

QUANTITY SHEETS
CONTRACT NO. 18-8936

BOOK 1 OF 1
ISSUED FOR TENDER
JULY 30, 2020

THE CORPORATION OF THE COUNTY OF PRINCE EDWARD

QUANTITIES - GRADING

W.P. No. 188936

Contract No.

SHEET
2

Description	Earth Excavation (Grading)	Reference	Earth Material Available	Earth Material Required	Reference	Earth Borrow																																											
Sub - Totals Brought Forward:																																																	
HIGHWAY 33																																																	
17+310 - 17+330																																																	
Cut/Fill	33		12	19																																													
Stripping	8																																																
17+330 - 17+350																																																	
Cut/Fill	44		17	23																																													
Stripping	14																																																
17+350 - 17+370																																																	
Cut/Fil	58		27	24																																													
Stripping	16																																																
17+370 - 17+390																																																	
Cut/Fill	54		19	31																																													
Stripping	12																																																
17+390 - 17+410																																																	
Cut/Fill	72		22	44																																													
Stripping	16																																																
17+410 - 17+430																																																	
Cut/Fill	88		53	22																																													
Stripping	18																																																
17+430 - 17+450																																																	
Cut/Fil	80		51	16																																													
Stripping	17																																																
17+450 - 17+470																																																	
Cut/Fill	91		66	9																																													
Stripping	16																																																
17+470 - 17+490																																																	
Cut/Fill	140		94	23																																													
Stripping	18																																																
Sub - Totals Carried Forward:																																																	
	795		361	211		1,562																																											
(P)																																																	
TOTALS																																																	
UNIT	m3 (P)		m3	m3		m3																																											
ITEM No.	2					3																																											
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 20%;">Total Stripping</td> <td style="width: 10%;"></td> <td style="width: 10%; text-align: center;">430</td> <td colspan="10" rowspan="4" style="vertical-align: top;"> Remarks: Volume adjustment factor for earth have been applied to quantities shown. </td> <td style="width: 10%;"></td> <td style="width: 10%;"></td> <td style="width: 10%;"></td> <td style="width: 10%;"></td> <td style="width: 10%;"></td> <td style="width: 10%;"></td> <td style="width: 10%;"></td> <td style="width: 10%;"></td> </tr> <tr> <td>Stripping Available</td> <td style="text-align: center;">50%</td> <td style="text-align: center;">215</td> </tr> <tr> <td>Top Soil Required</td> <td></td> <td style="text-align: center;">251</td> </tr> <tr> <td>Stripping Balance</td> <td></td> <td style="text-align: center;">-36</td> </tr> </table>																				Total Stripping		430	Remarks: Volume adjustment factor for earth have been applied to quantities shown.																		Stripping Available	50%	215	Top Soil Required		251	Stripping Balance		-36
Total Stripping		430	Remarks: Volume adjustment factor for earth have been applied to quantities shown.																																														
Stripping Available	50%	215																																															
Top Soil Required		251																																															
Stripping Balance		-36																																															
															Reference																																		
															CHKD. _____																																		
															APPR. _____																																		
															DATE _____																																		

MINISTRY OF TRANSPORTATION - ONTARIO

Earth Excavation

QUANTITIES - GRADING

W.P. No. 188936
Contract No.

SHEET
3

Description	Earth Excavation (Grading)	Reference	Earth Material Available	Earth Material Required	Reference	Earth Borrow											
Sub - Totals Brought Forward:	795		361	211		1,562											
Highway 33																	
17+490 - 17+510																	
Cut/Fill	75		55	410													
Stripping	17																
17+510 - 17+530																	
Cut/Fil	91		51	430													
Stripping	17																
17+530 - 17+550																	
Cut/Fill	182		45	450													
Stripping	17																
17+550 - 17+570																	
Cut/Fill	264		41	213													
Stripping	19																
17+570 - 17+590																	
Cut/Fill	255		41	205													
Stripping	19																
17+660 - 17+680																	
Cut/Fil	150		39	101													
Stripping	18																
17+680 - 17+700																	
Cut/Fill	211		44	156													
Stripping	19																
17+700 - 17+720																	
Cut/Fill	151		45	94													
Stripping	16																
17+720 - 17+740																	
Cut/Fill	76		35	33													
Stripping	18																
Sub - Totals Carried Forward:	2,410		757	2,303		1,562											

MINISTRY OF TRANSPORTATION - ONTARIO

(P)

TOTALS																	
UNIT	m3 (P)		m3	m3		m3											
ITEM No.	2					3											

Remarks: Volume adjustment factor for earth have been applied to quantities shown.

Reference

Total Stripping		430
Stripping Available	50%	215
Top Soil Required		251
Stripping Balance		-36

CHKD. _____
APPR. _____
DATE _____

Earth Excavation

QUANTITIES - GRADING

W.P. No. 188936

Contract No.

SHEET
4

Description	Earth Excavation (Grading)	Reference	Earth Material Available	Earth Material Required	Reference	Earth Borrow												
Sub - Totals Brought Forward:	2,410		757	2,303		1,562												
Highway 33																		
17+740 - 17+760																		
Cut/Fill	108		74	15														
Stripping	20																	
17+760 - 17+780																		
Cut/Fill	97		70	8														
Stripping	17																	
17+780 - 17+800																		
Cut/Fill	63		19	39														
Stripping	18																	
17+800 - 17+820																		
Cut/Fill	180		100	54														
Stripping	18																	
17+820 - 17+840																		
Cut/Fill	118		9	105														
Stripping	27																	
17+840 - 17+860																		
Cut/Fill	129		6	121														
Stripping	19																	
17+860 - 17+880																		
Cut/Fill	75		27	41														
Stripping	16																	
17+880 - 17+900																		
Cut/Fill	109		8	99														
Stripping	19																	
Street A																		
10+010 - 10+022																		
Cut/Fill	191		112	51														
Stripping																		
Sub - Totals Carried Forward:	3,634		1,182	2,836		1,562												
(P)																		
TOTALS																		
UNIT	m3 (P)		m3	m3		m3												
ITEM No.	2					3												
Total Stripping		430																
Stripping Available	50%	215																
Top Soil Required		251																
Stripping Balance		-36																
Remarks: Volume adjustment factor for earth have been applied to quantities shown.										Reference								
															CHKD. _____	APPR. _____	DATE _____	

MINISTRY OF TRANSPORTATION - ONTARIO

Earth Excavation

QUANTITIES - GRADING

W.P. No. 188936
Contract No.

SHEET
5

Description	<i>Earth Excavation (Grading)</i>	Reference	<i>Earth Material Available</i>	<i>Earth Material Required</i>	Reference	<i>Earth Borrow</i>																							
Sub - Totals Brought Forward:	3,634		1,182	2,836		1,562																							
Street A 10+022 - 10+052																													
Cut/Fill Stripping	360		201	109																									
Sub - Totals Carried Forward:	3,994					1,562																							
(P)																													
TOTALS	3,994		1,383	2,945		1,562																							
UNIT	m3 (P)		m3	m3		m3																							
ITEM No.	2					3																							
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 60%;">Total Stripping</td> <td style="width: 10%;"></td> <td style="width: 30%; text-align: center;">430</td> </tr> <tr> <td>Stripping Available 50%</td> <td></td> <td style="text-align: center;">215</td> </tr> <tr> <td>Top Soil Required</td> <td></td> <td style="text-align: center;">251</td> </tr> <tr> <td>Stripping Balance</td> <td></td> <td style="text-align: center;">-36</td> </tr> </table>		Total Stripping		430	Stripping Available 50%		215	Top Soil Required		251	Stripping Balance		-36	Remarks: Volume adjustment factor for earth have been applied to quantities shown.		Reference													
Total Stripping		430																											
Stripping Available 50%		215																											
Top Soil Required		251																											
Stripping Balance		-36																											
																CHKD. _____ APPR. _____ DATE _____													

QUANTITIES - MISCELLANEOUS 1

W.P. No. 188936

Contract No.

SHEET
6

Location and Position	Tack Coat [Lower Binder]	Tack Coat [Upper Binder]	Tack Coat [Milled Surface]											References
Sub - Totals Brought Forward:														
HIGHWAY 33														
Resurfacing			10,340											
Westbound Widening	218	620												
Eastbound Widening	880	2,000												
STREET A														
Roadway	1,050	2,150												
NO FRILLS ENTRANCE														
Southbound Widening	140	310												
Northbound Widening	20	50												
Resurfacing			440											
Sub - Totals Carried Forward:														
	2,308	5,130	10,780											
	2,308	5,130	10,780											
	(P)	(P)	(P)											
TOTALS		18,218												
UNIT	m2 (P)	m2 (P)	m2 (P)											
ITEM No.		4												
Reference														

MINISTRY OF TRANSPORTATION - ONTARIO

CHKD. _____
 APPR. _____
 DATE _____

Tack Coat

QUANTITIES - HOT MIX AND GRANULAR

W.P. No. 188936

Contract No.

SHEET
7

Description	Superpave 12.5FC 1 [50mm Surface]		Superpave 19.0 [50mm Lower Binder]	Superpave 19.0 [50mm Upper Binder]		Superpave 12.5FC 1 - 50 mm Lift Thickness Medians/Boulevards		Granular A [Base]	Granular A [Boulevard]	Granular A [Sidewalk]		Granular B, Type III [Subbase]		Concrete Pavement		References
Sub - Totals Brought Forward:																
HIGHWAY 33																
Resurfacing	1,235															
Westbound Widening	55		26	26				170				210				
Eastbound Widening	215		110	125				640				790				
17+280 Commercial Entrance Lt						110										
17+282 Commercial Entrance Rt						195										
17+327 Residential Entrance Rt						22										
17+347 Residential Entrance Rt						19										
17+377 Commercial Entrance Lt						45										
17+382 Residential Entrance Rt						20										
17+399 Residential Entrance Rt						27										
17+414 Residential Entrance Lt						40										
17+451 Residential Entrance Lt						12										
17+457 Residential Entrance Rt						16										
17+477 Commercial Entrance Lt						47										
17+525 Residential Entrance Rt						16										
17+551 - 17+580 Raised Median								20						38		
17+624 - 17+653 Raised Median								20						38		
17+722 Residential Entrance Rt						18										
17+772 Residential Entrance Rt						29										
Sub - Totals Carried Forward:																
	1,505		136	151		616		850	0	0		1,000		76		
<div style="display: flex; justify-content: space-between; align-items: center;"> (P) (P) </div>																
TOTALS																
UNIT	t		t	t		m2 (P)		t	t	t		t		m2 (P)		
ITEM No.	5			6		7			8			9		10		
Reference																
Remarks:																CHKD. _____ APPR. _____ DATE _____

MINISTRY OF TRANSPORTATION - ONTARIO

SuperPave/Granular

QUANTITIES - HOT MIX AND GRANULAR

W.P. No. 188936
Contract No.

