FEDERAL BUILDING
402E 4th Avenue, Arviat, Nunavut
- Issued for Tender, April 07, 2015 -

CIVIL

C-1 SITE GRADING PLAN

LANDSCAPING

L-1 LANDSCAPE LAYOUT PLAN

ARCHITECTURAL

140800-A000 DRAWING LIST AND NBC DATA
140800-A001 STANDARD DETAILS
140800-A002 STANDARD DETAILS
140800-A003 STANDARD DETAILS
140800-A004 STANDARD DETAILS

SITE PLAN

140800-A050 SITE PLANS

SECURITY PLAN AND FIRE SEPARATION PLANS

140800-A075 FIRE RESISTANCE RATING PLAN

ARCHITECTURAL PLANS

140800-A090 LEVEL 0 FLOOR PLAN
140800-A100 FIRST FLOOR PLAN
140800-A101 MEZZANINE FLOOR PLAN
140800-A102 ROOF PLAN
140800-A120 FIRST FLOOR CEILING PLAN
140800-A130 FIRST FLOOR EQUIPMENT & FURNITURE PLAN
140800-A131 FIRST FLOOR EQUIPMENT & FURNITURE SCHEDULE
140800-A140 FIRST FLOOR PATTERN PLAN

ARCHITECTURAL (CONT.)

OVERALL EXTERIOR BUILDING ELEVATIONS

140800-A200 EXTERIOR ELEVATIONS
140800-A201 EXTERIOR ELEVATIONS
140800-A202 EXTERIOR WINDOW ELEVATIONS

SECTIONS

140800-A300 BUILDING SECTIONS
140800-A301 BUILDING SECTIONS

140800-A310 WALL SECTIONS
140800-A311 WALL SECTIONS
140800-A312 WALL SECTIONS
140800-A313 WALL SECTIONS

BLOWUP PLANS

140800-A400 LARGE SCALE PLANS

EXTERIOR AND INTERIOR STAIRS AND RAMPS

140800-A405 STAIR AND RAMP DETAILS
140800-A406 STAIR AND RAMP DETAILS
140800-A407 STAIR AND RAMP DETAILS

PLAN DETAILS

140800-A500 EXTERIOR PLAN DETAILS
140800-A501 INTERIOR PLAN DETAILS

SECTION DETAILS

140800-A502 EXTERIOR SECTION DETAILS
140800-A503 INTERIOR SECTION DETAILS
140800-A504 MISCELLANEOUS DETAILS

INTERIOR ELEVATIONS

140800-A600 INTERIOR ELEVATIONS

MILLWORK

140800-A700 MILLWORK SECTIONS & MISCELLANEOUS DETAILS
140800-A701 MILLWORK SECTIONS & MISCELLANEOUS DETAILS
140800-A702 STAINLESS STEEL MILLWORK DETAILED SECTIONS
140800-A703 MILLWORK SECTIONS & MISCELLANEOUS DETAILS

STRUCTURAL

S001 DESIGN SPECIFICATIONS, DRAWING NOTES AND STRUCTURAL ABBREVIATIONS

S100 FOUNDATION PLAN
S101 MAIN FLOOR FRAMING PLAN
S102 MAIN FLOOR CONCRETE SLOPE PLAN
S103 MEZZANINE FRAMING PLAN
S104 ROOF FRAMING PLAN

S200 BRACING ELEVATIONS
S201 BRACING ELEVATIONS

S300 STRUCTURAL BUILDING SECTIONS

S310 CANOPY FRAMING PLANS, SECTIONS AND DETAILS

S320 EXTERIOR STAIR FRAMING PLANS
S321 EXTERIOR STAIR FRAMING PLANS

S500 FOUNDATIONS DETAILS
S501 SECTIONS DETAILS
S502 DETAILS

MECHANICAL

M100 SITE PLAN & GENERAL NOTES
M101 MAIN FLOOR PLUMBING
M102 MAIN FLOOR HVAC PLAN
M103 MAIN FLOOR CONTROLS PLAN
M104 CRAWLSPACE HEATING PLAN
M105 MAIN FLOOR HEATING PLAN
M106 FIRE PROTECTION PLAN

M350 MECHANICAL ROOMS LARGE SCALE PLANS

M500 MECHANICAL DETAILS

M600 MECHANICAL SCHEMATICS
M601 MECHANICAL SCHEMATICS

M610 MECHANICAL SCHEDULES

ELECTRICAL

E001 IDENTIFICATION LEGENDS & SITE PLAN

E002 SINGLE LINE DIAGRAM & PANEL SCHEDULES

E100 MAIN FLOOR POWER AND SYSTEM LAYOUT

E101 MAIN FLOOR LIGHTING LAYOUT

E102 MEZZANINE & SERVICE ROOM ELECTRICAL LAYOUT

E103 CRAWLSPACE ELECTRICAL LAYOUT

GOVERNMENT OF NUNAVUT
FEDERAL BUILDING

Building Code Analysis
2005 National Building Code - Part 3

				NBC Reference
1	Project Description	■ New ☐ Alterations ☐ Addition ☐ Change of Use		
2	Major Occupancy	Group B Division 1		3.1.2.1.(1)
3	Building Area (m²)	Existing: n/a	Demo: n/a / New: 485 / Total: 485	1.1.3.2
4	Occupant Load			
	Use of Spaces		Occupant Load	
	Offices/ Operational Area		27	3.1.17.1
	A&D/Powered		10	
	Storage Garage		1	
	TOTAL		39	
5	Number of Storeys	Above/Grade: 1	Below Grade: 0	3.2.1.1 & 1.1.3.2
6	Building Height		10.5 m from grade	
7	No. of Streets / Access Routes		1	3.2.2.10
8	Building Classification	Group B, Division 1 + Group D + Group F, Division 1, One Storey		3.2.2.41
9	Fire Separation	Fire Separation From Adjacent Bldgs	Fire Resistance Rating	
	Floor Above Basement	n/a	1hr	3.2.1.4
	Crawl Space	n/a	n/a	3.2.2.9 & 3.1.11.6
	Roof	n/a	n/a	3.1.14.2
	Load Bearing Beams and Columns	n/a	1hr	3.2.2.37
	Mezzanine Support Structure	n/a	n/a	
10	Spatial Separation		Min. distance (to property line)	
	North Wall		21.5m	3.2.3.1 & 3.2.3.1.(1)-(9)
	South Wall		21.8m	
	East Wall		7.9m	
	West Wall		7.6m	
11	Provisions For Fire Fighting		2 Streets	3.2.5
12	Emergency Lighting Required		Yes	3.2.7.3
13	Mezzanine(s) Area (m²) - Mechanical mezzanine		21.4m2	3.3.1.1
14	Safety Within Floor Space			
	Use of Spaces		Fire Separation	
	A&D (81 suite)		2hr	7-3.1.3.1.
	Food Services		1hr	3.3.1.2. (2)
	Storage Room (typ)		1hr	3.3.4.3.(2)
	Janitor Closet		1hr	3.3.1.21.(1)-(3)
15	Exits			
	Number of Exits Provided		5	3.4.2.1
	Mezzanine Exits/Egress Stairs	☐ Yes	■ No	3.4.2.2.(2)
	Distance Between Exits (m)		19 m	3.4.2.3
	Travel Distance (m)		45 m	3.4.2.5
	Exit Stair Enclosure Fire Separation (hr)		n/a	3.4.4.1
	Exit Lobby Fire Separation		n/a	3.4.2.5.(4) 3.4.4.2
	Stair	min. width 1100mm		3.4.3.2
	Exit Capacity	Width inches (mm)	# of Persons	
	Door	1920	39	3.4.3.2
	Horizontal Exit	☐ Yes	■ No	3.4.1.6 & 3.4.4.9
	Emergency Schematic Provided	☐ Yes	■ No	
16	Vertical Service Space		Fire Separation	
	Service Room		1 hr	3.6.2.1
17	Sprinkler System Proposed	☐ Main Building ☐ Basement Only	☐ In Lieu of Roof Rating ☐ Out Buildings	
18	Standpipe Required	☐ Yes	■ No	3.2.5.8
19	Fire Alarm System Required	■ Yes	☐ No	3.2.4
20	Adequate Water Service/ Supply	■ Yes	☐ No	3.2.2.72
21	High Building	☐ Yes	■ No	
22	Permitted Construction	☐ Combustible	■ Noncombustible	3.2.2.37
	Proposed Construction	☐ Combustible	■ Noncombustible	
23	Water Closets			

Sex	Occupancy	Urinals	Water Closets	Lavatories	
Male/Female (inmates)	3	n/a	3	3	3.7.2.2
Unisex- other B1 occupants	7	n/a	1	1	
F3 occupants	2	n/a	n/a	n/a	
Male - D occupants	0		0	0	
Female - D occupants	0		0	0	
Unisex - D occupants	27		2	2	
TOTAL	39	n/a	6	6	

24	Barrier Free Design				
	Protection				3.3.1.7
	Access Provided to All Main Floor Occupants	☐ Yes	■ No		3.8.2.1
	Access to Upper Floors	☐ Yes	☐ No	■ n/a	3.8.2.1
	Washrooms Are Provided	■ Yes	☐ No		3.8.2.3
	Public Entrance Equipped with Power Door Operator	■ Yes	☐ No		3.8.3.3
25	Hazardous Substances	☐ Yes	■ No		3.3.1.2

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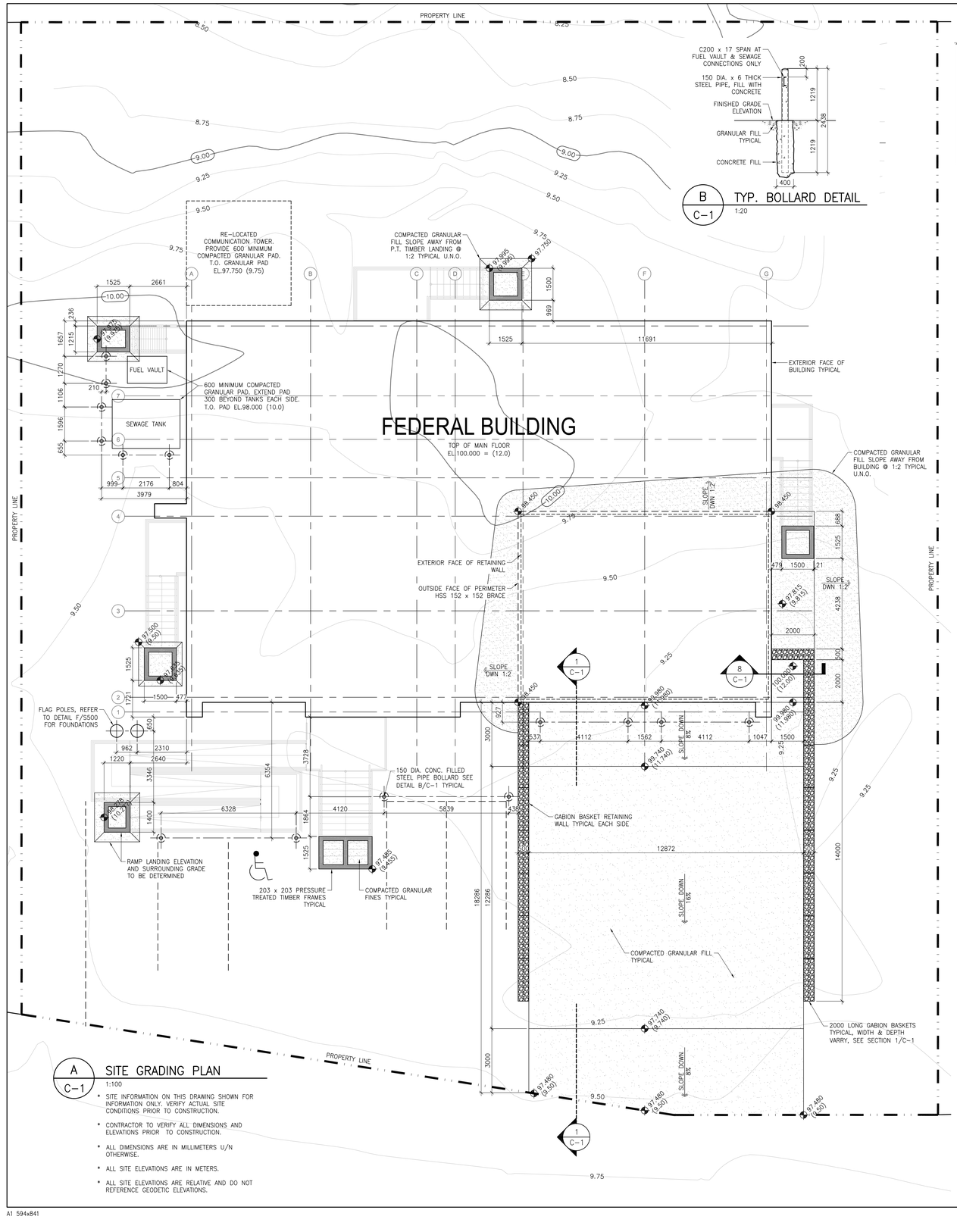
AGE Project # 1121-13-009



A C-1 SITE GRADING PLAN

1:100

- SITE INFORMATION ON THIS DRAWING SHOWN FOR INFORMATION ONLY. VERIFY ACTUAL SITE CONDITIONS PRIOR TO CONSTRUCTION.
- CONTRACTOR TO VERIFY ALL DIMENSIONS AND ELEVATIONS PRIOR TO CONSTRUCTION.
- ALL DIMENSIONS ARE IN MILLIMETERS U/N OTHERWISE.
- ALL SITE ELEVATIONS ARE IN METERS.
- ALL SITE ELEVATIONS ARE RELATIVE AND DO NOT REFERENCE GEODETIC ELEVATIONS.

B C-1 TYP. BOLLARD DETAIL

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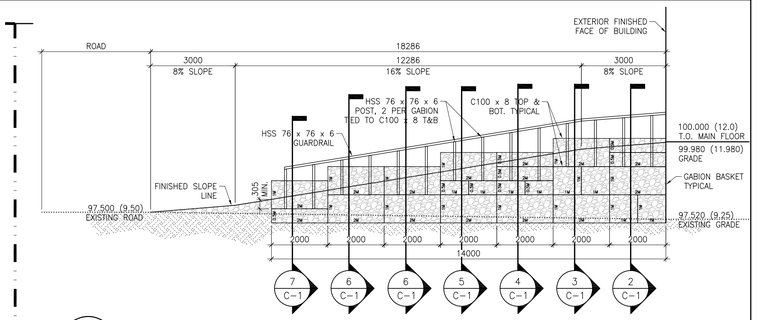

1 C-1 SECTION THRU DRIVE WAY

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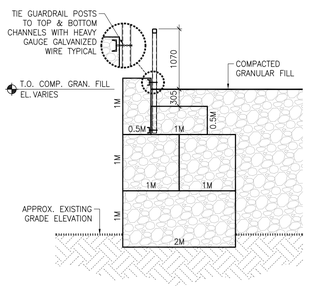

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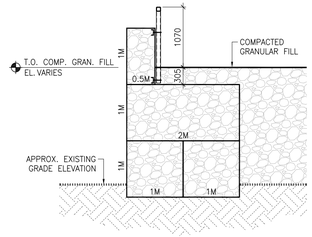

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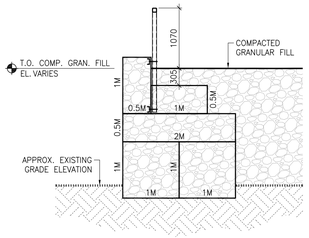

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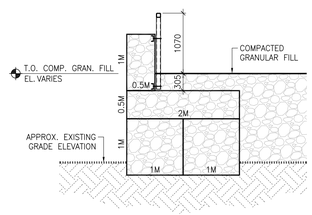

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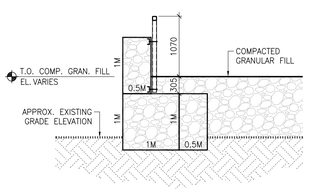

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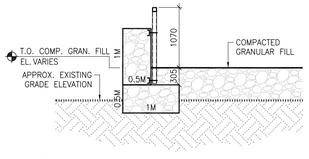

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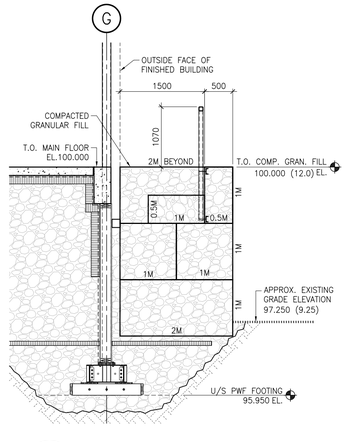
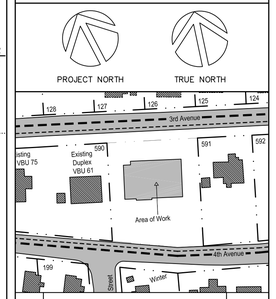


8 C-1 SEC. THRU RETAINING WALL

1:50

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



No.	Description	Date
0	ISSUED FOR TENDER	04-07-2015

Revisions:

All measurements are to be checked and verified on site by the contractor before proceeding with the work.

Do not scale the drawings.

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AGE Project# 0121-13-009
Electrical Engineers

Project:

FEDERAL BUILDING
ARVIAT, NUNAVUT

Drawn By:	Date:
ALG	04-07-2015
Checked By:	Scale:
KRD	AS NOTED

Sheet Title:
SITE GRADING PLAN

Sheet Number:
C-1

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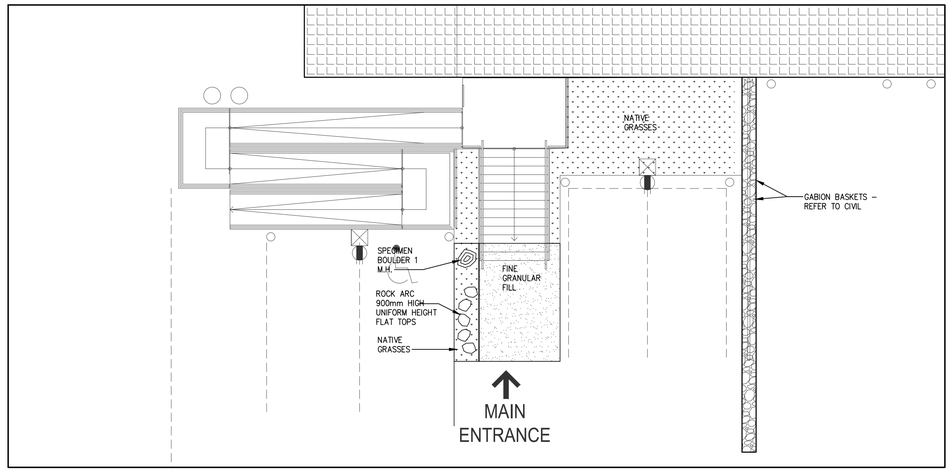

LANDSCAPING @ ENTRANCE 2 / L1
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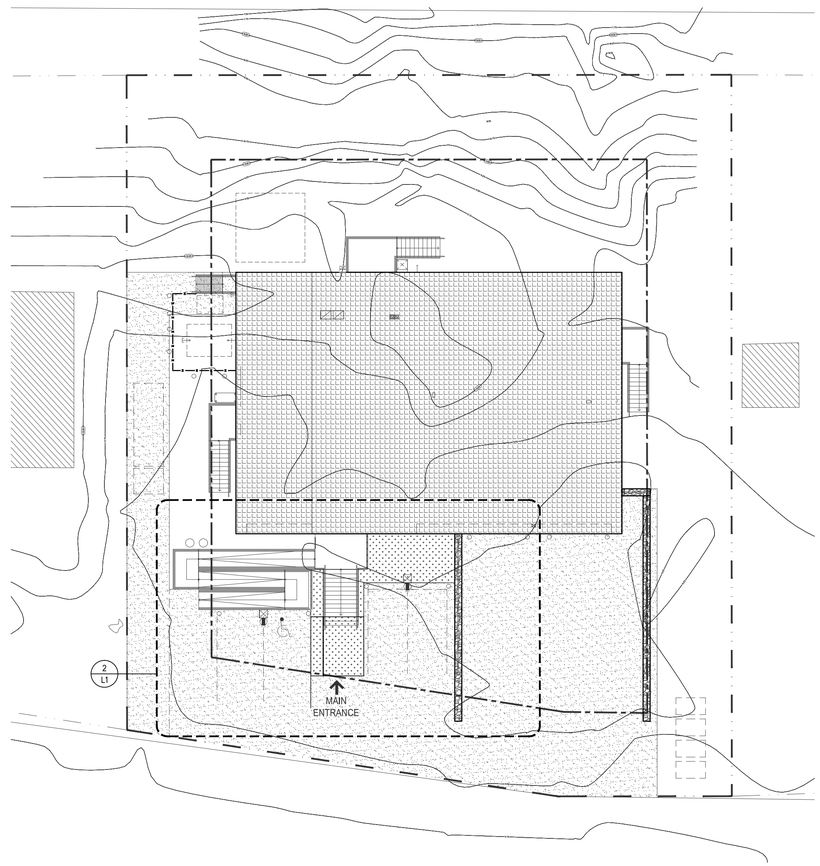

SITE LANDSCAPING PLAN 1 / L1
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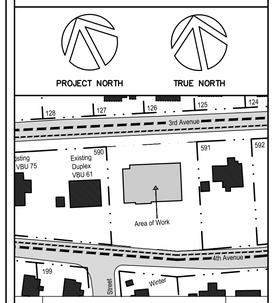

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AGE Project # 1121-13-009

Project:

FEDERAL BUILDING
ARVIAT, NUNAVUT

Drawn By: JoL	Date: 01/26/15
Checked By: RB	Scale: 1:200

Sheet Title:
LANDSCAPE PLAN

Sheet Number:
1408-L1

FILENAME: G:\projects\2014\1408\1408-00\graphics\cad\working\sheets\1408-00-l1.dwg
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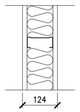
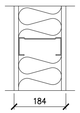
INTERIOR PARTITION SCHEDULE

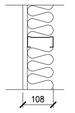
NON-SECURE PARTITIONS



P1
- 16mm IRGB
- 92mm STEEL STUD @ 400mm o.c.
- 92mm SOUND ATTENUATION BATT (INSUL-WOOL6/INSUL-GLASS3)
- 16mm IRGB
- STC: 50



P2
- 16mm IRGB
- 152mm STEEL STUD @ 400mm o.c.
- 152mm SOUND ATTENUATION BATT (INSUL-WOOL6/INSUL-GLASS3)
- 16mm IRGB
- STC: 50



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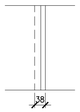
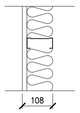
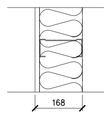
- 16mm IRGB
- 92mm STEEL STUD @ 400mm o.c.
- 92mm SOUND ATTENUATION BATT (INSUL-WOOL6/INSUL-GLASS3)



P4
- 22mm FURRING CHANNEL @ 400mm o.c.
- 16mm IRGB

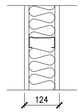


P5
- 16mm IRGB
- 92mm STEEL STUD @ 400mm o.c.
- 92mm SOUND ATTENUATION BATT (INSUL-WOOL6/INSUL-GLASS3)

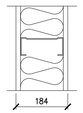


P9
- 16mm IRGB
- 152mm STEEL STUD @ 200mm o.c.
- 152mm SOUND ATTENUATION BATT (INSUL-WOOL6/INSUL-GLASS3)

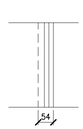
NON-SECURE 1 HR RATED PARTITIONS



P1A
- 16mm TYPE X GYPSUM WALLBOARD
- 92mm STEEL STUD @ 400mm o.c.
- 92mm SOUND ATTENUATION BATT (INSUL-WOOL6/INSUL-GLASS3)
- 16mm TYPE X GYPSUM WALLBOARD
- ULC: W407
- STC: 50

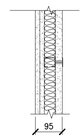


P2A
- 16mm TYPE X GYPSUM WALLBOARD
- 152mm STEEL STUD @ 400mm o.c.
- 152mm SOUND ATTENUATION BATT (INSUL-WOOL6/INSUL-GLASS3)
- 16mm TYPE X GYPSUM WALLBOARD
- ULC: W407
- STC: 50



P4A
- 22mm FURRING CHANNEL @ 400mm o.c.
- 2x 16mm TYPE X GYPSUM BOARD

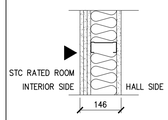
NON-SECURE SOUND ATTENUATION PARTITIONS



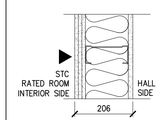
P10A
- 2 LAYERS OF 16mm TYPE X GYPSUM WALLBOARD
- C-H METAL STUD @ 400mm o.c.
- MINERAL FIBER BATT (INSUL-WOOL7)
- 25mm TYPE X SHAFT WALL LINER BOARD

UCC W452
(SYSTEM A)

NON-SECURE SOUND ATTENUATION PARTITIONS



P1-ACC
- 16mm TYPE X GYPSUM WALLBOARD
- 92mm STEEL STUD @ 400mm o.c.
- 92mm SOUND ATTENUATION BATT (INSUL-WOOL6/INSUL-GLASS3)
- 1 LAYER OF 13mm TYPE X GYPSUM WALLBOARD
- 2 LAYERS OF 13mm GYPSUM WALLBOARD C/W SELF-TAPPING SCREWS, LAMINATING ADHESIVES AND STAGGERED JOINTS
- STC: APROX. 50



P2-ACC
- 16mm TYPE X GYPSUM WALLBOARD
- 152mm STEEL STUD @ 400mm o.c.
- 152mm SOUND ATTENUATION BATT (INSUL-WOOL6/INSUL-GLASS3)
- 1 LAYER OF 13mm TYPE X GYPSUM WALLBOARD
- 2 LAYERS OF 13mm GYPSUM WALLBOARD C/W SELF-TAPPING SCREWS, LAMINATING ADHESIVES AND STAGGERED JOINTS
- STC: APROX. 50

GENERAL NOTES - INTERIOR PARTITIONS

1. UNLESS NOTED OTHERWISE, ALL PARTITIONS ARE TYPE P1.
2. REFER TO FLOOR PLANS FOR LOCATION OF PARTITION TYPES.
3. ALL EXPOSED POURED CONCRETE TO BE SMOOTH FINISH. (SEE STRUCTURAL.)
4. ALL VOIDS IN FIRE SEPARATION PARTITIONS TO BE SEALED WITH FIRE STOP MATERIAL.
5. REFER TO DRAWING A075 FOR LOCATIONS OF FIRE RATED PARTITIONS.
6. UNLESS NOTED OTHERWISE, ALL INTERIOR PARTITIONS TO EXTEND UP TO UNDERSIDE OF STEEL ROOF DECK.
7. UNLESS NOTED OTHERWISE, ALL GYPSUM WALL BOARD TO BE IMPACT RESISTANT GYPSUM BOARD (IRGB).
8. UNLESS NOTED OTHERWISE, ALL INTERIOR PARTITIONS TO CONTAIN SOUND ATTENUATION BATTS.
9. ▶ INDICATES SIDE OF INTERIOR PARTITION WHERE METAL SECURITY MESH, FIRE RATED G1S PLYWOOD, STEEL SECURITY WALL PLATING OR STC WALL RAITING IS LOCATED/REQUIRED
10. UNLESS NOTED OTHERWISE, ALL COLUMNS TO BE ENCLOSED IN P.3 PARTITIONS.
11. UNLESS NOTED OTHERWISE, ALL DIMENSIONS ARE TAKEN TO CENTRELINE OF PARTITION.
12. ALL FURNITURE AND EQUIPMENT SHOWN DASHED REFER THE FF&E DRAWINGS.
13. PROVIDE NECESSARY WALL REINFORCEMENT BACKING FOR ALL SURFACE MOUNTED EQUIPMENT AND FIXTURES, BOTH INTERIOR AND EXTERIOR OF BUILDING.

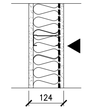
INTERIOR WALLS - SUFFICES

SUFFIX "A" DENOTES PARTITION TO BE 1H FIRE RATED
SUFFIX "B" DENOTES PARTITION TO BE 2H FIRE RATED
SUFFIX "C" DENOTES PARTITION TO EXTEND 152MM ABOVE HIGHEST FINISHED CEILING

EXTERIOR WALLS - SUFFICES

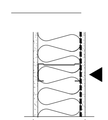
SUFFIX "A" DENOTES EXTERIOR FINISH TO BE 34mm WOODGRAIN FINISH ALUMINIUM SIDING
SUFFIX "B" DENOTES EXTERIOR FINISH TO BE 51mm ALUMINIUM COMPOSITE PANEL SYSTEM O/ 13mm EXTERIOR GRADE PLYWOOD

SECURE PARTITIONS

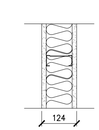


SR-1(*) (FORMERLY SECURE ROOM "C")
- 16mm TYPE X GYPSUM WALLBOARD
- 19mm #9/10 ROLLED, FLATTENED STEEL MESH
- 92mm NON LOAD BEARING STEEL STUD
- 92mm SOUND ATTENUATION BATT (INSUL-WOOL6/INSUL-GLASS3)
  0.5 mm THICK @ 400mm o.c.
- 16mm TYPE X GYPSUM WALLBOARD

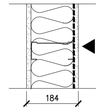
* = 2 LAYERS OF 12.7mm GYPSUM WALLBOARD BEHIND TYPE X GYPSUM WALLBOARD ON SECURE SIDE (TO ACHIEVE STC 46)



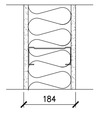
SR-2 (FORMERLY SECURE ROOM "B")
- 16mm TYPE X GYPSUM WALLBOARD
- MEDIUM METAL SECURITY MESH
- 152 mm 1.22 mm (18 GA.) GALV. STEEL STUD @ 300mm o.c.
- 152mm SOUND ATTENUATION BATT (INSUL-WOOL6/INSUL-GLASS3)
- 1.52 mm (16 GA.) ASTM A366 MATTE STEEL SHEET FILET WELDED @ 305 mm O/C TO STEEL STUDS
- 16mm TYPE X GYPSUM WALLBOARD



SR-3 (FORMERLY SECURE ROOM "D")
- 16mm TYPE X GYPSUM WALLBOARD
- 92mm STEEL STUD 0.5 mm THICK @ 400mm o.c.
- 92mm SOUND ATTENUATION BATT (INSUL-WOOL6/INSUL-GLASS3)
- 16mm TYPE X GYPSUM WALLBOARD

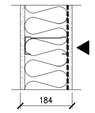


SR-7
- 16mm TYPE X GYPSUM WALLBOARD
- 19mm #9/10 ROLLED, FLATTENED STEEL MESH
- 152mm NON LOAD BEARING STEEL STUD 0.5 mm THICK @ 400mm o.c.
- 152mm SOUND ATTENUATION BATT (INSUL-WOOL6/INSUL-GLASS3)
- 16mm TYPE X GYPSUM WALLBOARD

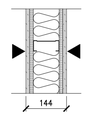


SR-8
- 16mm TYPE X GYPSUM WALLBOARD
- 152mm STEEL STUD 0.5 mm THICK @ 400mm o.c.
- 152mm SOUND ATTENUATION BATT (INSUL-WOOL6/INSUL-GLASS3)
- 16mm TYPE X GYPSUM WALLBOARD

SECURE TYPE A 1H RATED CELL WALLS

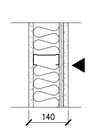


SR-2A (FORMERLY SECURE ROOM "B")
- 16mm TYPE X GYPSUM WALLBOARD
- MEDIUM METAL SECURITY MESH
- 152 mm 1.22 mm (18 GA.) GALV. STEEL STUD @ 300mm o.c.
- 152mm SOUND ATTENUATION BATT (INSUL-WOOL6/INSUL-GLASS3)
- 1.52 mm (16 GA.) ASTM A366 MATTE STEEL SHEET FILET WELDED @ 305 mm O/C TO STEEL STUDS
- 16mm TYPE X GYPSUM WALLBOARD

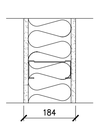


SR-4A (*)
- 13mm FIRE RESISTANT G1S PLYWOOD
- 13mm WAFERBOARD/STRANDBOARD BACKER
- 92mm STEEL STUD 18 ga. @ 200mm o.c.
- 92mm SOUND ATTENUATION BATT (INSUL-WOOL6/INSUL-GLASS3)
- 13mm WAFERBOARD/STRANDBOARD BACKER
- 13mm FIRE RESISTANT G1S PLYWOOD

* = 152mm STEEL STUD 18 ga. @ 200mm o.c.
- 152mm SOUND ATTENUATION BATT (INSUL-WOOL6/INSUL-GLASS3)

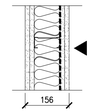


SR-6A
- 16mm MOISTURE RESISTANT GYPSUM BOARD
- 16mm MOISTURE RESISTANT PLYWOOD
- 92mm STEEL STUD 18 ga. @ 200mm o.c.
- 92mm SOUND ATTENUATION BATT (INSUL-WOOL6/INSUL-GLASS3)
- 16mm IMPACT RESISTANT GYPSUM BOARD

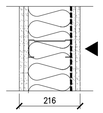


SR-8A
- 16mm TYPE X GYPSUM WALLBOARD
- 152mm STEEL STUD 0.5 mm THICK @ 400mm o.c.
- 152mm SOUND ATTENUATION BATT (INSUL-WOOL6/INSUL-GLASS3)
- 16mm TYPE X GYPSUM WALLBOARD

SECURE TYPE A 2H RATED WALLS

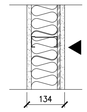


SR-4B
- 2X 16mm TYPE X GYPSUM WALLBOARD
- 19mm #9/10 ROLLED, FLATTENED STEEL MESH
- 92mm NON LOAD BEARING STEEL STUD 0.5 mm THICK @ 400mm o.c.
- 92mm SOUND ATTENUATION BATT (INSUL-WOOL6/INSUL-GLASS3)
- 2X 16mm TYPE X GYPSUM WALLBOARD

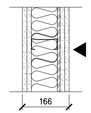


SR-10B
- 2X 16mm TYPE X GYPSUM WALLBOARD
- 19mm #9/10 ROLLED, FLATTENED STEEL MESH
- 152mm NON LOAD BEARING STEEL STUD 0.5 mm THICK @ 400mm o.c.
- 152mm SOUND ATTENUATION BATT (INSUL-WOOL6/INSUL-GLASS3)
- 2X 16mm TYPE X GYPSUM WALLBOARD
- STC: 49

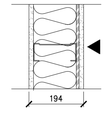
SECURE BALLISTIC PROTECTION



SR-5 (BALLISTIC PROTECTION)
- 16mm TYPE X GYPSUM WALLBOARD
- 10MM (3/8") GALV. STEEL SECURITY WALL PLATING (2440mm HIGH) MECHANICALLY FASTENED W/ SECURITY SCREWS @ 300 O/C
- 92mm STEEL STUD @ 400mm o.c.
- 92mm SOUND ATTENUATION BATT (INSUL-WOOL6/INSUL-GLASS3)
- 16mm TYPE X GYPSUM WALLBOARD



SR-5B (BALLISTIC PROTECTION-2H)
- 2X 16mm TYPE X GYPSUM WALLBOARD
- 10MM (3/8") GALV. STEEL SECURITY WALL PLATING (2440mm HIGH) MECHANICALLY FASTENED W/ SECURITY SCREWS @ 300 O/C
- 92mm STEEL STUD @ 400mm o.c.
- 92mm SOUND ATTENUATION BATT (INSUL-WOOL6/INSUL-GLASS3)
- 2X 16mm TYPE X GYPSUM WALLBOARD



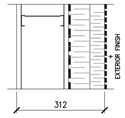
SR-9 (BALLISTIC PROTECTION)
- 16mm TYPE X GYPSUM WALLBOARD
- 10MM (3/8") GALV. STEEL SECURITY WALL PLATING (2440mm HIGH) MECHANICALLY FASTENED W/ SECURITY SCREWS @ 300 O/C
- 152mm STEEL STUD @ 400mm o.c.
- 152mm SOUND ATTENUATION BATT (INSUL-WOOL6/INSUL-GLASS3)
- 16mm TYPE X GYPSUM WALLBOARD

* = 2 LAYERS OF 16mm TYPE X GYPSUM WALLBOARD ON SECURE SIDE

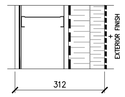
CEILING TYPES

C1-ACC
- ROOF TYPE R1 ABOVE
- SOUND ATTENUATION BLANKET
- SOUND ATTENUATION BATT (INSUL-WOOL6/INSUL-GLASS3)
- 25 GA RESILIENT CHANNELS
- 2 LAYERS OF 12.7 MM GYPSUM WALLBOARD SCREWED IN PLACE

EXTERIOR WALL SCHEDULE



W1
- CONTINUOUS AIR BARRIER
- 51mm RIGID INSULATION (INSUL-WOOL2 / GLASS1) MECHANICALLY FASTENED TO:
- 51mm VERTICAL Z-BAR SUB-GIRTS @ 600mm O.C. & FILLED WITH RIGID INSULATION (INSUL-WOOL2 / GLASS1)
- 76mm RIGID INSULATION (INSUL-WOOL2 / GLASS1) MECHANICALLY FASTENED TO:
- 76mm HORIZONTAL Z-BAR SUB-GIRTS @ 600mm O.C. & FILLED WITH RIGID INSULATION (INSUL-WOOL2 / GLASS1)
- CONTINUOUS WALL VAPOUR BARRIER
- 16mm WALL SHEATHING
- 152mm STEEL STUDS @ 400mm O.C.
- 16mm GB



W2
- CONTINOUS AIR BARRIER
- 51mm RIGID INSULATION (INSUL-WOOL2 / GLASS1) MECHANICALLY FASTENED TO:
- 51mm VERTICAL Z-BAR SUB-GIRTS @ 600mm O.C. & FILLED WITH RIGID INSULATION (INSUL-WOOL2 / GLASS1)
- 76mm RIGID INSULATION (INSUL-WOOL2 / GLASS1) MECHANICALLY FASTENED TO:
- 76mm HORIZONTAL Z-BAR SUB-GIRTS @ 600mm O.C. & FILLED WITH RIGID INSULATION (INSUL-WOOL2 / GLASS1)
- CONTINUOUS WALL VAPOUR BARRIER
- 16mm WALL SHEATHING
- 152mm STEEL STUDS @ 400mm O.C.
- MEDIUM METAL SECURITY MESH
- 16mm IRGB

FLOOR TYPES

F1
- 62mm CONCRETE TOPPING
- 38mm STEEL DECK
- STEEL JOISTS - 750MM
- PRE-INSULATED COMPOSITE CLADDING SYSTEM (SOFFIT)

F2
- CONCRETE SUSPENDED SLAB
- UNDERSLAB VB (TYP.)
- 150 RIGID INSULATION (INSUL-XPS2/INSUL-XPD1)
- 150 MIN. COMPACTED GRANULAR FILL (TYP.)

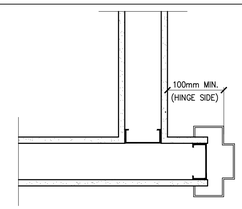
F3
- CONCRETE TOPPING
- 38mm STEEL DECK
- STEEL BEAMS - REFER TO STRUCTURAL
- PRE-INSULATED COMPOSITE CLADDING SYSTEM (SOFFIT)

ROOF TYPES

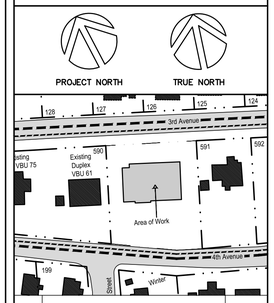
R1
- STANDING SEAM SHEET METAL ROOF
- WATER BARRIER
- 12mm DENSDECK PROTECTION BOARD
- 100mm Z-GIRTS @ 600mm o.c. FILLED WITH RIGID INSULATION
- 100mm Z-GIRTS @ 600mm o.c. (AT RIGHT ANGLES TO ABOVE Z-GIRTS) FILLED WITH RIGID INSULATION
- TORCHED-ON VAPOUR BARRIER
- 16mm EXTERIOR SHEATHING
- 38mm STEEL DECK
- COMBINATION OF OWSJ AND GLULAM BEAM CONSTRUCTION

R2
- STANDING SEAM SHEET METAL ROOF
- WATER BARRIER
- 16mm EXTERIOR SHEATHING
- 38mm STEEL DECK
- HSS FRAMING

DOOR JAMB POSITIONS



DRYWALL CONDITION



No.	Description	Date
0	ISSUED FOR TENDER	04-07-2015

Revisions:

All measurements are to be checked and verified on site by the contractor before proceeding with the work.

Do not scale the drawings.

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AGE Project # 1121-13-009

Project:

FEDERAL BUILDING
ARVIAT, NUNAVUT

Drawn By: JoL	Date: 01/26/15
Checked By: RB	Scale: AS NOTED

Sheet Title:
STANDARD DETAILS

Sheet Number:
1408-A-001

FILENAME: O:\projects\2014\1408\1408-00\graphics\acad working\sheets\1408-00-a001.dwg
PLOTDATE: May 15, 2015 - 11:19am

A1 594x841

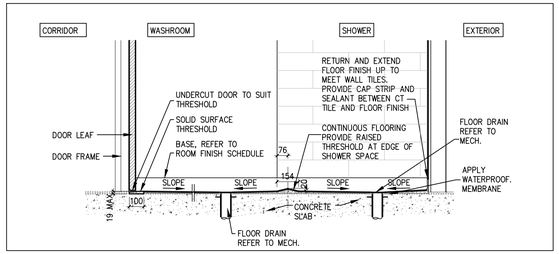
ARCHITECTURAL GENERAL LEGEND

- EXTERIOR WALL TYPES (W1)
- INTERIOR PARTITION TYPE (P-1)
- NEW WALLS AND STRUCTURAL
- INTERIOR SCREEN TYPE (S-1)
- DENOTES REFLECTED CEILING PLAN (R.C.P.)
- FINISH FLOOR ELEVATION
- FIRE EXTINGUISHER CABINET (FE)
- DENOTES ROOM FINISH SCHEDULE (R.F.S.)
- DENOTES GUARDRAIL OR HANDRAIL (GR/HR-1)
- NEW DOOR AND DOOR NUMBER
- DETAIL NUMBER DRAWING NUMBER
- ROOM NAME AND NUMBER
- NEW PARTITION TYPE – REFER TO FLOOR PLAN AND PARTITION TYPES (P1)
- NEW DOOR & FRAME W/DOOR NUMBER – REFER TO DOOR SCHEDULE
- SIMILAR CONFIGURATION REFERENCE BUBBLES
- ROOM NAME & ROOM NUMBER
- BARRIER FREE DOOR OPENER (BFO)
- CORNER GUARD (CG-1)

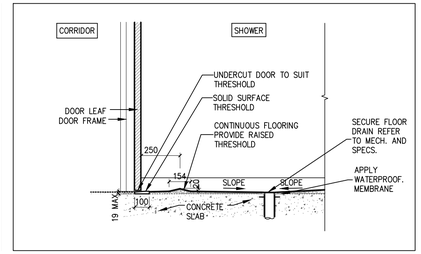
ARCHITECTURAL CEILING LEGEND

- CEILING HEIGHT (NEW) (CH)
- NEW 2' x 4' ACOUSTIC CEILING TILES IN SUSPENDED T-BAR CEILING GRID
- NEW GYPSUM BOARD CEILING (REFER TO ROOM FINISH SCHEDULE)
- NEW LIGHT FIXTURE (REFER TO ELECTRICAL DWGS.) (EFC)
- NEW SUPPLY/RETURN DIFFUSER (REFER TO MECHANICAL DWGS.)

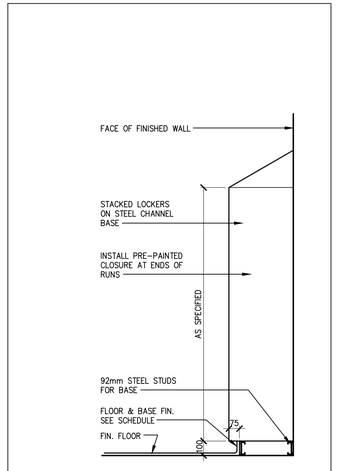
GENERAL NOTES 8 / A002 — 1:20



STAFF SHOWER/WASH. AND STAFF WASH./ CORR. THRESHOLD 7 / A002 — 1:20

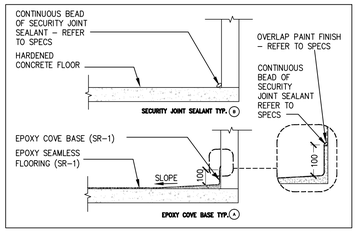


INMATE SHOWER/PATROL CORRIDOR THRESHOLD 6 / A002 — 1:20

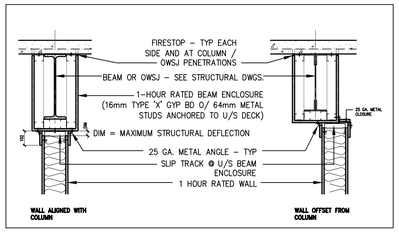


NOTE : PROVIDE ANGLE CORNER CAP AT LOCKER INSIDE CORNERS

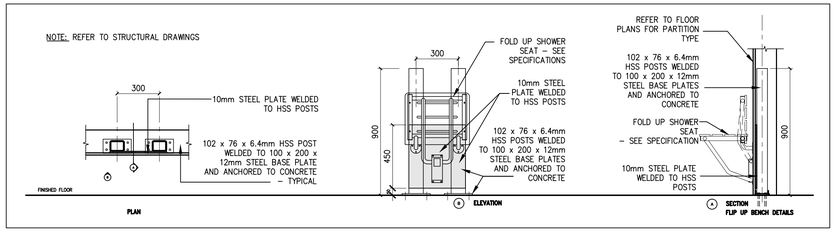
SECTION DETAIL: WALL MOUNTED LOCKERS (FULL HEIGHT) 3 / A002 — 1:20



TYP. DETAILS 9 / A002 — NTS

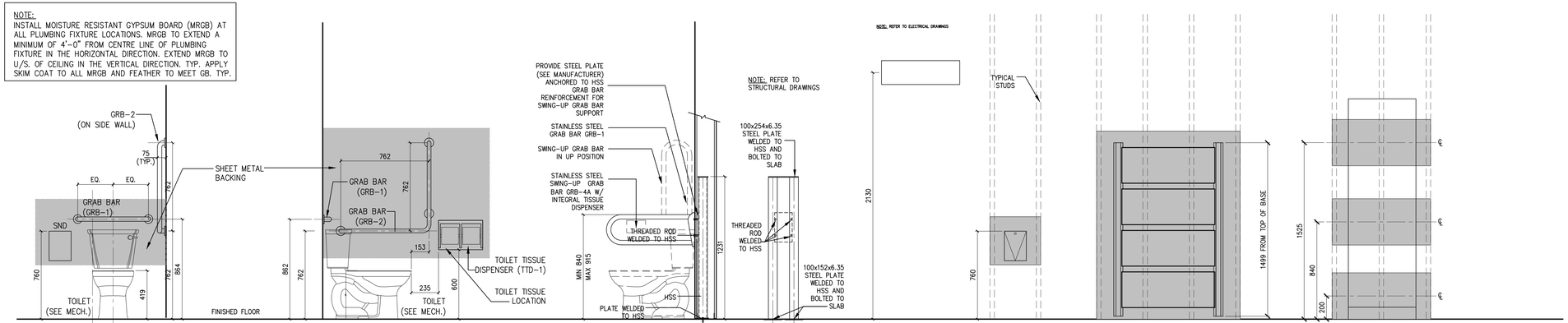


RATED WALL AT STRUCTURE TO U/S DECK 5 / A002 — NTS

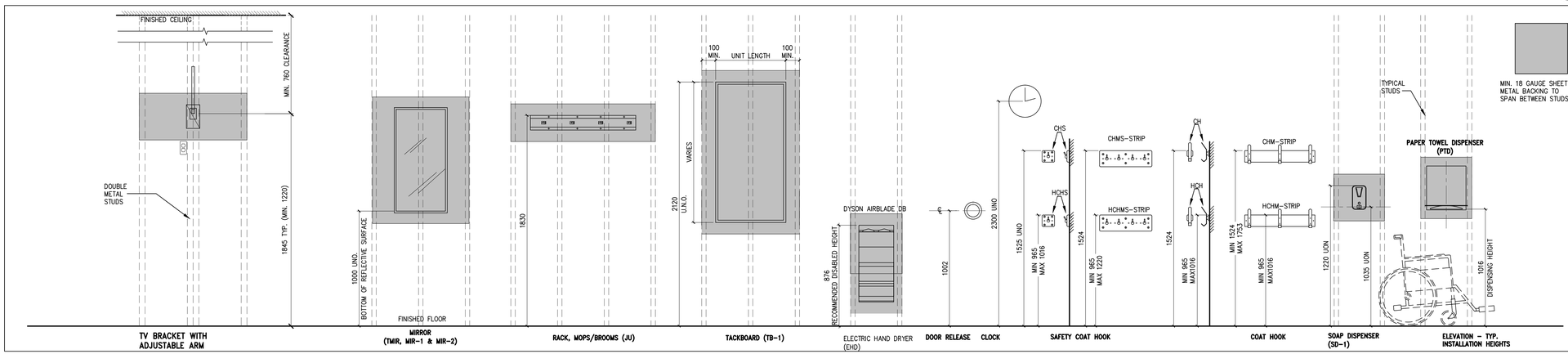


FOLDING BENCH 4 / A002 — 1:20

NOTE:
INSTALL MOISTURE RESISTANT GYPSUM BOARD (MRGB) AT ALL PLUMBING FIXTURE LOCATIONS. MRGB TO EXTEND A MINIMUM OF 4'–0" FROM CENTRE LINE OF PLUMBING FIXTURE IN THE HORIZONTAL DIRECTION. EXTEND MRGB TO U/S. OF CEILING IN THE VERTICAL DIRECTION. TYP. APPLY SKIM COAT TO ALL MRGB AND FEATHER TO MEET GB. TYP.



STANDARD MOUNTING HEIGHT DETAILS 2 / A002 — 1:20

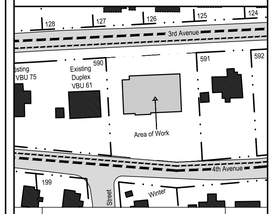


STANDARD MOUNTING HEIGHT DETAILS 1 / A002 — 1:20

A1 594x841

PROJECT NORTH

TRUE NORTH



No.	Description	Date
0	ISSUED FOR TENDER	04-07-2015

Revisions:

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Do not scale the drawings.

Prime Consultant:

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Project:

FEDERAL BUILDING
ARVIAT, NUNAVUT

Drawn By:	Date:
JoL	01/26/15
Checked By:	Scale:
RB	AS NOTED

Sheet Title:
STANDARD DETAILS

Sheet Number:
1408-A-002

PLOTDATE: May 1, 2015 - 11:10pm
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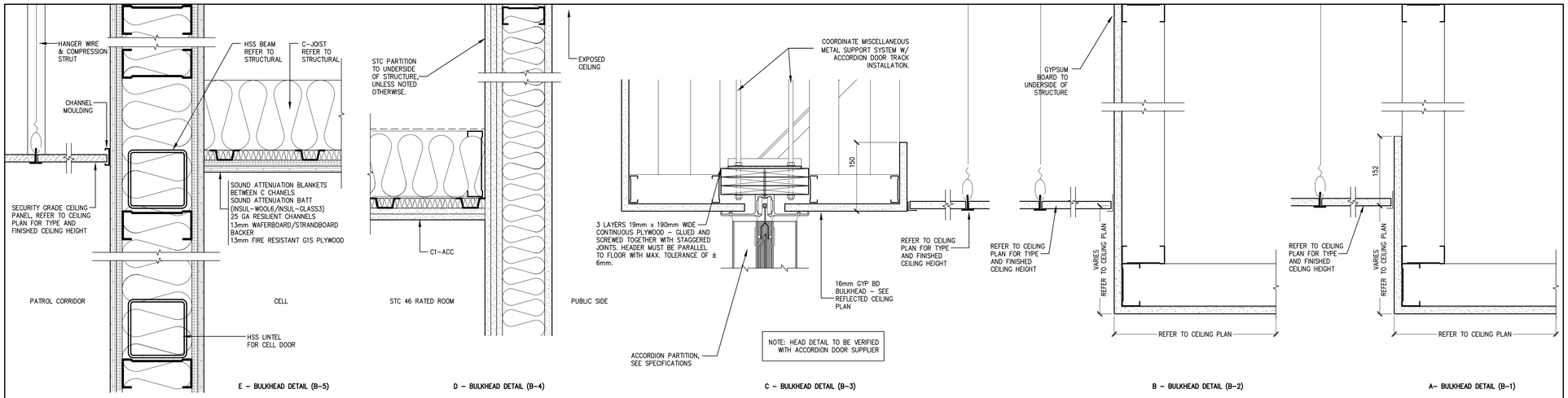
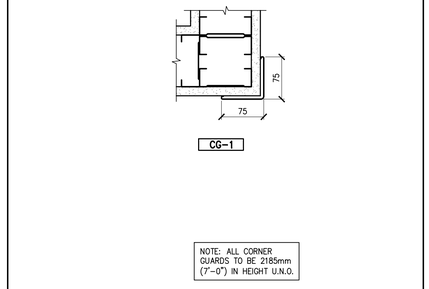
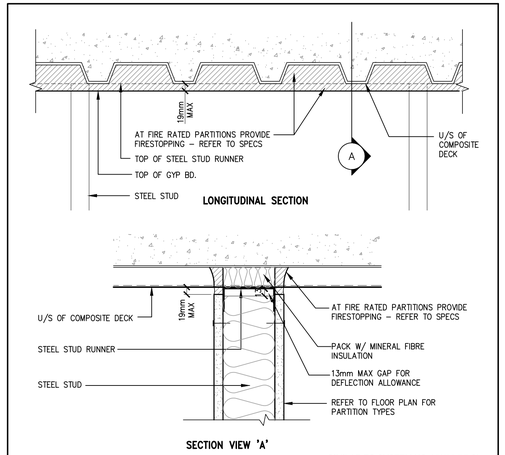


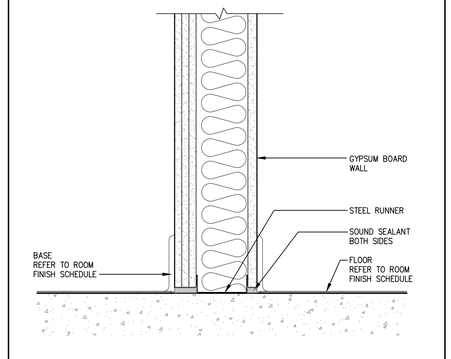
DETAIL – TYPICAL BULKHEADS 7 / A003
1:5



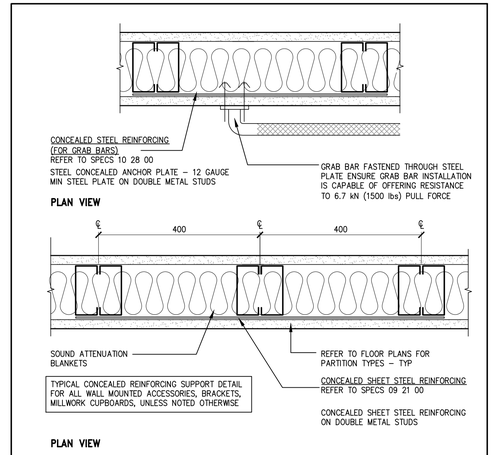
DETAIL – TYPICAL CORNER GUARD 6 / A003
1:5



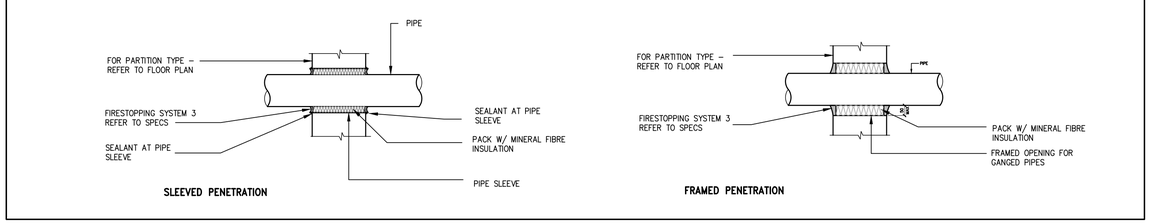
DETAIL – RATED PARTITION @ U/S COMPOSITE DECK 5 / A003
1:5



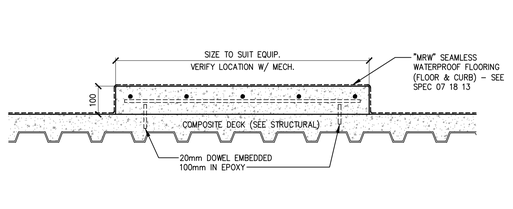
DETAIL – WALL PARTITION AT FLOOR 4 / A003
1:5



DETAIL – TYPICAL SHEET STEEL REINFORCING 3 / A003
1:5

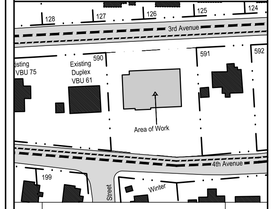


DETAIL – PIPE PENETRATIONS 2 / A003
1:10



HOUSEKEEPING PAD 1 / A003
1:10

A1 594x841



No.	Description	Date
0	ISSUED FOR TENDER	04-07-2015

Revisions:

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Electrical Engineers

Project:

FEDERAL BUILDING
ARVIAT, NUNAVUT

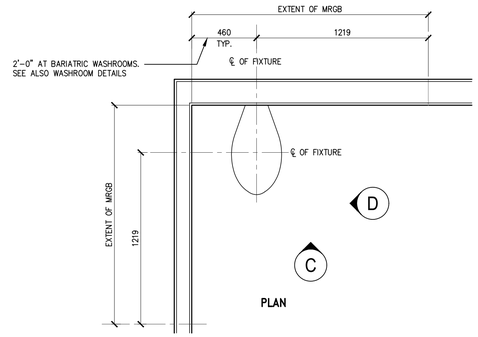
Drawn By:	Date:
JoL	01/26/15
Checked By:	Scale:
RB	AS NOTED

Sheet Title:
STANDARD DETAILS

Sheet Number:
1408-A-003

FILENAME: D:\projects\2014\1408\1408-00\graphics\cad working\sheets\1408-00-a003.dwg
PLOTDATE: May 12, 2015 - 11:17 am

NOTE:
INSTALL MOISTURE RESISTANT GYPSUM BOARD (MRGB) AT ALL PLUMBING FIXTURE LOCATIONS. MRGB TO EXTEND A MINIMUM OF 4'-0" FROM CENTRE LINE OF PLUMBING FIXTURE IN THE HORIZONTAL DIRECTION. EXTEND MRGB TO U/S. OF CEILING IN THE VERTICAL DIRECTION. TYP. APPLY SKIM COAT TO ALL MRGB AND FEATHER TO MEET GB. TYP.



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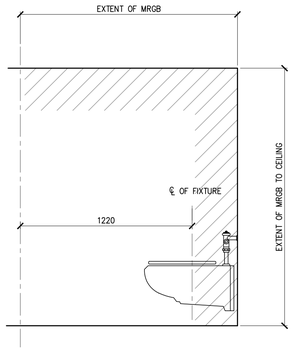

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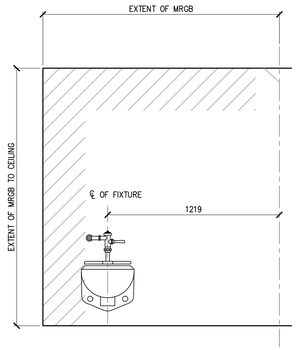
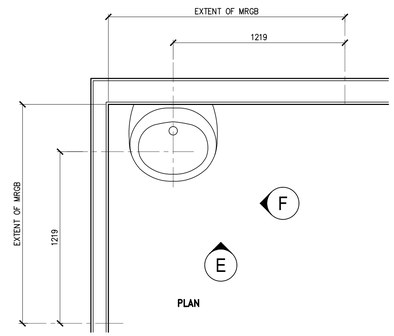


ELEVATION C

TYP. DETAILS OF MOISTURE RESISTANT GYP. BD. (MRGB) AT TOILETS 3 / A004 — 1:20



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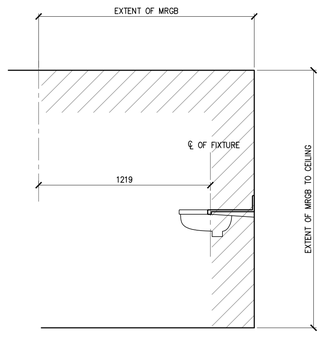

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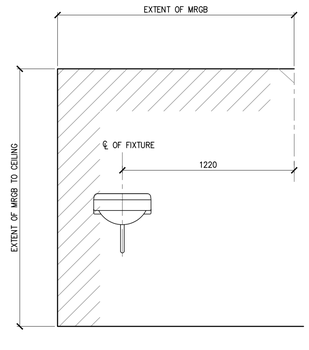


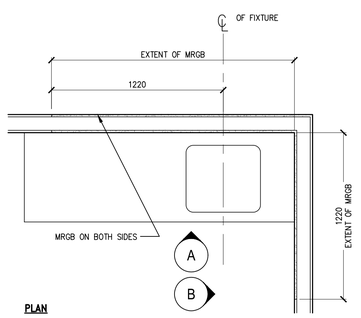
ELEVATION E

TYP. DETAILS OF MOISTURE RESISTANT GYP. BD. (MRGB) AT HANDWASH STATIONS 2 / A004 — 1:20

NOTES:

1. INSTALL MOISTURE RESISTANT GYPSUM BOARD (MRGB) AT ALL FIXTURE LOCATIONS.
– MRGB TO EXTEND A MINIMUM OF 4'-0" FROM THE CENTRE LINE OF FIXTURE IN EITHER DIRECTION BOTH HORIZONTALLY & VERTICALLY.
– APPLY SKIM COAT TO ALL MRGB & FEATHER TO MEET GWB.

2. ADDITIONAL LOCATION OF MRGB TO LOCATION INDICATED ON ROOM FINISH SCHEDULE.



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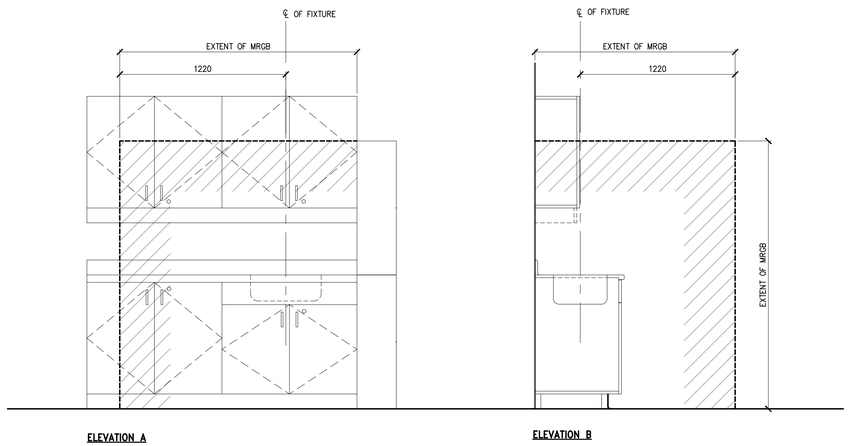
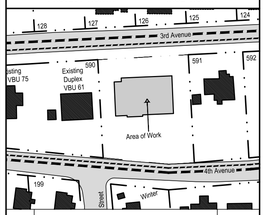


ELEVATION A — ELEVATION B

TYP. DETAILS OF MOISTURE RESISTANT GYP. BD. (MRGB) 1 / A004 — 1:20

A1 594x841



No.	Description	Date
0	ISSUED FOR TENDER	04-07-2015

Revisions:

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Prime Consultant:

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AGE Project # 1121-13-009
Electrical Engineers

Project:

FEDERAL BUILDING
ARVIAT, NUNAVUT

Drawn By: JoL	Date: 01/26/15
Checked By: RB	Scale: AS NOTED

Sheet Title:
STANDARD DETAILS

Sheet Number:
1408-A-004

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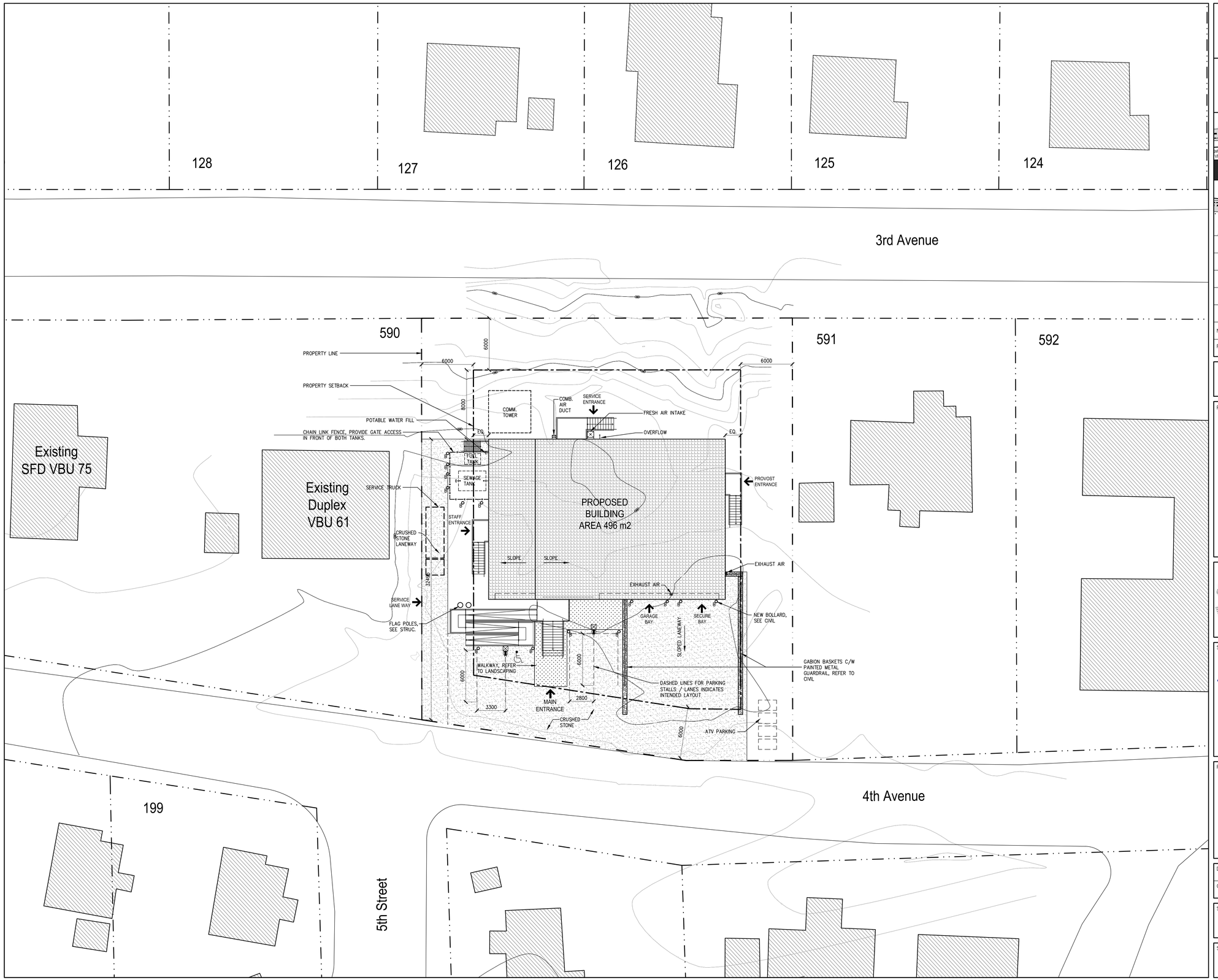

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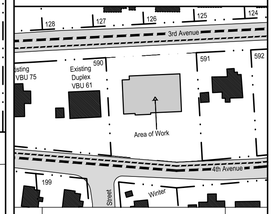

No.	Description	Date
0	ISSUED FOR TENDER	04-07-2015

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AGE Project # 1121-13-009

Project:

FEDERAL BUILDING
ARVIAT, NUNAVUT

Drawn By:	Date:
JoL	01/26/15
Checked By:	Scale:
RB	1:200

Sheet Title:
SITE PLAN

Sheet Number:
1408-A-050

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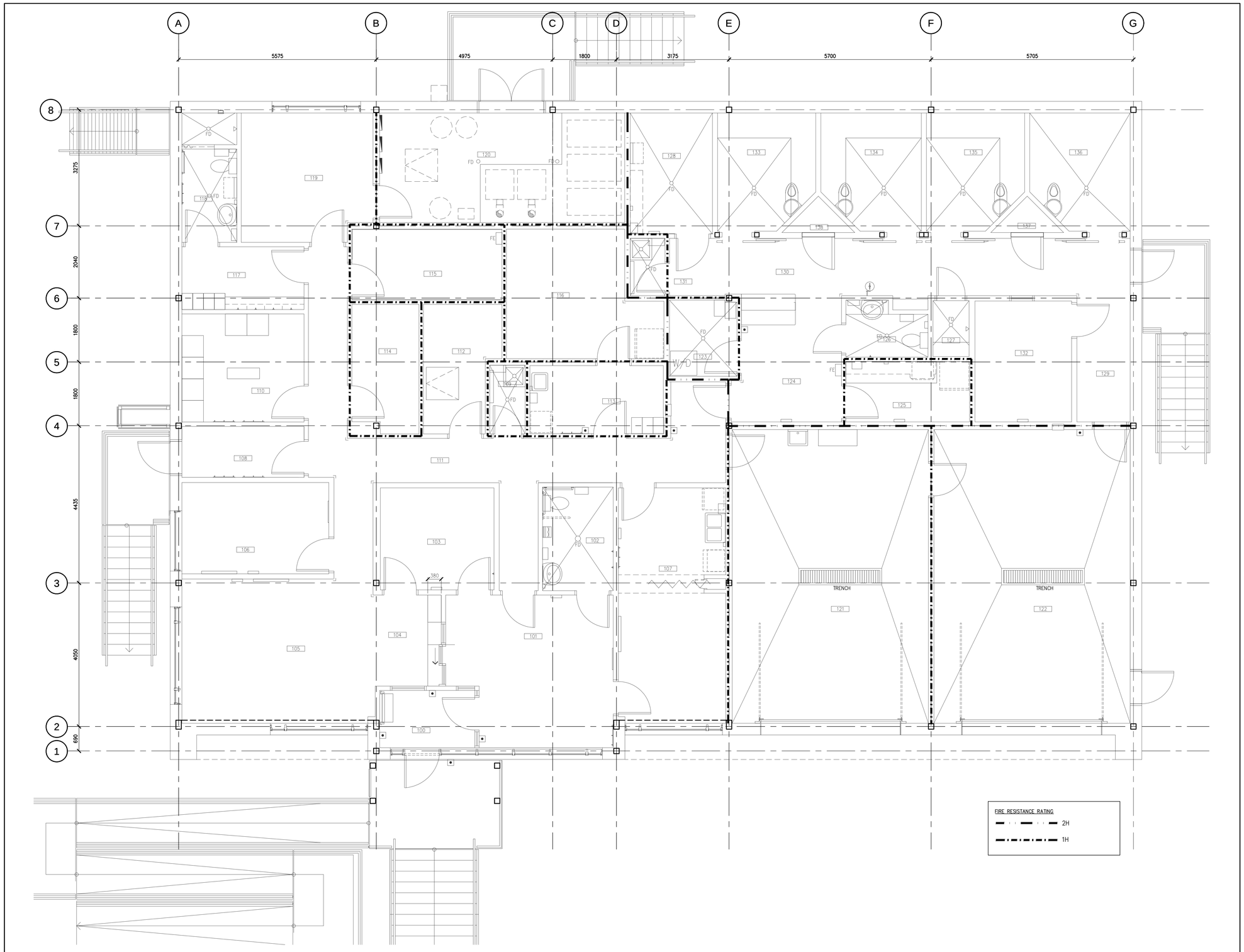

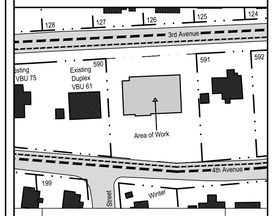

No.	Description	Date
0	ISSUED FOR TENDER	04-07-2015

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Electrical Engineers

Project:

FEDERAL BUILDING
ARVIAT, NUNAVUT

Drawn By: JoL	Date: 01/26/15
Checked By: RB	Scale: 1:50

Sheet Title:
FIRE RESISTANCE RATING PLAN

Sheet Number:
1408-A-075

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PLOTDATE: May 12, 2015 - 11:18am

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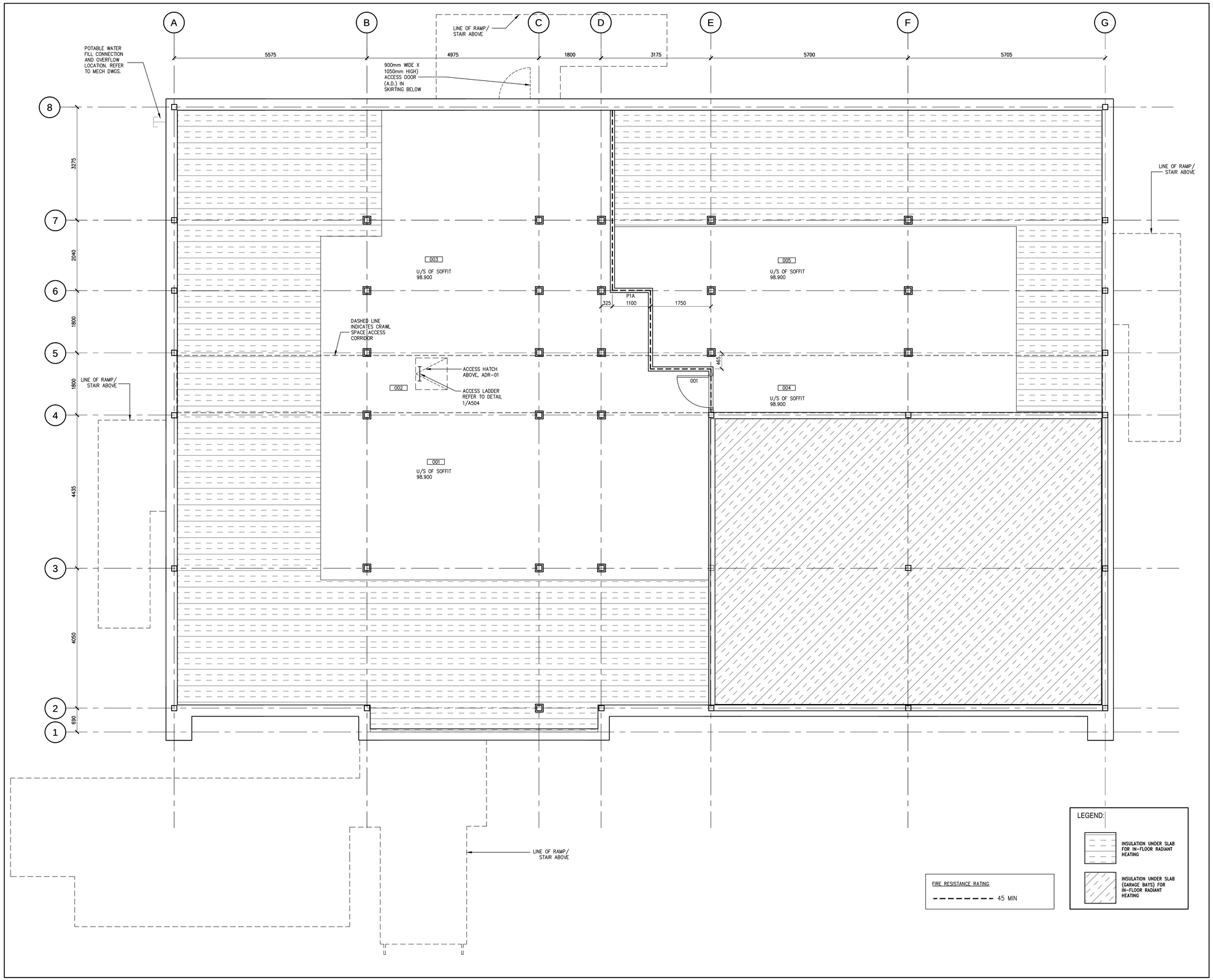

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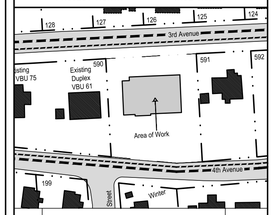
PROJECT NORTH

TRUE NORTH



No.	Description	Date
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Electrical Engineers

Project:

FEDERAL BUILDING
ARVIAT, NUNAVUT

Drawn By:	Date:
JoL	03/06/2015
Checked By:	Scale:
RB	1:50

Sheet Title:
LEVEL 0 FLOOR PLAN

Sheet Number:
1408-A-090

FILENAME: D:\projects\2014\1408\1408-00\graphics\vcad\working\sheets\1408-00-a090.dwg
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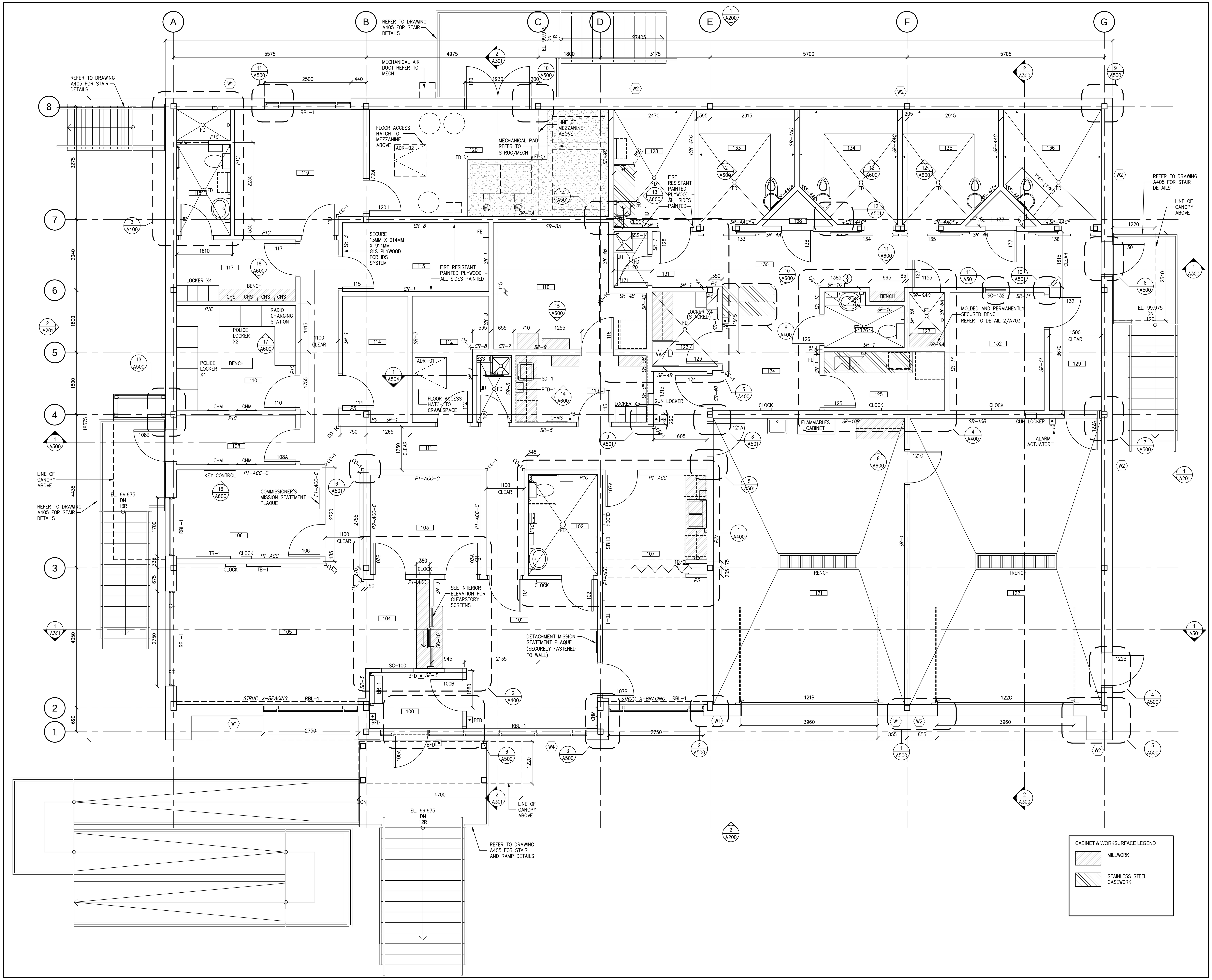

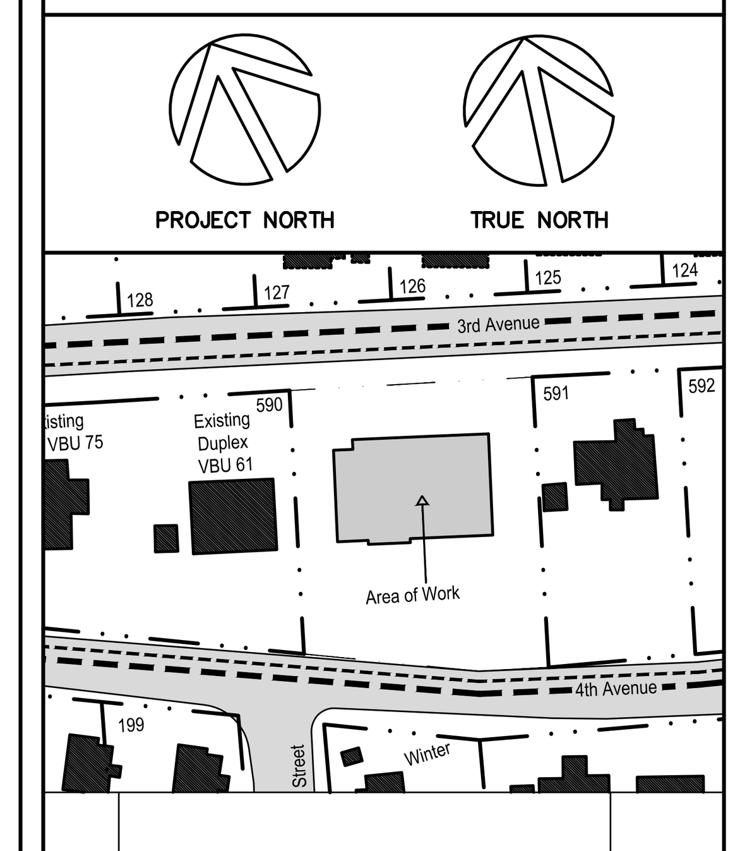

No.	Description	Date
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ONTARIO ASSOCIATION OF ARCHITECTS ROBERT BORAKS LICENCE 5346

Sub Consultant:

Accutech Engineering Inc. Tomorrow's Technology Today

A.G. Engineering Electrical Engineers

Project:

FEDERAL BUILDING
ARVIAT, NUNAVUT

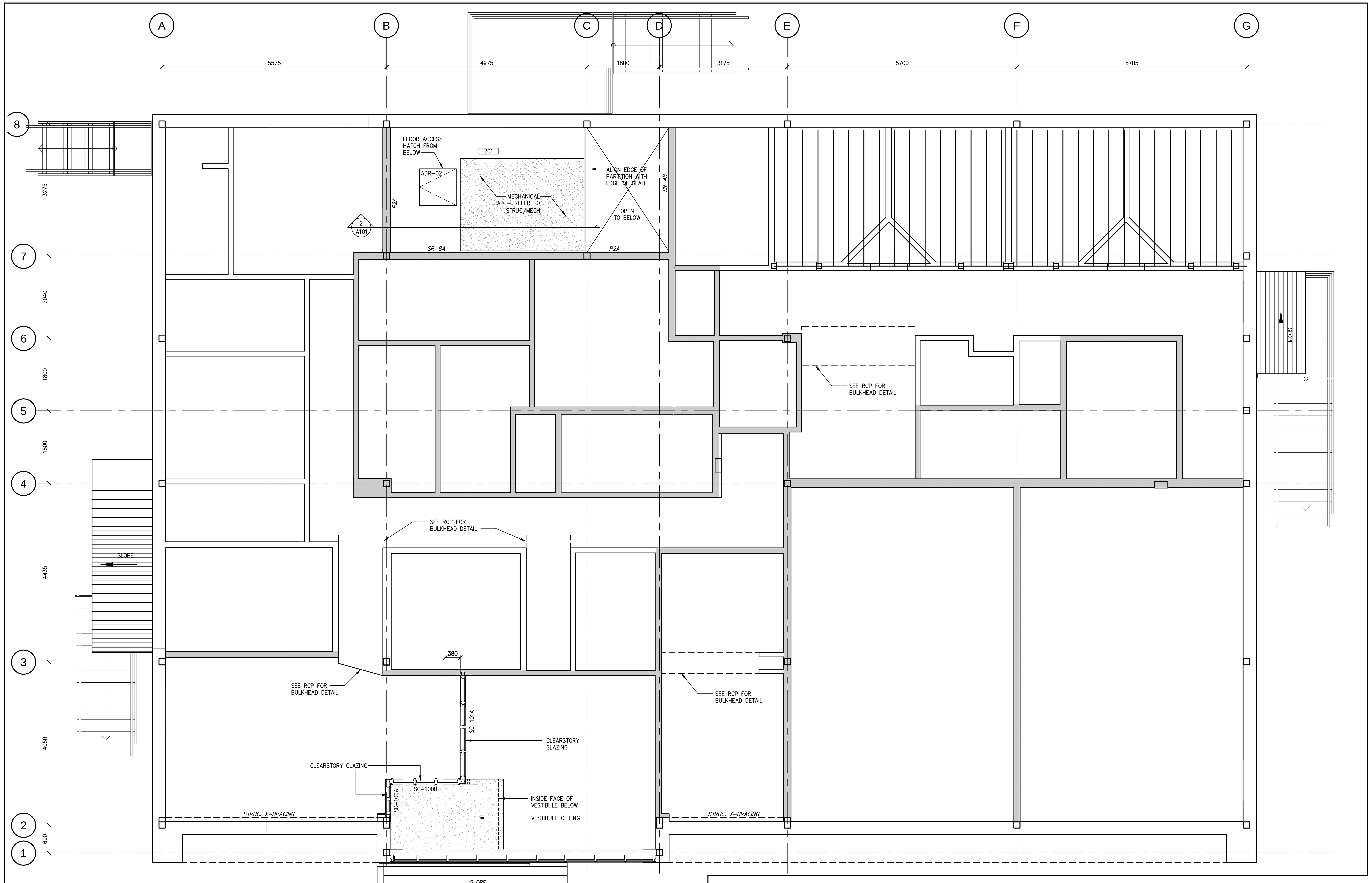
Drawn By: JoL/JL	Date: 01/26/15
Checked By: RB	Scale: 1:50

Sheet Title: FIRST FLOOR PLAN

Sheet Number: 1408-A-100

FILENAME: PLOTDATE: May 13, 2015

A1 594x841



MECHANICAL MEZZANINE PLAN 1 A101
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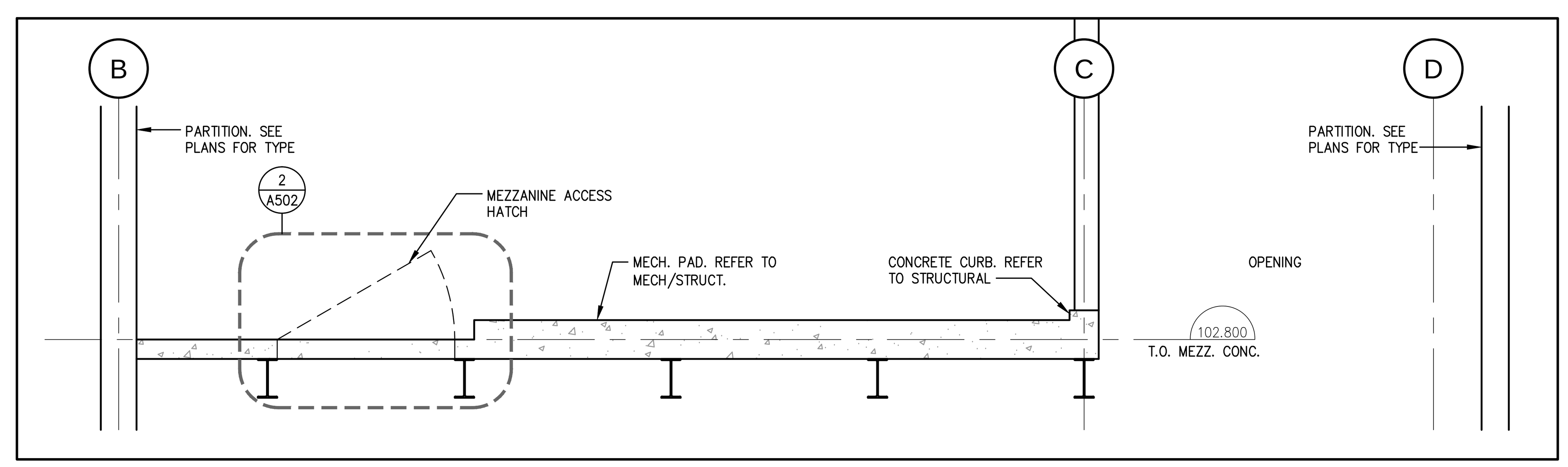

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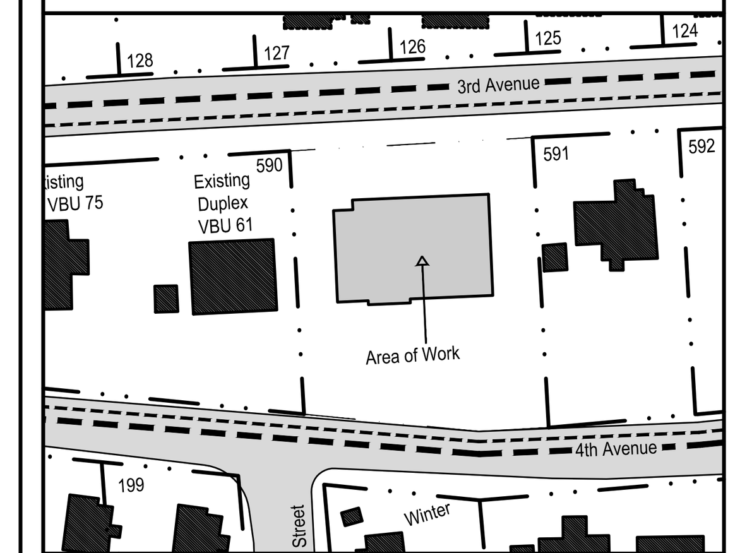

No.	Description	Date
0	ISSUED FOR TENDER	04-07-2015

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ROBERT BORAKS
LICENCE
5346

Sub Consultant:

Accutech Engineering Inc.
Tomorrow's Technology Today

AGE A.G. Engineering
Electrical Engineers

Project:

FEDERAL BUILDING
ARVIAT, NUNAVUT

Drawn By: JoL/JL	Date: 01/26/15
Checked By: RB	Scale: AS NOTED

Sheet Title:
MECHANICAL MEZZANINE PLAN AND SECTION

Sheet Number:
1408-A-101

FILENAME: O:\projects\2014\1408\1408-00\graphics\cad\working\sheets\1408-00-a101.dwg
PLOTDATE: May 13, 2015 11:18am

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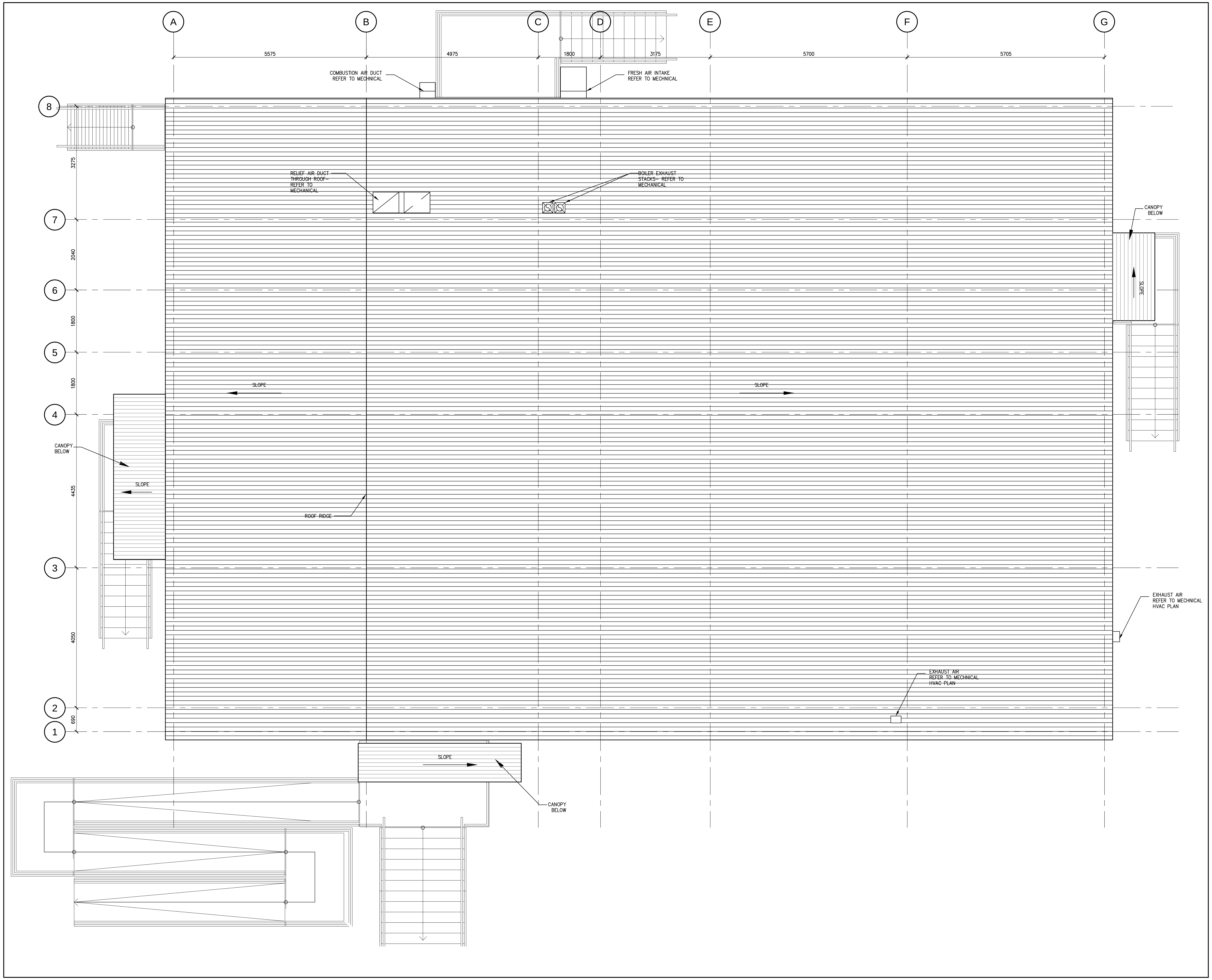

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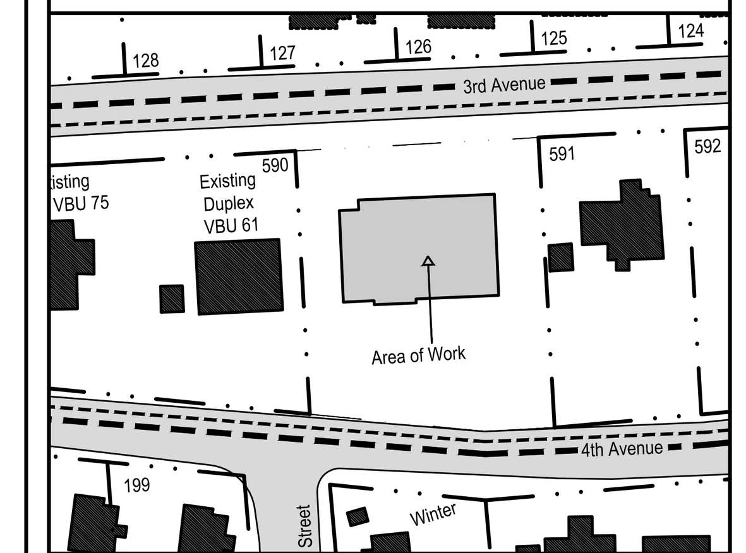
PROJECT NORTH

TRUE NORTH



No.	Description	Date
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Prime Consultant:

PARKIN ARCHITECTS LIMITED

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Sub Consultant:

Accutech Engineering Inc. Tomorrow's Technology Today

AGE A.G. Engineering Electrical Engineers

Project:

FEDERAL BUILDING
ARVIAT, NUNAVUT

Drawn By: JoL/JL	Date: 01/26/15
Checked By: RB	Scale: 1:50

Sheet Title:

ROOF PLAN

Sheet Number:

1408-A-102

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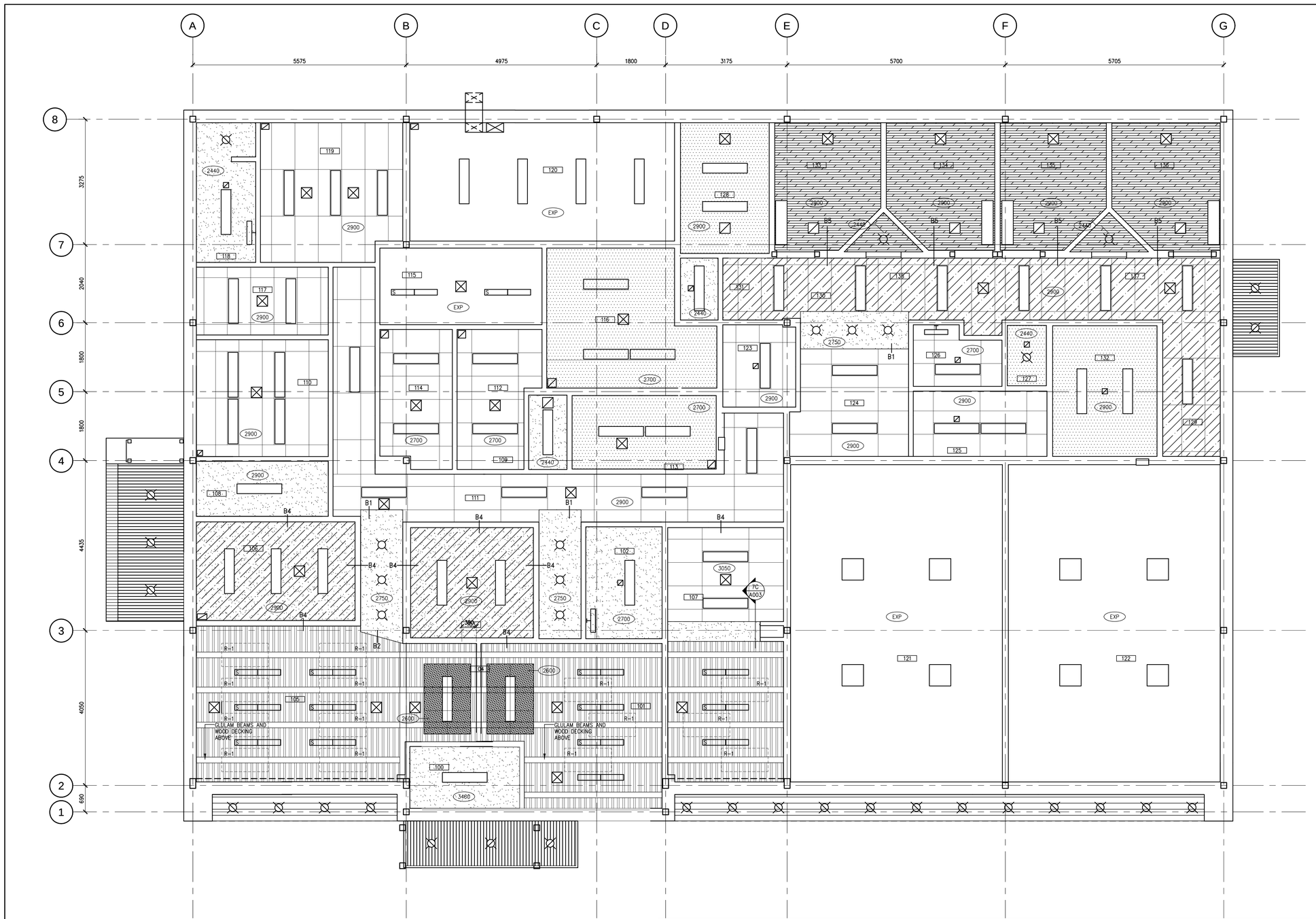


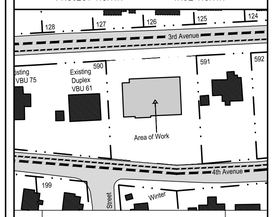
LEGEND

- 1220mm x 610mm ACOUSTIC CEILING TILE (ACT-1)
- 1220mm x 610mm SECURITY-RATED ACOUSTIC CEILING TILE (ACT-2)
- 1220mm x 610mm ACOUSTIC CEILING TILE (ACT-4)
- GYPSUM BOARD (C1)
- GYPSUM BOARD ACOUSTIC CEILING (C1-ACC)
- IMPACT-RESISTANT GYPSUM BOARD (IRGB)
- 610 x 610 PERFORATED METAL CEILING TILE (PMCT)
- WOOD GRAIN FINISHED ALUMINIUM SOFFIT
- WOOD SLAT 4" T & G CEDAR V-GROOVE
- GTS PLYWOOD
- R-1 SUSPENDED ACOUSTIC PANEL
- XXX CEILING HEIGHT, "EXP" DENOTES EXPOSED TO STRUCTURE
- FLUORESCENT LIGHT FIXTURE
- FLUORESCENT LIGHT FIXTURE
- WALL-MOUNTED LIGHT FIXTURE
- S SUSPENDED LIGHT FIXTURE
- POT LIGHT D1
- POT LIGHT WET RATED
- B1 BULKHEAD TYPES - REFER TO SHEET A-003 FOR DETAILS
- RADIANT CEILING PANEL
- SUPPLY DIFFUSER
- SUPPLY DIFFUSER
- RETURN DIFFUSER

A1 594x841

PROJECT NORTH

TRUE NORTH



No.	Description	Date
0	ISSUED FOR TENDER	04-07-2015

Revisions:

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Do not scale the drawings.

Prime Consultant:

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AGE Project# 1121-13-009

Project:

FEDERAL BUILDING
ARVIAT, NUNAVUT

Drawn By:	Date:
JOL	01/26/15
Checked By:	Scale:
RB	1:50

Sheet Title:

FIRST FLOOR CEILING PLAN

Sheet Number:

1408-A-120

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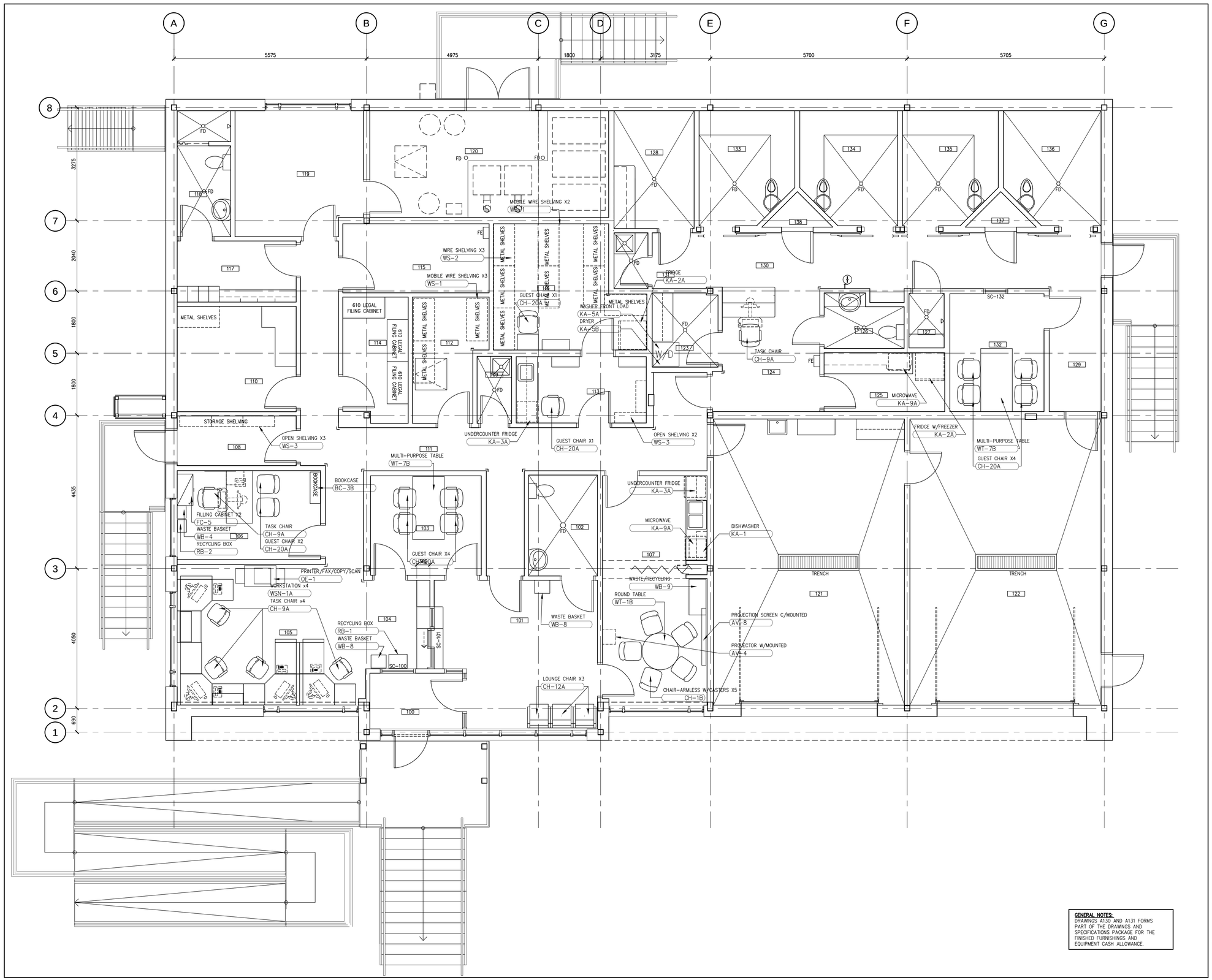
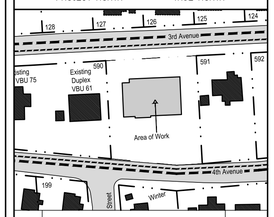


GENERAL NOTES:
DRAWINGS A130 AND A131 FORMS PART OF THE DRAWINGS AND SPECIFICATIONS PACKAGE FOR THE FINISHED FURNISHINGS AND EQUIPMENT CASH ALLOWANCE.

A1 594x841

PROJECT NORTH

TRUE NORTH



No.	Description	Date
0	ISSUED FOR TENDER	04-07-2015

Revisions:

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AGE Project #: E121-13-0499
Electrical Engineers

Project:

FEDERAL BUILDING
ARVIAT, NUNAVUT

Drawn By:	Date:
JoL	01/26/15
Checked By:	Scale:
RB	1:50

Sheet Title:
FIRST FLOOR EQUIPMENT AND FURNITURE PLAN

Sheet Number:
1408-A-130

PLOTDATE: May 1, 2015 - 11:18am
FILENAME: D:\projects\2014\1408\1408-00\graphics\vcad\working\sheets\1408-00-a130.dwg

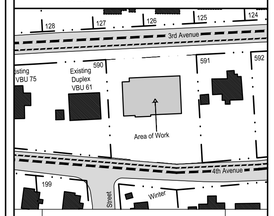
FURNITURE AND EQUIPMENT SCHEDULE

Item No	Qty	Furniture & Equipment Category	Manufacturer	Model Number	Volts	Phase	Amps	KW	HP	Direct	Plug	Elec Remarks	Cold Water Size (mm)	Hot Water Size (mm)	Direct Drain Size (mm)	Indir Drain Size (mm)	HVAC Exhaust Duct Size(mm)	HVAC Exhaust CFM	HVAC Exhaust SPWG
CH-9A	7	Task Chair	TBC	# YYZ						X									
CH-12A	3	Lounge Chair								X									
CH-20A	11	Guest Chair								X									
CH-1B	5	Chair-Armless w/ Casters								X									
WSN-1A	4	Workstation																	
WT-7B	2	Multi-Purpose Table																	
WT-1B	1	Round Table																	
BC-3B	1	Bookcase																	
FC-5	2	Filling Cabinet																	
WS-1	1	Mobile Wire Shelving																	
WB-4	1	Waste Basket																	
WB-8	2	Waste Basket																	
RB-1	1	Recycling Box																	
RB-2	1	Recycling Box																	
WB-9	1	Waste/Recycling																	
OE-1	1	Printer/Fax/Copy/Scan																	
KA-3A	1	Undercounter Fridge																	
KA-9A	2	Microwave																	
KA-2A	1	Fridge w/ Freezer																	
KA-5A	1	Washer Front Load																	
KA-5B	1	Dryer																	

GENERAL NOTES:
DRAWINGS A1.30 AND A1.31 FORMS PART OF THE DRAWINGS AND SPECIFICATIONS PACKAGE FOR THE FINISHED FURNISHINGS AND EQUIPMENT CASH ALLOWANCE.

