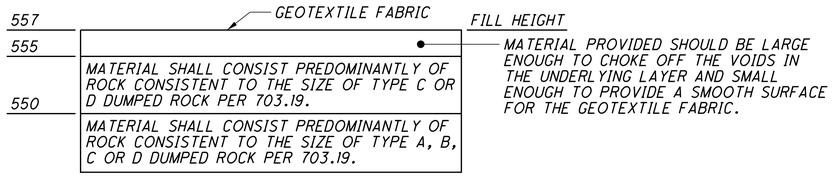
EMBANKMENTS - PERMISSIBLE RATES OF CONSTRUCTION

EMBANKMENTS AT THE FOLLOWING LOCATIONS SHALL BE CONSTRUCTED USING NORMAL RATES OF CONSTRUCTION UP THE TO ELEVATIONS LISTED IN THE TABLE BELOW. ABOVE THESE MAXIMUM ELEVATIONS, THE SPECIFIED RATES OF CONSTRUCTION ARE REQUIRED TO INCREASE SHORT TERM SLOPE STABILITY FACTORS OF SAFETY TO ACCEPTABLE LEVELS:

STATION ANALYZED	MAX EMBANKMENT ELEVATION USING NORMAL CONSTRUCTION RATES (FEET)	PERMISSIBLE CONSTRUCTION RATE (FEET/WEEK)	APPROX. STATION INTERVAL FOR RATE CONSTRUCTION
136+00	548	13	136+25 to 146+00
160+00	578	10.7	148+00 to 162+00
219+00	605	3.2	215+00 to 228+50
293+00	545	5	289+00 to 295+00
322+00	609	3.6	316+00 to 324+00
329+00	590	1.3	324+50 to 332+50
340+00	623	11.2	338+50 to 342+00
371+00	593	4.6	342+00 to 374+00
REINFORCED SLOPES			
198+00	565	6.1	196+75 to 199+87
297+68	549	16.4	296+75 to 298+58
300+81	549	16.3	300+06 to 301+00
377+50	573	8.2	376+60 to 378+34, Ramp 1 376+35 to 377+94

ITEM 203 - EMBANKMENT, AS PER PLAN (TYPE C)

THIS ITEM SHALL CONSIST OF PROVIDING AND PLACEMENT OF THE DRAINAGE LAYER AS SHOWN ON THE CROSS-SECTIONS. THE DRAINAGE LAYER MUST BE CONSTRUCTED TO PREVENT INTERNAL EROSION OR PIPING OF THE EMBANKMENT DURING OR AFTER A FLOOD EVENT. ON-SITE SANDSTONE OR SILTSTONE MAY BE USED IF THE MATERIAL HAS A SLAKE DURABILITY INDEX GREATER THAN 90 PERCENT ACCORDING TO ASTM D 4644-87. MATERIAL DESIGNATED FOR THE DRAINAGE LAYER SHALL BE TESTED PRIOR TO PLACEMENT FOR SLAKE DURABILITY INDEX AT A MINIMUM OF ONE TEST EVERY 20,000 CY OR CHANGE IN MATERIAL, AS DIRECTED BY THE ENGINEER. ITEM 712.09 TYPE A GEOTEXTILE FABRIC WITH AN AOS LESS THAN OR EQUAL TO 0.3 MM SHALL BE PLACED ABOVE THE DRAINAGE LAYER TO ASSIST SEPARATION OF THE EMBANKMENT SOIL FROM THE DRAINAGE MATERIAL. THE DRAINAGE LAYER SHALL BE CONSTRUCTED TO A TOP ELEVATION OF 557 WHERE SHOWN ON THE CROSS-SECTIONS. SEE THE DETAIL BELOW FOR ADDITIONAL INFORMATION REGARDING MATERIAL SIZE AND DRAINAGE LAYER BUILDUP. ROCK SPALLS AND ROCK FINES ARE ACCEPTABLE UP TO AN AVERAGE OF 20% OF THE MATERIAL AS DETERMINED BY VOLUME AND VISUAL INSPECTION. AREAS OF PLACED MATERIALS WITH EXCESS FINES MAY BE REJECTED BY THE ENGINEER. SOIL AND NON- DURABLE ROCK SHALL BE LIMITED TO LESS THAN 5% OF THE MATERIAL AS DETERMINED BY VOLUME AND VISUAL INSPECTION.

