

PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

Headquarters & Wolfe Lake Campgrounds – Phase II HQ Service Bldg.

R.086534.001

ADDENDUM NO. 1

May 23, 2018

The following changes or modifications shall be made to the Tender Documents:

TO THE DRAWINGS

Replace Issued for Tender Drawings A01, A03, A04, M01, M02, and M03 (dated March 09, 2018) with attached Issued for Addendum 1 Drawings A01, A03, A04, M01, M02, and M03 (dated May 23, 2018). Summary of Changes:

1. A01 - Revised access hatches on floor plan.
2. A03 - Revised mechanical louvres on elevations.
3. A04 - Revised shower base detail.
4. M01 - Revised sanitary piping serving lavatory sinks.
5. M01 - Revised water distribution system.
6. M02 - Revised exhaust grilles and ductwork.
7. M02 - Revised locations of exhaust fans EF-1 and EF-2.
8. M02 - Revised water schematic.
9. M03 - Revised Expansion Tank Schedule to delete ET-1 and renumber ET-2

M03 HQ SERVICE BUILDING SCHEDULES

1. Fan Schedule: ADD manufacturer 'Loren Cook' as acceptable alternative.
2. Louver and Grille Schedule: ADD manufacturer 'Nailor Industries Grilles' as acceptable alternative
3. Louver and Grille Schedule: ADD manufacturer 'Ventex Louvers' as acceptable alternative.

A05 HQ SERVICE BUILDING SCHEDULES & SECTIONS

1. DELETE note on window types detail stating "interior insect screen on casement window" and REPLACE WITH "interior insect screen on awning window".

E01 ELECTRICAL HQ SERVICE BUILDING SITE PLAN & FLOOR PLANS

1. Revise location of EF1, EF2 and associated local disconnects as per relocations on M02.

TO THE SPECIFICATIONS

SECTION 07 46 23 WOOD SIDING

1. Part 2 Products, DELETE section 2.1 Materials in its entirety and REPLACE WITH the following:
 1. Clapboard Siding: Eastern Spruce, No.1 select or better grade, factory finished, saw texture, bevel profile, cove or V-joint pattern, free of large knots, knot holes, or loose knots: maximum moisture content of 12 percent. Size: 12 mm thickness, 150 mm wide 112 mm actual coverage.
 2. Moldings and trim: Eastern spruce, No. 1 select or better grade, factory finished same as siding.
 3. Strapping: Softwood lumber, kiln dried treated with brush applied wood preservative.
 4. Nails: Mechanically galvanized, to securely and rigidly retain the work permanently in position, pre-finished baked on coating to match siding finish. Nails 64 mm long for siding and 83 mm long for trims.
 5. Exterior Sheathing Membrane: CAN/CGSB 51.32-M, Spun bonded olefin sheeting, conforming to ASTM D3575, single ply laminated and coated.
 6. Sealant: Thermoplastic type, color to exactly match siding.
 7. Concealed Flashings: 24ga – 0.4mm thick galvanized steel.

SECTION 07 61 00 STEEL ROOFING

1. Part 2 Products
 1. REVISE 2.1.1 to read: Prefinished steel roofing: factory-formed, lappable, exposed fastener steel roofing system, nominal core thickness of 28 ga, Z275 galvanized sheet steel conforming to ASTM A653M, prefinished to CSSBI 40.7, Series 8000 finish, profile and color to **match nearby existing Salt and Fir building at end of Fundy Park Chalet Rd.**

DELETE SECTION 08 51 13 ALUMINUM WINDOWS

ADD SECTION 08 54 13 FIBREGLASS WINDOWS (attached)

ADD SECTION 08 71 13 POWER DOOR OPERATOR (attached)

SECTION 10 22 00 METAL PARTITIONS

1. Part 1 General
 1. ADD the following to the end of 1.4.2: Include structural reinforcing requirements.

SECTION 22 05 00 COMMON WORK RESULTS FOR PLUMBING

1. Part 2 Products
 1. REVISE 2.1.1 to read: Type 304 Stainless steel, flush mounted, door and frame fully welded and gasketed, **nominal size to be 300x300, continuous stainless steel piano hinge.**
 2. ADD item 2.1.4: Lockable: complete with lock cylinder and keyed to match all other access hatches on this project.

SECTION 22 30 05 DOMESTIC WATER HEATERS

1. Part 2 Products
 1. 2.1.1: DELETE "gas-fired" REPLACE WITH "propane fired".
 2. 2.1.3: DELETE "natural gas" REPLACE WITH "propane".

SECTION 23 05 00 COMMON WORK RESULTS FOR HVAC

1. Part 2 Products
 1. ADD item: 2.2 Access Hatches:
 - 2.2.1 Type 304 Stainless steel, flush mounted, door and frame fully welded and gasketed, nominal size to be 550x550, continuous stainless steel piano hinge.
 - 2.2.2 Watertight: no leakage at 15.05 psf to ASTM E 331.
 - 2.2.3 Air tight: no leakage at 15.05 psf – ASTM E 331.
 - 2.2.4 Lockable: complete with lock cylinder and keyed to match all other access hatches on this project.

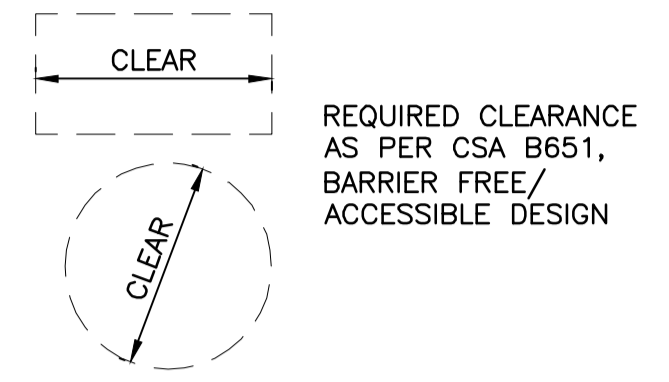
SECTION 23 05 53.01 MECHANICAL IDENTIFICATION

1. Part 2 Products
 1. ADD the following line to table 2.5.6.3: Non-potable water; Green; NON-POTABLE WATER.

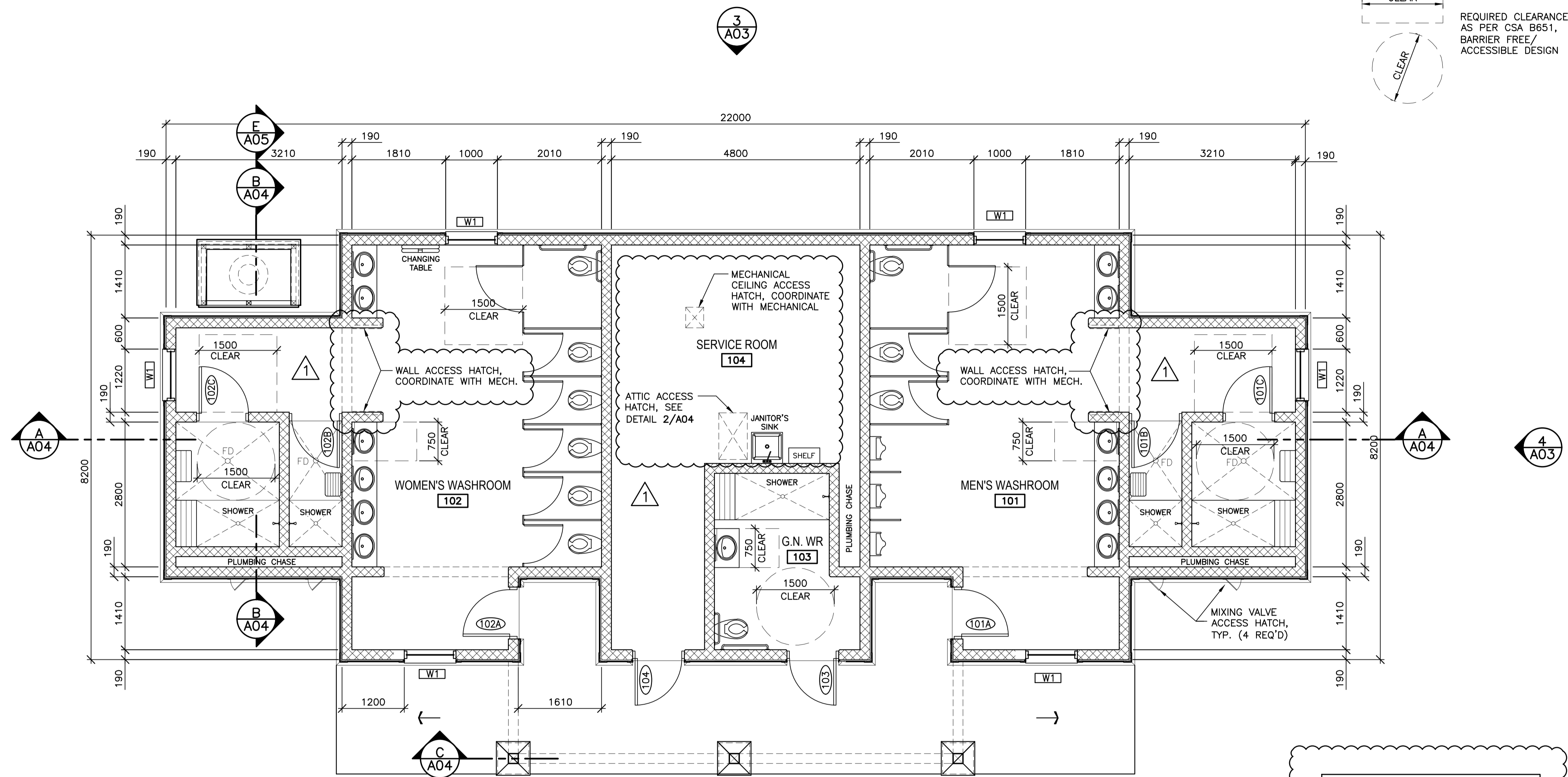
SECTION 23 34 00 HVAC FANS

1. Part 1 General
 1. DELETE 1.1.1.2
 2. DELETE 1.6.1.1.1
2. Part 2 Products
 1. ADD item 2.2 Access Hatch: Access hatch to be as per Section 23 05 00 Common Work Results for HVAC.
3. Part 3 Execution
 1. ADD item 3.2.4: Access hatch to be installed in ceiling to easily access fan installation. Hatch to be located in accessible area.

