

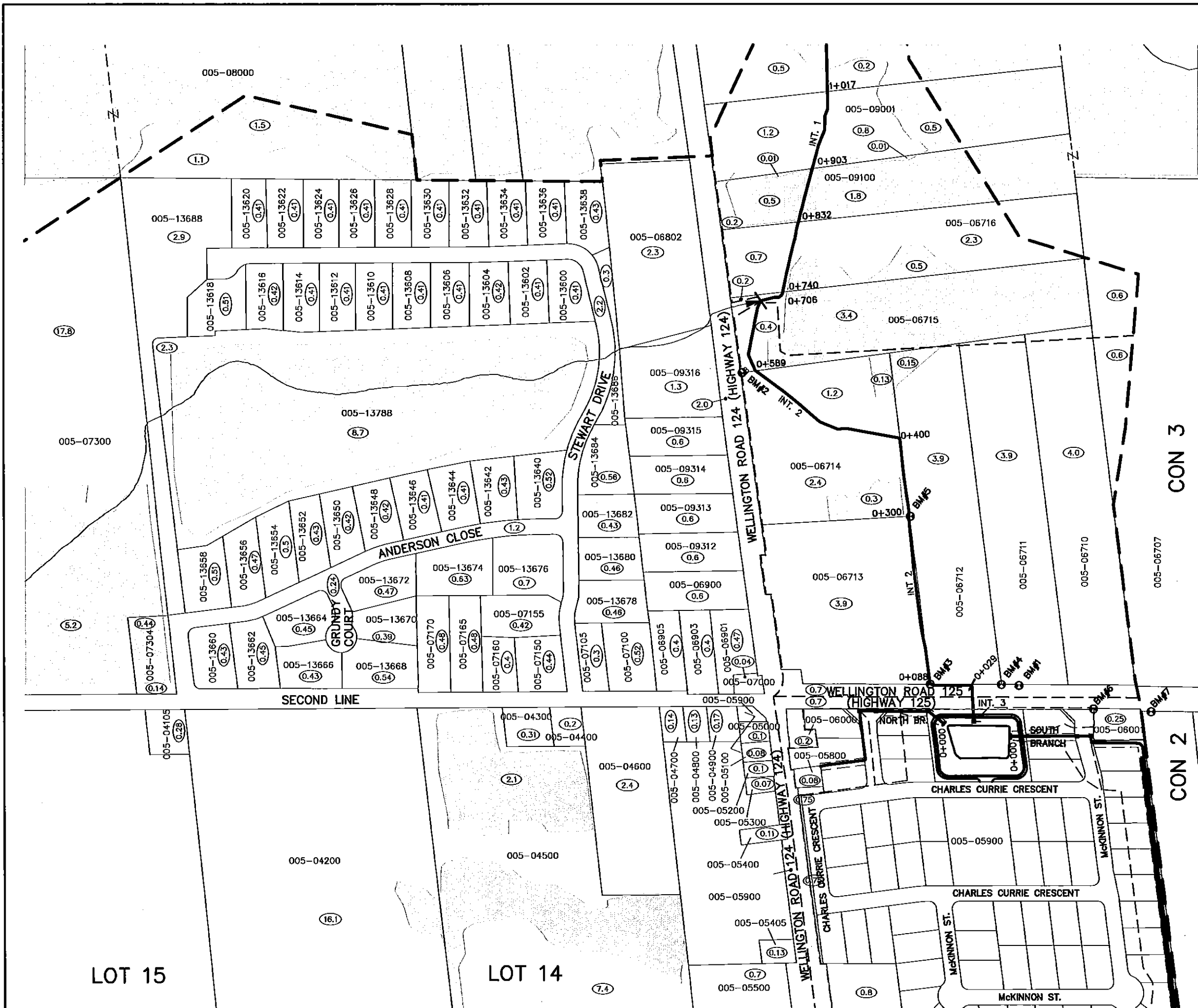
PLAN LEGEND

- MAJOR WATERSHED
- - - INTERMEDIATE WATERSHED
- PROPOSED WORK OR INCORPORATION
- (5.3) - APPROXIMATE HECTARES IN WATERSHED
- 005-03600 - ASSESSMENT ROLL NUMBER
- (shaded area) - BUSH/WETLAND
- BM#3 - BENCHMARK LOCATION AND NO.

GEOGRAPHIC TOWNSHIP OF ERIN

DESIGNED BY: N.W.M.		SCALE
CHECKED BY: N.W.M.		0 150 300m
DRAWN BY: N.M.B.		(1:15,000 ON 11"x17")
CHECKED BY: N.W.M.		

OSPRINGE DRAIN	
COUNTY OF WELLINGTON	TOWN OF ERIN
WATERSHED PLAN	AUG. 23, 2019
K. SMART ASSOCIATES LIMITED CONSULTING ENGINEERS AND PLANNERS KITCHENER SUDBURY	REVISED:
	JOB NUMBER: 18-074
	DRAWING 1 OF 17



BENCHMARKS

BM#1
 NAIL IN HP #C9MJ35, N/SIDE OF 125, ○ E/FIELD,
 50m SOUTH OF LANEWAY #5397
 ELEV. 398.50

BM#2
 IB, NORTH CORNER OF PROPERTY #8919
 SOUTH OF HWY 124
 ELEV. 385.26

BM#3
 SIB, NW CORNER OF FARM PROPERTY #5397
 SW CORNER OF JOHN DEER PROPERTY
 SOUTH OF JOHN DEERE ENTRANCE
 ELEV. 398.93

BM#4
 SIB, SW CORNER OF FARM PROPERTY #5397
 8m SOUTH OF DITCH BEND, AT EDGE OF FIELD
 BAR SLIGHTLY BENT TO THE EAST
 ELEV. 398.27

BM#5
 IB, SE CORNER OF JOHN DEERE PROPERTY
 ELEV. 393.128

BM#6
 SIB, NE CORNER OF PROPERTY #5382
 ELEV. 400.166

BM#7
 SIB, W/CUP NE CORNER TREE FARM #5376
 ELEV. 400.436

PLAN LEGEND

--- MAJOR WATERSHED

- - - INTERMEDIATE WATERSHED

→ PROPOSED WORK OR INCORPORATION

(5.3) APPROXIMATE HECTARES IN WATERSHED

005-03600 ASSESSMENT ROLL NUMBER

() BUSH/WETLAND

BM#2 BENCHMARK LOCATION AND NO.

DESIGNED BY: N.W.M.
 CHECKED BY: N.W.M.
 DRAWN BY: N.M.B.
 CHECKED BY: N.W.M.



SCALE
 0 50 100m
 (1:5,000 ON 11"x17")

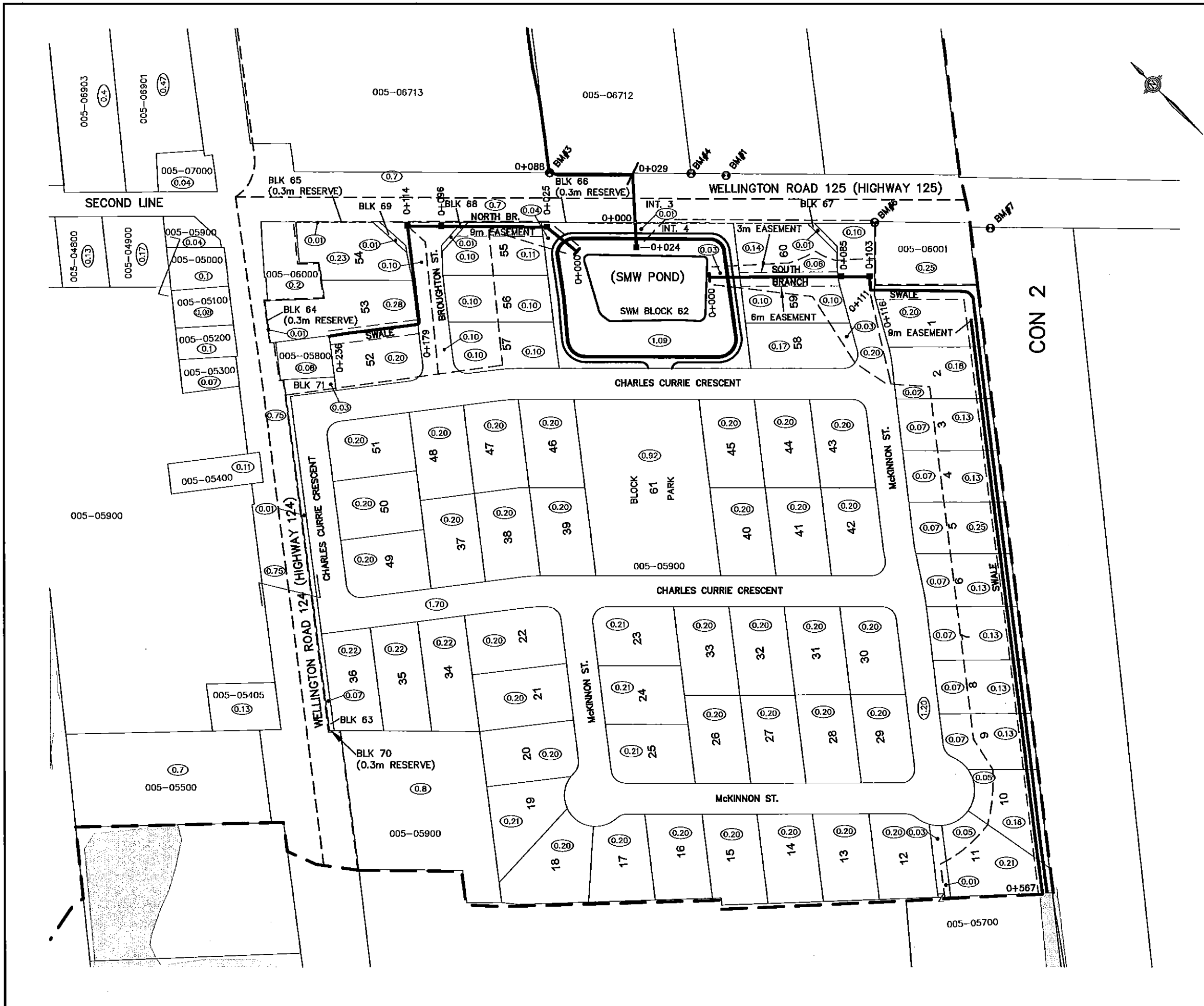
OSPRINGE DRAIN	
COUNTY OF WELLINGTON	TOWN OF ERIN
PLAN ENLARGEMENT	AUG. 23, 2019
K. SMART ASSOCIATES LIMITED CONSULTING ENGINEERS AND PLANNERS KITCHENER SUDBURY	REVISED:
	JOB NUMBER: 18-074
DRAWING 2 OF 17	