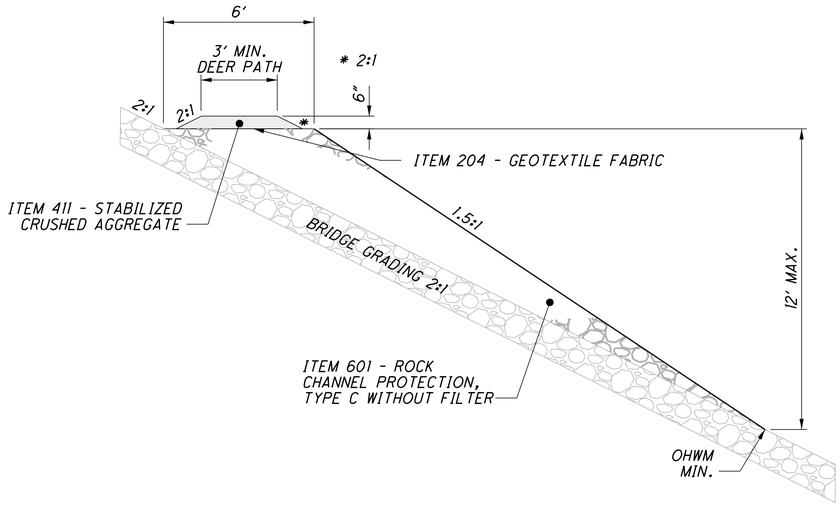


PAYMENT FOR THE ABOVE WORK INCLUDING ALL LABOR, EQUIPMENT AND MATERIALS SHALL BE PAID FOR AT THE CONTRACT PRICE PER CUBIC YARD OF ITEM 203 - EMBANKMENT, AS PER PLAN (TYPE C).

CONSTRUCTED DEER PATH

THE CONTRACTOR IS TO CONSTRUCT A PROPOSED DEER PATH AT THE LOCATIONS LISTED IN THE TABLE BELOW AND ACCORDING TO THE DETAIL BELOW. THE PATH HAS NOT BEEN SHOWN IN IT'S ENTIRETY IN THE PLANS, BUT QUANTITIES HAVE BEEN INCLUDED TO PROVIDE A DEER PATH THAT EXTENDS TO THE LIMITS OF THE ROCK CHANNEL PROTECTION AT THE BRIDGE ABUTMENTS AND TRANSITIONED DOWN TO NATURAL GROUND.

THE FOLLOWING QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY TO COMPLETE THIS WORK.



DEER PASSAGE THROUGH RCP

LOCATION	LENGTH	TOP OF ROCK CHANNEL PROTECTION ELEVATION	204 GEOTEXTILE FABRIC	411 STABILIZED CRUSHED AGGREGATE	601 ROCK CHANNEL PROTECTION, TYPE C WITHOUT FILTER
			SY	CY	CY
S.R. 7 - BRIDGE LAW-7-07.11P REAR ABUTMENT	200	561	111.11	14.81	266.67
S.R. 7 - BRIDGE LAW-7-07.11P FORWARD ABUTMENT	157	561	87.22	11.63	209.33
S.R. 7 - BRIDGE LAW-7-07.13L/R REAR ABUTMENT	248	561	137.78	18.37	330.67
S.R. 7 - BRIDGE LAW-7-07.13L/R FORWARD ABUTMENT	330	561	183.33	24.44	440.00
TOTALS			519.44	69.26	1246.67
TOTALS CARRIED TO GENERAL SUMMARY			520	70	1247

EMBANKMENTS - REINFORCED SOIL SLOPES

CONSTRUCT REINFORCED SOIL SLOPE ACCORDING TO SUPPLEMENTAL SPECIFICATION 863 WITH THE EXCEPTION THAT NON-DURABLE SHALE (AS DEFINED IN CMS 703.16D) IS ANTICIPATED AND ALLOWED FOR USE. MATERIALS OTHER THAN NON-DURABLE SHALE BUT MEETING SS 863 MAY BE PERMITTED AT THE DISCRETION OF THE ENGINEER, HOWEVER, ADJUSTMENTS TO THE REINFORCEMENT SPACINGS AND LENGTHS MAY BE NECESSARY.