CBCL Limited
May 23, 2018



REQUIRED CLEARANCE AS PER CSA B651, BARRIER FREE/ACCESSIBLE DESIGN



NOTE:
ALL MECHANICAL ACCESS OPENINGS TO BE COORDINATED WITH MECHANICAL

FLOOR PLAN

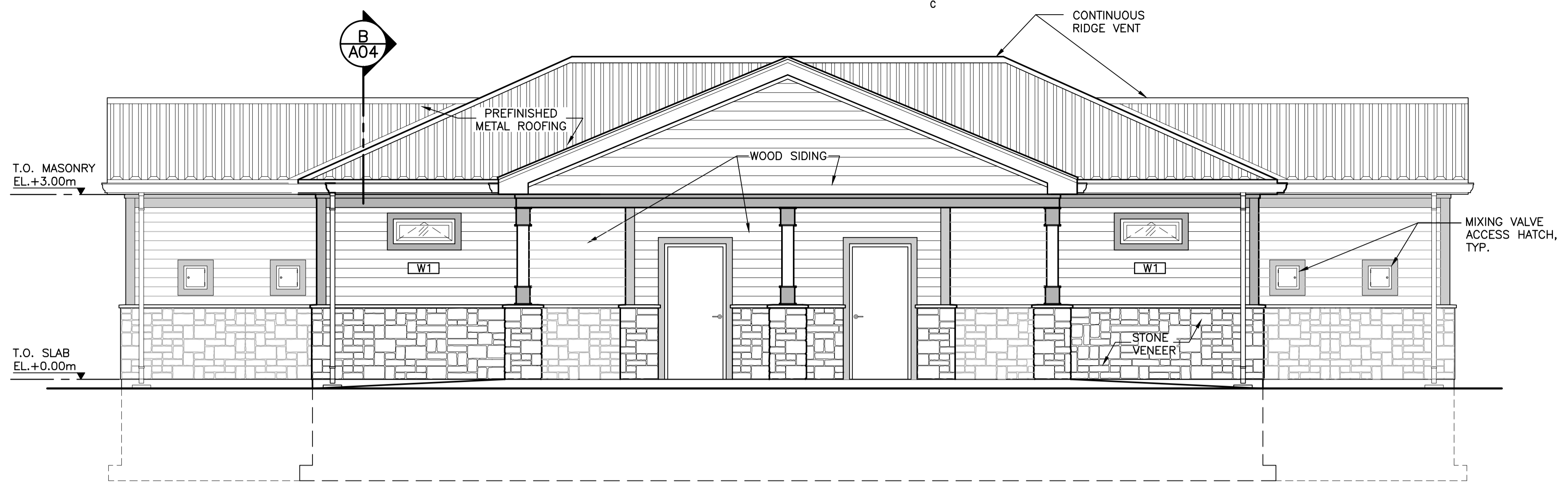


1	ISSUED FOR ADDENDUM #1	MAY 23 2018
0	ISSUED FOR TENDER	MAR 09 2018
B	ISSUED FOR 99% REVIEW	JUN 23 2017
A	ISSUED FOR 66% REVIEW	MAY 25 2017
revisions		date

project / projet
FUNDY NATIONAL PARK HEADQUARTERS & WOLFE LAKE CAMPGROUNDS
PHASE II

drawing / dessin
ARCHITECTURAL
HQ SERVICE BUILDING FLOOR PLAN

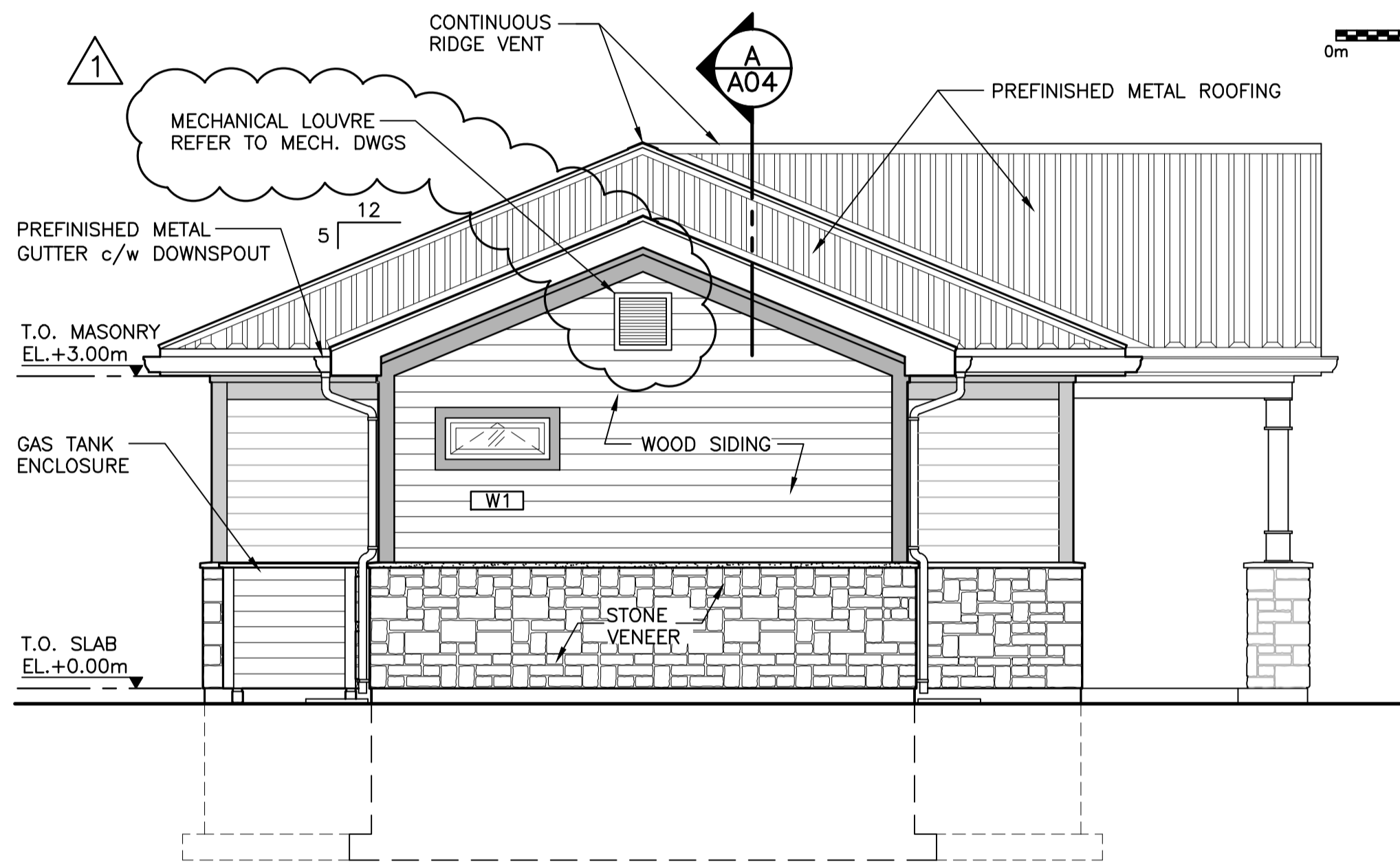
designed / conçu	MRH
date	MAY 2017
drawn / dessiné	JVP
date	MAY 2017
approved / approuvé	
date	
Tender / Soumission	
PWGSC Project Manager / Administrateur de projets TPSGC	
project number / no. du projet	R.086534.001
drawing no. / no. du dessin	A01



FRONT ELEVATION

SCALE: 1:50
0m 1m 2m 3m 4m 5m

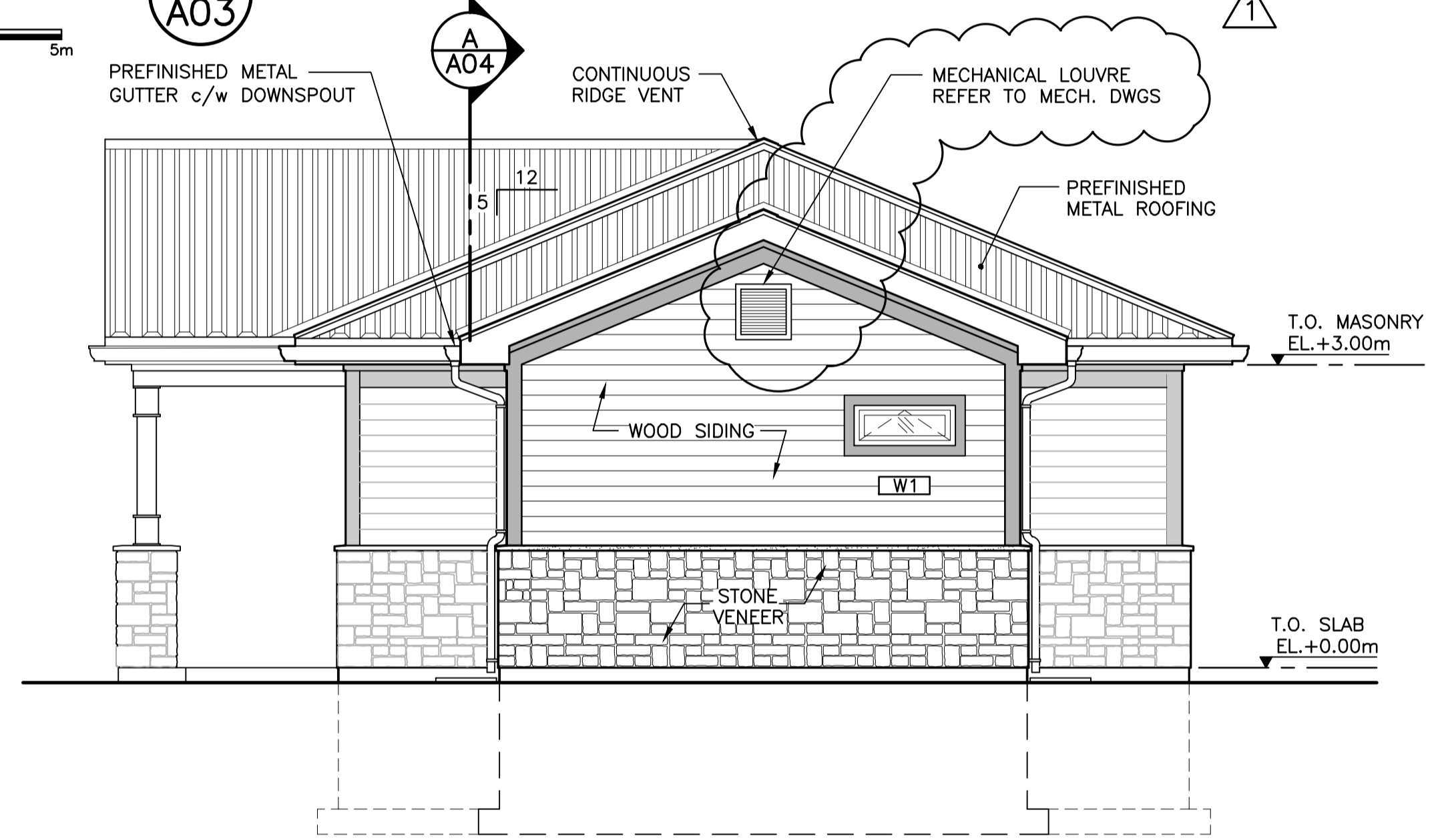
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A03