CON 3

CON 2

LOT 15

LOT 14



PLAN LEGEND

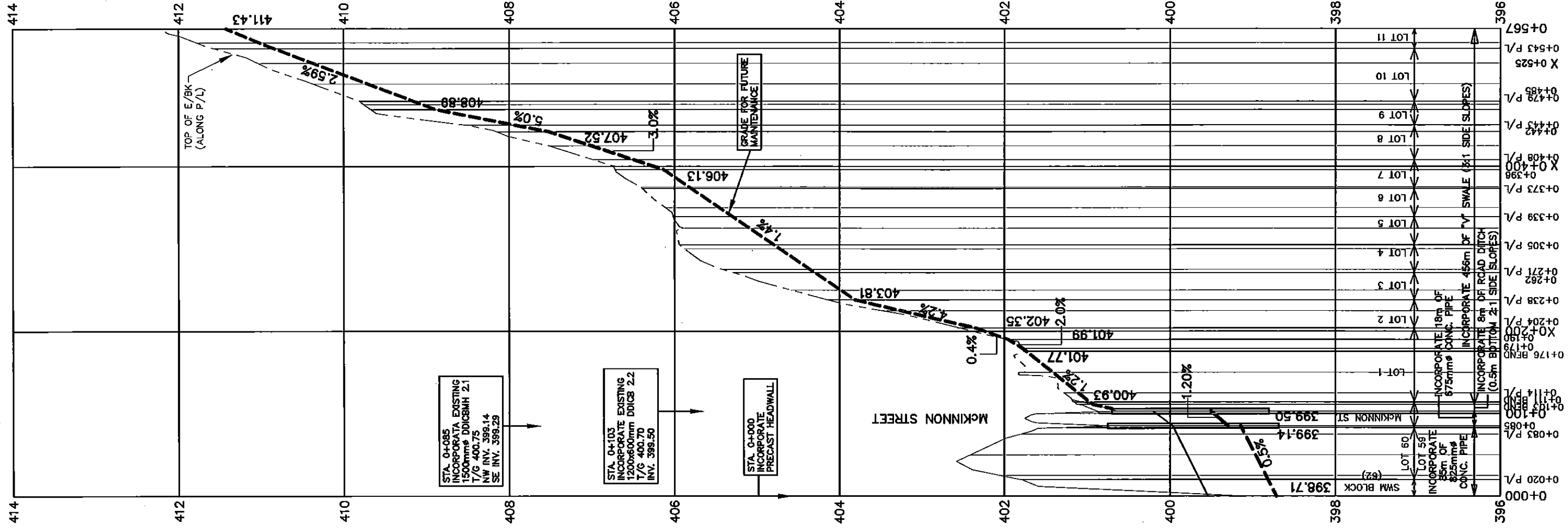
- MAJOR WATERSHED
- INTERMEDIATE WATERSHED
- PROPOSED WORK OR INCORPORATION
- (5.3) — APPROXIMATE HECTARES IN WATERSHED
- 005-03600 — ASSESSMENT ROLL NUMBER
- () — BUSH/WETLAND
- BM#2 — BENCHMARK LOCATION AND NO.
- 8 — SUBDIVISION LOT No.

DESIGNED BY: N.W.M.		SCALE
CHECKED BY: N.W.M.		0 25 50m
DRAWN BY: N.M.B.		(1:2,500 ON 11"x17")
CHECKED BY: N.W.M.		

OSPRINGE DRAIN

COUNTY OF WELLINGTON TOWN OF ERIN

SUBDIVISION ENLARGEMENT	AUG. 23, 2019
K. SMART ASSOCIATES LIMITED CONSULTING ENGINEERS AND PLANNERS KITCHENER SUDBURY	REVISED: JOB NUMBER: 18-074 DRAWING 3 OF 17



SOUTH BRANCH

STA. 0+085
INCORPORATE EXISTING
1500mm DITCH 2.1
T/G 400.75
NW INV. 399.14
SE INV. 398.29

STA. 0+103
INCORPORATE EXISTING
1200x600mm DITCH 2.2
T/G 400.70
INV. 399.50

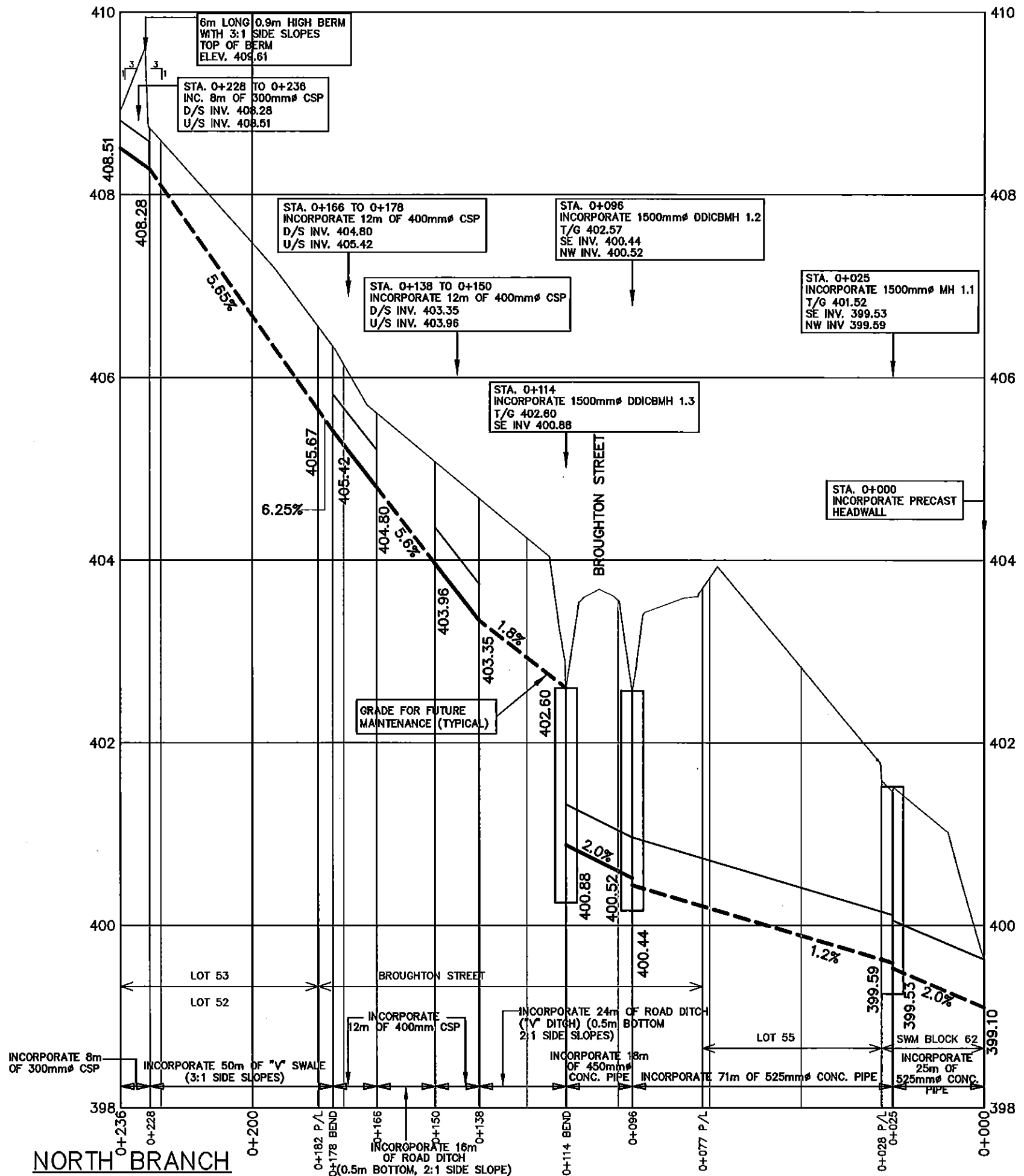
STA. 0+000
INCORPORATE
PRECAST HEADWALL

OSPRINGE DRAIN	
COUNTY OF WELLINGTON TOWN OF ERIN	
SOUTH BRANCH PROFILE	AUG. 23, 2019
K. SMART ASSOCIATES LIMITED CONSULTING ENGINEERS AND PLANNERS KITCHENER SUBURBY	REVISED:
	JOB NUMBER: 18-074
	DRAWING 6 OF 17