PRIMARY REINFORCEMENT TO BE ITEM 863 UNIAXIAL OR BIAXIAL GEOGRID TYPE P1 AND P3. SECONDARY REINFORCEMENT TO BE ITEM 863 BIAXIAL GEOGRID TYPE S1. SECONDARY REINFORCEMENT SPACING OF 1 FOOT AND WIDTH OF 6 FEET. REINFORCEMENT NOT WRAPPED AT SLOPE FACE.

ESTIMATED GEOGRID QUANTITIES WERE BASED ON THE MAXIMUM FILL SECTION. GEOGRID LAYERS CAN BE DISCONTINUED WHEN EXITING GROUND IS HIGHER THAN THE GEOGRID LAYER ELEVATION. ACTUAL GEOGRID QUANTITIES WILL DEPEND ON THE AMOUNT OF UNDERCUTTING, BENCHING, AND SURFACE PREPARATION PERFORMED.

EMBANKMENTS AT THE FOLLOWING LOCATIONS SHALL BE REINFORCED WITH GEOGRID AS INDICATED IN THE FOLLOWING TABLES.

STA. 134+56 TO STA. 136+25, RT/LT/BRIDGE SPILL THROUGH*

ELEVATION	GEOGRID TYPE	EMBEDMENT LENGTH	863 GEOGRID, TYPE P1	863 GEOGRID, TYPE S1
		FT	SY	SY
525	P1	90	5280	
526	P1	90	5280	
527	P1	90	5280	
528	P1	85	4987	
529	P1	85	4987	
530	S1	6		352
531	S1	6		352
532	P1	50	2933	
533	S1	6		352
534	S1	6		352
535	P1	50	2933	
536	S1	6		352
537	S1	6		352
538	P1	50	2933	
539	S1	6		352
540	S1	6		352
541	P1	50	2933	
542	S1	6		352
543	S1	6		352
544	S1	6		352
545	S1	6		352
546	S1	6		352
547	P1	40	2347	
548	S1	6		352
549	S1	6		352
550	S1	6		352
551	S1	6		352
552	S1	6		352
553	P1	40	2347	
554	S1	6		352
555	S1	6		352
556	S1	6		352
557	S1	6		352
558	S1	6		352
559	P1	40	2347	
560	S1	6		352
561	S1	6		352
562	S1	6		352
563	S1	6		352
TOTALS CARRIED TO SHEET 41			44587	9504