LEFT ELEVATION

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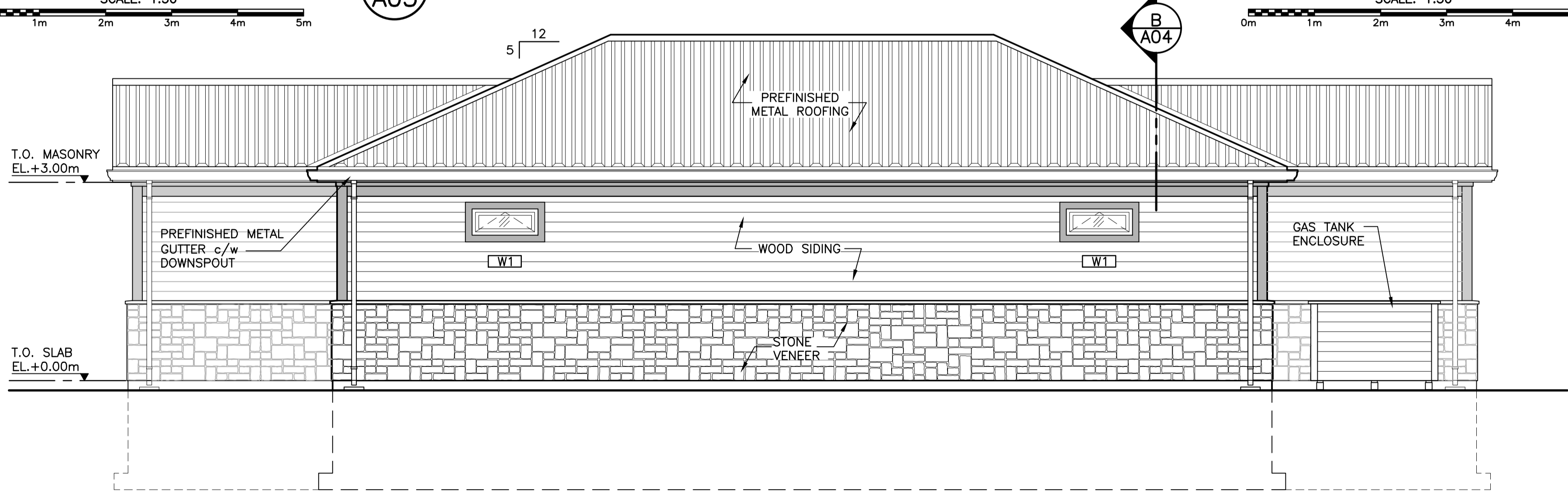
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A03



