



Shell Canada Products Hazeldean Road and Fringewood Drive NTI 5 Orchard Drive Stittsville, Ontario

DRAWING LIST - ISSUED FOR SPA

GENERAL DRAWINGS - SPA

SHEET No.	SHEET TITLE	REVISED
G000.1	COVER SHEET	
G001.1	CODE STUDY	

CIVIL DRAWINGS - SPA

SHEET No.	SHEET TITLE	REVISED
C001.0	GENERAL NOTES (CIVIL)	
C002.0	CIVIL SPECIFICATIONS	
C101.0	SEDIMENT AND EROSION CONTROL PLAN	
C102.0	SITE PLAN	
C103.0	SITE SERVICING PLAN	
C104.0	SITE GRADING PLAN	
C105.0	STORMWATER MANAGEMENT PLAN	
C106.0	FUEL PIPING PLAN	
C107.0	TANK LAYOUT PLAN	
C108.0	SIGNAGE PLAN	
C109.0	BULK VEHICLE ROUTE	
C110.0	FIRE TRUCK ACCESS	
C111.0	TRUCK ACCESS PLAN	
C501.0	SITE DETAILS	
C502.0	SITE DETAILS	
C503.0	SITE DETAILS	
C504.0	SITE DETAILS	

LANDSCAPE DRAWINGS - SPA

SHEET No.	SHEET TITLE	REVISED
L001.0	LANDSCAPE NOTES AND SCHEDULE	
L501.0	LANDSCAPE DETAILS	
L101.0	LANDSCAPE PLAN	

ARCHITECTURAL DRAWINGS - SPA

SHEET No.	SHEET TITLE	REVISED
C-STORE SPA		
A101.1	MAIN FLOOR PLAN	
A102.1	ROOF PLAN	
A201.1	EXTERIOR ELEVATIONS	
A301.1	BUILDING SECTIONS	
CANOPY SPA		
A101.2	FUEL PUMP PLAN, ROOF PLAN	
A201.2	FUEL PUMP ELEVATIONS	
CAR WASH SPA		
A101.3	MAIN FLOOR PLAN, ROOF PLAN	
A201.3	EXTERIOR ELEVATIONS	
A301.3	BUILDING SECTIONS	

ELECTRICAL DRAWINGS - SPA

SHEET No.	SHEET TITLE	REVISED
C-STORE SPA		
E101.0	SITE PHOTOMETRIC PLAN	

GENERAL NOTES

1. DO NOT SCALE DRAWINGS.
2. ALL WORK TO BE COMPLETED IN ACCORDANCE WITH THE REQUIREMENTS OF THE ONTARIO BUILDING CODE (LATEST EDITION) AND ALL APPLICABLE PROVINCIAL, LOCAL AND MUNICIPAL REQUIREMENTS. ALL WORK TO COMPLY WITH THE STANDARD SHELL SPECIFICATIONS.
3. DRAWINGS ARE TO BE READ IN CONJUNCTION WITH THE SPECIFICATIONS
4. PROVIDE BLOCKING, STRAPPING, NAILING STRIPS, WOOD FRAMING, ETC. AS INDICATED ON DRAWINGS OR AS REQUIRED.
5. GENERAL CONTRACTOR TO FOLLOW THE ASSURANCE PLAN IN ACCORDANCE WITH SHELL GIDS FOR ALL HOLD POINTS AND QUALITY CHECKS. AECOM TO BE NOTIFIED 72 HOURS IN ADVANCE OF BEING REQUIRED ON SITE FOR INSPECTIONS.
6. GENERAL CONTRACTOR AND SUB-CONTRACTORS SHALL FIELD VERIFY DIMENSIONS, AND FAMILIARIZE THEMSELVES WITH PROJECT REQUIREMENTS PRIOR TO COMMENCING THE WORK. CONTRACTOR SHALL REPORT ANY DISCREPANCIES TO THE CONSULTANT.
7. PATCH, REPAIR AND MAKE GOOD ALL AREAS DISTURBED DURING CONSTRUCTION.
8. PROVIDE AND MAINTAIN CONTINUOUS FIRE/SMOKE SEPARATIONS. EACH TRADE IS TO FIRE STOP ALL SERVICE PENETRATIONS ASSOCIATED WITH THEIR WORK WITH APPROVED AND ULC LISTED FIREPROOF SYSTEMS.
9. PROVIDE AND MAINTAIN CONTINUOUS AIR/VAPOUR BARRIER SYSTEM. CAULK AROUND OPENINGS AND GAPS WITH SEALANT TO ACHIEVE A CONTINUOUS BARRIER.
10. THE GENERAL CONTRACTOR SHALL COORDINATE ALL ACTIVITIES AS REQUIRED TO ENSURE EFFICIENT, CORRECT AND ORDERLY INSTALLATION OF EACH PART OF THE WORK TO AVOID CONFLICT IN THE TRADE WORK AND SCHEDULE.
11. ALL CONSTRUCTION TO COMPLY WITH INDUSTRY TRADE STANDARDS, AS WELL AS MANUFACTURER'S RECOMMENDATIONS, TO THE EXTENT THAT THOSE INSTRUCTIONS AND RECOMMENDATIONS ARE MORE EXPLICIT OR STRINGENT THAN THE REQUIREMENTS CONTAINED IN THESE CONTRACT DOCUMENTS.



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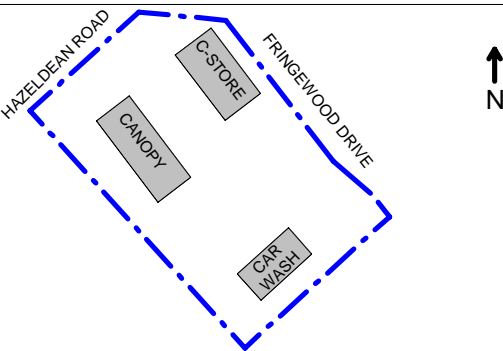
ISSUE/REVISION

A	2020-03-26	ISSUED FOR SPA
IR	DATE	DESCRIPTION

DRAWN BY

HS

KEY PLAN



GLOBAL PROJECT ID NUMBER

CAN01444

SHEET TITLE

SITE

COVER SHEET

AECOM FILE NAME

G000.1-COV-HZLX

SHEET NUMBER

G000.1

C-STORE CODE STUDY

MUNICIPAL ADDRESS

5 ORCHARD DRIVE,
STITTSVILLE, ONTARIO

LEGAL ADDRESS

PART OF BLOCK 21 OF DRAFT PLAN OF SUBDIVISION OF
PARTS OF LOTS 26 AND 27 CONCESSION 11
GEOGRAPHIC TOWNSHIP OF GOULBOURN
(CITY OF OTTAWA)

FLOOR AREA & BUILDING HEIGHT

GROSS FLOOR AREA=	168 m2
BUILDING HEIGHT (MAIN FLOOR TO UNDERSIDE OF ROOF)=	3660 mm
BUILDING HEIGHT (MAIN FLOOR TO TOP OF PARAPET) =	5140 mm
HEIGHT OF ROOF =	1480 mm

APPLICABLE BUILDING CODES

ONTARIO BUILDING CODE 2012 WITH LATEST AMENDMENTS
DIV. A 1.1.2.4 - PART 9 APPLIES FOR GROUP E
ALL APPLICABLE SUPPLEMENTARY STANDARDS

OCCUPANCY CLASSIFICATION

TABLE 9.10.2.1 GROUP E (MERCANTILE)

FIRE SEPARATIONS

9.10.10.3 1 HR FIRE SEPARATION REQUIRED AT SERVICE ROOMS

9.10.10.6 45 MINUTE FIRE SEPARATION REQUIRED AT STORAGE ROOMS

OCCUPANT LOAD

9.9.1.3 CONFORMING TO TABLE 3.1.17.1

SALES AREA, WASHROOM :	
98.26 m2 @ 3.7 m2/PERSON	=27 PERSONS
OPERATIONS, OFFICE :	
13.9 m2 @ 9.30 m2/PERSON	=2 PERSON
ELECTRICAL, MECHANICAL :	
14.23 m2 @ 9.30 m2/PERSON	=2 PERSON
STORAGE, COOLER :	
25.03 m2 @ 46.00 m2/PERSON	=1 PERSON

TOTAL OCCUPANT LOAD = 32 PERSONS

STAFF NUMBER = 6 PERSONS

LIMITING DISTANCE NOTE: PENDING SITE PLAN APPROVAL.

9.10.14.4 CONFORMS TO TABLE 9.10.14.4 AND TABLE 9.10.14.5

FACING **TWO** STREETS

FRONT WALL	
WALL AREA =	65.61m2
AREA OF OPENINGS =	25.17 m2
% OF OPENINGS =	38.36%
TYPE OF CONSTRUCTION =	COMBUSTIBLE
TYPE OF CLADDING =	NON-COMBUSTIBLE
LIMITING DISTANCE =	30.36 m
FRR REQUIRED =	NOT REQUIRED

RIGHT WALL	
WALL AREA =	35.60 m2
AREA OF OPENINGS =	1.95 m2
% OF OPENINGS =	5.47%
TYPE OF CONSTRUCTION =	COMBUSTIBLE
TYPE OF CLADDING =	NON-COMBUSTIBLE
LIMITING DISTANCE =	40.07m
FRR REQUIRED =	NOT REQUIRED

BACK WALL	
WALL AREA =	65.61m2
AREA OF OPENINGS =	0.00 m2
% OF OPENINGS =	0.00%
TYPE OF CONSTRUCTION =	NON-COMBUSTIBLE
TYPE OF CLADDING =	NON-COMBUSTIBLE
LIMITING DISTANCE =	2.00 m
FRR REQUIRED =	2HR

LEFT WALL	
WALL AREA =	35.60 m2
AREA OF OPENINGS =	1.95 m2
% OF OPENINGS =	5.47%
TYPE OF CONSTRUCTION =	NON-COMBUSTIBLE
TYPE OF CLADDING =	NON-COMBUSTIBLE
LIMITING DISTANCE =	2.00 m
FRR REQUIRED =	2HR

PLUMBING FIXTURES

9.31.1.(2) CONFORMING TO SECTION 3.7.4

3.7.4.8.(3)(b) NOT MORE THAN ONE WATER CLOSET TO SERVE BOTH SEXES NEED BE PROVIDED IN A GROUP E OCCUPANCY WHERE THE TOTOAL AREA OF THE OCCUPANCY IS NOT MORE THAN 300m2.

ONE WATER CLOSET TO SERVE BOTH SEXES

1 WATER CLOSET PROVIDED.

SPRINKLER AND FIRE ALARM SYSTEM REQUIRED

9.10.18.2 NOT REQUIRED

FIRE DEPARTMENT ACCESS TO BUILDING

FACING **TWO** STREETS

9.10.20.3 ACCESS BY MEANS OF A STREET OR PRIVATE ROADWAY OR YARD

9.10.20.4 EXTINGUISHERS INSTALLED IN CONFORMANCE WITH PROVISIONS OF THE NATIONAL FIRE CODE

3.2.5.16 THE DISTANCE FROM THE FIRE DEPARTMENT CONNECTION TO A HYDRANT IS NOT MORE THAN 45m AND IS UNOBSTRUCTED.

CURRENT FIRE HYDRANT LOCATION FROM BUILDING = 42.24 m

ACCESS TO EXITS

9.9.3.2.(1) MIN. EXIT WIDTH = 900 mm

9.9.3.3.(1) MIN. CORRIDOR EXIT WIDTH = 1100 mm

9.9.3.4.(1) MINIMUM CLEAR HEIGHT IN EXITS AND ACCESS TO EXITS SHALL BE 2100 mm

9.9.8.2.(1) TWO EXITS REQUIRED.
MAX TRAVEL DISTANCE TO NEAREST EXIT = 30.00 m

BARRIER-FREE DESIGN

EMPLOYEE AND BUILDING SERVICE AREAS REQUIRE FULL ABLE BODY ACTIVITY AND WHERE APPLICABLE ARE NOT DESIGNED TO BE ACCESSIBLE.

9.5.2.1.(1) CONFORMING TO SECTION 3.8

3.8.1.2.(1) ONE BARRIER-FREE ENTRANCE IN CONFORMANCE WITH SECTION 3.8.3.3.

3.8.1.3.(1) UNOBSTRUCTED WIDTH OF A BARRIER-FREE PATH OF TRAVEL SHALL NOT BE LESS THAN 1100mm.

3.8.3.3 EVERY DOORWAY THAT IS IN A BARRIER-FREE PATH OF TRAVEL SHALL HAVE A CLEAR WIDTH NOT LESS THAN 860mm

3.8.1.3.(4) EVERY BARRIER-FREE PATH OF TRAVEL SHALL HAVE 1800mm x 1800mm UNOBSTRUCTED SPACE NOT MORE THAN 30 m APART.

3.8.2.3 A BARRIER-FREE PATH OF TRAVEL SHALL BE PROVIDED TO A BARRIER-FREE WASHROOM DESIGNED IN CONFORMANCE WITH SECTION 3.8.3.8 TO 3.8.3.12.

3.8.3.1.(1) ACCESSIBILITY SIGNS INCORPORATING THE INTERNATIONAL SYMBOL SHALL BE INSTALLED TO INDICATE THE LOCATION OF THE ENTRANCE AND LOCATION OF RAMPS SERVING THE ENTRANCE.

3.8.3.1.(2) WASHROOMS TO ACCOMMODATE DISABLED PERSONS SHALL BE IDENTIFIED BY A SIGN CONSISTING OF THE INTERNATIONAL SYMBOL OF ACCESS.

3.8.3.2.(1) EXTERIOR WALKS SHALL HAVE A CONTINUOUS PLAN, HAVE A PERMANENT, FIRM, SLIP-RESISTANT SURFACE WITH AN UNINTERRUPTED WIDTH OF NOT LESS THAN 1100mm AND A GRADIENT NOT EXCEEDING 1 IN 20.

3.8.3.2.(b) A CURB RAMP MAY BE PROVIDED.

3.8.3.4.(a) A CURB RAMP SHALL BE PROVIDED AND SHALL HAVE A SLOPE NOT MORE THAN 1 IN 12 WITH A WIDTH OF NOT LESS THAN 900mm BETWEEN HANDRAILS.

3.8.3.12 UNIVERSAL TOILET ROOM IS IN CONFORMANCE WITH THIS SECTION.

BUILDING ENVELOPE

9.36.1.3 - MERCANTILE OCCUPANCY WITHOUT A HEAT-RECOVERY VENTILATOR - ZONE 6 (4000-4999 HDDs)

TABLE 9.36.2.6.A WALLS	RSI 3.08 (R 17.49)	INSULATION PROVIDED: RSI 5.28 (R 30.00)
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TABLE 9.36.2.6.A ROOF	RSI 4.67 (R 26.52)	INSULATION PROVIDED: RSI 8.81 - 5.28 (R 50.00 - 30.00) TAPERED	AVERAGE: RSI 7.93 (R 45.00)
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TABLE 9.36.2.8.A FLOOR	RSI 1.96 (R 11.12)	INSULATION PROVIDED: RSI 2.64 (R 15.00) (NON HEATED FLOOR)
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TABLE 9.36.2.8.A FOUNDATION	RSI 2.98 (R 16.92)	INSULATION PROVIDED: RSI 3.52 (R 20.00)
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TABLE 9.36.2.7.A WINDOWS	U 1.6	ALL WINDOW SUPPLIERS TO PROVIDE TECHNICAL DATA CONFIRMING U-VALUE REQUIREMENTS ARE MET.
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TABLE 9.36.2.7.A DOORS	U 1.6	ALL DOOR SUPPLIERS TO PROVIDE TECHNICAL DATA CONFIRMING U-VALUE REQUIREMENTS ARE MET.
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9.27.4 SEALANTS TO MEET REQUIREMENTS

CAR WASH CODE STUDY

MUNICIPAL ADDRESS

5 ORCHARD DRIVE,
STITTSVILLE, ONTARIO

LEGAL ADDRESS

PART OF BLOCK 21 OF DRAFT PLAN OF SUBDIVISION OF
PARTS OF LOTS 26 AND 27 CONCESSION 11
GEOGRAPHIC TOWNSHIP OF GOULBOURN
(CITY OF OTTAWA)

FLOOR AREA & BUILDING HEIGHT

GROSS FLOOR AREA=	114 m2
BUILDING HEIGHT (MAIN FLOOR TO UNDERSIDE OF ROOF)=	4400 mm
BUILDING HEIGHT (MAIN FLOOR TO TOP OF PARAPET) =	6000 mm
HEIGHT OF ROOF =	1600 mm

APPLICABLE BUILDING CODES

ONTARIO BUILDING CODE 2012 WITH LATEST AMENDMENTS
DIV. A 1.1.2.4 - PART 9 APPLIES FOR GROUP E
ALL APPLICABLE SUPPLEMENTARY STANDARDS

OCCUPANCY CLASSIFICATION

TABLE 9.10.2.1 GROUP F3 (LOW HAZARD INDUSTRIAL)

FIRE SEPARATIONS

9.10.10.3 1 HR FIRE SEPARATION REQUIRED AT SERVICE ROOMS

OCCUPANT LOAD

9.9.1.3 NON-OCCUPIED SPACE BASED ON OBC DIV. A.1.4.1.2 OCCUPANCY MEANS THE USE OR INTENDED USE OF A BUILDING OR PART OF A BUILDING FOR THE SHELTER OR SUPPORT OF PERSONS, ANIMALS OR PROPERTY. (CAR WASH BUILDING)

LIMITING DISTANCE NOTE: PENDING SITE PLAN APPROVAL.

9.10.14.4 CONFORMS TO TABLE 9.10.14.4 AND TABLE 9.10.14.5

FACING **TWO** STREETS

FRONT WALL	
WALL AREA =	65.96 m2
AREA OF OPENINGS =	25.47 m2
% OF OPENINGS =	38.61%
TYPE OF CONSTRUCTION =	NON-COMBUSTIBLE
TYPE OF CLADDING =	NON-COMBUSTIBLE
LIMITING DISTANCE =	57.36 m
FRR REQUIRED =	NOT REQUIRED

RIGHT WALL	
WALL AREA =	33.18 m2
AREA OF OPENINGS =	11.28 m2
% OF OPENINGS =	35.53%
TYPE OF CONSTRUCTION =	NON-COMBUSTIBLE
TYPE OF CLADDING =	NON-COMBUSTIBLE
LIMITING DISTANCE =	9.67 m
FRR REQUIRED =	NOT REQUIRED

BACK WALL	
WALL AREA =	65.96 m2
AREA OF OPENINGS =	0.00 m2
% OF OPENINGS =	0%
TYPE OF CONSTRUCTION =	NON-COMBUSTIBLE
TYPE OF CLADDING =	NON-COMBUSTIBLE
LIMITING DISTANCE =	6.99 m
FRR REQUIRED =	45 MIN

LEFT WALL	
WALL AREA =	33.18 m2
AREA OF OPENINGS =	11.79 m2
% OF OPENINGS =	35.53%
TYPE OF CONSTRUCTION =	NON-COMBUSTIBLE
TYPE OF CLADDING =	NON-COMBUSTIBLE
LIMITING DISTANCE =	17.63 m
FRR REQUIRED =	NOT REQUIRED

SPRINKLER AND FIRE ALARM SYSTEM REQUIRED

9.10.18.2 NOT REQUIRED

FIRE DEPARTMENT ACCESS TO BUILDING

FACING **TWO** STREETS

9.10.20.3 ACCESS BY MEANS OF A STREET OR PRIVATE ROADWAY OR YARD

9.10.20.4 EXTINGUISHERS INSTALLED IN CONFORMANCE WITH PROVISIONS OF THE NATIONAL FIRE CODE

3.2.5.16 THE DISTANCE FROM THE FIRE DEPARTMENT CONNECTION TO A HYDRANT IS NOT MORE THAN 45m AND IS UNOBSTRUCTED.

CURRENT FIRE HYDRANT LOCATION FROM BUILDING = 14.24 m

ACCESS TO EXITS

9.9.3.2.(1) MIN. EXIT WIDTH = 900 mm

9.9.3.3.(1) MIN. CORRIDOR EXIT WIDTH = 1100 mm

9.9.3.4.(1) MINIMUM CLEAR HEIGHT IN EXITS AND ACCESS TO EXITS SHALL BE 2100 mm

9.9.7.4 TWO EGRESS DOORS REQUIRED WHERE:
-GROUP F3 MAX AREA EXCEEDS 200 m2
OR;
-GROUP F3 MAX DISTANCE TO SINGLE EGRESS DOOR EXCEEDS 25m
-GROSS FLOOR AREA = 113 m2

9.9.8.2.(2) 1 MAN DOORS PROVIDED (2 OVERHEAD DOORS PROVIDED FOR VEHICULAR ACCESS)

BARRIER-FREE DESIGN

EMPLOYEE AND BUILDING SERVICE AREAS REQUIRE FULL ABLE BODY ACTIVITY AND WHERE APPLICABLE ARE NOT DESIGNED TO BE ACCESSIBLE.

9.5.2.1.(1) CONFORMING TO SECTION 3.8

3.8.2.1.(1)(c) THE REQUIREMENTS OF 3.8 DOES NOT APPLY BECAUSE THE BUILDING IS NOT INTENDED TO BE OCCUPIED ON A DAILY OR FULL TIME BASIS

BUILDING ENVELOPE

9.36.1.3 - LOW HAZARD INDUSTRIAL WITHOUT A HEAT-RECOVERY VENTIALTOR - ZONE 6 (4000-4999 HDDs)

TABLE 9.36.2.6.A WALLS	RSI 3.08 (R 17.49)	INSULATION PROVIDED: RSI 5.28 (R 30.00)
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TABLE 9.36.2.6.A ROOF	RSI 4.67 (R 26.52)	INSULATION PROVIDED: RSI 8.81 - 5.28 (R 50.00 - R 30.00) TAPERED	AVERAGE: RSI 7.05 (R 40.00)
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TABLE 9.36.2.8.A FLOOR	RSI 1.96 (R 11.12)	INSULATION PROVIDED: RSI 2.64 (R 15.00) IN SERVICE ROOMS(NON HEATED)
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	RSI 2.32 (R 13.17)	INSULATION PROVIDED: RSI 3.52 (R 20.00) IN-FLOOR HEATING (WASH BAY ONLY)
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TABLE 9.36.2.8.A FOUNDATION	RSI 2.98 (R 16.92)	INSULATION PROVIDED: RSI 3.58 (R 30.00)
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TABLE 9.36.2.7.A WINDOWS	U 1.6	ALL WINDOW SUPPLIERS TO PROVIDE TECHNICAL DATA CONFIRMING U-VALUE REQUIREMENTS ARE MET.
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TABLE 9.36.2.7.A DOORS	U 1.6	ALL DOOR SUPPLIERS TO PROVIDE TECHNICAL DATA CONFIRMING U-VALUE REQUIREMENTS ARE MET.
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9.27.4 SEALANTS TO MEET REQUIREMENTS



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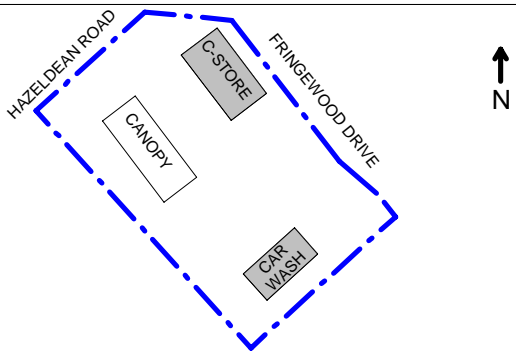
ISSUE/REVISION

A	2020-03-26	ISSUED FOR SPA
IR	DATE	DESCRIPTION

DRAWN BY

HS

KEY PLAN



GLOBAL PROJECT ID NUMBER

CAN01444

SHEET TITLE

C-STORE & CAR WASH
CODE STUDY

AECOM FILE NAME

G001.1-COD-HZLX

SHEET NUMBER

G001.1

SHELL CIVIL SPECIFICATIONS

1.1 GENERAL

- .1 ALL WORK SHALL MEET OR EXCEED MINIMUM REQUIREMENTS OF THE LOCAL/REGION/PROVINCIAL/FEDERAL STANDARDS AND BYLAWS AS APPLICABLE.
- .2 ALL CONSTRUCTION WORK TO BE CARRIED OUT IN ACCORDANCE WITH THE REQUIREMENTS OF THE OCCUPATIONAL HEALTH AND SAFETY ACT AND REGULATIONS FOR CONSTRUCTION PROJECT. ALSO COMPLY WITH RELEVANT SAFETY GUIDELINES AS MAY BE PROVIDED BY THE OWNER OR CONSULTANT.
- .3 READ CIVIL DRAWINGS IN CONJUNCTION WITH ARCHITECTURAL, STRUCTURAL, MECHANICAL, LANDSCAPING, ELECTRICAL AND SHELL STANDARD DRAWINGS.
- .4 ALL DIMENSIONS ARE IN METRIC UNITS UNLESS NOTED OTHERWISE. VERIFY DIMENSIONS PRIOR TO CONSTRUCTION AND REPORT ANY DISCREPANCIES TO THE CONSULTANT BEFORE PROCEEDING.
- .5 CONTRACTOR IS RESPONSIBLE FOR GENERAL SITE CLEANUP AND MAKING GOOD ALL AREAS DISTURBED DURING CONSTRUCTION.
- .6 DRAWINGS INDICATE GENERAL AND TYPICAL DETAILS OF CONSTRUCTION. WHERE CONDITIONS ARE NOT SPECIFICALLY SHOWN, SIMILAR DETAILS OF CONSTRUCTION SHALL BE USED, SUBJECT TO THE APPROVAL OF THE CONSULTANT.
- .7 THE LOCATION OF ALL UNDERABOVE 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 AND/OR HIS REPRESENTATIVE 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 SUCH UTILITIES AND STRUCTURES AND SHALL ASSUME ALL LIABILITY FOR DAMAGE OR RESTORATION OR ADJUSTMENT FOR THE SAME.
- .8 SUBMITTALS:
- a) PROVIDE THE FOLLOWING SUBMITTALS TO THE CONSULTANT FOR REVIEW:
1. MANHOLES
 2. CATCH BASINS
 3. VALVES
 4. HYDRANTS
 5. OIL AND GRIT SEPARATORS
 6. GREASE INTERCEPTORS
 7. PIPE INSULATION
 8. PIPE MATERIALS AND APPURTENANCES
 9. AGGREGATE GRADATIONS
 10. ASPHALT MIX DESIGN
 11. CONCRETE MIX DESIGN
- b) FULLY DETAIL SHOP DRAWINGS TO SHOW ALL INFORMATION NECESSARY FOR FABRICATION AND INSTALLATION IN ACCORDANCE WITH INDUSTRY STANDARDS.
- c) MANUFACTURER'S TECHNICAL SPECIFICATION SHEET
- d) ALL SUBMITTALS SHALL BE IN METRIC UNITS.
- e) DO NOT COMMENCE FABRICATION UNTIL REVIEWED SUBMITTAL HAS BEEN RETURNED. REVIEW OF SUBMITTALS DOES NOT RELIEVE THE CONTRACTOR FROM COMPLIANCE WITH THE CONTRACT DOCUMENTS.
- f) IMPROPERLY PREPARED SHOP DRAWINGS ARE SUBJECT TO REJECTION AND ON THAT BASIS ARE TO BE WITHDRAWN AND RESUBMITTED.
- g) SHOULD BE SEALED BY A QUALIFIED PROFESSIONAL ENGINEER REGISTERED IN THE PROVINCE WHERE THE PROJECT IS LOCATED.
- h) THE ENGINEER'S REVIEW WILL BE FOR GENERAL COMPLIANCE WITH CONTRACT DOCUMENTS. THE ACCURACY AND COMPLETENESS OF THE DESIGN, DETAILS AND DIMENSIONS REMAINS THE SOLE RESPONSIBILITY OF THE CONTRACTOR.

- .9 NOTIFY THE CONSULTANT 48 HOURS IN ADVANCE FOR SITE REVIEW OF CIVIL WORK.
- .10 REPORT TO THE CONSULTANT ALL WORKS THAT DO NOT COMPLY WITH THE PROJECT REQUIREMENTS AND SUBMIT REMEDIAL WORKS PROPOSAL FOR COMMENT/AGREEMENT. DEFECTIVE WORK AND SUBSTANDARD MATERIALS SHALL BE RECTIFIED SATISFACTORILY OR REMOVED FROM SITE.
- .11 CONTRACTOR IS RESPONSIBLE FOR QUALITY CONTROL TESTING OF ALL CONSTRUCTION WORK. TESTING OF MATERIALS' COMPACTION OF BACKFILL, SUBGRADE, SUB-BASE, BASE COURSE AND ASPHALT CONCRETE TESTING WILL BE CARRIED OUT BY THIRD PARTY FIRM DESIGNATED AND PAID FOR BY CONTRACTOR. TESTING RESULTS TO BE STAMPED AND SIGNED BY A PROFESSIONAL ENGINEER. TESTING RESULTS TO BE PROVIDED TO THE CONSULTANT PRIOR TO COMPLETION OF CONSTRUCTION.
- .12 CONSTRUCTION TO BE DOCUMENTED WITH CONSTRUCTION PROGRESS PHOTOS TAKEN BY CONTRACTOR. CONTRACTOR TO PROVIDE CONSULTANT WITH CONSTRUCTION PROGRESS PHOTOS PRIOR TO THE COMPLETION OF CONSTRUCTION. ANY ADDITIONAL CONSTRUCTION PROGRESS PHOTOS REQUESTED BY THE CONSULTANT ARE TO BE PROVIDED BY THE CONTRACTOR.
- .13 CONTRACTOR TO PROVIDE THE CONSULTANT WITH CIVIL RED LINED DRAWING SHOWING ALL CHANGES MADE DURING CONSTRUCTION AS A RESULT OF SITE INSTRUCTIONS, REQUESTS FOR INFORMATION, ETC. THE DRAWINGS SHALL BE CERTIFIED BY THE GC STATING THAT ALL THE CHANGES MADE DURING CONSTRUCTION HAVE BEEN CAPTURED IN RED LINED DRAWINGS. CIVIL RED LINED DRAWINGS ARE TO CLEARLY SHOW ALL CHANGES TO THE LATEST ISSUED FOR CONSTRUCTION CIVIL DRAWING PACKAGE INCLUDING ALL REVISED DIMENSIONS, LOCATIONS, AND ELEVATIONS.
- .14 CONTRACTOR TO SUBMIT VERIFICATION, SIGNED AND STAMPED BY A PROFESSIONAL ENGINEER, THAT HYDROSTATIC TESTING, LEAKAGE TESTING, FLUSHING, DISINFECTION, AND HYDRANT FLOW TESTING HAS BEEN SATISFACTORILY COMPLETED ON ALL INSTALLED WATER PIPE.

1.2 EXCAVATION AND TRENCHING

- .1 SHORE AND BRACE EXCAVATIONS, PROTECT SLOPES AND BANKS AND PERFORM WORK IN ACCORDANCE WITH MUNICIPAL, PROVINCIAL AND OCCUPATIONAL HEALTH AND SAFETY REGULATIONS, WHICHEVER IS MORE STRINGENT.
- .2 STRIP TOPSOIL OVER AREAS TO BE COVERED BY NEW CONSTRUCTION, OVER AREAS WHERE GRADE CHANGES ARE REQUIRED, AND SO THAT EXCAVATED MATERIAL MAY BE STOCKPILED WITHOUT COVERING TOPSOIL, STOCKPILE TOPSOIL ON SITE FOR LATER USE.
- .3 THE TRENCH SHALL BE EXCAVATED AS REQUIRED TO PROVIDE A UNIFORM AND CONTINUOUS SUPPORT FOR THE PIPE AND THE FITTINGS ON SOLID UNDISTURBED GROUND. THE CONTINUOUS SUPPORT SHALL BE A MAXIMUM OF 150 MM THICKNESS OF SPECIFIED PIPE BEDDING MATERIAL ON SOLID AND UNDISTURBED GROUND. IF TRENCH BED IS NOT STABLE, ADDITIONAL EXCAVATION WILL BE AUTHORIZED IN WRITING AND PAID FOR AS ADDITIONAL WORK. THIS WILL ALSO INCLUDE THE FILLING AND COMPACTING OF ADDITIONAL EXCAVATION WITH SPECIFIED BEDDING MATERIAL. EXCAVATION TAKEN BELOW DEPTHS SHOWN WITHOUT CONSULTANTS WRITTEN AUTHORIZATION TO BE FILLED WITH COMPACTED BEDDING MATERIAL AT CONTRACTOR'S EXPENSE.
- .4 THE MINIMUM TRENCH WIDTH BELOW THE CROWN OF PIPE SHALL BE OUTSIDE DIAMETER OF PIPE PLUS 450 MM. THE MAXIMUM TRENCH WIDTH SHALL BE AS PER TABLE BELOW:

NOMINAL PIPE DIAMETER	MAXIMUM TRENCH WIDTH BELOW CROWN OF PIPE
LESS THAN 450 MM	1050 MM
450 MM TO 900 MM	PIPE O.D + 600 MM
1050 MM TO 1350 MM	PIPE O.D + 750 MM

- .5 EXCAVATE FOR SLABS AND PAVING TO SUBGRADE LEVELS AS PER LINES AND LEVELS SHOWN ON THE DRAWINGS. IN ADDITION, REMOVE ALL TOPSOIL, ORGANIC MATTER, DEBRIS AND OTHER LOOSE AND HARMFUL MATTER ENCOUNTERED AT SUBGRADE LEVEL.
- .6 TRENCHES MUST BE MAINTAINED IN A DRY CONDIION FOR PIPE LAYING. METHODS OF DEWATERING ARE THE RESPONSIBILITY OF THE CONTRACTOR.
- .7 DISPOSE WATER IN A MANNER NOT DETRIMENTAL TO PUBLIC HEALTH, ENVIRONMENT, PUBLIC AND PRIVATE PROPERTY, OR ANY PORTION OF WORK COMPLETED OR UNDER CONSTRUCTION. FOLLOW MUNICIPAL/ PROVINCIAL REGULATION FOR DISPOSAL OF WATER.
- .8 ALL EXCESS EXCAVATED DISPOSED MATERIAL SHALL BE REMOVED FROM THE SITE BY THE GC TO AN APPROVED LANDFILL SITE.

1.3 GRANULAR BEDDING

- .1 PLACE GRANULAR BEDDING MATERIAL IN UNIFORM LAYERS NOT EXCEEDING 150 MM COMPACTED THICKNESS TO DEPTH AS INDICATED.
- .2 DO NOT PLACE MATERIAL IN FROZEN CONDITION.
- .3 SHAPE BED TRUE TO GRADE TO PROVIDE CONTINUOUS UNIFORM BEARING SURFACE FOR PIPE.
- .4 SHAPE TRANSVERSE DEPRESSIONS IN BEDDING AS REQUIRED TO SUIT JOINTS.
- .5 COMPACT EACH LAYER FULL WIDTH OF BED TO MINIMUM 98 % OF MAXIMUM DRY DENSITY.
- .6 FILL AUTHORIZED OR UNAUTHORIZED EXCAVATION BELOW DESIGN ELEVATION OF BOTTOM OF SPECIFIED BEDDING WITH COMPACTED FILL APPROVED BY THE ENGINEER.
- .7 DISPOSE WATER IN A MANNER NOT DETRIMENTAL TO PUBLIC HEALTH, ENVIRONMENT, PUBLIC AND PRIVATE PROPERTY, OR ANY PORTION OF WORK COMPLETED OR UNDER CONSTRUCTION. FOLLOW MUNICIPAL/ PROVINCIAL REGULATION FOR DISPOSAL OF WATER.
- .8 ALL EXCESS EXCAVATED DISPOSED MATERIAL SHALL BE REMOVED FROM THE SITE BY THE GC TO AN APPROVED LANDFILL SITE.

1.5 BACKFILLING

- .1 REMOVE SNOW, ICE, CONSTRUCTION DEBRIS, ORGANIC SOIL AND STANDING WATER FROM SPACES TO BE FILLED.

- .2 EXCAVATED MATERIAL SUITABLE FOR BACKFILLING (FREE OF ORGANIC SOIL, FROZEN AND OTHER OBJECTIONABLE MATERIAL) SHALL BE PLACED IN MAXIMUM 300 MM LIFTS OVER THE WHOLE WIDTH OF THE TRENCH. EACH LIFT SHALL BE COMPACTED TO AT LEAST 98% OF STANDARD PROCTOR MAXIMUM DRY DENSITY. MAINTAIN EVEN LEVELS OF BACKFILL AROUND STRUCTURES AS WORK PROGRESSES, TO EQUALIZE EARTH PRESSURES.

1.6 PIPE INSTALLATION

- .1 TERMINATE BUILDING SERVICES 1 M OUTSIDE BUILDING WALL AT LOCATION INDICATED IN DRAWINGS.
- .1 IF PLUMBING IS ALREADY INSTALLED, MAKE CONNECTION; OTHERWISE CAP OR SEAL END OF PIPE AND PLACE TEMPORARY MARKER TO LOCATE PIPE END.
- .2 LAY AND JOIN PIPES TO MANUFACTURER'S STANDARD INSTRUCTIONS AND SPECIFICATIONS.
- .3 HANDLE PIPE BY METHODS RECOMMENDED BY PIPE MANUFACTURER. DO NOT USE CHAINS OR CABLES PASSED THROUGH PIPE BORE SO THAT WEIGHT OF PIPE BEARS ON PIPE ENDS.
- .4 KEEP JOINTING MATERIALS AND INSTALLED PIPE FREE OF DIRT AND WATER AND OTHER FOREIGN MATERIALS. WHENEVER WORK IS STOPPED, INSTALL A REMOVABLE WATERTIGHT BULKHEAD AT OPEN END OF LAST PIPE LAID TO PREVENT ENTRY OF FOREIGN MATERIALS.
- .5 CUT PIPES IN APPROVED MANNER AS RECOMMENDED BY PIPE MANUFACTURER, WITHOUT DAMAGING PIPE OR ITS COATING AND TO LEAVE SMOOTH END AT RIGHT ANGLES TO AXIS OF PIPE. BEVEL OR TAPER ENDS OF PVC PIPE TO MATCH FITTINGS.
- .6 STORM, SANITARY AND WATER PIPE SHALL BE INSTALLED AT A DEPTH WHERE THE MINIMUM PIPE COVER IS MORE THAN THE FREEZE DEPTH IN THE AREA. IN UNAVOIDABLE CIRCUMSTANCES, PROVIDE ADEQUATE PIPE INSULATION TO PREVENT FREEZING.
- .7 WATERMAINS MUST HAVE A MINIMUM VERTICAL CLEARANCE OF 0.3M OVER / 0.5M UNDER SEWERS AND ALL OTHER UTILITIES WHEN CROSSING.
- .8 WATER MAIN SHALL HAVE MINIMUM 2.5 M HORIZONTAL SEPARATION FROM SANITARY AND STORM SEWER.
- .9 ALL PROPOSED WATER PIPING MUST BE ISOLATED FROM EXISTING LINES IN ORDER TO ALLOW INDEPENDENT PRESSURE TESTING AND CHLORINATING FROM EXISTING SYSTEMS.
- .10 PERFORM PRESSURE TESTING OF POTABLE WATER PIPING AND SUBMIT SIGNED REPORT STAMPED BY A PROFESSIONAL ENGINEER.
- .1 WATERMAIN TEST PRESSURE (PSI) = 1.5 X SUPPLY LINE OPERATING PRESSURE (PSI)
- IF TEST PRESSURE IS:
- < 67 PSI, TEST PRESSURE SHALL BE MIN 100 PSI
- >67-80 PSI, TEST PRESSURE SHALL BE MIN 120 PSI
- > 80 PSI, TEST PRESSURE SHALL BE 150 PSI
- .2 THE DURATION OF HYDROSTATIC TEST SHALL BE 2 HOURS
- .11 FLUSH AND DISINFECT POTABLE WATER PIPING IN ACCORDANCE WITH AWWA SPECIFICATION C651 (LATEST REVISION) AND SUBMIT SIGNED REPORTS ALONG WITH LAB REPORTS STAMPED BY A PROFESSIONAL ENGINEER.
- .12 BACKFILL REMAINDER OF TRENCH.

