

BENCHING OF FOUNDATION SLOPES

ALTHOUGH CROSS-SECTIONS INDICATE SPECIFIC DIMENSIONS 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 SECTION 203.05 OF THE CONSTRUCTION AND MATERIAL SPECIFICATIONS (C&MS). NO ADDITIONAL PAYMENT WILL BE MADE FOR BENCHING REQUIRED UNDER THE PROVISIONS OF SECTION 203.05.

PART-WIDTH CONSTRUCTION

BECAUSE OF THE NECESSITY TO BUILD THIS PROJECT UNDER TRAFFIC AND TO CONSTRUCT THE FULL PAVEMENT WIDTH IN STAGES, EXERCISE CARE TO PREVENT THE CONSTRUCTION OF A BUTT JOINT IN THE BASE COURSES. LAP LONGITUDINAL JOINTS AS SHOWN ON STANDARD CONSTRUCTION DRAWING BP-3.1.

CONNECTION BETWEEN EXISTING AND PROPOSED GUARDRAIL

WHEN IT IS NECESSARY TO SPLICE PROPOSED GUARDRAIL TO EXISTING GUARDRAIL, ONLY THE EXISTING GUARDRAIL SHALL BE CUT, DRILLED, OR PUNCHED. THE CONNECTION SHALL BE MADE USING A W-BEAM, BEAM SPLICE AS SHOWN IN AASHTO M 180-12, EXCEPT THE BEAM WASHERS ARE NOT TO BE USED. PAYMENT SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE RESPECTIVE GUARDRAIL ITEMS.

CONTRACTION AND/OR EXPANSION JOINTS

ALTHOUGH SPECIFIC LOCATIONS OF CERTAIN CONTRACTION AND EXPANSION JOINTS HAVE BEEN DETAILED ON THIS PLAN, NO WAIVER OF THE SPECIFICATIONS IS INTENDED. IN ALL CASES, THE PROVISION OF EXPANSION JOINTS AT ALL MAJOR STRUCTURES INCLUDING THE MAXIMUM SPACING BETWEEN CONTRACTION JOINTS IS IN ACCORDANCE WITH STANDARD CONSTRUCTION DRAWING BP-2.2 AND THE SPECIFICATIONS.

CROSSINGS AND CONNECTIONS TO EXISTING PIPES AND UTILITIES

WHERE PLANS PROVIDE FOR A PROPOSED CONDUIT TO BE CONNECTED TO, OR CROSS OVER OR UNDER AN EXISTING SEWER OR UNDERGROUND UTILITY, THE CONTRACTOR SHALL LOCATE THE EXISTING PIPES OR UTILITIES BOTH AS TO LINE AND GRADE BEFORE STARTING TO LAY THE PROPOSED CONDUIT.

IF IT IS DETERMINED THAT THE ELEVATION OF THE EXISTING CONDUIT, OR EXISTING APPURTENANCE TO BE CONNECTED, DIFFERS FROM THE PLAN ELEVATION OR RESULTS IN A CHANGE IN THE PLAN CONDUIT SLOPE, THE ENGINEER SHALL BE NOTIFIED BEFORE STARTING CONSTRUCTION OF ANY PORTION OF THE PROPOSED CONDUIT WHICH WILL BE AFFECTED BY THE VARIANCE IN THE EXISTING ELEVATIONS.

IF IT IS DETERMINED THAT THE PROPOSED CONDUIT WILL INTERSECT AN EXISTING SEWER OR UNDERGROUND UTILITY IF CONSTRUCTED AS SHOWN ON THE PLAN, THE ENGINEER SHALL

BE NOTIFIED BEFORE STARTING CONSTRUCTION OF ANY PORTION OF THE PROPOSED CONDUIT WHICH WOULD BE AFFECTED BY THE INTERFERENCE WITH AN EXISTING FACILITY.

PAYMENT FOR ALL THE OPERATIONS DESCRIBED ABOVE SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE PERTINENT 611 CONDUIT ITEM.

TEMPORARY DRAINAGE ITEMS

TEMPORARY DRAINAGE ITEMS LABELED ON THE MAINTENANCE OF TRAFFIC (MOT) PLAN ARE ITEMIZED ON THE MOT PLANS. PAYMENT FOR THE TEMPORARY DRAINAGE ITEMS ARE ITEMIZED AND CARRIED TO THE GENERAL SUMMARY.

ITEM 606 - ANCHOR ASSEMBLY, MGS TYPE E

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING ANY OF THE GUARDRAIL END TERMINALS FOR TYPE MGS GUARDRAIL AS LISTED ON ROADWAY ENGINEERING'S WEB PAGE UNDER ROADSIDE SAFETY DEVICES FOR APPROVED GUARDRAIL END TREATMENTS. INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.

THE FACE OF THE TYPE E IMPACT HEAD SHALL BE COVERED WITH A SHEET OF TYPE G REFLECTIVE SHEETING, PER CMS 730.19.

REFER TO THE MANUFACTURER'S INSTRUCTIONS REGARDING THE INSTALLATION OF, AND THE GRADING AROUND THE FOUNDATION TUBES AND GROUND STRUT. THE TOP OF ANY FOUNDATION TUBE SHOULD BE LESS THAN 4 INCHES ABOVE THE GROUND. THE PLACEMENT OF THE FOUNDATION TUBES SHOULD BE AN APPROPRIATE DEPTH BELOW THE LEVEL LINE IN ORDER TO MAINTAIN THE FINISHED GUARDRAIL HEIGHT OF 31 INCHES FROM THE EDGE OF THE SHOULDER.