RIGHT ELEVATION

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4
A03



BACK ELEVATION

SCALE: 1:50
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3
A03



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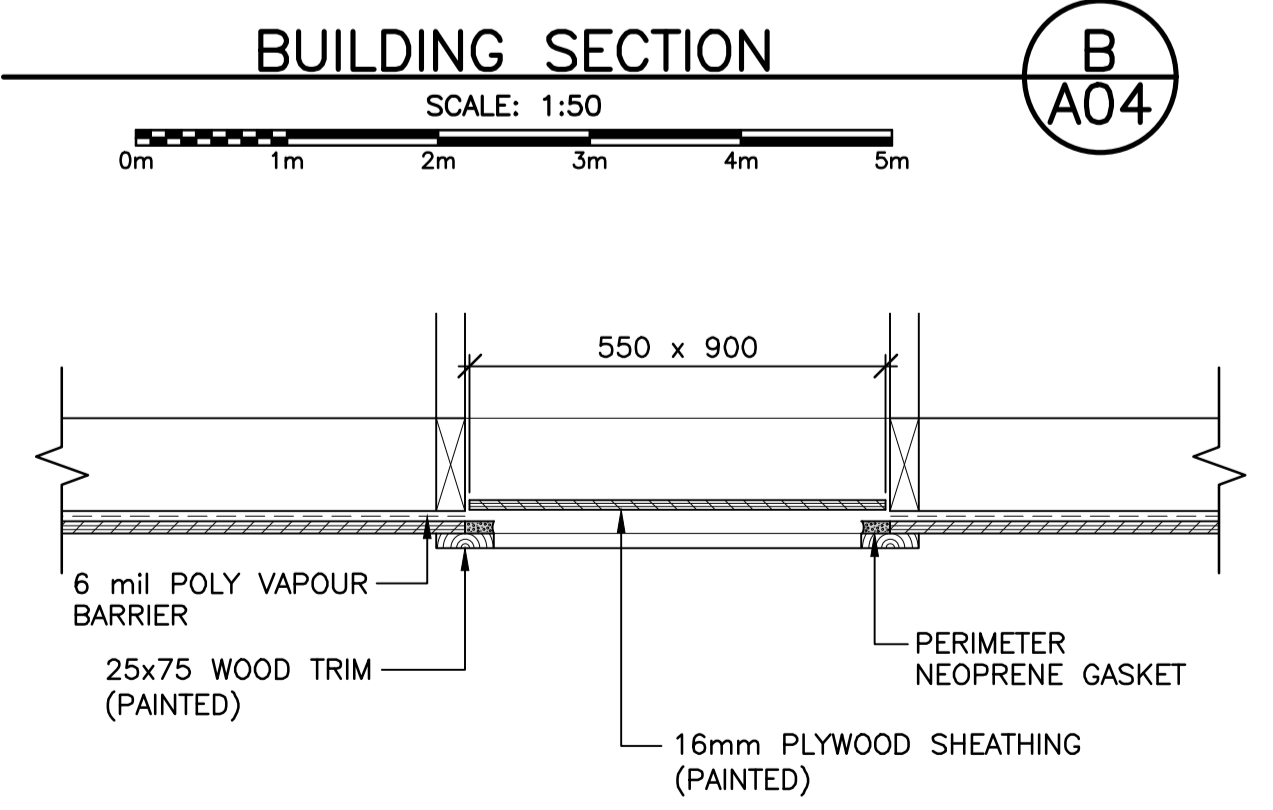
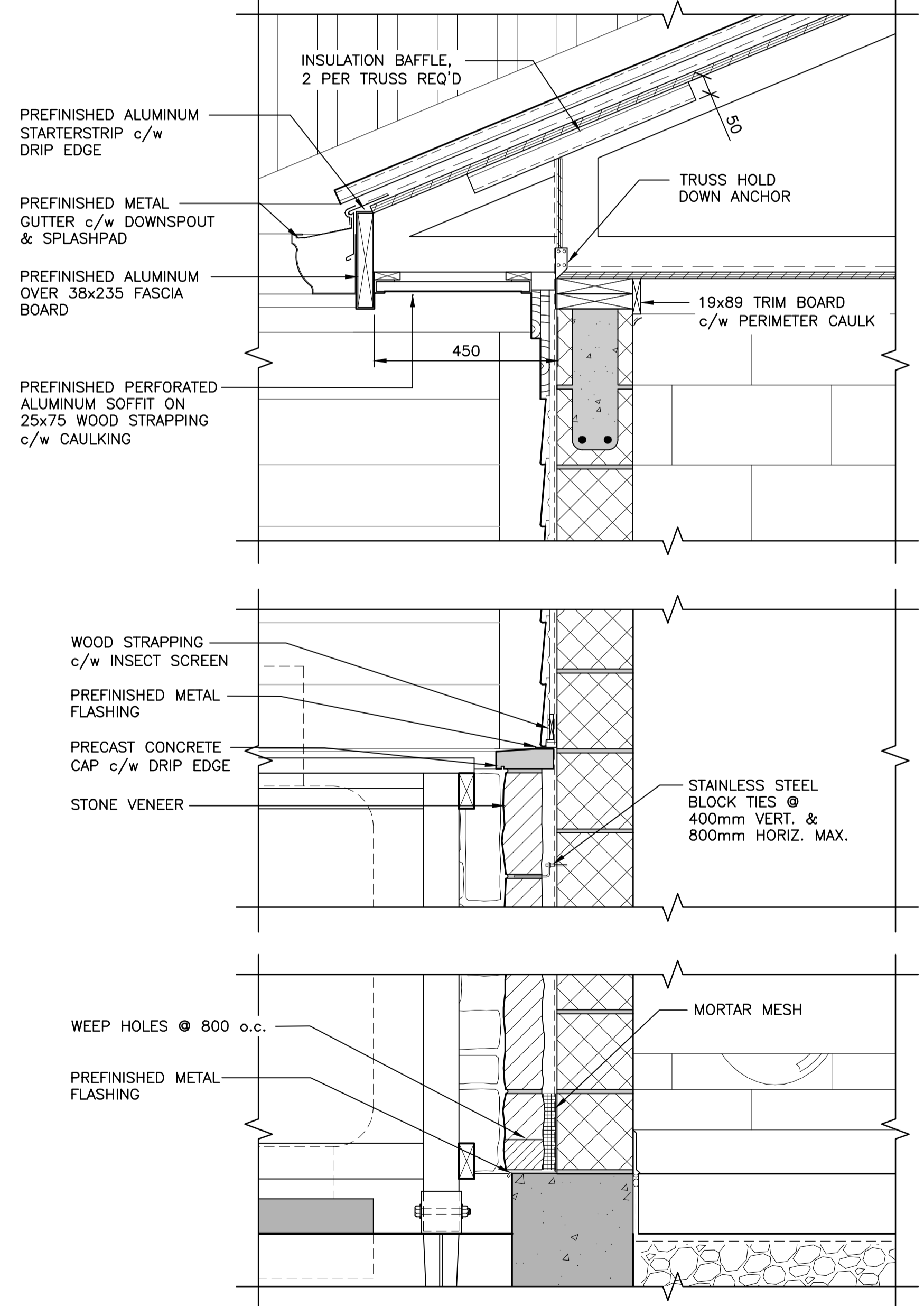
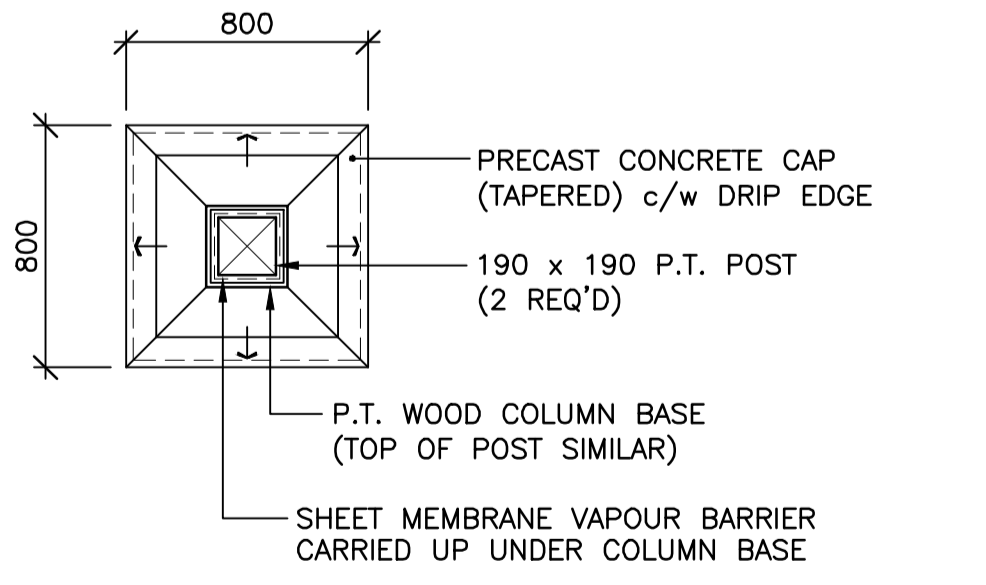
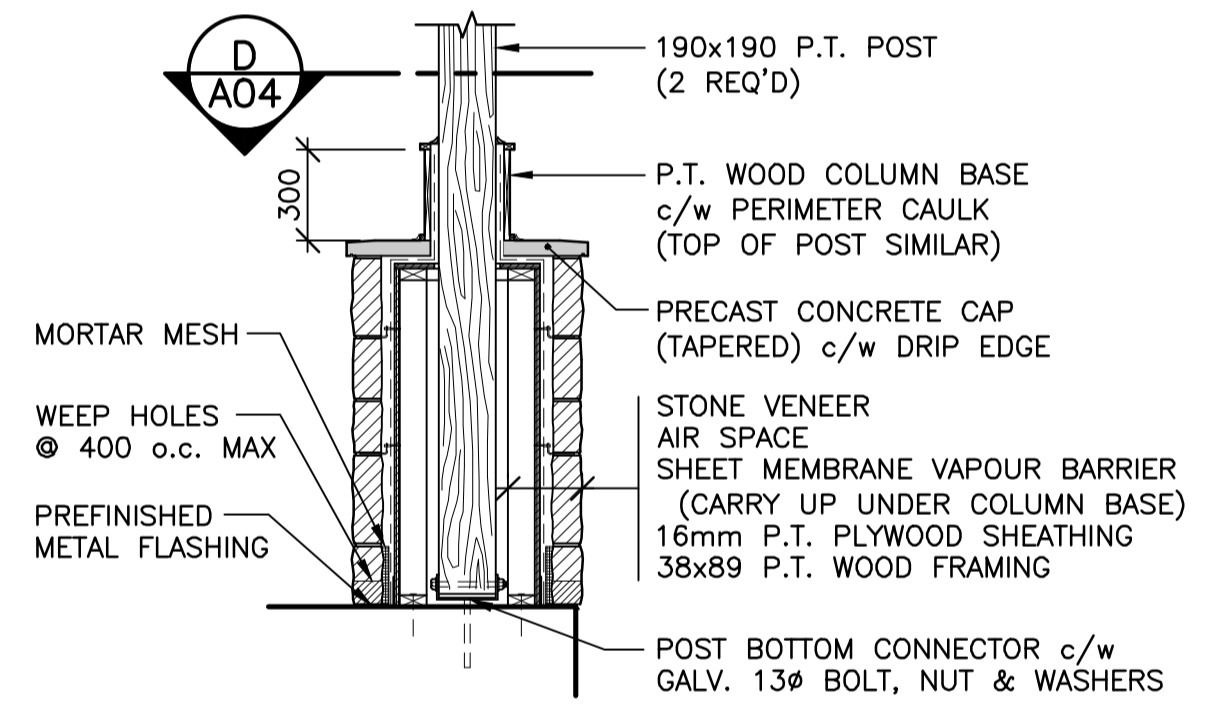
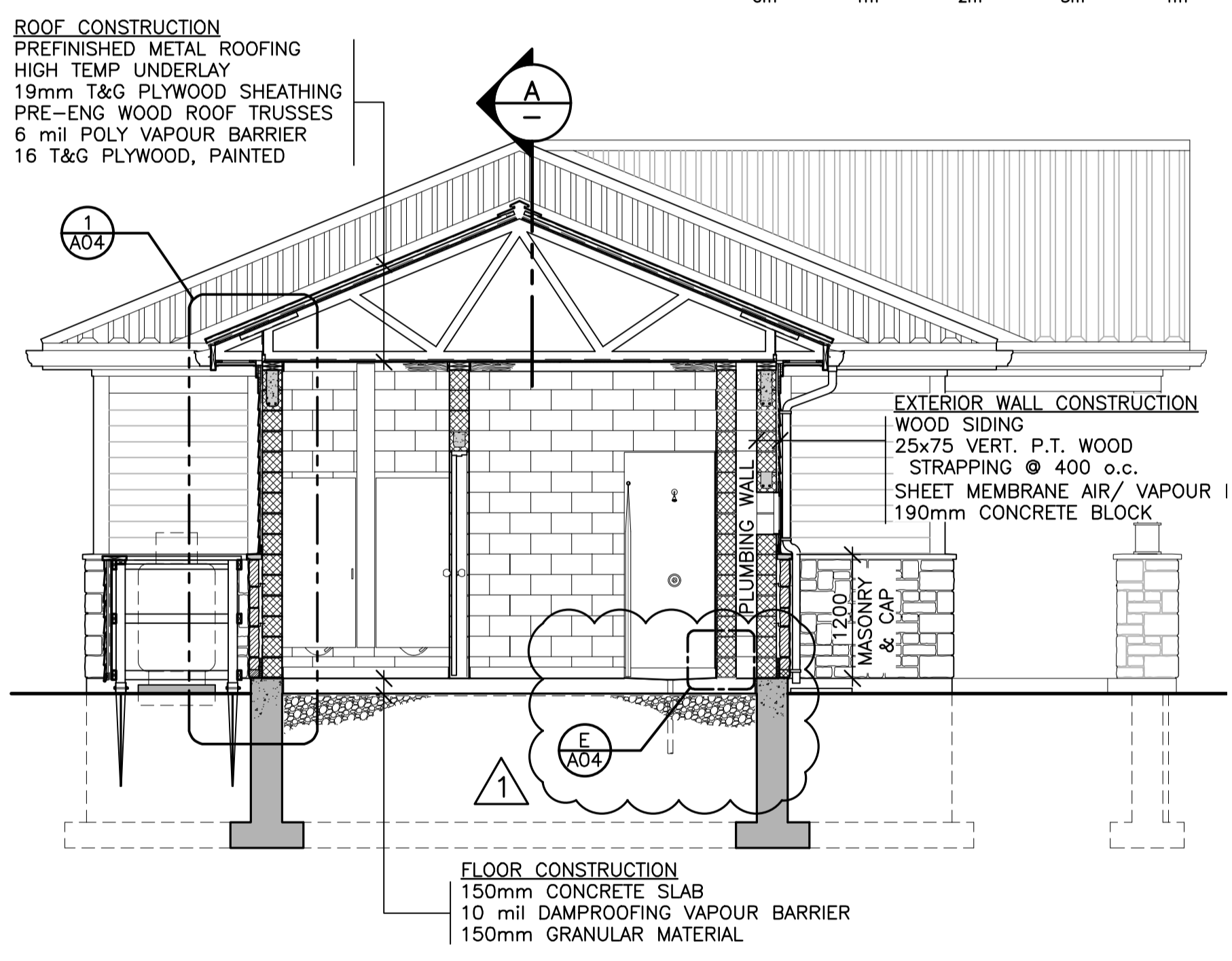
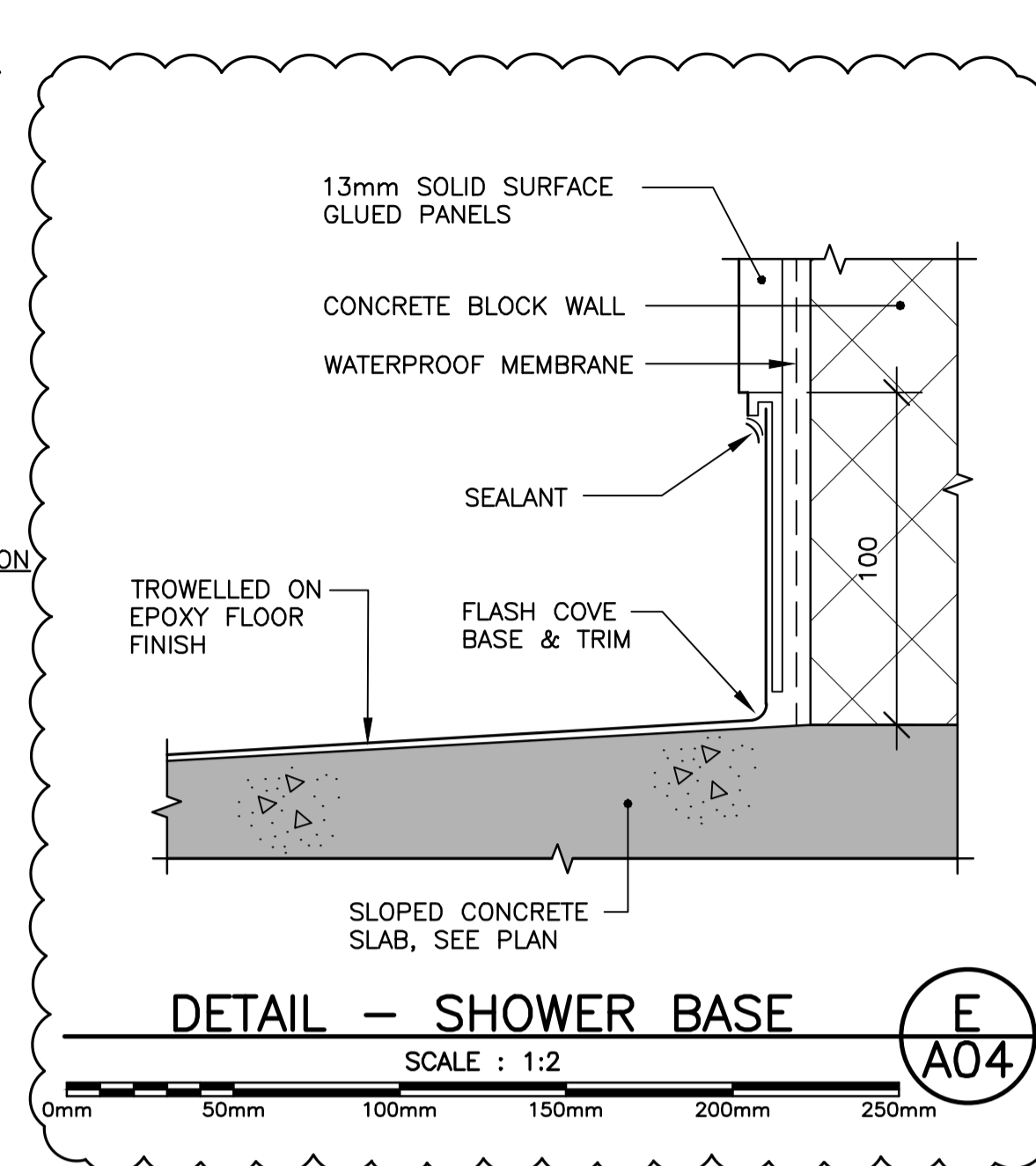
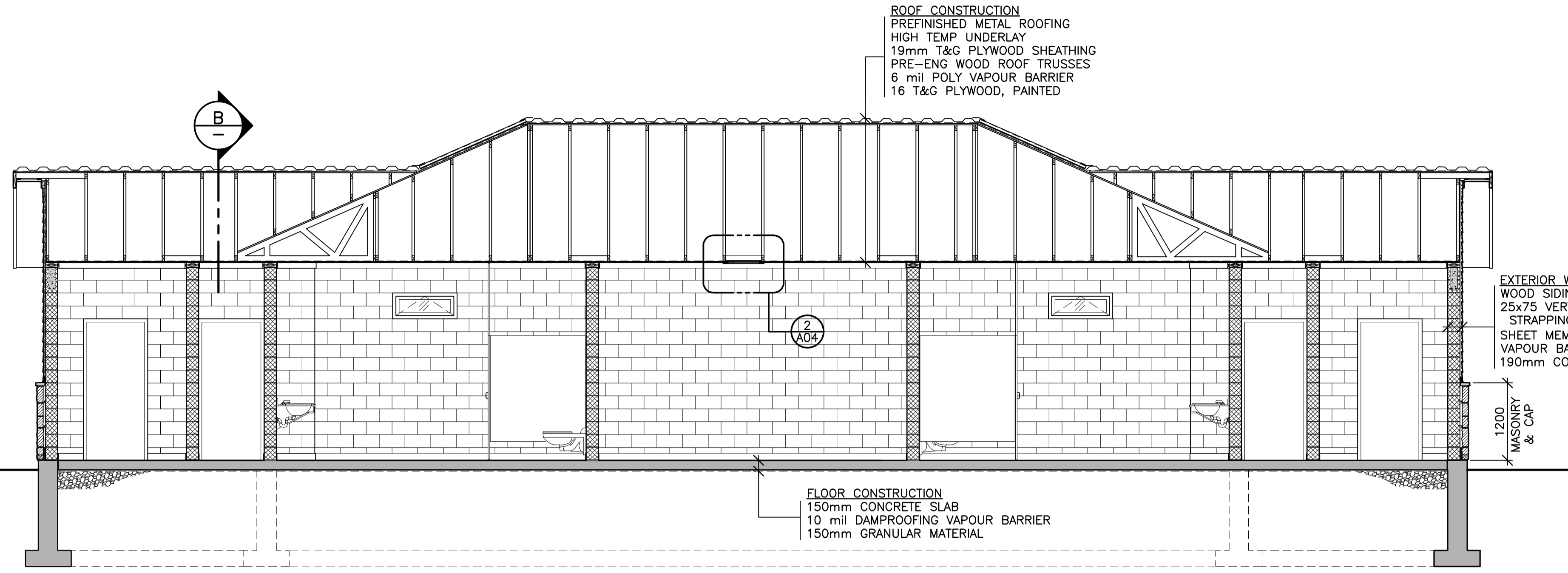
FUNDY NATIONAL PARK HEADQUARTERS & WOLFE LAKE CAMPGROUNDS
PHASE II