1.7 WATER PIPE

- .1 ALL PIPES TO HAVE CAST IRON PIPE EQUIVALENT OUTSIDE DIAMETER.
- .2 PIPES 25mm TO 50mm DIA. TO BE A CONTINUOUS RUN OF TYPE "K" COPPER SERVICE PIPE CONFORMING TO ASTM B88(M) AND AWWA C800.
- .3 COPPER SERVICE PIPE FITTINGS TO CONFORM TO AWWA C800, AND SHALL BE ABLE TO WITHSTAND A TEST PRESSURE OF 1035 kPa (150 psi).
- .4 ALL COPPER WATER MAINS SHALL HAVE A 5.5 KG (12 LB.) ZINC ANODE ATTACHED TO THE COPPER PIPE AT 20 M SPACING. THE ZINC ANODE WIRE IS TO BE CLAMPED TO THE COPPER PIPE WITH AN ALL-BRASS CLAMP OR AN APPROVED EQUIVALENT. ZINC ANODES SHALL BE TYPE II IN ACCORDANCE WITH ASTM B418.
- .5 PIPES 100mm TO 300mm DIA. TO BE POLYVINYL CHLORIDE (PVC) PRESSURE PIPE, MANUFACTURED TO AWWA C900 AND TO BE CERTIFIED BY CANADIAN STANDARDS ASSOCIATION - CSA B137.3. PIPE JOINTS TO BE PUSH-ON INTEGRALLY THICKENED BELL AND SPIGOT TYPE TO ASRM D3139 WITH SINGLE ELASTOMERIC GASKET TO ASTM F477. PIPE TO HAVE MINIMUM DIMENSIONAL RATIO (DR) OF DR18.
- .6 PVC PIPE FITTINGS SHALL BE FABRICATED, AND SHALL BE THERMALLY BUTT WELDED SEGMENTS WITH OVERWRAPPED REINFORCEMENT, CONFORMING TO AWWA C900 AND CSA 137. PVC FITTINGS SHALL BE FABRICATED FROM PIPE WITH A DR RATING EQUAL TO OR GREATER THAN THAT USED FOR THE MAIN.

1.8 PVC SEWER PIPE

- .1 POLYVINYL CHLORIDE PIPE (PVC) SHALL BE SMOOTH WALL PIPE WITH A MAXIMUM DIMENSIONAL RATIO (DR) OF DR35. PIPE TO HAVE A MINIMUM PIPE STIFFNESS OF 320 kPa at 5.0% DEFLECTION AS PER ASTM D2412.
- .2 PIPES 100mm TO 375mm DIA. TO BE MANUFACTURED TO SPECIFICATIONS LISTED IN ASTM D3034.
- .3 PIPES 450mm TO 1200mm DIA. TO BE MANUFACTURED TO SPECIFICATIONS LISTED IN ASTM F679.
- .4 PIPES TO BE CERTIFIED BY CANADIAN STANDARDS ASSOCIATION CSA B182.2.
- .5 PIPE TO INCLUDE INTEGRAL BELL AND SPIGOT ENDS WITH STIFFENED WALL SECTION AND FORMED GROOVE FOR A RUBBER GASKET. JOINTS TO CONFORM TO ASTM D3212. GASKETS TO ASTM F477. THE PIPE JOINT MUST WITHSTAND A MINIMUM HYDROSTATIC PRESSURE OF 345 kPa (50psi) WITHOUT LEAKAGE.

1.9 CONCRETE SEWER PIPE

- .1 ALL CONCRETE PIPE SHALL BE MANUFACTURED TO PIPE CLASS III.
- .2 NON-REINFORCED CIRCULAR CONCRETE PIPE AND FITTING TO CAN/CSA-A257.1 CLASS 3, DESIGNED FOR FLEXIBLE RUBBER GASKET JOINTS TO CAN/CSA-A257.3 MADE WITH TYPE 50 SULPHATE RESISTANT PORTLAND CEMENT TO CSA-A3000.
- .3 REINFORCED CIRCULAR CONCRETE PIPE AND FITTING TO CAN/CSA-A257.2 DESIGNED FOR FLEXIBLE RUBBER GASKET JOINTS TO CAN/CSA-A257.3, MADE WITH TYPE 50 SULPHATE RESISTANT PORTLAND CEMENT TO CSA-A3000.
- .4 PIPE GREATER THAN 900mm DIAMETER, ENGINEERED LIFT SYSTEMS DESIGNED FOR THE WEIGHT OF THE PIPE CAST INTO THE PIPE WALLS DURING MANUFACTURE. NOT TO EXCEED TWO IN EACH PIECE OF PIPE.

1.10 VALVE INSTALLATION

- .1 INSTALL VALVES TO MANUFACTURER'S RECOMMENDATIONS AT LOCATIONS AS INDICATED.
- .2 SUPPORT VALVES LOCATED IN VALVE BOXES OR VALVE CHAMBERS BY MEANS OF CONCRETE LOCATED BETWEEN VALVE AND SOLID GROUND. VALVES NOT TO BE SUPPORTED BY PIPE.

1.11 HYDRANTS

- .1 INSTALL HYDRANTS AT LOCATIONS AS INDICATED AND IN ACCORDANCE WITH AWWA M17.
- .2 SET HYDRANTS PLUMB, WITH HOSE OUTLETS PARALLEL WITH EDGE OF PAVEMENT OR CURB LINE, WITH PUMPER CONNECTION FACING ROADWAY AND WITH BODY FLANGE SET AT ELEVATION OF MINIMUM 50 MM ABOVE FINAL GRADE.
- .3 PLACE CONCRETE THRUST BLOCKS AS INDICATED AND SPECIFIED ENSURING THAT DRAIN HOLES ARE UNOBSTRUCTED.
- .4 TO PROVIDE PROPER DRAINING FOR EACH HYDRANT, EXCAVATE PIT MEASURING NOT LESS THAN 1 X 1 X 0.5 M DEEP AND BACKFILL WITH COARSE GRAVEL OR CRUSHED STONE TO LEVEL 150 MM ABOVE DRAIN HOLES.
- .5 PLACE APPROPRIATE SIGN ON INSTALLED HYDRANTS INDICATING WHETHER OR NOT THEY ARE IN SERVICE DURING CONSTRUCTION.
- .6 CONDUCT FLOW TESTS ON EVERY HYDRANT TO DETERMINE FIRE FLOWS PRIOR TO PAINTING HYDRANT CAPS AND PORTS.
- .7 AFTER HYDRANT FLOW TESTS, PAINT CAPS AND PORTS TO MEET COLOUR SELECTIONS APPROVED BY AUTHORITY HAVING JURISDICTION.

1.12 THRUST BLOCKS

- .1 PLACE CONCRETE THRUST BLOCKS BETWEEN VALVES, TEES, PLUGS, CAPS, BENDS, CHANGES IN PIPE DIAMETER, REDUCERS, HYDRANTS AND FITTINGS AND UNDISTURBED GROUND AS INDICATED OR AS DIRECTED BY CONSULTANT.
- .2 KEEP JOINTS AND COUPLINGS FREE OF CONCRETE.
- .3 DO NOT BACKFILL OVER CONCRETE WITHIN 24 HOURS AFTER PLACING.

1.13 CATHODIC PROTECTION

- .1 SUPPLY AND INSTALL SACRIFICIAL ZINC ANODES TO PROVIDE CATHODIC PROTECTION FOR ALL VALVES, HYDRANTS AND CAST-IRON FITTINGS.
- a) 24 LB ANODE FOR EACH HYDRANT
- b) 24 LB FOR EACH VALVE AND BOX
- c) 12 LB ANODE FOR EACH CAST IRON FITTING
- d) 12 LB ANODE FOR COPPER WATER SERVICE LINE
- .2 ANODE SHALL BE INSTALLED 1 M AWAY FROM THE FITTING / VALVE AT THE WATER LINE DEPTH.
- .3 ANODE WIRE SHALL BE CONNECTED TO CAST IRON USING "CADWELD" METHOD. THE CONTRACTOR SHALL PROVIDE EXPERIENCED PERSONNEL WHO SHALL MAKE THESE CONNECTIONS IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
- .4 FOLLOWING WELDING, THE CONTRACTOR SHALL REMOVE ALL SLAG FROM THE WELD, FILE OFF ALL SHARP EDGES AND COAT ALL EXPOSED CAST IRON SURFACES, STEEL SURFACES AND "CADWELD" LOCATIONS WITH "DENS-O" TAPE AND PASTE.
- .5 WHEN THE INSTALLATION IS COMPLETE, THE CONTRACTOR SHALL POUR 10 LITRES OF WATER OVER THE ANODE AND BACKFILL UNIFORMLY AROUND THE ANODE

1.14 MANHOLE AND CATCHBASIN INSTALLATION

- .1 CONSTRUCT UNITS IN ACCORDANCE WITH DETAILS INDICATED, PLUMB AND TRUE TO ALIGNMENT AND GRADE.
- .2 DEWATER EXCAVATION REMOVE SOFT AND FOREIGN MATERIAL BEFORE PLACING CONCRETE BASE.
- .3 SET PRECAST CONCRETE BASE ON 150 MM MINIMUM OF GRANULAR BEDDING COMPACTED TO 100 % MAXIMUM DRY DENSITY.
- .4 MAKE EACH SUCCESSIVE JOINT WATERTIGHT WITH APPROVED RUBBER RING GASKETS, BITUMINOUS COMPOUND, CEMENT MORTAR, EPOXY RESIN CEMENT, OR COMBINATION OF THESE MATERIALS.
- .5 MANHOLE SHALL HAVE LADDER RUNGS
- .6 BENCH TO PROVIDE SMOOTH U-SHAPED CHANNEL.
- a) SIDE HEIGHT OF CHANNEL TO BE 0.75 TIMES DIAMETER OF SEWER.
- b) SLOPE ADJACENT FLOOR AT 1 IN 20.
- c) SLOPE INVERT TO ESTABLISH SEWER GRADE.
- .7 COMPACT GRANULAR BACKFILL TO 98 % MAXIMUM DRY DENSITY.
- .8 INSTALLING UNITS IN EXISTING SYSTEMS:

- a) WHERE NEW UNIT IS INSTALLED IN EXISTING RUN OF PIPE, ENSURE FULL SUPPORT OF EXISTING PIPE DURING INSTALLATION, AND CAREFULLY REMOVE THAT PORTION OF EXISTING PIPE TO DIMENSIONS REQUIRED AND INSTALL NEW UNIT AS SPECIFIED.
- b) MAKE JOINTS WATERTIGHT BETWEEN NEW UNIT AND EXISTING PIPE.
- c) WHERE DEEMED EXPEDIENT TO MAINTAIN SERVICE AROUND EXISTING PIPES AND WHEN SYSTEMS CONSTRUCTED UNDER THIS PROJECT ARE READY FOR OPERATION, COMPLETE INSTALLATION WITH APPROPRIATE BREAK-OUTS, REMOVALS, REDIRECTION OF FLOWS, BLOCKING UNUSED PIPES OR OTHER NECESSARY WORK.
- .9 PLACE FRAME AND COVER ON TOP SECTION TO ELEVATION AS INDICATED. IF ADJUSTMENT REQUIRED USE CONCRETE RING.
- .10 CLEAN UNITS OF DEBRIS AND FOREIGN MATERIALS.

1.15 ADJUSTING TOPS OF EXISTING MANHOLES AND CATCHBASINS

- .1 REMOVE EXISTING GRATINGS, FRAMES AND STORE FOR RE-USE.
- .2 RAISE OR LOWER STRAIGHT WALLED SECTIONAL UNITS BY ADDING OR REMOVING PRECAST SECTIONS AS REQUIRED.
- .3 RAISE OR LOWER TAPERED UNITS BY REMOVING CONE SECTION, ADDING, REMOVING, OR SUBSTITUTING RISER SECTIONS TO OBTAIN REQUIRED ELEVATION, THEN REPLACE CONE SECTION.
- .4 INSTALL ADDITIONAL MAINTENANCE HOLE LADDER RUNGS IN ADJUSTED PORTION OF UNITS AS REQUIRED.

1.16 SUBGRADE

- .1 COMPACT MINIMUM 150 MM DEPTH OF EXISTING SUBGRADE UNDER WALKS, PAVING, AND SLABS ON GRADE TO AT LEAST 98% OF STANDARD PROCTOR MAXIMUM DRY DENSITY.
- .2 EARTH EMBANKMENT UNDER PAVED AND TRAVELLED AREAS SHALL BE CONSTRUCTED AS SUBGRADE.
- .3 SUBGRADE SHALL BE PLACED IN MAXIMUM 150 MM LIFTS AND COMPACTED TO MINIMUM 98% OF MAXIMUM STANDARDS PROCTOR DRY DENSITY ADDING WATER AS REQUIRED TO ACHIEVE SPECIFIED DENSITY.
- .4 UNSTABLE SUBGRADE SHALL BE REPLACED WITH SUITABLE MATERIAL. CONTRACTOR SHALL CARRY OUT WHEEL TEST ON PREPARED SUBGRADE TO DETERMINE ITS STABILITY. IF SUB GRADE IS NOT STABLE, MATERIAL REPLACEMENT AND ITS COMPACTION WILL BE AUTHORIZED IN WRITING AND PAID FOR AS ADDITIONAL WORK. ANY ADDITIONAL WORK EXECUTED BY THE CONTRACTOR WITHOUT PRIOR AUTHORIZATION WILL NOT BE PAID.

1.17 BASE AND SUB BASE COURSE

- .1 THE BASE AND SUB BASE MATERIAL SPECIFICATIONS SHALL CONFORM TO THE LOCAL MUNICIPALITY / REGION/ PROVINCIAL SPECIFICATIONS.
- .2 THE BASE AND SUB BASE COURSE SHALL BE PLACED IN 150 MM LIFTS COMPACTED TO MINIMUM 100% OF CORRECTED MAXIMUM DRY DENSITY

1.18 ASPHALT PAVEMENT

- .1 THE ASPHALT CONCRETE MATERIAL SPECIFICATIONS SHALL CONFORM TO THE LOCAL MUNICIPALITY / REGION/ PROVINCIAL SPECIFICATIONS
- .2 PERFORM WORK IN ACCORDANCE WITH PROVINCIAL AND MUNICIPAL STANDARDS.
- .3 APPLY PRIMER ON BASE OR SUBBASE OR SUBGRADE SURFACE AT A UNIFORM RATE.
- .4 PLACE ASPHALT ONCE PRIME COAT IS CURED BUT NOT LATER THAN 24 HOURS.
- .5 ASPHALT COURSES:
- a) PLACE BINDER COURSE PAVEMENT TO 60 TO 70 PERCENT OF TOTAL REQUIRED COMPACTED THICKNESS.
- b) PLACE SURFACE COURSE PAVEMENT WITHIN TWO 2 HOURS TO 30 TO 40 PERCENT OF TOTAL REQUIRED COMPACTED THICKNESS.
- c) PLACE HOT MIX SUCH THAT MINIMUM LIFT THICKNESS OF NOT LESS THAN THAT SPECIFIED BY PROVINCIAL AND MUNICIPAL STANDARDS.
- .6 COMPACT PAVEMENT BY ROLLING:
- a) COMPACT LIFTS OF HOT MIX TO AT LEAST 97% OF 75 BLOW MARSHALL DENSITY IN ACCORDANCE WITH ASTM D1559.
- b) DO NOT DISPLACE OR EXTRUDE PAVEMENT FROM POSITION.
- c) HAND COMPACT IN AREAS INACCESSIBLE TO ROLLING EQUIPMENT.
- .7 APPLY SEAL COAT TO SURFACE COURSE.

1.19 CONCRETE PAVEMENT AND, SIDEWALKS, CURBS AND GUTTERS

- .1 MOISTEN BASE TO MINIMIZE ABSORPTION OF WATER FROM FRESH CONCRETE.
- .2 COAT SURFACES OF MANHOLE AND CATCH BASIN FRAMES WITH OIL TO PREVENT BOND WITH CONCRETE PAVEMENT.
- .3 PLACE AND SECURE FORMS TO CORRECT LOCATION, DIMENSION, PROFILE, AND GRADIENT.
- .4 PLACE JOINT FILLER VERTICAL IN POSITION, IN STRAIGHT LINES AT PERIMETER OF PAVEMENT. SECURE TO FORMWORK DURING CONCRETE PLACEMENT.
- .5 PLACE REINFORCEMENT AT TOP AND BOTTOM.
- .6 INTERRUPT REINFORCEMENT AT EXPANSION/CONTROL JOINTS.
- .7 PLACE CONTRACTION JOINTS AT 6 M INTERVALS. ALIGN CURB, GUTTER, AND SIDEWALK JOINTS.
- .8 PAVEMENT FINISH TO BE BROOM FINISH U.N.O
- .9 APPLY SEALER TO THE SLAB IN ACCORDANCE WITH SUPPLIER'S RECOMMENDATION.
- .10 MAXIMUM VARIATION OF SURFACE FLATNESS: 6 MM IN 3 M.
- .11 REFER TO STRUCTURAL DRAWINGS FOR CONCRETE MIX, REINFORCING STEEL AND FURTHER SPECIFICATIONS

1.20 INSTALLATION - PARKING BUMPERS

- .1 INSTALL UNITS IN ALIGNMENT WITH ADJACENT WORK.
- .2 INSTALL UNITS WITHOUT DAMAGE TO SHAPE OR FINISH.
- .3 FASTEN UNITS IN PLACE WITH 2 DOWELS PER UNIT BUMPER

1.21 NATURAL GAS LINE

- .1 PIPE: POLYETHYLENE (PE 3408) A MINIMUM OF 100 PSIG WORKING PRESSURE, STANDARD DIMENSION RATIO (SDR), THE RATIO OF PIPE DIAMETER TO WALL THICKNESS, 11.5 MAXIMUM.
- .2 SOCKET FITTINGS: ASTM D 2683.
- .3 BUTT-FUSION FITTINGS: ASTM D 2513, MOLDED.
- .4 BURIED UTILITY WARNING AND IDENTIFICATION TAPE: PROVIDE DETECTABLE ALUMINUM-FOIL PLASTIC-BACKED TAPE OR DETECTABLE MAGNETIC PLASTIC TAPE MANUFACTURED SPECIFICALLY FOR WARNING AND IDENTIFICATION OF BURIED PIPING. TAPE SHALL BE DETECTABLE BY AN ELECTRONIC DETECTION INSTRUMENT. PROVIDE TAPE IN ROLLS, 75 MM MINIMUM WIDTH, COLOR-CODED YELLOW FOR NATURAL GAS, WITH WARNING AND IDENTIFICATION IMPRINTED IN BOLD BLACK LETTERS CONTINUOUSLY AND REPEATEDLY OVER ENTIRE TAPE LENGTH. WARNING AND IDENTIFICATION SHALL BE "CAUTION BURIED GAS PIPING BELOW" OR SIMILAR WORDING. USE PERMANENT CODE AND LETTER COLORING UNAFFECTED BY MOISTURE AND OTHER SUBSTANCES CONTAINED IN TRENCH BACKFILL MATERIAL.
- .5 SLEEVES: WHERE INDICATED, PROVIDE DB2 PVC CONDUIT.
- .6 ARRANGE FOR PERMITS, INSPECTIONS, AND TESTS, IN ACCORDANCE WITH APPLICABLE PROVINCIAL AND LOCAL CODES, AT THE CONTRACTOR'S EXPENSE. VERIFY ALL MEASUREMENTS AT JOB SITE.
- .7 INSTALLATION, WORKMANSHIP, INSPECTION AND TESTING SHALL BE IN ACCORDANCE WITH THE SPECIFIED FUEL GAS CODE WITH THE ADDITIONS SPECIFIED HEREIN. INSTALL NATURAL GAS PIPING FROM CARWASH TO C-STORE IN ACCORDANCE WITH CSA Z662. INSTALL PIPING STRAIGHT AND TRUE TO BEAR EVENLY ON HANGERS AND SUPPORTS. KEEP PIPING SYSTEMS CLEAN DURING INSTALLATION BY MEANS OF PLUGS OR OTHER ACCEPTED METHODS. WHEN WORK IS NOT IN PROGRESS, SECURELY CLOSE OPEN ENDS OF PIPING TO PREVENT ENTRY OF WATER AND FOREIGN MATTER. INSPECT PIPING BEFORE PLACING INTO POSITION.
- .8 PIPING AND OTHER APPARATUS SHALL NOT BE INSTALLED IN SUCH A MANNER SO AS TO INTERFERE WITH THE FULL SWING OF DOORS, MOVEMENT OF PERSONNEL AND EQUIPMENT, AND ACCESS TO OTHER EQUIPMENT.
- .9 MAKE PROVISIONS IN BURIED PIPING FOR DIFFERENTIAL SETTLEMENT. INSTALL PIPING TO ALLOW FREEDOM OF MOVEMENT IN ALL PLANES WITHOUT IMPOSING UNDUE STRESS ON ANY SECTION OF THE MAIN PIPING, BRANCH PIPING, EQUIPMENT AND STRUCTURE.
- .10 CLEAN INSIDE OF PIPE AND FITTINGS BEFORE INSTALLATION. BLOW LINES CLEAR USING 550 TO 700 KPA CLEAN DRY COMPRESSED AIR. WRAP STEEL LINES SHARPLY ALONG ENTIRE PIPE LENGTH BEFORE BLOWING CLEAR.
- .11 PROVIDE TOTALLY PE PIPING. BURIED PIPING SHALL NOT BE PERMITTED UNDER ANY BUILDING AND/OR STRUCTURE. TERMINATE BURIED PIPING NOT MORE THAN 6 INCHES ABOVE GRADE. PRIOR TO INSTALLATION, OBTAIN PRINTED INSTRUCTIONS AND TECHNICAL ASSISTANCE IN PROPER INSTALLATION TECHNIQUES FROM PIPE MANUFACTURER.
- .12 PE PIPING: PROVIDE FUSION-WELDED JOINTS EXCEPT WHERE TRANSITIONS HAVE BEEN SPECIFIED. USE ELECTRICALLY HEATED TOOLS, THERMOSTATICALLY CONTROLLED AND EQUIPPED WITH TEMPERATURE INDICATION. (WHERE CONNECTION MUST BE MADE TO EXISTING PLASTIC PIPE, CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINATION OF COMPATIBILITY OF MATERIALS AND PROCEDURAL CHANGES IN FUSION PROCESS NECESSARY TO ATTAIN MAXIMUM INTEGRITY OF BOND.)
- .13 LAYING PE PIPE: BURY PIPE 1 METERS BELOW FINISH GRADE UNDER PARKING LOT AND 0.6 M BELOW GRADE UNDER NON-TRAFFIC AREA UNLESS SPECIFIED OTHERWISE. LAY IN ACCORDANCE WITH MANUFACTURER'S PRINTED INSTRUCTIONS. PIPE SHALL HAVE 1 M HORIZONTAL AND 0.3 M VERTICAL SEPARATION FROM OTHER SERVICES.
- .14 EXCAVATING AND BACKFILLING: PIPE BEDDING AND COMPACTED BACKFILL SHALL BE PROVIDED UNDER THIS SECTION OF THE SPECIFICATIONS IN ACCORDANCE WITH THE REQUIREMENTS OF SECTION 1.2 TO 1.5 ABOVE. PIPE BEDDING SHALL BE 150 MM DEEP. COMPACTED BACKFILL SHALL BE TO A POINT 300 MM ABOVE THE CROWN OF BURIED PIPE. BEDDING AND COMPACTED BACKFILL SHALL BE NON-CORROSIVE MATERIAL SUCH AS CLEANED WASHED SAND, AND CONTAIN NO STONES, METAL, RUBBISH OF ANY KIND, FROZEN MATERIAL, ORGANIC MATTER, OR ANY OTHER MATERIAL CAPABLE OF DAMAGING PIPING OR COATING, AND/OR OF SETTLING. GAS LINES SHALL BE BURIED IN THE TRENCHES SEPARATE FROM ALL OTHER UTILITIES INCLUDING OTHER GAS LINES. TRENCHES SHALL BE WIDE ENOUGH TO PERMIT AT LEAST 150 MM SPACING BETWEEN THE SIDES AND FLOOR OF THE TRENCH. MAKE PROVISIONS IN BURIED PIPING FOR DIFFERENTIAL SETTLEMENT, E.G. SNAKING THE PIPING IN THE TRENCH BEFORE BACKFILLING. COORDINATE PROVISION OF UTILITY WARNING IDENTIFICATION TAPE WITH BACKFILL OPERATION. BURY UTILITY WARNING AND IDENTIFICATION TAPE WITH PRINTED SIDE UP AT A DEPTH OF 12 INCHES (305 MM) BELOW THE TOP SURFACE OF EARTH OR THE TOP SURFACE OF THE SUBGRADE UNDER PAVEMENTS.



PROJECT

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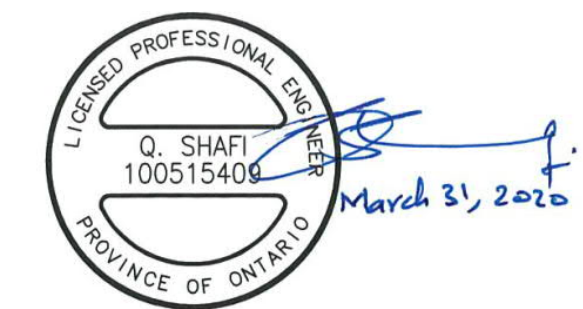
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REGISTRATION

LEGAL DESCRIPTION

PART OF BLOCK 21 OF DRAFT PLAN OF
SUBDIVISION OF PARTS OF LOTS 26 AND 27
CONCESSION 11
GEOGRAPHIC TOWNSHIP OF GOULBOURN
(CITY OF OTTAWA)

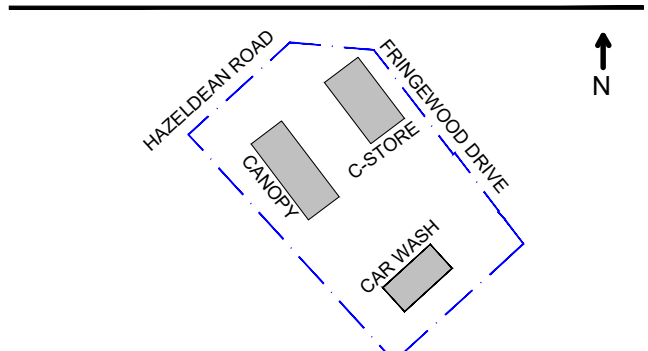
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SG

KEY PLAN



GLOBAL PROJECT ID NUMBER

CAN01444

SHEET TITLE

CIVIL SPECIFICATIONS

AECOM FILE NAME

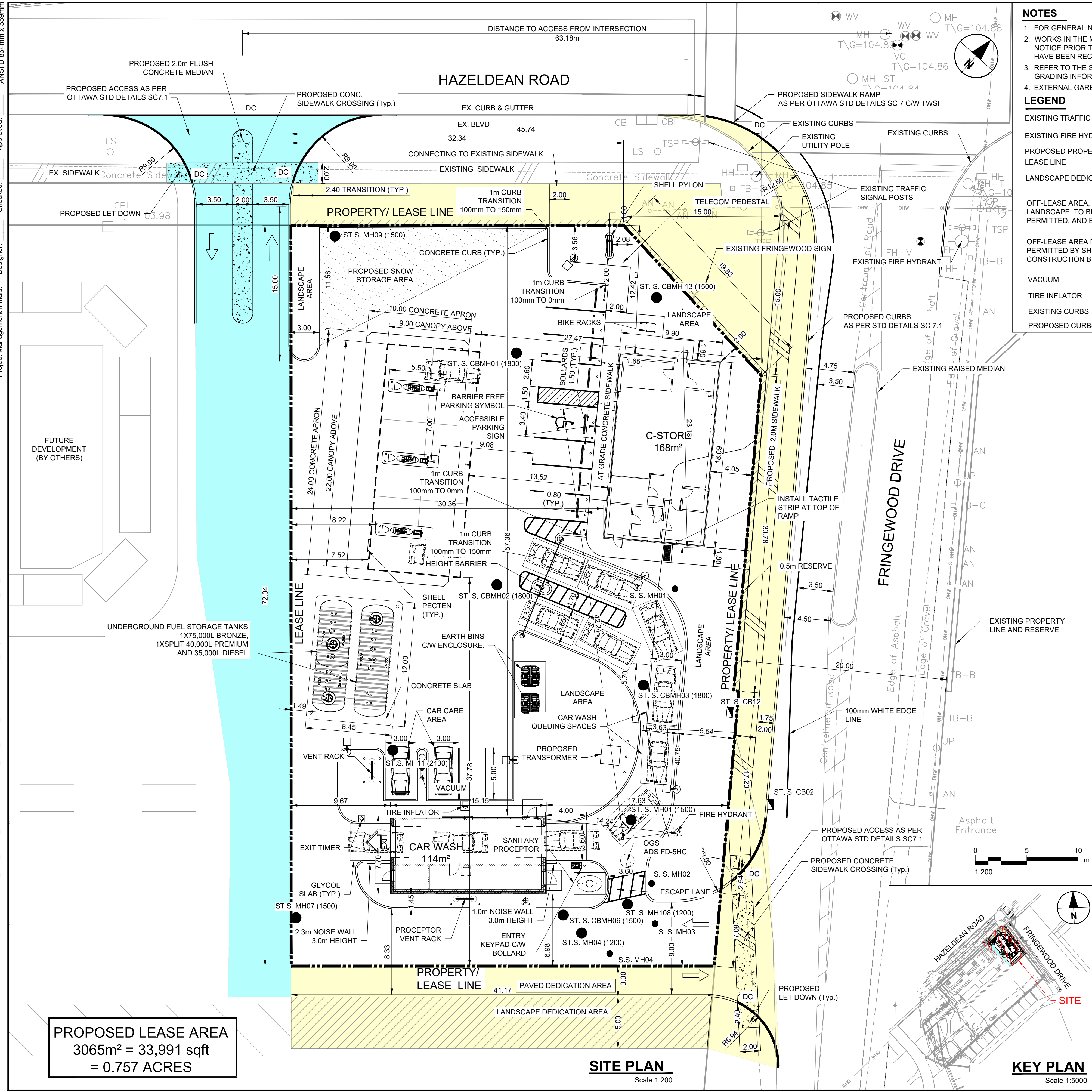
C002.0-SPE-HZLX

SHEET NUMBER

C002.0

Last saved by: REIDJ2(2020-04-15) Last Plotted: 2020-04-16
Filename: C:\USERS\REIDJ2\DESKTOP\HAZELDEAN_DP_2603DIP\C102.0-SIP-HZLX.DWG
Printed on 100% Post-Consumer Recycled Content Paper

Project Management Initials: Designer: Checked: Approved: ANS/D 864mm x 559mm



PROPOSED LEASE AREA
3065m² = 33,991 sqft
= 0.757 ACRES

SITE PLAN
Scale 1:200

KEY PLAN
Scale 1:5000

NOTES

- FOR GENERAL NOTES SEE DRAWING C001.0
- WORKS IN THE MUNICIPAL RIGHT-OF-WAY BEING PERFORMED BY THE CITY'S CONTRACTOR WILL REQUIRE 4 TO 6 WEEK NOTICE PRIOR TO COMMENCEMENT OF CONSTRUCTION AFTER ALL DRAWINGS HAVE BEEN APPROVED AND SECURITIES HAVE BEEN RECEIVED.
- REFER TO THE SITE GRADING PLAN PREPARED BY AECOM, DRAWING C104.0 FOR THE PURPOSES OF OBTAINING SITE GRADING INFORMATION.
- EXTERNAL GARBAGE ENCLOSURE TO BE COMPLIANT WITH THE URBAN DESIGN GUIDELINE #39

LEGEND

EXISTING TRAFFIC SIGNAL		PROPOSED STORMWATER / CATCH BASIN MANHOLE / MANHOLE		ST.S. CBMH / ST.S. MH
EXISTING FIRE HYDRANT		PROPOSED SANITARY MANHOLE		S.S. MH
PROPOSED PROPERTY AND LEASE LINE		PROPOSED STORMWATER CATCH BASIN		ST.S. CB
LANDSCAPE DEDICATION AREA		PROPOSED OGS ADS FD-5HC		
OFF-LEASE AREA, INCLUDING LANDSCAPE, TO BE DESIGNED, PERMITTED, AND BUILT BY SHELL		PROPOSED FIRE HYDRANT		
OFF-LEASE AREA PAVING TO BE PERMITTED BY SHELL. DESIGN AND CONSTRUCTION BY CAMPANALE		GAS METER		
VACUUM		PROPOSED LIGHT STANDARD		
TIRE INFLATOR		EARTH BIN		
EXISTING CURBS		SANITARY PROCEPTOR		
PROPOSED CURBS		DEPRESSED CURBS		

DETAILS OF DEVELOPMENT

DATA	REQUIRED	PROPOSED
ZONING	ARTERIAL MAINSTREET SUBZONE 9 - AM9	
SETBACKS (C-STORE)	Front Yard (Hazeldean Road) - No Min. Corner Yard (Corner Property Line) - No Min. Exterior Side Yard (Fringewood Drive) - N/A Interior Side Yard (West Lease Line) - No Min. Rear Yard (South lease line) - Min. 10 m	12.42 m 2.00 m 4.05 m 30.36 m 40.75 m
SETBACKS (CARWASH)	Front Yard (Hazeldean Road) - No Min. Exterior Side Yard (Fringewood Drive) - N/A Interior Side Yard (West lease line) - No Min. Rear Yard (South lease line) - 10 m	57.36 m 17.63 m 9.67 m 6.98 m
SETBACKS (CANOPY)	Front Yard (Hazeldean Road) - No Min. Exterior Side Yard (Fringewood Drive) - N/A Interior Side Yard (West Lease line) - No Min. Rear Yard (South Lease Line) - Min. 10 m	11.56 m 27.47 m 7.52 m 37.78 m
LOT AREA (sq.m.)	NO MIN.	3065 sq.m.
BUILDING COVERAGE (%)	NO MIN.	9.70%
LOT FRONTAGE - MIN. (m)	N/A	45.74 m
LOT DEPTH (m)	N/A	72.04 m
FLOOR AREA RATIO	NOT SPECIFIED	0.054 (C-STORE) 0.037 (CARWASH)
LANDSCAPED AREA	NOT SPECIFIED	636 sq.m.
LANDSCAPE COVERAGE	MIN 15.00%	20.75%
BUILDING HEIGHT MAX.(m)	15m	5.14m (C-STORE) 6.00m (CAR WASH) 5.30m (CANOPY)
CANOPY	NOT SPECIFIED	198 sq.m.
C-STORE	NOT SPECIFIED	168 sq.m.
CARWASH	NOT SPECIFIED	114 sq.m.
CARWASH STACKING	10 SPACES	10 SPACES
PAVED AREA	NOT SPECIFIED	1613.50 sq.m.
LOADING SPACES (3.5m WIDE X 9m LONG X 4.2m. VERT CLEARANCE)	0	0
PARKING	REQUIRED	PROVIDED
Barrier-Free	Spaces Stall Length Stall Width	1 5.2 m (MIN) 3.4 m (MIN) 5.5 m 3.4 m
Standard Parking	Spaces Stall Length Stall Width	6 5.2 m (MIN) 6.7 m (MAX) 2.6 m (MIN) 3.1 m (MAX) 11 5.5 m 2.6 m
Overall Number of Spaces	7	12
Aisle Width	6.7 m (MIN)	9.0 m
Bicycle Parking	1	4
LAND USE:	NORTH: AM9, AM9(474), AM7(1894) SOUTH: AM9 EAST: AM7 WEST: O1R	



PROJECT

Shell Canada Products
Hazeldean Road and
Fringewood Drive NTI

5 Orchard Drive
Stittsville, Ontario
CLIENT

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Calgary, AB T2P 0J4
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CONSULTANT

AECOM Canada
4th Floor - 3292 Production Way
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www.aecom.com



REGISTRATION

LEGAL DESCRIPTION

PART OF BLOCK 21 OF DRAFT PLAN OF
SUBDIVISION OF PARTS OF LOTS 26 AND 27
CONCESSION 11
GEOGRAPHIC TOWNSHIP OF GOULBOURN
(CITY OF OTTAWA)

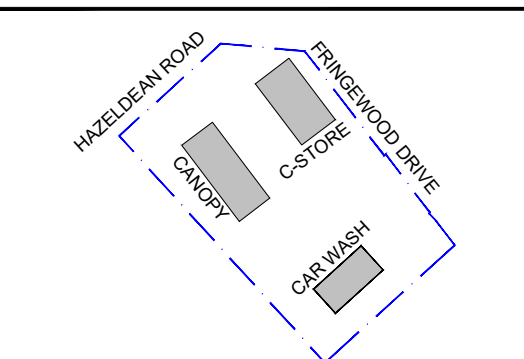
ISSUE/REVISION

	DATE	DESCRIPTION
A	2020-03-31	ISSUED FOR SPA
I/R		

DRAWN BY

SG

KEY PLAN



GLOBAL PROJECT ID NUMBER

CAN01444

SHEET TITLE

SITE PLAN

AECOM FILE NAME

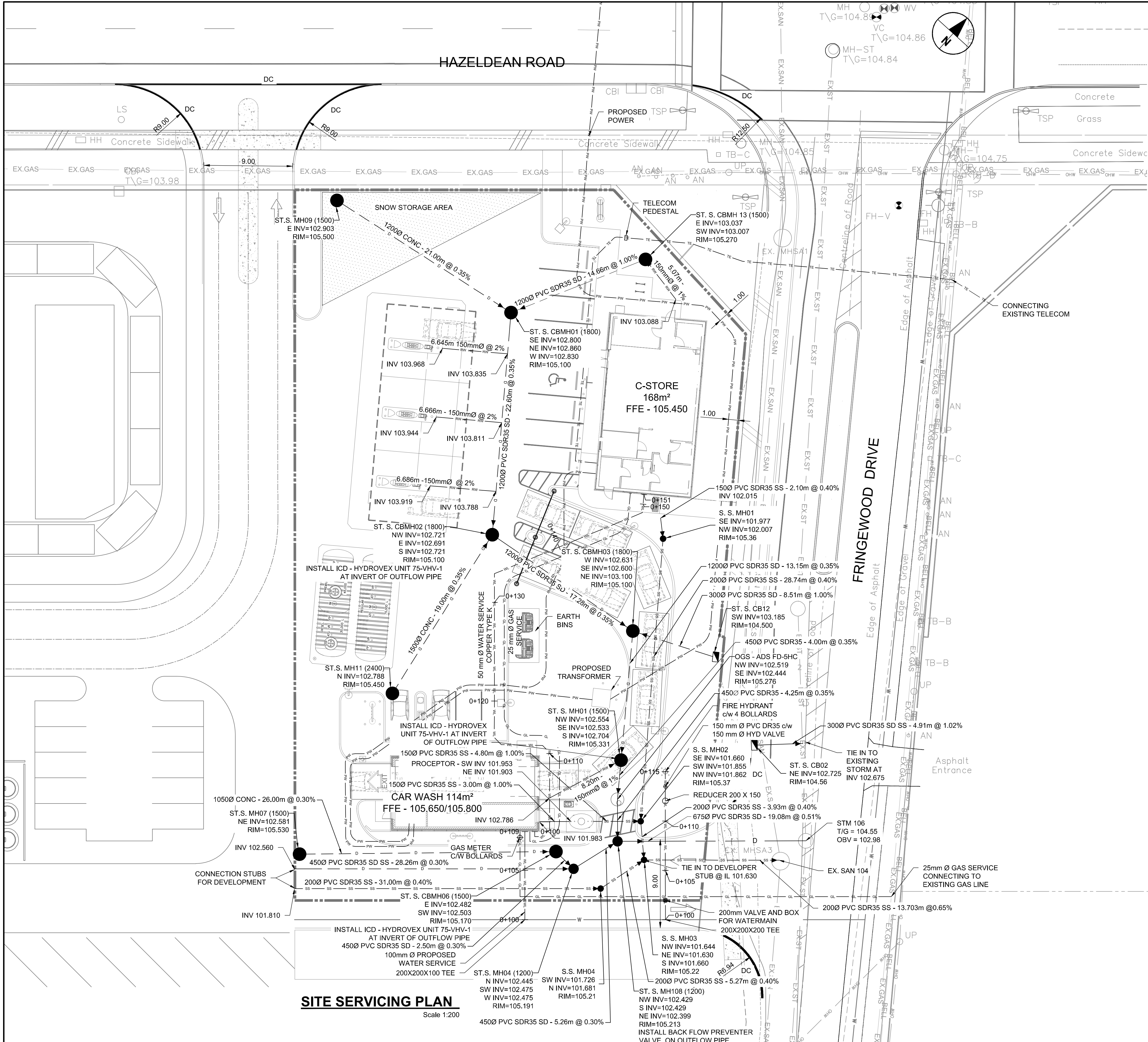
C102.0-SIP-HZLX

SHEET NUMBER

C102.0

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ANSI D 864mm x 559mm
Approved: _____
Checked: _____
Designer: _____
Project Management Initials: _____
Last saved by: REIDJ2(2020-03-31) Last Plotted: 2020-03-31
Filename: C:\USERS\REIDJ2\DESKTOP\HAZELDEAN_DP_260301C103.0-SSP-HZLX.DWG
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NOTES

