

**Parkin Architects Limited
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1.1 ADDENDUM

.1 INTENT

- .1 This Addendum is issued during Bidding and shall form part of Bidding and Contract Documents for above Project.
- .2 Except as otherwise specified herein, work required by this Addendum shall be in accordance with specifications dated April 07, 2015 and Drawings accompanying same and previously issued Addenda (if any).

1.2 CIVIL - DRAWINGS

.1 DRAWING NO: C-1

- .1 Drawing No. C-1 is modified as follows by attached Sheet Number: C-1, dated July 17, 2015 and forms part of this Addendum. A new concrete slab was added to support the fuel vault & sewage tanks. To achieve the required distance of 750mm from the bottom of the tank to the top of the main floor, the tank now sit on a 9'-0" high, pre-manufactured stand. Both the fuel vault & sewage tanks were moved southward approximately 600-700mm towards the front of the building to avoid any interference with the service stair & to also maintain the same clearance between the tanks.

1.3 ARCHITECTURAL - SPECIFICATIONS- DIVISIONS 0 TO 33 INCLUSIVE

.1 DOCUMENT 00 43 22, SUPPLEMENTRAY BID FORM UNIT PRICES– VOLUME 1

- .1 Delete Section 00 43 22 SUPPLEMENTRAY BID FORM UNIT PRICES and replace it in its entirety as appended and forming part of this Addendum.

.2 DOCUMENT 05 50 00, METAL FABRICATIONS– VOLUME 1

- .1 Delete Section 05 50 00 METAL FABRICATIONS and replace it in its entirety as appended and forming part of this Addendum.

.3 DOCUMENT 09 21 16, GYPSUM BOARD– VOLUME 2

- .1 Add Subparagraph 2.3.3.7: as follows:
 - .1 Expanded Metal Security Mesh: ASTM A1011/A1011M, non-galvanized steel security mesh sheets consisting of steel panels used for resistance to penetration behind gypsum board partitions where scheduled on Drawings.
 - 1. Medium Grade Security Mesh: Provide "ASM.75-13F" by AMICO or approved equivalent with following characteristics:
 - a. Weight: 3.66 kg/m² (0.75 lbs/ft²);
 - b. Mesh Size Opening: 17.5 mm x 45.3 mm (0.688" x 1.782")
 - c. Thickness: 1.8 mm (0.070");
 - d. Open Area: 73%;
 - 2. Attachment Method: Clips: Provide manufacturer's recommended tamper-resistant clips complete with appropriate threaded fasteners.

.4 DOCUMENT 09 51 00, ACOUSTIC CEILING TILES– VOLUME 2

- .1 Modify Materials Article 2.3.15.4. (ACT-1) as follows:
 - .1 Delete 610 mm x 610 mm x 19 mm (24"x 24") incombustible mineral fibre
 - .2 Add 1220 mm x 610 mm x 19 mm (48"x 24") incombustible mineral fibre

.5 DOCUMENT 10 22 26, FOLDING PANEL OPERABLE PARTITIONS – VOLUME 2

- .1 Delete section 10 22 26 Folding Panel Operable Partitions in its entirety.

.6 DOCUMENT 10 28 00, ACCESSORIES– VOLUME 2

- .1 Delete Section 10 28 00 ACCESSORIES and replace it in its entirety as appended and forming part of this Addendum.

.7 DOCUMENT 10 95 00, MISCELLANEOUS SPECIALITIES– VOLUME 2

- .1 Delete Section 10 95 00 MISCELLANEOUS SPECIALTIES and replace it in its entirety as appended and forming part of this Addendum.

1.4 ARCHITECTURAL - SCHEDULES

.1 DOOR AND SCREEN SCHEDULE

- .1 Delete Door 107C from Door and Screen Schedule.
- .2 Delete Door 107C from Hardware Schedule.
- .3 Delete Accessories Schedule in its entirety and replace it with new accessories schedule as appended and forming part of this Addendum.

1.5 ARCHITECTURAL - DRAWINGS

.1 DRAWING NO: 1408-A003

- .1 Drawing No. 1408-A003 is modified as follows by attached Sheet Number: 1408-A003.1, dated July 17, 2015.

.2 DRAWING NO: 1408-A100

- .1 Drawing No. 1408-A100 is modified as follows by attached Sheet Number: 1408-A100.1, dated July 17, 2015.

.3 DRAWING NO: 1408-A100

- .1 Drawing No. 1408-A100 is modified as follows by attached Sheet Number: 1408-A100.2, dated July 17, 2015.

.4 DRAWING NO: 1408-A120

- .1 Drawing No. 1408-A120 is modified as follows by attached Sheet Number: 1408-A120.1, dated July 17, 2015.

.5 DRAWING NO: 1408-A400

- .1 Drawing No. 1408-A400 is modified as follows by attached Sheet Number: 1408-A400.1, dated July 17, 2015.

.6 DRAWING NO: 1408-A501

- .1 Drawing No. 1408-A501 is modified as follows by attached Sheet Number: 1408-A501.1, dated July 17, 2015.

.7 DRAWING NO: 1408-A503

- .1 Drawing No. 1408-A503 is modified as follows by attached Sheet Number: 1408-A503.1, dated July 17, 2015.

1.6 STRUCTURAL – SPECIFICATIONS

.1 DOCUMENT 06 14 00, TREATED WOOD FOUNDATIONS– VOLUME 1

- .1 Delete Subsection 1.4.2. as FSC certified lumber is not required, all that is required is PWF (preserved wood foundation) rated wood.

.2 DOCUMENT 31 36 00, GABIONS – VOLUME 2

- .1 Add new section 31 36 00 Gabions, appended to this Addendum.

1.7 STRUCTURAL – DRAWINGS

.1 DRAWING NO. S001- Design Specifications & Drawing Notes

- .1 Structural Consultant has modified Drawing No. S001 by adding Gabion Basket Drawing Note Section as follows by attached Sheet Number: SR-S001.01, dated July 14, 2015 and forms part of this Addendum.

.2 DRAWING NO. S101- Design Specifications & Drawing Notes

- .1 Structural Consultant has modified Drawing No. S101 by adding W360 x 33 steel beam between Grid Lines B - C & 7 – 8 and W360 x 33 steel beam between Grid Lines C - D & 7 – 8 as follows by attached Sheet Number: SR-S101.01, dated July 17, 2015 and forms part of this Addendum.

.3 DRAWING NO. S500

- .1 Structural Consultant has modified Drawing No. S500 to add Section 2/S500 as follows by attached Sheet Number: SR-S500.01, dated July 17, 2015 and forms part of this Addendum. Refer to sketch SR-S500.01 issued herein.

1.8 MECHANICAL – SPECIFICATIONS

- .1 N/A

1.9 MECHANICAL – DRAWINGS

.1 DRAWING NO. M100

- .1 Mechanical Consultant has modified Drawing No. M100 as follows by attached Sheet Number: M100, dated July 17, 2015 and forms part of this Addendum. A new concrete slab was added to support the fuel vault & sewage tanks. To achieve the required distance of 750mm from the bottom of the tank to the top of the main floor, the tank now sit on a 9'-0" high, pre-manufactured stand. Both the fuel vault & sewage tanks were moved southward approximately 600-700mm towards the front of the building to avoid any interference with the service stair & to also maintain the same clearance between the tanks.

.2 DRAWING NO. M106

- .1 Mechanical Consultant has modified Drawing No. M106 to revise fire extinguisher locations as follows by attached Sheet Number: M100.01-Add2, dated July 17, 2015 and forms part of this Addendum. Refer to sketch MR-M100.01-Add2 issued herein.

.3 DRAWING NO. M610.1

- .1 Mechanical Consultant has modified Drawing No. M610.1 to revise pumps P-3, P-4, P-5 & P-6 locations to Room 003 as follows by attached Sheet Number: MR-M610.01, dated July 17, 2015 and forms part of this Addendum.

.4 DRAWING NO. M610.2

- .1 Mechanical Consultant has modified Drawing No. M610.2 to revise size of sewage tank T-8 as follows by attached Sheet Number: MR-M610.02, dated July 17, 2015 and forms part of this Addendum.

1.10 ELECTRICAL

.1 DRAWING NO. E100 – Arctic Vents

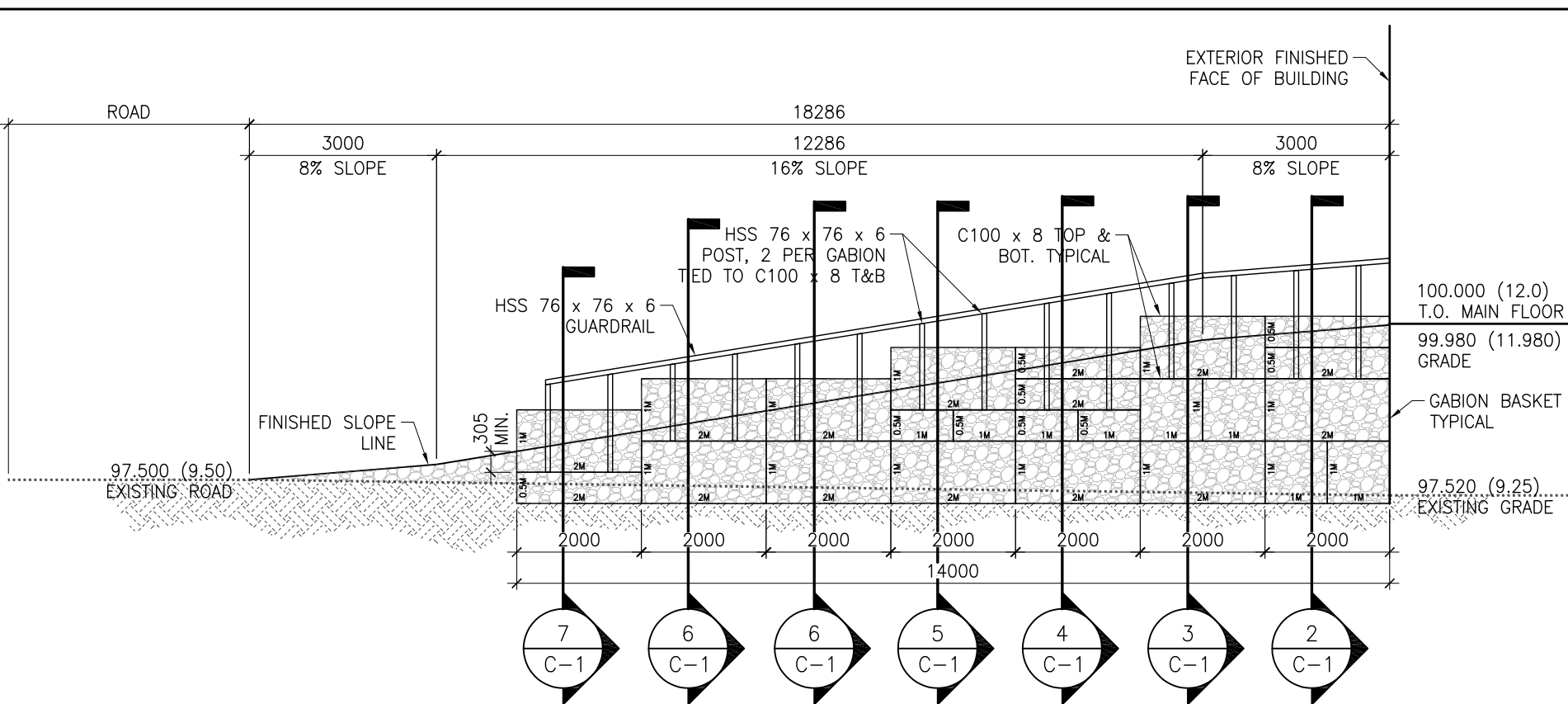
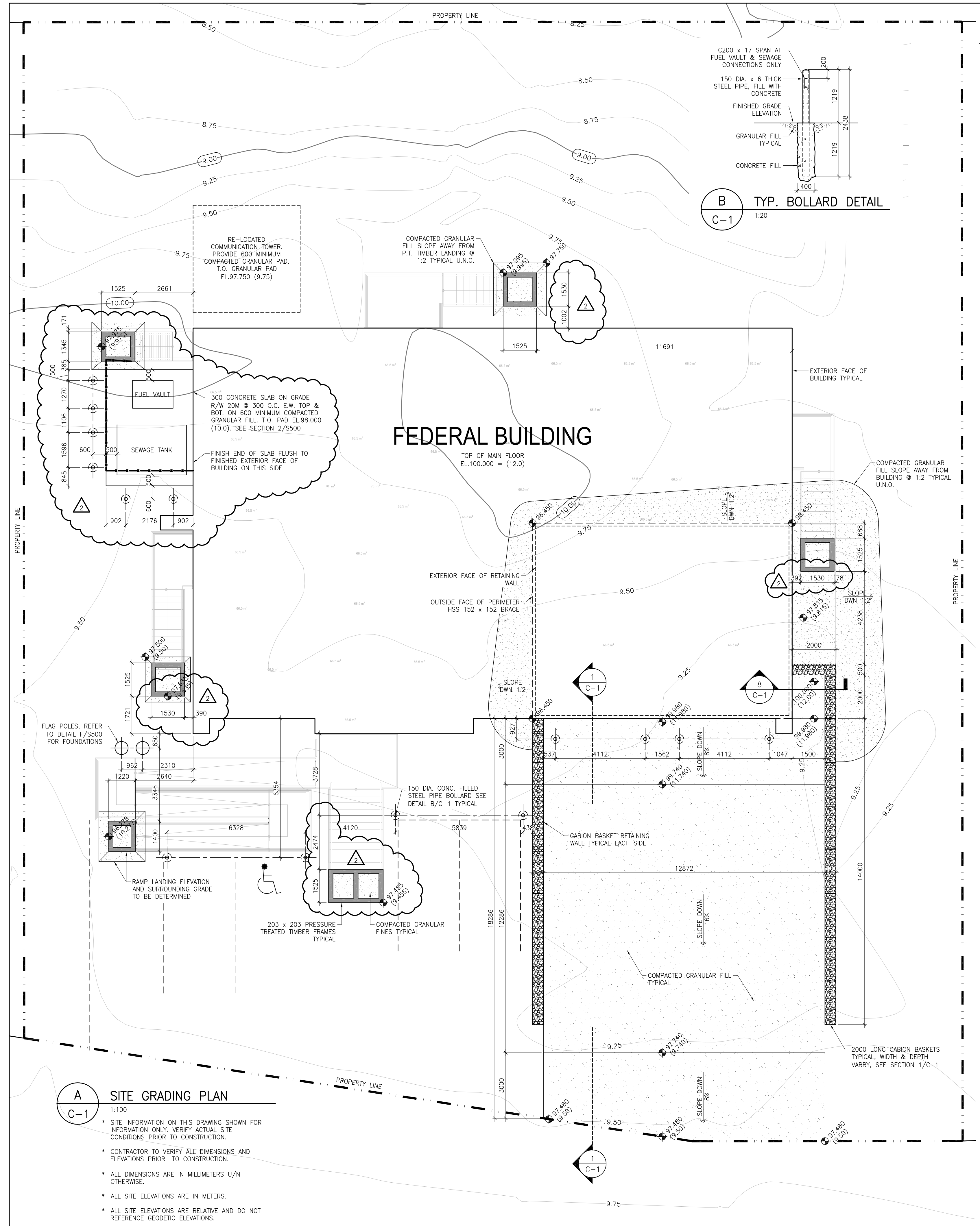
- .1 Electrical Consultant has modified Drawing No. E100 as follows by attached Sheet Number: SK-E1 and SK-E2, dated July, 2015 and forms part of this Addendum. Connect all Arctic Vents to circuit A-58 w/ 2c#12 AWG in EMT, as shown on drawing E100. There are 4x Arctic Vents which are located in rooms 107,118, 120, 124. Refer to mechanical drawing M101 for exact locations, and coordinate with mechanical trades.

List of Attachments:

PDF Files

Civil Drawings	1 Page
Architectural Schedules	2 Pages
Architectural Drawings	7 Pages
Structural Specifications	3 Pages
Structural Drawings	3 Pages
Mechanical Drawings	4 Pages
Electrical Drawings	2 Pages

