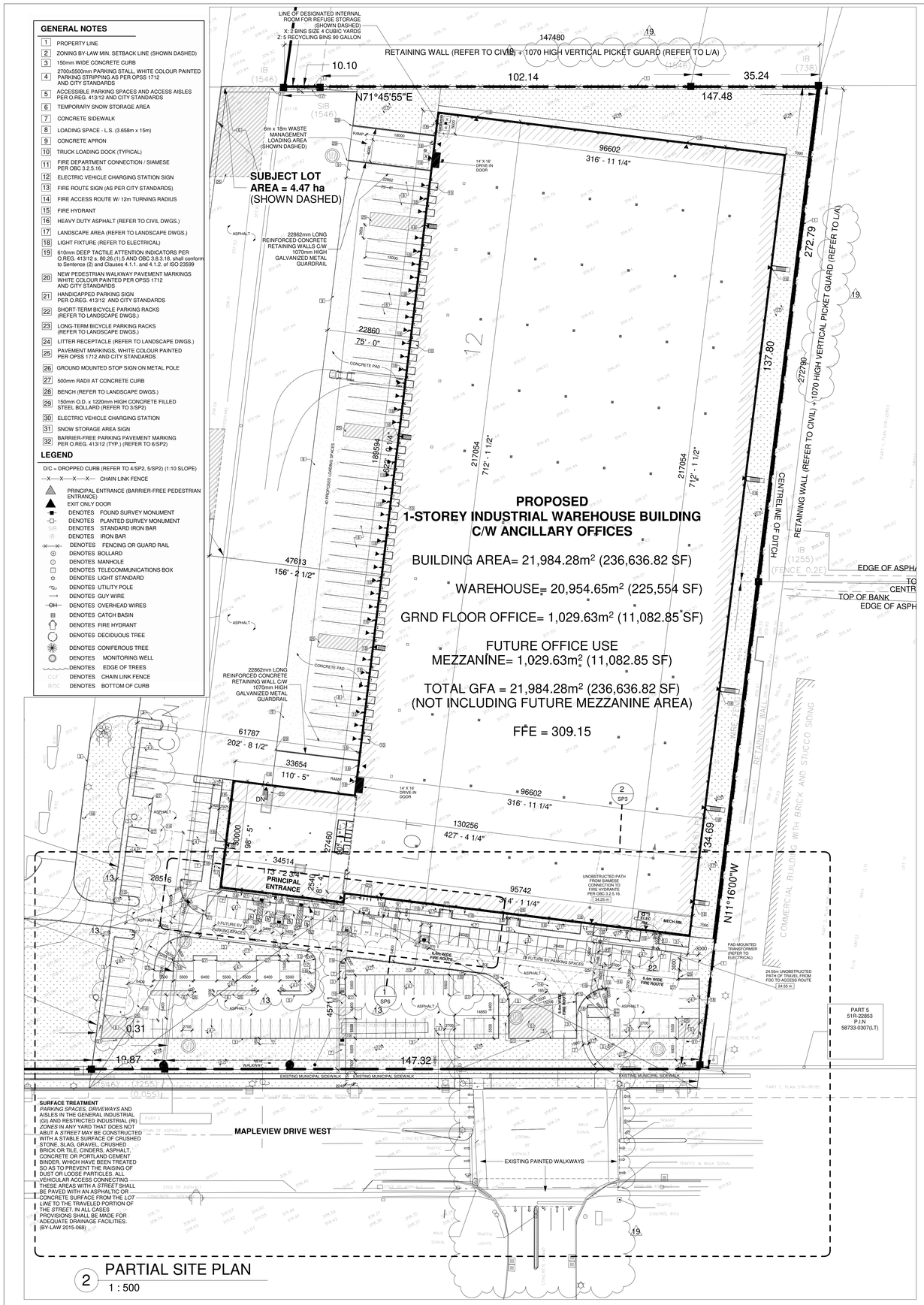
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1. PROPERTY LINE
2. ZONING BY-LAW MIN. SETBACK LINE (SHOWN DASHED)
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32. BARRIER-FREE PARKING PAVEMENT MARKING PER O.REG. 413/12 (TYP.) (REFER TO 6/SP2)

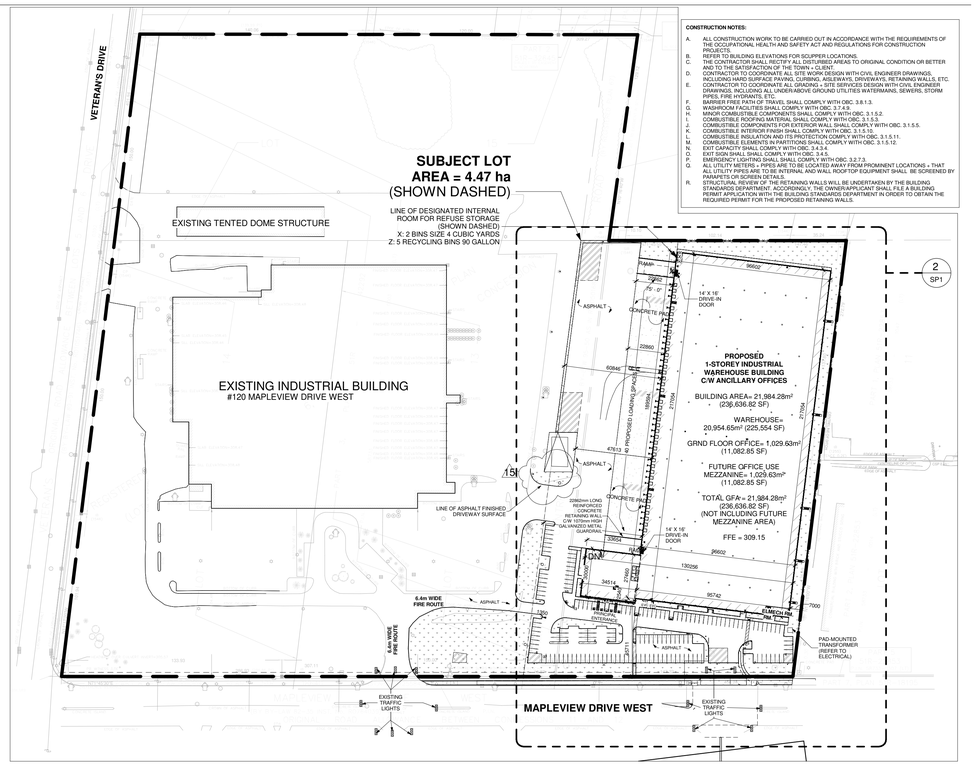
LEGEND

D/C = DROPPED CURB (REFER TO 4/SP2, 5/SP2) (1:10 SLOPE)
—X—X—X—X— CHAIN LINK FENCE
PRINCIPAL ENTRANCE (BARRIER-FREE PEDESTRIAN ENTRANCE)
EXIT ONLY DOOR
DENOTES FOUND SURVEY MONUMENT
DENOTES PLANTED SURVEY MONUMENT
SIB DENOTES STANDARD IRON BAR
IB DENOTES IRON BAR
DENOTES FENCING OR GUARD RAIL
DENOTES BOLLARD
DENOTES MANHOLE
DENOTES TELECOMMUNICATIONS BOX
DENOTES LIGHT STANDARD
DENOTES UTILITY POLE
DENOTES GUY WIRE
OH DENOTES OVERHEAD WIRES
DENOTES CATCH BASIN
DENOTES FIRE HYDRANT
DENOTES DECIDUOUS TREE
DENOTES CONIFEROUS TREE
DENOTES MONITORING WELL
DENOTES EDGE OF TREES
CLF DENOTES CHAIN LINK FENCE
BOC DENOTES BOTTOM OF CURB



SURFACE TREATMENT
PARKING SPACES, DRIVEWAYS AND AISLES IN THE GENERAL INDUSTRIAL (GI) AND RESTRICTED INDUSTRIAL (RI) *ZONES* IN ANY YARD THAT DOES NOT ABUT A *STREET* MAY BE CONSTRUCTED WITH A STABLE SURFACE OF CRUSHED STONE, SLAG, GRAVEL, CRUSHED BRICK OR TILE, CINDERS, ASPHALT, CONCRETE OR PORTLAND CEMENT BINDER, WHICH HAVE BEEN TREATED SO AS TO PREVENT THE RAISING OF DUST OR LOOSE PARTICLES. ALL VEHICULAR ACCESS CONNECTING THESE AREAS WITH A *STREET* SHALL BE PAVED WITH AN ASPHALTIC OR CONCRETE SURFACE FROM THE LOT *LINE* TO THE TRAVELED PORTION OF THE *STREET*. IN ALL CASES PROVISIONS SHALL BE MADE FOR ADEQUATE DRAINAGE FACILITIES. (BY-LAW 2015-068).

2 PARTIAL SITE PLAN
1 : 500



CONSTRUCTION NOTES:

A. ALL CONSTRUCTION WORK TO BE CARRIED OUT IN ACCORDANCE WITH THE REQUIREMENTS OF THE OCCUPATIONAL HEALTH AND SAFETY ACT AND REGULATIONS FOR CONSTRUCTION PROJECTS.
B. REFER TO BUILDING ELEVATIONS FOR SCUPPER LOCATIONS.
C. THE CONTRACTOR SHALL RECTIFY ALL DISTURBED AREAS TO ORIGINAL CONDITION OR BETTER AND TO THE SATISFACTION OF THE TOWN + CLIENT.
D. CONTRACTOR TO COORDINATE ALL SITE WORK DESIGN WITH CIVIL ENGINEER DRAWINGS, INCLUDING BUT NOT LIMITED TO PAVING, CURBING, AISLEWAYS, DRIVEWAYS, RETAINING WALLS, ETC.
E. CONTRACTOR TO COORDINATE ALL GRADING + SITE SERVICES DESIGN WITH CIVIL ENGINEER DRAWINGS, INCLUDING ALL UNDERGROUND/ABOVE GROUND UTILITIES INTERMIANS, SEWERS, STORM PIPES, FIRE HYDRANTS, ETC.
F. BARRIER FREE PATH OF TRAVEL SHALL COMPLY WITH OBC 3.8.1.3.
G. WASHROOM FACILITIES SHALL COMPLY WITH OBC 3.7.4.9.
H. MINOR COMBUSTIBLE COMPONENTS SHALL COMPLY WITH OBC 3.1.5.2.
I. COMBUSTIBLE COMPONENTS FOR EXTERIOR CLADDING SHALL COMPLY WITH OBC 3.1.5.5.
J. COMBUSTIBLE COMPONENTS FOR EXTERIOR WALL SHALL COMPLY WITH OBC 3.1.5.5.
K. COMBUSTIBLE INTERIOR FINISH SHALL COMPLY WITH OBC 3.1.5.15.
L. COMBUSTIBLE INSULATION AND ITS PROTECTION COMPLY WITH OBC 3.1.5.11.
M. COMBUSTIBLE ELEMENTS IN PARTITIONS SHALL COMPLY WITH OBC 3.1.5.12.
N. EXIT SIGN SHALL COMPLY WITH OBC 3.4.5.
O. EXIT SIGN SHALL SHALL COMPLY WITH OBC 3.4.5.
P. EMERGENCY LIGHTING SHALL SHALL COMPLY WITH OBC 3.2.7.3.
Q. ALL UTILITY METERS + PIPES ARE TO BE LOCATED AWAY FROM PROMINENT LOCATIONS + THAT ALL UTILITY PIPES ARE TO BE INTERNAL AND WALL ROOFTOP EQUIPMENT SHALL BE SCREENED BY ARCHITECTURAL FEATURES.
R. STRUCTURAL REVIEW OF THE RETAINING WALLS WILL BE UNDERTAKEN BY THE BUILDING STANDARDS DEPARTMENT. ACCORDINGLY, THE OWNER/APPLICANT SHALL FILE A BUILDING PERMIT APPLICATION WITH THE BUILDING STANDARDS DEPARTMENT IN ORDER TO OBTAIN THE REQUIRED PERMIT FOR THE PROPOSED RETAINING WALLS.

6 PARTIAL SITE PLAN
1 : 1500



3 KEY PLAN
1 : 30000

ZONING BY-LAW MATRIX

LIGHT INDUSTRIAL (LI) WITH SPECIAL PROVISION (SP-167)	REQUIREMENTS	PROPOSED	CITY OF BARRIE ZONING BY-LAW 2009-141	COMPLIANCE
MIN. LOT AREA	700m²	44,665.07m²	TABLE 7.3	YES
MIN. LOT FRONTAGE	15m	167536m	TABLE 7.3	YES
LOT COVERAGE (MAX.)	60%	21,984.28m² / 44,665.07m² = 49.22%	TABLE 7.3	YES
DEVELOPMENT AREA				
TOTAL BUILDING AREA	--	21,984.28m²	--	--
MIN. FRONT YARD SETBACK				
SOUTH	7m	36.605m	TABLE 7.3	YES
MIN. SIDE YARD SETBACK				
EAST	3m	7m	TABLE 7.3	YES
WEST	3m	>3m	TABLE 7.3	YES
MIN. REAR YARD SETBACK				
NORTH	7m	7m	TABLE 7.3	YES
BUILDING HEIGHT (MAX)	14m	13.98m AVERAGE GRADE TO U/S ROOF DECK	TABLE 7.3	YES
PARKING SPACE (STANDARD)	2.7m x 5.5m	2.7m x 5.5	4.6.2.5	YES
ACCESSIBLE PARKING SPACE	TYPE 'A' = 3.4m WIDE TYPE 'B' = 2.4m WIDE	TYPE 'A' = 3.4m WIDE TYPE 'B' = 2.4m WIDE	4.6.4(b) O.REG. 413/12=s80.34	YES
LANDSCAPE REQUIREMENTS				
LANDSCAPED BUFFER AREAS WIDTH	1.5m ABUTTING INDUSTRIAL ZONES 6m ABUTTING A STREET LINE	1.5m ABUTTING INDUSTRIAL ZONES 6m ABUTTING A STREET LINE	4.8.2	YES
MIN. PARKING SPACES	OFFICE USE: 1 SPACE PER 30m² OF GROSS FLOOR AREA	WAREHOUSE USE: 1 SPACE PER 1000m² OF GROSS FLOOR AREA		
PROPOSED OFFICE USE GROUND FLOOR AREA = 1,029.63m²	1/30 X 1,029.63m² = 34.32 (35 PARKING SPACES REQUIRED)	48 PARKING SPACES PROVIDED		
FUTURE OFFICE USE MEZZANINE AREA = 1,029.63m²	1/30 X 1,029.63m² = 34.32 (35 PARKING SPACES REQUIRED)	48 PARKING SPACES PROVIDED		
PROPOSED WAREHOUSE USE GROUND FLOOR AREA = 20,954.65m²	1/1000 X 20,954.65m² = 20.95 (21 PARKING SPACES REQUIRED)	54 PARKING SPACES PROVIDED		
TOTAL	35 + 35 + 21 = 91 PARKING SPACES REQUIRED	150 PARKING SPACES PROVIDED	TABLE 4.6	YES
BARRIER FREE PARKING SPACES	TWO TYPE 'A' TWO TYPE 'B'	TWO TYPE 'A' TWO TYPE 'B' 4 BARRIER FREE PARKING SPACES PROVIDED	TABLE 4.6.4(a) O.REG. 413/12 s80.36.(1).4	YES
BICYCLE PARKING SPACES				
TOTAL OFFICE AREA = 2,059.26m² (INCLUDING MEZZANINE) — REQUIRED LONG TERM	2,059.26m² X 0.08 / 100m² = 1.65 SPACES	2 BICYCLE PARKING SPACES		
TOTAL OFFICE AREA = 2,059.26m² (INCLUDING MEZZANINE) — REQUIRED SHORT TERM	2,059.26m² X 0.05 / 100m² = 1.02 SPACES	12 BICYCLE PARKING SPACES	---	---
TOTAL	3 BICYCLE PARKING SPACES REQUIRED	14 BICYCLE PARKING SPACES PROVIDED		
AISLE WIDTH FOR 90° PARKING	6.4m (2 WAYS)	6.4m (2 WAYS)	4.6.2.5	YES
LOADING SPACES BUILDING GROSS FLOOR AREA = 21,984.28m²	5 LOADING SPACES	40 LOADING SPACES	TABLE 4.7.1	YES
SIZE OF LOADING SPACES	3.0m x 9m	3.658m x 15m	4.7.1.2	YES
DRIVE-IN DOORS	---	TWO 14' (W) x 16' (H) DRIVE-IN DOORS	---	---

4 ZONING DATA MATRIX
N.T.S.

FIRM NAME: NESTICO ARCHITECT INC.										
CERTIFICATE OF PRACTICE NUMBER: 3070										
SAM NESTICO, ARCHITECT										
7-3000 LANGSTAFF ROAD, CONCORD, ONTARIO, L4K 4R7										
NAME OF PROJECT: PROPOSED 1-STOREY INDUSTRIAL WAREHOUSE BUILDING C/W ANCILLARY OFFICES (SINGLE TENANCY)										
LOCATION: 90 MAPLEVIEW DRIVE WEST, BARRIE, ON.										
ITEM	2012 ONTARIO BUILDING CODE DATA MATRIX								OBC REFERENCE	
1	PROJECT DESCRIPTION: ☒ NEW ☐ ADDITION ☐ CHANGE OF USE ☐ ALTERATION								☒ PART 3 2.1.1	☐ PART 9 2.1.1 9.10.1.3
2	MAJOR OCCUPANCY(S)	GROUP F, DIV. 2							3.1.2.1.(1)	9.10.2
3	BUILDING AREA (SM)	NEW 21,984.28m²	TOTAL 21,984.28m²						1.1.3.2	1.1.3.2
4	GROSS AREA (SM) OFFICE GROUND FLOOR NEW 1,029.63m² WAREHOUSE GROUND FLOOR NEW 20,954.65m² TOTAL GFA 21,984.28m²								1.1.3.2	1.1.3.2
5	NUMBER OF STORIES ABOVE 1 BELOW 0 HEIGHT OF BUILDING 13.98m AVERAGE GRADE TO U/S ROOF DECK								3.2.1.1 + 1.1.3.2	1.1.3.2
6	NUMBER OF STREETS / FIREFIGHTER ACCESS	1 STREET							3.2.2.10 + 3.2.5.	9.10.19
7	BUILDING CLASSIFICATION 3.2.2.68.B.								3.2.2.20 - .83	9.10.4
8	SPRINKLER SYSTEM PROPOSED ☒ ENTIRE BUILDING ☐ BASEMENT ONLY ☐ IN LIEU OF ROOF RATING ☐ NOT REQUIRED								3.2.2.20 - .83 3.2.1.5 3.2.2.17	9.10.8
9	STANDPIPE REQUIRED							☐ YES ☒ NO	3.2.9	N/A
10	FIRE ALARM REQUIRED							☐ YES ☒ NO	3.2.4	9.10.17.2
11	WATER SERVICE / SUPPLY IS ADEQUATE							☒ YES ☐ NO	3.2.5.7	N/A
12	HIGH BUILDING							☐ YES ☒ NO	3.2.6	N/A
13	PERMITTED CONSTRUCTION ☐ COMBUSTIBLE ☒ NON-COMBUSTIBLE ☐ BOTH ACTUAL CONSTRUCTION ☐ COMBUSTIBLE ☒ NON-COMBUSTIBLE ☐ BOTH								3.2.2.20 - .83	9.10.6
14	OCCUPANT LOAD BASED ON ☐ m2 / PERSON ☒ DESIGN OF BUILDING GROUND FLOOR WAREHOUSE OCCUPANCY TBD GROUP 'F', DIV 2 GROUND FLOOR OFFICE OCCUPANCY TBD GROUP 'D'								3.1.16	9.9.1.3
15	BARRIER-FREE DESIGN							☒ YES ☐ NO	3.8	9.5.2
16	HAZARDOUS SUBSTANCES							☐ YES ☒ NO	3.3.1.2 + .3.3.1.19	9.10.1.3.(4)
17	REQUIRED FIRE RESISTANCE RATING (FRR)	HORIZONTAL ASSEMBLIES FRR (HOURS)						LISTED DESIGN NO./DESCRIPTION (SB-2)	3.2.2.20 - .83 3.2.1.4	9.10.8
		FLOORS	2	HOURS				N/A		
		MEZZANINE	1	HOURS				N/A		
		ROOF	0	HOURS				N/A		
		FRR OF SUPPORTING MEMBERS						LISTED DESIGN NO./DESCRIPTION (SB-2)		
		FLOORS	2	HOURS				N/A		
		MEZZANINE	1	HOURS				N/A		
		ROOF	0	HOURS				N/A		
18	SPATIAL SEPARATION - CONSTRUCTION OF EXTERIOR WALLS								3.2.3	9.10.14
	WALL	AREA OF EBF (SM)	L.D. (m)	L/H H/L	PERMITTED MAX % OF OPENINGS	PROPOSED % OF OPENINGS	FRR (hr)	LISTED DESIGN OR DESCRIPTION	TYPE OF CONST.	TYPE OF CLADDING
	EAST	>200m²	7m		28%		1	NF,PC, GL	NC	NC
	WEST	>200m²	>15m		100%		0	NF,PC, GL	NC	NC
	NORTH	>200m²	7m		28%		1	NF,PC, GL	NC	NC
	SOUTH	>200m²	>15m		100% (1)		0	NF,PC, GL	NC	NC

LEGEND
PC PRECAST CONCRETE PANEL
NC NON COMBUSTIBLE CONSTRUCTION
C COMBUSTIBLE CONSTRUCTION
NF NUFORM WALL SYSTEM (ESR-1223)
GL GLAZING CURTAIN WALL SYSTEM

(1) AS PER OBC 3.2.3.10.(2)

5 O.B.C MATRIX
N.T.S

FINAL APPROVED PLAN
File: D11-024-2021
Date: Sept 28, 2023
Barrie No. of Pages: 30

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mail@NesticoArchitect.com
VaughanArchitect.ca

ONTARIO ASSOCIATION OF ARCHITECTS
SAVERIO NESTICO
LICENCE
4638

N PROJECT NORTH
N TRUE NORTH

SUBMITTALS

THIS DOCUMENT SHOULD NOT BE RELIED ON OR USED IN CIRCUMSTANCES OTHER THAN THOSE FOR WHICH IT WAS ORIGINALLY PREPARED AND FOR WHICH NESTICO ARCHITECT INC. WAS COMMISSIONED.

NESTICO ARCHITECT INC. ACCEPTS NO RESPONSIBILITY FOR THIS DOCUMENT TO ANY PARTY OTHER THAN THE PERSON BY WHOM IT WAS COMMISSIONED.

THE CONTRACTOR WILL CHECK AND VERIFY DIMENSIONS AND SITE CONDITIONS ON THE PROJECT AND REPORT ANY DISCREPENCY TO THE ARCHITECT PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.

THIS DRAWING MUST NOT BE USED FOR CONSTRUCTION PURPOSES UNLESS SIGNED BY THE ARCHITECT. ALL DRAWINGS ARE THE PROPERTY OF THE ARCHITECT AND MAY NOT BE COPIED, REPRODUCED OR ALTERED WITHOUT WRITTEN PERMISSION FROM THE ARCHITECT.

DO NOT SCALE THE DRAWING.

REVISION

No	DATE	DESCRIPTION
11	2021.11.10	ISSUED FOR CONSULTANT COORDINATION
12	2021.11.12	ISSUED FOR SPA
13	2022.02.16	ISSUED PER TRANSPORTATION PLANNING DATED 2022.02.14
14	2022.04.13	RE-ISSUED FOR SPA
15	2022.06.23	RE-ISSUED FOR SPA
16	2022.07.05	ISSUED FOR CONSULTANT COORDINATION
17	2022.07.08	Issued for Internal Review
18	2022.08.26	ISSUED FOR CLIENT REVIEW
19	2022.08.30	ISSUED FOR CONSULTANT COORDINATION
20	2022.09.02	RE-ISSUED FOR CONSULTANT COORDINATION
21	2022.09.19	RE-ISSUED FOR SPA
22	2022.10.04	RE-ISSUED FOR SPA

JOB NO.	21751
DRAWING No.	SP1
SCALE:	As indicated
PRINT DATE:	2022.10.04

PROPOSED 1-STOREY INDUSTRIAL WAREHOUSE BUILDING C/W ANCILLARY OFFICES (SINGLE TENANCY)

90 MAPLEVIEW DRIVE WEST, BARRIE, ON.

CITY FILE #D11-024-2021

SITE AND KEY PLANS + OBC ZONING BY LAW

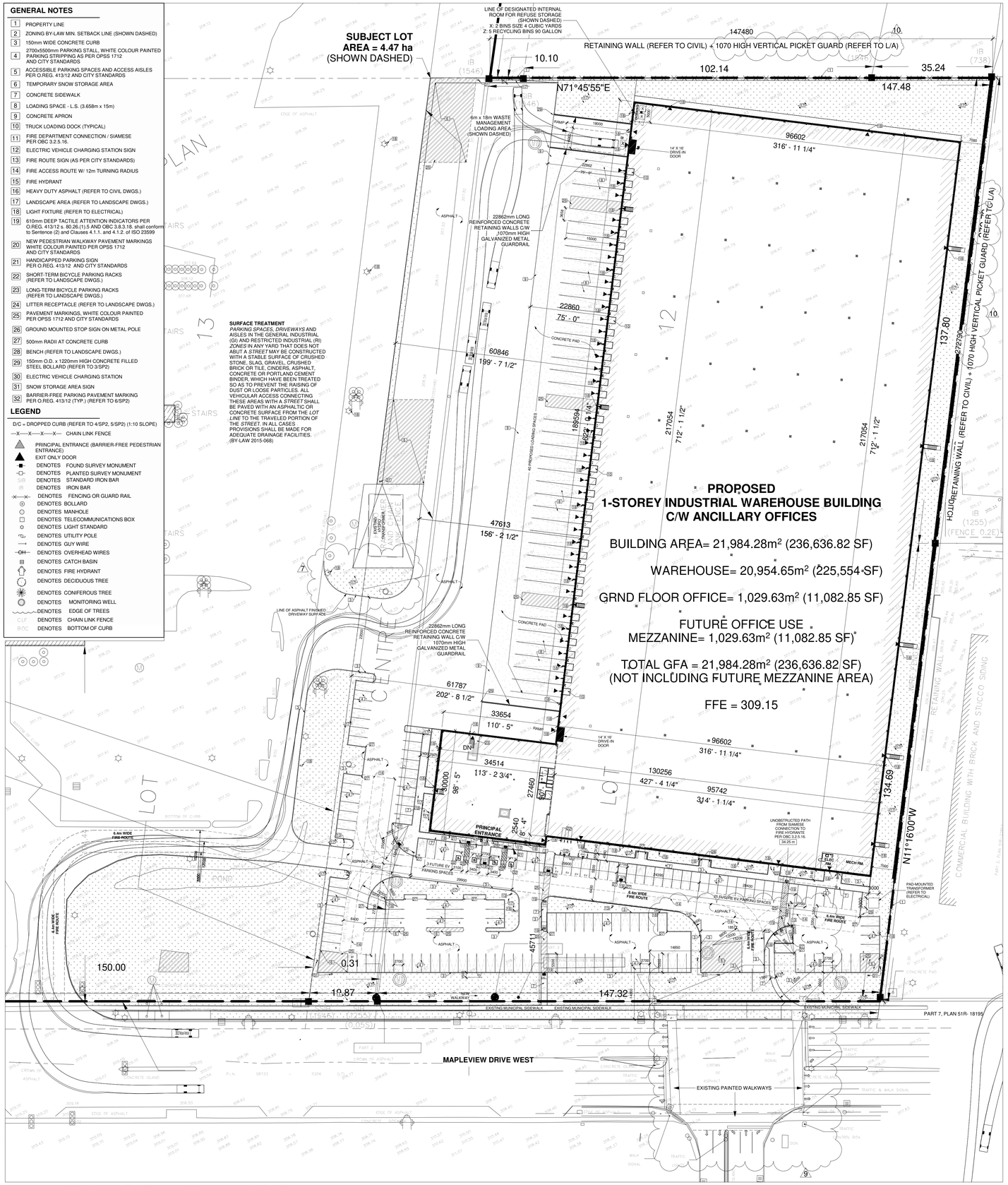
SP1

GENERAL NOTES

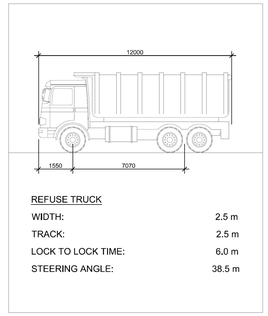
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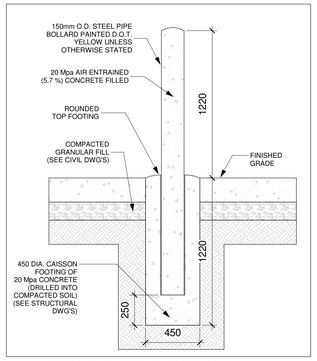
1 WASTE COLLECTION TRACKING PATH
1 : 500



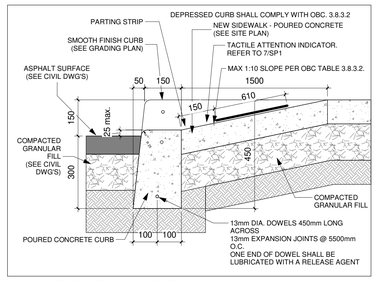
REFUSE TRUCK

WIDTH:	2.5 m
TRACK:	2.5 m
LOCK TO LOCK TIME:	6.0 m
STEERING ANGLE:	38.5 m

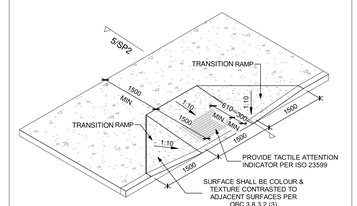
2 REFUSE TRUCK PROFILE
1 : 150



3 BOLLARD DETAIL
1 : 20

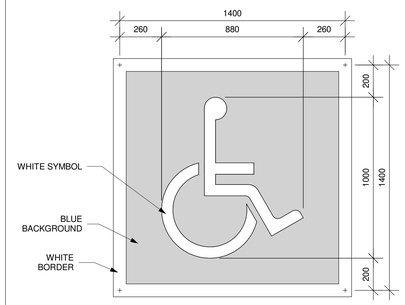


5 SECTION DETAIL
BARRIER-FREE CURB RAMP
1 : 10



4 BARRIER-FREE CURB RAMP DETAIL
1 : 500

BARRIER-FREE PARKING PAVEMENT MARKING



6 HC PAVEMENT MARKING
1 : 15

FINAL APPROVED PLAN
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ONTARIO ASSOCIATION of ARCHITECTS
SAVERIO NESTICO
LICENCE
4638

PROJECT NORTH | TRUE NORTH

SUBMITTALS

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REVISION

No	DATE	DESCRIPTION
2	2021.10.19	ISSUED FOR CONSULTANT COORDINATION
3	2021.11.04	ISSUED FOR CLIENT REVIEW
4	2021.11.12	ISSUED FOR SPA
5	2022.02.16	ISSUED PER TRANSPORTATION PLANNING DATED 2022.02.14
6	2022.04.13	RE-ISSUED FOR SPA
7	2022.06.23	RE-ISSUED FOR SPA
8	2022.07.08	Issued for Internal Review
9	2022.08.26	ISSUED FOR CLIENT REVIEW
10	2022.08.30	ISSUED FOR CONSULTANT COORDINATION
11	2022.09.02	RE-ISSUED FOR CONSULTANT COORDINATION
12	2022.09.19	RE-ISSUED FOR SPA
13	2022.10.04	RE-ISSUED FOR SPA

JOB NO.	21751
DRAWING No.	SP2
SCALE:	As indicated
PRINT DATE:	2022.10.04

PROPOSED 1-STOREY INDUSTRIAL WAREHOUSE BUILDING C/W ANCILLARY OFFICES (SINGLE TENANCY)

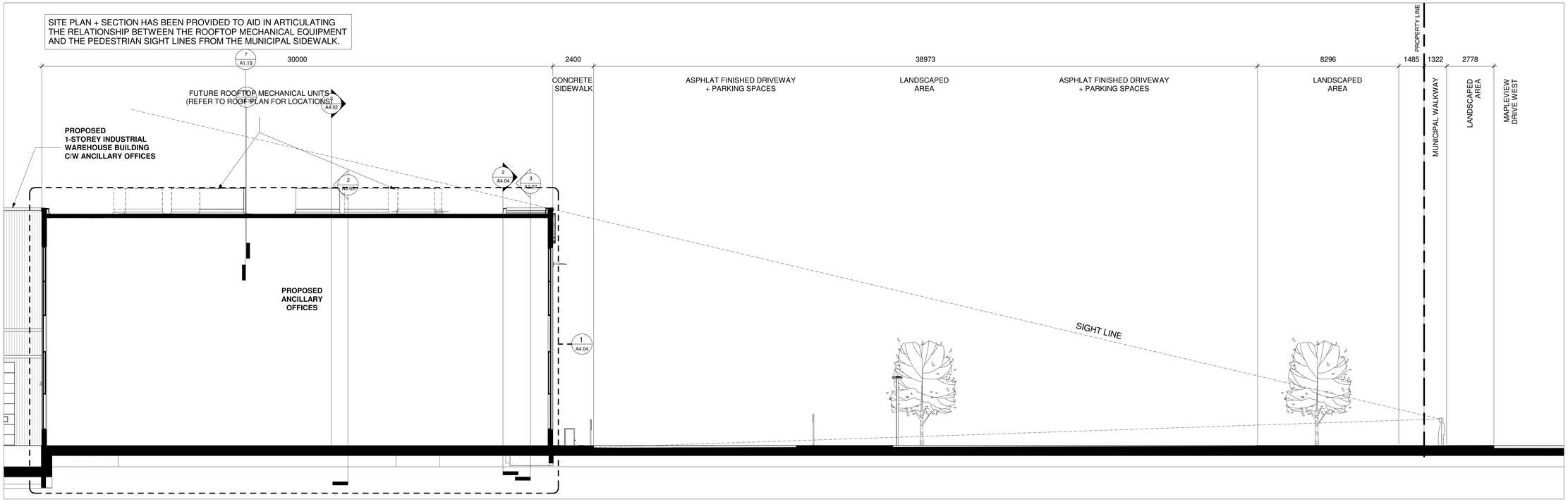
90 MAPLEVIEW DRIVE WEST, BARRIE, ON.

CITY FILE #D11-024-2021

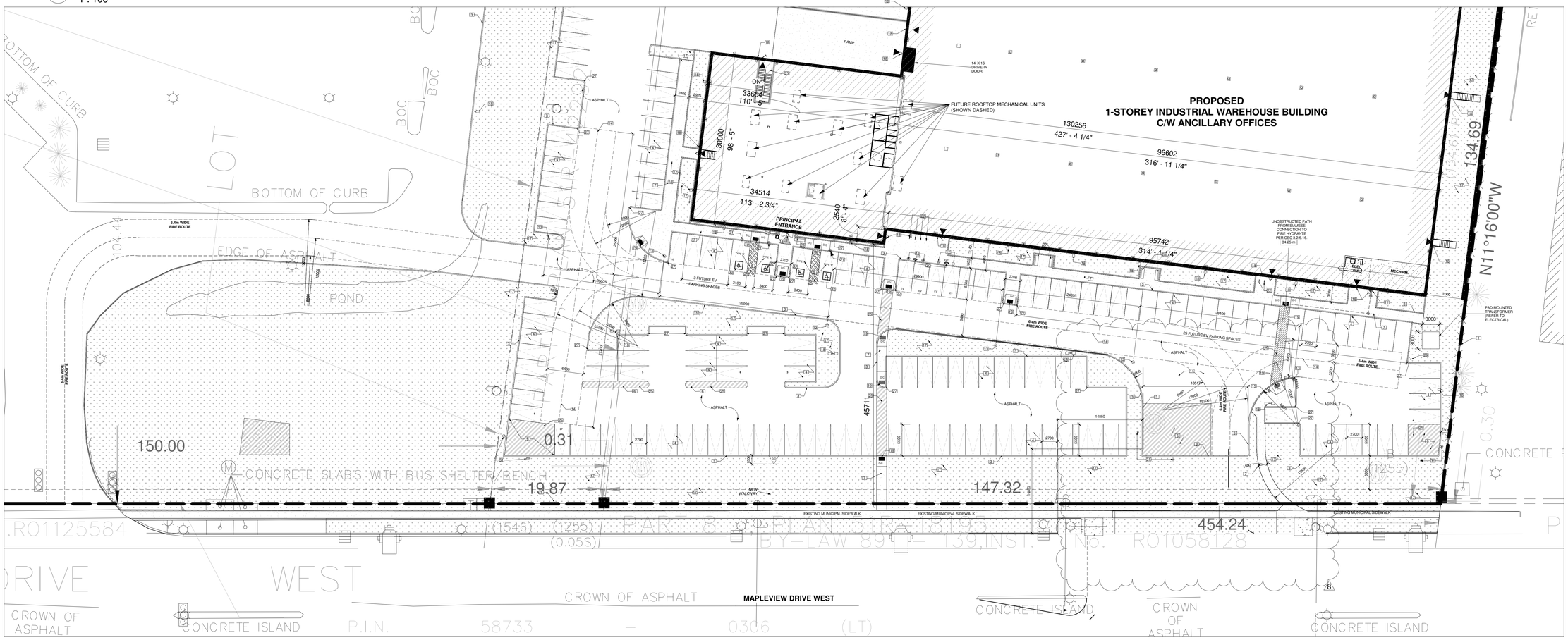
TRUCK TRACKING PATH AND PROFILE DIAGRAM

SP2

SITE PLAN + SECTION HAS BEEN PROVIDED TO AID IN ARTICULATING THE RELATIONSHIP BETWEEN THE ROOFTOP MECHANICAL EQUIPMENT AND THE PEDESTRIAN SIGHT LINES FROM THE MUNICIPAL SIDEWALK.



1 SITE SECTION
1 : 100



2 PARTIAL SITE PLAN
1 : 300

FINAL APPROVED PLAN
File: D11-024-2021
Date: Sept 28, 2023
Barrie No. of Pages: 30

Nestico Architect Inc.
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ONTARIO ASSOCIATION OF ARCHITECTS
SAVERIO NESTICO
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4638

N — PROJECT NORTH
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1	2021.09.29	RE-ISSUED FOR WINDOW AND PRECAST PRICING
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11	2022.09.19	RE-ISSUED FOR SPA
12	2022.10.04	RE-ISSUED FOR SPA

JOB NO.	21751
DRAWING No.	SP3
SCALE:	As indicated
PRINT DATE:	2022.10.04

PROPOSED 1-STOREY INDUSTRIAL WAREHOUSE BUILDING C/W ANCILLARY OFFICES (SINGLE TENANCY)

90 MAPLEVIEW DRIVE WEST, BARRIE, ON.

CITY FILE #D11-024-2021

SITE ELEVATION & SECTION

SP3

GENERAL NOTES

1. PROPERTY LINE
2. ZONING BY-LAW MIN. SETBACK LINE (SHOWN DASHED)
3. 150mm WIDE CONCRETE CURB
4. 2700x5500mm PARKING STALL, WHITE COLOUR PAINTED PARKING STRIPPING AS PER OPSS 1712 AND CITY STANDARDS
5. ACCESSIBLE PARKING SPACES AND ACCESS AISLES PER O.REG. 413/12 AND CITY STANDARDS
6. TEMPORARY SNOW STORAGE AREA
7. CONCRETE SIDEWALK
8. LOADING SPACE - L.S. (3.658m x 15m)
9. CONCRETE APRON
10. TRUCK LOADING DOCK (TYPICAL)
11. FIRE DEPARTMENT CONNECTION / SIAMESE PER OBC 3.2.5.16.
12. ELECTRIC VEHICLE CHARGING STATION SIGN
13. FIRE ROUTE SIGN (AS PER CITY STANDARDS)
14. FIRE ACCESS ROUTE W/ 12m TURNING RADIUS
15. FIRE HYDRANT
16. HEAVY DUTY ASPHALT (REFER TO CIVIL DWGS.)
17. LANDSCAPE AREA (REFER TO LANDSCAPE DWGS.)
18. LIGHT FIXTURE (REFER TO ELECTRICAL)
19. 610mm DEEP TACTILE ATTENTION INDICATORS PER O.REG. 413/12 s. 80.26.(1).5 AND OBC 3.8.3.18. shall conform to Sentence (2) and Clauses 4.1.1. and 4.1.2. of ISO 23599
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24. LITTER RECEPTACLE (REFER TO LANDSCAPE DWGS.)
25. PAVEMENT MARKINGS, WHITE COLOUR PAINTED PER OPSS 1712 AND CITY STANDARDS
26. GROUND MOUNTED STOP SIGN ON METAL POLE
27. 500mm RADII AT CONCRETE CURB
28. BENCH (REFER TO LANDSCAPE DWGS.)
29. 150mm O.D. x 1220mm HIGH CONCRETE FILLED STEEL BOLLARD (REFER TO 3/SP2)
30. ELECTRIC VEHICLE CHARGING STATION
31. SNOW STORAGE AREA SIGN
32. BARRIER-FREE PARKING PAVEMENT MARKING PER O.REG. 413/12 (TYP.) (REFER TO 6/SP2)

LEGEND

D/C = DROPPED CURB (REFER TO 4/SP2, 5/SP2) (1:10 SLOPE)

—X—X—X—X— CHAIN LINK FENCE

PRINCIPAL ENTRANCE (BARRIER-FREE PEDESTRIAN ENTRANCE)

EXIT ONLY DOOR

DENOTES FOUND SURVEY MONUMENT

DENOTES PLANTED SURVEY MONUMENT

SIB DENOTES STANDARD IRON BAR

IB DENOTES IRON BAR

DENOTES FENCING OR GUARD RAIL

DENOTES BOLLARD

DENOTES MANHOLE

DENOTES TELECOMMUNICATIONS BOX

DENOTES LIGHT STANDARD

DENOTES UTILITY POLE

DENOTES GUY WIRE

OH DENOTES OVERHEAD WIRES

DENOTES CATCH BASIN

DENOTES FIRE HYDRANT

DENOTES DECIDUOUS TREE

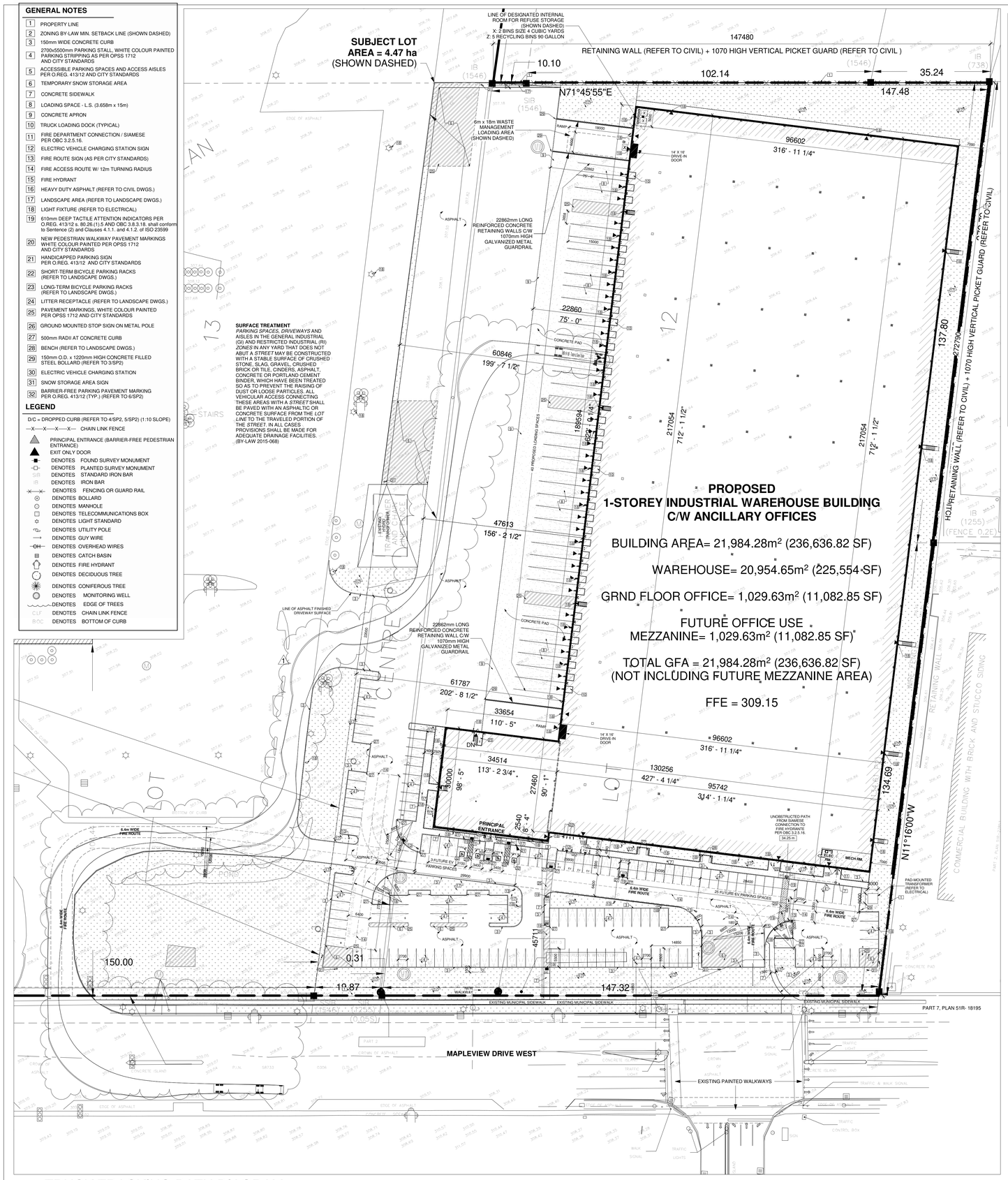
DENOTES CONIFEROUS TREE

DENOTES MONITORING WELL

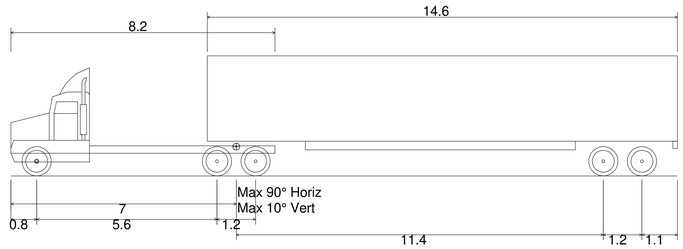
DENOTES EDGE OF TREES

C.L.F. DENOTES CHAIN LINK FENCE

B.O.C. DENOTES BOTTOM OF CURB



1 TRUCK TRACKING PATH DIAGRAM
1 : 500



WB-19-180 - Tractor & Semi-Trailer	
Overall Length	20.700m
Overall Width	2.600m
Overall Body Height	3.730m
Min Body Ground Clearance	0.435m
Track Width	2.600m
Lock-to-lock time	4.00s
Curb to Curb Turning Radius	14.000m

2 WB-19 PROFILE DIAGRAM
1 : 75

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JOB NO.	21751
DRAWING No.	SP4
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PRINT DATE:	2022.10.04

PROPOSED 1-STOREY INDUSTRIAL WAREHOUSE BUILDING C/W ANCILLARY OFFICES (SINGLE TENANCY)

90 MAPLEVIEW DRIVE WEST, BARRIE, ON.

CITY FILE #D11-024-2021

TRUCK TRACKING PATH AND PROFILE DIAGRAM (EXITING)

SP4

GENERAL NOTES

1. PROPERTY LINE
2. ZONING BY-LAW MIN. SETBACK LINE (SHOWN DASHED)
3. 150mm WIDE CONCRETE CURB
4. 2700x5500mm PARKING STALL, WHITE COLOUR PAINTED PARKING STRIPPING AS PER OPSS 1712 AND CITY STANDARDS
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31. SNOW STORAGE AREA SIGN
32. BARRIER-FREE PARKING PAVEMENT MARKING PER O.REG. 413/12 (TYP.) (REFER TO 6/SP2)

LEGEND

D/C = DROPPED CURB (REFER TO 4/SP2, 5/SP2) (1:10 SLOPE)

