4'-7"					
P1001	16	34'-7"	2381	1	1'-10"	33'-1"					
P1002	16	33'-6"	2306	19	26'-7"	6'-8"	2'-0"				
P1004	60	18'-5"	4755	STR							
P1005	16	33'-1"	2278	STR							
*DS602	5	646'-7"	4856	27	0'-3"	2'-6"	20'-4"				
*DS1002	60	20'-4"	5250	STR							
		SUB-TOTAL	19,204								



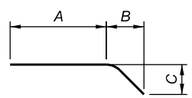
TYPE-1



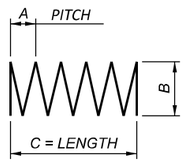
TYPE-2



TYPE-3



TYPE-19



TYPE-27

LEGEND:

* - FOR INFORMATION ONLY. BARS TO BE INCLUDED WITH ITEM 524, DRILLED SHAFTS, 48" DIAMETER, ABOVE BEDROCK.

NOTES:

1. THE BAR SIZE NUMBER IS SPECIFIED ON THE PLANS IN THE BAR MARK COLUMN. THE FIRST DIGIT WHERE THREE DIGITS ARE USED, AND THE FIRST TWO DIGITS WHERE FOUR ARE USED, INDICATES THE BAR SIZE NUMBER. FOR EXAMPLE, P601 IS A NO. 6 BAR. BAR DIMENSIONS SHOWN ARE OUT TO OUT UNLESS OTHERWISE NOTED.

2. ALL REINFORCING STEEL TO BE EPOXY COATED.

REINFORCING STEEL LIST
BRIDGE NO. LUC-120-1132C
OVER THE OTTAWA RIVER

SFN 4804930
DESIGN AGENCY TRC
DESIGNER HM | CHECKER CMH
REVIEWER CEJ 02/2022
PROJECT ID 102940
SUBSET 42 | TOTAL 43
SHEET P. 69 | TOTAL 85

LUC-120-11.32