END OF ADDENDUM

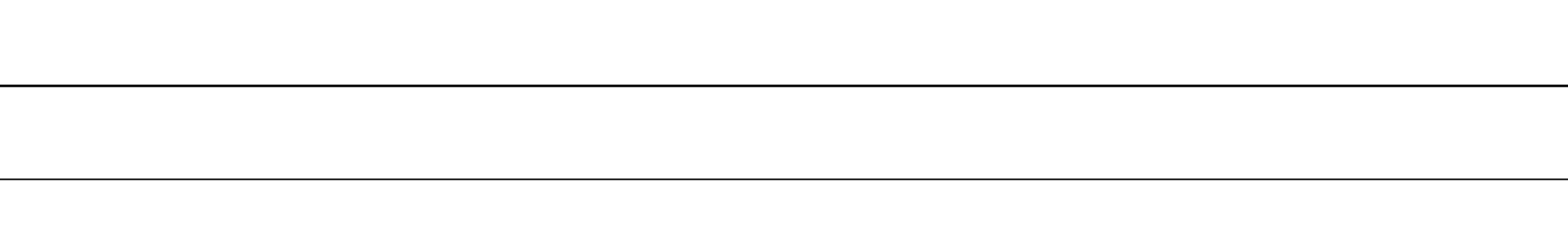
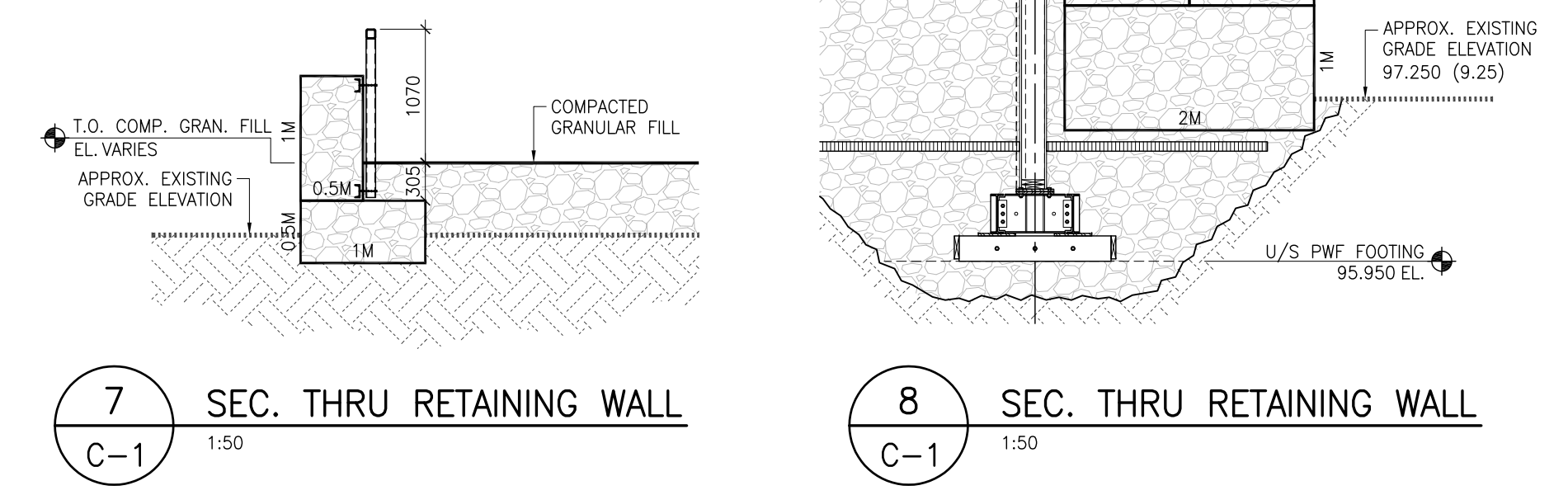
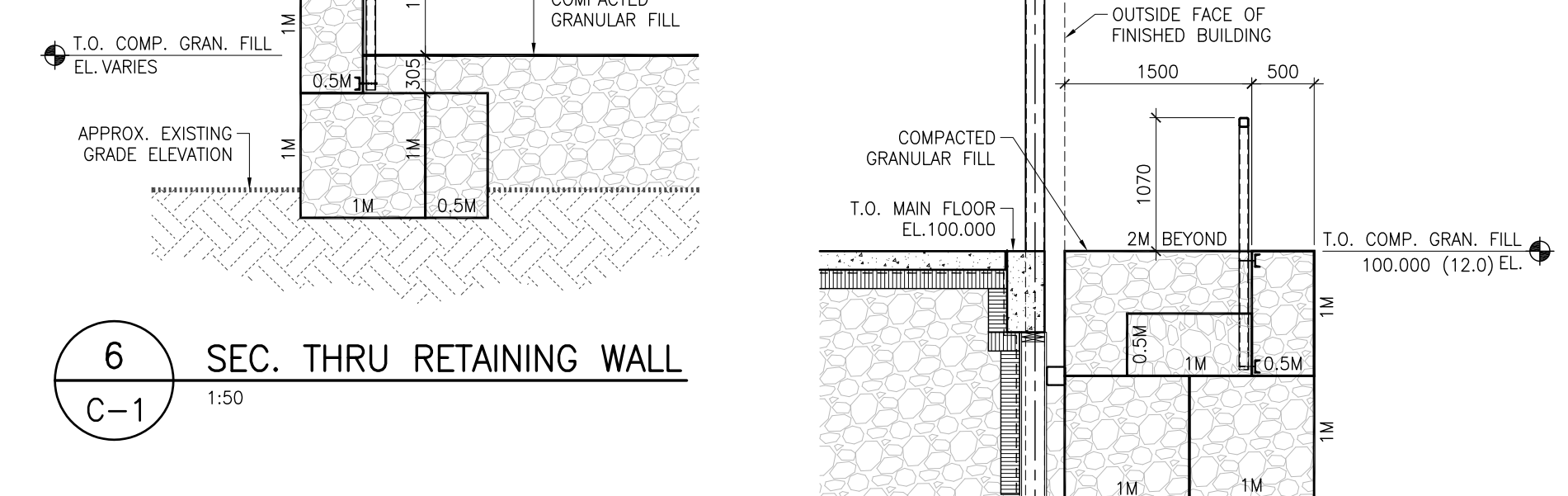
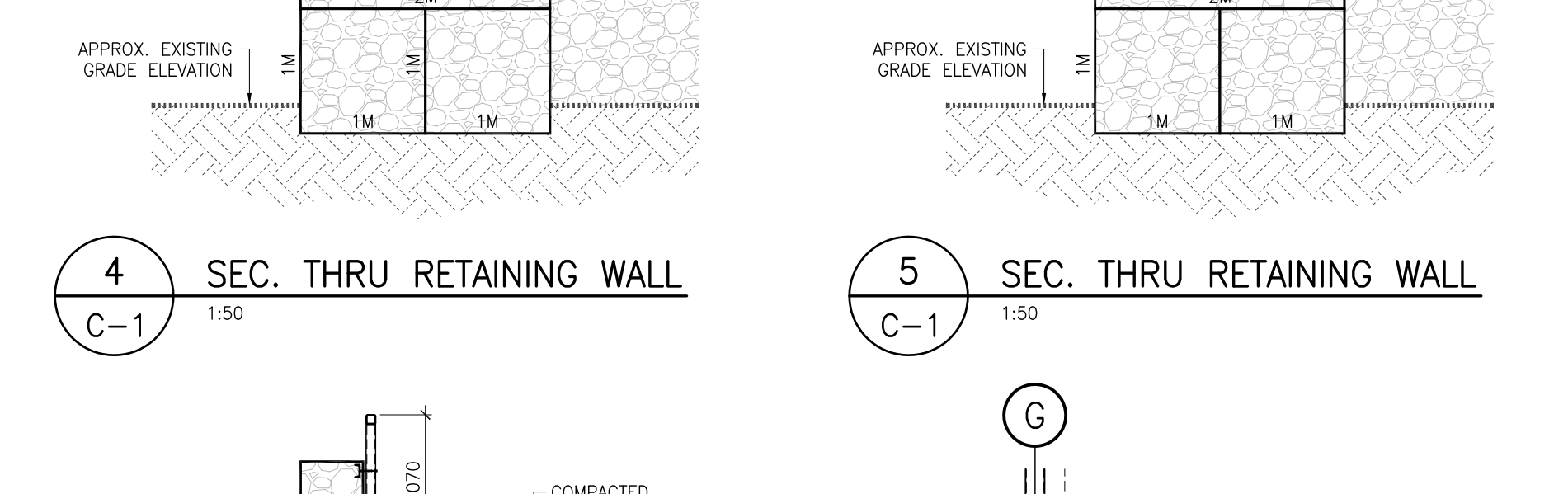
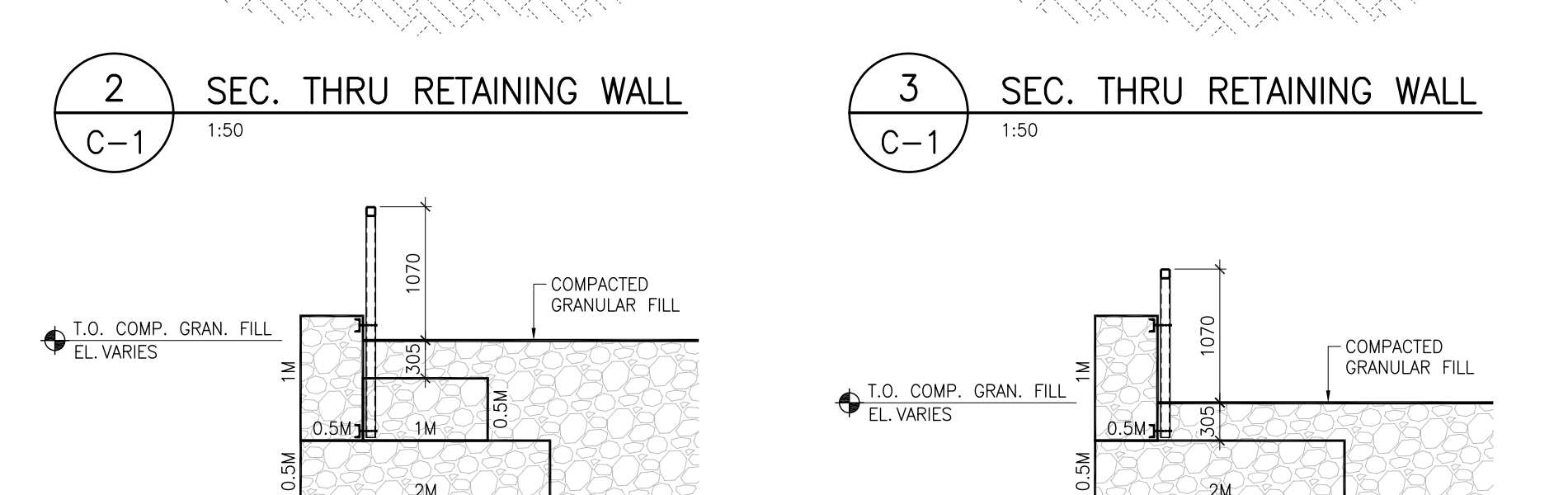
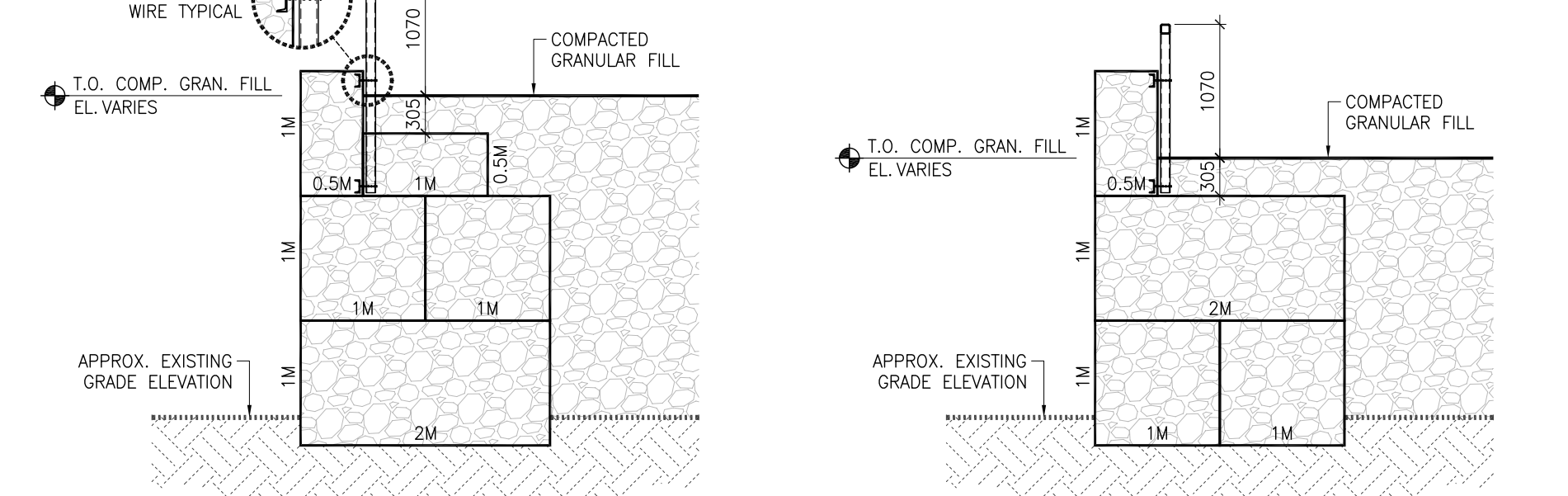


1 SECTION THRU DRIVE WAY
C-1 1:100

TIE GUARDRAIL POSTS TO TOP & BOTTOM CHANNELS WITH HEAVY GAUGE GALVANIZED WIRE TYPICAL.

PERMIT TO PRACTICE
ACCUTECH ENGINEERING INC.
Signature: *K.R. DeSousa*
Date: APR 07 2015

PERMIT NUMBER: P 421
The Association of Professional Engineers, Geologists and Geophysicists of the NWT/NU



PROJECT NORTH TRUE NORTH

Area of Work

1 ISSUED WITH ADDENDUM	07-17-2015
0 ISSUED FOR TENDER	04-07-2015
No. Description	Date
Revisions:	

All measurements are to be checked and verified on site by the contractor before proceeding with the work.
Do not scale the drawings.

Prime Consultant:

PARKIN
ARCHITECTS LIMITED

Sub Consultant:

Accutech Engineering Inc.
Tomorrow's Technology Today

1548 Dugald Road, Winnipeg, Manitoba, Canada R2J 0H3
Phone: 204.944.1555 Fax: 204.944.1444
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A.G. Engineering
Electrical Engineers

Thunder Bay, ON
111 East Beaver Avenue, 2nd Floor
Thunder Bay, ON P7C 1P7
Phone: (807) 627-2654
Fax: (807) 627-8181
AEG Project 1210-13-005

Project:

**FEDERAL BUILDING
ARVIAT, NUNAVUT**

Drawn By: ALG	Date: 07-17-2015
Checked By: KRD	Scale: AS NOTED

Sheet Title:
SITE GRADING PLAN

Sheet Number:
C-1

FILENAME: W:\A206 - Parkin Architects\01\Arviat RCMP Station\Drawings\Current\C-1 - Site Grading Plan.dwg
PLOTDATE: Jul 14, 2015 - 3:07pm

PART 1 -GENERAL

1.1 PROJECT INFORMATION

From (Name of Bidder): _____

To (Owner): _____

1.2 UNIT PRICES

.1 I/We the undersigned offer the following Unit Prices for the work or for deletion of flammable cabinet specified. All Unit Prices, unless specifically indicated, are for deletion of items in accordance with applicable *Contract* requirements.

.2 I/We the undersigned agree that the *Owner* shall have the right to delete items as per Unit Prices listed hereunder. Prices listed hereunder do not include The Harmonized Sales Tax (HST) but include all other eligible taxes.

.3 We hereby submit following Unit Prices for full duration of *Contract* for *Work*, executed in accordance with *Contract Documents*.

.4 ITEM OF WORK UNIT COST/UNIT

.5 Flammable Cabinets in accordance with \$ _____/unit requirements of Section 10 95 00.

.6 This list of Unit Prices is an integral part of these Bid Documents.

1.3 ADDRESS, LEGAL STATUS AND SIGNATURE OF BIDDER

.1 We hereby designate the address, given below as the legal address to which all notices, directions or other communications may be served or mailed:

Street _____

City _____ Province _____

Postal Code _____

.2 We hereby declare that the Bidder has legal status stated below:

Individual _____ Partnership _____

Corporation incorporated under the laws of

_____ Date _____

FEDERAL BUILDING
Arviat, NU
Project #1408

SUPPLEMENTARY BID FORM
UNIT PRICES

Section 00 43 22
Page 2
Apr 07, 2015

.3 This Supplementary Bid Form is submitted under seal in the name:

(Company Name - Typed)

By _____

(Signature)

Name _____

(Typed)

Title _____

Signed and sealed this _____ day of _____, 20____.

END OF DOCUMENT

PART 1 -GENERAL

1.1 GENERAL INSTRUCTIONS

- .1 Read and conform to:
 - .1 the General Conditions and Supplementary Conditions of the *Contract*;
 - .2 Division 1 requirements and documents referred to therein.

1.2 SUMMARY

- .1 Work Included: *Provide* metal fabrications including but not limited to following:
 - .1 galvanized commercial mesh
 - .2 exterior handrails and guardrails.
 - .3 exterior steel stairs and landings.
 - .4 steel ladders.
 - .5 operable partition supports.
 - .6 overhead door jambs and headers.
 - .7 floor trench and sump pit cover plates.
 - .8 Bollards, bumper posts and rails.
 - .9 metal locker bases.
 - .10 supports for architectural woodwork including benches and countertops.
 - .11 miscellaneous sections and framing.
- .2 Related Requirements: Specifications throughout entirety of Divisions of this Project are directly applicable to this Section, and this Section is directly applicable to them.

1.3 REFERENCES

- .1 Reference Standards:
 - .1 Latest published edition of reference standards listed herein are applicable to this Project unless otherwise indicated.
 - .2 Reference amendments adopted prior to the effective date of this Project are applicable unless otherwise indicated.

1.4 ADMINISTRATIVE REQUIREMENTS

- .1 Sequencing: Coordinate installation with related Sections referenced herein.
- .2 Pre-Installation Meetings:
 - .1 Regulatory Requirement Review Meeting: Provide pre-start regulatory requirement review meeting to parties associated with work of this Section. As a minimum, discuss following:
 - .1 environmental procedure requirements,
 - .2 health, safety and emergency response procedure and policy requirements,
 - .3 and security requirements;

- .2 Pre-construction Site Meeting:
 - .1 Prior to start of work, arrange for Project site meeting of parties associated with work of this Section, including non-exhaustively Subcontractor performing work of trade involved, testing company's representative and Contractor's consultants of applicable discipline. Consultant may attend.
 - .2 Review Contract Documents to permit compliance with intent of this Section for work included under this trade, and ensure complete understanding of requirements and responsibilities relative to:
 - .1 work included,
 - .2 materials to be used,
 - .3 storage and handling of materials,
 - .4 installation of materials,
 - .5 sequence and quality control,
 - .6 Project staffing,
 - .7 restrictions on areas of work and other matters affecting construction.
- .3 Scheduling:
 - .1 Prior to commencing work of this Section arrange for manufacturer's technical representative to review with Contractor and Consultant, procedures to be adopted and conditions under which work shall be performed. Inspect surfaces to determine adequacy of proposed conditions.
 - .2 Co-operate fully with other Subcontractors on the Work and promptly proceed with work of this Section as rapidly as job conditions permit.
 - .3 Co-operate with other Sections for application of all miscellaneous specialties.
 - .4 Supply items to be built-in in ample time to be incorporated into work of other Subcontractors, together with measurements and other information required for location of it.
 - .5 Ensure work which may create dust does not proceed during work related to painting and final finishing.

1.5 SUBMITTALS

- .1 Product Data:
 - .1 Submit manufacturer's literature and data sheets for each type of material provided under this Section for Project in accordance with requirements of Division 01. Ensure data sheets Provide required information including detailed instructions for installing as well as maintaining, preserving and keeping materials in clean and safe conditions. Provide adequate warning of maintenance practices or cleaning agents detrimental to specified materials.
- .2 Material Safety Data Sheets: Submit MSDS for inclusion in Operation and Maintenance Manual without limitations for adhesives, sealants and other materials designated later by Consultant.
- .3 Shop Drawings: Submit Shop Drawings for work of this Section in accordance with Division 01. In addition to minimum requirements indicate following:

- .1 large scale details of members, materials and connections.
- .2 jointing details.
- .3 methods of setting, sealing, securing, anchorage.
- .4 field connections.
- .5 Submit Shop Drawings for following work bearing the stamp of a Professional Engineer registered in the Territory of Nunavut:
 - .1 handrails, pipe handrails and balustrades.
 - .2 steel stairs.
 - .3 supports for suspended items.
- .4 Samples: Submit samples in accordance with Division 01. Submit following samples in sizes indicated:
 - .1 extruded and formed metals: minimum 300 mm (12") long.
 - .2 metal sheet: minimum 300 mm (12") square and of specified thickness.

1.6 QUALITY ASSURANCE

- .1 Installer's Qualifications: Provide work of this Section executed by competent installers with minimum 5 years' experience in manufacture, application of metal fabrication work and assemblies specified; with approval and training of manufacturers. Demonstrate experience of Projects of similar scope and size, and evidence of a continuing quality assurance program for both materials and installation crews.
- .2 Welding:
 - .1 Provide welding in accordance with CSA W59-M performed by a fabricator and mechanics fully approved by the Canadian Welding Bureau as specified herein.
 - .2 Ensure fabricator is fully certified by Canadian Welding Bureau for fusion welding of steel structures to CSA W47.1 and for fusion welding of aluminum to CSA W47.2.
- .3 Licensed Professionals: Employ a full time professional structural engineer registered in the Territory of Nunavut, carrying minimum \$2,000,000.00 professional liability insurance to:
 - .1 design the components of the work of this Section requiring structural performance, non-exhaustively including the following:
 - .1 stairs including landings and supports.
 - .2 balustrades, handrails, railings.
 - .3 suspended supports.
 - .2 be responsible for full assemblies and connections
 - .3 be responsible for determining sizes, yield strengths, gauge thicknesses and joint spacing to allow thermal movement and loading of components in accordance with applicable codes and regulations,
 - .4 be responsible for production and review of Shop Drawings,
 - .5 inspect the work of this Section during fabrication and erection,
 - .6 stamp and sign each shop drawing,
 - .7 Provide site administration and inspection of this part of the Work.
 - .8 Submit certificate validating seismic assessment and field review of this part of the Work
- .4 Certification:

- .1 Welders employed on this *Project* may be asked by *Consultant* at any time for their welding certificate.

1.7 DELIVERY, STORAGE AND HANDLING

- .1 Delivery and Acceptance Requirements:
 - .1 Coordinate deliveries to comply with construction schedule and arrange ahead for strategic off-the-ground, undercover storage locations. Do not load areas beyond designed limits.
 - .2 Handle and store metal materials at job to prevent damage to other materials and to adjacent construction.
- .2 Storage and Handling Requirements: Handle components with care, and Provide protection for surfaces against marring or other damage. Ship and store members with cardboard or other resilient spacers between surfaces. Use lifting chokers of material which will not damage surface of metal members.

PART 2 -PRODUCTS

2.1 DESCRIPTION

- .1 Regulatory Requirements:
 - .1 The Work of this section that functions to resist forces imposed by dead and live loads shall conform to latest requirements of National Building Code of Canada and those of jurisdictional authorities.
- .2 Performance/Design Criteria:
 - .1 Architectural Drawings and details are diagrammatic and are only intended to show design concept, aesthetics, interfacing requirements, configuration, components and arrangements. They are not intended to identify or solve completely problems of thermal and structural movements, assembly framing, engineering design, fixings and anchorages
 - .2 Design work of this Section to withstand within acceptable deflection limitations, specified tolerances in vertical and horizontal planes, its own weight, forces applied by movements of building structure and attached adjacent components, and maximum design loads due to pressure and suction of wind, snow, ice, rain and hail.
 - .3 Design load bearing structures to National Building Code of Canada requirements and Provide miscellaneous steel supports and anchors to suit design. Conform to CAN/CSA-S16.1 and CAN/CSA-S136.
 - .4 Design free standing handrails and guardrails to the requirements of the National Building Code of Canada. Ensure handrails and guard rails connections are made of welded constructions unless indicated otherwise. Make adequate provision for differential thermal and structural movement of component parts of system and fastenings, to prevent opening of joints, undue stress on fastenings or other detrimental effects.
 - .5 Design and detail angle lintels, steel pipe railings, handrails, guardrails and balustrades in accordance with NBCC and CAN/CSA B651.

