

WALL TYPES

W1

PRE-FINISHED METAL CLADDING
19x64 HORIZONTAL WOOD STRAPPING
@ 610 O.C.
VAPOUR PERMEABLE WEATHER BARRIER
75 mm RIGID INSULATION - RSI 2.64 (R15) ON
VERTICAL Z-GIRTS @ 610 mm O.C.
38 x 38 HORZ. WOOD STRAPPING
@ 610 O.C.
38 mm RIGID INSULATION - RSI 1.32 (R7.5)
AIR / VAPOUR BARRIER MEMBRANE
12.5 mm OSB SHEATHING
2 - 38 x 140 STUDS @ 400 O.C.
9.5 mm OSB SHEATHING
PRE-FINISHED METAL LINER

W2

2 HOUR FIRE RATED WALL
(NBC - DESIGN W2d NON-LOADBEARING)

PRE-FINISHED METAL LINER
2 - 15.9 mm TYPE X GYPSUM BOARD***
9.5 mm OSB SHEATHING
2 - 38 x 140 STUDS @ 400 O.C.
9.5 mm OSB SHEATHING
2 - 15.9 mm TYPE X GYPSUM BOARD***
PRE-FINISHED METAL LINER

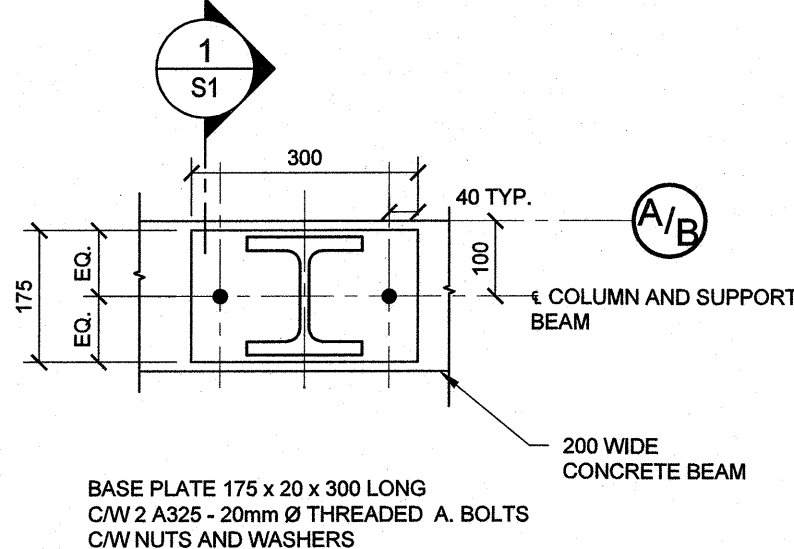
W3

PRE-FINISHED METAL CLADDING
19x64 HORIZONTAL WOOD STRAPPING
@ 610 O.C.
VAPOUR PERMEABLE WEATHER BARRIER
75 mm RIGID INSULATION - RSI 2.64 (R15) ON
VERTICAL Z-GIRTS @ 610 mm O.C.
38 x 38 HORZ. WOOD STRAPPING
@ 610 O.C.
38 mm RIGID INSULATION - RSI 1.32 (R7.5)
AIR / VAPOUR BARRIER MEMBRANE
12.5 mm OSB SHEATHING
2 - 38 x 140 STUDS @ 400 O.C.
9.5 mm OSB SHEATHING
12 mm CEMENT-FIBRE BOARD

W4

PRE-FINISHED METAL LINER
9.5 mm OSB SHEATHING
2 - 38 x 140 STUDS @ 400 O.C.
9.5 mm OSB SHEATHING
12 mm CEMENT-FIBRE BOARD

*** THE JOINTS OF THE OUTER LAYER OF FINISH
ON BOTH SIDES OF THE WALL SHALL BE TAPED
AND FINISHED. FASTENER TYPES AND SPACING
SHALL CONFORM TO CSA A22.31-M, "GYPSUM
BOARD APPLICATION"



COL C1 - W150 x 30
SCALE 1:10

DOOR TYPES

D01

TWO INSULATED METAL DOORS
PAINTED, 900 x 2150 x45
DOOR CLOSER
1-1/4 PR. HEAVY DUTY HINGES
ASTRAGAL
WEATHER STRIPPING
DOOR SWEEP
ALUMINUM THRESHOLD
FLUSH BOLTS
PANIC HARDWARE
THERMALLY BROKEN PRESSED STEEL FRAME PAINTED

D02

1-1/2 HR. FIRE RATED HOLLOW METAL DOOR
PAINTED, 900 x 2150 x45
DOOR CLOSER
1-1/2 PR. HEAVY DUTY HINGES
WEATHER STRIPPING
DOOR SWEEP
ALUMINUM THRESHOLD
LEVERED PASSAGE SET
1-1/2 HR. FIRE RATED PRESSED STEEL FRAME PAINTED

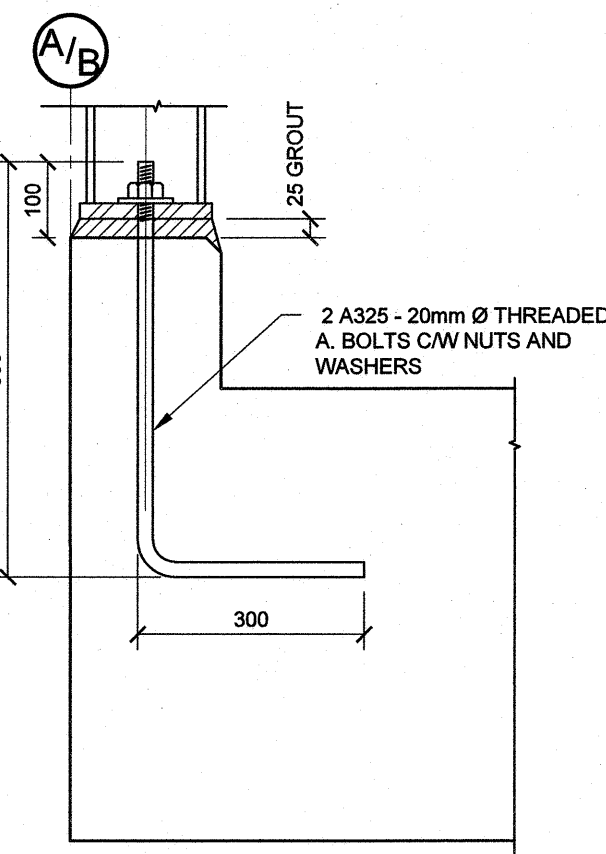
D03

INSULATED METAL DOOR
PAINTED, 900 x 2150 x45
DOOR CLOSER
1-1/4 PR. HEAVY DUTY HINGES
WEATHER STRIPPING
DOOR SWEEP
ALUMINUM THRESHOLD
LEVERED LOCKSET
THERMALLY BROKEN PRESSED STEEL FRAME PAINTED

WINDOW TYPES

GL1

300 mm WIDE X 600 mm HIGH WINDOW
C/W GEORGIAN WIRE GLASS
METAL FRAME
BOTTOM OF WINDOW AT 1200 mm ABOVE FINISHED
FLOOR

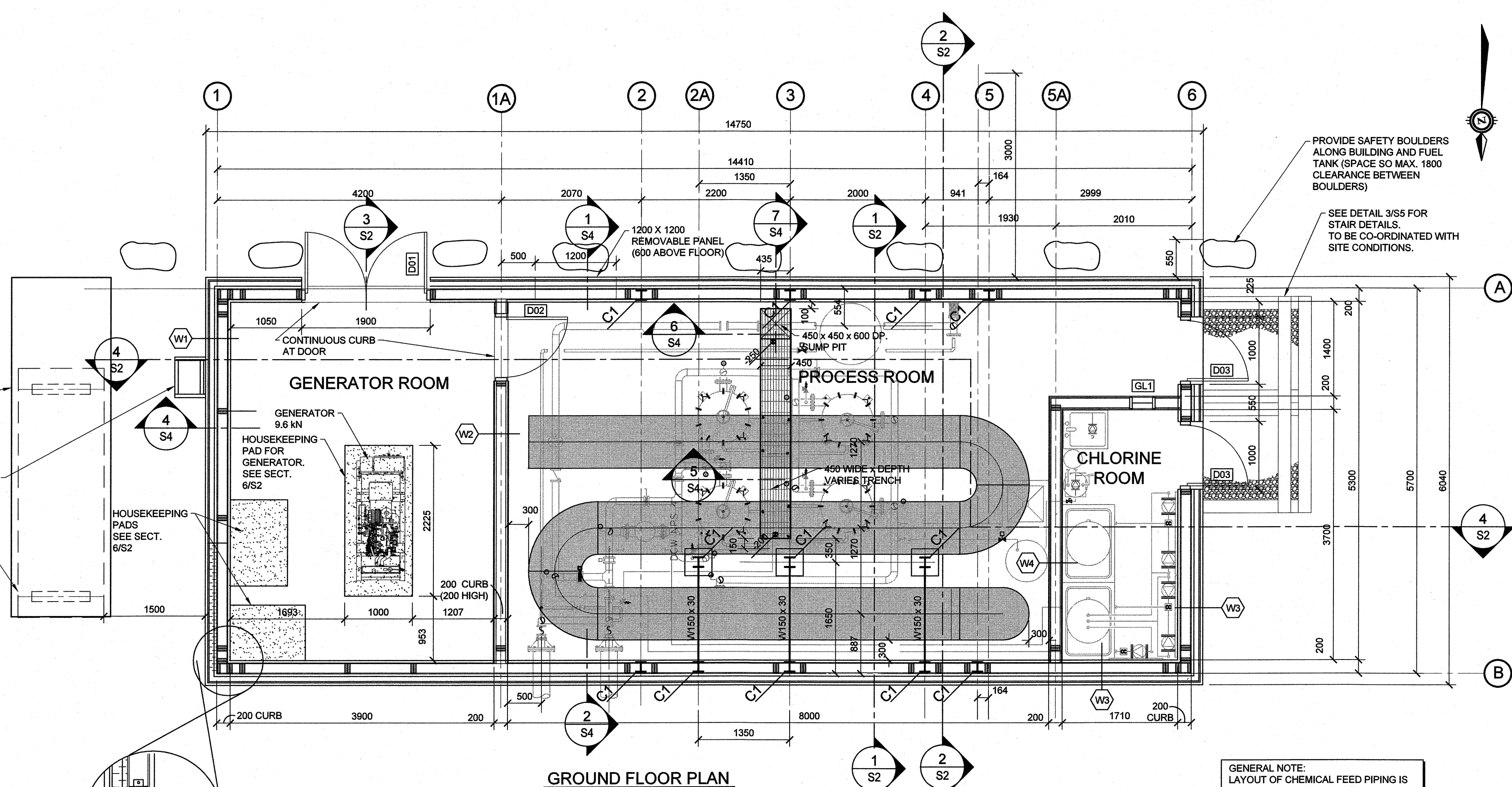


SECTION 1 S1
SCALE 1:10

SEE S5 FOR FUEL
STORAGE TANK CONC.
PAD DETAILS

PROVIDE GALVANIZED
EXTERIOR PIPE SUPPORT
STRUCTURE. SEE DETAIL
A/SS, STRAPS AND BOLTS
FOR PIPING BY
MECHANICAL

FUEL STORAGE TANK.
SEE MECH. FOR SIZE.
CONFIRM ALL
DIMENSIONS WITH
SUPPLIER



GROUND FLOOR PLAN

SCALE - 1:50

ALL OPENINGS IN WALL TO BE
COORDINATED BY GENERAL
CONTRACTOR

VERIFY SIZE AND LOCATION OF ALL MECHANICAL
OPENINGS, CURBS, EQUIPMENT PADS WITH
MECHANICAL DRAWINGS AND MECHANICAL
CONTRACTOR. MAJOR OPENINGS NOT SHOWN TO BE
VERIFIED WITH ENGINEER.

