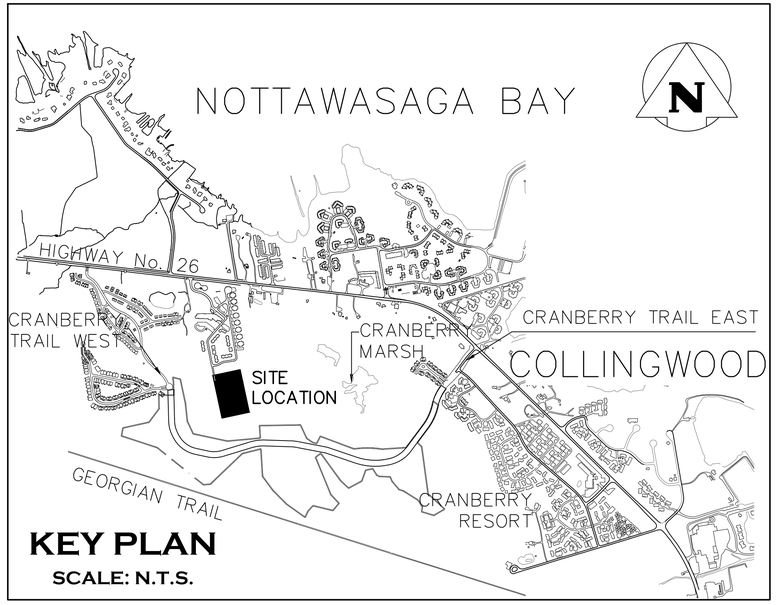
WYLDEWOOD CREEK

TOWN OF COLLINGWOOD

COUNTY OF SIMCOE



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	EROSION AND SEDIMENT CONTROL PLAN
C109.A	CONSTRUCTION NOTES & STANDARD DETAILS
C109.B	STANDARD DETAILS
C110	COMPOSITE UTILITY PLAN
C111	CONSTRUCTION ACCESS ROAD PLAN
C112	WATER DISTRIBUTION PLAN
C113	TURNING MOVEMENT PLAN
E100	SITE PLAN – PHOTOMETRIC
E101	SITE LIGHTING DETAILS
LP1–6	LANDSCAPE PLANS
LD1–2	LANDSCAPE DETAILS

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

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

ARCHITECT

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

Town

MASTER LEGEND

EXISTING FEATURES (EX.)

- EX. CONTOUR
- EX. GRADE
- EX. TREELINE
- EX. WATERCOURSE
- EX. DITCH
- EX. WATERMAIN
- EX. WATER SERVICE
- EX. FIRE HYDRANT & VALVE
- EX. SANITARY SEWER & MANHOLE
- EX. SANITARY FORCEMAIN
- EX. SANITARY SERVICE
- EX. STORM SEWER & MANHOLE
- EX. STORM CATCHBASIN
- EX. STORM DOUBLE CATCHBASIN
- EX. STORM CATCHBASIN MANHOLE
- EX. STORM DOUBLE CATCHBASIN MANHOLE
- EX. GAS MAIN
- EX. BELL LINE
- EX. BELL PEDESTAL
- EX. CABLE TELEVISION PEDESTAL
- EX. HYDRO POLE
- EX. LIGHT STANDARD
- EX. SIGN
- EX. BUILDING
- EX. BENCHMARK NUMBER & LOCATION
- EX. BOREHOLE NUMBER & LOCATION

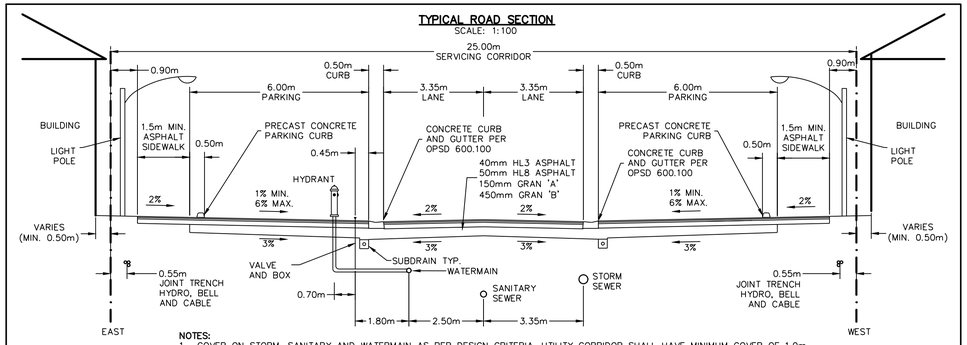
PROPOSED FEATURES (PR.)

- PR. PROPERTY LIMITS
- PR. ELEVATION
- PR. ELEVATION (MATCH EX. ELEVATION)
- PR. SWALE & SLOPE
- PR. DITCH DRAINAGE
- PR. WATERMAIN & VALVE
- PR. WATER SERVICE
- PR. FIRE HYDRANT & VALVE
- PR. WATER VALVE CHAMBER
- PR. WATER QUALITY TESTING STATION
- PR. SANITARY SEWER & MANHOLE
- PR. SANITARY FORCEMAIN
- PR. SANITARY CATCHMENT
- CATCHMENT AREA ID (11)
- AREA (ha) (0.14)
- POPULATION (3.5 p.p.u.) (0)
- PR. STORM SEWER & MANHOLE
- PR. CATCHBASIN
- PR. DOUBLE CATCHBASIN
- PR. CATCHBASIN MANHOLE
- PR. DOUBLE CATCHBASIN MANHOLE
- PR. STORM CATCHMENT
- CATCHMENT AREA ID (102)
- RUNOFF COEFFICIENT (0.78)
- DRAINAGE AREA (ha) (0.23)
- 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

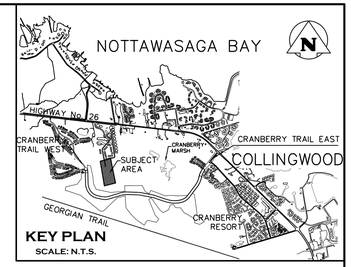
PROJECT No.: 1535-4897
3RD SUBMISSION

TYPICAL ROAD SECTION

SCALE: 1:100

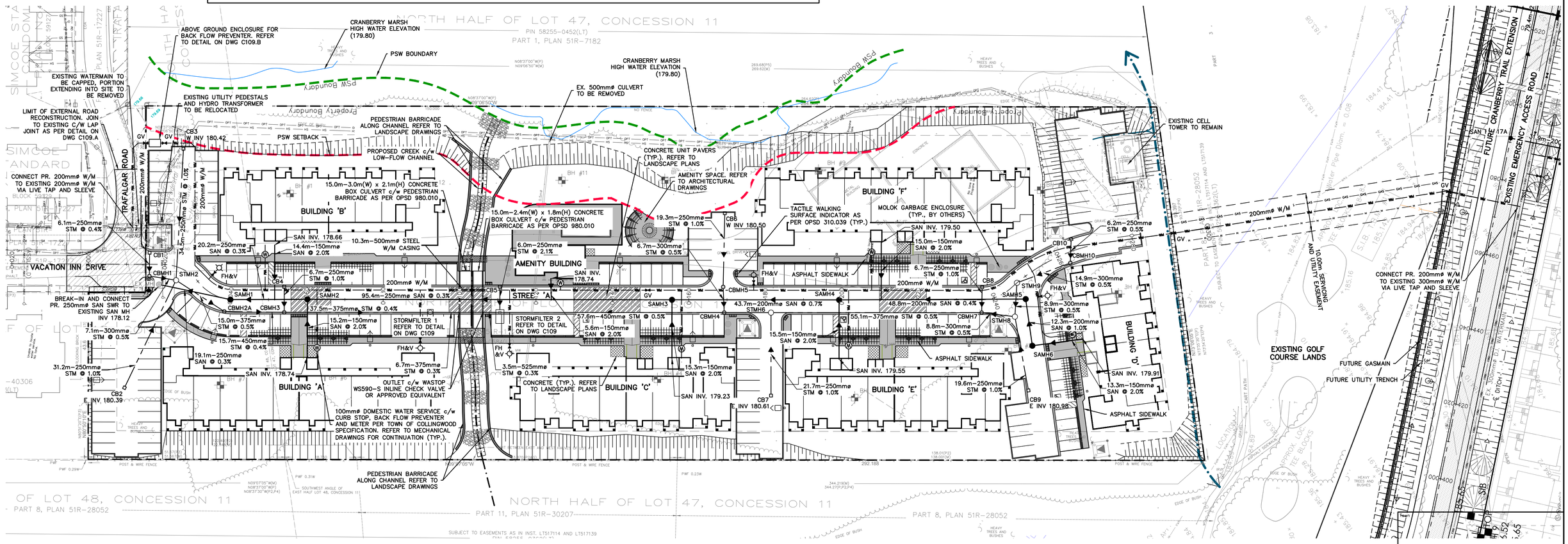


NOTES:
1. COVER ON STORM, SANITARY AND WATERMAIN AS PER DESIGN CRITERIA, UTILITY CORRIDOR SHALL HAVE MINIMUM COVER OF 1.0m.
2. MINIMUM PAVEMENT AND ROAD STRUCTURE DESIGN AS PER TOWN DESIGN CRITERIA OR AS PER GEOTECHNICAL INVESTIGATION RECOMMENDATION.
3. TREES TO BE PLACED IN LOCATIONS AS PER APPROVED LANDSCAPE PLAN.
4. ACTIVELY GROWING NURSERY SOD TO BE LAID ON 150mm TOPSOIL PROPERLY GRADED AND ROLLED.
5. HYDRANTS AND WATERMAINS TO BE ON OPPOSITE SIDE OF ROAD FROM ELECTRICAL TRANSFORMERS.
6. SUBDRAINS TO BE INSTALLED AS PER OPSD 216.021.
7. ALL SERVICE LOCATIONS SHOWN ARE FOR GUIDELINE PURPOSES ONLY AND MAY DEVIATE AS PER THE DIRECTION OF THE TOWN WHEN STANDARD LOCATION CANNOT BE ACHIEVED.
8. GASMAIN TO BE INSTALL IN THE REAR OF THE BUILDINGS.
9. ALL DIMENSIONS ARE IN METRES UNLESS OTHERWISE SHOWN.



KEY PLAN
SCALE: N.T.S.

N



10 0m 10 20 30 40
SCALE: 1:500

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

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.
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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.
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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.

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

Engineer: LICENSED PROFESSIONAL ENGINEER K. A. MORRIS PROVINCE OF ONTARIO

Engineer: LICENSED PROFESSIONAL ENGINEER R.A. ALEXANDER 100213093 PROVINCE OF ONTARIO

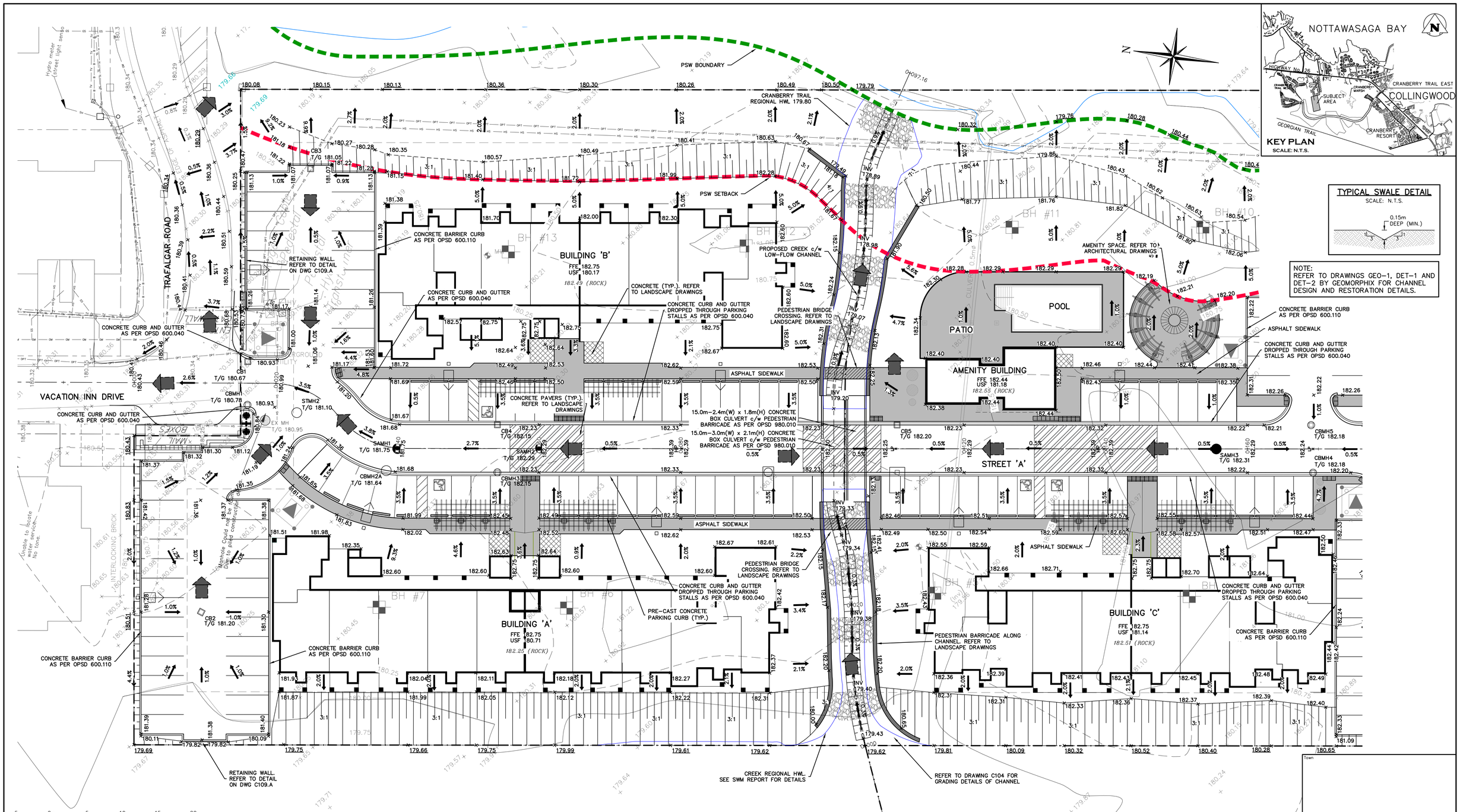
Project: WYLDEWOOD CREEK
TOWN OF COLLINGWOOD

Drawing: GENERAL SITE SERVICING PLAN

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	Design By	Project	
L.W.	L.W.	1535-4897	
Check By	Check By	Scale	Drawing
K.M.	R.A.	1:500	C101

J:\1500\1535-Brandy Lane Corp\4897-Georgian Bay Hotel South Block\CAD\Civil_Sheets\4897_C101 GEN.dwg, C101, 2022-01-14 5:37:58 PM, lwaters



TYPICAL SWALE DETAIL

SCALE: N.T.S.

NOTE:
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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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3	ISSUED FOR 2nd ENGINEERING SUBMISSION	04/08/2021
4	ISSUED FOR 3rd ENGINEERING SUBMISSION	01/14/2022

Engineer: LICENSED PROFESSIONAL ENGINEER K. A. MORRIS Jan. 14/2022 PROVINCE OF ONTARIO

Engineer: LICENSED PROFESSIONAL ENGINEER R.A. ALEXANDER 100213093 January 19 2022 PROVINCE OF ONTARIO

Project: WYLDEWOOD CREEK
TOWN OF COLLINGWOOD

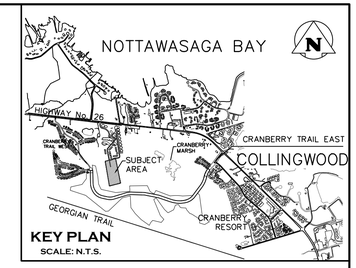
Drawing: OVERALL SITE GRADING PLAN
(NORTH)

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

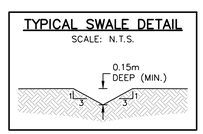
J:\1500\1535-Brandy Lane Corp\4897-Georgian Bay Hotel South Block\CAD\Civil_Sheets\4897_C102 GRAD.dwg, C102.A, 2022-01-14 4:18:15 PM, lwaters





TYPICAL SWALE DETAIL

SCALE: N.T.S.



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

Town

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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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4	ISSUED FOR 3rd ENGINEERING SUBMISSION	01/14/2022

Engineer: LICENSED PROFESSIONAL ENGINEER K. A. MORRIS PROVINCE OF ONTARIO

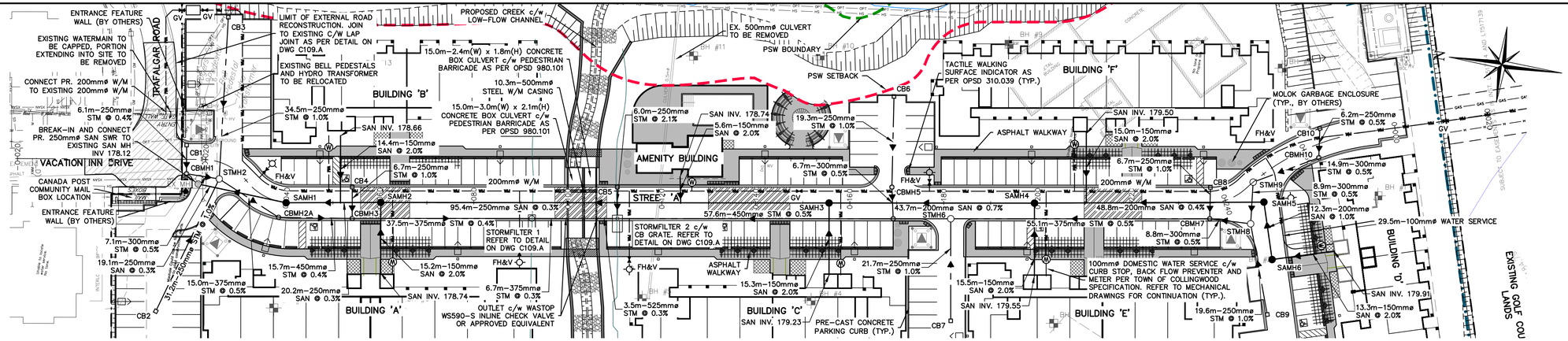
Engineer: LICENSED PROFESSIONAL ENGINEER R.A. ALEXANDER 100213093 PROVINCE OF ONTARIO

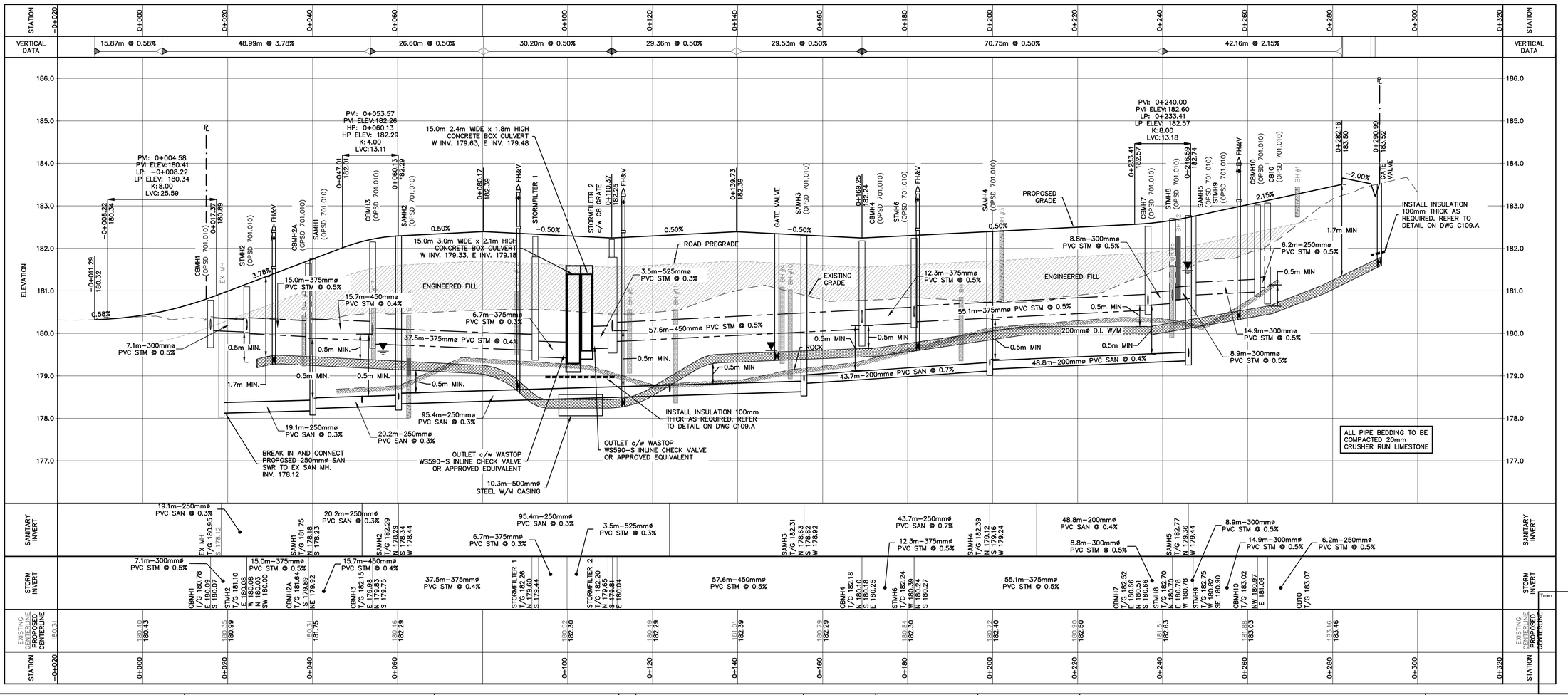
Project: WYLDEWOOD CREEK
TOWN OF COLLINGWOOD

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.CFCROZIER.CA
INFO@CFCROZIER.CA

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





BOREHOLE LEGEND

- BOREHOLE I.D.
- TOPSOIL
- SAND
- APPROX. SEASONAL HIGH GROUND WATER LEVEL
- SILTY SAND TILL
- EARTH FILL

GEOTECHNICAL INVESTIGATION COMPLETED BY SOIL ENGINEERS LTD. DATED SEPTEMBER 2018.