ON-SITE GRADING IS REQUIRED IF THE TOP OF THE FOUNDATION TUBES OR TOP OF THE GROUND STRUT DOES PROJECT MORE THAN 4 INCHES ABOVE THE GROUND LINE.

PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID FOR ITEM 606, ANCHOR ASSEMBLY, MGS TYPE E, EACH, AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT AND MATERIALS NECESSARY TO CONSTRUCT A COMPLETE AND FUNCTIONAL ANCHOR ASSEMBLY SYSTEM, INCLUDING ALL RELATED TRANSITIONS, REFLECTIVE SHEETING, HARDWARE, GRADING, EMBANKMENT AND EXCAVATION NOT SEPARATELY SPECIFIED, AS REQUIRED BY THE MANUFACTURER.

ITEM 606 - IMPACT ATTENUATOR, TYPE 2 (UNIDIRECTIONAL, SPEED = 60 MPH, HAZARD = 24")

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING ANY OF THE TYPE 2 IMPACT ATTENUATORS AS LISTED ON THE OFFICE OF ROADWAY ENGINEERING'S WEB PAGE (REFER TO THE POSTED SHOP DRAWINGS FOR THE MOST CURRENT APPROVED PRODUCT MODELS). WHEN BI-DIRECTIONAL DESIGNS ARE SPECIFIED, THE CONTRACTOR SHALL SUPPLY APPROPRIATE TRANSITIONS. THE FACE OF THE IMPACT HEAD SHALL BE COVERED WITH TYPE G REFLECTIVE SHEETING, PER CMS 730.19.

PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID FOR ITEM 606, IMPACT ATTENUATOR, TYPE 2 ((SPEED = 60 MPH, HAZARD = 24"), UNIDIRECTIONAL)), EACH, AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT AND MATERIALS NECESSARY TO CONSTRUCT A COMPLETE AND FUNCTIONAL IMPACT ATTENUATOR SYSTEM, INCLUDING ALL RELATED BACKUPS/BACKSTOPS, TRANSITIONS, HARDWARE AND GRADING, NOT SEPARATELY SPECIFIED, AS REQUIRED BY THE MANUFACTURER. INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.

ITEM 611 - 12", SLOTTED DRAIN, TYPE 2

THIS ITEM SHALL CONSIST OF 12 INCH DIAMETER SLOTTED DRAIN ALUMINUM COATED STEEL CONDUIT 707.01 WITH 6 INCH TRAPEZOIDAL GALVANIZED SOLID BAR GRATE AS APPROVED BY THE ENGINEER. ALL COSTS FOR LABOR AND MATERIALS, INCLUDING TYPE 2 BEDDING, AND BACKFILLING AS DETAILED ON STANDARD CONSTRUCTION DRAWING DM-1.3 SHALL BE INCLUDED IN THE PRICE BID PER FOOT FOR ITEM 611 - 12" SLOTTED DRAIN, TYPE 2.

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 THE PERTINENT 611 CONDUIT ITEMS.

PROTECTION OF GREAT MIAMI RIVER TRAIL

THE CONTRACTOR SHALL NOT STAGE EQUIPMENT OR MATERIALS ON THE GREAT MIAMI RIVER TRAIL OR OTHERWISE RESTRICT ACCESS TO THE TRAIL.

ANTI-SEGREGATION EQUIPMENT

PROVIDE A MATERIAL TRANSFER VEHICLE (MTV) WITH PAVER HOPPER INSERT; A MATERIAL TRANSFER DEVICE (MTD) WITH PAVER HOPPER INSERT; OR A REMIXING PAVER SPECIFICALLY MANUFACTURED TO ELIMINATE SEGREGATION. USE PAVER HOPPER INSERTS WITH A MINIMUM CAPACITY OF 10 TONS (9 METRIC TONS). REMIXING MAY BE DONE BY THE MTV, MTD, IN THE PAVER HOPPER INSERT, OR BY THE REMIXING PAVER.

PROVIDE AND OPERATE EQUIPMENT IN A MANNER THAT DOES NOT RESULT IN PHYSICAL SEGREGATION AND LIMITS TEMPERATURE DIFFERENTIALS TO LESS THAN 35 °F (19.5 °C) THROUGHOUT THE MIXTURE AS MEASURED BEHIND THE PAVER AND BEFORE ROLLING. CONSTRUCT A TEST STRIP ACCORDING TO 401.08.B TO DEMONSTRATE THE EQUIPMENT MEETS THESE REQUIREMENTS.

USE ANTI-SEGREGATION EQUIPMENT FOR PAVING THE 302 BASE COURSE ON ALL LANES AND ADJACENT SHOULDERS INCLUDING MAINLINE LANES, EXPRESS LANES, COLLECTOR DISTRIBUTOR LANES, CONTINUOUS CENTER TURN LANES, ACCELERATION/ DECELERATION LANES, AND RAMP LANES.