CALCULATED SLP CHECKED ALB

GENERAL NOTES

LAW-7-2.17

38 1247

SHEET NUM.																	PART.	ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
34	35	36	37	38	41	72	73	74	78	79	82	83	84	629	629A	1041	01/NHS/01						
																						ROADWAY	
LS																	LS	201	11001	LS		CLEARING AND GRUBBING, AS PER PLAN	34
						1											1	202	20010	1	EACH	HEADWALL REMOVED	
	141					1,229	871				27,852	14,596	5,369	248			50,306	202	23000	50,306	SY	PAVEMENT REMOVED	
						1,955	307							253	21		2,536	202	35100	2,536	FT	PIPE REMOVED, 24" AND UNDER	
						855	130							48			1,033	202	35200	1,033	FT	PIPE REMOVED, OVER 24"	
						3,881	2,619										6,500	202	38000	6,500	FT	GUARDRAIL REMOVED	
						2											2	202	58000	2	EACH	MANHOLE REMOVED	
						6											6	202	58100	6	EACH	CATCH BASIN REMOVED	
					3												3	SPECIAL	20264000	3	EACH	PLUGGING AND VENTING GAS AND/OR OIL WELL	41
	99																99	SPECIAL	20270000	99	FT	FILL AND PLUG EXISTING CONDUIT, 21" AND 36"	35
						4,965	1,834										6,799	202	75000	6,799	FT	FENCE REMOVED	
														1			1	202	75250	1	EACH	GATE REMOVED	
						381	291	4,923,784	267	1,101				3,140	922		4,929,886	203	10000	4,929,886	CY	EXCAVATION	
						334	291	4,923,577	1,932	195				1,760	3,330		4,531,419	203	20000	4,531,419	CY	EMBANKMENT	
								582,155									582,155	203	20001	582,155	CY	EMBANKMENT, AS PER PLAN (TYPE C)	38
								7,459									7,459	203	22000	7,459	CY	EMBANKMENT, USING NATURAL SOILS, 703.16.A	
12																	12	SPECIAL	20307500	12	EACH	PNEUMATIC PIEZOMETER	34
								68,291			201,919	34,615	21,411	1,826	376		328,438	204	10000	328,438	SY	SUBGRADE COMPACTION	
								16,878									16,878	204	13000	16,878	CY	EXCAVATION OF SUBGRADE	
								16,878									16,878	204	30010	16,878	CY	GRANULAR MATERIAL, TYPE B	
110																	110	204	45000	110	HOUR	PROOF ROLLING	
				520				68,055									68,575	204	50000	68,575	SY	GEOTEXTILE FABRIC	
			LS														LS	208	10000	LS		PRE-BLAST CONDITION SURVEY	
			LS														LS	208	12000	LS		BLASTING CONSULTANT	
			LS														LS	208	13000	LS		AIR BLAST AND NOISE CONTROL	
			LS														LS	208	14000	LS		VIBRATION CONTROL AND MONITORING	
			LS														LS	208	16000	LS		HYDROLOGIST	
		258															258	209	60201	258	STA	LINEAR GRADING, AS PER PLAN	36
						18,840.9	1,420.3										20,261.2	606	15050	20,261.2	FT	GUARDRAIL, TYPE MGS	
						1,037.5	5,100										6,137.5	606	15100	6,137.5	FT	GUARDRAIL, TYPE MGS WITH LONG POSTS	
															137.5		137.5	606	15200	137.5	FT	GUARDRAIL, TYPE MGS HALF POST SPACING WITH LONG POSTS	
						137.5	237.5										375	606	15550	375	FT	GUARDRAIL, BARRIER DESIGN, TYPE MGS	
						100	50										150	606	17350	150	FT	GUARDRAIL, TYPE MGS, 25' LONG-SPAN	
						24	12										36	606	26150	36	EACH	ANCHOR ASSEMBLY, MGS TYPE E, (MASH 2016)	
						15	6								1		22	606	26550	22	EACH	ANCHOR ASSEMBLY, MGS TYPE T	
						24	7										31	606	35002	31	EACH	MGS BRIDGE TERMINAL ASSEMBLY, TYPE 1	
						3	2										5	606	35102	5	EACH	MGS BRIDGE TERMINAL ASSEMBLY, TYPE 2	
						2											2	606	60012	2	EACH	IMPACT ATTENUATOR, TYPE 1 (BIDIRECTIONAL)	
						1											1	606	60022	1	EACH	IMPACT ATTENUATOR, TYPE 2 (UNIDIRECTIONAL),	
																						(55 MPH, 69" HAZARD WIDTH)	
									1								1	606	60028	1	EACH	IMPACT ATTENUATOR, TYPE 2 (BIDIRECTIONAL),	
																						(30 MPH, 24" WIDE HAZARD)	
																43,587	43,587	607	15000	43,587	FT	FENCE, TYPE 47	
																15,174	15,174	607	23000	15,174	FT	FENCE, TYPE CLT	
							4										4	607	98100	4	EACH	FENCE, MISC.: GATE, AS PER PLAN	37
									34								34	622	10121	34	FT	CONCRETE BARRIER, SINGLE SLOPE, TYPE C, AS PER PLAN	37A
						6,989	1,087										8,076	622	10160	8,076	FT	CONCRETE BARRIER, SINGLE SLOPE, TYPE D	
									1								1	622	24840	1	EACH	CONCRETE BARRIER END SECTION, TYPE B	
						3	1										4	622	25050	4	EACH	CONCRETE BARRIER, END ANCHORAGE, REINFORCED, TYPE D	
																	3	623	38500	3	EACH	MONUMENT ASSEMBLY, TYPE C	
																	106	623	40500	106	EACH	REFERENCE MONUMENT, TYPE A	
																	30	623	40900	30	EACH	MONUMENT, MISC.: RIGHT-OF-WAY MONUMENT RESET	34
																	LS	623	50000	LS		PRECONSTRUCTION SURVEY MONUMENT VERIFICATION AND REPORT	
																	LS	623	51000	LS		POST CONSTRUCTION SURVEY MONUMENT	
																						VERIFICATION AND REPORT	
																4	4	625	32000	4	EACH	GROUND ROD	
							1							3			4	SPECIAL	69050350	4	EACH	MAILBOX REMOVED AND RESET	37A
					482,309												482,309	863	00100	482,309	SY	GEOGRID, TYPE P1	

