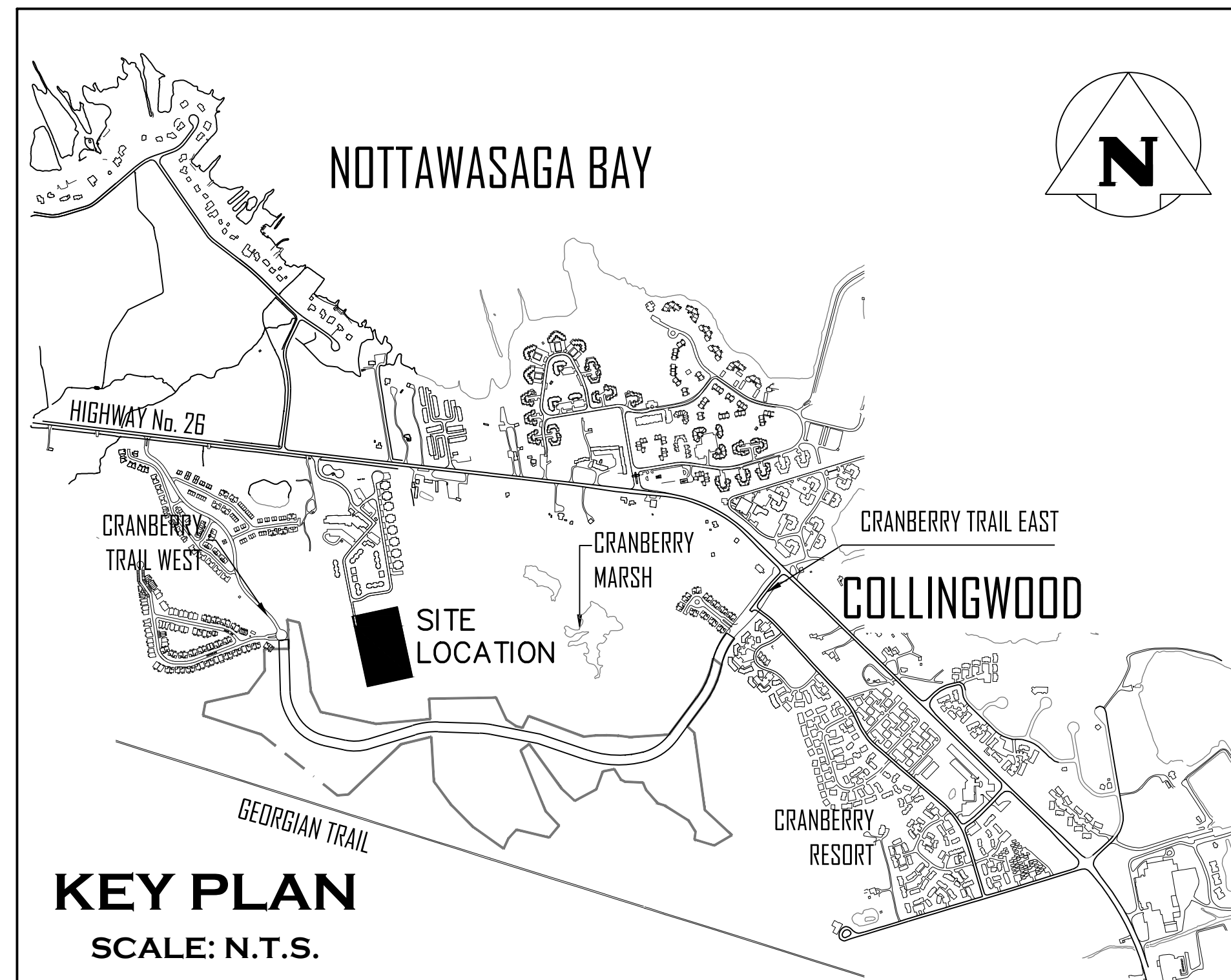


WYLDEWOOD CREEK TOWN OF COLLINGWOOD COUNTY OF SIMCOE



MUNICIPALITY

TOWN OF COLLINGWOOD
97 HURONTARIO STREET, P.O. BOX 157
COLLINGWOOD, ONTARIO, L9Y 3Z5

DEVELOPER

BRANDY LANE CORPORATION
4580 DUFFERIN STREET, SUITE 307
TORONTO, ONTARIO, M3H 5Y2

DEVELOPER'S ENGINEER AND LANDSCAPE ARCHITECT



ADMIRAL BUILDING
1 FIRST STREET, SUITE 200
COLLINGWOOD, ON, L9Y 1A1
705-446-3510 T
705-446-3520 F
WWW.CFCROZIER.CA
INFO@CFCROZIER.CA

ARCHITECT

CMV GROUP ARCHITECTS
247 SPADINA AVENUE, 4TH FLOOR
TORONTO, ONTARIO, M5T 3A8

DRAWING

TITLE

| | |
|--------|---|
| C100 | COVER SHEET |
| C101 | GENERAL SITE SERVICING PLAN |
| C102.A | OVERALL SITE GRADING PLAN (NORTH) |
| C102.B | OVERALL SITE GRADING PLAN (SOUTH) |
| C103.A | PLAN & PROFILE STREET 'A' (STA. 0+000 - 0+288.22) |
| C103.B | PLAN & PROFILE SERVICING EASEMENT |
| C104 | CHANNEL PLAN & PROFILE AND GRADING DETAILS |
| C105 | CULVERT CROSSING NOTES AND DETAILS |
| C106 | SANITARY DRAINAGE PLAN |
| C107 | STORM DRAINAGE PLAN |
| C108 | WATER DISTRIBUTION PLAN |
| C109 | EROSION AND SEDIMENT CONTROL PLAN |
| C110 | COMPOSITE UTILITY PLAN |
| C111 | CONSTRUCTION ACCESS ROAD PLAN |
| C112 | TURNING MOVEMENT PLAN |
| C113.A | CONSTRUCTION NOTES & STANDARD DETAILS |
| C113.B | STANDARD DETAILS |
| E100 | SITE PLAN - PHOTOMETRIC |
| E101 | SITE LIGHTING DETAILS |
| LP1-6 | LANDSCAPE PLANS |
| LD1-2 | LANDSCAPE DETAILS |
| GEO-1 | CHANNEL RESTORATION DESIGN PLANFORM AND PROFILE |
| DET-1 | CHANNEL RESTORATION DESIGN RESTORATION DETAILS |
| DET-2 | CHANNEL RESTORATION DESIGN RESTORATION DETAILS |
| PESC | CHANNEL RESTORATION DESIGN RESTORATION DETAILS |

MASTER LEGEND

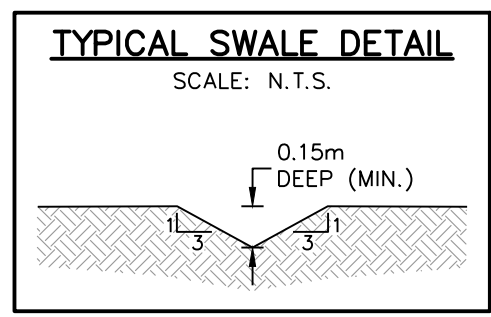
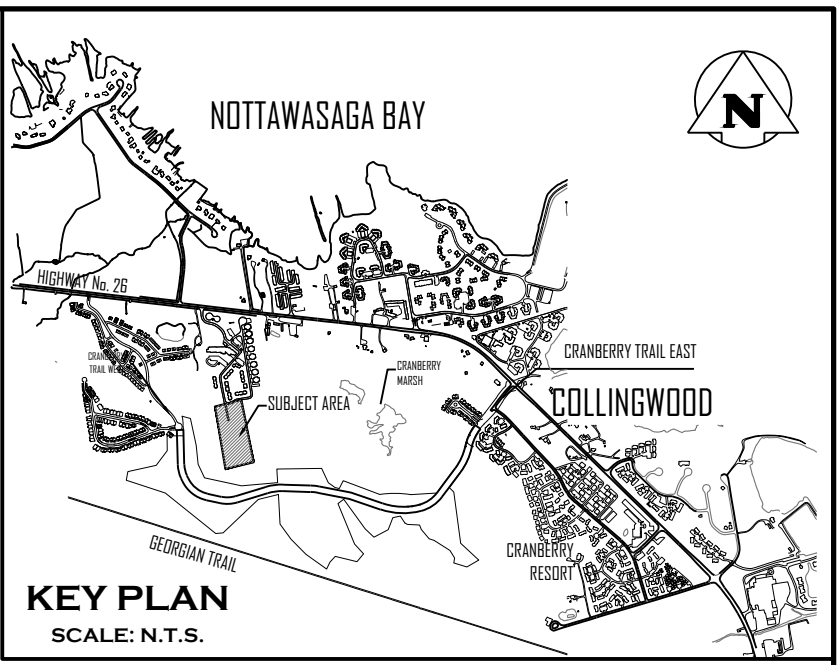
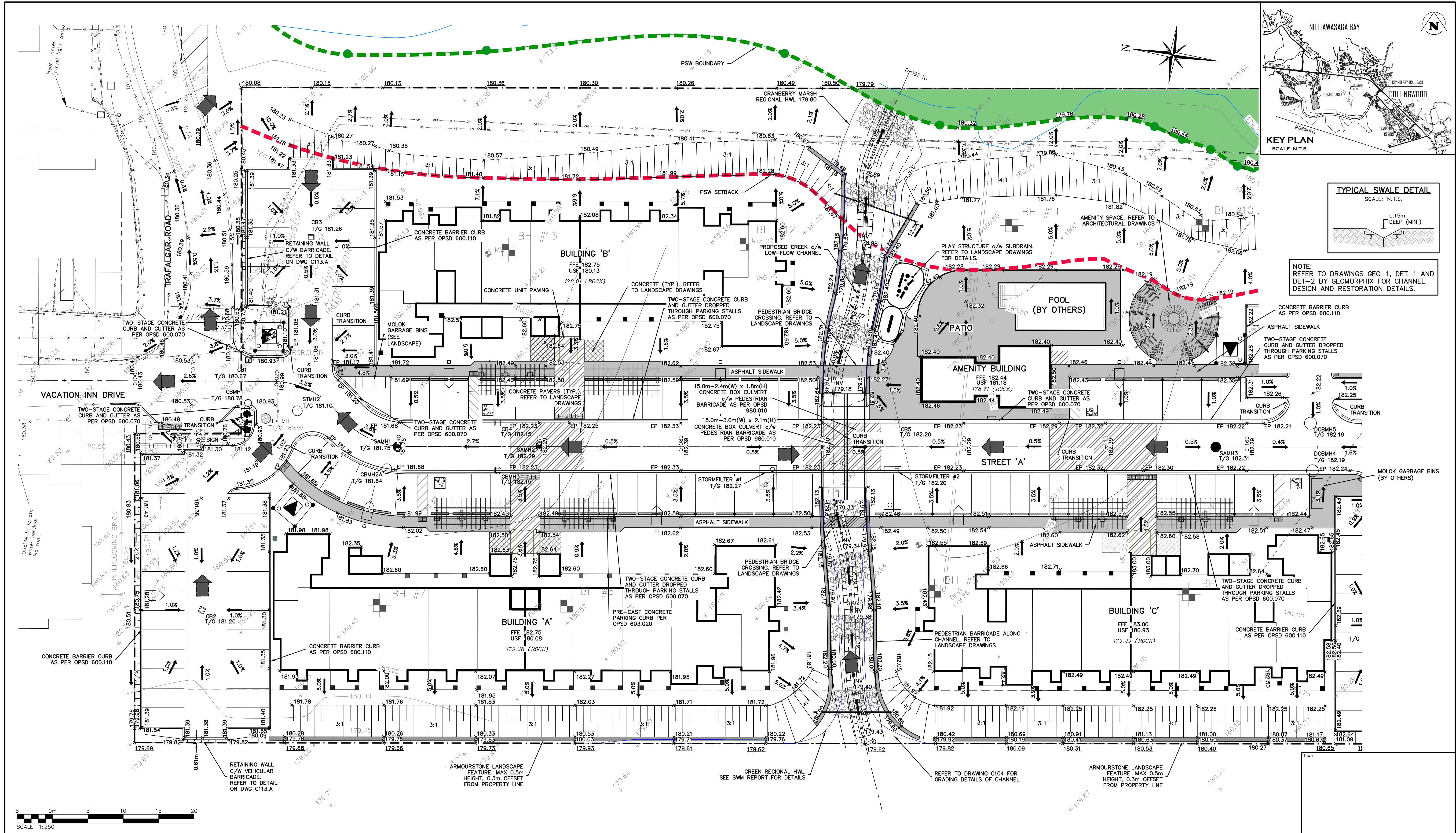
EXISTING FEATURES (EX.)

| | |
|-----------------|-------------------------------------|
| ---XXX.X | EX. CONTOUR |
| +XXX.XX | EX. GRADE |
| ~~~~~ | EX. TREELINE |
| ~~~~~ | EX. WATERCOURSE |
| --->--- | EX. DITCH |
| ---XIM---XIM--- | EX. WATERMAIN |
| ---XWM--- | EX. WATER SERVICE |
| ⊕ | EX. FIRE HYDRANT & VALVE |
| ---XSAN--- | EX. SANITARY SEWER & MANHOLE |
| ---XFM--- | EX. SANITARY FORCEMAIN |
| ---XSM--- | EX. SANITARY SERVICE |
| ---XSS--- | EX. STORM SEWER & MANHOLE |
| □ | EX. STORM CATCHBASIN |
| □ | EX. STORM DOUBLE CATCHBASIN |
| ○ | EX. STORM CATCHBASIN MANHOLE |
| ⊕ | EX. STORM DOUBLE CATCHBASIN MANHOLE |
| ---XGAS--- | EX. GAS MAIN |
| ---XB--- | EX. BELL LINE |
| □ | EX. BELL PEDESTAL |
| □ | EX. CABLE TELEVISION PEDESTAL |
| ○HP | EX. HYDRO POLE |
| ⊕ | EX. LIGHT STANDARD |
| ⊕ | EX. SIGN |
| ▭ | EX. BUILDING |
| ⊕BM# | EX. BENCHMARK NUMBER & LOCATION |
| ⊕BH# | EX. BOREHOLE NUMBER & LOCATION |

PROPOSED FEATURES (PR.)

| | |
|-------------|-------------------------------------|
| --- | PR. PROPERTY LIMITS |
| +XXX.XX | PR. ELEVATION |
| + EP XXX.XX | PR. EDGE OF PAVEMENT |
| +XXX.XX | PR. ELEVATION (MATCH EX. ELEVATION) |
| X.X% | PR. SWALE & SLOPE |
| --->--- | PR. DITCH DRAINAGE |
| ---XW--- | PR. WATERMAIN & VALVE |
| ---XWM--- | PR. WATER SERVICE |
| ⊕ | PR. FIRE HYDRANT & VALVE |
| ⊕ | PR. WATER VALVE CHAMBER |
| ⊕ | PR. WATER QUALITY TESTING STATION |
| ---XSS--- | PR. SANITARY SEWER & MANHOLE |
| ---XFM--- | PR. SANITARY FORCEMAIN |
| --- | PR. SANITARY CATCHMENT |
| ⊕ | CATCHMENT AREA ID |
| ⊕ | AREA (ha) |
| ⊕ | POPULATION (1.9 p.p.u.) |
| --- | PR. STORM SEWER & MANHOLE |
| □ | PR. CATCHBASIN |
| □ | PR. DOUBLE CATCHBASIN |
| ○ | PR. CATCHBASIN MANHOLE |
| ⊕ | PR. DOUBLE CATCHBASIN MANHOLE |
| --- | PR. STORM CATCHMENT |
| --- | CATCHMENT AREA ID |
| --- | RUNOFF COEFFICIENT |
| --- | DRAINAGE AREA (ha) |
| --- | PR. CURB CUT |
| ⊕ | PR. CANADA POST COMMUNITY MAIL BOX |
| ⊕ | PR. TRANSFORMER AND GROUNDING GRID |
| ⊕ | PR. STREET LIGHT |
| ⊕ | PR. STOP SIGN |
| ⊕ | PR. NAME SIGN |
| ⊕ | PR. NO PARKING SIGN |
| --- | PR. FENCE |
| --- | PR. BUILDING ENVELOPE |
| --- | PR. LIGHT DUTY SILT FENCE |
| --- | PR. HEAVY DUTY SILT FENCE |
| --- | PR. STRAW BALE CHECK FLOW |
| --- | PR. ROCK CHECK DAM |
| --- | PR. SLOPE (3:1 MAX.) |
| --- | PR. TREE PRESERVATION AREA |
| --- | PR. TOPSOIL STOCKPILE LOCATION |

**PROJECT No.: 1535-4897
4TH SUBMISSION**



NOTE: REFER TO DRAWINGS GEO-1, DET-1 AND DET-2 BY GEOMORPH FOR CHANNEL DESIGN AND RESTORATION DETAILS.

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 4. DO NOT SCALE THE DRAWINGS.
 5. ALL EXISTING UNDERGROUND UTILITIES TO BE VERIFIED IN THE FIELD BY THE CONTRACTOR PRIOR TO CONSTRUCTION.

| BENCHMARKS | |
|---|--|
| ELEVATIONS SHOWN HEREON ARE GEODETIC AND ARE RELATED TO TOWN OF COLLINGWOOD BENCH MARK NO. 00172U311 HAVING AN ELEVATION OF 181.032 METRES. | |
| TOPOGRAPHIC SURVEY COMPLETED BY KRCMAR SURVEYORS LTD., DATED AUGUST 25, 2018. | |

| No. | ISSUE | DATE: MM/DD/YYYY |
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| 4 | ISSUED FOR 3rd ENGINEERING SUBMISSION | 01/14/2022 |
| 5 | ISSUED FOR 4th ENGINEERING SUBMISSION | 03/10/2023 |

Engineer
 LICENSED PROFESSIONAL ENGINEER
 R.A. ALEXANDER
 100213093
 March 10, 2023
 PROVINCE OF ONTARIO

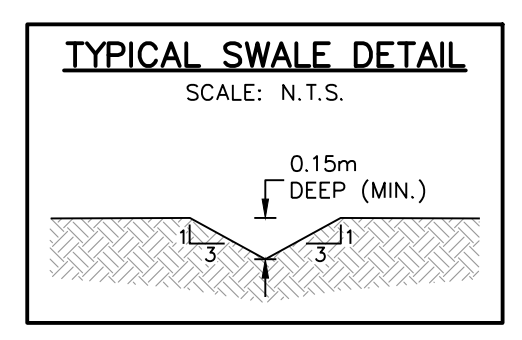
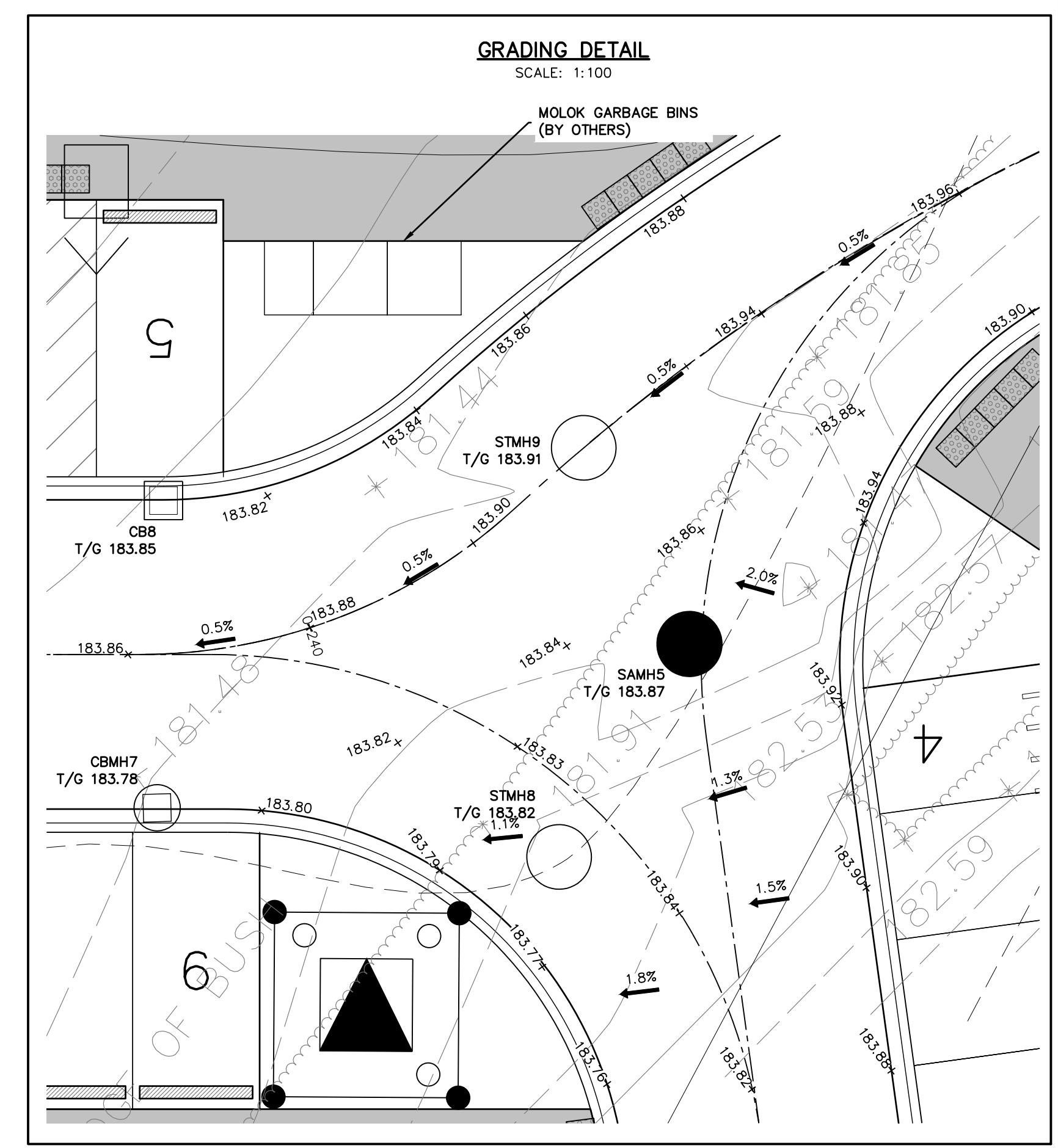
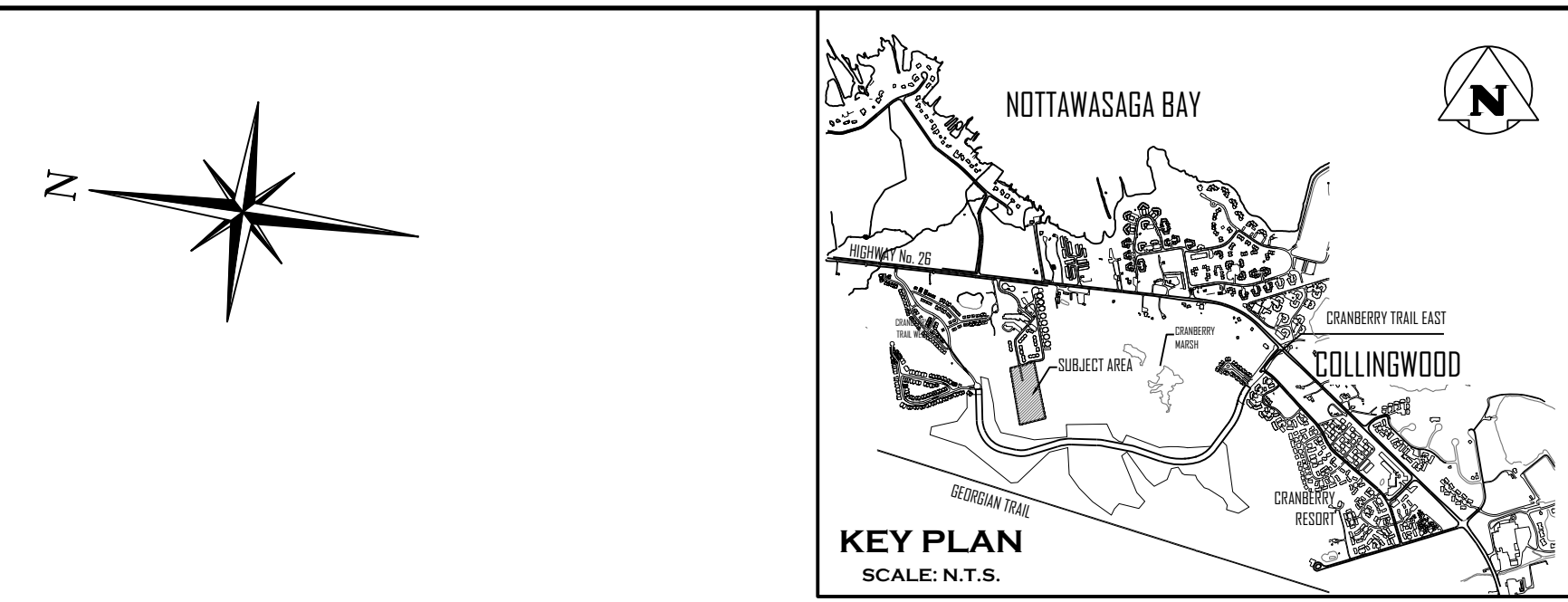
Engineer
 LICENSED PROFESSIONAL ENGINEER
 K.A. MORRIS
 90510884
 March 14, 2023
 PROVINCE OF ONTARIO

Project
WYLDEWOOD CREEK TOWN OF COLLINGWOOD
 Drawing
OVERALL SITE GRADING PLAN (NORTH)

CROZIER CONSULTING ENGINEERS

ADAMIRAL BUILDING
 1 FIRST STREET, SUITE 200
 COLLINGWOOD, ON, L9Y 1A1
 705-446-3510 T
 WWW.CFCROZIER.CA
 INFO@CFCROZIER.CA

Drawn By: L.W. Design By: L.W. Project: **1535-4897**
 Check By: K.M. Check By: R.A. Scale: 1:250 Drawing: **C102.A**



NOTE:
ALL GRADE ELEVATIONS ARE BOTTOM OF CURB UNLESS OTHERWISE NOTED.

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| TOPOGRAPHIC SURVEY COMPLETED BY KRCMAR SURVEYORS LTD., DATED AUGUST 25, 2018. | |

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| 5 | ISSUED FOR 4th ENGINEERING SUBMISSION | 03/10/2023 |

Engineer: **R.A. ALEXANDER** 100213093
 PROVINCE OF ONTARIO

Engineer: **K.A. MORRIS** 90510884
 PROVINCE OF ONTARIO

Project: **WYLDEWOOD CREEK TOWN OF COLLINGWOOD**

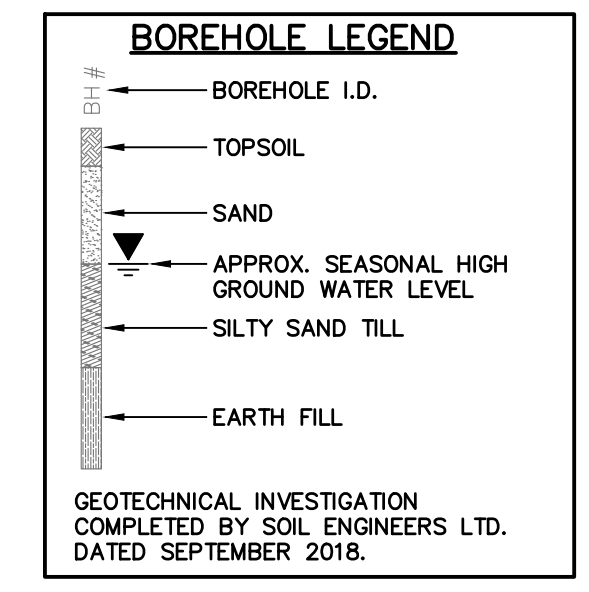
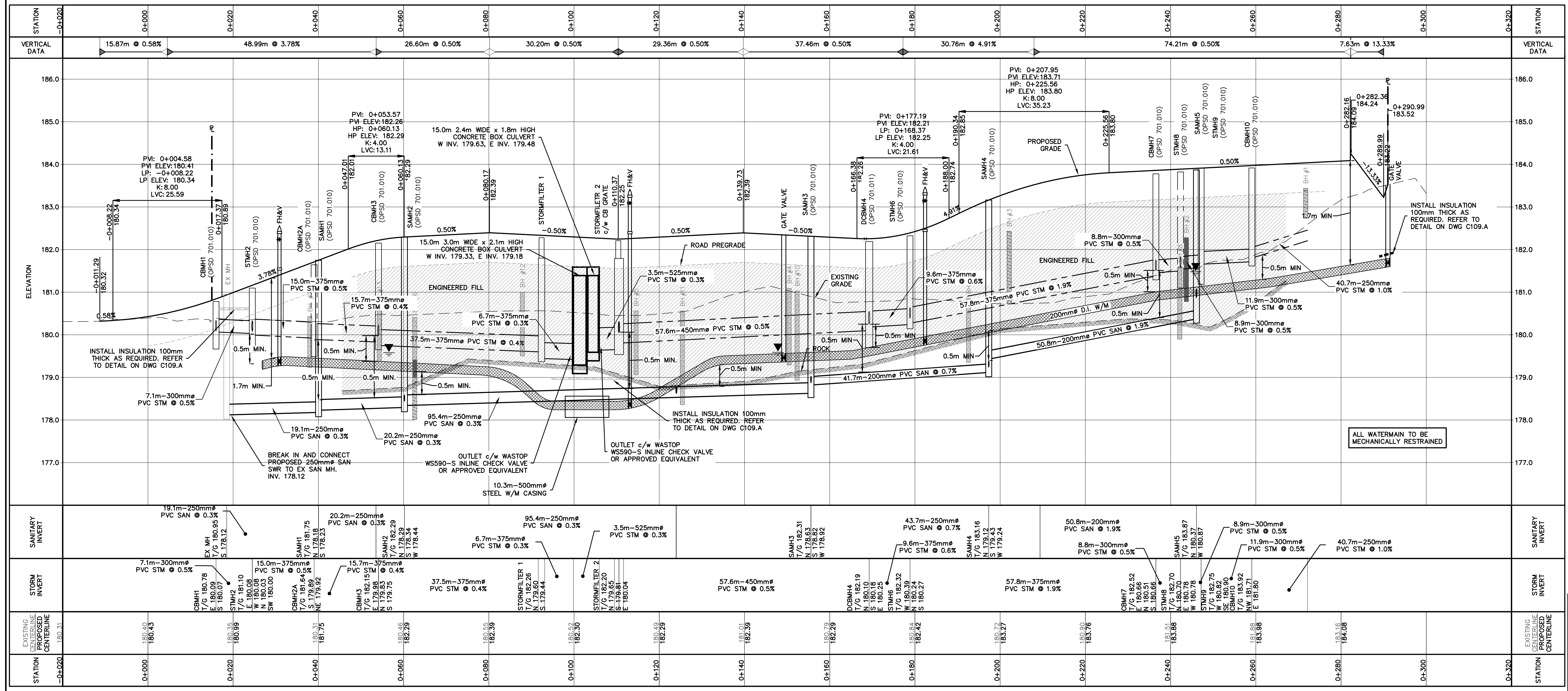
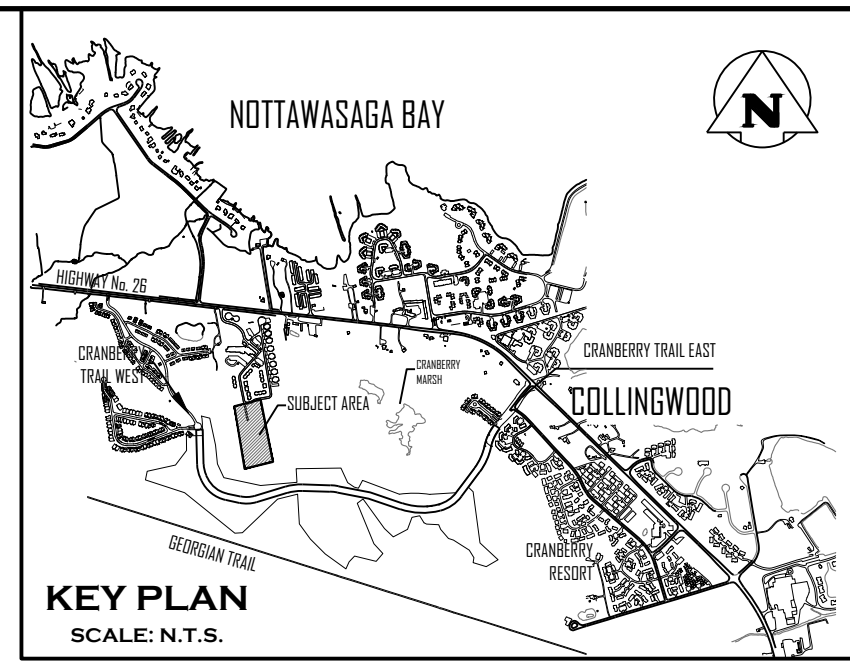
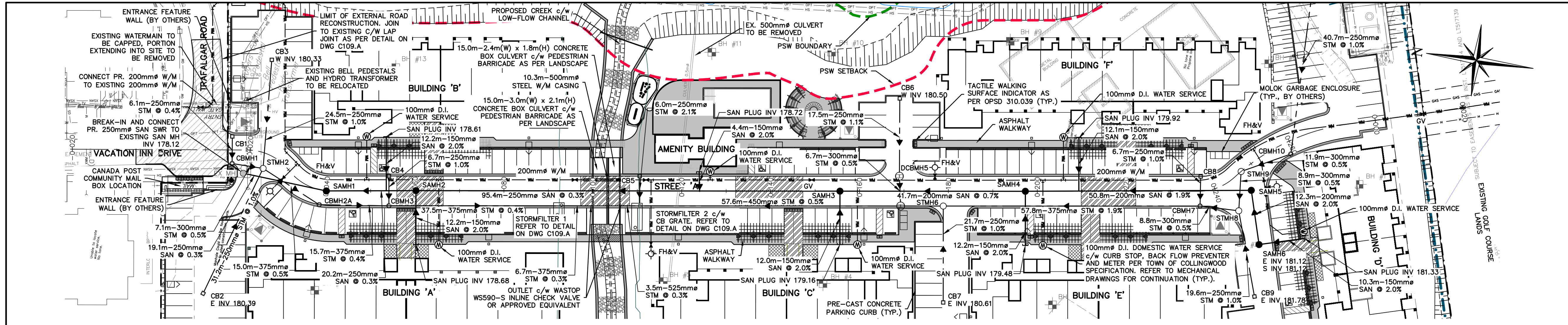
Drawing: **OVERALL SITE GRADING PLAN (SOUTH)**

CROZIER CONSULTING ENGINEERS

Admiral Building
 1 First Street, Suite 200
 Collingwood, ON, L9Y 1A1
 705-446-3510 T
 705-446-3520 F
 WWW.CROZIER.CA
 INFO@CROZIER.CA

Drawn By: L.W. Design By: L.W. Project: **1535-4897**

Check By: K.M. Check By: R.A. Scale: 1:250 Drawing: **C102.B**



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| 5 | ISSUED FOR 4th ENGINEERING SUBMISSION | 03/10/2023 |

BENCHMARKS

ELEVATIONS SHOWN HEREON ARE GEODETIC AND ARE RELATED TO TOWN OF COLLINGWOOD BENCH MARK NO. 00172311 HAVING AN ELEVATION OF 181.032 METRES.

TOPOGRAPHIC SURVEY COMPLETED BY KROMAR SURVEYORS LTD., DATED AUGUST 25, 2018.

Engineer: R.A. ALEXANDER (100213093) PROVINCE OF ONTARIO

Engineer: K.A. MORRIS (90510884) PROVINCE OF ONTARIO

Project: WYLDEWOOD CREEK TOWN OF COLLINGWOOD

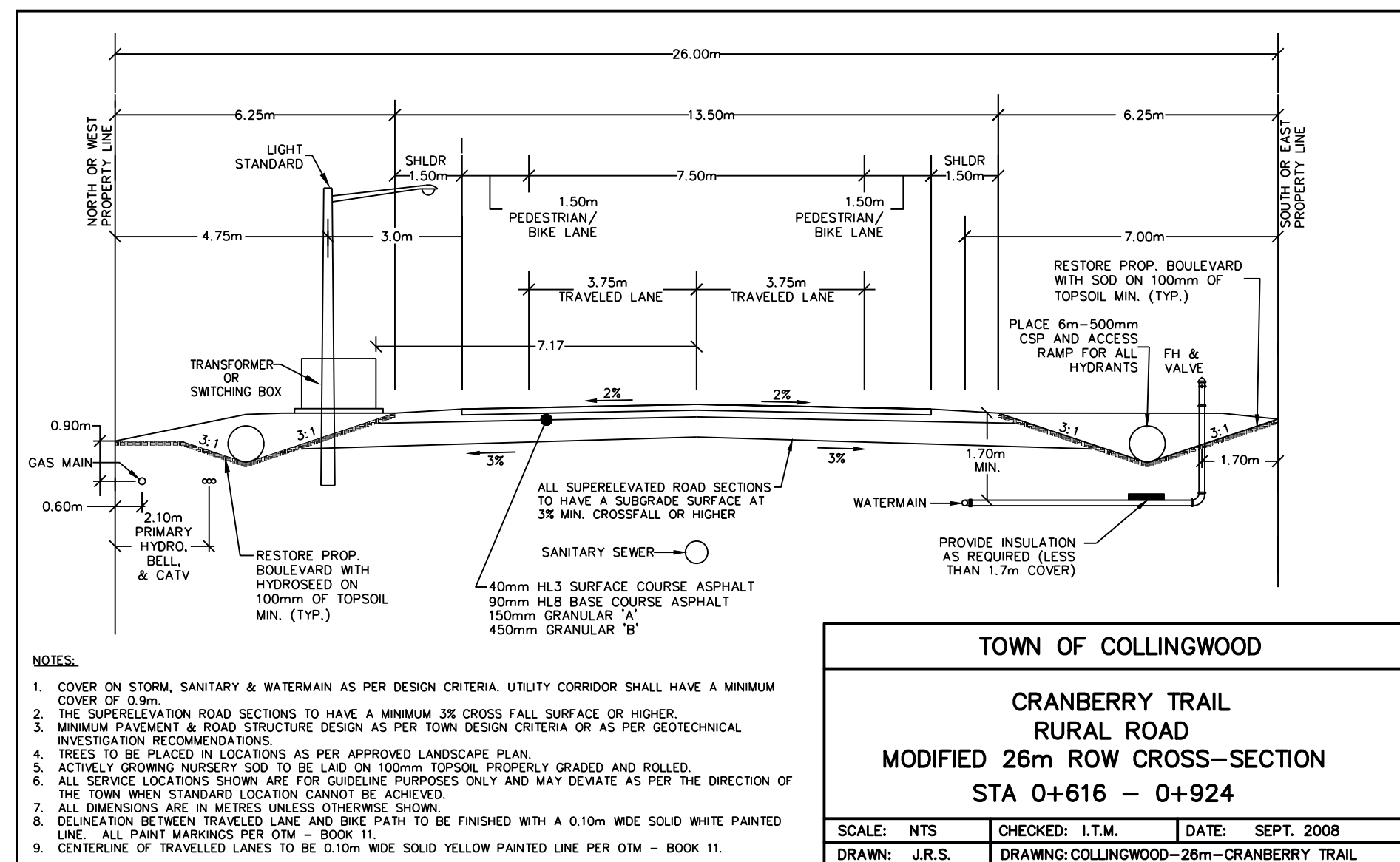
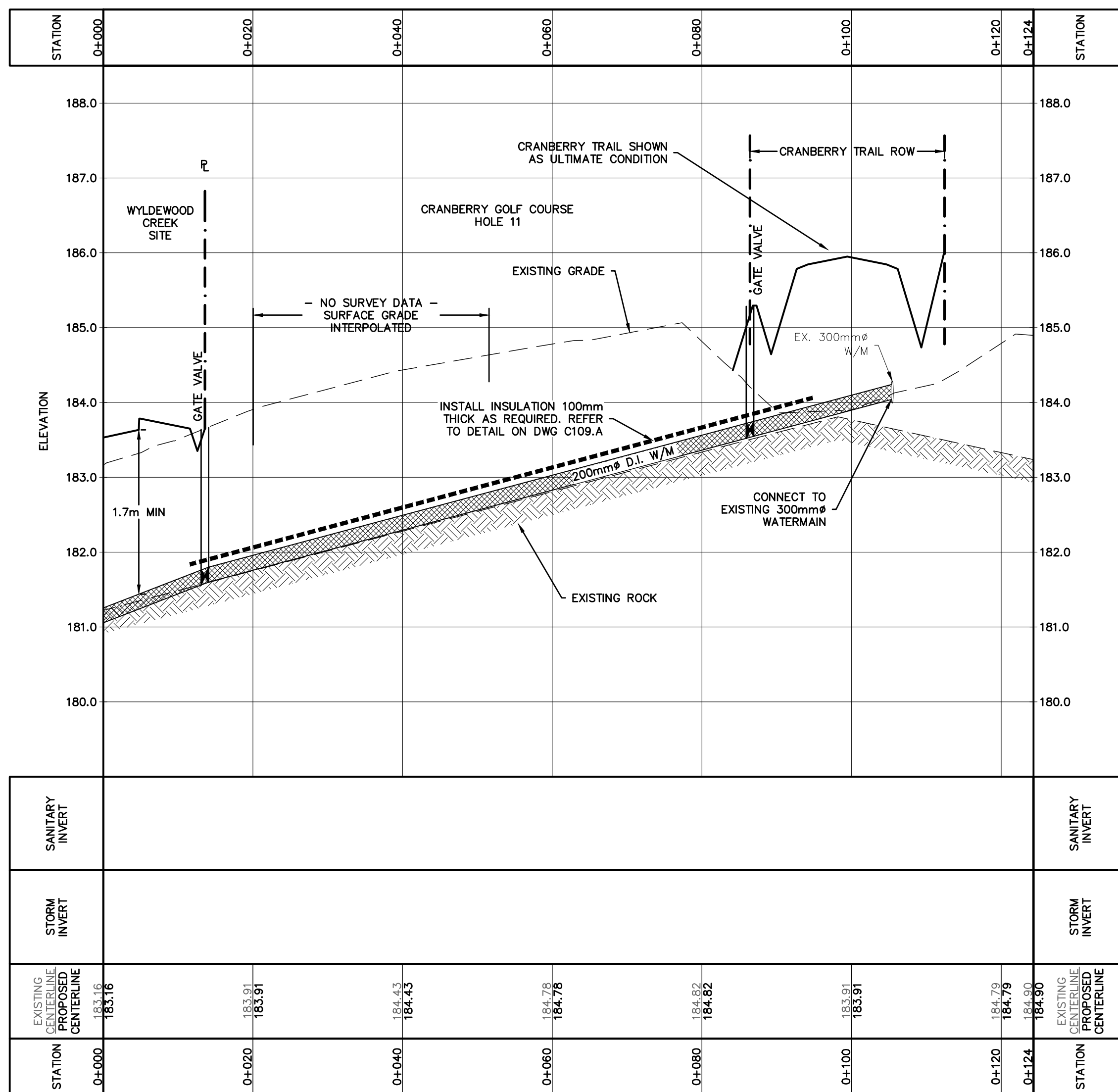
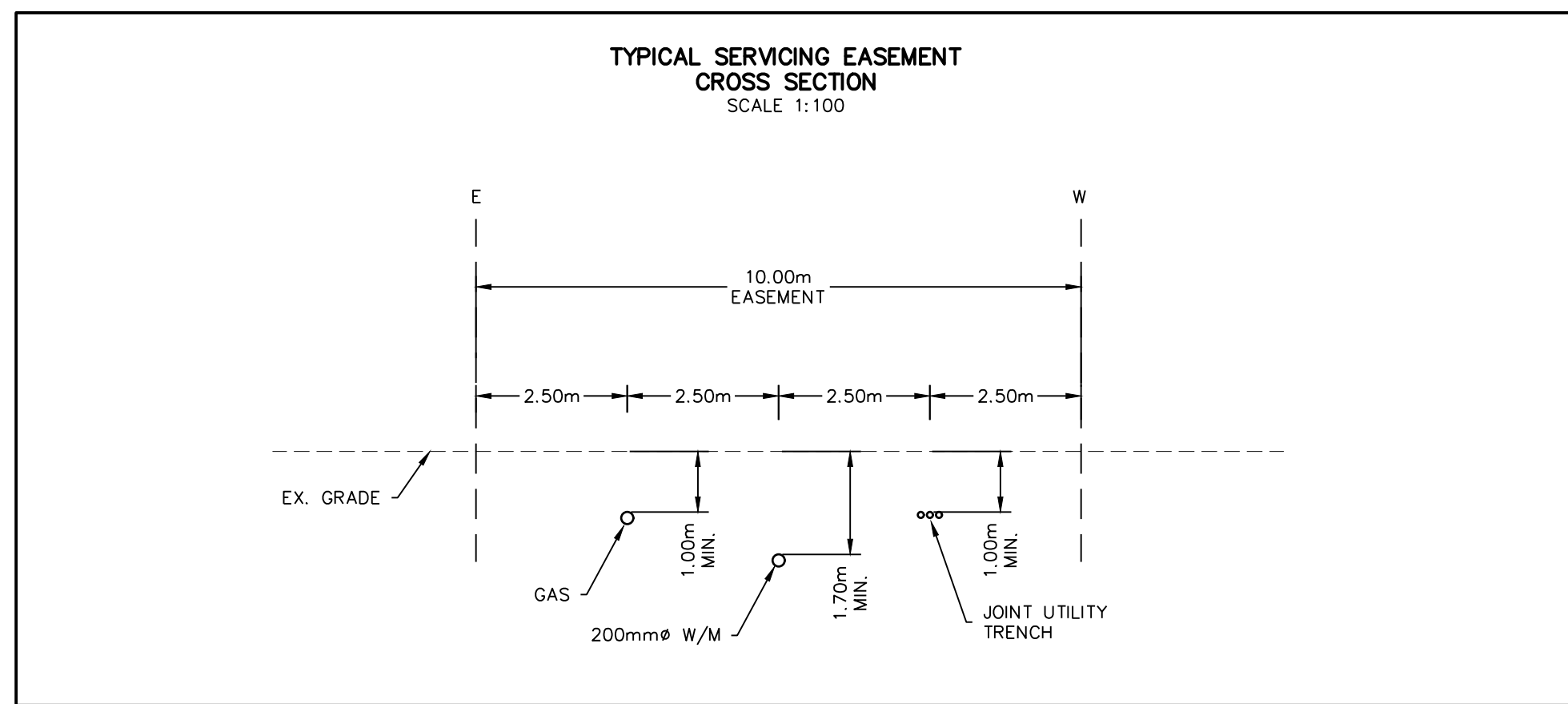
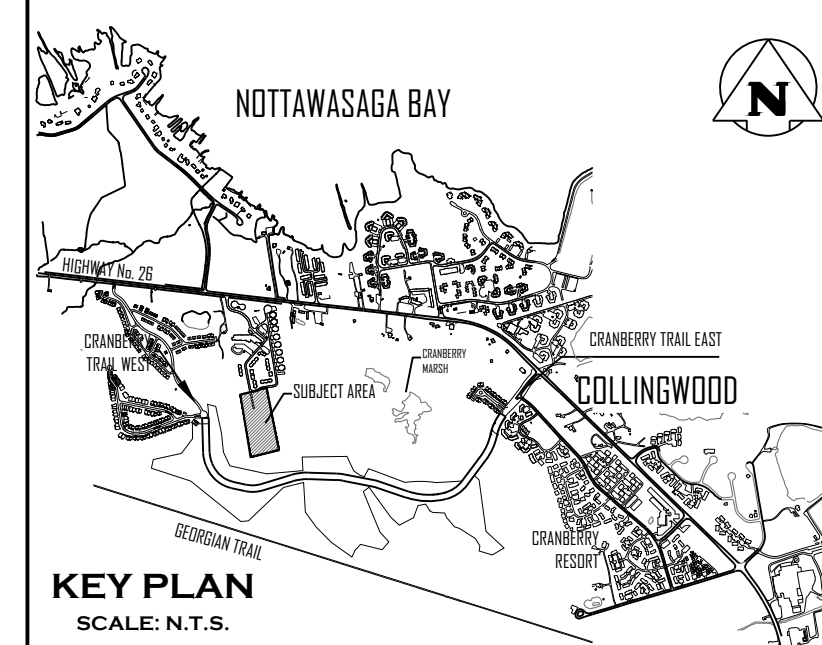
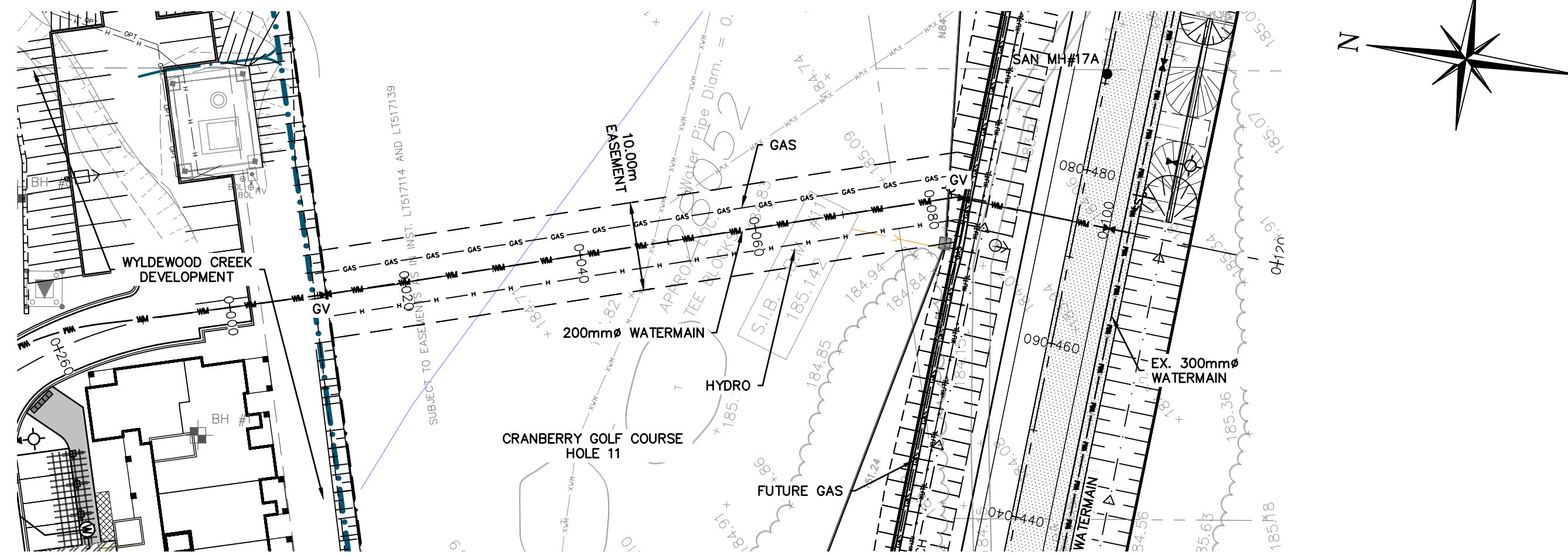
Drawing: PLAN & PROFILE STREET 'A' (STA 0+000 - 0+288.22)

Scale: H 1:500, V 1:50

CROZIER CONSULTING ENGINEERS

ADAMANT BUILDING
1 FIRST STREET, SUITE 200
COLLINGWOOD, ON, L9Y 1A1
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Drawn By: L.W. Design By: L.W. Project: 1535-4897
Check By: K.M. Check By: R.A. Scale: H 1:500, V 1:50 Drawing: C103.A



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BENCHMARKS

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TOPOGRAPHIC SURVEY COMPLETED BY KRCMAR SURVEYORS LTD., DATED AUGUST 25, 2018.

