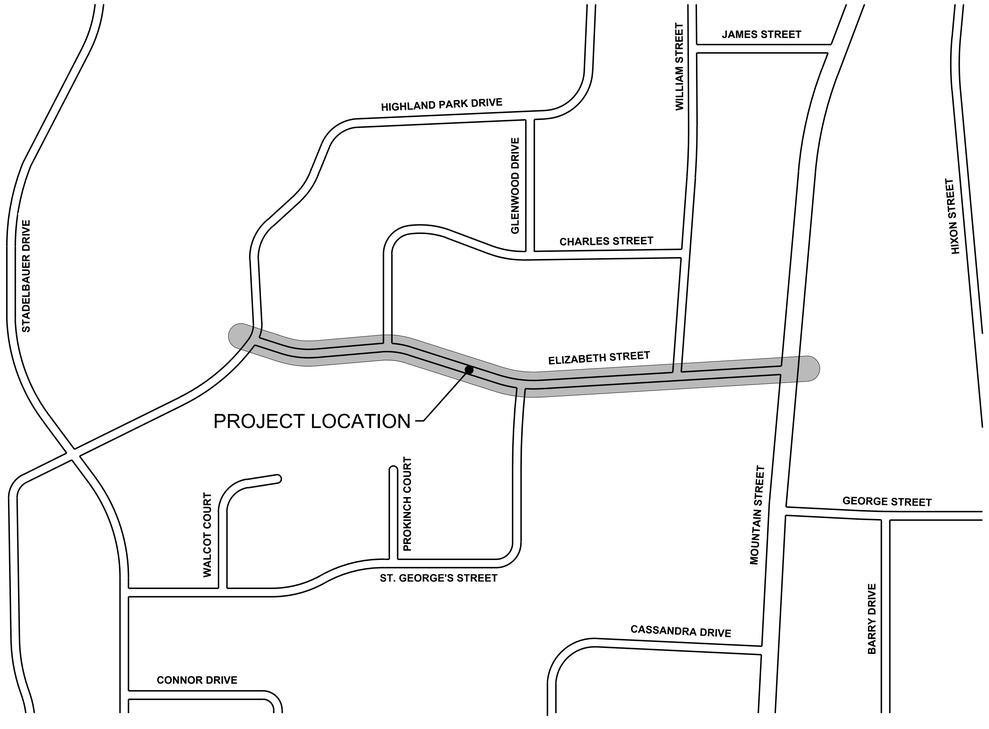
CONTRACT NO. 2019002PW

ELIZABETH STREET
ROAD RECONSTRUCTION
BETWEEN HIGHLAND PARK DRIVE & MOUNTAIN STREET
IN THE TOWN OF LINCOLN

Associated Engineering



LOCATION PLAN - (NOT TO SCALE)

SANDRA EASTON
MAYOR

2019002PW

ELIZABETH STREET
ROAD RECONSTRUCTION
BETWEEN HIGHLAND PARK DRIVE & MOUNTAIN STREET
IN THE TOWN OF LINCOLN

NO.	REVISION	DATE	INIT
0	ISSUED FOR TENDER	03/15/2019	JTB

DRAWING INDEX	
PHASE I	
DRAWING NO.	DRAWING TITLE
GENERAL	
5246-COVER	COVER PAGE
5246-G101	DRAWING INDEX AND GENERAL NOTES
5246-G102	BLOCK LEGEND SHEET
5246-G201	BASELINE LAYOUT
CIVIL	
5246-C101	ROAD GEOMETRICS - FROM STA. -0+005 TO 0+135
5246-C102	ROAD GEOMETRICS - FROM STA. 0+135 TO 0+275
5246-C103	ROAD GEOMETRICS - FROM STA. 0+275 TO 0+415
5246-C104	ROAD GEOMETRICS - FROM STA. 0+415 TO 0+468
5246-C105	STRUCTURES TABLE
5246-C121	INTERSECTION I
5246-C122	INTERSECTION II
5246-C123	INTERSECTION III
5246-C201	LINE PAINTING AND SIGNAGE - FROM STA. -0+005 TO 0+275
5246-C202	LINE PAINTING AND SIGNAGE - FROM STA. 0+275 TO 0+468
5246-C301	CROSS SECTIONS I
5246-C302	CROSS SECTIONS II
5246-C303	CROSS SECTIONS III
5246-C304	CROSS SECTIONS IV
5246-C501	DETAILS

GENERAL NOTES

1. THESE NOTES APPLY TO ALL DRAWINGS WITHIN THIS SET.
2. ALL WORK SHALL BE COMPLETED IN ACCORDANCE WITH THE RELEVANT SECTIONS OF THE ONTARIO OCCUPATIONAL HEALTH AND SAFETY ACT AND THE ONTARIO PROVINCIAL STANDARD SPECIFICATIONS AND DRAWINGS UNLESS NOTED OTHERWISE ON THE CONTRACT DRAWINGS OR IN THE CONTRACT SPECIFICATIONS.
3. THE POSITIONS OF POLE LINES, CONDUITS, WATERMAINS, SEWERS, AND OTHER UNDERGROUND AND ABOVE GROUND UTILITIES AND STRUCTURES ARE NOT NECESSARILY SHOWN ON THE CONTRACT DRAWINGS, AND WHERE SHOWN, THE ACCURACY OF POSITION IS NOT GUARANTEED. BEFORE STARTING WORK, THE CONTRACTOR SHALL INFORM HIMSELF OF THE EXACT LOCATION OF ALL SUCH UTILITIES AND STRUCTURES AND SHALL ASSUME ALL LIABILITY FOR DAMAGE TO THEM. ALL EXISTING LEGAL/PROPERTY MONUMENTATION TO BE PROTECTED AND MAINTAINED BY THE CONTRACTOR. ALL MONUMENTATION REMOVED BY THE CONTRACTOR SHALL BE REPLACED BY A LICENSED ONTARIO LAND SURVEYOR AT NO COST TO THE OWNER.
4. REMOVE AND REINSTATE ALL DRIVEWAYS (SAME MATERIAL), STREET FURNITURE, SIGNS, MAILBOXES, GUIDE RAILS, CULVERTS, HEADWALLS, ETC., AS NECESSARY. REINSTATEMENT TO BE TO EXISTING CONDITION OR BETTER.
5. CULVERTS, POLES, ETC. NOT REMOVED ARE TO BE PROTECTED, SHORED OR BRACED TO PREVENT DAMAGE (TYP. DENOTES TYPICAL).
6. ALL EXISTING TREES, SHRUBS AND PLANTINGS NOT IDENTIFIED FOR REMOVAL ARE TO BE PROTECTED. IF THEY ARE DAMAGED BY CONTRACTOR'S OPERATIONS, THEY SHALL BE REPLACED BY AND AT THE CONTRACTOR'S EXPENSE.
7. ALL GRANULAR MATERIAL SHALL BE COMPACTED IN 150mm LIFTS TO 100% S.P.M.D.D. AND ALL NATIVE BACKFILL SHALL BE COMPACTED TO 95% S.P.M.D.D. UNLESS OTHERWISE NOTED. ALL GRANULAR DRIVEWAYS TO BE RE-GRADED AS REQUIRED.
8. ALL PIPING SHALL BE INSTALLED IN ACCORDANCE WITH THE ELEVATIONS ON THE CONTRACT DRAWINGS UNLESS OTHERWISE DIRECTED BY THE ENGINEER ON SITE. SUMPS OR TRAPS IN THE PIPING SHALL NOT BE PERMITTED UNLESS SHOWN ON THESE CONTRACT DRAWINGS.
9. THE CONTRACTOR SHALL PROVIDE ALL NECESSARY CONSTRUCTION LAYOUT INCLUDING BUT NOT LIMITED TO:
   - TEMPORARY GEODETIC BENCHMARKS EVERY 200m (REFERENCES TO THE PROVIDED BENCHMARK(S))
   - LOCATION AND OFFSET STAKES INDICATING PROPOSED WATERMAIN, STORM AND SANITARY SEWER
   - ALIGNMENT AND ELEVATION AT EVERY 20m, AT EACH OFFSET SHOWN, AT EACH STRUCTURE AND AT EACH PROPOSED BEND.
10. THE CONTRACTOR SHALL PROVIDE A LIST OF THE TEMPORARY BENCHMARKS, GRADE SHEETS AND ANY (ASSOCIATED) FIELD NOTES TO THE ENGINEER PRIOR TO CONSTRUCTION.
11. ALL SEWERS 525mm AND SMALLER SHALL BE PVC DR35 PIPE CONFORMING TO CSA B182.1 OR CSA B182.4, UNLESS OTHERWISE NOTED ON DRAWINGS. ALL PIPES ARE TO BE INSULATED IF COVER IS LESS THAN 1.2m.
12. ALL MAINTENANCE HOLES AND CATCHBASIN STRUCTURES SHALL BE PRECAST CONFORMING TO OPSD 701.030 AND 705.020 RESPECTIVELY. MAINTENANCE HOLE FRAME AND COVERS SHALL CONFIRM TO OPSD 401.010(B). CATCHBASIN FRAME AND GRATES SHALL CONFORM TO OPSD 704.010. BOULEVARD CATCHBASIN FRAME AND GRATES TO CONFORM TO OPSD 400.120.
13. ALL CATCHBASIN LEADS ARE TO BE DR35 PVC AS STATED IN THE CONTRACT SPECIFICATIONS.
14. ALL ABANDONED PIPE TO BE FLUSHED CLEAN, CHARGED AND CAPPED IN ACCORDANCE WITH THE CONTRACT SPECIFICATIONS.
15. THE CONTRACTOR SHALL MAINTAIN A MINIMUM 2.5m HORIZONTAL SEPARATION BETWEEN PROPOSED WATERMAINS AND EXISTING OR PROPOSED SEWERS. A VERTICAL SEPARATION OF AT LEAST 0.5M SHALL BE PROVIDED BETWEEN THE INVERT OF THE SEWER AND THE CROWN OF THE WATERMAIN.
16. ALL PIPE SEWERS SHALL BE TESTED FOR INFILTRATION AND FOR DEFLECTION IN ACCORDANCE WITH OPSS 401. CCTV ALL SEWERS UPON COMPLETION.
17. ALL STRUCTURE DETAILS INCLUDING STATIONS, OFFSETS, OPSD'S, INVERTS AND FRAME ELEVATIONS CAN BE FOUND ON DRAWINGS 5246-C105.
18. ALL PATHWAYS AND/OR WALKWAYS SHALL BE REMOVED AND RESTORED TO ACCOMMODATE PROPOSED SIDEWALK WORK.
19. ALL MANHOLES AND CATCHBASINS TO BE SET TO BASE ASPHALT ELEVATION. 2.0m OF CURB AND GUTTER BEHIND CATCHBASINS SHALL NOT BE INSTALLED AND ASPHALT CURBING TO BE INSTALLED IN LIEU OF CONCRETE CURB.
20. AS A MINIMUM, THE CONTRACTOR SHALL EXPOSE BY HAND EXCAVATION ALL BURIED UTILITIES (SEWER, WATER, GAS, PHONE, CABLE, POWER, ETC., SHOWN OR OTHERWISE) CROSSING THE PROPOSED WATERMAIN, SANITARY AND STORM SEWER AND PROVIDE THEIR SIZE, LOCATION AND GEODETIC ELEVATION TO THE ENGINEER FOR REVIEW A MINIMUM OF 48 HOURS PRIOR TO CROSSING. THE ENGINEER WILL REVIEW THIS INFORMATION AND ADVISE THE CONTRACTOR OF ANY REQUIRED REVISIONS.
21. TACTILE PLATES AS PER OPSD 310.039
22. ALL SEWERS TO BE FLUSHED AND INSPECTED. FLUSHING SHALL OCCUR PRIOR TO VIDEO INSPECTION
23. PROPERTY LINES WHERE SHOWN ON THESE DRAWINGS ARE SHOWN ONLY FOR REFERENCE AND ARE NOT TO BE USED FOR LEGAL PURPOSES.
24. DIGITAL BASEPLAN DRAWINGS WILL BE PROVIDED TO THE CONTRACTOR FOR LAYOUT PURPOSES IF REQUESTED.
   - THE CONTRACTOR IS RESPONSIBLE FOR TRAFFIC CONTROL:
   - SIGNING SHALL, AS A MINIMUM BE IN ACCORDANCE WITH CURRENT OTM (ONTARIO TRAFFIC MANUAL). FLAGGING SHALL BE IN ACCORDANCE WITH 'CORRECT METHODS OF TRAFFIC CONTROL' ISSUED BY THE CONSTRUCTION SAFETY ASSOCIATION OF ONTARIO.
   - AT LEAST ONE LANE OF FLAGGED TRAFFIC MUST BE MAINTAINED AT ALL TIMES AND BOTH LANES SHALL BE FULLY OPEN TO TRAFFIC DURING NON-WORKING HOURS.
   - LOCAL STREETS MAY BE CLOSED TO THROUGH TRAFFIC FOR SHORT PERIODS DURING THE INSTALLATION OF THE STORM SEWER, WATERMAIN, SANITARY SEWER AND DURING RESTORATION.
25. PRIOR TO CLOSING ANY RIGHT-OF-WAY, THE CONTRACTOR SHALL OBTAIN CLEARANCE FROM THE ENGINEER AND NOTIFY THE APPROPRIATE EMERGENCY SERVICES, PUBLIC TRANSIT AND SCHOOL BUS OPERATORS OF STREETS CLOSED, STREETS BEING USED FOR DETOURS AND THE DURATION OF ANY DETOUR.
26. ASSOCIATED ENGINEERING (ONT.) LIMITED DOES NOT ASSUME ANY RESPONSIBILITY FOR LOSSES, DAMAGES AND COSTS ARISING FROM THE USE OR REUSE OF THESE DRAWINGS BY PERSONS, FIRMS, OR CORPORATIONS WITHOUT PRIOR WRITTEN CONSENT.
27. THESE DRAWINGS ARE COPYRIGHTED. ALL RIGHTS RESERVED. NO PART MAY BE REPRODUCED IN ANY FORM OR BY ANY MEANS WITHOUT WRITTEN PERMISSION.