—X—X—X—X— CHAIN LINK FENCE

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EXIT ONLY DOOR

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DENOTES DECIDUOUS TREE

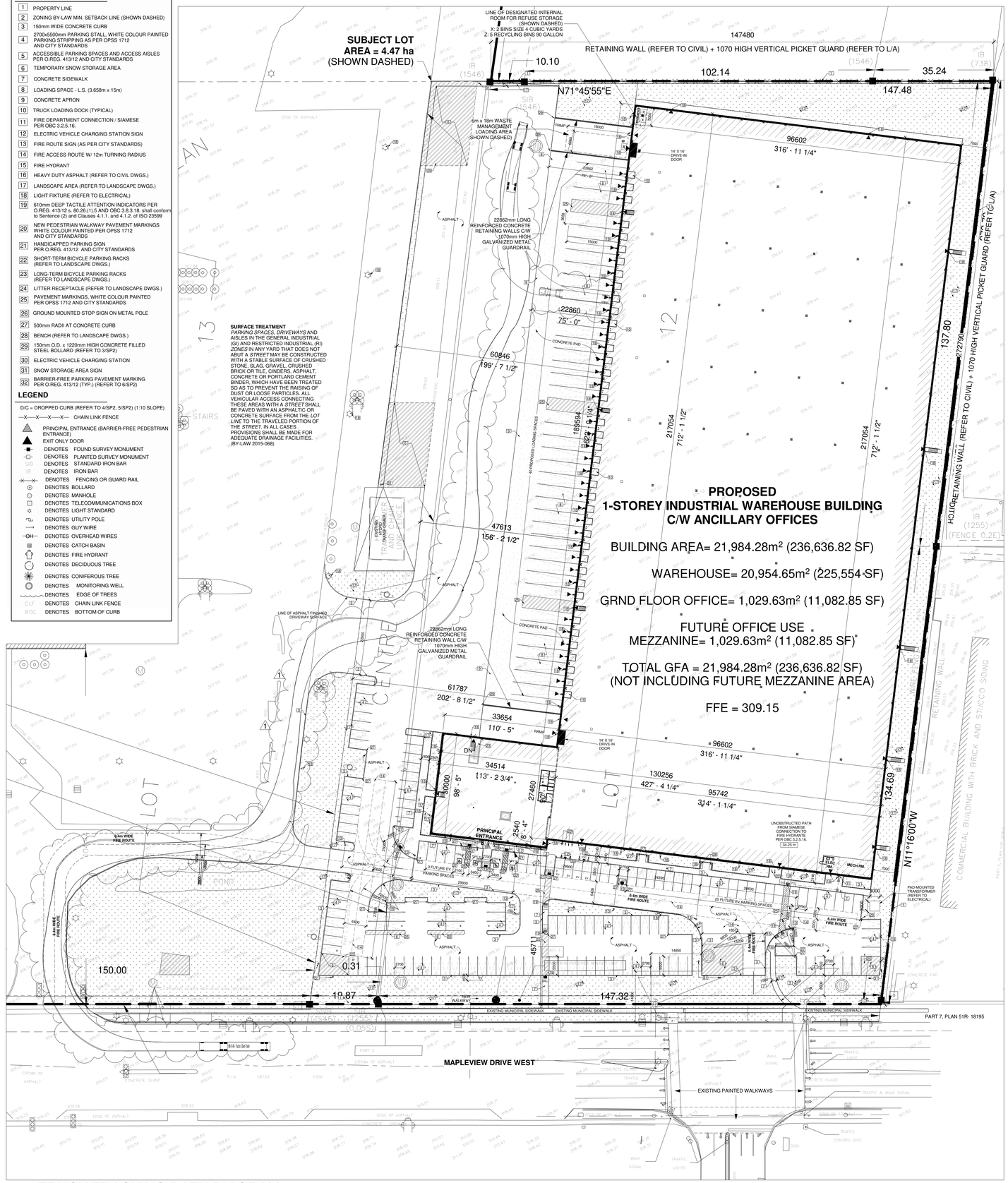
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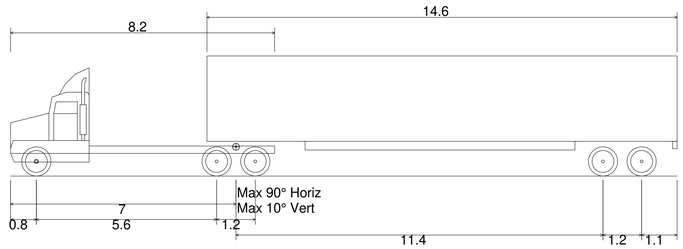
DENOTES EDGE OF TREES

C.L.F. DENOTES CHAIN LINK FENCE

B.O.C. DENOTES BOTTOM OF CURB



2 TRUCK TRACKING PATH DIAGRAM
1 : 500



WB-19-180 - Tractor & Semi-Trailer	
Overall Length	20.700m
Overall Width	2.600m
Overall Body Height	3.730m
Min Body Ground Clearance	0.435m
Track Width	2.600m
Lock-to-lock time	4.00s
Curb to Curb Turning Radius	14.000m

1 WB-19 PROFILE DIAGRAM
1 : 75

FINAL APPROVED PLAN
File: D11-024-2021
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Barrie No. of Pages: 30

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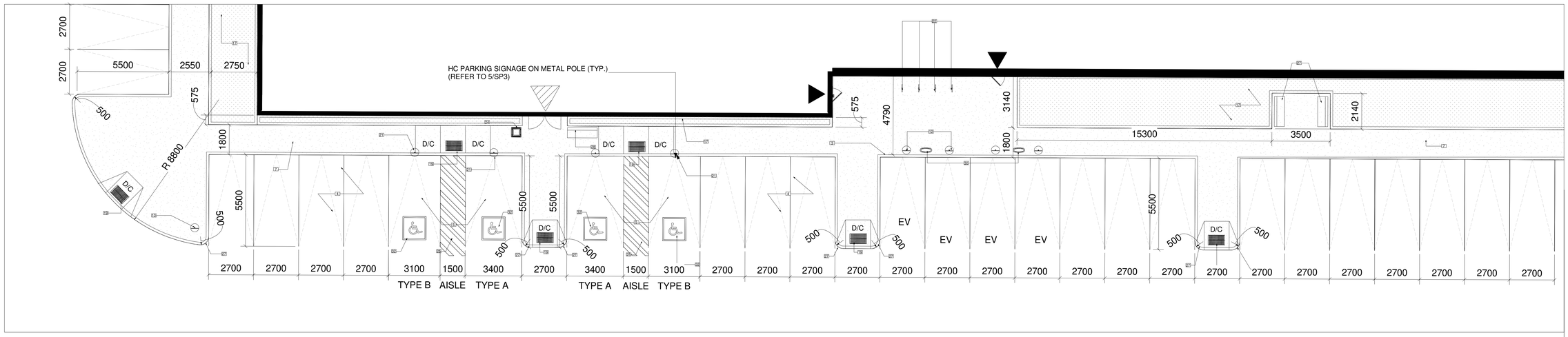
PROPOSED 1-STOREY INDUSTRIAL WAREHOUSE BUILDING C/W ANCILLARY OFFICES (SINGLE TENANCY)

90 MAPLEVIEW DRIVE WEST, BARRIE, ON.

CITY FILE #D11-024-2021

TRUCK TRACKING PATH AND PROFILE DIAGRAM (ENTERING)

SP5



1 DROP CURB AT SOUTH HC PARKING
1 : 100

GENERAL NOTES

1. PROPERTY LINE
2. ZONING BY-LAW MIN. SETBACK LINE (SHOWN DASHED)
3. 150mm WIDE CONCRETE CURB
4. 2700x5500mm PARKING STALL, WHITE COLOUR PAINTED PARKING STRIPPING AS PER OPSS 1712 AND CITY STANDARDS
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31. SNOW STORAGE AREA SIGN
32. BARRIER-FREE PARKING PAVEMENT MARKING PER O.REG. 413/12 (TYP.) (REFER TO 6/SP2)

LEGEND

D/C = DROPPED CURB (REFER TO 4/SP2, 5/SP2) (1:10 SLOPE)
—X—X—X—X— CHAIN LINK FENCE
PRINCIPAL ENTRANCE (BARRIER-FREE PEDESTRIAN ENTRANCE)
EXIT ONLY DOOR
DENOTES FOUND SURVEY MONUMENT
DENOTES PLANTED SURVEY MONUMENT
DENOTES STANDARD IRON BAR
DENOTES IRON BAR
DENOTES FENCING OR GUARD RAIL
DENOTES BOLLARD
DENOTES MANHOLE
DENOTES TELECOMMUNICATIONS BOX
DENOTES LIGHT STANDARD
DENOTES UTILITY POLE
DENOTES GUY WIRE
DENOTES OVERHEAD WIRES
DENOTES CATCH BASIN
DENOTES FIRE HYDRANT
DENOTES DECIDUOUS TREE
DENOTES CONIFEROUS TREE
DENOTES MONITORING WELL
DENOTES EDGE OF TREES
CLF DENOTES CHAIN LINK FENCE
BOC DENOTES BOTTOM OF CURB

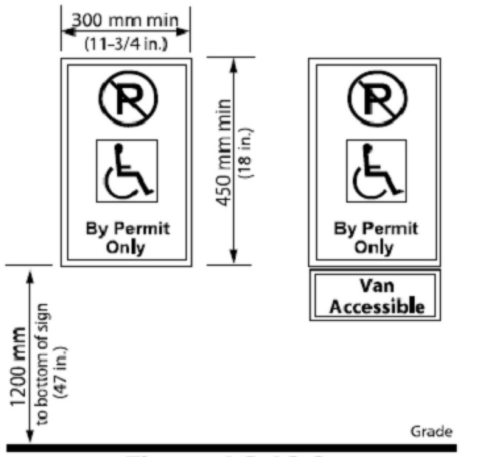


Figure 4.3.12.3
Regulatory Parking Signage

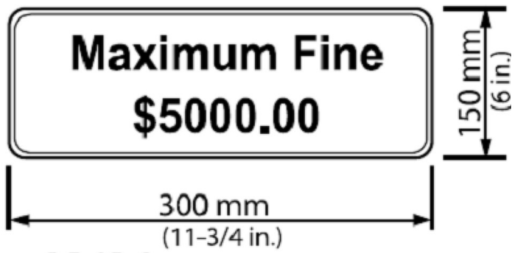


Figure 4.3.12.4
Second Accessible Parking Signage

2 O.REG 413/12 HC SIGNS
1 : 40

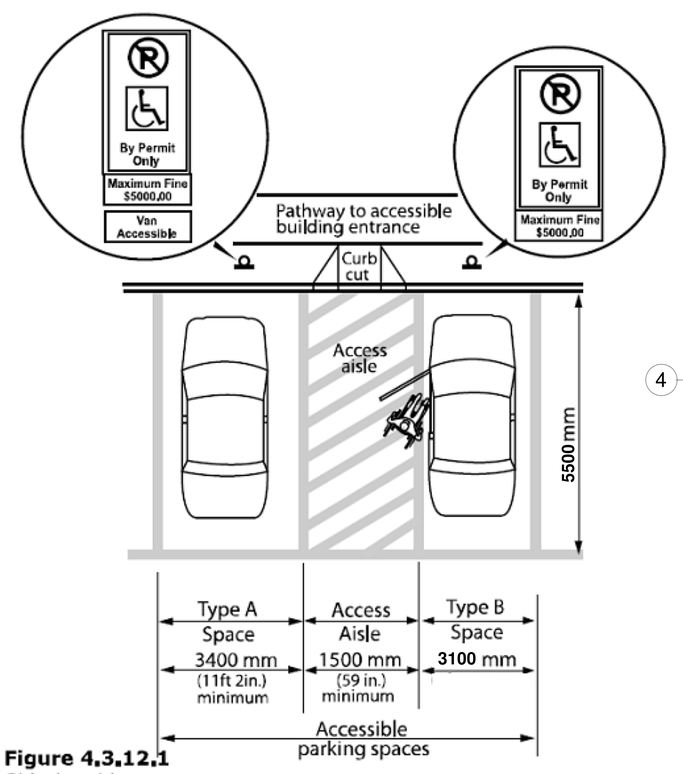
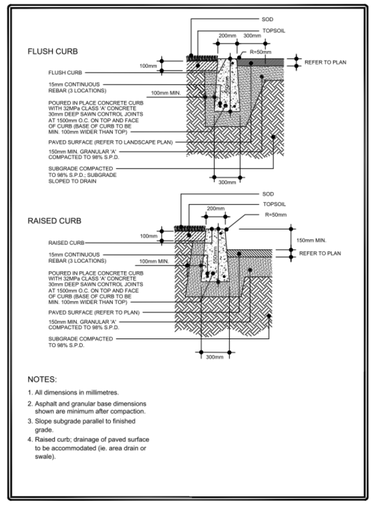


Figure 4.3.12.1
Side-by-side Parking Space

3 O.REG 413/12 HC PARKING
1 : 40



NOTES:
1. All dimensions in millimetres.
2. Asphalt and granular base dimensions shown are minimum after compaction.
3. Slope subgrade parallel to finished grade.
4. Raised curb; drainage of paved surface to be accommodated (ie. area drain or swale).

4 SECTION DETAIL - RAISED & FLUSH CURB
1 : 10

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REVISION

No	DATE	DESCRIPTION
1	2022.09.19	RE-ISSUED FOR SPA
2	2022.10.04	RE-ISSUED FOR SPA

JOB NO.	21751
DRAWING No.	SP6
SCALE:	As indicated
PRINT DATE:	2022.10.04

PROPOSED 1-STOREY INDUSTRIAL WAREHOUSE BUILDING C/W ANCILLARY OFFICES (SINGLE TENANCY)

90 MAPLEVIEW DRIVE WEST, BARRIE, ON.

CITY FILE #D11-024-2021

PART SITE PLAN AND DETAILS

SP6

LEGEND:

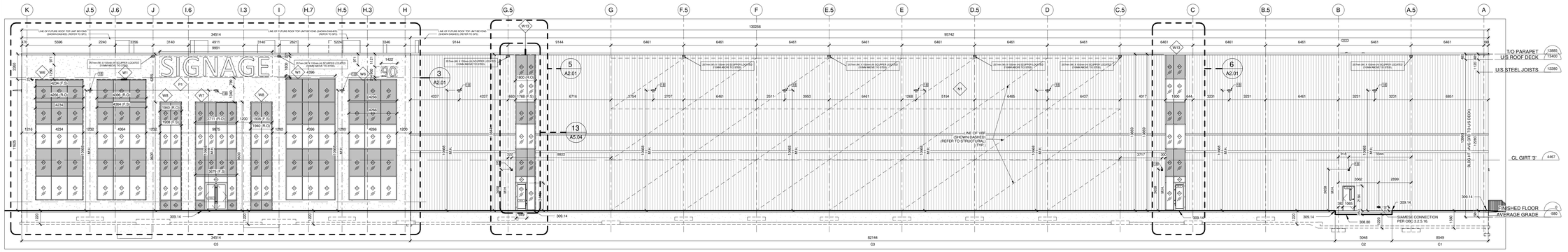
VG = DEEP EXTRUDED CLEAR ANODIZED ALUMINUM FRAMED THERMALLY BROKEN REFLECTIVE DOUBLE GLAZED CURTAIN WALL SYSTEM.
MAX. U-VALUE = U-2.15
MAX. SHGC = 0.40
MIN. VT/SHGC = 1.10

SG = EXTRUDED CLEAR ANODIZED
ALUMINUM FRAMED THERMALLY BROKEN REFLECTIVE SPANDREL GLAZING UNITS C/W MTL. BACKPAN & R12 RIGID INSULATION CURTAIN WALL SYSTEM.
MAX. U-VALUE = U-2.15
MAX. SHGC = 0.40
MIN. VT/SHGC = 1.10

P1 = WHITE COLORED PRECAST CONCRETE PANELS

N1 = R-14.2 ci "CONFORM" CF8i WHITE COLORED WALL PANEL SYSTEM BY NUFORM BUILDING TECHNOLOGIES INC.

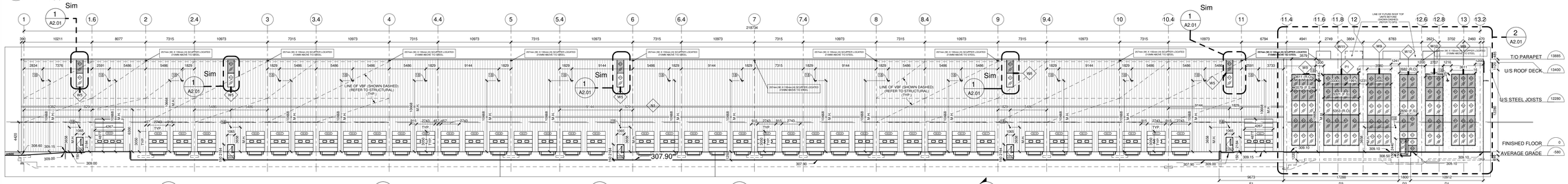
18 = WHITE COLORED LIGHT FIXTURE (REFER TO ELECTRICAL) M.H. = MOUNTING HEIGHT



1 SOUTH ELEVATION

1 : 150

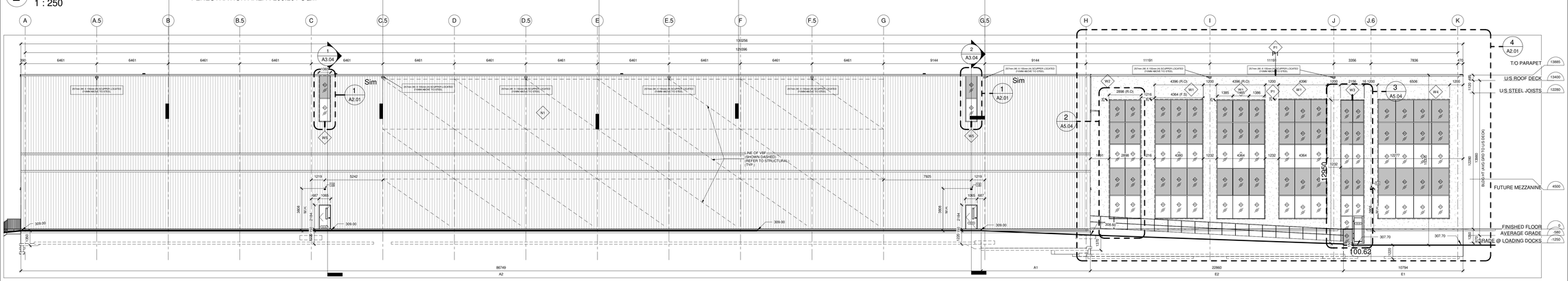
WALL AREA : 1745.430 SQM
FENESTRATION AREA : 308.343 SQM



2 WEST ELEVATION

1 : 250

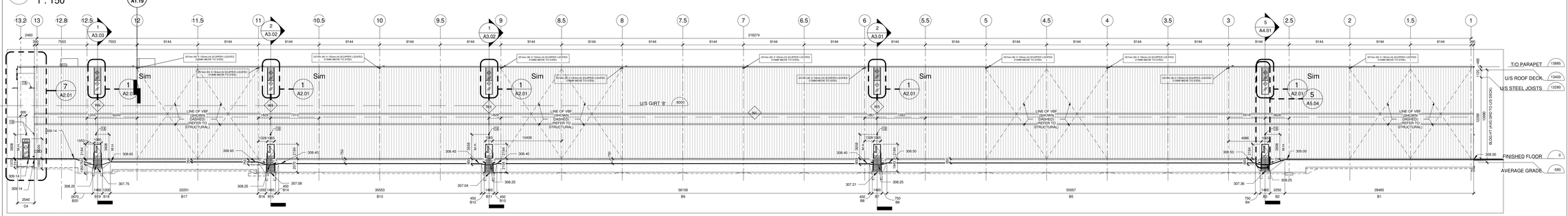
WALL AREA : 2942.558 SQM
FENESTRATION AREA : 255.291 SQM



3 NORTH ELEVATION

1 : 150

WALL AREA : 1745.430 SQM
FENESTRATION AREA : 277.065 SQM



4 EAST ELEVATION

1 : 250

WALL AREA : 2942.558 SQM
FENESTRATION AREA : 23.131 SQM

FINAL APPROVED PLAN
File: D11-024-2021
Date: Sept 28, 2023
Barrie No. of Pages: 30

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REVISION

No	DATE	DESCRIPTION
4	2021.11.01	ISSUED FOR CLIENT REVIEW
5	2021.11.03	ISSUED FOR CLIENT REVIEW
6	2021.11.04	ISSUED FOR CLIENT REVIEW
7	2021.11.10	ISSUED FOR CONSULTANT COORDINATION
8	2021.11.12	ISSUED FOR SPA
9	2022.04.13	RE-ISSUED FOR SPA
10	2022.06.23	RE-ISSUED FOR SPA
11	2022.07.05	ISSUED FOR CONSULTANT COORDINATION
12	2022.07.08	Issued for Internal Review
13	2022.08.30	ISSUED FOR CONSULTANT COORDINATION
14	2022.09.02	RE-ISSUED FOR CONSULTANT COORDINATION
15	2022.09.19	RE-ISSUED FOR SPA
16	2022.10.04	RE-ISSUED FOR SPA

JOB NO.	21751
DRAWING No.	A2.00
SCALE:	As indicated
PRINT DATE:	2022.10.04

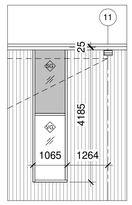
PROPOSED 1-STOREY INDUSTRIAL WAREHOUSE BUILDING C/W ANCILLARY OFFICES (SINGLE TENANCY)

90 MAPLEVIEW DRIVE WEST, BARRIE, ON.

CITY FILE #D11-024-2021

BUILDING ELEVATIONS

A2.00



PART WEST ELEVATION @ GRID 11

1 1 : 75

LEGEND:

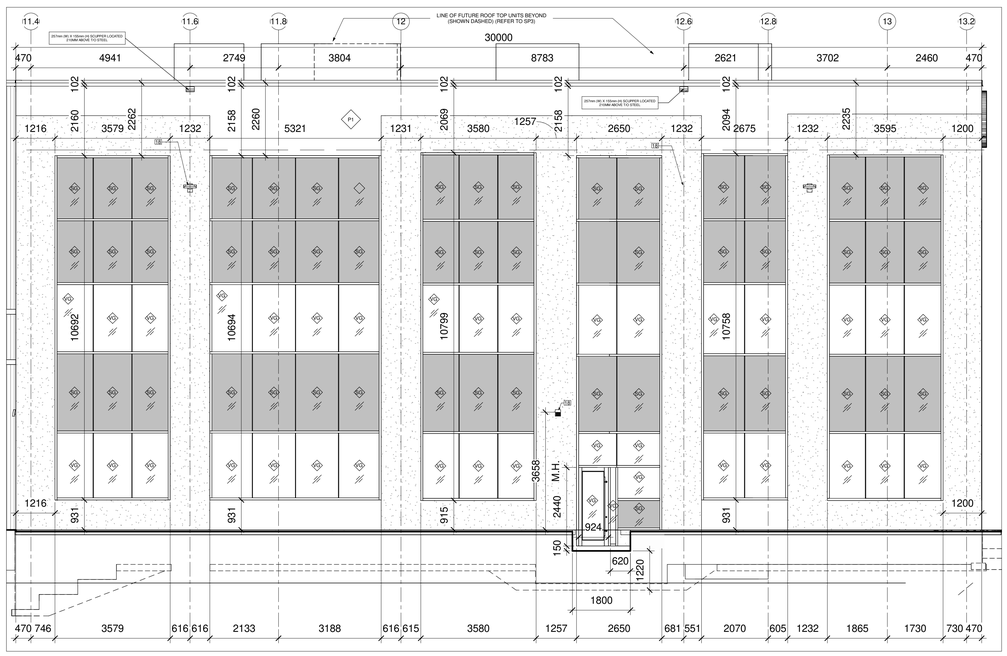
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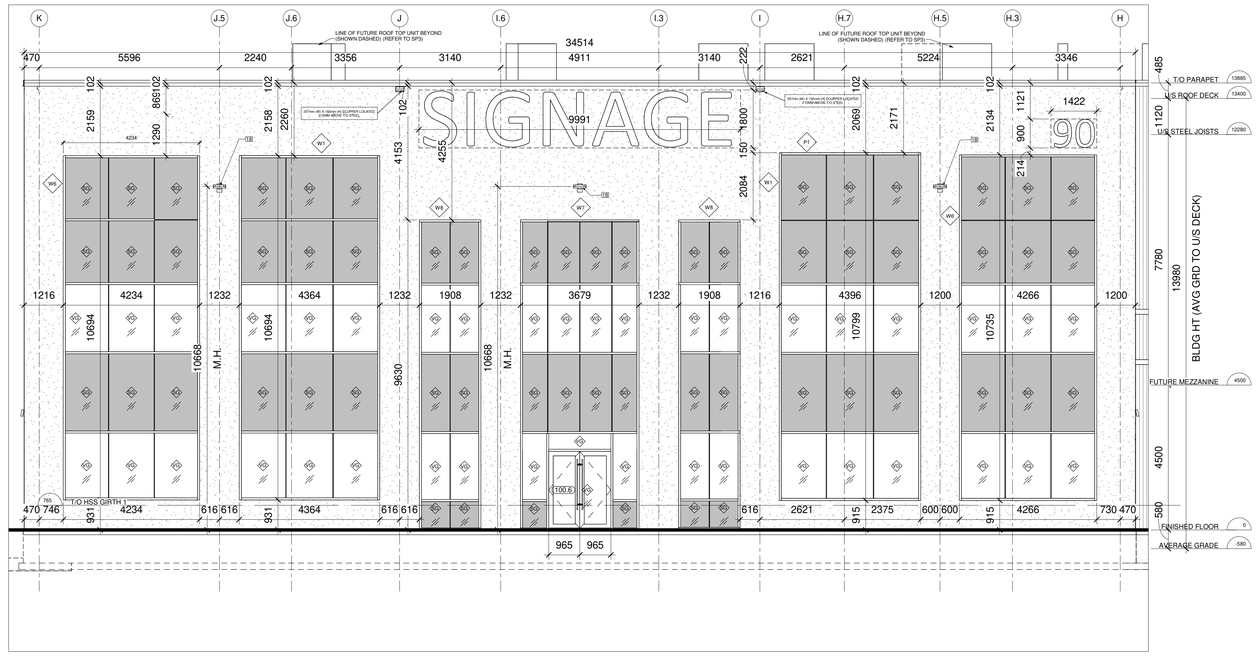
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PART WEST ELEVATION @ GRIDS 11.4-13.2

2 1 : 75



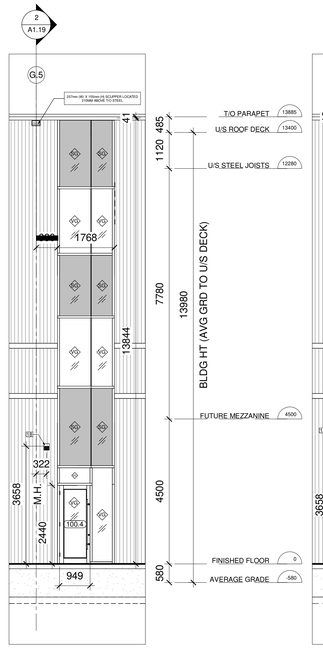
PART SOUTH ELEVATION @GRIDS H-K

3 1 : 75



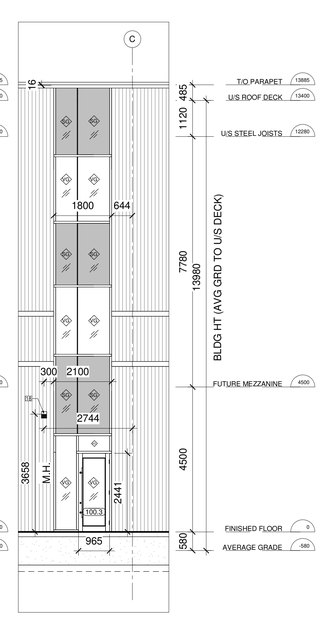
PART NORTH ELEVATION @ GRIDS H-K

4 1 : 75



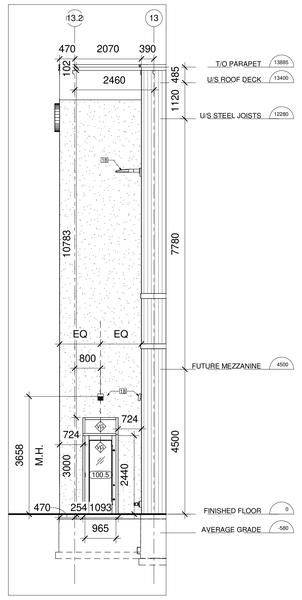
PART SOUTH ELEVATION @ GRID G.5

5 1 : 75



PART SOUTH ELEVATION @ GRID C

6 1 : 75



PART EAST ELEVATION @GRIDS 13-13.2

7 1 : 75

FINAL APPROVED PLAN
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REVISION

No	DATE	DESCRIPTION
1	2021.09.28	ISSUED FOR WINDOW AND PRECAST BUDGETS
2	2021.09.29	RE-ISSUED FOR WINDOW AND PRECAST PRICING
3	2021.11.04	ISSUED FOR CLIENT REVIEW
4	2021.11.12	ISSUED FOR SPA
5	2022.04.13	RE-ISSUED FOR SPA
6	2022.06.23	RE-ISSUED FOR SPA
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JOB NO.	21751
DRAWING No.	A2.01
SCALE:	1 : 75
PRINT DATE:	2022.10.04

PROPOSED 1-STOREY INDUSTRIAL WAREHOUSE BUILDING C/W ANCILLARY OFFICES (SINGLE TENANCY)

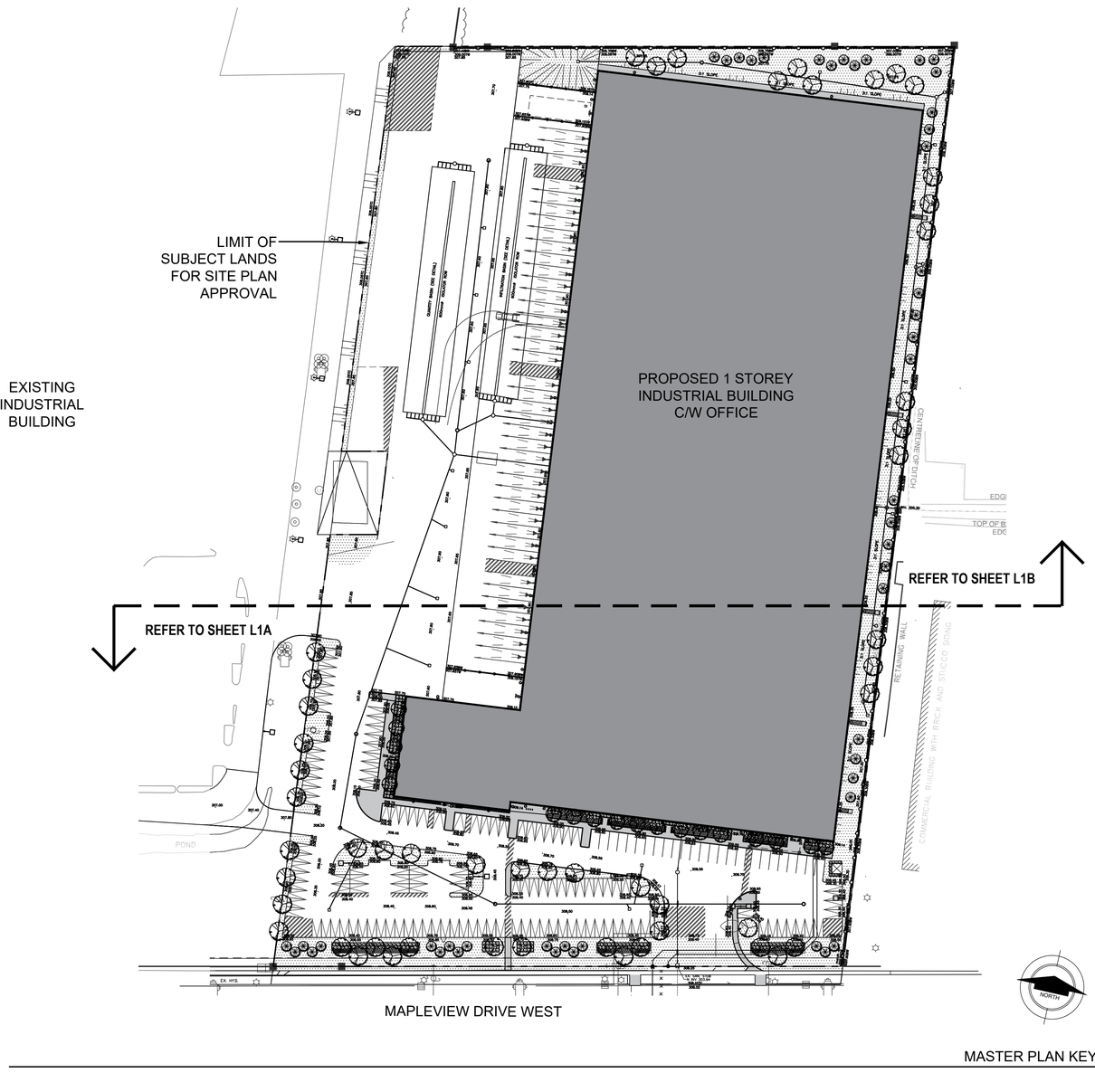
90 MAPLEVIEW DRIVE WEST, BARRIE, ON.

CITY FILE #D11-024-2021

PART BUILDING ELEVATIONS

A2.01

90 MAPLEVIEW DRIVE WEST, BARRIE, ONTARIO



MASTER PLAN KEY MAP

1:750

ACCEPTED AS TO FORM IN RELIANCE UPON THE PROFESSIONAL SKILL AND ABILITY OF:
Landscape Planning Ltd.
AS TO DESIGN AND SPECIFICATION
2023/03/01
Barrie

LIST OF DRAWINGS:

C-1	COVER PAGE AND KEY MAP
L-1a	LANDSCAPE PLAN
L-1b	LANDSCAPE PLAN
LD-1	LANDSCAPE DETAILS
LD-2	DETAILS

landscape planning
LANDSCAPE ARCHITECTS

John Shank, OALA, CSLA, Principal
95 Mural Street, Suite 207, Richmond Hill, ON L4B 3G2
Tel: 905.669.6838, www.landscapeplan.ca

ISSUED FOR SITE PLAN AGREEMENT: FEBRUARY 2, 2023

GENERAL NOTES:

1. CONTRACTOR SHALL BE REQUIRED TO HAVE A FLAGMAN DIRECTING ALL DELIVERIES OF MACHINERY OR MATERIALS TO THE SITE.
2. CONTRACTOR SHALL PROTECT ALL IRON BARS. ANY DISTURBED BARS SHALL BE REPLACED BY OWNER AT CONTRACTOR'S EXPENSE.
3. CONTRACTOR SHALL REVIEW AND VERIFY SITE GRADES AND REPORT ANY DISCREPANCIES TO THE LANDSCAPE ARCHITECT. COMMENCEMENT OF GRADING SHALL CONSTITUTE ACCEPTANCE OF SITE CONDITIONS; NO CLAIMS FOR EXTRAS WILL BE ENTERTAINED THEREAFTER.
4. STORAGE OF MATERIALS, VEHICLES AND EQUIPMENT SHALL NOT BE PERMITTED WITHIN THE MUNICIPAL ROAD ALLOWANCE.
5. CONTRACTOR SHALL BE RESPONSIBLE TO CLEAN ROADS DAILY TO THE SATISFACTION OF THE LANDSCAPE ARCHITECT.
6. SITE SHALL BE MAINTAINED IN A CLEAN AND ORDERLY STATE FOR THE DURATION OF CONSTRUCTION; ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE OCCUPATIONAL HEALTH AND SAFETY ACT.
7. ALL TEMPORARY PROTECTIVE & SEDIMENT CONTROL FENCING SHALL BE MAINTAINED BY THE CONTRACTOR TO THE SATISFACTION OF THE L.A. FOR THE DURATION OF CONSTRUCTION.
8. CONTRACTOR SHALL SUPPLY & INSTALL FILTER FABRIC PROTECTION ON ALL EXISTING CATCH BASINS, WATER METER CHAMBERS, AND UTILITIES.
9. CONTRACTOR SHALL REPAIR AT HIS COST ANY DAMAGE ARISING DURING CONSTRUCTION.
10. ALL EXISTING VEGETATION TO BE RETAINED SHALL BE PROTECTED BY THE GENERAL CONTRACTOR FOR THE DURATION OF CONSTRUCTION; REFER TO ARBORIST REPORT.
11. ALL EXISTING UTILITIES SHOWN ON THE DRAWINGS ARE FOR REFERENCE PURPOSES ONLY. THE GENERAL CONTRACTOR SHALL CONTACT THE UTILITY COMPANIES FOR UTILITY STAKEOUT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGES CAUSED TO EXISTING UTILITIES DURING CONSTRUCTION.
12. ALL CONSTRUCTION TO BE CARRIED OUT IN ACCORDANCE WITH THE MOST CURRENT PROVINCIAL AND MUNICIPAL STANDARDS AND SPECIFICATIONS.
13. THE CONDITION OF CURBS, SIDEWALKS, STREET TREES AND UTILITIES LOCATED WITHIN THE R.O.W. SHALL BE REVIEWED AND DOCUMENTED BETWEEN ALL PARTIES PRIOR TO THE START OF CONSTRUCTION.
14. **DUST CONTROL:** CONTRACTOR SHALL TAKE ALL NECESSARY MEASURES TO CONTROL DUST ON THIS PROJECT SITE ON A DAILY BASIS AND TO THE SATISFACTION OF THE CONSULTANT.

GENERAL PLANTING AND BED PREPARATION NOTES:

PLANT PERFORMANCE:

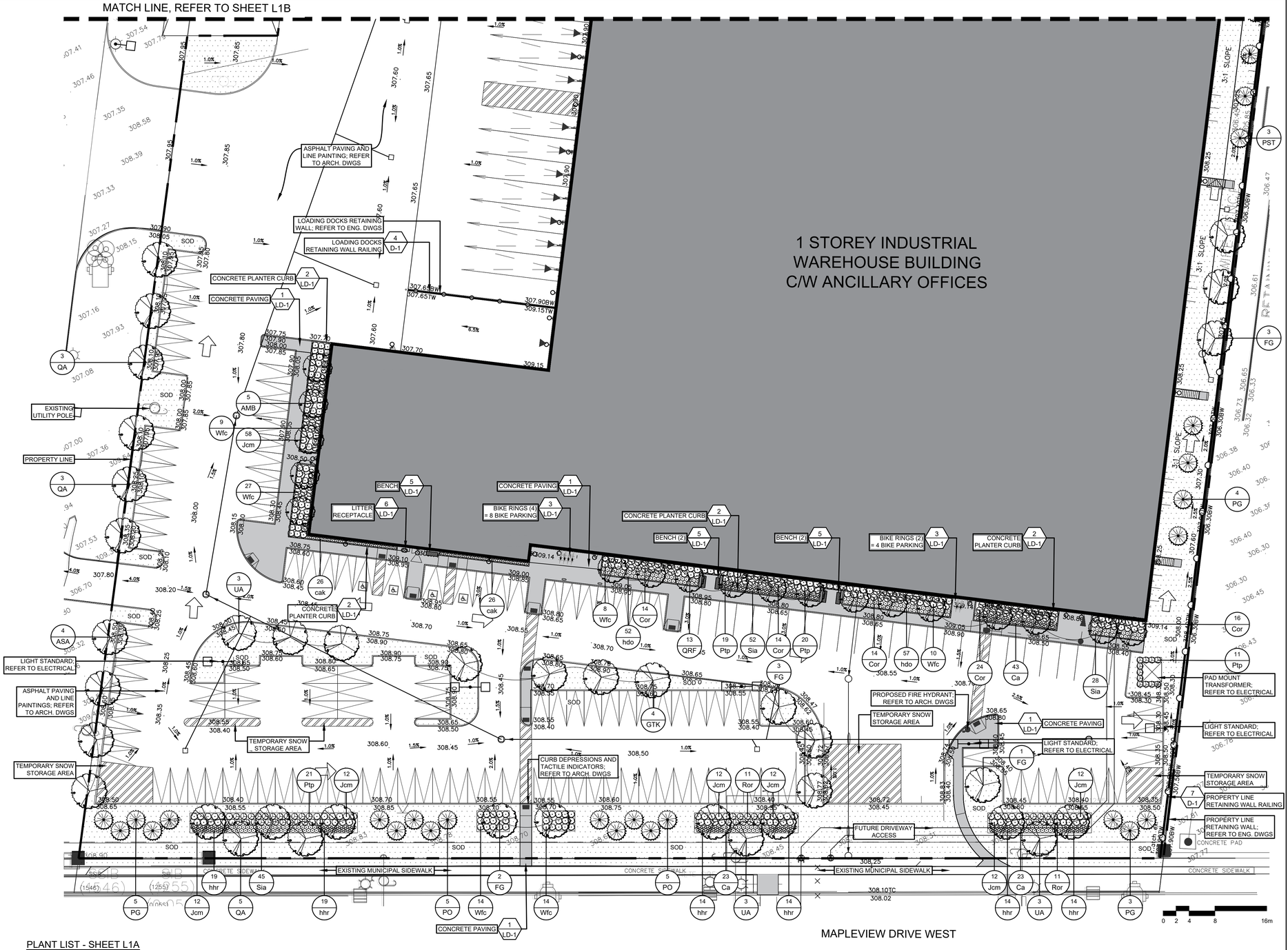
1. ALL PLANT MATERIAL SHALL BE NURSERY STOCK CONFORMING TO THE LATEST EDITION OF THE CANADIAN STANDARDS FOR NURSERY STOCK AS PUBLISHED BY THE CANADIAN NURSERY LANDSCAPE ASSOCIATION.
2. ALL PLANTS SHALL BE HEALTHY, VIGOUROUS PLANTS, FREE FROM DEFECTS, DECAY, DISFIGURING ROOTS, SUN-SCALD INJURIES, BARK ABRASIONS, PLANT DISEASES AND PESTS AND ALL FORMS OF INFESTATIONS OR OBJECTIONABLE DISFIGUREMENTS.
3. ALL PLANTS SHALL BE TRUE TO NAME, SIZE, CONDITION AND QUANTITY AS PER PLAN AND PLANT LIST SPECIFICATIONS.
4. ALL PLANT MATERIAL SHALL BE UNWRAPPED PRIOR TO INSPECTION. THE LANDSCAPE ARCHITECT RESERVES THE RIGHT TO INSPECT ALL PLANT MATERIAL AND REJECT ALL MATERIAL THAT DOES NOT MEET THE STANDARDS LISTED HEREIN.
5. SUBSTITUTIONS WILL NOT BE ACCEPTED WITHOUT PRIOR WRITTEN REQUEST BY THE CONSULTING LANDSCAPE ARCHITECT . ADDITIONAL PLANT QUANTITIES WILL BE REQUIRED TO COMPENSATE FOR APPROVED REDUCTION IN SIZE DUE TO UNAVAILABILITY OF MATERIALS, TO THE SATISFACTION OF THE LANDSCAPE ARCHITECT.
6. ALL TREES SHALL BE OPEN-GROWN FOR WIND-FIRMNESS. TREES SHALL NOT BE LEANING OR HAVE SIGNIFICANT SWEEP, CROOK OR BEND. DECIDUOUS TREES SHALL HAVE APPROXIMATELY TWO-THIRDS OF THEIR TOTAL HEIGHT IN LIVING BRANCHES. ALL TREES SHALL HAVE GOOD CROWN SHAPE AND COLOUR (EVERGREENS) CHARACTERISTIC OF THEIR SPECIES. TREES SHALL HAVE A SINGLE DOMINANT LEADER WITH NO SIDE BRANCHES TALLER / LONGER THAN THE MAIN LEADER.
7. IF REQUIRED, TREES SHALL BE PROPERLY TARGET PRUNED (NEVER FLUSH CUT, TRIMMED, ROUNDED-OVER, HEDGED, TIPPED OR TOPPED) AND DEAD / DAMAGED BRANCHES SHALL BE REMOVED. BRANCHES THAT CROSS-OVER EACH OTHER OR RUB AGAINST EACH OTHER, CO-DOMINANT LEADERS, AND BRANCHES GROWING UPWARD INSIDE THE CROWN SHALL BE PROPERLY PRUNED. TREES SHALL NOT BE TREATED AT ANY TIME WITH WOUND PAINT.
8. ALL TREES SHALL HAVE ROOT BALL SIZES THAT MEET OR EXCEED NURSERY STANDARDS. ROOT BALLS SHALL BE FIRM AND STRUCTURALLY INTEGRAL WITH THE TRUNK.
9. SHRUBS AND GROUND COVERS SHALL HAVE FULL, WELL BRANCHED CROWNS TYPICAL OF SPECIES OR VARIETY. ROOT SYSTEMS SHALL BE AMPLE, WELL-BALANCED AND FIBROUS, CAPABLE OF SUSTAINING VIGOROUS GROWTH. PLANTS THAT ARE WEAK OR THIN, UNDERSIZED, OR HAVE BEEN CUT BACK FROM LARGER GRADES TO MEET SPECIFICATIONS SHALL BE REJECTED.
10. ALL SOD SHALL BE TURFGRASS NURSERY SOD CONFORMING TO THE LATEST SPECIFICATIONS OF THE ONTARIO SOD ASSOCIATION AND THE THE NURSERY SOD GROWERS ASSOCIATION.

