

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
322	11-13	CHRISTIAN	437	26
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

EARTHWORK SCHEDULE

EARTHWORK SCHEDULE (CONTINUED)

LOCATION STATION TO STATION	1		2		3		4		5		6		7		8		9		10		11	
	THEORETICAL		TOPSOIL ADJUSTMENT		4" TOPSOIL PLACEMENT		ADJUSTED EARTHWORK		EXCESS (BORROW)		CUMULATIVE EXCESS (BORROW)		FURNISHED EXCAVATION									
	CUT	FILL	4" CUT	4" FILL	SO YD	CUT	FILL	FILL X 1.22	CU YD	EXCESS (BORROW)	EXCESS (BORROW)	EXCESS (BORROW)	EXCESS (BORROW)									
STAGE 1																						
FAP 322 (US 51)																						
329+00	343+00	2676	7568	574	280	7686	3250	7848	9575	(6325)	(6325)	5183										
343+00	358+00	2178	10500	384	355	6651	2562	10855	13243	(10681)	(17006)	8754										
358+00	373+00	8655	32711	584	1007	14319	9239	33718	41136	(31897)	(48903)	26142										
373+00	388+00	8207	19412	768	416	10656	8975	19828	24190	(15215)	(64118)	12469										
388+00	100+75	7410	11687	726	354	9720	8136	12041	14690	(6554)	(70672)	5369										
100+75	418+00	5097	12065	739	380	10071	5836	12445	15183	(9347)	(80019)	7659										
418+00	433+00	4853	13510	239	214	4077	5092	13724	16743	(11651)	(91670)	9549										
433+00	448+00	8061	6778	978	175	10377	9039	6953	8483	556	(91114)	(459)										
448+00	463+00	59967	317	1918	8	17334	61885	325	397	61488	(29626)	(50421)										
463+00	478+00	8004	22423	570	505	9675	8574	22928	27972	(19398)	(49024)	15897										
478+00	493+00	7284	8127	787	160	8523	8071	8287	10110	(2039)	(51063)	1669										
493+00	508+00	6339	17743	690	572	11358	7029	18315	22344	(15315)	(66378)	12551										
508+00	523+00	3665	11208	499	496	8955	4164	11704	14279	(10115)	(76493)	8290										
523+00	538+00	2891	5533	635	252	7983	3526	5785	7058	(3532)	(80025)	2894										
538+00	553+00	6293	4426	879	158	9333	7172	4584	5592	1580	(78445)	(1297)										
553+00	573+90	52	5	0	22	198	52	27	33	19	(78426)	(16)										
US 51 RELOCATION																						
98+50	110+91	4633	4837	0	0	4633	4837	5901	(1268)	(1268)	1038											
REALIGNED DITCH																						
0+00	7+56	5917	3	30	0	270	5947	3	4	5943	(4874)											
CROSSOVER "B"																						
70+00	78+43	973	863	0	0	973	863	1053	(80)	(80)	65											
CROSSOVER "D"																						
565+32	571+62	35	255	0	0	35	255	311	(276)	(276)	226											
TR 268																						
12+80	19+00	1849	3436	281	303	5256	2130	3739	4562	(2432)	(2432)	1992										
TR 273																						
15+10	19+00	721	721	124	58	1638	845	779	950	(105)	(105)	86										
TR 255																						
37+75	49+00	8849	12901	781	486	11403	9630	13387	16332	(6702)	(6702)	5490										
TR 255 DEGRADE																						
23+00	28+50	499	0	279	0	2511	778	0	0	778	(638)											
TR 257																						
51+00	57+90	6224	977	712	66	7002	6936	1043	1272	5664	5664	(4645)										
TR 243																						
21+00	24+50	821	48	118	13	1179	939	61	74	865	865	(709)										
<b>SUBTOTAL STAGE 1</b>		<b>172,153</b>	<b>208,054</b>	<b>13,295</b>	<b>6,280</b>	<b>176,175</b>	<b>185,448</b>	<b>214,334</b>	<b>261,487</b>	<b>(76,039)</b>		<b>62,264</b>										