2.2 MATERIALS

- .1 Structural Shapes, Plates, Etc.: New material conforming to CSA G40.20 and CSA G40.21, Grade 300W.
- .2 Hollow Structural Sections: New material conforming to CSA G40.20 and CSA G40.21, Grade 350W, Class H.
- .3 Steel Pipe: ASTM A53/A53M, Type E or S, Grade A or B, Standard weight, Schedule 40.
- .4 Stainless Steel
 - .1 Stainless Steel Sheet, Strip, Plate, and Flat Bar: ASTM A167 or ASTM A666, Type 304 and Type 316 alloy with exposed surfaces having No. 4 polished finish. Sizes as required to meet design requirements.
 - .2 Exterior Stainless Steel Sheet, Strip, Plate, and Flat Bar: ASTM A666, Type 316.
 - .3 Provide highest architectural quality in various forms, straight and true. Ensure there are no scratches, scars, creases, buckles, ripples or chatter marks. Provide finish surfaces suitable for polishing where required. Ensure finished surfaces exposed to view are free of pitting, seam marks, roller marks, oil-canning, stains, discolourations or other imperfections.
 - .4 Refer to *Drawings* for extent of stainless steel work.
- .5 Welding Materials: Conforming to CSA W48.1-M and CSA W59-M.
- .6 Security Screws for Cells, Secure Interview Rooms, Prisoner Showers where prisoners may be alone, at areas in unsupervised locations to suit design requirements:
 - .1 Complying with ANSI B 18.6.3; Provide only tamper-resistant Torx-Plus® or break off type screws as specified and noted on *Drawings*.
 - .2 Provide flathead security screws where Torx- Plus® or breakoff is indicated to be counter sunk otherwise provide only trusshead or buttonhead for Torx- Plus® and only roundhead for breakoff type.
 - .3 Torx- Plus® Temper resistant screws with heads having a deep hex-lobular recess with a solid post formed in the centre requiring a special metal driver to install or remove screw.
 - .4 Fasteners and tools shall be of type produced by licensed manufacturer.
 - .5 Break-Off head security screws with drive heads having an additional hexagonal shaped head designed to break off after installation at a predetermined torque level.
 - .6 Grind remaining portion of neck smooth after hex-head is broken off. Acceptable manufacturers, Temper Proof Screws Inc or Folger Adam Security Inc, or Sentry Security Fasteners, Inc. or Temper proof Screw Co Inc.; www.temperproof.com.
- .7 High Strength Bolts: Supply bolts, nuts and washers conforming with ASTM A325M. Supply each type and size of bolt and nut of same manufacture and of same lot.
 - .1 Bolts: Heavy, hexagon head high strength structural bolts, of

- standard size, of lengths required for thick-ness of members joined and for type of connection.
- .2 Nuts: Heavy hexagon semi-finished nuts.
 - .3 Washers: For general use bolt, nut and stud application to *Provide* increased bearing surfaces, spacing and to prevent galling. Flat and smooth hardened washers, quenched and tempered to suit applications and conforms to ASTM F844. *Provide* AISI Type 304 stainless steel washers at exterior locations.
 - .4 Hardened Steel Washers: To suit applications and conforms to ASTM F436M.
 - .5 Stainless Steel Bolts: To suit applications and conforms to ASTM F738M.
 - .6 Stainless Steel Nuts: To suit applications and conforms to ASTM F836M.
 - .7 Lock Washers: Helical spring type steel "lock" washers to suit applications and conforms to Federal specification FF-W-84. *Provide* AISI Type 304 stainless steel lock washers at exterior locations.
 - .8 Exterior Vandal Resistant Fasteners: AISI Type 304 stainless steel, dual pin type vandal resistant fasteners to suit applications and acceptable to *Consultant*.
 - .9 Security Fasteners: Button head Torx® Plus R screw tamper resistant # 10, 25 mm (1") long 2 per glass stop minimum stainless steel machine screws.
- .8 Common or Ordinary Bolts and Anchor Bolts: Unfinished bolts conforming with ASTM A307, Grade A, with hexagon heads and nuts where exposed in the finish work. *Supply* common bolts of lengths required to suit thickness of material being joined, but not projecting more than 6 mm (1/4") beyond nut, without the use of washers. *Supply* anchor bolts of lengths noted, but projecting not less than 13 mm (1/2") beyond nut unless otherwise noted.
 - .9 Structural connectors; ASTM A10110/A1011M and ASTM A325M-09 heavy structural bolt, hexagonal nut and 1 hardened washer. Steel Pipe Handrails: Conforming to ASTM A53/A53M, Type "S", Schedule 40, Grade A steel pipe of sizes shown.
 - .10 Steel Pipe Bumpers: Conforming to ASTM A53/A53M, Schedule 80 steel pipe of sizes shown.
 - .11 Galvanizing: Hot dipped galvanizing with minimum zinc coating of 600 g/m² to CAN/CSA-G164-M.
 - .12 Galvanized Sheet Steel: *Supply* 0.91 mm (20 ga) core thickness commercial quality to ASTM A653/A653M, CS Type A, with Z275 zinc coating designation to ASTM A653/A653M.
 - .13 Aluminum Extrusions: ASTM B221M size accurately formed as shown on *Drawings*, extruded aluminum alloy AA-6063- T5 or T6 for aluminum. Ensure surfaces are free from defects impairing appearance, strength and durability.
 - .14 Aluminum Sheet: ASTM B209M, Minimum thickness 3 mm (1/8") of type and characteristics to match finished extrusions; sheet which is not exposed shall be Utility Aluminum mill finished; for intricate forming with

decorative finishes use AA 1100 and for siding and exposed panels use AA-3003 with specified finish.

.15 Grout

- .1 Cementitious, non shrinking, non expanding grout: 'Sika Grout 212' by Sika Canada Inc., or 'Non Shrink Structural Grout - Dry Pack Grout' by Euclid Chemical Company or 'Sealtight CG 86 Construction Grout' by W.R. Meadows.
- .2 Epoxy, non-shrinking, non expanding grout: 'Sika Anchor Fix'

2.3 DECORATIVE COMPONENTS

- .1 Non-Security Galvanized Commercial Mesh (at building perimeter and at handrails at stairs and ramps):
 - .1 13 mm (1/2") x 50 mm (2") x 0.162" diameter, galvanized, smooth weave style carbon steel wire mesh conforming to ASTM A1011, panel length width to suit design requirements. Design based on "3120 Plus Deco" by McNichols Products, www.mcnichols.com or approved equivalent by Gerard Daniel Worldwide, Canadian Division, www.geralddaniel.com or W.S.Tyler-Wire Cloth Products www.wstyler.com .
 - .2 Anchors, fasteners and hardware as recommended by manufacturers.
 - .3 Exterior Paint Finish: Refer to Section 09 91 00.

2.4 FABRICATION

- .1 Fabricate each item of work of this Section in accordance with following general requirements:
 - .1 members square and straight.
 - .2 members plumb and true.
 - .3 joints accurately and tightly fitted.
 - .4 intersecting members in true, flush planes.
 - .5 fasteners concealed.
 - .6 steel connections.
- .2 Fabricate, fit and assemble work in shop where possible. Where shop fabrication is not possible, make trial assembly in shop.
- .3 Provide hangers, rods, bars, bolts, anchors, brackets, rivets, bearing plates and bracing, fitting, drilling, stopping, soldering, as required for a complete assembly.
- .4 Insulate dissimilar metals to prevent galvanic corrosion.
- .5 Weld connections unless otherwise indicated.
- .6 Shop Welding:
 - .1 Execute welding to avoid damage or distortion to work. Should there be, in the opinion of *Consultant* or Inspection Company, doubt as to adequacy of welds, they shall be tested for efficiency and any work not meeting Standards be removed and replaced with new work satisfactory to *Consultant*. Carry out welding in accordance with following standards:
 - .1 Fabricator shall be fully certified by Canadian Welding Bureau

- for fusion welding of steel structures to CSA W47.1 and for fusion welding of aluminum to CSA W47.2.
- .2 CSA W48-M - for Electrodes (If rods are used, only coated rods are allowed).
 - .3 CSA W59-M - for design of connections and workmanship.
 - .4 CAN/CSA W117.2 - for safety.
- .7 Thoroughly clean welded joints and steel exposed for a sufficient space to properly perform welding operation. Neatly finish welds. Ensure welds exposed to view and finish painted are continuous and ground smooth.
- .8 Provide exposed metal fastenings and accessories of same material, texture, colour and finish as base metal to which they are applied or fastened.

2.5 FINISHES

- .1 Cleaning and Shop Painting:
- .1 Clean steel to SSPC SP6 and remove loose mill scale, weld flux and splatter.
 - .2 Shop prime steel with 1 coat of primer paint to dry film thickness of 0.025 mm (1 mil). Paint on dry surfaces, free from rust, scale, grease. Do not paint when temperature is lower than 7 deg C (45 deg F). Paint items under cover and leave under cover until primer is dry. Follow paint manufacturer's recommendations regarding application methods, equipment, temperature, and humidity conditions.
 - .3 Shop prime non galvanized perimeter steel members and structural steel members to receive sprayed fire resistive materials with 1 coat of high performance corrosion protection primer to dry film thickness of 0.025 mm (1 mil). Paint on dry surfaces, free from rust, scale, grease. Do not paint when temperature is lower than 7 deg C (45 deg F). Paint items under cover and leave under cover until primer is dry. Follow paint manufacturer's recommendations regarding application methods, equipment, temperature, and humidity conditions.
 - .4 Shop prime galvanized steel in accordance with CAN/CGSB-85.10.
 - .5 Clean but do not paint surfaces being welded in the field and surfaces in contact after assembly.
- .2 Hot Dip Galvanizing:
- .1 After fabrication, hot dip galvanize specific miscellaneous steel items noted on Drawings or specified herein. Plug relief vents air tight. After galvanizing, remove plugs, ream holes to proper size and re-tap threads. Straighten shapes and assemblies true to line and plane after galvanizing. Galvanize following members:
 - .1 members exposed to elements in final location;
 - .2 members embedded on exterior side of exterior walls;
 - .3 members embedded in concrete;
 - .4 members specified in this Section or noted on Drawings.
 - .2 Hot-dip galvanize members, in accordance with and the requirements of following ASTM A153/A153M, standards, with minimum coating weights or thicknesses as specified:
 - .1 Rolled, Pressed and Forged Steel Shapes, Plates, Bars and Strips: ASTM A123/A123M; average weight of zinc coating per sq

- ft of actual surface,
- .1 For members having thickness of 4.8 mm (3/16") and less:
2 ounces
 - .2 For heavier members: 2.3 ounces.
 - .2 Iron and Steel Hardware: ASTM A153/A153M; minimum weight of zinc coating, in ounces per sq ft of surface in accordance with Table 1 of ASTM A153/A153M, for various classes of materials used on Project.
 - .3 Steel Sheet: ASTM A653/A653M; weight of zinc coating, per sq ft on both sides of sheet. Coating designation Z275 (G90) minimized spangle and chemically treated.
 - .3 Zinc-rich primer: Ready, mixed, zinc-rich primer conforming to CAN/CGSB-1.181 for new galvanized metal. Acceptable Products: "Zinc Clad III HS" by Sherwin Williams Company of Canada Ltd., or approved equivalent.
 - .4 Galvanized Primer Paint, Field Touch-Up Paint and Repair to Damaged Galvanized Surfaces: Zinc rich ready mix organic CGSB 1-GP-181M and in compliance with CGSB 85-GP-16M. Acceptable Products: Glidden ICI "Devoe Catha Coat 13034" or "Zinc Clad III HS" by Sherwin Williams Company of Canada Ltd., or approved equivalent. Conform to manufacturer's recommendations. Colour: Identical to affected surface.
 - .5 Exposed Aluminum Surfaces: Clear anodized coating (Architectural Class II). Pre-treat aluminum with caustic tech treatment prior to applying integral, clear, anodic oxide coating. Apply clear, anodic oxide coating in accordance with AAMA 611, 0.4 mils minimum coating thickness and to Aluminum Finish Designation AA-M12C22A31, Architectural Class II. Protect clear anodized coating with removable protective film.
 - .6 Dielectric Separator: Acid and alkali resistant isolation coating to Provide dielectric separation between cementitious surfaces and metals. Provide best grade, quick drying, non-staining alkali resistant asphalt utility enamel by approved manufacturer to Provide dielectric separation and which will dry to be tack-free and able to withstand high temperatures. Acceptable Products: "Carboline Bitumastic 50" by Carboline Canada, or "Copper Creek Top Service 760 Black" by Sherwin Williams Company, "410-02" by Bakor Inc. or approved equivalent.

PART 3 -EXECUTION

3.1 INSTALLATION

- .1 Verify dimensions at the *Place of The Work* to ensure work of this Section fits to that of other parts of *The Work*.
- .2 Erect *The Work* of this Section plumb, square, true and level.
- .3 Securely anchor work of this Section and rivet, weld or bolt to structural framing of the building. Where secured to concrete, *Provide* bolts for setting in concrete.

- .4 Provide necessary fitting, setting and cutting required in connection with the fitting of work of this Section to other parts of *The Work*.
- .5 Field Painting: Paint bolt heads, washers, nuts, field welds and previously unpainted items. Touch up with matching paint, shop primer damaged during transit and installation.
- .6 Erect stair work to line, plumb, square, true and level, with runs of stairs registering level with floor levels.

3.2 CLEANING

- .1 On completion of installation, carefully clean metal work.

3.3 SCHEDULES

.1 EXTERIOR HANDRAILS AND GUARDRAILS

- .1 Pipe Handrail:
 - .1 Material and finish: Provide minimum 3 mm wall thickness, Type 302 stainless steel handrail pipe.
 - .2 Material and finish: Provide minimum 3 mm wall thickness hot dip galvanized prime painted steel with urethane finish.
 - .3 Outside diameter: 38 mm
 - .4 Provide closed pipe ends and grind welds smooth.
- .2 Provide minimum Type 302 stainless steel hot dip galvanized brackets and escutcheons and finish to match handrails.
- .3 Stainless steel finish: XL Blend S
- .4 Fabricate as detailed.

.2 EXPANDED METAL STAIRS AND BALUSTRADE (EXTERIOR)

- .1 Stringers: minimum 250 x 12.5 MC prime painted steel channel sections.
 - .1 Stringer end cover plate: minimum 6 mm (1/4") continuous prime painted steel, welded.
 - .2 Provide clip angles and anchor bolts to attach treads.
 - .3 Finish: galvanized finish
- .2 Tread and riser carrier bars (horizontal): minimum 30 mm x 30 mm x 6 mm prime painted steel angles, welded to the steel stringers.
 - .1 Finish: prime finish
- .3 Treads and landings: minimum 12 ga sheet steel, welded
 - .1 Treads: diamond treads and landings of Expanded Metal Corporation Unitread, sized to suit.
 - .2 Finish: galvanized.
 - .3 Pan depth: 38 mm.
 - .4 Projection: 25 mm.
 - .5 Reinforce tread and landing nosings with 2 - 10 ga gusset plates.
 - .6 Bolt treads and landings to horizontal carrier angles.
- .4 Risers: open.
- .5 Balustrade:
 - .1 Balustrade posts: minimum 50 mm x 50 mm HSS.
 - .2 Balustrade pickets: minimum 12 mm diameter.
 - .3 Balustrade and wall bracket finish: galvanized.
 - .4 Balustrade and wall handrail covering: vinyl, by Rehau Inc.

Profile and colour shall be later selected by *Consultant*.

- .3 STEEL LADDERS
 - .1 Provide galvanized steel ladders for following locations:
 - .1 One ladder in each elevator pit from 1500 mm above last floor served to bottom of pit.
 - .2 On vertical exterior walls for roof access where indicated.
 - .2 Obtain exact locations of ladders from the *Consultant* where not otherwise indicated.
 - .3 Provide 6 mm galvanized steel checker plate platform and 38 mm x 38 mm x 6 mm angle framing for ladders.
 - .4 Provide a hot dip galvanized steel safety cage from 2200 mm from the finished roof to 900 mm above the parapet.
- .4 LADDER SAFETY CAGES (if applicable)
 - .1 General: Fabricate ladder safety cages to comply with ANSI A14.3 and local OSHA requirements. Assemble by welding.
 - .2 Finish: Galvanize exterior ladders; prime paint interior ladders.
- .5 OPERABLE PARTITION SUPPORTS
 - .1 Provide structural steel plates and support rods in accordance with the operable door manufacturer's detail requirements.
 - .2 Brace support system against lateral movement.
 - .3 Finish: alkyd prime painted.
- .6 OVERHEAD DOOR JAMBS AND HEADERS
 - .1 Provide HSS, channel framing and 6 mm plate steel closures to profile as indicated.
 - .2 Finish: Galvanized steel.
- .7 OVERHEAD DOOR TRACK AND OPERATOR ANCHORAGE
 - .1 Provide inside jamb extensions, centre spring mount and motor supports in accordance with the manufacturer's instructions.
- .8 FLOOR TRENCH AND SUMP PIT COVER PLATES
 - .1 As detailed.
 - .2 Finish: Galvanized
 - .3 Provide perimeter gasket for air tight seal at pits connected with sanitary drainage piping.
- .9 BOLLARDS
 - .1 Bollards: 6 mm thick x 300 mm round diameter HSS.
 - .1 Finish: galvanized.
 - .2 Concrete fill and bases provided as part of work of Section 03 30 00.
 - .3 Bollards installed as part of this Section.
- .10 METAL LOCKER BASES
 - .1 Provide as detailed.
 - .2 Finish: Galvanized steel.
- .11 ARCHITECTURAL WOODWORK
 - .1 Provide miscellaneous steel items required as part of *The Work* of Section 06 40 00, e.g.: valance supports, vanity support brackets.

.1 Finish: prime finish.

.12 MISCELLANEOUS SECTIONS AND FRAMING

- .1 Provide miscellaneous steel sections which are not shown or identified on *Structural Drawings*, or specified under another Section of *Specifications*.
- .2 Provide steel framing and supports indicated and as necessary to complete the Work and which are not a part of the structural framework, including but not limited to:
 - .1 operable partitions,
 - .2 countertop and vanities,
 - .3 benches
 - .4 projection screens,
 - .5 ceiling hung televisions and cameras,
 - .6 tube framing for partial height walls,
 - .7 mechanical and electrical equipment.
- .2 Fabricate units from structural-steel shapes, plates, and bars of welded construction, unless otherwise indicated. Fabricate to sizes, shapes, and profiles indicated and as necessary to receive adjacent construction retained by framing and supports. Cut, drill, and tap units to receive hardware, hangers, and similar items.

END OF SECTION

PART 1 -GENERAL

1.1 GENERAL INSTRUCTIONS

- .1 Read and conform to:
 - .1 the General Conditions and Supplementary Conditions of the *Contract*;
 - .2 Division 1 requirements and documents referred to therein.

1.2 SUMMARY

- .1 Work Included: *Provide* accessories including but not limited to following:
 - .1 boot rack (BR)
 - .2 clothing hooks (CH)
 - .3 electric hand dryer (EHD)
 - .4 grab bar (GRB) - including standard grab bar, L-shaped grab bar, flip-up grab bar and additional reinforcing for grab bars in bariatric areas
 - .5 janitorial unit (JU)
 - .6 mirror (MIR)
 - .7 paper towel dispenser unit (PTD)
 - .8 paper towel dispenser/disposal unit (PTDD)
 - .9 soap dispensers (SD)
 - .10 shower seats (SHT.ST)
 - .11 sanitary napkin/tampon disposal unit (SND)
 - .12 stainless steel shelf (SSS)
 - .13 toilet tissue dispensers (TTD-1)
 - .14 towel bar (TWB)
 - .15 wire shelf (DW)
- .2 Related Requirements: Specifications throughout entirety of Divisions of this Project are directly applicable to this Section, and this Section is directly applicable to them.

1.3 REFERENCES

- .1 Reference Standards:
 - .1 ASTM A167-99(09): Standard Specification for Stainless and Heat-Resisting Chromium-Nickel Steel Plate, Sheet, and Strip
 - .2 ASTM C1503-08: Standard Specification for Silvered Flat Glass Mirror
 - .3 CSA W59-03(08): Welded Steel Construction (Metal Arc Welding)
 - .4 CSA B651-12: Accessible Design for the Built Environment

1.4 ADMINISTRATIVE REQUIREMENTS

- .1 Sequencing: Coordinate installation with related Sections referenced herein.
- .2 Pre-Installation Meetings:
 - .1 Regulatory Requirement Review Meeting: Provide pre-start regulatory requirement review meeting to parties associated with work of this Section. As a minimum, discuss following:

- .1 environmental procedure requirements,
- .2 health, safety and emergency response procedure and policy requirements,
- .3 and security requirements;
- .2 Pre-construction Site Meeting:
 - .1 Prior to start of work, arrange for Project site meeting of parties associated with work of this Section, including non-exhaustively Subcontractor performing work of trade involved, testing company's representative and Contractor's consultants of applicable discipline. Consultant may attend.
 - .2 Review Contract Documents to permit compliance with intent of this Section for work included under this trade, and ensure complete understanding of requirements and responsibilities relative to:
 - .1 work included,
 - .2 materials to be used,
 - .3 storage and handling of materials,
 - .4 installation of materials,
 - .5 sequence and quality control,
 - .6 Project staffing,
 - .7 restrictions on areas of work and other matters affecting construction.
- .3 Scheduling:
 - .1 Prior to commencing work of this Section arrange for manufacturer's technical representative to review with Contractor and Consultant, procedures to be adopted and conditions under which work shall be performed. Inspect surfaces to determine adequacy of proposed conditions.
 - .2 Co-operate fully with other Subcontractors on the Work and promptly proceed with work of this Section as rapidly as job conditions permit.
 - .3 Co-operate with other Sections for application of all miscellaneous specialties.
 - .4 Supply items to be built-in in ample time to be incorporated into work of other Subcontractors, together with measurements and other information required for location of it.
 - .5 Ensure work which may create dust does not proceed during work related to painting and final finishing.