SANITARY SEWERS

1. SANITARY MANHOLES SHALL CONFORM TO O.P.S.D. 701.010, AS APPLICABLE, AND SHALL HAVE KOR-N-SEAL CONNECTION ASSEMBLIES.
2. SANITARY MANHOLE FRAMES AND COVERS SHALL CONFORM TO O.P.S.D. 401.01.
3. SANITARY SEWER PIPE SHALL BE CONSTRUCTED OF POLYVINYL CHLORIDE PIPE, (PVC) AND SHALL BE MANUFACTURED IN ACCORDANCE WITH THE LATEST REVISION OF C.S.A. B182.2.
4. FOR MAIN SEWERS, THE STANDARD DIMENSION RATIO OF THE P.V.C. PIPE SHALL BE DR 35.
5. FOR SERVICE CONNECTIONS THE STANDARD DIMENSION RATIO OF THE PVC PIPE SHALL BE DR 28.
6. THE BEDDING REQUIRED FOR PVC MAIN SEWER AND SERVICE CONNECTIONS SHALL BE AS PER TOWN OF LINCOLN STANDARD DRAWING DPW-500.
7. SANITARY SEWER BEDDING TO BE AS PER TOWN OF LINCOLN STANDARD DRAWING DPW-500.
8. ALL BEDDING AND COVER MATERIAL TO BE COMPACTED TO 100% STANDARD PROCTOR DENSITY. BACKFILL MATERIAL TO BE SELECT NATIVE COMPACTED TO 95% STANDARD PROCTOR DENSITY.
9. SANITARY MANHOLE BENCHING SHALL CONFORM TO O.P.S.D. 701.021. ALL BENCHING WITHIN MANHOLES SHALL BE A MINIMUM OF 150mm IN WIDTH.
10. SANITARY SERVICE LATERALS TO BE GREEN COLORED 125mmØ PVC DR 28 FOR SINGLE RESIDENTIAL
11. CONNECTIONS. SANITARY SERVICE CONNECTIONS SHALL BE INSTALLED AT A MINIMUM OF 2% GRADE AS PER TOWN OF LINCOLN STANDARD DRAWING DPW-501.
12. SERVICES SHALL BE A MINIMUM OF 2.50m AND A MAXIMUM OF 3.0m DEEP MEASURED FROM THE FINAL
13. SANITARY CONNECTIONS SHALL GENERALLY BE LOCATED IN ACCORDANCE WITH TOWN OF LINCOLN STANDARD DRAWING DPW-502 AND DPW-503.
14. ALUMINUM MANHOLE STEPS ARE TO BE AS PER O.P.S.D 405.020.

STORM SEWERS

1. STORM MANHOLES SHALL BE IN ACCORDANCE WITH O.P.S.D. 701.010 AS APPLICABLE, WITH FRAME AND COVER AS PER O.P.S.D. 401.010.
2. STORM SEWER PIPE SHALL BE CONSTRUCTED OF POLYVINYL CHLORIDE PIPE AS DETAILED IN THE CONTRACT DOCUMENTS AND TO THE SPECIFICATIONS OUTLINED BELOW, AS APPLICABLE:
   - POLYVINYL CHLORIDE PIPE SHOULD BE MANUFACTURED IN ACCORDANCE WITH THE LATEST REVISIONS OF B128.8
3. GENERALLY A MINIMUM CLEARANCE OF 225mm SHALL BE PROVIDED BETWEEN THE OUTSIDE OF THE PIPE BARRELS AT THE POINT OF PIPE CROSSING FOR STORM SEWERS AND OTHER UTILITIES. FOR WATERMAIN CROSSING. WHERE THE MINIMUM CLEARANCE OF 225mm CANNOT BE OBTAINED, THE PIPES AT THE CROSSING SHALL BE CONCRETE ENCASED.
4. STORM SEWER BEDDING TO BE AS PER TOWN OF LINCOLN STANDARD DRAWING DPW-500.
5. CATCH BASINS AND TWIN INLET CATCH BASINS SHALL CONFORM TO O.P.S.D. 705.010 AND 705.030
6. ALUMINUM MANHOLE STEPS ARE TO BE AS PER O.P.S.D. 405.020.

WATERMAIN

1. IF IN THE COURSE OF CONSTRUCTION OF THE NEW INFRASTRUCTURE THERE ARE CONFLICTS WITH THE EXISTING WATER DISTRIBUTION SYSTEM, THE CONTRACTOR SHALL NOTIFY THE TOWN IMMEDIATELY OF THE CONFLICT. ANY PROPOSED ADJUSTMENTS TO THE ACTIVE DISTRIBUTION SYSTEM MUST BE UNDERTAKEN UNDER THE SUPERVISION OF A LICENSED TOWN OF LINCOLN WATER OPERATOR. ADJUSTMENT MAY INCLUDE REALIGNMENT OR EXTENSION OF COPPER SERVICES USING COMPRESSION FITTINGS ETC.
2. WATER SERVICES LESS THAN 1.5m DEEP SHALL BE WRAPPED WITH 13mm THICK WRAP (TUNDRA SEAL OR APPROVED EQUIV.) WITH 50mm SPRAY FOAM (TOUCH N FOAM PROFESSIONAL OR APPROVED EQUIV) 65mm EXTRUDED POLYSTRENE INSULATION (STYROFOAM HI-40 OR APPROVED EQUIV) WITH 6mm PLYWOOD ABOVE AND BELOW
3. WHERE THE WATERMAIN IS LESS THAN 1.5m DEEP THE CONTRACTOR SHALL INSULATE THE WATERMAIN AS PER THE SPECIFICATIONS IN THE NIAGARA PENINSULA STANDARD CONTRACT DOCUMENTS.

NO	REVISION	DATE	INIT
0	ISSUED FOR TENDER	03/15/2019	JTB

DRAFTING PZ
DESIGN JT
CHECKED BY JT
APPROVED BY MM

LICENSED PROFESSIONAL ENGINEER — J.D.M. TRIM — 100209717 — 15-Mar-19 — PROVINCE OF ONTARIO

Town of Lincoln

Associated Engineering

ELIZABETH STREET ROAD RECONSTRUCTION
BETWEEN HIGHLAND PARK DR & MOUNTAIN ST IN THE TOWN OF LINCOLN

DRAWING INDEX AND GENERAL NOTES

CAD No. 20185246
DATE DECEMBER 2018
SCALE NTS
REF. No.
DWG No. 5246-G101
REV. 0

MISCELLANEOUS

- BH — BOREHOLE
- TH — TESTHOLE
- OBS WELL — OBSERVATION WELL
- ADVERT. SIGN — ADVERTISING SIGN
- BARRIER POST — BARRIER POST
- BENCH — BENCH
- BOLLARD — BOLLARD
- FLAGPOLE — FLAGPOLE
- GATE — GATE
- MB — MAILBOX
- PLANTER — PLANTER
- POLE — POLE
- POLE WELL — POLEWELL
- TREE GRATE — TREEGRATE
- TREE GUARD — TREEGUARD
- WASTE RECEPTICAL — WASTE RECEPTACLE
- BOULDER — BOULDER
- D.L. — DRIPLINE
- SHRUB — SHRUB – CONIFEROUS
- SHRUB — SHRUB – DECIDUOUS
- STUMP ø — STUMP
- 100mm — TREE – DECIDUOUS – 100mm
- 100mm — TREE – CONIFEROUS – 100mm

FENCE (OTHER THAN WOOD)

WOOD FENCE

EXISTING HANDRAIL

PROPOSED HANDRAIL

RAILWAY (SINGLE TRACK)

LPL — LEFT PROPERTY LINE (PROFILE)

RPL — RIGHT PROPERTY LINE (PROFILE)

LSW — LEFT SIDEWALK (PROFILE)

RSW — RIGHT SIDEWALK (PROFILE)

GUIDERAIL

PROPOSED GUIDERAIL

BANK

PL — PROPERTY LINE (For Traffic Signal legal approval drawing only) — PL

EASEMENT

EXISTING DITCH

PROPOSED DITCH

DITCH ON PROFILE

CENTERLINE OF ROAD

GRANULAR SHOULDER

WATER SYSTEMS

- 11 1/4° BEND — EX. 11 1/4 DEGREE BEND
- *11 1/4° BEND* — PROP. 11 1/4 DEGREE BEND
- 22 1/2° BEND — EX. 22 1/2 DEGREE BEND
- *22 1/2° BEND* — PROP. 22 1/2 DEGREE BEND
- 45° BEND — EX. 45 DEGREE BEND
- *45° BEND* — PROP. 45 DEGREE BEND
- 90° BEND — EX. 90 DEGREE BEND
- *90° BEND* — PROP. 90 DEGREE BEND
- ANODE — EX. ANODE
- *ANODE* — PROP. ANODE
- BO — EX. BLOWOFF
- *BO* — PROP. BLOWOFF
- CROSS ___ x ___mm — EX. CROSS
- *CROSS ___x___mm* — PROP. CROSS
- CS — EX. CURBSTOP
- *CS* — PROP. CURBSTOP
- HYD — EX. HYDRANT
- *HYD* — PROP. HYDRANT
- HYD WV — EX. HYDRANT VALVE
- *HYD WV* — PROP. HYDRANT VALVE
- CAP — EX. WATERMAIN CAP
- *CAP* — PROP. WATERMAIN CAP
- *PV* — EX. PRESSURE VALVE
- *PV* — PROP. PRESSURE VALVE
- REDUCER ___ x ___ mm — EX. WATERMAIN REDUCER
- *REDUCER ___x___mm* — PROP. WATERMAIN REDUCER
- TEE ___ x ___mm — EX. WATERMAIN TEE
- *TEE ___x___mm ___x___mm* — PROP. WATERMAIN TEE
- TS&V — EX. WATERMAIN TAPPING SLEEVE AND VALVE
- *TS&V* — PROP. WATERMAIN TAPPING SLEEVE AND VALVE
- WV — EX. WATERMAIN VALVE
- *WV* — PROP. WATERMAIN VALVE
- WVC — EX. WATERMAIN VALVE CHAMBER
- *WVC* — PROP. WATERMAIN VALVE CHAMBER
- WATER WELL — EX. WATER WELL
- *WATER WELL* — PROP. WATER WELL
- *WSS* — EX. WATER SAMPLING STATION
- *WSS* — PROP. WATER SAMPLING STATION
- WATER METER — EX. WATER METER
- SPRINKLER — EX. SPRINKLER

EXISTING WATERMAIN

PROPOSED WATERMAIN

EXISTING WATER SERVICE LATERAL

WASTE WATER / SANITARY

- CAP — EX. SANITARY SEWER CAP
- CLEANOUT — EX. SANITARY SEWER LATERAL CLEANOUT
- *CLEANOUT* — PROP. SANITARY SEWER LATERAL CLEANOUT
- COMB MH — EX. MANHOLE COMBINED SEWER
- *COMB MH* — PROP. MANHOLE COMBINED SEWER
- FM V — EX. SANITARY FORCEMAIN VALVE
- *FM V* — PROP. SANITARY FORCEMAIN VALVE
- FM VC — EX. SANITARY FORCEMAIN VALVE CHAMBER
- *FM VC* — PROP. SANITARY FORCEMAIN VALVE CHAMBER
- PLUG — EX. SANITARY PLUG
- *PLUG* — PROP. SANITARY PLUG
- SAN MH — EX. SANITARY SEWER MANHOLE
- *SAN MH* — PROP. SANITARY SEWER MANHOLE
- UNK MH — EX. UNKNOWN MANHOLE

EXISTING SANITARY SEWER

PROPOSED SANITARY SEWER

SANITARY SEWER LATERAL

DRAINAGE SYSTEMS / STORM

- CB — EX. CATCH BASIN
- *CB* — PROP. CATCH BASIN
- CBMH — EX. CATCH BASIN MANHOLE
- *CBMH* — PROP. CATCH BASIN MANHOLE
- STM MH — EX. STORM MANHOLE
- *STM MH* — PROP. STORM MANHOLE
- CLAY — EX. CULVERT END – CLAY
- CONC — EX. CULVERT END – CONCRETE
- CSP — EX. CULVERT END – CSP
- PE — EX. CULVERT END – PE
- PVC — EX. CULVERT END – PVC
- DCB — EX. DOUBLE CATCH BASIN
- *DCB* — PROP. DOUBLE CATCH BASIN
- DICB — EX. DITCH INLET CATCH BASIN
- *DICB* — PROP. DITCH INLET CATCH BASIN
- RIP RAP — EX. RIPRAP LABEL

EXISTING STORM SEWER

PROPOSED STORM SEWER

STORM SEWER LATERAL

CULVERT

SURVEY POINTS

- BM — BENCHMARK
- TP — TURNING POINT
- VPI — VERTICAL POINT OF INTERSECTION
- HCM — HORIZONTAL CONTROL MONUMENT
- HVCM — HORIZONTAL VERTICAL CONTROL MONUMENT
- HCP — HORIZONTAL PROJECT CONTROL POINT
- HOT — HUB ON TANGENT
- NAIL — NAIL
- CC — CUT CROSS FOUND
- CM — CONCRETE MONUMENT FOUND
- CP — CONCRETE PIN FOUND
- IB — IRON BAR FOUND
- IP — IRON PIPE
- RB — ROCK BAR FOUND
- RIB — ROUND IRON BAR FOUND
- RP — ROCK POST FOUND
- RPL — ROCK PLUG FOUND
- SIB — STANDARD IRON BAR FOUND
- SSIB — SHORT STANDARD IRON BAR FOUND

EXISTING UTILITIES

- BBP — BROAD BAND NETWORK POLE
- B MH — BELL MANHOLE
- BP — BELL POLE
- BGP — BELL GUYPOLE
- B PED — BELL PEDESTAL
- PHONE BOOTH — PHONE BOOTH
- B JB — BELL JUNCTION BOX
- BCUM — BELL UNDERGROUND MARKER
- G PUMP — GAS PUMP
- GV — GAS VALVE
- GM — GAS METER
- G VENT — GAS VENT
- GAS MH — GAS MANHOLE
- GMUM — GAS MAIN MARKER
- GAS DRIP — GAS DRIP
- HV — HYDRO UNDERGROUND TRANSFORMER VAULT
- HP — HYDRO POLE
- HCUM — HYDRO UNDERGROUND MARKER
- PCUM — HYDRO UNDERGROUND POWER MARKER
- GW — HYDRO GUYWIRE
- HGP — HYDRO GUYPOLE
- B&HP — BELL AND HYDRO POLE
- H KIOSK — HYDRO KIOSK
- HT — HYDRO TOWER
- LS — LIGHT STANDARD
- H JB — HYDRO JUNCTION BOX
- H MH — HYDRO ELECTRIC MANHOLE
- HH — HYDRO HANDHOLE
- GND ROD — HYDRO GROUND ROD
- CATV PED — CABLE TV PEDESTAL
- CATV JB — CABLE TV JUNCTION BOX
- CATV — CABLE TV POLE
- FUEL VENT — FUEL OIL VENT

B — BELL CABLE (UNDERGROUND)

BC — BELL CONDUIT (UNDERGROUND)

AB — BELL (AERIAL)

G — GAS MAIN (UNDERGROUND)

H — HYDRO CABLE (UNDERGROUND)

AH — HYDRO CABLE (AERIAL)

GW — GUY WIRE (AERIAL)

TV — TELEVISION CABLE (UNDERGROUND)

AT — TELEVISION CABLE (AERIAL)

OL — OIL PIPE LINE

RESTORATION

- ASPHALT RESTORATION
- GRAVEL RESTORATION
- BRICK RESTORATION
- TOPSOIL AND SOD
- CONCRETE

REMOVAL

- OBJECT TO BE REMOVED

EXISTING TRAFFIC

- TC — POLE MOUNTED TRAFFIC CONTROLLER
- TC — BASE MOUNTED TRAFFIC CONTROLLER
- POWER SUPPLY CABINET
- TS — TRAFFIC POLE
- SIGN DESC — TRAFFIC SIGN
- JB — JUNCTION BOX
- LUMINAIRE
- PUSH BUTTON
- PUSH BUTTON – AUDIBLE
- PED HEAD – AUDIBLE
- PED HEAD
- PED HEAD – COUNTDOWN
- BEACON — BEACON
- PM — PARKING METER
- RADIO INTERCONNECT
- SIGNAL HEAD 1
- SIGNAL HEAD 2
- SIGNAL HEAD 3
- SIGNAL HEAD 4
- SIGNAL HEAD 5
- SIGNAL HEAD 6
- SIGNAL HEAD 7
- SIGNAL HEAD 8
- EMERGENCY VEHICLE PRE-EMPTION DETECTOR
- VC — VIDEO CAMERA
- DC — DETECTION CAMERA
- MDC — MULTI-LEG DETECTION CAMERA
- GROUND ROD
- TRAF_HH — TRAFFIC HANDHOLE
- ITS — ILLUMINATED TRAFFIC SIGN
- ITSD — ILLUMINATED TRAFFIC SIGN – DOUBLE