CALCULATED SLP CHECKED ALB

GENERAL SUMMARY

LAW-7-2.17

67
1247

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SUBSUMMARY

CALCULATED SLP CHECKED ALB

SHEET NO.	STATION FROM	STATION TO	SIDE	203 EXCAVATION CY	203 EMBANKMENT CY	203 EMBANKMENT, AS PER PLAN (TYPE C) CY	203 EMBANKMENT, USING NATURAL SOILS, 703.16A CY	204 EXCAVATION OF SUBGRADE CY	204 GRANULAR MATERIAL, TYPE B CY	204 GEOTEXTILE FABRIC SY	204 SUBGRADE COMPACTION SY	304 AGGREGATE BASE SY	601 ROCK CHANNEL PROTECTION, TYPE B WITH FILTER CY	601 ROCK CHANNEL PROTECTION, TYPE C WITH FILTER CY	601 DETENTION BASIN FILTER SY	602 CONCRETE MASONRY CY	605 6" UNCLASSIFIED PIPE UNDERDRAINS, AS PER PLAN FT	611 CATCH BASIN, NO. 2-3, AS PER PLAN EACH	611 15" CONDUIT, TYPE C FT	659 SEEDING AND MULCHING, CLASS 3C SY	670 SLOPE EROSION PROTECTION SY	863 REINFORCED EMBANKMENT CY
	S.R. 7																					
418	114+30.42	437+16.83	RT/LT	3504150	4199122	541262		12910	12910	53279	53279									844640		237999
	RAMP C																					
424	116+33.24	123+68.17	RT/LT	1696	4746															6325		
	RAMP D																					
430	115+19.00	120+82.54	RT/LT	14984	52			1206	1206	1188	1188									6501		
	RAMP I																					
436	373+63.81	380+81.60	RT/LT		94784															6040		50807
	RAMP J																					
441	387+15.12	391+15.81	RT/LT	82404	198			187	187	1087	1087									11456		
	RAMP K																					
456	384+99.45	397+51.56	RT/LT	600221	2027			789	789	4549	4549									59627		
	RAMP L																					
464	379+89.28	389+81.39	RT/LT	139	5052															16975		102171
	S.R. 243																					
501	11+00.00	21+54.00	RT/LT	242716	2913			513	513	2799	2799									31648		
	S.R. 775																					
579	45+42.93	70+75.00	RT/LT	97045	81378			435	435	1544	1544									42055		133410
	BRENTWOOD EMERGENCY ACCESS																					
472	13+40.00	22+85.54	RT/LT	748	9222	10209														5396		
	HENSON HOLLOW EMERGENCY ACCESS																					
475	10+00.00	12+60.04	RT/LT	143	2425															1834		
	C.R. 104																					
478	12+00.00	17+03.97	RT/LT	2123	3986															3792		
	C.R. 32																					
481	10+00.00	15+00.00	RT/LT	2164	1951															2511		
	LYNN LANE																					
485	10+10.00	13+90.68	RT/LT	2259	838			308	308	909	909									3046		
	DOGWOOD LANE EXTENSION																					
489	10+05.78	13+46.62	RT/LT	690	233															1369		
	C.R. 69																					
546	9+90.51	56+73.01	RT/LT	269898	113092	23726		422	422	2465	2465									91495		
	C.R. 118																					
552	10+18.30	14+76.01	RT/LT	51044	913	6958		108	108	235	235									13375		
	C.R. 2																					
558	10+18.28	17+58.28	RT/LT	26942	645															12099		
670	DETENTION BASIN #1		RT/LT	364.98			762.87				57.32	12.74	260.12	12.78	553.42	0.75	46	1	39	1258.80	510.37	
671	DETENTION BASIN #2		RT/LT	1106.54			9.75				110.79	24.62	204.01	4.44	345.88	0.75	57	1	62	245.67	474.60	
672	DETENTION BASIN #3		RT/LT	2864.02			5781.23				67.53	15.01	254.89	25.00	580.91	0.75	51	1	56	2917.14	1629.53	
673	DETENTION BASIN #4		RT/LT	20081.62			904.64						427.87	114.67	676.04	0.75	61	1	62	1340.25	2313.09	
TOTALS				4923783.16	4523577	582155	7458.49	16878	16878	68055	68290.64	52.37	1146.89	156.89	2156.25	3.00	215	4	219	1165945.86	4927.59	524387
TOTALS CARRIED TO GENERAL SUMMARY				4923784	4523577	582155	7459	16878	16878	68055	68291	53	1147	157	2157	3	215	4	219	1165946	4928	524387

LAW-7-2.17

74
1247

SEEDING	
END WIDTH	SQ. YDS.
796	4395
	4395

END AREA		VOLUME	
CUT	FILL	CUT	FILL

CALCULATED SLP
CHECKED ALB

ITEM 203 - EMBANKMENT, AS PER PLAN, TYPE C ..... 9579 CY

MATCH LINE

3:1

DRAINAGE LAYER (TYP.)

