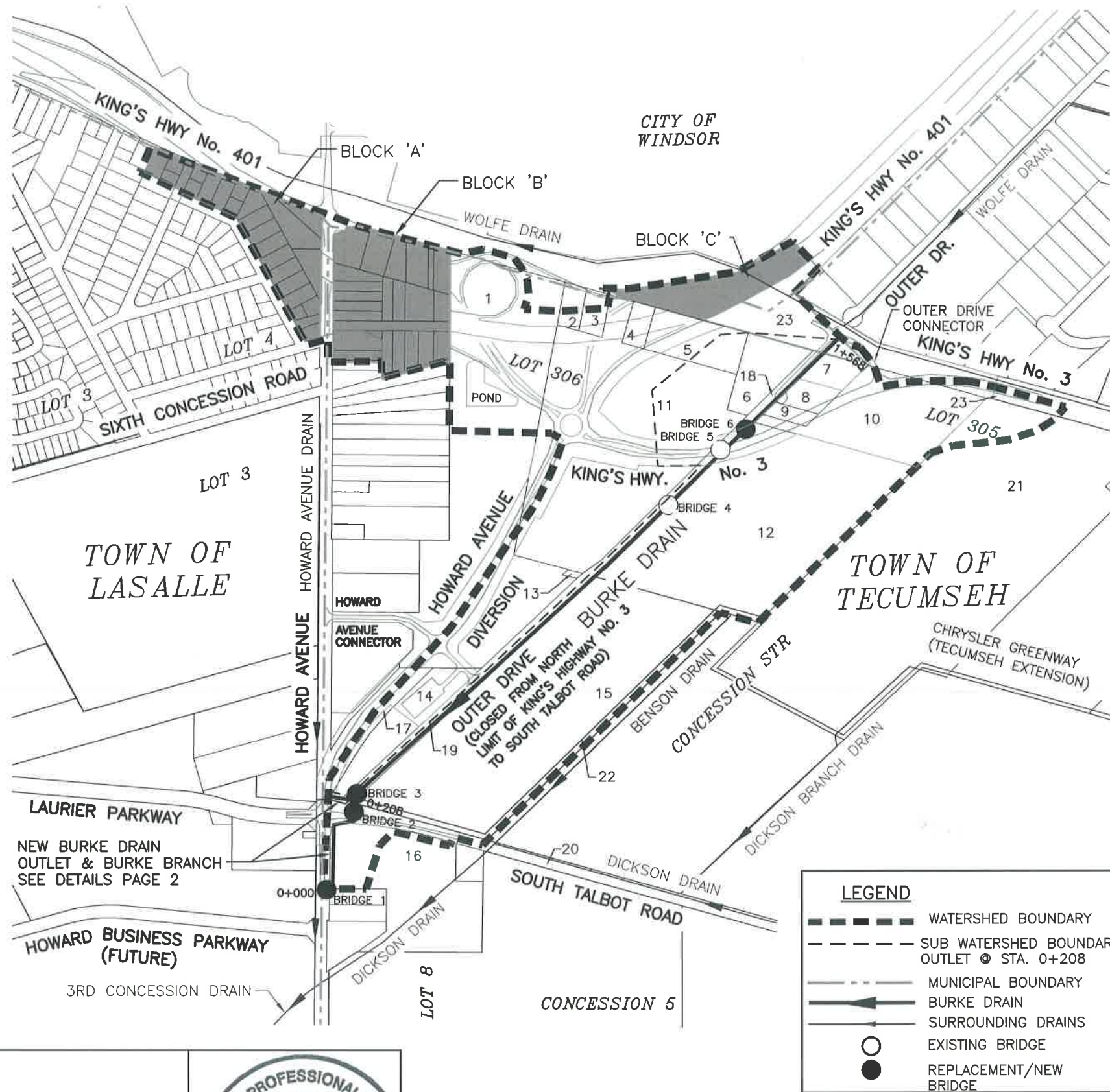


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BURKE DRAIN PARCEL INFORMATION

PARCEL No.	ROLL No.	LANDOWNER	AREA WITHIN WATERSHED (ACRES)
TOWN OF LASALLE			
BLOCK A	N/A	MINISTRY OF TRANSPORTATION	10.60
	HOWARD AVENUE	COUNTY OF ESSEX	0.80
TOWN OF TECUMSEH			
BLOCK B	N/A	MINISTRY OF TRANSPORTATION	16.00
	HOWARD AVENUE	COUNTY OF ESSEX	0.80
BLOCK C	KING'S HWY. NO. 401	MINISTRY OF TRANSPORTATION	5.21
1 *	470-01580	MINISTRY OF TRANSPORTATION	24.44
2 *	470-05000	MINISTRY OF TRANSPORTATION	0.40
3 *	470-05003	MINISTRY OF TRANSPORTATION	0.63
4 *	470-05200	MINISTRY OF TRANSPORTATION	1.00
5 *	700-52010	MINISTRY OF TRANSPORTATION	4.29
6	470-05300	MIKSA MARTON	3.65
7	470-05412	470698 ONTARIO LTD	1.64
8 *	470-05405	MINISTRY OF TRANSPORTATION	1.13
9 *	470-05401	MINISTRY OF TRANSPORTATION	0.70
10 *	470-05500	MINISTRY OF TRANSPORTATION	10.85
11 *	470-05100	MINISTRY OF TRANSPORTATION	34.66
12 *	470-05402	CONGREGATION OF THE ORDER ANTONIN MARONITE IN ONTARIO	32.54
13	470-05400	MINISTRY OF TRANSPORTATION	0.10
14	470-01410	MINISTRY OF TRANSPORTATION	4.90
15	470-01300	AMICO INFRASTRUCTURES	37.29
16	450-02500	2484234 ONTARIO INC	4.00
17	HOWARD AVENUE DIVERSION	MINISTRY OF TRANSPORTATION	2.40
18	OUTER DRIVE	TOWN OF TECUMSEH	1.20
19	OUTER DRIVE (CLOSED)	MINISTRY OF TRANSPORTATION	5.40
20	SOUTH TALBOT ROAD	TOWN OF TECUMSEH	2.00
21	470-05600	VICTORIA MEMORIAL GARDENS	1.60
22	N/A	CHRYSLER GREENWAY (TOWN OF TECUMSEH)	3.00
23	KING'S HIGHWAY NO. 3	MINISTRY OF TRANSPORTATION	5.45

TOTAL DRAINAGE AREA-BURKE DRAIN=87.69 Ha (216.68 Acres)

* AREAS SHOWN INCLUDE NEW ROADWAY AREAS

'SCHEDULE C'



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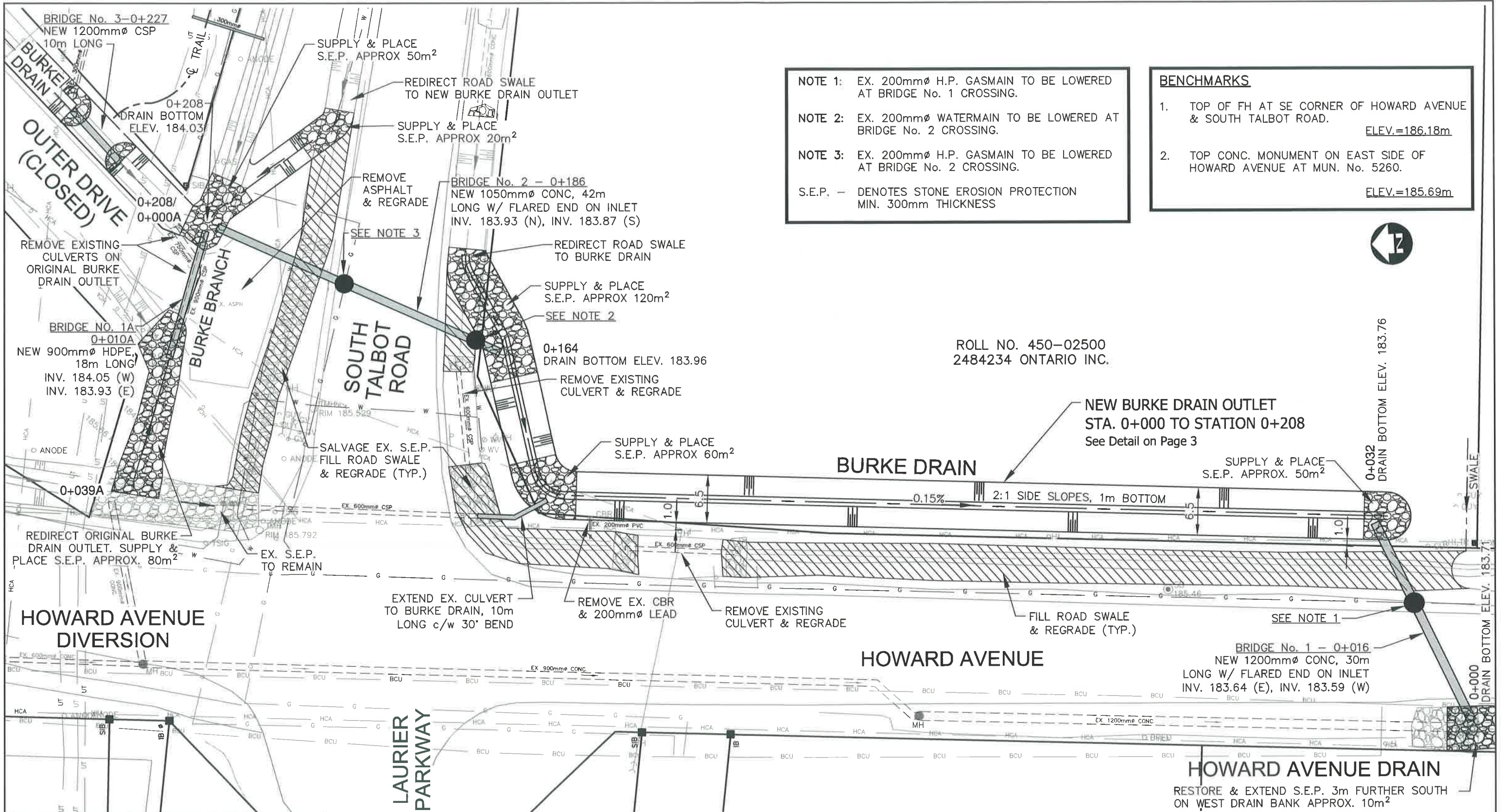
No.	ISSUED FOR	DATE	BY
5	FINAL SUBMISSION	JUNE 6/18	TRO
4	ADDED BURKE BRANCH	APR. 20/17	TRO
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2	RESUBMISSION TO N.J. PERALTA ENGINEERING	JULY 29/16	TRO
1	CLIENT REVIEW	JAN. 18/16	TRO