TOPSOIL REQUIREMENTS:

1. SOD: 200mm DEPTH
   TOPSOIL MAKE UP: TOPSOIL SHALL BE A FERTILE, NATURAL LOAM, CAPABLE OF SUSTAINING HEALTHY GROWTH; CONTAINING A MINIMUM OF 4% ORGANIC MATTER FOR CLAY LOAMS AND 2% ORGANIC MATTER FOR SANDY LOAM, TO A MAXIMUM OF 25% BY VOLUME. TOPSOIL SHALL BE LOOSE AND FRIABLE, FREE OF SUBSOIL, CLAY LUMPS, STONES, ROOTS OR ANY OTHER DELETERIOUS MATERIAL GREATER THAN 50MM DIAMETER. TOPSOIL SHALL BE FREE OF ALL LITTER AND TOXIC MATERIALS THAT MAY BE HARMFUL TO PLANT GROWTH. TOPSOIL CONTAINING SOD CLUMPS, CRABGRASS, COUCHGRASS OR OTHER NOXIOUS WEEDS IS NOT ACCEPTABLE. TOPSOIL SHALL NOT BE DELIVERED OR PLACED IN A FROZEN OR EXCESSIVELY WET CONDITION. TOPSOIL ACIDITY / ALKALINITY SHALL BE IN THE RANGE OF 6.0PH TO 7.5PH.
2. TREE PITS: 600mm DEPTH TRIPLE MIX
3. CONTINUOUS TREE PITS: 1000mm DEPTH TRIPLE MIX
4. CONTINUOUS SHRUB BEDS: 500mm DEPTH TRIPLE MIX
5. CONTINUOUS PERENNIAL BEDS: 300mm DEPTH TRIPLE MIX

SERVICES, STAKEOUTS & PLANTING ADJUSTMENTS

1. CONTRACTORS SHALL OBTAIN STAKEOUTS FROM ALL UTILITIES PRIOR TO LANDSCAPE INSTALLATIONS.



PLANT LIST - SHEET L1A

DECIDUOUS TREES

Count	Key	BOTANICAL NAME	COMMON NAME	CALIPER	HEIGHT	ROOT	SPREAD	NOTE
5	AMB	Amelanchier canadensis 'Ballerina'	Ballerina Serviceberry	60mm	-	W.B.	-	single stem
4	ASA	Acer saccharum	Sugar Maple	60mm	-	W.B.	-	-
9	FG	Fagus grandifolia	American Beech	60mm	-	W.B.	-	-
4	GTK	Gleditsia triacanthos inermis "Skyline"	Skyline Honey-locust	60mm	-	W.B.	-	-
11	QA	Quercus alba	White Oak	60mm	-	W.B.	-	-
13	QRF	Quercus robur 'Fastigiata'	Pyramidal English Oak	60mm	-	W.B.	-	-
9	UA	Ulmus americana	White Elm	60mm	-	W.B.	-	-

CONIFEROUS TREES

Count	Key	BOTANICAL NAME	COMMON NAME	CALIPER	HEIGHT	ROOT	SPREAD	NOTE
12	PG	Picea glauca	White Spruce	-	250CM	W.B.	-	-
10	PO	Picea omorika	Serbian Spruce	-	250CM	W.B.	-	-
3	PST	Pinus strobus	White Pine	-	250CM	W.B.	-	-

DECIDUOUS SHRUBS

Count	Key	BOTANICAL NAME	COMMON NAME	CALIPER	HEIGHT	ROOT	SPREAD	NOTE
82	Cor	Cornus stolonifera	Red Oiser Dogwood	-	60cm	3 GAL.	-	-
71	Ptp	Potentilla fruticosa 'Pink Beauty'	Pink Beauty Potentilla	-	60cm	3 GAL.	-	-
22	Ror	Rosa rugosa	Rugosa Rose	-	60cm	3 GAL.	-	-
89	Ca	Ceanothus americanus	New Jersey tea	-	60cm	3 GAL.	-	-
125	Sia	Spiraea alba	Meadowsweet	-	60cm	3 GAL.	-	-
82	Wfc	Weigela florida 'Carnival'	Carnaval Weigela	-	60cm	3 GAL.	-	-

CONIFEROUS SHRUBS

Count	Key	BOTANICAL NAME	COMMON NAME	CALIPER	HEIGHT	ROOT	SPREAD	NOTE
130	Jcm	Juniperus chinensis 'Mint Julep'	Mint Julep Juniper	-	60cm	3 GAL.	-	-

PERRENNIALS

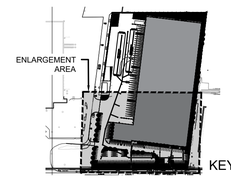
Count	Key	BOTANICAL NAME	COMMON NAME	CALIPER	HEIGHT	ROOT	SPREAD	NOTE
52	cak	Calamagrostis acutiflora 'Karl Foerster'	Karl Foerster Feather Reed Grass	-	-	1 GAL	-	-
109	hdo	Hemerocallis 'Purple D'oro'	Purple d'oro Daylily	-	-	1 GAL	-	-
94	hhr	Hemerocallis 'Happy Returns'	Happy Returns Daylily	-	-	1 GAL	-	-

SITE PLANTING DENSITY

INDUSTRIAL DEVELOPMENT TOTAL SITE AREA: 44,700m²

ITEM	PLANT TYPE	DENSITY FORMULA	CITY REQUIREMENT (ENTIRE PROJECT SITE)	PROPOSED QUANTITY (ENTIRE PROJECT SITE)
1	Deciduous Trees	SITE AREA (SQ.M) / 800 = # OF DECIDUOUS TREES	56	72
2	Evergreen Trees	SITE AREA (SQ.M) / 1000 = # OF EVERGREEN TREES	48	53
3	Deciduous Shrubs	SITE AREA (SQ.M) / 400 = # OF DECIDUOUS SHRUBS	112	471
4	Evergreen Shrubs	SITE AREA (SQ.M) / 800 = # OF EVERGREEN SHRUBS	56	130

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2023/03/01
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KEY MAP N.T.S

LEGEND:

1 / D-0 DETAIL # / SHEET #
0 / ABC QUANTITY / SPECIES
PROPERTY LINE
CONCRETE PAVING
SOD
BENCH
LITTER RECEPTACLE
BIKE RINGS
PROPOSED DECIDUOUS TREES
PROPOSED CONIFEROUS TREES
EXISTING TREE TO REMAIN
PROPOSED PERENNIALS AND SHRUBS
1.5m HT. BLACK VINYL CHAIN LINK FENCE

FINAL APPROVED PLAN
File: D11-024-2021
Date: Sept 28, 2023
Barrie No. of Pages: 30

R6	ISSUED FOR SITE PLAN AGREEMENT	2023-02-02 JS
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R1	ISSUED FOR COORDINATION	2021-09-29 JS
R0	ISSUED FOR COORDINATION	2021-09-17 JS
no.	revision	date by

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NORTH

ONTARIO ASSOCIATION OF LANDSCAPE ARCHITECTS — Approved 2, 2023 — MEMBER

project number
2021-130

landscape planning
LANDSCAPE ARCHITECTS
Suite 207, 95 Mural Street, Richmond Hill, Ontario L4B 3G2,
Tel. 905.669.6838, www.landscapeplan.ca

project title
90 MAPLEVIEW DRIVE WEST, BARRIE ON.
LOT 12 AND PART OF CENTRE ROAD, REGISTERED PLAN 67

city file: D11-024-2021
municipality: CITY OF BARRIE
client name: ARG GROUP INC.

drawing title
SURFACE MATERIALS AND LANDSCAPE PLAN

drawn by	reviewed by	drawing number:
JS	JS	L1A
date: FEB. 2023	scale: 1:300	

GENERAL NOTES:

1. CONTRACTOR SHALL BE REQUIRED TO HAVE A FLAGMAN DIRECTING ALL DELIVERIES OF MACHINERY OR MATERIALS TO THE SITE.
2. CONTRACTOR SHALL PROTECT ALL IRON BARS. ANY DISTURBED BARS SHALL BE REPLACED BY OWNER AT CONTRACTOR'S EXPENSE.
3. CONTRACTOR SHALL REVIEW AND VERIFY SITE GRADES AND REPORT ANY DISCREPANCIES TO THE LANDSCAPE ARCHITECT. COMMENCEMENT OF GRADING SHALL CONSTITUTE ACCEPTANCE OF SITE CONDITIONS; NO CLAIMS FOR EXTRAS WILL BE ENTERTAINED THEREAFTER.
4. STORAGE OF MATERIALS, VEHICLES AND EQUIPMENT SHALL NOT BE PERMITTED WITHIN THE MUNICIPAL ROAD ALLOWANCE.
5. CONTRACTOR SHALL BE RESPONSIBLE TO CLEAN ROADS DAILY TO THE SATISFACTION OF THE LANDSCAPE ARCHITECT.
6. SITE SHALL BE MAINTAINED IN A CLEAN AND ORDERLY STATE FOR THE DURATION OF CONSTRUCTION; ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE OCCUPATIONAL HEALTH AND SAFETY ACT.
7. ALL TEMPORARY PROTECTIVE & SEDIMENT CONTROL FENCING SHALL BE MAINTAINED BY THE CONTRACTOR TO THE SATISFACTION OF THE L.A. FOR THE DURATION OF CONSTRUCTION.
8. CONTRACTOR SHALL SUPPLY & INSTALL FILTER FABRIC PROTECTION ON ALL EXISTING CATCH BASINS, WATER METER CHAMBERS, AND UTILITIES.
9. CONTRACTOR SHALL REPAIR AT HIS COST ANY DAMAGE ARISING DURING CONSTRUCTION.
10. ALL EXISTING VEGETATION TO BE RETAINED SHALL BE PROTECTED BY THE GENERAL CONTRACTOR FOR THE DURATION OF CONSTRUCTION; REFER TO ARBORIST REPORT.
11. ALL EXISTING UTILITIES SHOWN ON THE DRAWINGS ARE FOR REFERENCE PURPOSES ONLY. THE GENERAL CONTRACTOR SHALL CONTACT THE UTILITY COMPANIES FOR UTILITY STAKEOUT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGES CAUSED TO EXISTING UTILITIES DURING CONSTRUCTION.
12. ALL CONSTRUCTION TO BE CARRIED OUT IN ACCORDANCE WITH THE MOST CURRENT PROVINCIAL AND MUNICIPAL STANDARDS AND SPECIFICATIONS.
13. THE CONDITION OF CURBS, SIDEWALKS, STREET TREES AND UTILITIES LOCATED WITHIN THE R.O.W. SHALL BE REVIEWED AND DOCUMENTED BETWEEN ALL PARTIES PRIOR TO THE START OF CONSTRUCTION.
14. **DUST CONTROL:** CONTRACTOR SHALL TAKE ALL NECESSARY MEASURES TO CONTROL DUST ON THIS PROJECT SITE ON A DAILY BASIS AND TO THE SATISFACTION OF THE CONSULTANT.

GENERAL PLANTING AND BED PREPARATION NOTES:

PLANT PERFORMANCE:

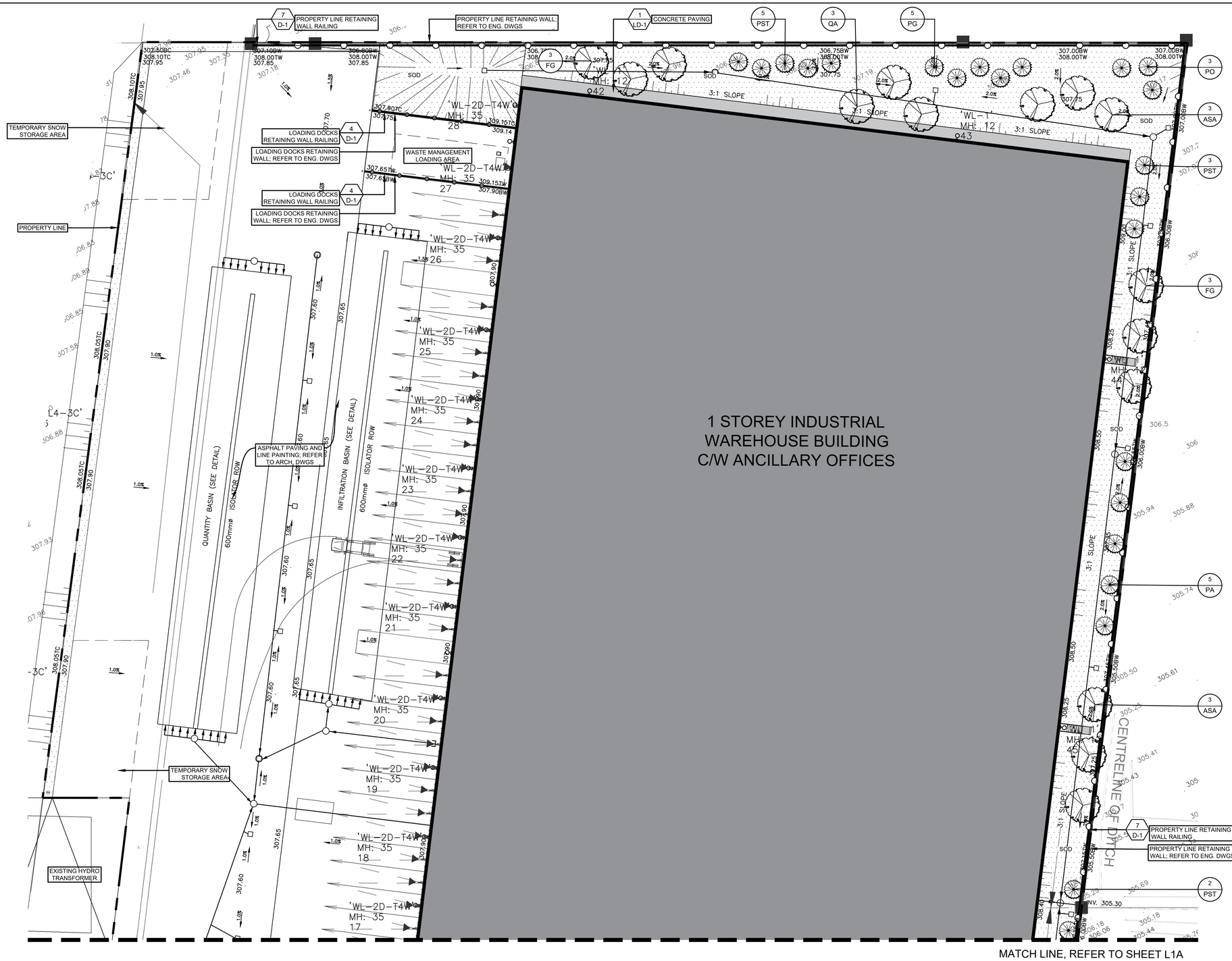
1. ALL PLANT MATERIAL SHALL BE NURSERY STOCK CONFORMING TO THE LATEST EDITION OF THE CANADIAN STANDARDS FOR NURSERY STOCK AS PUBLISHED BY THE CANADIAN NURSERY LANDSCAPE ASSOCIATION.
2. ALL PLANTS SHALL BE HEALTHY, VIGOUROUS PLANTS, FREE FROM DEFECTS, DECAY, DISFIGURING ROOTS, SUN-SCALD INJURIES, BARK ABRASIONS, PLANT DISEASES AND PESTS AND ALL FORMS OF INFESTATIONS OR OBJECTIONABLE DISFIGUREMENTS.
3. ALL PLANTS SHALL BE TRUE TO NAME, SIZE, CONDITION AND QUANTITY AS PER PLAN AND PLANT LIST SPECIFICATIONS.
4. ALL PLANT MATERIAL SHALL BE UNWRAPPED PRIOR TO INSPECTION. THE LANDSCAPE ARCHITECT RESERVES THE RIGHT TO INSPECT ALL PLANT MATERIAL AND REJECT ALL MATERIAL THAT DOES NOT MEET THE STANDARDS LISTED HEREIN.
5. SUBSTITUTIONS WILL NOT BE ACCEPTED WITHOUT PRIOR WRITTEN REQUEST BY THE CONSULTING LANDSCAPE ARCHITECT . ADDITIONAL PLANT QUANTITIES WILL BE REQUIRED TO COMPENSATE FOR APPROVED REDUCTION IN SIZE DUE TO UNAVAILABILITY OF MATERIALS, TO THE SATISFACTION OF THE LANDSCAPE ARCHITECT.
6. ALL TREES SHALL BE OPEN-GROWN FOR WIND-FIRMNESS. TREES SHALL NOT BE LEANING OR HAVE SIGNIFICANT SWEEP, CROOK OR BEND. DECIDUOUS TREES SHALL HAVE APPROXIMATELY TWO-THIRDS OF THEIR TOTAL HEIGHT IN LIVING BRANCHES. ALL TREES SHALL HAVE GOOD CROWN SHAPE AND COLOUR (EVERGREENS) CHARACTERISTIC OF THEIR SPECIES. TREES SHALL HAVE A SINGLE DOMINANT LEADER WITH NO SIDE BRANCHES TALLER / LONGER THAN THE MAIN LEADER.
7. IF REQUIRED, TREES SHALL BE PROPERLY TARGET PRUNED (NEVER FLUSH CUT, TRIMMED, ROUNDED-OVER, HEDGED, TIPPED OR TOPPED) AND DEAD / DAMAGED BRANCHES SHALL BE REMOVED. BRANCHES THAT CROSS-OVER EACH OTHER OR RUB AGAINST EACH OTHER, CO-DOMINANT LEADERS, AND BRANCHES GROWING UPWARD INSIDE THE CROWN SHALL BE PROPERLY PRUNED. TREES SHALL NOT BE TREATED AT ANY TIME WITH WOUND PAINT.
8. ALL TREES SHALL HAVE ROOT BALL SIZES THAT MEET OR EXCEED NURSERY STANDARDS. ROOT BALLS SHALL BE FIRM AND STRUCTURALLY INTEGRAL WITH THE TRUNK.
9. SHRUBS AND GROUND COVERS SHALL HAVE FULL, WELL BRANCHED CROWNS TYPICAL OF SPECIES OR VARIETY. ROOT SYSTEMS SHALL BE AMPLE, WELL-BALANCED AND FIBROUS, CAPABLE OF SUSTAINING VIGOROUS GROWTH. PLANTS THAT ARE WEAK OR THIN, UNDERSIZED, OR HAVE BEEN CUT BACK FROM LARGER GRADES TO MEET SPECIFICATIONS SHALL BE REJECTED.
10. ALL SOD SHALL BE TURFGRASS NURSERY SOD CONFORMING TO THE LATEST SPECIFICATIONS OF THE ONTARIO SOD ASSOCIATION AND THE THE NURSERY SOD GROWERS ASSOCIATION.

TOPSOIL REQUIREMENTS:

1. SOD: 200mm DEPTH
   TOPSOIL MAKE UP: TOPSOIL SHALL BE A FERTILE, NATURAL LOAM, CAPABLE OF SUSTAINING HEALTHY GROWTH; CONTAINING A MINIMUM OF 4% ORGANIC MATTER FOR CLAY LOAMS AND 2% ORGANIC MATTER FOR SANDY LOAM, TO A MAXIMUM OF 25% BY VOLUME. TOPSOIL SHALL BE LOOSE AND FRIABLE, FREE OF SUBSOIL, CLAY LUMPS, STONES, ROOTS OR ANY OTHER DELETERIOUS MATERIAL GREATER THAN 50MM DIAMETER. TOPSOIL SHALL BE FREE OF ALL LITTER AND TOXIC MATERIALS THAT MAY BE HARMFUL TO PLANT GROWTH. TOPSOIL CONTAINING SOD CLUMPS, CRABGRASS, COUCHGRASS OR OTHER NOXIOUS WEEDS IS NOT ACCEPTABLE. TOPSOIL SHALL NOT BE DELIVERED OR PLACED IN A FROZEN OR EXCESSIVELY WET CONDITION. TOPSOIL ACIDITY / ALKALINITY SHALL BE IN THE RANGE OF 6.0PH TO 7.5PH.
2. TREE PITS: 600mm DEPTH TRIPLE MIX
3. CONTINUOUS TREE PITS: 1000mm DEPTH TRIPLE MIX
4. CONTINUOUS SHRUB BEDS: 500mm DEPTH TRIPLE MIX
5. CONTINUOUS PERENNIAL BEDS: 300mm DEPTH TRIPLE MIX

SERVICES, STAKEOUTS & PLANTING ADJUSTMENTS

1. CONTRACTORS SHALL OBTAIN STAKEOUTS FROM ALL UTILITIES PRIOR TO LANDSCAPE INSTALLATIONS.



PLANT LIST - SHEET L1B

DECIDUOUS TREES

Count	Key	BOTANICAL NAME	COMMON NAME	CALIPER	HEIGHT	ROOT	SPREAD	NOTE
6	ASA	Acer saccharum	Sugar Maple	60mm	-	W.B.	-	-
8	FG	Fagus grandifolia	American Beech	60mm				
3	QA	Quercus alba	White Oak	60mm	-	W.B.	-	-

CONIFEROUS TREES

Count	Key	BOTANICAL NAME	COMMON NAME	CALIPER	HEIGHT	ROOT	SPREAD	NOTE
5	PA	Picea abies	Norway Spruce	-	250CM	W.B.	-	-
5	PG	Picea glauca	White Spruce	-	250CM	W.B.	-	-
8	PO	Picea omorika	Serbian Spruce	-	250CM	W.B.	-	-
10	PST	Pinus strobus	White Pine	-	250CM	W.B.	-	-

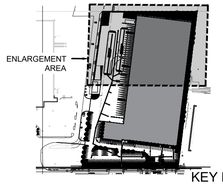
SITE PLANTING DENSITY

INDUSTRIAL DEVELOPMENT TOTAL SITE AREA: 44,700m²

ITEM	PLANT TYPE	DENSITY FORMULA	CITY REQUIREMENT (ENTIRE PROJECT SITE)	PROPOSED QUANTITY (ENTIRE PROJECT SITE)
1	Deciduous Trees	SITE AREA (SQ.M) / 800 = # OF DECIDUOUS TREES	56	72
2	Evergreen Trees	SITE AREA (SQ.M) / 1000 = # OF EVERGREEN TREES	48	53
3	Deciduous Shrubs	SITE AREA (SQ.M) / 400 = # OF DECIDUOUS SHRUBS	112	471
4	Evergreen Shrubs	SITE AREA (SQ.M) / 800 = # OF EVERGREEN SHRUBS	56	130

0 2 4 8 16m

ACCEPTED AS TO FORM IN RELIANCE UPON THE PROFESSIONAL SKILL AND ABILITY OF:
Landscape Planning Ltd.
AS TO DESIGN AND SPECIFICATION
2023/03/01
Barrie



KEY MAP
N.T.S

LEGEND:

- 1 / D-0 — DETAIL # / SHEET #
- 0 / ABC — QUANTITY / SPECIES
- PROPERTY LINE
- CONCRETE PAVING
- SOD
- BENCH
- LITTER RECEPTACLE
- BIKE RINGS
- PROPOSED DECIDUOUS TREES
- PROPOSED CONIFEROUS TREES
- EXISTING TREE TO REMAIN
- PROPOSED PERENNIALS AND SHRUBS
- 1.5m HT. BLACK VINYL CHAIN LINK FENCE

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ASSOCIATION OF LANDSCAPE ARCHITECTS ONTARIO — February 2, 2023 — MEMBER

project number
2021-130

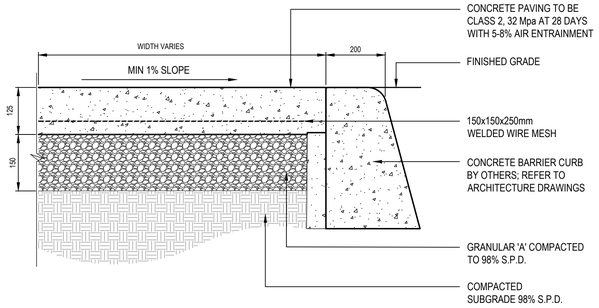
landscape planning
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JS	JS	L1B
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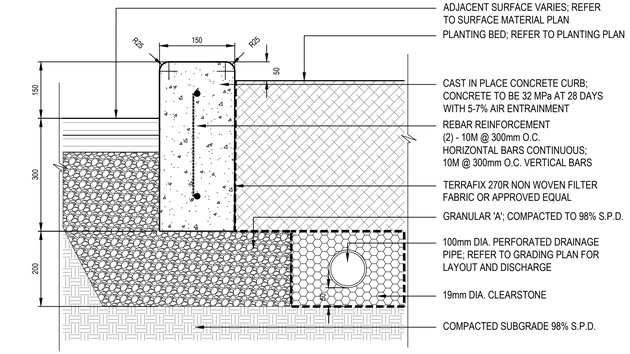
NOTES:

1. CONTRACTOR SHALL CONTACT THE OWNER IMMEDIATELY IF UNSUITABLE OR UNSTABLE SUBGRADE IS ENCOUNTERED, SUCH AS EXCESSIVE TOPSOIL, SOFT SPOTS, &/OR ORGANIC MATTER. METHODS &/OR MATERIAL MUST BE APPROVED BY THE OWNER PRIOR TO COMMENCING WITH WORK. SUBGRADE TO BE CONSOLIDATED & TESTED TO 98% S.P.D.
2. CONTINUOUS BROOM FINISH PERPENDICULAR TO PATH OF TRAVEL OR AS OTHERWISE STATED ON PLANS
3. CONTRACTOR TO PROVIDE SAMPLES FOR CONSULTANT APPROVAL PRIOR TO COMPLETING INSTALLATION.
4. REFER TO JOINTING DETAIL FOR CONTROL AND EXPANSION JOINTS
5. GRANULAR EDGE TO EXTEND MIN. 150mm BEYOND CONCRETE.
6. CONCRETE EDGE TO BE FORMED UNIFORMLY WITH SMOOTH CLEAN EDGES.
7. ADJACENT AND ABUTTING SURFACES TO MEET FLUSH WITH CONCRETE SURFACE.
8. GRADE WALKWAY WITH A MIN 1.5% CROSS-SLOPE OR AS INDICATED ON PLANS. **PONDING WATER ON CONCRETE WALKWAYS WILL NOT BE ACCEPTED.**
9. ALL MEASUREMENTS ARE IN MILLIMETRES UNLESS STATED OTHERWISE.
10. REFER TO PLANS

1 LD-1

CONCRETE PAVING

N.T.S.



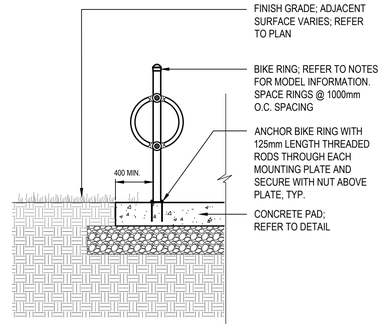
NOTES:

1. AS REQUIRED. CONTRACTOR SHALL CONTACT THE OWNER IMMEDIATELY IF UNSUITABLE OR UNSTABLE SUBGRADE IS ENCOUNTERED, SUCH AS EXCESSIVE TOPSOIL, SOFT SPOTS, &/OR ORGANIC MATTER. METHODS &/OR MATERIAL MUST BE APPROVED BY THE OWNER PRIOR TO COMMENCING WITH WORK. SUBGRADE TO BE CONSOLIDATED & TESTED TO 98% S.P.M.D.D. MIN.; ENGINEERED FILL TO BE CONSOLIDATED & TESTED TO 100% S.P.M.D.D.
2. GRANULAR BASE EDGE TO EXTEND MIN. 150mm BEYOND CONCRETE CURB.
3. PROVIDE CONSULTANT WITH CONCRETE MIX DESIGN TWO (2) WEEKS PRIOR TO INSTALLATION. CONTRACTOR TO PROVIDE SAMPLES (TEST POURS) IN ACCORDANCE WITH SPECIFICATION.
4. EXPANSION JOINTS TO BE PLACED EVERY 6000mm O.C.; CONTROL JOINTS TO BE PLACED EVERY 1500mm O.C.; EXPANSION JOINTS TO BE SEALED WITH POLYURETHANE CAULK. COLOUR TO MATCH CONCRETE.
5. CURB TOP TO BE CONSTANT; REFER TO GRADING PLAN
6. CONSULTANT TO REVIEW & APPROVE CURB LAYOUT & FORMS PRIOR TO PLACEMENT OF CONCRETE
7. CONCRETE EDGE TO BE FORMED UNIFORMLY, SMOOTH WITH CLEAN EDGES, WITHOUT LATERAL DEVIATIONS.
8. ALL MEASUREMENTS ARE IN MILLIMETRES UNLESS STATED OTHERWISE.
9. REFER TO GRADING & SURFACE MATERIALS PLANS

2 LD-1

CONCRETE PLANTER CURB

N.T.S.



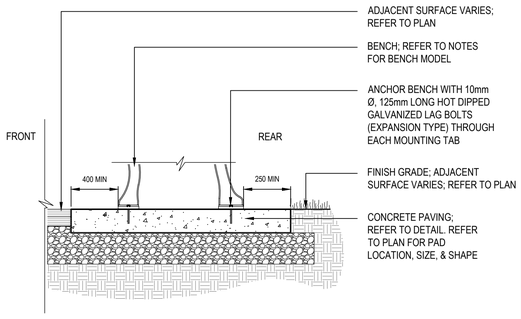
NOTES:

1. PRODUCT INFORMATION IS AS FOLLOWS;
   1.1. MANUFACTURER: MAGLIN SITE FURNISHINGS
   1.2. MODEL: MBR-0200-0005
   1.3. COLOUR: SILVER 14
2. CONTRACTOR TO PROVIDE SHOP DRAWINGS.
3. CONTRACTOR TO LEVEL BIKE RACK AND SECURE.
4. CONTRACTOR TO DEFORM END OF THREADED RODS ONCE INSTALLATION IS COMPLETE.
5. ALL FASTENING HARDWARE TO BE HOT DIPPED GALVANIZED.
6. ALL SITE FURNISHINGS TO BE FIELD LOCATED WITH SITE INSPECTOR PRIOR TO INSTALLATION.
7. ALL MEASUREMENTS ARE IN MILLIMETRES UNLESS STATED OTHERWISE.
8. REFER TO PLANS.

3 LD-1

BIKE RING

N.T.S.



NOTES:

1. PRODUCT INFORMATION AS FOLLOWS;
   1.1 MANUFACTURER: MAGLIN SITE FURNISHINGS
   1.2 MODEL: MBE-0510-00010
   1.3 COLOUR: SILVER 14
2. CONTRACTOR TO PROVIDE SHOP DRAWINGS.
3. CONTRACTOR TO LEVEL BENCH AND SECURE / DRIVE LAG BOLTS INTO CONCRETE
4. CONTRACTOR TO DEFORM LAG BOLT HEADS ONCE INSTALLATION IS COMPLETE
5. ALL FASTENING HARDWARE TO BE HOT DIPPED GALVANIZED
6. ALL SITE FURNISHINGS TO BE FIELD LOCATED WITH SITE INSPECTOR PRIOR TO INSTALLATION
7. ALL MEASUREMENTS ARE IN MILLIMETRES UNLESS STATED OTHERWISE.
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5 LD-1

BENCH

N.T.S.

500 SERIES

MBE-0510-00010

Legacy # MLB510-M



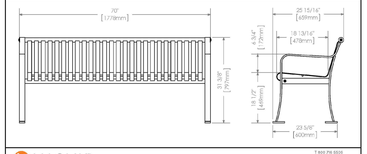
MATERIALS: Bench ends and seat are made from solid steel flat bar and H.S. steel tube.

FINISH: All steel components are protected with E-Coat rust proofing. The Maglin Powdercoat System provides a durable finish on all metal surfaces.

INSTALLATION: The bench is delivered pre-assembled. Holes (0.5") are provided in each foot for securing to base.

TO SPECIFY: Select MBE-0510-00010
Choose:
– Powdercoat Color

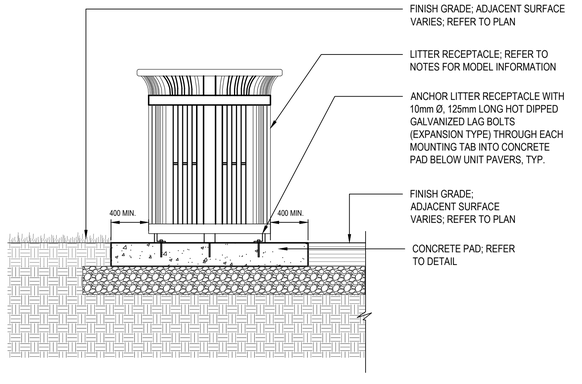
HEIGHT: 31.38" (79.7cm) LENGTH: 70" (177.8cm) DEPTH: 25.94" (65.9cm) WEIGHT: 152.8lbs (69.3kg)



MAGLIN Site Furniture

T 800 716 5035
T 807 933 3393
www.maglin.com
sales@maglin.com

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– Details and specifications may vary due to continuing improvements of our products.



NOTES:

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   1.1 MANUFACTURER: MAGLIN SITE FURNISHINGS
   1.2 MODEL: MRR-0250-0003
   1.3 COLOUR: SILVER 14
2. CONTRACTOR TO PROVIDE SHOP DRAWINGS.
3. CONTRACTOR TO LEVEL LITTER RECEPTACLE AND SECURE.
4. CONTRACTOR TO DEFORM LAG BOLT HEADS ONCE INSTALLATION IS COMPLETE.
5. ALL FASTENING HARDWARE TO BE HOT DIPPED GALVANIZED.
6. ALL SITE FURNISHINGS TO BE FIELD LOCATED WITH SITE INSPECTOR PRIOR TO INSTALLATION.
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6 LD-1

LITTER RECEPTACLE

N.T.S.

ACCEPTED AS TO FORM IN RELIANCE UPON THE PROFESSIONAL SKILL AND ABILITY OF:
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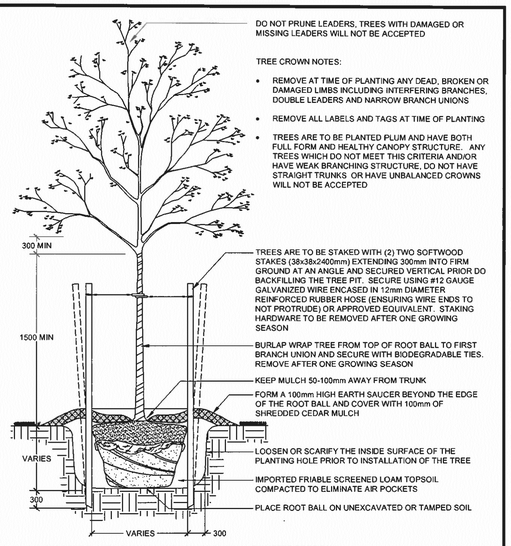
city file: D11-024-2021

municipality: CITY OF BARRIE

client name: ARG GROUP INC.

drawing title
LANDSCAPE DETAILS

drawn by	reviewed by	drawing number:
JS	JS	LD-1
date	scale	
FEB. 2023	NTS	



1. ALL CALIPER TREE PLANTING SHALL HAVE A MINIMUM 600mm DIAMETER ROOT BALL.
2. CUT AND REMOVE ALL WIRE, ROPE AND BURLAP FROM THE TOP 150mm OF THE ROOT BALL AT THE TIME OF PLANTING.
3. FOR POORLY DRAINED OR COMPACTED SOILS THE ROOT BALL SHALL BE PLACED SO THAT THE ROOT COLLAR IS A MAXIMUM OF 100mm ABOVE THE FINISHED GRADE. FOR ALL OTHER INSTALLATIONS THE ROOT COLLAR SHALL BE AT OR 50mm ABOVE FINISHED GRADE.
4. ALL TREES WITHIN 3.0m OF A SIDEWALK OR DRIVEWAY MUST ALSO HAVE A COORDINATED INSTALLATION OF AN APPROVED ROOT BARRIER INSTALLED IN ADDITION TO THE TREE FOR ALL STREETSCAPE APPLICATIONS.
5. ALL TWINE AND BURLAP MUST BE BIODEGRADABLE (UNTREATED).
6. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE NOTED.

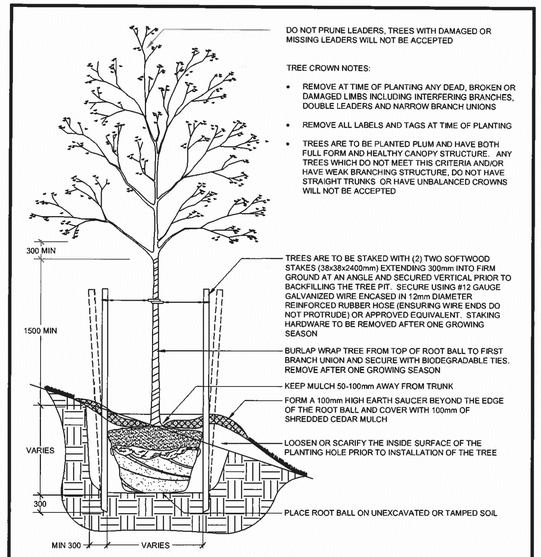
APPROVED
DATE June 11/15
DIRECTOR OF ENGINEERING

The City of BARRIE
STANDARD DETAIL

DECIDUOUS TREE PLANTING DETAIL

REV No. 4 | DATE: JUNE 2015 | SCALE: N.T.S.

BSD-1310
FORMERLY BSD-29



1. ALL CALIPER TREE PLANTING SHALL HAVE A MINIMUM 600mm DIAMETER ROOT BALL.
2. CUT AND REMOVE ALL WIRE, ROPE AND BURLAP FROM THE TOP 150mm OF THE ROOT BALL AT THE TIME OF PLANTING.
3. EXCAVATION TO BE BACKFILLED WITH IMPORTED FRIABLE SCREENED TOPSOIL WHICH IS TO BE FIRMLY COMPACTED TO ELIMINATE AIR POCKETS AND PREVENT SETTLEMENT.
4. EXPOSED SOIL SHALL BE RE-SODDED OR IN A RESTORATION ENVIRONMENT SEEDED WITH A SIMCOE COUNTY NATIVE SEED MIX AND ANNUAL RYE NURSE CROP.
5. ALL TWINE AND BURLAP MUST BE BIODEGRADABLE (UNTREATED).
6. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE NOTED.

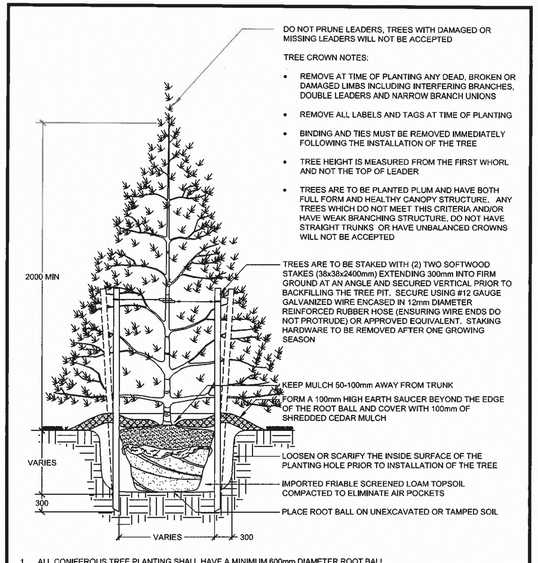
APPROVED
DATE June 11/15
DIRECTOR OF ENGINEERING

The City of BARRIE
STANDARD DETAIL

DECIDUOUS TREE PLANTING ON SLOPE

REV No. 1 | DATE: JUNE 2015 | SCALE: N.T.S.

BSD-1311



1. ALL CONIFEROUS TREE PLANTING SHALL HAVE A MINIMUM 600mm DIAMETER ROOT BALL.
2. CUT AND REMOVE ALL WIRE, ROPE AND BURLAP FROM THE TOP 150mm OF THE ROOT BALL AT THE TIME OF PLANTING.
3. FOR POORLY DRAINED OR COMPACTED SOILS THE ROOT BALL SHALL BE PLACED SO THAT THE ROOT COLLAR IS A MAXIMUM OF 100mm ABOVE THE FINISHED GRADE. FOR ALL OTHER INSTALLATIONS THE ROOT COLLAR SHALL BE AT OR 50mm ABOVE FINISHED GRADE.
4. ALL TWINE AND BURLAP MUST BE BIODEGRADABLE (UNTREATED).
5. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE NOTED.

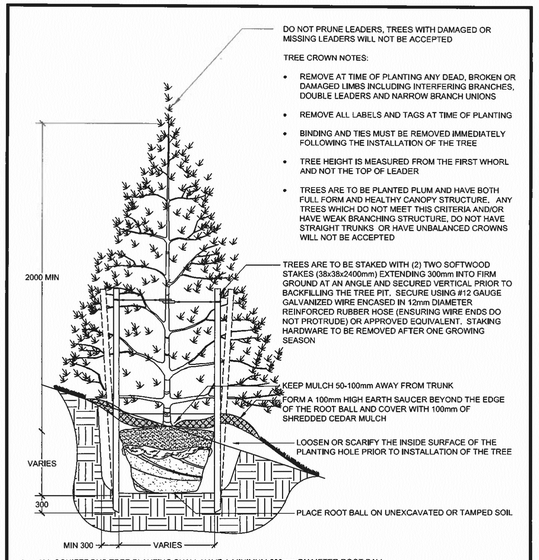
APPROVED
DATE June 11/15
DIRECTOR OF ENGINEERING

The City of BARRIE
STANDARD DETAIL

CONIFEROUS TREE PLANTING DETAIL

REV No. 4 | DATE: JUNE 2015 | SCALE: N.T.S.

BSD-1312
FORMERLY BSD-30



1. ALL CONIFEROUS TREE PLANTING SHALL HAVE A MINIMUM 600mm DIAMETER ROOT BALL.
2. CUT AND REMOVE ALL WIRE, ROPE AND BURLAP FROM THE TOP 150mm OF THE ROOT BALL AT THE TIME OF PLANTING.
3. EXCAVATION TO BE BACKFILLED WITH IMPORTED FRIABLE SCREENED TOPSOIL WHICH IS TO BE FIRMLY COMPACTED TO ELIMINATE AIR POCKETS AND PREVENT SETTLEMENT.
4. EXPOSED SOIL SHALL BE RE-SODDED OR IN A RESTORATION ENVIRONMENT SEEDED WITH A SIMCOE COUNTY NATIVE SEED MIX AND ANNUAL RYE NURSE CROP.
5. ALL TWINE AND BURLAP MUST BE BIODEGRADABLE (UNTREATED).
6. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE NOTED.

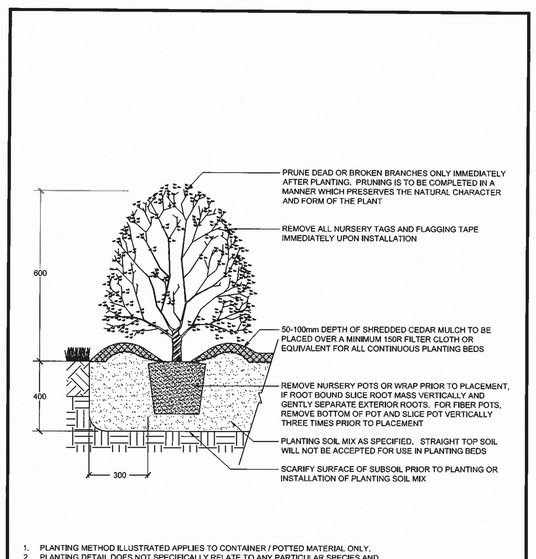
APPROVED
DATE June 11/15
DIRECTOR OF ENGINEERING

The City of BARRIE
STANDARD DETAIL

CONIFEROUS TREE PLANTING ON SLOPE

REV No. 1 | DATE: JUNE 2015 | SCALE: N.T.S.

BSD-1313



1. PLANTING METHOD ILLUSTRATED APPLIES TO CONTAINER / POTTED MATERIAL ONLY.
2. PLANTING DETAIL DOES NOT SPECIFICALLY RELATE TO ANY PARTICULAR SPECIES AND SHALL BE APPLIED TO BOTH DECIDUOUS AND CONIFEROUS POTTED MATERIAL.
3. SET SHRUBS 50mm HIGHER THAN GRADE TO ALLOW FOR SETTLEMENT.
4. ALL SHRUB PLANTING IS TO OCCUR IN CONTINUOUS MULCHED PLANTING BEDS WITH WEED CONTROL (FILTER FABRIC.
5. DO NOT COVER THE BASE OF SHRUB WITH MULCH.
6. ALL SOIL SHALL BE ADEQUATELY COMPACTED TO PREVENT AIR POCKETS AND SETTLEMENT.
5. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE NOTED.

APPROVED
DATE June 11/15
DIRECTOR OF ENGINEERING

The City of BARRIE
STANDARD DETAIL

CONTAINER GROWN SHRUB PLANTING DETAIL

REV No. 4 | DATE: JUNE 2015 | SCALE: N.T.S.

BSD-1314
FORMERLY BSD-31

ACCEPTED AS TO FORM IN RELIANCE UPON THE PROFESSIONAL SKILL AND ABILITY OF:
Landscape Planning Ltd.
AS TO DESIGN AND SPECIFICATION
2023/03/01
Barrie

FINAL APPROVED PLAN
File: D11-024-2021
Date: Sept 28, 2023
Barrie No. of Pages: 30

no.	revision	date	by
R6	ISSUED FOR SITE PLAN AGREEMENT	2023-02-02	JS
R5	ISSUED FOR SITE PLAN AGREEMENT	2022-09-13	JS
R4	ISSUED FOR SITE PLAN AGREEMENT	2022-06-24	JS
R3	ISSUED FOR SITE PLAN AGREEMENT	2021-11-11	JS
R2	ISSUED FOR COORDINATION	2021-09-30	JS
R1	ISSUED FOR COORDINATION	2021-09-29	JS
R0	ISSUED FOR COORDINATION	2021-09-17	JS

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ONTARIO ASSOCIATION OF LANDSCAPE ARCHITECTS
February 2, 2023
MEMBER

project number
2021-130

landscape planning
LANDSCAPE ARCHITECTS
Suite 207, 95 Mural Street, Richmond Hill, Ontario L4B 3G2,
Tel. 905.669.6838, www.landscapeplan.ca

project title
90 MAPLEVIEW DRIVE WEST, BARRIE ON.
LOT 12 AND PART OF CENTRE ROAD, REGISTERED PLAN 67

city file: D11-024-2021

municipality: CITY OF BARRIE

client name: ARG GROUP INC.

drawing title
LANDSCAPE DETAILS

drawn by	reviewed by	drawing number:
JS	JS	LD-2
date: FEB. 2023	scale: NTS	



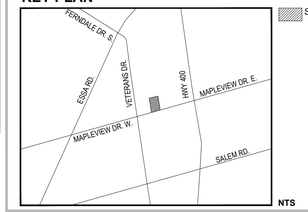
1 TP-1 TREE INVENTORY, REMOVALS, AND PROTECTION PLAN

SCALE: 1:600

FINAL APPROVED PLAN
File: D11-024-2021
Date: Sept 28, 2023
Barrie No. of Pages: 30

CITY STAMP

KEY PLAN



LEGEND

- EXISTING DECIDUOUS TREE TO REMAIN
- EXISTING CONIFEROUS TREE TO REMAIN
- EXISTING TREE TO REMOVE (DECIDUOUS / CONIFEROUS)
- EXISTING BORDER TREE AND CANOPY
- EXISTING TREE GROUP TO REMAIN
- EXISTING TREE GROUP TO BE REMOVED (TO BE LIMITED TO TREES WITHIN THE SUBJECT LANDS)
- TREE PROTECTION FENCING PER CITY OF BARRIE STANDARDS

GENERAL NOTES

1. Do not scale the drawings. All dimensions are in millimetres unless noted otherwise.
2. This drawing is to be read in conjunction with the project site plan. landscape plan, and engineering plan.
3. The tree inventory includes assessment of trees >10cm DBH. The trees have been assessed based on species, size and condition. Refer to Arborist Report prepared by MHBC Planning
4. The contractor shall check and verify all existing and proposed grading and conditions on the project and immediately report any discrepancies to the consultant before proceeding with any removals.
5. The contractor is to be aware of all existing and proposed services and utilities. The contractor is responsible for having all underground services and utility lines staked by each agency having jurisdiction prior to commencing work.
6. This drawing is to be used for development approval only.
7. Do not leave any holes open overnight.
8. Keep area outside construction zone clean and useable by others at all times. Contractor shall throughly clean areas surrounding the construction zone at the end of each work day.
9. Contractor to make good any and all damages outside of the development area that may occur as a result of tree removals at no extra cost.
10. This drawing is Copyright MHBC Planning, 2022.

REVISION NO.	DATE	ISSUED / REVISION	BY
7.	February 1, 2023	REVISED PER SITE CONDITION	NV
6.	April 21, 2022	REVISED PER SITE CONDITION	BT
5.	April 1, 2022	REVISED PER SITE CONDITION	HH
4.	November 15, 2021	ISSUED FOR SITE ALTERATION PERMIT	CC
3.	November 04, 2021	ISSUED FOR SITE ALTERATION PERMIT	CC
2.	September 04, 2020	ISSUED FOR S.P.A	CC
1.	June 24, 2020	ISSUED FOR S.P.A	CC

MHBC PLANNING URBAN DESIGN & LANDSCAPE ARCHITECTURE
230-7050 WESTON ROAD WOODBRIDGE, ON. L4L 8G7 | P: 905 761 5588 F: 905 761 5589 | WWW.MHBCPLAN.COM

STAMP

ASSOCIATION OF LANDSCAPE ARCHITECTS NICOLA A MIDDLETON MEMBER ONTARIO

11-08-2021

ISSUED FOR S.A.P. ONLY
NOT FOR CONSTRUCTION

All drawings and specifications are instruments of service and will remain the property of MHBC Planning and must be returned at the completion of the work. This drawing shall not be used for construction purposes unless the drawings are marked 'Issued for Construction' and the professional seal is signed and dated by the landscape architect.

DATE	JUNE 2020
DRAWN BY	CC
PLAN SCALE	1:600
FILE NO.	16307W
CHECKED BY	N.M.
CITY#	SAP- 011-2021
CLIENT	A.R.G GROUP

PROJECT

90 MAPLEVIEW DRIVE W.
BARRIE, ON

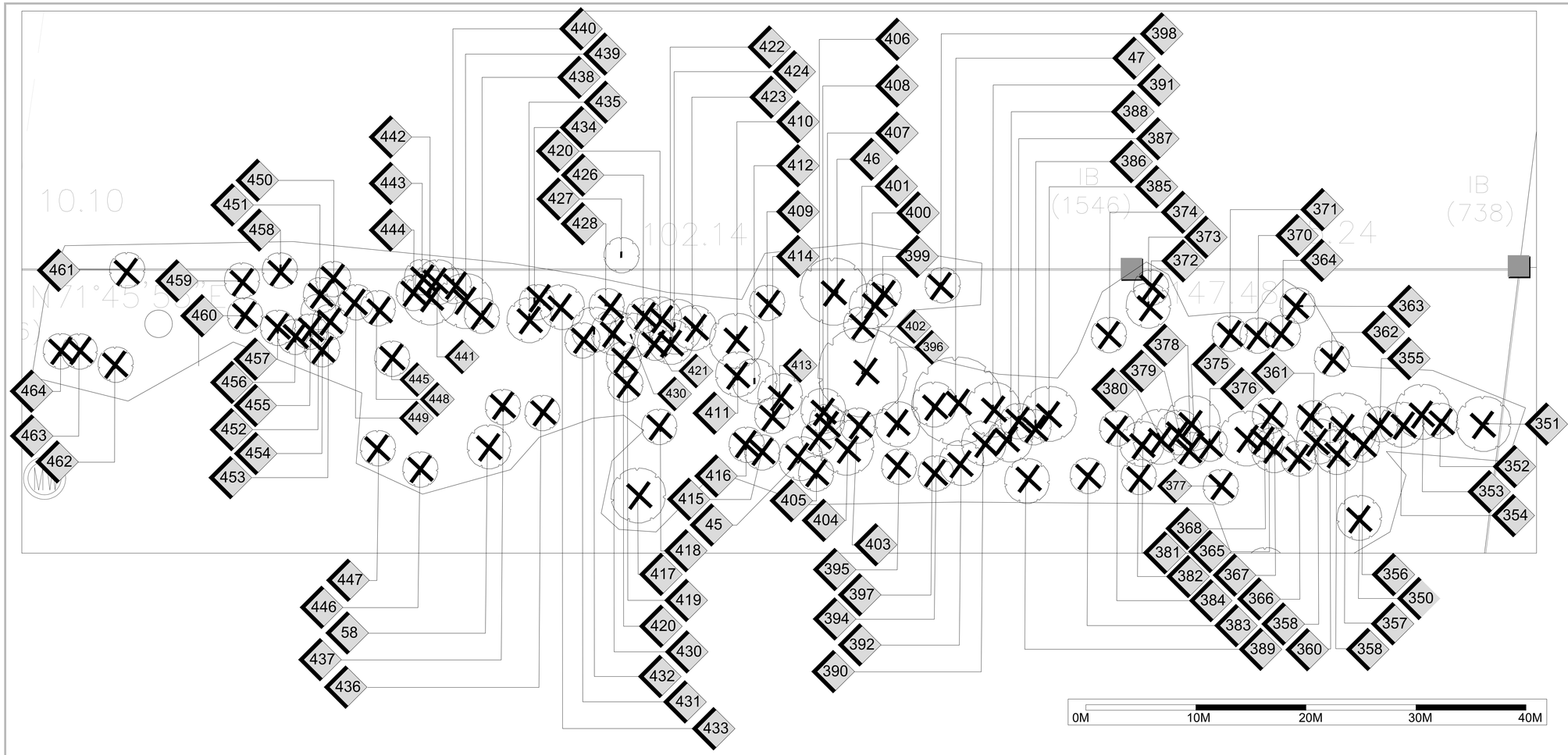
NORTH

FILE NAME

TREE INVENTORY, PROTECTION, AND REMOVALS

DWG NO.