MINISTRY OF TRANSPORTATION - ONTARIO

Description	Superpave 12.5FC 1 [50mm Surface]		Superpave 19.0 [50mm Lower Binder]	Superpave 19.0 [50mm Upper Binder]		Superpave 12.5FC 1 - 50 mm Lift Thickness Medians/Boulevards		Granular A [Base]	Granular A [Boulevard]	Granular A [Sidewalk]		Granular B, Type III [Subbase]		Concrete Pavement		References
Sub - Totals Brought Forward:	1,505		136	151		616		850	0	0		1,000		76		
HIGHWAY 33																
17+781 Commercial Entrance Lt						131										
17+788 Residential Entrance Rt						32										
17+826 Residential Entrance Rt						25										
South Boulevard						940			517							
South Sidewalk										327						
North Boulevard						928			510							
North Sidewalk										335						
STREET A																
Roadway	250		130	132				755				930				
10+022 - 10+052 Raised Median								21						38		
East Sidewalk											25					
West Sidewalk											20					
NO FRILLS ENTRANCE																
Southbound Widening	35		17	19				105				125				
Northbound Widening	6		3	3				25				30				
Resurfacing	106															
Sub - Totals Carried Forward:	1,891		286	305		2,672		1,756	1,027	707		2,085		114		
			285	305				1,756	1,027	707						
TOTALS	1,902			591		2,672	(P)		3,490			2,085		114		(P)
UNIT	t		t	t		m2 (P)		t	t	t		t		m2 (P)		
ITEM No.	5			6		7			8			9		10		
Reference																
Remarks:																

CHKD. _____
APPR. _____
DATE _____

SuperPave/Granular

QUANTITIES - MISCELLANEOUS 1

W.P. No. 188936
Contract No.

SHEET
10

Location and Position	Concrete Curb and Gutter [OPSD 600.010] [Straight]	Concrete Curb and Gutter [OPSD 600.010] [Circular]	Concrete Curb and Gutter [OPSD 600.110] [Straight, No Gutter]										References
Sub - Totals Brought Forward:													
HIGHWAY 33													
17+369 - 17+581 South Widening	210												
17+390 - 17+571 North Widening	116												
17+619 - 17+852 South Widening	232												
17+650 - 17+852 North Widening	202												
17+266 - 17+294 Stormys Entrance Island Lt	50	12											
17+268 - 17+295 Stormys Entrance Island Rt	50	15											
17+551 - 17+580 Raised Median	54	6											
17+624 - 17+654 Raised Median	54	6											
STREET A													
10+022 - 10+052	54	6											
Sta. 10+010 - Sta. 10+052 East Curblin	50												
Sta. 10+010 - Sta. 10+052 West Curblin	70												
NO FRILLS ENTRANCE													
Sta. 9+953 - Sta. 9+992 East Widening	10		28										
Sta. 9+931 - Sta. 9+990 West Widening	39		26										
Sub - Totals Carried Forward:													
	1,191	45	54										
	1,191	45	54										
	(P)	(P)	(P)										
TOTALS		1,290											
UNIT	m (P)	m (P)	m (P)										
ITEM No.		13											
Reference													
												CHKD. _____	
												APPR. _____	
												DATE _____	

MINISTRY OF TRANSPORTATION - ONTARIO

Curb and Gutter

QUANTITIES - MISCELLANEOUS 1

W.P. No. 188936
Contract No.

SHEET
11

MINISTRY OF TRANSPORTATION - ONTARIO

Location and Position	100 mm Pipe Subdrain [Class II Non-woven 75-150um, 19mm Clearstone Roadway]	100 mm Pipe Subdrain [Class II, Non-woven 75-150um, 19mm Clearstone Non-perforated outlet]	100 mm Pipe Subdrain [Class II, Non-woven 75-150um, 19mm Clearstone Sewer Trench Drain]	Outlet Structure	Caps									References
Sub - Totals Brought Forward:														
HIGHWAY 33														
17+369 - 17+445 Lt	73	3		412	1									
17+390 - 17+475 Rt	82	3		310	1									
17+445 - 17+530 Lt	82	3		203	1									
17+475 - 17+557 Rt	79	3		207	1									
17+591 - 17+530 Lt	63	3		203	1									
17+589 - 17+557 Rt	38	3		207	1									
17+700 - 17+613 Lt	87	3		301	1									
17+700 - 17+611 Rt	92	3		102	1									
17+770 - 17+700 Lt	67	3		405	1									
17+770 - 17+700 Rt	67	3		307	1									
17+824 - 17+700 Rt	51	3		413	1									
17+853 - 17+700 Lt	80	3		403	1									
412			6		1									
411			6		1									
410			6		1									
409			6		1									
408			6		1									
407			6		1									
406			6		1									
Sub - Totals Carried Forward:	861	36	42	3,473	19									
	(P)	(P)	(P)											
TOTALS														
UNIT	m (P)	m (P)	m (P)	each	each									
ITEM No.		14												
Reference														

CHKD. _____
APPR. _____
DATE _____

Subdrain

QUANTITIES - MISCELLANEOUS 1

W.P. No. 188936
Contract No.

SHEET
12

MINISTRY OF TRANSPORTATION - ONTARIO

Location and Position	100 mm Pipe Subdrain [Class II Non-woven 75-150um, 19mm Clearstone Roadway]	100 mm Pipe Subdrain [Class II, Non-woven 75-150um, 19mm Clearstone Non-perforated outlet]	100 mm Pipe Subdrain [Class II, Non-woven 75-150um, 19mm Clearstone Sewer Trench Drain]	Outlet Structure	Caps								References
Sub - Totals Brought Forward:	861	36	42	3,473	19								
HIGHWAY 33													
405			6		1								
404			6		1								
414			6		1								
403			6		1								
413			6		1								
402			6		1								
401			6		1								
Sub - Totals Carried Forward:	861	36	84										
TOTALS	861 (P)	36 (P)	84 (P)	3,473	26								
UNIT	m (P)	m (P)	m (P)	each	each								
ITEM No.		14											
Reference													

CHKD. _____
APPR. _____
DATE _____

Subdrain

QUANTITIES - DRAINAGE, MANHOLES, CATCH BASINS AND DITCH INLETS

W.P. No. 188936
Contract No.

SHEET
13

Location	Str No	Station	Offset CL Grate or Cover	Type of Structure Std No	New Grate Std No	Slope of Grate	Top of Grate Elevation	Low Invert Elevation	Depth of Structure	600 mm x 600 mm Manholes Catch Basins and Ditch Inlets	1200 mm Manholes Catch Basins and Ditch Inlets	Breaking into MHs, CBs, DIs, Culverts and Sewers							References
Sub - Totals Brought Forward:																			
HIGHWAY 33	412	17+445	8.4 Lt	701.010	400.010		100.632	98.475	2.46		1								
	311	17+445	9.6 Rt	705.010	400.010		100.587	98.797	2.4	1									
	411	17+475	8.9 Lt	701.010	400.010		100.513	98.147	2.67		1								
	310	17+475	10.2 Rt	705.010	400.010		100.451	98.651	2.4	1									
	410	17+505	9.4 Lt	701.010	400.010		100.403	97.773	2.93		1								
	309	17+505	10.2 Rt	705.010	400.010		100.337	98.537	2.4	1									
	308	17+535	10.2 Rt	705.010	400.010		100.210	98.410	2.4	1									
	203											1							
	302	17+591	19.6 Lt	705.010	400.010		99.982	98.182	2.4	1									
	201											1							
	409	17+614	11.9 Lt	701.010	400.010		100.313	97.525	3.08		1								
	301	17+614	21.3 Lt	705.010	400.010		99.893	98.093	2.4	1									
	205											1							
	408	17+635	13.4 Lt	701.010	400.010		100.434	97.750	2.98		1								
	407	17+655	13.4 Lt	701.010	400.010		100.481	97.870	2.91		1								
	415	17+660	10.0 Rt	701.010	400.010		100.634	97.972	2.96		1								
	406	17+675	13.4 Lt	701.010	400.010		100.59	97.990	2.9		1								
	405	17+700	12.8 Lt	701.010	400.010		100.713	98.130	2.88		1								
	307	17+700	9.3 Rt	705.010	400.010		100.827	99.027	2.4	1									
	404	17+730	11.1 Lt	701.010	400.010		100.840	98.265	2.88		1								
Sub - Totals Carried Forward:										7	10	3							
										(P)	(P)	(P)							
										TOTALS									
										UNIT	each (P)	each (P)	each (P)						
										ITEM No.	15	16	17						
																	CHKD. _____		
																	APPR. _____		
																	DATE _____		

MINISTRY OF TRANSPORTATION - ONTARIO

Manholes/Catchbasins

QUANTITIES - DRAINAGE, MANHOLES, CATCH BASINS AND DITCH INLETS

W.P. No. 188936

Contract No.

SHEET
14

Location	Str No	Station	Offset CL Grate or Cover	Type of Structure Std No	New Grate Std No	Slope of Grate	Top of Grate Elevation	Low Invert Elevation	Depth of Structure	600 mm x 600 mm Manholes Catch Basins and Ditch Inlets	1200 mm Manholes Catch Basins and Ditch Inlets	Breaking into MHs, CBs, DIs, Culverts and Sewers						References
Sub - Totals Brought Forward:										7	10	3						
	414	17+730	8.8 Rt	701.010	400.010		100.91	98.64	2.58		1							
	306	17+733	13.8 Rt	705.030	403.010	4:1	100.65	98.846	2.4	1								
	403	17+770	8.6 Lt	701.010	400.010		101.053	98.640	2.71		1							
HIGHWAY 33	413	17+770	8.0 Rt	701.010	400.010		101.078	98.916	2.46		1							
	305	17+779	14.1 Rt	705.0030	403.010	2:1	100.725	99.003	2.32	1								
	402	17+810	6.7 Lt	701.010	400.010		101.260	99.100	2.46		1							
	304	17+810	7.3Rt	705.010	400.010		101.268	99.468	2.4	1								
	401	17+850	6.5 Rt	701.010	400.010		101.372	99.535	2.14		1							
	303	17+850	6.7 Lt	705.010	400.010		101.429	99.629	2.4	1								

Sub - Totals Carried Forward:

11

15

3

	(P)	(P)	(P)
TOTALS	11	15	3
UNIT	each (P)	each (P)	each (P)
ITEM No.	15	16	17

CHKD. _____
APPR. _____
DATE _____

QUANTITIES - SEWERS

W.P. No. 188936

SHEET
15

Contract No.

