

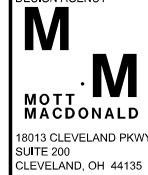
SHEET NUM.								PART.	ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
8	9	16	17	18	34									
<b>ROADWAY</b>														
LS								201	11000	LS		CLEARING AND GRUBBING		
		213						202	23000	213	SY	PAVEMENT REMOVED		
		660						202	38000	660	FT	GUARDRAIL REMOVED		
		4						202	42206	4	EACH	ANCHOR ASSEMBLY REMOVED		
		4						202	47000	4	EACH	BRIDGE TERMINAL ASSEMBLY REMOVED		
								203	10000	2,350	CY	EXCAVATION		
				2,350				203	20000	2,874	CY	EMBANKMENT		
			1,161					204	10000	1,161	SY	SUBGRADE COMPACTION		
								204	13000	173	CY	EXCAVATION OF SUBGRADE		
2				173				204	45000	2	HOUR	PROOF ROLLING		
500								204	50000	500	SY	GEOTEXTILE FABRIC		
		701						606	15050	701	FT	GUARDRAIL, TYPE MGS		
		2						606	26150	2	EACH	ANCHOR ASSEMBLY, MGS TYPE E	9	
		2						606	26550	2	EACH	ANCHOR ASSEMBLY, MGS TYPE T		
		2						606	35002	2	EACH	MGS BRIDGE TERMINAL ASSEMBLY, TYPE 1		
		2						606	35102	2	EACH	MGS BRIDGE TERMINAL ASSEMBLY, TYPE 2		
<b>EROSION CONTROL</b>														
2								659	00100	2	EACH	SOIL ANALYSIS TEST		
314		14						659	00300	328	CY	TOPSOIL		
2,821								659	10000	2,821	SY	SEEDING AND MULCHING		
142								659	14000	142	SY	REPAIR SEEDING AND MULCHING		
142								659	15000	142	SY	INTER-SEEDING		
0.5								659	20000	0.5	TON	COMMERCIAL FERTILIZER		
0.58								659	31000	0.58	ACRE	LIME		
18.7								659	35000	18.7	MGAL	WATER		
		128						670	00710	128	SY	DITCH EROSION PROTECTION MAT, TYPE A		
								832	15000	LS		STORM WATER POLLUTION PREVENTION PLAN		
								832	15002	LS		STORM WATER POLLUTION PREVENTION INSPECTIONS		
								832	15010	LS		STORM WATER POLLUTION PREVENTION INSPECTION SOFTWARE		
								832	30000	20,000	EACH	EROSION CONTROL		
<b>DRAINAGE</b>														
5								601	21050	5	SY	TIED CONCRETE BLOCK MAT WITH TYPE 1 UNDERLAYMENT		
		7						601	21060	7	SY	TIED CONCRETE BLOCK MAT WITH TYPE 2 UNDERLAYMENT		
50								605	13300	50	FT	6" UNCLASSIFIED PIPE UNDERDRAINS		
50								605	31100	240	FT	AGGREGATE DRAINS		
50								611	01500	50	FT	6" CONDUIT, TYPE F		
		24						611	04900	24	FT	12" CONDUIT, TYPE D		
5								611	99710	5	EACH	PRECAST REINFORCED CONCRETE OUTLET		
<b>PAVEMENT</b>														
				960				252	01500	960	FT	FULL DEPTH PAVEMENT SAWING		
				1,360				254	01000	1,360	SY	PAVEMENT PLANING, ASPHALT CONCRETE, 2.5"		
				123				301	56000	123	CY	ASPHALT CONCRETE BASE, PG64-22, (449)		
				164				304	20000	164	CY	AGGREGATE BASE		
				129				407	10000	129	GAL	TACK COAT		
				115				411	10000	115	CY	STANDARD FINISH AGGREGATE		
				70				442	22001	70	CY	ASPHALT CONCRETE SURFACE COURSE, 9.5 MM, TYPE A (449), AS PER PLAN, PG64-22	9	
				77				442	22001	77	CY	ASPHALT CONCRETE SURFACE COURSE, 9.5 MM, TYPE A (449), AS PER PLAN, PG64-22	9	
				302				609	24000	302	FT	CURB, TYPE 4-A		
				504				SPECIAL	69012050	504	SY	REINFORCED MESH FOR TRANSVERSE AND/OR LONGITUDINAL JOINTS AND CRACKS	9	