DESIGN	TRO	REVIEWED BY	FRF
DRAWN	AJL	CHECKED BY	EPS
DATE	June 6, 2018		
SCALE	1 : 10000		

PROJECT NO.	12-6578-1300
DRAWING SCALES BASED ON A 11" X 17" SHEET	

Drainage Report for the BURKE DRAIN Town of LaSalle & Town of Tecumseh	
SHEET TITLE	WATERSHED PLAN
PAGE NO.	1 of 9

Jun 05, 2018 4:08pm G:\CAD\126578\LaSalle Drains\Burke Drain-1300\Burke Drain Relief Plan (Final June 6 18).dwg



- NOTE 1:** EX. 200mmØ H.P. GASMAIN TO BE LOWERED AT BRIDGE No. 1 CROSSING.
- NOTE 2:** EX. 200mmØ WATERMAIN TO BE LOWERED AT BRIDGE No. 2 CROSSING.
- NOTE 3:** EX. 200mmØ H.P. GASMAIN TO BE LOWERED AT BRIDGE No. 2 CROSSING.
- S.E.P. - DENOTES STONE EROSION PROTECTION MIN. 300mm THICKNESS

- BENCHMARKS**
1. TOP OF FH AT SE CORNER OF HOWARD AVENUE & SOUTH TALBOT ROAD.
ELEV.=186.18m
 2. TOP CONC. MONUMENT ON EAST SIDE OF HOWARD AVENUE AT MUN. No. 5260.
ELEV.=185.69m

PLAN VIEW
SCALE: 1:500



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DESIGN	TRO	REVIEWED BY	FRF
DRAWN	TKS	CHECKED BY	EPS
DATE	June 6, 2018		
SCALE	AS SHOWN		

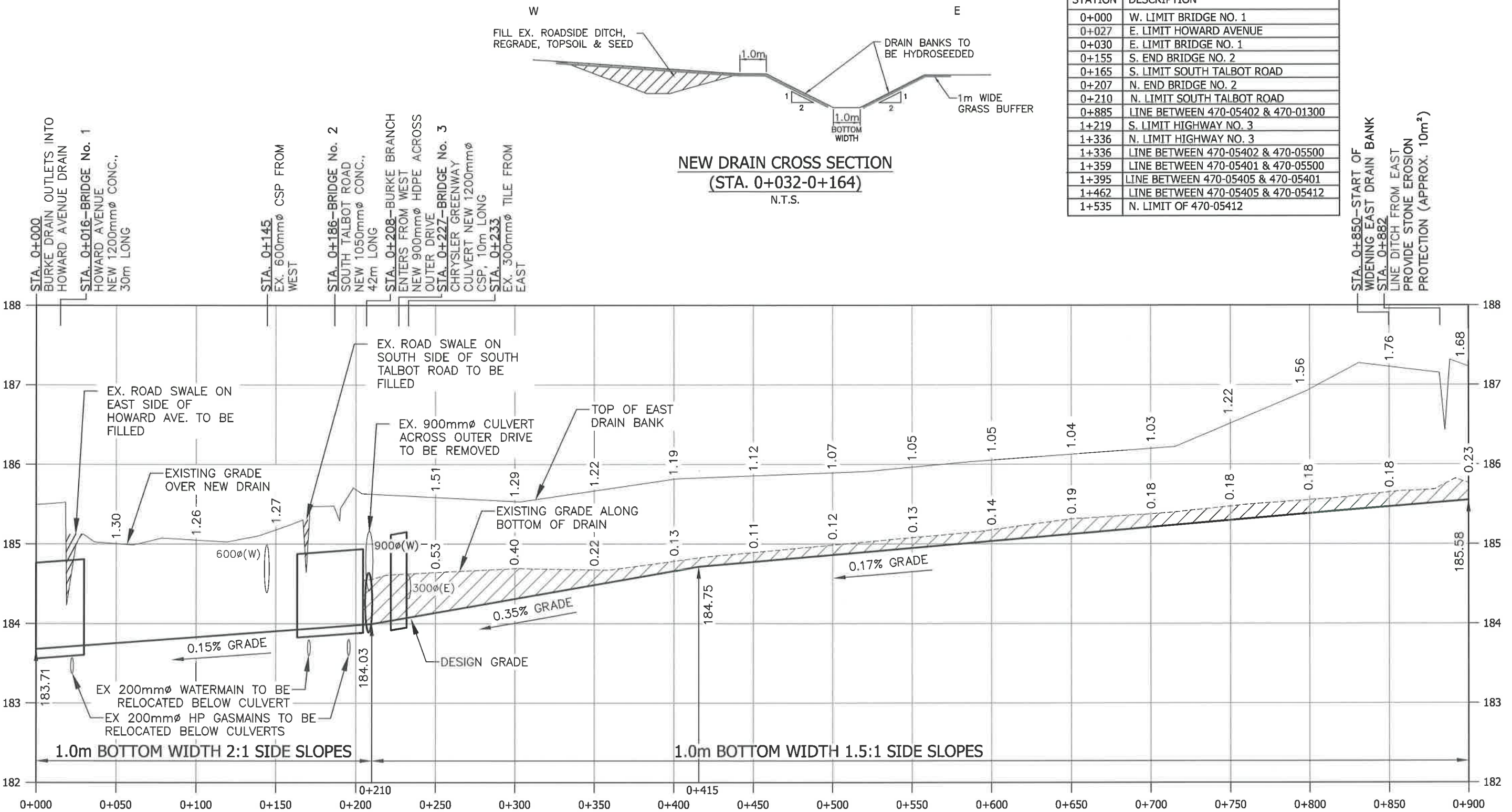
DILLON CONSULTING

PROJECT NO. 12-6578-1300

DRAWING SCALES BASED ON A 11" X 17" SHEET

'SCHEDULE C'	
Drainage Report for the BURKE DRAIN Town of LaSalle & Town of Tecumseh	
SHEET TITLE	BURKE DRAIN OUTLET & BURKE BRANCH
PAGE NO.	2 of 9

Jun 05, 2018 - 2:48pm G:\CAD\126578\LaSalle Drains\Burke Drain-1300\Burke Drain_Design (Final June 6 18).dwg



BURKE DRAIN STATIONING

STATION	DESCRIPTION
0+000	W. LIMIT BRIDGE NO. 1
0+027	E. LIMIT HOWARD AVENUE
0+030	E. LIMIT BRIDGE NO. 1
0+155	S. END BRIDGE NO. 2
0+165	S. LIMIT SOUTH TALBOT ROAD
0+207	N. END BRIDGE NO. 2
0+210	N. LIMIT SOUTH TALBOT ROAD
0+885	LINE BETWEEN 470-05402 & 470-01300
1+219	S. LIMIT HIGHWAY NO. 3
1+336	N. LIMIT HIGHWAY NO. 3
1+336	LINE BETWEEN 470-05402 & 470-05500
1+359	LINE BETWEEN 470-05401 & 470-05500
1+395	LINE BETWEEN 470-05405 & 470-05401
1+462	LINE BETWEEN 470-05405 & 470-05412
1+535	N. LIMIT OF 470-05412

STA. 0+850-START OF WIDENING EAST DRAIN BANK

STA. 0+882 LINE DITCH FROM EAST PROVIDE STONE EROSION PROTECTION (APPROX. 10m²)

