

EGAN STREET DEVELOPMENT

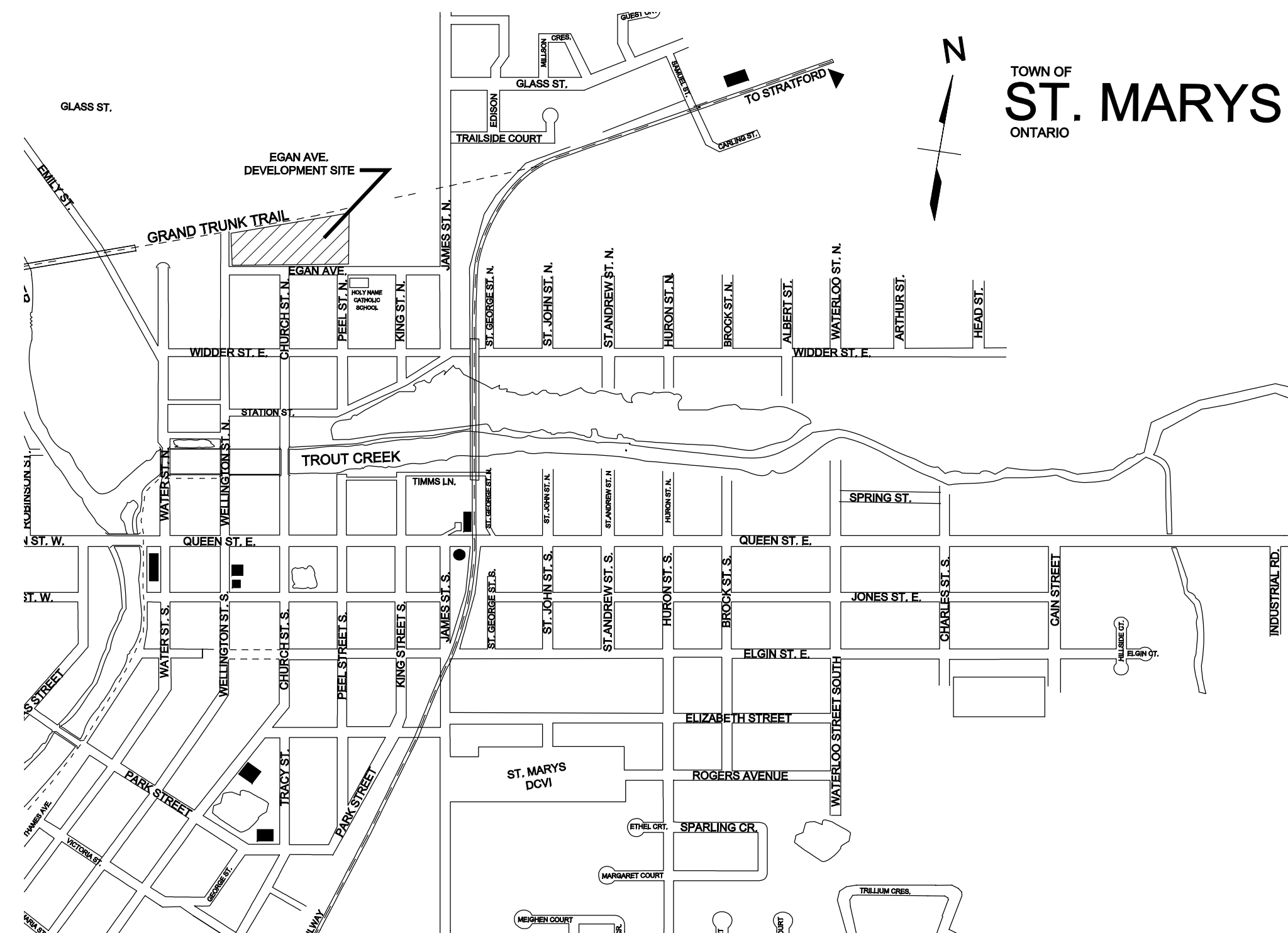
SERVICING DRAWINGS FOR THE DEVELOPMENT LOCATED IN THE TOWN OF ST. MARYS, COUNTY OF PERTH



LIST OF DRAWINGS:

- T01 - 1 of 9 - TITLE PAGE
- SP01 - 2 of 9 - SPECIFICATIONS AND DETAILS
- C01 - 3 of 9 - SUBDIVISION LOT LAYOUT
- C02 - 4 of 9 - MASTER GRADING PLAN
- C03 - 5 of 9 - EGAN STREET SERVICING
- C04 - 6 of 9 - CONDO BLOCK GRADING PLAN
- C05 - 7 of 9 - CONDO BLOCK SERVICING PLAN
- C06 - 8 of 9 - CONDO BLOCK ROAD CROSS-SECTIONS
- E01 - 9 of 9 - EGAN STREET DEVELOPMENT ELECTRICAL SERVICING

CLIENT:
LANG CONTRACTING
54 CRAWFORD ST.
STRATFORD, ON
N5A 5Y4



JOHNSON ENGINEERING CONSULTANTS

STRUCTURAL - CIVIL - MUNICIPAL - ENVIRONMENTAL
INDUSTRIAL SAFETY - AGRICULTURAL - AUTOMATION

368 HURON STREET, STRATFORD, ONTARIO
NSA 5T5 FAX (519) 271-5353
<http://www.jecinc.on.ca>

(519) 271-9923
jecinc@jecinc.on.ca

NOTES:
GENERAL

- ALL WORK WILL CONFORM O.P.S.S., AND O.P.S.D. DOCUMENTS UNLESS OTHERWISE SPECIFIED
- ENGINEER WILL BE ON SITE AT ALL TIMES FOR FIELD REVIEW DURING ALL SERVICES CONSTRUCTION
- SURVEY BARS WILL BE LOCATED AND PROTECTED THROUGH ALL PHASES OF CONSTRUCTION
- THE PROJECT ENGINEER WILL BE NOTIFIED BY THE OWNER OR THE OWNERS AGENT SO THAT INSPECTION OF COMPLETED WORK CAN BE REVIEWED FOR ACCEPTANCE AND RECORDED FOR "AS BUILT" DRAWINGS
- DESIGN CHANGES WILL BE APPROVED BY THE PROJECT ENGINEER AND THE MUNICIPALITY OF WEST PERTH (IN WRITING)
- THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING LOCATES FOR ALL EXISTING UNDERGROUND UTILITIES/SERVICING PRIOR TO THE START OF CONSTRUCTION

ROAD CONSTRUCTION

- ALL ORGANIC OR UNSUITABLE MATERIAL BENEATH THE ROAD ALLOWANCE MUST BE REMOVED AND THESE AREAS BACKFILLED WITH APPROVED FILL MATERIAL, ALL TO THE SATISFACTION OF THE CONTRACT ADMINISTRATOR
- EXISTING ASPHALT SURFACES TO BE REPLACED AND MADE GOOD IN ANY AREAS AFFECTED BY NEW CONSTRUCTION (AS SHOWN ON PLANS)
- A MIN. OF 95% PROCTOR DENSITY (S.P.D.) IS REQUIRED IN AREAS WHERE FILL IS REQUIRED TO ESTABLISH THE SUBGRADE ELEVATION
- 95% PROCTOR DENSITY (S.P.D.) IS REQUIRED FOR GRANULAR ROAD BASE (GRAN. "A" & "B")
- THE NEW ROAD SECTIONS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE ROAD CROSS SECTION DETAIL DRAWINGS
- A TACK COAT ("COLAS") IS TO BE APPLIED TO ALL STRUCTURES AT TIME OF BASE ASPHALT
- A TACK COAT ("COLAS") IS TO BE APPLIED TO THE ENTIRE BASE ASPHALT SURFACE PRIOR TO TOP COAT APPLICATION
- ALL MANHOLES ARE TO REMAIN AT THE BASE ASPHALT GRADE AND BE RAISED WITH MODULOC RISERS IMMEDIATELY PRIOR TO TOP COAT APPLICATION.

STORM SYSTEM

- 1200mm MAINTENANCE HOLES SHALL BE IN ACCORDANCE WITH O.P.S.D. 701.010 WITH MONOLITHIC BASE
- 1200mm CATCH BASIN MAINTENANCE HOLES SHALL BE IN ACCORDANCE WITH O.P.S.D. 701.010 WITH MONOLITHIC BASE
- 1500mm MAINTENANCE HOLES SHALL BE IN ACCORDANCE WITH O.P.S.D. 701.011 WITH MONOLITHIC BASE
- MAINTENANCE HOLE BENCHING SHALL BE IN ACCORDANCE WITH O.P.S.D. 701.021
- ALL MAINTENANCE HOLES TO BE COMPLETELY PARGED
- MAINTENANCE HOLE FRAME AND COVER SHALL BE IN ACCORDANCE WITH O.P.S.D. 401.01 (TYPE A)
- 600mm x 600mm CATCH BASINS SHALL BE IN ACCORDANCE WITH O.P.S.D. 705.010
- ALL CATCHBASINS TO HAVE TWO COURSES OF MODULOC OR APPROVED EQUAL.
- CATCH BASIN FRAME AND GRATES (STREET) SHALL BE IN ACCORDANCE WITH O.P.S.D. 400.110
- 6.0m OF 150mm H.D.P.E. PERF. SUBDRAINS WITH FILTER SOCK AND END CAPS SHALL BE INSTALLED AT THE UPSTREAM SIDE OF EVERY CATCHBASIN AT A LEVEL BELOW THE GRANULAR "B"
- STORM SEWER MAINS SHALL BE PVC SDR 35 OR 65-D REINFORCED CONCRETE PIPE
- SINGLE C.B. LEADS ARE TO BE 250mm Ø
- DOUBLE C.B. LEADS ARE TO BE 300mm Ø
- RAINWATER LEADERS ARE TO BE DISCHARGED TO LAWN
- THE MINIMUM LOT GRADING SLOPE IS TO BE 2% AND THE MAXIMUM SLOPE IS TO BE 8% EXCEPT AT SWALES
- ALL SERVICE STUBS ARE TO BE PROVIDED WITH THE FACTORY SLIP FIT END CAPS OR APPROVED EQUAL BY TOWN
- ALL EXISTING MAINTENANCE HOLES AND CATCHBASINS TO HAVE 2 COURSES OF MODULOC RISERS OR APPROVED EQUAL, WHERE REQUIRED.