1. FOR GENERAL NOTES SEE DRAWING C001.0

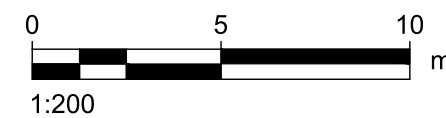
LEGEND

PROPOSED LEASE AND PROPERTY LINE	-----
PROPOSED STORMWATER / CATCH BASIN MANHOLE / MANHOLE	● ST.S. CBMH / ST.S. MH
PROPOSED SANITARY MANHOLE	● S.S. MH
PROPOSED STORMWATER CATCH BASIN	■ ST.S. CB
PROPOSED OGS - ADS FD-5HC	○
PROPOSED HYDRANT AND VALVE	HYD ○ ⊗ VB
PROPOSED LIGHT STANDARD	□
SANITARY PROCEPTOR	□
PROPOSED GAS LINE	— GL — GL —
PROPOSED WATER LINE	— WL —
PROPOSED RAIN WATER COLLECTOR	— RW —
PROPOSED TELECOM	— TE — TE —
PROPOSED SANITARY SEWER	— SS —
PROPOSED STORM SEWER	— D —
PROPOSED POWER LINE	— PW — PW —
EXISTING STORM LINE	— EX.ST —
EXISTING SANITARY LINE	— EX.SAN —
EXISTING GAS LINE	— EX.GAS —
EXISTING TELECOMMUNICATION	— BELL —
EXISTING WATER LINE	— W —
GAS METER	⊕
WATER VALVE	⊞

PROPOSED 200mmØ WATERMAIN TABLE (TO FIRE HYDRANT)			
STATION	SURFACE ELEVATION	T/W/M ELEVATION	COMMENTS
0+100	105.156	102.000	CONNECTION 200 X 200 X 200 TEE
0+101.96	105.153	102.000	WATER VALVE WITH BOX
0+102.32	105.153	102.000	GAS LINE CROSSING
0+106.20	105.147	102.000	SANITARY LINE CROSSING
0+107.93	105.144	102.000	STORM LINE CROSSING
0+112.03	105.307	102.000	REDUCER 200 X 150
0+113.47	105.315	102.000	HYDRANT VALVE
0+115.00	105.309	102.000	FIRE HYDRANT

PROPOSED 100mmØ WATERMAIN TABLE (TO CAR WASH)			
STATION	SURFACE ELEVATION	T/W/M ELEVATION	COMMENTS
0+100.00	105.300	102.000	200 X 200 X100 TEE
0+102.290	105.239	102.000	GAS LINE CROSSING
0+103.150	105.218	102.000	SANITARY LINE CROSSING
0+105.150	105.178	102.000	STORM LINE CROSSING
0+106.680	105.175	102.000	STORM LINE CROSSING
0+109.00	105.800	102.000	CONNECTION TO CAR WASH

PROPOSED 50mmØ WATERMAIN TABLE (CAR WASH TO C-STORE)			
STATION	SURFACE ELEVATION	T/W/M ELEVATION	COMMENTS
0+100	105.800	102.000	CONNECTION FROM CAR WASH
0+100.50	105.532	102.000	90° HORIZONTAL BEND
0+101.29	105.535	102.000	45° HORIZONTAL BEND
0+102.29	105.552	102.000	45° HORIZONTAL BEND
0+103.08	105.590	102.000	SANITARY LINE CROSSING
0+110.10	105.620	102.000	45° HORIZONTAL BEND
0+111.11	105.609	102.000	45° HORIZONTAL BEND
0+115.30	105.629	102.000	45° HORIZONTAL BEND
0+116.310	105.465	102.000	45° HORIZONTAL BEND
0+121.210	105.343	102.000	POWER LINE CROSSING
0+132.91	105.158	102.000	45° HORIZONTAL BEND
0+136.750	105.197	102.000	STORM LINE CROSSING
0+140.650	105.252	102.000	POWER LINE CROSSING
0+147.620	105.382	102.000	GAS LINE CROSSING
0+149.100	105.414	102.000	45° HORIZONTAL BEND
0+151.00	105.450	102.000	CONNECTION TO C-STORE



AECOM

PROJECT

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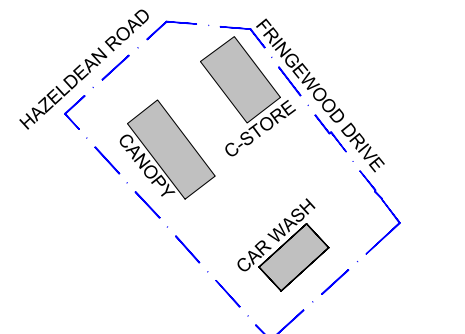
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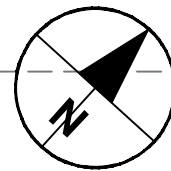
SITE SERVICING PLAN

AECOM FILE NAME

C103.0-SSP-HZLX

SHEET NUMBER

C103.0



NOTES

1. FOR GENERAL NOTES SEE DRAWING C001.0
2. CONTRACTOR IS RESPONSIBLE TO CONFIRM EXISTING GRADES IN FIELD.

LEGEND

PROPOSED GRADE


TOP OF CURB PROPOSED GRADE










BOTTOM OF CURB PROPOSED GRADE

EXISTING SURFACE GRADE

PAVEMENT STRUCTURES:

- ☐ LIGHT DUTY (NEW PAVEMENT)
 50mm HL3 or SUPERPAVE 19.0 ASPHALTIC CONCRETE
 150mm GRANULAR "A" BASE CRUSHED STONE
 300mm GRANULAR "B" TYPE II SUBBASE
 ASPHALT GRADE PG-58-34
 *INSTALLED PER GEOTECHNICAL REPORT

-  HEAVY DUTY (NEW PAVEMENT)
40mm HL3 or SUPERPAVE 12.5 ASPHALTIC CONCRETE
50mm HL8 or SUPERPAVE 19.0 ASPHALTIC CONCRETE
150mm GRANULAR "A" BASE CRUSHED STONE
450mm GRANULAR "B" TYPE II SUBBASE
ASPHALT GRADE PG 58-34
* INSTALLED PER GEOTECHNICAL REPORT

- | | |
|--|--|
|  | PROPOSED LEASE AND PROPERTY LINE |
| 
ST.S. CBMH
/ ST.S MH | PROPOSED STORMWATER / CATCH BASIN
MANHOLE / MANHOLE |
| 
S.S. MH | PROPOSED SANITARY
MANHOLE |
| 
ST.S. CB | PROPOSED STORMWATER CATCH BASIN |
|  | PROPOSED OGS - ADS FD-5HC |
| 
HYD | PROPOSED FIRE HYDRANT |
|  | PROPOSED LIGHT STANDARD |
|  | EXISTING HYDRANT |
| 
DC | PROPOSED DEPRESSED CURB (AS PER SC7.1) |

AECOM

PROJECT

Shell Canada Products

Hazeldean Road and Fringewood Drive NTI

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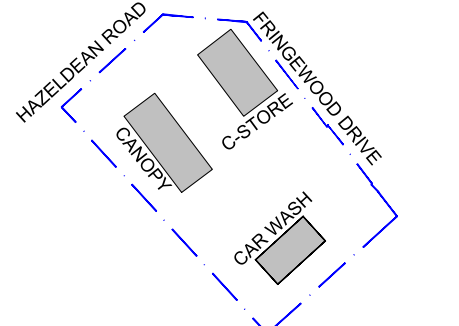
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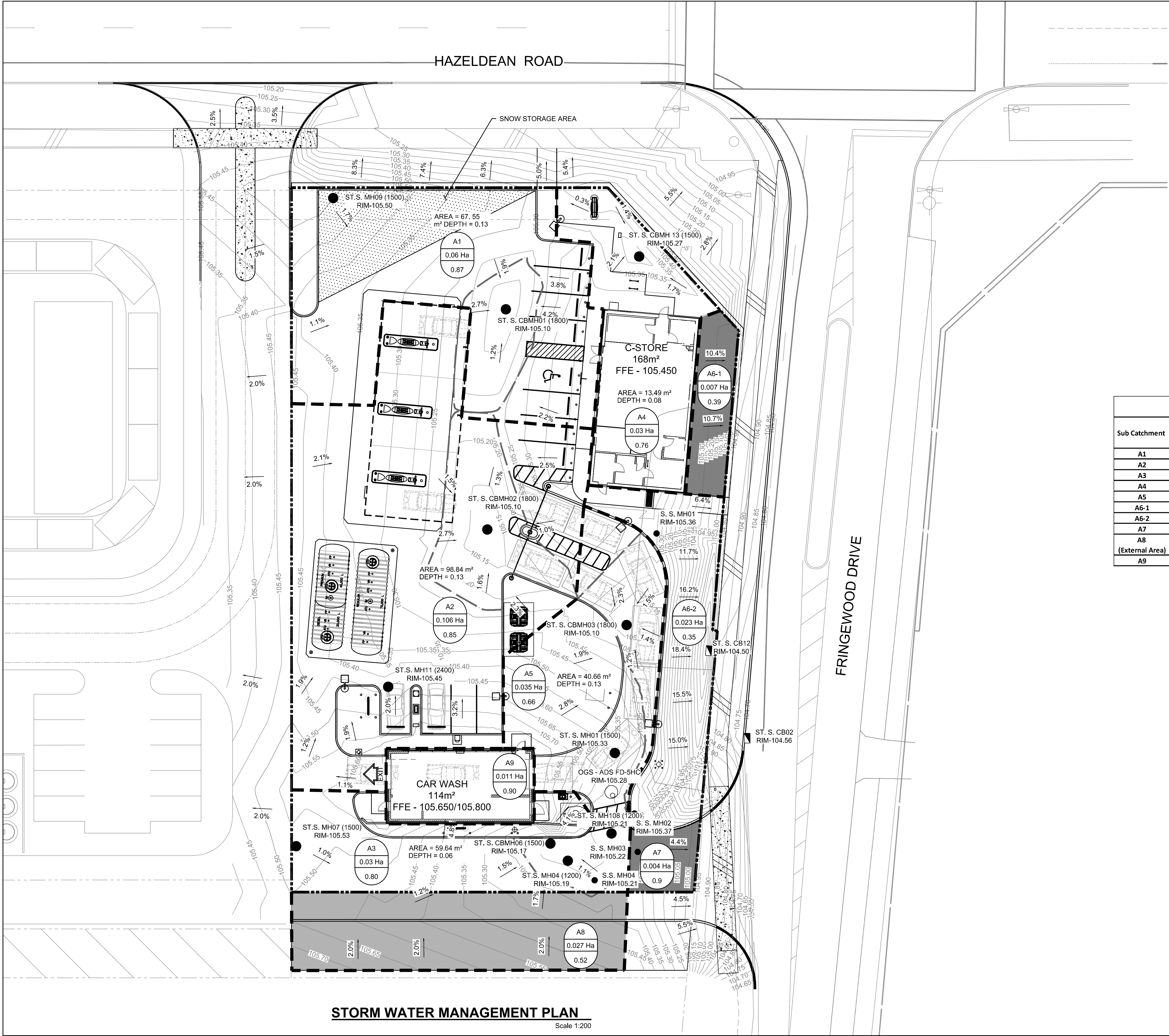
SITE GRADING PLAN

AECOM FILE NAME

C104.0-SGP-HZLX

SHEET NUMBER

C104.0



NOTES
 1. ALL DIMENSIONS ARE IN METRES, UNLESS NOTED OTHERWISE.
 2. FOR GENERAL NOTES SEE DRAWING C001.0.

LEGEND
 - - - - - PROPOSED LEASE AND PROPERTY LINE
 ● ST.S. CBMH / ST.S. MH PROPOSED STORMWATER / CATCH BASIN MANHOLE / MANHOLE
 ● S.S. MH PROPOSED SANITARY MANHOLE
 ○ ST.S. CB PROPOSED STORMWATER CATCH BASIN
 ○ PROPOSED OGS - ADS-FD-5HC
 - - - - - PROPOSED SUB-CATCHMENT BOUNDARIES
 (A1, 0.058 Ha, 0.87) POST - DEVELOPMENT AREA ID
 (A1, 0.058 Ha, 0.87) POST - DEVELOPMENT DRAINAGE AREA (Ha)
 (A1, 0.058 Ha, 0.87) 1:5 YEAR WEIGHTED RUNOFF COEFFICIENT
 [Pattern] UNCONTROLLED STORMWATER FLOW AREA
 [Pattern] EXTERNAL STORMWATER FLOW AREA

AREA STATEMENT (IN HECTARES)				
Sub Catchment	PAVED AREA (ha)	LANDSCAP AREA (ha)	ROOF TOP AREA (ha)	TOTAL AREA (ha)
A1	0.057	0.003		0.06
A2	0.078	0.008	0.02	0.106
A3	0.025	0.005		0.03
A4	0.006	0.007	0.017	0.03
A5	0.021	0.014		0.035
A6-1	0.001	0.006		0.007
A6-2	0.002	0.021		0.023
A7	0.004			0.004
A8		0.017		0.027
A9 (External Area)	0.01			0.027
A9			0.011	0.011



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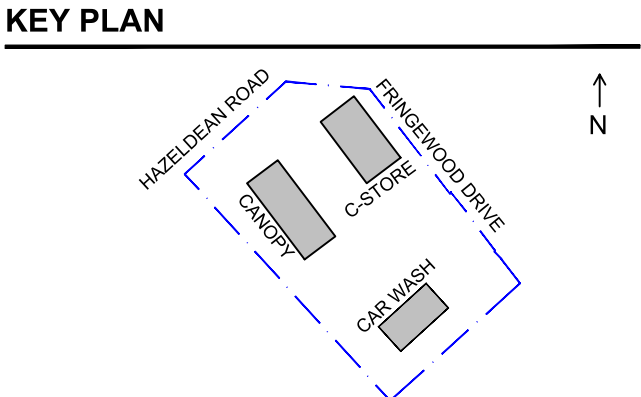


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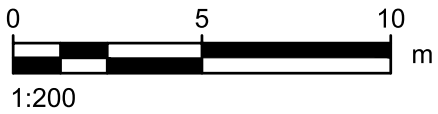
STORMWATER MANAGEMENT PLAN

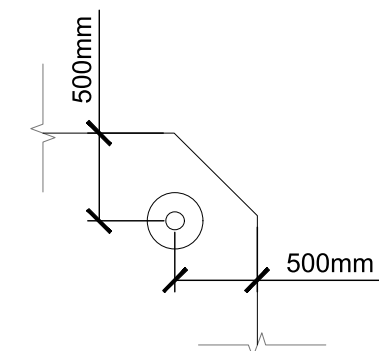
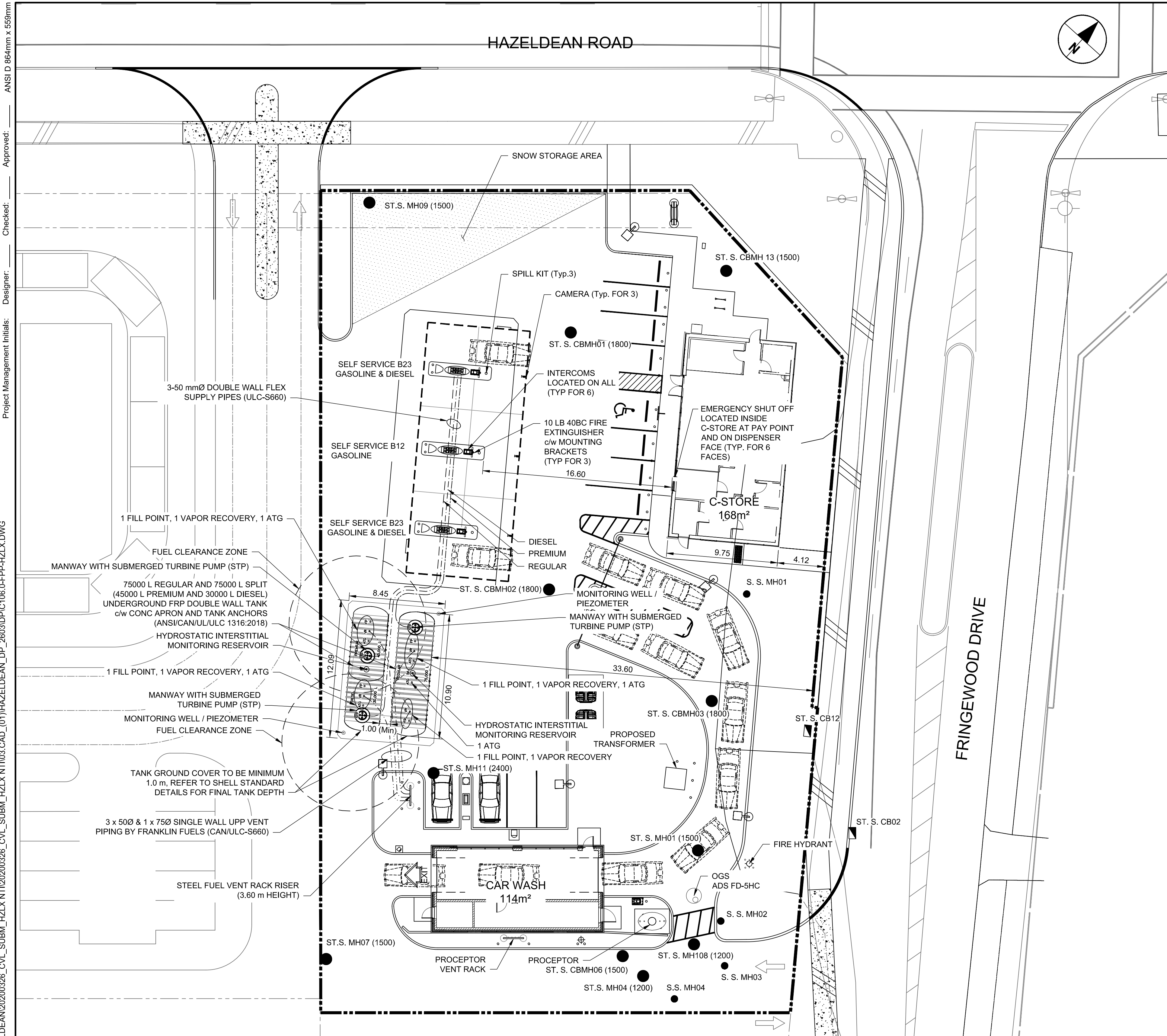
AECOM FILE NAME

C105.0-SWM-HZLX

SHEET NUMBER

C105.0





TYPICAL MONITORING WELL/
PIEZOMETER SET OUT
SCALE NTS

LEAK DETECTION SYSTEM

TANK MONITORING SYSTEM EQUIPPED WITH:

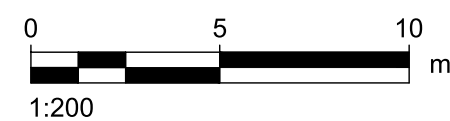
- A SUMP SENSOR IN EACH TANK DISPENSER SUMP, INTERCONNECTED WITH THE SYSTEM TO SHUT DOWN THE AFFECTED DISPENSER UNDER ALARM CONDITIONS.

- A SUMP SENSOR IN EACH TANK SUMP, INTERCONNECTED WITH THE SYSTEM TO SHUT DOWN THE AFFECTED STP UNDER ALARM CONDITIONS.

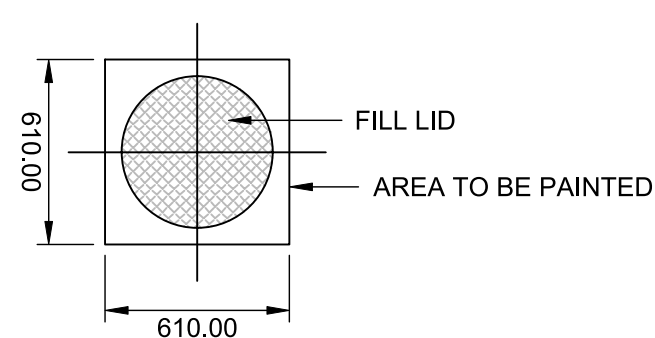
- A INTERSTITIAL SENSOR FOR EACH TANK TO PROVIDE AN ALARM TO THE CONSOLE OPERATOR

FUEL PIPING PLAN

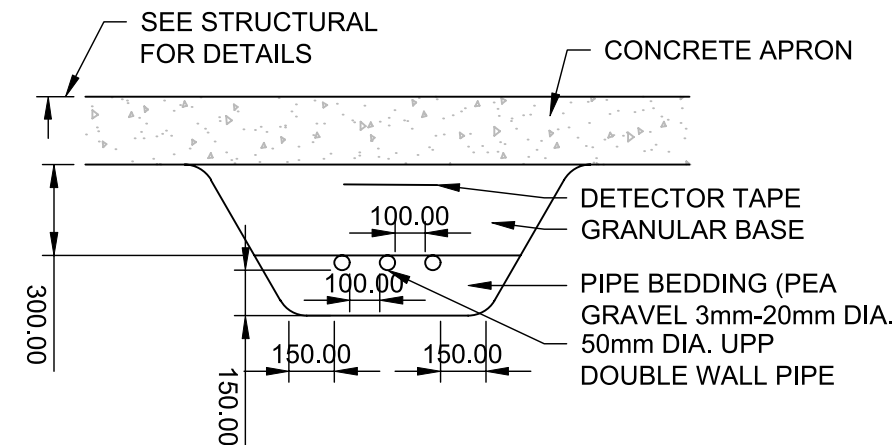
Scale 1:200



NOTE:
THE TANK LIDS ARE TO BE PAINTED IN ACCORDANCE
WITH THE FOLLOWING SHELL STANDARDS; REGULAR/
BRONZE = WHITE, PREMIUM/ V-POWER = RED AND
DIESEL = YELLOW



TYPICAL FILL LID PAINT
IDENTIFICATION DETAIL
SCALE 1:25



TYPICAL PIPING SECTION
SCALE 1:25

NOTES:

1. TANKS MANUFACTURED BY ZCL COMPOSITES INC. FOR TYPICAL TANK DETAILS REFER TO ZCL SHOP DRAWINGS. TANKS MUST COMPLY WITH MANUFACTURER'S INSTALLATION MANUAL. INSTALLER TO PROVIDE COMPLETED TANK INSTALLATION CHECKLIST.
2. DOUBLE WALLED FRP (FIBERGLASS REINFORCED PLASTIC) TANKS C/W STP SUMPS AND CONCRETE ANCHORS TO BE SUPPLIED BY AECOM L2 AND INSTALLED BY GENERAL CONTRACTOR (REFER TO SHELL STANDARD PETROLEUM DRAWINGS FOR ALL INSTALLATION DETAILS).
3. GASOLINE PIPING, SUBMERSIBLE PUMPS, SPILL CONTAINMENT SUMPS, OVERALL VALVES, SHEAR VALVES AND ALL ASSOCIATED FITTINGS TO BE SUPPLIED AND INSTALLED BY GENERAL CONTRACTOR (REFER TO SHELL STANDARD PETROLEUM DRAWINGS FOR ALL INSTALLATION DETAILS).
4. GASOLINE AND DIESEL SPILL CONTAINMENT SUMPS ARE TO BE FITTED WITH A BRASS METAL TAG SHOWING TANKS CAPACITY IN LITRES AND A PLASTIC TAG INDICATING PRODUCT. THESE TAGS ARE TO BE ATTACHED TO FILL PIPE BELOW THE SNAP CAP USING A PLASTIC TIE. COLLAR WRAP AND PRODUCT ID SIGNS PROVIDED BY TANK SUPPLIER AND INSTALLED BY GC. FFS DETECTOR TAPE TO BE SUPPLIED AND INSTALLED BY GC. REFER TO PETROLEUM DWG T560.4 FOR SCHEMATIC.
5. CUSTOMER SERVICE UNITS (CSU) TO BE SUPPLIED BY AECOM L2 AND INSTALLED BY CONTRACTOR ON DISPENSER ISLANDS, EXACT LOCATIONS TO BE DETERMINED ON SITE. - TRUCK DIRECTION SIGNS TO BE SUPPLIED BY AECOM L2 AND INSTALLED BY GC (IN ACCORDANCE WITH LOCAL CODES.) - "NO SMOKING", "TURN OFF IGNITION" "OPERATING INSTRUCTION" "SUITABLE CONTAINER" SIGNS TO BE SUPPLIED BY AECOM L2 AND INSTALLED BY GC (IN ACCORDANCE WITH LOCAL CODES.).
6. FILL, PRODUCT INVENTORY SENSOR & RISER PIPES TO BE SUPPLIED AND INSTALLED BY CONTRACTOR. RISERS SHALL BE WRAPPED WITH DENSO TAPE FOR CORROSION PROTECTION.
7. PLASTIC TO STEEL -TRANSITION FOR UPP VENT TO OCCUR AT GRADE, BY GC.
8. PICTURES ARE REQUIRED FOR ALL PIPING RUNS, FOR TANK AND ANCHOR INSTALLATIONS ALONG WITH SUMPS, FUEL LINES, AND VENTS. PHOTOS WILL ALSO INCLUDE EXCAVATION AND BACKFILL OF THE TANK NEST AT ALL HOLD POINTS.
9. UNION AT PIPING CONNECTION TO DISPENSERS SHALL BE 3000 LBS FORGED STEEL.
10. ALL WORK TO BE DONE IN ACCORDANCE WITH ALL APPLICABLE CODES INCLUDING NATIONAL AND PROVINCIAL FIRE CODE AND ANY PROVINCIAL AUTHORITY (TSSA). GC IS RESPONSIBLE FOR THE APPLICATION AND REGISTRATION OF THE TANKS AND FUEL SYSTEM PERMIT FROM AHJ AND IS RESPONSIBLE TO DELIVER THIS PERMIT TO AECOM/SHELL.
11. CAMERAS TO BE INSTALLED AT EACH DISPENSER LOCATION AS PER AHJ AECOM L2 TO SUPPLY CCTV EQUIPMENT. GC TO COMPLETE ALL WORK TO ROUGH-IN (I.E. CONDUIT INSTALLATION). CAMACC INSTALLS CABLES AND COMMISSIONS SYSTEMS.
12. NEW VIDEO LOSS SYSTEM INCLUDES: VIDEO LOSS RELAYS, MONITORS AND ASSOCIATED EQUIPMENT INSTALLED IN BACK ROOM, VICINITY OF GAS BAR ELECTRICAL.VIDEO LOSS BOARD FOR THE VEEDER-ROOT.
- 13.FIRE EXTINGUISHERS TYPE 40BC, 10 LBS. COMPLETE WITH MOUNTING BRACKETS TO BE SUPPLIED AND INSTALLED BY GC (TYP. 3 LOCATIONS - ONE PER DISPENSER ISLAND).
14. WAYNE INTERCOMS IN DISPENSERS - GC TO SUPPLY AND INSTALL MASTER IN C-STORE AND CONNECT TO INTERCOM AT PASS-THROUGH BOX AND ON WAYNE DISPENSERS. TWO WAY TYPICAL FOR 6 LOCATIONS - ONE PER EACH SIDE OF DISPENSER.
15. FOR ALL OTHER DETAILS REFER TO SHELL STANDARD PETROLEUM DRAWINGS AND T560 DRAWINGS.
16. TANK EXCAVATION TO BE COMPLETED IN ACCORDANCE WITH LOCAL LAWS AND WORKSAFE REGULATIONS. IN THE EVENT THAT STEEPER SLOPES OR SLOUGHING IS OBSERVED, A GEOTECHNICAL ENGINEER IS TO BE ENGAGED TO REVIEW SIGN-OFF SLOPES AND/OR REMEDIAL MEASURES.
17. PRIOR TO TANK INSTALLATION, A LIFTING PROTOCOL SHALL BE COMPLETED AND AS A MINIMUM PERSONNEL CRANE, TANK STARTING POSITIONS, LIFTING/PUBLIC/OVERHEAD RISKS AND MITIGATIONS SHALL BE IDENTIFIED AND SUBMITTED TO AECOM L2 AS HOLD POINT.
18. CONTRACTOR TO PROVIDE MATERIALS LIST PRIOR TO COMMENCEMENT OF WORK FOR REVIEW AND APPROVAL BY AECOM.
19. PLACE DEADMEN AS PER MANUFACTURER'S INSTALLATION INSTRUCTIONS. TANKS WILL BE STRAPPED TO THESE ANCHORS AND THE STRAPS MAY ONLY BE CLIPPED TO THE TANKS BY HAND OR WITH THE GENTLE USE OF A RUBBER MALLET. METALLIC HAMMERING IS NOT PERMITTED.
20. ALL UPP INSTALLATION EQUIPMENT AND INSTALLATION PERSONNEL MUST BE CALIBRATED, VALID, AND CERTIFIED WITH UPP. ALL UPP INSTALLATION PERSONNEL MUST BE TRAINED BY FRANKLIN FUELING IN CORRECT AND CURRENT METHODS OF INSTALLATION. AND LEAD INSTALLATION PERSONNEL MUST PROVIDE A CURRENT COPY OF CERTIFICATION.
21. ALL METALLIC CONNECTIONS TO PIPING AND TANKS SHALL BE BONDED AND GROUNDED.
22. PIPING INSTALLER TO REFER TO AECOM L2 TESTING REQUIREMENTS FOR UPP PIPING.
23. PRECISION LEAK TEST TO BE PERFORMED BY A QUALIFIED TESTING AGENCY.
24. GC IS RESPONSIBLE FOR THE COMMISSIONING OF ALL FUEL SYSTEM EQUIPMENT INCLUDING THE WAYNE DISPENSERS AND THE VEEDER ROOT MONITORING SYSTEM. THE CONTRACTOR MUST PROVIDE THE COMMISSIONING DOCUMENTATION TO WAYNE AND ACCUFLO WITH COPIES TO AECOM/SHELL BEFORE THE SITE IS HANDED OVER.
25. PIPING SYSTEM TESTING IS TO BE CONDUCTED IN ACCORDANCE WITH THE SHELL RETAIL SITE PETROLEUM TESTING PROTOCOL.
26. TANK AND DISPENSER APRON SLAB SHALL BE CONSTRUCTED AS PER STRUCTURAL DRAWINGS.
27. CONTRACTOR TO HOLD VALID INSTALLERS CERTIFICATE FOR JURISDICTION (I.E. PM.1 CERTIFICATE) AND SYSTEMS BEING INSTALLED
28. TANKS TO BE EQUIPPED WITH ALL STAGE 1 VAPOUR RECOVERY EQUIPMENT PER ENVIRONMENTAL REGULATIONS IN JURISDICTION.
29. TANKS ARE EQUIPPED WITH OVERFILL PROTECTION DEVICE CONFORMING TO ULC-S661
30. THERE ARE NO KNOWN WELLS WITHIN 30M OF TANKS AND DISPENSERS.



PROJECT

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REGISTRATION

LEGAL DESCRIPTION

PART OF BLOCK 21 OF DRAFT PLAN OF
SUBDIVISION OF PARTS OF LOTS 26 AND 27
CONCESSION 11
GEOGRAPHIC TOWNSHIP OF GOULBOURN
(CITY OF OTTAWA)

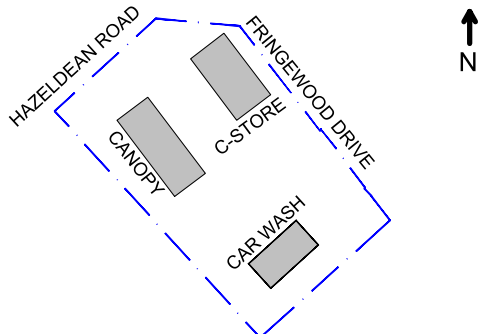
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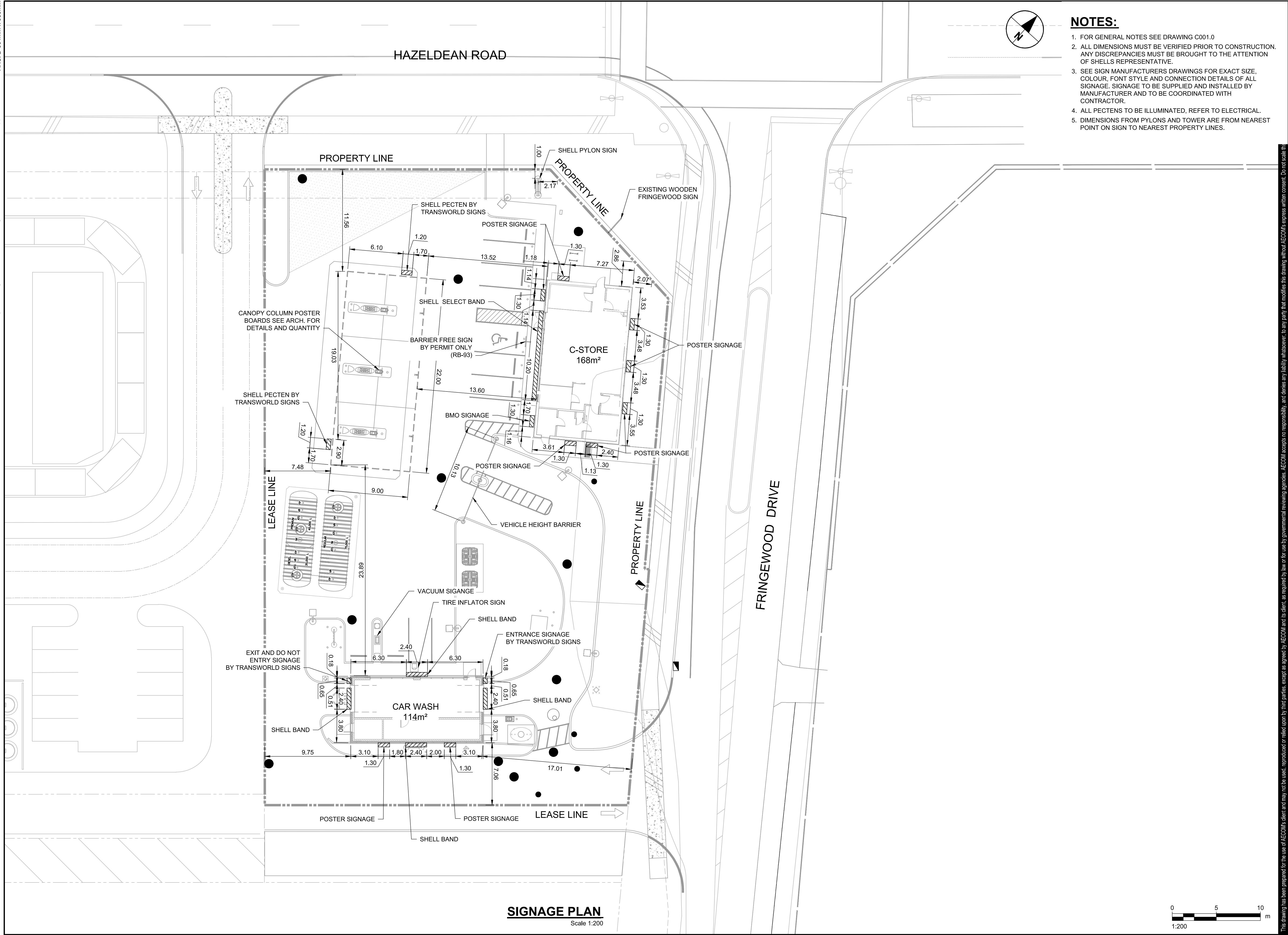
FUEL PIPING PLAN

AECOM FILE NAME

C106.0-FPP-HZLX

SHEET NUMBER

C106.0



SIGNAGE PLAN
 Scale 1:200



NOTES:

1. FOR GENERAL NOTES SEE DRAWING C001.0
2. ALL DIMENSIONS MUST BE VERIFIED PRIOR TO CONSTRUCTION. ANY DISCREPANCIES MUST BE BROUGHT TO THE ATTENTION OF SHELLS REPRESENTATIVE.
3. SEE SIGN MANUFACTURERS DRAWINGS FOR EXACT SIZE, COLOUR, FONT STYLE AND CONNECTION DETAILS OF ALL SIGNAGE. SIGNAGE TO BE SUPPLIED AND INSTALLED BY MANUFACTURER AND TO BE COORDINATED WITH CONTRACTOR.
4. ALL PECTENS TO BE ILLUMINATED, REFER TO ELECTRICAL.
5. DIMENSIONS FROM PYLONS AND TOWER ARE FROM NEAREST POINT ON SIGN TO NEAREST PROPERTY LINES.