1.5 SUBMITTALS

- .1 *Product Data*: Submit manufacturer's literature and data sheets for each type of material provided under this Section for *Project* in accordance with requirements of Division 01. Ensure data sheets *Provide* required information including detailed instructions for installing as well as maintaining, preserving and keeping materials in clean and safe conditions. *Provide* adequate warning of maintenance practices or cleaning agents detrimental to specified materials.
- .2 *Material Safety Data Sheets*: Submit MSDS for inclusion in Operation and Maintenance Manual for following items without limitations: adhesives, sealants and other items designated later by *Consultant*.

- .3 *Shop Drawings*: Submit *Shop Drawings* for work of this Section in accordance with Division 01. Ensure *Shop Drawings* indicate material characteristics, details of construction, connections and relationship with adjacent construction. Submit *Shop Drawings* in form of catalogue cuts and fully illustrate specified materials with description of components, surface finishes, hardware and securement devices.
- .4 *Samples*: Submit complete samples of each accessory and modular unit to *Consultant* for review of construction quality, materials and finish prior to delivery of required quantities of items. Submit sample of each colour where applicable. No trademark and/or labels are acceptable on exposed finishes.
- .5 *Maintenance Instructions*: Submit maintenance instructions in accordance with Division 01. Submit an accessories schedule, keys and parts manual as part of *Project* closeout documents. Submit 2 sets of following items of manufacturer's literature:
 - .1 Technical Data Sheets of each item used for the *Project*.
 - .2 Service and Parts Manuals.
 - .3 Name of local representative to be contacted in the event of need of field service of consultation.

1.6 QUALITY ASSURANCE

- .1 *Installers*: *Provide Work* of this Section executed by competent installers with minimum of 5 years' experience in application of *Products*, systems and assemblies specified and with approval and training of the *Product* manufacturers.
- .2 *Single Source Responsibility*: Ensure primary materials provided in this Section are obtained from 1 source by a single manufacturer and secondary materials are obtained from sources recommended by primary materials manufacturers. Ensure *Products* for work of this Section are keyed alike to extent possible.

1.7 DELIVERY, STORAGE AND HANDLING

- .1 Deliver materials in sealed cartons and containers with manufacturer's name and *Product* description clearly marked thereon.

1.8 WARRANTY

- .1 Warrant mirrors of this Section for period of 10 years against defects and deficiencies in accordance with General Conditions of the *Contract*. Promptly correct defects or deficiencies which become apparent within warranty period, to satisfaction of *Consultant* and at no expense to *Owner*. Defects include but are not limited to: deterioration of mirror's silvering.

PART 2 -PRODUCTS

2.1 MANUFACTURERS

- .1 *Products* of following manufacturers are acceptable subject to conformance to requirements of *Drawings*, *Schedules* and *Specifications*:
- .1 ASI/Watrous, Inc. A division of ASI; www.americanspecialties.com
 - .2 Bobrick Washroom Equipment of Canada Ltd.; www.bobrick.com
 - .3 Bradley Corporation; www.bradleycorp.com
 - .4 Elcoma Barrier Free *Products*; www.elcoma.com
 - .5 Frost Washroom Accessories; www.fcfrost.com
 - .6 HealthCraft *Products* inc.; www.healthproducts.com
 - .7 Kimberley Clark; www.kimberly-clark.com
 - .8 Koala Kare; www.koalabear.com
 - .9 Securing Cosmos; www.securitycosmos.com
 - .10 Mistubishi; www.mitsubishijettowel.com
 - .11 Dyson; www.dysonairblade.com
 - .12 Metropolitan Wire Ltd.; www.metro.com
- .2 Substitution Limitations: This Specification is based on *Products* from manufacturers listed herein. Comparable *Products* from manufacturers not listed herein will be considered provided they meet the requirements of this Specification.

2.2 DESCRIPTION

- .1 Regulatory Requirements:
- .1 Install systems in accordance with Code regulations concerning access of physically challenged and disabled persons. Comply with CAN/CSA B651.
- .2 Design/Performance Requirements:
- .1 Provide accessories as specified with options indicated. Model numbers may not reflect all options required.
 - .2 Provide stainless steel collars to accommodate semi-recessed mounting of units whose depth exceeds wall cavity depth.
 - .3 Edges of sheet metal which are accessible to users or maintenance personnel shall be pneumatically sanded to yield smooth safe edges with no sharpness.
 - .4 Mount items with concealed fasteners unless otherwise indicated or unavoidable. Where exposed fasteners are unavoidable, use tamper-resistant type.
 - .5 Where indicated, Design and manufacture suicide-resistant products in order to minimize risk of suicide in correctional facilities. Conform to suicide-resistant or anti-ligature requirements of ADAAG (Americans with Disabilities Act Accessibility Guidelines).

2.3 MATERIALS

- .1 Ensure accessories are stainless steel conforming to ASTM A167, Type 304 or Type 302, of 1 type throughout, ANSI No. 4 mechanical brushed finish, of contemporary design, with minimum material thicknesses of components as specified herein. Arrange stainless steel sheet so grain of brushed finish runs vertically in finished installation.
- .1 Minimum thickness, any location or component: 0.645 mm
 - .2 Hygienic accessory - exposed double pan doors and panels: 0.645 mm

- .3 Hygienic accessory - exposed single pan doors: 1.26 mm
- .4 Reinforcement: 1.26 mm
- .2 Concealed Sheet Steel Reinforcing: Refer to Section 09 21 16. At bariatric locations, Provide toggle bolt fasteners as specified herein to Provide additional strength.
- .3 Provide accessories as specified with options indicated. Model numbers may not reflect all options required.

2.4 MANUFACTURED UNITS

- .1 Boot Rack (BR-1): Supply vertical surface mounted rack with 1.519 mm (16ga) steel posts and 1.214 mm (18ga) flip-up steel shelves. Steel shall be Zinc-Coated (Galvanized). 4 flip-up shelves per section unit. Provide all required hardware and accessories for complete installation.
 - .1 Size: 864 mm x 1500 mm x 355 mm (34"w x 4'11"h x 14"d)
 - .2 Provide 1 of the following:
 - .1 "48W/34W SML Wall Mounted Book Racks" by Shanahan's;
www.shanahans.com or approved equivalent.
 - .3 Finish: baked enamel, colour to be selected at a later date from manufacturer's standard range.
- .2 Clothing Hook (CH-1): Supply 1 per washroom and as indicated on drawings, satin finished stainless steel, double hook type supplied with backplates and screws. Mount items at heights indicated on Drawings. Provide 1 of following:
 - .1 Model No. B-682 by Bobrick,
 - .2 Model No. 9134 by Bradley.
 - .3 Model No. 7382 by ASI/Watrous
- .3 Clothing Hook - Multiple (CHM): Supply hooks mounted on strip in locations indicated on drawings, satin finished stainless steel, double hook type supplied with backplates and screws. Mount items at heights indicated on Drawings. Provide 1 of following:
 - .1 Model No. B-232 by Bobrick
 - .2 Model No 9943 by Bradley
 - .3 approved equivalent by ASI
- .4 Clothing Hook and Handicapped Hook Strip - Multiple (CHMS and HCHMS):
 - .1 Provide hooks mounted on strip and designed to carry maximum load of 16 kg (35 lb) without failure. Ensure clothing hooks fail when loaded beyond limit stipulated above. Provide units capable of having adjustable failing point under load by means of adjusting 1-way vandal proof screws with special tool. Minimum 3 hooks per strip.
 - .2 Supply in designated mental health areas, satin finished stainless steel, multiple hook type with rear mounting system supplied with backplates and screws. Mount items at heights indicated on Drawings.
 - .3 Provide 1 of following:
 - .1 CHMS-1 and HCHMS-1:
 - .1 Model No. B-985 by Bobrick
 - .2 approved equivalent by Bradley

- .3 approved equivalent by ASI
- .5 Safety/Suicide Resistant Clothing Hook and Handicapped Hook (CHS and HCHS):
 - .1 Provide door hooks designed to carry maximum load of 16 kg (35 lb) without failure. Ensure clothing hooks fail when loaded beyond limit stipulated above. Provide units capable of having adjustable failing point under load by means of adjusting 1-way vandal proof screws with special tool.
 - .2 Supply 1 per shower stall and washroom in designated mental health areas, satin finished stainless steel, single hook type with rear mounting system supplied with backplates and screws. Mount items at heights indicated on Drawings. Provide 1 of following:
 - .1 Model No. B-983 (Stainless steel hook and bracket) by Bobrick.
 - .2 Model No. SA35 (Stainless steel hook and bracket) by Bradley.
 - .3 Model No. 123 (Stainless steel hook and bracket) by ASI/Watrous.
- .6 Wall Mounted Clock (CLK):
 - .1 Refer to Division 26.
- .7 Electric Hand Dryers (EHD): ADA Compliant, Surface mounted warm air hand dryers with sensor operation. Provide high speed type with adjustable speed/temperature. Ensure units come complete with anti-microbial resistant exterior surfaces. Provide 1 of following:
 - .1 Sensor Operation (High Speed Type): Ensure units come complete with anti-microbial resistant lacquer on exterior surfaces.
 - .1 "AirbladedB-AB14" by Dyson.
 - .2 "Jet Towel" by Mistubishi.
 - .3 "Tri-Umph" by ASI/Watrous.
- .8 Grab Bar (GRB): Stainless steel, 32 mm (1-1/4") outside diameter, 1.21 mm (18 ga) wall thickness with peened finish to Provide positive gripping surface unless otherwise indicated. Provide items complete with standard mounting plates, flanges and accessories. Ensure grab bars can support minimum load of 113 kg (250 lbs).
 - .1 Standard Horizontal or Vertical Grab Bar (GRB-1): Mount as shown on Drawings. Provide 1 of following:
 - .1 Model No. B-5806.99x24 Series by Bobrick.
 - .2 Model No. 812x24 Series by Bradley.
 - .3 Model No. 3100-01x24 Series by ASI/Watrous.
 - .2 Vertical L-Shaped Grab Bar (GRB-2): Provide vertical L-Shaped grab bar. Mount as shown on Drawings. Provide following:
 - .1 Model No. 3100-04 (30x30) by ASI/Watrous or approved equivalent by Bobrick, Bradley or Elcoma.
 - .3 Grab Bar (GRB-3): Not Used.
 - .4 Flip Up Grab Bar (GRB-4): Ensure grab bars are capable of rotating 90° in vertical direction. Mount as shown on Drawings with columns or carriers recommended by manufacturer. Provide following:
 - .1 Model No. B-4998.99 by Bobrick
 - .2 Model No. 3413P by ASI/Watrous
 - .3 Model No. 96-2230PW05- PEENED GRIP by Elcoma; www.elcoma.com
- .9 Janitorial Unit (JU): Supply 865 mm (34") long stainless steel utility shelf

- complete with stainless steel hooks and spring-loaded rubber mop/broom holders:
- .1 Model No. B-223x36 by Bobrick.
 - .2 Approved equivalent by Bradley.
 - .3 Approved equivalent by ASI/Watrous.
- .10 Mirror (MIR-1): *Supply* 6 mm (1/4") polycarbonate mirror with inter-Lok stainless steel Type 304 (18-8) 1.21 mm (18 ga) No. 4 satin finish. Provide minimum 0.457 mm thick (26 ga) galvanized sheet steel backing and Tamper resistant fasteners.
- .1 Size: (MIR-1): 460 mm X 910 mm (18" X 36")
 - .11 *Provide* 1 of following:
 - .1 Model No. "0600 series" by ASI/Watrous.
 - .2 Model No. "B-290 series" by Bobrick.
 - .3 Model No. "780 series" by Bradley.
- .12 Paper Towel Dispenser Units (PTD-1): Compact Height (711 mm - 28"); Surface Mounted stainless steel construction with C-folded or multi-folded towel dispensing mechanism. *Provide* Type 304 (18-8) 0.8 mm (22 ga) stainless steel door complete with full length heavy duty stainless steel piano hinge. *Provide* 1 pin type tumbler lock:
- .1 Model No. B-262 by Bobrick.
 - .2 Model No. 250-15 by Bradley.
 - .3 Model No. 0210 by ASI/Watrous.
- .13 Medium Capacity Stainless Steel Combination Paper Towel Dispenser/Disposal Unit (PTDD-1): Full Length; surface mounted stainless steel construction with metal waste receptacle and C-folded, multi-folded or single folded towel dispensing mechanism. *Provide* Type 304 (18-8) 1.519 mm (16 ga) stainless steel door complete with full length heavy-duty stainless steel piano hinge. *Provide* 2 pin type tumbler locks keyed alike:
- .1 Model No B-380349 by Bobrick
 - .2 Model No 2017-11 by Bradley
 - .3 Model No 64676-9 by ASI/Watrous
- .14 Soap Dispensers (SD-1): Liquid type.
- .1 Vertically Wall Mounted Type (SD-1): minimum 1.2 L (40 oz) capacity container with soap level gauge and integral filler cap. *Provide* 1 of following:
 - .1 Model No. B-2111 by Bobrick.
 - .2 Model No. 6562 by Bradley
 - .3 Model No. 0347 by ASI/Watrous
- .15 Solid Phenolic Folding Shower Seats (SHT.ST): Solid phenolic folding shower seat manufactured from 1 piece solidly fused plastic laminate with matte finish. Frame to be Type 304 (18-8) 1.519 mm (16 ga) stainless steel with satin finish. *Provide* stainless steel piano hinge along 1 side. Other side to have 3 mm (1/8") thick 19 mm (3/4") x 19 mm (3/4") stainless steel support angle. *Provide* 1.519 mm (16 ga) retaining clip to hold seat in upright position when not in use. *Provide* 1 of following:
- .1 Model No. B-5191 by Bobrick.

- .2 Model No. 9562 by Bradley.
 - .3 Model No. 8203 by ASI/Watrous.
- .16 Sanitary Napkin and Tampon Disposal Unit (SND): surface mounted, stainless steel construction, satin finish with self-closing door. *Provide* 1 of following:
- .1 Surface mounted Type:
 - .1 Model No. B-270 by Bobrick.
 - .2 Model No. 4781-15 by Bradley.
 - .3 Model No. 20852 by ASI/Watrous.
- .17 Stainless Steel Shelf (SSS-1): Surface mounted shelf fabricated from 1.27 mm (18 ga), Type 304 stainless steel in satin finish. *Provide* units complete with integral brackets. *Provide* 1 of following:
- .1 Model No. B-298x18 by Bobrick
 - .2 Model No. 758-18 by Bradley
 - .3 Model No. 0692-818 by ASI/Watrous
- .18 Safety Toilet Tissue Dispenser (TTD-1): Supply safety toilet tissue dispenser manufactured from impact resistant solid polymer material with collapsible dowels. *Provide* following:
- .1 Model No. 817-S15 - SafeSupport® Impact Resistant TP Holder by SecuringCosmos; www.securingscosmos.com or approved equivalent by Bobrick or Bradley or ASI/Watrous. Size: As shown on Drawings.
- .19 Towel Bar (TWB): Circular towel bar with 19 mm - 25 mm (3/4" - 1") outside diameter manufactured from Type 304 satin finished stainless steel with 1.214 mm (18 ga) wall thickness. *Provide* units complete with standard mounting plates, flanges and accessories. Mount as shown on *Drawings*.
- .1 Size: 610 mm (24")
 - .2 *Provide* 1 of following:
 - .1 Model No. B-530x24 by Bobrick.
 - .2 Model No. 9065x24 by Bradley.
 - .3 Model No. 7355-24 by ASI/Watrous.
- .20 Wire Shelf (DW-1): Supply direct wall mounted wire shelf, 610 mm (24") long x 360 mm (14") deep, Type 304 (18-8) 1.214 mm (18 ga) satin finish stainless steel complete with manufacturer's accessories and hardware for complete installation. *Provide* 1 of the following:
- .1 "Super Erecta Shelf - Direct Wall Mount" by Metropolitan Wire (Canada) Ltd.
 - .2 Approved equivalent.

2.5 FABRICATION

- .1 Fabricate accessories true, square, rigid, free from distortion and from defects detrimental to appearance and performance. Assemble sheet metal accessories by welding in accordance with CSA W59-M. Conceal welds, or grind smooth such as to be undetectable in finished work. Unless approved by *Owner*, assembly fastenings, hardware fixings and mounting or installation devices shall be concealed in finished work.
- .2 Use non-corrosive metal fasteners of expansion type, toggle type or other approved type of positive, mechanical anchor as required to suit construction to which accessory is to be mounted. Exposed fasteners, where permitted, shall be finished to match adjacent accessory surface, and be countersunk. Where accessories are mounted to sheet metal, *Provide* a 3 mm (1/8") thick minimum full-size metal back-up plate drilled and tapped to receive machine screws and finished to match adjacent sheet metal surface.
- .3 Ensure frameless accessories have 1 piece fronts with 90 degree formed returns at their edges and openings. Ensure returns are continuously welded and ground smooth at corners. Where accessory fronts are framed, frame edges, both inside and outside, shall have 90 degree formed returns continuously welded and ground smooth at corners. Doors shall also have 90 degree formed returns.
- .4 Use concealed stainless steel piano hinges which extend full-length of hinged element. Ensure hinged elements have concealed, mechanically-retained, rubber bumpers for silent closing, and close flush with faces of fronts or frames. Locate hinges to afford easy and unobstructed access to interiors taking into consideration location of accessory relative to surrounding and adjacent items and finishes.
- .5 Portions of sheet metal accessory interiors which are visible in completed work shall be stainless steel. Changes in plane shall be formed or continuously welded and ground smooth. Sheet metal accessory parts concealed in finished installation shall be galvanized or stainless sheet steel. Edges of sheet metal which are accessible by users or maintenance personnel shall be hemmed for safety with no sharp edges.
- .6 Ensure lettering on accessories is silk screened with durable paint to withstand wear, or is engraved or embossed. Size, location and type face of lettering is subject to approval. Ensure edges of letters are straight and sharp.

PART 3 -EXECUTION

3.1 INSTALLATION

- .1 Provide necessary wall reinforcement conforming to ASTM F446 and capable of supporting a minimum of 1.3 kN (292 lbs) downward pull force for grab bars and any other accessories subject to human loadings to protect occupants against consequences of failure (damage, accidents, harm or any other non-desirable event) whether or not detailed on Drawings and in

accordance with manufacturer's instructions. Provide additional reinforcement in bariatric areas using toggle bolt fasteners at mounting plates to support minimum load of 227 kg (500lbs) downward pull.

- .2 *Install* accessories in accordance with manufacturer's printed installation instructions.
- .3 *Provide* fastenings and mounting kits for accessories.
- .4 Verify wall opening for correct dimensions, plumbness of blocking or frames and other preparation that would affect installation of accessories.
- .5 Verify spacing of plumbing fixtures and toilet partitions that affect installation of accessories.
- .6 Securely fasten accessories, level and plumb using appropriate fastenings as recommended by manufacturer.
- .7 *Provide* corrosion resistant fastenings. Where fasteners are exposed, use tamper-proof fasteners finished to match items secured.
- .8 Locate accessories where indicated on *Drawings* and where directed by *Consultant*. Obtain *Consultant's* acceptance of exact locations.
- .9 *Provide* manufacturer's recommended anchoring systems.
- .10 Fit flanges of accessories snug to wall surfaces.
- .11 Refer to the Schedule of Washroom Accessories included with this Section and the Room Finish Schedule.

3.2 ADJUSTING, CLEANING AND POLISHING

- .1 Remove protective coatings and paper including adhesives.
- .2 Test mechanisms, hinges, locks and latches.
- .3 Adjust and lubricate to ensure washroom accessories are in perfect working order.
- .4 Clean and polish mirrors, aluminum and stainless steel surfaces.

END OF SECTION

PART 1 -GENERAL

1.1 GENERAL INSTRUCTIONS

- .1 Read and conform to:
 - .1 the General Conditions and Supplementary Conditions of the *Contract*;
 - .2 Division 1 requirements and documents referred to therein.