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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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3	ISSUED FOR 2nd ENGINEERING SUBMISSION	04/08/2021
4	ISSUED FOR 3rd ENGINEERING SUBMISSION	01/14/2022

Engineer: LICENSED PROFESSIONAL ENGINEER K.A. MORRIS PROVINCE OF ONTARIO

Engineer: LICENSED PROFESSIONAL ENGINEER R.A. ALEXANDER 100213093 PROVINCE OF ONTARIO

Project: WYLDEWOOD CREEK
TOWN OF COLLINGWOOD

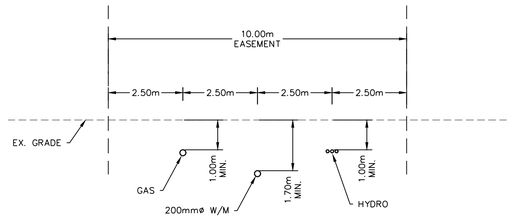
Drawing: PLAN & PROFILE STREET 'A'
(STA 0+000 – 0+288.22)

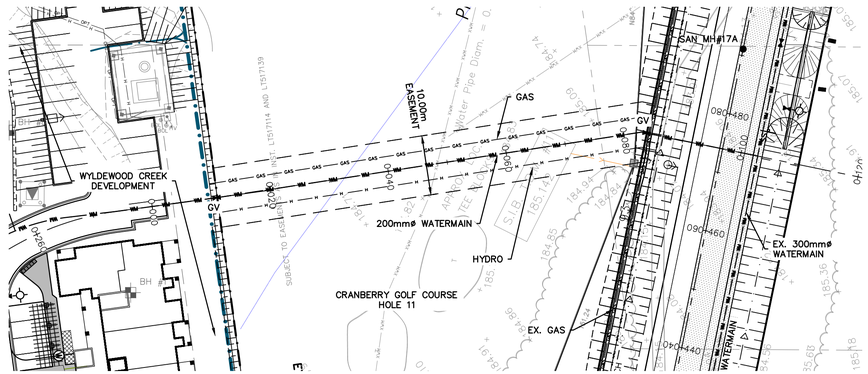
CROZIER CONSULTING ENGINEERS
ADMIRAL BUILDING
1 FIRST STREET, SUITE 200
COLLINGWOOD, ON, L9Y 1A1
705-446-3510 T
705-446-3520 F
WWW.CFCROZIER.CA
INFO@CFCROZIER.CA

Drawn By	Design By	Project	
L.W.	L.W.		1535–4897
Check By	Check By	Scale	Drawing
K.M.	R.A.	H 1:500 V 1:50	C103.A

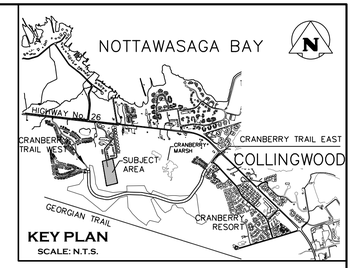
J:\1500\1535-Brandy Lane Corp\4897-Georgian Bay Hotel South Block\CAD\Civil_Sheets\4897_C103 P&P.dwg, C103.A, 2022-01-14 5:41:25 PM, lwaters

TYPICAL SERVICING EASEMENT CROSS SECTION
SCALE 1:100

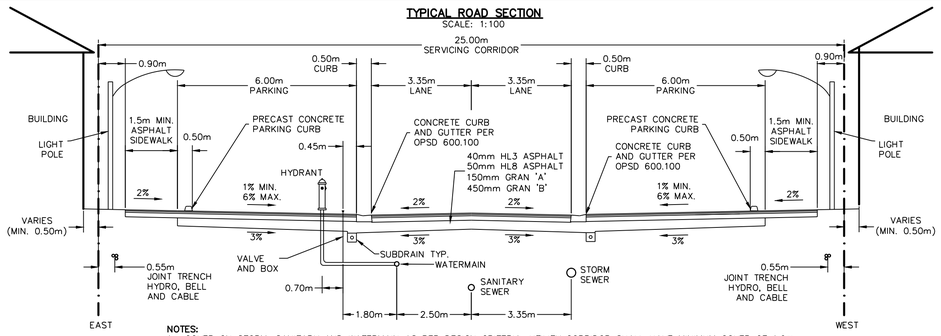




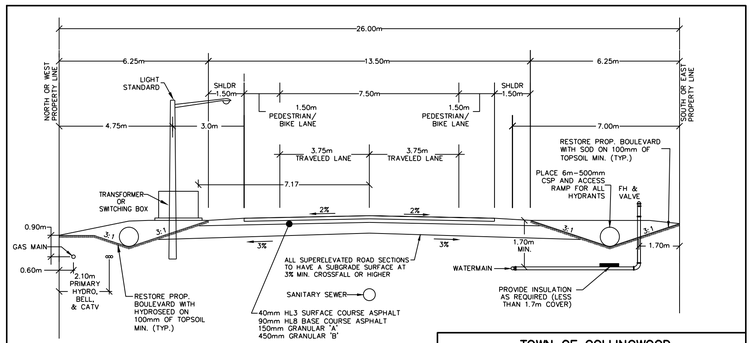




TYPICAL ROAD SECTION
SCALE: 1:100



NOTES:
1. COVER ON STORM, SANITARY AND WATERMAIN AS PER DESIGN CRITERIA, UTILITY CORRIDOR SHALL HAVE MINIMUM COVER OF 1.0m.
2. MINIMUM PAVEMENT AND ROAD STRUCTURE DESIGN AS PER TOWN DESIGN CRITERIA OR AS PER GEOTECHNICAL INVESTIGATION RECOMMENDATION.
3. TREES TO BE PLACED IN LOCATIONS AS PER APPROVED LANDSCAPE PLAN.
4. ACTIVELY GROWING NURSERY SOD TO BE LAID ON 150mm TOPSOIL PROPERLY GRADED AND ROLLED.
5. HYDRANTS AND WATERMAINS TO BE ON OPPOSITE SIDE OF ROAD FROM ELECTRICAL TRANSFORMERS.
6. SUBDRAINS TO BE INSTALLED AS PER OPSD 216.021.
7. ALL SERVICE LOCATIONS SHOWN ARE FOR GUIDELINE PURPOSES ONLY AND MAY DEVIATE AS PER THE DIRECTION OF THE TOWN WHEN STANDARD LOCATION CANNOT BE ACHIEVED.
8. GASMAIN TO BE INSTALL IN THE REAR OF THE BUILDINGS.
9. ALL DIMENSIONS ARE IN METRES UNLESS OTHERWISE SHOWN.

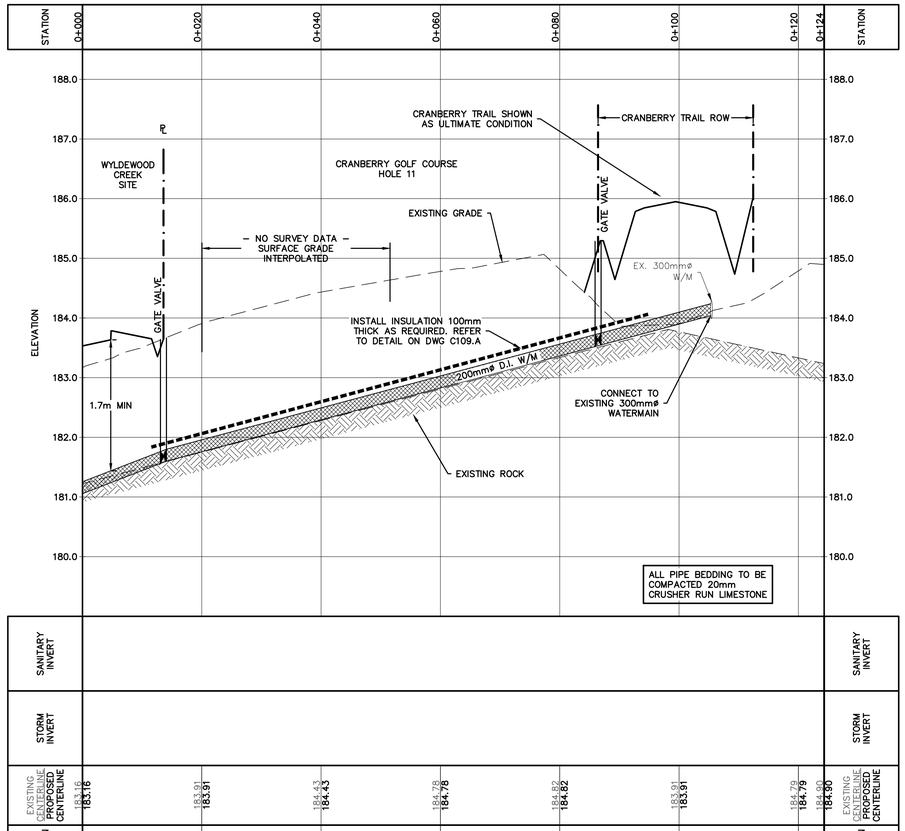


NOTES:
1. COVER ON STORM, SANITARY & WATERMAIN AS PER DESIGN CRITERIA. UTILITY CORRIDOR SHALL HAVE A MINIMUM COVER OF 0.9m.
2. THE SUPERELEVATION ROAD SECTIONS TO HAVE A MINIMUM 3% CROSS FALL SURFACE OR HIGHER.
3. MINIMUM PAVEMENT & ROAD STRUCTURE DESIGN AS PER TOWN DESIGN CRITERIA OR AS PER GEOTECHNICAL INVESTIGATION RECOMMENDATIONS.
4. TREES TO BE PLACED IN LOCATIONS AS PER APPROVED LANDSCAPE PLAN.
5. ACTIVELY GROWING NURSERY SOD TO BE LAID ON 100mm TOPSOIL PROPERLY GRADED AND ROLLED.
6. ALL SERVICE LOCATIONS SHOWN ARE FOR GUIDELINE PURPOSES ONLY AND MAY DEVIATE AS PER THE DIRECTION OF THE TOWN WHEN STANDARD LOCATION CANNOT BE ACHIEVED.
7. ALL DIMENSIONS ARE IN METRES UNLESS OTHERWISE SHOWN.
8. DELINEATION BETWEEN TRAVELLED LANE AND BIKE PATH TO BE FINISHED WITH A 0.10m WIDE SOLID WHITE PAINTED LINE. ALL PAINT MARKINGS PER OTM – BOOK 11.
9. CENTERLINE OF TRAVELLED LANES TO BE 0.10m WIDE SOLID YELLOW PAINTED LINE PER OTM – BOOK 11.

TOWN OF COLLINGWOOD

CRANBERRY TRAIL
RURAL ROAD
MODIFIED 26m ROW CROSS-SECTION
STA 0+616 – 0+924

SCALE:	NTS	CHECKED: I.T.M.	DATE: SEPT. 2008
DRAWN:	J.R.S.	DRAWING: COLLINGWOOD-26m-CRANBERRY TRAIL	



Town

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BENCHMARKS

ELEVATIONS SHOWN HEREON ARE GEODETIC AND ARE RELATED TO TOWN OF COLLINGWOOD BENCH MARK NO. 001721311 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

Engineer: LICENSED PROFESSIONAL ENGINEER, K. A. MORRIS, Jan. 14, 2022, PROVINCE OF ONTARIO

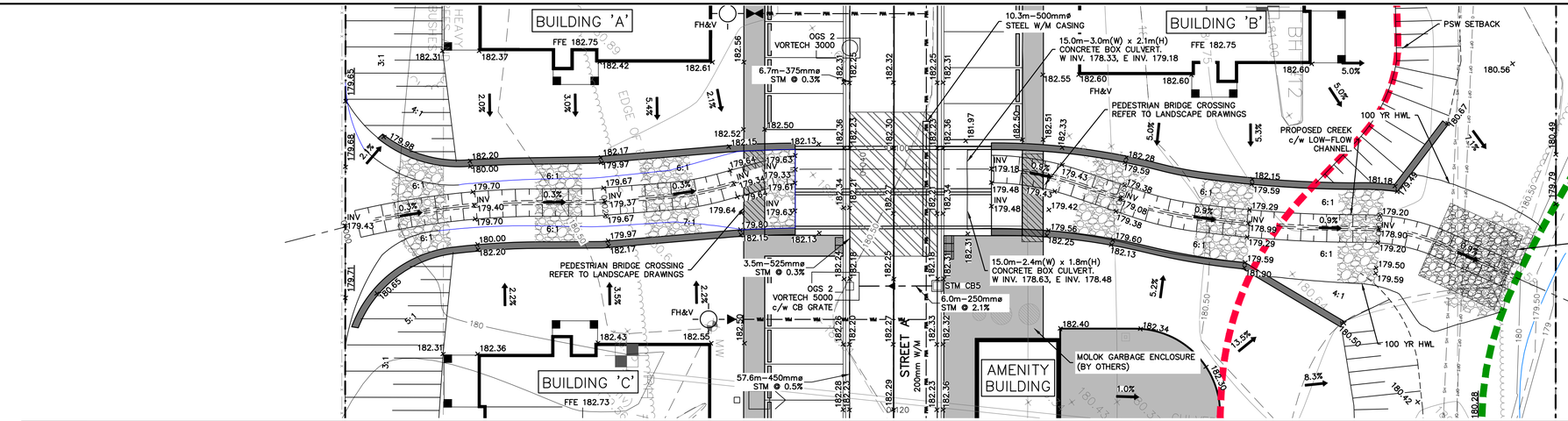
Engineer: LICENSED PROFESSIONAL ENGINEER, R.A. ALEXANDER, 100213093, January 19, 2022, PROVINCE OF ONTARIO

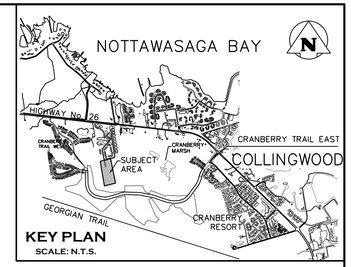
Project: WYLDEWOOD CREEK
TOWN OF COLLINGWOOD

Drawing: PLAN & PROFILE
SERVICING EASEMENT

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

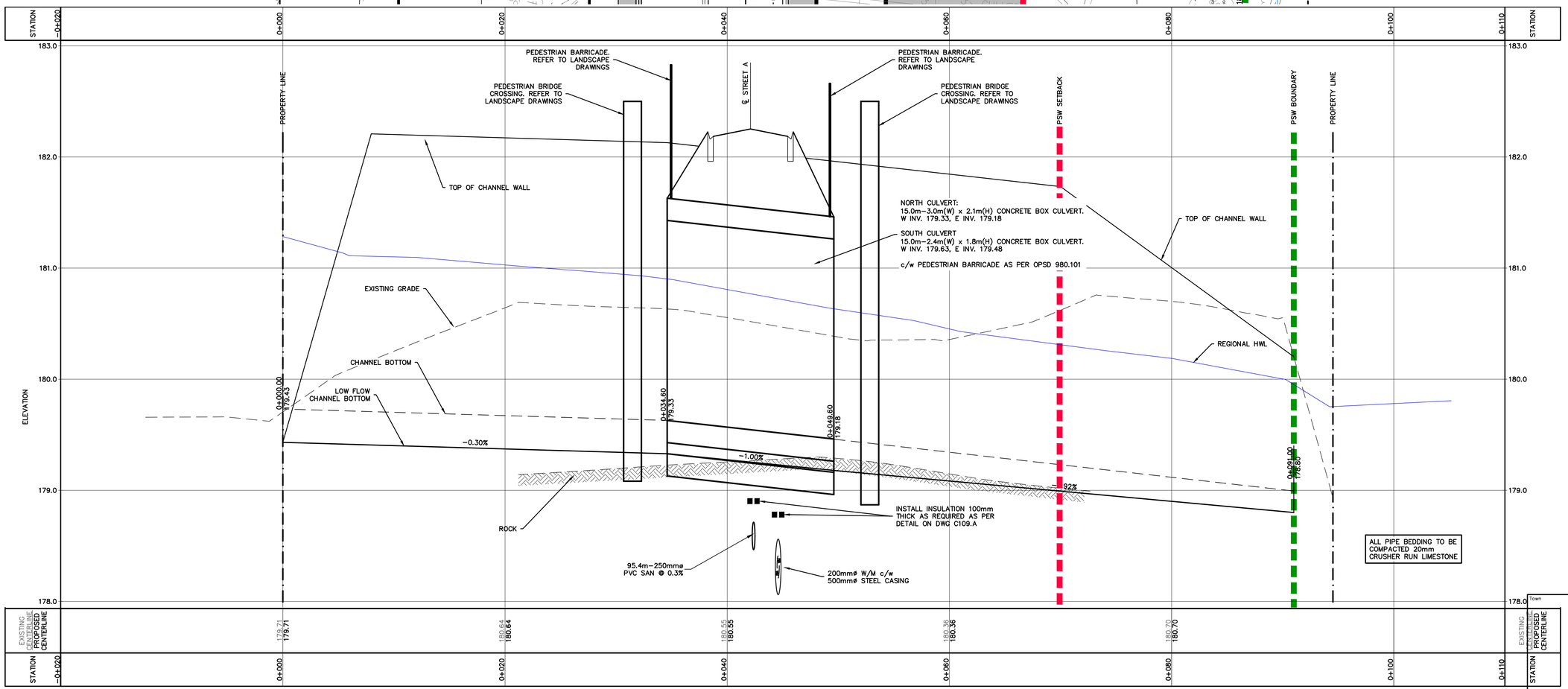
Drawn By	L.W.	Design By	L.W.	Project	1535-4897
Check By	K.M.	Check By	R.A.	Scale H 1:500 V 1:50	Drawing C103.B





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.



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4. DO NOT SCALE THE DRAWINGS.
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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.

No.	ISSUE	DATE: MM/DD/YYYY
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4	ISSUED FOR 3rd ENGINEERING SUBMISSION	01/14/2022

Engineer: LICENSED PROFESSIONAL ENGINEER K. A. MORRIS PROVINCE OF ONTARIO Jan. 14/2022

Engineer: LICENSED PROFESSIONAL ENGINEER R.A. ALEXANDER 100213093 January 14, 2022 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
705-446-3520 F
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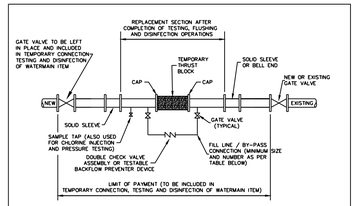
INFO@CFCROZIER.CA

Drawn By	Design By	Project	
L.W.	L.W.		1535–4897
Check By	Check By	Scale	Drawing
K.M.	R.A.	H 1:200 V 1:20	C104



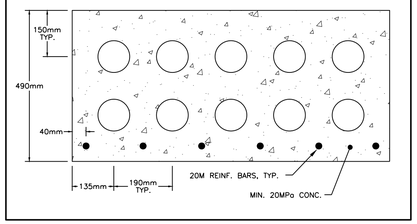
NTS

PIPE DIAMETER	FLOW REQUIRED TO PRODUCE 0.76m/s (APPROX) VELOCITY IN MAIN	SIZE OF TAP (mm)			NUMBER OF OPEN 64mm HYDRANT OUTLETS
		25	38	51	
mm	l/s	NUMBER OF TAPS ON PIPE			
100	6.3	1	–	–	1
150	12.6	–	1	–	1
200	25.2	–	2	1	1
250	37.9	–	3	2	1
300	56.8	–	–	2	2
400	109.9	–	–	4	2

REQUIRED FLOW AND OPENINGS TO FLUSH PIPELINES (276 kPa/40 PSI RESIDUAL PRESSURE IN WATERMAIN)

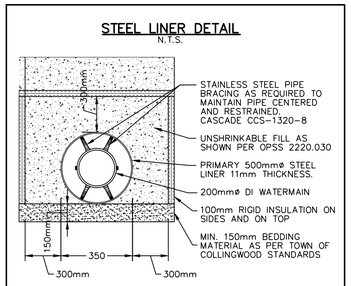
DUCT BANK DETAIL

N.T.S.



STEEL LINER DETAIL

N.T.S.

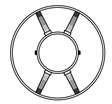


CASING SPACERS

- CASCADE: CCS – 1320–8 (OR APPROVED EQUAL)

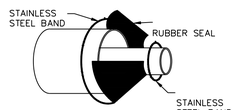
NOTES:

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 (¾") CLEARANCE BETWEEN THE CASING PIPE AND THE OUTSIDE DIAMETER OF THE BELL.



CENTERED & RESTRAINED

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.



GENERAL CONSTRUCTION SCHEDULE

1. IN STREAM WORKS TO COMPLY WITH NVCA TIMING GUIDELINES AND ASSOCIATED PERMITTING.
2. MAINTAIN TEMPORARY WATER MANAGEMENT WORKS AND OVERLAND SPILL ROUTE PRIOR TO ANY EXCAVATION.
3. COMPLETE ASSOCIATED SEDIMENT CONTROLS, CULVERT AND UNDERGROUND SERVICES ENSURING WORKING IN THE DRY AT ALL TIMES.

GENERAL NOTES

1. ALL WORK TO BE PERFORMED IN DRY DEWATERED CONDITIONS USING APPROVED WATER MANAGEMENT PLAN.
2. NO MAINTENANCE OR REPAIR WORK ON CONSTRUCTION EQUIPMENT IS ALLOWED WITHIN 30 METRES OF WATERCOURSE.
3. 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.
4. ALL TEMPORARY SOIL OR DIRT TO BE STOCKPILED PER DESIGNATED AREAS.
5. FLOW INFORMATION PROVIDED HEREIN CONCERNING CRANBERRY MARSH OUTLET FOR CONTRACTOR USE ONLY.
6. 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

1. FOOTING DETAILS (DIMENSIONS & REINFORCING) FOR MUNICIPAL APPROVAL PROCESS ONLY. ACTUAL SIZE OF FOOTINGS AND REINFORCING AS PER DESIGN BY CONTRACTOR.
2. FOOTINGS ARE ASSUMED TO BE FOUNDED ON BEDROCK; CONTRACTOR TO CONFIRM IN FIELD.
3. DESIGN IN ACCORDANCE WITH THE CANADIAN HIGHWAY BRIDGE DESIGN CODE (CAN/CSA–S6–06).
4. 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.
5. CLASS OF CAST–IN–PLACE CONCRETE = 30 MPa.
6. CLEAR COVER TO REINFORCING:
   FOOTINGS = 100±25
   DISTRIBUTION SLAB = AS NOTED ON DWG.
7. BAR MARKS WITH SUFFIX 'C' DENOTE COATED BARS.
8. REINFORCING BARS SHALL BE GRADE 400 MPa.
9. CONTRACTOR TO PROVIDE MIN. 0.75m GRANULAR ABOVE CULVERT STRUCTURE DURING CONSTRUCTION.

REQUIREMENTS FOR THE CONTRACTOR

1. 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.
2. SUBMISSION SHALL INCLUDE DETAILS ON REACTION LOADS, BOTH HORIZONTAL & VERTICAL, TO RE RESISTED BY FOUNDATION AS WELL AS DETAILS ON PROPOSED ANCHORAGE FOR CULVERT & FOOTINGS.
3. ENSURE THAT THE SHOP DRAWINGS ARE SPECIFIC TO THIS CONTRACT, AND REFERENCED TO CFCA PROJECT No. 1535–4897, AND NOT A "STOCK ITEM".
4. ENSURE THAT SHOP DRAWINGS SHOW AND SPECIFY ALL JOINT FILLERS, SEALS AND COMPOUNDS, GROUT, AND GEOTEXTILE INSTALLATIONS AND APPLICATIONS.