PROFILE 1 STA. 0+000 TO 0+900

SCALE-HORIZ.=1:2500
VERT.=1:50



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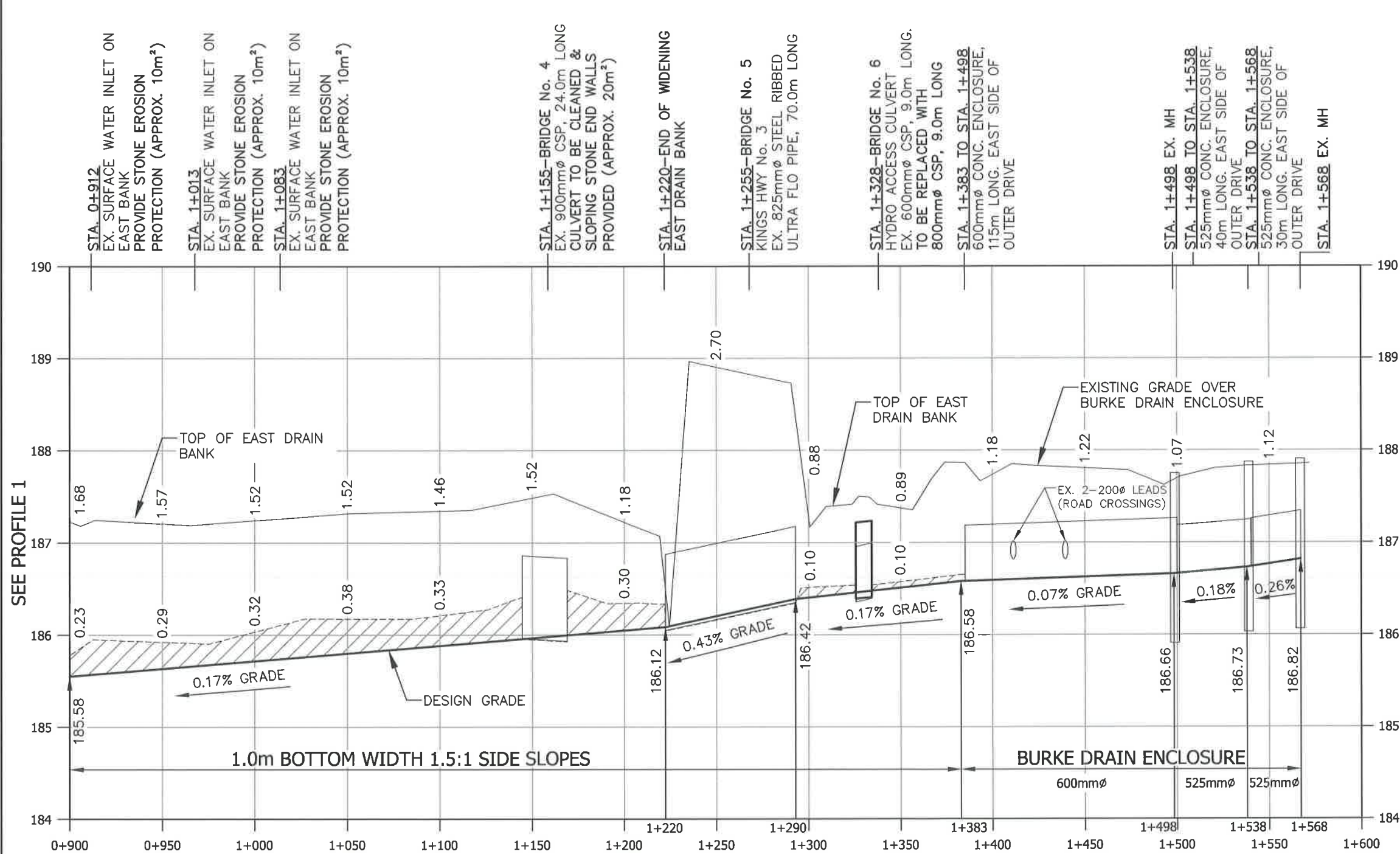
DESIGN	TRO	REVIEWED BY	FRF
DRAWN	AJL	CHECKED BY	EPS
DATE	June 6, 2018		
SCALE	AS SHOWN		

PROJECT NO.	12-6578-1300
DRAWING SCALES BASED ON A 11" X 17" SHEET	

'SCHEDULE C'	
Drainage Report for the BURKE DRAIN Town of LaSalle & Town of Tecumseh	
SHEET TITLE	PROFILE 1 STA. 0+000 TO STA. 0+900
PAGE NO.	3 of 9

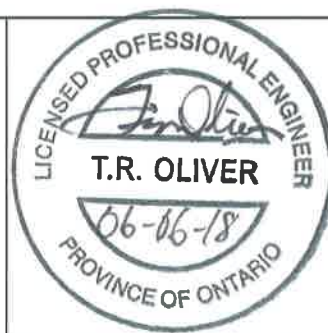
SEE PROFILE 2

Jun 05, 2018 - 2:48pm G:\CAD\126578\LaSalle Drains\Burke Drain\1300\Burke Drain_Design (Final June 6 18).dwg



PROFILE 2 STA. 0+900 TO 1+568

SCALE-HORIZ.=1:2500
VERT.=1:50



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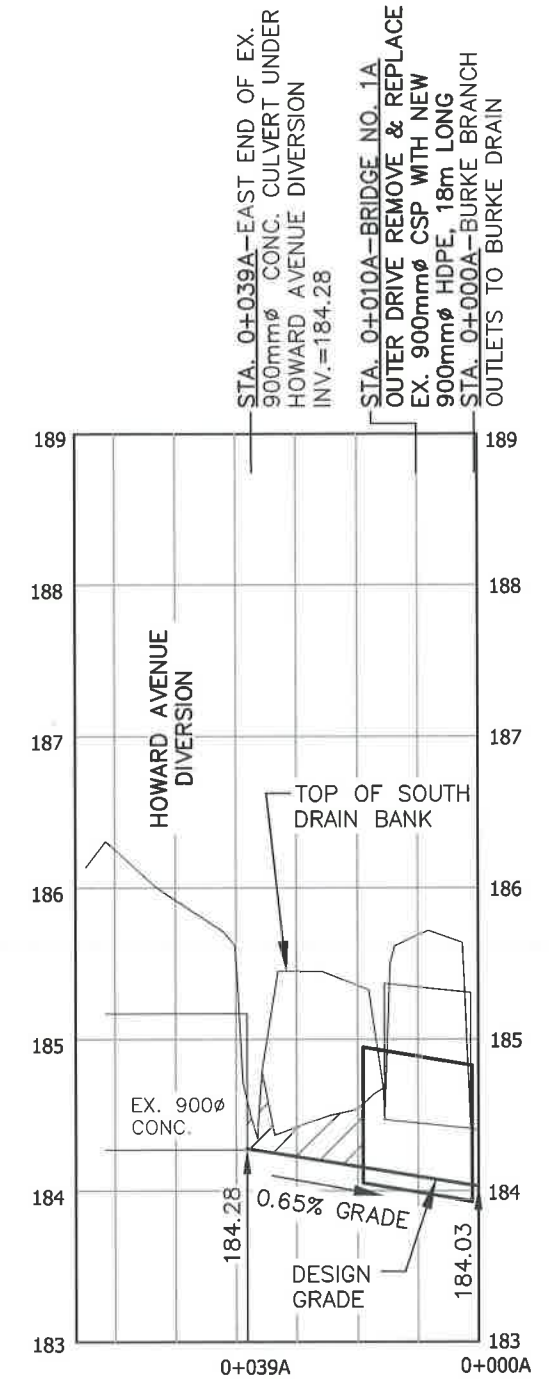
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DATE	June 6, 2018		
SCALE	AS SHOWN		

	
PROJECT NO.	12-6578-1300
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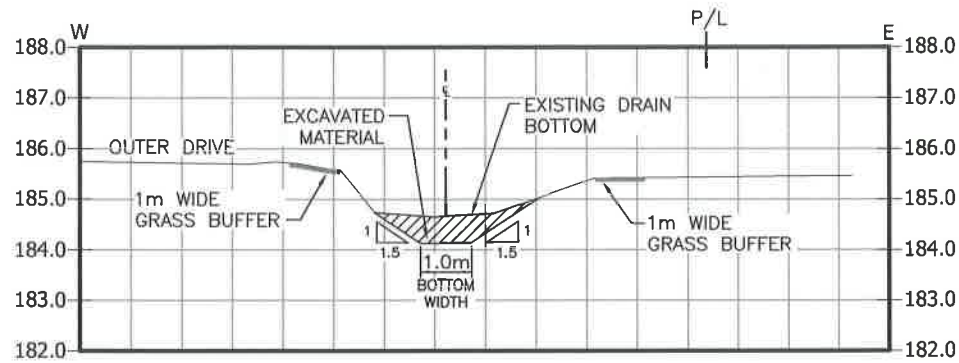
'SCHEDULE C'	
Drainage Report for the BURKE DRAIN Town of LaSalle & Town of Tecumseh	
SHEET TITLE	PROFILE 2 STA. 0+900 TO STA. 1+568
PAGE NO	4 of 9



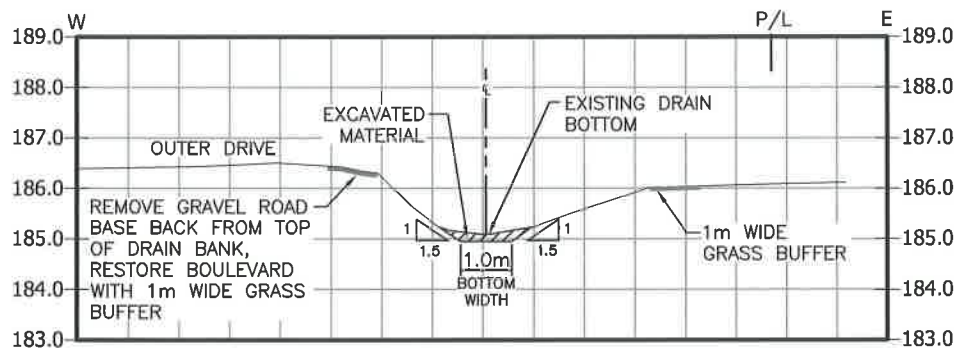
BURKE BRANCH PROFILE
STA. 0+000A TO 0+039A