A1 594x841

PROJECT NORTH TRUE NORTH



No.	Description	Date
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AGE Project# E121-13-009
Electrical Engineers

Project:

FEDERAL BUILDING
ARVIAT, NUNAVUT

Drawn By:	Date:
JL-SB	02/13/15
Checked By:	Scale:
JL	1:50

Sheet Title:
FIRST FLOOR EQUIPMENT AND FURNITURE SCHEDULE

Sheet Number:
1408-A-131

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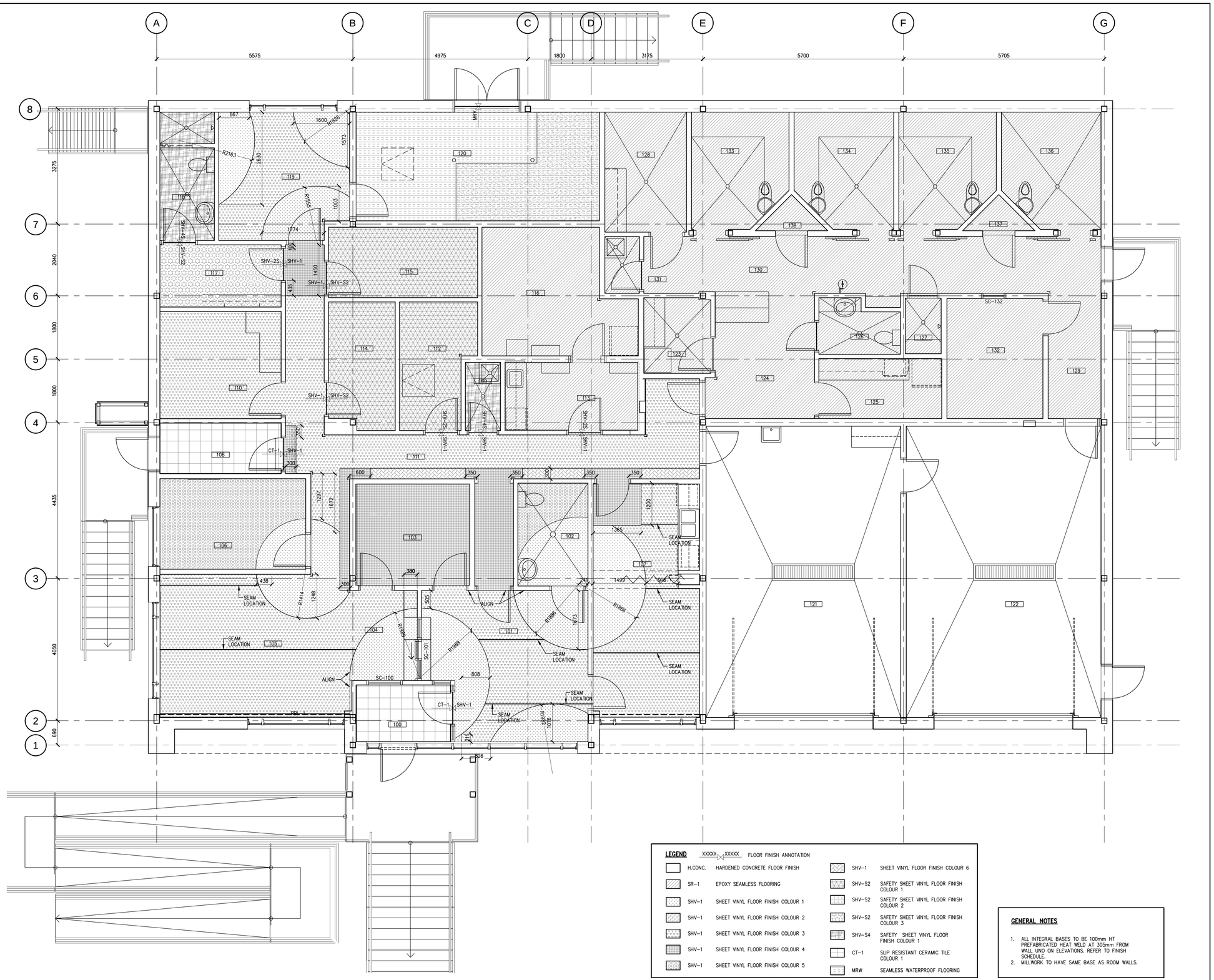
PLOTDATE: May 15, 2015 - 11:19am



LEGEND XXXXX/XXXXX FLOOR FINISH ANNOTATION

H.CONC.	HARDENED CONCRETE FLOOR FINISH	SHV-1	SHEET VINYL FLOOR FINISH COLOUR 6
SR-1	EPOXY SEAMLESS FLOORING	SHV-S2	SAFETY SHEET VINYL FLOOR FINISH COLOUR 1
SHV-1	SHEET VINYL FLOOR FINISH COLOUR 1	SHV-S2	SAFETY SHEET VINYL FLOOR FINISH COLOUR 2
SHV-1	SHEET VINYL FLOOR FINISH COLOUR 2	SHV-S2	SAFETY SHEET VINYL FLOOR FINISH COLOUR 3
SHV-1	SHEET VINYL FLOOR FINISH COLOUR 3	SHV-S4	SAFETY SHEET VINYL FLOOR FINISH COLOUR 1
SHV-1	SHEET VINYL FLOOR FINISH COLOUR 4	CT-1	SLIP RESISTANT CERAMIC TILE COLOUR 1
SHV-1	SHEET VINYL FLOOR FINISH COLOUR 5	MRW	SEAMLESS WATERPROOF FLOORING

GENERAL NOTES

1. ALL INTEGRAL BASES TO BE 100mm HT PREFABRICATED HEAT WELD AT 305mm FROM WALL UNO ON ELEVATIONS. REFER TO FINISH SCHEDULE.
2. MILLWORK TO HAVE SAME BASE AS ROOM WALLS.

A1 594x841

No.	Description	Date
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Electrical Engineers

Project:

FEDERAL BUILDING
ARVIAT, NUNAVUT

Drawn By: JoL	Date: 03/06/2015
Checked By: RB	Scale: 1:50

Sheet Title:

FIRST FLOOR PATTERN PLAN

Sheet Number:

1408-A-140

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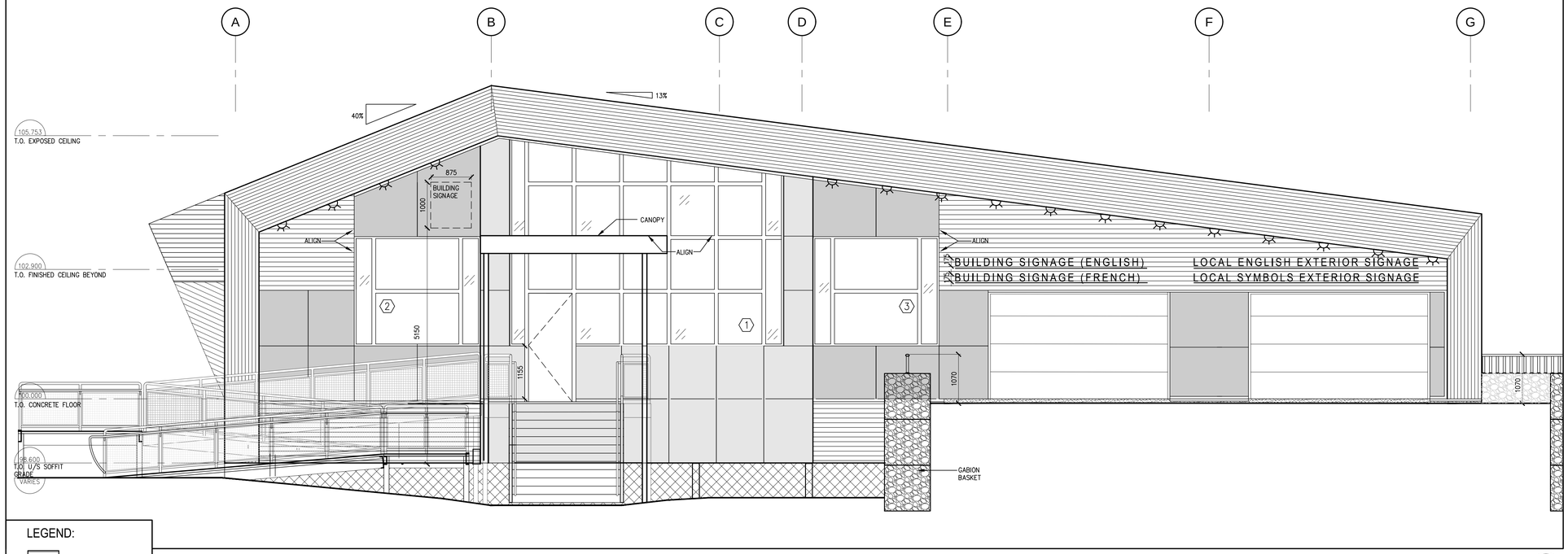
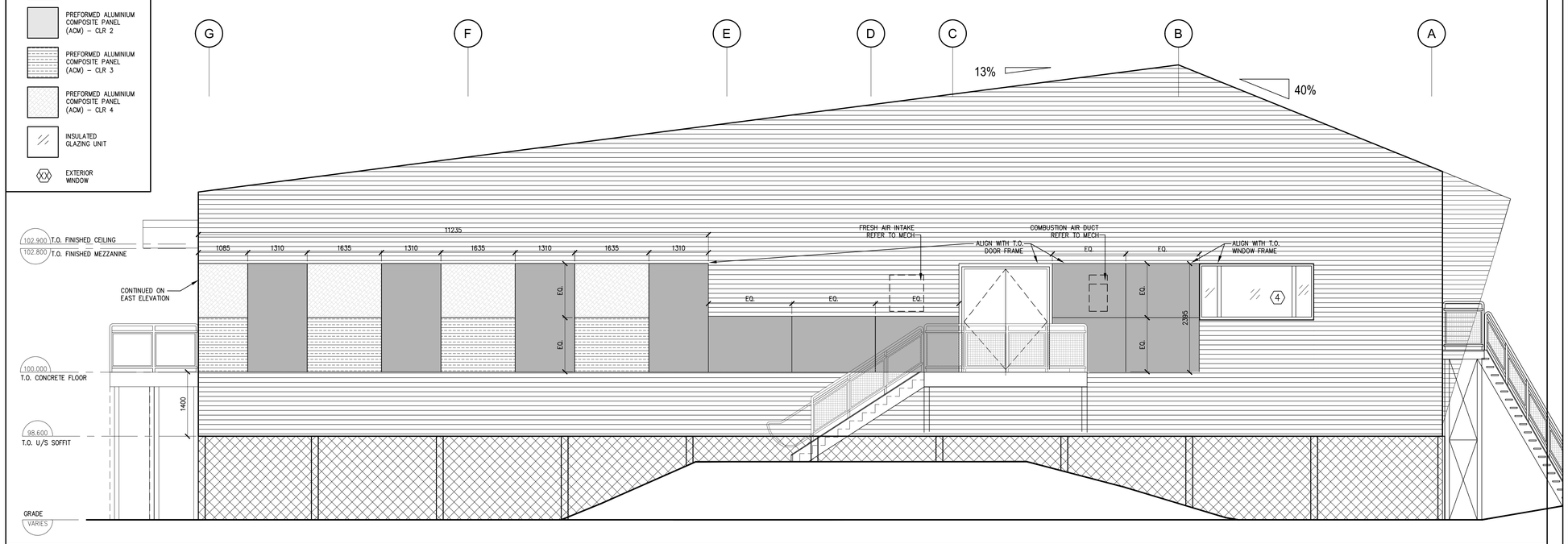


SOUTH ELEVATION 2 / A200

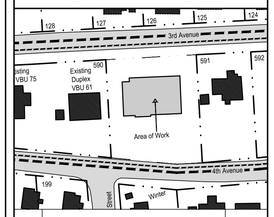
LEGEND:

- WOOD GRAIN FINISHED ALUMINIUM SIDING
- PREFORMED ALUMINIUM COMPOSITE PANEL (ACM) – CLR 1
- PREFORMED ALUMINIUM COMPOSITE PANEL (ACM) – CLR 2
- PREFORMED ALUMINIUM COMPOSITE PANEL (ACM) – CLR 3
- PREFORMED ALUMINIUM COMPOSITE PANEL (ACM) – CLR 4
- INSULATED GLAZING UNIT
- EXTERIOR WINDOW



NORTH ELEVATION 1 / A200

A1 594x841



No.	Description	Date
0	ISSUED FOR TENDER	04-07-2015

Revisions:

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Project:

FEDERAL BUILDING
ARVIAT, NUNAVUT

Drawn By: JoL	Date: 01/26/15
Checked By: RB	Scale: 1:50

Sheet Title:
EXTERIOR ELEVATIONS

Sheet Number:
1408-A-200

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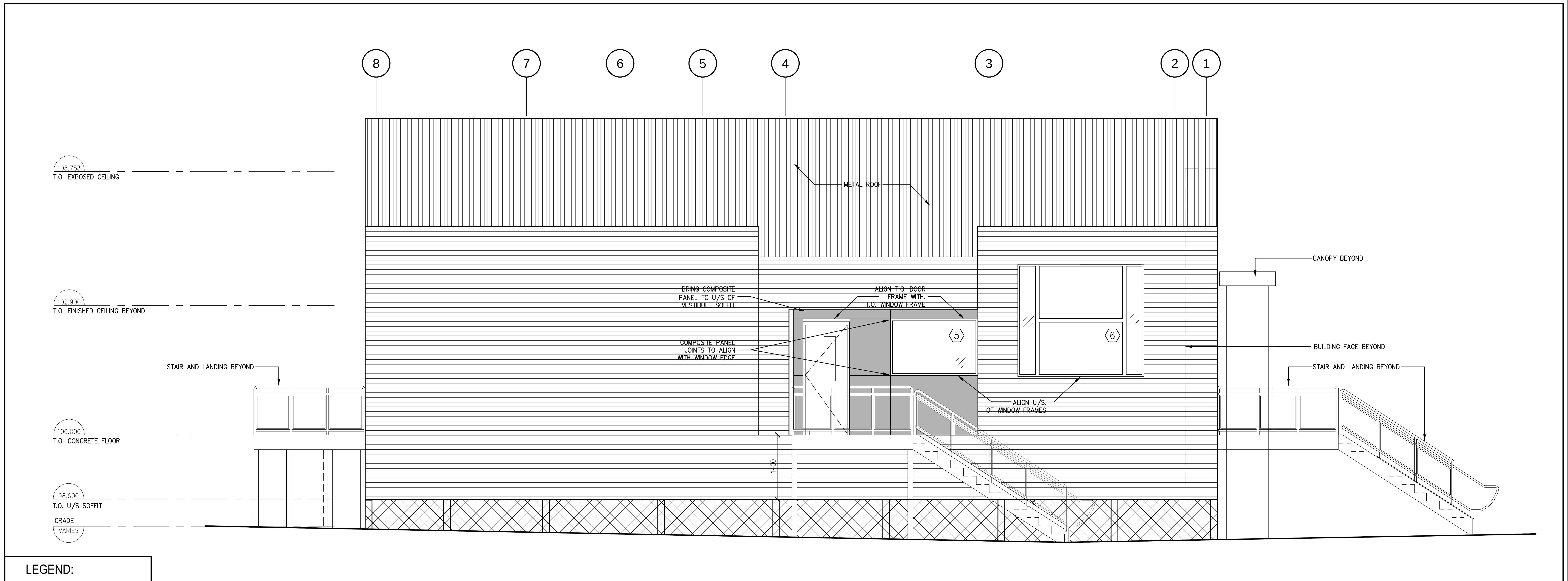
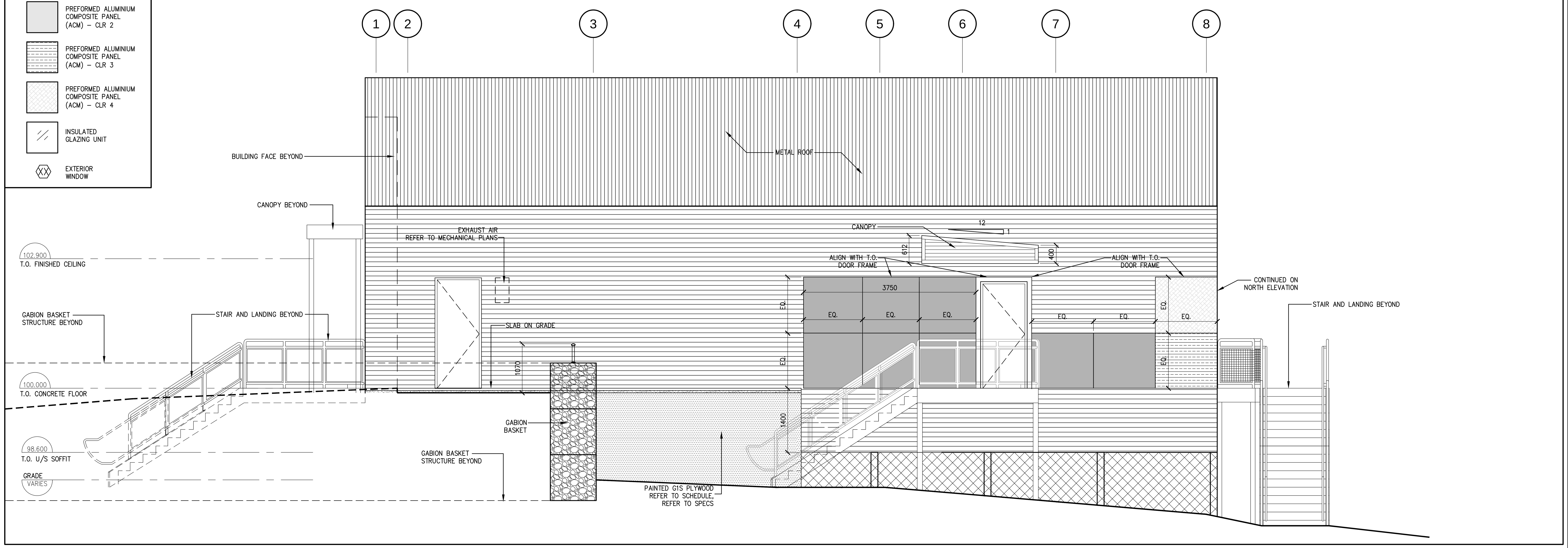


WEST ELEVATION 2 A201

LEGEND:

	WOOD GRAIN FINISHED ALUMINIUM SIDING
	PREFORMED ALUMINIUM COMPOSITE PANEL (ACM) – CLR 1
	PREFORMED ALUMINIUM COMPOSITE PANEL (ACM) – CLR 2
	PREFORMED ALUMINIUM COMPOSITE PANEL (ACM) – CLR 3
	PREFORMED ALUMINIUM COMPOSITE PANEL (ACM) – CLR 4
	INSULATED GLAZING UNIT
XX	EXTERIOR WINDOW



EAST ELEVATION 1 A201

A1 594x841

PROJECT NORTH
TRUE NORTH

No.	Description	Date
0	ISSUED FOR TENDER	04-07-2015

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Project:

FEDERAL BUILDING
ARVIAT, NUNAVUT

Drawn By:	Date:
JoL	01/26/15
Checked By: RB	Scale: 1:50

Sheet Title:
EXTERIOR ELEVATIONS

Sheet Number:
1408-A-201

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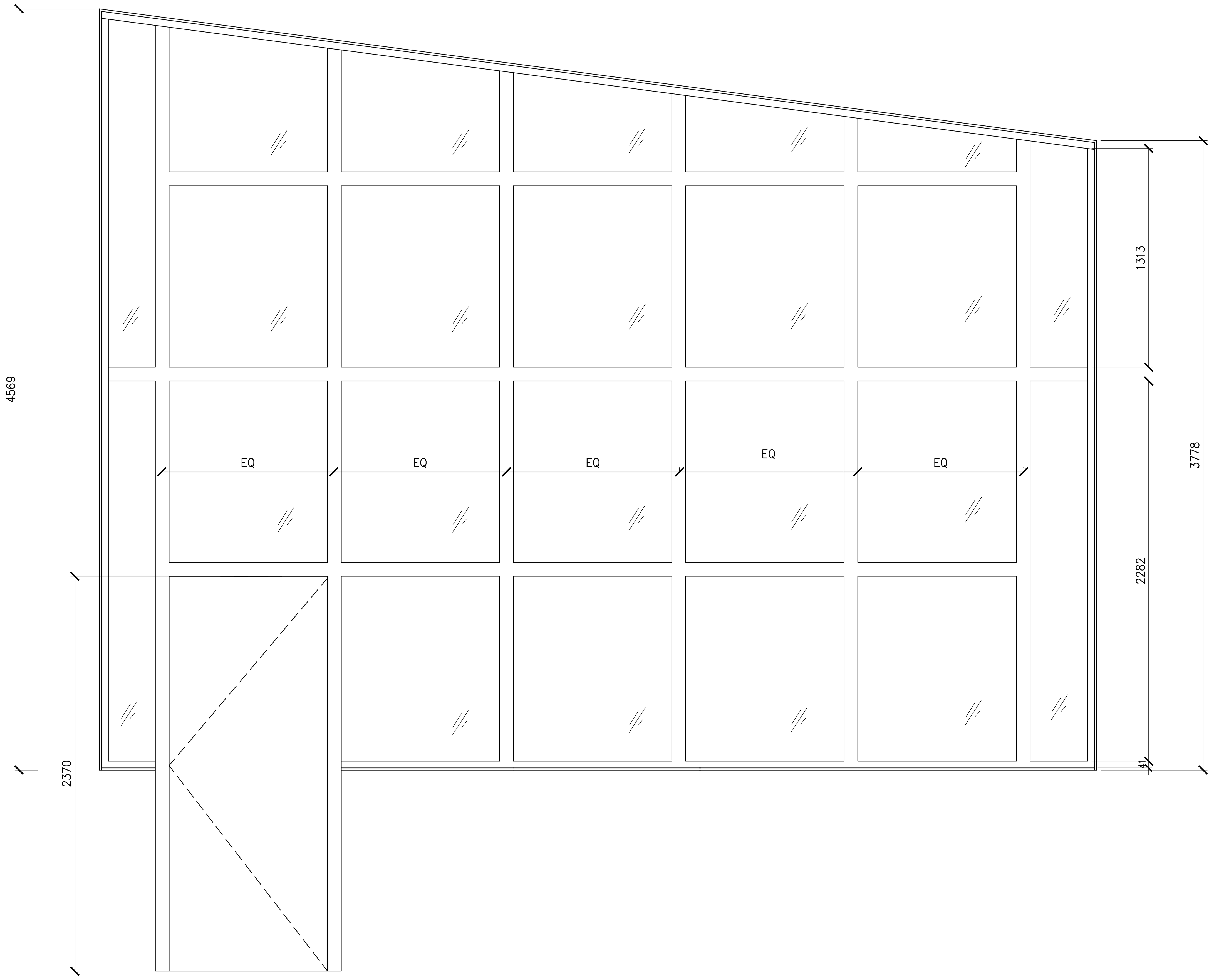
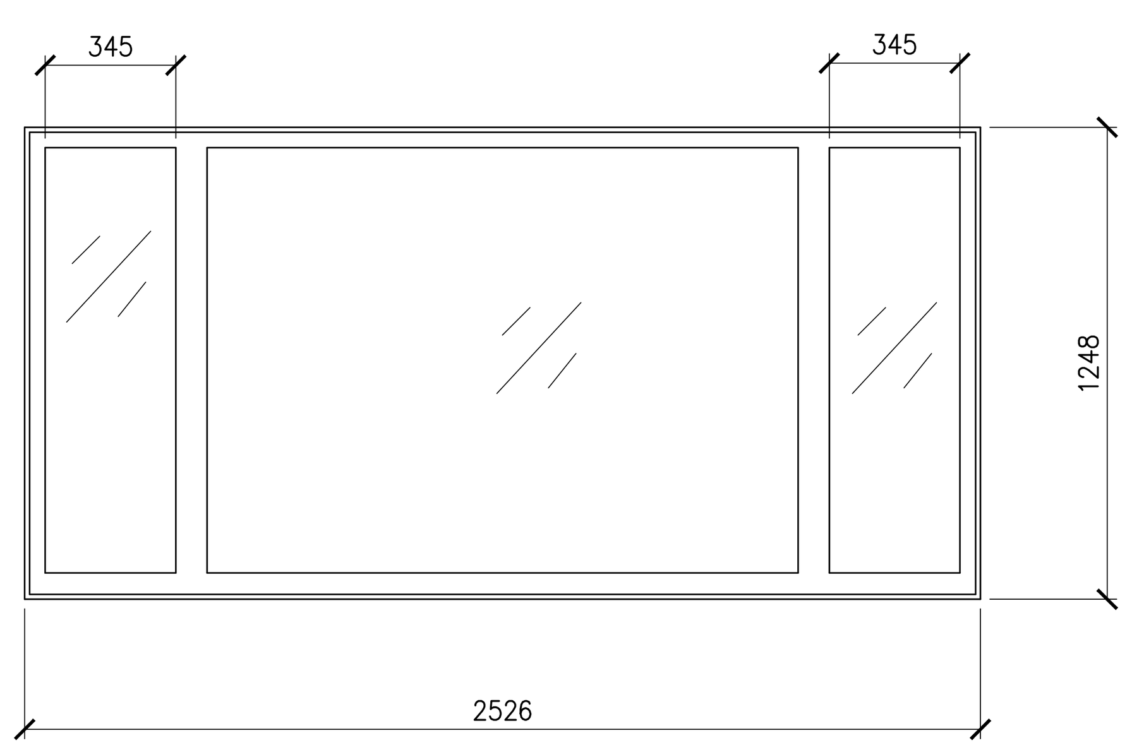


(1) FIBREGLASS CURTAIN WALL FRAME



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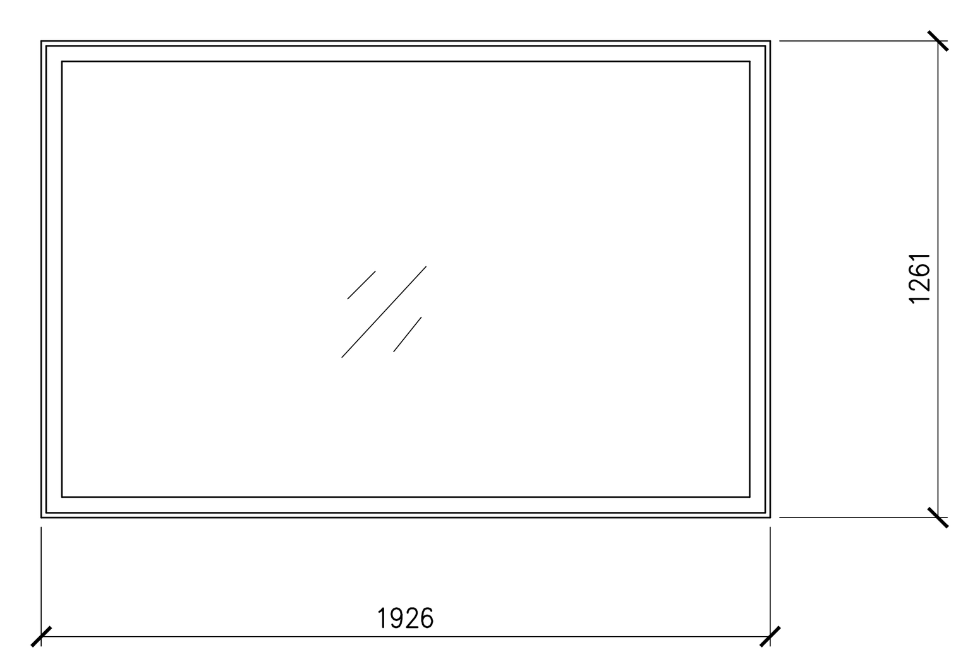

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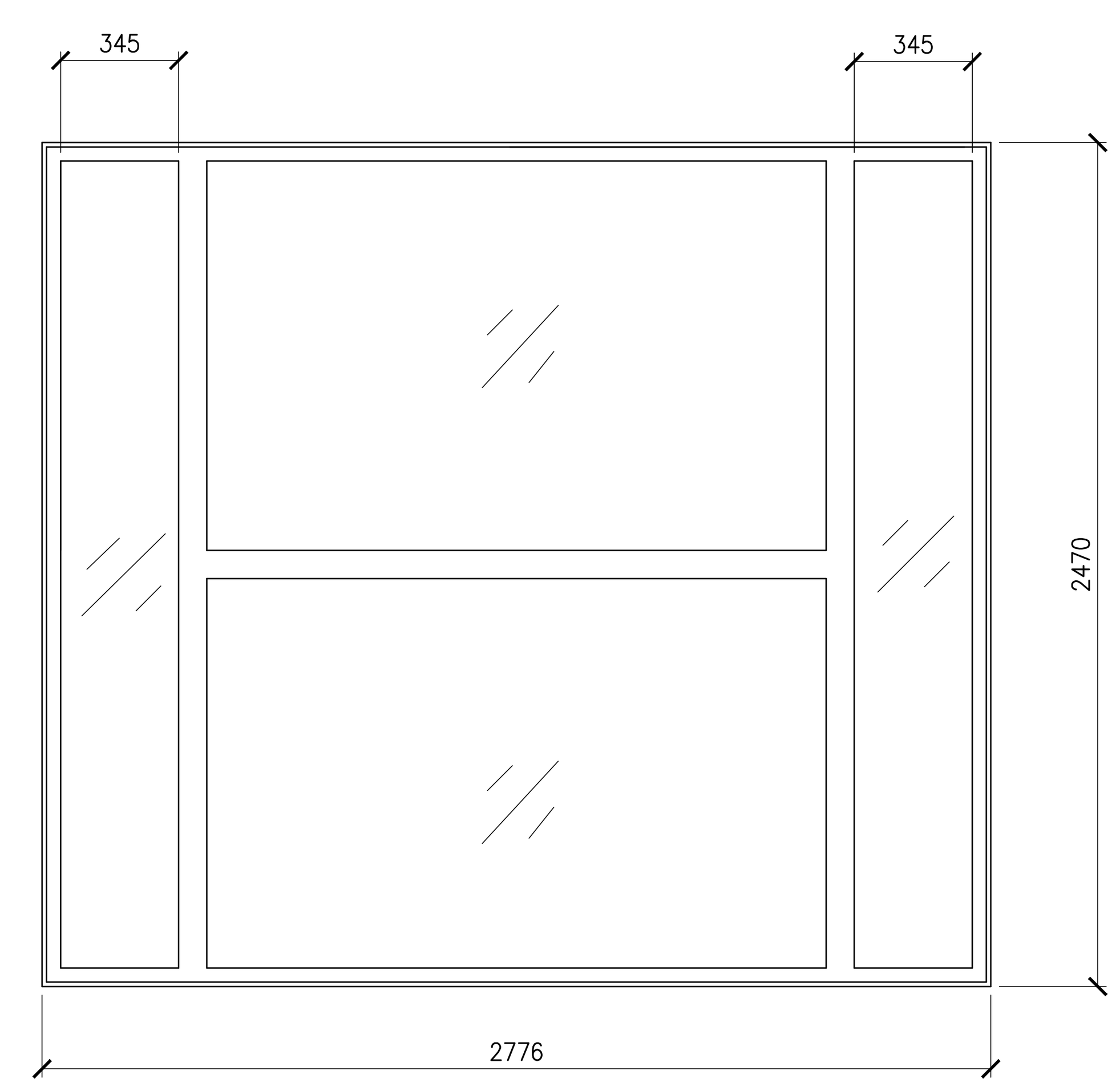
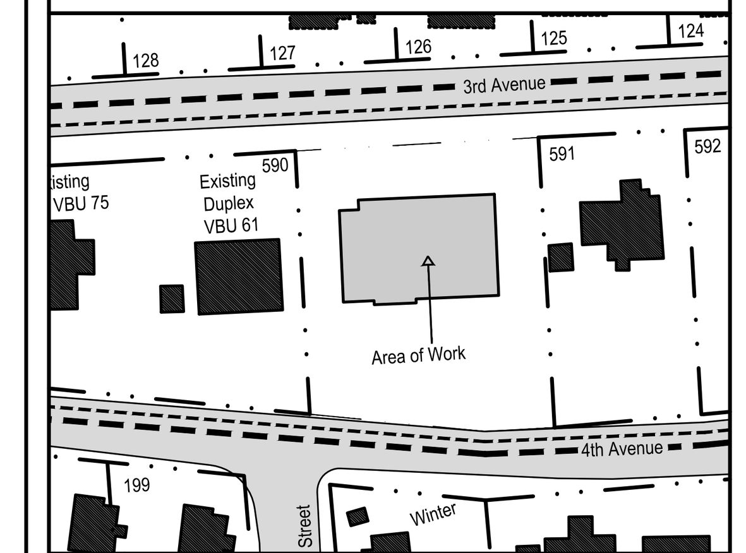


(2) FIBREGLASS CURTAIN WALL FRAME
(3)
(6)

A1 594x841

PROJECT NORTH
TRUE NORTH



No.	Description	Date
0	ISSUED FOR TENDER	04-07-2015

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AGE A.G. Engineering
Electrical Engineers

Project:

FEDERAL BUILDING
ARVIAT, NUNAVUT

Drawn By:	Date:
JoL	01/26/15
Checked By:	Scale:
RB	1:50

Sheet Title:
EXTERIOR WINDOW ELEVATIONS

Sheet Number:
1408-A-202

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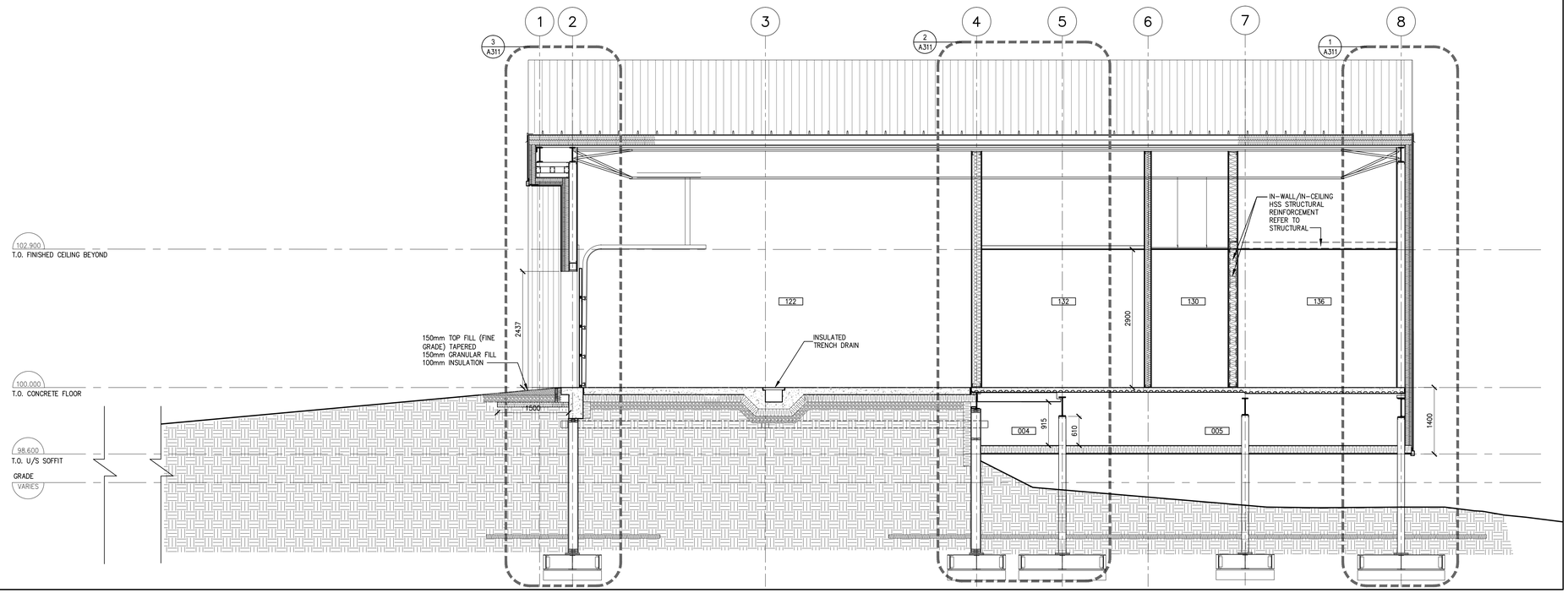
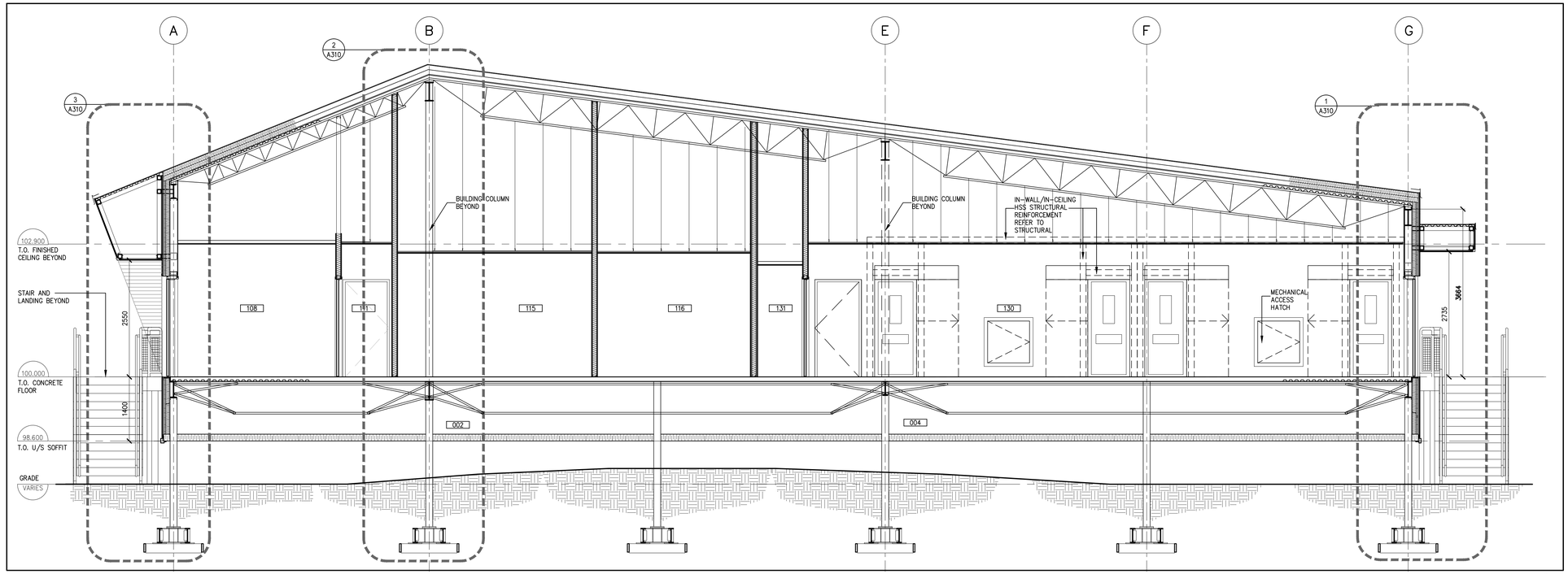
PLOTDATE: May 13, 2015 - 11:19am



CROSS SECTION 2 A300

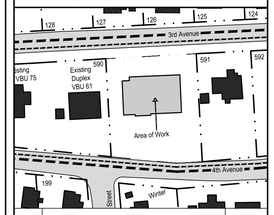


LONGITUDINAL SECTION 1 A300

A1 594x841

PROJECT NORTH

TRUE NORTH



No.	Description	Date
0	ISSUED FOR TENDER	04-07-2015

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AGE Project #: E121-13-009

Project:

FEDERAL BUILDING
ARVIAT, NUNAVUT

Drawn By:	Date:
JoL	01/26/15
Checked By:	Scale:
RB	1:50

Sheet Title:

BUILDING SECTIONS

Sheet Number:

1408-A-300

PLOTDATE: May 11, 2015 - 11:19pm
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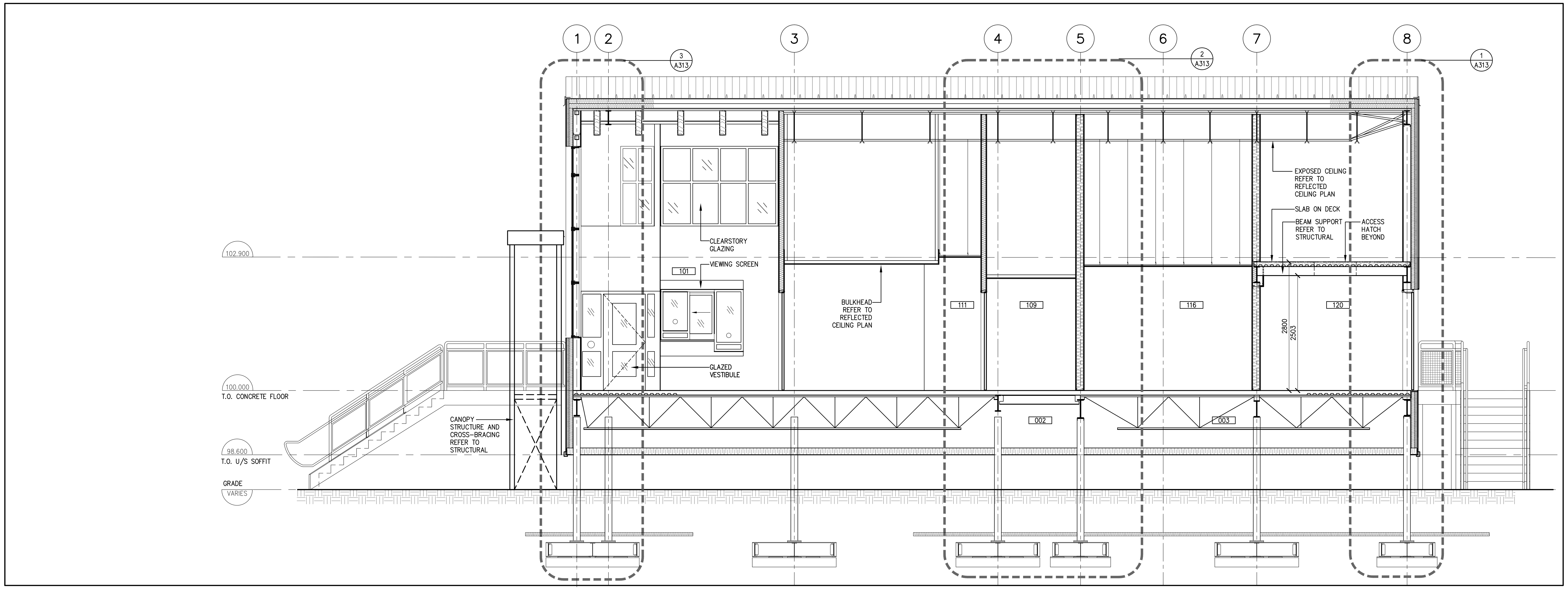

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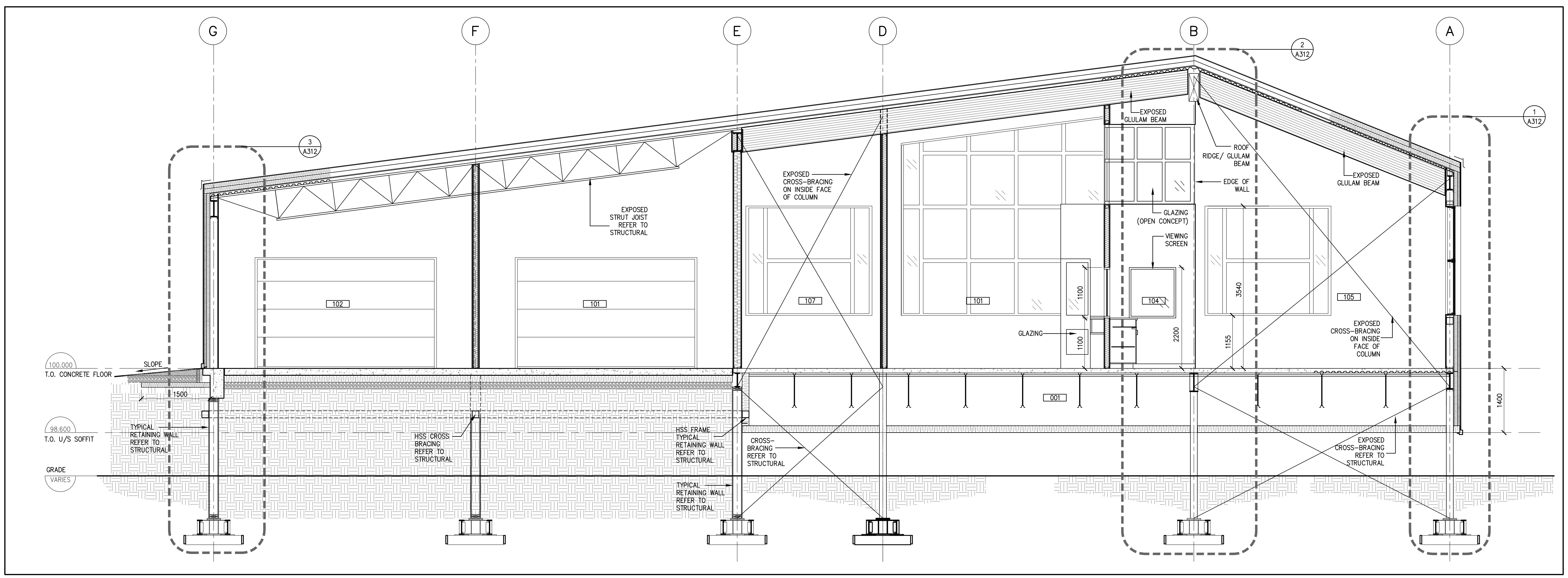
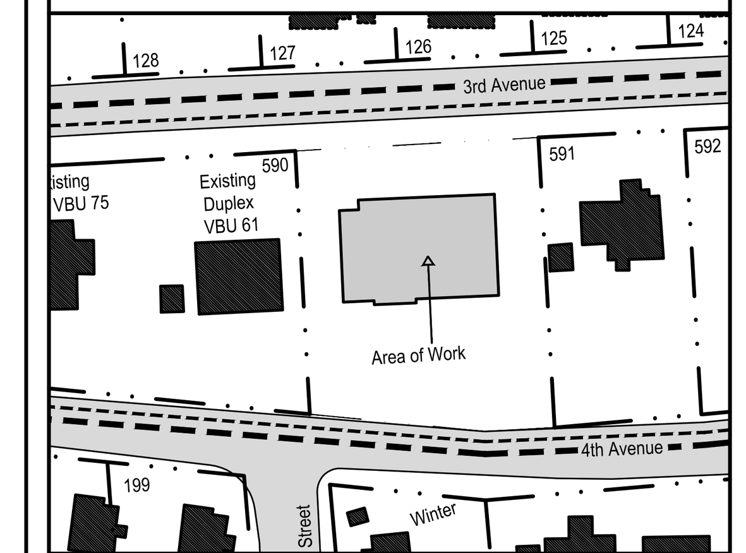


LONGITUDINAL SECTION 1 A301

PROJECT NORTH
TRUE NORTH



No.	Description	Date
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Tomorrow's Technology Today
1349 Dugald Road, Winnipeg, Manitoba, Canada R2J 0H3 phone 204.944.1555 fax 204.944.1444 www.accutecheng.ca

AGE A.G. Engineering
Electrical Engineers

Project:

FEDERAL BUILDING
ARVIAT, NUNAVUT

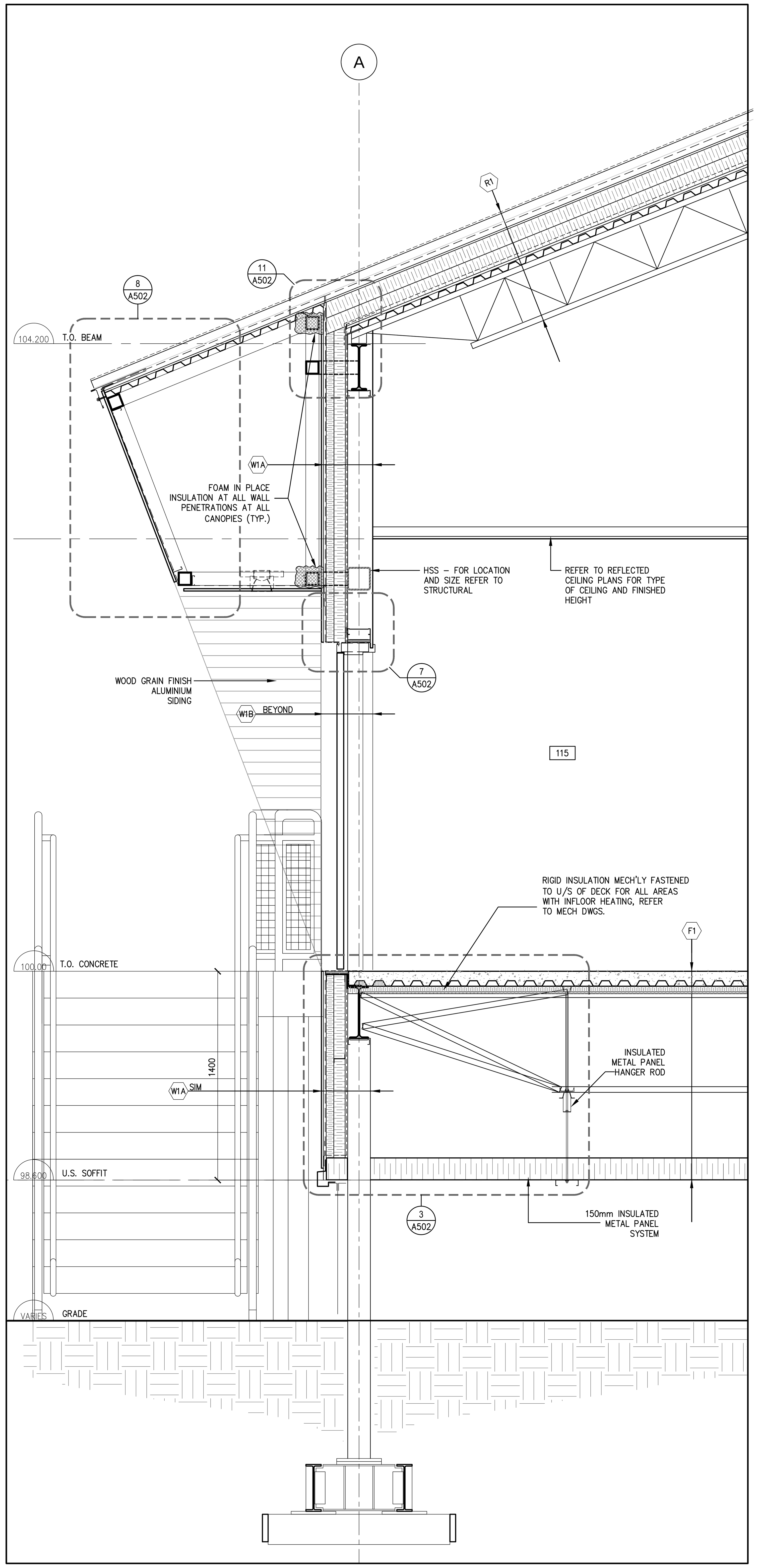
Drawn By:	Date:
JoL	01/26/15
Checked By: RB	Scale: 1:50

Sheet Title:
BUILDING SECTIONS

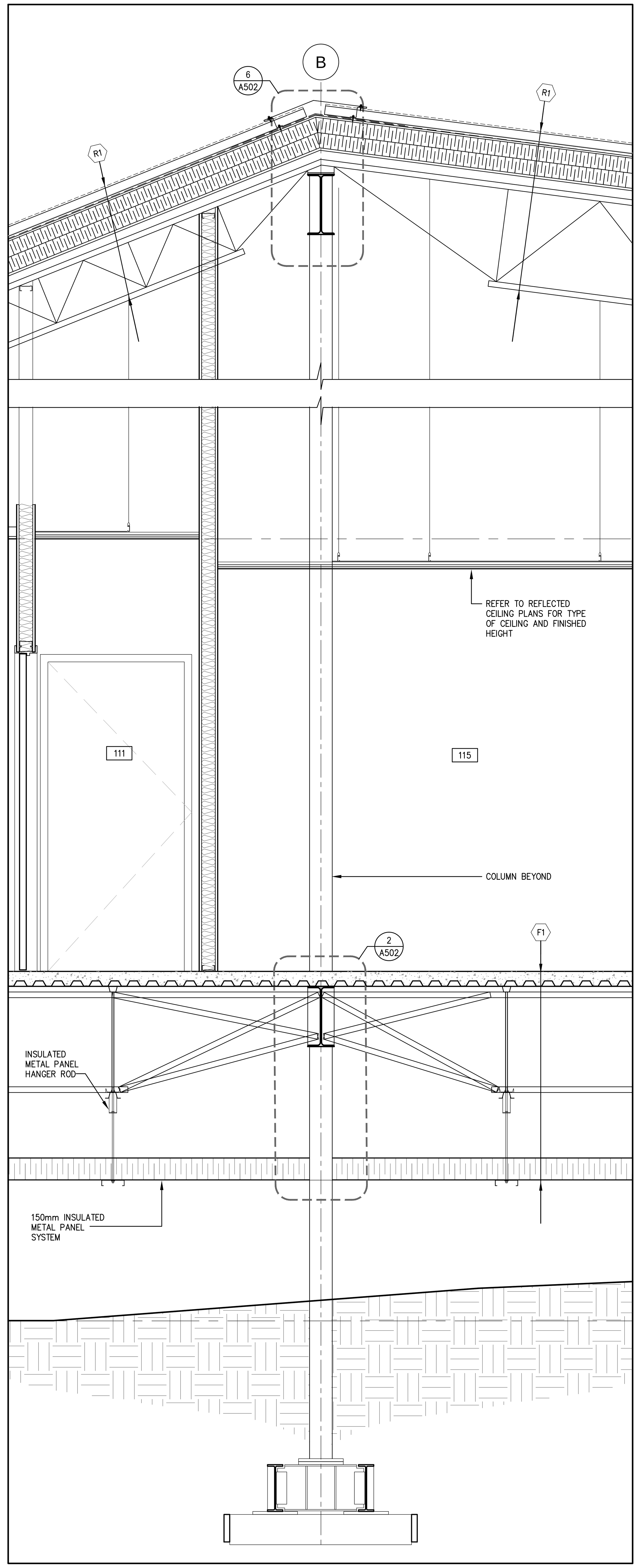
Sheet Number:
1408-A-301

FILENAME: O:\projects\2014\1408\1408-00\graphics\cad\working\sheets\1408-00-a301.dwg
PLOTDATE: May 13, 2015 - 11:19am

A1 594x841



WALL SECTION 3 A310



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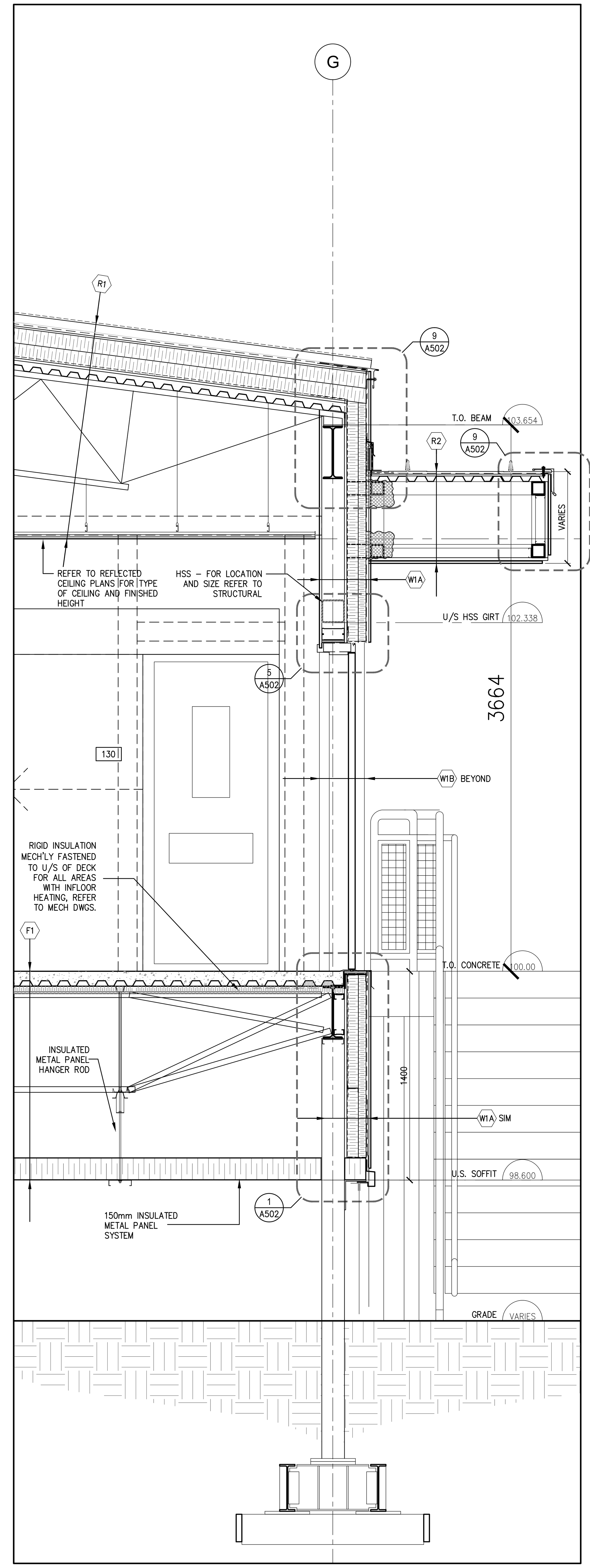

WALL SECTION 1 A310

A1 594x841

PROJECT NORTH

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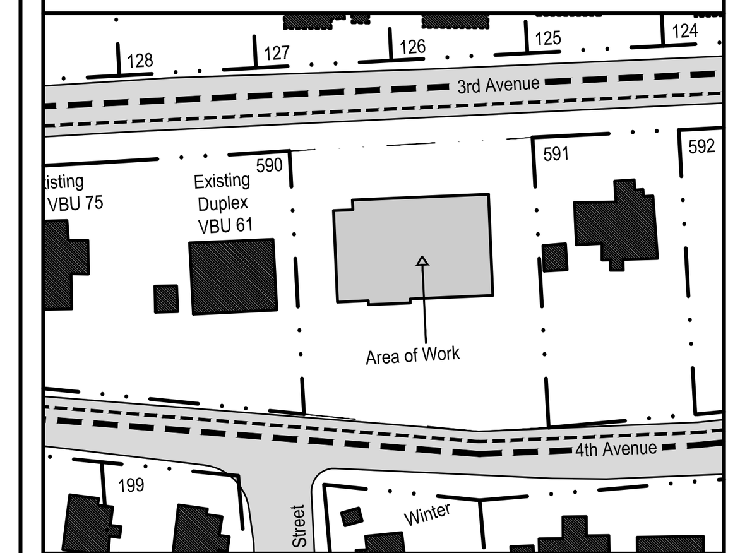

No.	Description	Date
0	ISSUED FOR TENDER	04-07-2015

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

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

ONTARIO ASSOCIATION OF ARCHITECTS
ROBERT BORAKS
LICENCE
5346

Sub Consultant:

Accutech Engineering Inc.
Tomorrow's Technology Today

AGE A.G. Engineering
Electrical Engineers

Project:

FEDERAL BUILDING
ARVIAT, NUNAVUT

Drawn By: JoL	Date: 01/26/15
Checked By: RB	Scale: 1:20

Sheet Title:
WALL SECTIONS

Sheet Number:
1408-A-310

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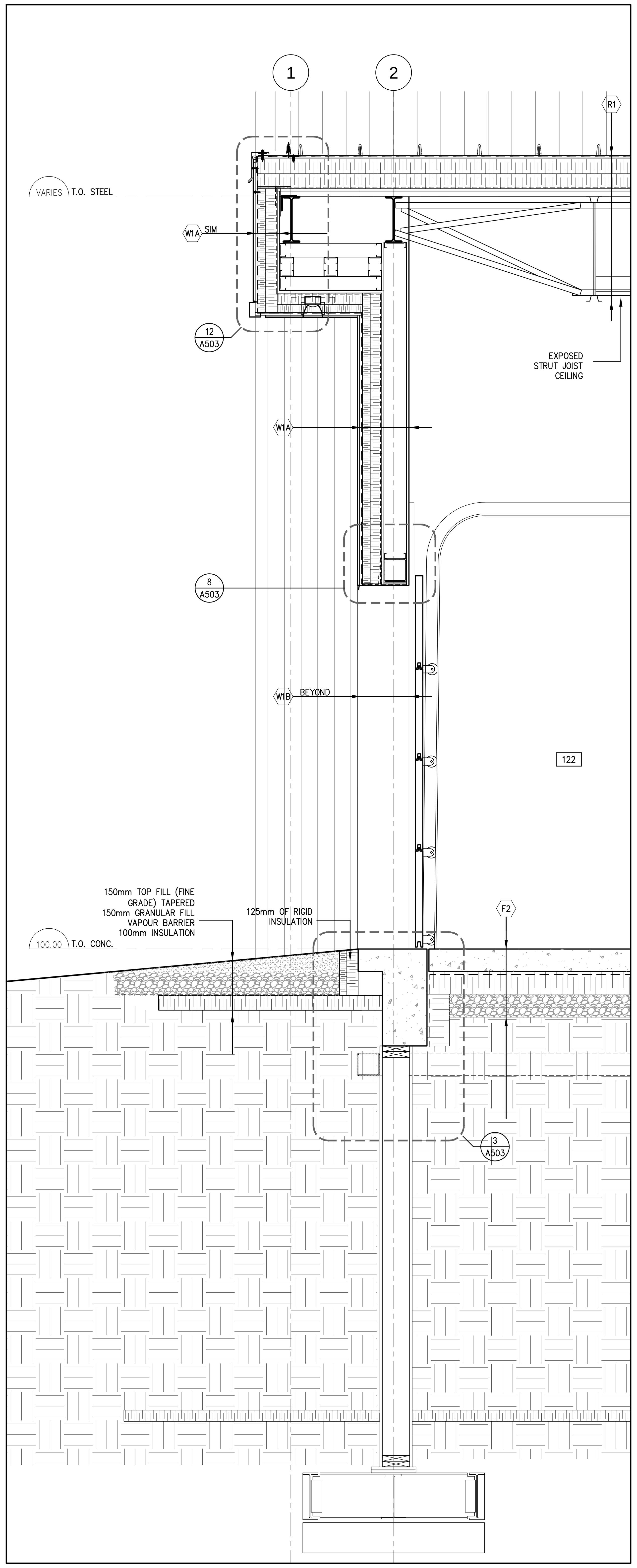
PLOTDATE: May 13, 2015 – 11:19am



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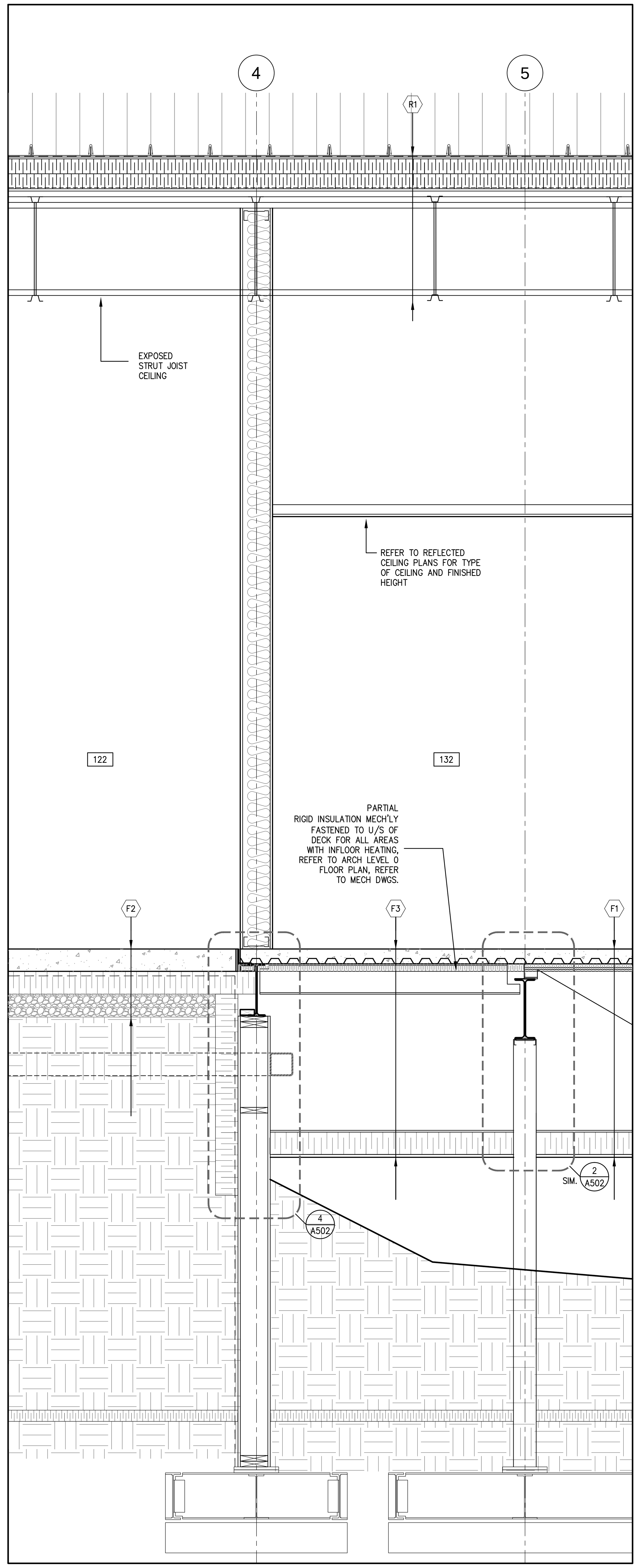

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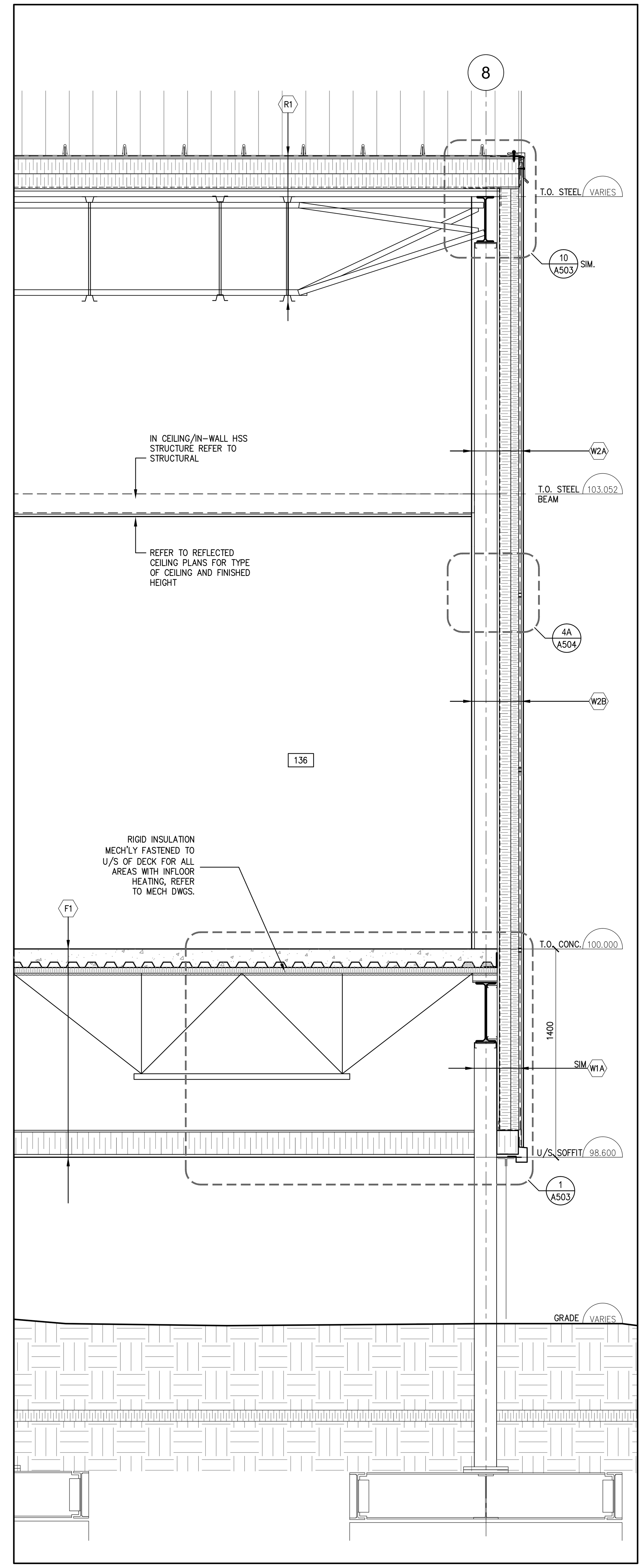

WALL SECTION 1 A311

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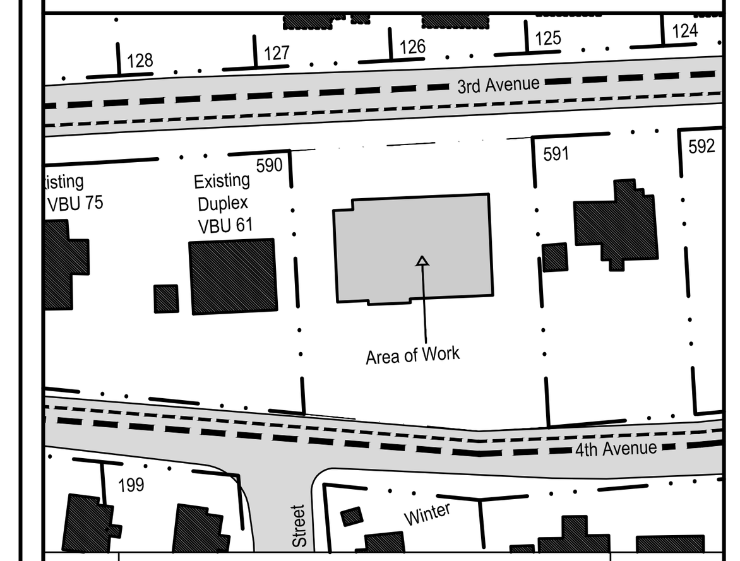

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ONTARIO ASSOCIATION OF ARCHITECTS ROBERT BORAKS LICENCE 5346

Sub Consultant:

Accutech Engineering Inc. Tomorrow's Technology Today

A.G. Engineering — AGE Electrical Engineers

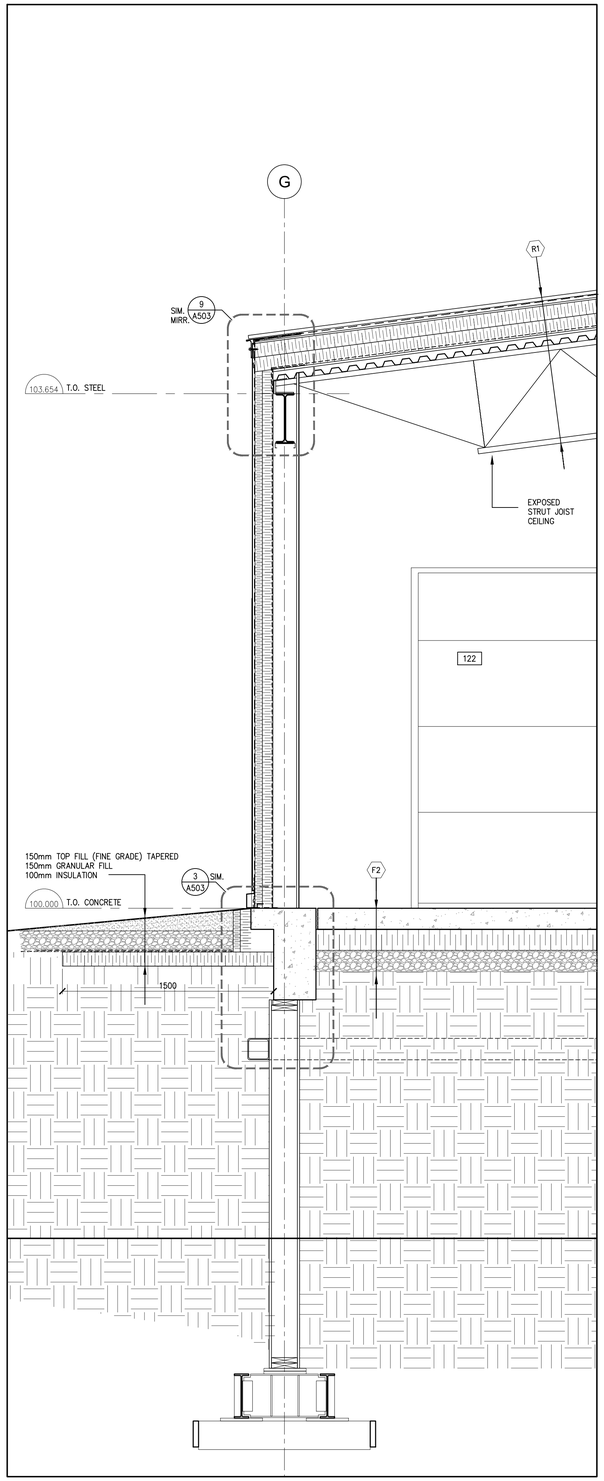
Project:

FEDERAL BUILDING
ARVIAT, NUNAVUT

Drawn By: JoL	Date: 01/26/15
Checked By: RB	Scale: 1:20

Sheet Title:
WALL SECTIONS

Sheet Number:
1408-A-311



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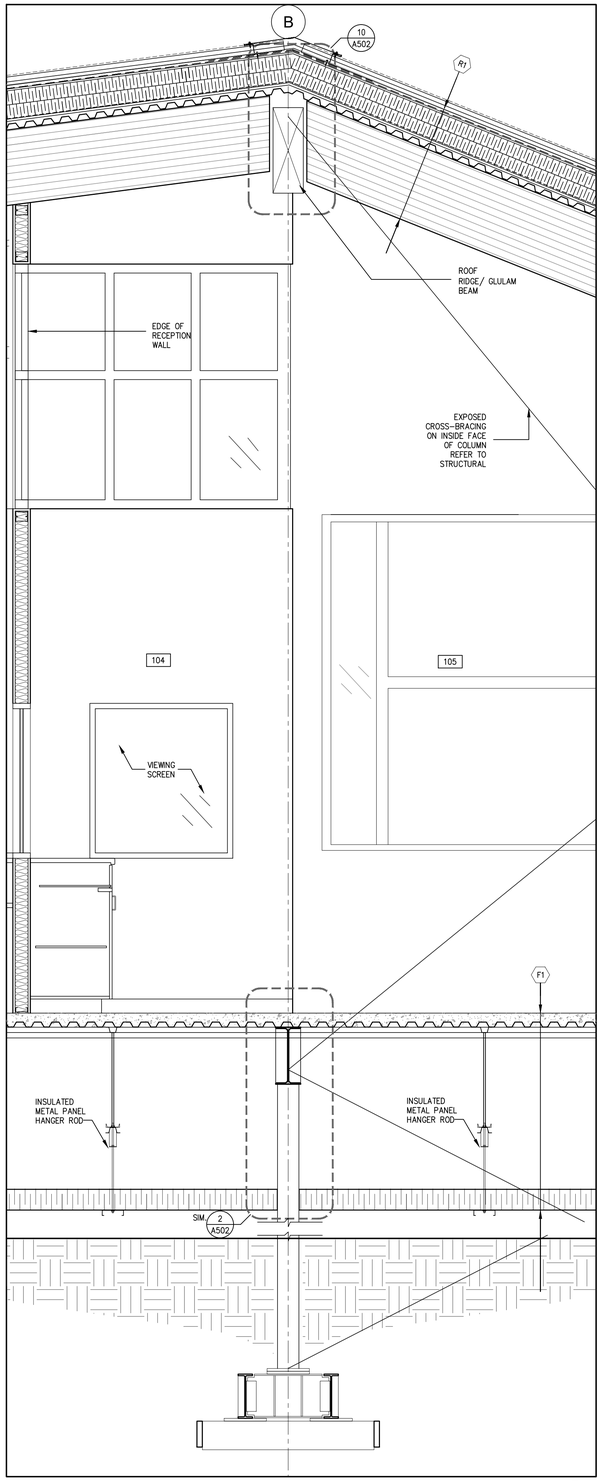

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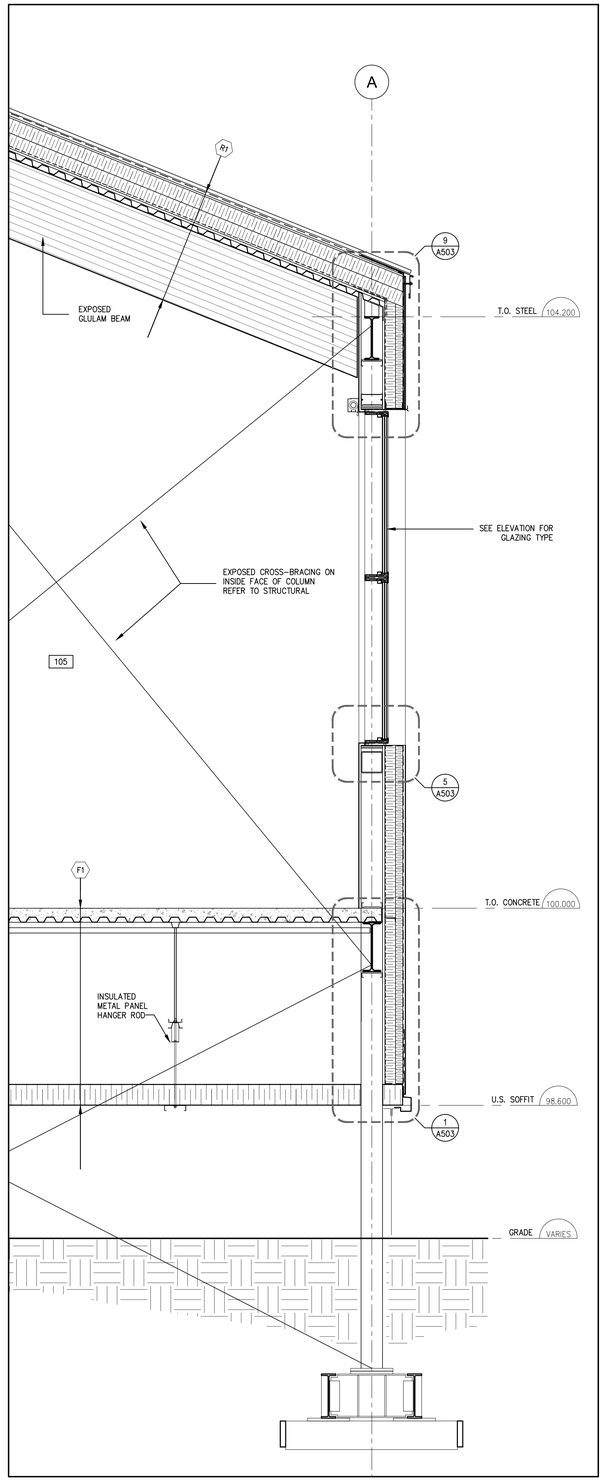

WALL SECTION 1 / A312

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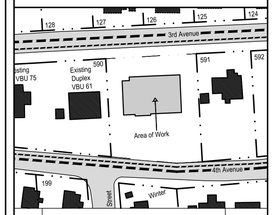
PROJECT NORTH

TRUE NORTH



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AGE Project # 1121-13-009
Electrical Engineers

Project:

FEDERAL BUILDING
ARVIAT, NUNAVUT

Drawn By:	Date:
JoL	01/26/15
Checked By:	Scale:
RB	1:20

Sheet Title:
WALL SECTIONS

Sheet Number:
1408-A-312

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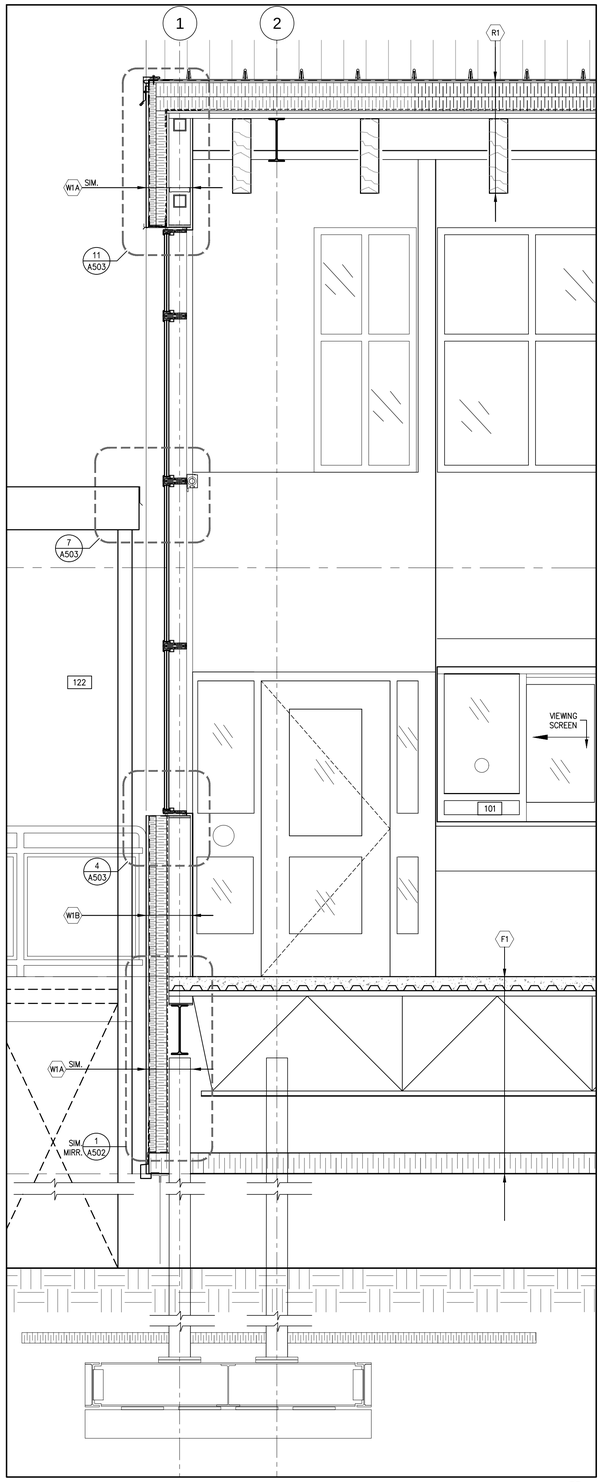
PLOTDATE: May 11, 2015 - 11:26am



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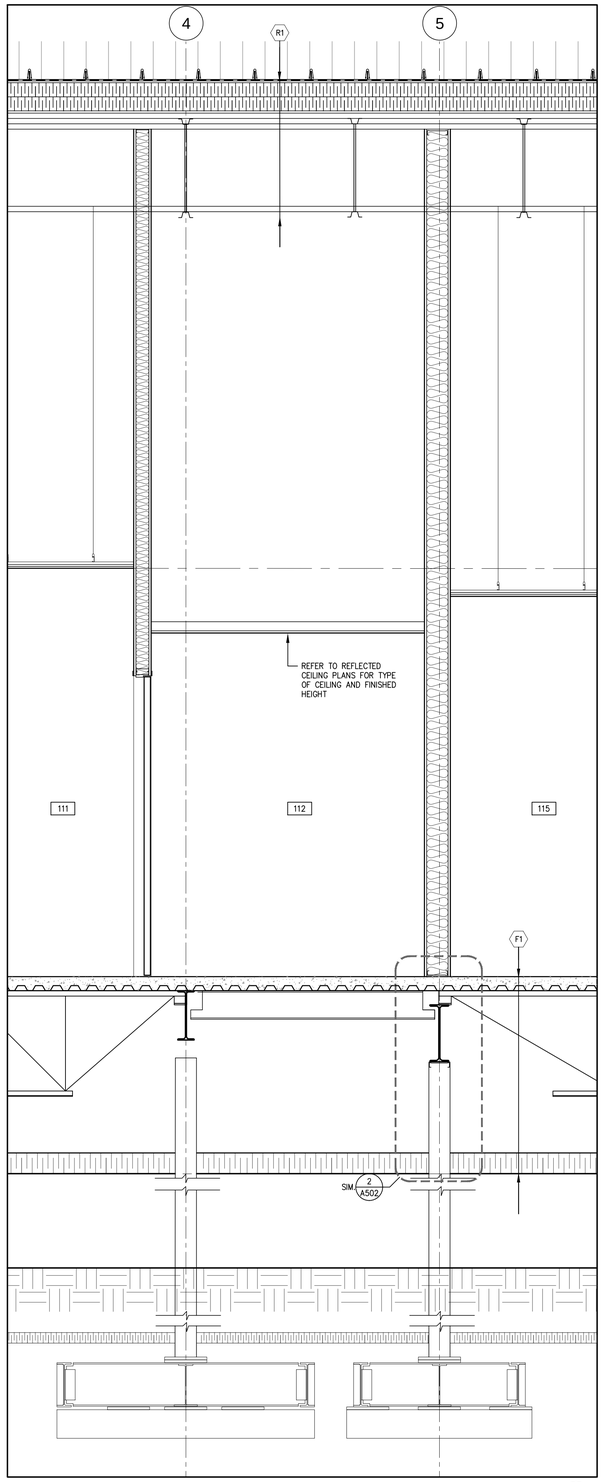

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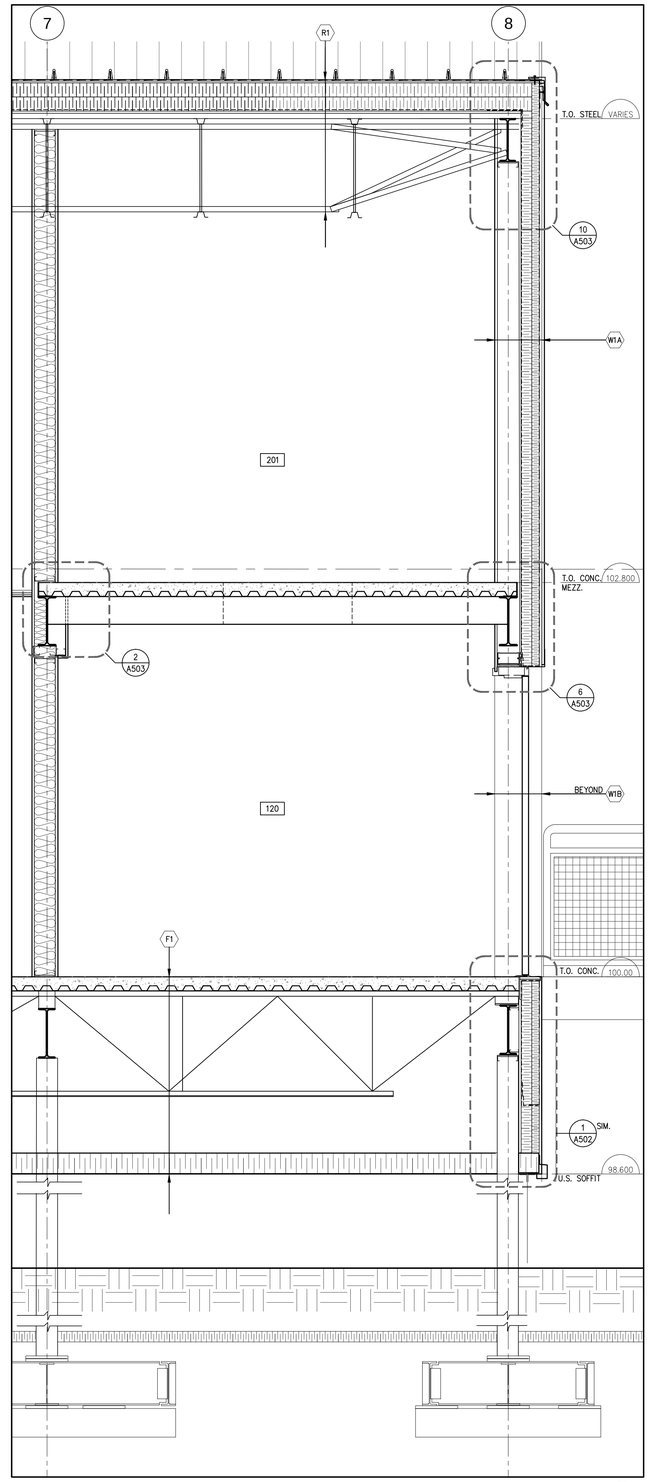
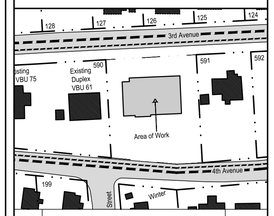


WALL SECTION 1 / A313

A1 594x841

PROJECT NORTH TRUE NORTH



No.	Description	Date
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ONTARIO ASSOCIATION OF ARCHITECTS
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AGE Project # 1121-13-009
Electrical Engineers

Project:

FEDERAL BUILDING
ARVIAT, NUNAVUT

Drawn By:	Date:
JoL	01/26/15
Checked By:	Scale:
RB	1:20

Sheet Title:
WALL SECTIONS

Sheet Number:
1408-A-313

PLOTDATE: Mon, 1, 2015 - 11:26am
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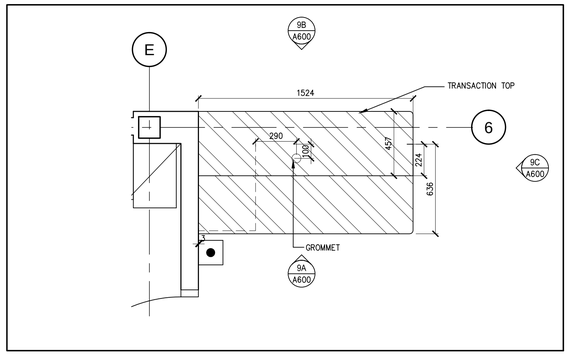

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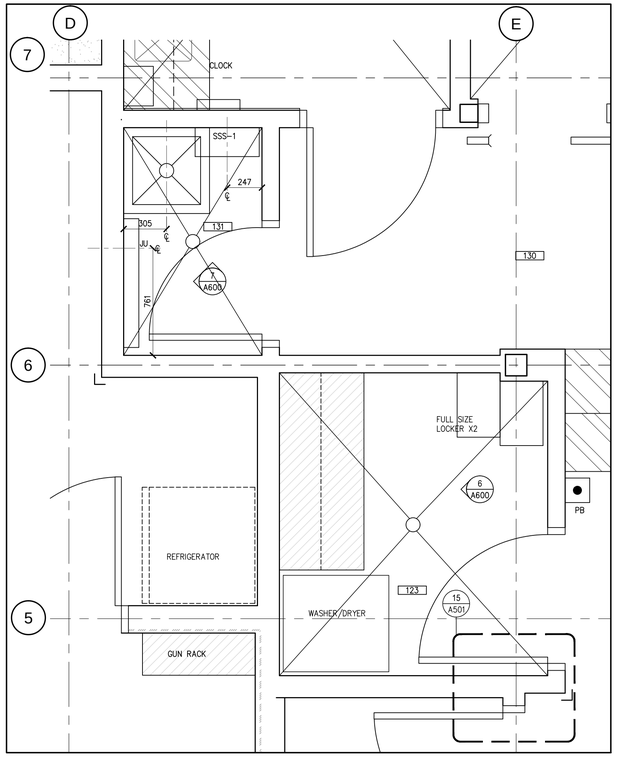

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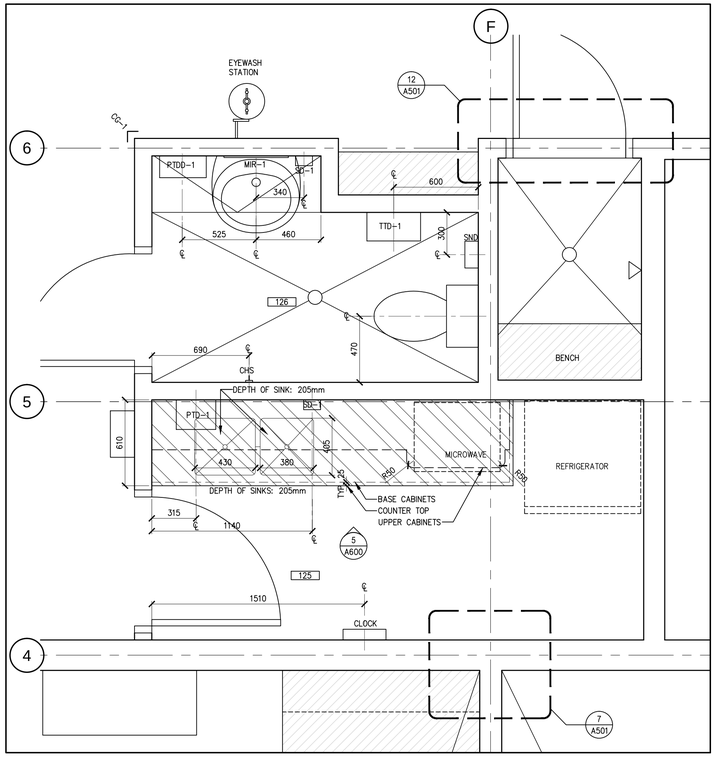

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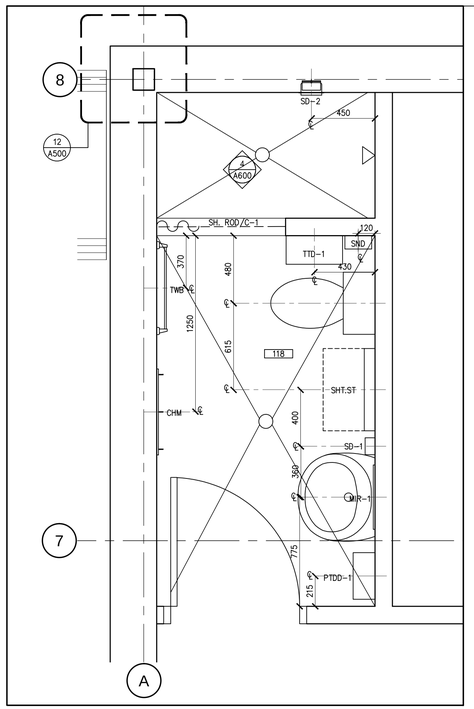

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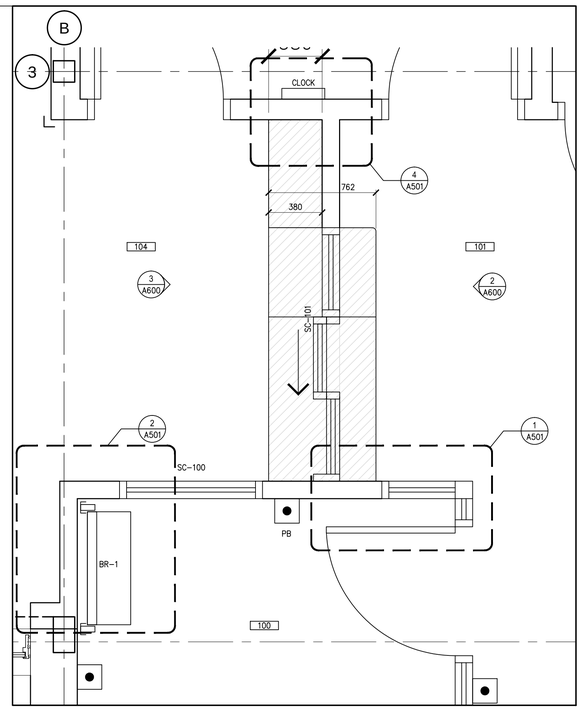

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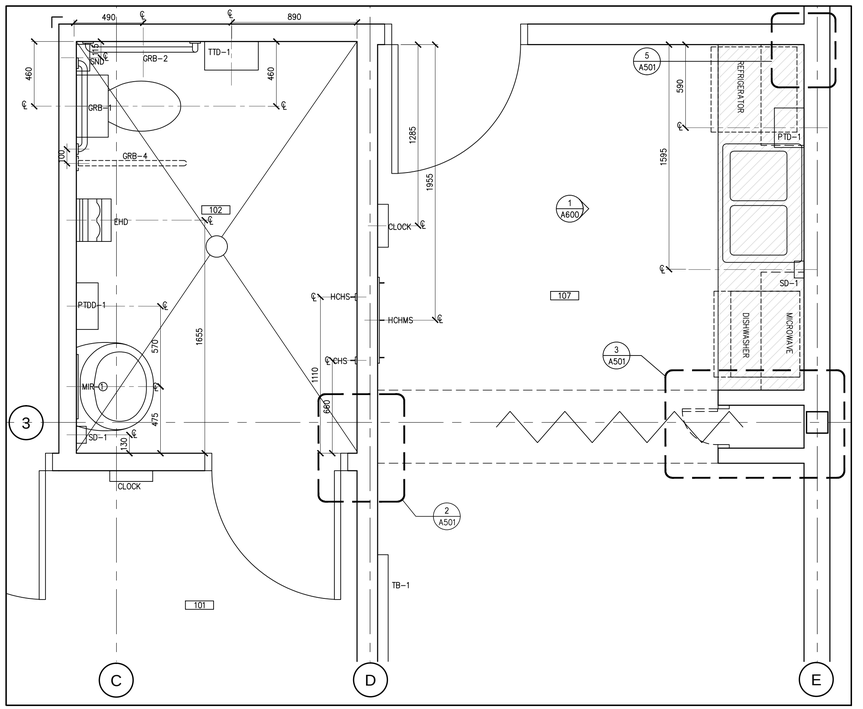

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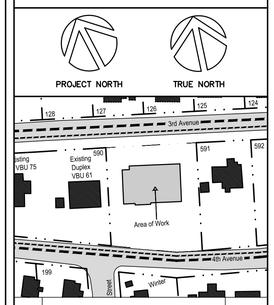

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AGE Project# E121-13-009

Project:

FEDERAL BUILDING
ARVIAT, NUNAVUT

Drawn By: JoL	Date: 03/24/2015
Checked By: RB	Scale: 1:20

Sheet Title:
LARGE SCALE PLANS

Sheet Number:
1408-A-400

PLOTDATE: May 15, 2015 - 11:20am
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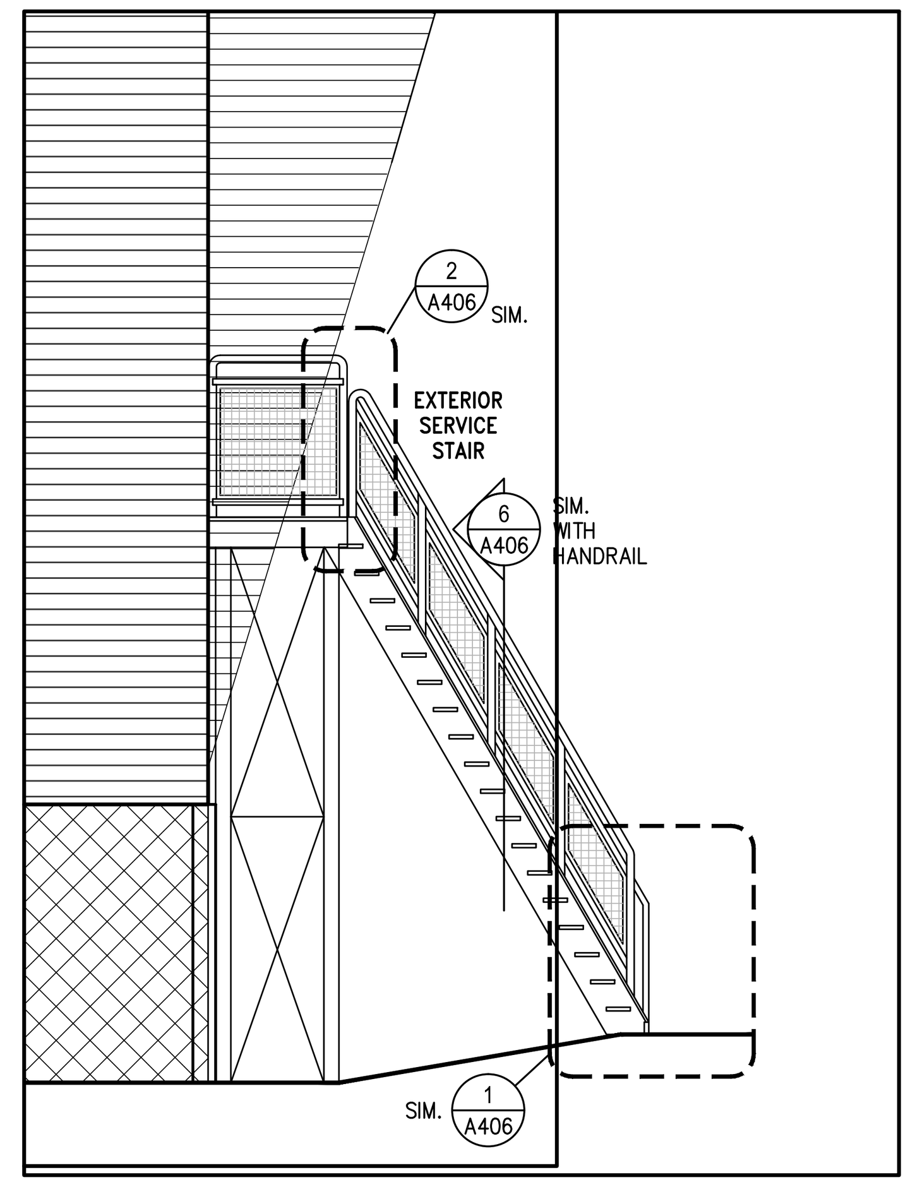

ELEVATION OF EXTERIOR SERVICE STAIR 10 A405
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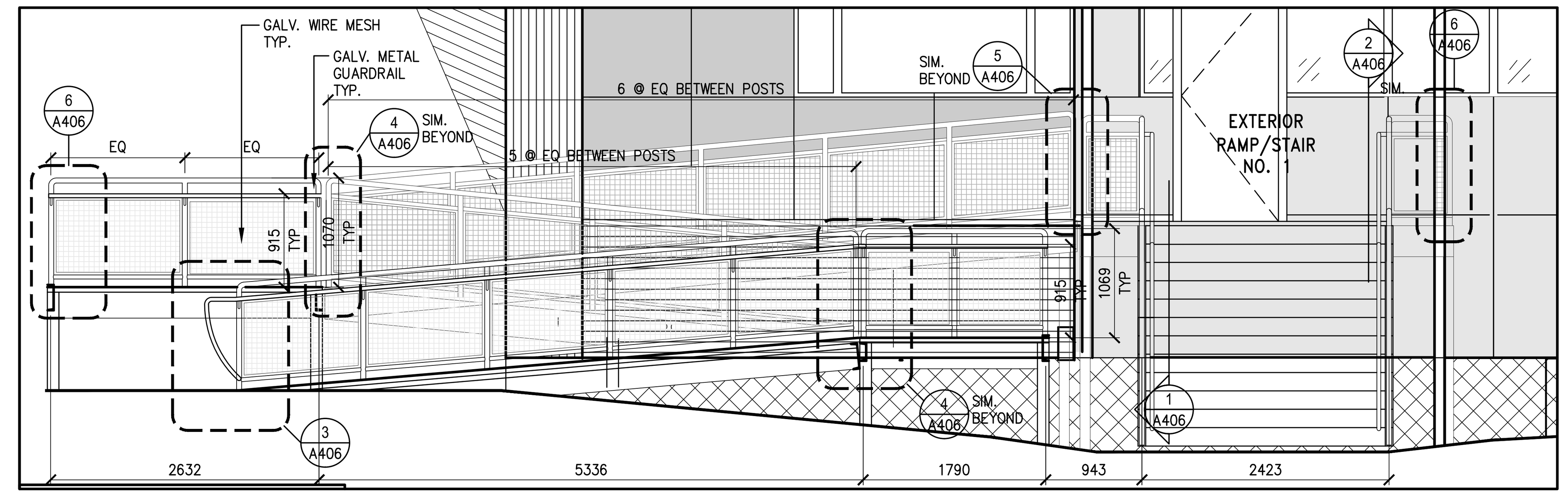

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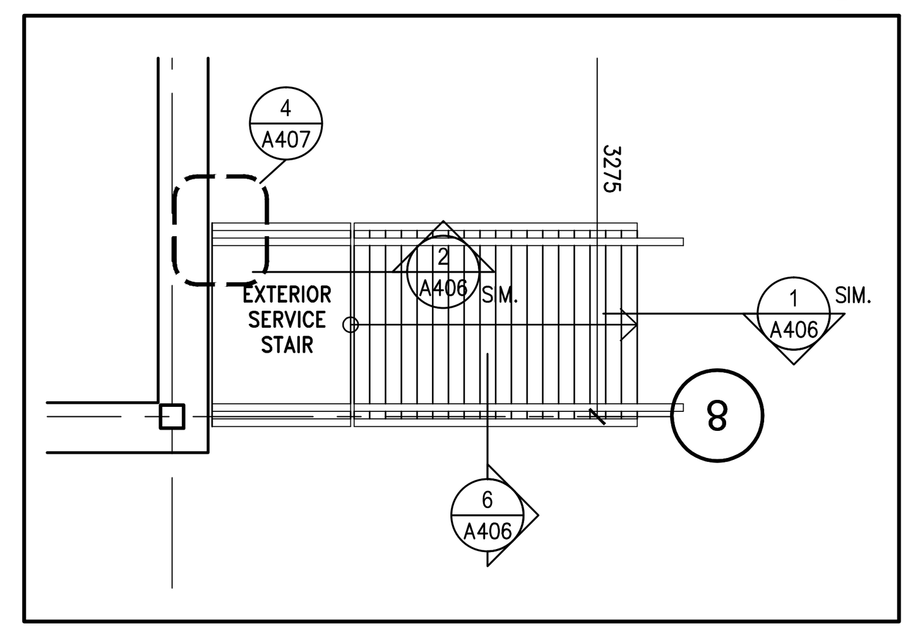

PLAN OF EXTERIOR SERVICE STAIR 8 A405
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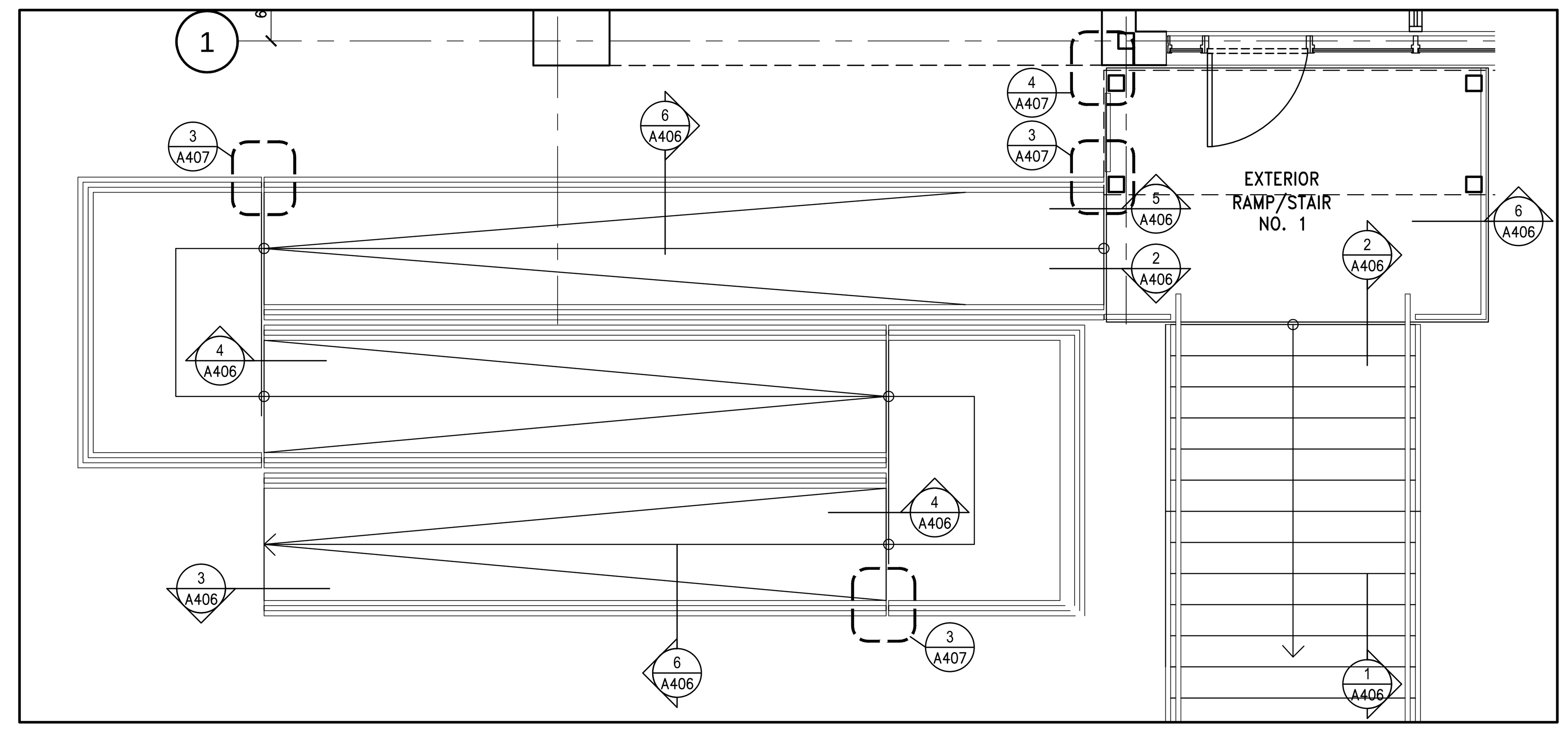