Str. No to Str. No or Station to Station	Location and Position	Inv Elevation		Depth to Pipe	Pipe Fill Material			Pipe Joints	300 mm Pipe Sewer S 011000 C 011000	300 mm Pipe Sewer 300+75 S 011000 300+75 C 011000	500 mm Pipe Sewer 500+25 S 101000 C 000000	600 mm Pipe Sewer S 101000 C 000000	References
		Upstream	Downstream		Bedding	Cover	Backfill						
Sub - Totals Brought Forward:													
311 - 412	HIGHWAY 33 Crossing	98.787	98.607	1.5	A	N	N	F	18				
412 - 411	Lt	98.475	98.177	1.86	A	N	N	F	30				
310 - 411	Crossing	98.651	98.461	1.5	A	N	N	F	19				
411 - 410	Lt	98.147	97.848	2.07	A	N	N	F	30				
309 - 410	Crossing	98.537	98.343	1.5	A	N	N	F	20				
410 - 203	Lt	97.773	97.525	2.25	A	N	N	F		25			
308 - 203	Crossing	98.410	98.204	1.5	A	N	N	F	20				
302 - 201	Lead	98.182	97.99	1.5	A	N	N	F	9				
409 - 201	Lt	97.525	97.459	1.96	A	N	N	F					
301 - 409	Lead	98.093	97.906	1.5	A	N	N	F	9				
408 - 409	Lt	97.707	97.600	2.08	A	N	N	F					
415 - 205	Rt	97.972	97.878	2.36	A	N	N	F	32				
407 - 408	Lt	97.837	97.737	2.04	A	N	N	F					
Sub - Totals Carried Forward:													
									187	25	0	0	

MINISTRY OF TRANSPORTATION - ONTARIO

Pipe Material Code - 6 digits defined as noted below:

- 1st digit = Concrete**
 1 - 50-D
 2 - 65-D
 3 - 100-D
 4 - 140-D
- 2nd digit = PVC/PP**
 1 - PVC
 2 - PP

- 3rd digit = HDPE**
 1 - Open profile
 2 - Closed profile

- 4th digit = Galv; 5th digit = Alum & 6th digit = Polymer Steel**
 1 - 1.6 mm thick
 2 - 2.0 mm thick
 3 - 2.8, 3.0 & 3.18 mm thick
 4 - 3.5, 3.81 & 4.0 mm thick
- 5 - 4.2, 4.45 & 5.0 mm thick
 6 - 5.08 & 6.0 mm thick
 7 - 5.72 & 7.0 mm thick
 8 - 6.35 mm thick

Note: '0' for any digit means the pipe material is not acceptable. Higher pipe material code values are also acceptable, unless otherwise stated. Galv. means galvanized coating. Alum means aluminized coated or aluminum alloy materials. Polymer means both laminated and coated steel pipes.

Pipe Joints

- S - Soil tight
 F - Silt/Fines tight
 L - Leak tight

Note: S joints is specified if no code is entered.

Pipe Type

- S - Smooth inner wall pipe
 C - Corrugated inner wall pipe

Depth to Pipe is from the surface at the upstream invert to top of base pipe opening unless otherwise stated.

Pipe Fill Material

- N - Native or Granular
 G - Granular A or B Type I, II or III
 B - Granular A or B Type II
 A - Granular A
 U - Unshrinkable fill

Notes: N applies to cover and backfill only.
 1 letter code specifies material for all pipes.
 2 letter codes specify fill materials for rigid and flexible pipes respectively.
 G for bedding and N for cover and backfill are specified if no code is entered.
 Embedment material for flexible pipes specified in bedding material column.

	(P)	(P)	(P)	(P)
TOTALS				
UNIT	m (P)	m (P)	m (P)	m (P)
ITEM No.	18	19		

CHKD. _____
 APPR. _____
 DATE _____

Storm Sewer

QUANTITIES - SEWERS

W.P. No. 188936

Contract No.

SHEET
16

Str. No to Str. No or Station to Station	Location and Position	Inv Elevation		Depth to Pipe	Pipe Fill Material			Pipe Joints	600 mm Pipe Sewer 600+75 S 101000 C 000000							References
		Upstream	Downstream		Bedding	Cover	Backfill									
Sub - Totals Brought Forward:																
	HIGHWAY 33															
311 - 412	Crossing	98.787	98.607	1.5	A	N	N	F								
412 - 411	Lt	98.475	98.177	1.86	A	N	N	F								
310 - 411	Crossing	98.651	98.461	1.5	A	N	N	F								
411 - 410	Lt	98.147	97.848	2.07	A	N	N	F								
309 - 410	Crossing	98.537	98.343	1.5	A	N	N	F								
410 - 203	Lt	97.773	97.525	2.25	A	N	N	F								
308 - 203	Crossing	98.410	98.204	1.5	A	N	N	F								
302 - 201	Lead	98.182	97.99	1.5	A	N	N	F								
409 - 201	Lt	97.525	97.459	1.96	A	N	N	F	19							
301 - 409	Lead	98.093	97.906	1.5	A	N	N	F								
408 - 409	Lt	97.707	97.600	2.08	A	N	N	F	22							
415 - 205	Rt	97.972	97.878	2.36	A	N	N	F								
407 - 408	Lt	97.837	97.737	2.04	A	N	N	F	20							
	HIGHWAY 33															
Sub - Totals Carried Forward:										61						

MINISTRY OF TRANSPORTATION - ONTARIO

<p>Pipe Material Code - 6 digits defined as noted below:</p> <p>1st digit = Concrete 1 - 50-D 2 - 65-D 3 - 100-D 4 - 140-D</p> <p>2nd digit = PVC/PP 1 - PVC 2 - PP</p> <p>3rd digit = HDPE 1 - Open profile 2 - Closed profile</p> <p>4th digit = Galv; 5th digit = Alum & 6th digit = Polymer Steel 1 - 1.6 mm thick 2 - 2.0 mm thick 3 - 2.8, 3.0 & 3.18 mm thick 4 - 3.5, 3.81 & 4.0 mm thick</p> <p>Note: '0' for any digit means the pipe material is not acceptable. Higher pipe material code values are also acceptable, unless otherwise stated. Galv. means galvanized coating. Alum means aluminized coated or aluminum alloy materials. Polymer means both laminated and coated steel pipes.</p>	<p>Pipe Joints S - Soil tight F - Silt/Fines tight L - Leak tight Note: S joints is specified if no code is entered.</p> <p>Pipe Type S - Smooth inner wall pipe C - Corrugated inner wall pipe</p> <p>Depth to Pipe is from the surface at the upstream invert to top of base pipe opening unless otherwise stated.</p> <p>Pipe Fill Material N - Native or Granular G - Granular A or B Type I, II or III B - Granular A or B Type II A - Granular A U - Unshrinkable fill</p> <p>Notes: N applies to cover and backfill only. 1 letter code specifies material for all pipes. 2 letter codes specify fill materials for rigid and flexible pipes respectively. G for bedding and N for cover and backfill are specified if no code is entered. Embedment material for flexible pipes specified in bedding material column.</p>	<table border="1"> <tr> <td align="center" colspan="2">TOTALS</td> <td align="center">(P)</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>UNIT</td> <td></td> <td align="center">m (P)</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>ITEM No.</td> <td></td> <td align="center">20</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table> <p align="right">CHKD. _____ APPR. _____ DATE _____</p>	TOTALS		(P)						UNIT		m (P)						ITEM No.		20					
TOTALS		(P)																								
UNIT		m (P)																								
ITEM No.		20																								

Storm Sewer

QUANTITIES - SEWERS

W.P. No. 188936

Contract No.

SHEET
17

Str. No to Str. No or Station to Station	Location and Position	Inv Elevation		Depth to Pipe	Pipe Fill Material			Pipe Joints	300 mm Pipe Sewer S 011000 C 011000	300 mm Pipe Sewer 300+75 S 011000 300+75 C 011000		500 mm Pipe Sewer 500+25 S 101000 C 000000		600 mm Pipe Sewer S 101000 C 000000	References
		Upstream	Downstream		Bedding	Cover	Backfill								
Sub - Totals Brought Forward:															
406 - 407	Lt	97.957	97.867	2.02	A	N	N	F	187	25		0		0	
405 - 406	Lt	98.099	97.987	2.01	A	N	N	F							
307 - 405	Crossing	99.027	98.807	1.5	A	N	N	F	22						
404 - 405	Lt	98.265	98.129	1.98	A	N	N	F						30	
306 - 414	Lead	98.846	98.789	1.5	A	N	N	F	6						
414-404	Crossing	98.641	98.565	2.28	A	N	N	F	20						
403 - 404	Lt	98.640	98.340	1.89	A	N	N	F				40			
305 - 413	Lead	99.003	98.950	1.4	A	N	N	F	11						
413 - 403	Crossing	98.916	98.790	1.79	A	N	N	F			17				
402 - 403	Lt	98.030	98.790	1.85	A	N	N	F			40				
304 - 402	Crossing	99.468	99.328	1.5	A	N	N	F	14						
401 - 402	Lt	99.345	99.105	1.74	A	N	N	F	40						
303 - 401	Crossing	99.629	99.490	1.5	A	N	N	F	14						
Sub - Totals Carried Forward:									314	82		40		30	

Pipe Material Code - 6 digits defined as noted below:

- 1st digit = Concrete**
 1 - 50-D
 2 - 65-D
 3 - 100-D
 4 - 140-D
- 2nd digit = PVC/PP**
 1 - PVC
 2 - PP

- 3rd digit = HDPE**
 1 - Open profile
 2 - Closed profile

- 4th digit = Galv; 5th digit = Alum & 6th digit = Polymer Steel**
 1 - 1.6 mm thick
 2 - 2.0 mm thick
 3 - 2.8, 3.0 & 3.18 mm thick
 4 - 3.5, 3.81 & 4.0 mm thick
- 5 - 4.2, 4.45 & 5.0 mm thick
 6 - 5.08 & 6.0 mm thick
 7 - 5.72 & 7.0 mm thick
 8 - 6.35 mm thick

Note: '0' for any digit means the pipe material is not acceptable. Higher pipe material code values are also acceptable, unless otherwise stated. Galv. means galvanized coating. Alum means aluminized coated or aluminum alloy materials. Polymer means both laminated and coated steel pipes.

Pipe Joints

- S - Soil tight
 F - Silt/Fines tight
 L - Leak tight

Note: S joints is specified if no code is entered.

Pipe Type

- S - Smooth inner wall pipe
 C - Corrugated inner wall pipe

Depth to Pipe is from the surface at the upstream invert to top of base pipe opening unless otherwise stated.

Pipe Fill Material

- N - Native or Granular
 G - Granular A or B Type I, II or III
 B - Granular A or B Type II
 A - Granular A
 U - Unshrinkable fill

Notes: N applies to cover and backfill only.
 1 letter code specifies material for all pipes.
 2 letter codes specify fill materials for rigid and flexible pipes respectively.
 G for bedding and N for cover and backfill are specified if no code is entered.
 Embedment material for flexible pipes specified in bedding material column.

