

EARTHWORK								
1	2	3	4	5	6	7	8	
LOCATION	EARTH EXCAVATION	ROCK EXCAVATION	UNSUITABLE OR UNSTABLE MATERIAL	SUITABLE EXCAVATION ADJUSTED FOR SHRINKAGE	EMBANKMENT	EARTH BALANCE WASTE(+) OR SHORTAGE(-)	TOPSOIL EXCAVATION & PLACEMENT	
STATION TO STATION	CU YD	CU YD	CU YD	CU YD	CU YD	CU YD	CU YD	
<b>URBAN GRUNDY</b>								
<b>STAGE 1</b>								
<b>IL 47</b>								
6032+87 TO 6105+96	2183		728	1637	1362	275		
<b>PROLOGIS PRKWY.</b>								
1603+02 TO 1604+93	139		46	104	18	86		
<b>STAGE 2</b>								
<b>IL 47</b>								
6029+00 TO 6112+56	9157		15403	6868	24033	-17165	3037	
<b>GRANVILLE RD.</b>								
100+52 TO 107+21	1868		309	1401	56	1345	314	
<b>STAGE 3</b>								
<b>IL 47</b>								
6027+00 TO 6205+20	12383		38030	9287	126640	-117353	7228	
<b>PROLOGIS PRKWY.</b>								
1604+20 TO 1605+50	36		10	27		27	2	
<b>NELSON RD.</b>								
200+49 TO 208+48	228		1672	171	490	-319	382	
<b>AIRPORT RD.</b>								
300+00 TO 308+95	1519		228	1139	310	829	278	
<b>MINOOKA RD.</b>								
403+58 TO 408+59	476		1	357	380	-23	158	
<b>STAGE 3A</b>								
<b>PROLOGIS PRKWY.</b>								
1605+00 TO 1605+50	21		7	16		16		
<b>STAGE 3B</b>								
<b>PROLOGIS PRKWY.</b>								
1603+02 TO 1605+50	23		-19	17	84	-67	26	
<b>STAGE 4</b>								
<b>IL 47</b>								
6100+00 TO 6205+20	16340		1349	12255	66391	-54136	7584	
<b>MINOOKA RD.</b>								
409+38 TO 416+53	401		955	301	740	-439	345	
<b>URBAN GRUNDY SUB-TOTAL</b>								
	44772		58718	33579	220504	-186925	19354	
<b>RURAL GRUNDY</b>								
<b>STAGE 3</b>								
<b>IL 47</b>								
6205+20 TO 6257+48	6008		18550	4506	35565	-31059	2328	
<b>SHERRILL RD.</b>								
500+88 TO 508+59	651		-191	488	2810	-2322	408	
<b>STAGE 4</b>								
<b>IL 47</b>								
6205+20 TO 6257+48	9517		-1665	7138	38446	-31308	4837	
<b>SHERRILL RD.</b>								
509+39 TO 516+08	417		1447	313	1748	-1435	287	
<b>RURAL GRUNDY SUB-TOTAL</b>								
	16592		18141	12444	78569	-66125	7860	
<b>RURAL KENDALL</b>								
<b>STAGE 1</b>								
<b>IL 47</b>								
6282+03 TO 6292+78	307		102	230	248	-18		
<b>STAGE 3</b>								
<b>IL 47</b>								
6257+48 TO 6277+00	6765	570	7822	5644	22776	-17132	1985	
<b>SB CONNECTOR</b>								
22+00 TO 37+09	1097		1464	823	1865	-1042	390	

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STATION TO STATION	CU YD	CU YD	CU YD	CU YD	CU YD	CU YD	CU YD	
<b>STAGE 4</b>								
<b>IL 47</b>								
6257+48 TO 6266+00	1574		-204	1181	6059	-4878	729	
<b>RURAL KENDALL</b>								
	9743	570	9184	7877	30948	-23071	3104	
<b>TOTAL</b>								
	71108	570	86043	53901	330021	-276120	30318	

USE PAY ITEM TOTALS BELOW

**INFORMATION:**  
 SHRINKAGE FACTORS: EARTH EXCAVATION: 25%  
 ROCK EXCAVATION: 0%

UC = UNDERCUT (FROM CROSS-SECTIONS)  
 C = CUT (FROM CROSS-SECTIONS)  
 TSE = TOPSOIL STRIPPING & EARTH EXCAVATION  
 TSP = TOPSOIL EXCAVATION & PLACEMENT (COLUMN 8)