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| 5 | ISSUED FOR 4th ENGINEERING SUBMISSION | 03/10/2023 |

Engineer: R.A. ALEXANDER 100213093 (March 10, 2023) PROVINCE OF ONTARIO

Engineer: K.A. MORRIS 90510884 (March 14, 2023) PROVINCE OF ONTARIO

Project: WYLDEWOOD CREEK TOWN OF COLLINGWOOD

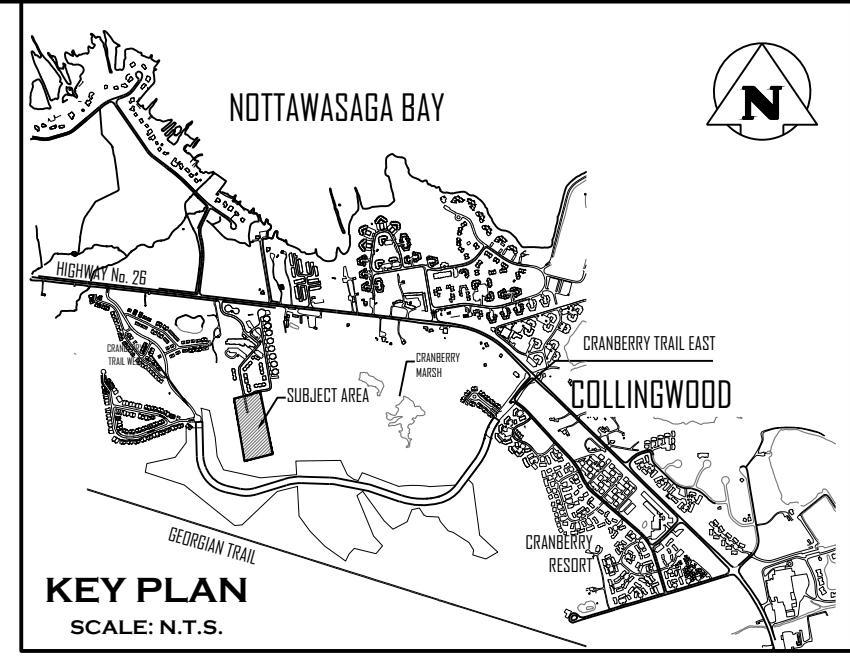
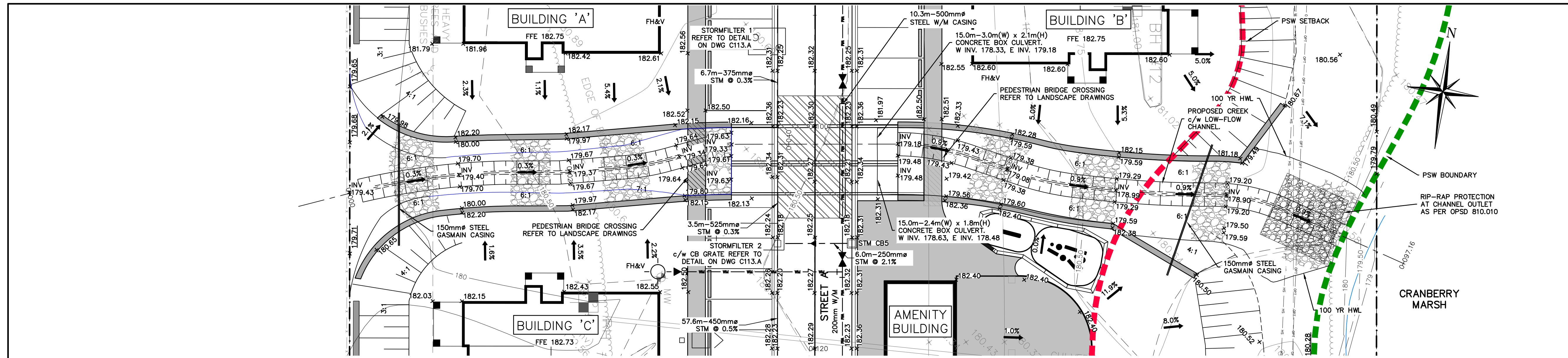
Drawing: PLAN & PROFILE SERVICING EASEMENT

CROZIER CONSULTING ENGINEERS

ADMIRAL BUILDING
1 FIRST STREET, SUITE 200
COLLINGWOOD, ON, L9Y 1A1
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Drawn By: L.W. Design By: L.W. Project: 1535-4897

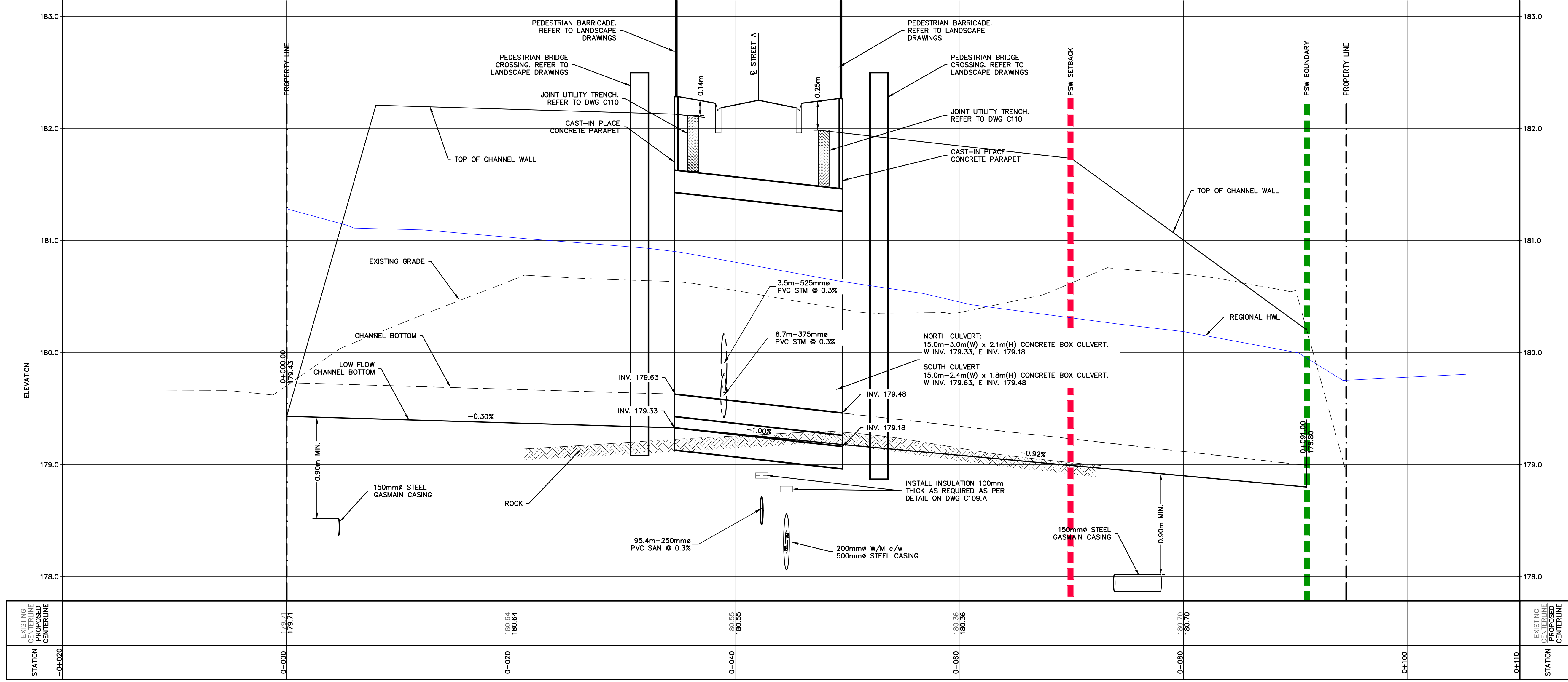
Check By: K.M. Check By: R.A. Scale: H 1:500 V 1:50 Drawing: C103.B



NOTE: GRADING AND RIP-RAP EROSION PROTECTION AT CHANNEL OUTLET TO BE FIELD FIT TO ENSURE POSITIVE DRAINAGE TO CRANBERRY MARSH

NOTE: REFER TO DRAWINGS GEO-1, DET-1 AND DET-2 BY GEOMORPHIX FOR CHANNEL DESIGN AND RESTORATION DETAILS.

NOTE: CONTRACTOR TO OBTAIN AND PROVIDE SEALED SHOP DRAWINGS WITH ENGINEER'S STAMP FOR CONCRETE CULVERTS, RETAINING WALLS AND PARAPET HEADWALLS.



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BENCHMARKS

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Project: WYLDEWOOD CREEK TOWN OF COLLINGWOOD

Drawing: CHANNEL PLAN & PROFILE AND GRADING DETAILS

Engineer: R.A. ALEXANDER (100213093) - Licensed Professional Engineer, Province of Ontario

Engineer: K.A. MORRIS (90510884) - Licensed Professional Engineer, Province of Ontario

Project: WYLDEWOOD CREEK TOWN OF COLLINGWOOD

Drawing: CHANNEL PLAN & PROFILE AND GRADING DETAILS

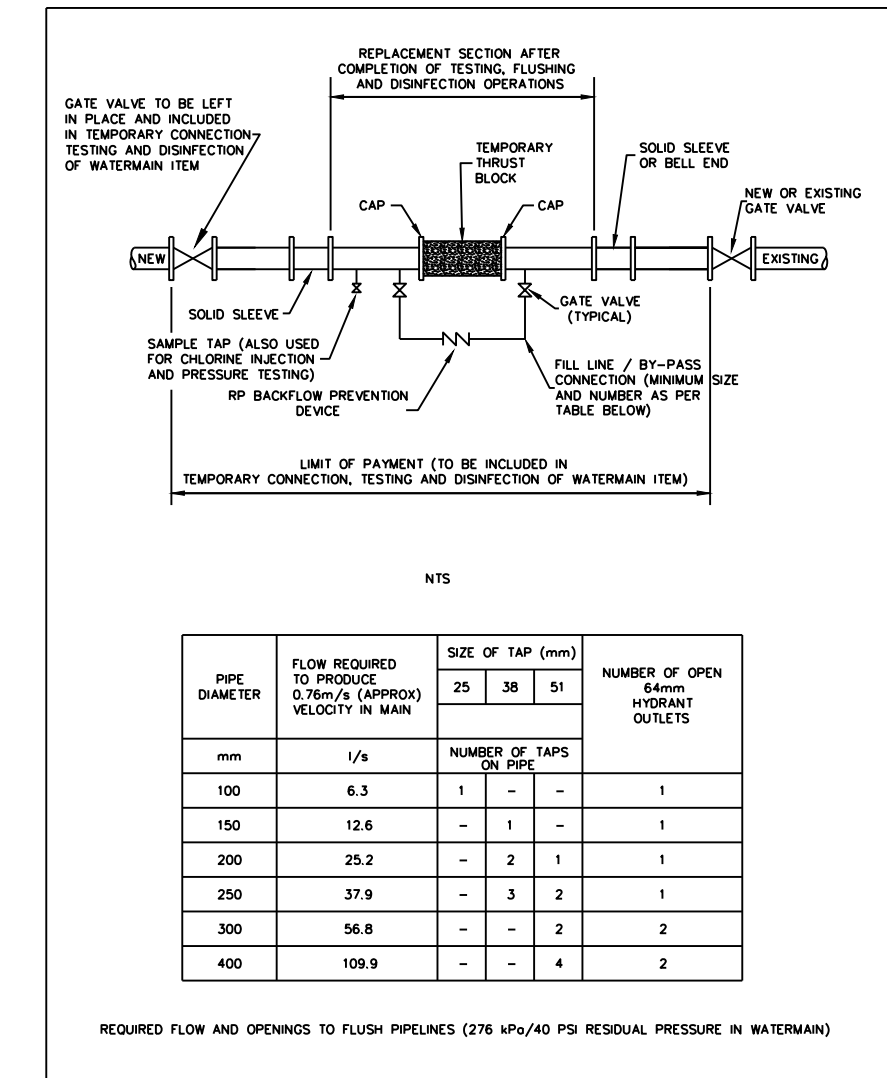
CROZIER CONSULTING ENGINEERS

ADMIRAL BUILDING
1 FIRST STREET, SUITE 200
COLLINGWOOD, ON, L9Y 1A1
705-446-3510 T
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WWW.CF-CROZIER.CA
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Drawn By: L.W. Design By: L.W. Project: 1535-4897

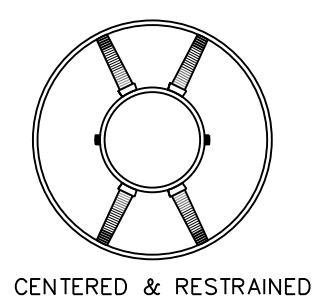
Check By: K.M. Check By: R.A. Scale H: 1:200 Drawing: C104

Scale V: 1:20

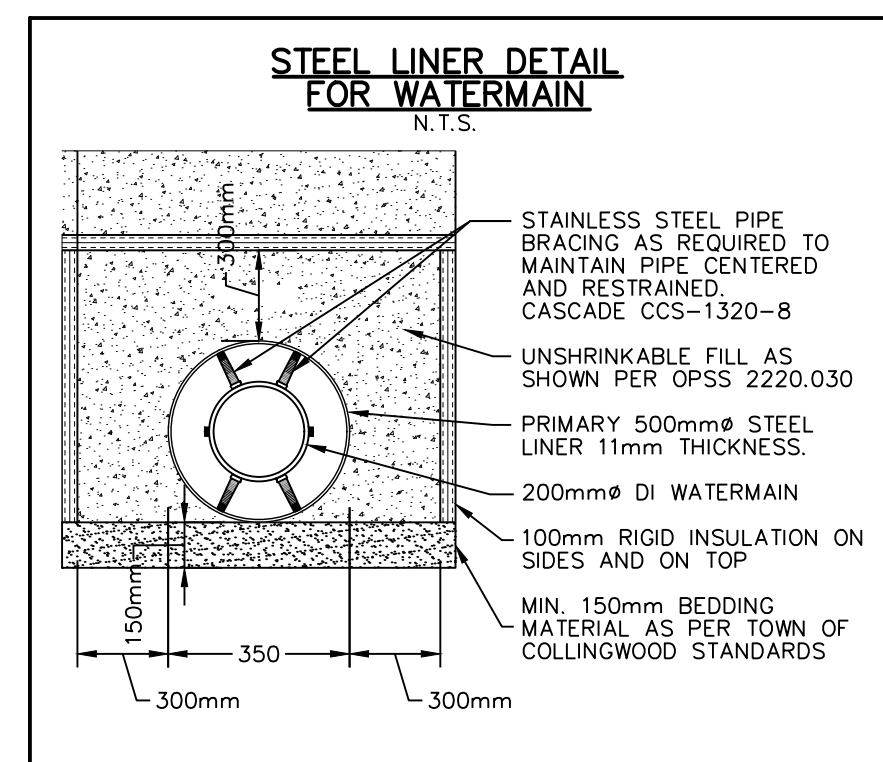


CASING SPACERS

- CASCADE: CCS - 1320-8 (OR APPROVED EQUAL)
- NOTES:**
- CONTRACTOR TO SUBMIT SHOP DRAWINGS OF MATERIAL AND INSTALLATION METHODOLOGY FOR REVIEW AND APPROVAL.
 - ALL CASING SPACERS ARE TO BE MADE OF T-304 STAINLESS STEEL.
 - BEARING SURFACES (RUNNERS) SHALL BE ULTRA HIGH MOLECULAR WEIGHT POLYMER OR EQUIVALENT.
 - POSITIONING OF SPACERS ALONG THE WATERMAIN IS TO BE AS PER MANUFACTURER'S SPECIFICATIONS.
 - POSITION OF WATERMAIN WITHIN LINER TO BE CENTERED AND RESTRAINED, SUFFICIENT ENOUGH TO PROVIDE NO LESS THAN 19mm (3/4") CLEARANCE BETWEEN THE CASING PIPE AND THE OUTSIDE DIAMETER OF THE BELL.



- WATERMAIN SHALL BE RESTRAINED Laterally FOR THE ENTIRE LENGTH OF THE LINER PLUS ONE FULL PIPE LENGTH BEYOND END OF CASING.
 - LINER TO BE SEALED USING WRAP AROUND RUBBER ENDS COMPLETE WITH STAINLESS STEEL (T-304) BANDING.
-
- STAINLESS STEEL BAND RUBBER SEAL STAINLESS STEEL BAND



GENERAL CONSTRUCTION SCHEDULE

- IN STREAM WORKS TO COMPLY WITH NVCA TIMING GUIDELINES AND ASSOCIATED PERMITTING.
 - MAINTAIN TEMPORARY WATER MANAGEMENT WORKS AND OVERLAND SPILL ROUTE PRIOR TO ANY EXCAVATION.
 - COMPLETE ASSOCIATED SEDIMENT CONTROLS, CULVERT AND UNDERGROUND SERVICES ENSURING WORKING IN THE DRY AT ALL TIMES.
- GENERAL NOTES**
- ALL WORK TO BE PERFORMED IN DRY DEWATERED CONDITIONS USING APPROVED WATER MANAGEMENT PLAN.
 - NO MAINTENANCE OR REPAIR WORK ON CONSTRUCTION EQUIPMENT IS ALLOWED WITHIN 30 METRES OF WATERCOURSE.
 - ALL SEDIMENT & EROSION CONTROL FACILITIES AND WORKS ARE TO BE CONSTRUCTED AND IN PLACE TO THE APPROVAL OF THE SITE ENGINEER PRIOR TO EXCAVATION WORKS COMMENCING.
 - ALL TEMPORARY SOIL OR DIRT TO BE STOCKPILED PER DESIGNATED AREAS.
 - FLOW INFORMATION PROVIDED HEREIN CONCERNING CRANBERRY MARSH OUTLET FOR CONTRACTOR USE ONLY.
 - THE SEDIMENT & EROSION CONTROLS SPECIFIED HEREIN DO NOT NECESSARILY CONSTITUTE ALL MEASURES REQUIRED GIVEN FIELD CONDITIONS. CONTRACTOR TO PROVIDE ANY SUPPLEMENTARY SEDIMENT & EROSION CONTROL MEASURES AS REQUIRED TO ENSURE NO RELEASE OF DELETERIOUS SUBSTANCES TO WATERCOURSE.

GENERAL BRIDGE NOTES

- FOOTING DETAILS (DIMENSIONS & REINFORCING) FOR MUNICIPAL APPROVAL PROCESS ONLY. ACTUAL SIZE OF FOOTINGS AND REINFORCING AS PER DESIGN BY CONTRACTOR.
 - FOOTINGS ARE ASSUMED TO BE FOUNDED ON BEDROCK; CONTRACTOR TO CONFIRM IN FIELD.
 - DESIGN IN ACCORDANCE WITH THE CANADIAN HIGHWAY BRIDGE DESIGN CODE (CAN/CSA-S6-06).
 - CONTRACTOR IS TO EXPOSE THE BEDROCK AROUND THE PROPOSED FOOTING FOR REVIEW BY GEOTECHNICAL ENGINEER. ANY LOOSE OR DELETERIOUS MATERIALS SHALL BE REMOVED AT THE DIRECTION OF THE GEOTECHNICAL ENGINEER.
 - CLASS OF CAST-IN-PLACE CONCRETE = 30 MPa.
 - CLEAR COVER TO REINFORCING:
 - FOOTINGS = 100x25
 - DISTRIBUTION SLAB = AS NOTED ON DWG.
 - BAR MARKS WITH SUFFIX 'C' DENOTE COATED BARS.
 - REINFORCING BARS SHALL BE GRADE 400 MPa.
 - CONTRACTOR TO PROVIDE MIN. 0.75m GRANULAR ABOVE CULVERT STRUCTURE DURING CONSTRUCTION.
- REQUIREMENTS FOR THE CONTRACTOR**
- PROVIDE STAMPED SHOP DRAWINGS INDICATING THAT THE BRIDGE STRUCTURE HAS BEEN DESIGNED IN ACCORDANCE WITH THE CANADIAN HIGHWAY BRIDGE DESIGN CODE (CHBDC) (CAN/CSA-S6-06). CONTRACTOR TO ALSO PROVIDE COPIES OF ALL SHOP DRAWINGS TO THE TOWN FOR THEIR RECORDS.
 - SUBMISSION SHALL INCLUDE DETAILS ON REACTION LOADS, BOTH HORIZONTAL & VERTICAL, TO BE RESISTED BY FOUNDATION AS WELL AS DETAILS ON PROPOSED ANCHORAGE FOR CULVERT & FOOTINGS.
 - ENSURE THAT THE SHOP DRAWINGS ARE SPECIFIC TO THIS CONTRACT, AND REFERENCED TO CFCA PROJECT No. 1535-4897, AND NOT A "STOCK ITEM".
 - ENSURE THAT SHOP DRAWINGS SHOW AND SPECIFY ALL JOINT FILLERS, SEALS AND COMPOUNDS, GROUT, AND GEOTEXTILE INSTALLATIONS AND APPLICATIONS.

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BENCHMARKS

ELEVATIONS SHOWN HEREON ARE GEODETIC AND ARE RELATED TO TOWN OF COLLINGWOOD BENCH MARK NO. 00172U311 HAVING AN ELEVATION OF 181.032 METRES.

TOPOGRAPHIC SURVEY COMPLETED BY KRCMAR SURVEYORS LTD., DATED AUGUST 25, 2018.

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| 5 | ISSUED FOR 4th ENGINEERING SUBMISSION | 03/10/2023 |

Engineer

Engineer

Project

WYLDEWOOD CREEK TOWN OF COLLINGWOOD

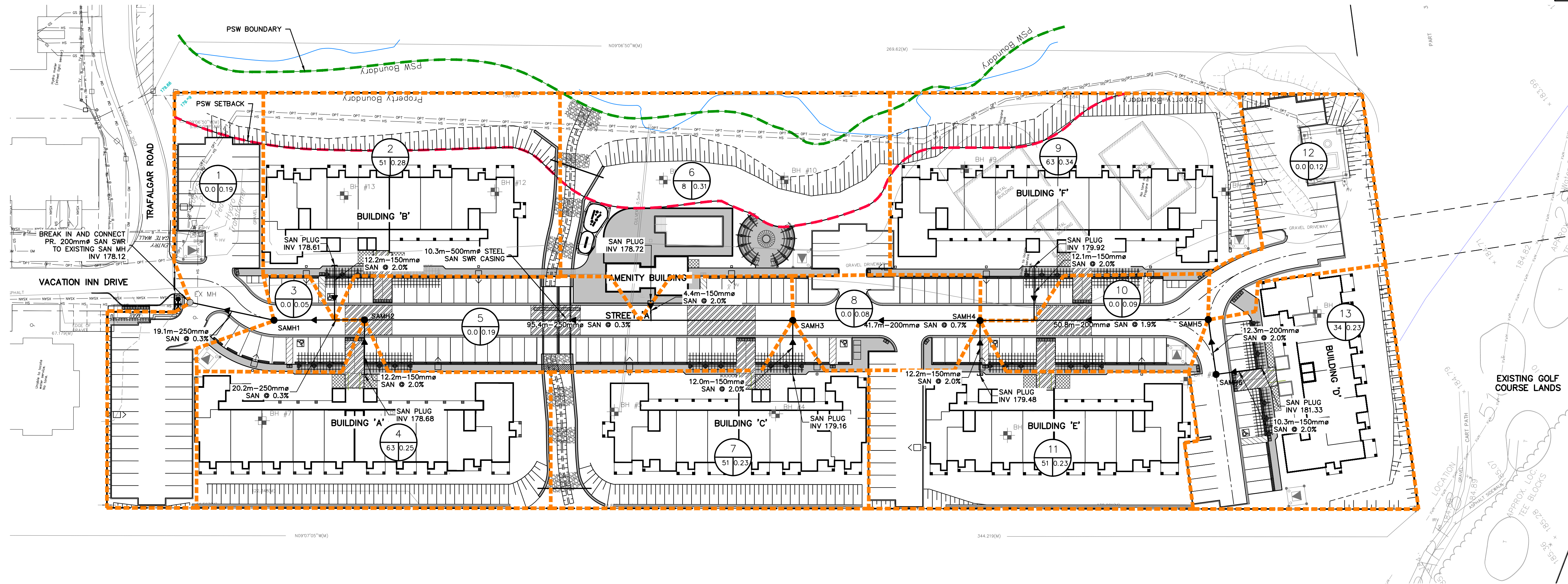
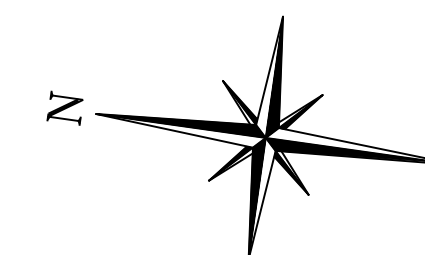
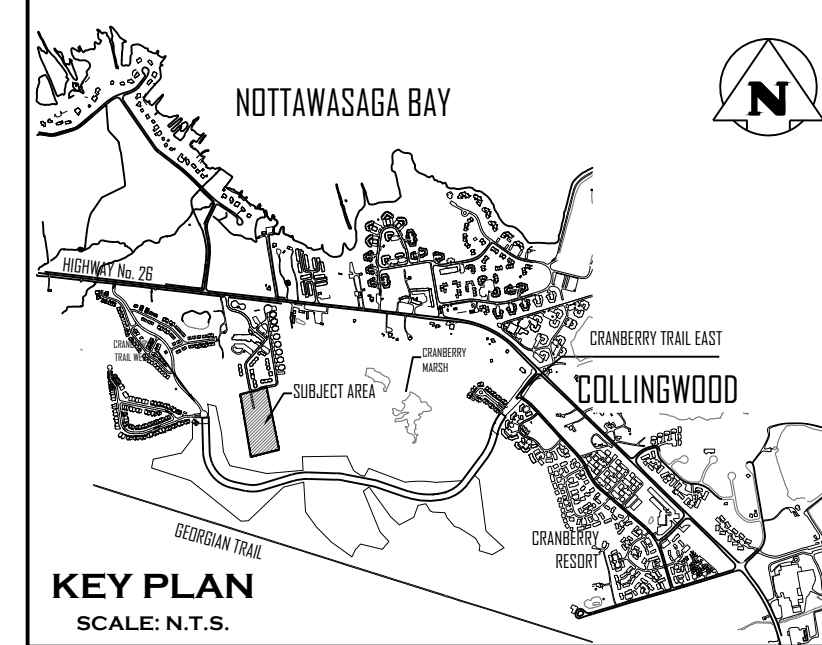
Drawing

CULVERT CROSSING NOTES AND DETAILS

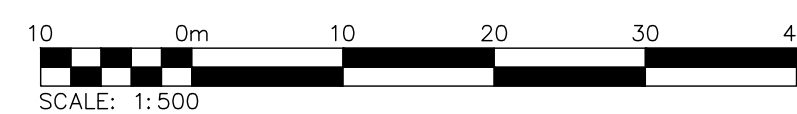
ADAMANT BUILDING
1 FIRST STREET, SUITE 200
COLLINGWOOD, ON, L9Y 1A1
705-446-3510 T
705-446-3520 F
WWW.CFCROZIER.CA
INFO@CFCROZIER.CA

Drawn By: L.W. Design By: L.W. Project: **1535-4897**

Check By: K.M. Check By: R.A. Scale: AS NOTED Drawing: **C105**



ALL SANITARY SERVICES TO BE TERMINATED 3.0m OFFSET FROM BUILDING



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| 5 | ISSUED FOR 4th ENGINEERING SUBMISSION | 03/10/2023 |

Engineer

 R.A. ALEXANDER
 100213093
 March 10, 2023
 Province of Ontario

Engineer

 K.A. MORRIS
 90510884
 March 14, 2023
 Province of Ontario

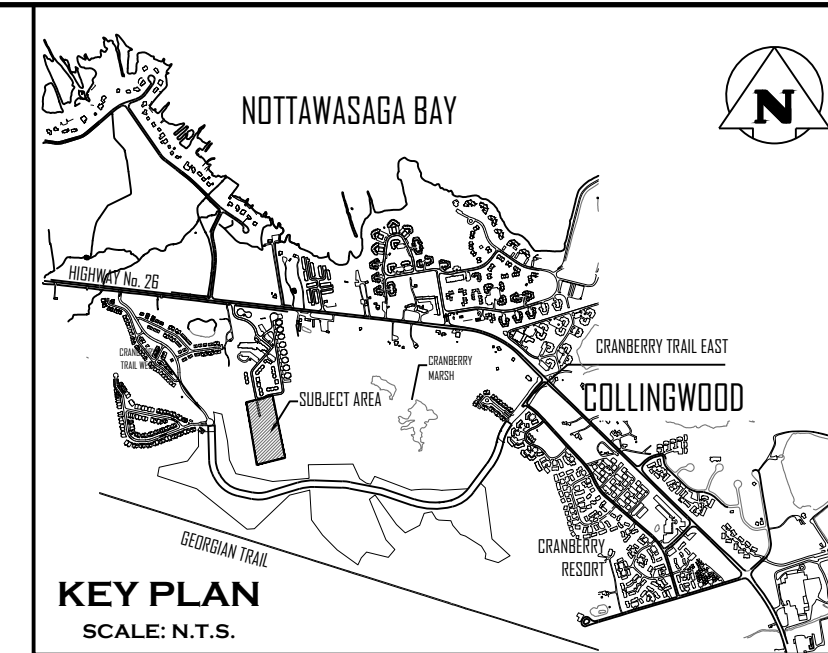
Project
WYLDEWOOD CREEK
TOWN OF COLLINGWOOD

Drawing
SANITARY DRAINAGE PLAN

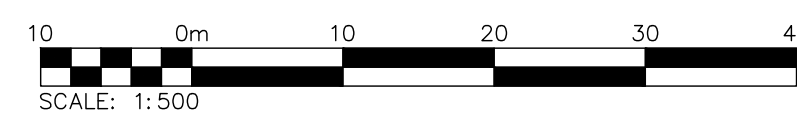
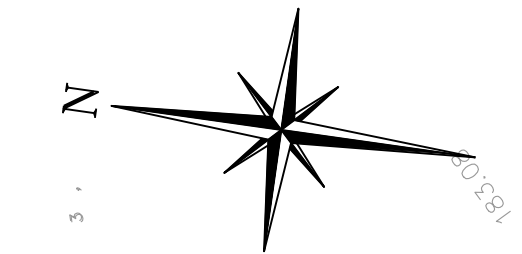
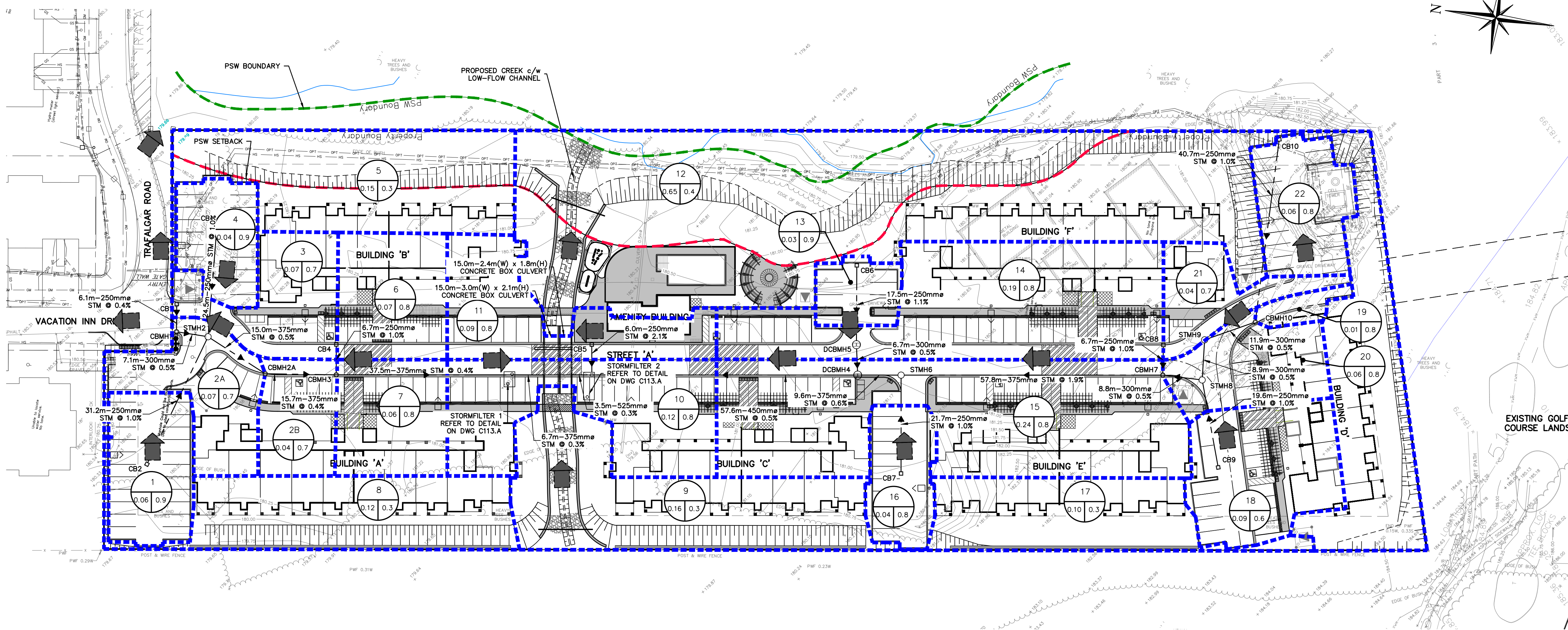
CROZIER
 CONSULTING ENGINEERS

ADAMIRAL BUILDING
 1 FIRST STREET, SUITE 200
 COLLINGWOOD, ON, L9Y 1A1
 705-446-3510 T
 705-446-3520 F
 WWW.CFCROZIER.CA
 INFO@CFCROZIER.CA

Drawn By: L.W. Design By: L.W. Project: **1535-4897**
 Check By: K.M. Check By: R.A. Scale: 1:500 Drawing: **C106**



NOTE: ROOFS TO DISCHARGE TO LANDSCAPED AREAS



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Engineer
 R.A. ALEXANDER
 100213093
 March 10, 2023
 PROVINCE OF ONTARIO

Engineer
 K.A. MORRIS
 90510884
 March 14, 2023
 PROVINCE OF ONTARIO

Project
**WYLDEWOOD CREEK
 TOWN OF COLLINGWOOD**

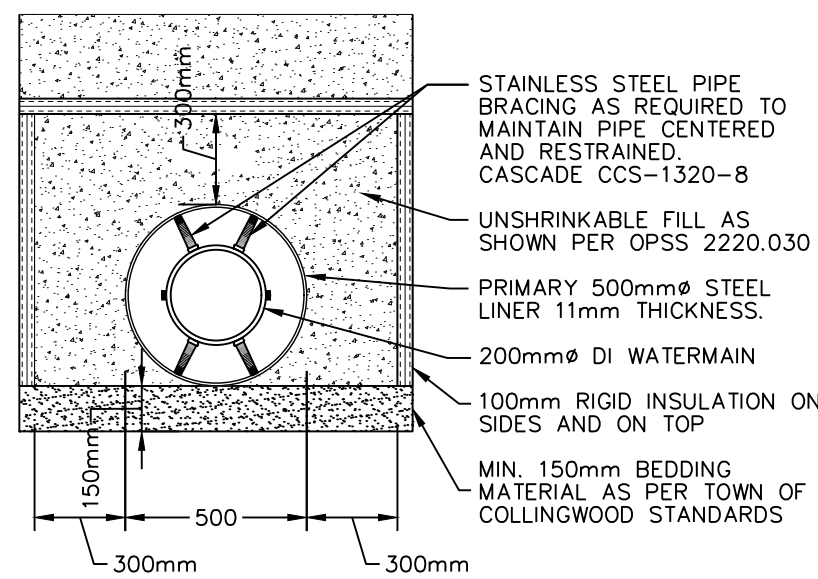
Drawing
STORM DRAINAGE PLAN

CROZIER CONSULTING ENGINEERS

ADAMANT BUILDING
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 COLLINGWOOD, ON, L9Y 1A1
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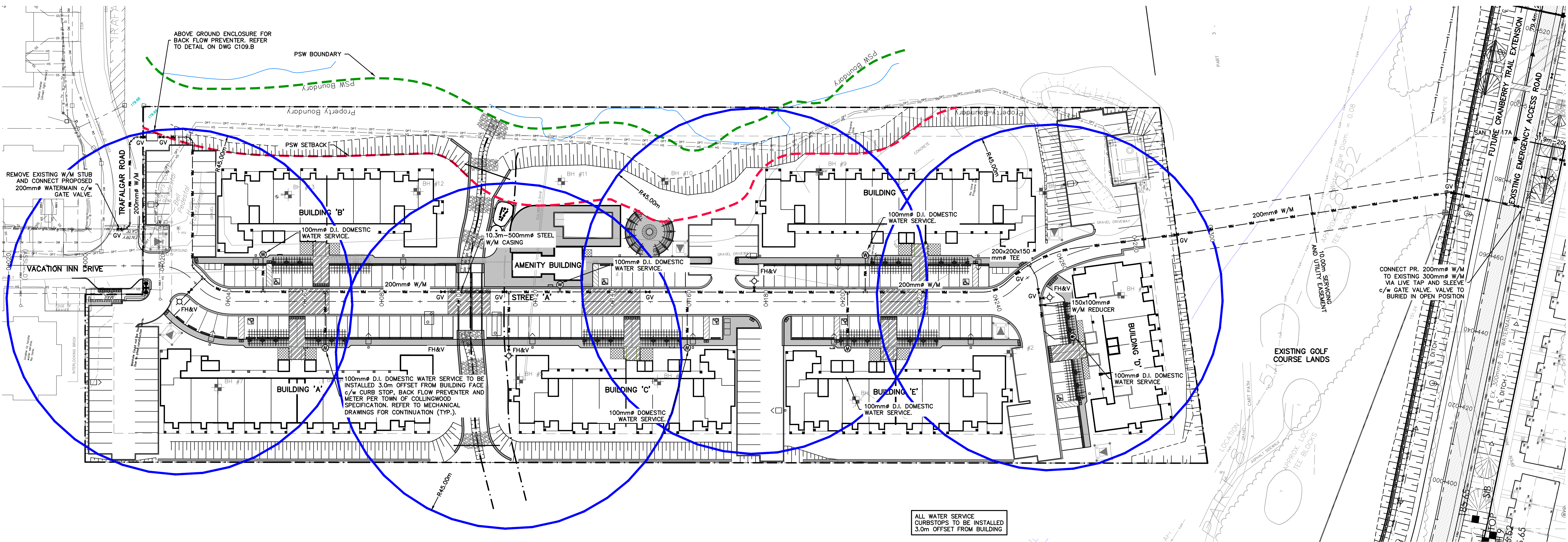
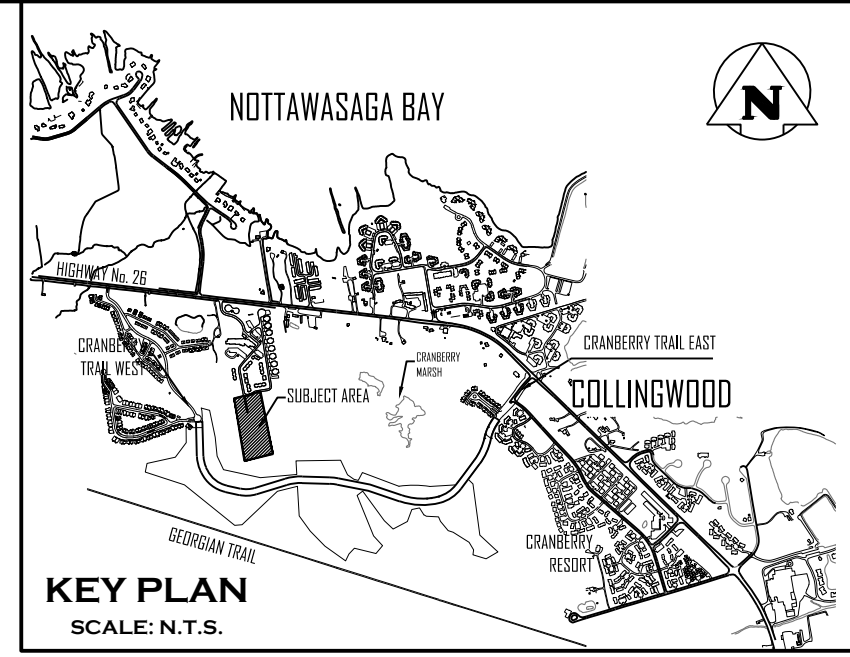
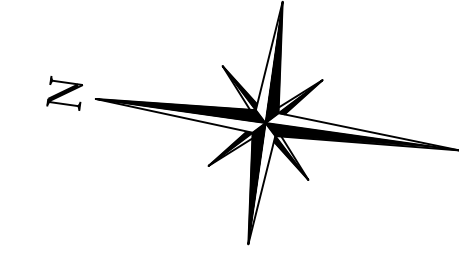
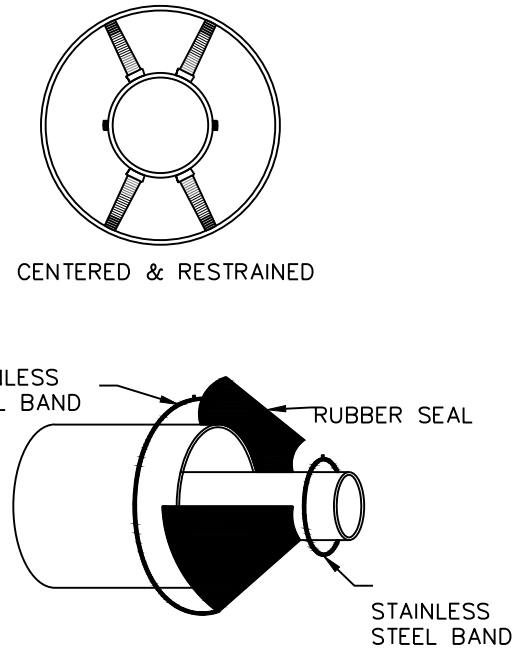
STEEL LINER DETAIL
N.T.S.



STAINLESS STEEL PIPE BRACING AS REQUIRED TO MAINTAIN PIPE CENTERED AND RESTRAINED. CASCADE CCS-1320-8
UNSHRINKABLE FILL AS SHOWN PER OPSS 2220.030
PRIMARY 500mm ϕ STEEL LINER 11mm THICKNESS.
200mm ϕ DI WATERMAIN
100mm RIGID INSULATION ON SIDES AND ON TOP
MIN. 150mm BEDDING MATERIAL AS PER TOWN OF COLLINGWOOD STANDARDS

CASING SPACERS

- CASCADE: CCS - 1320-8 (OR APPROVED EQUAL)
- NOTES:
1. CONTRACTOR TO SUBMIT SHOP DRAWINGS OF MATERIAL AND INSTALLATION METHODOLOGY FOR REVIEW AND APPROVAL.
 2. ALL CASING SPACERS ARE TO BE MADE OF T-304 STAINLESS STEEL.
 3. BEARING SURFACES (RUNNERS) SHALL BE ULTRA HIGH MOLECULAR WEIGHT POLYMER OR EQUIVALENT.
 4. POSITIONING OF SPACERS ALONG THE WATERMAIN IS TO BE AS PER MANUFACTURER'S SPECIFICATIONS.
 5. POSITION OF WATERMAIN WITHIN LINER TO BE CENTERED AND RESTRAINED, SUFFICIENT ENOUGH TO PROVIDE NO LESS THAN 19mm (3/4") CLEARANCE BETWEEN THE CASING PIPE AND THE OUTSIDE DIAMETER OF THE BELL.
 6. WATERMAIN SHALL BE RESTRAINED Laterally FOR THE ENTIRE LENGTH OF THE LINER PLUS ONE FULL PIPE LENGTH BEYOND END OF CASING.
 7. LINER TO BE SEALED USING WRAP AROUND RUBBER ENDS COMPLETE WITH STAINLESS STEEL (T-304) BANDING.