SANITARY SYSTEM

- 1200mm MAINTENANCE HOLES SHALL BE IN ACCORDANCE WITH O.P.S.D. 701.010 WITH MONOLITHIC BASE
- MAINTENANCE HOLE BENCHING SHALL BE IN ACCORDANCE WITH O.P.S.D. 701.021
- ALL MAINTENANCE HOLES TO BE COMPLETELY PARGED
- SANITARY MAINS ARE TO BE PVC SDR 35 WITH SLOPES AS SHOWN ON THE CONSTRUCTION DRAWINGS
- SEWER SERVICE CONNECTIONS SHALL BE IN ACCORDANCE WITH O.P.S.D. 1006.02
- SANITARY SERVICES ARE TO BE 125mm P.V.C. S.D.R. 28 (WHITE) WITH A MINIMUM SLOPE OF 2.0%
- FRAME AND COVER SHALL BE IN ACCORDANCE WITH O.P.S.D. 401.01 (B) UNLESS OTHERWISE NOTED.
- ALL SERVICE STUBS ARE TO BE PROVIDED WITH THE FACTORY SLIP FIT END CAPS OR APPROVED EQUAL BY TOWN

BEDDING (GENERAL)

- SEWER BEDDING SHALL CONFORM TO O.P.S.D. 802.010 TYPE 1 OR O.P.S.D. 802.014 FOR FLEXIBLE PIPE AND O.P.S.D. 802.030 CLASS B OR O.P.S.D. 802.034 CLASS B FOR RIGID PIPE
- THE PIPE BED IS TO BE SHAPED TO RECEIVE THE LOWEST SEGMENT OF PIPE
- OUTSIDE DIAMETER OF PIPE IS NOT TO INCLUDE BELL
- TRENCH WIDTH SHALL BE MAINTAINED TO THE LEVEL OF THE TOP OF THE PIPE
- BEDDING TO BE 6mm CLEAR STONE TO SPRING LINE OF PIPE AND SAND BEDDING TO 300mm ABOVE PIPE
- COMPACTION OF BEDDING TO BE 98% STANDARD (MINIMUM)
- WHERE THE TRENCH IS SHEATHED, TRENCH WIDTH WILL BE DEFINED AS THE DISTANCE BETWEEN THE FACES OF THE SHEATHING. THIS STANDARD IS TO BE APPLIED IN STABLE CONDITIONS OR AFTER THE TRENCH HAS BEEN BROUGHT TO A STABLE CONDITION.

WATER DISTRIBUTION SYSTEM

- ALL WATER DISTRIBUTION SYSTEM INSTALLATION SHALL BE IN ACCORDANCE WITH CURRENT TOWN OF ST. MARYS GENERAL CONDITIONS AND SPECIFICATIONS, THE SUBDIVISION SERVICING AGREEMENT, THE PLUMBING CODE, AND THE A.W.W.A.
- THE DEPTH OF COVER IS TO BE A MINIMUM OF 1.7m WITH A MAXIMUM OF 2.0m AT ANY POINT IN THE SYSTEM (UNLESS OTHERWISE APPROVED BY THE TOWN OF ST. MARYS)
- WATER MAIN PVC-C900 CLASS 150 DR18 - COLOUR BLUE
- ALL PVC WATERMAIN TO HAVE No. 10/7 STRAND TRACER WIRE WITH TWH INSULATION. PLACED FULL LENGTH OF INSTALLED PVC WATERMAIN AND BROUGHT UP AT EACH MAIN VALVE CURB BOX AND EACH HYDRANT LOCATION AND PLACED ON THE EXTERIOR SIDE OF THE APPURTENANCE.
- MAIN-CORPORATION STOPS SHALL BE MODEL No. H15008 BY MUELLER, MODEL No. F-1000 BY FORD, OR CAMBRIDGE BRASS SUCCESSOR. - C.C. THREAD INLET/COMPRESSION JOINT OUTLET.
- FITTINGS TO BE DUCTILE IRON AND MECHANICAL JOINT ONLY
- VALVES TO BE 200mm GATE TYPE AND 150mm GATE TYPE AS REQUIRED, RESILIENT SEAT VALVES TO AWWA SPECIFICATIONS.
- ALL MAIN VALVES MUST BE MECHANICAL JOINTS AND OPEN CLOCKWISE.
- VALVE RODS TO BE CANADA VALVE OR APPROVED EQUAL
- VALVE ROD EXTENSION PIECE ACCORDING TO TOWN OF ST. MARYS WATER SPECIFICATIONS.
- HYDRANTS TO CONFORM TO AWWA C502 - BE AWK DRY BARREL HYDRANT HIGH PRESSURE MODEL 2700 OR BIBBY EQUIVALENT COMPLETE WITH FLANGED BOOT, 2-64mm HOSE CONNECTIONS AND 33-B TYPE PUMPER CONNECTIONS. HYDRANTS SHALL OPEN COUNTERCLOCKWISE. COLOUR SHALL BE YELLOW. UPPER BARREL COLLAR SHALL BE 150mm ABOVE FINISHED GRADE.
- HYDRANTS VALVES ARE REQUIRED ON EACH LOCATION.
- THRUST BLOCKS (AS REQUIRED) AS PER O.P.S.D. 1103.020 (RETAINING GLANDS ARE A SECOND OPTION)
- SERVICE CONNECTIONS TO BE AS PER O.P.S.D. 1104.01
- ALL SERVICE SADDLES TO BE BROAD BAND STAINLESS STEEL.
- SERVICES TO BE 25mm (OR Ø AS NOTED) MUNICIPEX PLASTIC TUBING CERTIFIED TO CSA B137.5 WITH TRACER WIRE, SINGLE LENGTH FROM MAIN TO CURB STOP AT PROPERTY LINE
- CURB STOPS TO BE 25mm CANADA FORD, CAMBRIDGE BRASS OR MUELLER BALL VALVE, COMPRESSION TYPE CONNECTION AS PER TOWN OF ST. MARYS WATER SPECIFICATIONS.
- CURB BOX SERVICE RODS TO BE STAINLESS STEEL C/W STAINLESS STEEL COTTER PIN

BOULEVARDS

- DRESS WITH A MINIMUM OF 150 mm THICKNESS OF TOPSOIL (O.P.S.S. 802) WITH A NO. 1 NURSERY SOD TREATMENT (O.P.S.S. 803) FROM THE BACK OF CURB TO THE FACE OF THE RESIDENTIAL UNITS
- THE MINIMUM CROSSFALL SHALL BE 2% FROM THE BACK OF CURB AND THE MAXIMUM CROSSFALL SHALL BE 8%

CURB AND GUTTER

- EXISTING CURB AND GUTTER DISTURBED AS A RESULT OF CONSTRUCTION SHALL BE REPAIRED TO MATCH THE EXISTING TYPE OF CURB
- ALL CURB AND GUTTER INSTALLED WITHIN THE NEW DEVELOPMENT SHALL BE 600.100 MOUNTABLE CURB, AND CONSTRUCTED WITH 30 MPa CONCRETE (MIX DESIGN TO BE PROVIDED PRIOR TO PLACEMENT)
- EXPANSION JOINTS SHALL BE PLACED AT END OF CURVED SECTIONS AND 150mm BOTH SIDES OF CATCHBASINS, OR 6 METRES MAXIMUM SPACING IN ACCORDANCE WITH CPSS 353

DRIVEWAY RAMP

- ONE RAMP PER DWELLING UNIT IS REQUIRED IN ACCORDANCE WITH SITE PLAN CONTROL
- THE MINIMUM APPROACH SLOPE IS 2%, THE MAXIMUM APPROACH SLOPE IS 7%
- DRIVEWAY DESIGN SHALL BE ONE OF THE FOLLOWING:
 - a) 140mm CONCRETE PLACED ON A MINIMUM COMPACTED DEPTH OF 100mm OF GRANULAR "A" BASE
 - b) 80mm OF HL 3B ASPHALT (PLACED AND COMPACTED IN TWO LAYERS) ON A MINIMUM COMPACTED DEPTH OF 230mm OF GRANULAR "A" BASE
 - c) INTERLOCKING PAVING STONES LAID ON A BASE PREPARED TO THE MANUFACTURER'S SPECIFICATIONS (MIN. 230mm OF GRANULAR "A" BASE)

SERVICES (GENERAL)

- CONTRACTOR TO MARK SERVICE LOCATIONS AT PROPERTY LINE WITH 38x89x (SUITABLE LENGTH) OF LUMBER EXTENDING FROM THE SERVICE INVERT TO A POINT 1.0m ABOVE FINISHED GRADE.
- STORM AND SANITARY SERVICES TO BE INSTALLED IN CONFORMANCE WITH 1006.02 WITH FACTORY MADE "T" NOT SADDLES
- STORM AND SANITARY SERVICES THAT CONNECT INTO EXISTING SEWERS TO BE CONNECTED WITH SADDLES IN ACCORDANCE TO O.P.S.D. 1006.01 FOR RIGID PIPE AND O.P.S.D. 1006.02 FOR FLEXIBLE PIPE

ELECTRICAL DISTRIBUTION SYSTEM

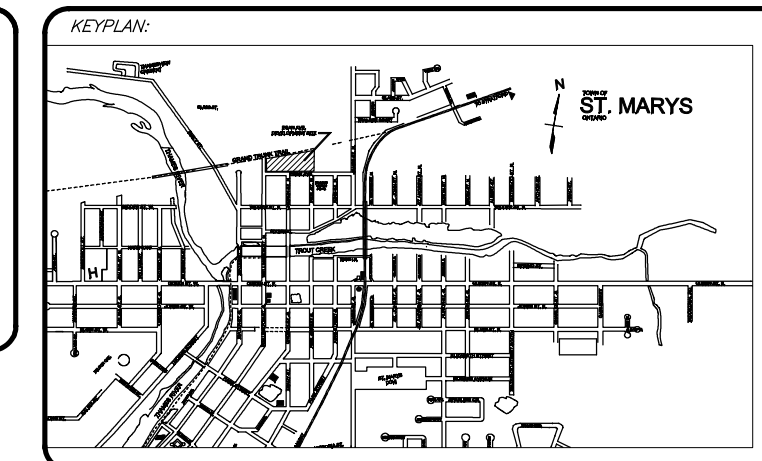
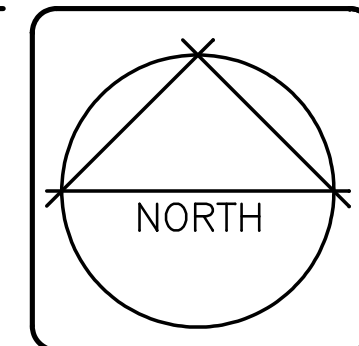
- TO BE INSTALLED ACCORDING TO AN AGREEMENT BETWEEN THE FESTIVAL HYDRO INC. AND THE DEVELOPER
- EACH HYDRO VAULT LOCATION REQUIRES A 150mm P.V.C. SDR 28 STORM SERVICE WITH A MINIMUM SLOPE OF 2%
- TELEPHONE AND CABLE SERVICES WILL BE INSTALLED IN SAME TRENCH AS HYDRO SERVICES WHEREVER POSSIBLE