PAVEMENT MARKINGS

EX. DIRECTIONAL ARROWS

PROPOSED DIRECTIONAL ARROWS

EXISTING LINE MARKINGS

EXISTING 60cm STOP BAR

PROPOSED LINE MARKINGS

PROPOSED 60cm STOP BAR

PROPOSED TRAFFIC

- TC — TRAFFIC CONTROLLER
- TC — TRAFFIC CONTROLLER
- POWER SUPPLY CABINET
- TS — TRAFFIC SIGNAL POLE
- SIGNAL HEAD 1 — HWY SIGNAL HEAD 30cm RED & 20 cm AMBER/GREEN WITH BACKBOARD
- SIGNAL HEAD 2 — HWY SIGNAL HEAD 30cm RED & 20cm AMBER/GREEN ON OVERHEAD SPAN CABLE WITH BACKBOARD
- SIGNAL HEAD 3 — STD. SIGNAL HEAD ALL 20cm LENSES WITH BACKBOARD
- SIGNAL HEAD 4 — STANDARD SIGNAL HEAD ALL 20CM LENSES WITHOUT BACKBOARD
- SIGNAL HEAD 5 — HWY SIGNAL HEAD ALL 30cm LENSES WITH BACKBOARD
- F2 — SIGNAL HEAD 6 — HWY SIGNAL HEAD WITH ARROW INDICATION(S) ALL 30cm LENSES WITH BACKBOARD
- F2 — SIGNAL HEAD 7 — HWY SIGNAL HEAD WITH ARROW INDICATION ALL 30cm LENSES WITH 1 OR MORE PROGRAMMABLE LENSE WITH BACKBOARD
- SIGNAL HEAD 8 — HWY SIGNAL HEAD ALL 30cm LENSES WITH 1 OR MORE PROGRAMMABLE LENSE WITH BACKBOARD
- SIGN DESC — TRAFFIC SIGN
- ITS — ILLUMINATED TRAFFIC SIGN
- ITSD — ILLUMINATED TRAFFIC SIGN – DOUBLE
- JB — JUNCTION BOX
- LUMINAIRE
- PUSH BUTTON
- PUSH BUTTON – AUDIBLE
- PED HEAD
- PED HEAD – AUDIBLE
- PED HEAD – COUNTDOWN
- VC — VIDEO CAMERA
- DC — DETECTION CAMERA
- MDC — MULTI-LEG DETECTION CAMERA

LOOP DETECTOR

50mm CONDUIT

TS — 1-50mm & 1-100mm CONDUIT

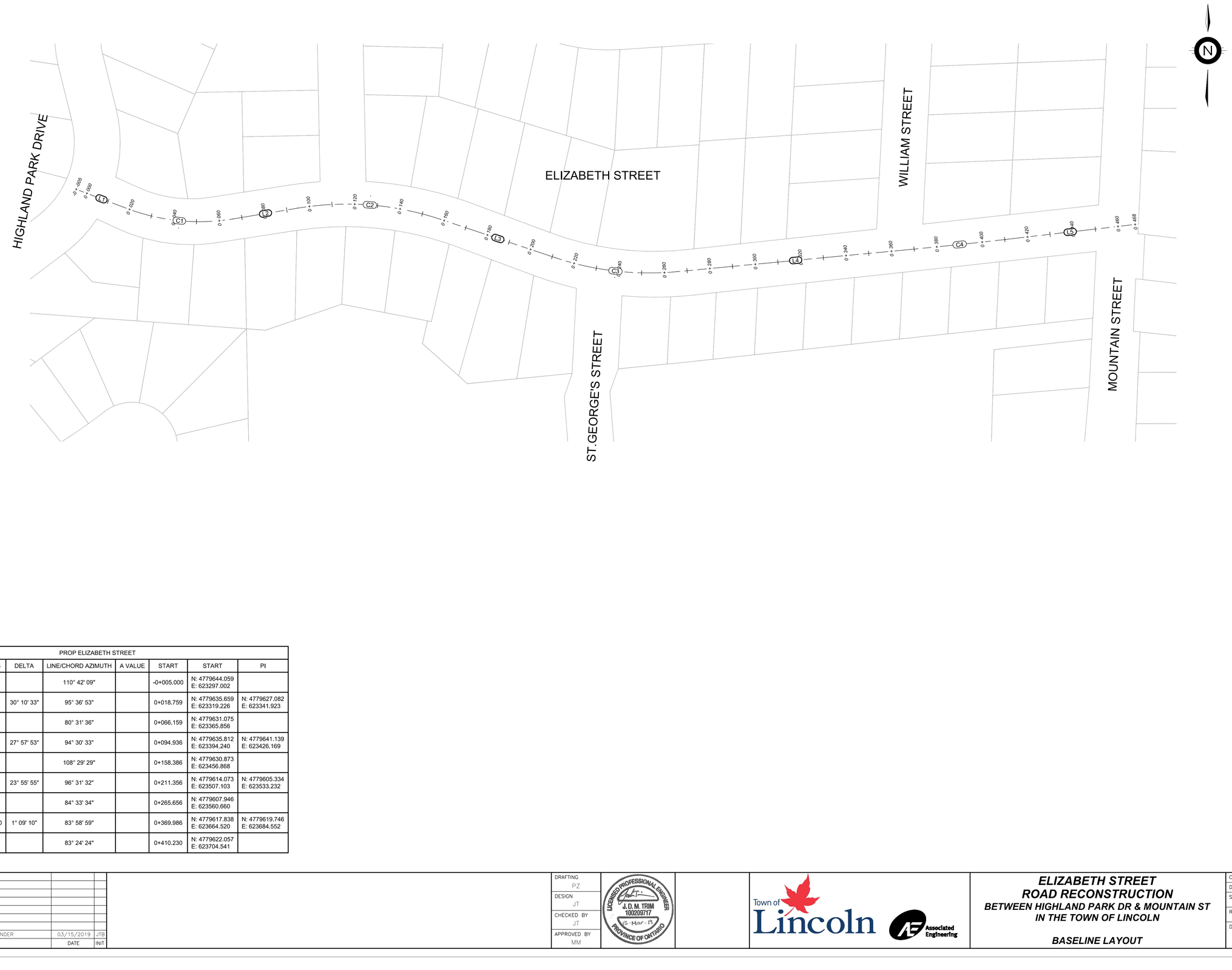
INTER — 50mm INTERCONNECT CONDUIT

Niagara Region PUBLIC WORKS

BLOCK LEGEND SHEET

CONSULTANT FILE No.	
DATE	DECEMBER 2018
SCALE	NTS
REF. No.	
DWG No.	REV.
5246-G102	0

DRAWING FILE: \\ss-nia-fs-01\projects\20185246\00_Elizabeth_St\Working_Dwgs\100_Civil\5246-g-legend.dwg PLOTTED: Mar 13, 2019 - 11:42am PLOTTED BY: tenbrinkej



PROP ELIZABETH STREET								
NUMBER	LENGTH	RADIUS	DELTA	LINE/CHORD AZIMUTH	A VALUE	START	START	PI
L1	23.759			110° 42' 09"		-0+005.000	N: 4779644.059 E: 623297.002	
C1	47.400	90.000	30° 10' 33"	95° 36' 53"		0+018.759	N: 4779635.659 E: 623319.226	N: 4779627.082 E: 623341.923
L2	28.777			80° 31' 36"		0+066.159	N: 4779631.075 E: 623365.856	
C2	63.450	130.000	27° 57' 53"	94° 30' 33"		0+094.936	N: 4779635.812 E: 623394.240	N: 4779641.139 E: 623426.169
L3	52.970			108° 29' 29"		0+158.386	N: 4779630.873 E: 623456.868	
C3	54.300	130.000	23° 55' 55"	96° 31' 32"		0+211.356	N: 4779614.073 E: 623507.103	N: 4779605.334 E: 623533.232
L4	104.330			84° 33' 34"		0+265.656	N: 4779607.946 E: 623560.660	
C4	40.244	2000.000	1° 09' 10"	83° 58' 59"		0+369.986	N: 4779617.838 E: 623664.520	N: 4779619.746 E: 623684.552
L5	57.332			83° 24' 24"		0+410.230	N: 4779622.057 E: 623704.541	

NO	REVISION	DATE	INIT
0	ISSUED FOR TENDER	03/15/2019	JTB

DRAFTING PZ
DESIGN JT
CHECKED BY JT
APPROVED BY MM

LICENSED PROFESSIONAL ENGINEER
J.D.M. TRIM
100209717
15-Mar-19
PROVINCE OF ONTARIO

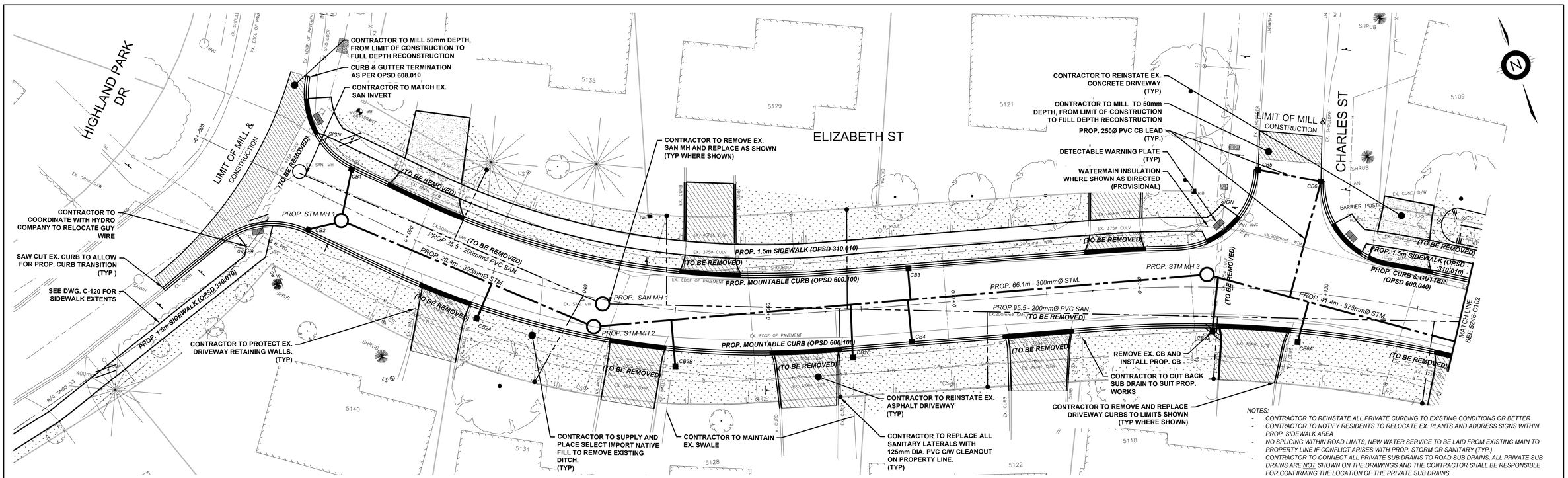
Town of Lincoln

Associated Engineering

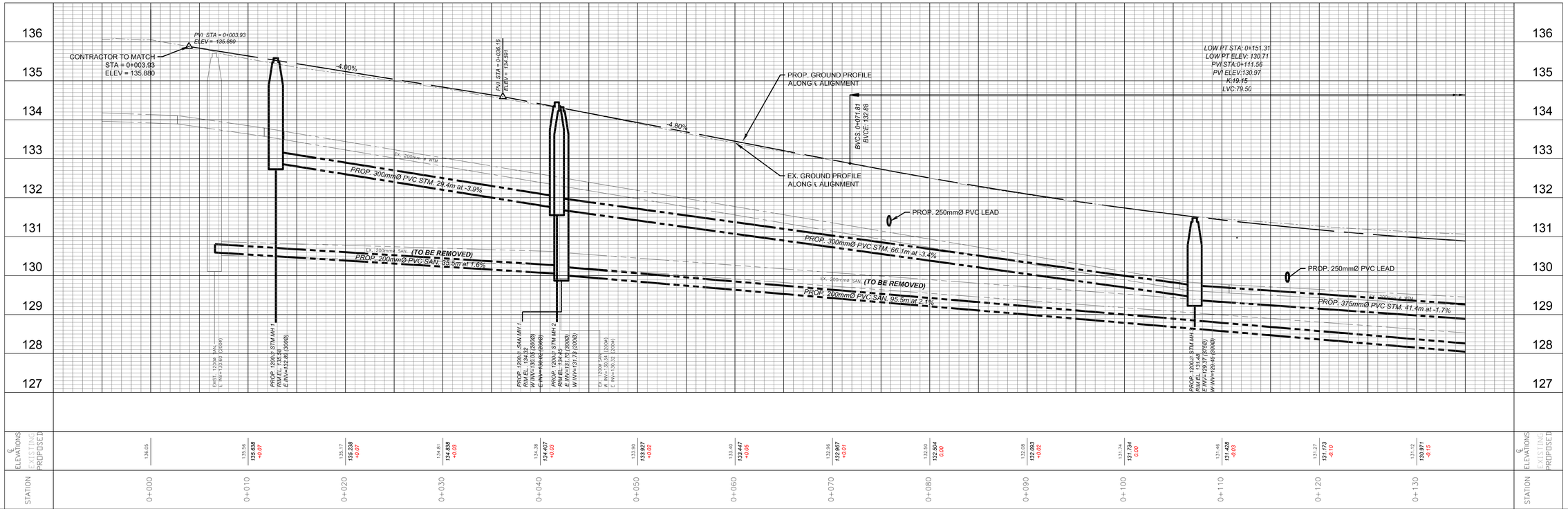
ELIZABETH STREET
ROAD RECONSTRUCTION
BETWEEN HIGHLAND PARK DR & MOUNTAIN ST
IN THE TOWN OF LINCOLN

BASELINE LAYOUT

CAD No. 20185246
DATE DECEMBER 2018
SCALE 1:750
REF. No.
DWG No. 5246-G201
REV. 0



NOTES:
- CONTRACTOR TO REINSTATE ALL PRIVATE CURBING TO EXISTING CONDITIONS OR BETTER
- CONTRACTOR TO NOTIFY RESIDENTS TO RELOCATE EX. PLANTS AND ADDRESS SIGNS WITHIN PROP. SIDEWALK AREA
- NO SPLICING WITHIN ROAD LIMITS, NEW WATER SERVICE TO BE LAID FROM EXISTING MAIN TO PROPERTY LINE IF CONFLICT ARISES WITH PROP. STORM OR SANITARY (TYP.)
- CONTRACTOR TO CONNECT ALL PRIVATE SUB DRAINS TO ROAD SUB DRAINS, ALL PRIVATE SUB DRAINS ARE NOT SHOWN ON THE DRAWINGS AND THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONFIRMING THE LOCATION OF THE PRIVATE SUB DRAINS.
- CONTRACTOR TO CONFIRM SANITARY LATERAL LOCATIONS NOT SHOWN ON DRAWINGS (TYP.)