Town

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BENCHMARKS

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

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Engineer: LICENSED PROFESSIONAL ENGINEER K.A. MORRIS PROVINCE OF ONTARIO

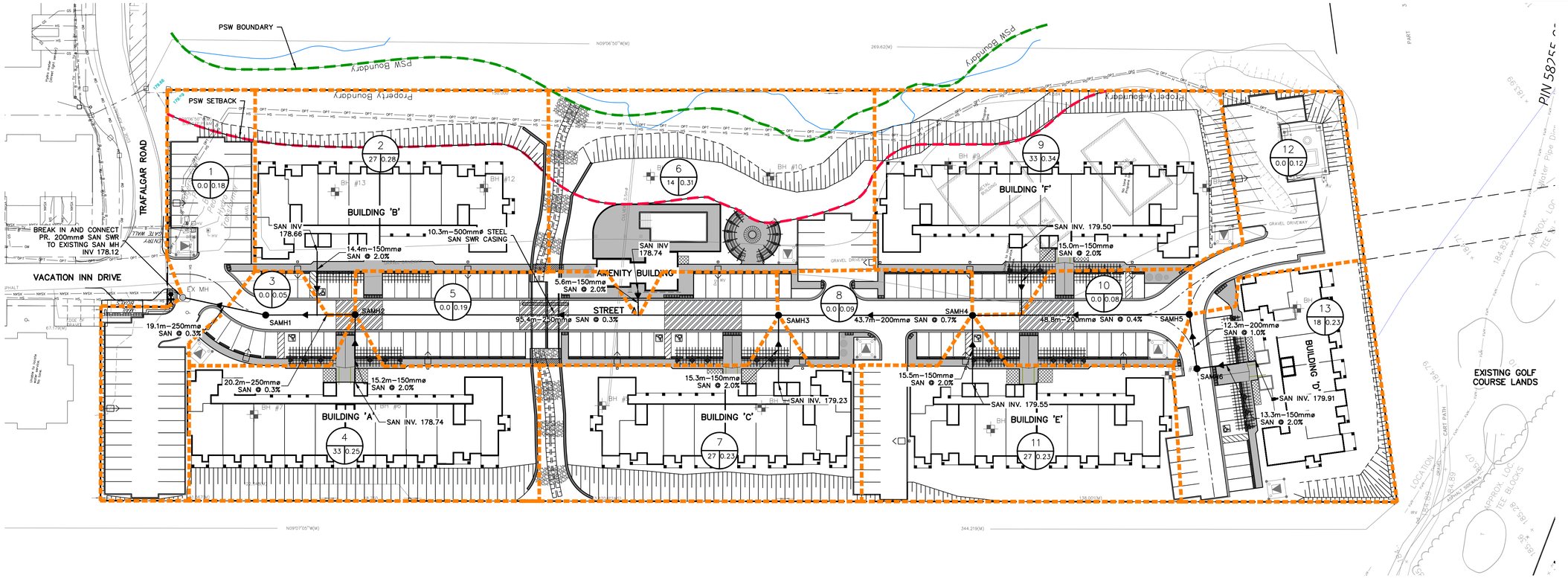
Engineer: LICENSED PROFESSIONAL ENGINEER R.A. ALEXANDER 100213093 PROVINCE OF ONTARIO

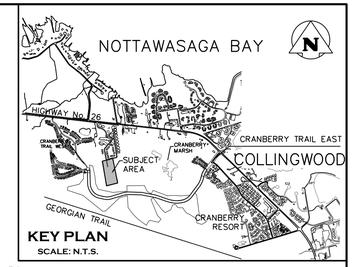
Project: WYLDEWOOD CREEK
TOWN OF COLLINGWOOD

Drawing: CULVERT CROSSING NOTES AND 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	Design By	Project	
L.W.	L.W.		1535–4897
Check By	Check By	Scale	Drawing
K.M.	R.A.	AS NOTED	C105





10 0m 10 20 30 40
SCALE: 1:500

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Engineer: LICENSED PROFESSIONAL ENGINEER K. A. MORRIS PROVINCE OF ONTARIO

Engineer: LICENSED PROFESSIONAL ENGINEER R.A. ALEXANDER 100213093 January 19, 2022 PROVINCE OF ONTARIO

Town

Project: WYLDEWOOD CREEK
TOWN OF COLLINGWOOD

Drawing: SANITARY DRAINAGE PLAN

CROZIER CONSULTING ENGINEERS
ADMIRAL BUILDING
1 FIRST STREET, SUITE 200
COLLINGWOOD, ON, L9Y 1A1
705-446-3510 T
705-446-3520 F
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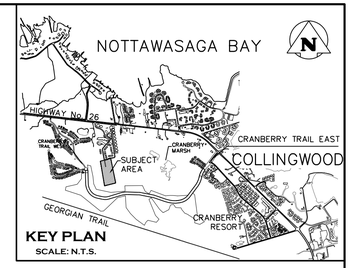
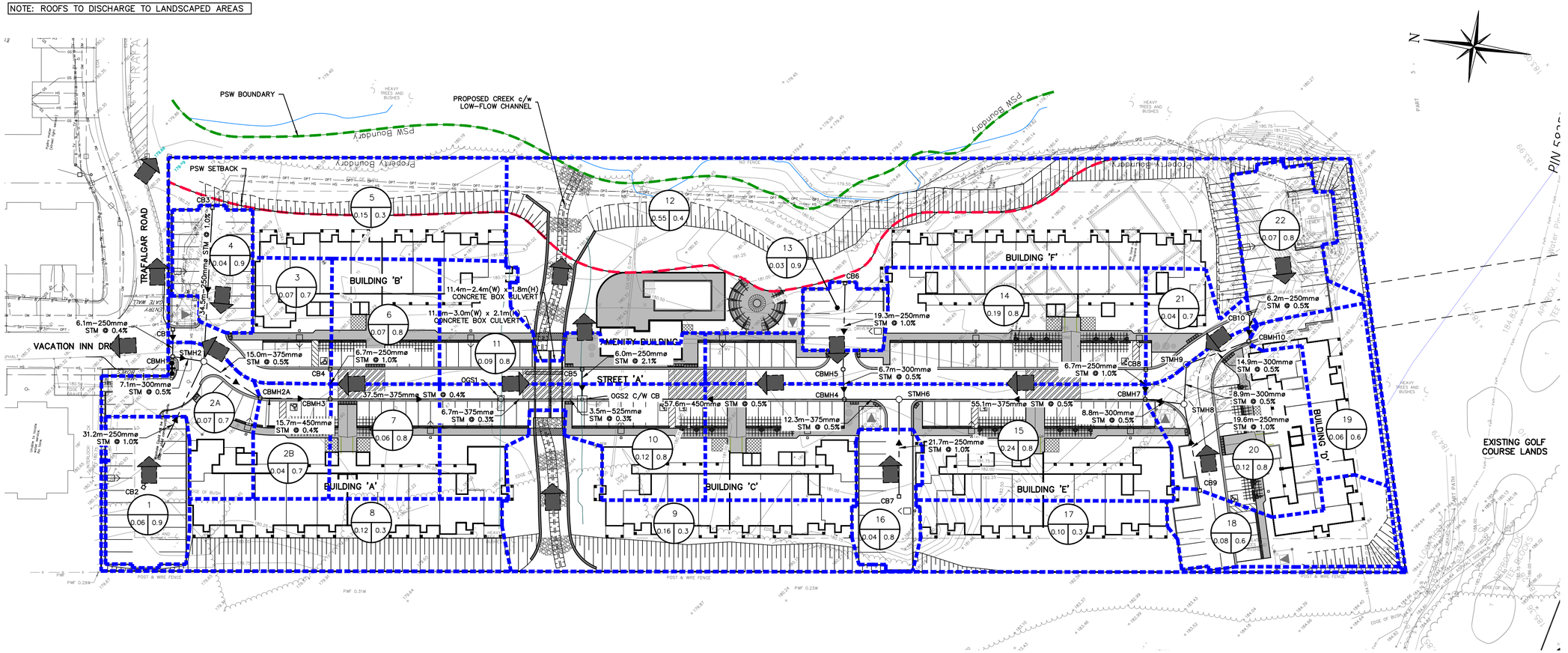
Drawn By	Design By	Project	Scale	Drawing
L.W.	L.W.	1535–4897	1:500	C106
Check By K.M.	Check By R.A.			

J:\1500\1535-Brandy Lane Corp\4897-Georgian Bay Hotel South Block\CAD\Civil_Sheets\4897_C106 SAN.dwg, C106, 2022-01-14 4:30:29 PM, lwaters



KEY PLAN
SCALE: N.T.S.

NOTE: ROOFS TO DISCHARGE TO LANDSCAPED AREAS



SCALE: 1:500

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BENCHMARKS

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Engineer: LICENSED PROFESSIONAL ENGINEER R.A. ALEXANDER 100213093 PROVINCE OF ONTARIO

Town

Project: WYLDEWOOD CREEK
TOWN OF COLLINGWOOD

Drawing: STORM DRAINAGE PLAN

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

Drawn By	Design By	Project	
L.W.	L.W.		1535-4897
Check By	Check By	Scale	Drawing
K.M.	R.A.	1:500	C107

GENERAL NOTES:

1. 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.
2. NO MAINTENANCE OR REPAIR WORK ON CONSTRUCTION EQUIPMENT IS ALLOWED WITHIN 30 METRES OF AN EXISTING WATER COURSE OR DITCH.
3. 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 ROCK CHECK DAMS.
4. 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.
5. NO TREE CLEARING OR DISTURBANCE OF LANDS WILL OCCUR OUTSIDE OF WYLDEWOOD CREEK PROPERTY LIMITS.
6. 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.
7. 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.
8. DURING THE CONSTRUCTION PERIOD, WHEN INTERNAL BLOCKS HAVE INITATED CONSTRUCTION, A STREET CLEANING SCHEDULE WILL BE UNDERTAKEN ON A MINIMUM WEEKLY BASIS, OR AS DIRECTED BY THE SITE ENGINEER, MUNICIPALITY OR CONSERVATION AUTHORITY.

CONSTRUCTION IMPLEMENTATION:

A) PRE-CONSTRUCTION
1. SITE ENGINEER TO ADVISE CONSERVATION AUTHORITY OF STAFF RESPONSIBLE FOR SITE SEDIMENT CONTROL SUPERVISION, INSPECTION AND MAINTENANCE, INCLUDING AFTER HOUR CONTACTS.
2. SITE ENGINEER TO PROVIDE WRITTEN INSPECTION AND MAINTENANCE SCHEDULE OF SEDIMENT CONTROL DEVICES.
3. CONTRACTOR TO INSTALL ALL SEDIMENT CONTROL DEVICES AS IDENTIFIED ON THE APPROVED EROSION CONTROL PLAN PRIOR TO EARTHWORKS OPERATIONS.

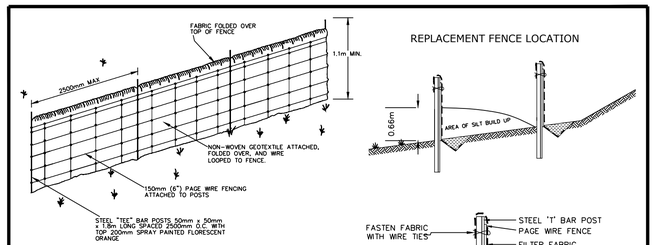
B) DURING CONSTRUCTION (SITE AND BUILDING WORKS)
1. CONTRACTOR TO ENSURE TOPSOIL STRIPPING, GRADING AND UNDERGROUND WORKS CONFORM TO APPROVED GRADING, SERVICING AND EROSION CONTROL PLANS.
2. SITE ENGINEER TO CONDUCT REQUIRED WEEKLY INSPECTION, MAINTENANCE AND REPORTING OF SEDIMENT CONTROLS TO THE CONSERVATION AUTHORITY.
3. CONTRACTOR TO STABILIZE SITE AS REQUIRED THROUGHOUT SITE CONSTRUCTION SCHEDULE.

C) POST CONSTRUCTION (INCLUDING BUILDING CONSTRUCTION)
1. 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 OVERSEEDING.
2. CONTRACTOR TO REMOVE ALL SEDIMENT CONTROL DEVICES AFTER THE SITE IS STABILIZED TO A CONDITION EQUAL TO, OR BETTER THAN, PRE-CONSTRUCTION CONDITIONS.

MAINTENANCE & OPERATIONS OF SEDIMENT CONTROLS

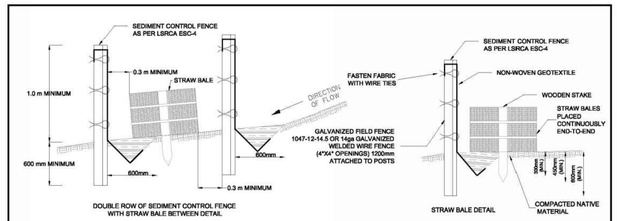
A) SILT FENCE
1. SILT FENCE TO BE LOCATED ON CRANBERRY TRAIL ROW LIMITS.
2. SILT FENCE MUST BE INSPECTED WEEKLY FOR RIPS OR TEARS, BROKEN STAKES, BLOW-OUTS AND ACCUMULATION OF SEDIMENT.
3. SILT FENCE MUST BE INSPECTED FOLLOWING ALL 13mm OR GREATER RAIN STORM EVENT OR AS DIRECTED BY SITE ENGINEER.
4. SEDIMENT MUST BE REMOVED FROM SILT FENCE WHEN ACCUMULATION REACHES 50% OF THE HEIGHT OF THE FENCE.
5. 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
1. REMOVE ACCUMULATED SEDIMENT UP STREAM OF THE CHECK DAM IF GREATER THAN 50% OF DAM HEIGHT.
2. SILT REMOVAL MUST BE UNDERTAKEN WITH CARE TO MINIMIZE DOWN STREAM SEDIMENTATION IN SWALE OR DITCH.
3. CHECK DAMS AND ALL ACCUMULATED SEDIMENT MUST BE REMOVED WITH CARE ONCE THE CONSTRUCTION SITE IS STABILIZED AND AS DIRECTED BY THE SITE ENGINEER.



NOTES:
1. SILT CONTROL FENCE SHOULD BE ALIGNED WITH CONTOURS FOR SHEET OVERLAND FLOW.
2. SILT/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 LS BASED ON SLOPE LENGTH AND GRADIENT."
3. SILT/SEDIMENT CONTROL FENCE SHALL BE INSTALLED WITH FILTER MEDIA FABRIC TOED INTO THE SOIL A MIN. OF 300mm BY EITHER STATIC SLICING OR TRENCH METHODS WITH COMPACTION OF TRENCH MATERIAL MEETING 95% INSITU SOIL STRENGTH.
4. STEEL "I" BAR POSTS ARE TO BE SPACED MAX. 2500mm ON CENTER.
5. FROZEN GROUND CONDITIONS REQUIRE FILTER FABRIC TO BE BACKFILLED IN TRENCH WITH CLEAR STONE.
6. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE SHOWN.
7. GEOTEXTILE FABRIC TO BE TERRAFIX 270R GEOTEXTILE OR APPROVED EQUIVALENT. FABRIC TO BE FOLDED OVER TOP OF FENCE MIN. 300mm AND WIRE FASTENED.

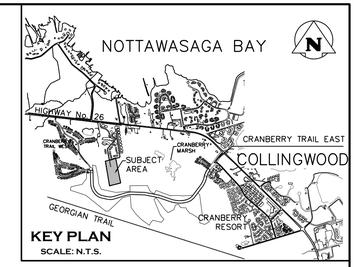
Nottawasaga Valley Conservation Authority				APR'D:	DATE: 03.03.06
				DRAWN: A.S.C	SCALE: NTS
TYPICAL DETAIL OF SILT/SEDIMENT FENCE	NO.	REVISION	APR'D	DATE	BSD-23 DRAFT



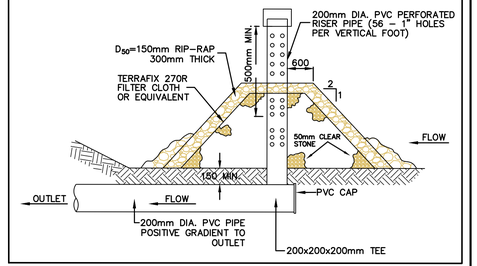
NOTES:
1. SEDIMENT CONTROL FENCE SHOULD BE ALIGNED WITH CONTOURS FOR SHEET OVERLAND FLOW.
2. SEDIMENT CONTROL FENCE IS TO BE LOCATED IN AREAS OF LOW SEDIMENT YIELD ON SLOPES THAT CONFORM TO MTO DRAINAGE MANUAL VOLUME 2 CHART F4-3C TOPOGRAPHIC FACTOR LS BASED ON SLOPE LENGTH AND GRADIENT.
3. SEDIMENT 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.
4. STEEL "I" BAR POSTS ARE TO BE SPACED A MAXIMUM DISTANCE OF 2000 mm ON CENTER.
5. STRAW BALES TO BE PLACED END-TO-END CONTINUOUSLY BETWEEN SEDIMENT CONTROL FENCES.
6. FROZEN GROUND CONDITIONS REQUIRE FILTER FABRIC TO BE BACKFILLED IN TRENCH WITH CLEAR STONE.
7. 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.
8. CONSTRUCTION OPERATIONS SHALL BE CARRIED OUT IN SUCH A MANNER THAT EROSION AND WATER POLLUTION IS MINIMIZED.
9. ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE SHOWN.

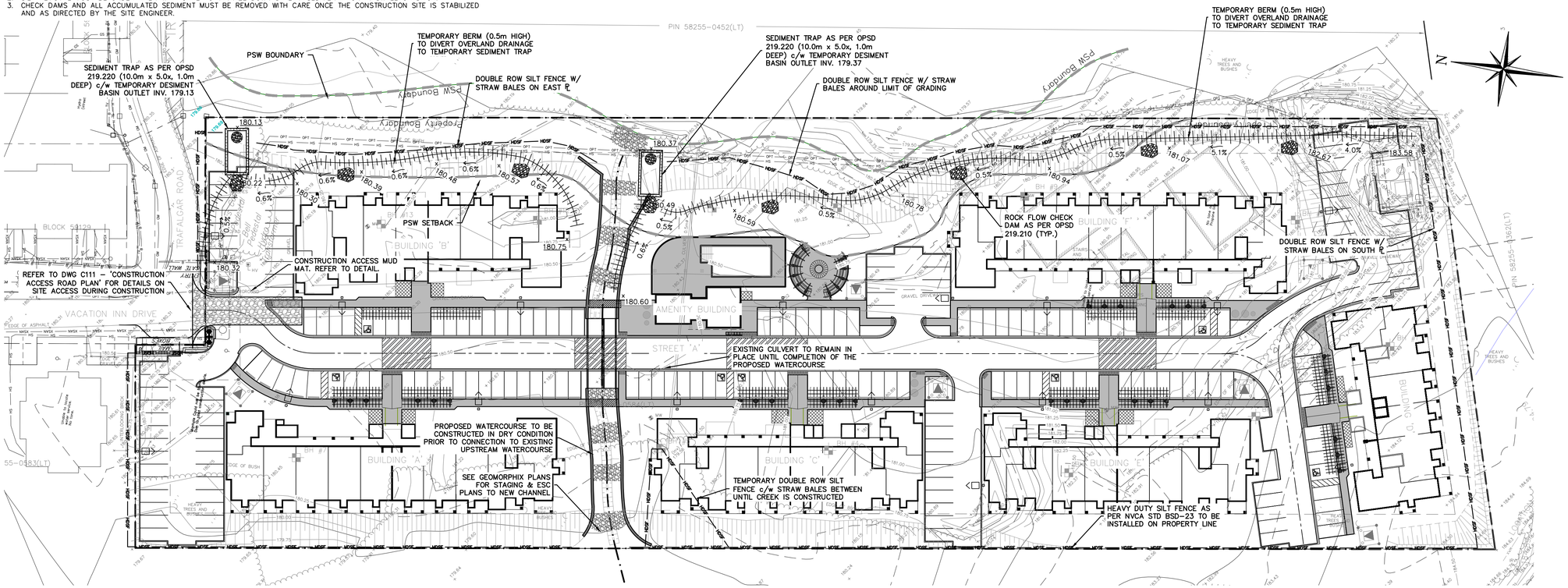
NO.	REVISION	DATE
1	SWM GUIDELINES UPDATE	06.2016

DOUBLE ROW SEDIMENT CONTROL FENCE	DATE: 06.2016
	SCALE: NTS
LSRCA ESC-5	

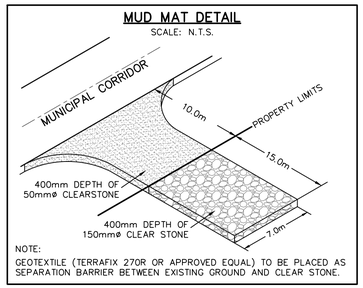


TEMPORARY HICKENBOTTOM OUTLET
N.T.S.





MUD MAT DETAIL
SCALE: N.T.S.



NOTE:
GEOTEXTILE (TERRAFIX 270R OR APPROVED EQUAL) TO BE PLACED AS SEPARATION BARRIER BETWEEN EXISTING GROUND AND CLEAR STONE.

Town

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.

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

Engineer: LICENSED PROFESSIONAL ENGINEER K. A. MORRIS PROVINCE OF ONTARIO

Engineer: LICENSED PROFESSIONAL ENGINEER R.A. ALEXANDER 100213093 PROVINCE OF ONTARIO

Project: WYLDEWOOD CREEK
TOWN OF COLLINGWOOD

Drawing: EROSION AND SEDIMENT CONTROL PLAN

CROZIER CONSULTING ENGINEERS
ADMIRAL BUILDING
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COLLINGWOOD, ON. L9Y 1A1
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705-446-3520 F
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Drawn By	L.W.	Design By	L.W.	Project	1535-4897
Check By	K.M.	Check By	R.A.	Scale 1:500	Drawing C108

J:\1500\1535-Brandy Lane Corp\4897-Georgian Bay Hotel South Block\CAD\Civil_Sheets\4897_C108 ESC.dwg, C108, 2022-01-14 4:34:44 PM, lwaters

CONSTRUCTION NOTES:

A) GENERAL – CONSTRUCTION

1. 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.
2. 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).
3. PIPE COVER AND BEDDING TO BE GRANULAR 'A' (MINIMUM 150mm DEPTH COMPACTED TO A MINIMUM 95% SPMDD).
4. CLASS 'B' BEDDING CONSISTING OF 20mm CRUSHER-RUN LIMESTONE TO BE USED FOR THE CONSTRUCTION OF ALL UNDERGROUND SERVICES.
5. ALL TOPSOIL AND EARTH EXCAVATION TO BE STOCK PILED OR REMOVED TO AN APPROVED SITE AS DIRECTED BY ENGINEER.
6. 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.
7. ALL PROPERTY BARS TO BE PRESERVED AND REPLACED BY O.L.S. AT CONTRACTOR'S EXPENSE IF REMOVED DURING CONSTRUCTION.
8. THE CONTRACTOR SHALL MAKE HIS OWN ARRANGEMENTS FOR THE SUPPLY OF TEMPORARY WATER AND POWER.
9. 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.O.E. PERMIT IF REQUIRED.
10. ALL ENGINE DRIVEN PUMPS TO BE ADEQUATELY SILENCED, SUITABLE FOR OPERATION IN A RESIDENTIAL DISTRICT.
11. DISTURBED AREAS OUTSIDE THE DEVELOPABLE LANDS TO BE REINSTATED TO PREVIOUS CONDITION OR BETTER.
12. THE CONTRACTOR IS RESPONSIBLE TO NOTIFY ALL UTILITY COMPANIES PRIOR TO COMMENCING WORK AND CO-ORDINATE CONSTRUCTION ACCORDINGLY.
13. ALL ROCK EXCAVATION PER OPSS-206.
14. ALL EXCAVATION MUST BE CARRIED OUT IN FULL COMPLIANCE WITH MOST RECENT GUIDELINES OF OHSA. NATIVE SOILS ARE CLASSIFIED AS TYPE 3 SOIL.

B) ROADS

1. SUBGRADE AND BOULEVARD MATERIAL TO BE COMPACTED TO A MINIMUM DRY DENSITY OF AT LEAST 95% SPMDD. SUBGRADE TO BE PROOF ROLLED AND CERTIFIED PRIOR TO PLACING GRANULAR 'B'.
2. 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 DETAILS.
3. CONDO ROADWAYS TO BE CONSTRUCTED WITH MINIMUM 300mm GRANULAR 'B' TYPE 1, 150mm GRANULAR 'A', 50mm HL8 BASE COURSE ASPHALT, & 40mm HL3 SURFACE COURSE ASPHALT.
4. SELECT SUBGRADE MATERIAL, OR IMPORTED GRANULAR MATERIAL APPROVED BY THE ENGINEER, COMPACTED TO 98% SPMDD TO BE USED AS FILL IN ALL AREAS WHERE PROPOSED PIPE INVERTS ARE HIGHER THAN EXISTING GRADE OR AS INSTRUCTED BY THE ENGINEER.
5. ALL GRANULARS AND ASPHALT MATERIALS AND PLACEMENT TO BE IN ACCORDANCE WITH OPSS 314 AND OPSS 310.
6. 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.
7. STOP SIGNS AND STREET SIGNS TO TOWN STANDARDS (DETAIL DWG No. 401).
8. REINSTATEMENT OF ALL DISTURBED BOULEVARDS TO INCLUDE REGRADING, 150mm TOPSOIL AND SOD TO OPSS 802 AND 803.
9. 100mm ø PIPE SUBDRAINS SHALL BE PROVIDED UNDER EDGE OF PAVEMENT ON LOWER (GUTTER) SIDE OF THE ROAD.
10. 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.
11. SUBDRAINS TO BE PERFORATED OTHER THAN THE 2m SECTION IMMEDIATELY UPSTREAM OF ALL STRUCTURES WHICH SHALL BE NON-PERFORATED.