GENERAL NOTE:
LAYOUT OF CHEMICAL FEED PIPING IS
SHOWN SCHEMATICALLY FOR CLARITY.
CO-ORDINATE FINAL LAYOUT ON SITE.



PROVIDE SAFETY BOULDERS
ALONG BUILDING AND FUEL
TANK (SPACE SO MAX. 1800
CLEARANCE BETWEEN
BOULDERS)

SEE DETAIL 3/55 FOR
STAIR DETAILS.
TO BE CO-ORDINATED WITH
SITE CONDITIONS.

GENERAL NOTE:
LAYOUT OF CHEMICAL FEED PIPING IS
SHOWN SCHEMATICALLY FOR CLARITY.
CO-ORDINATE FINAL LAYOUT ON SITE.

GENERAL CONTRACTOR TO VERIFY ALL DIMENSIONS
WITH FINAL ARCHITECTURAL AND MECHANICAL DRAWINGS.
NOTIFY THE ENGINEERS OF ANY ERRORS AND/OR
OMISSIONS PRIOR TO CONSTRUCTION FOR DIRECTION.
DO NOT SCALE THIS DRAWING.

REVISIONS

3 ISSUED FOR CONSTRUCTION 17/05/2016 M.N. K.A.B.

2 REISSUED FOR TENDER 18/11/2015 M.N. K.A.B.

1 ISSUED FOR TENDER 11/12/2014 M.N. K.A.B.

No. DESCRIPTION DATE BY APPD

PERMIT OF PRACTICE
EXP SERVICES INC.
Signature: K.A. BAKER
Date: 2016/05/17
PERMIT NUMBER: P483
NT/NU Association of Professional
Engineers and Geoscientists

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• INDUSTRIAL • INFRASTRUCTURE • SUSTAINABILITY •

CLIENT
GOVERNMENT OF NUNAVUT
DEPARTMENT OF COMMUNITY
AND GOVERNMENT SERVICES

PROJECT
CORAL HARBOUR, NUNAVUT
WATER TRUCK FILL STATION
PROJECT: 11-3018

TITLE
GROUND FLOOR PLAN, SECTIONS
AND GENERAL NOTES

design by K.A. BAKER project no. OTT-20203694-A0
drawn by M. NUGENT drawing no.
checked by K.A. BAKER
date NOV. 2013
width AS NOTED

S1

GENERAL NOTES

- Check all dimensions on structural drawings with other drawings. Report any inconsistencies before proceeding with the work. DO NOT SCALE THESE DRAWINGS.
- All work shall comply with current provisions of the National Building Code, the Workplace Safety and Insurance Board and best trade practices. Work shall comply with all local and provincial regulations and with applicable C.S.A. standards. In all cases, the latest editions of codes and standards shall apply.
- Structural design complies with the minimum standards of Part 9 of the National Building Code 2010.
- Before submitting tenders contractors shall carefully examine existing conditions to establish the extent of the work.
- Locate all buried services prior to excavation. The contractor shall be responsible for all temporary bracing, shoring and dewatering necessary to undertake the work.
- The contractor is responsible for removing excess materials and cleaning up on completion of the work.
- The contractor shall verify dimensions before construction and report discrepancies before proceeding with the work.

MATERIALS SPECIFICATIONS

- Concrete - materials to CSA-A23.1-14. Compressive strength minimum 35 MPa. 6% +/- 1% entrained air for concrete. Slump 70 +/- 20mm. Maximum water/cement ratio: 0.43. Maximum aggregate size 20 mm. Type GU cement. Exposure Class: C1
- Formwork - to CSA-A23.1-14. Use only new forming materials for architecturally exposed surfaces. Form release agent shall be nonstaining, compatible with finishes where applicable.
- Rebar - deformed billet steel bars to CSA G30.18M-09, Grade 400. Type W for welded rebar.
- Mesh - welded wire fabric to ASTM A1064/A1064M-14.
- Rolled structural steel shapes - General requirements to CSA S16-14, rolled shapes to CSA G40.21, 350W minimum. Channels, angles and plates 300W.
- Hollow structural sections - to CSA-G40.20-13/G40.21-13, 350W, Class H.

- Bolts, nuts and washers - General requirements to CSA-S16-14, ASTM A325M-09. Hot dipped galvanized as required.
- Welding - to CSA W59-13, E480XXCH or LH basic electrodes conforming to CSA W48-14. Welding shall be performed only by companies certified by Canadian Welding Bureau as follows: Fusion Welding - certified to CSA W47.1-09(2014); Resistance Welding - certified to CSA W55.3-08 (2013). Workmanship to best trade practices for cold weather installations.
- Prime paint to Structural Steel - to CISC/CPMA STANDARD 2-75, one shop coat, one touch up field coat.
- Wood Framing Material - SPF Grade No. 1 or 2. All lumber in direct contact with concrete, soil or moisture to be pressure treated.
- Rough Carpentry - Timber Construction shall conform to Part 9 of NBC 2010 and CSA 086-14.
- Nails and Staples - materials to ASTM F1667-13 Common and spiral ardox nails to be galvanized.
- Prefinished Metal Roofing - Sheet steel to ASTM A653/A653M-13, commercial quality, galvanized, Z275 coating, designation, factory precoated with paint finish.
Colour: White White QC8317
Profile: Ideal Roofing Pocket Rib
Class: FIS
Thickness: 0.53 mm base metal thickness
- Preformed Cladding/Siding - Sheet steel to ASTM A653/A653M-13, grade A, galvanized, Z275 coating designation, factory precoated with paint finish, 2 coat system dry paint film thickness of 0.025 mm +/- 0.005 mm both faces conforming to film test procedures described in CSSB1 Bulletin No. 5 and ASTM D1005-95 (2013), Stelco 10000 Series or equal.
Colour: White White QC16076
Profile: 36 mm deep x 190 mm flute spaces, preformed interlocking joints, acceptable material
Vic West CL622R with rib profile or equal
Thickness: 0.61 mm base metal thickness
Fascia and Trims: same colour and thickness as cladding
- Wall and Roof Insulation: Rigid Closed Cell polystyrene: to CAN/ULC-S701-11, type 4, compressive strength at 5% deformation 275 kPa, thermal resistance of 0.87 RSI/25 mm, thicknesses as specified, square shiplapped edges. Acceptable material Styrofoam SM or approved

equal.

- Underside Rigid Insulation: Extruded polystyrene foam insulation CAN/ULC-S701-11, type 4, rigid, closed cell type. Standard of Acceptance: Styrofoam High Load 60 by Dow Chemical or approved equivalent.
- Girts: "Z" profile, minimum 1.3 mm thick, height to suit insulation thickness, formed from galvanized sheet steel to ASTM A653/A653M-13, Grade A, with zinc coating designation Z275, with 50 mm wide bottom flange and 64 mm wide top flange. Terminations: perimeter framing of "L" or "C" profiles to match "Z" girts.
- Fasteners for girts: epoxy coated 4mm dia. steel screws of sufficient length to penetrate through deck.
- Fasteners for metal roofing: self-drilling cadmium plated steel purpose made, head colour same as exterior steel roofing, neoprene washer exposure.
- Fasteners for metal cladding: cadmium plated steel purpose made, head colour same as exterior sheet, dished steel/neoprene.
- Sealants: single component acrylic, colour to match roofing/cladding.
- Polyethylene Sheets - 0.25 mm (10 mil) clear polyethylene film.

REINFORCEMENT PLACEMENT

- Minimum clear cover
- For concrete placed against earth.....75 mm
- For concrete placed in forms but in contact with earth and weather.....50 mm
- Interior slabs and walls.....40 mm
- Curb.....40 mm
- Laps
- lap all bars 36 bar diameters or 450 mm minimum, whichever is greater, unless otherwise indicated.
- Chairs for support of slab reinforcing spaced at maximum of 1.0 m in either direction. Supply support bars, chairs and carriers.

DESIGN SERVICE LOADS

DEAD LOADS

FLOOR 4.8 kPa
ROOF (Self weight) 1.35 kPa
Superimposed Loads (Mech. Allowance) 0.5 kPa

LIVE LOADS

FLOOR 7.2 kPa

ROOF SNOW LOAD

Ss = 3.8 kPa
Sr = 0.2 kPa
Is = 1.25 ULS
Is = 0.9 SLS
S = Is [Ss (Cb Cw Cs Ca) + Sr]
= 1.25 [3.8 (0.8)(1.0)(1.0)(1.0) + 0.2]
= 4.05 kPa

LATERAL LOADING

WIND LOAD (Governs)
q(1.50) = 0.69 kPa
Cp Cg = 1.95 for walls
Cp Cg = 2.00 for roof
Ce = 0.9
lw = 1.25 ULS lw = 0.75 SLS