ALL WATER SERVICE CURBSTOPS TO BE INSTALLED 3.0m OFFSET FROM BUILDING



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Engineer

 K.A. MORRIS
 90510884
 March 14, 2023
 PROVINCE OF ONTARIO

Project
WYLDEWOOD CREEK
TOWN OF COLLINGWOOD

Drawing
WATER DISTRIBUTION PLAN

CROZIER
 CONSULTING ENGINEERS

Drawn By: L.W. Design By: L.W. Project: **1535-4897**
 Check By: K.M. Check By: R.A. Scale: 1:500 Drawing: **C08**

ADAMANT BUILDING
 1 FIRST STREET, SUITE 200
 COLLINGWOOD, ON, L9Y 1A1
 705-446-3510 T
 705-446-3520 F
 WWW.CROZIER.CA
 INFO@CROZIER.CA

GENERAL NOTES:

- ALL CONSTRUCTION EQUIPMENT TO USE MAIN CONSTRUCTION ACCESS POINT LOCATED AT THE SOUTH END OF VACATION INN DRIVE VIA THE CONSTRUCTION ACCESS ROAD. REFER TO DRAWING C111 'CONSTRUCTION ACCESS ROAD PLAN' FOR DETAILS.
- NO MAINTENANCE OR REPAIR WORK ON CONSTRUCTION EQUIPMENT IS ALLOWED WITHIN 30 METRES OF AN EXISTING WATER COURSE OR DITCH.
- ALL SEDIMENT AND EROSION CONTROL FACILITIES AND WORKS ARE TO BE CONSTRUCTED AND IN PLACE TO THE APPROVAL OF THE SITE ENGINEER PRIOR TO ANY GRADING OPERATIONS COMMENCING. TYPICAL WORKS INCLUDE SILT FENCES, CONSTRUCTION ACCESS MUD MAT AND CHECK DAMS.
- ALL TEMPORARY TOPSOIL STOCKPILES ARE TO BE PROVIDED WITH THE NECESSARY SEDIMENT AND EROSION CONTROL FEATURES. IF STOCKPILES ARE TO REMAIN FOR A PERIOD LONGER THAN 30 DAYS, STOCKPILES SHALL BE HYDROSEEDED AND SURROUNDED WITH SILT FENCE.
- THE SITE ENGINEER SHALL UNDERTAKE WEEKLY INSPECTIONS OF ALL SEDIMENT/EROSION CONTROL FACILITIES DURING THE EXTENT OF THE ENTIRE CONSTRUCTION PROJECT AS WELL AS AFTER ALL RAIN EVENTS 13mm OR GREATER. THE WEEKLY INSPECTIONS ARE TO BE COMPLETED ON AN EROSION AND SEDIMENT CONTROL INSPECTION REPORT.
- THE SITE ENGINEER SHALL PROVIDE WEEKLY STATUS REPORTS TO THE MUNICIPALITY AND CONSERVATION AUTHORITY ADVISING OF THE CONDITION OF STRUCTURES AND MAINTENANCE WORKS THAT HAVE BEEN UNDERTAKEN.
- DURING THE CONSTRUCTION PERIOD, WHEN INTERNAL BLOCKS HAVE INITIATED CONSTRUCTION, A STREET CLEANING SCHEDULE WILL BE UNDERTAKEN ON A MINIMUM WEEKLY BASIS, OR AS DIRECTED BY THE SITE ENGINEER OR MUNICIPALITY.
- ANY ADJUSTMENTS TO THE EROSION AND SEDIMENT CONTROLS MADE BY THE CONTRACTOR SHALL BE DOCUMENTED IN WRITING.

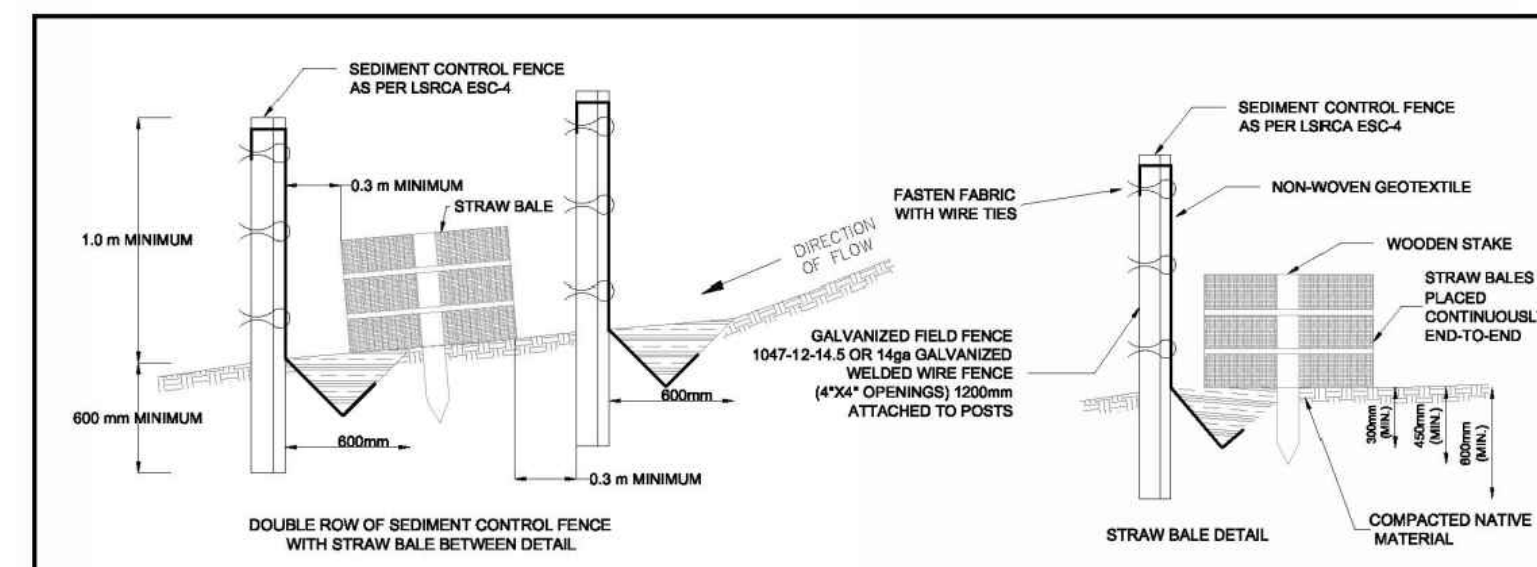
CONSTRUCTION IMPLEMENTATION:

- A) PRE-CONSTRUCTION**
- SITE ENGINEER TO ADVISE TOWN OF STAFF RESPONSIBLE FOR SITE SEDIMENT CONTROL SUPERVISION, INSPECTION AND MAINTENANCE, INCLUDING AFTER HOUR CONTACTS.
 - SITE ENGINEER TO PROVIDE WRITTEN INSPECTION AND MAINTENANCE SCHEDULE OF SEDIMENT CONTROL DEVICES.
 - CONTRACTOR TO INSTALL ALL SEDIMENT CONTROL DEVICES AS IDENTIFIED ON THE APPROVED EROSION CONTROL PLAN PRIOR TO EARTHWORKS OPERATIONS.
- B) DURING CONSTRUCTION (SITE AND BUILDING WORKS)**
- CONTRACTOR TO ENSURE TOPSOIL STRIPPING, GRADING AND UNDERGROUND WORKS CONFORM TO APPROVED GRADING, SERVICING AND EROSION CONTROL PLANS.
 - SITE ENGINEER TO CONDUCT REQUIRED WEEKLY INSPECTION, MAINTENANCE AND REPORTING OF SEDIMENT CONTROLS TO THE TOWN.
 - CONTRACTOR TO STABILIZE SITE AS REQUIRED THROUGHOUT SITE CONSTRUCTION SCHEDULE.
- C) POST CONSTRUCTION (INCLUDING BUILDING CONSTRUCTION)**
- CONTRACTOR TO COMPLETE FINAL SITE STABILIZATION AND REVEGETATION WORKS. ALL SWALES EXPECTED TO REMAIN IN EXCESS OF 30 DAYS TO BE STABILIZED BY CONTRACTOR VIA HYDROSEEDING.
 - CONTRACTOR TO REMOVE ALL SEDIMENT CONTROL DEVICES AFTER THE SITE

IS STABILIZED TO A CONDITION EQUAL TO, OR BETTER THAN, PRE-CONSTRUCTION CONDITIONS AND WITH ACKNOWLEDGMENT OF THE SITE ENGINEER.

MAINTENANCE & OPERATIONS OF SEDIMENT CONTROLS

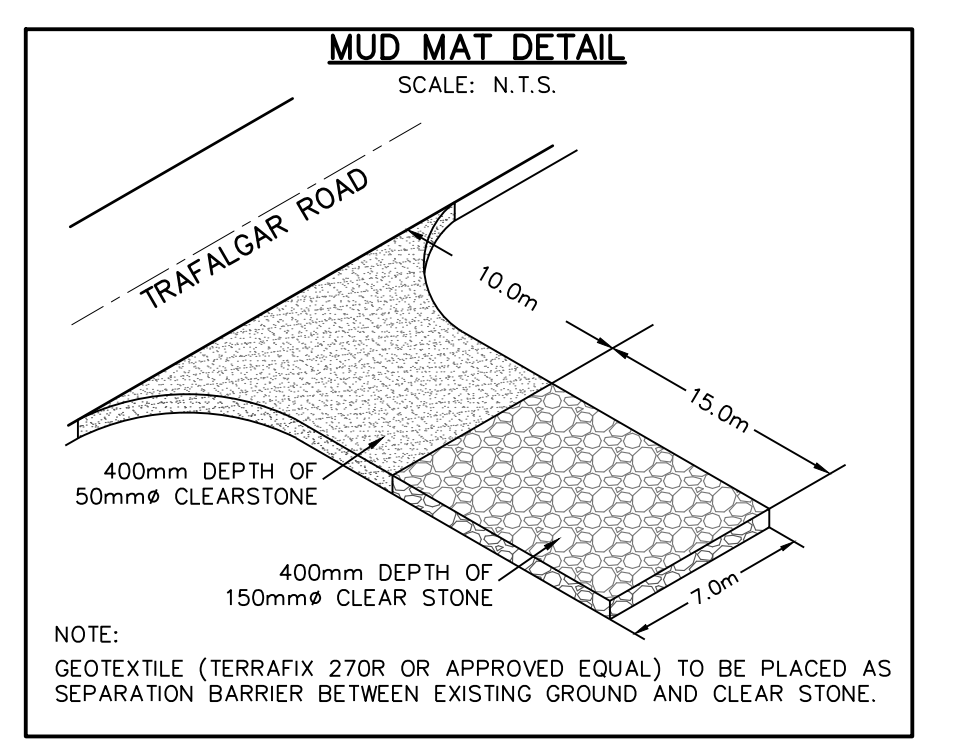
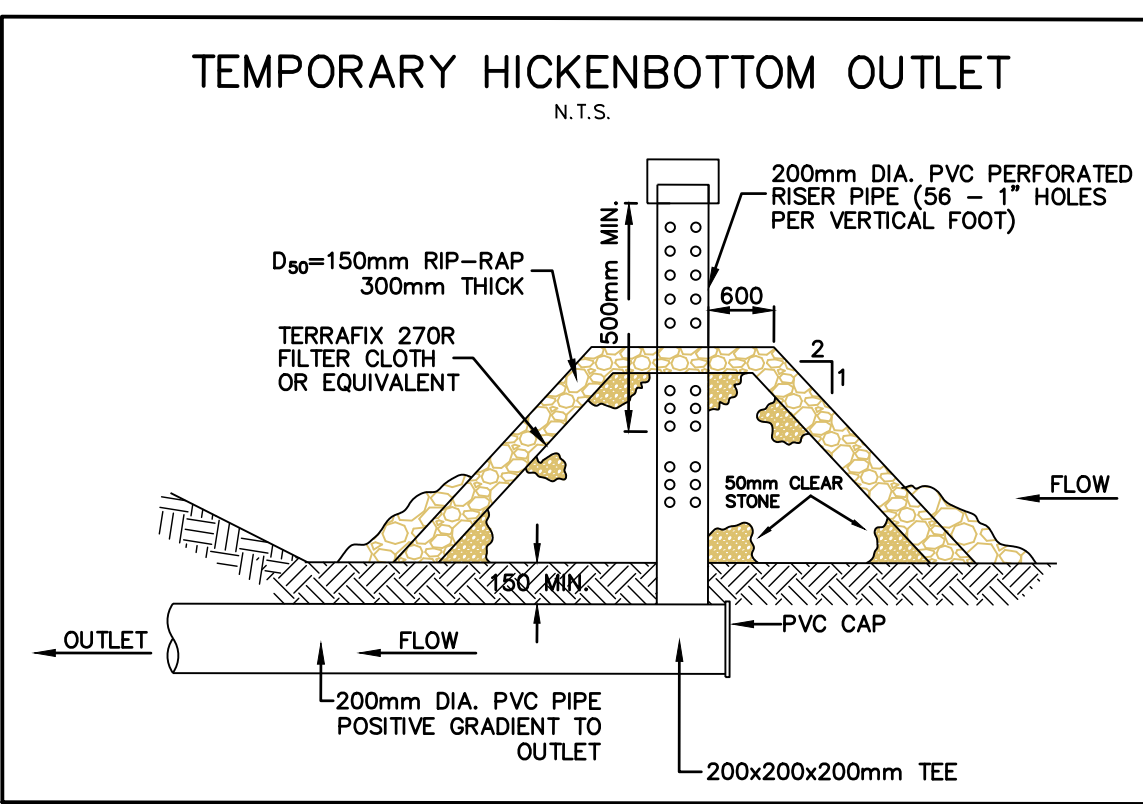
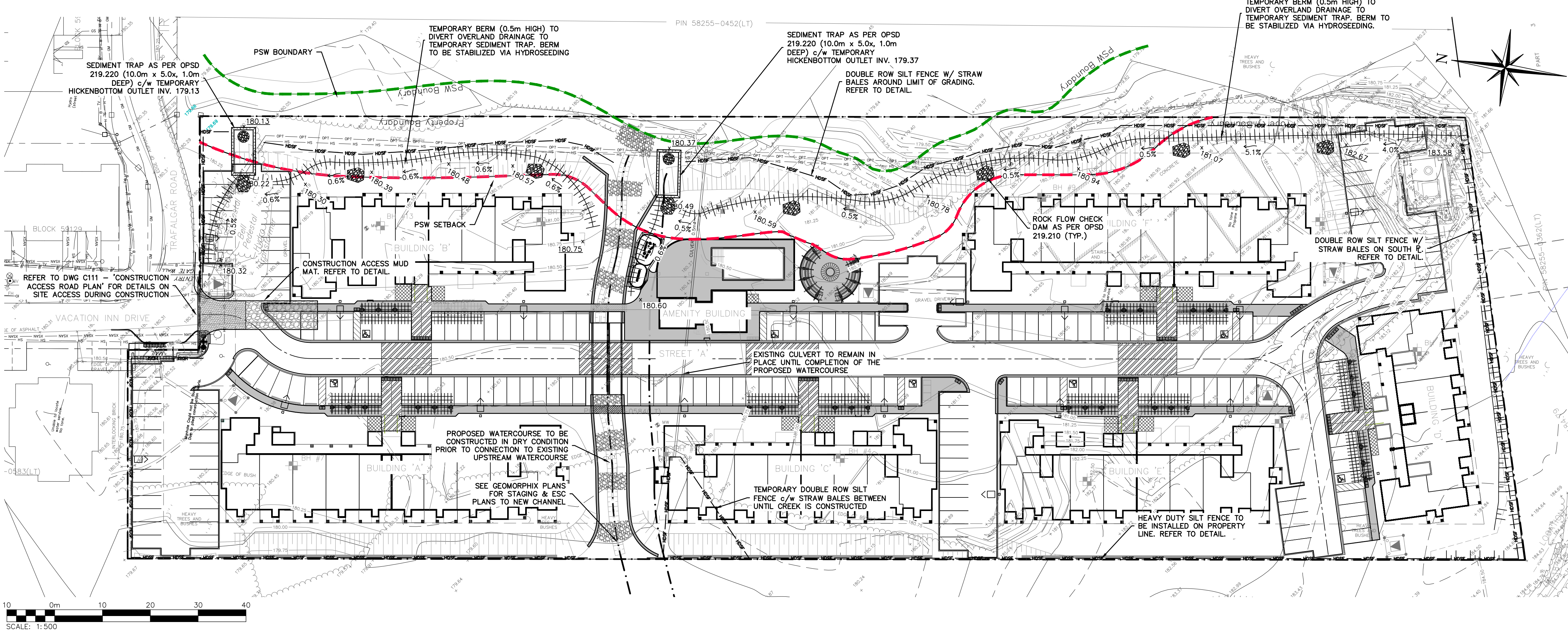
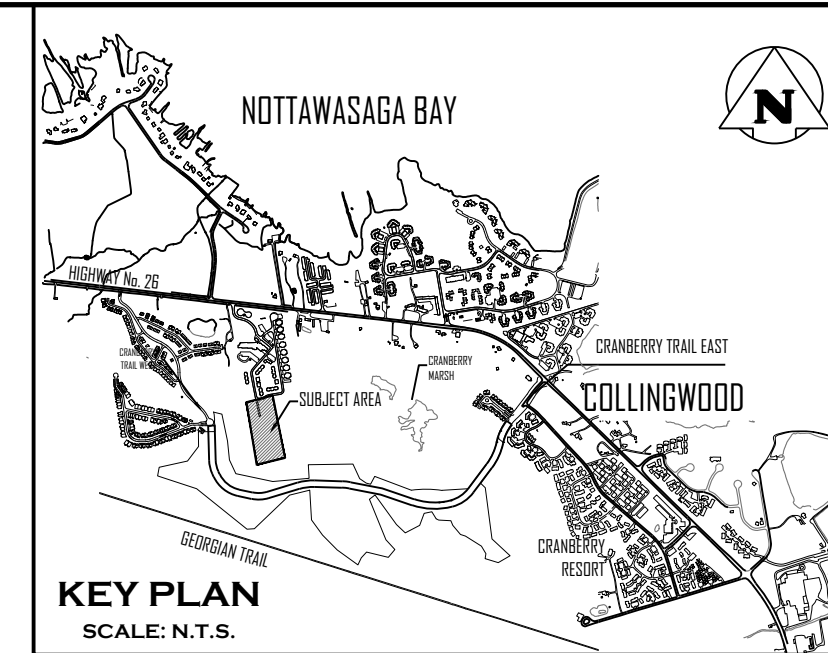
- A) SILT FENCE**
- SILT FENCE TO BE LOCATED ON CRANBERRY TRAIL PROPERTY LINE.
 - SILT FENCE MUST BE INSPECTED WEEKLY FOR RIPS OR TEARS, BROKEN STAKES, BLOW-OUTS AND ACCUMULATION OF SEDIMENT.
 - SILT FENCE MUST BE INSPECTED FOLLOWING ALL 13mm OR GREATER RAIN STORM EVENT OR AS DIRECTED BY SITE ENGINEER.
 - SEDIMENT MUST BE REMOVED FROM SILT FENCE WHEN ACCUMULATION REACHES 50% OF THE HEIGHT OF THE FENCE.
 - ALL SILT FENCES MUST BE REMOVED ONLY WHEN THE ENTIRE SITE IS STABILIZED AND AS DIRECTED BY THE SITE ENGINEER.
- B) ROCK & STRAW BALE FLOW CHECK DAM**
- REMOVE ACCUMULATED SEDIMENT UP STREAM OF THE CHECK DAM IF GREATER THAN 50% OF DAM HEIGHT.
 - SILT REMOVAL MUST BE UNDERTAKEN WITH CARE TO MINIMIZE DOWN STREAM SEDIMENTATION IN SWALE OR DITCH.
 - CHECK DAMS AND ALL ACCUMULATED SEDIMENT MUST BE REMOVED WITH CARE ONCE THE CONSTRUCTION SITE IS STABILIZED AND AS DIRECTED BY THE SITE ENGINEER.
- C) SEDIMENT TRAP**
- REMOVE ACCUMULATED SEDIMENT FROM THE SEDIMENT TRAP IF THE DEPTH IS GREATER THAN 50% OF THE TRAP DEPTH.
 - SILT REMOVAL MUST BE UNDERTAKEN WITH CARE TO MINIMIZE DOWN STREAM SEDIMENTATION IN SWALE OR DITCH.
 - CHECK TRAPS AND ALL ACCUMULATED SEDIMENT MUST BE REMOVED WITH CARE ONCE THE CONSTRUCTION SITE IS STABILIZED AND AS DIRECTED BY THE SITE ENGINEER.



NOTES:

- SEDIMENT CONTROL FENCE SHOULD BE ALIGNED WITH CONTOURS FOR SHEET OVERLAND FLOW.
- SEDIMENT CONTROL FENCE IS TO BE LOCATED IN AREAS OF LOW SEDIMENT YIELD ON SLOPES THAT CONFORM TO MTO DRAINAGE MANUAL VOLUME 2 CHART F4-3C TOPOGRAPHIC FACTOR L5 BASED ON SLOPE LENGTH AND GRADIENT.
- SEDIMENT CONTROL FENCE SHALL BE INSTALLED WITH FILTER MEDIA FABRIC TIED INTO THE SOIL A MINIMUM OF 300 mm BY EITHER STATIC SLICING OR TRENCH METHODS WITH COMPACTION OF TRENCH MATERIAL MEETING 95% STANDARD PROCTOR MAXIMUM DRY DENSITY.
- STEEL 'T' BAR POSTS ARE TO BE SPACED A MAXIMUM DISTANCE OF 2000 mm ON CENTER.
- STRAW BALES TO BE PLACED END-TO-END CONTINUOUSLY BETWEEN SEDIMENT CONTROL FENCES.
- FROZEN GROUND CONDITIONS REQUIRE FILTER FABRIC TO BE BACKFILLED IN TRENCH WITH CLEAR STONE.
- GEOTEXTILE FABRIC TO BE COMPRISED OF NON-WOVEN U.V. STABILIZED MATERIAL FABRIC TO BE FOLDED OVER TOP OF FENCE A MINIMUM OF 300 mm AND WIRE FASTENED.
- CONSTRUCTION OPERATIONS SHALL BE CARRIED OUT IN SUCH A MANNER THAT EROSION AND WATER POLLUTION IS MINIMIZED.
- ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE SHOWN.

| | | | | | |
|---------------------------------|----------|------|--|--|---------------|
| 1 SWM GUIDELINES UPDATE 06.2016 | | | DOUBLE ROW SEDIMENT CONTROL FENCE | | DATE: 06.2016 |
| | | | | | SCALE: N.T.S. |
| NO. | REVISION | DATE | LSRCA ESC-5 | | |



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March 14, 2023
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Project

**WYLDEWOOD CREEK
TOWN OF COLLINGWOOD**

Drawing

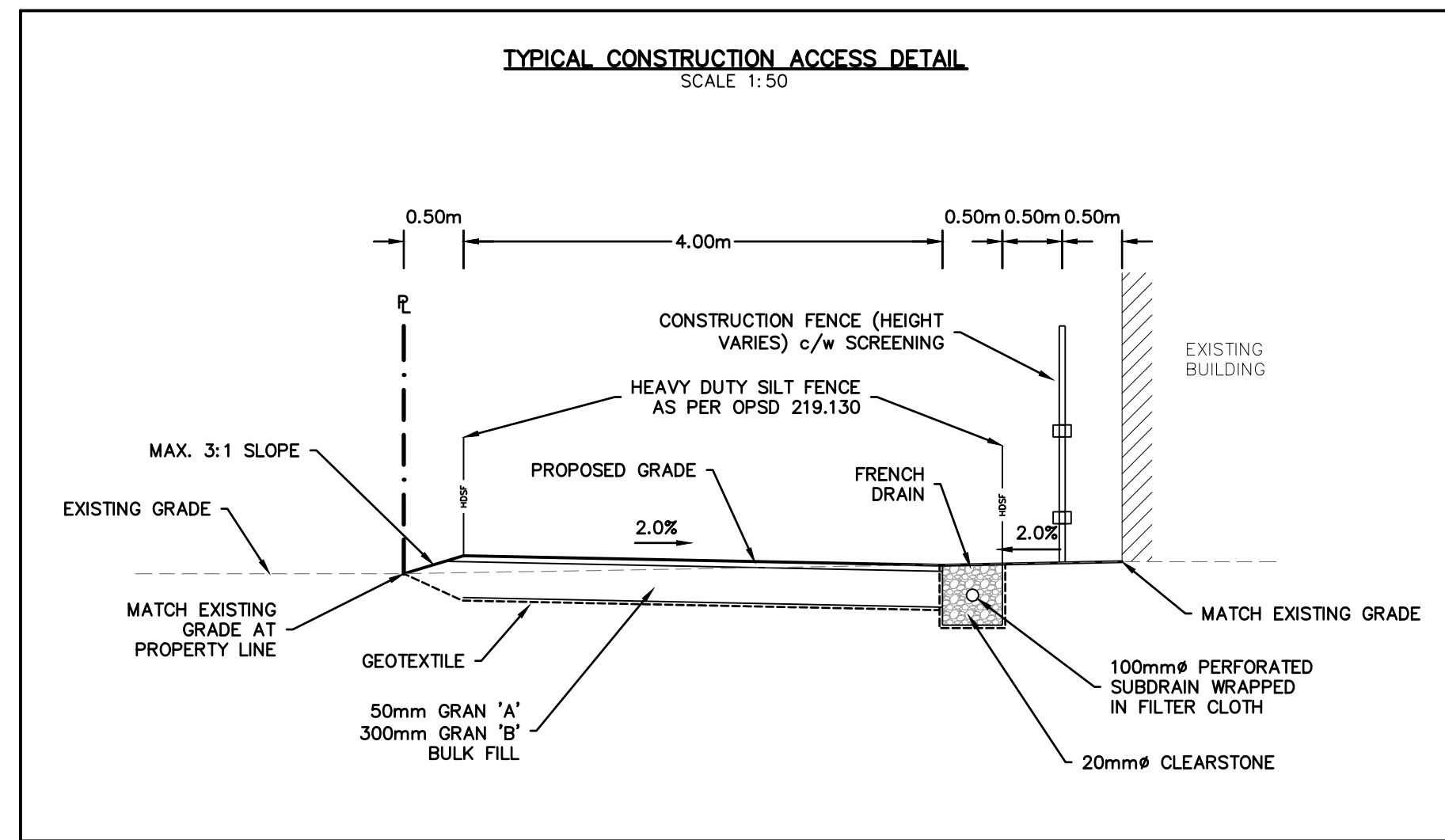
**EROSION AND SEDIMENT
CONTROL PLAN**

CROZIER CONSULTING ENGINEERS

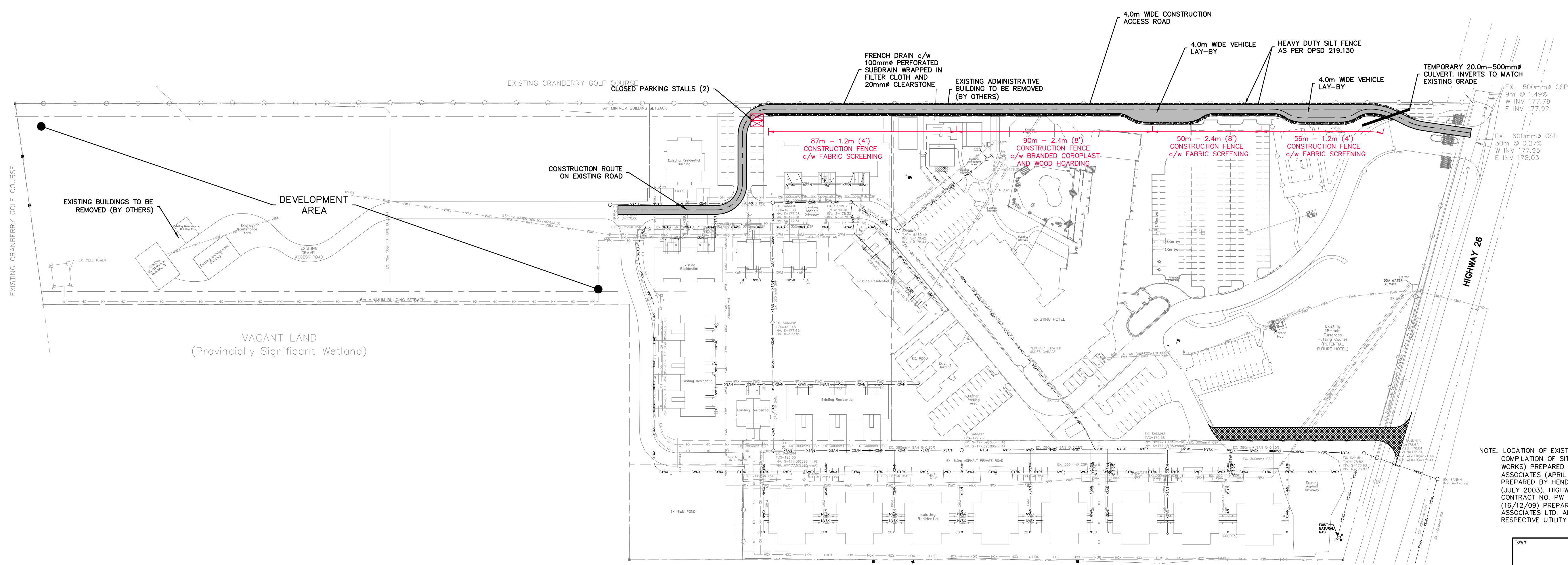
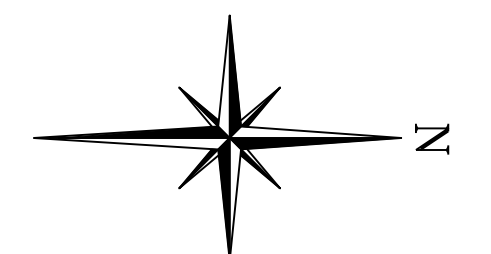
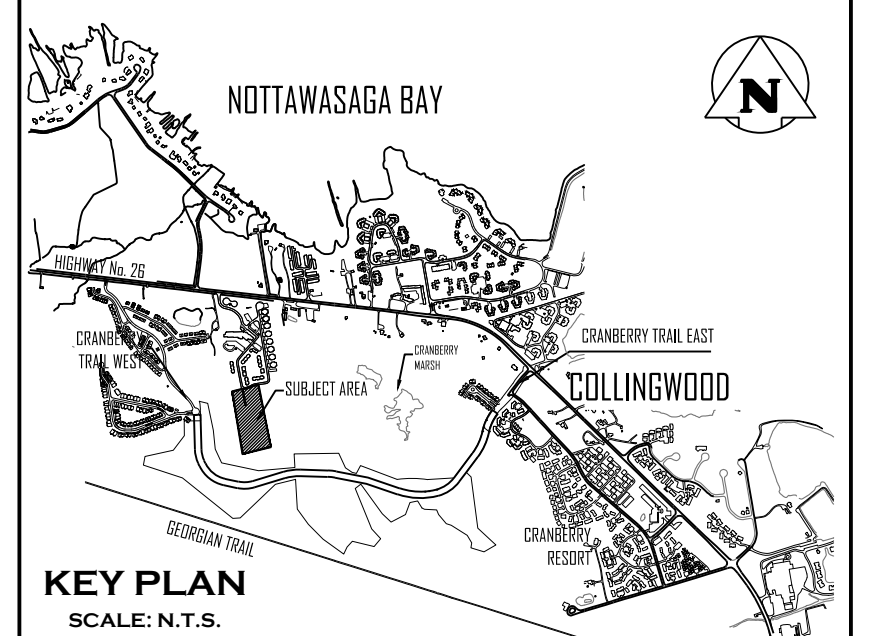
ADAMANT BUILDING
1 FIRST STREET, SUITE 200
COLLINGWOOD, ON, L9Y 1A1
705-446-3510 T
705-446-3520 F
WWW.CFCROZIER.CA
INFO@CFCROZIER.CA

Drawn By: L.W. Design By: L.W. Project: **1535-4897**

Check By: K.M. Check By: R.A. Scale: 1:500 Drawing: **C109**



| LEGEND | | | |
|---------|------------------------------|---------|---|
| —X—X—X— | EX. FENCE | —H—H—H— | PR. HEAVY DUTY SILT FENCE AS PER OPSD 219.130 |
| —W—W—W— | EX. WATERMAIN | —C—C—C— | PR. CONSTRUCTION FENCE |
| —F—F—F— | EX. FIRE HYDRANT & VALVE | —S—S—S— | PR. 100mm PERFORATED SUBDRAIN |
| —S—S—S— | EX. SANITARY SEWER & MANHOLE | —C—C—C— | PR. CULVERT |
| —O—O—O— | EX. OVERHEAD HYDRO | —R—R—R— | PR. CONSTRUCTION ROUTE |
| —H—H—H— | EX. HYDRO | | |
| —G—G—G— | EX. GAS MAIN | | |
| —P—P—P— | EX. HYDRO POLE | | |
| —S—S—S— | EX. SWALE | | |



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BENCHMARKS

ELEVATIONS SHOWN HEREON ARE GEODETIC AND ARE RELATED TO TOWN OF COLLINGWOOD BENCH MARK NO. 00172U311 HAVING AN ELEVATION OF 181.032 METRES.

TOPOGRAPHIC SURVEY COMPLETED BY KROMAR SURVEYORS LTD., DATED AUGUST 25, 2018.

| No. | ISSUE | DATE: MM/DD/YYYY |
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| 1 | ISSUED FOR 1st ENGINEERING SUBMISSION | 02/04/2019 |
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| 5 | ISSUED FOR 4th ENGINEERING SUBMISSION | 03/10/2023 |

Engineer

Engineer

Project: **WYLDEWOOD CREEK TOWN OF COLLINGWOOD**

Drawing: **CONSTRUCTION ACCESS ROAD PLAN**

ADAMANT BUILDING
1 FIRST STREET, SUITE 200
COLLINGWOOD, ON, L9Y 1A1
705-446-3510 T
705-446-3520 F
WWW.CFCROZIER.CA
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Drawn By: L.W. Design By: L.W. Project: **1535-4897**

Check By: K.M. Check By: R.A. Scale: 1:1000 Drawing: **C111**

CONSTRUCTION NOTES:

A) GENERAL - CONSTRUCTION

- ALL WORK TO BE CARRIED OUT IN ACCORDANCE WITH TOWN OF COLLINGWOOD STANDARDS (2009), OPSD AND OPSS, WHERE CONFLICT OCCURS, TOWN OF COLLINGWOOD STANDARDS (2009) TO GOVERN.
- TRENCH BACKFILL (OPSD 802.010 & 802.013) TO BE SELECT NATIVE MATERIAL OR IMPORTED SELECT SUBGRADE TO OPSS 1010. BACKFILL TO BE PLACED IN MAXIMUM 200mm THICK LIFTS AND COMPACTED TO 95% OF THE MATERIAL'S STANDARD PROCTOR MAXIMUM DRY DENSITY (SPMDD).
- PIPE COVER AND BEDDING TO BE GRANULAR 'A' (MINIMUM 150mm DEPTH COMPACTED TO A MINIMUM 95%SPMDD).
- ALL TOPSOIL AND EARTH EXCAVATION TO BE STOCK PILED OR REMOVED TO AN APPROVED SITE AS DIRECTED BY ENGINEER.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DETAILED LAYOUT OF THE WORK. THE DEVELOPER'S ENGINEER WILL CONFIRM ALL BENCH MARK ELEVATIONS AND HORIZONTAL ALIGNMENT FOR THE CONTRACTOR.
- ALL PROPERTY BARS TO BE PRESERVED AND REPLACED BY O.L.S. AT CONTRACTOR'S EXPENSE IF REMOVED DURING CONSTRUCTION. THE CONTRACTOR SHALL MAKE HIS OWN ARRANGEMENTS FOR THE SUPPLY OF TEMPORARY WATER AND POWER.
- DEWATERING TO BE CARRIED OUT IN ACCORDANCE WITH OPSS-517 AND 518 TO MAINTAIN ALL TRENCHES IN A DRY CONDITION. CONTRACTOR RESPONSIBLE FOR OBTAINING M.E.C.P. PERMIT IF REQUIRED.
- ALL ENGINE DRIVEN PUMPS TO BE ADEQUATELY SIZED, SUITABLE FOR OPERATION IN A RESIDENTIAL DISTRICT.
- DISTURBED AREAS OUTSIDE THE DEVELOPABLE LANDS TO BE REINSTATED TO PREVIOUS CONDITION OR BETTER.
- THE CONTRACTOR IS RESPONSIBLE TO NOTIFY ALL UTILITY COMPANIES PRIOR TO COMMENCING WORK AND CO-ORDINATE CONSTRUCTION ACCORDINGLY.
- ALL ROCK EXCAVATION PER OPSS-206.
- ALL EXCAVATION MUST BE CARRIED OUT IN FULL COMPLIANCE WITH MOST RECENT GUIDELINES OF ONSA. NATIVE SOILS ARE CLASSIFIED AS TYPE 3 SOIL.
- IMPORTED FILL MATERIAL APPROVED BY THE GEOTECHNICAL ENGINEER TO BE COMPACTED TO 98% SPMDD TO BE USED FOR FILL PADS FOR BUILDINGS TO 0.5m ABOVE UNDERSTANDING OF FOOTING ELEVATION. REFER TO GEOTECHNICAL REPORT.

B) ROADS

- SUBGRADE AND BOULEVARD MATERIAL TO BE COMPACTED TO A MINIMUM DRY DENSITY OF AT LEAST 95% SPMDD. SUBGRADE TO BE PROPEL ROLLED AND CERTIFIED BY GEOTECHNICAL ENGINEER PRIOR TO PLACING GRANULAR 'B'.
- GRANULAR 'A' AND 'B' ROAD BASE TO BE COMPACTED TO 100% OF THE MATERIAL'S RESPECTIVE SPMDD AND PLACED IN MAX. 150mm LIFTS. REFER TO GEOTECHNICAL REPORT FOR FURTHER DETAIL.
- CONDO ROADWAY TO BE CONSTRUCTED WITH MINIMUM 450mm GRANULAR 'B' TYPE 1, 150mm GRANULAR 'A', 50mm HLB BASE COURSE ASPHALT, & 40mm HLB SURFACE COURSE ASPHALT.
- SELECT SUBGRADE MATERIAL TO BE USED FOR FILL AREAS WHERE PROPOSED PIPE INVERTS ARE HIGHER THAN EXISTING GRADE OR AS INSTRUCTED BY THE ENGINEER.
- ALL GRANULARS AND ASPHALT MATERIALS AND PLACEMENT TO BE IN ACCORDANCE WITH OPSS 314 AND OPSS 310.
- JOINTS WITH EXISTING ASPHALT TO BE SAW CUT STRAIGHT WITH MIN. 1.0m LAP JOINT PRIOR TO PLACING NEW ASPHALT AND TACK COAT APPLIED TO EXISTING ASPHALT.
- STOP SIGNS AND STREET SIGNS TO TOWN STANDARDS (DETAIL DWG NO. 401).
- REINSTATEMENT OF ALL DISTURBED BOULEVARDS TO INCLUDE REGRADING, 150mm TOPSOIL AND SOD TO OPSS 802 AND 803.
- 100mm Ø PIPE SUBDRAINS SHALL BE PROVIDED UNDER EDGE OF PAVEMENT ON LOWER SLOPED SIDE OF ROAD.
- ALL SUBDRAINS TO BE CONSTRUCTED IN ACCORDANCE WITH OPSS 405. SUBDRAIN TO BE INSTALLED IN GRANULAR 'A' TRENCH AND CONNECTED TO EACH CB OR CBMH.
- SUBDRAINS TO BE REPERFORATED OTHER THAN THE 2.0m SECTION IMMEDIATELY UPSTREAM OF ALL STRUCTURES WHICH SHALL BE NON-PERFORATED.
- ASPHALT WALKWAY TO BE CONSTRUCTED WITH MINIMUM 200mm GRANULAR 'A' AND 50mm HLB ASPHALT IN ACCORDANCE WITH OPSS 311.
- CONCRETE SIDEWALK TO BE CONSTRUCTED PER OPSD 310.010 WITH MINIMUM 200mm GRANULAR 'A' BASE.
- TACTILE WALKING SURFACE INDICATORS AT WALKWAY CROSSINGS AND ACCESSIBLE PARKING STALL AISLES AS PER OPSD 310.039 AND OPSD 310.033.
- PARKING STALLS TO BE COMPLETE WITH PRECAST CURB WHEEL STOPS.

C) SANITARY SEWERS

- M.H.'S TO OPSS - 701.010, 701.030, & 704.010.
- BENCHING TO OPSS - 701.021.
- STEPS TO OPSS - 405.010.
- BACKFILL AND EMBEDMENT TO OPSS - 802.010 CLASS 'B'.
- GRANULAR 'A' BEDDING.
- TRENCH BACKFILL TO BE SELECT NATIVE MATERIAL, AS APPROVED BY GEOTECHNICAL ENGINEER, OR IMPORTED GRANULAR MATERIAL. FRAMES AND COVERS TO OPSS - 401.01 TYPE 'A' (CLOSED COVER).
- SERVICE CONNECTIONS TO OPSS - 1005.020 (125mm), GRANULAR 'A' BEDDING, TERMINATE AT SERVING CORRIDOR LIMITS, 125 x 100 REDUCER, PLUG AND 2X4 MARKER POST PAINTED GREEN. MINIMUM GRADE TO BE 2.0%, MAXIMUM 8.0%.
- RADIUS BENDS TO BE USED ON SANITARY SEWER CONNECTIONS WHERE THE ANGLE OF CONNECTION BETWEEN THE SERVICE AND SEWER EXCEEDS 90°.
- BACKFILL AND EMBEDMENT MATERIAL TO BE COMPACTED TO A DRY DENSITY OF AT LEAST 95% OF THE MATERIAL'S STANDARD PROCTOR MAXIMUM DRY DENSITY (SPMDD).
- MAINTENANCE HOLES FRAMES TO BE SET TO BASE COURSE ASPHALT ELEVATION AND RAISED BY ADDING RISER RINGS PRIOR TO PLACING SURFACE COURSE ASPHALT.
- PIPE SUPPORT AT MAINTENANCE HOLES AS PER OPSD 708.020.
- ALL MAINTENANCE HOLES, UNLESS EXPRESSLY IDENTIFIED ARE 1200mm.
- GENERAL INSTALLATION AND TESTING OF SEWERS AND APPURTENANCES TO BE IN ACCORDANCE WITH OPSS 407, 408, 409 (CCTV), 410, 421 AND ALL SPECIFICATIONS REFERENCED WITHIN THESE SECTIONS.
- SANITARY SEWER - SDR 35 PVC.
- SANITARY SEWER - SDR 28 PVC - 125mm FOR RESIDENTIAL UNITS AND 150mm FOR MIDRISE BUILDINGS AS PER OPSD 1006.020 SEWER SERVICE CONNECTION FOR FLEXIBLE PIPE.
- FROST STRAPS PER OPSD 701.100.
- CLAY SEEPAGE PLUGS (0.5m THICK) TO BE PLACED ALONG PIPE BETWEEN MAINTENANCE HOLES.

D) WATERMANS

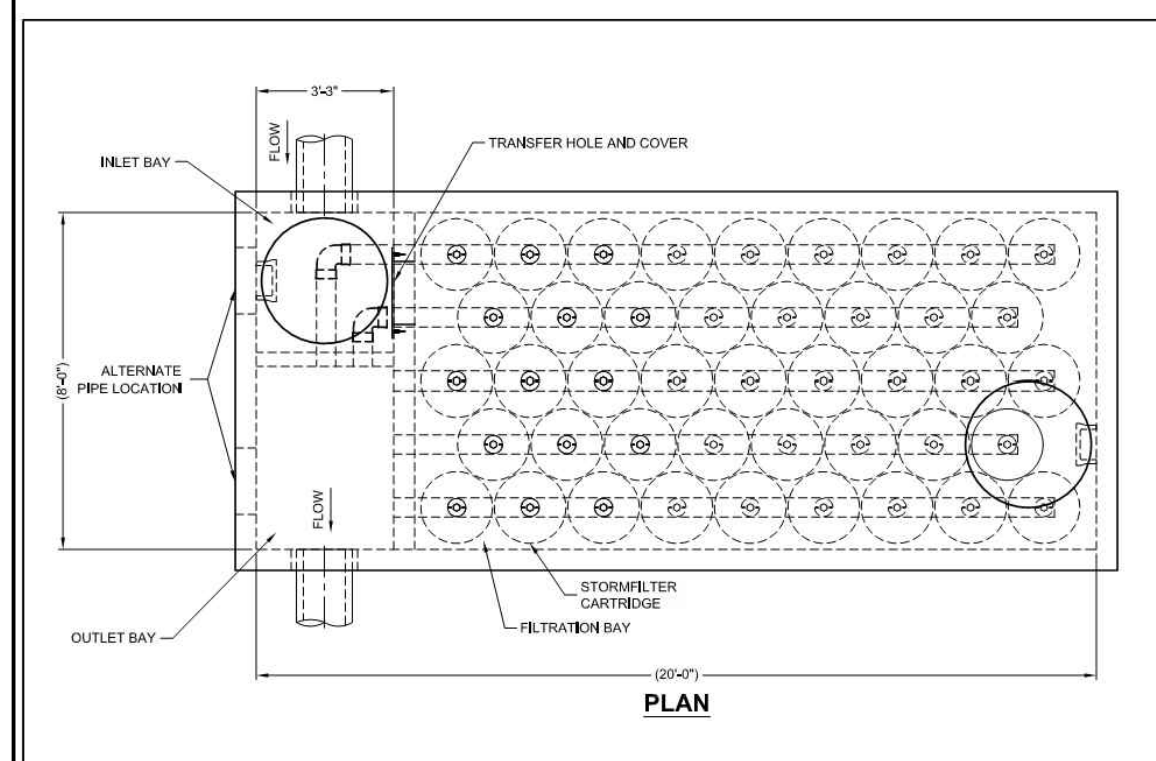
- BACKFILL AND EMBEDMENT TO OPSS - 802.010 CLASS 'B', GRANULAR 'A' EMBEDMENT.
- TRENCH BACKFILL TO BE SELECT NATIVE MATERIAL, AS APPROVED BY GEOTECHNICAL ENGINEER, OR IMPORTED GRANULAR MATERIAL. THROUGH BLOCKS TO OPSS - 1103.010 AND 1103.020 WHERE SUITABLE SOILS ARE ENCOUNTERED.
- SERVICE CONNECTIONS TO OPSS - 1104.010, 100mm GRANULAR 'A' EMBEDMENT AND COVER OVER PIPE. TERMINATE AT SERVING

- CORRIDOR LIMITS C/W CURB STOP AND BOX.
- HYDRANTS TO OPSS - 1105.010 DRAIN PLUGS SHALL BE INSTALLED WHERE HIGH WATER TABLE IS ENCOUNTERED.
- BACKFILL AND EMBEDMENT MATERIAL TO BE COMPACTED TO A DRY DENSITY OF AT LEAST 95% OF THE MATERIAL'S STANDARD PROCTOR MAXIMUM DRY DENSITY (SPMDD).
- MINIMUM COVER ON WATERMAIN AND SERVICES TO BE 1.7m.
- GATE VALVES, BENDS AND HYDRANT LEADS AND FITTINGS TO BE CONNECTED WITH ROLMAC GRIPPER RING RESTRAINING GLANDS. CLEARANCE BETWEEN WATERMANS AND SEWERS TO BE AS PER M.E.C.P. GUIDELINES. MINIMUM 0.5m VERTICAL SEPARATION WHERE SEWER IS ABOVE WATERMAIN & 2.5m MINIMUM HORIZONTAL SEPARATION.
- ALL SERVICES TO BE DIRECT TAPPED.
- FOLLOWING TESTING, CONTRACTOR SHALL OPERATE EACH WATER SERVICE TO VERIFY FULL FLOW AND PRESSURE AT THE CURB STOP TO THE SATISFACTION OF THE CONTRACT ADMINISTRATOR AND TOWN OF COLLINGWOOD WATER DEPARTMENT.
- GENERAL INSTALLATION AND TESTING OF WATERMAIN AND APPURTENANCES TO BE IN ACCORDANCE WITH OPSS 441 AND ALL SPECIFICATIONS REFERENCED WITHIN THESE SECTIONS. COMPLETE WATER SYSTEM SHALL BE DISINFECTED IN ACCORDANCE WITH REQUIREMENTS OF AWWA STANDARD C651-99. REFER TO DETAIL ON DRAWING C113.B FOR TYPICAL TEMPORARY CONNECTION. ALL WATERMAIN TESTING & CHLORINATION WILL BE CONDUCTED BY TOWN OF COLLINGWOOD WATER DEPARTMENT AT CONTRACTORS COST. PROPOSED WATERMANS ARE NOT TO BE CONNECTED TO EXISTING WATERMANS UNLESS BACTERIOLOGICAL TESTING HAS BEEN SUCCESSFULLY COMPLETED & CERTIFIED BY TOWN OF COLLINGWOOD WATER DEPARTMENT.
- COMPLETE WATER SYSTEM SHALL BE DISINFECTED IN ACCORDANCE WITH REQUIREMENTS OF O. REG. 459/03 & SATISFACTION OF TOWN OF COLLINGWOOD WATER DEPARTMENT.
- WATERMAIN - CLASS 52 OR PRESSURE CLASS 350 CEMENT LINED DUCTILE IRON.
- SINGLE WATERMAIN SERVICES - 19mmØ TYPE 'K' COPPER PIPE. FOR DOUBLE WATER SERVICE, THE COMMON WATER SERVICE & MAIN STOP TO BE 25mmØ TYPE 'K' COPPER. SPLITTER FITTING SHOULD BE 'U' TYPE & LOCATED OUTSIDE OF DRIVEWAYS.
- MAIN STOPS TO 301-4MØ BALL STYLE, AWWA THREAD BY COMPRESSION CAMBRIDGE BRASS.
- CURB STOPS TO 203-H3H3, BALL STYLE WITH DRAIN. COMPRESSION JOINT BY CAMBRIDGE BRASS.
- A CURB STOP & EXTENSION SERVICE BOX & MAIN STOP MUST BE INSTALLED ON EACH SERVICE USING COMPRESSION JOINT FITTINGS.
- ALL CURB STOPS FOR SERVICES WITHIN ASPHALT TO BE LOCATED IN VALVE BOXES INSTALLED FLUSH TO FINISHED GRADE OF ASPHALT. CAP FOR VALVE BOX TO BE MARKED WITH 'W' & PAINTED BLUE.
- SERVICE BOXES TO NUMBER 7, D-1 LOW OR MUELLER, 24" BLACK ROADS STRAIGHT C/W CAP PAINTED BLUE.
- ALL SERVICES SHALL BE METERED. METERS TO BE COMPLETE WITH REMOTE READOUT OR RADIO READ AS DETERMINED BY THE TOWN OF COLLINGWOOD WATER DEPARTMENT.
- HYDRANTS - CENTURY NUMBER 1, OPEN LEFT (O/L), 2 HOSE, 3/8" PLUMBER PORT, 6" MJ BASE, SELF-DRAINING YELLOW BASE WITH SILVER BONNET AND PORTS.
- VALVES - RESILIENT SEATED, RSGV MECHANICAL JOINT, OPEN LEFT CLOW OR MUELLER WITH 5-SL-48 SLIDING VALVE BOX C/W CAP PAINTED BLUE.
- MECHANICAL JOINT DUCTILE FITTINGS - AWWA/ANSI C153/A21.5.3.
- HYDRANTS TO BE INSTALLED C/W HYDRANT MARKER STAKES PER TOWN OF COLLINGWOOD WATER DEPARTMENT STANDARD "FLEX STAKE HYDRANT MARKER MODEL FV804, 48" LONG, COLOUR YELLOW WITH REFLECTIVE HYDRANT GRAPHIC ON BOTH SIDES". MARKER TO BE POSITIONED ON THE RIGHT PORT AS VIEWED FROM STREET.
- 50mmØ WATER SERVICES - TYPE 'K' COPPER. 100mmØ SERVICES WILL BE DUCTILE IRON.
- ALL VALVES TO BE OPERATED BY THE TOWN OF COLLINGWOOD WATER DEPARTMENT. CONTRACTOR TO PROVIDE MIN. 48 HOUR NOTIFICATION FOR REQUEST.
- HYDRANTS ARE TO BE 1.67m (5'6") LONG, MAKE-UP PIECES, IF REQUIRED, ARE TO BE INSTALLED BELOW THE HYDRANT.
- ALL WATERMAIN FITTINGS TO BE LEAD FREE.
- MECHANICAL JOINT RESTRAINTS TO BE USED DURING TRANSITION OF WATERMAIN INSTALLATION IN NATIVE SOILS TO ENGINEERED FILL. MECHANICAL JOINT RESTRAINTS TO BE MEQA-LUC OR APPROVED EQUAL. FINAL LIMITS TO BE FIELD DECISION.
- PREMISE PROTECTION BACKFLOW PREVENTION DEVICES AS PER CSA B64.10-11/B64.101-11, OBC AND THE TOWN WATER BY-LAW SHALL BE PROVIDED FOR APARTMENT BUILDINGS AND RECREATIONAL FACILITIES.
- THE TOWN SHALL HAVE ONE WATER METER, CONNECTED TO ONE WATER BILL. ADDITIONAL METERS CAN BE ADDED INTERNALLY AS REQUIRED.