SCALE-HORIZ.=1:1250
VERT.=1:50

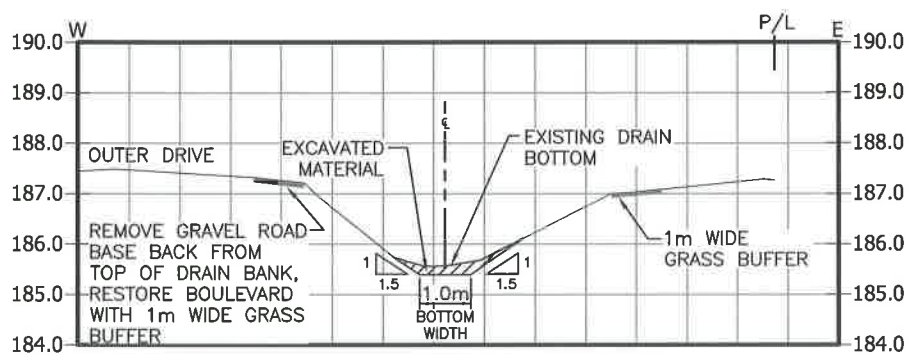
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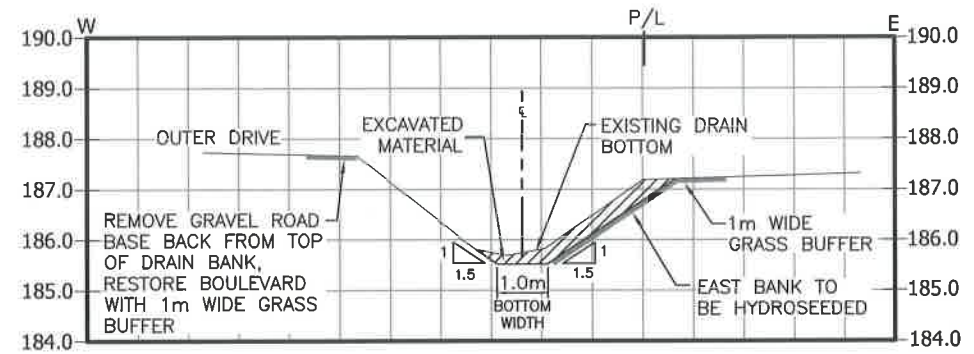
CROSS SECTION 0+250
BURKE DRAIN LOOKING UPSTREAM
SCALE=1:150



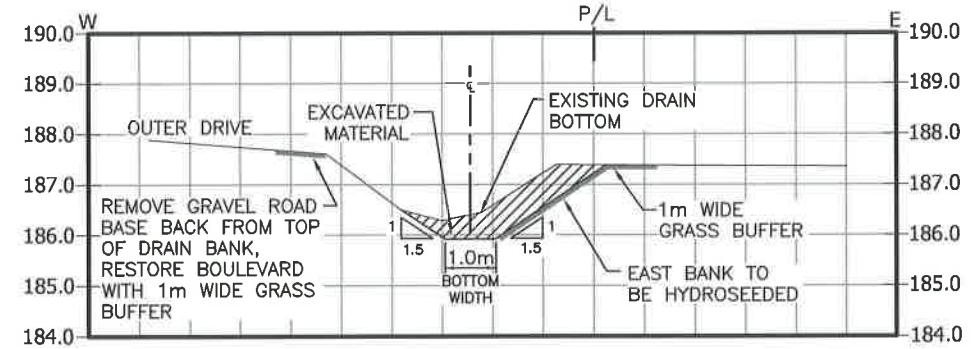
CROSS SECTION 0+550
BURKE DRAIN LOOKING UPSTREAM
SCALE=1:150



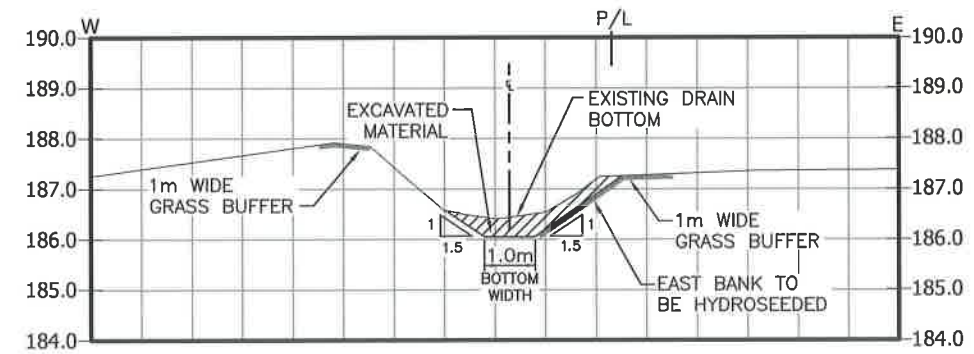
CROSS SECTION 0+800
BURKE DRAIN LOOKING UPSTREAM
SCALE=1:150



CROSS SECTION 0+875
BURKE DRAIN LOOKING UPSTREAM
SCALE=1:150



CROSS SECTION 1+125
BURKE DRAIN LOOKING UPSTREAM
SCALE=1:150



CROSS SECTION 1+200
BURKE DRAIN LOOKING UPSTREAM
SCALE=1:150

NOTE: FROM STATION 0+850 TO STATION 1+220, BURKE DRAIN TO BE WIDENED 1m BEYOND EAST BANK.



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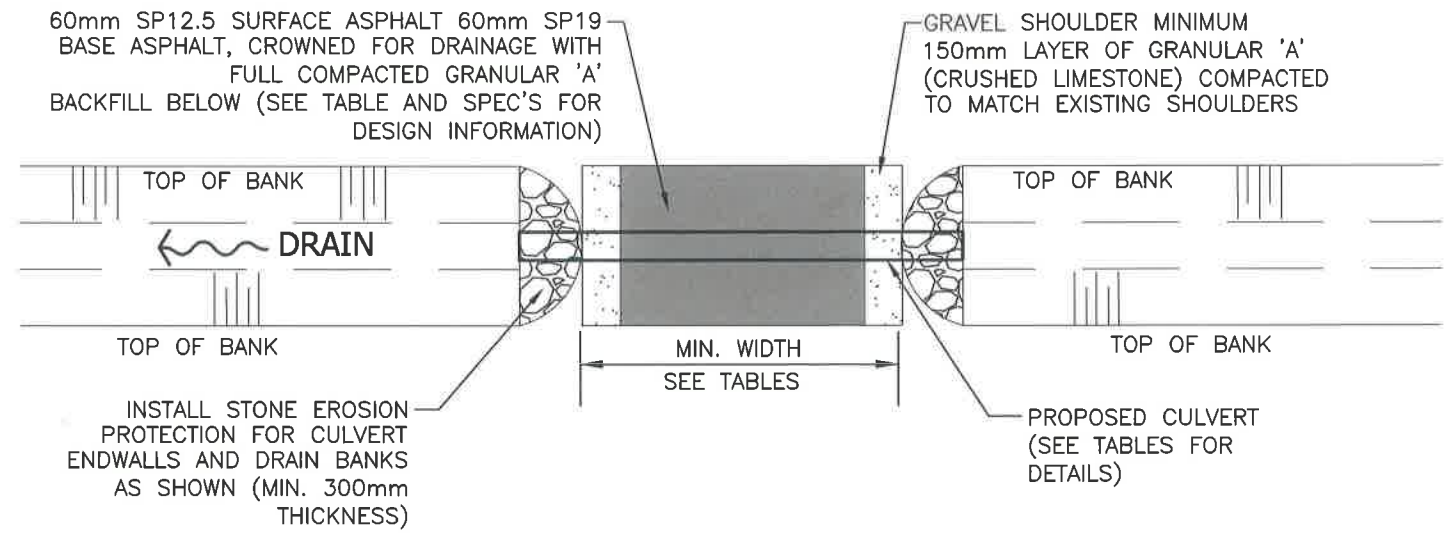
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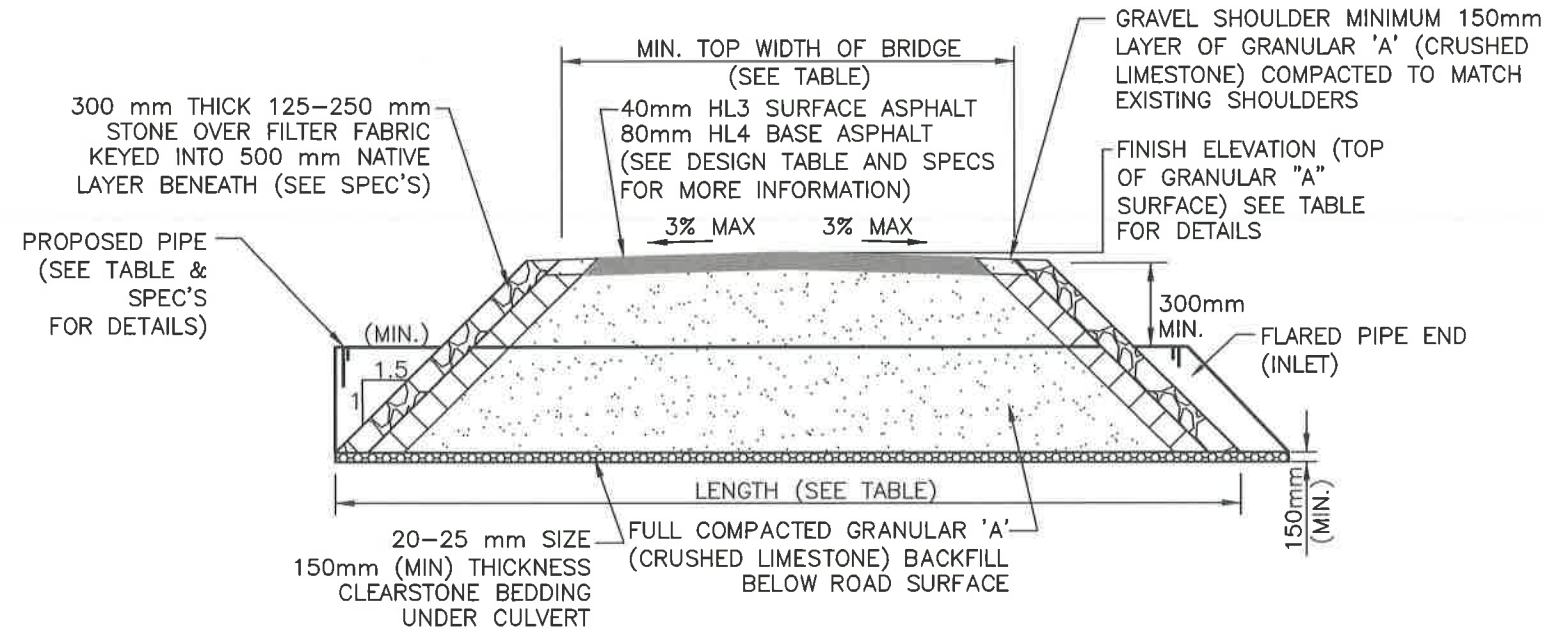
'SCHEDULE C'