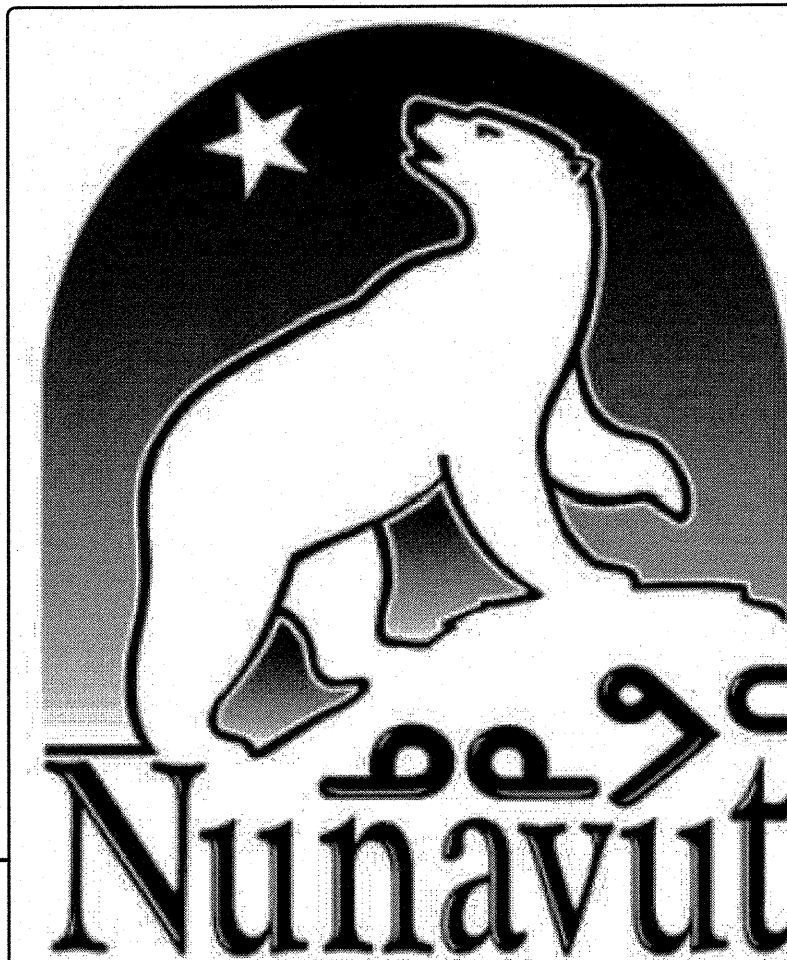
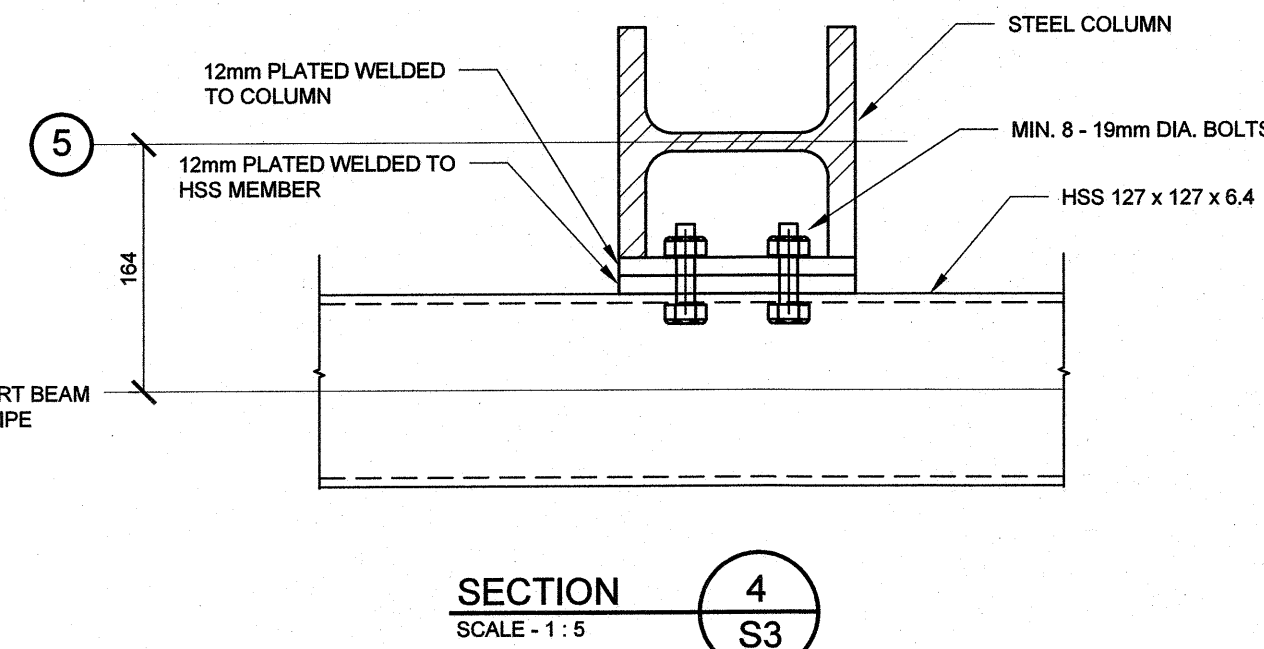
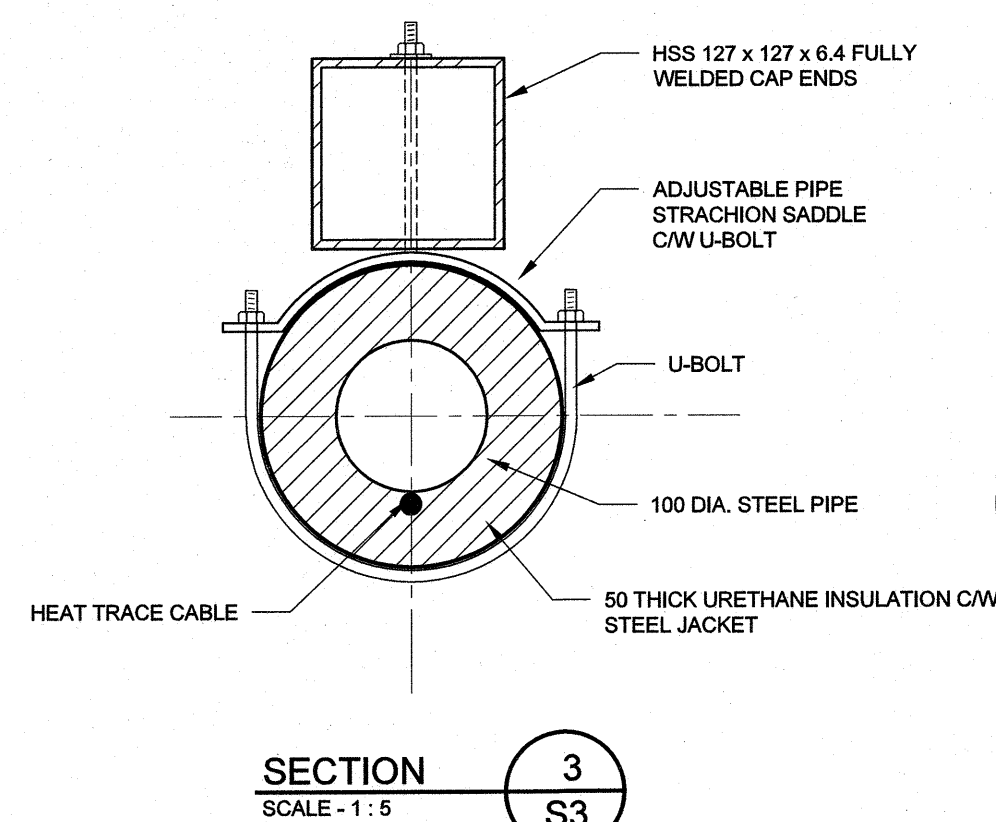
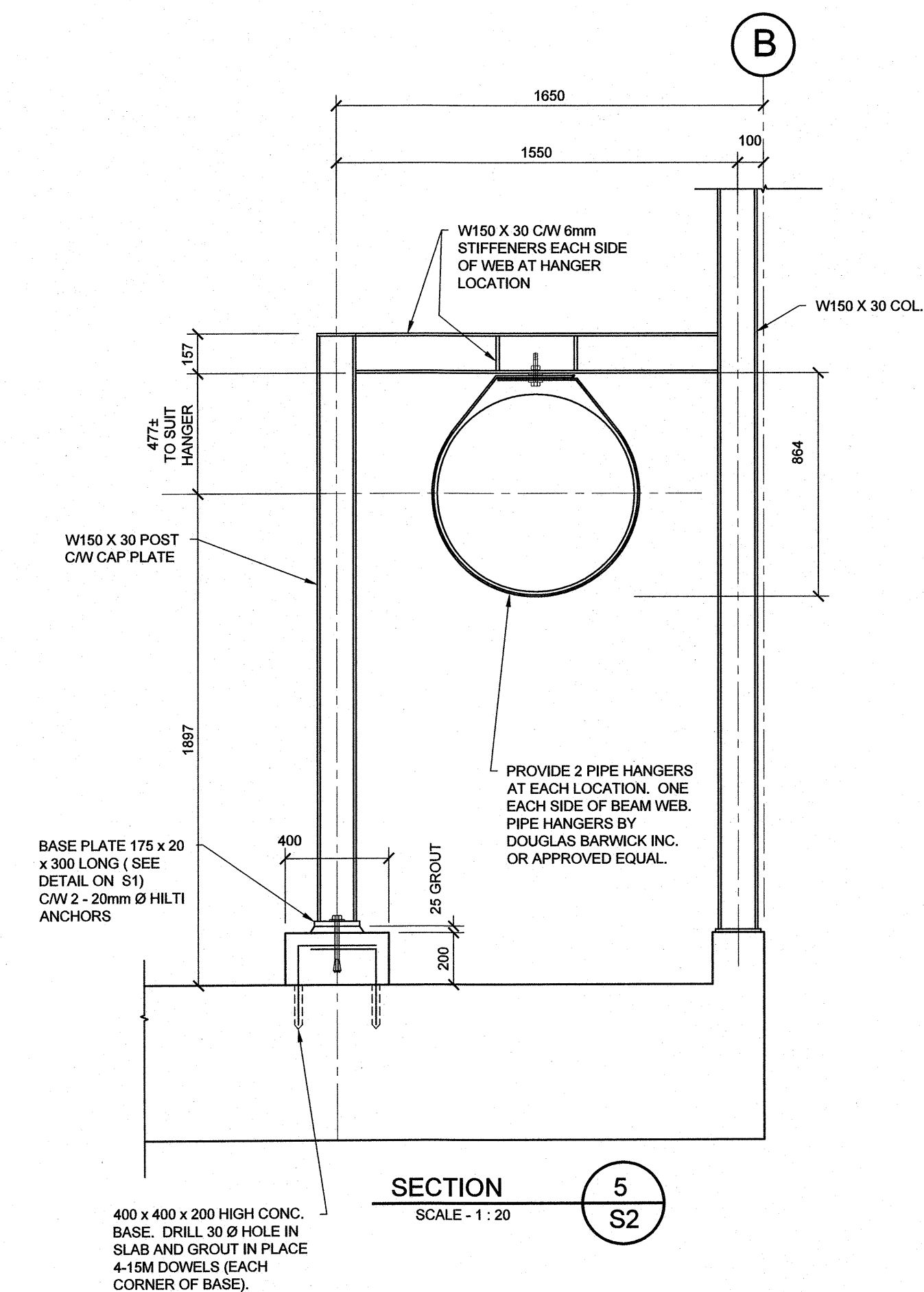