C) SANITARY SEWERS

1. M.H.'S TO OPSD – 701.010, 701.030, & 704.010.
2. BENCHING TO OPSD – 701.021.
3. STEPS TO OPSD – 405.010.
4. BACKFILL AND EMBEDMENT TO OPSD – 802.010 CLASS 'B', GRANULAR 'A' BEDDING.
5. TRENCH BACKFILL TO BE SELECT NATIVE MATERIAL AS APPROVED BY ENGINEER OR IMPORTED GRANULAR MATERIAL.
6. FRAMES AND COVERS TO OPSD – 401.01 TYPE 'A' (CLOSED COVER).
7. SERVICE CONNECTIONS TO OPSD – 1006.020 (125mm), GRANULAR 'A' BEDDING, TERMINATE AT SERVICING CORRIDOR LIMITS, 125 x 100 REDUCER, PLUG AND 2x4 MARKER POST PAINTED GREEN. MINIMUM GRADE TO BE 2.0%.
8. RADIUS BENDS TO BE USED ON SANITARY SEWER CONNECTIONS WHERE THE ANGLE OF CONNECTION BETWEEN THE SERVICE AND SEWER EXCEEDS 90°.
9. 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).
10. MANHOLES FRAMES TO BE SET TO BASE COURSE ASPHALT ELEVATION AND RAISED BY ADDING RISER RINGS PRIOR TO PLACING SURFACE COURSE ASPHALT.
11. PIPE SUPPORT AT MAINTENANCE HOLES AS PER OPSD 708.020.
12. ALL MAINTENANCE HOLES, UNLESS EXPRESSLY IDENTIFIED ARE 1200mm ø.
13. 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.
14. SANITARY SEWER – SDR 35 PVC.
15. SANITARY SERVICE – SDR 28 PVC – 125mm PER OPSD 1006.020 SEWER SERVICE CONNECTION FOR FLEXIBLE PIPE.
16. FROST STRAPS PER OPSD 701.100.
17. CLAY SEEPAGE PLUGS (0.5m THICK) TO BE PLACED ALONG PIPE BETWEEN MANHOLES.
18. SEWER JOINTS TO BE LEAK-PROOF, OR TO BE WRAPPED WITH AN APPROPRIATE WATERPROOF MEMBRANE TO PREVENT SUBGRADE MITIGATION.

D) WATERMAINS

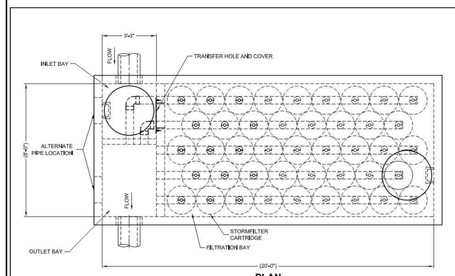
1. BACKFILL AND EMBEDMENT TO OPSD – 802.010 CLASS 'B', GRANULAR 'A' EMBEDMENT.
2. TRENCH BACKFILL TO BE SELECT NATIVE MATERIAL AS APPROVED BY ENGINEER OR IMPORTED GRANULAR MATERIAL.
3. THRUST BLOCKS TO OPSD – 1103.010 AND 1103.020 WHERE SUITABLE SOILS ARE ENCOUNTERED.
4. SERVICE CONNECTIONS TO OPSD – 1104.010, 100mm GRANULAR 'A' EMBEDMENT AND COVER OVER PIPE. TERMINATE AT SERVICING CORRIDOR LIMITS C/W CURB STOP AND BOX.
5. HYDRANTS TO OPSD – 1105.010 DRAIN PLUGS SHALL BE INSTALLED WHERE HIGH WATER TABLE IS ENCOUNTERED.
6. 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).
7. MINIMUM COVER ON WATERMAIN AND SERVICES TO BE 1.7m.
8. GATE VALVES, BENDS AND HYDRANT LEADS AND FITTINGS TO BE CONNECTED WITH ROLMAC GRIPPER RING RESTRAINING GLANDS.
9. CLEARANCE BETWEEN WATERMAINS AND SEWERS TO BE AS PER MOE GUIDELINES, MINIMUM 0.5m VERTICAL SEPARATION WHERE SEWER IS ABOVE WATERMAIN & 2.5m MINIMUM HORIZONTAL SEPARATION.
10. ALL SERVICES TO BE DIRECT TAPPED.
11. FOLLOWING TESTING, CONTRACTOR SHALL OPERATE EACH WATER SERVICE TO VERIFY FULL FLOW AND PRESSURE AT THE CURB STOP TO THE SATISFACTION OF THE ENGINEER.
12. GENERAL INSTALLATION AND TESTING OF WATERMAIN AND APPURTENANCES TO BE IN ACCORDANCE WITH OPSS 701 AND ALL SPECIFICATIONS REFERENCED WITHIN THESE SECTIONS. COMPLETE WATER SYSTEM SHALL BE DISINFECTED IN ACCORDANCE WITH REQUIREMENTS OF AWWA STANDARD C651-99. REFER TO TOWN OF COLLINGWOOD STD. NO. 128 'TEMPORARY CONNECTION FOR WATERMAINS'. ALL WATERMAIN TESTING & CHLORINATION WILL BE CONDUCTED BY CPU AT CONTRACTORS COST. WATERMAINS ARE NOT TO BE CONNECTED TO EXISTING WATERMAINS UNTIL BACTERIALOGICAL TESTING HAS BEEN SUCCESSFULLY COMPLETED & CERTIFIED BY CPU.
13. COMPLETE WATER SYSTEM SHALL BE DISINFECTED IN ACCORDANCE WITH REQUIREMENTS OF O. REG. 459/00 & SATISFACTION OF CPU.
14. WATERMAIN – CLASS 52 OR PRESSURE CLASS 350 CEMENT LINED DUCTILE IRON. CONDUCTIVITY CONNECTORS TO BE USED ON ALL JOINTS.
15. SINGLE WATERMAIN SERVICES – 19mm ø TYPE 'K' SOFT COPPER PIPE.
16. FOR DOUBLE WATER SERVICE, THE COMMON WATER SERVICE & MAIN STOP TO BE 25mmø TYPE K SOFT COPPER. SPLITTER FITTING SHOULD BE 'U' TYPE & LOCATED OUTSIDE OF DRIVEWAYS.
17. MAIN STOPS TO 301-A4H4, BALL STYLE, AWWA THREAD BY COMPRESSION CAMBRIDGE BRASS.
18. CURB STOPS TO 203-H3H3, BALL STYLE WITH DRAIN, COMPRESSION JOINT BY CAMBRIDGE BRASS.
19. A CURB STOP & EXTENSION SERVICE BOX & MAIN STOP MUST BE INSTALLED ON EACH SERVICE USING COMPRESSION JOINT FITTINGS.
20. 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.
21. SERVICE BOXES TO BE NUMBER 7, D-I CLOW OR MUELLER, 36" STAINLESS STEEL ROD C/W CAP PAINTED BLUE.
22. ALL SERVICES SHALL BE METERED. METERS TO BE COMPLETE WITH REMOTE READOUT OR RADIO READ AS DETERMINED BY THE CPU.
23. HYDRANTS – CENTURY NUMBER 1, OPEN LEFT (O/L), 2 HOSE, 33B PLUMBER PORT. 6" MJ BASE, SELF-DRAINING YELLOW BASE WITH SILVER BONNET AND PORTS.
24. VALVES – RESILIENT SEATED, RSGV MECHANICAL JOINT, OPEN LEFT CLOW OR MUELLER WITH 5-SL-48 SLIDING VALVE BOX C/W CAP PAINTED BLUE.
25. MECHANICAL JOINT DUCTILE FITTINGS – AWWA/ANSI C153/A21.53.
26. HYDRANTS TO BE INSTALLED C/W HYDRANT MARKER STAKES PER TOWN WATER DEPARTMENT STANDARD "FLEX STAKE HYDRANT MARKER MODEL FHV804, 48" LONG, COLOUR YELLOW WITH REFLECTIVE HYDRANT GRAPHIC ON BOTH SIDES". MARKER TO BE POSITIONED ON THE RIGHT PORT AS VIEWED FROM STREET.
27. 50mmø WATERMAIN LOOP- TYPE 'K' COPPER.
28. ALL VALVES TO BE OPERATED BY THE TOWN WATER DEPARTMENT. CONTRACTOR TO PROVIDE MIN. 48hr NOTIFICATION FOR REQUEST.
29. HYDRANTS ARE TO BE 1.67m (5'6") LONG. MAKE-UP PIECES, IF REQUIRED, ARE TO BE INSTALLED BELOW THE HYDRANT.
30. ALL WATERMAIN FITTINGS TO BE LEAD FREE.
31. MECHANICAL JOINT RESTRAINTS TO BE USED DURING TRANSITION OF WATERMAIN INSTALLATION IN NATIVE SOILS TO ENGINEERED FILL. MECHANICAL JOINT RESTRAINTS TO BE ROLMAC GRIPPER RING RESTRAINING GLANDS FOR PIPES UP TO 300mmø AND SIGMA ONE LOCK RESTRAINING GLANDS FOR PIPES LARGER THAN 300mmø OR APPROVED EQUALS.

E) STORM SEWERS

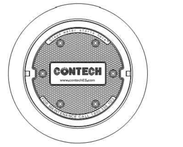
1. MH TO OPSD 701.010 AND DCBMH TO OPSD – 701.011, 701.012, C/W SUMP UNLESS NOTED OTHERWISE.
2. STEPS TO OPSD 405.010.
3. M.H. FRAMES AND GRATES TO OPSD – 401.01 OPEN COVER.
4. DICB'S TO OPSD – 705.030, 705.040.
5. DCBMH FRAMES AND GRATES TO OPSD – 400.020
6. PIPE SUPPORT AT DCBMH'S TO OPSD – 708.020.
7. DCB LEADS – 300mm ø DOUBLE TO OPSD – 708.010, 708.030.
8. PROTECTION DURING CONSTRUCTION TO OPSD – 808.010.
9. BACKFILL AND EMBEDMENT TO OPSD – 802.010 (FLEXIBLE PIPE) CLASS 'B', GRANULAR 'A' EMBEDMENT OR OPSD – 802.030, 802.031 AND 802.032 (RIGID PIPE) GRANULAR 'A' EMBEDMENT.
10. BACKFILL AND EMBEDMENT MATERIAL TO BE COMPACTED TO A DRY DENSITY OF AT LEAST 95% OF THE MATERIAL'S SPMDD.
11. 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), MIN. 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.
12. FROST STRAPS PER OPSD 701.100.
13. CLAY SEEPAGE PLUGS (0.5m THICK) TO BE PLACED ALONG PIPE BETWEEN MANHOLES.
14. SEWER JOINTS TO BE LEAK-PROOF, OR TO BE WRAPPED WITH AN APPROPRIATE WATERPROOF MEMBRANE TO PREVENT SUBGRADE MITIGATION.

STORMFILTER 2

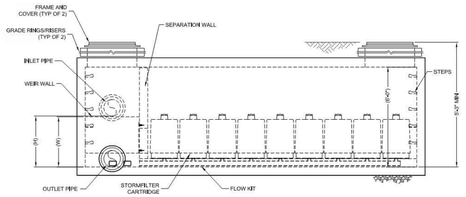
SCALE: N.T.S.



PLAN



FRAME AND COVER
(DIAMETER VARIES)
N.T.S.



ELEVATION

Stormfilter

STORMFILTER DESIGN TABLE

- THE 8' x 20' PEAK DIVERSION STORMFILTER TREATMENT CAPACITY VARIES BY CARTRIDGE COUNT AND LOCALLY APPROVED SURFACE AREA SPECIFIC FLOW RATE. PEAK CONVEYANCE CAPACITY TO BE DETERMINED BY ENGINEER OF RECORD.
- THE PEAK DIVERSION STORMFILTER IS AVAILABLE IN A LEFT INLET (AS SHOWN) OR RIGHT INLET CONFIGURATION.
- ALL PARTS AND INTERNAL ASSEMBLY PROVIDED BY CONTECH UNLESS OTHERWISE NOTED.

CARTRIDGE HEIGHT	27"		18"		LOW DROP	
SYSTEM HYDRAULIC DROP (H - REQ'D, MIN.)	3.05'		2.3'		1.6'	
HEIGHT OF WEIR (W)	3.00'		2.25'		1.75'	
TREATMENT BY MEDIA SURFACE AREA	2 gpm/ft²	1 gpm/ft²	2 gpm/ft²	1 gpm/ft²	2 gpm/ft²	1 gpm/ft²
CARTRIDGE FLOW RATE (gpm)	22.5	11.25	15	7.5	10	5

SITE SPECIFIC DATA REQUIREMENTS

STRUCTURE ID	*
WATER QUALITY FLOW RATE (cfs)	*
PEAK FLOW RATE (cfs)	*
RETURN PERIOD OF PEAK FLOW (yrs)	*
# OF CARTRIDGES REQUIRED	*
CARTRIDGE FLOW RATE	*
MEDIA TYPE (CSF, PERLITE, ZPG)	*

PIPE DATA:	I.E.	MATERIAL	DIAMETER
INLET PIPE	*	*	*
OUTLET PIPE	*	*	*
INLET BAY RIM ELEVATION			*
FILTER BAY RIM ELEVATION			*

ANTI-FLOTATION BALLAST	WIDTH	HEIGHT
	*	*

NOTES/SPECIAL REQUIREMENTS:

PERFORMANCE SPECIFICATION
FILTER CARTRIDGES SHALL BE MEDIA-FILLED, PASSIVE, SIPHON ACTUATED, RADIAL FLOW, AND SELF CLEANING. **RADIAL MEDIA DEPTH SHALL BE 7-INCHES.** FILTER MEDIA CONTACT TIME SHALL BE AT LEAST **37 SECONDS.** SPECIFIC FLOW RATE SHALL BE **2 GPM/SF (MAXIMUM).** SPECIFIC FLOW RATE IS THE MEASURE OF THE FLOW (GPM) DIVIDED BY THE MEDIA SURFACE CONTACT AREA (SF). MEDIA VOLUMETRIC FLOW RATE SHALL BE **6 GPM/CF OF MEDIA (MAXIMUM).**

GENERAL NOTES
1. CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
2. DIMENSIONS MARKED WITH ( ) ARE REFERENCE DIMENSIONS. ACTUAL DIMENSIONS MAY VARY.
3. FOR FABRICATION DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHTS, PLEASE CONTACT YOUR CONTECH REPRESENTATIVE, www.ContechES.com
4. STORMFILTER WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING. CONTRACTOR TO CONFIRM STRUCTURE MEETS REQUIREMENTS OF PROJECT.
5. STRUCTURE SHALL MEET AASHTO HS20 LOAD RATING, ASSUMING EARTH COVER OF 0'-6" AND GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION. CASTINGS SHALL MEET AASHTO M306 AND BE CAST WITH THE CONTECH LOGO.

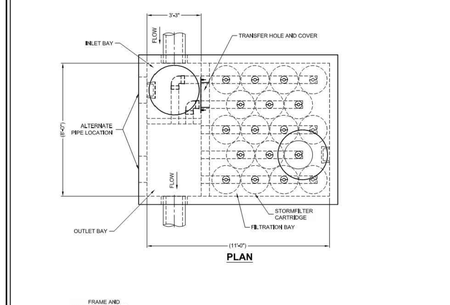
INSTALLATION NOTES
A. ANY SUBBASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
B. CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE STORMFILTER STRUCTURE (LIFTING CLUTCHES PROVIDED).
C. CONTRACTOR TO INSTALL JOINT SEALANT BETWEEN ALL SECTIONS AND ASSEMBLE STRUCTURE.
D. CONTRACTOR TO PROVIDE, INSTALL, AND GROUT PIPES. MATCH OUTLET PIPE INVERT WITH OUTLET BAY FLOOR.
E. CONTRACTOR TO TAKE APPROPRIATE MEASURES TO PROTECT CARTRIDGES FROM CONSTRUCTION-RELATED EROSION RUNOFF.
F. CONTRACTOR TO REMOVE THE TRANSFER HOLE COVER WHEN THE SYSTEM IS BROUGHT ONLINE.

CONTECH ENGINEERED SOLUTIONS LLC
www.ContechES.com
9025 Centre Pointe Dr., Suite 400, West Chester, OH 45069
800-338-1122 513-645-7000 513-645-7993 FAX

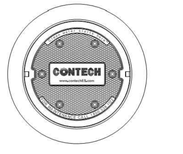
THE STORMWATER MANAGEMENT STORMFILTER
8' x 20' PEAK DIVERSION STORMFILTER
STANDARD DETAIL

STORMFILTER 1

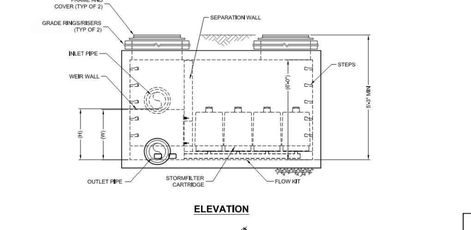
SCALE: N.T.S.



PLAN



FRAME AND COVER
(DIAMETER VARIES)
N.T.S.



ELEVATION

Stormfilter

STORMFILTER DESIGN TABLE

- THE 8' x 11' PEAK DIVERSION STORMFILTER TREATMENT CAPACITY VARIES BY CARTRIDGE COUNT AND LOCALLY APPROVED SURFACE AREA SPECIFIC FLOW RATE. PEAK CONVEYANCE CAPACITY TO BE DETERMINED BY ENGINEER OF RECORD.
- THE PEAK DIVERSION STORMFILTER IS AVAILABLE IN A LEFT INLET (AS SHOWN) OR RIGHT INLET CONFIGURATION.
- ALL PARTS AND INTERNAL ASSEMBLY PROVIDED BY CONTECH UNLESS OTHERWISE NOTED.

CARTRIDGE HEIGHT	27"		18"		LOW DROP	
SYSTEM HYDRAULIC DROP (H - REQ'D, MIN.)	3.05'		2.3'		1.6'	
HEIGHT OF WEIR (W)	3.00'		2.25'		1.75'	
TREATMENT BY MEDIA SURFACE AREA	2 gpm/ft²	1 gpm/ft²	2 gpm/ft²	1 gpm/ft²	2 gpm/ft²	1 gpm/ft²
CARTRIDGE FLOW RATE (gpm)	22.5	11.25	15	7.5	10	5

SITE SPECIFIC DATA REQUIREMENTS

STRUCTURE ID	*
WATER QUALITY FLOW RATE (cfs)	*
PEAK FLOW RATE (cfs)	*
RETURN PERIOD OF PEAK FLOW (yrs)	*
# OF CARTRIDGES REQUIRED	*
CARTRIDGE FLOW RATE	*
MEDIA TYPE (CSF, PERLITE, ZPG)	*

PIPE DATA:	I.E.	MATERIAL	DIAMETER
INLET PIPE	*	*	*
OUTLET PIPE	*	*	*
INLET BAY RIM ELEVATION			*
FILTER BAY RIM ELEVATION			*

ANTI-FLOTATION BALLAST	WIDTH	HEIGHT
	*	*

NOTES/SPECIAL REQUIREMENTS:

PERFORMANCE SPECIFICATION
FILTER CARTRIDGES SHALL BE MEDIA-FILLED, PASSIVE, SIPHON ACTUATED, RADIAL FLOW, AND SELF CLEANING. **RADIAL MEDIA DEPTH SHALL BE 7-INCHES.** FILTER MEDIA CONTACT TIME SHALL BE AT LEAST **37 SECONDS.** SPECIFIC FLOW RATE SHALL BE **2 GPM/SF (MAXIMUM).** SPECIFIC FLOW RATE IS THE MEASURE OF THE FLOW (GPM) DIVIDED BY THE MEDIA SURFACE CONTACT AREA (SF). MEDIA VOLUMETRIC FLOW RATE SHALL BE **6 GPM/CF OF MEDIA (MAXIMUM).**

GENERAL NOTES
1. CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
2. DIMENSIONS MARKED WITH ( ) ARE REFERENCE DIMENSIONS. ACTUAL DIMENSIONS MAY VARY.
3. FOR FABRICATION DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHTS, PLEASE CONTACT YOUR CONTECH REPRESENTATIVE, www.ContechES.com
4. STORMFILTER WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING. CONTRACTOR TO CONFIRM STRUCTURE MEETS REQUIREMENTS OF PROJECT.
5. STRUCTURE SHALL MEET AASHTO HS20 LOAD RATING, ASSUMING EARTH COVER OF 0'-6" AND GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION. CASTINGS SHALL MEET AASHTO M306 AND BE CAST WITH THE CONTECH LOGO.

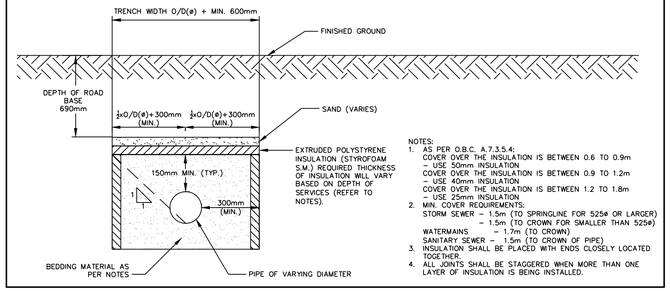
INSTALLATION NOTES
A. ANY SUBBASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
B. CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE STORMFILTER STRUCTURE (LIFTING CLUTCHES PROVIDED).
C. CONTRACTOR TO INSTALL JOINT SEALANT BETWEEN ALL SECTIONS AND ASSEMBLE STRUCTURE.
D. CONTRACTOR TO PROVIDE, INSTALL, AND GROUT PIPES. MATCH OUTLET PIPE INVERT WITH OUTLET BAY FLOOR.
E. CONTRACTOR TO TAKE APPROPRIATE MEASURES TO PROTECT CARTRIDGES FROM CONSTRUCTION-RELATED EROSION RUNOFF.
F. CONTRACTOR TO REMOVE THE TRANSFER HOLE COVER WHEN THE SYSTEM IS BROUGHT ONLINE.

CONTECH ENGINEERED SOLUTIONS LLC
www.ContechES.com
9025 Centre Pointe Dr., Suite 400, West Chester, OH 45069
800-338-1122 513-645-7000 513-645-7993 FAX

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

INSULATION FOR VARIOUS INFRASTRUCTURE

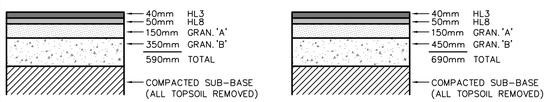
SCALE: N.T.S.



NOTES:
1. AS PER O.B.C. A.7.3.5.4:
   - USE 50mm INSULATION COVER OVER THE INSULATION IS BETWEEN 0.6 TO 0.9m
   - USE 50mm INSULATION COVER OVER THE INSULATION IS BETWEEN 0.9 TO 1.2m
   - USE 40mm INSULATION COVER OVER THE INSULATION IS BETWEEN 1.2 TO 1.8m
   - USE 25mm INSULATION
2. MIN. COVER REQUIREMENTS:
   STORM SEWER – 1.5m (TO SPRINGLINE FOR 525ø OR LARGER)
   – 1.5m (TO CROWN FOR SMALLER THAN 525ø)
   WATERMAINS – 1.7m (TO CROWN)
   SANITARY SEWER – 1.5m (TO CROWN OF PIPE)
3. INSULATION SHALL BE PLACED WITH ENDS CLOSELY LOCATED TOGETHER.
4. ALL JOINTS SHALL BE STAGGERED WHEN MORE THAN ONE LAYER OF INSULATION IS BEING INSTALLED.

PAVEMENT STRUCTURE

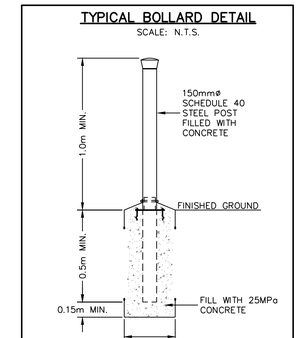
SCALE: N.T.S.



NOTE:
REFER TO CONSTRUCTION NOTES FOR DETAILS ON COMPACTION. PAVEMENT STRUCTURE BASED ON GEOTECHNICAL CONSULTANTS RECOMMENDATIONS.

TYPICAL BOLLARD DETAIL

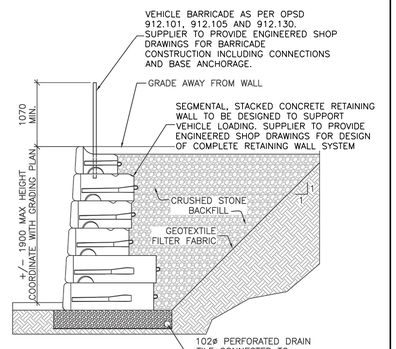
SCALE: N.T.S.



NOTES:
1. SCHEDULE 40 BOLLARDS TO BE PAINTED YELLOW.
2. CONCRETE TO BE 25MPa WITH 7.5% AIR ENTRAINMENT.
3. BOLLARD LOCATIONS TO BE CONFIRMED IN FIELD.

TYPICAL REDI-ROCK RETAINING WALL DETAIL – 1.9m MAX. HEIGHT

SCALE: N.T.S.