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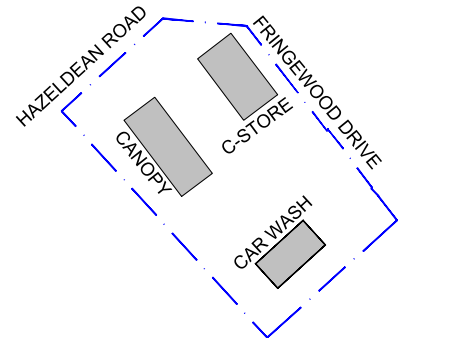
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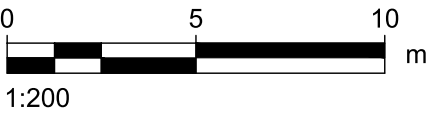
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AECOM FILE NAME

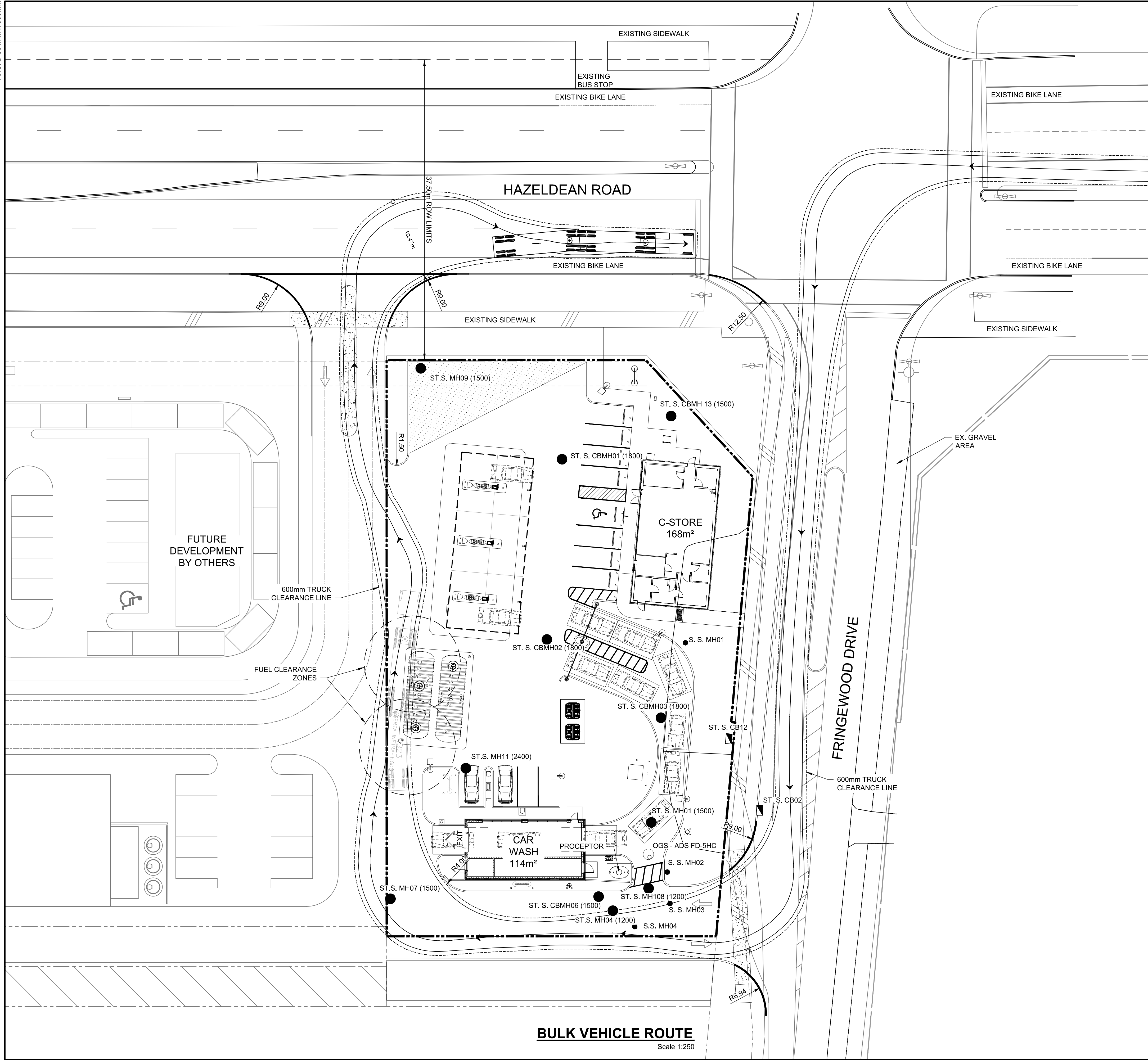
C108.0-SIG-HZLX

SHEET NUMBER

C108.0

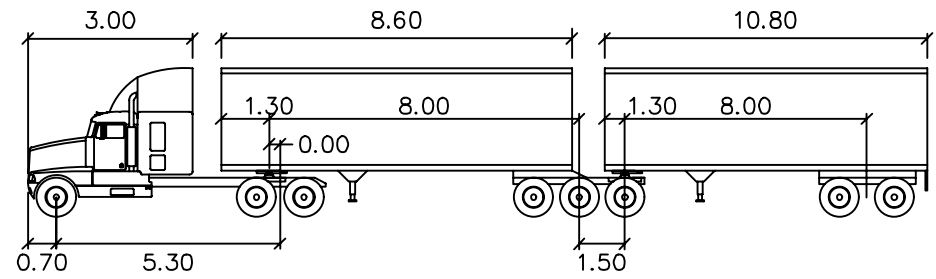
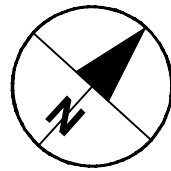


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 ANS I D 864mm x 559mm



NOTES

1. FOR GENERAL NOTES SEE DRAWING C001.0.

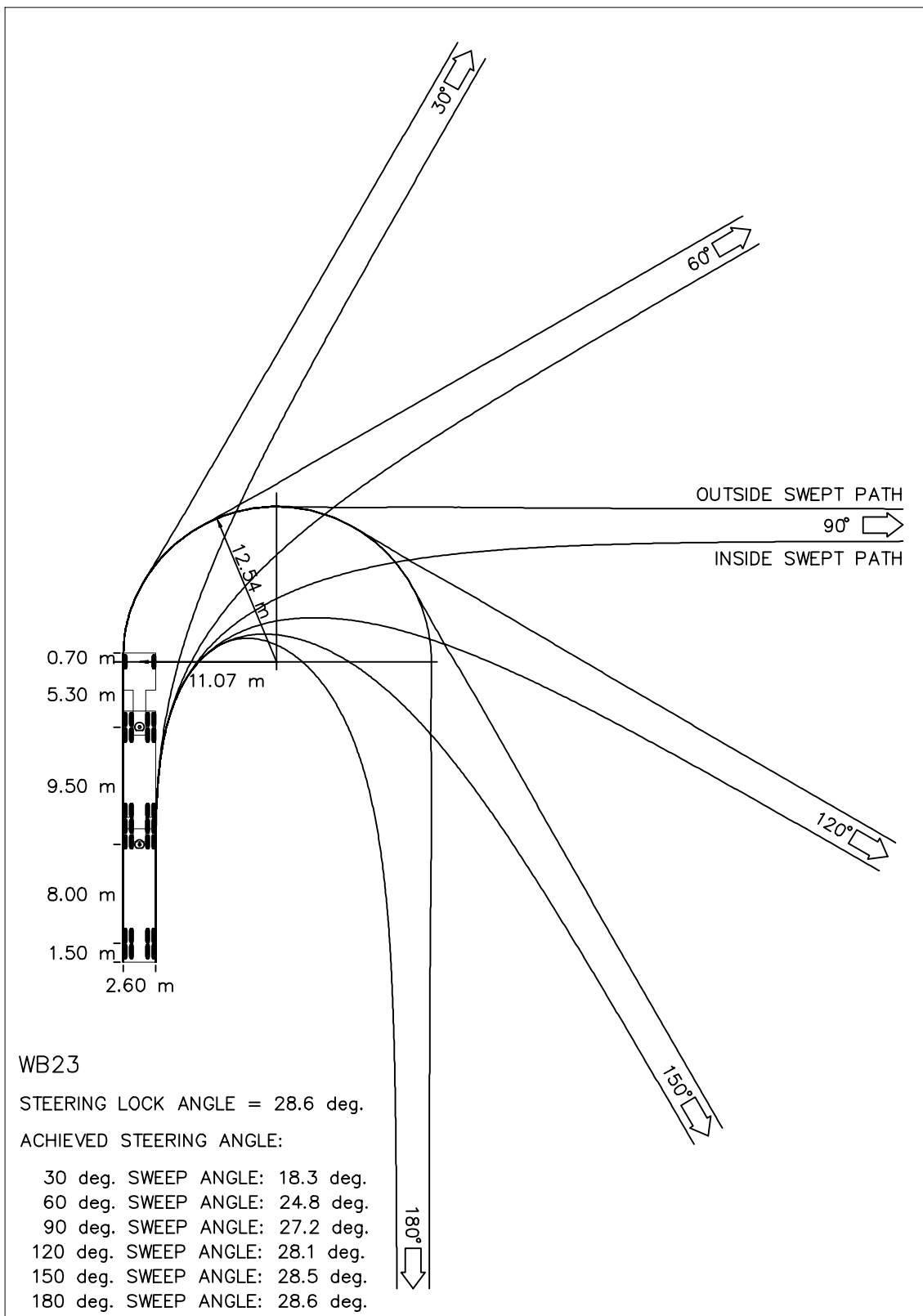


WB23

Tractor Width	: 2.60	Lock to Lock Time	: 6.0
Tractor Track	: 2.60	Steering Angle	: 28.6
Trailer Width	: 2.60	Articulating Angle	: 70.0
Trailer Track	: 2.60		

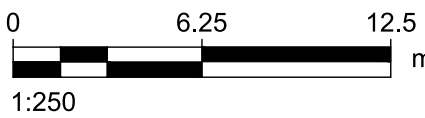
WB23 - DIMENSIONS

N.T.S.



TURNING RADII FOR WB23

N.T.S.



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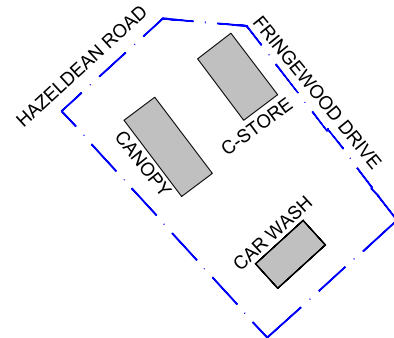
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BULK VEHICLE ROUTE

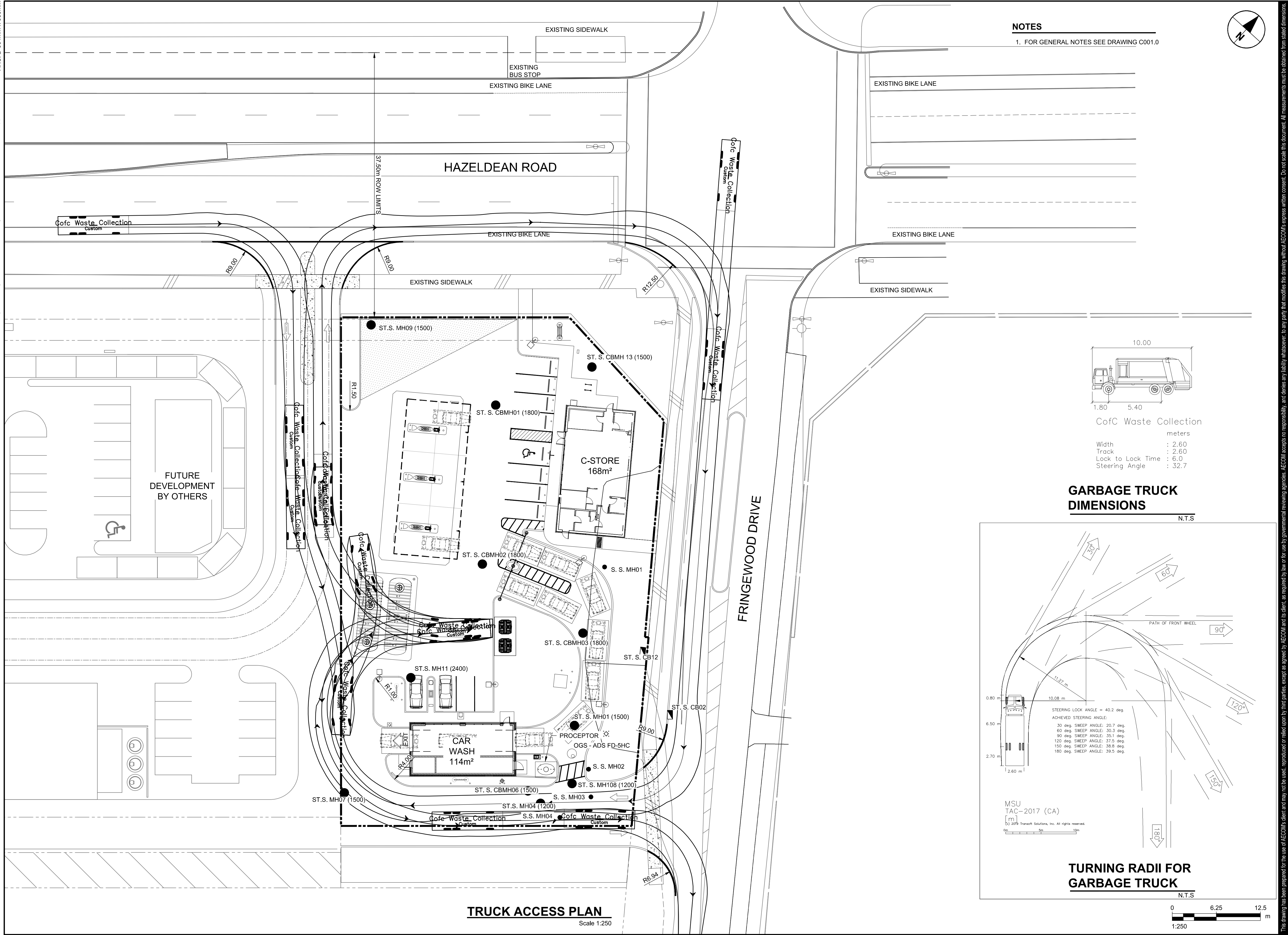
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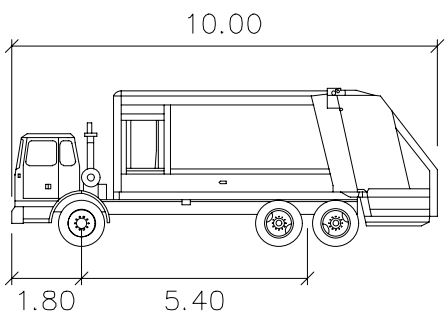
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 Project Management Initials: _____ Designer: _____ Checked: _____ Approved: _____
 ANS I D 864mm x 559mm



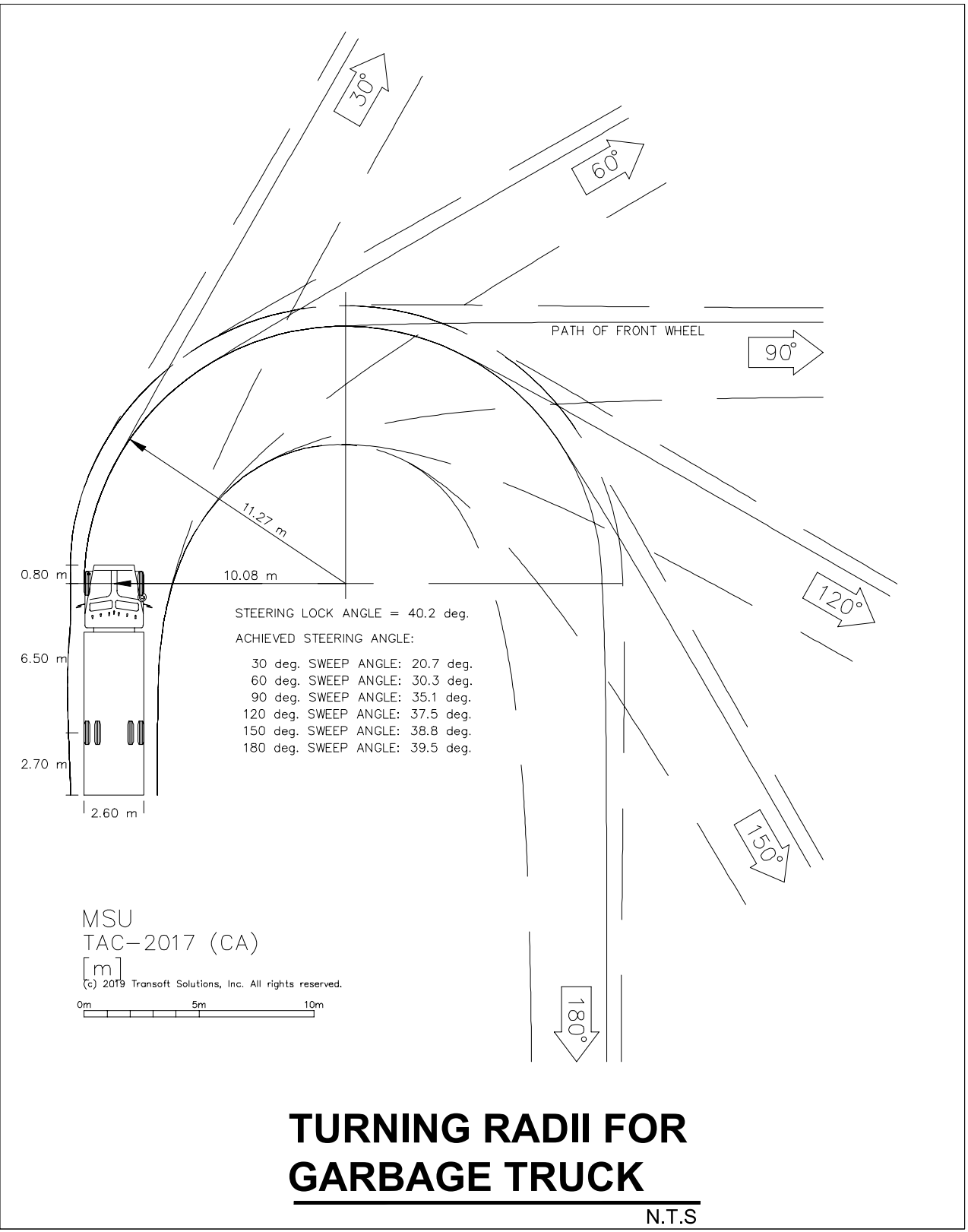
NOTES
 1. FOR GENERAL NOTES SEE DRAWING C001.0



CofC Waste Collection
 meters
 Width : 2.60
 Track : 2.60
 Lock to Lock Time : 6.0
 Steering Angle : 32.7

GARBAGE TRUCK DIMENSIONS

N.T.S



TURNING RADII FOR GARBAGE TRUCK

N.T.S

TRUCK ACCESS PLAN

Scale 1:250



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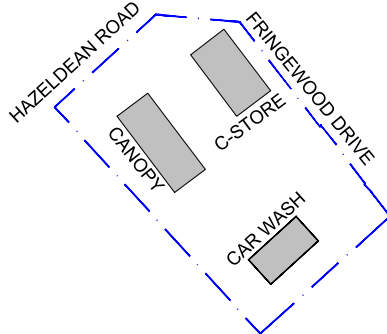
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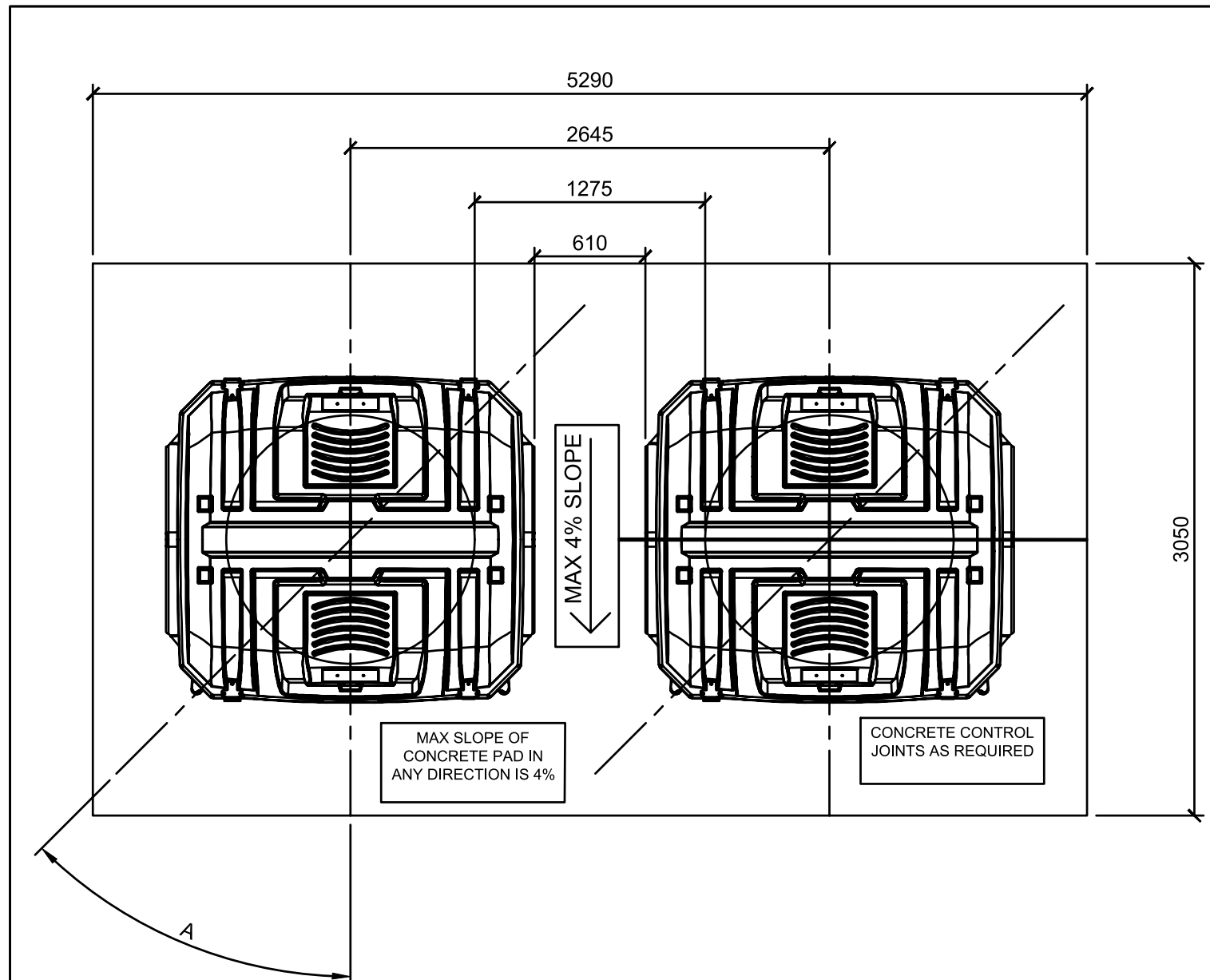
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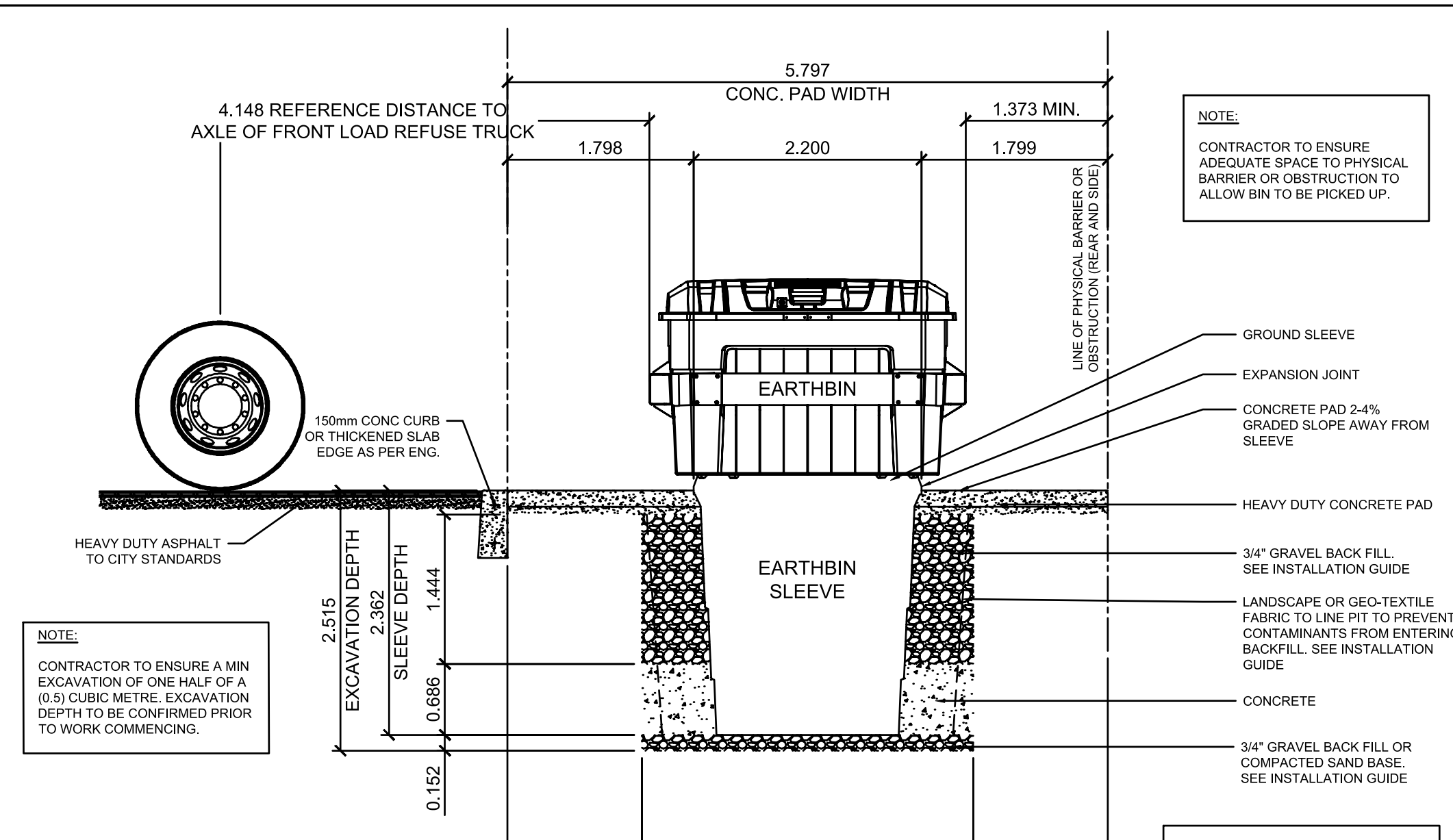
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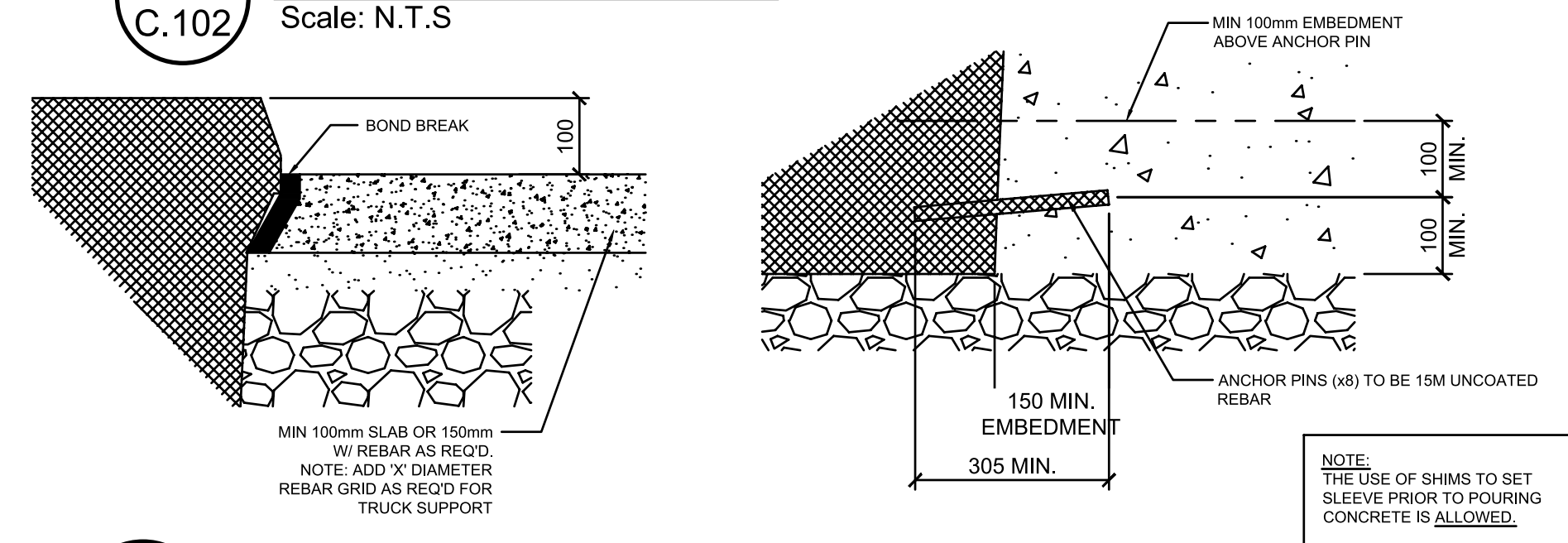
C111.0



1 EARTHbins- PLAN VIEW
C.102 Scale: N.T.S

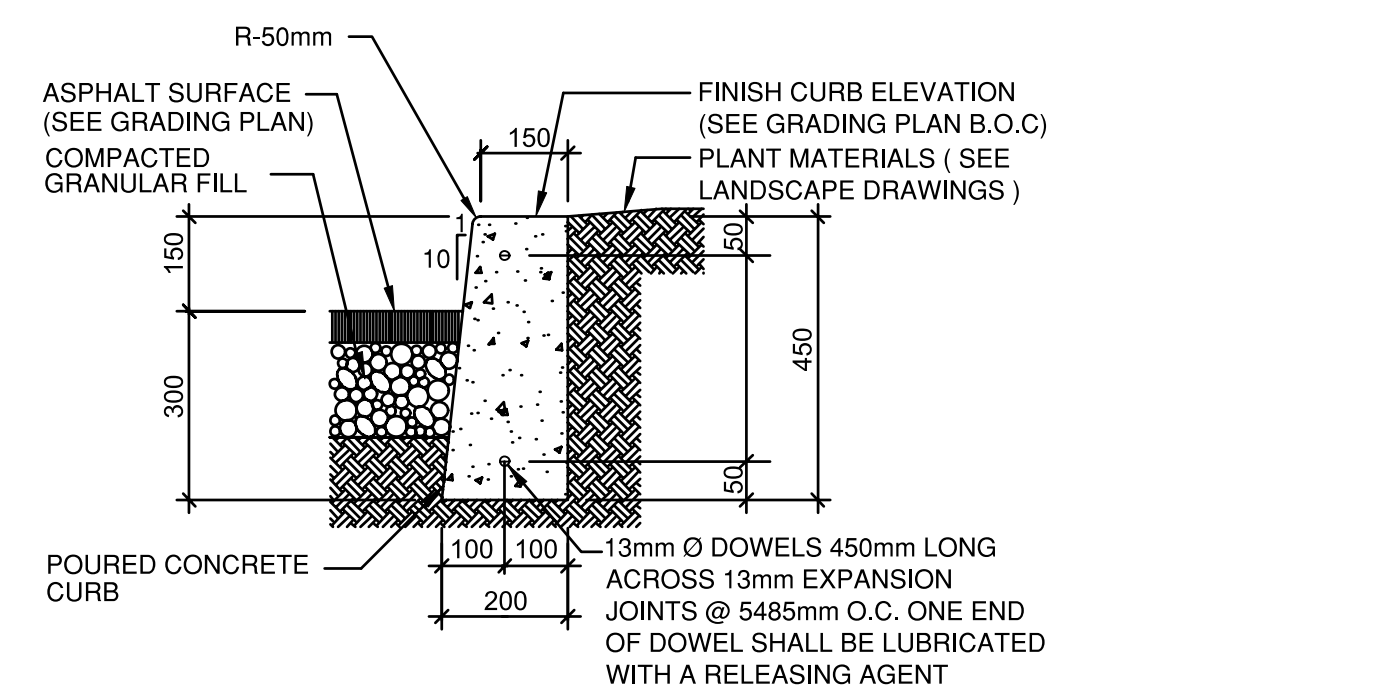


1a EARTHbins- TYPICAL CROSS SECTION
C.102 Scale: N.T.S

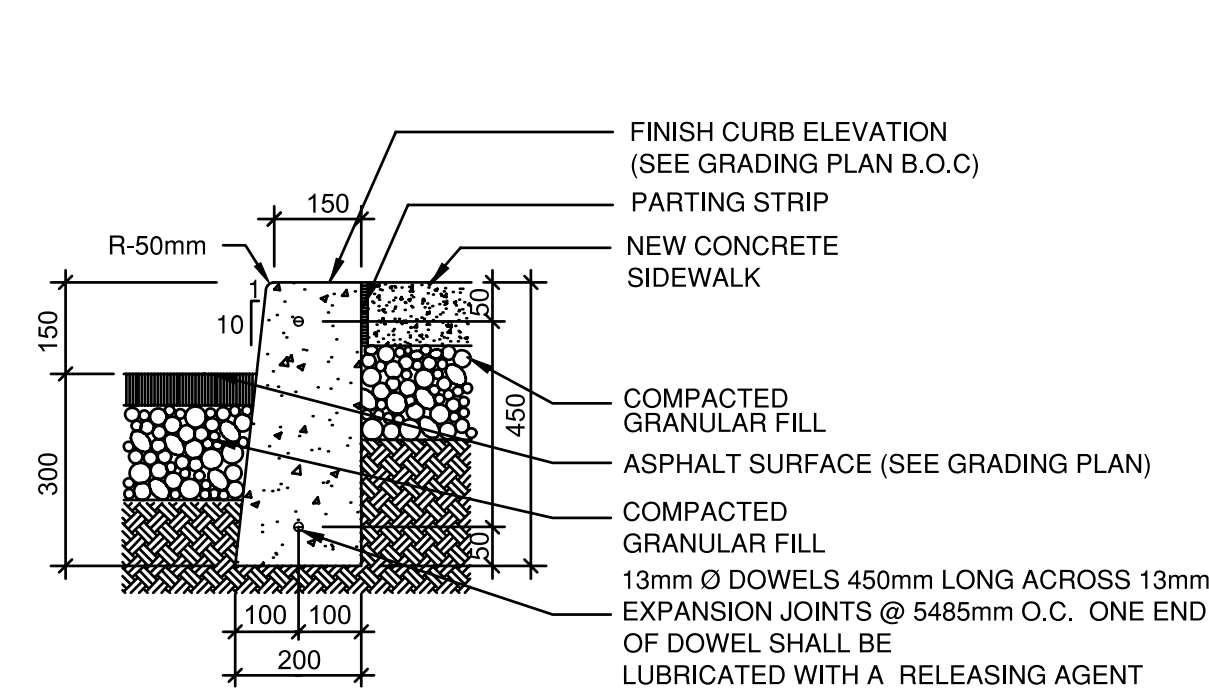


1b SLEEVE DETAIL A
C.102 Scale: N.T.S

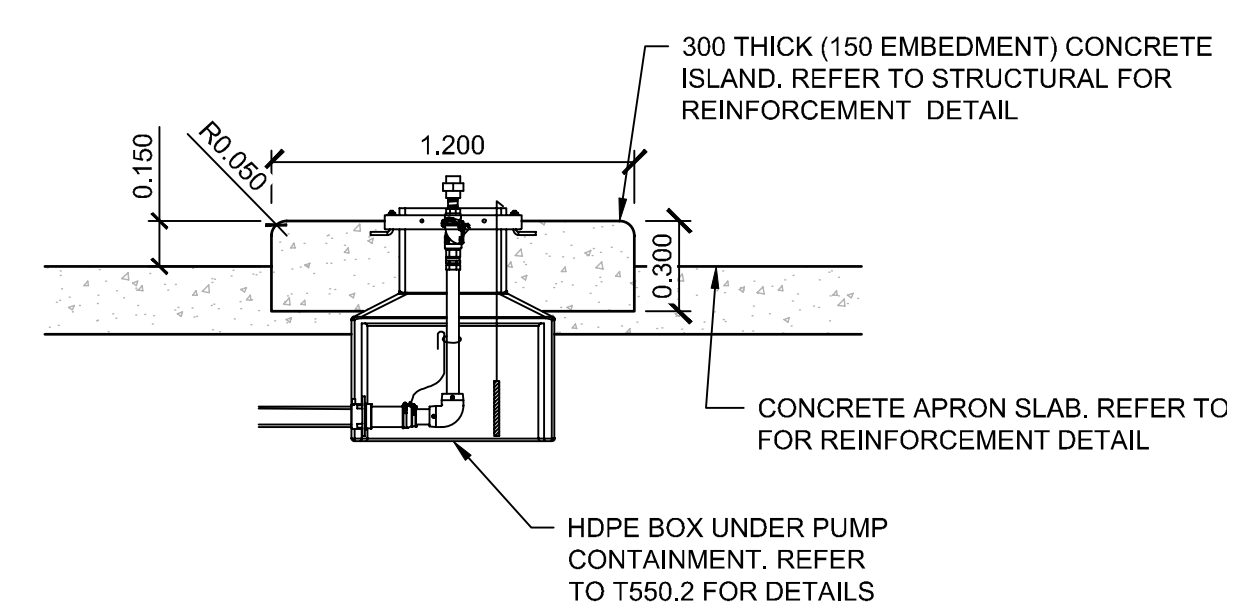
1c SLEEVE DETAIL B
C.102 Scale: N.T.S



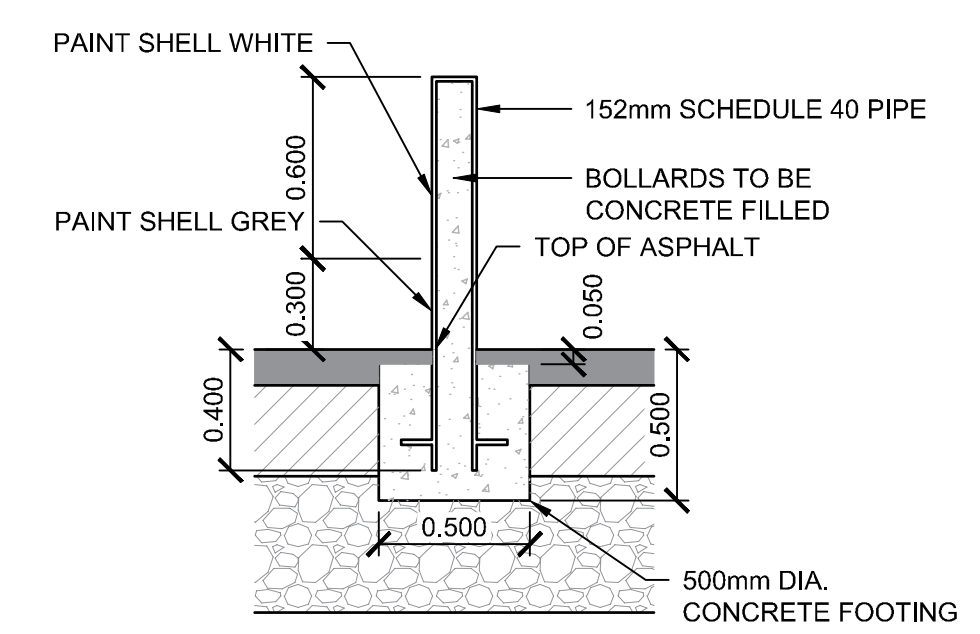
2 CONCRETE CURB DETAIL
C.102 Scale: 1:20



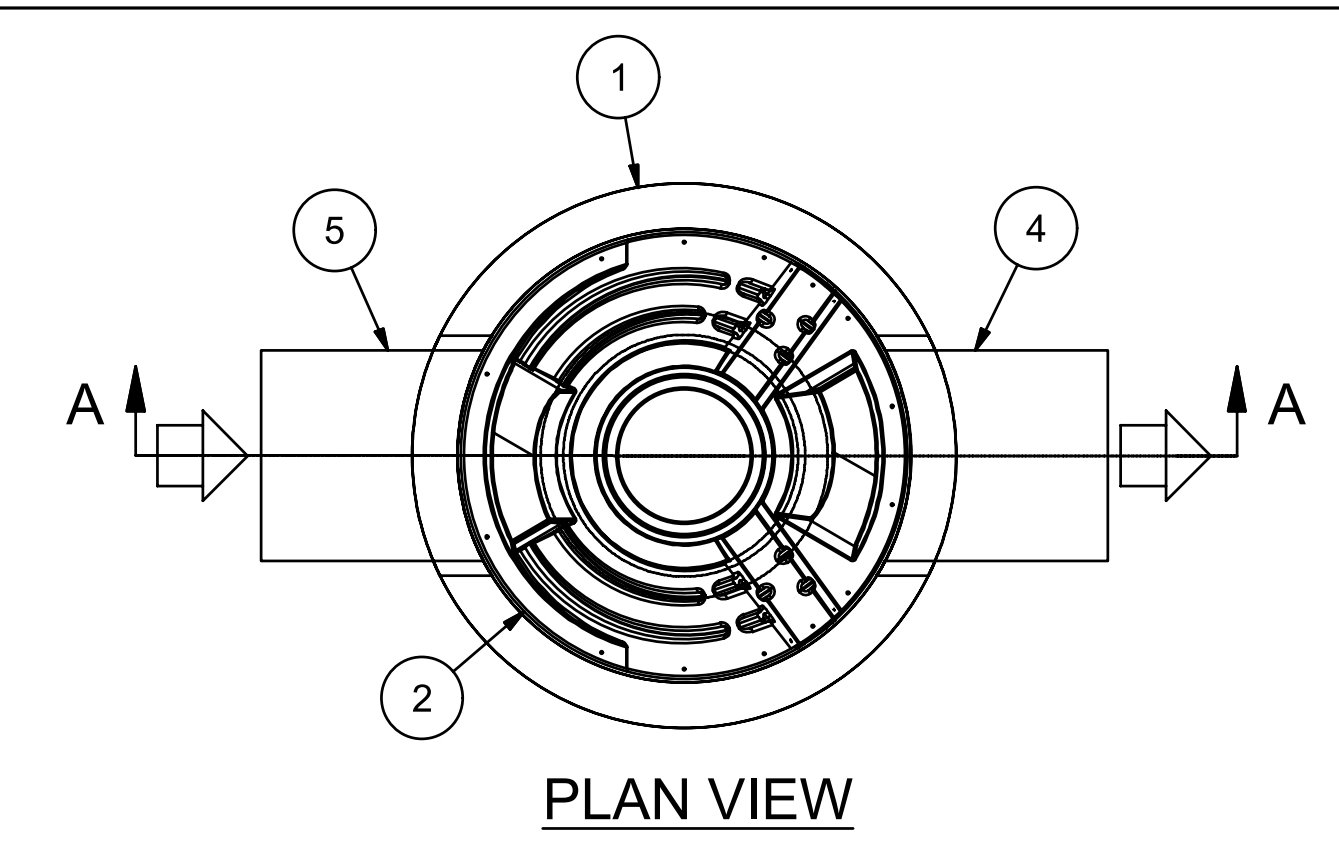
3 CONC. CURB/SIDEWALK DETAIL
C.102 Scale: 1:20