Drainage Report for the BURKE DRAIN Town of LaSalle & Town of Tecumseh
SHEET TITLE CROSS SECTIONS
PAGE NO. 5 of 9

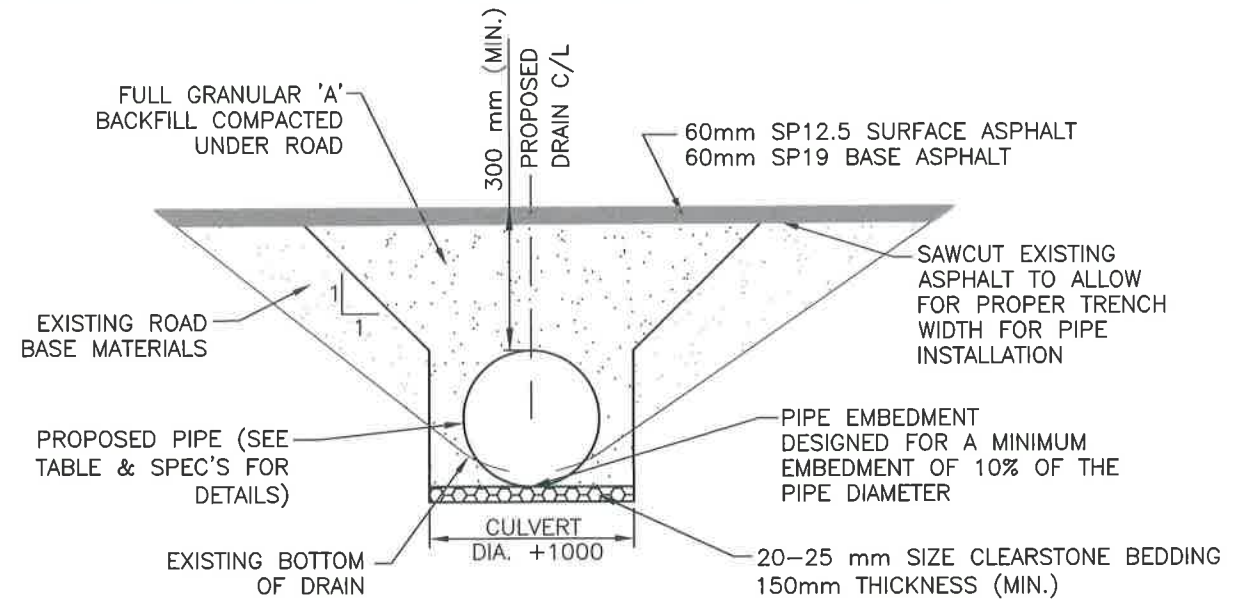
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BRIDGE PLAN
N.T.S.



LONGITUDINAL SECTION
N.T.S.



CROSS SECTION
N.T.S.

TABLE 1 - ACCESS CULVERT DESIGN INFORMATION		
DESCRIPTION	BRIDGE NO. 1	BRIDGE NO. 2
PIPE INVERT ELEV. U/S SIDE(m)	183.64	183.93
PIPE INVERT ELEV. D/S SIDE(m)	183.59	183.87
TOP OF C ROAD SURFACE ELEV. (m)	185.80	185.70
DRAIN BOTTOM (m) (DESIGN) (AT CENTRELINE OF CULVERT)	183.73	183.99
MIN. TOP WIDTH OF ROAD (m)	12.0	15.0
MIN. CULVERT GRADE (%)	0.15	0.15
CULVERT MATERIAL	CONC.	CONC.
CULVERT LENGTH (m)	30.0	42
PIPE SIZE (mm)	1200	1050
CULVERT ENDWALL TYPE	SLOPING STONE	SLOPING STONE



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'SCHEDULE C'	
Drainage Report for the BURKE DRAIN Town of LaSalle & Town of Tecumseh	
SHEET TITLE	BRIDGE NO. 1 & 2 DETAILS
PAGE NO	6 of 9

Jun 05, 2018 - 2:47pm G:\CAD\126578\LaSalle Drains\Burke Drain-1300\Burke Drain_Plan (Final June 6 18).dwg