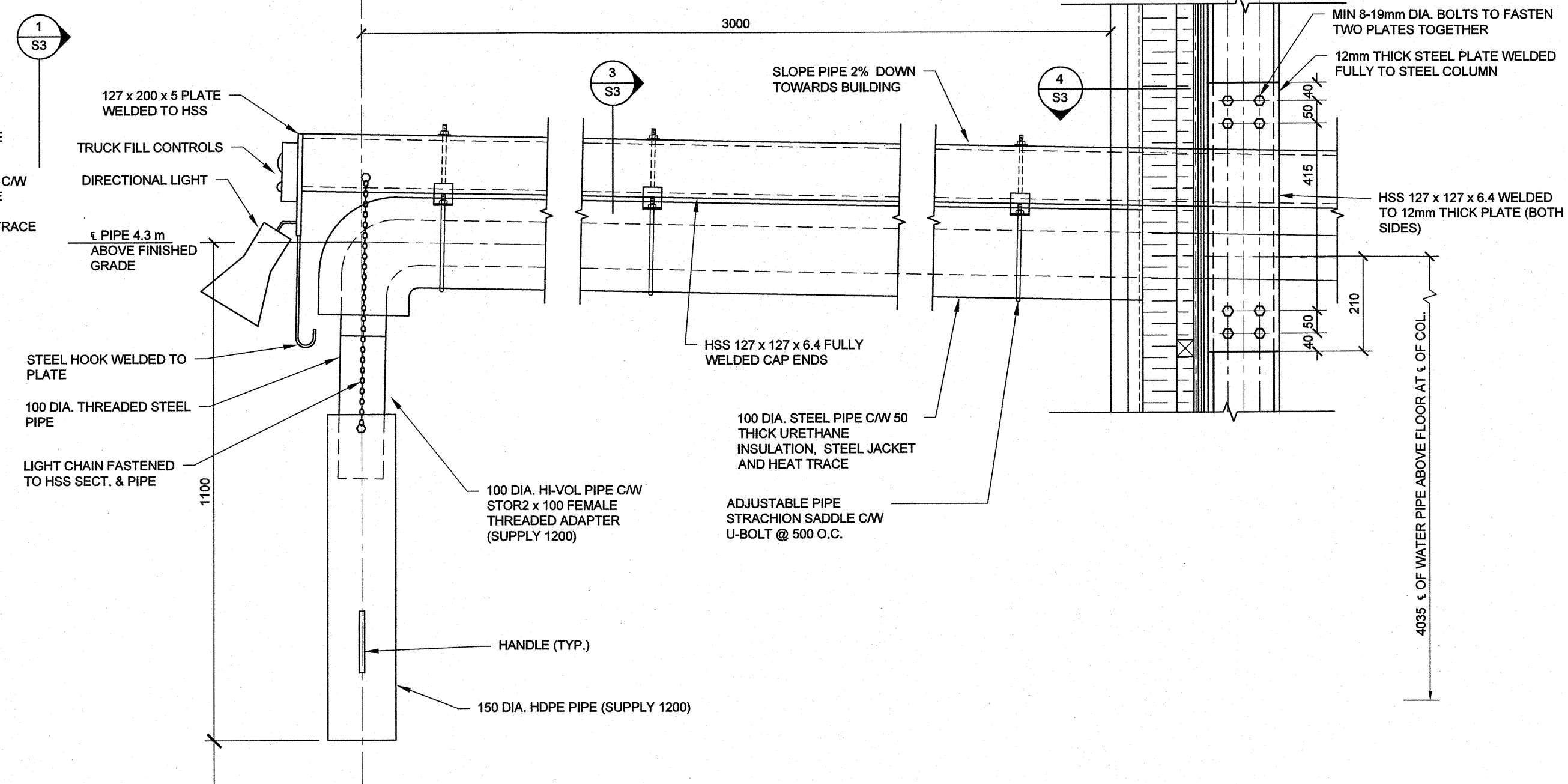
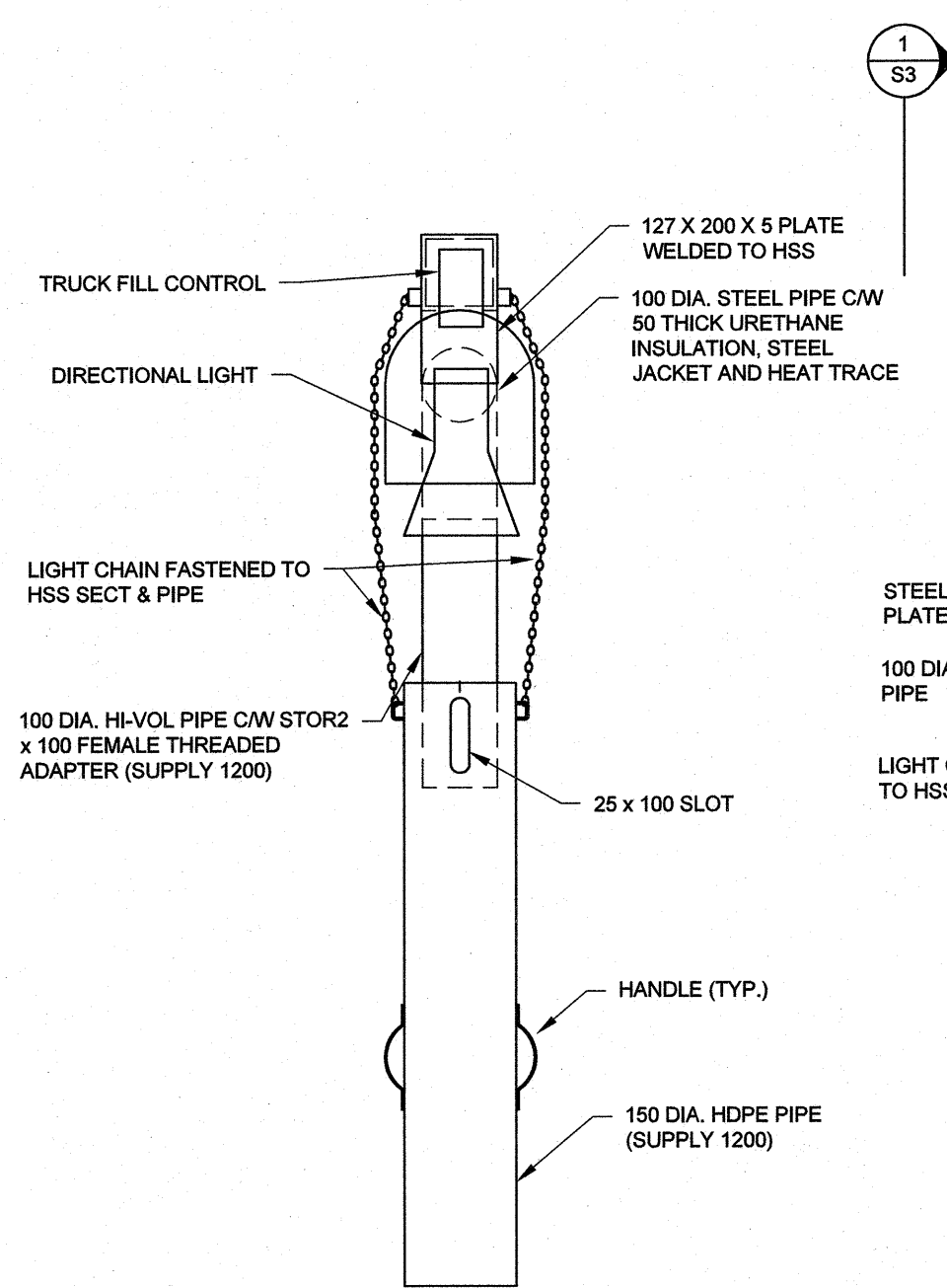
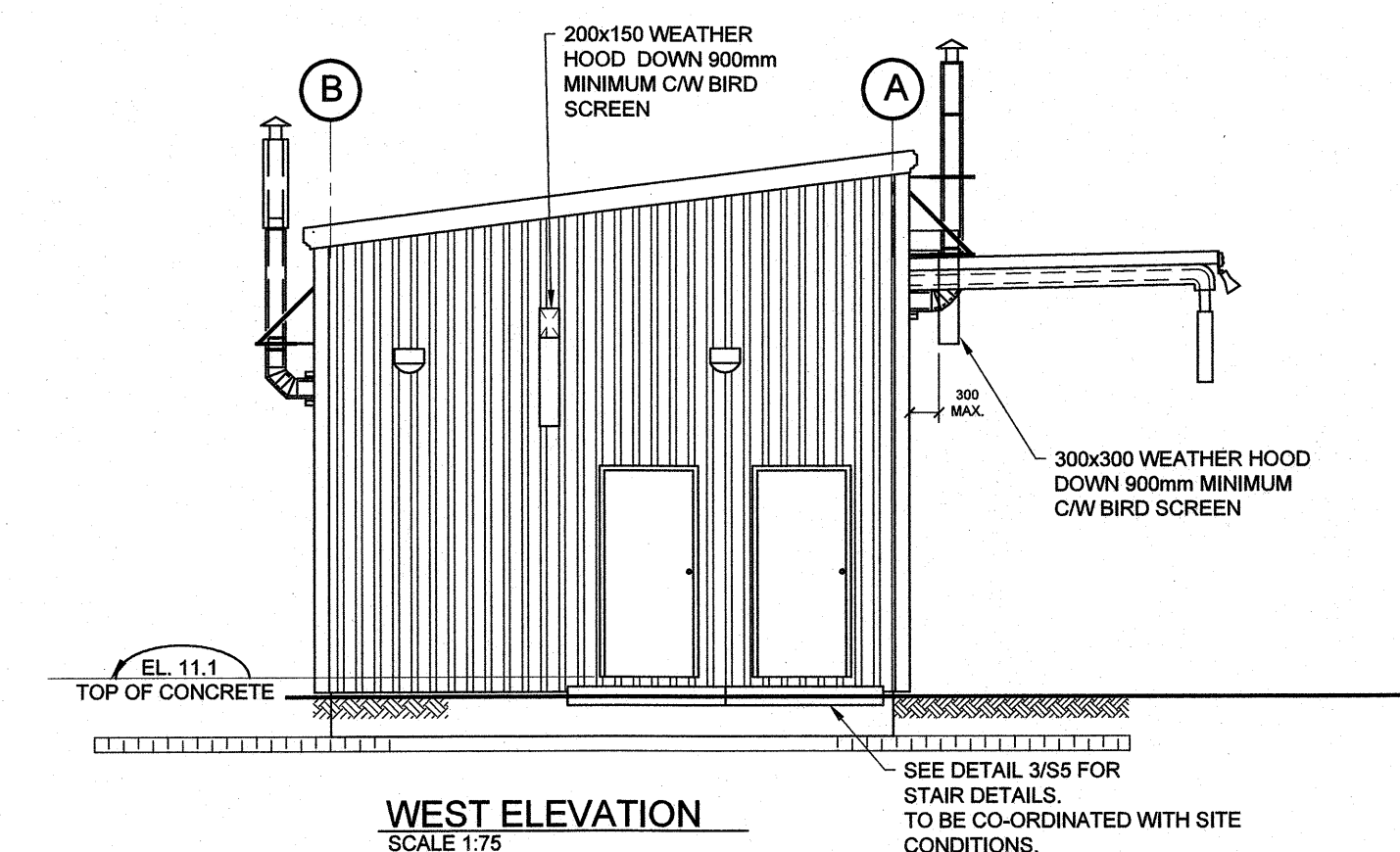
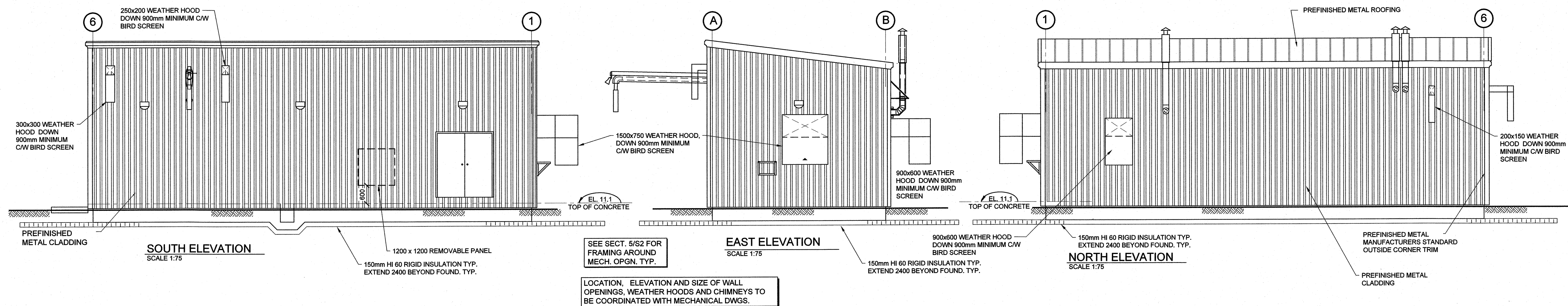
WIND EAST - WEST
= 24 kN