ARCHITECTURAL
HQ SERVICE BUILDING EXTERIOR ELEVATIONS

designed	MRH	conçu
date	MAY 2017	
drawn	JVP	dessiné
date	MAY 2017	
approved		approuvé
date		
Tender		Soumission

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R.086534.001

drawing no. / no. du dessin
A03



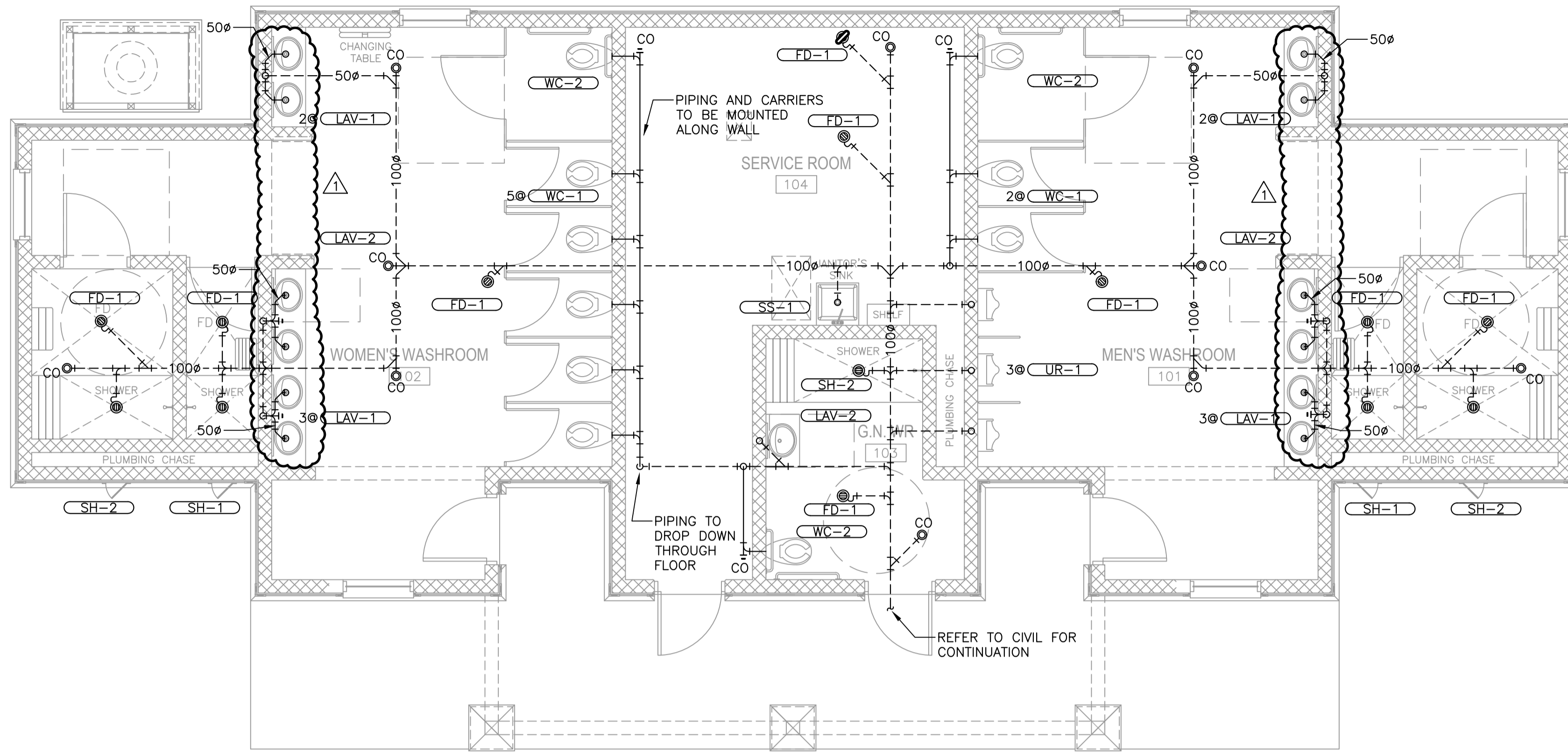
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revisions		date

project: **FUNDY NATIONAL PARK HEADQUARTERS & WOLFE LAKE CAMPGROUNDS PHASE II**

drawing: **ARCHITECTURAL HQ SERVICE BUILDING BUILDING SECTIONS & DETAILS**

designed: MRH
 date: MAY 2017
 drawn: JVP
 date: MAY 2017
 approved: [Signature]
 date: [Blank]
 Tender: [Blank]

PWGSC Project Manager / Administrateur de projets TPSGC
 project number: **R.086534.001**
 drawing no.: **A04**