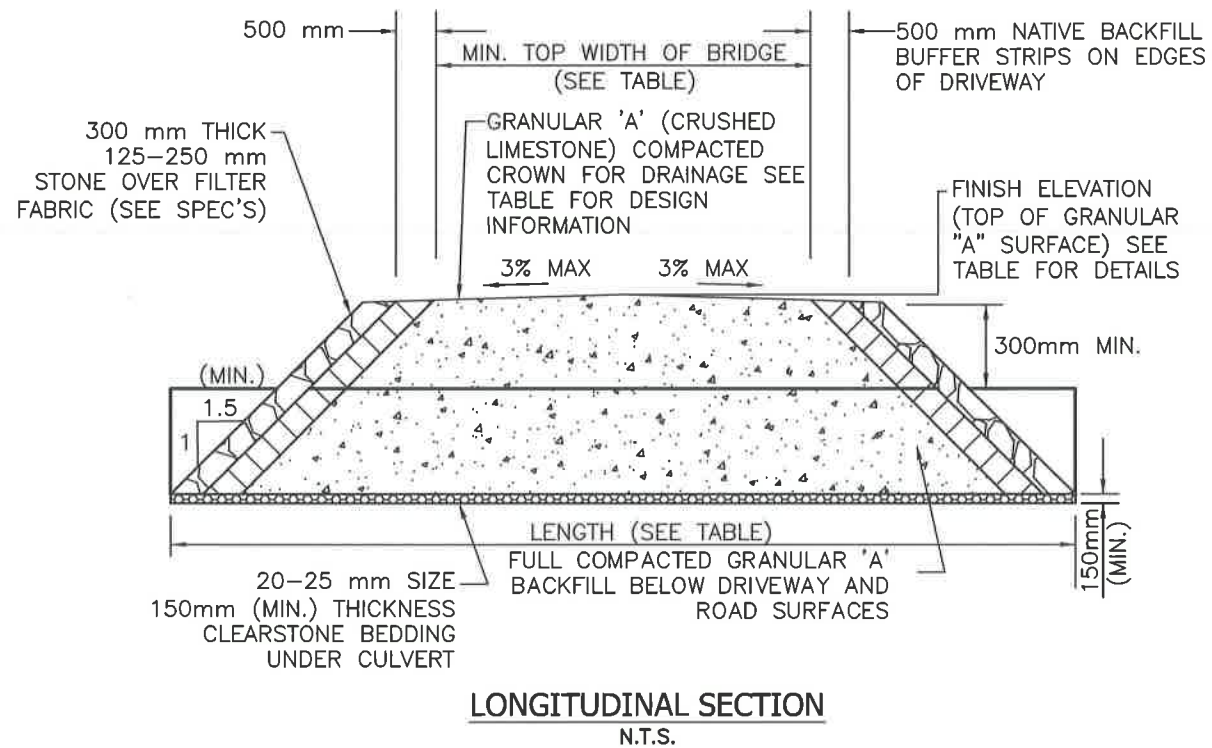
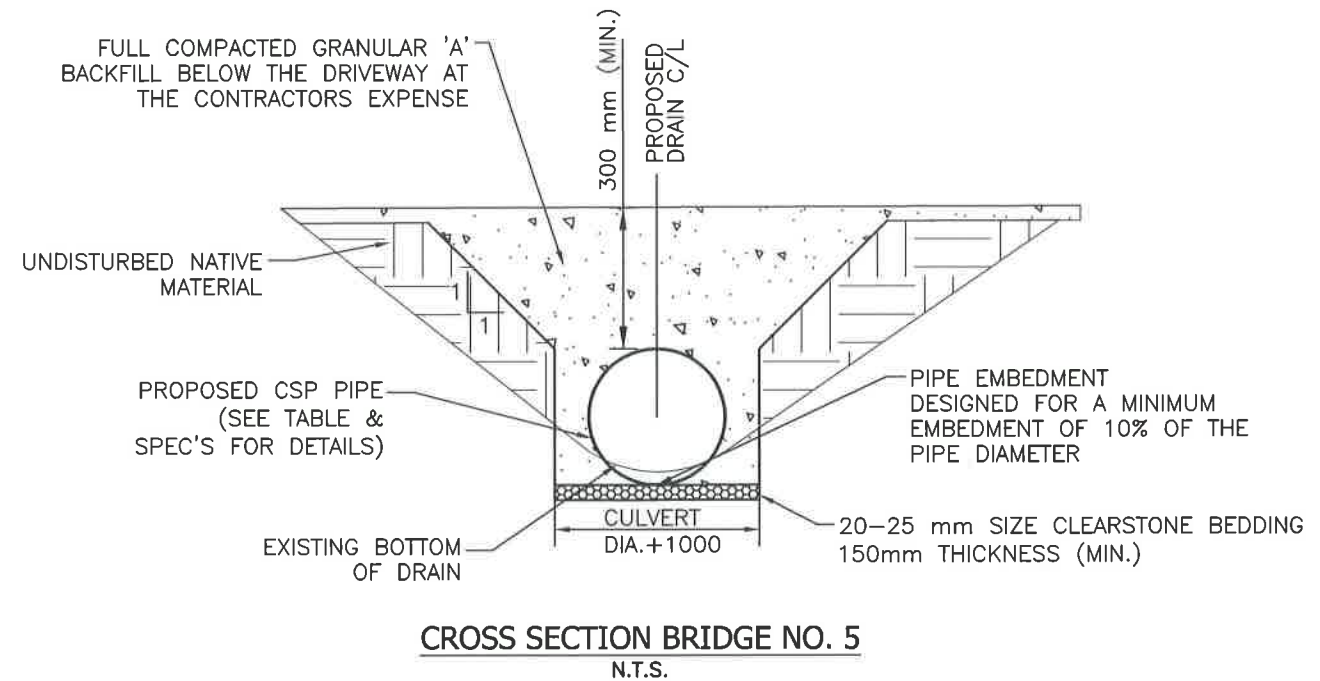
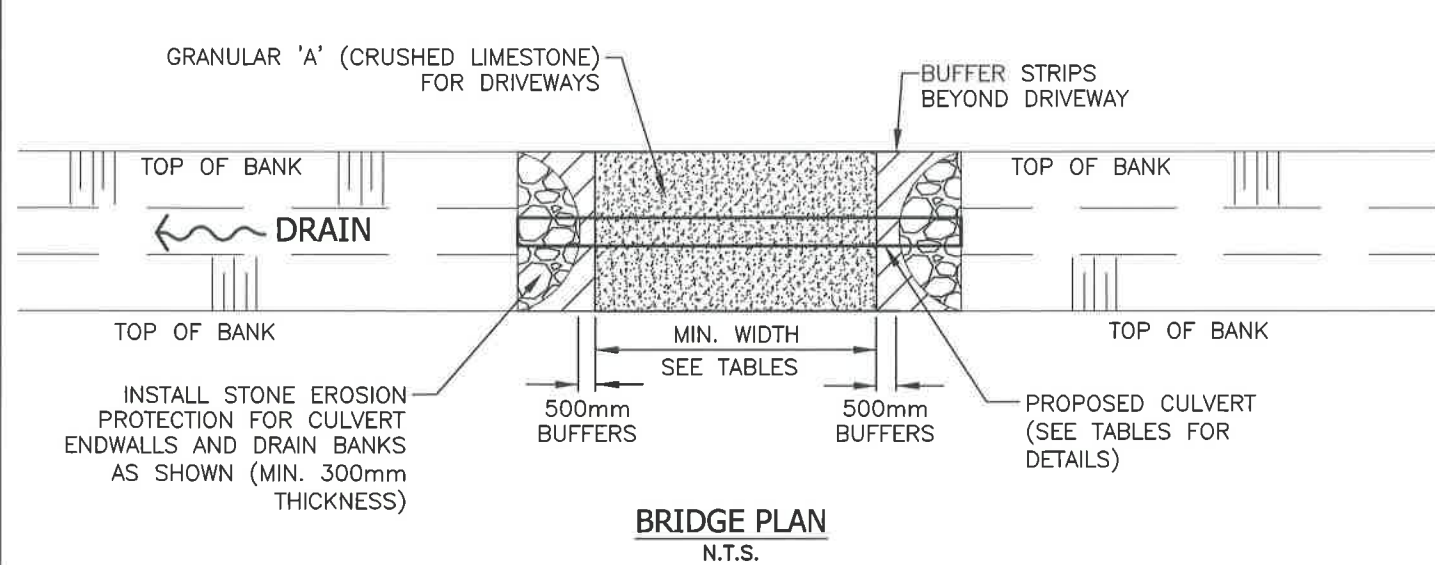
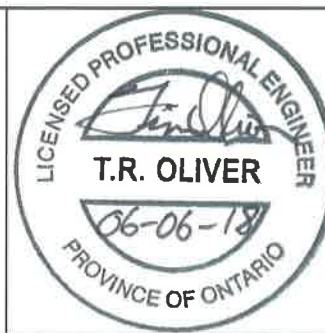


TABLE 1 - ACCESS CULVERT DESIGN INFORMATION-BURKE DRAIN			BURKE BRANCH
DESCRIPTION	BRIDGE NO. 3	BRIDGE NO. 6	BRIDGE NO. 1A
PIPE INVERT ELEV. U/S SIDE(m)	183.99	186.41	184.05
PIPE INVERT ELEV. D/S SIDE(m)	183.95	186.39	183.93
TOP OF ¢ DRIVEWAY SURFACE ELEV. (m)	185.60	187.50	185.70
DRAIN BOTTOM (m) (DESIGN) (AT CENTRELINE OF CULVERT)	184.09	186.48	184.09
MIN. TOP WIDTH OF DRIVEWAY (m)	3.0	4.0	9.0
MIN. CULVERT GRADE (%)	0.35	0.17	0.65
CULVERT MATERIAL	ALUM. CSP	ALUM. CSP	HDPE
CULVERT LENGTH (m)	10.0	9.0	18.0
PIPE SIZE (mm)	1200	800	900
PIPE THICKNESS (mm)	2.8	2.0	320kPa
CULVERT ENDWALL TYPE	SLOPING STONE	SLOPING STONE	SLOPING STONE