E) STORM SEWERS

- MH TO OPSS 701.010 AND DCBHM TO OPSS - 701.011, C/W SUMP UNLESS NOTED OTHERWISE.
- STEPS TO OPSS 405.010.
- MH FRAMES AND GRATES TO OPSS - 401.01 OPEN COVER.
- DCB'S TO OPSS - 705.030, 705.040.
- DCBHM FRAMES AND GRATES TO OPSS - 400.020.
- PIPE SUPPORT AT DCBHM'S TO OPSS - 708.020.
- DBL LEADS - 300mm Ø DOUBLE TO OPSS 708.010, 708.030.
- PROTECTION DURING CONSTRUCTION TO OPSS - 808.010.
- BACKFILL AND EMBEDMENT TO OPSS - 802.010 (FLEXIBLE PIPE) CLASS 'B', GRANULAR 'A' EMBEDMENT OR OPSS - 802.030, 802.031 AND 802.032 (RIGID PIPE) GRANULAR 'A' EMBEDMENT. COVER MATERIAL FOR RIGID PIPE MUST BE CERTIFIED BY GEOTECHNICAL CONSULTANT PRIOR TO USING FOR REMAINING PIPE EMBEDMENT.
- BACKFILL AND EMBEDMENT MATERIAL TO BE COMPACTED TO A DRY DENSITY OF AT LEAST 95% OF THE MATERIAL'S STANDARD PROCTOR MAXIMUM DRY DENSITY (SPMDD).
- MAIN SEWERS OVER 450mmØ SHALL BE CONCRETE PIPE (OPSS 1820), PIPE INSTALLED BENEATH THE ROADWAYS SHALL BE REINFORCED PER CSA A257.2, CLASS 50-D. MAIN SEWERS 450mmØ AND UNDER SHALL BE PVC PIPE (OPSS 410). MAIN PIPE STIFFNESS SHALL BE 320 kPa. PIPE INSTALLED WITHIN LANDSCAPED AREAS CAN BE NON-REINFORCED PER CSA A257.1, CLASS 3. ALL PIPE TO BE JOINED WITH A GASKETTED BELL AND SPIGOT SYSTEM.
- FROST STRAPS PER OPSD 701.100.
- STORM SERVICES TO BE 100mmØ PVC SDR28 COLORED WHITE FOR TOWNHOUSE UNITS AND 200mmØ PVC SDR35 FOR MIDRISE BUILDINGS.
- STORM SERVICES CONNECTING TO CONCRETE STORM SEWERS TO BE MADE USING CORE METHOD AND PRE-MANUFACTURED BOOT.
- STORM SERVICES TO BE MARKED WITH A 2"x4" STAKE PAINTED WHITE.
- MINIMUM COVER ON STORM SEWER AND SERVICE TO BE 1.5m AS PER TOWN OF COLLINGWOOD STANDARDS.

STORMFILTER 2
SCALE: N.T.S.

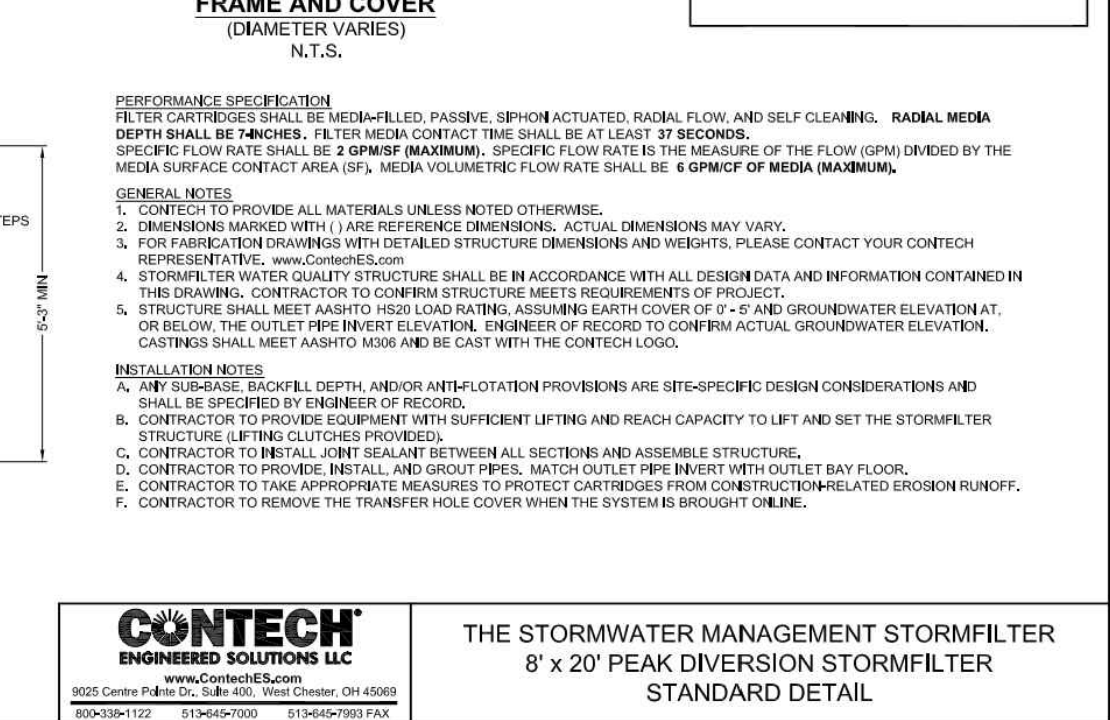


STORMFILTER DESIGN TABLE

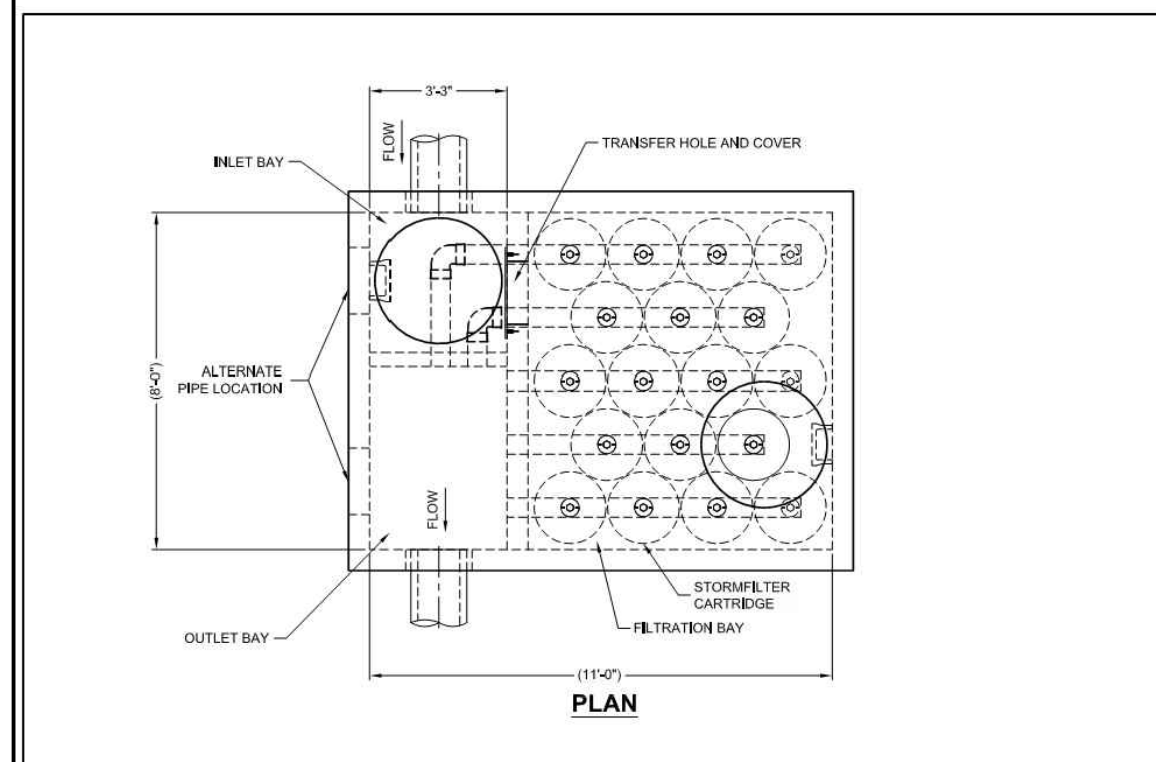
| CARTRIDGE HEIGHT | 27" | 18" | LOW DROP |
|---------------------------------------|-----------------------|-----------------------|-----------------------|
| SYSTEM HYDRAULIC DROP (H - REGD. MIN) | 3.00" | 2.25" | 1.5" |
| HEIGHT OF W/BR (IN) | 3.00" | 2.25" | 1.5" |
| TREATMENT BY MEDIA SURFACE AREA | 2 gpm/ft ² | 1 gpm/ft ² | 2 gpm/ft ² |
| CARTRIDGE FLOW RATE (gpm) | 22.5 | 14.25 | 15 |

SITE SPECIFIC DATA REQUIREMENTS

| STRUCTURE ID | NO. | MATERIAL | DIAMETER |
|----------------------------------|---------------------------------|----------------------------|----------|
| WATER QUALITY FLOW RATE (g/s) | - | - | - |
| PEAK FLOW RATE (g/s) | - | - | - |
| RETURN PERIOD OF PEAK FLOW (hrs) | - | - | - |
| # OF CARTRIDGES REQUIRED | - | - | - |
| CARTRIDGE FLOW RATE (gpm) | - | - | - |
| MEDIA TYPE (CSP, PERLITE, ZPO) | - | - | - |
| INLET PIPE | NO. | MATERIAL <td>DIAMETER</td> | DIAMETER |
| OUTLET PIPE | NO. | MATERIAL <td>DIAMETER</td> | DIAMETER |
| INLET BAY R/W ELEVATION | - | - | - |
| OUTLET BAY R/W ELEVATION | - | - | - |
| ANTIFLOTATION BALLAST | WIDTH <td>HEIGHT</td> <td></td> | HEIGHT | |



STORMFILTER 1
SCALE: N.T.S.

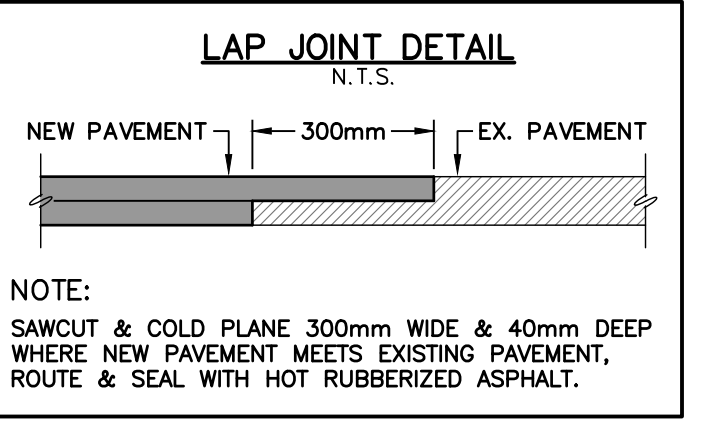
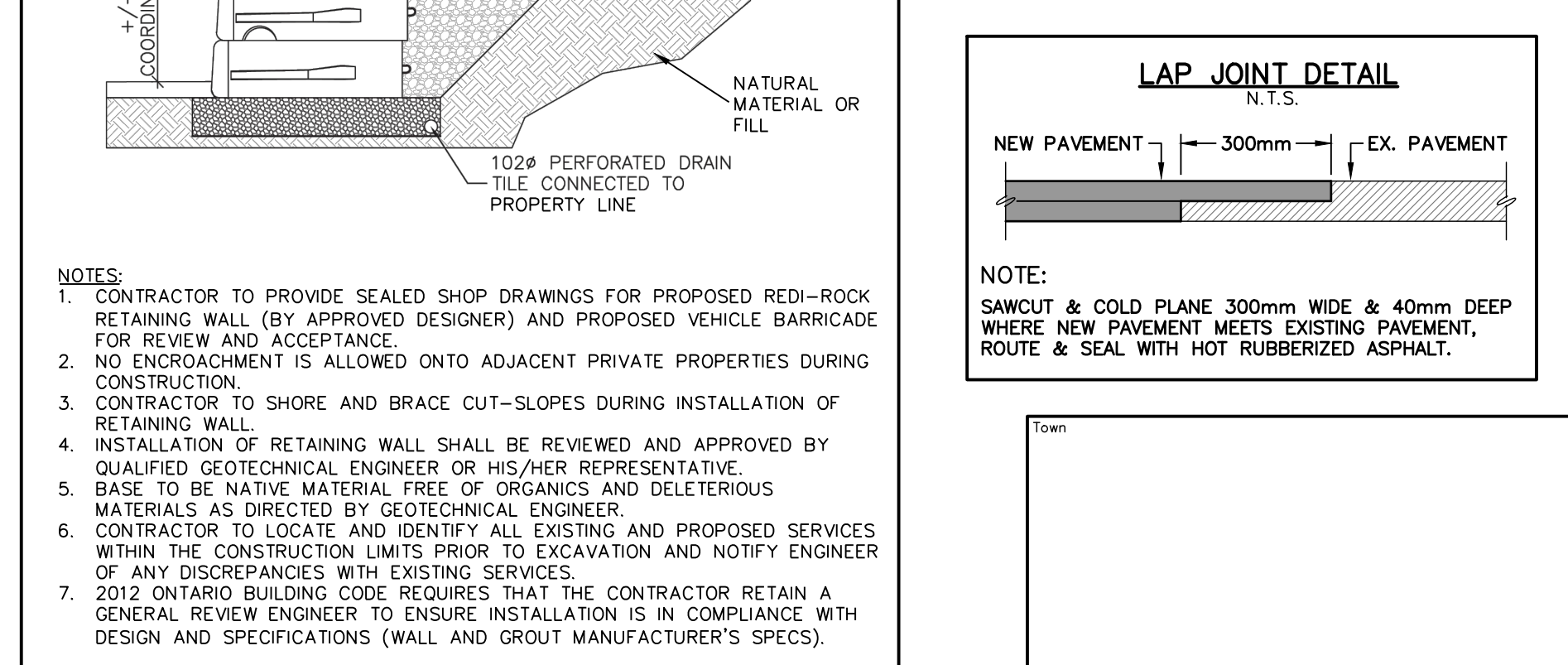
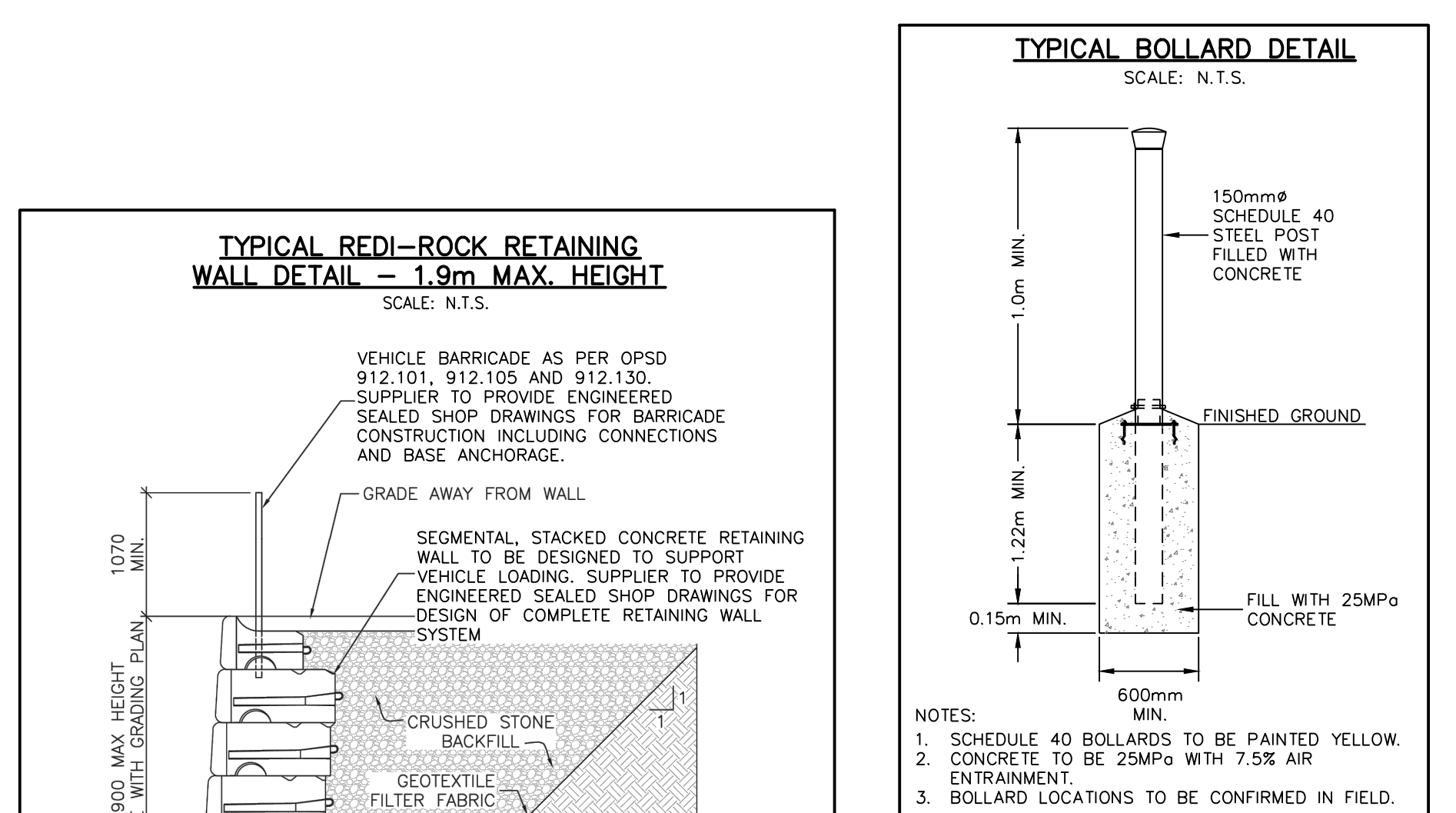
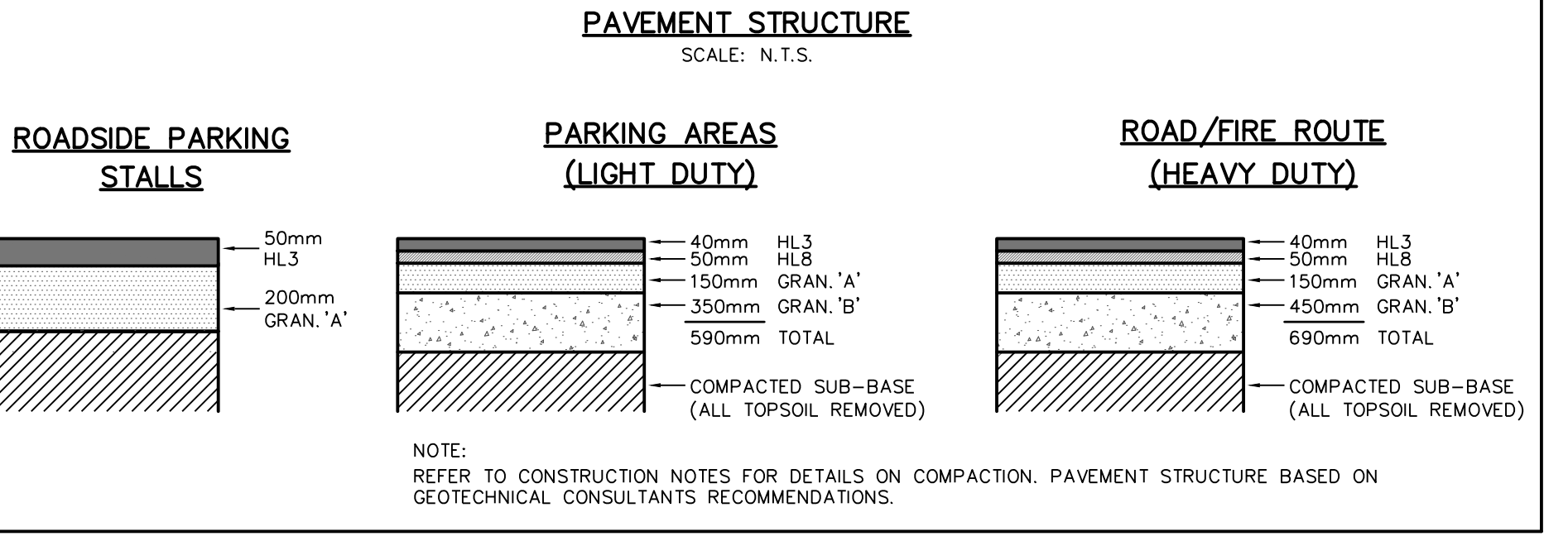
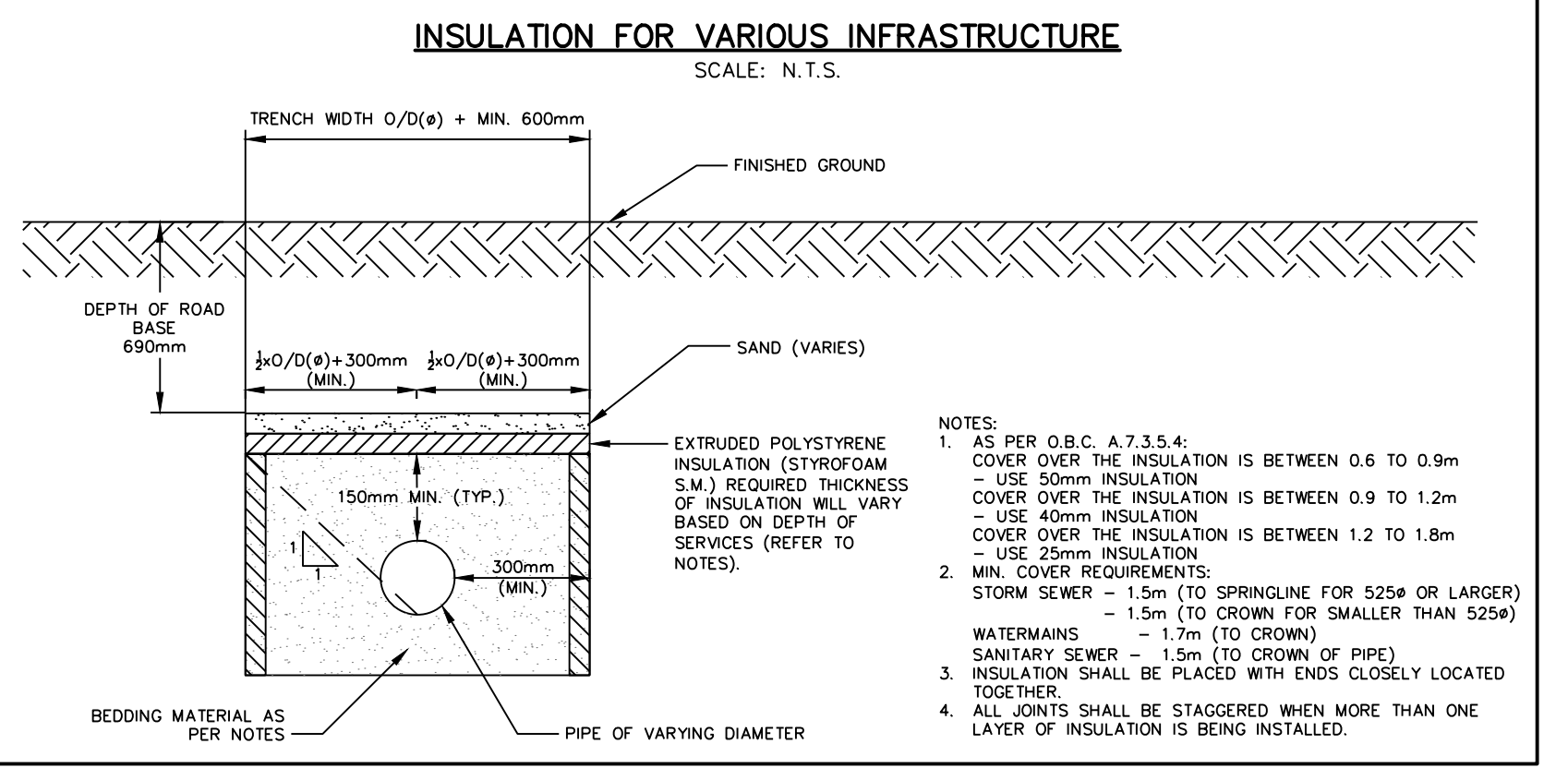


STORMFILTER DESIGN TABLE

| CARTRIDGE HEIGHT | 27" | 18" | LOW DROP |
|---------------------------------------|-----------------------|-----------------------|-----------------------|
| SYSTEM HYDRAULIC DROP (H - REGD. MIN) | 3.00" | 2.25" | 1.5" |
| HEIGHT OF W/BR (IN) | 3.00" | 2.25" | 1.5" |
| TREATMENT BY MEDIA SURFACE AREA | 2 gpm/ft ² | 1 gpm/ft ² | 2 gpm/ft ² |
| CARTRIDGE FLOW RATE (gpm) | 22.5 | 14.25 | 15 |

SITE SPECIFIC DATA REQUIREMENTS

| STRUCTURE ID | NO. | MATERIAL | DIAMETER |
|----------------------------------|---------------------------------|-----------------------------|----------|
| WATER QUALITY FLOW RATE (g/s) | - | - | - |
| PEAK FLOW RATE (g/s) | - | - | - |
| RETURN PERIOD OF PEAK FLOW (hrs) | - | - | - |
| # OF CARTRIDGES REQUIRED | - | - | - |
| CARTRIDGE FLOW RATE (gpm) | - | - | - |
| MEDIA TYPE (CSP, PERLITE, ZPO) | - | - | - |
| INLET PIPE | NO. | MATERIAL <td>DIAMETER </td> | DIAMETER |
| OUTLET PIPE | NO. | MATERIAL <td>DIAMETER </td> | DIAMETER |
| INLET BAY R/W ELEVATION | - | - | - |
| OUTLET BAY R/W ELEVATION | - | - | - |
| ANTIFLOTATION BALLAST | WIDTH <td>HEIGHT</td> <td></td> | HEIGHT | |



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BENCHMARKS

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TOPOGRAPHIC SURVEY COMPLETED BY KRCMAR SURVEYORS LTD., DATED AUGUST 25, 2018.

| No. | ISSUE | DATE: MM/DD/YYYY | Engineer |
|-----|---------------------------------------|------------------|----------|
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| 2 | ISSUED FOR DISCUSSION | 02/10/2020 | |
| 3 | ISSUED FOR 2nd ENGINEERING SUBMISSION | 04/08/2021 | |
| 4 | ISSUED FOR 3rd ENGINEERING SUBMISSION | 01/14/2022 | |
| 5 | ISSUED FOR 4th ENGINEERING SUBMISSION | 03/10/2023 | |

CONTECH ENGINEERED SOLUTIONS INC.
2055 Centre Parkway Dr., Unit 401, North York, Ontario M2H 4S6
416-491-1122 | 416-491-1123 | 416-491-1124

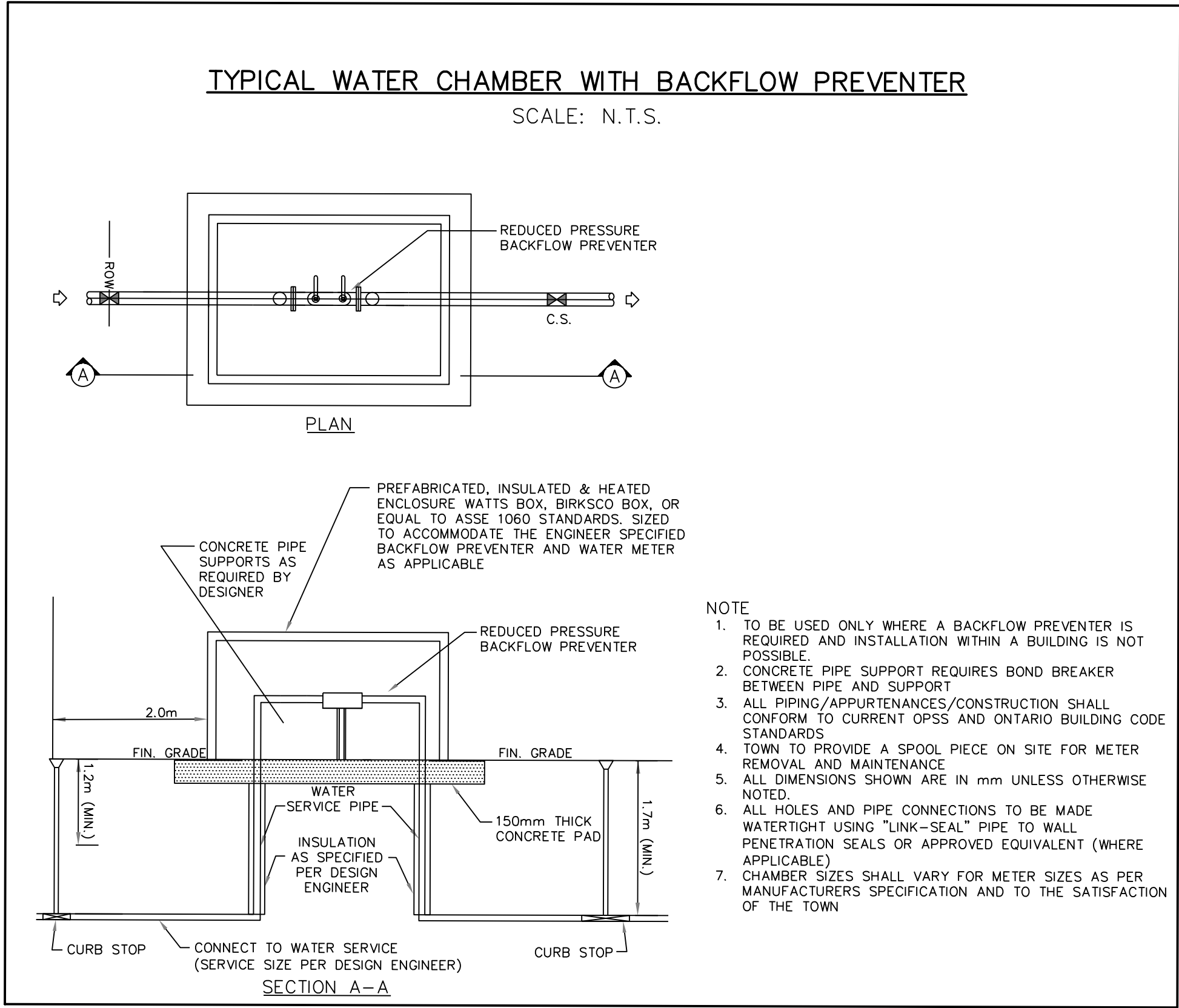
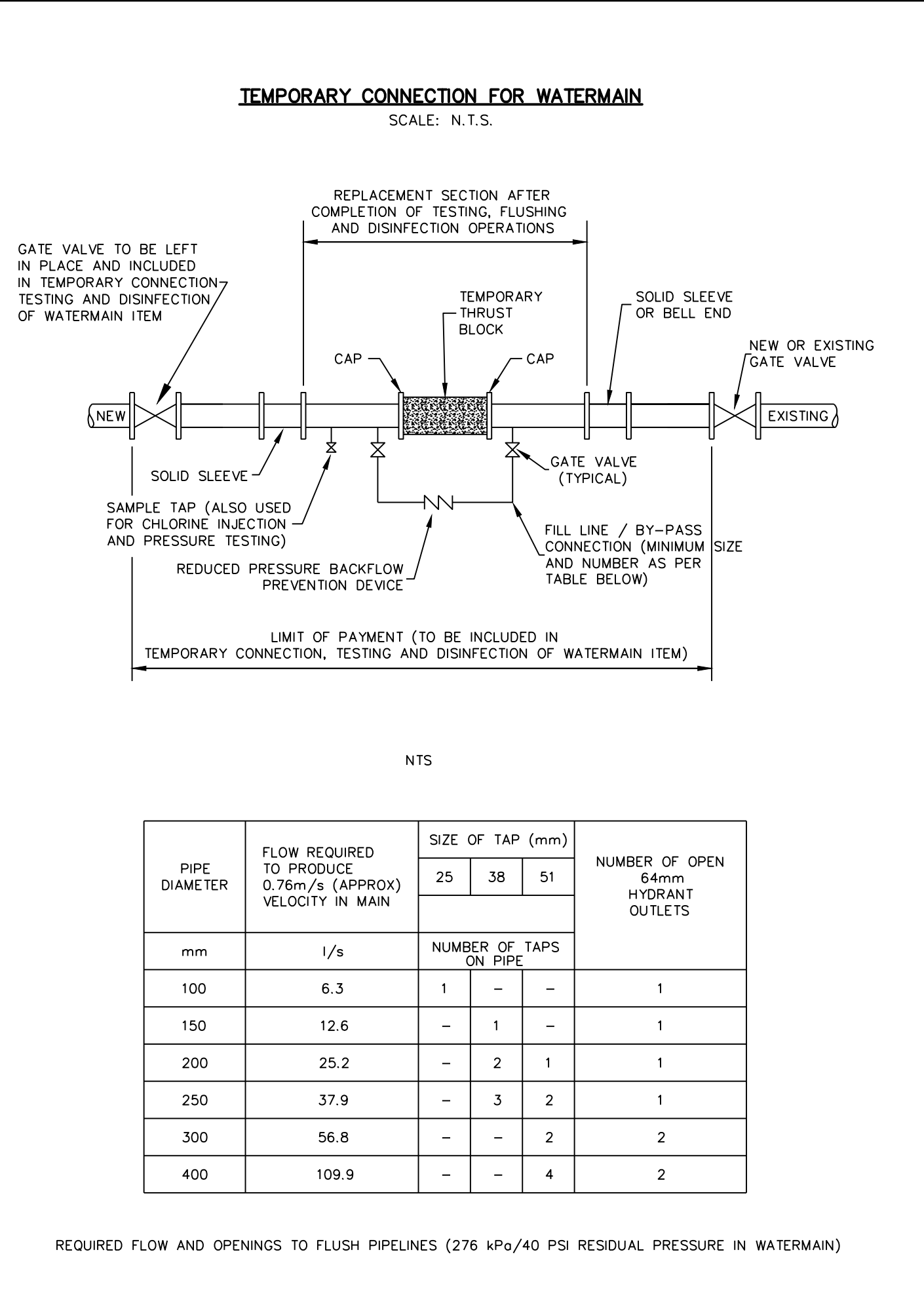
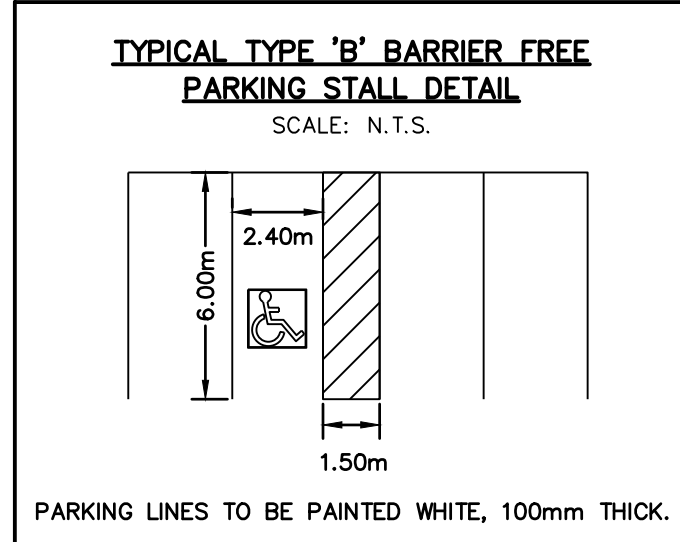
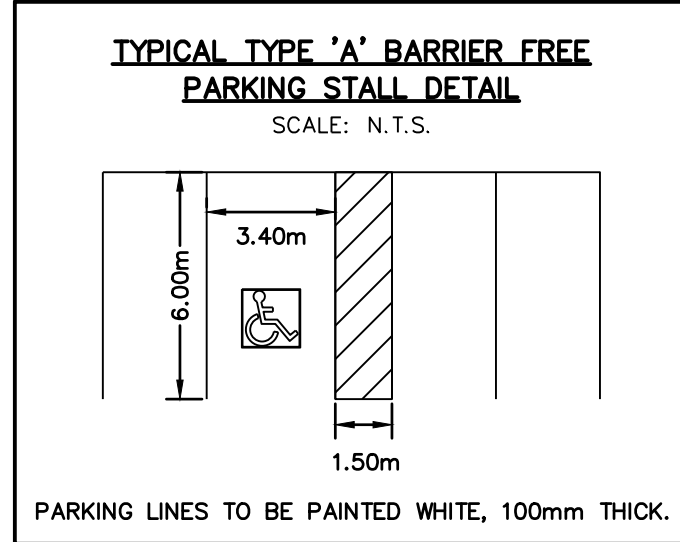
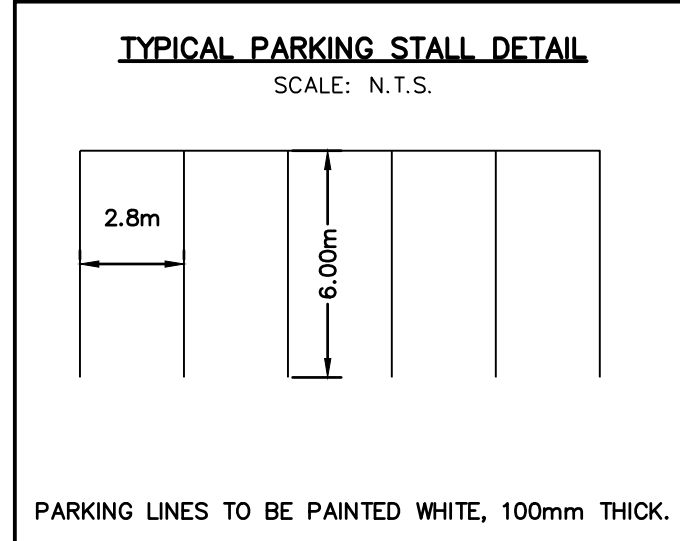
THE STORMWATER MANAGEMENT STORMFILTER
8" x 11" PEAK DIVERSION STORMFILTER
STANDARD DETAIL

Engineer: **R.A. ALEXANDER** (100213093)
Engineer: **K.A. MORRIS** (90510884)

WYLDEWOOD CREEK TOWN OF COLLINGWOOD

CROZIER CONSULTING ENGINEERS
ADMIRAL BUILDING
1 FIRST STREET, SUITE 200
COLLINGWOOD, ON, L9Y 1A1
705-446-3510 T
705-446-3520 F
WWW.CROZIER.CA
INFO@CROZIER.CA

Drawn By: L.W. Design By: L.W. Project: **1535-4897**
Check By: K.M. Check By: R.A. Scale: AS NOTED Drawing: **C113.A**



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4. DO NOT SCALE THE DRAWINGS.

5. ALL EXISTING UNDERGROUND UTILITIES TO BE VERIFIED IN THE FIELD BY THE CONTRACTOR PRIOR TO CONSTRUCTION.

BENCHMARKS

ELEVATIONS SHOWN HEREON ARE GEODETIC AND ARE RELATED TO TOWN OF COLLINGWOOD BENCH MARK NO. 00172U311 HAVING AN ELEVATION OF 181.032 METRES.

TOPOGRAPHIC SURVEY COMPLETED BY KRCMAR SURVEYORS LTD., DATED AUGUST 25, 2018.

| No. | ISSUE | DATE: MM/DD/YYYY |
|-----|---------------------------------------|------------------|
| 1 | ISSUED FOR 1st ENGINEERING SUBMISSION | 02/04/2019 |
| 2 | ISSUED FOR DISCUSSION | 02/10/2020 |
| 3 | ISSUED FOR 2nd ENGINEERING SUBMISSION | 04/08/2021 |
| 4 | ISSUED FOR 3rd ENGINEERING SUBMISSION | 01/14/2022 |
| 5 | ISSUED FOR 4th ENGINEERING SUBMISSION | 03/10/2023 |

Engineer

R.A. ALEXANDER
100213093
March 10, 2023
PROVINCE OF ONTARIO

Engineer

K.A. MORRIS
90510884
March 14, 2023
PROVINCE OF ONTARIO

Project

**WYLDEWOOD CREEK
TOWN OF COLLINGWOOD**

Drawing

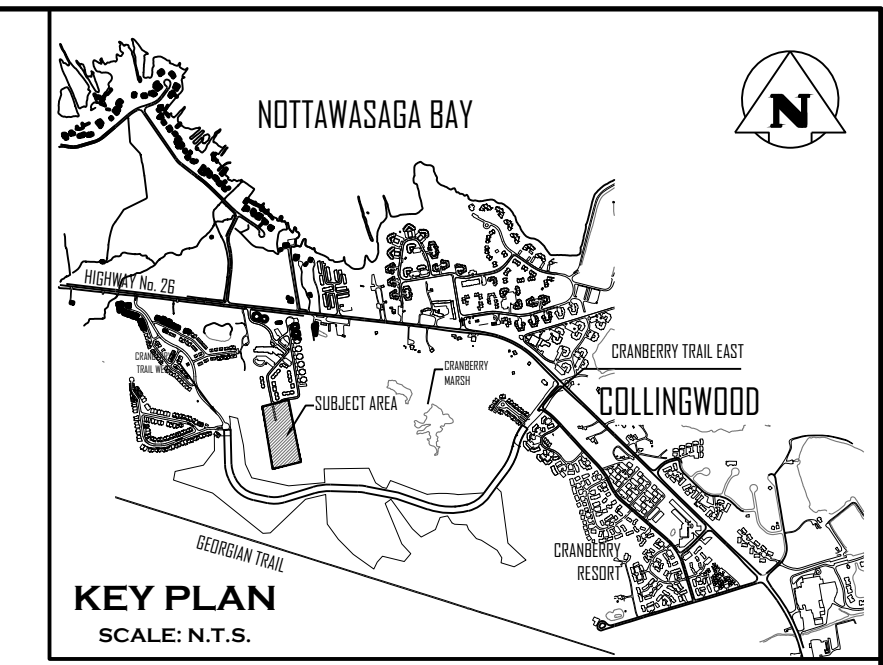
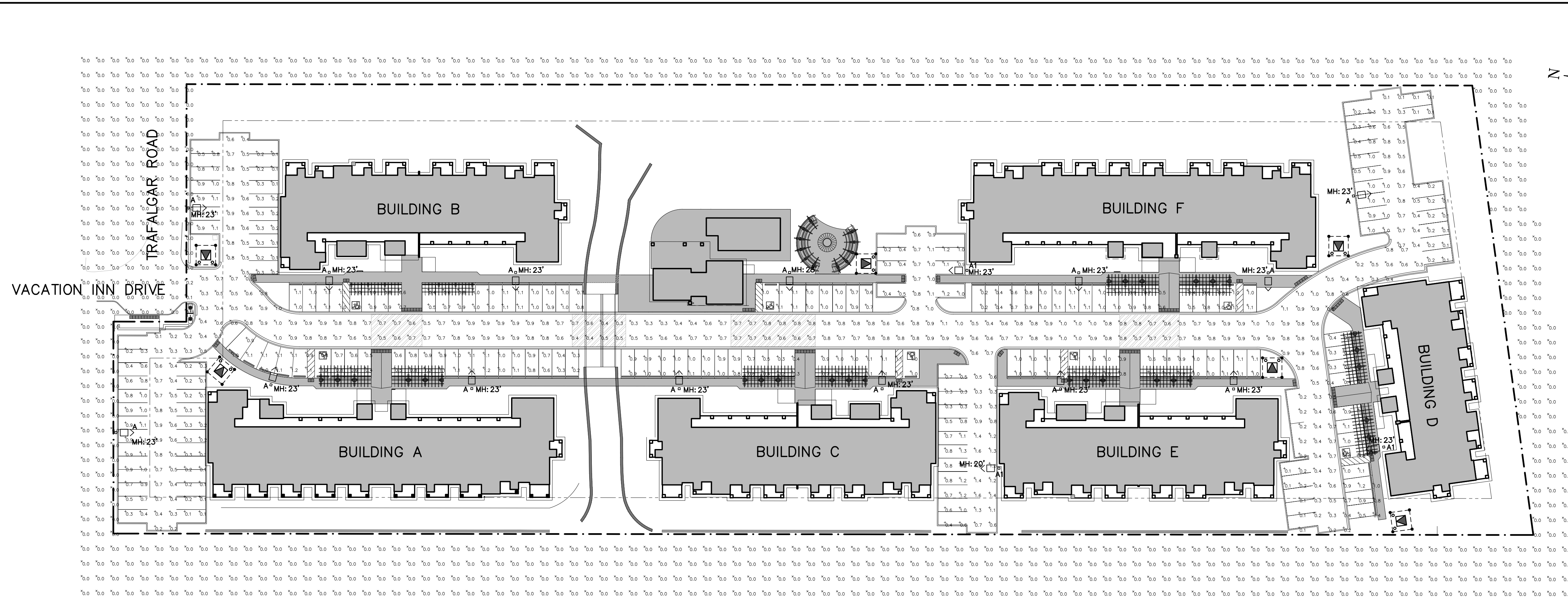
**CONSTRUCTION NOTES AND
STANDARD DETAILS**

CROZIER CONSULTING ENGINEERS

ADMIRAL BUILDING
1 FIRST STREET, SUITE 200
COLLINGWOOD, ON, L9Y 1A1
705-446-3510 T
705-446-3520 F
WWW.CFCROZIER.CA
INFO@CFCROZIER.CA

Drawn By: L.W. Design By: L.W. Project: **1535-4897**

Check By: K.M. Check By: R.A. Scale: AS NOTED Drawing: **C113.B**



| ELECTRICAL LEGEND | |
|-------------------|---|
| | POLE MOUNTED LIGHT FIXTURE |
| | PROPERTY LINE |
| | PAD MOUNTED TRANSFORMER, ARROW INDICATES OPERATING SIDE (DIRECTION OF APPROACH) |

| ELECTRICAL DRAWING LIST | |
|-------------------------|-------------------------|
| E100 | SITE PLAN – PHOTOMETRIC |
| E101 | SITE LIGHTING DETAILS |

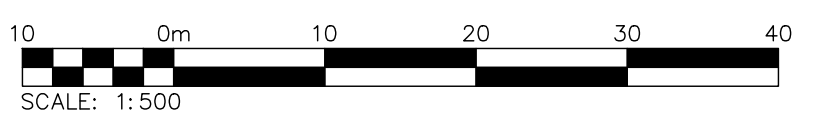
SITE PLAN – PHOTOMETRIC

SCALE: 1:500

| LUMINAIRE SCHEDULE | | | | | | | |
|--------------------|-------|------------------|------------------------------------|-------------------|---|---------|---|
| SYMBOL | LABEL | MANUFACTURER | CATALOG NUMBER | LIGHT LOSS FACTOR | MOUNTING HEIGHT | WATTAGE | DESCRIPTION |
| | A | US ARCHITECTURAL | RZR-M-PLD-III-M-40LED-350mA-30K-HS | 0.85 | REFER TO SITE PLAN DRAWINGS FOR MOUNTING HEIGHT | 43W | RZRM MODEL WITH HOUSE SHIELD, TYPE III, 40LED, 3000K, 350mA |
| | A1 | US ARCHITECTURAL | RZR-PLD-IV-M-40LED-350mA-30K-HS | 0.85 | REFER TO SITE PLAN DRAWINGS FOR MOUNTING HEIGHT | 43W | RZRM MODEL WITH HOUSE SHIELD, TYPE IV, 40LED, 3000K, 350mA |

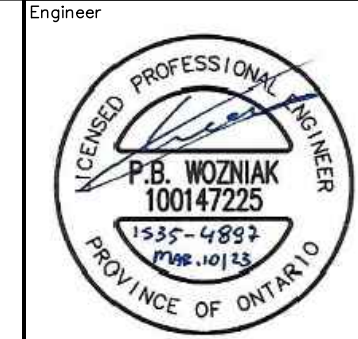
| STATISTICS SCHEDULE | | | | | |
|--------------------------|--------|--------|--------|--------|---------|
| DESCRIPTION | SYMBOL | AVG | MAX | MIN | AVG/MIN |
| RIGHT OF WAY | X | 0.7 fc | 1.1 fc | 0.2 fc | 3.6:1 |
| BUILDING A EAST PARKING | + | 0.9 fc | 1.2 fc | 0.2 fc | 4.3:1 |
| BUILDING A NORTH PARKING | + | 0.5 fc | 1.1 fc | 0.1 fc | 4.9:1 |
| BUILDING B EAST PARKING | + | 0.5 fc | 1.0 fc | 0.1 fc | 5.0:1 |
| BUILDING B NORTH PARKING | + | 0.6 fc | 1.1 fc | 0.1 fc | 5.5:1 |
| BUILDING B WEST PARKING | + | 0.9 fc | 1.1 fc | 0.4 fc | 2.3:1 |
| BUILDING C EAST PARKING | + | 0.9 fc | 1.1 fc | 0.2 fc | 4.4:1 |
| BUILDING D NORTH PARKING | + | 0.5 fc | 1.2 fc | 0.1 fc | 5.2:1 |
| BUILDING E EAST PARKING | + | 1.0 fc | 1.1 fc | 0.5 fc | 1.9:1 |
| BUILDING E NORTH PARKING | + | 0.9 fc | 1.6 fc | 0.3 fc | 2.8:1 |
| BUILDING F NORTH PARKING | + | 0.8 fc | 1.2 fc | 0.2 fc | 3.9:1 |
| BUILDING F WEST PARKING | + | 0.8 fc | 1.1 fc | 0.2 fc | 4.1:1 |
| POOL PARKING | + | 1.0 fc | 1.1 fc | 0.6 fc | 1.6:1 |

THE FOLLOWING NOTATIONS APPLY TO ALL LUMINAIRES IN SCHEDULE, UNLESS OTHERWISE NOTED:
 1. ELECTRICAL CONTRACTOR IS RESPONSIBLE TO PROVIDE PHOTOCELLS AS REQUIRED. COORDINATE EXACT LOCATION AND REQUIREMENTS WITH LIGHT MANUFACTURER.