LOCATION STATION TO STATION	1		2		3		4		5		6		7		8		9		10		11	
	THEORETICAL		TOPSOIL ADJUSTMENT		4" TOPSOIL PLACEMENT		ADJUSTED EARTHWORK		EXCESS (BORROW)		CUMULATIVE EXCESS (BORROW)		FURNISHED EXCAVATION									
	CUT	FILL	4" CUT	4" FILL	SO YD	CUT	FILL	FILL X 1.22	CU YD	EXCESS (BORROW)	EXCESS (BORROW)	EXCESS (BORROW)	EXCESS (BORROW)									
STAGE 3																						
FAP 322 (US 51)																						
329+00	343+00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
343+00	358+00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
358+00	373+00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
373+00	388+00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
388+00	100+75	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
100+75	418+00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
418+00	433+00	636	2962	22	132	1386	658	3094	3775	(3117)	(3117)	2554										
433+00	448+00	8510	5151	1113	324	12933	9623	5475	6680	2943	(174)	(2416)										
448+00	463+00	52038	215	2015	41	18504	54053	256	312	53741	53567	(44067)										
463+00	478+00	10385	6463	597	544	10269	10982	7007	8549	2433	56000	(1998)										
478+00	493+00	5372	11777	555	581	10224	5927	12358	15077	(9150)	46850	7498										
493+00	508+00	3521	19212	422	679	9909	3943	19891	24267	(20324)	26526	16658										
508+00	523+00	4383	10726	536	575	9999	4919	11301	13787	(8868)	17658	7267										
523+00	538+00	3778	5123	617	373	8910	4395	5496	6705	(2310)	15348	1892										
538+00	553+00	3927	6472	748	425	10557	4675	6897	8414	(3739)	11609	3064										
553+00	573+90	363	5930	285	491	6984	648	6421	7834	(7186)	4423	5890										
TR 243																						
15+50	19+00	2933	7	186	5	1719	3119	12	15	3104	3104	(2546)										
<b>SUBTOTAL STAGE 3</b>		<b>95,846</b>	<b>74,038</b>	<b>7,096</b>	<b>4,170</b>	<b>101,394</b>	<b>102,942</b>	<b>78,208</b>	<b>95,415</b>	<b>7,527</b>		<b>(6,204)</b>										

LOCATION STATION TO STATION	1		2		3		4		5		6		7		8		9		10		11	
	THEORETICAL		TOPSOIL ADJUSTMENT		4" TOPSOIL PLACEMENT		ADJUSTED EARTHWORK		EXCESS (BORROW)		CUMULATIVE EXCESS (BORROW)		FURNISHED EXCAVATION									
	CUT	FILL	4" CUT	4" FILL	SO YD	CUT	FILL	FILL X 1.22	CU YD	EXCESS (BORROW)	EXCESS (BORROW)	EXCESS (BORROW)	EXCESS (BORROW)									
STAGE 4																						
FAP 322 (US 51)																						
553+00	573+90	269	3	198	36	2106	467	39	48	419	419	(344)										
<b>SUBTOTAL STAGE 4</b>		<b>269</b>	<b>3</b>	<b>198</b>	<b>36</b>	<b>2106</b>	<b>467</b>	<b>39</b>	<b>48</b>	<b>419</b>		<b>(344)</b>										

<b>PROJECT TOTALS</b>	<b>330,750</b>	<b>380,690</b>	<b>25,865</b>	<b>15,725</b>	<b>374,315</b>	<b>356,610</b>	<b>396,415</b>	<b>483,630</b>	<b>(127,017)</b>		<b>110,540*</b>
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\* - STAGE 3 & 4 EXCESS MATERIAL NOT INCLUDED.

EARTHWORK NOTES:

A MASS DIAGRAM FOR THE EARTHWORK IS NOT INCLUDED IN THESE PLANS AND WILL NOT BE AVAILABLE TO THE CONTRACTOR UPON REQUEST. THE EARTHWORK SCHEDULE HAS BEEN INCLUDED IN THESE PLANS TO TAKE THE PLACE OF THE NEED FOR A MASS DIAGRAM. THE SCHEDULE GIVES QUANTITIES IN "COLUMN 10" FOR EXCESS EXCAVATION OR BORROW REQUIRED IN EACH SPECIFIED AREA ALONG THE LIMITS OF THE PROJECT. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE THE REQUIRED HAUL DISTANCES AND QUANTITIES FROM THE INFORMATION SHOWN.