ITEM SPECIAL, PAVER MOUNTED THERMAL PROFILING (PMTF)

THIS ITEM CONSISTS OF PROVIDING A PAVER MOUNTED THERMAL PROFILING (PMTF) SYSTEM TO IDENTIFY THE PRESENCE OF ANY THERMAL SEGREGATION OF AN UNCOMPACTED MAT OF HOT MIX ASPHALT. METHODS AND PROCEDURES FOR DETERMINING THE THERMAL PROFILE USING A PAVER-MOUNTED THERMAL IMAGING SYSTEM SHALL CONFORM TO THE SPECIFICATIONS FOUND IN THE SPECIAL PROVISIONS.

ODOT OFFICE OF PAVEMENT ENGINEERING SHALL BE NOTIFIED AT LEAST TWO WEEKS PRIOR TO THE START OF PMTF DATA COLLECTION.

ALL, LABOR, EQUIPMENT, SOFTWARE, AND INCIDENTALS NECESSARY TO INSTALL THE EQUIPMENT AND ANALYZING THE DATA SHALL BE INCLUDED FOR PAYMENT WITH THE LUMP SUM BID FOR ITEM SPECIAL, PAVER MOUNTED THERMAL PROFILING (PMTF).

ITEM 302 - ASPHALT CONCRETE BASE, AS PER PLAN

MIX DESIGN - FOLLOW THE REQUIREMENTS OF 302.02 EXCEPT AS MODIFIED BELOW:

USE A MAXIMUM F/A RATIO OF 1.4. IF THE F/A RATIO IS GREATER THAN 1.2, RECALCULATE THE F/A RATIO USING THE EFFECTIVE ASPHALT BINDER CONTENT. THE TSR IS REQUIRED AND THE MINIMUM TSR IS 0.70 AS DETERMINED USING SUPPLEMENT 1051. ADD ANTISTRIP ADDITIVE AS SPECIFIED IN 440.06 IF REQUIRED BASED ON TSR AND ENSURE THE MINIMUM IS 0.80 AFTER ANTISTRIP.

QUALITY CONTROL AND ACCEPTANCE - FOLLOW THE REQUIREMENTS AS SPECIFIED IN 403 USING 446 ACCEPTANCE EXCEPT AS MODIFIED BELOW:

RUN MSG AND AIR VOIDS AND FOLLOW 403.06.G INSTEAD OF 403.06.F. **Table 403.06-1**

MIX CHARACTERISTIC	OUT OF SPECIFICATION LIMITS ^[5]
ASPHALT BINDER CONTENT ^[1]	-0.5% TO 0.5%
1/2 INCH (12.5 MM) SIEVE ^[1]	-7.0% TO 7.0%
NO. 4 (4.75 MM) SIEVE ^[1]	-6.0% TO 6.0%
NO. 8 (2.36 MM) SIEVE ^[1]	-5.0% TO 5.0%
NO. 200 (75 µM) SIEVE ^[1]	-2.0% TO 2.0%
AIR VOIDS ^[2]	2.5% TO 5.5%
MSG ^[3]	-0.015 TO 0.015
F/A ^[4]	1.4 MAX
VMA	12.0 MIN

- [1] DEVIATION FROM THE JMF.
- [2] FOR DESIGN AIR VOIDS OF 4.0%. COMPACT USING A SIX-INCH MARSHALL HAMMER WITH 70 BLOWS ON BOTH SIDES PER 302.02.
- [3] DEVIATION FROM THE MTD.
- [4] IF THE F/A RATIO IS GREATER THAN 1.2, RECALCULATE THE F/A RATIO USING THE EFFECTIVE ASPHALT BINDER CONTENT.
- [5] DO NOT FOLLOW THE MINIMUM 7% RETAINED DURING PRODUCTION PER 403.06.F.5.

REPLACE MSG COMPARISON IN TABLE 403.10-1 WITH 0.015. NOTIFY ERIC BIEHL - OMM 614-275-1380 AND JULIA MILLER - OCA 614-466-3165 ONE WEEK PRIOR TO PLANNED BEGINNING PRODUCTION AND PLACEMENT. YOU MAY EMAIL THEM AS WELL.

FIELD OPERATIONS - FOLLOW THE REQUIREMENTS OF 401 AND ANTI-SEGREGATION EQUIPMENT IS REQUIRED PER 401.03.C AND IS INCIDENTAL TO THE COST OF THIS ITEM.

DENSITY ACCEPTANCE - FOLLOW THE REQUIREMENTS OF 446 ASPHALT CONCRETE CORE DENSITY ACCEPTANCE, INCLUDING JOINT CORES, EXCEPT AS MODIFIED BELOW:

OBTAIN 6-INCH DIAMETER CORES ON EACH LIFT PLACED. OBTAIN JOINT CORES AT COLD LONGITUDINAL JOINTS SUCH THAT THE CORE'S CLOSEST EDGE IS 6 INCHES (152 MM) FROM THE EDGE OF THE MAT. PAY FACTORS FOR EACH LIFT OF 302 APP WILL BE AS SPECIFIED IN THE FOLLOWING TABLE.

MEAN OF LOT CORE DENSITY ^[1]	PAY FACTOR
	302, APP
>98.0%	[2]
>97.0% to 98.0%	[3]
92.0% to 97.0%	1.00
91.0% to 91.9%	0.90
90.0% to 90.9%	0.80
89.0% to 89.9%	0.70
<89.0%	[4]

- [1] MEAN OF CORES AS PERCENT OF AVERAGE MSG FOR THE PRODUCTION DAY.
- [2] THE DISTRICT WILL DETERMINE WHETHER THE MATERIAL MAY REMAIN IN PLACE. THE PAY FACTOR FOR MATERIAL ALLOWED TO REMAIN IN PLACE IS 0.50.
- [3] THE DISTRICT WILL DETERMINE WHETHER THE MATERIAL MAY REMAIN IN PLACE. THE PAY FACTOR FOR MATERIAL ALLOWED TO REMAIN IN PLACE IS 0.70.
- [4] THE DISTRICT WILL DETERMINE WHETHER THE MATERIAL MAY REMAIN IN PLACE. THE PAY FACTOR FOR MATERIAL ALLOWED TO REMAIN IN PLACE IS 0.50.