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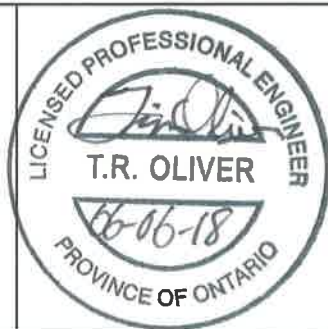
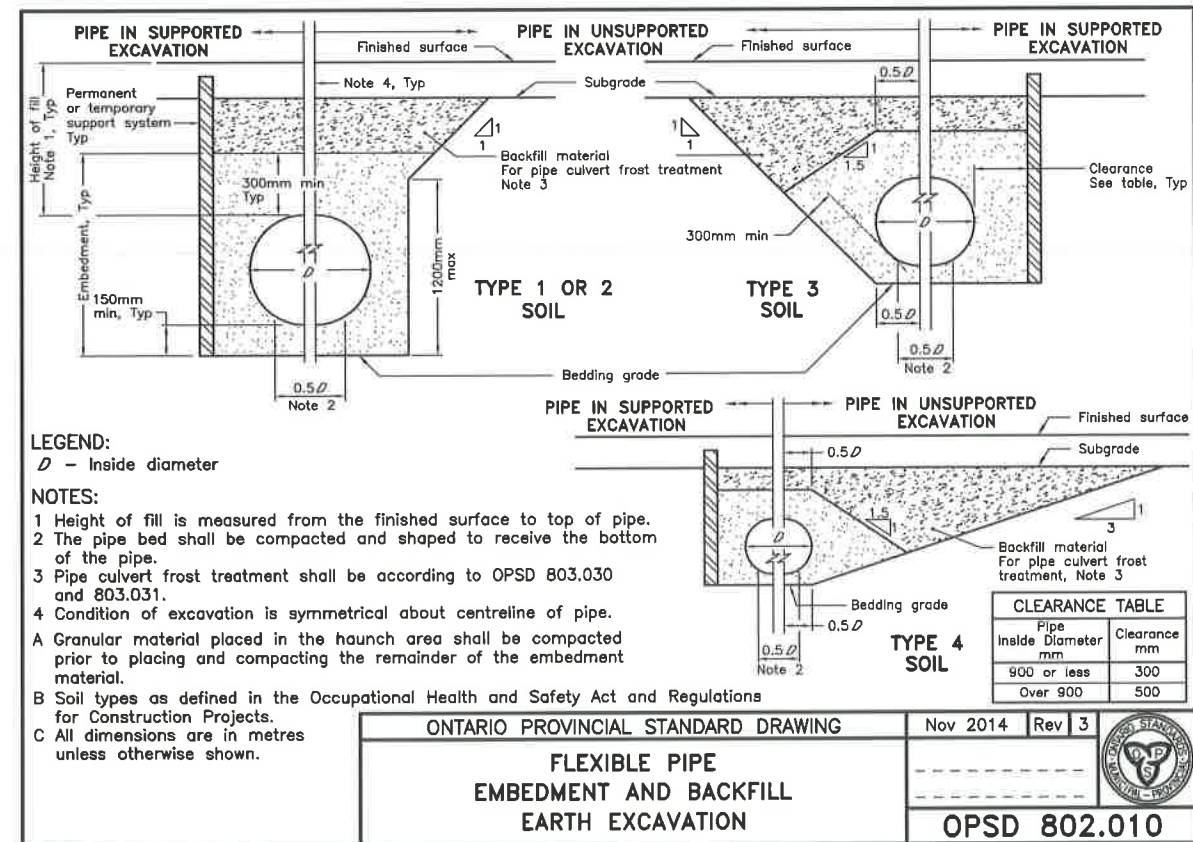
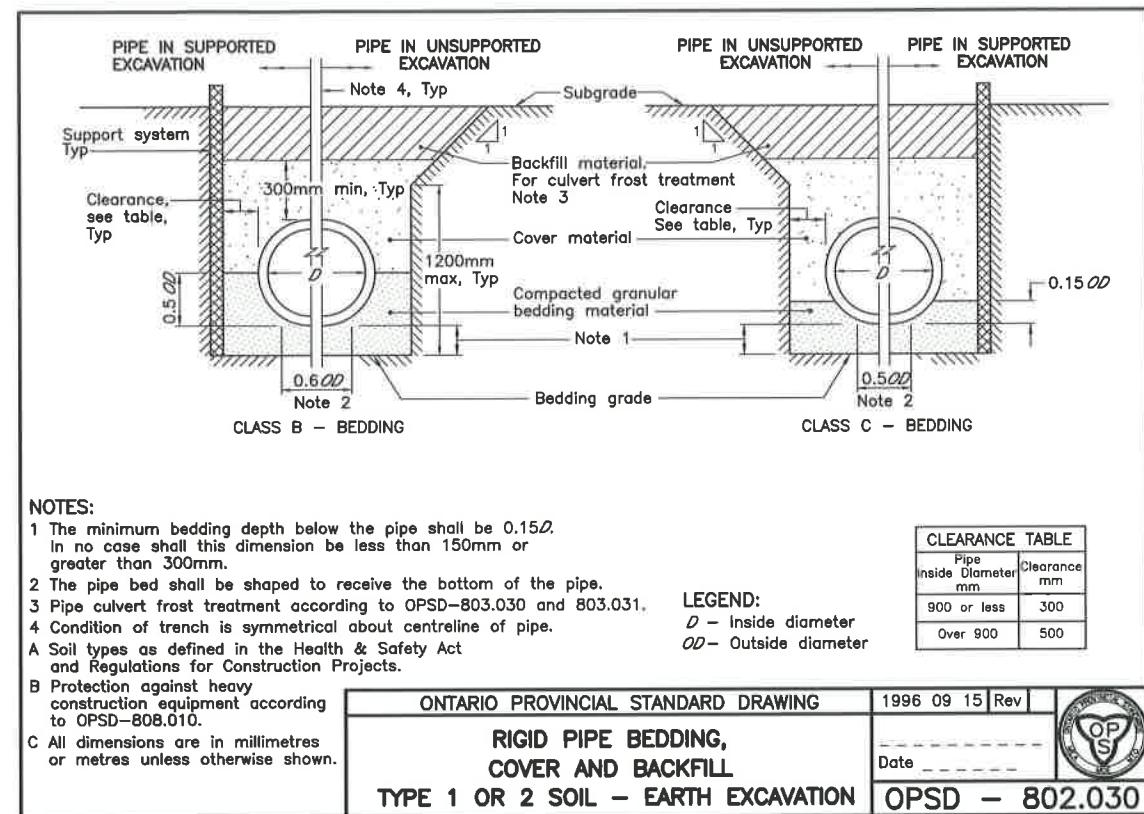
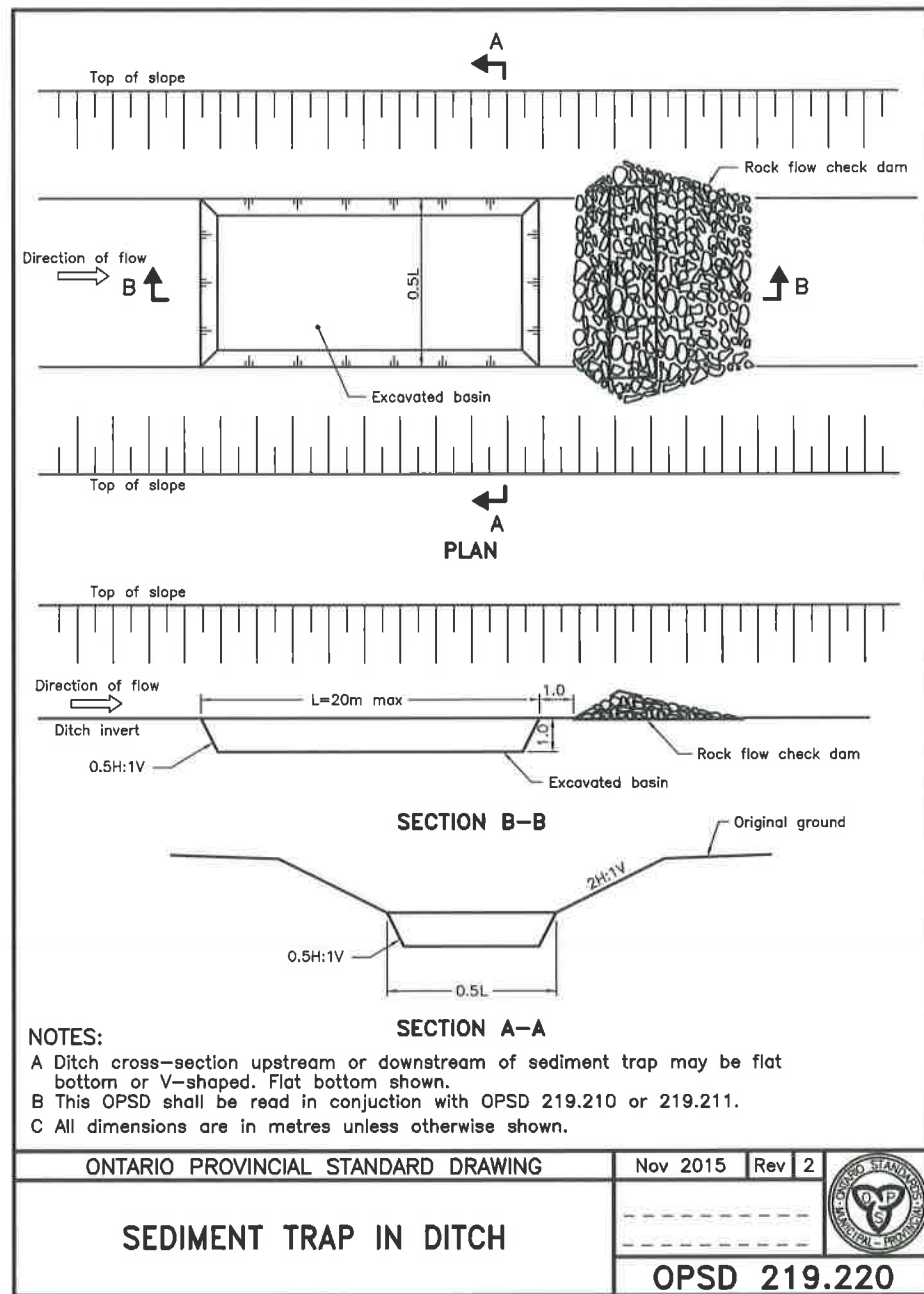
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DRAWN	AJL	CHECKED BY	EPS
DATE	June 6, 2018		
SCALE	AS SHOWN		

	
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'SCHEDULE C'

Drainage Report for the BURKE DRAIN Town of LaSalle & Town of Tecumseh	
SHEET TITLE	BRIDGE NO. 3 & 6 DETAILS
PAGE NO.	7 of 9

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'SCHEDULE C'