NOTES:
1. CONTRACTOR TO PROVIDE SEALED SHOP DRAWINGS FOR PROPOSED REDI-ROCK RETAINING WALL (BY APPROVED DESIGNER) AND PROPOSED VEHICLE BARRICADE FOR REVIEW AND ACCEPTANCE.
2. NO ENCROACHMENT IS ALLOWED ONTO ASSOCIATED PROPERTIES DURING CONSTRUCTION.
3. CONTRACTOR TO SHORE AND BRACE CUT-SLOPES DURING INSTALLATION OF RETAINING WALL.
4. INSTALLATION OF RETAINING WALL SHALL BE REVIEWED AND APPROVED BY QUALIFIED GEOTECHNICAL ENGINEER OR HIS/HER REPRESENTATIVE.
5. BASE TO BE NATIVE MATERIAL FREE OF ORGANICS AND DELETERIOUS MATERIALS AS DIRECTED BY GEOTECHNICAL ENGINEER.
6. CONTRACTOR TO LOCATE AND IDENTIFY ALL EXISTING AND PROPOSED SERVICES WITHIN THE CONSTRUCTION LIMITS PRIOR TO EXCAVATION AND NOTIFY ENGINEER OF ANY DISCREPANCIES WITH EXISTING SERVICES.
7. 2012 ONTARIO BUILDING CODE REQUIRES THAT THE CONTRACTOR RETAIN A GENERAL REVIEW ENGINEER TO ENSURE INSTALLATION IS IN COMPLIANCE WITH DESIGN AND SPECIFICATIONS (WALL AND GROUT MANUFACTURER'S SPECS).

LAP JOINT DETAIL

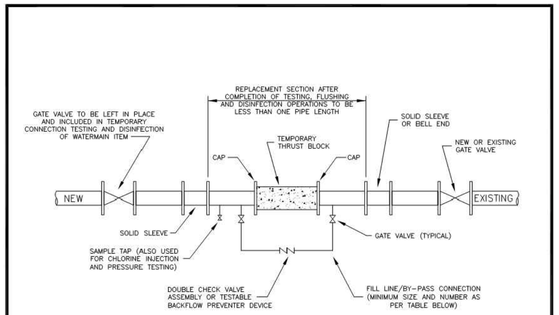
N.T.S.



NOTE:
SAWCUT & COLD PLANE 300mm WIDE & 40mm DEEP WHERE NEW PAVEMENT MEETS EXISTING PAVEMENT, ROUTE & SEAL WITH HOT RUBBERIZED ASPHALT.

Town

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,



TYPICAL TEMPORARY CONNECTION FOR WATERMAINS

NTS

PIPE DIAMETER	FLOW REQUIRED TO PRODUCE 0.76m/s (APPROX) VELOCITY IN MAIN	SIZE OF TAP			NUMBER OF OPEN 64mm HYDRANT OUTLETS
		25	38	51	
mm	l/s	NUMBER OF TAPS ON PIPE			
100	6.3	1	—	—	1
150	12.6	—	1	—	1
200	25.2	—	2	1	1
250	37.9	—	2	2	1
300	56.8	—	—	3	2
400	109.9	—	—	4	2

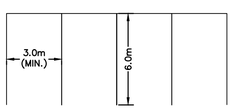
REQUIRED FLOW AND OPENINGS TO FLUSH PIPELINES (276kPa/40 PSI RESIDUAL PRESSURE IN WATERMAIN)

NO.	REVISION	APR'D	DATE

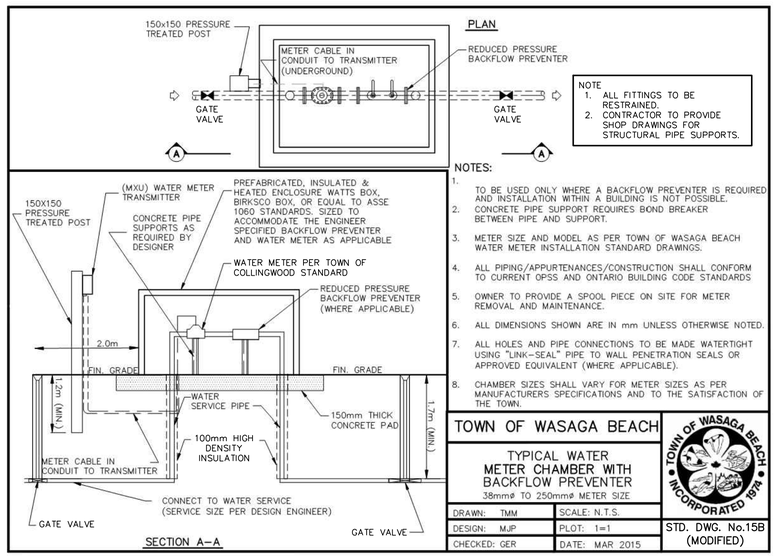
TOWN OF COLLINGWOOD	APR'D: EDH	DATE: APR 07
	DRAWN:	SCALE: NTS
TEMPORARY CONNECTION FOR WATERMAINS	STD. No. 128	

TYPICAL PARKING STALL DETAIL

NTS



PARKING LINES TO BE PAINTED WHITE, 100mm THICK.



NOTES:

1. TO BE USED ONLY WHERE A BACKFLOW PREVENTER IS REQUIRED AND INSTALLATION WITHIN A BUILDING IS NOT POSSIBLE.
2. CONCRETE PIPE SUPPORT REQUIRES BOND BREAKER BETWEEN PIPE AND SUPPORT.
3. METER SIZE AND MODEL AS PER TOWN OF WASAGA BEACH WATER METER INSTALLATION STANDARD DRAWINGS.
4. ALL PIPING/APPURTENANCES/CONSTRUCTION SHALL CONFORM TO CURRENT OPSS AND ONTARIO BUILDING CODE STANDARDS
5. OWNER TO PROVIDE A SPOOL PIECE ON SITE FOR METER REMOVAL AND MAINTENANCE.
6. ALL DIMENSIONS SHOWN ARE IN mm UNLESS OTHERWISE NOTED.
7. ALL HOLES AND PIPE CONNECTIONS TO BE MADE WATERTIGHT USING "LINK-SEAL" PIPE TO WALL PENETRATION SEALS OR APPROVED EQUIVALENT (WHERE APPLICABLE).
8. CHAMBER SIZES SHALL VARY FOR METER SIZES AS PER MANUFACTURERS SPECIFICATIONS AND TO THE SATISFACTION OF THE TOWN.

TOWN OF WASAGA BEACH	TYPICAL WATER METER CHAMBER WITH BACKFLOW PREVENTER 38mmø TO 250mmø METER SIZE	
DRAWN: TMM	SCALE: N.T.S.	
DESIGN: MJP	PLOT: 1=1	STD. DWG. No.15B (MODIFIED)
CHECKED: GER	DATE: MAR 2015	

Town

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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.

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

Engineer: LICENSED PROFESSIONAL ENGINEER K. A. MORRIS Jan. 14/2022 PROVINCE OF ONTARIO

Engineer: LICENSED PROFESSIONAL ENGINEER R.A. ALEXANDER 100213093 January 19, 2022 PROVINCE OF ONTARIO

Project: WYLDEWOOD CREEK
TOWN OF COLLINGWOOD

Drawing: CONSTRUCTION NOTES AND STANDARD DETAILS

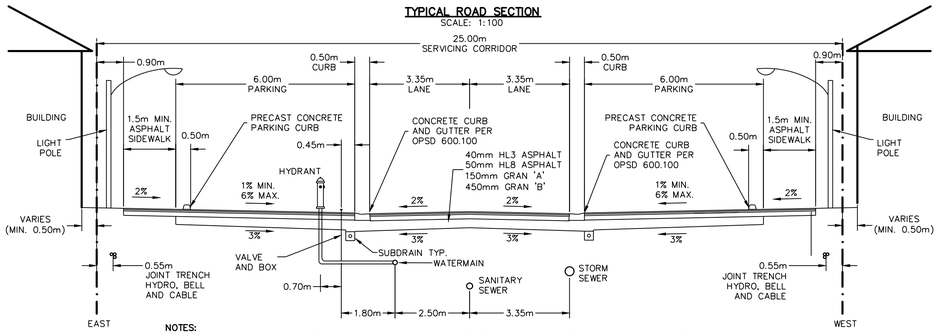
CROZIER CONSULTING ENGINEERS
ADMIRAL BUILDING
1 FIRST STREET, SUITE 200
COLLINGWOOD, ON, L9Y 1A1
705-446-3510 T
705-446-3520 F
WWW.CFCROZIER.CA
INFO@CFCROZIER.CA

Drawn By L.W.	Design By L.W.	Project 1535-4897			
Check By K.M.	Check By R.A.	Scale AS NOTED	Drawing C109.B		

J:\1500\1535-Brandy Lane Corp\4897-Georgian Bay Hotel South Block\CAD\Civil_Sheets\4897_C109 DET.dwg, C109.B, 2022-01-14 4:35:38 PM, lwaters

TYPICAL ROAD SECTION

SCALE: 1:100

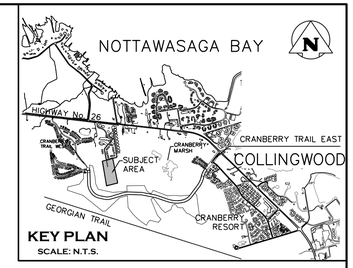


NOTES:

1. COVER ON STORM, SANITARY AND WATERMAIN AS PER DESIGN CRITERIA, UTILITY CORRIDOR SHALL HAVE MINIMUM COVER OF 1.0m.
2. MINIMUM PAVEMENT AND ROAD STRUCTURE DESIGN AS PER TOWN DESIGN CRITERIA OR AS PER GEOTECHNICAL INVESTIGATION RECOMMENDATION.
3. TREES TO BE PLACED IN LOCATIONS AS PER APPROVED LANDSCAPE PLAN.
4. ACTIVELY GROWING NURSERY SOD TO BE LAID ON 150mm TOPSOIL PROPERLY GRADED AND ROLLED.
5. HYDRANTS AND WATERMAINS TO BE ON OPPOSITE SIDE OF ROAD FROM ELECTRICAL TRANSFORMERS.
6. SUBDRAINS TO BE INSTALLED AS PER OPSD 216.021.
7. ALL SERVICE LOCATIONS SHOWN ARE FOR GUIDELINE PURPOSES ONLY AND MAY DEVIATE AS PER THE DIRECTION OF THE TOWN WHEN STANDARD LOCATION CANNOT BE ACHIEVED.
8. GASMAIN TO BE INSTALL IN THE REAR OF THE BUILDINGS.
9. ALL DIMENSIONS ARE IN METRES UNLESS OTHERWISE SHOWN.

COMPOSITE UTILITY PLAN
FOR INFORMATION PURPOSES ONLY

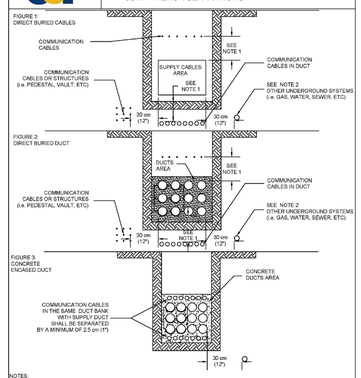
THIS PLAN HAS BEEN PREPARED BY C.F. CROZIER & ASSOCIATES INC. TO CONSOLIDATE THE DESIGNS COMPLETED BY THE RESPECTIVE UTILITIES. OUR FIRM HAS REVIEWED EACH UTILITY DESIGN TO CONFIRM IT COMPLIES WITH THE APPLICABLE MUNICIPAL GUIDELINES AND ROAD STANDARDS AND TO CONFIRM THERE ARE NO CONFLICTS WITH THE PROPOSED CIVIL SERVICING AND DRAINAGE SYSTEMS. WE HAVE NOT CHECKED NOR ACCEPT RESPONSIBILITY FOR THE ACCURACY AND VERACITY OF EACH UTILITY DESIGN. ANY USE WHICH A THIRD PARTY MAKES OF THIS PLAN, OR ANY RELIANCE ON OR DECISIONS BASED ON IT, ARE THE RESPONSIBILITIES OF SUCH THIRD PARTIES. IT IS RECOMMENDED THAT DURING CONSTRUCTION THE THIRD PARTY REFERENCE OR MAKE USE OF THE APPROVED FOR CONSTRUCTION PLANS PREPARED BY EACH RESPECTIVE UTILITY.



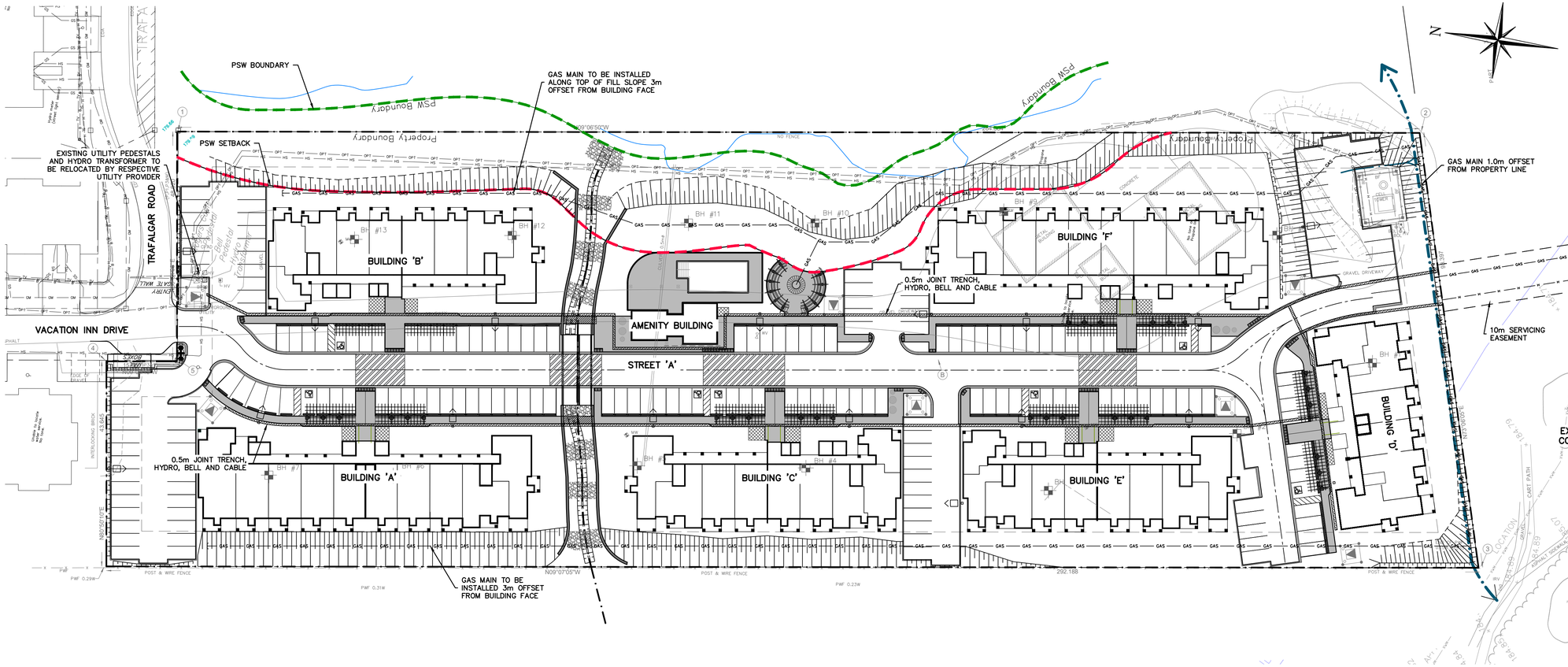
Utilities Standards Forum

DATE:	SCALE:	REV:	DWG NO.:
2014-11-03	NTS	1	12-401

Title: JOINT TRENCH SEPARATIONS



NOTES:
1. SEPARATION TO COMMUNICATION CABLES SHALL BE A MINIMUM OF 30 cm (12"), OR SUITABLE MECHANICAL PROTECTION TO PREVENT FUTURE CONTACT. CONTACT MAY OCCUR PROVIDED THE PARTIES CONCERNED MUTUALLY AGREE.
2. SEPARATION TO OTHER UNDERGROUND SYSTEMS (i.e. GAS, WATER, SEWER, ETC) MAY BE REDUCED PROVIDED THE PARTIES CONCERNED MUTUALLY AGREE AND PRECAUTIONS ARE TAKEN TO ENSURE THAT IN THE EVENT OF FAILURE, REPAIR, INSTALLATION OR MAINTENANCE, THE CABLES ARE PROTECTED FROM MECHANICAL AND THERMAL DAMAGE. WHERE DUCT SYSTEM SHARE THE SAME TRENCH (INSTALLED IN THE SAME OPEN TRENCH) WITH GAS DISTRIBUTION OR TRANSMISSION PIPELINES, THE MINIMUM HORIZONTAL SEPARATION BETWEEN THE DUCT SYSTEM AND GAS PIPELINE SHALL BE MET.



NOTE:
1. FOR ELECTRICAL DESIGN OF PRIMARY AND SECONDARY POWER SYSTEM SEE EPCOR.
2. FOR STREET LIGHT LIGHTING DESIGN SEE C.F. CROZIER AND ASSOCIATES (DWG. E300–E301)
3. FOR TELECOMMUNICATION (CABLE, TELEPHONE) SEE ROGERS AND BELL RESPECTIVELY.
4. FOR NATURAL GAS SERVICING SEE ENBRIDGE.

10 0m 10 20 30 40
SCALE: 1:500

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BENCHMARKS

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Engineer: LICENSED PROFESSIONAL ENGINEER R.A. ALEXANDER 100213093 January 14, 2022 PROVINCE OF ONTARIO

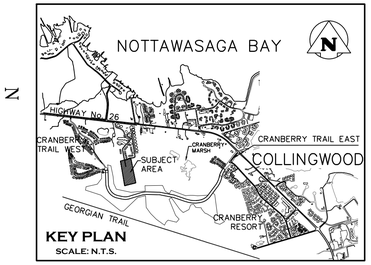
Project: WYLDEWOOD CREEK
TOWN OF COLLINGWOOD

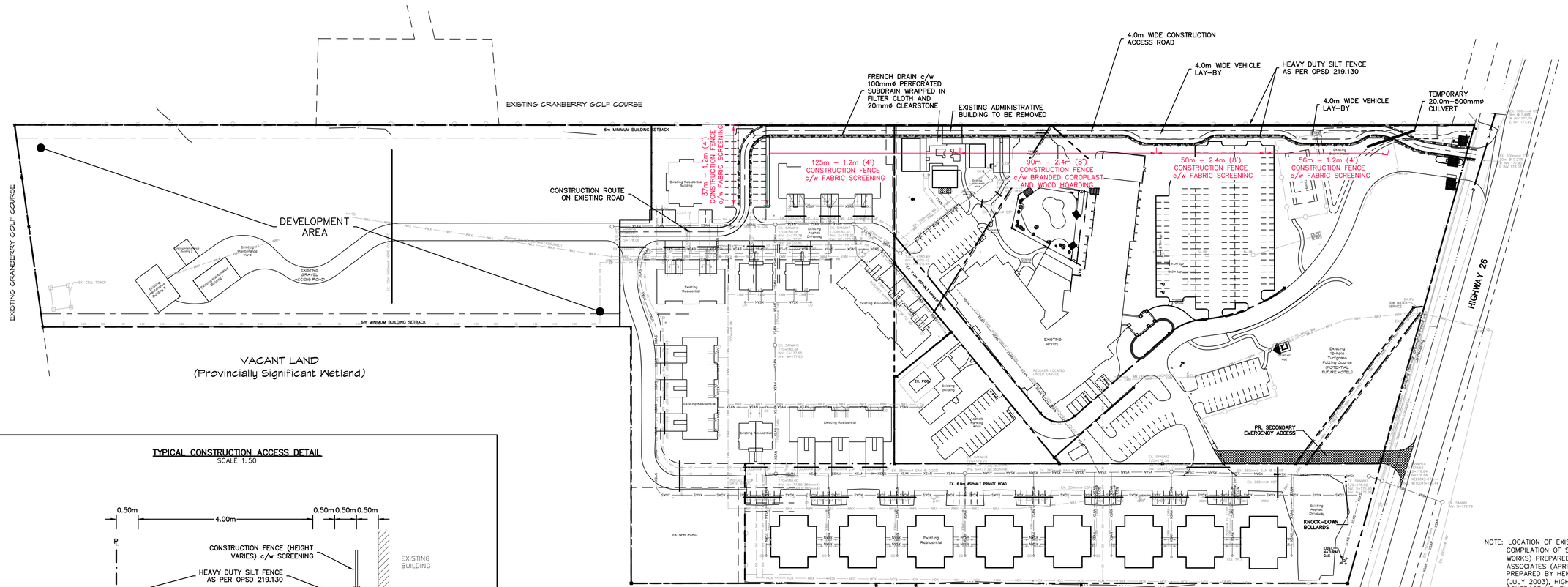
Drawing: COMPOSITE UTLITY PLAN

CROZIER CONSULTING ENGINEERS
ADMIRAL BUILDING
1 FIRST STREET, SUITE 200
COLLINGWOOD, ON, L9Y 1A1
705-446-9510 T
705-446-3520 F
WWW.CFCROZIER.CA
INFO@CFCROZIER.CA

Drawn By	Design By	Project	
L.W.	L.W.		1535–4897
Check By	Check By	Scale	Drawing
K.M.	R.A.	1:500	C110

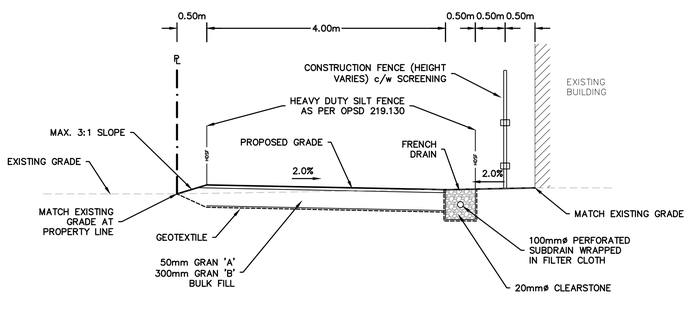
Town





NOTE: LOCATION OF EXISTING SERVICES BASED ON COMPILATION OF SITE SERVICING DRAWINGS (EXISTING WORKS) PREPARED BY HENDERSON, PADDON & ASSOCIATES (APRIL 2004), SERVICING REPORT PREPARED BY HENDERSON, PADDON & ASSOCIATES (JULY 2003), HIGHWAY 26 WEST RECONSTRUCTION CONTRACT NO. PW 2015-11 AS-BUILT DRAWINGS (16/12/09) PREPARED BY R.J. BURNSIDE & ASSOCIATE LTD. AND MARK UPS PROVIDED BY THE RESPECTIVE UTILITY PROVIDERS.

TYPICAL CONSTRUCTION ACCESS DETAIL
SCALE 1:50



20 0m 20 40 60 80
SCALE: 1:1000

LEGEND

- EX. FENCE
- EX. WATERMAIN
- EX. FIRE HYDRANT & VALVE
- EX. SANITARY SEWER & MANHOLE
- EX. OVERHEAD HYDRO
- EX. HYDRO
- EX. GAS MAIN
- EX. HYDRO POLE
- EX. CULVERT
- EX. SWALE
- PR. HEAVY DUTY SILT FENCE AS PER OPSD 219.130
- PR. CONSTRUCTION FENCE
- PR. 100mmø PERFORATED SUBDRAIN

Town

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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.

