



**NOTES:**

- ROLL NUMBER CONVENTION IS AS FOLLOWS:
  - 301803000411100 IS SHOWN AS 3-4-11100
  - 301803000506800 IS SHOWN AS 3-5-06800
  - 301804000511601 IS SHOWN AS 4-5-11601
  - 301809001099705 IS SHOWN AS 9-0-99705

**BENCHMARKS:**

**BM#1**  
CC IN NW CORNER OF CONC. HEADWALL ON WEST SIDE NOTRE DAME ROAD AT 750mm $\phi$  OUTLET. ELEV. 360.467

**BM#2**  
CC IN NE CORNER OF CONCRETE HEADWALL AT SWM POND INLET ON S/SIDE REINHARDT PLACE. ELEV. 361.712

**BM#3**  
CC IN NW CORNER TOP 1.96x4.02m CONC. CULV ON W/SIDE OF NOTRE DAME ROAD WEST BOUND ON-RAMP N/SIDE HWY 7/8. ELEV. 355.086

**BM#4**  
CC IN NE CORNER TOP 1.96x4.02m CONC. CULV ON E/SIDE OF NOTRE DAME RD. W/BOUND ON-RAMP N/SIDE HWY 7/8. ELEV. 354.744

**BM#5**  
TOP OF A STEEL PIN ON TOP SE CORNER OF 1.96x4.02m CONC. CULVERT ON E/SIDE OF N.BOUND OFF RAMP FROM HWY 7/8. ELEV. 353.603

**BM#6**  
CC ON TOP SE CORNER OF 0.3m WIDE CONCRETE HEADWALL ON S/S OF SNYDER'S ROAD. ELEV. 360.416

**GBM (AKA 65-219, MNRF STATION 00819658219)**  
CONCRETE CULVERT BEING 1.2km WEST ALONG OLD HWY 7/8 FROM NEW FOUNDRY ST. SOUTH OF THE VILLAGE OF BADEN, 106.7m EAST ALONG OLD HWY 7/8 FROM HWY 7/8 AND 68.6m NORTH OF CENTER LINE OF OLD HWY 7/8. TABLET IS SET HORIZONTALLY IN NORTH END OF CULVERT 15cm WEST OF N.E. CORNER AND 52cm BELOW TOP. ELEV. 347.919

VERTICAL DATUM CGVD 28:78  
HORIZONTAL DATUM UTM NAD 83 ZONE 17N

**LEGEND:**

- WATERSHED
- SUBWATERSHED
- PROPOSED WORK OR INCORPORATION
- EXISTING DRAIN (NO WORK)
- DITCH OR WATERCOURSE
- LOTS AND CONCESSIONS
- 2+530** INTERVAL STATION
- 1213** STREET/ROAD ADDRESS
- (004-07900)** ASSESSMENT ROLL NUMBER
- WOODED AREA
- WETLAND (GRCA)
- DENOTES SAME OWNERSHIP ACROSS LINE

No.	DESCRIPTION	DATE
1	ON-SITE MEETINGS	JULY/OCTOBER 2019
2	AGENCY REVIEW	APRIL 2022
3	INFORMATION MEETING	AUGUST 2024

DESIGNED BY: J.E.M.  
CHECKED BY: J.E.M.  
DRAWN BY: A.M.P.  
CHECKED BY: J.E.M.

**SCALE**

0 300m  
1 : 15,000  
(ON 11"x 17")

PRELIMINARY

PETERSBURG DRAIN 2024

REGION OF WATERLOO TOWNSHIP OF WILMOT

WATERSHED PLAN

**K. SMART ASSOCIATES LIMITED**  
CONSULTING ENGINEERS AND PLANNERS  
KITCHENER SUDBURY

AUGUST 2024  
JOB NUMBER: 19-196  
DRAWING: 1



**NOTES:**

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  - 301803000506800 IS SHOWN AS 3-5-06800
  - 301804000511601 IS SHOWN AS 4-5-11601
  - 301809001099705 IS SHOWN AS 9-0-99705

**BENCHMARKS:**

**BM#1**  
CC IN NW CORNER OF CONC. HEADWALL ON WEST SIDE NOTRE DAME ROAD AT 750mm $\phi$  OUTLET. ELEV. 360.467

**BM#2**  
CC IN NE CORNER OF CONCRETE HEADWALL AT SWM POND INLET ON S/SIDE REINHART PLACE. ELEV. 361.712

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CC IN NW CORNER TOP 1.96x4.02m CONC. CULV ON W/SIDE OF NOTRE DAME ROAD WEST BOUND ON-RAMP N/SIDE HWY 7/8. ELEV. 355.086

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CC IN NE CORNER TOP 1.96x4.02m CONC. CULV ON E/SIDE OF NOTRE DAME RD. W/BOUND ON-RAMP N/SIDE HWY 7/8. ELEV. 354.744

**BM#5**  
TOP OF A STEEL PIN ON TOP SE CORNER OF 1.96x4.02m CONC. CULVERT ON E/SIDE OF N.BOUND OFF RAMP FROM HWY 7/8. ELEV. 353.603

**BM#6**  
CC ON TOP SE CORNER OF 0.3m WIDE CONCRETE HEADWALL ON S/S OF SNYDER'S ROAD. ELEV. 360.416

**GBM (AKA 65-219, MNRF STATION 00819658219)**  
CONCRETE CULVERT BEING 1.2km WEST ALONG OLD HWY 7/8 FROM NEW FOUNDRY ST. SOUTH OF THE VILLAGE OF BADEN, 106.7m EAST ALONG OLD HWY 7/8 FROM HWY 7/8 AND 68.6m NORTH OF CENTER LINE OF OLD HWY 7/8. TABLET IS SET HORIZONTALLY IN NORTH END OF CULVERT 15cm WEST OF N.E. CORNER AND 52cm BELOW TOP. ELEV. 347.919

VERTICAL DATUM CGVD 28:78  
HORIZONTAL DATUM UTM NAD 83 ZONE 17N

**LEGEND:**

- WATERSHED
- - - SUBWATERSHED
- PROPOSED WORK OR INCORPORATION
- EXISTING DRAIN (NO WORK)
- DITCH OR WATERCOURSE
- ▭ LOTS AND CONCESSIONS
- 2+530 INTERVAL STATION
- 1213 STREET/ROAD ADDRESS
- (004-07900) ASSESSMENT ROLL NUMBER
- ☼ WOODED AREA
- ☼ WETLAND (GRCA)
- Z DENOTES SAME OWNERSHIP ACROSS LINE

No.	DESCRIPTION	DATE
1	ON-SITE MEETINGS	JULY/OCTOBER 2019
2	AGENCY REVIEW	APRIL 2022
3	INFORMATION MEETING	AUGUST 2024

DESIGNED BY: J.E.M.  
CHECKED BY: J.E.M.  
DRAWN BY: A.M.P.  
CHECKED BY: J.E.M.

**PRELIMINARY**

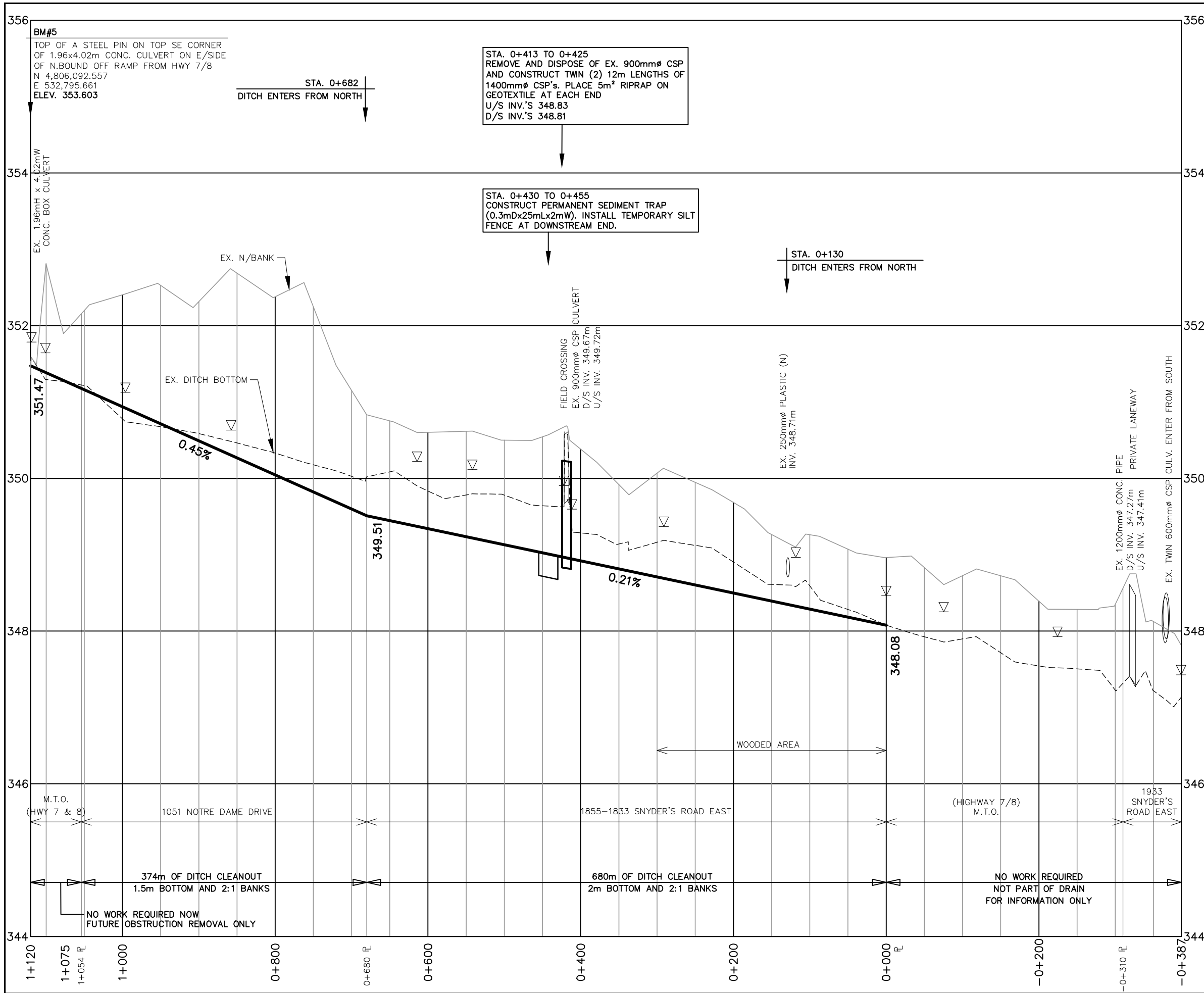
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1 : 4,000  
(ON 11"x 17")

**PETERSBURG DRAIN 2024**  
REGION OF WATERLOO TOWNSHIP OF WILMOT

**ENLARGEMENT PLAN**

**K. SMART ASSOCIATES LIMITED**  
CONSULTING ENGINEERS AND PLANNERS  
KITCHENER SUDBURY

**AUGUST 2024**  
JOB NUMBER: 19-196  
DRAWING: 2



**GENERAL NOTES:**

1. ANY UTILITY, WATERMAIN, SANITARY SEWER OR FORCEMAIN THAT MAY AFFECT THE LOCATION OR ELEVATION OF ANY STORM STRUCTURE OR STORM SEWER IS TO BE PRE-LOCATED PRIOR TO PLACEMENT OF STORM STRUCTURE OR STORM SEWER
2. ANY INCIDENTAL REMOVAL OF TREES/DEBRIS SHALL BE APPROVED BY ENGINEER PRIOR TO COMMENCING WORK

**SPECIAL PROVISIONS - CONSTRUCTION NOTES**

- MAIN DRAIN**
- 1855-1833 SNYDER'S ROAD EAST  
 0+000 TO 0+300 - CLOSE-CUT CLEARING FOR 10m WORKING CORRIDOR ALONG DRAIN
- 0+000 TO 0+680 - DITCH BOTTOM CLEANOUT, 2.0m BOTTOM & 2:1 BANKS LEVEL SPOIL AND PILE DEBRIS IN LANDOWNER APPROVED LOCATION.
- 0+413 TO 0+425 - REMOVE AND DISPOSE OF EXISTING 900mmØ CSP & CONSTRUCT TWIN (2) 12m LENGTHS OF 1400mmØ CSP'S. PLACE 5m² RIPRAP ON GEOTEXTILE AT EACH END (10m² TOTAL)
- 0+430 TO 0+455 - CONSTRUCT PERMANENT SEDIMENT TRAP (0.3mDx25mLx2mW). INSTALL TEMPORARY SILT FENCE AT DOWNSTREAM END.
- 0+680 - PLACE 10m² RIPRAP BANK PROTECTION ON SOUTH BANK AT DITCH JUNCTION
- 0+680 TO 1+054 - DITCH BOTTOM CLEANOUT, 1.5m BOTTOM & 2:1 SIDE SLOPES. LEVEL SPOIL AND PILE DEBRIS IN LANDOWNER APPROVED LOCATION.
- MTO**  
 1+054 T 1+120 - NO WORK REQUIRED NOW  
 - FUTURE MAINTENANCE AS NEEDED TO MAINTAIN EXISTING GRADE AND REMOVE OBSTRUCTIONS FROM CHANNEL CROSS-SECTION, GENERALLY 1.5m BOTTOM, AND 2:1 BANKS.  
 - ALL FUTURE MAINTENANCE ON MTO OPROPERTY TO BE COMPLETED PER MTO PERMIT REQUIREMENTS

**LEGEND:**

	0.50%	PROPOSED GRADE
	0.50%	PROPOSED OVERFLOW SWALE GRADE
	0.50%	GRADE FOR FUTURE MAINTENANCE

No.	DESCRIPTION	DATE
1	ON-SITE MEETINGS	JULY/OCTOBER 2019
2	AGENCY REVIEW	APRIL 2022
3	INFORMATION MEETING	AUGUST 2024

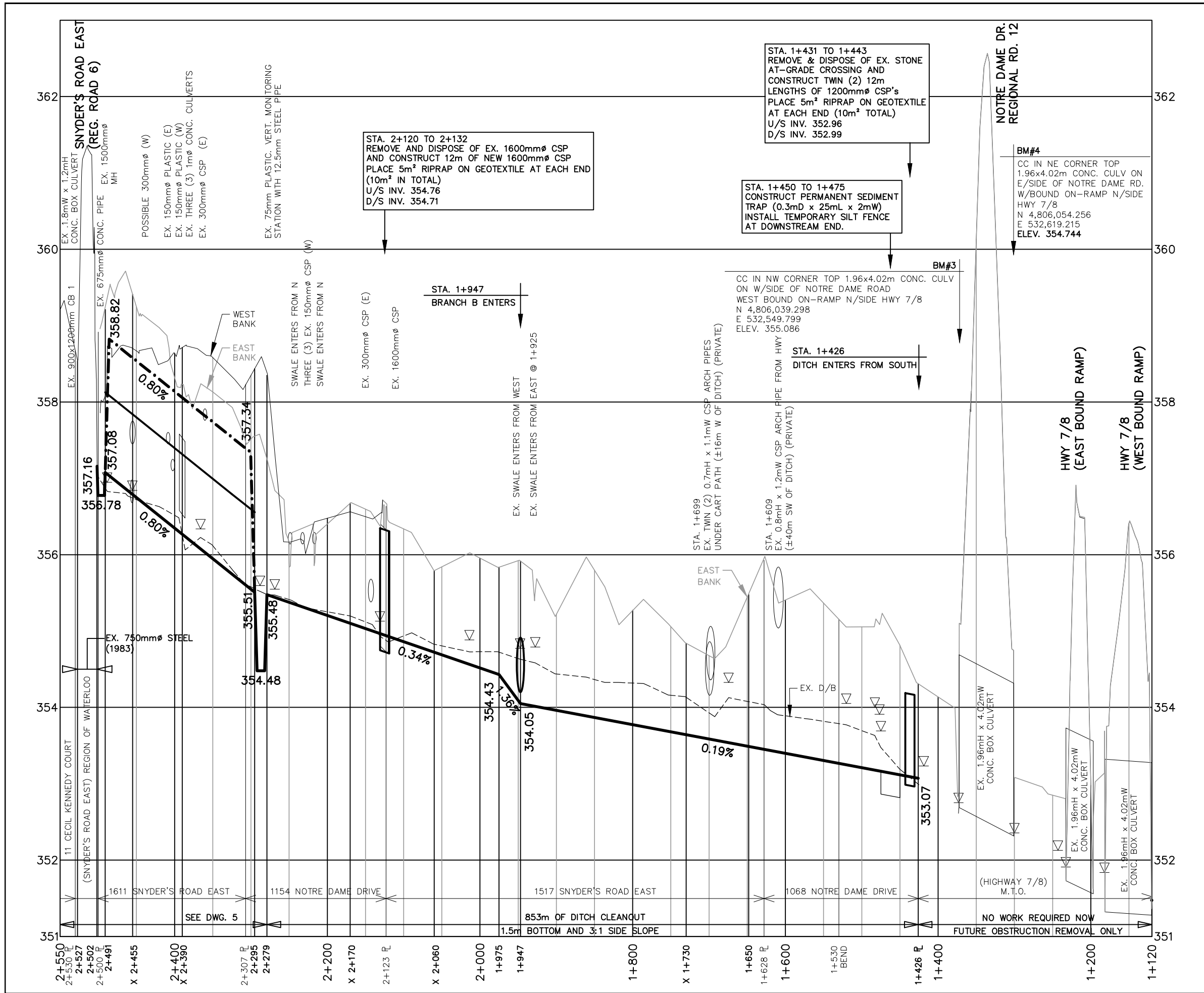
DESIGNED BY: J.E.M.	<b>PRELIMINARY</b>	<b>SCALE</b>  0 100m 1 : 5,000 (HORIZ.) 0 1m 1 : 50 (VERT.) (ON 11"x 17")
CHECKED BY: J.E.M.		
DRAWN BY: A.M.P.		
CHECKED BY: J.E.M.		