SEDIMENT CONTROL MEASURES

- ALL SWALES NOTED ON DRAWINGS TO HAVE A 1.2 m WIDE HYDRO SEED AND MULCH TREATMENT FOR THEIR ENTIRE LENGTHS AND REAR YARD
- CATCH BASINS TO HAVE 3.0m X 3.0m SOD TREATMENT SURROUNDING PRIOR TO HOUSE CONSTRUCTION
- EROSION CONTROL MEASURES ARE TO BE USED IN LOCALIZED AREAS AS SHOWN ON THE DRAWINGS AND AS DIRECTED BY THE ENGINEER OR THE ENGINEER'S REPRESENTATIVE DURING CONSTRUCTION (O.P.S.S. 805)
- ALL EROSION CONTROL MEASURES, (i.e. SILTATION FENCING) ARE TO BE INSTALLED PRIOR TO ANY EARTH MOVING OR SITE SERVICING CONSTRUCTION AND ARE TO REMAIN IN PLACE UNTIL RESTORATION IS COMPLETE AND A HEALTHY GRASS COVERING IS ESTABLISHED
- CONSTRUCTION ACTIVITY SHOULD OCCUR IN AN ORDER THAT WILL CAUSE AS LITTLE EROSION POTENTIAL AS POSSIBLE OR MINIMIZE THE POTENTIAL THAT CURRENTLY EXISTS
- ALL EROSION CONTROL MEASURES SHALL BE CHECKED REGULARLY AND CLEANED OR REPLACED AFTER RUN-OFF PRODUCING RAINFALLS AS DIRECTED BY THE ENGINEER OR THE ENGINEER'S REPRESENTATIVE. ALL COLLECTED SEDIMENT IS TO BE DISPOSED OF AT AN APPROVED LOCATION
- PROTECT ALL CATCHBASINS AND MANHOLES FROM SEDIMENT INTRUSION WITH FILTER FABRIC UNDER COVERS. THE SEDIMENT BARRIERS IN THE CATCHBASINS AND MANHOLES MAY BE REMOVED AFTER THE BOULEVARDS HAVE AN ESTABLISHED GRASS COVER AND THE ROADWAY HAS RECEIVED A BASE ASPHALT APPLICATION. KEEP ALL SLUMPS CLEAN DURING CONSTRUCTION
- PROTECT ALL PIPE ENDS FROM SEDIMENT INTRUSION WITH MANUFACTURED PIPE CAPS.
- PREVENT WIND BLOWN DUST DURING CONSTRUCTION WITH AN ACCEPTABLE DUST SUPPRESSANT
- STRAW BALE FILTERS OR FILTER FENCES SHALL BE INSTALLED IN THE BOULEVARDS, IN THE SWALES, AND DOWNSTREAM OF ANY EROSION PRONE AREAS PRIOR TO CONSTRUCTION (AND MAINTAINED) AS DIRECTED BY THE ENGINEER
- AS BUILDING CONSTRUCTION OCCURS, EACH BUILDER/CONTRACTOR SHALL BE ENCOURAGED TO INSTALL SILTATION BARRIERS AROUND THE CONSTRUCTION ZONE ON THE LOT UNTIL A LAWN IS ESTABLISHED.
- THE OVERALL GRADING PLAN IS TO BE USED BY HOME BUILDERS AS A GUIDE FOR DEVELOPING LOT GRADING PLANS
- SITE RESTORATION TO A GRASSED CONDITION IS TO BE COMPLETED AS EARLY AS POSSIBLE TO REDUCE THE POTENTIAL FOR SOIL EROSION

DRAINAGE NOTES

1. SURFACE DRAINAGE SHALL BE DIRECTED AWAY FROM THE BUILDINGS.
2. SURFACE DRAINAGE WHICH IS CARRIED AROUND HOUSES IS TO BE CONFINED IN SWALES LOCATED AS FAR FROM THE HOUSE AS POSSIBLE.
3. DRAINAGE APRONS ARE TO BE THE STEEPER OF A 5% SLOPE AWAY FROM THE BUILDING OR 0.15m VERTICALLY.
4. GRADING FROM BUILDING TO SIDE LOT LINE:
 - MINIMUM SLOPE STEEPER OF 2% OR 0.15m VERTICALLY
 - OPTIMUM SLOPE 4% HORIZONTAL TO 1 VERTICAL
 - MAXIMUM SLOPE 4 HORIZONTAL TO 1 VERTICAL
 ELSEWHERE ON THE SITE:
 - MINIMUM SLOPE 1%
 - OPTIMUM SLOPE 4%
 - MAXIMUM SLOPE 33%
 MAXIMUM AGGREGATE SLOPE OF ALL TERRACES AND EMBANKMENTS SHALL BE 3 HORIZONTAL TO 1 VERTICAL
5. HOME BUILDERS ARE ENCOURAGED TO USE THE MINIMUM LOT GRADING WHEREVER POSSIBLE
6. DRIVEWAYS AS PER O.P.S.D. 351.01:
 - OPTIMUM GRADIENT 4%
 - MAXIMUM GRADIENT 7%
 - MINIMUM CROSS SLOPE (WHEN GRADIENT IS LESS THEN 2%) 2%
 - OPTIMUM SLOPE 4%
 - MAXIMUM CROSS SLOPE 7%
7. DRIVEWAYS SHOWN ARE DEPICTED AS ADJACENT TO EITHER EXTERIOR OR INTERIOR LOT LINES, BUT EITHER TYPE OF DRIVEWAY MAY BE USED WITH ANY OF THE LOT GRADING TYPES.
8. PRIVATE WALKWAYS ARE NOT TO INTERFERE WITH THE APPROVED LOT GRADING AND ARE TO BUILT TO THE FOLLOWING SPECIFICATIONS:
 - MINIMUM GRADIENT OR CROSS SLOPE 2%
 - MAXIMUM GRADIENT OR CROSS SLOPE 4%
9. ALL LOTS THAT DO NOT FIT THE LOT GRADING TYPES SHOWN HAVE BEEN LABELLED AS TYPE "E" AND WILL REQUIRE A CUSTOMIZED LOT GRADING PLAN.
10. TO FACILITATE PROPER DRAINAGE ALLOW 0.5m EITHER SIDE OF THE SIDE YARD PROPERTY LINES FOR SWALE CONSTRUCTION

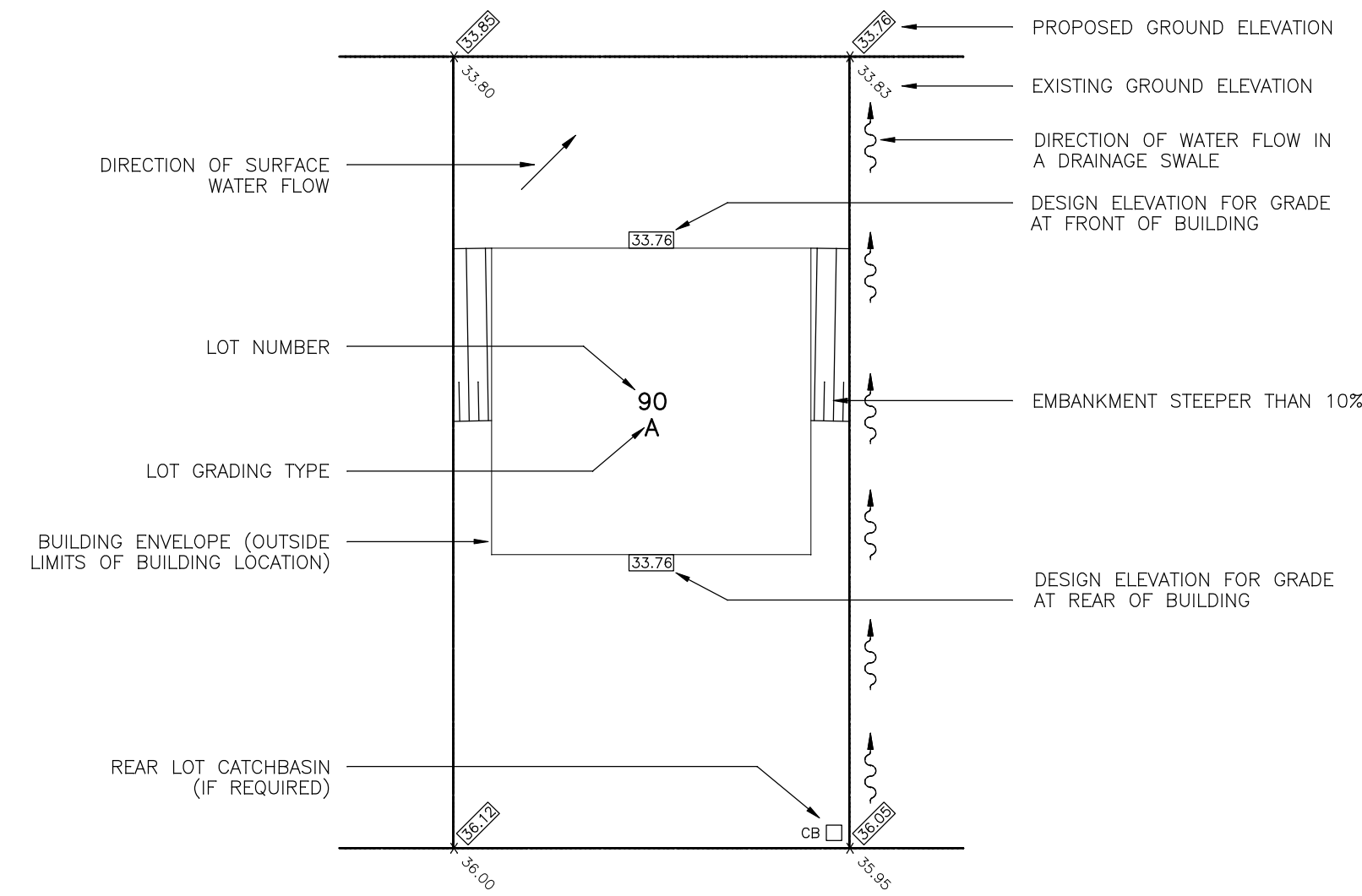


NOTES

1. DO NOT SCALE FROM THIS DRAWING
2. ALL DIMENSIONS ARE TO BE CHECKED ON SITE
3. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT SPECIFICATIONS, ARCHITECTURAL, STRUCTURAL, MECHANICAL AND ELECTRICAL DRAWINGS.