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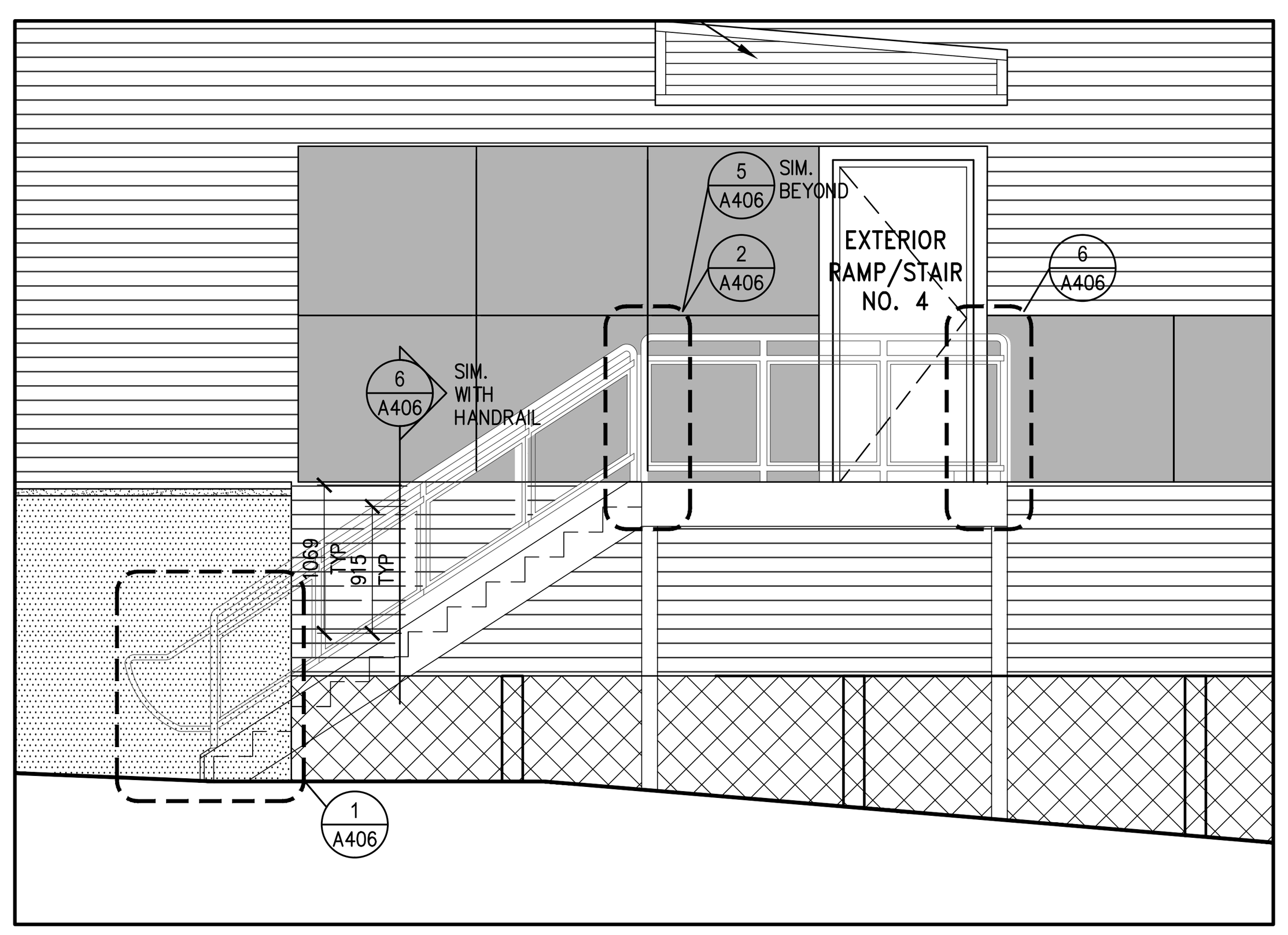

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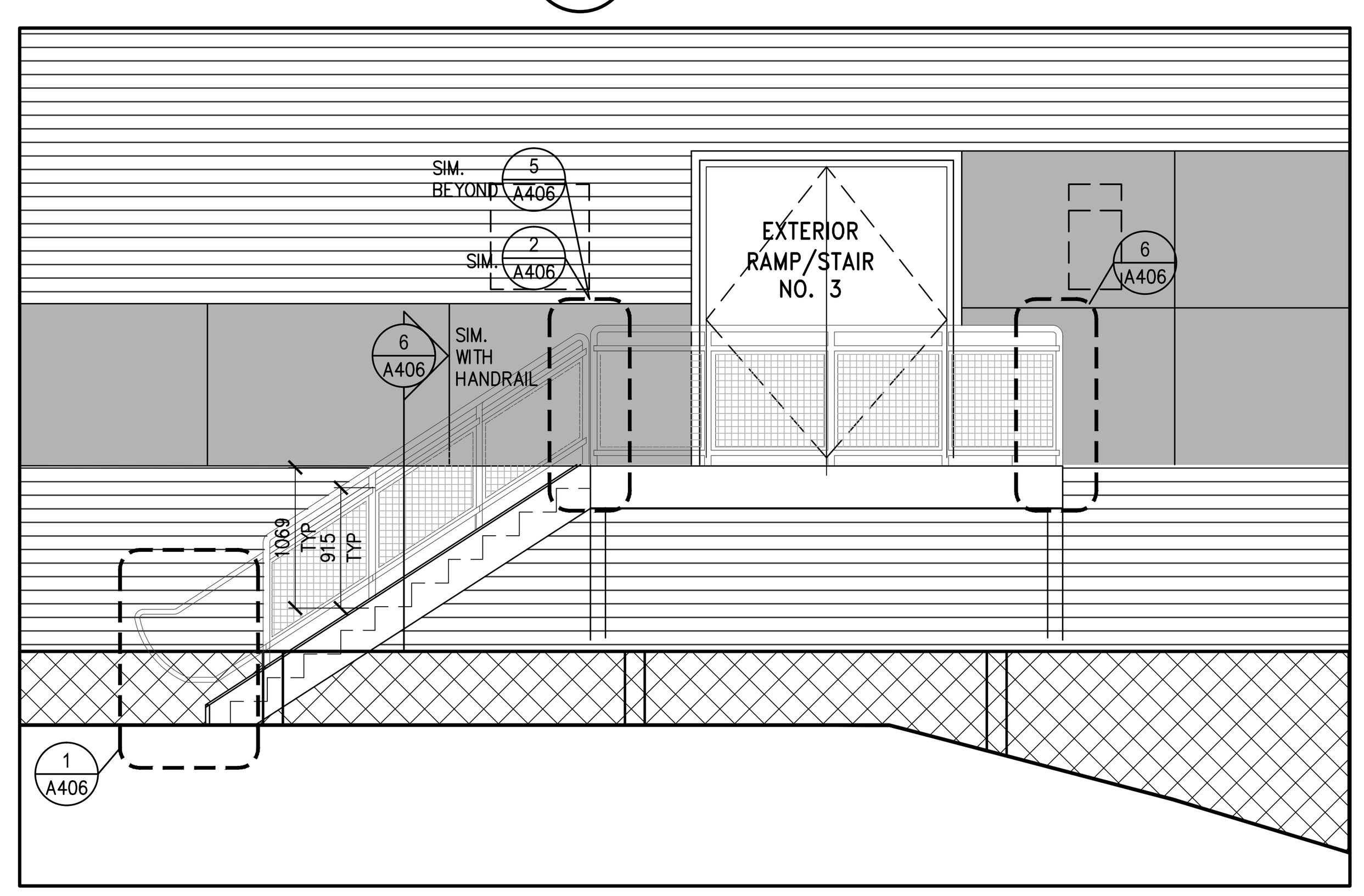

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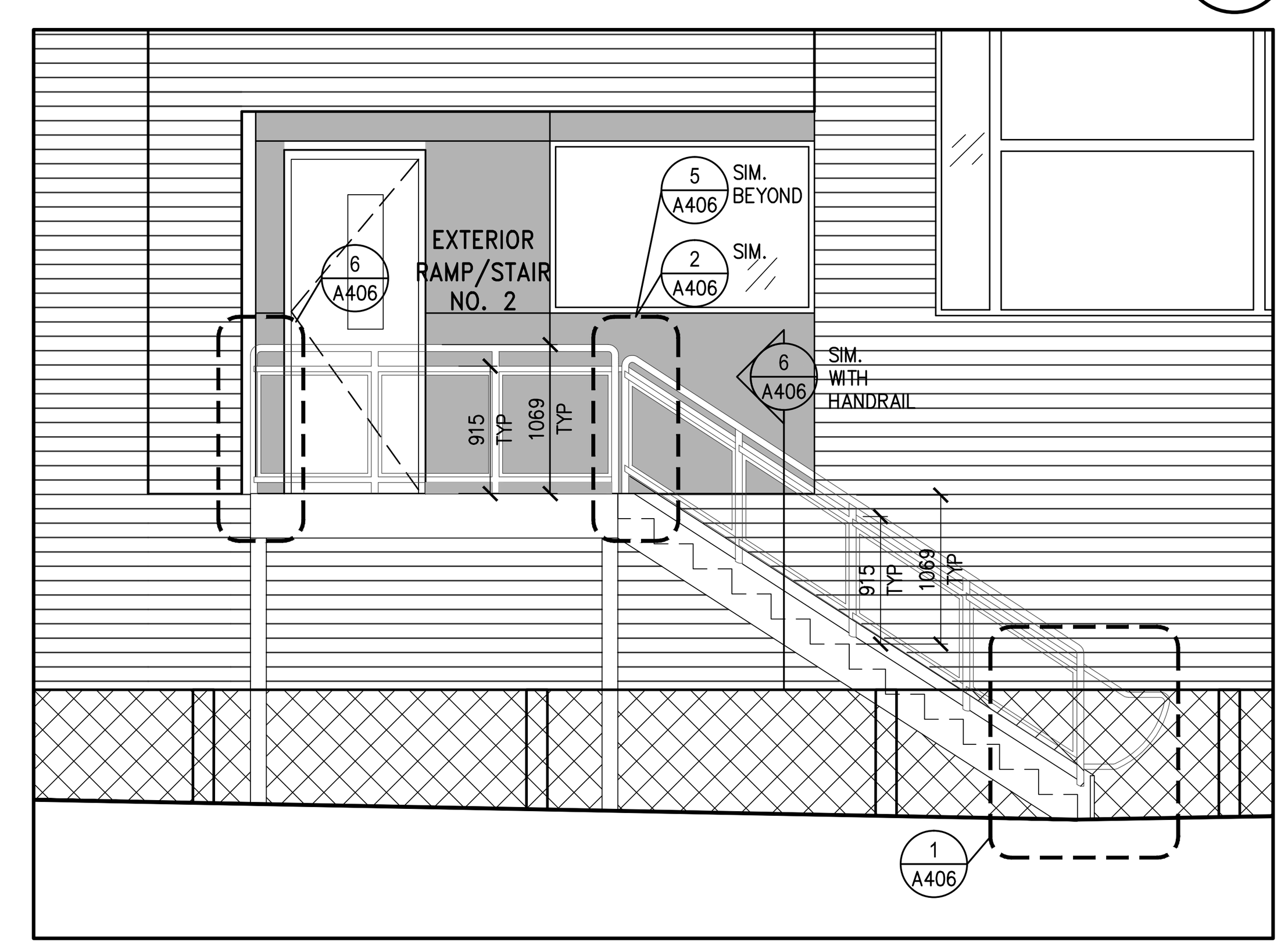

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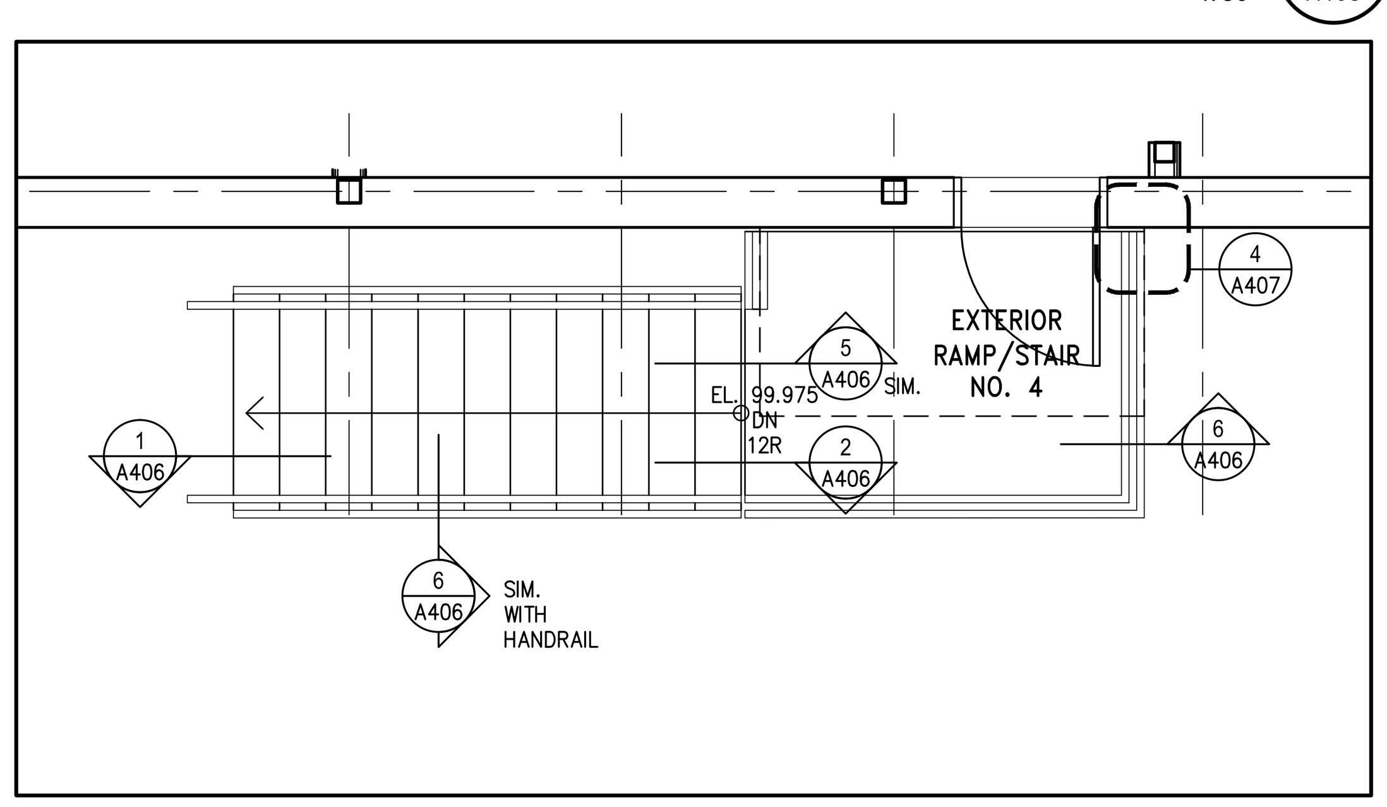

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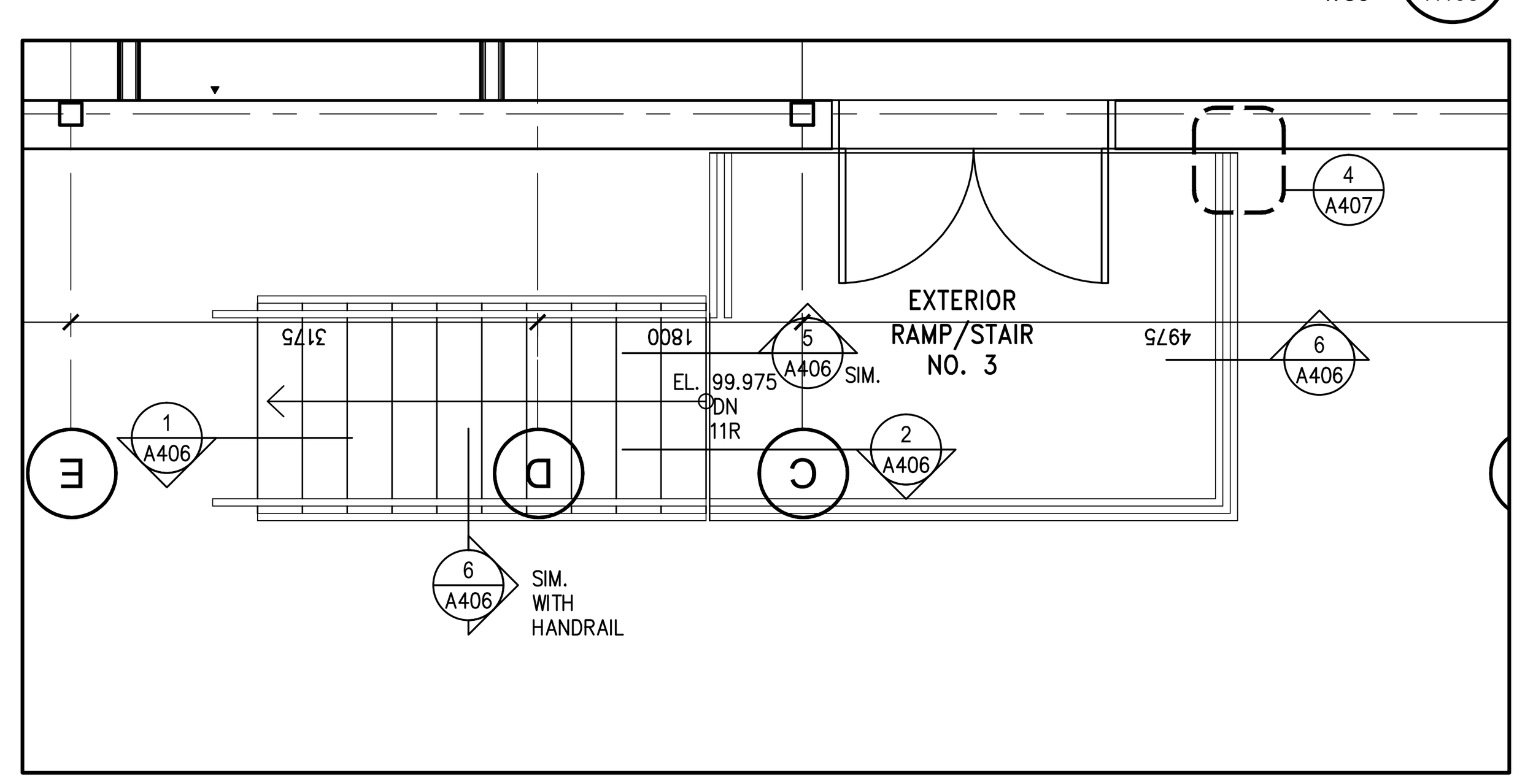

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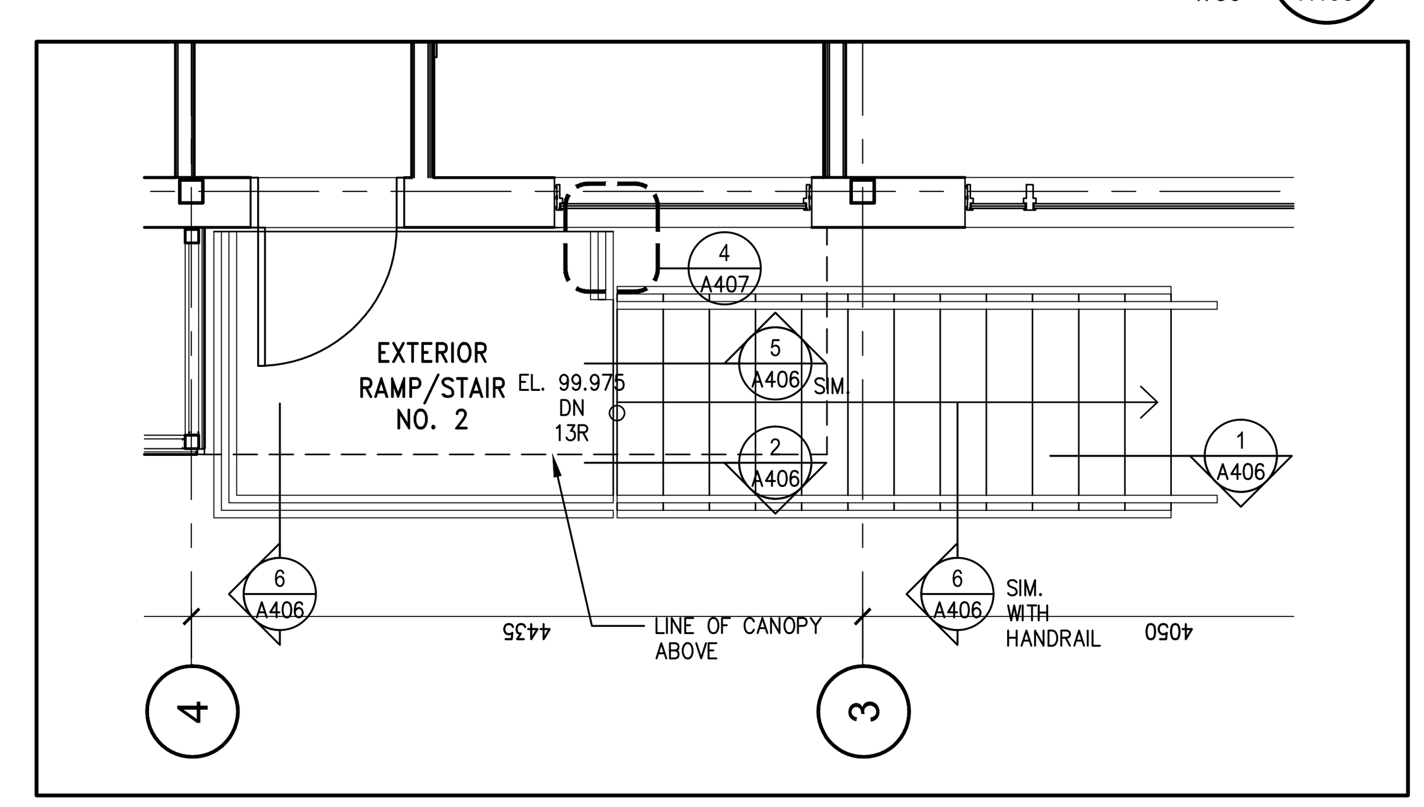

PLAN OF EXT. STR NO. 2 1 A405
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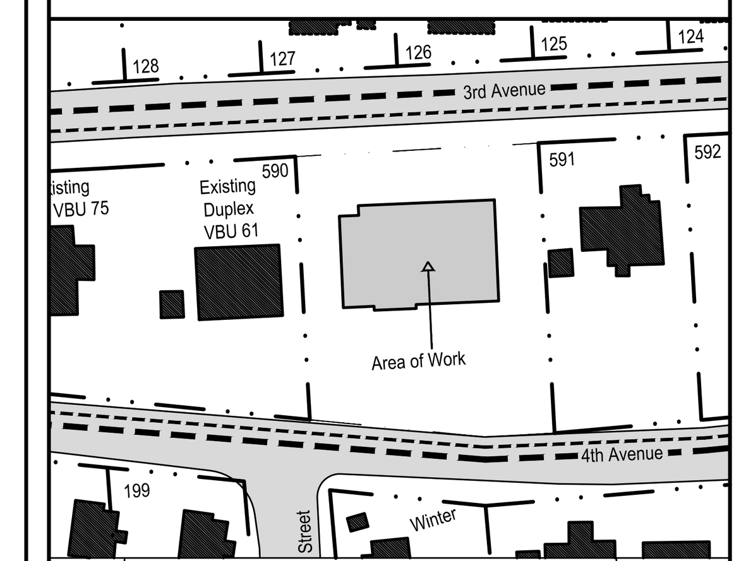
A1 594x841

PROJECT NORTH
TRUE NORTH



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AGE A.G. Engineering
Electrical Engineers

Project:

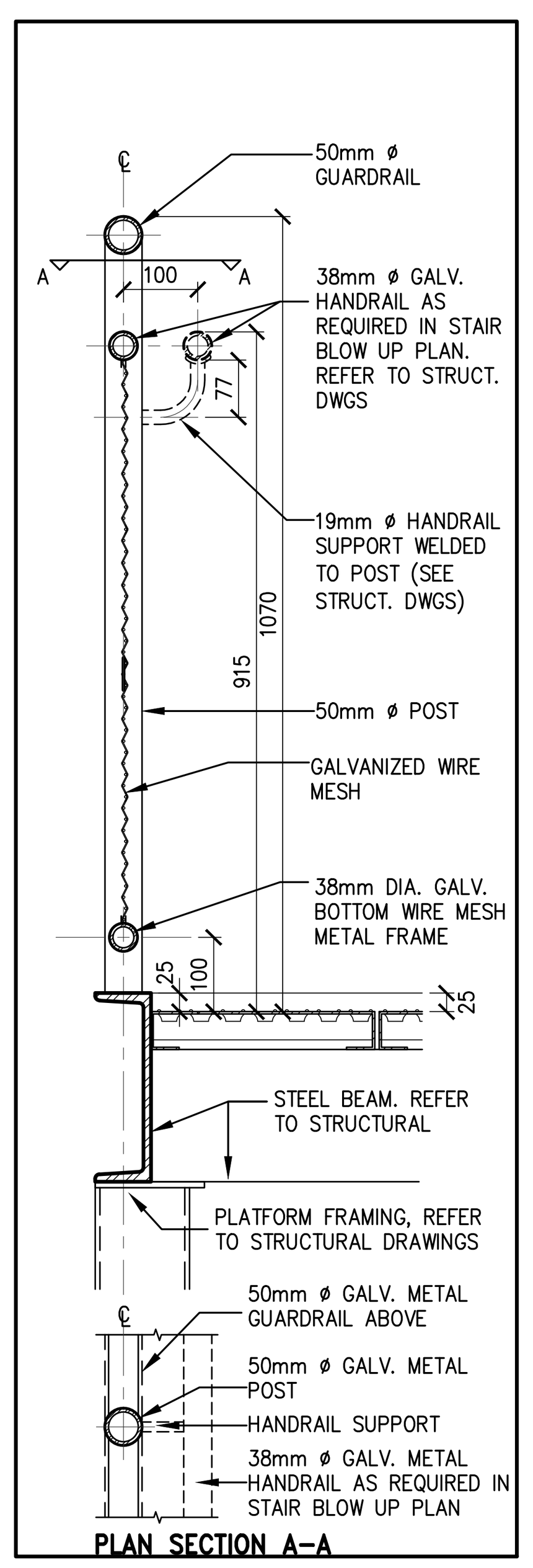
FEDERAL BUILDING
ARVIAT, NUNAVUT

Drawn By: XX	Date: 03/06/2015
Checked By: XX	Scale: VARIES

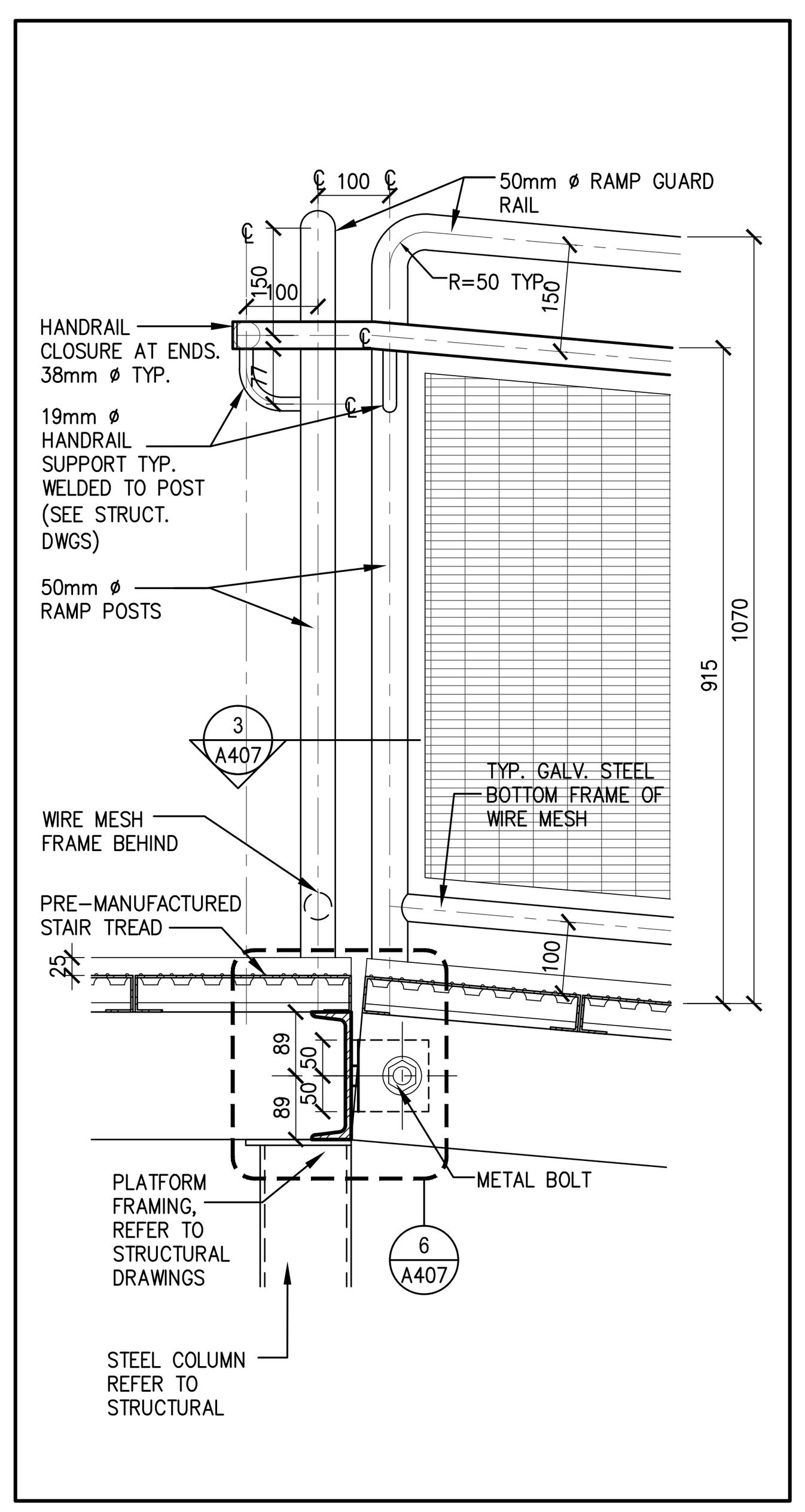
Sheet Title:
STAIR AND RAMP DETAILS

Sheet Number:
1408-A-405

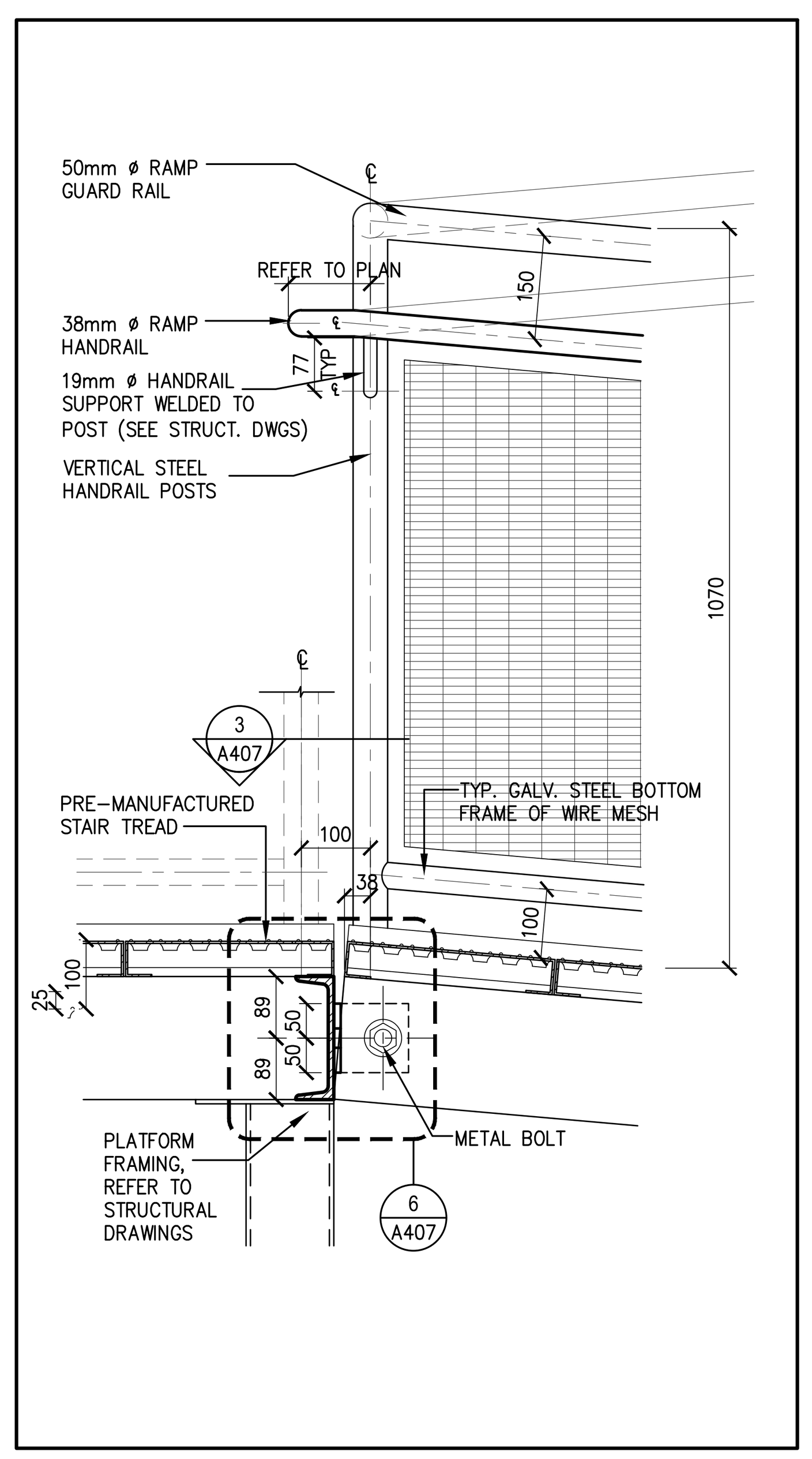
PLOTDATE: May 13, 2015 11:20am



HAND/GUARD RAIL 6 A406 1:10



SECTION: EXT. RAMP AT LANDING 5 A406 1:10



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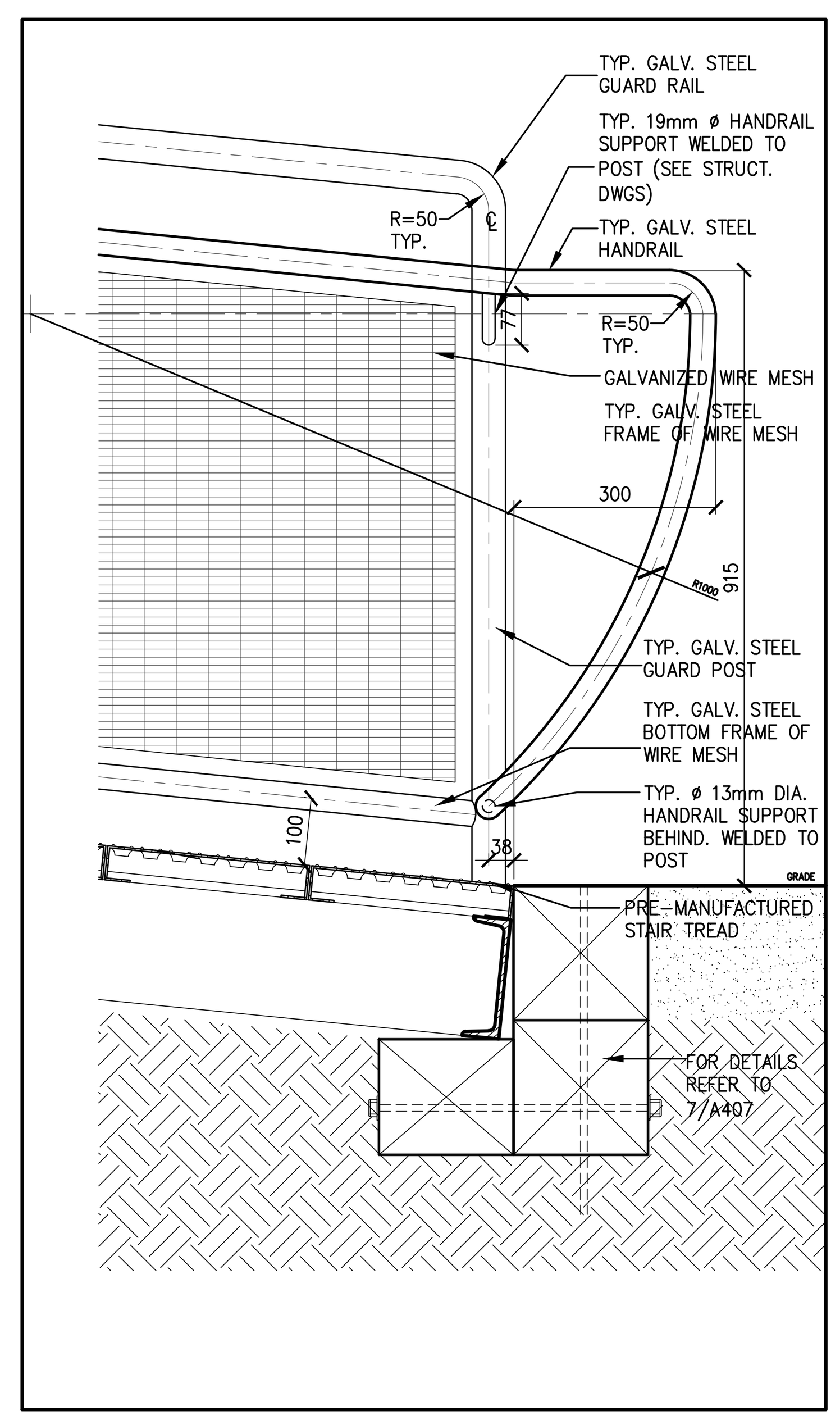

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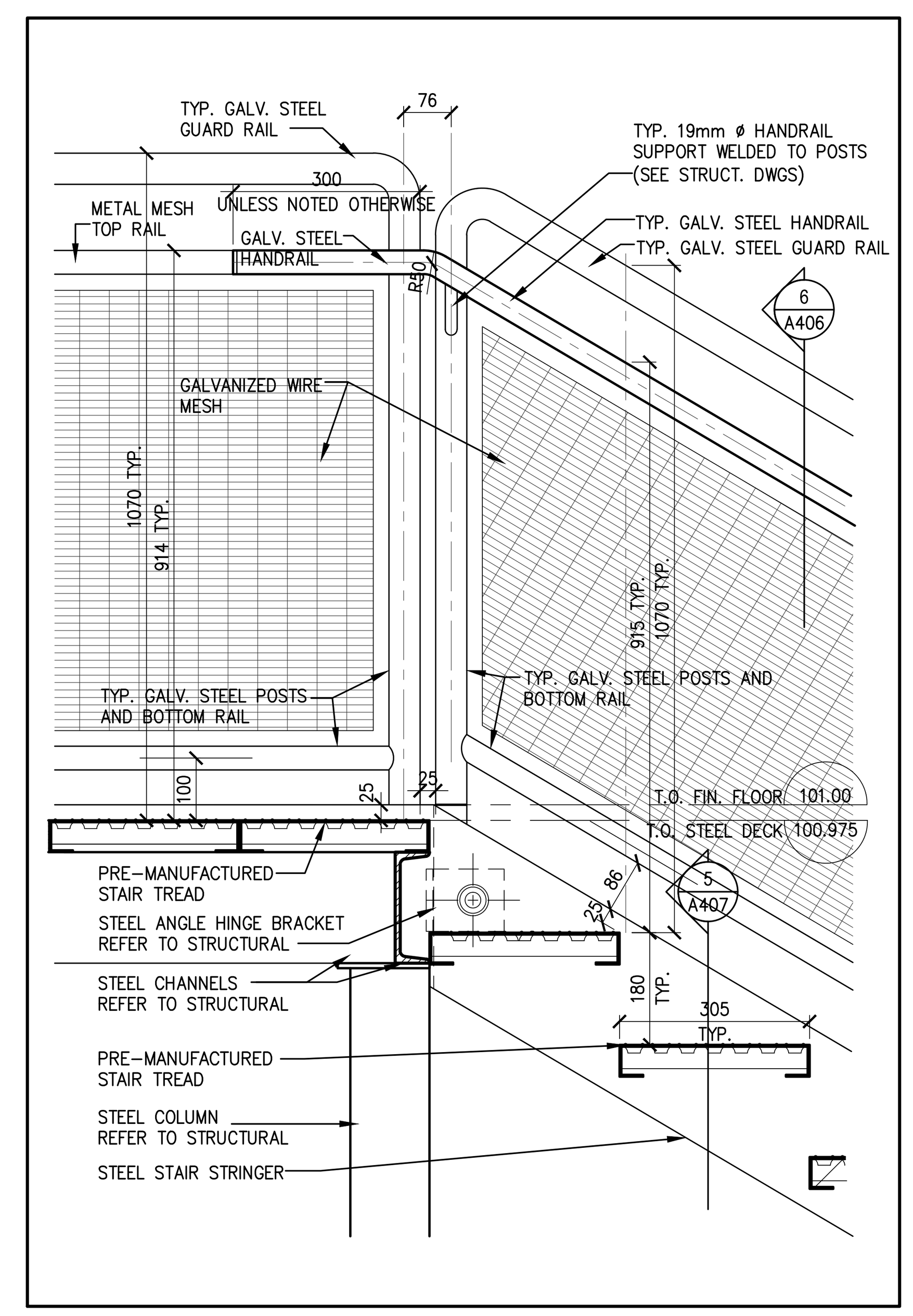

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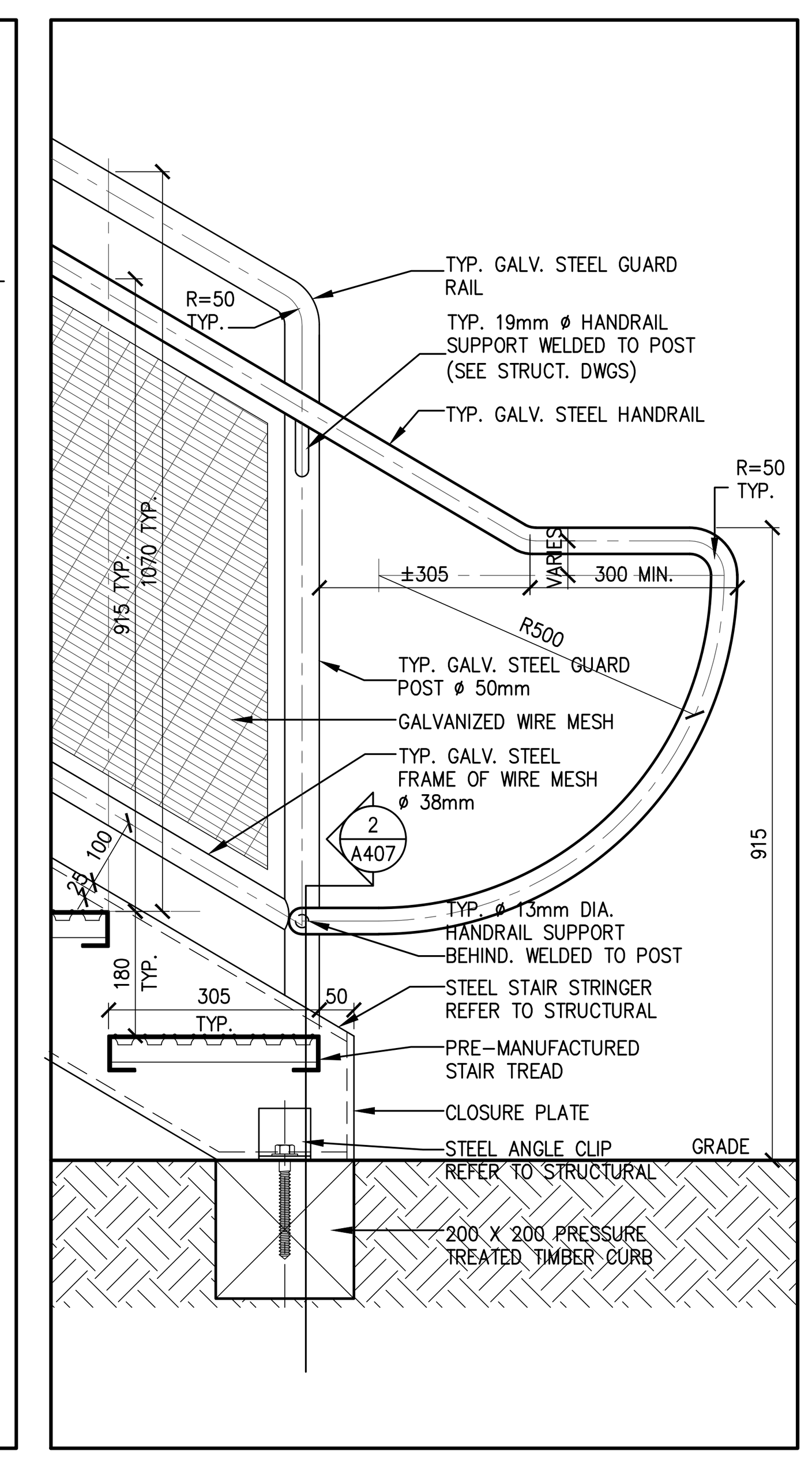

SECTION: TYPICAL STAIR AT GRADE 1 A406 1:10

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PROJECT NORTH

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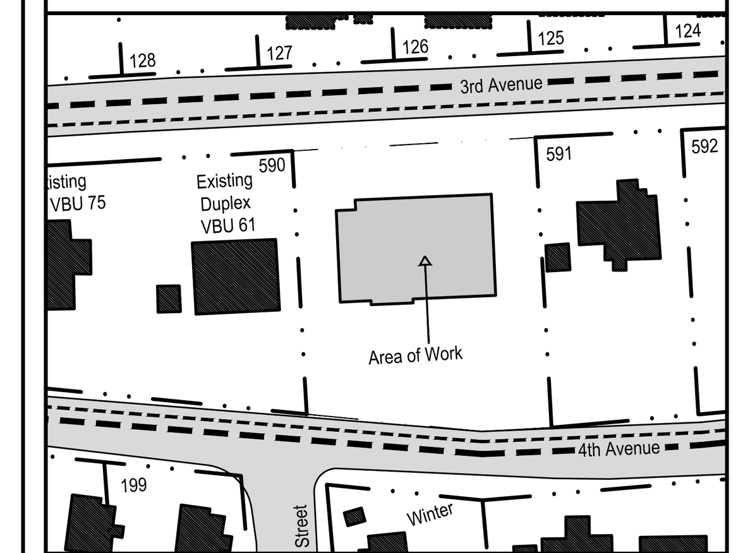

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A.G. Engineering
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Project:

FEDERAL BUILDING
ARVIAT, NUNAVUT

Drawn By:	Date:
XX	03/06/2015
Checked By: XX	Scale: VARIES

Sheet Title:
STAIR AND RAMP DETAILS

Sheet Number:
1408-A-406

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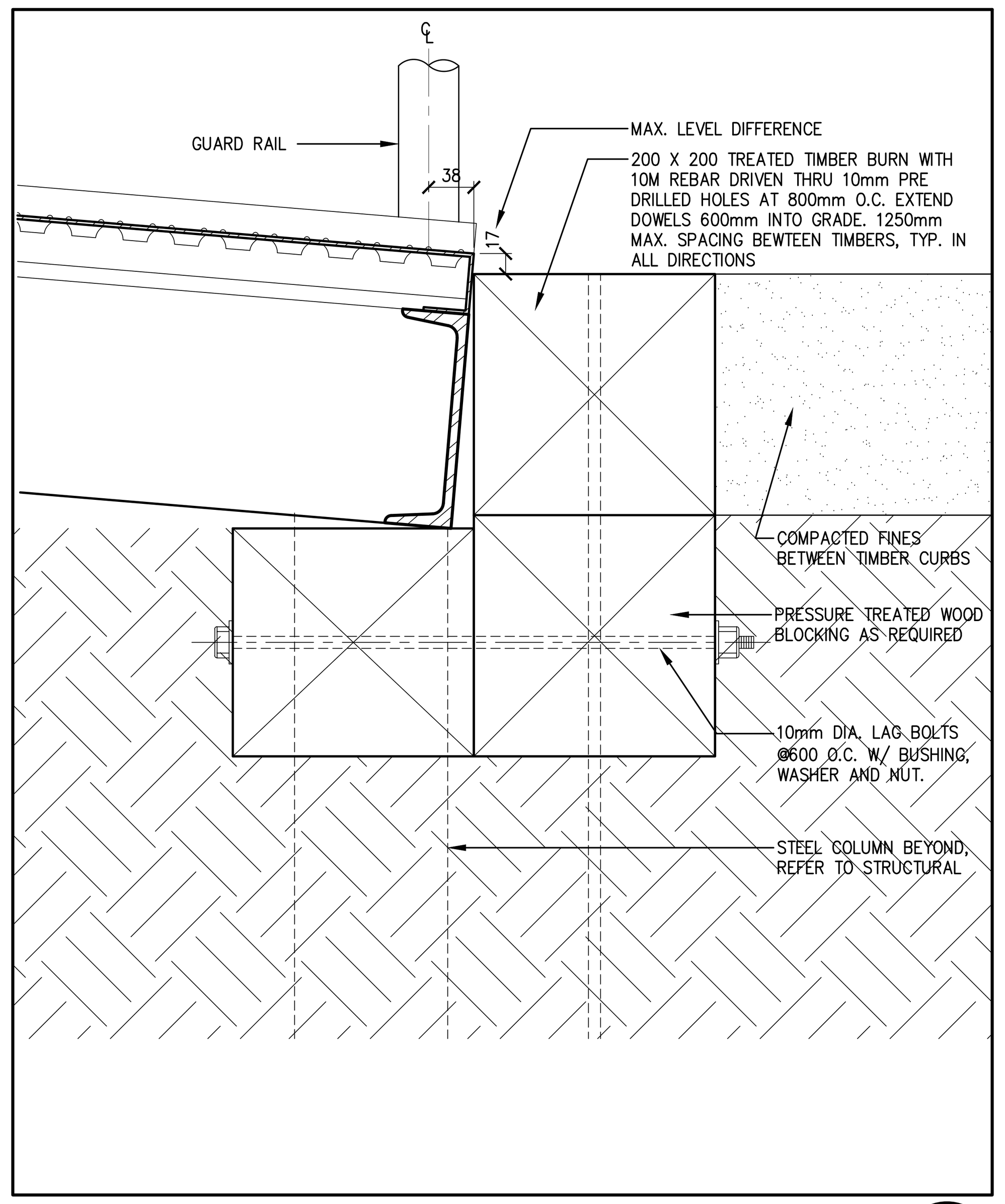
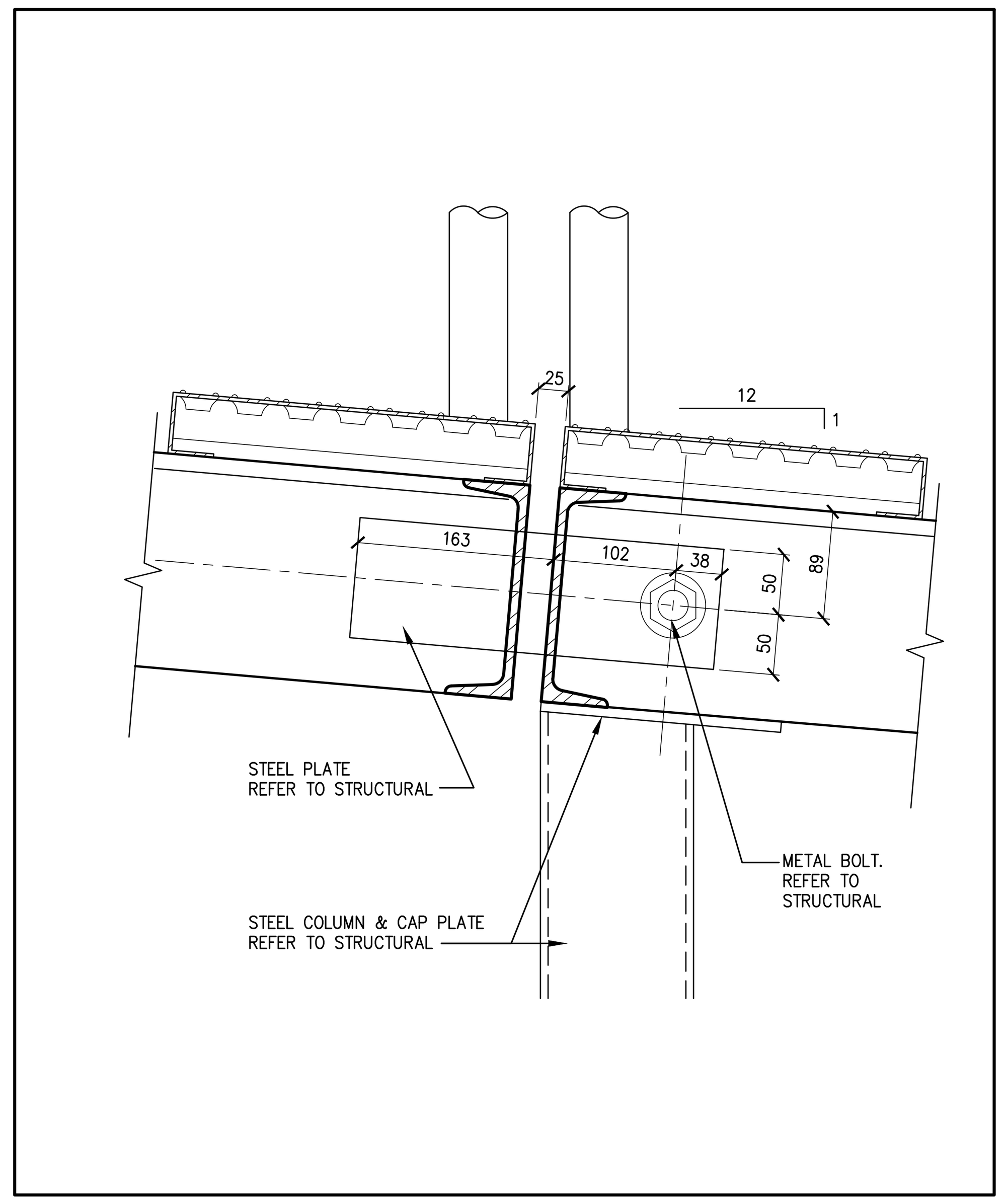
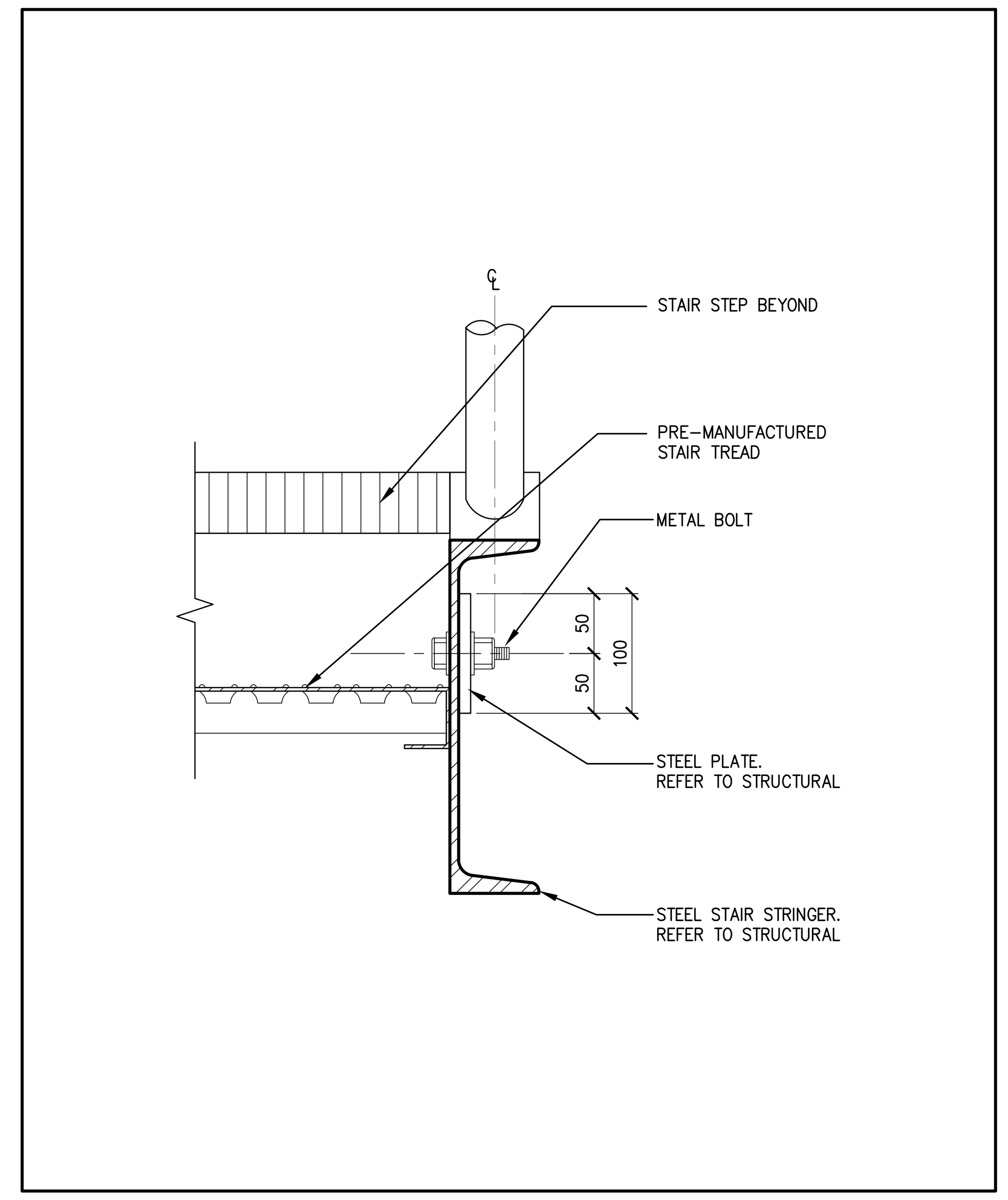
PLOTDATE: May 13, 2015 11:20am



RAMP AT GRADE (7/A407)
1:5



FLEXIBLE RAMP CONNECTION (6/A407)
1:5



STRINGER DETAIL AT LANDING (5/A407)
1:5

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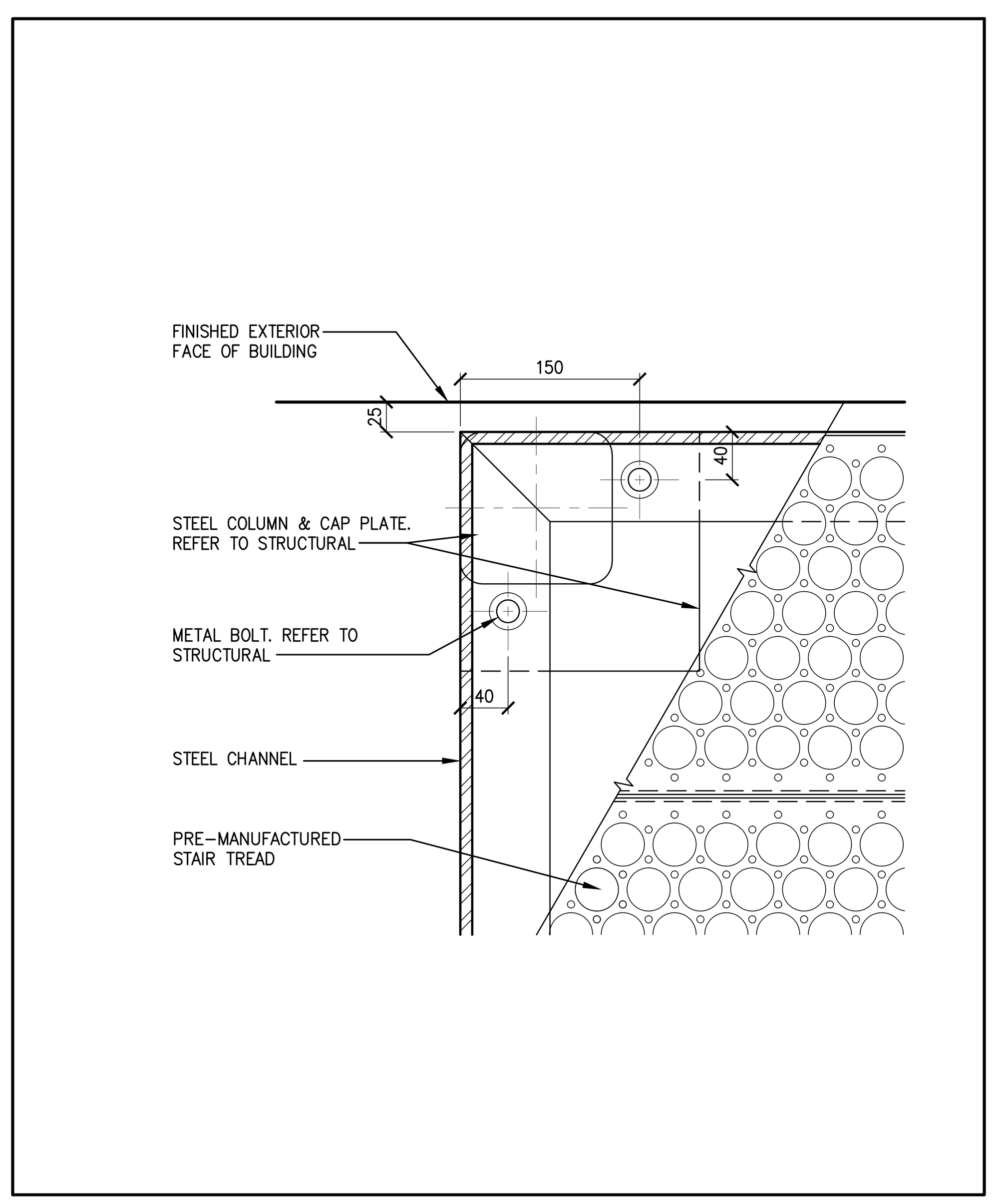
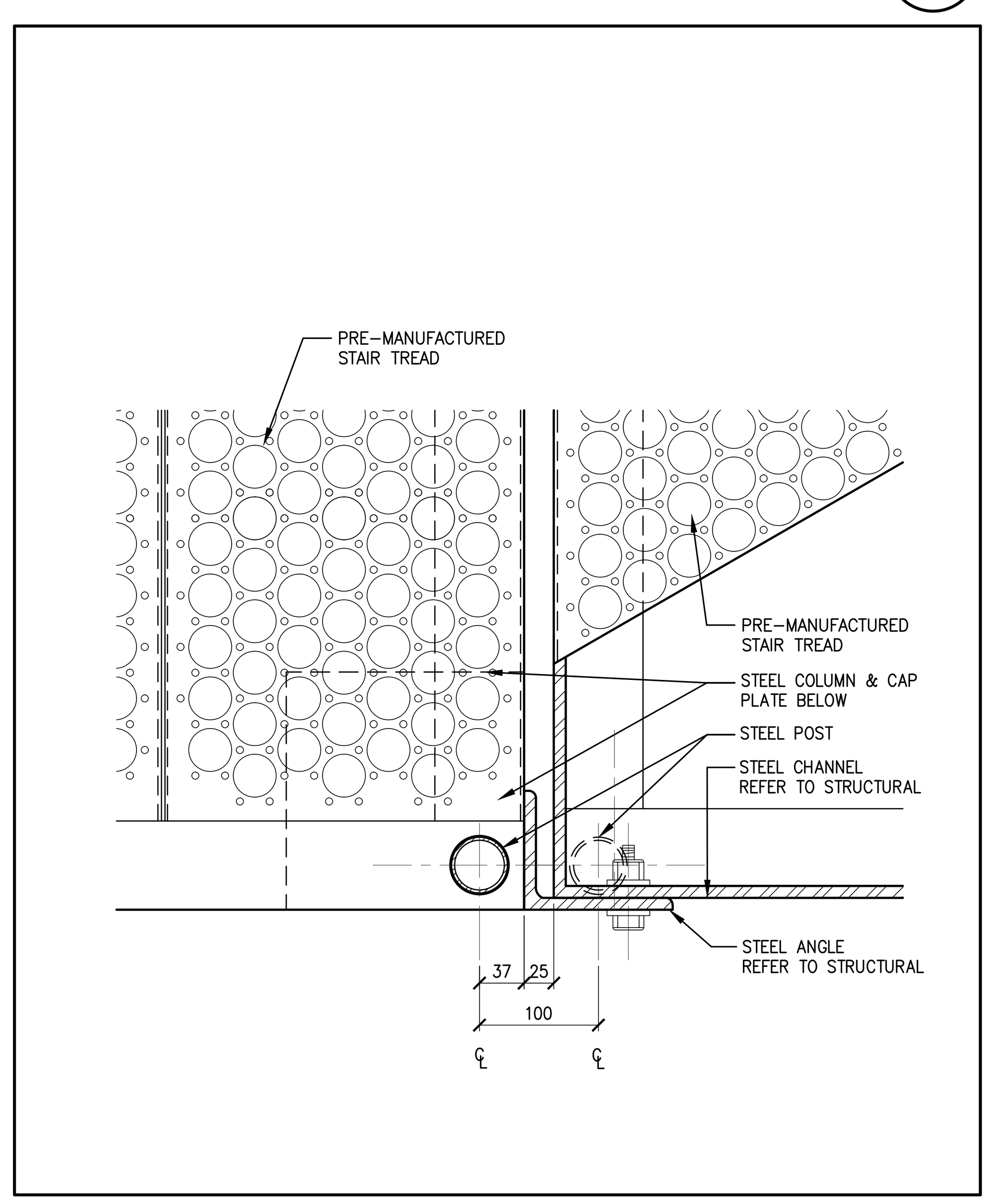
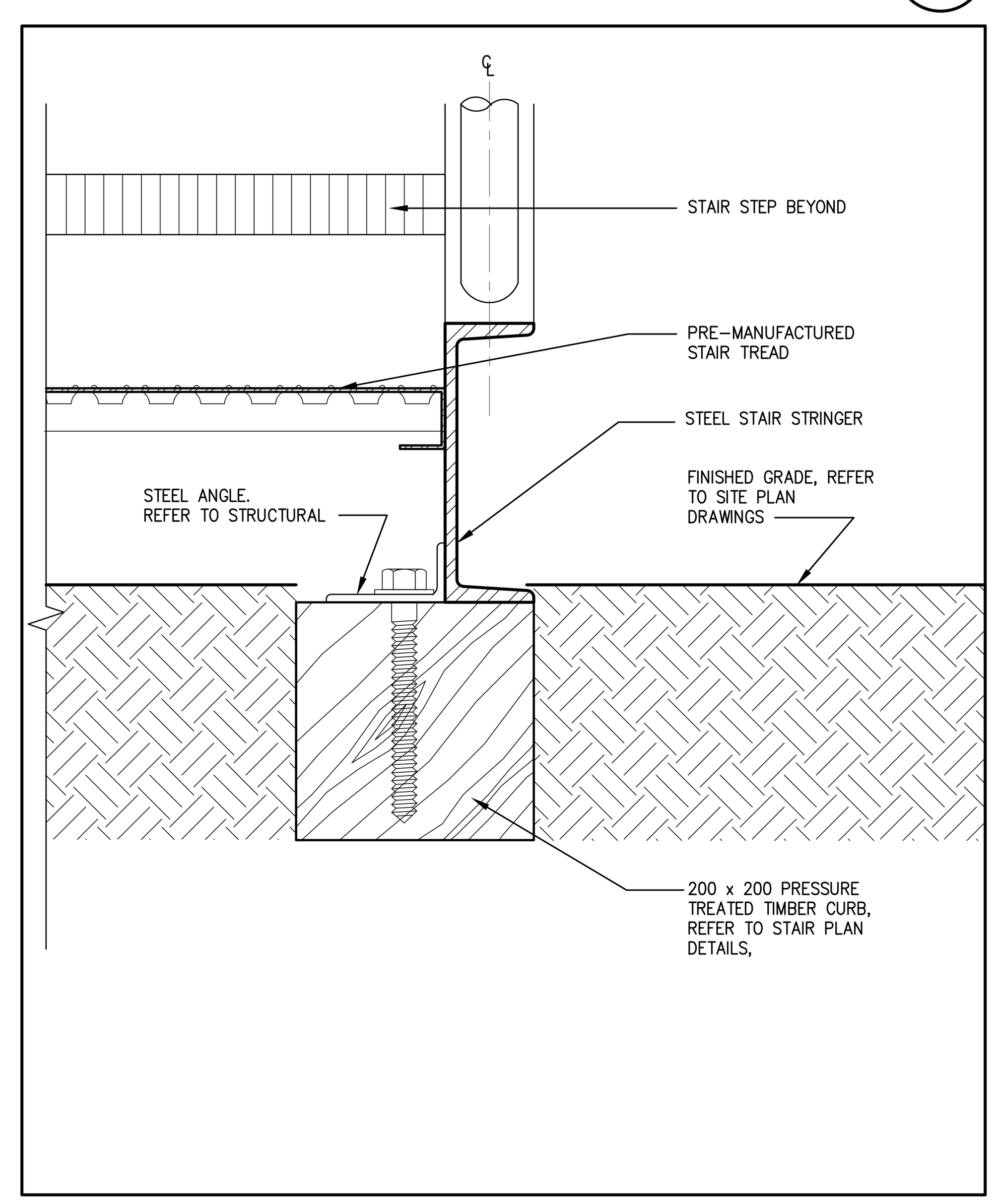


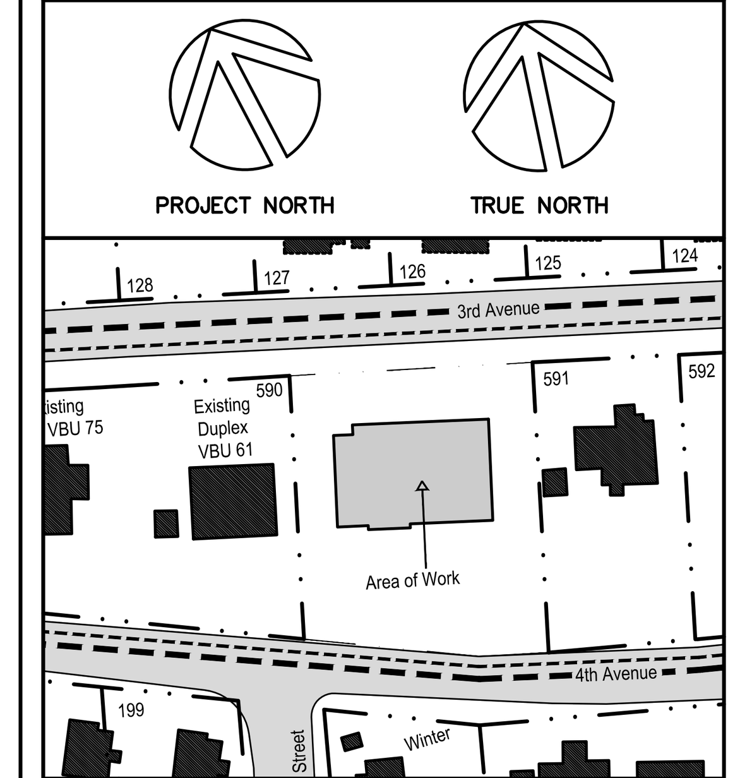
DETAIL: LANDING CORNER ADJACENT TO BUILDING (4/A407)
1:5



DETAIL: LANDING TO RAMP CONNECTION (3/A407)
1:5



DETAIL: SECTION THRU STRINGER @ GRADE (2/A407)
1:5



No.	Description	Date
0	ISSUED FOR TENDER	04-07-2015

Revisions:

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Do not scale the drawings.

Prime Consultant:

PARKIN ARCHITECTS LIMITED

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

ONTARIO ASSOCIATION OF ARCHITECTS — ROBERT BORAKS LICENCE 5346

Sub Consultant:

Accutech Engineering Inc. Tomorrow's Technology Today

AGE A.G. Engineering Electrical Engineers

Project:

FEDERAL BUILDING
ARVIAT, NUNAVUT

Drawn By: XX | Date: 03/06/2015

Checked By: XX | Scale: 1:5

Sheet Title: STAIR AND RAMP DETAILS

Sheet Number: 1408-A-407

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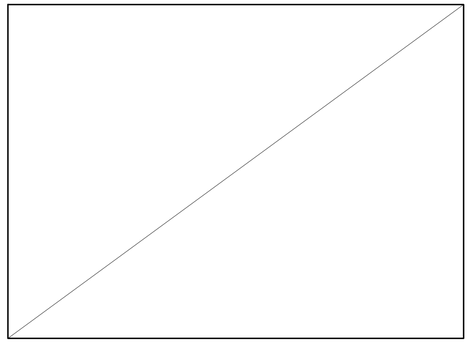

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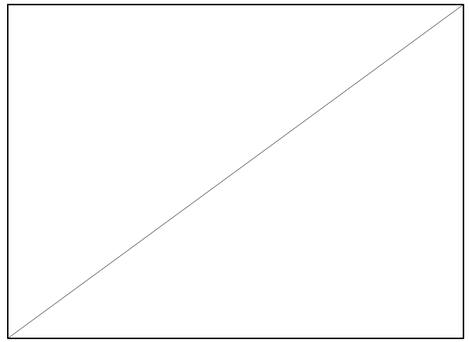

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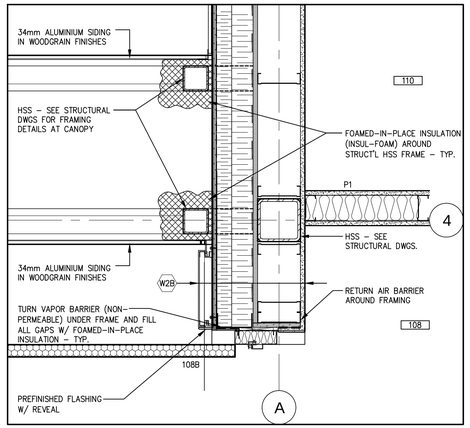

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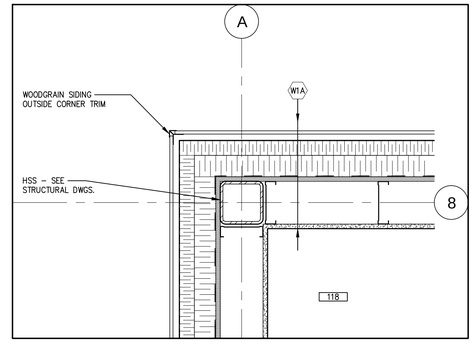

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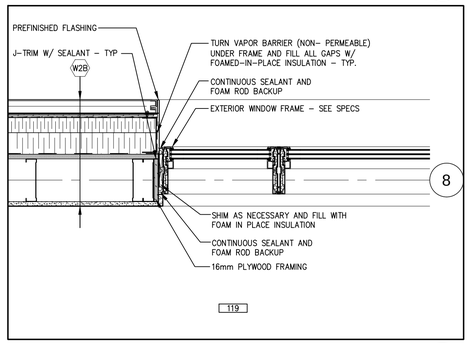

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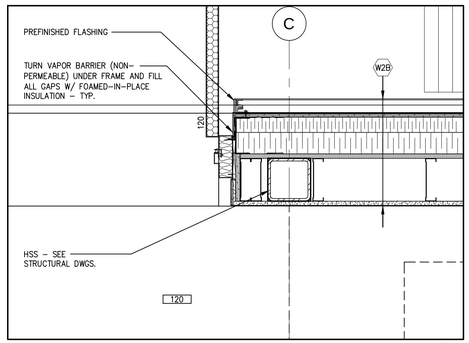

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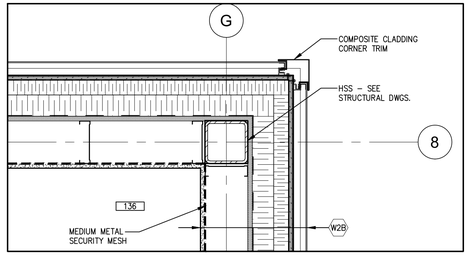

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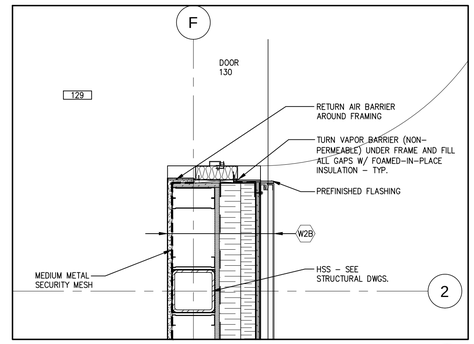

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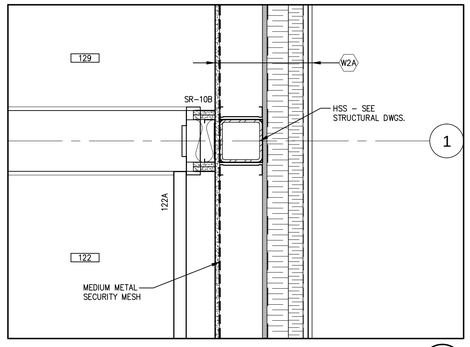

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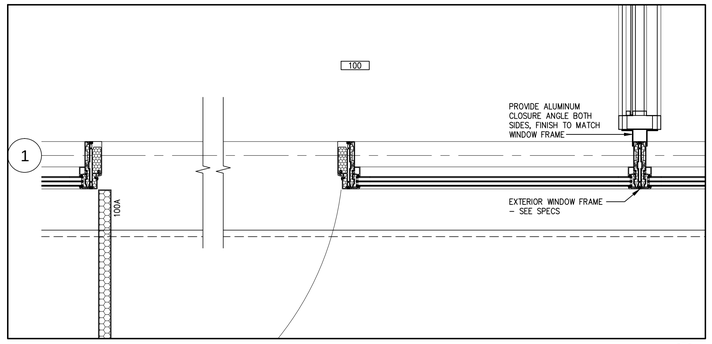

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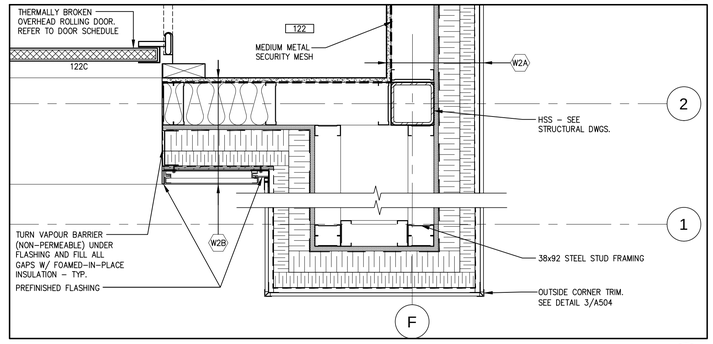

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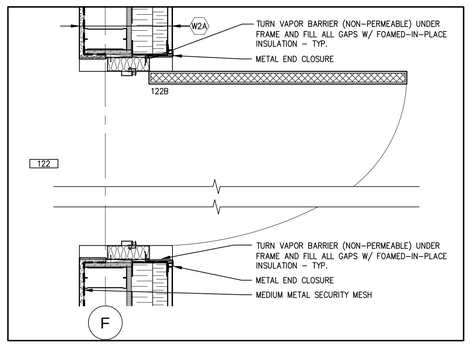

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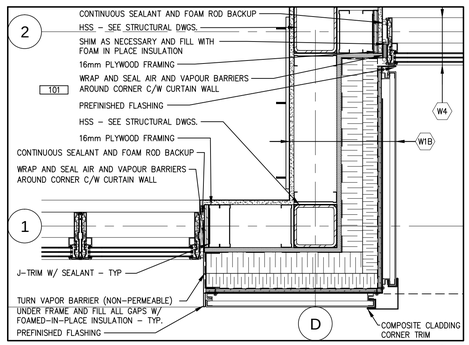

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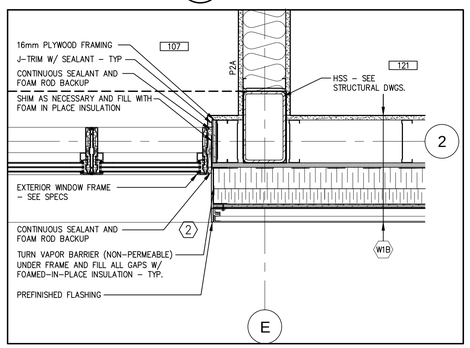

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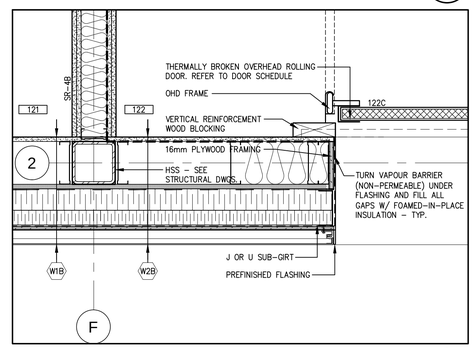

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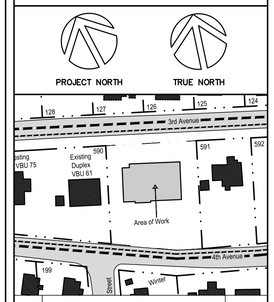

0	ISSUED FOR TENDER	04–07–2015
No.	Description	Date

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Prime Consultant:

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ARCHITECTS LIMITED

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ONTARIO ASSOCIATION OF ARCHITECTS
ROBERT BORAKS
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Sub Consultant:

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Fax: (807) 622-3631
AGE Project # 1221-13-009

Project:

FEDERAL BUILDING
ARVIAT, NUNAVUT

Drawn By: JoL/DRJ	Date: 01/26/15
Checked By: RB	Scale: 1:10

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EXTERIOR PLAN DETAILS

Sheet Number:
1408-A-500

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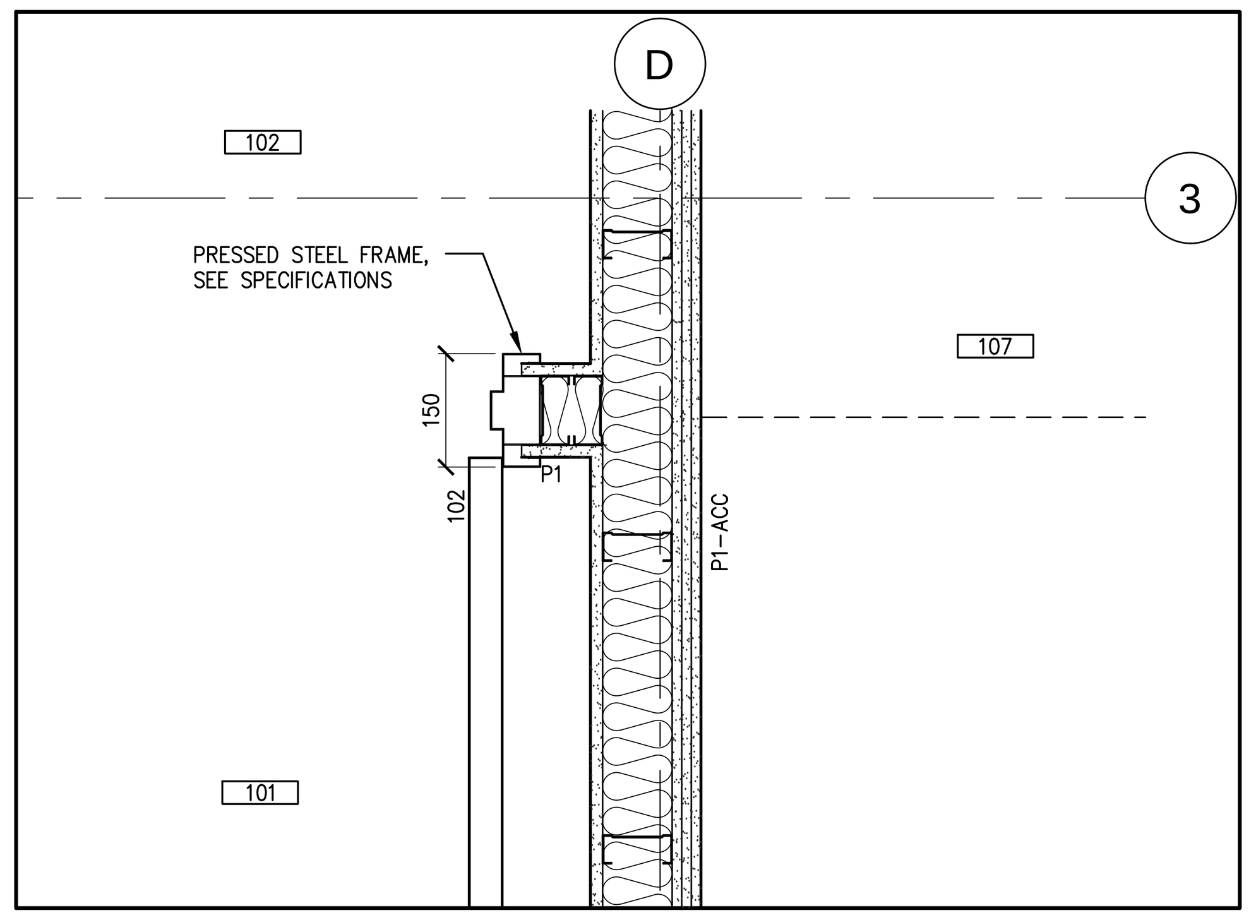

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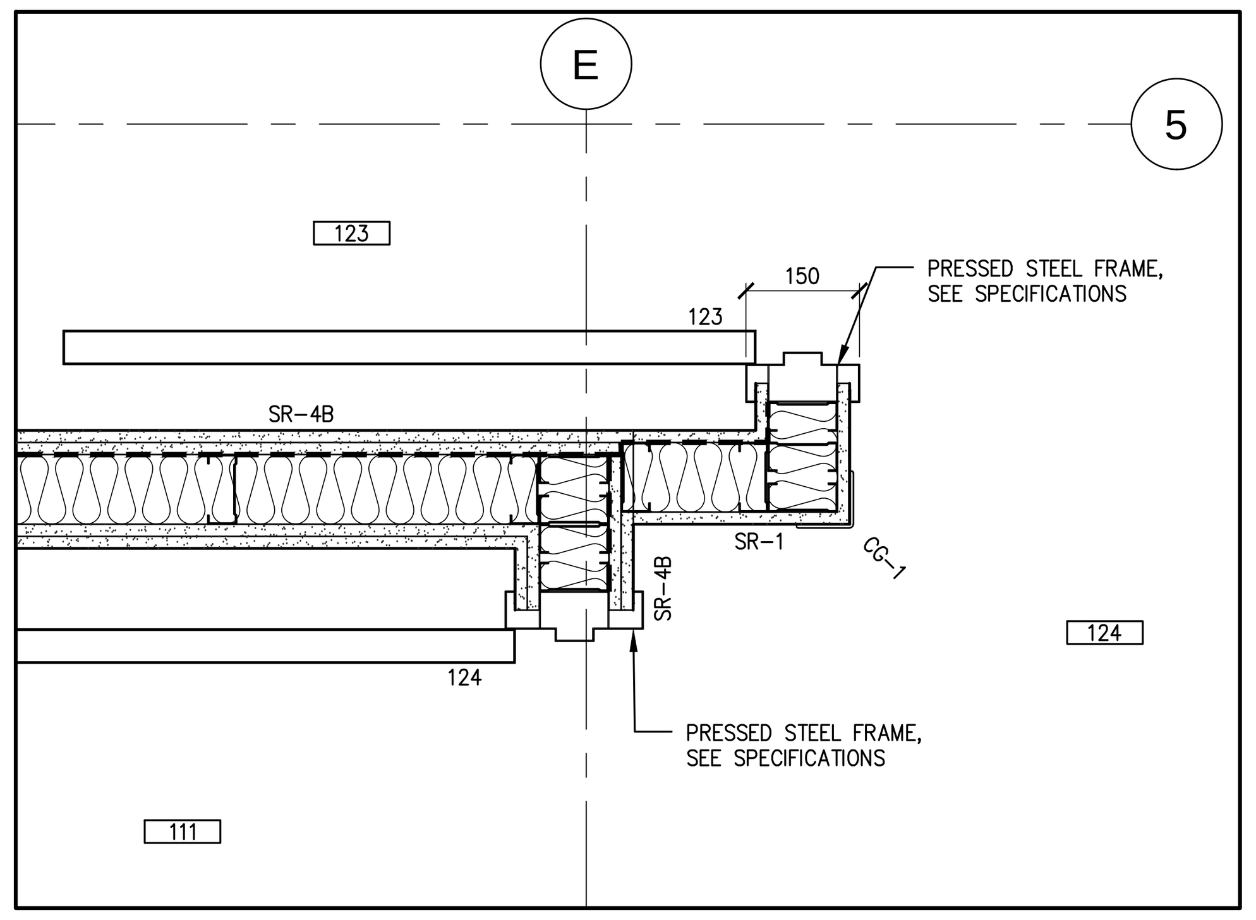

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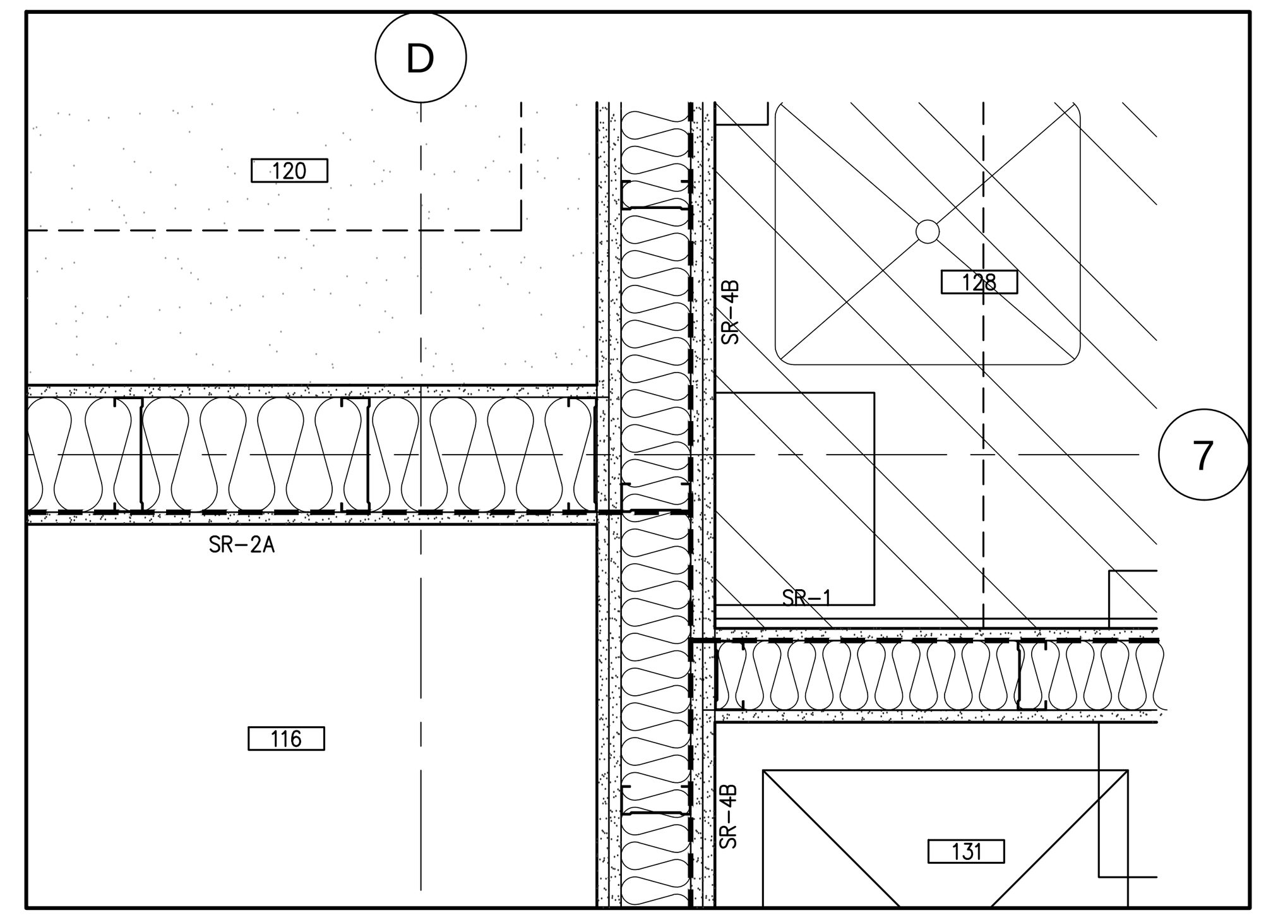

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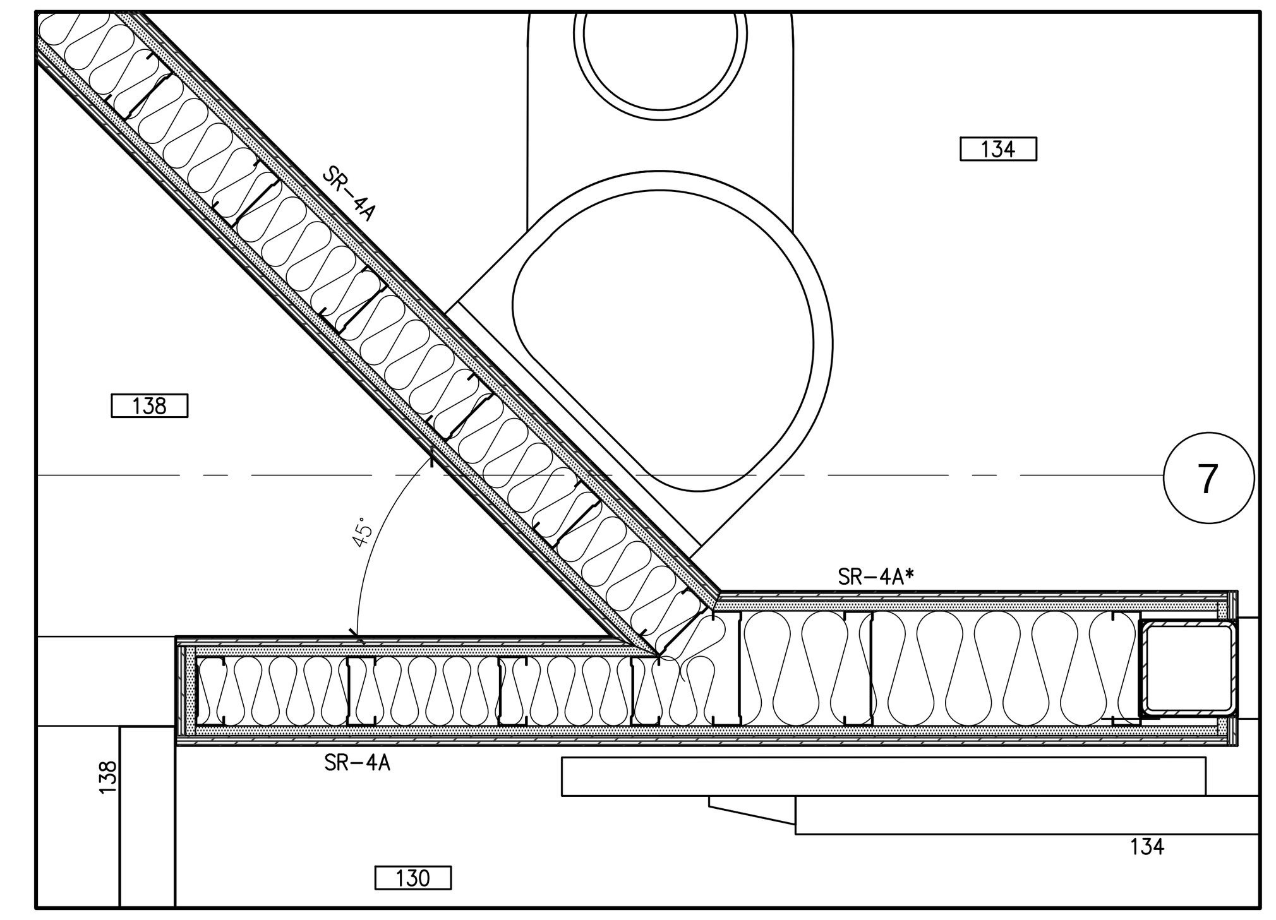

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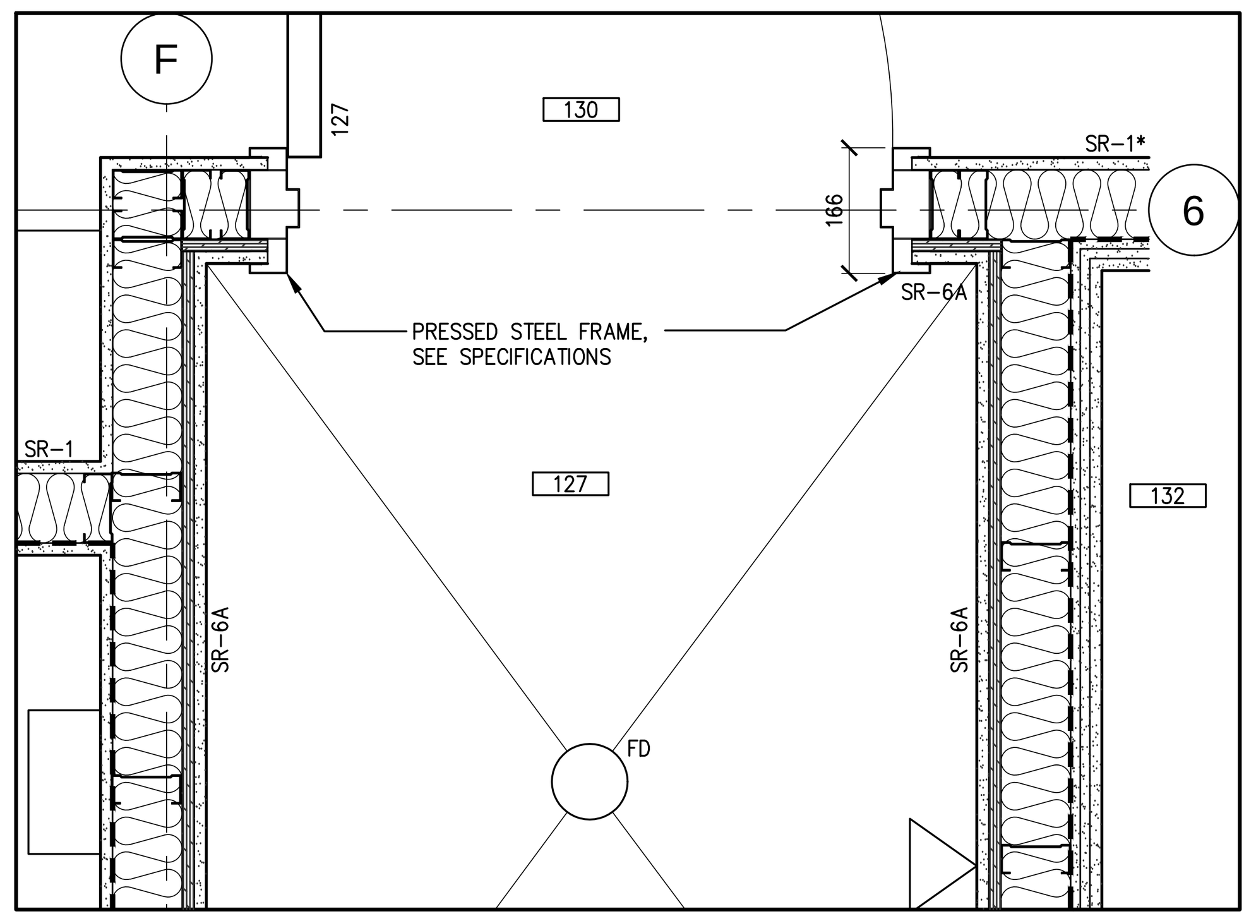

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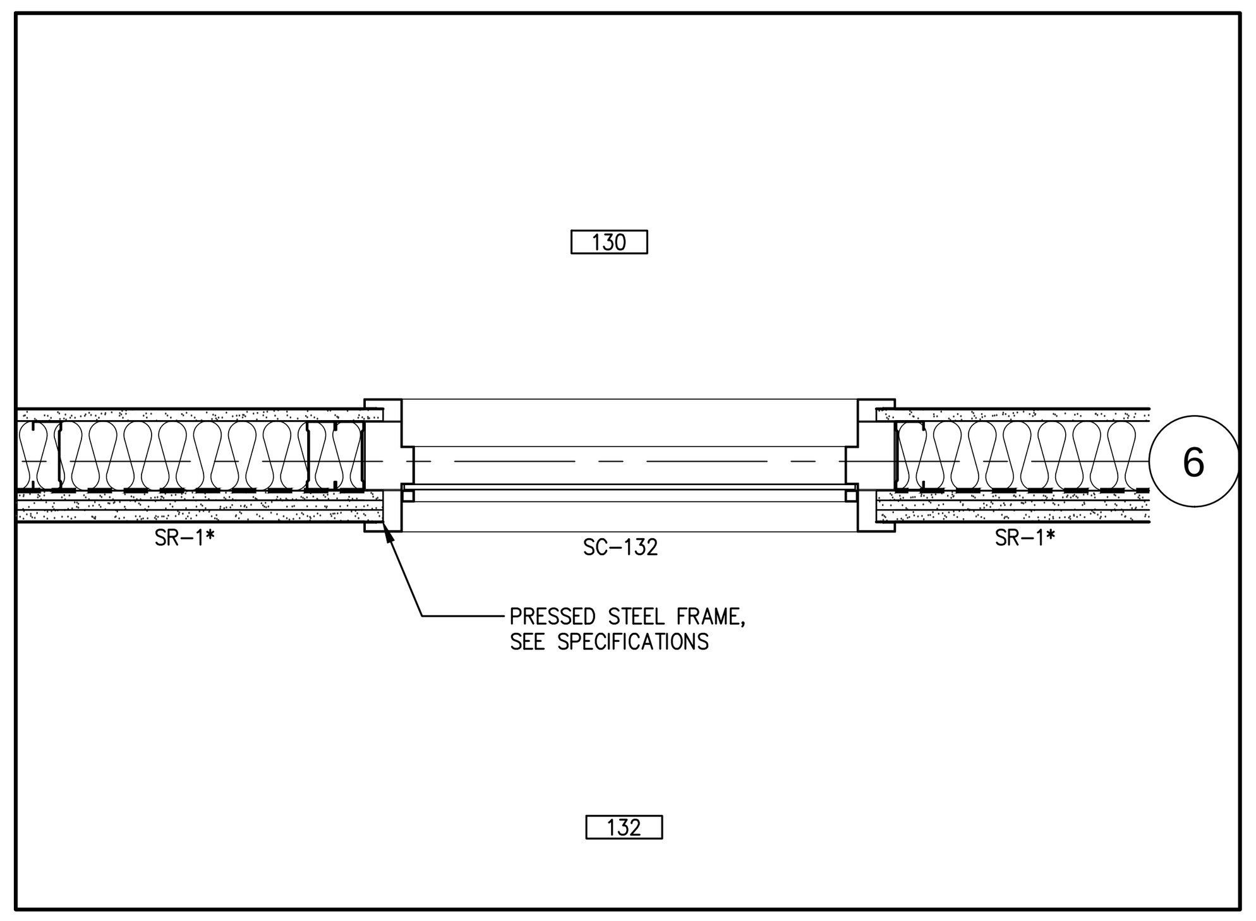

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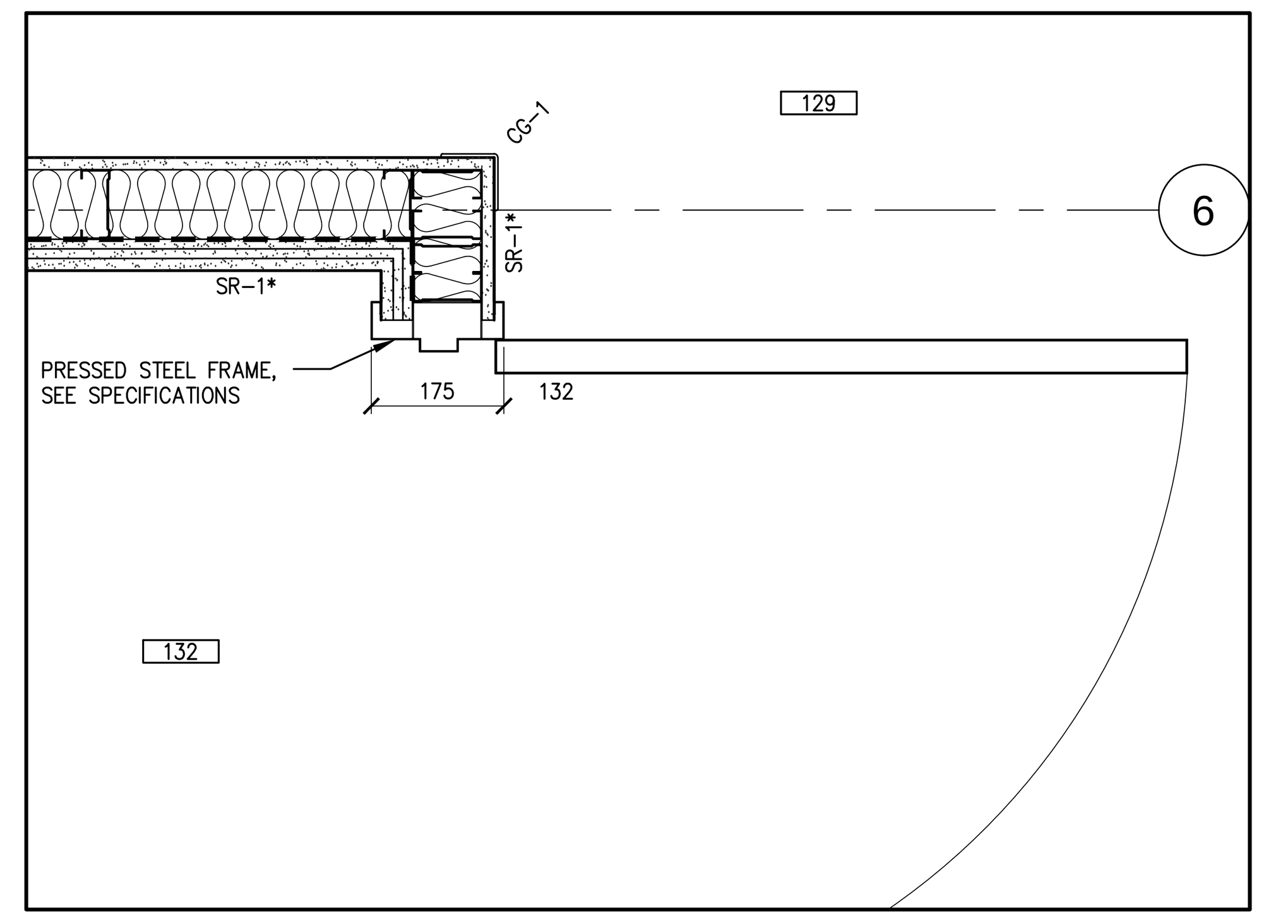