LA-R/W

P.G. = 701.84
4:1 4:1
698.54
338+00.00
592.75

3:1

10:1 4:1 10' 4:1 10:1
632.68

1:1

1:1

1:1

1:1

℄ 60" TYPE A =
556.41

MATCH LINE

6275 60166

13535 03260

13535 03260

160 180 200 220 240 260 280 300 320 340 360 380 400 420 440 460 480 500 520 540 560 580 600

340 320 300 280 260 240 220 200 180 160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160

660 640 620 600 580 560 540

720 700 680 660 640 620 600 580 560 540 520

CROSS SECTIONS S.R. 7
STA. 338+00.00

LAW-7-2.17

337
1247

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SEEDING	
END WIDTH	SQ. YDS.
808	4457
	4457

END AREA		VOLUME	
CUT	FILL	CUT	FILL
		0	59578
		5810	10875
		5810	10875

CALCULATED SLP

CHECKED ALB

MATCH LINE

3:1

DRAINAGE LAYER

LA-R/W

100 120 140 160 180 200 220 240 260 280 300 320 340 360 380 400 420 440 460 480 500 520 540

700 680 660 640 620 600 580 560 540

ITEM 203 - EMBANKMENT, AS PER PLAN, TYPE C ..... 2287 CY

P.G. = 704.76

4:1 4:1

701.45

338+50.00

578.60

3:1

3:1

10:1 4:1 10' 4:1 10:1

617.68

℄ 60" TYPE A = 567.87

MATCH LINE

400 380 360 340 320 300 280 260 240 220 200 180 160 140 120 100 80 60 40 20 0 20 40 60 80 100

720 700 680 660 640 620 600 580 560 540

CROSS SECTIONS S.R. 7
STA. 338+50.00

LAW-7-2.17

338
1247

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SEEDING	
END WIDTH	SQ. YDS.
14	111
	111