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

Engineer: LICENSED PROFESSIONAL ENGINEER K. A. MORRIS PROVINCE OF ONTARIO

Engineer: LICENSED PROFESSIONAL ENGINEER R.A. ALEXANDER 100213093 PROVINCE OF ONTARIO

Project: WYLDEWOOD CREEK
TOWN OF COLLINGWOOD

Drawing: CONSTRUCTION ACCESS ROAD PLAN

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	Design By	Project	
L.W.	L.W.		1535-4897
Check By	Check By	Scale	Drawing
K.M.	R.A.	1:1000	C111

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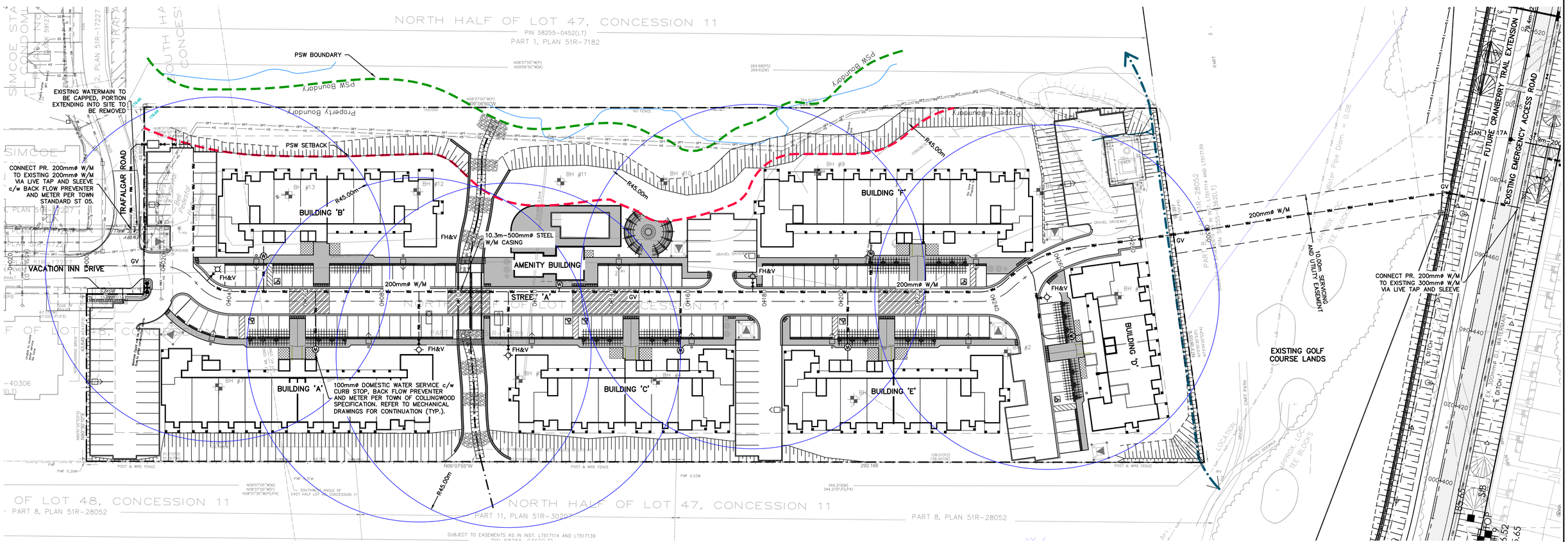

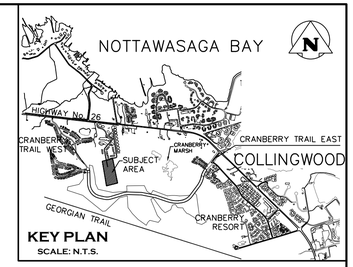

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SCALE: 1:500

Town

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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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4	ISSUED FOR 3rd ENGINEERING SUBMISSION	01/14/2022

Engineer: LICENSED PROFESSIONAL ENGINEER K. A. MORRIS Jan. 14/22 PROVINCE OF ONTARIO

Engineer: LICENSED PROFESSIONAL ENGINEER R.A. ALEXANDER 100213093 January 19, 2022 PROVINCE OF ONTARIO

Project: WYLDEWOOD CREEK TOWN OF COLLINGWOOD

Drawing: WATER DISTRIBUTION PLAN

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

Drawn By	Design By	Project	
L.W.	L.W.	1535-4897	
Check By	Check By	Scale	Drawing
K.M.	R.A.	1:500	C112

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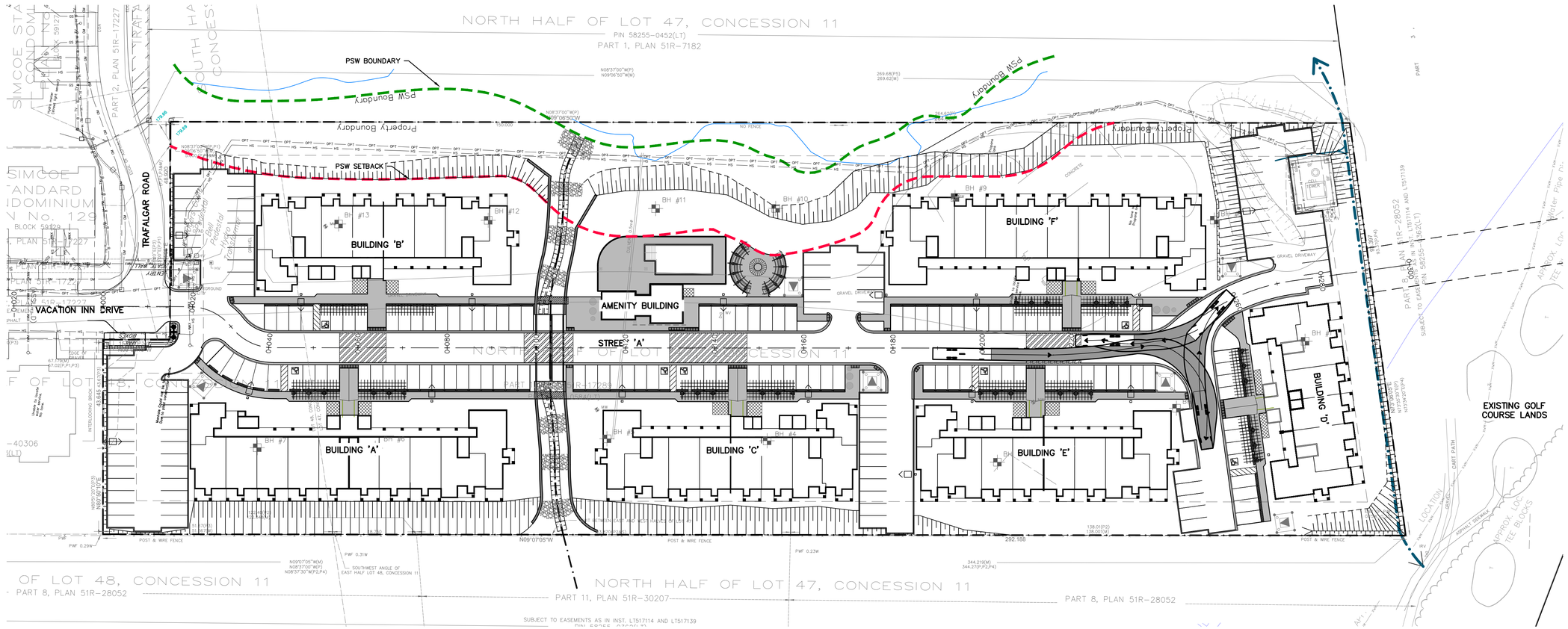

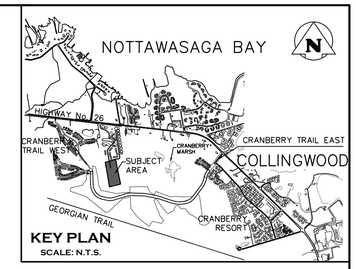

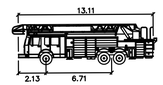

Aerial Fire Truck

	meters
Width	: 2.59
Track	: 2.59
Lock to Lock Time	: 6.0
Steering Angle	: 33.3

10 0m 10 20 30 40
SCALE: 1:500

Town

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Engineer: LICENSED PROFESSIONAL ENGINEER — R.A. ALEXANDER — 100213093 — PROVINCE OF ONTARIO

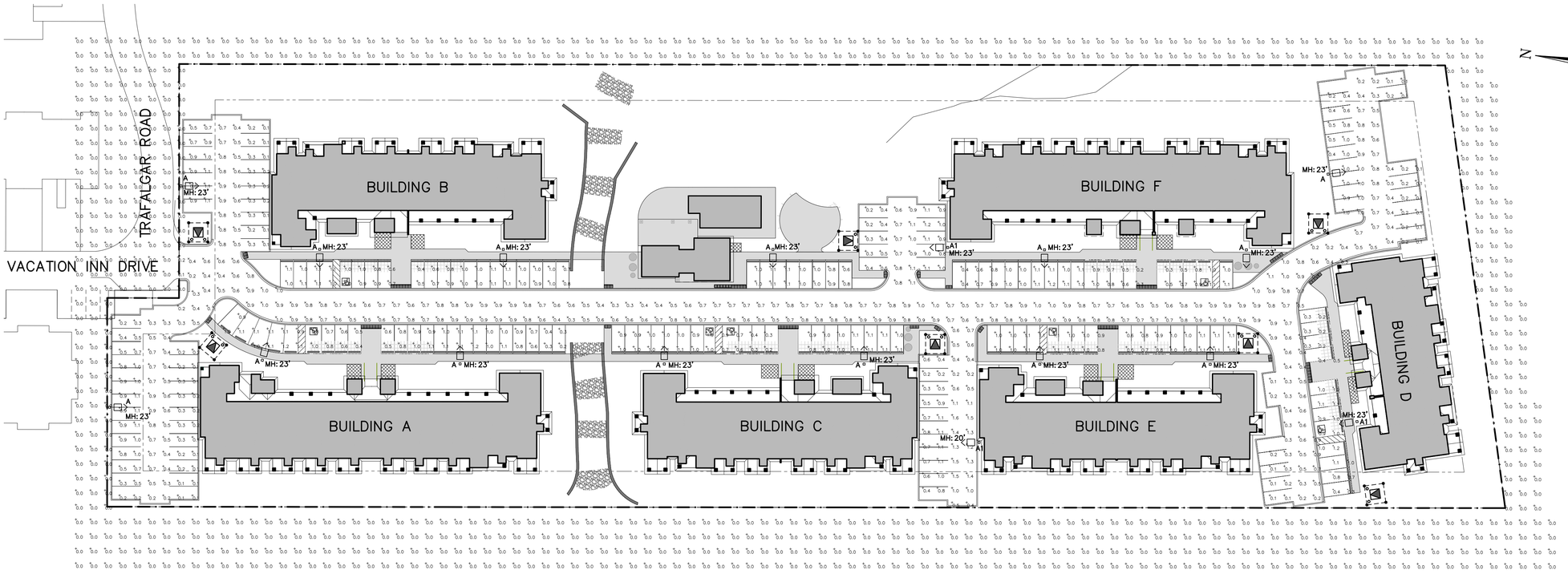
Project: WYLDEWOOD CREEK
TOWN OF COLLINGWOOD

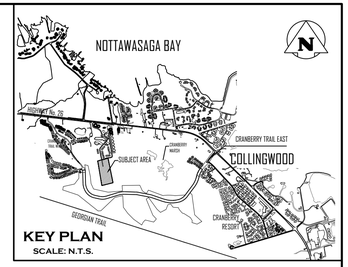
Drawing: TURNING MOVEMENT PLAN

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	Design By	Project	
L.W.	L.W.		1535-4897
Check By	Check By	Scale	Drawing
K.M.	R.A.	1:500	C113

J:\1500\1535-Brandy Lane Corp\4897-Georgian Bay Hotel South Block\CAD\Civil_Sheets\4897_C113 TRN.dwg, C113, 2022-01-14 4:41:51 PM, lwaters





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-PLED-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-PLED-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

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.

STATISTICS SCHEDULE					
DESCRIPTION	SYMBOL	AVG	MAX	MIN	AVG/MIN
RIGHT OF WAY	×	0.7 fc	1.1 fc	0.2 fc	3.6:1
PARKING 1	+	0.5 fc	1.1 fc	0.1 fc	5.4:1
PARKING 2	+	0.5 fc	1.1 fc	0.1 fc	4.8:1
PARKING 3	+	0.9 fc	1.1 fc	0.4 fc	2.3:1
PARKING 4	+	0.9 fc	1.2 fc	0.2 fc	4.3:1
PARKING 5	+	0.9 fc	1.1 fc	0.2 fc	4.5:1
PARKING 6	+	1.0 fc	1.1 fc	0.6 fc	1.6:1
PARKING 7	+	0.8 fc	1.2 fc	0.2 fc	3.8:1
PARKING 8	+	0.8 fc	1.6 fc	0.2 fc	4.1:1
PARKING 9	+	0.8 fc	1.2 fc	0.2 fc	4.1:1
PARKING 10	+	1.0 fc	1.1 fc	0.5 fc	1.9:1
PARKING 11	+	0.5 fc	1.0 fc	0.1 fc	5.1:1
PARKING 12	+	0.4 fc	0.9 fc	0.1 fc	4.3:1
PARKING 13	+	0.7 fc	1.2 fc	0.2 fc	3.5:1

10 0m 10 20 30 40
SCALE: 1:500

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4	ISSUED FOR 3rd ENGINEERING SUBMISSION	01/14/2022

Engineer: LICENSED PROFESSIONAL ENGINEER — N.J. MACDONALD — 100227379 — PROVINCE OF ONTARIO

Engineer: LICENSED PROFESSIONAL ENGINEER — P.B. WOZNIAK — 100147225 — PROVINCE OF ONTARIO

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	Design By	Project	
J.R.B.	N.J.M.		1535-4897
Check By	Check By	Scale	Drawing
P.W.	N.J.M	1:500	E100

TYPE A, A1

SOLID STATE AREA LIGHTING

RAZAR SERIES-LED

S P E C I F I C A T I O N S

PROJECT NAME:

PROJECT TYPE:



RAZAR

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

OPTICAL HOUSING
Heavy cast low copper aluminum (A356 alloy; <0.2% copper) assembly with integral cooling fins. The Optical Panel mounting surface is milled flat (surface variance <± .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 ribs surrounding the electrical compartment and a flat surface on the top of the arm to accommodate a photocell 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.

PLEDOPTICS
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 arrays. 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. Luminaire supplied with 20KV surge protector for field accessible installation.)

LED EMITTERS
High output LED's are utilized with drive currents ranging from 350mA to 1050mA. 70CRI 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 LPS 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.

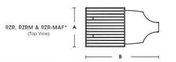
FINISH
Electrostatically applied TGIC Polyester Powder Coat on substrate prepared with 20 PSI power wash at 140°F. Four step media blast and iron phosphate pretreatment for protection and paint adhesion. 400°F bake for maximum hardness and durability.

MAST ARM FITTER/ELECTRICAL HOUSING
Replaces standard Electrical Housing. Fits standard 2 3/8" O.D. horizontal tenon. Two (2) straps 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.

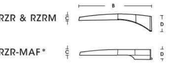
RZR-G



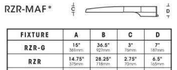
RZR, RZRM & RZR-MAF* (Top View)



RZR & RZRM



RZR-MAF*



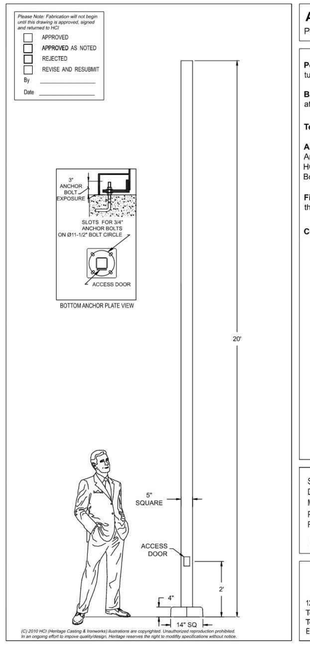
FIXTURE	A	B	C	D
RZR-G	19" (483mm)	36.5" (927mm)	3" (76mm)	7" (178mm)
RZR	14.75" (375mm)	28.25" (718mm)	2.75" (70mm)	6.5" (165mm)
RZRM	11.5" (292mm)	22" (559mm)	2.5" (64mm)	5.25" (133mm)
RZR-MAF	19" (483mm)	28.25" (718mm)	2.5" (64mm)	4" (102mm)

*DLC PENDING AS OF 7/17

2018358

U.S. Architectural Lighting
660 West Avenue O, Palmdale, CA 93551
Phone (661) 333-0600 Fax (661) 333-0601
www.uscllg.com

U.S. ARCHITECTURAL LIGHTING



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- [ ] APPROVED
- [ ] APPROVED AS NOTED
- [ ] REJECTED
- [ ] REVISE AND RESUBMIT

By _____

Date _____

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 Sie: None

Anchor Bolts: 4 galvanized 3/4" x 24" long. Anchor bolts and template are supplied by HCI.
Bolts Circle: Ø11.5"

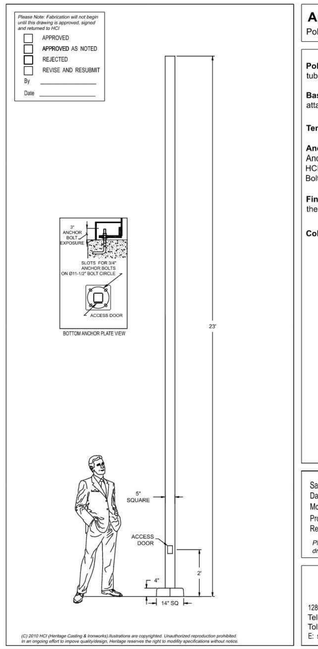
Finish: Electrostatically applied, thermoset polyester powder-coat finish.

Colour: RALXXXX

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

HCI Heritage Casting & Ironworks
1280 Fewster Drive, Mississauga, Ontario, Canada L4W 1A4
Tel: (905) 238-2648 Fax: (905) 238-9060
Toll Free Canada & USA 1-800-267-3175
E: sales@hcilighting.com WEB: www.hcilighting.com



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- [ ] REJECTED
- [ ] REVISE AND RESUBMIT

By _____

Date _____

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 Sie: 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, thermoset polyester powder-coat finish.

Colour: RALXXXX

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

HCI Heritage Casting & Ironworks
1280 Fewster Drive, Mississauga, Ontario, Canada L4W 1A4
Tel: (905) 238-2648 Fax: (905) 238-9060
Toll Free Canada & USA 1-800-267-3175
E: sales@hcilighting.com WEB: www.hcilighting.com

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Engineer

LICENSED PROFESSIONAL ENGINEER
N.J. MACDONALD
100227379
PROVINCE OF ONTARIO

Engineer

LICENSED PROFESSIONAL ENGINEER
P.B. WOZNIAK
100147225
PROVINCE OF ONTARIO

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
WWW.CFCROZIER.CA
INFO@CFCROZIER.CA

Drawn By	Design By	Project	
J.R.B.	N.J.M.		1535-4897
Check By	Check By	Scale	Drawing
P.W.	N.J.M	N.T.S.	E101

LEGEND

- PROPERTY BOUNDARY
- BUILDING SETBACK
- PSW BOUNDARY
- PSW SETBACK
- BENCH
- WASTE RECEPTACLE
- BICYCLE RACK
- UNDERGROUND SERVICES - SEE ENG. DWGS
- CONCRETE UNIT PAVING
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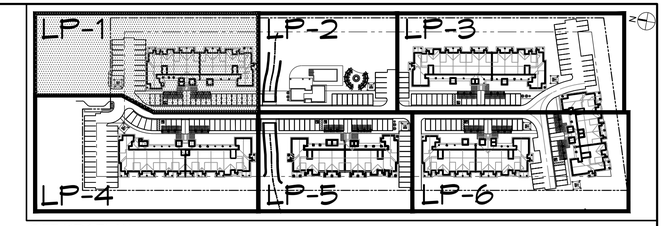
- SPECIES / QUANTITY — PLANT REFERENCE
- TOPSOIL AND SOD
- TOPSOIL AND SIMCOE COUNTY NATIVE SEED

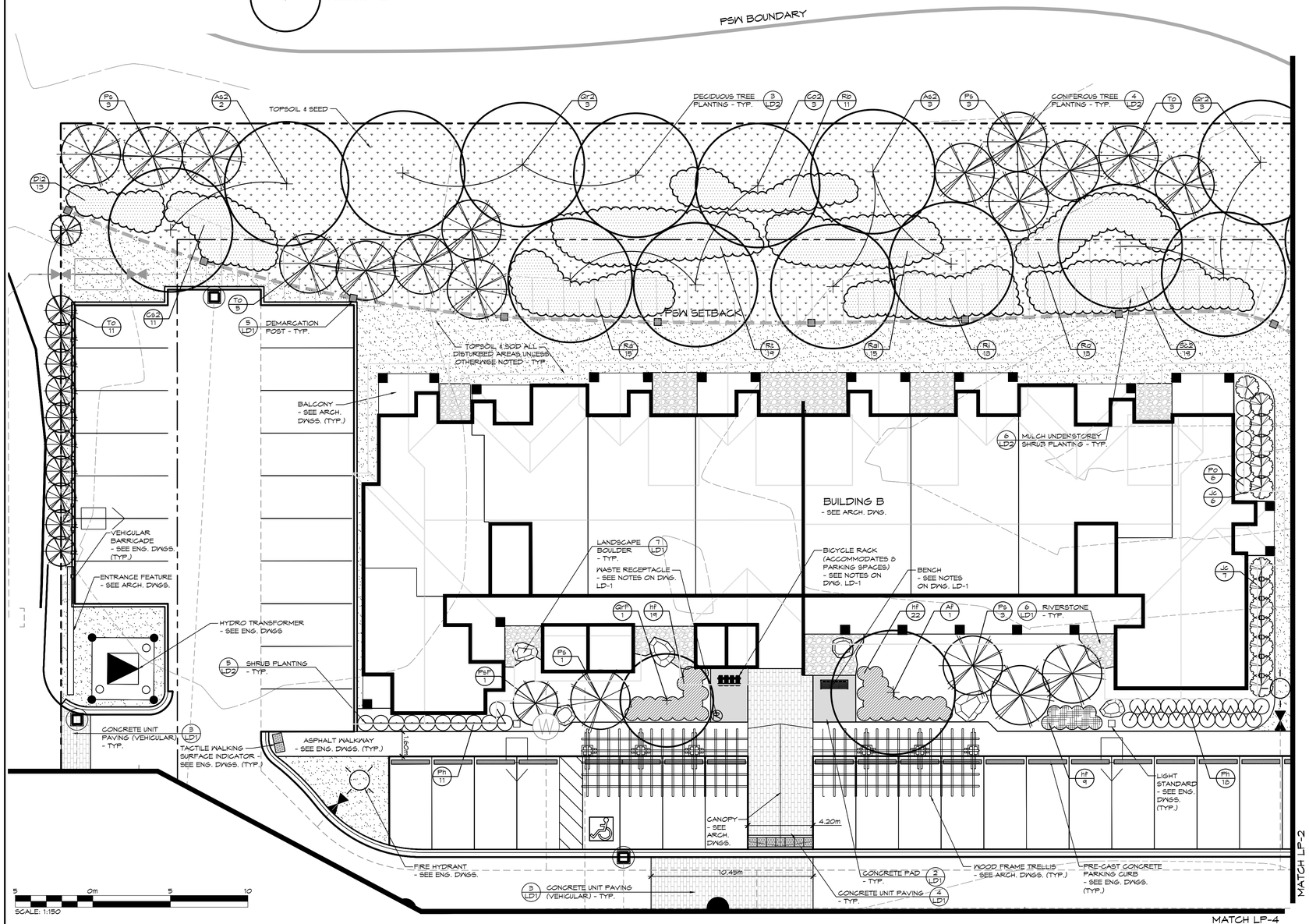
NOTES:

1. FOR GENERAL PLANTING NOTES, REFER TO NOTES ON DRAWING LD-1
2. TREE PITS OR PLANTING BEDS WITHIN 1.0m OF UNDERGROUND UTILITIES ARE TO BE HAND DUG.
3. IRRIGATION IS NOT INTENDED TO BE PROVIDED.
4. MINIMUM CLEARANCES FOR TREES ARE AS FOLLOWS:

MINIMUM TREE CLEARANCES	
FIRE HYDRANT	3.0m
BACK OF CURB	1.5m
HYDRO TRANSFORMERS	3.0m
BELL OR CABLE PEDESTALS	1.0m
LIGHTING POLES	5.0m
UNDERGROUND SERVICES	1.0m