COLUMN 1 - LOCATION FROM PLANS  
 COLUMN 2 - CUT QUANTITIES FROM CROSS SECTIONS (C) X 75%  
 COLUMN 3 - QUANTITIES FROM CROSS SECTIONS  
 COLUMN 4 - CUT MATERIAL THAT IS DETERMINED TO BE EITHER UNSTABLE OR UNSUITABLE FOR USE IN EMBANKMENT  
 = UNDERCUT (UC) + [CUT (C) X 25%] + [TOPSOIL STRIPPING & EARTH EXCAVATION (TSE) - TOPSOIL EXCAVATION & PLACEMENT (TSP)]  
 COLUMN 5 - [(COLUMN 2) X (1-EARTH EXCAVATION SHRINKAGE FACTOR)] + COLUMN 3 X (1-ROCK EXCAVATION SHRINKAGE FACTOR)  
 COLUMN 6 - QUANTITIES FROM CROSS SECTIONS  
 COLUMN 7 - COLUMN 5 - COLUMN 6  
 COLUMN 8 - QUANTITIES FROM CROSS SECTIONS, THESE QUANTITIES ARE NOT INCLUDED IN EARTH EXCAVATION OR EMBANKMENT

**PAY ITEMS:**  
 COLUMN #2 IS EARTH EXCAVATION = 71108CU YD  
 COLUMN #3 IS ROCK EXCAVATION = 570CU YD  
 COLUMN #4 IS REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL = 86043CU YD  
 COLUMN #7 IS FURNISHED EXCAVATION = 276120CU YD  
 COLUMN #8 IS TOPSOIL EXCAVATION & PLACEMENT = 30318CU YD

- NOTES:**
- THE TOP 12 INCHES OF THE EXISTING SOILS WITHIN THE LIMITS OF THE PROPOSED PAVEMENT SHALL BE REMOVED (TSE) AS SHOWN IN THE CROSS SECTIONS. THIS WORK SHALL BE PAID FOR AS REMOVAL AND DISPOSAL OF UNSUITABLE MATERIALS, OR IF USED FOR TOPSOIL PURPOSES, TOPSOIL EXCAVATION AND PLACEMENT (TSP).
  - ALL SOILS SHALL BE TESTED BEFORE BEING INCORPORATED INTO THE NEW EMBANKMENT. THE ENGINEER RESERVES THE RIGHT TO RE-CLASSIFY ANY OF THE UNSUITABLE MATERIAL AND USE IT AS EMBANKMENT MATERIAL FOR SIDESLOPES OR IN SOD COVERED RAISED MEDIANS.
  - THE EXISTING SUBGRADE SOILS MAY BE PRONE TO SWELLING UPON WETTING. THEREFORE, AT LOCATIONS WHERE NEW EMBANKMENT FILL HEIGHT IS GREATER THAN 2 FEET AND LESS THAN 8 FEET, THE TOP 6 INCHES OF SUBGRADE SOILS SHOULD BE DISKED, DRIED, AND RECOMPACTED BETWEEN +2% AND +4% OF THE OPTIMUM MOISTURE CONTENT AND BETWEEN 90% AND 95% OF THE STANDARD DRY DENSITY.
  - BASED ON SOIL BORINGS, 25% OF THE EXCAVATED SOILS (BELOW THE 12" TSE) THROUGHOUT THE PROJECT AREA ARE EXPECTED TO HAVE HIGH PLASTICITY (LL AND PI) AND MAY BE PRONE TO SWELLING UPON WETTING. THESE SOILS ARE ASSUMED TO BE UNSUITABLE MATERIAL FOR EMBANKMENT AND SHOULD NOT BE USED AS EMBANKMENT FILL UNLESS THEY HAVE LL LESS THAN 50%, PI BETWEEN 12% AND 20%, A MAXIMUM DRY DENSITY GREATER THAN 90 PCF, AND ORGANIC CONTENT LESS THAN 10%.
  - REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL INCLUDES EXCAVATION OF MATERIAL.

TEMPORARY EROSION CONTROL SEEDING

STATION +/- TO STATION +/-	SIDE	SEEDING CLASS 7 ACRES	POUNDS PER APPLICATION PER ACRE	NUMBER OF APPLICATIONS	TOTAL POUND	MULCH METHOD 2 ACRE
<b>URBAN GRUNDY</b>						
6027+00.00 TO 6205+17.00	LT & RT	39.27	100	1	3927	39.27
<b>STAGE 1</b>						
6038+00.00 TO 6104+00.00	LT	0.80	100	1	80	0.80
<b>STAGE 3</b>						
6105+00.00 TO 6205+00.00	RT	3.10	100	1	310	3.10
<b>URBAN GRUNDY SUB-TOTAL</b>					4317	43.25
<b>RURAL GRUNDY</b>						
6205+17.00 TO 6257+48.00	LT & RT	16.44	100	1	1644	16.44
<b>STAGE 3</b>						
6206+00.00 TO 6257+47.00	RT	1.50	100	1	150	1.50
<b>RURAL GRUNDY SUB-TOTAL</b>					1794	18.00
<b>RURAL KENDALL</b>						
6257+48.00 TO 6277+00.00	LT & RT	8.65	100	1	865	8.65
<b>STAGE 3</b>						
6258+00.00 TO 6265+00.00	RT	0.20	100	1	20	0.20
<b>RURAL KENDALL SUB-TOTAL</b>					885	8.75
<b>TOTAL</b>					6996	70.00

MULCH METHOD 2 IS USED FOR TEMPORARY MULCHING