IF MATERIAL IS REMOVED AND REPLACED THE CONTRACTOR WILL REMOVE AND REPLACE THIS COURSE AND ALL COURSES PAVED ON THIS COURSE.

SHEET NUM.											PART.				ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.	
25	27		303	304	305	306	307	308	314	Office Calcs.	01/IMS/04	02/IMS/05	03/IMS/47	04/BRO/14							
	14		175,223								175,237					202	23001	175,237	SY	PAVEMENT REMOVED, AS PER PLAN	25
			20,408								20,408					202	30700	20,408	FT	CONCRETE BARRIER REMOVED	
			299								299					202	32000	299	FT	CURB REMOVED	
			459								459					202	32500	459	FT	CURB AND GUTTER REMOVED	
			3,227								3,227					202	35100	3,227	FT	PIPE REMOVED, 24" AND UNDER	
			141								141					202	35200	141	FT	PIPE REMOVED, OVER 24"	
			12,046								12,046					202	38000	12,046	FT	GUARDRAIL REMOVED	
			1								1					202	47800	1	EACH	IMPACT ATTENUATOR REMOVED	
			1								1					202	58000	1	EACH	MANHOLE REMOVED	
			1								1					202	58100	1	EACH	CATCH BASIN REMOVED	
			41								41					202	58200	41	EACH	INLET REMOVED	
			334								334					202	98200	334	FT	REMOVAL MISC.:PAVED GUTTER REMOVED	
						6,642					6,642					203	10000	6,642	CY	EXCAVATION	
					2,839						2,839					203	20000	2,839	CY	EMBANKMENT	
90											90					204	45000	90	HOUR	PROOF ROLLING	25
											4,628.55	4,628.55				206	10500	4,628.55	TON	CEMENT	
											178,867	178,867				206	11000	178,867	SY	CURING COAT	
											178,867	178,867				206	15010	178,867	SY	CEMENT STABILIZED SUBGRADE, 12 INCHES DEEP	
											LS	LS				206	30000	LS		MIXTURE DESIGN FOR CHEMICALLY STABILIZED SOILS	
											6,338	6,338				606	15050	6,338	FT	GUARDRAIL, TYPE MGS	
											5,913	5,913				606	15100	5,913	FT	GUARDRAIL, TYPE MGS WITH LONG POSTS	
											25	25				606	15150	25	FT	GUARDRAIL, TYPE MGS HALF POST SPACING	
											50	50				606	15300	50	FT	GUARDRAIL, TYPE MGS QUARTER POST SPACING WITH LONG POSTS	
											13	13				606	26150	13	EACH	ANCHOR ASSEMBLY, MGS TYPE E, MASH 2016	
											9	9				606	26550	9	EACH	ANCHOR ASSEMBLY, MGS TYPE T	
											15	15				606	35002	15	EACH	MGS BRIDGE TERMINAL ASSEMBLY, TYPE 1	
											11	11				606	35102	11	EACH	MGS BRIDGE TERMINAL ASSEMBLY, TYPE 2	
											1	1				606	60022	1	EACH	IMPACT ATTENUATOR, TYPE 2 (UNIDIRECTIONAL), SPEED = 60 MPH, HAZARD = 24"	
1,675											1,675					607	35001	1,675	FT	FENCE REMOVED AND REBUILT, AS PER PLAN	25
											3,625	3,625				622	10100	3,625	FT	CONCRETE BARRIER, SINGLE SLOPE, TYPE B1	
											1,357	1,357				622	10120	1,357	FT	CONCRETE BARRIER, SINGLE SLOPE, TYPE C	
											60	60				622	10121	60	FT	CONCRETE BARRIER, SINGLE SLOPE, TYPE C, AS PER PLAN A	27
											6,097	6,097				622	10140	6,097	FT	CONCRETE BARRIER, SINGLE SLOPE, TYPE C1	
											5,012	5,012				622	10160	5,012	FT	CONCRETE BARRIER, SINGLE SLOPE, TYPE D	
											6	6				622	10200	6	EACH	BARRIER TRANSITION	
											14	14				622	10201	14	EACH	BARRIER TRANSITION, AS PER PLAN	27
											1	1				622	24840	1	EACH	CONCRETE BARRIER END SECTION, TYPE B	
											16	16				622	25000	16	EACH	CONCRETE BARRIER END SECTION, TYPE D	
											22	22				622	25004	22	EACH	CONCRETE BARRIER, END ANCHORAGE, REINFORCED, TYPE B	
											20	20				622	25008	20	EACH	CONCRETE BARRIER, END ANCHORAGE, REINFORCED, TYPE C	
											75	75				622	25014	75	EACH	CONCRETE BARRIER, END ANCHORAGE, REINFORCED, TYPE C1	
											23	23				622	25050	23	EACH	CONCRETE BARRIER, END ANCHORAGE, REINFORCED, TYPE D	