SITE KEY PLAN (NTS)
TOWN OF COLLINGWOOD



PLANT LIST

KEY	BOTANICAL NAME	COMMON NAME	SIZE	COND.	SPACING	QTY
DECIDUOUS TREES						
As	Acer saccharum 'Legacy'	Legacy Sugar Maple	50mm cal.	W.B.		4
As2	Acer saccharum	Sugar Maple	40mm cal.	W.B.		13
Af	Acer x freemanii 'Jeffersred'	Autumn Blaze Maple	50mm cal.	W.B.		9
Am	Amelanchier laevis (Multi-stem)	Multi-stem Allegheny Serviceberry	200cm	W.B.		2
Ca	Carya ovata	Shagbark Hickory	50mm cal.	W.B.		6
Ca2	Carya ovata	Shagbark Hickory	40mm cal.	W.B.		9
Co	Celtis occidentalis	Common Hackberry	50mm cal.	W.B.		5
Co2	Celtis occidentalis	Common Hackberry	40mm cal.	W.B.		9
Gt	Gleditsia triacanthos 'Shademaster'	Shademaster Honeylocust	50mm cal.	W.B.		4
GrF	Quercus robur 'Fastigiata'	Columnar English Oak	50mm cal.	W.B.		9
Gr	Quercus rubra	Red Oak	50mm cal.	W.B.		5
Gr2	Quercus rubra	Red Oak	40mm cal.	W.B.		9
Ta	Tilia americana	Basswood	50mm cal.	W.B.		6
CONIFEROUS TREES						
Pg	Picea glauca	White Spruce	180cm	W.B.		31
Ps	Pinus strobus	Eastern White Pine	180cm	W.B.		51
PsF	Pinus strobus 'Fastigiata'	Columnar Eastern White Pine	180cm	W.B.		24
To	Thuja occidentalis	Eastern White Cedar	180cm	W.B.		63
ToE	Thuja occidentalis 'Emerald'	Emerald Cedar	180cm	W.B.		3
DECIDUOUS SHRUBS						
Cs	Cornus sericea	Red Osier Dogwood	50cm	3 gal.	1.5m o.c.	13
Cs2	Cornus sericea	Red Osier Dogwood	50cm	1 gal.	1.5m o.c.	35
Dl	Diervilla lonicera	Bush Honeysuckle	40cm	3 gal.	1.0m o.c.	7
Dl2	Diervilla lonicera	Bush Honeysuckle	40cm	1 gal.	1.0m o.c.	58
Po	Physocarpus opulifolius 'SMNPOTNG'	Tiny Nine Gold Ninebark	50cm	3 gal.	1.0m o.c.	53
Ph	Physocarpus opulifolius 'SMPOTN'	Tiny Nine Ninebark	50cm	3 gal.	1.0m o.c.	47
Ra	Ribes americanum	Wild Black Currant	50cm	1 gal.	1.5m o.c.	41
Ral	Rubus allegheniensis	Allegheny Blackberry	50cm	1 gal.	1.5m o.c.	28
Rb	Rosa blanda	Smooth Rose	50cm	1 gal.	1.5m o.c.	24
Ri	Rubus idaeus ssp. strigosus	Wild Red Raspberry	50cm	1 gal.	1.5m o.c.	22
Ro	Rubus occidentalis	Black Raspberry	50cm	1 gal.	1.5m o.c.	54
Rt	Rhus typhina	Staghorn Sumac	50cm	1 gal.	1.5m o.c.	41
Sc	Sambucus canadensis	Common Elderberry	50cm	3 gal.	1.5m o.c.	33
Sc2	Sambucus canadensis	Common Elderberry	50cm	1 gal.	1.5m o.c.	19
CONIFEROUS SHRUBS						
Jc	Juniperus chinensis sargentii 'Viridis'	Green Sargent Juniper	50cm	3 gal.	1.5m o.c.	66
PERENNIALS & GROUNDCOVERS						
ca	Calamagrostis acutiflora 'Karl Foerster'	Karl Foerster Feather Reed Grass		1 gal.	0.75m o.c.	6
ep	Echinacea purpurea	Purple Coneflower		1 gal.	0.5m o.c.	27
gm	Geranium maculatum	Wild Geranium		1 gal.	0.5m o.c.	122
hs	Hemerocallis 'Stella D'Oro'	Stella D'Oro Daylily		1 gal.	0.5m o.c.	255
hst	Heucherella x 'Sweet Tea'	Sweet Tea Foamy Bells		1 gal.	0.75m o.c.	64
hf	Hosta 'First Frost'	First Frost Hosta		1 gal.	0.75m o.c.	115
hh	Hosta 'High Society'	High Society Hosta		1 gal.	0.5m o.c.	66
ss	Sedum spectabile 'Autumn Joy'	Autumn Joy Stonecrop		1 gal.	0.5m o.c.	138

SEED MIX

KEY	BOTANICAL NAME	COMMON NAME	%
OGS SIMCOE COUNTY NATIVE			
-	Andropogon scoparius	Little Bluestem	15%
-	Asclepias syriaca	Common Milkweed	5%
-	Aster laevis	Smooth Blue Aster	1%
-	Aster novae-angliae	New England Aster	2%
-	Elymus canadensis	Canada Wild Rye	20%
-	Monarda fistulosa	Wild Bergamot	1%
-	Rudbeckia hirta	Black Eyed Susan	12%
-	Solidago canadensis	Canada Goldenrod	4%
-	Sorghastrum nutans	Indiangrass	20%
-	Sporobolus cryptandrus	Sand Drop Seed	20%

Cover crop to be Annual Rye.

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STAMP: ONTARIO ASSOCIATION OF LANDSCAPE ARCHITECTS — SAMIE WADDAH — 01.14.2022 — OALA MEMBER

STAMP

Project: WYLDEWOOD CREEK
TOWN OF COLLINGWOOD

Drawing: LANDSCAPE PLAN

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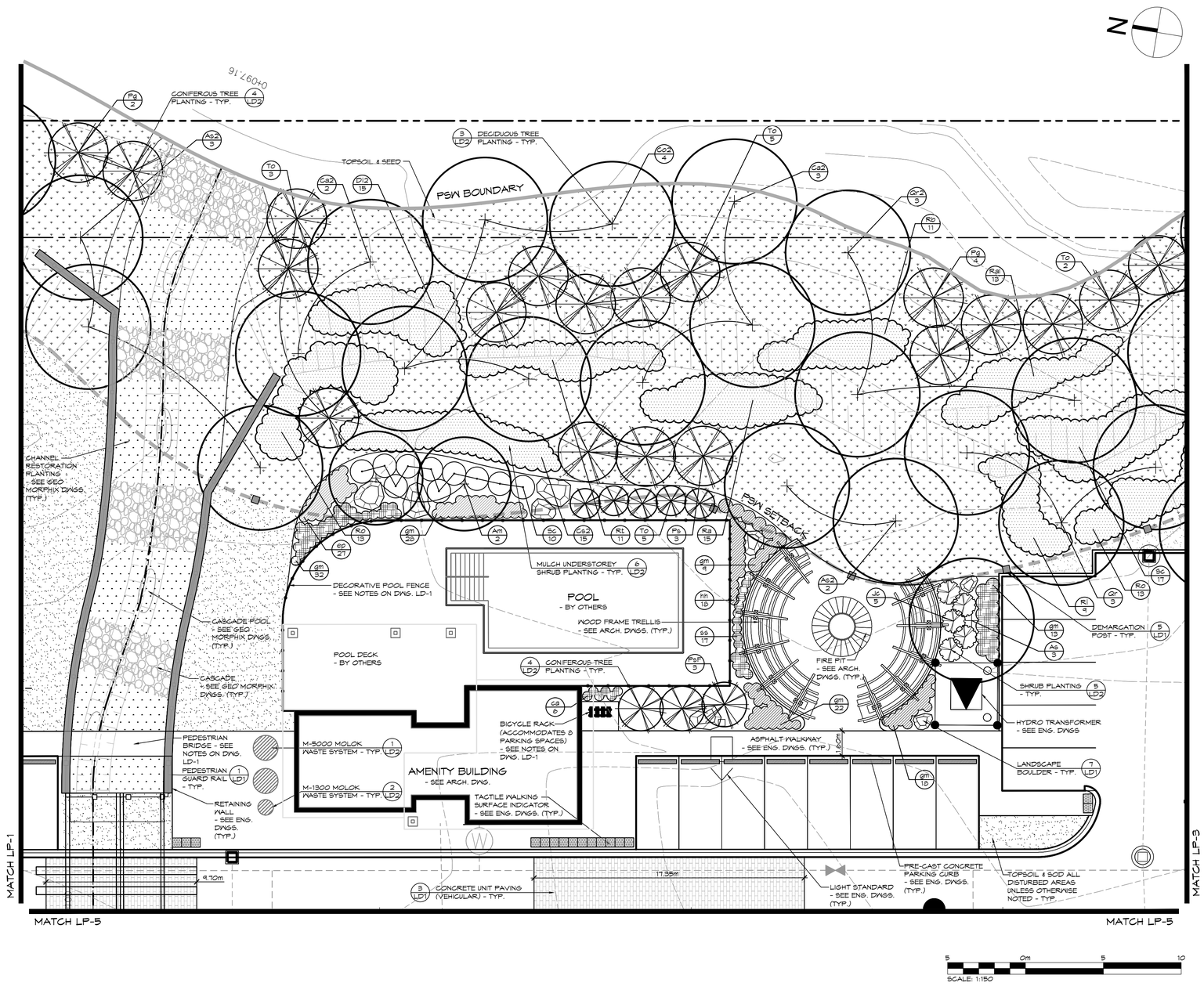
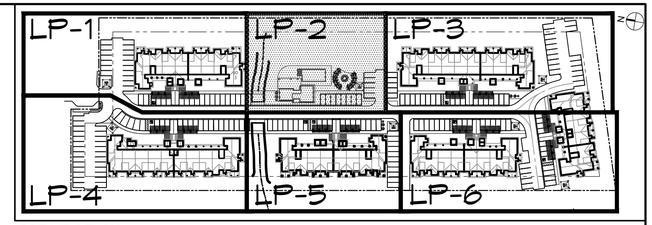
Drawn By	Design By	Project	
K.V. / A.M.	K.V. / M.H.	1535-4897	
Check By	Check By	Scale	Drawing
K.V.		1:150	LP-1





SITE KEY PLAN (NTS)
TOWN OF COLLINGWOOD

LEGEND

- PROPERTY BOUNDARY
- BUILDING SETBACK
- PSW BOUNDARY
- PSW SETBACK
- BENCH
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- BICYCLE RACK
- UNDERGROUND SERVICES - SEE ENG. DWGS
- CHANNEL - SEE ENG. DWGS.
- CONCRETE UNIT PAVING
- CONCRETE PAD
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- CONIFEROUS TREE
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- TOPSOIL AND SOD
- TOPSOIL AND SIMCOE COUNTY NATIVE SEED
- CHANNEL RESTORATION - SEE GEO MORPHIX DWGS.

NOTES:

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3. FOR GENERAL PLANTING NOTES, REFER TO NOTES ON DRAWING LD-2
4. FOR SEEDING MIX, REFER TO DRAWING LP-1

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ONTARIO ASSOCIATION OF LANDSCAPE ARCHITECTS — KATIE WARDROP — 2021/14/2022 — OALA — MEMBER

STAMP

Project: WYLDEWOOD CREEK
TOWN OF COLLINGWOOD

Drawing: LANDSCAPE PLAN

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	Design By	Project	
K.N. / A.M.	K.N. / M.H.	1535-4897	
Check By	Check By	Scale	Drawing
K.N.		1:150	LP-2

LEGEND

- PROPERTY BOUNDARY
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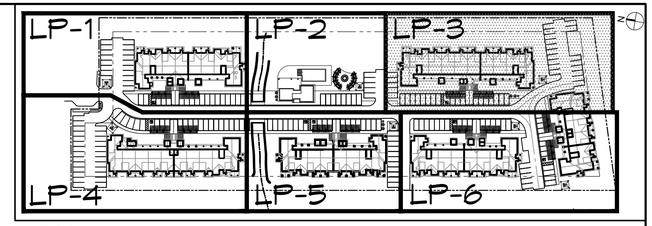
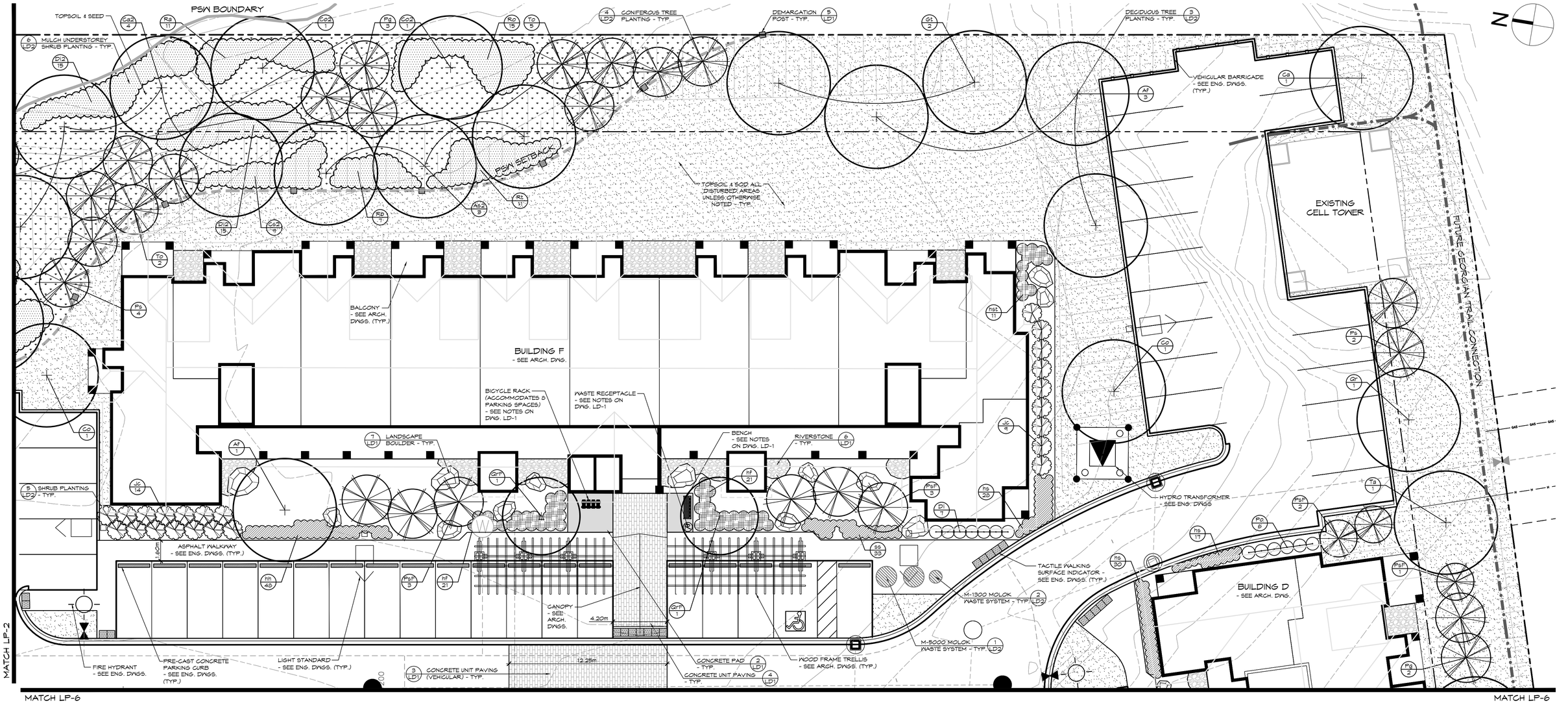


SITE KEY PLAN (NTS)
TOWN OF COLLINGWOOD



SCALE: 1:150

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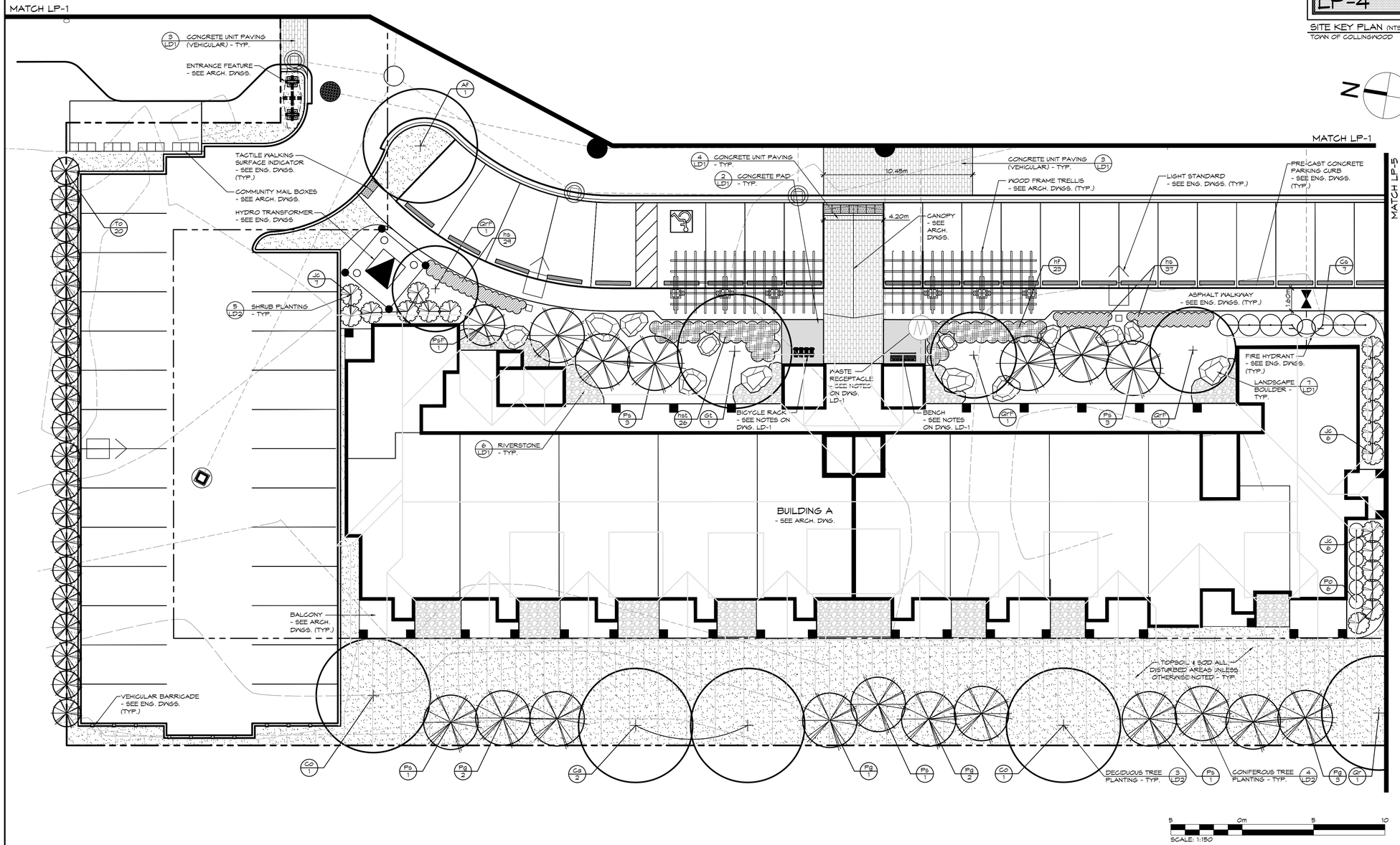
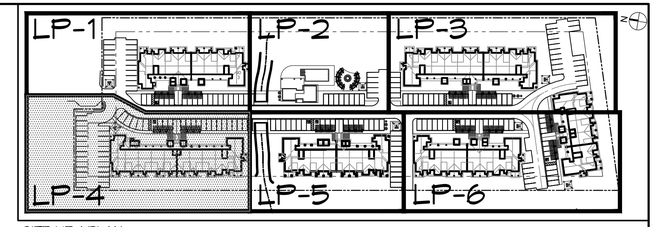
Drawn By	Design By	Project	
K.N. / A.M.	K.N. / M.H.	1535-4897	
Check By	Check By	Scale	Drawing
K.N.		1:150	LP-3





SITE KEY PLAN (NTS)
TOWN OF COLLINGWOOD

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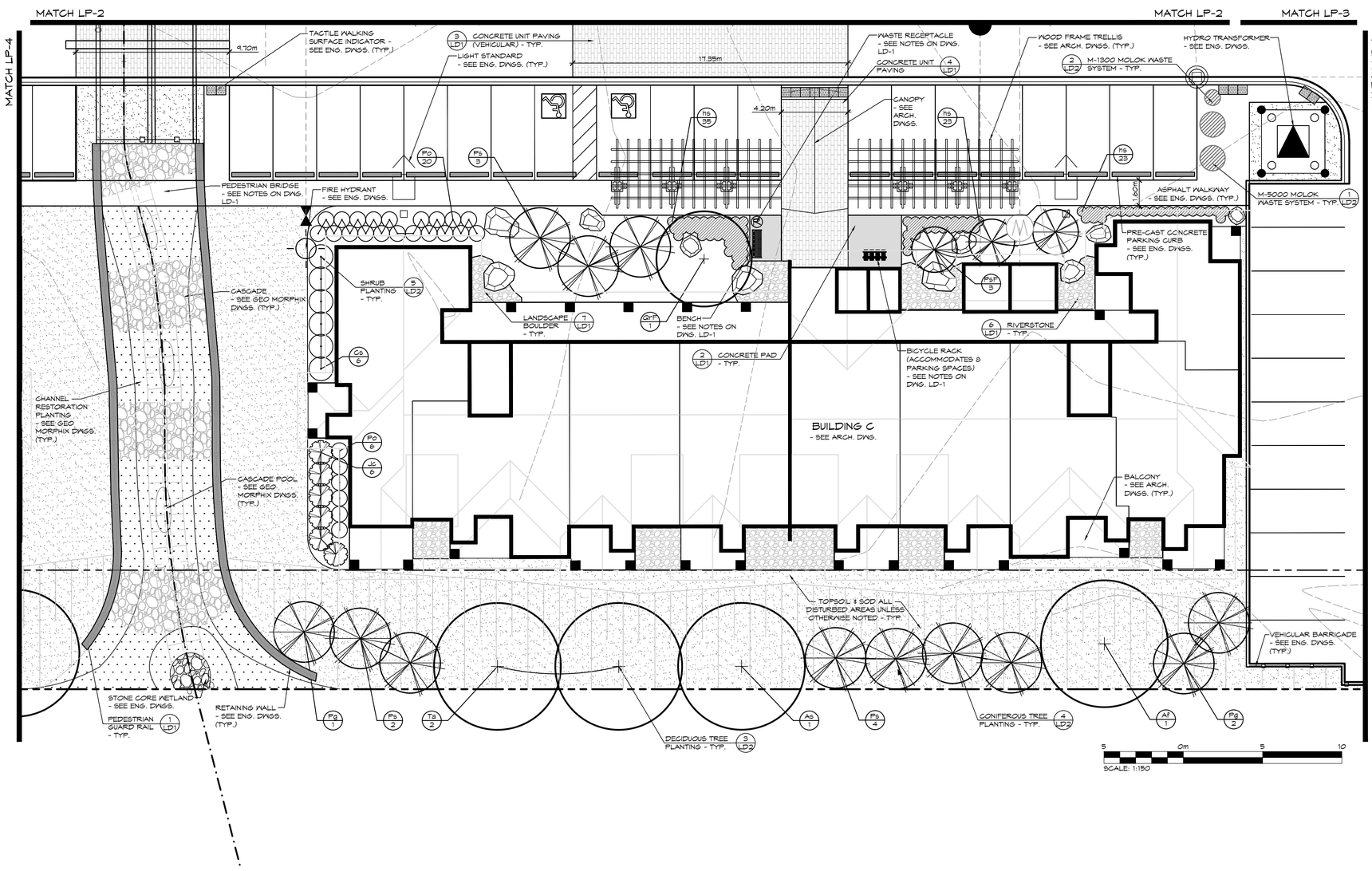

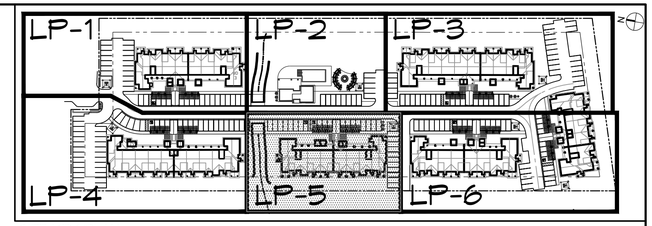

SITE KEY PLAN (NTS)
TOWN OF COLLINGWOOD

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

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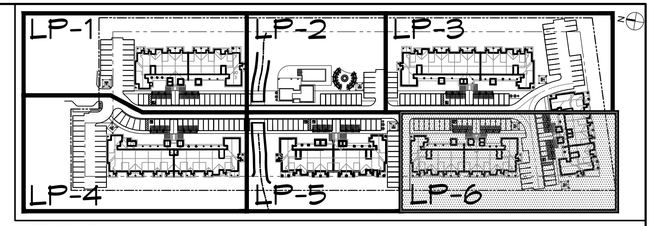