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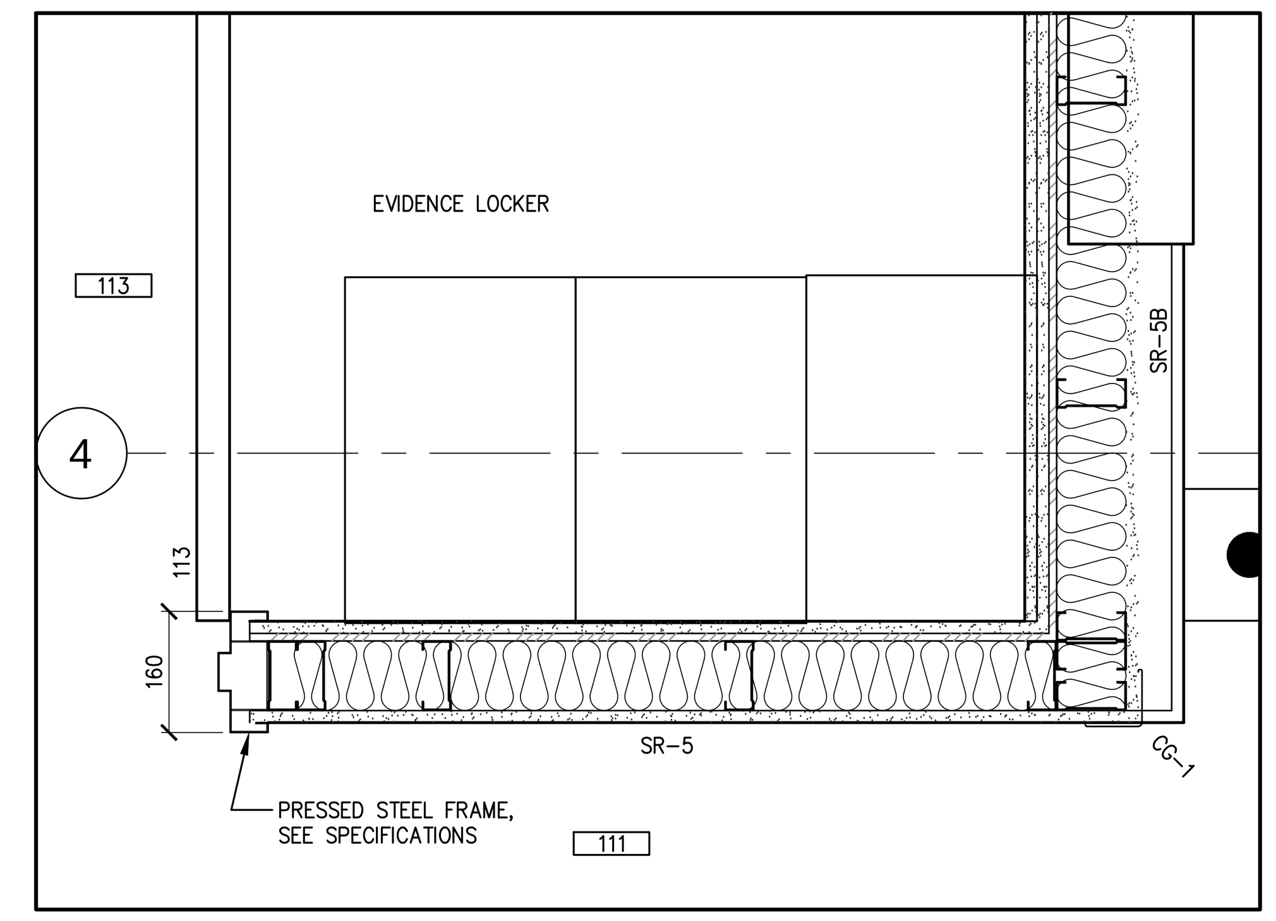

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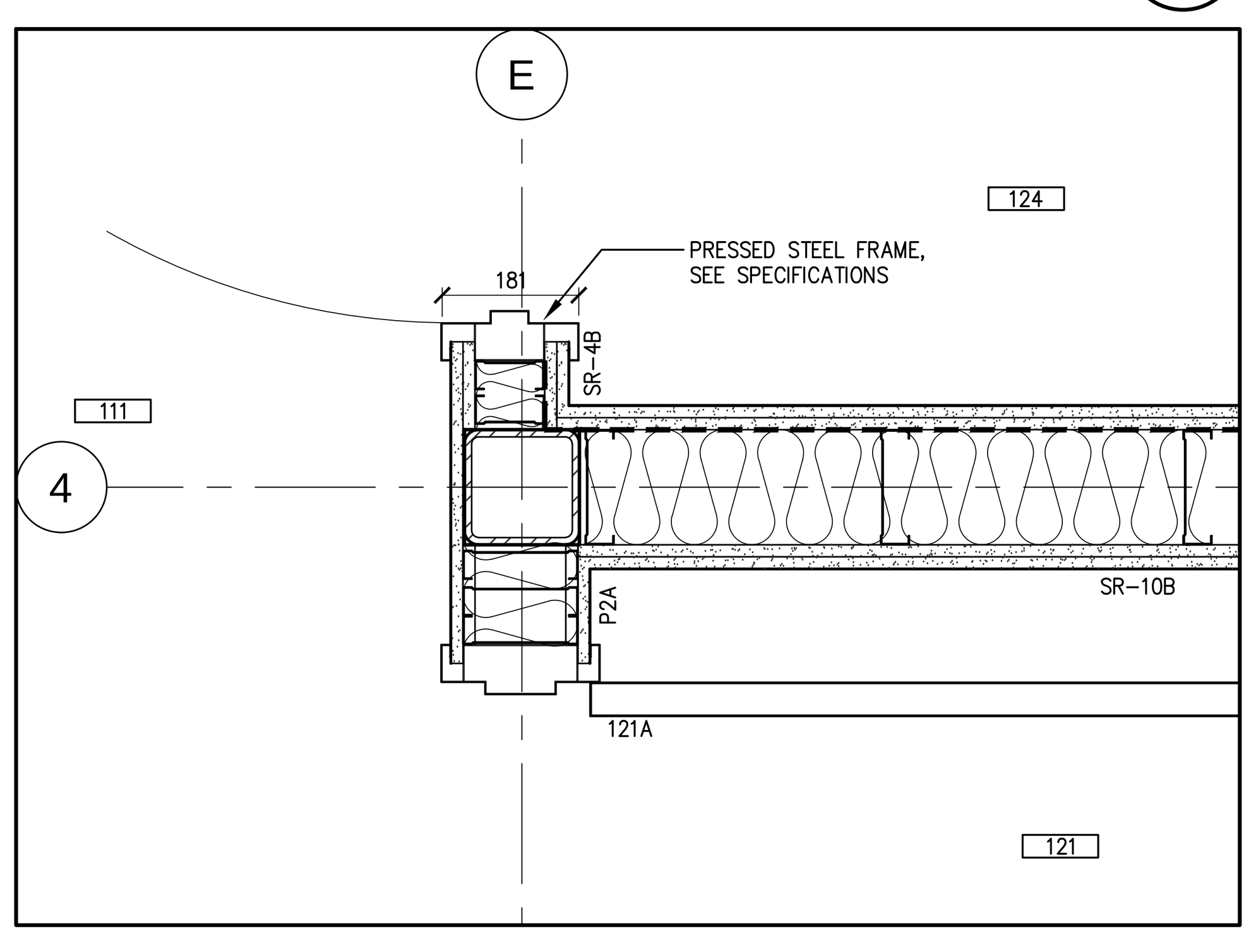

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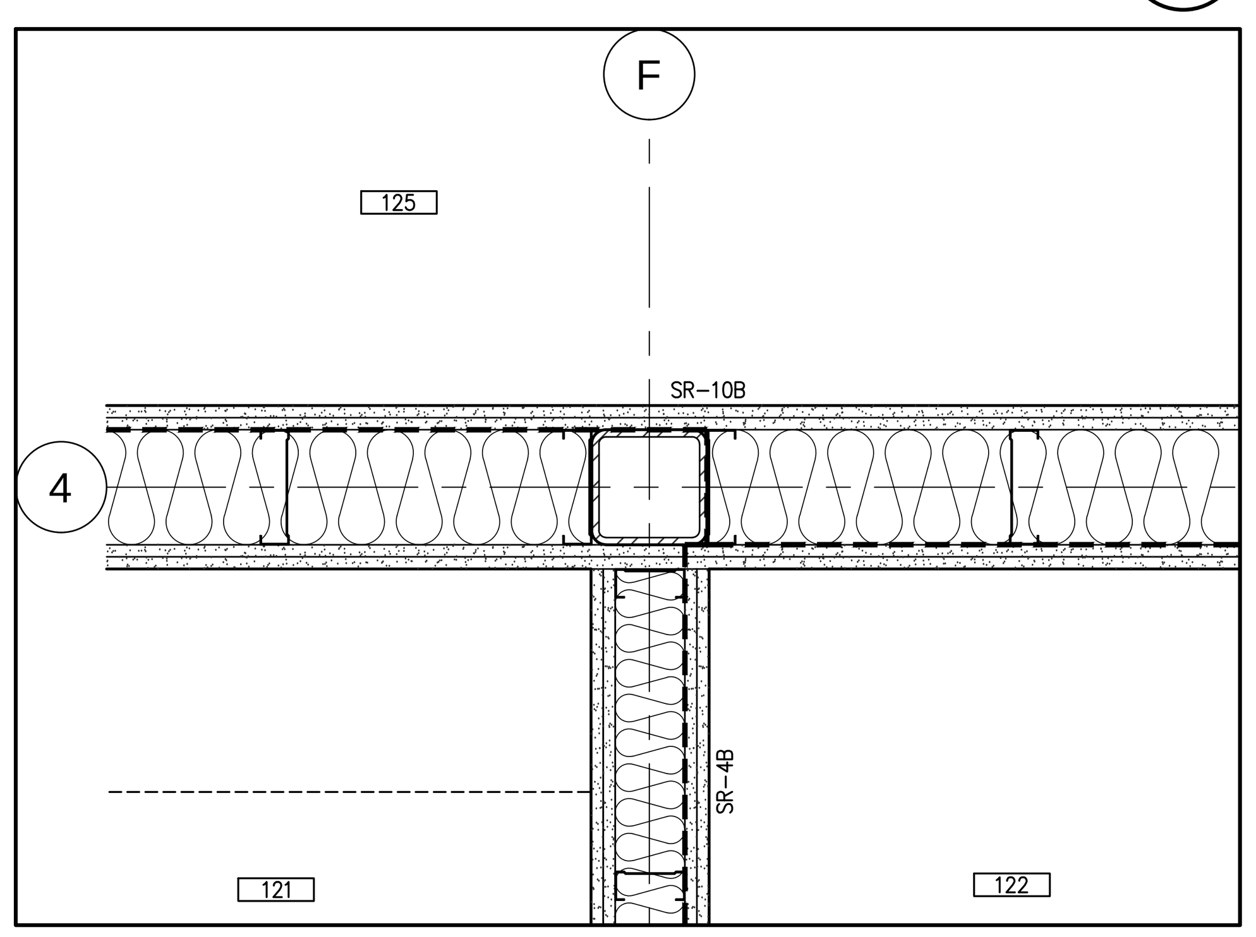

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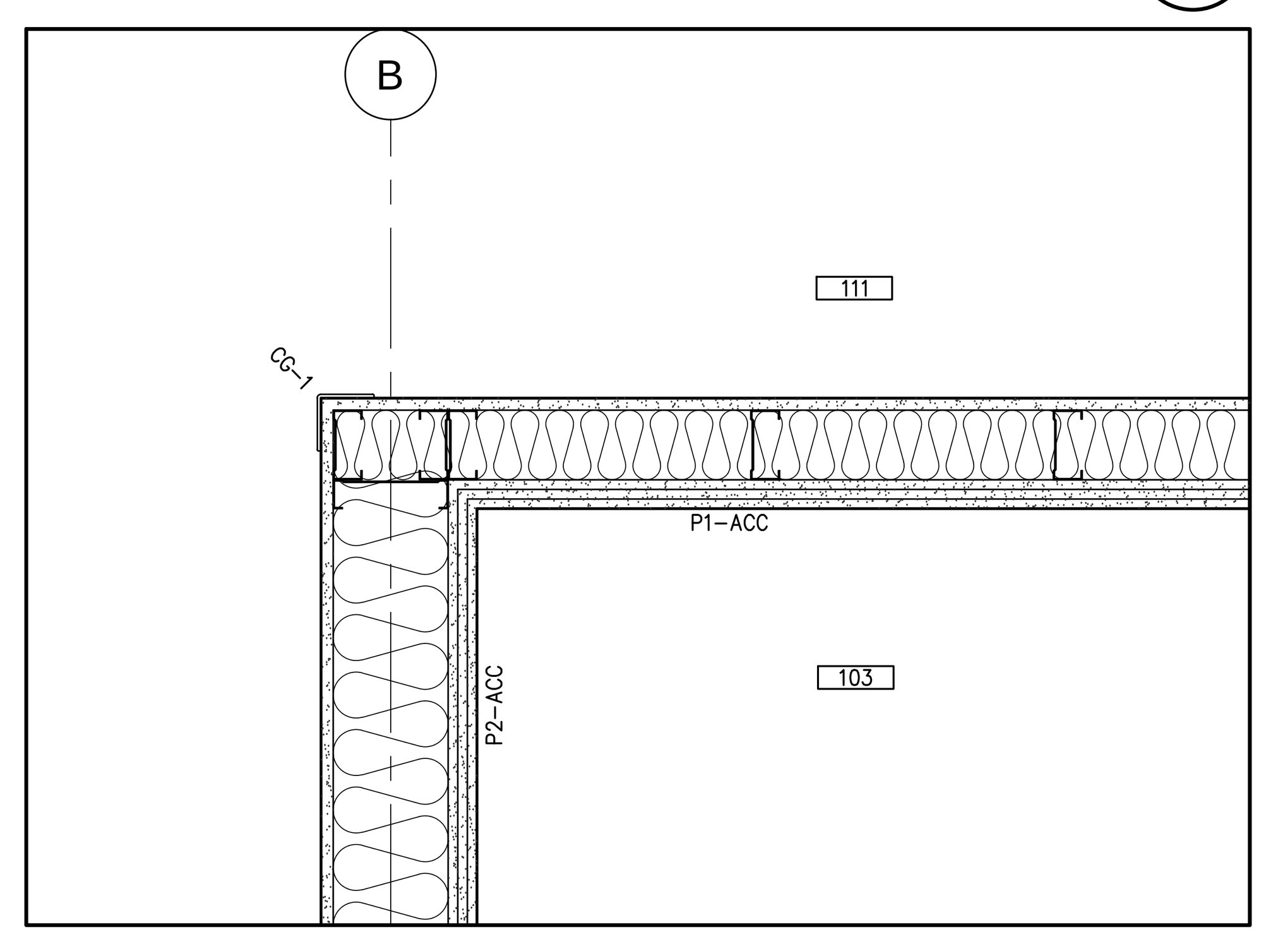

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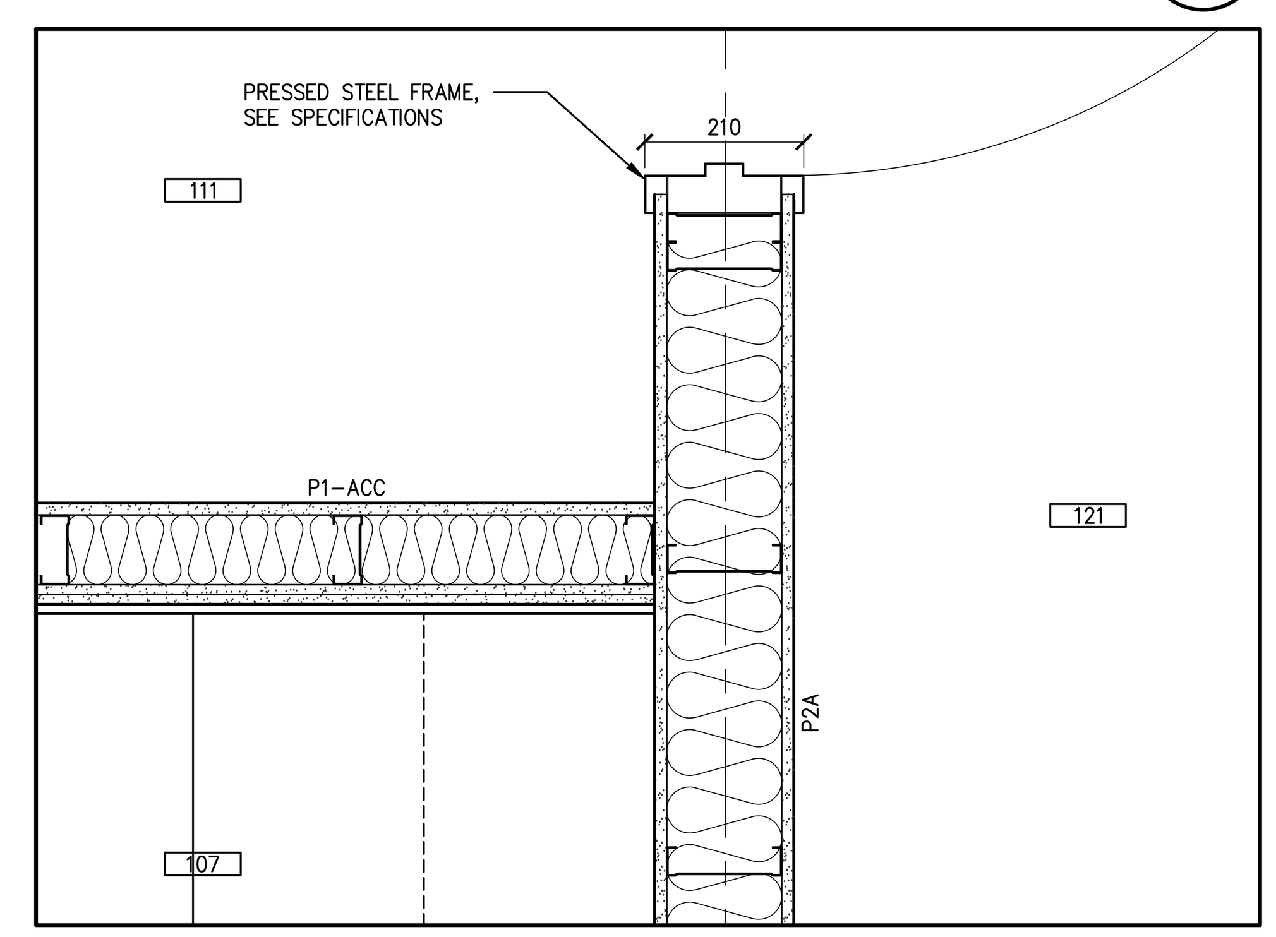

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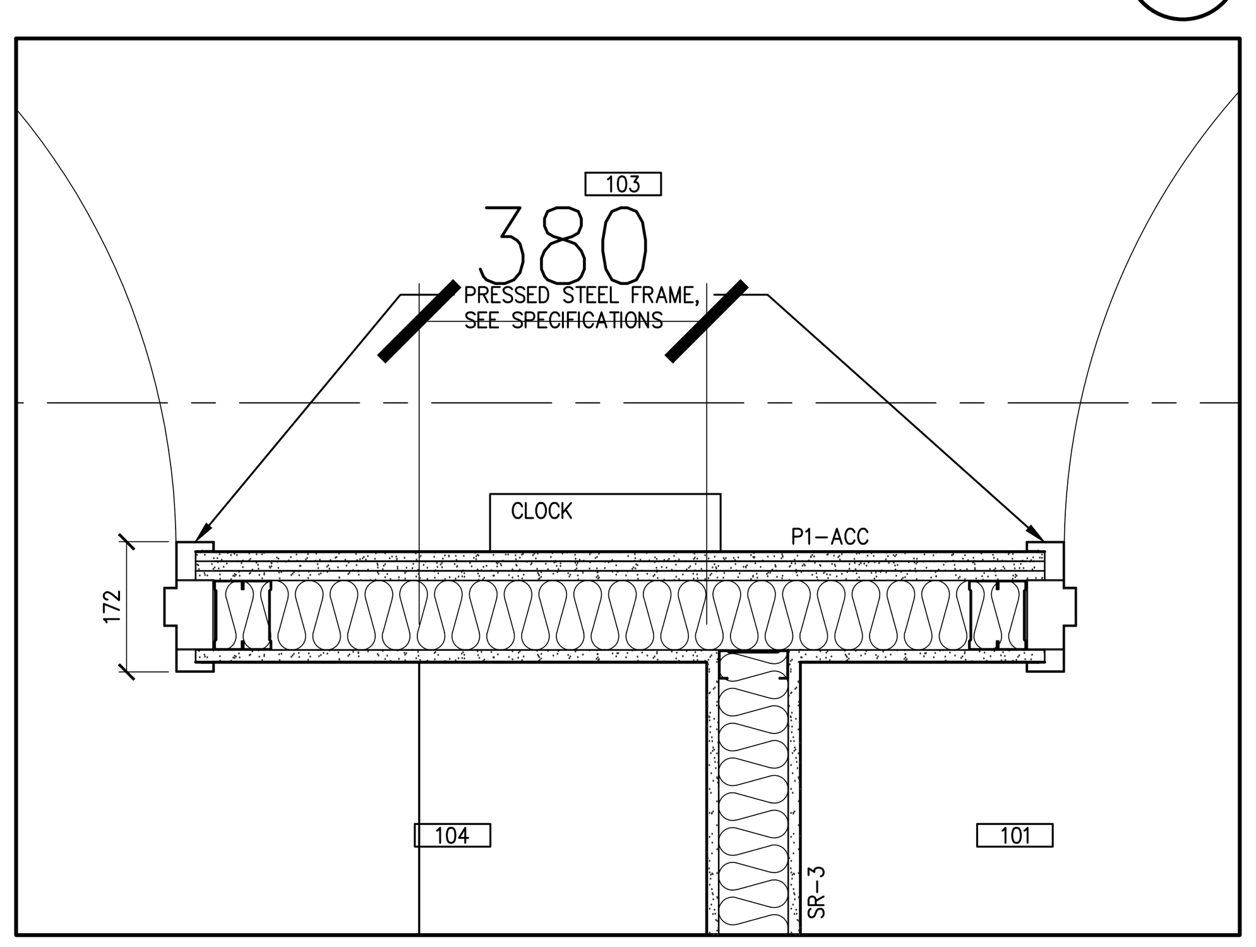

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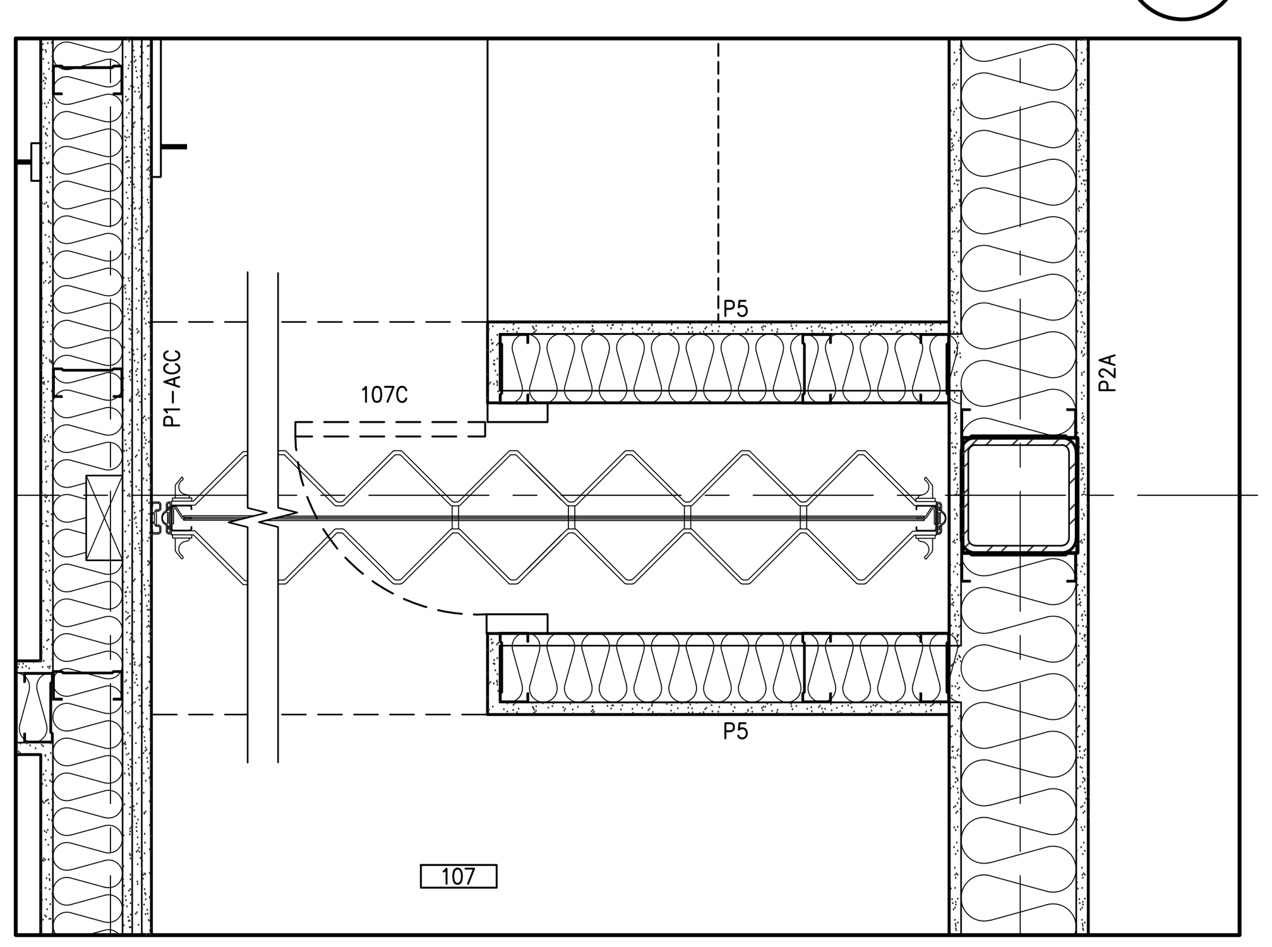

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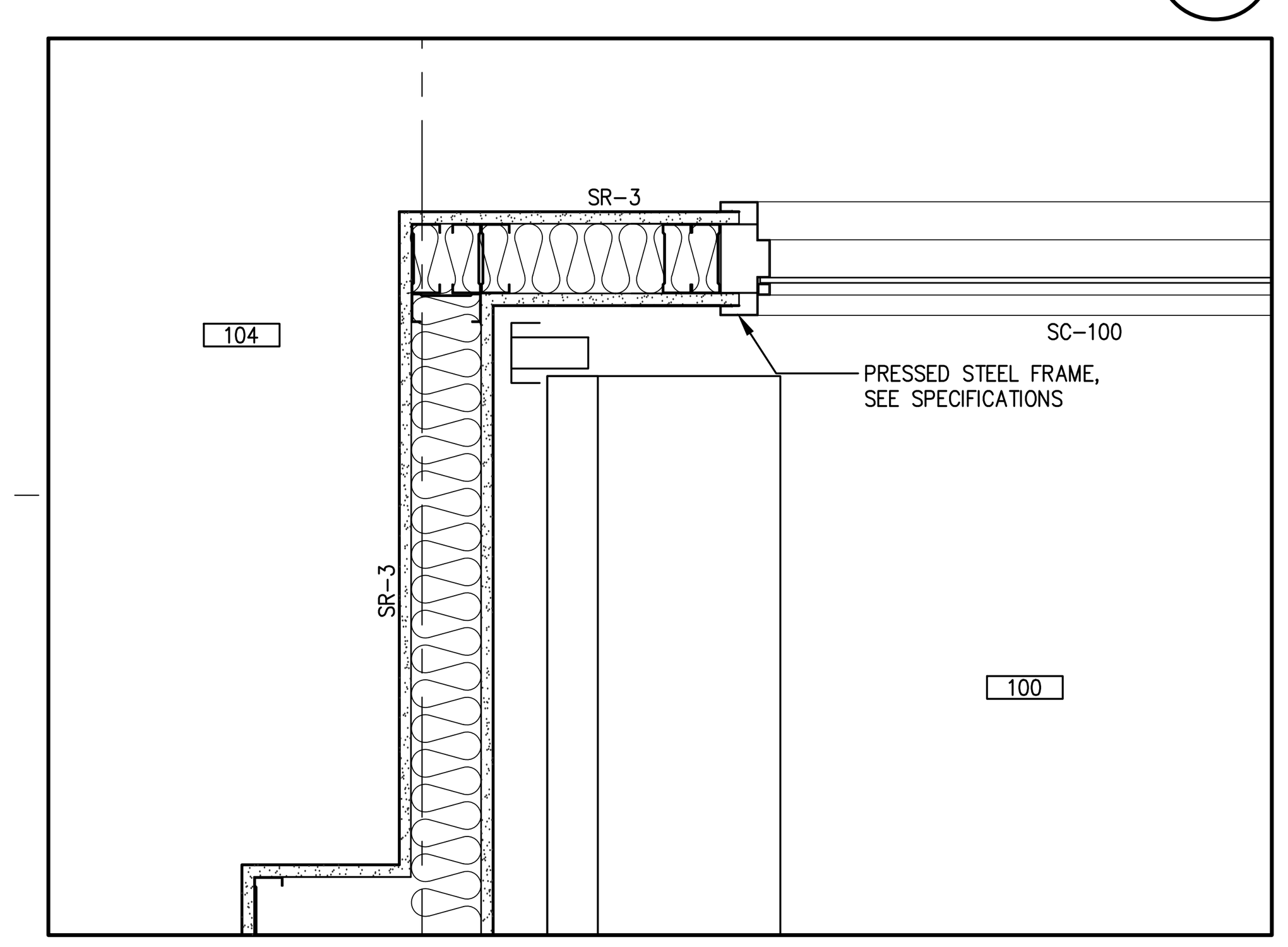

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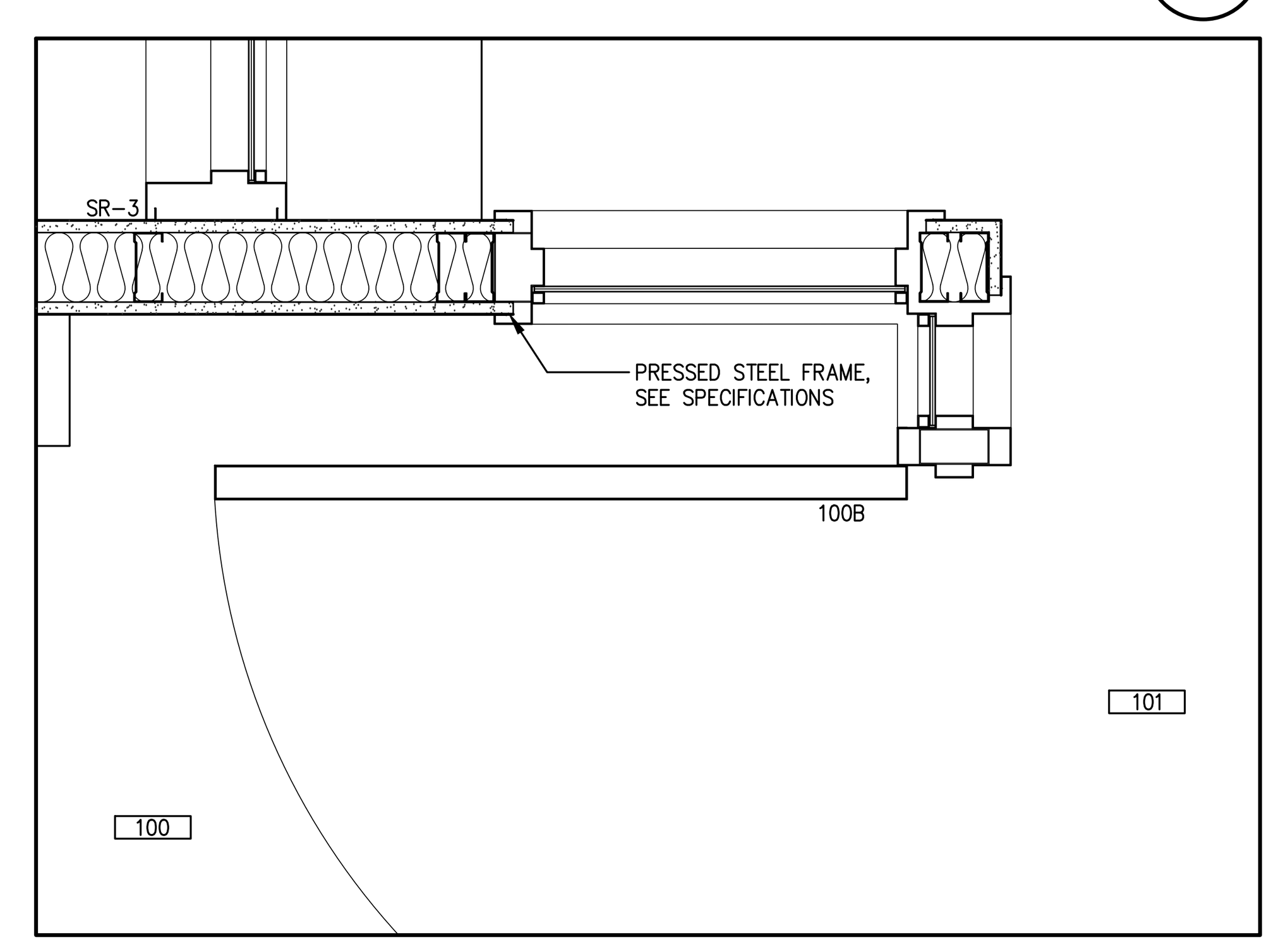

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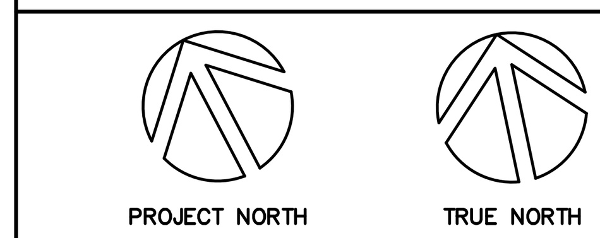

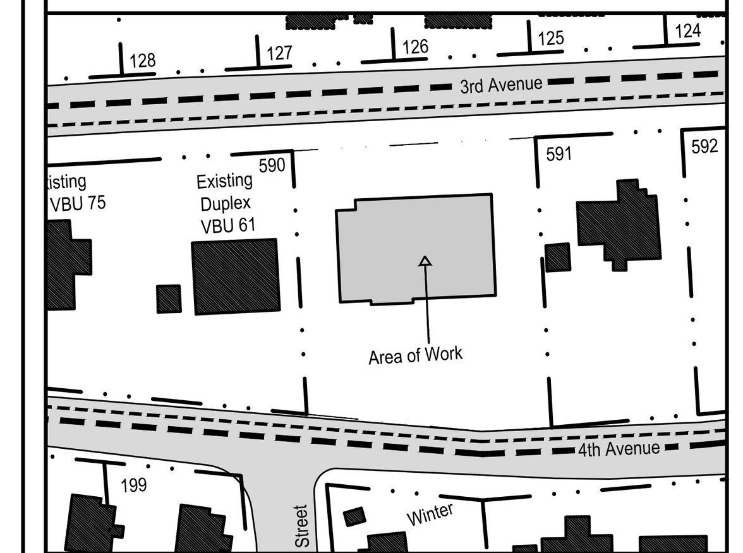

No.	Description	Date
0	ISSUED FOR TENDER	04-07-2015

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ONTARIO ASSOCIATION OF ARCHITECTS ROBERT BORAKS LICENCE 5346

Sub Consultant:

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AGE A.G. Engineering Electrical Engineers

Project:

FEDERAL BUILDING
ARVIAT, NUNAVUT

Drawn By: JoL/DRJ	Date: 01/26/15
Checked By: RB	Scale: 1:10

Sheet Title:
INTERIOR PLAN DETAILS

Sheet Number:
1408-A-501

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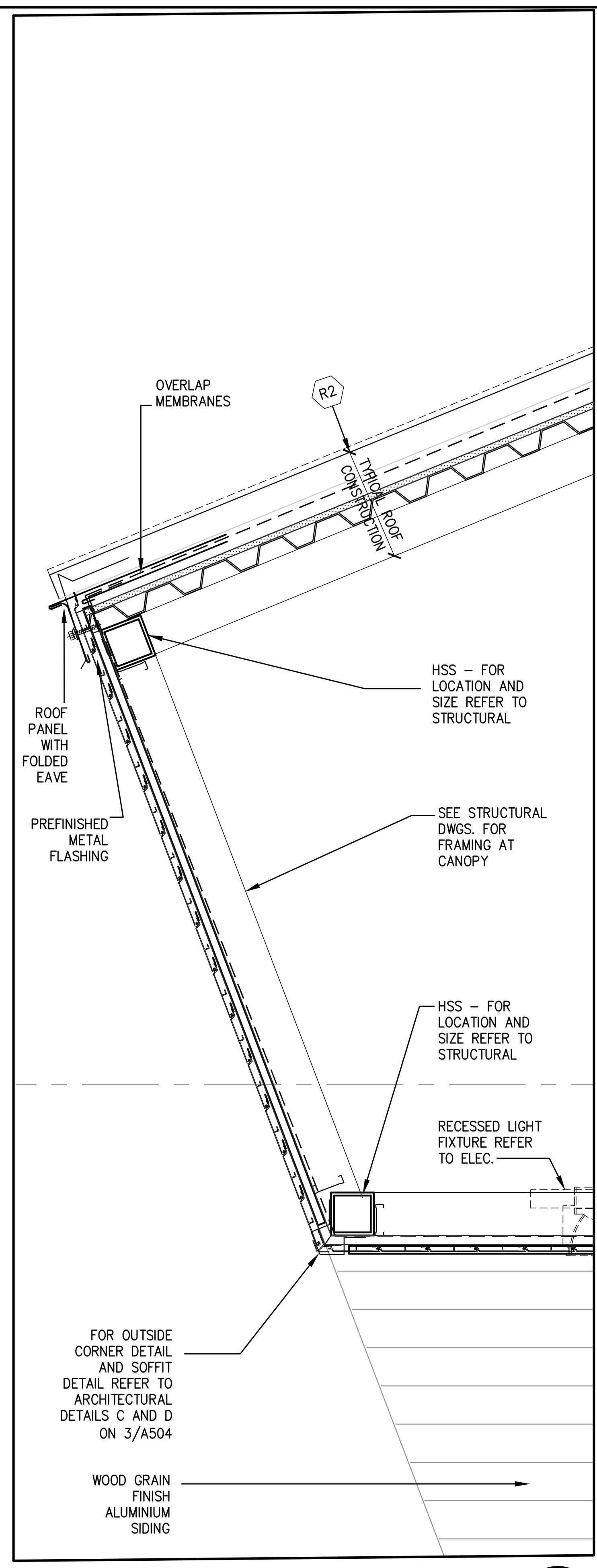

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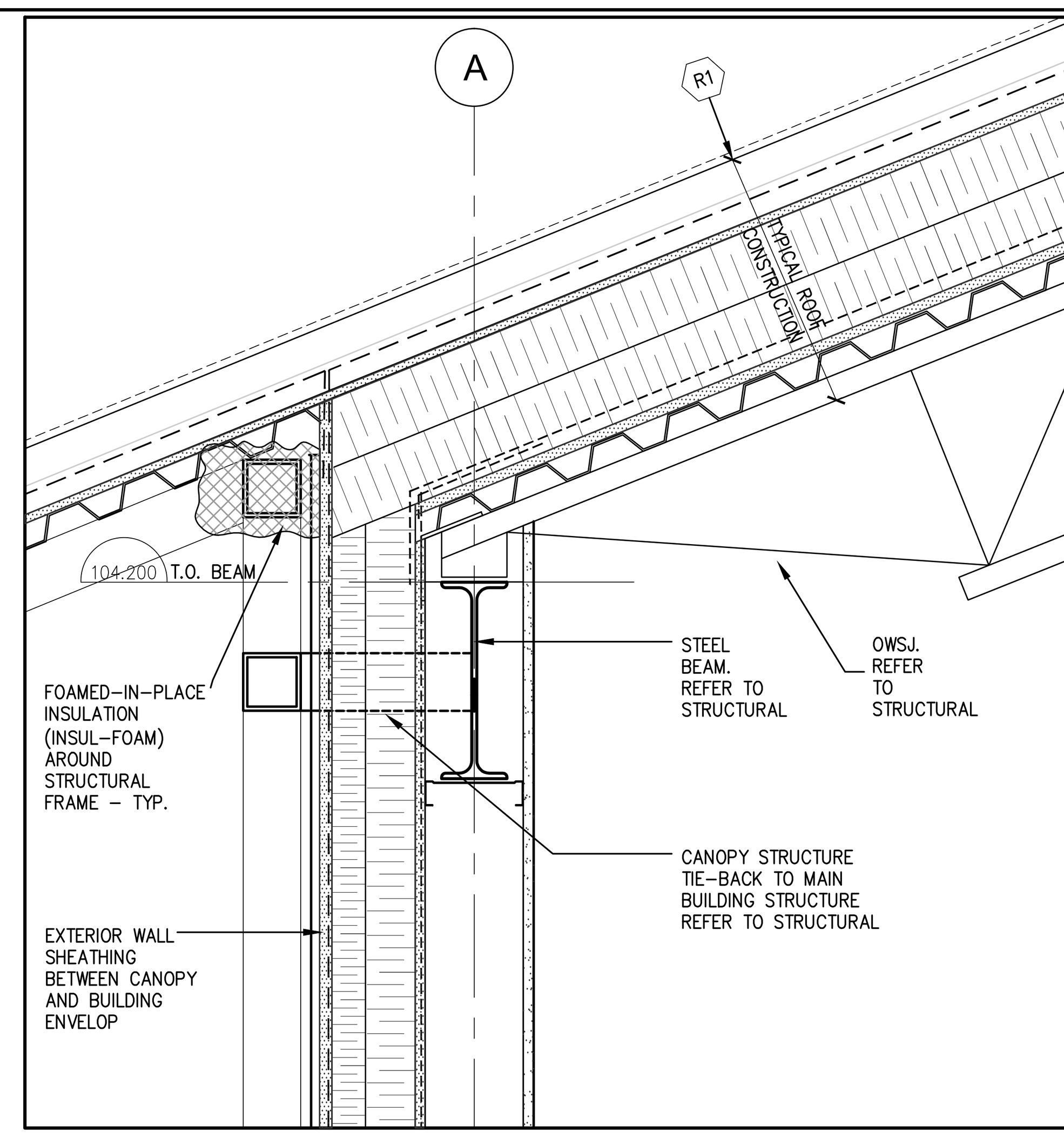
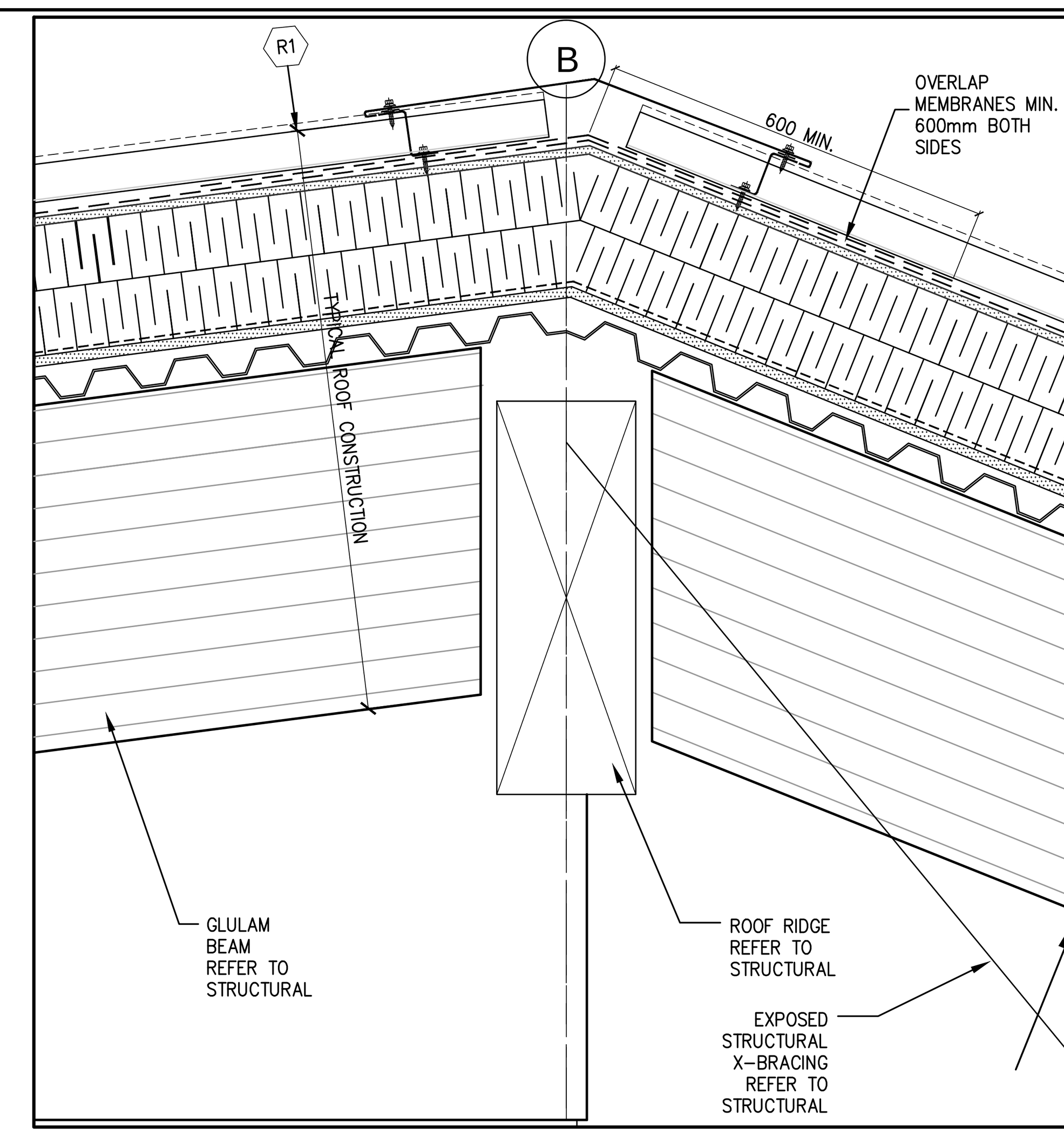
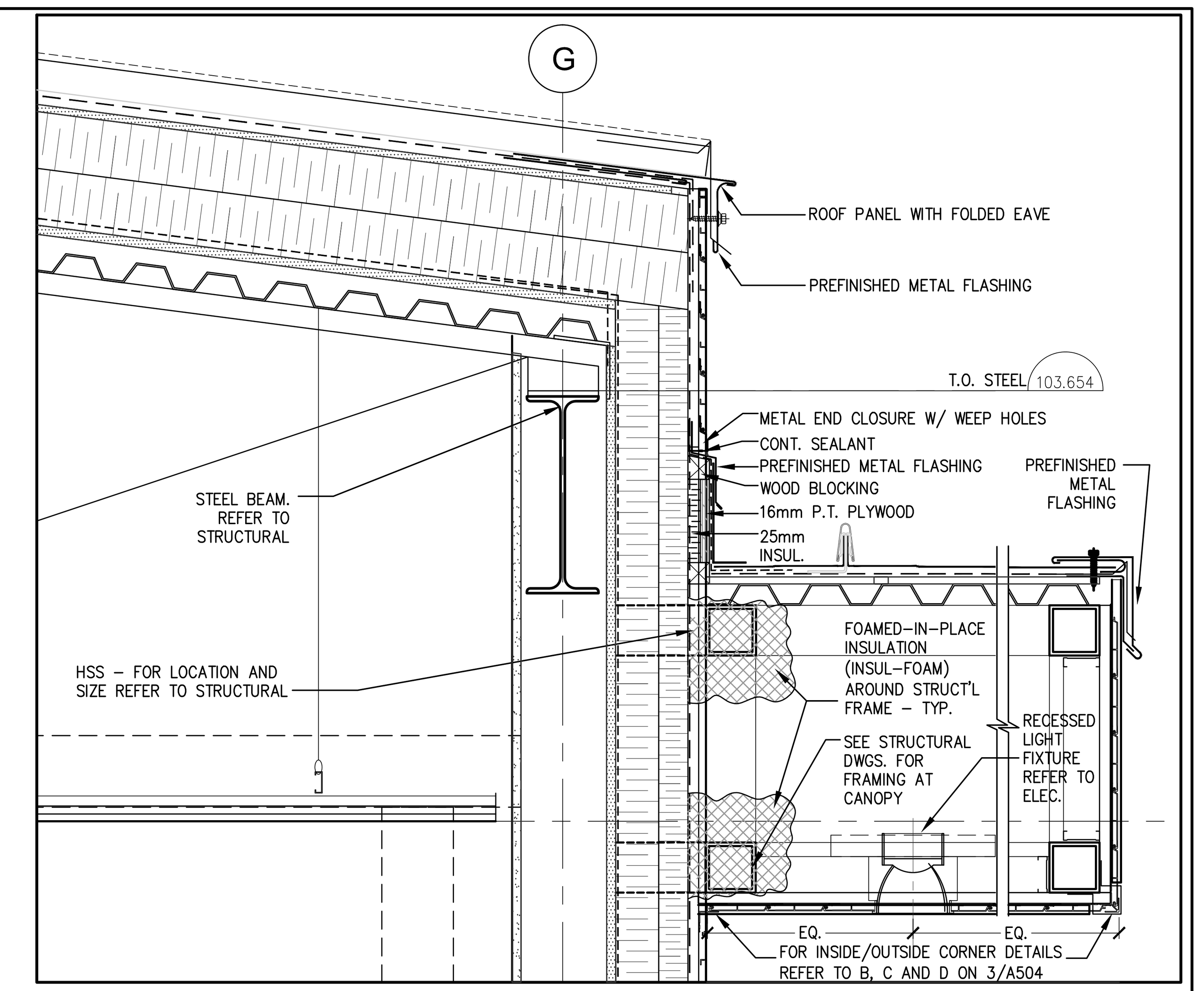


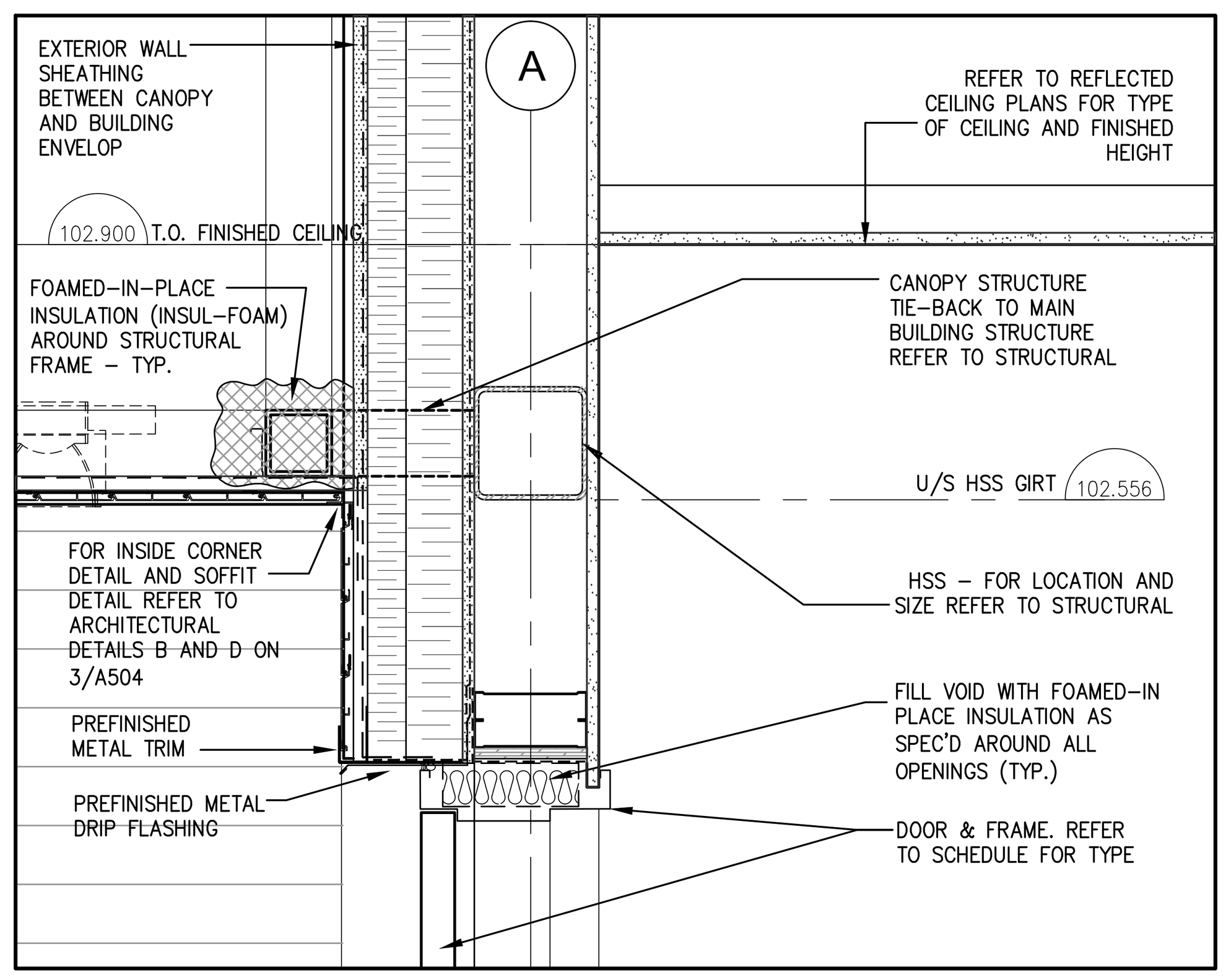
CANOPY ROOF AND BUILDING ROOF CONNECTION DETAIL 11 A502



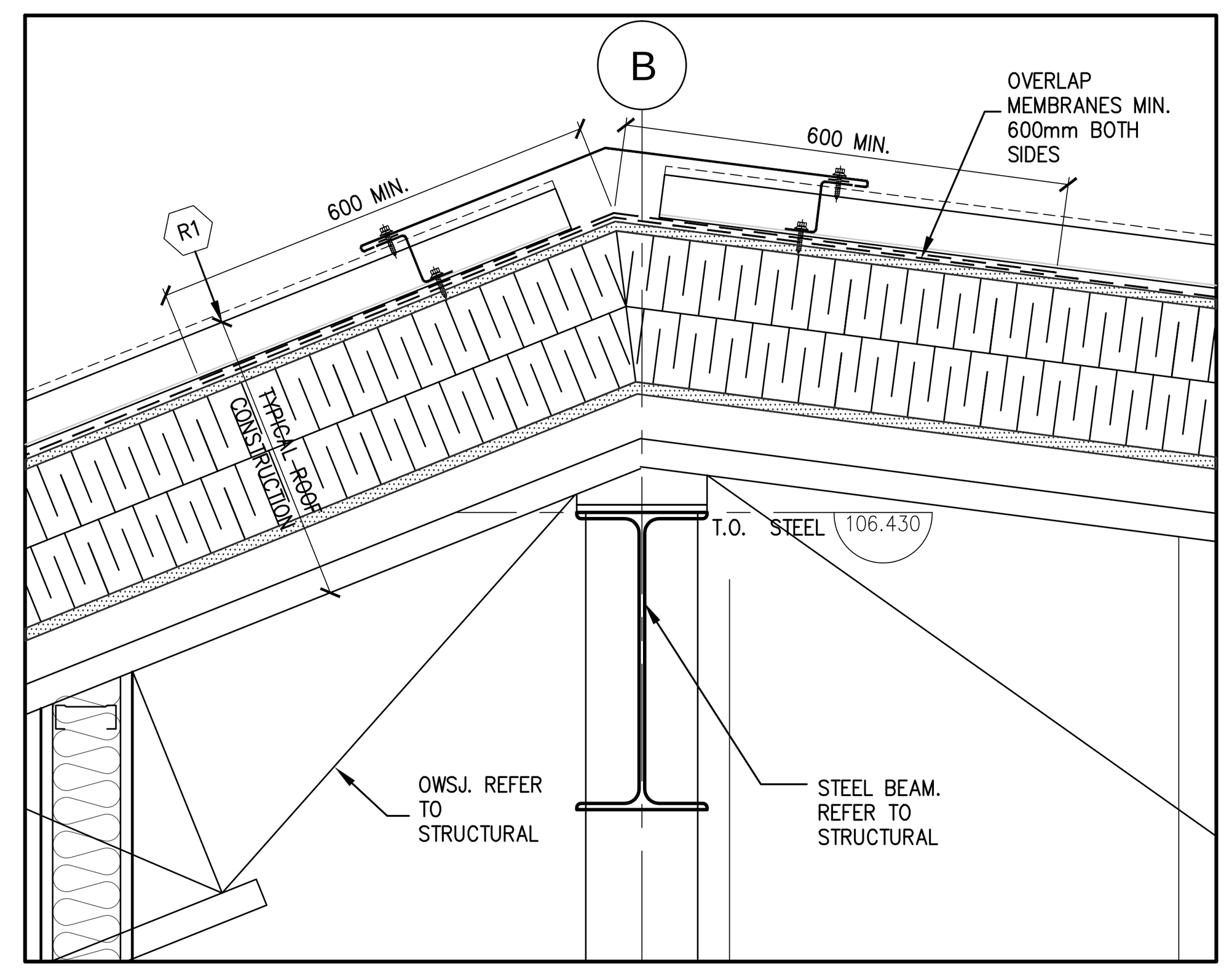
ROOF RIDGE AT GLULAM BEAM SECTION DETAIL 10 A502



ROOF AND EXTERIOR WALL CONNECTION AND CANOPY 9 A502



DOOR HEAD AND CANOPY CONNECTION DETAIL 7 A502



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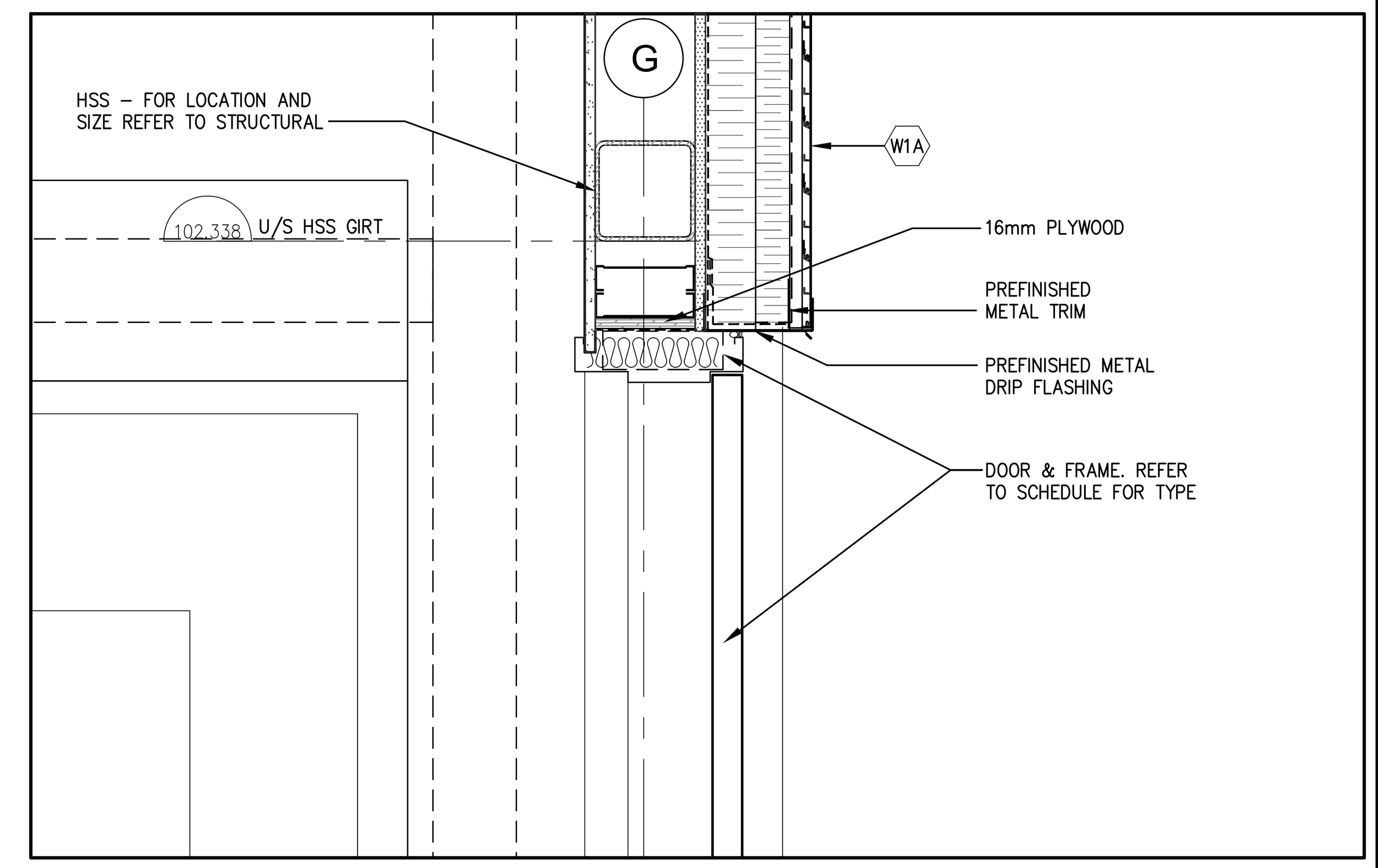
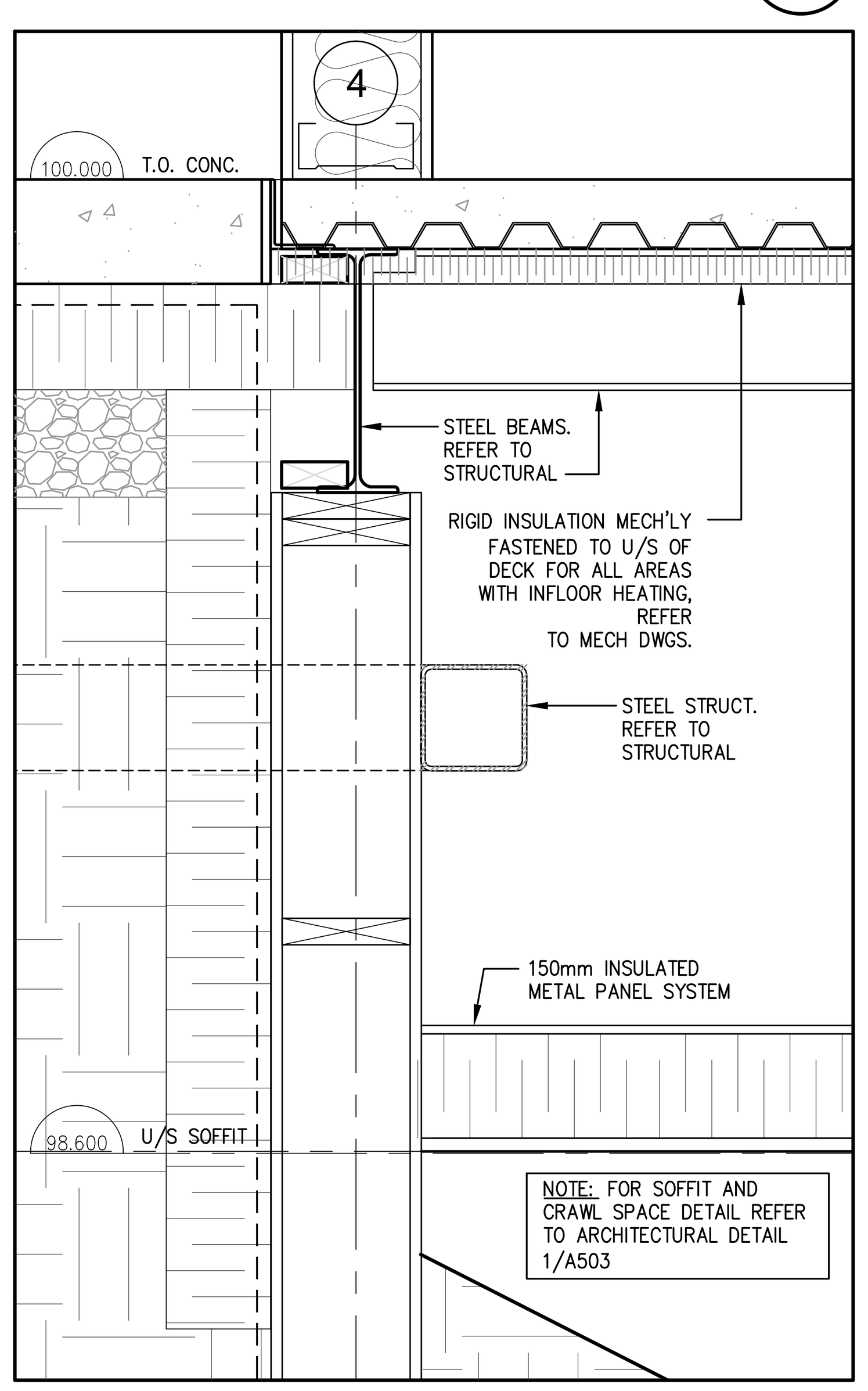


TYPICAL EXTERIOR DOOR HEAD DETAIL 5 A502



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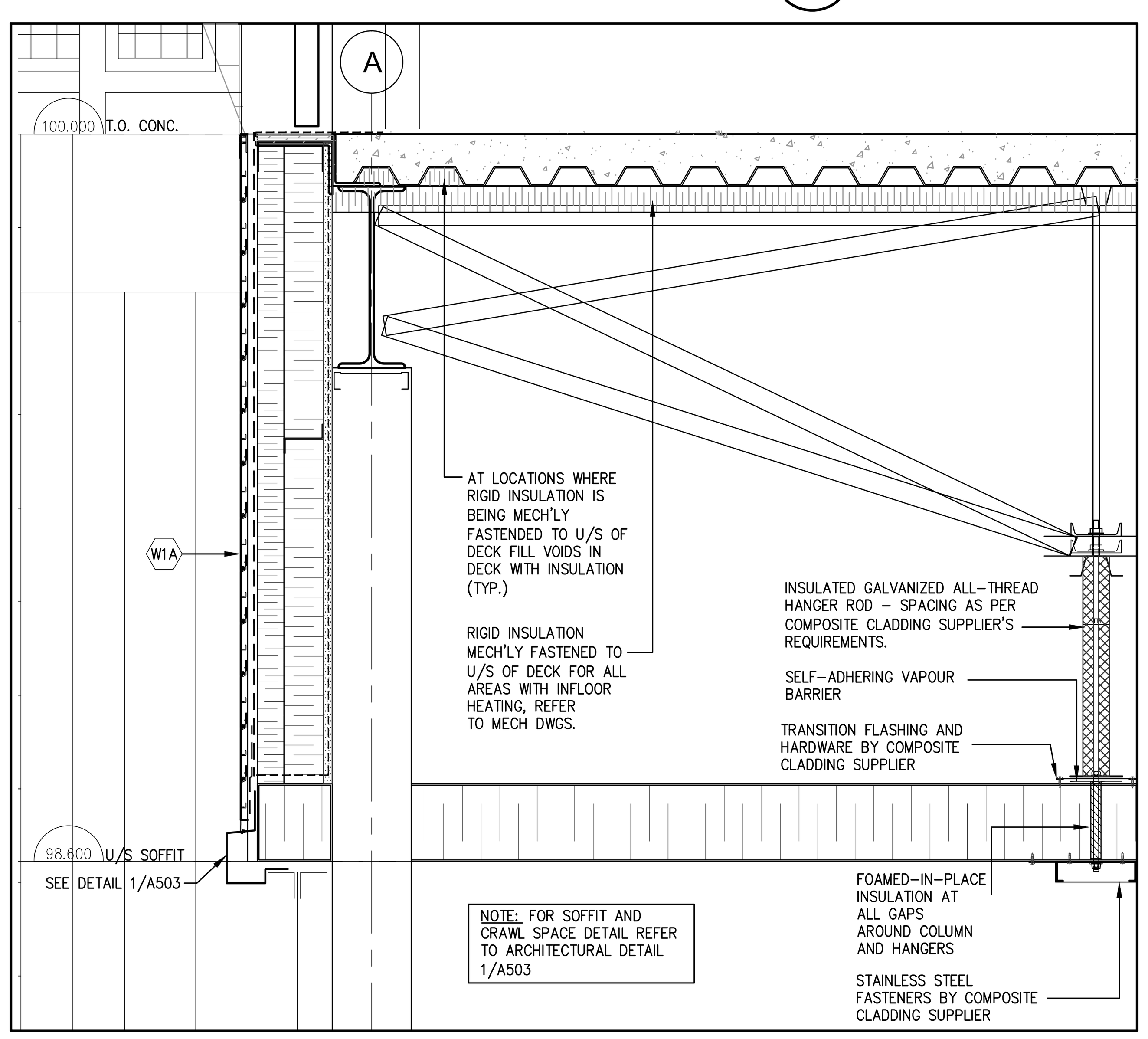

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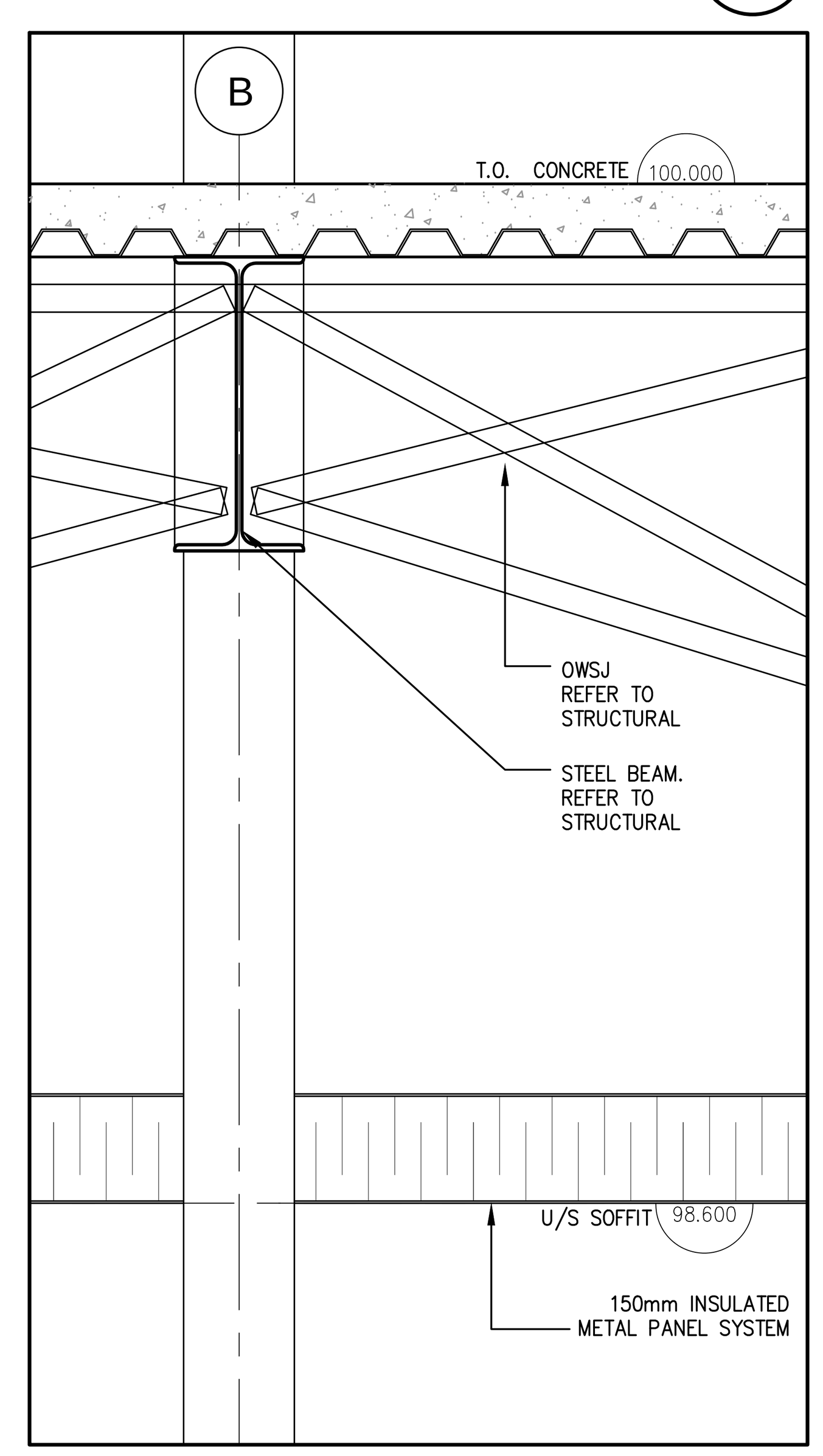

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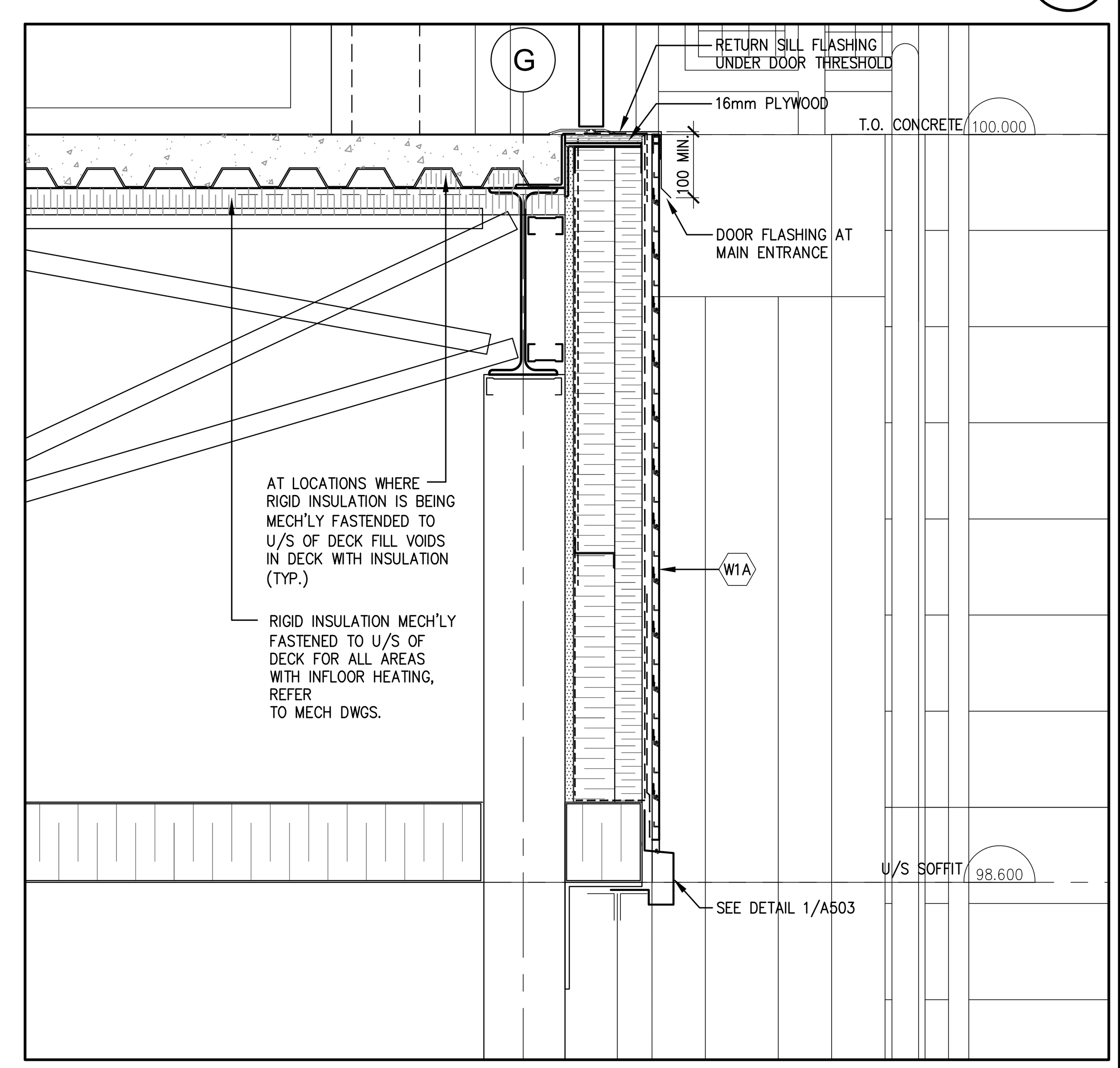
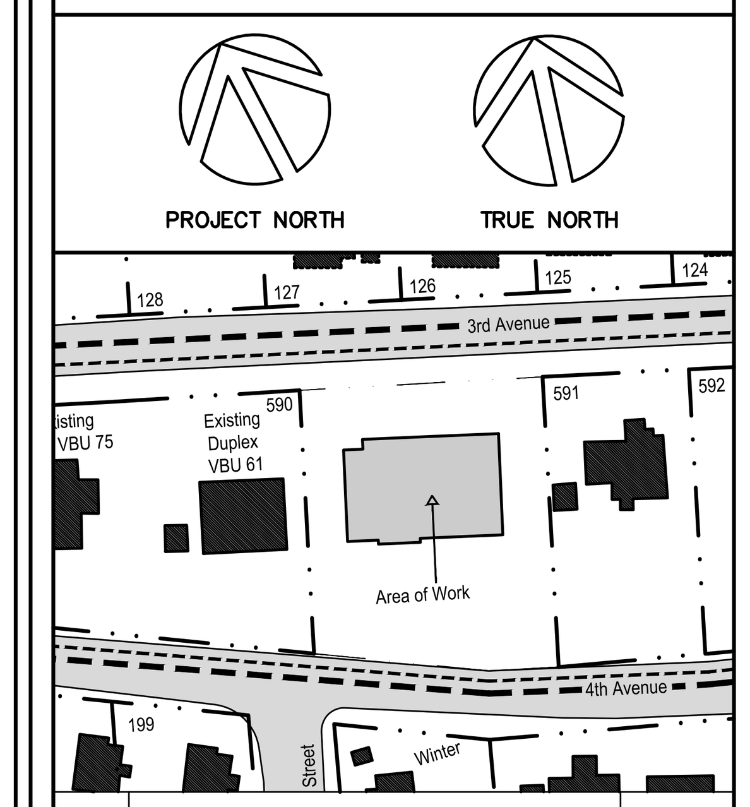


TYPICAL FLOOR/SOFFIT COMPOSITION 1 A502

AT IN-FLOOR HEATING LOCATION WITH PERIMETER INSULATION



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ONTARIO ASSOCIATION OF ARCHITECTS ROBERT BORAKS LICENCE 5346

Sub Consultant:

Accutech Engineering Inc. Tomorrow's Technology Today

1349 Dugald Road, Winnipeg, Manitoba, Canada R2J 0H3 phone 204.944.1555 fax 204.944.1444 www.accutecheng.ca

AGE A.G. Engineering Electrical Engineers

Project:

FEDERAL BUILDING
ARVIAT, NUNAVUT

Drawn By: JoL	Date: 01/26/15
Checked By: XX	Scale: 1:10

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EXTERIOR SECTION DETAILS

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1408-A-502

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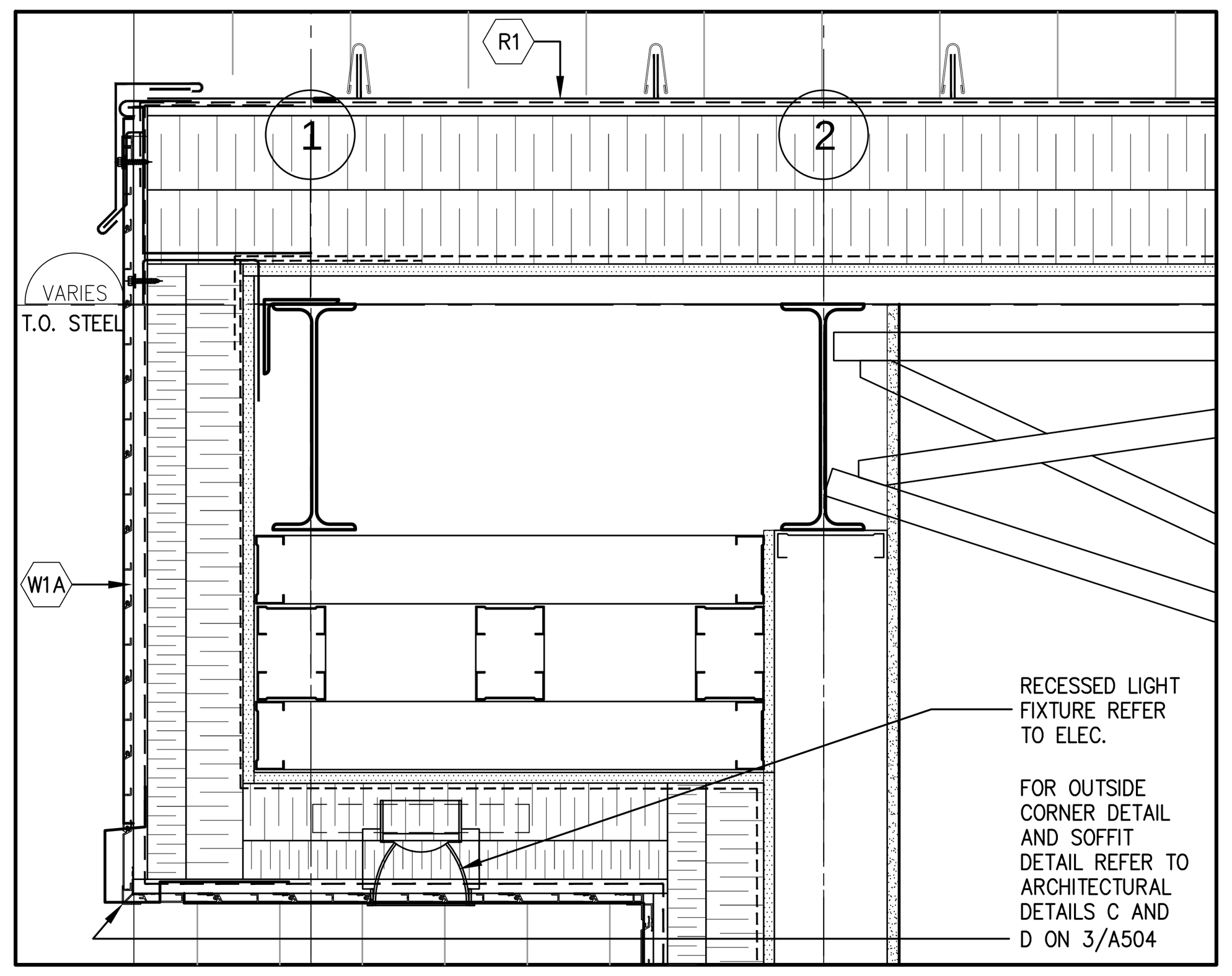
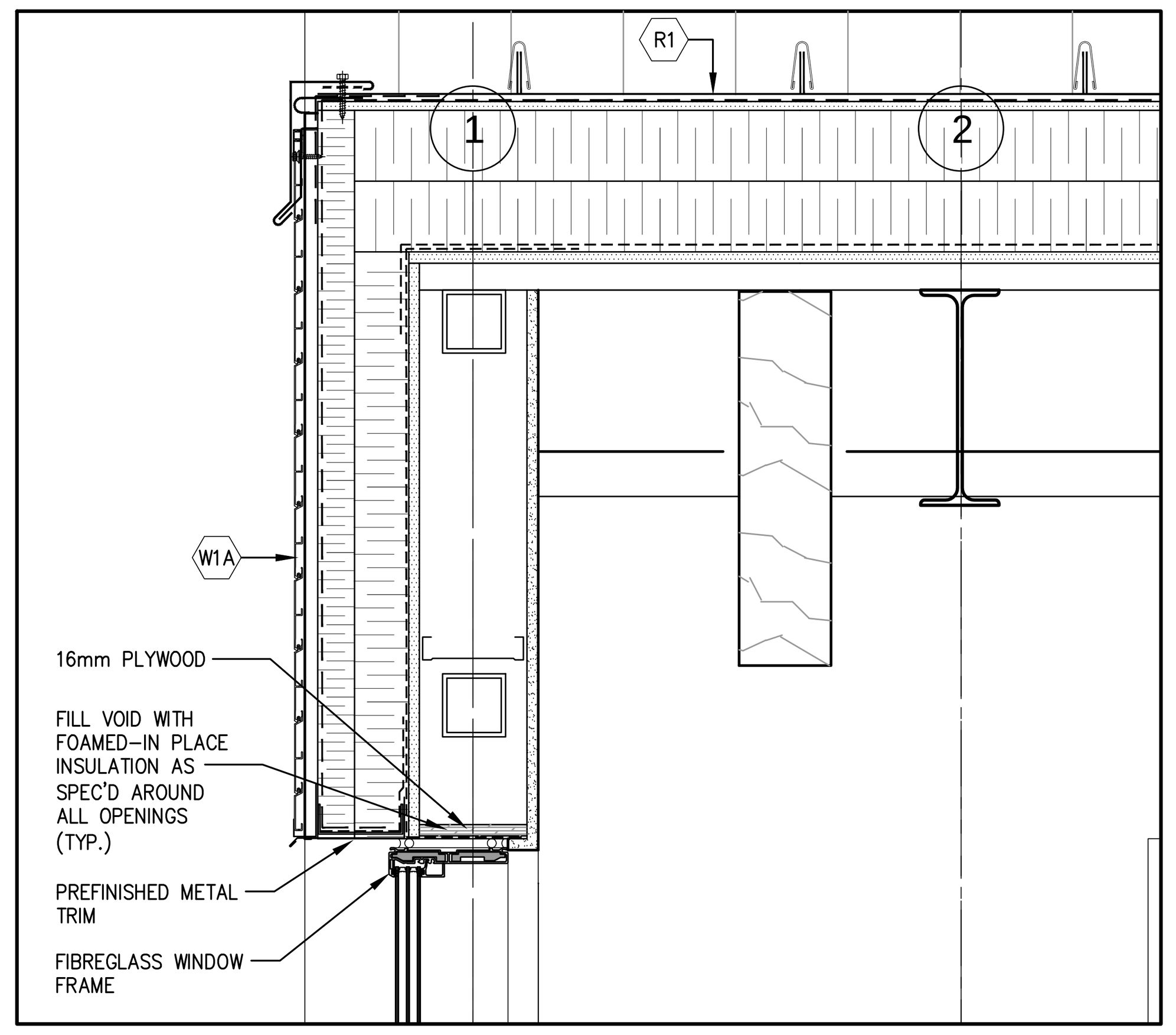
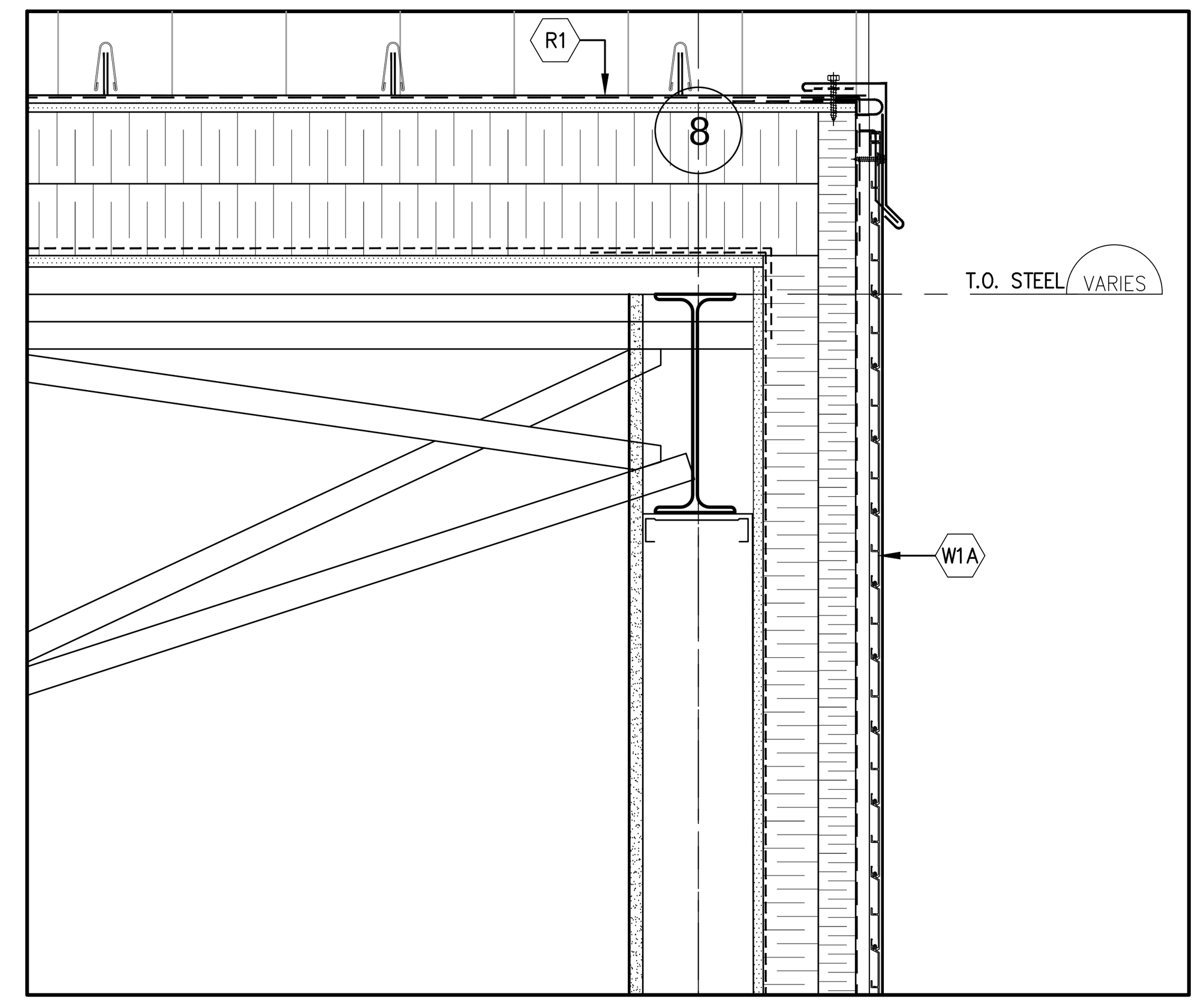


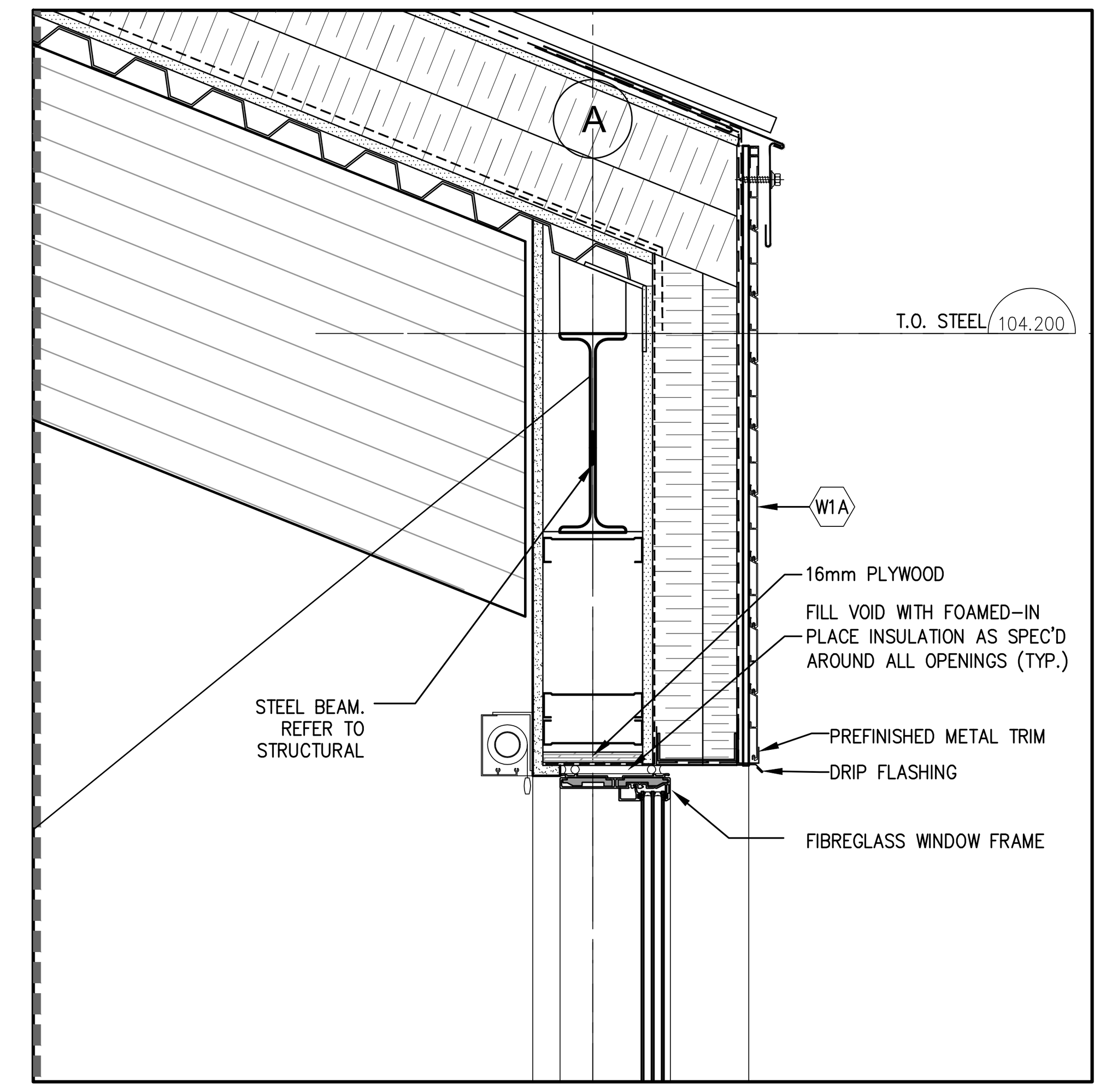
SECTION THRU ROOF OVERHANG 12/A503



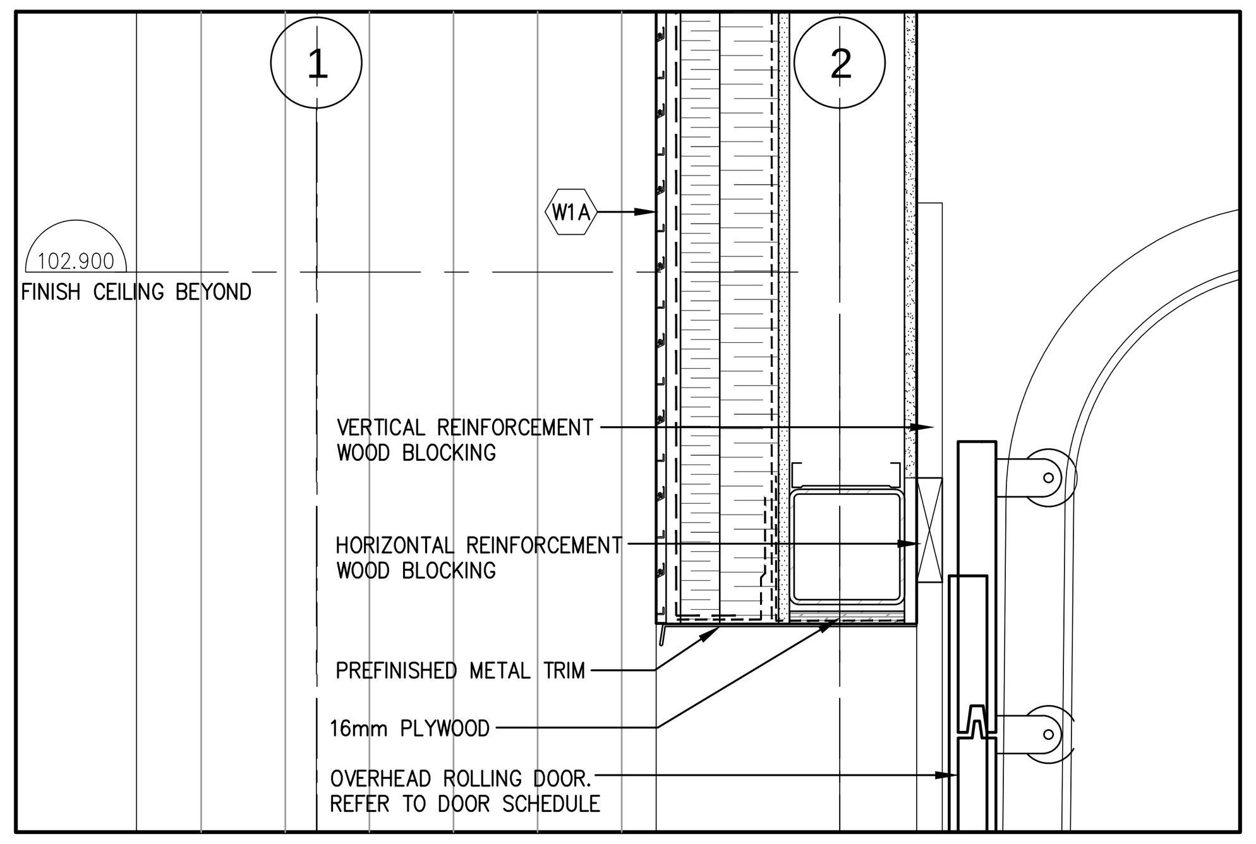
TYPICAL ROOF AT EXPOSED CEILING 11/A503



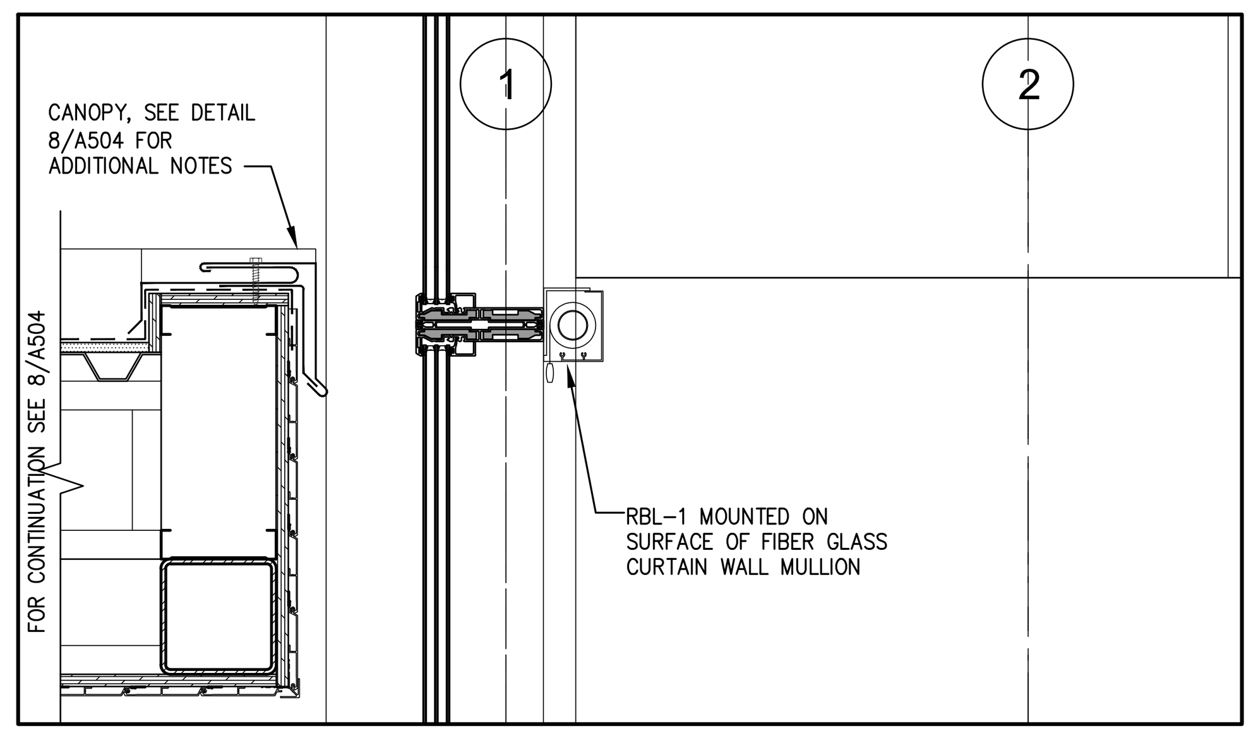
TYPICAL ROOF AT FINISHED CEILING 10/A503