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| No. | ISSUE | DATE: MM/DD/YYYY | Engineer |
|-----|---------------------------------------|------------------|----------|
| 1 | *NOT ISSUED FOR THIS SUBMISSION* | 02/04/2019 | |
| 2 | *NOT ISSUED FOR THIS SUBMISSION* | 02/10/2020 | |
| 3 | ISSUED FOR 2nd ENGINEERING SUBMISSION | 04/08/2021 | |
| 4 | ISSUED FOR 3rd ENGINEERING SUBMISSION | 01/14/2022 | |
| 5 | ISSUED FOR 4th ENGINEERING SUBMISSION | 03/10/2023 | |



Project: WYLDEWOOD CREEK TOWN OF COLLINGWOOD
 Drawing: SITE PLAN – PHOTOMETRIC

CROZIER CONSULTING ENGINEERS
 THE HARBOUREdge BUILDING, 40 HURON STREET, SUITE 301, COLLINGWOOD, ON L9Y 4R3
 705 446-3510 T / 705 446-3520 F
 www.cfcrozier.ca / info@cfcrozier.ca

Drawn By: J.R.B./T.S.D. Design By: J.R.B. Project: 1535-4897
 Check By: P.W. Scale: 1:500 Drawing: E100

SOLID STATE AREA LIGHTING

RAZAR SERIES-LED
SPECIFICATIONS

OPTICAL HOUSING:
Heavy cast low copper aluminum (A356 alloy -0.2% copper) assembly with integral cooling fins. The Optical Housing mounting surface is milled flat (surface variance $\pm 0.002''$) to facilitate thermal transfer of heat to housing and cooling fins. Solid barrier wall separates optical and electrical compartments. The optical and electrical compartments are integrated to create one assembly. Minimum wall thickness is .188".

ELECTRICAL HOUSING w/ INTEGRATED ARM:
Heavy cast low copper aluminum (A356 alloy -0.2% copper) assembly with integral cooling fins surrounding the electrical compartment and a flat surface on the top of the arm to accommodate a photovoltaic receptacle. Solid barrier wall separates optical and electrical compartments. The optical compartment and electrical compartment with the integrated support arm combine to create one assembly. Minimum wall thickness is .188". Cast and hinged driver assembly cover is integrated with wiring compartment cover.

PLED OPTICS:
Emitters (LED's) are arrayed on a metal core PCB panel with each emitter located on a copper thermal transfer pad and enclosed by an LED refractor. LED optics completely seal each individual emitter to meet an IP66 rating. In asymmetric distributions, a micro-reflector inside the refractor re-directs the house side emitter output towards the street side and functions as a house side shielding element. Refractors are injection molded H12 acrylic. Each LED refractor is sealed to the PCB over an emitter and all refractors are retained by an aluminum frame. Any one Panel or group of Panels in a luminaire have the same optical pattern. LED refractors produce standard site/area distributions. Panels are field replaceable and field rotatable in 90° increments.

LED DRIVER(S):
Constant current electronic with a power factor of >.90 and a minimum operating temperature of 40°F/40°C. Driver(s) is/are UL and cUL recognized and mounted directly against the Electrical Housing to facilitate thermal transfer, held down by universal clamps to facilitate easy removal. In-line terminal blocks facilitate wiring between the driver and optical array. Drivers accept an input of 120-277V, 50/60Hz or 347V-480V, 50/60Hz, 0 - 10V dimmable driver is standard. Driver has a minimum of 3KV internal surge protection. Luminaires supplied with 20KV surge protector for field accessible installation.

LED EMITTERS:
High output LED's are utilized with drive currents ranging from 350mA to 1850mA, 70°C. Minimum LED's are available in standard Neutral White (4000K) or optional Cool White (5000K) or Warm White (3000K). Consult Factory for other LED options.

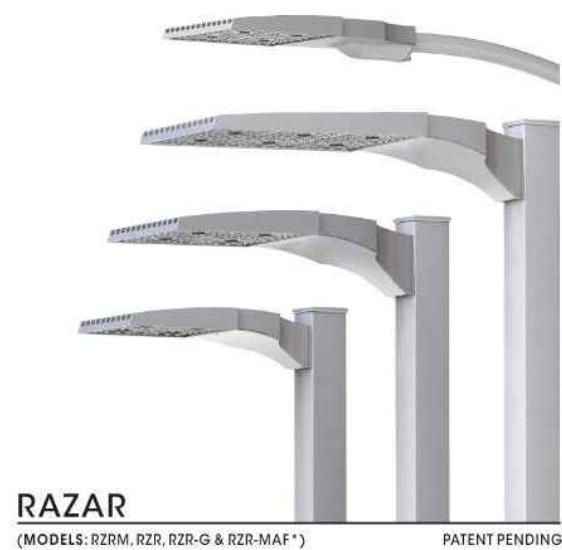
AMBER LED'S:
PCA (Phosphor Converted Amber) LED's utilize phosphors to create color output similar to PS lamps and have a slight output in the blue spectral bandwidth. TRA (True Amber) LED's utilize material that emits light in the amber spectral bandwidth only without the use of phosphors.

FINISH:
Electrostatically applied TGIC Polyester Powder Coat on substrate prepared with 20 PSI power wash at 140°F. Four step media blast and iron phosphate pretreatment for protection and paint adhesion. 400°F bake for maximum hardness and durability.

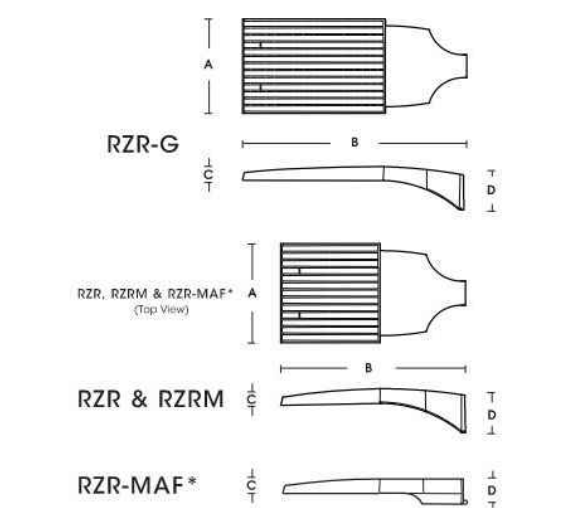
MAST ARM FITTER/ELECTRICAL HOUSING:
Replaces standard Electrical Housing. Fits standard 2 3/8" O.D. horizontal tenon. Two (2) strips with two (2) bolts each encircle the lower half of the tenon. Upper half of the tenon rests on self-centering steps that position the angle of the luminaire at 0°, +1.5°, +1.5° or +3° up from the horizontal. All hardware is stainless steel.

PROJECT NAME: TYPE A, A1

PROJECT TYPE:



RAZAR
(MODELS: RZM, RZR, RZR-G & RZR-MAF*) PATENT PENDING



| FIXTURE | A | B | C | D |
|---------|--------|--------|-------|-------|
| RZR-G | 15" | 26.4" | 3" | 7" |
| RZR | 14.75" | 26.25" | 2.75" | 6.5" |
| RZM | 11.5" | 22" | 2.5" | 5.25" |
| RZR-MAF | 15" | 28.25" | 3.5" | 4" |

*TOLERANCE PENDING AS OF 7/17



U.S. Architectural Lighting

Approval Drawing TYPE A, A1

Pole Std: P422-2-5SQ-20

Pole: 5" square x .25 wall thickness aluminum tube welded to base plate.

Base Cover: Two piece cast aluminum attached to pole with stainless steel screws.

Tenon Size: None

Anchor Bolts: 4 galvanized 3/4" x 24" long. Anchor bolts and template are supplied by HCI.

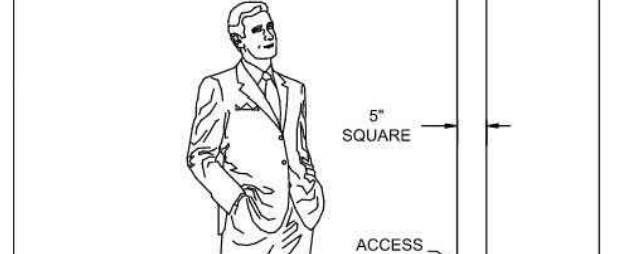
Bolts Circle: Ø11.5"

Finish: Electrostatically applied, thermoseal polyester powder-coat finish.

Colour: RALXXXX



BOTTOM ANCHOR PLATE VIEW



5" SQUARE
ACCESS DOOR
14" SQ

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Approval Drawing TYPE A, A1

Pole Std: P422-2-5SQ-20

Pole: 5" square x .25 wall thickness aluminum tube welded to base plate.

Base Cover: Two piece cast aluminum attached to pole with stainless steel screws.

Tenon Size: None

Anchor Bolts: 4 galvanized 3/4" x 24" long. Anchor bolts and template are supplied by HCI.

Bolts Circle: Ø11.5"

Finish: Electrostatically applied, thermoseal polyester powder-coat finish.

Colour: RALXXXX



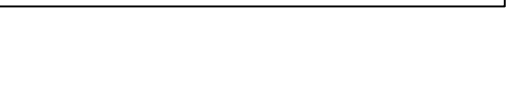
BOTTOM ANCHOR PLATE VIEW



5" SQUARE
ACCESS DOOR
14" SQ

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Sales: KIM Designer: ROMIL
Date: DEC. 17, 2021 Drawing No: 11344-V8
Model: P422-2-5SQ-20-RALXXXX
Project: - (QTY: TBD)
Rep: -
Please Note: Fabrication will not begin until this drawing is approved, signed and returned to HCI.



Approval Drawing TYPE A1

Pole Std: P422-2-5SQ-23

Pole: 5" square x .25 wall thickness aluminum tube welded to base plate.

Base Cover: Two piece cast aluminum attached to pole with stainless steel screws.

Tenon Size: None

Anchor Bolts: 4 galvanized 3/4" x 24" long. Anchor bolts and template are supplied by HCI.

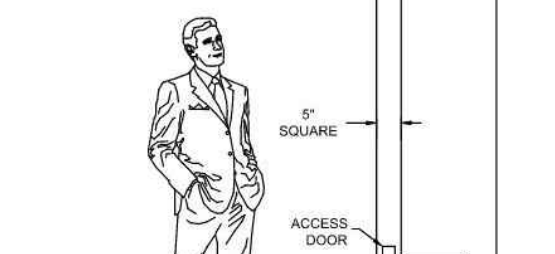
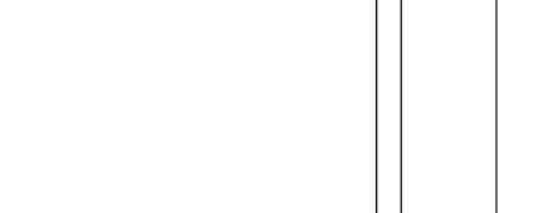
Bolts Circle: Ø11.5"

Finish: Electrostatically applied, thermoseal polyester powder-coat finish.

Colour: RALXXXX



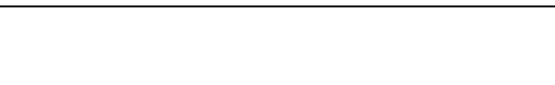
BOTTOM ANCHOR PLATE VIEW



5" SQUARE
ACCESS DOOR
14" SQ

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Sales: KIM Designer: ROMIL
Date: DEC. 17, 2021 Drawing No: 11344-V8-R2
Model: P422-2-5SQ-23-RALXXXX
Project: - (QTY: TBD)
Rep: -
Please Note: Fabrication will not begin until this drawing is approved, signed and returned to HCI.

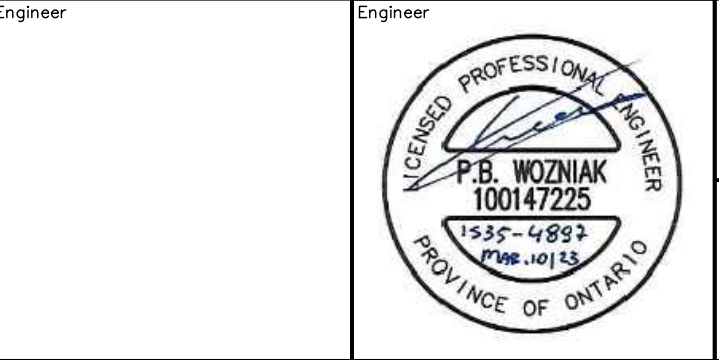


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Town

| No. | ISSUE | DATE: MM/DD/YYYY |
|-----|---------------------------------------|------------------|
| 1 | *NOT ISSUED FOR THIS SUBMISSION* | 02/04/2019 |
| 2 | *NOT ISSUED FOR THIS SUBMISSION* | 02/10/2020 |
| 3 | ISSUED FOR 2nd ENGINEERING SUBMISSION | 04/08/2021 |
| 4 | ISSUED FOR 3rd ENGINEERING SUBMISSION | 01/14/2022 |
| 5 | ISSUED FOR 4th ENGINEERING SUBMISSION | 03/10/2023 |

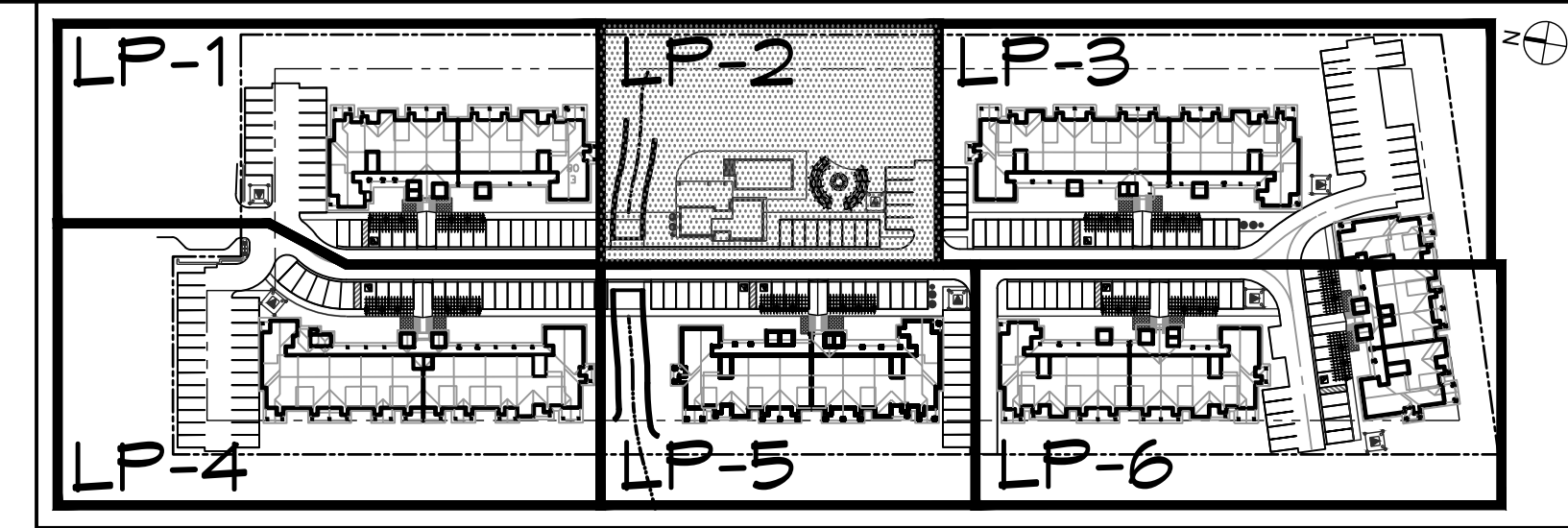
Engineer



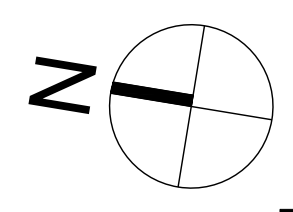
Project
**WYLDEWOOD CREEK
TOWN OF COLLINGWOOD**
Drawing
SITE LIGHTING DETAILS

CROZIER CONSULTING ENGINEERS
THE HARBOUREdge BUILDING,
40 HURON STREET, SUITE 301,
COLLINGWOOD, ON L9Y 4R3
705 446-3510 T
705 446-3520 F
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Drawn By: J.R.B./T.S.D. Design By: J.R.B. Project: **1535-4897**
Check By: P.W. Scale: N.T.S. Drawing: **E101**



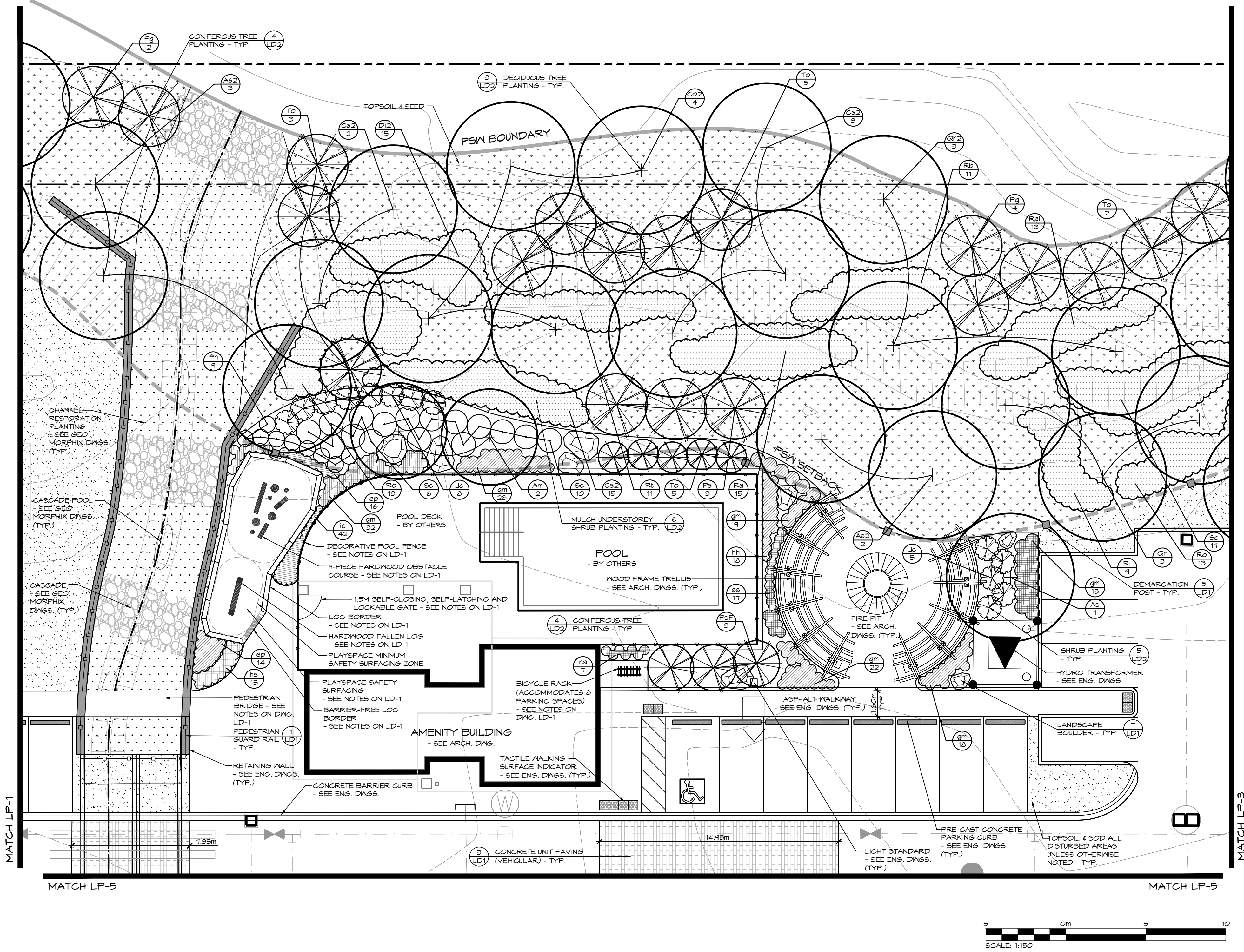
SITE KEY PLAN (NTS)
TOWN OF COLLINGWOOD



LEGEND

| | |
|--|---|
| | PROPERTY BOUNDARY |
| | BUILDING SETBACK |
| | PSW BOUNDARY |
| | PSW SETBACK |
| | BENCH |
| | WASTE RECEPTACLE |
| | BICYCLE RACK |
| | UNDERGROUND SERVICES - SEE ENG. DWGS. |
| | CHANNEL - SEE ENG. DWGS. |
| | CONCRETE UNIT PAVING |
| | CONCRETE PAD |
| | LANDSCAPE BOULDER |
| | DECIDUOUS TREE |
| | CONIFEROUS TREE |
| | DECIDUOUS SHRUB |
| | CONIFEROUS SHRUB |
| | SHRUB GROUPING |
| | PERENNIALS & GROUNDCOVERS |
| | SPECIES |
| | PLANT REFERENCE |
| | TOPSOIL AND SOD |
| | TOPSOIL AND SIMCOE COUNTY NATIVE SEED |
| | CHANNEL RESTORATION - SEE GEO MORPHIX DWGS. |

- NOTES:**
- FOR PLANT IDENTIFICATION, REFER TO THE PLANT LIST ON DRAWING LP-1
 - FOR TREE CLEARANCES, REFER TO NOTES ON DRAWING LP-1
 - FOR GENERAL PLANTING NOTES, REFER TO NOTES ON DRAWING LD-2
 - FOR SEEDING MIX, REFER TO DRAWING LP-1



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NOTES:
1. ALL DIMENSIONS IN METERS UNLESS OTHERWISE NOTED.

| No. | ISSUE / REVISION | DATE: MM/DD/YYYY | STAMP |
|-----|-------------------------------------|------------------|-------|
| 1. | ISSUED FOR 2nd SITE PLAN SUBMISSION | 04/08/2021 | |
| 2. | ISSUED FOR 3rd SITE PLAN SUBMISSION | 01/14/2022 | |
| 3. | ISSUED FOR 4th SITE PLAN SUBMISSION | 03/10/2023 | |



Project: **WYLDWOOD CREEK
TOWN OF COLLINGWOOD**

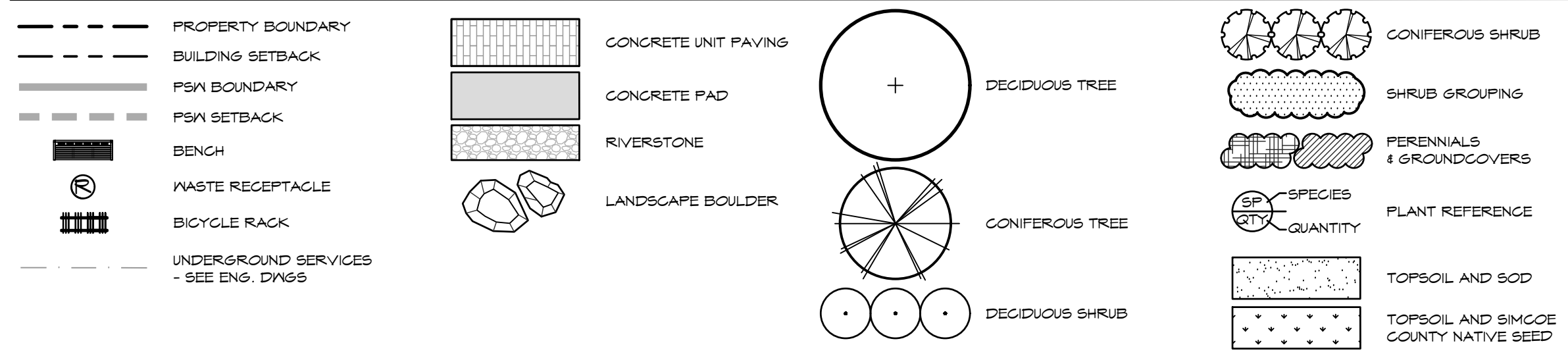
Drawing: **LANDSCAPE PLAN**

ADAMIRAL BUILDING
1 FIRST STREET, SUITE 200
COLLINGWOOD, ON L9Y 1A1
705 446-3510 T
705 446-3520 F
WWW.CFCROZIER.CA
INFO@CFCROZIER.CA

Drawn By: **K.N. / A.M./L.M.** Design By: **K.N. / M.H.** Project: **1535-4897**

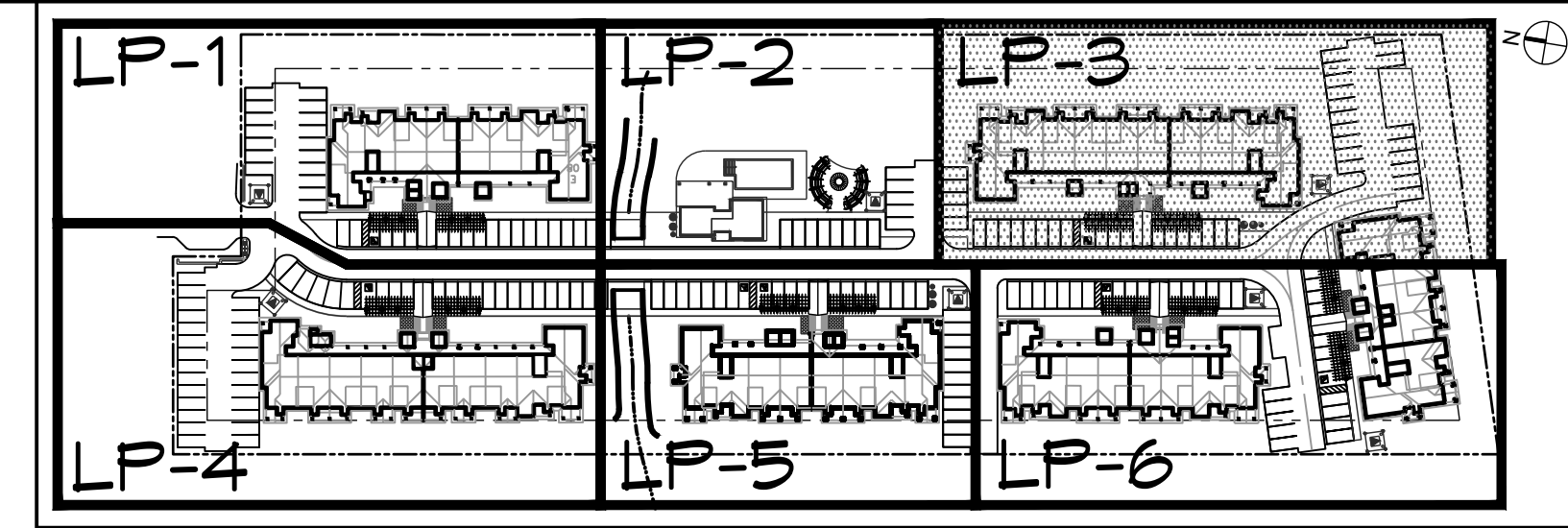
Check By: **K.N.** Scale: **1:150** Drawing: **LP-2**

LEGEND

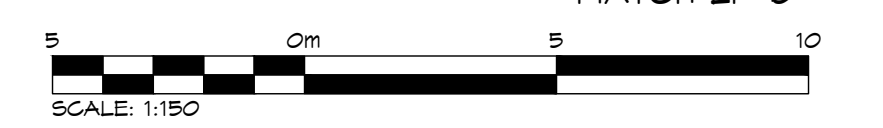
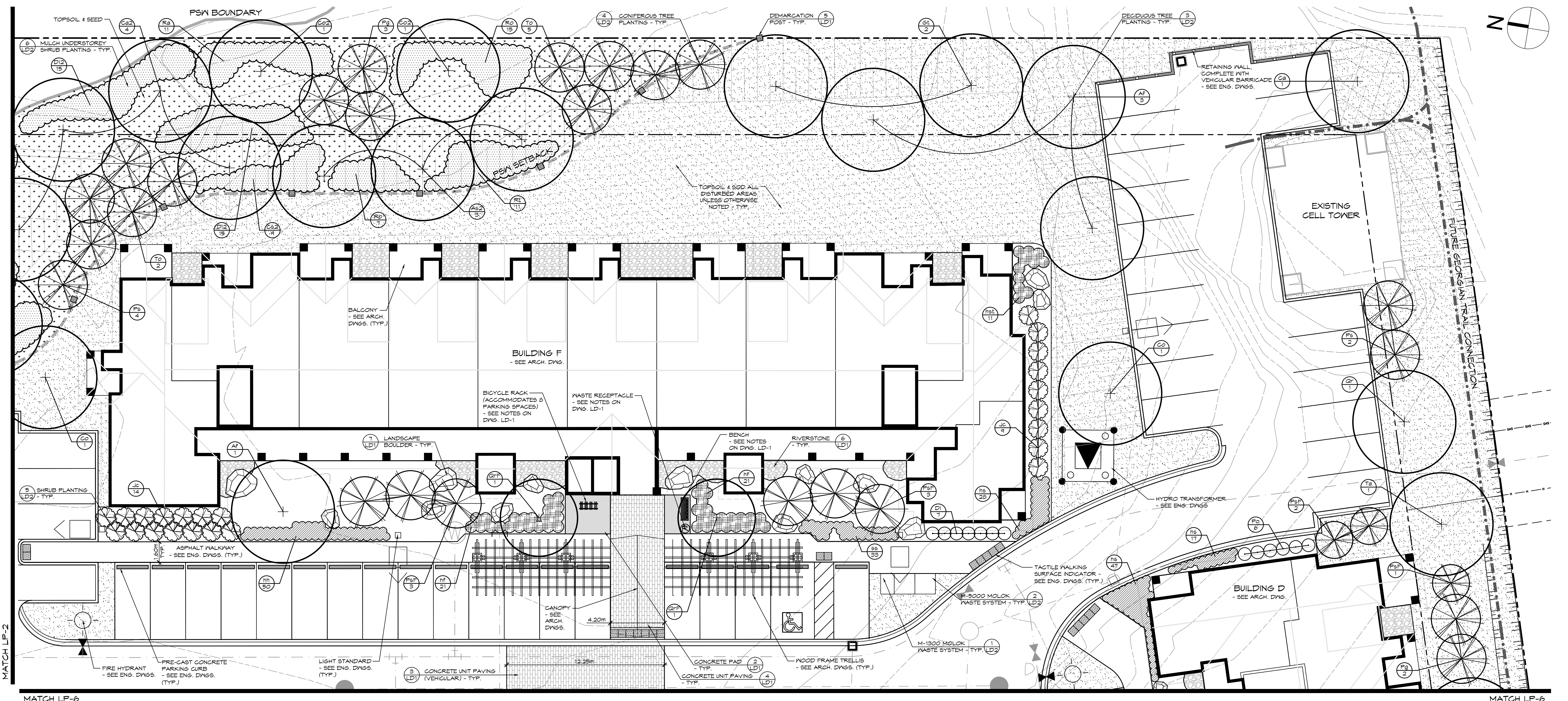


NOTES:

1. FOR PLANT IDENTIFICATION, REFER TO THE PLANT LIST ON DRAWING LP-1
2. FOR TREE CLEARANCES, REFER TO NOTES ON DRAWING LP-1
3. FOR GENERAL PLANTING NOTES, REFER TO NOTES ON DRAWING LD-2
4. FOR SEEDING MIX, REFER TO DRAWING LP-1



SITE KEY PLAN (NTS)
TOWN OF COLLINGWOOD



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4. DO NOT SCALE THE DRAWINGS.

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NOTES:
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| 2. | ISSUED FOR 3rd SITE PLAN SUBMISSION | 01/14/2022 | |
| 3. | ISSUED FOR 4th SITE PLAN SUBMISSION | 03/10/2023 | |



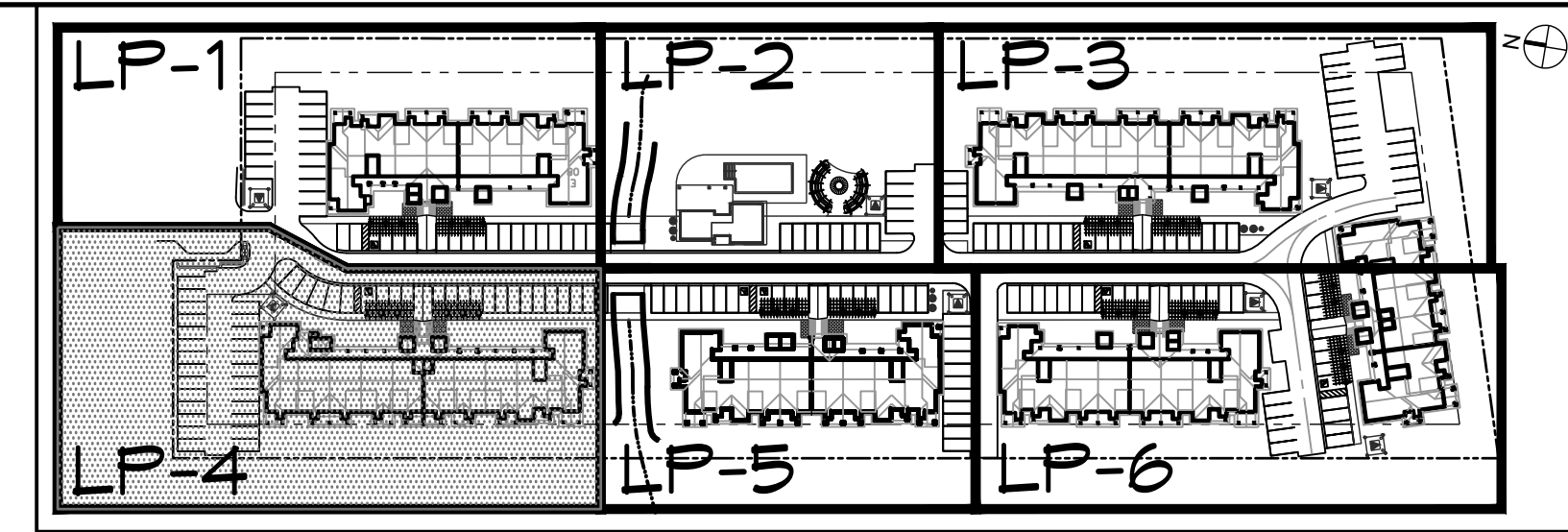
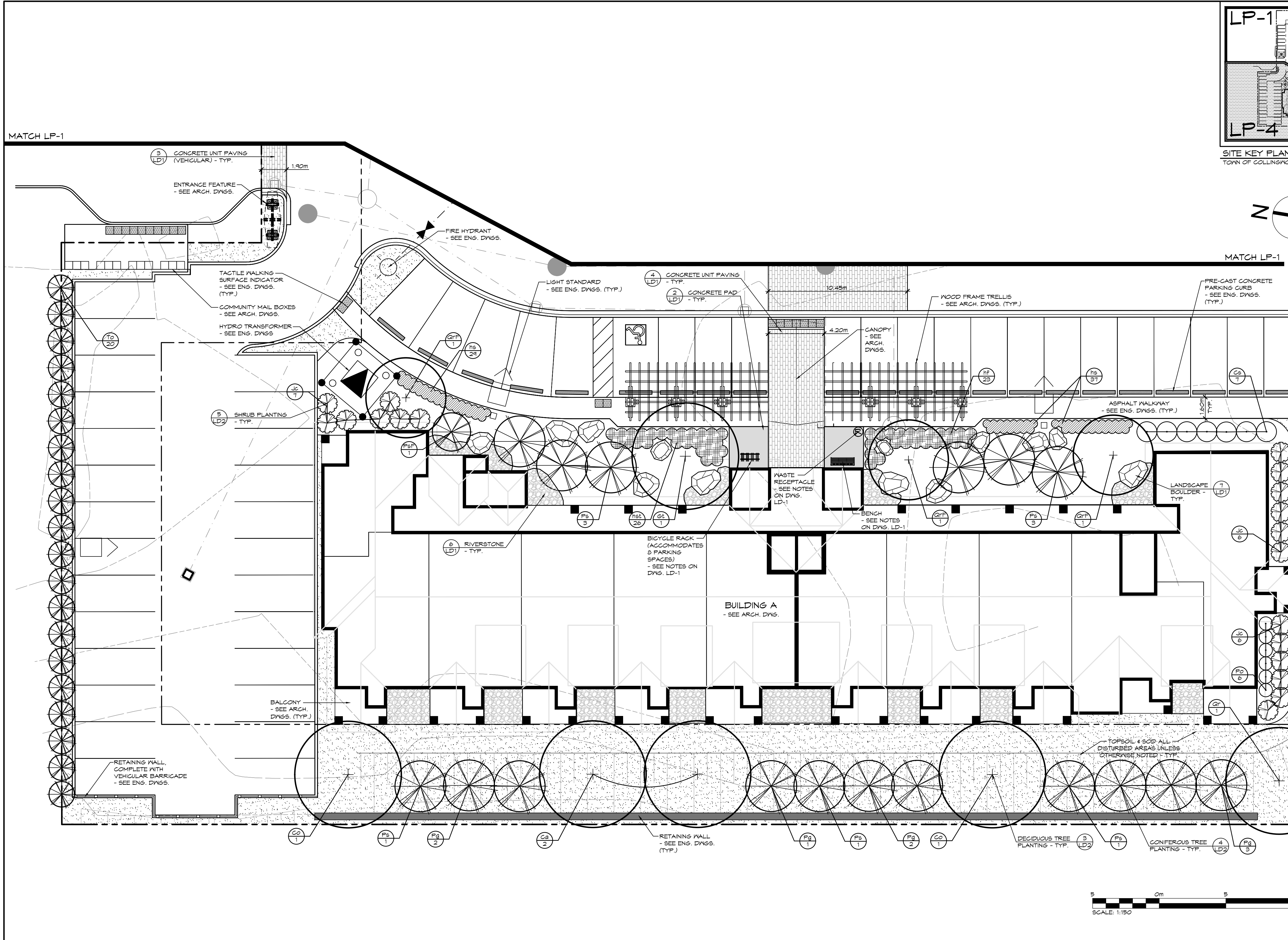
Project: WYLDEWOOD CREEK
TOWN OF COLLINGWOOD

Drawing: LANDSCAPE PLAN

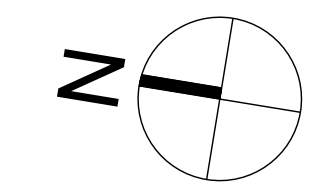
CROZIER
CONSULTING ENGINEERS

ADIRAL BUILDING
1 FIRST STREET, SUITE 200
COLLINGWOOD, ON L9Y 1A1
705 446-3510 T
705 446-3520 F
WWW.CF-CROZIER.CA
INFO@CF-CROZIER.CA

Drawn By: K.N. / A.M./L.M. Design By: K.N. / M.H. Project: 1535-4897
Check By: K.N. Check By: Scale: 1:150 Drawing: LP-3



SITE KEY PLAN (NTS)
TOWN OF COLLINGWOOD



LEGEND

- PROPERTY BOUNDARY
- BUILDING SETBACK
- BENCH
- WASTE RECEPTACLE
- BICYCLE RACK
- UNDERGROUND SERVICES - SEE ENG. DWGS.
- CONCRETE UNIT PAVING
- CONCRETE PAD
- RIVERSTONE
- LANDSCAPE BOULDER
- DECIDUOUS TREE
- CONIFEROUS TREE
- DECIDUOUS SHRUB
- CONIFEROUS SHRUB
- PERENNIALS & GROUNDCOVERS
- SPECIES
- PLANT REFERENCE QUANTITY
- TOPSOIL AND SOD

- NOTES:**
1. FOR PLANT IDENTIFICATION, REFER TO THE PLANT LIST ON DRAWING LP-1
 2. FOR TREE CLEARANCES, REFER TO NOTES ON DRAWING LP-1
 3. FOR GENERAL PLANTING NOTES, REFER TO NOTES ON DRAWING LD-2



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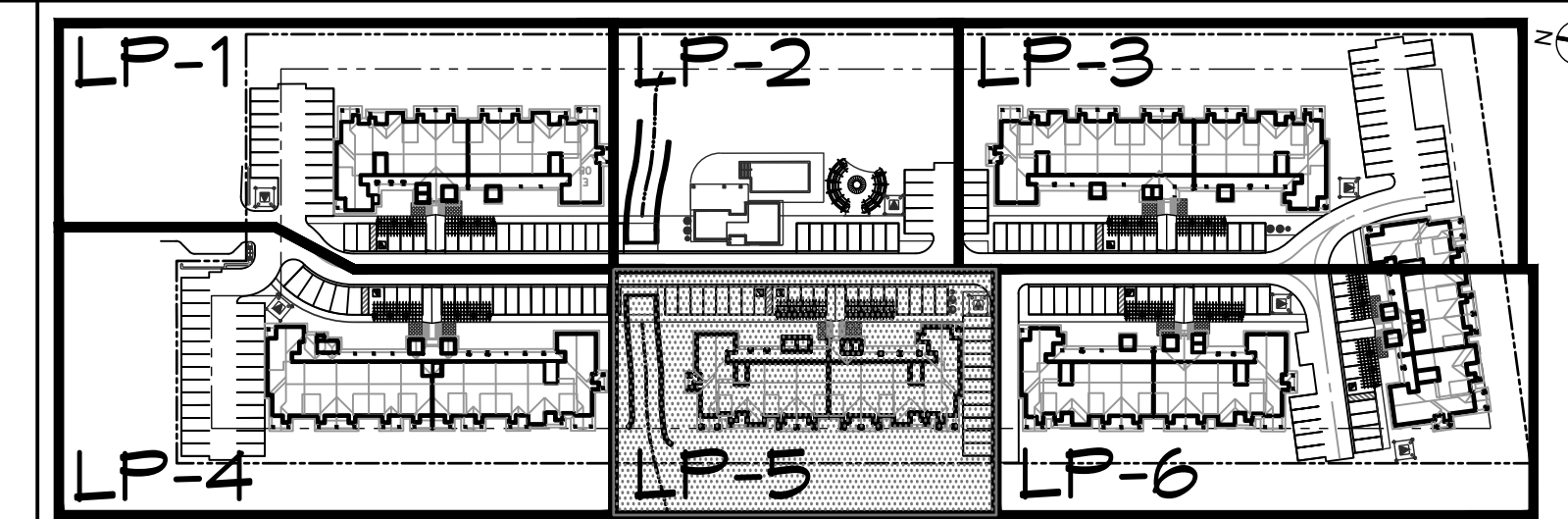
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| 3. | ISSUED FOR 4th SITE PLAN SUBMISSION | 03/10/2023 | |
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| | | | |
|----------|------------------|--|-------------|
| Project | | WYLDEWOOD CREEK TOWN OF COLLINGWOOD | |
| Drawing | | LANDSCAPE PLAN | |
| Drawn By | K.N. / A.M./L.M. | Design By | K.N. / M.H. |
| Check By | K.N. | Scale | 1:150 |
| Project | | 1535-4897 | |
| Drawing | | LP-4 | |