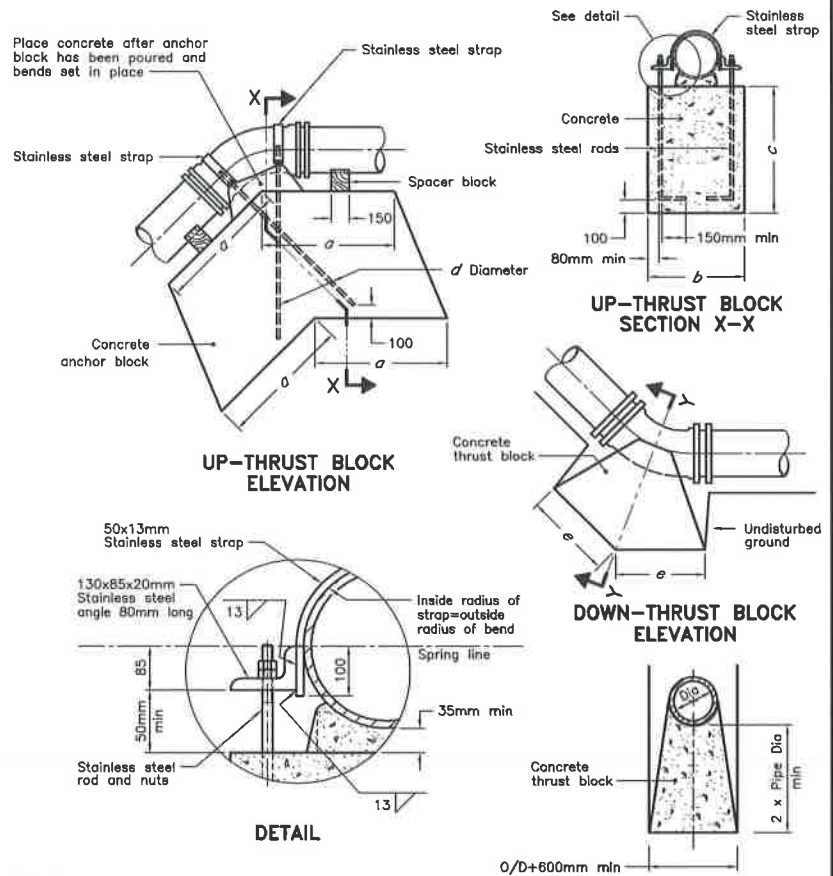
Drainage Report for the
BURKE DRAIN
Town of LaSalle & Town of Tecumseh

SHEET TITLE
OPSD DETAILS 1

PAGE NO.
8 of 9

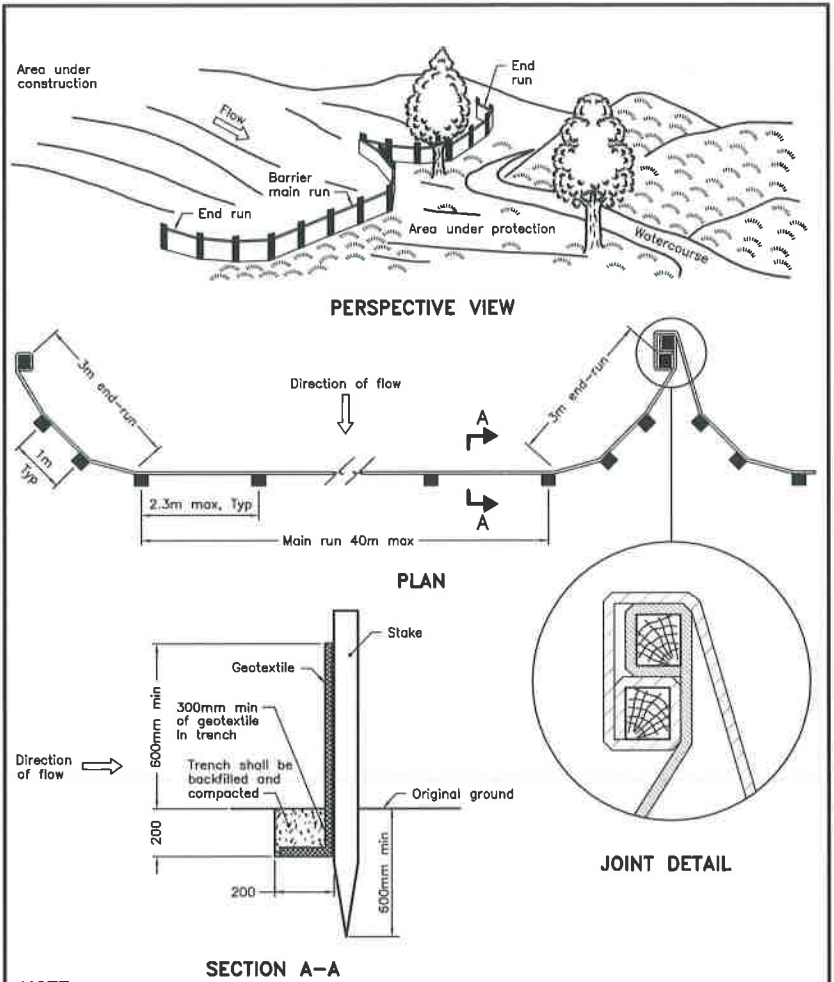
NOTE
DIMENSIONS BASED ON 200mmØ PIPE WITH
TYPICAL SOIL BEARING STRENGTH OF 100 TO
199 kPa

a=600 d=13
b=900 e=450
c=1500



NOTES:
A Concrete shall be placed to within 50mm of the face of the bell.
B Bond breaker shall be used between concrete and fittings.
C This blocking is for bends up to 45° for up-thrust and 90° for down-thrust.
D This OPSD shall be read in conjunction with OPSD 1103.021.
E All dimensions are in millimetres unless otherwise shown.

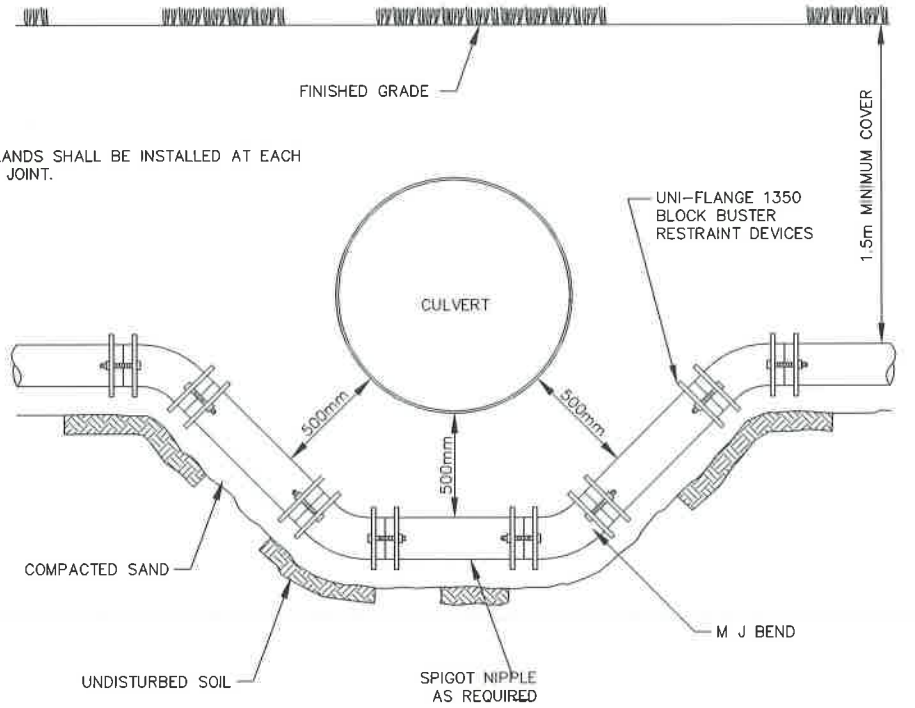
ONTARIO PROVINCIAL STANDARD DRAWING	Nov 2013	Rev 3	
CONCRETE THRUST BLOCKS FOR VERTICAL BENDS			
OPSD 1103.020			



NOTE:
A All dimensions are in millimetres unless otherwise shown.

ONTARIO PROVINCIAL STANDARD DRAWING	Nov 2015	Rev 2	
LIGHT-DUTY SILT FENCE BARRIER			
OPSD 219.110			

NOTE
1. RETAINER GLANDS SHALL BE INSTALLED AT EACH MECHANICAL JOINT.



TYPICAL WATERMAIN LOWERING DETAIL
N.T.S.

Jun 05, 2018 - 2:46pm G:\CAD\126578\LaSalle Drain\1300\Burke Drain-1300\Burke Drain_Plan (Final June 6 18).dwg



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No	ISSUED FOR	DATE	BY
5	FINAL SUBMISSION	JUNE 6/18	TRO
4	ADDED BURKE BRANCH	APR. 20/17	TRO
3	2ND SUBMISSION TO N.J. PERALTA ENGINEERING	DEC. 9/16	TRO
2	RESUBMISSION TO N.J. PERALTA ENGINEERING	JULY 29/16	TRO
1	CLIENT REVIEW	JAN. 18/16	TRO

DESIGN	TRO	REVIEWED BY	FRF
DRAWN	AJL	CHECKED BY	EPS
DATE	June 6, 2018		
SCALE	AS SHOWN		

PROJECT NO.	12-6578-1300
DRAWING SCALES BASED ON A 11" X 17" SHEET	

'SCHEDULE C'	
Drainage Report for the BURKE DRAIN Town of LaSalle & Town of Tecumseh	
SHEET TITLE	OPSD DETAILS 2
PAGE NO.	9 of 9