DESIGN AGENCY  
**M M**  
**MOTT MACDONALD**  
 18013 CLEVELAND PKWY  
 SUITE 200  
 CLEVELAND, OH 44135  
 DESIGNER  
 SJP  
 REVIEWER  
 SJP 12/22/22  
 PROJECT ID  
 106333  
 SHEET TOTAL  
 P.14 | 77

SHEET NUM.					PART.	ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
10	11	34	42								
										<b>TRAFFIC CONTROL</b>	
		7				621	00100	7	EACH	RPM	
						626	00102	7	EACH	BARRIER REFLECTOR, TYPE 1, (BI-DIRECTIONAL)	
						626	00110	4	EACH	BARRIER REFLECTOR, TYPE 2, (BI-DIRECTIONAL)	
		28				630	02100	28	FT	GROUND MOUNTED SUPPORT, NO. 2 POST	
		31				630	03100	31	FT	GROUND MOUNTED SUPPORT, NO. 3 POST	
		26				630	80100	26	SF	SIGN, FLAT SHEET	
		15				630	84900	15	EACH	REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL	
		9				630	86002	9	EACH	REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL	
		0.28				642	00104	0.28	MILE	EDGE LINE, 6", TYPE 1	
		0.14				642	00300	0.14	MILE	CENTER LINE, TYPE 1	
										<b>STRUCTURE OVER 20 FOOT SPAN (RIC-96-1658)</b>	
			LS			202	11002	LS		STRUCTURE REMOVED, OVER 20 FOOT SPAN	
			245			202	22900	245	SY	APPROACH SLAB REMOVED	
			988			202	23500	988	SY	WEARING COURSE REMOVED	
			LS			503	21301	LS		UNCLASSIFIED EXCAVATION, AS PER PLAN	2,21
			LS			505	11100	LS		PILE DRIVING EQUIPMENT MOBILIZATION	
			840			507	00301	840	FT	STEEL PILES HP14X73, FURNISHED, AS PER PLAN	2,21
			360			507	92201	360	FT	PREBORED HOLES, AS PER PLAN	2,21
			76,825			509	10000	76,825	LB	EPOXY COATED REINFORCING STEEL	
			4,826			509	30020	4,826	FT	NO. 4 GFRP DEFORMED BARS	
			289			511	34446	289	CY	CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK	
			65			511	34450	65	CY	CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK (PARAPET)	
			65			511	44110	65	CY	CLASS QC1 CONCRETE, ABUTMENT NOT INCLUDING FOOTING	
			480			511	46510	480	CY	CLASS QC1 CONCRETE, FOOTING	
			480			512	10100	480	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	
			319,636			513	10280	319,636	LB	STRUCTURAL STEEL MEMBERS, LEVEL 4	
			2,169			513	20000	2,169	EACH	WELDED STUD SHEAR CONNECTORS	
			90			516	10010	90	FT	ARMORLESS PREFORMED JOINT SEAL	
			79			516	13200	79	SF	1/2" PREFORMED EXPANSION JOINT FILLER	
			87			516	13600	87	SF	1" PREFORMED EXPANSION JOINT FILLER	
			69			516	13900	69	SF	2" PREFORMED EXPANSION JOINT FILLER	
			396			516	25000	396	SF	NYLON REINFORCED NEOPRENE SHEETING	
			10			516	44101	10	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), AS PER PLAN(T=2.697")	14,21
			126			518	21200	126	CY	POROUS BACKFILL WITH GEOTEXTILE FABRIC	
			151			518	40000	151	FT	6" PERFORATED CORRUGATED PLASTIC PIPE	
			80			518	40010	80	FT	6" NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS	
			250			526	25011	250	SY	REINFORCED CONCRETE APPROACH SLABS WITH QC/QA (T=15"), AS PER PLAN	19,21
			90			526	90030	90	FT	TYPE C INSTALLATION	
			360			601	20000	360	SY	CRUSHED AGGREGATE SLOPE PROTECTION	
			685			601	32110	685	CY	ROCK CHANNEL PROTECTION, TYPE B WITH AGGREGATE FILTER	
										<b>MAINTENANCE OF TRAFFIC</b>	
	32					614	11110	32	HOUR	LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE	
						614	12420	LS		DETOUR SIGNING	
10						616	10000	10	MGAL	WATER	
										<b>INCIDENTALS</b>	
LS						614	11000	LS		MAINTAINING TRAFFIC	
						619	16010	8	MNTH	FIELD OFFICE, TYPE B	
						623	10000	LS		CONSTRUCTION LAYOUT STAKES AND SURVEYING	
						624	10000	LS		MOBILIZATION	