**PETERSBURG DRAIN 2024**

REGION OF WATERLOO TOWNSHIP OF WILMOT

**MAIN DRAIN PROFILE**  
 STATION -0+387 TO 1+120

	<b>K. SMART ASSOCIATES LIMITED</b> CONSULTING ENGINEERS AND PLANNERS KITCHENER SUDBURY	<b>AUGUST 2024</b>
		JOB NUMBER: <b>19-196</b>
		DRAWING <b>3</b>



**GENERAL NOTES:**

- ANY UTILITY, WATERMAIN, SANITARY SEWER OR FORCEMAIN THAT MAY AFFECT THE LOCATION OR ELEVATION OF ANY STORM STRUCTURE OR STORM SEWER IS TO BE PRE-LOCATED PRIOR TO PLACEMENT OF STORM STRUCTURE OR STORM SEWER
- ANY INCIDENTAL REMOVAL OF TREES/DEBRIS SHALL BE APPROVED BY ENGINEER PRIOR TO COMMENCING WORK

**SPECIAL PROVISIONS – CONSTRUCTION NOTES**

**MAIN DRAIN**

**MTO**

1+120 T 1+426 – NO WORK REQUIRED NOW  
 – FUTURE MAINTENANCE AS NEEDED TO MAINTAIN EXISTING GRADE AND REMOVE OBSTRUCTIONS FROM CHANNEL CROSS-SECTION, GENERALLY 1.5m BOTTOM, AND 2:1 BANKS.  
 – ALL FUTURE MAINTENANCE ON MTO PROPERTY TO BE COMPLETED PER MTO PERMIT REQUIREMENTS

**1068 NOTRE DAME DRIVE**

1+426 TO 1+628 – DITCH EXCAVATION. POOR SOIL CONDITIONS ANTICIPATED IN AREA OF DITCH EXCAVATION, MAINTAIN 1.5m BOTTOM AND 3:1 SIDE SLOPES TO AVOID BANK SLUMPING. LEVEL SPOIL AND DEBRIS IN LANDOWNER APPROVED LOCATION.

1+431 TO 1+443 – REMOVE AND DISPOSE OF EXISTING STONE AT-GRADE CROSSING AND CONSTRUCT TWIN (2) 12m LENGTHS OF 1200mm CSP's. PLACE 5m<sup>2</sup> RIPRAP ON GEOTEXTILE AT EACH END (10m<sup>2</sup> TOTAL).

1+450 TO 1+475 – CONSTRUCT PERMANENT SEDIMENT TRAP (0.3mDx25mLx2mW). INSTALL TEMPORARY SILT FENCE AT DOWNSTREAM END.

**1517 SNYDER'S ROAD EAST**

1+628 TO 2+123 – DITCH EXCAVATION. POOR SOIL CONDITIONS ANTICIPATED IN AREA OF DITCH EXCAVATION, MAINTAIN 1.5m BOTTOM AND 3:1 SIDE SLOPES TO AVOID BANK SLUMPING. LEVEL SPOIL AND DEBRIS IN LANDOWNER APPROVED LOCATION.

2+120 TO 2+132 – REMOVE AND DISPOSE OF EXISTING 1600mm CSP AND CONSTRUCT 12m OF NEW 1600mm CSP. PLACE 5m<sup>2</sup> RIPRAP ON GEOTEXTILE AT EACH END (10m<sup>2</sup> IN TOTAL).

**1154 NOTRE DAME DRIVE**

2+132 TO 2+279 – DITCH EXCAVATION. POOR SOIL CONDITIONS ANTICIPATED IN AREA OF DITCH EXCAVATION, MAINTAIN 1.5m BOTTOM AND 3:1 SIDE SLOPES TO AVOID BANK SLUMPING. LEVEL SPOIL AND DEBRIS IN LANDOWNER APPROVED LOCATION.

2+279 TO 2+295 – CONSTRUCT PERMANENT STILLING POOL, SEE DWG. 5 FOR DETAIL.

**LEGEND:**

**0.50%** PROPOSED GRADE  
**0.50%** PROPOSED OVERFLOW SWALE GRADE  
**0.50%** GRADE FOR FUTURE MAINTENANCE

No.	DESCRIPTION	DATE
1	ON-SITE MEETINGS	JULY/OCTOBER 2019
2	AGENCY REVIEW	APRIL 2022
3	INFORMATION MEETING	AUGUST 2024

DESIGNED BY: J.E.M.  
 CHECKED BY: J.E.M.  
 DRAWN BY: A.M.P.  
 CHECKED BY: J.E.M.

**PRELIMINARY**

**SCALE**

0 100m  
 1 : 5,000 (HORIZ.)  
 0 1m  
 1 : 50 (VERT.)  
 (ON 11"x 17")

**PETERSBURG DRAIN 2024**

REGION OF WATERLOO TOWNSHIP OF WILMOT

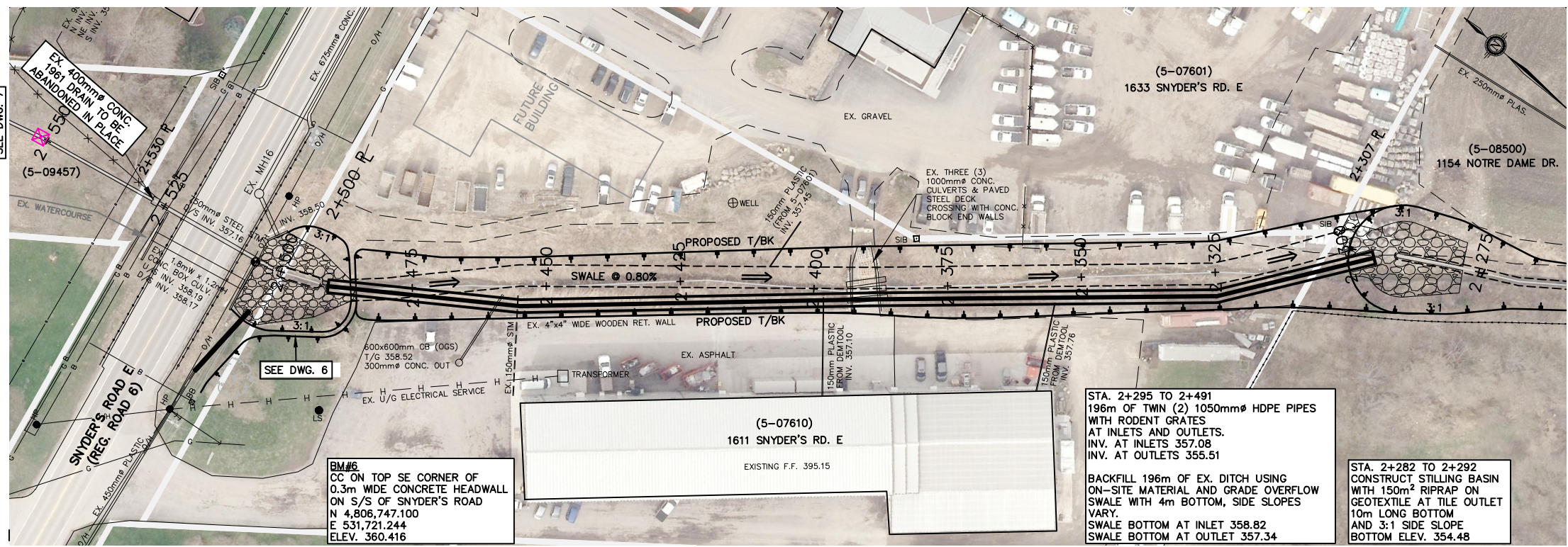
**MAIN DRAIN PROFILE**

STATION 1+125 TO 2+550

**AUGUST 2024**

JOB NUMBER: 19-196  
 DRAWING: 4

**K. SMART ASSOCIATES LIMITED**  
 CONSULTING ENGINEERS AND PLANNERS  
 KITCHENER SUDBURY



**GENERAL NOTES:**

- ANY UTILITY, WATERMAIN, SANITARY SEWER OR FORCEMAIN THAT MAY AFFECT THE LOCATION OR ELEVATION OF ANY STORM STRUCTURE OR STORM SEWER IS TO BE PRE-LOCATED PRIOR TO PLACEMENT OF STORM STRUCTURE OR STORM SEWER
- ANY INCIDENTAL REMOVAL OF TREES/DEBRIS SHALL BE APPROVED BY ENGINEER PRIOR TO COMMENCING WORK

**SPECIAL PROVISIONS — CONSTRUCTION NOTES**

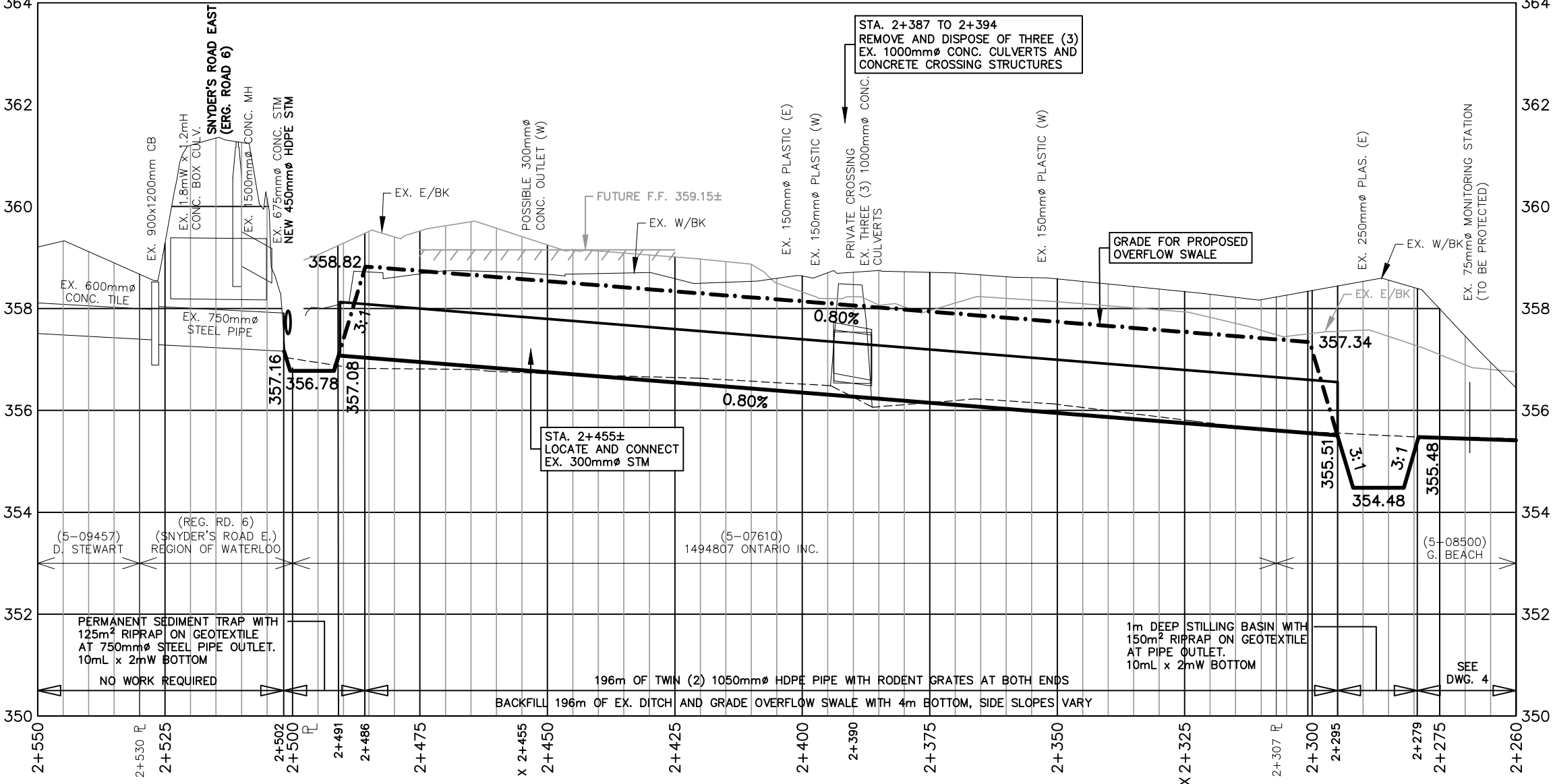
- MAIN DRAIN**
- 1154 NOTRE DAME DRIVE**  
 2+279 TO 2+295 — CONSTRUCT PERMANENT STILLING POOL WITH 10mLx1.5mW BOTTOM AND 3:1 SIDE SLOPES. PLACE 150m<sup>2</sup> RIPRAP ON GEOTEXTILE AT PIPE OUTLET.
- 1611 SNYDER'S ROAD EAST**  
 2+295 TO 2+491 — 196m OF TWIN (2) 1050mm $\phi$  HDPE PIPES WITH RODENT GRATES AT INLET
- 2+295 TO 2+486 — BACKFILL EXISTING DITCH USING ON-SITE MATERIAL & GRADE OVERFLOW SWALE WITH 4m BOTTOM, SIDE SLOPES VARY.
- 2+387 TO 2+394 — REMOVE AND DISPOSE OF THREE (3) EXISTING 1000mm $\phi$  CONC. CULVERTS AND CROSSING STRUCTURE WITH CONC. BLOCK END WALLS.
- 2+455 $\pm$  — LOCATE AND CONNECT EX. 300mm $\phi$  STM PIPE TO NEW 1050mm $\phi$  HDPE WITH 300x1050x300mm HDPE TEE
- 2+491 TO 2+502 — SEE DRAWING 5A FOR DETAIL
- SNYDER'S ROAD EAST (REGION OF WATERLOO)**  
 SEE DRAWING 5A FOR DETAIL

STA. 2+295 TO 2+491  
 196m OF TWIN (2) 1050mm $\phi$  HDPE PIPES WITH RODENT GRATES AT INLETS AND OUTLETS.  
 INV. AT INLETS 357.08  
 INV. AT OUTLETS 355.51

BACKFILL 196m OF EX. DITCH USING ON-SITE MATERIAL AND GRADE OVERFLOW SWALE WITH 4m BOTTOM, SIDE SLOPES VARY.  
 SWALE BOTTOM AT INLET 358.82  
 SWALE BOTTOM AT OUTLET 357.34

STA. 2+282 TO 2+292  
 CONSTRUCT STILLING BASIN WITH 150m<sup>2</sup> RIPRAP ON GEOTEXTILE AT TILE OUTLET  
 10m LONG BOTTOM AND 3:1 SIDE SLOPE  
 BOTTOM ELEV. 354.48

**BM#6**  
 CC ON TOP SE CORNER OF 0.3m WIDE CONCRETE HEADWALL ON S/S OF SNYDER'S ROAD N 4,806,747.100  
 E 531,721.244  
 ELEV. 360.416



**LEGEND:**

- 0.50%** PROPOSED GRADE
- 0.50%** PROPOSED OVERFLOW SWALE GRADE
- 0.50%** GRADE FOR FUTURE MAINTENANCE
- ⊠** FLAG SURVEYED WHERE EXISTING DRAIN LOCATED

No.	DESCRIPTION	DATE
1	ON-SITE MEETINGS	JULY/OCTOBER 2019
2	AGENCY REVIEW	APRIL 2022
3	INFORMATION MEETING	AUGUST 2024

DESIGNED BY: J.E.M.  
 CHECKED BY: J.E.M.  
 DRAWN BY: A.M.P.  
 CHECKED BY: J.E.M.