WIND NORTH - SOUTH
= 58 kN

EARTHQUAKE LOAD

Site Classification C
Sa (0.2) = 0.240
Sa (0.5) = 0.110
Sa (1.0) = 0.051
Sa (2.0) = 0.013
Fa = 1.0
Fv = 1.0
S (T = 0.2) = 0.24
S (T = 0.5) = 0.11
S (T = 1.0) = 0.051
S (T = 2.0) = 0.013
S (T > 4.0) = 0.0065
R0 = 1.7
R0 = 3.0
Ie = 1.5 No Irregularities
V = 2/3 S(0.2) Ie W/Rd Ro
= 2/3 (0.24)(1.5) W/(3.0)(1.7)
= 0.0471W

NORTH - SOUTH or EAST - WEST
V = 14.75 kN



NOTES: GENERAL CONTRACTOR TO VERIFY ALL DIMENSIONS WITH FINAL ARCHITECTURAL AND MECHANICAL DRAWINGS. NOTIFY THE ENGINEERS OF ANY ERRORS AND/OR OMISSIONS PRIOR TO CONSTRUCTION FOR DIRECTION. DO NOT SCALE THIS DRAWING.

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3	ISSUED FOR CONSTRUCTION	17/05/2016	M.N.	K.A.B.
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1	ISSUED FOR TENDER	11/12/2014	M.N.	K.A.B.

PERMIT OF PRACTICE
EXP SERVICES INC.