END AREA		VOLUME	
CUT	FILL	CUT	FILL
9	1	47	1
		47	1

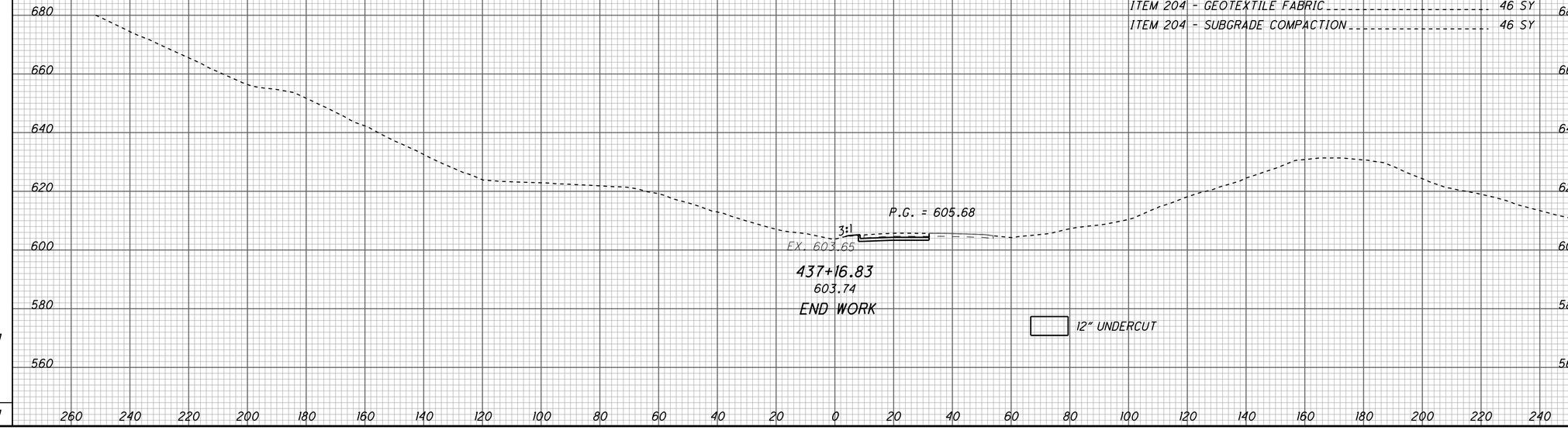
CALCULATED SLP

CHECKED ALB

ITEM 203 - EXCAVATION ---------- 3,504,150 CY
ITEM 203 - EMBANKMENT ---------- 4,199,122 CY
ITEM 203 - EMBANKMENT, AS PER PLAN (TYPE C) ---- 541,262 CY
ITEM 204 - EXCAVATION OF SUBGRADE ---------- 12,910 CY
ITEM 204 - GRANULAR MATERIAL, TYPE B ---------- 12,910 CY
ITEM 204 - GEOTEXTILE FABRIC ---------- 53,279 SY
ITEM 204 - SUBGRADE COMPACTION ---------- 53,279 SY
ITEM 659 - SEEDING AND MULCHING, CLASS 3C ------ 844,640 CY
ITEM 863 - REINFORCED EMBANKMENT ---------- 237,999 CY

QUANTITIES CARRIED TO THE SUBSUMMARY, SEE SHEET 74.

ITEM 204 - EXCAVATION OF SUBGRADE ---------- 16 CY
ITEM 204 - GRANULAR MATERIAL, TYPE B ---------- 16 CY
ITEM 204 - GEOTEXTILE FABRIC ---------- 46 SY
ITEM 204 - SUBGRADE COMPACTION ---------- 46 SY



CROSS SECTIONS S.R. 7
STA. 437+16.83

LAW-7-2.17

418
1247

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ESTIMATED QUANTITIES (PARTICIPATION CODE 02/NHS/08)

CALCULATED BY: EDA 3/7/2018
CHECKED BY: ALH 3/7/2018

ITEM	EXTENSION	TOTAL	UNIT	DESCRIPTION	GEN.	SEE SHEET
203	10000	3124	CY	EXCAVATION	3124	
503	21100	949	CY	UNCLASSIFIED EXCAVATION	949	
509	10000	51501	LB	EPOXY COATED REINFORCING STEEL	51501	
511	46010	173	CY	CLASS QC1 CONCRETE, RETAINING/WINGWALL NOT INCLUDING FOOTING	173	
511	46510	219	CY	CLASS QC1 CONCRETE, FOOTING	219	
512	10100	180	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	180	
512	33300	2868	SY	TYPE A WATERPROOFING	2868	
518	21200	74	CY	POROUS BACKFILL WITH GEOTEXTILE FABRIC	74	
518	40000	74	FT	6" PERFORATED CORRUGATED PLASTIC PIPE	74	
518	40010	30	FT	6" NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS	30	
601	11001	108	SY	RIPRAP, TYPE D, AS PER PLAN	108	2/9
601	32104	321	CY	ROCK CHANNEL PROTECTION, TYPE B WITH GEOTEXTILE FABRIC	321	
601	34200	782	CY	ROCK CHANNEL PROTECTION, TYPE C WITHOUT FILTER	782	
611	97400	452	FT	CONDUIT, MISC.: 22' DIA., TYPE A, 707.03	452	

GENERAL NOTES

DESIGN SPECIFICATIONS:
THIS STRUCTURE CONFORMS TO THE "LRFD BRIDGE DESIGN SPECIFICATIONS" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 2014, INCLUDING 2015 AND 2016 INTERIM SPECIFICATIONS AND THE ODOT BRIDGE DESIGN MANUAL, 2007.

OPERATIONAL IMPORTANCE:
A LOAD MODIFIER OF 1.0 HAS BEEN ASSUMED FOR THE DESIGN OF THIS STRUCTURE IN ACCORDANCE WITH THE AASHTO LRFD BRIDGE DESING SPECIFICATIONS, ARTICLE 1.3.5 AND THE ODOT BRIDGE DESIGN MANUAL, 2007.

DESIGN DATA:
CONCRETE CLASS QC1 - COMPRESSIVE STRENGTH 4.0 K.S.I.
(SUBSTRUCTURE)

REINFORCING STEEL - MINIMUM YIELD STRENGTH 60 K.S.I.