1 FLOOR PLAN - SANITARY
SCALE : 1:50

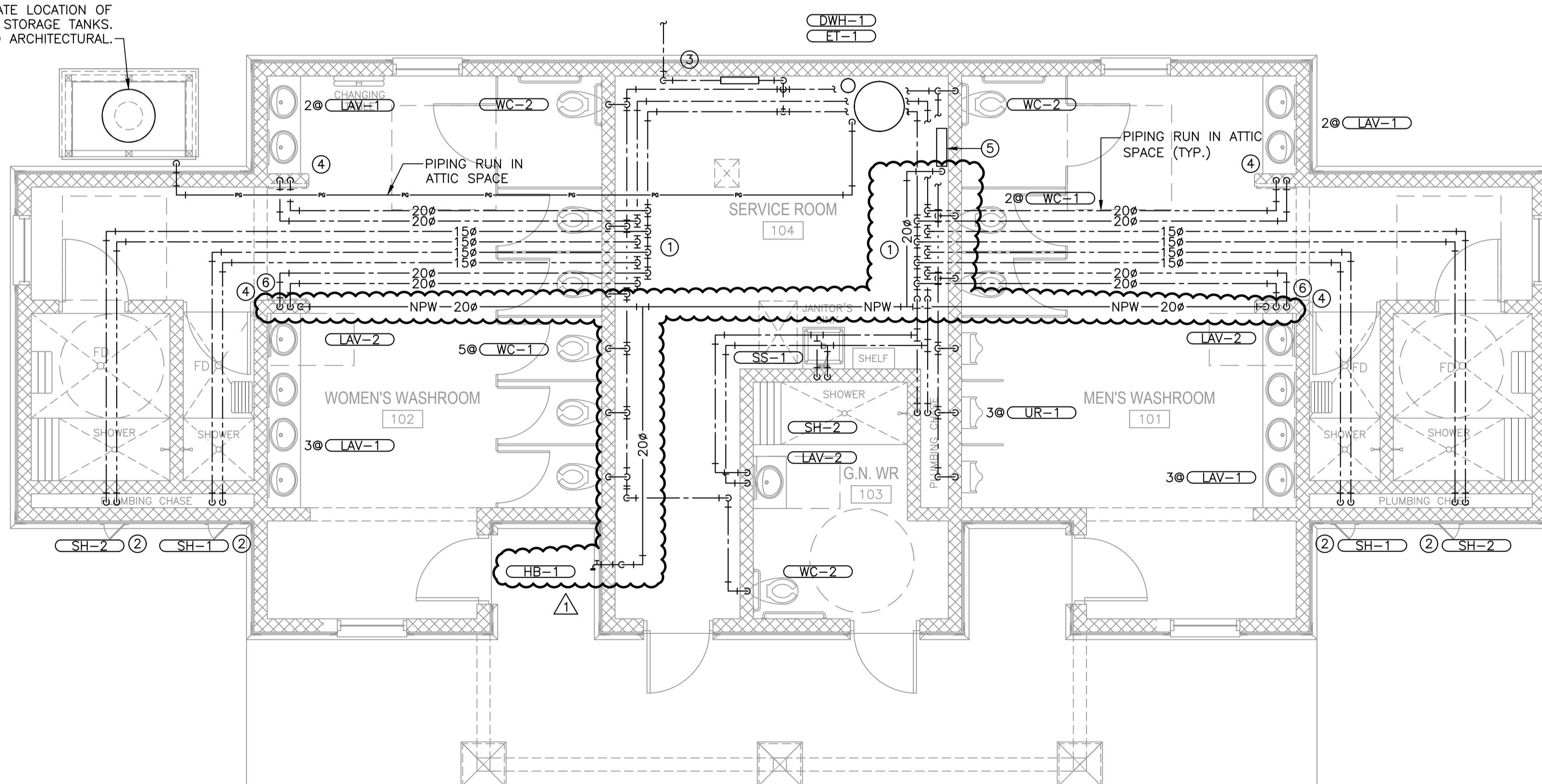
SYMBOL LEGEND

—DCW—	DOMESTIC COLD WATER
—DHW—	DOMESTIC HOT WATER
—PG—	PROPANE GAS
—SAN—	SANITARY ABOVE GRADE
—SAN—	SANITARY BELOW GRADE
—V—	SANITARY VENT
—NPW—	NON-POTABLE WATER
∪	UNION
∪	END OF LINE CLEANOUT
∪	PIPE CLEANOUT TO GRADE
∪	FUNNEL FLOOR DRAIN
∪	FLOOR DRAIN
∪	PIPE DROP
∪	PIPE RISE
∪	PIPE TEE DOWN
∪	PIPE TEE UP
∪	ISOLATION VALVE
∪	20MMØ DRAIN VALVE C/W CHAIN AND CAP
∪	CAP
∪	TEMPERATURE/PRESSURE RELIEF VALVE
∪	PRESSURE SWITCH
∪	THERMOMETER
∪	PRESSURE GAUGE
XX-X	EQUIPMENT/FIXTURE TYPE
⊗	KEYNOTE
△	DRAWING REVISION
SK	SINK
DWH	DOMESTIC WATER HEATER
NTS	NOT TO SCALE

- GENERAL NOTES:**
- INSTALL PLUMBING IN ACCORDANCE WITH THE NATIONAL PLUMBING CODE.
 - ALL TRAPS TO BE REMOVABLE AND COMPLETE WITH CLEANOUT.
 - PROVIDE TRAP PRIMER CONNECTIONS TO ALL FD-1 FLOOR DRAINS.
 - ALL ISOLATION AND DRAIN VALVES TO BE C/W BRASS TAGS AS PER SPECIFICATIONS.

- KEYNOTES:**
- PIPING TO RISE UP TO ATTIC SPACE.
 - PIPING TO DROP DOWN SERVICE SPACE TO SERVE SHOWER MIXING VALVES. MIXING VALVES TO BE ACCESSIBLE THROUGH ACCESS HATCH AS PER SPECIFICATIONS.
 - DOUBLE CHECK VALVE ASSEMBLY TO BE INSTALLED 900mm AFF AND AS PER CSA B64. MAINTAIN 750mm MINIMUM SERVICE CLEARANCE IN FRONT OF ASSEMBLY.
 - PIPING TO DROP DOWN BLOCK WALL AND RUN BELOW COUNTERTOP. SLOPE PIPING TO LOW POINT AND PROVIDE DRAIN VALVES. DRAIN VALVES TO BE ACCESSIBLE THROUGH ACCESS HATCHES AS PER SPECIFICATIONS.
 - SURFACE MOUNT TRAP PRIMER TO BE PPP MODEL PTS-10 C/W 20mmØ DOUBLE CHECK VALVE ASSEMBLY.
 - 20Ø NPW TO DROP DOWN BLOCK WALL TO DRAIN VALVE. DRAIN VALVE TO BE ACCESSIBLE THROUGH ACCESS HATCH AS PER SPECIFICATIONS.

APPROXIMATE LOCATION OF PROPANE STORAGE TANKS. REFER TO ARCHITECTURAL.