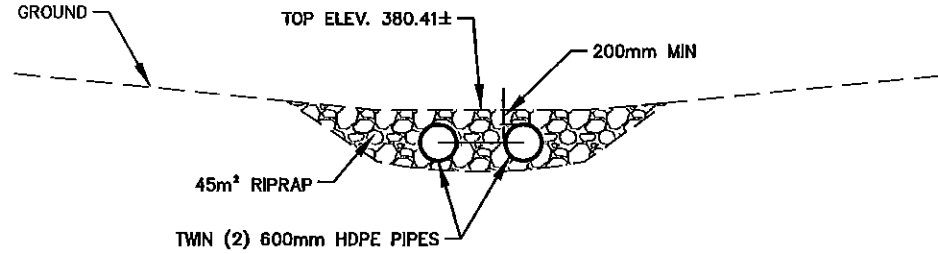
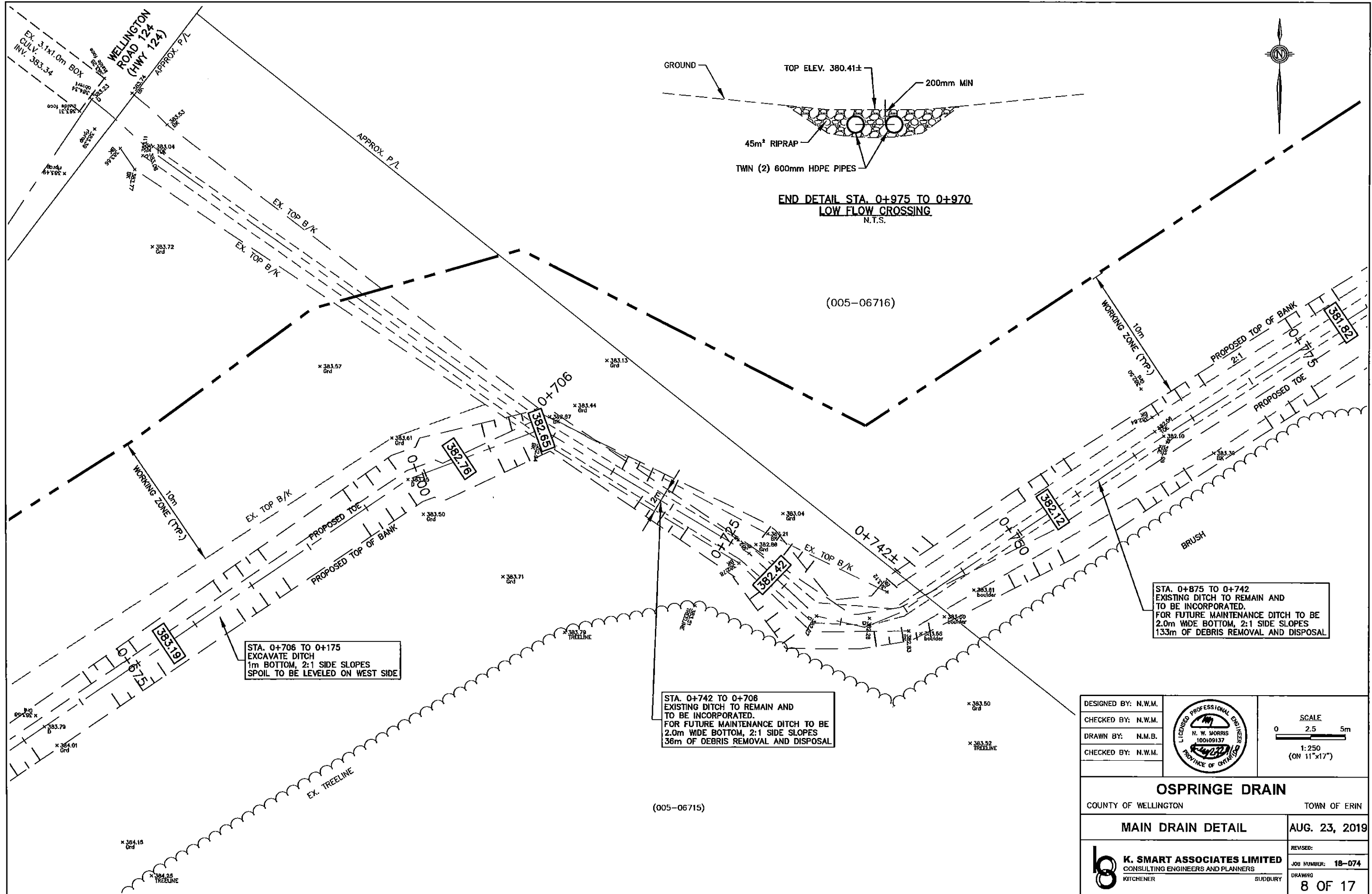
DESIGNED BY: N.W.M.
CHECKED BY: N.W.M.
DRAWN BY: N.M.B.
CHECKED BY: N.W.M.



SCALE
0 50 100m
(SCALE 1 : 5000)
HORIZ.
0 1m
(SCALE 1 : 50)
VERT.
(ON 11"x17")



DESIGNED BY: N.W.M.		SCALE 0 12.5 25m (SCALE 1:1250) HORIZ. 0 1m (SCALE 1:60) VERT. (ON 11"x17")
CHECKED BY: N.W.M.		
DRAWN BY: N.M.B.		
CHECKED BY: N.W.M.		
OSPRINGE DRAIN		
COUNTY OF WELLINGTON		TOWN OF ERIN
NORTH BRANCH PROFILE		AUG. 23, 2019
K. SMART ASSOCIATES LIMITED CONSULTING ENGINEERS AND PLANNERS KITCHENER SUDBURY	REVISED:	
	JOB NUMBER: 18-074	
	DRAWING 7 OF 17	



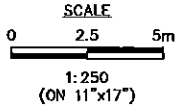
END DETAIL STA. 0+975 TO 0+970
 LOW FLOW CROSSING
 N.T.S.

STA. 0+706 TO 0+175
 EXCAVATE DITCH
 1m BOTTOM, 2:1 SIDE SLOPES
 SPOIL TO BE LEVELED ON WEST SIDE

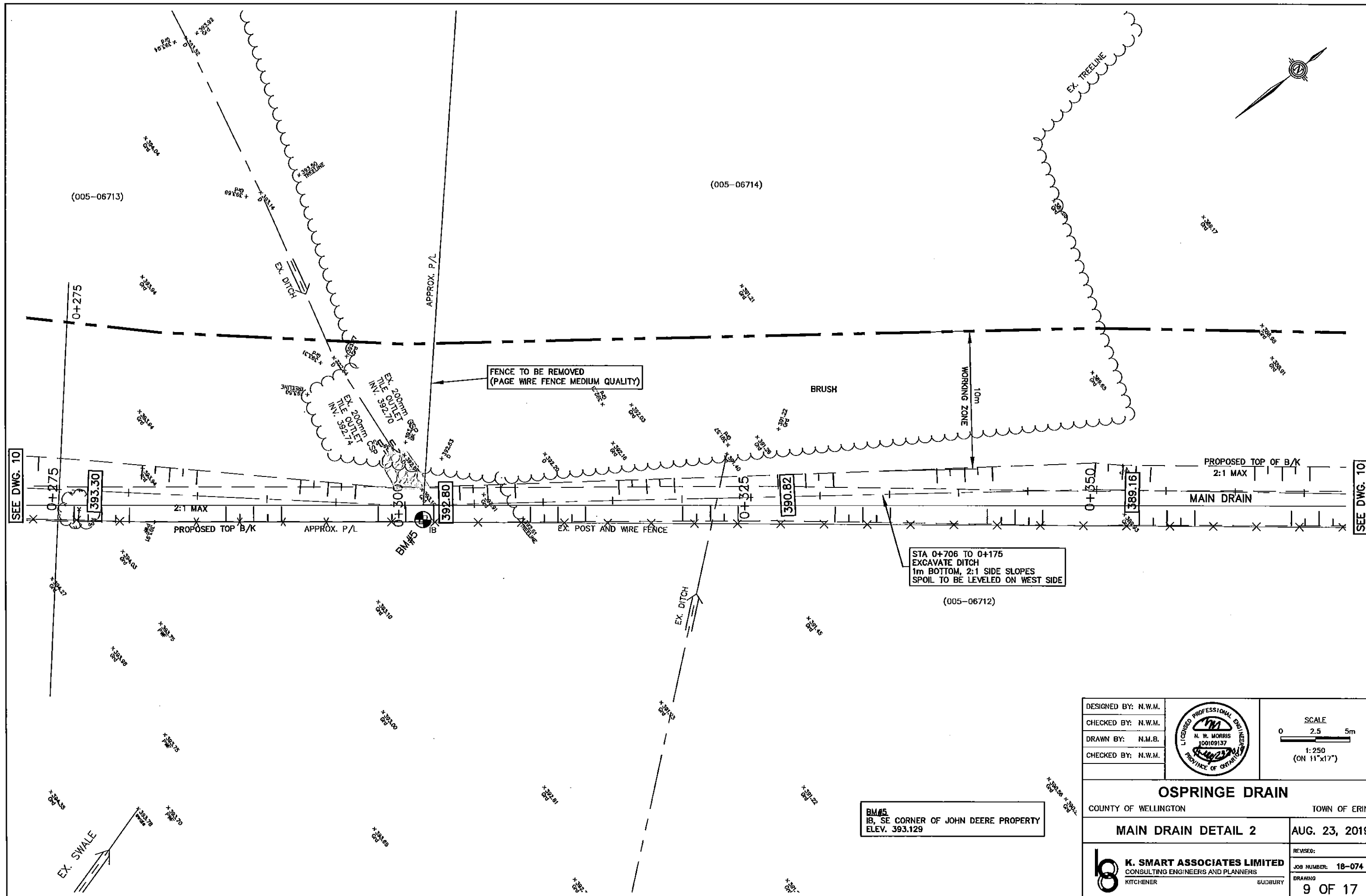
STA. 0+742 TO 0+706
 EXISTING DITCH TO REMAIN AND
 TO BE INCORPORATED.
 FOR FUTURE MAINTENANCE DITCH TO BE
 2.0m WIDE BOTTOM, 2:1 SIDE SLOPES
 36m OF DEBRIS REMOVAL AND DISPOSAL

STA. 0+875 TO 0+742
 EXISTING DITCH TO REMAIN AND
 TO BE INCORPORATED.
 FOR FUTURE MAINTENANCE DITCH TO BE
 2.0m WIDE BOTTOM, 2:1 SIDE SLOPES
 133m OF DEBRIS REMOVAL AND DISPOSAL

DESIGNED BY: N.W.M.
 CHECKED BY: N.W.M.
 DRAWN BY: N.M.B.
 CHECKED BY: N.W.M.



OSPRINGE DRAIN	
COUNTY OF WELLINGTON	TOWN OF ERIN
MAIN DRAIN DETAIL	AUG. 23, 2019
K. SMART ASSOCIATES LIMITED CONSULTING ENGINEERS AND PLANNERS KITCHENER SUDBURY	REVISED:
	JOB NUMBER: 18-074
	DRAWING: 8 OF 17



FENCE TO BE REMOVED
(PAGE WIRE FENCE MEDIUM QUALITY)