GENERAL SUMMARY

DESIGN AGENCY
JACOBS

DESIGNER
 TES

REVIEWER
 JAE 10/05/21

PROJECT ID
 107376

SHEET TOTAL
 298 | 732

REF. NO.	SHEET NO.	STATION		SIDE	606	606	606	606	606	606	606	606	626	626	REF. NO.	SHEET NO.	STATION		SIDE	609	609	611							
		GUARDRAIL, TYPE MGS	GUARDRAIL, TYPE MGS WITH LONG POST		GUARDRAIL, TYPE MGS HALF POST SPACING	GUARDRAIL, TYPE MGS QUARTER POST SPACING WITH LONG POSTS	ANCHOR ASSEMBLY, MGS TYPE E, MASH 2016	ANCHOR ASSEMBLY, MGS TYPE T	MGS BRIDGE TERMINAL ASSEMBLY, TYPE 1	MGS BRIDGE TERMINAL ASSEMBLY, TYPE 2	BARRIER REFLECTOR, TYPE 2, ONE-WAY (WHITE)	BARRIER REFLECTOR, TYPE 2, BIDIRECTIONAL (WHITE/RED)	FROM	TO			FT	FT		FT	FT	EACH	EACH	EACH	EACH	FROM	TO	FT	FT
					I-75															I-75									
GR-1	318	426+80.13	432+39.50	RT	37.5	512.5											430+95.46	431+13.61	LT	18.15									
GR-2	319	430+96.61	433+70.05	LT	200.0				1		1						437+76.78	437+94.93	RT	18.15									
GR-3	320	435+33.03	437+93.97	RT	187.5				1		1						444+57.37	444+57.67	RT	7.90									
GR-4	320	1+26.97, RAMP N8	5+61.34, RAMP N8	RT	425.0						1						447+11.73	447+18.23	LT	6.50									
GR-5	320	438+08.24	444+55.12	LT	125.0	512.5					1						453+31.20	453+49.35	RT	18.15									
GR-6	321	400+77.54	444+75.98	LT	25.0	312.5			1		1						463+39.25	463+57.40	LT	18.15									
GR-7	322	447+02.43	450+11.80	RT		250.0	50.0				1						471+42.93	471+43.51	RT	5.60									
GR-8	322	446+62.57, RAMP N7	453+48.38	RT	512.5	125.0			1		1						473+12.27	473+11.38	LT	6.95									
GR-9	322	447+01.03	444+37.70, RAMP N6A	LT/RT	362.5	50.0			1		1						7+63.51, RAMP N2	11+73.00, RAMP N2	LT		409.50								
GR-10	323	448+98.44, RAMP N6	455+57.82, RAMP N6	LT	650.0						1						1+04.00, RAMP N3	4+35.18, RAMP N3	LT		331.20								
GR-11	325	461+69.13	471+60.04	RT	700.0	275.0					1						485+77.22	485+95.37	RT	18.15									
GR-12	325	463+40.21	471+55.22	LT	562.5	237.5					1						1+30.14, RAMP N1	3+69.25, RAMP N1	RT		239.20								
GR-13	327	473+09.31	11+93.71, RAMP N2	RT	300.0	1125.0					1						488+65.68	488+71.74	LT	6.40									
GR-14	327	472+93.97	0+97.35, RAMP N3	LT/RT	112.5	1175.0			1		1						496+97.00	497+15.15	RT	18.15									
GR-15	329	483+45.97	485+94.41	RT		175.0			1		1						533+08.00	533+26.15	LT	18.15									
GR-16	329	483+39.47	486+48.85	LT		300.0					1						539+72.61	539+90.76	RT	18.15									
GR-17	330	1+00.89, RAMP N1	497+14.20	LT	87.5	612.5			1		1						541+74.00	541+92.15	LT	18.15									
GR-18	330	489+05.46	491+64.83	RT		250.0					1						551+75.76	551+93.91	RT	18.15									
GR-19	330	488+54.72	496+90.66	LT	762.5		25.0		1		1																		
GR-20	334	76+12.66, RAMP N4	77+01.04, RAMP N4	LT	50.0						1																		
GR-21	339	533+08.96	535+57.40	LT	175.0				1		1																		
GR-22	340	537+41.36	539+89.80	RT	175.0				1		1																		
GR-23	340	541+74.96	550+48.40	LT	800.0				1		1																		
GR-24	343	550+32.01	551+92.95	RT	87.5				1		1																		
TOTALS CARRIED TO GENERAL SUMMARY					6338	5913	25	50	13	9	15	11			123	76	TOTALS CARRIED TO GENERAL SUMMARY					215	980		1				