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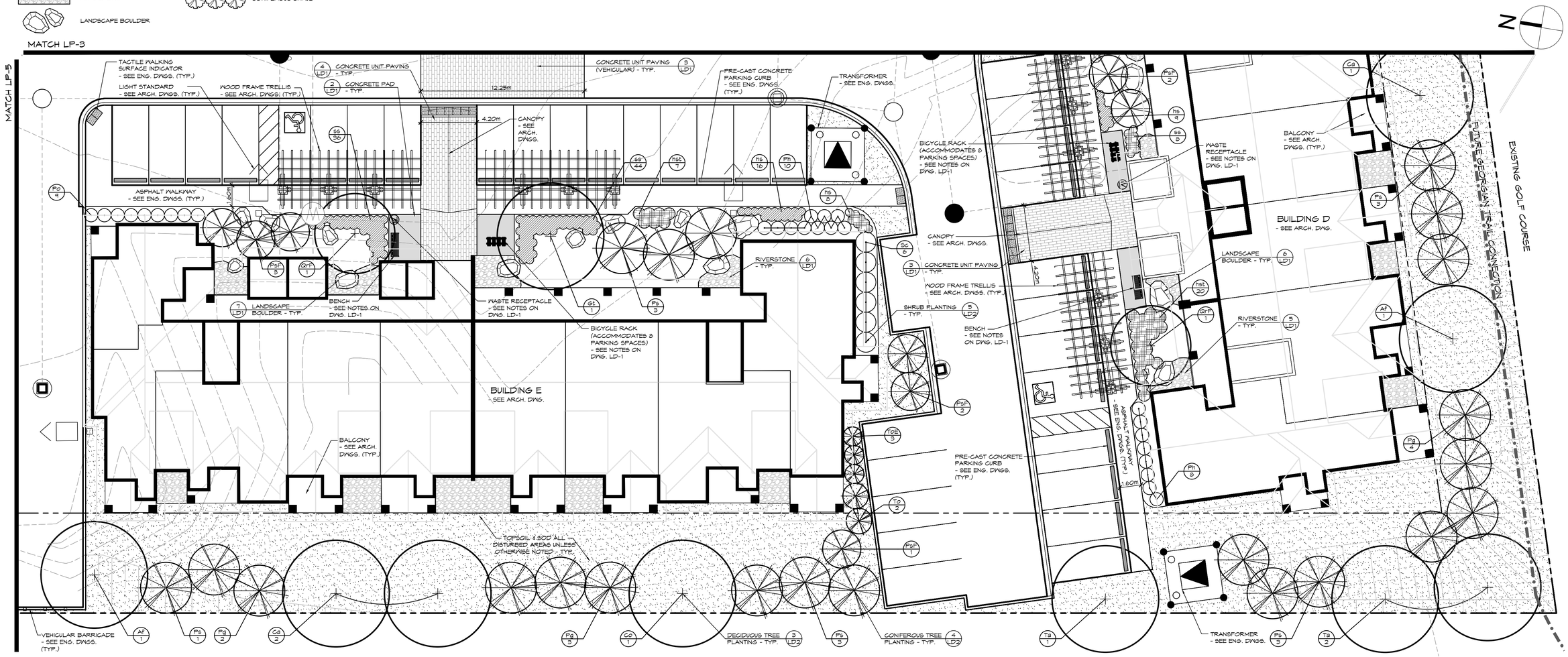

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Town

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1.	ISSUED FOR 2nd SITE PLAN SUBMISSION	04/08/2021
2.	ISSUED FOR 3rd SITE PLAN SUBMISSION	01/14/2022

STAMP: ONTARIO ASSOCIATION OF LANDSCAPE ARCHITECTS — MATTIE WARDROPE — 01.14.2022 — OALA — MEMBER

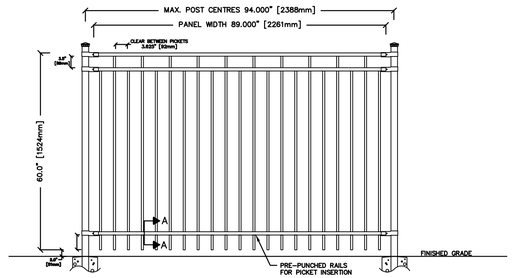
STAMP

Project: WYLDEWOOD CREEK
TOWN OF COLLINGWOOD

Drawing: LANDSCAPE PLAN

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



SPECIFICATIONS:

POSTS, RAILS: & PICKETS	EXTRUDED MARINE ALUMINUM 6061-T6 PRIME ALUMINUM, NORTH AMERICAN PRODUCED
FINISH:	SEVEN STAGE ARCHITECTURALLY CERTIFIED PRETREATMENT AS PER AAMA 2604. SUPER DURABLE ELECTROSTATICALLY APPLIED POWDER COAT – MIN THICKNESS 2.5 mils
POSTS:	51mm x 51mm (2"x2"), .125 WALL STANDARD (.188 WALL AVAILABLE)
POST FLANGES:	76mm x 152mm x 9.5mm (3"x6"x⅜") OPTION: 127mm x 127mm x 5mm (5"x5"x⅛") DECO PLATE
POST CAPS:	PYRAMID, BALL, SPIRE OR ACORN
RAILS:	25mm x 25mm (1" x 1"), .125 WALL (top and bottom) .180 WALL (sidewall)
PICKETS:	16mm x 16mm (⅝" x ⅝"), .080 WALL
WELDS:	ALUMINUM – FULL TACK BOTH SIDES OF PICKET

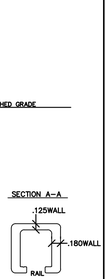
STANDARD PANEL HEIGHTS:

762mm (30")
914mm (36")
1067mm (42")
1219mm (48")
1524mm (60") SHOWN
1829mm (72")

STANDARD PANEL WIDTH:

2372mm (93 ⅜")
(PANELS MAY BE CUT TO SUIT)

SECTION A-A



COLOUR:	STANDARD COLOURS ARE BLACK, SEMI-BLACK BROWN, GREEN, WHITE AND FOREST GREEN (CUSTOM COLOURS AVAILABLE UPON REQUEST)
WARRANTY:	20 YEAR LIMITED
NOTE:	TAMPER PROOF NUT AVAILABLE FOR BRACKETS

NOTE:
1. PEDESTRIAN GUARD RAIL TO BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS.

COMMENTS:

IRON EAGLE I ALUMINUM SERIES
STYLE 2115

DRAWING No. A2115

CHK'D

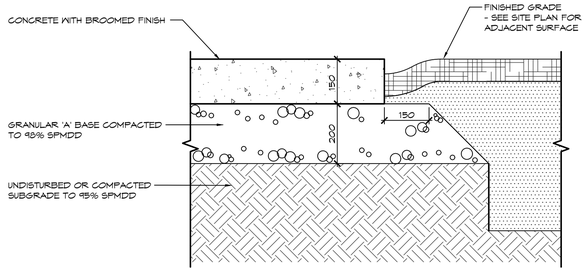
DATE: JAN 12, 2018

IRON EAGLE INDUSTRIES 1256 CARDIFF BLVD., MISSISSAUGA, ON L5S 1R1 www.ironeagleind.com info@ironeagleind.com TEL: 905 670-2558 FAX: 905 670-2538

1 LD1 PEDESTRIAN GUARD RAIL

NTS

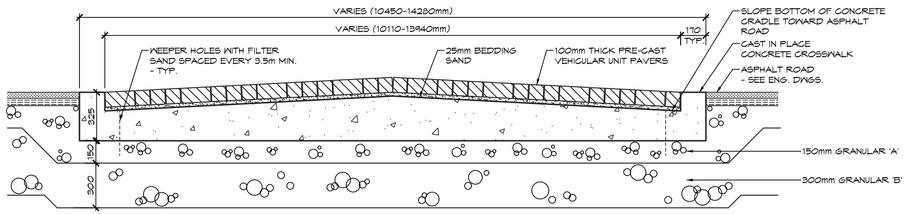
NOTES:
1. CONCRETE PAD SHALL BE IN ACCORDANCE WITH OPSS.MUNI 351 AND MANUFACTURER'S SPECIFICATIONS.



2 LD1 CONCRETE PAD

1:10

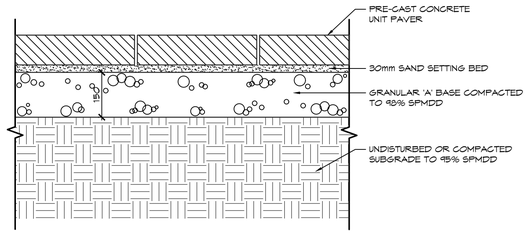
NOTES:
1. SUBGRADE TO BE COMPACTED TO A MINIMUM DRY DENSITY OF AT LEAST 95% SPMDD. SUBGRADE TO BE PROOF ROLLED AND CERTIFIED PRIOR TO PLACING GRANULAR 'B' LAYER.
2. GRANULAR 'A' AND 'B' ROAD BASE TO BE COMPACTED TO 100% OF THE MATERIALS RESPECTIVE SPMDD AND PLACED IN MAXIMUM 150mm LIFTS. REFER TO GEOTECHNICAL 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 LD1 CONCRETE UNIT PAVING - VEHICULAR

1:20

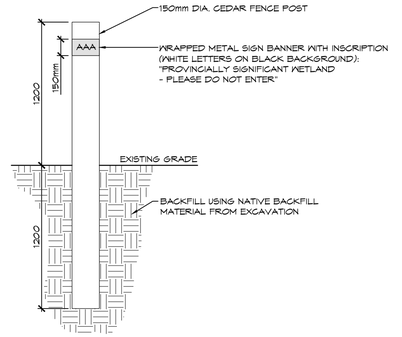
NOTES:
1. CONCRETE UNIT PAVING SHALL BE IN ACCORDANCE WITH OPSS.MUNI 355 AND MANUFACTURER'S SPECIFICATIONS.
2. CONCRETE UNIT PAVING SHALL BE SPECIFIED BY OWNER.



4 LD1 CONCRETE UNIT PAVING

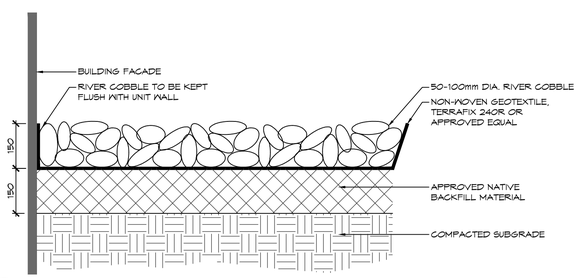
1:10

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 LD1 DEMARCATION POST

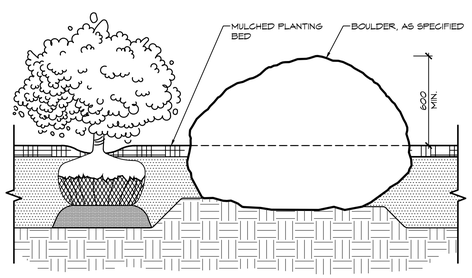
1:25



6 LD1 RIVERSTONE

1:10

NOTES:
1. BOULDER SHALL BE ROUNDED CAP LIMESTONE ROCKERY, SUPPLIED BY MAXNELL'S LANDSCAPE & MASONRY SUPPLY (705.445.0111) 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 LD1 LANDSCAPE BOULDER

1:20

GENERAL NOTES:

1.0 PEDESTRIAN BRIDGE

1. THE PEDESTRIAN BRIDGE SHALL BE SUPPLIED AND INSTALLED BY EAGLE BRIDGE INC., 250 SHIRLEY AVENUE, KITCHENER, ONTARIO, TEL.: 519.743.4353.
2. 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.
3. FORMAL CERTIFICATION OF THE WORKS SHALL BE PROVIDED BY THE ENGINEER RESPONSIBLE FOR THE SEALED SHOP DRAWINGS.

2.0 POOL FENCING

1. POOL FENCING SHALL BE IN ACCORDANCE WITH THE TOWN OF COLLINGWOODS POOL ENCLOSURE REQUIREMENTS BY-LAW NO. 81-42.
2. 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: 905.670.2558.
3. PEDESTRIAN GATE TO BE THE SAME STYLE AS THE FENCE AND SHALL BE SELF-CLOSING, SELF-LATCHING AND LOCKABLE.
4. COLOUR OF FENCE AND GATES TO BE HIGH GLOSS BLACK.
5. CONTRACTOR SHALL PROVIDE DETAILED SHOP DRAWINGS FOR APPROVAL BY THE LANDSCAPE ARCHITECT PRIOR TO FABRICATION.

3.0 SITE FURNITURE

1. THE FOLLOWING SITE FURNITURE SHALL BE SUPPLIED AND INSTALLED BY PARIS MANUFACTURING LTD., P.O. BOX 70, 21 SCOTT AVENUE, PARIS, ONTARIO, TEL.: 1.800.387.6318 (MARK HICKS):

BICYCLE RACK
MODEL NO.: SBR9
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

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.

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

Town

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Landscape Architect

ONTARIO ASSOCIATION OF LANDSCAPE ARCHITECTS — KATIE WARDROP — 2021/14/2022 — OALA MEMBER

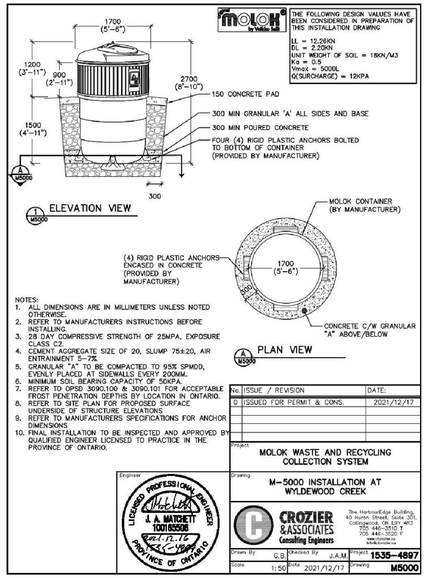
Landscape Architect

Project: WYLDEWOOD CREEK
TOWN OF COLLINGWOOD

Drawing: LANDSCAPE DETAILS

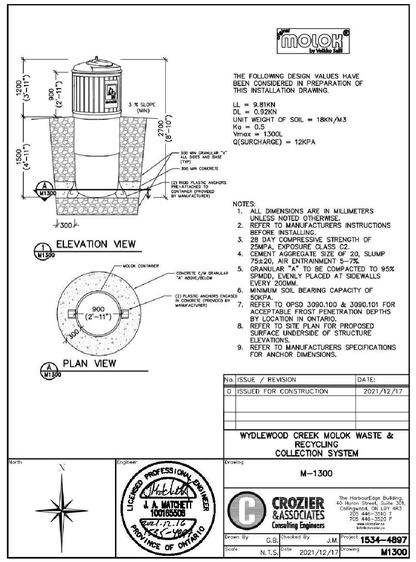
CROZIER CONSULTING ENGINEERS
ADMIRAL BUILDING
1 FIRST STREET, SUITE 200
COLLINGWOOD, ON, L9Y 1A1
705 446-3510 T
705 446-3520 F
WWW.CFCROZIER.CA
INFO@CFCROZIER.CA

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



1 LD2 M-5000 MOLOK WASTE SYSTEM

NTS

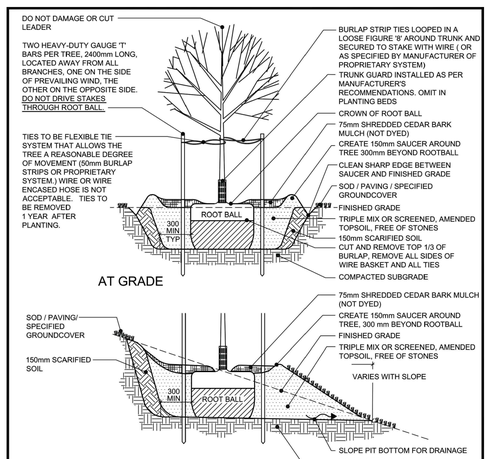


2 LD2 M-1300 MOLOK WASTE SYSTEM

NTS

PLANTING NOTES:

1. ALL WORKMANSHIP TO THE STANDARDS OF THE LANDSCAPE ONTARIO HORTICULTURAL TRADES ASSOCIATION AND THE CANADIAN LANDSCAPE STANDARDS.
2. TREE LOCATIONS SHALL BE STAKED ON SITE BY THE LANDSCAPE CONTRACTOR AND APPROVED BY THE LANDSCAPE ARCHITECT PRIOR TO PLANTING.
3. 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.
4. REPORT ALL DISCREPANCIES IN WRITING TO THE LANDSCAPE ARCHITECT.
5. CONTRACTOR SHALL MAINTAIN ALL LANDSCAPE AREAS UNTIL OWNER'S ACCEPTANCE OF PROJECT.
6. CONTRACTOR TO LOCATE ALL UNDERGROUND UTILITIES.
7. PLANTING MAY BE ADJUSTED TO SUIT LOCATIONS OF SITE UTILITY STRUCTURES/ SERVICES AND DRIVEWAYS.
8. TREE PITS OR PLANTING BEDS LOCATED WITHIN 1 METER OF UNDERGROUND UTILITIES ARE TO BE HAND DUG.
9. 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.
10. ALL MATERIAL SHALL BE APPROVED BY THE LANDSCAPE ARCHITECT PRIOR TO INSTALLATION.
11. 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.
12. FINAL INSPECTION AND ACCEPTANCE OF PLANTING WORK SHALL COINCIDE WITH THE FINAL INSPECTION AND ACCEPTANCE OF ALL WORK INCLUDED IN THE CONTRACT.
13. 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.



NOTES

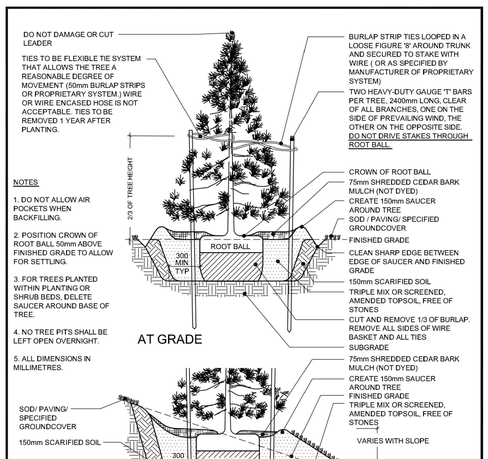
1. DO NOT ALLOW AIR POCKETS WHEN BACKFILLING.
2. POSITION CROWN OF ROOT BALL 50mm ABOVE FINISHED GRADE TO ALLOW FOR SETTLING.
3. DO CORRECTIVE PRUNING TO RETAIN NATURAL FORM OF TREE.
4. FOR TREES PLANTED WITHIN PLANTING OR SHRUB BEDS, DELETE SAUCER AROUND BASE OF TREE.
5. NO TREE PITS SHALL BE LEFT OPEN OVERNIGHT.
6. ALL DIMENSIONS ARE IN MILLIMETRES.

NO.	REVISION	APR'D	DATE
1	PLANTING METHODOLOGY	EN	JUL/04
2	PLANTING METHODOLOGY	DW	JUN/07

TOWN OF COLLINGWOOD	APR'D: DW	DATE: JAN/03	
	DRAWN: AB	SCALE: NTS	
DECIDUOUS TREE PLANTING	STD. No.	1101	

3 LD2 DECIDUOUS TREE PLANTING

NTS



NOTES

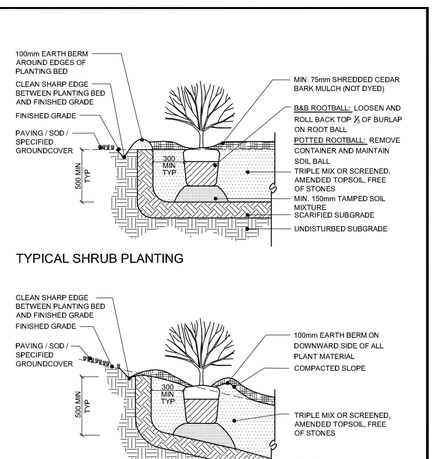
1. DO NOT ALLOW AIR POCKETS WHEN BACKFILLING.
2. POSITION CROWN OF ROOT BALL 50mm ABOVE FINISHED GRADE TO ALLOW FOR SETTLING.
3. FOR TREES PLANTED WITHIN PLANTING OR SHRUB BEDS, DELETE SAUCER AROUND BASE OF TREE.
4. NO TREE PITS SHALL BE LEFT OPEN OVERNIGHT.
5. ALL DIMENSIONS IN MILLIMETRES.

NO.	REVISION	APR'D	DATE
1	PLANTING METHODOLOGY	EN	JUL/04
2	PLANTING METHODOLOGY	DW	JUN/07

TOWN OF COLLINGWOOD	APR'D: DW	DATE: JAN/03	
	DRAWN: AB	SCALE: NTS	
CONIFEROUS TREE PLANTING	STD. No.	1102	

4 LD2 CONIFEROUS TREE PLANTING

NTS



NOTES

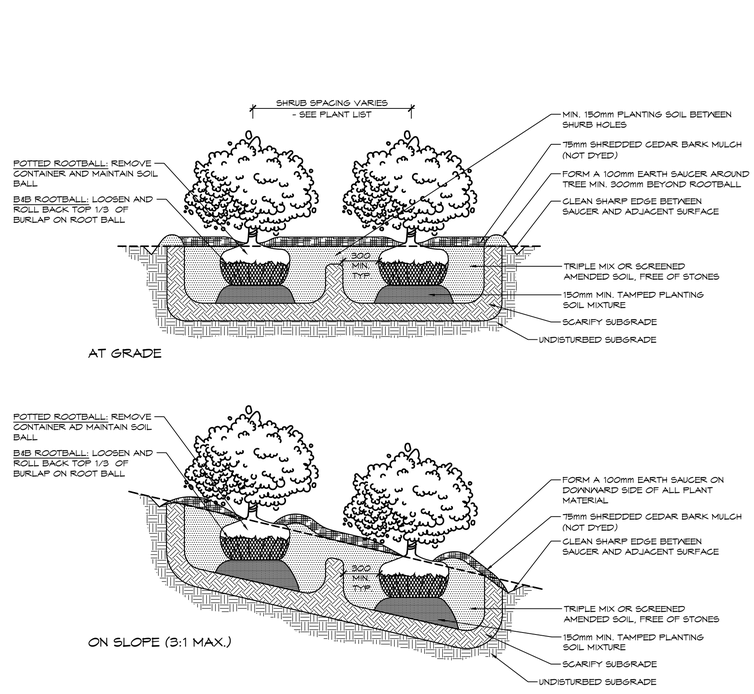
1. DO NOT ALLOW AIR POCKETS WHEN BACKFILLING.
2. POSITION CROWN OF ROOT BALL 25mm ABOVE FINISH GRADE TO ALLOW FOR SETTLING.
3. ALL DIMENSIONS IN MILLIMETRES.

NO.	REVISION	APR'D	DATE
1	PLANTING METHODOLOGY	EN	JUL/04
2	PLANTING METHODOLOGY	DW	JUN/07

TOWN OF COLLINGWOOD	APR'D: DW	DATE: JAN/03	
	DRAWN: AB	SCALE: NTS	
SHRUB PLANTING	STD. No.	1103	

5 LD2 SHRUB PLANTING

NTS



6 LD2 MULCH UNDERSTOREY SHRUB PLANTING

1:25

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Landscape Architect

ONTARIO ASSOCIATION OF LANDSCAPE ARCHITECTS MATTIE WARDROP 01.14.2022 OALA MEMBER

Landscape Architect

Project
WYLDEWOOD CREEK
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.N. / A.M.	Design By K.N.	Project	1535-4897
Check By K.N.	Check By	Scale AS SHOWN	Drawing LD-2