℄ ELEVATIONS	EXISTING	135.65	135.56	135.17	134.81	134.38	133.90	133.40	132.96	132.50	132.08	131.74	131.46	131.27	131.12	℄ ELEVATIONS
	PROPOSED		135.638	135.238	134.838	134.407	133.927	133.447	132.967	132.504	132.093	131.734	131.408	131.173	130.971	
			+0.07	+0.07	+0.03	+0.03	+0.02	+0.05	+0.01	0.00	+0.02	0.00	-0.03	-0.10	-0.15	
STATION		0+000	0+010	0+020	0+030	0+040	0+050	0+060	0+070	0+080	0+090	0+100	0+110	0+120	0+130	STATION

NO	REVISION	DATE	INIT
0	ISSUED FOR TENDER	03/15/2019	JTB

DRAFTING: PZ
DESIGN: JT
CHECKED BY: JT
APPROVED BY: MM

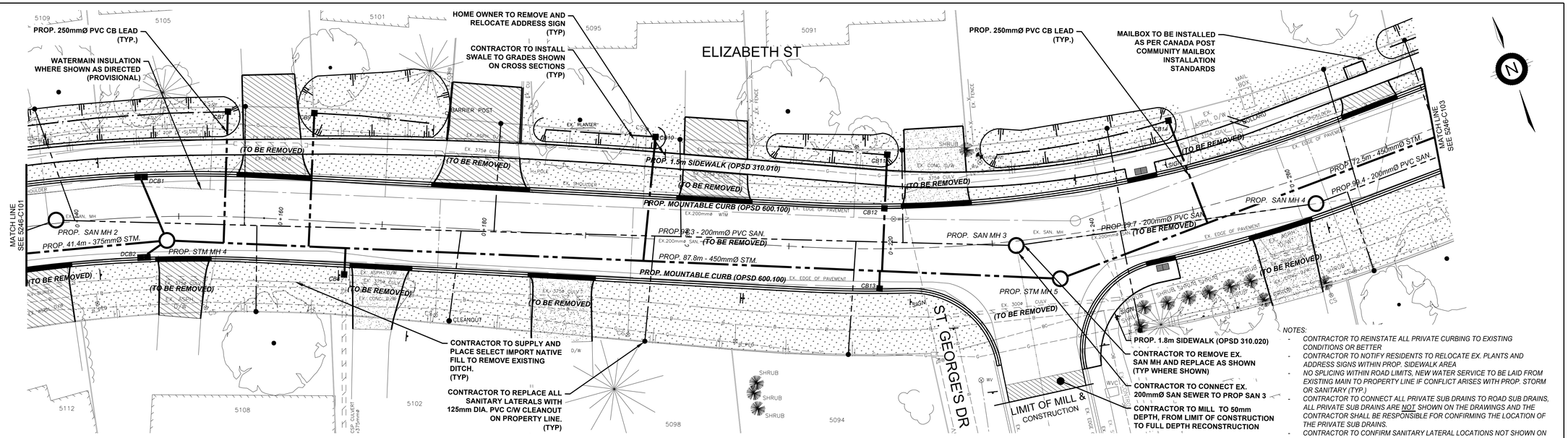
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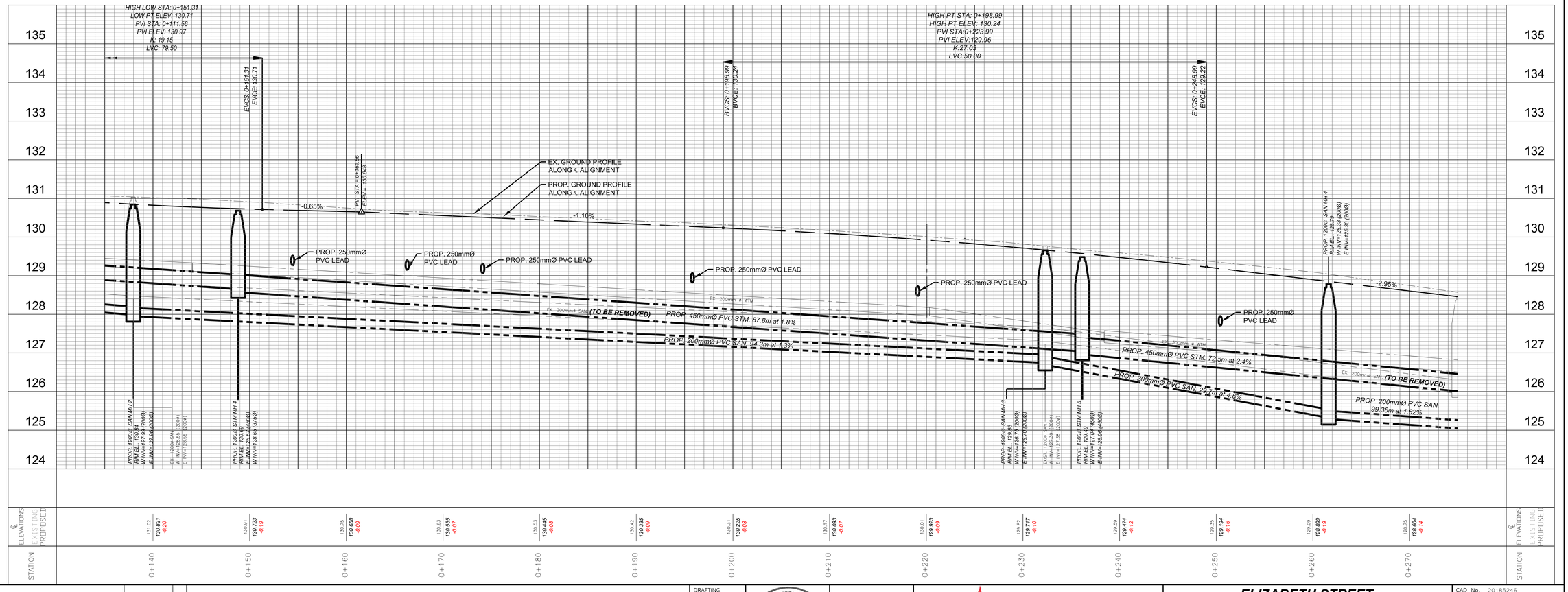
Town of Lincoln

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ELIZABETH STREET ROAD RECONSTRUCTION
BETWEEN HIGHLAND PARK DR & MOUNTAIN ST IN THE TOWN OF LINCOLN
ROAD GEOMETRICS FROM STA -0+005 TO 0+135

CAD No.	20185246
DATE	DECEMBER 2018
SCALE	1:200 1:50
REF. No.	
DWG No.	5246-C101
REV.	0





NO	REVISION	DATE	INIT
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LICENSED PROFESSIONAL ENGINEER
J.D.M. TRIM
100209717
15-Mar-19
PROVINCE OF ONTARIO

Town of Lincoln

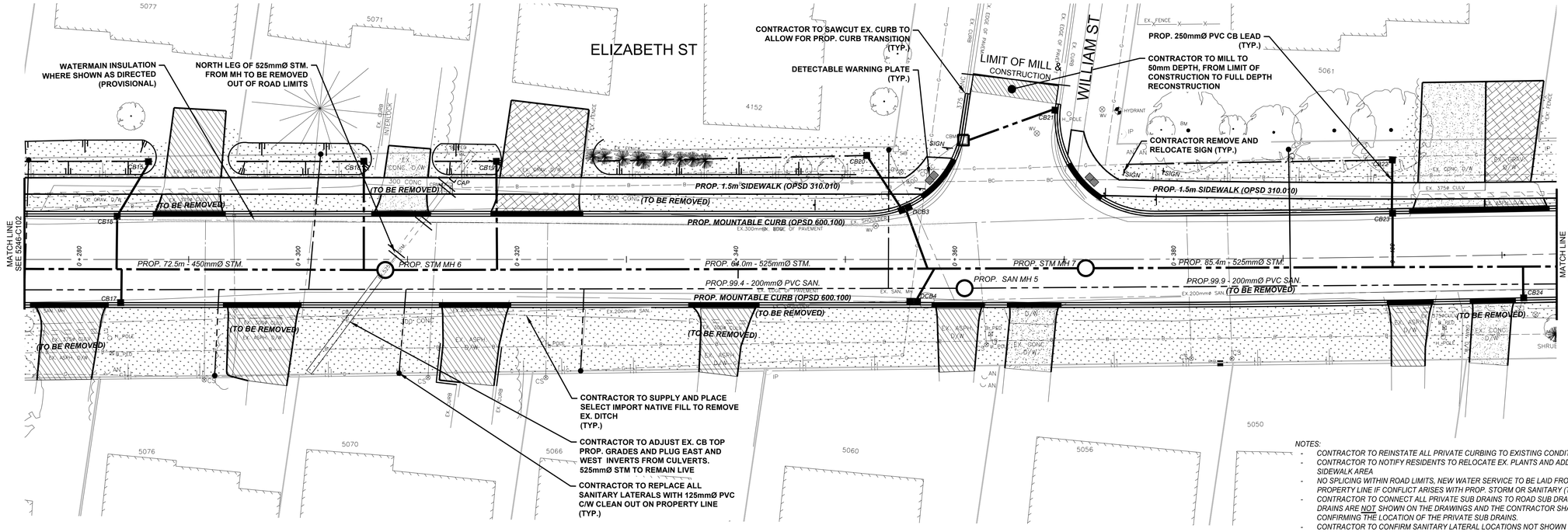
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ELIZABETH STREET ROAD RECONSTRUCTION

BETWEEN HIGHLAND PARK DR & MOUNTAIN ST IN THE TOWN OF LINCOLN

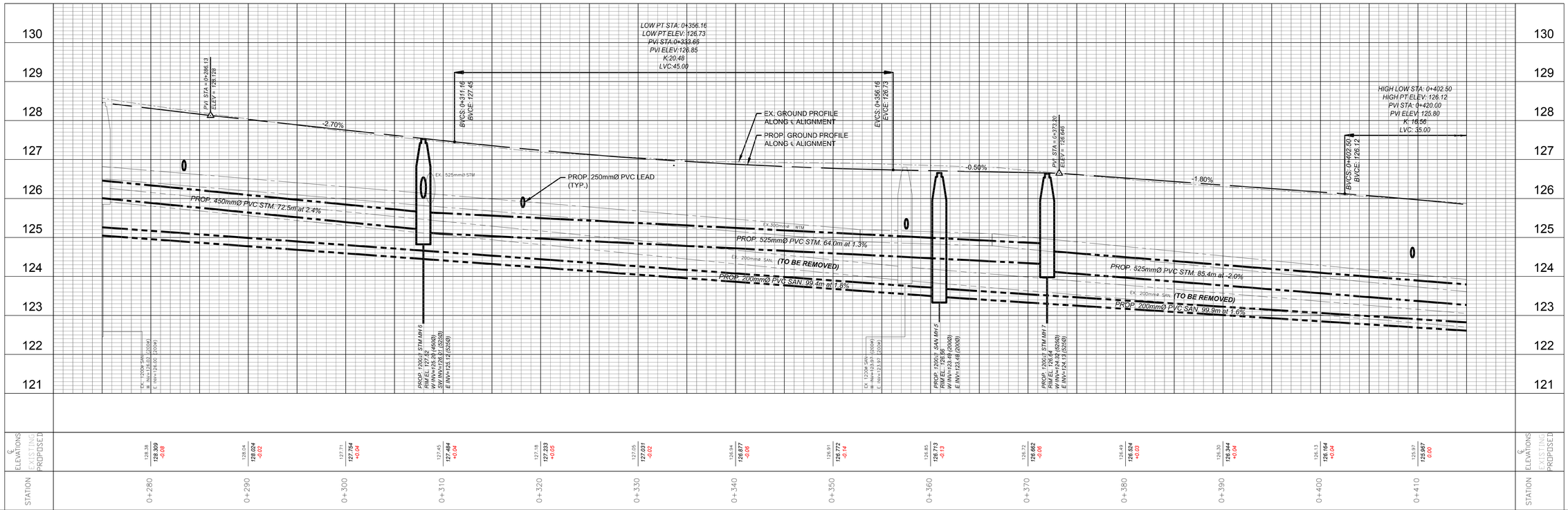
ROAD GEOMETRICS FROM STA 0+135 TO 0+275

CAD No. 20185246
DATE DECEMBER 2018
SCALE 1:200 1:50
REF. No.
DWG No. 5246-C102
REV. 0



NOTES:

- *CONTRACTOR TO REINSTATE ALL PRIVATE CURBING TO EXISTING CONDITIONS OR BETTER*
- *CONTRACTOR TO NOTIFY RESIDENTS TO RELOCATE EX. PLANTS AND ADDRESS SIGNS WITHIN PROP. SIDEWALK AREA*
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NO	REVISION	DATE	INIT
0	ISSUED FOR TENDER	03/15/2019	JTB

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LICENSED PROFESSIONAL ENGINEER
J.D.M. TRIM
100209717
15-Mar-19
PROVINCE OF ONTARIO

Town of Lincoln

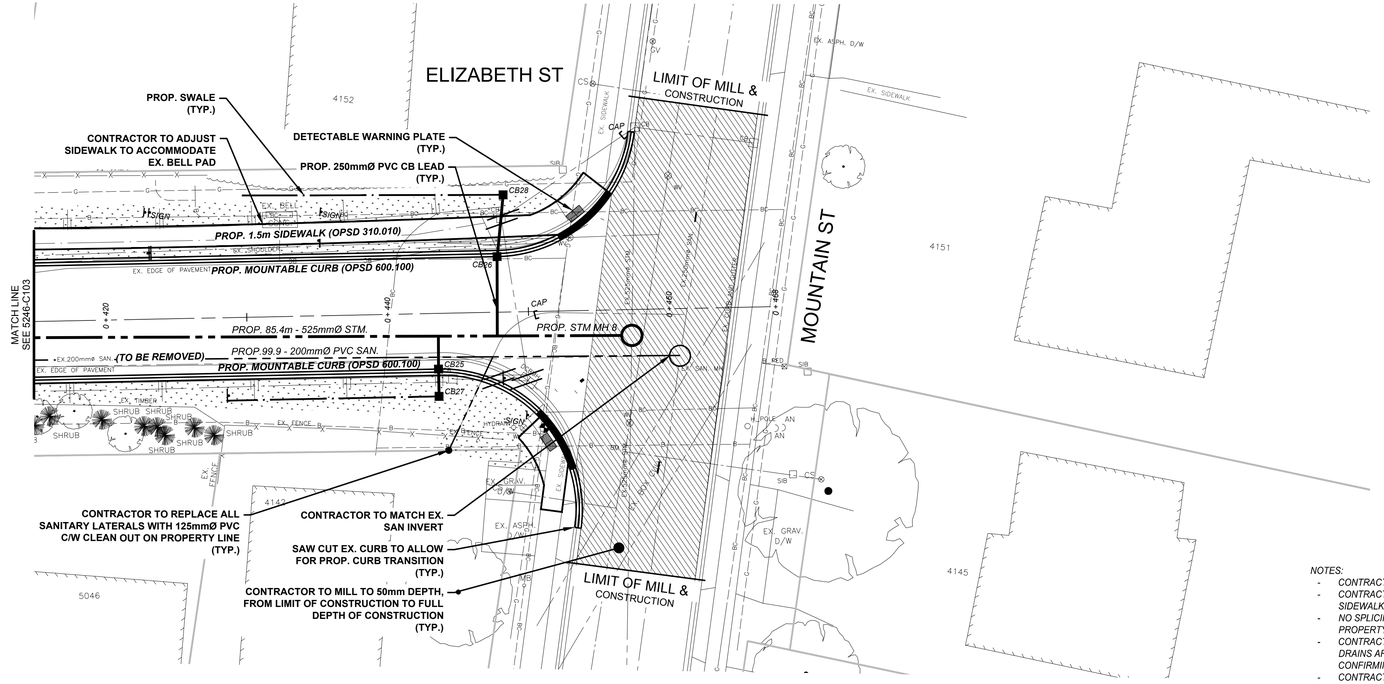
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ELIZABETH STREET ROAD RECONSTRUCTION