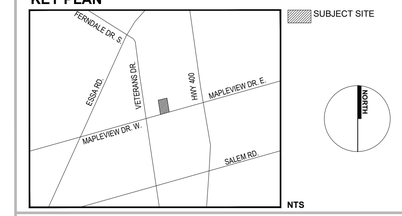
TP-1



1 TP-2 TREE INVENTORY, REMOVALS, AND PROTECTION PLAN - ENLARGEMENT

SCALE: 1:200

KEY PLAN



SUBJECT SITE

NORTH

LEGEND

- EXISTING DECIDUOUS TREE TO REMAIN
- EXISTING CONIFEROUS TREE TO REMAIN
- EXISTING TREE TO REMOVE (DECIDUOUS / CONIFEROUS)
- EXISTING BORDER TREE AND CANOPY
- TREE PROTECTION FENCING PER CITY OF BARRIE STANDARDS

GENERAL NOTES

1. Do not scale the drawings. All dimensions are in millimetres unless noted otherwise.
2. This drawing is to be read in conjunction with the project site plan. landscape plan, and engineering plan.
3. The tree inventory includes assessment of trees >10cm DBH. The trees have been assessed based on species, size and condition.
4. The contractor shall check and verify all existing and proposed grading and conditions on the project and immediately report any discrepancies to the consultant before proceeding with any removals.
5. The contractor is to be aware of all existing and proposed services and utilities. The contractor is responsible for having all underground services and utility lines staked by each agency having jurisdiction prior to commencing work.
6. This drawing is to be used for development approval only.
7. Do not leave any holes open overnight.
8. Keep area outside construction zone clean and useable by others at all times. Contractor shall throughly clean areas surrounding the construction zone at the end of each work day.
9. Contractor to make good any and all damages outside of the development area that may occur as a result of tree removals at no extra cost.
10. This drawing is Copyright MHBC Planning, 2022.

REVISION NO.	DATE	ISSUED / REVISION	BY
7.	February 1, 2023	REVISED PER SITE CONDITION	NV
6.	April 21, 2022	REVISED PER SITE CONDITION	BT
5.	April 1, 2022	REVISED PER SITE CONDITION	HH
4.	November 15, 2021	ISSUED FOR SITE ALTERATION PERMIT	CC
3.	November 04, 2021	ISSUED FOR SITE ALTERATION PERMIT	CC
2.	September 04, 2020	ISSUED FOR S.P.A	CC
1.	June 24, 2020	ISSUED FOR S.P.A	CC

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ONTARIO ASSOCIATION OF LANDSCAPE ARCHITECTS

11-08-2021

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DATE	JUNE 2020
DRAWN BY	CC
PLAN SCALE	1:200
FILE NO.	16307W
CHECKED BY	N.M.
CITY#	SAP- 011-2021
CLIENT	A.R.G GROUP

PROJECT

90 MAPLEVIEW DRIVE W.
BARRIE, ON

FILE NAME

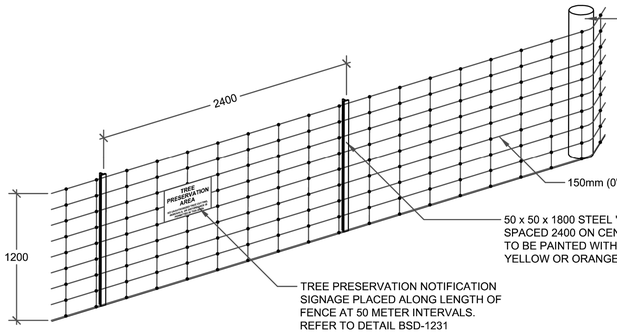
TREE INVENTORY, PROTECTION, AND REMOVALS

DWG NO.

TI-2

FINAL APPROVED PLAN
File: D11-024-2021
Date: Sept 28, 2023
Barrie No. of Pages: 30

CITY STAMP



CEDAR FENCE POST TO BE PLACED AT EACH TERMINUS OR CHANGE OF DIRECTION, POSTS ARE TO BE DIRECT BURIED WITH A MINIMUM 1000 EMBEDMENT

NOTE: CEDAR POSTS ARE REQUIRED WHERE FENCE LENGTHS EXCEED 150 LINEAR METERS AND ARE NOT REQUIRED WITHIN THE MUNICIPAL BOULEVARDS

NOTE: FENCE MUST BE TENSIONED AND SECURED BACK ON ITSELF WITH A SINGLE WRAP AROUND THE TERMINAL POST

150mm (0'-6") PAGE WIRE FENCING

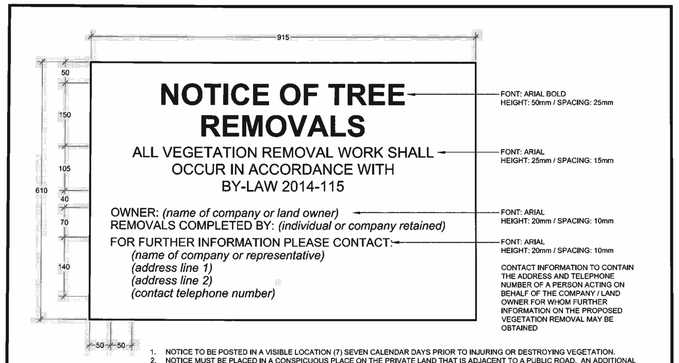
50 x 50 x 1800 STEEL 'T' BAR POSTS SPACED 2400 ON CENTRE, TOP 200mm TO BE PAINTED WITH FLORESCENT YELLOW OR ORANGE PAINT

TREE PRESERVATION NOTIFICATION SIGNAGE PLACED ALONG LENGTH OF FENCE AT 50 METER INTERVALS. REFER TO DETAIL BSD-1231

1. THIS DETAIL IS USED IN CONJUNCTION WITH BSD-1233 -SEDIMENTATION CONTROL FENCE.
2. PAGE WIRE FENCE TO BE ATTACHED TO CEDAR RAIL POSTS WITH 'U' SHAPED GALVANIZED NAILS ON EACH HORIZONTAL STRAND.
3. USE A MINIMUM OF FOUR (4) 100MM, 16 GAUGE GALVANIZED T-POST CLIPS TO ATTACH PAGE WIRE FENCE TO EACH 'T' BAR POST.
4. 'T' BARS ARE TO BE DRIVEN INTO THE GROUND TO A MINIMUM DEPTH OF 600mm.
5. ALL MEASUREMENTS ARE IN MILLIMETRES UNLESS OTHERWISE NOTED.
6. THIS DETAIL TO BE USED IN CONJUNCTION WITH BSD-1230, BSD-1231, BSD-1234 AND BSD-1235.

The City of BARRIE STANDARD DETAIL	TREE PRESERVATION FENCING	REV No. 1	DATE: JUNE 2015	APPROVED
			SCALE: N.T.S.	DATE . . . . .
			BSD-1232	. . . . . DIRECTOR OF ENGINEERING

1 TP-3 TREE PROTECTION BARRIER



1. NOTICE TO BE POSTED IN A VISIBLE LOCATION (7) SEVEN CALENDAR DAYS PRIOR TO INJURING OR DESTROYING VEGETATION.
2. NOTICE MUST BE PLACED IN A CONSPICUOUS PLACE ON THE PRIVATE LAND THAT IS ADJACENT TO A PUBLIC ROAD. AN ADDITIONAL SIGN IS REQUIRED FOR EACH PUBLIC ROAD FRONTAGE.
3. SIGNAGE MUST REMAIN IN PLACE FOR A PERIOD OF NO LESS THAN (2) TWO MONTHS FOLLOWING THE COMPLETION OF VEGETATION REMOVALS FROM THE SUBJECT SITE.
4. ALL DIMENSIONS ARE IN MILLIMETRES.

The City of BARRIE STANDARD DETAIL	TREE REMOVAL NOTIFICATION TEMPLATE	REV No. 1	DATE: JUNE 2015	APPROVED
			SCALE: N.T.S.	DATE June 11/15
			BSD-1230	DIRECTOR OF ENGINEERING

2 TP-3 TREE NOTIFICATION TEMPLATE



1. SIGNS MUST BE FABRICATED FROM WEATHER RESISTANT MATERIAL.
2. SIGNS ARE TO BE SECURELY FASTENED AND PLACED IN 50 METER INTERVALS ALONG ALL TREE PRESERVATION FENCING.
3. SIGNS MUST REMAIN POSTED FOR THE DURATION OF THE PROJECT OR UNTIL APPROVAL TO REMOVE PRESERVATION FENCING IS PROVIDED BY THE MUNICIPALITY.
4. ALL DIMENSIONS ARE IN MILLIMETRES.
5. THIS DETAIL IS TO BE USED IN CONJUNCTION WITH BSD-1230 AND BSD-1232.

The City of BARRIE STANDARD DETAIL	TREE PRESERVATION AREA TEMPLATE	REV No. 1	DATE: JUNE 2015	APPROVED
			SCALE: N.T.S.	DATE June 11/15
			BSD-1231	DIRECTOR OF ENGINEERING

3 TP-3 TREE PRESERVATION AREA TEMPLATE

TREE GROUPINGS

Tree No.	Common Name	Botanical Name	Condition	Comments	Recommendation
A	Basswood	Tilia americana	F	8 stems at ~ 8-15 dbh	Remove due to construction
B	Poplar Sp.	Populus	F	~ 700 stems at 1 - 5 dbh	Remove due to construction
C	Poplar Sp. Basswood Ash Sp.	Populus Tilia americana Fraxinus Sp.	F	Poplar See dlings and saplings up to ~ 10 dbh Basswood 2 stems at 10 - 15 dbh Ash 4 stems at 10 - 15 dbh	Remove due to construction
D	Black Locust	Robina pseudoacacia	P	10 stems at ~10 dbh 6 stems at ~20 dbh	Remove due to construction
E	Black Locust	Robina pseudoacacia	P	10 stems at ~10 dbh 2 stems at ~25 dbh	Remove due to construction
F	Black Locust	Robina pseudoacacia	P	~20 stems at ~10 dbh 4 stem at ~10 dbh 1 stem at ~15dbh	Remove due to construction
G	Black Locust	Robina pseudoacacia	P	~10 stems at ~10 dbh 5 stems at 20 - 30 dbh	Remove due to construction
H	Black Locust	Robina pseudoacacia	P	~600 stems 50 % at ~10 dbh 30% at 10 - 20 dbh 20 % at 23 - 30 dbh	Remove due to construction

TREE INVENTORY NOTES

Tree #	Common Name	Botanical Name	DBH (CM)	Condition	Comments	Recommendation
1	Scots Pine	Pinus sylvestris	28	F		Remove due to construction
2	Scots Pine	Pinus sylvestris	24	F		Remove due to construction
3	Colorado Spruce	Picea pungens	36	F/G		Retain
4	Colorado Spruce	Picea pungens	20	F/G		Retain
5	Scots Pine	Pinus sylvestris	21	F		Remove due to construction
6	Scots Pine	Pinus sylvestris	19	F		Remove due to construction
7	Scots Pine	Pinus sylvestris	14	F/P		Remove due to construction
8	Scots Pine	Pinus sylvestris	28	F		Remove due to construction
9	Black Locust	Robinia pseudoacacia	28	P	2-stem co-dominant	Remove due to construction
10	Scots Pine	Pinus sylvestris	38	G		Remove due to construction
12	Colorado Spruce	Picea pungens	15	F	Leaning, bare on one side	Retain
13	Poplar Sp.	Populus Sp.	40	P	2-stem co-dominant	Remove due to construction
14	Colorado Spruce	Picea pungens	39	F	Sparse on one side	Retain
15	Black Locust	Robinia pseudoacacia	38	P	3-stem	Remove due to construction
16	Black Locust	Robinia pseudoacacia	31	P		Remove due to construction
17	Black Locust	Robinia pseudoacacia	33	P		Remove due to construction
18	Black Locust	Robinia pseudoacacia	19	P		Remove due to construction
19	Black Locust	Robinia pseudoacacia	11	F/P		Remove due to construction
20	Black Locust	Robinia pseudoacacia	12	F/P		Remove due to construction
21	Black Locust	Robinia pseudoacacia	19	F/P		Remove due to construction
22	Black Locust	Robinia pseudoacacia	15	F/P		Remove due to construction
23	Black Locust	Robinia pseudoacacia	32	P		Remove due to construction
24	Black Locust	Robinia pseudoacacia		F/P		Remove due to construction
25	Fruiting Cherry	Prunus avium	73	P	Trunk split, structural issues	Remove due to construction
26	Ash Sp.	Fraxinus Sp.	14	F/P		Remove due to construction
27	Norway Maple	Acer platanoides	13	F/G		Remove due to construction
28	Ash Sp.	Fraxinus Sp.	24	F/D		Remove due to construction
29	Norway Maple	Acer platanoides	11	F/G	Poor form	Remove due to construction
30	Red Maple	Acer rubrum	90	F/G	Co-dominant at 2.1m	Remove due to construction
31	Poplar Sp.	Populus Sp.	~38	F	Clump	Remove due to construction
32	Poplar Sp.	Populus Sp.	~40	F	2-STEM	Remove due to construction
33	Flowering Crabapple Tree	Malus Sp.	15	F	Clump	Remove due to construction
34	Basswood	Tilia americana	~60	F	Clump	Remove due to construction
35	American Elm	Ulmus americana	17	F/G		Remove due to construction
36	Red Maple	Acer rubrum	75	F/G		Remove due to construction
37	Basswood	Tilia americana	~10	F		Remove due to construction
38	Basswood	Tilia americana	~28	F		Remove due to construction
39	Ash Sp.	Fraxinus Sp.	~15	D		Remove due to construction
40	Ash Sp.	Fraxinus Sp.	10	F		Remove due to construction
41	Ash Sp.	Fraxinus Sp.	20	F	Clump	Remove due to construction
42	Basswood	Tilia americana	8	F		Remove due to construction
43	Basswood	Tilia americana	11	F		Remove due to construction
44	Flowering Crabapple Tree	Malus Sp.	15-20	F	6 stems	Remove due to construction
45	Red Oak	Quercus rubra	38	F/G		Remove due to construction
46	Sugar Maple	Acer saccharum	~70	F/P	Structural issues. 3-stem	Remove due to construction
47	Red Oak	Quercus rubra	34	F/G		Remove due to construction
48	Scots Pine	Pinus sylvestris	19	P		Remove due to construction
49	Norway Spruce	Picea abies	31	F/P		Remove due to construction
50	Basswood	Tilia americana	15	F/P		Remove due to construction
51	Norway Spruce	Picea abies	24	F/P		Remove due to construction
52	Norway Spruce	Picea abies	35	F/P		Remove due to construction
53	Norway Spruce	Picea abies	32	F/P		Remove due to construction
54	Norway Spruce	Picea abies	43	F/P		Remove due to construction
55	Black Cherry	Prunus serotina	30	F		Remove due to construction
56	Black Cherry	Prunus serotina	30	F		Remove due to construction
57	Black Cherry	Prunus serotina	30	F		Remove due to construction
58	Poplar Sp.	Populus Sp.	24	F		Remove due to construction
350	Red Oak	Quercus rubra	34	F/G	Signs of gypsy moth	Remove due to construction
351	Sugar Maple	Acer saccharum	54	F		Remove due to construction
352	Norway Maple	Acer platanoides	24	F		Remove due to construction
353	Sugar Maple	Acer saccharum	48	F	Trunk rot evident	Remove due to construction
354	Sugar Maple	Acer saccharum	35	F		Remove due to construction
355	Sugar Maple	Acer saccharum	22	F		Remove due to construction
356	Ash Sp.	Fraxinus Sp.	26	D		Remove due to construction
357	Sugar Maple	Acer saccharum	56	F		Remove due to construction
358	Ash Sp.	Fraxinus Sp.	30	D		Remove due to construction
359	Ash Sp.	Fraxinus Sp.	27	D		Remove due to construction
360	Sugar Maple	Acer saccharum	20	F	Moderate lean	Remove due to construction
361	Sugar Maple	Acer saccharum	39	F		Remove due to construction
362	Poplar Sp.	Populus Sp.	20	F	Moderate lean	Remove due to construction
363	Red Oak	Quercus rubra	23	F/G		Remove due to construction
364	Poplar Sp.	Populus Sp.	22	F		Remove due to construction
365	American Elm	Ulmus americana	18	F		Remove due to construction
366	Basswood	Tilia americana	23	F/P		Remove due to construction
367	Ash Sp.	Fraxinus Sp.	29	D		Remove due to construction
368	Poplar Sp.	Populus Sp.	22	F/P		Remove due to construction
369	Basswood	Tilia americana	41	F/P	2 stem	Remove due to construction
370	Flowering Crabapple Tree	Malus Sp.	15	P		Remove due to construction
371	Flowering Crabapple Tree	Malus Sp.	23	P		Remove due to construction
372	Basswood	Tilia americana	22	F		Remove due to construction
373	Basswood	Tilia americana	29	F/P		Remove due to construction
374	Basswood	Tilia americana	25	F/P		Remove due to construction
375	Sugar Maple	Acer saccharum	49	F		Remove due to construction
376	Ash Sp.	Fraxinus Sp.	23	D		Remove due to construction
377	Basswood	Tilia americana	17	F/P		Remove due to construction
378	Ash Sp.	Fraxinus Sp.	23	D		Remove due to construction
379	Sugar Maple	Acer saccharum	34	F		Remove due to construction
380	Sugar Maple	Acer saccharum	49	F/P	Significant trunk cavity/rot evident	Remove due to construction
381	Sugar Maple	Acer saccharum	29	P	2 stem	Remove due to construction
382	Sugar Maple	Acer saccharum	25	F/G		Remove due to construction
383	Basswood	Tilia americana	22	F/P	3 stem	Remove due to construction
384	Sugar Maple	Acer saccharum	23	F		Remove due to construction
385	Sugar Maple	Acer saccharum	58	F	Wire grown through	Remove due to construction
386	Sugar Maple	Acer saccharum	18	F		Remove due to construction
387	Sugar Maple	Acer saccharum	17	F		Remove due to construction
388	Ash Sp.	Fraxinus Sp.	31	D		Remove due to construction
389	Sugar Maple	Acer saccharum	37	F/G		Remove due to construction
390	Ash Sp.	Fraxinus Sp.	39	D		Remove due to construction
391	Sugar Maple	Acer saccharum	49	F	Wire grown through	Remove due to construction
392	Basswood	Tilia americana	30	F/P		Remove due to construction
393	Basswood	Tilia americana	34	P		Remove due to construction
394	Basswood	Tilia americana	21	F/P		Remove due to construction
395	Sugar Maple	Acer saccharum	29	F		Remove due to construction
396	Basswood	Tilia americana	29	F/P	Moderate lean	Remove due to construction
397	Sugar Maple	Acer saccharum	34	F		Remove due to construction
398	American Elm	Ulmus americana	21	F/G		Remove due to construction
399	American Elm	Ulmus americana	20	F	2 stem	Remove due to construction
400	Ash Sp.	Fraxinus Sp.	40	D		Remove due to construction
401	American Elm	Ulmus americana	38	F/G		Remove due to construction
402	Sugar Maple	Acer saccharum	84	F	2 co-dominant stems, included bark, trunk rot evident	Remove due to construction
403	American Elm	Ulmus americana	38	F		Remove due to construction
404	Basswood	Tilia americana	41	F/P	Moderate/ significant lean	Remove due to construction
405	Basswood	Tilia americana	21	F/P		Remove due to construction
406	American Elm	Ulmus americana	19	F		Remove due to construction
407	Basswood	Tilia americana	22	F/P		Remove due to construction
408	Sugar Maple	Acer saccharum	31	F		Remove due to construction
409	Paper Birch	Betula papyrifera	17	F/P		Remove due to construction
410	Red Oak	Quercus rubra	69	F	3 stem, signs of gypsy moth	Remove due to construction
411	Sugar Maple	Acer saccharum	35	F		Remove due to construction
412	Black Cherry	Prunus serotina	26	F	Moderate/significant lean, 2 stems	Remove due to construction
413	Black Cherry	Prunus serotina	27	F		Remove due to construction
414	American Elm	Ulmus americana	15	F		Remove due to construction
415	Ash Sp.	Fraxinus Sp.	39	D		Remove due to construction
416	Poplar Sp.	Populus Sp.	38	F		Remove due to construction
417	Red Oak	Quercus rubra	41	F/G	Mild signs of gypsy moth.	Remove due to construction
418	Basswood	Tilia americana	22	F/P		Remove due to construction
419	Basswood	Tilia americana	16	F		Remove due to construction
420	Sugar Maple	Acer saccharum	30	F/G		Remove due to construction
421	Ash Sp.	Fraxinus Sp.	25	D		Remove due to construction
422	Ash Sp.	Fraxinus Sp.	28	D		Remove due to construction
423	Sugar Maple	Acer saccharum	31	F	Wire grown through	Remove due to construction
424	Sugar Maple	Acer saccharum	51	F/P	2 stem, signs of rot in one stem	Remove due to construction
425	Sugar Maple	Acer saccharum	35	F		Remove due to construction
426	Sugar Maple	Acer saccharum	22	F		Remove due to construction
427	Poplar Sp.	Populus Sp.	36	P		Remove due to construction
428	Sugar Maple	Acer saccharum	17	F		Remove due to construction
429	Ash Sp.	Fraxinus Sp.	34	D		Remove due to construction
430	Black Cherry	Prunus serotina	36	F		Remove due to construction
431	Sugar Maple	Acer saccharum	21	F		Remove due to construction
432	Sugar Maple	Acer saccharum	35	F		Remove due to construction
433	Sugar Maple	Acer saccharum	32	F		Remove due to construction
434	Sugar Maple	Acer saccharum	23	F		Remove due to construction
435	Basswood	Tilia americana	32	F		Remove due to construction
436	Poplar Sp.	Populus Sp.	39	F	3 stem	Remove due to construction
437	Basswood	Tilia americana	23	F		Remove due to construction
438	Ash Sp.	Fraxinus Sp.	23	D		Remove due to construction
439	Ash Sp.	Fraxinus Sp.	48	D		Remove due to construction
440	Ash Sp.	Fraxinus Sp.	25	D		Remove due to construction
441	Sugar Maple	Acer saccharum	29	F/G		Remove due to construction
442	Ash Sp.	Fraxinus Sp.	46	D		Remove due to construction
443	Sugar Maple	Acer saccharum	23	F		Remove due to construction
444	Ash Sp.	Fraxinus Sp.	28	D		Remove due to construction
445	Poplar Sp.	Populus Sp.	19	F/P	2 stem	Remove due to construction
446	Poplar Sp.	Populus Sp.	24	F		Remove due to construction
447	Poplar Sp.	Populus Sp.	25	F		Remove due to construction
448	Poplar Sp.	Populus Sp.	21	P		Remove due to construction
449	Poplar Sp.	Populus Sp.	23	P		Remove due to construction
450	Poplar Sp.	Populus Sp.	17	F/G		Remove due to construction
451	Poplar Sp.	Populus Sp.	16	F/P		Remove due to construction
452	Poplar Sp.	Populus Sp.	16	F/P		Remove due to construction
453	Poplar Sp.	Populus Sp.	17	F/P		Remove due to construction
454	Poplar Sp.	Populus Sp.	18	F		Remove due to construction
455	Poplar Sp.	Populus Sp.	22	F		Remove due to construction
456	Poplar Sp.	Populus Sp.	25	F		Remove due to construction
457	Poplar Sp.	Populus Sp.	17	F		Remove due to construction
458	Poplar Sp.	Populus Sp.	36	F	3 stem, Boundary Tree	Remove due to construction
459	Poplar Sp.	Populus Sp.	35	F	3 stem	Remove due to construction
460	Poplar Sp.	Populus Sp.	30	F		Remove due to construction
461	Poplar Sp.	Populus Sp.	20	F	3 stem, Boundary Tree	Remove due to construction
462	Ash Sp.	Fraxinus Sp.	33	F		Remove due to construction
463	Ash Sp.	Fraxinus Sp.	17	F		Remove due to construction
464	Ash Sp.	Fraxinus Sp.	35	F		Remove due to construction
500	Black Locust	Robinia pseudoacacia	32	F	Poor form, Boundary Tree	Remove due to construction
501	Black Locust	Robinia pseudoacacia	27	F	2 Stem, Boundary Tree	Remove due to construction

FINAL APPROVED PLAN
File: D11-024-2021
Date: Sept 28, 2023
Barrie No. of Pages: 30

CITY STAMP

GENERAL NOTES

1. Do not scale the drawings. All dimensions are in millimetres unless noted otherwise.
2. This drawing is to be read in conjunction with the project site plan. landscape plan, and engineering plan.
3. The tree inventory includes assessment of trees >10cm DBH. The trees have been assessed based on species, size and condition.
4. The contractor shall check and verify all existing and proposed grading and conditions on the project and immediately report any discrepancies to the consultant before proceeding with any removals.
5. The contractor is to be aware of all existing and proposed services and utilities. The contractor is responsible for having all underground services and utility lines staked by each agency having jurisdiction prior to commencing work.
6. This drawing is to be used for development approval only.
7. Do not leave any holes open overnight.
8. Keep area outside construction zone clean and useable by others at all times. Contractor shall throughly clean areas surrounding the construction zone at the end of each work day.
9. Contractor to make good any and all damages outside of the development area that may occur as a result of tree removals at no extra cost.
10. This drawing is Copyright MHBC Planning, 2022.

REVISION NO.	DATE	ISSUED / REVISION	BY
7.	February 1, 2023	REVISED PER SITE CONDITION	NV
6.	April 21, 2022	REVISED PER SITE CONDITION	BT
5.	April 1, 2022	REVISED PER SITE CONDITION	HH
4.	November 15, 2021	ISSUED FOR SITE ALTERATION PERMIT	CC
3.	November 04, 2021	ISSUED FOR SITE ALTERATION PERMIT	CC
2.	September 04, 2020	ISSUED FOR S.P.A	CC
1.	June 24, 2020	ISSUED FOR S.P.A	CC

MHBC PLANNING URBAN DESIGN & LANDSCAPE ARCHITECTURE
230-7050 WESTON ROAD WOODBRIDGE, ON, L4L 8G7 | P: 905 761 5588 | F: 905 761 5589 | WWW.MHBCPLAN.COM

STAMP

ONTARIO ASSOCIATION OF LANDSCAPE ARCHITECTS — NICOLA A. WEBER — OALA — MEMBER

11-08-2021

ISSUED FOR S.A.P. ONLY
NOT FOR CONSTRUCTION

All drawings and specifications are instruments of service and will remain the property of MHBC Planning and must be returned at the completion of the work. This drawing shall not be used for construction purposes unless the drawings are marked 'Issued for Construction' and the professional seal is signed and dated by the landscape architect.

DATE	JUNE 2020
DRAWN BY	CC
PLAN SCALE	1:600
FILE NO.	16307W
CHECKED BY	N.M.
CITY#	SAP- 011-2021
CLIENT	A.R.G GROUP

PROJECT

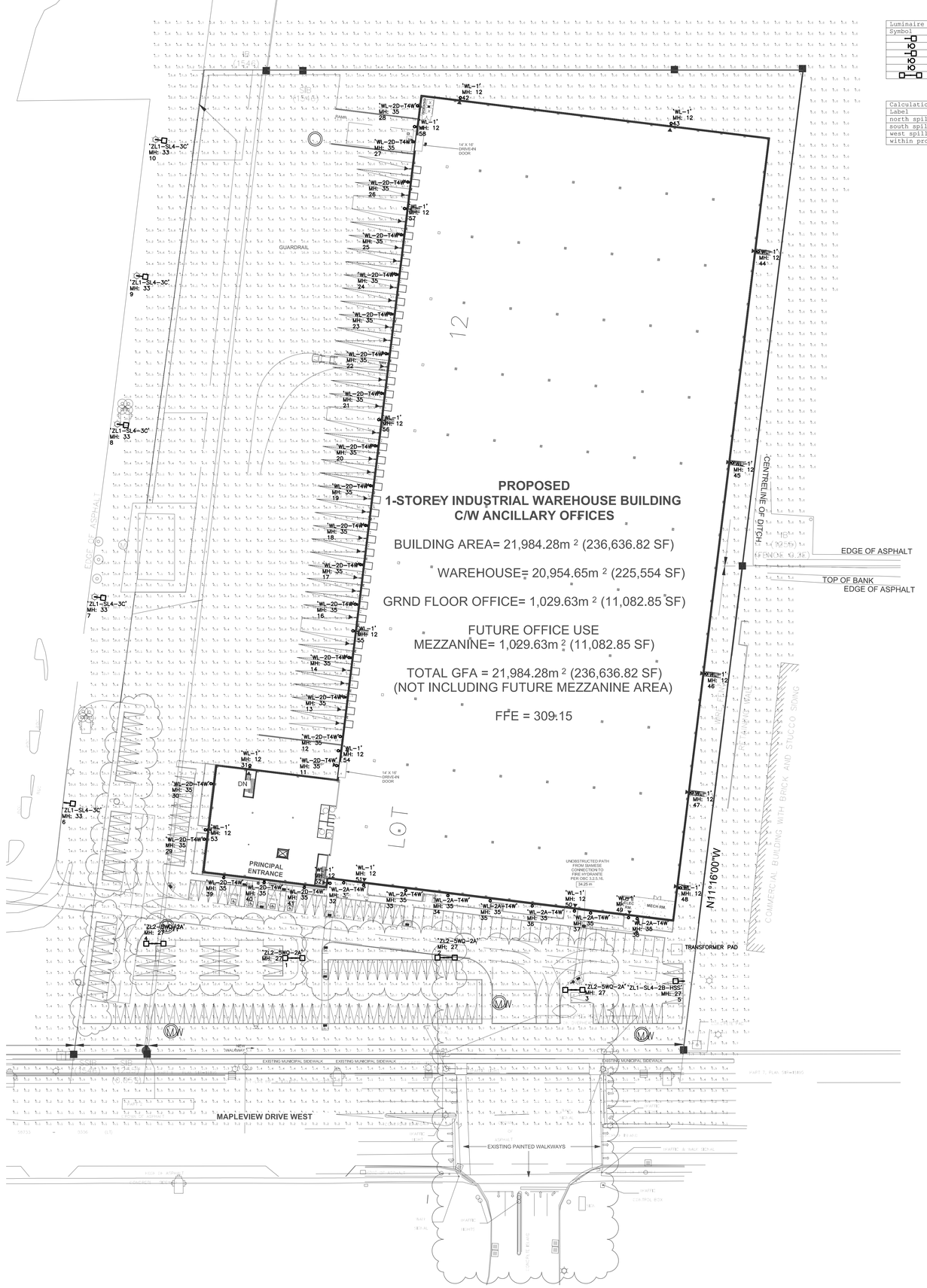
90 MAPLEVIEW DRIVE W.
BARRIE, ON

FILE NAME

TREE INVENTORY, PROTECTION, AND REMOVALS

DWG NO.

TI-3



SITE PLAN
SCALE
1:500

Luminaire Schedule						
Symbol	Qty	Label	Arrangement	LLF	Description	Lum. Watts	Lum. Lumens
	1	ZL1-SL4-2B-HSS	SINGLE	0.900	McGRAW-EDISON CAT. #GLEON-SA2B-730-9-SL4-HSS	85	8642
	18	WL-1	SINGLE	0.900	COOPER LIGHTING CAT. #XTOR1B-W-347V.	12.2	1397
	5	ZL1-SL4-3C	SINGLE	0.900	McGRAW-EDISON CAT. #GLEON-SA3C-730-9-SL4	166	18687
	22	WL-2D-T4W	SINGLE	0.900	McGRAW-EDISON CAT. #GWC-SA2D-730-9-T4W	129	14644
	7	WL-2A-T4W	SINGLE	0.900	McGRAW-EDISON CAT. #GWC-SA2A-730-9-T4W	66	8794
	4	ZL2-SWQ-2A	BACK-BACK	0.900	McGRAW-EDISON CAT. #GLEON-SA2A-730-9-SWQ	66	9147

Calculation Summary							
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
north spill	Illuminance	Lux	2.37	15.0	0.0	N.A.	N.A.
south spill	Illuminance	Lux	0.81	4.1	0.1	8.10	41.00
west spill	Illuminance	Lux	0.34	5.5	0.0	N.A.	N.A.
within property line	Illuminance	Lux	15.39	80.3	0.0	N.A.	N.A.

Luminaire Location Summary						
LumNo	Label	X	Y	Z	Orient	Tilt
1	ZL2-SWQ-2A	928.131	106.327	27	0	0
2	ZL2-SWQ-2A	1066.077	105.796	27	0	0
3	ZL2-SWQ-2A	1166.63	80.86	27	0	0
4	ZL2-SWQ-2A	799.735	107.388	27	0	0
5	ZL1-SL4-2B-HSS	1278.574	85.862	27	180	0
6	ZL1-SL4-3C	721.487	250.893	33	352	0
7	ZL1-SL4-3C	745.528	417.523	33	352	0
8	ZL1-SL4-3C	771.228	576.692	33	352	0
9	ZL1-SL4-3C	790.295	722.597	33	352	0
10	ZL1-SL4-3C	810.191	869.33	33	352	0
11	WL-2D-T4W	968.64	276.543	35	173	0
12	WL-2D-T4W	972.287	305.751	35	173	0
13	WL-2D-T4W	976.633	341.043	35	173	0
14	WL-2D-T4W	980.938	376.862	35	173	0
16	WL-2D-T4W	986.863	424.943	35	173	0
17	WL-2D-T4W	991.147	460.765	35	173	0
18	WL-2D-T4W	995.568	496.131	35	173	0
19	WL-2D-T4W	999.899	532.136	35	173	0
20	WL-2D-T4W	1004.365	567.958	35	173	0
21	WL-2D-T4W	1010.061	615.492	35	173	0
22	WL-2D-T4W	1014.528	650.994	35	173	0
23	WL-2D-T4W	1018.858	686.998	35	173	0
24	WL-2D-T4W	1023.187	722.639	35	173	0
25	WL-2D-T4W	1027.699	758.415	35	173	0
26	WL-2D-T4W	1033.442	805.996	35	173	0
27	WL-2D-T4W	1037.94	842.677	35	173	0
28	WL-2D-T4W	1041.945	874.988	35	173	0
29	WL-2D-T4W	848.269	203.491	35	173	0
30	WL-2D-T4W	854.788	254.344	35	173	0
31	WL-1	889.125	277.814	12	83	0
32	WL-2A-T4W	976.27	174.805	35	263	0
33	WL-2A-T4W	1027.991	168.72	35	263	0
34	WL-2A-T4W	1070.151	163.504	35	263	0
35	WL-2A-T4W	1112.963	158.071	35	263	0
36	WL-2A-T4W	1154.688	152.857	35	263	0
37	WL-2A-T4W	1196.848	147.641	35	263	0
38	WL-2A-T4W	1238.138	143.077	35	263	0
39	WL-2D-T4W	865.868	180.005	35	263	0
40	WL-2D-T4W	902.447	175.554	35	263	0
41	WL-2D-T4W	938.608	171.243	35	263	0
42	WL-1	1078.992	881.01	12	83	0
43	WL-1	1269.417	857.649	12	83	0
44	WL-1	1346.091	744.041	12	355	0
45	WL-1	1322.543	553.014	12	355	0
46	WL-1	1299.316	362.33	12	355	0
47	WL-1	1286.382	255.236	12	355	0
48	WL-1	1275.811	169.698	12	355	0
49	WL-1	1231.026	144.107	12	263	0
50	WL-1	1182.207	149.81	12	263	0
51	WL-1	992.08	173.455	12	263	0
52	WL-1	959.812	173.594	12	355	0
53	WL-1	851.049	221.298	12	173	0
54	WL-1	970.939	292.787	12	173.294	0
55	WL-1	984.151	400.994	12	171.034	0
56	WL-1	1007.378	591.401	12	173.889	0
57	WL-1	1030.604	781.945	12	173.161	0
58	WL-1	1039.783	856.215	12	174.097	0

FINAL APPROVED PLAN
File: D11-024-2021
Date: Sept 28, 2023
Barrie No. of Pages: 30

TRISTAR ENGINEERING
Division of 1241248 Ontario Limited
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LICENSED PROFESSIONAL ENGINEER
A. A. OBERFELD
APRIL/4/22
PROVINCE OF ONTARIO

N — PROJECT NORTH
N — TRUE NORTH

SUBMITTALS

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THE CONTRACTOR WILL CHECK AND VERIFY DIMENSIONS AND SITE CONDITIONS ON THE PROJECT AND REPORT ANY DISCREPENCY TO THE ARCHITECT PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.

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DO NOT SCALE THE DRAWING.

REVISION		
No	DATE	DESCRIPTION
1	2021.11.12	ISSUED FOR SITE PLAN APPROVAL
2	2022.04.04	RE-ISSUED FOR SITE PLAN APPROVAL
3	2022.09.01	ENTRANCE REVISED

JOB NO.	2021-119
DRAWING No.	LE-1
SCALE:	1:500
PRINT DATE:	SEPT. 2021

PROPOSED 1-STOREY INDUSTRIAL WAREHOUSE BUILDING C/W ANCILLARY OFFICES (SINGLE TENANCY)

90 MAPLEVIEW DRIVE WEST, BARRIE, ON.

SITE PLAN AND DETAILS

LE-1

GENERAL NOTES

1. ALL WORK SHALL BE IN ACCORDANCE WITH CURRENT CITY OF BARRIE STANDARD DRAWINGS (BSD) AND ONTARIO PROVINCIAL STANDARD DRAWINGS (OPSD).

2. ORDER OF PRECEDENCE OF STANDARD DRAWINGS IS FIRSTLY CITY OF BARRIE STANDARD DRAWINGS (BSD) AND SECONDLY ONTARIO PROVINCIAL STANDARD DRAWINGS (OPSD).

3. LOCATION OF EXISTING SERVICES ARE NOT GUARANTEED. THE CONTRACTOR IS REQUIRED TO NOTIFY THE VARIOUS UTILITY COMPANIES 48 HOURS PRIOR TO THE COMMENCEMENT OF ANY WORK.

4. RIGHT-OF-WAY ACTIVITY PERMIT IS REQUIRED FROM THE INFRASTRUCTURE DEPARTMENT (OPERATIONS CENTRE, 165 FERNDALE DR. NORTH) PRIOR TO THE COMMENCEMENT OF WORK WITHIN ANY CITY RIGHT-OF-WAY.

5. A SITE ALTERATION PERMIT IS REQUIRED FROM THE INFRASTRUCTURE DEPARTMENT PRIOR TO THE COMMENCEMENT OF ANY EARTH WORKS ON THE SITE.

6. NATIVE MATERIAL, SUITABLE FOR BACKFILL, SHALL BE COMPACTED TO 95% STANDARD PROCTOR MAXIMUM DRY DENSITY.

7. GRANULAR MATERIAL, USED FOR BACKFILL, SHALL BE PLACED IN LAYERS 150mm IN DEPTH MAXIMUM AND COMPACTED TO 100% STANDARD PROCTOR MAXIMUM DRY DENSITY.

8. ALL DISTURBED AREAS ARE TO BE REINSTATED TO THEIR ORIGINAL CONDITION OR BETTER, AS DETERMINED BY THE CITY INFRASTRUCTURE DEPARTMENT.

9. ALL SILT CONTROL AND EROSION PROTECTION DEVICES ARE TO BE IN PLACE PRIOR TO THE COMMENCEMENT OF CONSTRUCTION AND SHALL REMAIN IN PLACE AND BE MAINTAINED BY THE CONTRACTOR UNTIL CONSTRUCTION IS COMPLETED AND THE GRASS HAS ESTABLISHED GROWTH, SUBJECT TO APPROVAL BY THE CITY INFRASTRUCTURE DEPARTMENT.

10. NATIVE SUBGRADE TO BE COMPACTED TO MINIMUM 95% STANDARD PROCTOR MAXIMUM DRY DENSITY AND SHALL BE PROOF ROLLED.

11. MORTAR IS USED FOR LEVELING OF PRECAST UNITS ONLY. THE THICKNESS OF MORTAR WILL BE 10mm TO FILL ALL VOIDS CREATED BY IRREGULARITIES IN THE PRECAST UNITS TO ENSURE AN EVEN SURFACE ONLY.

12. NON-COMPRESSIBLE BACK FILL WILL BE USED DURING REBUILDING, ADJUSTING, OR ANY OTHER APPLICABLE CATCHBASIN OR MAINTENANCE HOLE WORKS.

13. ALL CONSTRUCTION SIGNING MUST CONFORM TO THE M.T.O. MANUAL OF "UNIFORM TRAFFIC CONTROL DEVICES".

14. ALL WORK SHALL BE COMPLETED IN ACCORDANCE WITH THE "OCCUPATIONAL HEALTH AND SAFETY ACT". THE GENERAL CONTRACTOR SHALL BE DEEMED TO BE THE CONTRACTOR AS DEFINED IN ACT.

15. FOR BUILDING LOCATION SITE LAYOUT AND BOUNDARY INFORMATION REFER TO ARCHITECTURAL SITE PLAN.

16. EXACT LOCATION AND ELEVATION OF EXISTING SERVICES AND UTILITIES TO BE VERIFIED IN THE FIELD BY THE CONTRACTOR PRIOR TO ANY EXCAVATION. THE LOCATION OF ALL UNDER/ABOVE GROUND UTILITIES AND STRUCTURES IS APPROXIMATE ONLY, AND WHERE SHOWN ON THE DRAWING(S), THE ACCURACY OF THE LOCATION OF SUCH UTILITIES IS NOT GUARANTEED. THE CONTRACTOR SHALL DETERMINE THE LOCATION OF ALL SUCH UTILITIES AND STRUCTURES BY CONSULTING THE APPROPRIATE AUTHORITIES OR UTILITY COMPANIES CONCERNED. THE CONTRACTOR SHALL PROVE THE LOCATION OF ALL SUCH UTILITIES AND STRUCTURE AND SHALL ASSUME ALL LIABILITY FOR DAMAGE OR RESTORATION TO SAME.

17. CONTRACTOR TO CONFIRM INVERT ELEVATION OF EXISTING SERVICES PRIOR TO STARTING CONSTRUCTION. ANY DISCREPANCIES TO BE REPORTED TO THE ENGINEER.

18. SINGLE-STAGE CURB AND GUTTER TO COMPLY WITH OPSD 600.040.

19. TWO-STAGE CURB AND GUTTER TO COMPLY WITH OPSD 600.070.

20. SIDEWALKS TO COMPLY WITH OPSD 310-010 AND ARE TO BE 1.5 METRES WIDE MINIMUM THICKNESS AS FOLLOWS:
- RESIDENTIAL DRIVEWAY 150mm
  - COMMERCIAL/INDUSTRIAL DRIVEWAY 200mm) (REINFORCEMENT AS PER OPSS IF REQUIRED)
  - WHEN NO DRIVEWAY IS PRESENT, 125mm

21. THE ROAD BASE SHALL INCORPORATE 100mm DIAMETER SUB DRAIN WITH FACTORY INSTALLED FILTER FABRIC AS PER CITY OF BARRIE STANDARD BSD-34.

22. GRADE CROSSFALL ADJUSTMENTS OF MAINTENANCE HOLE AND CATCHBASIN FRAMES WILL BE MADE USING PRODUCTS SPECIFICALLY MANUFACTURED FOR THAT PURPOSE. THE TOP ADJUSTMENT OF ALL CATCHBASIN AND MAINTENANCE HOLES SHALL BE RUBBER.

23. ADJUSTMENT UNITS MUST BE CERTIFIED TO MEET ALL PERTINENT OPS, CSA, ASTM AND MTO-DSM LIST, OR OTHER INDUSTRY GUIDELINES FOR MATERIALS, PERFORMANCE AND USE AS APPLICABLE.

SANITARY

1. SEWERS SHALL BE CONSTRUCTED WITH BEDDINGS AS PER OPSD-802.010, (GRAD. 'A' EMBEDMENT MATERIAL) FOR FLEXIBLE PIPES AND OPSD-802.030 OR 802.031 CLASS B (GRAN. 'A' BEDDING MATERIAL) FOR RIGID PIPE UNLESS OTHERWISE APPROVED BY THE DIRECTOR OF INFRASTRUCTURE DEPARTMENT.

2. MAXIMM DEFLECTION FROM COMBINED LIVE AND DEAD LOADING SHALL NOT EXCEED ANY C.S.A., O.P.S. OR MANUFACTURERS RECOMMENDED SPECIFICATIONS.

3. PVC, CONCRETE AND PROFILE WALL PVC SEWERS SHALL HAVE RUBBER GASKET TYPE JOINTS AND SHALL BE CERTIFIED TO CONFORM TO ALL APPLICABLE CURRENT C.S.A. SPECIFICATIONS.

4. CONCRETE SANITARY SEWERS SHALL HAVE A MINIMUM STRENGTH OF 50 N/m/mm CONFORMING TO CSA STANDARD A257.2-1982, CLASS 50-D (PREVIOUSLY C.S.A. STANDARD A257.2-197A, CLASS II).

5. MAINTENANCE HOLE TOPS (FRAMES) ARE TO BE SET TO BASE COURSE ASPHALT GRADE AND THEN ADJUSTED TO FINAL GRADE WHEN THE TOP LIFT OF ASPHALT IS PLACE. ALL ADJUSTMENT WILL BE IN ACCORDANCE WITH BSD-N2.

6. ALL CONNECTIONS TO NEW SANITARY MAINS SHALL BE PRE-MANUFACTURED, FABRICATED TEES. CONNECTIONS TO EXISTING SANITARY SEWER SHALL BE MADE WITH APPROVED FACTORY MADE TEES OR INSERTA-TEES IN STRICT ACCORDANCE TO MANUFACTURES GUIDELINES.

7. PIPE TO BE MINIMUM 100MM DIA. PVC SDR28, RUBBER GASKET TYPE JOINTS AND SHALL CONFORM TO C.S.A. (B-182.2.3.4) (COLOURED) FOR A RESIDENTIAL HOUSE AND 150mm MINIMUM DIA. PVC SDR28 FOR INDUSTRIAL/COMMERCIAL DEVELOPMENT.

8. ALL CONNECTIONS TO NEW SANITARY MAINS SHALL BE PRE-MANUFACTURED, FABRICATED TEES. CONNECTIONS TO EXISTING SANITARY SEWER SHALL BE MADE WITH APPROVED FACTORY MADE TEES OR INSERTA-TEES IN STRICT ACCORDANCE TO MANUFACTURES GUIDELINES.

WATERMAIN

1. CONTRACTORS SHALL INFORM THE CITY OF BARRIE WATER OPERATIONS DEPARTMENT A MINIMUM OF 48 HOURS IN ADVANCE OF THEIR INTENTIONS TO PERFORM WORK ON WATER INFRASTRUCTURE.

2 OPERATION OF HYDRANTS AND VALVES ON THE POTABLE WATER SYSTEM BY OTHER THAN QUALIFIED WATER OPERATIONS STAFF IS PROHIBITED BY CURRENT BY-LAW. CITY SERVICE FEES ARE PER THE CURRENT FEES BY-LAW. THE CITY'S WATER OPERATIONS STAFF WILL SWAB, PRESSURE TEST, CHLORINATE AND FLUSH ALL NEW WATERMAINS.

3. MINIMUM COVER OVER WATERMAIN SHALL BE 1.7m. THE MINIMUM HORIZONTAL SEPARATION BETWEEN WATERMAIN AND SEWERS SHALL BE 2.5m WHERE WATERMAIN CONFLICTS WITH SEWER PIPES, DEFLECT WATERMAIN HORIZONTALLY OR VERTICALLY WHILE PROVIDING A MINIMUM OF 0.5m CLEARANCE BETWEEN WATERMAIN AND SEWERS. MAINTAIN MINIMUM DEPTH OF COVER AT ALL TIMES.

4. WATERMAIN SHALL BE INSTALLED IN BEDDING AS PER OPSD 802.010 (GRANULAR "A" EMBEDMENT MATERIAL) FOR FLEXIBLE PIPES AND OPSD 802.030 OR 802.031 CLASS "B" (GRANULAR "A" OR SELECT NATIVE COVER MATERIAL) FOR RIGID PIPE UNLESS OTHERWISE APPROVED BY THE DIRECTOR OF WATER OPERATIONS ALTERNATIVE EMBEDMENT MATERIAL – SAND MEETING GRADATION REQUIREMENTS OF OPSS.MUNI 1004.05.07 COMPACTED TO 95% STANDARD PROCTOR MAXIMUM DRY DENSITY IS PERMISSIBLE HERE NOTED IN STANDARD DETAILS. GEOTECHNICAL CERTIFICATION OF MATERIAL AND COMPACTION TESTING MUST BE PROVIDED EVERY 150 m. THE COMPACTION TESTING MUST INCLUDE THE ENTIRE EMBEDMENT ENVELOPE (HAUNCHES, BEDDING, TOP OF PIPE AND COVER).

5. COPPER WATERMAINS AND SERVICES 19mm TO 50mm IN DIAMETER SHALL BE EMBEDDED IN SAND 100mm ABOVE AND BELOW TO CONFORM TO OPSS.MUNI 1004.05.07.

6. RESTRAINING WILL BE REQUIRED ON ALL HYDRANTS. THRUST BLOCKS, AS PER OPSD 1103.010 AND 1103.020. RESTRAINING DEVICES MAY BE REQUIRED IN ADDITION TO STANDARD CONCRETE THRUST BLOCK WHERE SOIL CONDITIONS WARRANT AT THE CITY'S DISCRETION.