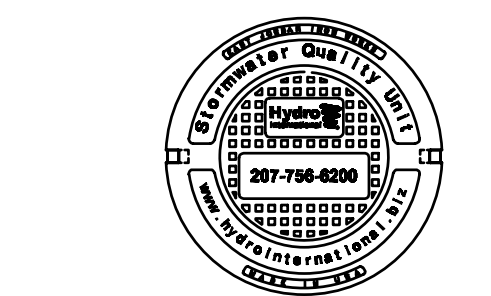
5 TYPICAL CONCRETE ISLAND
C.102 Scale: 1:25



6 BOLLARD DETAIL
C.102 Scale: 1:25

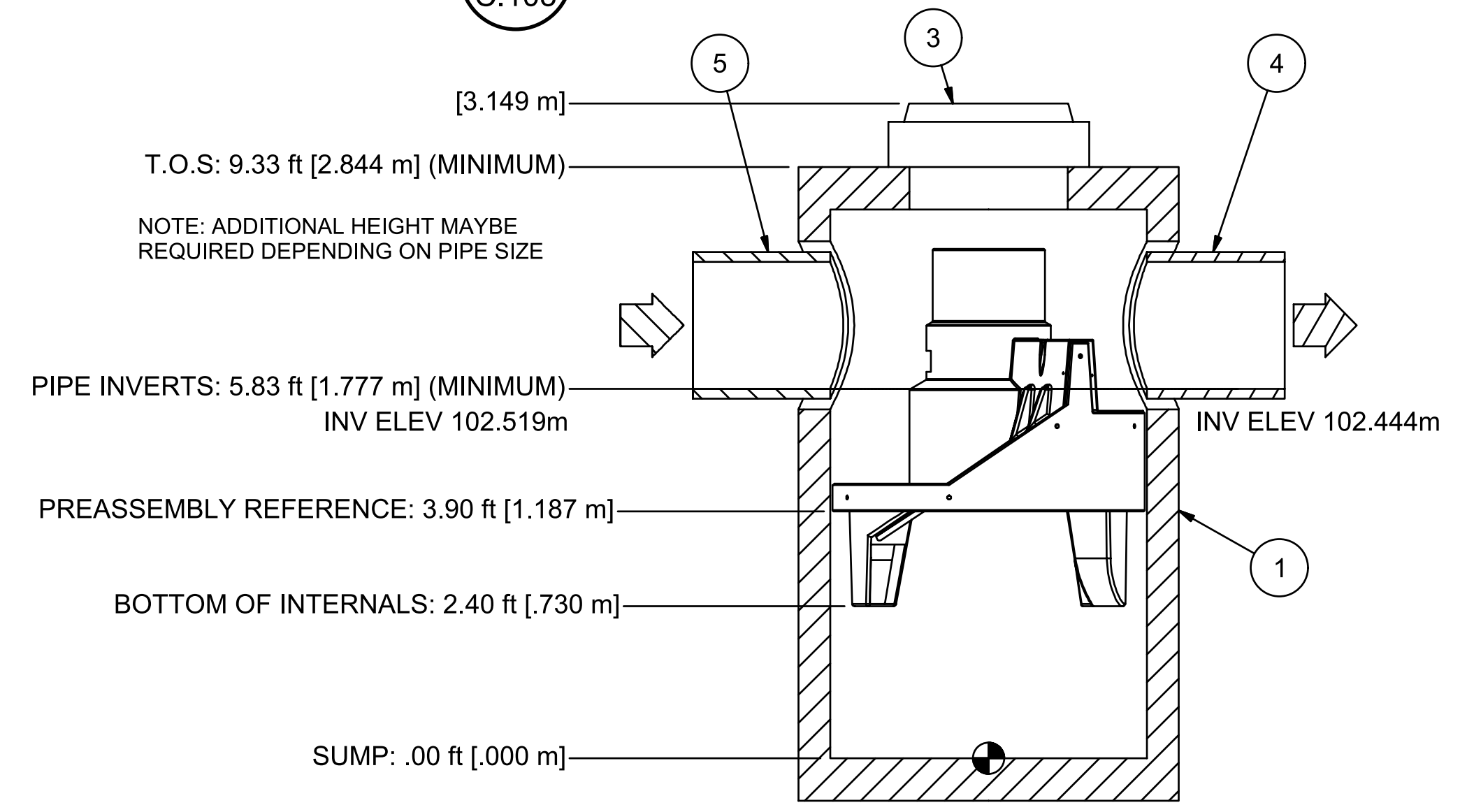


PLAN VIEW

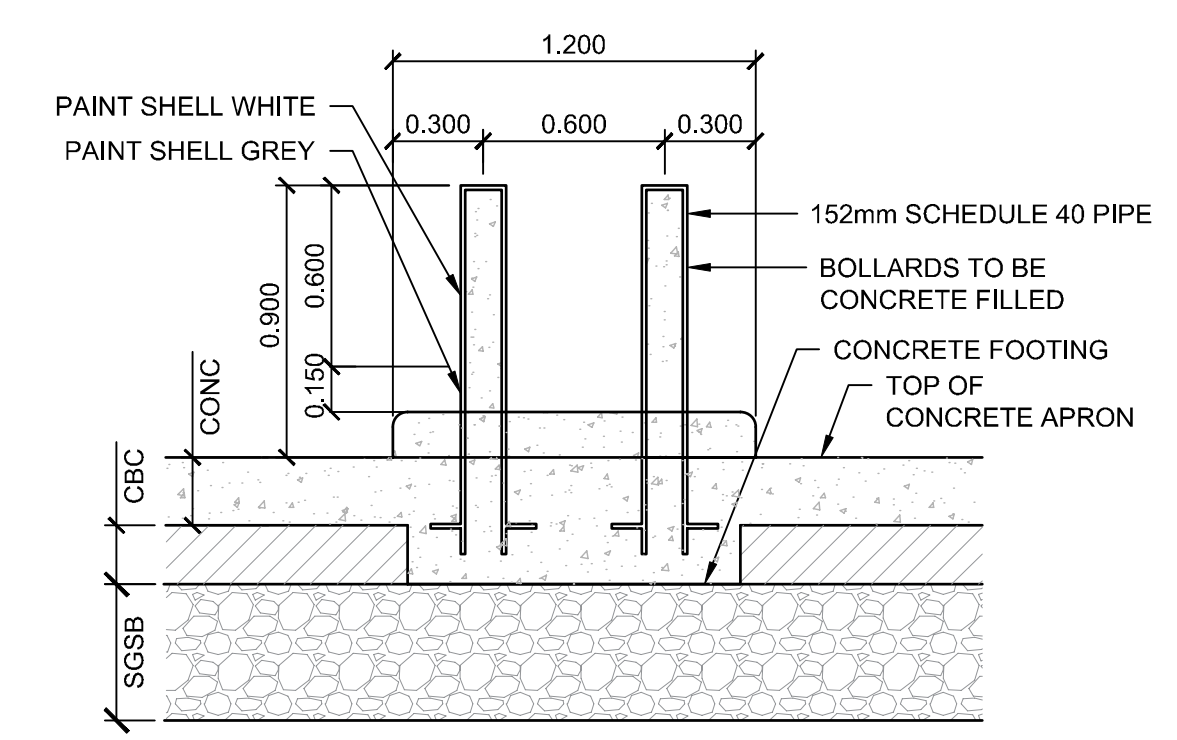


HYDRO FRAME AND COVER (INCLUDED)
GRADE RINGS BY OTHERS AS REQUIRED

4a OGS MODEL ADS FD-5HC SEC A-A
C.103 Scale: NTS



4b OGS MODEL ADS FD-5HC DETAIL
C.103 Scale: NTS



6 PUMP ISLAND BOLLARD DETAIL
C.103 Scale: 1:25



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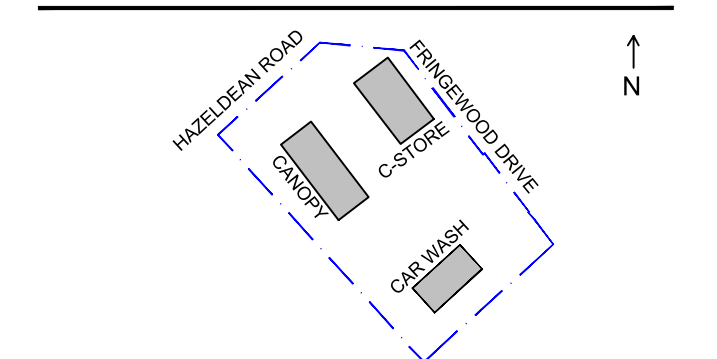
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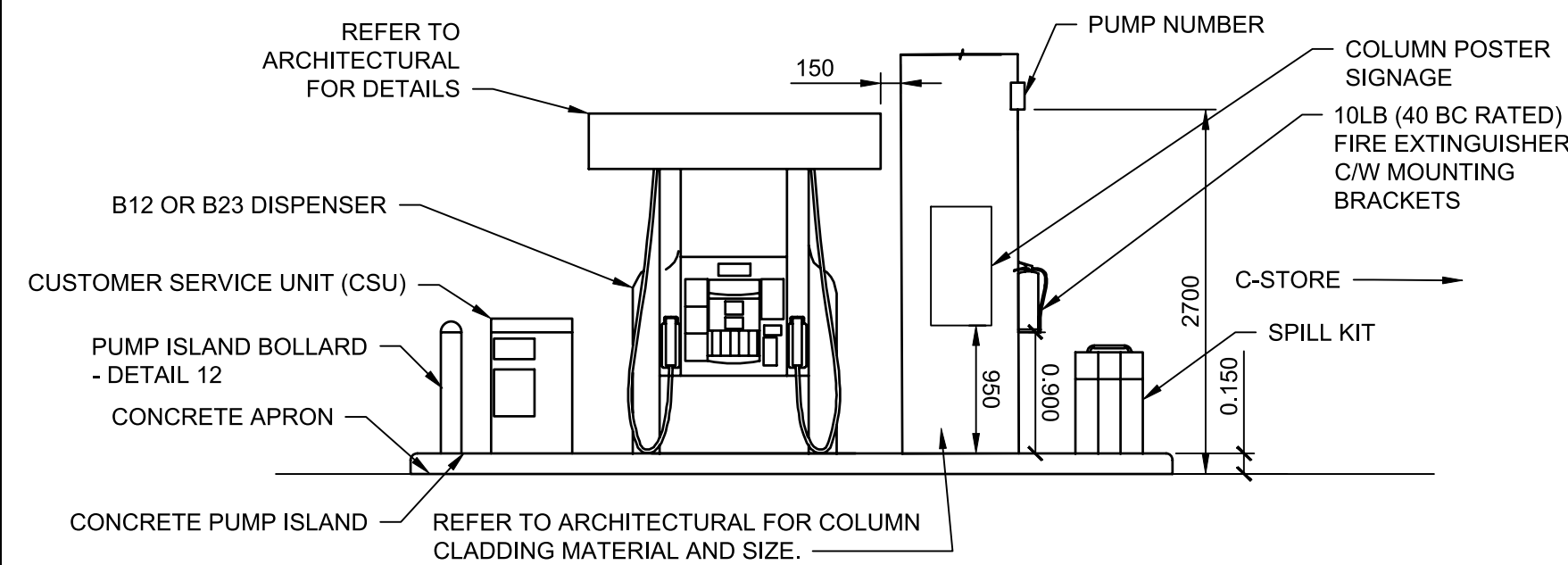
SITE DETAILS

AECOM FILE NAME

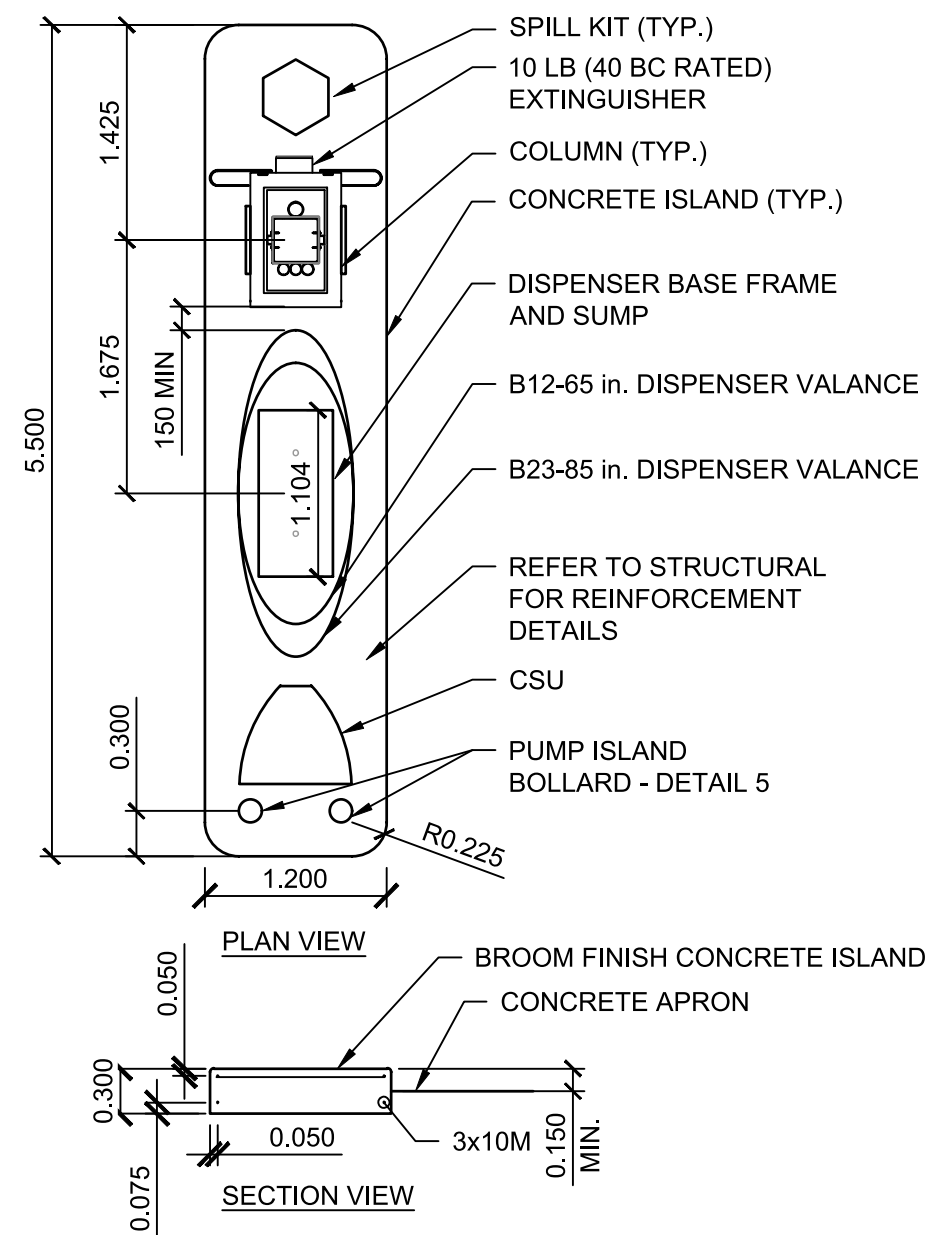
C501.0-DET-HZLX

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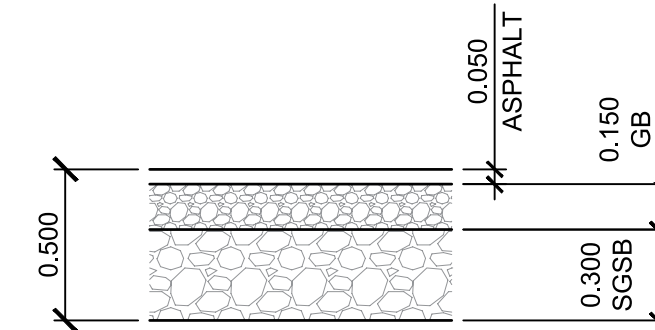
C501.0



8 ELEVATION AT DISPENSER
- Scale: 1:50

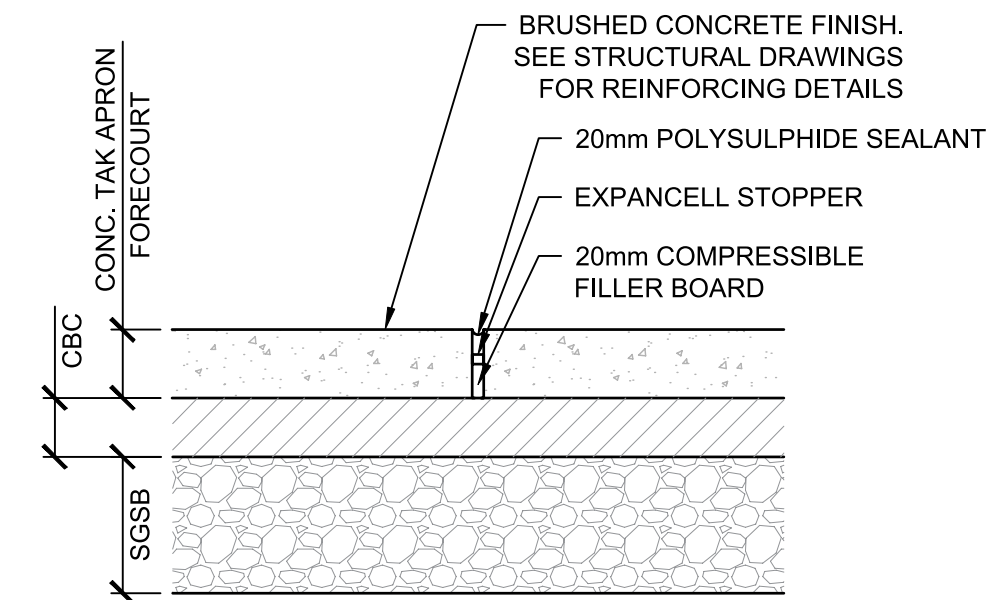


9 PUMP ISLAND DETAIL
- Scale: 1:50



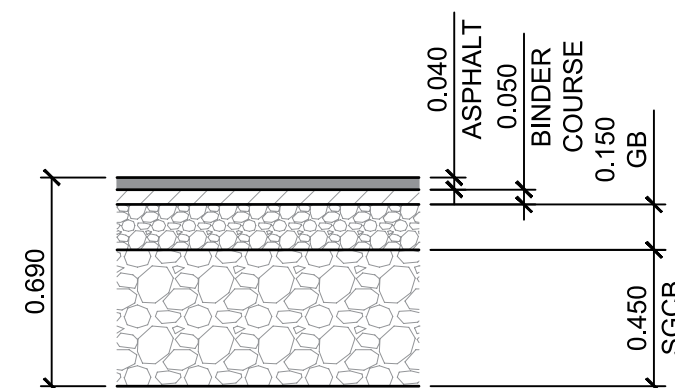
- NOTES:
- 50mm HL3 or SUPERPAVE 19.0 ASPHALTIC CONCRETE
 - 150mm GRANULAR "A" BASE CRUSHED STONE
 - 300mm GRANULAR "B" TYPE II SUBBASE
ASPHALT GRADE PG-58-34

10 TYPICAL LIGHT DUTY PAVEMENT
C.104 Scale: 1:25



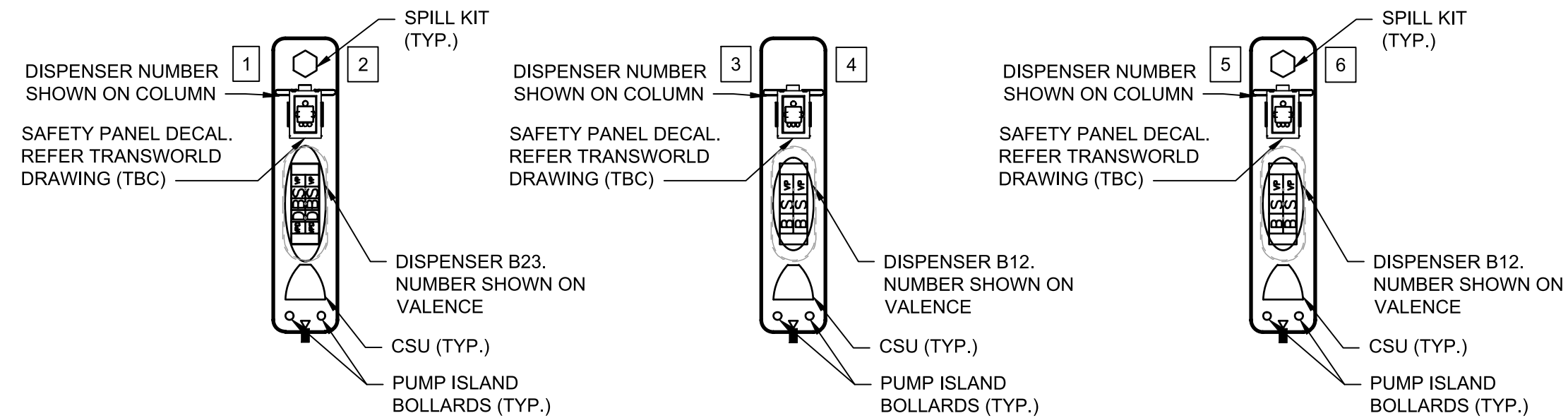
- REFER TO STRUCTURAL DWGS FOR JOINT DETAILS
- FINAL TANK AND FORECOURT SLAB THICKNESS TO BE AS PER STRUCTURE DRAWINGS

11 LEAK-TIGHT PAVEMENT AND JOINT DETAIL
C.104 Scale: 1:25

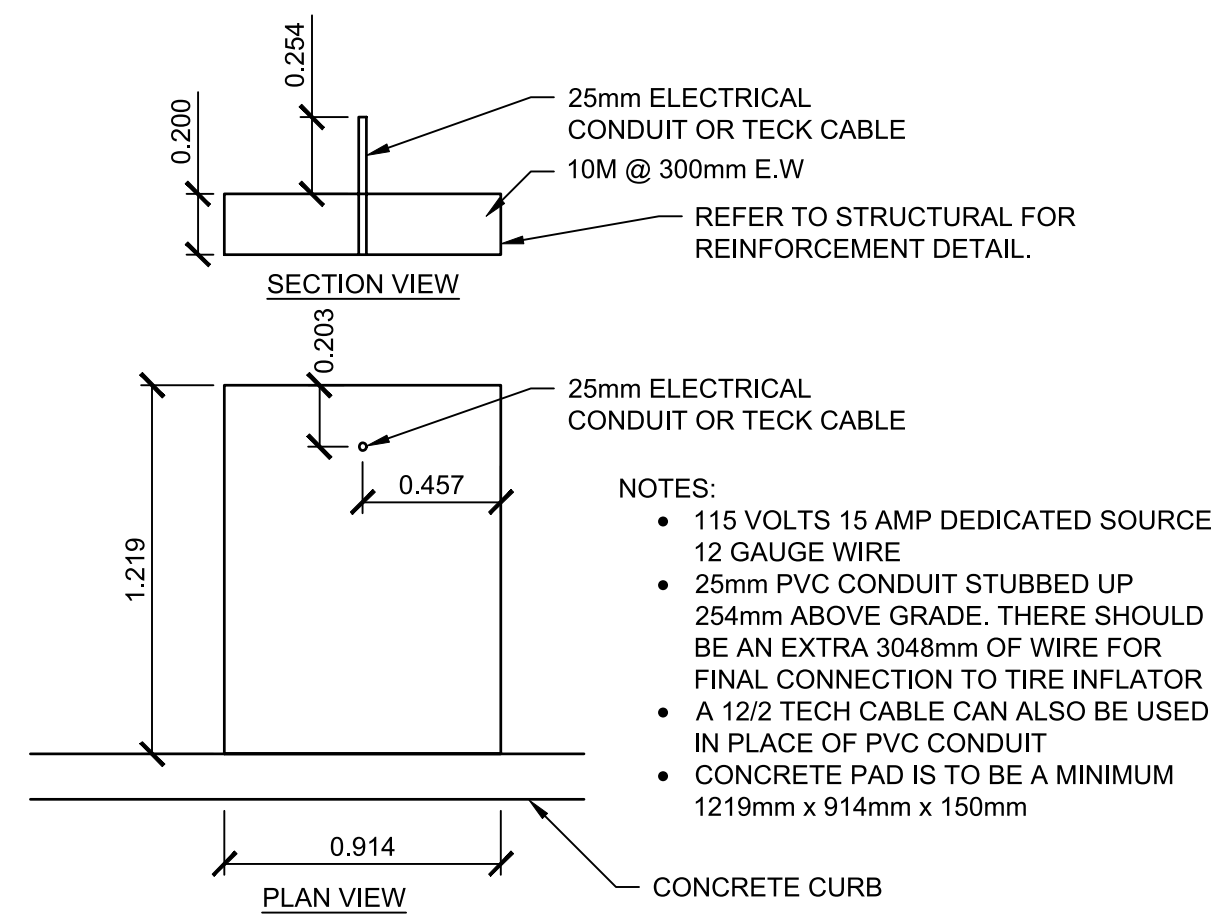


- NOTES:
- 40mm HL3 or SUPERPAVE 12.5 ASPHALTIC CONCRETE
 - 50mm HL8 or SUPERPAVE 19.0 ASPHALTIC CONCRETE
 - 150mm GRANULAR "A" BASE CRUSHED STONE
 - 450mm GRANULAR "B" TYPE II SUBBASE
- ASPHALT GRADE PG 58-34

12 HEAVY DUTY PAVEMENT
C.104 Scale: 1:25

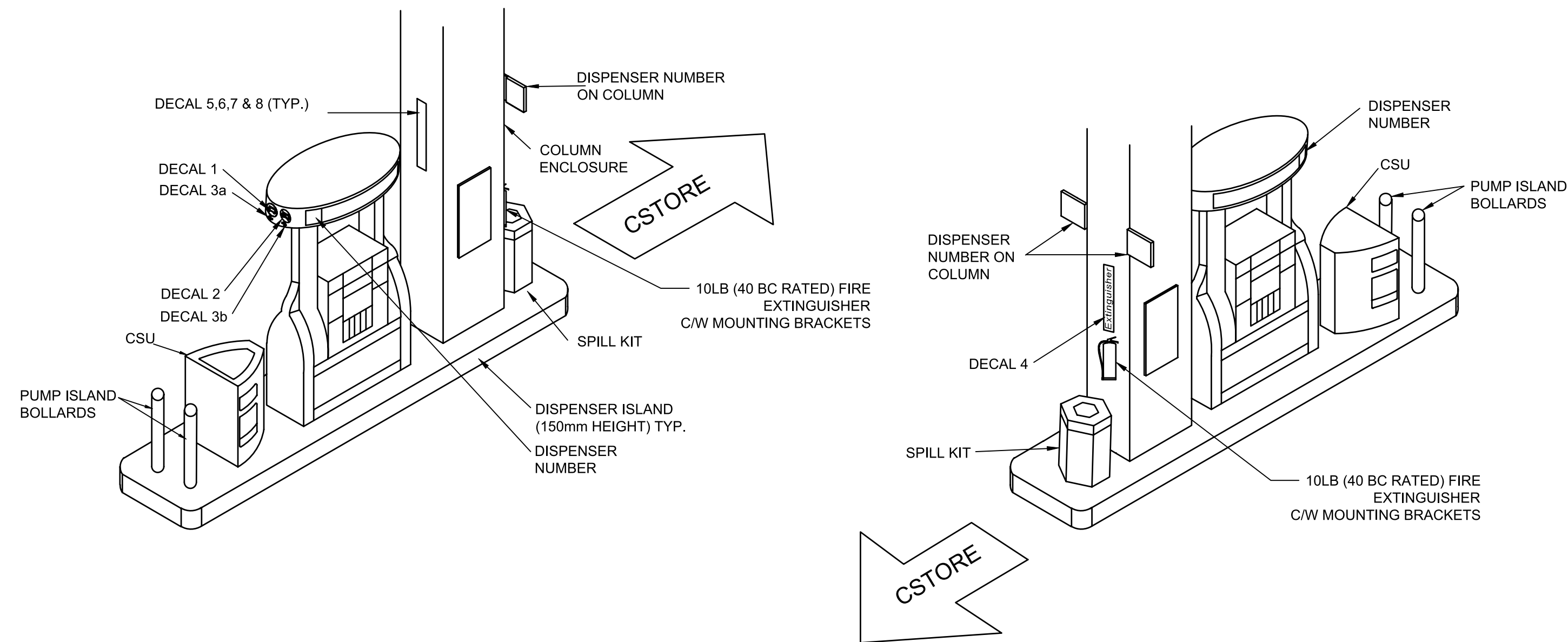


13 DISPENSER AND COLUMN NUMBER PLACEMENT - PLAN VIEW
- Scale: 1:100

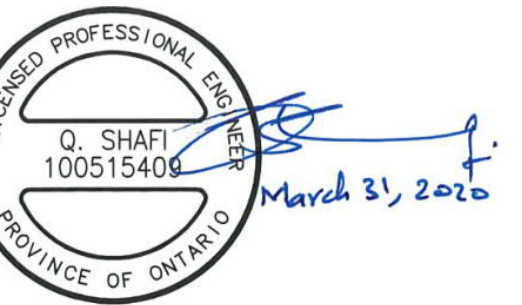
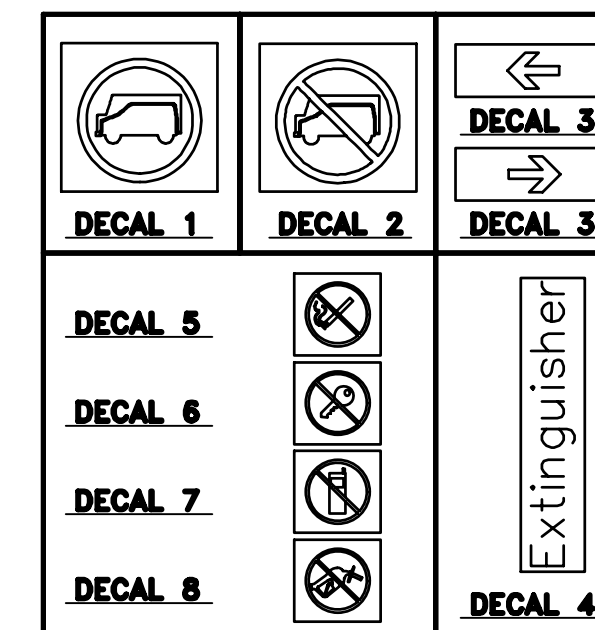


- NOTES:
- 115 VOLTS 15 AMP DEDICATED SOURCE 12 GAUGE WIRE
 - 25mm PVC CONDUIT STUBBED UP 254mm ABOVE GRADE. THERE SHOULD BE AN EXTRA 3048mm OF WIRE FOR FINAL CONNECTION TO TIRE INFLATOR
 - A 1/2" TECH CABLE CAN ALSO BE USED IN PLACE OF PVC CONDUIT
 - CONCRETE PAD IS TO BE A MINIMUM 1219mm x 914mm x 150mm

14 AIR-SERV TIRE INFLATOR PAD PLAN & DETAILS
Scale: 1:25



15 SAFETY DECAL PLACEMENT - ISOMETRIC VIEW



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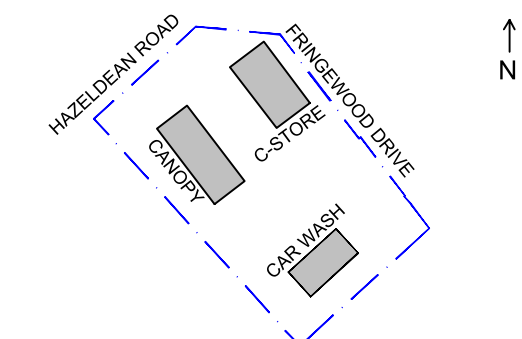
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SHEET TITLE

SITE DETAILS

AECOM FILE NAME

C502.0-DET-HZLX

SHEET NUMBER

C502.0

NOTES:

- GENERAL
- REFER TO CIVIL AND ELECTRICAL ENGINEERING DRAWINGS FOR SIZES AND LOCATIONS OF ALL SANITARY, STORM, WATER, GAS, CABLE AND ELECTRICAL UNDERGROUND SERVICING, KIOSKS, AND RIGHT-OF-WAYS.
 - ANY AMBIGUITIES IN THIS DRAWING OR ACCOMPANYING DETAILS ARE TO BE REPORTED TO THE OWNER'S REPRESENTATIVE FOR DIRECTION. THE CONTRACTOR IS NOT TO PROCEED IN UNCERTAINTY.
 - LIMITS OF THE WORK ARE TO BE CLEARLY UNDERSTOOD BY THE CONTRACTOR PRIOR TO ANY WORK TAKING PLACE ON SITE. CONTRACTOR SHALL CONTACT THE OWNER'S REPRESENTATIVE FOR CLARIFICATION IF REQUIRED.
 - CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND REPORT ANY DISCREPANCIES TO THE OWNER'S REPRESENTATIVE.
 - ON-SITE LAYOUT SHALL BE APPROVED BY THE OWNER'S REPRESENTATIVE PRIOR TO START OF CONSTRUCTION.
 - ALL MEASUREMENTS ARE IN MILLIMETRES (mm) UNLESS OTHERWISE SPECIFIED.
 - OWNER'S REPRESENTATIVE MAY REQUEST RANDOM SOIL TESTS FOR ANY AND/OR ALL SOIL TYPES AND MIXES INSTALLED WITHIN THE PROJECT. SUCH TESTS MAY BE REQUESTED AT ANY TIME DURING THE PROJECT UNTIL CONSTRUCTION COMPLETION CERTIFICATE IS RECEIVED FROM THE APPROVING AUTHORITY. SOIL SAMPLE LOCATIONS WILL BE SELECTED BY THE OWNER'S REPRESENTATIVE. THE CONTRACTOR SHALL REPLACE OR AMEND DEFICIENT SOILS/SOIL MIXES TO MEET SPECIFICATIONS IF TEST RESULTS INDICATE DEFICIENCIES. OWNER'S REPRESENTATIVE WILL SELECT SOIL SAMPLE LOCATIONS AFTER REPLACEMENT/ AMENDMENTS OCCUR AND CONTRACTOR SHALL PROVIDE ADDITIONAL SOIL TESTING TO CONFIRM SPECIFICATIONS HAVE BEEN MET. ALL SOIL TESTING COSTS SHALL BE BORNE BY THE CONTRACTOR.

- SITE WORK
- CONTRACTOR SHALL CALL ONTARIO ONE CALL AT 1-800-400-2255, AND OTHER UTILITIES, AS REQUIRED, TO HAVE EXISTING UTILITIES LOCATED PRIOR TO START OF ANY CONSTRUCTION. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DAMAGES TO UTILITIES.
 - CONTRACTOR IS ADVISED TO VISIT THE SITE TO CONFIRM ALL SITE CONDITIONS PRIOR TO SUBMITTING BIDS. ANY DISCREPANCIES ARE TO BE REPORTED TO THE OWNER'S REPRESENTATIVE FOR CLARIFICATION.
 - CONTRACTOR SHALL BE RESPONSIBLE FOR THE HOARDING OF ALL EXISTING TREES DESIGNATED TO BE PRESERVED WITHIN OR ADJACENT TO CONSTRUCTION AREAS, TO THE SATISFACTION OF THE OWNER'S REPRESENTATIVE.
 - CONTRACTOR SHALL HAUL ALL EXCESS MATERIALS OFF THE SITE TO A LOCATION APPROVED BY THE OWNER'S REPRESENTATIVE.
 - CONTRACTOR SHALL BE RESPONSIBLE FOR GENERAL SITE CLEANUP.
 - CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO LANDSCAPED AREAS AND SHALL MAKE ALL NECESSARY RESTORATIONS AND REPAIRS, TO THE SATISFACTION OF THE OWNER'S REPRESENTATIVE.
















- PERMITS AND STANDARDS
- CONTRACTOR SHALL MAKE ALL NECESSARY ARRANGEMENTS WITH THE UTILITY OWNER CONCERNING THE MOVEMENT OF ANY MATERIAL AND/OR EQUIPMENT NEAR ANY UTILITY EASEMENTS OR RIGHT-OF-WAYS.
 - ALL ANCILLARY WORK NORMALLY ASSOCIATED WITH THIS TYPE OF CONSTRUCTION SHALL BE DEEMED TO BE PART OF THE CONTRACT.

- MATERIALS
- CONTRACTOR SHALL SUPPLY ALL MATERIALS IN QUANTITIES SUFFICIENT TO COMPLETE THE WORK SHOWN ON THE DRAWINGS. ANY DISCREPANCIES IN QUANTITIES SHALL BE REPORTED TO THE OWNER'S REPRESENTATIVE FOR DIRECTION.
 - NO SUBSTITUTION OF MATERIALS, PRODUCTS OR QUANTITIES SHALL BE PERMITTED WITHOUT PRIOR CONSENT OF THE OWNER'S REPRESENTATIVE.



- PLANTING & MAINTENANCE
- ALL LANDSCAPE CONSTRUCTION SHALL CONFORM TO CITY OF OTTAWA URBAN DESIGN GUIDELINES FOR GAS STATIONS.
 - PRIOR TO INSTALLATION, ALL LOCAL NURSERY STOCK MAY BE INSPECTED BY OWNER'S REPRESENTATIVE TO ENSURE STOCK ACCEPTABILITY. OWNER'S REPRESENTATIVE WILL COORDINATE THIS OPTIONAL INSPECTION AND ADVISE THE CONTRACTOR ACCORDINGLY.
 - ALL EXCAVATIONS SHALL MAINTAIN THE MINIMUM DEFINED SETBACKS FROM UTILITIES.
 - IF EXCAVATIONS ARE REQUIRED CLOSER THAN 1.0 m TO UNDERGROUND POWER, TELEPHONE AND GAS ALIGNMENTS, HAND DIGGING UNDER THE SUPERVISION OF THE AFFECTED UTILITY WILL BE REQUIRED. CONTRACTOR SHALL CONTACT THE APPROPRIATE UTILITY TO APPROVE, REVIEW AND/OR DEFINE SAFE PROCEDURES FOR THESE EXCAVATIONS.
 - CONTRACTOR SHALL VERIFY ALL QUANTITIES AND NOTIFY THE OWNER'S REPRESENTATIVE OF ANY OMISSIONS.
 - ALL PLANT MATERIAL SHALL BE TRUE TO TYPE, SIZE, QUALITY, AND CONDITION AS SPECIFIED. ALL TREES MUST BE HIGH HEADED WITH FULL AND UNIFORM CROWNS AND SINGLE, WELL DEVELOPED LEADERS. TREES WITH BROKEN LEADERS WILL NOT BE ACCEPTED.
 - TREE LOCATIONS TO BE ADJUSTED ON SITE WITH REGARD TO MINIMUM TREE SETBACKS FOR ABOVE AND BELOW GROUND UTILITIES.
 - ALL PLANTINGS IN BEDS TO HAVE MINIMUM 450 mm DEPTH PLANTING SOIL AND 75 mm DECIDUOUS SHREDDDED WOOD CHIP MULCH.
 - PLANTING SHALL BE WATERED BY WATER TRUCK DURING THE ESTABLISHMENT PERIOD. PERMANENT IRRIGATION WILL NOT BE INSTALLED.
 - ALL PLANT MATERIAL SHALL BE WARRANTIED AND MAINTAINED BY THE CONTRACTOR FOR A PERIOD OF ONE YEAR. PLANT MATERIAL REPLACED AT THE END OF THE WARRANTY PERIOD SHALL BE WARRANTIED FOR ONE ADDITIONAL YEAR.