STA 0+706 TO 0+175
EXCAVATE DITCH
1m BOTTOM, 2:1 SIDE SLOPES
SPOIL TO BE LEVELED ON WEST SIDE

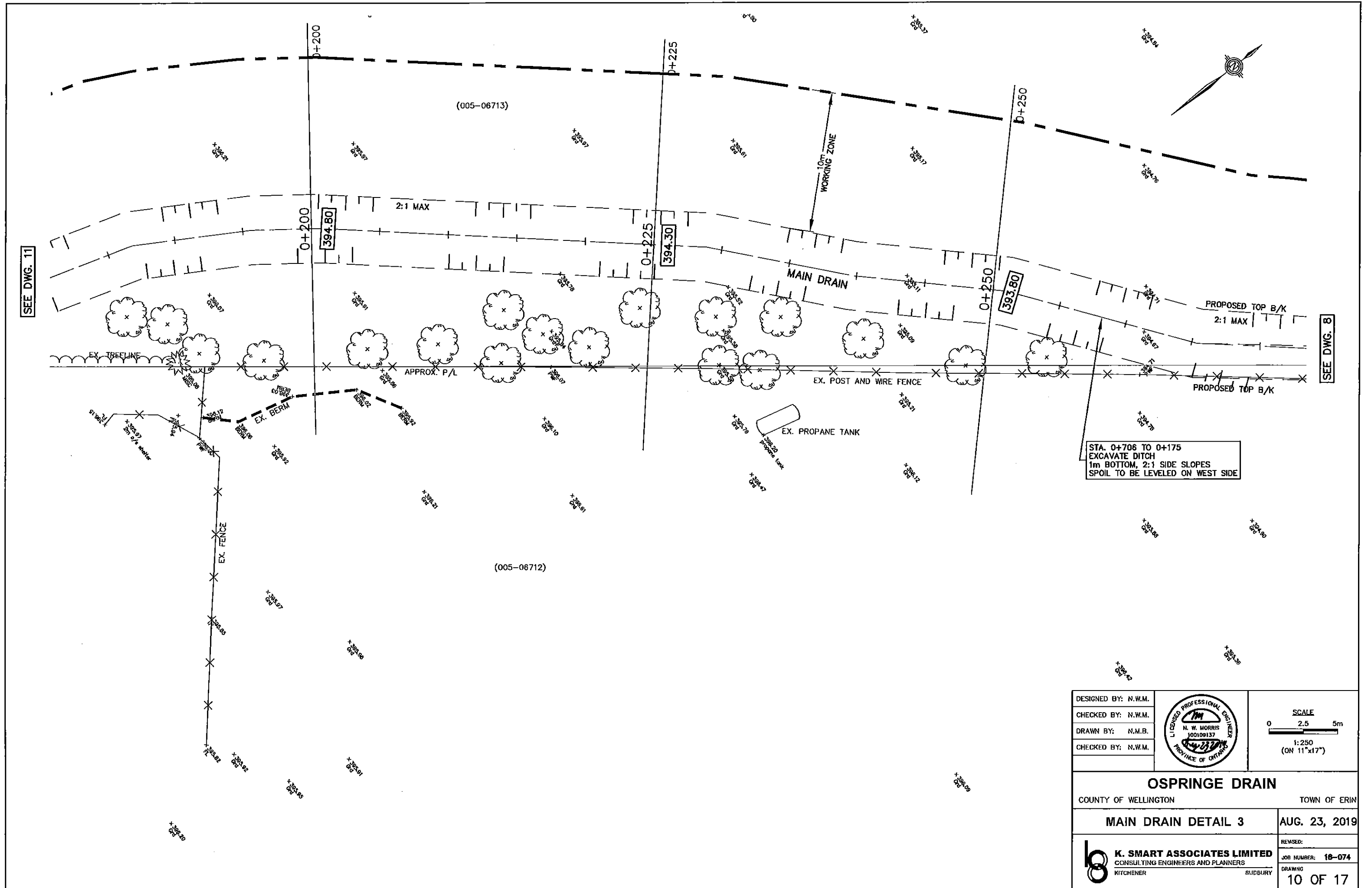
BM#5
IB, SE CORNER OF JOHN DEERE PROPERTY
ELEV. 393.129

DESIGNED BY: N.W.M.		<p>SCALE</p> <p>0 2.5 5m</p> <p>1:250 (ON 11"x17")</p>
CHECKED BY: N.W.M.		
DRAWN BY: N.M.B.		
CHECKED BY: N.W.M.		

OSPRINGE DRAIN
COUNTY OF WELLINGTON TOWN OF ERIN

MAIN DRAIN DETAIL 2 AUG. 23, 2019

	REVISED:
	JOB NUMBER: 18-074
	DRAWING: 9 OF 17



SEE DWG. 11

SEE DWG. 8

STA. 0+706 TO 0+175
 EXCAVATE DITCH
 1m BOTTOM, 2:1 SIDE SLOPES
 SPOIL TO BE LEVELED ON WEST SIDE

DESIGNED BY: N.W.M.		<p>SCALE</p> <p>1:250 (ON 11"x17")</p>
CHECKED BY: N.W.M.		
DRAWN BY: N.M.B.		
CHECKED BY: N.W.M.		

OSPRINGE DRAIN	
COUNTY OF WELLINGTON	TOWN OF ERIN
MAIN DRAIN DETAIL 3	AUG. 23, 2019
<p>K. SMART ASSOCIATES LIMITED CONSULTING ENGINEERS AND PLANNERS KITCHENER SUDBURY</p>	REVISED: JOB NUMBER: 18-074 DRAWING 10 OF 17

(005-06713)

APPROX. EX. E/GRAVEL

GRAVEL LANEWAY

STA. 0+175 TO 0+088
EXCAVATE DITCH
1m BOTTOM, 2:1 SIDE SLOPES
SPOIL TO BE HAULED OFF SITE

STA. 0+177
5m OF FENCE TO BE REMOVED
(WOODEN FENCE)


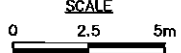
MAIN DRAIN


PROPOSED
25m LONGx0.6m WIDEx0.8m HIGH EARTH BERM
2:1 SIDE SLOPES

(005-06712)

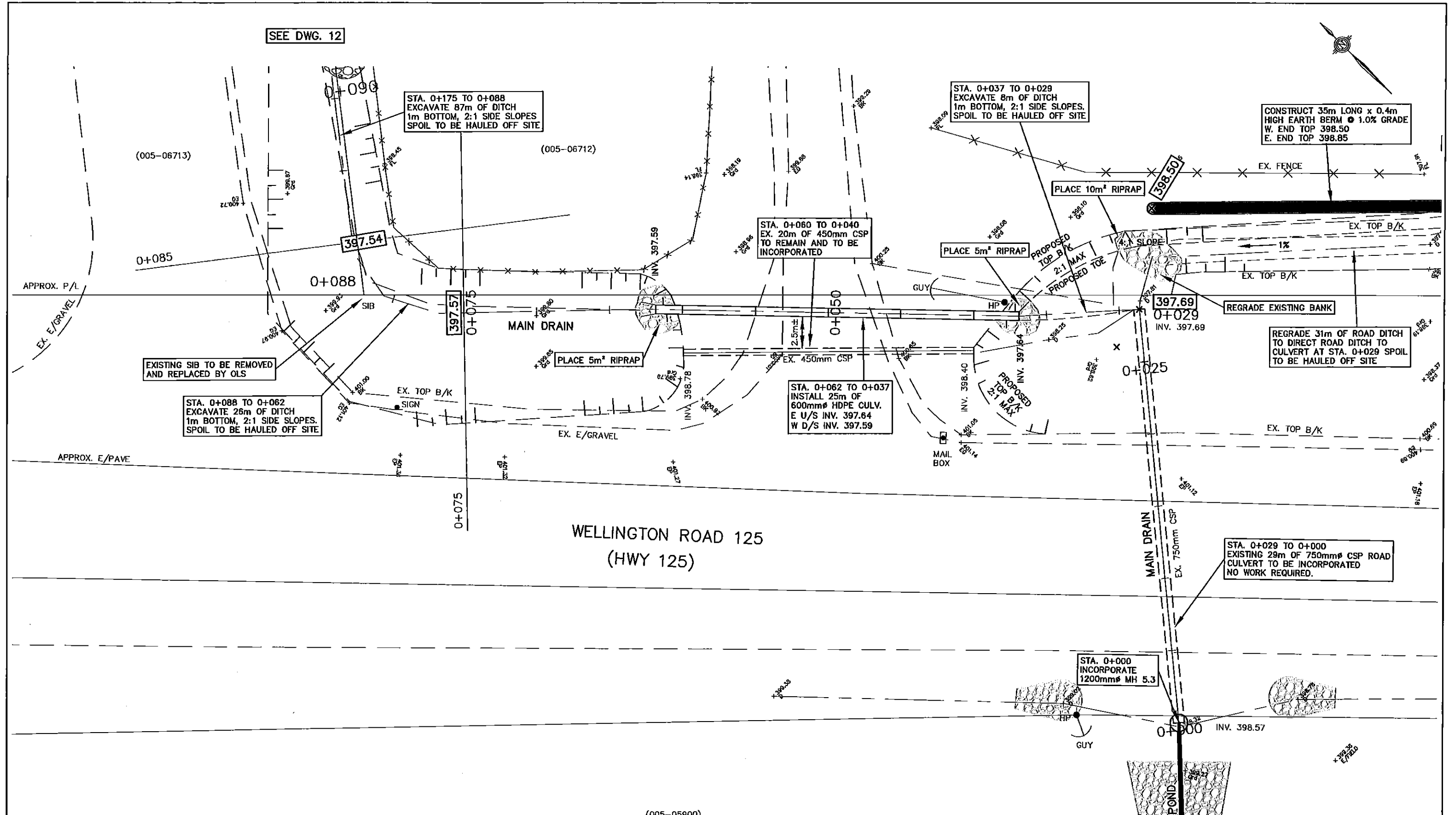
SEE DWG. 13

SEE DWG. 12

DESIGNED BY: N.W.M.		<p>SCALE</p>  <p>1:250 (ON 11"x17")</p>
CHECKED BY: N.W.M.		
DRAWN BY: D.C.P.		
CHECKED BY: N.W.M.		

OSPRINGE DRAIN	
COUNTY OF WELLINGTON TOWN OF ERIN	
MAIN DRAIN DETAIL 4	AUG. 23, 2019
 <p>K. SMART ASSOCIATES LIMITED CONSULTING ENGINEERS AND PLANNERS KITCHENER SUDBURY</p>	REVISIONS: JOB NUMBER: 18-074 DRAWING: 11 OF 17