7. NEW WATERMAINS TO BE PVC DR18 CL150 MINIMUM; DUCTILE IRON CL52AS PER THE APPROVED MANUFACTURERS PRODUCTS FOR LINEAR WATER SYSTEMS LIST.

8. TRACING WIRE SHALL BE #12 AWG HIGH STRENGTH COPPER CLAD (HS-CSS) AND SHALL BE INSTALLED ON THE TOTAL LENGTH OF ALL WATERMAIN AND BROUGHT UP TO EACH HYDRANT AND CONNECTED TO FLANGE BOLT. ALL SPLICES TO UTILIZE CONNECTORS AS PER THE APPROVED MANUFACTURERS PRODUCTS FOR LINEAR WATER SYSTEMS LIST.

9. ALL WATER SERVICES SHALL BE MINIMUM 25mm TYPE 'K' COPPER OR 25mm CROSS-LINKED POLYETHYLENE UNLESS OTHERWISE APPROVED BY THE DIRECTOR OF WATER OPERATIONS. WATER SERVICE SADDLES SHALL BE USED WHEN TAPPING INTO PVC WATERMAIN.

10. SERVICE TAPPING SHALL BE PLACED AT A MINIMUM SEPARATION OF 1.0m AND A MINIMUM OF 0.6m FROM JOINTS. (ENDS OF PIPE)

11. RISER PIPES ARE TO BE INSTALLED AS PER BSD-510, AND REMOVED AS DIRECTED. SWABBING SCHEDULE TO BE SUPPLIED BY A WATER OPERATIONS FIELD REPRESENTATIVE. ALL RISERS ARE TO BE RESTRAINED OR THRUST BLOCKED.

12. ALL NEW CURB STOPS AND BOXES TO BE LOCATED AT PROPERTY LINE AND OUT OF DRIVEWAYS AND SIDEWALKS.

STORM

1. STORM SEWERS SHALL BE CONSTRUCTED WITH BEDDING AS PER OPSD-802.010 (GRAN. 'A' EMBEDMENT MATERIAL) FOR FLEXIBLE PIPES AND OPSD-802.030 OR 802.031 CLASS B (GRAN. 'A' BEDDING MATERIAL) FOR RIGID PIPE UNLESS OTHERWISE APPROVED BY THE DIRECTOR OF INFRASTRUCTURE DEPARTMENT.

2. MAINTENANCE HOLE TOPS (FRAMES) AND CATCHBASIN (FRAMES) ARE TO BE SET TO BASE COURSE ASPHALT GRADE AND THEN ADJUSTED TO FINAL GRADE WHEN THE TOP LIFT OF ASPHALT IS PLACED. ALL ADJUSTMENT WILL BE ACCORDANCE WITH BSD-N2.

3. ALL CONNECTIONS TO BE STORM MAIN SHALL BE MADE WITH A STORM MANHOLE OR APPROVED FACTORY TEE CONNECTION AS PER OPSD-708.01 OR 708.03.

4. PIPE MATERIAL TO BE REINFORCED CONCRETE WITH A MINIMUM STRENGTH OF 50 N/m/mm CERTIFIED TO C.S.A. STANDARD A247.2-1982, CLASS 50-D (PREVIOUSLY C.S.A. STANDARD A257.2-1974, CLASS II) OR PVC CERTIFIED TO C.S.A. STANDARDS 182.2 AND 182.4.

5. ALL CATCH BASIN LEADS TO BE 300mm DIAMETER UNLESS OTHERWISE SPECIFIED.

6. STORM SEWER TO BE MINIMUM 300 mm DIAMETER WITH JOINTS CONFORMING TO C.S.A. STANDARD A257.3.

7. ALL PIPE BEDDING MUST CONFORM TO OPSD, MAXIMUM COVER TABLE. NO FLEXIBLE PIPE SEWERS WILL BE INSTALLED WITH A DEPTH OF COVER GREATER THAN 6 m UNLESS SPECIFICALLY APPROVED BY THE DIRECTOR OF INFRASTRUCTURE DEPARTMENT.

8. ALL PIPE HANDLING INSTALLATIONS MUST BE IN STRICT COMPLIANCE WITH MANUFACTURES INSTALLATION GUIDES AND THE O.C.P.A OR UNIBELL GUIDELINES.

DRIVEWAYS & PARKING AREAS:

1. A UTILITY CLEARANCE RADIUS OF 15 m BETWEEN THE PROPOSED DRIVEWAY ENTRANCE CURB RETURN AND ALL ABOVEGROUND UTILITIES MUST BE MAINTAINED.

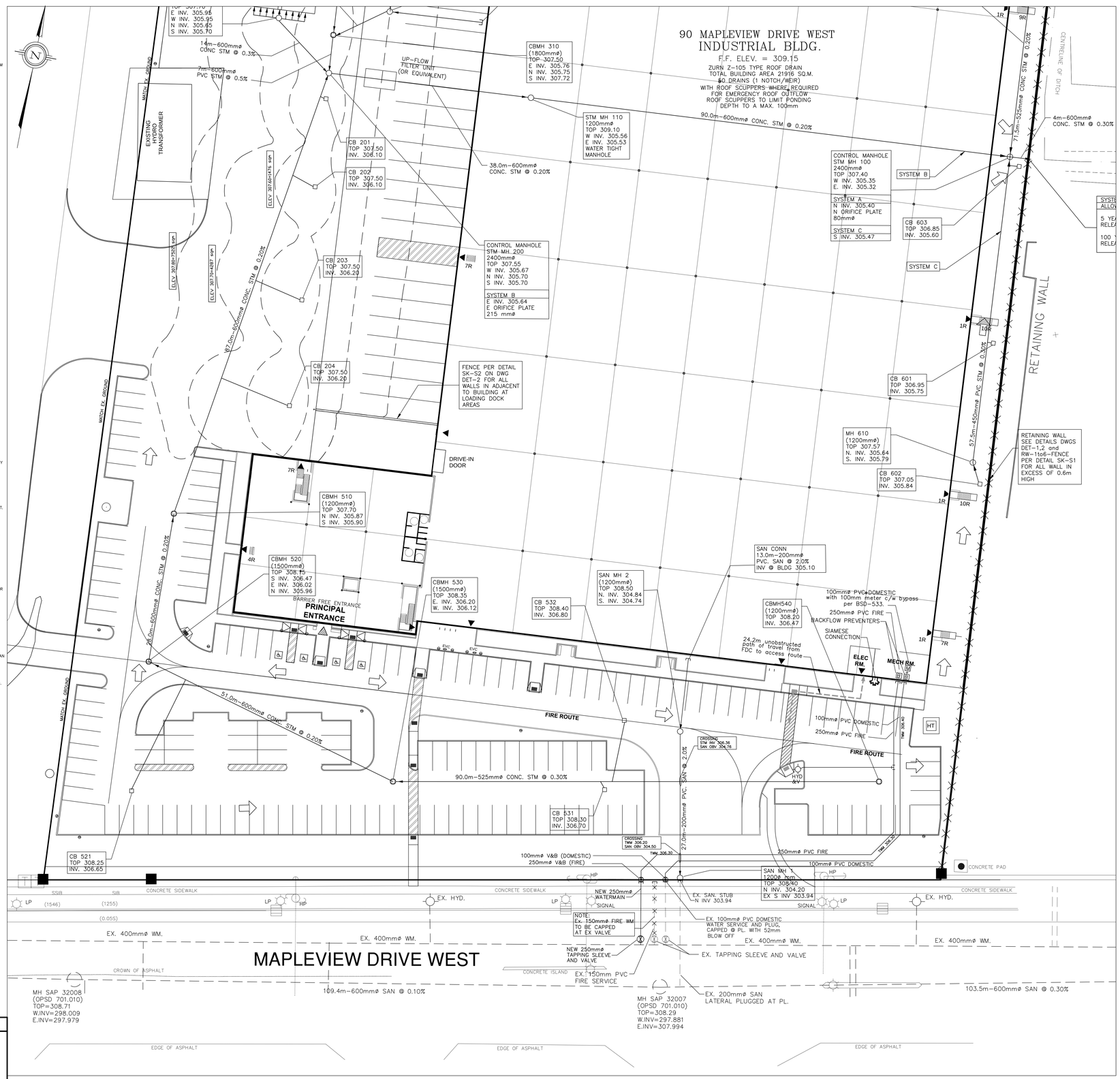
2. HEAVY DUTY ASPHALT PAVEMENT TO BE AS IDENTIFIED IN THE GEOTECHNICAL STUDY.

3. ALL SUBGRADE TO BE INSPECTED BY A QUALIFIED SOILS ENGINEER PRIOR TO PLACEMENT OF GRANULAR MATERIALS. THE SUBGRADE AND ALL GRANULAR MATERIALS SHALL BE COMPACTED IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE GEOTECHNICAL ENGINEER.

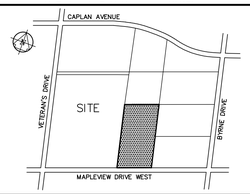
4. AT ALL ENTRANCES TO THE SITE THE MUNICIPAL CURB AND SIDEWALK WILL BE CONTINUOUS THROUGH THE DRIVEWAY. THE DRIVEWAY GRADE WILL BE COMPATIBLE WITH THE EXISTING SIDEWALK AND CURB DEPRESSION WILL BE PROVIDED FOR EACH ENTRANCE.

5. ALL REQUIRED CURB AT THE DRIVEWAY ENTRANCE(S) AND CURB DEPRESSIONS AT SIDEWALK CROSSINGS SHALL BE INSTALLED TO THE SATISFACTION OF THE MUNICIPALITY (COMMERCIAL CURB).

SEE DWG SP-2



KEY PLAN N.T.S.



LEGEND

- PROPOSED ELEVATION
- EXISTING ELEVATION
- R.D. ROOF DRAIN LOCATION
- EX. MANHOLE
- LIGHT STANDARD
- VALVE CHAMBER
- VALVE BOX
- CATCHBASIN MANHOLE
- CATCHBASIN
- HYDRANT AND VALVE
- OVERLAND FLOW

No.	DESCRIPTION	BY	DATE
	REVISIONS		
5.	4th SUBMISSION	RS	OCT 3, 2022
4.	3rd SUBMISSION	RS	Sept 13, 2022
3.	2nd SUBMISSION	RS	June 3, 2022
2.	ISSUED FOR SITE ALTERATION PERMIT	RS	APRIL 4, 2022
1.	1ST SUBMISSION	RS	NOV 8, 2021

NOTE

SITE PLAN TO READ IN CONJUNCTION WITH STORMWATER MANAGEMENT REPORT PREPARED BY URBAN ECOSYSTEMS LIMITED FOR THIS PROJECT

SITE DESCRIPTION

PART OF LOT 12
AND PART OF CENTRE ROAD
REGISTERED PLAN 67
WITHIN LOT 6 CONCESSION 12
CITY OF BARRIE
COUNTY OF SIMCOE

BENCH MARK

ELEVATION: 306.589

VERTICAL CONTROL POINT 03120030018
AND BASED ON CGVD28:1978 DATUM

URBAN ECOSYSTEMS LIMITED
7050 WESTON ROAD, SUITE 705
WOODBRIDGE, ONTARIO L4L 8G7
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LICENSED PROFESSIONAL ENGINEER
ROSARIO SACCO
OCT 3, 2022
PROVINCE OF ONTARIO

90 MAPLEVIEW DRIVE WEST
ARG GROUP
SITE SERVICING PLAN

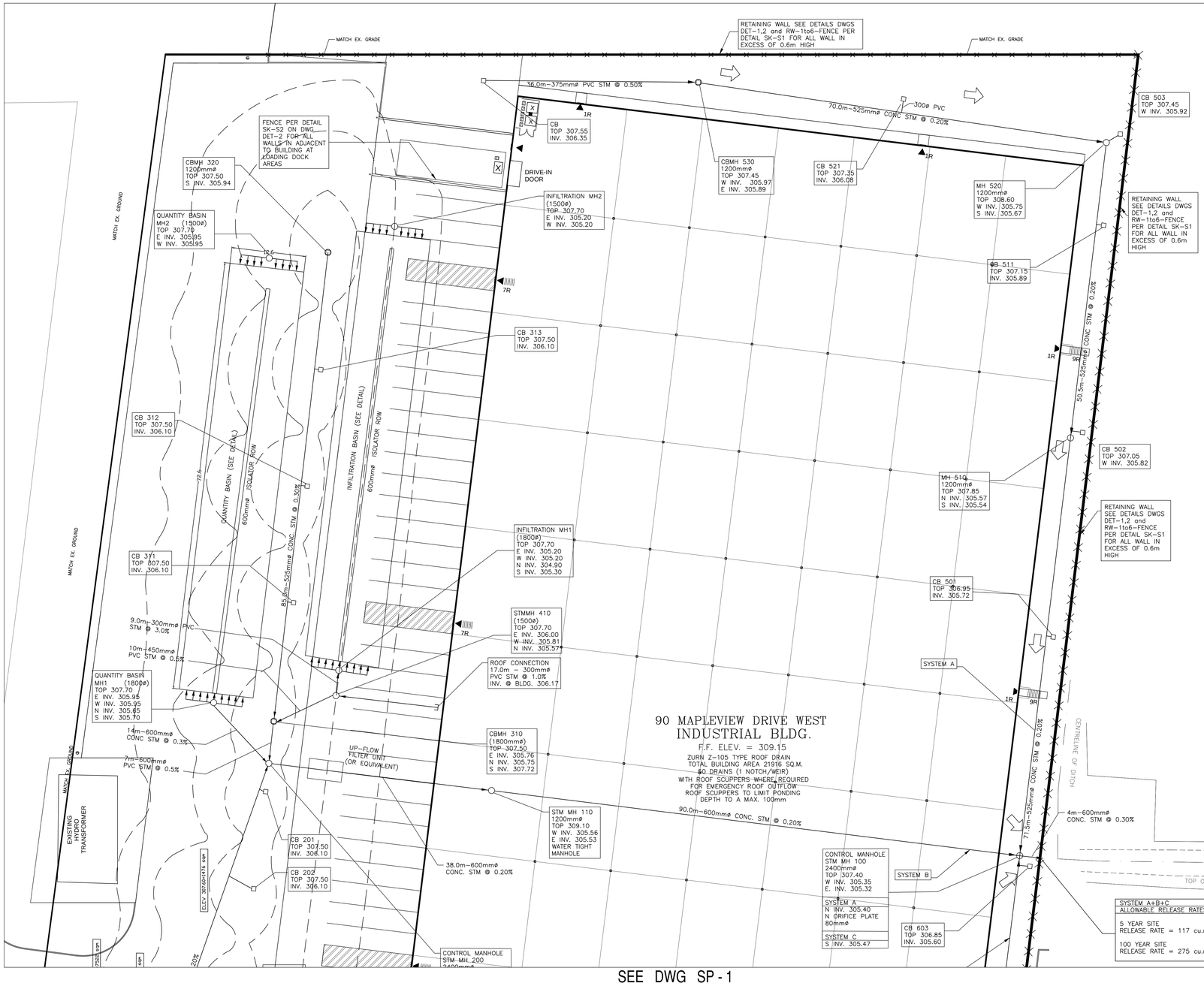
Barrie

DESIGNED BY : D.J.S.	CHECKED BY : R.S.
DRAWN BY : V.T.	DATE: SEPT 2021
NO.: SAP-011-2021	SCALE: 1 : 300
PROJECT No. : 21006	DRAWING No. SP-1

FINAL APPROVED PLAN
File: D11-024-2021
Date: Sept 28, 2023
Barrie No. of Pages: 30

PROJECTS/2021/21006/21006-Base.dwg

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STORM WATER MANAGEMENT SUMMARY

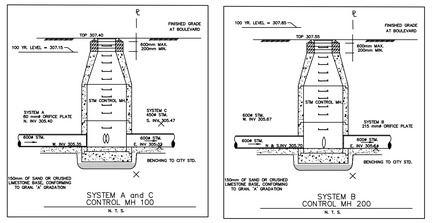
SITE AREA SUMMARY	SYSTEM A AREA (sq.m.)	SYSTEM B AREA (sq.m.)	SYSTEM C AREA (sq.m.)	TOTAL AREA (sq.m.)
PAVED	0	17882	0	17882
LANDSCAPED	2634	976	724	4334
ROOF	0	21916	0	21916
UNCONTROLLED PAVED	0	84	0	84
UNCONTROLLED LANDSCAPED	0	806	0	806
TOTAL SITE AREA	2634	41664	724	45022

SITE DRAINAGE SYSTEM – 100 YEAR

SITE DRAINAGE SYSTEM	SYSTEM A	SYSTEM B	SYSTEM C	TOTAL
ORIFICE/ PIPE DIAMETER	80 mm	215 mm	450 mm	
MAXIMUM PONDING ELEV.	307.15 m	307.80 m		
MAXIMUM PONDING DEPTH	0.30 m	0.3 m		
ORIFICE INVERT	305.4	305.64	NO ORIFICE	
ORIFICE/PIPE RELEASE RATE	18.1 l/sec.	142.8 l/sec.	26.7 l/sec.	
UNCONTROLLED RELEASE RATE	0.0 l/sec	33.0 l/sec	0.0 l/sec	
TOTAL RELEASE RATE	18.1 l/sec.	175.8 l/sec.	26.7 l/sec.	220.6 l/sec.
ALLOWABLE RELEASE RATE				275.0 l/sec.
REQUIRED SITE STORAGE	46 cu.m.	826 cu.m.		
AVAILABLE SITE STORAGE	52 cu.m	1601 cu.m		

SITE DRAINAGE SYSTEM – 5 YEAR

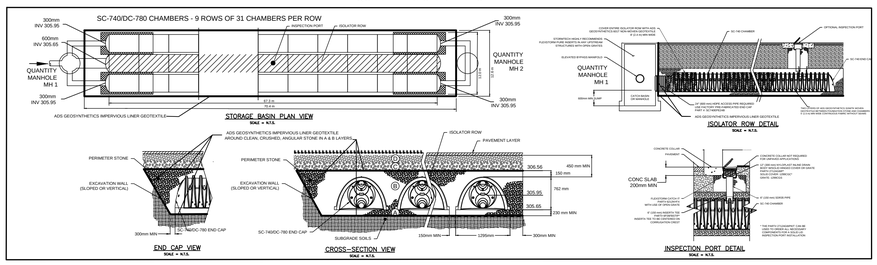
SITE DRAINAGE SYSTEM	SYSTEM A	SYSTEM B	SYSTEM C	TOTAL
ORIFICE/ PIPE DIAMETER	80 mm	215 mm	450 mm	
MAXIMUM PONDING ELEV.	306.3 m	306.56 m		
MAXIMUM PONDING DEPTH	0.0 m	0.0 m		
ORIFICE INVERT	305.4	305.64	NO ORIFICE	
ORIFICE/PIPE RELEASE RATE	12.8 l/sec.	89.9 l/sec.	5.5 l/sec.	
UNCONTROLLED RELEASE RATE	0.0 l/sec	8.4 l/sec	0.0 l/sec	
TOTAL RELEASE RATE	12.8 l/sec.	98.3 l/sec.	5.5 l/sec.	116.5 l/sec.
ALLOWABLE RELEASE RATE				117.0 l/sec.
REQUIRED SITE STORAGE	4 cu.m.	629 cu.m.		
AVAILABLE SITE STORAGE	52 cu.m	649 cu.m		



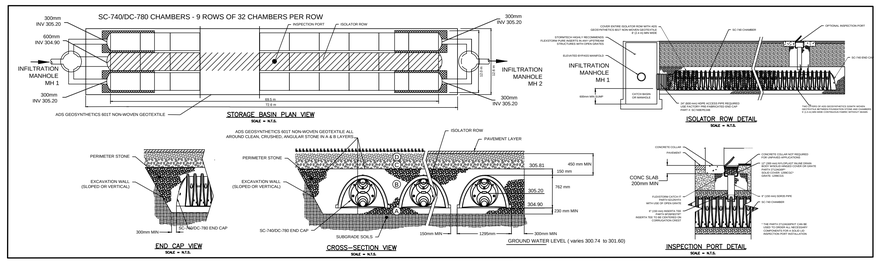
SYSTEM B CONTROL MH 200
N. T. S.

SYSTEM A and C CONTROL MH 100
N. T. S.

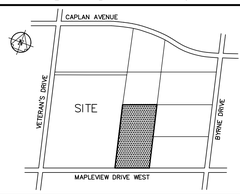
QUANTITY BASIN DETAILS



INFILTRATION BASIN DETAILS



KEY PLAN N.T.S.



LEGEND

- PROPOSED ELEVATION
- EXISTING ELEVATION
- R.D. ROOF DRAIN LOCATION
- EX. MANHOLE
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COUNTY OF SIMCOE

BENCH MARK
ELEVATION: 306.589
VERTICAL CONTROL POINT 03120030018
AND BASED ON CGVD28:1978 DATUM

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LICENSED PROFESSIONAL ENGINEER
ROSARIO SACCO
OCT 3, 2022
PROVINCE OF ONTARIO

90 MAPLEVIEW DRIVE WEST
ARG GROUP
SITE SERVICING PLAN

Barrie

DESIGNED BY : D.J.S.	CHECKED BY : R.S.
DRAWN BY : V.T.	DATE: SEPT 2021
NO.: SAP-011-2021	SCALE: 1 : 300
PROJECT No. : 21006	DRAWING No. SP-2

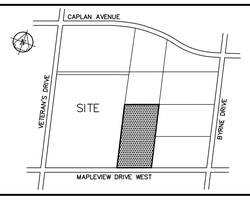
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SEE DWG GR-2



FINAL APPROVED PLAN
File: D11-024-2021
Date: Sept 28, 2023
Barrie No. of Pages: 30

KEY PLAN N.T.S.



LEGEND

208.00	PROPOSED ELEVATION
EX. 208.00	EXISTING ELEVATION
R.D.	ROOF DRAIN LOCATION
	EX. MANHOLE
	LIGHT STANDARD
	VALVE CHAMBER
	VALVE BOX
	CATCHBASIN MANHOLE
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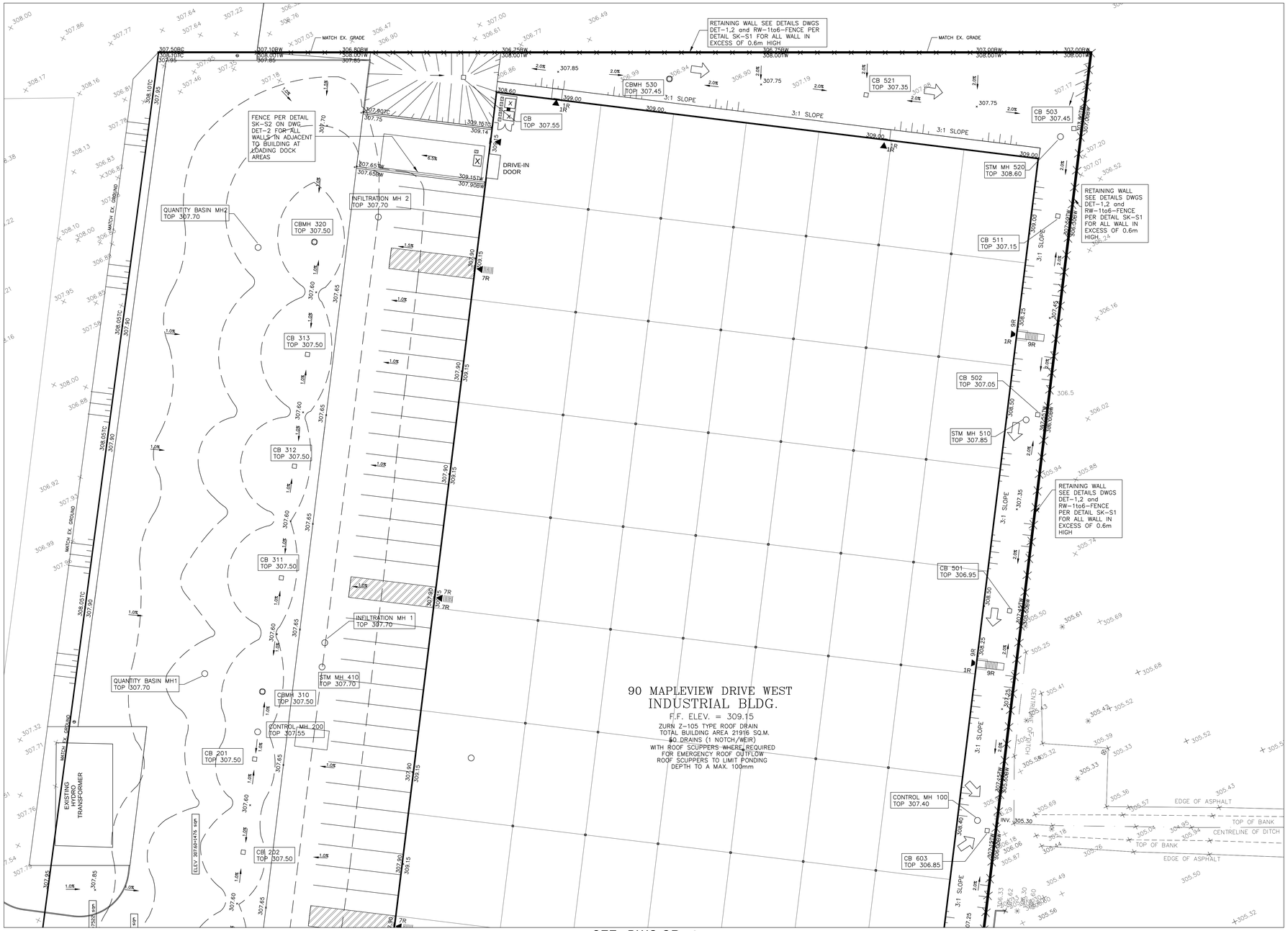
LICENSED PROFESSIONAL ENGINEER
ROSARIO SACCO
OCT 3, 2022
PROVINCE OF ONTARIO

90 MAPLEVIEW DRIVE WEST
ARG GROUP
SITE GRADING PLAN
Barrie

DESIGNED BY : D.J.S.	CHECKED BY : R.S.
DRAWN BY : V.T.	DATE: SEPT 2021
NO.: SAP-011-2021	SCALE: 1 : 300
PROJECT No.: 21006	DRAWING No. GR-1

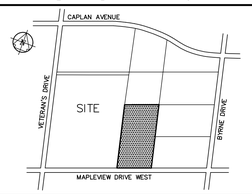
PROJECTS/2021/21006/21006-Base.dwg

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SEE DWG GR - 1

KEY PLAN N.T.S.



LEGEND

208.00	PROPOSED ELEVATION
EX. 208.00	EXISTING ELEVATION
R.D.	ROOF DRAIN LOCATION
	EX. MANHOLE
	LIGHT STANDARD
	VALVE CHAMBER
	VALVE BOX
	CATCHBASIN MANHOLE
	CATCHBASIN
	HYDRANT AND VALVE
	OVERLAND FLOW

REVISIONS

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COUNTY OF SIMCOE

BENCH MARK
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VERTICAL CONTROL POINT 03120030018
AND BASED ON COV2B:1978 DATUM

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I LICENCE HOLDER OF THIS DOCUMENT
ROSARIO SACCO
OCT 3, 2022
PROVINCE OF ONTARIO

90 MAPLEVIEW DRIVE WEST
ARG GROUP
SITE GRADING PLAN

Barrie

DESIGNED BY : D.J.S.	CHECKED BY : R.S.
DRAWN BY : V.T.	DATE: SEPT 2021
NO.: SAP-011-2021	SCALE: 1 : 300
PROJECT No. : 21006	DRAWING No. GR-2

PROJECTS/2021/21006/21006-Base.dwg

GENERAL NOTES

1. ALL WORK SHALL BE IN ACCORDANCE WITH CURRENT CITY OF BARRIE STANDARD DRAWINGS (BSD) AND ONTARIO PROVINCIAL STANDARD DRAWINGS.
2. ORDER OF PRECEDENCE OF STANDARD DRAWINGS FIRSTLY CITY OF BARRIE STANDARD DRAWINGS (BSD (AND SECONDLY ONTARIO PROVINCIAL STANDARD DRAWINGS (OPSD).
3. LOCATION OF EXISTING SERVICES ARE NOT GUARANTEED. THE CONTRACTOR IS REQUIRED TO NOTIFY THE VARIOUS UTILITY COMPANIES 48 HOURS PRIOR TO THE COMMENCEMENT OF ANY WORK.
4. A RIGHT OF WAY ACTIVITY PERMIT IS REQUIRED FORM THE CITY OF BARRIE OPERATIONS DEPARTMENT PRIOR TO THE COMMENCEMENT OF ANY WORKS ON THE SITE.
5. A SITE ALTERATION PERMIT IS REQUIRED FROM THE INFRASTRUCTURE DEPARTMENT PRIOR TO THE COMMENCEMENT OF ANY EARTHWORKS ON THE SITE. (IF ALTERATION IS GREATER THAN 0.5ha).
6. NATIVE MATERIAL SUITABLE FOR BACKFILL SHALL BE COMPACTED TO 95% STANDARD PROCTOR MAXIMUM DENSITY.
7. GRANULAR MATERIAL USED FOR BACKFILL, SHALL BE PLACED IN LAYERS 150MM IN DEPTH MAXIMUM AND COMPACTED TO 100% STANDARD PROCTOR MAXIMUM DRY DENSITY.
8. ALL DISTURBED AREAS ARE TO BE REINSTATED TO THEIR ORIGINAL CONDITION OR BETTER, AS DETERMINED BY THE CITY OF BARRIE INFRASTRUCTURE DEPARTMENT.
9. ALL SILT CONTROL AND EROSION PROTECTION DEVICES ARE TO BE IN PLACE PRIOR TO THE COMMENCEMENT OF CONSTRUCTION AND SHALL REMAIN IN PLACE AND BE MAINTAINED BY THE CONTRACTOR UNTIL CONSTRUCTION IS COMPLETED AND THE GRASS HAS ESTABLISHED GROWTH, SUBJECT TO APPROVAL BY THE CITY INFRASTRUCTURE DEPARTMENT.

RESTORATION NOTES

1. REINSTATE ROADS TO PREVIOUS CONDITION OR BETTER. MINIMUM 4.0MM HL3, 100mm HL4, 150mm GRANULAR 'A' AND 500mm GRANULAR 'B'.
2. CONTRACTOR TO RESTORE DRIVEWAYS AND BOULEVARD IN AREAS DISTURBED BY CONSTRUCTION TO EQUAL OR BETTER CONDITIONS.
3. MINIMUM GRAVEL DRIVEWAY RESTORATION TO BE 150mm, GRANULAR 'A'. ASPHALT DRIVEWAY RESTORATION TO BE 50mm OF HL3 AND 200mm GRANULAR 'A'.
4. ALL GRASSED AREAS DISTURBED DURING CONSTRUCTION SHALL BE RESTORED WITH 200mm DEPTH TOPSOIL AND SOD. MAINTAIN UNTIL ESTABLISHED.
5. ALL RESTORATION WORK TO BE COMPLETED TO THE SATISFACTION OF THE ENGINEER.

1. GRADE AND CROSSFALL ADJUSTEMENT OF MAINTENANCE HOLE AND CATCHBASIN FRAMES WILL BE MADE USING PRODUCTS SPECIFICALLY MANUFACTURED FOR THAT PURPOSE.
2. ADJUSTMENT UNITS MUST BE CERTIFIED TO MEET ALL PERTINENT OPS, CSA, ASTM AND MTO-OSM LISTS, OR OTHER INDUSTRY GUIDELINES FOR MATERIALS, PERFORMANCE AND USE AS APPLICABLE.
3. ADJUSTMENT UNITS AND JOINTS WILL BE SEALED AND OR PARGED IN COMPLIANCE WITH MANUFACTURERS SPECIFICATIONS AND GUIDELINES
4. MORTAR IS USED FOR LEVELING OF PRECAST UNITS ONLY, THE THICKNESS OF MORTAR WILL BE 10mm TO FILL ALL VOIDS CREATED BY IRREGULARITIES IN THE PRECAST UNITS TO ENSURE AN EVEN SURFACE ONLY.

Barrie STANDARD DETAIL

GENERAL NOTES ROADWORKS

REV No. 1 | DATE: OCT 2017 | SCALE: N.T.S.

BSD-N2

APPROVED DATE: Oct 28/17 DIRECTOR OF ENGINEERING

GENERAL NOTES – SANITARY SEWER

SANITARY SEWERS

A. SANITARY SEWER TO BE LOCATED AT THE CENTRELINE OF THE ROAD.

B. SEWERS SHALL BE CONSTRUCTED WITH BEDDINGS AS PER OPSD–802.010, (GRAN. 'A' EMBEDMENT MATERIAL) FOR FLEXIBLE PIPES AND OPSD–802.030 OR 802.031 CLASS B (GRAN. 'A' BEDDING MATERIAL) FOR RIGID PIPE UNLESS OTHERWISE APPROVED BY THE DIRECTOR OF ENGINEERING.

C. MAXIMUM DEFLECTION FROM COMBINED LIVE AND DEAD LOADING SHALL NOT EXCEED ANY C.S.A., O.P.S. OR MANUFACTURERS RECOMMENDED SPECIFICATIONS.

D. PVC, CONCRETE AND PROFILE WALL PVC SEWERS SHALL HAVE RUBBER GASKET TYPE JOINTS AND SHALL BE CERTIFIED TO CONFORM TO ALL APPLICABLE CURRENT C.S.A. SPECIFICATIONS.

E. CONCRETE SANITARY SEWERS SHALL HAVE A MINIMUM STRENGTH OF 50 N/m/mm CONFORMING TO CSA STANDARD A257.2–1982, CLASS 50–D (PREVIOUSLY C.S.A. STANDARD A257.2–1974, CLASS II).

F. MAINTENANCE HOLE TOPS (FRAMES) ARE TO BE SET TO BASE COURSE ASPHALT GRADE AND THEN ADJUSTED TO FINAL GRADE WHEN THE TOP LIFT OF ASPHALT IS PLACE. ALL ADJUSTMENT WILL BE ACCORDANCE WITH BSD–N2.

G. ALL CONNECTIONS TO NEW SANITARY MAINS SHALL BE PRE–MANUFACTURED, FABRICATED TEES. CONNECTIONS TO EXISTING SANITARY SEWER SHALL BE MADE WITH APPROVED FACTORY MADE TEES OR INSERTA–TEES IN STRICT ACCORDANCE TO MANUFACTURES GUIDELINES.

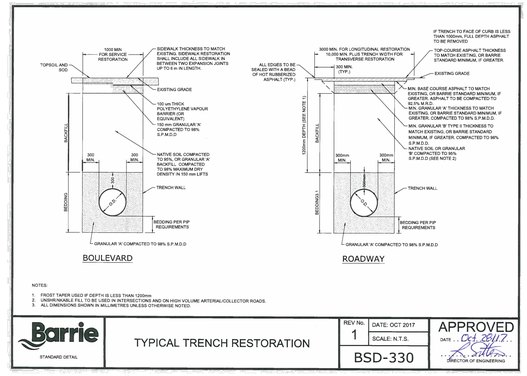
CITY OF BARRIE STANDARD

GENERAL NOTES SANITARY SEWERS

NO.	REVISION	APR'D	DATE
4.	NOTE "B" – "ENGINEERING"	B.R.	2002.10.28
3.	NOTE "B" OPSD .NUMBER REVISION	K.C.	2000.03.16
2.	NOTE "F" CHANGED	K.C.	98.03.30
1.	CHANGES TO B. TO G.	K.C.	95.04.24

APR'D: R.G.N. DATE: 92.05.15 DRAWN: L.A.J. SCALE: N.T.S.

BSD-N3



NOTES:
1. FROST TAPER USED IF DEPTH IS LESS THAN 1200mm.
2. UNDRIVINGABLE FILL TO BE USED IN INTERSECTIONS AND ON HIGH VOLUME ARTERIAL/COLLECTOR ROADS.
3. ALL DIMENSIONS SHOWN IN MILLIMETRES UNLESS OTHERWISE NOTED.

Barrie STANDARD DETAIL

TYPICAL TRENCH RESTORATION

REV No. 1 | DATE: OCT 2017 | SCALE: N.T.S.

BSD-330

APPROVED DATE: Oct 28/17 DIRECTOR OF ENGINEERING

GENERAL NOTES – SANITARY SEWER

SANITARY SERVICE LATERALS

A. SANITARY LATERAL CONNECTION TO BE LOCATED AT THE CENTRELINE OF THE LOT AND CAPPED.

B. LOCATION OF LATERAL TO BE MARKED 2.0m PAST PROPERTY LINE WITH A 50 x 100mm WOOD MARKER, PAINTED GREEN, EXTENDING FROM SERVICE INVERT TO 300mm ABOVE GROUND LEVEL.

C. PIPE TO BE MINIMUM 100 mm DIA. PVC SDR28, RUBBER GASKET TYPE JOINTS AND SHALL CONFORM TO C.S.A. (B182.2,3,4) (COLOURED) FOR A RESIDENTIAL HOUSE AND 150mm MINIMUM DIA. PVC SDR28 FOR INDUSTRIAL/COMMERCIAL DEVELOPMENT.

D. MINIMUM DEPTH OF LATERAL AT PROPERTY LINE SHALL BE 2.4m MEASURED FROM THE SEWER OBVERT TO FINISHED GROUND SURFACE ELEVATION UNLESS NOTED OTHERWISE.

E. ALL CONNECTIONS TO NEW SANITARY MAINS SHALL BE PRE–MANUFACTURED, FABRICATED TEES. CONNECTIONS TO EXISTING SANITARY SEWER SHALL BE MADE WITH APPROVED FACTORY MADE TEES OR INSERTA–TEES IN STRICT ACCORDANCE TO MANUFACTURES GUIDELINES.

F. MINIMUM PIPE SLOPE TO BE 2.0%, MAXIMUM 8.0% (SEE OPSD–1006.010, 1006.020).

CITY OF BARRIE STANDARD

GENERAL NOTES SANITARY SEWERS

NO.	REVISION	APR'D	DATE
2.	OPSD NUMBERS REVISED	K.C.	2000.08.17
1.	CHANGES TO B. TO G.	K.C.	95.04.24

APR'D: R.G.N. DATE: 92.05.15 DRAWN: L.A.J. SCALE: N.T.S.

BSD-N4

GENERAL NOTES – STORM SEWER

STORM SEWER

A. STORM SEWER TO BE PROVIDED ON ALL ROADS WITH CURB AND GUTTER.

B. PLACE ALL CATCH BASIN LATERALS AT 2% GRADE UNLESS OTHERWISE NOTED. PIPE SIZE MINIMUM 250mm DIA. SINGLE , 300mm DIA. DOUBLE.

C. STORM SEWERS SHALL BE CONSTRUCTED WITH BEDDING AS PER OPSD–802.010 (GRAN. 'A' EMBEDMENT MATERIAL) FOR FLEXIBLE PIPES AND OPSD–802.030 OR 802.031 CLASS B (GRAN. 'A' BEDDING MATERIAL) FOR RIGID PIPE UNLESS OTHERWISE APPROVED BY THE DIRECTOR OF ENGINEERING.

D. MAINTENANCE HOLE TOPS (FRAMES) AND CATCH BASIN (FRAMES) ARE TO BE SET TO BASE COURSE ASPHALT GRADE AND THEN ADJUSTED TO FINAL GRADE WHEN THE TOP LIFT OF ASPHALT IS PLACED. ALL ADJUSTMENT WILL BE ACCORDANCE WITH BSD–N2.

E. STORM SEWER TO BE LOCATED OFFSET 3.0m SOUTH OR EAST OF CENTRELINE UNLESS OTHERWISE SPECIFIED.

F. ALL CONNECTIONS TO THE STORM MAIN SHALL BE MADE WITH A STORM MANHOLE OR APPROVED FACTORY TEE CONNECTION AS PER OPSD–708.01 OR 708.03.

G. PIPE MATERIAL TO BE REINFORCED CONCRETE WITH A MINIMUM STRENGTH OF 50 N/m/mm CERTIFIED TO C.S.A. STANDARD A247.2–1982, CLASS 50–D (PREVIOUSLY C.S.A. STANDARD A257.2–1974, CLASS II) OR PVC CERTIFIED TO C.S.A. STANDARDS 182.2 AND 182.4.

H. STORM SEWER TO BE MINIMUM 300mm DIAMETER WITH JOINTS CONFORMING TO C.S.A. STANDARD A257.3.

I. ALL PIPE BEDDING MUST CONFORM TO OPSD, MAXIMUM COVER TABLE. NO FLEXIBLE PIPE SEWERS WILL BE INSTALLED WITH A DEPTH OF COVER GREATER THAN 6 METRES UNLESS SPECIFICALLY APPROVED BY THE DIRECTOR OF ENGINEERING.

J. ALL PIPE HANDLING INSTALLATIONS MUST BE IN STRICT COMPLIANCE WITH MANUFACTURES INSTALLATION GUIDES AND THE O.C.P.I.A. OR UNIBELL GUIDELINES.

K. SUMP PUMP DISCHARGE PIPING IN BOULEVARD:
IN THE EVENT OF OVERACTIVE SUMP PUMP ACTIVITY, A 150mm DIAMETER PVC DR–28 SEWER MAY BE INSTALLED, WHEN SO DIRECTED BY THE DIRECTOR OF ENGINEERING, ALONG THE FRONTAGES OF DESIGNATED LOTS, WITH AN OFFSET OF 0.6m FROM BACK OF CURB. THIS SEWER IS TO BE CAPPED AT THE UPSTREAM END AND IS TO OUTLET INTO THE NEAREST CATCHBASIN DOWNSTREAM. DEPTH OF SEWER IS TO BE EQUAL TO SUBORAIN DEPTH. NOT TO BE DIRECTLY CONNECTED TO FOUNDATION DRAINS.

CITY OF BARRIE STANDARD

GENERAL NOTES STORM SEWERS

NO.	REVISION	APR'D	DATE
4.	NOTE "K" – SUMP PUMP DISCHARGE PIPING	B.R.	2003.07.07
3.	NOTE 'I' & 'E' – "DIRECTOR OF ENGINEERING"	B.R.	2002.10.28
2.	NOTE "C" OPSD NUMBER REVISION	K.C.	2000.03.16
1.	NOTE "D" CHANGED	K.C.	98.03.30

APR'D: R.G.N. DATE: 92.05.15 DRAWN: L.A.J. SCALE: N.T.S.

BSD-N5

GENERAL NOTES

1. DRAWINGS

A. ALL DRAWINGS SHALL BE PRODUCED IN ACCORDANCE WITH CURRENT CITY OF BARRIE STANDARDS & SYMBOLS FOR PLAN & PROFILE DRAWINGS, GENERAL SERVICE PLANS AND LOT GRADING PLANS.

2. MEASUREMENTS

A. ALL DIMENSIONS ARE IN METRES, EXCEPT PIPE DIAMETERS, WHICH ARE IN MILLIMETRES, UNLESS SPECIFIED OTHERWISE.

3. GENERAL

A. ALL WORK SHALL BE IN ACCORDANCE WITH CURRENT CITY OF BARRIE STANDARD DRAWINGS (BSD) AND SECONDLY ONTARIO PROVINCIAL STANDARD DRAWINGS (OPSD).

B. ORDER OF PRECEDENCE OF STANDARD DRAWINGS IS FIRSTLY CITY OF BARRIE STANDARD DRAWINGS (BSD) AND SECONDLY ONTARIO PROVINCIAL STANDARD DRAWINGS (OPSD).

C. LOCATION OF EXISTING SERVICES ARE NOT GUARANTEED. THE CONTRACTOR IS REQUIRED TO NOTIFY THE VARIOUS UTILITY COMPANIES 48 HOURS PRIOR TO THE COMMENCEMENT OF ANY WORK.

D. A ROAD OCCUPANCY PERMIT IS REQUIRED FROM THE ROADS AND PARKS OPERATIONS BRANCH PRIOR TO THE COMMENCEMENT OF WORK WITHIN ANY CITY RIGHT–OF–WAY.

E. A SITE ALTERATION PERMIT IS REQUIRED FROM THE ENGINEERING DEPARTMENT PRIOR TO THE COMMENCEMENT OF ANY EARTH WORKS ON THE SITE.

F. NATIVE MATERIAL, SUITABLE FOR BACKFILL, SHALL BE COMPACTED TO 95% STANDARD PROCTOR MAXIMUM DRY DENSITY.

G. GRANULAR MATERIAL , USED FOR BACKFILL , SHALL BE PLACED IN LAYERS 150mm IN DEPTH MAXIMUM AND COMPACTED TO 100% STANDARD PROCTOR MAXIMUM DRY DENSITY.

H. ALL DISTURBED AREAS ARE TO BE REINSTATED TO THEIR ORIGINAL CONDITION OR BETTER, AS DETERMINED BY THE CITY ENGINEERING DEPARTMENT.

I. ALL SILT CONTROL AND EROSION PROTECTION DEVICES ARE TO BE IN PLACE PRIOR TO THE COMMENCEMENT OF CONSTRUCTION AND SHALL REMAIN IN PLACE AND BE MAINTAINED BY THE CONTRACTOR UNTIL CONSTRUCTION IS COMPLETE AND THE GRASS HAS ESTABLISHED GROWTH, SUBJECT TO APPROVAL BY THE CITY ENGINEERING DEPARTMENT.

CITY OF BARRIE STANDARD

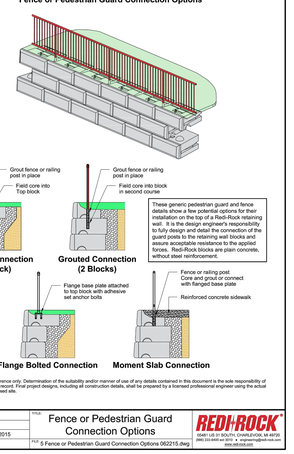
GENERAL NOTES

NO.	REVISION	APR'D	DATE
3.	3. NOTE: 3.E. REVISED & 3.I. ADDED	J.S.	05.01.10
2.	3.D. – "ENGINEERING DEPARTMENT"	B.R.	02.10.28
1.	3.E. TOPSOIL PERMIT		01.12.06

APR'D: R.G.N. DATE: 92.05.15 DRAWN: L.A.J. SCALE: N.T.S.

BSD-N6

Fence or Pedestrian Guard Connection Options

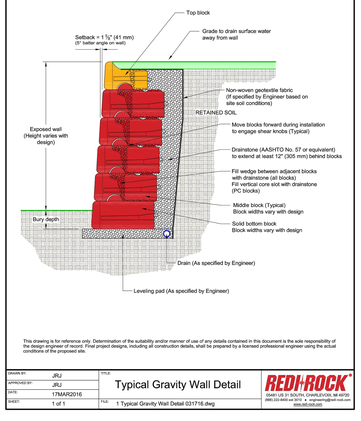


This drawing is for reference only. Determination of the suitability and/or manner of use of any details contained in this document is the sole responsibility of the design engineer of record. Final project designs, including all construction details, shall be prepared by a licensed professional engineer using the actual conditions of the proposed site.

DRAWN BY:	JRJ	TITLE:	Fence or Pedestrian Guard Connection Options
APPROVED BY:	JRJ		
DATE:	06-22-2015		
SHEET:	1 of 1	FILE:	5 Fence or Pedestrian Guard Connection Options 062215.dwg

REDI-ROCK 15481 US 31 SOUTH, CHARLEVOIX, MI 49720 (866) 222-8400 ext 3010 • engineers@redi-rock.com www.redi-rock.com

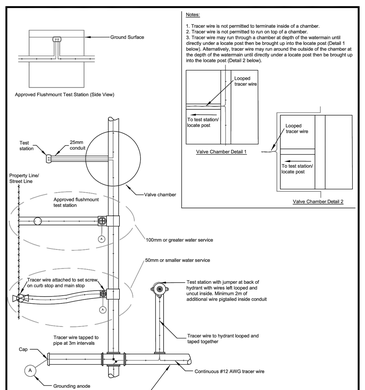
Typical Gravity Wall Section



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DRAWN BY:	JRJ	TITLE:	Typical Gravity Wall Detail
APPROVED BY:	JRJ		
DATE:	17MAR2016		
SHEET:	1 of 1	FILE:	1 Typical Gravity Wall Detail 031716.dwg

REDI-ROCK 15481 US 31 SOUTH, CHARLEVOIX, MI 49720 (866) 222-8400 ext 3010 • engineers@redi-rock.com www.redi-rock.com



Notes:
1. Tracer wire is not permitted to terminate inside of a chamber.
2. Tracer wire is not permitted to run on top of a chamber.
3. Tracer wire may run through a chamber at depth of the watermain until directly under a locate post then be brought up into the locate post (Detail 1 below). Alternatively, tracer wire may run around the outside of the chamber at the depth of the watermain until directly under a locate post then be brought up into the locate post (Detail 2 below).

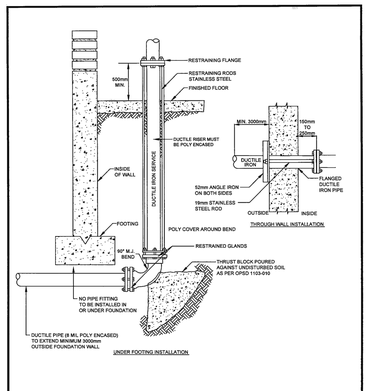
Notes:
1. To be interpreted in conjunction with the current Water Transmission and Distribution Policies and Design Guideline and the Approved Manufacturers' Products for Linear Water Systems list. Tracer wire to be installed as per the City's Tracer Wire Installation Standard.
2. Tracer wire to be installed at a minimum of 25mm installed to a depth of 900mm below grade.
3. All connections must be waterproofed.
4. Splicing of tracer wire is not allowed unless specified or approved.
5. Heat shrink is to be completed by a heat gun and not using an open flame.
6. SnakePits are to be placed inside of a SSL road leveler with lid.