- AS BUILT DRAWINGS
- CONTRACTOR SHALL PROVIDE THE OWNER'S REPRESENTATIVE WITH REDLINE MARKUPS SHOWING ANY CHANGES/ADJUSTMENTS TO THE SITE LAYOUT AND PLANT MATERIAL LOCATIONS, TYPES AND SIZES.

SCHEDULE A - On Site

Sym	Qty	Unit	Botanical Name	Common Name	Size/Remarks
Coniferous Trees					
	1	EACH	<i>Picea pungens</i> 'Colorado'	COLORADO BLUE SPRUCE	1800 mm HEIGHT, SPACED AT 5 m O.C.
	2	EACH	<i>Picea glauca</i>	WHITE SPRUCE	1800 mm HEIGHT, SPACED AT 5 m O.C.
Coniferous Shrubs					
	11	EACH	<i>Juniperus horizontalis</i> 'Bar Harbor'	BAR HARBOR JUNIPER	SPREAD 600 mm, SPACED AT 2 m O.C.
	8	EACH	<i>Juniperus chinensis</i> 'Monlep'	MINT JULEP JUNIPER	SPREAD 600 mm, SPACED AT 1.5 m O.C.
	3	EACH	<i>Pinus mugo mughus</i>	MUGO PINE	SPREAD 600 mm, SPACED AT 2 m O.C.
Deciduous Trees					
	2	EACH	<i>Acer saccharinum</i>	SILVER MAPLE	70 mm CALIPER, SINGLE STEM, SPACED AT 15 m O.C.
	1	EACH	<i>Crataegus crusgalli</i> 'Inermis'	THORNLESS COCKSPUR HAWTHORN	60 mm CAL SINGLE STEM
	4	EACH	<i>Gleditsia triacanthos</i> 'Sunburst'	SUNBURST HONEY LOCUST	70 mm CALIPER, SINGLE STEM
	2	EACH	<i>Syringa reticulata</i> 'Ivory Silk'	IVORY SILK LILAC	60 mm CALIPER, SINGLE STEM, SPACED AT 10 m O.C.
Deciduous Shrubs					
	16	EACH	<i>Physocarpus opulifolius</i> 'Darts Gold'	DARTS GOLD NINEBARK	600 mm HEIGHT, SPACED AT 1 m O.C.
	42	EACH	<i>Potentilla fruticosa</i> 'Yellowbird'	YELLOWBIRD POTENTILLA	600 mm HEIGHT, SPACED AT 0.8 m O.C.
	17	EACH	<i>Rosa rugosa</i> 'F.J. Grootendorst'	F.J. GROOTENDORST ROSE	600 mm HEIGHT, SPACED AT 1.2 m O.C.
	54	EACH	<i>Spiraea japonica</i> 'crispa'	CRISPA SPIREA	600 mm HEIGHT, SPACED AT 1.0 m O.C.
	10	EACH	<i>Spiraea prunifolia</i>	BRIDAL WREATH SPIREA	600 mm HEIGHT, SPACED AT 1.2 m O.C.
	25	EACH	<i>Syringa meyeri</i>	DWARF KOREAN LILAC	600 mm HEIGHT, SPACED AT 1.5 m O.C.

SCHEDULE A - Off Site

Sym	Qty	Unit	Botanical Name	Common Name	Size/Remarks
Coniferous Shrubs					
	9	EACH	<i>Juniperus horizontalis</i> 'Bar Harbor'	BAR HARBOR JUNIPER	SPREAD 600 mm, SPACED AT 2 m O.C.
Deciduous Trees					
	7	EACH	<i>Syringa reticulata</i> 'Ivory Silk'	IVORY SILK LILAC	60 mm CALIPER, SINGLE STEM, SPACED AT 10 m O.C.



PROJECT

Shell Canada Products
Hazeldean Road and
Fringewood Drive NTI

5 Orchard Drive,
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REGISTRATION

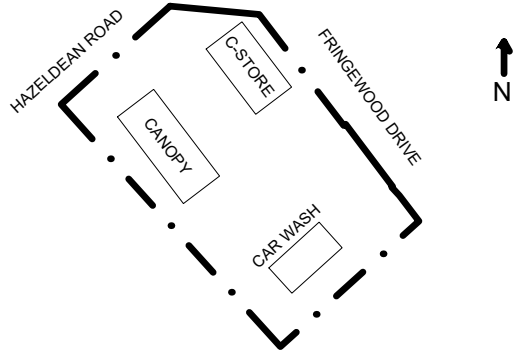
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I/R	DATE	DESCRIPTION

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JG / LJV

KEY PLAN



GLOBAL PROJECT ID NUMBER

CAN01444

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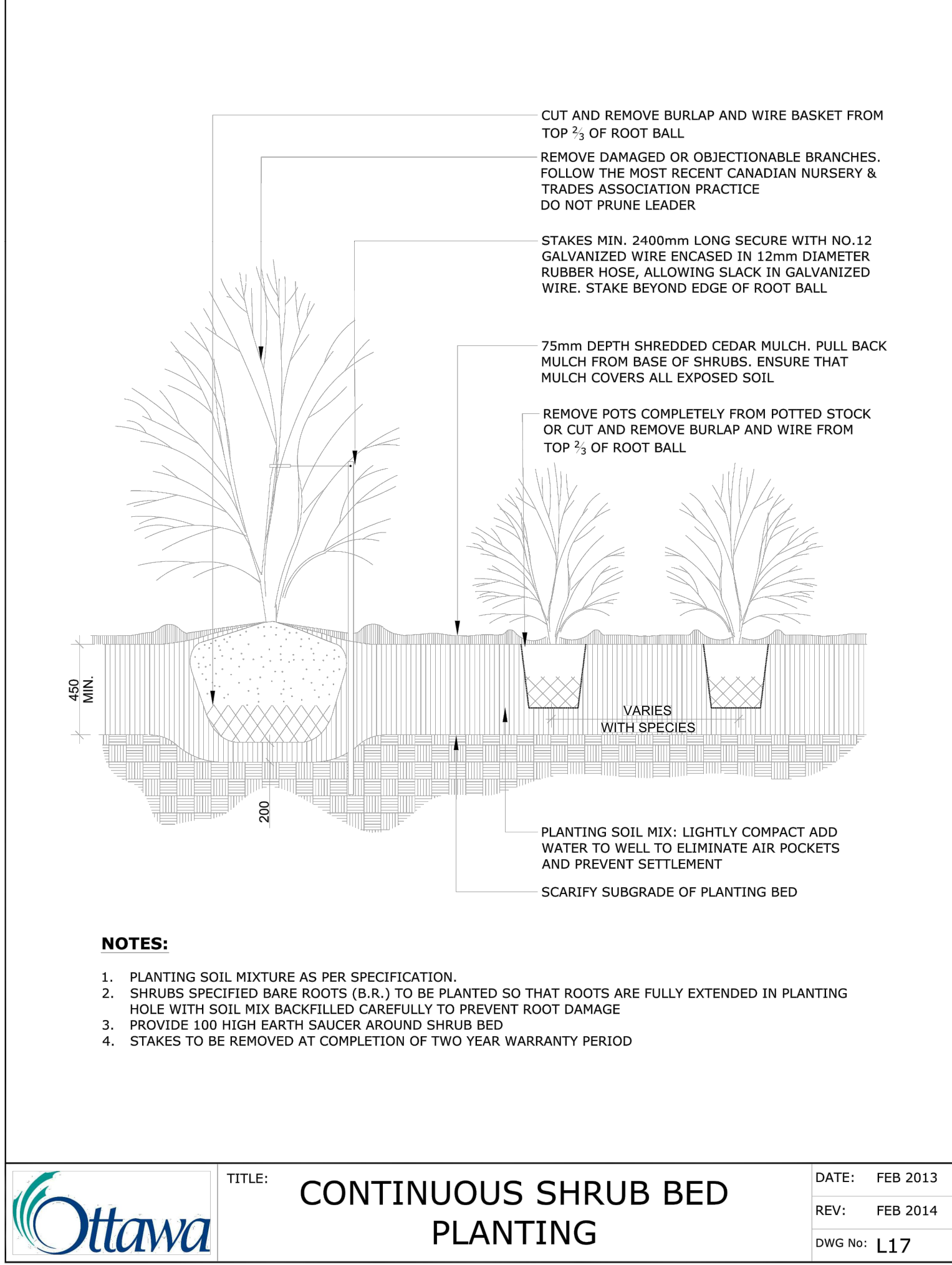
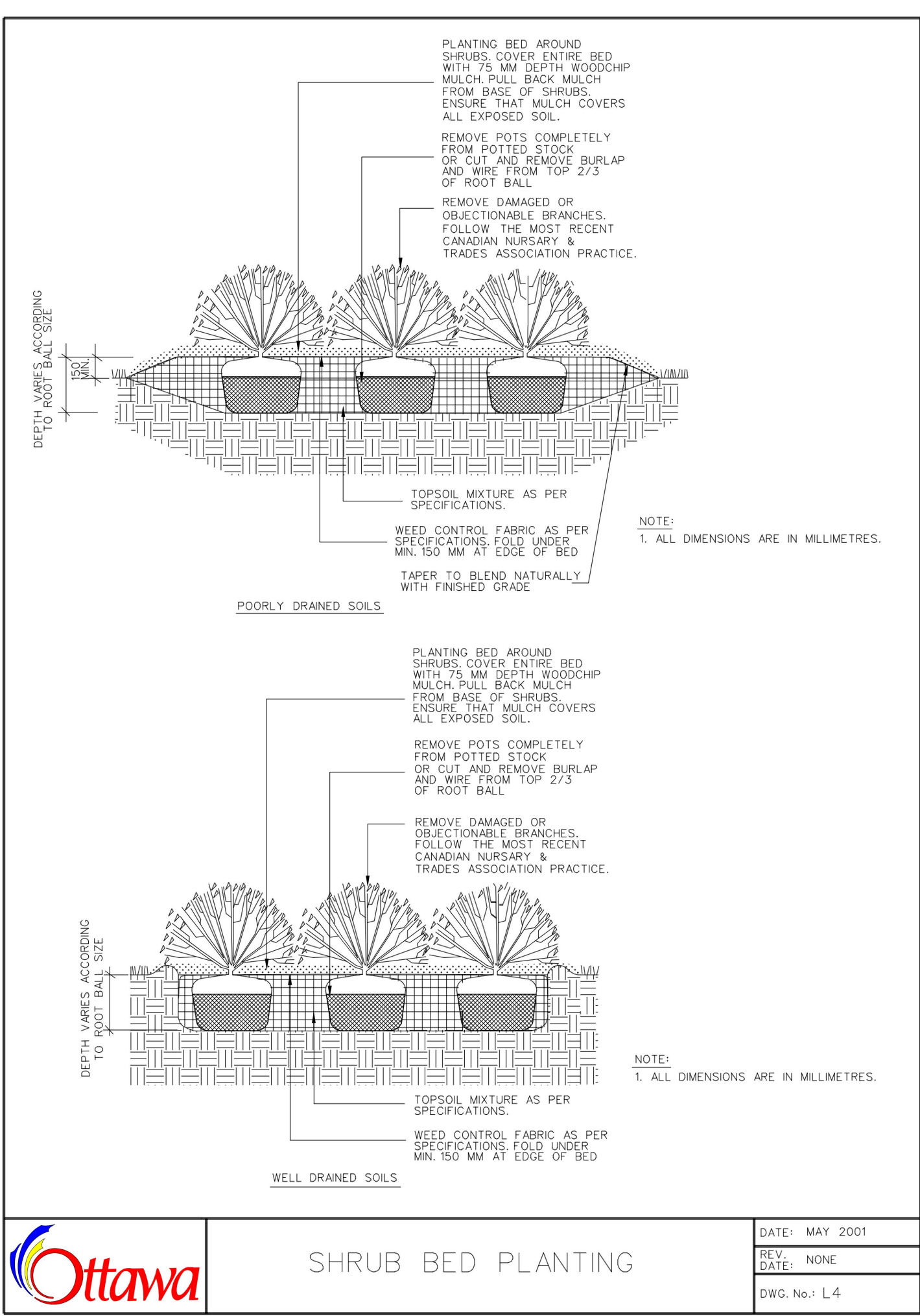
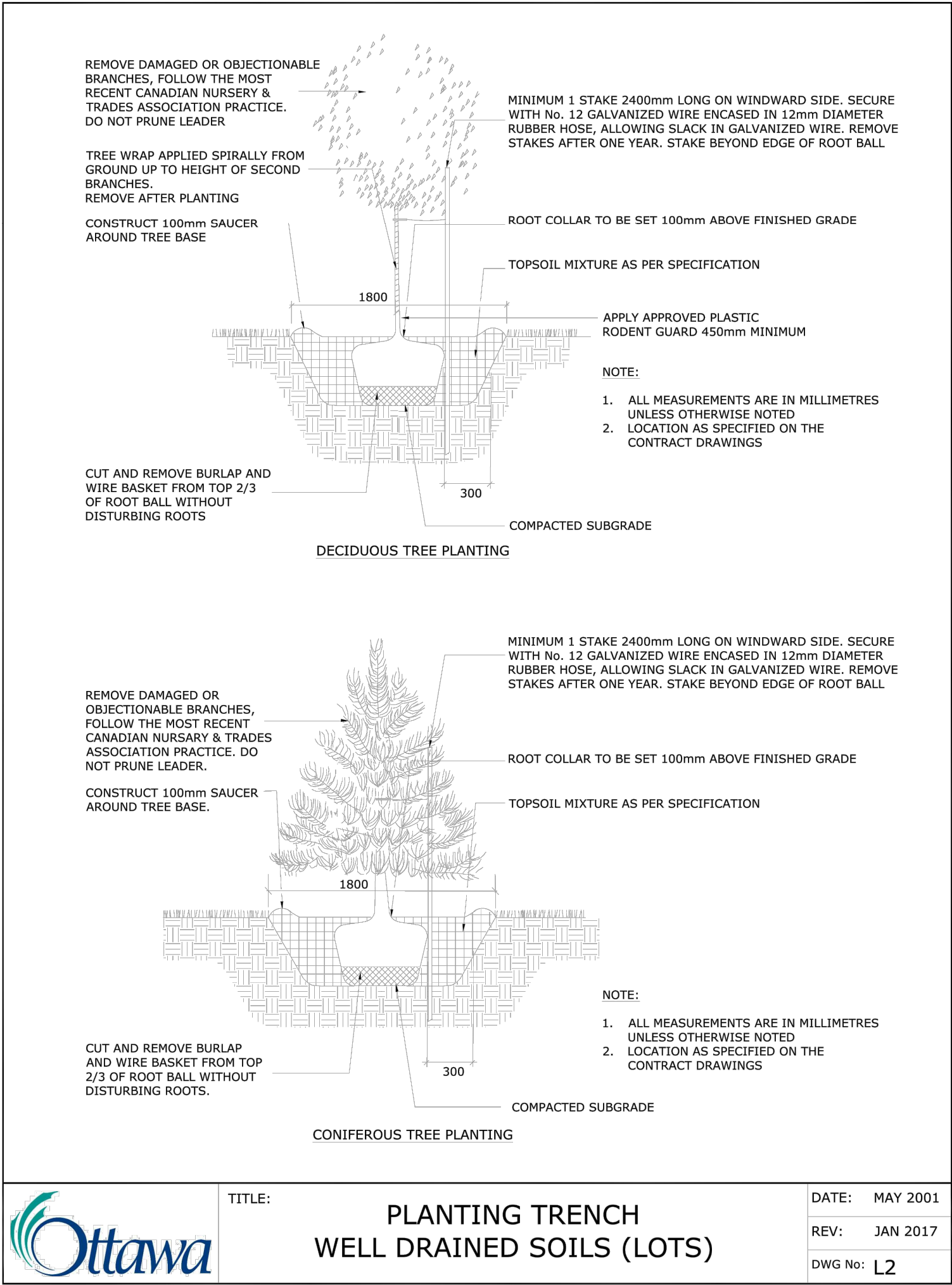
LANDSCAPE NOTES
AND SCHEDULE

AECOM FILE NAME

L001.0-GNS-HZLX

SHEET NUMBER

L001.0



AECOM

PROJECT

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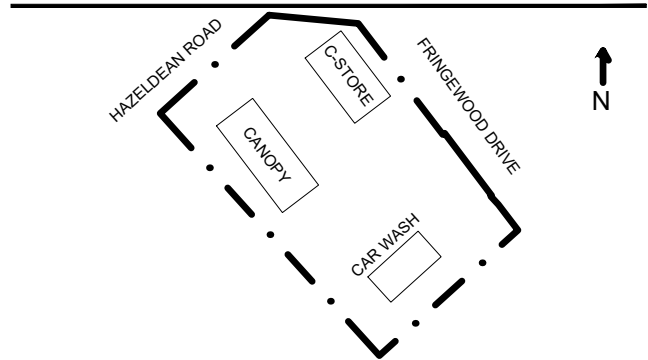
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JG

KEY PLAN



GLOBAL PROJECT ID NUMBER

CAN01444

SHEET TITLE

LANDSCAPE DETAILS

AECOM FILE NAME

L501.0-LND-HZLX

SHEET NUMBER

L501.0

MAGLIN™

T 800-716-5506
F 877-260-9393
WWW.MAGLIN.COM
SALES@MAGLIN.COM

SCBR1600 SERIES

MATERIALS: The Bike Rack is made from solid cast aluminum.

FINISH: The Maglin Powdercoat System provides a durable finish on all metal surfaces.

INSTALLATION: The bike rack is delivered pre-assembled. It is available with either a surface mount or direct burial installation option.

TO SPECIFY: Select SCBR1600 Series
Choose:
- Base Type
- Direct Burial (SCBR1600-DB)
- Surface Mount (SCBR1600-S)
- Powdercoat Color TO BE BLACK

COMPLEMENTARY PRODUCTS:
- SCTB1600
- SCB1600B
- SCRC1603

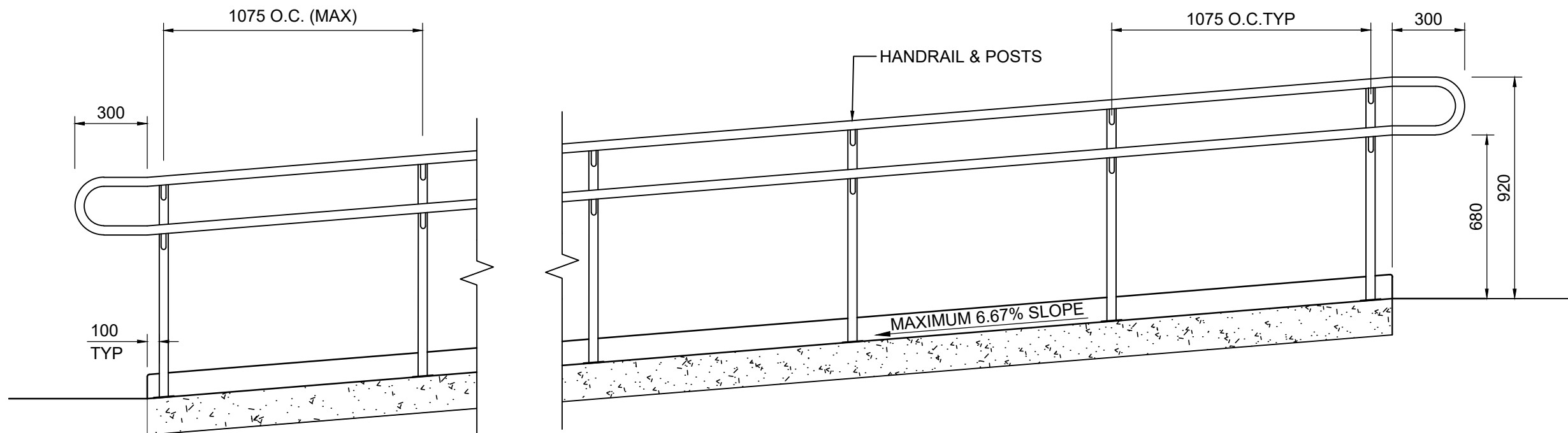
*SCBR1600-S surface mount model shown.

DIMENSIONS:
Length: 27.62" (70.17 cm)
Height: 25.19" (63.98 cm)
Width: 3.375" (8.57 cm)
Weight: 18.3lbs (8.3kg.)

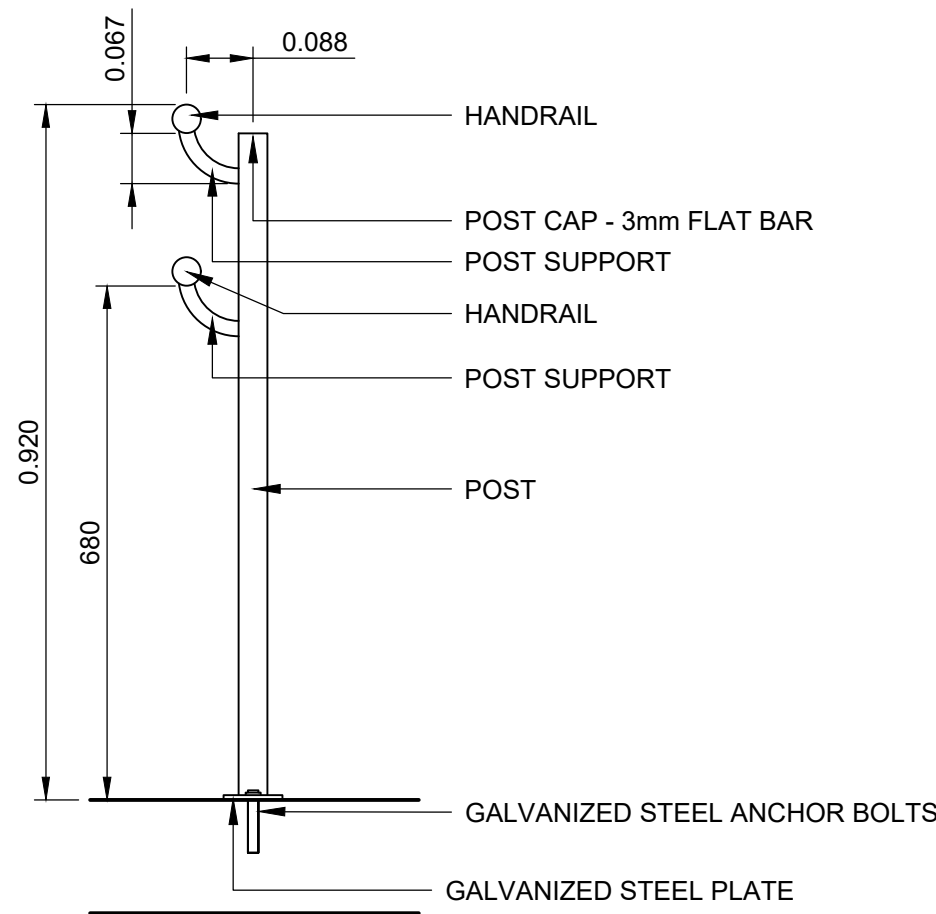
25 3/16"

27 5/8"

3 7/8"



A | RAMP AND HAND RAIL SECTION
Scale 1:20



B | HAND RAIL & POST
Scale 1:10

LEGEND:

- MAGLIN SCBRI 600 SERIES BIKE RACK
REFER TO DETAIL ON L501
QUANTITY: 2
- PROPOSED PROPERTY / LEASE LINE
- SOD OVER 150 mm DEPTH TOPSOIL
- 625 m²
- 75 mm DEPTH DECIDUOUS WOOD CHIP
MULCH ON HEAVY DUTY LANDSCAPE
FABRIC. MIN 500 mm OVERLAP - 565 m²
- TREE PROTECTION
REFER TO DETAIL THIS DRAWING
- OFF-LEASE AREA, INCLUDING
LANDSCAPE, TO BE DESIGNED,
PERMITTED, AND BUILT BY SHELL
- OFF-LEASE AREA PAVING TO BE
PERMITTED BY SHELL DESIGN AND
CONSTRUCTION BY CAMPANALE

NOTES:

REFER TO L001 FOR LANDSCAPE NOTES AND PLANTING
SCHEDULE.

TREE PROTECTION REQUIREMENTS:

- PRIOR TO ANY WORK ACTIVITY WITHIN THE CRITICAL ROOT ZONE (CRZ = 10 X DIAMETER) OF A TREE, TREE PROTECTION FENCING MUST BE INSTALLED SURROUNDING THE CRITICAL ROOT ZONE, AND REMAIN IN PLACE UNTIL THE WORK IS COMPLETE.
- UNLESS PLANS ARE APPROVED BY CITY FORESTRY STAFF, FOR WORK WITHIN THE CRZ:
 - DO NOT PLACE ANY MATERIAL OR EQUIPMENT - INCLUDING OUTHOUSES;
 - DO NOT ATTACH ANY SIGNS, NOTICES OR POSTERS TO ANY TREE;
 - DO NOT RAISE OR LOWER THE EXISTING GRADE;
 - TUNNEL OR BORE WHEN DIGGING;
 - DO NOT DAMAGE THE ROOT SYSTEM, TRUNK, OR BRANCHES OR ANY TREE;
 - ENSURE THAT EXHAUST FUMES FROM ALL EQUIPMENT ARE NOT DIRECTED TOWARD ANY TREE CANOPY.
 - DO NOT EXTEND HARD SURFACE OR SIGNIFICANTLY CHANGE LANDSCAPING.
- TREE PROTECTION FENCING MUST BE AT LEAST 1.2M IN HEIGHT, AND CONSTRUCTED OF RIGID OR FRAMED MATERIALS (E.G. MODULOC - STEEL, PLYWOOD HOARDING, OR SNOW FENCE ON A 2"x4" WOOD FRAME) WITH POSTS 2.4M APART, SUCH THAT THE FENCE LOCATION CANNOT BE ALTERED. ALL SUPPORTS AND BRACING MUST BE PLACED OUTSIDE OF THE CRZ, AND INSTALLATION MUST MINIMISE DAMAGE TO EXISTING ROOTS. (SEE DETAIL)
- THE LOCATION OF THE TREE PROTECTION FENCING MUST BE DETERMINED BY AN ARBORIST AND DETAILED ON ANY ASSOCIATED PLANS FOR THE SITE (E.G. TREE CONSERVATION REPORT, TREE DISCLOSURE REPORT, ETC). THE PLAN AND CONSTRUCTED FENCING MUST BE APPROVED BY CITY FORESTRY STAFF PRIOR TO THE COMMENCEMENT OF WORK.
- IF THE FENCED TREE PROTECTION AREA MUST BE REDUCED TO FACILITATE CONSTRUCTION, MITIGATION MEASURES MUST BE PRESCRIBED BY AN ARBORIST AND APPROVED BY CITY FORESTRY STAFF. THESE MAY INCLUDE THE PLACEMENT OF PLYWOOD, WOOD CHIPS, OR STEEL PLATING OVER THE ROOTS FOR PROTECTION OR THE PROPER PRUNING AND CARE OF ROOTS WHERE ENCOUNTERED.

BY-LAWS

ALL CITY-OWNED TREES ARE PROTECTED UNDER THE MUNICIPAL TREES AND NATURAL AREAS PROTECTION BY-LAW (2006-279). WITHIN THE URBAN AREA, PRIVATELY-OWNED TREES GREATER THAN 50CM DIAMETER ON LOTS 1HA IN SIZE OR LESS, AND TREES GREATER THAN 10CM DIAMETER ON LOTS >1HA, ARE PROTECTED UNDER THE URBAN TREE CONSERVATION BY-LAW (2009-200).

PLAN VIEW

TREE PROTECTION FENCING

TREE TRUNK

CRZ (MIN)

CRZ (MIN)

CRZ = DBH X 10CM

CRZ IS TO BE MEASURED FROM THE OUTSIDE EDGE OF THE TREE BASE

TREE PROTECTION SIGNAGE AS PER CITY STANDARD

GRADE

1.2M MIN. HIGH TREE PROTECTION FENCING AS PER REQUIREMENT # 3

POSTS TO BE SPACED AT 2.4M O/C MAX AS PER REQUIREMENT # 3

GRADE

SOIL AND ROOT DISTURBANCE NOT PERMITTED

ACCESSIBLE FORMATS AND COMMUNICATION SUPPORTS ARE AVAILABLE, UPON REQUEST

SCALE: NTS

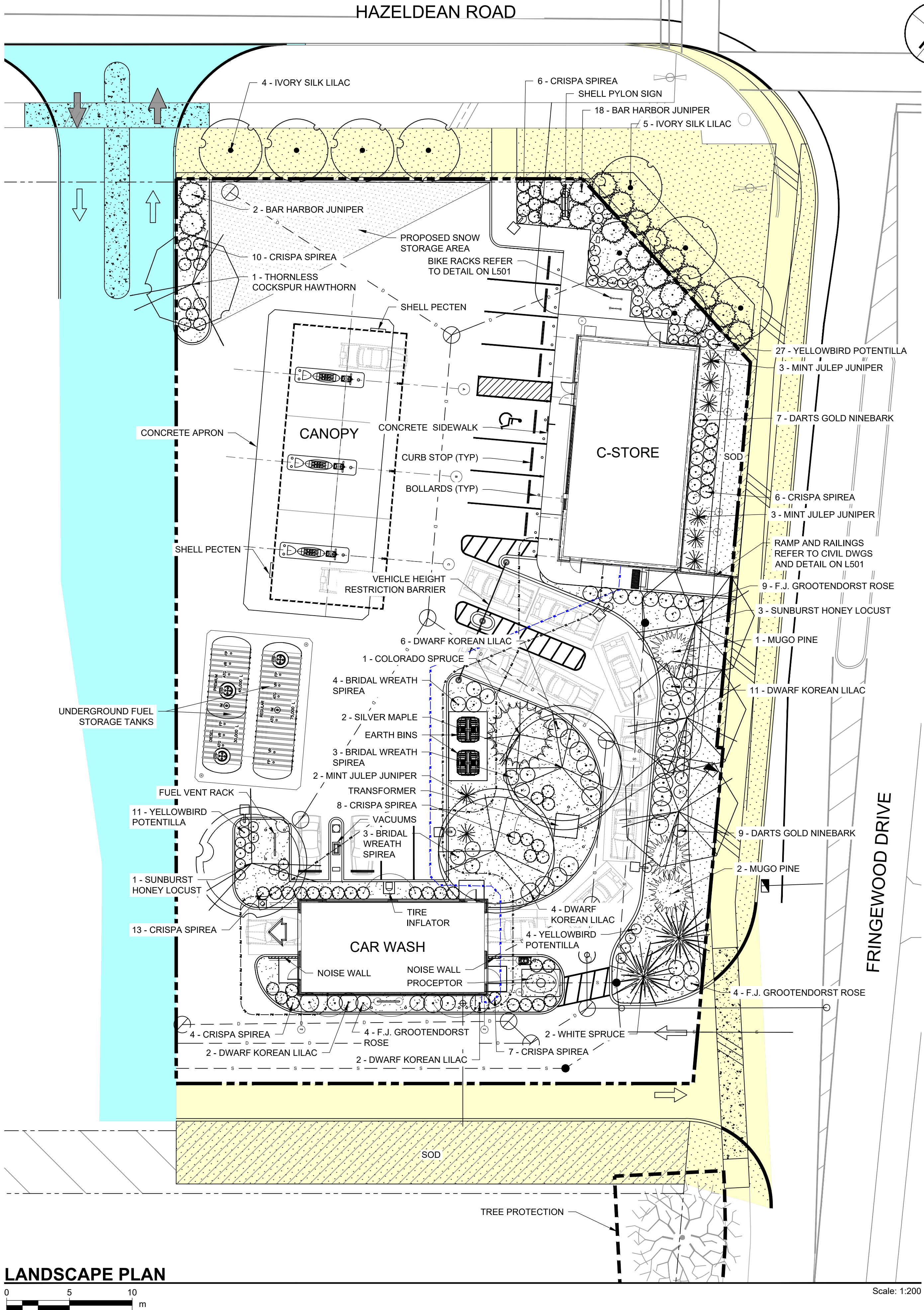
DATE: MAY 2019

DRAWING NO.: 1 of 1

Ottawa

TREE PROTECTION SPECIFICATION

TO BE IMPLEMENTED FOR RETAINED TREES, BOTH ON SITE AND ON ADJACENT SITES, PRIOR TO ANY TREE REMOVAL OR SITE WORKS AND MAINTAINED FOR THE DURATION OF WORK ACTIVITIES ON SITE.



AECOM

PROJECT

Shell Canada Products
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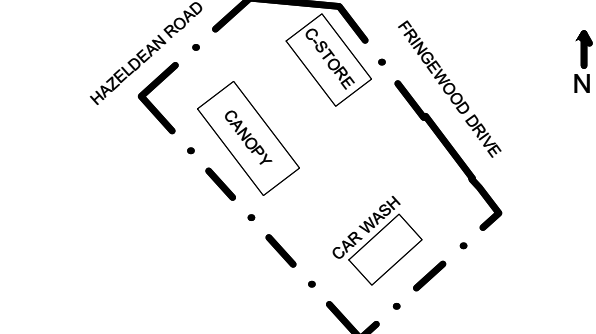
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KEY PLAN



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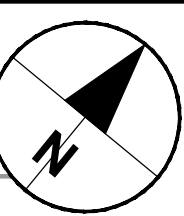
LANDSCAPE PLAN

AECOM FILE NAME

L101.0-LNP-HZLX

SHEET NUMBER

L101.0



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Scale: 1:200

LANDSCAPE PLAN



ARCHITECTURAL GENERAL NOTES

- ALL UNITS IN MILLIMETRES UNLESS OTHERWISE NOTED.
- ARCHITECTURAL DRAWINGS ARE TO BE PRINTED IN COLOUR FOR CLARITY.
- PROVIDE SOLID BLOCKING AS REQUIRED FOR GRAB BARS, CHANGING TABLE AND FIXTURES IN WASHROOM. PROVIDE BLOCKING AS REQUIRED FOR FIRE EXTINGUISHERS.
- ALL SLABS, IN ALL BUILDINGS, TO CONTAIN VAPOUR LOCK ADDITIVE, PER SPECIFICATIONS.
- VERIFY DIMENSIONS ON SITE BEFORE PROCEEDING WITH THE WORK. NOTIFY THE CONSULTANT OF DEFICIENCIES. ALL DIMENSIONS SHALL BE VERIFIED AND COORDINATED WITH ALL OF THE WORK OF ALL TRADES.
- WHERE DISCREPANCIES EXIST BETWEEN THE DRAWINGS, CONSULT THE CONSULTANT BEFORE PROCEEDING WITH WORK.
- ALL DISSIMILAR METALS SHALL BE EFFECTIVELY ISOLATED FROM EACH OTHER TO AVOID MOLECULAR BREAKDOWN.
- PROVIDE ACCESS PANELS AS REQUIRED BY APPLICABLE CODES AND AS REQUIRED FOR ACCESS OR MAINTENANCE OF MECHANICAL AND ELECTRICAL EQUIPMENT INCLUDING JUNCTION BOXES. ALL ACCESS PANEL LOCATIONS SHALL BE REVIEWED WITH THE CONSULTANT PRIOR TO PROCEEDING. ACCESS PANELS IN FINISHED DRYWALL AREAS SHALL BE OF THE TYPE THAT ACCEPTS DRYWALL INFILL.

STRUCTURAL:

- STRUCTURAL TO BE DETERMINED.
- STRUCTURAL TO CONFIRM GRID LAYOUT.

MECHANICAL & ELECTRICAL:

- MECHANICAL AND ELECTRICAL TO BE DETERMINED.
- UNES ARE NOT TO BE IN CONTACT WITH THE STUD WALLS OR CONCRETE WALL OR FLOOR ASSEMBLIES. ISOLATE ALL PIPES TO AVOID SOUND TRANSMISSION. INSTALL NEOPRENE RUBBER PAD ON TOP OF SUBSTRATE SURFACE (BOTTOM PLATE, CONCRETE, ETC.) BEFORE ALL MECHANICAL CLAMPS ARE TIGHTENED INTO PLACE.
- CONFIRM ALL ROUGH OPENING SIZES AND CONNECTION REQUIREMENTS FOR MECHANICAL, ELECTRICAL, MANUFACTURER-SUPPLIED, OWNER-SUPPLIED, AND ALL OTHER EQUIPMENT. ADJUST ROUGH OPENING SIZES TO SUIT.
- INSTALL AND CONNECT MANUFACTURER-SUPPLIED, OWNER-SUPPLIED, AND ALL OTHER EQUIPMENT OR APPLIANCES AS DIRECTED, CENTERED, LEVEL AND TRUE.
- PROVIDE ALL WARRANTIES, BONDS AND MANUFACTURER'S OPERATING INSTRUCTIONS AND SERVICE MANUALS AS WELL AS PARTS LISTS AT THE COMPLETION OF THE PROJECT.