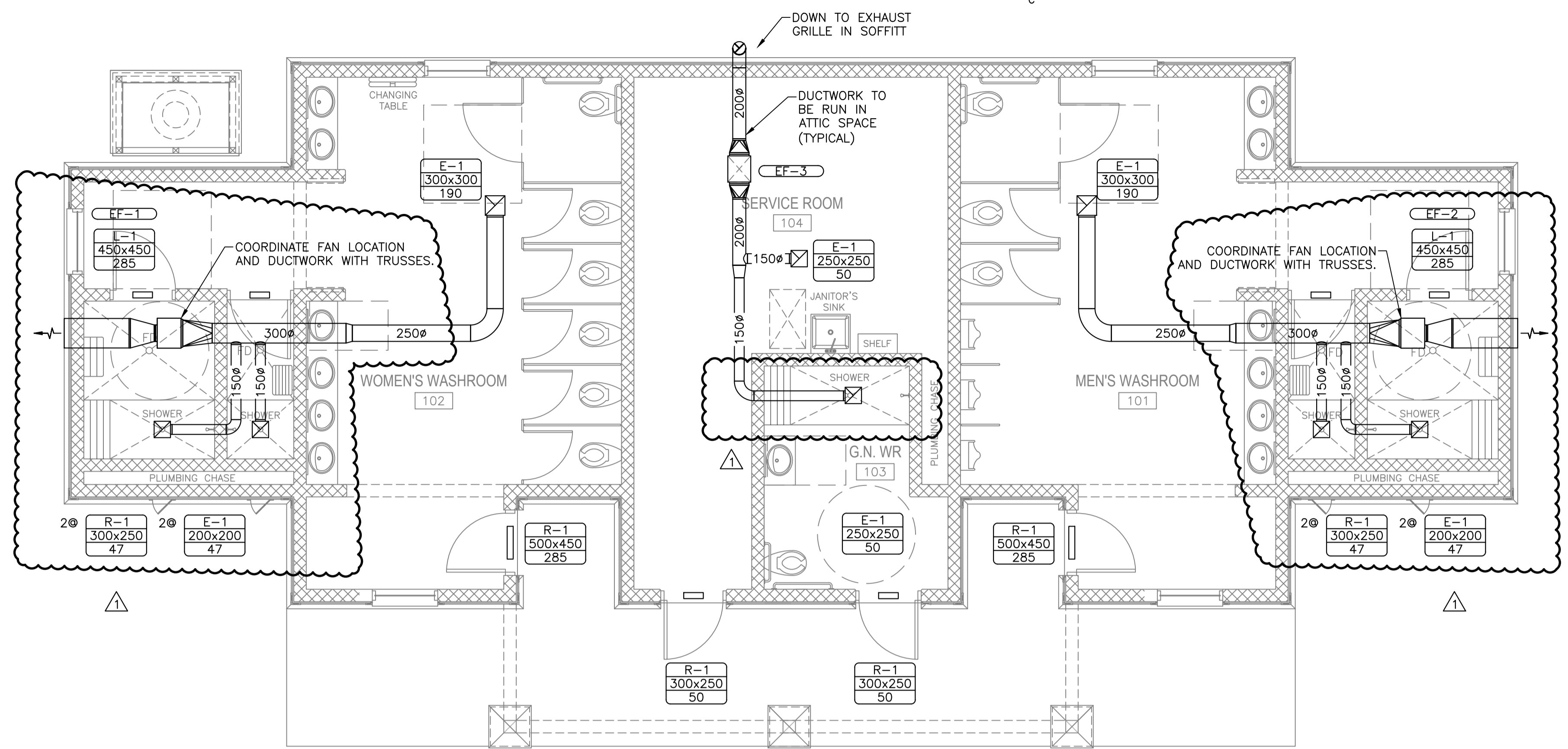
2 FLOOR PLAN - WATER

1	ISSUED FOR ADDENDUM 1	MAY 23 2018
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revisions		date

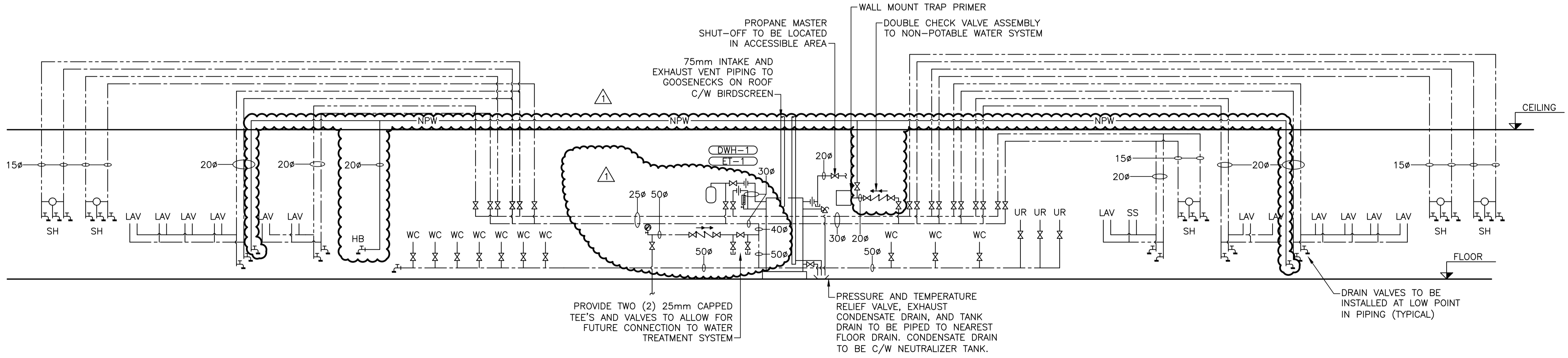
project project
FUNDY NATIONAL PARK HEADQUARTERS & WOLFE LAKE CAMPGROUNDS
PHASE II

drawing dessin
MECHANICAL
HQ SERVICE BUILDING
SANITARY & WATER
FLOOR PLANS

designed	P. Arseneault	conçu
date	MAY 2017	
drawn	K. Trentowsky	dessiné
date	MAY 2017	
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date		
Tender		Soumission
PWGC Project Manager	Administrateur de projets TPSGC	
project number	no. du projet	
	R.086534.001	
drawing no.	no. du dessin	
	M01	



1 FLOOR PLAN - HVAC



2 SCHEMATIC - WATER

SCALE : 1:50
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revisions		date

project
FUNDY NATIONAL PARK HEADQUARTERS & WOLFE LAKE CAMPGROUNDS
PHASE II

drawing
MECHANICAL
HQ SERVICE BUILDING HVAC FLOOR PLAN & WATER SCHEMATIC

designed	P. Arseneault	conçu
date	MAY 2017	
drawn	K. Trentowsky	dessiné
date	MAY 2017	
approved		approuvé
date		
Tender		Soumission

PWGSC Project Manager / Administrateur de projets TPSGC
project number / no. du projet
R.086534.001

drawing no. / no. du dessin
M02



PLUMBING FIXTURE SCHEDULE

TAG	DESCRIPTION	MATERIAL	ACCESSORIES	DCW	DHW	SAN
WC-1	ELONGATED, WALL HUNG TOILET AMERICAN STANDARD MODEL 3351.101.020	VITREOUS CHINA	C/W 6LPP (1.6 GPF) MANUAL FLUSH VALVE (SLOAN MODEL 111-1.6-XL-CP); HEAVY DUTY ELONGATED OPEN FRONT TOILET SEAT (AMERICAN STANDARD MODEL 5901.110.020); AND HORIZONTAL COATED CAST IRON CARRIER WASTE FITTING SUITABLE FOR WALL THICKNESS (JAY R. SMITH MODEL 0210)	25	-	75
WC-2	BARRIER FREE ELONGATED, WALL HUNG TOILET AMERICAN STANDARD MODEL 3351.101.020	VITREOUS CHINA	C/W 6LPP (1.6 GPF) MANUAL FLUSH VALVE (SLOAN MODEL 111-1.6-XL-CP); HEAVY DUTY ELONGATED OPEN FRONT TOILET SEAT (AMERICAN STANDARD MODEL 5901.110.020); AND HORIZONTAL COATED CAST IRON CARRIER WASTE FITTING SUITABLE FOR WALL THICKNESS (JAY R. SMITH MODEL 0210)	25	-	75
LAV-1	COUNTERTOP LAVATORY AMERICAN STANDARD MODEL 9494.001	VITREOUS CHINA	C/W VANDAL RESISTANT METERING FAUCET, 1.9L/MIN (0.5 GPM) OUTLET, 100mm (4") CAST CENTERSET, COLOR INDEXED HOT/COLD PUSH BUTTONS, ADJUSTABLE FLOW CYCLE, CHROME PLATED SUPPLY AND TRAP, OPEN GRID DRAIN CHICAGO FAUCET MODEL 802-VE2805-665ABCP	15	15	30
LAV-2	BARRIER FREE, COUNTERTOP LAVATORY AMERICAN STANDARD MODEL 9494.001	VITREOUS CHINA	C/W VANDAL RESISTANT METERING FAUCET, 1.9L/MIN (0.5 GPM) OUTLET, 100mm (4") CAST CENTERSET, COLOR INDEXED HOT/COLD PUSH BUTTONS, ADJUSTABLE FLOW CYCLE, CHROME PLATED SUPPLY AND TRAP, OPEN GRID DRAIN CHICAGO FAUCET MODEL 802-VE2805-665ABCP	15	15	30
UR-1	WALL HUNG TOP SPUD URINAL AMERICAN STANDARD MODEL 6590.001	VITREOUS CHINA	C/W 3.8LPP (1.0 GPF) MANUAL FLUSH VALVE SLOAN MODEL 186-1.0-XL	20	-	50
SH-1	VANDAL RESISTANT SHOWER ACORN MODEL SV16-CSH25	CHROME FINISH	C/W PRESSURE BALANCING MIXING VALVE, TEMPERATURE ONLY CONTROL, VANDAL RESISTANT, TRI-LEVER LIGATURE RESISTANT HANDLE, HOT/COLD COLOR INDEX ON ESCUTCHEON, AND CHROME FINISH. 9.5L/MIN (2.5 GPM) CONICAL LIGATURE RESISTANT SHOWERHEAD C/W CHROME FINISH. SHOWER DRAIN TO BE FD-1.	15	15	75
SH-2	BARRIER FREE VANDAL RESISTANT SHOWER ACORN MODEL SV16-HHC25-HSH-GR30-HHSE	CHROME FINISH	C/W PRESSURE BALANCING MIXING VALVE, TEMPERATURE ONLY CONTROL, VANDAL RESISTANT, TRI-LEVER LIGATURE RESISTANT HANDLE, HOT/COLD COLOR INDEX ON ESCUTCHEON, AND CHROME FINISH. 9.5L/MIN (2.5 GPM) CHROME FINISH HANDHELD SHOWER C/W 1500mm (60") S.S. HANDHELD SHOWER HOSE, 750mm (30") GLIDE RAIL, AND HANDHELD SUPPLY ELBOW. SHOWER DRAIN TO BE FD-1.	15	15	75
SS-1	FLOOR MOUNTED MOP SERVICE SINK FIAT MSB 2424	MOLDED STONE	600mm x 600mm x 250mm (24"x24"x10") SINGLE BASIN C/W STAINLESS STEEL DRAIN FAUCET TO BE WALL MOUNTED SERVICE SINK FAUCET C/W HEAVY DUTY CAST BRASS BODY, 200mm (8") CENTERS, CHROME FINISH, 1/4 TURN CERAMIC DISC CARTRIDGES, COLOR INDEXED LEVER BLADE HANDLES, INTEGRAL VACUUM BREAKER, THREADED HOSE CONNECTION, AND PALE HOOK. CHICAGO FAUCET MODEL 445-897SRCKKCP	15	15	75
HB-1	FLUSH MOUNTED ENCASED WALL HYDRANT JAY R. SMITH MODEL 5509QT	-	C/W AUTOMATIC DRAIN, ANTI-SIPHON, CERAMIC DISC CARTRIDGE, INTEGRAL BACKFLOW PREVENTER, AND LOCKABLE COVER.	20	-	-
FD-1	ADJUSTABLE FLOOR DRAIN W/ ROUND STRAINER WATTS MODEL FD-200 SERIES	EPOXY COATED CAST IRON	C/W 127mm (5") STAINLESS STEEL STRAINER, AND CORROSION RESISTANT STAINLESS STEEL SCREWS. PROVIDE FUNNEL AS SHOWN ON FLOOR PLAN.	-	-	100

FAN SCHEDULE

TAG	BUILDING	SERVICE	MFR	MODEL	TYPE	FLOW (L/S)	E.S.P. (PA)	FAN SPEED (RPM)	ELECTRICAL			REMARKS
									FLA	V/φ	SPEED CONTROL	
EF-1	HEADQUARTERS	WOMEN'S W.R. EXHAUST	GREENHECK	CSP-A710-VG	INLINE CABINET FAN	285	75	-	4.4	115/1	REMOTE SPEED DIAL INSTALLED IN SERVICE ROOM NEAR SWITCH	DIRECT DRIVE CABINET FAN C/W GALVANIZED STEEL HOUSING WITH DUCT COLLARS, FACTORY DISCONNECT, STAINLESS STEEL BIRD SCREEN ON OUTLET, AND GRAVITY BACKDRAFT DAMPER. EACH FAN TO BE ENERGIZED INDIVIDUALLY BY WALL MOUNTED SWITCH LOCATED IN SERVICE ROOM. EACH SWITCH TO BE C/W LAMACOID LABEL STATING SERVICE AS INDICATED ON THIS SCHEDULE. ACCEPTABLE MANUFACTURERS: GREENHECK, ACME MFG. & ENG. CO. PENNBARRY, TWIN CITY, LOREN COOK, SOLER & PALAU, CANARM/DELHI
EF-2		MEN'S W.R. EXHAUST										
EF-3		SERVICE ROOM/G.N. W.R.		CSP-A290	INLINE CABINET FAN	113	99	1,050	0.7	115/1	REMOTE SPEED DIAL INSTALLED IN SERVICE ROOM NEAR SWITCH	