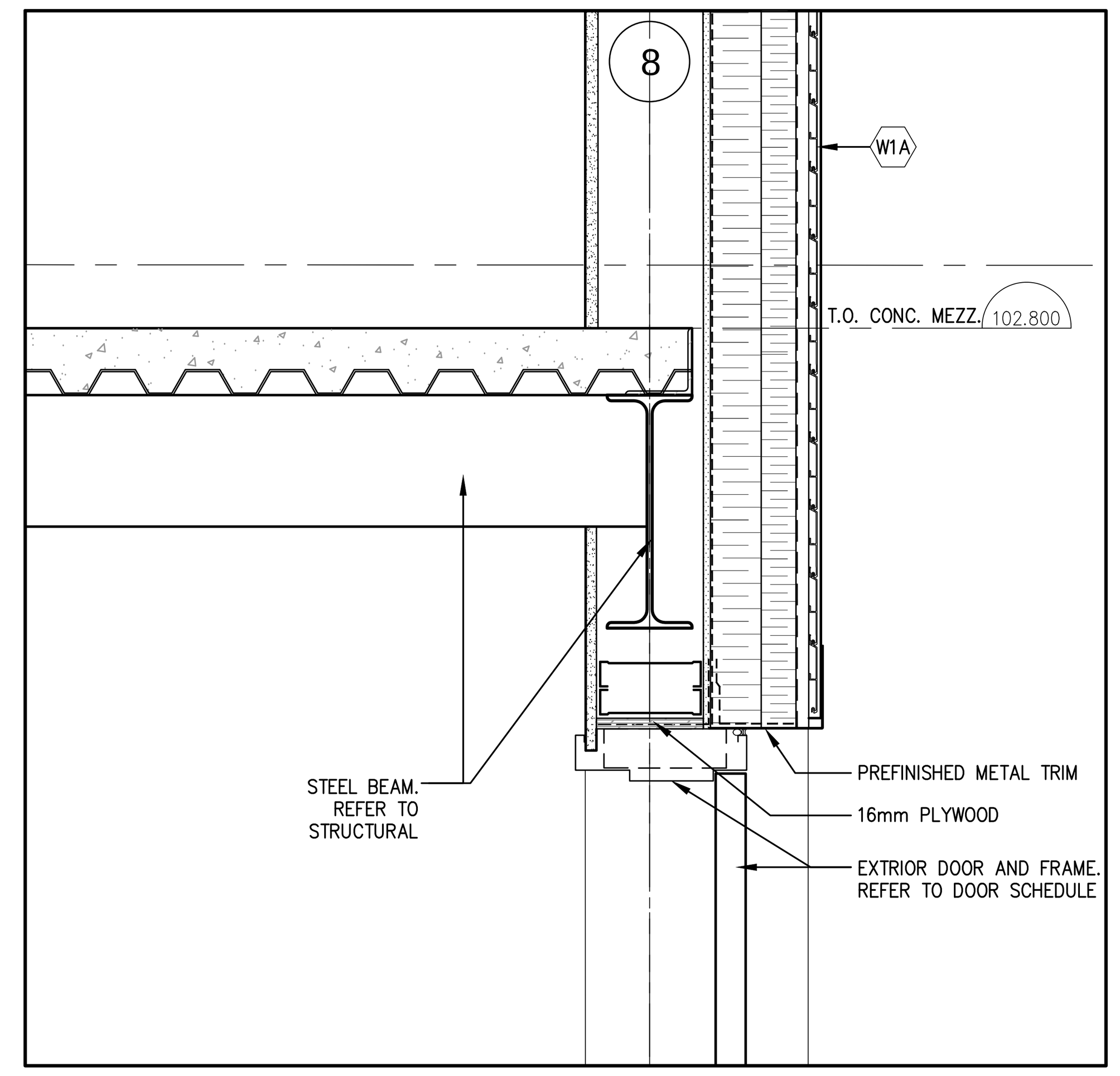
TYPICAL WINDOW HEAD DETAIL 9/A503



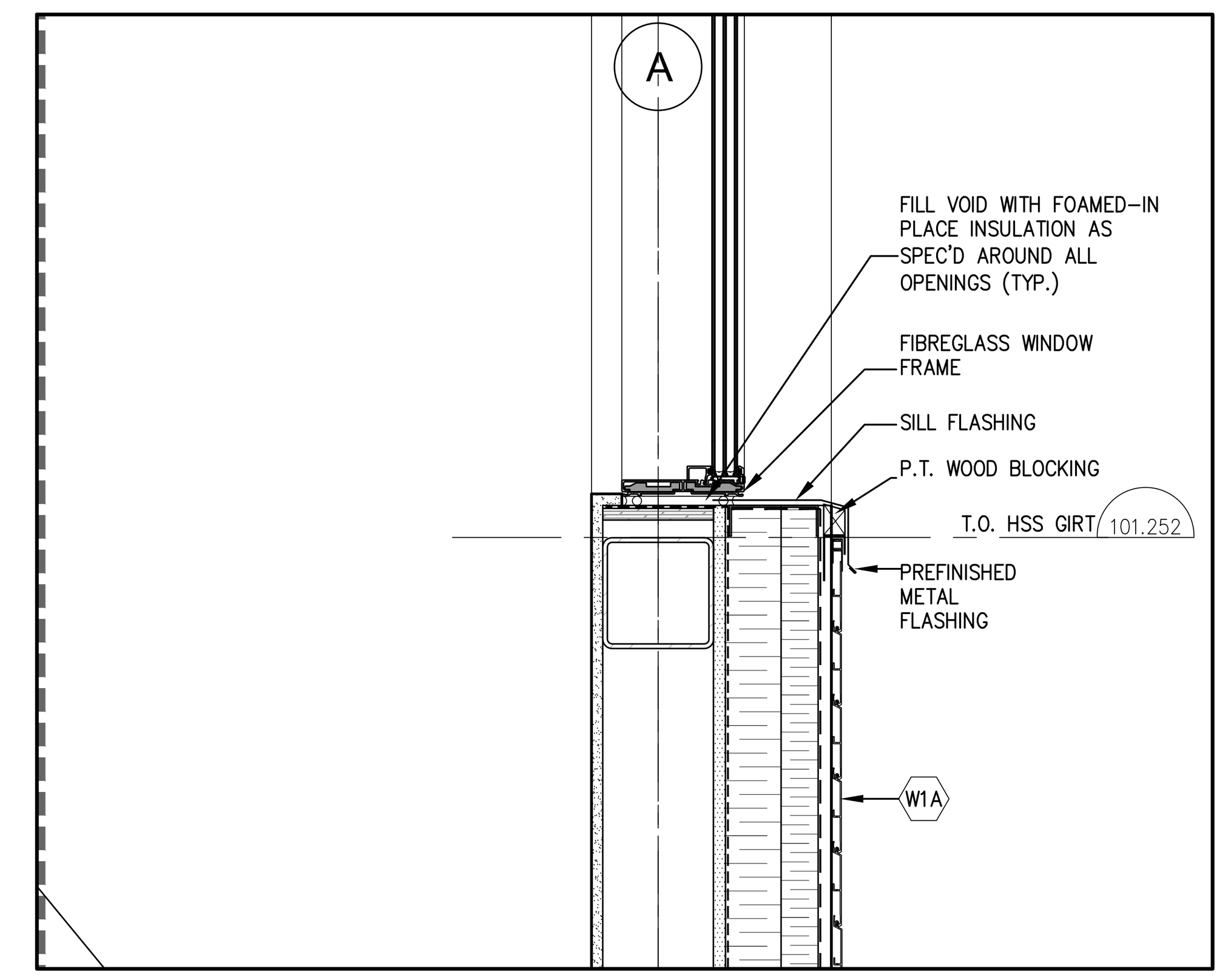
SECTION DETAIL 8/A503



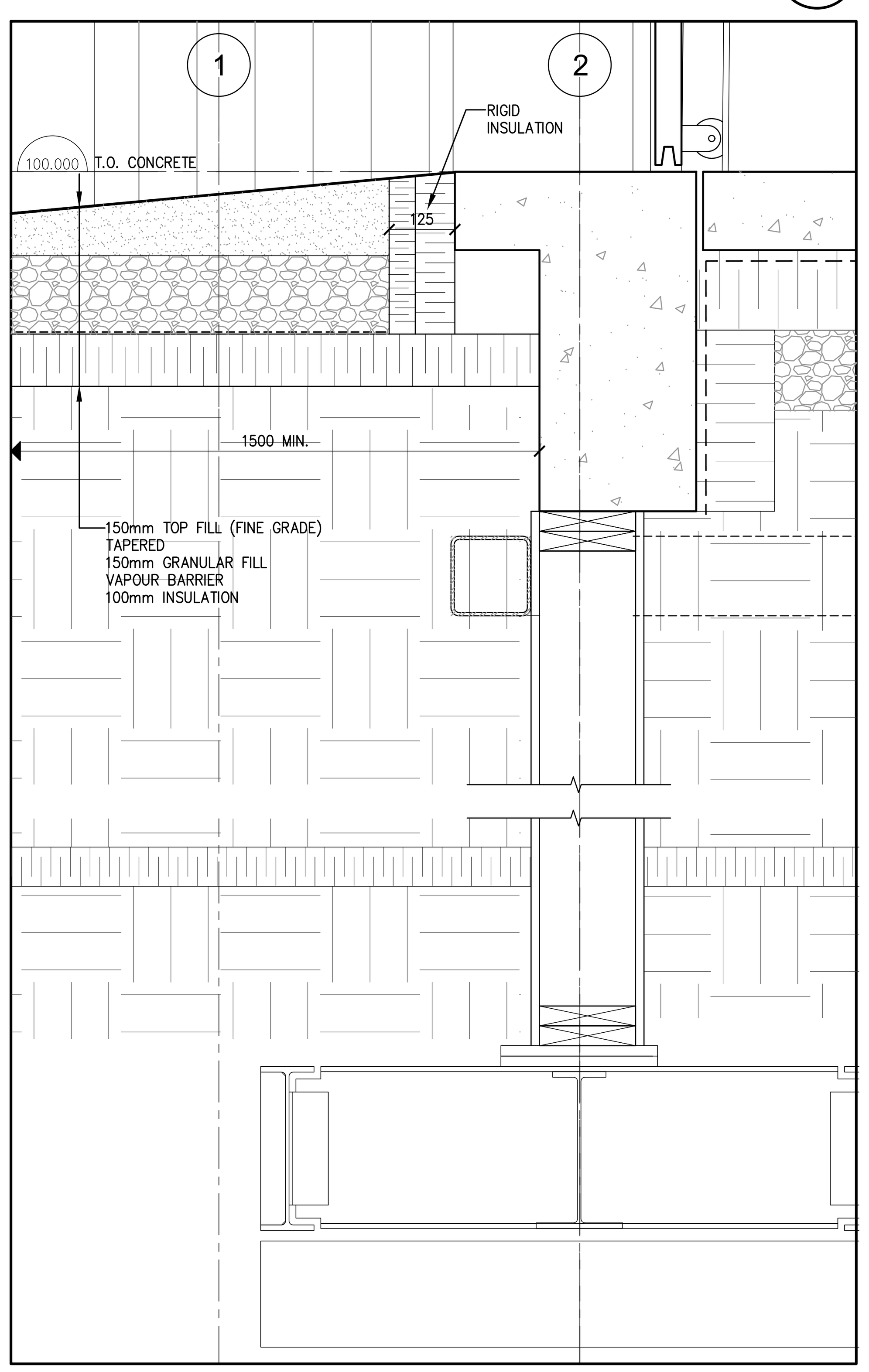
SECTION DETAIL 7/A503



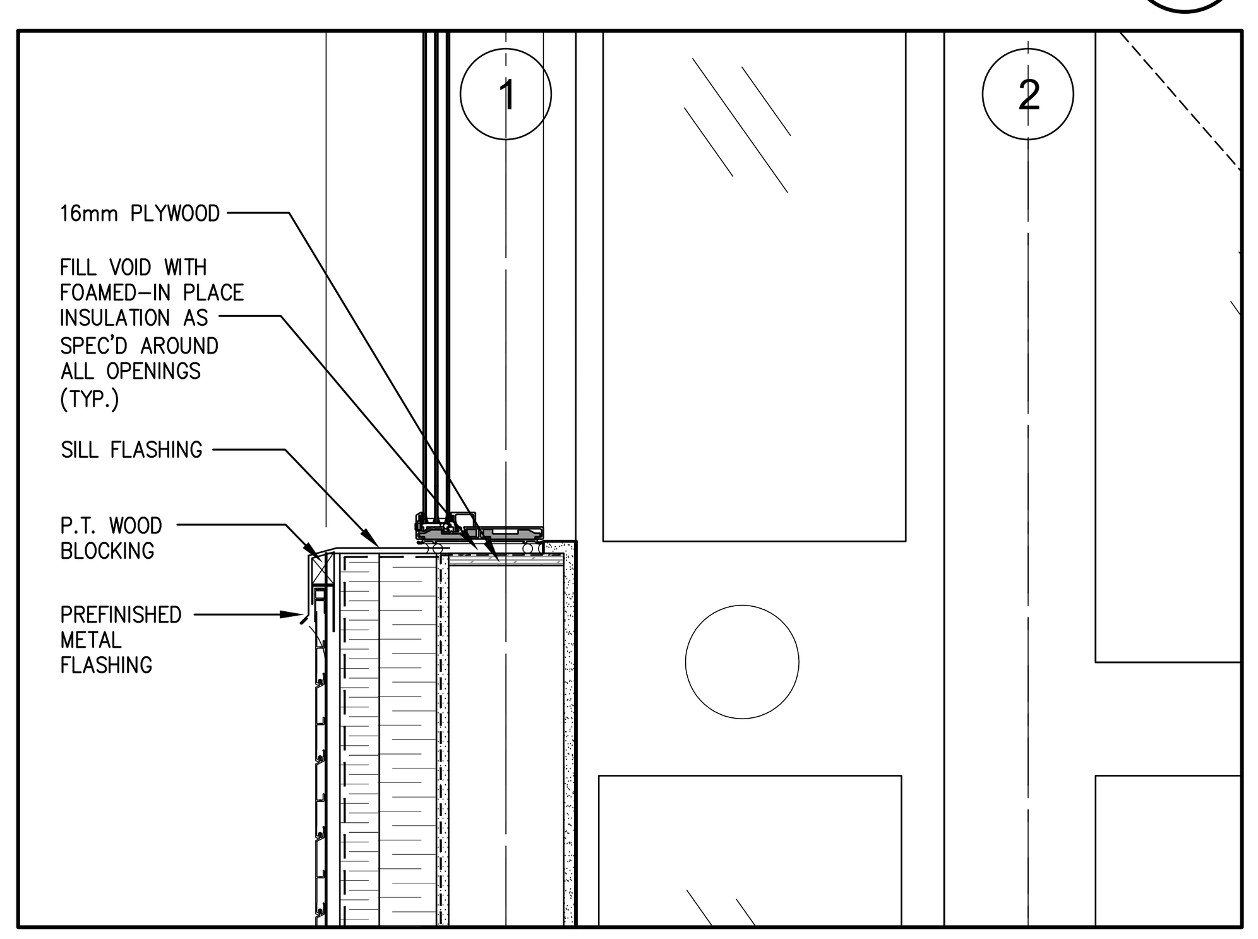
SECTION DETAIL 6/A503



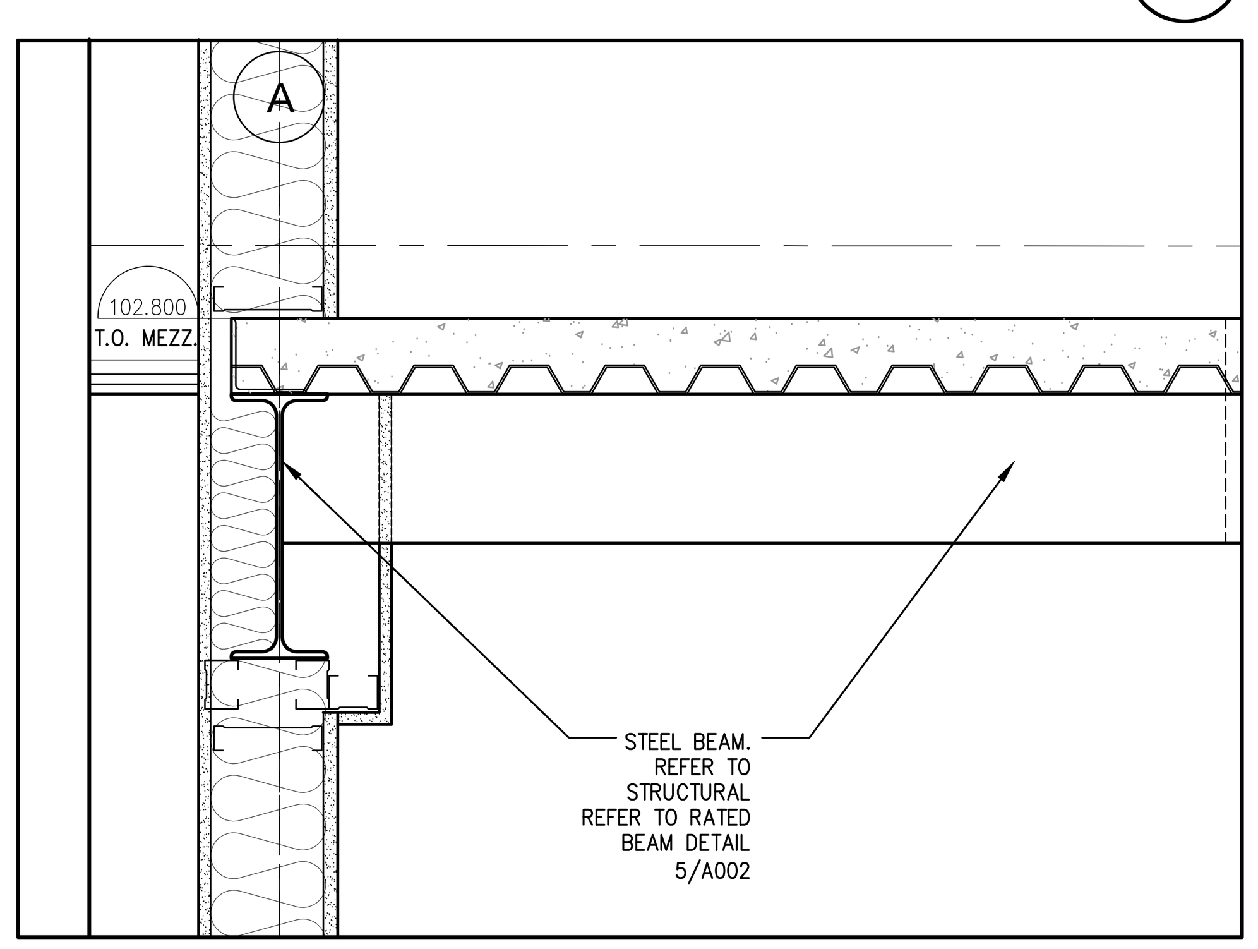
TYPICAL WINDOW SILL DETAIL 5/A503



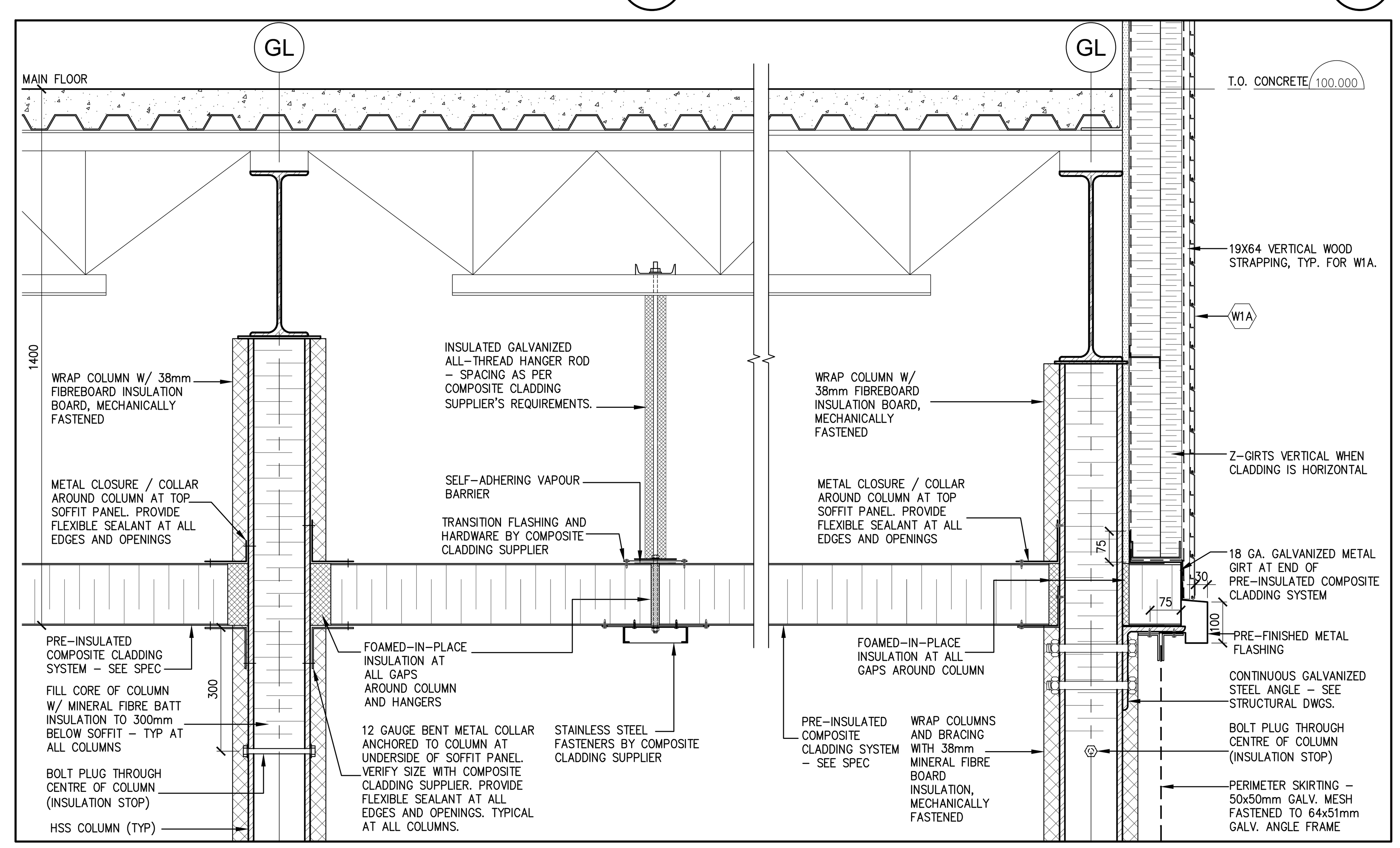
GRADE BEAM AND SLAB ON GRADE CONDITION DETAIL 3/A503



SECTION DETAIL 4/A503



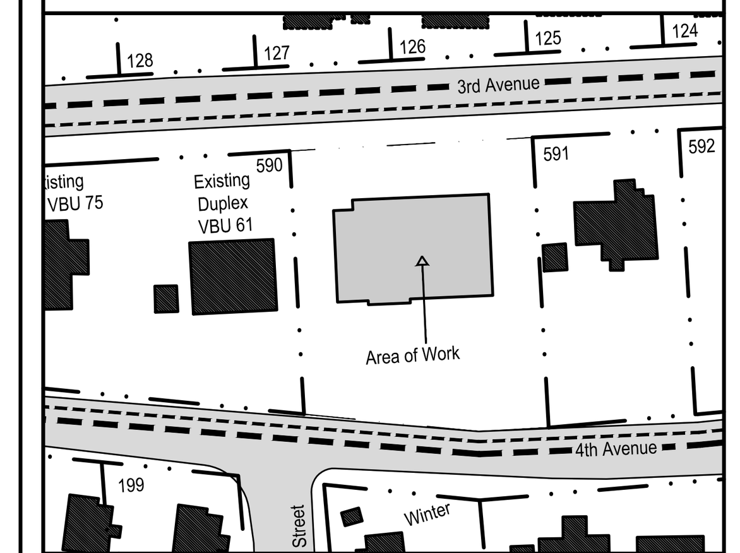
MEZZANINE FLOOR AND INT WALL CONNECTION 2/A503



TYP. SOFFIT AND CRAWL SPACE DETAIL 1/A503

A1 594x841

PROJECT NORTH
TRUE NORTH



No.	Description	Date
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Revisions:

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AGE Project# E121-13-009

Project:

FEDERAL BUILDING
ARVIAT, NUNAVUT

Drawn By:	Date:
JoL	01/26/15
Checked By:	Scale:
XX	1:10

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INTERIOR SECTION DETAILS

Sheet Number:
1408-A-503

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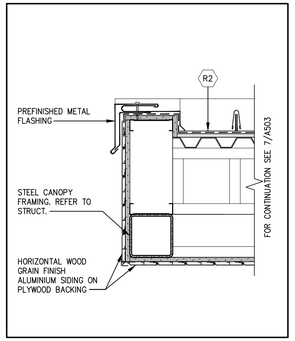
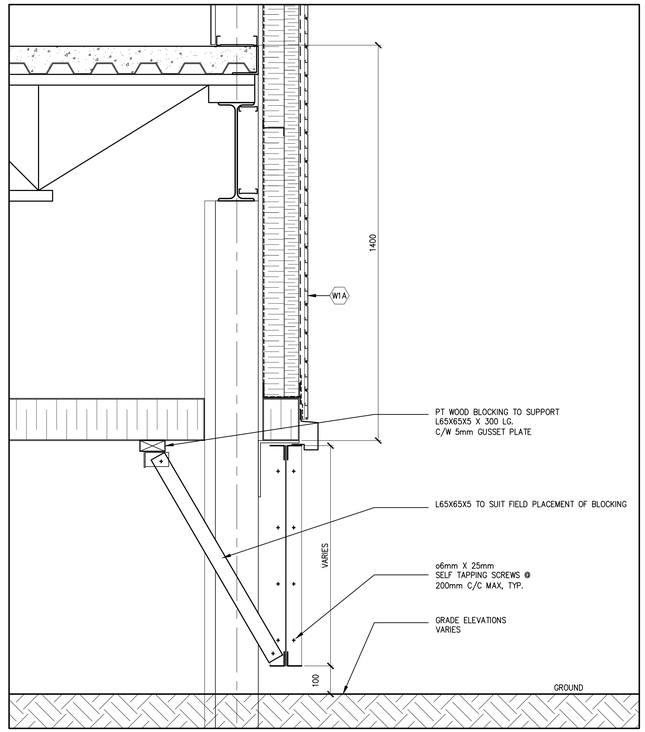
PLOTDATE: May 13, 2015 - 11:21am

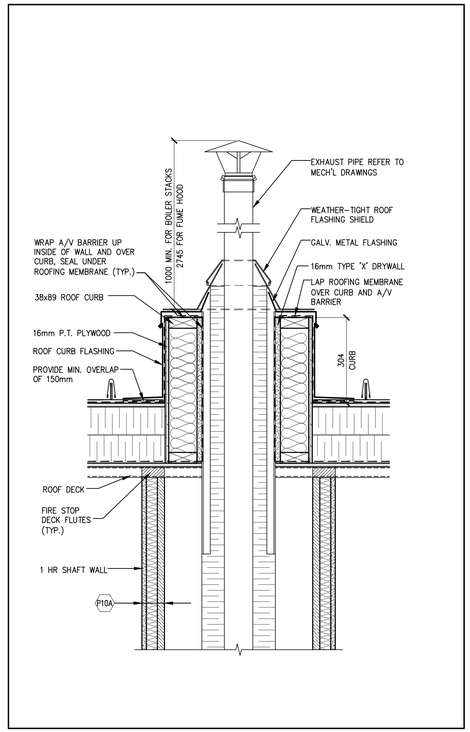
NOT USED 9 A504



SECTION DETAIL 8 A504

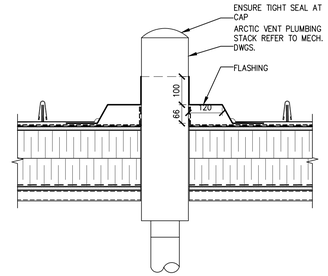


TYPICAL BUILDING SKIRT TIE-BACK SECTION DETAIL 7 A504

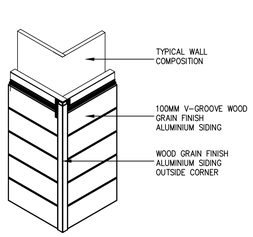


FUME HOOD EXHAUST ROOF PENETRATION DETAIL 6 A504

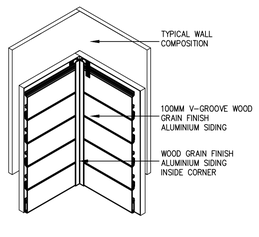
RESERVED 9 A504



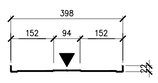
ARCTIC VENT ROOF PENETRATION DETAIL 5 A504



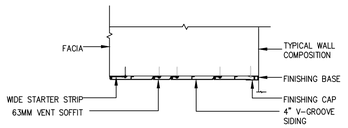
C- 3D, TYPICAL WOOD GRAIN FINISH ALUMINIUM SIDING OUTSIDE CORNER DETAIL



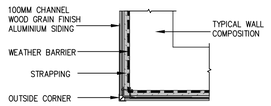
F- 3D, TYPICAL WOOD GRAIN FINISH ALUMINIUM SIDING INSIDE CORNER DETAIL



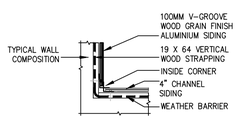
E- TYPICAL METAL ROOF PROFILE



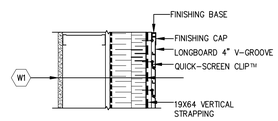
D-SOFFIT SECTION DETAIL FOR WOOD GRAIN FINISH ALUMINIUM SIDING



C-OUTSIDE CORNER PLAN DETAIL FOR WOOD GRAIN FINISH ALUMINIUM SIDING

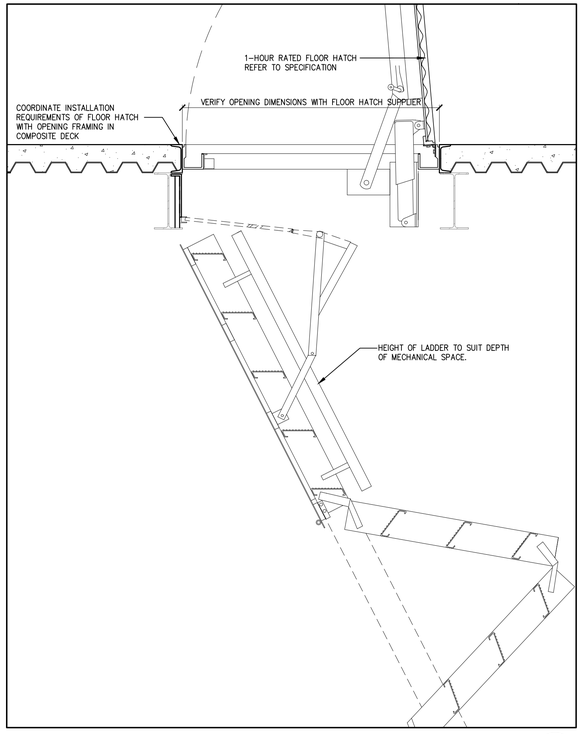


B-INSIDE CORNER PLAN DETAIL FOR WOOD GRAIN FINISH ALUMINIUM SIDING

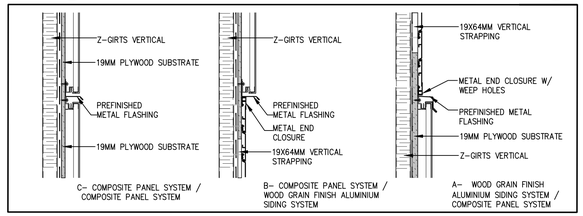


A-CAP DETAIL FOR WOOD GRAIN FINISH ALUMINIUM SIDING

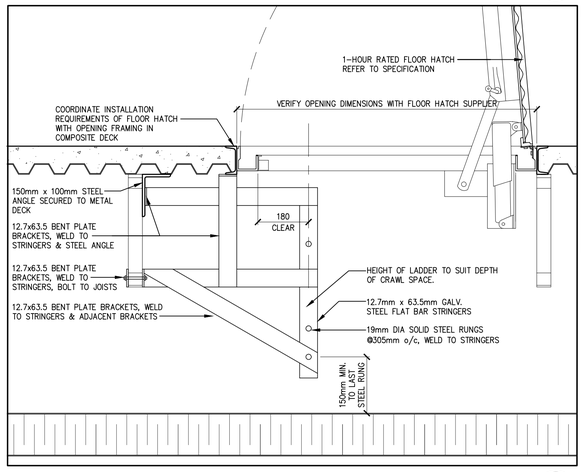
MISCELLANEOUS DETAILS FOR WOOD GRAIN FINISH ALUMINIUM SIDING 3 A504



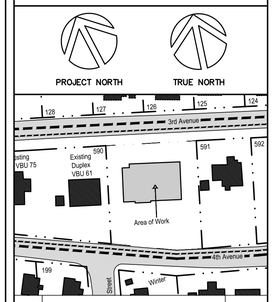
FLOOR HATCH SECTION AT MECHANICAL MEZZANINE 2 A504



MATERIAL CONNECTION - SECTION DETAILS 4 A504



FLOOR HATCH SECTION AT CRAWL SPACE 1 A504



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Project:

FEDERAL BUILDING
ARVIAT, NUNAVUT

Drawn By:	Date:
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Sheet Title:

INTERIOR SECTION DETAILS

Sheet Number:

1408-A-504

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PLOTDATE: May 11, 2015 - 11:42am

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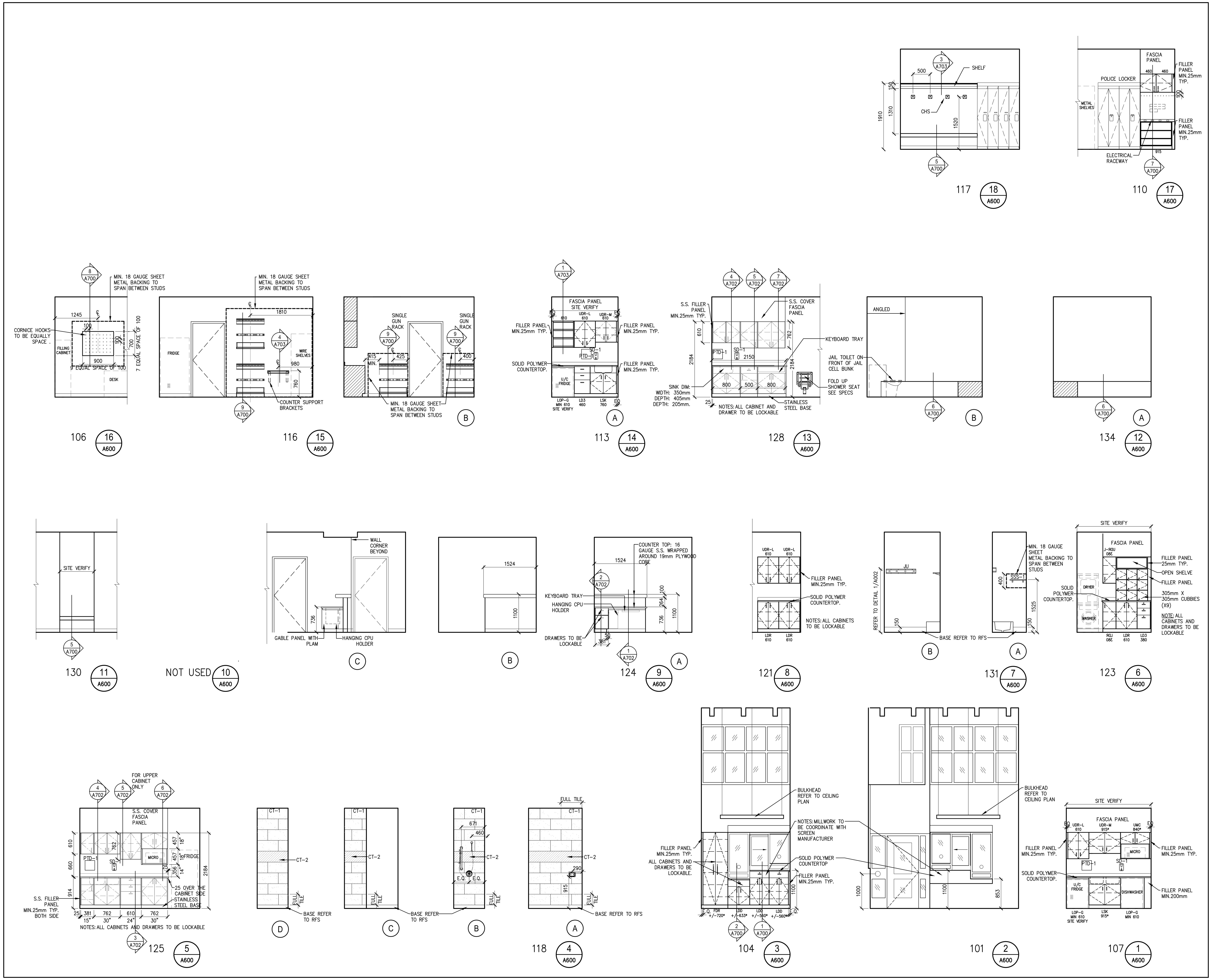

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PROJECT NORTH

TRUE NORTH

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AGE A.G. Engineering Electrical Engineers

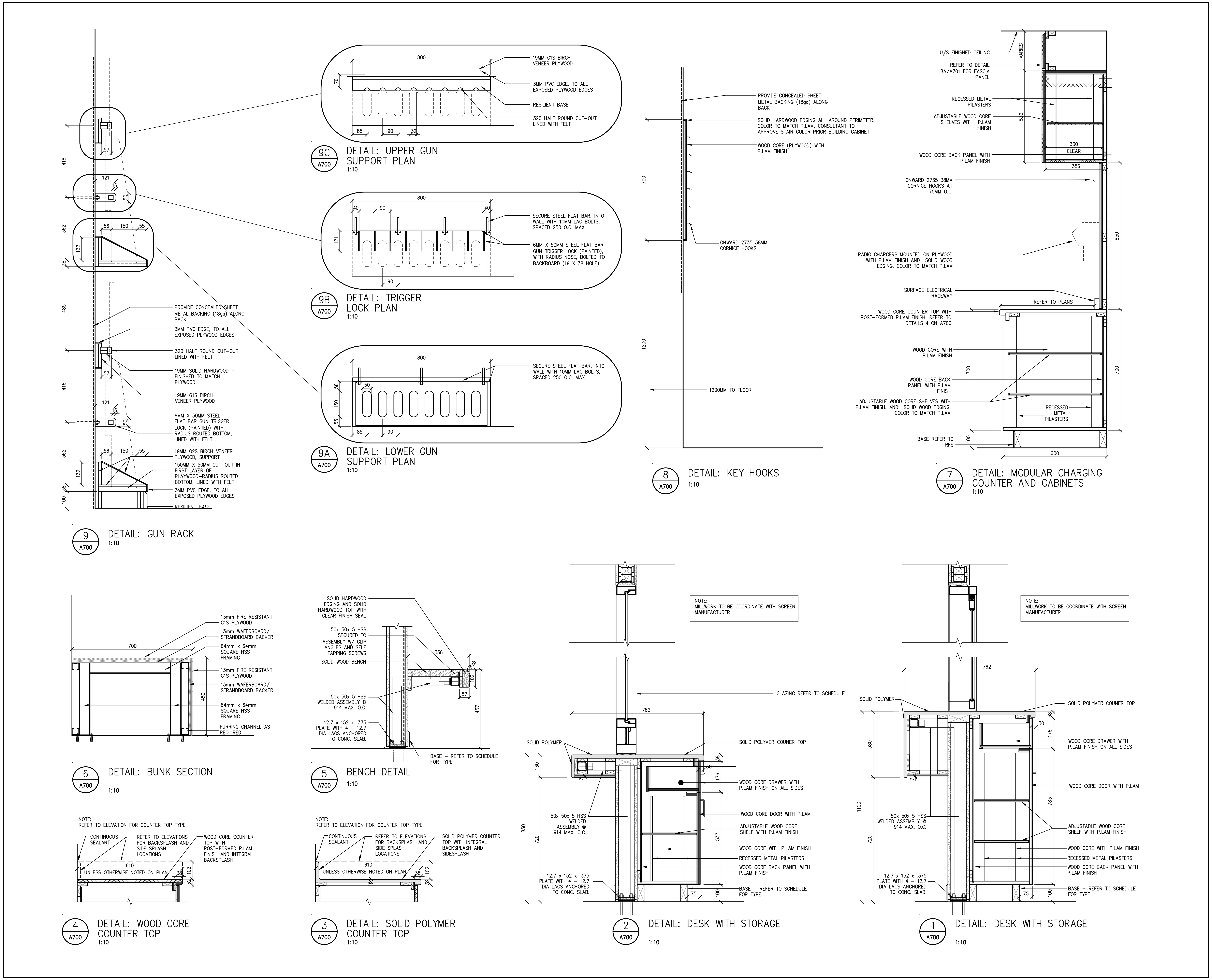
Project:

FEDERAL BUILDING
ARVIAT, NUNAVUT

Drawn By: CB	Date: 03/24/2015
Checked By: RB	Scale: 1:50

Sheet Title: INTERIOR ELEVATIONS

Sheet Number: 1408-A-600



PROJECT NORTH
TRUE NORTH

No.	Description	Date
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Sub Consultant:

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Tomorrow's Technology Today

AGE A.G. Engineering
Electrical Engineers

Project:

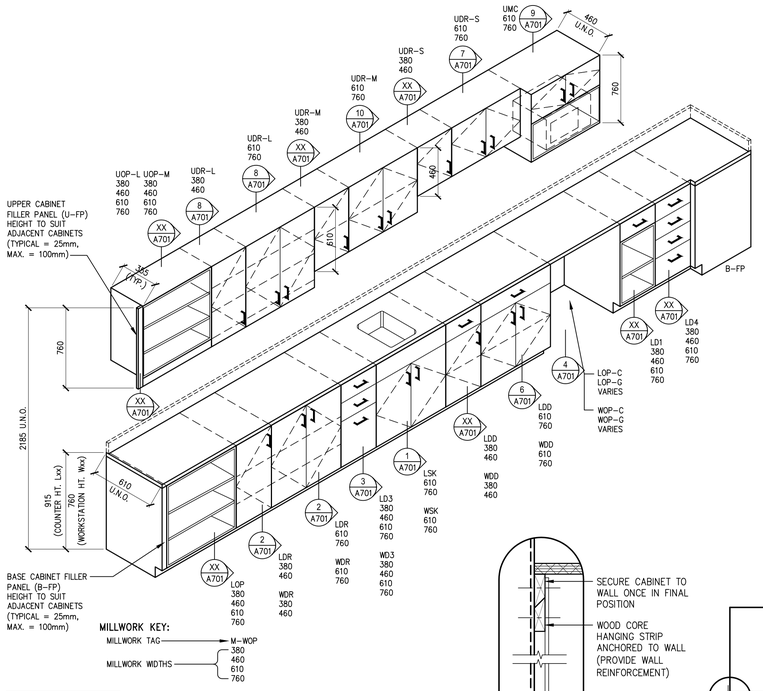
FEDERAL BUILDING
ARVIAT, NUNAVUT

Drawn By: XX
Date: XX/XX/XX
Checked By: XX
Scale: 1:10

Sheet Title:
MILLWORK SECTIONS & MISCELLANEOUS DETAILS

Sheet Number:
1408-A-700

A1 594x841



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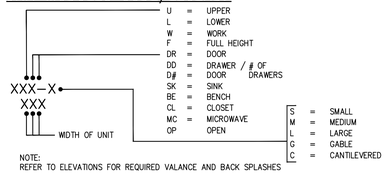


NOTE:
REFER TO ELEVATIONS FOR REQUIRED VALANCE AND BACK SPLASHES

MILLWORK ABBREVIATION LEGEND

B-FP – LOWER BASE CABINET FILLER PANEL

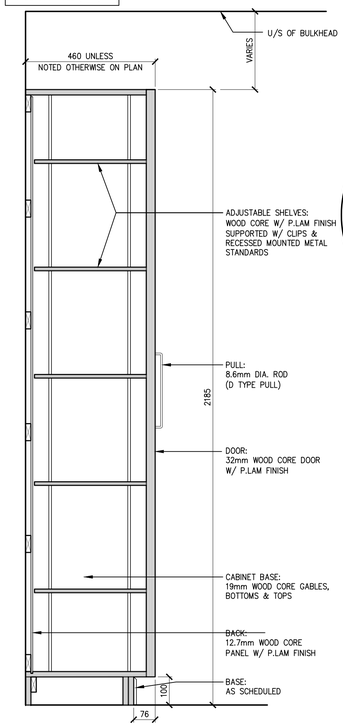
LD1 – LOWER OPEN CABINET WITH 1 DRAWER
LD3 – LOWER CABINET WITH 3 DRAWERS
LD4 – LOWER CABINET WITH 4 DRAWERS
LDD – LOWER CABINET WITH 1 DRAWER & DOORS
LDR – LOWER CABINET WITH DOORS

LOP – LOWER OPEN CABINET WITH ADJUSTABLE SHELVES
LSK – LOWER CABINET WITH SINK AND DOORS
OP–C – LOWER OPEN COUNTER, CANTILEVERED
LOP–G – LOWER OPEN COUNTER, GABLED
WD3 – WORKSTATION WITH 3 DRAWERS
WDD – WORKSTATION WITH 1 DRAWER & DOORS

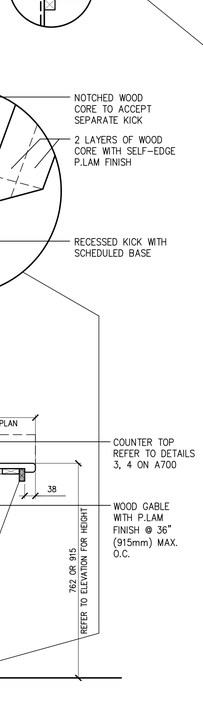
WDR – WORKSTATION WITH DOORS
WOP – OPEN WORKSTATION WITH ADJUSTABLE SHELVES
WSK – WORKSTATION WITH SINK AND DOORS
WOP–C – WORKSTATION OPEN COUNTER, CANTILEVERED
WOP–G – WORKSTATION OPEN COUNTER, GABLED
U–FP – UPPER CABINET FILLER PANEL
UDR–L – UPPER CABINET WITH DOORS – LARGE

UDR–M – UPPER CABINET WITH DOORS – MEDIUM
UDR–S – UPPER CABINET WITH DOORS – SMALL
UOP–L – UPPER OPEN CABINET – LARGE
UOP–M – UPPER OPEN CABINET – MEDIUM
UOP–S – UPPER OPEN CABINET – SMALL
UMC – UPPER MICROWAVE CABINET WITH DOORS
FCL1 – SHELF WITH COAT ROD

NOTE: ALL STORAGE UNITS TO BE LOCKABLE (TYP.)

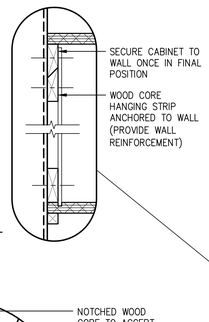


5 A701 FDR: FULL HEIGHT w/ SHELVING
1:10



4A A701 DETAIL
NTS

4 A701 LOP/WOP: COUNTER
1:10



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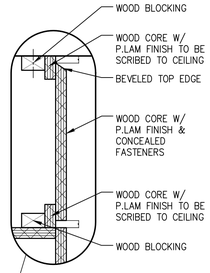

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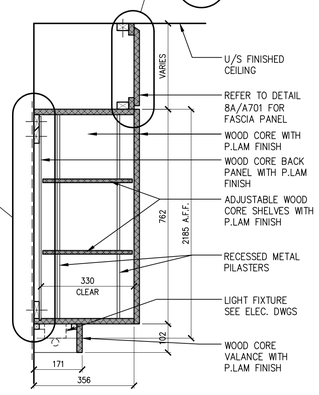
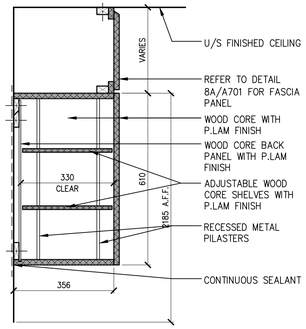
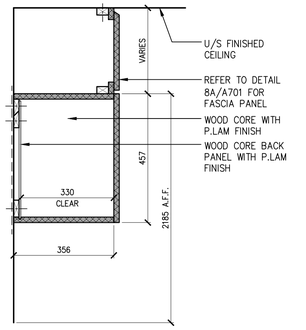


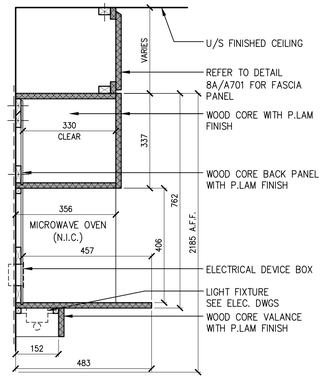
8 A701 UDR–L: UPPER CUPBOARD W/ DOORS
1:10



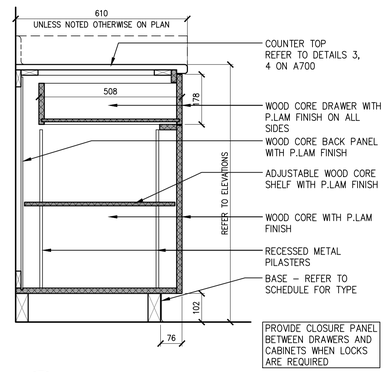
10 A701 UDR–M: UPPER CUPBOARD W/ DOORS
1:10



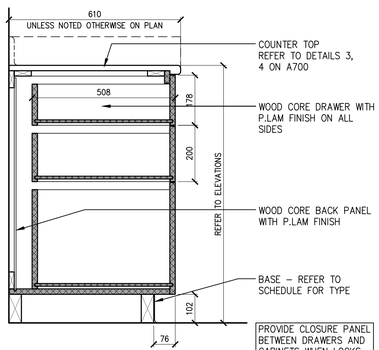
7 A701 UDR–S: UPPER CUPBOARD W/ DOORS
1:10



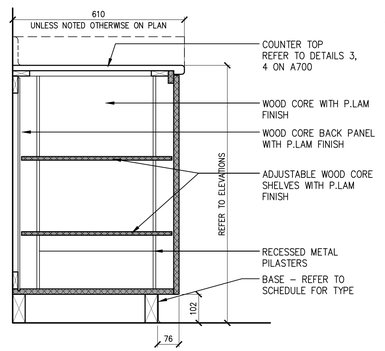
9 A701 UMC: MICROWAVE OVEN OPEN SHELF
1:10



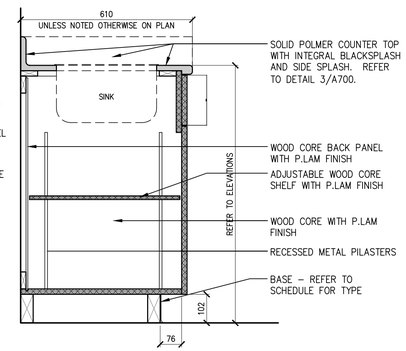
6 A701 LDD: BASE UNIT W/ DOOR AND DRAWERS
1:10



3 A701 LD3: BASE UNIT W/ 3 DRAWERS
1:10



2 A701 LDR: BASE UNIT W/ DOORS
1:10



1 A701 LSK: BASE UNIT W/ SINK
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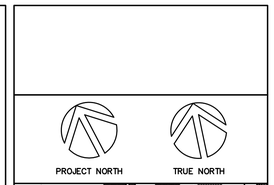
A1 594x841



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Drawn By:	Date:
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Checked By:	Scale:
RB	1:20

Sheet Title:
MILLWORK SECTIONS & MISCELLANEOUS DETAILS

Sheet Number:
1408-A-701

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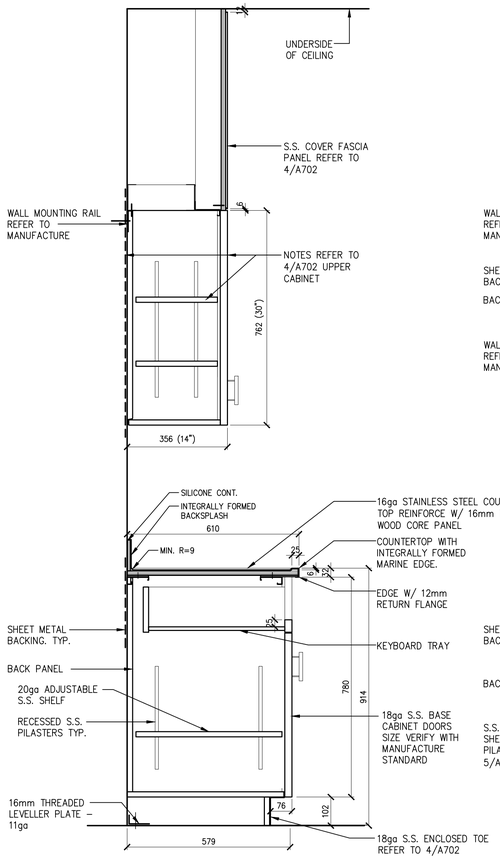
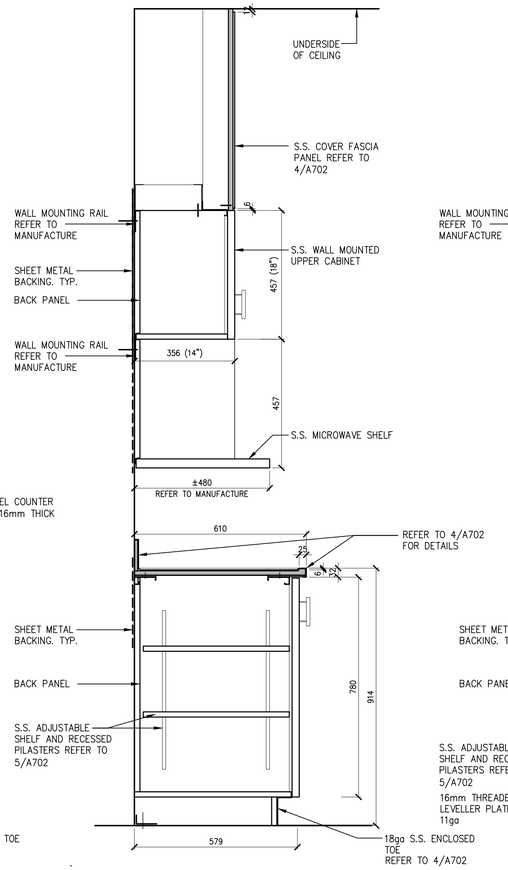
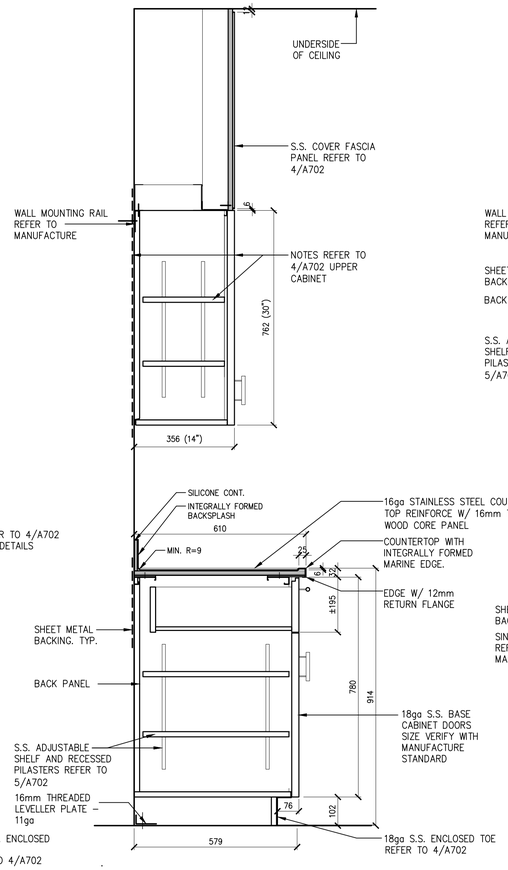


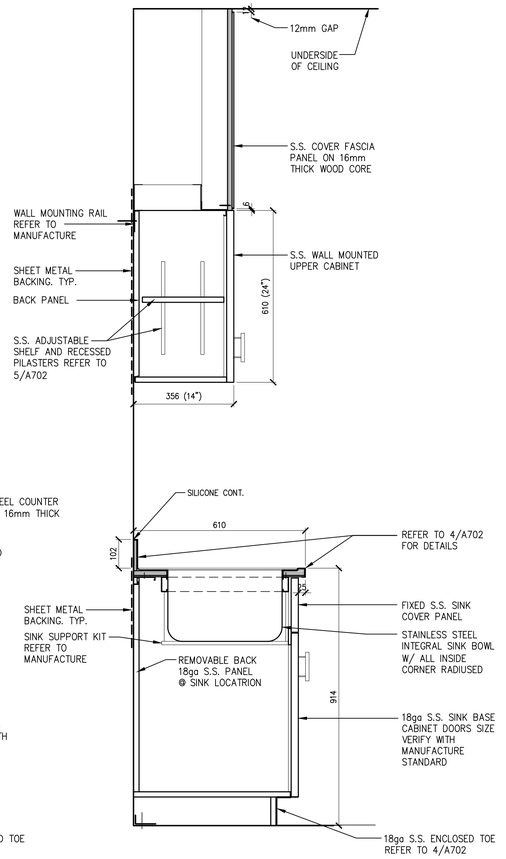
7 / A702 DETAIL: STAINLESS STEEL CABINET SECTION @ WORKSTATION
1:10



6 / A702 DETAIL: STAINLESS STEEL CABINET SECTION @ MICROWAVE SHELF
1:10

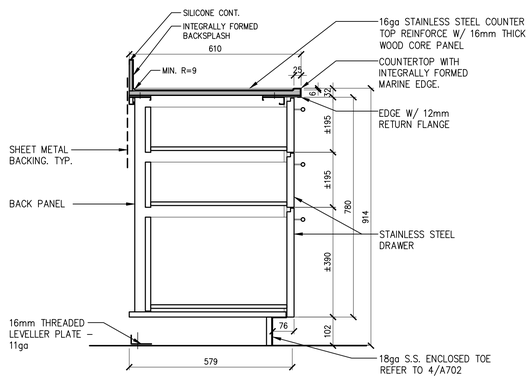


5 / A702 DETAIL: STAINLESS STEEL CABINET SECTION @ COUNTER
1:10



4 / A702 DETAIL: STAINLESS STEEL CABINET SECTION @ SINK
1:10

NOTE:
ALL STAINLESS STEEL FABRICATION TO HAVE ROUNDED EDGES BULLNOSED. NO HARD/SHARP ALLOWED.



3 / A702 DETAIL: STAINLESS STEEL CABINET SECTION
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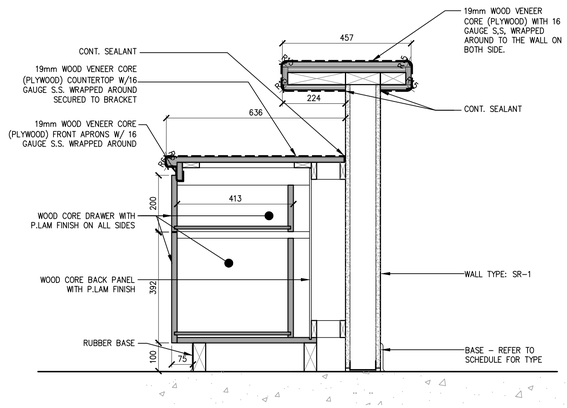
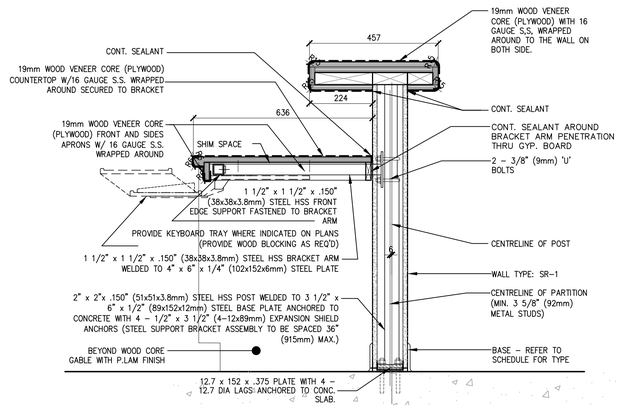


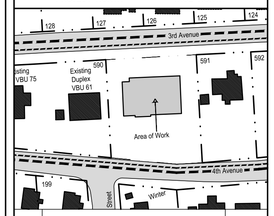
2 / A702 DETAIL: STAINLESS STEEL DESK SECTION
1:10



1 / A702 DETAIL: STAINLESS STEEL DESK SECTION
1:10

A1 594x841

PROJECT NORTH
TRUE NORTH



No.	Description	Date
0	ISSUED FOR TENDER	04-07-2015

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:

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AGE Project # 1121-13-009

Project:

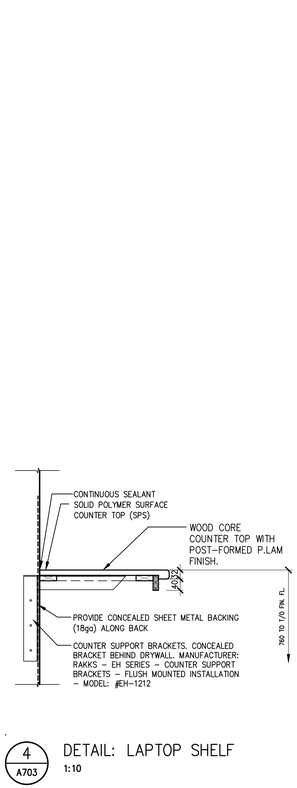
FEDERAL BUILDING
ARVIAT, NUNAVUT

Drawn By:	Date:
CB	03/24/2015
Checked By:	Scale:
RB	1:10

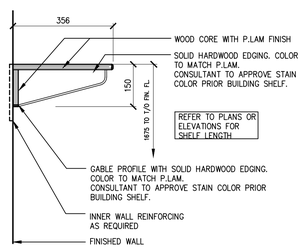
Sheet Title:
STAINLESS STEEL MILLWORK DETAILED SECTIONS

Sheet Number:
1408-A-702

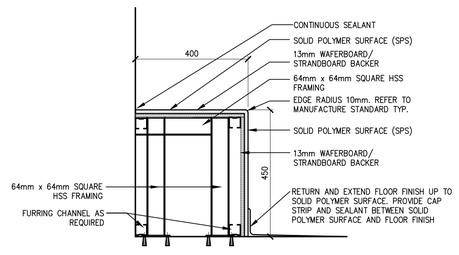
FILENAME: G:\projects\2014\1408\1408-00\graphics\cad\working\sheets\1408-00-a702.dwg
PLOTDATE: May 13, 2015 - 11:22am



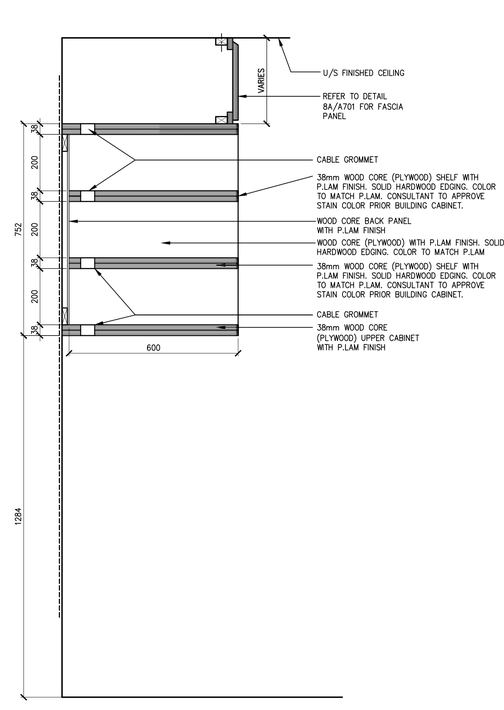
4 / A703 DETAIL: LAPTOP SHELF
1:10



3 / A703 DETAIL: CANTILEVERED SHELF
1:10

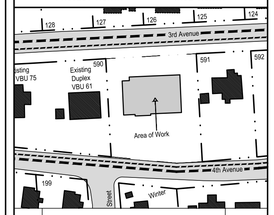


2 / A703 DETAIL: SHOWER SEAT
1:10



1 / A703 DETAIL: MILLWORK
1:10

PROJECT NORTH TRUE NORTH



No.	Description	Date
0	ISSUED FOR TENDER	04-07-2015

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:

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AGE Project #: E121-13-009
Electrical Engineers

Project:

FEDERAL BUILDING
ARVIAT, NUNAVUT

Drawn By:	Date:
CB	03/24/2015
Checked By:	Scale:
RB	1:20

Sheet Title:
MILLWORK SECTIONS & MISCELLANEOUS DETAILS

Sheet Number:
1408-A-703

PLOTDATE: May 11, 2015 - 11:42am
FILENAME: D:\projects\2014\1408\1408-00\graphics\vcad\working\sheets\1408-00-a703.dwg

A1 594x841

DESIGN SPECIFICATIONS:

1. THIS STRUCTURE IS DESIGNED AND SHALL BE CONSTRUCTED AS PER FOLLOWING CODE REQUIREMENTS.

   1.1 NATIONAL BUILDING CODE OF CANADA 2010

   1.2 GOOD BUILDING PRACTICES GUIDE BY GOVERNMENT OF NUNAVUT, SECOND EDITION, OCTOBER 2005

2. FOUNDATION ELEMENTS ARE DESIGNED PER RECOMMENDATION BY TETRA TECH. IN THEIR "GEOTECHNICAL EVALUATION" REPORT DATED NOVEMBER 2014. (FILE NO. Y14103295-01).

3. SEISMIC DESIGN DATA – NATURAL RESOURCES CANADA, SEISMIC HAZARD MAPS 2010:

   Sa(0.2) = 0.095
   Sa(0.5) = 0.057
   Sa(1.0) = 0.026
   Sa(2.0) = 0.008

   PGA = 0.036

4. SITE CLASSIFICATION RECOMMENDED BY TETRA TECH GEOTECHNICAL REPORT. DATED NOVEMBER, 2014 PER TABLE 4.1.8.4.A IS CLASS "B".

5. IMPORTANCE FACTOR = NORMAL

6. HOURLY WIND PRESSURE = 1/50 = 0.58 kPa

7. SNOW LOAD = Ss = 1/50 = 2.9 kPa

   Sr = 0.2 kPa

8. CONCLUSION: ACCORDING TO NBC 2010 SECTION 4.1.8.1 (1) "ANALYSIS" = IF Sa (0.2) IS LESS THAN OR EQUAL TO 0.12, THE REQUIREMENTS OF THE SUBSECTION "EARTHQUAKE LOADS AND EFFECTS" NEED NOT BE CONSIDERED IN THE DESIGN.

STRUCTURAL ABBREVIATIONS:

A.BOLT	ANCHOR BOLT.
ARCH.	ARCHITECTURAL.
APPROX.	APPROXIMATE.
B.PLATE	BASE PLATE.
BM.	BEAM.
BRG.	BEARING.
BOT.	BOTTOM.
BLL	BOTTOM LOWER LEVEL.
BUL	BOTTOM UPPER LEVEL.
BLDG.	BUILDING.
℄ OR C.L.	CENTER LINE.
CANT.	CANTILEVER.
CHAN.	CHANNEL.
COL.	COLUMN.
CONC.	CONCRETE.
CONT.	CONTINUOUS.
C/W	COMPLETE WITH.
DIA.	DIAMETER.
DIM.	DIMENSION.
DP.	DEEP.
DWL.	DOWEL.
DWN.	DOWN.
EL.	ELEVATION.
E.E.	EACH END.
E.F.	EACH FACE.
E.S.	EACH SIDE.
E.W.	EACH WAY.
EXIST.	EXISTING.
GALV.	GALVANIZED.
G.L.	GRID LINE.
HOR.	HORIZONTAL.
H.D.	HOT DIP GALVANIZED.
HSS.	HOLLOW STRUCTURAL SHAPE.
I.C.	IN CENTER.
I.F.	INSIDE FACE.
INSUL.	INSULATION.
LG.	LONG.
LLH	LONG LEG HORIZONTAL.
LLV	LONG LEG VERTICAL.
MAX.	MAXIMUM.
MECH.	MECHANICAL.
MID.	MIDDLE.
MIN.	MINIMUM.
N.T.S.	NOT TO SCALE.
O.C.	ON CENTER.
O.F.	OUTSIDE FACE.
OPNG.	OPENING.
OWSJ	OPEN WEB STEEL JOIST.
PL.	PLATE.
R.O.	ROUGH OPENING.
REINF.	REINFORCE.
R/W	REINFORCE WITH.
STL.	STEEL.
STRING.	STRINGER.
SJ	STRUT JOIST
SJ1E	STRUT JOIST ONE END.
T & B	TOP & BOTTOM.
T.O.	TOP OF.
THK.	THICK.
TLL	TOP LOWER LEVEL.
TUL	TOP UPPER LEVEL.
TYP.	TYPICAL.
U.N.O.	UNLESS NOTED OTHERWISE.
U/S	UNDERSIDE.
V.B.	VAPOUR BARRIER.
VERT.	VERTICAL.

DRAWING NOTES:

GENERAL

1) DESIGN LIVE LOADS SHOULD NOT BE EXCEEDED AT ANY TIME DURING CONSTRUCTION.
2) DO NOT SCALE THE DRAWINGS.
3) VERIFY ALL DIMENSIONS, ELEVATIONS, SLOPES, DETAILS, CONDITIONS, ETC. SHOWN ON THE STRUCTURAL DRAWINGS; WITH THE LATEST ARCHITECTURAL DRAWINGS, OTHER CONSULTANT DRAWINGS AND THE SITE, PRIOR TO START OF CONSTRUCTION OR PREFABRICATION OF ANY BUILDING COMPONENT.
4) DISCREPANCIES OR AMBIGUITIES ON THE DRAWINGS AND/OR THE SITE, WHICH AFFECT THE STRUCTURAL FRAMING, SHALL BE REPORTED TO THE DESIGN ENGINEER.
5) WHERE AN OVERLAP OR A DUPLICATION OCCURS ON THE DRAWINGS, THE MORE COSTLY SOLUTION SHALL BE CONSIDERED CORRECT, UNLESS APPROVED OTHERWISE BY THE DESIGN ENGINEER.
6) MODIFICATIONS, ALTERATIONS OR SUBSTITUTIONS MUST BE AUTHORIZED IN WRITING BY THE DESIGN ENGINEER PRIOR TO IMPLEMENTATION.
7) THE GENERAL CONTRACTOR SHALL LOCATED ALL EXISTING SITE SERVICES PRIOR TO START OF CONSTRUCTION.
8) FOR OPENINGS IN SLABS, FLOOR, WALLS, ROOF, ETC. REFER TO ARCHITECTURAL, MECHANICAL AND / OR OTHER PERTINENT DRAWINGS.
9) LOCATION OF THE CONSTRUCTION JOINTS IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR.
10) THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DESIGN AND INSTALLATION OF ALL NECESSARY SHORING, BRACING AND FORM WORK. THE DESIGN DETAILS SHALL BE CARRIED OUT BY A PROFESSIONAL ENGINEER, REGISTERED IN THE TERRITORY OF NUNAVUT AND HOLDS A CURRENT "PERMIT TO PRACTICE" IN NUNAVUT. FORM WORK FOR NEW CONSTRUCTION SHALL BE BRIDGED OVER EXISTING SERVICES. PROCEDURE MUST BE APPROVED BY THE DESIGN ENGINEER.
11) CONSTRUCTION SAFETY REQUIREMENTS SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR AND / OR PROJECT MANAGER.
12) ALL STUD WALLS LOCATED ON A SLAB-ON-GRADE SHALL BE CONSTRUCTED WITH A MINIMUM 25mm (1") GAP AT THE TOP, OR OTHER APPROVED SLIP JOINT.
13) THE GENERAL CONTRACTOR SHALL NOTIFY THE DESIGN ENGINEER AT LEAST 48 HOURS (72 HOURS FOR OUT-OF-TOWN PROJECTS) PRIOR TO ALL CONCRETE POURS AND / OR INSTALLATION OF INTERIOR SHEATHING, TO ALLOW FOR SITE INSPECTIONS.

FOOTINGS

1) FOUNDATION ELEMENTS ARE DESIGNED AND SHALL BE INSTALLED IN ACCORDANCE WITH THE RECOMMENDATIONS MADE BY TETRA TECH. IN THEIR REPORT DATED NOVEMBER 2014.
2) FOOTINGS ARE DESIGNED FOR AN ALLOWABLE BEARING VALUE OF 150 kPa FOR ALL FOOTINGS AS RECOMMENDED WITHIN THE GEOTECHNICAL REPORT.
3) INSTALLATION OF ALL FOOTINGS SHALL BE INSPECTED AND APPROVED BY A GEOTECHNICAL ENGINEER, REGISTERED IN TERRITORY OF NUNAVUT AND WHO HOLDS A CURRENT "PERMIT TO PRACTICE" WITH THE TERRITORY OF NUNAVUT. A LETTER OF CERTIFICATION SHALL BE ISSUED TO THE DESIGN ENGINEER UPON COMPLETION OF THE FOUNDATION. THE COST OF THIS SERVICE SHALL BE INCLUDED IN THE FOUNDATION CONTRACT.
4) REFER TO "CONCRETE" AND "REINFORCING STEEL" NOTES FOR MATERIAL SPECIFICATION AND REQUIREMENTS.
5) REFER TO "FOOTING SCHEDULE" AND "TYPICAL SECTIONS AND DETAILS" FOR ADDITIONAL INFORMATION.
6) SOILS REPORT IS FOR "INFORMATION" ONLY. THE FOOTING CONTRACTOR SHALL SATISFY HIMSELF AS TO PREVAILING SITE AND SOIL CONDITIONS SINCE NO EXTRAS WILL BE ALLOWED IN CASE OF VARYING SOIL CONDITIONS.
7) GRANULAR BASE; INSTALL A BASE OF CLEAN WELL GRADED GRANULAR FILL COMPACTED TO MINIMUM 100% MODIFIED PROCTER DRY DENSITY. INSTALL AND COMPACT IN 150mm HIGH LIFTS TO THICKNESS SPECIFIED ON THE STRUCTURE PLANS.

REINFORCING STEEL

1) REINFORCING STEEL SHALL BE NEW BILLET, DEFORMED BARS IN ACCORDANCE WITH CSA STANDARD G30.10. MINIMUM YIELD STRENGTH TO BE 400 MPa.
2) REINFORCING STEEL SHALL BE DETAILED IN ACCORDANCE WITH THE LATEST A.C.I. DETAILING MANUAL.
3) LAP TOP BARS AT CENTER SPAN AND BOTTOM BARS OVER SUPPORTS.
4) ALL REINFORCING STEEL TO BE HELD IN PLACE AND TIED SECURELY BY THE USE OF PURPOSE MADE ACCESSORIES SUCH AS HI-CHAIRS, SPACERS, TIE WIRE ETC., TO BE SUPPLIED BY THE REINFORCING STEEL FABRICATOR/SUPPLIER.
5) REINFORCING IN CONCRETE BEAMS/WALLS TO BE BENT MINIMUM 600mm AROUND CORNERS OR USE 900x900 CORNER BARS.
6) FRAME ALL OPENINGS IN CONCRETE BEAMS, WALLS AND/OR SLABS WITH 2-20M BARS (EXTRA) AT ALL 4 SIDES. EXTEND BARS 600mm BEYOND EDGES OF OPENING EXCEPT AS NOTED.
7) SUBMIT 6 COPIES OF SHOP DRAWINGS WHICH CLEARLY INDICATE BAR SIZES, GRADE, SPACINGS, HOOKS, BENDS AND SUPPORTING/SPACING DEVICES, ETC., FOR REVIEW TO THE DESIGN ENGINEER PRIOR TO FABRICATION OF THE REINFORCING STEEL.
8) PIT WALLS/SLABS SHALL BE 250mm THICK REINFORCED WITH 15m @ 300 ON CENTER EACH WAY EACH FACE UNLESS OTHERWISE SHOWN.
9) HOUSEKEEPING PADS SHOULD BE A MINIMUM OF 150mm (6") THICK AND REINFORCED WITH 10M @ 300 ON CENTER EACH WAY AT CENTER UNLESS OTHERWISE SHOWN.
10) PRIOR TO PLACING CONCRETE, ENSURE THAT ALL REINFORCING STEEL IS CLEAN, FREE OF LOOSE SCALE, RUST, MUD, OIL OR OTHER FOREIGN MATERIAL WHICH WOULD REDUCE THE BOND.
11) HEATING, QUENCHING AND BENDING OF REINFORCING STEEL ON SITE IS NOT ALLOWED.

CONCRETE

1) ALL CONCRETE WORK SHALL CONFIRM TO CSA STANDARD A23.1 (LATEST).
2) CONCRETE SPECIFICATIONS:

COMPONENT	CEMENT TYPE	CLASS OF EXPOSURE	28-DAY STRENGTH (MPa)	SLUMP (mm)	MAX. AGGREGATE (mm)	ENTRAINED AIR (%)	COVER FOR REIN. STEEL (mm)	WATER CEMENT RATIO	REMARKS
INTERIOR STRUCTURAL SLABS ON JOISTS & STL. STUDS	GU	N	30	90 TO 100	20	0	32 TOP	0.40	–
GARAGE FLOOR SLAB	GU	N	30	90 TO 100	20	0	50 TOP 20 BOTTOM	0.40	150 RIGID INSULATION
GRADE BEAMS	HS	C1	30	90 TO 100	20	4–7	50	0.40	–
HOUSE -KEEPING PADS	GU	N	30	90 TO 100	20	0	50 TOP	0.40	–
CONCRETE PIERS	HS	C1	30	90 TO 100	20	4–7	75	0.40	FLAG POLE SUPPORT

3) THE USE OF ANY ADDITIVES WITHIN THE CONCRETE MIX SHALL BE APPROVED BY THE DESIGN ENGINEER PRIOR TO CONSTRUCTION.
4) VIBRATE ALL CONCRETE WORK WITH APPROPRIATE INTERNAL VIBRATORS.
5) CONCRETE WORKING TIME, FROM BATCHING TO PLACEMENT AND CONSOLIDATION, SHALL NOT EXCEED 1-1/2 HOURS.
6) CONCRETE CONTRACTOR SHOULD PLACE ALL COMPONENTS TO BE EMBEDDED IN THE CONCRETE (IE. WELD PLATES, DOWELS FOR CONCRETE, ANCHOR BOLTS, INSERTS, WATER STOP BARS, SLEEVING, ETC.). SEE STRUCTURAL, ARCHITECTURAL, MECHANICAL AND ANY OTHER PERTINENT DRAWINGS.
7) INSTALL WATER STOP BAR IN ALL EXTERIOR BELOW GRADE WALL CONSTRUCTION JOINTS.
8) SEE ARCHITECTURAL DRAWINGS FOR SURFACE FINISHES, EDGE TEATMENTS, ETC.
9) SEE GENERAL NOTES REGARDING INSPECTION NOTIFICATION.
10) THE GENERAL CONTRACTOR (PROJECT MANAGER) SHALL ENSURE THAT CONCRETE TESTING BE PERFORMED BY A C.S.A. APPROVED INDEPENDENT TESTING COMPANY. THREE CONCRETE TEST CYLINDERS AND ONE SLUMP TEST SHALL BE TAKEN FOR EVERY 50 CUBIC METERS (OR LESS), OR EACH DAY CONCRETE IS PLACED, WHICHEVER IS GREATER. TESTING SHALL BE PERFORMED IN ACCORDANCE WITH CSA STANDARD A23.2 (LATEST), AND THE RESULTS SHALL BE FORWARDED TO THE ARCHITECT AND DESIGN ENGINEER.
11) VOID FORMS, AS DETAILED ON THE DRAWINGS SHALL BE CARDBOARD FORMS UNLESS OTHERWISE SPECIFIED.
12) UNDER IDEAL WEATHER CONDITIONS, ALLOW MINIMUM CURING TIME AS SCHEDULED BELOW BEFORE REMOVING FORMWORK:

    WALLS .... 7 DAYS

13) SEE COLD-WEATHER CONCRETING NOTES FOR ADDITIONAL REQUIREMENTS.
14) ALL CONCRETE BE SUPPLIED BY A READY MIX CONCRETE FACILITY THAT IS CERTIFIED AND IN GOOD STANDING WITH THE READY MIX CONCRETE ASSOCIATION.
15) NO FLYASH TO BE ADDED TO ANY CONCRETE MIX.

COLD WEATHER CONCRETING

1) THIS SECTION APPLIED WHEN THE AVERAGE DAILY (24 HOUR) TEMPARATURE IS LESS THAN +5°C AND THE MAXIMUM DURATION OF TEMPARATURE OF +10°C (AND GREATER) IS LESS THAN 12 HOURS WITHIN THE SAME 24 HOUR PERIOD.
2) MAINTAIN CONCRETE TEMPERATURE BETWEEN +10°C TO +30°C FROM THE TIME OF BATCHING TO THE END OF THE SPECIFIED CURING PERIOD. SEE NOTE 4.
3) ALL SURFACES (FORMWORK, REBAR, GRADE, PREVIOUS POURS, ETC.) AGAINST WHICH NEW CONCRETE IS TO BE INSTALLED, SHALL BE FREE OF ICE, SNOW AND FROST, AND SHALL BE PRE-HEATED TO +10°C (MINIMUM) FOR AT LEAST 24 HOURS PRIOR TO CONCRETE PLACEMENT.
4) PROVIDE ENCLOSURES, INSULATING BLANKETS, HEATERS, ETC. AS NECESSARY TO MAINTAIN MINIMUM CONCRETE TEMPERATURES DURING THE CURING PERIOD AS FOLLOWS:
   * FIRST 3 DAYS AT +18°C
   * NEXT 3 DAYS AT +10°C
5) PROVIDE ADEQUATE VENTING FOR ALL HEATERS BURING FOSSIL FUELS TO PREVENT CARBON DIOXIDE AND CARBON MONOXIDE BUILDUP, WHICH WOULD RESULT IN HEALTH PROBLEMS AND POOR CONCRETE SURFACES.

CONCRETE SLAB-ON-GRADE

1) SLAB MOVEMENT / CRACKING
   SINCE THE STABILITY OF A SLAB-ON-GRADE IS ALMOST ENTIRELY DEPENDENT ON THE NATURE OF THE SOIL UPON WHICH IT IS SUPPORTED, SOME MOVEMENT RESULTING IN DISPLACEMENT AND CRACKING, OF THE SLAB AND THE OTHER INTERIOR BUILDING COMPONENTS, SHOULD BE EXPECTED. ACCURATE LIMITS DEFINING THE AMOUNT AND FREQUENCY OF MOVEMENT CANNOT BE GIVEN DUE TO UNKNOWN AND/OR UNCONTROLLABLE FACTORS SUCH AS SOIL MOISTURE CONTENT, WATER TABLE, SILT POCKETS, ETC., WHICH ALL AFFECT THE SUPPORTING SOIL. THE OWNER SHALL ASSUME ALL RISKS ASSOCIATED WITH THIS SYSTEM.
2) SUB-BASE PREPARATION
   PREPARE SUB-BASE IN STRICT ACCORDANCE WITH THE SOILS REPORT IF ONE IS PROVIDED. IF A SOILS REPORT IS NOT PROVIDED THEN PREPARE SUB-BASE AS FOLLOWS:
   1. REMOVE ALL TOPSOIL, SILT, LOOSE FILL, DEBRIS, ORGANIC MATERIAL (INCLUDING TREE ROOTS), EXISTING FOUNDATION ELEMENTS, TANKS, ETC.
   2. FILL ALL VOIDS AND LOW AREAS WITH CLEAN WELL GRADED GRANULAR FILL COMPACTED TO A MINIMUM 95% MODIFIED PROCTER DENSITY. INSTALL AND COMPACT IN 150mm HIGH LIFTS.
3) GRANULAR BASE; INSTALL A BASE OF CLEAN WELL GRADED GRANULAR FILL COMPACTED TO MINIMUM 100% MODIFIED PROCTER DRY DENSITY. INSTALL AND COMPACT IN 150mm HIGH LIFTS TO THICKNESS SPECIFIED ON THE STRUCTURE PLANS.
4) THE GENERAL CONTRACTOR (PROJECT MANAGER) SHALL ENSURE THAT COMPACTION TESTS BE PERFORMED BY A C.S.A. APPROVED INDEPENDENT TESTING COMPANY DURING THE INSTALLATION OF ALL GRANULAR MATERIAL. THE RESULTS SHALL BE FORWARDED TO THE DESIGN ENGINEER.
5) PROVIDE PREPRUFE 300R PLUS MEMBRANE (WELL LAPPED) BETWEEN HI40 STYROFOAM BASE AND THE CONCRETE SLAB.
6) PROVIDE A FULL AND CONTINUOUS 12mm WIDE FLEXCELL JOINT BETWEEN THE EDGE OF SLAB AND ALL OTHER STRUCTURAL ELEMENTS (IE. GRADE BEAMS, FOUNDATIONS & RETAINING WALLS, COLUMNS, ETC.)
7) REFER TO STRUCTURAL DRAWING FOR PLACEMENT OF DOWELS EXTENDING INTO OR FROM THE SLAB.
8) REFER TO MECHANICAL AND ELECTRICAL DRAWINGS FOR SERVICES INSTALLED BELOW THE SLAB AND THE SLEEVING REQUIRED FOR SERVICES PENETRATING THE SLAB.
9) REFER TO ARCHITECTURAL DRAWINGS FOR SURFACE LEVEL TOLERANCES, SLOPES, FINISHES, SURFACE SEALERS OR HARDENERS, ETC.
10) REFER TO CONCRETE AND REINFORCING STEEL NOTES FOR MATERIAL SPECIFICATIONS AND REQUIREMENTS.
11) INSTALL SAWCUTS AS SHOWN ON STRUCTURAL PLANS. SAWCUTS TO BE MINIMUM 25mm DEEP AND 3mm WIDE. CUT NO SOONER THAN 24 HOURS BUT NO LATER THAN 48 HOURS AFTER SLAB IS POURED. FILL SAWCUTS WITH APPROVED BITUMINOUS COMPOUND OR CAULKING.

STEEL STUDS

1) ALL EXTERIOR WALL STUDS SHALL BE AT LEAST 600S125-54 (6" x 1.25" x 18 GAUGE), AT 400MM (16") ON CENTERS, MAXIMUM HEIGHT OF 3,700mm (12'-2"), UNLESS OTHERWISE NOTED. LARGER STUDS MAY BE ACCEPTED FOR LARGER SPANS.
2) STEEL STUDS SHALL CONFORM TO THE REQUIREMENTS OF CAN/CSA-S136 COLD FORMED STEEL STRUCTURAL MEMBERS.
3) ALL STEEL STUD TRACKS AND COMPONENTS SHALL BE GALVANIZED. THE COATING SHALL BE NOT LESS THAN G60 (Z180).
4) PROVIDE HORIZONTAL BRIDGING AT 1220MM (4'-0") ON CENTERS, UNLESS OTHERWISE NOTED.
5) ALL FRAMING COMPONENTS SHALL BE CUT SQUARELY FOR ATTACHMENT TO PERPENDICULAR MEMBERS OR AS REQUIRED FOR AN ANGULAR FIT AGAINST ABUTTING MEMBERS. MEMBERS SHALL BE HELD IN PLACE UNTIL SHEATHING IS FASTENED.

STEEL DECK

1) FLOOR DECK: 1 1/2" (38 mm) – 22 GAUGE (0.76 mm) GALVANIZED COMPOSITE DECK, CANAM P-3615 COMPPSITE OR APPROVED EQUAL.
2) ROOF DECK: 1 1/2" (38 mm) – 22 GAUGE (0.76 mm) (GALVANIZED) (WIPE COATED), CANAM P-3615 OR APPROVED EQUAL.
3) USE HI-BOND COMPOSITE STEEL DECK FOR FLOORS. DECK TO HAVE DEFORMED WEBS FOR COMPOSITE ACTIONS.
4) SUPPLY ALL CLOSURES, COVER PLATES AND ACCESSORIES AS REQUIRED TO FORM WORK.
5) TOUCH UP WELDS WITH PRIMER TO CGSB 1-AP-178Ma.
6) REINFORCE OPENINGS OVER 6" (150 mm) TO BE REINFORCED BY STEEL DECK INSTALLER. OPENINGS OVER 18" (450 mm) TO BE REINFORCED WITH L4 X 4 X 1/4 UNLESS NOTED OTHERWISE.
7) WELDING SHALL CONFORM TO CSA W59-M84.
8) ERECTOR TO BE CERTIFIED TO DIVISION 1 OR 2.1 OR CSA W47.1.
9) LAP END JOINTS A MINIMUM OF 50mm. MINIMUM BEARING ON SUPPORTS TO BE 30mm. SPOT PRIME WELDS IMMEDIATELY AFTER WELDING.
10) STEEL DECK FASTENING SCHEDULE:

AREA	GRIDLINES	DECK THK.	SUPPORT FASTENING	SIDE-LAP FASTENING
TYP. U.N.O		0.76mm	36/4-19mm DIA. PUDDLE WELDS AT 300mm AT ALL SUPPORTS	BUTTON PUNCH AT 600mm

STRUCTURAL STEEL

1) STRUCTURAL STEEL SHALL CONFORM TO CSA STANDARD G40.21-300W FOR PLATES AND ANGLES AND TO G40.21-350W FOR REMAINDER.
2) FABRICATION AND ERECTION SHALL CONFIRM TO CSA STANDARD S16 (LATEST).
3) ALL WELDING SHALL BE PERFORMED BY QUALIFIED WELDERS FULLY APPROVED FOR STRUCTURAL WELDING BY THE CANADIAN WELDING BUREAU IN ACCORDANCE WITH CSA SPECIFICATIONS W47 AND W59.
4) DESIGN AND FABRICATE ALL CONNECTIONS FOR THE FULL STRENGTH OF THE MEMBER.
5) SPLICING OF MEMBERS IS NOT PERMITTED UNLESS OTHERWISE NOTED.
6) WHERE BEAMS ARE CONTINUOUS OVER SUPPORTS, NO HOLES ARE PERMITTED IN THE TOP FLANGE. PROVIDE TWO 10mm WELDED WEB STIFFENER PLATES EACH SIDE OF BEAM, ALIGNED WITH COLUMN WALLS, UNLESS OTHERWISE NOTED.
7) COLUMN BASE AND CAP PLATES SHALL BE FULLY WELDED ALL AROUND.
   PROVIDE 19mm CAP PLATE WITH FOUR 19mm (3/4") DIAMETER BOLTS FOR ALL COLUMNS SUPPORTING CANTILEVERED BEAMS.
8) ALL STRUCTURAL STEEL BELOW GRADE AND EXPOSED TO EXTERIOR ENVIRONMENTS SHALL BE HOT DIPPED GALVANIZED.
9) SUPPLY ALL COMPONENTS WITH 1 COAT OF SHOP PRIMER CONFORMING TO C.I.S.C./C.P.M.A. 1-73A OR EQUIVALENT UNLESS NOTED OTHERWISE.
10) STRUCTURAL STEEL ERECTOR SHALL SUPPLY AND INSTALL ALL TEMPORARY GUYING AND BRACING NECESSARY TO PROVIDE STABILITY FOR THE STRUCTURE AS A WHOLE. THESE SHALL REMAIN IN PLACE UNTIL FLOOR SLABS ARE WELL CURED, STEEL ROOF DECK IS FULLY WELDED AND / OR PERMANENT BRACING IS INSTALLED. TEMPORARY BRACING AND GUY-WIRES ARE DESIGNED BY STRUCTURAL STEEL SUPPLIERS PROFESSIONAL ENGINEER REGISTERED IN THE TERRITORY OF NUNAVUT, AND HOLDS A CURRENT "PERMIT TO PRACTICE" IN NUNAVUT.
11) ALL STEEL STAIRS, RAMPS, GUARD RAILS, HANDRAILS, PLATFORMS AND WIRE MESH INFILL SHALL BE DESIGNED & DETAILED BY STRUCTURAL STEEL FABRICATOR'S ENGINEER. FABRICATOR SHALL SUBMIT SHOP DRAWINGS UNDER THE SEAL OF A PROFESSIONAL ENGINEER REGISTERED IN THE TERRITORY OF NUNAVUT AND HOLDS A "PERMIT TO PRACTICE" OF NAPEG. DRAWINGS SHALL BE SUBMITTED TO THE DESIGN ENGINEER OF RECORD PRIOR TO START OF FABRICATION.
12) FOR ALL PERIMETER LOAD-BEARING BEAMS, PROVIDE BOTTOM FLANGE BRACE TO ROOF/FLOOR DIAPHRAGM AT MAXIMUM SPACING OF 3000mm.
13) EXPOSED CROSS BRACING WILL BE PROVIDED BY "BESISTA INTERNATIONAL GMBH". EACH BRACE SHALL CONSIST OF 3 – 24mm DIAMETER BESISTA TENSION RODS, 4 ANCHORS WITH COVER SLEEVES AND 1 CROSS ANCHOR. ALL MATERIAL SHALL BE BESISTA S540 & HOT DIPPED GALVANIZED WITH HOT DIPPED GALVANIZED THREADS. NR,d = 120 kN.

OPEN WEB STEEL JOISTS (O.W.S.J.)

1) DESIGN AND FABRICATE STEEL JOISTS IN ACCORDANCE WITH DRAWINGS AND CSA STANDARD S16 (LATEST). VERIFY ALL DRAWING/SITE DIMENSIONS AND CONDITIONS PRIOR TO START OF FABRICATION.
2) JOIST MEMBERS SHALL BE FABRICATED USING STRUCTURAL STEEL CONFORMING TO CSA STANDARD G40.21-300W (MINIMUM).
3) BRIDGING, BEARING PLATES AND ANGLES SHALL BE OF STRUCTURAL STEEL CONFORMING TO CSA STANDARD G40.21-300W (MINIMUM). LINES, TYPES AND SIZES OF BRIDGING SHALL BE AS SHOWN ON DRAWINGS.
4) WELDING SHALL BE PERFORMED BY QUALIFIED WELDERS FULLY APPROVED FOR STRUCTURAL WELDING BY THE CANADIAN WELDING BUREAU IN ACCORDANCE WITH CSA STANDARDS W47 AND W59.
5) MINIMUM BEARING LENGTH OF JOISTS TO BE 64mm ON STEEL BEAMS AND 100mm ON MASONRY WALLS.
6) STRUT TOP AND BOTTOM CHORDS OF JOISTS AT ALL COLUMNS (UNLESS NOTED OTHERWISE).
7) WELD BRIDGING TO JOISTS, STEEL BEAMS AND STEEL PLATES FASTENED TO WALLS.
8) INSTALL 75 x 75 x 8mm ANGLE FRAMING AROUND ALL ROOF OPENINGS GREATER THAN 450mm. REFER TO MECHANICAL AND ARCHITECTURAL DRAWINGS FOR LOCATION AND EXTENT OF OPENINGS REQUIRED.
9) PROVIDE MINIMUM 90 x 90 x 8mm ANGLES AT TOP OF CHORD FOR SUPPORT AND SUSPENSION OF MECHANICAL EQUIPMENT UNLESS OTHERWISE SHOWN.
10) JOIST SUPPLIER TO REFER TO MECHANICAL AND ALL OTHER PERTINENT DRAWINGS FOR LOCATION AND WEIGHTS OF EQUIPMENT SUPPORTED BY JOISTS.
11) JOIST DEFLECTION DUE TO LIVE LOAD SHALL NOT EXCEED 1/360 OF SPAN.
12) FABRICATE ALL JOISTS WITH CAMBER TO OFFSET THE DEFLECTION DUE TO DEAD LOAD PLUS 1/2 LIVE LOAD.
13) SUPPLY ALL COMPONENTS WITH 1 COAT OF SHOP PRIMER CONFORMING TO C.I.S.C./C.P.M.A. 1-73A OR EQUIVALENT UNLESS NOTED OTHERWISE.
14) SUBMIT SHOP DRAWINGS WHICH CLEARLY INDICATE JOIST SPACING, DEPTH, LOADING, CAMBER, BEARING, ANCHORAGE DETAILS, FRAMED OPENINGS, ACCESSORIES, ETC., UNDER THE SEAL OF A PROFESSIONAL ENGINEER REGISTERED IN THE TERRITORY OF NUNAVUT, AND HOLDS A NAPEG'S "PERMIT TO PRACTICE", TO THE DESIGN ENGINEER FOR APPROVAL PRIOR TO START OF FABRICATION.

WOOD

1) ALL LUMBER SHALL CONFIRM TO "NLGA – STANDARD GRADING RULES FOR CANADIAN LUMBER" LATEST EDITION.
2) LUMBER FOR ALL FRAMING INCLUDING JOISTS, BEAMS, LINTELS, STUDS, PLATES ETC. SHALL BE NO. 2 SPRUCE OR BETTER UNLESS NOTED.
3) MOISTURE CONTENT OF LUMBER SHALL NOT EXCEED 19% (BY WEIGHT) AT TIME OF INSTALLATION.
4) CUT ALL COMPONENTS NEAT AND SQUARE, PROVIDING FULL CONTACT WITH ADJACENT MEMBERS.
5) NAILING (SIZE AND, NUMBER OF SPACING) SHALL BE IN ACCORDANCE WITH THE 2010 EDITION OF THE NATIONAL BUILDING CODE OF CANADA UNLESS NOTED.
6) PROVIDE 38x38 (2x2) BRIDGING OR SOLID BLOCKING BETWEEN ALL FLOOR JOISTS AT A MAXIMUM SPACING OF 2100mm (7'-0") ALONG THE JOIST LENGTH.
7) PROVIDE DOUBLE JOISTS UNDER ALL PARTITIONS PARALLEL TO JOISTS.
8) USE METAL HANGERS AT ALL FLUSH FRAMING CONNECTIONS.
9) PROVIDE SOLID BLOCKING BETWEEN ALL STUDS AT A MAXIMUM SPACING OF 1200mm (4'-0") ALONG STUDS. TYPICAL FOR ALL STUDS.
10) CARPENTRY CONTRACTOR SHALL SUPPLY AND INSTALL TEMPORARY BRACINGS NECESSARY TO PROVIDE STABILITY FOR THE STRUCTURE AS A WHOLE. TEMPORARY BRACINGS SHALL REMAIN IN PLACE UNTIL ALL WALLS, FLOORS AND ROOF HAVE BEEN SHEATHED.
11) ALL FRAMING SHALL BE INSPECTED AND APPROVED BY THE DESIGN ENGINEER PRIOR TO INSTALLING INTERIOR SHEATHING. PROVIDE MINIMUM 48 HOURS NOTICE.

GLULAM BEAMS

1) ALL 'GLULAM' LAMINATED BEAMS TO HAVE STRESS GRADE OF 20 F-E STRESS GRADE.
2) QUALITY APPEARANCE GRADE FOR ALL ROOF BEAMS, PAINT APPEARANCE GRADE FOR EXTERIOR MAIN FLOOR BEAMS, INDUSTRIAL APPEARANCE GRADE FOR ALL INTERIOR MAIN FLOOR BEAMS. ALL BEAMS TO BE FINISHED TO C.I.T.C. SPECIFICATIONS.
3) INTERIOR ROOF BEAMS TO RECEIVE ONE COAT OF SHOP SEALER. USE EXTERIOR GLUE FOR ALL ROOF BEAMS AND MAIN FLOOR BEAMS.
4) SUPPLY ALL MISCELLANEOUS STEEL HARDWARE FOR CONNECTIONS. HARDWARE TO BE SHOP PAINTED TO PREVENT RUSTING.
5) FABRICATOR SHALL SUPPLY DETAILED DRAWINGS SHOWING ALL MEMBERS REQUIRED FOR APPROVAL BY ENGINEER PRIOR TO FABRICATION.
6) ALL 'GLULAM' MEMBERS SHALL BE MANUFACTURED IN ACCORDANCE WITH CAN3-0122-M89 "STRUCTURAL GLUE-LAMINATED TIMBER" AND CAN3-086-M94 "ENGINEERING DESIGN IN WOOD".
7) MANUFACTURING PLANT TO BE CERTIFIED IN ACCORDANCE WITH CAN3-0177-M1989 "QUALIFICATION CODE FOR MANUFACTURERS OF STRUCTURAL GLUE-LAMINATED TIMBER".
8) BEAMS SHALL BE INDIVIDUALLY WRAPPED FOR PROTECTION AGAINST MOISTURE DURING AND AFTER SHIPMENT WITH SECURELY PLACED 4 MIL POLYETHYLENE. THIS PROTECTION SHALL REMAIN IN PLACE UNTIL MEMBERS CAN BE FULLY PROTECTED FROM THE ELEMENTS.

PLYWOOD

1) ALL PLYWOOD SHALL BE SPRUCE (EXTERIOR GRADE) UNLESS NOTED.
2) PROVIDE TONGUE AND GROOVE (T & G) PLYWOOD FOR WALLS, FLOORS AND SOFFIT AS NOTED.
3) GLUE AND SCREW ALL PLYWOOD FLOOR SHEATHING TO FRAMING MEMBER AT 150mm (6") ON CENTER UNLESS NOTED OTHERWISE.

PERMANENT WOOD FOUNDATIONS

1) FOUNDATIONS ARE DESIGNED AND SHALL BE INSTALLED IN ACCORDANCE WITH THE S406-14.
2) SPECIFICATION OF PERMANENT WOOD FOUNDATIONS FOR HOUSING AND SMALL BUILDINGS.
3) ALL LUMBER AND PLYWOOD USED IN A PRESERVED WOOD FOUNDATION SHALL BE TREATED WITH PRESERVATIVE IN ACCORDANCE WITH THE CAN/CSA-080 SERIES, USE CATEGORY 4.2.
4) SOFTWOOD LUMBER USED IN THE EXTERIOR WALL AS STUDS SHALL BE NO.2 GRADE OR BETTER, GRADED IN ACCORDANCE WITH NLGA STANDARD GRADING RULES FOR CANADIAN LUMBER; SHALL BE GRADE STAMPED, AND SHALL CONFORM TO CSA 0141.
5) EXTERIOR WALL SHEATHING SHALL BE UNSANDED EXTERIOR TYPE PLYWOOD HAVING AT LEAST FOUR PLIES AND SHALL BE LIMITED TO THE FOLLOWING SPECIES: WESTERN HEMLOCK, AMABILIS FIR, GRAND FIR, AND COST DOUGLAS FIR. ALL SUCH PLYWOOD SHALL BEAR MARKINGS IDENTIFYING IT AS "HEM-FIR" PLYWOOD, AND SHALL BE:
   1. PLYWOOD MANUFACTURED IN ACCORDANCE WITH CSA 0121; OR
   2. PLYWOOD MANUFACTURED IN ACCORDANCE WITH CSA 0151.
6) NAILS FOR FASTENING TREATED MATERIAL WHICH IS USED EITHER ABOVE OR BELOW GRADE SHALL BE HOT-DIPPED GALVANIZED OR STAINLESS STEEL CONFORMING TO CSA B111. NAIL SIZES AND DIMENSIONS SHALL CONFORM TO CSA B111 FOR COMMON ROUND WIRE NAILS AND FOR SPIRAL NAILS.
7) FRAMING ANCHORS AND STRAPS IN CONTACT WITH TREATED MATERIALS SHALL BE GALVANIZED TO CONFORM TO ASTM A653/A653M.

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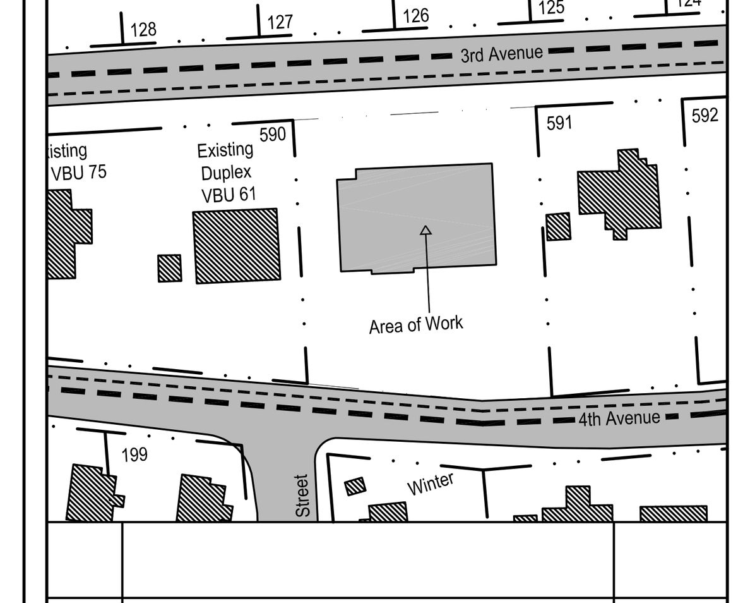

No.	Description	Date
0	ISSUED FOR TENDER	04-07-2015

Revisions:

All measurements are to be checked and verified on site by the contractor before proceeding with the work.

Do not scale the drawings.

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AGE Project# E121-13-009

Project:

FEDERAL BUILDING
ARVIAT, NUNAVUT

Drawn By:	Date:
ALG	04-07-2015
Checked By:	Scale:
KRD	NTS

Sheet Title:
AND STRUCTURAL ABBREVIATIONS
DESIGN SPECIFICATION, NOTES

Sheet Number:
S001

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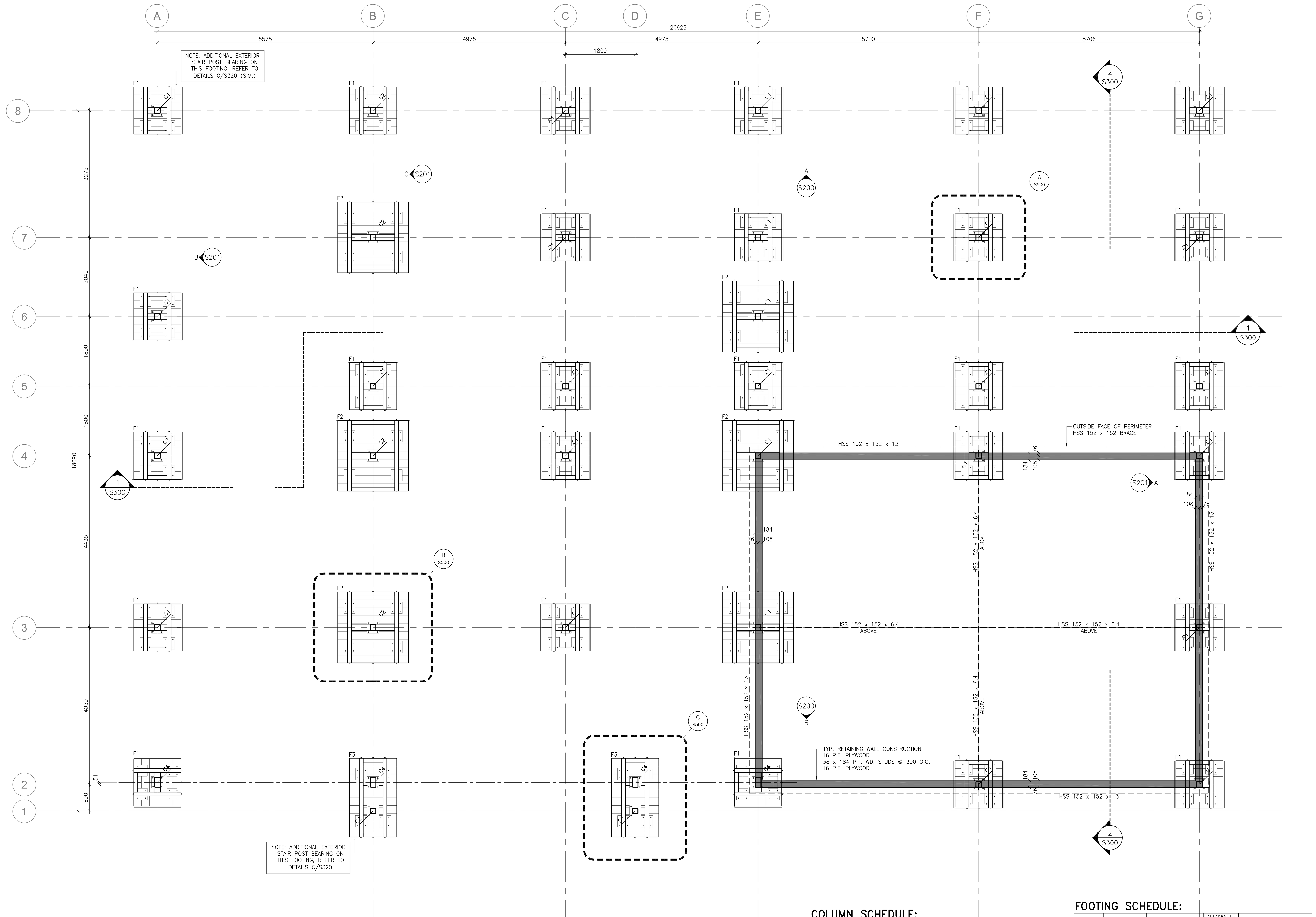

A / S100 FOUNDATION PLAN

1:50

- UNDERSIDE OF FOOTING ELEVATION = 95.950 U.N.O.
- REFER TO DRAWINGS S320 & S321 FOR EXTERIOR STAIR FOUNDATION PLANS.

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COLUMN SCHEDULE:

MARK	SIZE	BASE PLATE	ANCHORS
C1	HSS 152 x 152 x 6.4	PL 19 x 300 x 300	4 – 19 DIA. A325 GALVANIZED BOLTS
C2	HSS 152 x 152 x 13	PL 19 x 300 x 300	4 – 19 DIA. A325 GALVANIZED BOLTS
C3	HSS 127 x 127 x 6.4	PL 16 x 275 x 275	4 – 16 DIA. A325 GALVANIZED BOLTS
C4	HSS 152 x 254 x 8	PL 19 x 300 x 300	4 – 19 DIA. A325 GALVANIZED BOLTS

NOTE:

FOOTING SCHEDULE:

MARK	SIZE	REINFORCING	ALLOWABLE CAPACITY	REMARKS
F1	1219 x 1219	3–20M DIA. THREADED H.D. GALV. RODS	220 KN	REFER TO DETAIL A/S500 FOR FOOTING DETAIL
F2	1829 x 1829	3–20M DIA. THREADED H.D. GALV. RODS	500 KN	REFER TO DETAIL B/S500 FOR FOOTING DETAIL
F3	1219 x 2032	3–20M DIA. THREADED H.D. GALV. RODS	370 KN	REFER TO DETAIL C/S500 FOR FOOTING DETAIL
F4	610 x 610	2–20M DIA. THREADED H.D. GALV. RODS	55 KN	REFER TO DETAIL D/S500 FOR FOOTING DETAIL
F5	1016 x 610	2–20M DIA. THREADED H.D. GALV. RODS	92 KN	REFER TO DETAIL E/S500 FOR FOOTING DETAIL

NOTE: ALL LUMBER SHALL BE PRESSURE TREATED.

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Project:

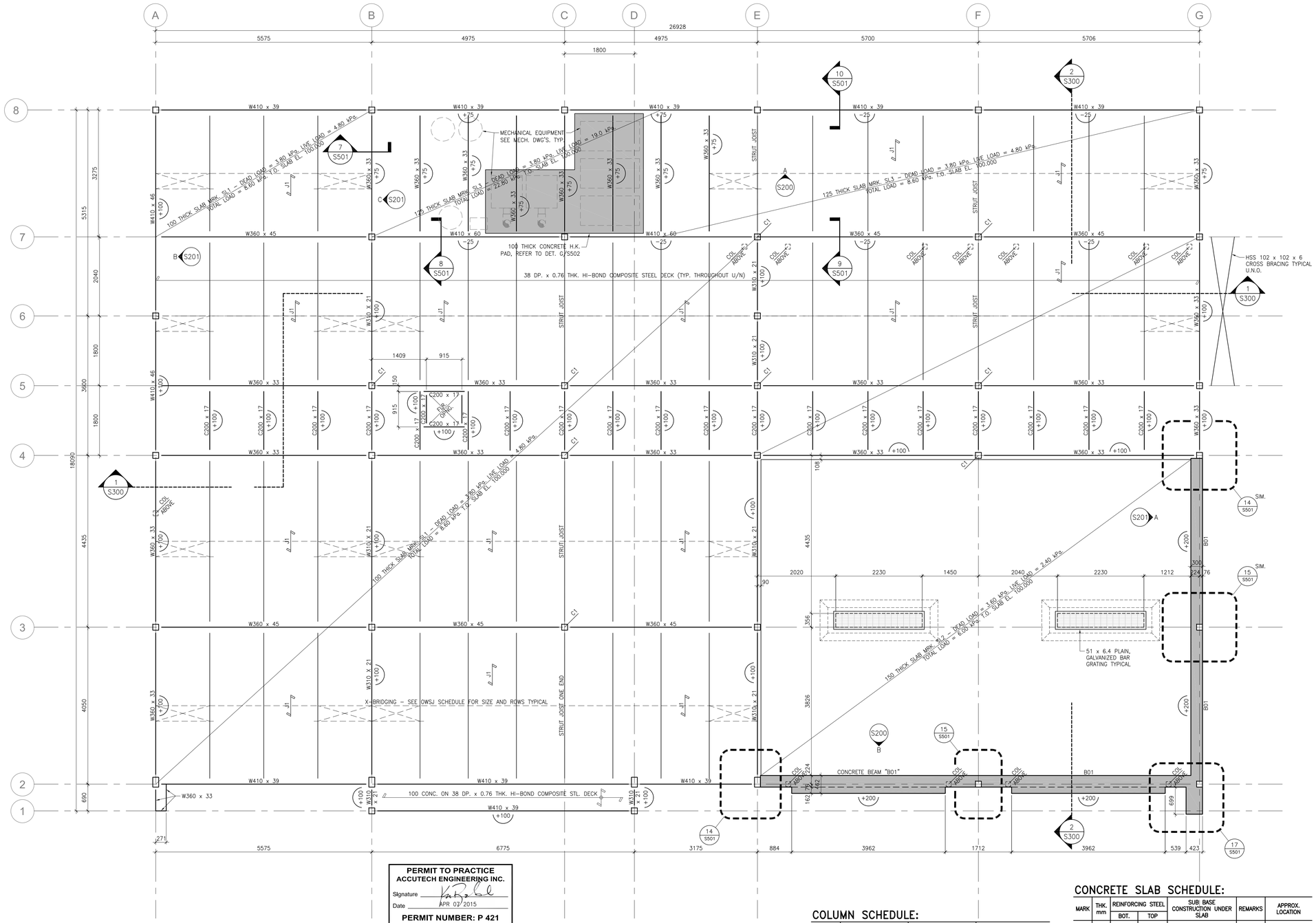
FEDERAL BUILDING
ARVIAT, NUNAVUT

Drawn By: ALG	Date: 04–07–2015
Checked By: KRD	Scale: 1:50

Sheet Title:
FOUNDATION PLAN

Sheet Number:
S100

FILENAME: W:\14626 - Parkin Architects\01.Arviat RCMP Station\Drawings\Current\S100 Foundation Plan.dwg
PLOTDATE: Apr 08, 2015 - 3:32pm



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A / S101 MAIN FLOOR FRAMING PLAN

1:50

* TOP OF STEEL ELEVATION = 99.800 U.N.O. (+/–)
* ALL OPENINGS THROUGH MAIN FLOOR TO BE COORDINATED WITH MECHANICAL & ELECTRICAL TRADES.
* PROVIDE L 100 x 100 x 6 CONTINUOUS DECK SUPPORT ALL AROUND.
* PROVIDE L 125 x 90 x 6 CONTINUOUS DECK SUPPORT ALL AROUND MECHANICAL ROOM & SLAB TYPE "SL3".