MAIN FLOOR PLAN NOTES:

- NOT ALL PENETRATIONS MAY BE SHOWN. REFER TO ALL DISCIPLINES FOR SIZE AND LOCATION OF WALL AND FLOOR PENETRATIONS.
- ALL WALL DIMENSIONS ARE TO C/L OF INTERIOR PARTITIONS AND TO OUTSIDE OF SHEATHING ON EXTERIOR WALL.
- ALL INTERIOR DOOR FRAMES ARE 100mm FROM CORNER UNLESS OTHERWISE DIMENSIONED. ALL OTHER DOOR DIMENSIONS ARE TO DOOR CENTRELINE.
- FILL ALL EXTERIOR ENVELOPE HSS MEMBERS WITH SPRAY-APPLIED POLYURETHANE FOAM.
- EXTERIOR WALLS SHALL BE A COMPLETE SYSTEM, INCLUDING ALL STIFFENERS, FASTENERS, SEALANTS, JOINTING, MISCELLANEOUS PIECES AND MATERIAL THICKNESS AS REQUIRED TO FORM A WATERTIGHT ENCLOSURE.
- ALL EXTERIOR AND INTERIOR WALL DETAILS ARE TO BE COORDINATED WITH THE STRUCTURAL FRAMING AND OTHER BUILDING COMPONENTS INCLUDING ROOFING, EXTERIOR CLADDING ITEMS, GLAZING, INTERIOR FINISH AND OTHER RELATED BUILDING COMPONENTS.
- ALL INTERIOR PARTITIONS 3000mm HIGH UNLESS OTHERWISE NOTED.
- ALL INTERIOR STEEL STUD PARTITIONS TO BE SECURED TO CONCRETE FLOOR SLAB WITH STUB NAILS OR POWER-FASTENERS (OR APPROVED EQUAL).
- 16 "TYPE X" GYPSUM BOARD IN FIRE RATED WALLS TO RUN UP TO THE UNDERSIDE OF DECKING.
- WHERE APPLICABLE, PORCELAIN WALL TILE TO BE INSTALLED ON WASHROOM SIDE OF WALL.
- SECURITY ENCLOSURE WALL BY MCCOWAN
- PROVIDE 75mm CHANNEL CLOSURE AT ABOVE GRADE RIGID INSULATION TERMINATIONS.
- FIRE RATING INDICATION ON A WALL SHALL MEAN THE ENTIRE LENGTH OF WALL IS TO BE FIRE RATED.
- ALL PIPING, DUCTS, ETC. THAT PENETRATE FLOOR SLABS, ROOFS, AND WALLS SHALL BE INSTALLED IN A MANNER THAT WILL PRESERVE THE FIRE-RESISTIVE AND STRUCTURAL INTEGRITY. PENETRATIONS INTO FIRE-RESISTANCE RATED WALLS OF MORE THAN 1 HR. RATING SHALL BE PROVIDED WITH APPROVED FIRE DAMPERS WHETHER OR NOT SHOWN IN THE DRAWINGS.
- ALL SEALANT JOINTS SHALL BE SIZED SUCH THAT THEY WILL BE WITHIN THE SIZE RANGE RECOMMENDED BY THE SEALANT MANUFACTURER.
- ALL FIRE EXTINGUISHERS SHOWN WITH "FE"
- REFER TO CIVIL FOR BOLLARD LOCATIONS AND DETAILS.
- STRUCTURAL HOUSEKEEPING PADS TO BE CONFIRMED.
- STRUCTURAL FOUNDATION, GRADE BEAMS, AND PILES TO BE CONFIRMED.
- STRUCTURAL FLOORS AND FLOOR SLOPES TO BE CONFIRMED.
- STRUCTURAL DOOR PADS AND SIDEWALKS TO BE CONFIRMED.
- STRUCTURAL HSS AND OWSJ MEMBERS TO BE CONFIRMED.
- STRUCTURAL LINTELS TO BE CONFIRMED.
- MECHANICAL FLOOR DRAINS, PIPING, DUCTWORK, DIFFUSERS, AND ALL OTHER MECHANICAL EQUIPMENT NOT NOTED ON THIS DRAWING TO BE CONFIRMED.
- REFER TO ELECTRICAL FOR PUSH BUTTONS, SECURITY DEVICES, ELECTRICAL SYMBOLS, AND OTHER ELECTRICAL EQUIPMENT NOT NOTED ON THIS DRAWING
- CONTRACTOR TO CONFIRM MODEL NUMBER FOR ALL FURNITURE, MILLWORK, ELECTRICAL EQUIPMENT, MECHANICAL EQUIPMENT, AND SPECIALTY EQUIPMENT WITH SHELL PRIOR TO PURCHASE AND INSTALLATION.
- EQUIPMENT LAYOUT AND CONTENTS TO BE CONFIRMED PRIOR TO INSTALLATION.
- CONTRACTOR TO NOTIFY CONSULTANT IN WRITING IF PRODUCT INFORMATION IS NOT AS SHOWN, OR PRODUCT IS UNAVAILABLE.

SYMBOLS LEGEND

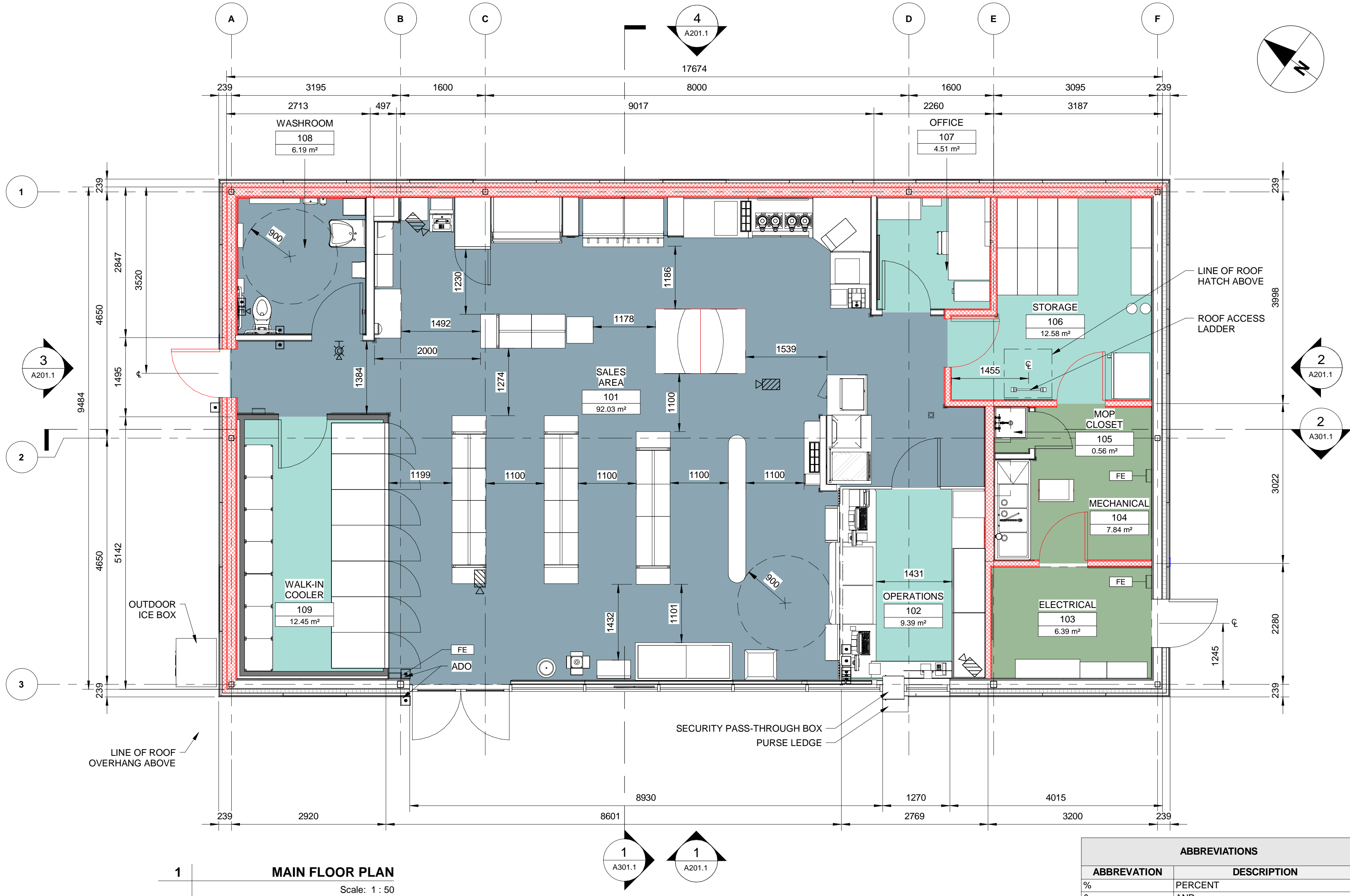
ROOM	ROOM NAME/NUMBER
101	
1	EXTERIOR CLADDING TYPE/ MATERIAL KEYNOTE
	INDICATES A FIRE RATED WALL

GRAPHIC SYMBOLS LEGEND

GRID	SECTION
ELEVATION NAME	VIEW NO.
LEVEL	SHEET NO.
SPOT ELEVATION	VIEW TITLE
EXTERIOR ELEVATION	VIEW NAME
INTERIOR ELEVATION	SCALE
SHEET NO.	SHEET REFERENCE
VIEW NO.	ACCESSIBLE CLEARANCE

DEPARTMENT LEGEND

BUILDING SERVICES
EMPLOYEE
PUBLIC



MAIN FLOOR PLAN

Scale: 1 : 50

ABBREVIATIONS

ABBREVIATION	DESCRIPTION
%	PERCENT
&	AND
@	AT
ADO	AUTOMATIC DOOR OPERATOR
AFF	ABOVE FINISHED FLOOR
C-STORE	CONVENIENCE STORE
C/L	CENTRE LINE
CW	COMPLETE WITH
CONC	CONCRETE
DIA	DIAMETER
DWG	DRAWING
EL	ELEVATION
ELEC	ELECTRICAL
EQ	EQUAL
EXT	EXTERIOR
FE	FIRE EXTINGUISHER
FRR	FIRE RESISTANCE RATED(ING)
HDD	HEATING DEGREE DAY(S)
HORIZ	HORIZONTAL(LY)
HR	HOUR
INFO	INFORMATION
INP	INFORMATION NOT PROVIDED
MAX	MAXIMUM
MECH	MECHANICAL
MIN	MINIMUM
NECB	NATIONAL ENERGY CODE FOR BUILDINGS
NIC	NOT IN CONTRACT
NO	NUMBER
NTS	NOT TO SCALE
O.C. / OC	ON CENTRE
PRE	PREFINISHED
RD	ROOF DRAIN
REQD	REQUIRED
SIM	SIMILAR
STRUCT	STRUCTURAL
T.O.	TOP OF
TBC	TO BE CONFIRMED
TYP	TYPICAL
U/S	UNDER SIDE
VERT	VERTICAL(LY)

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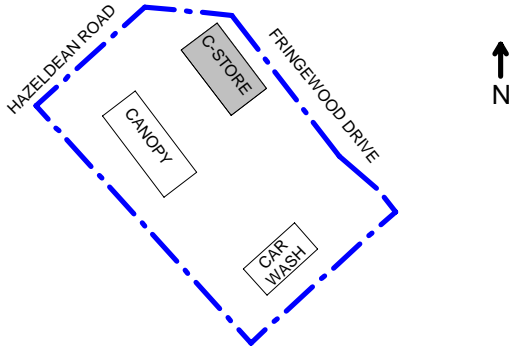
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KEY PLAN



GLOBAL PROJECT ID NUMBER

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SHEET TITLE

C-STORE

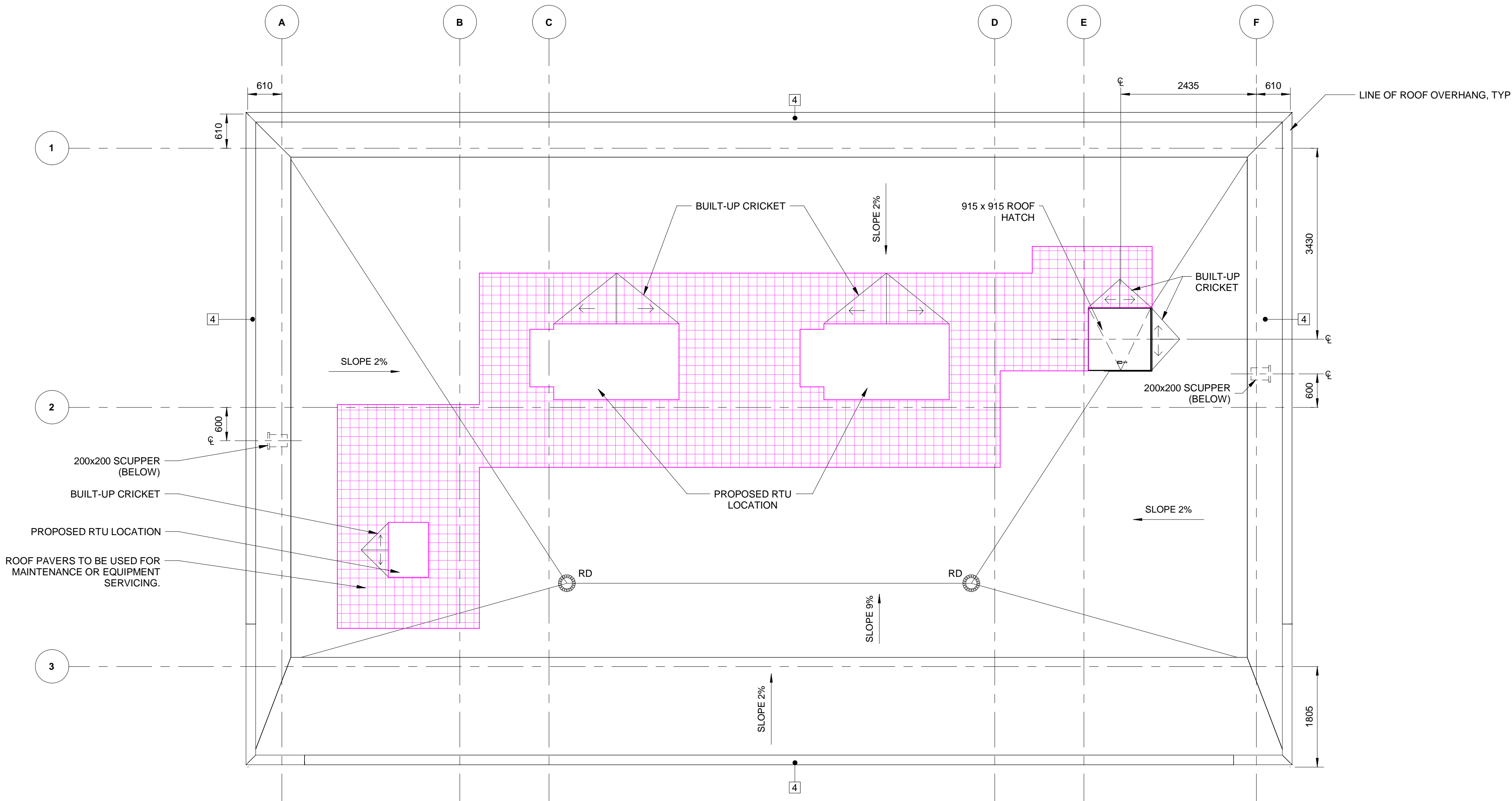
MAIN FLOOR PLAN

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A101.1-MFP-HZLX

SHEET NUMBER

A101.1



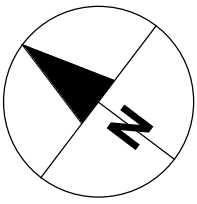
1 ROOF PLAN
Scale: 1 : 50

ROOF PLAN NOTES:

1. NOT ALL PENETRATIONS MAY BE SHOWN. REFER TO OTHER DISCIPLINE DRAWINGS FOR EXACT SIZE AND LOCATION OF PENETRATIONS.
2. ALL PENETRATIONS TO BE SEALED WEATHER TIGHT.
3. ROOF TO SLOPE A MINIMUM OF 2% TOWARDS ROOF DRAINS.
4. ROOF PAVERS TO BE USED FOR MAINTENANCE OR EQUIPMENT SERVICING.
5. MECHANICAL TO DETERMINE MECHANICAL EQUIPMENT AND ROOF TOP UNITS.
6. MECHANICAL TO DETERMINE ROOF DRAINS.
7. MECHANICAL TO DETERMINE PIPING.
8. ROOF HATCH LOCATION TO BE CONFIRMED.
9. ALL CRICKETS TO HAVE MINIMUM 5% SLOPE.
10. BULL NOSE OVERHANGS TO SLOPE MINIMUM 2% TOWARDS FLAT ROOF.

EXTERIOR CLADDING/MATERIAL KEY NOTES

- 4 METAL 'BULLNOSE' OVERHANG BY THERMAL SYSTEMS IN SHELL WHITE.



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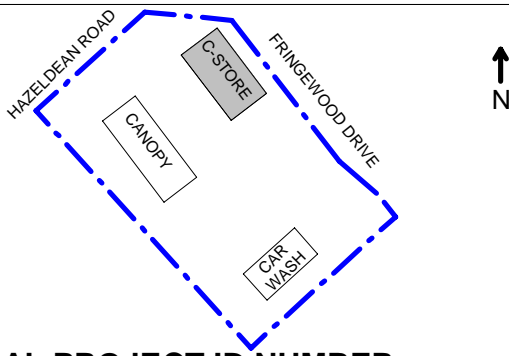
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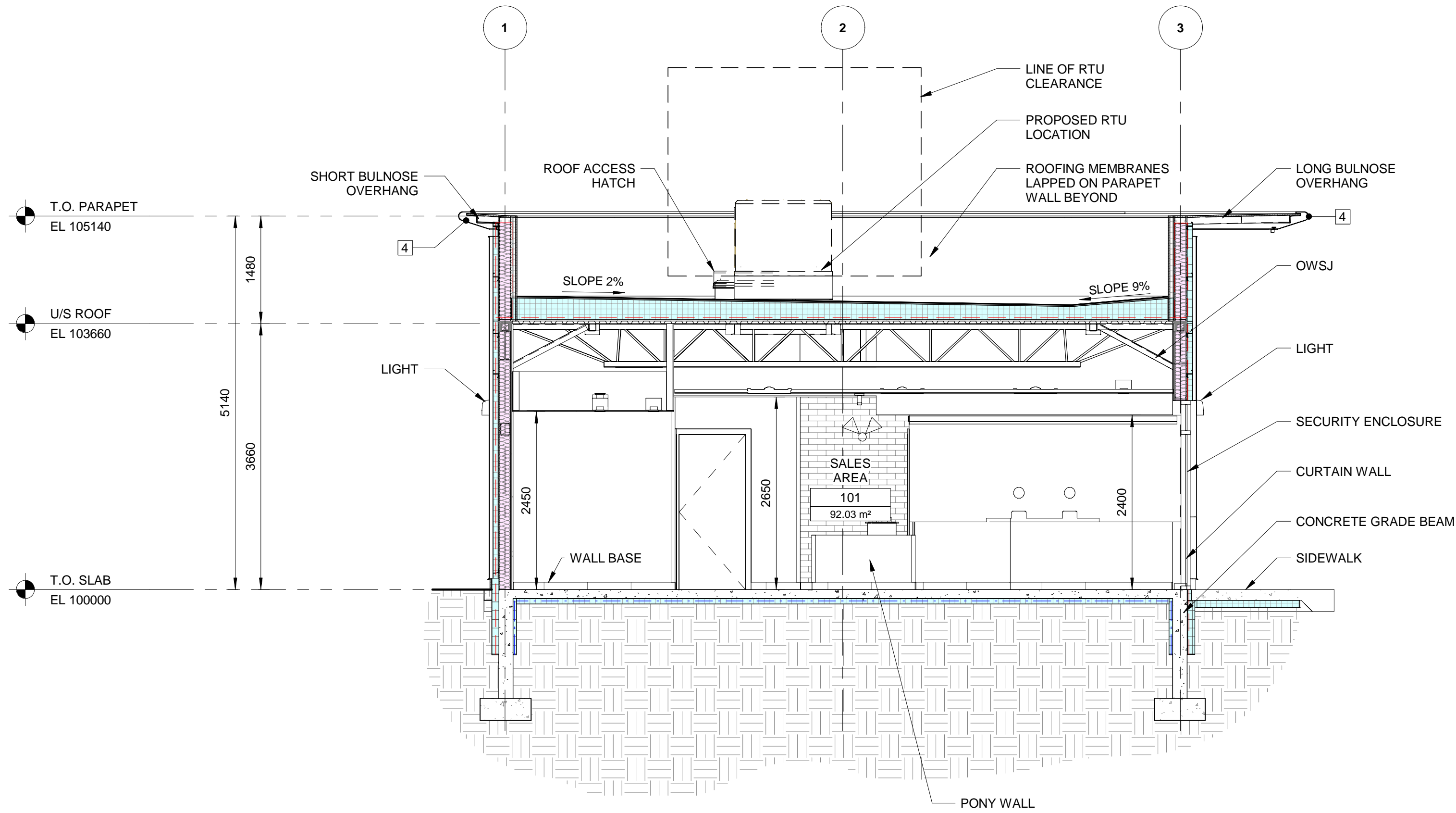
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ROOF PLAN

AECOM FILE NAME

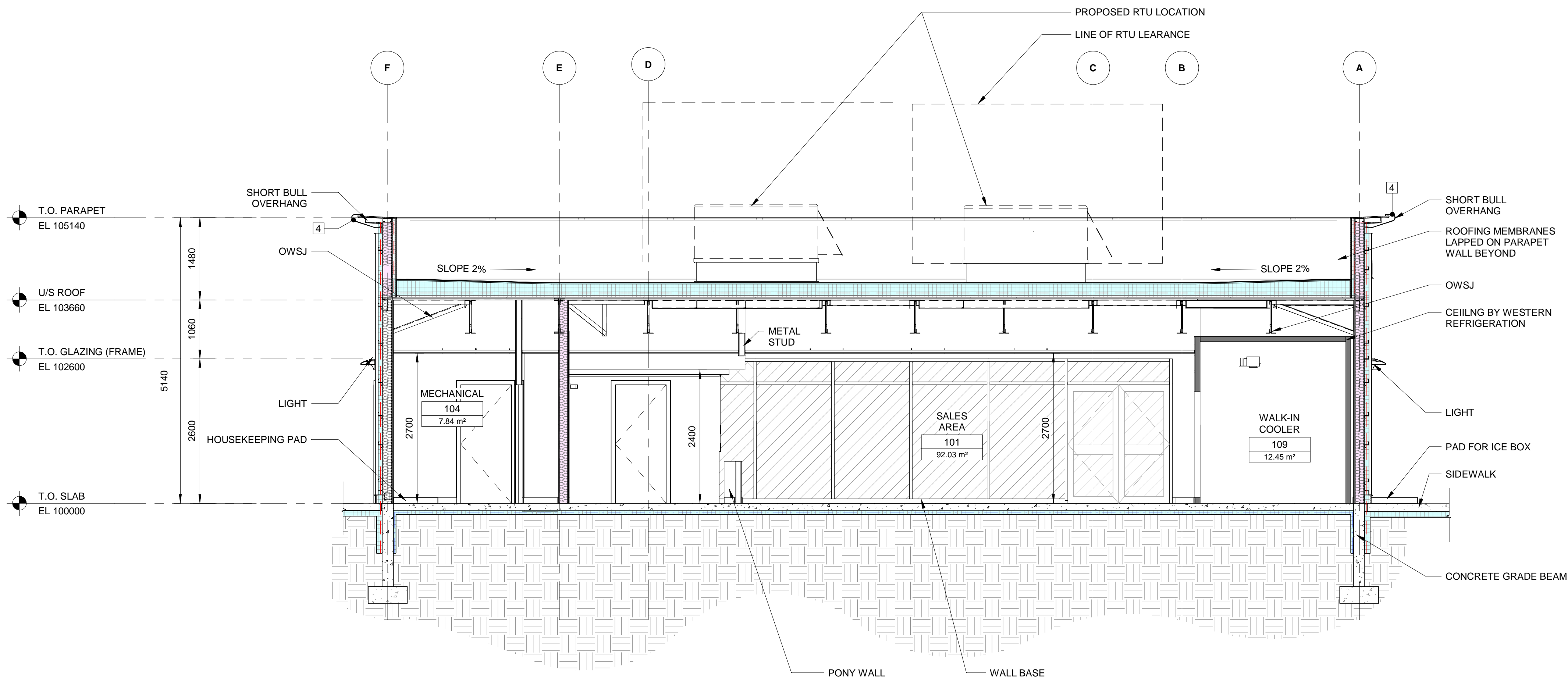
A102.1-ROP-HZLX

SHEET NUMBER

A102.1



1 BUILDING SECTION
A101.1 Scale: 1 : 50



2 BUILDING SECTION
A101.1 Scale: 1 : 50

BUILDING SECTION NOTES:

1. NOT ALL EQUIPMENT IS SHOWN FOR CLARITY. REFER TO ALL DISCIPLINE DRAWINGS FOR SIZES AND LOCATIONS OF ALL EQUIPMENT AND FIXTURES.
2. FINISHED GRADE TO BE MINIMUM 100mm BELOW TOP OF MAIN FLOOR SLAB.
3. VERIFY SIZE AND LOCATION OF ALL PENETRATIONS THROUGH WALLS, ROOF AND FLOORS WITH ALL DISCIPLINES.
4. SLOPE INSULATION MINIMUM 2% TOWARDS ROOF DRAINS. REFER TO SPECIFICATIONS FOR MORE INFORMATION.
5. ALL SLABS TO CONTAIN VAPOUR LOCK ADDITIVE, PER SPECIFICATIONS.
6. ALL FLOORS AND PADS TO SLOPE A MINIMUM OF 2% TOWARDS DRAINS.
7. REFER TO STRUCTURAL FOR FOUNDATION, FLOOR SLAB, GRADE BEAM, ICE BOX PAD AND PILES INFORMATION, AS REQUIRED.
8. STRUCTURAL TO DETERMINE FLOOR SLABS, DOOR PADS, SIDEWALKS, LINTELS, AND ALL REINFORCING.
9. MECHANICAL TO DETERMINE DRAINAGE, UNDERGROUND PLUMBING, ROOF TOP UNITS, DUCTWORK, VENTING, AND PIPING.
10. ELECTRICAL TO DETERMINE LIGHTING, EMERGENCY PUSH BUTTONS, WIRING, RECEPTACLES AND JUNCTION BOXES.
11. ALL MILLWORK BY OTHERS.
12. WALK-IN COOLER BY OTHERS.
13. SECURITY ENCLOSURE GLAZING BY MCCOWAN.

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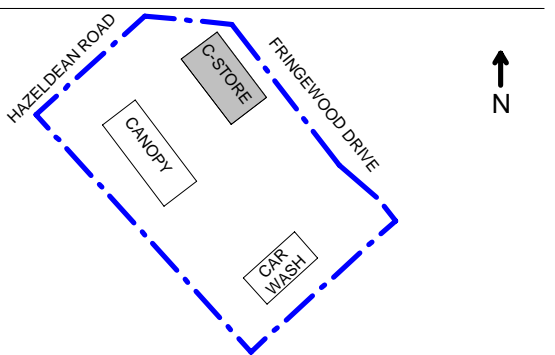
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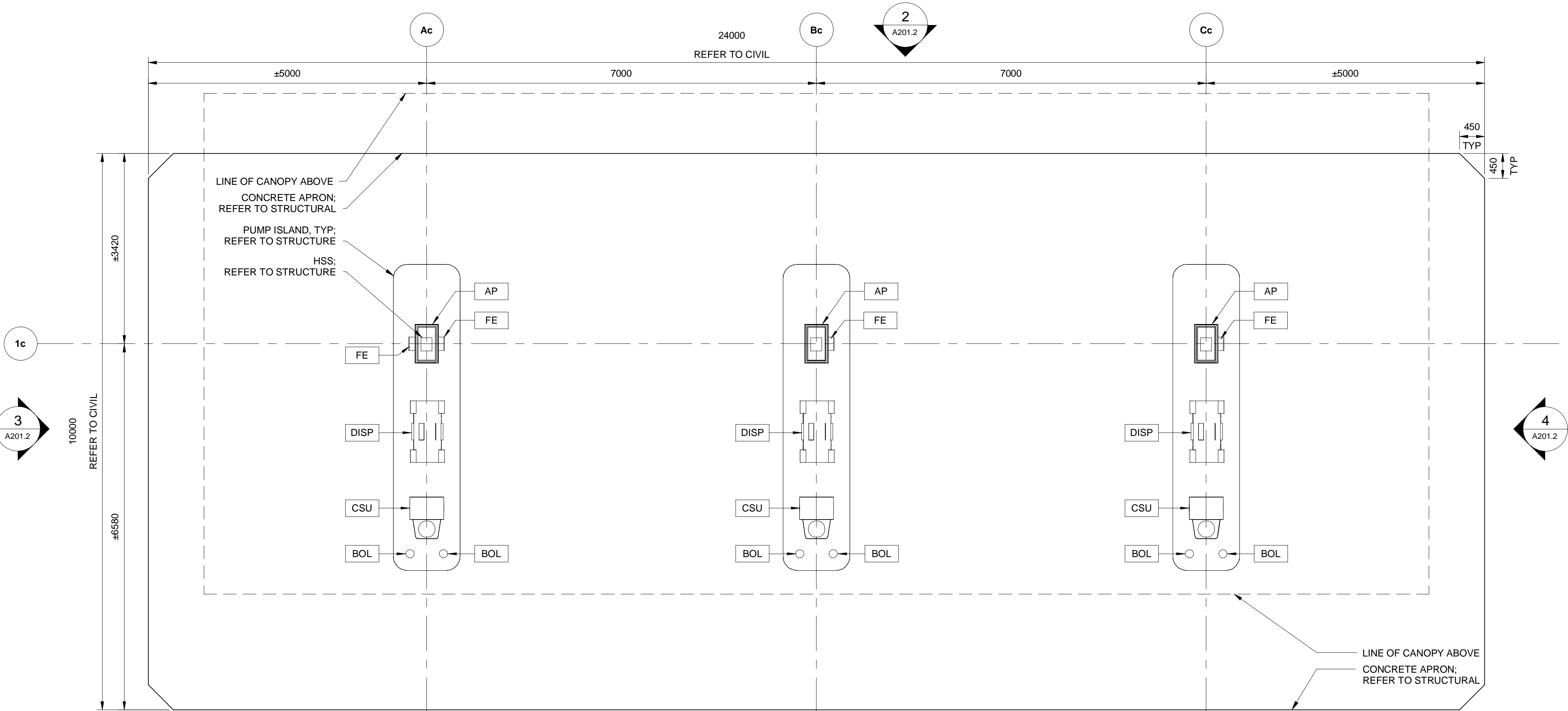
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BUILDING SECTIONS

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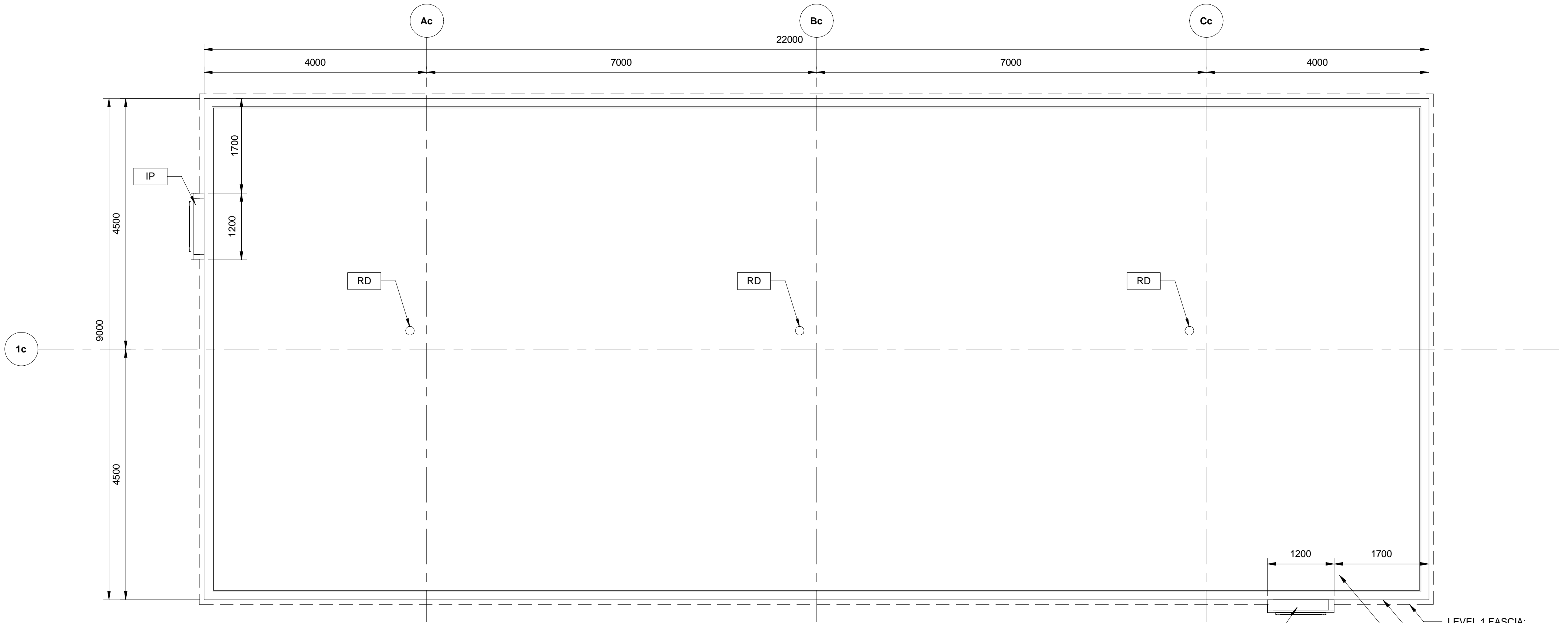
A301.1-SEC-HZLX

SHEET NUMBER

A301.1



FUEL PUMP PLAN
Scale: 1 : 50



ROOF PLAN
Scale: 1 : 50

ABBREVIATIONS	
ABBREVIATION	DESCRIPTION
%	PERCENT
&	AND
@	AT
ACM	ALUMINUM COMPOSITE METAL
AP	ACCESS PANEL
BOL	BOLLARD
CW	COMPLETE WITH
CSU	CAR SERVICING UNIT
DISP	DISPENSER
DN	DISPENSER NUMBER
EL	ELEVATION
ELEC	ELECTRICAL
FE	FIRE EXTINGUISHER
HSS	HOLLOW STRUCTURAL STEEL
IF	ILLUMINATED FASCIA
INFO	INFORMATION
IP	ILLUMINATED PECTEN
MIN	MINIMUM
NA	NOT APPLICABLE
NTS	NOT TO SCALE
RD	ROOF DRAIN
RWL	RAIN WATER LEADER
SIM	SIMILAR
T.O.	TOP OF
TYP	TYPICAL
U/S	UNDER SIDE

EQUIPMENT LEGEND:

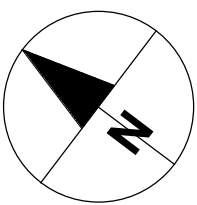
BOL	BOLLARD
CSU	CAR SERVICING UNIT
DISP	FUEL PUMP DISPENSER
DN	DISPENSER NUMBERS
FE	FIRE EXTINGUISHER
IF	ILLUMINATED FASCIA
IP	ILLUMINATED PECTEN
RD	ROOF DRAIN

FUEL PUMP PLAN NOTES:

- NOT ALL PENETRATIONS MAY BE SHOWN. REFER TO ALL DISCIPLINES FOR SIZE AND LOCATION OF PENETRATIONS.
- ALL COLUMN DIMENSIONS ARE TO C/L OF HSS.
- REFER TO CIVIL AND STRUCTURAL FOR COLUMN PLACEMENT ON PUMP ISLANDS.
- REFER TO CIVIL FOR BOLLARD LOCATIONS AND DETAILS.
- REFER TO CIVIL FOR FUEL PUMP INFORMATION AND EXACT SITE FURNISHING LOCATIONS.
- REFER TO STRUCTURAL FOR STRUCTURAL COLUMNS.
- REFER TO STRUCTURAL FOR FUEL PUMP ISLANDS.
- REFER TO STRUCTURAL FOR PILES.
- REFER TO STRUCTURAL FOR REINFORCING.
- REFER TO STRUCTURAL FOR CONCRETE APRON.
- REFER TO ELECTRICAL FOR SYMBOLS LEGEND.
- FIRE EXTINGUISHERS TO BE PLACED AS INDICATED AT 1525mm ABOVE FINISHED PUMP ISLAND UNLESS OTHERWISE INDICATED. FIRE EXTINGUISHERS TO BE MOUNTED PER MANUFACTURER'S INSTRUCTIONS.

ROOF PLAN NOTES:

- NOT ALL PENETRATIONS MAY BE SHOWN. REFER TO OTHER DISCIPLINE DRAWINGS FOR EXACT SIZE AND LOCATION OF PENETRATIONS.
- ROOF TO SLOPE A MINIMUM OF 2% TOWARDS ROOF DRAINS.
- ROOF DRAINAGE, GUTTERS, AND ROOF SLOPES BY OTHERS.
- DIMENSIONS ARE TO OUTSIDE FACE OF CANOPY.
- LEVEL 1 FASCIA INDICATES AN ILLUMINATED FASCIA.
- ALL FASCIAS ARE BY OTHERS.
- REFER TO STRUCTURAL FOR CANOPY STRUCTURAL ELEMENTS.
- REFER TO ELECTRICAL FOR ELECTRICAL SYSTEMS
- ALL SIGNAGE BY OTHERS.