DESIGN LOADING:
HL-93
FUTURE WEARING SURFACE (FWS) OF 0.060 KIPS/FT²

FOUNDATION BEARING RESISTANCE:
HEADWALL FOOTINGS, AS DESIGNED, PRODUCE A MAXIMUM SERVICE LOAD PRESSURE OF 3.021 KIPS PER SQUARE FOOT AND A MAXIMUM STRENGTH LOAD PRESSURE OF 4.256 KIPS PER SQUARE FOOT. THE BEARING RESISTANCE IS 3.025 KIPS PER SQUARE FOOT FOR SERVICE AND 5.5 KIPS PER SQUARE FOOT FOR STRENGTH.

ITEM 511 CLASS QC1 CONC. MISC. PAVED INLET:
THE ITEM INCLUDES ALL MATERIAL, LABOR, AND ACCESSORIES NECESSARY TO FURNISH AND PLACE THE PAVED CONCRETE INLET AND CUTOFF WALLS.

ITEM 601 RIPRAP, TYPE D, AS PER PLAN:
CONSTRUCT A RIPRAP CUTOFF WALL AS DETAILED ON SHEET 5/9.

ITEM 611 22'-0" CONDUIT, TYPE A:
WORK SHALL CONFORM TO ITEM 611 PIPE CULVERTS, SEWERS, DRAINS, AND DRAINAGE STRUCTURES. STEEL STRUCTURAL PLATE (707.03) WITH MINIMUM 8 GA. THICKNESS PER ODOT DURABILITY DESIGN SPREAD SHEET, THE PAVED INVERT SPECIFIED BY THE DURABILITY DESIGN SPREADSHEET SHALL BE OMITTED AS THE CULVERT INVERT IS FILLED WITH TYPE C ROCK CHANNEL PROTECTION.

ANCHOR BOLTS FOR ANCHORING BOTH ENDS OF THE METAL PIPE, MEETING ASTM A307 AND GALVANIZED ACCORDING TO ASTM A153, SHALL BE INCLUDED IN THE PRICE BID PER FOOT OF ITEM 611 22'-0" CONDUIT, TYPE A, 707.03, AS PER PLAN.

ABBREVIATIONS:

APPROX.	-	APPROXIMATELY
ABUT.	-	ABUTMENTS
BF	-	BACK FACE
B/	-	BOTTOM OF
BRG.	-	BEARINGS
℄	-	CENTERLINE
CJ	-	CONSTRUCTION JOINT
CLR.	-	CLEAR
CONC.	-	CONCRETE
CONST.	-	CONSTRUCTION
CONT.	-	CONTINUED
DIA.	-	DIAMETER
DWG.	-	DRAWING
EF	-	EACH FACE
EL.	-	ELEVATION
EQ.	-	EQUAL
EXIST.	-	EXISTING
℄	-	FLOW LINE
FF	-	FRONT FACE
GFRP	-	GLASS FIBER REINFORCED POLYMER
H.W.	-	HIGH WATER
LT	-	LEFT
MAX.	-	MAXIMUM
M.C.	-	MECHANICAL CONNECTOR
MISC.	-	MISCELLANEOUS
NO.	-	NUMBER
NPCPP	-	NON-PERFORATED CORRUGATED PLASTIC PIPE
OHWM	-	ORDINARY HIGH WATER MARK
PCPP	-	PERFORATED CORRUGATED PLASTIC PIPE
RCP	-	ROCK CHANNEL PROTECTION
RT.	-	RIGHT
SPA.	-	SPACE
SP	-	SETTLEMENT PLATFORM
STA.	-	STATION
STD.	-	STANDARD
STR	-	STRAIGHT
T/	-	TOP OF
T&B	-	TOP AND BOTTOM
TYP.	-	TYPICAL
U.N.O.	-	UNLESS NOTED OTHERWISE
YR.	-	YEAR

DESIGN AGENCY
Stantec
1500 Lake Shore Dr.
Columbus OH 43204
(614) 486-4383

DESIGNED	DRAWN	REVIEWED	DATE
EDA	JWS	BSM	2/2024
CHECKED	REVISED	STRUCTURE FILE NUMBER	
MRS		4400348	

GENERAL NOTES & ESTIMATED QUANTITIES
LAW-7-0510
S.R. 7 OVER BENT CREEK

LAW-7-2.17
PID No. 75923

2 / 9

899
1247