	314	82	40	30
	(P)	(P)	(P)	(P)
TOTALS	314	82	40	30
UNIT	m (P)	m (P)	m (P)	m (P)
ITEM No.	18	19		

CHKD. _____
 APPR. _____
 DATE _____

MINISTRY OF TRANSPORTATION - ONTARIO

Storm Sewer

QUANTITIES - SEWERS

W.P. No. 188936

Contract No.

SHEET
18

Str. No to Str. No or Station to Station	Location and Position	Inv Elevation		Depth to Pipe	Pipe Fill Material			Pipe Joints	600 mm Pipe Sewer 600+75 S 101000 C 000000							References
		Upstream	Downstream		Bedding	Cover	Backfill									
Sub - Totals Brought Forward:										61						
406 - 407	Lt	97.957	97.867	2.02	A	N	N	F	20							
405 - 406	Lt	98.099	97.987	2.01	A	N	N	F	25							
307 - 405	Crossing	99.027	98.807	1.5	A	N	N	F								
404 - 405	Lt	98.265	98.129	1.98	A	N	N	F								
306 - 414	Lead	98.846	98.789	1.5	A	N	N	F								
414-404	Crossing	98.641	98.565	2.28	A	N	N	F								
403 - 404	Lt	98.640	98.340	1.89	A	N	N	F								
305 - 413	Lead	99.003	98.950	1.4	A	N	N	F								
413 - 403	Crossing	98.916	98.790	1.79	A	N	N	F								
402 - 403	Lt	98.030	98.790	1.85	A	N	N	F								
304 - 402	Crossing	99.468	99.328	1.5	A	N	N	F								
401 - 402	Lt	99.345	99.105	1.74	A	N	N	F								
303 - 401	Crossing	99.629	99.490	1.5	A	N	N	F								
Sub - Totals Carried Forward:										106						

Pipe Material Code - 6 digits defined as noted below:

1st digit = Concrete
 1 - 50-D
 2 - 65-D
 3 - 100-D
 4 - 140-D

2nd digit = PVC/PP
 1 - PVC
 2 - PP

3rd digit = HDPE
 1 - Open profile
 2 - Closed profile

4th digit = Galv; 5th digit = Alum & 6th digit = Polymer Steel
 1 - 1.6 mm thick
 2 - 2.0 mm thick
 3 - 2.8, 3.0 & 3.18 mm thick
 4 - 3.5, 3.81 & 4.0 mm thick

5 - 4.2, 4.45 & 5.0 mm thick
 6 - 5.08 & 6.0 mm thick
 7 - 5.72 & 7.0 mm thick
 8 - 6.35 mm thick

Note: '0' for any digit means the pipe material is not acceptable. Higher pipe material code values are also acceptable, unless otherwise stated. Galv. means galvanized coating. Alum means aluminized coated or aluminum alloy materials. Polymer means both laminated and coated steel pipes.

Pipe Joints
S - Soil tight
F - Silt/Fines tight
L - Leak tight
Note: S joints is specified if no code is entered.

Pipe Type
S - Smooth inner wall pipe
C - Corrugated inner wall pipe

Depth to Pipe is from the surface at the upstream invert to top of base pipe opening unless otherwise stated.

Pipe Fill Material
N - Native or Granular
G - Granular A or B Type I, II or III
B - Granular A or B Type II
A - Granular A
U - Unshrinkable fill

Notes: N applies to cover and backfill only.
 1 letter code specifies material for all pipes.
 2 letter codes specify fill materials for rigid and flexible pipes respectively.
 G for bedding and N for cover and backfill are specified if no code is entered.
 Embedment material for flexible pipes specified in bedding material column.

TOTALS	136					
UNIT	m (P)					
ITEM No.	20					

CHKD. _____
 APPR. _____
 DATE _____

MINISTRY OF TRANSPORTATION - ONTARIO

Storm Sewer

QUANTITIES - PIPE CULVERTS

W.P. No. 188936

Contract No.

SHEET
19

Culvert No	Station	Location and Position	Ext		Skew No	End Finish	Depth to Pipe	Pipe Fill Material			Pipe Joints	Treatment	Inv Elev		300 mm Pipe Culvert S 011000 C 000001						References
			Left	Right				Bedding	Cover	Backfill			Upstream	Downstream							
Sub - Totals Brought Forward:																					
		HIGHWAY 33																			
1	17+525	Residential Driveway 16.5 - 16.8 Rt				Sqe	0.3	G	G	A	S			99.683	99.474	9					
2	17+788	Residential Driveway 13.6 - 14.1 Rt				Sqe	0.64	G	G	A	S					12					
Sub - Totals Carried Forward:																					
																21					

MINISTRY OF TRANSPORTATION - ONTARIO

Pipe Material Code - 6 digits defined as noted below:

- | | |
|--|------------------------------|
| 1st digit = Concrete | 2nd digit = PVC/PP |
| 1 - 50-D or HE-A | 1 - PVC |
| 2 - 65-D or HE-I | 2 - PP |
| 3 - 100-D or HE-II | 3rd digit = HDPE |
| 4 - 140-D or HE-III | 1 - Open Profile |
| 5 - HE-IV | 2 - Closed Profile |
| 4th digit = Galv; 5th digit = Alum, & 6th digit = Polymer Steel | |
| 1 - 1.6 mm thick | 5 - 4.2, 4.45 & 5.0 mm thick |
| 2 - 2.0 mm thick | 6 - 5.08 & 6.0 mm thick |
| 3 - 2.8, 3.0 & 3.18 mm thick | 7 - 5.72 & 7.0 mm thick |
| 4 - 3.5, 3.81 & 4.0 mm thick | 8 - 6.35 mm thick |

Note: '0' for any digit means the pipe material is not acceptable.
Higher pipe material code values are also acceptable, unless otherwise stated. Galv. means galvanized coating.
Alum means aluminized coated or aluminum alloy materials.
Polymer means both laminated and coated steel pipes.
Applies to circular and non-circular pipes.

Pipe Type

- S - Smooth inner wall pipe
- C - Corrugated inner wall pipe

Pipe Joints

- S - Soil tight
- F - Silt/Fines tight
- L - Leak tight

Note: S joints is specified if no code is entered.

End Finish (OPSD 801.01 - 02 - 03)

- SqE - Square End
- B - Bevel
- Sk - Skew End
- SB - Step Bevel
- ES - Steel end section

Note: All pipes are SqE and symmetrical to CL unless otherwise stated.

Treatments

- F - Frost Treatment
- P - Pave Invert
- S - Channel Substrate
- B - Fish Baffles

Depth to Pipe is from the surface downward to top of base pipe opening at midpoint by length unless otherwise stated.

Pipe Fill Material

- N - Native or Granular
- G - Granular A or B Type I, II or III
- B - Granular A or B Type II
- A - Granular A
- U - Unshrinkable fill

Notes: N applies to cover and backfill only.
1 letter specifies material for all pipes.
2 letter codes specifies fill material for rigid and flexible pipes respectively.
G for bedding and N for cover and backfill is specified if no code is entered.
Embedment material for flexible pipes specified in bedding material column.

Frost Penetration

Frost Penetration depth - 1.5 m

	(P)								
TOTALS	21								
UNIT	m (P)								
ITEM No.	21								

CHKD. _____
APPR. _____
DATE _____

Driveway Culvert

QUANTITIES - MISCELLANEOUS 1

W.P. No. 188936
Contract No.

SHEET
20

MINISTRY OF TRANSPORTATION - ONTARIO

Location and Position	Removal of Asphalt Pavement [Full Depth], [Roadway]	Removal of Asphalt Pavement [Full Depth], [Driveways]		Removal of Asphalt Pavement, Partial Depth [50mm]								References
Sub - Totals Brought Forward:												
HIGHWAY 33				10,325								
17+220 - 17+900WBL/17+860EBL												
17+280 Commercial Entrance Lt		220										
17+282 Commercial Entrance Rt		365										
17+327 Residential Entrance Rt		45										
17+347 Residential Entrance Rt		35										
17+369 - 17+409 South Widening	15											
17+377 Commercial Entrance Lt		75										
17+382 Residential Entrance Rt		35										
17+390 - 17+419 North Widening	10											
17+399 Residential Entrance Rt		48										
17+451 Commercial Entrance Lt		30										
17+477 Commercial Entrance Lt		120										
17+490 - 17+575 North Widening	26											
17+525 Residential Entrance Lt		30										
17+549 - 17+581 Raised Median	102											
17+623 - 17+654 Raised Median	102											
17+639 - 17+664 North Widening	4											
17+779 Commercial Entrance Lt		275										
17+788 Residential Entrance Lt		65										
Sub - Totals Carried Forward:												
	259	1,343		10,325								
	(P)	(P)		(P)								
TOTALS												
UNIT	m2 (P)	m2 (P)		m2 (P)								
ITEM No.		22		23								
Reference												

CHKD. _____
APPR. _____
DATE _____

Asphalt Removal

QUANTITIES - MISCELLANEOUS 1

W.P. No. 188936
Contract No.

SHEET
23

MINISTRY OF TRANSPORTATION - ONTARIO

Location and Position	Removal of MH's, CB's, DI', and VC's	Removal of Pipes and Culverts [Driveway Culvert]												References
Sub - Totals Brought Forward:														
HIGHWAY 33														
17+466, 8.6 Rt	1													
17+466, 6.8 Lt	1													
17+466, 8.2 Rt - 6.4 Lt		15												
17+466 - 17+512, 6.9 Lt		44												
17+512, 9.9 Rt	1													
17+512, 6.9 Lt	1													
17+512, 9.8 Rt - 6.9 Lt		23												
17+525 Residential Entrance Rt		9												
17+600, 7.0 Lt	1													
17+600 - 17+645, 6.9 Lt		44												
17+645, 6.8 Lt	1													
17+645, 9.6 Rt	1													
17+645, 10.4 Lt	1													
17+645, 6.9 Lt - 10.4 Lt		4												
17+645, 9.2 Rt - 6.9 Lt		16												
17+645 - 17+694, 6.9 Lt		50												
17+694, 6.8 Lt	1													
17+694, 9.5 Lt	1													
17+694, 8.2 Rt	1													
Sub - Totals Carried Forward:	11	205												
	(P)	(P)												
TOTALS														
UNIT	each (P)	m (P)												
ITEM No.	25	26												
Reference														
													CHKD. _____	
													APPR. _____	
													DATE _____	

Storm Sewer and Culvert Removal

QUANTITIES - MISCELLANEOUS 1

W.P. No. 188936

Contract No.