Signature: *K.A. Baker*
Date: 2016/05/17

PERMIT NUMBER: P483
NTNU Association of Professional Engineers and Geoscientists

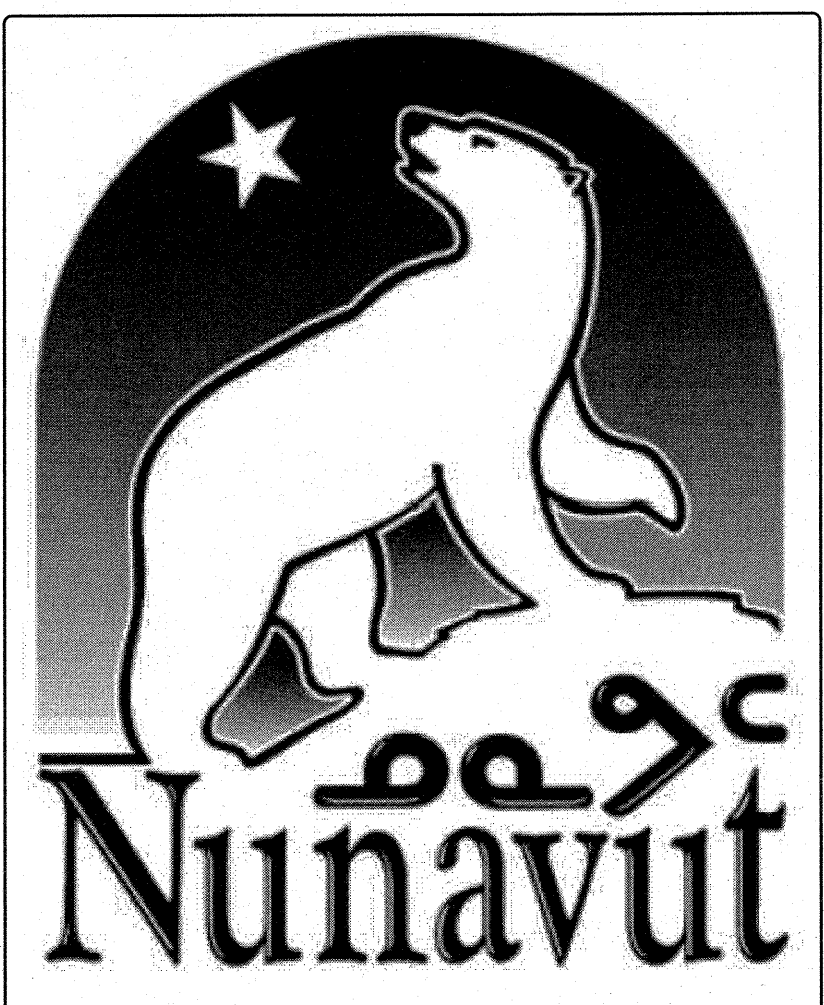
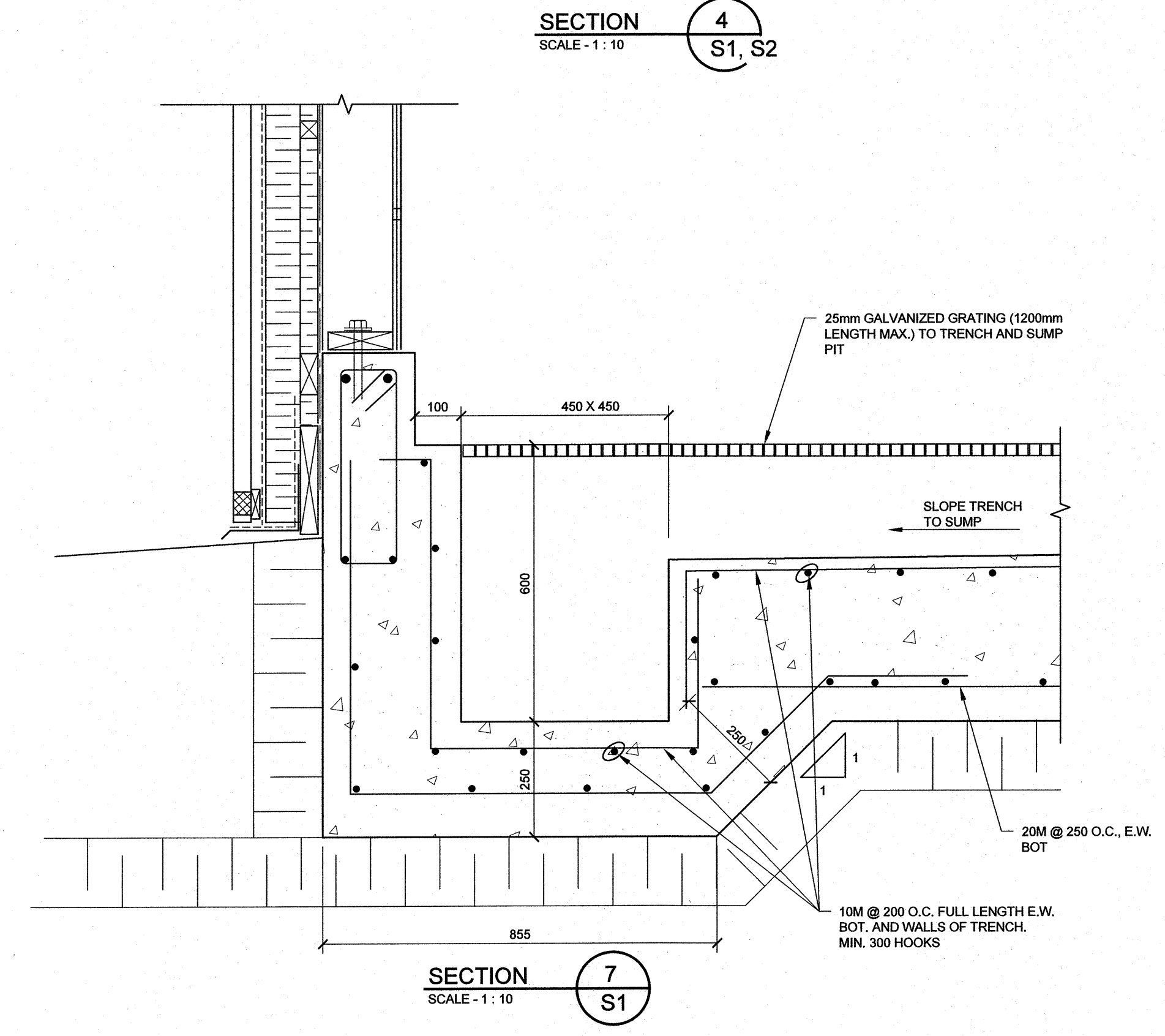
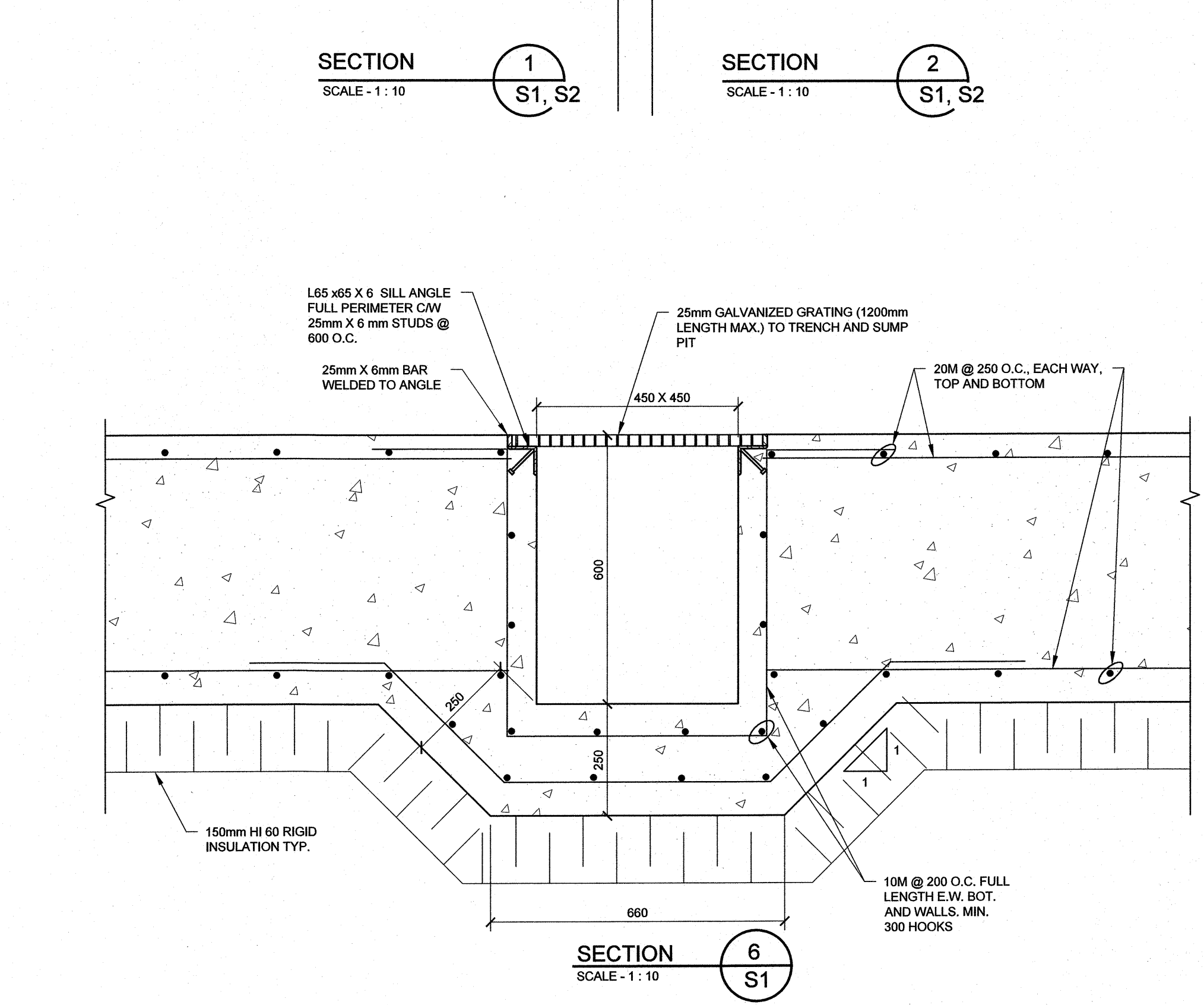
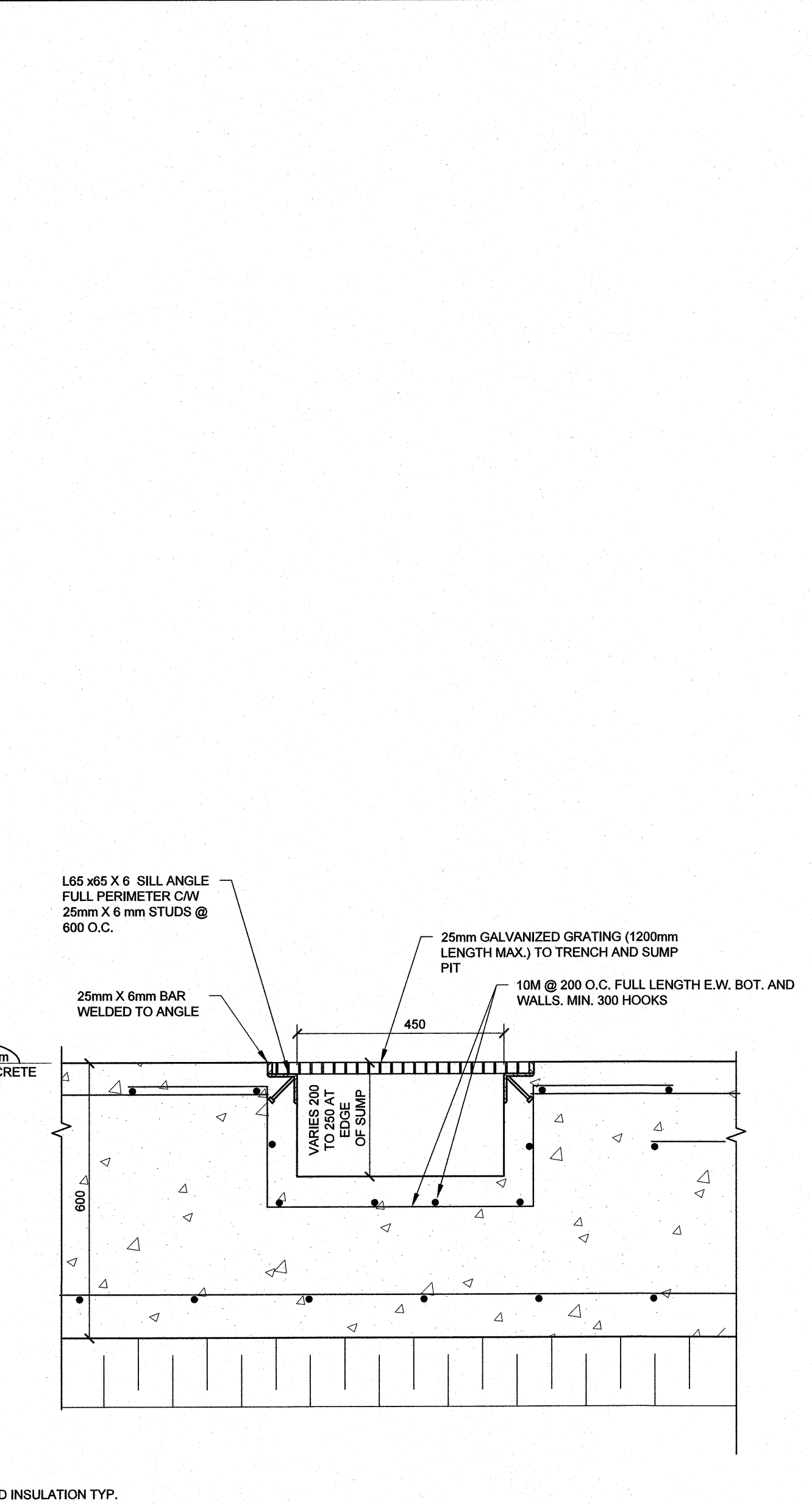
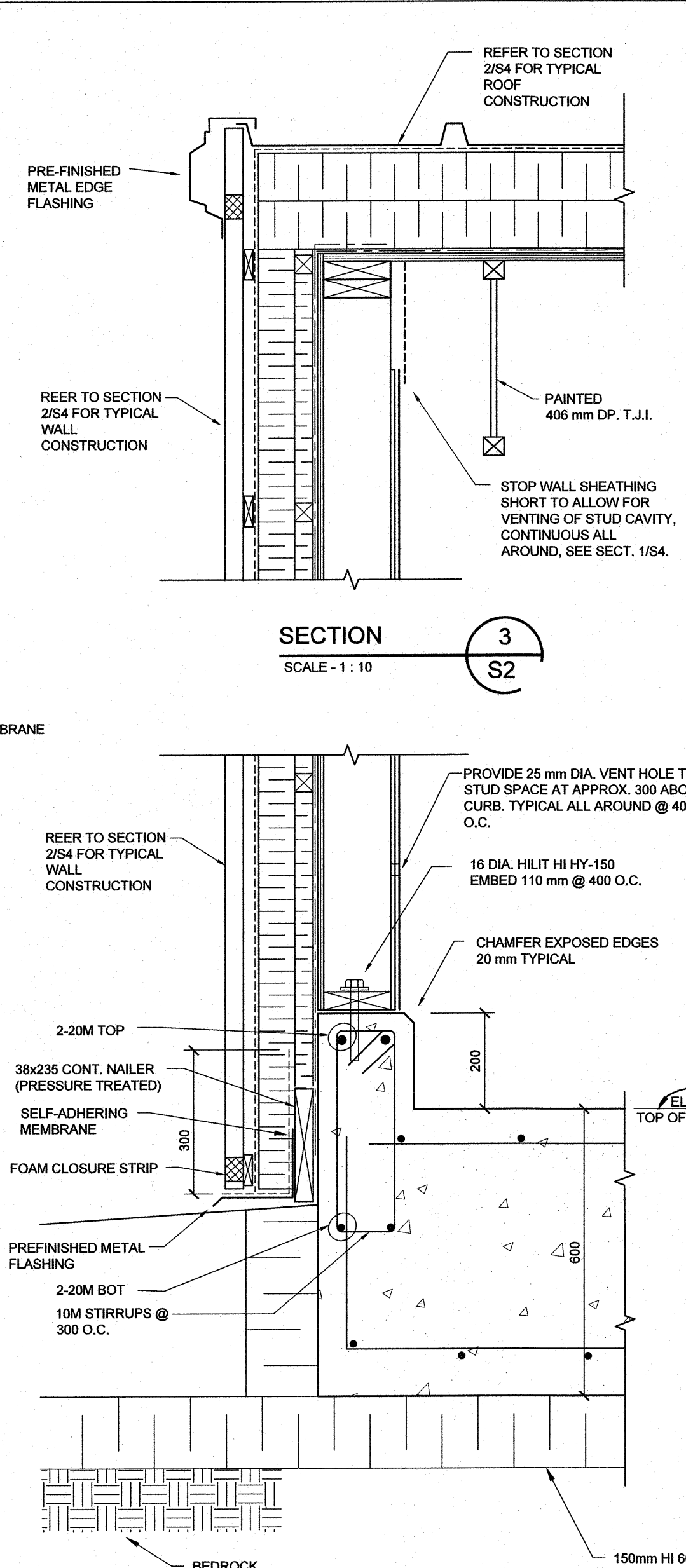
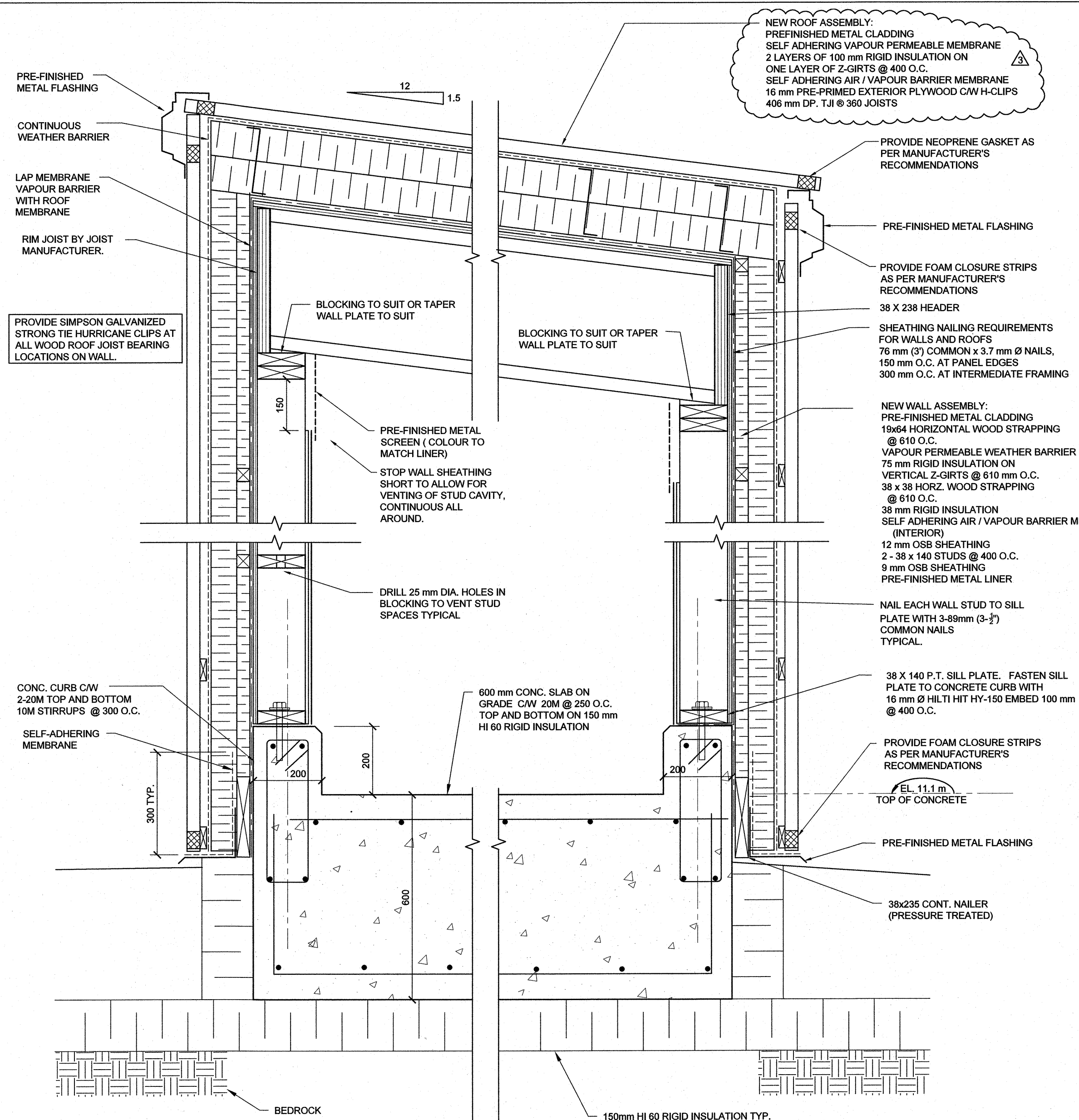