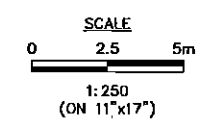
SEE DWG. 12



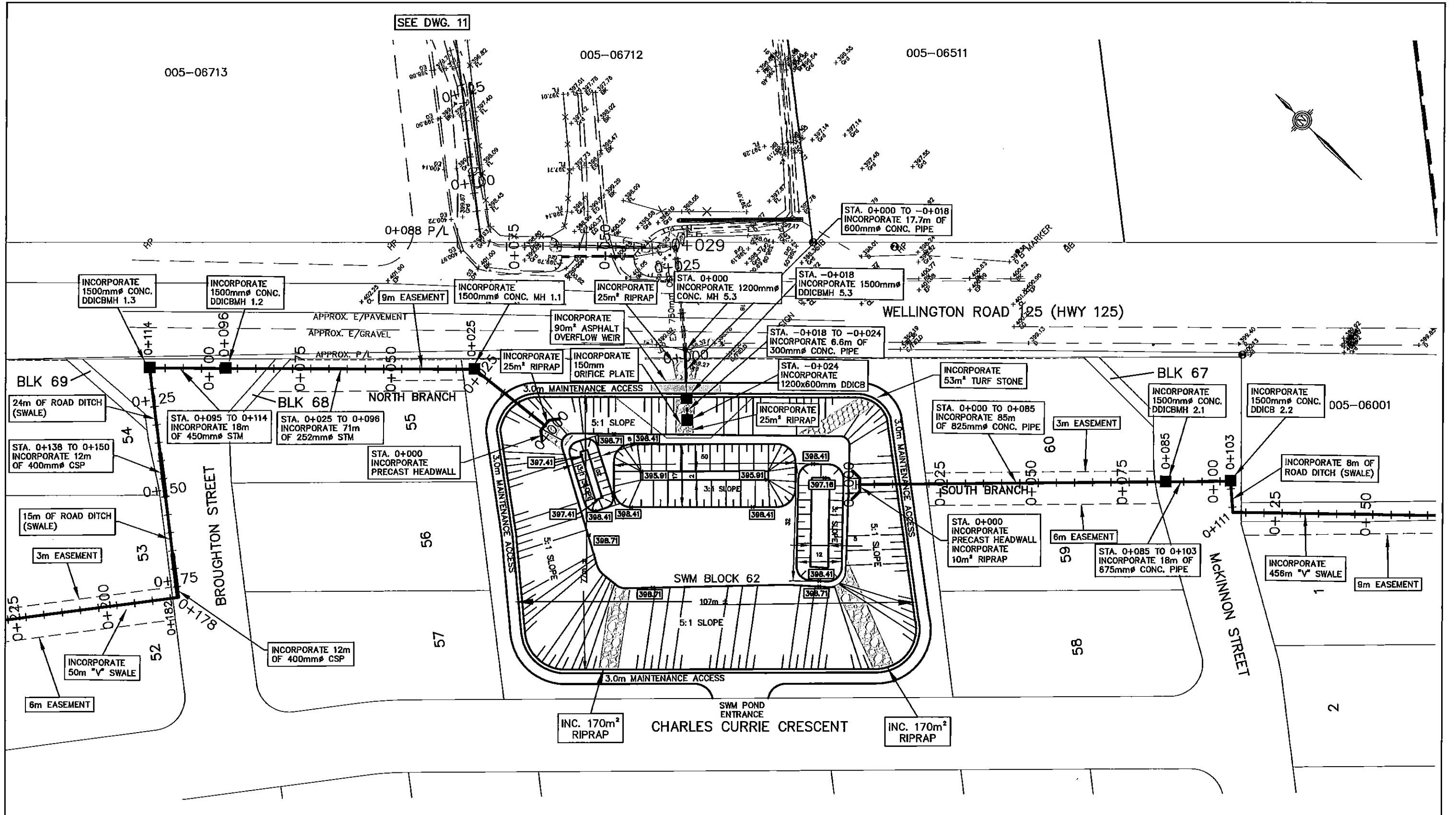
WELLINGTON ROAD 125
(HWY 125)

OSPRINGE DRAIN
COUNTY WELLINGTON TOWN OF ERIN

DESIGNED BY: N.W.M.
CHECKED BY: N.W.M.
DRAWN BY: D.C.P.
CHECKED BY: N.W.M.



ROAD 125 CROSSING AUG. 23, 2019
K. SMART ASSOCIATES LIMITED
CONSULTING ENGINEERS AND PLANNERS
KITCHENER SUDBURY
JOB NUMBER: 18-074
DRAWING: 12 OF 17

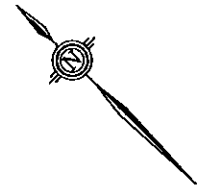


SEE DWG. 11

005-06713

005-06712

005-06511



STA. 0+000 TO -0+018
INCORPORATE 17.7m OF
600mm CONC. PIPE

STA. -0+018
INCORPORATE 1500mm
DDICBMH 5.3

STA. -0+018 TO -0+024
INCORPORATE 6.6m OF
300mm CONC. PIPE

STA. -0+024
INCORPORATE
1200x600mm DDICB

INCORPORATE 1500mm CONC.
DDICBMH 2.2

INCORPORATE 8m OF
ROAD DITCH (SWALE)

INCORPORATE 456m "V" SWALE

MCKINNON STREET

BROUGHTON STREET

CHARLES CURRIE CRESCENT

SWM POND
ENTRANCE

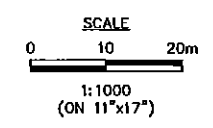
INC. 170m²
RIPRAP

OSPRINGE DRAIN

COUNTY WELLINGTON TOWN OF ERIN

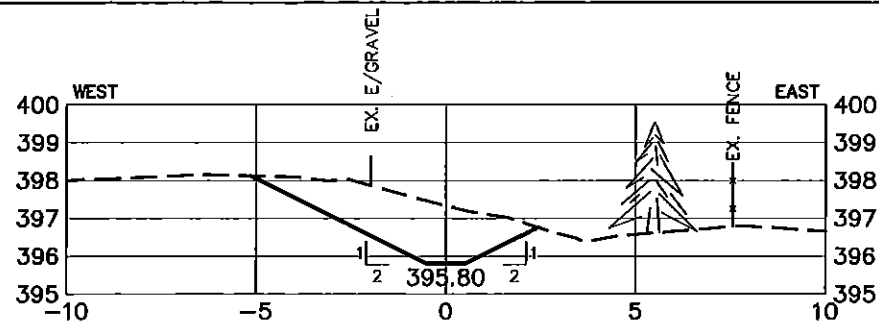
SWM POND & BRANCHES DETAIL AUG. 23, 2019

DESIGNED BY: N.W.M.
CHECKED BY: N.W.M.
DRAWN BY: N.M.B.
CHECKED BY: N.W.M.

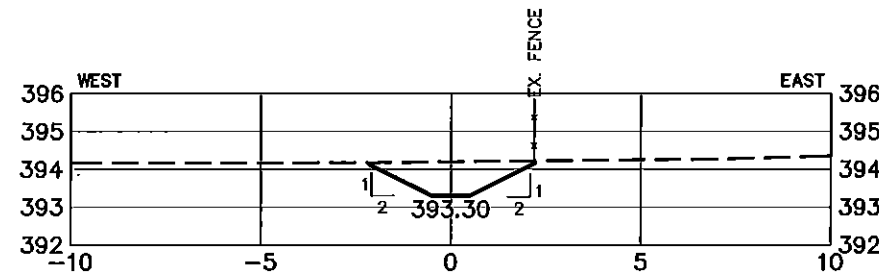


K. SMART ASSOCIATES LIMITED
CONSULTING ENGINEERS AND PLANNERS
KITCHENER SUDBURY

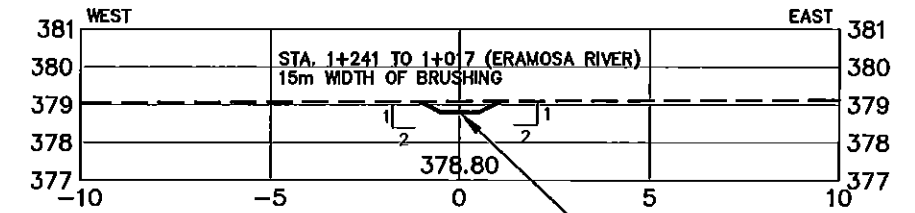
REVISED:
JOB NUMBER: 18-074
DRAWING
13 OF 17



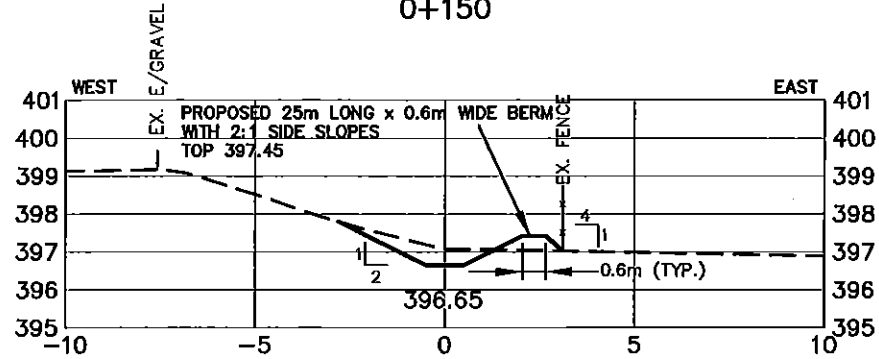
0+150



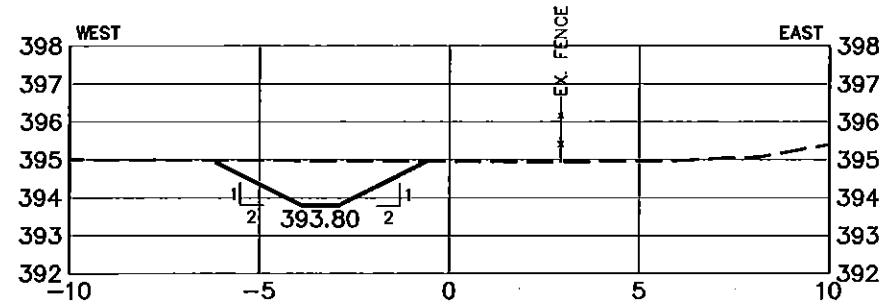
0+275



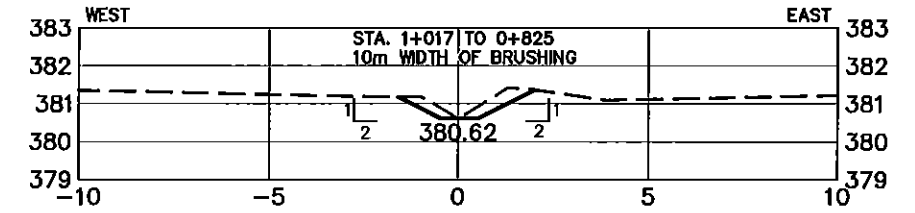
1+075
STA. 1+241 TO 0+975
NOTCH CENTER OF DITCH,
300mm WIDTH x 150mm DEPTH