SHEET
24

MINISTRY OF TRANSPORTATION - ONTARIO

Location and Position	Removal of MH's, CB's, DI', and VC's	Removal of Pipes and Culverts [Driveway Culvert]												References
Sub - Totals Brought Forward:	11	205												
HIGHWAY 33														
17+694, 6.9 Lt - 9.1 Lt		2												
17+694, 7.7 Rt - 6.7 Lt		14												
17+694 - 17+738, 6.9 Lt		44												
17+728, 7.8 Lt	1													
17+738, 6.6 Rt	1													
17+738, 6.8 Lt	1													
17+738, 6.6 Rt - 6.8 Lt		12												
17+738 - 17+780, 6.7 Lt		42												
17+780, 6.6 Rt - 6.9 Lt		13												
17+780, 6.9 Lt	1													
17+780, 6.6 Rt	1													
17+780, 14.6 Rt														
17+788 Residential Entrance Rt		12												
17+780 - 17+832, 6.6 Lt		52												
17+832, 6.6 Lt	1													
17+832, 6.5 Rt - 6.5 Lt		13												
17+832, 6.6 Rt	1													
Sub - Totals Carried Forward:	18	409												
	(P)	(P)												
TOTALS	18	409												
UNIT	each (P)	m (P)												
ITEM No.	25	26												
Reference														
													CHKD. _____ APPR. _____ DATE _____	

Storm Sewer and Culvert Removal

QUANTITIES - MISCELLANEOUS 1

W.P. No. 188936
Contract No.

MINISTRY OF TRANSPORTATION - ONTARIO

Location and Position	Rip-Rap (R-10)		Geotextile (Class II) (Non-woven) (FOS 75-150 micron)										References
Sub - Totals Brought Forward:													
Highway 33													
17+732 DI 306	14		20										
17+779 DI 305	8		13										
Catch Basin Lids			20										
Sub - Totals Carried Forward:	22		53										
	(P) 22		(P) 53										
TOTALS	22		53										
UNIT	m2 (P)		m2 (P)										
ITEM No.	27		28										
Reference													

CHKD. _____
APPR. _____
DATE _____

Rip-Rap

QUANTITIES - MISCELLANEOUS 1

W.P. No. 188936

Contract No.

SHEET
26

MINISTRY OF TRANSPORTATION - ONTARIO

Location and Position	Small Signs, Ground Mounted, New	Small Signs, Relocation	Small Signs, Removal		Temporary Traffic Control Signs		Road Closing/ Restriction Notice Signs (TC-64)		Intermediate Signs, Relocation	Intermediate Signs, Removal			References
Sub - Totals Brought Forward:													
HIGHWAY 33 CONTRACT					100 %		6						
HIGHWAY 33 EASTBOUND													
17+861 Rb-1A		1											
17+819 Wb-3/Wb-2	1												
17+791 G218		1											
17+752 Rb-42		1											
17+727 G218		1											
17+711 G204(B)	1												
17+677 Wa-23R			1										
17+653 Rb-25/Wa-33L	1												
17+641 G207(B)	1												
17+579 Rb-25/Wa-33L	1												
17+576 Custom		1											
17+543 G412/G412									1				
17+517 Custom									1				
17+511 M401/M301		1											
17+496 Wa-13		1											
17+444 G218		1											
17+432 Tavel Info		1											
Sub - Totals Carried Forward:	5	9	1		100 %		6		2	0			
	(P)	(P)	(P)				(P)		(P)	(P)			
TOTALS													
UNIT	each (P)	each (P)	each (P)		lump sum		each (P)		each (P)	each (P)			
ITEM No.	29	30	31		32		33		34	35			
Reference													

CHKD. _____
 APPR. _____
 DATE _____

Signs

QUANTITIES - MISCELLANEOUS 1

W.P. No. 188936
Contract No.

SHEET
27

MINISTRY OF TRANSPORTATION - ONTARIO

Location and Position	Small Signs, Ground Mounted, New	Small Signs, Relocation	Small Signs, Removal		Temporary Traffic Control Signs		Road Closing/ Restriction Notice Signs (TC-64)		Intermediate Signs, Relocation	Intermediate Signs, Removal			References
Sub - Totals Brought Forward:	5	9	1		100 %		6		2	0			
HIGHWAY 33 EASTBOUND													
17+429 Drinking Water Protection		1											
17+420 G218		1											
17+386 G218		1											
17+350 Rb-27		1											
17+341 G310		1											
17+271 Rb-42/Rb-42t		1											
17+271 Rb-1A/Rb-84t		1											
17+255 G218		1											
17+249 G217/G308/G308/G308									1				
HIGHWAY 33 WESTBOUND													
17+216 G217/G308/G308/G308									1				
17+227 G218		1											
17+251 G218		1											
17+269 G218		1											
17+273 Rb-1A/Rb-84t		1											
17+314 G218		1											
17+332 G218		1											
17+351 G218		1											
17+377 G218		1											
Sub - Totals Carried Forward:	5	25	1		100 %		6		4	0			
	(P)	(P)	(P)				(P)		(P)	(P)			
TOTALS													
UNIT	each (P)	each (P)	each (P)		lump sum		each (P)		each (P)	each (P)			
ITEM No.	29	30	31		32		33		34	35			
Reference													

CHKD. _____
APPR. _____
DATE _____

Signs

QUANTITIES - MISCELLANEOUS 1

W.P. No. 188936
Contract No.

SHEET
28

MINISTRY OF TRANSPORTATION - ONTARIO

Location and Position	Small Signs, Ground Mounted, New	Small Signs, Relocation	Small Signs, Removal		Temporary Traffic Control Signs		Road Closing/ Restriction Notice Signs (TC-64)		Intermediate Signs, Relocation	Intermediate Signs, Removal			References
Sub - Totals Brought Forward:	5	25	1		100 %		6		4	0			
HIGHWAY 33 WESTBOUND													
17+390 G218		1											
17+393 Rb-27		1											
17+425 Wb-3/Wb-2	1												
17+452 G218		1											
17+492 G204(B)	1												
17+518 G218		1											
17+551 Rb-25/Wa-33L	1												
17+563 G207 (B)	1												
17+581 Wc-18/Wc-18t			1										
17+626 Rb-25/Wa-33L	1												
17+678 Blank Custom										1			
17+689 Rb-37/Rb-37t		1											
17+719 G218		1											
17+766 G2118		1											
17+797 G218		1											
17+833 G218		1											
17+861 Rb-1a		1											
STREET A													
10+023 Rb-25/ WA23-R	1												
Sub - Totals Carried Forward:	11	35	2		100 %		6		4	1			
	(P)	(P)	(P)				(P)		(P)	(P)			
TOTALS	11	35	2		100 %		6		4	1			
UNIT	each (P)	each (P)	each (P)		lump sum		each (P)		each (P)	each (P)			
ITEM No.	29	30	31		32		33		34	35			
Reference													

CHKD. _____
APPR. _____
DATE _____

Signs

QUANTITIES - MISCELLANEOUS 1

W.P. No. 188936
Contract No.

SHEET
29

Location and Position	Pavement Marking Obliterating [Grinding]		Pavement Marking [Solid] [White, 10cm]	Pavement Marking [3-6-3] [White, 10cm]	Pavement Marking [Solid] [Yellow, 10cm]	Pavement Marking [Solid Double] [Yellow, 10cm]		Pavement Marking, Durable [Solid] [White 10cm]	Pavement Marking, Durable [Solid] [White, 60cm]	Pavement Marking, Durable [3-3-3] [White, 10cm]		Pavement Marking Symbols, Durable [Arrows, White]	References
Sub - Totals Brought Forward:													
HIGHWAY 33	4,500		351										
17+220 - 17+571, 7.0 - 9.8 Rt			351										
17+220 - 17+579, 3.5 - 6.3 Rt				120									
17+220 - 17+406, CL						372							
17+250 - 17+574, 7.0 - 9.8 Lt			324										
17+250 - 17+579, 3.5 - 6.3 Lt				110									
17+406 - 17+455, CL - 2.8 Rt										16			
17+406 - 17+551, CL - 0.5 Lt						145							
17+406 - 17+455, CL - 2.8 Rt						145							
17+455 - 17+579, 2.8Rt			124										
17+472, Lt Arrow												1	
17+517, Lt Arrow												1	
17+551 - 17+579, 0.5 - 2.8 Lt						63							
17+562, Lt Arrow												1	
17+579, Stop Bar									72				
17+581, Crosswalk								24					
17+584, Crosswalk								27					
17+620, Crosswalk								29					
17+623, Crosswalk								27					
17+624 - 17+654, 0.5 - 2.8 Rt						63							
Sub - Totals Carried Forward:													
	4,500		799	230	416	372		107	72	16		3	
			(P)	(P)	(P)	(P)		(P)	(P)	(P)		(P)	
TOTALS													
UNIT	m (P)		m (P)	m (P)	m (P)	m (P)		m (P)	m (P)	m (P)		each (P)	
ITEM No.	36			37					38			39	
Reference													

MINISTRY OF TRANSPORTATION - ONTARIO

Pavement Marking

CHKD. _____
APPR. _____
DATE _____

QUANTITIES - MISCELLANEOUS 1

W.P. No. 188936

Contract No.

SHEET

30

Location and Position	Pavement Marking Obliterating [Grinding]		Pavement Marking [Solid] [White, 10cm]	Pavement Marking [3-6-3] [White, 10cm]	Pavement Marking [Solid] [Yellow, 10cm]	Pavement Marking [Solid Double] [Yellow, 10cm]		Pavement Marking, Durable [Solid] [White 10cm]	Pavement Marking, Durable [Solid] [White, 60cm]	Pavement Marking, Durable [3-3-3] [White, 10cm]		Pavement Marking Symbols, Durable [Arrows, White]	References
Sub - Totals Brought Forward:			799	230	416	372		107	72	16		3	
HIGHWAY 33													
17+625, Stop Bar									114				
17+625 - 17+900, 7.0 - 12.7 Rt			275										
17+625 - 17+900, 3.5 - 6.3 Rt				92									
17+625 - 17+744, 2.8 Rt			119										
17+625 - 17+850, 3.5 - 6.3 Lt				75									
17+625 - 17+688, 9.8 Lt			63										
17+628 - 17+850, 7.0 - 13.0 Lt			222										
17+641, Lt Arrow												1	
17+641, Rt Arrow												1	
17+653 - 17+793, CL - 2.8 Rt					140								
17+653 - 17+793, CL - 0.5 RT					140								
17+685 - 17+744, 9.8 Lt										20			
17+686, Rt Arrow												1	
17+731, Lt Arrow												1	
17+744 - 17+793 CL - 2.8 Lt											16		
17+793 - 17+900, CL						214							
STREET A													
10+010 - 10+052, 8.2 - 28 Rt			42										
10+013 - 10+052, 11.4 - 25.3 Lt			39										
Sub - Totals Carried Forward:	4,500		1,559	397	696	586		107	186	52		7	
TOTALS			(P)	(P)	(P)	(P)		(P)	(P)	(P)		(P)	
UNIT	m (P)		m (P)	m (P)	m (P)	m (P)		m (P)	m (P)	m (P)		each (P)	
ITEM No.	36			37					38			39	
Reference													

MINISTRY OF TRANSPORTATION - ONTARIO

CHKD. _____
 APPR. _____
 DATE _____

Pavement Marking

QUANTITIES - MISCELLANEOUS 1

W.P. No. 188936
Contract No.