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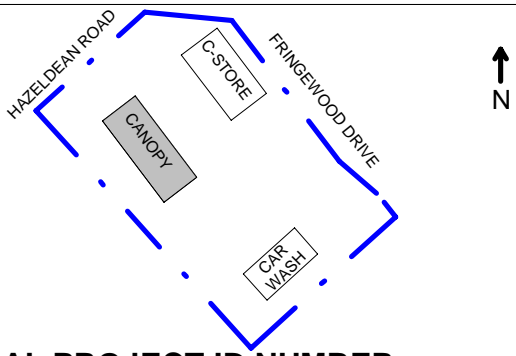
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SHEET TITLE

CANOPY

FUEL PUMP PLAN, ROOF PLAN

AECOM FILE NAME

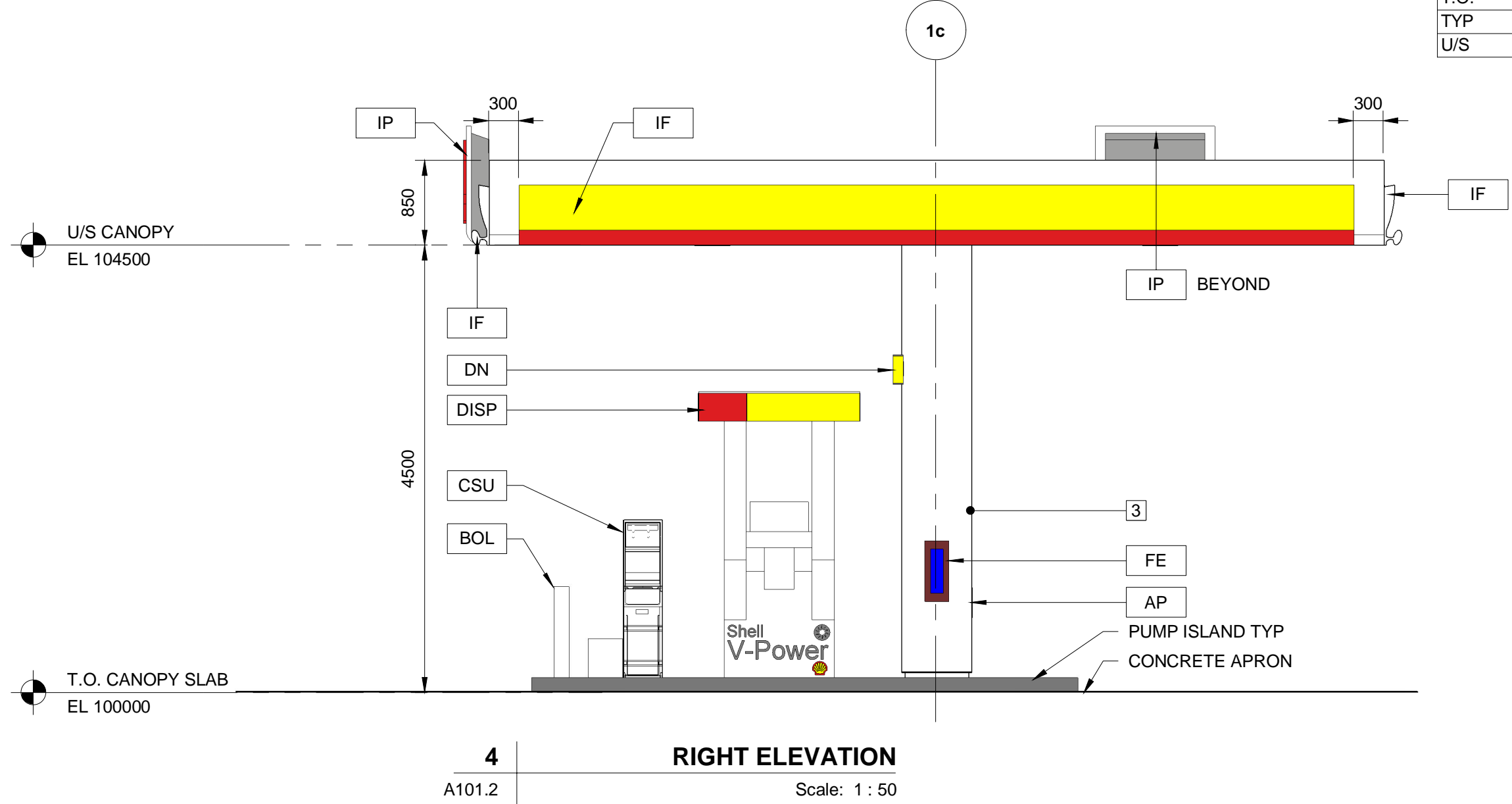
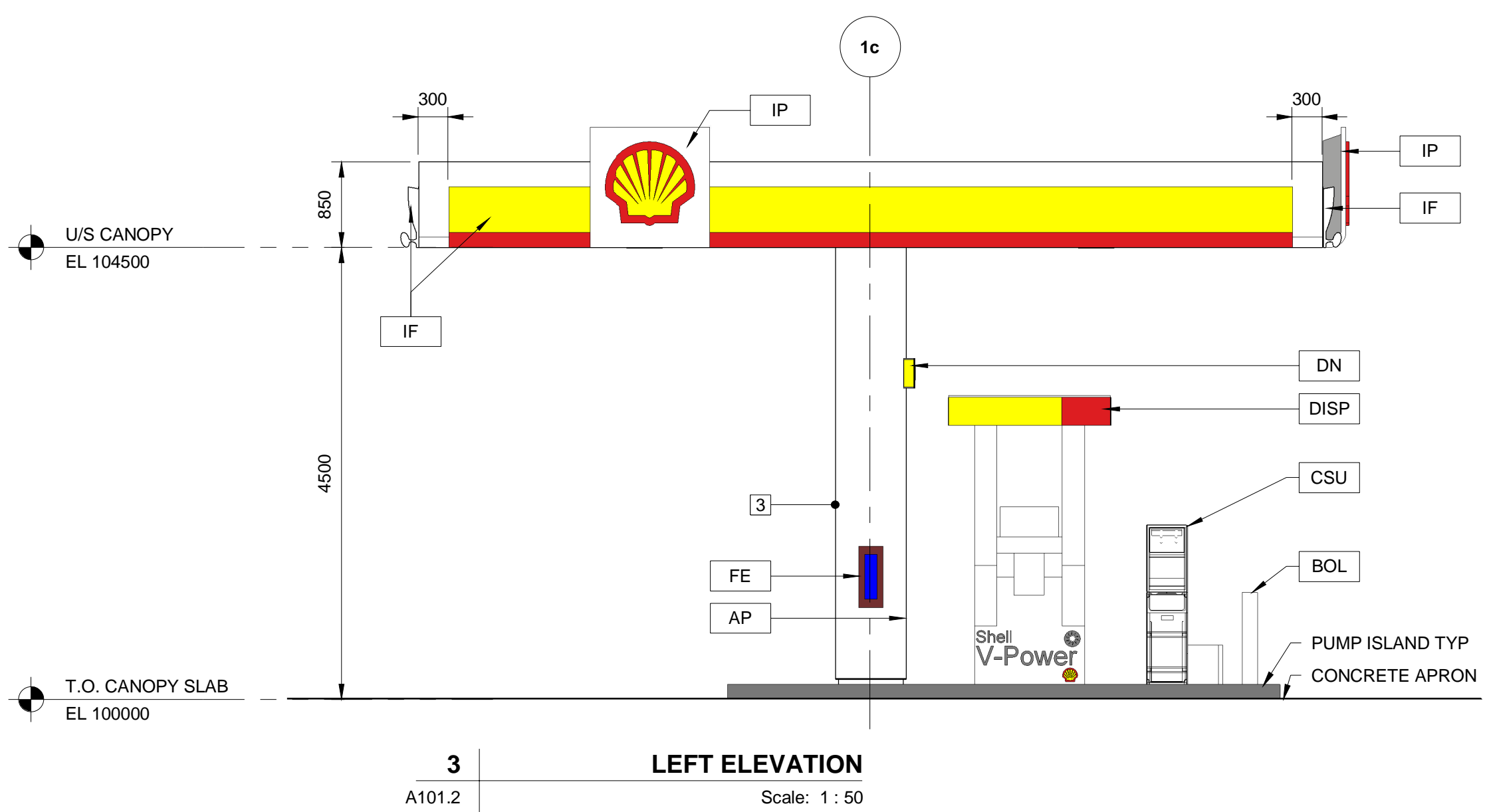
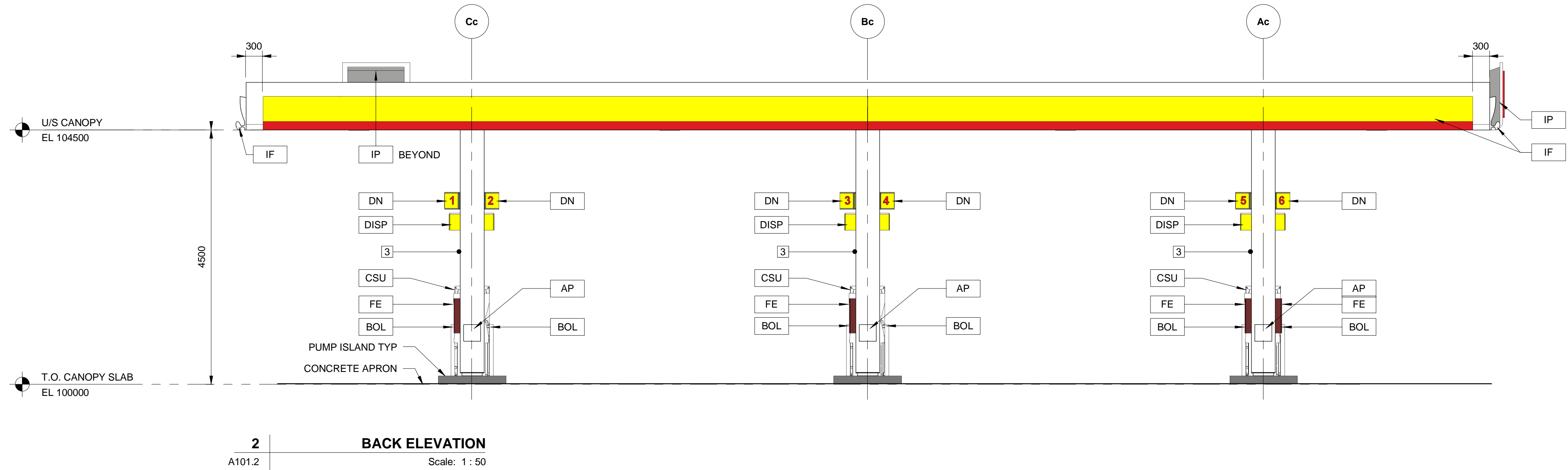
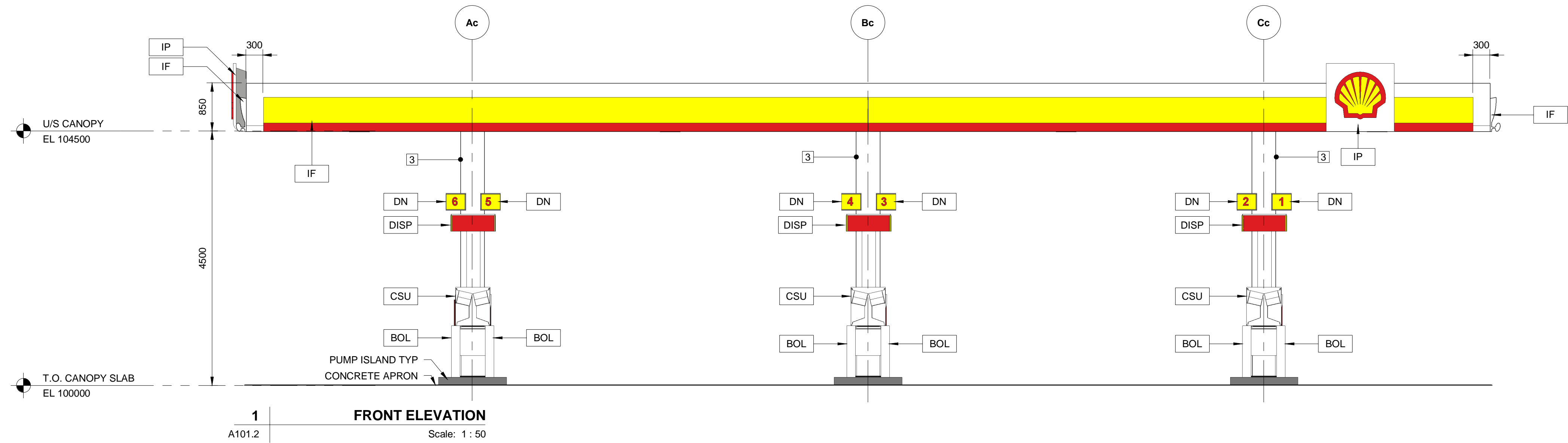
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SHEET NUMBER

A101.2

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Project Management Initials: Designer Checked: Checker Approved: Approver ANSI D 22"x34"



ELEVATION NOTES:

1. NOT ALL PENETRATIONS MAY BE SHOWN. REFER TO ALL DISCIPLINES FOR SIZE AND LOCATIONS OF PENETRATIONS.
2. FOR SITE FURNISHING DETAILS AND INFORMATION, REFER TO CIVIL DRAWINGS.
3. REFER TO CIVIL AND STRUCTURAL FOR COLUMN PLACEMENT ON PUMP ISLANDS.
4. REFER TO CIVIL FOR BOLLARD LOCATIONS AND DETAILS.
5. REFER TO CIVIL FOR DISPENSER INFORMATION AND EXACT SITE FURNISHING LOCATIONS.
6. REFER TO STRUCTURAL FOR STRUCTURAL COLUMNS.
7. REFER TO STRUCTURAL FOR FUEL PUMP ISLANDS.
8. REFER TO STRUCTURAL FOR PILES.
9. REFER TO STRUCTURAL FOR REINFORCING.
10. REFER TO STRUCTURAL FOR CONCRETE APRON.
11. REFER TO ELECTRICAL FOR LIGHTING.
12. REFER TO ELECTRICAL FOR SECURITY DEVICES.
13. REFER TO ELECTRICAL FOR SYMBOLS LEGEND.
14. FIRE EXTINGUISHERS TO BE PLACED AS INDICATED AT 1525mm ABOVE FINISHED PUMP ISLAND UNLESS OTHERWISE INDICATED. FIRE EXTINGUISHERS TO BE MOUNTED PER MANUFACTURER'S INSTRUCTIONS.

EXTERIOR CLADDING KEY NOTES:

- 3 ACM PANEL IN SHELL WHITE BY THERMAL SYSTEM.

ABBREVIATIONS	
ABBREVIATION	DESCRIPTION
%	PERCENT
&	AND
@	AT
ACM	ALUMINUM COMPOSITE METAL
AP	ACCESS PANEL
BOL	BOLLARD
CW	COMPLETE WITH
CSU	CAR SERVICING UNIT
DISP	DISPENSER
DN	DISPENSER NUMBER
EL	ELEVATION
ELEC	ELECTRICAL
FE	FIRE EXTINGUISHER
HSS	HOLLOW STRUCTURAL STEEL
IF	ILLUMINATED FASCIA
INFO	INFORMATION
IP	ILLUMINATED PECTEN
MIN	MINIMUM
NA	NOT APPLICABLE
NTS	NOT TO SCALE
RD	ROOF DRAIN
RWL	RAIN WATER LEADER
SIM	SIMILAR
T.O.	TOP OF
TYP	TYPICAL
U/S	UNDER SIDE

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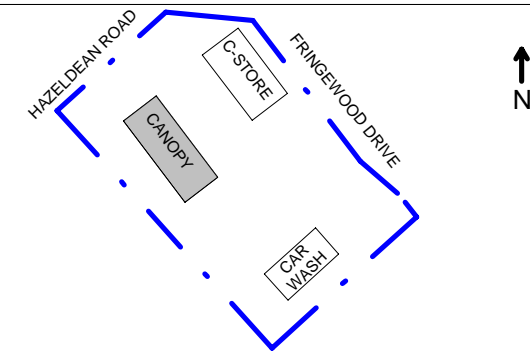
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GLOBAL PROJECT ID NUMBER

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SHEET TITLE

CANOPY

FUEL PUMP ELEVATIONS

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SHEET NUMBER

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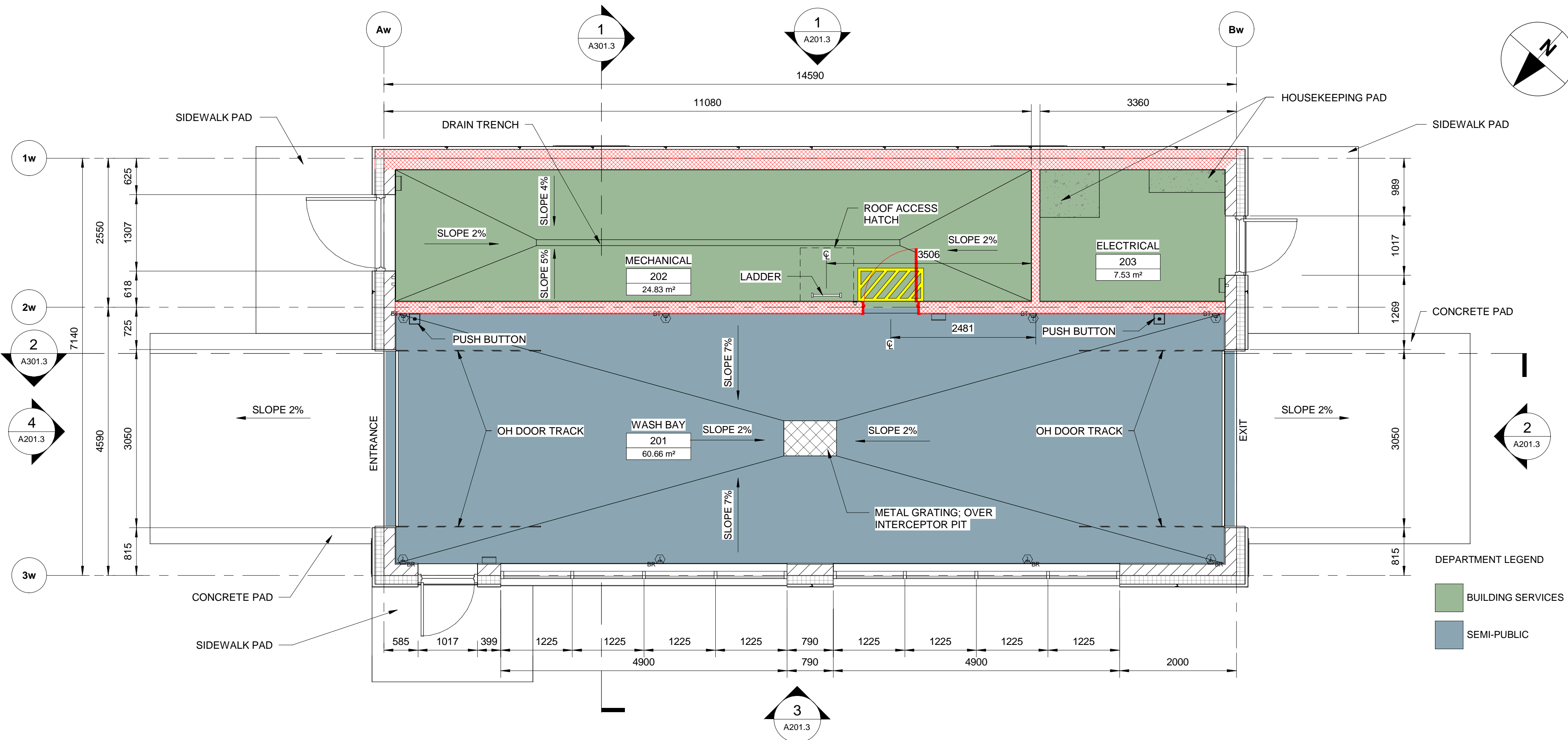
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MAIN FLOOR PLAN NOTES:

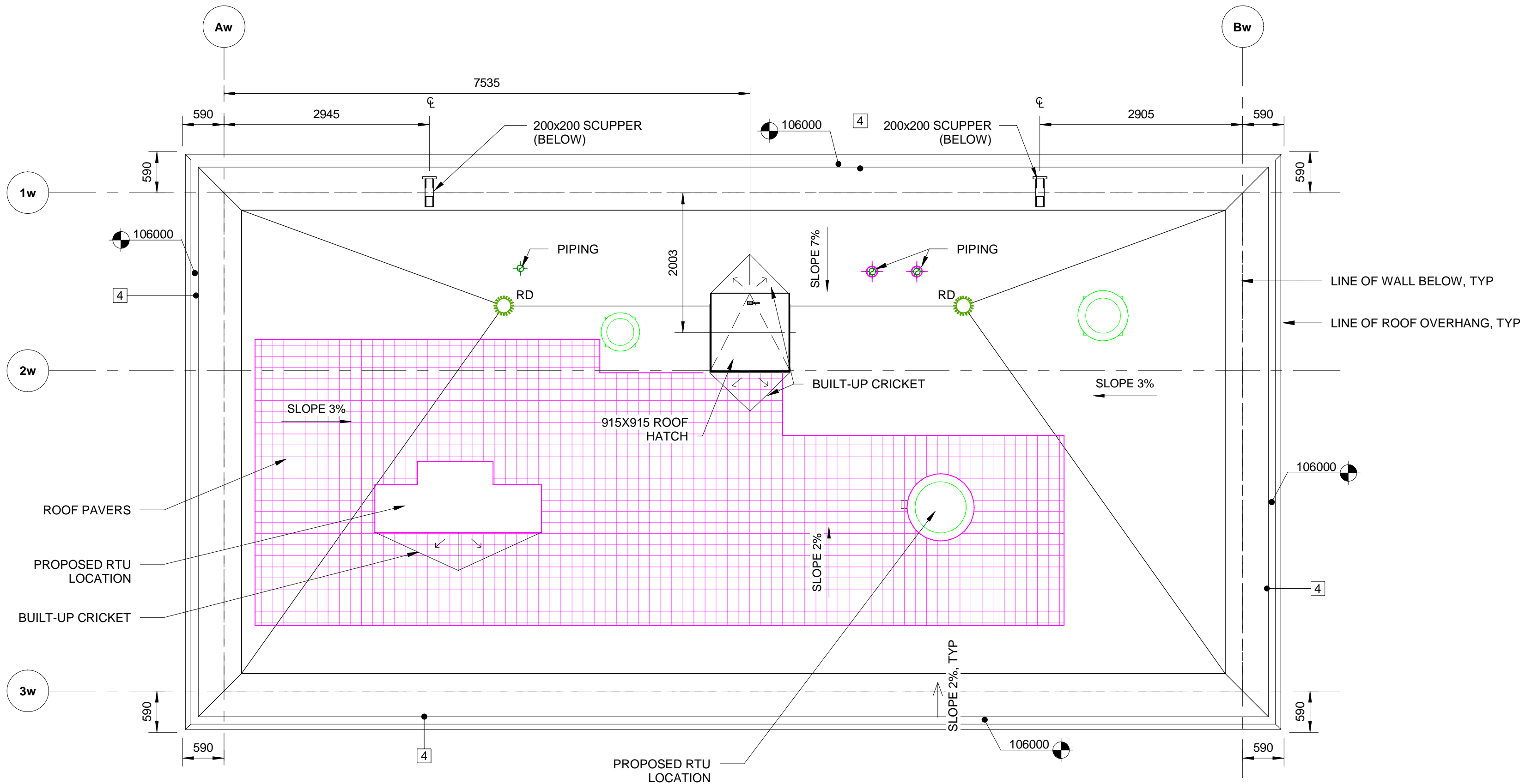
1. NOT ALL PENETRATIONS MAY BE SHOWN. REFER TO ALL DISCIPLINES FOR SIZE AND LOCATION OF WALL AND FLOOR PENETRATIONS.
2. ALL WALL DIMENSIONS ARE TO OUTSIDE FACE OF CONCRETE MASONRY UNITS.
3. EXTERIOR WALLS SHALL BE A COMPLETE SYSTEM, INCLUDING ALL STIFFENERS, FASTENERS, SEALANTS, JOINTING, MISCELLANEOUS PIECES AND MATERIAL THICKNESS AS REQUIRED TO FORM A WATERTIGHT ENCLOSURE.
4. ALL EXTERIOR AND INTERIOR WALL DETAILS ARE TO BE COORDINATED WITH THE STRUCTURAL FRAMING AND OTHER BUILDING COMPONENTS INCLUDING ROOFING, EXTERIOR CLADDING ITEMS, GLAZING, INTERIOR FINISH AND OTHER RELATED BUILDING COMPONENTS.
5. PROVIDE 150mm CHANNEL CLOSURE AT ABOVE GRADE RIGID INSULATION TERMINATIONS.
6. FIRE RATING INDICATION ON A WALL SHALL MEAN THE ENTIRE LENGTH OF WALL IS TO BE FIRE RATED.
7. ALL PIPING, DUCTS, ETC. THAT PENETRATE FLOOR SLABS, ROOFS, AND WALLS SHALL BE INSTALLED IN A MANNER THAT WILL PRESERVE FIRE-RESISTANCE AND STRUCTURAL INTEGRITY. PENETRATIONS INTO FIRE-RESISTANCE RATED WALLS OF MORE THAN 1 HR RATING SHALL BE PROVIDED WITH APPROVED FIRE DAMPERS WHETHER OR NOT SHOWN IN THE DRAWINGS.
8. ALL SEALANT JOINTS SHALL BE SIZED SUCH THAT THEY WILL BE WITHIN THE SIZE RANGE RECOMMENDED BY THE SEALANT MANUFACTURER.
9. REFER TO CIVIL FOR BOLLARD LOCATIONS AND DETAILS.
10. STRUCTURAL HOUSEKEEPING PADS TO BE CONFIRMED.
11. STRUCTURAL FOUNDATION, GRADE BEAMS, AND PILES TO BE CONFIRMED.
12. STRUCTURAL FLOORS AND FLOOR SLOPES TO BE CONFIRMED.
13. STRUCTURAL DOOR PADS AND SIDEWALKS TO BE CONFIRMED.
14. STRUCTURAL HSS AND OWSJ MEMBERS TO BE CONFIRMED.
15. STRUCTURAL LINTELS TO BE CONFIRMED.
16. MECHANICAL FLOOR DRAINS; PIPING, DUCTWORK, DIFFUSERS, AND ALL OTHER MECHANICAL EQUIPMENT NOT NOTED ON THIS DRAWING TO BE CONFIRMED.
17. REFER TO ELECTRICAL FOR PUSH BUTTONS, SECURITY DEVICES, ELECTRICAL SYMBOLS, AND OTHER ELECTRICAL EQUIPMENT NOT NOTED ON THIS DRAWING.
18. CAR WASH EQUIPMENT BY OTHERS.

ROOF PLAN NOTES:

1. NOT ALL PENETRATIONS MAY BE SHOWN. REFER TO OTHER DISCIPLINE DRAWINGS FOR EXACT SIZE AND LOCATION OF PENETRATIONS.
2. ALL PENETRATIONS TO BE SEALED WEATHER TIGHT.
3. ROOF TO SLOPE A MINIMUM OF 2% TOWARDS ROOF DRAINS.
4. PARAPET FLASHING TO SLOPE A MINIMUM OF 2% TOWARDS ROOF.
5. NON-SLIP WALKWAY IS NOT TO BE USED FOR OTHER PURPOSES/OCCUPANCIES. ONLY TO BE USED FOR MAINTENANCE OR EQUIPMENT SERVICING.
6. MECHANICAL TO DETERMINE MECHANICAL EQUIPMENT AND ROOF TOP UNITS.
7. MECHANICAL TO DETERMINE ROOF DRAINS.
8. MECHANICAL TO DETERMINE PIPING.
9. MECHANICAL TO DETERMINE DOWNSPOUT LOCATIONS AND REQUIREMENTS.
10. ROOF HATCH LOCATION TO BE CONFIRMED.
11. ALL CRICKETS TO HAVE MINIMUM 5% SLOPE.
12. BULLNOSE OVERHANGS TO SLOPE MINIMUM 2% TOWARDS FLAT ROOF.



1 | MAIN FLOOR PLAN
Scale: 1 : 50



2 | ROOF PLAN
Scale: 1 : 50

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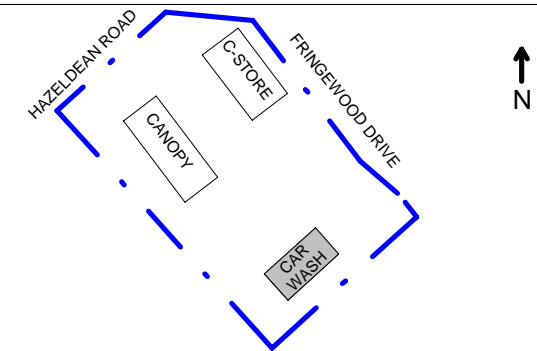
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SHEET TITLE

CAR WASH

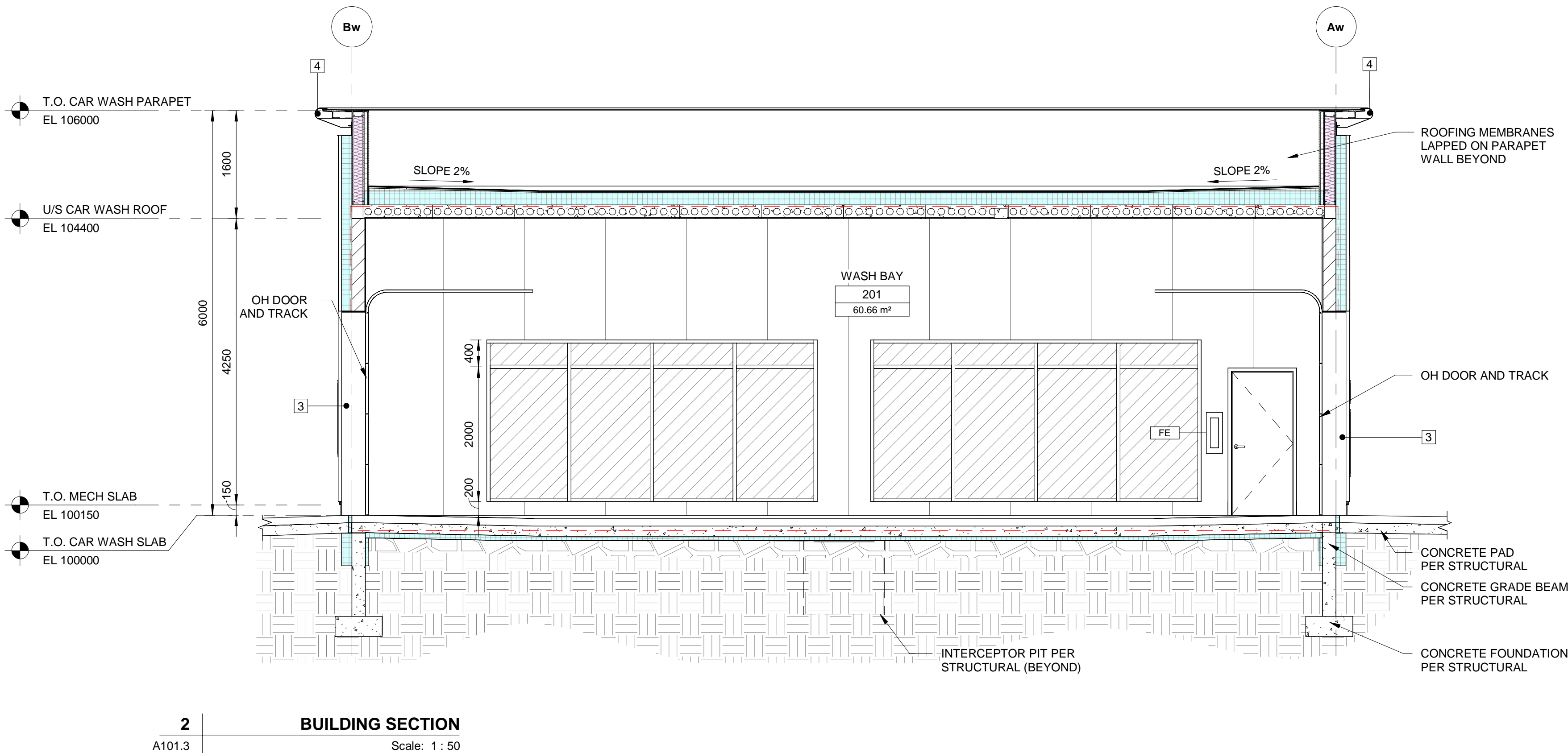
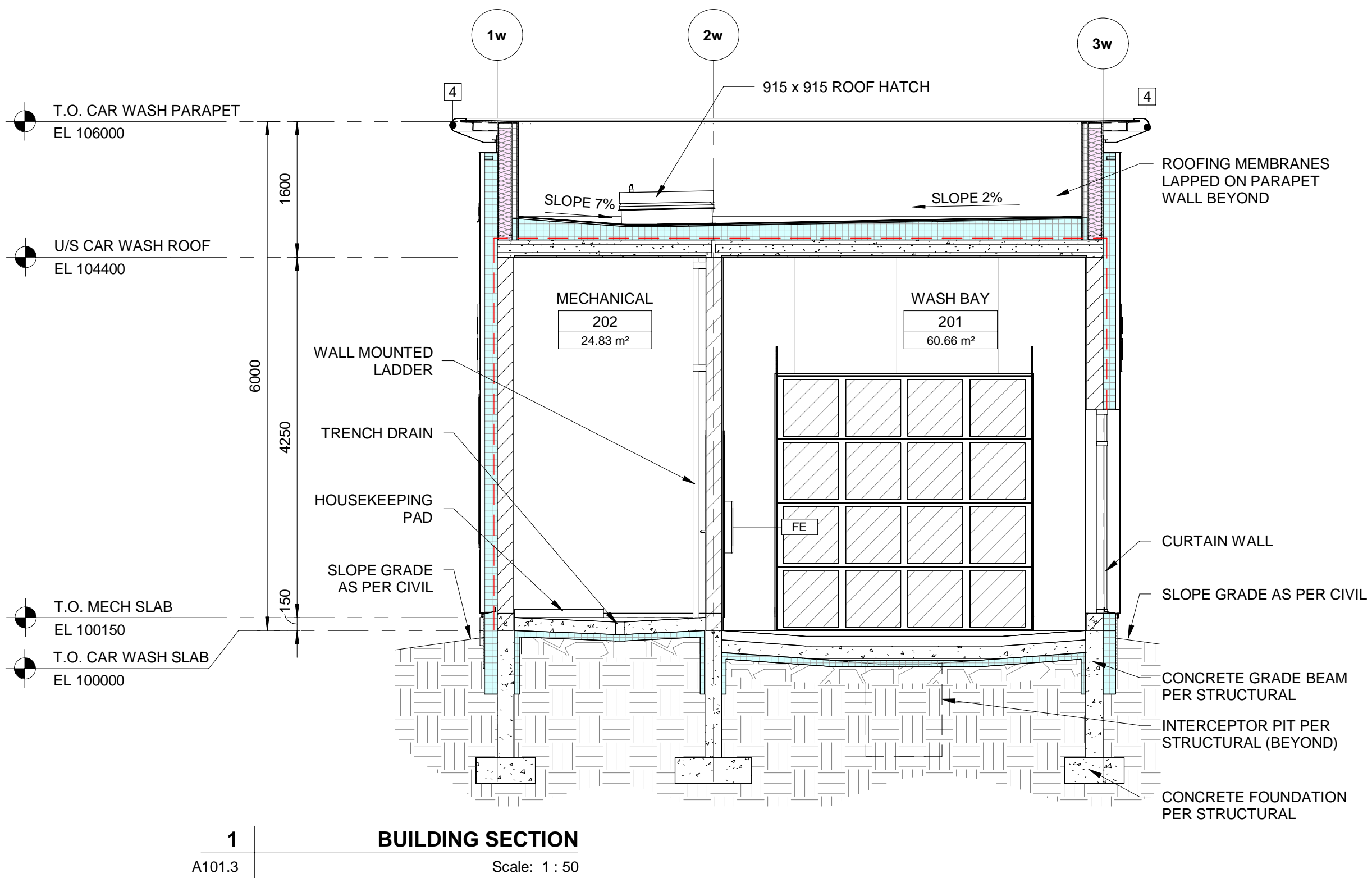
MAIN FLOOR PLAN, ROOF PLAN

AECOM FILE NAME

A101.3-MFP-HZLX

SHEET NUMBER

A101.3



BUILDING SECTION NOTES:

1. REFER TO ELECTRICAL DRAWINGS FOR LIGHTING, OUTLET, JUNCTION BOX AND RELATED INFORMATION
2. REFER TO MECHANICAL DRAWINGS FOR PIPING, VENT, DRAIN, EQUIPMENT AND RELATED INFORMATION.
3. REFER TO STRUCTURAL DRAWINGS FOR STRUCTURAL MEMBER INFORMATION.
4. NOT ALL EQUIPMENT IS SHOWN FOR CLARITY. REFER TO ALL DISCIPLINE DRAWINGS.
5. FINISHED GRADE TO BE MINIMUM 100mm BELOW TOP OF MAIN FLOOR SLAB
6. VERIFY SIZE AND LOCATION OF ALL PENETRATIONS THROUGH WALLS, ROOF AND FLOORS WITH ALL DISCIPLINES.
7. SLOPE INSULATION MINIMUM 2% TOWARDS ROOF DRAINS. REFER TO SPECIFICATIONS FOR MORE INFORMATION.
8. REFER TO MECHANICAL FOR IN-SLAB HEATING INFORMATION.
9. ALL SLABS, INCLUDING SCREED, TO CONTAIN VAPOR LOK ADDITIVE, PER SPECIFICATIONS.
10. OH DOOR SUPPLIER TO COORDINATE TRACK HEIGHT WITH OTHER EQUIPMENT SUPPLIERS TO AVOID OPERATION CONFLICTS.

AECOM

Canada Architects LTD.

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REGISTRATION

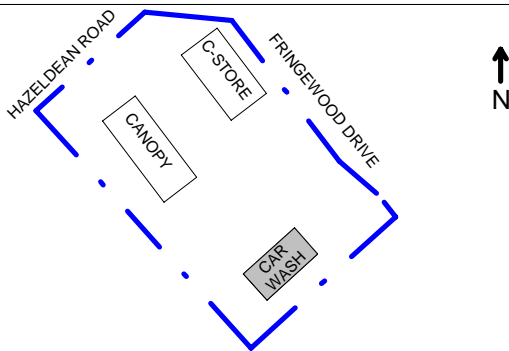
ISSUE/REVISION

IR	DATE	DESCRIPTION
A	2020-03-26	ISSUED FOR SPA

DRAWN BY

GB

KEY PLAN



GLOBAL PROJECT ID NUMBER

CAN01444

SHEET TITLE

**CAR WASH
BUILDING SECTIONS**

AECOM FILE NAME

A301.3-BUS-HZLX

SHEET NUMBER

A301.3

THIS LIGHTING DESIGN MEET THE CRITERIA FOR FULL CUT-OFF CLASSIFICATION AS RECOGNIZED BY IESNA

NOTES:

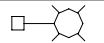
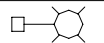
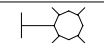
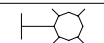
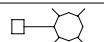

ALL ILLUMINANCE LEVELS ARE IN FOOTCANDLES, MEASURED AT GRADE. (1 FC = 10.76 LUX)

CALCULATIONS HAVE BEEN PERFORMED ACCORDING TO IESNA & CIE STANDARDS AND GOOD PRACTICE. SOME DIFFERENCE BETWEEN MEASURED VALUES AND CALCULATED RESULTS MAY OCCUR DUE TO TOLERANCES IN CALCULATION METHODS, TESTING PROCEDURES, COMPONENT PERFORMANCE, MEASUREMENT TECHNIQUES AND FIELD CONDITIONS SUCH AS VOLTAGE AND TEMPERATURE VARIATIONS. INPUT DATA USED TO GENERATE THE ATTACHED CALCULATIONS SUCH AS DIMENSIONS, REFLECTANCE, AND ARCHITECTURAL ELEMENTS SIGNIFICANTLY AFFECT THE LIGHTING CALCULATIONS. ALL DESIGN INPUTS ARE CURRENT AT THE TIME OF DESIGN. IF THE REAL ENVIRONMENT CONDITIONS DO NOT MATCH THE INPUT DATA, DIFFERENCES WILL OCCUR BETWEEN MEASURED VALUES AND CALCULATED VALUES.

ALL ILLUMINATION LEVELS ARE CALCULATED FROM LIGHTING WITHIN THE SITE. NO LIGHTING FROM OUTSIDE THE SITE HAS BEEN INCLUDED IN THE CALCULATIONS

THE TYPE 992 LUMINAIRES ARE FOR TASK LIGHTING. ALL EXTERIOR LIGHTING IS CONTROLLED BY PHOTOCCELL.

Calculation Summary							
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
C-STORE CANOPY LINK	illuminance	Fc	6.11	21.7	0.8	7.64	27.13
CANOPY CALCULATION POINTS	illuminance	Fc	30.69	36.8	22.4	1.37	1.64
CAR WASH LANE	illuminance	Fc	8.68	11.3	5.9	1.47	1.92
ENTRANCE & EXIT	illuminance	Fc	7.67	22.4	0.4	19.18	56.00
EXIT 2	illuminance	Fc	7.50	10.8	4.2	1.79	2.57
LIGHT SPILL OUTSIDE THE SITE	illuminance	Fc	0.64	2.3	0.0	N.A.	N.A.
SITE CALCULATION POINTS	illuminance	Fc	4.38	29.7	0.0	N.A.	N.A.
TANKER DISCHARGER POSITION	illuminance	Fc	13.62	43.1	3.8	3.58	11.34
VACUUMS & TIRE INFLATOR	illuminance	Fc	5.64	9.6	2.4	2.35	4.00

Luminaire Schedule							
Symbol	Tag	Qty	Height	Manufacturer	Catalogue #	Arrangement	Description
	992	1	7600mm	Cree Inc	OSQ-A-NM-40D-T-57K-UL-WH	SINGLE	40 DEGREE OSQ FLOOD LIGHT
	908	2	7600mm	Cree Inc	OSQ-A-NM-3ME-T-57K-UL-WH (C/W BACKSHIELD)	SINGLE	POLE MOUNTED W/ BLSLF
	904	10	3000mm	GE LIGHTING SOLUTIONS	GE-EWLS01015AF750N1 FMWHT	SINGLE	WALL MOUNTED 3000mm AFF
	903	5	2400mm	GE LIGHTING SOLUTIONS	GE-EWLS01040AF750N1 FMWHT	SINGLE	WALL MOUNTED 2400mm AFF
	900	2	7600mm	Cree Inc	OSQ-A-NM-3ME-T-57K-UL-WH	SINGLE	POLE MOUNTED
	800	8	4500mm	CREE, INC.	CAN-304-SL-RS-06-E-UL-WH-700-PML	SINGLE	CANOPY RECESSED LIGHTING



1 | SITE PHOTOMETRIC PLAN
Scale: 1:200

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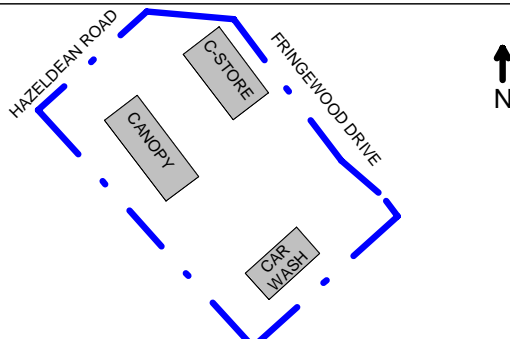
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SHEET TITLE

SITE
SITE PHOTOMETRIC PLAN

AECOM FILE NAME

E101.0-SIP-HZLX

SHEET NUMBER

E101.0