LEGEND

TYPICAL LEGEND	
— 347.0 —	EXISTING CONTOURS (GEODETTIC)
347.2	EXIST. ELEVATION
347.2	EXIST & DESIGN ELEVATION
DESIGN ELEVATION	
○	EXISTING MANHOLE (STM, SAN)
□	EXISTING CATCH BASIN
□	EXISTING STREETLIGHT
□	EXISTING TRANSFORMER
□	EXISTING SWITCH PIT
—	EXISTING SEWER FLOW (STM, SAN)
—	EXISTING FIRE HYDRANT
○	EXISTING VALVE (GAS OR WATER)
●	PROPOSED MANHOLE (STM, SAN)
■	PROPOSED CATCH BASIN
■	PROPOSED DOUBLE CATCH BASIN
—	PROPOSED STORM SEWER FLOW
—	PROPOSED SANITARY SEWER FLOW
—	PROPOSED WATERMAIN
○	FIRE HYDRANT
○	VALVE (GAS OR WATER)
□	PROPOSED TRANSFORMER
□	PROPOSED PIT
□	PROPOSED STREETLIGHT
—	FLOW DIRECTION OF SURFACE WATER IN A SWALE
—	FLOW DIRECTION OF SURFACE WATER



TYPICAL LOT SYMBOLS
NOT TO SCALE

No.	DATE	NAME	DESCRIPTION
REVISIONS			

JOHNSON
ENGINEERING CONSULTANTS
STRUCTURAL - CIVIL - MUNICIPAL

368 HURON STREET, STRATFORD, ONTARIO
NSA 5T9 FAX (519) 271-5353
http://www.jecinc.on.ca

(519) 271-9923
jecinc@jecinc.on.ca

CLIENT:
LANG CONTRACTING
54 CRAWFORD ST.
STRATFORD, ON.
N5A 5Y4

AUTHORITY:
TOWN OF ST. MARYS
175 QUEEN STREET EAST,
ST. MARYS, ON.
N4X 1B6

PROJECT:
EGAN AVENUE DEVELOPMENT,
ST. MARYS, ON

DRAWING TITLE:
NOTES AND SPECIFICATIONS

SCALE: 1:500

DATE: OCTOBER 14, 2016

DESIGNED BY: BRIAN JOHNSON, P. ENG.

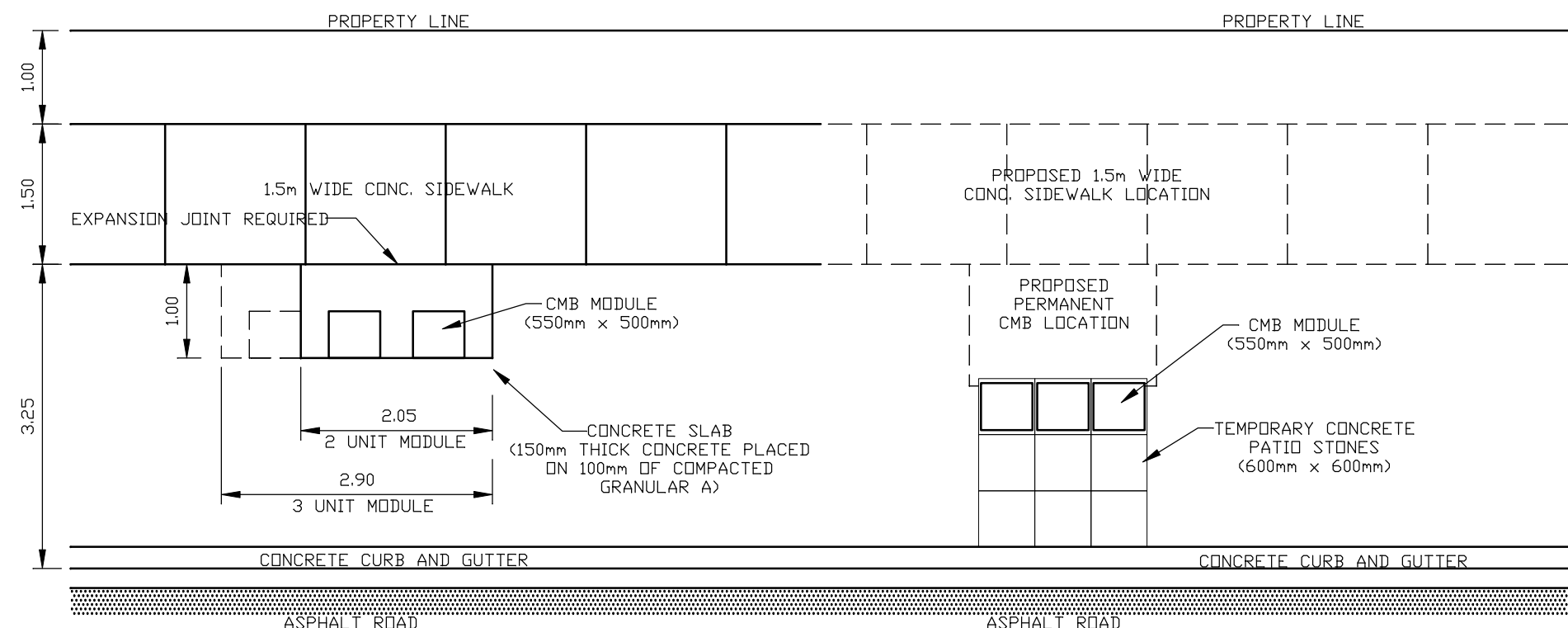
DRAWN BY: Kdh

J.E.C. PLING No: 20160057

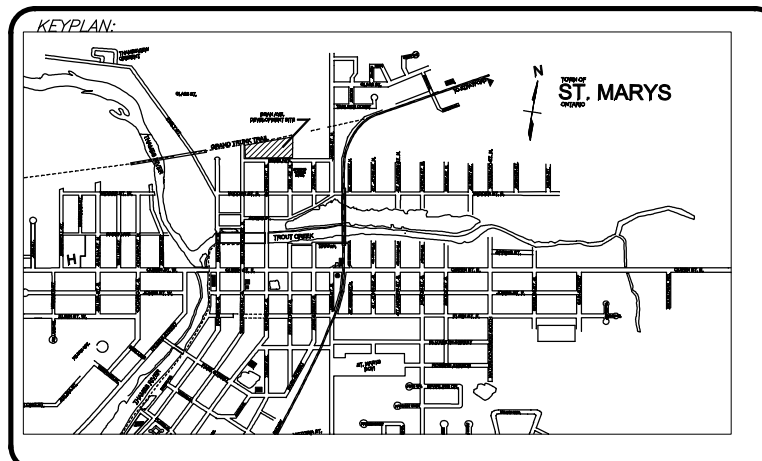
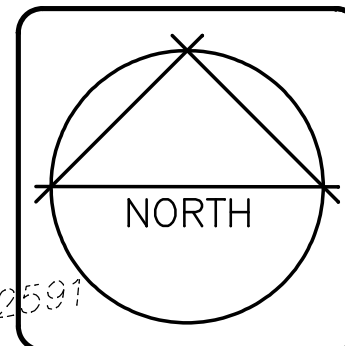
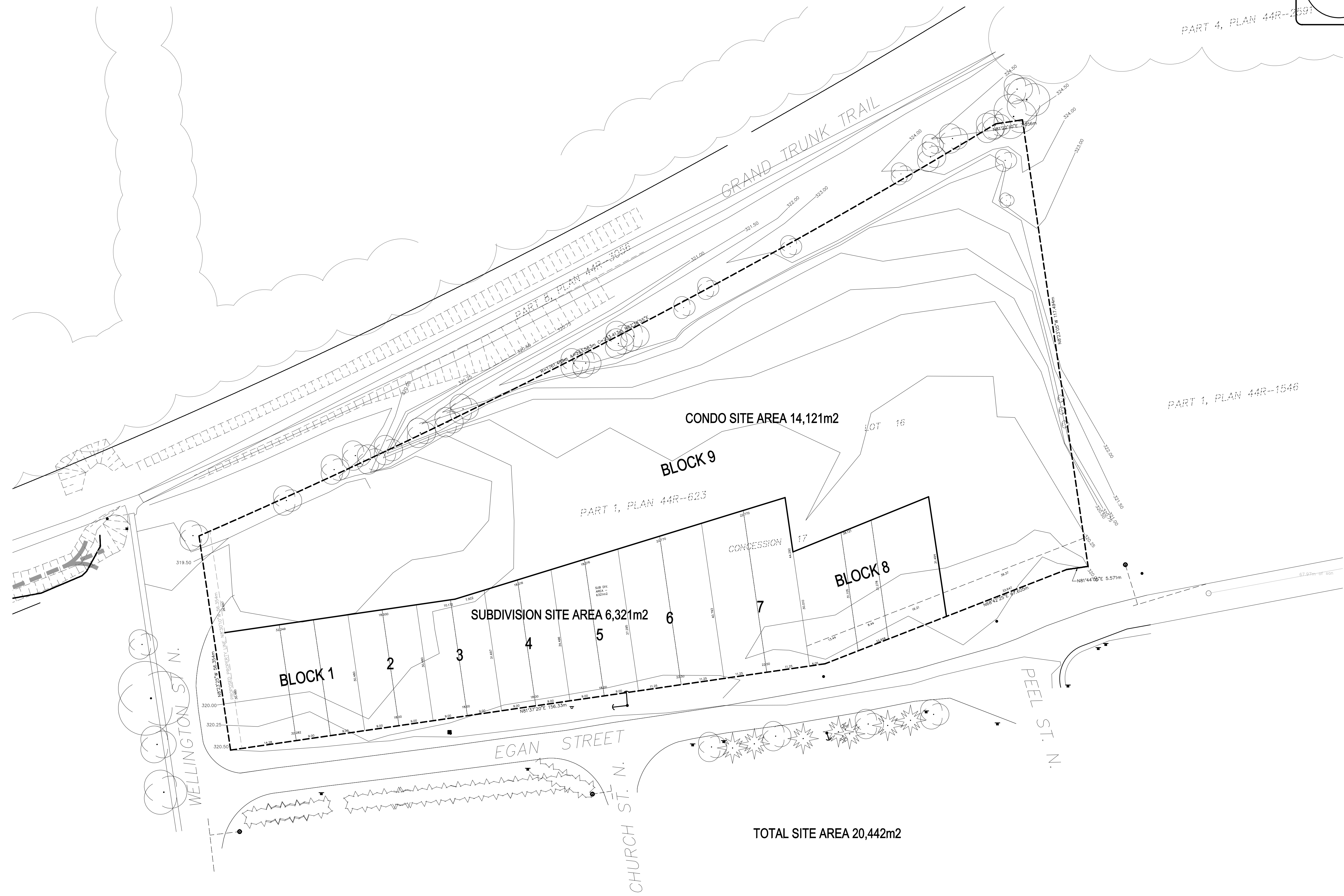
APPROVED BY: B. D. JOHNSON
July 10, 2016
PROFESSIONAL ENGINEER
TOWN OF ST. MARYS

DWG. No: SP01 **SHEET No:** 2 of 9

CMB DETAILS



DATE: 09/20/16 10:00 AM



PART 4, PLAN 44R-2591

PART 3, PLAN 44R-3036

PART 1, PLAN 44R-1546

PART 1, PLAN 44R-623

NOTES

1. DO NOT SCALE FROM THIS DRAWING
2. ALL DIMENSIONS ARE TO BE CHECKED ON SITE
3. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT SPECIFICATIONS, ARCHITECTURAL, STRUCTURAL, MECHANICAL AND ELECTRICAL DRAWINGS.