SHEET
31

MINISTRY OF TRANSPORTATION - ONTARIO

Location and Position	Pavement Marking Obliterating [Grinding]	Pavement Marking [Solid] [White, 10cm]	Pavement Marking [3-6-3] [White, 10cm]	Pavement Marking [Solid] [Yellow, 10cm]	Pavement Marking [Solid Double] [Yellow, 10cm]	Pavement Marking, Durable [Solid] [White 10cm]	Pavement Marking, Durable [Solid] [White, 60cm]	Pavement Marking, Durable [3-3-3] [White, 10cm]	Pavement Marking Symbols, Durable [Arrows, White]	References
Sub - Totals Brought Forward:		1,559	397	696	586	107	186	52	7	
STREET A										
10+018, Crosswalk						28				
10+021, Crosswalk						25				
10+022 - 10+052, 1.2 Rt - 1.2Lt				61						
10+023, Stop Bar							72			
10+023 - 10+052, 4.7 Rt								15		
10+023 - 10+052, 4.4 Lt		29								
10+023 - 10+052, 7.9 Lt		29								
10+040, Rt Arrow									1	
10+040, Lt Arrow									1	
NO FRILLS ENTRANCE										
9+924 - 9+974, 0.5 Rt - 2.6 Rt				50						
9+924 - 9+945, 0.5 - 1.2 Rt								7		
9+932 - 9+968, 5.85 - 20.2 Lt		56								
9+945 - 9+974, 0.7 - 1.1 Rt				29						
9+945 - 9+974, 0.7 - 2.5 Rt				29						
9+945 - 9+974, Gore Area					30					
9+957, Lt Arrow									1	
9+953 - 9+990, 5.9 - 26.0 Rt		59								
9+974, Stop Bar							24			
Sub - Totals Carried Forward:	4,500	1,732	397	865	616	160	282	74	10	
		(P)	(P)	(P)	(P)	(P)	(P)	(P)	(P)	
TOTALS										
UNIT	m (P)	m (P)	m (P)	m (P)	m (P)	m (P)	m (P)	m (P)	each (P)	
ITEM No.	36	37	38	39						
Reference										
										CHKD. _____ APPR. _____ DATE _____

Pavement Marking

QUANTITIES - MISCELLANEOUS 1

W.P. No. 188936

Contract No.

SHEET
33

MINISTRY OF TRANSPORTATION - ONTARIO

Location and Position	Topsoil from Stockpiles	Sod (Kentucky Bluegrass)		Topsoil, Imported								References
Sub - Totals Brought Forward:												
HIGHWAY 33												
17+310 - 17+330	8	216										
17+330 - 17+350	8	216										
17+350 - 17+370	10	260										
17+370 - 17+390	5	174										
17+390 - 17+410	10	268										
17+410 - 17+430	12	300										
17+430 - 17+450	9	248										
17+450 - 17+470	9	264										
17+470 - 17+490	10	284										
17+490 - 17+510	8	240										
17+510 - 17+530	9	228										
17+530 - 17+550	9	328										
17+550 - 17+570	11	336										
17+570 - 17+ 590	10	260										
17+660 - 17+680	10	256										
17+680 - 17+700	10	364										
17+700 - 17+720	8	204										
17+720 - 17+740	9	236										
17+740 - 17+760	9	272										
Sub - Totals Carried Forward:												
	174	4,954		0								
(P)												
TOTALS												
UNIT	m3	m2 (P)		m3								
ITEM No.	40	42		41								
Reference												

CHKD. _____
 APPR. _____
 DATE _____

Top Soil

QUANTITIES - MISCELLANEOUS 1

W.P. No. 188936

Contract No.

SHEET 34

Location and Position	Topsoil from Stockpiles	Sod (Kentucky Bluegrass)		Topsoil, Imported								References
Sub - Totals Brought Forward:												
HIGHWAY 33	174	4,954		0								
17+760 - 17+780	8	236										
17+780 - 17+800	11	272										
17+800 - 17+820	12	296										
17+820 - 17+840	10	272										
17+840 - 17+860		318		13								
17+860 - 17+880		260		10								
17+880 - 17+900		316		13								

QUANTITIES - MISCELLANEOUS 1

W.P. No. 188936

Contract No.

SHEET
35

Location and Position	Rock Flow Check Dams	Heavy-Duty Silt Fence Barriers											References
Sub - Totals Brought Forward:													
HIGHWAY 33 17+551	1												
North Side		475											
South Side		450											
Sub - Totals Carried Forward:	1	925											
TOTALS	(P) 1	(P) 925											
UNIT	each (P)	m (P)											
ITEM No.	44	43											
Reference													

MINISTRY OF TRANSPORTATION - ONTARIO

CHKD. _____
 APPR. _____
 DATE _____

Sediment and Erosion

QUANTITIES - ELECTRICAL MAINTENANCE HOLES AND HANDHOLES

W.P. No. 188936
Contract No.

Location	Maintenance Hole No. or Handhole No.	Station	Offset (m) to CL of Structure (Note 1)	Depth (m)	Elevations				Electrical Maintenance Holes [OPSD 2111.020]	Electrical Handholes [350 x 585 mm], [OPSD 2113.010]	Elec Chamber Drains [OPSD 2116.020], [Drain to Drainage Pocket]	#6 AWG, Bare Ground Wires	Ground Electrodes [Rods]			
					Top of Cover		Drain Invert									
Sub - Totals Brought Forward:																
HIGHWAY 33 / STREET 'A' INTERSECTION																
No Frills Entrance	MH1	9+977	19.4Lt						1		4	1	1			
Highway 33	MH2	17+629	1.6Rt						1		4	1	1			
Highway 33	MH3	17+622	22.5Rt						1		4	1	1			
Street 'A'	MH4	10+026	CL						1		4	1	1			
Street 'A'	MH5	10+022	19.5Rt						1		4	1	1			
Highway 33	MH6	17+575	1.6Lt						1		4	1	1			
Highway 33	MH7	17+581	17.8Lt						1		4	1	1			
Highway 33	HH1	17+715	1.6Lt*							1						
Highway 33	HH2	17+489	1.6Rt*							1						
Sub - Totals Carried Forward:																
									7		2		28		7	7
									(P) 7		(P) 2		(P) 28		(P) 7	(P) 7
									TOTALS							
									UNIT							
									ITEM No.							
									45		46		76		53	54

MINISTRY OF TRANSPORTATION - ONTARIO

Remarks: 1. Brought Forward to Power Supply Equipment

Note: 1 When shown without *, offset is from centre or control line of roadway.
When shown with *, offset is from edge of travelled pavement (EP).

CHKD. _____
APPR. _____
DATE _____

Maintenance Holes

QUANTITIES - RIGID DUCTS AND ASSOCIATED WIRING

W.P. No. 188936
Contract No.

Location	From - To OR Station	Distance (m)	UPC No.	Rigid Ducts, Concrete Encased	100 mm	Rigid Ducts, Direct Buried	100 mm	75 mm	50 mm	Cable Brick	#2 AWG, Low Voltage Cables, in Ducts	#6 AWG, Low Voltage Cables, in Ducts	#14 AWG, 4-Cond., Extra Low Voltage Cables, in Ducts	#14 AWG, 2-Cond., Extra Low Voltage Cables, in Ducts	
Sub - Totals Brought Forward:															
HIGHWAY 33 / STREET 'A' INTERSECTION															
	EP1 - SUPA	29				29			29		87				
	SUPA - MH7	4				4			8			20			
	MH7 - TC1	7				7	21		7			14	56	28	
	MH7 - P1	9				9		18							
	MH7 - P18	12				12		24				72			
	MH7 - P19	5				5			5				5		
	MH7 - P20	3				3		6							
	MH7 - P21	6				6			6				6		
	MH7 - REF1	10				10	40						30	20	
	REF1 - REF2	23	1	23	92								69	46	
	REF2 - MH1	6				6	24						18	12	
	MH1 - P2	6				6		12				12			
	MH1 - P3	4				4			4				4		
	MH1 - P4	3				3		6							
	MH1 - P5	6				6		12							
	MH1 - P6	10				10			10				10		
Sub - Totals Carried Forward:					23	92	120	85	78	69	0	87	118	198	106
				(P)	(P)	(P)	(P)	(P)	(P)	(P)	(P)	(P)	(P)	(P)	(P)
TOTALS															
UNIT					m (P)	m (P)	m (P)	m (P)	m (P)	m (P)		m (P)	m (P)	m (P)	m (P)
ITEM No.					48	49						50		51	

MINISTRY OF TRANSPORTATION - ONTARIO

Remarks:

CHKD. _____
APPR. _____
DATE _____

Rigid Ducts

QUANTITIES - RIGID DUCTS AND ASSOCIATED WIRING

W.P. No. 188936
Contract No.

Location	From - To OR Station	Distance (m)	UPC No.	#14 AWG, 19-Cond Traffic Signal Cables, in Ducts	#14 AWG, 12-Cond Traffic Signal Cables, in Ducts	#6 AWG, Insulated Ground Wires										
Sub - Totals Brought Forward:																
HIGHWAY 33 / STREET 'A' INTERSECTION																
	EP1 - SUPA	29														
	SUPA - MH7	4				8										
	MH7 - TC1	7		14	14	7										
	MH7 - P1	9		18	18	9										
	MH7 - P18	12		24		12										
	MH7 - P19	5				5										
	MH7 - P20	3			6	3										
	MH7 - P21	6				6										
	MH7 - REF1	10		10	10	10										
	REF1 - REF2	23	1	23	23	23										
	REF2 - MH1	6		6	6	6										
	MH1 - P2	6		12		6										
	MH1 - P3	4				4										
	MH1 - P4	3			6	6										
	MH1 - P5	6			12	6										
	MH1 - P6	10				10										
Sub - Totals Carried Forward:				107	95	121										
				(P)	(P)	(P)										
TOTALS																
UNIT				m (P)	m (P)	m (P)										
ITEM No.					52	53										

MINISTRY OF TRANSPORTATION - ONTARIO

Remarks:

CHKD. _____
APPR. _____
DATE _____

Rigid Ducts

QUANTITIES - RIGID DUCTS AND ASSOCIATED WIRING

W.P. No. 188936

Contract No.