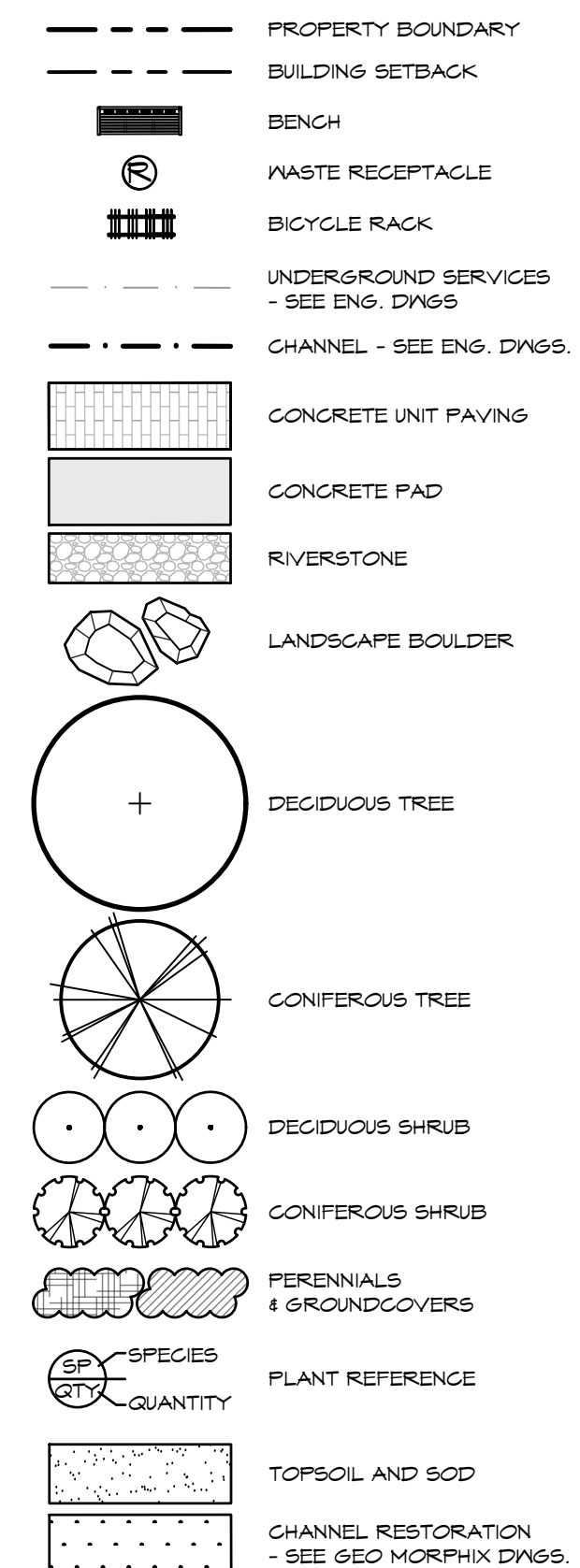
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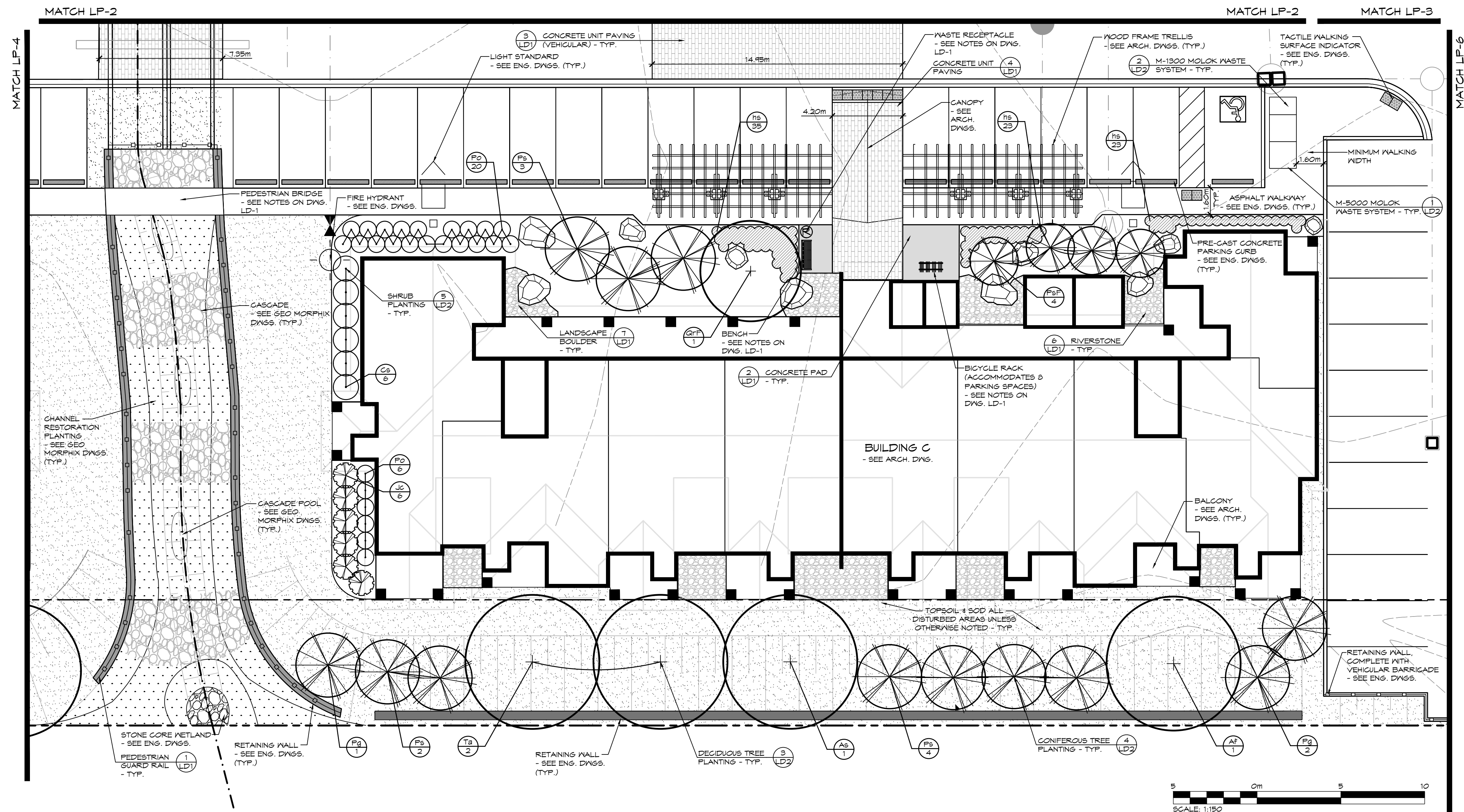
SITE KEY PLAN (NTS)
TOWN OF COLLINGWOOD

LEGEND



NOTES:

1. FOR PLANT IDENTIFICATION, REFER TO THE PLANT LIST ON DRAWING LP-1
2. FOR TREE CLEARANCES, REFER TO NOTES ON DRAWING LP-1
3. FOR GENERAL PLANTING NOTES, REFER TO NOTES ON DRAWING LD-2



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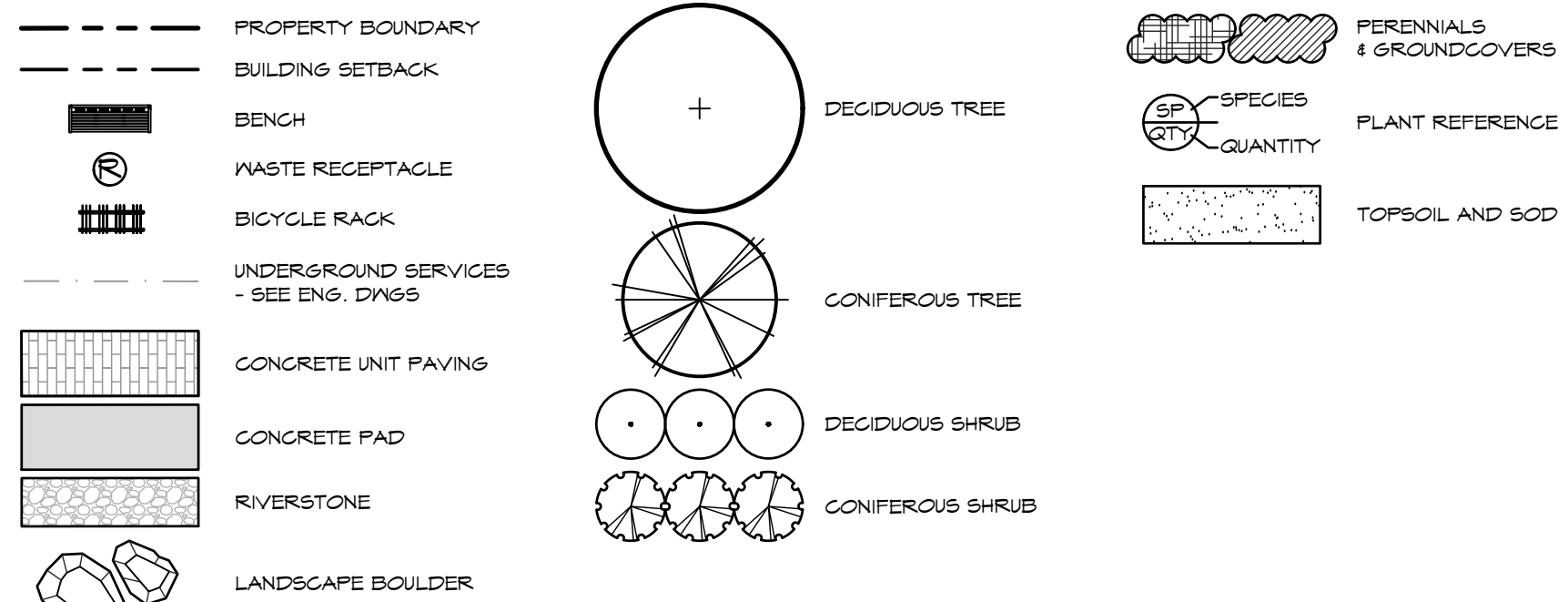
Project: WYLDWOOD CREEK
TOWN OF COLLINGWOOD

Drawing: LANDSCAPE PLAN

Admiral Building
1 First Street, Suite 200
Collingwood, ON, L9Y 1A1
705.446.3510 F
www.cfcrozier.ca
info@cfcrozier.ca

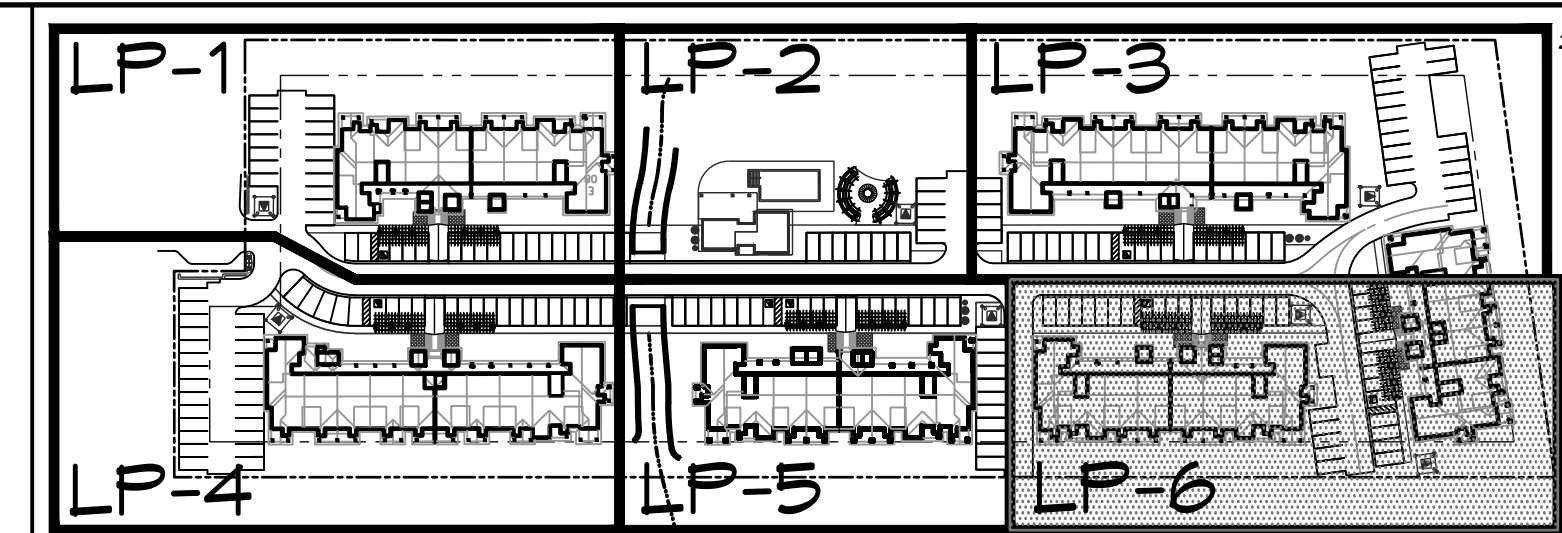
Drawn By: K.J.N. / A.M./L.M. Design By: K.J.N. / M.H. Project: 1535-4897
Check By: K.J.N. Check By: Scale: 1:150 Drawing: LP-5

LEGEND

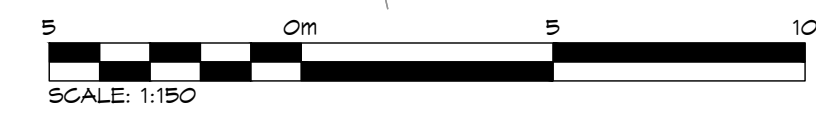
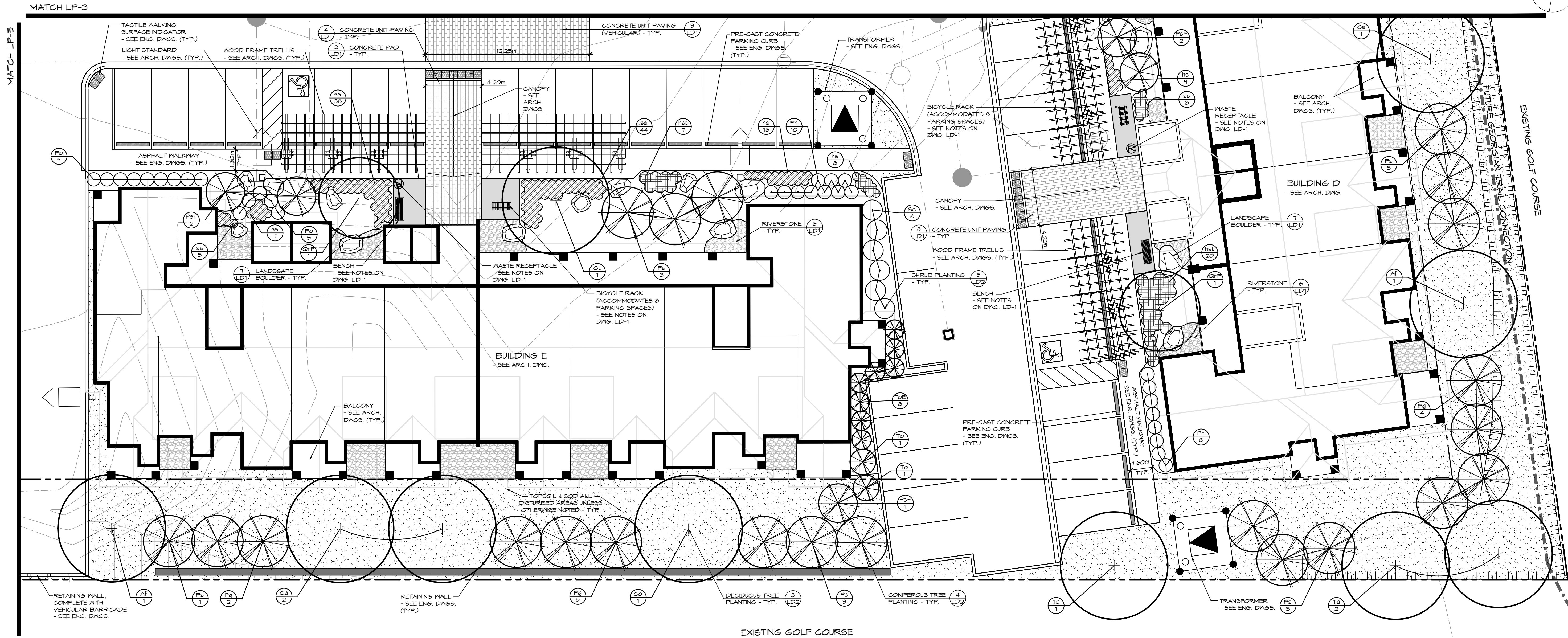
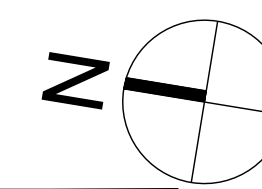


NOTES:

1. FOR PLANT IDENTIFICATION, REFER TO THE PLANT LIST ON DRAWING LP-1
2. FOR TREE CLEARANCES, REFER TO NOTES ON DRAWING LP-1
3. FOR GENERAL PLANTING NOTES, REFER TO NOTES ON DRAWING LD-2



SITE KEY PLAN (NTS)
TOWN OF COLLINGWOOD



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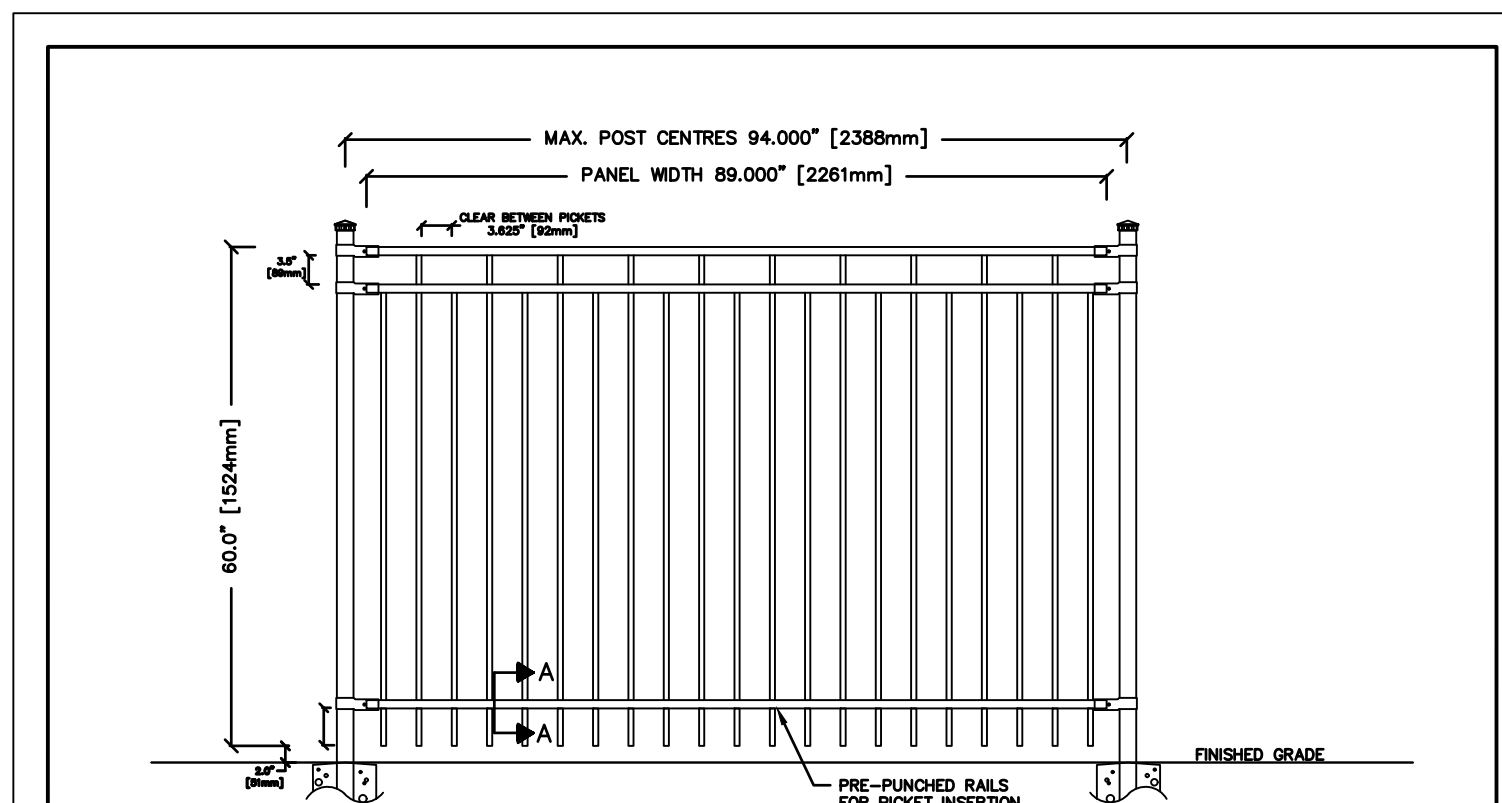
Project: WYLDEWOOD CREEK
TOWN OF COLLINGWOOD

Drawing: LANDSCAPE PLAN

CROZIER
CONSULTING ENGINEERS

ADAMANT BUILDING
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COLLINGWOOD, ON L9Y 1A1
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INFO@CFCROZIER.CA

Drawn By: K.W. / A.M./L.M. Design By: K.W. / M.H. Project: 1535-4897
Check By: K.W. Check By: Scale: 1:150 Drawing: LP-6



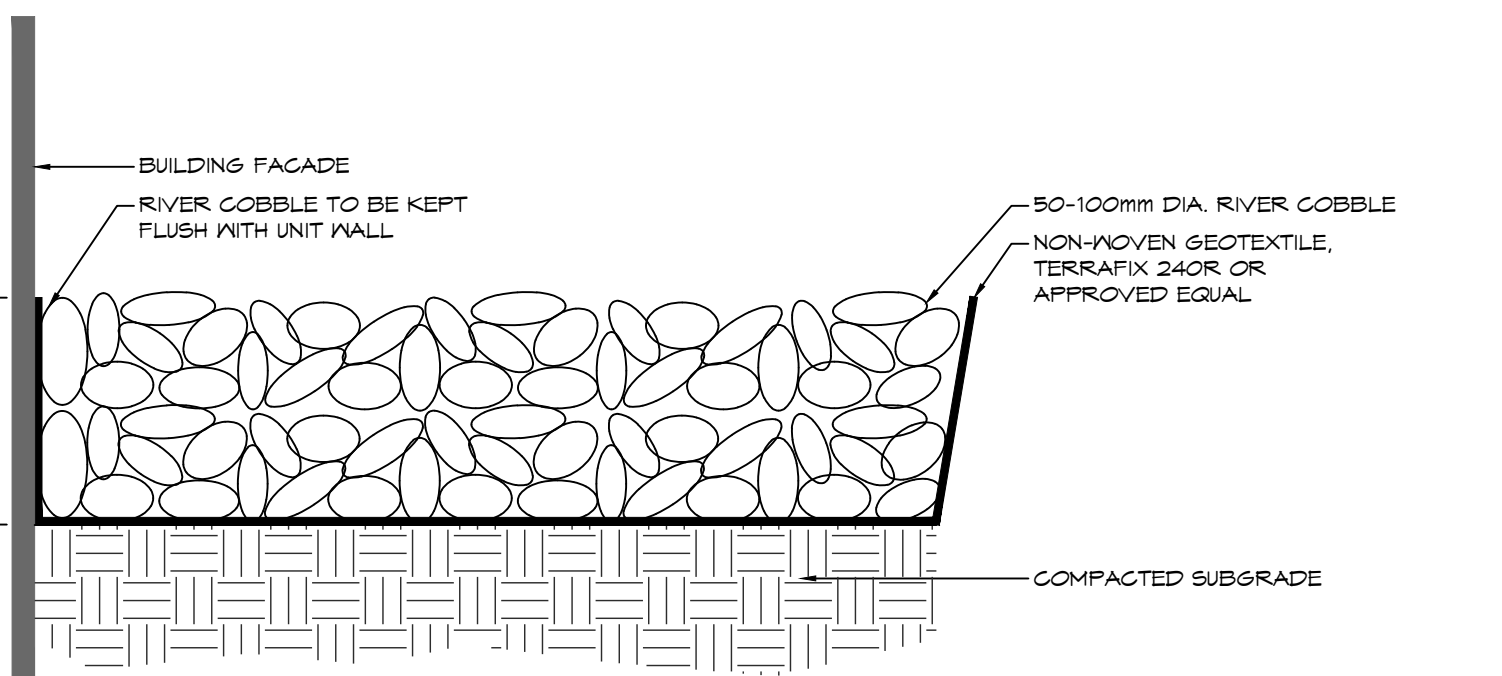
| SPECIFICATIONS: | STANDARD PANEL HEIGHTS: | SECTION A-A |
|---|--|--|
| POSTS, RAILS & PICKETS: EXTRUDED MARINE ALUMINUM 6061-T6 PRIME ALUMINUM, NORTH AMERICAN PRODUCED | 782mm (30") 914mm (36") 1067mm (42") 1219mm (48") 1524mm (60") SHOWN 1829mm (72") | |
| FINISH: SEVEN STAGE ARCHITECTURALLY CERTIFIED PRETREATMENT AS PER ANA 2004, SUPER DURABLE ELECTROLYTICALLY APPLIED POWDER COAT - MIN THICKNESS 2.5 mils | STANDARD PANEL WIDTH: 2372mm (93") (PANELS MAY BE CUT TO SUIT) | |
| POSTS: 51mm x 51mm (2"x2"), .125 WALL STANDARD (.188 WALL AVAILABLE) | POST FLANGES: 76mm x 152mm x 9.5mm (3"x6"x3/8") OPTION: 127mm x 127mm x 5mm (5"x5"x3/8") DECO PLATE | |
| POST CAPS: PYRAMID, BALL, SPIRE OR ACON | RAILS: 25mm x 25mm (1" x 1"), .125 WALL (top and bottom) .180 WALL (sides) | COLOUR: STANDARD COLOURS ARE BLACK, SEMI-BLACK, BROWN, GREEN, WHITE AND FOREST GREEN (CUSTOM COLOURS AVAILABLE UPON REQUEST) |
| PICKETS: 16mm x 16mm (5/8" x 5/8"), .080 WALL | WELDS: ALUMINUM - FULL TACK BOTH SIDES OF PICKET | WARRANTY: 20 YEAR LIMITED NOTE: TAMPER PROOF NUT AVAILABLE FOR BRACKETS |

NOTE:
 1. PEDESTRIAN GUARD RAIL TO BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS.
 2. FENCING AND RETAINING WALL ATTACHMENTS SHALL COMPLY WITH THE LOADING REQUIREMENTS FOR PEDESTRIAN GUARDS UNDER THE ONTARIO BUILDING CODE.

COMMENTS:

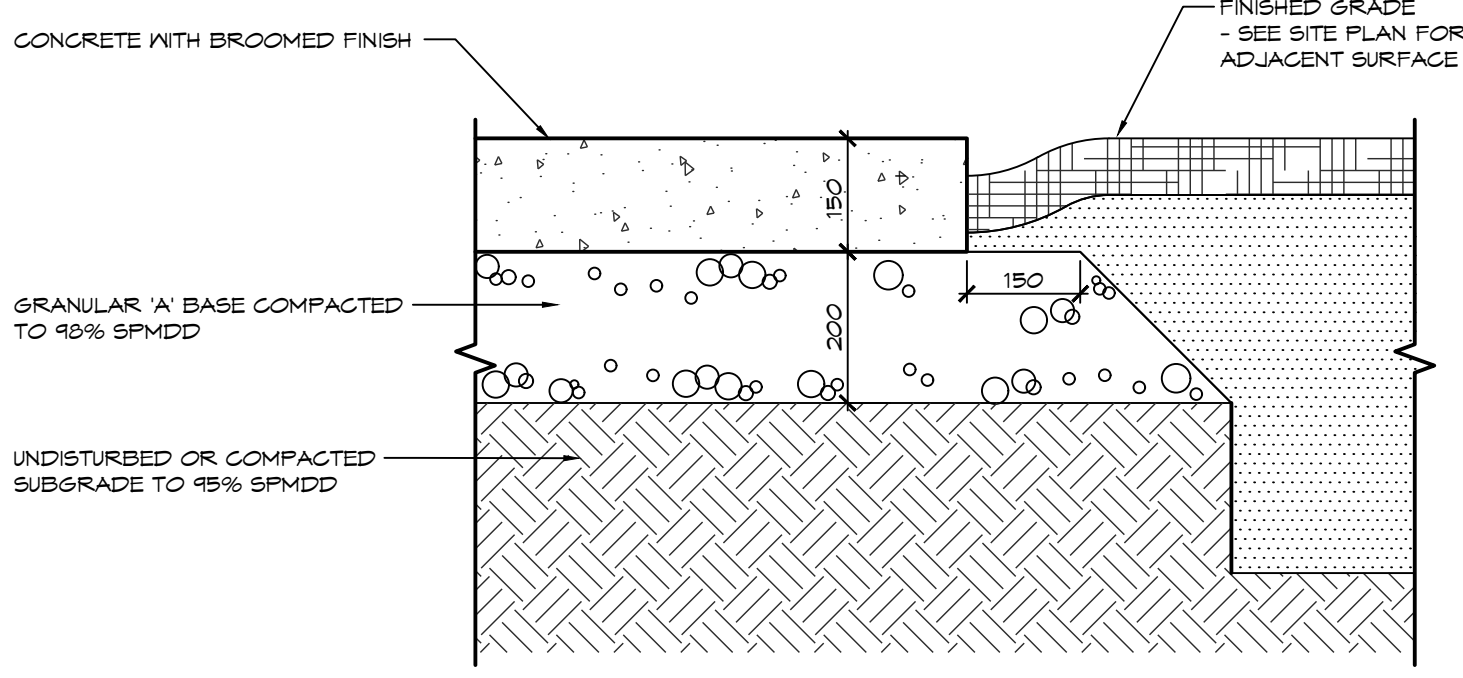
| | | |
|--|---|----------------------------|
| | TITLE IRON EAGLE I ALUMINUM SERIES STYLE 215 | DRAWING No. A215 |
| IRON EAGLE INDUSTRIES 1256 CARDIFF BLVD., MISSISSAUGA, ON L5S 1R1 www.ironagleind.com info@ironagleind.com TEL: 905 670-2558 FAX: 905 670-2536 | CHK'D | DATE: JAN 12, 2018 |

1 PEDESTRIAN GUARD RAIL
 LD1 NTS



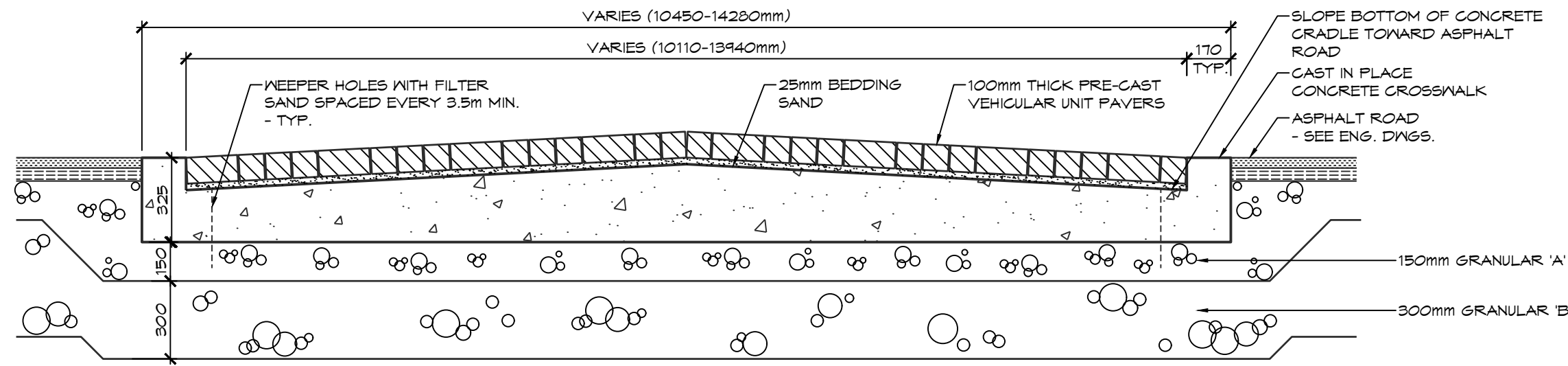
6 RIVERSTONE
 LD1 1:10

NOTES:
 1. CONCRETE PAD SHALL BE IN ACCORDANCE WITH OPSS.MUNI 351 AND MANUFACTURER'S SPECIFICATIONS.



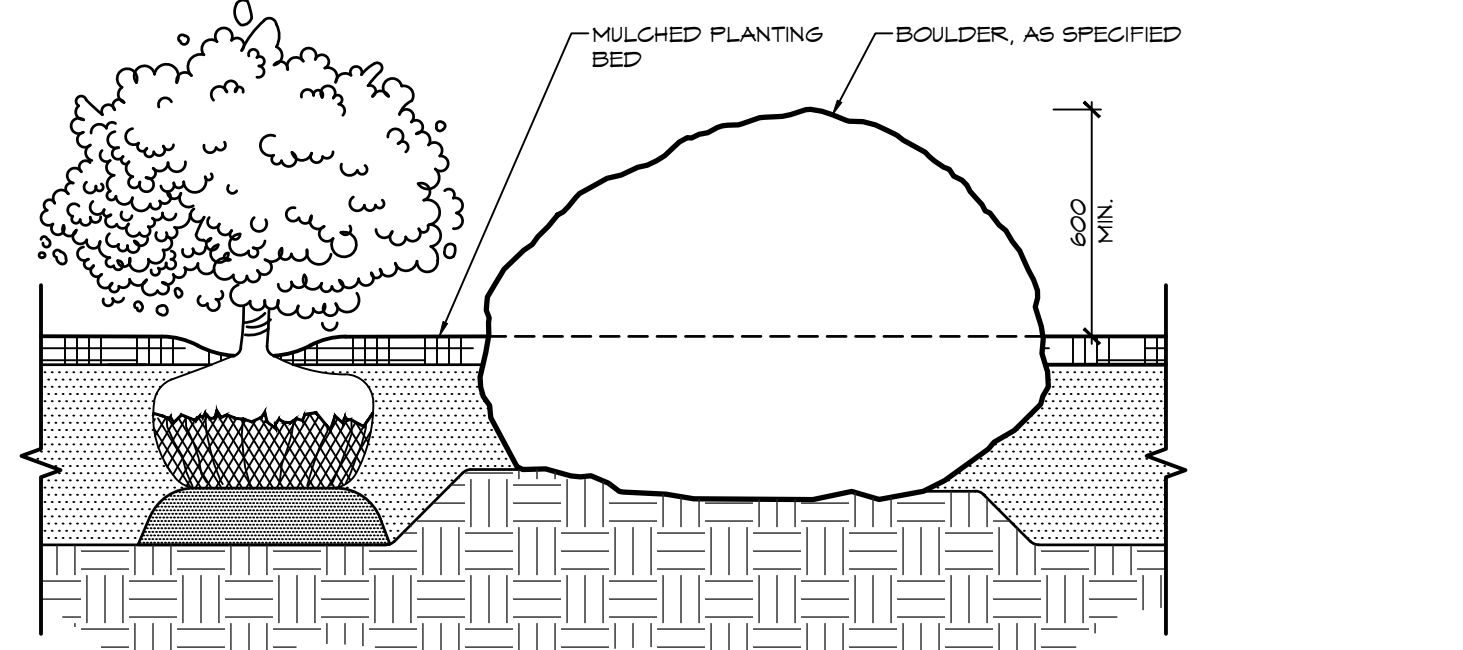
2 CONCRETE PAD
 LD1 1:10

NOTES:
 1. SUBGRADE TO BE COMPACTED TO A MINIMUM DRY DENSITY OF AT LEAST 95% SFMDD. SUBGRADE TO BE PROOF ROLLED AND CERTIFIED PRIOR TO PLACING GRANULAR 'B' LAYER.
 2. GRANULAR 'A' AND 'B' ROAD BASE TO BE COMPACTED TO 100% OF THE MATERIALS RESPECTIVE SFMDD AND PLACED IN MAXIMUM 150mm LIFTS. REFER TO GEOTECHNICAL REPORT FOR FURTHER DETAILS.
 3. ALL GRANULARS AND PLACEMENT TO BE IN ACCORDANCE WITH OPSS 314.
 4. CONCRETE UNIT PAVING SHALL BE IN ACCORDANCE WITH OPSS.MUNI 355 AND MANUFACTURER'S SPECIFICATIONS.
 5. CONCRETE UNIT PAVING SHALL BE SPECIFIED BY OWNER.
 6. ALL GRADING SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE ENGINEERING DRAWINGS.



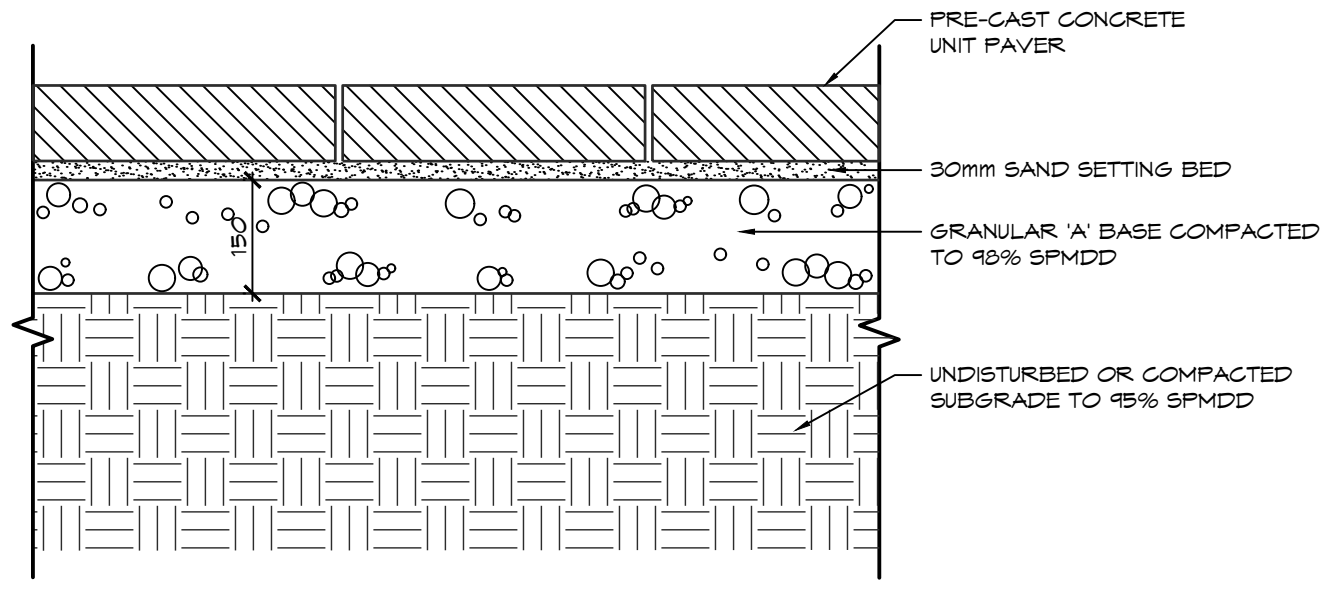
3 CONCRETE UNIT PAVING - VEHICULAR
 LD1 1:20

NOTES:
 1. BOULDER SHALL BE ROUNDED CAP LIMESTONE ROCKERY, SUPPLIED BY MAXWELL'S LANDSCAPE & MASONRY SUPPLY (105.448.0111) OR APPROVED EQUAL.
 2. BOULDER SIZE SHALL BE IN ACCORDANCE TO SCALE DEPICTED ON LANDSCAPE PLANS.
 3. STONE TO BE APPROVED BY THE LANDSCAPE ARCHITECT PRIOR TO INSTALLATION.



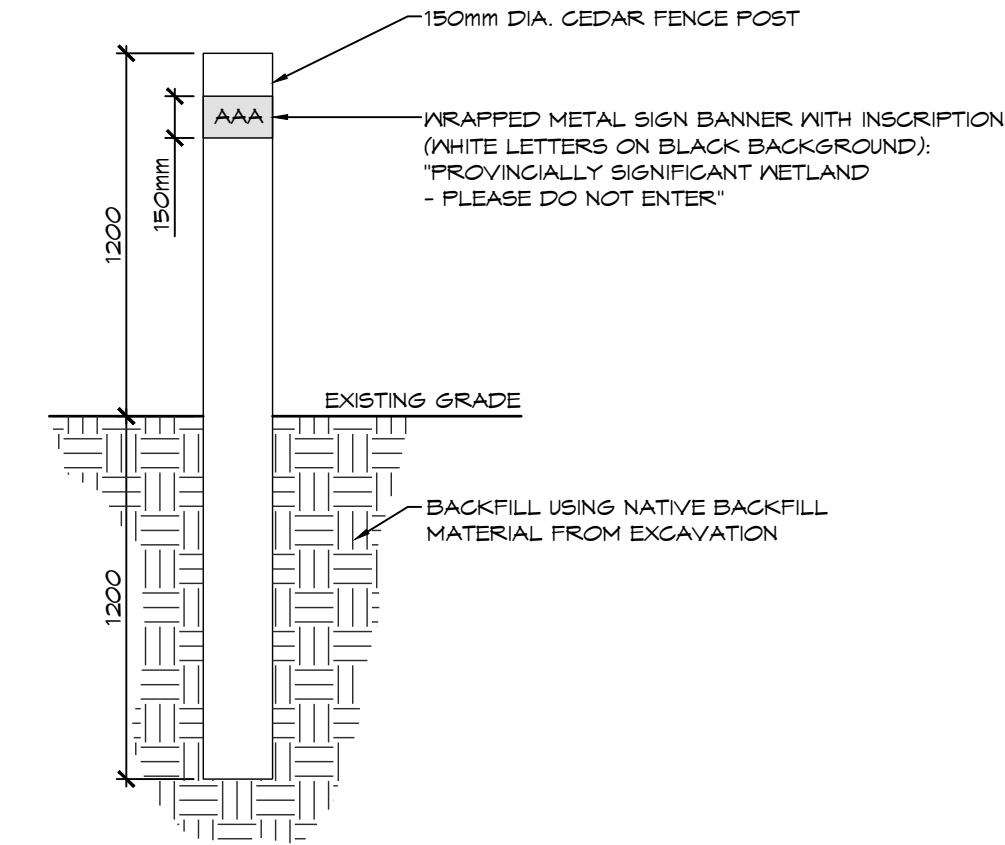
7 LANDSCAPE BOULDER
 LD1 1:20

NOTES:
 1. CONCRETE UNIT PAVING SHALL BE IN ACCORDANCE WITH OPSS.MUNI 355 AND MANUFACTURER'S SPECIFICATIONS.
 2. CONCRETE UNIT PAVING SHALL BE SPECIFIED BY OWNER.



4 CONCRETE UNIT PAVING
 LD1 1:10

NOTES:
 1. ONE SIGN BANNER TO BE LOCATED ON EVERY BOLLARD.
 2. SIGN TO FACE INWARDS TOWARDS RESIDENTIAL DEVELOPMENT.
 3. DEMARCATION POSTS SHALL BE INSTALLED APPROXIMATELY EVERY 10.0M, SEE LANDSCAPE PLAN FOR LOCATIONS.



5 DEMARCATION POST
 LD1 1:25

GENERAL NOTES:

1.0 PEDESTRIAN BRIDGE

- THE PEDESTRIAN BRIDGE SHALL BE SUPPLIED AND INSTALLED BY EAGLE BRIDGE INC., 250 SHIRLEY AVENUE, KITCHENER, ONTARIO, TEL.: 519.743.4393.
- EAGLE BRIDGE INC. SHALL PROVIDE DETAILED SHOP DRAWINGS FOR THE PEDESTRIAN BRIDGE AND ABUTMENTS FOR APPROVAL BY THE LANDSCAPE ARCHITECT PRIOR TO CONSTRUCTION. SHOP DRAWINGS SHALL BE SEALED BY AN ENGINEER LICENSED IN THE PROVINCE OF ONTARIO.
- FORMAL CERTIFICATION OF THE WORKS SHALL BE PROVIDED BY THE ENGINEER RESPONSIBLE FOR THE SEALED SHOP DRAWINGS.

2.0 POOL FENCING

- POOL FENCING SHALL BE IN ACCORDANCE WITH THE TOWN OF COLLINGWOOD POOL ENCLOSURE REQUIREMENTS BY-LAW NO. 31-42.
- POOL FENCING SHALL BE MAJESTIC EAGLE II STYLE, GALVALUME WITH E-COAT, 1524mm TALL, WITH PYRAMID POST CAPS, SUPPLIED BY IRON EAGLE INDUSTRIES INC., 1256 CARDIFF BLVD., MISSISSAUGA, ONTARIO, TEL.: 905.670.2550.
- PEDESTRIAN GATE TO BE THE SAME STYLE AS THE FENCE AND SHALL BE SELF-CLOSING, SELF-LATCHING AND LOCKABLE.
- COLOUR OF FENCE AND GATES TO BE HIGH GLOSS BLACK.
- CONTRACTOR SHALL PROVIDE DETAILED SHOP DRAWINGS FOR APPROVAL BY THE LANDSCAPE ARCHITECT PRIOR TO FABRICATION.