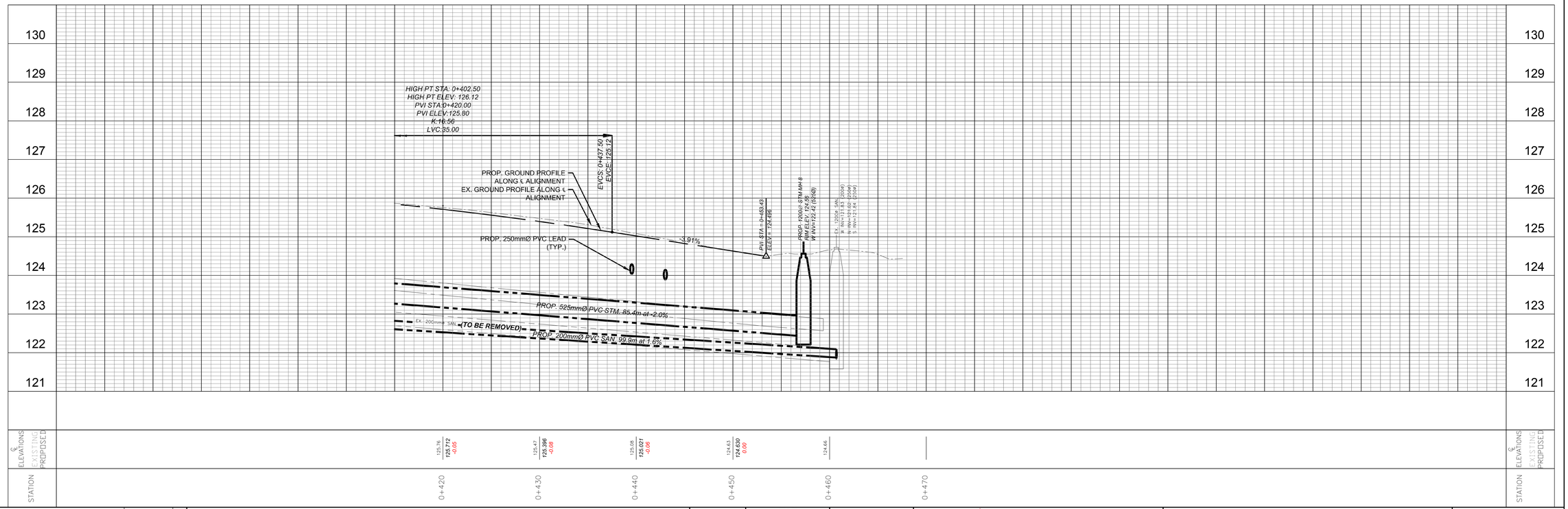
BETWEEN HIGHLAND PARK DR & MOUNTAIN ST IN THE TOWN OF LINCOLN

ROAD GEOMETRICS FROM STA 0+275 TO 0+415

CAD No. 20185246
DATE DECEMBER 2018
SCALE 1:200 1:50
REF. No.
DWG No. 5246-C103
REV. 0



NOTES:
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NO	REVISION	DATE	INIT
0	ISSUED FOR TENDER	03/15/2019	JTB

DRAFTING: PZ
DESIGN: JT
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J.D.M. TRIM
100209717
15-Mar-19
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Town of Lincoln

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ELIZABETH STREET ROAD RECONSTRUCTION

BETWEEN HIGHLAND PARK DR & MOUNTAIN ST IN THE TOWN OF LINCOLN

ROAD GEOMETRICS FROM STA 0+415 TO 0+468

CAD No. 20185246
DATE DECEMBER 2018
SCALE 1:200 1:50
REF. No.
DWG No. 5246-C104
REV. 0

REFERENCE DRAWING
5246-C101

SANITARY/STORM SEWER DATA						
MH/CB #	STATION	℄ CONSTRUCTION OFFSET	OPSD	OUTLET INVERT	FRAME & COVER STD. DWG	TOP OF FRAME ELEVATION
STM MH1	0+012.85	1.52m R	701.010	132.89m	401.010	135.58m
STM MH2	0+041.71	3.05m R	701.010	131.70m	401.010	134.45m
STM MH3	0+107.21	1.34m L	701.010	129.37m	401.010	131.48m
CB1	0+011.48	3.95m L	705.010	133.99m	400.020	135.49m
CB2	0+010.12	3.95m R	705.010	134.29m	400.020	135.79m
CB2A	0+29.91	5.14m R	705.010	133.65m	400.020	135.15m
CB2B	0+50.56	6.00m R	705.010	132.58m	400.020	134.08m
CB2C	0+68.70	5.14m R	705.010	131.71m	400.020	133.208m
CB3	0+075.42	3.95m L	705.010	131.05m	400.020	132.55m
CB4	0+075.13	3.95m R	705.010	131.38m	400.020	132.88m
CB4A	0+107.91	4.74m R	705.010	129.98m	400.020	131.48m
CB5	0+112.05	12.78m L	705.010	129.44m	400.020	130.94m
CB6	0+118.29	12.03m L	705.010	129.27m	400.020	130.77m
CB6A	0+117.50	5.40m R	705.010	129.85m	400.020	131.35m

REFERENCE DRAWING
5246-C102

SANITARY/STORM SEWER DATA						
MH/CB #	STATION	℄ CONSTRUCTION OFFSET	OPSD	OUTLET INVERT	FRAME & COVER STD. DWG	TOP OF FRAME ELEVATION
STM MH4	0+148.79	2.35m R	701.010	128.58m	401.010	130.69m
STM MH5	0+236.14	4.20m R	701.010	126.96m	401.010	129.49m
SAN MH2	0+137.96	0.31m L	701.010	127.96m	401.010	134.32m
SAN MH3	0+232.30	0.43m R	701.010	126.70m	401.010	129.66m
SAN MH4	0+261.62	2.87m R	701.010	128.30m	401.010	128.79m
DCB1	0+146.44	3.95m L	705.020	129.17m	400.020	130.67m
DCB2	0+146.46	3.95m R	705.020	129.17m	400.020	130.67m
CB7	0+154.58	10.30m L	705.010	128.37m	400.120	129.86m
CB8	0+166.52	5.09m R	705.010	129.12m	400.020	130.62m
CB9	0+162.66	10.57m L	705.010	128.37m	400.120	129.87m
CB10	0+196.35	10.01m L	705.010	128.37m	400.120	129.87m
CB11	0+219.75	9.22m L	705.010	128.29m	400.120	129.49m
CB12	0+219.37	3.95m L	705.010	128.05m	400.020	129.86m
CB13	0+218.89	3.95m R	705.010	128.37m	400.020	129.87m
CB14	0+249.76	9.07m L	705.010	127.42m	400.120	128.56m

REFERENCE DRAWING
5246-C103

SANITARY/STORM SEWER DATA						
MH/CB #	STATION	℄ CONSTRUCTION OFFSET	OPSD	OUTLET INVERT	FRAME & COVER STD. DWG	TOP OF FRAME ELEVATION
STM MH6	0+307.96	0.97m R	701.010	125.06m	401.010	127.52m
STM MH7	0+357.96	0.80m R	701.010	124.81m	401.010	126.64m
STM MH8	0+411.90	1.05m R	701.010	124.10m	401.010	125.91m
SAN MH5	0+360.90	2.87m R	701.010	123.48m	401.010	126.66m
EX. CB	0+360.84	10.91m L	705.010	124.75m	400.020	126.25m
DCB3	0+355.46	4.65m L	705.020	124.70m	400.020	126.55m
DCB4	0+356.22	3.87m R	705.020	125.15m	400.020	126.65m
CB15	0+286.32	8.97m R	705.010	126.51m	400.120	127.70m
CB16	0+283.46	3.95m L	705.010	126.32m	400.020	128.13m
CB17	0+283.78	3.95m R	705.010	126.62m	400.020	128.12m
CB18	0+306.00	8.96m L	705.010	125.97m	400.120	127.16m
CB19	0+318.11	8.97m L	705.010	125.35m	400.120	126.85m
CB20	0+351.95	9.50m L	705.010	124.96m	400.120	126.153m
CB21	0+369.18	13.64m L	705.010	124.56m	400.020	126.08m
CB22	0+400.12	10.01m L	705.010	124.54m	400.120	125.92m
CB23	0+400.07	3.95m L	705.010	124.36m	400.020	126.16m
CB24	0+411.86	3.95m R	705.010	124.35m	400.020	125.85m

REFERENCE DRAWING
5246-C104

SANITARY/STORM SEWER DATA						
MH/CB #	STATION	℄ CONSTRUCTION OFFSET	OPSD	OUTLET INVERT	FRAME & COVER STD. DWG	TOP OF FRAME ELEVATION
STM MH9	0+457.30	1.84m R	701.010	122.39m	401.010	124.56m
CB25	0+443.53	3.95m R	705.010	123.31m	400.020	124.80m
CB26	0+447.85	3.95m L	705.010	123.21m	400.020	124.71m
CB27	0+443.53	5.89m R	705.010	123.54m	400.120	124.74m
CB28	0+448.36	8.31m L	705.010	123.39m	400.120	124.59m

NO	REVISION	DATE	INIT
0	ISSUED FOR TENDER	03/15/2019	JTB

DRAFTING: PZ
DESIGN: JT
CHECKED BY: JT
APPROVED BY: MM

LICENSED PROFESSIONAL ENGINEER
J. D. M. TRIM
100209717
15-Mar-19
PROVINCE OF ONTARIO

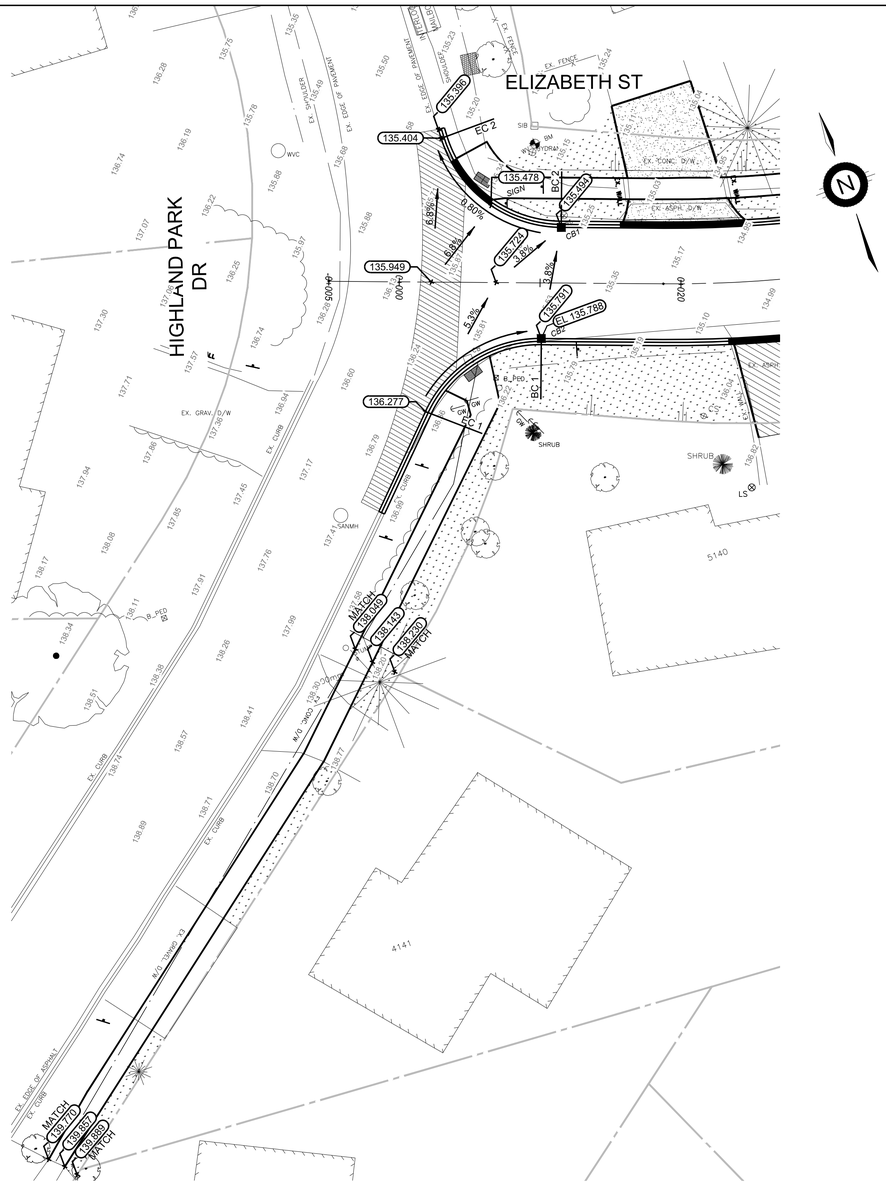
Town of Lincoln

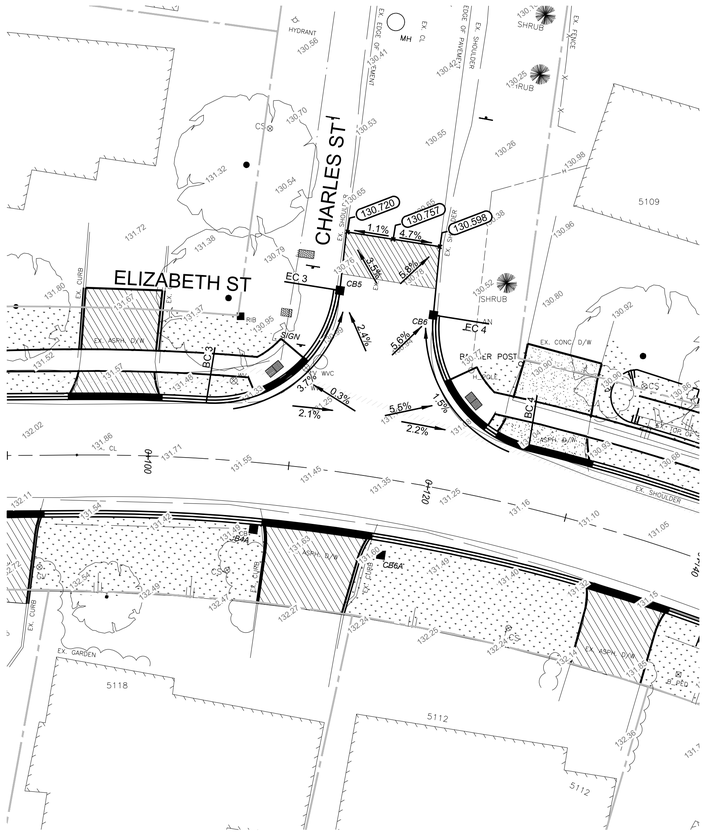
Associated Engineering

ELIZABETH STREET
ROAD RECONSTRUCTION
BETWEEN HIGHLAND PARK DR & MOUNTAIN ST
IN THE TOWN OF LINCOLN

STRUCTURES TABLE

CAD No. 20185246
DATE DECEMBER 2018
SCALE
REF. No.
DWG No. 5246-C105
REV. 0





CURVE DATA

CURVE NO.	BEGINNING OF CURVE (B.C.)			END OF CURVE (E.C.)			CURVE LENGTH (m)	CURVE RADIUS (m)	CHORD LENGTH (m)
	STATION	NORTHING	EASTING	STATION	NORTHING	EASTING			
1	0+010.12	4779635.020	623309.744	0+001.93	4779633.001	623300.235	10.270	9.000	9.722
2	0+011.48	4779641.939	623313.811	0+002.90	4779650.820	623308.005	11.358	9.000	10.619