Barrie

Tracer Wire Detail

REV No. 4 | DATE: Jan 2021 | SCALE: N.T.S.

BSD-515



NOTES:
1. INSTALLATION MUST MEET THE CURRENT NATIONAL FIRE PROTECTION ACT.
2. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SHOWN.

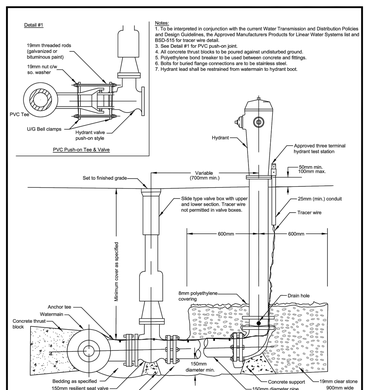
City of BARRIE STANDARD DETAIL

TYPICAL SERVICE ENTRY 100mm TO 300mm DIAMETER PIPE

REV No. 1 | DATE: FEB 2015 | SCALE: N.T.S.

BSD-505 (PREVIOUSLY BSD-41)

APPROVED DATE: 6 Feb 2015 DIRECTOR OF ENGINEERING



Notes:
1. To be interpreted in conjunction with the current Water Transmission and Distribution Policies and Design Guidelines, the Approved Manufacturers Products for Linear Water Systems list and OPSD 1103.010 for tracer wire details.
3. See Detail #1 for PVC push-on joint.
4. All concrete thrust blocks to be poured against undisturbed ground.
5. Polyethylene bond breaker to be used between concrete and fittings.
6. Bolts for buried flange connections are to be stainless steel.
7. Hydrant lead shall be restrained from watermain to hydrant boot.

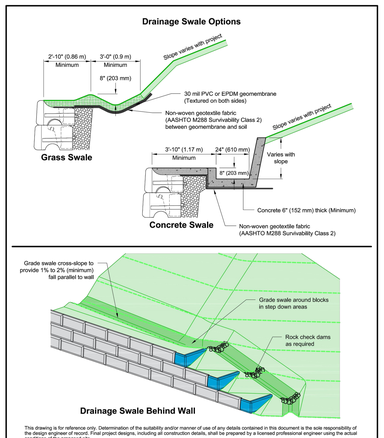
Barrie

Standard Hydrant and Valve Installation

REV No. 2 | DATE: April 2019 | SCALE: N.T.S.

BSD-507

Drainage Swale Options

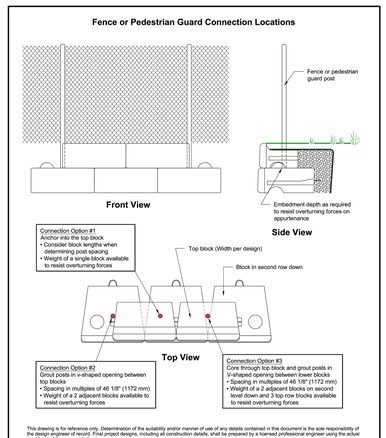


This drawing is for reference only. Determination of the suitability and/or manner of use of any details contained in this document is the sole responsibility of the design engineer of record. Final project designs, including all construction details, shall be prepared by a licensed professional engineer using the actual conditions of the proposed site.

DRAWN BY:	JRJ	TITLE:	Drainage Swale Options
APPROVED BY:	JRJ		
DATE:	06-22-2015		
SHEET:	1 of 1	FILE:	4 Drainage Swale Options 062215.dwg

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Fence or Pedestrian Guard Connection Locations

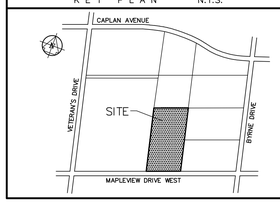


This drawing is for reference only. Determination of the suitability and/or manner of use of any details contained in this document is the sole responsibility of the design engineer of record. Final project designs, including all construction details, shall be prepared by a licensed professional engineer using the actual conditions of the proposed site.

DRAWN BY:	JRJ	TITLE:	Fence or Pedestrian Guard Connection Locations
APPROVED BY:	JRJ		
DATE:	06-22-2015		
SHEET:	1 of 1	FILE:	6 Fence or Pedestrian Guard Connection Locations 062215.dwg

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KEY PLAN N.T.S.



LEGEND

208.00	PROPOSED ELEVATION
EX. 208.00	EXISTING ELEVATION
R.D.	ROOF DRAIN LOCATION
	EX. MANHOLE
	LIGHT STANDARD
	VALVE CHAMBER
	VALVE BOX
	CATCHBASIN MANHOLE
	CATCHBASIN
	HYDRANT AND VALVE
	OVERLAND FLOW

No.	DESCRIPTION	BY	DATE
4.	4th SUBMISSION	RS	OCT 3, 2022
3.	3rd SUBMISSION	RS	Sept 13, 2022
2.	2nd SITE SERVICING SUBMISSION	RS	JUNE 3, 2022
1.	ISSUED FOR SITE ALTERATION PERMIT	RS	APRIL 4, 2022

REVISIONS

NOTE

SITE PLAN TO READ IN CONJUNCTION WITH STORMWATER MANAGEMENT REPORT PREPARED BY URBAN ECOSYSTEMS LIMITED FOR THIS PROJECT

SITE DESCRIPTION

PART OF LOT 12
AND PART OF CENTRE ROAD
REGISTERED PLAN 67
WITHIN LOT 6 CONCESSION 12
CITY OF BARRIE
COUNTY OF SIMCOE

BENCH MARK

ELEVATION: 306.589

VERTICAL CONTROL POINT 03120030018
AND BASED ON CGVD28:1978 DATUM

URBAN ECOSYSTEMS LIMITED
7050 WESTON ROAD, SUITE 705
WOODBRIDGE, ONTARIO L4L 8G7
uel@urbanecosystems.com
t. (905)856-0629
f. (905)856-0698

UEL

LICENSED PROFESSIONAL ENGINEER ROSARIO SACCO OCT 3, 2022 PROVINCE OF ONTARIO

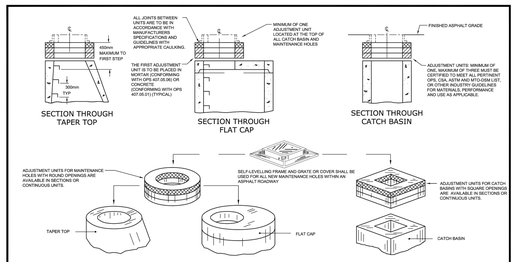
90 MAPLEVIEW DRIVE WEST
ARG GROUP
NOTES AND DETAILS

Barrie

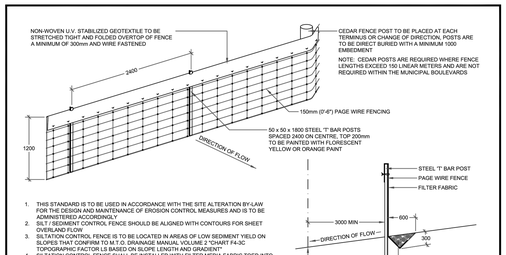
DESIGNED BY: D.J.S.	CHECKED BY: R.S.
DRAWN BY: V.T.	DATE: SEPT 2021
NO.: SAP–011–2021	SCALE:
PROJECT No.: 21006	DRAWING No. DET–1

FINAL APPROVED PLAN
File: D11-024-2021
Date: Sept 28, 2023
Barrie No. of Pages: 30

PROJECTS/2021/21006/21006-Base.dwg

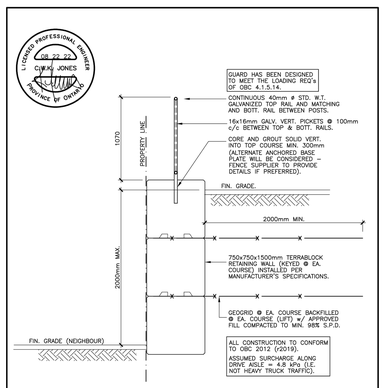


Barrie STANDARD DETAIL	MAINTENANCE HOLE AND CATCH BASIN ADJUSTMENT UNITS	REV No. 3	DATE: Nov 2019
			SCALE: N.T.S.
			BSD-41



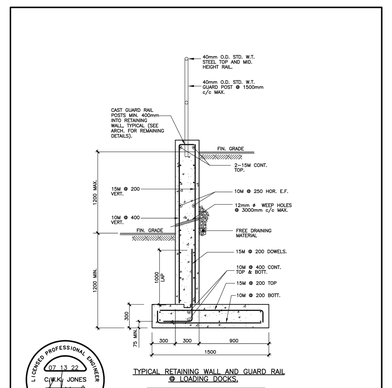
1. THIS STANDARD IS TO BE USED IN ACCORDANCE WITH THE SITE ALTERATION BY-LAW FOR THE DESIGN AND MAINTENANCE OF EROSION CONTROL MEASURES AND IS TO BE ADMINISTERED ACCORDINGLY.
2. SILT / SEDIMENT CONTROL FENCE SHOULD BE ALIGNED WITH CONTOURS FOR SHEET OVERLAND FLOW.
3. SILTATION CONTROL FENCE IS TO BE LOCATED IN AREAS OF LOW SEDIMENT YIELD ON SLOPES THAT CONFIRM TO M.T.O. DRAINAGE MANUAL VOLUME 2 "CHART F4-3C TOPOGRAPHIC FACTOR LS BASED ON SLOPE LENGTH AND GRADIENT"
4. SILTATION CONTROL FENCE SHALL BE INSTALLED WITH FILTER MEDIA FABRIC TOED INTO THE SOIL 300mm BE EITHER STATIC SLICING OR TRENCHING METHODS WITH COMPACTION OF TRENCH MATERIAL MEETING 95% S.P.D.
5. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE SHOWN
6. SILT / SEDIMENT CONTROL FENCE MAY BE UTILIZED FOR TREE PRESERVATION AND IS TO BE USED IN CONJUNCTION WITH BSD-1231, BSD-1232 AND BSD-1235

Barrie STANDARD DETAIL	SILTATION CONTROL FENCING	REV No. 2	DATE: OCT 2017
			SCALE: N.T.S.
			BSD-1233 FORMERLY BSD-231A
			APPROVED DATE Oct 10/17 Original Signed By DIRECTOR OF ENGINEERING



TYPICAL RETAINING WALL @ PROPERTY LINE
1 : 25
SEE SITE GRADING DRAWINGS FOR LOCATIONS.

MIRKWOOD	PROJECT: SITE RETAINING WALL DESIGN FOR: 90 MAPLEVIEW DRIVE BARRIE, ON.	DATE: 08.22.2022	PROJECT NO. 21113
		SCALE: AS NOTED.	DWG. NO. SK–S1
	MIRKWOOD ENGINEERING UNIT 216, 5040 MAINWAY, BURLINGTON, ON L7L 5H9, T (905) 849 0062 F (905) 849 6303	DRAWN: KJ	

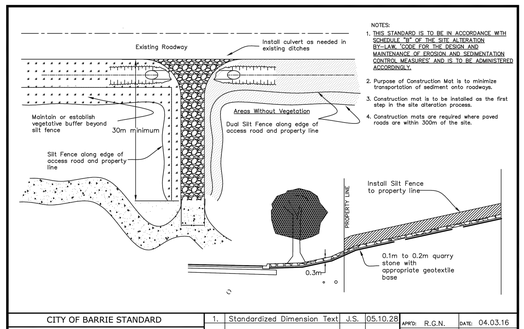


TYPICAL RETAINING WALL AND GUARD RAIL @ LOADING DOCKS.

SEE ARCHITECTURAL/SITE DWGS FOR LOCATIONS

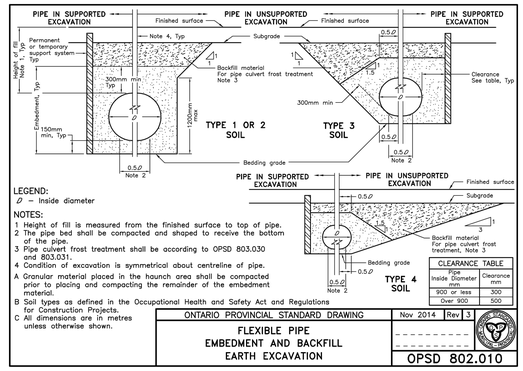
MIRKWOOD	PROJECT: SITE RETAINING WALL DESIGN FOR: 90 MAPLEVIEW DRIVE BARRIE, ON.	DATE: 07.11.2022	PROJECT NO. 21110
		SCALE: AS NOTED.	DWG. NO. SK–S2
	MIRKWOOD ENGINEERING UNIT 216, 5040 MAINWAY, BURLINGTON, ON L7L 5H9, T (905) 849 0062 F (905) 849 6303	DRAWN: KJ	

FINAL APPROVED PLAN
File: D11-024-2021
Date: Sept 28, 2023
Barrie No. of Pages: 30



NOTES:
1. THIS STANDARD IS TO BE IN ACCORDANCE WITH SCHEDULE "B" OF THE SITE ALTERATION BY-LAW, "CODE FOR THE DESIGN AND MAINTENANCE OF EROSION AND SEDIMENTATION CONTROL MEASURES" AND IS TO BE ADMINISTERED ACCORDINGLY.
2. Purpose of Construction Mat is to minimize transportation of sediment onto roadways.
3. Construction mat is to be installed as the first step in the site alteration process.
4. Construction mats are required where paved roads are within 30m of the site.

CITY OF BARRIE STANDARD	1.	Standardized Dimension Text	J.S.	05.10.28	APP'D: R.G.N. DATE: 04.03.16
					DRAWN: A.S.C SCALE: N.T.S
CONSTRUCTION ENTRANCE MAT	NO.	REVISION	APR'D	DATE	BSD-23D

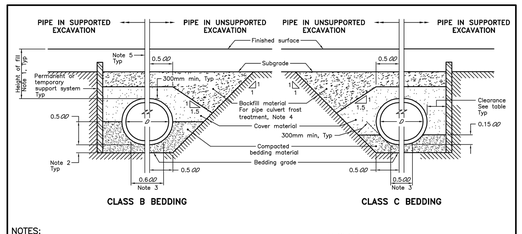


LEGEND:
Ø – Inside diameter

NOTES:
1 Height of fill is measured from the finished surface to top of pipe.
2 The pipe bed shall be compacted and shaped to receive the bottom of the pipe.
3 Pipe culvert frost treatment shall be according to OPSD 803.030 and 803.031.
4 Condition of excavation is symmetrical about centreline of pipe.
A Granular material placed in the haunch area shall be compacted prior to placing and compacting the remainder of the embedment material.
B Soil types as defined in the Occupational Health and Safety Act and Regulations for Construction Projects.
C All dimensions are in metres unless otherwise shown.

CLEARANCE TABLE	
Pipe Inside Diameter mm	Clearance mm
900 or less	300
Over 900	500

ONTARIO PROVINCIAL STANDARD DRAWING		Nov 2014	Rev 3
FLEXIBLE PIPE EMBEDMENT AND BACKFILL EARTH EXCAVATION			
		OPSD 802.010	



NOTES:
1 Height of fill is measured from the finished surface to top of pipe.
2 The minimum bedding depth below the pipe shall be 0.15Ø. In no case shall this dimension be less than 150mm or greater than 300mm.
3 The pipe bed shall be compacted and shaped to receive the bottom of the pipe.
4 Pipe culvert frost treatment shall be according to OPSD 803.030 and 803.031.
5 Condition of excavation is symmetrical about centreline of pipe.
A Soil types as defined in the Occupational Health and Safety Act and Regulations for Construction Projects.
B All dimensions are in metres unless otherwise shown.

LEGEND:
Ø – Inside diameter
ØØ– Outside diameter

CLEARANCE TABLE	
Pipe Inside Diameter mm	Clearance mm
900 or less	300
Over 900	500

ONTARIO PROVINCIAL STANDARD DRAWING		Nov 2015	Rev 3
RIGID PIPE BEDDING, COVER, AND BACKFILL TYPE 3 SOIL – EARTH EXCAVATION			
		OPSD 802.031	

GENERAL NOTES - WATERMAIN

1. CONTRACTORS SHALL INFORM THE CITY OF BARRIE WATER OPERATIONS DEPARTMENT A MINIMUM OF 48 HOURS IN ADVANCE OF THEIR INTENTIONS TO PERFORM WORK ON WATER INFRASTRUCTURE.

2. OPERATION OF HYDRANTS AND VALVES ON THE POTABLE WATER SYSTEM BY OTHER THAN QUALIFIED WATER OPERATIONS STAFF IS PROHIBITED BY CURRENT BY-LAW. CITY SERVICE FEES ARE PER THE CURRENT FEES BY-LAW. THE CITY'S WATER OPERATIONS STAFF WILL SWAB, PRESSURE TEST, CHLORINATE AND FLUSH ALL NEW WATERMAINS.

3. MINIMUM COVER OVER WATERMAIN SHALL BE 1.7m. THE MINIMUM HORIZONTAL SEPARATION BETWEEN WATERMAIN AND SEWERS SHALL BE 2.5m. WHERE WATERMAIN CONFLICTS WITH SEWER PIPES, DEFLECT WATERMAIN HORIZONTALLY OR VERTICALLY WHILE PROVIDING A MINIMUM OF 0.5m CLEARANCE BETWEEN WATERMAIN AND SEWERS. MAINTAIN MINIMUM DEPTH OF COVER AT ALL TIMES.

4. WATERMAIN SHALL BE INSTALLED IN BEDDING AS PER OPSD 802.010 (GRANULAR 'A' EMBEDMENT MATERIAL) FOR FLEXIBLE PIPES AND OPSD 802.030 OR 802.031 CLASS 'B' (GRANULAR 'A' BEDDING MATERIAL, GRANULAR 'A' OR SELECT NATIVE COVER MATERIAL) FOR RIGID PIPE UNLESS OTHERWISE APPROVED BY THE DIRECTOR OF WATER OPERATIONS. ALTERNATIVE EMBEDMENT MATERIAL - SAND MEETING GRADATION REQUIREMENTS OF OPSS.MUNI 1004.05.07 COMPACTED TO 95% STANDARD PROCTOR MAXIMUM DRY DENSITY IS PERMISSIBLE WHERE NOTED IN THE APPROVED DRAWINGS. COMPACTION TESTING MUST BE COMPLETED AND COMPACTION TESTING MUST BE PROVIDED EVERY 150 METRES. THE COMPACTION TESTING MUST INCLUDE THE ENTIRE EMBEDMENT ENVELOPE (HAUNCHES, BEDDING, TOP OF PIPE AND COVER).

5. COPPER WATER MAINS AND SERVICES 25mm TO 50mm IN DIAMETER SHALL BE EMBEDDED IN SAND 100mm ABOVE AND BELOW TO CONFORM TO OPSS.MUNI 1004.05.07.

6. RESTRAINING WILL BE REQUIRED ON ALL HYDRANTS, THRUST BLOCKS, AS PER OPSD 1103.010 AND 1103.020. RESTRAINING DEVICES MAY BE REQUIRED IN ADDITION TO STANDARD CONCRETE THRUST BLOCKING WHERE SOIL CONDITIONS WARRANT AT THE CITY'S DISCRETION.

7. NEW WATERMAINS TO BE PVC DR18 CL150 MINIMUM, DUCTILE IRON CL52 AS PER THE APPROVED MANUFACTURERS PRODUCTS FOR LINEAR WATER SYSTEMS LIST.

8. TRACING WIRE SHALL BE #12 AWG HIGH STRENGTH COPPER CLAD (HS-CSS) AND SHALL BE INSTALLED ON THE TOTAL LENGTH OF ALL WATERMAIN AND BROUGHT UP AT EACH HYDRANT AXE CONNECTED TO FLANGE BOLT. ALL SPLICES TO UTILIZE CONNECTORS AS PER THE APPROVED MANUFACTURERS PRODUCTS FOR LINEAR WATER SYSTEMS LIST.

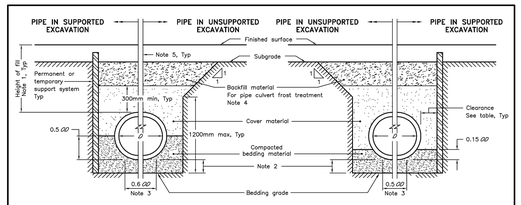
9. ALL WATER SERVICES SHALL BE MINIMUM 25mm TYPE 'K' COPPER OR 25mm CROSS-LINKED POLYETHYLENE UNLESS OTHERWISE APPROVED BY THE DIRECTOR OF WATER OPERATIONS. WATER SERVICE SADDLES SHALL BE USED WHEN TAPPING INTO PVC WATERMAIN.

10. SERVICE TAPPINGS SHALL BE PLACED AT A MINIMUM SEPARATION OF 1.0m AND A MINIMUM OF 0.6m FROM JOINTS. (ENDS OF PIPE)

11. RISER PIPES ARE TO BE INSTALLED AS PER BSD-510, AND REMOVED AS DIRECTED. SWABBING SCHEDULE TO BE SUPPLIED BY A WATER OPERATIONS FIELD REPRESENTATIVE. ALL RISERS ARE TO BE RESTRAINED OR THRUST BLOCKED.

12. ALL NEW CURB STOPS AND BOXES TO BE LOCATED AT PROPERTY LINE AND OUT OF DRIVEWAYS AND SIDEWALKS.

City of BARRIE STANDARD DETAIL	GENERAL NOTES - WATERMAIN	REV No. 2	DATE: MAY 2015
			SCALE: N.T.S.
			BSD-500
			APPROVED DATE May 29/15 DIRECTOR OF ENGINEERING



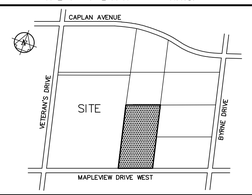
NOTES:
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2 The minimum bedding depth below the pipe shall be 0.15Ø. In no case shall this dimension be less than 150mm or greater than 300mm.
3 The pipe bed shall be compacted and shaped to receive the bottom of the pipe.
4 Pipe culvert frost treatment shall be according to OPSD 803.030 and 803.031.
5 Condition of excavation is symmetrical about centreline of pipe.
A Soil types as defined in the Occupational Health and Safety Act and Regulations for Construction Projects.
B All dimensions are in metres unless otherwise shown.

LEGEND:
Ø – Inside diameter
ØØ– Outside diameter

CLEARANCE TABLE	
Pipe Inside Diameter mm	Clearance mm
900 or less	300
Over 900	500

ONTARIO PROVINCIAL STANDARD DRAWING		Nov 2015	Rev 3
RIGID PIPE BEDDING, COVER, AND BACKFILL TYPE 1 OR 2 SOIL – EARTH EXCAVATION			
		OPSD 802.030	

KEY PLAN N.T.S.



LEGEND

208.00 PROPOSED ELEVATION
EX. 208.00 EXISTING ELEVATION
R.D. ROOF DRAIN LOCATION
EX. MANHOLE
LIGHT STANDARD
VALVE CHAMBER
VALVE BOX
CATCHBASIN MANHOLE
CATCHBASIN
HYDRANT AND VALVE
OVERLAND FLOW

No.	DESCRIPTION	BY	DATE
	REVISIONS		
4.	4th SUBMISSION	RS	OCT 3, 2022
3.	3rd SUBMISSION	RS	Sept 13, 2022
2.	2nd SITE SERVICING SUBMISSION	RS	JUNE 3, 2022
1.	ISSUED FOR SITE ALTERATION PERMIT	RS	APRIL 4, 2022

NOTE
SITE PLAN TO READ IN CONJUNCTION WITH STORMWATER MANAGEMENT REPORT PREPARED BY URBAN ECOSYSTEMS LIMITED FOR THIS PROJECT

SITE DESCRIPTION
PART OF LOT 12
AND PART OF CENTRE ROAD
REGISTERED PLAN 67
WITHIN LOT 6 CONCESSION 12
CITY OF BARRIE
COUNTY OF SIMCOE

BENCH MARK
ELEVATION: 306.589
VERTICAL CONTROL POINT 03120030018
AND BASED ON CGVD28:1978 DATUM

URBAN ECOSYSTEMS LIMITED
7050 WESTON ROAD, SUITE 705
WOODBRIDGE, ONTARIO L4L 8G7
uel@urbanecosystems.com
t. (905)856-0629
f. (905)856-0698

LICENCED PROFESSIONAL ENGINEER
ROSARIO SACCO
OCT 3, 2022
PROVINCE OF ONTARIO

90 MAPLEVIEW DRIVE WEST
ARG GROUP
NOTES AND DETAILS

Barrie

DESIGNED BY : D.J.S.		CHECKED BY : R.S.	
DRAWN BY : V.T.		DATE: SEPT 2021	
NO.: SAP-011-2021		SCALE:	
PROJECT No. : 21006		DRAWING No. DET-2	

PROJECTS/2021/21006/21006-Base.dwg

PREVIN FERNDALE DEVELOPMENT

PROJECT NUMBER: 21006
PREPARED BY: DJS
CHECKED BY: RS
DESIGN DATE: OCT 2022
SUBMISSION DATE: OCT 2022

CITY OF BARRIE

SANITARY SEWER DESIGN SHEET

Design Parameters

Residential Density = 1.67 cap/unit
Residential excl. infil. = 225 L/cap/day
Manning 'n' = 0.013
Extran. Flow = 0.1 L/s/ha
Industrial = 35 m^3/ha*day
Institutional = 19.8 m^3/ha*day
Commercial = 28 m^3/ha*day

Design Equations

$M(r) = \frac{1+\frac{14}{4+\sqrt{(P)}}}{}$

$M(ind) = 6.6604*A^{-0.1992}$

URBAN ECOSYSTEMS
L I M I T E D
7050 WESTON ROAD, SUITE 705
WOODBRIDGE , ONTARIO L4L 8G7
PHONE: (905)856-0629 FAX: (905)856-0698

Location				Individual Values							Cumulative Values								Flow Data						Sewer Data						
Street	From		To	Industrial Area	Commercial Area	Institutional Area	Residential Area	Residential Units	Residential Units Cum.	Residential Population	Industrial P.F.	Industrial Area	Commercial Area	Institutional Area	Residential P.F.	Per 2020 Residential Area	Residential Area Cumul.	Residential Population Cumul.	Industrial Peak Flow (L/s)	Commercial Peak Flow (L/s)	Institutional Peak Flow (L/s)	Population Peak Flow (L/s)	Peak Residential Infiltration (L/s)	Total Design Flow (L/s)	Length	Pipe Size	Type of Pipe	Grade	Full Flow Capacity	Full Flow Velocity	Actual velocity at design flow
	MH #	Inv	MH #	Inv	(ha)	(ha)	(ha)	(ha)	#	#	cap.	M(ind)	A(ind)	A(c)	A(ins)	M(r)	A(r)	A(r)	P	Q(ind)	Q(c)	Q(ins)	Q(r)	Q(i)	Q(d)	(m)	(mm)		(%)	(L/s)	(m/s)	(m/s)
INDUSTRIAL	BLDG	2		2.20							5.69	2.20							1.14					1.14	13.0	200	PVC	2.00%	46.4	1.48	0.546
INDUSTRIAL	2	1									5.69	2.20							1.14					1.14	27.0	200	PVC	2.00%	46.4	1.48	0.546
INDUSTRIAL	1	MAIN									5.69	2.20							1.14					1.14	21.0	200	PVC	2.40%	50.8	1.62	0.598

90 MAPLEVIEW DRIVE

PROJECT No.: 21006
Prepared By: D.J.S.
Checked By: R.S.
Submission Date : OCT 2022

Submission Number :
Design Date: 01-Sep-22

CITY OF BARRIE

STORM SEWER DESIGN SHEET

Frequency = 5 year
Intensity I(5yr) = 853.608/((t+4.699)^0.766)
Intensity I(10yr) = 975.865/((t+4.699)^0.760)
Intensity I(25yr) = 1146.275/((t+4.922)^0.757)
Intensity I(100yr) = 1426/((t+5.273)^0.759)

Flow Q = 2.778 A C I

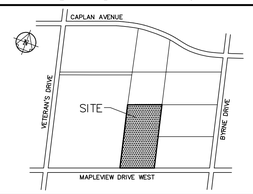
Inlet time = 10.00 min.
Manning n = 0.013

URBAN ECOSYSTEMS
L I M I T E D
7050 WESTON ROAD, SUITE 600
WOODBRIDGE , ONTARIO L4L 8G7
TELEPHONE: (905)856-0629
FAX: (905)856-0698

STREET NAME	From MH	To MH	Area increment Coefficient (5yr)	(100yr)	Area x Coefficient (5yr) Leg	Accum.	(100yr) Leg	Accum.	Intensity I(5yr) (mm/hr)	I(100yr) (mm/hr)	Flow Q(5yr) (l/s)	Q(100yr) (l/s)	Q(total) (l/s)	Proposed Sewer (5yr) Length (m)	Grade (%)	Dia (mm)	Capac. (l/s)	Veloc. (m/s)	Actual Vel. (m/s)	Time (minutes) Leg	elapsed
NORTH EAST SWALE	CB	530	0.03	0.40	0.01	0.01			108.9		**3.6**			36.0	0.50	375	**129.3**	1.13	0.420	0.53	10.00
NORTH EAST SWALE	530	520	0.08	0.40	0.03	0.04			106.0		**13.0**			70.0	0.20	525	**200.6**	0.90	0.497	1.30	10.53
NORTH EAST SWALE	520	510	0.08	0.40	0.03	0.08			99.6		**21.0**			50.5	0.20	525	**200.6**	0.90	0.590	0.94	11.83
NORTH EAST SWALE	510	100	0.03	0.40	0.01	0.09			95.4		**23.3**			71.5	0.20	525	**200.6**	0.90	0.604	1.33	12.77
SOUTH EAST SWALE	610	100	0.11	0.40	0.04	0.04			108.9		**13.3**			57.5	0.30	450	**162.9**	0.99	0.600	0.97	10.00
ROOF CONNECTION	STUB	410	0.00	0.75	0.00	0.00			108.9		**76.2**			17.0	1.00	300	**100.9**	1.38	1.542	0.20	10.00
CONNECTION	410	310	0.00	0.75	0.00	0.00			107.8		**76.2**			10.0	0.50	450	**210.3**	1.28	1.168	0.13	10.20
NORTH WEST SIDE	320	310	0.60	0.90	0.54	0.54			108.9		**163.3**			85.0	0.30	525	**245.7**	1.10	1.182	1.29	10.00
NORTH WEST SIDE	310	200	0.11	0.90	0.10	0.64			102.1		**257.4**			7.0	0.50	600	**452.9**	1.55	1.591	0.08	11.29
SOUTH SIDE	540	530B	0.28	0.90	0.25	0.25			108.9		**76.2**			90.0	0.30	525	**245.7**	1.10	0.968	1.36	10.00
SOUTH SIDE	530B	520B	0.22	0.90	0.20	0.45			101.8		**127.2**			51.0	0.20	600	**286.5**	0.98	0.942	0.87	11.36
WEST SIDE	520B	310B	0.08	0.90	0.07	0.52			97.8		**141.7**			28.0	0.20	600	**286.5**	0.98	0.972	0.48	12.23
WEST SIDE	310B	200	0.56	0.90	0.50	1.03			95.7		**272.7**			87.0	0.20	600	**286.5**	0.98	1.124	1.48	12.71
WEST SIDE	200	110	0.00	0.90	0.00	1.67			93.1		**175.8**			38.0	0.20	600	**286.5**	0.98	1.035	0.65	13.35
WEST SIDE	110	100	0.00	0.90	0.00	1.67			90.6		**175.8**			90.0	0.20	600	**286.5**	0.98	1.035	1.53	14.00
WEST SIDE	100	OUTLET	0.00	0.90	0.00	1.80			85.3		**220.6**			4.0	0.30	600	**350.8**	1.20	1.274	0.06	15.52

FINAL APPROVED PLAN
File: D11-024-2021
Date: Sept 28, 2023
Barrie No. of Pages: 30

KEY PLAN N.T.S.



LEGEND

208.00	PROPOSED ELEVATION
EX. 208.00	EXISTING ELEVATION
R.D.	ROOF DRAIN LOCATION
	EX. MANHOLE
	LIGHT STANDARD
	VALVE CHAMBER
	VALVE BOX
	CATCHBASIN MANHOLE
	CATCHBASIN
	HYDRANT AND VALVE
	OVERLAND FLOW

No.	DESCRIPTION	BY	DATE
1.	4th SUBMISSION	RS	OCT 3, 2022

REVISIONS

NOTE

SITE PLAN TO READ IN CONJUNCTION WITH STORMWATER MANAGEMENT REPORT PREPARED BY URBAN ECOSYSTEMS LIMITED FOR THIS PROJECT

SITE DESCRIPTION

PART OF LOT 12
AND PART OF CENTRE ROAD
REGISTERED PLAN 67
WITHIN LOT 6 CONCESSION 12
CITY OF BARRIE
COUNTY OF SIMCOE

BENCH MARK

ELEVATION: 306.589

VERTICAL CONTROL POINT 03120030018
AND BASED ON COV028:1978 DATUM

URBAN ECOSYSTEMS LIMITED
7050 WESTON ROAD, SUITE 705
WOODBRIDGE, ONTARIO L4L 8G7
uel@urbanecosystems.com
t. (905)856-0629
f. (905)856-0698

LICENSED PROFESSIONAL ENGINEER
ROSARIO SACCO
OCT 3, 2022
PROVINCE OF ONTARIO

90 MAPLEVIEW DRIVE WEST
ARG GROUP
SANITARY AND STORM DESIGN SHEETS

Barrie

DESIGNED BY : D.J.S.	CHECKED BY : R.S.
DRAWN BY : V.T.	DATE: SEPT 2022
NO.: SAP-011-2021	SCALE:
PROJECT No. : 21006	DRAWING No. DES-1

PROJECTS/2021/21006/21006-Base.dwg

GENERAL NOTES:

1. THIS DRAWING(S) CONFORMS TO THE REQUIREMENTS OF THE ONTARIO BUILDING CODE (LATEST)
2. THE RETAINING WALL DRAWINGS ARE TO BE READ AND USED IN CONJUNCTION WITH THE SPECIFICATIONS AND ALL OTHER CONTRACT DOCUMENTS INCLUDING BUT NOT LIMITED TO ARCHITECTURAL AND LANDSCAPE DRAWINGS. .
3. ALL DIMENSIONS, DRAWINGS, AND DOCUMENTS MUST BE VERIFIED BY THE CONTRACTOR PRIOR TO COMMENCING ANY WORK. ANY DISCREPANCY MUST BE COMMUNICATED TO THE ENGINEER.
4. AJW ENGINEERING TO INSPECT SITE PRIOR TO INITIAL USE TO VERIFY COMPLIANCE WITH THIS DRAWING. IT IS THE CONTRACTORS RESPONSIBILITY TO CONTACT AJW ENGINEERING ONCE STRUCTURE IS COMPLETE.
5. ALL TEMPORARY STRUCTURES OR WORKS INCLUDING SHORING, FORM WORK, SCAFFOLDING, AND FALSE WORK SHALL BE PROVIDED BY THE CONTRACTOR.
6. AJW ENGINEERING LTD. WILL TAKE NO RESPONSIBILITY FOR ANY CHANGES TO OR DEVIATIONS FROM THIS DRAWING UNLESS APPROVED BY OUR OFFICE IN WRITING.
7. THE INFORMATION ON THIS DRAWING SHALL NOT BE USED FOR ANY OTHER PROJECT OR WORKS. THE INFORMATION ON THESE DRAWINGS APPLIES SOLELY TO THIS PROJECT.
8. DRAWING IS IN METRIC UNITS. ALL IMPERIAL DIMENSIONS ARE FOR INFORMATION PURPOSES ONLY.
9. CONTRACTOR'S CONSTRUCTION LOADS MUST NOT EXCEED THE DESIGN LOADS BELOW. DESIGN LOADS MAY ONLY BE APPLIED AFTER THE WALL HAS BEEN INSTALLED AND APPROVED.

SOIL and BACKFILL:

1. BACKFILL WITHIN 300mm OF THE BACK FACE OF THE WALL TO BE WELL DRAINING 19mm CLEAR CRUSHED STONE.
2. SPECIFIED SOIL BEARING CAPACITY MUST BE VERIFIED BY A GEOTECHNICAL ENGINEER PRIOR TO COMMENCING CONSTRUCTION OF THE FOUNDATION. CONDITIONS FOUND TO BE UNSATISFACTORY IN BEARING CAPACITY MUST BE REPORTED TO THE PROJECT GEOTECHNICAL ENGINEER.
3. BACKFILL TO BE INSTALLED AND COMPACTED IN LIFTS NOT GREATER THAN 200mm WHERE HEAVY EQUIPMENT IS USED AND 150mm LIFTS WHERE HAND OPERATED EQUIPMENT IS USED. HAND OPERATED EQUIPMENT MUST BE USED WHEN WITHIN 1m OF THE WALL.
4. WALL BACKFILL SHALL HAVE MAX. 5% FINE GRAINS PASSING SIEVE NO. 200.
5. FOUNDATION MUST BEAR ON SUITABLE MATERIAL.

DRAINAGE NOTES:

1. SITE GRADING SHALL BE DESIGNED TO ROUTE SURFACE WATER AROUND AND AWAY FROM THE WALL.
2. THE INTERNAL DRAINAGE SYSTEM OF THE RETAINING WALL IS DESIGNED TO REMOVE WATER THAT INFILTRATES INTO THE SOIL BEHIND THE WALL. ADEQUATE STORM WATER DRAINAGE SYSTEMS ARE REQUIRED TO COMPLETELY DRAIN THE AREA AROUND THE RETAINING WALL STRUCTURE.
3. DRAIN PIPING SHOULD BE LOCATED AT THE BACK OF THE GRANULAR DRAIN FIELD BEHIND THE WALL AS CLOSE TO THE BOTTOM OF THE WALL AS PERMITTED WHILE STILL MAINTAINING A POSITIVE GRADIENT FOR DRAINAGE TO DAYLIGHT, OR TO A STORM WATER MANAGEMENT SYSTEM.
4. RETAINING WALLS IN CONDITIONS THAT ALLOW STANDING WATER TO OVERLAP THE WALL FACE ARE CONSIDERED WATER APPLICATIONS.
5. ALL WATER COLLECTION DEVICES SUCH AS ROOF DOWNSPOUTS, STORM SEWERS, AND CURB GUTTERS MUST BE DESIGNED TO ACCOMMODATE MAXIMUM FLOW RATES AND OUTLET OUTSIDE THE RETAINING WALL AREA.

DESIGN NOTES:

THE FOLLOWING MINIMUM FACTORS OF SAFETY HAVE BEEN APPLIED WHILE DESIGNING THE ASSEMBLY:

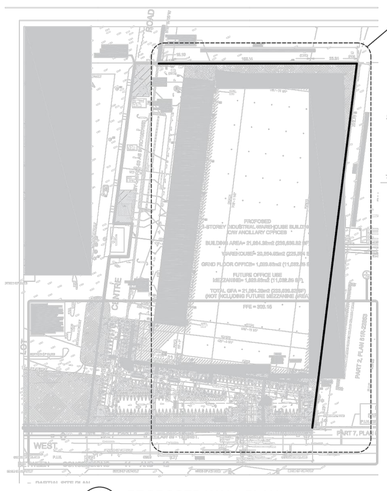
1. SLIDING: 1.5
2. OVERTURNING: 1.5
3. BEARING: 2.0

DESIGN ASSUMPTIONS (TO BE VERIFIED BY A GEOTECHNICAL ENGINEER):

- BACKFILL ANGLE OF FRICTION: 30°
- BACKFILL COHESION: 0 kPa
- BACKFILL MOIST UNIT WEIGHT: 18.85 kN/m³
- SOLING BEARING CAPACITY: 150 kPa
- WALL BATTER: 0°
- NO HYDROSTATIC PRESSURE ASSUMED IN THE DESIGN.
- WATER TABLE ELEVATION ASSUMED TO BE LOWER THAN THE ELEVATION OF THE BASE OF THE WALL.

SURCHARGE LOADING

- BETWEEN STATIONS 'A' TO 'B' - 12 kPa (VEHICLE LOADING)
- BETWEEN STATIONS 'B' TO 'P' - 2.4 kPa (0m-6m ON GRASS), 4.8 kPa (6m+ WAREHOUSE)
- BETWEEN STATIONS 'P' TO 'R' - 12 kPa (VEHICLE LOADING)



1/1 PROPOSED WALL PLAN
SCALE : N.T.S.



0/1 EX. SITE PLAN
SCALE : N.T.S.



2/1 SITE PLAN
SCALE : 1:600

TABLE OF CONTENTS			
DWG. NO.	DESCRIPTION	REVISION NO.	DATE
1	PLANS AND GENERAL NOTES	R1	27 APR. 2022
2	TYPICAL SECTIONS	R1	27 APR. 2022
3	ELEVATIONS	R0	11 FEB. 2022
4	ELEVATIONS	R1	27 APR. 2022
5	ELEVATIONS	R0	11 FEB. 2022
6	ELEVATIONS	R0	11 FEB. 2022

R1

BLOCK COUNT + GEOGRID		
KEYED - STANDARD	FB	507
KEYED - HALF	HB	1
FLAT TOP - FLAT TOP	FT-FB	161
FLAT TOP - HALF FLAT TOP	FT-HB	2
FLAT TOP - HALF-HEIGHT FLAT TOP	FT-HB	117
FLAT TOP - HALF-HEIGHT HALF FLAT TOP	FT-HB	4
GEOGRID - STRATAGRID SG350 (APPROX. AREA REQUIRED)		±400m²

NOTE:
BLOCKS WITH COUNTS GREATER THAN TEN (10) BLOCKS HAVE HAD TOTAL COUNT INCREASED BY 5% TO ACCOUNT FOR ANY DISCREPANCY IN COUNTING.