LEGEND

TYPICAL LEGEND	
353.0	EXISTING CONTOURS (GEODETIC)
347.2+	EXIST. ELEVATION
347.2*	EXIST. & DESIGN ELEVATION
347.2*	DESIGN ELEVATION
○	EXISTING MANHOLE (STM, SAN)
□	EXISTING CATCH BASIN
□	EXISTING STREETLIGHT
⊠	EXISTING TRANSFORMER
□	EXISTING SWITCH PIT
→	EXISTING SEWER FLOW (STM, SAN)
⊕	EXISTING FIRE HYDRANT
v	EXISTING VALVE (GAS OR WATER)
●	PROPOSED MANHOLE (STM, SAN)
■	PROPOSED CATCH BASIN
→	PROPOSED DOUBLE CATCH BASIN
→	PROPOSED STORM SEWER FLOW
→	PROPOSED SANITARY SEWER FLOW
→	PROPOSED WATERMAIN
⊕	FIRE HYDRANT
v	VALVE (GAS OR WATER)
⊠	PROPOSED TRANSFORMER
□	PROPOSED PIT
●	PROPOSED STREETLIGHT
→	FLOW DIRECTION OF SURFACE WATER IN A SWALE
→	FLOW DIRECTION OF SURFACE WATER

No.	DATE	NAME	DESCRIPTION
REVISIONS			

JOHNSON
ENGINEERING
CONSULTANTS
 STRUCTURAL - CIVIL - MUNICIPAL
 368 HURON STREET, STRATFORD, ONTARIO N5A 5T9 FAX (519) 271-5353 http://www.jecinc.on.ca
 (519) 271-9923 jecinc@jecinc.on.ca

CLIENT:
LANG CONTRACTING
 54 CRAWFORD ST.
 STRATFORD, ON.
 N5A 5Y4

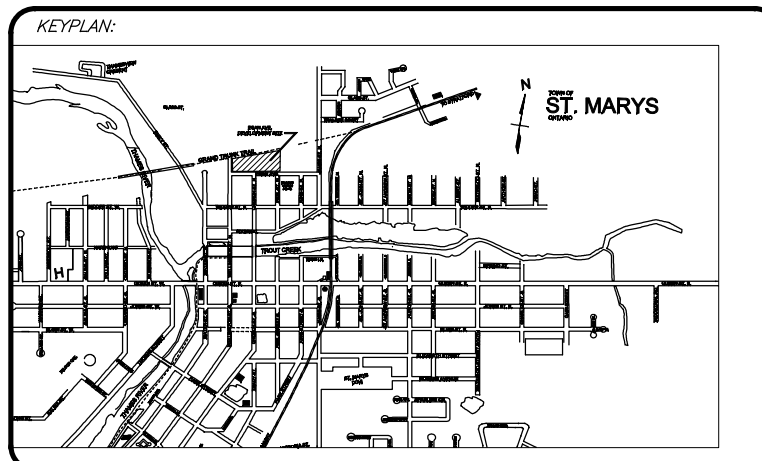
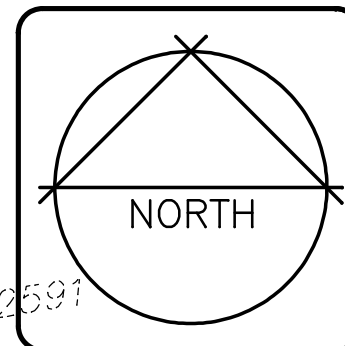
AUTHORITY:
TOWN OF ST. MARYS
 175 QUEEN STREET EAST,
 ST. MARYS, ON.
 N4X 1B6

PROJECT:
EGAN AVENUE DEVELOPMENT,
ST. MARYS, ON

DRAWING TITLE:
SUBDIVISION LOT LAYOUT

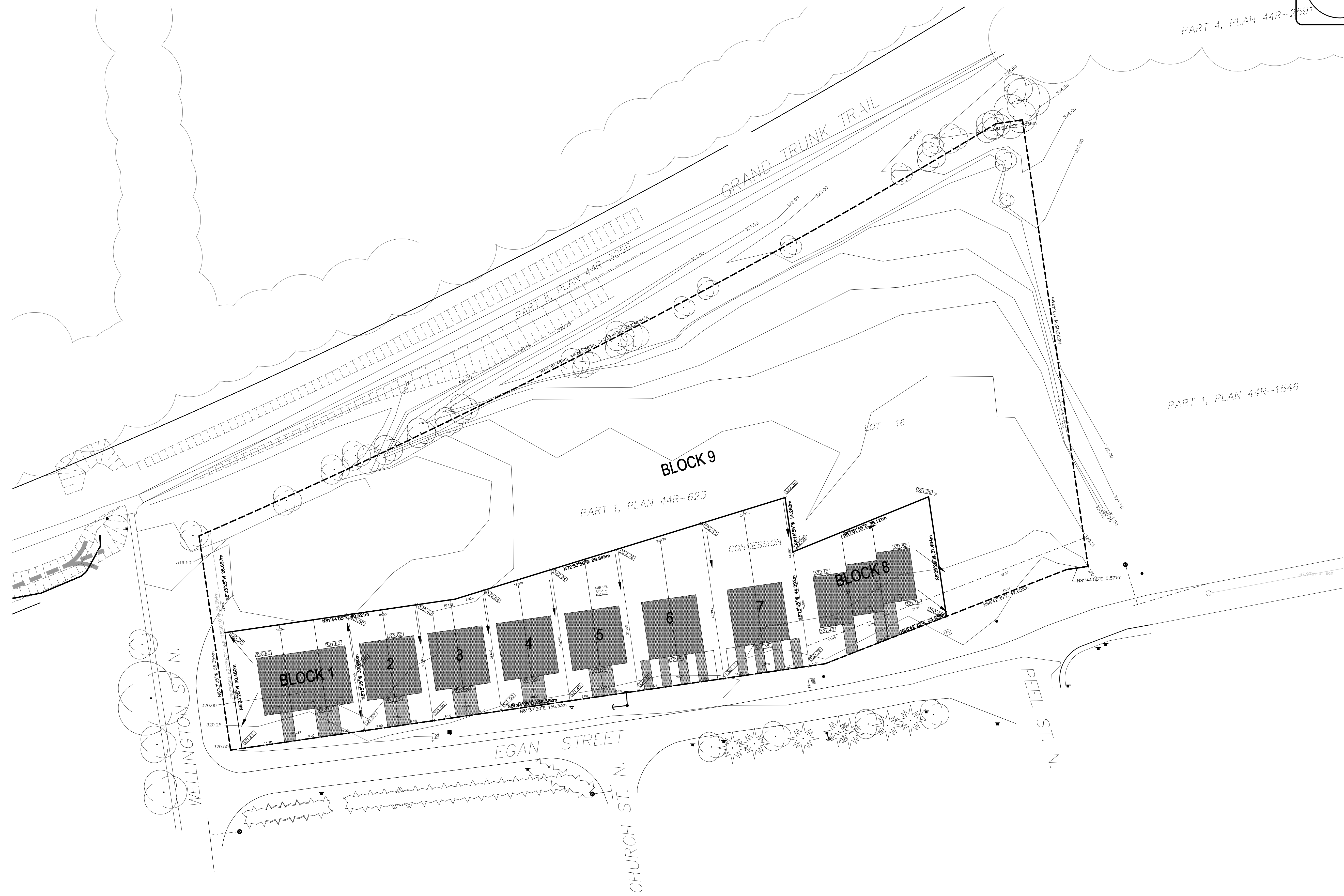
SCALE: 1:500	APPROVED BY:
DATE: OCTOBER 14, 2016	
DESIGNED BY: BRIAN JOHNSON, P. ENG.	
DRAWN BY: KdH	
J.E.C. PLUNG No: 20160057	

DWG. No. **C01** SHEET No. **3 of 9**



PART 4, PLAN 44R-2591

PART 1, PLAN 44R-1546



NOTES

- DO NOT SCALE FROM THIS DRAWING
- ALL DIMENSIONS ARE TO BE CHECKED ON SITE
- THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT SPECIFICATIONS, ARCHITECTURAL, STRUCTURAL, MECHANICAL AND ELECTRICAL DRAWINGS.

LEGEND

TYPICAL LEGEND	
353.0	EXISTING CONTOURS (GEODETIC)
347.2*	EXIST. ELEVATION
347.2*	EXIST. & DESIGN ELEVATION
347.2*	DESIGN ELEVATION
○	EXISTING MANHOLE (STM, SAN)
□	EXISTING CATCH BASIN
□	EXISTING STREETLIGHT
⊠	EXISTING TRANSFORMER
□	EXISTING SWITCH PIT
—	EXISTING SEWER FLOW (STM, SAN)
⊙	EXISTING FIRE HYDRANT
⊙	EXISTING VALVE (GAS OR WATER)
●	PROPOSED MANHOLE (STM, SAN)
■	PROPOSED CATCH BASIN
■	PROPOSED DOUBLE CATCH BASIN
—	PROPOSED STORM SEWER FLOW
—	PROPOSED SANITARY SEWER FLOW
—	PROPOSED WATERMAIN
⊙	FIRE HYDRANT
⊙	VALVE (GAS OR WATER)
⊠	PROPOSED TRANSFORMER
□	PROPOSED PIT
●	PROPOSED STREETLIGHT
—	FLOW DIRECTION OF SURFACE WATER IN A SWALE
—	FLOW DIRECTION OF SURFACE WATER

No.	DATE	NAME	DESCRIPTION
REVISIONS			

JOHNSON
ENGINEERING CONSULTANTS
 STRUCTURAL - CIVIL - MUNICIPAL
 368 HURON STREET, STRATFORD, ONTARIO N5A 5T9 FAX (519) 271-5353 http://www.jecinc.on.ca
 (519) 271-9923 jecinc@jecinc.on.ca