Location	From - To OR Station	Distance (m)	UPC No.	Rigid Ducts, Concrete Encased	100 mm	Rigid Ducts, Direct Buried	100 mm	75 mm	50 mm	Cable Brick	#2 AWG, Low Voltage Cables, in Ducts	#6 AWG, Low Voltage Cables, in Ducts	#14 AWG, 4-Cond., Extra Low Voltage Cables, in Ducts	#14 AWG, 2-Cond., Extra Low Voltage Cables, in Ducts
Sub - Totals Brought Forward:				23	92	120	85	78	69	0	87	118	198	106
	MH1 - HH1	99				99			99					198
	MH1 - REF3	12				12	48					24	12	
	REF3 - MH2	16	2	16	64							32	16	
	MH2 - P7	2				2	4							
	MH2 - REF4	12	3	12	48							24	12	
	REF4 - MH3	10				10	40					20	10	
	MH3 - P8	7				7	14					35		
	MH3 - P9	8				8			8				8	
	MH3 - P10	4				4	8							
	MH3 - P11	8				8			8				8	
	MH3 - P12	8				8	16					48		
	MH3 - REF5	10				10	40					30	10	
	REF5 - MH4	14	4	14	56							52	14	
	MH4 - REF6	11	5	11	44							44	11	
	REF5 - MH5	9				9	36					27	9	
	MH5 - P13	10				10	20					60		
Sub - Totals Carried Forward:				76	304	307	249	140	184	0	87	514	308	304
				(P)	(P)	(P)	(P)	(P)	(P)	(P)	(P)	(P)	(P)	(P)
TOTALS														
UNIT				m (P)	m (P)	m (P)	m (P)	m (P)	m (P)	m (P)	m (P)	m (P)	m (P)	m (P)
ITEM No.				48		49					50		51	

MINISTRY OF TRANSPORTATION - ONTARIO

Remarks:

CHKD. _____
 APPR. _____
 DATE _____

Rigid Ducts

QUANTITIES - RIGID DUCTS AND ASSOCIATED WIRING

W.P. No. 188936

Contract No.

Location	From - To OR Station	Distance (m)	UPC No.	#14 AWG, 19-Cond Traffic Signal Cables, in Ducts	#14 AWG, 12-Cond Traffic Signal Cables, in Ducts	#6 AWG, Insulated Ground Wires											
Sub - Totals Brought Forward:				107	95	121											
	MH1 - HH1	99															
	MH1 - REF3	12		12	12	12											
	REF3 - MH2	16	2	16	16	16											
	MH2 - P7	2		4		2											
	MH2 - REF4	12	3	12	12	12											
	REF4 - MH3	10		10	10	10											
	MH3 - P8	7		14		7											
	MH3 - P9	8				8											
	MH3 - P10	4		8		4											
	MH3 - P11	8				8											
	MH3 - P12	8		16		8											
	MH3 - REF5	10		10	10	10											
	REF5 - MH4	14	4	14	14	14											
	MH4 - REF6	11	5	11	11	11											
	REF5 - MH5	9		9	9	9											
	MH5 - P13	10		20		10											
Sub - Totals Carried Forward:				263	189	262											
				(P)	(P)	(P)											
TOTALS																	
UNIT				m (P)	m (P)	m (P)											
ITEM No.					52	53											

MINISTRY OF TRANSPORTATION - ONTARIO

Remarks:

CHKD. _____
 APPR. _____
 DATE _____

Rigid Ducts

QUANTITIES - RIGID DUCTS AND ASSOCIATED WIRING

W.P. No. 188936

Contract No.

Location	From - To OR Station	Distance (m)	UPC No.	Rigid Ducts, Concrete Encased	100 mm	Rigid Ducts, Direct Buried	100 mm	75 mm	50 mm	Cable Brick	#2 AWG, Low Voltage Cables, in Ducts	#6 AWG, Low Voltage Cables, in Ducts	#14 AWG, 4-Cond., Extra Low Voltage Cables, in Ducts	#14 AWG, 2-Cond., Extra Low Voltage Cables, in Ducts
Sub - Totals Brought Forward:				76	304	307	249	140	184	0	87	514	308	304
	MH5 - P14	7				7			7				7	
	MH5 - P15	4				4		8						
	MH5 - P16	8				8			8				8	
	MH5 - HH2	96				96			96					192
	MH5 - REF7	11				11	44					33	33	22
	REF7 - MH6	14	6	14	56							42	42	28
	MH6 - P17	2				2		4						
	MH6 - REF8	10	7	10	40							30	30	20
	REF8 - MH7	8				8	32					24	24	16
Sub - Totals Carried Forward:				100	400	443	325	152	295	0	87	643	452	582
				(P)	(P)	(P)	(P)	(P)	(P)	(P)	(P)	(P)	(P)	(P)
TOTALS				100		443					87	643	452	582
UNIT				m (P)	m (P)	m (P)	m (P)	m (P)	m (P)	m (P)	m (P)	m (P)	m (P)	m (P)
ITEM No.				48		49					50			51

MINISTRY OF TRANSPORTATION - ONTARIO

Remarks:

CHKD. _____
 APPR. _____
 DATE _____

Rigid Ducts

QUANTITIES - RIGID DUCTS AND ASSOCIATED WIRING

W.P. No. 188936

Contract No.

Location	From - To OR Station	Distance (m)	UPC No.	#14 AWG, 19-Cond Traffic Signal Cables, in Ducts	#14 AWG, 12-Cond Traffic Signal Cables, in Ducts	#6 AWG, Insulated Ground Wires											
Sub - Totals Brought Forward:				263	189	262											
	MH5 - P14	7				7											
	MH5 - P15	4		8		4											
	MH5 - P16	8				8											
	MH5 - HH2	96															
	MH5 - REF7	11		11	11	11											
	REF7 - MH6	14	6	14	14	14											
	MH6 - P17	2		4		2											
	MH6 - REF8	10	7	10	10	10											
	REF8 - MH7	8		8	8	8											
Sub - Totals Carried Forward:				318	232	326											
				318	232												
				(P)	(P)	(P)											
TOTALS					550	326											
UNIT				m (P)	m (P)	m (P)											
ITEM No.					52	53											

MINISTRY OF TRANSPORTATION - ONTARIO

Remarks: 1. Brought Forward to Power Supply Equipment

CHKD. _____
 APPR. _____
 DATE _____

Rigid Ducts

QUANTITIES - POLE ASSEMBLIES AND FOOTINGS

W.P. No. 188936

Contract No.

Location	Pole No. or Footing No.	Station	Offset (m) to CL of Pole or CL of Footing (Note 1)	7.5 m, Sectional Steel Pole, Direct Buried in Earth	10.5m, Heavy Class Sectional Steel Poles, Base Mounted	7.0 m, Sectional Steel Poles, Base Mounted	10.5 m, Sectional Steel Poles, Base Mounted	1.5 m, Aluminum Poles, Base Mounted		Concrete Footings In Earth [OPSD 2200.01]	Concrete Footings In Earth [OPSD 2200.041]	Concrete Footings In Earth [MTOD 2200.050]		190 W LED Luminaire 120 V LED Luminaire	3.0 m Al. Tapered Elliptical Bracket	#12 AWG Riser Wires 3 Wires/Pole				
Sub - Totals Brought Forward:																				
HIGHWAY 33 / STREET 'A' INTERSECTION																				
No Frills Entrance	P1	9+979	11.1Rt			1				1										
No Frills Entrance	P2	9+974	14.2Lt		1							1		1	1		13			
No Frills Entrance	P3	9+979	15.7Lt					1			1									
No Frills Entrance	P4	9+980	19.5Lt			1				1										
No Frills Entrance	P20	9+983	16.3Rt			1				1										
No Frills Entrance	P21	9+983	13.1Rt					1			1									
Highway 33	P5	17+623	18.3Lt			1				1										
Highway 33	P6	17+624	15.5Lt					1			1									
Highway 33	P7	17+627	1.6Rt			1				1										
Highway 33	P8	17+627	16.8Rt		1							1		1	1		13			
Highway 33	P9	17+624	14.9Rt					1			1									
Highway 33	P10	17+621	18.8Rt			1				1										
Highway 33	P16	17+581	14.6Rt					1			1									
Highway 33	P17	17+577	1.6Lt			1				1										
Highway 33	P18	17+570	13.4Lt				1			1				1	1		13			
Sub - Totals Carried Forward:					0	2	7	1	5		8	5	2		3	3	39			
				(P)	(P)	(P)	(P)	(P)		(P)	(P)	(P)		(P)						
TOTALS																				
UNIT				each (P)	each (P)	each (P)	each (P)	each (P)		each (P)	each (P)	each (P)		each (P)	each (P)	m (P)				
ITEM No.				56	57		58	59			60			62						
Remarks:										Note: 1 When shown without *, offset is from centre or control line of roadway. When shown with *, offset is from edge of travelled pavement (EP).					CHKD. _____		APPR. _____		DATE _____	

MINISTRY OF TRANSPORTATION - ONTARIO

Pole Assemblies and Footings

QUANTITIES - POLE ASSEMBLIES AND FOOTINGS

W.P. No. 188936

Contract No.

SHEET
44

Location	Pole No. or Footing No.	Station	Offset (m) to CL of Pole or CL of Footing (Note 1)	7.5 m, Sectional Steel Pole, Direct Buried in Earth	10.5m, Heavy Class Sectional Steel Poles, Base Mounted	7.0 m, Sectional Steel Poles, Base Mounted	10.5 m, Sectional Steel Poles, Base Mounted	1.5 m, Aluminum Poles, Base Mounted		Concrete Footings In Earth [OPSD 2200.01]	Concrete Footings In Earth [OPSD 2200.041]	Concrete Footings In Earth [MTOD 2200.050]		190 W LED Luminaire 120 V LED Luminaire	3.0 m Al. Tapered Elliptical Bracket	#12 AWG Riser Wires 3 Wires/Pole
Sub - Totals Brought Forward:				0	2	7	1	5		8	5	2		3	3	39
Highway 33	P19	17+581	12.8Lt					1			1					
Highway 33	P22	17+577	17.7Lt	1												
Street 'A'	P11	10+022	15.7Lt					1			1					
Street 'A'	P12	10+025	16.1Lt				1			1				1	1	13
Street 'A'	P13	10+028	11.7Rt		1							1		1	1	13
Street 'A'	P14	10+022	13.0Rt					1			1					
Street 'A'	P15	10+019	18.1Rt			1				1						
Highway 33	EP2	17+863	Rt											1	1	3
Highway 33	EP3	17+833	Rt											1	1	3
Highway 33	EP4	17+803	Rt											1	1	3
Highway 33	EP5	17+758	Rt											1	1	3
Highway 33	EP6	17+730	Lt											1	1	3
Highway 33	EP7	17+713	Rt											1	1	3
Highway 33	EP8	17+704	Lt											1	1	3
Highway 33	EP9	17+668	Lt											1	1	3
Highway 33	EP10	17+668	Rt											1	1	3
Sub - Totals Carried Forward:				1	3	8	2	8		10	8	3		14	14	92

(P) (P) (P) (P) (P) (P) (P) (P)

TOTALS	UNIT	ITEM No.	56	57	58	59	60	62
	each (P)							
	each (P)							
	each (P)							
	each (P)							
	each (P)							
	each (P)							
	m (P)							

Remarks: Note: 1 When shown without *, offset is from centre or control line of roadway. When shown with *, offset is from edge of travelled pavement (EP).