1 - DETAIL 1:200

HIGHLAND PARK DR AT ELIZABETH ST

CURVE DATA

CURVE NO.	BEGINNING OF CURVE (B.C.)			END OF CURVE (E.C.)			CURVE LENGTH (m)	CURVE RADIUS (m)	CHORD LENGTH (m)
	STATION	NORTHING	EASTING	STATION	NORTHING	EASTING			
3	0+103.87	4779640.910	623402.717	0+112.06	4779650.285	623410.839	13.685	9.000	12.404
4	0+126.33	4779641.146	623425.831	0+118.29	4779649.602	623417.667	11.754	9.000	12.807

2 - DETAIL 1:200

CHARLES ST AT ELIZABETH ST

NO	REVISION	DATE	INIT
0	ISSUED FOR TENDER	03/15/2019	JTB

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DESIGN JT
CHECKED BY JT
APPROVED BY MM

LICENSED PROFESSIONAL ENGINEER
J. D. M. TRIM
100209717
15-Mar-19
PROVINCE OF ONTARIO

Town of Lincoln

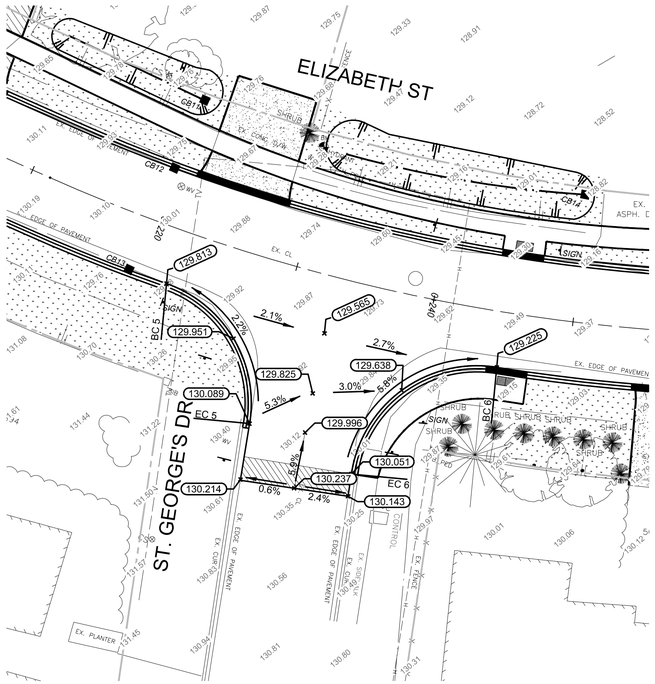
Associated Engineering

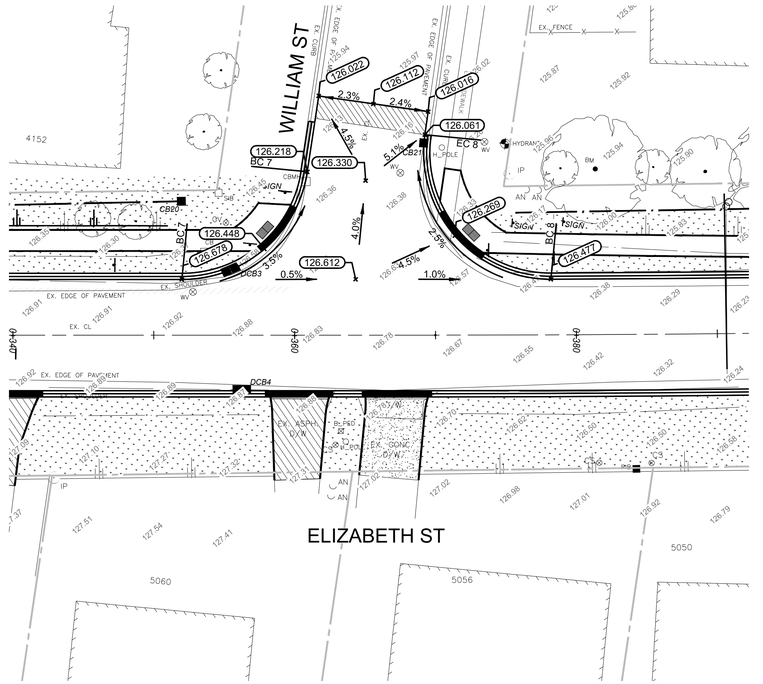
ELIZABETH STREET ROAD RECONSTRUCTION

BETWEEN HIGHLAND PARK DR & MOUNTAIN ST IN THE TOWN OF LINCOLN

INTERSECTION I

CAD No. 20185246
DATE DECEMBER 2018
SCALE AS NOTED
REF. No.
DWG No. 5246-C121
REV. 0





CURVE DATA

CURVE NO.	BEGINNING OF CURVE (B.C.)			END OF CURVE (E.C.)			CURVE LENGTH (m)	CURVE RADIUS (m)	CHORD LENGTH (m)
	STATION	NORTHING	EASTING	STATION	NORTHING	EASTING			
5	0+221.66	4779607.362	623516.039	0+239.79	4779598.038	623522.850	12.536	9.000	11.547
6	0+236.99	4779595.156	623530.386	0+245.16	4779603.674	623539.938	14.237	9.000	12.799

CURVE DATA

CURVE NO.	BEGINNING OF CURVE (B.C.)			END OF CURVE (E.C.)			CURVE LENGTH (m)	CURVE RADIUS (m)	CHORD LENGTH (m)
	STATION	NORTHING	EASTING	STATION	NORTHING	EASTING			
7	0+351.99	4779620.064	623646.231	0+360.89	4779628.523	623654.364	12.782	9.000	11.734
8	0+378.21	4779622.565	623672.311	0+369.24	4779631.931	623662.431	15.439	9.000	13.614

3 - DETAIL 1:200
ST.GEORGE'S DR AT ELIZABETH

4 - DETAIL 1:200
WILLIAM ST AT ELIZABETH ST

NO	REVISION	DATE	INIT
0	ISSUED FOR TENDER	03/15/2019	JTB

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J. D. M. TRIM
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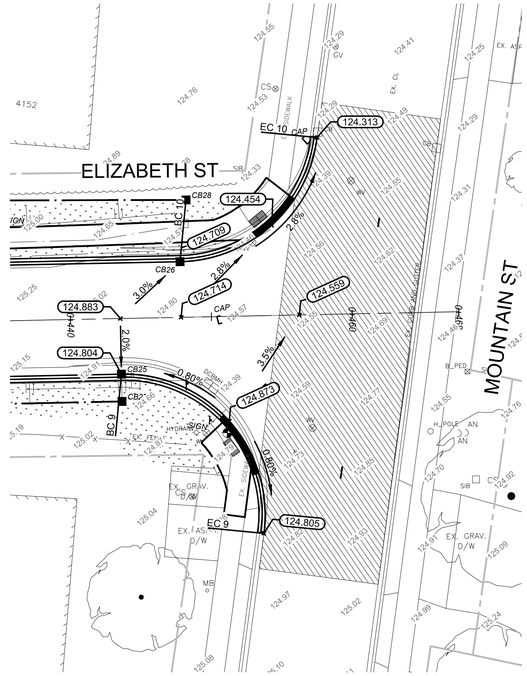
Town of Lincoln

Associated Engineering

ELIZABETH STREET
ROAD RECONSTRUCTION
BETWEEN HIGHLAND PARK DR & MOUNTAIN ST
IN THE TOWN OF LINCOLN

INTERSECTION II

CAD No. 20185246
DATE DECEMBER 2018
SCALE AS NOTED
REF. No.
DWG No. 5246-C122
REV. 0



CURVE DATA

CURVE NO.	BEGINNING OF CURVE (B.C.)			END OF CURVE (E.C.)			CURVE LENGTH (m)	CURVE RADIUS (m)	CHORD LENGTH (m)
	STATION	NORTHING	EASTING	STATION	NORTHING	EASTING			
9	0+443.53	4779621.957	623738.080	0+463.42	4779611.666	623749.222	17.216	10.000	15.168
10	0+447.85	4779630.300	623741.460	0+457.76	4779640.002	623750.309	14.325	10.000	13.131

5 / - DETAIL 1:200

MOUNTAIN ST AT ELIZABETH ST

NO	REVISION	DATE	INIT
0	ISSUED FOR TENDER	03/15/2019	JTB

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DESIGN JT
CHECKED BY JT
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LICENSED PROFESSIONAL ENGINEER J. D. M. TRIM 100209717 15-Mar-19 PROVINCE OF ONTARIO

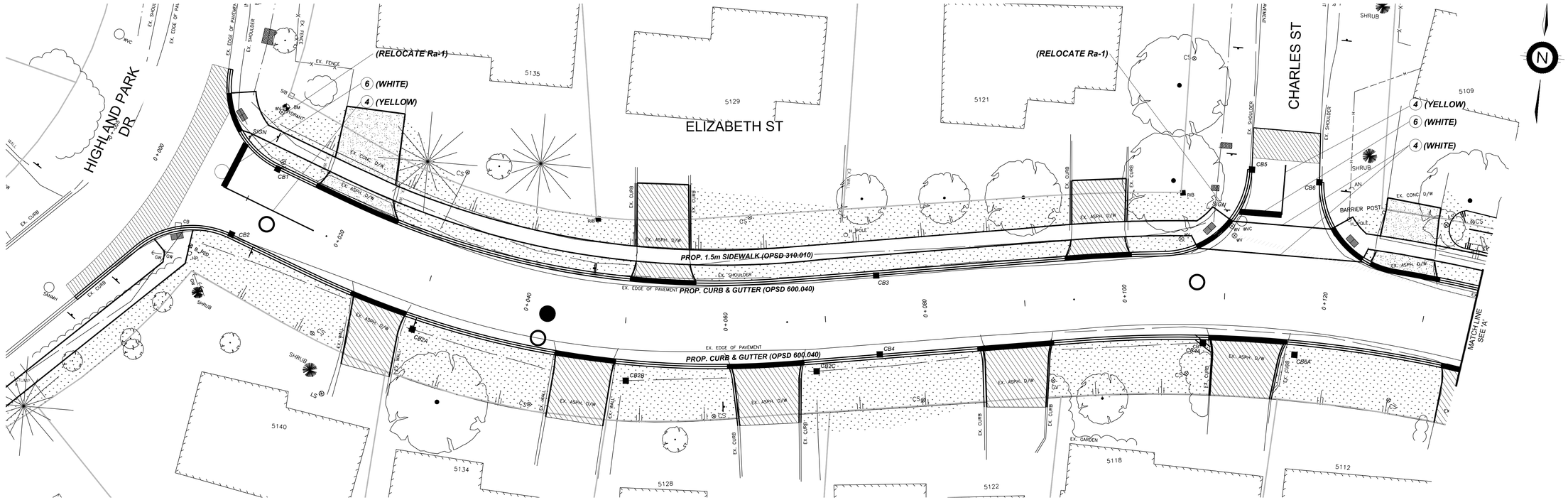
Town of Lincoln

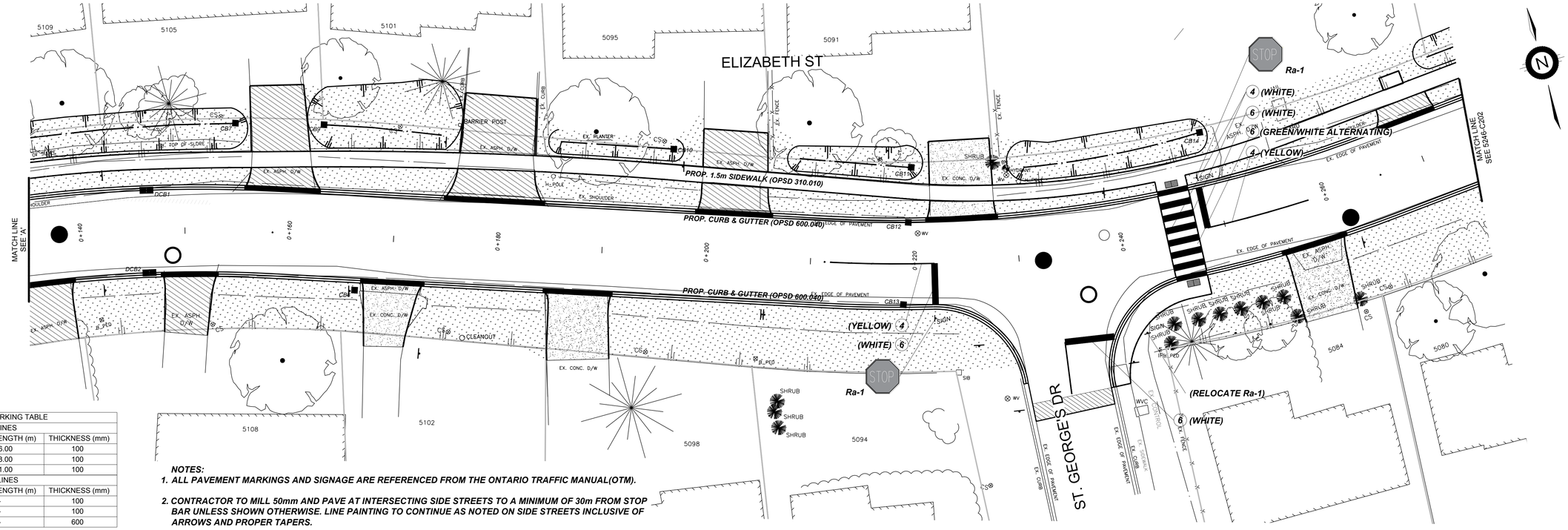
Associated Engineering

ELIZABETH STREET
ROAD RECONSTRUCTION
BETWEEN HIGHLAND PARK DR & MOUNTAIN ST
IN THE TOWN OF LINCOLN

INTERSECTION III

CAD No. 20185246
DATE DECEMBER 2018
SCALE AS NOTED
REF. No.
DWG No. 5246-C123
REV. 0





PAVEMENT MARKING TABLE			
LANE LINES			
NO.	PAINT LENGTH (m)	GAP LENGTH (m)	THICKNESS (mm)
1	3.00	6.00	100
2	3.00	3.00	100
3	1.00	1.00	100
SOLID LINES			
NO.	PAINT LENGTH (m)	GAP LENGTH (m)	THICKNESS (mm)
4	-	-	100
5	-	-	100
6	-	-	600