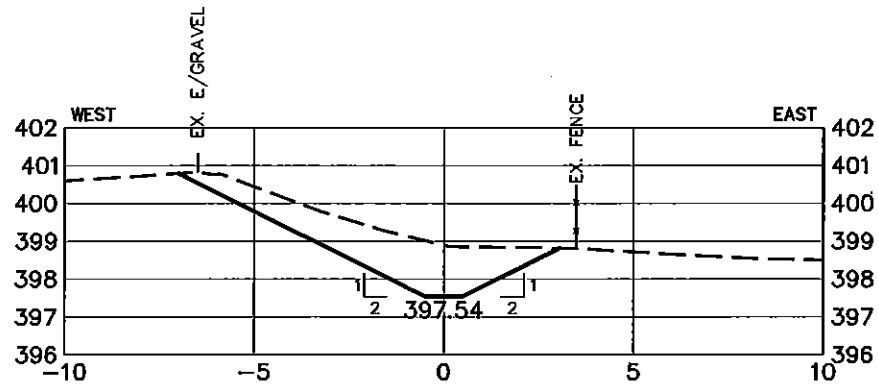
0+125



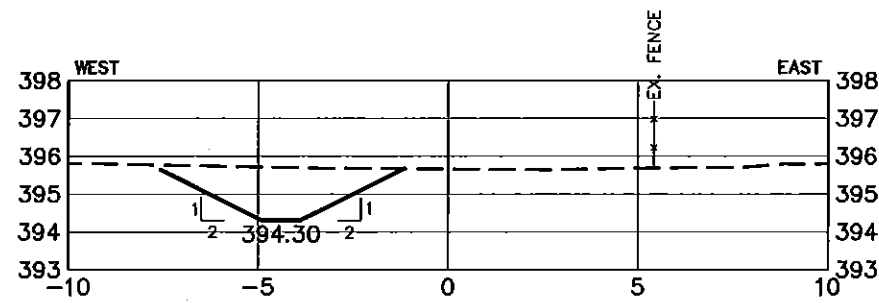
0+250



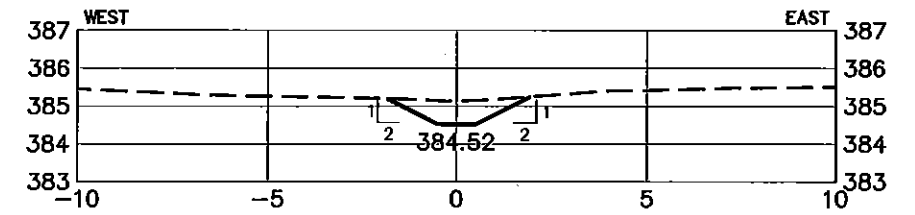
0+875



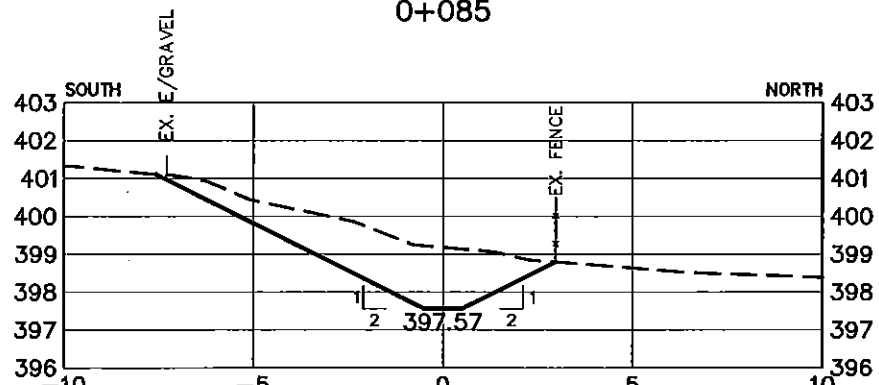
0+085



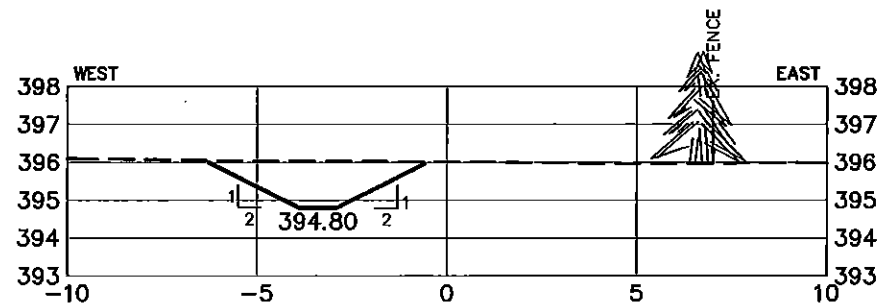
0+225



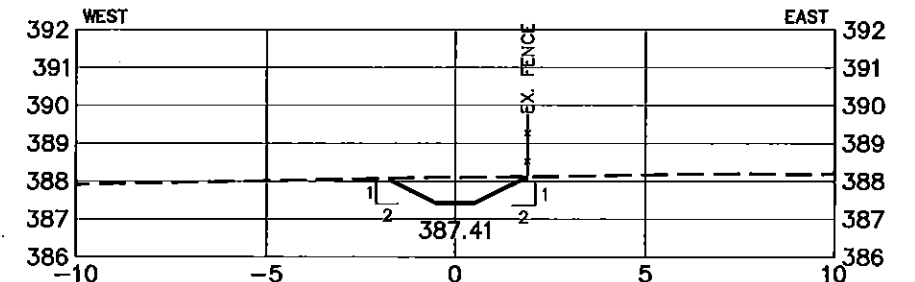
0+600



0+075



0+200



0+400

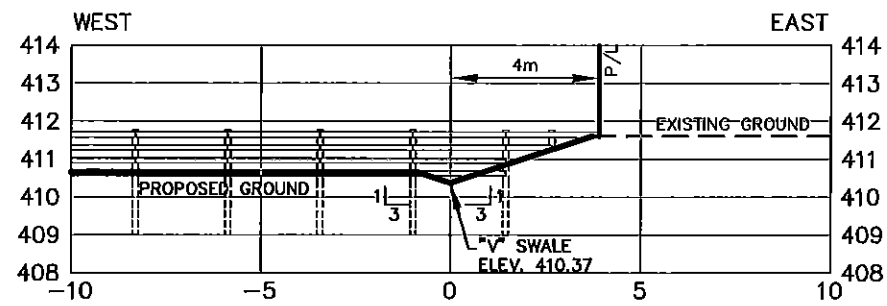
DESIGNED BY: N.W.M.		SCALE
CHECKED BY: N.W.M.		0 2 4m
DRAWN BY: N.M.B.		(SCALE 1:200)
CHECKED BY: N.W.M.		0 2 4m
		(SCALE 1:200)
		VERT.
		(ON 11"x17")

OSPRINGE DRAIN

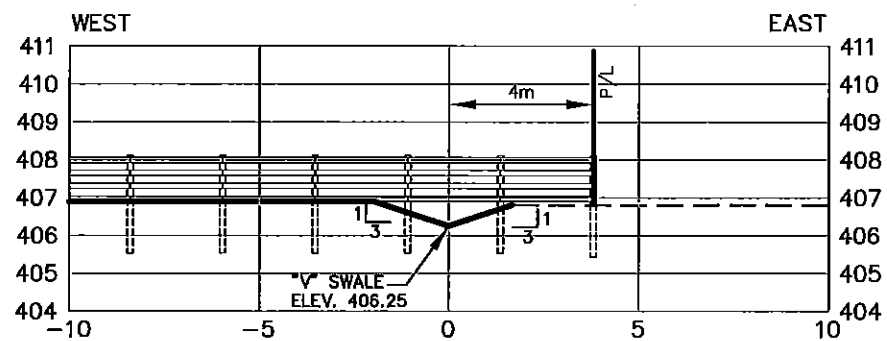
COUNTY OF WELLINGTON TOWN OF ERIN

MAIN DRAIN CROSS SECTIONS AUG. 23, 2019

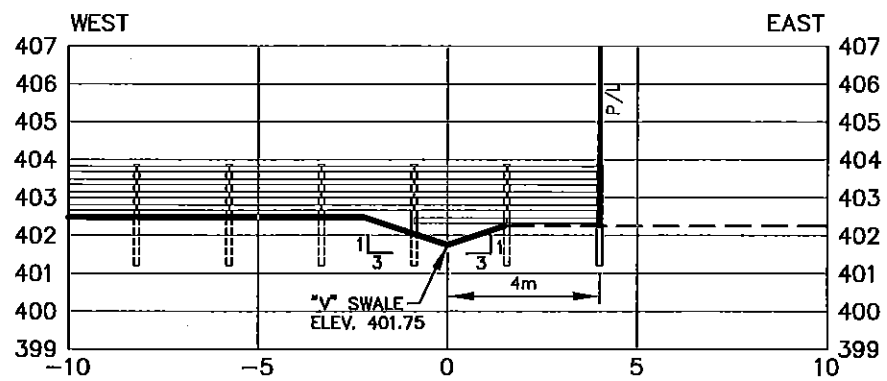
K. SMART ASSOCIATES LIMITED CONSULTING ENGINEERS AND PLANNERS KITCHENER SUDBURY	REVISED:
	JOB NUMBER: 18-074
	DRAWING: 14 OF 17