1.2 SUMMARY

- .1 Work Included: *Provide* miscellaneous specialties including but not limited to following:
 - .1 stainless steel corner guards (CG)
 - .2 flammable cabinet
- .2 Related Requirements: Specifications throughout entirety of Divisions of this Project are directly applicable to this Section, and this Section is directly applicable to them.

1.3 REFERENCES

- .1 Definitions:
 - .1 Installation:
 - .1 This includes coordination with other Sections, labour, material and equipment necessary for off-loading of equipment, handling, storing and dismantling of parts if required.
 - .2 Make provisions for transferring items to proper location in building, connections to building services, covering and protecting, final removal of covering and protection and making ready as required to form fully operative equipment.
 - .3 Install items with security fasteners and security anchoring devices in security areas.
 - .2 Purchase: This includes labour, materials and equipment necessary for purchase and delivery of equipment to site.
- .2 Reference Standards:
 - .1 Latest published edition of reference standards listed herein are applicable to this Project unless otherwise indicated.
 - .2 Reference amendments adopted prior to the effective date of this Project are applicable unless otherwise indicated

1.4 ADMINISTRATIVE REQUIREMENTS

- .1 Sequencing: Coordinate installation with related Sections referenced herein.
- .2 Pre-Installation Meetings:
 - .1 Regulatory Requirement Review Meeting: Provide pre-start regulatory requirement review meeting to parties associated with work of this Section. As a minimum, discuss following:
 - .1 environmental procedure requirements,
 - .2 health, safety and emergency response procedure and policy

-
- requirements,
 - .3 and security requirements;
 - .2 Pre-construction Site Meeting:
 - .1 Prior to start of work, arrange for Project site meeting of parties associated with work of this Section, including non-exhaustively Subcontractor performing work of trade involved, testing company's representative and Contractor's consultants of applicable discipline. Consultant may attend.
 - .2 Review Contract Documents to permit compliance with intent of this Section for work included under this trade, and ensure complete understanding of requirements and responsibilities relative to:
 - .1 work included,
 - .2 materials to be used,
 - .3 storage and handling of materials,
 - .4 installation of materials,
 - .5 sequence and quality control,
 - .6 Project staffing,
 - .7 restrictions on areas of work and other matters affecting construction.
 - .3 Scheduling:
 - .1 Prior to commencing work of this Section arrange for manufacturer's technical representative to review with Contractor and Consultant, procedures to be adopted and conditions under which work shall be performed. Inspect surfaces to determine adequacy of proposed conditions.
 - .2 Co-operate fully with other Subcontractors on the Work and promptly proceed with work of this Section as rapidly as job conditions permit.
 - .3 Co-operate with other Sections for application of all miscellaneous specialties.
 - .4 Supply items to be built-in in ample time to be incorporated into work of other Subcontractors, together with measurements and other information required for location of it.
 - .5 Ensure work which may create dust does not proceed during work related to painting and final finishing.

1.5 SUBMITTALS

- .1 Product Data:
 - .1 Submit manufacturer's literature and data sheets for each type of material provided under this Section for *Project* in accordance with requirements of Section 01 30 00. Ensure data sheets provide required information including detailed instructions for installing as well as maintaining, preserving and keeping materials in clean and safe conditions. Provide adequate warning of maintenance practices or cleaning agents detrimental to specified materials.
 - .2 Material Safety Data Sheets: Submit MSDS for inclusion in Operation and Maintenance Manual without limitations for adhesives, sealants and any other material later designated by Consultant.
- .2 Shop Drawings: Submit Shop Drawings indicating material characteristics, details of construction, connections and relationship with adjacent

- construction. Verify dimensions by field measurements before fabrication and indicate measurements on Shop Drawings.
- .3 Samples: Submit samples if requested by *Consultant* in minimum 300 mm x 300 mm (12" x 12") size.
 - .4 Test and Evaluation Reports: Submit test data substantiating that proposed materials meet performance criteria specified herein. Submit independent test results showing properties and acceptable fire hazard classification of applicable materials.
 - .5 Certificates: Obtain certificate from Professional Engineer responsible for design which includes seismic assessment and field review of this part of the Work, validating that work substantially complies with requirements of the NBC and that requisite field reviews have been completed
 - .6 Maintenance Instructions: Submit maintenance instructions in accordance with Section 01 70 00.

1.6 QUALITY ASSURANCE

- .1 Qualifications: Provide work of this Section executed by competent installers with minimum of 5 years' experience in application of Products, systems and assemblies specified and with approval and training of the Product manufacturers.
- .2 Licensed Professionals: Employ a full time professional structural engineer registered in the Territory of Nunavut, carrying minimum \$2,000,000.00 professional liability insurance to:
 - .1 design components of *The Work* of this Section requiring structural performance
 - .2 be responsible for full assemblies and connections
 - .3 be responsible for determining sizes, joint spacing to allow thermal movement and loading of components in accordance with applicable codes and regulations.
 - .4 be responsible for production and review of *Shop Drawings*.
 - .5 inspect work of this Section during fabrication and erection.
 - .6 stamp and sign each *Shop Drawing*.
 - .7 *Provide* site administration and inspection of this part of *The Work*.
- .3 Single Source Responsibility: Ensure primary materials provided in this Section are obtained from 1 source by a single manufacturer and secondary materials are obtained from sources recommended by primary materials manufacturers.
- .4 *Mock-ups*: *Provide Mock-ups* in locations designated by *Consultant* and as required to demonstrate quality of workmanship. Maintain *Mock-ups* during construction in an undisturbed condition as a standard for judging the completed work.

1.7 DELIVERY, STORAGE AND HANDLING

- .1 Delivery and Acceptance Requirements: Comply with material manufacturer's ordering instructions and lead time requirements to avoid delays.

1.8 WARRANTY

- .1 Warrant work of this Section for period of 3 years against defects and/or deficiencies in accordance with General Conditions of the Contract. Promptly correct any defects or deficiencies which become apparent within warranty period, to satisfaction of Consultant and at no expense to Owner. Defects include but are not limited to; buckling, opening of seams, bond failure and extensive colour fading.

PART 2 -PRODUCTS

2.1 DESCRIPTION

- .1 Regulatory Requirements:
- .1 Fire performance characteristics: Provide wall protection system components having ULC or UL label indicating that they are identical to those tested in accordance with CAN/ULC S102.2 or ASTM E84 for Class 1 characteristics, with flame spread of 25 or less and smoke developed of 450 or less.
 - .2 Install systems in accordance with Code regulations concerning access of physically challenged and disabled persons.
 - .3 Attach labels to electrical equipment attesting to CSA or Local Utility Company's approval; provide magnetic starters for motors, transformers and overload protection.
- .2 Design and Performance Requirements:
- .1 As far as practical and unless otherwise indicated, Provide PVC-free wall and door protection materials at scheduled locations except egress corridors as required to meet fire-resistance characteristics stipulated by authorities having jurisdiction. Use minimal amounts of PVC-based wall and door protection materials at egress corridors as indicated on Drawings and Schedules.
 - .2 Wall and Door Protection:
 - .1 Impact strength: Tested in accordance with applicable provisions of ASTM F476.
 - .2 Chemical and stain resistance: In accordance with ASTM D1308.

2.2 MANUFACTURED UNITS

- .1 Stainless Steel Corner Guards:
- .1 Surface Mounted Type: manufactured from 1.6 mm (16 ga.) Type 304 stainless steel with #4 brushed finish complete with tamper-resistant fasteners or adhesive application as recommended by manufacturers. Provide height to match door frames as shown on drawings and schedules. Provide following:
 - .1 CG-1: 90° angle; 75 mm (3") wing length wing length and 3 mm (1/8") corner radius; *Products* of following manufacturers are acceptable subject to conformance to requirements of *Drawings*, *Schedules* and *Specifications*:
 - .1 "C/S Model No. CO-8" by Construction Specialties Ltd.; www.c-sgroup.com or approved equivalent by InPro Corporation; www.inprocorp.com or Pawling Corporation;

.2 Flammable Cabinets:

- .1 Provide 1092 mm x 457 mm x 1651 mm (43" W x 18" D x 65" H) cabinet, double wall 18 ga. steel, self-closing doors and 2 adjustable shelves capable of holding 350 lbs. Provide following:
 - .1 Model No. "H-1564S, Tag No. SE-9A - Yellow" by ULINE; www.uline.com or approved equivalent.
 - .2 Contract Price shall include for minimum 3 flammable cabinets for installations in locations designated.
 - .3 Owner reserves right to reduce the number of cabinets with credit for deletion in accordance with Document 00 43 22, Supplementary Bid Form - Unit Prices.

2.3 FABRICATION

- .1 Accurately fit joints and intersecting members in true planes with adequate fastening.
- .2 Fit and assemble work of this Section in shop where possible. Execute according to details and reviewed *Shop Drawings*. Where shop fabrication is not possible, execute trial assembly in shop.
- .3 Fabricate finished work free from distortion, weld splatter and defects detrimental to appearance and performance.
- .4 Edges of sheet metal which are accessible to users or maintenance personnel shall be pneumatically sanded to yield smooth safe edges with no sharpness.
- .5 Provide exposed metal fastenings and accessories of the same material, texture, colour and finish as the base metal to which they are applied or fastened, unless otherwise specified.
- .6 Do not expose trademarks or labels on finished surfaces.

2.4 ACCESSORIES

- .1 Provide accessories as a complete packaged system.
- .2 Sealants: Provide silicone sealants as recommended by manufacturer.
- .3 Adhesives: Provide adhesive as recommended by manufacturer.

PART 3 -EXECUTION

3.1 INSTALLATION

- .1 Conform to manufacturer's printed instructions for accurate, secure installation. Ensure proper operation.
- .2 Provide work of this Section true to dimensions, square, plumb, level and free from distortion or defects detrimental to appearance and performance.
- .3 Provide all necessary reinforcing including but not limited to steel stud

backup and securely fasten components to suit design requirements. Ensure proper reinforcing has been provided as necessary.

3.2 PROTECTION

- .1 Cover finished surfaces and protect exposed corners and areas vulnerable to damage by persons or by movement of materials, tools or equipment.

END OF SECTION

Accessories Schedule Abbreviations

Federal Building
PROJECT NO. 1408-00

Issued for Tender April 07, 2015

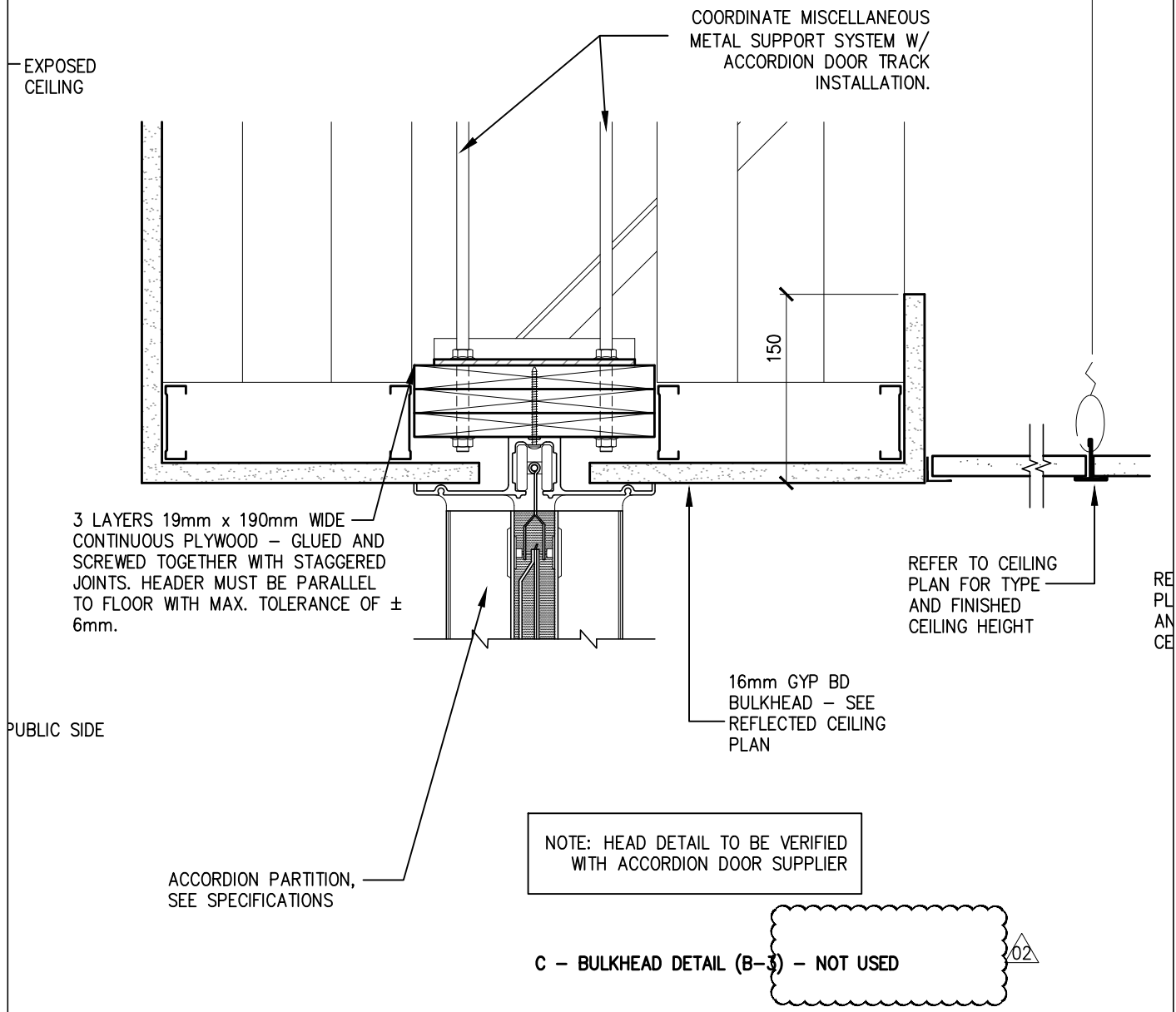
Abbreviation	Description
BR-1	Boot Rack 34"
CH-1	Clothing Hook - Mounted at 1500mm A.F.F.
CHM	Clothing Hook - Mounted at 1500mm A.F.F.-multiple
CHS	Safety Clothing Hook
CHMS	safety/suicide resistant clothing hook- multiple
CLK	Clock
DW-1	Direct Wall Mount Shelf 14" x 24"
EHD	Electric Hand Dryer
GRB-1	610mm (24")
GRB-2	765mm X 765mm (30" x 30") - L Shaped Vertical
GRB-4	Flip Up Grab Bar
HCHS	Safety Handicapped Clothing Hook - Mounted at 1200mm A.F.F.
HCHMS	safety/suicide resistant handicapped hook- multiple
JU	Janitors Unit 34"
MIR-1	Mirror Type 1 - 460mm X 910mm (18" x 36") - including suicide resistant type
PTD-1	Paper Towel Dispenser
PTDD-1	Combination Paper Towel Dispenser/Disposal Unit
SD-1	Soap Dispenser -Regular (Wall Mounted)
SHT.ST	Shower Seat - including bariatric type
SND	Sanitary Napkin/Tampon Disposal Unit
SSS-1	Stainless Steel Shelf - (18"[455mm] x 8"[205mm])
TB-1	Aluminum Frame Tackboard (1000mm x 1220mm)
TTD-1	Toilet Tissue Dispenser (Surface Mounted) - including suicide resistant type
TWB	Towel Bar 24" c/c

ACCESSORIES SCHEDULE

Federal Building
PROJECT NO. 1408-00

Section 10 28 00
Issued for Tender April 07, 2015

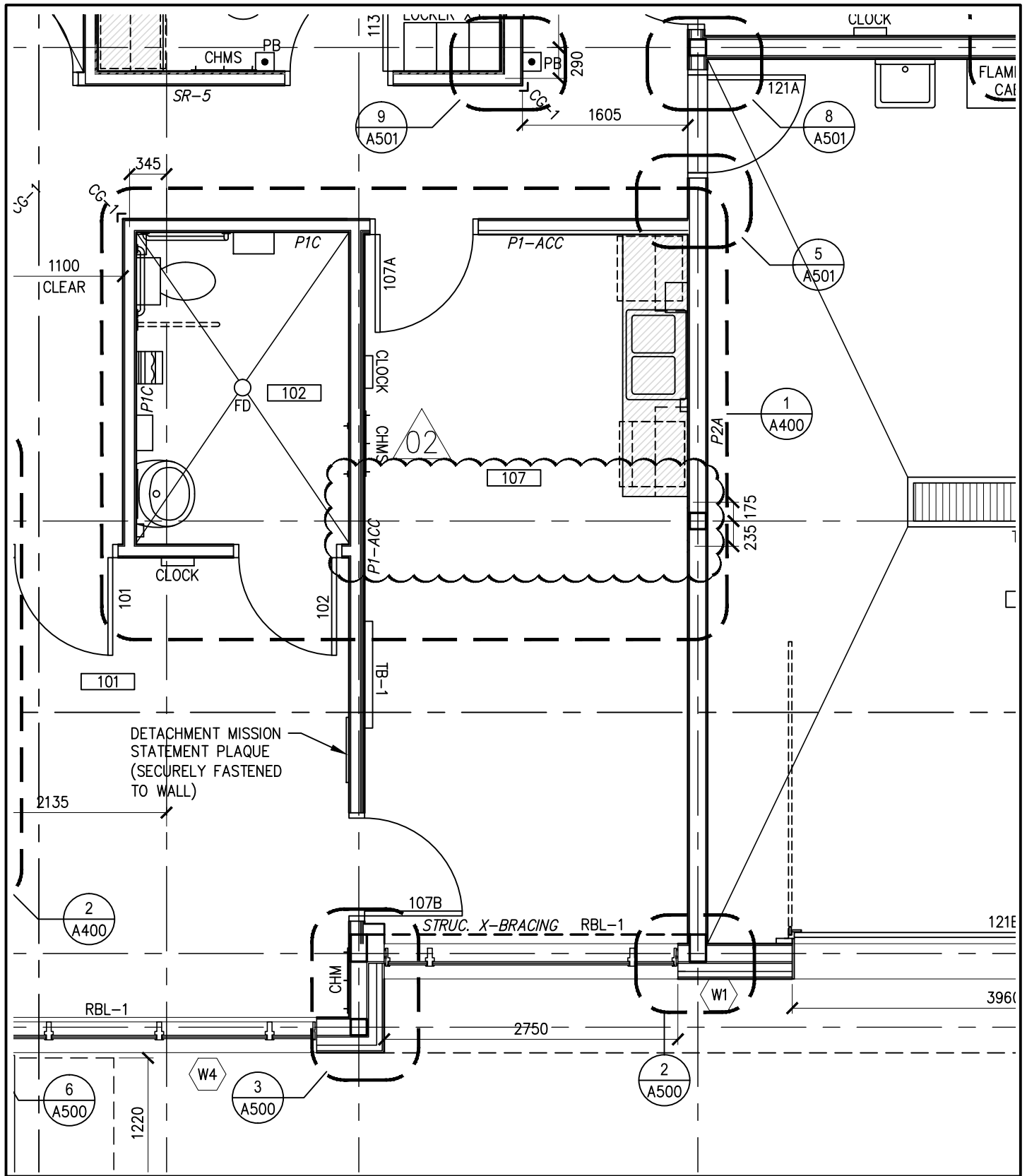
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L1	100	1																								
L1	101			1			1																			
L1	102				1				1	1	1	1	1			1		1	1		1			1		
L1	103		1				1																			
L1	104																									
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L1	118															1		1	1	1	1				1	1 Shower Rod and Curtain for shower
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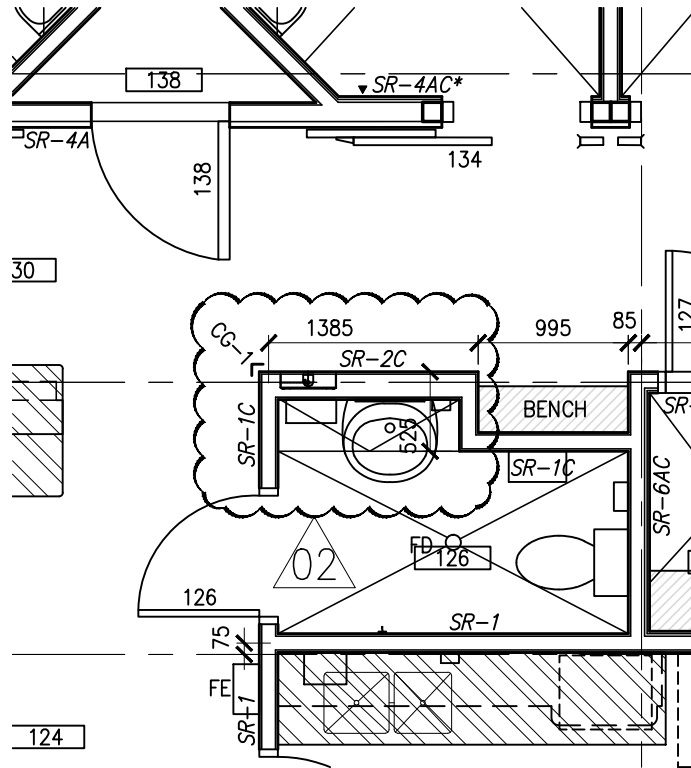
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Project:

FEDERAL BUILDING
ARVIAT, NUNAVUT



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ARVIAT, NUNAVUT



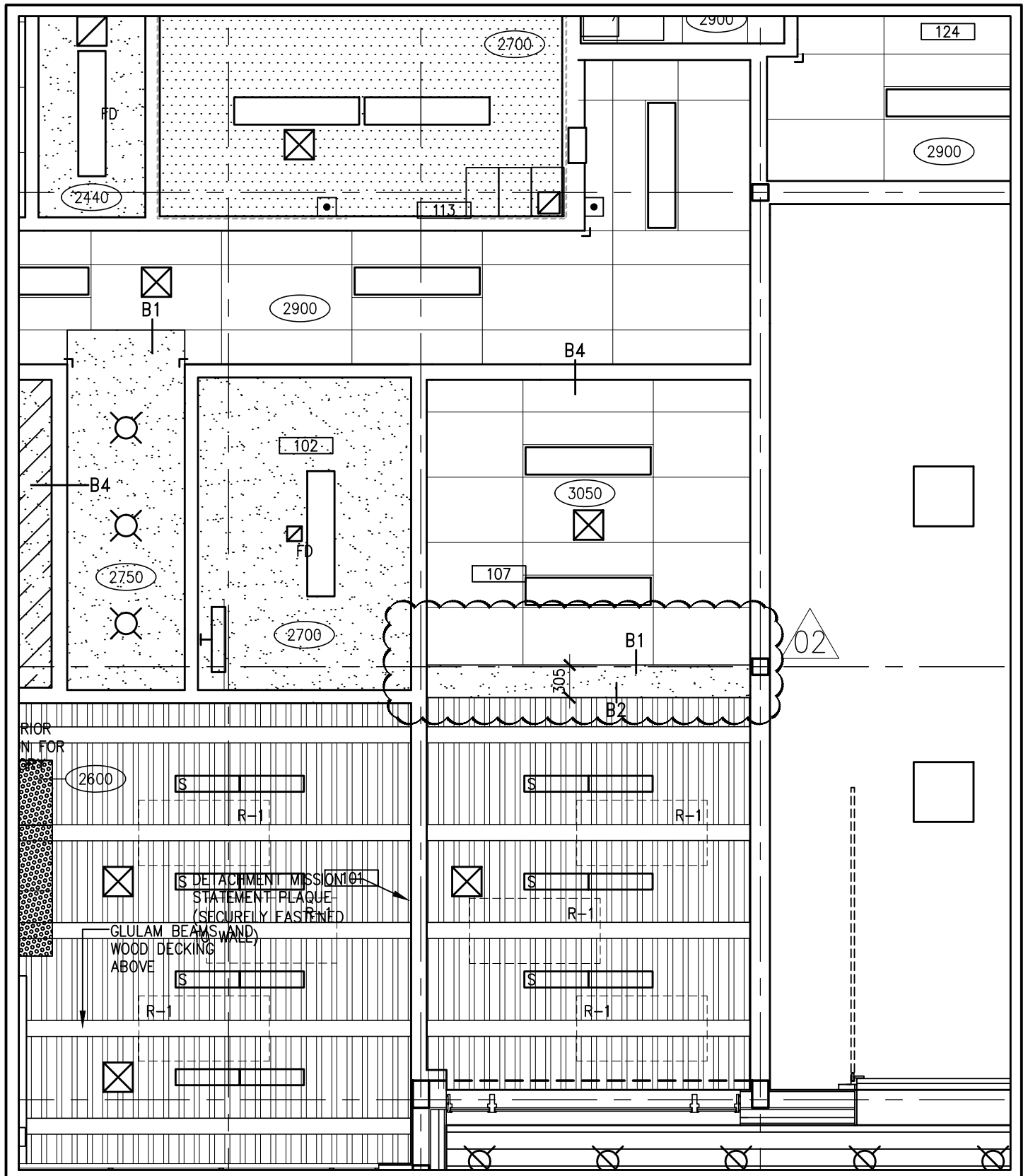
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ARVIAT, NUNAVUT



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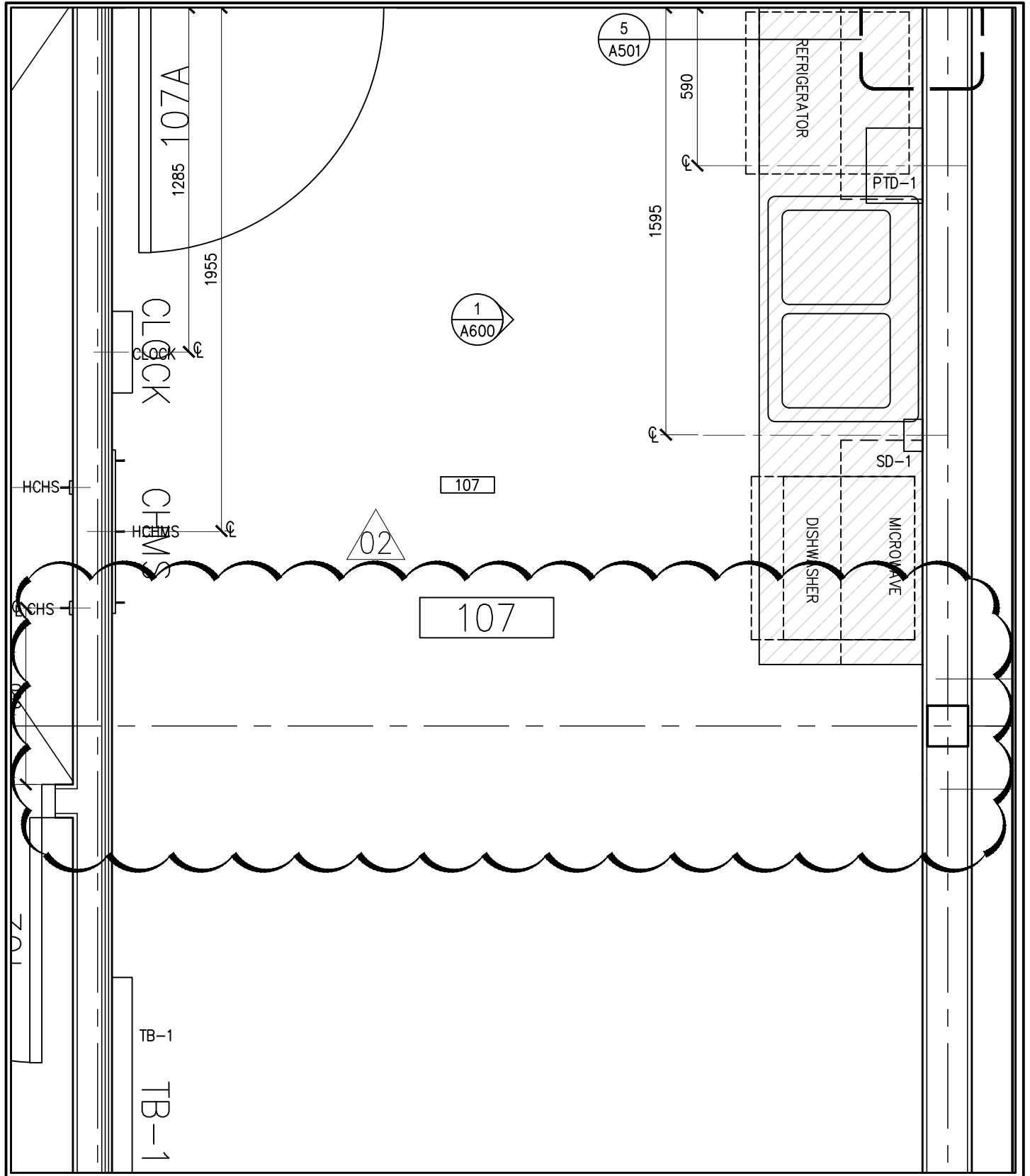
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ARVIAT, NUNAVUT



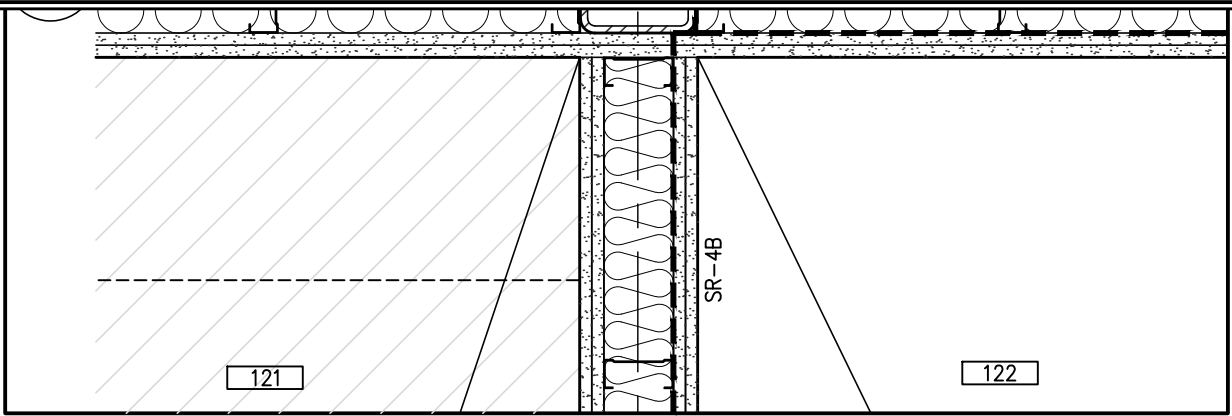
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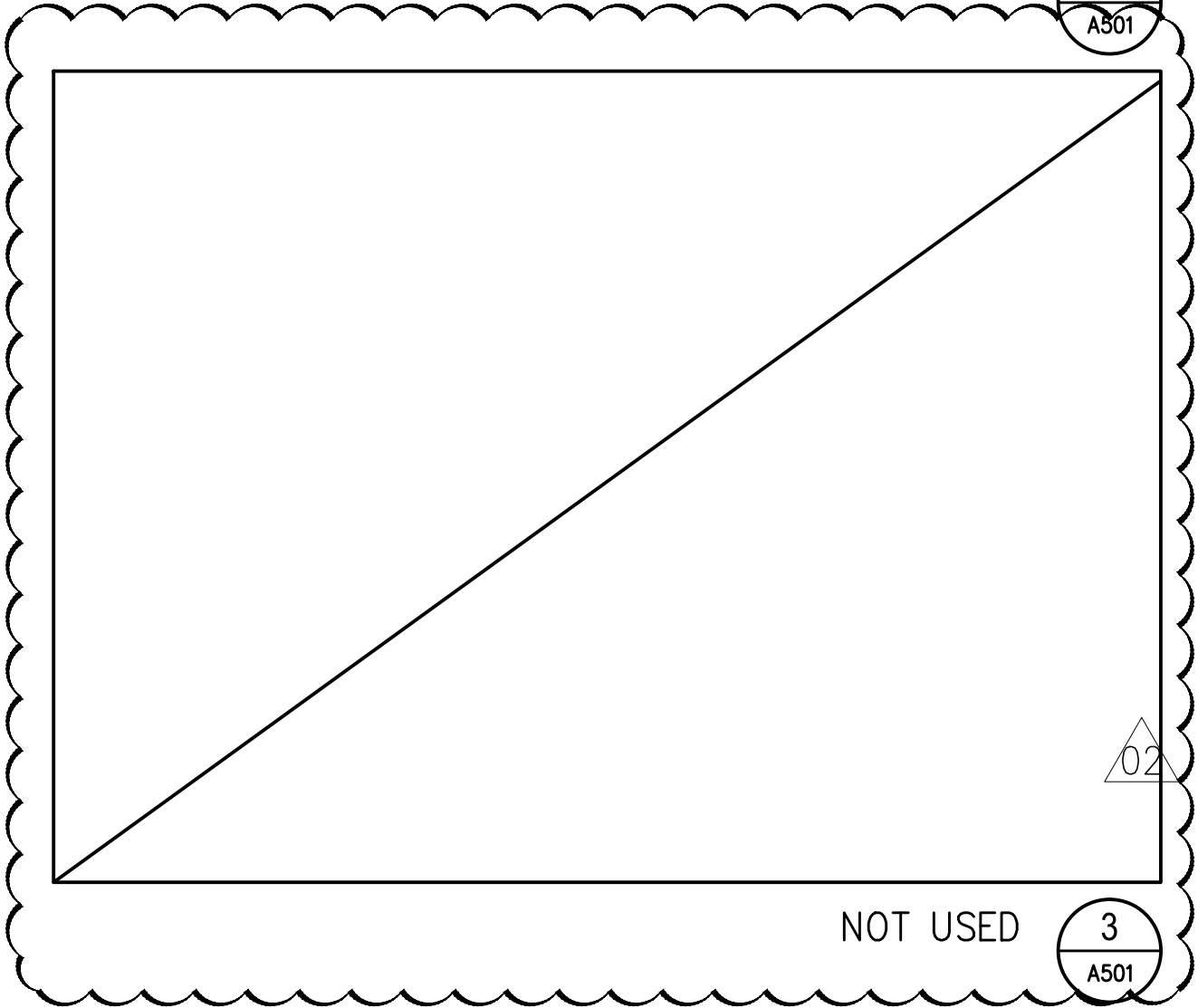
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PLAN DETAIL

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A501



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ARVIAT, NUNAVUT



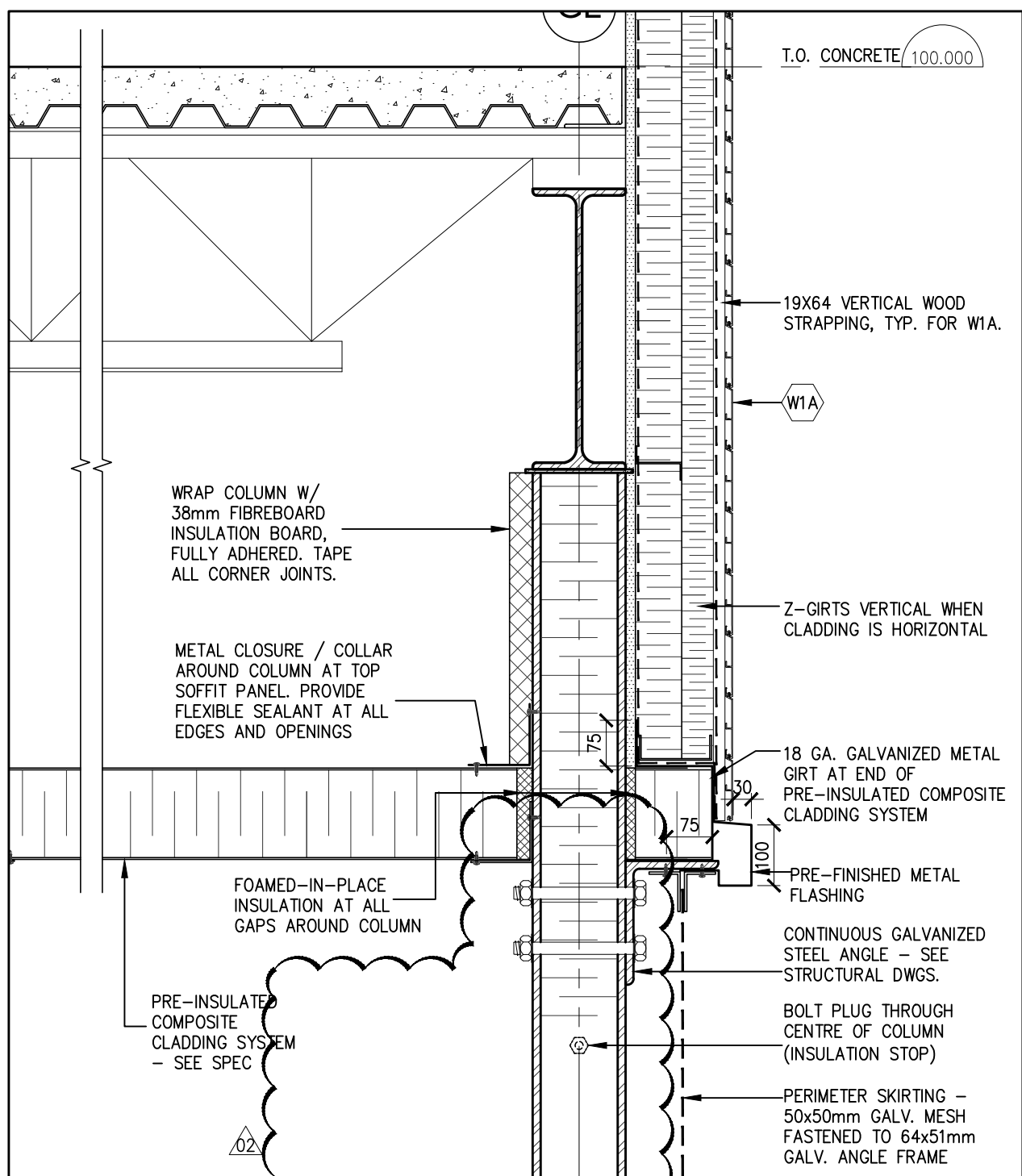
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WRAP COLUMN W/
38mm FIBREBOARD
INSULATION BOARD,
FULLY ADHERED. TAPE
ALL CORNER JOINTS.

METAL CLOSURE / COLLAR
AROUND COLUMN AT TOP
SOFFIT PANEL. PROVIDE
FLEXIBLE SEALANT AT ALL
EDGES AND OPENINGS

FOAMED-IN-PLACE
INSULATION AT ALL
GAPS AROUND COLUMN

PRE-INSULATED
COMPOSITE
CLADDING SYSTEM
- SEE SPEC

T.O. CONCRETE 100.000

19X64 VERTICAL WOOD
STRAPPING, TYP. FOR W1A.

Z-GIRTS VERTICAL WHEN
CLADDING IS HORIZONTAL

18 GA. GALVANIZED METAL
GIRT AT END OF
PRE-INSULATED COMPOSITE
CLADDING SYSTEM

PRE-FINISHED METAL
FLASHING

CONTINUOUS GALVANIZED
STEEL ANGLE - SEE
STRUCTURAL DWGS.

BOLT PLUG THROUGH
CENTRE OF COLUMN
(INSULATION STOP)

PERIMETER SKIRTING -
50x50mm GALV. MESH
FASTENED TO 64x51mm
GALV. ANGLE FRAME

TYP. SOFFIT AND CRAWL SPACE DETAIL

1
A503

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Revision:
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Sheet Number:
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PART 1 - GENERAL

1.1 RELATED REQUIREMENTS

- .1 Entire Specification Book.

1.2 MEASUREMENT PROCEDURES

- .1 Measure gabions in cubic metres of stone filled baskets incorporated into Work.
- .2 Measure installation of gabions in cubic metres and include excavation and preparation of foundation bed and supply, and installation of graded stone fill and supply, and installation of backfill.

1.3 REFERENCES

- .1 American Society for Testing and Materials (ASTM)
 - .1 ASTM A 313/A 313M-98, Standard Specification for Stainless Steel Spring Wire.
 - .2 ASTM A 764-95(2001), Standard Specification for Metallic Coated Carbon Steel Wire, Coated at Size and Drawn to Size For Mechanical Springs.
- .2 Canadian Standards Association (CSA)
 - .1 CAN/CSA-G164-M92(R1998), Hot Dip Galvanizing of Irregularly Shaped Articles.

PART 2 - PRODUCTS

2.1 MATERIALS

- .1 Gabion baskets:
 - .1 Factory fabricated so that sides, ends, lid and internal diaphragms can be readily assembled at site into rectangular baskets of sizes as indicated.
 - .2 Single unit construction or with joints having strength and flexibility equal to that of mesh.
 - .3 Provide diaphragms of same mesh as gabion walls, when length exceeds horizontal width. Diaphragms to divide basket into equal cells of length not to exceed horizontal width.
 - .4 Wire mesh gabions:
 - .1 Wire mesh: uniform hexagonal pattern wire woven in triple twist pattern with openings of approximately 75 x 75 mm, non-ravelling.
-

- .1 Wire mesh: uniform hexagonal pattern wire woven in triple twist pattern with openings of approximately 75 x 75 mm, non-ravelling.
 - .2 Securely selvedge perimeter edges to form joints connecting selvedges with same strength as mesh body.
 - .3 Wire to have following dimensions:
 - .1 Mesh: 4.5 mm diameter Galfan covered.
 - .2 Selvedges: 4.5 mm diameter Galfan covered.
 - .3 Binding: connection rings @ 150 mm (max) installed using the pneumatic spenax tool.
 - .4 Wire: Galfan coating with minimum coverage of 244 g/m² to CAN/CSA G164.
- .2 Stone fill:
 - .1 Hard, durable, abrasion resistant, capable of resisting degradation from action of wetting and drying, wave action, freezing and thawing cycles.
 - .2 Minimum 100 mm to maximum 200 mm dimension for individual stones.
 - .3 Geotextile filter: in accordance with Section 31 32 19.01 - Geotextiles.

PART 3 - EXECUTION

3.1 INSTALLATION

- .1 Install gabions and geotextiles to lines and grades as indicated. Follow manufacturer's instructions in assembling baskets.
- .2 Excavate for and backfill behind gabions in accordance with Section 31 23 33.01 - Excavating Trenching and Backfilling.

3.2 PLACING GABIONS

- .1 Wherever possible, place baskets in position prior to filling with stones.
- .2 Join adjacent baskets together at corners as recommended by manufacturer, to ensure joints are as strong as mesh.

3.3 FILLING BASKETS

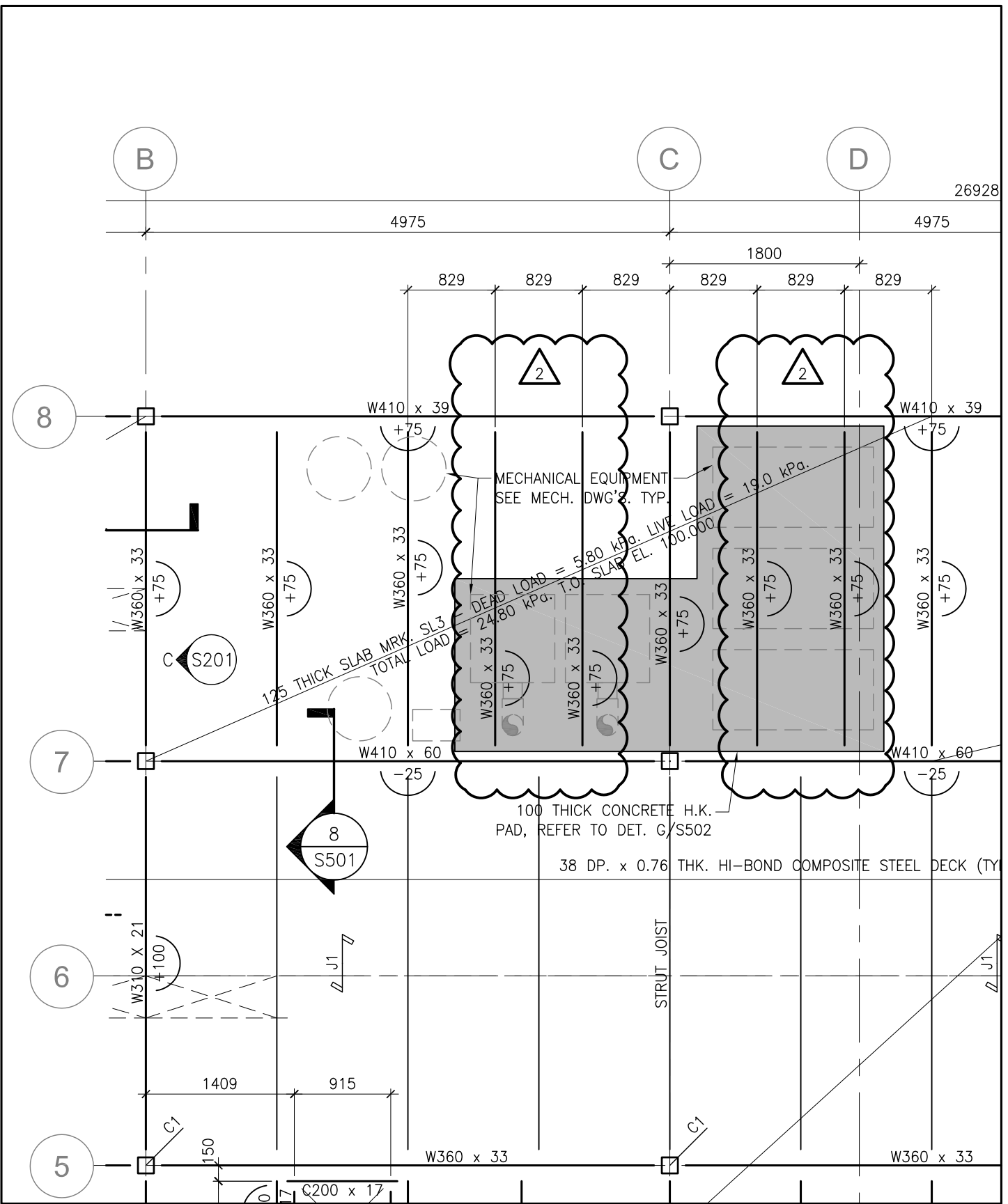
- .1 Tension geogrid gabions according to manufacturer's instructions before filling with stone. Do not release wall tension until sufficient stone fill has been placed to prevent wall slackening.
-

- .2 On exposed faces of gabions, place stones by hand with flattest surfaces bearing against face mesh to produce satisfactory alignment and appearance.
- .3 For wire mesh gabions, fill gabion cells in lifts not to exceed 300 mm and connect opposite walls with two tie wires after each lift.
- .4 For geogrid gabions, fill cells in lifts not to exceed 300 mm and connect opposite walls with two Galfan coated braids after each lift.

GABION BASKETS

- 1) GABION BASKETS WILL BE PROVIDED BY MACCAFERRI CANADA LTD.
- 2) GABIONS WILL BE TYPICALLY PLACED DIRECTLY ON COMPACTED SOIL BASE EMBEDDED 500MM TO THE EXISTING SUBGRADE.
- 3) A BASE LAYER OF GRANULAR STONE FILL RANGING 1/2" – 1 1/2" MAY BE PLACED AND COMPACTED TO LOCAL STANDARDS 6" – 18" IN DEPTH AS A FOUNDING COURSE FOR GABION WALL PLACEMENT.
- 4) THE ARCHITECTURAL GABIONS WILL BE MADE OF HEAVY GAUGE WELDED WIRE MESH WITH MECHANICAL CHARACTERISTICS ACCORDING TO ASTM A974-97.
- 5) THE ARCHITECTURAL GABIONS ARE FILLED WITH STONES AT THE PROJECT SITE TO FORM PERMEABLE, MONOLITHIC STRUCTURE.
- 6) THE STEEL WIRE USED IN THE MANUFACTURE OF THE ARCHITECTURAL GABIONS ARE HEAVILY COATED WITH GALFAN, A ZN- 5%AL ALLOY. MINIMUM GALFAN COATING: 244G/M²
- 7) WIRE: WIRE DIAMETER – 4.5MM±0.1MM
ALL TESTS ON THE WIRE MUST BE PERFORMED PRIOR TO MANUFACTURING THE MESH.
 1. TENSILE STRENGTH: THE WIRE USED FOR MANUFACTURE OF THE ARCHITECTURAL GABIONS SHALL HAVE A TENSILE STRENGTH BETWEEN 550-760 MPA ACCORDING TO ASTM A856/A856M. THE WIRE TOLERANCES ARE IN ACCORDANCE WITH ASTM A974-97
 2. WELDED SHEAR STRENGTH: THE MINIMUM AVERAGE SHEAR VALUE IN POUNDS-FORCE SHALL BE 70% OF THE BREAKING STRENGTH OF THE WIRE OR ACCORDANCE WITH ASTM A974-97.
 3. GALFAN COATING: THE MINIMUM WEIGHT OF GALFAN PER UNIT AREA OF UNCOATED WIRE SURFACE SHALL MEET REQUIREMENTS OF ASTM A856/A856M.
 4. THE TECHNICAL CHARACTERISTICS AND THE RESISTANCE OF GALFAN TO AGING SHALL MEET THE RELEVANT STANDARDS.
- 8) MESH: 75 x 75MM ± 3.2MM
THE MESH AND WIRE CHARACTERISTICS SHALL BE IN ACCORDANCE WITH ASTM A974-97.
- 9) CONNECTIONS:
THE RINGS SHALL BE INSTALLED ALONG THE EDGES. THE CONNECTION SPACING SHALL NOT EXCEED 150MM. THE RINGS ARE INSTALLED BY USING THE PNEUMATIC SPENAX TOOL.
NOMINAL RING OVERLAP: 25MM AFTER CLOSURE.





26928



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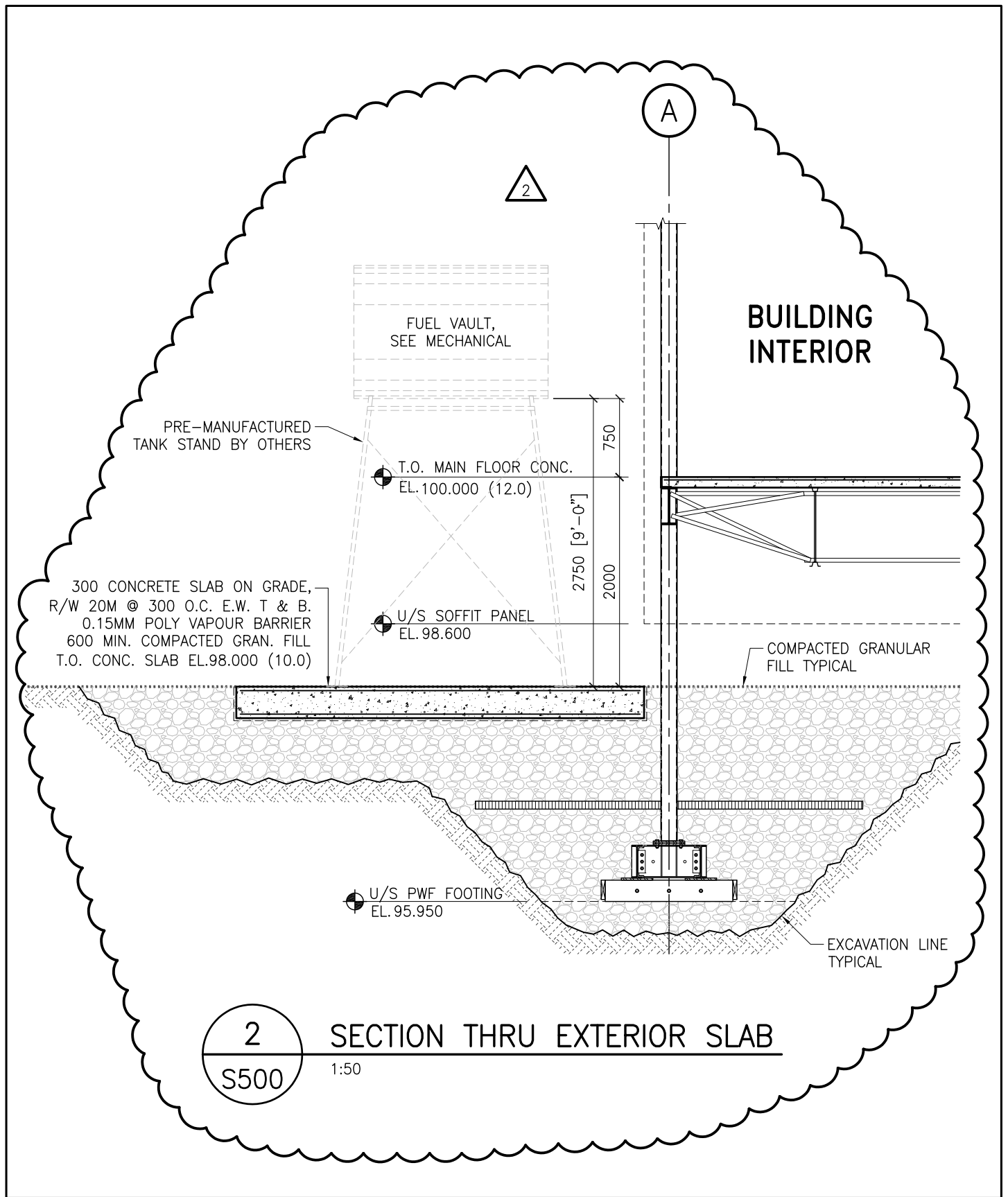
Sheet Title: ADDENDUM NO. 2
 REFERENCE DRAWING: S101
 MAIN FLOOR FRAMING PLAN

Project: FEDERAL BUILDING
 ARVIAT, NUNAVUT

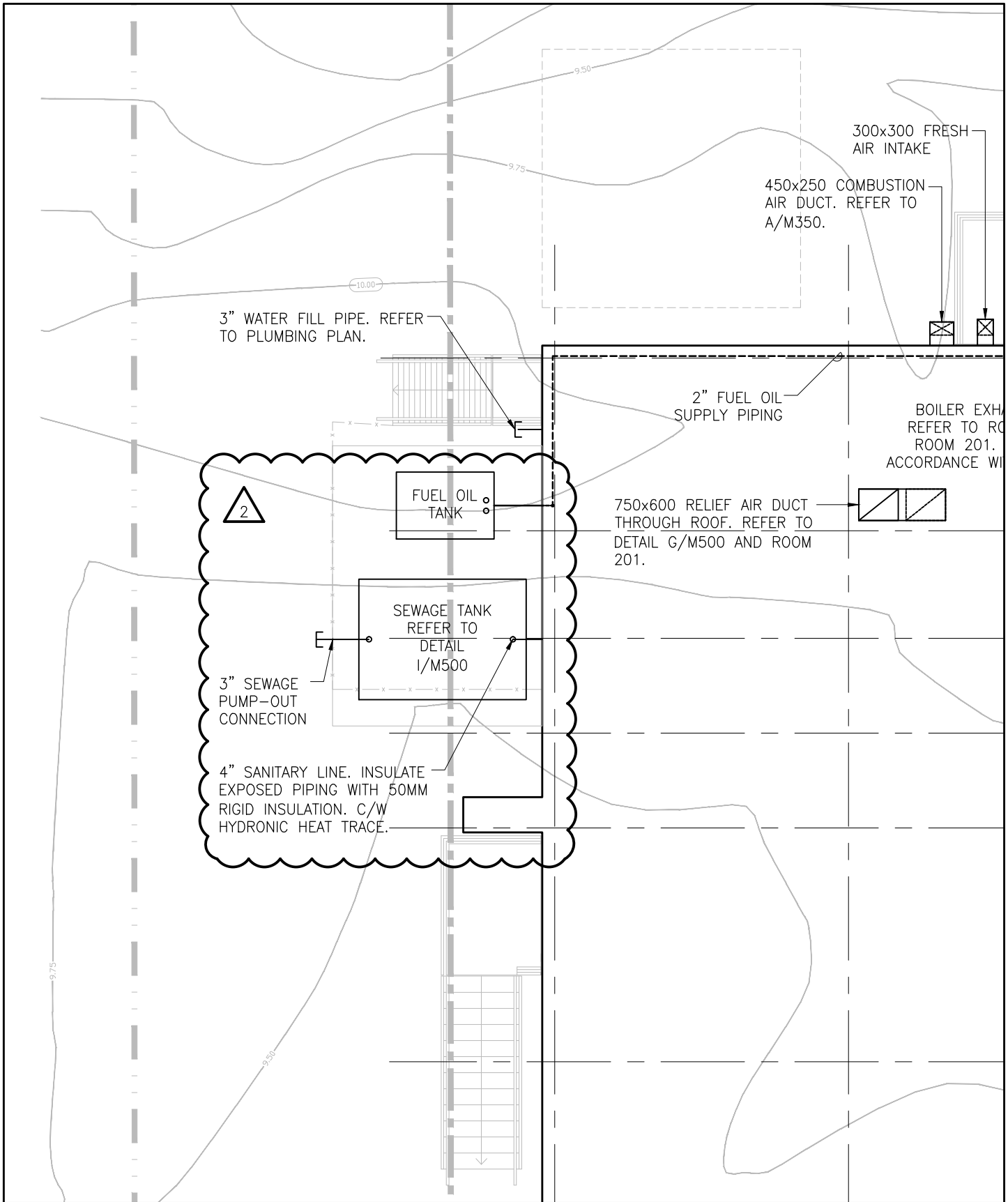
Date: JUL 17 2015
 Scale: 1:50

Drawn By: ALG
 Revision: 0

Job Number: 62601
 Sheet Number: SR-S101.01



2 SECTION THRU EXTERIOR SLAB
S500 1:50



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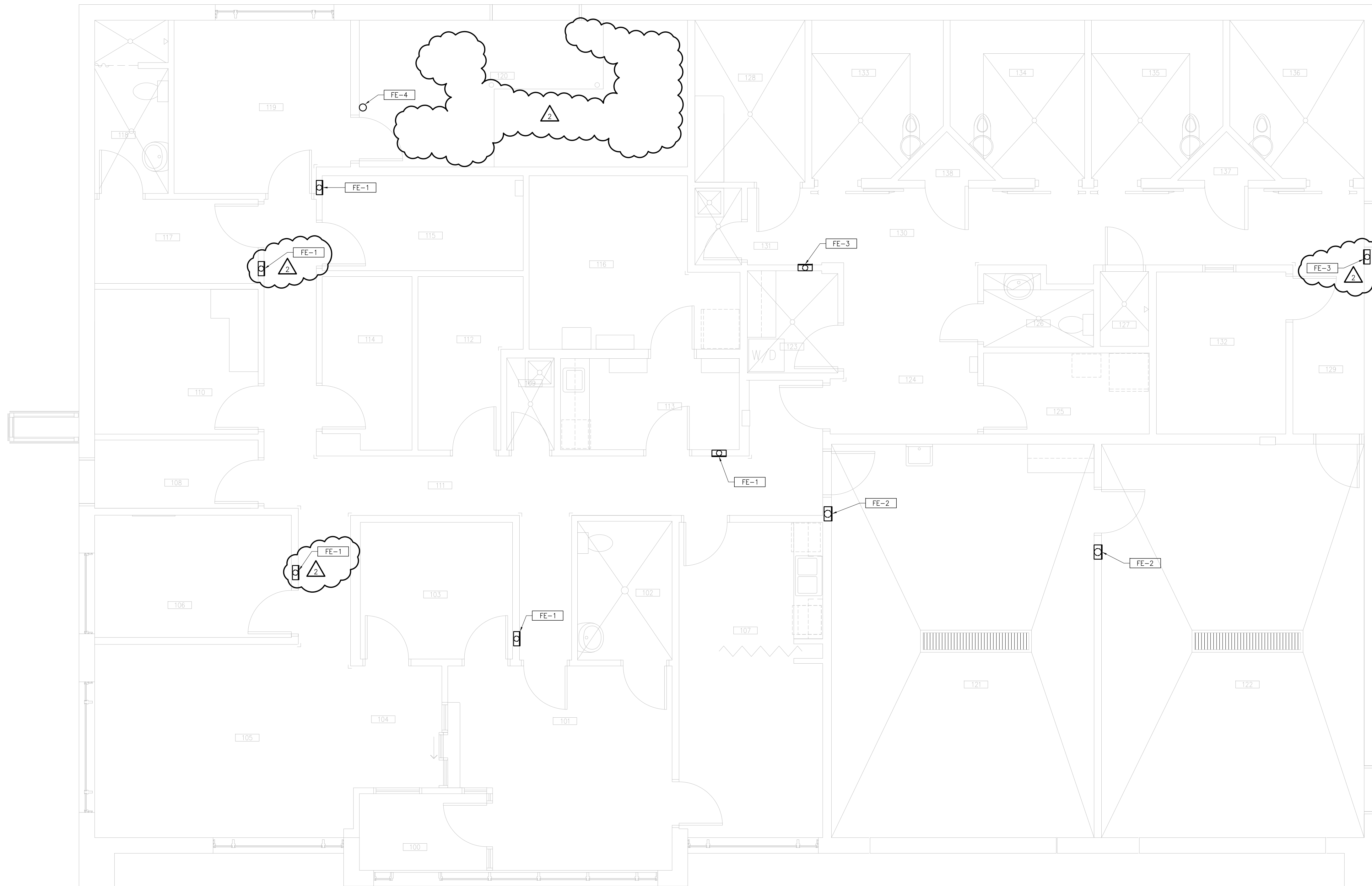
Sheet Title: ADDENDUM NO. 2
 REFERENCE DRAWING: M100
 SITE PLAN AND GENERAL NOTES

Project: FEDERAL BUILDING
 ARVIAT, NUNAVUT

Date: JUL 17 2015
Scale: 1:100

Drawn By: KAC
Revision: 0

Job Number: 62601
Sheet Number: MR-M100.01



A FIRE PROTECTION PLAN
M106 1:50

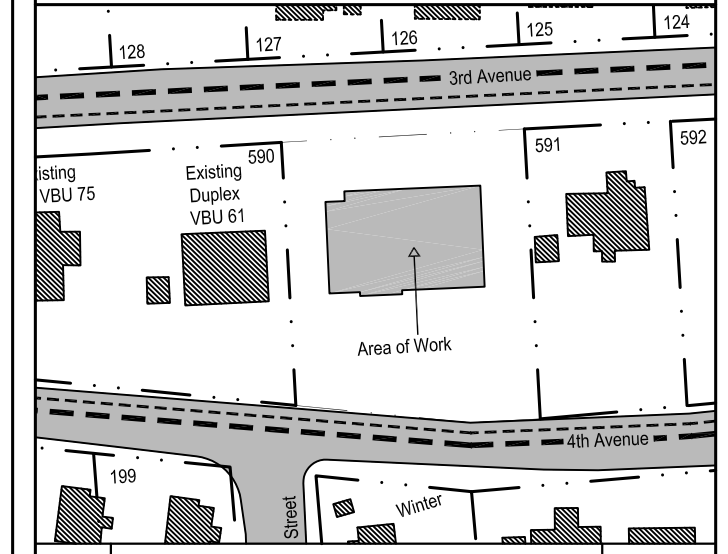
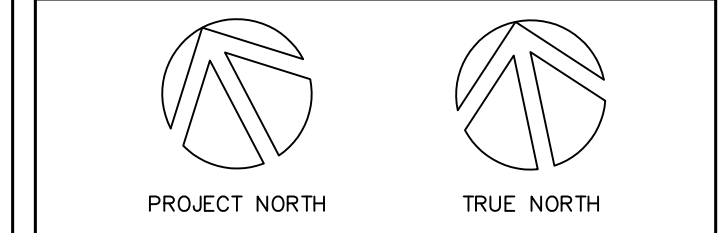
LEGEND

- FE-1** 2.2kg. MULTIPURPOSE DRY CHEMICAL FIRE EXTINGUISHER, TYPE 3440BC, C/W NATIONAL FIRE EQUIPMENT 102RS SEMI-RECESSED CABINET.
- FE-2** 4.5kg. MULTIPURPOSE DRY CHEMICAL FIRE EXTINGUISHER, TYPE 4460BC, C/W NATIONAL FIRE EQUIPMENT CE-950-FR FIRE RATED CABINET, CABINET TURN BACK TO SUIT WALL DEPTH.
- FE-3** 4.5kg. MULTIPURPOSE DRY CHEMICAL FIRE EXTINGUISHER RATING, TYPE 4460BC, MOUNTED IN RECESSED ENCLOSURE CE-950-3-INS MEDIUM SECURITY CONSTRUCTED OF 18 GA TUB AND 12GA FULL METAL STEEL DOOR AND TRIM WITH CABINET TURN BACK TO SUIT WALL DEPTH, 3 MODEL 850 SECURITY HINGES AND SECURITY CYLINDER LOCK, CYLINDER TO MATCH SECURITY HARDWARE, CABINET FINISH: BAKED ENAMEL.
- FE-4** 4.5kg. MULTIPURPOSE DRY CHEMICAL FIRE EXTINGUISHER RATING, TYPE 4460BC, MOUNTED ON EXPOSED WALL.

GENERAL NOTES

1. THIS BUILDING HAS NO SPRINKLER SYSTEM REQUIREMENTS.

**PERMIT TO PRACTICE
ACCUTECH ENGINEERING INC.**
Signature: *[Signature]*
Date: APR 07 2015
PERMIT NUMBER: P 421
The Association of Professional Engineers,
Geologists and Geophysicists of the NWT/NU



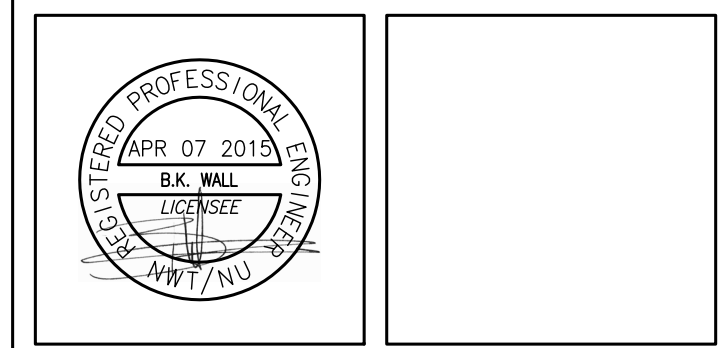
2	ISSUED WITH ADDENDUM	07-17-2015
1	ISSUED WITH ADDENDUM	07-10-2015
0	ISSUED FOR TENDER	04-07-2015
No.	Description	Date

Revisions:

All measurements are to be checked and verified on site by the contractor before proceeding with the work.
Do not scale the drawings.

Prime Consultant:

20 James Street, Suite 200, Ottawa, Canada K2P 0T6 613.739-7700



Sub Consultant:

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Phone: (807) 627-2654
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AEC Project 1211-13-00

Project:
**FEDERAL BUILDING
ARVIAT, NUNAVUT**

Drawn By: VCV Date: 07-17-2015
Checked By: BKW Scale: 1:50

Sheet Title:
FIRE PROTECTION PLAN

Sheet Number:
M106

PUMP SCHEDULE:

TAG	SERVICE	LOCATION	MODEL / SIZE	CAP. [l/s] [gpm]	HEAD [m] [ft]	MOTOR [kW] [hp]	SPEED [rpm]	REMARKS / NOTES
P-1	CIRCULATION PUMP	ROOM 120	SA ARMSTRONG 2x2x8	5.4 85	13.8 45	2	1750	ONLY ONE OF THE TWO PUMPS OPERATE AT ANY GIVEN TIME.
P-2	CIRCULATION PUMP	ROOM 120	SA ARMSTRONG 2x2x8	5.4 85	13.8 75	2	1750	
P-3	GLYCOL CIRCULATION PUMP FOR IN-FLOOR HEAT	ROOM 003	GRUNDFOS UP 26-116	1.26 20	6.1 20	1/6		ONLY ONE OF THE TWO PUMPS OPERATE AT ANY GIVEN TIME.
P-4	GLYCOL CIRCULATION PUMP FOR IN-FLOOR HEAT	ROOM 003	GRUNDFOS UP 26-116	1.26 20	6.1 20	1/6		
P-5	GLYCOL CIRCULATION PUMP HIGH TEMP IN-FLOOR HEAT	ROOM 003	GRUNDFOS UP 43-75	1.26 10	6.1 20	1/6		ONLY ONE OF THE TWO PUMPS OPERATE AT ANY GIVEN TIME.
P-6	GLYCOL CIRCULATION PUMP HIGH TEMP IN-FLOOR HEAT	ROOM 003	GRUNDFOS UP 43-75	1.26 10	6.1 20	1/6		
P-7	AHU-2 PUMP	ROOM 201	GRUNDFOS UP 43-75	1.26 18	4.6 15	1/6		INTERLOCK WITH AHU-1 FAN
P-8	DOMESTIC WATER BOOSTER PUMP	ROOM 120	GRUNDFOS HYDROMULTI-B CME3-5	1.26 20	41.2 135	1-1/2		BUILT-IN C/W CONTROL PANEL AND PRESSURE TANK. BOTH PUMPS CAN OPERATE SIMULTANEOUSLY. APPROVED FOR POTABLE WATER USE
P-9	DOMESTIC WATER BOOSTER PUMP	ROOM 120	GRUNDFOS HYDROMULTI-B CME3-5	1.26 20	41.2 135	1-1/2		
P-10	GLYCOL MAKEUP PUMP PACKAGE	ROOM 120	AXIOM MF-200	1	4	0.07		PACKAGE UNIT
P-11	DOMESTIC HOT WATER RETURN CIRCULATION PUMP	ROOM 120	GRUNDFOS UPS 26-99	5	15	1/6		SUITABLE FOR POTABLE WATER USE



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Sheet Title: ADDENDUM NO. 2
 REFERENCE DRAWING: M610
 MECHANICAL SCHEDULES

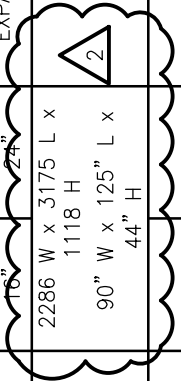
Project: FEDERAL BUILDING
 ARVIAT, NUNAVUT

Date: JUL 17 2015
 Scale: 1:100

Drawn By: KAC
 Revision: 0

Job Number: 62601
 Sheet Number: MR-M610.01

TANK SCHEDULE:

TANK T-##	TANK SERVICE	LOCATION	MODEL NUMBER	TANK SIZE (DIA x H) [mm x mm] [in x in]	REMARKS / NOTES
T-1	WATER TANK	ROOM 120	EQUINOX E325-WS	762x1524 30"x60" 1524 60"	
T-2	WATER TANK	ROOM 120	EQUINOX E325-WS	762x1524 30"x60" 1524 60"	
T-3	WATER TANK	ROOM 120	EQUINOX E325-WS	762x1524 30"x60" 1524 60"	
T-4	DOMESTIC HOT WATER TANK	ROOM 120	WELL-MCLAIN 105 AQUA PLUS	762 30" 1518 59 3/4"	APPROVED FOR POTABLE WATER USE SUPPLIED WITH BOOSTER PUMPS P-9/P-10 C/W BLADDER
T-5	DOMESTIC WATER PRESSURE TANK	ROOM 120	GRUNDFOS		60L TANK
T-6	GLYCOL FILL/MIX TANK	ROOM 120	AXIOM MF-200	610 24"	SEE P-12 ABOVE
T-7	DOMESTIC HOT WATER EXPANSION TANK	ROOM 120	HAMLET & GARNEAU BFA-30	406 16"	ASME FIXED BLADDER EXPANSION TANK
T-8	SEWAGE TANK	OUTSIDE	EQUINOX G1000	2286 W x 3175 L x 1118 H 90" W x 125" L x 44" H	
T-9	GLYCOL EXPANSION TANK	ROOM 120	EXPAN FLEX AL-300	24"	55"
T-10	FUEL OIL TANK	OUTSIDE	WESTEEL GDW 500EV	1270 50"	1854 6'-1"



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Sheet Title: ADDENDUM NO. 2
REFERENCE DRAWING: M610
MECHANICAL SCHEDULES

Project: FEDERAL BUILDING
ARVIAT, NUNAVUT

Date: JUL 17 2015 Scale: 1:100



Drawn By: KAC Revision: 0

Job Number: 62601 Sheet Number: MR-M610.02

MECHANICAL EQUIPMENT SCHEDULE

No.	DESCRIPTION	ROOM #	ELECTRICAL NOTES	BRANCH WIRING	BREAKER SIZE	CIRCUIT NUMBER	TOTAL VA	REMARKS
→ REVISÉ	AHU1 AHU-001	201	3HP, 208V, 3Ø	3c#10 AWG IN EMT	3P-30	M-1/3/5	4000 VA	DISCONNECT REQUIRED & STARTER
→ REVISÉ	AHU2 AHU-002	201	1HP, 208V, 3Ø	3c#12 AWG IN EMT	3P-15A	M-7/9/11	1500 VA	DISCONNECT REQUIRED & STARTER
→ REVISÉ	B-1 BOILER B-1	120	1/8HP, 120V, 1Ø	2c#12 AWG IN EMT	1P-15A	E-1	500 VA	DISCONNECT REQUIRED
→ REVISÉ	B-2 BOILER B-2	120	1/8HP, 120V, 1Ø	2c#12 AWG IN EMT	1P-15A	E-3	500 VA	DISCONNECT REQUIRED
→ REVISÉ	P1/2 BOILER PUMPS P1/P2	120	2HP, 240V, 1Ø	3c#8 AWG IN EMT	2P-30A	E-5/7	8160 VA	DUPLEX CONTROLLER & DISCONNECT REQUIRED
→ REVISÉ	P3/4 GLYCOL PUMPS P3/P4	003	1/6HP, 208V, 1Ø	2c#12 AWG IN EMT	2P-15A	E-15/17	385 VA	DUPLEX CONTROLLER & DISCONNECT REQUIRED
→ REVISÉ	P5/6 GLYCOL PUMPS P5/P6	003	1/6HP, 120V, 1Ø	2c#12 AWG IN EMT	1P-15A	E-11	1176 VA	DUPLEX CONTROLLER & DISCONNECT REQUIRED
→ REVISÉ	P7 AHU-2 CIRC PUMP P-7	201	1/6 HP, 120V, 1Ø	2c#12 AWG IN EMT	1P-15A	M-13	400 VA	DISCONNECT REQUIRED, INTERLOCK WITH MUA UNIT, RUNS CONTINUOUSLY
→ REVISÉ	P8 DOMESTIC WATER CIRC P-8	120	1-1/2HP, 208V, 1Ø	2c#12 AWG IN EMT	2P-20A	M-17/19	2100 VA	DISCONNECT REQUIRED & STARTER
→ REVISÉ	P9 DOMESTIC WATER CIRC P-9	120	1-1/2HP, 208V, 1Ø	2c#12 AWG IN EMT	2P-20A	M-2/4	2100 VA	DISCONNECT REQUIRED & STARTER
→ REVISÉ	-- ITEM DELETED							
→ REVISÉ	P-10 GLYCOL MAKE-UP PUMP PACKAGE	120	0.07HP, 120V, 1Ø	2c#12 AWG IN EMT	1P-15A	M-15	120 VA	DEDICATED RECEPTACLE REQUIRED
→ REVISÉ	P-11 DOM HOT WATER RETURN CIRC PUMP	120	1/6 HP, 120V, 1Ø	2c#12 AWG IN EMT	1P-15A	M-21	500 VA	DISCONNECT REQUIRED & STARTER
→ REVISÉ	EF-1 EXHAUST FAN EF-1	121	0.27HP, 208V, 1Ø	2c#12 AWG IN EMT	2P-15A	M-8/10	120 VA	DISCONNECT REQUIRED
→ REVISÉ	EF-2 EXHAUST FAN EF-2	121	1/6 HP, 208V, 1Ø	2c#12 AWG IN EMT	2P-15A	M-12/14	500 VA	DISCONNECT REQUIRED
→ REVISÉ	EF-3 EXHAUST FAN EF-3	122	1/6 HP, 208V, 1Ø	2c#12 AWG IN EMT	2P-15A	M-16/18	500 VA	DISCONNECT REQUIRED
→ REVISÉ	EF-4 EXHAUST FAN EF-4	120	1/6 HP, 208V, 1Ø	2c#12 AWG IN EMT	2P-15A	M-20/22	500 VA	DISCONNECT REQUIRED
	UH-1 CRAWLSPACE UNIT HEATERS (6 TOTAL)	003	1/20HP, 120V, 1Ø	2c#12 AWG IN EMT	1P-15A	E-13	200 VA	DISCONNECT REQUIRED
	UH-2 BOILER ROOM UNIT HEATER	003	120V, 1Ø	2c#12 AWG IN EMT	1P-15A	E-13	200 VA	DISCONNECT REQUIRED

MOTOR CONNECTIONS:
 FOR ALL MOTOR CONNECTIONS,
 CHANGE FROM EMT TO LIQUDTIGHT
 AT MOTOR FOR FINAL CONNECTION.

1	ISSUED FOR ADDENDUM #1	GAP	JULY 10/15	 A.G. Engineering Thunder Bay Inc. 1111 E. Victoria Ave., 2nd Flr Thunder Bay, ON, P7C 1B7 Phone : (807) 622-3654 Fax: (807) 622-3633	PROJECT TITLE THE GOVERNMENT OF NUNAVUT FEDERAL BUILDING, ARVIAT, NUNAVUT	DWG SCALE: AS NOTED	PLOT SCALE: FULL
	No.	DESCRIPTION	BY		DATE	DRAWING TITLE REVISED MECHANICAL SCHEDULE	DATE ISSUED: JULY 2015
						PROJECT No. E121-14-011	APPROVED BY: AG
						DWG No. SK-E1	REV. 

ESSENTIAL LOADS ELECTRICAL PANEL 'E'

CCT. No.	CIRCUIT USE	BREAKER		VOLTS	VA		WIRE AND CONDUIT SIZE	CCT. No.	CIRCUIT USE	BREAKER		VOLTS	VA		WIRE AND CONDUIT SIZE
		SIZE	POLES		L1	L2				SIZE	POLES		L1	L2	
1	(B-1) BOILER B-1	15A	1	120	500		AS NOTED	2	LIGHTING - CELLS 135, 136	15A	1	120	150		2c#12 IN EMT
3	(B-2) BOILER B-2	15A	1	120		500	AS NOTED	4	FIRE ALARM PANEL	15A	1	120		150	2c#12 IN EMT
5	(P1/2) BOILER PUMPS P1/P2	30A	2	240	4080		AS NOTED	6	EVIDENCE FRIDGE RECEPTACLES - ROOMS 113, 116	15A	1	120	600		2c#12 IN EMT
7						4080					8	QUAD 20A RECEPTACLES - LAN ROOM 115	20A	1	120
9	SPARE	15A	1	120			AS NOTED	10	QUAD 20A RECEPTACLES - LAN ROOM 115	20A	1	120	750		2c#12 IN EMT
11	(P5/6) GLYCOL PUMPS P5/P6	15A	1	120		1176	AS NOTED	12	RECEPTACLES - ROOM 105, 124	15A	1	120		360	2c#12 IN EMT
13	(UH-1) CRAWLSPACE UNIT HEATERS (6 TOTAL)	15A	1	120	200		AS NOTED	14	(UH-2) BOLIER ROOM UNIT HEATER	15A	1	120	200		AS NOTED
15	(P3/4) GLYCOL PUMPS P3/P4	15A	2	240		193	AS NOTED	16	SMOKE DAMPERS	15A	1	120		250	2c#12 IN EMT
17						193					18				
19								20							
21								22							
23								24							

VOLTAGE: 120/240VAC MAINS: 100A PHASE: 1 FED FROM: AS INDICATED
 MAIN BREAKER: MLO BREAKER I.C.: 10KA WIRE: 3 LOCATION: AS SHOWN
 MOUNTING: SURFACE FEEDER: AS INDICATED

MECHANICAL EQUIPMENT ELECTRICAL PANEL 'M'

CCT. No.	CIRCUIT USE	BREAKER		VOLTS	VA			WIRE AND CONDUIT SIZE	CCT. No.	CIRCUIT USE	BREAKER		VOLTS	VA			WIRE AND CONDUIT SIZE		
		SIZE	POLES		Aø	Bø	Cø				SIZE	POLES		Aø	Bø	Cø			
1	(AHU1) AHU-001	30A	3	208	1333			AS NOTED	2	(P9) DOMESTIC WATER CIRC P-9	15A	2	208	1050			AS NOTED		
3						1333					4					1050			
5									1333			6							
7	(AHU2) AHU-002	15A	3	208	500			AS NOTED	8	(EF-1) EXHAUST FAN EF-1	15A	2	208	60			AS NOTED		
9						500					10					60			
11									500			12	(EF-2) EXHAUST FAN EF-2	15A	2	208			
13	(P7) MUA CIRC PUMP P-7	15A	1	120	500			AS NOTED	14	(EF-3) EXHAUST FAN EF-3	15A	2	208	250			AS NOTED		
15	(P-10) GLYCOL MAKE-UP PUMP PACKAGE	15A	1	120		120		AS NOTED	16	(EF-4) EXHAUST FAN EF-4	15A	2	208		250				
17	(P8) DOMESTIC WATER CIRC P-8	15A	2	208			1050	AS NOTED	18						250		AS NOTED		
19						1050					20							250	
21	(P-11) DOM HOT WATER RETURN CIRC PUMP	15A	1	120		500		AS NOTED	22					250			AS NOTED		
23									24							700			
25									26	OVERHEAD DOOR MOTOR	15A	3	208	700			3c#12 AWG IN EMT		
27									28						700				
29									30							700	3c#12 AWG IN EMT		
31									32	OVERHEAD DOOR MOTOR	15A	3	208	700					
33									34						700				
35									36										

VOLTAGE: 120/208VAC MAINS: 100A PHASE: 3 FED FROM: AS INDICATED
 MAIN BREAKER: MLO BREAKER I.C.: 10KA WIRE: 4 LOCATION: AS SHOWN
 MOUNTING: SURFACE FEEDER: AS INDICATED

1	ISSUED FOR ADDENDUM #1	GAP	JULY 10/15
No.	DESCRIPTION	BY	DATE



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PROJECT TITLE
**THE GOVERNMENT OF NUNAVUT
 FEDERAL BUILDING, ARVIAT, NUNAVUT**

DRAWING TITLE
REVISED PANEL SCHEDULES

DWG SCALE: AS NOTED	PLOT SCALE: FULL
DATE ISSUED: JULY 2015	DRAWN BY: GAP
PROJECT No. E121-14-011	APPROVED BY: AG
DWG No. SK-E2	REV.