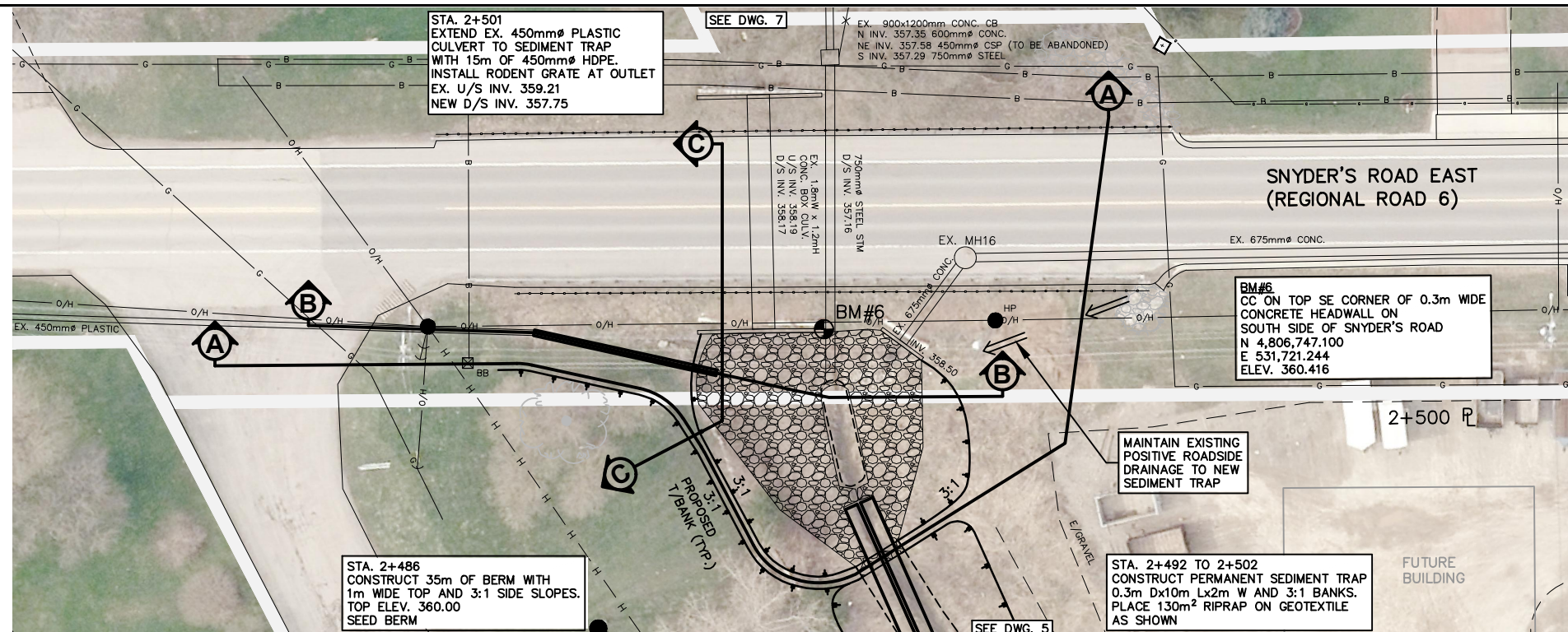
**PRELIMINARY**

**SCALE**  
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 0 2m  
 1 : 100 (VERT.)  
 (ON 11"x 17")

**PETERSBURG DRAIN 2024**  
 REGION OF WATERLOO TOWNSHIP OF WILMOT  
**MAIN DRAIN PLAN AND PROFILE**  
 STATION 2+260 TO 2+550

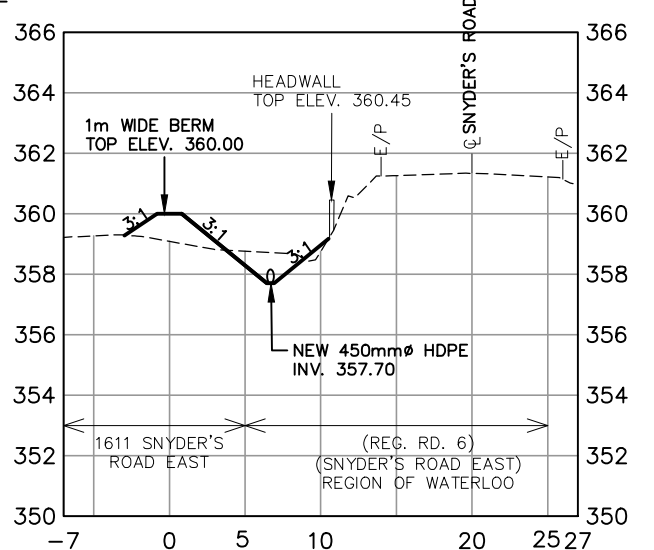
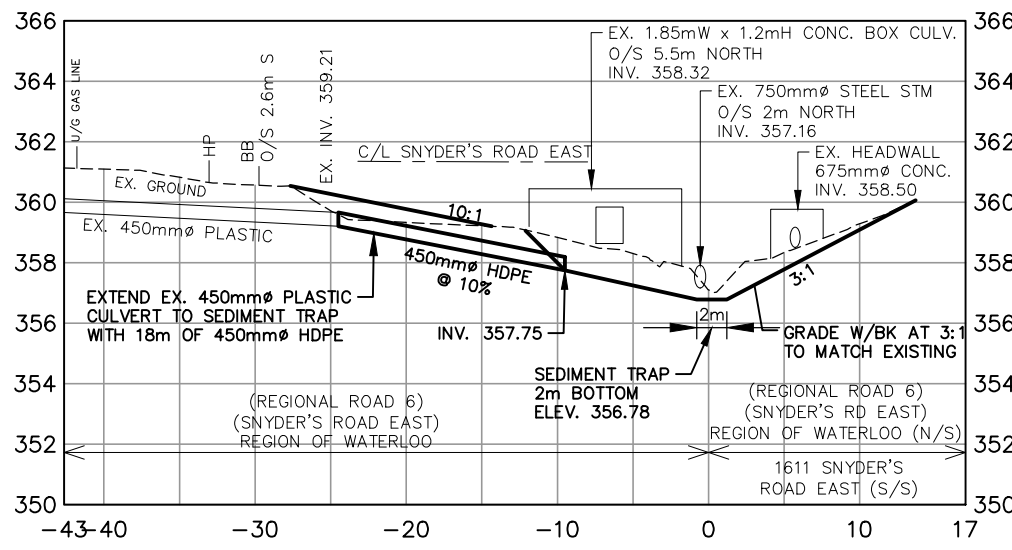
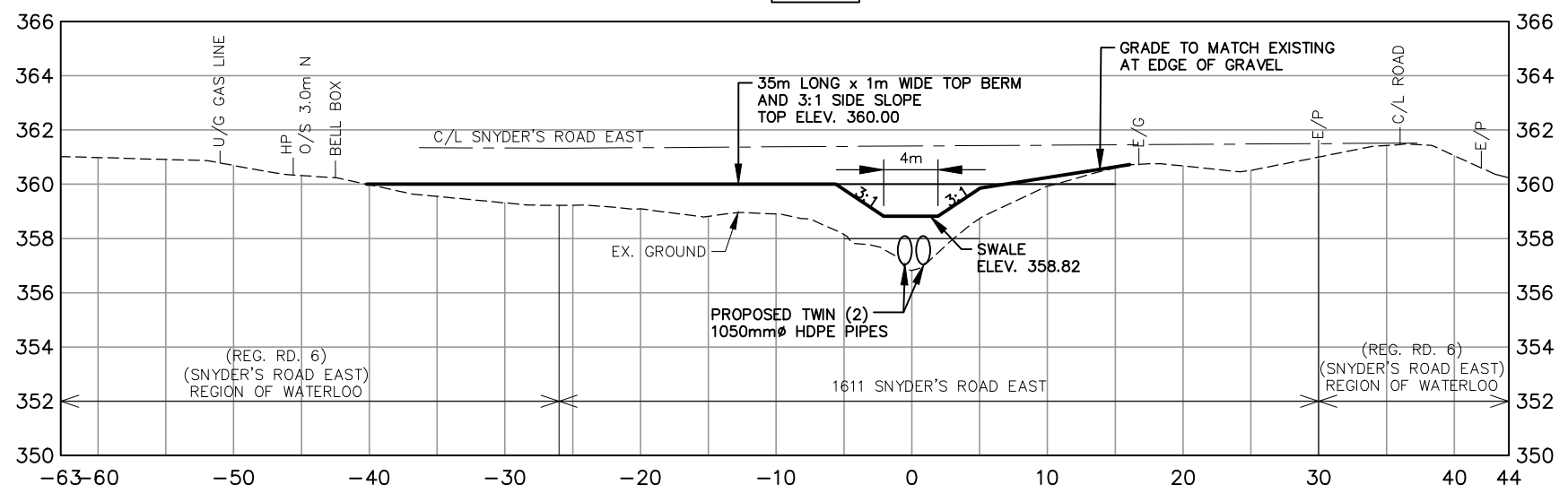
**K. SMART ASSOCIATES LIMITED**  
 CONSULTING ENGINEERS AND PLANNERS  
 KITCHENER SUBURBY

**AUGUST 2024**  
 JOB NUMBER: 19-196  
 DRAWING 5



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  - ANY INCIDENTAL REMOVAL OF TREES/DEBRIS SHALL BE APPROVED BY ENGINEER PRIOR TO COMMENCING WORK
  - RESTORE BOULEVARD AND RESIDENTIAL PRIVATE PROPERTY WITH SALVAGED TOPSOIL (150mm THICK MIN.) & HYDROSEED. RESTORE AGRICULTURAL AREAS WITH SALVAGED TOPSOIL (150mm THICK MIN.) AND SEED.
  - LEVEL SPOIL AND DEBRIS IN LANDOWNER-APPROVED LOCATIONS.

- SPECIAL PROVISIONS - CONSTRUCTION NOTES**
- MAIN DRAIN**
- 1611 SNYDER'S ROAD EAST  
 2+486 - CONSTRUCT 35m OF BERM WITH 1m WIDE TOP AND 3:1 SIDE SLOPES. SEED BERM.
- 2+492 TO 2+502 - CONSTRUCT PERMANENT SEDIMENT TRAP 0.3m D $\times$ 10m L $\times$ 2m W WITH 3:1 SIDE SLOPES. PLACE 125m<sup>2</sup> RIPRAP ON GEOTEXTILE AT DOWNSTREAM SIDE OF EXISTING ROAD CROSSINGS.
- 2+501 - EXTEND EXISTING 450mm $\phi$  PLASTIC CULVERT TO SEDIMENT TRAP WITH 15m OF 450mm $\phi$  HDPE. INSTALL RODENT GRATE AT OUTLET.



No.	DESCRIPTION	DATE
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3	INFORMATION MEETING	AUGUST 2024

DESIGNED BY: J.E.M.  
 CHECKED BY: J.E.M.  
 DRAWN BY: A.M.P.  
 CHECKED BY: J.E.M.

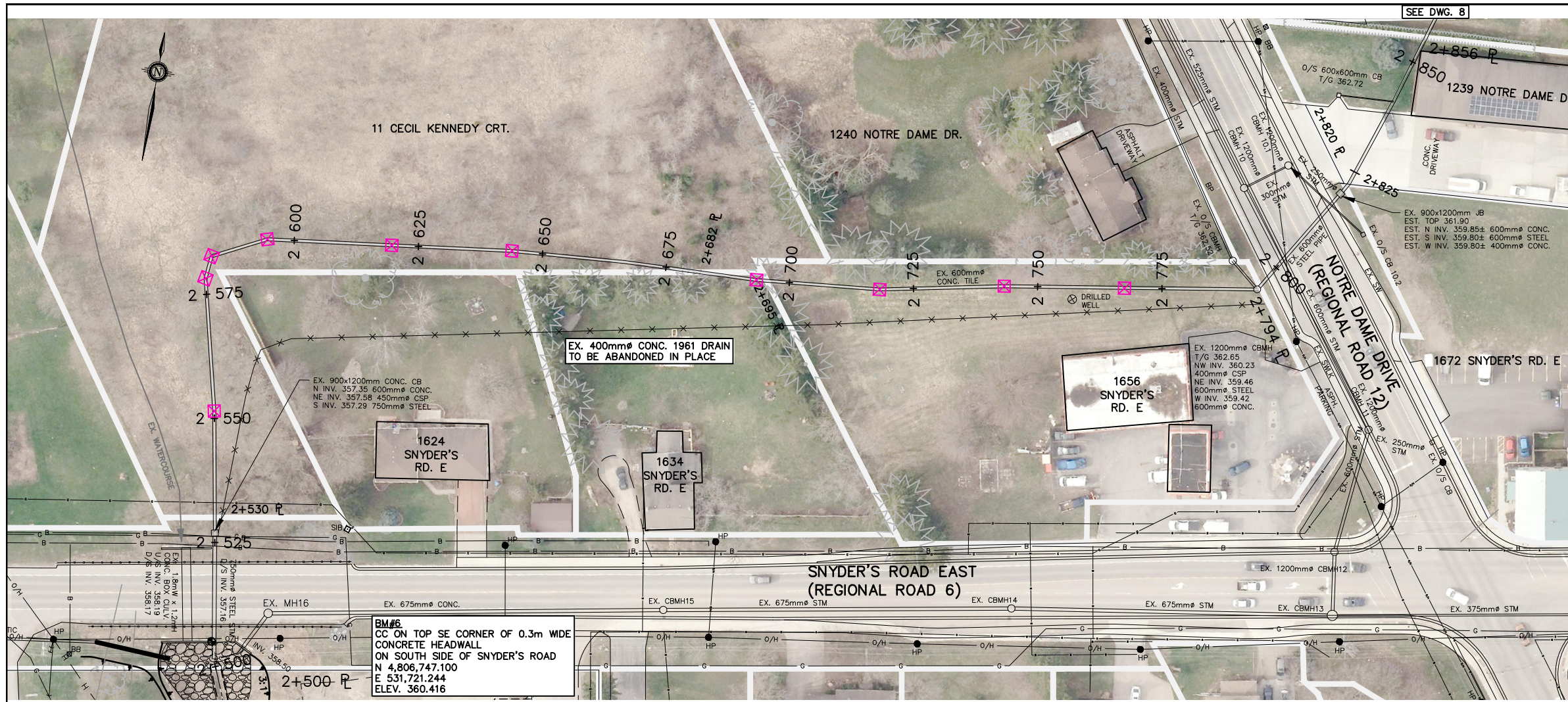
**PRELIMINARY**

**SCALE**  
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 0 5m  
 1 : 250 (VERT.)

**PETERSBURG DRAIN 2024**  
 REGION OF WATERLOO TOWNSHIP OF WILMOT  
**MAIN DRAIN - SNYDER'S ROAD EAST DETAIL**  
 STATION 2+500

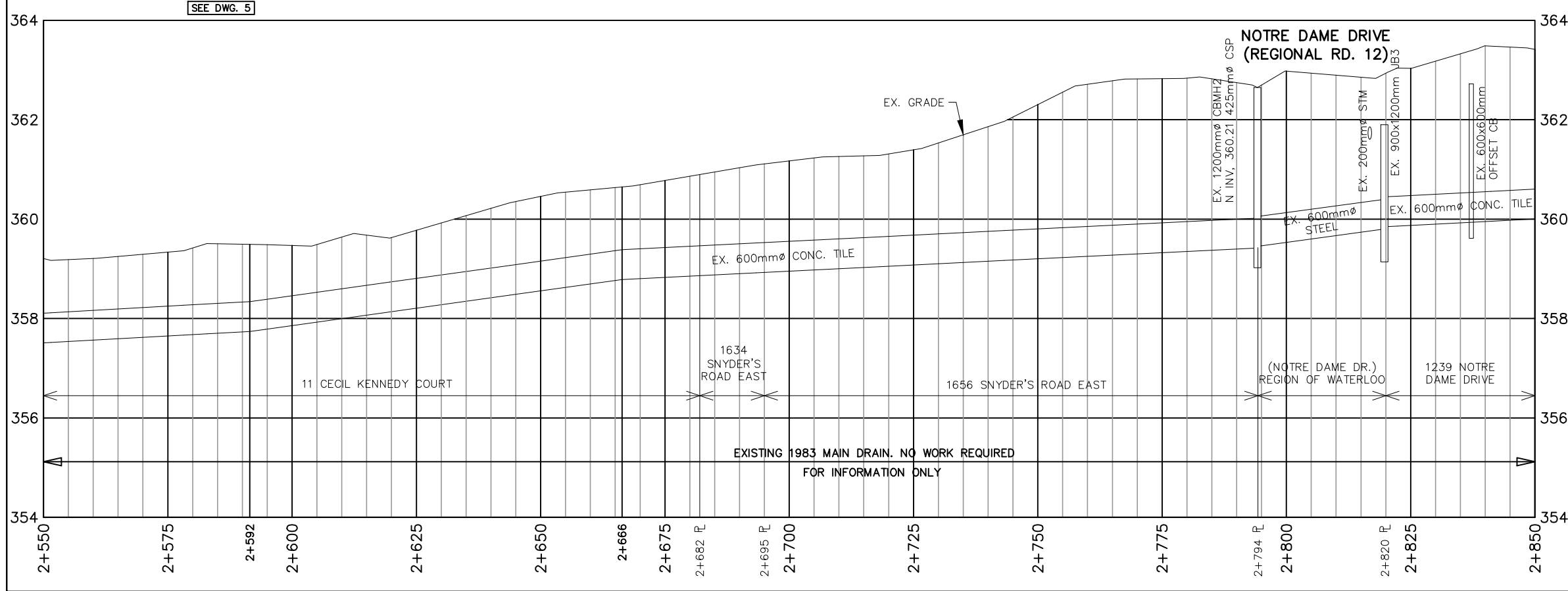
**K. SMART ASSOCIATES LIMITED**  
 CONSULTING ENGINEERS AND PLANNERS  
 KITCHENER SUDBURY

**AUGUST 2024**  
 JOB NUMBER: 19-196  
 DRAWING 6



- GENERAL NOTES:**
1. ANY UTILITY, WATERMAIN, SANITARY SEWER OR FORCEMAIN THAT MAY AFFECT THE LOCATION OR ELEVATION OF ANY STORM STRUCTURE OR STORM SEWER IS TO BE PRE-LOCATED PRIOR TO PLACEMENT OF STORM STRUCTURE OR STORM SEWER
  2. ANY INCIDENTAL REMOVAL OF TREES/DEBRIS SHALL BE APPROVED BY ENGINEER PRIOR TO COMMENCING WORK

**SPECIAL PROVISIONS — CONSTRUCTION NOTES**



- LEGEND:**
- 0.50% PROPOSED GRADE
  - 0.50% PROPOSED OVERFLOW SWALE GRADE
  - 0.50% GRADE FOR FUTURE MAINTENANCE
  - FLAG SURVEYED WHERE EXISTING DRAIN LOCATED

No.	DESCRIPTION	DATE
1	ON-SITE MEETINGS	JULY/OCTOBER 2019
2	AGENCY REVIEW	APRIL 2022
3	INFORMATION MEETING	AUGUST 2024

DESIGNED BY: J.E.M.  
 CHECKED BY: J.E.M.  
 DRAWN BY: A.M.P.  
 CHECKED BY: J.E.M.

**PRELIMINARY**

**SCALE**  
 0 20m  
 1 : 1,000 (HORIZ.)  
 0 2m  
 1 : 100 (VERT.)  
 (ON 11"x 17")

**PETERSBURG DRAIN 2024**  
 REGION OF WATERLOO TOWNSHIP OF WILMOT

**MAIN DRAIN PLAN AND PROFILE (1983)**  
 STATION 2+550 TO 2+850

**K. SMART ASSOCIATES LIMITED**  
 CONSULTING ENGINEERS AND PLANNERS  
 KITCHENER SUBURBY

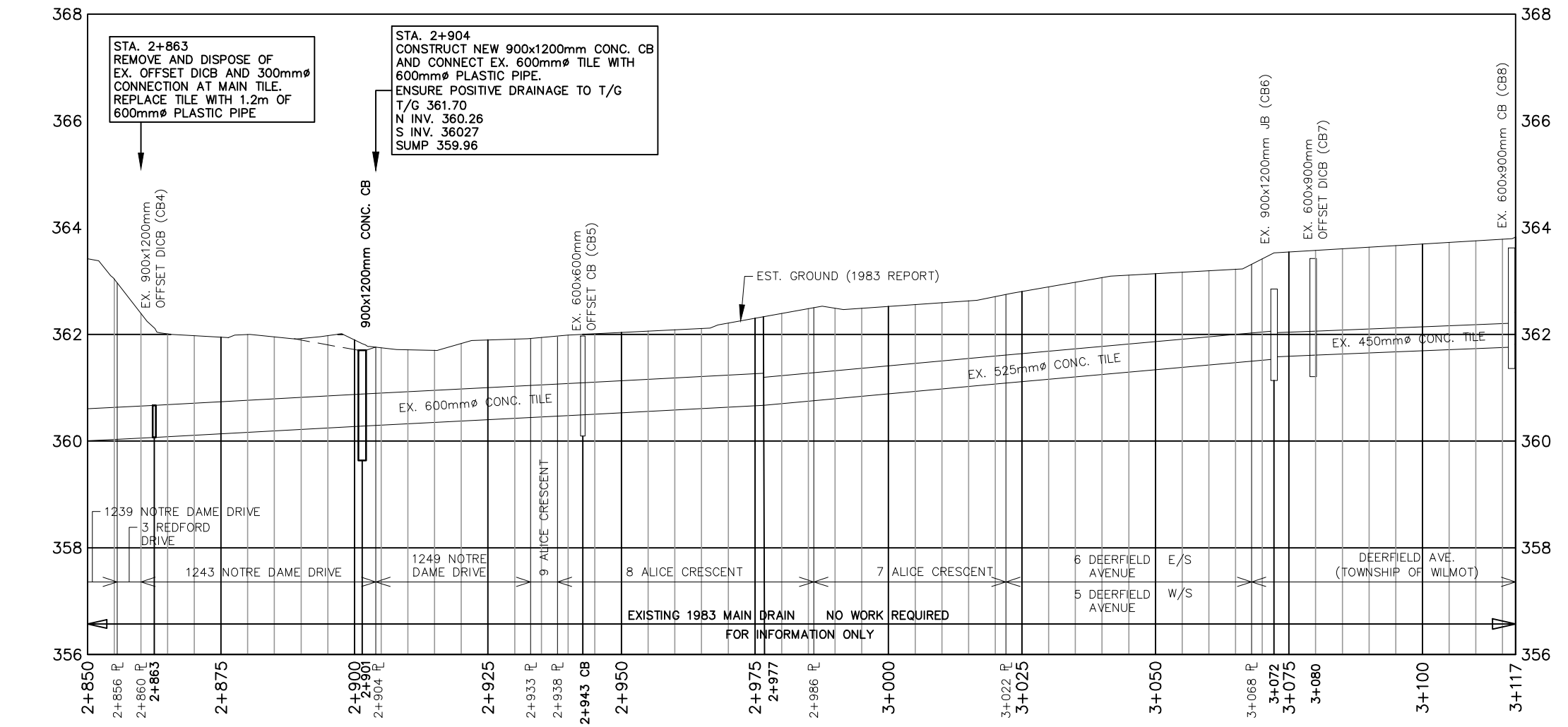
**AUGUST 2024**  
 JOB NUMBER: 19-196  
 DRAWING 7



**GENERAL NOTES:**

1. ANY UTILITY, WATERMAIN, SANITARY SEWER OR FORCEMAIN THAT MAY AFFECT THE LOCATION OR ELEVATION OF ANY STORM STRUCTURE OR STORM SEWER IS TO BE PRE-LOCATED PRIOR TO PLACEMENT OF STORM STRUCTURE OR STORM SEWER
2. ANY INCIDENTAL REMOVAL OF TREES/DEBRIS SHALL BE APPROVED BY ENGINEER PRIOR TO COMMENCING WORK

**SPECIAL PROVISIONS — CONSTRUCTION NOTES**



**LEGEND:**

- 0.50%** PROPOSED GRADE
- 0.50%** PROPOSED OVERFLOW SWALE GRADE
- 0.50%** GRADE FOR FUTURE MAINTENANCE

No.	DESCRIPTION	DATE
1	ON-SITE MEETINGS	JULY/OCTOBER 2019
2	AGENCY REVIEW	APRIL 2022
3	INFORMATION MEETING	AUGUST 2024

DESIGNED BY: J.E.M.  
 CHECKED BY: J.E.M.  
 DRAWN BY: A.M.P.  
 CHECKED BY: J.E.M.

PRELIMINARY

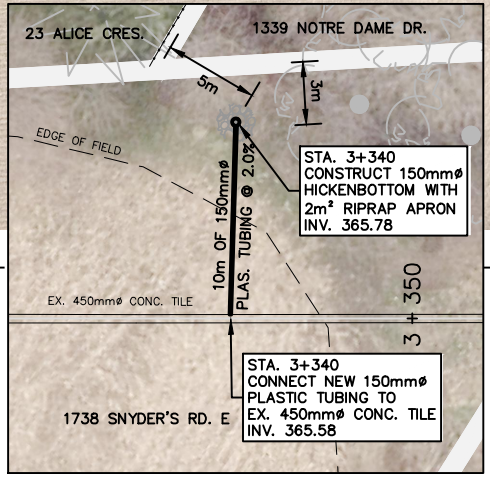
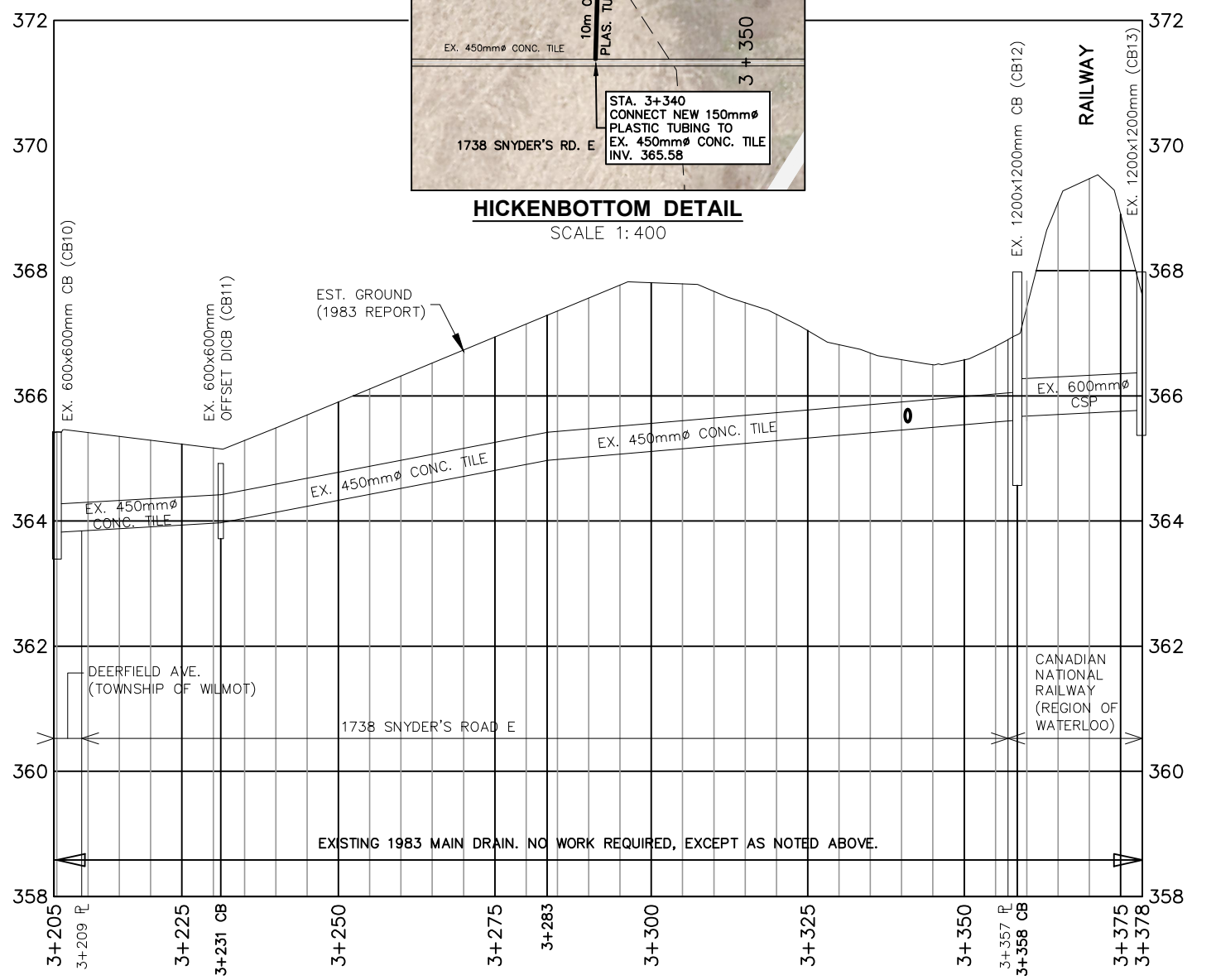
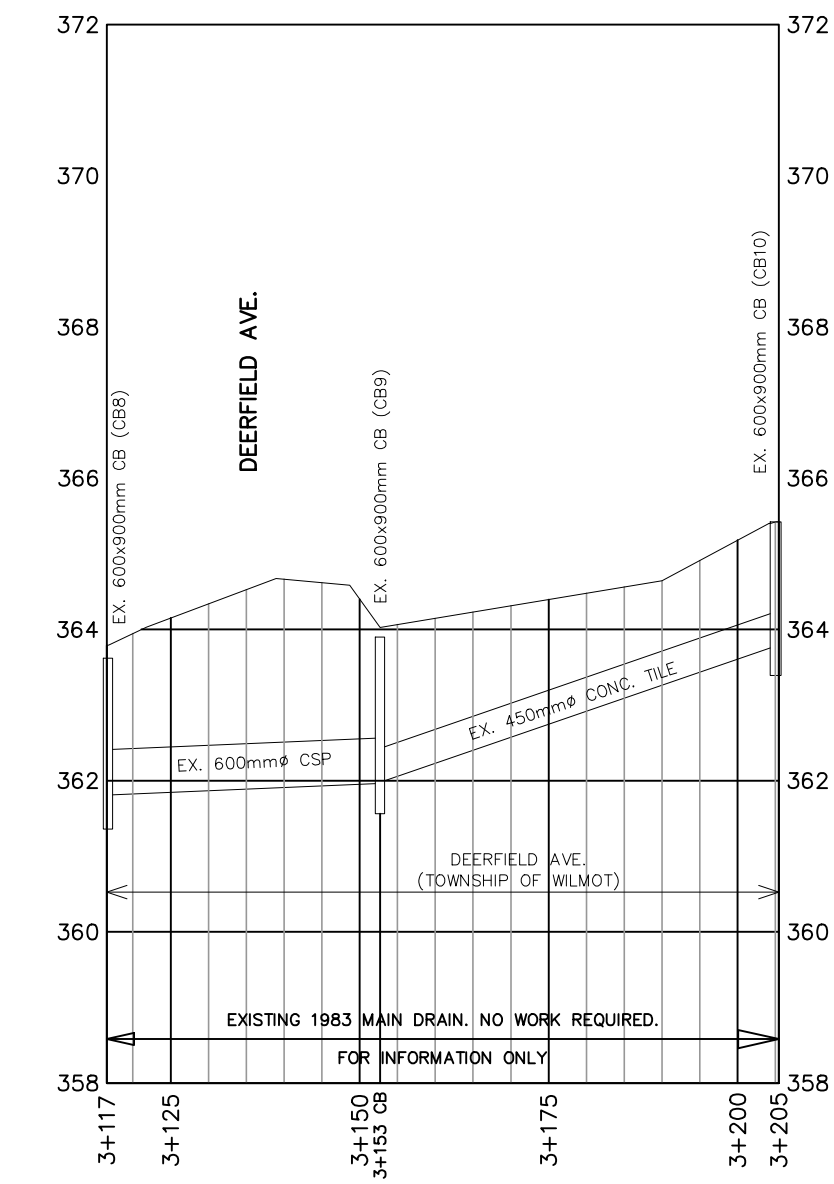
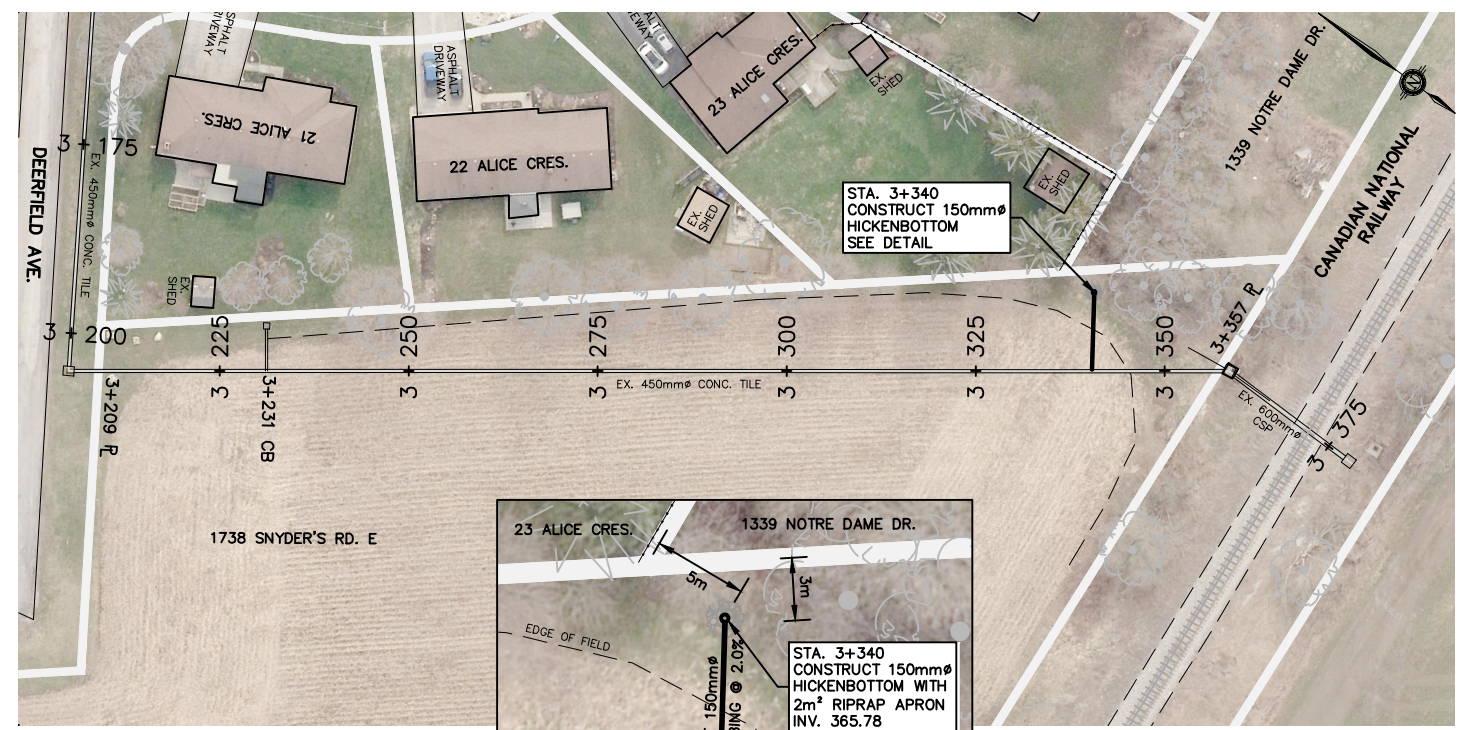
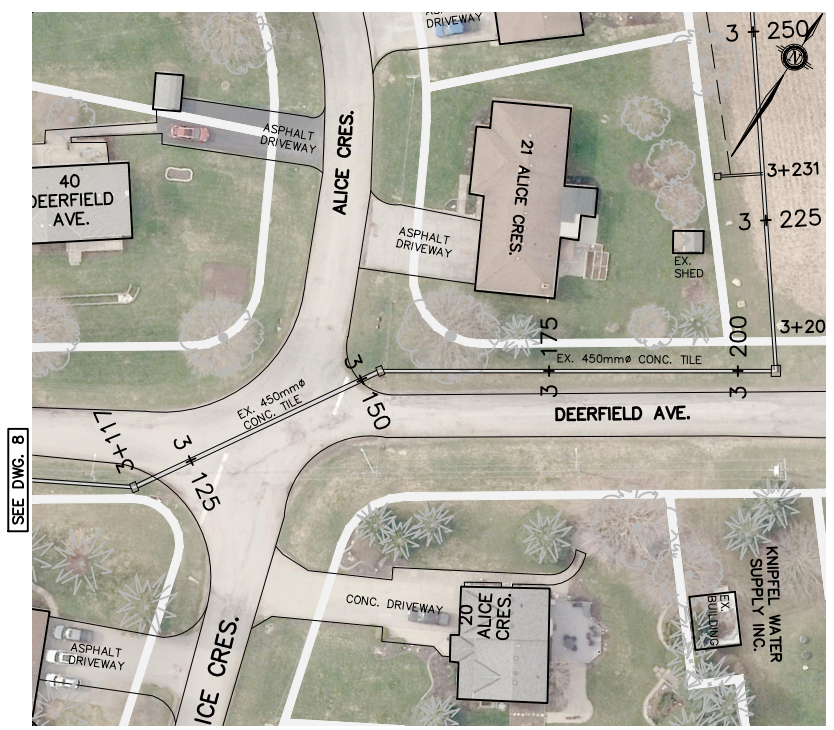
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 0 20m  
 1 : 1,000 (HORIZ.)  
 0 2m  
 1 : 100 (VERT.)  
 (ON 11"x 17")

**PETERSBURG DRAIN 2024**  
 REGION OF WATERLOO TOWNSHIP OF WILMOT  
**MAIN DRAIN PLAN AND PROFILE (1983)**  
 STATION 2+850 TO 3+117

**K. SMART ASSOCIATES LIMITED**  
 CONSULTING ENGINEERS AND PLANNERS  
 KITCHENER SUBURBY

**AUGUST 2024**  
 JOB NUMBER: **19-196**  
 DRAWING **8**





**HICKENBOTTOM DETAIL**  
SCALE 1:400

- GENERAL NOTES:**
- ANY UTILITY, WATERMAIN, SANITARY SEWER OR FORCEMAIN THAT MAY AFFECT THE LOCATION OR ELEVATION OF ANY STORM STRUCTURE OR STORM SEWER IS TO BE PRE-LOCATED PRIOR TO PLACEMENT OF STORM STRUCTURE OR STORM SEWER
  - ANY INCIDENTAL REMOVAL OF TREES/DEBRIS SHALL BE APPROVED BY ENGINEER PRIOR TO COMMENCING WORK

**SPECIAL PROVISIONS — CONSTRUCTION NOTES**  
MAIN DRAIN  
1738 SNYDER'S ROAD EAST  
3+340 — CONSTRUCT 150mmØ HICKENBOTTOM WITH 2m² RIPRAP APRON ON GEOTEXTILE  
— CONNECT NEW HICKENBOTTOM TO EX. 450mmØ CONC. TILE WITH 10m OF 150mmØ PLASTIC TUBING.

**LEGEND:**

	0.50%	PROPOSED GRADE
	0.50%	PROPOSED OVERFLOW SWALE GRADE
	0.50%	GRADE FOR FUTURE MAINTENANCE

No.	DESCRIPTION	DATE
1	ON-SITE MEETINGS	JULY/OCTOBER 2019
2	AGENCY REVIEW	APRIL 2022
3	INFORMATION MEETING	AUGUST 2024

DESIGNED BY: J.E.M.  
CHECKED BY: J.E.M.  
DRAWN BY: A.M.P.  
CHECKED BY: J.E.M.

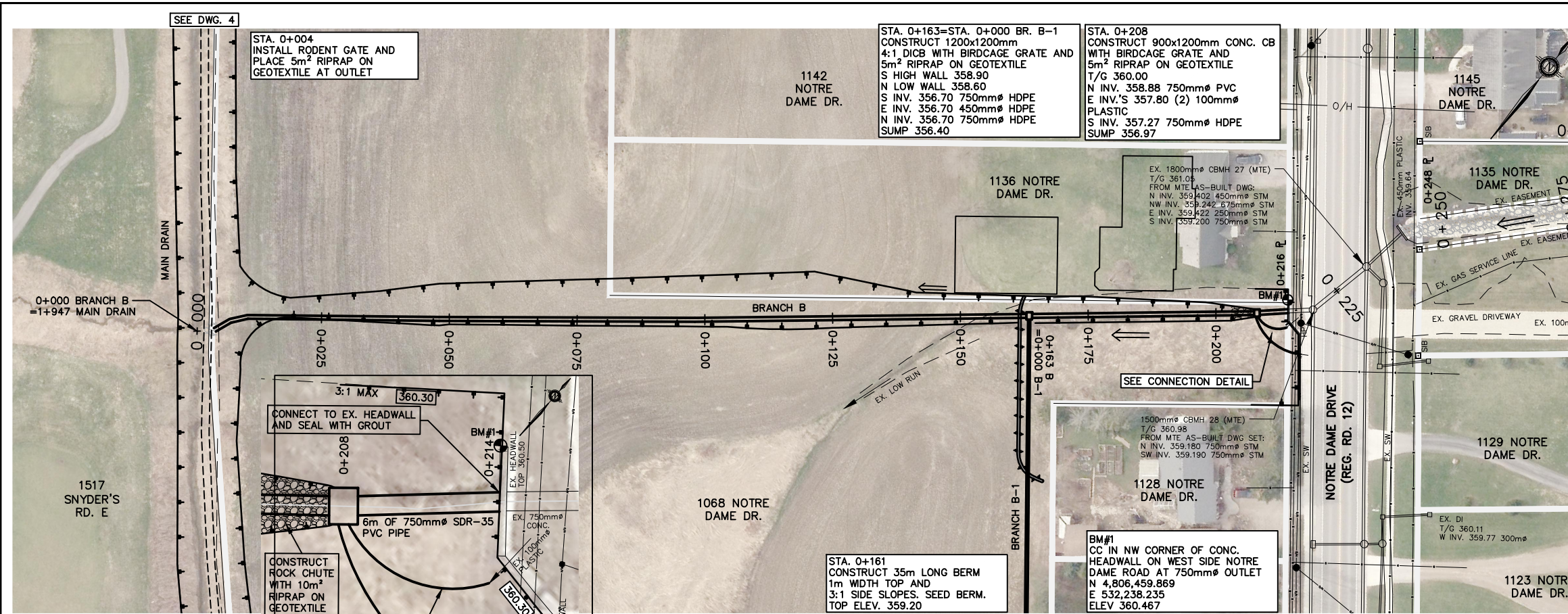
**PRELIMINARY**

**SCALE**  
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1 : 1,000 (HORIZ.)  
0 2m  
1 : 100 (VERT.)  
(ON 11"x 17")

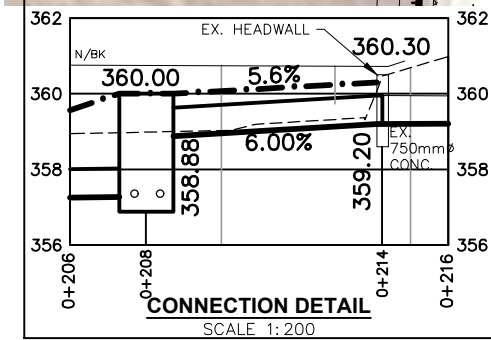
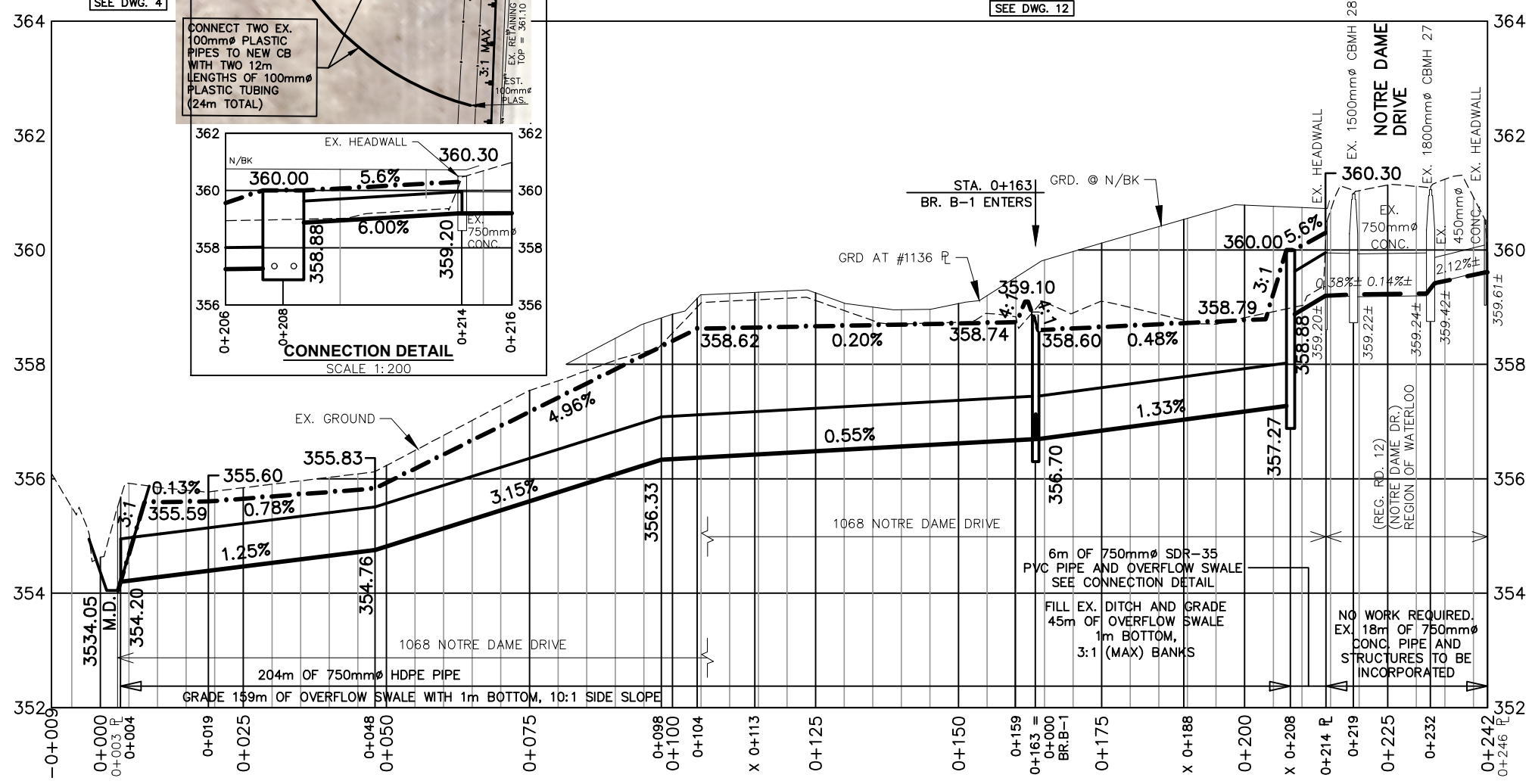
**PETERSBURG DRAIN 2024**  
REGION OF WATERLOO TOWNSHIP OF WILMOT  
**MAIN DRAIN PLAN AND PROFILE (1983)**  
STATION 3+117 TO 3+381

**K. SMART ASSOCIATES LIMITED**  
CONSULTING ENGINEERS AND PLANNERS  
KITCHENER SUBURBY

**AUGUST 2024**  
JOB NUMBER: 19-196  
DRAWING 9



- GENERAL NOTES:**
- ANY UTILITY, WATERMAIN, SANITARY SEWER OR FORCEMAIN THAT MAY AFFECT THE LOCATION OR ELEVATION OF ANY STORM STRUCTURE OR STORM SEWER IS TO BE PRE-LOCATED PRIOR TO PLACEMENT OF STORM STRUCTURE OR STORM SEWER
  - ANY INCIDENTAL REMOVAL OF TREES/DEBRIS SHALL BE APPROVED BY ENGINEER PRIOR TO COMMENCING WORK
- SPECIAL PROVISIONS - CONSTRUCTION NOTES**
- BRANCH B**
- 1068 NOTRE DAME DRIVE  
 0+004 - INSTALL RODENT GATE AND PLACE 5m<sup>2</sup> RIPRAP ON GEOTEXTILE AT OUTLET
- 0+004 TO 0+163 - 159m OF 750mm $\phi$  HDPE PIPE
- 0+004 TO 0+159 - GRADE 159m OF OVERFLOW SWALE WITH 1m BOTTOM & 10:1 SIDE SLOPES
- 0+161 - CONSTRUCT 30m LONG BERM WITH 1m WIDE TOP & 3:1 SIDE SLOPES. SEED BERM.
- 0+163 - CONSTRUCT 1200x1200mm CONCRETE 4:1 DICB, INCLUDING CONNECTIONS, BIRDCAGE GRATE & 5m<sup>2</sup> OF RIPRAP ON GEOTEXTILE
- 0+163 TO 0+208 - 45m OF 750mm $\phi$  HDPE PIPE
- 0+163 TO 0+214 - GRADE 51m OF OVERFLOW SWALE WITH 1m BOTTOM AND 3:1 (MAX) SIDE SLOPES, INCLUDES HAULING, PLACEMENT A GRADING OF MATERIAL TO BACKFILL AROUND PIPE FROM STA. 0+208 TO 0+214.
- 0+208 - CONSTRUCT 900x1200mm CONCRETE CB, INCLUDING CONNECTIONS, BIRDCAGE GRATE & 5m<sup>2</sup> RIPRAP ON GEOTEXTILE  
 - CONNECT 2 EXISTING 100mm $\phi$  PLASTIC PIPES TO NEW CB WITH 12m OF 100mm $\phi$  PLASTIC TUBING (24m TOTAL).  
 - CONSTRUCT ROCK CHUTE WITH 10m<sup>2</sup> RIPRAP ON GEOTEXTILE.
- 0+208 TO 0+214 - CONNECT TO EXISTING HEADWALL WITH 6m OF 750mm $\phi$  SMOOTH WALL PVC SDR 35 PIPE. GROUT CONNECTION.
- NOTRE DAME DR. (REGION OF WATERLOO)**
- 0+214 TO 0+242 - NO WORK REQUIRED. 18m OF EXISTING 450mm $\phi$ /750mm $\phi$  PIPES AND STRUCTURES TO BE INCORPORATED.



- LEGEND:**
- 0.50%** PROPOSED GRADE
  - 0.50%** PROPOSED OVERFLOW SWALE GRADE
  - 0.50%** GRADE FOR FUTURE MAINTENANCE

No.	DESCRIPTION	DATE
1	ON-SITE MEETINGS	JULY/OCTOBER 2019
2	AGENCY REVIEW	APRIL 2022
3	INFORMATION MEETING	AUGUST 2024

DESIGNED BY: J.E.M.  
 CHECKED BY: J.E.M.  
 DRAWN BY: A.M.P.  
 CHECKED BY: J.E.M.

**PRELIMINARY**

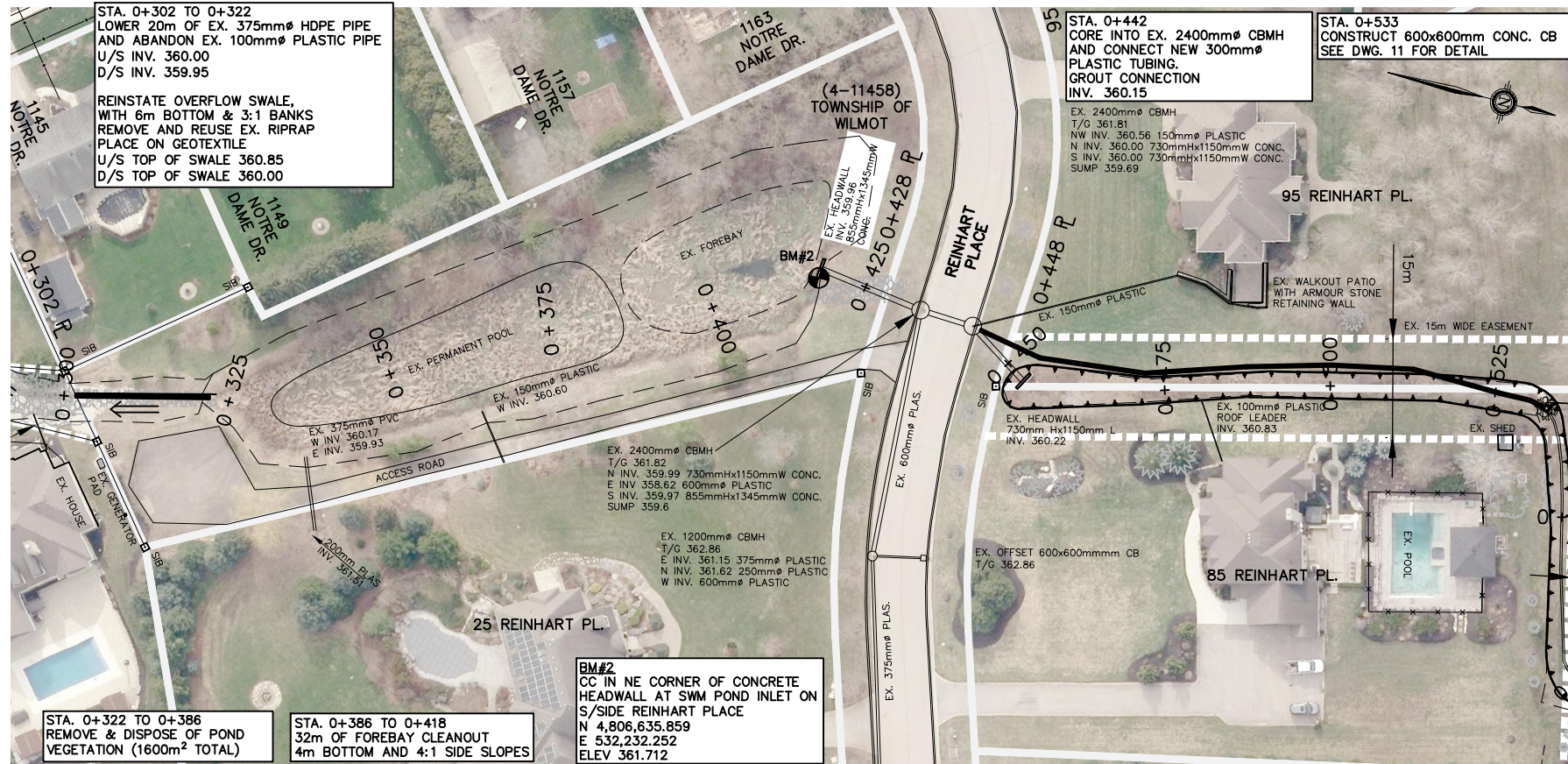
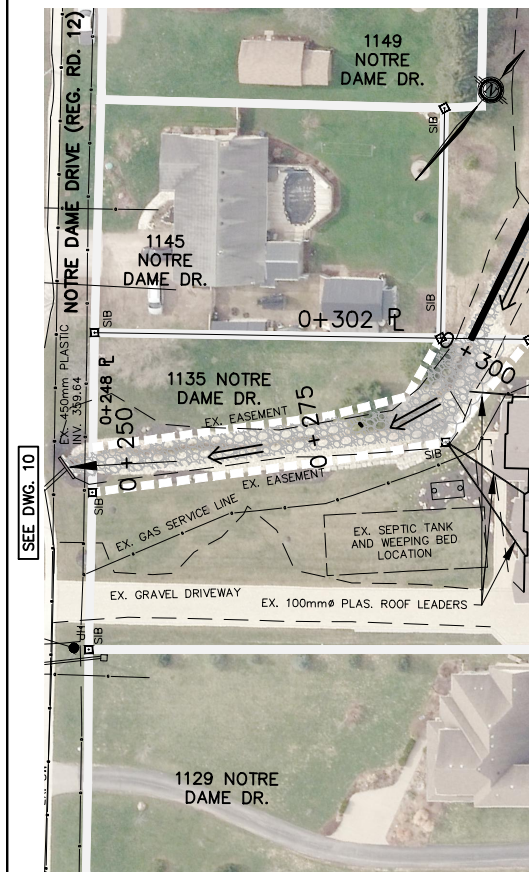
**SCALE**  
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 1 : 100 (VERT.)  
 (ON 11"x 17")

**PETERSBURG DRAIN 2024**  
 REGION OF WATERLOO TOWNSHIP OF WILMOT

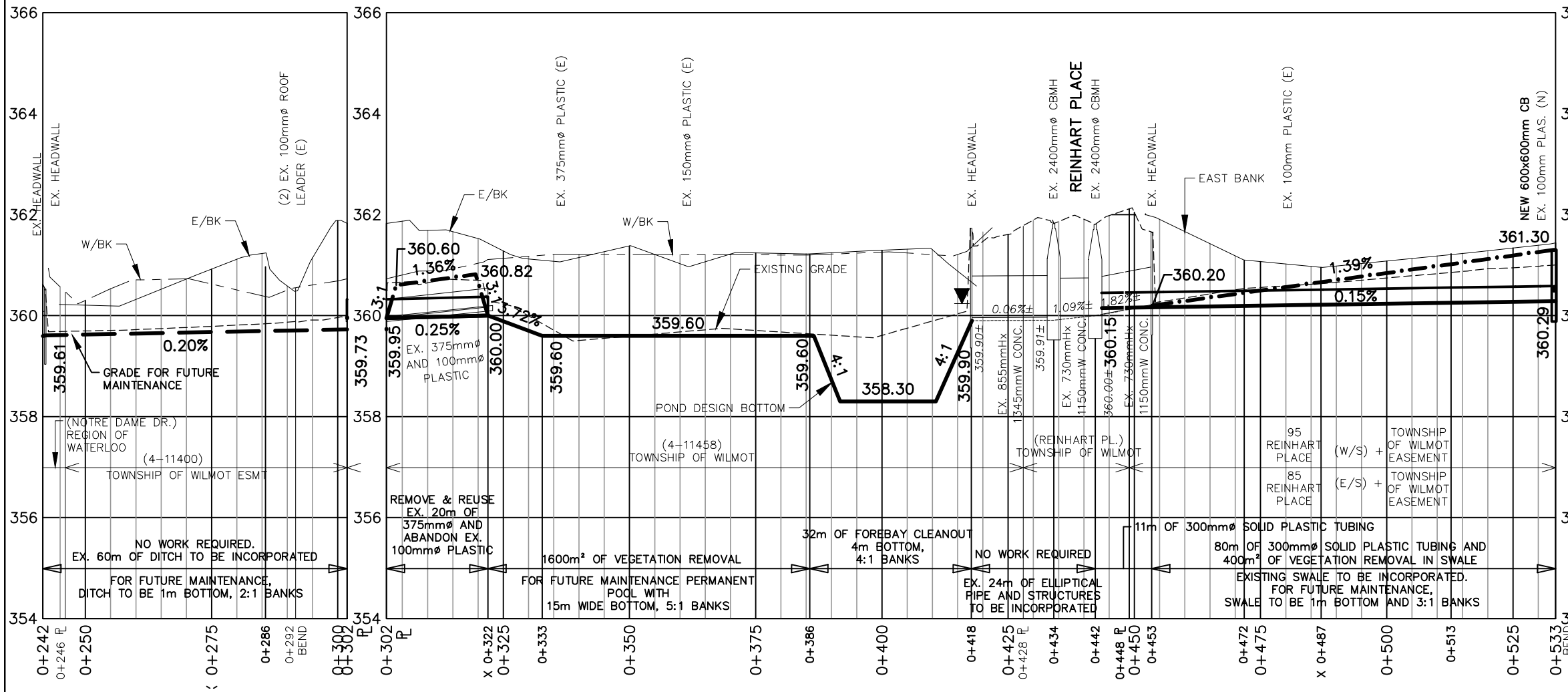
**BRANCH B PLAN & PROFILE**  
 STATION -0+009 TO 0+242

**K. SMART ASSOCIATES LIMITED**  
 CONSULTING ENGINEERS AND PLANNERS  
 KITCHENER SUBURBY

**AUGUST 2024**  
 JOB NUMBER: 19-196  
 DRAWING 10



- GENERAL NOTES:**
- ANY UTILITY, WATERMAIN, SANITARY SEWER OR FORCEMAIN THAT MAY AFFECT THE LOCATION OR ELEVATION OF ANY STORM STRUCTURE OR STORM SEWER IS TO BE PRE-LOCATED PRIOR TO PLACEMENT OF STORM STRUCTURE OR STORM SEWER
  - ANY INCIDENTAL REMOVAL OF TREES/DEBRIS SHALL BE APPROVED BY ENGINEER PRIOR TO COMMENCING WORK
- SPECIAL PROVISIONS - CONSTRUCTION NOTES**
- BRANCH B**
- TOWNSHIP OF WILMOT EASEMENT (ROLL NO. 4-11400)**
- 0+246 TO 0+300 - NO WORK REQUIRED. 60m OF EXISTING DITCH TO BE INCORPORATED. FOR FUTURE MAINTENANCE, DITCH TO BE 1m BOTTOM, 2:1 SIDE SLOPE.
- 0+302 TO 0+322 - LOWER EXISTING 375mm HDPE PIPE. EXISTING 100mm PLASTIC PIPE TO BE ABANDONED
- RE-GRADE OVERFLOW SWALE, 6m BOTTOM & 3:1 SIDE SLOPES. REMOVE & REUSE EXISTING RIPRAP, PLACE ON GEOTEXTILE.
- 0+322 TO 0+386 - 1600m<sup>2</sup> OF POND VEGETATION REMOVAL. DISPOSE OF MATERIAL OFF-SITE
- FOR FUTURE MAINTENANCE, PERMANENT POOL WITH 15m WIDE BOTTOM & 5:1 SIDE SLOPES.
- 0+386 TO 0+418 - 32m OF FOREBAY CLEANOUT. 4m BOTTOM & 4:1 SIDE SLOPES. DISPOSE OF MATERIAL OFF-SITE
- 0+418 TO 0+428 - NO WORK REQUIRED. EXISTING HEADWALL & 858mmHx1345mmW CONC. PIPE TO BE INCORPORATED
- REINHART PL. (TOWNSHIP OF WILMOT)**
- 0+428 TO 0+442 - NO WORK REQUIRED. HEADWALL AND 858mmHx1345mmW CONC. PIPE AND TWO 2400mm MH'S TO BE INCORPORATED.
- 0+442 - CORE INTO EXISTING 2400mm MH AND CONNECT NEW 300mm PLASTIC TUBING. GROUT CONNECTION.
- 0+442 TO 0+448 - 6m OF 300mm PLASTIC TUBING
- 150mm OF IMPORTED TOPSOIL AND HYDROSEED FOR 10m WIDE WORKING CORRIDOR
- 85 REINHART PLACE**
- 0+448 TO 0+533 - 85m OF 300mm PLASTIC TUBING.
- 0+453 TO 0+533 - 400m<sup>2</sup> OF VEGETATION REMOVAL IN SWALE. DISPOSE OF MATERIAL OFF-SITE.
- EXISTING SWALE TO BE INCORPORATED. FOR FUTURE MAINTENANCE 1m BOTTOM & 3:1 SIDE SLOPES.
  - 150mm OF IMPORTED TOPSOIL AND HYDRO SEED FOR 10m WIDE WORKING CORRIDOR



**LEGEND:**

- 0.50%** PROPOSED GRADE
- 0.50%** PROPOSED OVERFLOW SWALE GRADE
- 0.50%** GRADE FOR FUTURE MAINTENANCE

No.	DESCRIPTION	DATE
1	ON-SITE MEETINGS	JULY/OCTOBER 2019
2	AGENCY REVIEW	APRIL 2022
3	INFORMATION MEETING	AUGUST 2024

DESIGNED BY: J.E.M.      SCALE: 0 20m

CHECKED BY: J.E.M.      1 : 1,000 (HORIZ.)

DRAWN BY: A.M.P.      0 2m

CHECKED BY: J.E.M.      1 : 100 (VERT.)

(ON 11"x 17")

PRELIMINARY

## PETERSBURG DRAIN 2024

REGION OF WATERLOO      TOWNSHIP OF WILMOT

### BRANCH B PLAN & PROFILE

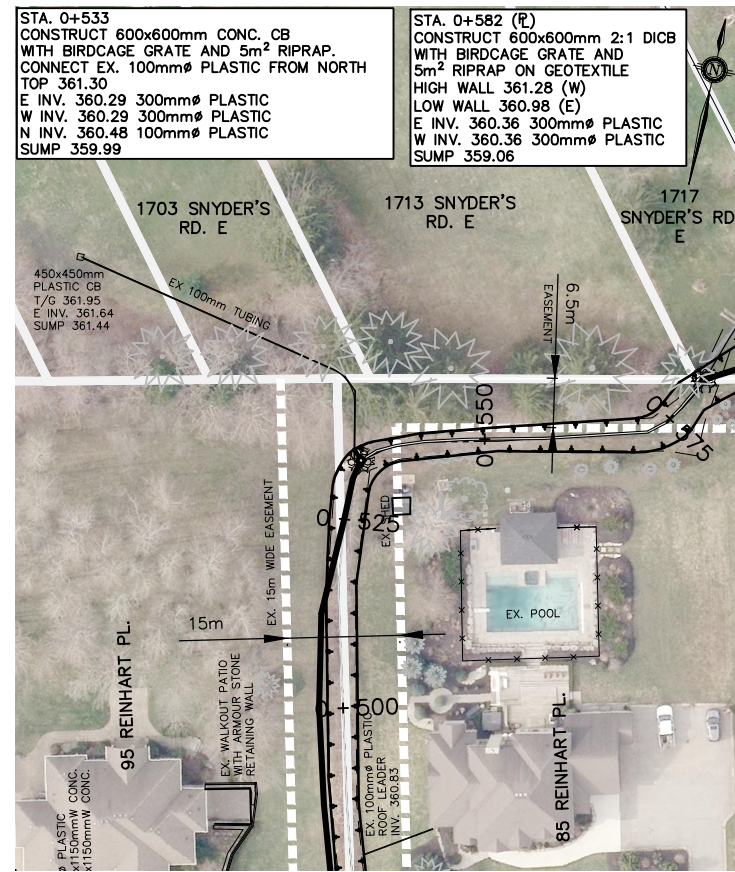
STATION 0+242 TO 0+533

**K. SMART ASSOCIATES LIMITED**      **AUGUST 2024**

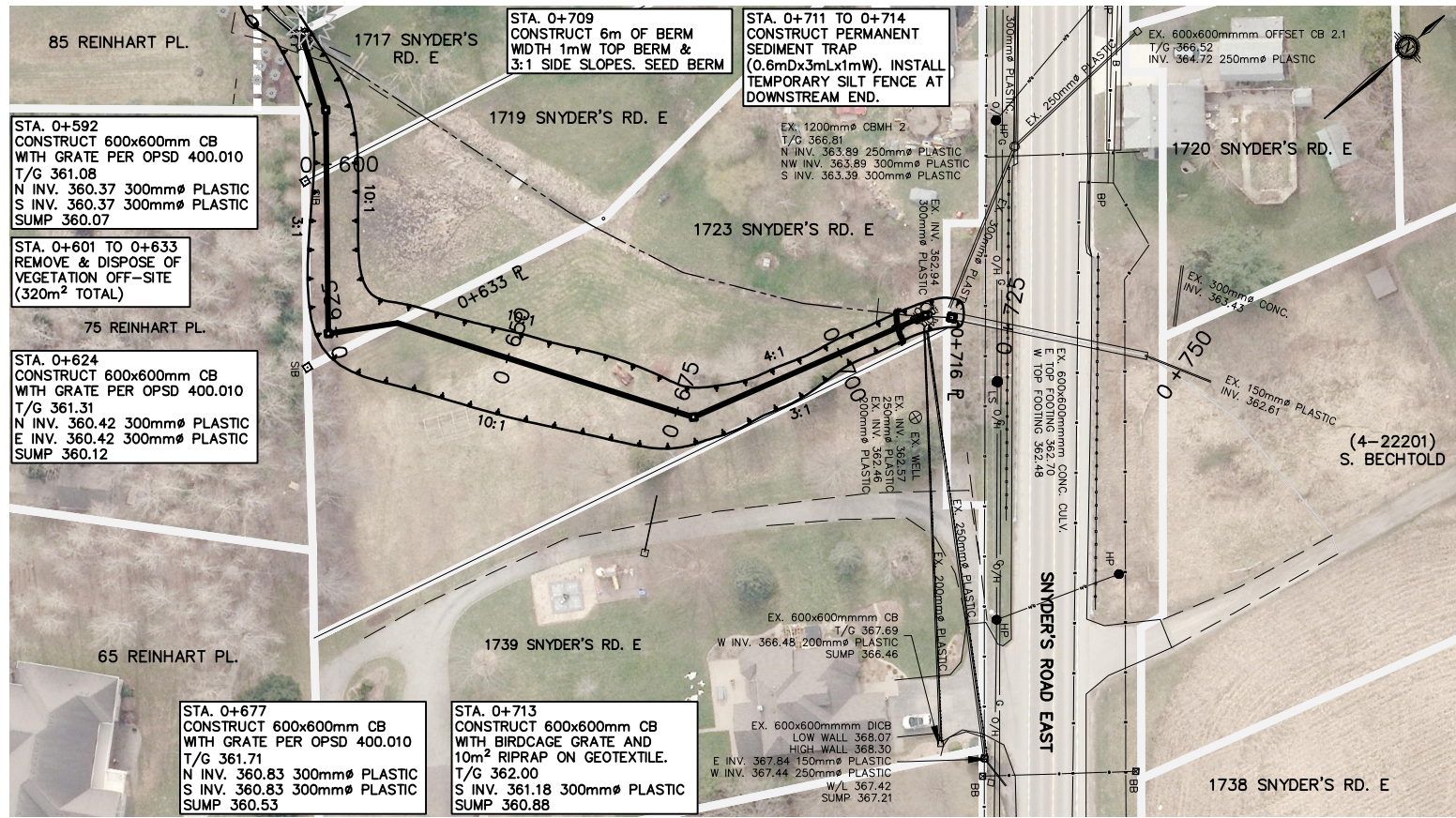
CONSULTING ENGINEERS AND PLANNERS      JOB NUMBER: **19-196**

KITCHENER      SUBURRY      DRAWING

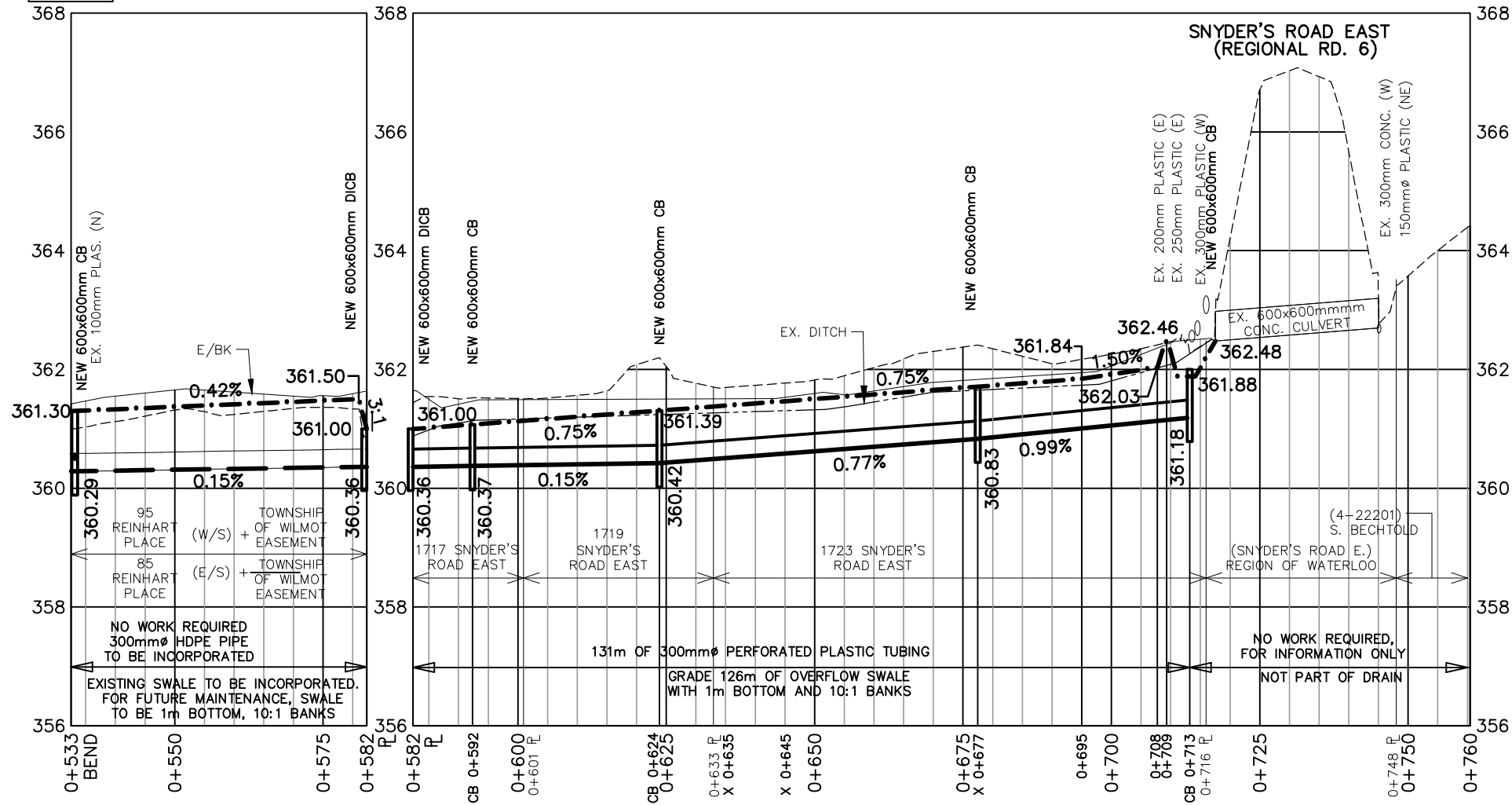
11



SEE DWG. 10



SEE DWG. 11



- GENERAL NOTES:**
- ANY UTILITY, WATERMAIN, SANITARY SEWER OR FORCEMAIN THAT MAY AFFECT THE LOCATION OR ELEVATION OF ANY STORM STRUCTURE OR STORM SEWER IS TO BE PRE-LOCATED PRIOR TO PLACEMENT OF STORM STRUCTURE OR STORM SEWER
  - ANY INCIDENTAL REMOVAL OF TREES/DEBRIS SHALL BE APPROVED BY ENGINEER PRIOR TO COMMENCING WORK

- SPECIAL PROVISIONS — CONSTRUCTION NOTES**
- BRANCH B**
- 85 REINHART PLACE**
- 0+533 — CONSTRUCT 600x600mm CONCRETE CB, INCLUDING CONNECTIONS, BIRDCAGE GRATE & 5m<sup>2</sup> OF RIPRAP ON GEOTEXTILE.
- 0+533 TO 0+582 — EXISTING 300mm<sup>Ø</sup> SOLID PLASTIC TUBING TO BE INCORPORATED.  
 — EXISTING SWALE TO BE INCORPORATED. FOR FUTURE MAINTENANCE 1m BOTTOM & 3:1 SIDE SLOPES.
- 1717 SNYDER'S ROAD EAST**
- 0+582 — CONSTRUCT 600x600mm CONCRETE CB, INCLUDING CONNECTIONS, BIRDCAGE GRATE & 5m<sup>2</sup> OF RIPRAP ON GEOTEXTILE.
- 0+582 TO 0+601 — 19m OF 300mm<sup>Ø</sup> PERFORATED PLASTIC TUBING  
 — 19m OF OVERFLOW SWALE WITH 150mm OF IMPORTED TOPSOIL AND HYDRO SEED
- 0+592 — CONSTRUCT 600x600mm CONCRETE CB, INCLUDING CONNECTIONS, GRATE PER OPSD 400.010 & 5m<sup>2</sup> OF RIPRAP ON GEOTEXTILE.
- 1719 SNYDER'S ROAD EAST**
- 0+601 TO 0+633 — 32m OF 300mm<sup>Ø</sup> PERFORATED PLAS. TUBING.  
 — 32m OF OVERFLOW SWALE WITH 150mm OF IMPORTED TOPSOIL AND HYDRO SEED.  
 — 320m<sup>2</sup> VEGETATION REMOVAL. DISPOSE OF OFF-SITE.
- 0+624 — CONSTRUCT 600x600mm CONCRETE CB, INCLUDING CONNECTIONS, GRATE PER OPSD 400.010 & 5m<sup>2</sup> OF RIPRAP ON GEOTEXTILE.
- 1723 SNYDER'S ROAD EAST**
- 0+633 TO 0+713 — 80m OF 300mm<sup>Ø</sup> PERFORATED PLASTIC TUBING.
- 0+633 TO 708 — 75m OF OVERFLOW SWALE WITH 150mm OF IMPORTED TOPSOIL AND HYDRO SEED.
- 0+677 — CONSTRUCT 600x600mm CONCRETE CB, INCLUDING CONNECTIONS, GRATE PER OPSD 400.010 & 5m<sup>2</sup> OF RIPRAP ON GEOTEXTILE.
- 0+709 — CONSTRUCT 6m OF BERM WITH 1mW TOP BERM & 3:1 SIDE SLOPES. SEED BERM.
- 0+711 TO 0+714 — CONSTRUCT PERMANENT SEDIMENT TRAP (0.6mDx3mLx1mW). INSTALL TEMPORARY SILT FENCE AT DOWNSTREAM END.
- 0+713 — CONSTRUCT 600x600mm CONCRETE CB, INCLUDING CONNECTIONS, BIRDCAGE GRATE & 10m<sup>2</sup> OF RIPRAP ON GEOTEXTILE.

- LEGEND:**
- 0.50%** PROPOSED GRADE
  - 0.50%** PROPOSED OVERFLOW SWALE GRADE
  - 0.50%** GRADE FOR FUTURE MAINTENANCE

No.	DESCRIPTION	DATE
1	ON-SITE MEETINGS	JULY/OCTOBER 2019
2	AGENCY REVIEW	APRIL 2022
3	INFORMATION MEETING	AUGUST 2024

DESIGNED BY: J.E.M.

CHECKED BY: J.E.M.

DRAWN BY: A.M.P.

CHECKED BY: J.E.M.

PRELIMINARY

**SCALE**

0 20m

1 : 1,000 (HORIZ.)

0 2m

1 : 100 (VERT.)

(ON 11"x 17")

**PETERSBURG DRAIN 2024**

REGION OF WATERLOO TOWNSHIP OF WILMOT

**BRANCH B PLAN & PROFILE**

STATION 0+533 TO 0+760

**K. SMART ASSOCIATES LIMITED**

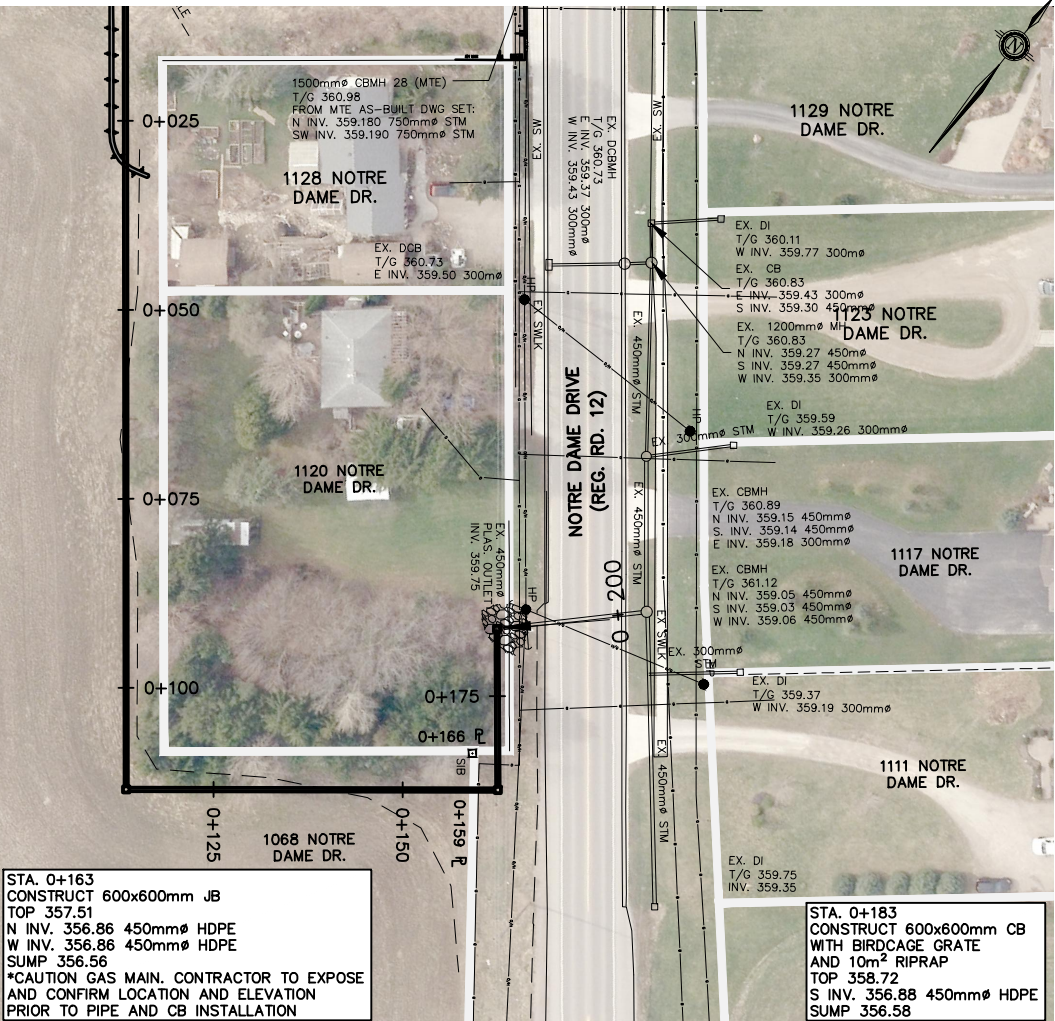
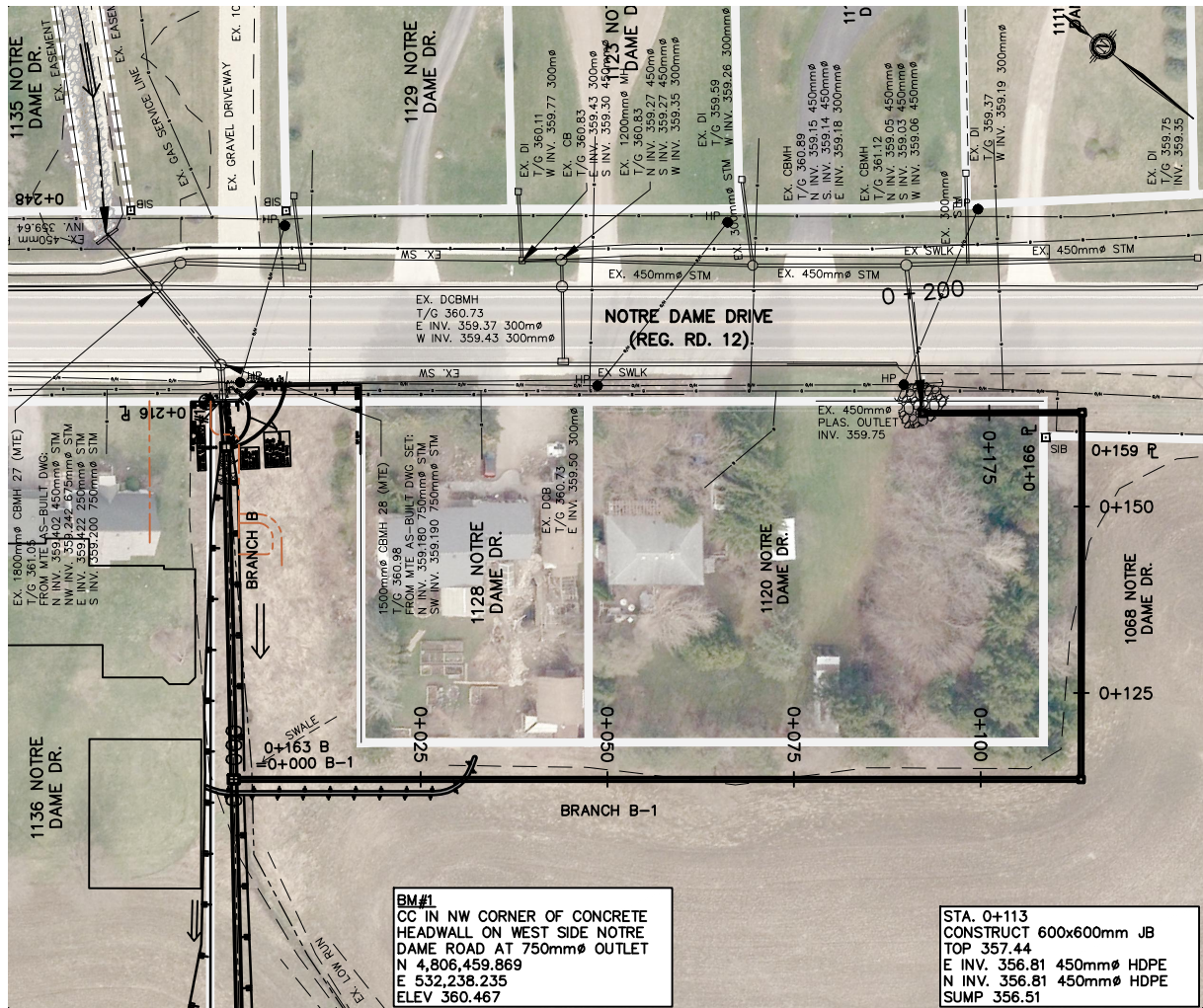
CONSULTING ENGINEERS AND PLANNERS

KITCHENER SUBURBY

**AUGUST 2024**

JOB NUMBER: **19-196**

DRAWING **12**



- GENERAL NOTES:**
- ANY UTILITY, WATERMAIN, SANITARY SEWER OR FORCEMAIN THAT MAY AFFECT THE LOCATION OR ELEVATION OF ANY STORM STRUCTURE OR STORM SEWER IS TO BE PRE-LOCATED PRIOR TO PLACEMENT OF STORM STRUCTURE OR STORM SEWER
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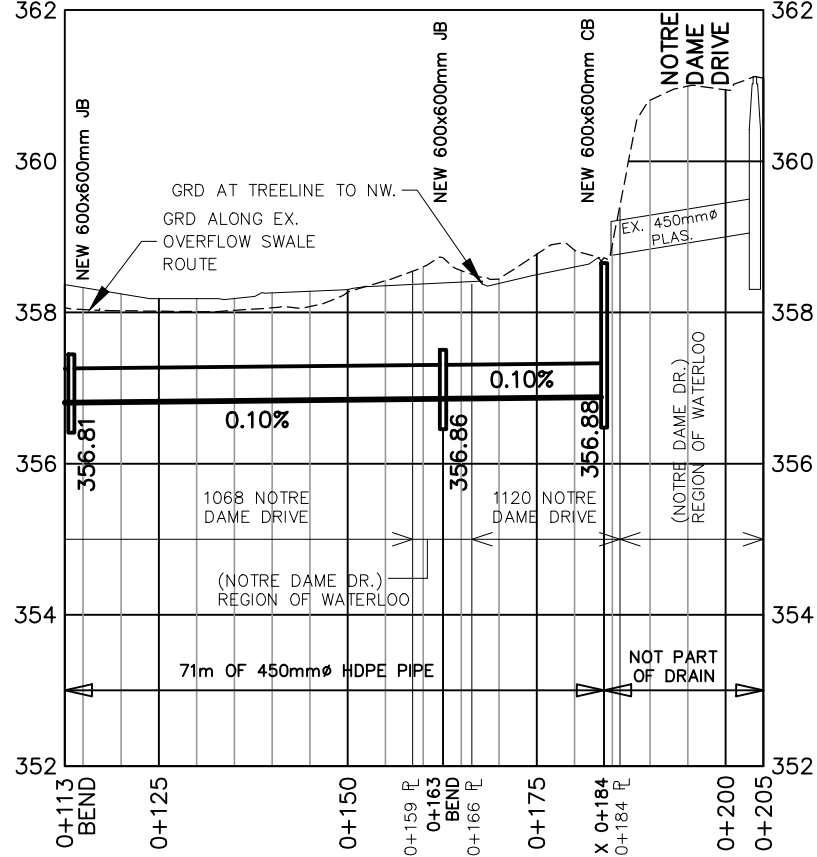
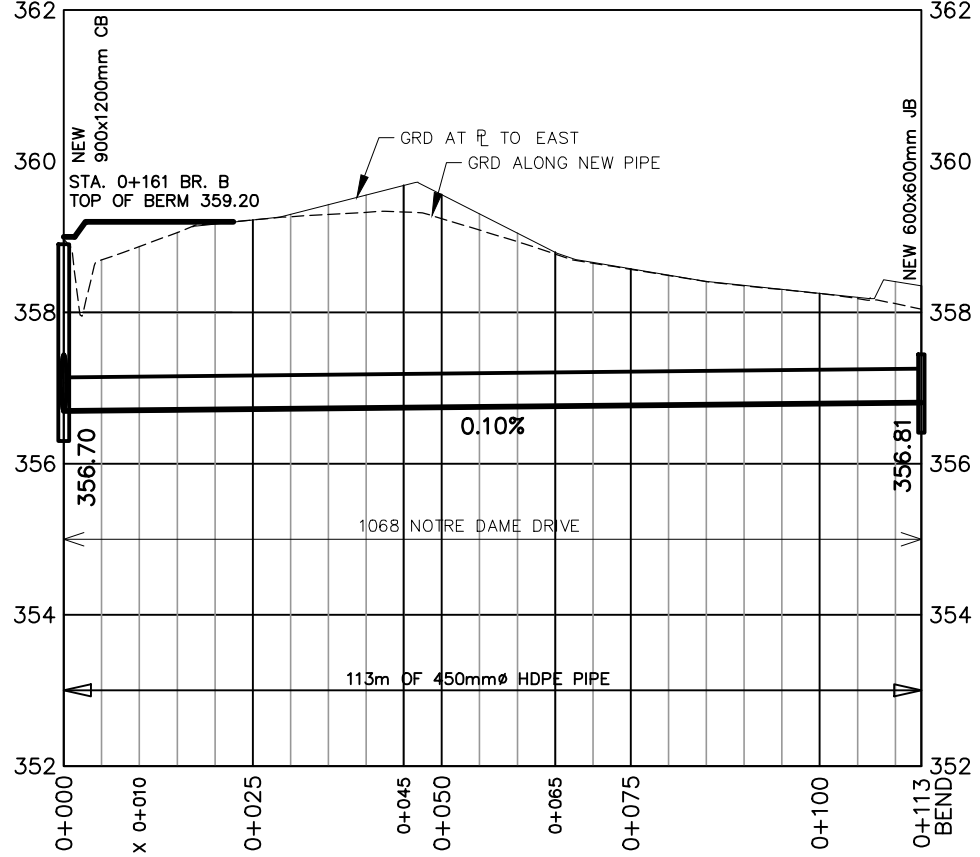
- SPECIAL PROVISIONS – CONSTRUCTION NOTES**
- BRANCH B-1**
- 1068 NOTRE DAME DRIVE  
0+000 TO 0+159 – 159m OF 450mmØ HDPE PIPE
- 0+000 TO 0+030 – CONSTRUCT 30m LONG BERM WITH 0.5mW TOP AND 3:1 SIDE SLOPES. SEED BERM.
- 0+113 – CONSTRUCT 600x600mm CONCRETE JB, INCLUDES CONNECTIONS.
- 0+113 TO 0+159 – 46m OF 450mmØ HDPE PIPE
- NOTRE DAME DRIVE (TOWNSHIP OF WILMOT)**
- 0+159 TO 0+166 – 7m OF 450mmØ HDPE PIPE.
- 0+163 – CONSTRUCT 600x600mm CONCRETE JB, INCLUDES CONNECTIONS.
- \*CAUTION GAS MAIN. CONTRACTOR TO EXPOSE AND CONFIRM LOCATION AND ELEVATION PRIOR TO PIPE AND CB INSTALLATION
- 1120 NOTRE DAME DRIVE**
- 0+166 TO 0+184 – 18m OF 450mmØ HDPE PIPE
- 0+184 – CONSTRUCT 600x600mm CONCRETE CB, INCLUDING CONNECTIONS, BIRDCAGE GRATE AND 5m<sup>2</sup> RIPRAP ON GEOTEXTILE.

**BM#1**  
CC IN NW CORNER OF CONCRETE HEADWALL ON WEST SIDE NOTRE DAME ROAD AT 750mmØ OUTLET  
N 4,806,459.869  
E 532,238.235  
ELEV 360.467

**STA. 0+113**  
CONSTRUCT 600x600mm JB  
TOP 357.44  
N INV. 356.81 450mmØ HDPE  
E INV. 356.81 450mmØ HDPE  
SUMP 356.56  
\*CAUTION GAS MAIN. CONTRACTOR TO EXPOSE AND CONFIRM LOCATION AND ELEVATION PRIOR TO PIPE AND CB INSTALLATION

**STA. 0+163**  
CONSTRUCT 600x600mm JB  
TOP 357.51  
N INV. 356.86 450mmØ HDPE  
W INV. 356.86 450mmØ HDPE  
SUMP 356.56  
\*CAUTION GAS MAIN. CONTRACTOR TO EXPOSE AND CONFIRM LOCATION AND ELEVATION PRIOR TO PIPE AND CB INSTALLATION

**STA. 0+183**  
CONSTRUCT 600x600mm CB WITH BIRDCAGE GRATE AND 10m<sup>2</sup> RIPRAP  
TOP 358.72  
N INV. 356.88 450mmØ HDPE  
SUMP 356.58



- LEGEND:**
- 0.50%** PROPOSED GRADE
  - 0.50%** PROPOSED OVERFLOW SWALE GRADE
  - 0.50%** GRADE FOR FUTURE MAINTENANCE

No.	DESCRIPTION	DATE
1	ON-SITE MEETINGS	JULY/OCTOBER 2019
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DESIGNED BY: J.E.M.  
CHECKED BY: J.E.M.  
DRAWN BY: A.M.P.  
CHECKED BY: J.E.M.

**PRELIMINARY**

**SCALE**  
0 20m  
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0 2m  
1 : 100 (VERT.)  
(ON 11"x 17")

**PETERSBURG DRAIN 2024**  
REGION OF WATERLOO TOWNSHIP OF WILMOT

**BRANCH B-1 PLAN & PROFILE**  
STATION 0+000 TO 0+204

**K. SMART ASSOCIATES LIMITED**  
CONSULTING ENGINEERS AND PLANNERS  
KITCHENER SUBURBY

**AUGUST 2024**  
JOB NUMBER: 19-196  
DRAWING 13