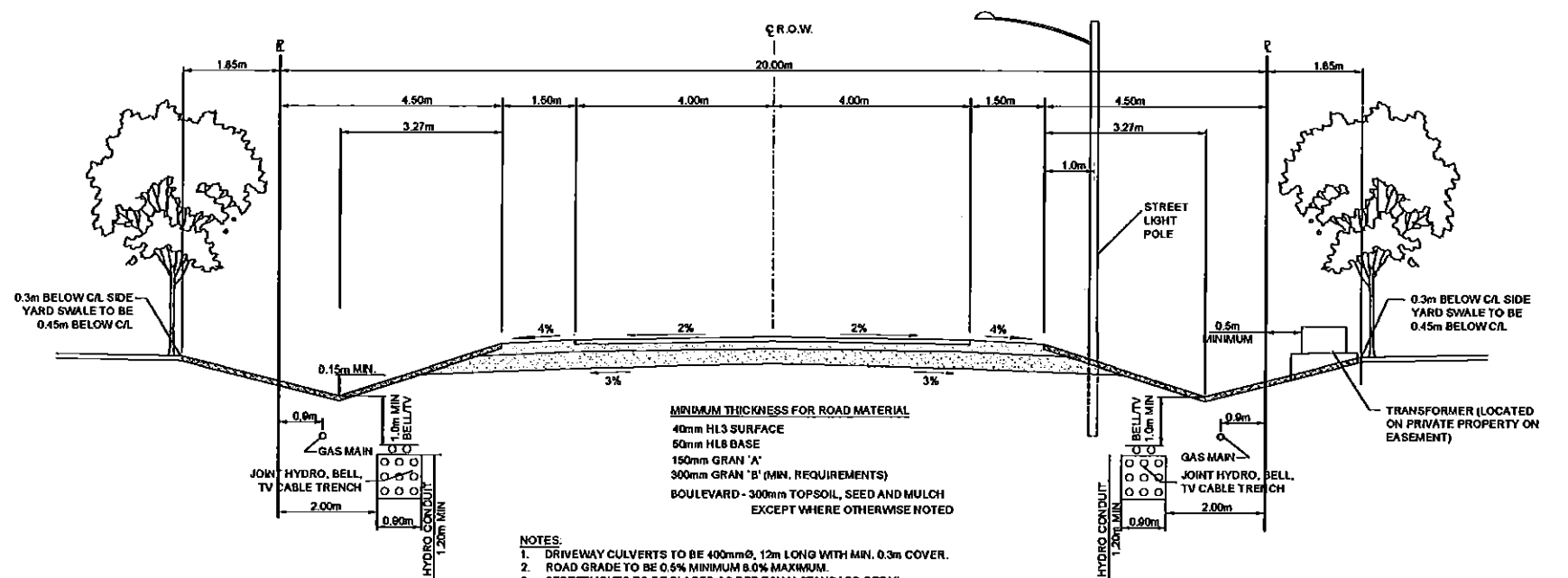
SOUTH BRANCH STA. 0+525



SOUTH BRANCH STA. 0+400

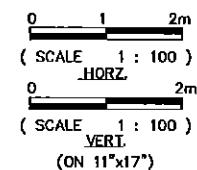
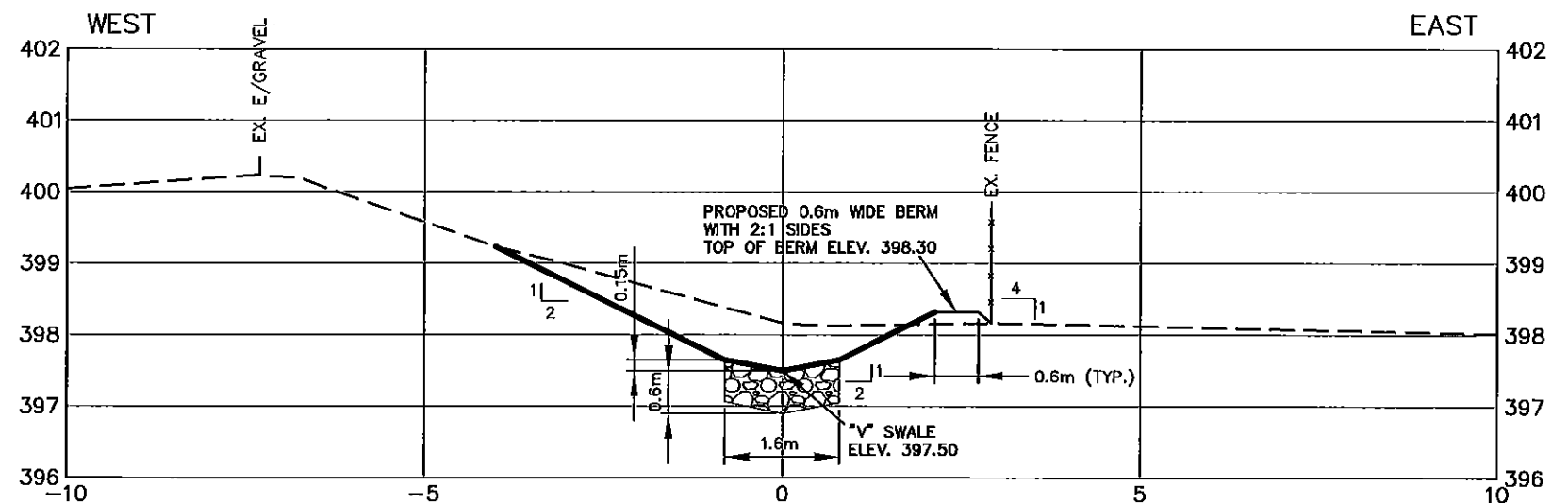


SOUTH BRANCH STA. 0+200



- NOTES:
1. DRIVEWAY CULVERTS TO BE 400mmØ, 12m LONG WITH MIN. 0.3m COVER.
 2. ROAD GRADE TO BE 0.5% MINIMUM 8.0% MAXIMUM.
 3. STREETLIGHTS TO BE PLACED AS PER TOWN STANDARD DETAIL.
 4. DITCH TO BE TOPSOILED AND SODDED FROM EDGE OF ROUNDING TO LIMIT OF RIGHT OF WAY.
 5. DITCH TO BE 0.9m MINIMUM DEPTH 1.2m MAXIMUM DEPTH WITH 1.0% MINIMUM INVERT SLOPE.
 6. TRANSFORMERS TO BE LOCATED ON DITCH BACKSLOPE WITH FRONT OF VAULT A MINIMUM OF 500mm FROM PROPERTY LINE.
- ALL MEASUREMENTS IN MILLIMETERS UNLESS OTHERWISE NOTED

TYPICAL 20m ROADWAY CROSS SECTION WITH DITCH
N.T.S.



DESIGNED BY: N.W.M.
CHECKED BY: N.W.M.
DRAWN BY: N.M.B.
CHECKED BY: N.W.M.



SCALE
0 2 4m
(SCALE 1:200)
HORZ.
0 4m
(SCALE 1:200)
VERT.
(ON 11\"/>

OSPRINGE DRAIN	
COUNTY OF WELLINGTON	TOWN OF ERIN
SOUTH BRANCH CROSS SECTIONS AND OTHER DETAILS	
AUG. 23, 2019	
REVISED:	
JOB NUMBER: 18-074	
DRAWING: 15 OF 17	

300) SPECIAL PROVISIONS

300.1) SPECIFIC NOTES

A description of the Drain for construction and future maintenance is as follows:

300.1.1) Main Drain

G.R.C.A. (Roll No. 005-09100)

- 1+200± - Construct temporary straw bale dam/sediment trap (or 10m of silt fence)
- 1+241 to 1+017 - Power brushing 15m width
- 1+200 to 1+017 - Excavate 183m of new ditch, 10m bottom with 300mm x 150mm notch and 2:1 side slopes
 - Seed with native wetland seed (10m width)
 - Spoil to be levelled on east side

M. Scholsch (Roll No. 005-09001)

- 1+017 to 0+975 - Excavate 42m of new ditch, 10m bottom with 300mm x 150mm notch and 2:1 side slopes
 - Seed with native wetland seed (10m width)
 - Spoil to be levelled on east side
- 1+017 to 0+903 - Power brushing 15m width
- 0+975 to 0+903 - Excavate 72m of new ditch (ditch cleanout), 2m bottom and 2:1 side slopes
 - Seed new banks (3m side)
 - Spoil to be levelled on east side
- 0+975 to 0+970 - Construct low flow crossing consisting of 2 – 5m lengths of 600mm dia. HDPE pipes and with 45m² of riprap
 - See detail on Drawing 8.
 - Existing timber footbridge to be removed and disposed of by the landowner.

G.R.C.A. (Roll No. 005-09100)

- 0+903 to 0+875 - Excavate 28m of new ditch (ditch cleanout), 2m bottom and 2:1 side slopes.
 - Seed new banks (3m sides)
 - Spoil to be levelled on east side
- 0+903 to 0+832 - Power brushing 10m width
- 0+875 to 0+832 - Existing ditch to remain and to be incorporated.
 - For future maintenance, ditch to be 2m bottom and 2:1 side slopes.
 - Spoil to be levelled on east side at time of maintenance.
 - 42m length of debris removal and disposal

B. Minor (Roll No. 005-06716)

- 0+832 to 0+740 - Existing ditch to remain and to be incorporated.
 - For future maintenance, ditch to be 2m bottom and 2:1 side slopes.
 - Spoil to be levelled on east side at time of maintenance.
 - 91m length of debris removal and disposal
- 0+775 to 0+740 - See detail on Drawing 8.
- 0+800 - Existing 14m of 1600mm dia. CSP laneway culvert to remain and to be incorporated. No work required.

G.R.C.A. (Roll No. 005-06715)

- 0+740 to 0+706 - Existing ditch to remain and to be incorporated.
 - For future maintenance, ditch to be 2m bottom and 2:1 side slopes.

- Spoil to be levelled on east side at time of maintenance.
- 36m length of debris removal and disposal

- 0+706 to 0+589 - Excavate 117m of new ditch (ditch cleanout), 1m bottom and 2:1 side slopes
 - Seed new banks (3m sides)
 - Spoil to be levelled on west side

- 0+740 to 0+675 - See detail on Drawing 8

- 0+600 to 0+589 - Power brushing (10m width)

1581319 Ontario Inc. (Roll No. 005-06714)

- 0+589 to 0+300 - Excavate 289m of new ditch (ditch cleanout), 1m bottom and 2:1 side slopes
 - Seed new banks (3m sides)
 - Spoil to be levelled on west side

- 0+400 to 0+300 - No work is to be done on Roll No. 005-06712

- 0+350 to 0+300 - See detail on Drawing 9

- 0+589 to 0+475 - Power brushing (10m width)

- 0+470 to 0+464 - Remove and dispose of existing 200mm plastic culvert and install 6m of 750mm dia. HDPE pipe laneway culvert with 3m² of riprap at each end (6m² riprap total) and laneway restoration

Elmira Farm Holdings Ltd. (Roll No. 005-06713) / W.J. Kline (Roll No. 005-06712)

- 0+300 to 0+088 - Excavate 212m of new ditch, 1m bottom and 2:1 side slopes.
 - Seed new banks (6m sides)
 - From Sta. 0+300 to 0+175, spoil to be levelled on west side (100mm thick)
 - From Sta. 0+175 to 0+088, spoil to be hauled away off site.
 - Do not disturb existing trees
 - No work is to be done on Roll No. 005-06712.
 - See details on Drawings 9 to 12.

- 0+125 to 0+100 - Construct 25m long x 0.6m wide earth berm with 2:1 side slopes along east bank

- 0+102 to 0+092 - Construct rock riffle (10m³ of rock)
 - See detail on Drawing 15

Wellington Road 125 (County of Wellington)

- 0+088 to 0+000 - See detail on Drawing 12

- 0+088 to 0+062 - Excavate 26m of ditch, 1m bottom and 2:1 side slopes
 - Seed new banks (9m sides)
 - Spoil to be hauled away off site

- 0+062 to 0+037 - Construct 25m of 600mm dia. HDPE pipe laneway crossing 2.5m± north of existing culvert and including 5m² of riprap at each end (10m² riprap total) and laneway restoration
 - Existing 20m of 450mm CSP culvert to remain and to be incorporated

- 0+037 to 0+029 - Excavate 8m of ditch, 1m bottom and 2:1 side slopes
 - Seed new banks (9m sides)
 - Spoil to be hauled away off site

- 0+029 - Regrade 31m of road ditch to the east
 - Construct 35m long x 0.4m high earth berm along north bank
 - Seed disturbed area (10m width)
 - Place 25m² of riprap on bends and berm
 - Spoil to be hauled away off site

- 0+029 to 0+000 - No work required. Existing 29m of 750mm dia. CSP road culvert to remain and to be incorporated.

300.1.2) SWM Pond

(See Details on Drawing 13)

Wellington Road 125 (County of Wellington)

- 0+000 - Incorporate 1200mm dia. precast concrete manhole (MH 5.3) with traffic rated frame and grate.