CLIENT
GOVERNMENT OF NUNAVUT
DEPARTMENT OF COMMUNITY AND GOVERNMENT SERVICES

PROJECT
CORAL HARBOUR, NUNAVUT
WATER TRUCK FILL STATION
PROJECT: 11-3018

TITLE	design by	project no.
BUILDING ELEVATIONS AND FILL PIPE DETAILS	K.A. BAKER	OTT-00203694-A0
	M. NUGENT	drawing no.
	K.A. BAKER	
	NOV. 2013	
AS NOTED		

S3



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NTNU Association of Professional Engineers and Geoscientists

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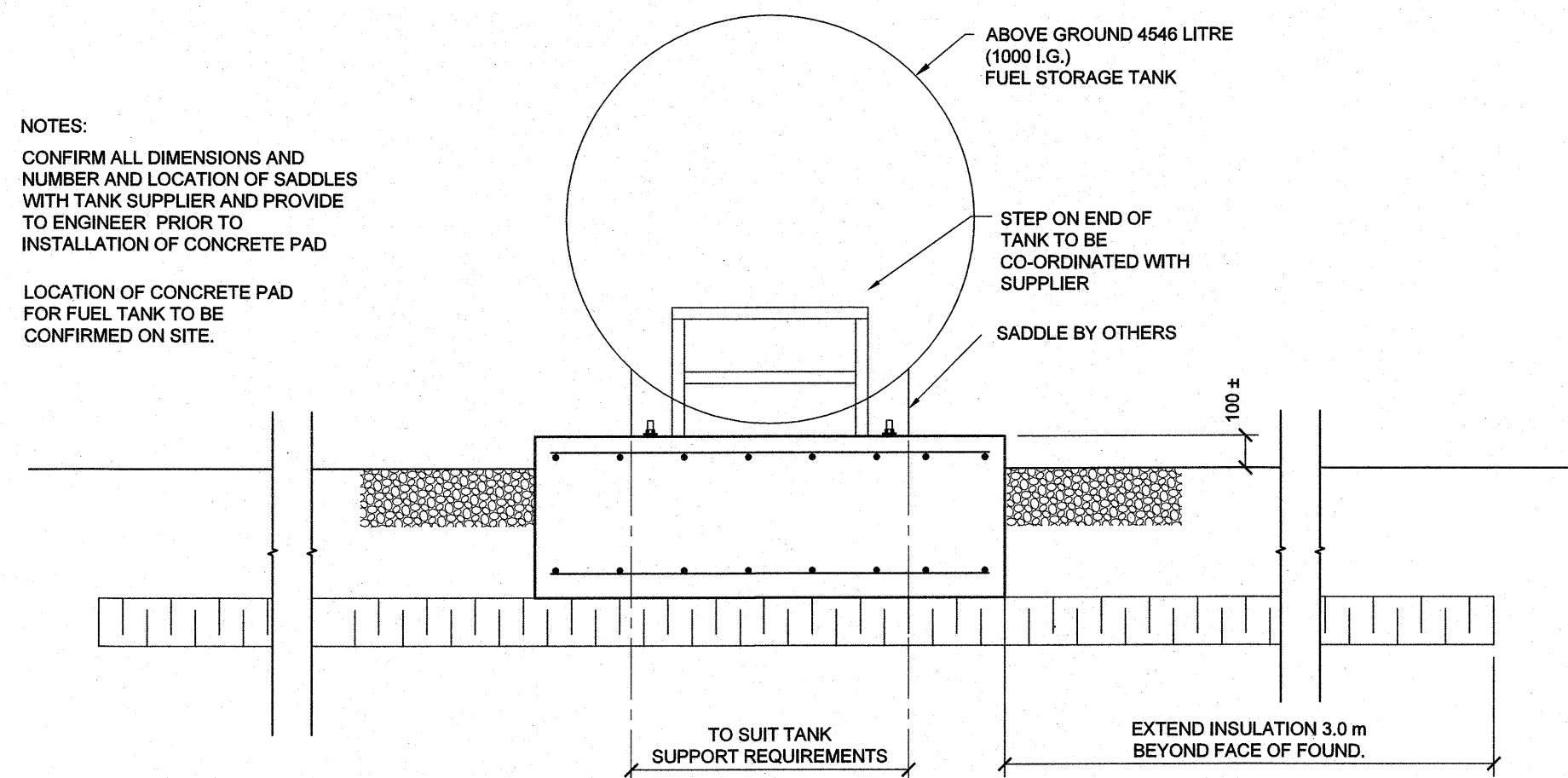
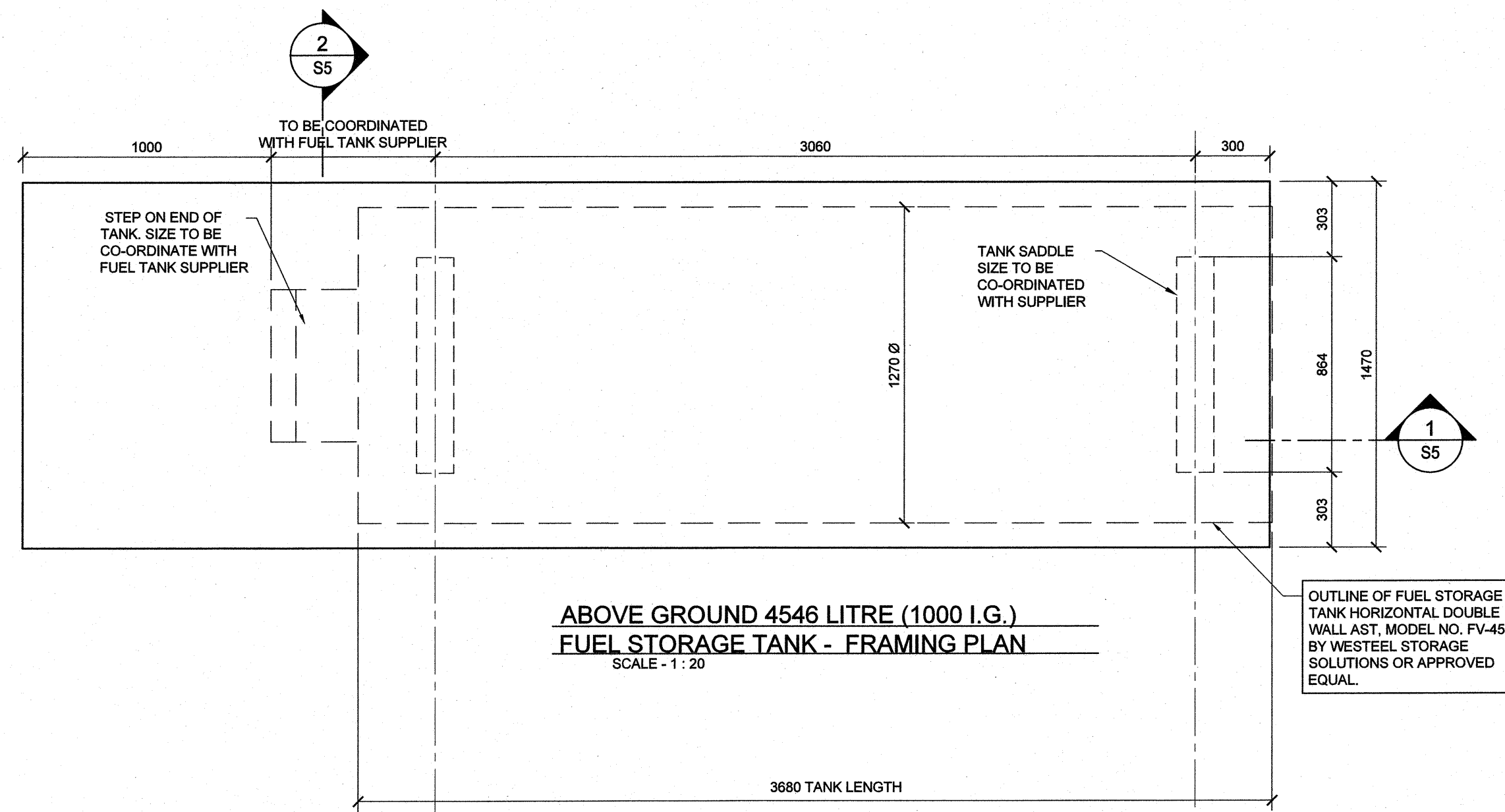
GOVERNMENT OF NUNAVUT
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PROJECT
CORAL HARBOUR, NUNAVUT
WATER TRUCK FILL STATION
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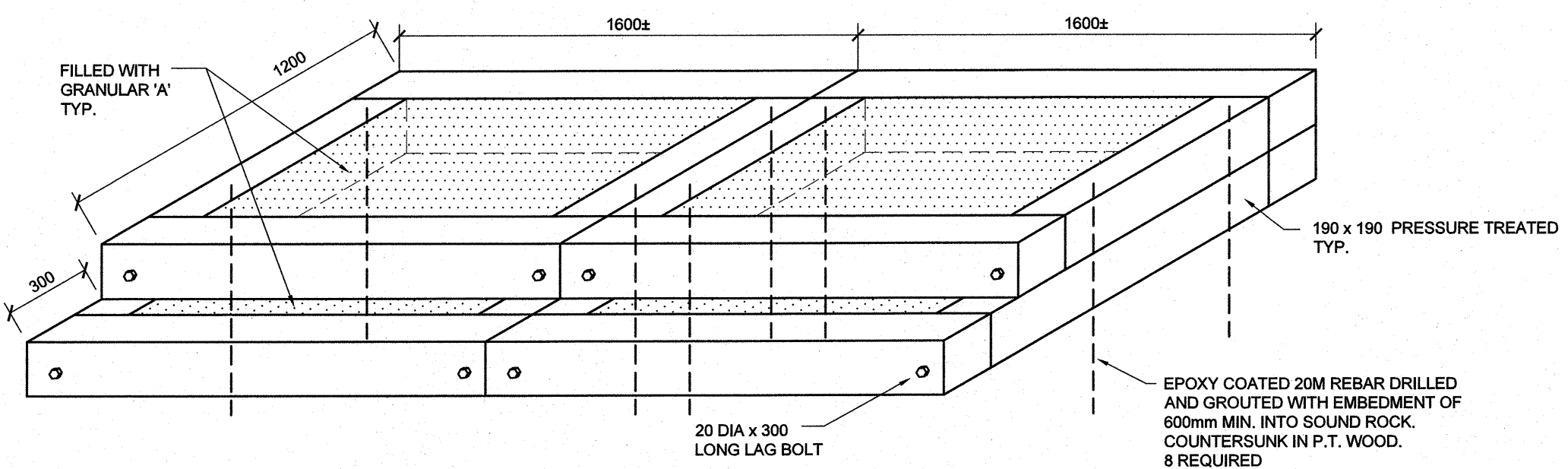
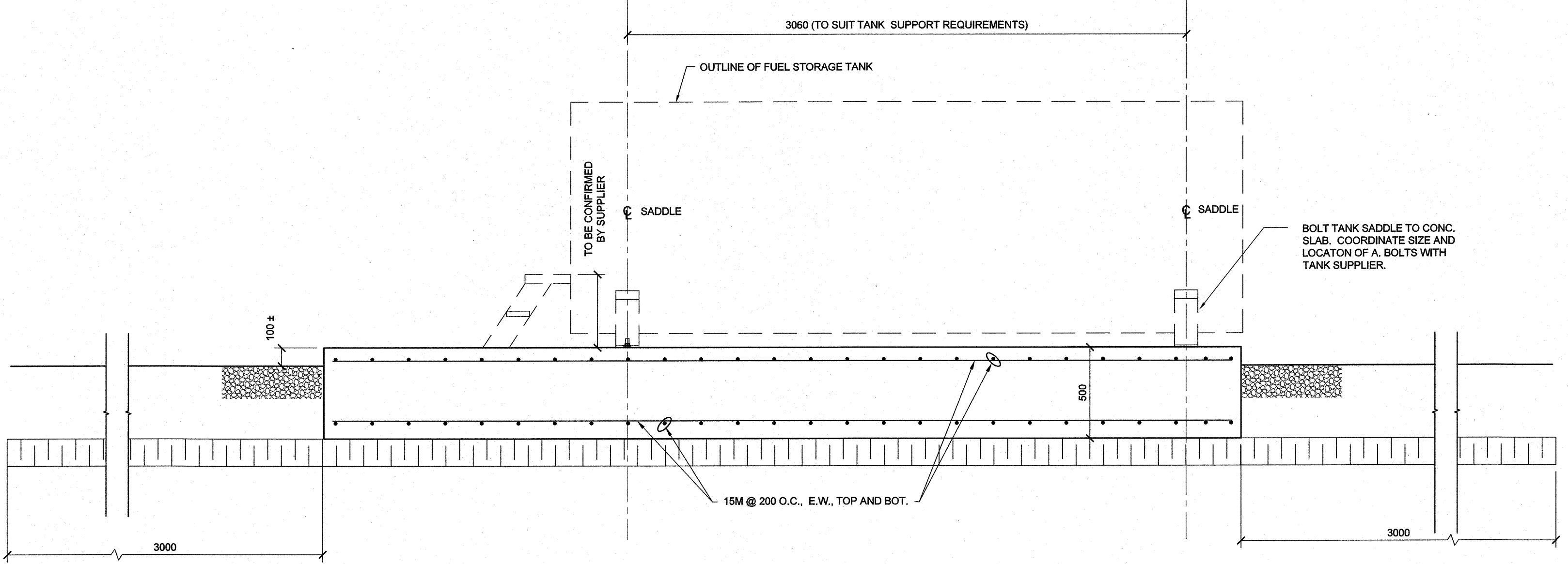
SECTIONS