THE QUANTITIES SHOWN IN THE SCHEDULE INCLUDE ALL MAINLINE, SIDEROAD, AND ENTRANCE QUANTITIES IN EACH SPECIFIED AREA.

SUITABLE EXCAVATED MATERIAL FOR RIPRAP PLACEMENT AND CHANNEL EXCAVATION CAN BE USED AS FURNISHED EXCAVATION OR TOPSOIL (WITH APPROVAL FROM THE ENGINEER). THIS MATERIAL IS NOT INCLUDED IN THE SCHEDULE AS EXCESS (BORROW). EXCAVATION, PLACEMENT, AND/OR DISPOSAL OF THIS MATERIAL WILL BE INCLUDED IN THE PAY ITEMS FOR "RIPRAP" OF THE QUALITY AND SIZE SPECIFIED AND "CHANNEL EXCAVATION".

QUANTITIES FOR THE DEGRADING OF EXISTING CONDITIONS HAVE BEEN INCLUDED IN THE APPROXIMATE STATION RANGE WHERE SUCH DEGRADING TAKES PLACE.

THE QUANTITY SHOWN FOR TOPSOIL PLACEMENT REFERS TO THE TOTAL QUANTITY REQUIRED IN THE PLANS TO MEET THE FINAL SITE CONDITIONS PER THE TYPICAL SECTIONS, CROSS SECTIONS, AND DETAILS.

A SHRINKAGE FACTOR OF 18% WAS USED TO DETERMINE THE EXCESS AND BORROW QUANTITIES. SHRINKAGE FACTOR = 1.00/(1.00-0.18) = 1.0/0.82 = 1.22

COLUMN 5 = (COLUMN 3 + COLUMN 4) x 9  
 COLUMN 6 = COLUMN 1 + COLUMN 3  
 COLUMN 7 = COLUMN 2 + COLUMN 4  
 COLUMN 8 = COLUMN 7 x 1.22 (SHRINKAGE FACTOR)  
 COLUMN 9 = COLUMN 6 - COLUMN 8  
 COLUMN 11 = COLUMN 7 - (0.82 x COLUMN 6)

EARTHWORK QUANTITIES:

20200100 EARTH EXCAVATION = (COLUMN 6) = 365,610 CU YD\*\*  
 20400800 FURNISHED EXCAVATION = COLUMN 11 = 110,540 CU YD  
 2101615 TOPSOIL FURNISH AND PLACE, 4" = COLUMN 5 = 374,315 SO YD

\*\* - SEE GEOTECHNICAL SCHEDULE FOR ADDITIONAL QUANTITIES

REQUIRED TOPSOIL EXCAVATION

STATION TO STATION	STAGE 1 (CU YD)	STAGE 3 (CU YD)
FAP 322 (US 51)		
331+00	344+00	4499
409+00	412+00	1855
422+00	425+00	475
433+00	439+00	1811
433+00	440+00	1404
444+00	449+00	1855
444+00	450+00	1740
462+00	467+00	1799
476+00	478+00	387
479+00	481+00	401
486+00	493+00	2360
531+00	547+00	6506
531+00	547+00	1339
<b>SUBTOTAL:</b>	<b>19587</b>	<b>6843</b>
<b>TOTAL:</b>	<b>26430</b>	

THIS QUANTITY IS FOR LOCATIONS WHERE THE LIME MODIFIED SOIL LAYER IS WITHIN 12" OF THE EXISTING GROUND SURFACE. AT THESE LOCATIONS THE TOP 12" OF TOPSOIL IS TO BE REMOVED. EXCAVATION AND PLACEMENT OF THIS MATERIAL AND ANY ADDITIONAL AREAS DESIGNATED BY THE ENGINEER ARE INCLUDED IN THE PAY ITEM FOR "TOPSOIL FURNISH AND PLACE" AND SHALL NOT BE PAID FOR SEPERATELY.

THIS QUANTITY SHOULD PROVIDE 237870 SO YD (26430 CU YD X 9) OF TOPSOIL FURNISH AND PLACE, 4".

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION SCHEDULE OF QUANTITIES SHEET 2 OF 22 FAP 322 (US 51) SECTION 11-13 CHRISTIAN COUNTY
NAME	DATE	
SCALE:	DATE 4/11	DRAWN BY EBB CHECKED BY

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