CONCRETE BEAM SCHEDULE:

MARK	SIZE	REINFORCING	REMARKS
B01	300 WIDE x 650 DEEP	3 – 20M TOP & BOT. 10M TIES @ 200 O.C.	–

NOTE:

OWS JOIST SCHEDULE:

MARK	DEPTH	SIZE & ROWS OF BRIDGING	SPACING
J1	750	BRIDGING SIZE AND LOCATION AS PER JOIST MANUFACTURER	1500 O/C MAX
J2	700	BRIDGING SIZE AND LOCATION AS PER JOIST MANUFACTURER	1500 O/C MAX
J3	400	BRIDGING SIZE AND LOCATION AS PER JOIST MANUFACTURER	1500 O/C MAX

NOTE:

COLUMN SCHEDULE:

MARK	SIZE	BASE PLATE	ANCHORS
C1	HSS 152 x 152 x 6.4	PL 19 x 300 x 300	4 – 19 DIA. A325 GALVANIZED BOLTS
C2	HSS 152 x 152 x 13	PL 19 x 300 x 300	4 – 19 DIA. A325 GALVANIZED BOLTS
C3	HSS 127 x 127 x 6.4	PL 16 x 275 x 275	4 – 16 DIA. A325 GALVANIZED BOLTS
C4	HSS 152 x 254 x 8	PL 19 x 300 x 300	4 – 19 DIA. A325 GALVANIZED BOLTS

NOTE:

CONCRETE SLAB SCHEDULE:

MARK	THK. mm	REINFORCING STEEL BOT.	REINFORCING STEEL TOP	SUB BASE CONSTRUCTION UNDER SLAB	REMARKS	APPROX. LOCATION
SL1	100	10M @ 300 O.C. E.W.	–	38mm HI-BOND COMPOSITE STEEL DECK x 0.76mm THICK	–	MAIN FLOOR MEZZANINE
SL2	150	15M @ 300 O.C. E.W.	15M @ 300 O.C. E.W.	PREPRUFE 300R PLUS ON 2 LAYERS OF 75 THICK HI-40 RIGID INSUL. 300 COMPACTED GRANULAR FILL, COMPACTED TO 100% MOD. PROCTOR DENSITY. REMAINING FILL @ 95% MOD. PROCTOR DENSITY	MAX. COMP. GRAN. FILL LIFT 150mm	GARAGE BAY SECURE BAY
SL3	125	10M @ 300 O.C. E.W.	–	38mm HI-BOND COMPOSITE STEEL DECK x 0.76mm THICK	–	MECH. ROOM & CELL AREA

NOTE: REFER TO SECTION DETAILS.

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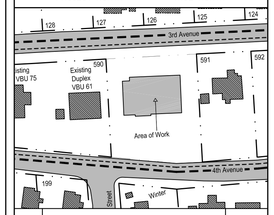

No.	Description	Date
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Revisions:

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Project:

FEDERAL BUILDING
ARVIAT, NUNAVUT

Drawn By: ALG	Date: 04–07–2015
Checked By: KRD	Scale: 1:50

Sheet Title:
MAIN FLOOR FRAMING PLAN

Sheet Number:
S101

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PLOTDATE: Apr 08, 2015 – 11:43am

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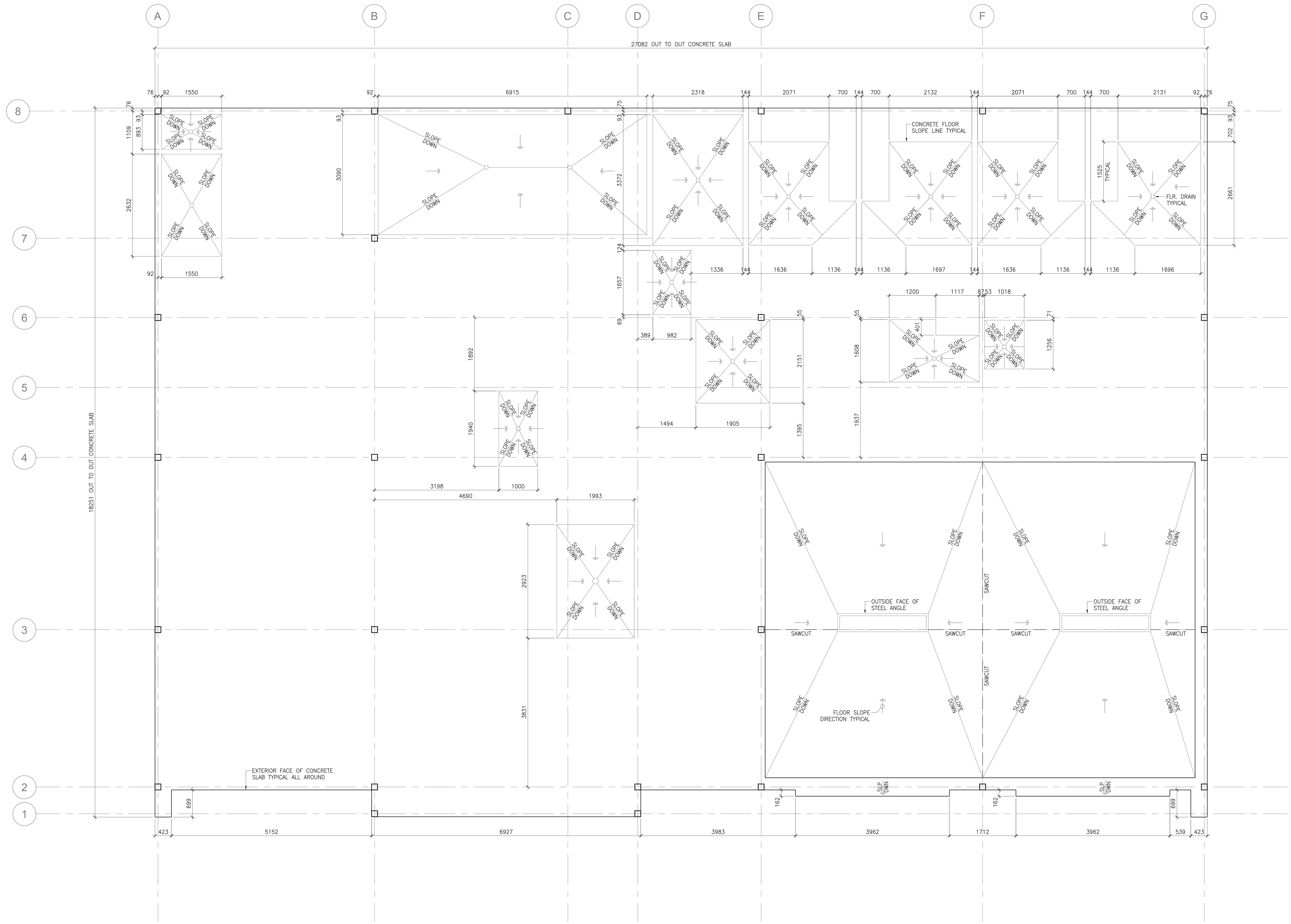

A / S102 **MAIN FLOOR CONCRETE SLOPE PLAN**

1:50

- ALL FLOOR SLOPES ARE 1% UNLESS NOTED OTHERWISE.

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Date APR 07 2015

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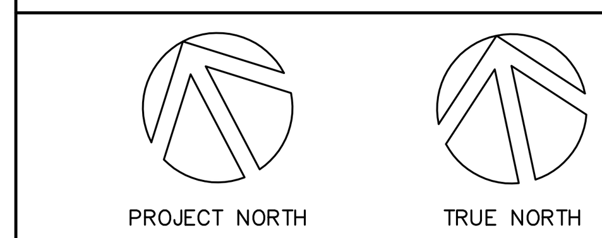

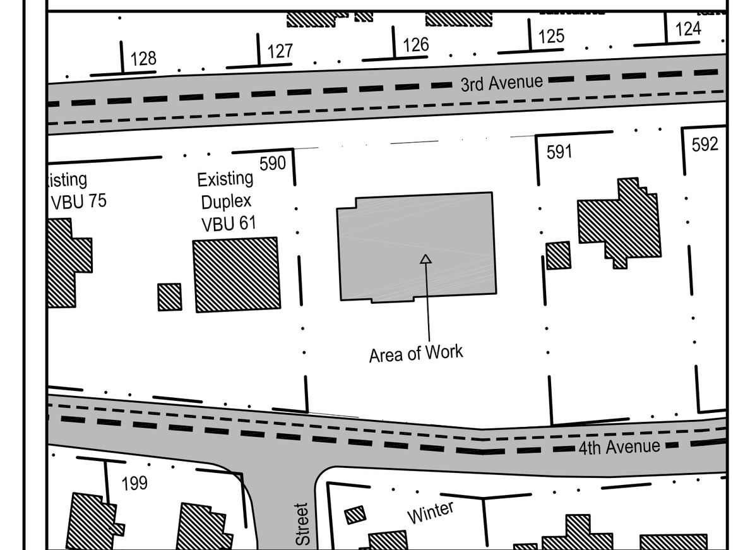

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Project:

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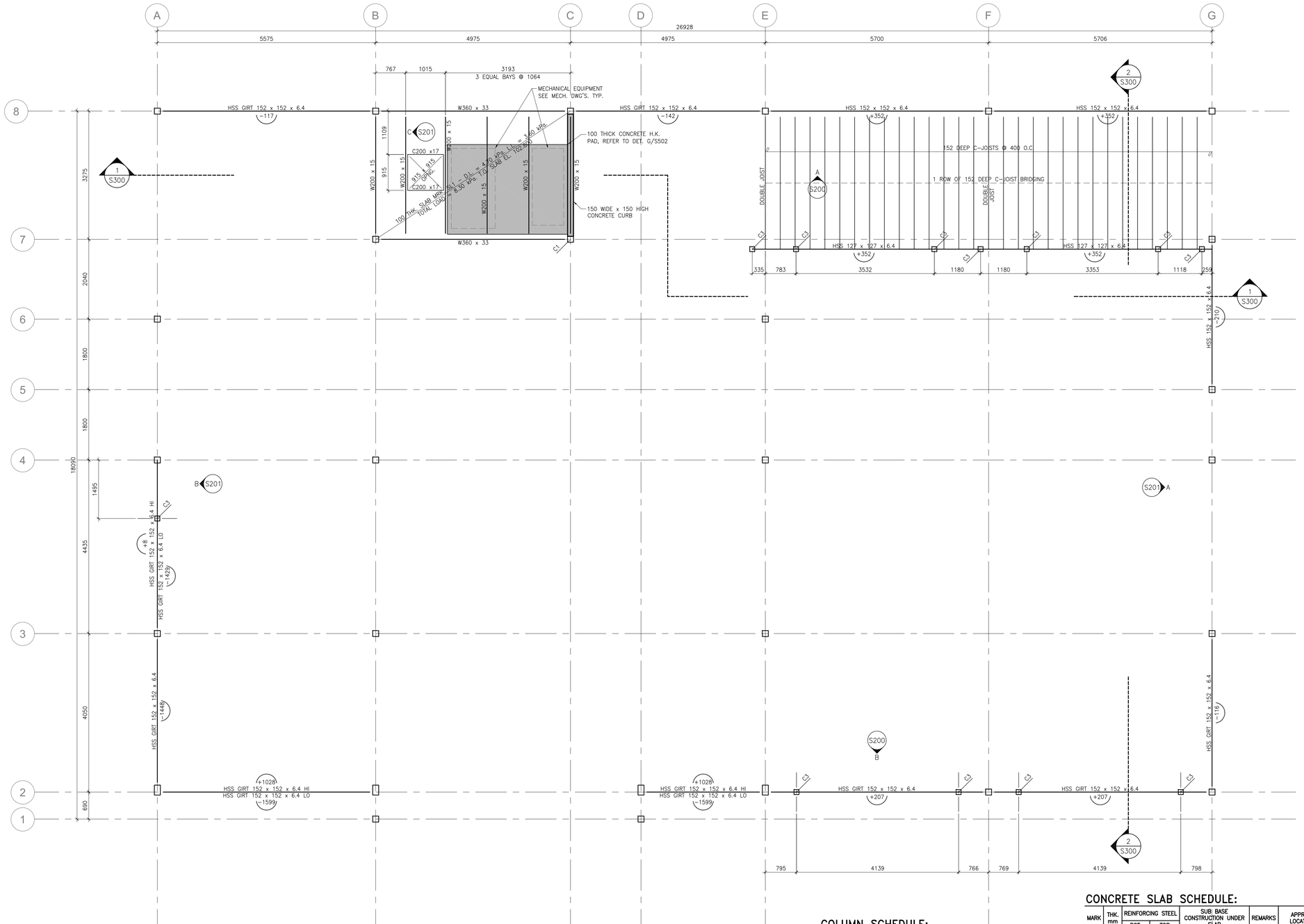
Sheet Title:
MAIN FLOOR
CONCRETE SLOPE PLAN

Sheet Number:
S102

FILENAME: W:\A626 - Parkin Architects\01.Arviat RCMP Station\Drawings\Current\S102 Main Floor Concrete Slope Plan.dwg
PLOTDATE: Apr 08, 2015 - 3:33pm



A
S103

MEZZANINE FRAMING PLAN

1:50

- TOP OF STEEL ELEVATION = 102.700 U.N.O. (+/-)
- ALL OPENINGS THROUGH MAIN FLOOR TO BE COORDINATED WITH MECHANICAL & ELECTRICAL TRADES.
- DESIGN DEAD LOAD = 3.35 kPa U.N.O. (UNFACTORED).
- DESIGN LIVE LOAD = 3.60 kPa U.N.O. (UNFACTORED).
- TOTAL LOAD = 8.60 kPa U.N.O. (UNFACTORED).
- PROVIDE L 102 x 102 x 6 CONTINUOUS DECK SUPPORT ALL AROUND.

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Date APR 07 2015
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COLUMN SCHEDULE:

MARK	SIZE	BASE PLATE	ANCHORS
C1	HSS 152 x 152 x 6.4	PL 19 x 300 x 300	4 – 19 DIA. A325 GALVANIZED BOLTS
C2	HSS 152 x 152 x 13	PL 19 x 300 x 300	4 – 19 DIA. A325 GALVANIZED BOLTS
C3	HSS 127 x 127 x 6.4	PL 16 x 275 x 275	4 – 16 DIA. A325 GALVANIZED BOLTS
C4	HSS 152 x 254 x 8	PL 19 x 300 x 300	4 – 19 DIA. A325 GALVANIZED BOLTS

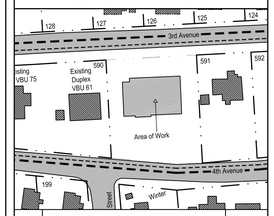
NOTE:

CONCRETE SLAB SCHEDULE:

MARK	THK. mm	REINFORCING STEEL		SUB BASE CONSTRUCTION UNDER SLAB	REMARKS	APPROX. LOCATION
		BOT.	TOP			
SL1	100	10M @ 300 O.C. E.W.	–	38mm HI-BOND COMPOSITE STEEL DECK x 0.76mm THICK	–	MAIN FLOOR MEZZANINE
SL2	150	15M @ 300 O.C. E.W.	15M @ 300 O.C. E.W.	PREPRUFE 300R PLUS ON 2 LAYERS OF 75 THICK HI-40 RIGID INSUL. 300 COMPACTED GRANULAR FILL, COMPACTED TO 100% MOD. PROCTOR DENSITY. REMAINING FILL @ 95% MOD. PROCTOR DENSITY	MAX. COMP. GRAN. FILL LIFT 150mm	GARAGE BAY SECURE BAY
SL3	125	10M @ 300 O.C. E.W.	–	38mm HI-BOND COMPOSITE STEEL DECK x 0.76mm THICK	–	MECH. ROOM & CELL AREA

NOTE: REFER TO SECTION DETAILS.

PROJECT NORTH
TRUE NORTH



No.	Description	Date
0	ISSUED FOR TENDER	04-07-2015

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

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

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K.R. BRYSDALE
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NORTHWEST TERRITORIES PROFESSIONAL ENGINEERS
NWT/NU

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AGE Project# E121-13-005

Project:

FEDERAL BUILDING
ARVIAT, NUNAVUT

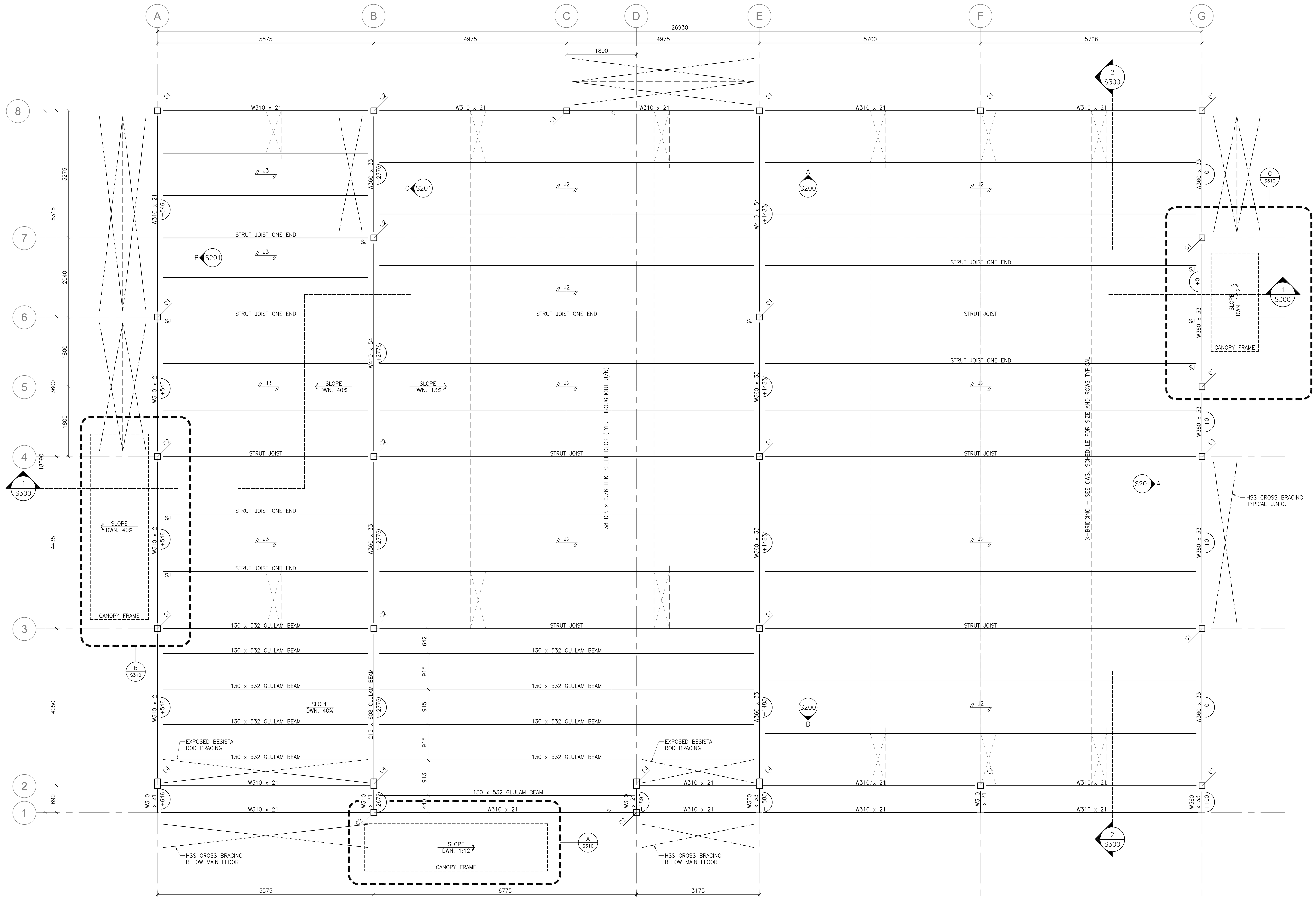
Drawn By: ALG	Date: 04-07-2015
Checked By: KRD	Scale: 1:50

Sheet Title:
MEZZANINE FRAMING PLAN

Sheet Number:
S103

FILENAME: W:\16526 – Parkin Architects\01-Arviat RCMP Station\Drawings\Current\S103 Mezzanine Framing Plan.dwg
PLOTDATE: Apr 08, 2015 – 3:49pm

A1 594x841



ROOF FRAMING PLAN

A / S104

1:50

* TOP OF STEEL ELEVATION = 103.654 U.N.O. (+/−)
* DESIGN SNOW LOAD = 3.52 kPa U.N.O. (UNFACTORED).
* DESIGN DEAD LOAD = 1.40 kPa U.N.O. (UNFACTORED).
* DESIGN WIND LOAD = 1.72 kPa (q 1/50) (UNFACTORED).
* PROVIDE L 100 x 100 x 6 ALL AROUND PERIMETER OF ROOF UNLESS NOTED OTHERWISE.
* COORDINATE LOCATION, SIZE AND WEIGHTS OF ALL MECHANICAL EQUIPMENT WITH MECHANICAL CONSULTANTS AND MECHANICAL SUB-CONTRACTORS PRIOR TO START OF FABRICATION.
* ALL CROSS BRACING SHALL BE HSS 102 x 102 x 6.4 IN "ONE PLANE" U.N.O. REFER TO BRACING ELEVATIONS ON DRAWING S200 / S201. BRACING DESIGN = 150KN TENSION (UNFACTORED).

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OWS JOIST SCHEDULE:

MARK	DEPTH	SIZE & ROWS OF BRIDGING	SPACING
J1	750	BRIDGING SIZE AND LOCATION AS PER JOIST MANUFACTURER	1500 O/C MAX
J2	700	BRIDGING SIZE AND LOCATION AS PER JOIST MANUFACTURER	1500 O/C MAX
J3	400	BRIDGING SIZE AND LOCATION AS PER JOIST MANUFACTURER	1500 O/C MAX

NOTE:

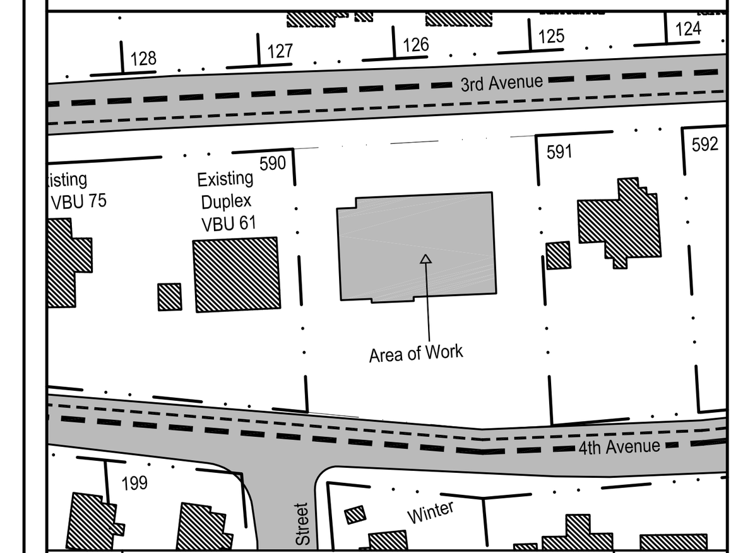
COLUMN SCHEDULE:

MARK	SIZE	BASE PLATE	ANCHORS
C1	HSS 152 x 152 x 6.4	PL 19 x 300 x 300	4 – 19 DIA. A325 GALVANIZED BOLTS
C2	HSS 152 x 152 x 13	PL 19 x 300 x 300	4 – 19 DIA. A325 GALVANIZED BOLTS
C3	HSS 127 x 127 x 6.4	PL 16 x 275 x 275	4 – 16 DIA. A325 GALVANIZED BOLTS
C4	HSS 152 x 254 x 8	PL 19 x 300 x 300	4 – 19 DIA. A325 GALVANIZED BOLTS

NOTE:

A1 594x841

PROJECT NORTH   TRUE NORTH



No.	Description	Date
0	ISSUED FOR TENDER	04-07-2015

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Project:

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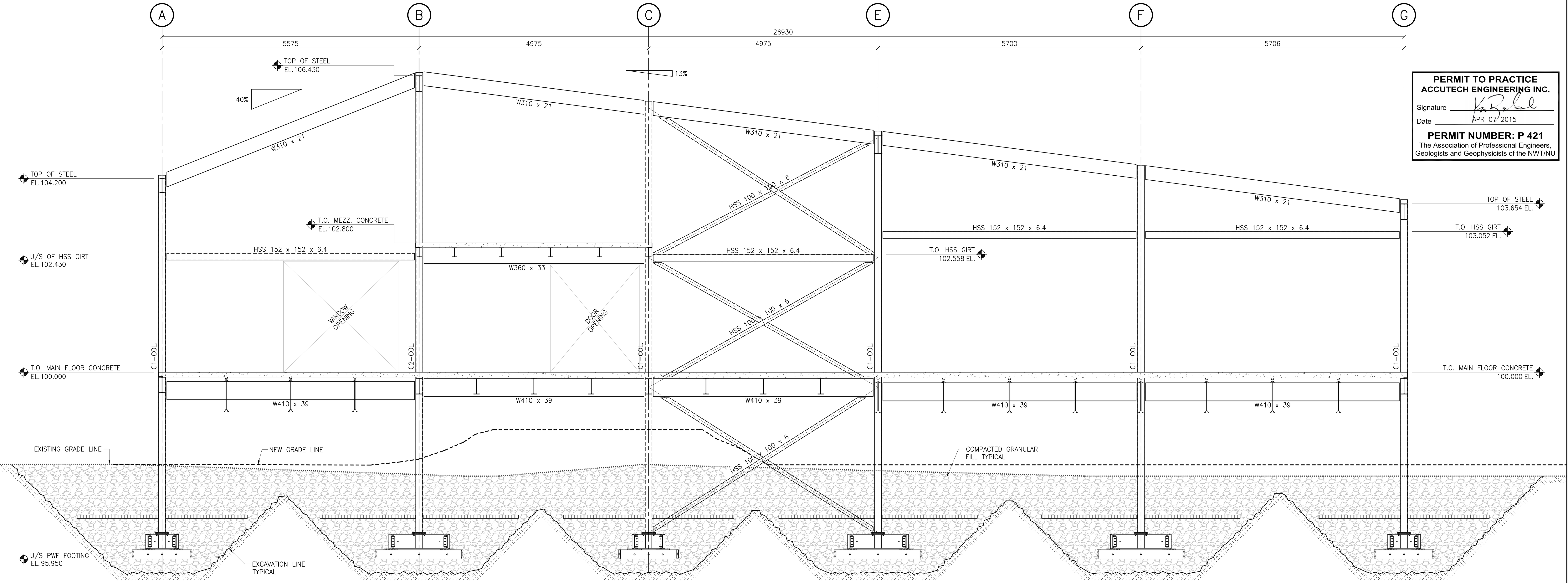
Drawn By: ALG	Date: 04-07-2015
Checked By: KRD	Scale: 1:50

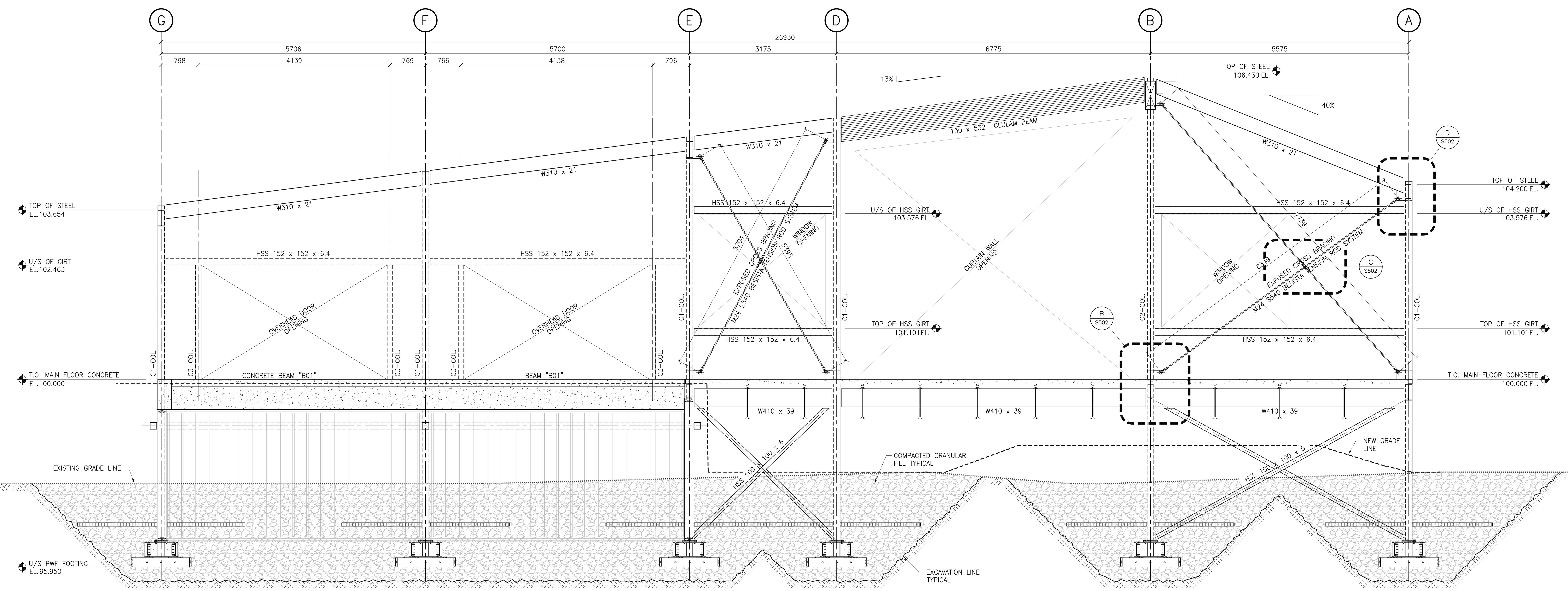
Sheet Title:
ROOF FRAMING PLAN

Sheet Number:
S104

FILENAME: W:\A626 – Parkin Architects\01.Arviat RCMP Station\Drawings\Current\S104 Roof Framing Plan.dwg
PLOTDATE: Apr 08, 2015 3:33pm



A / S200 NORTH WALL – BRACING ELEVATION
1:50



B / S200 SOUTH WALL – BRACING ELEVATION
1:50

A1 594x841

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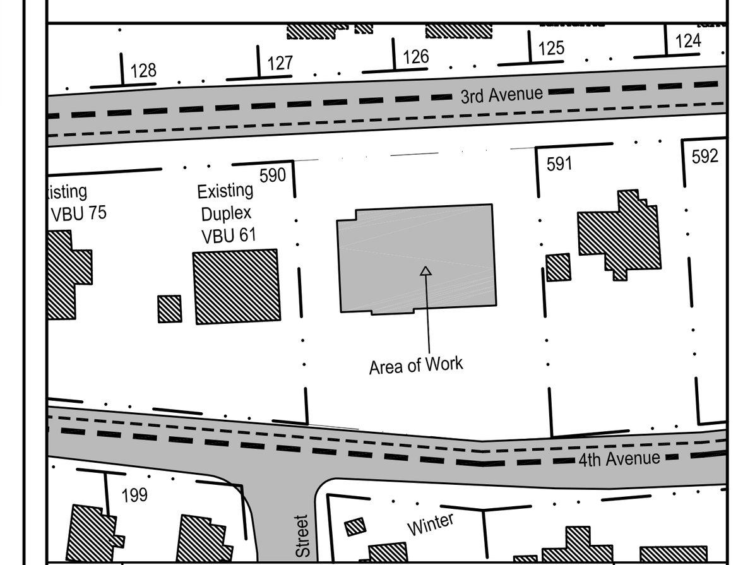
PROJECT NORTH
TRUE NORTH



No.	Description	Date
0	ISSUED FOR TENDER	04-07-2015

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AGE Electrical Engineers — A.G. Engineering

Project:

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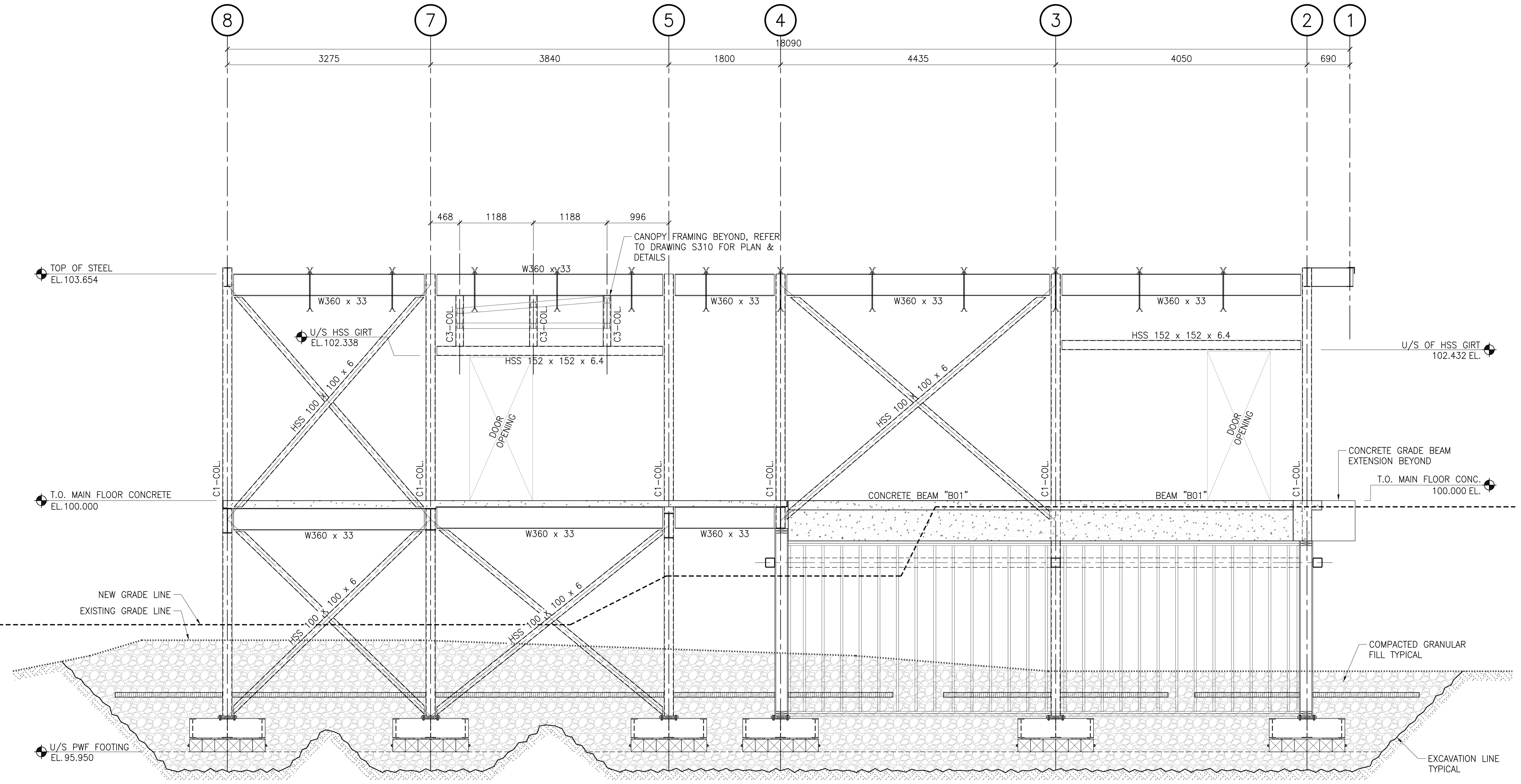
ARVIAT, NUNAVUT

Drawn By: ALG	Date: 04-07-2015
Checked By: KRD	Scale: 1:50

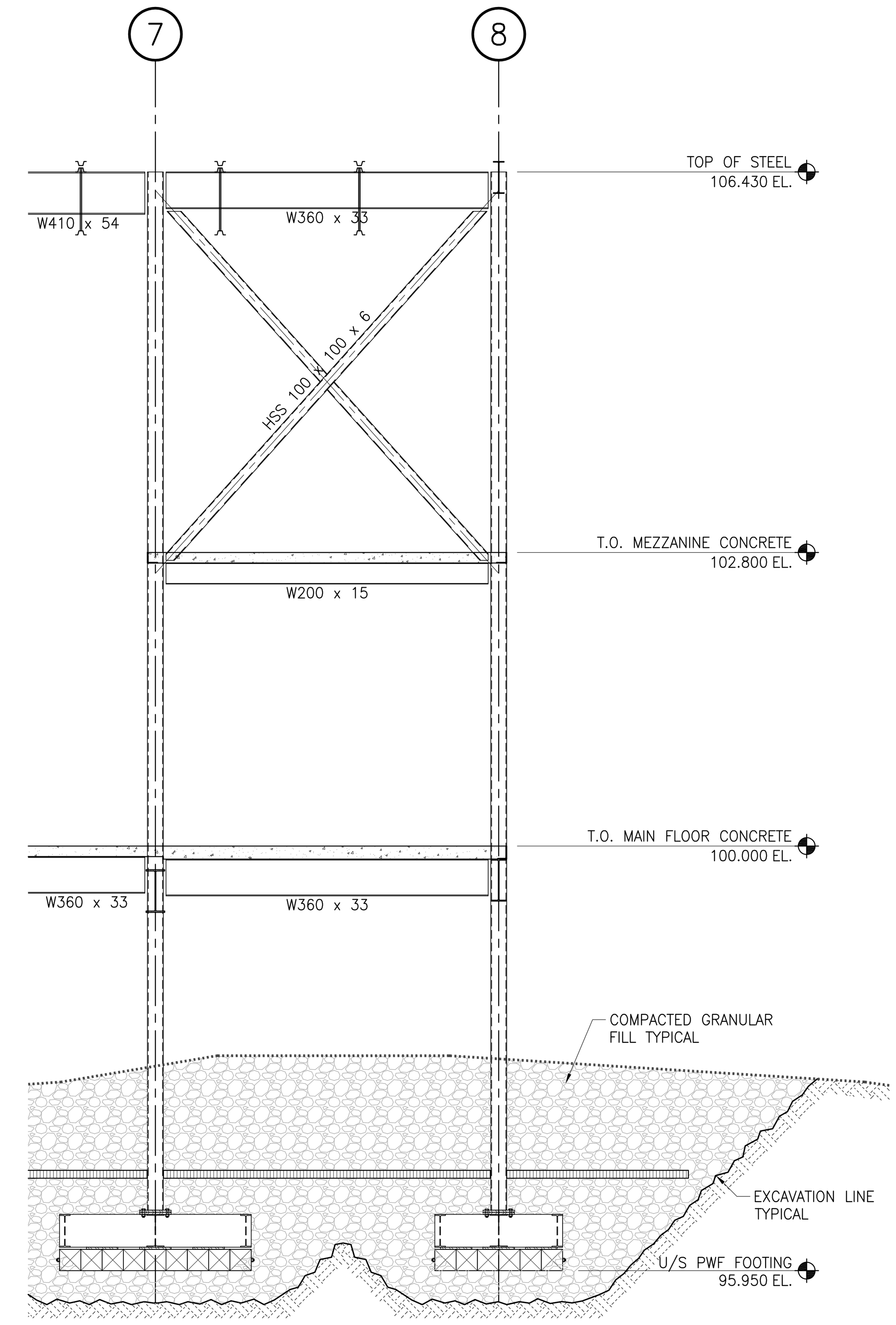
Sheet Title:
BRACING ELEVATIONS

Sheet Number:
S200

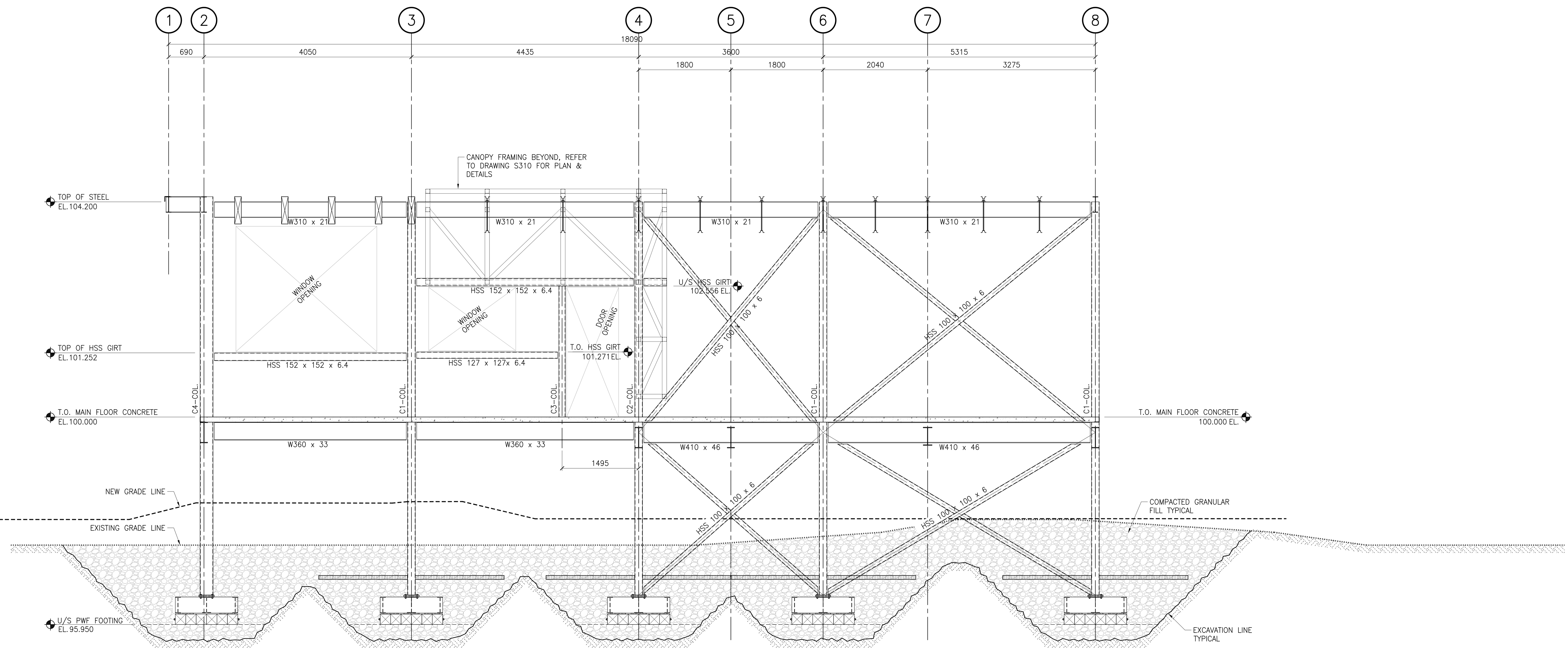
FILENAME: W:\4626 - Parkin Architects\01.Arviat RCMP Station\Drawings\Current\S200 Bracing Elevations.dwg
PLOTDATE: Apr 08, 2015 3:35pm



A S201 EAST WALL – BRACING ELEVATION
1:50



C S201 BRACING ELEVATION ALONG G.L."B"
1:50



B S201 WEST WALL – BRACING ELEVATION
1:50

A1 594x841

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Date APR 07 2015
PERMIT NUMBER: P 421
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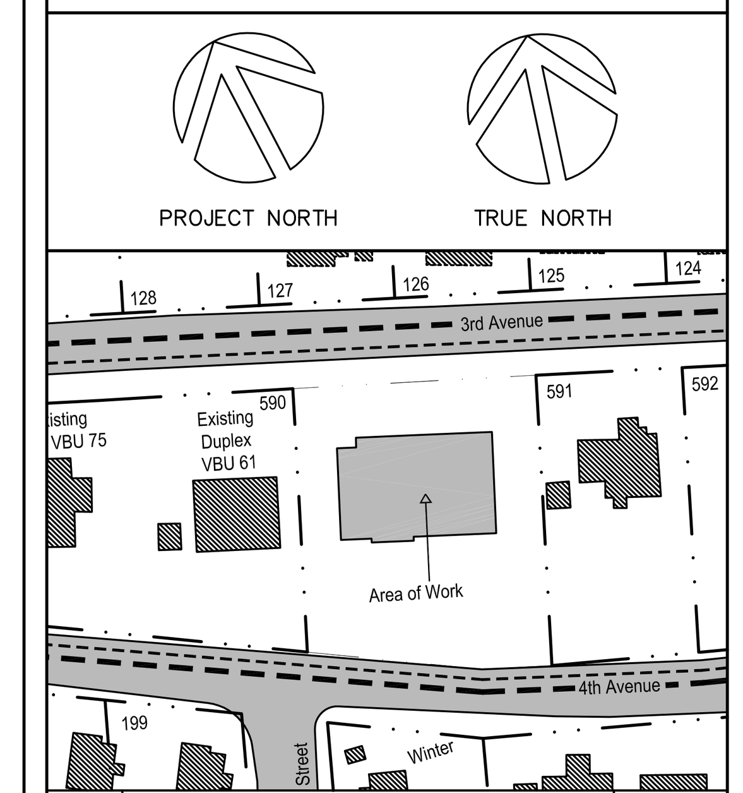

No.	Description	Date
0	ISSUED FOR TENDER	04-07-2015

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AGE Electrical Engineers

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ARVIAT, NUNAVUT

Drawn By: ALG	Date: 04-07-2015
Checked By: KRD	Scale: 1:50

Sheet Title:
BRACING ELEVATIONS

Sheet Number:
S201

FILENAME: W:\A6026 – Parkin Architects\01 Arviat RCMP Station\Drawings\Current\S201 Bracing Elevations.dwg
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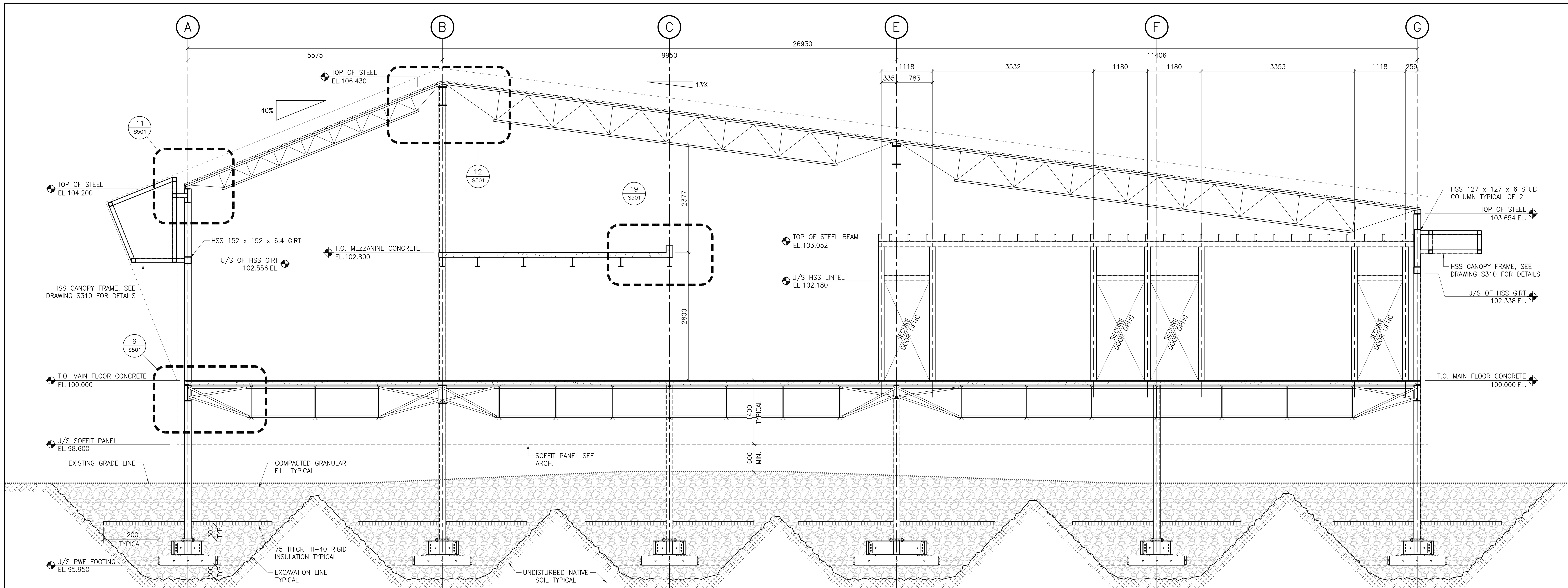
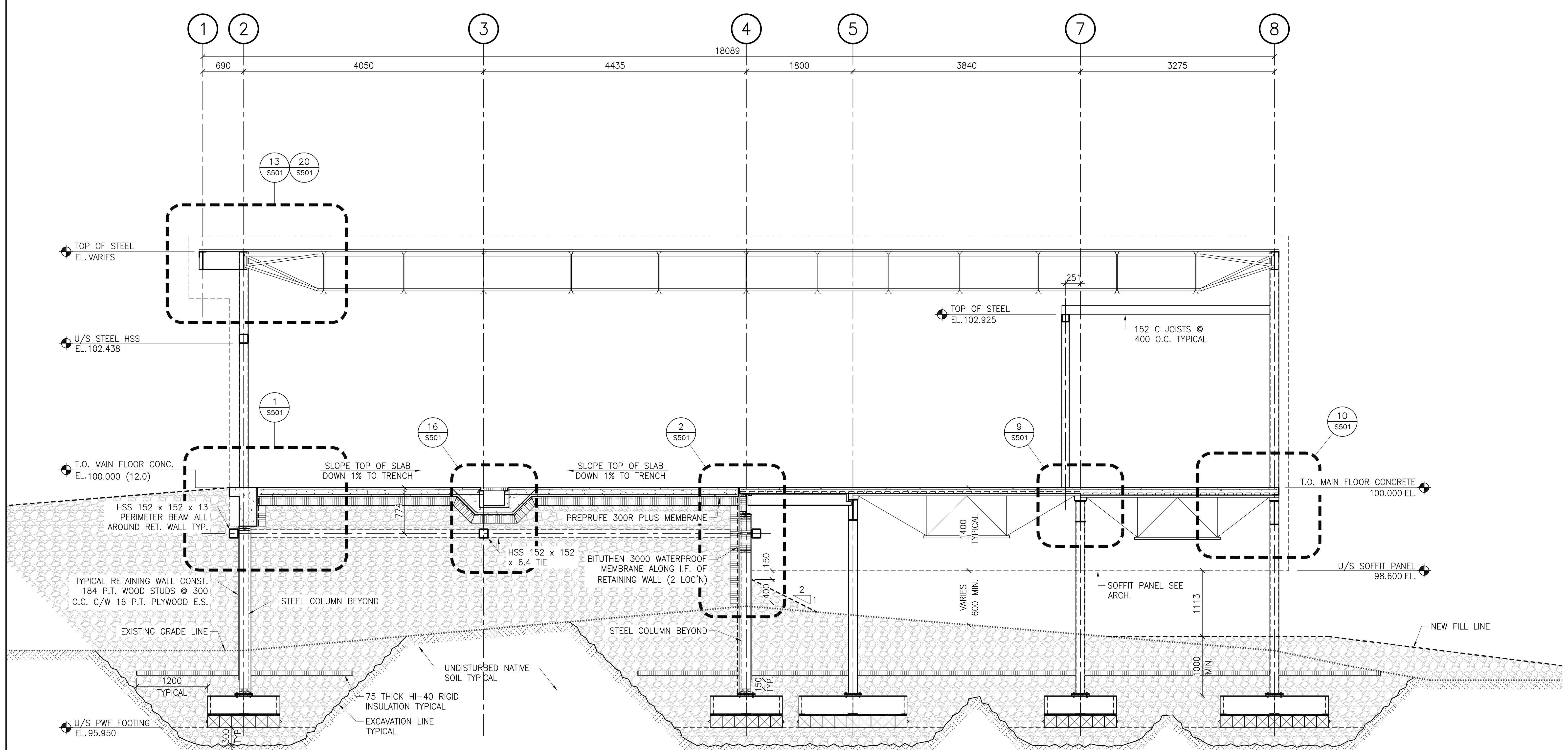


1 BUILDING SECTION
S300
1:50



2 BUILDING SECTION
S300
1:50

A1 594x841

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Date APR 07 2015
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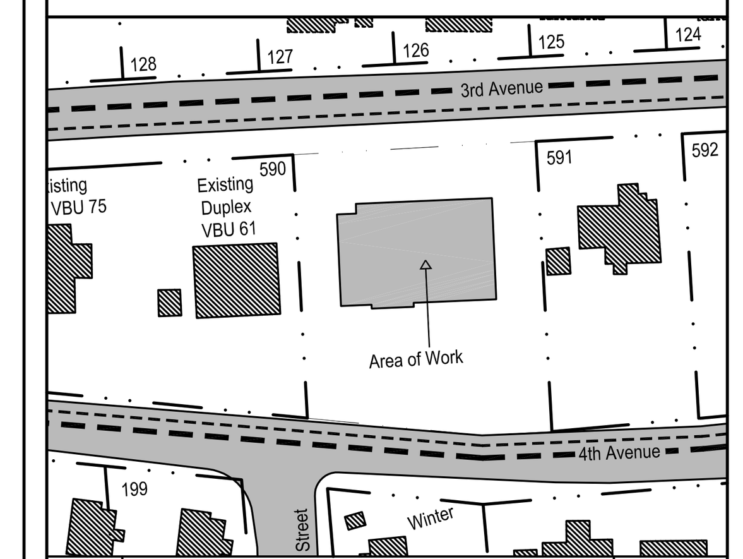
PROJECT NORTH
TRUE NORTH



No.	Description	Date
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AGE A.G. Engineering
Electrical Engineers

Project:

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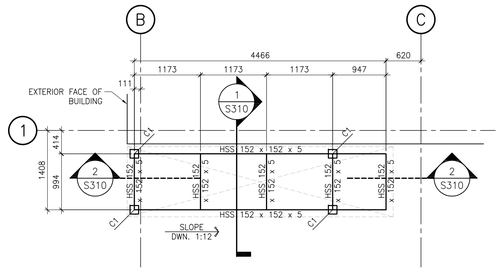
ARVIAT, NUNAVUT

Drawn By: ALG	Date: 04-07-2015
Checked By: KRD	Scale: 1:50

Sheet Title:
STRUCTURAL BUILDING SECTIONS

Sheet Number:
S300

FILENAME: W:\4626 - Parkin Architects\01 Arviat RCMP Station\Drawings\Current\S300 Structural Building Sections.dwg
PLOTDATE: Apr 08, 2015 3:33pm

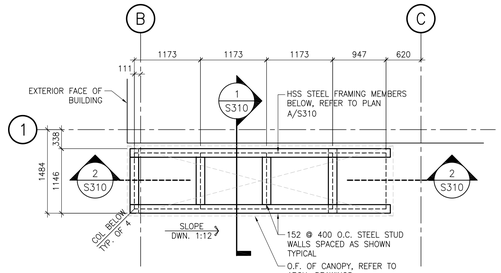


A S310 CANOPY FRAMING PLAN (LOW)

1:50

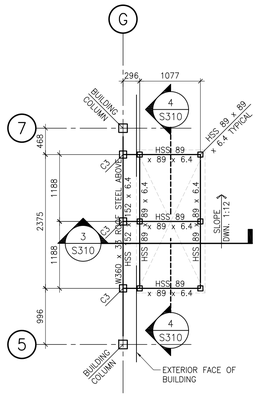
* U/S OF STEEL ELEVATION = 103.296 U.N.O.

* SNOW LOAD = 2.52 kPa.



B S310 CANOPY FRAMING PLAN (HIGH)

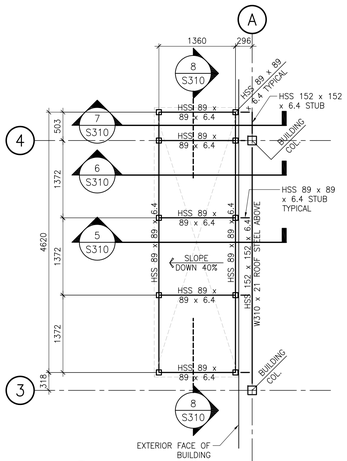
1:50



C S310 CANOPY FRAMING PLAN

1:50

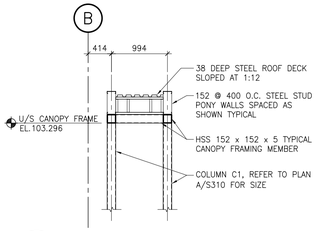
* SNOW LOAD = 7.26 kPa.



D S310 CANOPY FRAMING PLAN

1:50

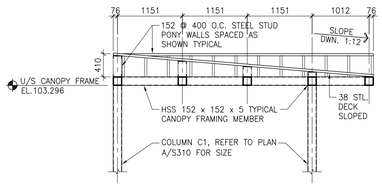
* SNOW LOAD = 2.52 kPa.



1 S310 SECTION THRU CANOPY FRAME

1:50

* REFER TO ARCHITECTURAL FOR FINISHES.



2 S310 SECTION THRU CANOPY FRAME

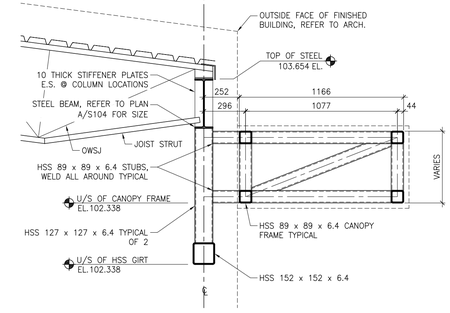
1:50

* REFER TO ARCHITECTURAL FOR FINISHES.

COLUMN SCHEDULE:

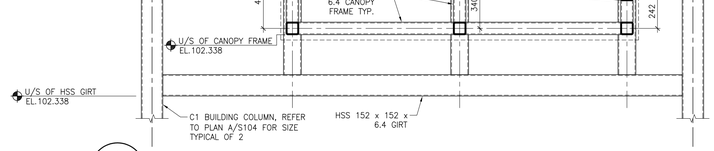
MARK	SIZE	BASE PLATE	ANCHORS
C1	HSS 152 x 152 x 6.4	PL 19 x 300 x 300	4 – 19 DIA. A325 GALVANIZED BOLTS
C2	HSS 152 x 152 x 13	PL 19 x 300 x 300	4 – 19 DIA. A325 GALVANIZED BOLTS
C3	HSS 127 x 127 x 6.4	PL 16 x 275 x 275	4 – 16 DIA. A325 GALVANIZED BOLTS
C4	HSS 152 x 254 x 8	PL 19 x 300 x 300	4 – 19 DIA. A325 GALVANIZED BOLTS

NOTE:



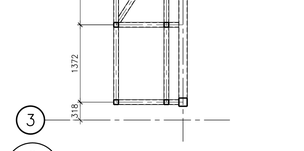
3 S310 SECTION THRU CANOPY FRAME

1:20



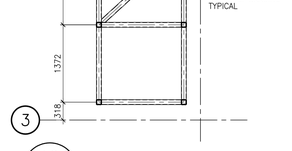
4 S310 SECTION THRU CANOPY FRAME

1:20



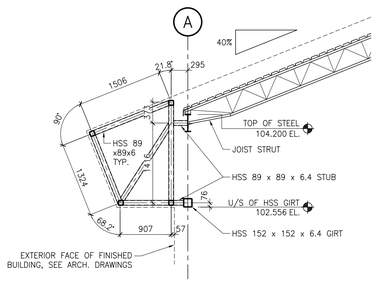
9 S310 SECTION THRU BRACING

1:50



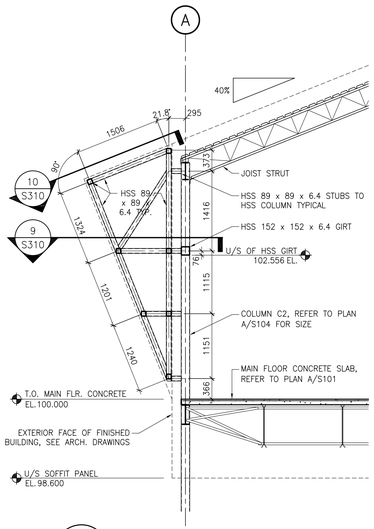
10 S310 SECTION THRU BRACING

1:50



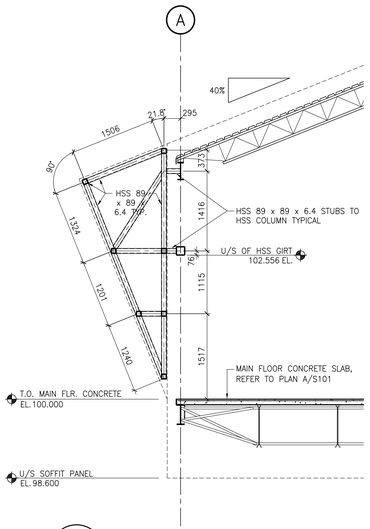
5 S310 SECTION THRU CANOPY

1:50



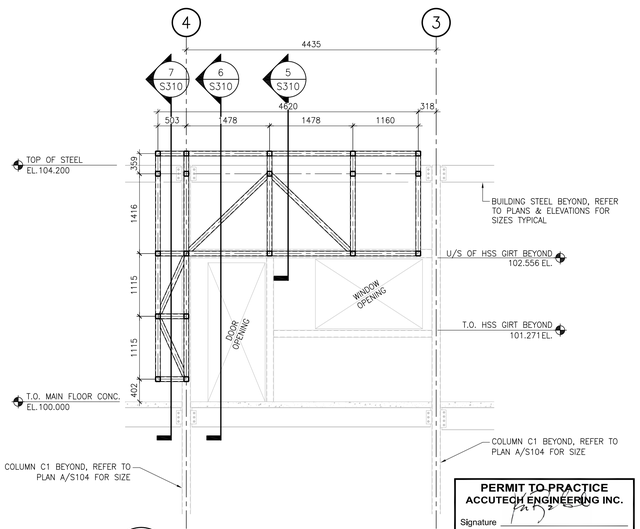
6 S310 SECTION THRU CANOPY

1:50



7 S310 SECTION THRU CANOPY

1:50



8 S310 SECTION THRU CANOPY

1:50

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Date APR 07 2015
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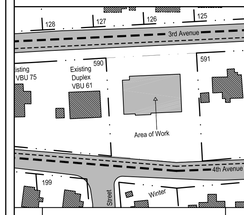

No.	Description	Date
0	ISSUED FOR TENDER	04-07-2015

Revisions:

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Prime Consultant:

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APR 07 2015
K.R. DRYSDALE
LICENSED
PROFESSIONAL ENGINEERS
NWT/NU

Sub Consultant:

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Thunder Bay, ON, P7C 1G7
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Cell: (807) 627-8194
Fax: (807) 622-3633
AGE Project # 2121-15-009

Project:

FEDERAL BUILDING
ARVIAT, NUNAVUT

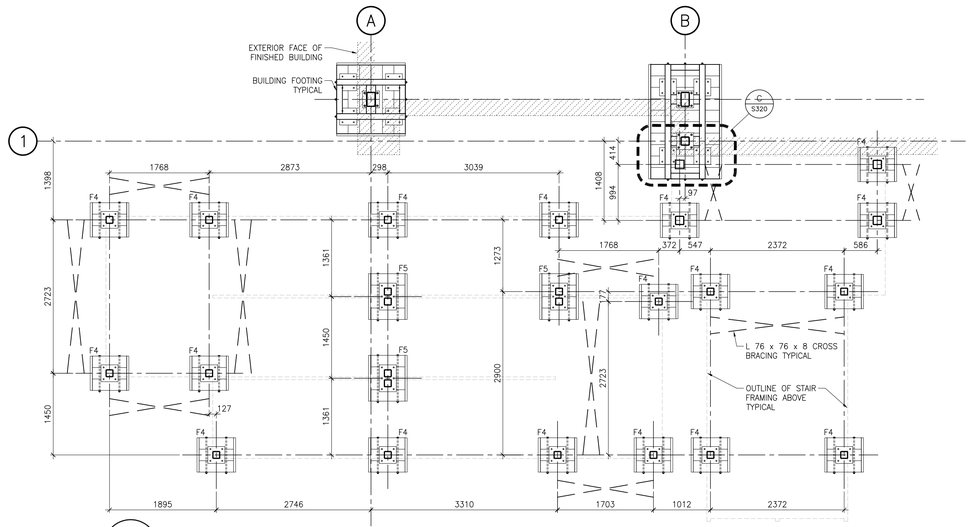
Drawn By:	Date:
ALG	04-07-2015
Checked By:	Scale:
KRD	1:50

Sheet Title:
CANOPY FRAMING PLANS
SECTIONS AND DETAILS

Sheet Number:
S310

FILENAME: R:\1426 - Parkin Architects\01 Arviat RCMP Station\Drawings\Current\S310 Canopy Framing Plans.dwg
PLOTDATE: Apr 08, 2015 - 3:43pm

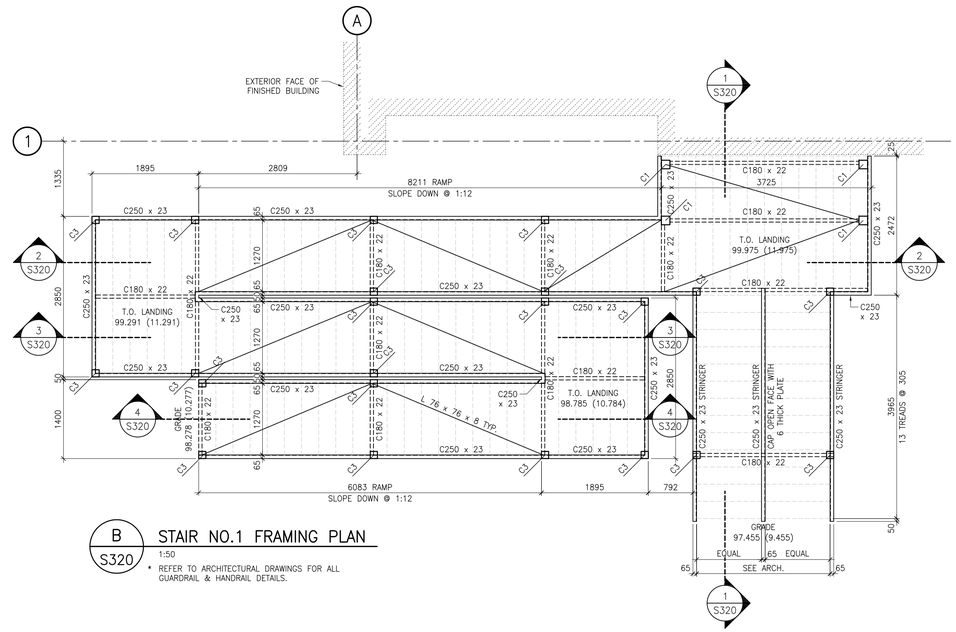
A1 594x841



A S320 STAIR NO.1 FOUNDATION PLAN

1:50

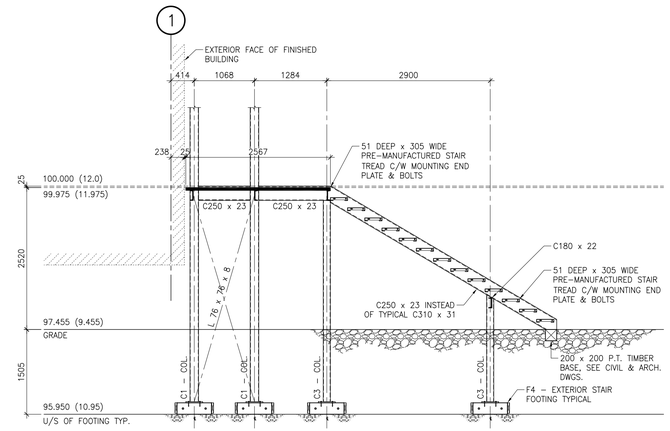
* UNDERSIDE OF FOOTING AT ELEVATION 95.950 TYPICAL UNLESS NOTED OTHERWISE.



B S320 STAIR NO.1 FRAMING PLAN

1:50

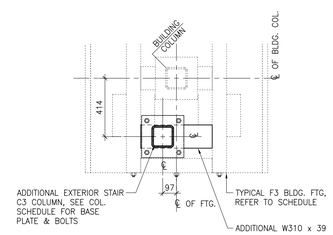
* REFER TO ARCHITECTURAL DRAWINGS FOR ALL GUARDRAIL & HANDRAIL DETAILS.



1 S320 STAIR No. 1 SECTION THRU STAIR

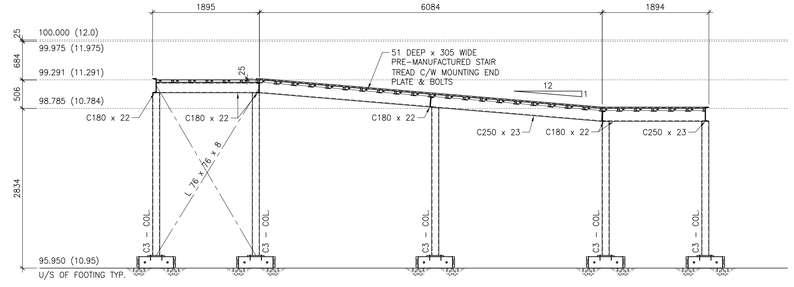
1:50

* REFER TO ARCHITECTURAL DRAWINGS FOR ALL GUARDRAIL & HANDRAIL DETAILS.



C S320 EXT. STAIR FOUNDATION DETAIL

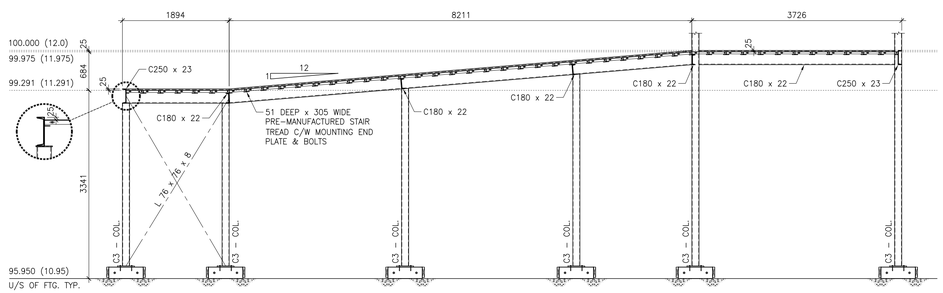
1:50



3 S320 STAIR No. 1 SECTION THRU MID RAMP

1:50

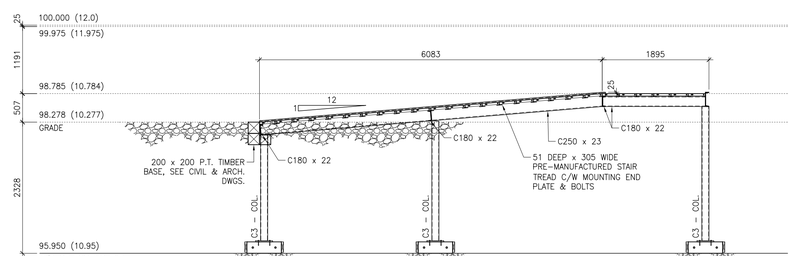
* REFER TO ARCHITECTURAL DRAWINGS FOR ALL GUARDRAIL & HANDRAIL DETAILS.



2 S320 STAIR No. 1 SECTION THRU UPPER RAMP

1:50

* REFER TO ARCHITECTURAL DRAWINGS FOR ALL GUARDRAIL & HANDRAIL DETAILS.

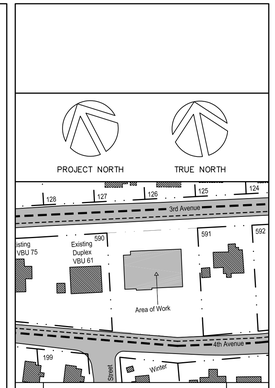


4 S320 STAIR No. 1 SECTION THRU LOWER RAMP

1:50

* REFER TO ARCHITECTURAL DRAWINGS FOR ALL GUARDRAIL & HANDRAIL DETAILS.

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



No.	Description	Date
0	ISSUED FOR TENDER	04-07-2015

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

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

APPROVED PROFESSIONAL ENGINEERS APR 07 2015 K.R. DRYSDALE LICENSED NWT/NU

Sub Consultant:

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Cell: (807) 627-8184
Fax: (807) 622-3633
AGE Project# E121-15-009

Project:

FEDERAL BUILDING
ARVIAT, NUNAVUT

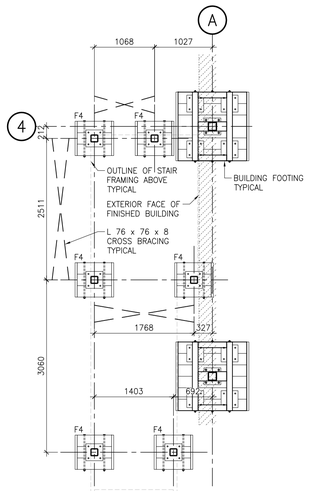
Drawn By:	Date:
ALG	04-07-2015
Checked By:	Scale:
KRD	1:50

Sheet Title:
EXTERIOR STAIR FRAMING PLANS

Sheet Number:
S320

FILENAME: N:\A626 - Parkin Architects\01 Arviat RCMP Station\Drawings\Current\S320 Exterior Stair Framing Plans.dwg
PLOTDATE: Apr 08, 2015 - 3:54pm

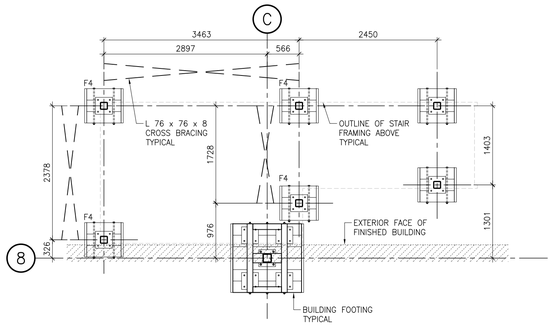
A1 594x841



A S321 STAIR NO.2 FOUNDATION PLAN

1:50

* UNDERSIDE OF FOOTING AT ELEVATION 95.950 TYPICAL UNLESS NOTED OTHERWISE.



C S320 STAIR NO.3 FOUNDATION PLAN

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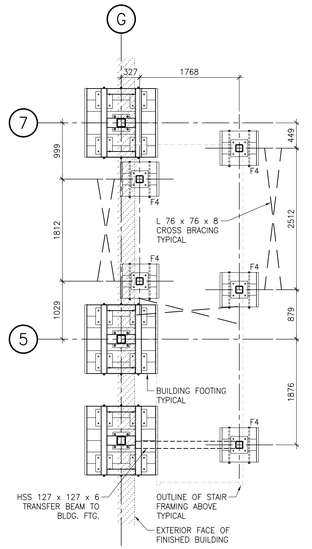
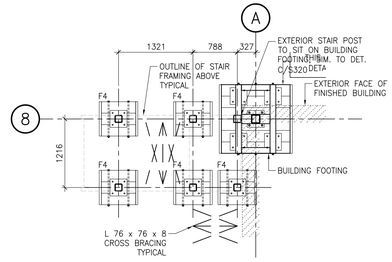
* UNDERSIDE OF FOOTING AT ELEVATION 95.950 TYPICAL UNLESS NOTED OTHERWISE.



E S321 STAIR NO.4 FOUNDATION PLAN

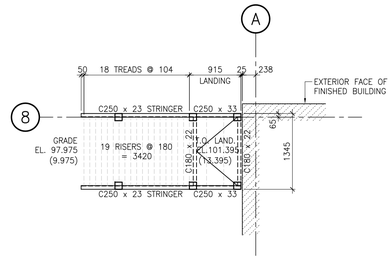
1:50

* UNDERSIDE OF FOOTING AT ELEVATION 95.950 TYPICAL UNLESS NOTED OTHERWISE.



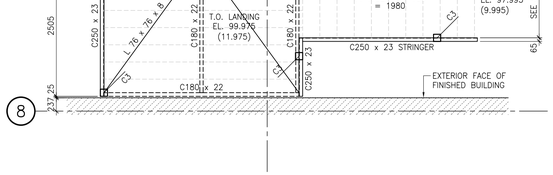
G S321 SERVICE STAIR FOUNDATION PLAN

1:50



H S321 SERVICE STAIR FRAMING PLAN

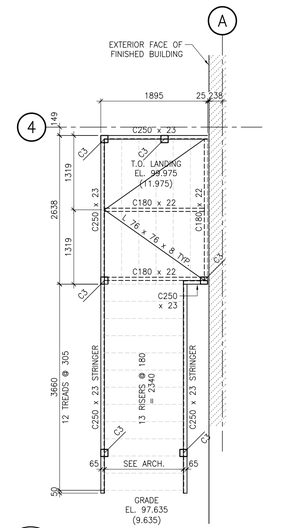
1:50



D S321 STAIR NO.3 FRAMING PLAN

1:50

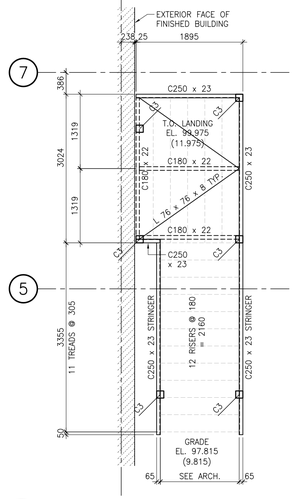
* REFER TO ARCHITECTURAL DRAWINGS FOR ALL GUARDRAIL & HANDRAIL DETAILS.



B S321 STAIR NO.2 FRAMING PLAN

1:50

* REFER TO ARCHITECTURAL DRAWINGS FOR ALL GUARDRAIL & HANDRAIL DETAILS.



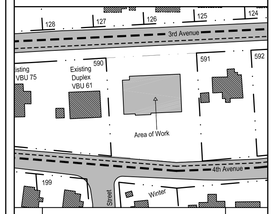
F S321 STAIR NO.4 FRAMING PLAN

1:50

* REFER TO ARCHITECTURAL DRAWINGS FOR ALL GUARDRAIL & HANDRAIL DETAILS.

PROJECT NORTH

TRUE NORTH



No.	Description	Date
0	ISSUED FOR TENDER	04-07-2015

Revisions:

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Prime Consultant:

PARKIN ARCHITECTS LIMITED

20 James Street, Suite 200, Ottawa, Canada K2P 0T6 613-739-7700

REGISTERED PROFESSIONAL ENGINEER APR 07 2015 K.R. DRYSDALE LICENSEE NWT/NU

Sub Consultant:

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AGE Project # 2121-13-009

Project:

FEDERAL BUILDING
ARVIAT, NUNAVUT

Drawn By:	Date:
ALG	04-07-2015
Checked By:	Scale:
KRD	1:50

Sheet Title:

EXTERIOR STAIR FRAMING PLANS

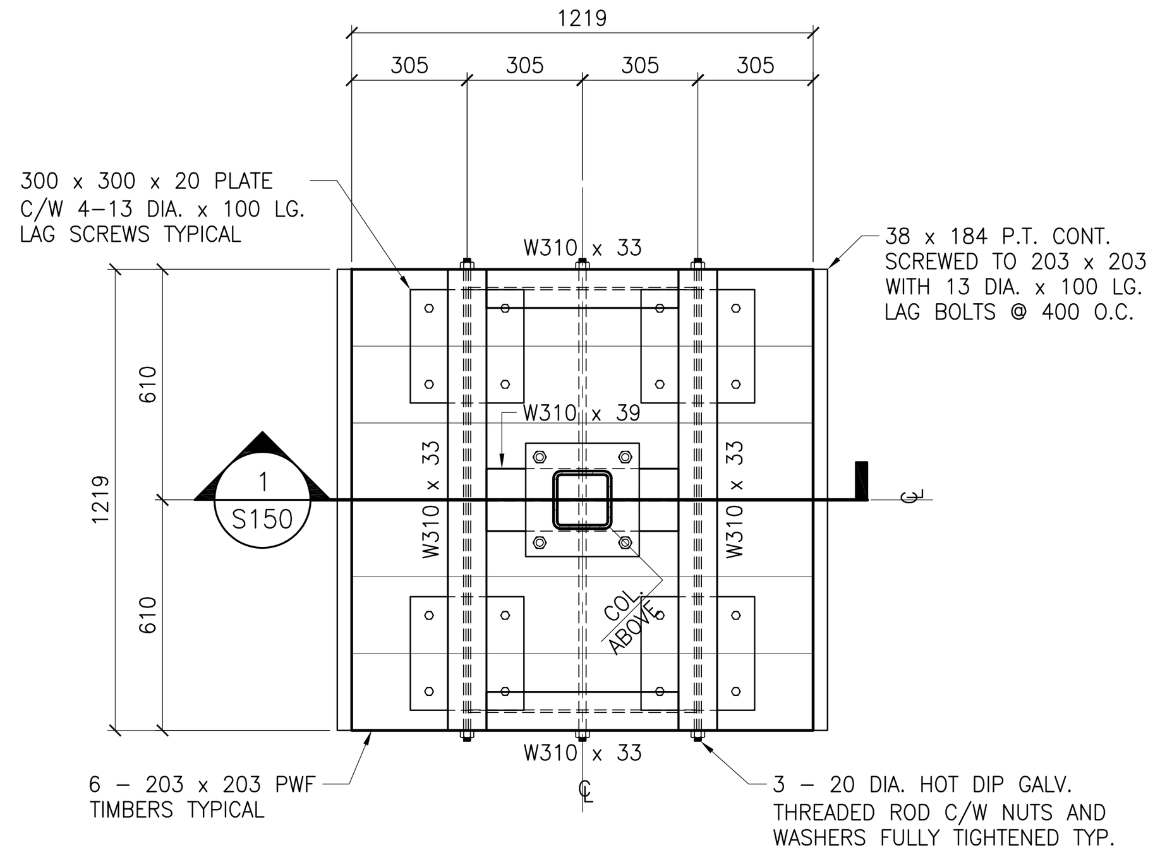
Sheet Number:

S321

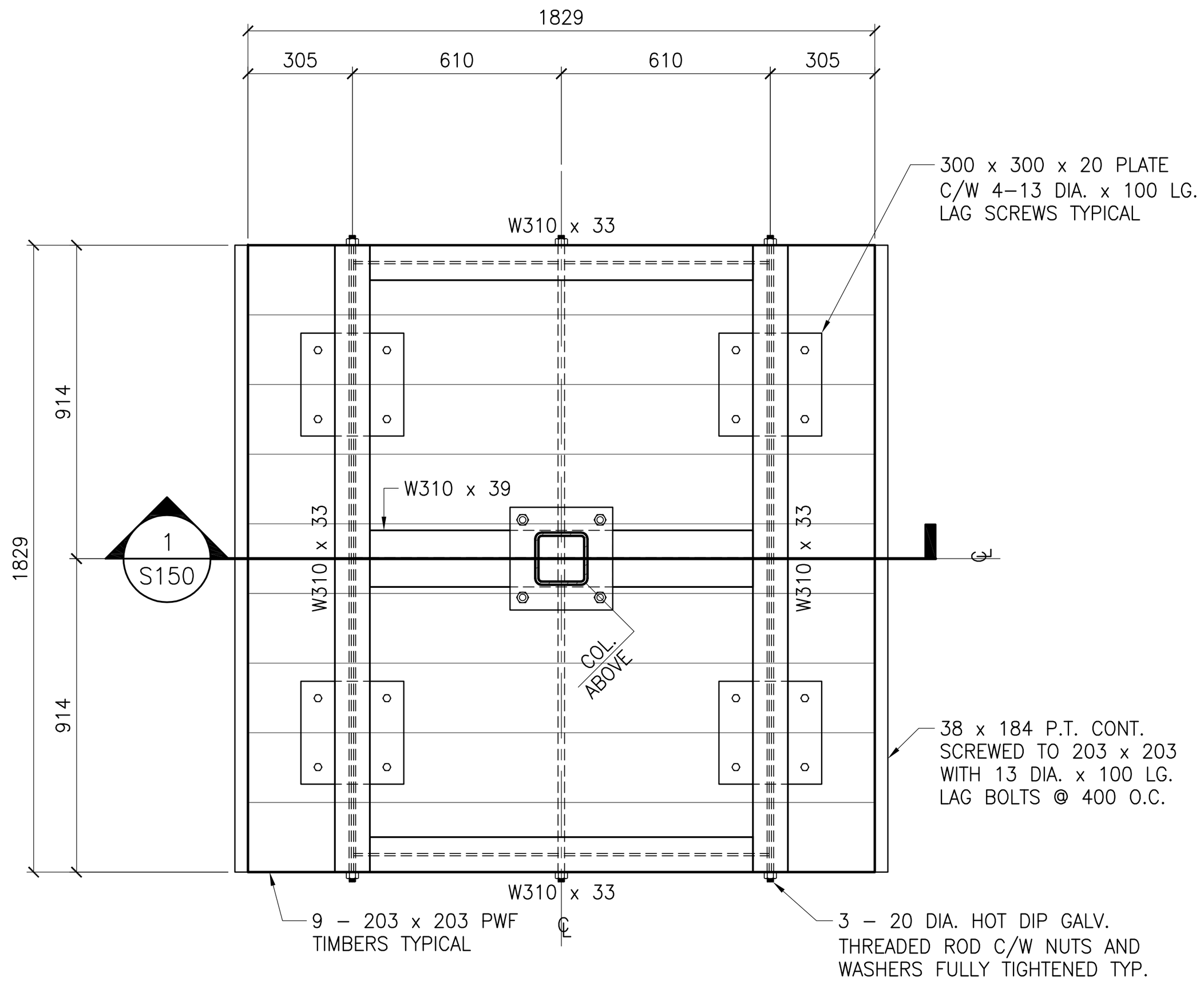
PERMIT TO PRACTICE
ACCUTECH ENGINEERING INC.
Signature
Date APR 07 2015
PERMIT NUMBER: P 421
The Association of Professional Engineers, Geologists and Geophysicists of the NWT/NU

FILENAME: M:\2626 - Parkin Architects\01 Arviat RCMP Station\Drawings\Current\S321 Exterior Stair Framing Plans.dwg
PLOTDATE: Apr 08, 2015 - 3:54pm

A1 594x841



A
S500
TYPICAL "F1" PWF FOOTING DET.
1:20



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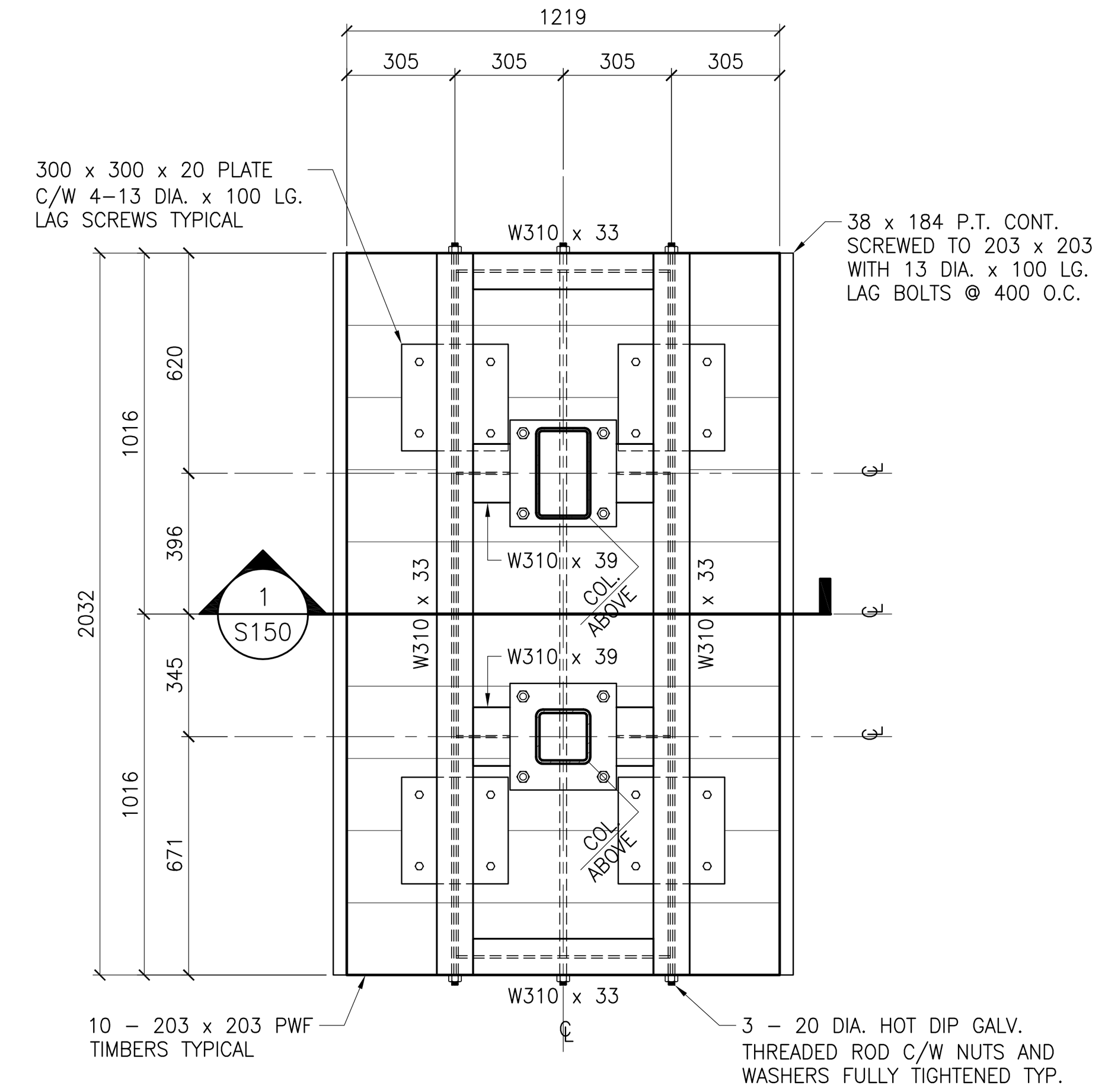
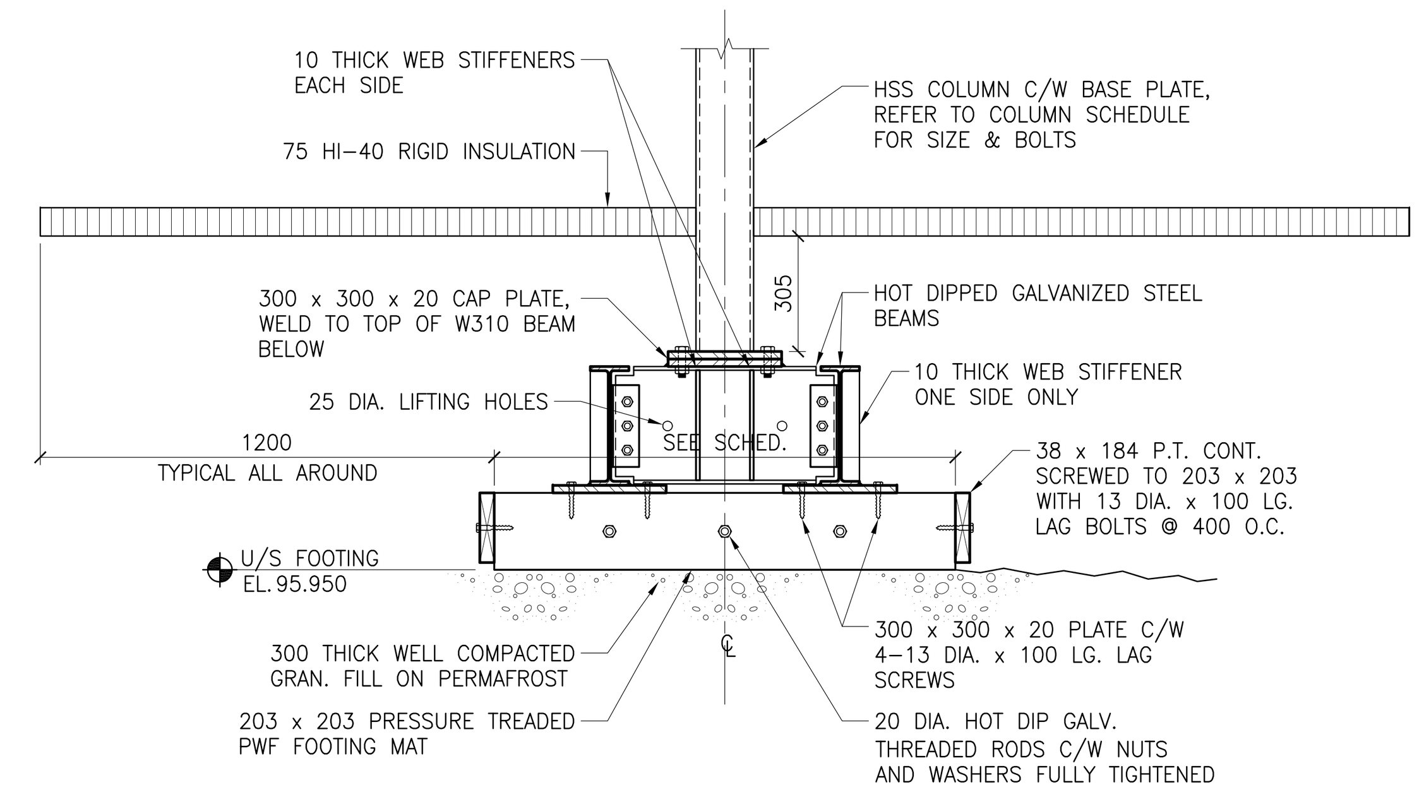
S500
TYPICAL "F2" PWF FOOTING DET.
1:20



C
S500
TYPICAL "F3" PWF FOOTING DET.
1:20



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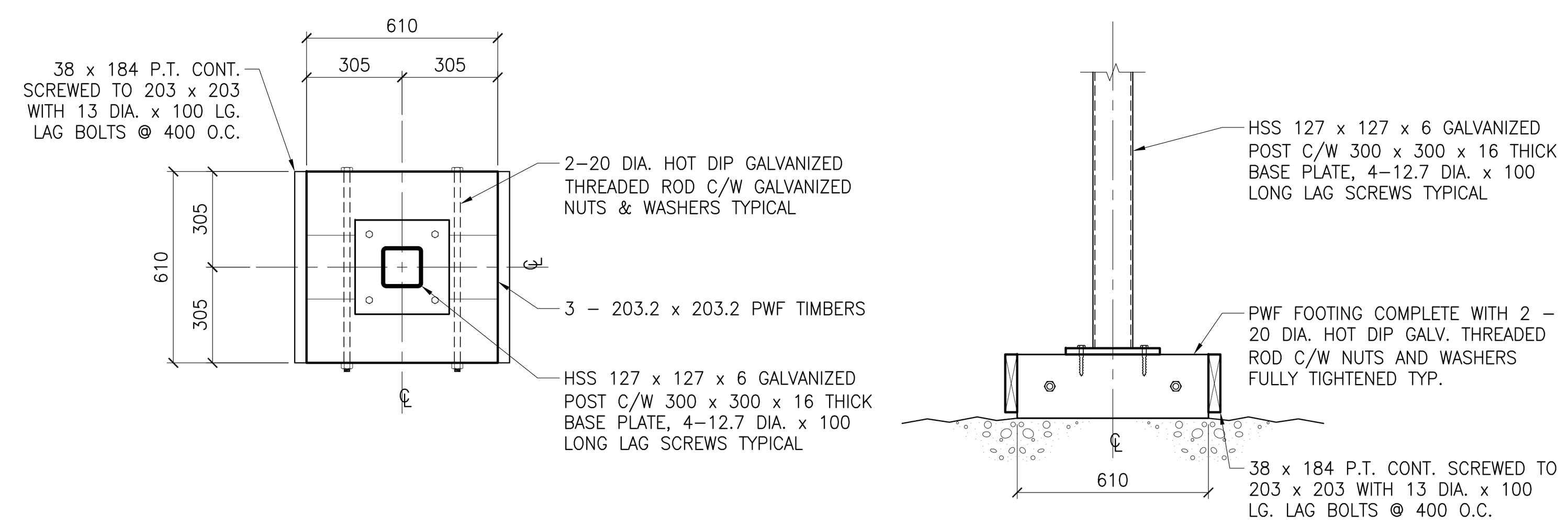
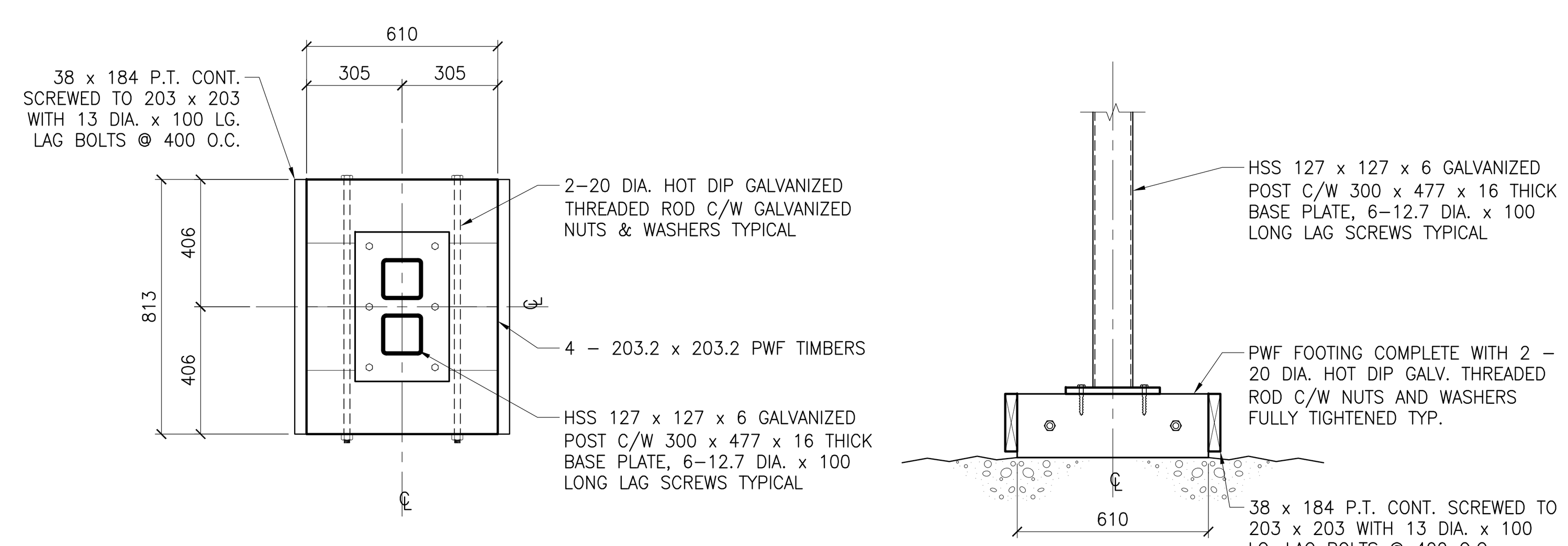
S500
TYPICAL SEC THRU PWF FTG
1:20



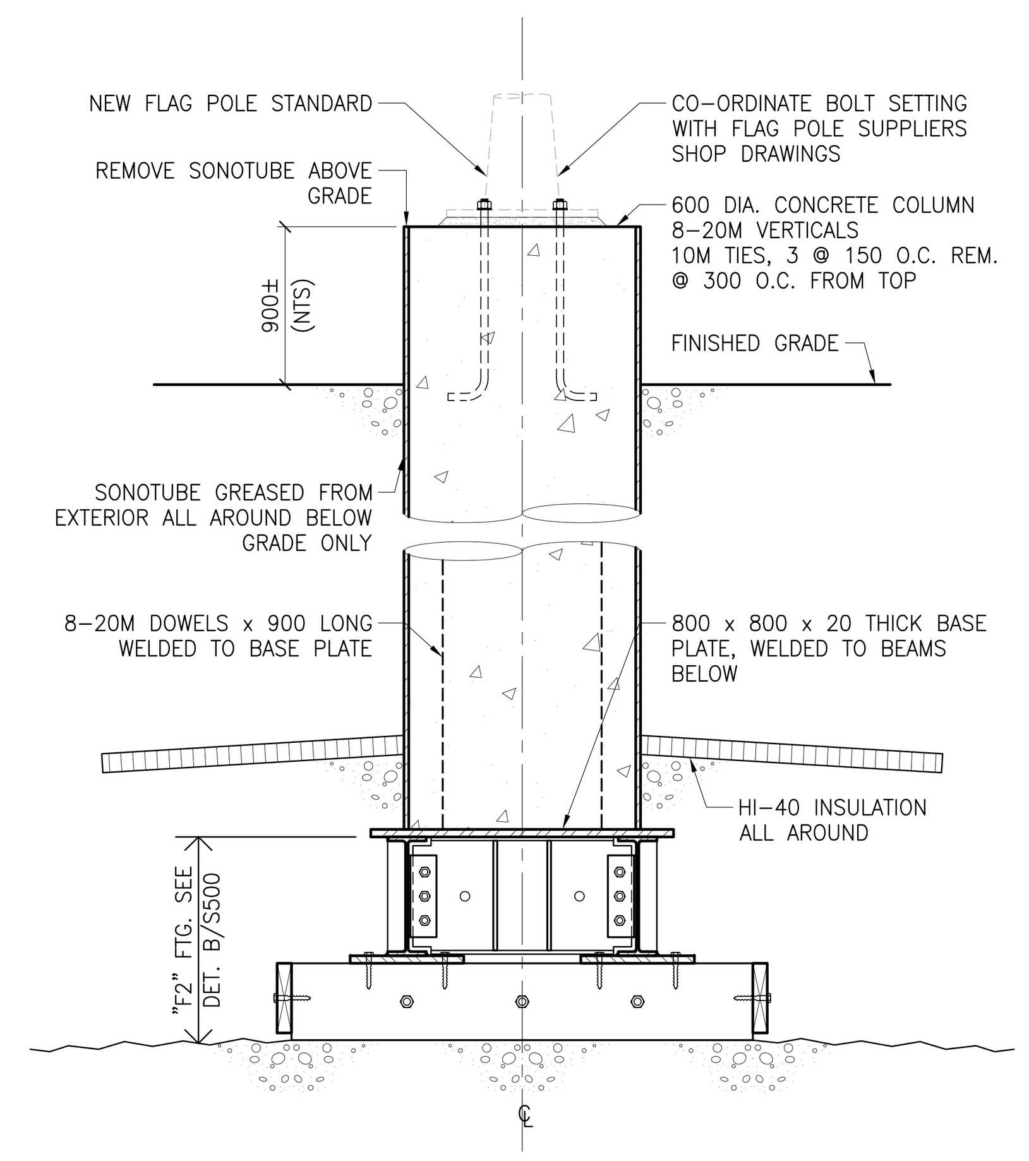
D
S150
EXTERIOR STAIR FOOTING TYPICAL "F4" PWF DETAIL
1:20

* ALL EXPOSED METAL AND IN CONTACT WITH SOIL TO BE HOT–DIP GALVANIZED UNLESS NOTED OTHERWISE TYPICAL.



E
S150
EXTERIOR STAIR FOOTING TYPICAL "F5" PWF DETAIL
1:20

* ALL EXPOSED METAL AND IN CONTACT WITH SOIL TO BE GALVANIZED UNLESS NOTED OTHERWISE TYPICAL.



F
S500
TYP. FLAG POLE FOUNDATION DETAIL
1:20

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Date APR 07 2015
PERMIT NUMBER: P 421
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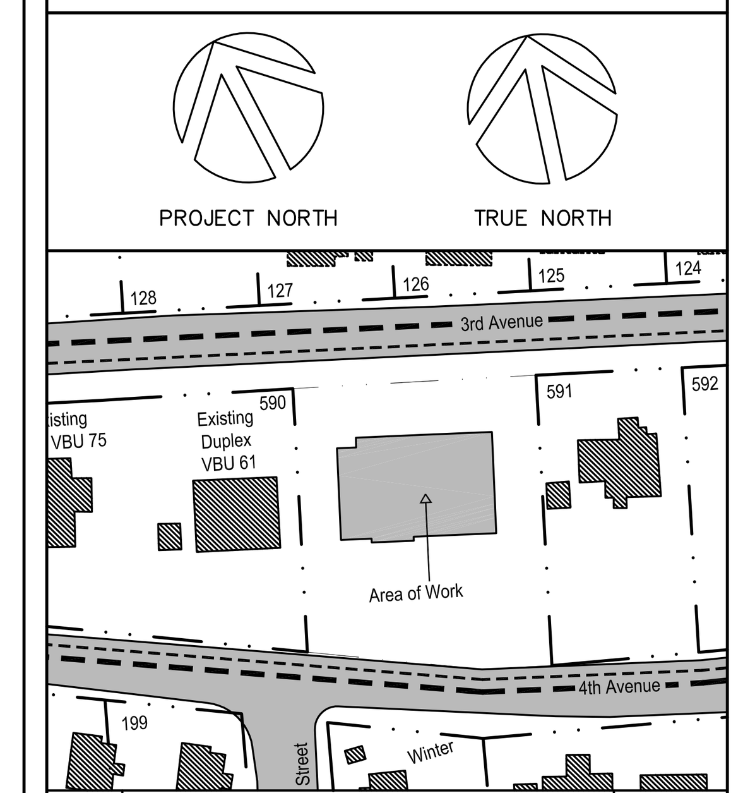
FOOTING SCHEDULE:

MARK	SIZE	REINFORCING	ALLOWABLE CAPACITY	REMARKS
F1	1219 x 1219	3–20M DIA. THREADED H.D. GALV. RODS	220 KN	REFER TO DETAIL A/S500 FOR FOOTING DETAIL
F2	1829 x 1829	3–20M DIA. THREADED H.D. GALV. RODS	500 KN	REFER TO DETAIL B/S500 FOR FOOTING DETAIL
F3	1219 x 2032	3–20M DIA. THREADED H.D. GALV. RODS	370 KN	REFER TO DETAIL C/S500 FOR FOOTING DETAIL
F4	610 x 610	2–20M DIA. THREADED H.D. GALV. RODS	55 KN	REFER TO DETAIL D/S500 FOR FOOTING DETAIL
F5	1016 x 610	2–20M DIA. THREADED H.D. GALV. RODS	92 KN	REFER TO DETAIL E/S500 FOR FOOTING DETAIL

NOTE: ALL LUMBER SHALL BE PRESSURE TREATED.