- 0+000 to -0+002 - Incorporate 2m of 600mm dia. concrete CL-3 storm sewer.

Thomasfield Homes Limited (Roll No. 005-05900) (SWM Block 62)

- 0+002 to -0+018 - Incorporate 15.7m of 600mm dia. concrete CL-3 storm sewer.

- 0+018 - Incorporate 1500mm dia. concrete double ditch inlet catchbasin manhole (DDICBMH 5.2) with honeycomb frame and grate

- 0+018 to -0+024 - Incorporate 6.6m of 300mm dia. PVC SDR 35 storm sewer

- 0+024 - Incorporate 1200 x 600mm concrete double ditch inlet catchbasin (DDICB 5.1) complete with 2:1 top slope, honeycomb frame and grate

Incorporate 77m± wide by 107m± long SWM pond consisting of:

- 150mm dia. orifice plate (on the 300mm storm sewer at -0+024)
- Stilling basins
- Forebays
- 450m² of riprap
- 90m² of asphalt overflow weir (HL-3, 50mm depth)
- 53m² of Turfstone
- 3m wide access path around pond

300.1.3) North Branch

Thomasfield Homes Limited (Roll No. 005-05900) (SWM Block 62 and Lot 55)

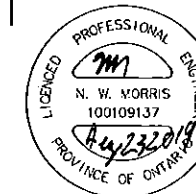
From 0+000 to 0+028 in on SWM Block 62 and from 0+028 to 0+077 is on Lot 55 in a 9m wide easement

- 0+000 - Incorporate precast concrete headwall for 525mm dia. pipe
 - Rodent gate at outlet

- 0+000 to 0+025 - Incorporate 25m of 525mm dia. concrete CL-3 storm sewer
 - See detail on Drawing 13

- 0+025 - Incorporate 1500mm dia. precast concrete manhole (MH 1.1) with traffic rated frame and grate

- 0+025 to 0+077 - Incorporate 52m of 525mm dia. concrete CL-3 storm sewer



Thomasfield Homes Limited (Roll No. 005-05900) (Broughton Street)

- 0+077 to 0+096 - Incorporate 19m of 525mm dia. concrete CL-3 storm sewer
- 0+096 - Incorporate 1500mm dia. precast concrete double ditch inlet catchbasin manhole (DDICBMH 1.2) with honeycomb frame and grate
- 0+096 to 0+114 - Incorporate 18m of 450mm dia. concrete CL-3 storm sewer
- 0+114 - Incorporate 1500mm dia. precast concrete double ditch inlet catchbasin manhole (DDICBMH 1.3) with honeycomb frame and grate
- 0+114 to 0+138 & 0+150 to 0+166 - Incorporate 40m of road ditch ("V" ditch with 3:1 side slopes)
- 0+138 to 0+150 - Incorporate 12m of 400mm dia. CSP (2.0mm wall, 68 x 13mm corrugations) driveway/laneway crossing.
- 0+166 to 0+178 - Incorporate 12m of 400mm dia. CSP (2.0mm wall, 68 x 13mm corrugations) driveway/laneway crossing.
- 0+178 to 0+182 - Incorporate 4m of swale ("V" ditch with 3:1 side slopes)

Thomasfield Homes Limited (Roll No. 005-05900) (Lots 52 and 53)

- 0+182 to 0+236 - Is on Lots 52 and 53 in a 9m wide easement (6m width on Lot 52 and 3m width on Lot 53)
- 0+182 to 0+228 - Incorporate 46m of swale ("V" ditch with 3:1 side slopes)
- 0+228 to 0+236 - Incorporate 8m of 300mm dia. CSP (2.0mm wall, 68 x 13mm corrugations) with 20m± of 0.9m high earth berm. Top of berm 409.61.

300.1.4) South Branch

Thomasfield Homes Limited (Roll No. 005-05900) (SWM Block 62 and Lots 59 & 60)

From Sta. 0+000 to 0+020 is on SWM Block 62
From Sta. 0+020 to 0+083 is on Lots 59 and 60 in a 9m wide easement (6m width on Lot 59 and 3m width on Lot 60)

- 0+000 - Incorporate Precast concrete headwall for 825mm dia. pipe
- Rodent gate at outlet
- 0+000 to 0+020± - See Detail on Drawing 13
- 0+000 to 0+083 - Incorporate 83m of 825mm dia. concrete CL-3 storm sewer

Thomasfield Homes Limited (Roll No. 005-05900) (McKinnon Street)

- 0+083 to 0+085 - Incorporate 2m of 825mm dia. concrete CL-3 storm sewer
- 0+085 - Incorporate 1500mm dia. precast concrete double ditch inlet catchbasin manhole (DDICBMH 2.1) with honeycomb frame and grate
- 0+085 to 0+103 - Incorporate 18m of 675mm dia. concrete CL-3 storm sewer
- 0+103 - Incorporate 1200 x 600mm concrete precast double ditch inlet catchbasin (DDICB 2.2) with honeycomb frame and grate
- 0+103 to 0+111 - Incorporate 8m of road ditch ("V" ditch with 3:1 side slopes)
- 0+111 to 0+114 - Incorporate 3m of swale ("V" ditch with 3:1 side slopes)

Thomasfield Homes Limited (Roll No. 005-05900) (Lots 1 to 11)

0+114 to 0+567 is on a 9m wide easement on each lot.

- 0+114 to 0+567 - Incorporate 447m of swale ("V" ditch with 3:1 side slopes) (Lot 1 - 90m, Lot 2 - 34m, Lot 3 - 33m, Lot 4 - 34m, Lot 5 - 34m, Lot 6 - 34m, Lot 7 - 35m, Lot 8 - 35m, Lot 9 - 36m, Lot 10 - 64m and Lot 11 - 18m)

300.2) GENERAL NOTES

300.2.1 Working Area

For work on the open ditch, the average working zone (areas) width is to be 10m on private lands.
Refer to Standard Specification 400.4 for exceptions.

300.2.2 Access - Standard Specification 400.5

The Contractor shall have access to the drain along the routes if any, shown on the plan. The access routes shall be along existing laneways or paths or where none exist, along a 6m wide (maximum) path. All specifications governing fences, livestock and crops during drain construction shall apply to access routes except where superseded by notes on the drawings. No other access routes shall be used unless first approved by the Engineer and affected landowners. The Contractor shall also contact each owner prior to using designated accesses. The landowner information will be supplied with the tender documents.
Telephone numbers for contact are:

005-09001	M. Schotsch	
005-06716	B. Minor	
005-06714	1581319 Ontario Inc.	(Available at time of tender)
005-06713	Elmira Farm Holdings Ltd.	
005-05900	Thomasfield Homes Ltd. (Tom McLaughlin, Tom Krizsan)	
005-09100, 005-06715	Grand River Conservation Authority (GRCA)	519-621-2761
Engineer (Neal Morris, P. Eng.)		519-748-1199 ext. 240
Town of Erin:		
	(Chris Clark, Drainage Superintendent)	519-831-0051
	(Greg Delfosse, Road Superintendent)	519-855-4407
	County of Wellington (Bruce McCormack)	519-837-2601
	One Call Centre	1-800-400-2055

300.2.3 Ditch Work Required

All construction on this project must use laser grade control for open work. Failure to do such may require forfeiture of the contract including tender deposit and payment for any work done.

a) General Note for Ditch Work on this Project

In all areas, the side of the drain for levelling spoil is to be the working side. Power brushing materials are preferred. Where materials are cut by chainsaw or excavated by a backhoe, materials are to be left in piles for the landowner to dispose of. Where bush is within 10m of the channel, such materials are to be pushed and windrowed in with or adjacent to the bush areas. All incidental brushing along the drain is to be included as part of the ditch work unless it is separately noted in the Specific Notes. All new ditch banks are to be seeded.

b) General re Open Drain Work

The open drains to be constructed will have cross-sectional dimensions as specified by the profiles and the Typical Sections on the drawings. Ditch bottom elevations are to be as shown on the profile drawings. Also, minimum bottom widths and bank slopes are shown by the typical sections and by the profile drawings. All spoil is to be levelled adjacent to the drain, and all banks where disturbed, are to be seeded the same day as excavation unless when requested otherwise. Standard Specification 410 applies for ditch work. Do not over-excavate any channel except if noted, do not unnecessarily disturb banks, and minimize bottom disturbance during root removal.

During future maintenance, all excavated materials are to be levelled on adjacent properties with the exception that any removed rock be hauled away.

300.2.4 Soil Conditions

The Wellington County soils mapping for this area indicates that the soils adjacent to this drain are Guelph loam (loam till, good drainage, smooth moderately sloping, slightly stony), London loam (loam till, imperfect drainage, smooth very gently sloping and slightly stony) and Muck (very poor drainage, smooth basin, stone free).

The Guelph loam soils are located in the N Pt Lot 13, Concession 2 and S Pt Lot 13, Concession 3, the London loam soils are located in the middle part of Lot 13, Concession 3 and the Muck soils are located in the N Pt Lot 13 along and for 270m± upstream of the Eramosa River.

The work in the Muck soils and working on mats is to be anticipated. A portion of the Guelph loam soils in the S Pt Lot 13, Concession 3 may have possible underground springs. It is anticipated that flowing sands may be encountered in this portions.

If pockets of poor soils conditions are encountered, the contingency price from the form of the tender will be paid by the linear meter upon the engineer's approval. This contingency price is based on increased costs relating to the contractors time and materials.

300.2.5 Native Seed (Seeding Mixture) (Main Drain, Sta. 1+200 to 0+029)

Use Ontario Seed Company (OSC) FACW wetland native seed mixture 8175 or approved equal. Seed mixture is to be applied at a rate of 3 kg per hectare, and is to contain:

- Bebb's Sedge (Carex bebbii)
- Blue Lobelia (Lobelia siphilitica)
- Blue Vervain (Verbena hastata)
- Blunt Broom Sedge (Carex scoparia)
- Boneset (Eupatorium perfoliatum)
- Fox Sedge (Carex vulpinoidea)
- Green Bulrush (Scirpus atrovirens),
- Heath Aster (Aster pilosus)
- Lurid Sedge (Carex lurida)
- New England Aster (Aster novae-angliae)
- Purple Stemmed Aster (Aster puniceus)
- Soft Rush (Juncus effusus)
- Spotted Joe Pye Weed (Eupatorium maculatum)
- Square Stemmed Monkey Flower (Mimulus ringens)
- Swamp Milkweed (Asclepias incarnata)
- Tall Mannagrass (Glyceria grandis)
- Virginia Wild Rye (Elymus virginicus)
- Woolgrass (Scirpus cyperinus)