3.0 PLAYSPACE

- PLAY SPACES SHALL CONFORM TO THE REQUIREMENTS OF CAN/CSA-2614-20 (CSA) 'CHILDREN'S PLAYGROUND EQUIPMENT AND SURFACING', LATEST REVISION.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION WITH PLAY STRUCTURE MANUFACTURER TO ENSURE THE MINIMUM FALL PROTECTION ZONE ARE ACCOMMODATED WITHIN THE SAFETY SURFACING AREA. ANY DISCREPANCIES SHALL BE REPORTED TO THE CONSULTANT.
- THE FOLLOWING PLAYGROUND EQUIPMENT SHALL BE SUPPLIED AND INSTALLED BY NATURE'S INSTRUMENTS, 233 PARK STREET WEST, DUNDAS, ONTARIO, TEL.: 1-877-733-1456:
 3-PIECE HARDWOOD OBSTACLE COURSE
 MODEL NO.: NI-PG-610-02
 FOOTING/ATTACHMENTS: INSTALLED AS PER MANUFACTURER'S SPECIFICATIONS
 HARDWOOD FALLEN LOG
 MODEL NO.: NI-PG-603-03
 FOOTING/ATTACHMENTS: INSTALLED AS PER MANUFACTURER'S SPECIFICATIONS
 LOG BORDER
 MODEL NO.: NI-PG-605-02
 FOOTING/ATTACHMENTS: INSTALLED AS PER MANUFACTURER'S SPECIFICATIONS
 BARRIER-FREE LOG BORDER
 MODEL NO.: NI-PG-605-06
 FOOTING/SPECIFICATIONS: INSTALLED AS PER MANUFACTURER'S SPECIFICATIONS

4.0 SITE FURNITURE

- THE FOLLOWING SITE FURNITURE SHALL BE SUPPLIED AND INSTALLED BY PARIS MANUFACTURING LTD., P.O. BOX 10, 21 SCOTT AVENUE, PARIS, ONTARIO, TEL.: 1.800.397.6310 (MARK HICKS):
 BICYCLE RACK
 MODEL NO.: SBR5
 METAL FINISH: POWDER COATED JET BLACK GLOSS
 FOOTING/ ATTACHMENTS: SECURED TO CONCRETE PAVING WITH STAINLESS STEEL FASTENERS
 RECEPTACLE
 MODEL NO.: PSFT32
 METAL FINISH: POWDER COATED JET BLACK GLOSS
 FOOTING/ ATTACHMENTS: SECURED TO CONCRETE PAVING WITH STAINLESS STEEL FASTENERS
 BENCH
 MODEL NO.: RSPS-6
 METAL FINISH: POWDER COATED JET BLACK GLOSS
 FOOTING/ ATTACHMENTS: SECURED TO CONCRETE PAVING WITH STAINLESS STEEL FASTENERS

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STAMP

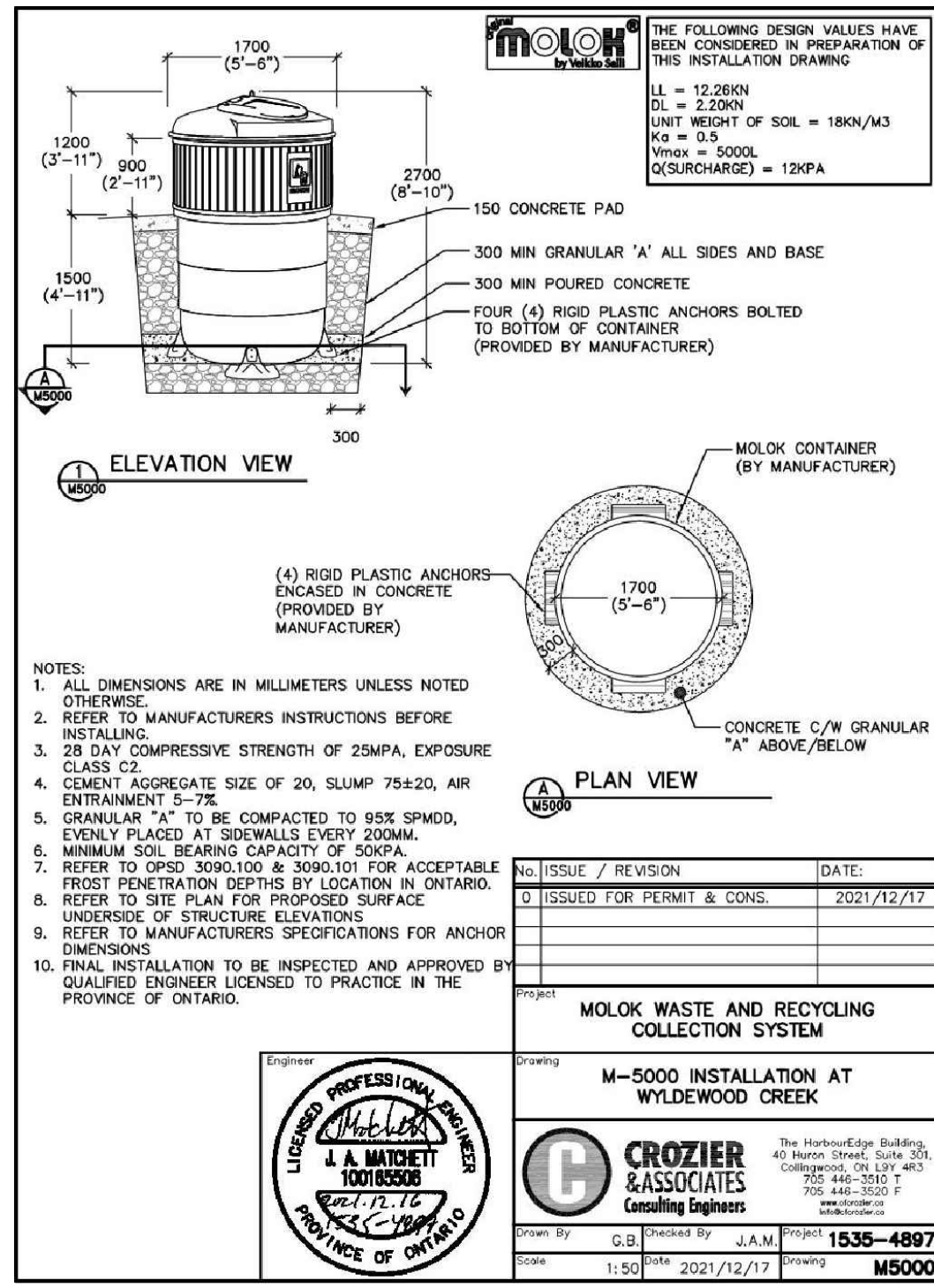
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 TOWN OF COLLINGWOOD

Drawing: LANDSCAPE DETAILS

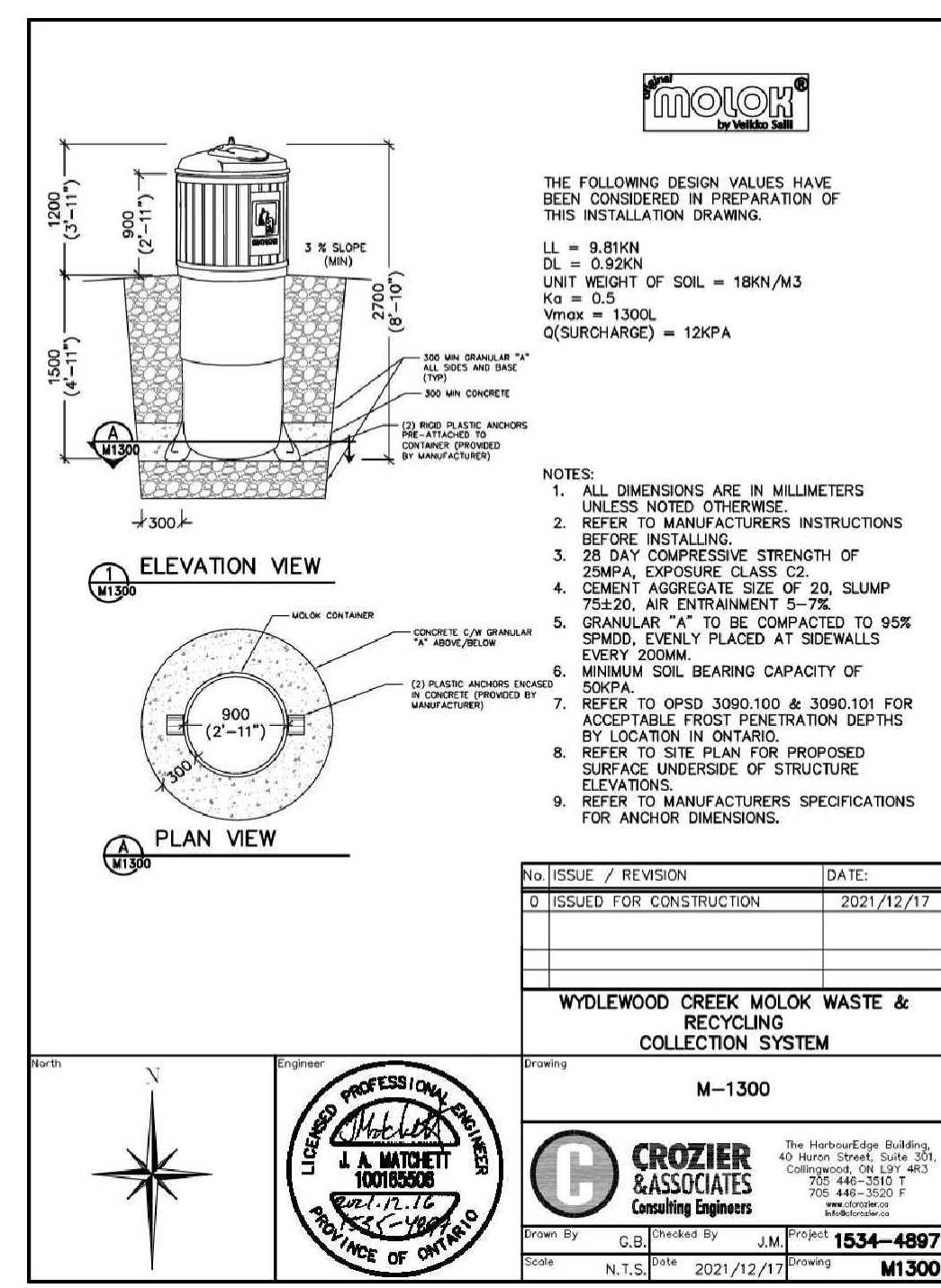
CROZIER CONSULTING ENGINEERS

ADMIRAL BUILDING
 1 FIRST STREET, SUITE 200
 COLLINGWOOD, ON L9Y 1A1
 705-446-3510 T
 705-446-3520 F
 WWW.CFCROZIER.CA
 INFO@CFCROZIER.CA

Drawn By: K.J.L. / A.M. Design By: K.J.L. Project: 1535-4897
 Check By: K.J.L. Scale: AS SHOWN Drawing: LD-1

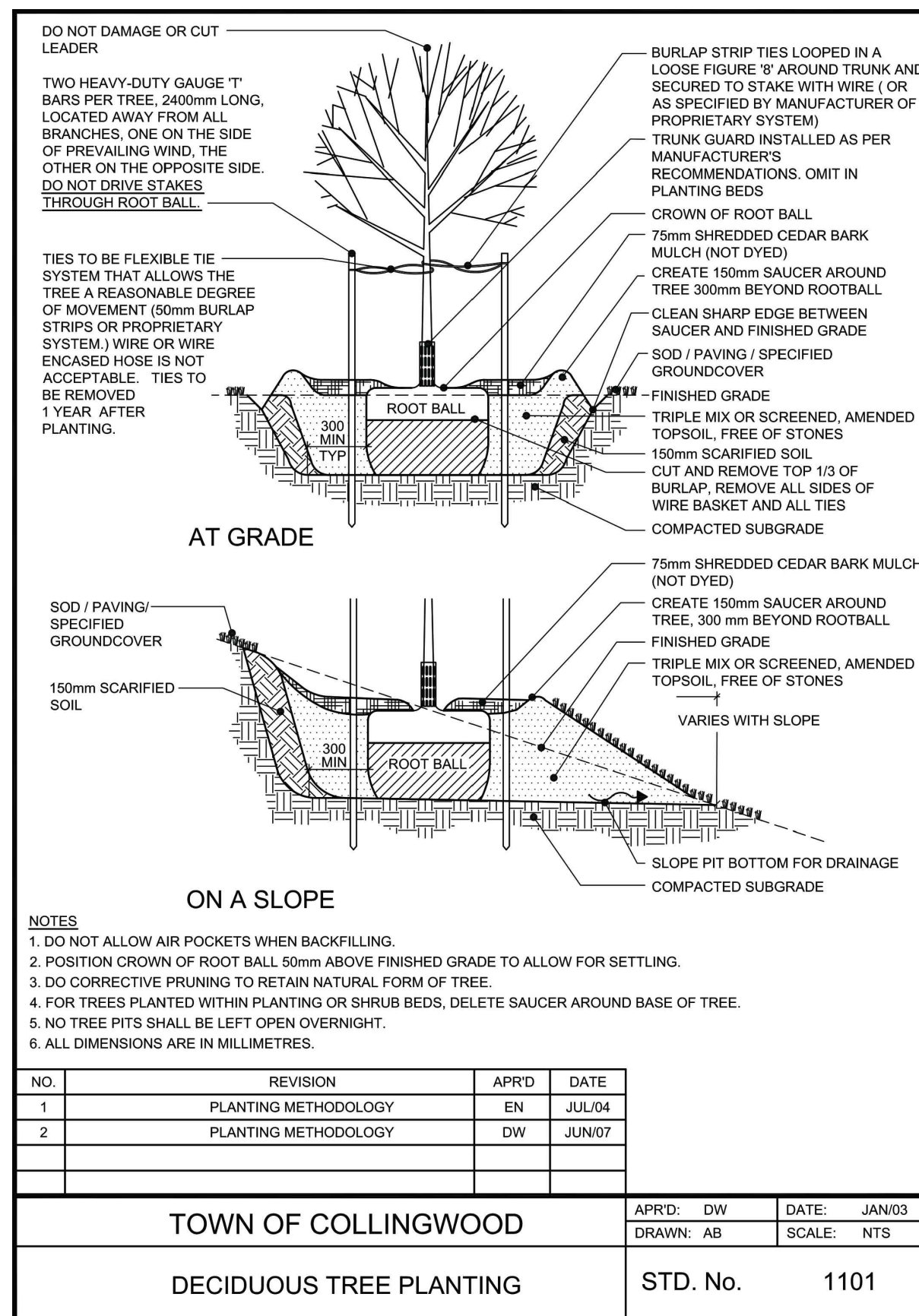


1 M-5000 MOLOK WASTE SYSTEM
LD2 NTS

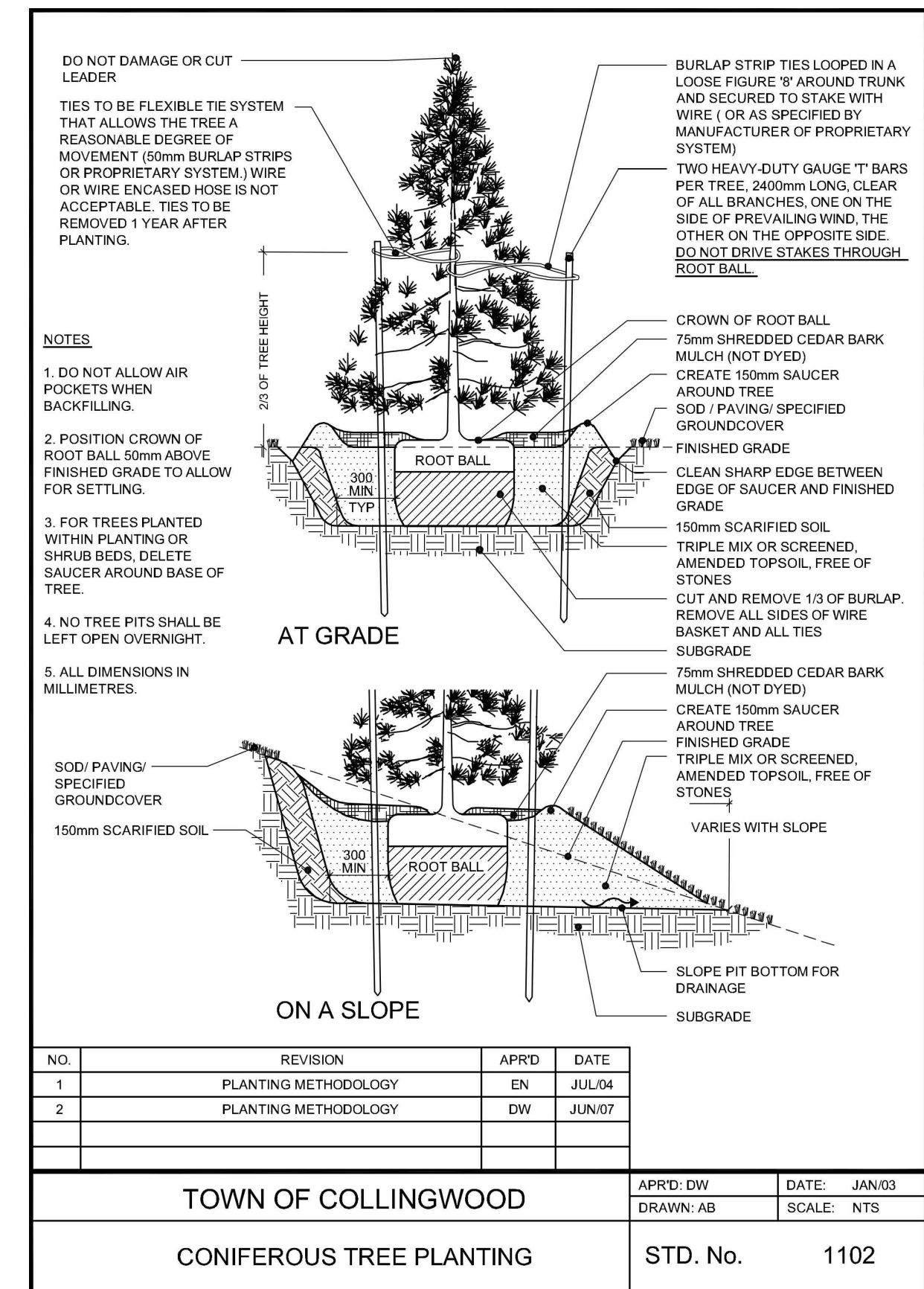


2 M-1300 MOLOK WASTE SYSTEM
LD2 NTS

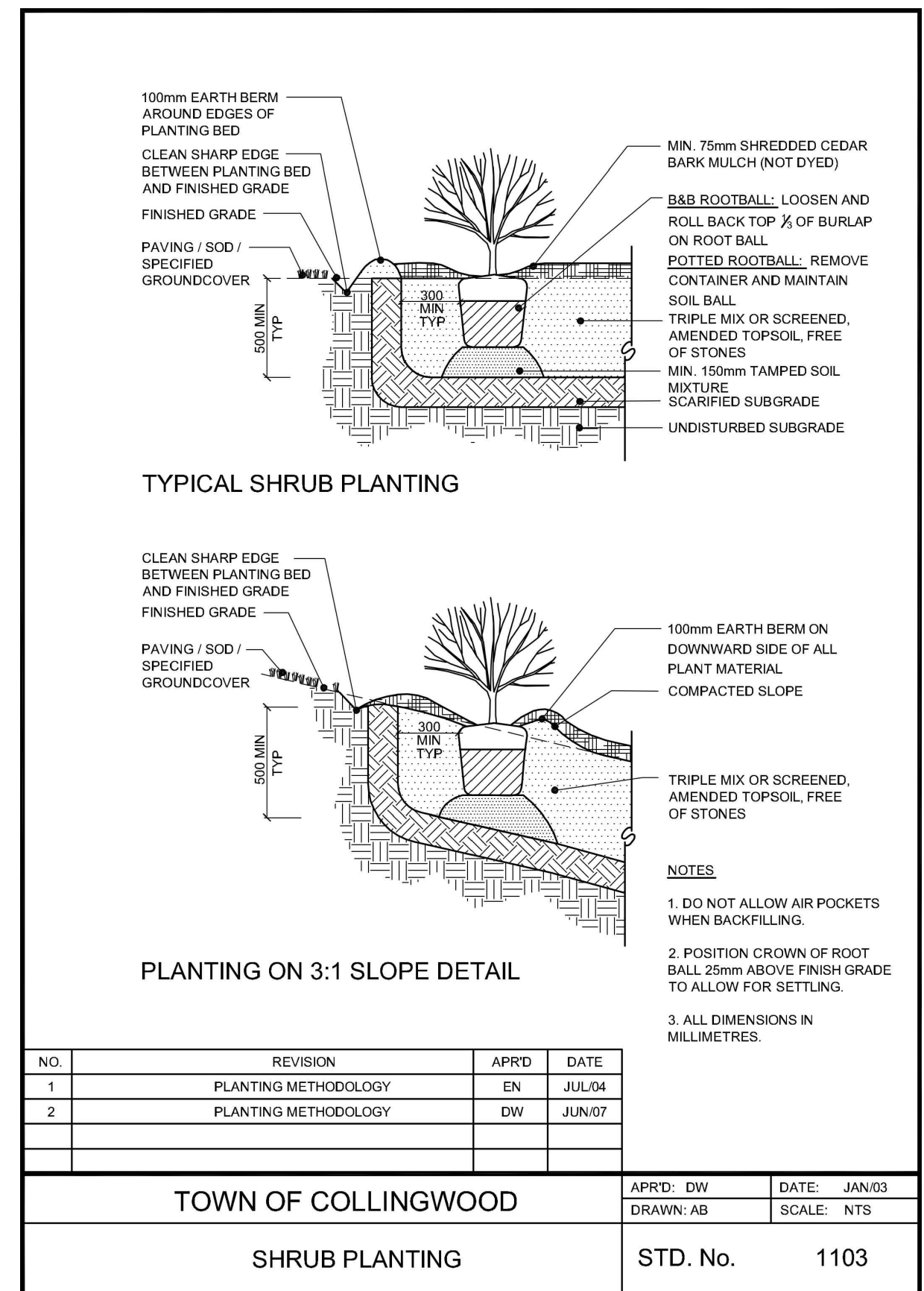
- PLANTING NOTES:**
- ALL WORKMANSHIP TO THE STANDARDS OF THE LANDSCAPE ONTARIO HORTICULTURAL TRADES ASSOCIATION AND THE CANADIAN LANDSCAPE STANDARDS.
 - TREE LOCATIONS SHALL BE STAKED ON SITE BY THE LANDSCAPE CONTRACTOR AND APPROVED BY THE LANDSCAPE ARCHITECT PRIOR TO PLANTING.
 - BACKFILL IS TO CONSIST OF SOIL NATIVE TO THE SITE OR GENERAL SOIL TYPE/CLASS NATIVE TO THE SITE. SOIL AMENDMENT MAY BE REQUIRED BASED ON SOURCE OF IMPORTED OR EXISTING SITE QUALITY OF TOPSOIL. PROVIDE NUTRIENT ANALYSIS OF TOPSOIL TO BE USED FOR LANDSCAPE PURPOSES IN ORDER TO DETERMINE SOIL AMENDMENT REQUIREMENTS.
 - REPORT ALL DISCREPANCIES IN WRITING TO THE LANDSCAPE ARCHITECT.
 - CONTRACTOR SHALL MAINTAIN ALL LANDSCAPE AREAS UNTIL OWNER'S ACCEPTANCE OF PROJECT.
 - CONTRACTOR TO LOCATE ALL UNDERGROUND UTILITIES.
 - PLANTING MAY BE ADJUSTED TO SUIT LOCATIONS OF SITE UTILITY STRUCTURES, SERVICES AND DRIVEWAYS.
 - TREE FITS OR PLANTING BEDS LOCATED WITHIN 1 METER OF UNDERGROUND UTILITIES ARE TO BE HAND DUG.
 - SUBMIT WRITTEN GUARANTEE TO THE EFFECT THAT ALL PLANTS ACCEPTED DURING THE PERIOD OF JANUARY 1ST TO JULY 15TH SHALL BE GUARANTEED UNTIL JULY 15TH THE SECOND FOLLOWING YEAR. PLANTS ACCEPTED DURING THE PERIOD OF JULY 15TH TO DECEMBER 31ST SHALL BE GUARANTEED FOR TWO YEARS FROM THE DATE OF ACCEPTANCE. THE GUARANTEE PERIOD LISTED ABOVE SHALL APPLY TO ALL "NURSERY GROWN" PLANTS AS PER TOWN OF COLLINGWOOD'S TWO YEAR MAINTENANCE REQUIREMENTS.
 - ALL MATERIAL SHALL BE APPROVED BY THE LANDSCAPE ARCHITECT PRIOR TO INSTALLATION.
 - SOD ANY AREAS MARKED WITH NURSERY SOD ON 150mm CLEAN TOPSOIL, FINE GRADE AND SOD ALL BOULEVARD AREAS TO MUNICIPAL SPECIFICATIONS AND REPAIR DAMAGE TO ADJACENT PROPERTIES AS REQUIRED.
 - FINAL INSPECTION AND ACCEPTANCE OF PLANTING WORK SHALL COINCIDE WITH THE FINAL INSPECTION AND ACCEPTANCE OF ALL WORK INCLUDED IN THE CONTRACT.
 - AT THE TIME OF FINAL INSPECTION, ALL PLANTS SHALL BE IN A HEALTHY, VIGOROUS GROWING CONDITION AND PLANTED IN FULL ACCORDANCE WITH DRAWINGS AND CONDITIONS.



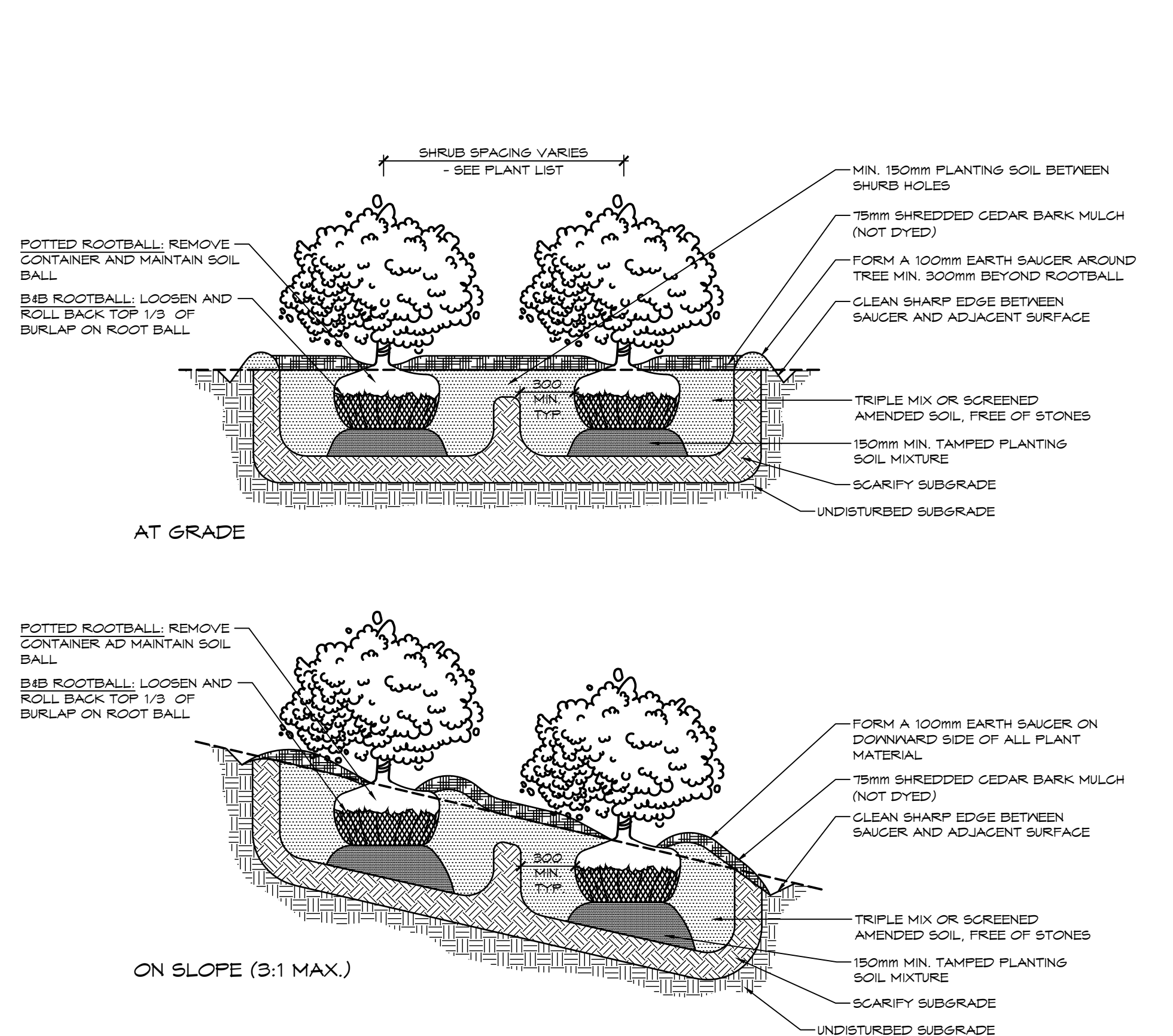
3 DECIDUOUS TREE PLANTING
LD2 NTS



4 CONIFEROUS TREE PLANTING
LD2 NTS



5 SHRUB PLANTING
LD2 NTS



6 MULCH UNDERSTOREY SHRUB PLANTING
LD2 NTS

1. THIS DRAWING IS THE EXCLUSIVE PROPERTY OF C.F. CROZIER & ASSOCIATES INC. AND THE REPRODUCTION OF ANY PART WITHOUT PRIOR WRITTEN CONSENT OF THIS OFFICE IS STRICTLY PROHIBITED.

2. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS, LEVELS, AND DATUMS ON SITE AND REPORT ANY DISCREPANCIES OR OMISSIONS TO THIS OFFICE PRIOR TO CONSTRUCTION.

3. THIS DRAWING IS TO BE READ AND UNDERSTOOD IN CONJUNCTION WITH ALL OTHER PLANS AND DOCUMENTS APPLICABLE TO THIS PROJECT.

4. DO NOT SCALE THE DRAWINGS.

5. ALL EXISTING UNDERGROUND UTILITIES TO BE VERIFIED IN THE FIELD BY THE CONTRACTOR PRIOR TO CONSTRUCTION.

| NO. | REVISION | APPRD | DATE |
|-----|-------------------------------------|-------|------------|
| 1. | ISSUED FOR 2nd SITE PLAN SUBMISSION | EN | 04/08/2021 |
| 2. | ISSUED FOR 3rd SITE PLAN SUBMISSION | EN | 01/14/2022 |
| 3. | ISSUED FOR 4th SITE PLAN SUBMISSION | DW | 03/10/2023 |

TOWN OF COLLINGWOOD
SHRUB PLANTING
STD. No. 1103

APPRD: DW
DRAWN: AB
DATE: JAN/03
SCALE: NTS

WYLDWOOD CREEK
TOWN OF COLLINGWOOD

LANDSCAPE DETAILS

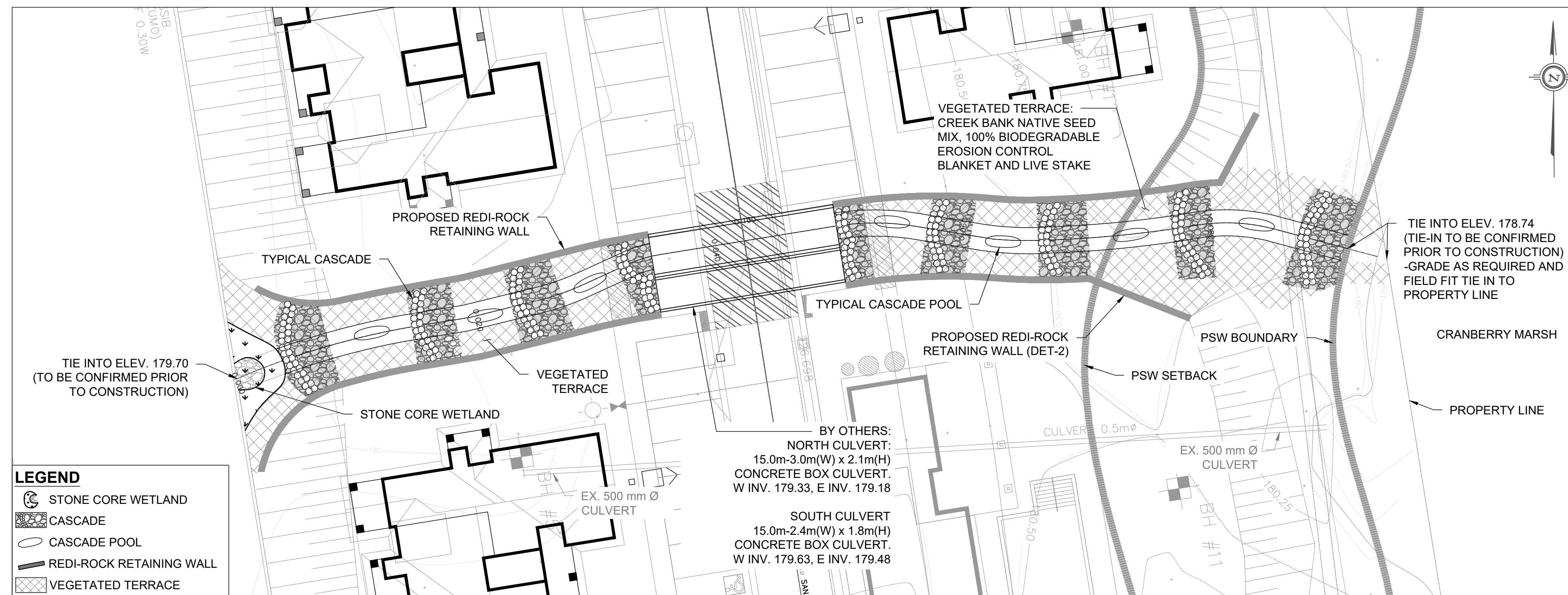
CROZIER CONSULTING ENGINEERS

ADMIRAL BUILDING
1 FIRST STREET, SUITE 200
COLLINGWOOD, ON, L9Y 1A1
705-446-3510 T
705-446-3520 F
WWW.CFCROZIER.CA
INFO@CFCROZIER.CA

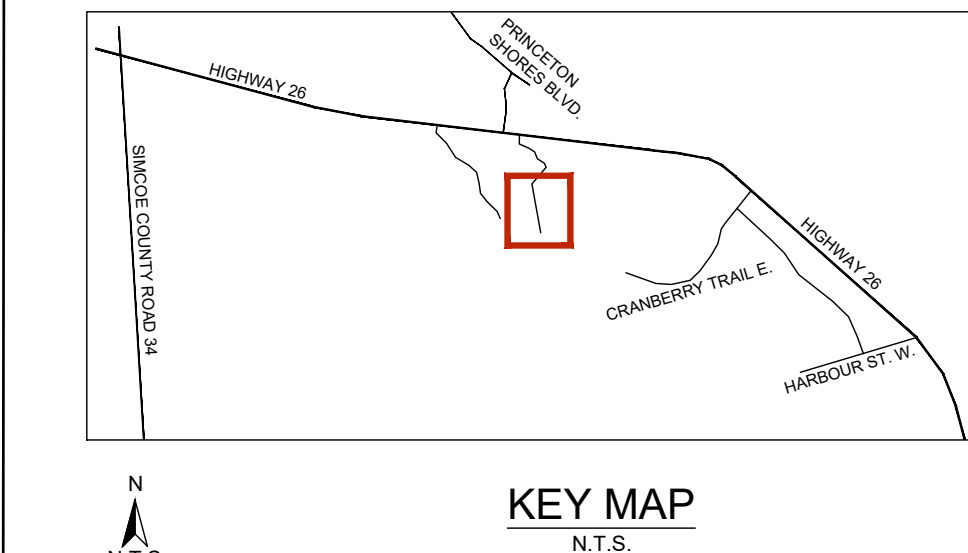
Drawn By: K.J.L. / A.M.
Check By: K.J.L.

Design By: K.J.L.
Check By: K.J.L.

Project: 1535-4897
Scale: AS SHOWN
Drawing: LD-2



PLANFORM
1:250



- GENERAL NOTES**
- ALL CONTRACT DRAWINGS, SPECIFICATIONS AND APPLICABLE PERMITS MUST BE KEPT ON SITE DURING CONSTRUCTION FOR REFERENCE.
 - THE CONTRACTOR MUST NOTIFY THE CONTRACT ADMINISTRATOR AND CONSERVATION AUTHORITY OF THE INTENT TO COMMENCE WORK AT LEAST 48 HOURS IN ADVANCE.
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 - LAYOUT MUST BE REVIEWED AND APPROVED BY THE CONTRACT ADMINISTRATOR.
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 - THE WEATHER FORECAST SHOULD BE CONTINUALLY MONITORED TO ENSURE THAT WORKS ARE UNDERTAKEN ONLY DURING FAVOURABLE WEATHER CONDITIONS.
 - COMPLETE THE WORKS WITH MINIMAL AVOIDABLE INTERRUPTIONS ONCE THEY COMMENCE.

- SITE AND MATERIAL MANAGEMENT**
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 - STOCKPILES MUST BE LOCATED OUTSIDE THE ISOLATED WORK AREAS.
 - STABILIZE STOCKPILED SOILS THAT ARE STORED FOR PROLONGED PERIODS WITH THE APPLICATION OF A NURSE CROP AT A RATE OF 60 kg/ha.
 - STABILIZE, TEMPORARILY OR PERMANENTLY, ANY DISTURBED AREAS AS WORK PROGRESSES, OR SOON AS CONDITIONS ALLOW. ON SOILS THAT WILL BE EXPOSED FOR PROLONGED PERIODS, TEMPORARILY INSTALL A BIODEGRADABLE EROSION CONTROL BLANKET ON EXPOSED SOILS, OR APPLY A NURSE CROP AT A RATE OF 60 KG/HA.
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 - FISH MUST BE REMOVED FROM THE WORK AREA ONCE ISOLATED. FISH SALVAGE MUST BE COMPLETED BY A QUALIFIED TECHNICIAN WITH A LICENSE FROM THE ONTARIO MINISTRY OF NATURAL RESOURCES AND FORESTRY.

| NO. | DATE | BY | REVISIONS |
|-----|------------|-----|------------------|
| 1. | 2023-02-07 | BWM | THIRD SUBMISSION |

DESIGNED BY: P.V.
 DRAWN BY: B.W.M.
 CHECKED BY: P.V.
 DATE: FEBRUARY 2023

PROFESSIONAL GEOSCIENTIST
 PAUL V. VILLARD
 PRACTISING MEMBER
 0957
 ONTARIO

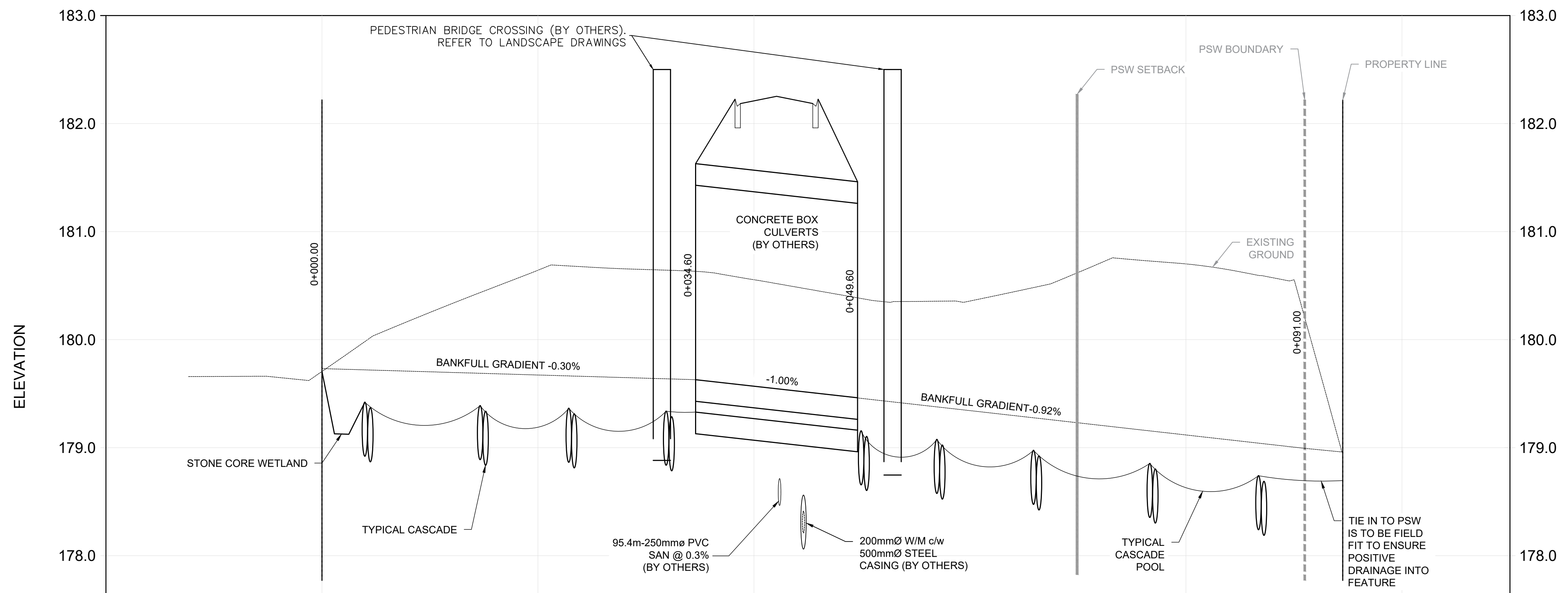
GEO MORPHIX™
 36 Main Street North, PO Box 205
 Campbellville, Ontario L0P 1B0
 T: 416.920.0926
 www.geomorphix.com

2023-02-07

**WYLDEWOOD CREEK
 BRANDY LANE HOMES**

**CHANNEL RESTORATION DESIGN
 PLANFORM AND PROFILE**

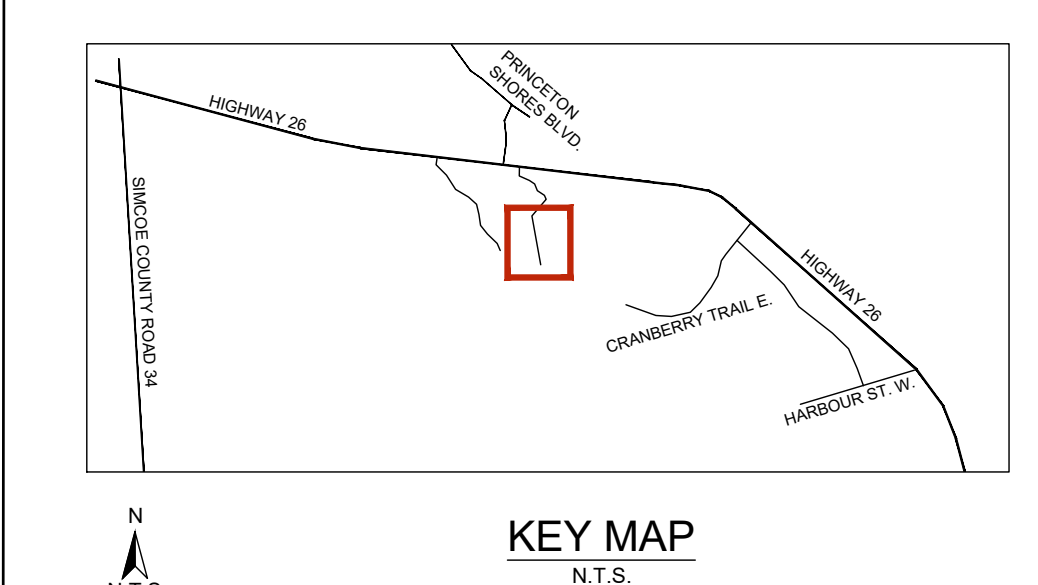
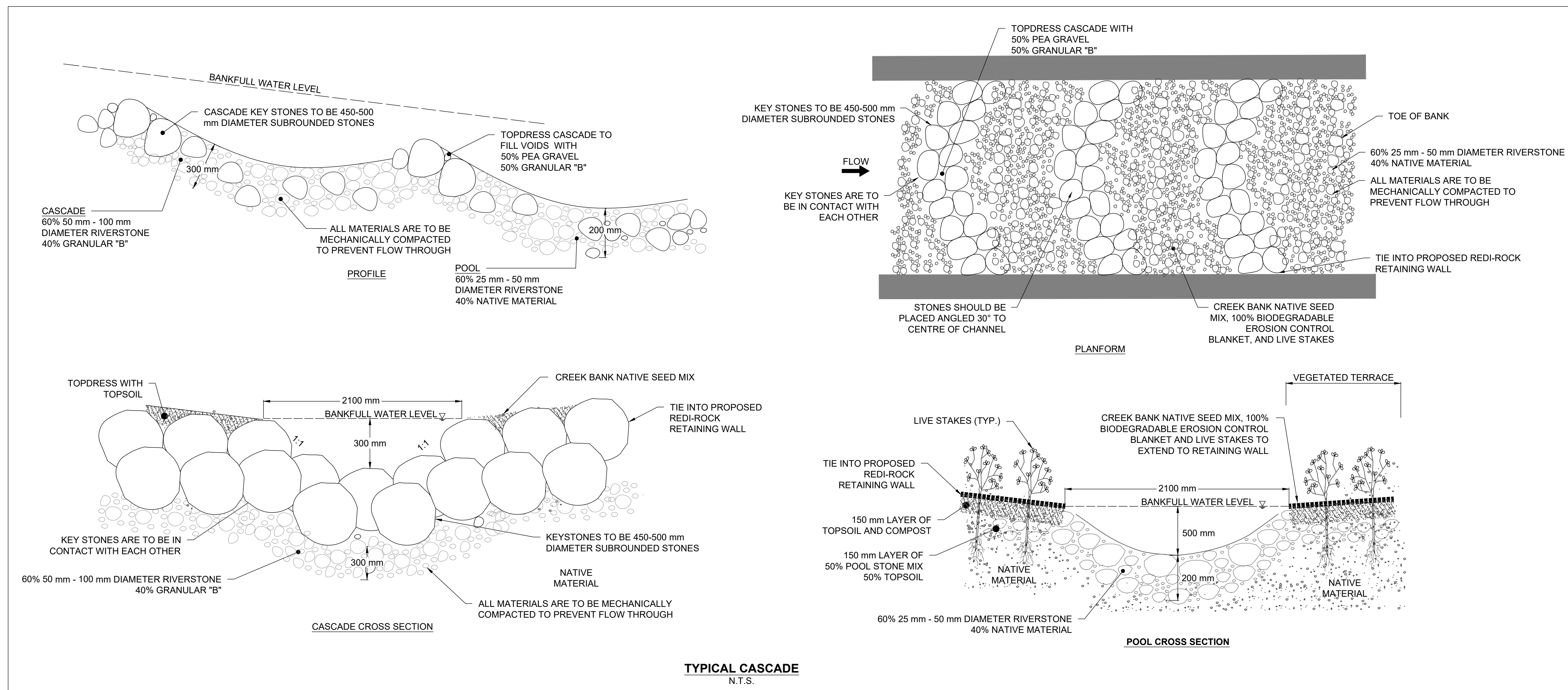
PROJECT No.: 21032
 SCALE: AS NOTED
 DRAWING No.: GEO-1
 SHEET 1 OF 4



| LOW FLOW CHANNEL INVERT | 179.70 | 179.13 | 179.42 | 179.21 | 179.39 | 179.18 | 179.36 | 179.15 | 179.34 | 179.26 | 179.15 | 178.91 | 179.08 | 178.83 | 178.97 | 178.72 | 178.85 | 178.60 | 178.74 | 178.74 | LOW FLOW CHANNEL INVERT |
|-------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-------------------------|
| STATION | 0+000 | | | | | 0+020 | | | | 0+040 | | | | 0+060 | | | | | | 0+100 | STATION |

PROFILE
H = 1:250; V=1:25

SCALED FOR PLOT ON 'ARCH D'



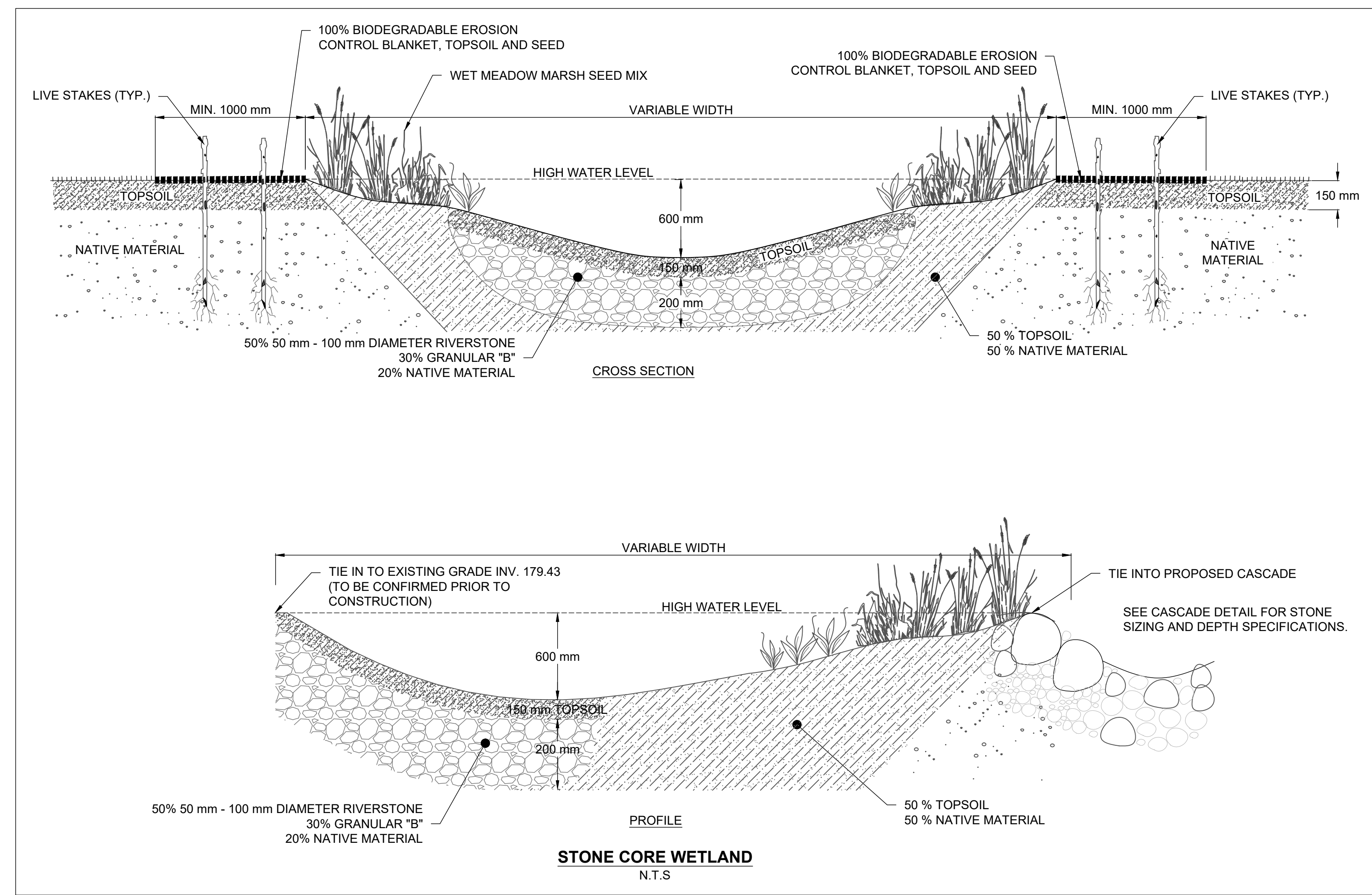
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SCALED FOR PLOT ON 'ARCH D'

| | | | |
|-------------------|------------|---------------------|------------------|
| 1. | 2023-02-07 | BWM | THIRD SUBMISSION |
| | DATE | BY | REVISIONS |
| DESIGNED BY: P.V. | | CHECKED BY: P.V. | |
| DRAWN BY: B.W.M. | | DATE: FEBRUARY 2023 | |