LOUVER & GRILLE SCHEDULE

TAG	MFR/MODEL	TYPE	SIZE (mm)	CAPACITY (L/s)	REMARKS
L-1	AIROLITE K6774	LOUVER	AS SHOWN	AS SHOWN	
E-1	EH PRICE/96/L/A	SINGLE DEFLECTION	AS SHOWN	AS SHOWN	HEAVY DUTY ALUMINUM GRILLE C/W 19mm BLADE SPACING, ANODIZED ALUMINUM FINISH, AND INTEGRAL BALANCING DAMPER.
R-1	EH PRICE/ATGH/BF	DOOR GRILLE	AS SHOWN	AS SHOWN	HEAVY DUTY ALUMINUM DOOR GRILLE C/W DOUBLE FLANGE FRAME ASSEMBLY

EXPANSION TANK SCHEDULE

TAG	SYSTEM	MFR.	MODEL	TANK VOLUME (L)	MIN. OR INTIAL FILL PRESSURE (kPa)	MAX DESIGN PRESSURE (kPa)	REMARKS
ET-1	DOMESTIC HOT WATER	AMTROL	ST-5	7.6	275	550	

DOMESTIC WATER HEATER SCHEDULE

TAG	MFR.	MODEL	TANK VOL (L)	FUEL	INPUT (KW/HR)	WATER SUPPLY		DESCRIPTION
						INLET (mm)	OUTLET (mm)	
DWH-1	BRADFORD WHITE	EF-60T-199E-3N	227	PROPANE	58.6	40	40	

1	ISSUED FOR ADDENDUM 1	MAY 23 2018
0	ISSUED FOR TENDER	MAR 09 2018
revisions		date

project _____ projet _____

FUNDY NATIONAL PARK HEADQUARTERS & WOLFE LAKE CAMPGROUNDS PHASE II

drawing _____ dessin _____

MECHANICAL HQ SERVICE BUILDING SCHEDULES

designed P. Arseneault conçu _____

date MAY 2017

drawn K. Trentowsky dessiné _____

date MAY 2017

approved _____ approuvé _____

date _____

Tender _____ Soumission _____

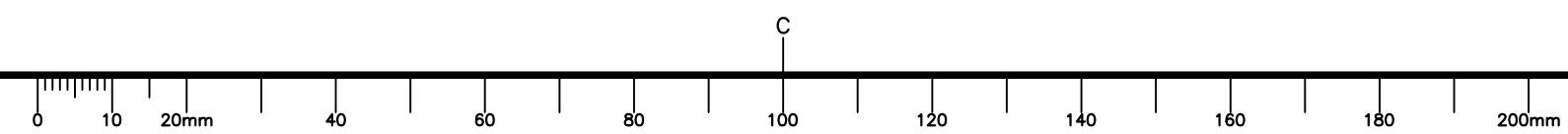
PWGSC Project Manager Administrateur de projets TPSGC

project number no. du projet

R.086534.001

drawing no. no. du dessin

M03



PART 1 GENERAL

1.1 RELATED SECTIONS

- .1 Section 01 33 00 - Submittal Procedures.
- .2 Section 01 74 21 - Construction/Demolition Waste Management and Disposal.
- .3 Section 01 78 00 - Closeout Submittals.
- .4 Section 07 28 00- Air/Vapour Barriers.
- .5 Section 07 92 00 - Joint Sealants.

1.2 REFERENCES

- .1 Canadian General Standards Board (CGSB):
 - .1 CAN/CGSB-79.1, Insect Screens.
- .2 Canadian Standards Association (CSA):
 - .1 CSA-A440/A440.1-17, A440, Windows / Special Publication A440.1, User Selection Guide to CSA Standard A440, Windows.
 - .2 CAN/CSA-Z91-17, Health and Safety Code for Suspended Equipment Operations.

1.3 SUBMITTALS

- .1 Indicate materials and details in scale full size for head, jamb and sill, profiles of components, interior and exterior trim. Junction between combination units, elevations of unit, anchorage details, location of isolation coating, description of related components and exposed finishes fasteners, and caulking. Indicate location of manufacturer's nameplates.
- .2 Include frame, sash, sill, glazing and weatherproofing method, insect screens, surface finish and hardware. Show location of manufacturer's nameplates.

1.4 TEST REPORTS

- .1 Submit test reports from approved independent testing laboratories, certifying compliance with specifications, for:
 - .1 Windows classifications
 - .2 Air tightness
 - .3 Water tightness
 - .4 Wind load resistance
 - .5 Condensation resistance
 - .6 Forced entry resistance
 - .7 Insect screens
 - .8 Glazing
 - .9 Safety drop - vertical sliding windows only

- .10 Ease of operation - windows with operable lights
- .11 Sash pull-off - fiberglass windows

1.5 WARRANTY

- .1 Provide a written warranty for work under this Section from Manufacturer for failure due to defective materials and from Contractor for failure due to defective installation, workmanship for ten (10) years respectively from the date of Substantial Completion.

1.6 CLOSEOUT SUBMITTALS

- .1 Provide operation and maintenance data for windows for windows for incorporation into manual specified in Section 01 78 00 - Closeout Submittals.

PART 2 PRODUCTS

2.1 MATERIALS

- .1 Materials: to CSA-A440/A440.1 supplemented as follows:
 - .1 Provide fiberglass windows from a single manufacturer.
 - .2 Sash: pultruded, fibreglass, nominal wall thickness 2.3 mm.
 - .3 Main frame: pultruded, fibreglass, nominal wall thickness 2.3 mm.
 - .4 Glazing:
 - .1 Factory sealed double glazed unit 25mm overall thickness to CAN/CGSB-12.8-M, glazed in accordance with manufacturer's instructions.
 - .2 For operable units, install 5mm clear float on exterior sashes and 5mm clear float on interior sashes.
 - .5 Screens: to CAN/CGSB-79.1.
 - .1 Insect screening mesh: count 18 x 14
 - .2 Fasteners: tamper proof
 - .3 Screen frames: aluminum, colour to match window frames
 - .4 Mount screen frames for exterior replacement.
 - .5 Provide full insect screens to cover entire window

2.2 WINDOW TYPE AND CLASSIFICATION

- .1 Types:
 - .1 Awning: Outward projecting, complete with insulating glass, insect screen.
 - .2 Screens: screens as indicated.

2.3 FABRICATION

- .1 Fabricate in accordance with CSA-A440/A440.1 supplemented as follows:
- .2 Fabricate units square and true with maximum tolerance of plus or minus 1.5 mm for units with a diagonal measurement of 1800 mm or less and plus or minus 3.0 mm for units with a diagonal measurement over 1800 mm.
- .3 Face dimensions detailed are maximum permissible sizes.
- .4 Brace frames to maintain squareness and rigidity during shipment and installation.

2.4 FIBERGLASS FINISHES

- .1 Fiberglass finish: durable isocyanate-free two part polymer with minimum dry film thickness of 0.038 mm and medium gloss of 25-40, conforming to AAMA 613, Organic Coatings.

2.5 HARDWARE

- .1 Hardware:
 - .1 Stainless steel or white bronze trimline camlocks to provide security and permit easy operation of units.
 - .2 Counter balance: stainless steel coil balance hardware.

2.6 AIR/VAPOUR BARRIER

- .1 Provide low expanding, single component polyurethane foam sealant installed at head, jamb and sill perimeter of window for sealing to building air/vapour barrier, and window frame. Foam sealant width to be adequate to provide required air tightness and vapour diffusion control to building air barrier and vapour retarder foam interior.

PART 3 EXECUTION

3.1 WINDOW INSTALLATION

- .1 Install in accordance with CSA-A440.
- .2 Arrange components to prevent abrupt variation in colour.
- .3 Install shims between windows and building frame at each installation screw location. Shim and fasten windows in accordance with manufacturer's recommendations and CAN/CSA A440.4.

3.2 GLAZING

- .1 Glaze windows in accordance with CSA-A440/A440.1

3.3 CAULKING

- .1 Seal joints between windows and window sills with sealant. Caulk between sill upstand and window-frame. Caulk butt joints in continuous sills.
- .2 Apply sealant in accordance with Section 07 92 00 - Joint Sealants. Conceal sealant within window units except where exposed use is permitted by Owner's Representative.

END OF SECTION

PART 1 GENERAL

1.1 RELATED SECTIONS

- .1 Section 01 74 21 - Waste Management And Disposal.
- .2 Section 01 61 00 - Basic Product Requirements.
- .3 Section 01 78 00 - Closeout Submittals.

1.2 SUBMITTALS

- .1 Product Data:
 - .1 Submit manufacturer's printed product literature, specifications and data sheet in accordance with Section 01 33 00 - Submittal Procedures.
- .2 Manufacturer's Instructions:
 - .1 Submit manufacturer's installation instructions.
- .3 Closeout Submittals
 - .1 Provide operation and maintenance data for power door operator.

1.3 QUALITY ASSURANCE

- .1 Test Reports: certified test reports showing compliance with specified performance characteristics and physical properties.
- .2 Certificates: product certificates signed by manufacturer certifying materials comply with specified performance characteristics and criteria and physical requirements.

1.4 DELIVERY, STORAGE, AND HANDLING

- .1 Packing, Shipping, Handling and Unloading:
 - .1 Deliver, store, handle and protect materials in accordance with Section 01 61 00 - Common Product Requirements.

1.5 WASTE DISPOSAL AND MANAGEMENT

- .1 Separate and recycle waste materials in accordance with Section 01 74 21 - Construction/Demolition Waste Management And Disposal.
- .2 Remove from site and dispose of packaging materials at appropriate recycling facilities.

PART 2 PRODUCTS

2.1 DOOR OPERATOR PUSHBUTTONS

- .1 Wall type mounting.
- .2 16 gauge, 304lb stainless steel faceplate.
- .3 Aluminum backplate.
- .4 Cherry switch: ISA, com/no/nc contacts.
- .5 Identified with international symbol of access.

PART 3 EXECUTION

3.1 MANUFACTURER'S INSTRUCTIONS

- .1 Compliance: comply with manufacturer's written data, including product technical bulletins, product catalogue installation instructions, product carton installation instructions, and data sheets.

3.2 INSTALLATION

- .1 Install switch as per latest edition of CSA-B651. Provide wiring in accordance with Section 26 05 23 - Wires and Cables (0-1000V).

3.3 CLEANING

- .1 Perform cleaning after installation to remove construction and accumulated environmental dirt.
- .2 Clean hardware with damp rag and approved non-abrasive cleaner, and polish hardware in accordance with manufacturer's instructions.
- .3 Upon completion of installation, remove surplus materials, rubbish, tools and equipment barriers.

3.4 DEMONSTRATION

- .1 Demonstrate operation, operating components, adjustment features, and lubrication requirements.

END OF SECTION