GENERAL SUMMARY

DESIGN AGENCY



18013 CLEVELAND PKWY  
SUITE 200  
CLEVELAND, OH 44135  
DESIGNER  
SJP  
REVIEWER  
SJP 12/22/22  
PROJECT ID  
106333  
SHEET TOTAL  
P.15 | 77

# STRUCTURE NOTES

**STANDARD DRAWINGS AND SUPPLEMENTAL SPECIFICATIONS:**

REFER TO THE FOLLOWING STANDARD BRIDGE DRAWING(S):

AS-1-15	REVISED	7/17/2015
AS-2-15	REVISED	1/18/2019
GSD-1-19	REVISED	1/15/2021
ICD-1-20	REVISED	1/21/2022
SBR-1-20	REVISED	7/17/2020

AND TO THE FOLLOWING SUPPLEMENTAL SPECIFICATION(S):

_____	DATED	_____
_____	DATED	_____

**DESIGN SPECIFICATIONS:**

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

**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 KSF.

**DESIGN DATA:**

CONCRETE CLASS QC2 WITH QC/QA - COMPRESSIVE STRENGTH 4.5 KSI (SUPERSTRUCTURE)

CONCRETE CLASS QC1 WITH QC/QA - COMPRESSIVE STRENGTH 4.0 KSI (SUBSTRUCTURE)

CONCRETE CLASS QC MISC - COMPRESSIVE STRENGTH 4.0 KSI (PREBORED HOLES)

REINFORCING STEEL - MINIMUM YIELD STRENGTH 60 KSI

STRUCTURAL STEEL - ASTM A709 GRADE 50W - YIELD STRENGTH 50 KSI

STEEL H-PILES - ASTM A572 - YIELD STRENGTH 50 KSI

**MONOLITHIC WEARING SURFACE:**

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

**PROPOSED SEQUENCE OF WORK:**

1. REMOVE EXISTING STRUCTURE (SFN 7005474).
2. GRADE SIDESLOPES ON THE REAR APPROACH FILL. SEE ROADWAY PLANS.
3. INSTALL ROCK CHANNEL PROTECTION.
4. CONSTRUCT THE PROPOSED BRIDGE (SFN 7005475).

OTHER ITEMS OF WORK NOT LISTED MAY BE PERFORMED AT THE CONTRACTOR'S CONVENIENCE.

**MAINTENANCE OF TRAFFIC:**

TRAFFIC ON STATE ROUTE 96 IS TO BE DETOURED DURING CONSTRUCTION.

REFER TO THE MAINTENANCE OF TRAFFIC PLANS FOR DETAILS, OTHER REQUIREMENTS AND PAYMENT PROVISIONS.

**EXISTING STRUCTURE VERIFICATION:**

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

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

**DECK PLACEMENT DESIGN ASSUMPTIONS:**

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

AN EIGHT WHEEL FINISHING MACHINE WITH A MAXIMUM WHEEL LOAD OF 2.34 KIPS FOR A TOTAL MACHINE LOAD OF 18.7 KIPS.