PROFESSIONAL GEOSCIENTIST
 PAUL V. VILLARD
 PRACTISING MEMBER
 0957
 ONTARIO
 2023-02-07

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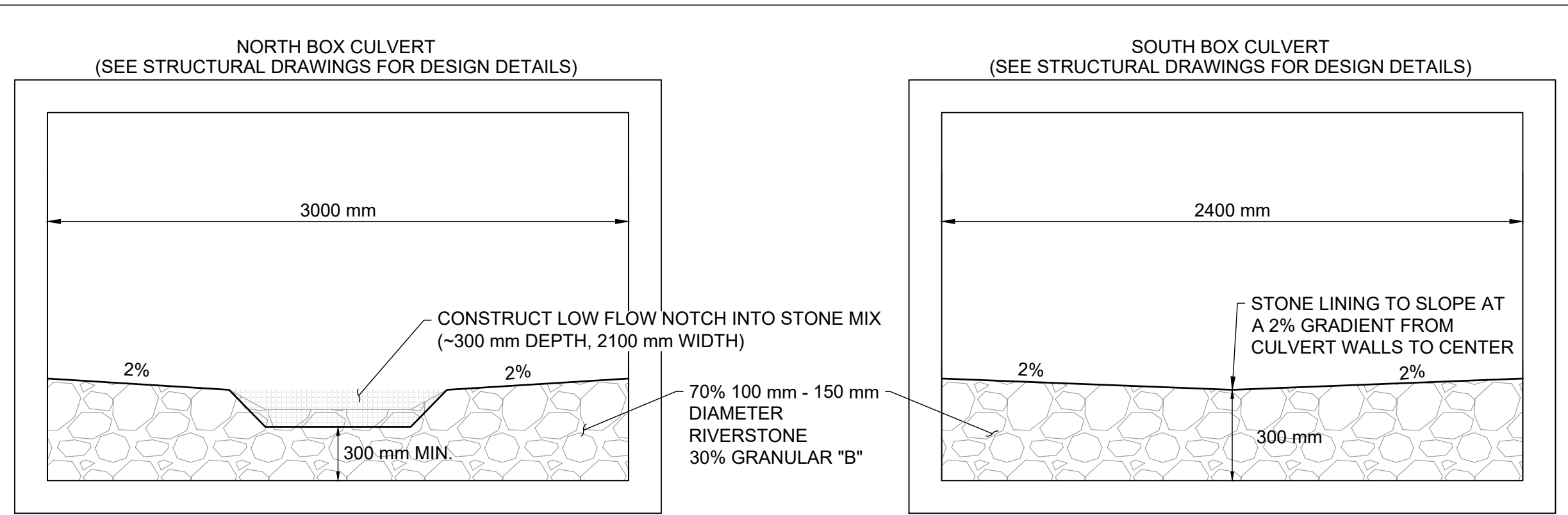
**WYLDEWOOD CREEK
 BRANDY LANE HOMES**

**CHANNEL RESTORATION DESIGN
 RESTORATION DETAILS**

| | |
|--------------------|--------------------|
| PROJECT No.: 21032 | DRAWING No.: DET-1 |
| SCALE: AS NOTED | SHEET 2 OF 4 |

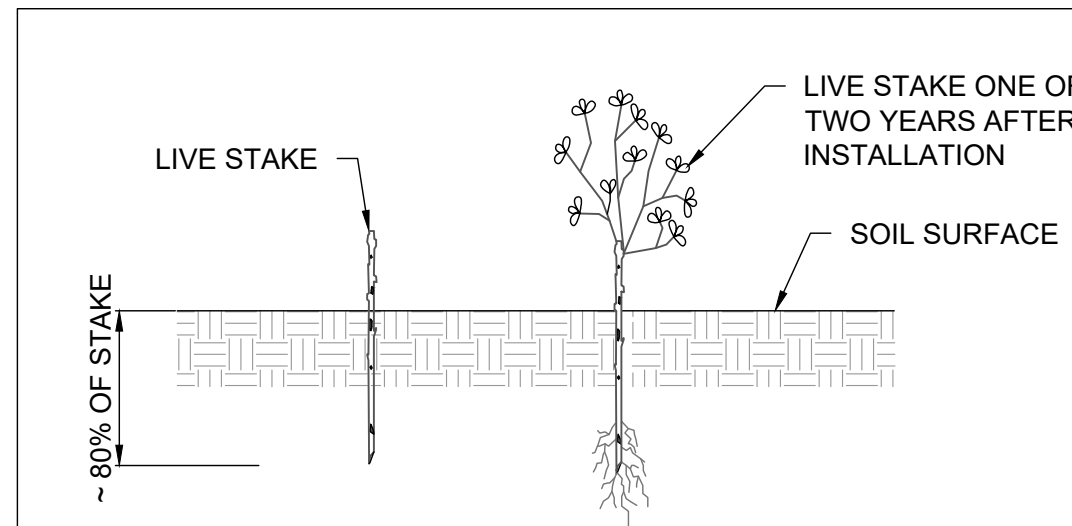
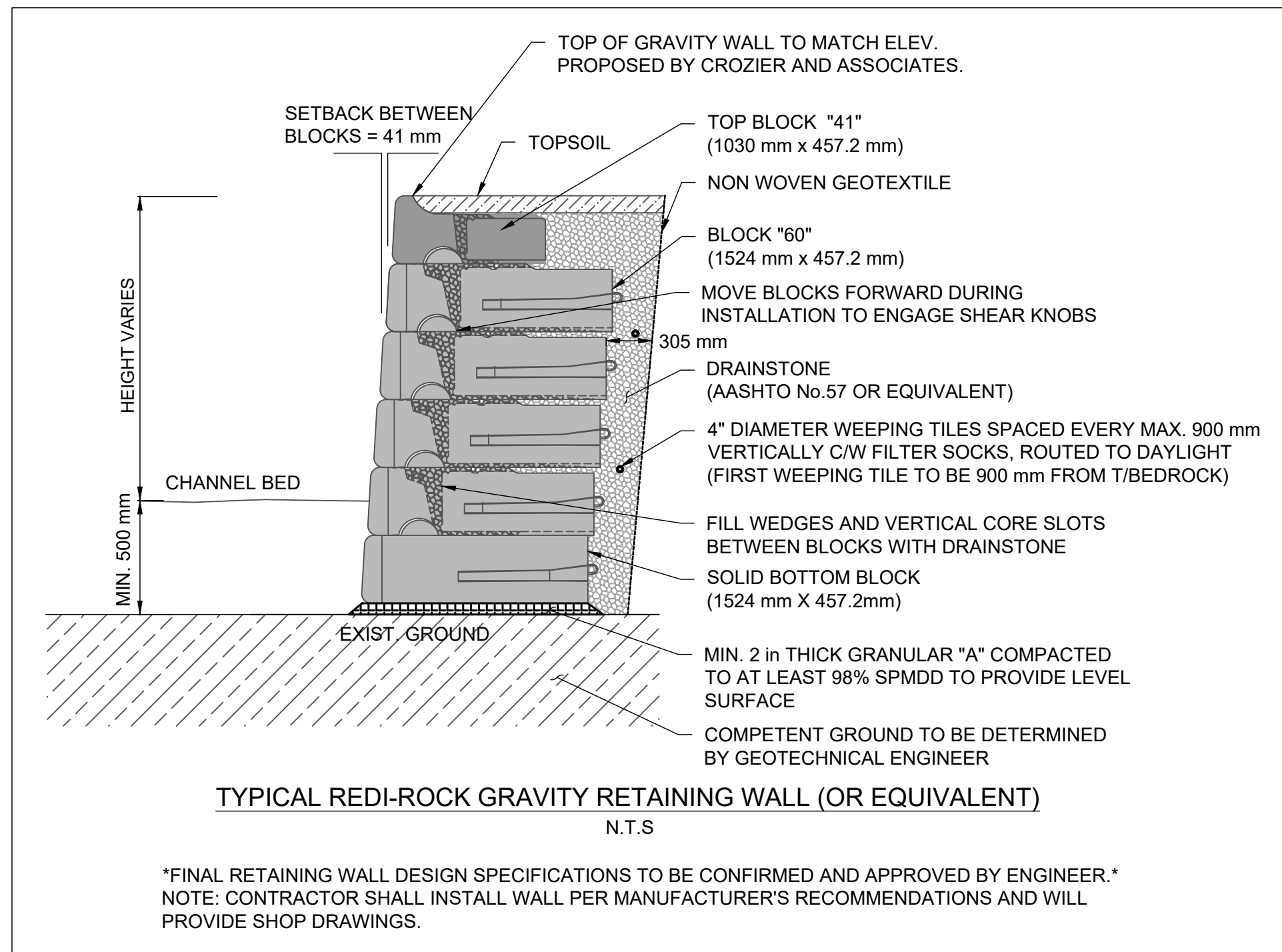
CHANNEL SUBSTRATE NOTES

- SUBSTRATES TO BE COMPACTED TO 90% SPD TO PREVENT PIPING/FLOW-THROUGH.
- FINE NATIVE MATERIAL TO BE ADDED TO SUBSTRATE MIX TO FILL INTERSTITIAL VOIDS, AS REQUIRED.
- GRANULAR 'B' TO BE SOURCED FROM PIT-RUN MATERIAL AND ROUNDED IN NATURE. NO CRUSHED ROCK, LIMESTONE OR POST-CONSTRUCTION MATERIALS ARE TO BE USED WITHIN THE CHANNEL. MATERIAL TO BE REVIEWED BY THE DESIGNER OR REPRESENTATIVE PRIOR TO INSTALLATION.



SUBSTRATE NOTE: ADD FINE NATIVE MATERIAL OR GRANULAR "B" TO FILL INTERSTITIAL SPACE, TOPDRESS AS NEEDED, AND COMPACT TO PREVENT PIPING. SUBSTRATE DEPTHS TO BE CONFIRMED.

CHANNEL CROSS SECTIONS IN CULVERT
N.T.S.



SPECIES AND QUANTITIES

| COMMON NAME | SCIENTIFIC NAME | QTY | CONDITION |
|-------------------|---------------------------|-----|----------------|
| RED OSIER DOGWOOD | <i>Cornus stolonifera</i> | 150 | 1 m, BARE ROOT |
| PUSSY WILLOW | <i>Salix discolor</i> | 150 | 1 m, BARE ROOT |
| SANDBAR WILLOW | <i>Salix exigua</i> | 150 | 1 m, BARE ROOT |

NOTES

- QUANTITY TO BE DETERMINED BASED ON AREA OF DISTURBANCE TO BE RESTORED
- LIVE STAKES SHOULD BE FROM AT MINIMUM 2-YEAR OLD STOCK
- LIVE STAKES ARE TO BE INSTALLED AT A DENSITY OF 3 STAKES PER SQUARE METRE
- LIVE STAKES SHOULD BE PRE-SOAKED (SUBMERGED IN WATER) FOR AT LEAST 24 HOURS AFTER HARVESTING AND IMMEDIATELY BEFORE INSTALLATION.
- LIVE STAKES SHOULD NOT BE STORED FOR A PERIOD LONGER THAN 2 DAYS, UNLESS THEY ARE BEING SOAKED.
- THE CONTRACTOR SHALL PROTECT PLANT MATERIALS FROM DRYING FROM THE TIME OF HARVEST UNTIL INSTALLED.
- LIVE STAKES ARE TO BE A MINIMUM OF 25 mm IN DIAMETER AND CUT TO A LENGTH OF 1000 mm.
- CUT ANGLE AT THE BOTTOM OF THE STAKE AND FLAT ON THE TOP.
- TRIM ALL SIDE BRANCHES WHILE TAKING CARE NOT TO DAMAGE THE BARK.
- INSTALL STAKES WITH BUDS POINTING UPWARDS AND THICKER STEM IN THE BED.
- LIVE STAKES SHOULD BE INSTALLED USING A LARGE RUBBER Mallet.
- 80% OF THE STAKE IS TO BE BELOW SURFACE.
- TAMP THE LIVE STAKE INTO THE GROUND AT RIGHT ANGLE TO THE SURFACE.
- IN COMPACT SOIL A PILOT HOLE SHOULD BE USED TO LIMIT DAMAGE TO THE STAKES.
- IF USING A PILOT HOLE REPACK SOIL AROUND THE LIVE STAKE.
- LIVE STAKES SHOULD STAND FIRM FROM THE SOIL FOLLOWING INSTALLATION.
- ALL STAKES NOT PLANTED TO THE SPECIFICATIONS ABOVE WILL BE REPLACED AT THE CONTRACTOR'S EXPENSE.

LIVE STAKE
N.T.S.

CREEK BANK NATIVE SEED MIX - OSC 8215

| COMMON NAME | SPECIES |
|-------------------|----------------------------|
| BIG BLUESTEM | <i>Andropogon gerardii</i> |
| NEW ENGLAND ASTER | <i>Aster novae-angliae</i> |
| FOX SEDGE | <i>Carex vulpinoidea</i> |
| BOTTLEBRUSH GRASS | <i>Elymus hystrix</i> |
| FOWL MANGRASS | <i>Glyceria striata</i> |
| FOWL BLUEGRASS | <i>Poa palustris</i> |
| BLACK EYED SUSAN | <i>Rudbeckia hirta</i> |

WET MEADOW MARSH SEED MIX - OSC 8195

| COMMON NAME | SPECIES |
|------------------------------|-----------------------------|
| SWAMP MILKWEEED | <i>Asclepias incarnata</i> |
| NEW ENGLAND ASTER | <i>Aster novae-angliae</i> |
| FLAT TAPPED ASTER | <i>Aster umbellatus</i> |
| FRINGED SEDGE | <i>Carex crinita</i> |
| BLUNT BROOM SEDGE | <i>Carex scoparia</i> |
| FOX SEDGE | <i>Carex vulpinoidea</i> |
| VIRGINIA WILD RYE | <i>Elymus virginicus</i> |
| SPOTTED JOE PYE WEED | <i>Eupatorium maculatum</i> |
| SOFT RUSH | <i>Juncus effusus</i> |
| RICE CUTGRASS | <i>Leersia oryzoides</i> |
| SQUARE STEMMED MONKEY FLOWER | <i>Mimulus ringens</i> |
| GREEN BULLRUSH | <i>Scirpus atrovirens</i> |
| WOOLGRASS | <i>Scirpus sylvaticus</i> |
| BLUE VERVAIN | <i>Verbena hastata</i> |

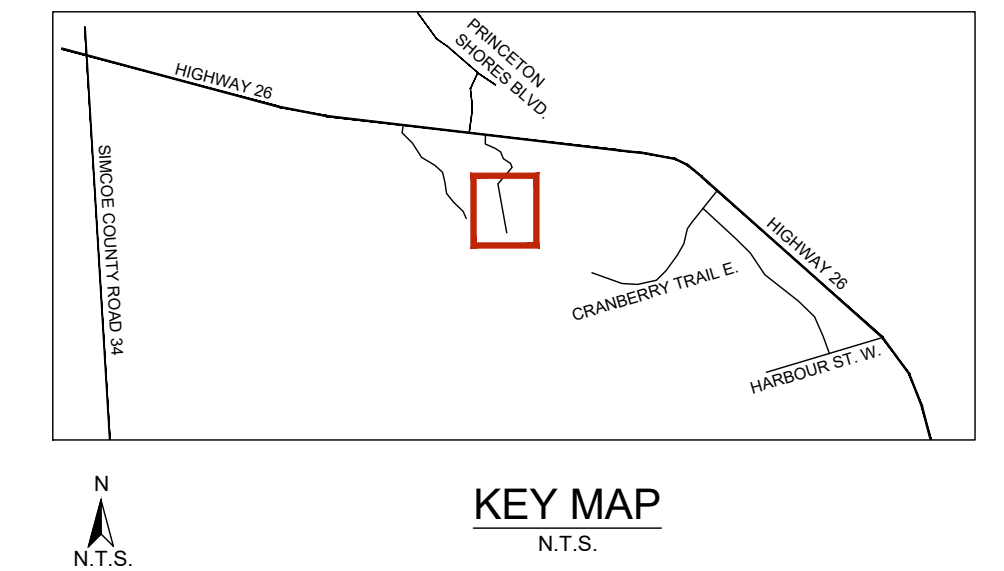
NOTES

- SPECIES PERCENT OF MIX AS PER PRE-MIXED OSC SEED PACKET, OR EQUIVALENT.
- APPLY SEED MIX AT A RATE OF 25 kg PER HECTARE.
- SEEDING SHALL OVERLAP ADJACENT GROUND COVER BY 300 mm.
- APPLY ANNUAL RYE GRASS / ANNUAL OATS NURSE CROP AT A RATE OF 30 kg PER HECTARE.

NOTE: SEED IS TO BE PLACED PRIOR TO INSTALLATION OF EROSION CONTROL BLANKET AND IS TO HAVE GOOD CONTACT WITH THE SOIL.

EROSION CONTROL BLANKET SPECIFICATIONS

- A BIODEGRADABLE EROSION CONTROL BLANKET (ECB) SHALL BE INSTALLED ON ALL DISTURBED NATURAL SURFACES FOLLOWING THE PLACEMENT OF TOPSOIL AND APPLICATION OF THE NATIVE SEED MIX.
- THE ECB MUST BE CONSTRUCTED OF 100% WOVEN COCONUT FIBRE (E.G. COIR) OR STRAW MAT WITHIN A GEOJUTE NETTING (TOP AND BOTTOM) WITH BIODEGRADABLE THREAD. NON-BIODEGRADABLE MATERIAL INCLUDING POLYPROPYLENE OR PLASTICS WITH A BIODEGRADABLE RATING ARE NOT ACCEPTABLE. THE MINIMUM WEIGHT OF THE ECB MUST BE 400 gm² (12 oz. yd²).
- TO INSTALL, THE ECB MUST BE UNROLLED DOWNSLOPE OR IN DIRECTION OF WATER FLOW. ADJACENT ECBs SHOULD OVERLAP A MINIMUM OF 150 mm ALONG THE EDGES. AT THE END OF EACH ROLL, FOLD BACK 100 mm TO 200 mm OF THE ECB. OVERLAP THIS 100 mm TO 200 mm OVER THE START OF THE NEXT ROLL. SECURE THE TWO LAYERS TO THE GROUND SECURELY.
- BIODEGRADABLE OR TAPERED WOODEN STAKES SHALL BE USED TO SECURE THE BLANKET. STAKES SHALL BE INSTALLED AT THE SPACING RECOMMENDED BY THE ECB MANUFACTURER TO PREVENT SURFACE RUNOFF FROM ERODING THE UNDERLYING SOIL.



GENERAL NOTES

- ALL CONTRACT DRAWINGS, SPECIFICATIONS AND APPLICABLE PERMITS MUST BE KEPT ON SITE DURING CONSTRUCTION FOR REFERENCE.
- THE CONTRACTOR MUST NOTIFY THE CONTRACT ADMINISTRATOR AND CONSERVATION AUTHORITY OF THE INTENT TO COMMENCE WORK AT LEAST 48 HOURS IN ADVANCE.
- THE CONTRACTOR IS RESPONSIBLE FOR ALL UTILITY LOCATIONS.
- LAYOUT MUST BE REVIEWED AND APPROVED BY THE CONTRACT ADMINISTRATOR.

TIMING OF WORKS

- WORKS SHALL BE COMPLETED BETWEEN JULY 1ST TO MARCH 31ST.
- TREE CLEARING SHOULD BE COMPLETED OUTSIDE THE BIRD NESTING SEASON TO COMPLY WITH THE FEDERAL MIGRATORY BIRDS CONVENTION ACT. ANY TREES THAT REQUIRE REMOVAL OUTSIDE OF THIS TIMING WINDOW MUST FIRST BE INSPECTED BY A QUALIFIED BIOLOGIST TO DETERMINE THE PRESENCE OF NESTING BIRDS.
- THE WEATHER FORECAST SHOULD BE CONTINUALLY MONITORED TO ENSURE THAT WORKS ARE UNDERTAKEN ONLY DURING FAVOURABLE WEATHER CONDITIONS.
- COMPLETE THE WORKS WITH MINIMAL AVOIDABLE INTERRUPTIONS ONCE THEY COMMENCE.

SITE AND MATERIAL MANAGEMENT

- ALL CONSTRUCTION EQUIPMENT AND MATERIALS (IMPORTED OR EXCAVATED) MUST BE STORED AT LEAST 30 m AWAY FROM ANY WATERBODY IN A STABLE AREA ABOVE THE ACTIVE FLOODPLAIN, OR IN A DESIGNATED STAGING/STORAGE AREA.
- IN THE EVENT OF AN UNSPECTED STORM, ALL UNLIMBED ITEMS THAT HAVE THE POTENTIAL TO CAUSE A SPILL OR AN OBSTRUCTION TO FLOW MUST BE MOVED A STABLE AREA ABOVE ACTIVE FLOODPLAIN.
- STOCKPILES MUST BE LOCATED OUTSIDE THE ISOLATED WORK AREAS.
- STABILIZE STOCKPILED SOILS THAT ARE STORED FOR PROLONGED PERIODS WITH THE APPLICATION OF A NURSE CROP AT A RATE OF 60 kg/ha.
- STABILIZE, TEMPORARILY OR PERMANENTLY, ANY DISTURBED AREAS AS WORK PROGRESSES, OR SOON AS CONDITIONS ALLOW. ON SOILS THAT WILL BE EXPOSED FOR PROLONGED PERIODS, TEMPORARILY INSTALL A BIODEGRADABLE EROSION CONTROL BLANKET ON EXPOSED SOILS, OR APPLY A NURSE CROP AT A RATE OF 60 kg/ha.
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EROSION AND SEDIMENT CONTROL

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- EROSION AND SEDIMENT CONTROLS MUST BE MAINTAINED DURING CONSTRUCTION, AND ANY REQUIRED REPAIRS OR REPLACEMENTS MUST BE COMPLETED WITHIN 24 HOURS AFTER THEY HAVE BEEN IDENTIFIED DURING THE MONITORING.
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|--------------|------------|-------------|------------------|
| 1. | 2023-02-07 | BWM | THIRD SUBMISSION |
| DESIGNED BY: | P.V. | CHECKED BY: | P.V. |
| DRAWN BY: | B.W.M. | DATE: | FEBRUARY 2023 |

PROFESSIONAL GEOSCIENTIST
PAUL V. VILLARD
PRACTISING MEMBER
0957
ONTARIO

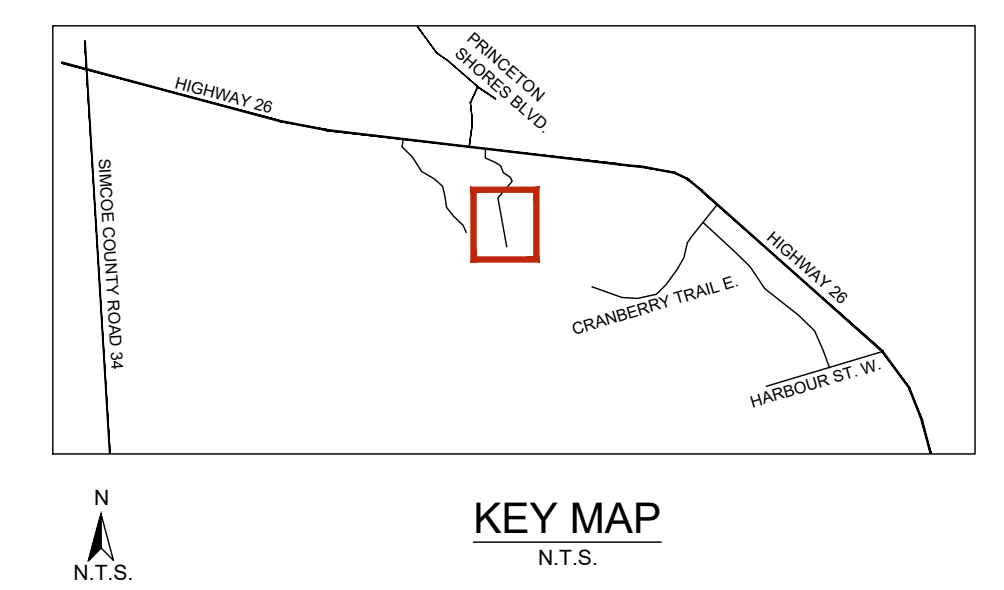
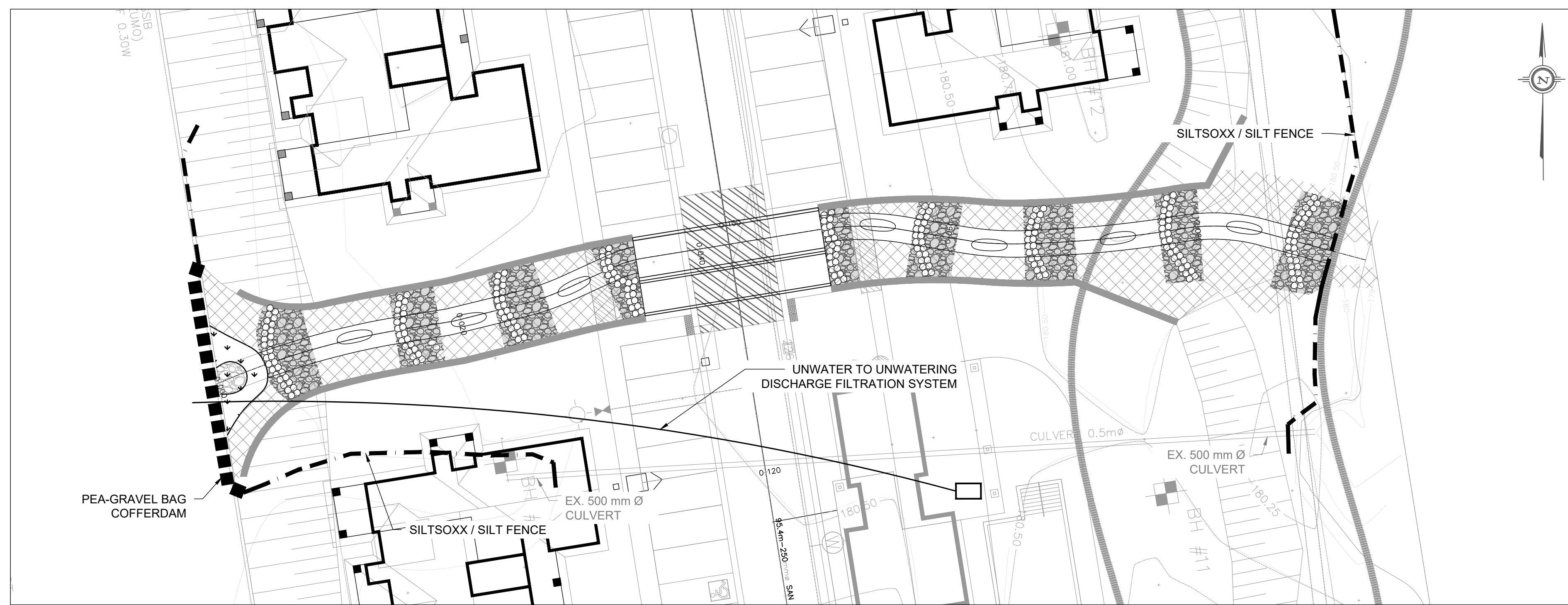
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2023-02-07

**WYLDEWOOD CREEK
BRANDY LANE HOMES**

**CHANNEL RESTORATION DESIGN
RESTORATION DETAILS**

| | |
|--------------------|--------------------|
| PROJECT No.: 21032 | DRAWING No.: DET-2 |
| SCALE: AS NOTED | SHEET 3 OF 4 |



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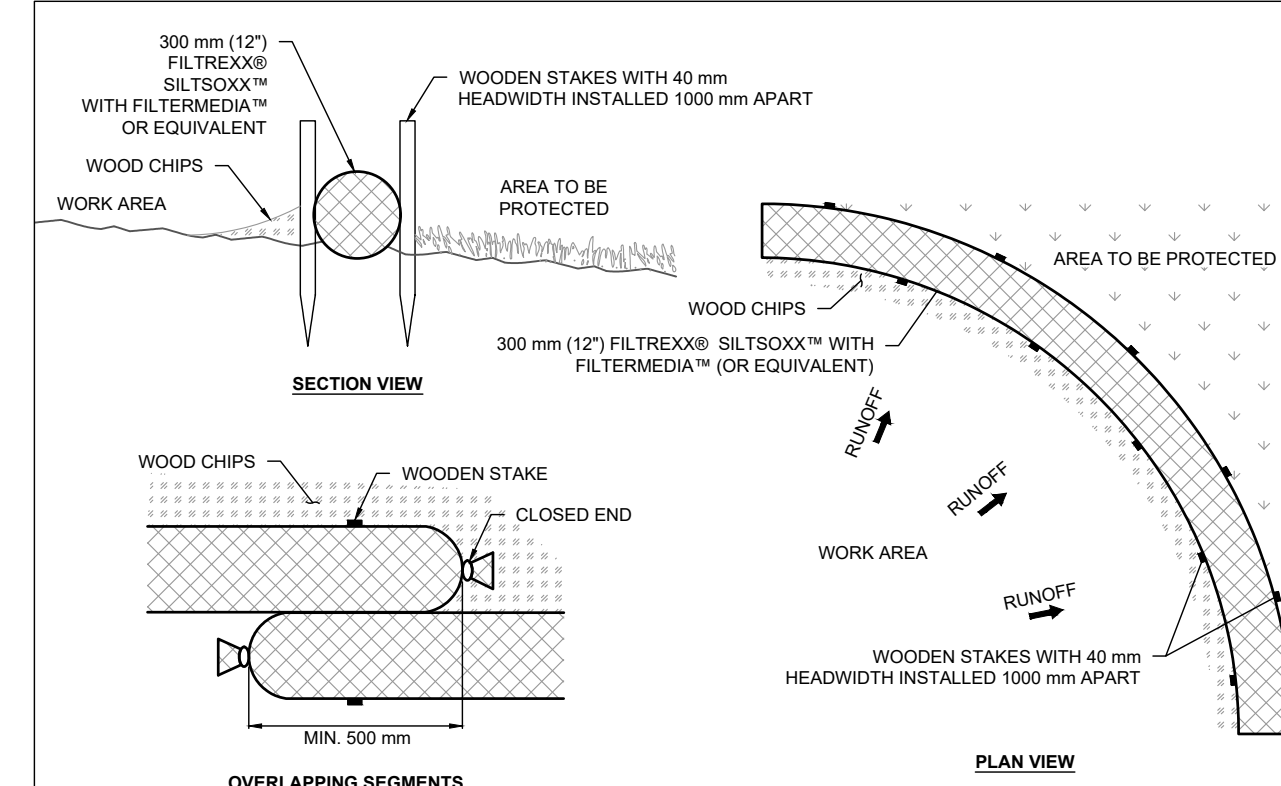
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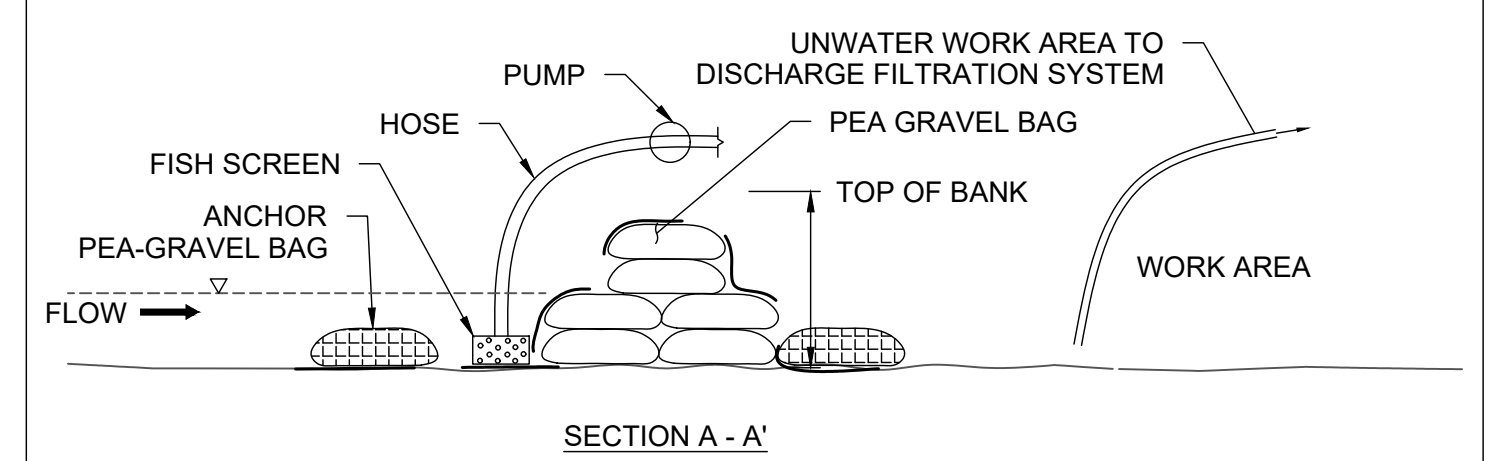
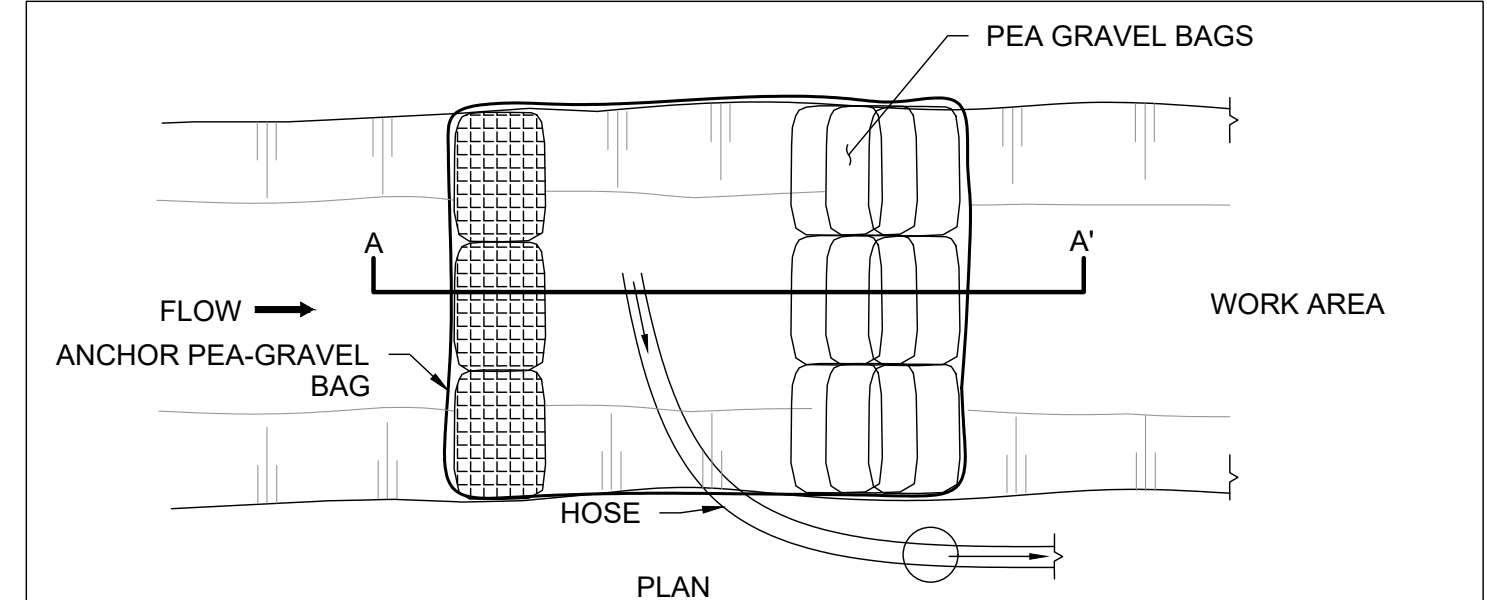
SUGGESTED SEQUENCE OF CONSTRUCTION

1. CONSTRUCTION CONTRACT ADMINISTRATOR TO REVIEW SITE CONDITIONS PRIOR TO COMMENCEMENT OF WORK.
2. MONITOR WEATHER TO ENSURE IN-WATER WORKS ARE COMPLETED UNDER LOW-FLOW CONDITIONS.
3. INSTALL PERIMETER CONTROL SILT SOXX / SILT FENCE AROUND WORK AREA (AS DEEMED NECESSARY BY THE CONTRACT ADMINISTRATOR, TO BE FIELD LOCATED AS REQUIRED).
4. INSTALL COFFERDAMS ENSURING COMPLETE ISOLATION OF WORK AREA (SEE PLAN).
5. IF REQUIRED, CONDUCT FISH AND AMPHIBIAN RESCUE FROM ISOLATED WORK AREAS. FISH RESCUE MUST BE COMPLETED BY A QUALIFIED TECHNICIAN WITH A LICENSE FROM THE ONTARIO MINISTRY OF NATURAL RESOURCES AND FORESTRY.
6. UNWATER WORK AREAS TO UNWATERING DISCHARGE FILTRATION SYSTEM AS REQUIRED TO CONDUCT WORK UNDER 'DRY' CONDITIONS.
7. INSTALL RETAINING WALLS.
8. INSTALL CASCADE AND POOLS.
9. INSTALL STONE CORE WETLAND.
10. INSTALL VEGETATED TERRACE AND ASSOCIATED SUBSTRATES.
11. STABILIZE CHANNEL CORRIDOR WITH SEED, BIODEGRADABLE EROSION CONTROL BLANKET, AND LIVESTAKES.
12. REMOVE COFFERDAMS AND INTRODUCE FLOWS TO THE CONSTRUCTED CHANNEL ONCE THE SITE HAS BEEN DEEMED STABLE BY THE DESIGNER.
13. ENSURE FLOWS ARE NOT ENTERING OLD CHANNEL. IF REQUIRED, CONDUCT FISH AND AMPHIBIAN RESCUE FROM ISOLATED EXISTING CHANNEL AREAS. FISH RESCUE MUST BE COMPLETED BY A QUALIFIED TECHNICIAN WITH A LICENSE FROM THE ONTARIO MINISTRY OF NATURAL RESOURCES AND FORESTRY. REMOVE EX. CULVERT AND FILL AS REQUIRED.
14. STABILIZE AREAS DISTURBED FROM CONSTRUCTION ACTIVITIES WITH SEED AND BIODEGRADABLE EROSION CONTROL BLANKET, AS REQUIRED.
15. RESTORE SURFACES DISTURBED BY THE CONSTRUCTION WORK OR STAGING AREA(S) TO ORIGINAL CONDITION.

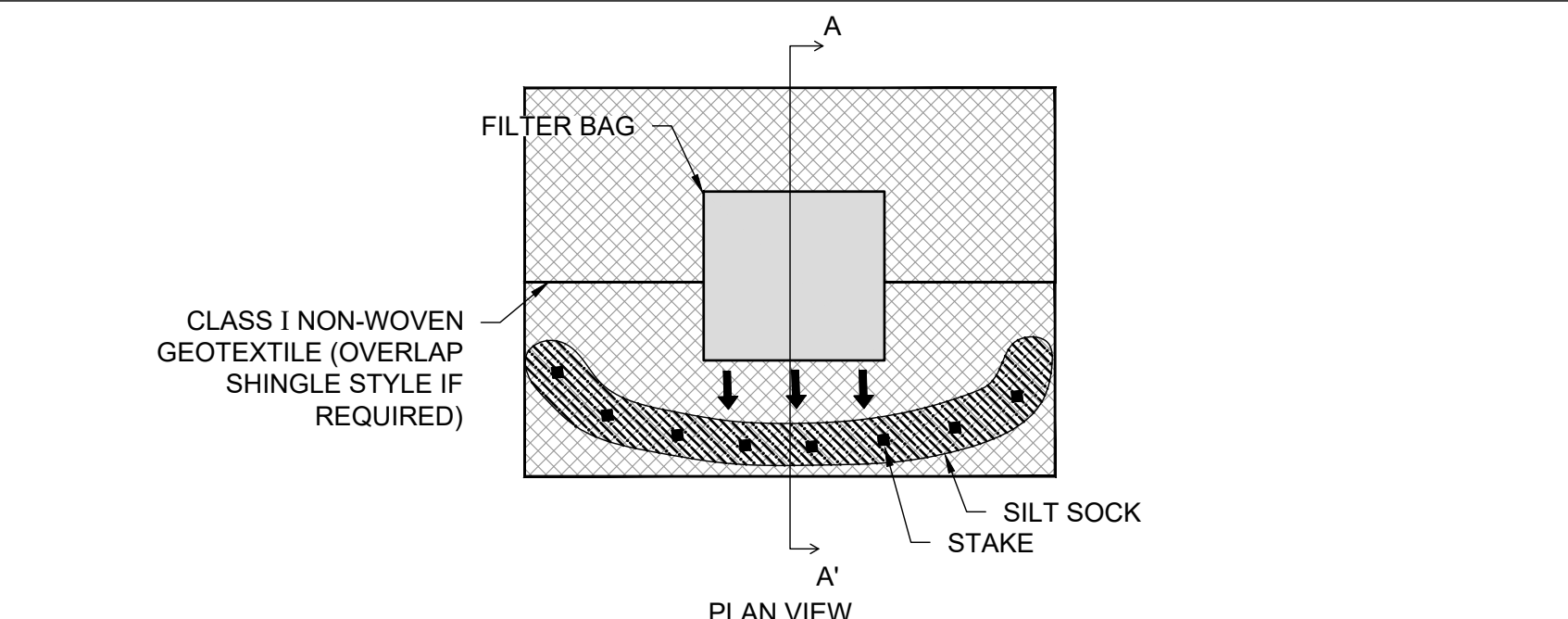
NOTE: STEPS 7-10 CAN COINCIDE DURING CONSTRUCTION



- INSTALLATION NOTES**
1. PERIMETER CONTROL WILL BE PLACED AT LOCATIONS INDICATED ON PLANS AND IN A MANNER AS DIRECTED BY THE ENGINEER OR MANUFACTURER.
 2. PERIMETER CONTROL SHOULD BE INSTALLED PARALLEL TO THE BASE OF THE SLOPE OR OTHER DISTURBED AREA. IN CHALLENGING CONDITIONS (E.G. 2:1 SLOPES), A SECOND PERIMETER CONTROL SHALL BE CONSTRUCTED AT THE TOP OF THE SLOPE, OR STAKING MAY BE INCREASED.
 3. EFFECTIVE SOXX HEIGHT IN THE FIELD SHOULD BE 12" DIAMETER SOXX (APPROXIMATELY 9" HIGH).
 4. STAKES SHOULD BE INSTALLED ALTERNATELY AROUND THE PERIMETER CONTROL AT 1 m INTERVALS, USING 1 m WOODEN STAKES WITH 40 mm HEADWIDTH.
 5. STAKING DEPTH FOR SAND AND SILT LOAM SOILS SHALL BE 300 mm AND 200 mm FOR CLAY SOILS.
 6. STRAIGHTEN OR POSITION THE SOXX AS NEEDED ON THE GROUND, ENSURING THERE IS GOOD GROUND CONTACT AND NO VOID SPACES UNDER THE SOXX.
 7. DO NOT DRAG SOXX ACROSS ROUGH SURFACES TO PREVENT TEARING.
 8. LOOSE WOOD CHIP MAY BE BACKFILLED ALONG THE UPSLOPE SIDE OF THE PERIMETER CONTROL, FILLING THE SEAM BETWEEN THE SOIL SURFACE AND THE DEVICE, IMPROVING FILTRATION AND SEDIMENT RETENTION.
 9. IF THE PERIMETER CONTROL IS TO BE LEFT AS A PERMANENT FILTER OR PART OF THE NATURAL LANDSCAPE, IT MAY BE SEED AT TIME OF INSTALLATION FOR ESTABLISHMENT OF PERMANENT VEGETATION.
- MAINTENANCE AND DISPOSAL NOTES**
1. THE CONTRACTOR SHALL REMOVE SEDIMENT AT THE BASE OF THE UPSLOPE SIDE OF THE PERIMETER WHEN ACCUMULATION HAS REACHED HALF OF THE EFFECTIVE HEIGHT OF THE SOCK, OR AS DIRECTED BY THE ENGINEER. ALTERNATIVELY, A NEW PERIMETER CONTROL SOCK CAN BE PLACED ON TOP OF AND SLIGHTLY BEHIND THE ORIGINAL ONE, CREATING MORE SEDIMENT STORAGE CAPACITY WITHOUT SOIL DISTURBANCE.
 2. PERIMETER CONTROL SHALL BE MAINTAINED UNTIL DISTURBED AREAS HAVE BEEN PERMANENTLY STABILIZED AND CONSTRUCTION ACTIVITY HAS CEASED.
 3. THE FILTER MEDIA (WOOD CHIP) WILL BE DISPERSED ON SITE ONCE DISTURBED AREA HAS BEEN PERMANENTLY STABILIZED, CONSTRUCTION ACTIVITY HAS CEASED, OR AS DETERMINED BY THE ENGINEER.

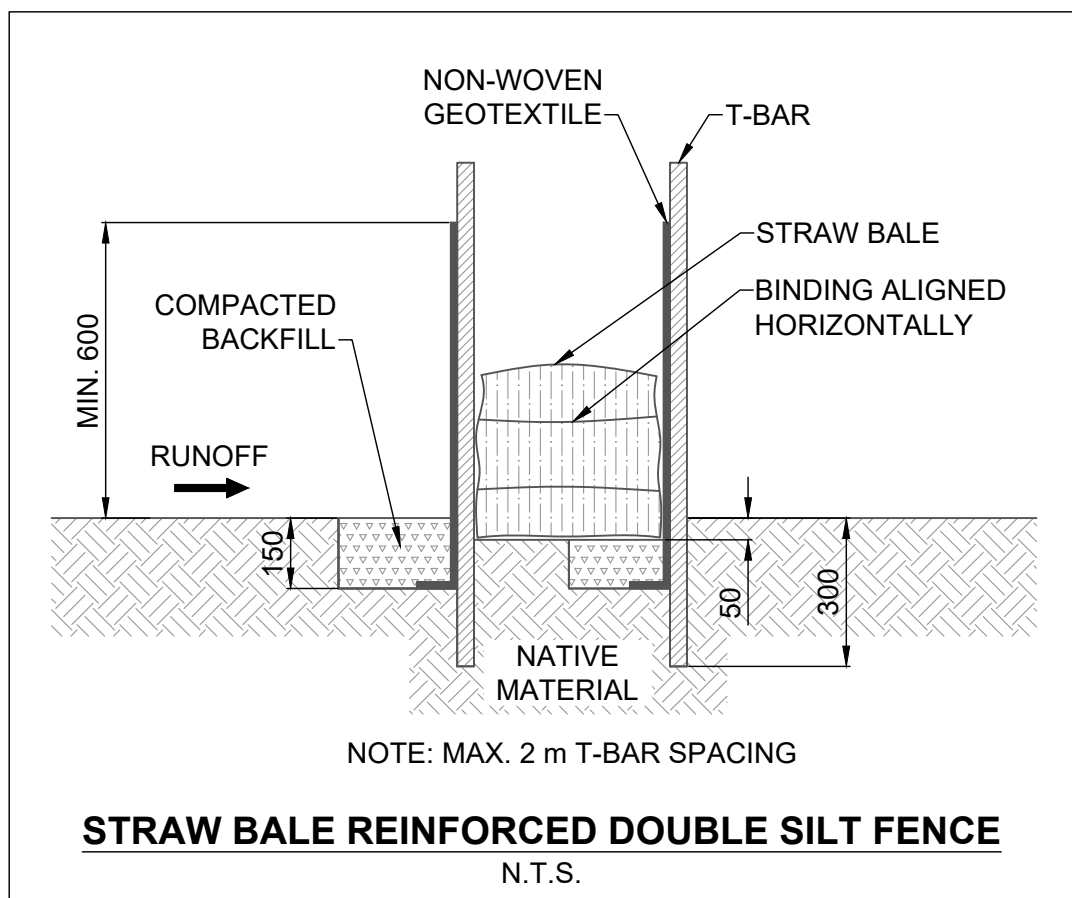


- NOTES**
1. PUMPING RATE MUST MATCH WORKING FLOW CONDITIONS.
 2. BAGS TO BE FILLED WITH PEA-GRAVEL.
 3. BAGS TO BE INSTALLED TO MATCH EXISTING TOP OF BANK.
 4. IMPERMEABLE BARRIER (PLASTIC SHEET) TO COVER THE BAGS TO LIMIT SEEPAGE INTO WORK AREA.
 5. BACKUP PUMP AND HOSE SHALL BE KEPT ONSITE TO ADDRESS FAILURES AND HIGH FLOW CONDITIONS.
 6. PEA-GRAVEL WITHIN BAGS TO BE DISPOSED OF OFFSITE ONCE CONSTRUCTION IS COMPLETE.
- PEA-GRAVEL BAG COFFERDAM AND BYPASS PUMPING**
N.T.S.



- NOTES**
1. SELECT LOCATION OF FILTRATION SYSTEM TO ENSURE PLACEMENT ON WELL-VEGETATED SURFACE AT LEAST 30 m FROM CHANNEL.
 2. PLACE NON-WOVEN GEOTEXTILE ON WELL-VEGETATED SURFACE. OVERLAP NON-WOVEN GEOTEXTILE SHINGLE STYLE, IF REQUIRED.
 3. SECURE SILT SOCK WITH STAKES AT 0.5 m O/C.
 4. ENSURE CONTINUOUS AND FIRM CONTACT BETWEEN SILT SOCK AND NON-WOVEN GEOTEXTILE/GROUND.
 5. REPLACE FILTER BAG AS REQUIRED TO ENSURE PROPER FUNCTION.

UNWATERING DISCHARGE FILTRATION SYSTEM
N.T.S.



STRAW BALE REINFORCED DOUBLE SILT FENCE
N.T.S.

| | | | |
|-------------------|------------|---------------------|------------------|
| 1. | 2023-02-07 | BWM | THIRD SUBMISSION |
| | DATE | BY | REVISIONS |
| DESIGNED BY: P.V. | | CHECKED BY: P.V. | |
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SCALED FOR PLOT ON 'ARCH D'