design by	K.A. BAKER	project no.	OTT-00203694-A0
drawn by	M. NUGENT	drawing no.	S4
checked by	K.A. BAKER		
date	NOV. 2013		
scale	AS NOTED		

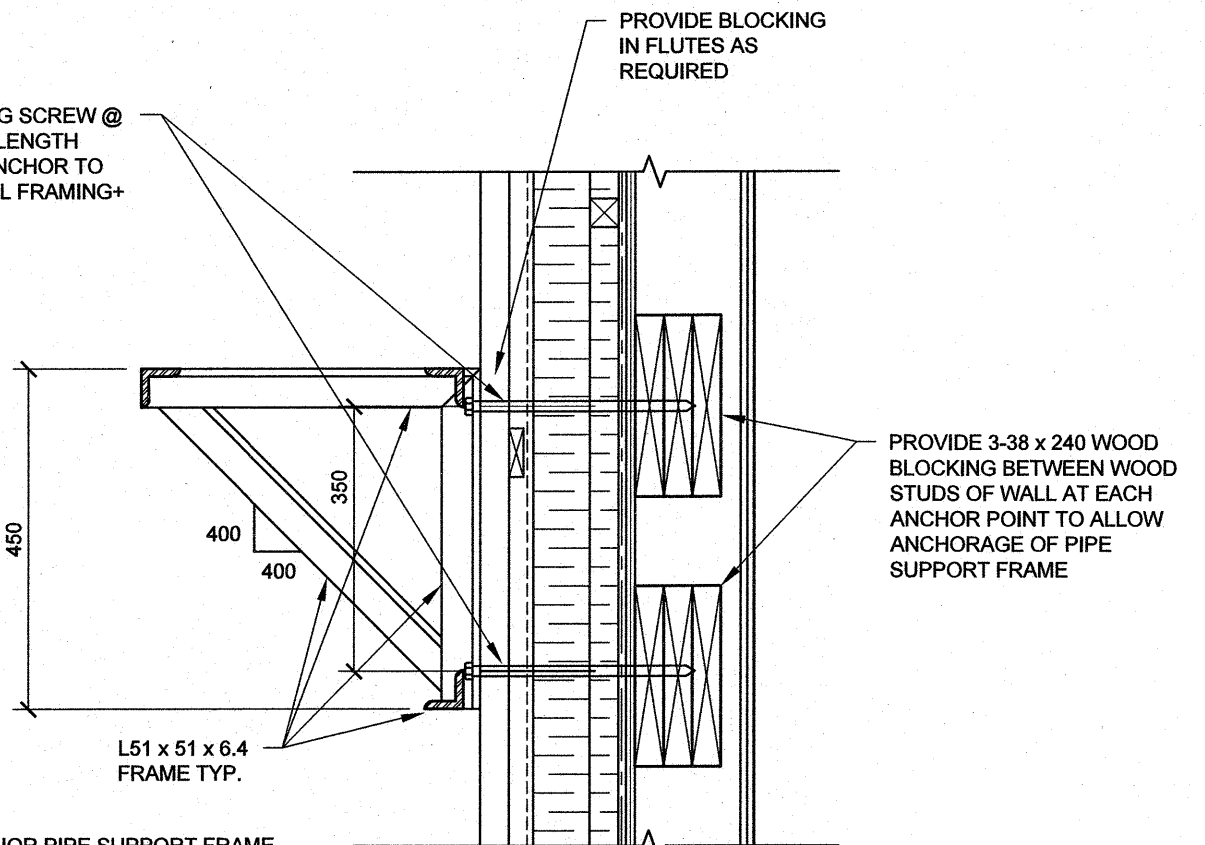
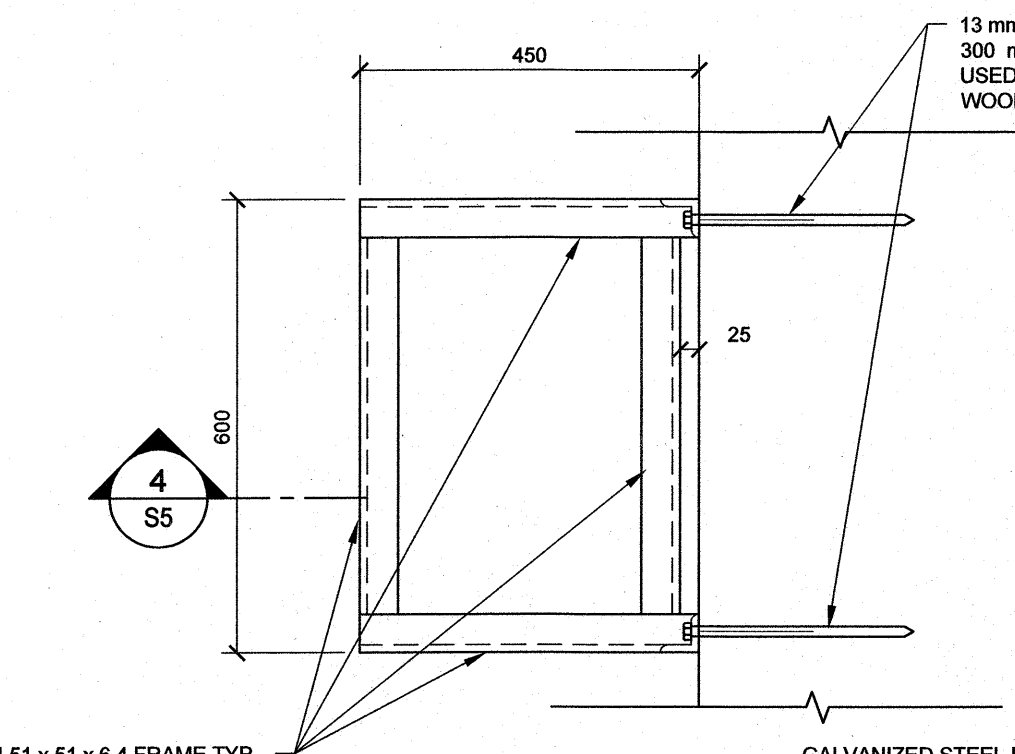
PROVIDE SAFETY BOULDERS ALONG BUILDING AND FUEL TANK (MAX. 1800 CLEARANCE)



NOTES:
CONFIRM ALL DIMENSIONS AND NUMBER AND LOCATION OF SADDLES WITH TANK SUPPLIER AND PROVIDE TO ENGINEER PRIOR TO INSTALLATION OF CONCRETE PAD
LOCATION OF CONCRETE PAD FOR FUEL TANK TO BE CONFIRMED ON SITE.



STAIR DESIGN TO BE CO-ORDINATED WITH SITE CONDITIONS.



NOTES: GENERAL CONTRACTOR TO VERIFY ALL DIMENSIONS WITH FINAL ARCHITECTURAL AND MECHANICAL DRAWINGS. NOTIFY THE ENGINEERS OF ANY ERRORS AND/OR OMISSIONS PRIOR TO CONSTRUCTION FOR DIRECTION. DO NOT SCALE THIS DRAWING.

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AND GOVERNMENT SERVICES

PROJECT
CORAL HARBOUR, NUNAVUT
WATER TRUCK FILL STATION
PROJECT: 11-3018

TITLE FUEL STORAGE TANK PLAN AND SECTIONS	
design by K.A. BAKER	project no. OTT-00203694-A0
drawn by M. NUGENT	drawing no. S5
checked by K.A. BAKER	
date NOV. 2013	
scale AS NOTED	