R1

FINAL APPROVED PLAN
File: D11-024-2021
Date: Sept 28, 2023
Barrie No. of Pages: 30

No.	DATE DD/MM/YY	DESCRIPTION
R1	27/04/22	Revised as Noted
R0	11/02/22	Issued For Construction

REVISION / ISSUED:

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This drawing is not to be used for construction until approved.
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LICENSED PROFESSIONAL ENGINEER
M. MOAYYEDIAN
100192859
APR. 27/22
PROVINCE OF ONTARIO

ENGINEER:
ajw engineering
100 MATHESON BLVD. E., UNIT #201,
MISSISSAUGA, ON. L4Z 2G7
Phone: (905)-840-0530
Fax: (905)-212-9012

ORDERED BY:
DNM Retaining Wall Systems

ADDRESS:
90 MAPLEVIEW DR. WEST,
BARRIE, ON

PROJECT:
DESIGN OF RETAINING WALL

DRAWING DESCRIPTION:
PLANS AND GENERAL NOTES

REFERENCE FILE:
THIS DRAWING HAS BEEN PREPARED FROM INFORMATION SHOWN ON DWG NO.: SAP-011-2021, PROJ. NO. 21006, DWG. NO. SP-2, REV. 1
& JOB NO. 21751, DWG. NO. SP1, Rev. 11

FILE NAME:
22-12769.1-R1

DRAWN BY:	CHECKED BY:
DRL	DRL, SM

SCALE: AS NOTED

DATE STARTED: FEB. 03, 2022

PROJECT NUMBER: 22-12769.1

DRAWING NUMBER: 1

No.	DESCRIPTION	BY	DATE
4.	4th SUBMISSION	RS	OCT 3, 2022
3.	3rd SUBMISSION	RS	SEPT 13, 2022
2.	RETAINING WALL REVISION	RS	APR. 27, 2022
1.	ISSUED FOR SITE ALTERATION PERMIT	RS	APRIL 4, 2022

REVISIONS

NOTE
SITE PLAN TO READ IN CONJUNCTION WITH STORMWATER MANAGEMENT REPORT PREPARED BY URBAN ECOSYSTEMS LIMITED FOR THIS PROJECT

SITE DESCRIPTION
PART OF LOT 12
AND PART OF CENTRE ROAD
REGISTERED PLAN 67
WITHIN LOT 6 CONCESSION 12
CITY OF BARRIE
COUNTY OF SIMCOE

BENCH MARK
ELEVATION: 306.589
VERTICAL CONTROL POINT 03120030018
AND BASED ON CGVD28:1978 DATUM

URBAN ECOSYSTEMS LIMITED
7050 WESTON ROAD, SUITE 705
WOODBRIDGE, ONTARIO L4L 8G7
uel@urbanecosystems.com
t. (905)856-0629
f. (905)856-0698

LICENSED PROFESSIONAL ENGINEER
ROSARIO SACCO
OCT 3, 2022
PROVINCE OF ONTARIO

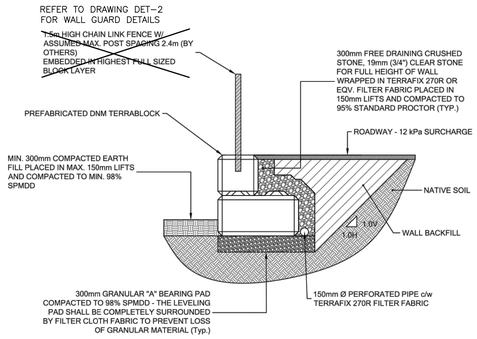
90 MAPLEVIEW DRIVE WEST
ARG GROUP
RETAINING WALL

Barrie

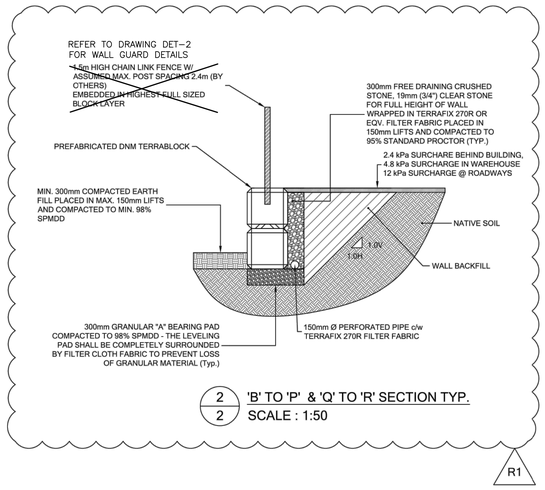
DESIGNED BY :	CHECKED BY :
D.J.S.	R.S.
DRAWN BY :	DATE:
V.T.	APRIL 2022
NO.: SAP-011-2021	SCALE:
PROJECT No. : 21006	DRAWING No. RW-1

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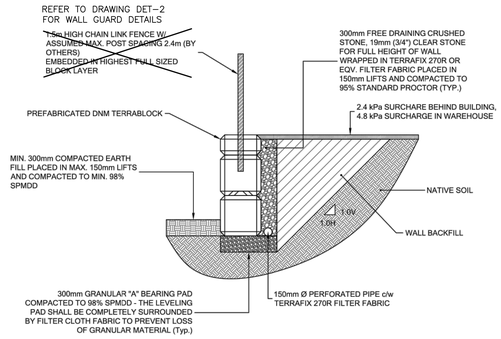


1/2 'A' TO 'B' SECTION TYP.
SCALE : 1:50

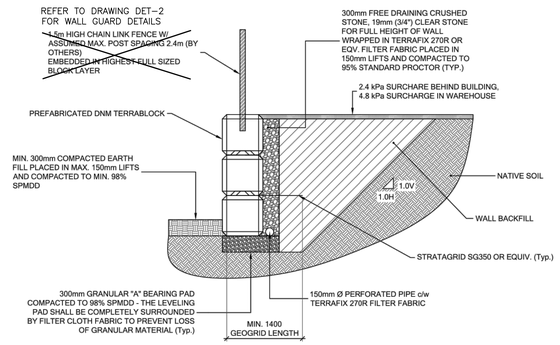


2/2 'B' TO 'P' & 'Q' TO 'R' SECTION TYP.
SCALE : 1:50

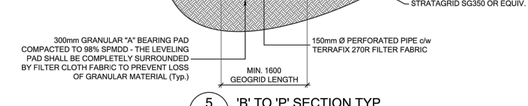
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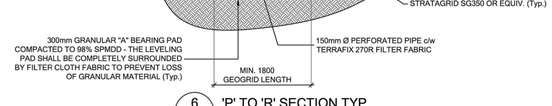
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SCALE : 1:50



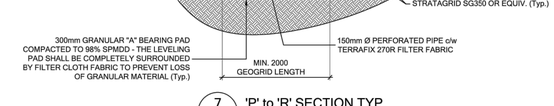
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SCALE : 1:50



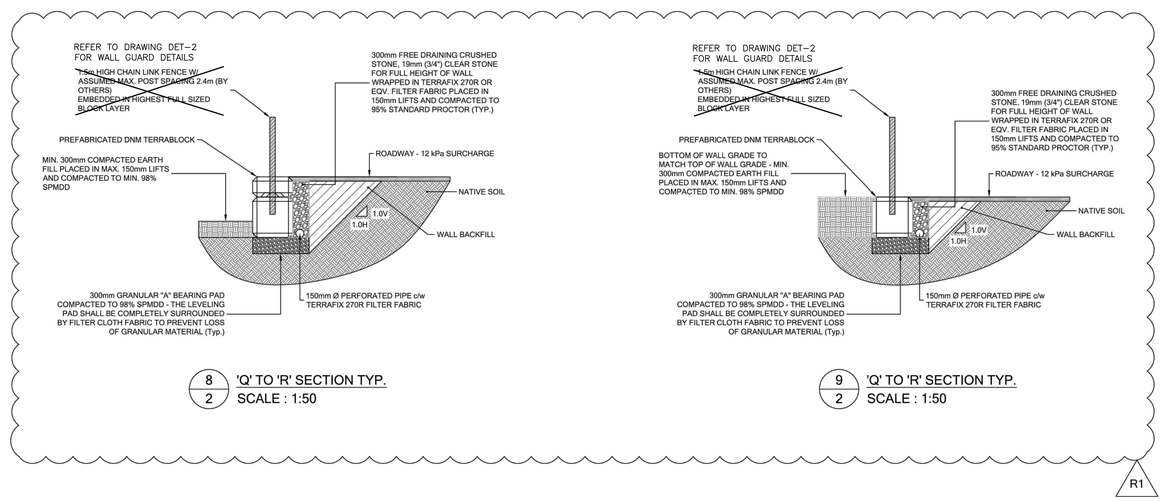
5/2 'B' TO 'P' SECTION TYP.
SCALE : 1:50



6/2 'P' TO 'R' SECTION TYP.
SCALE : 1:50



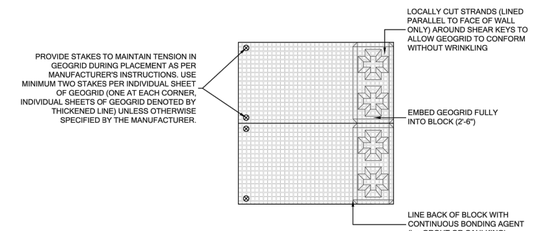
7/2 'P' to 'R' SECTION TYP.
SCALE : 1:50



8/2 'Q' TO 'R' SECTION TYP.
SCALE : 1:50

9/2 'Q' TO 'R' SECTION TYP.
SCALE : 1:50

R1



A/2 GEOGRID DETAIL
SCALE : 1:50

FINAL APPROVED PLAN
File: D11-024-2021
Barrie Date: Sept 28, 2023
No. of Pages: 30

No.	DATE DD/MM/YY	DESCRIPTION
R1	27/04/22	Revised as Noted
R0	11/02/22	Issued For Construction

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M. MOAYYEDIAN
100192859
APR. 27/22
PROVINCE OF ONTARIO

ENGINEER:
ajw engineering
100 MATHESON BLVD. E., UNIT #201,
MISSISSAUGA, ON. L4Z 2G7
Phone: (905)-840-0530
Fax: (905)-212-9012

ORDERED BY:
DNM Retaining Wall Systems

ADDRESS:
90 MAPLEVIEW DR.,
BARRIE, ON

PROJECT:
DESIGN OF RETAINING WALL

DRAWING DESCRIPTION:
TYPICAL SECTIONS

REFERENCE FILE:
THIS DRAWING HAS BEEN PREPARED FROM INFORMATION SHOWN ON DWG NO.:
SAP-011-2021, PROJ. NO. 21006, DWG. NO. SP-2, REV: 1
& JOB NO. 21751, DWG. NO. SP1, Rev. 11

FILE NAME:
22-12769.1-R1

DRAWN BY:	CHECKED BY:
DRL	DRL, SM

SCALE:	AS NOTED
DATE STARTED:	FEB. 03, 2022
PROJECT NUMBER:	22-12769.1
DRAWING NUMBER:	2

No.	DESCRIPTION	BY	DATE
4.	4th SUBMISSION	RS	OCT 3, 2022
3.	3rd SUBMISSION	RS	SEPT 13, 2022
2.	RETAINING WALL REVISION	RS	APR. 27, 2022
1.	ISSUED FOR SITE ALTERATION PERMIT	RS	APRIL 4, 2022

REVISIONS

NOTE
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SITE DESCRIPTION
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REGISTERED PLAN 67
WITHIN LOT 6 CONCESSION 12
CITY OF BARRIE
COUNTY OF SIMCOE

BENCH MARK
ELEVATION: 306.589
VERTICAL CONTROL POINT 03120030018
AND BASED ON CGVD28:1978 DATUM

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LICENCED PROFESSIONAL ENGINEER
ROSARIO SACCO
OCT 3, 2022
PROVINCE OF ONTARIO

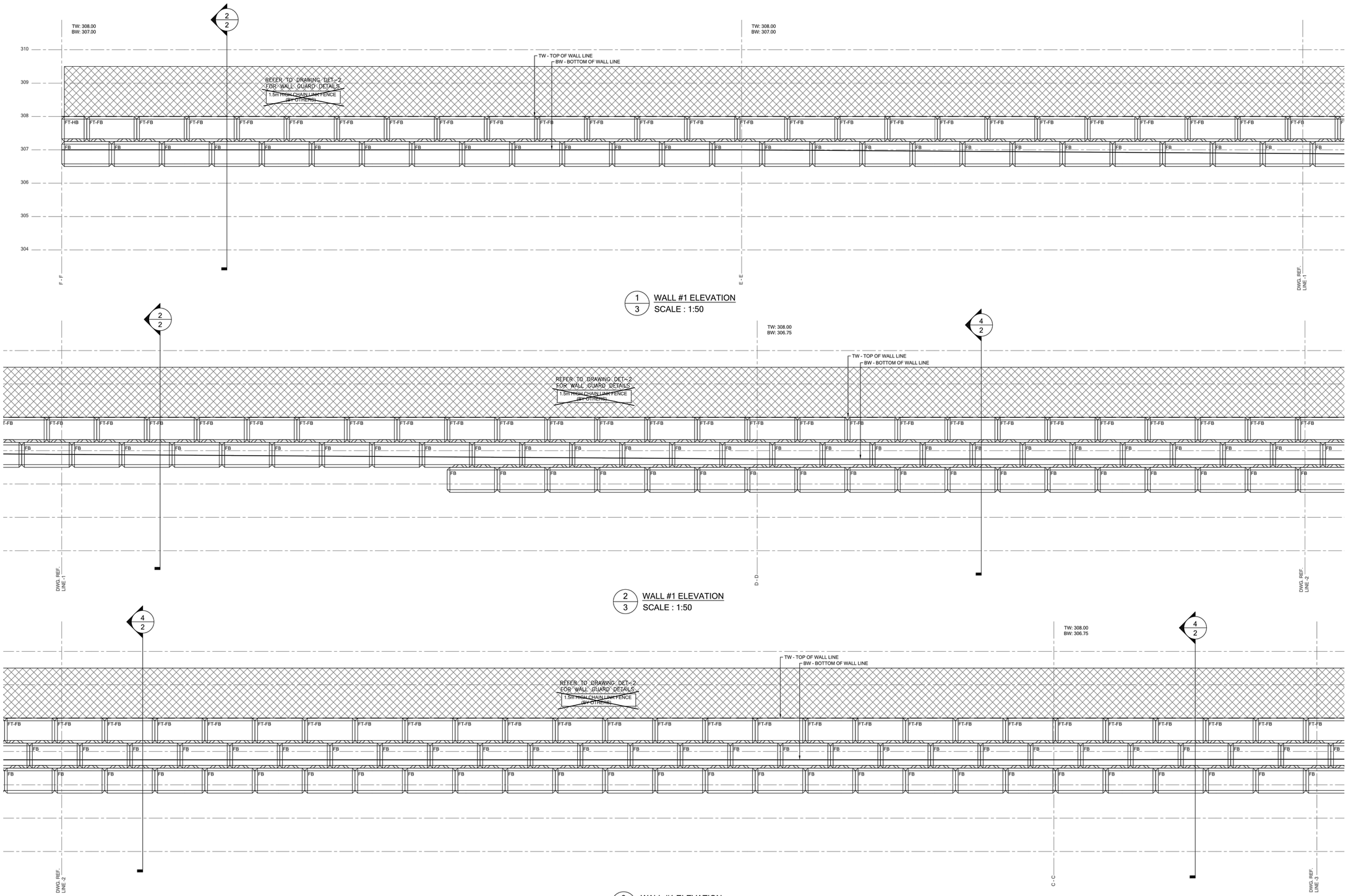
90 MAPLEVIEW DRIVE WEST
ARG GROUP
RETAINING WALL

Barrie

DESIGNED BY :	D.J.S.	CHECKED BY :	R.S.
DRAWN BY :	V.T.	DATE:	APRIL 2022
NO.:	SAP-011-2021	SCALE:	
PROJECT No. :	21006	DRAWING No.	RW-2

PROJECTS/2021/21006/21006--Base.dwg

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FINAL APPROVED PLAN
File: D11-024-2021
Date: Sept 28, 2023
Barrie No. of Pages: 30

No.	DATE DD/MM/YYY	DESCRIPTION
R0	11/02/22	Issued For Construction

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100192859
FEB. 11/22
PROVINCE OF ONTARIO

ENGINEER:
ajw engineering
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Phone: (905)-840-0530
Fax: (905)-212-9012

ORDERED BY:
DNM Retaining Wall Systems

ADDRESS:
90 MAPLEVIEW DR.,
BARRIE, ON

PROJECT:
DESIGN OF RETAINING WALL

DRAWING DESCRIPTION:
ELEVATIONS

REFERENCE FILE:
THIS DRAWING HAS BEEN PREPARED FROM INFORMATION SHOWN ON DWG NO.: SAP-011-2021, PROJ. NO. 21006, DWG. NO. SP-2, REV. 1
& JOB NO. 21751, DWG. NO. SP1, Rev. 11

FILE NAME:
22-12769.1-R1

DRAWN BY:	CHECKED BY:
DRL	DRL, SM

SCALE:	AS NOTED
DATE STARTED:	FEB. 03, 2022
PROJECT NUMBER :	22-12769.1
DRAWING NUMBER :	3

No.	DESCRIPTION	BY	DATE
4.	4th SUBMISSION	RS	OCT 3, 2022
3.	3rd SUBMISSION	RS	SEPT 13, 2022
2.	RETAINING WALL REVISION	RS	APR. 27, 2022
1.	ISSUED FOR SITE ALTERATION PERMIT	RS	APRIL 4, 2022

REVISIONS

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REGISTERED PLAN 67
WITHIN LOT 6 CONCESSION 12
CITY OF BARRIE
COUNTY OF SIMCOE

BENCH MARK
ELEVATION: 306.589
VERTICAL CONTROL POINT 03120030018
AND BASED ON CGVD28:1978 DATUM

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uel@urbanecosystems.com
t. (905)856-0629
f. (905)856-0698

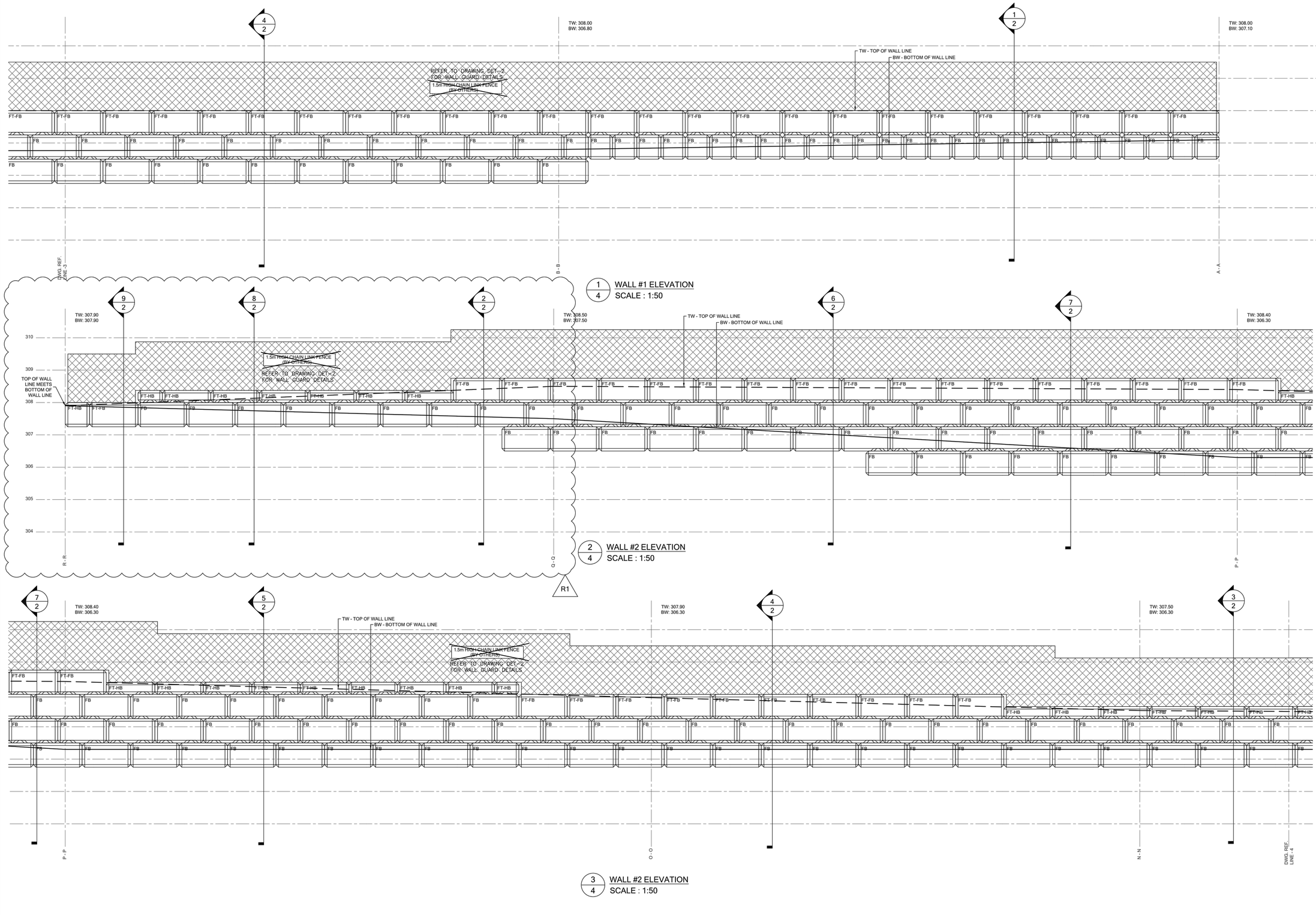
LICENSED PROFESSIONAL ENGINEER
ROSARIO SACCO
OCT 3, 2022
PROVINCE OF ONTARIO

90 MAPLEVIEW DRIVE WEST
ARG GROUP
RETAINING WALL
Barrie

DESIGNED BY : D.J.S.	CHECKED BY : R.S.
DRAWN BY : V.T.	DATE: APRIL 2022
NO.: SAP-011-2021	SCALE:
PROJECT No. : 21006	DRAWING No. RW-3

PROJECTS/2021/21006/21006-Base.dwg

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FINAL APPROVED PLAN
File: D11-024-2021
Date: Sept 28, 2023
Barrie No. of Pages: 30

No.	DATE DD/MM/YY	DESCRIPTION
R1	27/04/22	Revised as Noted
R0	11/02/22	Issued For Construction

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100192859
APR. 27/22
PROVINCE OF ONTARIO

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MISSISSAUGA, ON. L4Z 2G7
Phone: (905)-840-0530
Fax: (905)-212-9012

ORDERED BY:
DNM Retaining Wall Systems

ADDRESS:
90 MAPLEVIEW DR.,
BARRIE, ON

PROJECT:
DESIGN OF RETAINING WALL

DRAWING DESCRIPTION:
ELEVATIONS

REFERENCE FILE:
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SAP-011-2021, PROJ. NO. 21006, DWG. NO. SP-2, REV. 1
& JOB NO. 21751, DWG. NO. SP1, Rev. 11

FILE NAME:	22-12769.1-R1
DRAWN BY:	DRL
CHECKED BY:	DRL, SM
SCALE:	AS NOTED
DATE STARTED:	FEB. 03, 2022
PROJECT NUMBER :	22-12769.1
DRAWING NUMBER :	4

No.	DESCRIPTION	BY	DATE
4.	4th SUBMISSION	RS	OCT 3, 2022
3.	3rd SUBMISSION	RS	SEPT 13, 2022
2.	RETAINING WALL REVISION	RS	APR. 27, 2022
1.	ISSUED FOR SITE ALTERATION PERMIT	RS	APRIL 4, 2022

REVISIONS

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AND PART OF CENTRE ROAD
REGISTERED PLAN 67
WITHIN LOT 6 CONCESSION 12
CITY OF BARRIE
COUNTY OF SIMCOE

BENCH MARK
ELEVATION: 306.589
VERTICAL CONTROL POINT 03120030018
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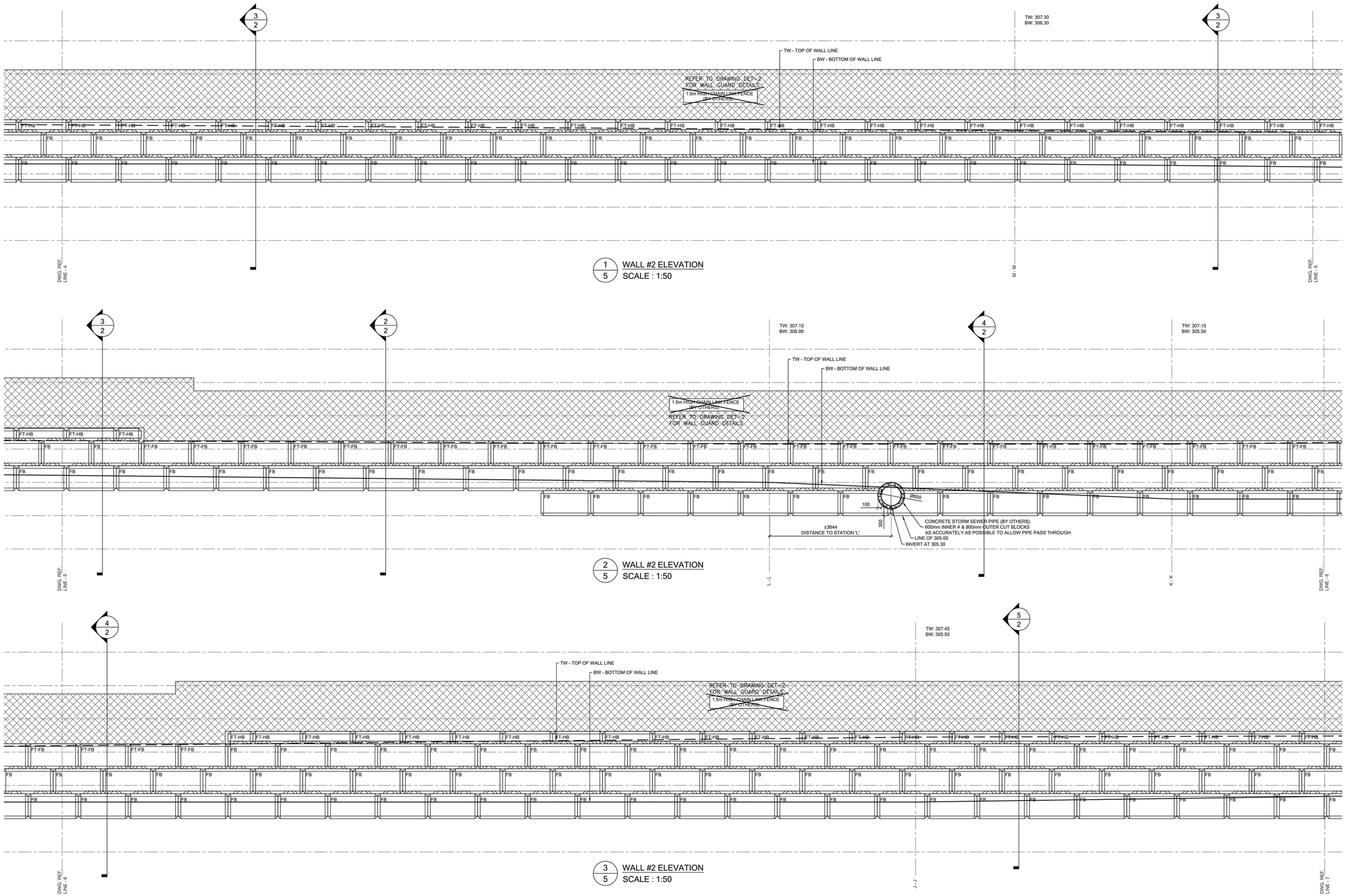
LICENSED PROFESSIONAL ENGINEER
ROSARIO SACCO
OCT 3, 2022
PROVINCE OF ONTARIO

90 MAPLEVIEW DRIVE WEST
ARG GROUP
RETAINING WALL
Barrie

DESIGNED BY :	D.J.S.	CHECKED BY :	R.S.
DRAWN BY :	V.T.	DATE:	APRIL 2022
NO.:	SAP-011-2021	SCALE:	
PROJECT No. :	21006	DRAWING No.	RW-4

PROJECTS/2021/21006/21006-Base.dwg

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1/5 WALL #2 ELEVATION
SCALE : 1:50

2/5 WALL #2 ELEVATION
SCALE : 1:50

3/5 WALL #2 ELEVATION
SCALE : 1:50

FINAL APPROVED PLAN
File: D11-024-2021
Date: Sept 28, 2023
Barrie No. of Pages: 30

No.	DATE DD/MM/YY	DESCRIPTION
R0	11/02/22	Issued For Construction

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100192859
FEB. 11/22
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Fax: (905)-212-9012

ORDERED BY:
DNM Retaining Wall Systems

ADDRESS:
90 MAPLEVIEW DR.,
BARRIE, ON

PROJECT:
DESIGN OF RETAINING WALL

DRAWING DESCRIPTION:
ELEVATIONS

REFERENCE FILE:
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& JOB NO. 21751, DWG. NO. SP1, Rev. 11

FILE NAME:
22-12769.1-R1

DRAWN BY:	CHECKED BY:
DRL	DRL, SM

SCALE:	AS NOTED
DATE STARTED:	FEB. 03, 2022
PROJECT NUMBER :	22-12769.1
DRAWING NUMBER :	5

No.	DESCRIPTION	BY	DATE
4.	4th SUBMISSION	RS	OCT 3, 2022
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2.	RETAINING WALL REVISION	RS	APR. 27, 2022
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REVISIONS

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REGISTERED PLAN 67
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COUNTY OF SIMCOE

BENCH MARK
ELEVATION: 306.589
VERTICAL CONTROL POINT 03120030018
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uel@urbanecosystems.com
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LICENSED PROFESSIONAL ENGINEER
ROSARIO SACCO
OCT 3, 2022
PROVINCE OF ONTARIO

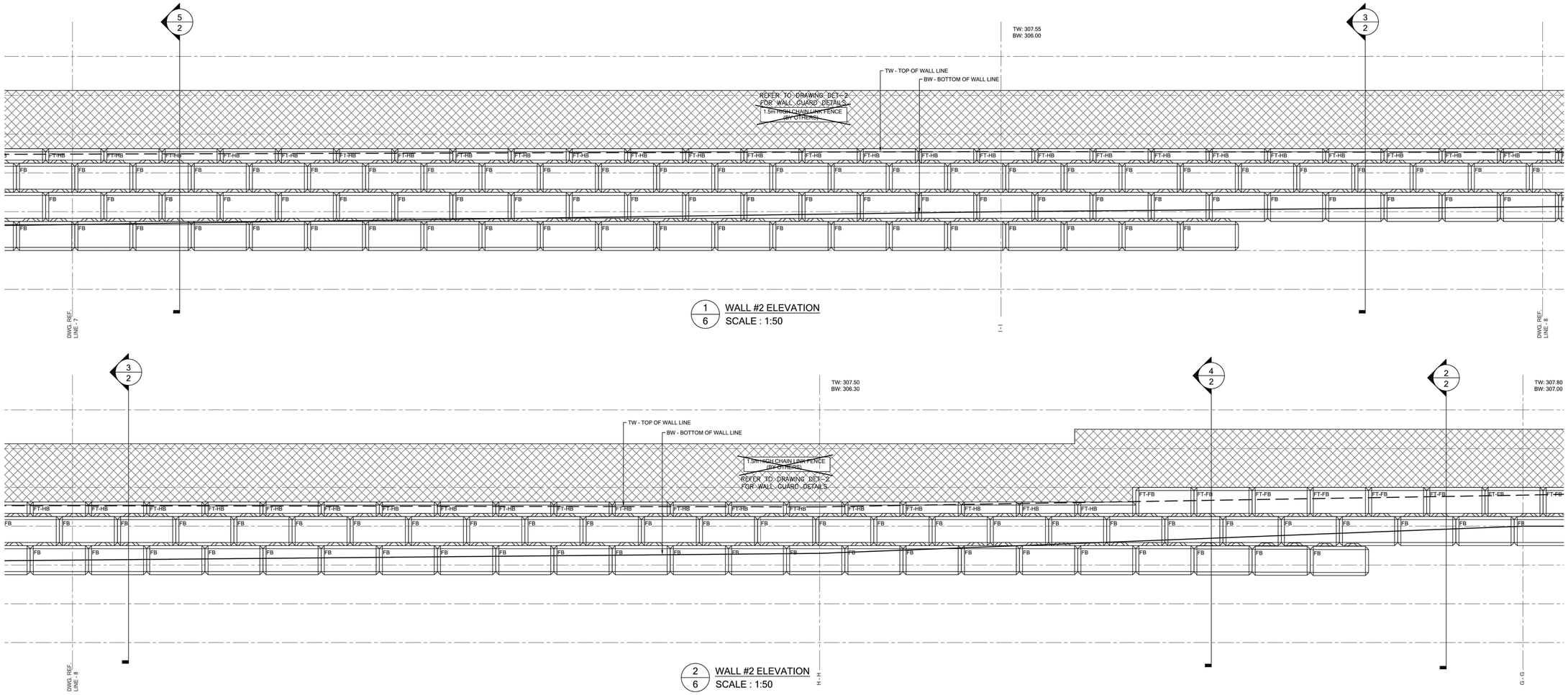
90 MAPLEVIEW DRIVE WEST
ARG GROUP
RETAINING WALL

Barrie

DESIGNED BY :	D.J.S.	CHECKED BY :	R.S.
DRAWN BY :	V.T.	DATE:	APRIL 2022
NO.:	SAP-011-2021	SCALE:	
PROJECT No. :	21006	DRAWING No.	RW-5

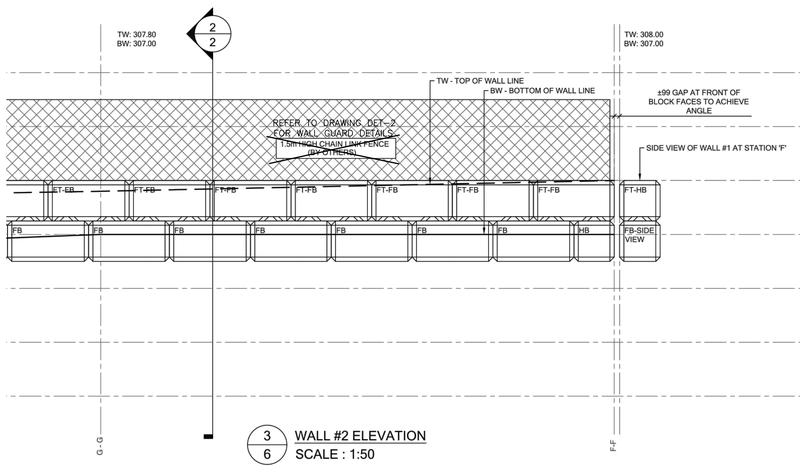
PROJECTS/2021/21006/21006-Base.dwg

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1/6 WALL #2 ELEVATION
SCALE : 1:50

2/6 WALL #2 ELEVATION
SCALE : 1:50



3/6 WALL #2 ELEVATION
SCALE : 1:50

\\data\projects\12700-12799\12769\drawings\R1\22-12769.1-R1

FINAL APPROVED PLAN
File: D11-024-2021
Date: Sept 28, 2023
Barrie No. of Pages: 30

No.	DATE DD/MM/YY	DESCRIPTION
R0	11/02/22	Issued For Construction

REVISION / ISSUED:

This drawing is on loan only, not to be copied or duplicated in any way without the written consent of AJW Engineering Ltd.
This drawing is not to be used for construction until approved.
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The client expressly agrees that AJW Engineering Ltd. employees, stamping engineers and principals shall have no personal liability to the client in respect of a claim, whether in contract, tort and/or any other cause of action in law.
Accordingly, the client expressly agrees that it will bring no proceedings and take no action in any court of law against AJW Engineering Ltd.'s employees, stamping engineers or principals in their personal capacity.
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LICENSED PROFESSIONAL ENGINEER
M. MOAYYEDIAN
100192859
FEB. 11/22
PROVINCE OF ONTARIO

ENGINEER:
ajw engineering
100 MATHESON BLVD. E., UNIT #201,
MISSISSAUGA, ON. L4Z 2G7
Phone: (905)-840-0530
Fax: (905)-212-9012

ORDERED BY:
DNM Retaining Wall Systems

ADDRESS:
90 MAPLEVIEW DR.,
BARRIE, ON

PROJECT:
DESIGN OF RETAINING WALL

DRAWING DESCRIPTION:
ELEVATIONS

REFERENCE FILE:
THIS DRAWING HAS BEEN PREPARED FROM INFORMATION SHOWN ON DWG NO.: SAP-011-2021, PROJ. NO. 21006, DWG. NO. SP-2, REV. 1
& JOB NO. 21751, DWG. NO. SP1, Rev. 11

FILE NAME:
22-12769.1-R1

DRAWN BY:	CHECKED BY:
DRL	DRL, SM

SCALE:	AS NOTED
DATE STARTED:	FEB. 03, 2022
PROJECT NUMBER :	22-12769.1
DRAWING NUMBER :	6

No.	DESCRIPTION	BY	DATE
4.	4th SUBMISSION	RS	OCT 3, 2022
3.	3rd SUBMISSION	RS	SEPT 13, 2022
2.	RETAINING WALL REVISION	RS	APR. 27, 2022
1.	ISSUED FOR SITE ALTERATION PERMIT	RS	APRIL 4, 2022

REVISIONS

NOTE
SITE PLAN TO READ IN CONJUNCTION WITH STORMWATER MANAGEMENT REPORT PREPARED BY URBAN ECOSYSTEMS LIMITED FOR THIS PROJECT

SITE DESCRIPTION
PART OF LOT 12
AND PART OF CENTRE ROAD
REGISTERED PLAN 67
WITHIN LOT 6 CONCESSION 12
CITY OF BARRIE
COUNTY OF SIMCOE

BENCH MARK
ELEVATION: 306.589
VERTICAL CONTROL POINT 03120030018
AND BASED ON CGVD28:1978 DATUM

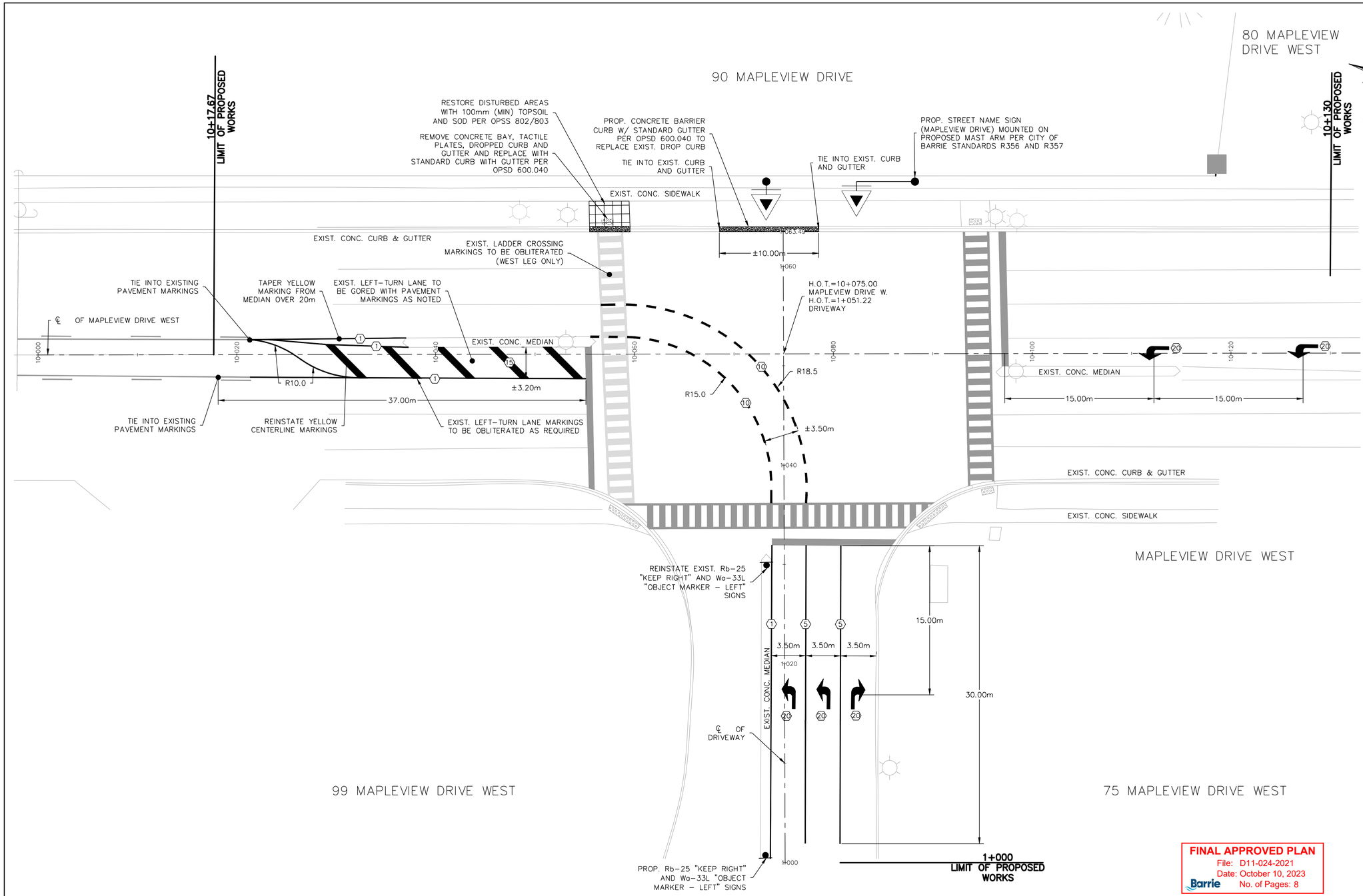
URBAN ECOSYSTEMS LIMITED
7050 WESTON ROAD, SUITE 705
WOODBRIDGE, ONTARIO L4L 8G7
uel@urbanecosystems.com
t. (905)856-0629
f. (905)856-0698

LICENCED PROFESSIONAL ENGINEER
ROSARIO SACCO
OCT 3, 2022
PROVINCE OF ONTARIO

90 MAPLEVIEW DRIVE WEST
ARG GROUP
RETAINING WALL
Barrie

DESIGNED BY : D.J.S.	CHECKED BY : R.S.
DRAWN BY : V.T.	DATE: APRIL 2022
NO.: SAP-011-2021	SCALE:
PROJECT No. : 21006	DRAWING No. RW-6

PROJECTS/2021/21006/21006-Base.dwg



LEGEND

	PROPOSED SIGN
	PROPOSED CURB AND GUTTER PER OPSD 600.040
	EXISTING LIGHT STANDARD
	CONCRETE BAY REMOVAL

SIGNAGE LEGEND

SIGN NAME	SIGN NUMBER	SIZE (cm)	OTM BOOK	SECTION
KEEP RIGHT	Rb-25	60x75	5	8
OBJECT MARKER - LEFT	Wa-33L	30x90	6	4
ROADWAY ID - STREET NAME (Roadway / Street)	G207	60xVARIABLE	8	3

1	SOLID YELLOW,10cm
2	SOLID DOUBLE YELLOW,10cm
3	3&3 BROKEN YELLOW,10cm
4	SOLID YELLOW,20cm
5	SOLID WHITE,10cm
6	3&3 BROKEN WHITE,10cm
7	3&3 BROKEN WHITE,10cm
8	3&9 BROKEN WHITE,10cm
9	SOLID WHITE,20cm
10	1&1 BROKEN WHITE,20cm
11	3&3 BROKEN WHITE,20cm
12	3&3 BROKEN WHITE,30cm
13	SOLID WHITE,30cm
14	SOLID WHITE,45cm
15	SOLID WHITE,60cm
20	SYMBOLS
][	LIMITS OF MARKINGS

NOTES:
1. 3&3, 3&3, 3&9, Denotes Pavement Marking Spacing (ie., 3 m line, 3 m gap, 3 m line)
2. Use (1) to Denote PAVEMENT MARKING
3. Use [1] to Denote PAVEMENT MARKING, TEMPORARY
4. Use ⚠ to Denote PAVEMENT MARKING, TEMPORARY-REMOVABLE
5. Use (1) to Denote PAVEMENT MARKING, DURABLE

MINISTRY OF TRANSPORTATION ONTARIO DRAWING | Date 1994 04 01 | Rev

LEGEND
PAVEMENT MARKINGS

Issue Date
WP
Issued By
MTOD - 101.070

PAVEMENT MARKINGS AND SIGNAGE NOTES:
1. ALL WORK SHALL BE DONE IN ACCORDANCE WITH ONTARIO TRAFFIC MANUAL BOOK 5 (REGULATORY SIGNS), BOOK 6 (WARNING SIGNS), BOOK 8 (GUIDE AND INFORMATION SIGNS), AND BOOK 11 (PAVEMENT, HAZARD & DELINEATION MARKINGS).
2. PAVEMENT MARKINGS TO ADHERE TO ONTARIO PROVINCIAL STANDARD SPECIFICATION (OPSS) 710.
3. PAVEMENT MARKINGS FOR PARKING STALLS TO CONFORM TO OPSS 1712.
4. EXISTING PAVEMENT MARKINGS TO BE REINSTATED TO EXISTING CONDITION OR BETTER IF DAMAGED.
5. EXACT DIMENSIONS OF PAVEMENT MARKING IMPROVEMENTS TO BE CONFIRMED ON SITE WITH THE ENGINEER OR ENGINEERS REPRESENTATIVE.

FINAL APPROVED PLAN
File: D11-024-2021
Date: October 10, 2023
Barrie No. of Pages: 8

5 0m 5 10 15
SCALE: 1:200

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6. DO NOT SCALE DRAWINGS.

SURVEY NOTES:
1. SURVEY COMPLETED BY RUDY MAK SURVEYING LTD. ON THE 19TH DAY OF FEBRUARY, 2020.
2. BEARINGS ARE UTM GRID, AND ARE REFERRED TO THE NORTH LIMIT OF MAPLEVIEW DRIVE WEST AS SHOWN ON PLAN 51R-42292.

ELEVATION NOTE:
1. ELEVATIONS ARE GEODETIC IN ORIGIN AND WERE DERIVED FROM VERTICAL CONTROL POINT, 03120030018 ELEVATION=306.589, AND ARE REFERRED TO THE CGVD28:1978 DATUM.

City Barrie

No.	ISSUE	DATE: MMM/DD/YYYY
1.	ISSUED FOR 1st SUBMISSION	06/28/2023
2.	ISSUED FOR 2nd SUBMISSION	07/13/2023
3.	ISSUED FOR 3rd SUBMISSION	07/28/2023
4.	ISSUED FOR 4th SUBMISSION	08/17/2023

Engineer: LICENSED PROFESSIONAL ENGINEER R. MACLAUGHLAN 100201141 Aug 17, 2023 PROVINCE OF ONTARIO

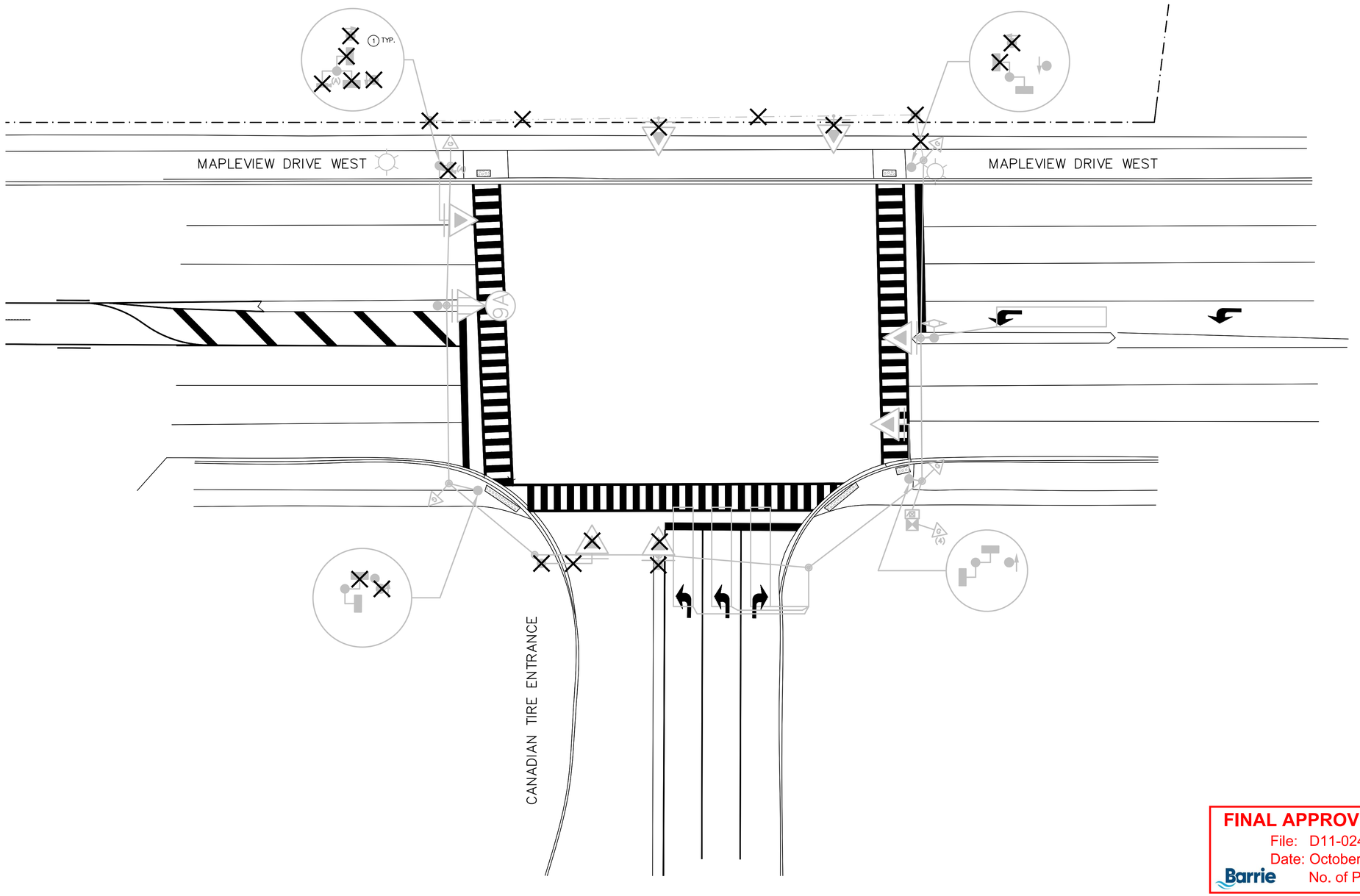
Engineer

Project: 90 MAPLEVIEW DRIVE CITY OF BARRIE

Drawing: NEW CONSTRUCTION PLAN

CROZIER CONSULTING ENGINEERS

Drawn By	Design By	Project
IM	RM	2181-6144
Check By	Check By	Drawing
RM	RM	C101





DRAWING NOTES:

1. REMOVED PEDESTRIAN HEADS, RADAR DETECTOR, AND MOUNTING BRACKET TO BE SALVAGED AND RETURNED TO THE CITY OF BARRIE.

LEGEND:

- EXISTING POWER SUPPLY EQUIPMENT
- EXISTING SPECIAL HEAD TYPE WITH ARROW INDICATION AND BACKBOARD (ALL 300mm LENSES)
- EXISTING HIGHWAY SIGNAL HEAD, ALL 300mm LENSES, WITH BACKBOARD
- EXISTING REMOVAL
- EX.TC1 — EXISTING CONTROLLER CABINET, PAD, AND/OR FOOTING MOUNT, C/W IDENTIFICATION CODE
- EXISTING DUCTS AND/OR CABLES, UNDERGROUND
- EX.P1 — EXISTING POLE WITH IDENTIFICATION CODE
- EX.HH1 — EXISTING ELECTRICAL HANDHOLE, UNDERGROUND WITH IDENTIFICATION CODE
- EXISTING PEDESTRIAN HEAD
- EX.LD1 — EXISTING LOOP DETECTOR WITH IDENTIFICATION CODE
- EP1 — EMERGENCY VEHICLE DUAL CHANNEL PRE-EMPTION DETECTOR WITH IDENTIFICATION CODE
- EXISTING LUMINAIRE
- (A) — EXISTING RADAR DETECTOR

FINAL APPROVED PLAN
File: D11-024-2021
Date: October 10, 2023
No. of Pages: 8

EXISTING REMOVALS PLAN

SCALE: 1:200

5 0m 5 10 15
SCALE: 1:200

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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.