NOTES:

1. ***ALL PAVEMENT MARKINGS AND SIGNAGE ARE REFERENCED FROM THE ONTARIO TRAFFIC MANUAL(OTM).***
2. ***CONTRACTOR TO MILL 50mm AND PAVE AT INTERSECTING SIDE STREETS TO A MINIMUM OF 30m FROM STOP BAR UNLESS SHOWN OTHERWISE. LINE PAINTING TO CONTINUE AS NOTED ON SIDE STREETS INCLUSIVE OF ARROWS AND PROPER TAPERS.***

NO	REVISION	DATE	INIT
0	ISSUED FOR TENDER	03/15/2019	JTB

DRAFTING PZ
DESIGN JT
CHECKED BY JT
APPROVED BY MM

LICENSED PROFESSIONAL ENGINEER
J. D. M. TRIM
100209717
15-Mar-19
PROVINCE OF ONTARIO

Town of Lincoln

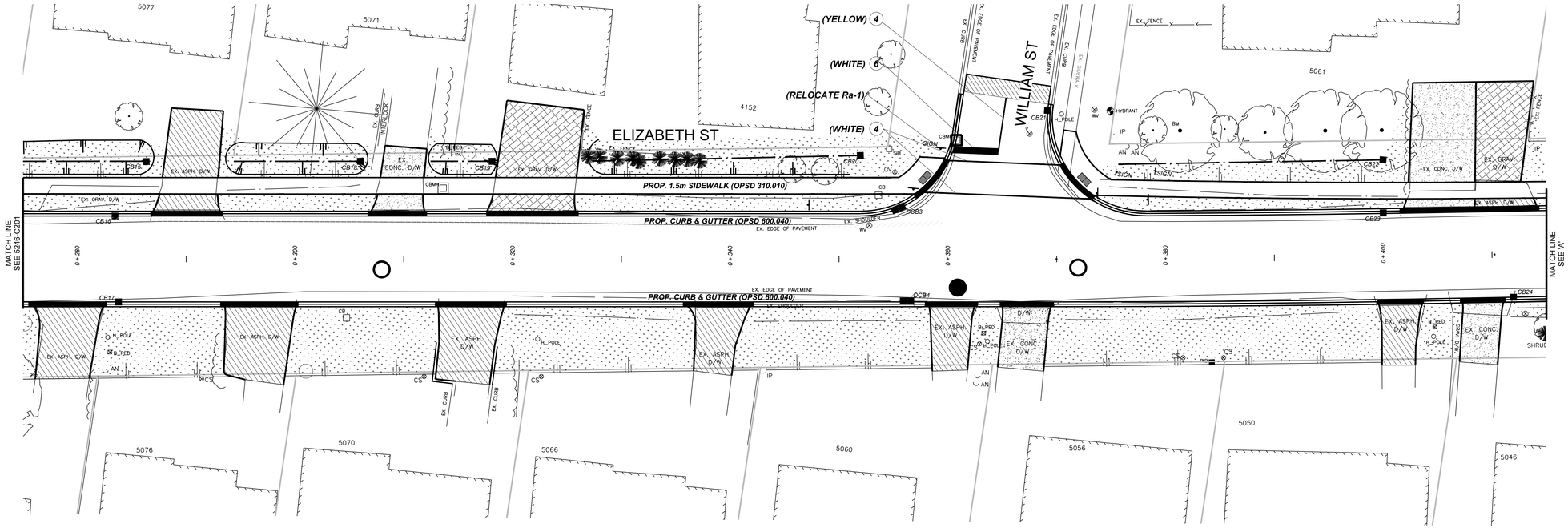
Associated Engineering

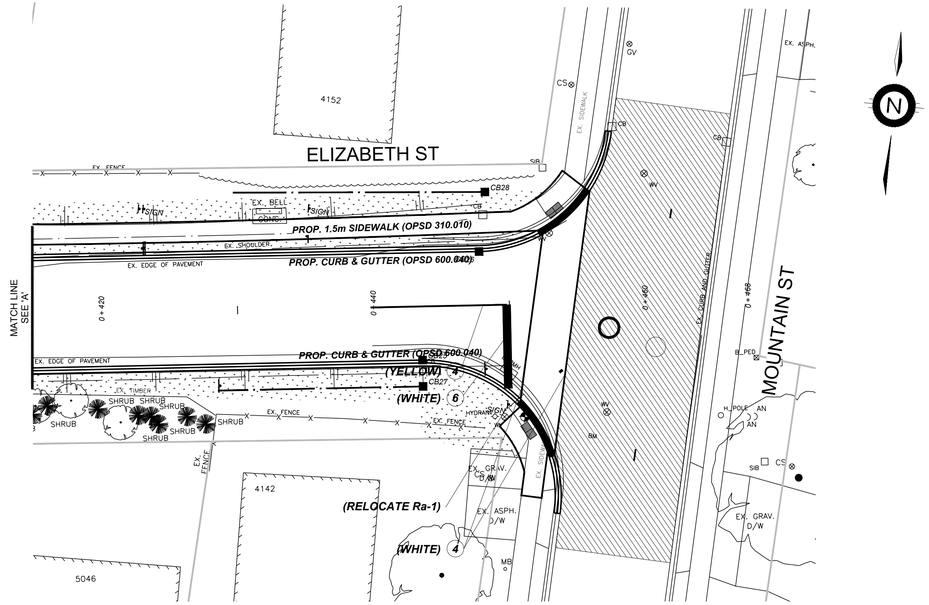
ELIZABETH STREET ROAD RECONSTRUCTION

BETWEEN HIGHLAND PARK DR & MOUNTAIN ST IN THE TOWN OF LINCOLN

LINE PAINTING AND SIGNAGE FROM STA. -0+005 TO 0+275

CAD No. 20185246
DATE DECEMBER 2018
SCALE 1:200
REF. No.
DWG No. 5246-C201
REV. 0





PAVEMENT MARKING TABLE			
LANE LINES			
NO.	PAINT LENGTH (m)	GAP LENGTH (m)	THICKNESS (mm)
1	3.00	6.00	100
2	3.00	3.00	100
3	1.00	1.00	100
SOLID LINES			
NO.	PAINT LENGTH (m)	GAP LENGTH (m)	THICKNESS (mm)
4	-	-	100
5	-	-	100
6	-	-	600

NOTES:

1. ***ALL PAVEMENT MARKINGS AND SIGNAGE ARE REFERENCED FROM THE ONTARIO TRAFFIC MANUAL(OTM).***
2. ***CONTRACTOR TO MILL 50mm AND PAVE AT INTERSECTING SIDE STREETS TO A MINIMUM OF 30m FROM STOP BAR UNLESS SHOWN OTHERWISE. LINE PAINTING TO CONTINUE AS NOTED ON SIDE STREETS INCLUSIVE OF ARROWS AND PROPER TAPERS.***

NO	REVISION	DATE	INIT
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DRAFTING: PZ
DESIGN: JT
CHECKED BY: JT
APPROVED BY: MM

LICENSED PROFESSIONAL ENGINEER
J. D. M. TRIM
100209717
15 - Mar - 19
PROVINCE OF ONTARIO

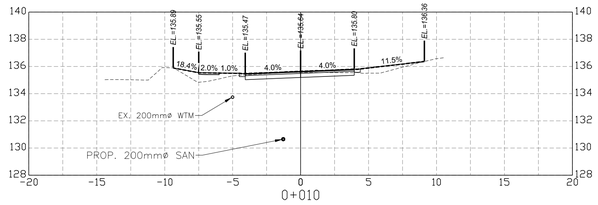
Town of Lincoln

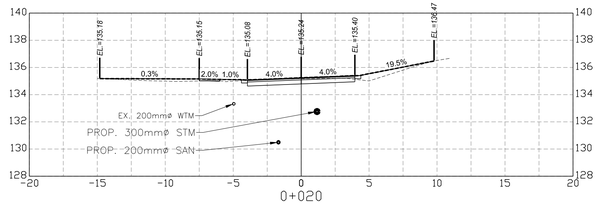
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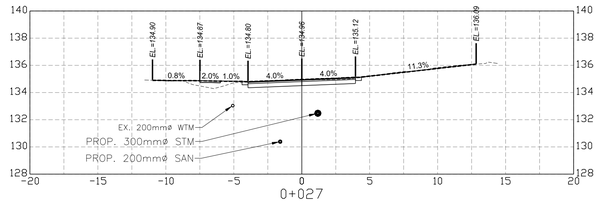
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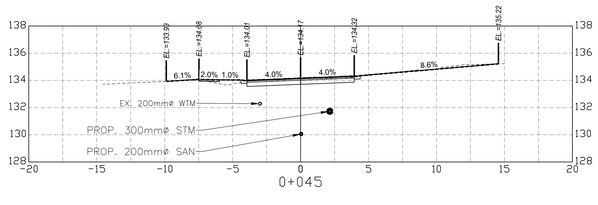
BETWEEN HIGHLAND PARK DR & MOUNTAIN ST
IN THE TOWN OF LINCOLN
LINE PAINTING AND SIGNAGE
FROM STA. 0+275 TO 0+468

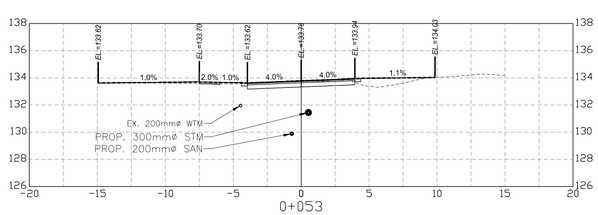
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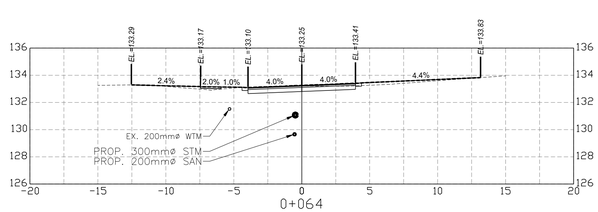


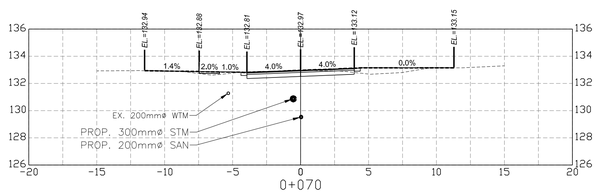


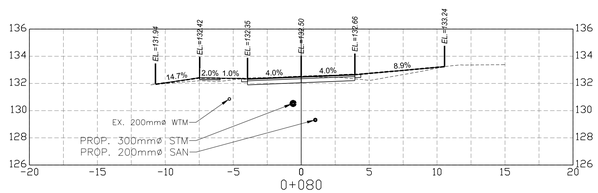


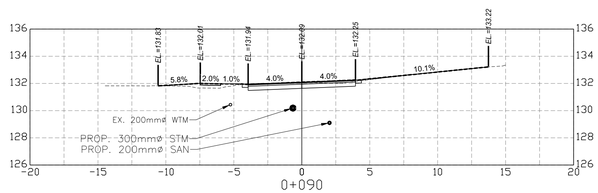


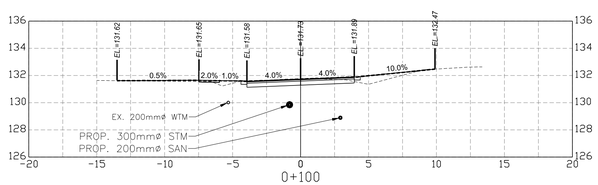


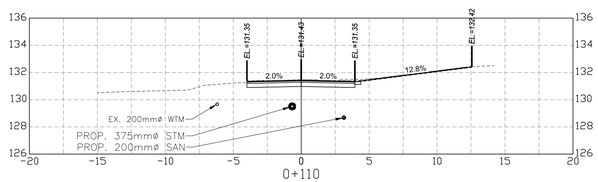


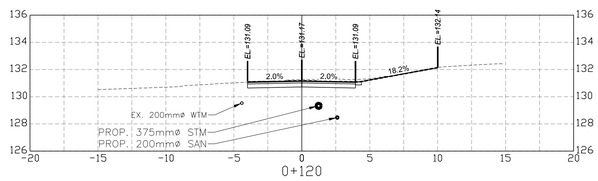












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APPROVED BY: MM

LICENSED PROFESSIONAL ENGINEER
J.D.M. TRIM
100209717
15-Mar-19
PROVINCE OF ONTARIO

Town of Lincoln

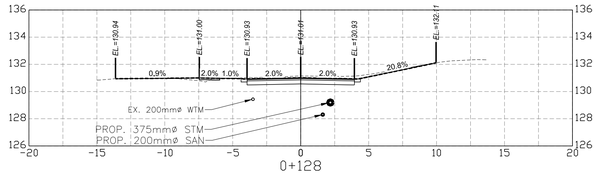
Associated Engineering

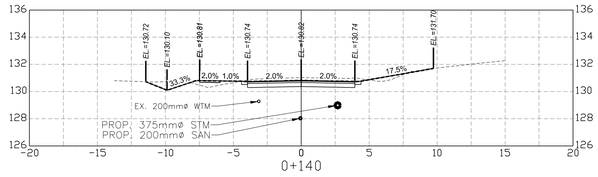
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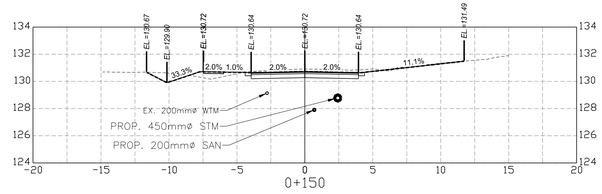
BETWEEN HIGHLAND PARK DR & MOUNTAIN ST IN THE TOWN OF LINCOLN

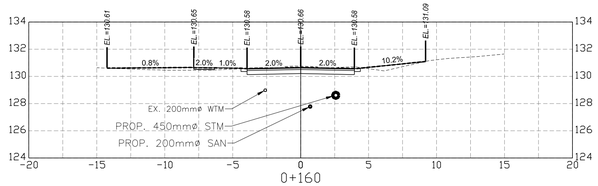
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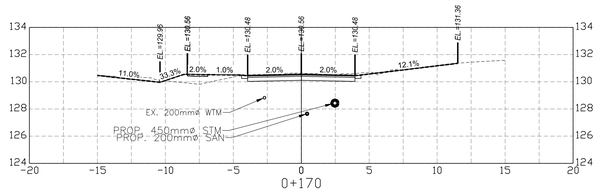
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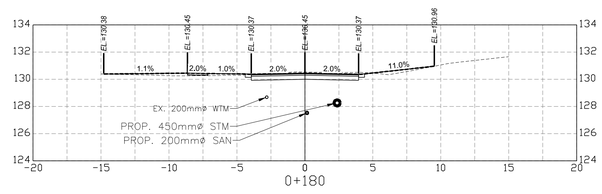