CLIENT:
LANG CONTRACTING
 54 CRAWFORD ST.
 STRATFORD, ON.
 N5A 5Y4

AUTHORITY:
TOWN OF ST. MARYS
 175 QUEEN STREET EAST,
 ST. MARYS, ON.
 N4X 1B6

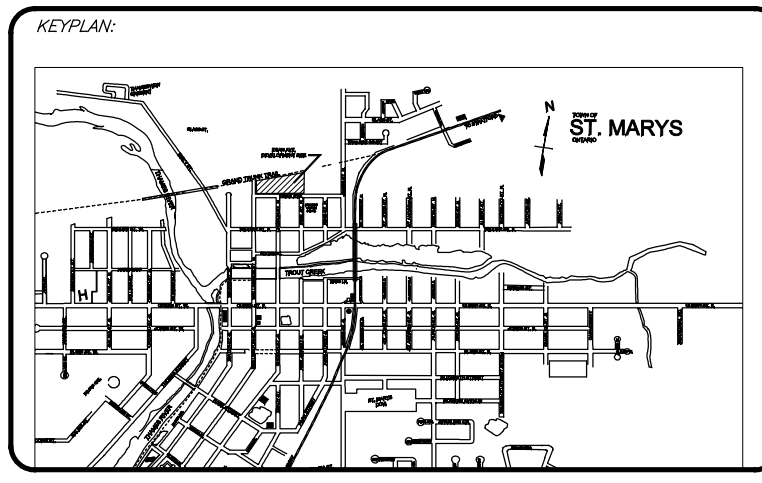
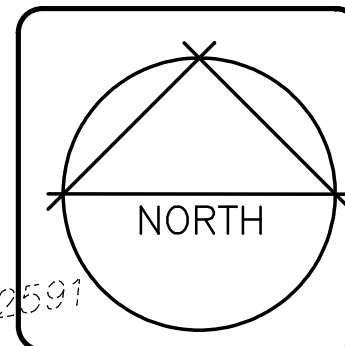
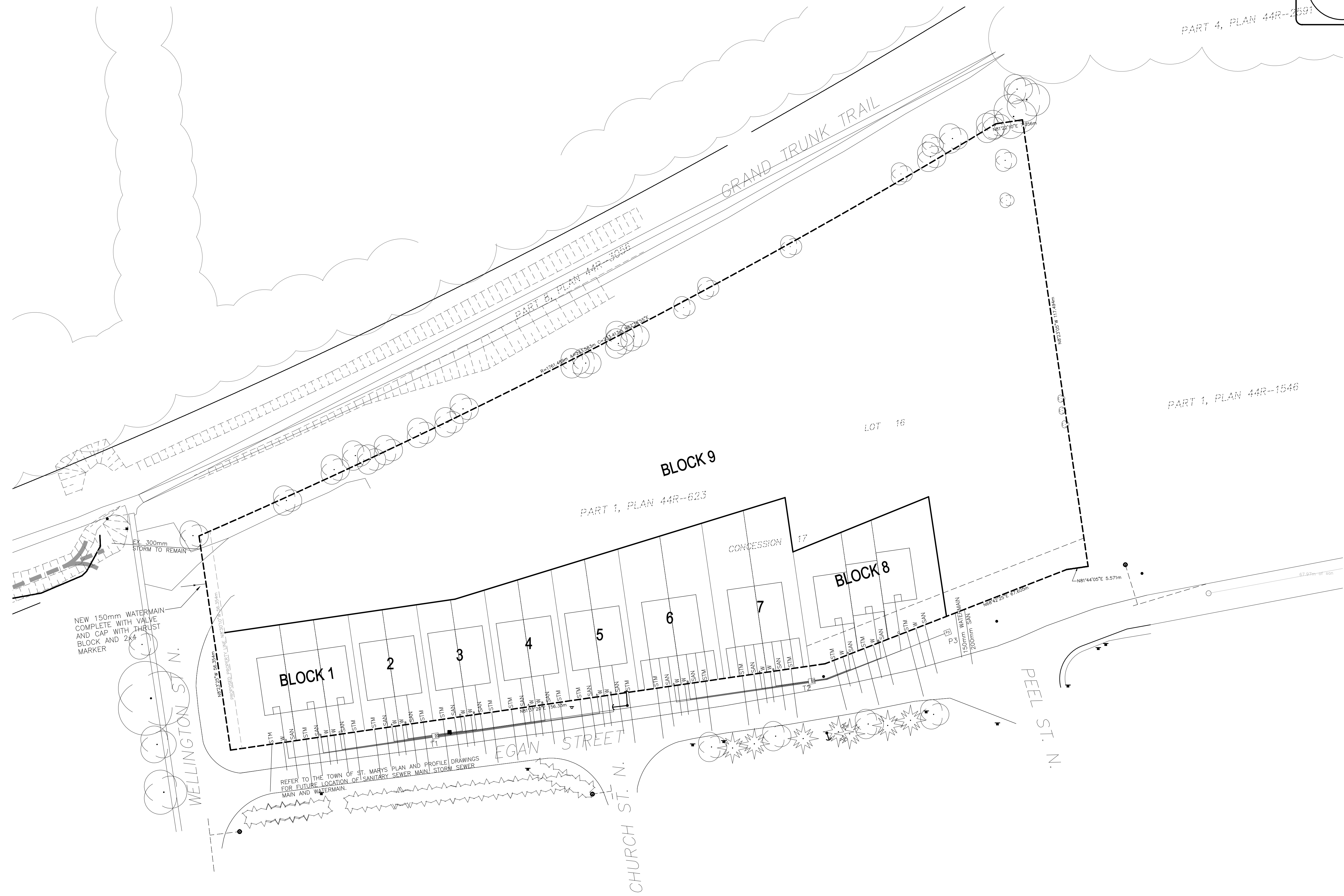
PROJECT:
EGAN AVENUE DEVELOPMENT,
ST. MARYS, ON

DRAWING TITLE:
MASTER GRADING PLAN

SCALE: 1:500	APPROVED BY:
DATE: OCTOBER 14, 2016	
DESIGNED BY: BRIAN JOHNSON, P. ENG.	
DRAWN BY: KdH	
J.E.C. PLUMBING No. 20160057	

DWG. No. **C02** SHEET No. **4 of 9**

DATE: 10/14/16 10:00 AM



- NOTES**
- DO NOT SCALE FROM THIS DRAWING
 - ALL DIMENSIONS ARE TO BE CHECKED ON SITE
 - THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT SPECIFICATIONS, ARCHITECTURAL, STRUCTURAL, MECHANICAL AND ELECTRICAL DRAWINGS.

LEGEND

TYPICAL LEGEND

- 353.0 — EXISTING CONTOURS (GEODETIC)
- 347.2+ EXIST. ELEVATION
- 347.2+ EXIST. & DESIGN ELEVATION
- 327.2+ DESIGN ELEVATION
- EXISTING MANHOLE (STM, SAN)
- EXISTING CATCH BASIN
- EXISTING STREETLIGHT
- ⊠ EXISTING TRANSFORMER
- EXISTING SWITCH PIT
- EXISTING SEWER FLOW (STM, SAN)
- ⊙ EX. FH EXISTING FIRE HYDRANT
- v EXISTING VALVE (GAS OR WATER)
- PROPOSED MANHOLE (STM, SAN)
- PROPOSED CATCH BASIN
- PROPOSED DOUBLE CATCH BASIN
- PROPOSED STORM SEWER FLOW
- PROPOSED SANITARY SEWER FLOW
- PROPOSED WATERMAIN
- ⊙ FH FIRE HYDRANT
- v VALVE (GAS OR WATER)
- ⊠ PROPOSED TRANSFORMER
- PROPOSED PIT
- PROPOSED STREETLIGHT
- ~ FLOW DIRECTION OF SURFACE WATER IN A SWALE
- FLOW DIRECTION OF SURFACE WATER

No.	DATE	NAME	DESCRIPTION
REVISIONS			

JOHNSON ENGINEERING CONSULTANTS
 STRUCTURAL — CIVIL — MUNICIPAL
 368 HURON STREET, STRATFORD, ONTARIO N5A 5T5 FAX (519) 271-5353 http://www.jecinc.on.ca
 (519) 271-9923 jecinc@jecinc.on.ca

CLIENT:
LANG CONTRACTING
 54 CRAWFORD ST.
 STRATFORD, ON.
 N5A 5Y4

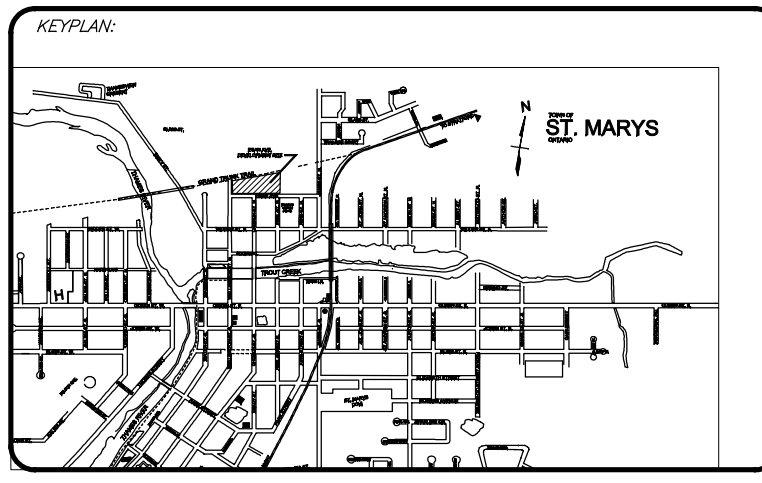
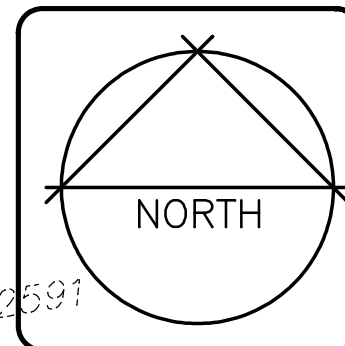
AUTHORITY:
TOWN OF ST. MARYS
 175 QUEEN STREET EAST,
 ST. MARYS, ON.
 N4X 1B6