No.	ISSUE	DATE: MM/DD/YYYY
0	ISSUED FOR 1st SUBMISSION	06/28/2023
1	ISSUED FOR 2nd SUBMISSION	07/13/2023
2	ISSUED FOR 3rd SUBMISSION	07/28/2023
3	ISSUED FOR 4th SUBMISSION	08/17/2023

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

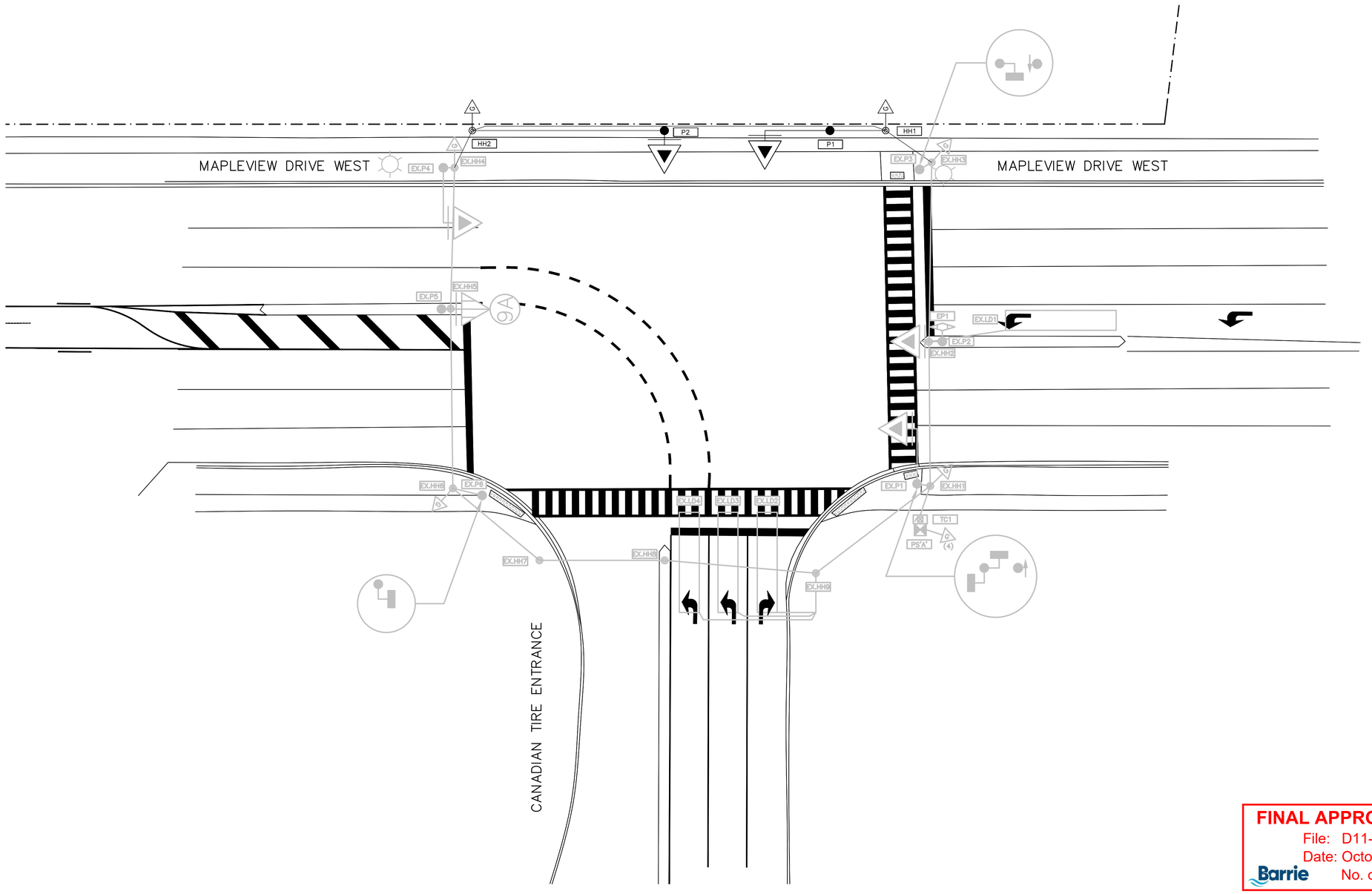
Engineer

Project: 90 MAPLEVIEW DRIVE CITY OF BARRIE

Drawing: EXISTING REMOVALS PLAN

CROZIER CONSULTING ENGINEERS

Drawn By	Design By	Project	Drawing
B.A.O.	B.A.O.	2181-6144	E1
Check By: P.W.	Check By:	Scale: 1:200	





N

LEGEND:

- EXISTING POWER SUPPLY EQUIPMENT
- EXISTING SPECIAL HEAD TYPE WITH ARROW INDICATION AND BACKBOARD (ALL 300mm LENSES)
- EXISTING HIGHWAY SIGNAL HEAD, ALL 300mm LENSES, WITH BACKBOARD
- PROPOSED HIGHWAY SIGNAL HEAD, ALL 300mm LENSES, WITH BACKBOARD
- EX.TC1 — EXISTING CONTROLLER CABINET, PAD, AND/OR FOOTING MOUNT, C/W IDENTIFICATION CODE
- EXISTING DUCTS AND/OR CABLES, UNDERGROUND
- PROPOSED DUCTS AND/OR CABLES, UNDERGROUND
- EX.P1 — EXISTING POLE WITH IDENTIFICATION CODE
- P1 — PROPOSED POLE WITH IDENTIFICATION CODE
- EX.HH1 — EXISTING ELECTRICAL HANDHOLE, UNDERGROUND WITH IDENTIFICATION CODE
- HH1 — PROPOSED ELECTRICAL HANDHOLE, UNDERGROUND WITH IDENTIFICATION CODE
- EXISTING PEDESTRIAN HEAD
- VD1 — RADAR DETECTOR WITH IDENTIFICATION CODE
- EP1 — EMERGENCY VEHICLE DUAL CHANNEL PRE-EMPTION DETECTOR WITH IDENTIFICATION CODE
- EXISTING GROUNDING ROD
- PROPOSED GROUNDING ROD
- EXISTING LUMINAIRE

FINAL APPROVED PLAN
File: D11-024-2021
Date: October 10, 2023
Barrie No. of Pages: 8

ELECTRICAL SIGNALS PLAN

SCALE: 1:200

5 0m 5 10 15

SCALE: 1:200

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1	ISSUED FOR 2nd SUBMISSION	07/13/2023
2	ISSUED FOR 3rd SUBMISSION	07/28/2023
3	ISSUED FOR 4th SUBMISSION	08/17/2023

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

Engineer

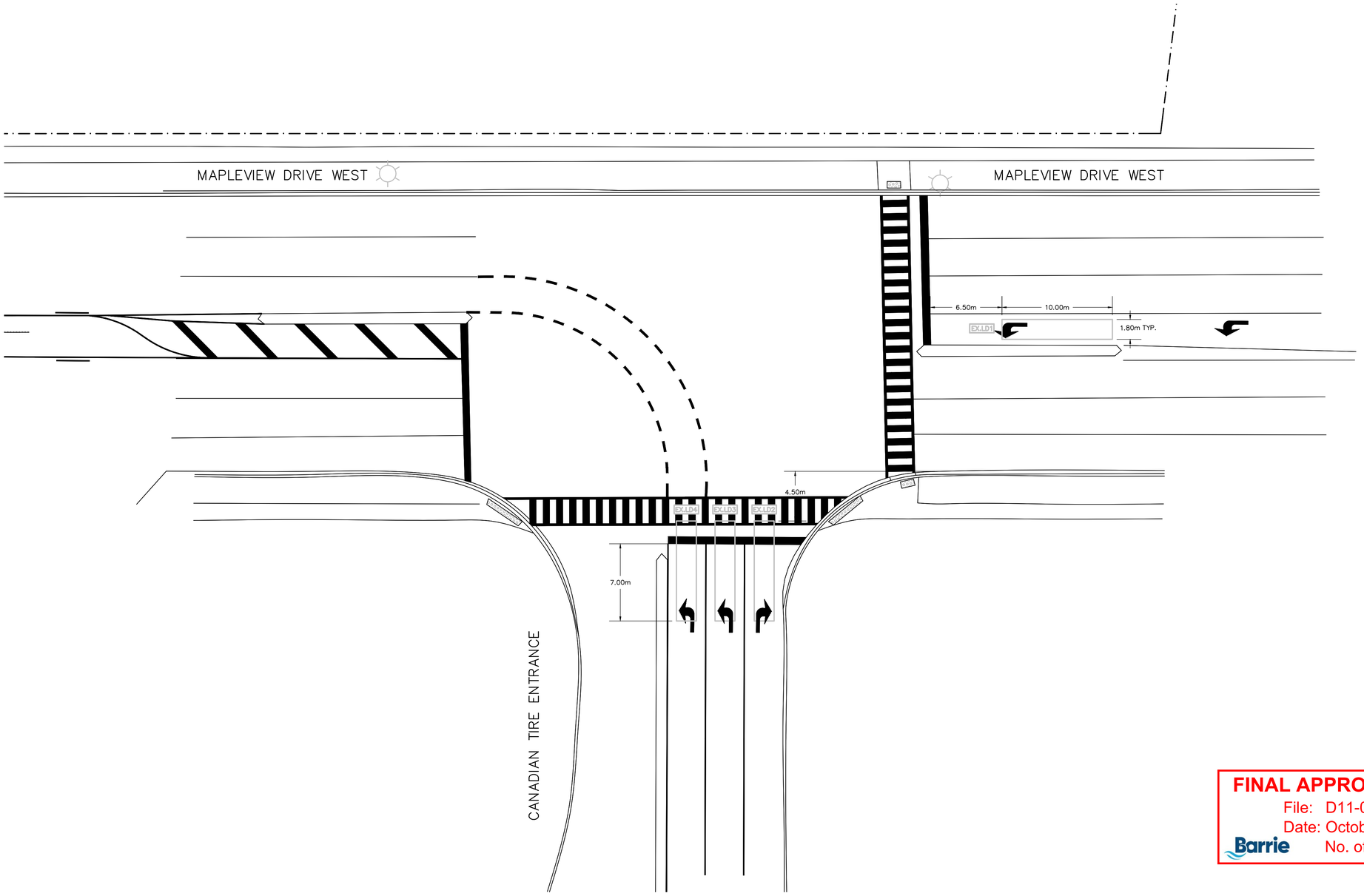
Project: 90 MAPLEVIEW DRIVE CITY OF BARRIE

Drawing: ELECTRICAL SIGNALS PLAN

CROZIER CONSULTING ENGINEERS

Drawn By	Design By	Project
B.A.O.	B.A.O.	2181-6144
Check By	Check By	Scale / Drawing
P.W.	1:200	E2





FINAL APPROVED PLAN
File: D11-024-2021
Date: October 10, 2023
Barrie No. of Pages: 8

LEGEND:
EX.LD1 EXISTING LOOP DETECTOR WITH IDENTIFICATION CODE
EXISTING LUMINAIRE

LOOP DETECTOR PLAN
SCALE: 1:200

5 0m 5 10 15
SCALE: 1:200

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2	ISSUED FOR 3rd SUBMISSION	07/28/2023
3	ISSUED FOR 4th SUBMISSION	08/17/2023

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

Engineer

Project: 90 MAPLEVIEW DRIVE CITY OF BARRIE

Drawing: LOOP DETECTOR PLAN

CROZIER CONSULTING ENGINEERS

Drawn By	Design By	Project
B.A.O.	B.A.O.	2181–6144
Check By	Check By	Scale
P.W.	1:200	Drawing E3

POLE SCHEDULE

POLE ID	DESCRIPTION	LOCATION	POLE LENGTH	SIGNAL MAST ARM/BRACKET/NOTES	NOTES
P1	NORTHBOUND PRIMARY	NE CORNER	6.1m HEAVY DUTY POLE ON CONCRETE FOOTING	5.5m ALUMINUM SIGNAL MAST ARM	TRAFFIC POLE PER BSD-TS-5 WITH CONCRETE FOOTING PER BSD-TS-1B & ANCHORAGE ASSEMBLY PER BSD-TS-1A
P2	NORTHBOUND SECONDARY	NORTH SIDE	6.1m LIGHT DUTY POLE ON CONCRETE FOOTING	DOUBLE ARM BRACKET PER OPSD 2524.01	TRAFFIC POLE PER BSD-TS-5 WITH CONCRETE FOOTING PER BSD-TS-1B & ANCHORAGE ASSEMBLY PER BSD-TS-1A
EX.P1	EASTBOUND PRIMARY SE PEDESTRIAN (NORTH/SOUTHBOUND) (EAST/WESTBOUND)	SE CORNER	6.1m ON CONCRETE FOOTING	4.6m ALUMINUM MAST ARM, MID-SECTION HANGER, PED HEAD MOUNTED ON 600mm DOUBLE ARM BRACKET PER OPSD 2524.01 c/w PUSH BUTTON	TRAFFIC POLE BSD-TS-5 WITH CONCRETE FOOTING PER BSD-TS-1B & ANCHORAGE ASSEMBLY PER BSD-TS-1A
EX.P2	EASTBOUND SECONDARY	EAST MEDIAN	6.1m ON CONCRETE FOOTING	DOUBLE ARM BRACKET PER OPSD 2524.01	TRAFFIC POLE PER BSD-TS-5 WITH CONCRETE FOOTING PER BSD-TS-1B & ANCHORAGE ASSEMBLY PER BSD-TS-1A
EX.P3	NE PEDESTRIAN (NORTH/SOUTHBOUND)	NE CORNER	3.7m ON CONCRETE FOOTING	1 PED HEAD MOUNTED ON 600mm DOUBLE ARM BRACKET PER OPSD 2524.01 c/w PUSH BUTTON	PEDESTRIAN POLE & FOOTING PER BSD-TS-1A & BSD-TS-1B
EX.P4	WESTBOUND PRIMARY NW PEDESTRIAN (NORTH/SOUTHBOUND)	NW CORNER	6.1m ON CONCRETE FOOTING	4.6m ALUMINUM SIGNAL MAST ARM WITH MID-SECTION HANGER, WITH EMERGENCY PRE-EMPTION DETECTOR. 1 PED HEAD MOUNTED ON 600mm DOUBLE ARM BRACKET PER OPSD 2524.01 c/w PUSH BUTTON	TRAFFIC POLE PER BSD-TS-5 WITH CONCRETE FOOTING PER BSD-TS-1B & ANCHORAGE ASSEMBLY PER BSD-TS-1A
EX.P5	WESTBOUND SECONDARY	WEST MEDIAN	6.1m ON CONCRETE FOOTING	DOUBLE ARM BRACKET PER OPSD 2524.01	TRAFFIC POLE PER BSD-TS-5 WITH CONCRETE FOOTING PER BSD-TS-1B & ANCHORAGE ASSEMBLY PER BSD-TS-1A
EX.P6	SW PEDESTRIAN (NORTH/SOUTHBOUND) (EAST/WESTBOUND)	SW CORNER	3.7m ON CONCRETE FOOTING	2 PED HEAD MOUNTED ON 600mm DOUBLE ARM BRACKET PER OPSD 2524.01 c/w 2 PUSH BUTTONS	PEDESTRIAN POLE & FOOTING PER BSD-TS-1A & BSD-TS-1B

CO-ORDINATES

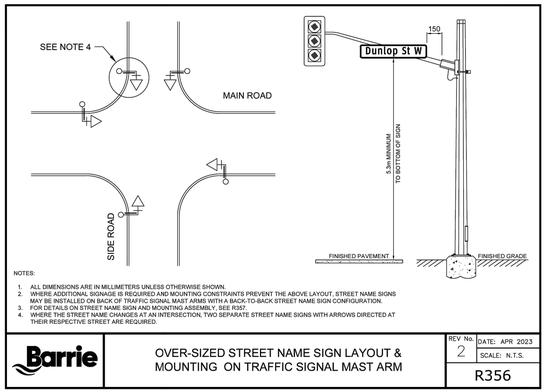
POLE OR STRUCTURE No.	NORTHING	EASTING
P1	4909754.64	604144.38
P2	4909753.06	604144.59
HH1	4909754.64	604149.38
HH2	4909742.95	604113.88

HANDHOLE SCHEDULE

EQUIP ID	LOCATION	NOTES
EX.HH1	SE	460mm DIA, C/W GROUNDING ELECTRODE
EX.HH2	E	460mm DIA
EX.HH3	NE	460mm DIA, C/W GROUNDING ELECTRODE
EX.HH4	NW	460mm DIA, C/W GROUNDING ELECTRODE
EX.HH5	W	460mm DIA
EX.HH6	SW	460mm DIA, C/W GROUNDING ELECTRODE
EX.HH7	SW	460mm DIA
EX.HH8	S	460mm DIA
EX.HH9	SE	460mm DIA
HH1	NE	460mm DIA, C/W GROUNDING ELECTRODE
HH2	NW	460mm DIA, C/W GROUNDING ELECTRODE
TC1	SE	PAD MOUNTED TRAFFIC SIGNAL CABINET
PS"A"	SE	PAD MOUNTED POWER SUPPLY PEDESTAL C/W QUANTITY 4 GROUND RODS

SIGNAL HEADS WIRING CONNECTIONS

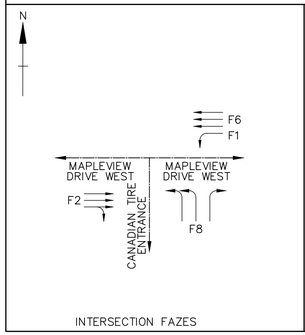
CABLE	COND #	COLOUR/MARK	CABLE GROUP #1	CABLE GROUP #2
19/C #14 AWG	1	WHITE/WHITE 1	MAIN RD. NEUTRAL	MAIN RD. NEUTRAL
	2	WHITE/WHITE 2	SIDE RD. NEUTRAL	SIDE RD. NEUTRAL
	3	BLACK	SPARE	SPARE
	4	ORANGE	SPARE	SPARE
	5	RED/RED 1	MAIN RD. RED-F2	MAIN RD. RED-F6
	6	RED/RED 2	SPARE	MAIN RD. LT RED-F1
	7	RED/RED 3	SIDE RD. RED-F8	SPARE
	8	RED/RED 4	SPARE	SPARE
	9	RED/RED 5	SPARE	SPARE
	10	YELLOW/AMBER 1	MAIN RD. AMB-F2	MAIN RD. AMB-F6
	11	YELLOW/AMBER 2	SPARE	MAIN RD. LT AMB-F1
	12	YELLOW/AMBER 3	SIDE RD. AMB-F8	SPARE
	13	YELLOW/AMBER 4	SPARE	SPARE
	14	YELLOW/AMBER 5	SPARE	SPARE
	15	BLUE/GREEN 1	MAIN RD. GREEN-F2	MAIN RD. GREEN-F6
	16	BLUE/GREEN 2	SPARE	MAIN RD. LT GR-F1
	17	BLUE/GREEN 3	SIDE RD. GR-F8	SPARE
	18	BLUE/GREEN 4	SPARE	SPARE
	19	BLUE/GREEN 5	SPARE	SPARE



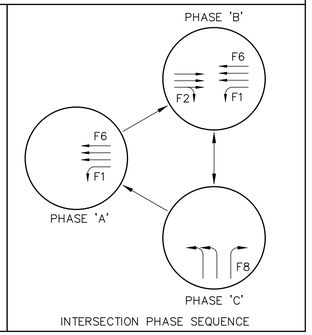
NOTES:
1. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SHOWN.
2. WHERE ADDITIONAL SIGNAGE IS REQUIRED AND MOUNTING CONSTRAINTS PREVENT THE ABOVE LAYOUT, STREET NAME SIGNS MAY BE INSTALLED ON BACK OF TRAFFIC SIGNAL MAST ARMS WITH A BACK-TO-BACK STREET NAME SIGN CONFIGURATION.
3. FOR DETAILS ON STREET NAME SIGN AND MOUNTING ASSEMBLY, SEE R357.
4. WHERE THE STREET NAME CHANGES AT AN INTERSECTION, TWO SEPARATE STREET NAME SIGNS WITH ARROWS DIRECTED AT THEIR RESPECTIVE STREET ARE REQUIRED.

Barrie | OVER-SIZED STREET NAME SIGN LAYOUT & MOUNTING ON TRAFFIC SIGNAL MAST ARM | REV No. 2 | DATE: APR 2023 | SCALE: N.T.S. | R356

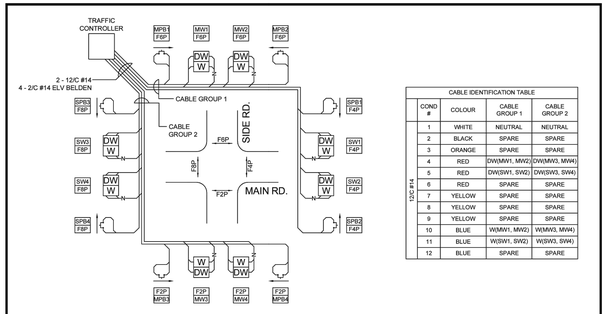
PHASE SEQUENCING DATA FOR 2070 CONTROLLER



INTERSECTION FAZES



INTERSECTION PHASE SEQUENCE

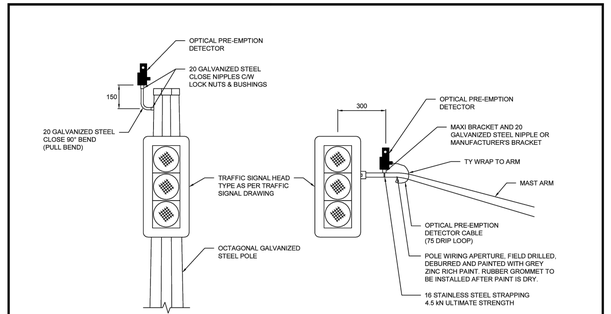


CABLE IDENTIFICATION TABLE

12C #14 COND #	COLOUR	CABLE GROUP 1	CABLE GROUP 2
1	WHITE	NEUTRAL	NEUTRAL
2	BLACK	SPARE	SPARE
3	ORANGE	SPARE	SPARE
4	RED	DW(MW1, MW2)	DW(MW3, MW4)
5	RED	DW(SW1, SW2)	DW(SW3, SW4)
6	RED	SPARE	SPARE
7	YELLOW	SPARE	SPARE
8	YELLOW	SPARE	SPARE
9	YELLOW	SPARE	SPARE
10	BLUE	W(MW1, MW2)	W(MW3, MW4)
11	BLUE	W(SW1, SW2)	W(SW3, SW4)
12	BLUE	SPARE	SPARE

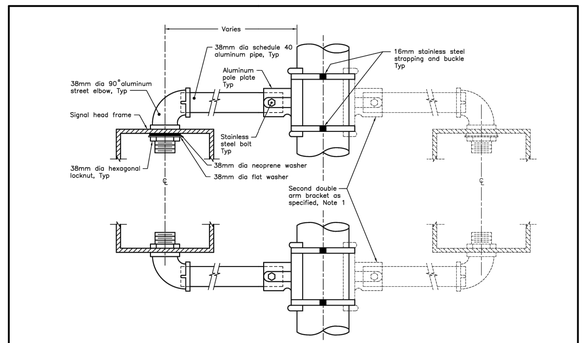
NOTES:
1. ANY UNUSED CONDUCTORS ARE TO BE LEFT UNCONNECTED AND DESIGNATED AS SPARES.
2. CONNECTIONS SHOWN ARE GENERAL AND TYPICAL AND SHALL BE ADJUSTED TO SUIT THE INTERSECTION LAYOUT.

Barrie STANDARD DETAIL | TRAFFIC SIGNAL WIRING FOR PEDESTRIAN EQUIPMENT | REV No. 2 | DATE: FEB 2022 | SCALE: N.T.S. | BSD-TS-11



NOTES:
1. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SHOWN.

Barrie STANDARD DETAIL | INSTALLATION DETAIL FOR OPTICAL PRE-EMPTION DETECTOR | REV No. 2 | DATE: FEB 2022 | SCALE: N.T.S. | BSD-TS-13



NOTES:
1 The orientation of the second double arm bracket varies.
A All dimensions are in millimetres unless otherwise shown.

ONTARIO PROVINCIAL STANDARD DRAWING | Nov 2018 | Rev 0 | TRAFFIC SIGNAL DOUBLE ARM BRACKET | OPSD 2524.010

FINAL APPROVED PLAN
File: D11-024-2021
Date: October 10, 2023
Barrie No. of Pages: 8

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Barrie

No.	ISSUE	DATE: MM/DD/YYYY
0	ISSUED FOR 1st SUBMISSION	06/28/2023
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2	ISSUED FOR 3rd SUBMISSION	07/28/2023
3	ISSUED FOR 4th SUBMISSION	08/17/2023

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

Engineer

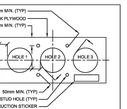
Project: 90 MAPLEVIEW DRIVE CITY OF BARRIE

Drawing: ELECTRICAL SCHEDULES AND DETAILS

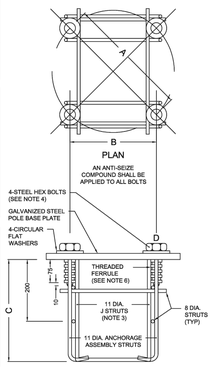
CROZIER CONSULTING ENGINEERS

Drawn By	Design By	Project	Drawing
B.A.O.	B.A.O.	2181-6144	E4
Check By: P.W.	Check By:	Scale: N.T.S.	

ASSEMBLY DIMENSIONS			
BOLT CIRCLE DIA. (mm) "A"	BOLT DISTANCE (mm) "B"	ANCHORAGE DEPTH (mm) "C"	BOLT DIA. (mm)
242	171	457	22
406	287	457	32



DETAIL A - WOOD TEMPLATE



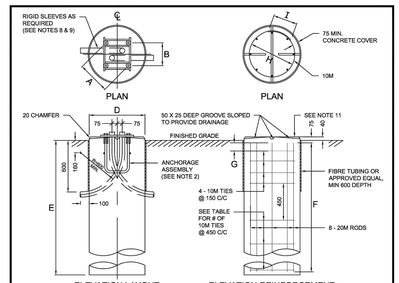
INSTRUCTIONS:

1. DO NOT REMOVE STUDS FROM THREADED FERRULES.
2. PLACE ANCHORAGE IN FOOTING WITH WOOD TEMPLATE OVER FORMWORK.
3. TIE ANCHORAGE TO STEEL IN FOOTING.
4. TIE ANCHORAGE TO DUCTS.
5. ADJUST FOR LEVEL USING A CARPENTER'S LEVEL. SEVERAL WAYS ON THE TEMPLATE.
6. SECURE IN THE LEVEL POSITION PRIOR TO POURING CONCRETE TO THE TOP OF THE FORMWORK.
7. REMOVE WOOD TEMPLATE AND FINISH CONCRETE ON TOP OF FOOTING AS SOON AS CONCRETE HAS AN INITIAL SET. REPLACE TEMPLATE AND PLACE BOLTS FULLY TO THREADED FERRULES (HAND TIGHT).

NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SHOWN.
2. FOR CONCRETE FOOTING DETAILS, SEE BSD TS-1B.
3. J STRUTS NOT REQUIRED IN ASSEMBLY WITH BOLT CIRCLE DIAMETER LESS THAN 406mm.
4. BOLTS SHALL BE FACTORY SET IN FERRULE, HAND TIGHTENED WITH ANTI-SEIZE COMPOUND.
5. PLYWOOD TEMPLATE WITH INSTRUCTION STICKER TO BE PROVIDED FOR ACCURATE SETTING OF THE ANCHORAGE ASSEMBLY.
6. PLUG HOLES IN FERRULE TO KEEP THREADS CLEAN FROM CONCRETE.

Barrie STANDARD DETAIL	ANCHORAGE ASSEMBLY	REV No. 2	DATE: FEB 2022
			SCALE: N.T.S.
			BSD-TS-1A

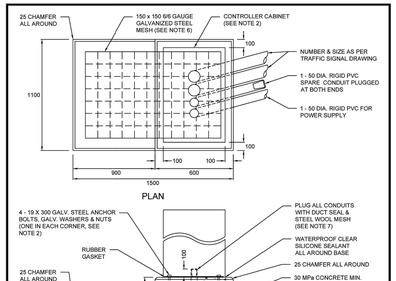


OCTAGONAL STEEL POLE TYPE	POLE LENGTH (m)	BASE DIA. (mm) "D"	BURIAL DEPTH (mm) "E"	ROD LENGTH (mm) "F"	"G" (mm)	CAGE DIA. (mm) "H"	LAP (mm) "I"	No. OF 10m ties @ 450 C TO C	BOLT CIRCLE DIA. (mm)
8312	3.7	450	1400	1200	100	300	180	1	242
8512	3.7	760	2150	2000	100	560	300	3	406
8520	6.1 LD	760	2150	2000	100	560	300	3	406
8520	6.1 HD	760	2150	2000	100	560	300	3	406
8524	7.3 LD	760	2400	2200	100	560	300	3	406
8624	7.3 HD	760	2400	2200	100	560	300	3	406
8530	9.1	760	2600	2450	100	560	300	4	406
8535	10.7	760	2600	2450	100	560	300	4	406
8545	13.7	760	2900	2750	150	560	300	4	406

NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SHOWN.
2. FOR ANCHORAGE ASSEMBLY DETAILS, SEE BSD TS-1A.
3. FOR POLE DETAILS, SEE BSD TS-2D.
4. CONCRETE IN FOUNDATION SHALL BE PLACED AGAINST UNDISTURBED GROUND.
5. TOP OF FOUNDATION SHALL BE TRULY LEVEL.
6. CLASS OF CONCRETE TO BE MIN. 30 MPa.
7. ALL FOOTINGS WILL BE VIBRATED DURING CONCRETE POUR.
8. SLEEVES SHALL BE 50 OR 75 I.D., 90° BEND, RIGID PVC CONDUIT.
9. EITHER ONE OR TWO SLEEVES REQUIRED FOR EACH CONCRETE FOOTING. THREE SLEEVES AS SPECIFIED.
10. BOLTS SHALL BE FACTORY SET IN FERRULE, HAND TIGHTENED WITH ANTI SEIZE COMPOUND.
11. DIRECTION OF CONDUIT SLEEVE ENTRY TO BE MARKED WITH AN 'X'.

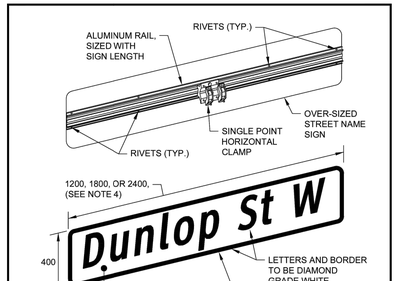
Barrie STANDARD DETAIL	CONCRETE FOOTING FOR BASE MOUNTED POLE	REV No. 2	DATE: FEB 2022
			SCALE: N.T.S.
			BSD-TS-1B



NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SHOWN.
2. THE CONTRACTOR IS TO OBTAIN THE ANCHOR BOLT PATTERNS FROM THE CONTROLLER CABINET SUPPLIER.
3. SEE CONTRACT DRAWINGS FOR CONTROLLER PAD LOCATION. FINAL CONTROLLER PAD ORIENTATION SHALL BE ADJUSTED ON SITE AS NECESSARY.
4. MINIMUM REQUIREMENT OF 2.0M LEVEL GROUND IN FRONT OF CONTROLLER PAD.
4. CONCRETE PAD SHALL BE LEVEL.
5. MINIMUM OF 75 CONCRETE TO BE PLACED OVER STEEL MESH REINFORCING.
6. CONCRETE AND REINFORCING STEEL TO BE PLACED IN ACCORDANCE WITH OPSS 904 AND 905.
7. ALL CONDUITS ENTERING THE TRAFFIC CABINET BASE MUST BE PLUGGED WITH STEEL WOOL MESH FOLLOWED BY ELECTRICAL DUCT SEAL TO DETER RODENTS.

Barrie STANDARD DETAIL	CONCRETE PAD FOR TRAFFIC SIGNAL CONTROLLER CABINET	REV No. 2	DATE: FEB 2022
			SCALE: N.T.S.
			BSD-TS-2



SIGN SPECIFICATIONS:

FONT: CLEARVIEW HIGHWAY 2B, UPPER & LOWERCASE

COLOURS: DIAMOND GRADE WHITE 3M DG3 TRANSLUCENT GREEN 3M 1177C,

MATERIAL: ALUMINUM, 3 THICKNESS,

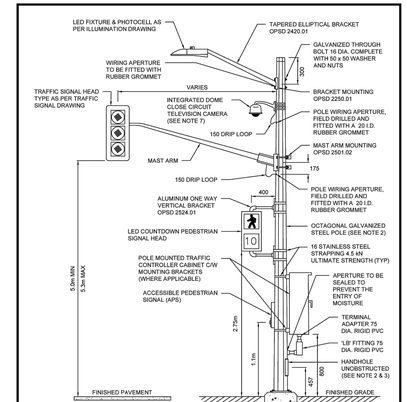
BLANK SIZES: 400X1200, 400X1800, 400X2400

38 RADIUS CORNERS, NO HOLES

NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SHOWN.
2. STREET NAME SIGNS ARE TO BE MOUNTED ON FRONT OF TRAFFIC SIGNAL MAST ARMS, SEE R356 FOR MOUNTING LOCATIONS AND LAYOUT.
3. BLACK BACKGROUND SHALL ONLY BE SPECIFIED ON HISTORIC STREET NAME SIGNS WITHIN THE DOWNTOWN AREA AS DEFINED IN THE CITY'S OFFICIAL PLAN.
4. SIGN LENGTH SHALL BE SIZED ACCORDINGLY BASED ON THE NUMBER OF CHARACTERS IN THE STREET NAME.
5. WHERE THE STREET NAME CHANGES AT AN INTERSECTION, TWO SEPARATE STREET NAME SIGNS WITH ARROWS DIRECTED AT THEIR RESPECTIVE STREET ARE REQUIRED.

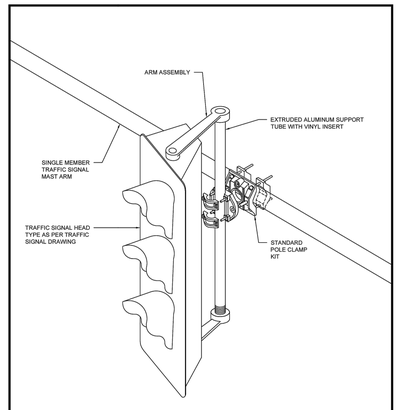
Barrie	OVER-SIZED STREET NAME SIGN & MOUNTING ON TRAFFIC SIGNAL MAST ARM	REV No. 2	DATE: APR 2023
			SCALE: N.T.S.
			R357



NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SHOWN.
2. FOR POLE DETAILS, SEE R360.
3. POLES SHALL BE PLACED SO THAT HANDHOLE ORIENTATIONS ARE IN ACCORDANCE WITH OPSD 2220.01.
4. HANDHOLE WIRING CONNECTIONS TO LUMINAIRE SHALL BE MADE IN ACCORDANCE WITH OPSD 2255.020.
5. ALL WIRING APERTURES ARE TO BE DE-BURRED & PROTECTED WITH GREY ZINC RICH PAINT.
6. FOR ORIENTATION AND LOCATION OF POLES AND EQUIPMENT SEE LAYOUT DRAWINGS.
7. CAMERA TO BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S INSTALLATION SPECIFICATIONS. NO SPLICING OF CAMERA FEED CABLE SHALL BE ALLOWED.

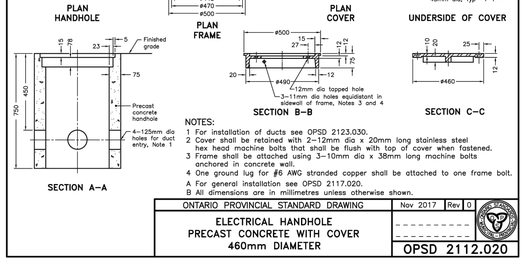
Barrie	TRAFFIC SIGNAL EQUIPMENT STEEL POLES	REV No. 3	DATE: APR 2023
			SCALE: N.T.S.
			R349



NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SHOWN.
2. FOR MOUNTING DETAILS, SEE BSD TS-5.

Barrie STANDARD DETAIL	TRAFFIC SIGNAL HEAD UNIVERSAL BRACKET MOUNTING DETAIL	REV No. 1	DATE: FEB 2022
			SCALE: N.T.S.
			BSD-TS-15



NOTES:

1 For installation of ducts see OPSD 2123.030.
2 Cover shall be retained with 2-12mm dia x 20mm long stainless steel hex head machine bolts that shall be flush with top of cover when fastened.
3 Frame shall be attached using 3-10mm dia x 38mm long machine bolts anchored in concrete wall.
4 One ground lug for #6 AWG stranded copper shall be attached to one frame bolt.

A For general installation see OPSD 2117.020.
B All dimensions are in millimetres unless otherwise shown.

ONTARIO PROVINCIAL STANDARD DRAWING	Nov 2017	Rev 0
ELECTRICAL HANDHOLE PRECAST CONCRETE WITH COVER 460mm DIAMETER		
		OPSD 2112.020

FINAL APPROVED PLAN
File: D11-024-2021
Date: October 10, 2023
Barrie No. of Pages: 8

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Barrie

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0	ISSUED FOR 1st SUBMISSION	06/28/2023
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3	ISSUED FOR 4th SUBMISSION	08/17/2023

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

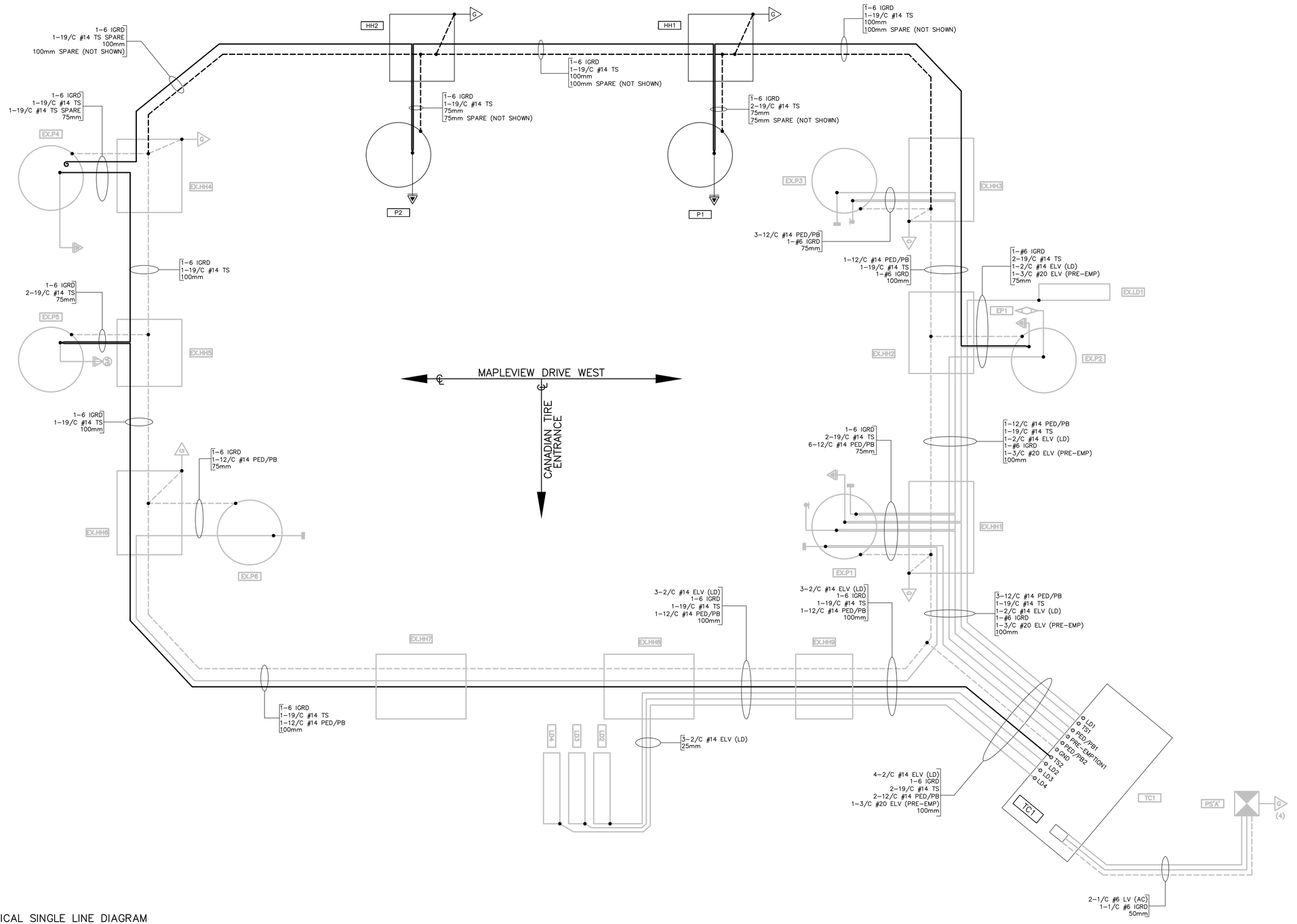
Engineer:

Project: 90 MAPLEVIEW DRIVE CITY OF BARRIE

Drawing: ELECTRICAL DETAILS

CROZIER CONSULTING ENGINEERS

Drawn By	Design By	Project
B.A.O.	B.A.O.	2181-6144
Check By	Check By	Scale / Drawing
P.W.		N.T.S / E5



LEGEND:

- EXISTING POWER SUPPLY EQUIPMENT
- EXISTING SPECIAL HEAD TYPE WITH ARROW INDICATION AND BACKBOARD (ALL 300mm LENSES)
- EXISTING HIGHWAY SIGNAL HEAD, ALL 300mm LENSES, WITH BACKBOARD
- PROPOSED HIGHWAY SIGNAL HEAD, ALL 300mm LENSES, WITH BACKBOARD
- EX.TC1 — EXISTING CONTROLLER CABINET, PAD, AND/OR FOOTING MOUNT, C/W IDENTIFICATION CODE
- EXISTING DUCTS AND/OR CABLES, UNDERGROUND
- PROPOSED DUCTS AND/OR CABLES, UNDERGROUND
- EX.P1 — EXISTING POLE WITH IDENTIFICATION CODE
- P1 — PROPOSED POLE WITH IDENTIFICATION CODE
- EX.HH1 — EXISTING ELECTRICAL HANDHOLE, UNDERGROUND WITH IDENTIFICATION CODE
- HH1 — PROPOSED ELECTRICAL HANDHOLE, UNDERGROUND WITH IDENTIFICATION CODE
- EXISTING PEDESTRIAN HEAD
- VD1 — RADAR DETECTOR WITH IDENTIFICATION CODE
- EP1 — EMERGENCY VEHICLE DUAL CHANNEL PRE-EMPTION DETECTOR WITH IDENTIFICATION CODE
- EXISTING GROUNDING ROD
- PROPOSED GROUNDING ROD

GENERAL NOTE:

1. ALL CONDUIT BETWEEN EXISTING ITEMS IS TO REMAIN AS THEY ARE IN THE FIELD. ONLY BETWEEN PROPOSED ITEMS WILL A SPARE BE INSTALLED.

FINAL APPROVED PLAN
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Date: October 10, 2023
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ELECTRICAL SINGLE LINE DIAGRAM

SCALE: N.T.S.

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3	ISSUED FOR 4th SUBMISSION	08/17/2023

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

Engineer

Project: 90 MAPLEVIEW DRIVE
CITY OF BARRIE

Drawing: ELECTRICAL SINGLE LINE DIAGRAM

CROZIER CONSULTING ENGINEERS

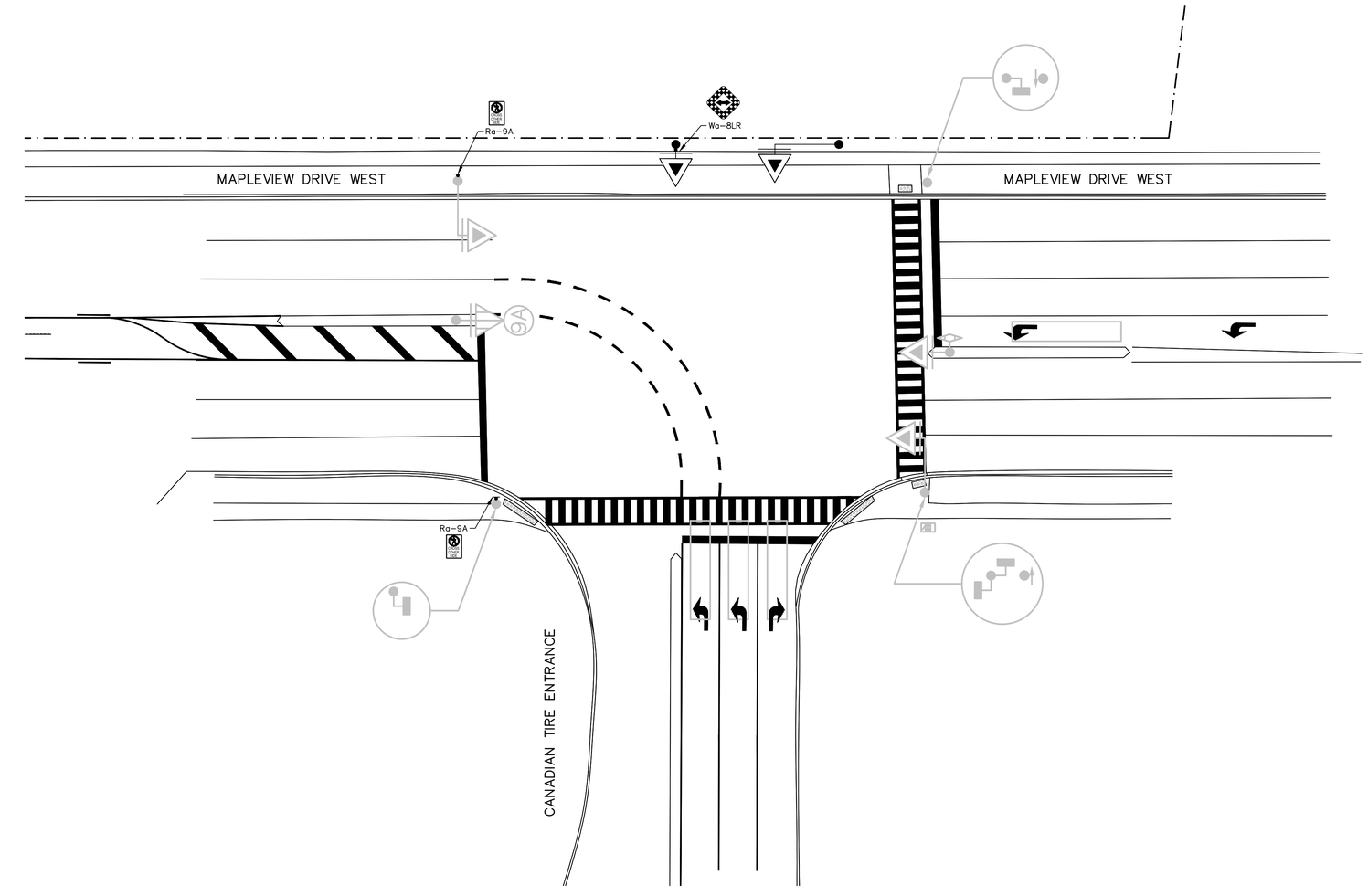
Drawn By	Design By	Project	
B.A.O.	B.A.O.		2181-6144
Check By	Check By	Scale	Drawing
P.W.		N.T.S.	E6

LEGEND

- HIGHWAY SIGNAL HEAD (30 cm RED) WITH BACKBOARD AND MAST ARM
- HIGHWAY SIGNAL HEAD (30 cm RED) WITH BACKBOARD AND OVERHEAD CABLE
- OVERSIZE HIGHWAY SIGNAL HEAD WITH BACKBOARD AND MAST ARM (ALL 30 cm LENSES)
- SPECIAL HEAD WITH ARROW INDICATION AND BACKBOARD (EXAMPLE SHOWS TYPE (2) HEAD)
- SPECIAL HEAD WITH BACKBOARD AND ONE OR MORE PROGRAMMABLE LENSES (EXAMPLE SHOWS TYPE (2) HEAD)
- STANDARD SIGNAL HEAD WITH BACKBOARD AND MAST ARM (ALL 20 cm LENSES)
- STANDARD SIGNAL HEAD WITH MAST ARM, WITHOUT BACKBOARD
- BICYCLE SIGNAL HEAD
- PEDESTRIAN SIGNAL HEAD
- PEDESTRIAN SIGNAL HEAD WITH COUNT DOWN
- PEDESTRIAN PUSH BUTTON
- ACCESSIBLE PEDESTRIAN SHORT POLE
- TRAFFIC SIGNAL POLE
- CURB RAMP (1.22 m WIDTH) PROVIDING ACCESS TO SINGLE CROSSWALK
- ACCESSIBLE PEDESTRIAN PUSH BUTTON WITH AUDIBLE TONE: CUCKOO
- ACCESSIBLE PEDESTRIAN PUSH BUTTON WITH AUDIBLE TONE: MELODY
- ACCESSIBLE PEDESTRIAN PUSH BUTTON WITH SPEECH WALK MESSAGES
- VEHICLE PASSAGE LOOP & OR COUNT LOOP DETECTOR
- DIAMOND LOOP DETECTOR
- VEHICLE LOOP DETECTOR
- DUPLEX LOOP DETECTOR
- NON-INTRUSIVE DETECTION ZONE
- EMERGENCY VEHICLE PRE-EMPTION DETECTOR
- TRAFFIC CONTROLLER CABINET
- TRAFFIC CONTROLLER CABINET WITH UNINTERRUPTIBLE POWER SUPPLY
- UNINTERRUPTIBLE POWER SUPPLY CABINET
- TRAFFIC SIGN
- TRAFFIC SIGN WITH FLASHING BEACON
- ILLUMINATED TRAFFIC SIGN

CONTRACT NO. INFORMATION			
REVISIONS	DATE	ANALYST	DESCRIPTION OF REVISIONS / RECOMMENDED BY
			RECONSTRUCTION

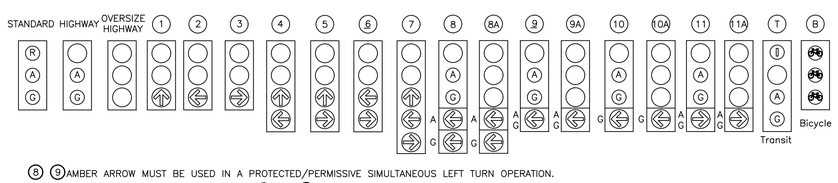




FINAL APPROVED PLAN
File: D11-024-2021
Date: October 10, 2023
Barrie No. of Pages: 8

CLASSIFICATION OF ROADWAY	TRAFFIC SIGNAL HEAD TABLE							
	TYPE		SIZE		OFFSET FROM POLE		MOUNTING HT.	BACKBOARD
MAJOR ROADWAY MAPLEVIEW DRIVE WEST	PRIMARY		EB OS HWY	WB OS HWY	EB – 4.6m	WB – 4.6m	5.2m	YES
	SECONDARY		EB OS HWY	WB TYP 9A	EB – FACE ON	WB – FACE ON	5.2m	YES
	AUXILIARY							
	SEPARATE LT.TURN ARROWS	PRIMARY						
		SECONDARY						
MINOR ROADWAY CANADIAN TIRE ENTRANCE	PRIMARY		NB OS HWY		NB – 5.5m		5.2m	YES
	SECONDARY		NB OS HWY		NB – FACE ON		5.2m	YES
	AUXILIARY							
	SEPARATE LT.TURN ARROWS	PRIMARY						
		SECONDARY						

TRAFFIC CONTROL SIGNAL HEADS
ALL 30 cm LENSES, EXCEPT AS NOTED



(8) (9) AMBER ARROW MUST BE USED IN A PROTECTED/PERMISSIVE SIMULTANEOUS LEFT TURN OPERATION.
NOTE: –FOR SPECIAL ARROW HEADS (8), (9), (10) AND (11), 20 cm AMBER BALL AND 20 cm GREEN BALL LENSES SHOULD BE USED
–BICYCLE SYMBOL IN ACCORDANCE TO O. REG. 626 H.T.A.

5m 0 10m
1:250

MUNICIPALITY CITY OF BARRIE
INTERSECTION MAPLEVIEW DRIVE WEST & CANADIAN TIRE ENTRANCE INTERSECTION
DATE JUNE 20, 2023
RECOMMENDED BY
MUNICIPAL OFFICIAL (MUNICIPAL INSTALLATION)
REGIONAL TRAFFIC REPRESENTATIVE (MINISTRY INSTALLATION)

CITY OF BARRIE MUNICIPAL WORKS

SIGNAL DESIGN RECOMMENDED FOR APPROVAL:

SIGNAL INSTALLATION APPROVED AS PER SECTION 144(31) H.T.A.

DRAWING NAME: J:\2100\2181- A.R.G. GROUP OF COMPANIES\6144- 90 MAPLEVIEW DR W\CAD\BSMES_SHEETS\6144_TRAFFIC SIGNALIZATION.DWG