A1 594x841



No.	Description	Date
0	ISSUED FOR TENDER	04–07–2015

Revisions:

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Prime Consultant:

PARKIN ARCHITECTS LIMITED

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

APR 07 2015 K.R. DRYSDALE LICENSEE NWT/NU

Sub Consultant:

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Tomorrow's Technology Today
1349 Dugald Road, Winnipeg, Manitoba, Canada R2J 0H3 phone 204.944.1555 fax 204.944.1444 www.accutecheng.ca

A.G. Engineering
Electrical Engineers

Project:

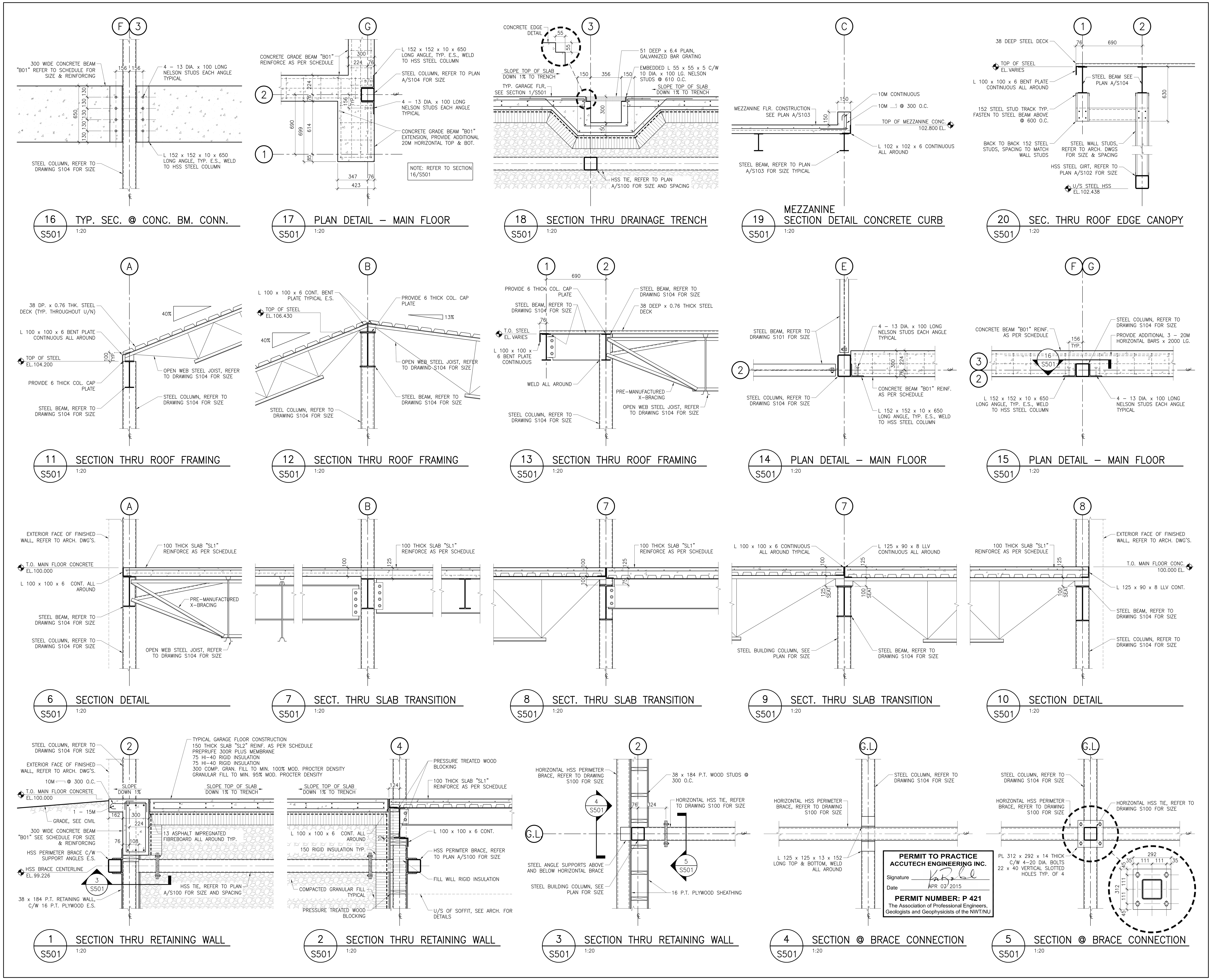
FEDERAL BUILDING
ARVIAT, NUNAVUT

Drawn By: ALG	Date: 04–07–2015
Checked By: KRD	Scale: 1:20

Sheet Title:
FOUNDATION DETAILS

Sheet Number:
S500

FILENAME: W:\A626 – Parkin Architects\01.Arviat RCMP Station\Drawings\Current\S500 Foundation Details.dwg
PLOTDATE: Apr 08, 2015 – 3:33pm



16 TYP. SEC. @ CONC. BM. CONN. S501 1:20
17 PLAN DETAIL – MAIN FLOOR S501 1:20
18 SECTION THRU DRAINAGE TRENCH S501 1:20
19 MEZZANINE SECTION DETAIL CONCRETE CURB S501 1:20
20 SEC. THRU ROOF EDGE CANOPY S501 1:20
11 SECTION THRU ROOF FRAMING S501 1:20
12 SECTION THRU ROOF FRAMING S501 1:20
13 SECTION THRU ROOF FRAMING S501 1:20
14 PLAN DETAIL – MAIN FLOOR S501 1:20
15 PLAN DETAIL – MAIN FLOOR S501 1:20
6 SECTION DETAIL S501 1:20
7 SECT. THRU SLAB TRANSITION S501 1:20
8 SECT. THRU SLAB TRANSITION S501 1:20
9 SECT. THRU SLAB TRANSITION S501 1:20
10 SECTION DETAIL S501 1:20
1 SECTION THRU RETAINING WALL S501 1:20
2 SECTION THRU RETAINING WALL S501 1:20
3 SECTION THRU RETAINING WALL S501 1:20
4 SECTION @ BRACE CONNECTION S501 1:20
5 SECTION @ BRACE CONNECTION S501 1:20
PERMIT TO PRACTICE
ACCUTECH ENGINEERING INC.
PERMIT NUMBER: P 421
The Association of Professional Engineers, Geologists and Geophysicists of the NWT/NU

A1 594x841

PROJECT NORTH TRUE NORTH

No.	Description	Date
0	ISSUED FOR TENDER	04-07-2015

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Prime Consultant:

PARKIN ARCHITECTS LIMITED

20 James Street, Suite 200, Ottawa, Canada K2P 0T6 613.738.7700

Sub Consultant:

Accutech Engineering Inc. Tomorrow's Technology Today
1349 Dugald Road, Winnipeg, Manitoba, Canada R2J 0H3 phone 204.944.1555 fax 204.944.1444 www.accutecheng.ca

AGE A.G. Engineering Electrical Engineers

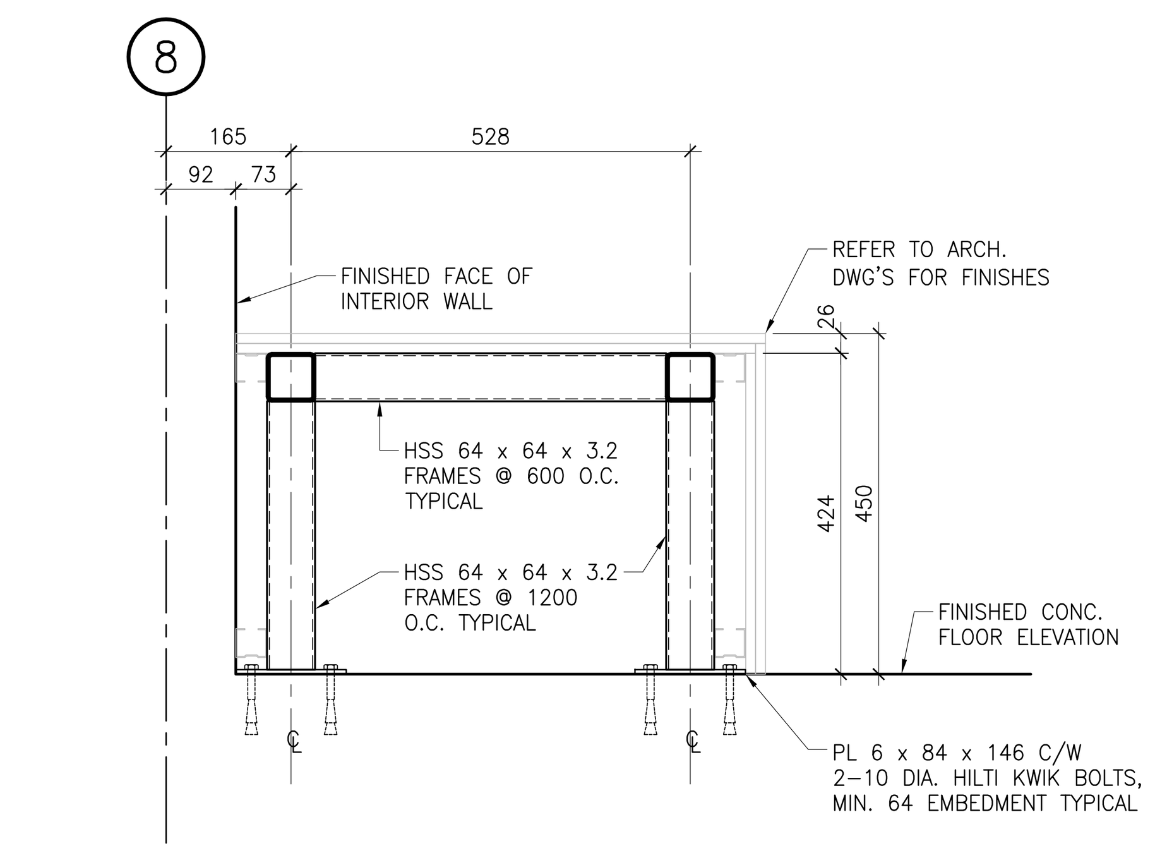
Project:

FEDERAL BUILDING
ARVIAT, NUNAVUT

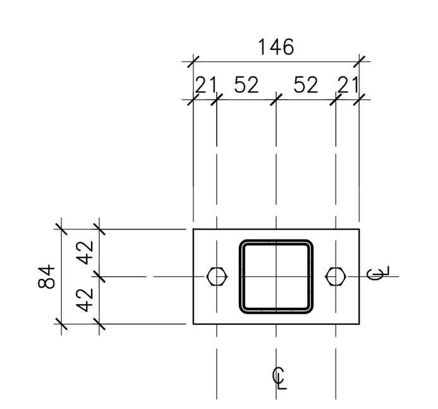
Drawn By: ALG	Date: 04-07-2015
Checked By: KRD	Scale: 1:20

Sheet Title: SECTION DETAILS

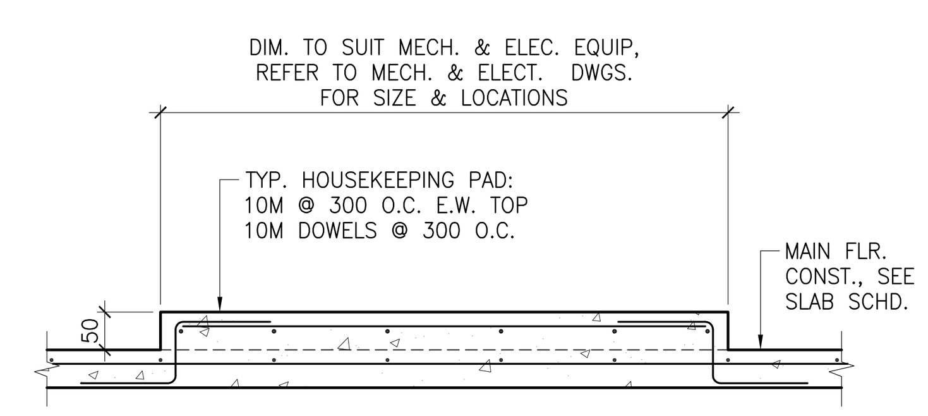
Sheet Number: S501



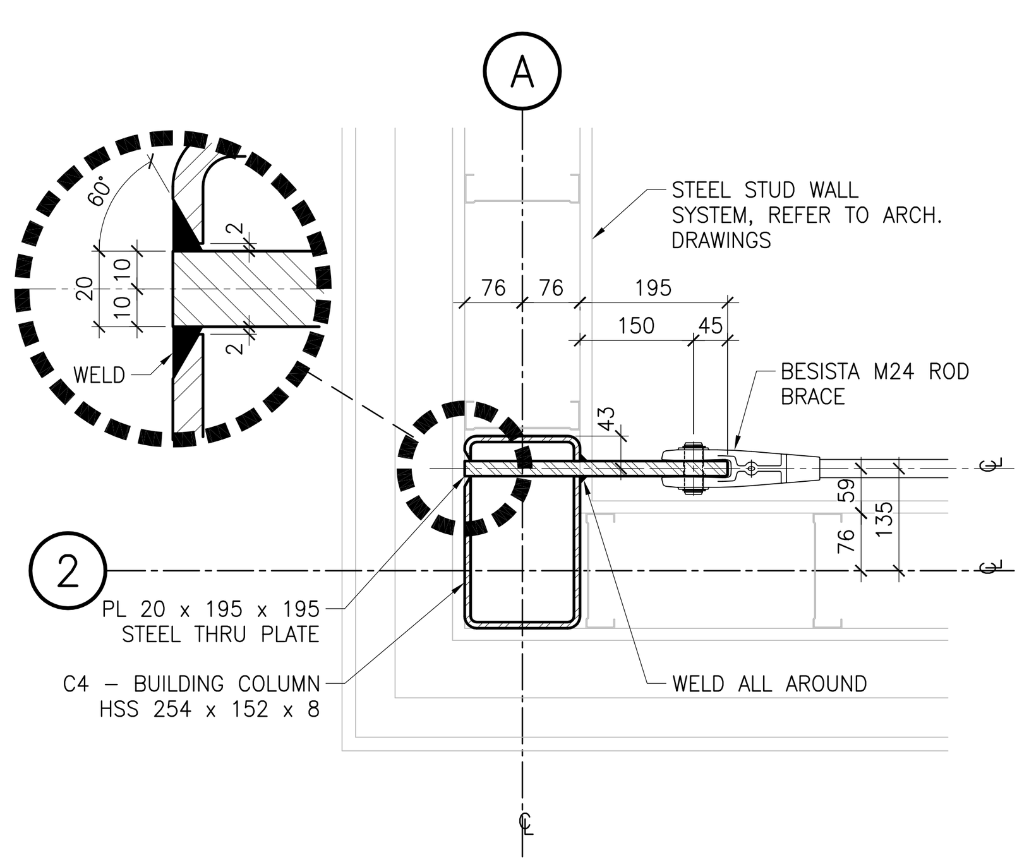
1 / S502 — SEC. THRU CELL BUNK FRAMING
1:10



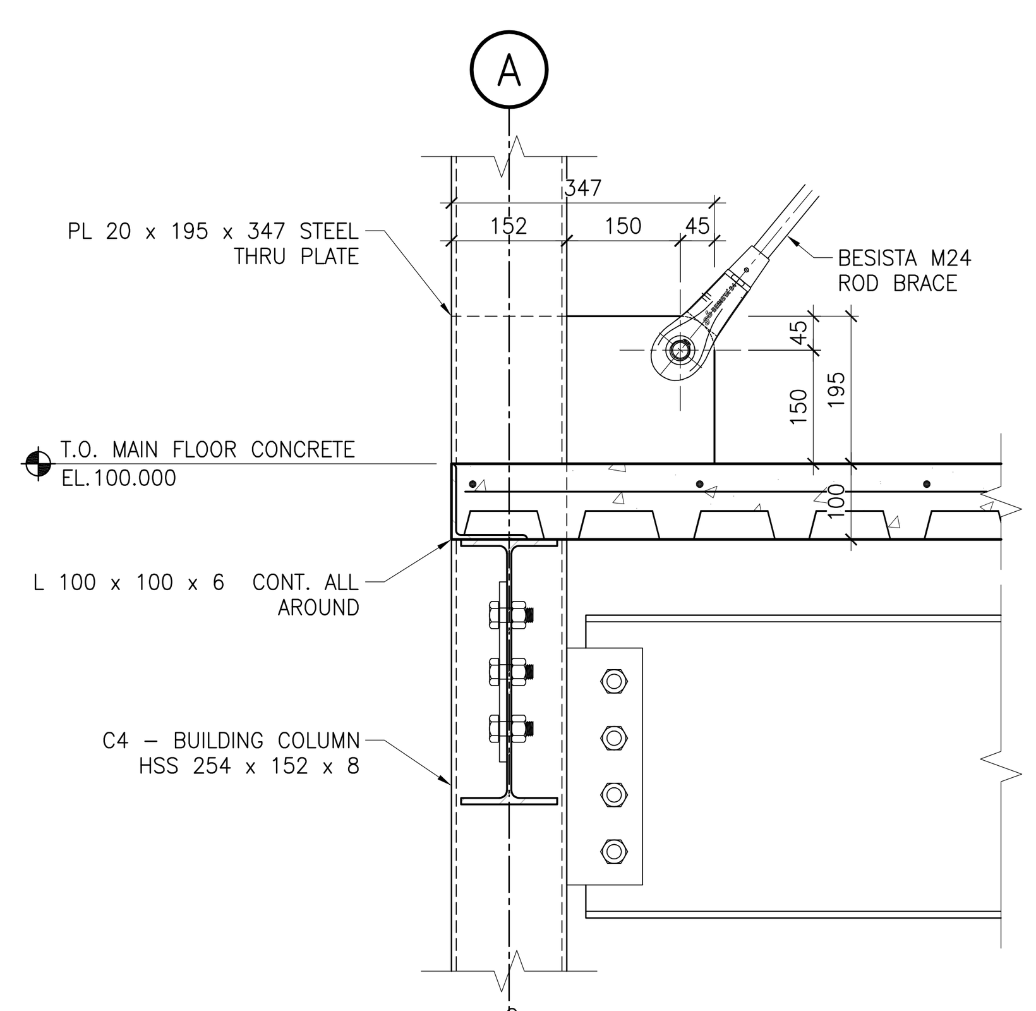
TYPICAL CELL BUNK BASE PLATE DETAIL



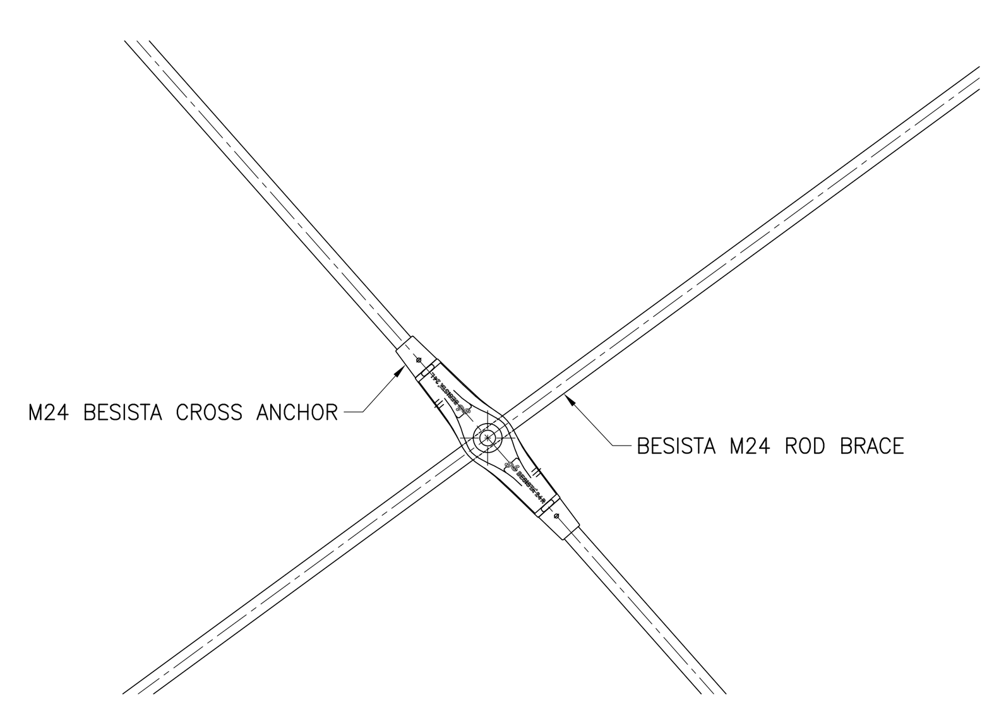
G / S502 — TYP. HOUSEKEEPING PAD DETAIL
1:10



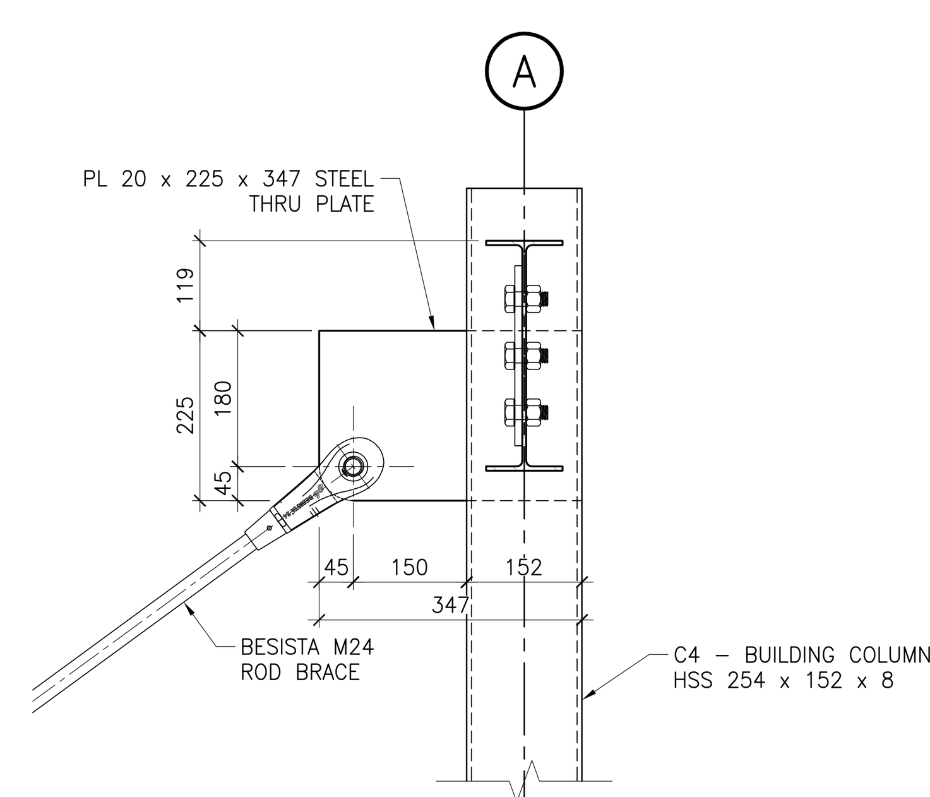
A / S502 — EXPOSED BRACE BASE DETAIL
1:10



B / S502 — EXPOSED BRACE DETAIL
1:10



C / S502 — EXPOSED BRACE DETAIL
1:10



D / S502 — EXPOSED BRACE DETAIL
1:10

A1 594x841

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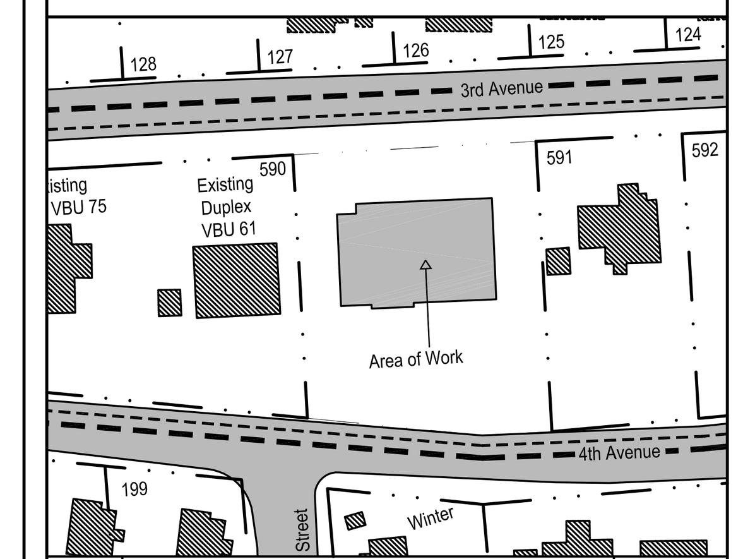
ACCUTECH ENGINEERING INC.
Signature
Date APR 07 2015
PERMIT NUMBER: P 421
The Association of Professional Engineers, Geologists and Geophysicists of the NWT/NU

REGISTERED PROFESSIONAL ENGINEER — APR 07 2015 — K.R. DRYSDALE — LICENSEE — NWT/NU

PROJECT NORTH
TRUE NORTH



No.	Description	Date
0	ISSUED FOR TENDER	04-07-2015

Revisions:

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www.accutecheng.ca

AGE Electrical Engineers
A.G. Engineering

Project:

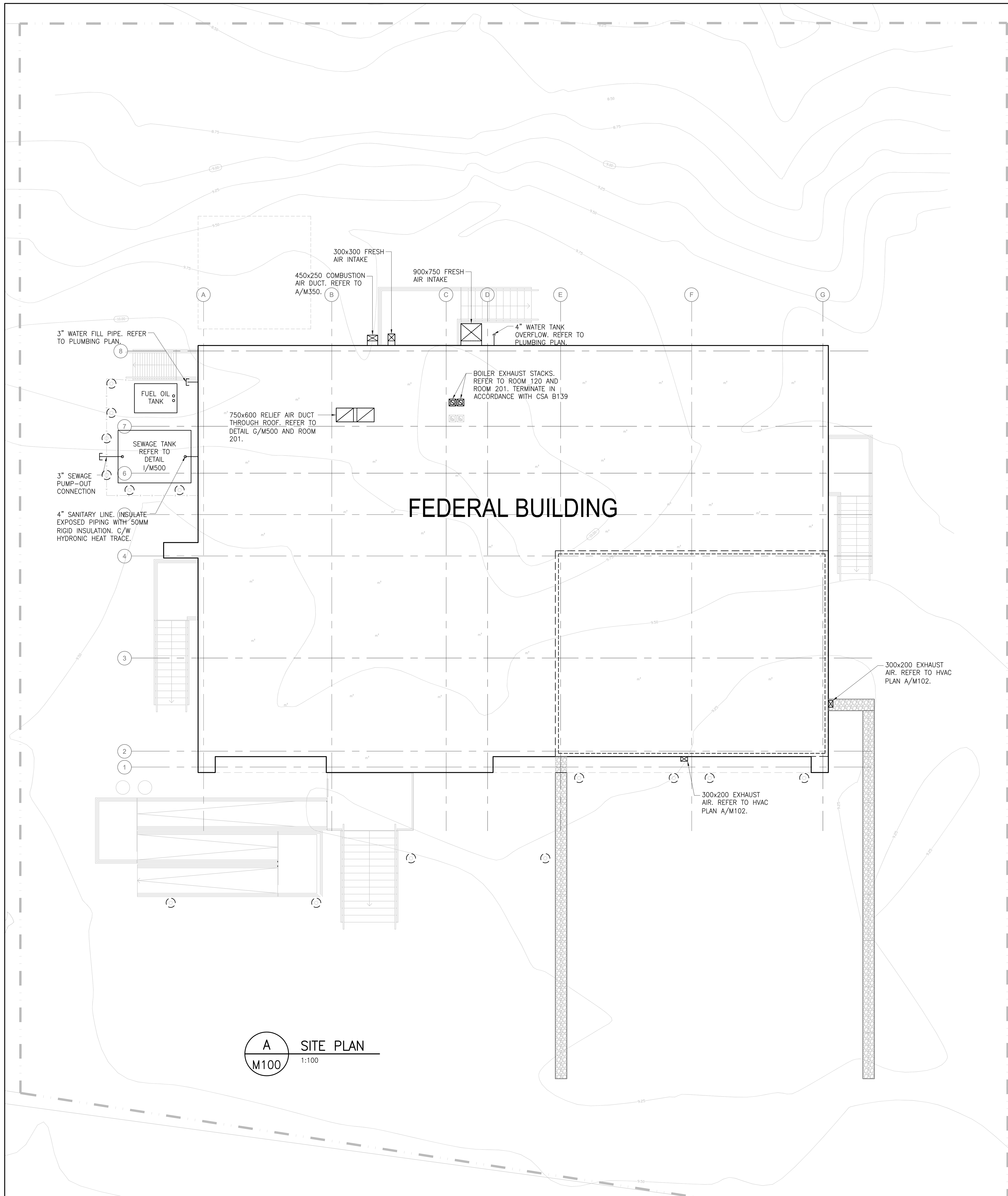
FEDERAL BUILDING
ARVIAT, NUNAVUT

Drawn By: ALG	Date: 04-07-2015
Checked By: KRD	Scale: 1:10

Sheet Title:
DETAILS

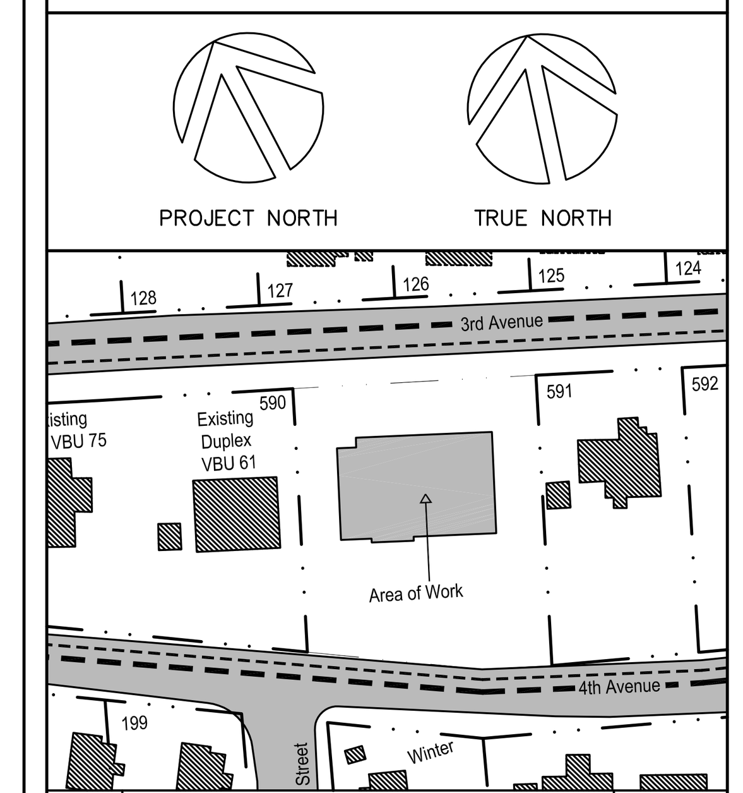
Sheet Number:
S502

FILENAME: W:\A626 - Parkin Architects\01.Arviat RCMP Station\Drawings\Current\S502 Details.dwg
PLOTDATE: Apr 27, 2015 - 10:48am



A
M100
SITE PLAN
1:100

A1 594x841



No.	Description	Date
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Project:

FEDERAL BUILDING
ARVIAT, NUNAVUT

Drawn By: VCV	Date: 04-07-2015
Checked By: BKW	Scale: 1:100

Sheet Title:
SITE PLAN

Sheet Number:
M100

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FILENAME: C:\Users\Valerie\appdata\local\temp\AcPublish_1472\M100 Site Plan.dwg
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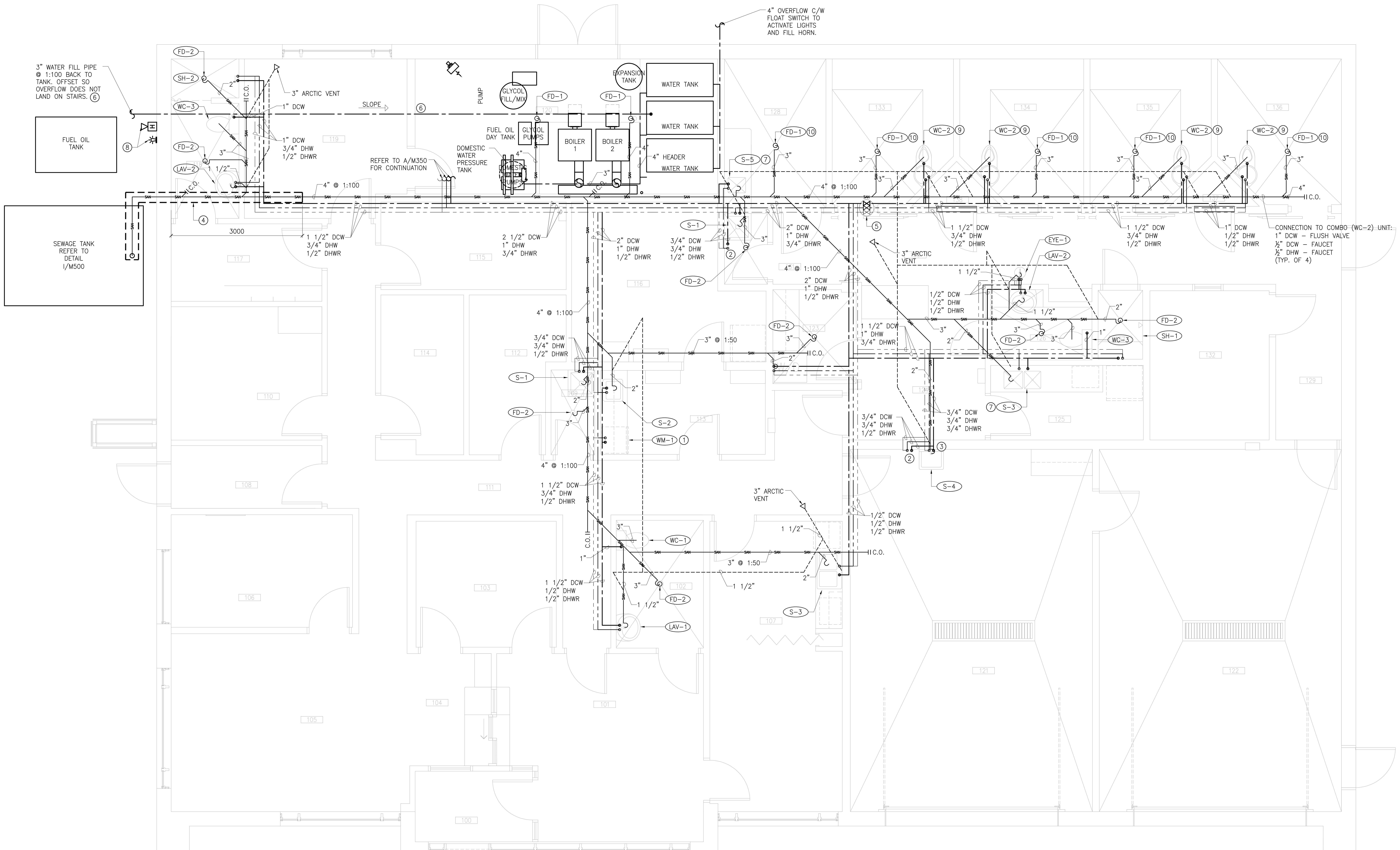

CONSTRUCTION KEYNOTES

1. PROVIDE WASHING MACHINE ISOLATION VALVES AND 1 1/2" STANDPIPE IN ACCORDANCE WITH CANADIAN PLUMBING CODE.
2. SUPPLY STRAHMAN (OR EQUAL) M–200TS THERMOSTATICALLY CONTROLLED MIXING UNIT C/W 15M LONG PREMIUM HOSE AND HYDRO–PRO NOZZLE. 3/4" DCW AND DHW CONNECTIONS. TYP. OF 2.
3. BACKFLOW PREVENTER REQUIRED.
4. INSULATE AND HEAT TRACE SANITARY PIPING WITHIN 3M OF OUTSIDE WALL. HEAT TRACE SEWAGE HOLDING TANK.
5. PROVIDE ISOLATION VALVES FOR PIPING TO CELLS. PROVIDE HIGH SECURITY LOCKABLE ACCESS PANEL IN CEILING OF ROOM 130.
6. RUN PIPE ABOVE CEILING OF ROOMS 118, 119, 120. INSULATE PIPE ALONG ENTIRE LENGTH WITH 50MM THICK RIGID FIBER GLASS AND REINFORCED JACKET.
7. CUSTOM STAINLESS STEEL COUNTER WITH INTEGRATED SINKS. REFER TO ARCHITECTURAL DRAWINGS.
8. WATER TANK "FULL" AND "EMPTY" HORN AND LIGHTS AT THIS LOCATION INSIDE VANDAL RESISTANT ENCLOSURE. REFER TO C/M600 FOR CONTROL STRATEGY.
9. PROVIDE MOTORIZED BALL VALVE TO ALLOW FOR REMOTE SHUTOFF OF WATER. LOCATE CONTROL SWITCH AT ROOM 124.
10. FD–1 FLOOR DRAINS IN ROOMS 126, 133, 134, 135 AND 136, SECURITY SCREWS TO BE MOUNTED USING LOCTITE LIQUID THREAD LOCKERS, SERIES 262, MIL–SPEC. S–46163A TYPE II, GRADE 0.

GENERAL NOTES

1. ALL PLUMBING WORK TO BE IN ACCORDANCE WITH NATIONAL PLUMBING CODE OF CANADA.
2. INSTALL ALL DRAINAGE PIPING IN ROOMS 001, 002, 003, 004, 005.
3. INSTALL ALL WATER DISTRIBUTION AND VENT PIPING IN THE CEILING SPACE, PROVIDE DROPS TO FIXTURES INSIDE WALL CAVITIES.

LEGEND

(XX–#)	FIXTURE TAG
⊣I C.O.	CLEAN OUT
—— – ——	DOMESTIC COLD WATER
—— – – ——	DOMESTIC HOT WATER
— – – – —	DOMESTIC HOT WATER RETURN
——SAN——	SANITARY LINE
– – – – – – – –	VENTILATION PIPE

A / M101 MAIN FLOOR PLUMBING PLAN
1:50

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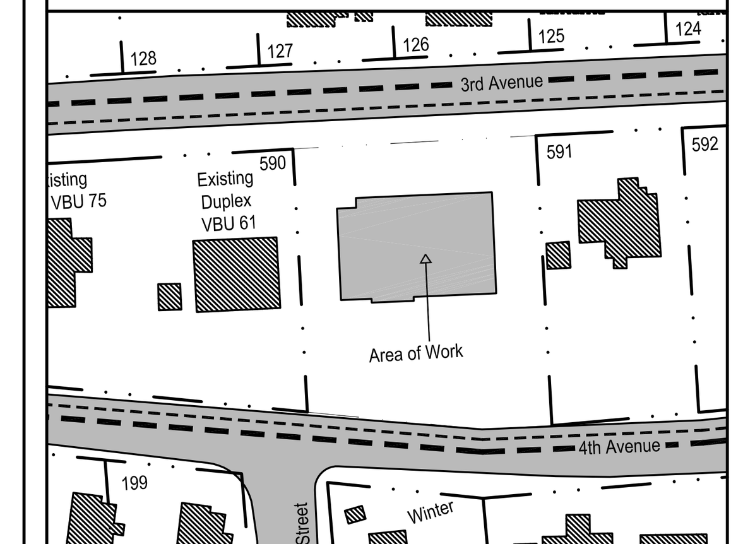

No.	Description	Date
0	ISSUED FOR TENDER	04–07–2015

Revisions:

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Project:

FEDERAL BUILDING
ARVIAT, NUNAVUT

Drawn By: VCV	Date: 04–07–2015
Checked By: BKW	Scale: 1:50

Sheet Title:
MAIN FLOOR PLUMBING PLAN

Sheet Number:
M101

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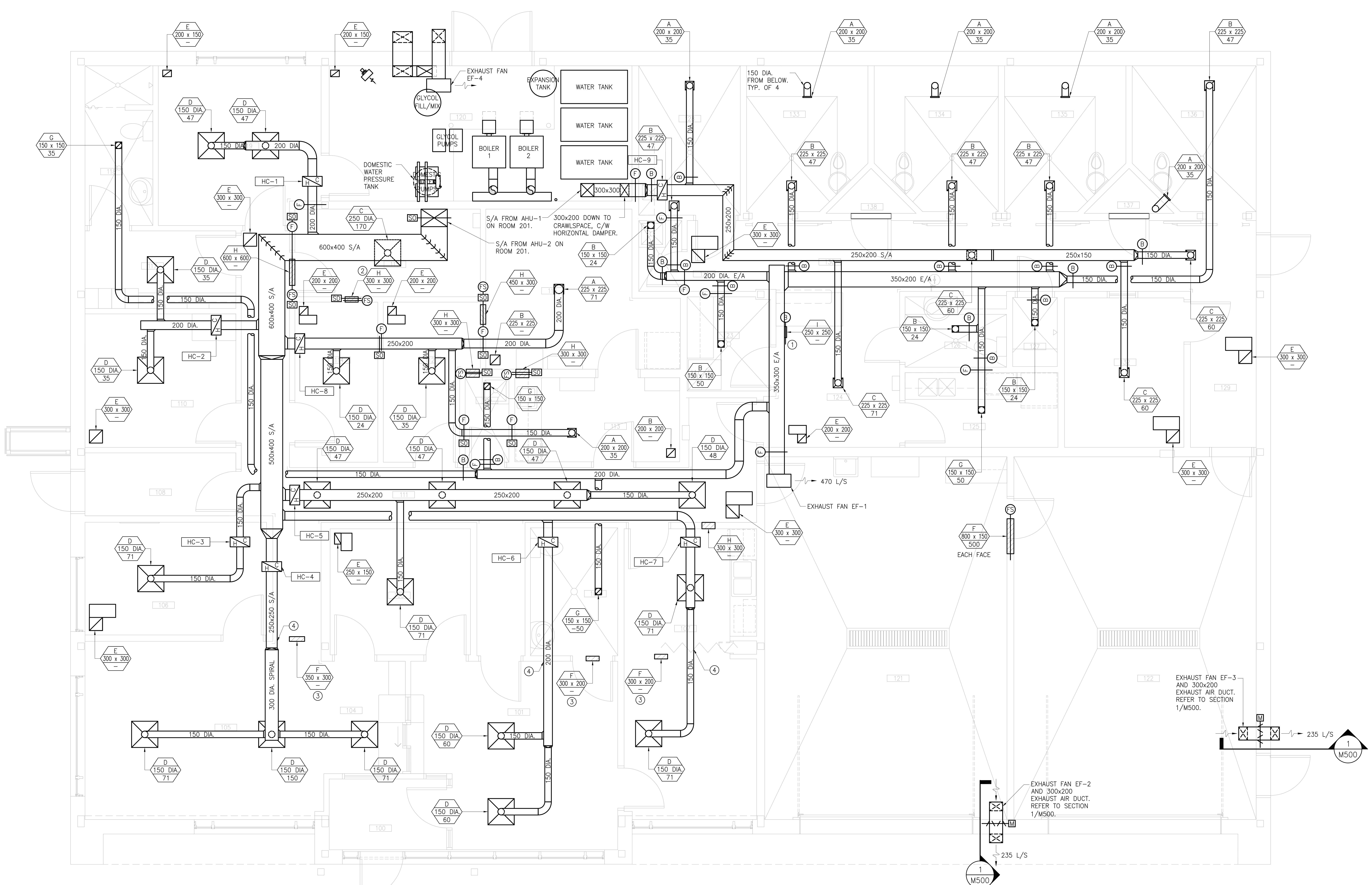
PLOTDATE: Apr 27, 2015 – 10:30am



A
M102
MAIN FLOOR HVAC PLAN
1:50

CONSTRUCTION KEYNOTES

1. BALANCE EXHAUST IN CEILING SPACE AS NOTED ON M103.
2. TRANSFER DUCT IN CEILING SPACE.
3. PROVIDE TRANSFER GRILLE ON EXPOSED SIDE OF OPENING.
4. TRANSITION TO SPIRAL DUCTWORK IN AREAS WITH WOOD SLAT CEILINGS.

SECURITY GRILLE NOTES

1. DURING INSTALLATION, USE HUGH YIELD GROUT TO FILL ANY SPACE BETWEEN THE BACK OF THE FACE PLATE AND THE MOUNTING SURFACE.
2. WHEN GRILLES ARE INSTALLED ON CELL CEILINGS, LOCATE GRILLES SO THAT THE DETAINEES CAN NOT REACH THEM WHILE STANDING ON BUNKS, TOILET OR SINK.
3. SPANNER TOOLS FOR THE INSTALLATION/REMOVAL OF FLATHEAD STEEL SPANNER SCREWS MAYBE PURCHASED FROM EITHER THE ORIGINATING COMPANY OR MANUFACTURED LOCALLY, WHICHEVER IS MORE ECONOMICAL/PRACTIBABLE.
4. ALL GRILLES MUST BE STAMPED WITH MANUFACTURERS AND MODEL NUMBER ON THE FACEPLATE OF THE GRILLE.

LEGEND

Symbol	Description
TYPE / GRILLE SIZE / L/S	GRILLE TAG SEE M610 FOR SIZE(MM) AIR FLOW
TAG	EQUIPMENT TAG
H / C	HEATING COIL
B	BALANCING DAMPER
F	FIRE DAMPER
FS	FIRE SMOKE DAMPER
M	THERMAL MOTORIZED DAMPER
SD	SECURITY DUCT OPENING
SO	SECURITY OPENING
	ACOUSTIC ELBOW

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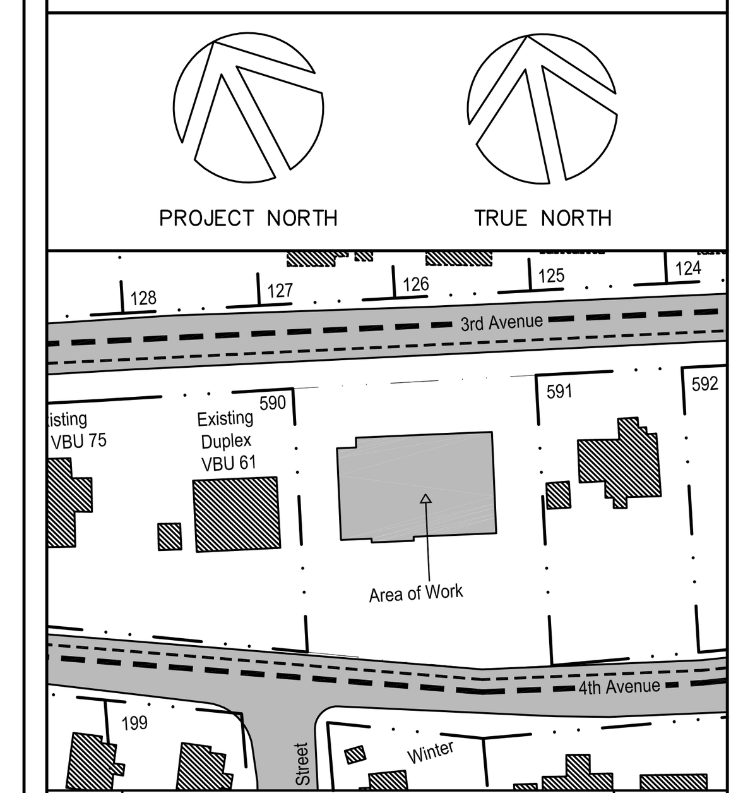

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Project:
FEDERAL BUILDING
ARVIAT, NUNAVUT

Drawn By: VCV	Date: 04-07-2015
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Sheet Title:
MAIN FLOOR HVAC PLAN

Sheet Number:
M102

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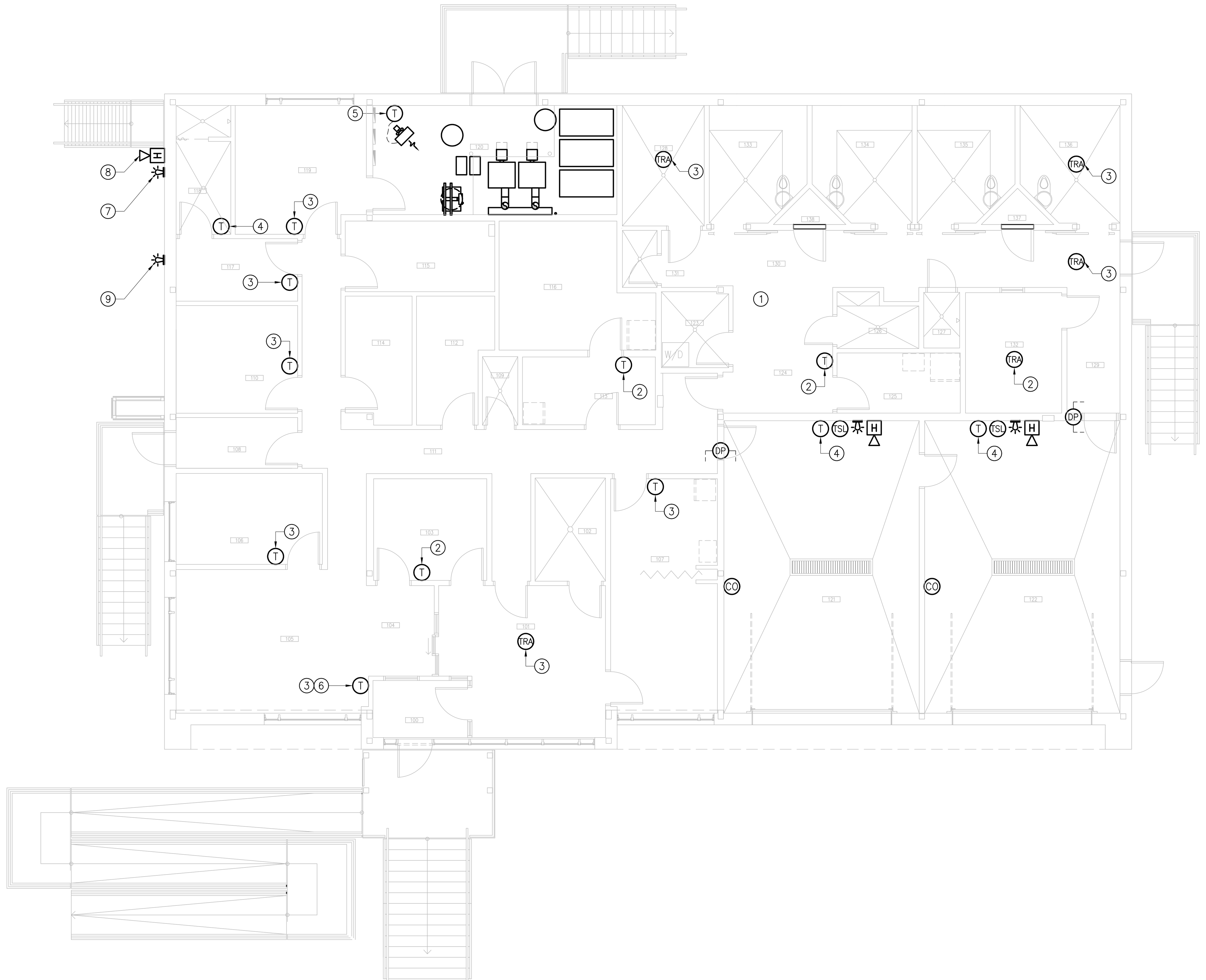

A MAIN FLOOR CONTROLS PLAN
M103 1:100

CONSTRUCTION KEYNOTES

1. PROVIDE ALL TEMPERATURE CONTROLS FOR EACH SECURE AREA AT THIS LOCATION. USE RETURN AIR TEMP FOR ZONE TEMPERATURE CONTROL. DISPLAY ALL LOW TEMPERATURE ALARMS AT THIS LOCATION.
2. TO ZONE RE-HEAT COIL IN VENTILATION SYSTEM.
3. TO ZONE RE-HEAT COIL PLUS IN-FLOOR HEAT CONTROL VALVE.
4. TO IN-FLOOR HEAT CONTROL VALVE
5. UNIT HEATER THERMOSTAT. GLYCOL FLOW TO BE CONTINUOUS. CYCLE UNIT HEATER FAN BASED ON THERMOSTAT DEMAND FOR HEAT.
6. PROVIDE A MANUAL OVERRIDE BUTTON TO TURN AHU ON INTO "OCCUPIED" MODE FOR 30 MINUTES (ADJUSTABLE) IF THE SYSTEM IS IN "UN-OCCUPIED" MODE.
7. EMPTY WATER TANK ILLUMINATION SWITCH.
8. FULL WATER TANK STROBE.
9. FULL SEWAGE TANK ALERT.

LEGEND

- (DP) DIFFERENTIAL PRESSURE
- (T) LOCAL THERMOSTAT
- (TSL) LOW TEMPERATURE SWITCH
- (TRA) RETURN AIR TEMPERATURE SENSOR
- (CO) CARBON MONOXIDE DETECTOR
- (H) ALARM HORN/SIREN
- STROBE

CONTROL STRATEGY – GARAGES

1. GENERAL OPERATING NOTES:
   a. THE CONTROL SYSTEM IS TO FAIL SAFE.
2. VENTILATION CONTROL STRATEGY:
   a. INTERLOCK THE OPERATION OF THE GARAGE VENTILATION EXHAUST FAN WITH AHU-2 (SECURE AREA MUA UNIT).
   b. THE EXHAUST AIR FAN IS TO MATCH EXHAUST AIR VOLUME TO THE SUPPLY TO MAINTAIN EACH OF ROOMS 121, 122 AT A SLIGHTLY NEGATIVE PRESSURE RELATIVE TO EACH OF THE TWO OCCUPIED SPACES. THE EXHAUST FAN AND RETURN AIR FROM SECURE CEILING IS TO BE BALANCED BASED ON THE DIFFERENTIAL PRESSURE SIGNAL BETWEEN THE SECURE AND NON-SECURE AREA, AND NON-SECURE AND ROOM 121.
   c. ON SENSING A HIGH CO LEVEL WITHIN THE SPACE, OPERATE THE RETURN AIR FAN AT 100% SPEED. ENUNCIATE A LOCAL ALARM, STROBE AND SIREN ON HIGH CO LEVEL.
3. FREEZE PROTECTION:
   a. PROVIDE AN INDEPENDENT LOW TEMPERATURE SWITCH IN EACH OF THE ROOMS 121, 122 MOUNTED IN A SECURE ENCLOSURE NO HIGHER THAN 1M ABOVE FINISHED FLOOR.
   b. ON SENSING A LOW TEMPERATURE (LESS THAN +5°C FOR MORE THAN 30 MINUTES, (ADJUSTABLE), INITIATE A DIAL-OUT FROM THE CONTROL SYSTEM.

CONTROL STRATEGY – VENTILATION

ROOM AND ZONE CONTROL STRATEGY

GENERAL OPERATING NOTE: THE CONTROL SYSTEM IS TO FAIL SAFE

1. ROOM AND ZONE CONTROL STRATEGY – GENERAL NOTES
   1.1. THE VENTILATION SYSTEM IS A CONSTANT VOLUME SYSTEM. FOR OCCUPANT COMFORT, THE PRIMARY SOURCE OF HEAT IS THE IN-FLOOR HEATING SYSTEM. THE VENTILATION SYSTEM IS INTENDED TO PROVIDE FRESH AIR TO THE SPACES AND GENERAL AIR CIRCULATION. IN THE EVENT OF AN AIR-SYSTEM FAILURE, THE IN-FLOOR HEAT IS DESIGNED TO PROVIDE THE REQUIRED AMOUNT OF HEAT TO THE SPACE TO MAINTAIN A COMFORTABLE TEMPERATURE.
   1.2. PROVIDE A TEMPERATURE SENSOR MOUNTED IN THE RETURN AIR DUCT (SECURE) OR ROOM (NON-SECURE). SETPOINT CONTROL PROVIDED AS INDICATED.
   1.3. THE DEADBAND FOR ALL ROOM THERMOSTATS IS TO CONSIDER THE THERMAL MASS AND RESPONSE TIME OF THE IN-FLOOR HEAT. SET ALL CONTROLS ACCORDINGLY
   1.4. THE VENTILATION IN THE SECURE AREA IS TO OPERATE CONTINUOUSLY. THE VENTILATION IN THE NON-SECURE SIDE IS TO OPERATE ONLY DURING OCCUPIED HOURS OR IF ANY OF THE ROOM TEMPERATURES FALL BELOW THE ALARM LIMIT.
      1.4.1. IF ANY OF THE ROOM TEMPERATURES FALL BELOW THE ALARM LIMIT DURING UN-OCCUPIED HOURS, THE AIR HANDLING UNIT IS TO START AND OPERATE ON 100% RETURN AIR. MODULATE THE CONTROL VALVE ON THE AHU HEATING COIL AND RE-HEAT COIL TO INCREASE THE ROOM TEMPERATURE TO SETPOINT. INITIATE A DIAL-OUT TO A PRE-PROGRAMMED TELEPHONE OR SATELLITE PHONE.
      1.4.2. ENUNCIATE AND INDICATE ALL LOW TEMPERATURE ALARMS AT THE CONTROL PANEL LOCATED IN ROOM 124 OF THE SECURE SIDE OF THE BUILDING.
   1.5. SCHEDULING FEATURES REQUIRED FOR EACH SPACE/ZONE
      1.5.1. PROVIDE FOR NIGHT SET BACK WITH INDIVIDUAL SCHEDULES AND SETPOINTS FOR EACH ZONE; FOR SCHEDULE AND TEMPERATURE SETPOINTS.
      1.5.2. LOW TEMPERATURE ALERT – SHOULD THE SPACE TEMPERATURE FALL TO A PRE-SET VALUE FOR GREATER THAN 15 MINUTES (ADJUSTABLE), ALARM THE OPERATOR AND ALL SYSTEMS ARE TO GO TO 100% RETURN AIR AND FULL HEAT.
      1.5.3. HIGH TEMPERATURE ALERT – SHOULD THE SPACE TEMPERATURE RISE TO GREATER THAN 10°C ABOVE SETPOINT FOR MORE THAN 30 MINUTES (ADJUSTABLE), ALARM THE OPERATOR.
2. CONTROL STRATEGY "A" – SPACES WITH IN-FLOOR HEAT AND RE-HEAT COIL ON THE VENTILATION SYSTEM.
   2.1. PROVIDE A SINGLE ROOM THERMOSTAT TO CONTROL IN-FLOOR HEAT AND THE VENTILATION SYSTEM RE-HEAT COIL. LOCATE THE ROOM TEMPERATURE SENSOR AS NOTED ON THE PLANS WITH LOCAL OR REMOTE ADJUSTMENT OF THE TEMPERATURE.
   2.2. CYCLE THE CONTROL VALVE ON THE RE-HEAT COIL, TO MAINTAIN A PRE-SET LEAVING AIR TEMPERATURE (APPROXIMATELY 3°C WARMER THAN THE ROOM SETPOINT, ADJUSTABLE FOR INDIVIDUAL SPACES). A TEMPERATURE SENSOR IS REQUIRED ON THE SUPPLY AIR TO THE SPACE. THIS IS TO PREVENT THE FEELING OF COLD AIR BLOWING FROM THE GRILLES.
   2.3. CYCLE THE IN-FLOOR HEAT CONTROL VALVE TO MAINTAIN SPACE TEMPERATURE.
   2.4. ON A FALL IN THE SPACE TEMPERATURE WITH THE IN-FLOOR HEAT ENERGIZED, CYCLE THE CONTROL VALVE ON THE RE-HEAT COIL TO MAINTAIN THE THERMOSTAT SETPOINT.
3. CONTROL STRATEGY "B": SECURE SPACES (CELLS)
   3.1. CONTROL STRATEGY TYPE "A" (AS NOTED ABOVE) WITH THE FOLLOWING MODIFICATIONS.
   3.2. TEMPERATURE SETPOINTS CONTROLLED THROUGH THE CONTROL STATION LOCATED IN ROOM 124.
4. CONTROL STRATEGY "C": FOR SPACES WHERE ONE RE-HEAT SERVES MULTIPLE ROOMS; AND THERE IS NO IN-FLOOR HEAT.
   4.1. PROVIDE A ROOM THERMOSTAT (LOCATION AS NOTED ON THE DESIGN DRAWINGS) WITH LOCAL SETPOINTS.
   4.2. UN-OCCUPIED TIME – SPACE TEMPERATURE BELOW SETPOINT – START THE AIR HANDLING UNIT USING 100% RETURN AIR. CYCLE THE CONTROL VALVES ON THE HEATING AND RE-HEAT COIL TO ACHIEVE ROOM SETPOINT.
      4.2.1. LOW-LOW TEMPERATURE ALARM – CYCLE THE CONTROL VALVE ON THE RE-HEAT COIL TO ACHIEVE SETPOINT. ENUNCIATE AN ALARM IN ROOM 124.
   4.3. OCCUPIED TIME – CYCLE THE CONTROL VALVE ON THE RE-HEAT COIL TO ACHIEVE ROOM THERMOSTAT SETPOINT.
5. IN-FLOOR HEATING TEMPERATURE CONTROL
   5.1. PROVIDE FOR AMBIENT TEMPERATURE SETBACK CONTROL OF THE IN-FLOOR HEATING LOOPS (2). WHEN AMBIENT TEMPERATURE RISES, THE GLYCOL TEMPERATURE IS TO BE LOWER. WHEN AMBIENT TEMPERATURE FALLS, THE GLYCOL TEMPERATURE IS TO BE HOTTER. THE MINIMUM AND MAXIMUM GLYCOL TEMPERATURES ARE NOTED ON THE DESIGN DRAWINGS AND SUBJECT TO CHANGE BASED ON THE FLOORING MANUFACTURER RECOMMENDATIONS.

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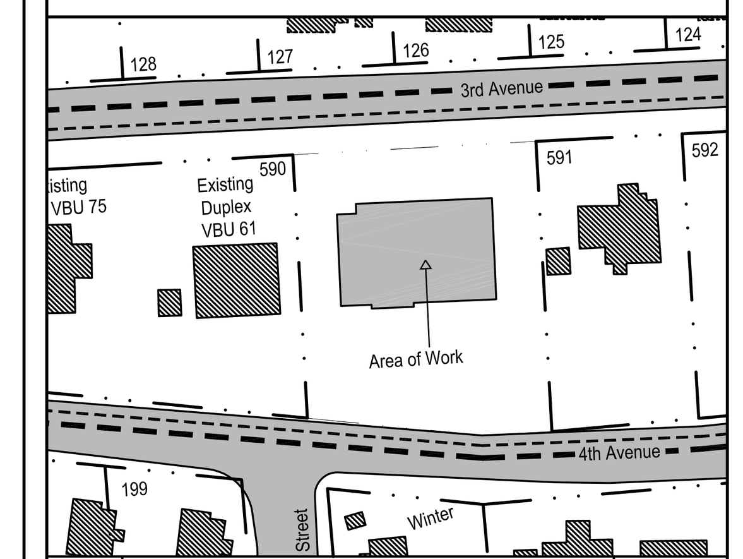

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Revisions:

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Project:
FEDERAL BUILDING
ARVIAT, NUNAVUT

Drawn By: VCV	Date: 04-07-2015
Checked By: BKW	Scale: 1:100

Sheet Title: MAIN FLOOR CONTROLS PLAN

Sheet Number: M103

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PLOTDATE: Apr 27, 2015 – 10:35am

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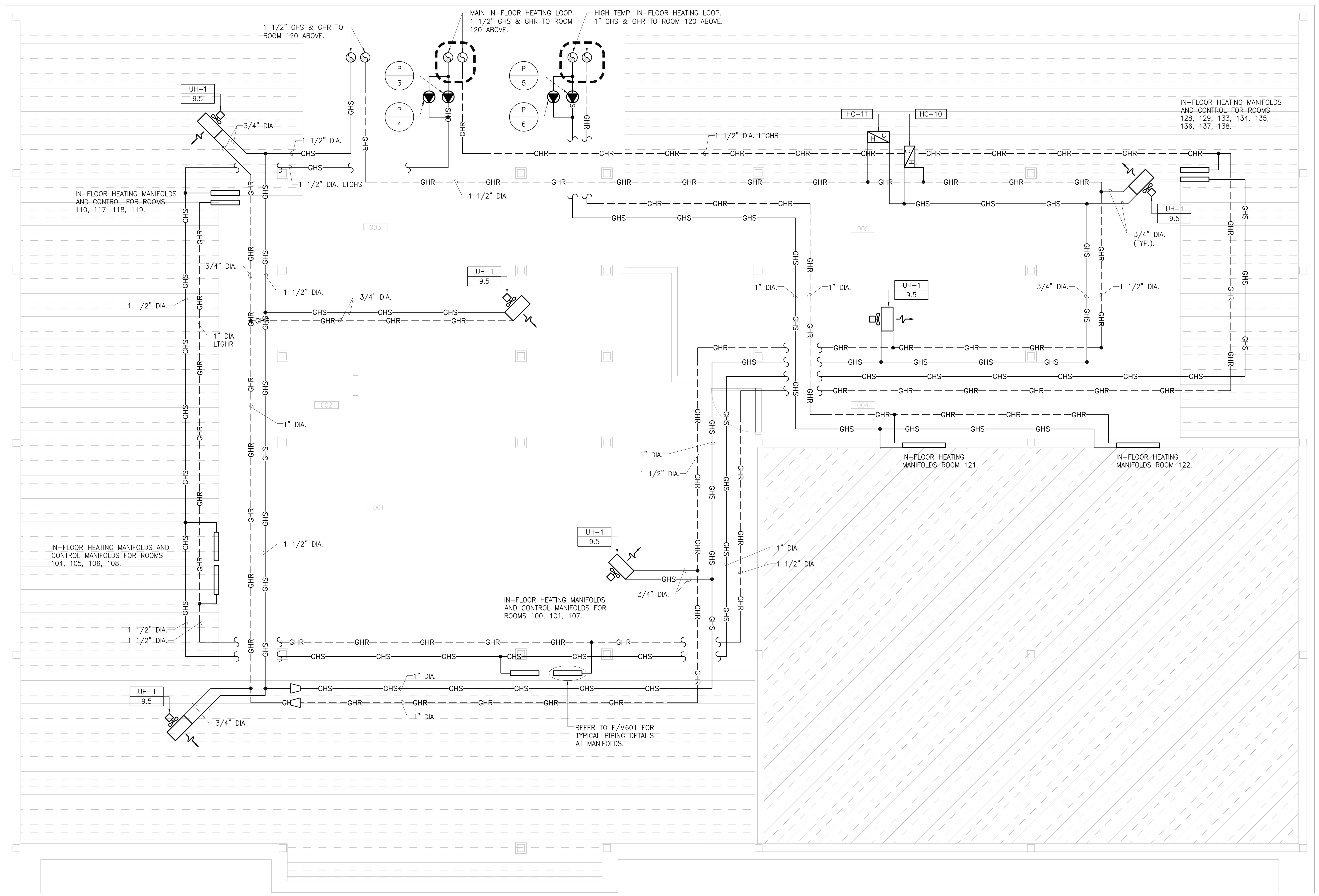

LEGEND

UH-# / LPM	UNIT HEATER NUMBER DESIGN FLOW (LPM)
ID / #	EQUIPMENT TAG
	UNIT HEATER
	PUMP
——GHS——	GLYCOL HEATING SUPPLY
– – –GHR–	GLYCOL HEATING RETURN

A / M104 — CRAWLSPACE HEATING PLAN
1:50

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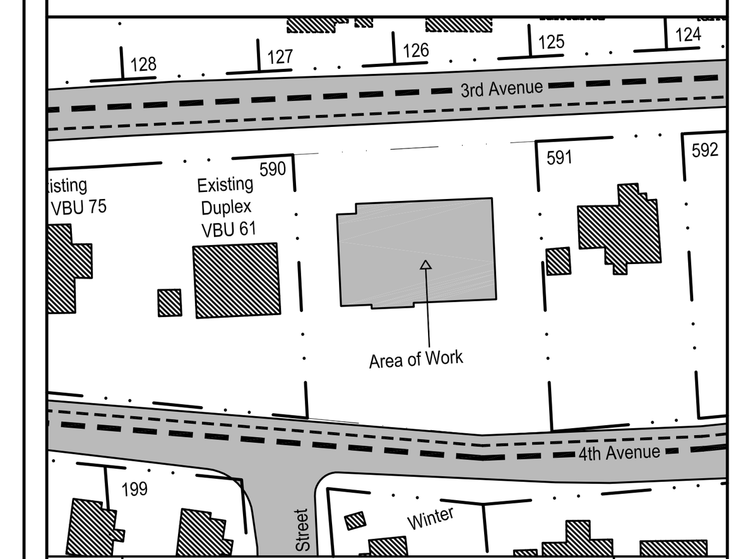

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Sheet Title:
CRAWLSPACE HEATING PLAN

Sheet Number:
M104

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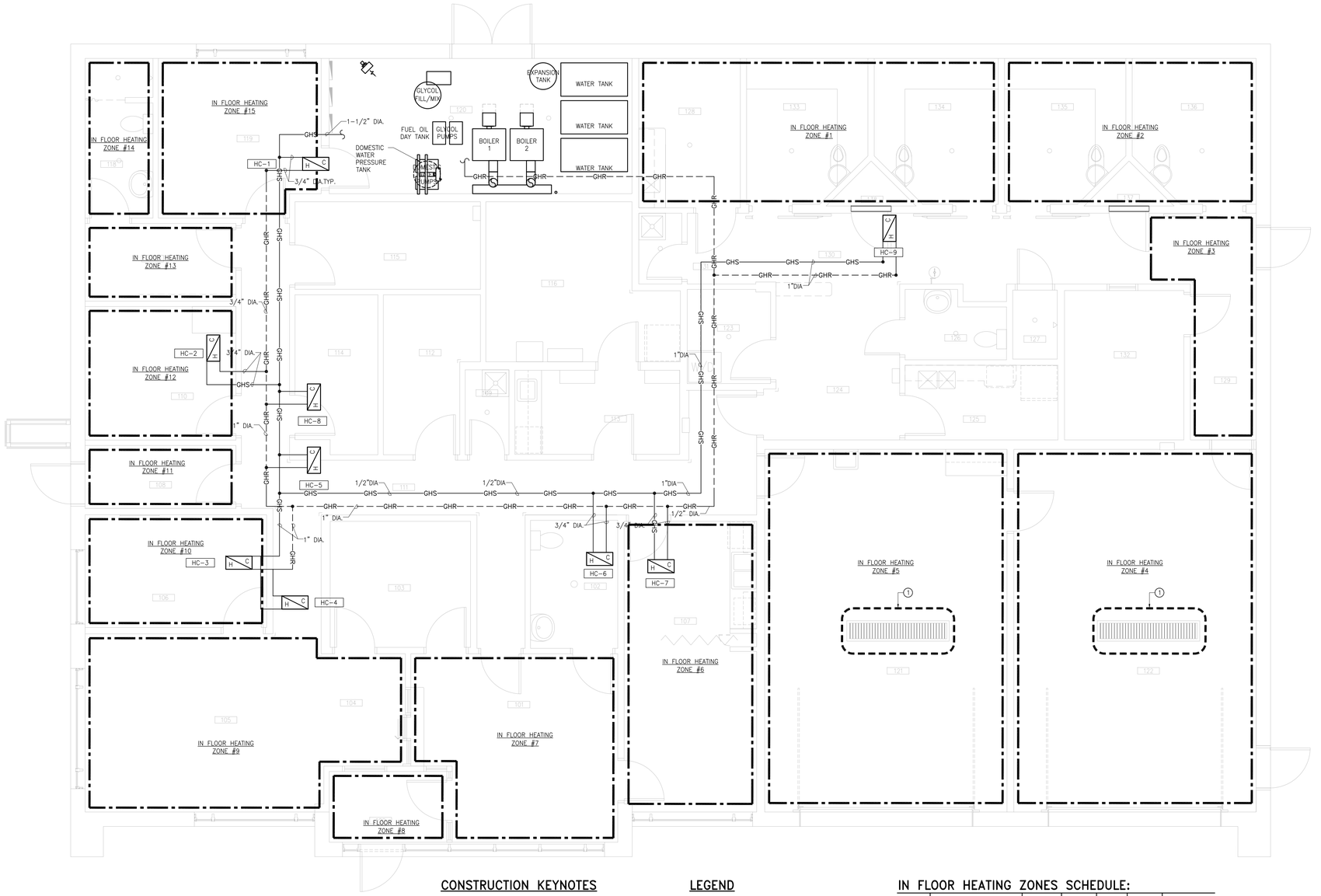

CONSTRUCTION KEYNOTES

(1) ROUTE IN-FLOOR HEATING TUBING TO GO AROUND TRENCH IN ROOMS 121, 122.

GENERAL NOTES

1. REFER TO B/M601 FOR PIPING DETAILS AT RE-HEAT COIL.
2. REFER TO E/M601 FOR PIPING DETAILS AT IN-FLOOR HEATING MANIFOLDS.
3. DETAILED DESIGN OF IN-FLOOR HEATING LAYOUT, DESIGN AND CALCULATIONS, BY THE MANUFACTURER'S REP. SUBMIT DETAILED SHOP DRAWINGS FOR ALL IN-FLOOR HEATING SYSTEMS. USE PEX PIPING WITH OXYGEN DIFFUSION BARRIER SUITABLE PROVEN FOR INTENDED USE.

LEGEND

UH-# / LPM	UNIT HEATER NUMBER / DESIGN FLOW (LPM)
ID / #	EQUIPMENT TAG
ID-#	HEATING COIL TAG
H / C	HEATING COIL
——GHS——	GLYCOL HEATING SUPPLY
– – – – GHR –	GLYCOL HEATING RETURN

IN FLOOR HEATING ZONES SCHEDULE:

ZONE #	LOCATION	FLOORING	HEAT LOSS (BTU/hr)	WATER SWT (Deg F)	5/8" PEX TUBING SPACING	IN FLOOR FLOW (USgpm)
1	ROOMS 128, 133, 134, 138	CONCRETE	5,900	90	6"	1.50
2	ROOMS 135, 136, 137	CONCRETE	5,500	90	6"	1.50
3	ROOM 129	CONCRETE	4,500	90	6"	1.50
4	ROOM 122	CONCRETE	20,000	110	6"	5.00
5	ROOM 121	CONCRETE	20,000	110	6"	5.00
6	ROOM 107	VINYL	4500	90	6"	1.5
7	ROOM 101	VINYL	9,000	90	6"	2.00
8	ROOM 100	VINYL	3,000	90	6"	1.00
9	ROOM 104, 105	VINYL	10,000	90	6"	2.00
10	ROOM 106	VINYL	2,500	90	6"	1.00
11	ROOM 108	VINYL	2,000	90	6"	1.00
12	ROOM 110	VINYL	1800	90	6"	1.0
13	ROOM 117	VINYL	1,800	90	6"	1.00
14	ROOM 118	VINYL	2,000	90	6"	1.00
15	ROOM 119	VINYL	4000	90	6"	1.5

MAX. PRESSURE DROP THROUGH IN-FLOOR HEATING LOOPS 7' W.C. THROUGH ANY 1 ZONE.

MAX. PRESSURE DROP THROUGH CONTROL VALVE 5' W.C.

A / M105 MAIN FLOOR HEATING PLAN
1:50

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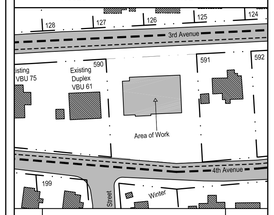

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Project:

FEDERAL BUILDING
ARVIAT, NUNAVUT

Drawn By: VCV	Date: 04-07-2015
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Sheet Title:
MAIN FLOOR HEATING PLAN

Sheet Number:
M105

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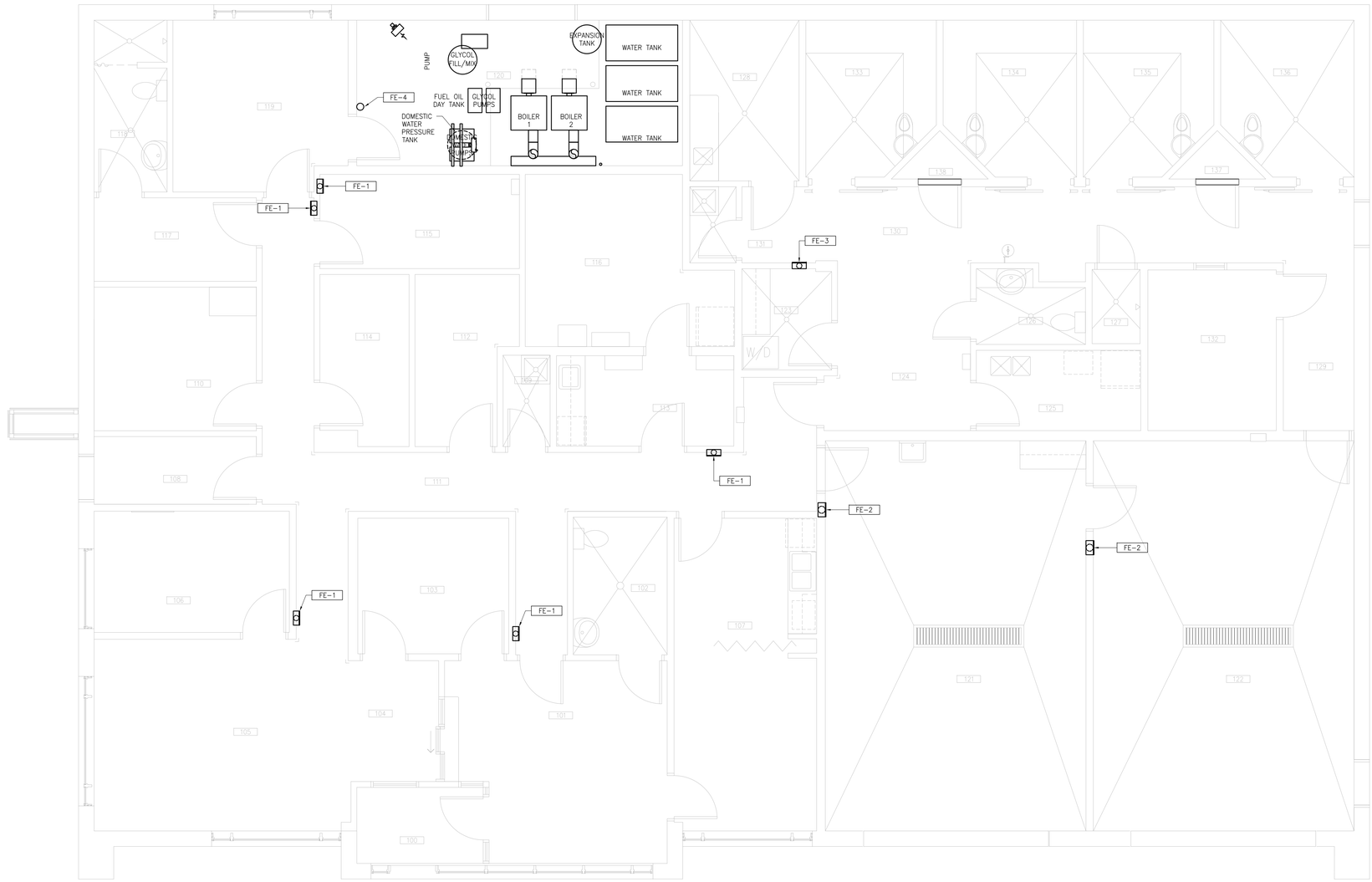

A
M106

FIRE PROTECTION PLAN
1:50

LEGEND

FE-1	2.2Kg. MULTIPURPOSE DRY CHEMICAL FIRE EXTINGUISHER, TYPE 3A40BC, C/W NATIONAL FIRE EQUIPMENT 102RS SEMI-RECESSED CABINET.
FE-2	4.5Kg. MULTIPURPOSE DRY CHEMICAL FIRE EXTINGUISHER, TYPE 4A60BC, 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 4A60BC, 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 4A60BC, MOUNTED ON EXPOSED WALL.

GENERAL NOTES

1. THIS BUILDING HAS NO SPRINKLER SYSTEM REQUIREMENTS.

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A1 594x841

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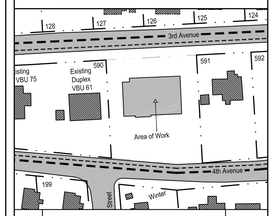

No.	Description	Date
0	ISSUED FOR TENDER	04-07-2015

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:

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Project:

FEDERAL BUILDING
ARVIAT, NUNAVUT

Drawn By: VCV	Date: 04-07-2015
Checked By: BKW	Scale: 1:50

Sheet Title:
FIRE PROTECTION PLAN

Sheet Number:
M106

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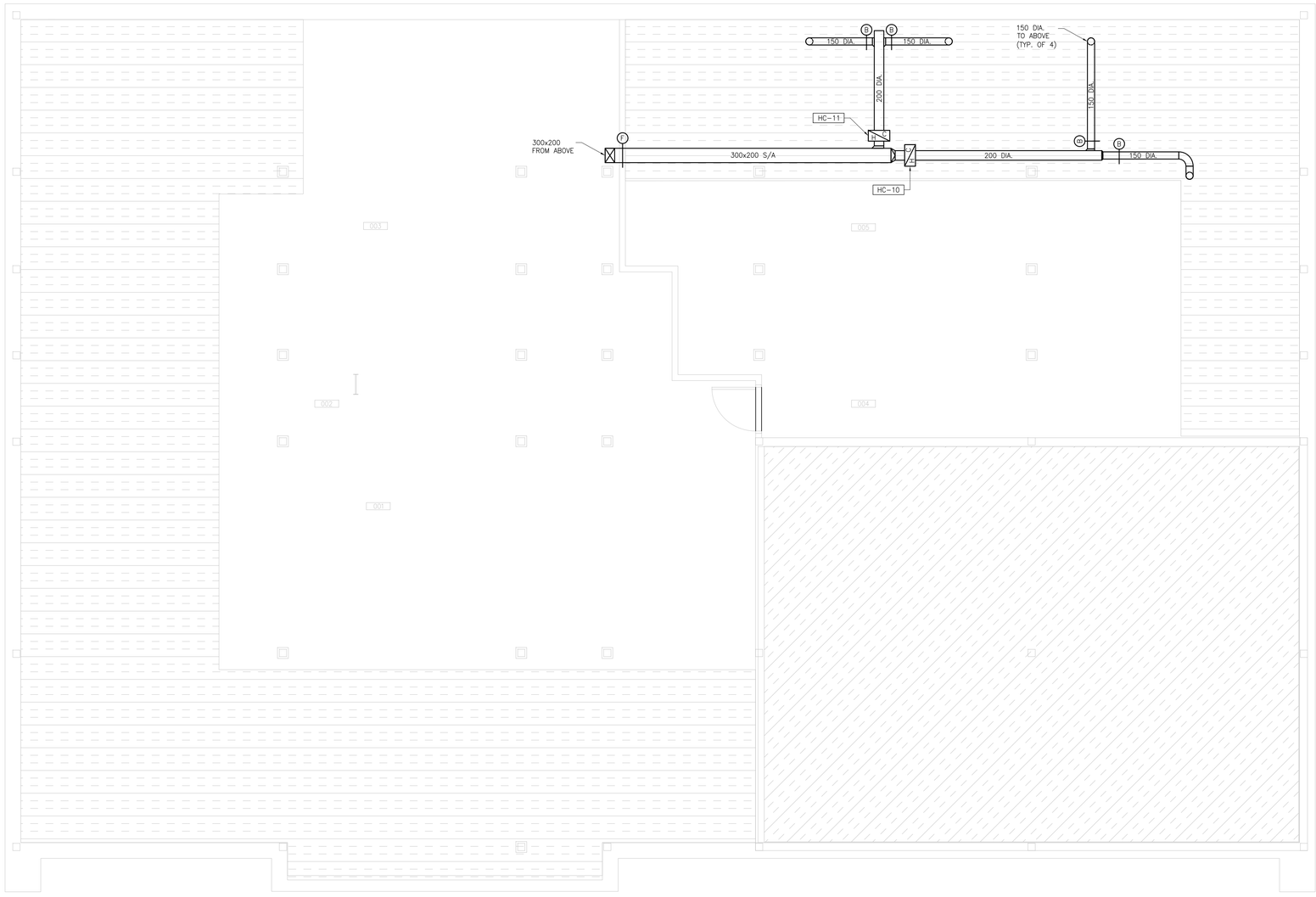

A M107 CRAWLSPACE HVAC PLAN
1:50

LEGEND

- TYPE / GRILLE SIZE / L/S — GRILLE TAG, SEE M610 FOR SIZE(MM), AIR FLOW
- TAG — EQUIPMENT TAG
- H / C — HEATING COIL
- BD — BALANCING DAMPER
- FD — FIRE DAMPER
- FSD — FIRE SMOKE DAMPER
- M — THERMAL MOTORIZED DAMPER
- SD — SECURITY DUCT OPENING
- SO — SECURITY OPENING
- ACOUSTIC ELBOW

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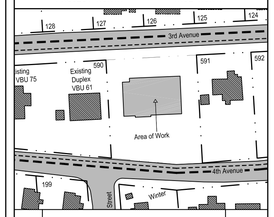
PROJECT NORTH TRUE NORTH



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BKW	1:50

Sheet Title:
CRAWLSPACE HVAC PLAN

Sheet Number:
M107

FILENAME: M_1425 – Parkin Architects\01 Arviat RCMP Station\Drawings\Current\M107 Crawlspace HVAC Plan.dwg
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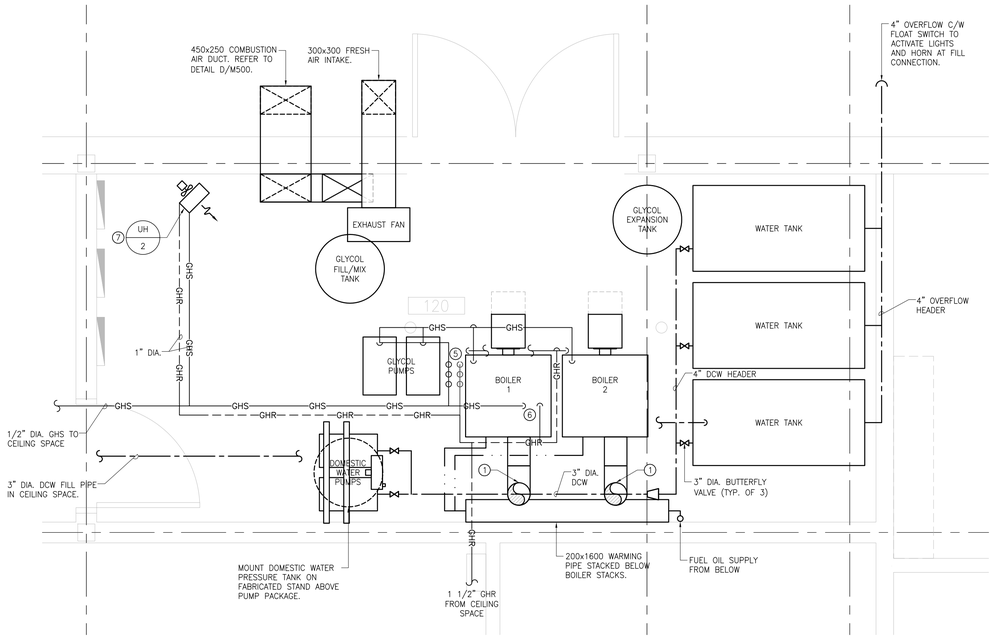
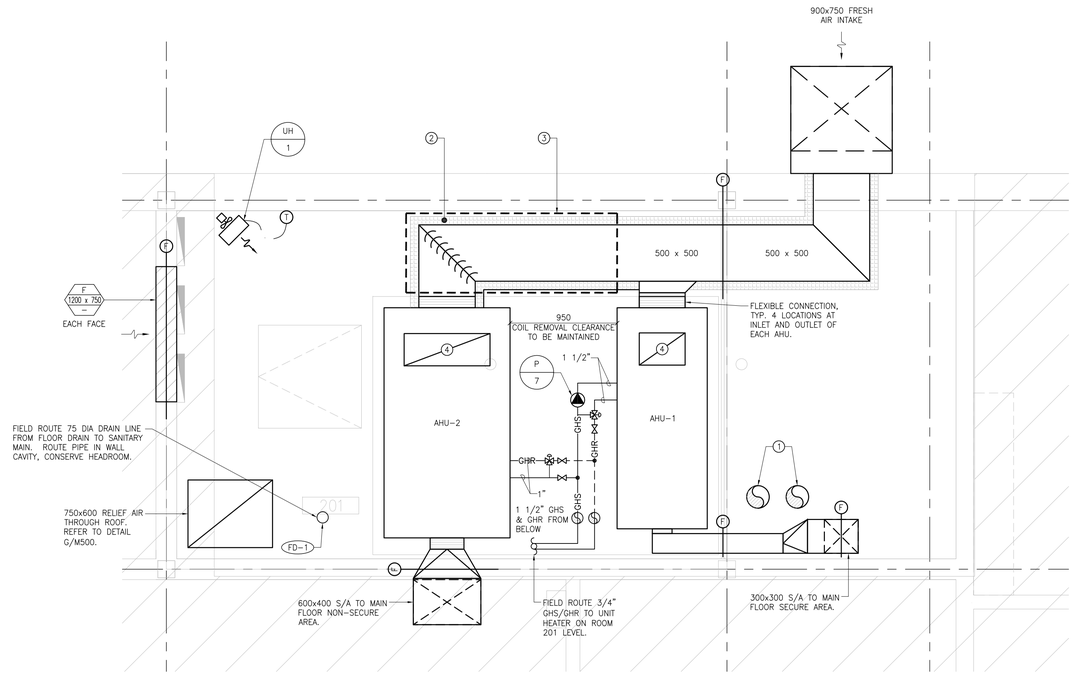


A / M350 MAIN FLOOR ROOM 120 – LARGE SCALE PLAN
1:25



B / M350 SECOND FLOOR ROOM 201 – LARGE SCALE PLAN
1:25

CONSTRUCTION KEYNOTES

1. OFFSET BOILER STACK PENETRATIONS FOR PENETRATION OF ROOM 201.
2. PROVIDE 75mm DUCT INSULATION FOR FRESH AIR INTAKE.
3. RUN AT LOW LEVEL ALONG FLOOR. PROVIDE REINFORCEMENT TO PREVENT DAMAGE TO DUCT WORK. DUE TO MAINTENANCE.
4. UN-DUCTED RETURN AIR. C/W MOTORIZED DAMPER ON TOP OF AHU.
5. 1 1/2" GHS/GHR IN ROOMS 001, 002, 003, 004, 005 BELOW FOR IN-FLOOR HEAT (2 LOOPS), AND IN ROOMS 001, 002, 003, 004, 005 HEATING (3 LOOPS IN TOTAL, 6 PIPES).
6. 1 1/2" GHS/GHR TO AHU IN ROOM 201.
7. FIELD LOCATE UH-2 IN ROOM 120 BASED ON FINAL SITE LAYOUT.

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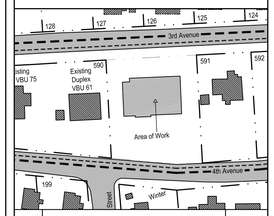

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Project:

FEDERAL BUILDING
ARVIAT, NUNAVUT

Drawn By:	Date:
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BKW	1:50

Sheet Title:
MECHANICAL ROOMS
LARGE SCALE PLANS

Sheet Number:
M350

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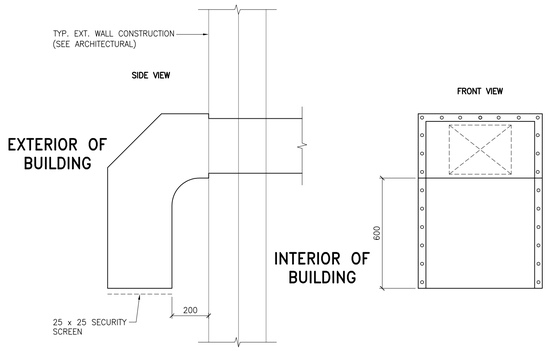
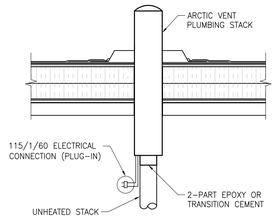
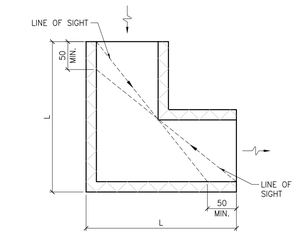


A M500 EXTERIOR DUCT HOOD DETAIL
NTS



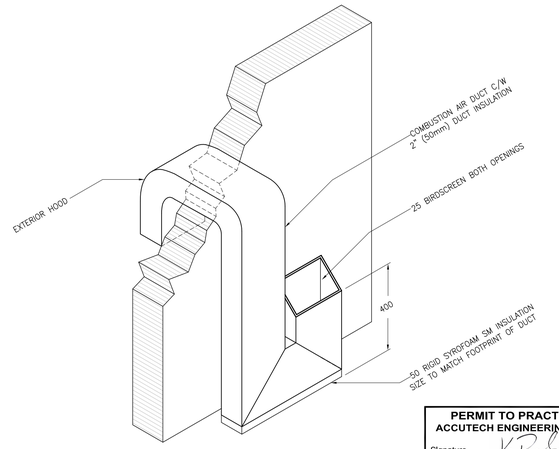
* REFER TO STRUCTURAL FOR ROOF DETAIL.
* WEATHERPROOF ARCTIC VENT AROUND FLASHING.

B M500 PLUMBING VENT ROOF PENETRATION DETAIL
NTS

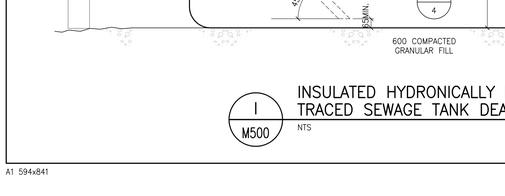


1. ACOUSTICALLY LINE THE ENTIRE INTERIOR OF THE DUCT WITH 25mm ACOUSTIC DUCT LINER.
2. FABRICATE BRANCHES WITH A MINIMUM LENGTH "L" SUCH THAT LINE OF SIGHT, AS VIEWED FROM EITHER OPENING, FALLS A MINIMUM OF 50mm SHORT OF THE OPPOSITE OPENING. REFER TO DIAGRAM.
3. REFER TO DRAWINGS FOR SPECIFIC (FREE AREA) CROSS SECTIONAL DIMENSIONS.

C M500 ACOUSTICALLY LINED AIR TRANSFER DUCT
NTS

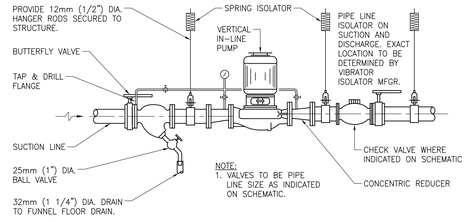


D M500 COMBUSTION AIR INTAKE
NTS



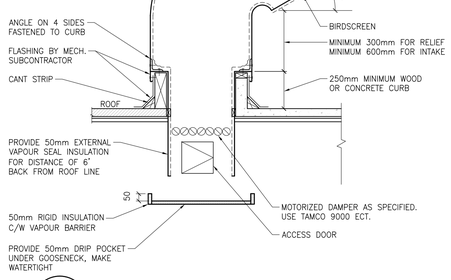
NOTE:
1. VALVES TO BE PIPE LINE SIZE AS INDICATED ON SCHEMATIC.
2. THE PREFERRED LOCATION OF THE PUMP IS TO MOUNT IN A VERTICAL SECTION OF PIPE.

E M500 TYPICAL IN-LINE CIRCULATOR PUMP DETAIL
NTS



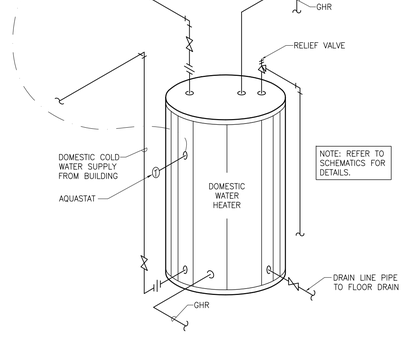
NOTE:
1. VALVES TO BE PIPE LINE SIZE AS INDICATED ON SCHEMATIC.

F M500 TYPICAL VERTICAL IN-LINE PUMP DETAIL
NTS

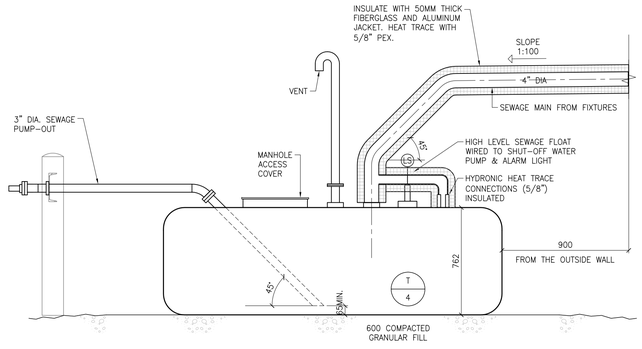


G M500 RELIEF AIR GOOSENECK
NTS

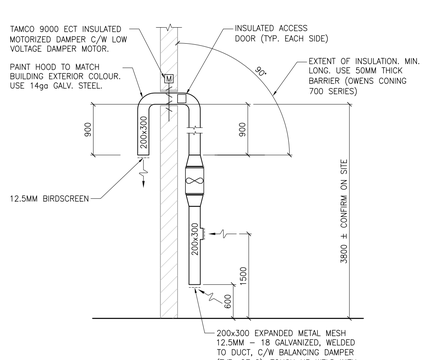
1. GOOSENECKS CAN BE MOUNTED ON EITHER WOOD OR CONCRETE ROOF AS SHOWN ON DRAWING.
2. ON GOOSENECKS NOT DUCTED PROVIDE A 50mm DEEP WATERTIGHT DRIP PAN UNDER ROOF OPENING. THE PAN SHALL BE 100mm LARGER THAN ROOF OPENING & SHALL BE SUSPENDED A MINIMUM OF 300mm BELOW OPENING.



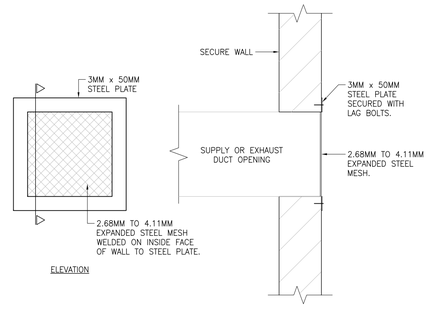
H M500 DOMESTIC HOT WATER HEATER
NTS



I M500 INSULATED HYDRONICALLY HEAT TRACED SEWAGE TANK DEATAIL
NTS



1 M500 DUCT WITH EXHAUST FAN
NTS



J M500 SECURE DUCT OPENING DETAIL (SD)
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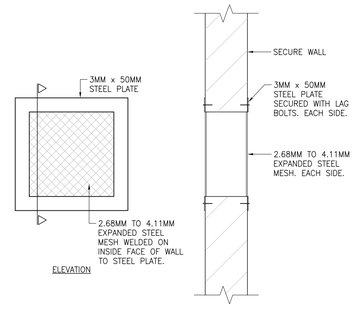

K M500 SECURE OPENING DETAIL (SO)
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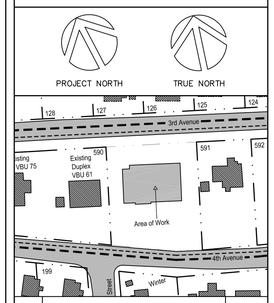

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AGE Project# E121-15-009

Project:

FEDERAL BUILDING
ARVIAT, NUNAVUT

Drawn By:	Date:
VCV	04-07-2015
Checked By:	Scale:
BKW	AS NOTED

Sheet Title:
MECHANICAL DETAILS

Sheet Number:
M500

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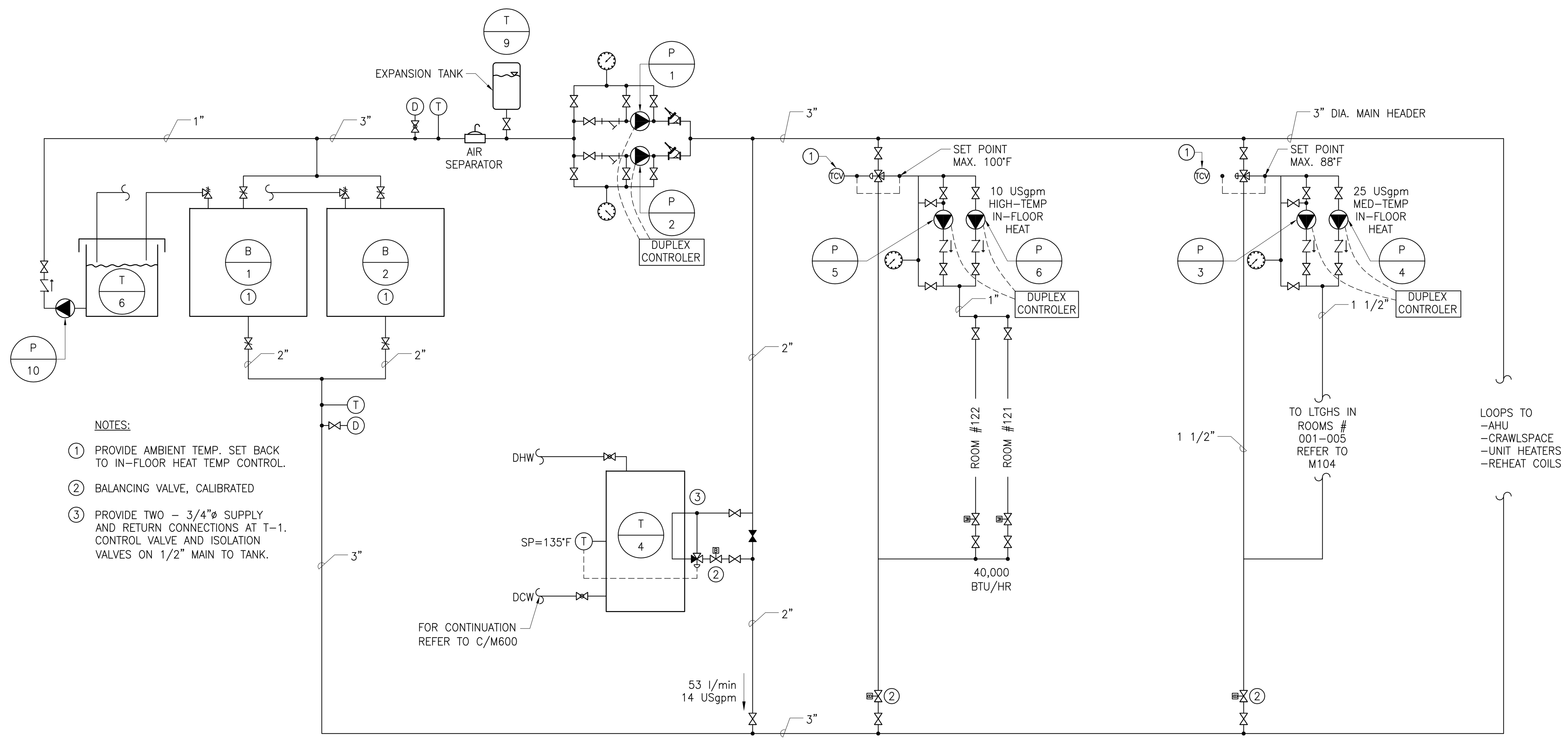


NOTES:

1. PROVIDE AMBIENT TEMP. SET BACK TO IN-FLOOR HEAT TEMP CONTROL.
2. BALANCING VALVE, CALIBRATED
3. PROVIDE TWO - 3/4"ø SUPPLY AND RETURN CONNECTIONS AT T-1. CONTROL VALVE AND ISOLATION VALVES ON 1/2" MAIN TO TANK.

A / M600 GLYCOL HEATING SCHEMATIC

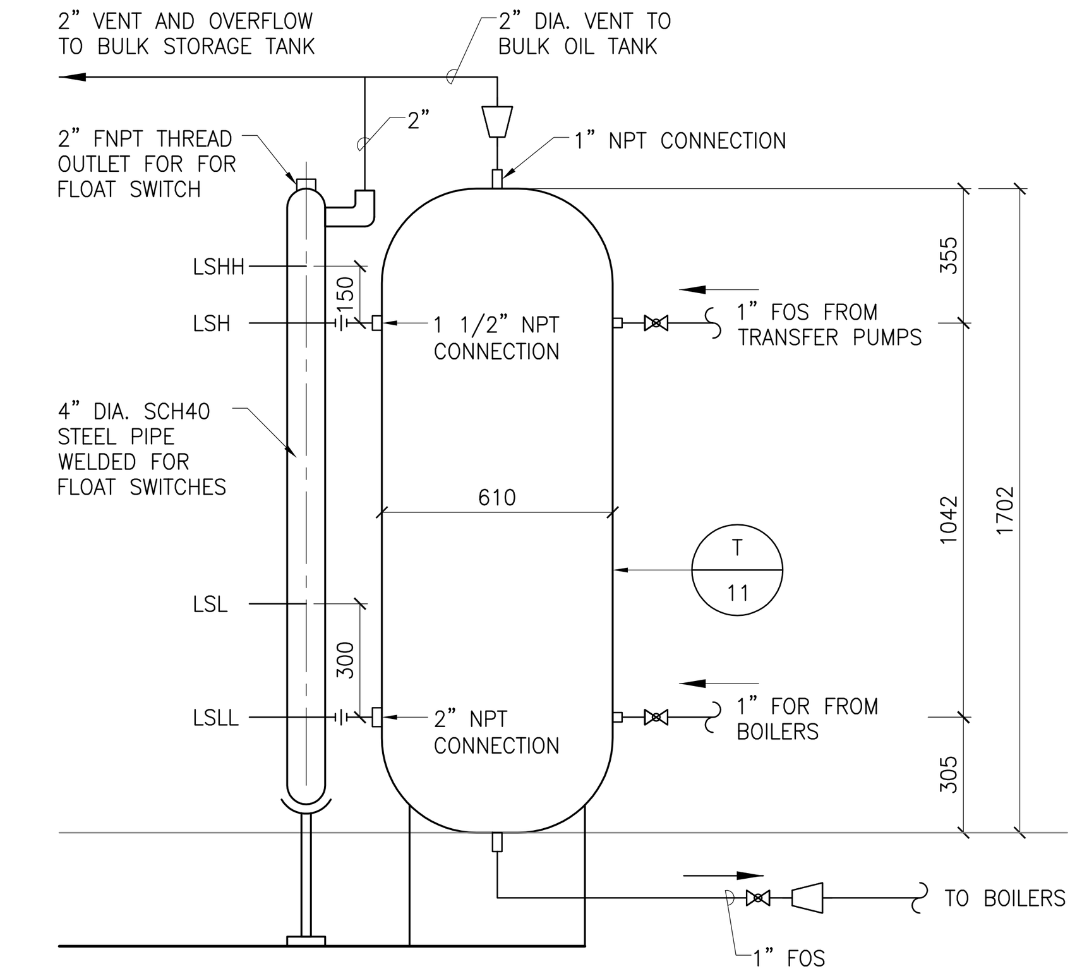
NTS

HYDRONIC HEATING SYSTEM CONTROL STRATEGY

1. BOILER CONTROL
   A. CONTROL BOILERS BASED ON INTERNAL CONTROLS.
   B. PROVIDE FOR LEAD/LAG CONTROL OF BOILERS.
   C. CONTROL BOILERS BASED ON LEAVING WATER TEMPERATURE. PROVIDE FOR OUTDOOR RESET OF BOILER LEAVING WATER TEMPERATURE. PROVIDE FOR DISABLING THE OUTDOOR RESET IN THE FUTURE, SHOULD THE BUILDING OPERATORS CHOOSE SO.
   D. PROVIDE THE FOLLOWING INDICATING POINTS :
      a. BOILER LEAVING WATER TEMPERATURE
      b. BOILER ENTERING WATER TEMPERATURE
      c. PRESSURE AT DISCHARGE OF BOILERS
      d. STATUS OF EACH BOILER AND PERCENT FIRING
      e. FLUE GAS(STACK) TEMPERATURE
      f. STATUS OF LEVEL SWITCHES IN THE FUEL OIL DAY TANK.

2. PUMP CONTROL
   A. PUMPS P-1 OR P-2 ARE TO RUN CONTINUOUSLY AT A CONSTANT SPEED. THE SYSTEM IS DESIGNED SO THAT ONLY ONE OF THE TWO PUMPS OPERATES AT ANY GIVEN TIME.
      a. SHOULD THE RUNNING PUMP STOP, AUTOMATICALLY START THE BACK-UP PUMP. ALLOW FOR AUTOMATICALLY ALTERNATING LEAD PUMP. PROVIDE HOUR METER ON THE PUMP CONTROL PANEL.
      b. LOCALLY INDICATE THE STATUS OF THE PUMPS AND DISCHARGE PRESSURE .
   B. PUMPS P-3 OR P-4. PUMPS ARE TO RUN CONTINUOUSLY. THE SYSTEM IS DESIGNED SO THAT ONLY ONE OF THE TWO PUMPS OPERATES AT ANY GIVE TIME.
      a. SHOULD THE RUNNING PUMP STOP, AUTOMATICALLY START THE BACK-UP. ALLOW FOR AUTOMATICALLY ALTERNATING LEAD PUMP. PROVIDE HOUR METER ON THE PUMP CONTROL PANEL.
      b. INDICATE: THE STATUS OF THE PUMPS(RUNNING OR STOPPED), STATUS OF P-3 AND P-4 (ON/OFF) AND SUPPLY WATER TEMPERATURE FROM P-3 AND P-4, LOOP RETURN WATER TEMPERATURE FOR THE LOOP AND PUMP DISCHARGE PRESSURE.
   C. PUMPS P-5 OR P-6. PUMPS ARE TO RUN CONTINUOUSLY. THE SYSTEM IS DESIGNED SO THAT ONLY ON THE THE TWO PUMPS OPERATES AT ANY GIVEN TIME.
      a. SHOULD THE RUNNING PUMP STOP, AUTOMATICALLY STAR THE BACK-UP PUMP. ALLOW FOR AUTOMATICALLY ALTERNATING LEAD PUMP. PROVIDE HOUR METER ON THE PUMP CONTROL PANEL.
      b. INDICATE: THE STATUS OF THE PUMPS(RUNNING OR STOPPED), AND LOOP RETURN WATER TEMPERATURE FOR THE LOOP AND PUMP DISCHARGE PRESSURE.

3. DOMESTIC HOT WATER CONTROL
   A. HEATING IS PROVIDED BY BOILER WATER THROUGH A THREE WAY CONTROL VALVE. CONTROL THE THREE-WAY CONTROL VALVE BASED ON THE LEAVING WATER TEMPERATURE OF THE DOMESTIC HOT WATER HEATER. PROVIDE ON/OFF CONTROL OF THE THREE WAY VALVES, USE SLOW OPENING/ CLOSING VALVES TO PREVENT WATER HAMMER IN THE GLYCOL LOOP.
   B. THE DOMESTIC HOT WATER RE-CIRCULATION PUMP IS TO OPERATE CONTINUOUSLY.
   C. LOCALLY INDICATE:
      a. STATUS OF THE THREE-WAY CONTROL VALVES(OPEN OR CLOSED).
      b. DOMESTIC HOT WATER SUPPLY TEMPERATURE
      c. STATUS OF PUMP P-13 (ON/OFF).