PROJECT:
**EGAN AVENUE DEVELOPMENT,
 ST. MARYS, ON**

DRAWING TITLE:
EGAN STREET SERVICING

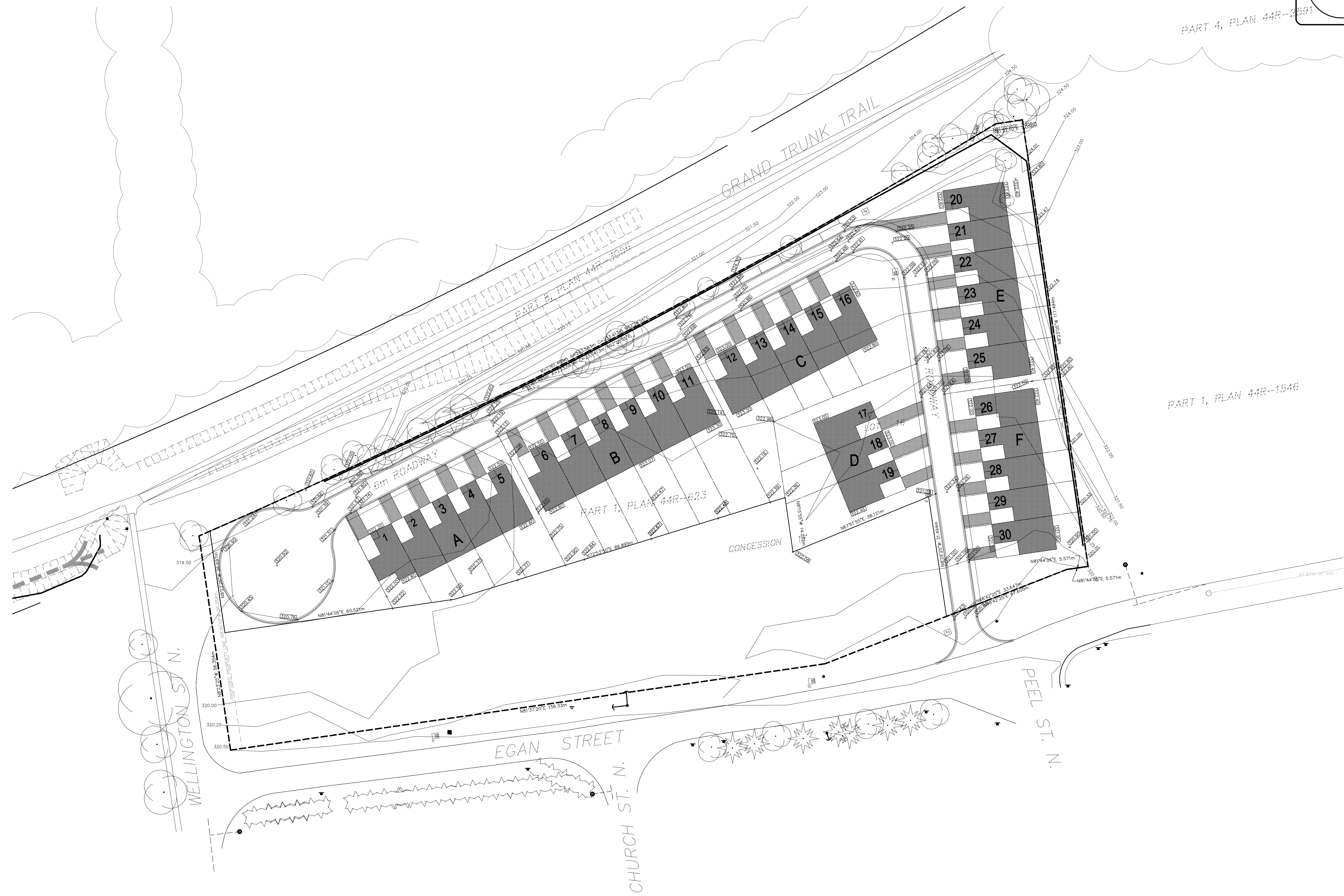
SCALE: 1:500	APPROVED BY:
DATE: OCTOBER 14, 2016	
DESIGNED BY: BRIAN JOHNSON, P. ENG.	
DRAWN BY: KdH	
J.E.C. FILE NO.: 20160057	

© COPYRIGHT 2016 JOHNSON ENGINEERING CONSULTANTS INC. NO UNAUTHORIZED USE, AUTHORIZED USE ONLY BY WRITTEN CONSENT



PART 4, PLAN 44R-2691

PART 1, PLAN 44R-1546



NOTES

- DO NOT SCALE FROM THIS DRAWING
- ALL DIMENSIONS ARE TO BE CHECKED ON SITE
- THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT SPECIFICATIONS, ARCHITECTURAL, STRUCTURAL, MECHANICAL AND ELECTRICAL DRAWINGS.

LEGEND

TYPICAL LEGEND	
	EXISTING CONTOURS (GEODETIC)
	EXIST. ELEVATION
	EXIST. & DESIGN ELEVATION
	DESIGN ELEVATION
	EXISTING MANHOLE (STM, SAN)
	EXISTING CATCH BASIN
	EXISTING STREETLIGHT
	EXISTING TRANSFORMER
	EXISTING SWITCH PIT
	EXISTING SEWER FLOW (STM, SAN)
	EXISTING FIRE HYDRANT
	EXISTING VALVE (GAS OR WATER)
	PROPOSED MANHOLE (STM, SAN)
	PROPOSED CATCH BASIN
	PROPOSED DOUBLE CATCH BASIN
	PROPOSED STORM SEWER FLOW
	PROPOSED SANITARY SEWER FLOW
	PROPOSED WATERMAIN
	FIRE HYDRANT
	VALVE (GAS OR WATER)
	PROPOSED TRANSFORMER
	PROPOSED PIT
	PROPOSED STREETLIGHT
	FLOW DIRECTION OF SURFACE WATER IN A SWALE
	FLOW DIRECTION OF SURFACE WATER

No.	DATE	NAME	DESCRIPTION
REVISIONS			

JOHNSON
ENGINEERING
CONSULTANTS
 STRUCTURAL - CIVIL - MUNICIPAL
 368 HURON STREET, STRATFORD, ONTARIO N5A 5T5 FAX (519) 271-5353 http://www.jecinc.on.ca (519) 271-9923 jecinc@jecinc.on.ca

CLIENT:
LANG CONTRACTING
 54 CRAWFORD ST.
 STRATFORD, ON.
 N5A 5Y4

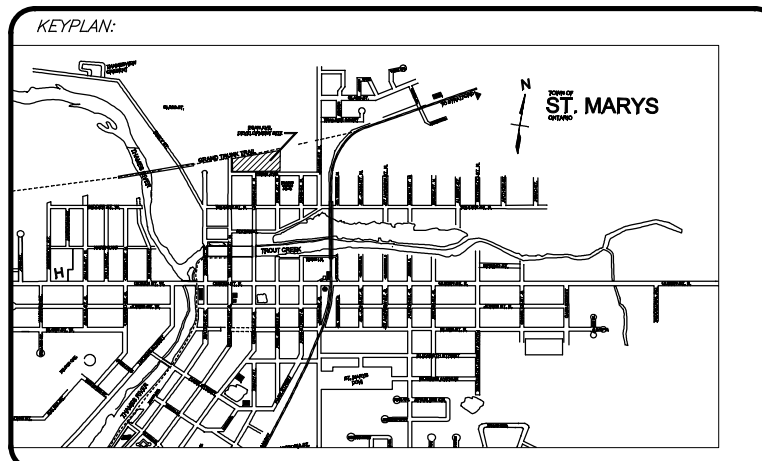
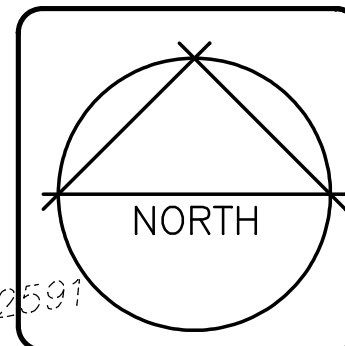
AUTHORITY:
TOWN OF ST. MARYS
 175 QUEEN STREET EAST,
 ST. MARYS, ON.
 N4X 1B6

PROJECT:
EGAN AVENUE DEVELOPMENT,
ST. MARYS, ON

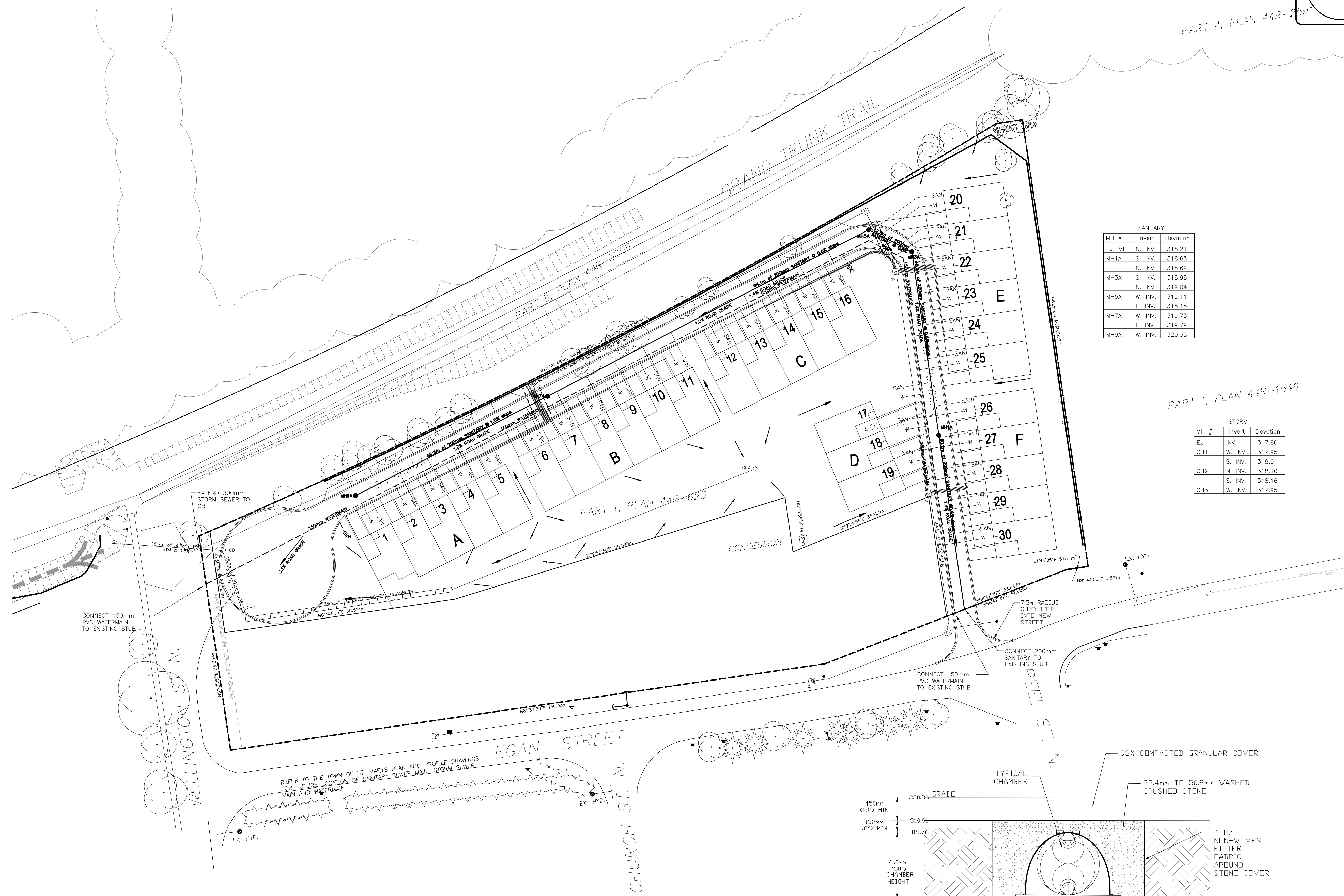
DRAWING TITLE:
CONDO GRADING PLAN

SCALE: 1:500	
DATE: OCTOBER 14, 2016	
DESIGNED BY: BRIAN JOHNSON, P. ENG.	
DRAWN BY: KdH	
J.E.C. FILING No.: 20160057	

DWG. No.: C04 **SHEET No.:** 6 of 9



PART 4, PLAN 44R-2691



SANITARY

MH #	Invert	Elevation
Ex. MH	N. INV.	318.21
MH1A	S. INV.	318.63
	N. INV.	318.69
MH5A	S. INV.	318.98
	N. INV.	319.04
MH5A	W. INV.	319.11
	E. INV.	318.15
MH7A	W. INV.	319.73
	E. INV.	319.79
MH9A	W. INV.	320.35

STORM

MH #	Invert	Elevation
Ex. INV.		317.80
CB1	W. INV.	317.95
	S. INV.	318.01
CB2	N. INV.	318.10
	S. INV.	318.16
CB3	W. INV.	317.95

- NOTES**
- DO NOT SCALE FROM THIS DRAWING
 - ALL DIMENSIONS ARE TO BE CHECKED ON SITE
 - THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT SPECIFICATIONS, ARCHITECTURAL, STRUCTURAL, MECHANICAL AND ELECTRICAL DRAWINGS.