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

A MAXIMUM SPACING OF OVERHANG FALSEWORK BRACKETS OF 48".

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

**UTILITY LINES:**

THE UTILITY(IES) SHALL BEAR ALL EXPENSE INVOLVED IN RELOCATING (INSTALLING) THE AFFECTED UTILITY LINES. 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.

**ITEM 503 - COFFERDAMS AND EXCAVATION BRACING, AS PER PLAN:**

TEMPORARY SHORING SHOWN CONFORMS TO THE 9<sup>TH</sup> EDITION OF THE "LRFD BRIDGE DESIGN SPECIFICATIONS", AND THE 2<sup>ND</sup> EDITION OF THE "GUIDE DESIGN SPECIFICATIONS FOR BRIDGE TEMPORARY WORKS" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS.

FURNISH STEEL SHEET PILING PER AASHTO M 202 (ASTM A328) (MINIMUM YIELD POINT 39 KSI) WITH MINIMUM SECTION MODULUS OF 24 CUBIC INCHES PER FOOT.

THE DESIGN SHOWN ON THE PLANS FOR TEMPORARY SUPPORT OF EXCAVATION IS ONE REPRESENTATIVE DESIGN THAT MAY BE USED TO CONSTRUCT THE PROJECT. THE CONTRACTOR MAY CONSTRUCT THE DESIGN SHOWN ON THE PLANS OR PREPARE AN ALTERNATE DESIGN TO SUPPORT THE SIDES OF EXCAVATIONS. IF CONSTRUCTING AN ALTERNATE DESIGN FOR TEMPORARY SUPPORT OF EXCAVATION, PREPARE AND PROVIDE PLANS IN ACCORDANCE WITH C&MS 501.05. THE DEPARTMENT WILL PAY FOR THE TEMPORARY SUPPORT OF EXCAVATION AT THE CONTRACT LUMP SUM PRICE FOR COFFERDAMS AND EXCAVATION BRACING. THE DEPARTMENT WILL NOT MAKE ADDITIONAL PAYMENT FOR PROVIDING AN ALTERNATE DESIGN.

**ITEM 507 - PREBORED HOLES, AS PER PLAN:**

PREBORED HOLES SHALL EXTEND AT LEAST FIVE (5.0) FEET INTO BEDROCK AT EACH PILE. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING AN OPEN HOLE.

BACKFILL THE VOID BETWEEN THE PILE AND THE PREBORED HOLE WITH CLASS QC MISC CONCRETE UP TO THE TOP OF ROCK ELEVATION. ABOVE THE TOP OF ROCK, BACKFILL THE VOID TO THE BOTTOM OF FOOTING ELEVATION WITH GRANULAR MATERIAL CONFORMING TO 703.11, STRUCTURAL BACKFILL TYPE 2, EXCEPT 100 PERCENT OF THE MATERIAL SHALL PASS THROUGH A 3/4-INCH (19.0 mm) SIEVE. PAYMENT FOR THE PREBORED HOLES INCLUDES THE BACKFILL MATERIAL.

**ITEM 507 - STEEL PILES HP14x73, FURNISHED, AS PER PLAN:**

THIS WORK CONSISTS OF FURNISHING AND PLACING STEEL PILES INTO PREBORED HOLES. PLACE EACH PILE VERTICALLY WITHIN THE HOLE SO IT IS NOT INCLINED MORE THAN ONE INCH OUT OF PLUMB IN ANY DIRECTION FROM TOP TO BOTTOM. SUPPORT THE PILE SO THAT IT DOES NOT MOVE DURING BACKFILL PLACEMENT.

THE TOTAL FACTORED LOAD IS:  
320 KIPS PER PILE FOR THE REAR ABUTMENT PILES, AND  
250 KIPS PER PILE FOR THE FORWARD ABUTMENT PILES.