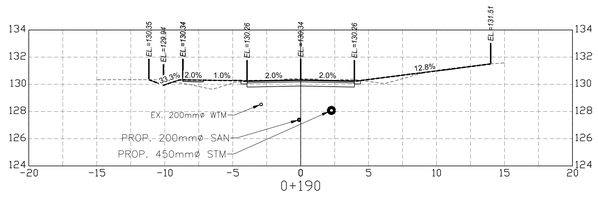


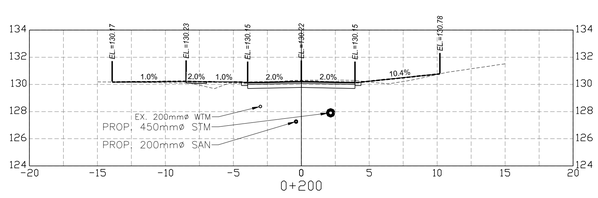


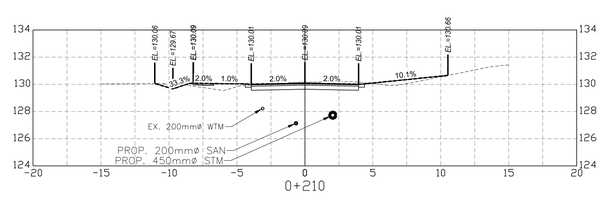


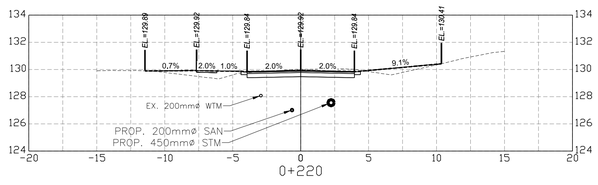


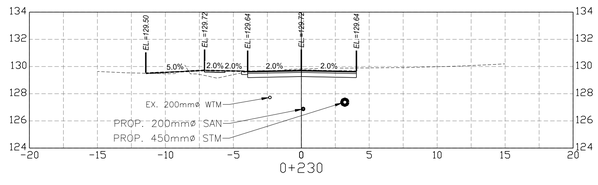


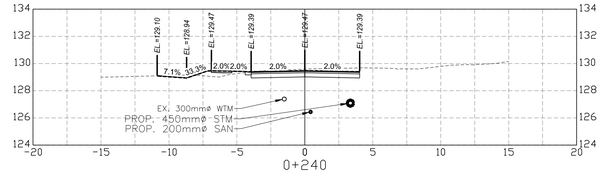












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DRAFTING: PZ
DESIGN: JT
CHECKED BY: JT
APPROVED BY: MM

LICENSED PROFESSIONAL ENGINEER
J. D. M. TRIM
100209717
15-Mar-19
PROVINCE OF ONTARIO

Town of Lincoln

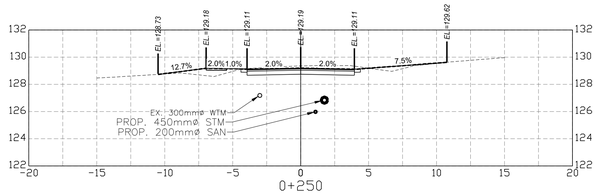
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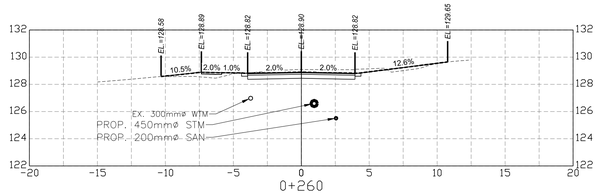
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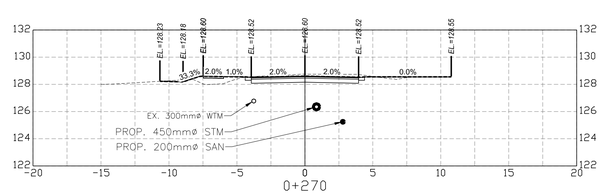
BETWEEN HIGHLAND PARK DR & MOUNTAIN ST IN THE TOWN OF LINCOLN

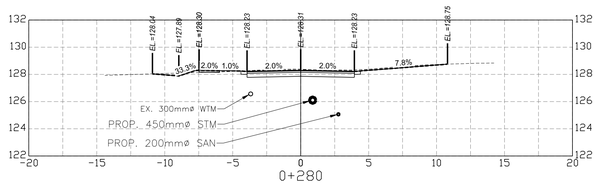
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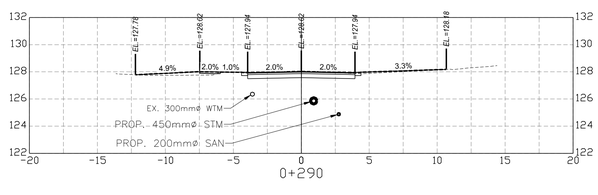
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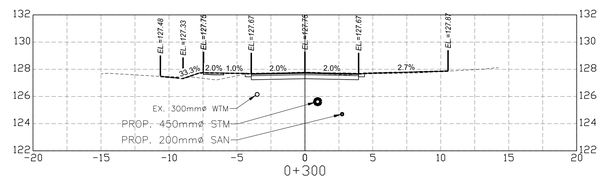


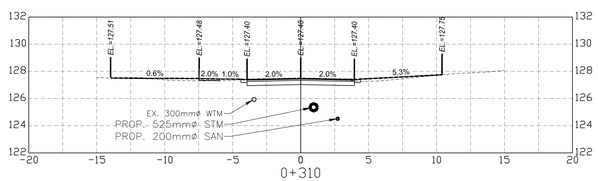


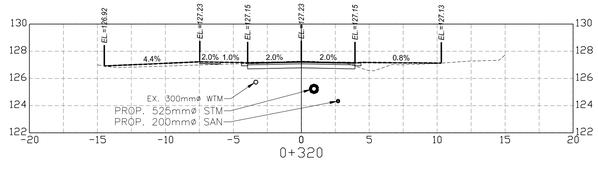


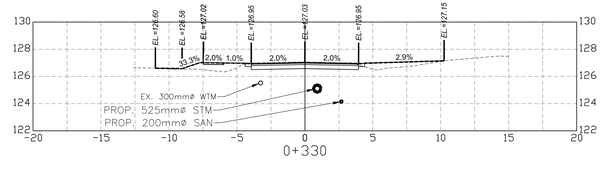


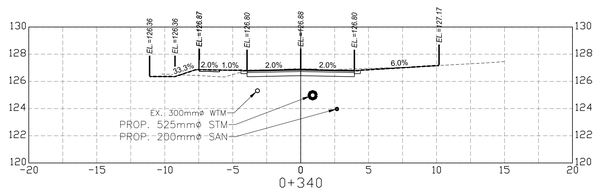


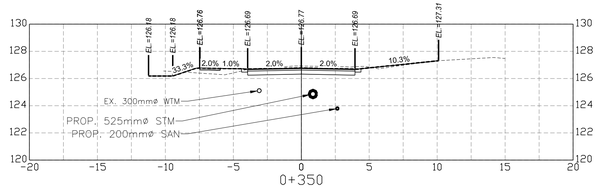


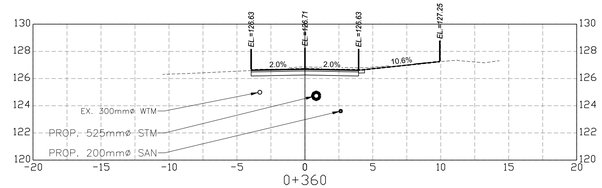












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LICENSED PROFESSIONAL ENGINEER
J.D.M. TRIM
100209717
15-Mar-19
PROVINCE OF ONTARIO

Town of Lincoln

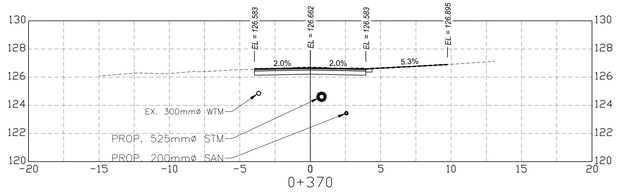
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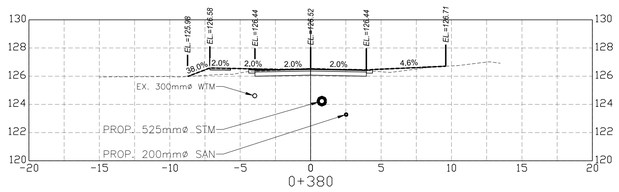
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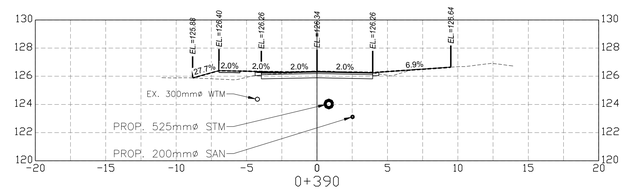
BETWEEN HIGHLAND PARK DR & MOUNTAIN ST IN THE TOWN OF LINCOLN

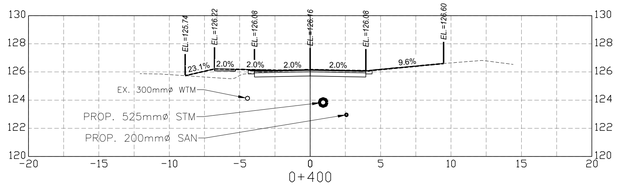
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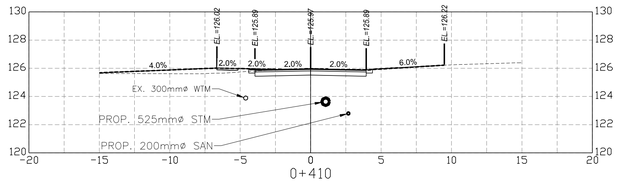
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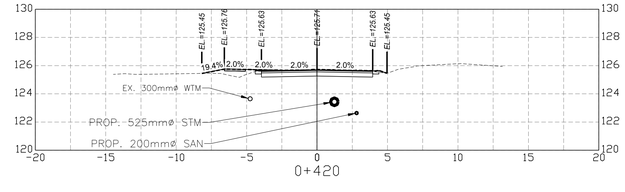


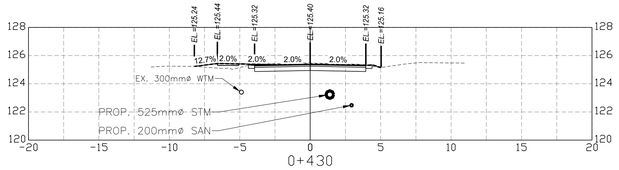


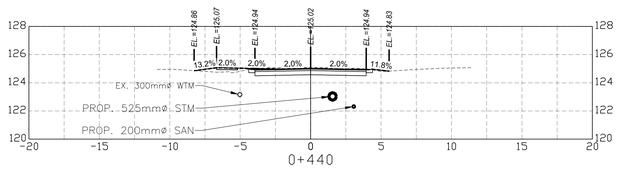












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PROVINCE OF ONTARIO

Town of Lincoln

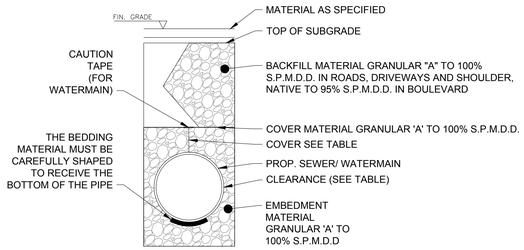
Associated Engineering

ELIZABETH STREET ROAD RECONSTRUCTION

BETWEEN HIGHLAND PARK DR & MOUNTAIN ST IN THE TOWN OF LINCOLN

CROSS SECTIONS IV

CAD No. 20185246
DATE DECEMBER 2018
SCALE 1:200
REF. No.
DWG No. 5246-C304
REV. 0

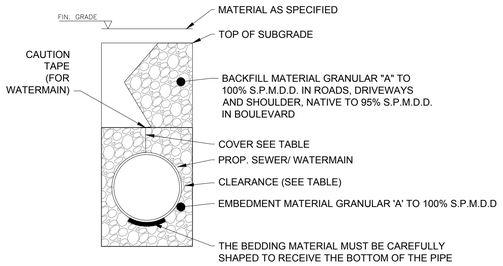


NOTES:

1. REFER TO OPSD 802.030, OPSD-802.031 AND OSPD-802.032 FOR ADDITIONAL DETAILS ON THE BEDDING, COVER AND BACKFILL OF ROAD PIPES IN TYPE 1, 2, 3 AND 4 SOILS.

CLEARANCE & COVER TABLE		
PIPE INSIDE DIAMETER (mm)	CLEARANCE (mm)	COVER MINIMUM (mm)
900 OR LESS	300	300
OVER 900	500	300

FOR RIGID PIPE
IN EARTH EXCAVATION

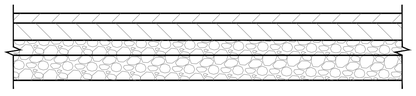


NOTES:

1. REFER TO OPSD 802.010 FOR ADDITIONAL DETAILS ON THE EMBEDMENT AND BACKFILL OF FLEXIBLE PIPE IN AN EARTH EXCAVATION.
2. EMBEDMENT MATERIAL MEANS MATERIAL AS IT RELATES TO FLEXIBLE PIPE FROM THE BOTTOM OF THE BEDDING TO THE BOTTOM OF THE BACKFILL. EMBEDMENT MATERIAL REFERS TO BOTH BEDDING AND COVER MATERIAL AND IS TO BE PLACED AND COMPACTED IN A UNIFORM MANNER TO PROVIDE THE PROPER SUPPORT FOR THE PIPE AND TO FORM PART OF THE STRUCTURE OF THE PIPE.
3. AS A MINIMUM AND UNLESS DIRECTED OTHERWISE SURFACE RESTORATION TYPES SHALL MATCH EXISTING AND AS FOLLOWS:
   - MAINTAINED GREEN SPACES AND GRASS AREAS: 100mm TOPSOIL AND SOD AS SPECIFIED
   - SHOULDERS: GRANULAR 'M' AS SPECIFIED
   - ROADWAYS: HOT MIX ASPHALT AS SPECIFIED
   - BOULEVARDS: 100mm TOPSOIL AND SOD

FOR FLEXIBLE PIPE
IN EARTH EXCAVATION

1 - TYPICAL TRENCH CROSS-SECTION
NTS



HL3 HS = 40 mm
HL8 HS = 60 mm
GRANULAR 'A' = 150 mm
GRANULAR 'B' = 350 mm

2 - TYPICAL ROAD STRUCTURE
NTS

NO	REVISION	DATE	INIT
0	ISSUED FOR TENDER	03/15/2019	JTB

DRAFTING: PZ
DESIGN: JT
CHECKED BY: JT
APPROVED BY: MM

LICENSED PROFESSIONAL ENGINEER
J.D.M. TRIM
100209717
15-Mar-19
PROVINCE OF ONTARIO

Town of Lincoln

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ELIZABETH STREET
ROAD RECONSTRUCTION
BETWEEN HIGHLAND PARK DR & MOUNTAIN ST
IN THE TOWN OF LINCOLN

DETAILS

CAD No. 20185246
DATE DECEMBER 2018
SCALE AS NOTED
REF. No.
DWG No. 5246-C501
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