CHKD. _____
APPR. _____
DATE _____

MINISTRY OF TRANSPORTATION - ONTARIO

Pole Assemblies and Footings

QUANTITIES - POLE ASSEMBLIES AND FOOTINGS

W.P. No. 188936

Contract No.

Location	Pole No. or Footing No.	Station	Offset (m) to CL of Pole or CL of Footing (Note 1)	7.5 m, Sectional Steel Pole, Direct Buried in Earth	10.5m, Heavy Class Sectional Steel Poles, Base Mounted	7.0 m, Sectional Steel Poles, Base Mounted	10.5 m, Sectional Steel Poles, Base Mounted	1.5 m, Aluminum Poles, Base Mounted		Concrete Footings In Earth [OPSD 2200.01]	Concrete Footings In Earth [OPSD 2200.041]	Concrete Footings In Earth [MTOD 2200.050]		190 W LED Luminaire 120 V LED Luminaire	3.0 m Al. Tapered Elliptical Bracket	#12 AWG Riser Wires 3 Wires/Pole
Sub - Totals Brought Forward:				1	3	8	2	8		10	8	3		14	14	92
Highway 33	EP11	17+639	Lt											1	1	3
Highway 33	EP12	17+554	Rt											1	1	3
Highway 33	EP13	17+510	Lt											1	1	3
Highway 33	EP14	17+506	Rt											1	1	3
Highway 33	EP15	17+471	Lt											1	1	3
Highway 33	EP16	17+469	Rt											1	1	3
Highway 33	EP17	17+444	Rt											1	1	3
Highway 33	EP18	17+410	Rt											1	1	3
Highway 33	EP19	17+367	Rt											1	1	3
Highway 33	EP20	17+331	Rt											1	1	3
Highway 33	EP21	17+305	Rt											1	1	3
Highway 33	EP22	17+259	Rt											1	1	3
Sub - Totals Carried Forward:				1	3	8	2	8		10	8	3		26	26	128
				(P)	(P)	(P)	(P)	(P)		(P)	(P)	(P)		(P)		
TOTALS				1	3	8	2	8		10	8	3		26	26	128
UNIT				each (P)	each (P)	each (P)	each (P)	each (P)		each (P)	each (P)	each (P)		each (P)	each (P)	m (P)
ITEM No.				56	57	58	59	60		61	62	63		64	65	66
Remarks:										Note: 1 When shown without *, offset is from centre or control line of roadway. When shown with *, offset is from edge of travelled pavement (EP).					CHKD. _____ APPR. _____ DATE _____	

MINISTRY OF TRANSPORTATION - ONTARIO

Pole Assemblies and Footings

QUANTITIES - POWER SUPPLY EQUIPMENT, CONCRETE PADS, HIGH VOLTAGE CABLES TERMINATIONS, GROUNDINGS & ROCK EXCAVATIONS

W.P. No. 188936
Contract No.

Location	Location Code	Station	Offset (m) to CL of Structure/Equip't (Note 1)	Metering Provisions Yes or No	Supply Control Cabinet Assemblies, Type 1, 1 Ph, 120/240V OPSD 2440.010	Concrete Pads [OPSD 2514.020]	#6 AWG, Bare Ground Wires	#6 AWG, Insulated Ground Wires	#2/0 AWG, Bare Ground Wires	Ground Electrodes [Rods]
Sub - Totals Brought Forward:										
HIGHWAY 33 / STREET 'A' INTERSECTION										
Highway 33	SUP A	17+577	17.7Lt		1				15	4
No Frills Entrance	TC1	9+976	11.5Rt			1				
BF: Rigid Ducts								326		
BF: Maintenance Holes							7			7
Sub - Totals Carried Forward:										
					1	1	7	326	15	11
							7	326	15	
					(P)	(P)	(P)	(P)	(P)	(P)
					1	1		348		11
					each (P)	each (P)	m (P)	m (P)	m (P)	each (P)
					55	61		53		54

MINISTRY OF TRANSPORTATION - ONTARIO

Power Supply Equipment

Remarks:

Note: 1 When shown without *, offset is from centre or control line of roadway.
When shown with *, offset is from edge of travelled pavement (EP).

CHKD. _____
APPR. _____
DATE _____

**QUANTITIES - TRAFFIC SIGNAL CONTROLLER, CONTROLLER COMPONENTS
AND EXTERNAL DETECTION DEVICES**

W.P. No. 188936
Contract No.

Location	Controller Number or Detector Number	Size of Loop (m)	Number of Turns	Loop Inductance (uH)	Traffic Signal Controllers [MTOD 2514.011]	Loop Detectors [Simple] Loop in Pavement	Input File Connection Terminal	Non-Intrusive Detection System									
Sub - Totals Brought Forward:																	
HIGHWAY 33 / STREET 'A' INTERSECTION																	
No Frills Entrance	TC1				1												
Street 'A' (P13)	NID1							1									
No Frills Entrance (P2)	NID2							1									
Highway 33	LD1	1.8x1.8	4	118		1											
Highway 33	LD2	1.8x1.8	4	118		1											
Highway 33	LD3	1.8x1.8	4	118		1											
Highway 33	LD4	1.8x1.8	4	118		1											
Sub - Totals Carried Forward:					1	4	0	2									
					(P)	(P)	(P)										
TOTALS					1	4		2									
UNIT					each (P)	each (P)	each (P)	each (P)									
ITEM No.					66	67		69									

MINISTRY OF TRANSPORTATION - ONTARIO

Traffic Signal Controllers

Remarks:

CHKD. _____
APPR. _____
DATE _____

QUANTITIES - TRAFFIC SIGNAL EQUIPMENT

W.P. No. 188936
Contract No.

Location	Pole No.	Signal Head Facing Direction	7.6 m, Single Member Arms and Signal Hangers	6.7 m, Single Member Arms and Signal Hangers	5.5 m, Single Member Arms and Signal Hangers	3.6 m, Single Member Arms and Signal Hangers	0.6 m, Single Member Arms and Signal Hangers	Highway Type Signal Heads	Riser Wires #14 AWG, 5/C	Pedestrian Type Signal Heads	Riser Wires #14 AWG, 5/C	Accessible Pedestrian Signals
Sub - Totals Brought Forward:												
HIGHWAY 33 / STREET 'A' INTERSECTION												
No Frills Entrance	P1	N					1	1	11	1	4	
No Frills Entrance	P2	N	1					1	18			
No Frills Entrance	P3											1
No Frills Entrance	P4									1	4	
Highway 33	P5									1	4	
Highway 33	P6											1
Highway 33	P7	E					1	1	8			
Highway 33	P8	E	1					1	18			
Highway 33	P9											1
Highway 33	P10									2	8	
Street 'A'	P11											1
Street 'A'	P12	S		1				1	17			
Street 'A'	P13	S	1					1	18			
Street 'A'	P14											1
Street 'A'	P15									2	8	
Sub - Totals Carried Forward:			3	1	0	1	1	6	90	7	28	5
			(P)	(P)	(P)	(P)	(P)	(P)	(P)	(P)	(P)	(P)
TOTALS												
UNIT			each (P)	each (P)	each (P)	each (P)	each (P)	each (P)	m (P)	each (P)	m (P)	each (P)
ITEM No.				63				64		65		68
Remarks:										CHKD. _____ APPR. _____ DATE _____		

MINISTRY OF TRANSPORTATION - ONTARIO

Traffic Signal Equipment

QUANTITIES - TRAFFIC SIGNAL EQUIPMENT

W.P. No. 188936

Contract No.

Location	Pole No.	Signal Head Facing Direction	7.6 m, Single Member Arms and Signal Hangers	6.7 m, Single Member Arms and Signal Hangers	5.5 m, Single Member Arms and Signal Hangers	3.6 m, Single Member Arms and Signal Hangers	0.6 m, Single Member Arms and Signal Hangers		Highway Type Signal Heads	Riser Wires #14 AWG, 5/C		Pedestrian Type Signal Heads	Riser Wires #14 AWG, 5/C		Accessible Pedestrian Signals
Sub - Totals Brought Forward:			3	1	0	1	1		6	90		7	28		5
Highway 33	P16														1
Highway 33	P17	W					1		1	8					
Highway 33	P18	W			1				1	16					
Highway 33	P19														1
No Frills Entrance	P20											1	4		
No Frills Entrance	P21														1
Sub - Totals Carried Forward:			3	1	1	1	2		8	114		8	32		8
			3	1	1	1	2								
			(P)	(P)	(P)	(P)	(P)		(P)			(P)			(P)
TOTALS				8					8			8			8
UNIT			each (P)	each (P)	each (P)	each (P)	each (P)		each (P)	m (P)		each (P)	m (P)		each (P)
ITEM No.				63					64			65			68

MINISTRY OF TRANSPORTATION - ONTARIO

Traffic Signal Equipment

Remarks:

CHKD. _____
 APPR. _____
 DATE _____

QUANTITIES - MISCELLANEOUS 1

W.P. No. 188936
 Contract No.

SHEET
 50

Location and Position	ArcGIS Data												References
Sub - Totals Brought Forward:													
CONTRACT LIMITS	100 %												
Sub - Totals Carried Forward:													
TOTALS	100 %												
UNIT	lump sum												
ITEM No.	71												
Reference													

MINISTRY OF TRANSPORTATION - ONTARIO

CHKD. _____
 APPR. _____
 DATE _____

ArcGIS Data

QUANTITIES - MISCELLANEOUS 1

W.P. No. 188936

Contract No.

MINISTRY OF TRANSPORTATION - ONTARIO

Location and Position	Relocation of Existing Commercial Pylon Sign													References
Sub - Totals Brought Forward:														
CONTRACT LIMITS	100 %													
Sub - Totals Carried Forward:														
TOTALS	100 %													
UNIT	lump sum													
ITEM No.	72													
Reference														

CHKD. _____
 APPR. _____
 DATE _____