ABUTMENT PILES: 30 FEET LONG, ORDER LENGTH  
HP14x73 PILES

**PILE SPLICES:**

IN LIEU OF USING THE FULL PENETRATION BUTT WELDS SPECIFIED IN C&MS 507.09 TO SPLICE STEEL H-PILES, THE CONTRACTOR MAY USE A MANUFACTURED H-PILE SPLICER. FURNISH SPLICERS FROM THE FOLLOWING MANUFACTURER:

ASSOCIATED PILE AND FITTING CORPORATION  
45 SAMWORTH ROAD  
CLIFTON, NJ 07012

INSTALL AND WELD THE SPLICER TO THE PILE SECTIONS IN ACCORDANCE WITH THE MANUFACTURER'S WRITTEN ASSEMBLY PROCEDURE SUPPLIED TO THE ENGINEER BEFORE THE WELDING IS PERFORMED.

**PROTECTION AND CLEANING OF SUBSTRUCTURE:**

THE SUBSTRUCTURE UNITS SHALL BE PROTECTED DURING CONSTRUCTION TO PREVENT RUST STAINING OF THE CONCRETE. THIS CAN BE ACCOMPLISHED BY TEMPORARILY WRAPPING SUBSTRUCTURE ELEMENTS WITH POLYETHYLENE COVERING AFTER THE STEEL IS IN PLACE AND PRIOR TO COMMENCING SEALING OF CONCRETE SURFACES. ANY RUST STAINING OF THE SUBSTRUCTURE UNITS SHALL BE CLEANED TO SATISFACTION OF THE ENGINEER AFTER THE BRIDGE DECK IS COMPLETE.

PAYMENT FOR THIS WORK SHALL BE INCLUDED IN ITEM 512 - SEALING OF CONCRETE SURFACES (EPOXY-URETHANE). THIS SHALL INCLUDE ALL NECESSARY TOOLS, LABOR, MATERIALS, AND EQUIPMENT NECESSARY TO COMPLETE THIS WORK AS DESCRIBED, AND TO THE SATISFACTION OF THE ENGINEER.

**CHAMFER ON CONCRETE STRUCTURES:**

PROVIDE A 3/4" x 3/4" CHAMFER ON ALL EXPOSED EDGES OF CONCRETE STRUCTURE UNLESS OTHERWISE SHOWN ON THE PLANS. THIS WORK SHALL BE INCLUDED WITH THE APPROPRIATE ITEM 511. THIS SHALL INCLUDE ALL NECESSARY TOOLS, LABOR, MATERIALS AND EQUIPMENT NECESSARY TO COMPLETE THIS WORK AS DESCRIBED, AND TO THE SATISFACTION OF THE ENGINEER.

**CONSTRUCTION JOINTS IN CONCRETE:**

UNLESS NOTED OTHERWISE IN THE PLANS, ALL CONSTRUCTION JOINTS IN CONCRETE ARE AT THE CONTRACTOR'S OPTION - PROVIDED THAT ALL THE REQUIREMENTS IN THE CONTRACT DOCUMENTS ARE MET FOR REINFORCEMENT PLACEMENT AND SUPPORT, AS WELL AS CONCRETE PLACEMENT, CONSOLIDATION, AND FINISHING.

**ITEM 503 - UNCLASSIFIED EXCAVATION, AS PER PLAN:**

THIS ITEM IS TO PERFORM ALL EXCAVATION TO THE LIMITS NECESSARY TO CONSTRUCT THE STRUCTURE AS PER THE DETAILS IN THE PLANS AND MEET THE REQUIREMENTS OF C&MS 503. THIS ITEM SHALL ALSO INCLUDE THE BACKFILL OF THE EXCAVATED AREAS PER C&MS 503.80

RIC-096-16-58

MODEL: Sheet PAPER SIZE: 17x11 (in.) DATE: 9/21/2023 TIME: 2:57:33 PM USER: PIA81677  
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STRUCTURE NOTES 1 OF 2  
BRIDGE NO. RIC-096-1658  
SR-96 OVER WHETSTONE CREEK

SFN	7005475
DESIGN AGENCY	M M
DESIGNER/CHECKER	MAR LAG
REVIEWER	RLD 11-19-22
PROJECT ID	106333
SUBSET	TOTAL
2	21
SHEET	TOTAL
P.40	77

ESTIMATED STRUCTURAL QUANTITIES (CARRIED TO GENERAL SUMMARY)

ITEM	EXT.	TOTAL	UNIT	DESCRIPTION	ABUTS.	SUPER.	APP. SLABS	GEN.	SHEET REF.
202	11002	LUMP		STRUCTURE REMOVED, OVER 20 FOOT SPAN				LUMP	
202	22900	245	SY	APPROACH SLAB REMOVED			245		
202	23500	988	SY	WEARING COURSE REMOVED				988	
502	11100	LUMP		COFFERDAMS AND EXCAVATION BRACING				LUMP	5/21
503	21301	LUMP		UNCLASSIFIED EXCAVATION, AS PER PLAN	LUMP				2/21
505	11100	LUMP		PILE DRIVING EQUIPMENT MOBILIZATION	LUMP				
507	00301	840	FT	STEEL PILES HP14X73, FURNISHED, AS PER PLAN	840				2/21
507	92201	569	FT	PREBORED HOLES, AS PER PLAN	569				2/21
509	10000	76,825	LB	EPOXY COATED REINFORCING STEEL	20,762	56,063			
509	30020	4,826	FT	NO. 4 GFRP DEFORMED BARS		4,826			
511	34446	289	CY	CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK		289			
511	34450	46	CY	CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK (PARAPET)		46			
511	44110	65	CY	CLASS QC1 CONCRETE, ABUTMENT NOT INCLUDING FOOTING	65				
511	46510	51	CY	CLASS QC1 CONCRETE, FOOTING	51				
512	10100	480	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	77	403			
513	10280	319,636	LB	STRUCTURAL STEEL MEMBERS, LEVEL 4		319,636			
513	20000	2,169	EACH	WELDED STUD SHEAR CONNECTORS		2,169			
516	10010	90	FT	ARMORLESS PREFORMED JOINT SEAL			90		
516	13200	79	SF	1/2" PREFORMED EXPANSION JOINT FILLER	79				
516	13600	87	SF	1" PREFORMED EXPANSION JOINT FILLER	79		8		
516	13900	69	SF	2" PREFORMED EXPANSION JOINT FILLER	69				
516	25000	396	SF	NYLON REINFORCED NEOPRENE SHEETING	396				
516	44101	10	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), AS PER PLAN (T = 2.694")		10			14/21
518	21200	126	CY	POROUS BACKFILL WITH GEOTEXTILE FABRIC	126				
518	40000	151	FT	6" PERFORATED CORRUGATED PLASTIC PIPE	151				
518	40010	80	FT	6" NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS	80				
526	25011	250	SY	REINFORCED CONCRETE APPROACH SLABS WITH QC/QA (T=15"), AS PER PLAN			250		19/21
526	90030	90	FT	TYPE C INSTALLATION			90		
601	20000	360	SY	CRUSHED AGGREGATE SLOPE PROTECTION				360	
601	32110	685	CY	ROCK CHANNEL PROTECTION, TYPE B WITH AGGREGATE FILTER				685	

STRUCTURE QUANTITIES  
 BRIDGE NO. RIC-096-1658  
 SR-96 OVER WHETSTONE CREEK

SFN  
7005475

DESIGN AGENCY  
**M M**  
 MOTT  
 MACDONALD  
 18013 CLEVELAND PKWY  
 SUITE 200  
 CLEVELAND, OH 44135

DESIGNER CHECKER  
 MAR LAG

REVIEWER  
 RLD 11-19-22

PROJECT ID  
 106333

SUBSET	TOTAL
4	21
SHEET	TOTAL
P.42	77