LEGEND

TYPICAL LEGEND

- 353.0 — EXISTING CONTOURS (GEODETIC)
- 347.2 — EXIST. ELEVATION
- 347.2 — EXIST. & DESIGN ELEVATION
- 347.2 — DESIGN ELEVATION
- — EXISTING MANHOLE (STM, SAN)
- — EXISTING CATCH BASIN
- — EXISTING STREETLIGHT
- — EXISTING TRANSFORMER
- — EXISTING SWITCH PIT
- — EXISTING SEWER FLOW (STM, SAN)
- — EXISTING FIRE HYDRANT
- — EXISTING VALVE (GAS OR WATER)
- — PROPOSED MANHOLE (STM, SAN)
- — PROPOSED CATCH BASIN
- — PROPOSED DOUBLE CATCH BASIN
- — PROPOSED STORM SEWER FLOW
- — PROPOSED SANITARY SEWER FLOW
- — PROPOSED WATERMAIN
- — FIRE HYDRANT
- — VALVE (GAS OR WATER)
- — PROPOSED TRANSFORMER
- — PROPOSED PIT
- — PROPOSED STREETLIGHT
- — FLOW DIRECTION OF SURFACE WATER IN A SWALE
- — FLOW DIRECTION OF SURFACE WATER

REVISIONS

No.	DATE	NAME	DESCRIPTION

JOHNSON ENGINEERING CONSULTANTS
 STRUCTURAL - CIVIL - MUNICIPAL
 368 HURON STREET, STRATFORD, ONTARIO
 (519) 271-9923
 jecinc@jecinc.on.ca

CLIENT:
LANG CONTRACTING
 54 CRAWFORD ST.
 STRATFORD, ON.
 N5A 5Y4

AUTHORITY:
TOWN OF ST. MARYS
 175 QUEEN STREET EAST,
 ST. MARYS, ON.
 N4X 1B6

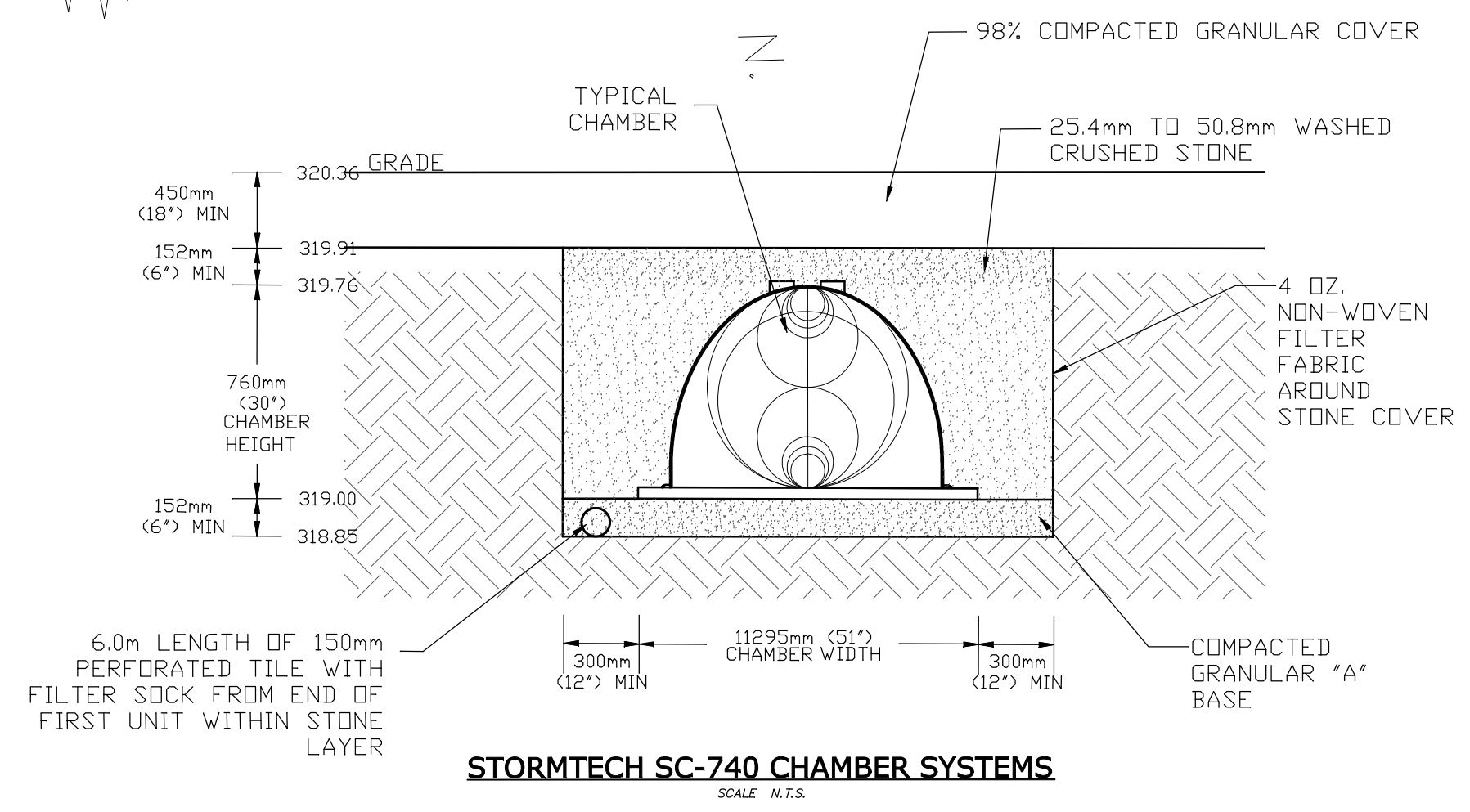
PROJECT:
**EGAN AVENUE DEVELOPMENT,
 ST. MARYS, ON**

DRAWING TITLE:
CONDO SERVICING

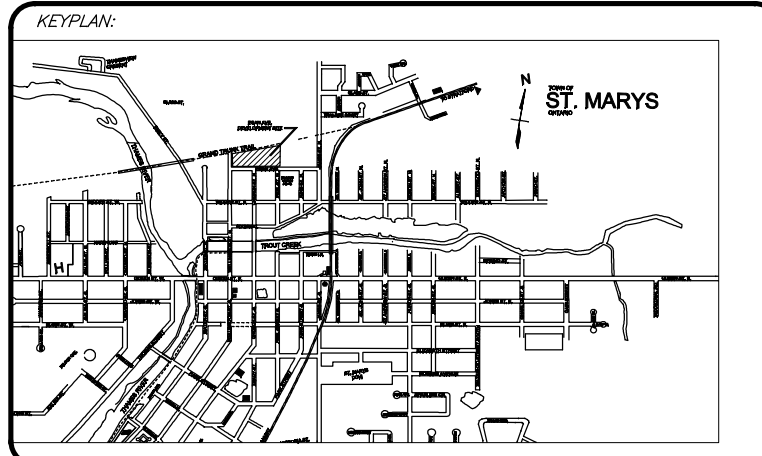
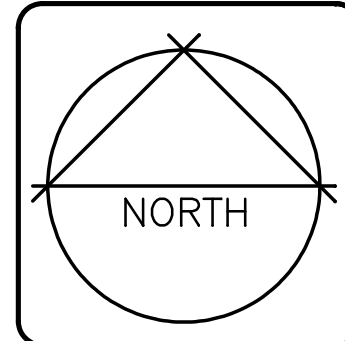
SCALE: 1:500
DATE: OCTOBER 14, 2016
DESIGNED BY: BRIAN JOHNSON, P. ENG.
DRAWN BY: KdH
J.E.C. FILE NO.: 20160057

APPROVED BY:

 B. D. JOHNSON
 PROFESSIONAL ENGINEER
 PROVINCE OF ONTARIO



STORMTECH SC-740 CHAMBER SYSTEMS
 SCALE: N.T.S.



PART 4, PLAN 44R-2591

PART 1, PLAN 44R-1546

NOTES

- DO NOT SCALE FROM THIS DRAWING
- ALL DIMENSIONS ARE TO BE CHECKED ON SITE
- THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT SPECIFICATIONS, ARCHITECTURAL, STRUCTURAL, MECHANICAL AND ELECTRICAL DRAWINGS.

LEGEND

TYPICAL LEGEND

— 353.0 —	EXISTING CONTOURS (GEODETIC)
347.2	EXIST. ELEVATION
347.2	EXIST & DESIGN ELEVATION
347.2	DESIGN ELEVATION
○	EXISTING MANHOLE (STM, SAN)
□	EXISTING CATCH BASIN
□	EXISTING STREETLIGHT
⊗	EXISTING TRANSFORMER
□	EXISTING SWITCH PIT
—	EXISTING SEWER FLOW (STM, SAN)
⊗	EXISTING FIRE HYDRANT
⊗	EXISTING VALVE (GAS OR WATER)
●	PROPOSED MANHOLE (STM, SAN)
■	PROPOSED CATCH BASIN
■	PROPOSED DOUBLE CATCH BASIN
—	PROPOSED STORM SEWER FLOW
—	PROPOSED SANITARY SEWER FLOW
—	PROPOSED WATERMAIN
⊗	FIRE HYDRANT
⊗	VALVE (GAS OR WATER)
⊗	PROPOSED TRANSFORMER
□	PROPOSED PIT
□	PROPOSED STREETLIGHT
→	FLOW DIRECTION OF SURFACE WATER IN A SWALE
→	FLOW DIRECTION OF SURFACE WATER

No.	DATE	NAME	DESCRIPTION
REVISIONS			

JOHNSON ENGINEERING CONSULTANTS
 STRUCTURAL — CIVIL — MUNICIPAL
 368 HURON STREET, STRATFORD, ONTARIO N5A 5T5 FAX (519) 271-5353 http://www.jecinc.on.ca
 (519) 271-9923 jecinc@jecinc.on.ca

CLIENT:
 LANG CONTRACTING
 54 CRAWFORD ST.
 STRATFORD, ON.
 N5A 5Y4

AUTHORITY:
 TOWN OF ST. MARYS
 175 QUEEN STREET EAST,
 ST. MARYS, ON.
 N4X 1B6

PROJECT:
 EGAN AVENUE DEVELOPMENT,
 ST. MARYS, ON

DRAWING TITLE:
 EGAN STREET DEVELOPMENT
 ELECTRICAL SERVICING

SCALE: 1:500	APPROVED BY:
DATE: OCTOBER 14, 2016	
DESIGNED BY: BRIAN JOHNSON, P. ENG.	
DRAWN BY: KdH	
J.E.C. FILING No.: 20160057	

DWG. No.: E01 **SHEET No.:** 9 of 9