ROADWAY SUBSUMMARY

REF. NO.	SHEET NO.	STATION		SIDE	606	622	622	622	622	622	622	622	622	622	622	622	622	622	626	626	626	626							
		IMPACT ATTENUATOR, TYPE 2 (UNIDIRECTIONAL) SPEED = 60 MPH. HAZARD = 24'	CONCRETE BARRIER, SINGLE SLOPE, TYPE B1		CONCRETE BARRIER, SINGLE SLOPE, TYPE C	CONCRETE BARRIER, SINGLE SLOPE, TYPE C, AS PER PLAN A	CONCRETE BARRIER, SINGLE SLOPE, TYPE C1	CONCRETE BARRIER, SINGLE SLOPE, TYPE D	BARRIER TRANSITION	BARRIER TRANSITION, AS PER PLAN	CONCRETE BARRIER END SECTION, TYPE B	CONCRETE BARRIER END SECTION, TYPE D	CONCRETE BARRIER END SECTION, TYPE B	CONCRETE BARRIER END SECTION, TYPE C	CONCRETE BARRIER END ANCHORAGE, REINFORCED, TYPE C1	CONCRETE BARRIER END ANCHORAGE, REINFORCED, TYPE D	BARRIER REFLECTOR, TYPE 1, ONE-WAY (WHITE)	BARRIER REFLECTOR, TYPE 1, BIDIRECTIONAL (WHITE/RED)	BARRIER REFLECTOR, TYPE 1, BIDIRECTIONAL (YELLOW/YELLOW)	BARRIER REFLECTOR, TYPE 1, BIDIRECTIONAL (YELLOW/RED)	FROM	TO	EACH	FT	FT	FT	FT	FT	EACH
					I-75																								
B-1	317	423+95.00	424+95.42	CL																									
B-2	318	426+91.12	444+57.67	CL		42					1311												6						
B-3	320	437+94.93	438+89.08	RT																			38						
B-4	322	447+11.73	455+49.17	CL							607												20						
B-5	325	461+76.52	471+43.51	CL							641												22						
B-6	327	473+12.27	486+59.03	CL							1053												30						
B-7	330	485+95.37	486+80.64	RT								36	1										2						
B-8	330	488+90.56	514+91.59	CL							2059												56						
B-9	332	497+15.16	510+29.38	RT																			14						
B-10	332	65+41.60, RAMP N4	78+34.46, RAMP N4	RT	1																		13						
B-11	332	63+60.63, RAMP N4	72+50.19, RAMP N4	LT																			10						
B-12	334	77+02.18, RAMP N4	82+10.95, RAMP N4	LT																			7						
B-13	335	510+29.38	514+91.59	RT																			7						
B-14	336	516+47.64	529+55.00	RT																			15						
B-15	336	516+47.64	558+07.79	CL																			86						
B-16	336	516+47.64	533+08.00	LT																			18						
B-17	341	539+90.76	540+64.76	RT																			2						
B-18	341	539+85.00	541+74.00	LT																			3						
B-19	343	551+93.91	552+42.84	RT																			2						
B-20	345A	573+04.00	573+52.00	CL																			4						
B-21	345A	581+89.07	587+01.00	CL																			14						
TOTALS CARRIED TO GENERAL SUMMARY					1	3625	1357	60	6097	5012	6	14	1	16	22	20	75	23	79	17	276	13							

DESIGN AGENCY
JACOBS

DESIGNER
TES

REVIEWER
JAE 10/01/21

PROJECT ID
107376

SHEET TOTAL
304 732

SHEET NUM.				PART.				ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.		
304	607	608	610	615	616	01/IMS/04	02/IMS/05							03/IMS/47	04/BRO/14
					14.84	14.84				618	40600	14.84	MILE	TRAFFIC CONTROL RUMBLE STRIPS, SHOULDER (ASPHALT CONCRETE)	
						1,191				621	00100	1,191	EACH	RPM	
										621	54000	1,191	EACH	RAISED PAVEMENT MARKER REMOVED	
					19					625	32000	19	EACH	GROUND ROD	
79										626	00102	79	EACH	BARRIER REFLECTOR, TYPE 1, ONE-WAY (WHITE)	
17										626	00102	17	EACH	BARRIER REFLECTOR, TYPE 1, BIDIRECTIONAL (WHITE/RED)	
276										626	00102	276	EACH	BARRIER REFLECTOR, TYPE 1, BIDIRECTIONAL (YELLOW/YELLOW)	
13										626	00102	13	EACH	BARRIER REFLECTOR, TYPE 1, BIDIRECTIONAL (YELLOW/RED)	
123										626	00110	123	EACH	BARRIER REFLECTOR, TYPE 2, ONE-WAY (WHITE)	
76										626	00110	76	EACH	BARRIER REFLECTOR, TYPE 2, BIDIRECTIONAL (WHITE/RED)	
						291				630	03100	291	FT	GROUND MOUNTED SUPPORT, NO. 3 POST	
						108.3				630	06400	108.3	FT	GROUND MOUNTED STRUCTURAL BEAM SUPPORT, S4X7.7	
						10.5				630	07000	10.5	FT	GROUND MOUNTED STRUCTURAL BEAM SUPPORT, W8X18	
						6				630	08600	6	EACH	SIGN POST REFLECTOR	
						12				630	09000	12	EACH	BREAKAWAY STRUCTURAL BEAM CONNECTION	
						1				630	70001	1	EACH	OVERHEAD SIGN SUPPORT, DMS TRUSS, 80', AS PER PLAN	644
						1				630	70050	1	EACH	CATWALK, DMS TRUSS	
						1				630	70070	1	EACH	CONCRETE BARRIER MEDIAN OVERHEAD SIGN SUPPORT FOUNDATION, DMS TRUSS	
						1				630	70080	1	EACH	OVERHEAD SIGN SUPPORT FOUNDATION, DMS TRUSS	
						2				630	72320	2	EACH	OVERHEAD SIGN SUPPORT, TYPE TC-12.31, DESIGN 6	
						1				630	72330	1	EACH	OVERHEAD SIGN SUPPORT, TYPE TC-12.31, DESIGN 10	
						2				630	72340	2	EACH	OVERHEAD SIGN SUPPORT, TYPE TC-12.31, DESIGN 12	
						3				630	72410	3	EACH	OVERHEAD SIGN SUPPORT, TYPE TC-15.116, DESIGN 1	
						1				630	72420	1	EACH	OVERHEAD SIGN SUPPORT, TYPE TC-15.116, DESIGN 2	
						6				630	75000	6	EACH	SIGN ATTACHMENT ASSEMBLY	
						19				630	79500	19	EACH	SIGN SUPPORT ASSEMBLY, POLE MOUNTED	
						13				630	79610	13	EACH	SIGN SUPPORT ASSEMBLY, BARRIER MOUNTED	
						329.5	295.5			630	80100	625	SF	SIGN, FLAT SHEET	
						118				630	80200	118	SF	SIGN, GROUND MOUNTED EXTRUSHEET	
						3,580				630	80224	3,580	SF	SIGN, OVERHEAD EXTRUSHEET	
						12				630	81020	12	EACH	CONCRETE MEDIAN BARRIER SIGN BRACKET	
						2				630	82000	2	EACH	SIGN BACKING ASSEMBLY	
						7				630	84010	7	EACH	CONCRETE BARRIER MEDIAN OVERHEAD SIGN SUPPORT FOUNDATION, TYPE TC-21.50	
						6				630	84500	6	EACH	GROUND MOUNTED STRUCTURAL BEAM SUPPORT FOUNDATION	
						10				630	84510	10	EACH	RIGID OVERHEAD SIGN SUPPORT FOUNDATION	
	32									630	84900	32	EACH	REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL	
	21									630	86002	21	EACH	REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL	
	5									630	86102	5	EACH	REMOVAL OF GROUND MOUNTED STRUCTURAL BEAM SUPPORT AND DISPOSAL	
						1				630	87100	1	EACH	REMOVAL OF OVERHEAD MOUNTED SIGN AND REERECTION	
	41									630	87400	41	EACH	REMOVAL OF OVERHEAD MOUNTED SIGN AND DISPOSAL	
	18									630	87500	18	EACH	REMOVAL OF POLE MOUNTED SIGN AND DISPOSAL	
						1				630	89100	1	EACH	REMOVAL OF OVERHEAD SIGN SUPPORT AND REERECTION, TYPE TC-12.30	
	1									630	89501	1	EACH	REMOVAL OF OVERHEAD SIGN SUPPORT AND REERECTION, TYPE TC-15.115, AS PER PLAN	636
	12									630	89702	12	EACH	REMOVAL OF OVERHEAD SIGN SUPPORT AND DISPOSAL	

REF. NO.	SHEET NO.	STATION	SIDE	CODE	SIZE (INCHES)	625	630	630	630	630	630	630	630	630	630	630	630	630	630	630	630	630	630					
						GROUND ROD	OVERHEAD SIGN SUPPORT, DMS TRUSS, 80'	CATWALK, DMS TRUSS	CONCRETE BARRIER MEDIAN OVERHEAD SIGN SUPPORT FOUNDATION, DMS TRUSS	OVERHEAD SIGN SUPPORT FOUNDATION, DMS TRUSS	OVERHEAD SIGN SUPPORT, TYPE TC-12.31, DESIGN 6	OVERHEAD SIGN SUPPORT, TYPE TC-12.31, DESIGN 10	OVERHEAD SIGN SUPPORT, TYPE TC-12.31, DESIGN 12	OVERHEAD SIGN SUPPORT, TYPE TC-15.116, DESIGN 1	OVERHEAD SIGN SUPPORT, TYPE TC-15.116, DESIGN 2	SIGN ATTACHMENT ASSEMBLY	SIGN SUPPORT ASSEMBLY, POLE MOUNTED	SIGN, FLAT SHEET	SIGN, OVERHEAD EXTRUSHEET	SIGN BACKING ASSEMBLY	CONCRETE BARRIER MEDIAN OVERHEAD SIGN SUPPORT FOUNDATION, TYPE TC-21.50	RIGID OVERHEAD SIGN SUPPORT FOUNDATION	REMOVAL OF OVERHEAD MOUNTED SIGN AND REERECTION	REMOVAL OF OVERHEAD SIGN SUPPORT AND REERECTION, TYPE TC-12.30				
						W X H	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	SF	SF	EACH	EACH	EACH	EACH	EACH				
		I-75 NORTHBOUND																										
OHS-1	620	423+47	RT	SIGN 1	264 X 96											1							176					
				SIGN 2	192 X 72													1							96			
				SIGN 3	132 X 108														1							99		
				SIGN 4	84 X 24																					14		
				SIGN 5	84 X 24																						14	
				R2-1	48 X 60																1	20						
				R2-1	48 X 60																1	20						
OHS-4	621	438+61	RT	SIGN 1	168 X 72		1																	84				
				SIGN 2	84 X 24																					14		
				R5-1	48 X 48															1	16							
OHS-7	623	466+21	RT	SIGN 1	264 X 96		2																	176				
				SIGN 2	120 X 84																					70		
				SIGN 3	84 X 24																						14	
OHS-12	628	526+32	RT	SIGN 1	204 X 72		1				1													102				
				SIGN 2	84 X 24																						14	
		I-75 SOUTHBOUND																										
OHS-2	620	428+56	LT	SIGN 1	168 X 96		1									1								112				
				SIGN 2	168 X 144													1								168		
				SIGN 3	312 X 168																						364	
				SIGN 4	96 X 24																						16	
				SIGN 5	96 X 24																						16	
				R2-1	48 X 60																1	20						
				D9-2	30 X 30																	6.25						
OHS-3	621	438+48	LT	SIGN 1	168 X 144		2							1										168				
				SIGN 2	276 X 144																					276		
				SIGN 3	96 X 24																						16	
				SIGN 4	96 X 24																						16	
				R2-1	48 X 60																1	20						
OHS-6	623	457+12	LT	SIGN 1	168 X 72																			84				
				SIGN 2	84 X 24																					14		
				R5-1	48 X 48															1	16							
OHS-8	624	469+84	LT	SIGN 1	276 X 144		2							1										276				
				SIGN 2	192 X 72																					96		
				SIGN 3	96 X 24																						16	
				SIGN 4	84 X 24																						14	
				R2-1	48 X 60																1	20						
				R2-1	48 X 60																1	20						
OHS-11	627	514+50	LT	SIGN 1	300 X 96		1					1												200				
				SIGN 2	84 X 24																					14		
				R5-1	48 X 48															1	16							
OHS-13	629	527+40	LT	SIGN 1	132 X 108		2							1										99				
				SIGN 2	192 X 72																					96		
				SIGN 3	264 X 120																							
				SIGN 4	84 X 24																						14	
				SIGN 5	84 X 24																						14	
				W3-5	48 X 48																1	16						
				W3-5	48 X 48																1	16						
OHS-14	630	541+37	LT	DMS		2	1	1	1	1																		
TOTALS THIS SHEET						14	1	1	1	1	0	1	2	1	6	11	206.25	2962	2	5	7	1	1					

SIGN SUBSUMMARY
OVERHEAD MOUNTED

DESIGN AGENCY

JACOBS

DESIGNER
MDS

REVIEWER
RN

PROJECT ID
107376

SHEET TOTAL
609 732

REF. NO.	SHEET NO.	STATION	SIDE	CODE	SIZE (INCHES)	625	630	630	630	630	630	630	630	630	630	630	630	630	630	630	630	630	630						
						GROUND ROD	OVERHEAD SIGN SUPPORT, DMS TRUSS, 80'	CATWALK, DMS TRUSS	CONCRETE BARRIER MEDIAN OVERHEAD SIGN SUPPORT FOUNDATION, DMS TRUSS	OVERHEAD SIGN SUPPORT FOUNDATION, DMS TRUSS	OVERHEAD SIGN SUPPORT, TYPE TC-12.31, DESIGN 6	OVERHEAD SIGN SUPPORT, TYPE TC-12.31, DESIGN 10	OVERHEAD SIGN SUPPORT, TYPE TC-12.31, DESIGN 12	OVERHEAD SIGN SUPPORT, TYPE TC-15.116, DESIGN 1	OVERHEAD SIGN SUPPORT, TYPE TC-15.116, DESIGN 2	SIGN ATTACHMENT ASSEMBLY	SIGN SUPPORT ASSEMBLY, POLE MOUNTED	SIGN, FLAT SHEET	SIGN, OVERHEAD EXTRUSHEET	SIGN BACKING ASSEMBLY	CONCRETE BARRIER MEDIAN OVERHEAD SIGN SUPPORT FOUNDATION, TYPE TC-21.50	RIGID OVERHEAD SIGN SUPPORT FOUNDATION	REMOVAL OF OVERHEAD MOUNTED SIGN AND REERECTION	REMOVAL OF OVERHEAD SIGN SUPPORT AND REERECTION, TYPE TC-12.30					
						EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	SF	SF	EACH	EACH	EACH	EACH	EACH						
I-75 MEDIAN																													
OHS-5	623	455+04	LT	SIGN 1 W8-5	264 X 84 48 X 48	1				1							1	16		154	1								
RAMP N2																													
OHS-9	625	5+41	RT	SIGN 1 R5-1	300 X 72 48 X 48	1				1							1	16		150		1							
RAMP N4																													
OHS-10	627	76+52	LT	SIGN 1	216 X 84	2							1							126	1	1							
				SIGN 2	156 X 72																								
				R5-1a	42 X 30													1	8.75										
				R5-1a	42 X 30													1	8.75										
				R5-1a	42 X 30													1	8.75										
				R5-1a	42 X 30													1	8.75										
				D10-H5a	30 X 30												1	6.25											
RAMP B																													
OHS-15	631	119+35	RT	SIGN 1	192 X 72	1							1							96	1								
				SIGN 2	84 X 24																								
				R5-1	48 X 48													1	16										
TOTALS THIS SHEET						5	0	0	0	0	1	1	1	1	0	0	8	89.25	618	0	2	3	0	0					
TOTALS FROM SHEET 609						14	1	1	1	1	1	0	1	2	1	6	11	206.25	2962	2	5	7	1	1					
TOTALS CARRIED TO GENERAL SUMMARY						19	1	1	1	1	2	1	2	3	1	6	19	295.50	3580	2	7	10	1	1					

SIGN SUBSUMMARY
OVERHEAD MOUNTED

DESIGN AGENCY
JACOBS

DESIGNER
MDS

REVIEWER
RN

PROJECT ID
107376

SHEET TOTAL
610 | 732