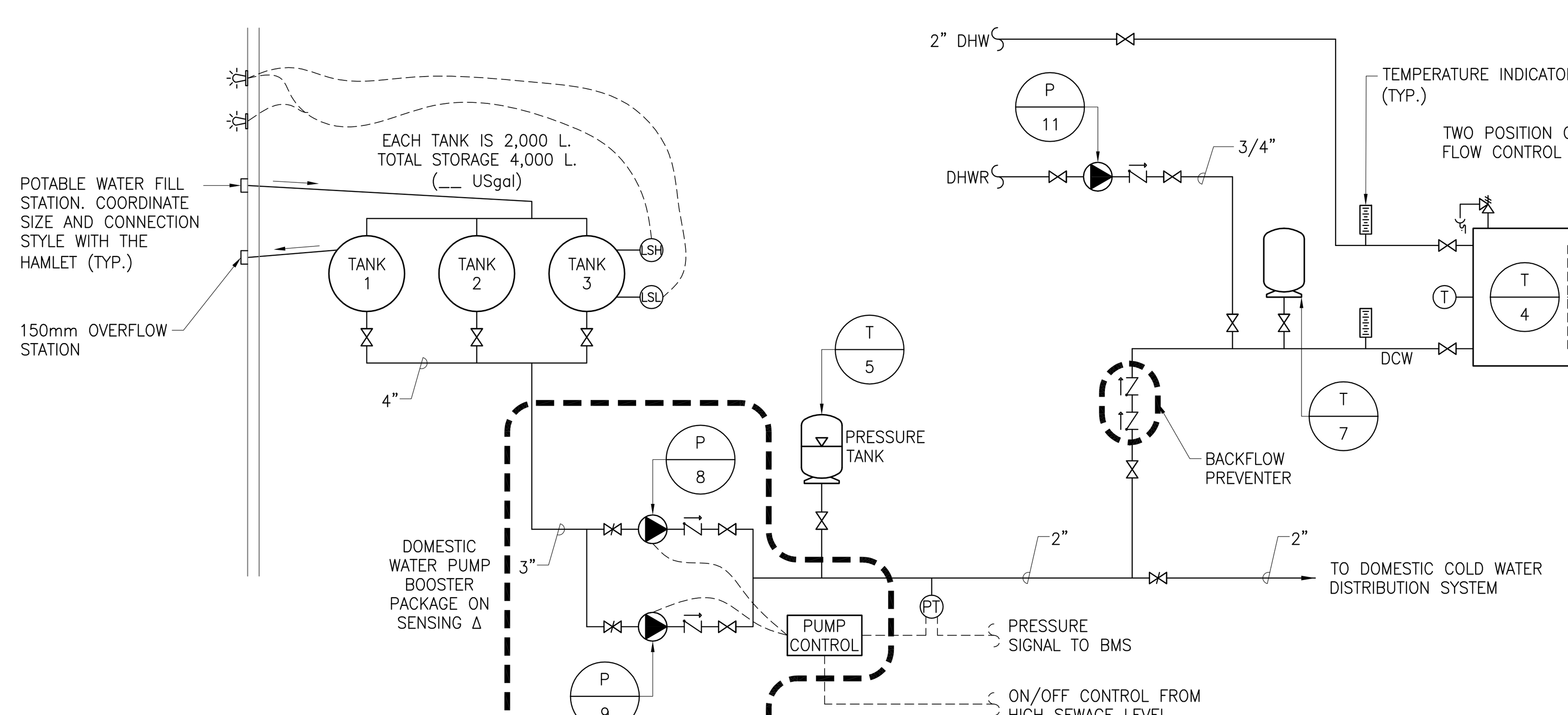


B / M600 FUEL OIL STORAGE TANK

NTS

CONTROL STRATEGY

1. PROVIDE LEVEL SWITCHES AT THE DAY TANK. CONTROL THE FUEL OIL TRANSFER PUMPS BASED ON THE LEVEL SWITCHES, AS FOLLOWS:
   a. LEVEL SWITCH LOW LOW - START THE BACK-UP PUMP. IF THE ALARM DOES NOT CLEAR IN 10-MINUTES, THEN ENUNCIATE AN ALARM AT THE BMS, AT THE ROOM #105 ALARM PANEL, AND DIAL OUT TO THE ALARM COMPANY. INTEGRATE THE LEVEL SWITCH WITH THE AUTO-DIALER. LEAVE THE ALARM STATUS ON THE BMS ALARM LOG.
   b. LEVEL SWITCH LOW - START THE PRIMARY TRANSFER PUMP
   c. LEVEL SWITCH HIGH - STOP THE TRANSFER PUMP
   d. LEVEL SWITCH HIGH HIGH - STOP ALL TRANSFER PUMPS. ENUNCIATE AN ALARM AT THE BMS, AT AND LED LIGHT IN THE ROOM #105 ALARM PANEL, AND DIAL OUT TO THE ALARM COMPANY. INTEGRATE THE LEVEL SWITCH WITH THE AUTO-DIALER.
2. USE THE ABOVE NOTED CONTROL STRATEGY FOR BOTH THE BOILER DAY TANK AND THE GENERATOR DAY TANK.
3. PROVIDE FOR ALTERNATING THE PUMPS.



C / M600 DOMESTIC WATER FLOW DIAGRAM

NTS

CONTROL STRATEGY

1. ON LOW WATER LEVEL IN THE STORAGE TANKS (T-1, T-2 & T-3), ILLUMINATE A RED LED LIGHT ON THE BUILDING EXTERIOR. PROVIDE SIGNAGE AT LIGHT. INITIATE AN ALARM IN AREA #124. SHUT OFF THE DOMESTIC WATER PUMPS P-8 AND P-9. PROVIDE A RED ALARM LIGHT ON THE CONTROL PANEL IN AREA #124.

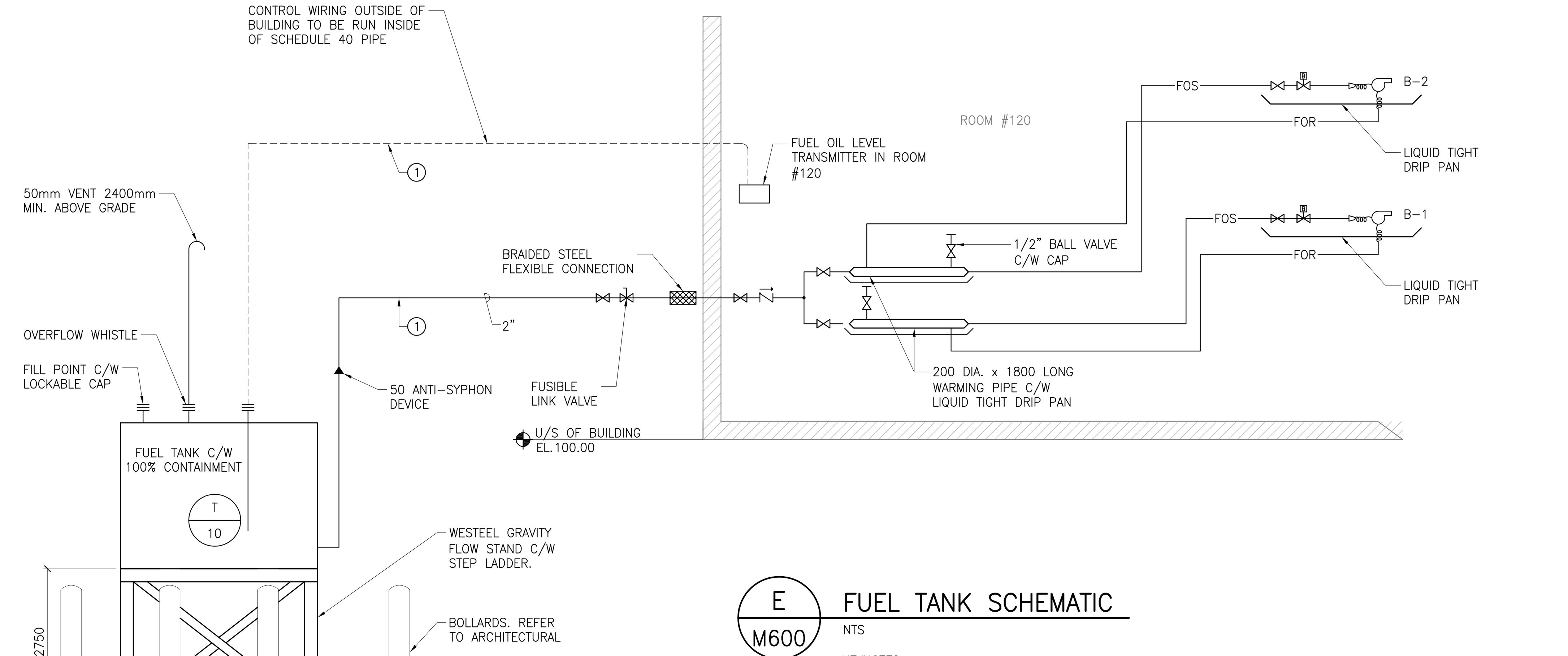
2. MODULATE THE SPEED OF PUMPS P-8 AND P-9 TO MAINTAIN THE DISCHARGE PRESSURE USING VFD'S AT THE PUMPS. INITIAL SETPOINT FOR THE WATER PRESSURE IS 345-KPA (50-PSIG). CYCLE WHICH OF THE TWO PUMPS IS THE LEAD TO MAINTAIN EQUAL WEAR ON THE PUMPS AND PREVENT SHORT-CYCLING. MINIMUM PUMP SPEED IS 30%. THE PRESSURES ARE TO BE ADJUSTABLE.

   ON LOW WATER USE AND DURING OFF-HOURS, TURN THE PUMPS OFF. RE-START THE PUMPS BASED ON PRESSURE SETTINGS IN THE TRANSMITTER. PROVIDE A DEAD-BAND WHEN WATER WILL BE SUPPLIED BY THE DIAPHRAGM TANKS.

3. CONTROL THE DOMESTIC HOT WATER BASED ON THE TEMPERATURE WITHIN THE DOMESTIC HOT WATER STORAGE TANKS. ON LOW TEMPERATURE, OPEN GLYCOL CONTROL VALVE. WHEN DOMESTIC HOT WATER REACHES SETPOINT, CLOSE GLYCOL CONTROL VALVE. USE SLOW OPENING/CLOSING VALVES FOR THIS SERVICE.
   a. ALARM ON HIGH DHW STORAGE TEMP. SETPOINT OF ALARM IS 60°C (140°F)
   b. ALARM ON LOW DHW STORAGE TEMP. SETPOINT OF ALARM IS 40°C

4. ON HIGH SEWAGE LEVEL IN TANKS T-8, SHUT OFF P-8 AND P-9. INITIATE ALARM AT BMS HEAD END AND AREA #105 ALARM PANEL.

5. ON SENSING A HIGH LEVEL IN DOMESTIC WATER TANKS, INITIATE FLASHING STROBE AND ALARM SIREN AT FILL CONNECTION.



E / M600 FUEL TANK SCHEMATIC

NTS

KEYNOTES:

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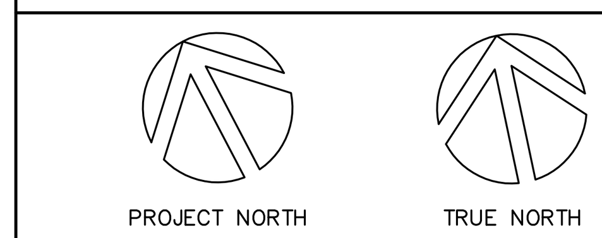
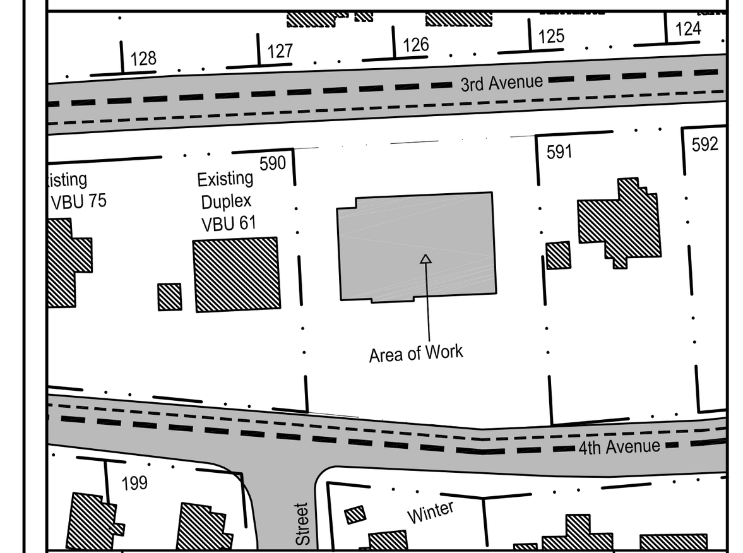
Signature
Date APR 07 2015
PERMIT NUMBER: P 421
The Association of Professional Engineers, Geologists and Geophysicists of the NWT/NU





No.	Description	Date
0	ISSUED FOR TENDER	04-07-2015

Revisions:

All measurements are to be checked and verified on site by the contractor before proceeding with the work.

Do not scale the drawings.

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Project:

FEDERAL BUILDING
ARVIAT, NUNAVUT

Drawn By: VCV	Date: 04-07-2015
Checked By: BKW	Scale: AS NOTED

Sheet Title:
MECHANICAL SCHEMATICS

Sheet Number:
M600

FILENAME: W:\A626 - Parkin Architects\01.Arviat RCMP Station\Drawings\Current\M600 Mechanical Schematics.dwg
PLOTDATE: Apr 27, 2015 - 10:37am

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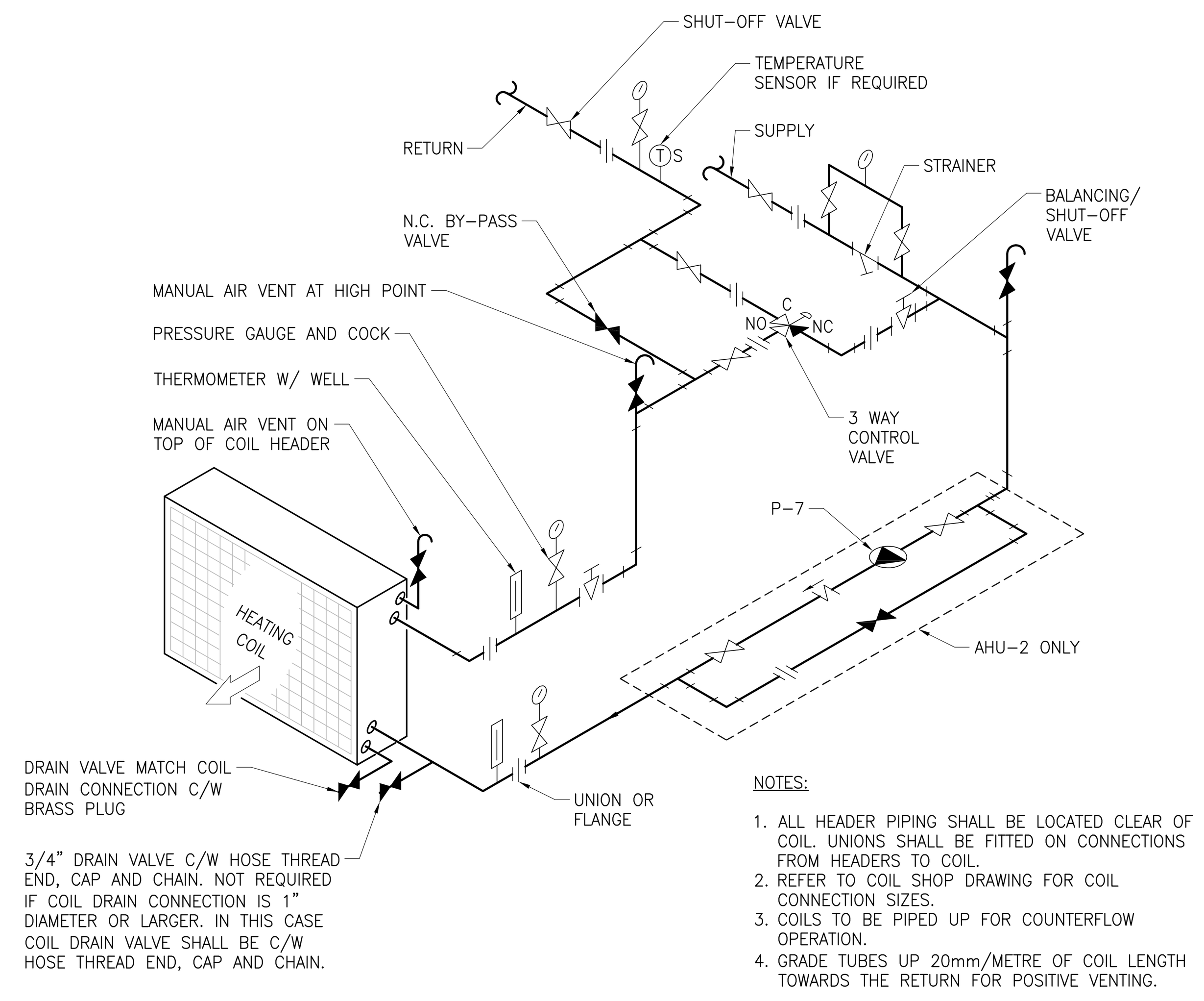
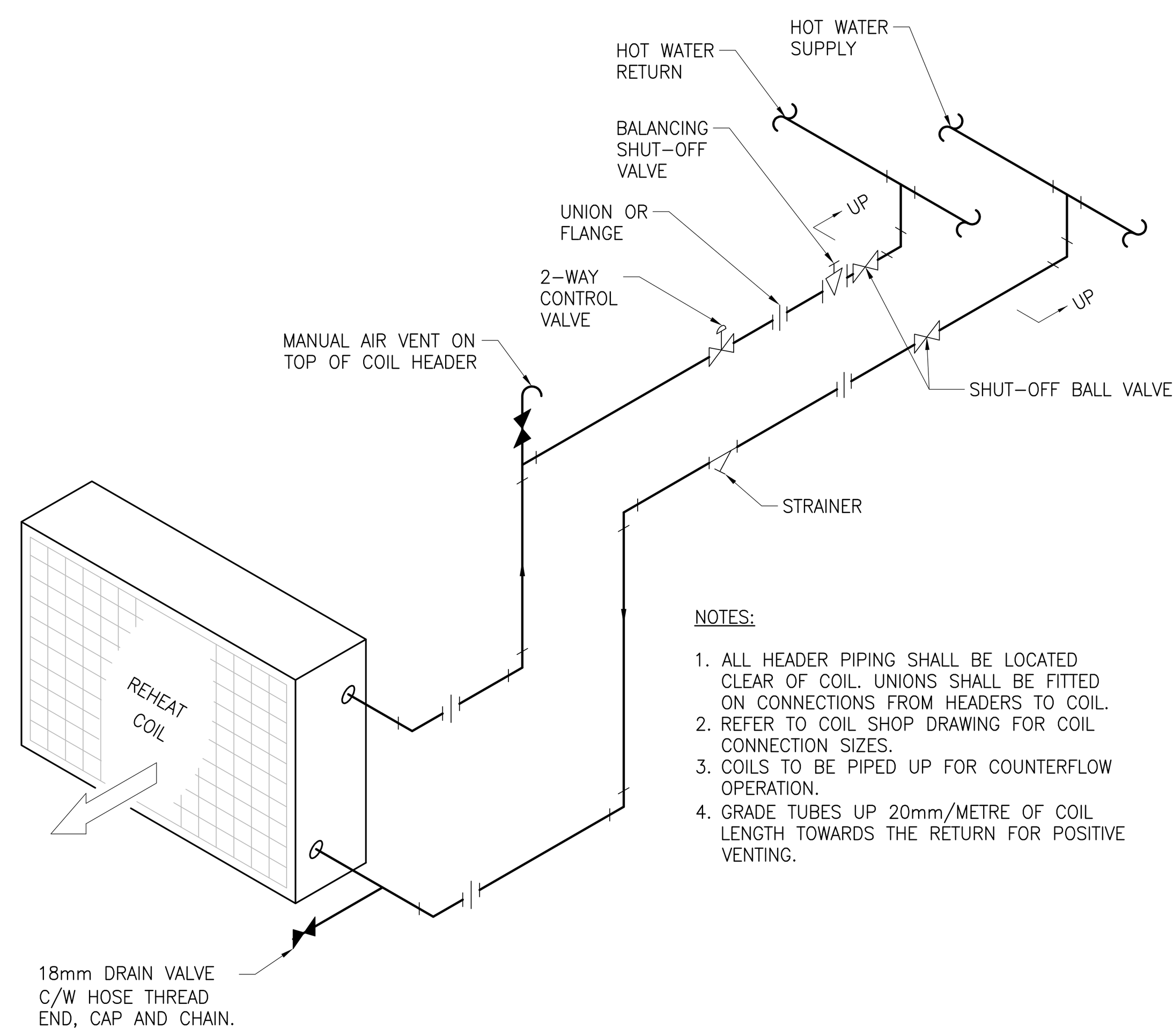


NOTES:

1. ALL HEADER PIPING SHALL BE LOCATED CLEAR OF COIL. UNIONS SHALL BE FITTED ON CONNECTIONS FROM HEADERS TO COIL.
2. REFER TO COIL SHOP DRAWING FOR COIL CONNECTION SIZES.
3. COILS TO BE PIPED UP FOR COUNTERFLOW OPERATION.
4. GRADE TUBES UP 20mm/METRE OF COIL LENGTH TOWARDS THE RETURN FOR POSITIVE VENTING.

A / M601 — AIR HANDLING UNIT SINGLE GLYCOL HEATING COIL DETAIL
NTS



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4. GRADE TUBES UP 20mm/METRE OF COIL LENGTH TOWARDS THE RETURN FOR POSITIVE VENTING.

B / M601 — REHEAT COIL PIPE DETAIL
NTS

CONTROL STRATEGY – AIR HANDLING UNITS

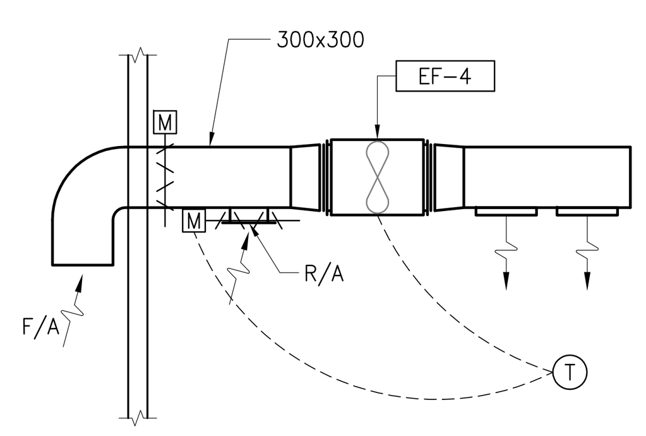
1. AIR– HANDLING UNITS – GENERAL
   A. ALL CONTROLS ARE TO FAIL SAFE, TO FULL HEAT. ALL MEASURES MUST BE TAKEN TO PREVENT THE BUILDING FROM FREEZING.
   B. PROVIDE A DISPLAY AND CONTROL AT THE ROOM 124 IN THE SECURE PORTION OF THE BUILDING. THIS DISPLAY/CONTROL IS TO PROVIDE:
      a. TEMPERATURE SETPOINT FOR EACH 128, 132, 133, 134, 135, 136 ROOMS, AND ROOM 128.
      b. INDICATE ALL ALARM CONDITIONS FOR THE MECHANICAL SYSTEMS. THIS INCLUDES THE HEATING, VENTILATION, LOW TEMPERATURE CONDITIONS, LOW FUEL OIL IN THE BULK TANK AND DAY TANK, LOW WATER LEVEL, HIGH SEWAGE LEVEL, ETC.

2. NON–SECURE SIDE – AHU–002
   A. OPERATING SCHEDULE
      a. AHU–002 IS TO OPERATE CONTINUOUSLY DURING A PRE–PROGRAMMED DAY/TIME SCHEDULE, DURING OCCUPIED HOURS.
      b. AHU–002 IS TO SHUT DOWN DURING UN–OCCUPIED HOURS UNLESS A LOW TEMPERATURE IS OBSERVED IN ONE OF THE SPACES SERVED.
      c. IN THE ROOM 105, PROVIDE A MANUAL OVERRIDE BUTTON ON THE THERMOSTAT TO START AHU–002 FOR A 30–MINUTE (ADJUSTABLE) DURATION. THE OPERATING DURATION IS TO BE PROGRAMMED IN THE SWITCH.
   B. DAMPER CONTROL
      a. CONTROL THE FRESH AIR DAMPERS AND THE RETURN AIR DAMPERS IN UNISON.
      b. MODULATE THE DAMPERS TO MAINTAIN A MINIMUM CALCULATED MIXED AIR VOLUME. THE MIXED AIR VOLUME IS TO BE DETERMINED BASED ON THE RETURN AIR TEMPERATURE AND THE FRESH AIR TEMPERATURE. THE DESIGN RATIO IS 20% FRESH AIR. PROVIDE A LOW LIMIT MIXED AIR TEMPERATURE OF 2°C.
      c. PROVIDE FOR ECONOMIZER COOLING.
   C. HEATING COIL
      a. DURING NORMAL OPERATION, MODULATE THE CONTROL VALVE ON AHU–002 HEATING COIL TO PROVIDE A LEAVING AIR TEMPERATURE OF 12.8°C (55°F).
      b. WHEN AMBIENT TEMPERATURE RISES ABOVE 12.8°C, THE UNIT IS TO OPERATE IN "ECONOMIZER" MODE (100% FRESH AIR). THE HEATING COIL MUST BYPASS ALL FLUID AT THIS TIME.
      c. PROVIDE A FREEZE PROTECTION THERMOSTAT IN THE LEAVING AIR STREAM. ON SENSING A LOW SUPPLY AIR TEMPERATURE, OFF SETPOINT BY GREATER THAN 2°C FOR GREATER THAN 15–MINUTES, MOVE THE DAMPERS TO 100% RETURN AIR. IF THE PROBLEM CONTINUES, SHUT DOWN THE AIR HANDLING UNIT. ENUNCIATE AN ALARM AT THE ROOM 124 IN THE SECURE AREA.
   D. FILTERS
      a. STAGE 1 ALERT – ON SENSING AN ALERT LEVEL, ENUNCIATE A WARNING. AN ALERT SETPOINT IS A LOWER DIFFERENTIAL PRESSURE THAN THE ALARM LEVEL.
      b. STAGE 2 ALARM – PROVIDE A DIFFERENTIAL PRESSURE TRANSMITTER ACROSS THE FILTER BANKS. ON SENSING A HIGH DIFFERENTIAL PRESSURE, ENUNCIATE AN ALARM AT THE ROOM 124.
   E. RELIEF AIR DAMPER
      a. CONTROL THE RELIEF AIR DAMPER BASED ON THE DIFFERENTIAL PRESSURE BETWEEN THE SECURE AND NON–SECURE SIDES OF THE BUILDING.
      b. PROVIDE A TEMPERATURE SENSOR ON THE INTERIOR OF THE RELIEF DUCTWORK TO DETECT A REVERSE FLOW OF AIR. ON SENSING COLD AIR FLOWING INTO ROOM 201, MODULATE THE DAMPER CLOSED TO PREVENT THE COLD AIR FROM ENTERING THE ROOM 201.

3. SECURE AHU–1
   A. OPERATING SCHEDULE – THE UNIT IS TO OPERATE CONTINUOUSLY.
   B. DAMPER CONTROL
      a. THE UNIT IS DESIGNED TO OPERATE AT 100% FRESH AIR EXCEPT DURING A FREEZING SITUATION.
      b. ON SENSING A LOW SUPPLY AIR TEMPERATURE, INITIATE AN ALARM AT THE BMS HEAD END AND THE ROOM 124 CONTROL PANEL AND OPERATE THE UNIT AT 100% RETURN AIR.
   C. HEATING CONTROL
      a. INTERLOCK OPERATION OF PUMP P–7 WITH THE FAN OPERATION.
      b. PUMP P–7 IS TO OPERATE AT ALL TIMES THE AHU IS OPERATING.
      c. MODULATE THE CONTROL VALVE TO MAINTAIN A LEAVING AIR TEMPERATURE OF 12.8°C (55°F).
      d. FREEZE PROTECTION MODE – PROVIDE A FREEZE PROTECTION THERMOSTAT IN THE LEAVING AIR STREAM. ON SENSING A LOW SUPPLY AIR TEMPERATURE, OFF SETPOINT BY GREATER THAN 5°C FOR GREATER THAN 15–MINUTES, MOVE THE DAMPERS TO 100% RETURN AIR. IF THE PROBLEM CONTINUES, SHUT DOWN THE AIR HANDLING UNIT. ENUNCIATE AN ALARM IN ROOM 124.
      e. PROVIDE FOR ECONOMIZER COOLING.
   D. FILTERS
      a. STAGE 1 ALERT – ON SENSING AN ALERT LEVEL, ENUNCIATE A WARNING . AN ALERT SETPOINT IS A LOWER DIFFERENTIAL PRESSURE THAN THE ALARM LEVEL.
      b. STAGE 2 ALARM – PROVIDE A DIFFERENTIAL PRESSURE TRANSMITTER ACROSS THE FILTER BANKS. ON SENSING A HIGH DIFFERENTIAL PRESSURE, ENUNCIATE AN ALARM AT THE ROOM 124.

4. EXHAUST FAN – EF–1
   A. THE FAN IS TO OPERATE CONTINUOUSLY, INTERLOCK OPERATION OF THE FAN WITH AHU–001. IF AHU–001 GOES INTO FREEZE PROTECTION MODE, SHUT DOWN EF–1.
   B. OPERATE EF–1 BASED ON A CONSTANT VOLUME.

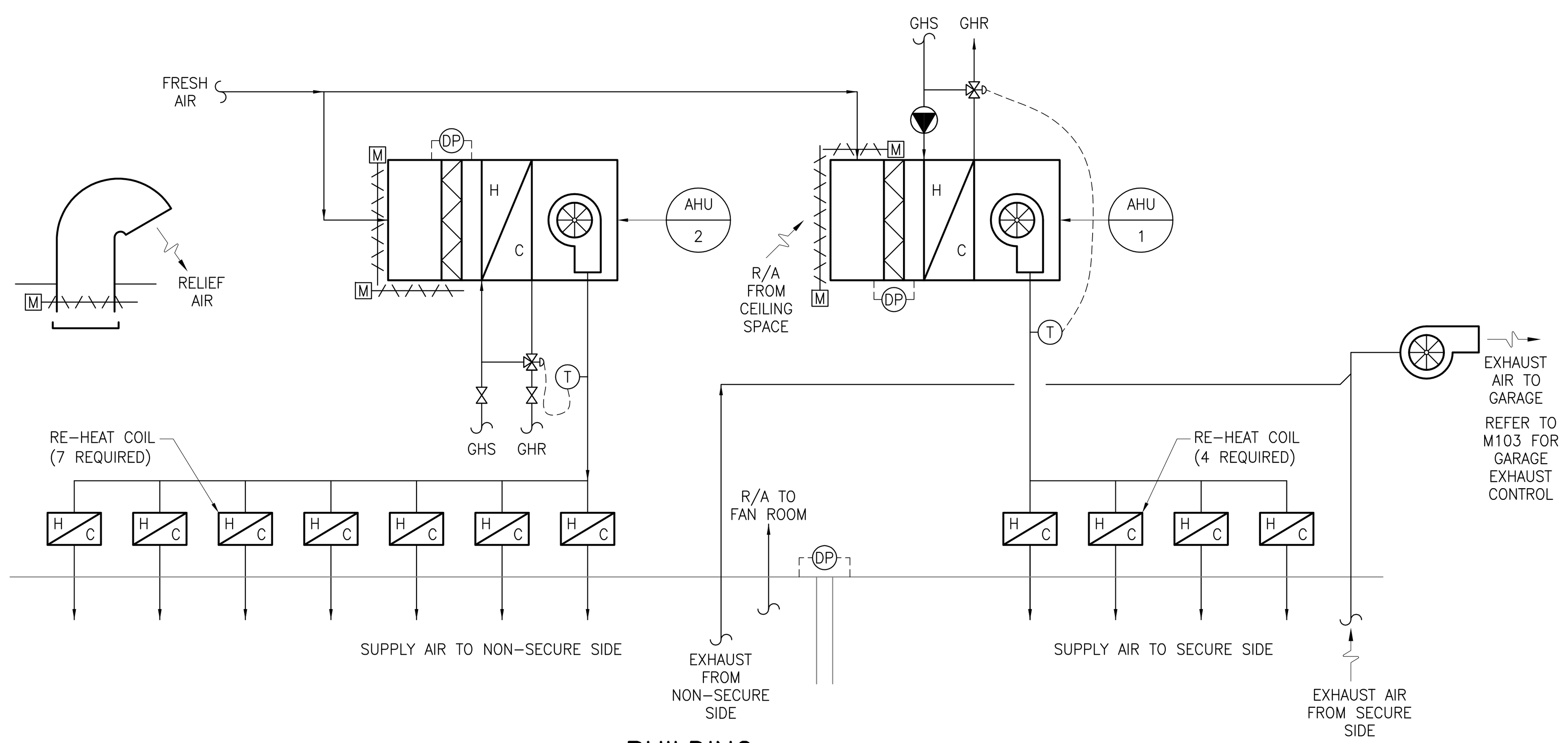
5. BALANCING – BALANCE THE SECURE SIDE OF THE BUILDING TO OPERATE AT A SLIGHTLY LOWER STATIC PRESSURE THAN THE NON–SECURE SIDE OF THE BUILDING. THE ROOMS 121, 122 ARE TO BE BALANCED TO MAINTAIN A SLIGHTLY LOWER PRESSURE THAN THE OCCUPIED SPACES.



SEQUENCE OF OPERATION

1. START FAN WHEN BOILER ROOM TEMPERATURE EXCEEDS 24°C.
2. MODULATE R/A AND F/A DAMPERS TO MAINTAIN A ROOM TEMPERATURE OF 15°C.

C / M601 — ROOM 120 VENTILATION DETAIL
NTS



D / M601 — BUILDING AIR FLOW SCHEMATIC
NTS

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Signature [signature]
Date APR 07 2015
PERMIT NUMBER: P 421
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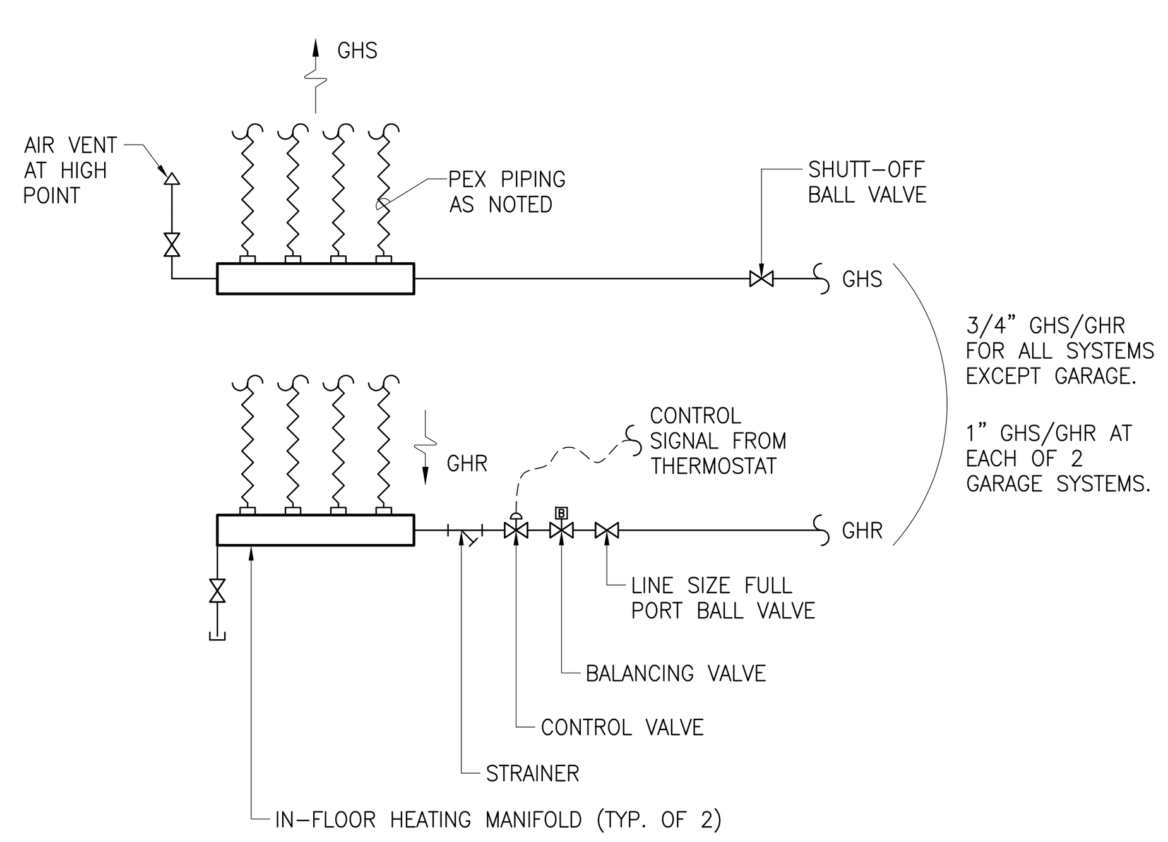
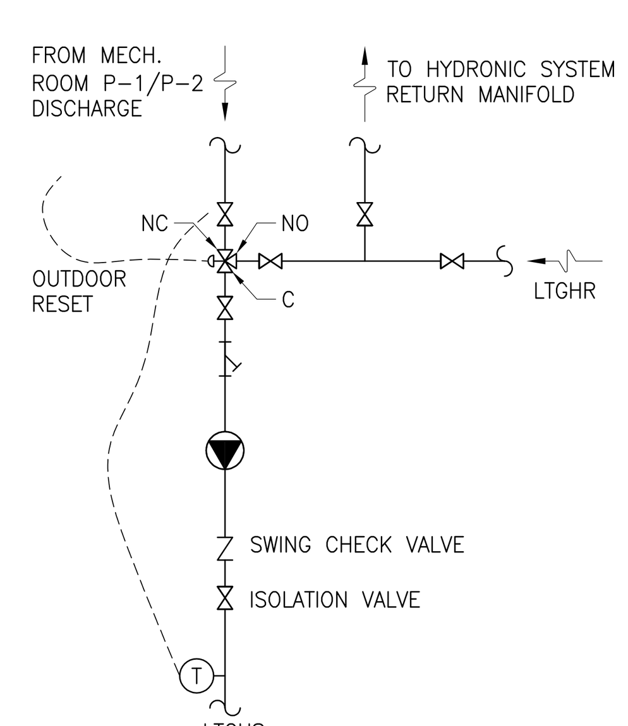


E / M601 — TYPICAL MANIFOLD PIPING DETAIL FOR EACH IN–FLOOR HEATING ZONE (16 ZONES REQ'D)
NTS

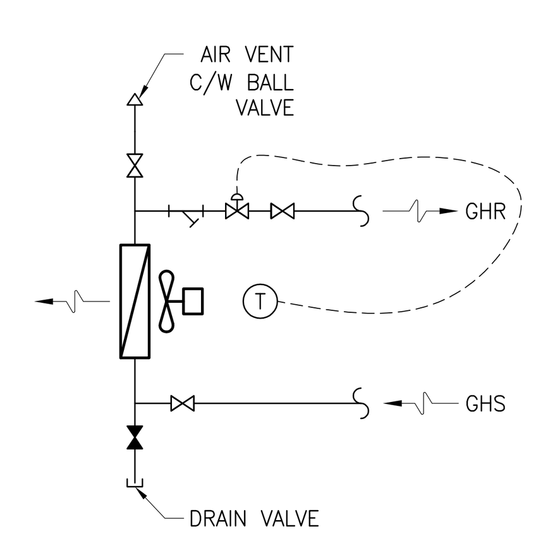
* REFER TO M105 FOR DESIGN CONDITIONS FOR IN-FLOOR HEATING SYSTEM.



CONTROL STRATEGY:

1. THE IN–FLOOR HEATING PUMPS HAVE ONE LEVEL OF REDUNDANCY. PROVIDE A LEAD/LAG CONTROL PANEL. IN THE EVENT THE PRIMARY PUMP FAILS, START THE SECOND PUMP. PROVIDE A FLOW SWITCH TO DETECT A LOSS OF FLOW. ALLOW FOR LEAD/LAG SWITCHING BASED ON A PRE–DETERMINED SCHEDULE. ON FAILURE OF A PUMP, ENUNCIATE AN ALARM.
2. ENERGIZE THE PUMP WHEN ANY ONE ZONE CALLS FOR HEAT, WITH A 60–SECOND TIME DELAY (ADJUSTABLE). IF NO ZONES CALL FOR HEAT, THE PUMPS ARE TO REMAIN OFF.
3. CONTROL VALVE – MODULATE THE CONTROL VALVE TO PROVIDE A PRE–SET SUPPLY GLYCOL TEMPERATURE TO THE DIFFERENT ZONES. INCORPORATE AN OUTDOOR RESET INTO THE CONTROL STRATEGY.
   a. LOW TEMPERATURE IN–FLOOR HEATING SYSTEM (PUMPS P–5/P–6). MAXIMUM GLYCOL TEMPERATURE 90°F (ADJUSTABLE BASED ON FLOORING MANUFACTURER'S RECOMMENDATIONS).
   b. MEDIUM TEMPERATURE IN–FLOOR HEATING SYSTEM (PUMPS P–3/P–4). MAXIMUM GLYCOL TEMPERATURE IS 100°F (SERVES THE ROOMS 121, 122).
   c. MAXIMUM PRESSURE DROP THROUGH THE CONTROL VALVE IS 5–FT. W.C.
4. PROVIDE OUTDOOR RESET FOR IN–FLOOR HEATING SYSTEMS.

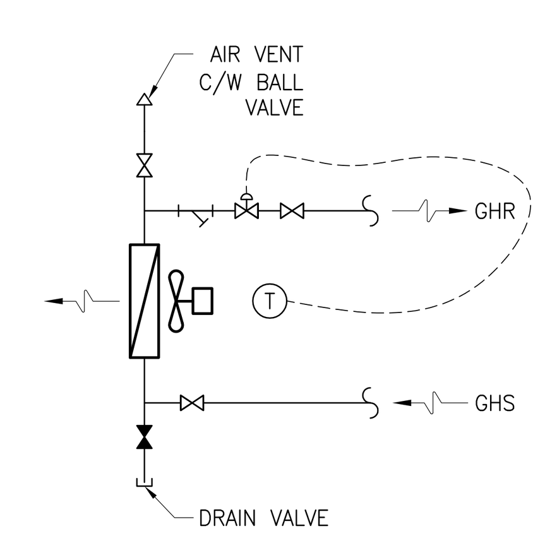
F / M601 — CONTROL STRATEGY – IN FLOOR HEATING PUMPS AND ASSOCIATED CONTROL VALVES
NTS



CONTROL STRATEGY:

1. PROVIDE A LOW VOLTAGE THERMOSTAT FOR EACH UNIT HEATER. LOCATE THE THERMOSTAT ON THE INLET SIDE OF THE FAN.
2. THE FAN IS TO OPERATE CONTINUOUSLY.
3. ON A CALL FOR HEAT, THE THERMOSTAT IS TO OPEN THE CONTROL VALVE ON THE UNIT HEATER.
4. PROVIDE LOW TEMPERATURE ALARM THERMOSTATS IN THE ROOMS 001 TO 005, MINIMUM 2. ON SENSING A LOW TEMPERATURE FOR GREATER THAN 15–MINUTES, ALL CONTROL VALVES ON ALL UNIT HEATERS ARE TO OPEN (FULL HEAT). ENUNCIATE AN ALARM TO THE BMS HEAD END AND AT THE ROOM 124 CONTROL PANEL.
5. ON SENSING A FAN FAILURE FOR ANY UNIT HEATER (USE A CURRENT SENSING RELAY) THEN ENUNCIATE AN ALARM AT THE BMS HEAD END.

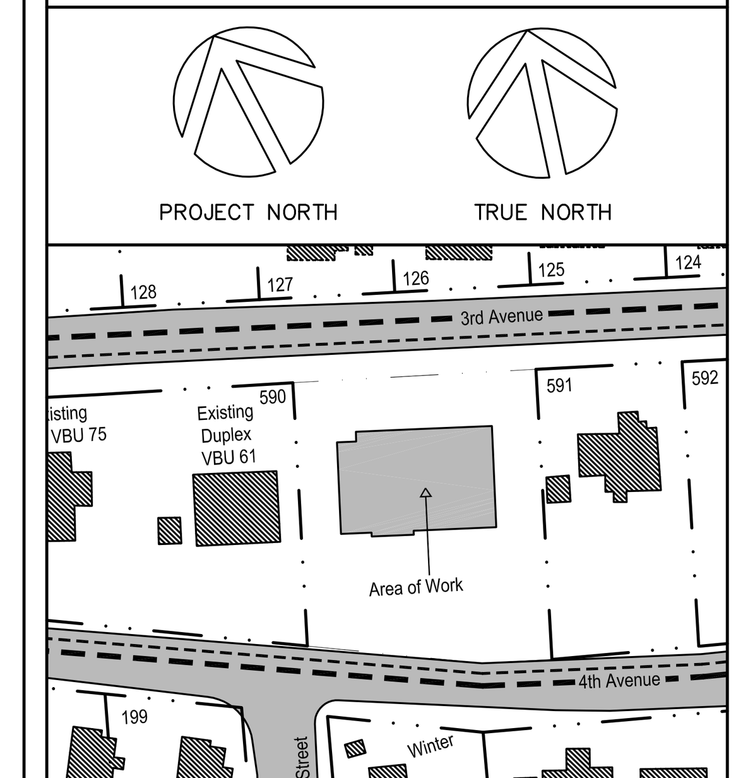
G / M601 — CONTROL STRATEGY ROOMS 001 TO 005
NTS



CONTROL STRATEGY:

1. PROVIDE A LOW VOLTAGE THERMOSTAT FOR EACH UNIT HEATER. LOCATE THE THERMOSTAT ON THE INLET SIDE OF THE FAN.
2. ON A CALL FOR HEAT, THE THERMOSTAT IS TO OPEN THE CONTROL VALVE ON THE UNIT HEATER.
3. PROVIDE LOW TEMPERATURE ALARM THERMOSTATS IN THE ROOMS 001 TO 005, MINIMUM 2. ON SENSING A LOW TEMPERATURE FOR GREATER THAN 15–MINUTES, ALL CONTROL VALVES ON ALL UNIT HEATERS ARE TO OPEN (FULL HEAT). ENUNCIATE AN ALARM TO THE BMS HEAD END AND AT THE ROOM 124 CONTROL PANEL.
4. ON SENSING A FAN FAILURE FOR ANY UNIT HEATER (USE A CURRENT SENSING RELAY) THEN ENUNCIATE AN ALARM AT THE BMS HEAD END.

H / M601 — CONTROL STRATEGY ROOMS 120 AND 201
NTS



No.	Description	Date
0	ISSUED FOR TENDER	04-07-2015

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:

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REGISTERED PROFESSIONAL ENGINEER — APR 07 2015 — B.K. WALL — LICENSEE — NWT/NU

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Electrical Engineers

Project:

FEDERAL BUILDING
ARVIAT, NUNAVUT

Drawn By: VCV	Date: 04-07-2015
Checked By: BKW	Scale: AS NOTED

Sheet Title: MECHANICAL SCHEMATICS

Sheet Number: M601

FILENAME: W:\A626 – Parkin Architects\01.Arviat RCMP Station\Drawings\Current\M601 Mechanical Schematics.dwg
PLOTDATE: Apr 27, 2015 – 10:37am

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REHEAT COIL SCHEDULE:

TAG	DIMENSION [mm x mm] [in x in]	AIRFLOW [l/s] [cfm]	NUMBER OF ROWS	EAT [°F] [°C]	LAT [°F] [°C]	EWT [°F] [°C]	COIL CAPACITY [l/s] [gpm]	REMARKS / NOTES
HC-1	305 x 203 12" x 8"	200	1	55 13	85 29	180 82	1	
HC-2	305 x 203 12" x 8"	150	1	55 13	85 29	180 82	0.75	
HC-3	305 x 203 12" x 8"	150	1	55 13	85 29	180 82	0.75	
HC-4	305 x 254 12" x 10"	450	1	55 13	85 29	180 82	2.2	
HC-5	305 x 254 12" x 10"	450	1	55 13	85 29	180 82	2.5	
HC-6	305 x 203 12" x 8"	250	1	55 13	85 29	180 82	1.25	
HC-7	305 x 203 12" x 8"	300	1	55 13	85 29	180 82	1.5	
HC-8	305 x 203 12" x 8"	350	1	55 13	85 29	180 82	1.75	
HC-9	305 x 254 12" x 10"	425	1	55 13	85 29	180 82	2.06	
HC-10	305 x 203 12" x 8"	150	1	55 13	85 29	180 82	0.75	
HC-11	305 x 203 12" x 8"	150	1	55 13	85 29	180 82	0.75	

NOTE: MAX. FLUID PRESSURE DROP: 2FT W.C.
MAX. AIR PRESSURE DROP: 0.1" W.C.

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	ROOMS 001 TO 005	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	ROOMS 001 TO 005	GRUNDFOS UP 26-116	1.26 20	6.1 20	1/6		
P-5	GLYCOL CIRCULATION PUMP HIGH TEMP IN-FLOOR HEAT	ROOMS 001 TO 005	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	ROOMS 001 TO 005	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

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"	
T-5	DOMESTIC WATER PRESSURE TANK	ROOM 120	GRUNDFOS		60L TANK	APPROVED FOR POTABLE WATER USE SUPPLIED WITH BOOSTER PUMPS P-9/P-10 C/W BLADDER
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"	610 24"	ASME FIXED BLADDER EXPANSION TANK
T-8	SEWAGE TANK	OUTSIDE	EQUINOX G1000	2540 W x 5740 L x 762 H 100" W x 226" L x 30" 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"	C/W 2700 GRAVITY FLOW STAND AND STEP LADDER

AIR HANDLING UNIT SCHEDULE:

	AHU-2		AHU-1	
SERVICE :	NON-SECURE SIDE		SECURE SIDE	
MODEL NUMBER :	TRANE CSAA006UA		TRANE CSAA003UA	
SUPPLY FAN - SIZE/TYPE :				
AIRFLOW RATE [l/s | cfm] :	1226	2600	424	900
EXTERNAL STATIC REQUIRED [Pa | w.c.] :		1.00		1.00
MOTOR [kW | hp] :				
MOTOR [bkW | bhp] :		3		1
SPEED (rpm)	1861		1763	
PRE-FILTER SECTION SIZE :	BY SUPPLIER		BY SUPPLIER	
HEATING SECTION COIL MODE :	HEATING		HEATING	
MEDIUM :	50/50 PG/WATER		50/50 PG/WATER	
FLUID FLOW RATE [l/m | gpm] :	49	13	68	18
ENTERING FLUID TEMP. [°C | °F] :	82	180	82	180
LEAVING FLUID TEMP. [°C | °F] :	71	160	71.1	160
ENTERING AIR TEMP. [°C | °F] :	4.5	40	-48	-55
LEAVING AIR TEMP. [°C | °F] :	26.7	80	32	90
MAX FACE VELOCITY [m/s | fps] :	130	426	95	309
MAX AIR PRESSURE DROP [Pa | w.c.] :		0.12		0.06
MAX FLUID PRESSURE DROP [kPa | ft w.c.] :		2.0		2.0
UNIT ACCESSORIES :				

NOTE: MAXIMUM PRESSURE DROP AT CONTROL VALVE AT AHU: 10 FT. W.C.

GRILL, REGISTER AND DIFFUSER SCHEDULE:

TYPE	MANUFACTURER	INLET SIZE	FACE SIZE [mm x mm] [in x in]		MODEL INFORMATION	REMARKS / NOTES
A	SIMPSON	ON DRAWING	150 6	150 6	V-2	SECURITY SUPPLY AIR GRILLE
B	SIMPSON	ON DRAWING	ON DRAWING		V-2	SECURITY RETURN AIR GRILLE
C	EH PRICE	ON DRAWING	225 9	225 9	MSRRCD	SECURITY SUPPLY AIR GRILLE, 4 WAY THROW C/W BAL DAMPER
D	EH PRICE	ON DRAWING	600x600 24x24		SPD/31/3C/B12	
E	EH PRICE	ON DRAWING	ON DRAWING		80-FR-B12	EGG CRATE RETURN
F	EH PRICE	ON DRAWING	ON DRAWING		90FH-B12	HEAVY DUTY TRANSFER GRILLE
G	EH PRICE	ON DRAWING	ON DRAWING		735D-	RETURN GRILLE
H	N/A	N/A	ON DRAWING		N/A	RETURN AIR OPENING. C/W FIRE DAMPER AND/OR SECURITY OPENING AS INDICATED ON DRAWINGS.
I	EH PRICE	ON DRAWING	ON DRAWING		730D-B12	C/W SS DAMPER

FAN SCHEDULE:

TAG	SERVICE	FAN TYPE	LOCATION	FAN MODEL	CAP. [l/s] [cfm]	E.S.P [Pa] in. W.G.	SPEED [rpm]	MOTOR [bkW] [bhp]	[W] [hp]	REMARKS / NOTES
EF-1	ALL ROOMS EXCEPT 120, 121, 122.	AIRFOIL CENTRIFUGAL	ROOM 121	COOK CPSA SIZE 120	470 1000	250 1.0	1603	0.27	0.5	LOCATED IN ROOM 121
EF-2	ROOM 122	INLINE CENTRIFUGAL	ROOM 122	COOK 100 SQN 15D	235 500	125 0.5	1677	1/6	1/6	C/W LOCAL SPEED CONTROLLER FOR BALANCING
EF-3	ROOM 121	INLINE CENTRIFUGAL	ROOM 121	COOK 100 SQN 15D	235 500	125 0.5	1677	1/6	1/6	C/W LOCAL SPEED CONTROLLER FOR BALANCING
EF-4	ROOM 120	INLINE CENTRIFUGAL	ROOM 120	COOK 100 SQN 15D	500	0.5	1677	1/6	1/6	C/W LOCAL SPPED CONTROLLER FOR BALANCING

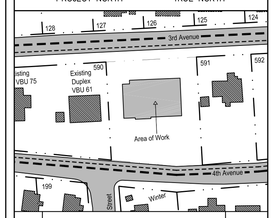
UNIT HEATER SCHEDULE:

TAG	MODEL	LOCATION	EAT [°F] [°C]	EWT [°F] [°C]	ΔT	GLYCOL FLOWRATE [gpm] [L/m]	AIRFLOW RATE [cfm] [L/s]	COIL CAPACITY [MBH] [kW]	MOTOR [hp] [W]	SPEED [rpm]	REMARKS / NOTES
UH-1	TRANE S-36	ROOMS 001, 002, 003, 004, 005.	65 18	180 82	20 11	2.5 9.5	480 225	23.5	FRACTIONAL 25	1350	ELECTRIC MOTOR 115/1/60 C/W FAN GUARD
UH-2	TRANE S-60	ROOM 120	65 18	180 82	20 11	4.4 16.6	700 330	39.2	1/20	1000	ELECTRIC MOTOR 115/1/60 C/W FAN GUARD

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

A1 594x841

PROJECT NORTH TRUE NORTH



No.	Description	Date
0	ISSUED FOR TENDER	04-07-2015

Revisions:

All measurements are to be checked and verified on site by the contractor before proceeding with the work.

Do not scale the drawings.

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APR 07 2015
B.K. HALL
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AGE Project# E121-13-009

Project:

FEDERAL BUILDING
ARVIAT, NUNAVUT

Drawn By: VCV	Date: 04-07-2015
Checked By: BKW	Scale: AS NOTED

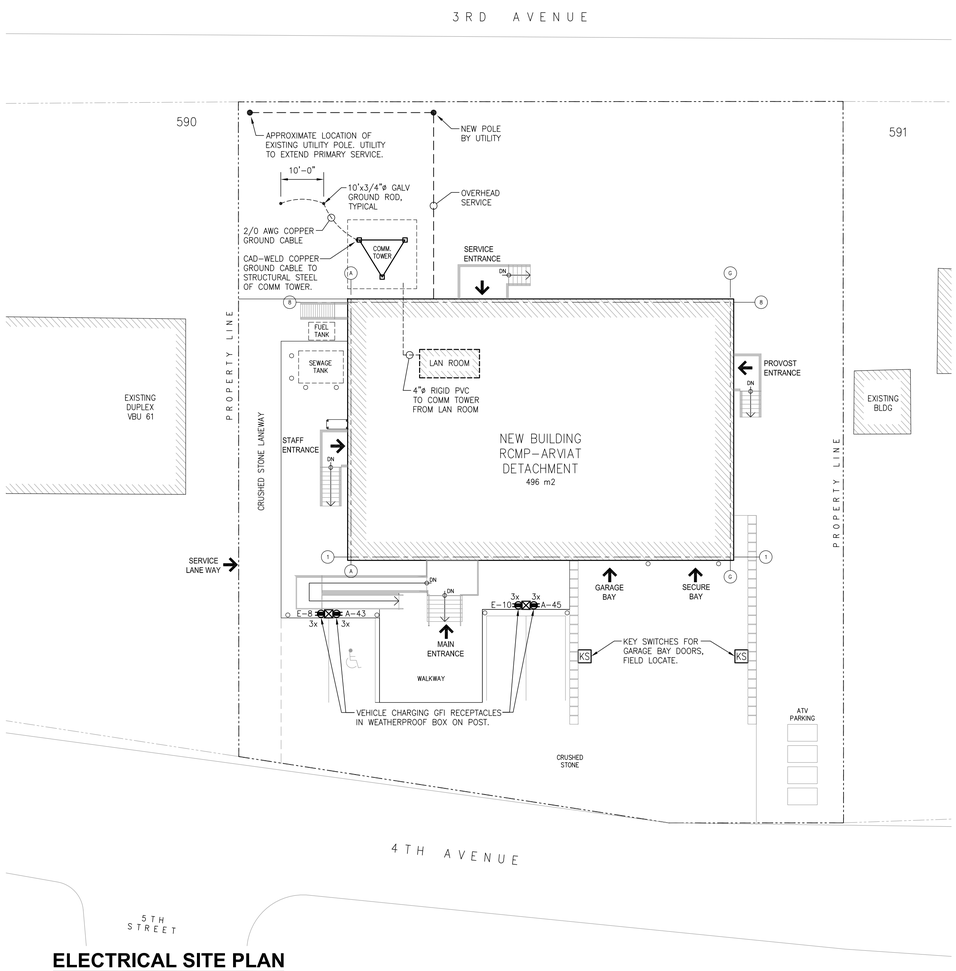
Sheet Title:
MECHANICAL SCHEDULES

Sheet Number:
M610

FILENAME: W:\426_Parkin Architects\01 Arviat RCMP Station\Drawings\Current\M610 Mechanical Schedules.dwg
PLOTDATE: Apr 27, 2015 - 10:37am

GENERAL ELECTRICAL SPECIFICATIONS

1. INSTALLATION SHALL BE IN ACCORDANCE WITH THE CANADIAN ELECTRICAL CODE ELECTRICAL SAFETY CODE LATEST EDITION & ALL OTHER APPLICABLE CODES & REGULATIONS.
2. ALL EQUIPMENT SHALL BE NEW AND CSA CERTIFIED.
3. ELECTRICAL CONTRACTOR SHALL SUPPLY EQUIPMENT AS SPECIFIED AS WELL AS ANY MISCELLANEOUS TO COMPLETE THE WORK.
4. IDENTIFY ELECTRICAL EQUIPMENT WITH PROPER NAMEPLATES. IDENTIFY ALL WIRING, MAINTAIN PHASE SEQUENCE & COLOUR CODING.
5. CONTRACTOR TO FURNISH CERTIFICATES OF ACCEPTANCE FROM THE ELECTRICAL INSPECTION DEPARTMENT UPON COMPLETION OF WORK TO THE ENGINEER. VERIFY F/A SYSTEM BY QUALIFIED PERSONNEL. CONDUCT AUDITORY TEST UPON COMPLETION.
6. ALL WIRING SHALL BE MIN. #12 AWG Cu. IN EMT (UNLESS OTHERWISE NOTED).
7. INSTALL INSULATED GREEN BONDING CONDUCTOR IN ALL EMT CONDUIT.
8. ALL WIRING SHALL BE CONCEALED FROM VIEW UNLESS OTHERWISE NOTED.
9. CONTRACTOR SHALL REPAIR ALL SURFACES DAMAGED DUE TO WORK PERFORMED.
10. CONTRACTOR SHALL VERIFY ALL DIMENSIONS, DO NOT SCALE DRAWING.
11. ALL MATERIALS REMOVED AND MADE REDUNDANT BY THIS WORK (UNLESS INDICATED OTHERWISE) SHALL BECOME PROPERTY OF OWNER.
12. MOUNTING HEIGHTS FOR DEVICES AS PER CODE REQUIREMENTS, UNLESS OTHERWISE NOTED.
13. COORDINATE COLOUR FOR ALL WALL PLATES, RECEPTACLES, SWITCHES AND DEVICES WITH OWNER.
14. MOUNT ALL EMERGENCY LIGHTING AT 7'-0" ABOVE FINISHED FLOOR. PROVIDE RECEPTACLE ABOVE CEILING AS REQUIRED.
15. COORDINATE ALL LIGHT FIXTURE AND RECEPTACLE INSTALLATION IN MILLWORK WITH CABINET BUILDER.
16. THE INTENT OF THIS PROJECT IS INSTALL A COMPLETE LIGHTING DESIGN. IF SWITCHING FOR AN AREA IS NOT SHOWN, THE ELECTRICAL CONTRACTOR SHALL PROVIDE SWITCHING.
17. ELECTRICAL CONTRACTOR TO SUPPLY AND INSTALL ALL FUSED AND NON-FUSED DISCONNECTS AS REQUIRED FOR ALL MECHANICAL EQUIPMENT INDICATED ON ELECTRICAL AND MECHANICAL DRAWING SETS. AMPERAGE, VOLTAGE AND NUMBER OF POLES TO BE CONFIRMED WITH MANUFACTURER'S LITERATURE.
18. PROVIDE DEDICATED 1P-15A BREAKER FOR EXIT SIGN POWER.
19. ELECTRICAL CONTRACTOR TO PROVIDE AND INSTALL 20A GFI NEMA 5-20R CONVENIENCE RECEPTACLE(S) WITHIN 7.5m OF ALL ROOFTOP MOUNTED MECHANICAL EQUIPMENT (HEATING, VENTILATION, AIR CONDITIONING UNITS). ALL RECEPTACLES TO BE FED FROM DEDICATED 1P-20A CIRCUIT(S), AND MOUNTED IN WEATHERPROOF BACKBOX W/ SPRING-LOADED COVER, MINIMUM 750mm ABOVE FINISHED ROOF.
20. COMPLETE TYPEWRITTEN PANEL SCHEDULES ARE TO BE PROVIDED FOR ALL PANELS. ALL LOADS FED FROM RELOCATED EXISTING CIRCUITS ARE TO BE DETERMINED AND INCLUDED IN PANEL SCHEDULES.
21. ALL ELECTRICAL EQUIPMENT WITHIN SPRINKLERED ROOMS SHALL BE EQUIPPED WITH HOODS SUITED FOR THE APPLICATION. IF HOODS ARE NOT PROVIDED BY THE FACTORY OR IT IS FOR AN EXISTING PIECE OF EQUIPMENT, IT SHALL BE THE ELECTRICAL CONTRACTORS RESPONSIBILITY TO SUPPLY AND INSTALL THESE HOODS ON NEW OR EXISTING EQUIPMENT AS REQUIRED.
22. ALL CEILING SPACES ACT AS RETURN AIR PLENUMS. ALL CABLING IN CEILING SPACE MUST HAVE AN FT6 FIRE RATING OR BE COMPLETELY ENCLOSED IN CONDUIT.

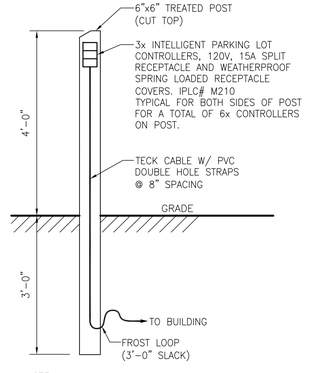


ELECTRICAL SITE PLAN

0 2 4 6 m SCALE 1:200

POWER IDENTIFICATION LEGEND

- DUPLEX RECEPTACLE
- SPECIAL CONNECTION FOR POWER
- GFI RECEPTACLE. (IN OUTDOOR LOCATIONS MOUNT IN WEATHERPROOF BACKBOX W/ SPRING LOADED COVER)
- 20A GFI RECEPTACLE
- QUAD RECEPTACLE
- DATA & TELEPHONE OUTLET. PROVIDE 3/4" EMT RACEWAY TO CEILING SPACE C/W PULL CORD.
- ANALOG TELEPHONE OUTLET. PROVIDE 1/2" EMT RACEWAY TO EACH OUTLET TO CEILING SPACE C/W PULL CORD.
- SATELLITE TELEVISION OUTLET, PROVIDE 3/4" EMT RACEWAY TO CEILING SPACE.
- CH 'CH' DENOTES DEVICE WALL-MOUNTED AT COUNTER HEIGHT.
- BARRIER-FREE DOOR OPERATOR AND ASSOCIATED PUSHBUTTONS. ALL POWER AND CONTROL WIRING BY ELECTRICAL CONTRACTOR. INSTALL CONDUIT AND RECESSED BOXES FOR PUSHBUTTONS AS REQUIRED. COORDINATE WITH DOOR HARDWARE SUPPLIER/INSTALLER.
- FIRE ALARM PULLSTATION (2 STAGE)
- FIRE ALARM BELL/STROBE
- HEAT DETECTOR
- F FIXED TEMPERATURE HEAT DETECTOR
- IONIZATION SMOKE DETECTOR
- ELECTRIC MOTOR
- DISCONNECT SWITCH. SIZE AS REQUIRED, OUTDOOR RATED.
- SECURITY CAMERA LOCATION
- P PANIC ALARM PUSHBUTTON
- PR PANIC ALARM RESET KEY SWITCH
- PA PANIC ALARM
- SA SECURITY ALARM
- KS KEY SWITCH
- KP KEYPAD ALARM
- M MOTION SENSOR



NOTE:
ALL SCREWS TO BE S.S. OR ALUMINUM

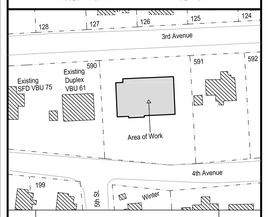
CAR PLUG POST DETAIL

NOT TO SCALE

LIGHTING IDENTIFICATION LEGEND

- T1 — 42W, 120V LED TROFFER FIXTURE, 3000'K, 3600 LUMEN, 1220x305mm PHILIPS VECTRA SERIES CAT# 9714-D1-ST-L-C-36-S-1-1-E
- S1 — LED SURFACE MOUNT FIXTURE, 120V, 40W, 3500'K, 3,900 LUMEN PHILIPS CFI DAY-BRITE FLUXSTREAM SERIES CAT# LF-4-FR-39-35-U-LAG
- S2 — LED WALL-MOUNT FIXTURE 25W, 120V, 3500'K, 2123 LUMENS, 125x610mm KENALL MILLENIUM STRETCH SERIES CAT@ MLHA5V-24-R-MW-PP-25L35K-DCC-1-120
- C1 — LED CORNER-MOUNT, CORRECTIONAL GRADE CELL FIXTURE 74W, 120V, 4000'K, 4800 LUMENS, C/W LED NIGHT LIGHT W/ LIGHT LEVEL CONTROL 100%-20% COOPER LIGHTING FAIL-SAFE FCC SERIES # FCC-X-4-LED3-2-STD-40-120-80/86-ED2C-LLNL
- C2 — LED SURFACE-MOUNT, CORRECTIONAL GRADE FIXTURE 67W, 120V, 4000'K, 5606 LUMENS, C/W LED NIGHT LIGHT W/ LIGHT LEVEL CONTROL 100%-20% KENALL MIGHTY MAC SDSA SERIES CAT# SDSA-4-4/4-67L40K-DCC-120-G-1-DLN
- C3 — LED RECESSED VAPOURPROOF CORRECTIONAL GRADE FIXTURE, 13W, 120V, 4000'K, 1202 LUMENS, LISTED FOR WET LOCATIONS KENALL MILLENIUM DOWNLIGHT HADL SERIES CAT# HADL6VL2-13L40K-DV-2FW-G-9500
- C1 — LED CORRECTIONAL GRADE TROFFER FIXTURE 67W, 120V, 4000'K, 5606 LUMENS, C/W LED NIGHT LIGHT W/ LIGHT LEVEL CONTROL 100%-20% KENALL MIGHTY MAC RMCA SERIES CAT# RMCA-4-TG-4/4-67L40K-DCC-120-G-1-DLN
- H1 — LED GARAGE FIXTURE 73W, 120V, 4000'K, 6377 LUMENS, 3380x3960mm 2 LED ARRAYS, CONCENTRATED DOWNLIGHT PHILIPS GARDCO SERIES CAT# G3-CD-2-73LA-3270-NW-120-NP
- D1 — 20W, 120V, 4.5" ROUND LED RECESSED DOWNLIGHT FIXTURE, 3000'K, 1000 LUMEN, C/W SPECULAR CLEAR REFLECTOR, WET LISTED LIGHTOLIER CALCULITE LED CAT# C4L20LED1-C420LEDDL30K-CLW
- D2 — 20W, 120V, 5" ROUND LED RECESSED VAPOURPROOF DOWNLIGHT FIXTURE, 3000'K, 900 LUMEN, C/W LENS PHILIPS LIGHTOLIER XCEED SERIES FRAME-IN# 1050LRN-09D1 LIGHT ENGINE# 1050LRN-09-30 TRIM SERIES# 1050LRN-DL-WB
- P1 — 30W, 120V, LED DIRECT/INDIRECT PENDANT FIXTURE, 1220mm LENGTH, 40% UPLIGHT/60% DOWN, 3000'K, 3400 LUMEN, SUSPENDED WITH AIRCRAFT CABLE, REFER TO ARCH FOR EXACT MOUNTING HEIGHT. PEERLESS BRUNO LED SOFTSHINE SERIES. CAT# BRM9L-LO-40/60-SSH-4FT-R4-120-SCT-LP830
- WP — LED EXTERIOR WALL PACK 35W, 120V, 5000 LUMENS PHILIPS WIDE-LITE ASW LED SERIES CAT# ASW-32G1-350-NW-2L-120
- $ — TOGGLE SWITCH, BACK/SIDE WIRED, 15A, 120/277V, LEVITON CAT. # 1201 OR EQUAL.
- $3W — THREE-WAY TOGGLE SWITCH, BACK/SIDE WIRED, 15A, 120/277V, LEVITON CAT. # 1203 OR EQUAL.
- $OP — PIR WALL SWITCH OCCUPANCY SENSOR LIGHTING CONTROL RATED 800W @ 120V LEVITON# ODS15-1D
- $3P — 3-POSITION SELECTOR SWITCH TO SUIT FIXTURE TYPE 'C1' TO PROVIDE 100% ILLUMINATION, 20% ILLUMINATION, AND FIXTURE OFF. FLUSH-MOUNTED. COORDINATE REQUIREMENTS WITH FIXTURE MANUFACTURER.
- 'NL' — 'NL' DENOTES AN UNSWITCHED NIGHT LIGHT FIXTURE.
- LED "RUNNING MAN" EXIT SIGN W/ PICTOGRAM SYMBOLS CONFORMING TO ISO 7010. EXTRUDED ALUMINUM FRAME W/ CLEAR POLYCARBONATE PANELS AND PICTOGRAM FILMS. SELF-POWERED WITH NICKLE-CADMIUM BATTERY SIZED FOR 2 HOURS BACKUP. UNIVERSAL VOLTAGE (120V-347V). SINGLE OR DOUBLE FACED TO SUIT AND PICTOGRAM FILMS TO DENOTE EXIT DIRECTIONS AS NOTED ON DRAWINGS. EMERGI-LITE# EA SERIES
- NEW EMERGENCY 12 VDC LIGHTING UNIT C/W INTEGRAL 12VDC 9W MICRO-TUNGSTEN HEAD(S) AS INDICATED. SIZED FOR 1 HOUR COVERAGE. EMERGI-LITE# 12ESL SERIES
- EMERGENCY LIGHTING 12 VDC 9W DOUBLE REMOTE HEAD(S). WIRED TO PACK EM# (USE #10 AWG AC90 MIN. FOR 12VDC WIRING). EMERGI-LITE# EF9 SERIES & EF9D SERIES

PROJECT NORTH TRUE NORTH



No.	Description	Date
0	ISSUED FOR TENDER	04/07 2015

Revisions:

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Do not scale the drawings.

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Project:

THE GOVERNMENT OF NUNAVUT

FEDERAL BUILDING
ARVIAT, NUNAVUT

Drawn By: GAP	Date: APRIL 7, 2015
Checked By: AG	Scale: AS NOTED

Sheet Title:
IDENTIFICATION LEGENDS & SITE PLAN

Sheet Number:
E001

FILENAME:
PLOTDATE:

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NON-ESSENTIAL LOADS ELECTRICAL PANEL 'A'

CCT. No.	CIRCUIT USE	BREAKER SIZE	BREAKER POLES	VOLTS	VA A∅	VA B∅	VA C∅	WIRE AND CONDUIT SIZE
1	DATA RECEPTACLES – ROOM 106	15A	1	120	540			2c#12 IN EMT
3	DATA RECEPTACLES – ROOM 105	15A	1	120		720		2c#12 IN EMT
5	DATA RECEPTACLES – ROOMS 104, 105	15A	1	120			720	2c#12 IN EMT
7	DATA RECEPTACLES – ROOMS 103, 107	15A	1	120	720			2c#12 IN EMT
9	DATA RECEPTACLES – ROOMS 113, 114, 116	15A	1	120		720		2c#12 IN EMT
11	DATA RECEPTACLES – ROOMS 128, 132	15A	1	120			720	2c#12 IN EMT
13	RECEPTACLES – ROOMS 120, 121	15A	1	120	840			2c#12 IN EMT
15	RECEPTACLES – ROOMS 117, 119	15A	1	120		960		2c#12 IN EMT
17	RECEPTACLES – ROOMS 112, 116	15A	1	120			960	2c#12 IN EMT
19	RECEPTACLES – ROOMS 108, 110, 111, 114	15A	1	120	960			2c#12 IN EMT
21	RECEPTACLES – ROOMS 101, 103, 104, 106	15A	1	120		960		2c#12 IN EMT
23	RECEPTACLES – ROOMS 101, 107, 111	15A	1	120			960	2c#12 IN EMT
25	RECEPTACLES – ROOMS 121, 122, 124, 125	15A	1	120	840			2c#12 IN EMT
27	RECEPTACLES – ROOMS 121, 122	15A	1	120		840		2c#12 IN EMT
29	RECEPTACLES – RMS 123, 128, 130, 132, 137, 138	15A	1	120			960	2c#12 IN EMT
31	EXTERIOR GFI RECEPTACLES	15A	1	120	720			2c#12 IN EMT
33	GFI RECEPTACLES – ROOMS 102, 109, 118	15A	1	120		720		2c#12 IN EMT
35	GFI RECEPTACLES – ROOMS 121, 126, 128, 131	15A	1	120			900	2c#12 IN EMT
37	20A GFI RECEPTACLES – ROOMS 107, 125	20A	1	120	1440			2c#12 IN EMT
39	RADIO CHARGING RECEPTACLES – ROOM 110	15A	1	120		960		2c#12 IN EMT
41	RADIO CHARGING & DATA RECEPTACLES – 110, 111	15A	1	120			600	2c#12 IN EMT
43	VEHICLE CHARGING – EXTERIOR GFI RECEPTACLES	15A	1	120	1200			2c#12 IN EMT
45	VEHICLE CHARGING – EXTERIOR GFI RECEPTACLES	15A	1	120		1200		2c#12 IN EMT
47								
49								
51								
53								
55								
57								
59								

CCT. No.	CIRCUIT USE	BREAKER SIZE	BREAKER POLES	VOLTS	VA A∅	VA B∅	VA C∅	WIRE AND CONDUIT SIZE
2	LIGHTING – ROOMS 102, 103, 107, 108, 111	15A	1	120	910			2c#12 IN EMT
4	LIGHTING – ROOMS 109, 110, 112–120, 201	15A	1	120		1250		2c#12 IN EMT
6	EXTERIOR LIGHTING	15A	1	120			1000	2c#12 IN EMT
8	LIGHTING – ROOMS 122–127, 131, 132	15A	1	120	644			2c#12 IN EMT
10	LIGHTING – ROOMS 128–131, 134, 137, 138	15A	1	120		750		2c#12 IN EMT
12	LIGHTING – ROOMS 100, 101, 104–106	15A	1	120			1100	2c#12 IN EMT
14	CRAWLSPACE LIGHTING & RECEPTACLES – ROOM 003	15A	1	120	550			2c#12 IN EMT
16	BARRIER–FREE DOOR OPERATORS – ROOM 100	15A	1	120		500		2c#12 IN EMT
18	FRIDGE RECEPTACLE – ROOM 107	15A	1	120			500	2c#12 IN EMT
20	DISHWASHER RECEPTACLE – ROOM 107	15A	1	120	500			2c#12 IN EMT
22	MICROWAVE RECEPTACLE – ROOM 107	15A	1	120		1000		2c#12 IN EMT
24	MICROWAVE RECEPTACLE – ROOM 125	15A	1	120			1000	2c#12 IN EMT
26	FRIDGE RECEPTACLE – ROOM 125	15A	1	120	500			2c#12 IN EMT
28								
30	QUAD 20A RECEPTACLES – LAN ROOM 115	20A	1	120			750	2c#12 IN EMT
32	QUAD 20A RECEPTACLES – LAN ROOM 115	20A	1	120	750			2c#12 IN EMT
34	QUAD 20A RECEPTACLES – LAN ROOM 115	20A	1	120		750		2c#12 IN EMT
36	QUAD 20A RECEPTACLES – LAN ROOM 115	20A	1	120			750	2c#12 IN EMT
38	HAND DRYER – ROOM 102	20A	1	120	1200			2c#12 IN EMT
40	DRYER – ROOM 123	30A	2	208		2500		3c#10 IN EMT
42							2500	
44	WASHER – ROOM 123	15A	1	120	500			2c#12 IN EMT
46								
48								
50								
52								
54								
56								
58	ARTIC VENTS	15A	1	120		500		2c#12 IN EMT
60	EXIT SIGN POWER	15A	1	120			–	2c#12 IN EMT

VOLTAGE: 120/208VAC
MAIN BREAKER: 200A
MOUNTING: SURFACE

MAINS: 225A
BREAKER I.C.: 10KA

PHASE: 3
WIRE: 4
FEEDER: AS INDICATED

FED FROM: AS INDICATED
LOCATION: AS SHOWN

ESSENTIAL LOADS ELECTRICAL PANEL 'E'

CCT. No.	CIRCUIT USE	BREAKER SIZE	BREAKER POLES	VOLTS	VA L1	VA L2	WIRE AND CONDUIT SIZE
1	(B-1) BOILER B–1	15A	1	120	500		AS NOTED
3	(B-2) BOILER B–2	15A	1	120		500	AS NOTED
5	(P1/2) BOILER PUMPS P1/P2	30A	2	240	4080		AS NOTED
7						4080	
9	(P3/4) GLYCOL PUMPS P3/P4	15A	1	120	1176		AS NOTED
11	(P5/6) GLYCOL PUMPS P5/P6	15A	1	120		1176	AS NOTED
13	(UH-1) CRAWLSPACE UNIT HEATERS (6 TOTAL)	15A	1	120	200		AS NOTED
15	(P10/11) FUEL OIL PUMP P–10/P–11	15A	1	120		1000	AS NOTED
17							
19							
21							
23							

CCT. No.	CIRCUIT USE	BREAKER SIZE	BREAKER POLES	VOLTS	VA L1	VA L2	WIRE AND CONDUIT SIZE
2	LIGHTING – CELLS 135, 136	15A	1	120	150		2c#12 IN EMT
4	FIRE ALARM PANEL	15A	1	120		150	2c#12 IN EMT
6	EVIDENCE FRIDGE RECEPTACLES – ROOMS 113, 116	15A	1	120	600		2c#12 IN EMT
8	VEHICLE CHARGING – EXTERIOR GFI RECEPTACLES	15A	1	120		1200	2c#12 IN EMT
10	VEHICLE CHARGING – EXTERIOR GFI RECEPTACLES	15A	1	120	1200		2c#12 IN EMT
12	RECEPTACLES – ROOM 124	15A	1	120		120	2c#12 IN EMT
14	(UH-2) BOILER ROOM UNIT HEATER	15A	1	120	200		AS NOTED
16	SMOKE DAMPERS	15A	1	120		250	2c#12 IN EMT
18							
20							
22							
24							

VOLTAGE: 120/240VAC
MAIN BREAKER: MLO
MOUNTING: SURFACE

MAINS: 100A
BREAKER I.C.: 10KA

PHASE: 1
WIRE: 3
FEEDER: AS INDICATED

FED FROM: AS INDICATED
LOCATION: AS SHOWN

MECHANICAL EQUIPMENT ELECTRICAL PANEL 'M'

CCT. No.	CIRCUIT USE	BREAKER SIZE	BREAKER POLES	VOLTS	VA A∅	VA B∅	VA C∅	WIRE AND CONDUIT SIZE
1					1333			
3	(AHU1) AHU–001	30A	3	208		1333		AS NOTED
5							1333	
7					500			
9	(AHU2) AHU–002	15A	3	208		500		AS NOTED
11							500	
13	(P7) MUA CIRC PUMP P–7	15A	1	120	500			AS NOTED
15	(P-12) GLYCOL MAKE–UP PUMP PACKAGE	15A	1	120		500		AS NOTED
17							700	
19	(P8) DOMESTIC WATER CIRC P–8	15A	3	208	700			AS NOTED
21						700		
23	(P-13) DOM HOT WATER RETURN CIRC PUMP	15A	1	120			500	AS NOTED

CCT. No.	CIRCUIT USE	BREAKER SIZE	BREAKER POLES	VOLTS	VA A∅	VA B∅	VA C∅	WIRE AND CONDUIT SIZE
2					700			
4	(P9) DOMESTIC WATER CIRC P–9	15A	3	208		700		AS NOTED
6							700	
8					700			
10	(EF-1) EXHAUST FAN EF–1	15A	2	208		700		AS NOTED
12							700	
14	(EF-2) EXHAUST FAN EF–2	15A	2	208	700			AS NOTED
16						700		
18	(EF-3) EXHAUST FAN EF–3	15A	2	208			700	AS NOTED
20					700			
22	(EF-4) EXHAUST FAN EF–4	15A	2	208		700		AS NOTED
24								

VOLTAGE: 120/208VAC
MAIN BREAKER: MLO
MOUNTING: SURFACE

MAINS: 100A
BREAKER I.C.: 10KA

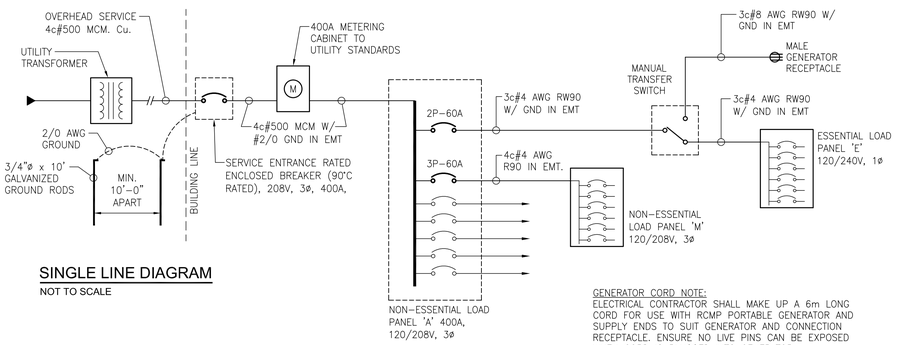
PHASE: 3
WIRE: 4
FEEDER: AS INDICATED

FED FROM: AS INDICATED
LOCATION: AS SHOWN

MECHANICAL EQUIPMENT SCHEDULE

No.	DESCRIPTION	ROOM #	ELECTRICAL NOTES	BRANCH WIRING	BREAKER SIZE	CIRCUIT NUMBER	TOTAL VA	REMARKS
(AHU1)	AHU–001	201	3HP, 208V, 3∅	3c#10 AWG IN EMT	3P–30	M–1/3/5	4000 VA	DISCONNECT REQUIRED & STARTER
(AHU2)	AHU–002	201	1HP, 208V, 3∅	3c#12 AWG IN EMT	3P–15A	M–7/9/11	1500 VA	DISCONNECT REQUIRED & STARTER
(B-1)	BOILER B–1	120	1/6HP, 120V, 1∅	2c#12 AWG IN EMT	1P–15A	E–1	500 VA	DISCONNECT REQUIRED
(B-2)	BOILER B–2	120	1/6HP, 120V, 1∅	2c#12 AWG IN EMT	1P–15A	E–3	500 VA	DISCONNECT REQUIRED
(P1/2)	BOILER PUMPS P1/P2	120	2HP, 240V, 1∅	3c#8 AWG IN EMT	2P–30A	E–5/7	8160 VA	DUPLEX CONTROLLER & DISCONNECT REQUIRED
(P3/4)	GLYCOL PUMPS P3/P4	120	1/6HP, 120V, 1∅	2c#12 AWG IN EMT	1P–15A	E–9	1176 VA	DUPLEX CONTROLLER & DISCONNECT REQUIRED
(P5/6)	GLYCOL PUMPS P5/P6	120	1/6HP, 120V, 1∅	2c#12 AWG IN EMT	1P–15A	E–11	1176 VA	DUPLEX CONTROLLER & DISCONNECT REQUIRED
(P7)	AHU–2 CIRC PUMP P–7	201	120V, 1∅	2c#12 AWG IN EMT	1P–15A	M–13	500 VA	DISCONNECT REQUIRED, INTERLOCK WITH MUA UNIT, RUNS CONTINUOUSLY
(P8)	DOMESTIC WATER CIRC P–8	120	1–1/2HP, 208V, 3∅	3c#12 AWG IN EMT	3P–15A	M–17/19/21	2100 VA	DISCONNECT REQUIRED & STARTER
(P9)	DOMESTIC WATER CIRC P–9	120	1–1/2HP, 208V, 3∅	3c#12 AWG IN EMT	3P–15A	M–2/4/6	2100 VA	DISCONNECT REQUIRED & STARTER
(P10/11)	FUEL OIL PUMP P–10/P–11	120	1/3HP, 120V, 1∅	2c#12 AWG IN EMT	1P–15A	E–15	1000 VA	DUPLEX CONTROLLER & DISCONNECT REQUIRED
(P-12)	GLYCOL MAKE–UP PUMP PACKAGE	120	120V, 1∅	2c#12 AWG IN EMT	1P–15A	M–15	500 VA	DEDICATED RECEPTACLE REQUIRED
(P-13)	DOM HOT WATER RETURN CIRC PUMP	120	120V, 1∅	2c#12 AWG IN EMT	1P–15A	M–23	500 VA	DISCONNECT REQUIRED & STARTER
(EF-1)	EXHAUST FAN EF–1	121	3/4HP, 208V, 1∅	2c#12 AWG IN EMT	2P–15A	M–8/10	1400 VA	DISCONNECT REQUIRED
(EF-2)	EXHAUST FAN EF–2	121	3/4HP, 208V, 1∅	2c#12 AWG IN EMT	2P–15A	M–12/14	1400 VA	DISCONNECT REQUIRED
(EF-3)	EXHAUST FAN EF–3	122	3/4HP, 208V, 1∅	2c#12 AWG IN EMT	2P–15A	M–16/18	1400 VA	DISCONNECT REQUIRED
(EF-4)	EXHAUST FAN EF–4	120	3/4HP, 208V, 1∅	2c#12 AWG IN EMT	2P–15A	M–20/22	1400 VA	DISCONNECT REQUIRED
(UH-1)	CRAWLSPACE UNIT HEATERS (6 TOTAL)	003	1/20HP, 120V, 1∅	2c#12 AWG IN EMT	1P–15A	E–13	200 VA	DISCONNECT REQUIRED
(UH-2)	BOILER ROOM UNIT HEATER	003	120V, 1∅	2c#12 AWG IN EMT	1P–15A	E–13	200 VA	DISCONNECT REQUIRED

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



SINGLE LINE DIAGRAM
NOT TO SCALE

GENERATOR CORD NOTE:
ELECTRICAL CONTRACTOR SHALL MAKE UP A 6m LONG CORD FOR USE WITH RCMP PORTABLE GENERATOR AND SUPPLY ENDS TO SUIT GENERATOR AND CONNECTION RECEPTACLE. ENSURE NO LIVE PINS CAN BE EXPOSED WHEN CORD IS PLUGGED INTO GENERATOR.

DOOR ELEVATIONS - DOORS 100A, 100B, 102
NOT TO SCALE
TYPICAL ROUGH-IN

PROJECT NORTH
TRUE NORTH

No.	Description	Date
0	ISSUED FOR TENDER	04/07 2015

Revisions:

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Do not scale the drawings.

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Project:

THE GOVERNMENT OF NUNAVUT

FEDERAL BUILDING
ARVIAT, NUNAVUT

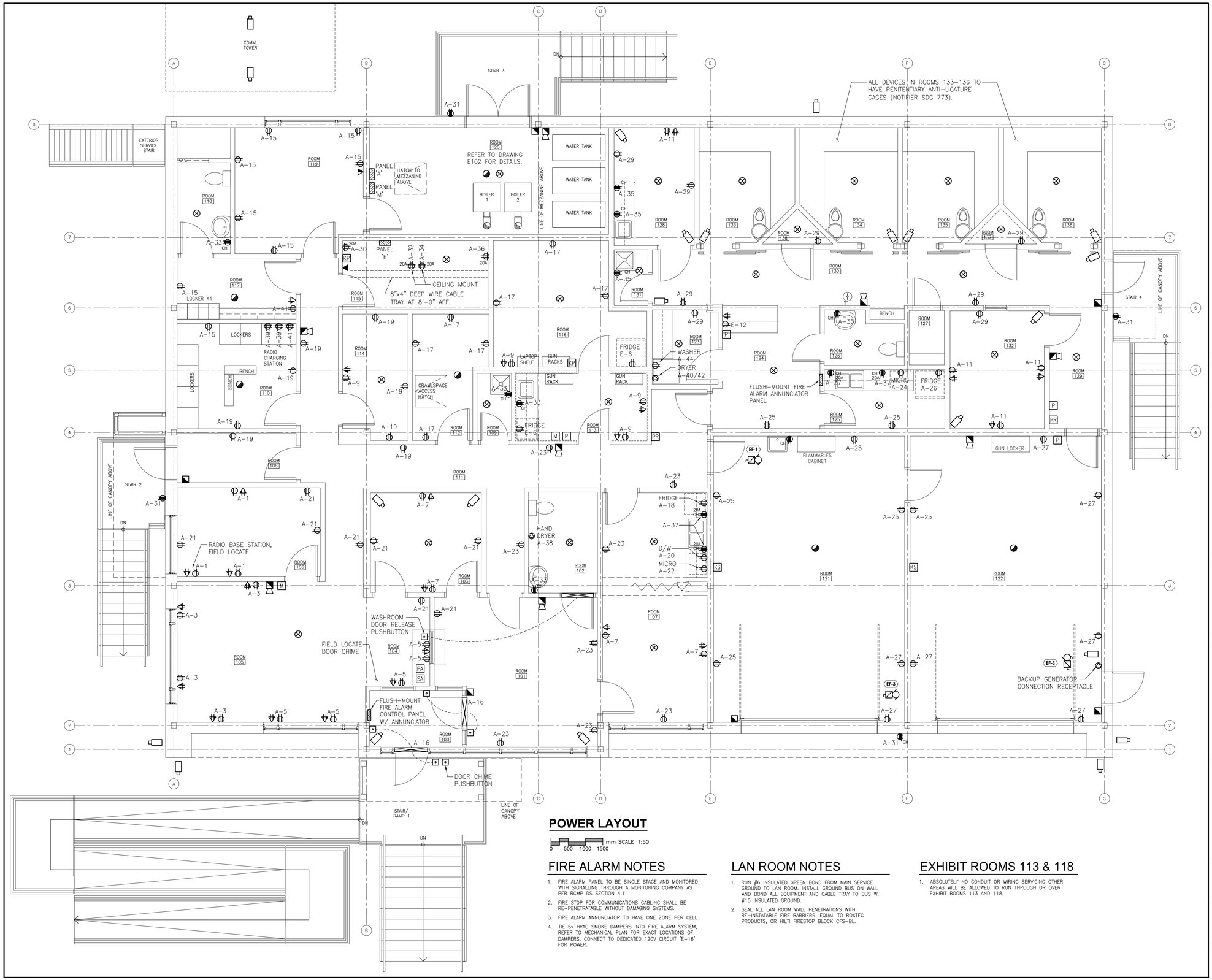
Drawn By:	GAP	Date:	APRIL 7, 2015
Checked By:	AG	Scale:	AS NOTED

Sheet Title:
SINGLE LINE DIAGRAM & PANEL SCHEDULES

Sheet Number:
E002

FILENAME:
PLOTDATE:

A1 594x841



POWER LAYOUT

0 500 1000 1500 mm SCALE 1:50

FIRE ALARM NOTES

1. FIRE ALARM PANEL TO BE SINGLE STAGE AND MONITORED WITH SIGNALLING THROUGH A MONITORING COMPANY AS PER RCMP DS SECTION 4.1
2. FIRE STOP FOR COMMUNICATIONS CABLING SHALL BE RE-PENETRATABLE WITHOUT DAMAGING SYSTEMS.
3. FIRE ALARM ANNUNCIATOR TO HAVE ONE ZONE PER CELL.
4. TIE 5x HVAC SMOKE DAMPERS INTO FIRE ALARM SYSTEM, REFER TO MECHANICAL PLAN FOR EXACT LOCATIONS OF DAMPERS. CONNECT TO DEDICATED 120V CIRCUIT "E-16" FOR POWER.

LAN ROOM NOTES

1. RUN #6 INSULATED GREEN BOND FROM MAIN SERVICE GROUND TO LAN ROOM. INSTALL GROUND BUS ON WALL AND BOND ALL EQUIPMENT AND CABLE TRAY TO BUS W. #10 INSULATED GROUND.
2. SEAL ALL LAN ROOM WALL PENETRATIONS WITH RE-INSTATABLE FIRE BARRIERS. EQUAL TO ROXTEC PRODUCTS, OR HILTI FIRESTOP BLOCK CFS-BL.

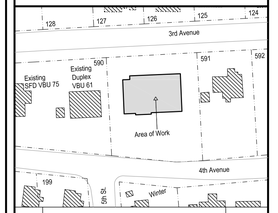
EXHIBIT ROOMS 113 & 118

1. ABSOLUTELY NO CONDUIT OR WIRING SERVICING OTHER AREAS WILL BE ALLOWED TO RUN THROUGH OR OVER EXHIBIT ROOMS 113 AND 118.

A1 594x841

PROJECT NORTH

TRUE NORTH



No.	Description	Date
0	ISSUED FOR TENDER	04/07/2015

Revisions:

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Project:

THE GOVERNMENT OF NUNAVUT

FEDERAL BUILDING
ARVIAT, NUNAVUT

Drawn By:	GAP	Date:	APRIL 7, 2015
Checked By:	AG	Scale:	AS NOTED

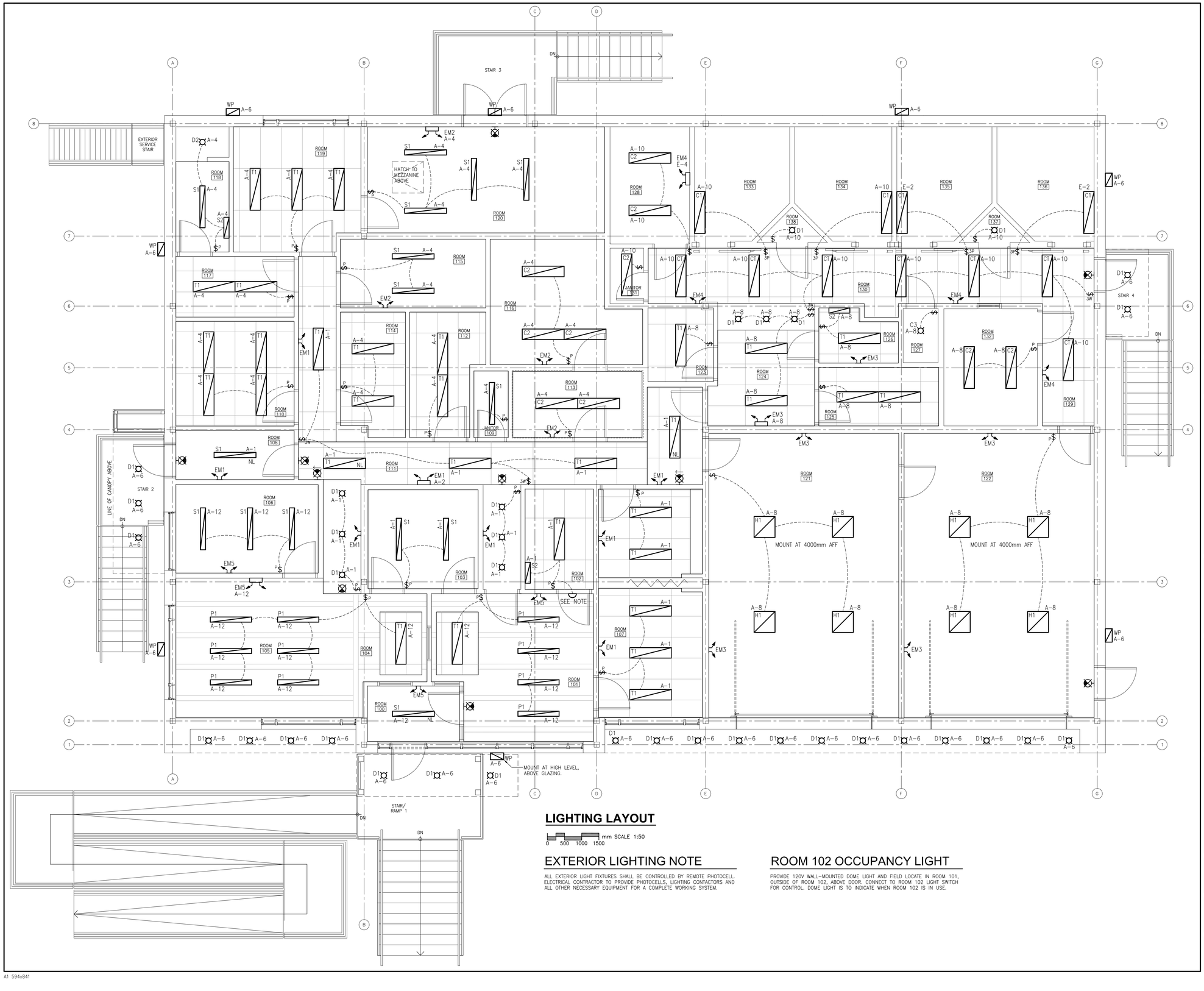
Sheet Title:

MAIN FLOOR
POWER & SYSTEMS LAYOUT

Sheet Number:

E100

FILENAME:
PLOTDATE:



LIGHTING LAYOUT

mm SCALE 1:50
0 500 1000 1500

EXTERIOR LIGHTING NOTE

ALL EXTERIOR LIGHT FIXTURES SHALL BE CONTROLLED BY REMOTE PHOTOCELL. ELECTRICAL CONTRACTOR TO PROVIDE PHOTOCELLS, LIGHTING CONTACTORS AND ALL OTHER NECESSARY EQUIPMENT FOR A COMPLETE WORKING SYSTEM.

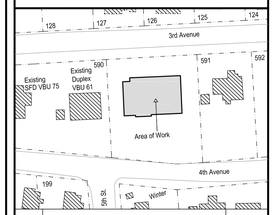
ROOM 102 OCCUPANCY LIGHT

PROVIDE 120V WALL-MOUNTED DOME LIGHT AND FIELD LOCATE IN ROOM 101, OUTSIDE OF ROOM 102, ABOVE DOOR. CONNECT TO ROOM 102 LIGHT SWITCH FOR CONTROL. DOME LIGHT IS TO INDICATE WHEN ROOM 102 IS IN USE.

A1 594x841

PROJECT NORTH

TRUE NORTH



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Drawn By:	GAP	Date:	APRIL 7, 2015
Checked By:	AG	Scale:	AS NOTED

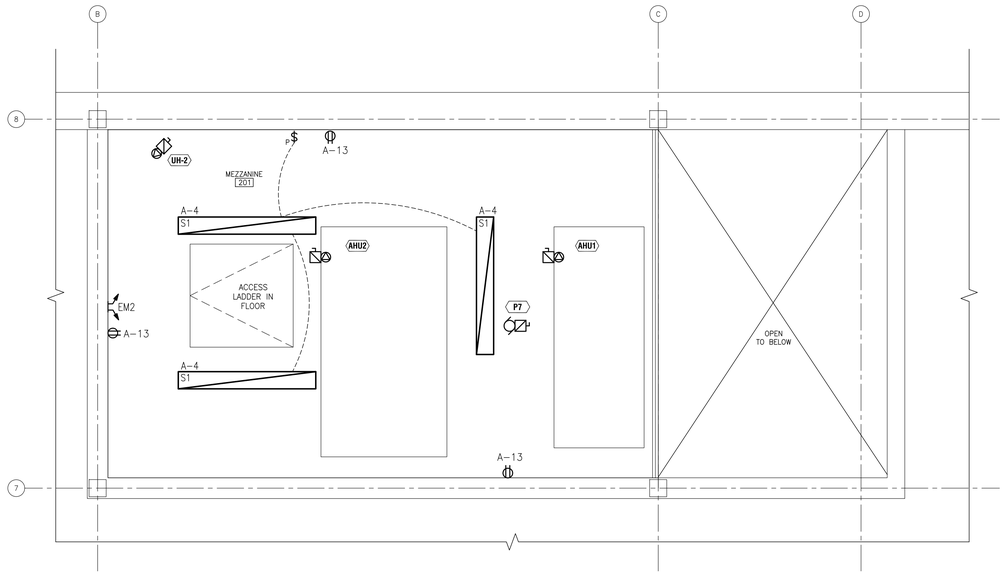
Sheet Title:

MAIN FLOOR
LIGHTING LAYOUT

Sheet Number:

E101

FILENAME:
PLOTDATE:



MEZZANINE LAYOUT

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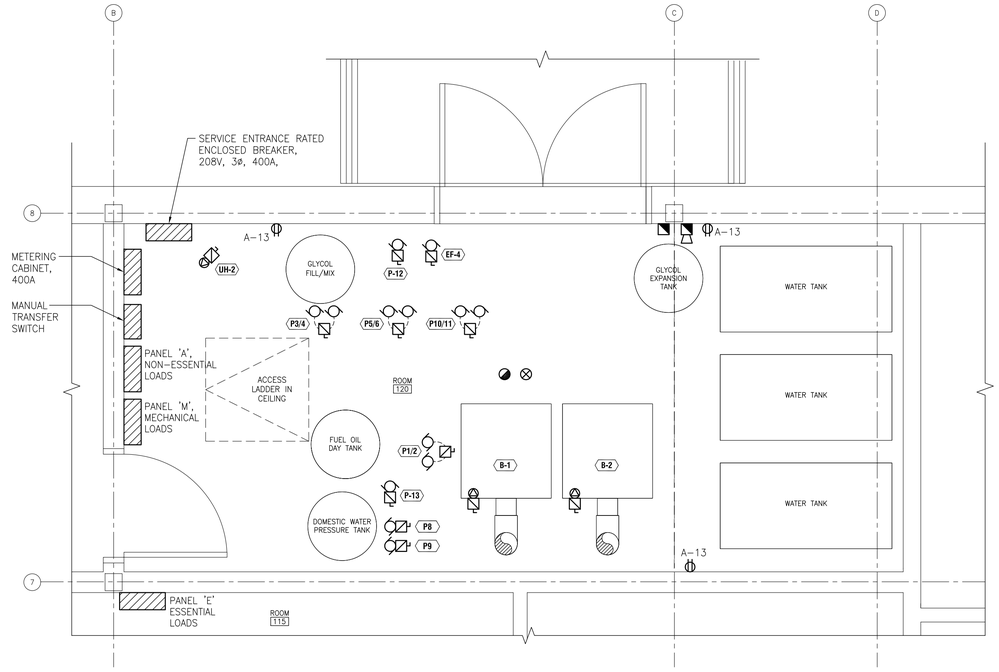
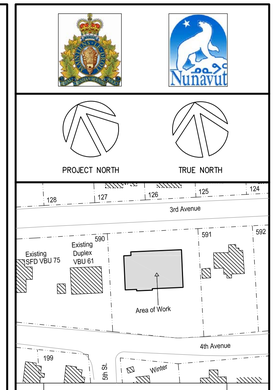


MECH/ELEC ROOM LAYOUT

0 250 500 750 mm SCALE 1:25

A1 594x841



PROJECT NORTH TRUE NORTH

No.	Description	Date
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Drawn By:	GAP	Date:	APRIL 7, 2015
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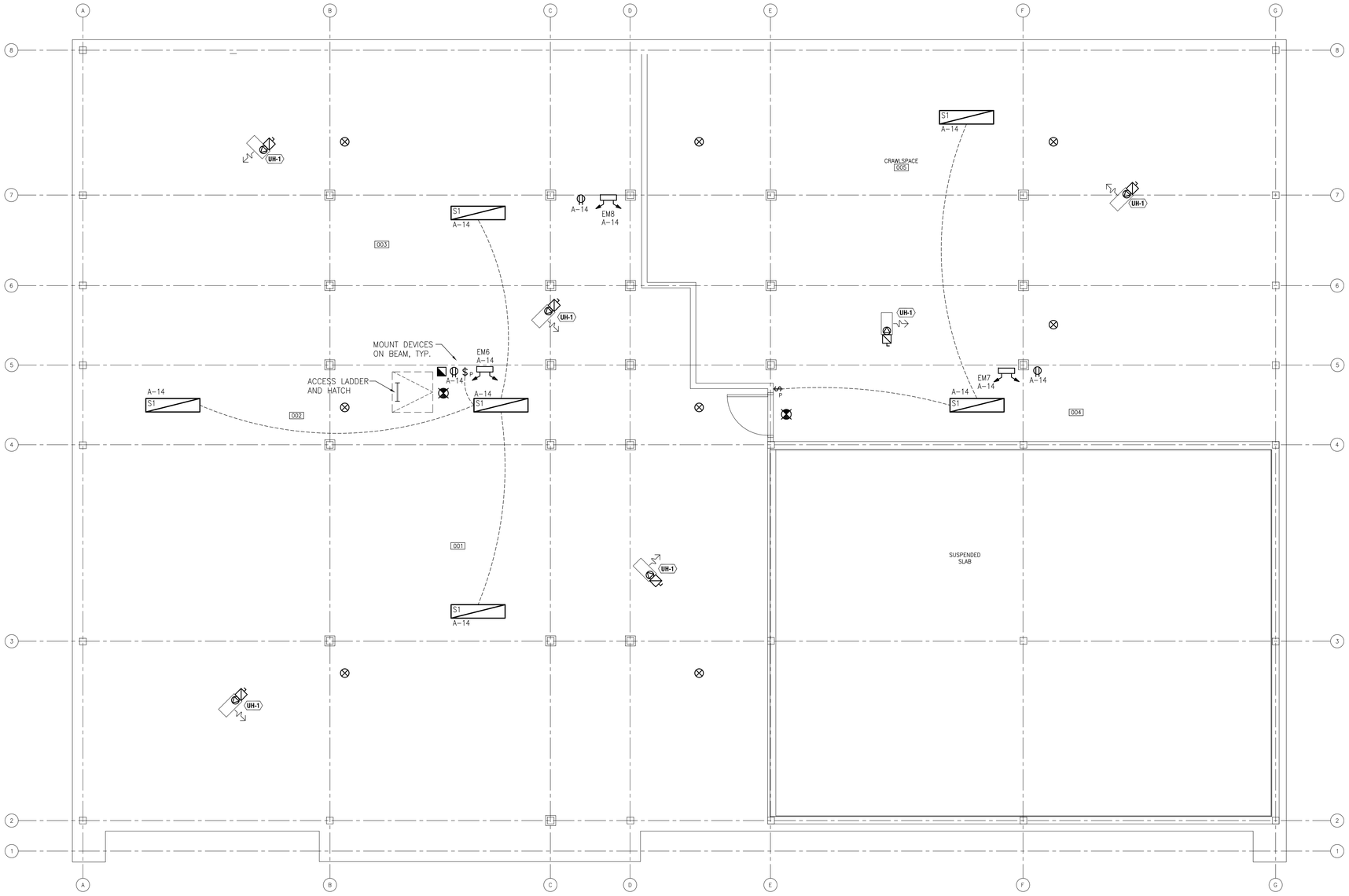
Sheet Title:

MEZZANINE & SERVICE ROOM
ELECTRICAL LAYOUTS

Sheet Number:

E102

FILENAME:
PLOTDATE:



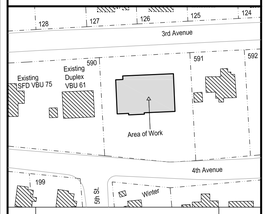
CRAWLSPACE ELECTRICAL LAYOUT

0 500 1000 1500 mm SCALE 1:50

A1 594x841

PROJECT NORTH

TRUE NORTH



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Sheet Title:

CRAWLSPACE
ELECTRICAL LAYOUT

Sheet Number:

E103

FILENAME:
PLOTDATE: