

1 Location Plan
A0 Scale = N/A

GENERAL NOTES DRAWING A0:

- A. JOB DIMENSIONS AND CONDITIONS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- B. CONSTRUCTION AREA TO BE KEPT SECURE AT ALL TIMES.
- C. HEIGHT FROM GRADE TO UNDERSIDE OF STRUCTURE $\pm 6365\text{mm}$.
- D. REINSTATE ALL SOD DISTURBED BY EXCAVATION.
- E. PROVIDE SUPPORT UNDER EACH JOINT OF THE METAL ROOF.
- F. SHEET METAL ROOF MANUFACTURER TO ADVISE ON METAL THICKNESS APPROPRIATE FOR THE LOCAL SNOWLOAD OF: 2.5 kPa. METAL SHALL NOT BE LESS THAN 0.33mm THICK FOR GALVANIZED STEEL.
- G. PROVIDE ROOF ACCESSORIES FOR SHEET METAL ROOFING AS NEEDED FOR HIPS, VALLEYS, EVES, STARTERS, AND EDGES. INSTALL AS PER MANUFACTURER'S RECOMMENDATIONS.
- H. 19 x 64mm STRAPPING IS BASED ON TRUSS SPACING NOT EXCEEDING 406mm O.C.
- I. SECURELY FASTEN STRAPPING TO TRUSSES.

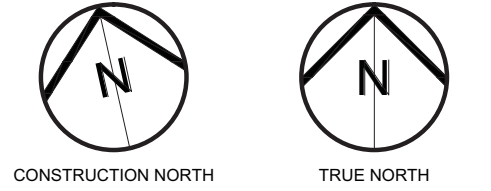
CONSTRUCTION ASSEMBLIES:

ROOF ASSEMBLIES

- R1 TYPICAL ROOF:
- METAL ROOF FINISH
 - 19 x 64mm WOOD STRAPPING
 - PRE-ENGINEERED WOOD TRUSSES
 - 19mm EXTERIOR GRADE PLYWOOD SHEATHING

LEGEND FOR ALL DRAWINGS:

- (X) DRAWING NOTE ANNOTATION.



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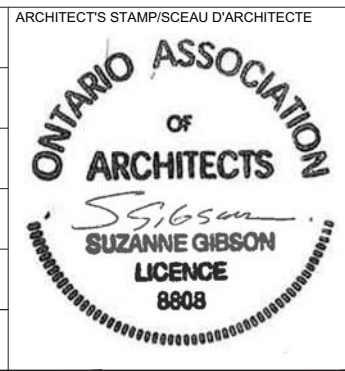


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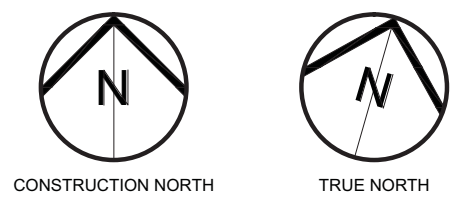
PROJECT NAME / NOM DU PROJET
Navan Outdoor Rink
1279 Colonial Rd., Navan, On
DRAWING TITLE / TITRE DU DESSIN

**General Notes
Drawing Legend
Location Plan**

JOB No / N° DE PROJET: 789-24
DATE: January 2024
SCALE / ÉCHELLE: As Noted
CONCEPTION BY / CONÇUS PAR: SG
DRAWN BY / DESSINÉ PAR: KS
CHECKED BY / VÉRIFIÉ PAR: SG



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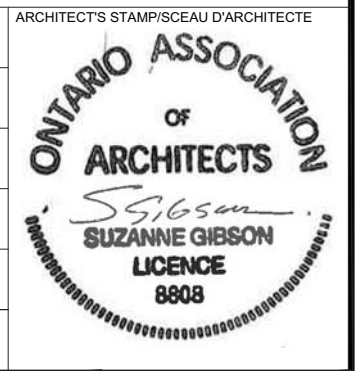


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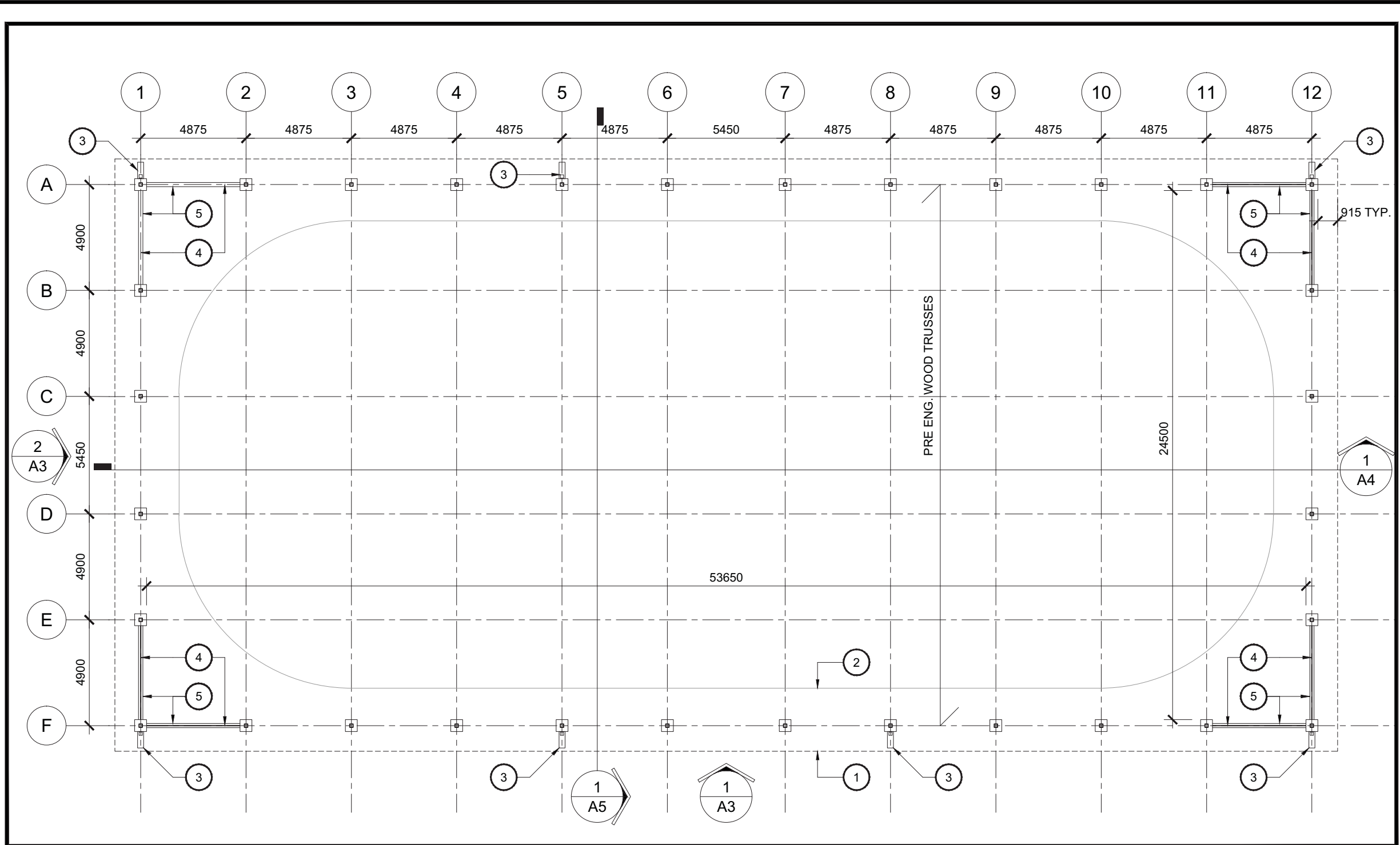
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PROJECT NAME / NOM DU PROJET
Navan Outdoor Rink
 1279 Colonial Rd., Navan, On
 DRAWING TITLE / TITRE DU DESSIN
Floor Plan

JOB No N° DE PROJET	789-24
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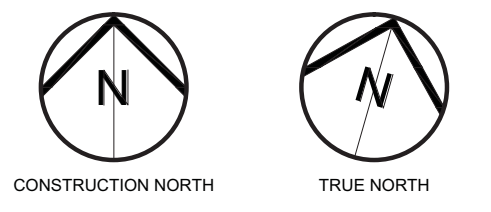
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IF THIS BAR IS NOT 25mm LONG, ADJUST YOUR PRINTING SCALE.	A1
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1 Floor Plan
 A1 Scale = 1:200

- NOTES FOR DRAWING A1:**
- EDGE OF ROOF ABOVE.
 - APPROXIMATE EDGE OF ICE RINK.
 - PRECAST CONCRETE SPLASH BLOCK AND DOWNSPOUT.
 - 33mm DIAMETER GALVANIZED ROUND HSS GUARD, CONNECTED TO STEEL COLUMNS.
 - CONCRETE CURB.

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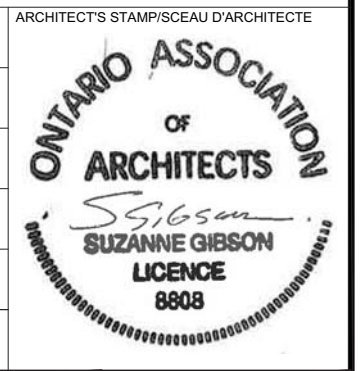
Navan Outdoor Rink

1279 Colonial Rd., Navan, On

DRAWING TITLE / TITRE DU DESSIN

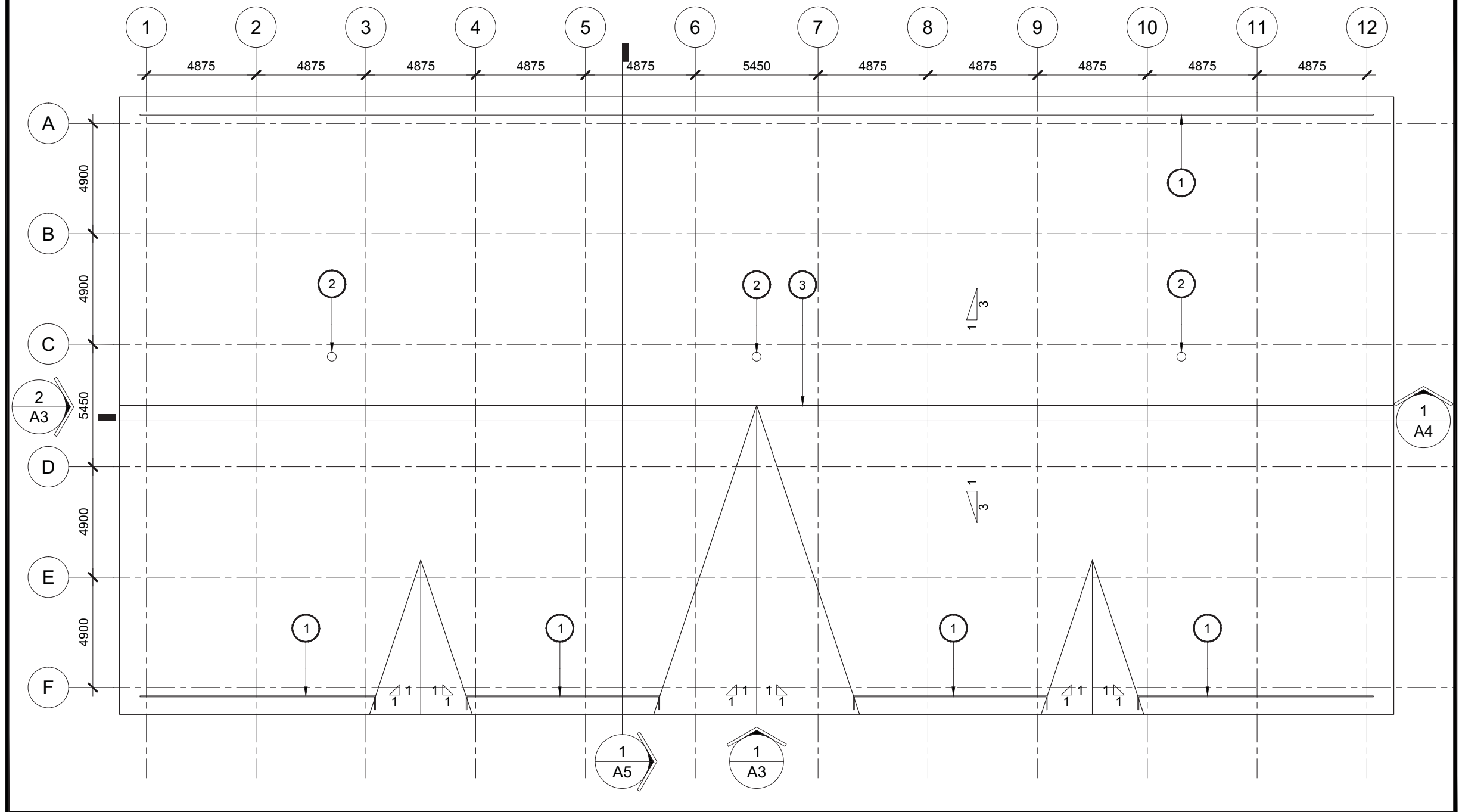
Roof Plan

JOB No
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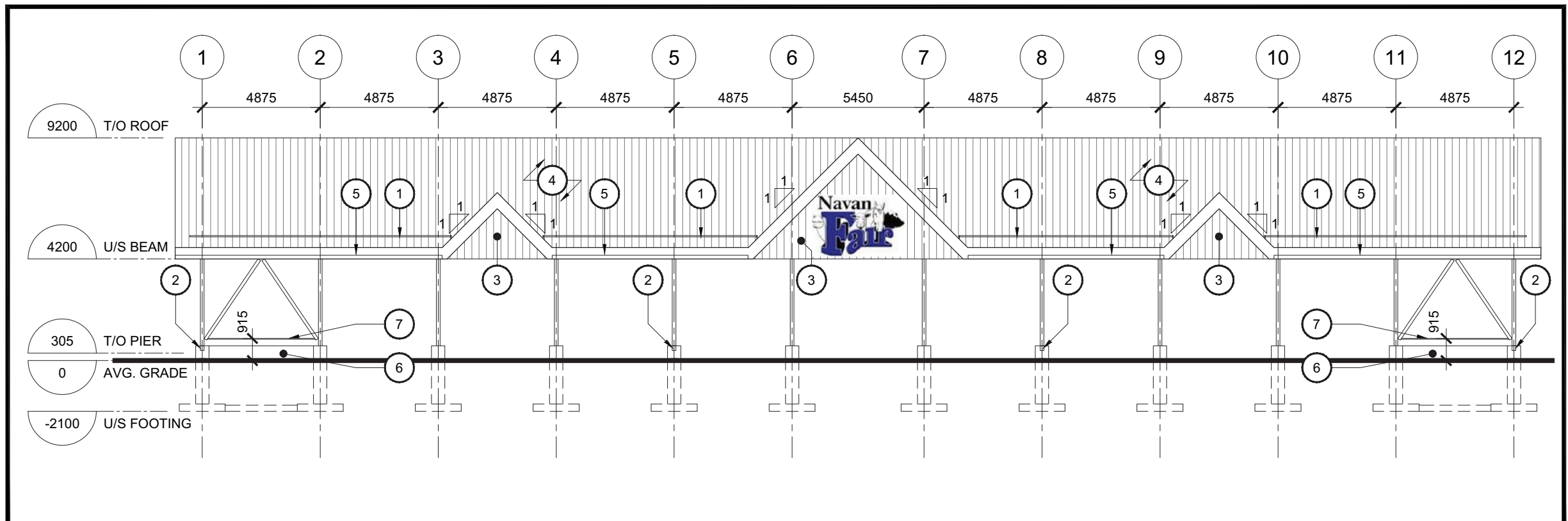
DRAWING No / DESSIN N°
A2
 REVISION No / REVISION N°
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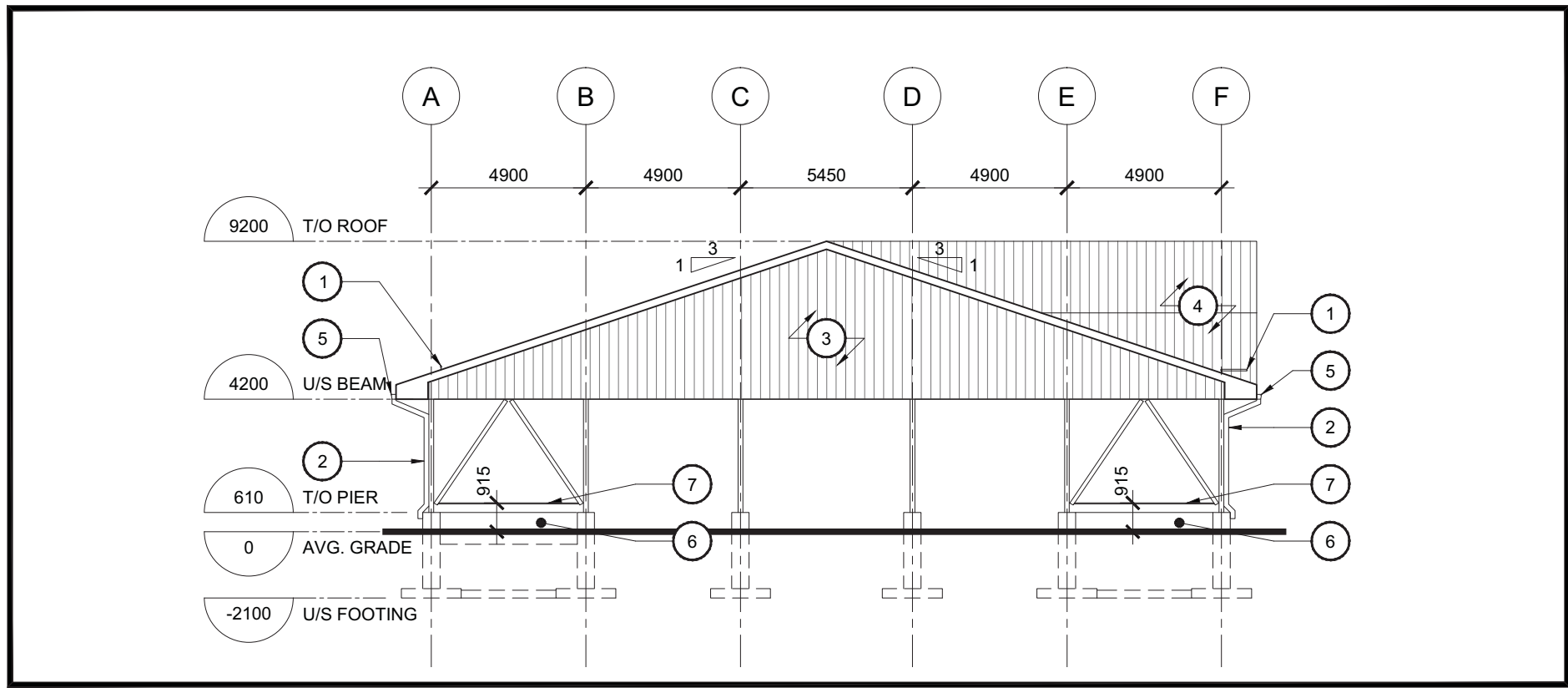
1 Roof Plan
A2 Scale = 1:200

NOTES FOR DRAWING A2:

- PREMANUFACTURED SNOW GUARD.
- ROOF VENT.
- RIDGE VENT.



1 South Elevation
 A3 Scale = 1:200



1 West Elevation
 A3 Scale = 1:200

NOTES FOR DRAWING A3:

1. PREMANUFACTURED SNOW GUARD.
2. DOWNSPOUT.
3. VERTICAL METAL SIDING.
4. METAL ROOF FINISH.
5. EAVESTROUGH.
6. CONCRETE CURB WITH CHAMFERED EDGES.
7. 33mm DIAMETER GALVANIZED HSS.

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Navan Outdoor Rink
 1279 Colonial Rd., Navan, On
 DRAWING TITLE / TITRE DU DESSIN
Elevations

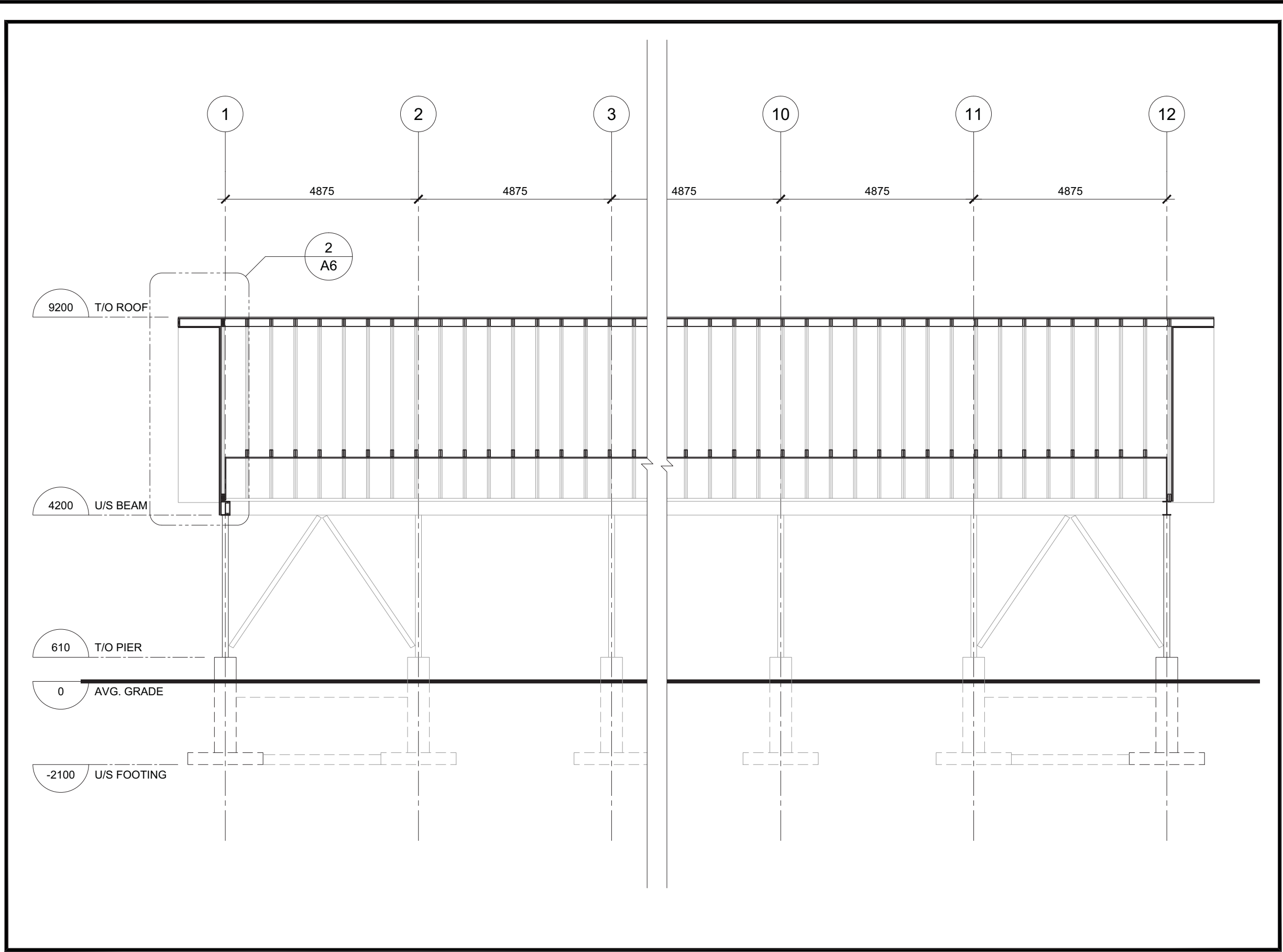
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A3

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1 Building Section
A4 Scale = 1:100

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Navan Outdoor Rink

1279 Colonial Rd., Navan, On

DRAWING TITLE / TITRE DU DESSIN
Building Section East - West

JOB No / N° DE PROJET
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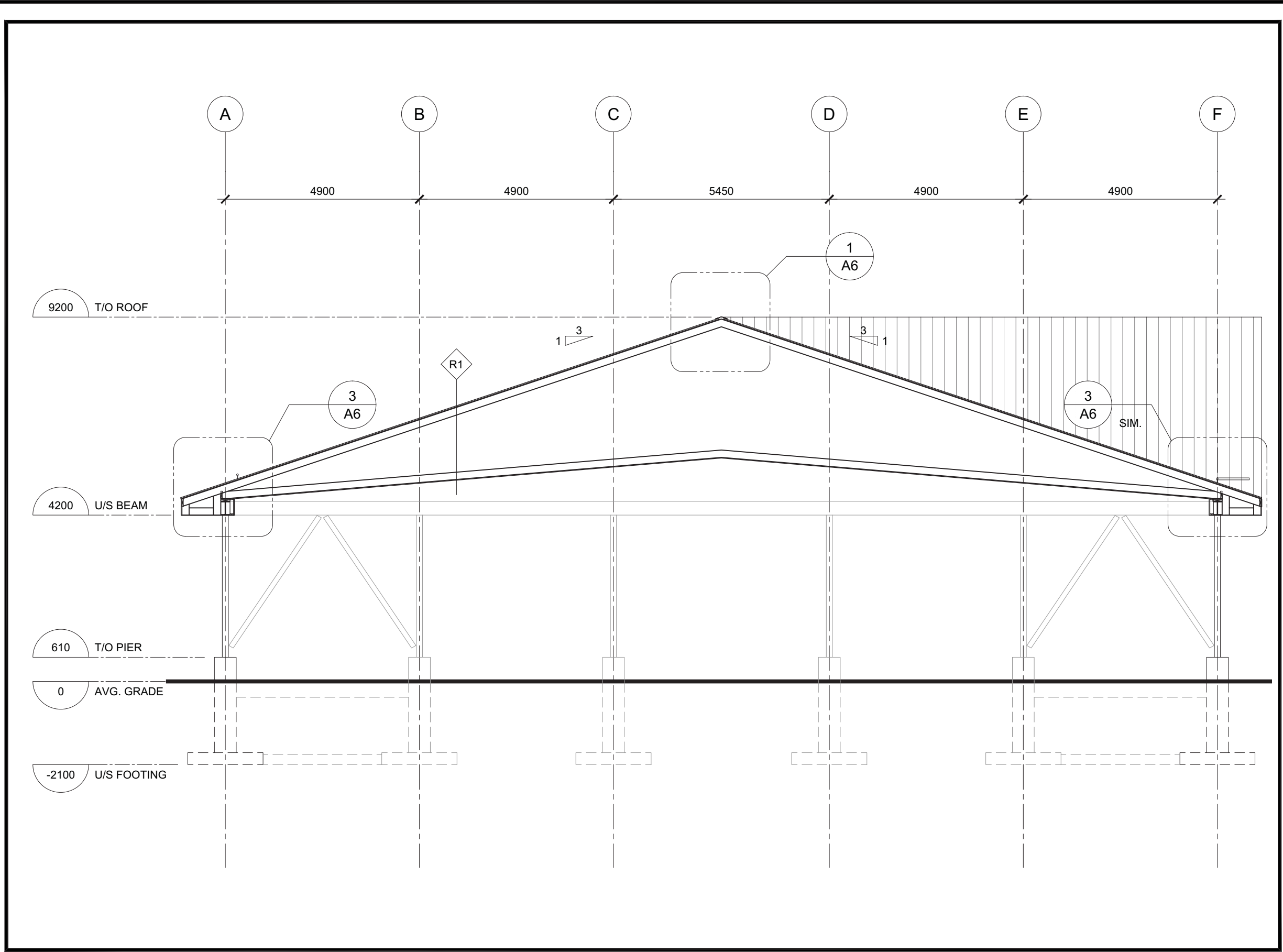


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DRAWING No / DESSIN N°
A4

REVISION No / RÉVISION N°
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PROJECT NAME / NOM DU PROJET

Navan Outdoor Rink

1279 Colonial Rd., Navan, On

DRAWING TITLE / TITRE DU DESSIN

Building Section North - South

JOB No
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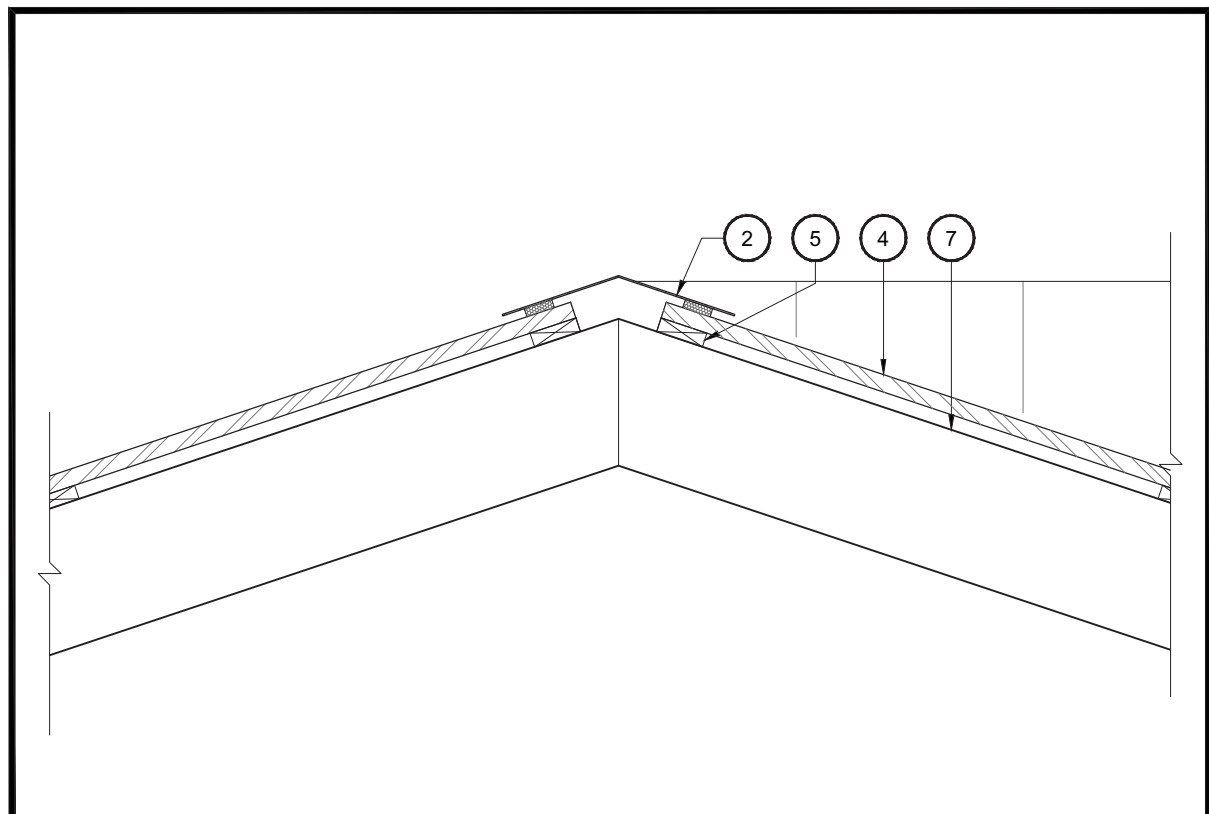
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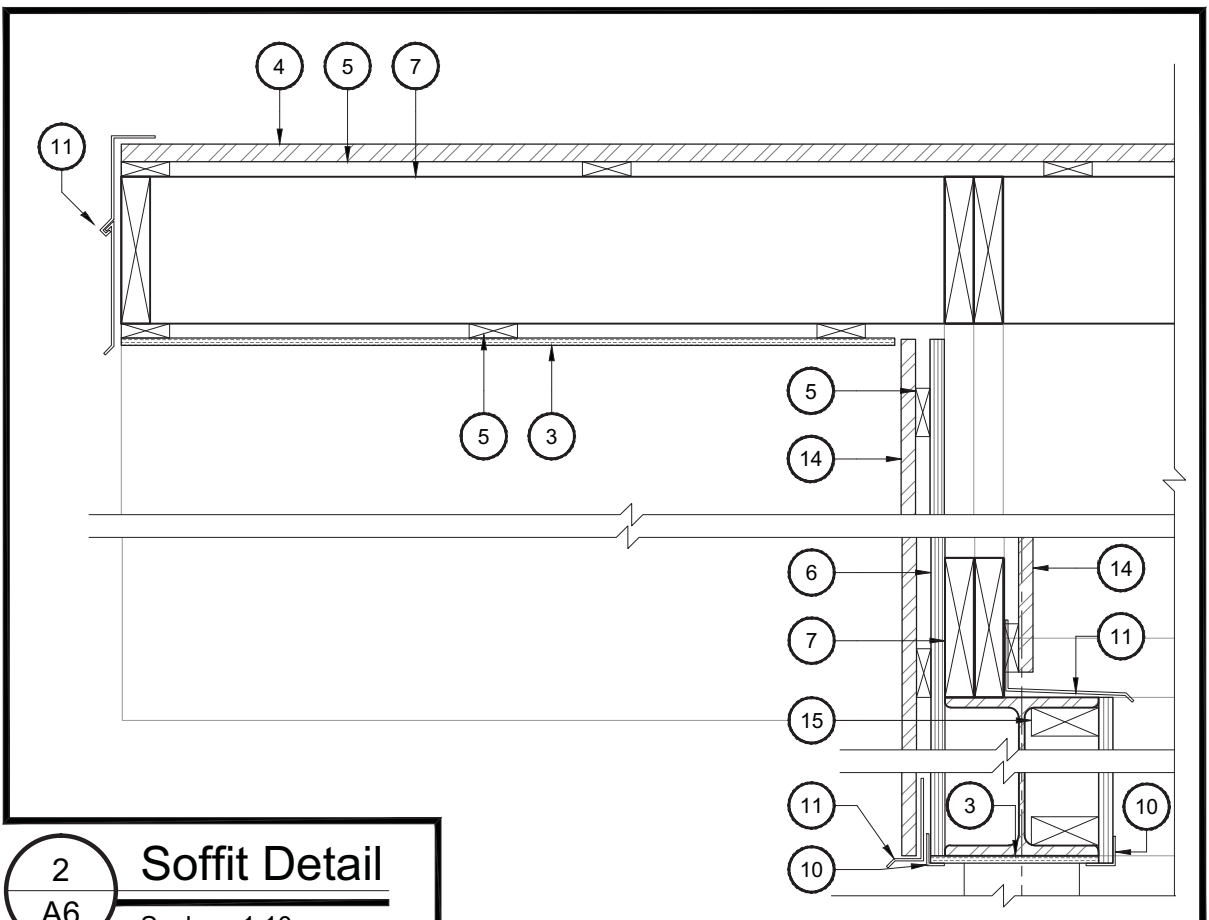
A5

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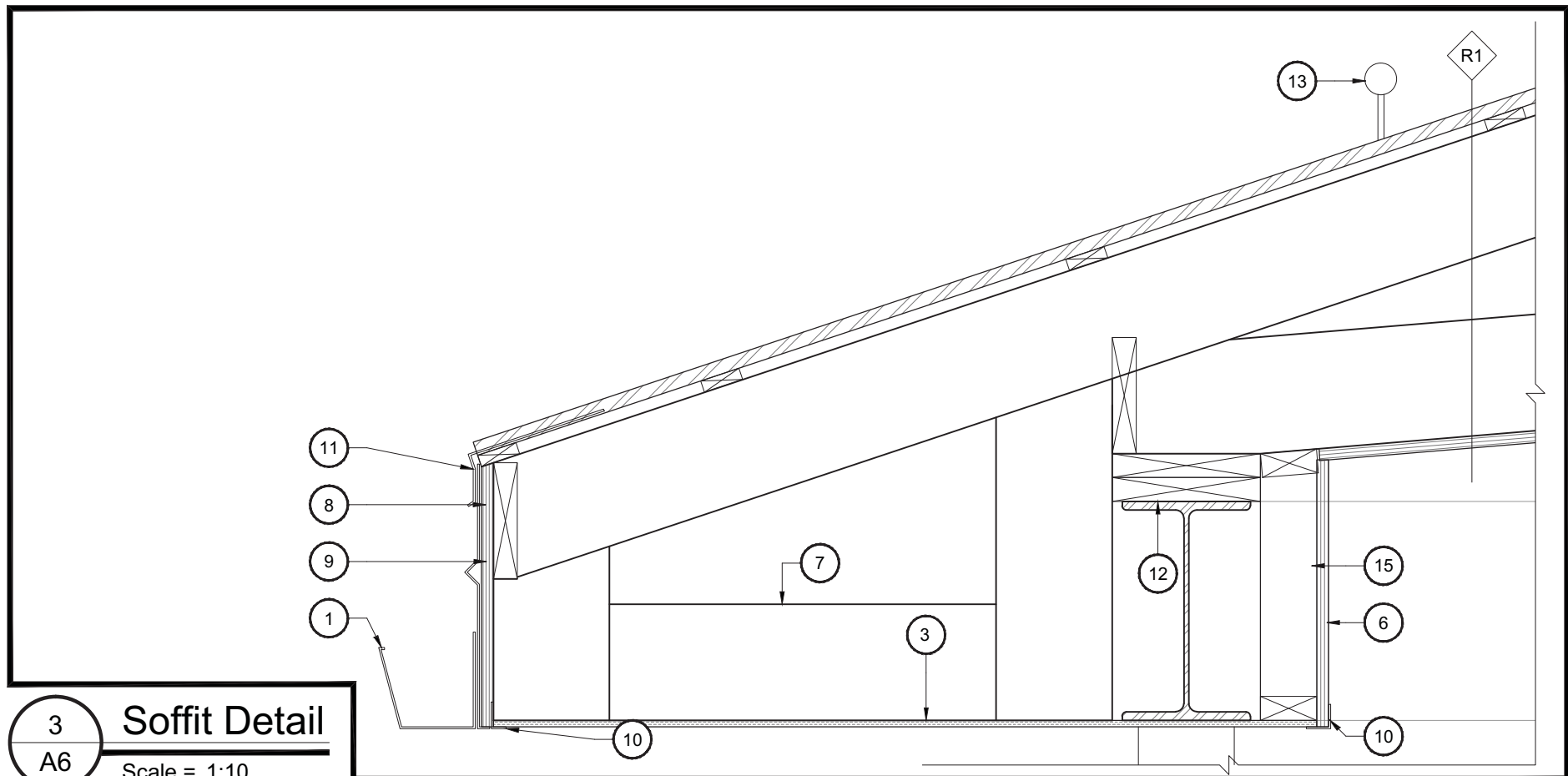
1 Building Section
 A5 Scale = 1:100



1
A6 **Roof Cap Detail**
 Scale = 1:10



2
A6 **Soffit Detail**
 Scale = 1:10



3
A6 **Soffit Detail**
 Scale = 1:10

NOTES FOR DRAWING A6:

1. PRE-FINISHED EAVESTROUGH.
2. ROOF CAP WITH VENT SCREEN.
3. PREFINISHED PERFORATED VENTED METAL SOFFIT.
4. METAL ROOF FINISH.
5. 19x89mm WOOD STRAPPING.
6. 19mm EXTERIOR GRADE PLYWOOD SHEATHING.
7. PRE-ENGINEERED WOOD TRUSS.
8. FASCIA BOARD.
9. 19mm EXTERIOR GRADE PLYWOOD FASCIA BOARD.
10. METAL TRIM.
11. PRE-FINISHED METAL FLASHING WITH DRIP EDGE.
12. BEARING PLATES AS PER MANUFACTURERS DIRECTION.
13. ICE / SNOW GUARD.
14. 19mm VERTICAL METAL SIDING.
15. 38 x 89mm WOOD BLOCKING TO SUITE.

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Roof Details

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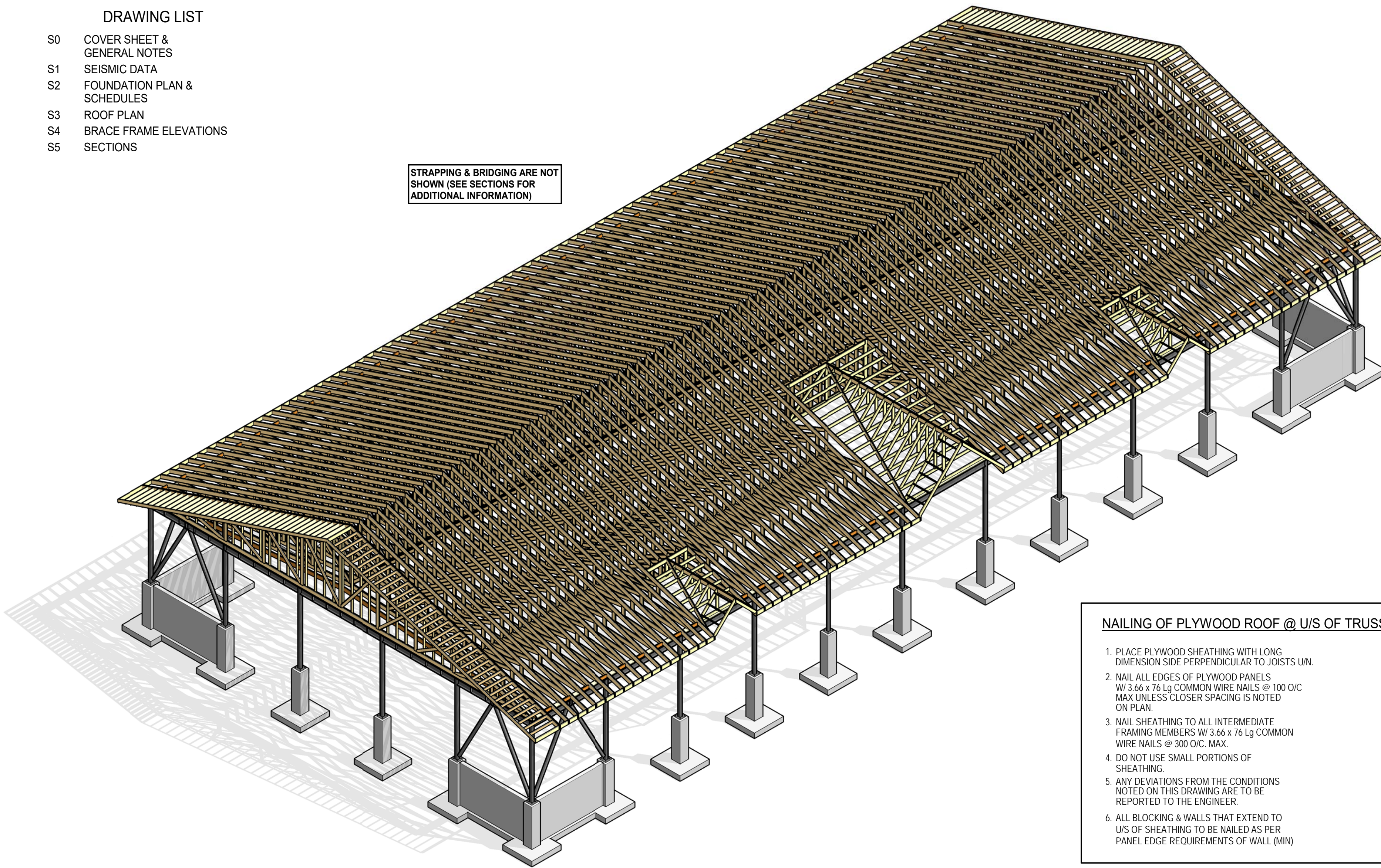
DRAWING No / DESSIN N°
A6

REVISION No / RÉVISION N°
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DRAWING LIST

- S0 COVER SHEET & GENERAL NOTES
- S1 SEISMIC DATA
- S2 FOUNDATION PLAN & SCHEDULES
- S3 ROOF PLAN
- S4 BRACE FRAME ELEVATIONS
- S5 SECTIONS

STRAPPING & BRIDGING ARE NOT SHOWN (SEE SECTIONS FOR ADDITIONAL INFORMATION)



NAILING OF PLYWOOD ROOF @ U/S OF TRUSS

1. PLACE PLYWOOD SHEATHING WITH LONG DIMENSION SIDE PERPENDICULAR TO JOISTS UN.
2. NAIL ALL EDGES OF PLYWOOD PANELS W/ 3.66 x 76 Lg COMMON WIRE NAILS @ 100 O/C MAX UNLESS CLOSER SPACING IS NOTED ON PLAN.
3. NAIL SHEATHING TO ALL INTERMEDIATE FRAMING MEMBERS W/ 3.66 x 76 Lg COMMON WIRE NAILS @ 300 O/C MAX.
4. DO NOT USE SMALL PORTIONS OF SHEATHING.
5. ANY DEVIATIONS FROM THE CONDITIONS NOTED ON THIS DRAWING ARE TO BE REPORTED TO THE ENGINEER.
6. ALL BLOCKING & WALLS THAT EXTEND TO U/S OF SHEATHING TO BE NAILED AS PER PANEL EDGE REQUIREMENTS OF WALL (MIN)

DESIGN & DETAILING CRITERIA FOR SUPPLIERS

- 1. STRUCTURAL STEEL CONNECTIONS**
STRUCTURAL STEEL CONNECTIONS ARE TO BE DESIGNED AND DETAILED BY STRUCTURAL STEEL SUPPLIER. SHOP DRAWINGS ARE TO BE SUBMITTED TO DESIGN TEAM FOR REVIEW. SHOP DRAWINGS ARE TO BE STAMPED AND SIGNED FOR CONNECTIONS ONLY BY A PROFESSIONAL ENGINEER LICENSED IN THE PROVINCE OF ONTARIO. INSPECTION OF WELDS, CONNECTIONS & INSTALLATION IS TO BE UNDERTAKEN BY A 3RD PARTY, CERTIFIED INSPECTION SERVICE.
- 2. COLD FORMED STEEL STUDS & JOISTS**
STEEL STUDS & JOISTS ARE TO BE DESIGNED AND DETAILED BY STEEL STUDS & JOISTS SUPPLIER. SHOP DRAWINGS ARE TO BE SUBMITTED TO DESIGN TEAM FOR REVIEW. SHOP DRAWINGS ARE TO BE STAMPED AND SIGNED BY A PROFESSIONAL ENGINEER LICENSED IN THE PROVINCE OF ONTARIO. ALL STEEL STUD & JOIST WORK IS TO BE INSPECTED DURING CONSTRUCTION BY THE STEEL STUD & JOIST DESIGN ENGINEER.
- 3. MISCELLANEOUS METALS & STEEL STAIRS**
MISC METALS & STEEL STAIRS ARE TO BE DESIGNED AND DETAILED BY MISC METALS & STEEL STAIRS SUPPLIER. SHOP DRAWINGS ARE TO BE SUBMITTED TO DESIGN TEAM FOR REVIEW. SHOP DRAWINGS ARE TO BE STAMPED AND SIGNED BY A PROFESSIONAL ENGINEER LICENSED IN THE PROVINCE OF ONTARIO. ALL MISC METAL & STEEL STAIR WORK IS TO BE INSPECTED DURING CONSTRUCTION BY THE MISC METALS & STEEL STAIRS DESIGN ENGINEER.
- 4. GUARDS & HANDRAILS**
GUARDS & HANDRAILS ARE TO BE DESIGNED AND DETAILED BY STEEL SUPPLIER IN ACCORDANCE WITH THE CURRENT BUILDING CODE REQUIREMENTS. SHOP DRAWINGS ARE TO BE SUBMITTED TO DESIGN TEAM FOR REVIEW. SHOP DRAWINGS ARE TO BE STAMPED AND SIGNED BY A PROFESSIONAL ENGINEER LICENSED IN THE PROVINCE OF ONTARIO. ALL GUARDS & HANDRAIL WORK IS TO BE INSPECTED DURING CONSTRUCTION BY THE GUARD & HANDRAIL DESIGN ENGINEER. ALL GLASS IN GUARDS IS TO BE IN COMPLIANCE WITH SB-13 OF THE ONTARIO BUILDING CODE. GLASS GUARD DESIGN IS TO MEET THE REQUIREMENTS OF PART 4.1.5.14 OF THE ONTARIO BUILDING CODE. GLASS GUARDS ARE TO COMPLY WITH CAN/CSA-SB-12-20-1M9 PROVIDE A CONTINUOUS TOP RAIL ON ALL FREESTANDING GLASS GUARDS.
- 5. SEISMIC RESTRAINT OF MECHL EQUIPMENT & PIPING**
SEISMIC RESTRAINT OF MECHL EQUIPMENT & PIPING TO BE DETAILED BY MECHL EQUIPMENT & PIPING SUPPLIER OR CONTRACTOR. SHOP DRAWINGS ARE TO BE SUBMITTED TO DESIGN TEAM FOR REVIEW. SHOP DRAWINGS ARE TO BE STAMPED AND SIGNED BY A PROFESSIONAL ENGINEER LICENSED IN THE PROVINCE OF ONTARIO. ALL SEISMIC RESTRAINT INSTALLATIONS ARE TO BE INSPECTED DURING CONSTRUCTION BY THE SEISMIC RESTRAINT DESIGN ENGINEER.
- 6. TEMPORARY BRACING**
EACH TRADE SHALL SUBMIT TEMPORARY BRACING PLANS AND SAFE ERECTION PROCEDURES NECESSARY FOR THE COMPLETION OF THEIR WORK. THESE PLANS ARE TO BE COORDINATED WITH OTHER TRADES ON SITE TO ENSURE NO OVERLAP OR INTERFERENCE, AND SITE WORK IS NOT INTERRUPTED. DRAWINGS AND PROCEDURES ARE TO BE STAMPED AND SIGNED BY A PROFESSIONAL ENGINEER LICENSED IN THE PROVINCE OF ONTARIO, AND PROVIDED TO THE DESIGN TEAM FOR REVIEW. ALL TEMPORARY BRACING IS TO BE REVIEWED ON SITE BY THE BRACING DESIGN ENGINEER, AND REPORTS PROVIDED TO THE DESIGN TEAM. ALL BRACING REMOVAL IS ONLY TO OCCUR AFTER RECEIVING WRITTEN PERMISSION BY THE BRACING ENGINEER CONFIRMING THE FINAL DESIGN CONDITION HAS BEEN MET AND IS STABLE. SIGNOFF LETTERS ARE TO BE PROVIDED TO THE DESIGN TEAM. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR ENSURING COORDINATION OF BRACING AND TEMPORARY WORKS MEASURES BY SUB TRADES.
- 7. TEMPORARY SHORING (FOR DEMOLITION AND/OR CONSTRUCTION)**
TEMPORARY SHORING FOR THE PURPOSES OF DEMOLITION AND/OR CONSTRUCTION IS TO BE DESIGNED & DETAILED BY A PROFESSIONAL ENGINEER LICENSED IN ONTARIO. SHOP DRAWINGS ARE TO BE SUBMITTED TO THE DESIGN TEAM FOR REVIEW. TEMPORARY SHORING TO BE REVIEWED BY SHORING ENGINEER PRIOR TO DEMOLITION AND/OR CONSTRUCTION.
- 8. NOTICE TO FIRE PROTECTION CONTRACTORS**
 1. THE STRUCTURE HAS BEEN DESIGNED TO THE 2012 OBC AND HAS NOT BEEN DESIGNED WITH LOAD RESTRICTIONS THAT ARE DESCRIBED IN THE BXLVVC GUIDE.
 2. ASSUME THAT THE FLOOR STRUCTURE IS NOT 'RESTRAINED' WITH RESPECT TO THERMAL EXPANSION UNLESS THIS IS VERIFIED BY A PROFESSIONAL ENGINEER LICENSED IN ONTARIO AND SEALED CALCULATIONS ARE SUBMITTED FOR REVIEW.
 3. FIRE PROTECTION CONTRACTOR IS TO REVIEW ALL MEMBER SIZES SHOWN ON THE STRUCTURAL DRAWINGS TO ENSURE FIRE RATING APPLICATION IS COMPATIBLE AND MEETS THE FIRE RATING REQUIREMENTS PROVIDED BY THE ARCHITECT.
 4. REFER TO OTHER NOTES ON THE PLANS RELATING TO COMPATIBILITY OF PRIMERS AND FIRE PROTECTION MATERIALS AND STRUCTURAL STEEL/OPEN WEB STEEL JOIST DESIGN AND COORDINATION.
- 9. PREFABRICATED WOOD ROOF TRUSSES**
WOOD ROOF TRUSSES ARE TO BE DESIGNED AND DETAILED BY WOOD ROOF TRUSSES SUPPLIER. SHOP DRAWINGS ARE TO BE SUBMITTED TO DESIGN TEAM FOR REVIEW. SHOP DRAWINGS ARE TO BE STAMPED AND SIGNED BY A PROFESSIONAL ENGINEER LICENSED IN THE PROVINCE OF ONTARIO.
- 10. WOOD FLOOR/ROOF JOISTS/INTELS/BEAMS AND HANGERS**
WOOD FLOOR/ROOF JOISTS/INTELS/BEAMS AND HANGERS ARE TO BE DESIGNED AND DETAILED BY WOOD FLOOR/ROOF JOIST SUPPLIER. INCLUDE DETAILS SHOWING ALL WOOD TO WOOD AND WOOD TO STEEL CONDITIONS. SHOP DRAWINGS ARE TO BE SUBMITTED TO DESIGN TEAM FOR REVIEW. SHOP DRAWINGS ARE TO BE STAMPED AND SIGNED BY A PROFESSIONAL ENGINEER LICENSED IN THE PROVINCE OF ONTARIO.

NOTE:

INSPECTION REPORTS CREATED AS A RESULT OF THE ABOVE NOTED WORK MUST BE SUBMITTED TO THE CONSTRUCTION MANAGER. CONSTRUCTION MANAGER IS TO PROVIDE COPIES TO THE CONSULTANTS.

HILTI PRODUCT INSTALLATION REQUIREMENTS:

THE CONTRACTOR THAT WILL BE INSTALLING ANY HILTI PRODUCT SHALL BE TRAINED & CERTIFIED BY HILTI CANADA'S REPRESENTATIVE ON THE ACCEPTABLE INSTALLATION PROCEDURES FOR THE SPECIFIC HILTI PRODUCT BEING USED. THE CONTRACTOR IS TO PRESENT PROOF OF THIS TRAINING UPON REQUEST OF DEPARTMENTAL REPRESENTATIVE. -ALL HILTI HAS ANCHORS TO BE HAS-B-105 UNLESS NOTED.

CONSTRUCTION NOTES

- 1. CONSTRUCTION REVIEW**
 - CONTRACTOR ASSUMES COMPLETE RESPONSIBILITY FOR FULL SUPERVISION OF CONSTRUCTION WORK.
 - SITE VISITS AND REVIEWS BY THE DESIGN ENGINEER OR REPRESENTATIVE ARE INTENDED FOR THE PURPOSE OF ASCERTAINING GENERAL CONFORMANCE WITH THE DESIGN CONCEPT. THE SITE REVIEWS DO NOT MEAN THAT THE DESIGN ENGINEER HAS SEEN ALL OF THE CONSTRUCTION OR CONSTRUCTION PROCEDURES.
 - REVIEW OF CONSTRUCTION BY THE DESIGN ENGINEER DOES NOT RELIEVE THE CONTRACTOR OF HIS RESPONSIBILITY FOR ERRORS AND OMISSIONS AND FOR MEETING ALL THE REQUIREMENTS OF THE CONSTRUCTION AND CONTRACT DOCUMENTS.
 - NOTIFY THE DESIGN ENGINEER 24 HOURS IN ADVANCE OF ANY REQUIRED SITE VISITS.
 - THIRD PARTY INSPECTIONS ARE TO BE CARRIED OUT AS PER PROJECT SPECIFICATIONS.
 - CONTRACTOR IS RESPONSIBLE FOR ANY COSTS ASSOCIATED WITH THE REMOVAL OF FINISHES REQUIRED FOR INSPECTIONS OR TESTING THAT IS COVERED BEFORE INSPECTIONS ARE COMPLETED.
 - OBTAIN A PROFESSIONAL GEOTECHNICAL ENGINEER APPROVAL OF THE FOLLOWING ITEMS:
 - A. ALL EXCAVATIONS PRIOR TO CASTING CONCRETE FOR FOUNDATIONS.
 - B. ALL ENGINEERED (COMPACTED) BACKFILL AS WORK PROGRESSES
 - C. ALL EARTH SUPPORT SYSTEMS (SHORING/EXCAVATIONS)
 - D. ALL EARTH BANKS
 - E. DEWATERING FOR LOWERING WATER TABLE
 - F. ANY WORK INVOLVING SOIL/ROCK/WATERGASES ETC., IN SOIL
 - PRIOR TO CASTING CONCRETE OBTAIN ENGINEERS APPROVAL OF PLACEMENT OF REINFORCEMENT STEEL.
 - AT LEAST 75% OF REINFORCEMENT STEEL IN ANY STRUCTURAL MEMBER IS TO BE COMPLETED BEFORE INSPECTION CAN BE COMPLETED.
- 2. SHOP DRAWINGS NOTES**
 - SUBMIT SHOP DRAWINGS FOR ALL STRUCTURAL WORK AND ANY WORK AFFECTING THE STRUCTURE TO THE ARCHITECT. OBTAIN ARCHITECTS AND ENGINEERS CONSENT BEFORE PROCEEDING WITH THE FABRICATION.
 - EACH OF THE FOLLOWING SHOP DRAWINGS MUST BEAR THE SIGNATURE AND STAMP OF A QUALIFIED PROFESSIONAL ENGINEER REGISTERED IN THE PROVINCE.
 - A. PRECAST CONCRETE DRAWINGS
 - B. DRAWINGS FOR ANY TEMPORARY WORK
 - C. DRAWINGS FOR ANY STRUCTURAL PARTS DESIGNED BY THE CONTRACTOR'S FORCES, INCLUDING EXTERIOR BUILDING ENVELOPE.
 - SHOP DRAWINGS MUST BE REVIEWED AND STAMPED REVIEWED BY THE GENERAL CONTRACTOR BEFORE ISSUING TO THE ARCHITECT. SHOP DRAWINGS NOT STAMPED BY THE GENERAL CONTRACTOR WILL BE REJECTED. ANY DELAYS IN THE CONSTRUCTION SCHEDULE DUE TO NON-COMPLIANCE WITH THIS REQUIREMENT SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR.

- SUBMIT ALL RELEVANT SHOP DRAWINGS FOR THE STRUCTURAL ENGINEERS REVIEW BEFORE FABRICATION. ALL SHOP DRAWINGS SHALL BEAR THE SEAL OF A REGISTERED PROFESSIONAL ENGINEER LICENSED WITHIN THE APPROPRIATE JURISDICTION.
- GENERAL CONTRACTOR AND SUB-TRADES SHALL INCLUDE TIME IN THEIR SCHEDULE FOR PROPER SHOP DRAWING REVIEW BY CONSULTANTS. CONTRACTORS SHALL ALLOW 5 BUSINESS DAYS TIME FOR REVIEW BY THE STRUCTURAL CONSULTANT. IN ADDITION TO TIME REQUIRED BY OTHER PARTIES.
- SHOP DRAWINGS MUST BE ORIGINAL AND PRODUCED BY THE RESPECTIVE SUB-TRADES. ANY DRAWINGS SUBMITTED FOR REVIEW WHICH CONTAIN DRAWINGS OR PARTS OF DRAWINGS PRODUCED BY CUNLIFFE & ASSOCIATES WILL BE REJECTED, AND THE CONTRACTOR RESPONSIBLE FOR PRODUCING THE SHOP DRAWINGS SHALL TAKE RESPONSIBILITY FOR ANY RESULTING DELAYS IN CONSTRUCTION.
- THE SHOP DRAWING REVIEW IS NOT AN APPROVAL PROCESS. CUNLIFFE & ASSOCIATES, WILL REVIEW SHOP DRAWINGS FOR THE SOLE PURPOSE OF ASCERTAINING GENERAL CONFORMANCE WITH THE DESIGN CONCEPT SHOWN ON THE STRUCTURAL DRAWINGS. REVIEW OF SHOP DRAWINGS SHALL NOT MEAN THAT CUNLIFFE & ASSOCIATES, APPROVES THE DETAIL DESIGN INHERENT IN THE SHOP DRAWINGS, RESPONSIBILITY FOR WHICH SHALL REMAIN WITH THE CONTRACTOR SUBMITTING SAME. REVIEW BY CUNLIFFE & ASSOCIATES, SHALL NOT RELIEVE THE CONTRACTOR OF THEIR RESPONSIBILITY FOR ERRORS OR OMISSIONS IN THE SHOP DRAWINGS OR OF THEIR RESPONSIBILITY FOR MEETING ALL REQUIREMENTS OF THE CONSTRUCTION AND CONTRACT DOCUMENTS. THE CONTRACTOR IS RESPONSIBLE FOR DIMENSIONS TO BE CONFIRMED AND COORDINATED AT THE JOB SITE, FOR INFORMATION THAT PERTAINS SOLELY TO FABRICATION PROCESSES AND TO TECHNIQUES OF CONSTRUCTION AND INSTALLATION AND FOR COORDINATION OF THE WORK OF ALL SUB-TRADES.
- 3. CONSTRUCTION PLANNING & SAFETY**
 - REQUIREMENTS FOR MECH. EQUIPMENT, AND ANY TRADES OR SERVICES AFFECTING THE STRUCTURE, SHALL BE ESTABLISHED IN CONSULTATION WITH CORRESPONDING MANUFACTURERS OR SUPPLIERS AND THE ARCHITECT.
 - LOCATION OF CONSTRUCTION JOINTS SHALL BE PLANNED IN ADVANCE
 - CUNLIFFE & ASSOCIATES SHALL NOT BE RESPONSIBLE FOR CONSTRUCTION SAFETY, MEANS, TECHNIQUES AND CONSTRUCTION PROCEDURES OR TEMPORARY WORK AS REQUIRED BY THE CONTRACTOR TO BUILD AND COMPLETE THE STRUCTURE IN CONFORMITY WITH CONTRACT DOCUMENTS. ALL SUB CONTRACTORS ARE TO RETAIN AN INDEPENDENT STRUCTURAL ENGINEER TO CARRY OUT THE NECESSARY TECHNIQUES TO BE USED TO BUILD AND COMPLETE THE STRUCTURE ACCORDING TO THE CONTRACT DOCUMENTS AND SAFETY GUIDELINES FROM LOCAL CODES/AUTHORITIES. ALL CONTRACTORS SHALL SUPPLY DRAWINGS STAMPED BY A PROFESSIONAL ENGINEER TO THE DESIGN TEAM FOR REVIEW. GENERAL CONTRACTOR IS TO REVIEW ALL BRACING PLANS TO ENSURE THAT THEY ARE COORDINATED & DO NOT INTERFERE WITH SITE ACTIVITIES. FINAL REMOVAL OF ANY TEMPORARY BRACING IS TO BE DONE ONLY WITH THE WRITTEN APPROVAL OF THEIR DESIGN ENGINEER & A SIGN-OFF LETTER PROVIDED TO THE DESIGN TEAM FOR REVIEW.
 - THE CONTRACTOR SHALL MAKE ADEQUATE PROVISIONS FOR CONSTRUCTION STRESSES AND FOR SUFFICIENT TEMPORARY BRACING TO KEEP THE STRUCTURE PLUMB AND IN TRUE ALIGNMENT AT ALL PHASES OF THE WORK, UNTIL COMPLETION INCLUDING MASONRY WALLS, FLOOR AND ROOF DECKS, ETC.). ANY BRACING MEMBERS SHOWN ON PLANS ARE THOSE REQUIRED FOR THE FINISHED STRUCTURE, AND MAY NOT BE SUFFICIENT FOR ERECTION PURPOSES.

- ALL CONSTRUCTION WORK FOR TEMPORARY SHORING AND BRACING OF EXISTING STRUCTURE SHALL BE DONE ONLY AFTER PERMISSION HAS BEEN GRANTED BY THE CONSTRUCTION HEALTH AND SAFETY BRANCH OF THE GOVERNING MINISTRY OF LABOUR.
- PROTECT EXISTING BUILDINGS, TREES, FENCING, UTILITIES POLES, CABLES, ACTIVE UNDERGROUND SERVICES AND PAVING ON THE SITE OR ANY ADJOINING PROPERTIES FROM DAMAGE. DAMAGE RESULTING FROM THIS CONSTRUCTION WORK SHALL BE MADE GOOD TO THE APPROVAL OF THE ARCHITECT NO COST TO THE OWNER.
- TRUCKS, CRANES, HOISTS, OR ANY HEAVY EQUIPMENT OR MATERIALS ARE NOT ALLOWED TO ENTER ANY STRUCTURAL FLOOR OR ROOF AREA UNLESS SPECIFICALLY DESIGNED AND DESIGNATED FOR THESE PURPOSES. INSTALL TEMPORARY BARRIERS TO PREVENT ACCIDENTAL OVERLOADING DURING CONSTRUCTION. DESIGN, INSTALL AND MAINTAIN ADEQUATE SHORING SYSTEM AS REQUIRED TO CARRY ANY SUCH TEMPORARY LOADING FROM CONSTRUCTION MATERIALS AND/OR EQUIPMENT.
- NOTIFY ARCHITECT IMMEDIATELY UPON DISCOVERY OF ANY CONSTRUCTION ERROR, OMISSION, DEFECTIVE WORK, ETC., SO THAT THE MOST ECONOMICAL REMEDIAL MEASURES MAY BE DESIGNED AT THE EARLIEST POSSIBLE TIME.
- GENERAL CONTRACTOR SHALL NOTIFY MECHANICAL/ELECTRICAL CONTRACTORS THAT SUPPORT AND THE DESIGN OF SUCH SUPPORTS TO CARRY MECHANICAL/ELECTRICAL EQUIPMENT SHALL BE BY THE MECHANICAL/ELECTRICAL CONTRACTORS. OBTAIN STRUCTURAL ENGINEERS APPROVAL TO CONNECT TO EXISTING NEW MAIN BUILDING STRUCTURE. DESIGN OF SUPPORTS SHALL BE STAMPED BY A QUALIFIED STRUCTURAL ENGINEER RETAINED BY THE MECHANICAL/ELECTRICAL CONTRACTOR.

- 3. STANDARDS**
 - CSA STANDARD A23.3-14 DESIGN OF CONCRETE STRUCTURES
 - CSA STANDARD A23.1-14 CONCRETE MATERIALS & METHODS OF CONCRETE CONSTRUCTION
 - CAN/CSA-S16-14 LIMIT STATES DESIGNS OF STEEL STRUCTURES
 - CAN/CSA-086-14 ENGINEERING DESIGN IN WOOD
- 4. ANY MODIFICATIONS TO EXISTING STRUCTURES ARE TO BE LIMITED TO WORK NOTED ON THESE DRAWINGS. ANY ADDITIONAL OR PROPOSED MODIFICATIONS TO EXISTING STRUCTURES MUST BE APPROVED BY THE ENGINEER**
- 5. FOUNDATIONS**
 - FOOTING BEARING SURFACE TO BE CONFIRMED BY GEOTECHNICAL
 - CONFIRM WITH GEOTECHNICAL REPORT/ENGINEER ANY REQUIREMENTS FOR MUD SLAB TO PROTECT INSTU SOILS.
 - BEARING CAPACITY USED IN THE FOOTING DESIGN IS ASSUMED TO BE SLS-60 kPa / ULS-90 kPa
 - GEOTECHNICAL REPORT # 17057 BY ST. LAWRENCE TESTING & INSPECTION CO. LTD.
 - BEARING SURFACE IS TO BE INSPECTED BY GEOTECHNICAL ENGINEER PRIOR TO PLACING CONCRETE.
 - FOR FURTHER INFORMATION SEE GEOTECHNICAL REPORT NO. TO BE DETERMINED.
 - STEP FOOTINGS WHERE INDICATED ON PLAN AT THE RATE OF 1 HORIZONTAL TO 1 VERTICAL.
 - PROVIDE A MINIMUM OF 4-20M x 2400 Lg DOWELS FROM EACH PILE TO PILE CAP.
 - PROVIDE A MINIMUM EMBEDMENT OF PILE IN PILE CAP OF 100 mm.
 - ALL PILES ARE TO BE CONCRETE FILLED.
 - CONTRACTOR TO ENSURE THAT CORRECT PILE SIZE IS DRIVEN AT CORRECT LOCATIONS. SEE PLANS & SCHEDULE.
- 6. SLABS ON GRADE**
 - SLABS ON GRADE TO BE UNREINFORCED UNLESS NOTED.
 - FOR COMPOSITION & COMPACTION OF FILL SUPPORTING SLABS ON GRADE SEE GEOTECHNICAL REPORT.
 - PROVIDE 12 mm ASPHALT IMPREGNATED FIBREBOARD BETWEEN SLABS ON GRADE & FOUNDATION WALLS OR COLUMNS.
 - SAWCUT SLAB ON GRADE TO (1/4 x SLAB DEPTH) 8 HOURS AFTER CONCRETE PLACEMENT.
 - SPACE SAWCUTS ON A 4500 mm x 4500 mm MAXIMUM GRID. AVOID LONG & NARROW SAWCUT PATTERNS. LOCATE SAWCUTS ALONG COLUMN LINES WHERE POSSIBLE. CONTRACTOR IS TO PROVIDE THE ENGINEER WITH DOCUMENTATION SHOWING PROPOSED SAWCUT LOCATIONS FOR APPROVAL UNLESS SAWCUTS LOCATIONS ARE OTHERWISE INDICATED ON THESE DRAWINGS.
- 7. MATERIALS**
 - CONCRETE STRENGTH AT 28 DAYS TO BE AS NOTED ON THESE DRAWINGS AND SPECIFICATIONS.
 - REINFORCING STEEL TO BE DEFORMED GRADE 400W WITH Fy= 400 MPa.
 - HOLLOW STRUCTURAL STEEL SECTIONS TO BE ASTM A500 GRADE C OR G40.21 350W CLASS C.
 - ALL 'W', 'C', 'L' & 'WWF' SHAPE STEEL SECTIONS TO BE GRADE G40.21 350W WITH Fy= 350 MPa.
 - ALL OTHER STRUCTURAL STEEL TO BE GRADE G40.21 300W WITH Fy= 300 MPa UNLESS NOTED OTHERWISE.

CONCRETE STRENGTH (MPa)	REINFORCING BAR LAP LENGTH (mm)				
	15M	20M	25M	30M	
20	700	850	1325	1575	
25	600	750	1200	1400	
30	550	675	1100	1275	
35	525	625	1000	1200	

- FOR SPECIAL CONDITIONS MULTIPLY THE VALUES LISTED ABOVE BY THE FOLLOWING FACTORS:
1. EPOXY COATED REINFORCING (X 1.5)
 2. HORIZONTAL REINFORCING WITH >300 mm CONCRETE BELOW (X 1.3)
 3. FOR CONDITIONS 1 & 2 OCCURRING SIMULTANEOUSLY (X 1.7)

GENERAL NOTES

1. ANY DEVIATION FROM THE CONDITIONS SHOWN ON THESE DRAWINGS MUST BE REPORTED TO THE ENGINEER.
2. THIS STRUCTURE HAS BEEN DESIGNED IN ACCORDANCE WITH THE REQUIREMENTS OF PART 4 OF THE O.B.C. (2012 EDITION-R2020) ONTARIO REGULATION 332/12(GAS AMENDED BY 88/19)
3. ALL OTHER STRUCTURAL STEEL TO BE GRADE G40.21 300W WITH Fy= 300 MPa UNLESS NOTED OTHERWISE.
4. ALL STRUCTURAL STEEL TO RECEIVE 1 SHOP APPLIED COAT OF PRIMER UNLESS NOTED.
5. ALL STRUCTURAL STEEL EXPOSED TO EXTERIOR IS TO BE HOT DIP GALVANIZED UNLESS NOTED.
 - ANCHOR BOLTS TO BE A307.
 - ALL OTHER BOLTS TO BE A325.
 - A325 BOLTS EXPOSED TO EXTERIOR ARE TO BE GALVANIZED UN.
 - A307 BOLTS EXPOSED TO EXTERIOR ARE TO BE GALVANIZED UN.
 - CONCRETE BLOCK TO BE H15/AM.
 - CONCRETE BLOCK MASONRY MORTAR TO BE 10 MPa TYPE 'S' UN.
 - CONCRETE BLOCK MASONRY GROUT TO BE 12 MPa "HIGH SLUMP" (200-250 mm SLUMP).
 - ALL WOOD STUDS TO BE SPF NO 2 OR BETTER.
 - ALL PLYWOOD TO BE D. FIR PLYWOOD TO CSA 0121 OR CANADIAN SOFTWOOD PLYWOOD TO 0151.
 - ALL OSB TO MEET CSA 0325.
 - ALL WOOD TO BE DRY SEASONED, WITH A MOISTURE CONTENT LESS THAN 15%.
6. **CONCRETE COVER**
 - FOOTINGS 75 mm BOTTOM 50 mm SIDES
 - WALLS/BEAMS 40 mm UNLESS NOTED OTHERWISE
 - COLUMNS 40 mm
7. **DOWELS**
 - DOWELS TO FOOTINGS TO BE OF SAME DIAMETER AS THE LOWEST LIFT OF VERTICAL REINFORCING IN COLUMNS, PIERS OR WALLS.
8. **REINFORCING STEEL SPLICES**
 - REINFORCING STEEL SPLICES TO BE AS NOTED IN REINFORCING BAR LAP LENGTH TABLE ON SO UN.
9. **LEGEND**
 - BLL = BOTTOM LOWER LAYER
 - BP1 = BASE PLATE NUMBER
 - BUL = BOTTOM UPPER LAYER
 - CONT = CONTINUOUS
 - DWL = DOWELS
 - EW = EACH WAY
 - F1 = PAD FOOTING NUMBER
 - (H) = HORIZONTAL
 - (H) = HOOKED BAR
 - O/C = ON CENTER
 - P1 = PIER NUMBER/PILE NUMBER
 - SC1 = STEEL COLUMN NUMBER
 - T = TOP
 - TLL = TOP LOWER LAYER
 - TUL = TOP UPPER LAYER
 - UN = UNLESS NOTED OTHERWISE
 - WF1 = WALL FOOTING NUMBER

1	ISSUED FOR PERMIT	2024-03-15
No.	Revision Description	Date
1.	THE CONTRACTOR IS RESPONSIBLE FOR CHECKING AND VERIFYING ALL DIMENSIONS. ANY DISCREPANCY SHALL BE REPORTED TO THE ENGINEER.	
2.	THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL MATERIAL RELEVANT TO THE PROJECT.	
3.	ADDITIONAL INFORMATION MAY BE ISSUED FOR CLARIFICATION TO ASSIST PROPER EXECUTION OF WORK. SUCH DRAWINGS WILL HAVE THE SAME MEANING AND HEAVY AS IF THEY WERE INCLUDED WITH THE DRAWINGS IN THE CONTRACT DOCUMENTS.	
4.	DO NOT SCALE DRAWINGS	

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PROJECT
Navan Outdoor Rink
1279 Colonial Rd., Navan, On

ARCHITECT
Bryden Gibson Architects Inc

DRAWING TITLE
COVER SHEET & GENERAL NOTES

DRAWN A.M.	REVIEWED D.A.H.	SCALE 1:100
ENGINEERS SEAL	PROJECT No. 24-026	SHEET No. SO
		REVISION No. 1

SEISMIC SYSTEM LOADING DATA:

MAIN BUILDING

SEISMIC FORCE RESISTING SYSTEM (SFRS)

SFRS: SYSTEM & CONNECTIONS: (2012 OBC CLAUSE 4.1.8.9/4.1.8.10)
 LATERAL LOAD RESISTING SYSTEM: CONVENTIONAL CONSTRUCTION (STEEL BRACED FRAMES)
 $R_d = 1.5$
 $R_e = 1.3$
 CSA STANDARD: CAN/CSA S16-14
 APPLICABLE CLAUSE(S): 27.11

SFRS: DIAPHRAGMS & CONNECTIONS: (2012 OBC CLAUSE 4.1.8.15)
 CSA STANDARD: CAN/CSA 086-14
 APPLICABLE CLAUSE(S): 11

SFRS: SYSTEM FOUNDATIONS: (2012 OBC CLAUSE 4.1.8.16 & CSA A23.3-14 CLAUSE 21.10)
 CSA STANDARD: CAN/CSA A23.3-14
 APPLICABLE CLAUSE(S): 21.10.3.2.2
 RESTRAINED AGAINST ROTATION
 CAPACITY PROTECTED
 NON CAPACITY PROTECTED
 MAXIMUM OVERTURNING RESISTANCE
 CONFIRMATION: FOUNDATIONS HAVE BEEN DESIGNED TO RESIST THE LATERAL LOAD CAPACITY OF THE SFRS INCLUDING ALL APPLICABLE AMPLIFICATION FACTORS

SEISMIC IMPORTANCE FACTOR: (2012 OBC CLAUSE 4.1.8.5)
 $I_e = 1.0$

PROJECT CITY: (NAVAN, ONTARIO)

SITE CLASS: THE NOTED SITE CLASSIFICATION FOR SEISMIC SITE RESPONSE AND SHEAR WAVE VELOCITY PARAMETERS INDICATED ARE AS REPORTED IN THE GEOTECHNICAL REPORT # 17C057 BY ST. LAWRENCE TESTING & INSPECTION CO. LTD. REFER TO THE NOTED GEOTECHNICAL REPORT FOR V_s , N_{60} , AND/OR S_u VALUES USED TO DETERMINE SITE CLASSIFICATION.

A B C D E F (SITE SPECIFIC SPECTRUM: NAVAN, ONTARIO)

PGA: 0.331
 PGV: 0.224

RESPONSE SPECTRUM DATA:

5% DAMPED SPECTRAL RESPONSE ACCELERATION VALUES: (2015 NBC SEISMIC HAZARD CALCULATOR(45.42, 75.42))

$S_a(0.2) = 0.517$
 $S_a(0.5) = 0.270$
 $S_a(1.0) = 0.130$
 $S_a(2.0) = 0.061$
 $S_a(5.0) = 0.016$
 $S_a(10.0) = 0.006$

DESIGN SPECTRAL RESPONSE ACCELERATION VALUES (DSRAV): (2012 OBC CLAUSE 4.1.8.4)

CLASS D:

$S(0.0) = 0.535$
 $S(0.2) = 0.535$ $F(0.2) = 1.03$
 $S(0.5) = 0.333$ $F(0.5) = 1.24$
 $S(1.0) = 0.174$ $F(1.0) = 1.34$
 $S(2.0) = 0.085$ $F(2.0) = 1.39$
 $S(5.0) = 0.023$ $F(5.0) = 1.44$
 $S(10.0) = 0.0083$ $F(10.0) = 1.38$

SYSTEM RESTRICTION VALUE:

$I_e F_a S_a(0.2) = 0.535 \geq 0.35$ YES NO
 $I_e F_a S_a(0.2) = 0.83 \geq 0.16$ YES NO CL 4.1.8.1(2)
 $I_e F_a S_a(2.0) = 0.098 \geq 0.03$ YES NO

PERIOD DATA:

STATIC PERIOD: (2012 OBC CLAUSE 4.1.8.11(3))

T_s (STATIC)_{NS} = 0.1325 sec
 T_s (STATIC)_{EW} = 0.1325 sec

MODAL PERIOD: (2012 OBC CLAUSE 4.1.8.11(3) AND 4.1.8.3(8))

T_s (MODAL)_{NS} = N/A
 T_s (MODAL)_{EW} = N/A

DESIGN PERIODS/MODE & MOMENT FACTORS: (2015 NBCC CLAUSE (4.1.8.11(6)))

$S_d(0.2) = 32.3$
 $S_d(5.0)$

T_s (DESIGN)_{NS} = 0.1325 sec $M_s = 1$ $J = 1$
 T_s (DESIGN)_{EW} = 0.1325 sec $M_s = 1$ $J = 1$

DESIGN FUNDAMENTAL PERIOD BASED DSRAV:

$S(T_s)$ _{NS} = 0.535
 $S(T_s)$ _{EW} = 0.535

IRREGULARITY REVIEW (2012 OBC CLAUSE 4.1.8.6)

- VERTICAL STIFFNESS: YES NO
- WEIGHT: YES NO
- VERTICAL GEOMETRIC: YES NO
- IN PLANE DISCONTINUITY: YES NO
- OUT OF PLANE: YES NO
- WEAK STOREY: YES NO
- TORSIONAL: YES NO
 $B_{NS} = N/A$
 $B_{EW} = N/A$
- NON-ORTHOGONAL: YES NO
- GRAVITY INDUCED LATERAL DEMAND: YES NO

CONCLUSION: BUILDING IS REGULAR IRREGULAR
 DYNAMIC ANALYSIS: REQUIRED NOT REQUIRED
 DYNAMIC PROCEDURE METHOD: MODAL RESPONSE SPECTRUM NUMERICAL INTEGRATION TIME HISTORY N/A

TORSIONAL ECCENTRICITY: $\pm 0.10 D_{rx}$ (4.1.8.11(10a), $B \leq 1.7$ EQUIV. STATIC FORCE PROCEDURE)
 $\pm 0.10 D_{rx}$ (4.1.8.12(4a), $B \geq 1.7$)
 $\pm 0.05 D_{rx}$ (4.1.8.12(4b), $B < 1.7$, 3-D DYNAMIC ANALYSIS)

STRUCTURAL SEPARATION: THE NEW AND EXISTING STRUCTURES HAVE BEEN SEPARATED IN ACCORDANCE WITH 4.1.8.14(1) OF THE 2012 OBC
 N/A

STATIC MAXIMUM/MINIMUM VALUES:

NORTH-SOUTH: (\updownarrow)

BASE SHEARS/MOMENTS: (2012 OBC CLAUSE 4.1.8.11)

$V_{static} = S(T_s) M_e I_e W / (R_d R_e) = 590$ kN $W = 2150$ kN
 $V_{min} = S(2.0) M_e I_e W / (R_d R_e) = 100$ kN $W = 2150$ kN
 $V_{max} = 2/3 S(0.2) I_e W / (R_d R_e) = 390$ kN $W = 2150$ kN

EAST-WEST: (\leftrightarrow)

BASE SHEARS/MOMENTS: (2012 OBC CLAUSE 4.1.8.11)

$V_{static} = S(T_s) M_e I_e W / (R_d R_e) = 590$ kN $W = 2150$ kN
 $V_{min} = S(2.0) M_e I_e W / (R_d R_e) = 100$ kN $W = 2150$ kN
 $V_{max} = 2/3 S(0.2) I_e W / (R_d R_e) = 390$ kN $W = 2150$ kN

SEISMIC LOADS		
STATIC LOADS	DYNAMIC	DESIGN LOADS
NORTH-SOUTH: (\updownarrow)		
$V_d = 590$ kN $W = 2150$ kN $M_d = 2100$ kNm	$V_d = 390$ kN $M_d = 2100$ kNm	
EAST-WEST: (\leftrightarrow)		
$V_d = 590$ kN $W = 2150$ kN $M_d = 2100$ kNm	$V_d = 390$ kN $M_d = 2100$ kNm	
NOTES:		
1) DYNAMIC LOAD SCALING FACTOR		
S.F. = $g \cdot I_e / R_d R_e = 0.513$ g		
2) DESIGN LOAD SHEAR VALUES ARE BASED ON THE EVALUATION OF V_d AND V_e IN ACCORDANCE WITH 4.1.8.12 (5),(6),(7),(8), AND (9) OF THE 2012 OBC. LOADS INDICATED SHOW THE DESIGN BASE SHEAR AND CORRESPONDING OVERTURNING MOMENT.		

WIND UPLIFT (2012 OBC 4.1.7.6, FIG 4.1.7.6.C)
$P_{NET} = 1.4 (P_s - P_i) - 0.9 D$ $P_s = I_w q C_s C_e C_g$ $P_i = 1.4 P_s \text{ NET} - 0.9 D$ $P_i = I_w q C_s C_e C_g$ $P_w \text{ NET} = P_s - P_i$ $z = 2.5$ m $P_w \text{ NET INTERIOR} = 1.3$ kPa $P_w \text{ NET PERIMETER} = 1.50$ kPa
DESIGN SNOW LOAD PARAMETERS NAVAN, ONTARIO, CANADA $S = I_s [S_g (C_s C_e C_g) + S]$ $S_g = 2.4$ kPa $S_e = 0.4$ kPa $I_s = 1.0$ $S = 1.0 [2.4(0.8 \times 1.0 \times 1.0) + 0.4]$ $S = 2.32$ kPa

WIND (2015 NBCC FIGURE I-12)
$F_s = I_w C_s C_e C_g C_h$ $q = 0.41$ kPa I_w (uls) = 1.0 I_w (sls) = 0.75 $C_s = 2.0$ $C_e = 1.0$ $C_g = 2.0$ $C_h = 0.95$ $h = 4.5$ m $N.S (\updownarrow)$ $E.W (\leftrightarrow)$ UNITS VBASE 400 190 KN MBASE 2200 1000 KN.m NORTH FOR THE PURPOSES OF THIS DATA IS AT THE TOP SIDE OF ALL PLANS IN THIS SET OF DRAWINGS

1	ISSUED FOR PERMIT	2024-03-15
No.	Revision Description	Date

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- DO NOT SCALE DRAWINGS

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PROJECT
Navan Outdoor Rink
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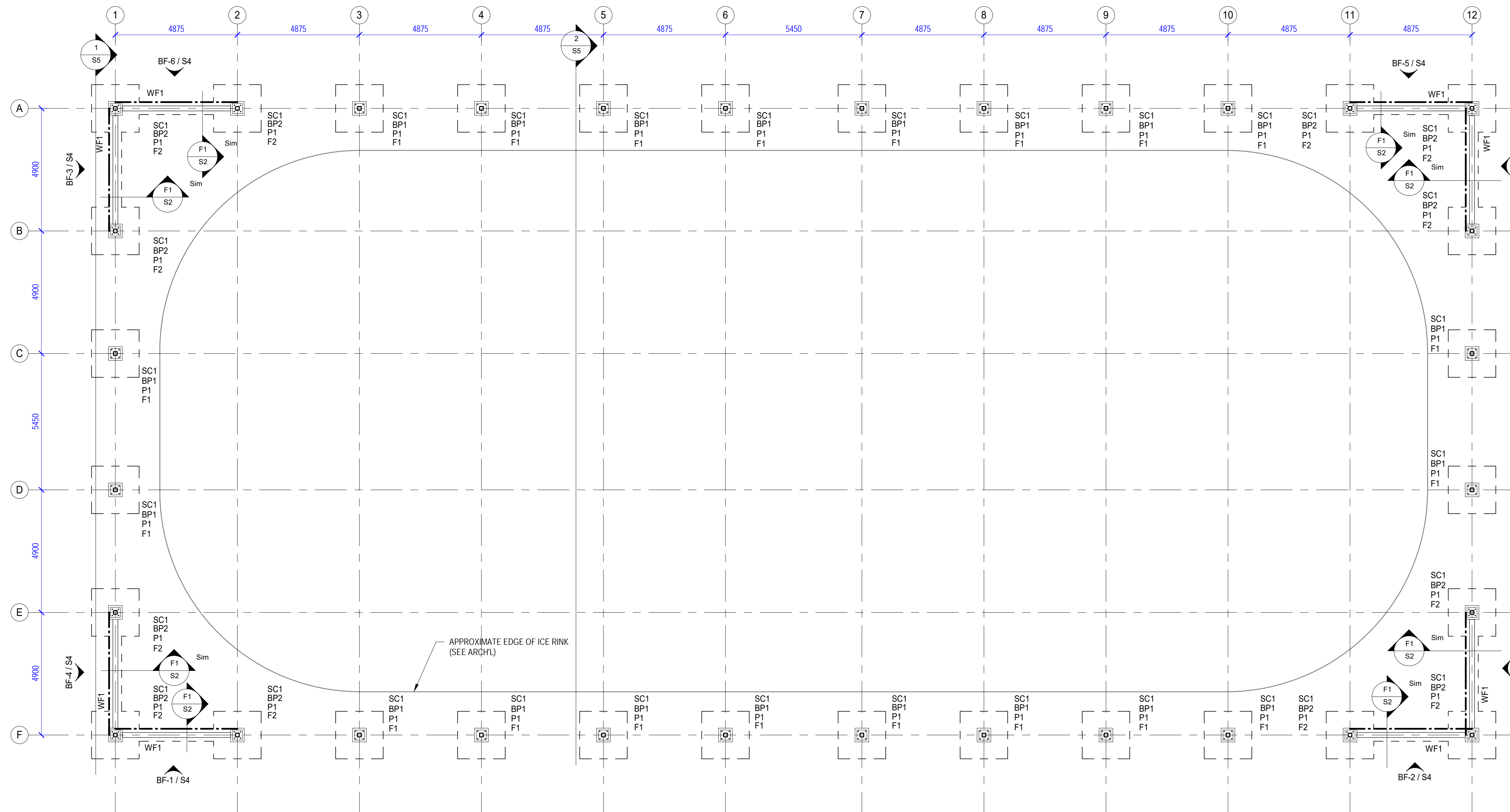
ARCHITECT
Bryden Gibson Architects Inc

DRAWING TITLE
SEISMIC DATA

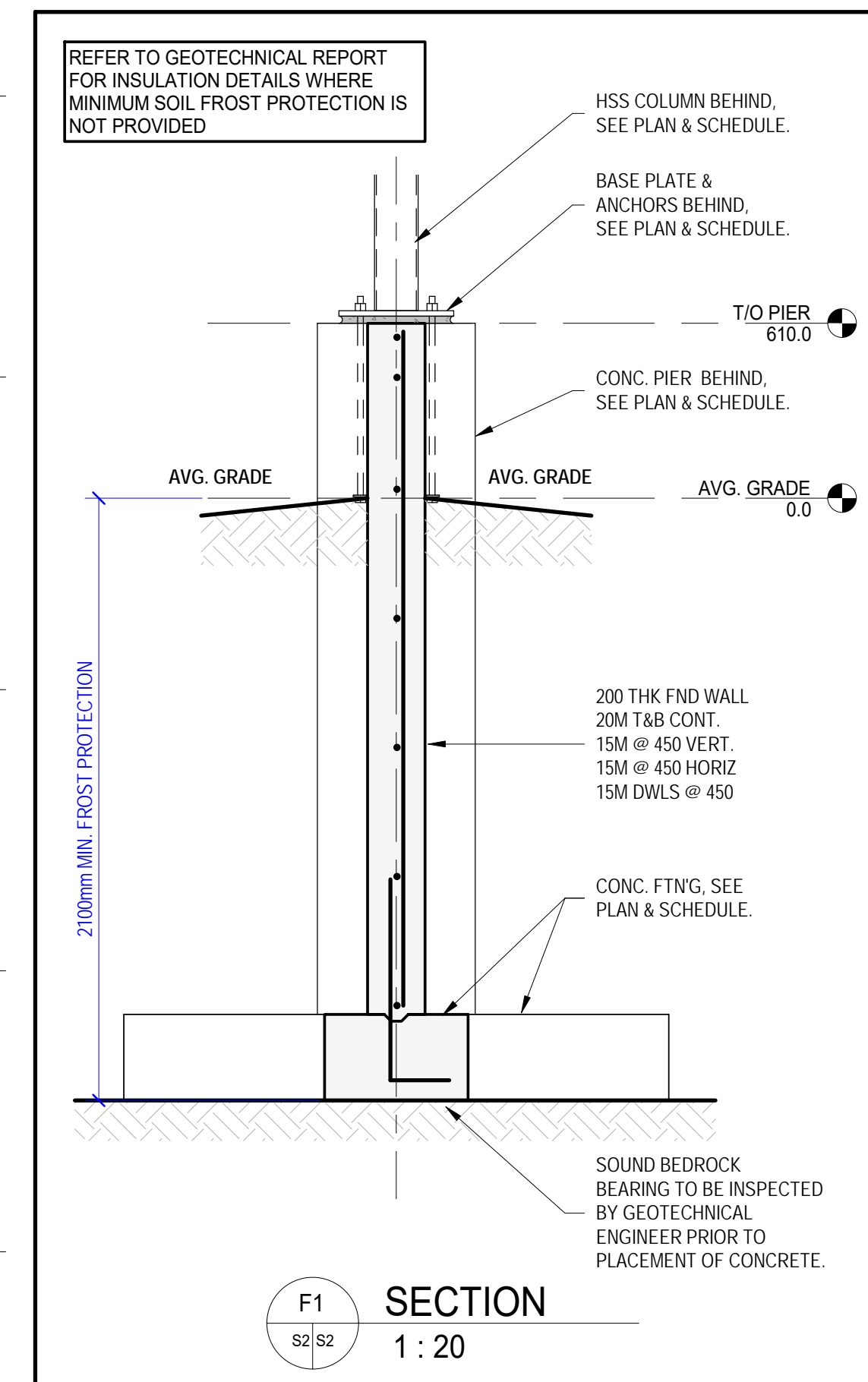
DRAWN: A.M. REVIEWED: D.A.H. SCALE: 1:100

ENGINEERS SEAL PROJECT No. 24-026 SHEET No.

2024-03-15
 D.A. HARDING
 100194371

 SHEET No. **S1**
 REVISION No. 1



- NOTES:**
- CONCRETE COMPRESSIVE STRENGTH**
- PERIMETER FOUNDATION WALLS AND PIERS - 25 MPa TYPE C1
FOOTINGS - 25 MPa TYPE N
- FOUNDATION NOTES**
1. ALL FOOTINGS ARE TO BE CENTERED ON COLUMN, WALLS OR FOUNDATIONS UNLESS NOTED OTHERWISE.
 2. ALL COLUMNS ARE TO BE CENTERED ON GRIDLINES UNLESS NOTED OTHERWISE.
 3. ALL STRUCTURAL STEEL EXPOSED TO EXTERIOR IS TO BE HOT DIP GALVANIZED.



FOUNDATION PLAN
1 : 100

FOOTING SCHEDULE		
MARK	SIZE	REIN'G
F1	1900 x 1900x 300 DP	6-15Mx1800 B EW (H)
F2	1900 x 1900x 300 DP	6-15Mx1800 T&B EW (H)
WF1	500 x 300 DP	3-15M BUL & TLL CONT.

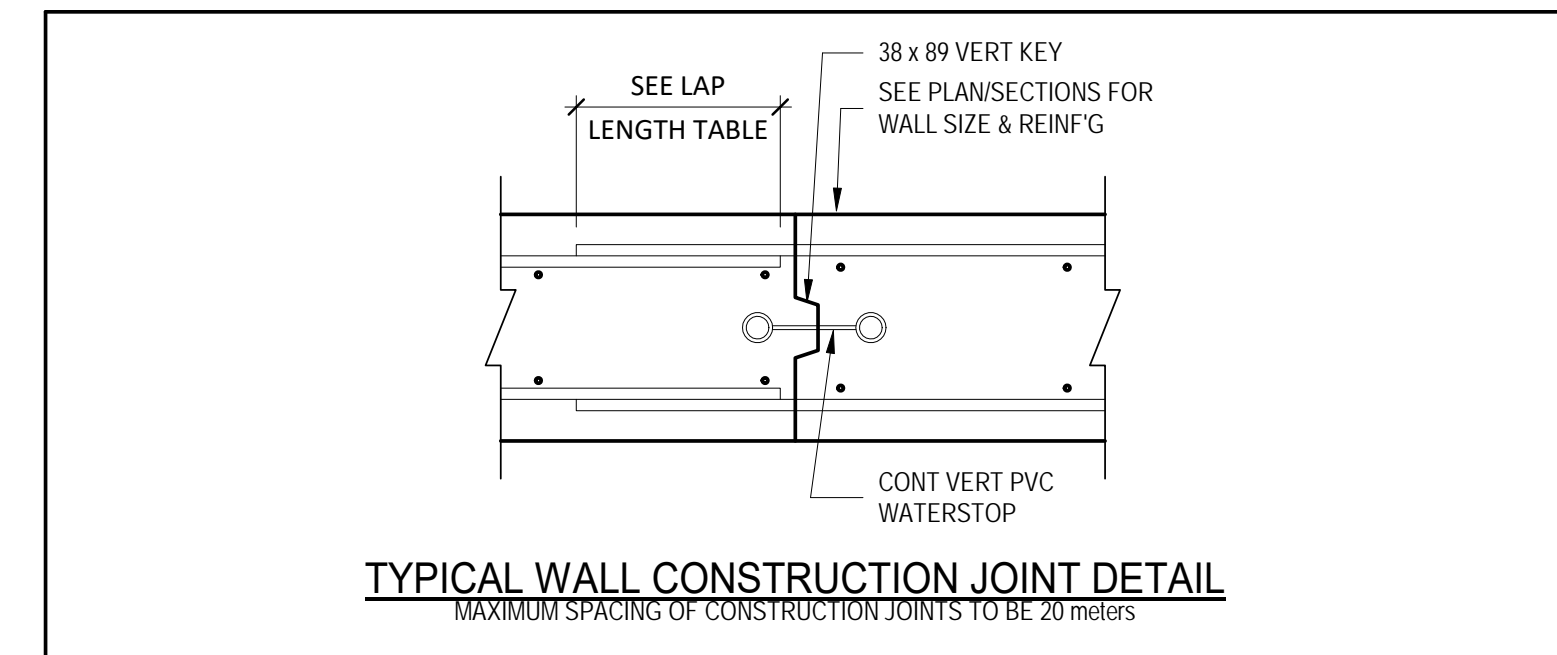
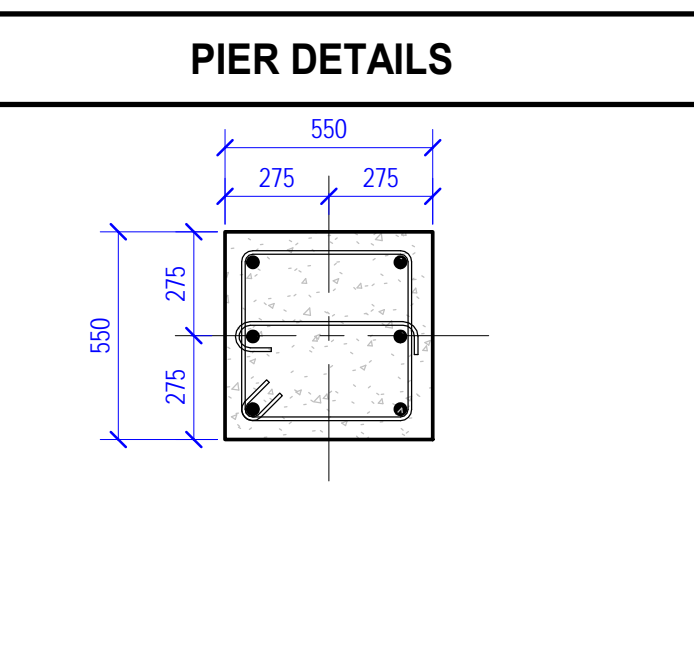
NOTES:
1. SEE GENERAL NOTES ALSO.
2. WALL FOOTINGS TO EXTEND BEYOND ENDS OF WALLS A DISTANCE EQUAL TO THE SIDE PROJECTIONS.
3. ALL FOOTINGS TO BE CENTERED UNDER PIERS, COLUMNS OR WALLS UNLESS NOTED.
4. SEE PLANS FOR CONCRETE COMPRESSIVE STRENGTHS.

STEEL COLUMN SCHEDULE	
MARK	SIZE
SC1	HSS 152x152x6.4 (HOT DIP GALVANIZED)

NOTES:
1. ALL HSS SECTIONS TO BE ASTM A500 (GRADE C) OR G40.21M350W (CLASS C).
2. ALL HSS'S WITH (H) ARE TO BE G40.21 350W (CLASS H).
3. SEE GENERAL NOTES ALSO.

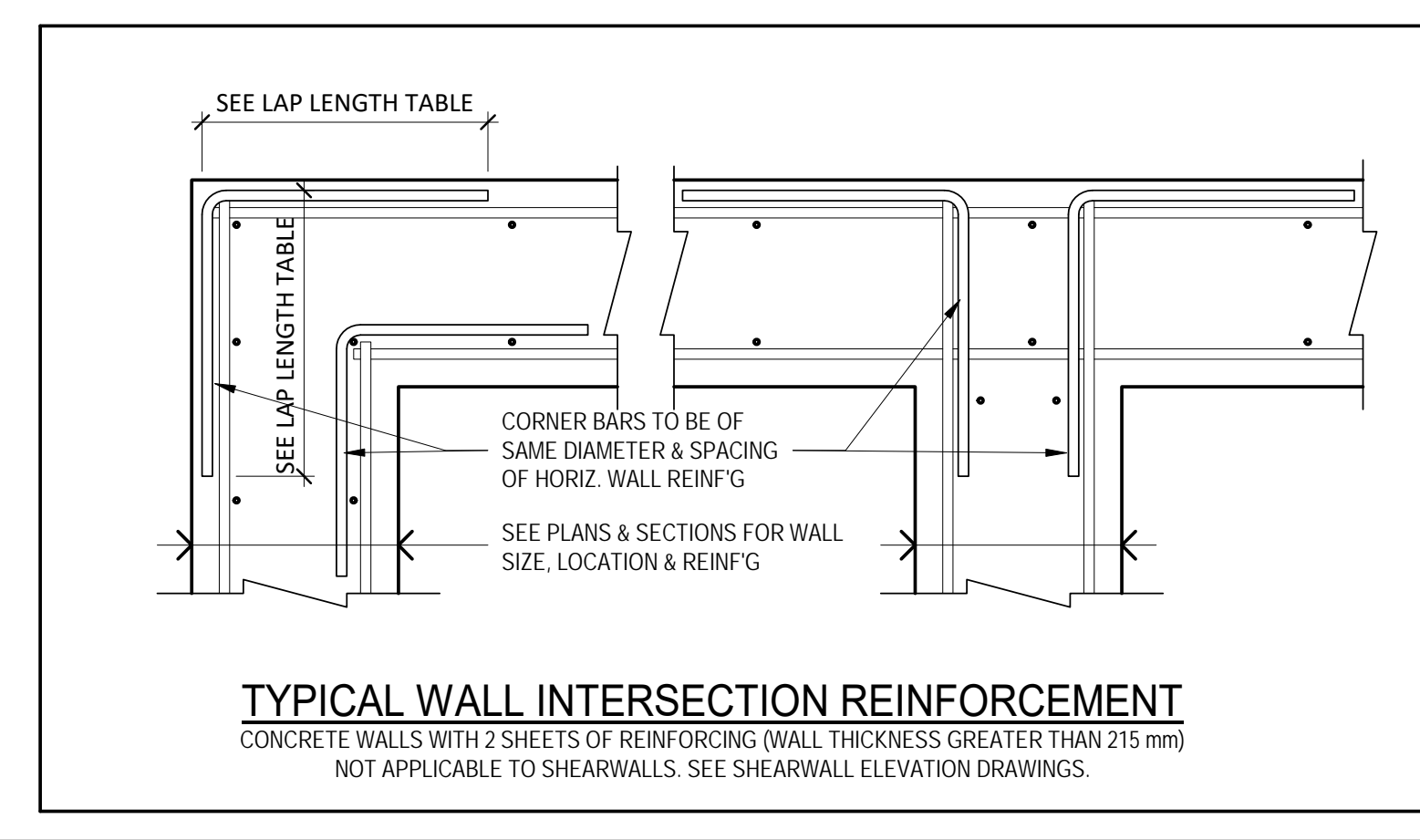
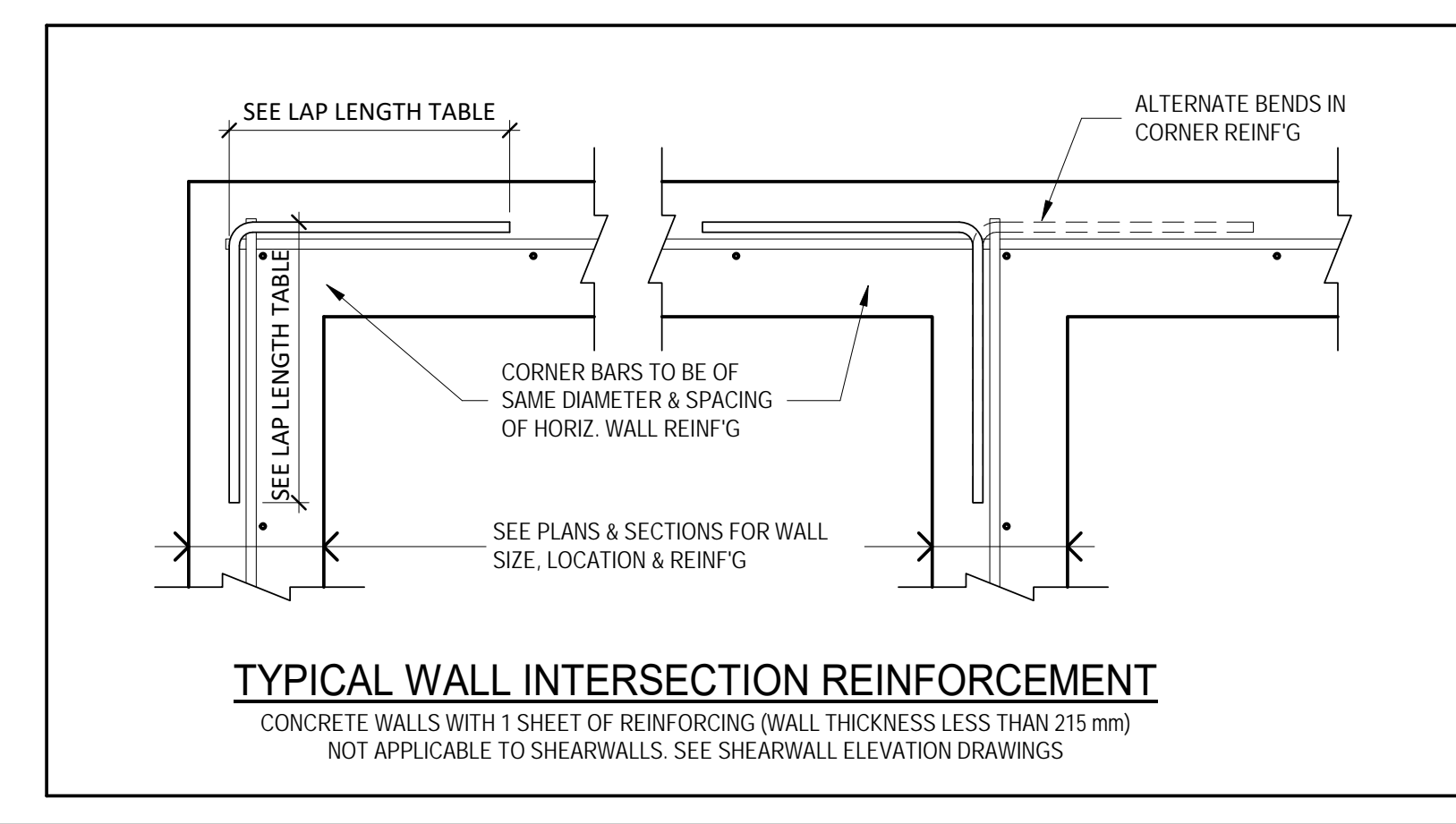
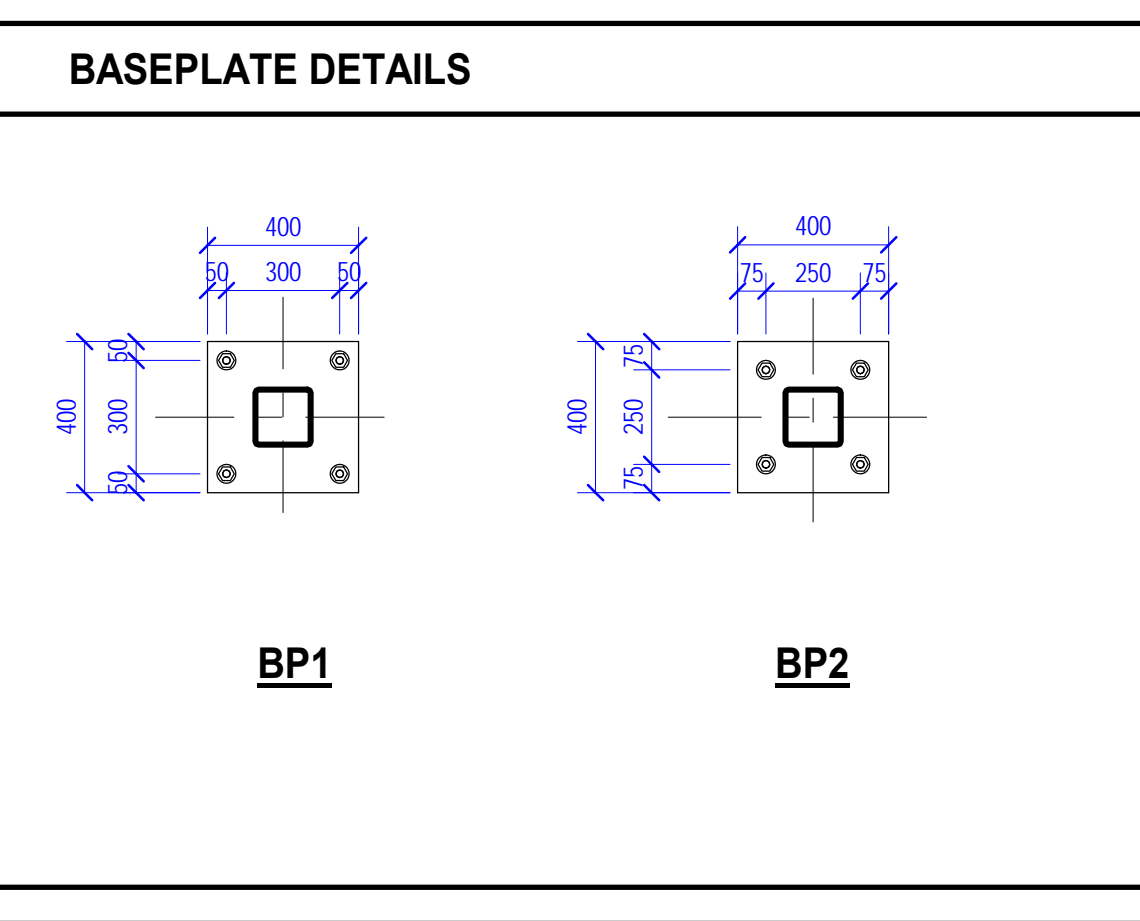
PIER SCHEDULE		
MARK	SIZE	REIN'G
P1	550 x 550	6-20M VERT + DWLS 2-10M TIES @ 300

NOTES:
1. PROVIDE DWLS INTO FTG TO MATCH VERT. PIER REIN'G.
2. PROVIDE 3 SETS OF TIES SPACED @ 75 ON AT TOP OF PIERS.
3. HORIZ FND WALL REIN'G TO EXTEND THRU CONCRETE PIER.
4. TOP OF PIER TO BE 400 BELOW TOP OF SLAB TYP. UN.
5. SEE PLANS FOR CONCRETE COMPRESSIVE STRENGTHS.



BASEPLATE SCHEDULE		
MARK	SIZE	ANCHORS
BP1	400x 400 x 19 THK PLATE (HOT DIP GALVANIZED)	4-190 ANCHOR BOLTS (HOT DIP GALVANIZED) (625 EMBEDMENT)
BP2	400x 400 x 19 THK PLATE (HOT DIP GALVANIZED)	4-250 ANCHOR BOLTS (HOT DIP GALVANIZED) (625 EMBEDMENT)

NOTES:
1. PROVIDE 25MM NON SHRINK GROUT OR DRYPACK BELOW BASEPLATES EXTENDING 25MM BEYOND PERIMETER OF PLATE AND FOR FULL AREA BELOW PLATE. (NOT APPLICABLE TO CAST-IN PLATES)
2. PROVIDE 50 MM ANCHOR BOLT PROJECTION ABOVE PLATE.
3. ALL ANCHOR BOLTS TO BE A307 UH.
4. ALL ANCHOR BOLTS TO BE HEADED.
5. ALL COLUMNS TO BE CENTERED ON BASEPLATES UN.
6. USE STEEL TEMPLATES AND PRECISE SURVEYING TECHNIQUES TO ACCURATELY LOCATE BASE PLATE & ANCHOR BOLTS.
7. PROVIDE 50 Ø x 5 THK WASHERS FOR ANCHORS UP TO 25 Ø.
8. PROVIDE 75 Ø x 6 THK WASHERS FOR ANCHORS LARGER THAN 25 Ø.



No.	Revision Description	Date
2	ISSUED FOR PERMIT	2024-03-15
1	ISSUED FOR REVIEW	2024-02-27

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4. DO NOT SCALE DRAWINGS

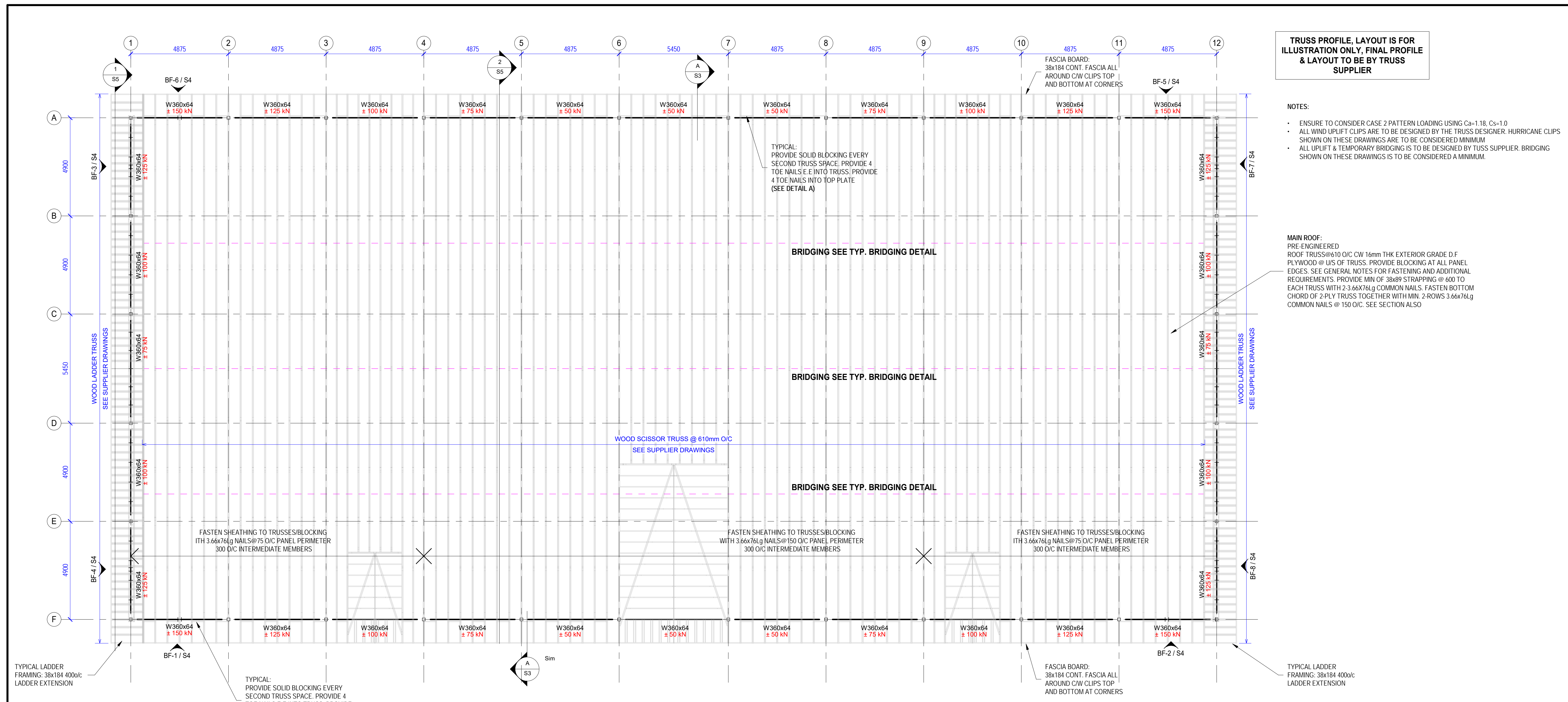
CUNLIFFE & ASSOCIATES
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PROJECT
Navan Outdoor Rink
1279 Colonial Rd., Navan, On

ARCHITECT
Bryden Gibson Architects Inc

DRAWING TITLE
FOUNDATION PLAN & SCHEDULES

DRAWN A.M.	REVIEWED D.A.H.	SCALE As indicated
ENGINEERS SEAL 		PROJECT No. 24-026
		SHEET No. S2
		REVISION No. 2



TRUSS PROFILE, LAYOUT IS FOR ILLUSTRATION ONLY, FINAL PROFILE & LAYOUT TO BE BY TRUSS SUPPLIER

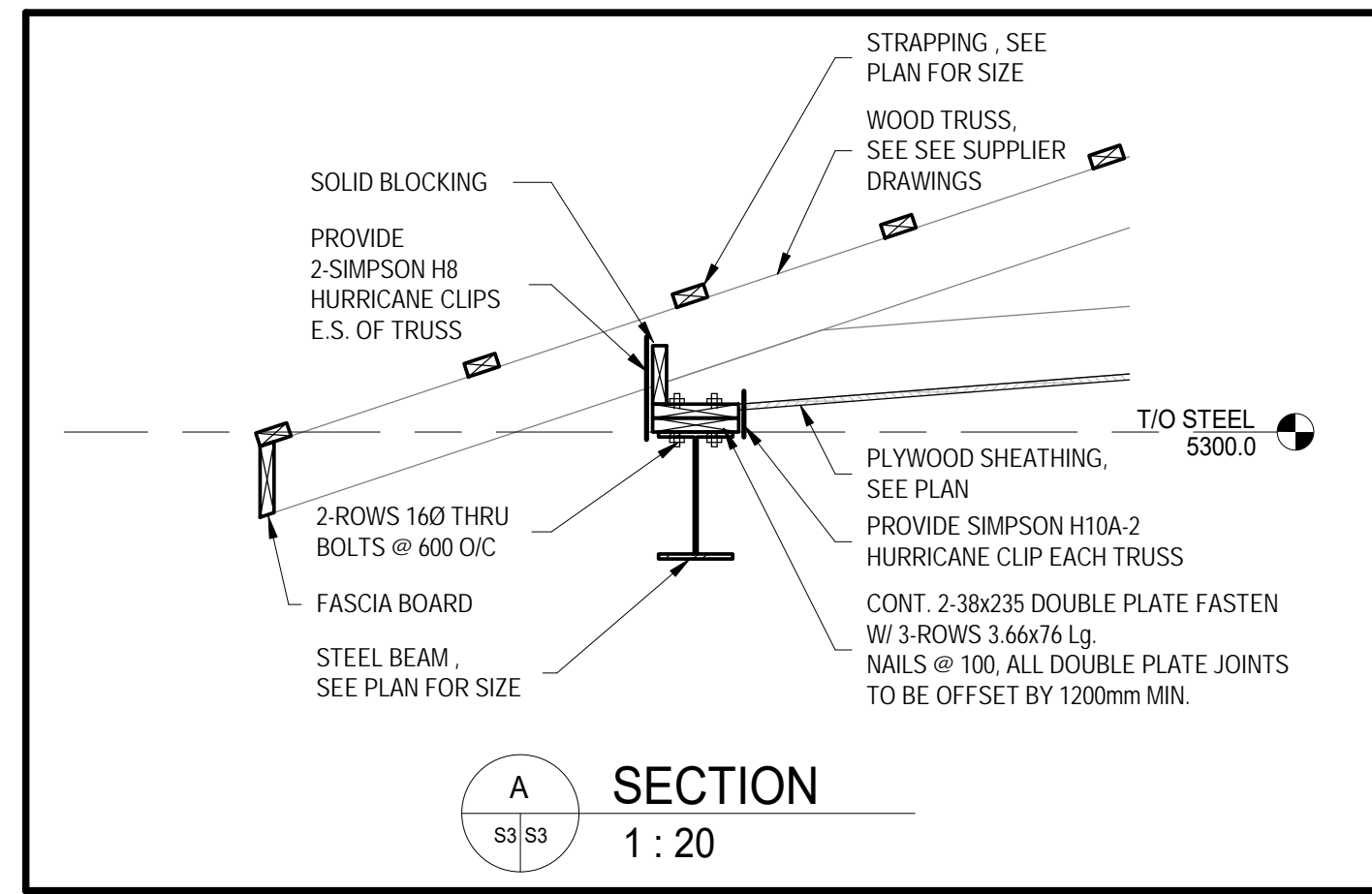
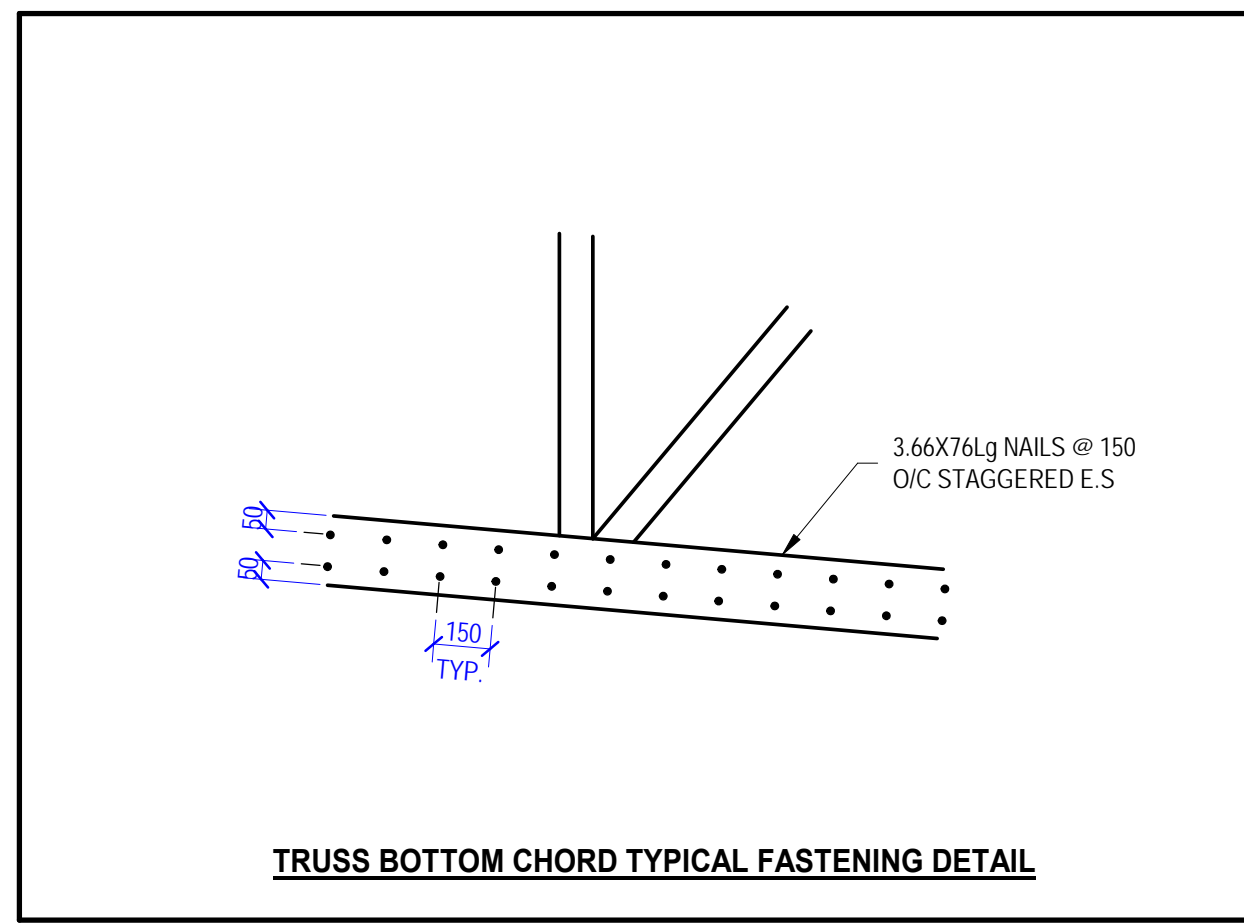
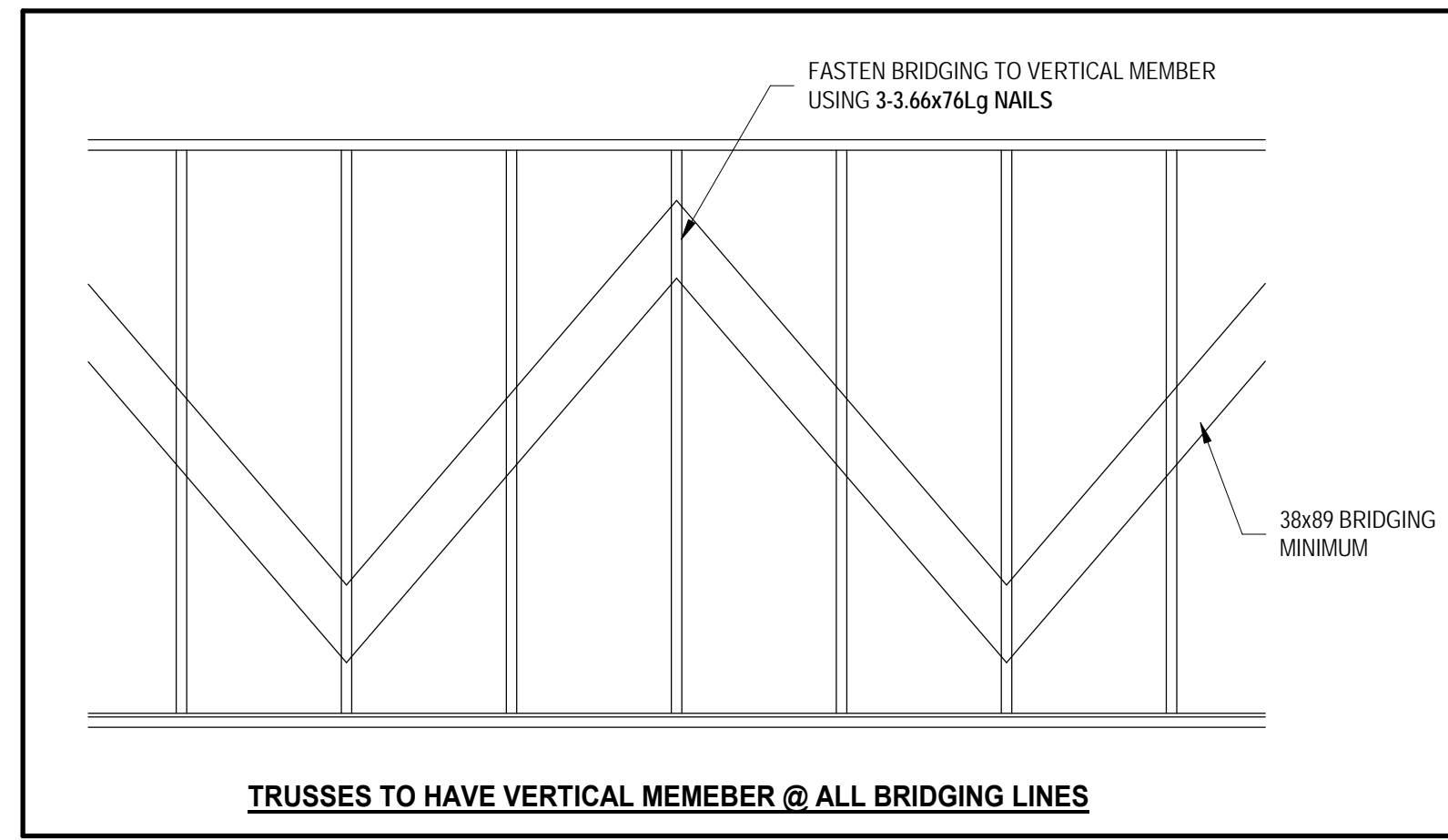
- NOTES:**
- ENSURE TO CONSIDER CASE 2 PATTERN LOADING USING $C_u=1.18$, $C_s=1.0$
 - ALL WIND UPLIFT CLIPS ARE TO BE DESIGNED BY THE TRUSS DESIGNER. HURRICANE CLIPS SHOWN ON THESE DRAWINGS ARE TO BE CONSIDERED MINIMUM
 - ALL UPLIFT & TEMPORARY BRIDGING IS TO BE DESIGNED BY TRUSS SUPPLIER. BRIDGING SHOWN ON THESE DRAWINGS IS TO BE CONSIDERED A MINIMUM.

MAIN ROOF:
 PRE-ENGINEERED ROOF TRUSS @ 610 O/C CW 16mm THK EXTERIOR GRADE D.F. PLYWOOD @ U/S OF TRUSS. PROVIDE BLOCKING AT ALL PANEL EDGES. SEE GENERAL NOTES FOR FASTENING AND ADDITIONAL REQUIREMENTS. PROVIDE MIN OF 38x89 STRAPPING @ 600 TO EACH TRUSS WITH 2-3.66x76lg COMMON NAILS. FASTEN BOTTOM CHORD OF 2-PLY TRUSS TOGETHER WITH MIN. 2-ROWS 3.66x76lg COMMON NAILS @ 150 O/C. SEE SECTION ALSO

ROOF PLAN

1 : 100

DESIGN LOADS	
ROOF	
METAL ROOFING	0.10 kPa
38X89 STRAPPING	0.10
ROOF TRUSSES	0.40
SHEATHING	0.10
MECH/ELECT'L	0.30
<hr/>	
DEAD LOAD	1.00 kPa
LIVE LOAD	2.40 kPa (OR SNOW CONCENTRATION)
TOTAL LOAD	3.40 kPa (OR DL + SNOW CONCENTRATION)



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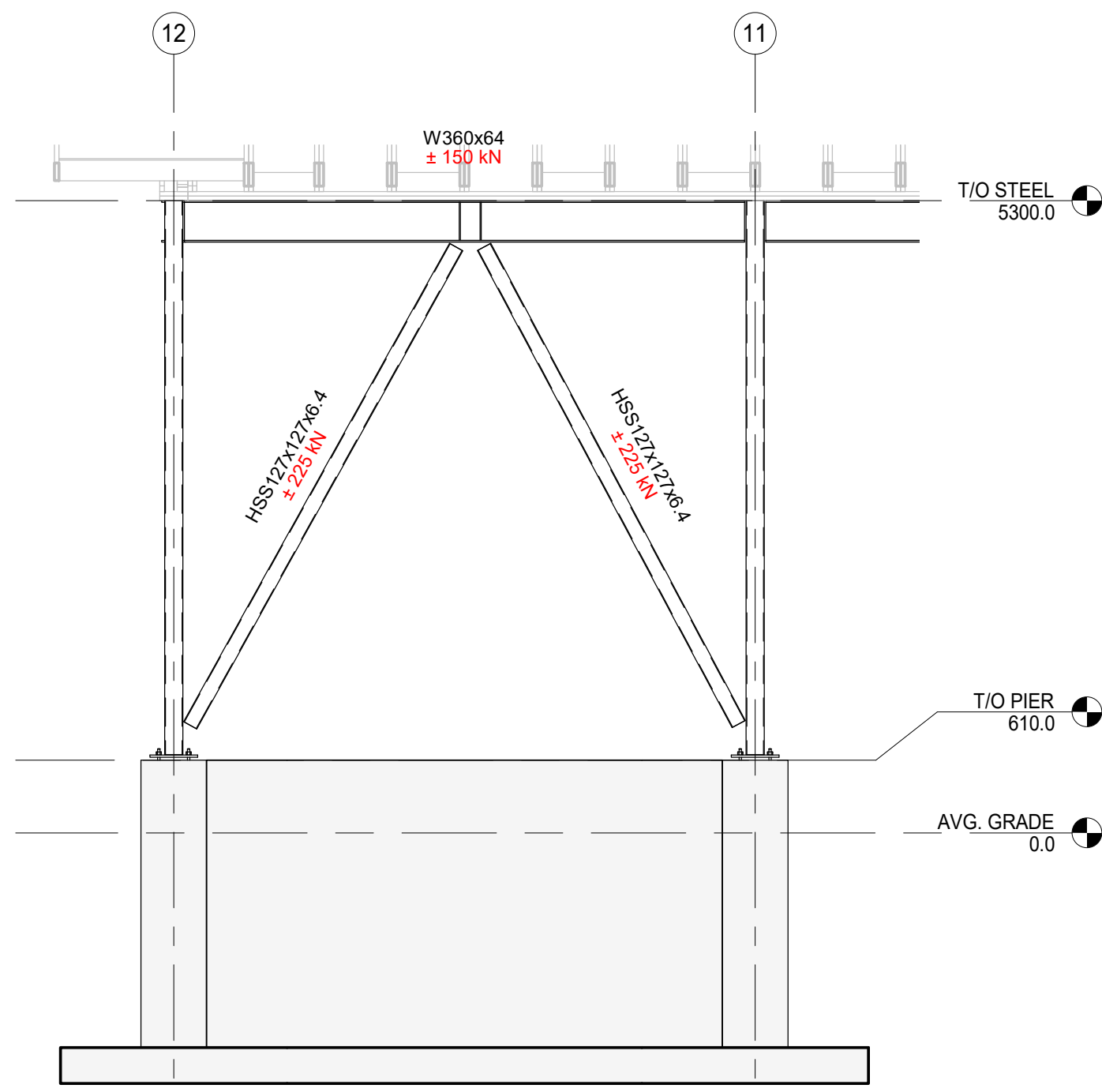
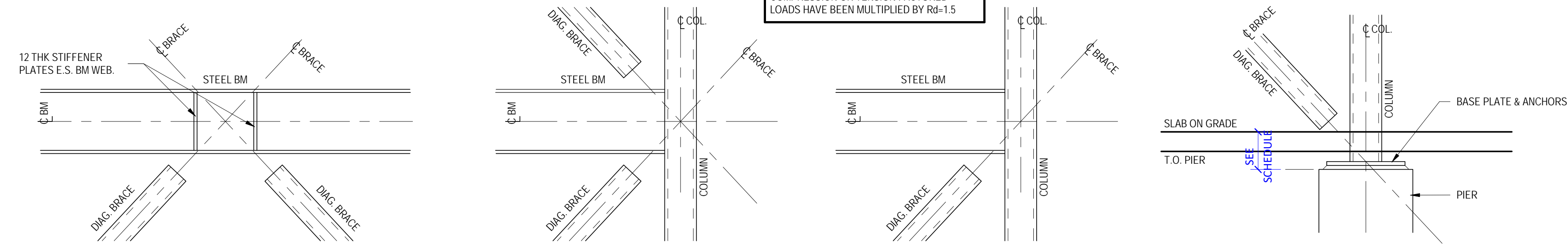
ARCHITECT
 Bryden Gibson Architects Inc

DRAWING TITLE
 ROOF PLAN

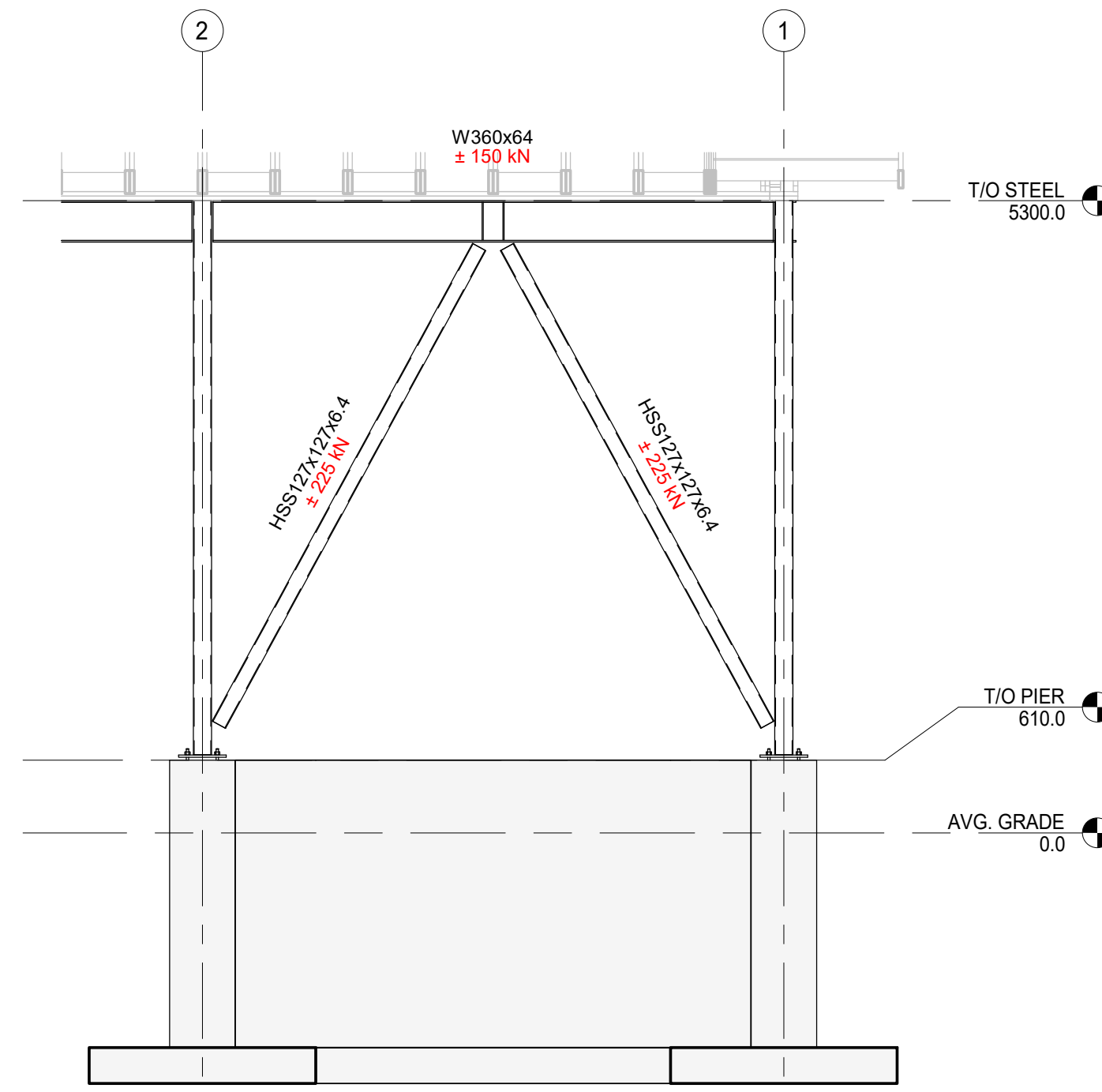
DRAWN A.M.	REVIEWED D.A.H.	SCALE As indicated
ENGINEERS SEAL		PROJECT No. 24-026
		SHEET No. S3
		REVISION No. 1

TYPICAL DETAILS @ DIAGONAL BRACE INTERSECTIONS

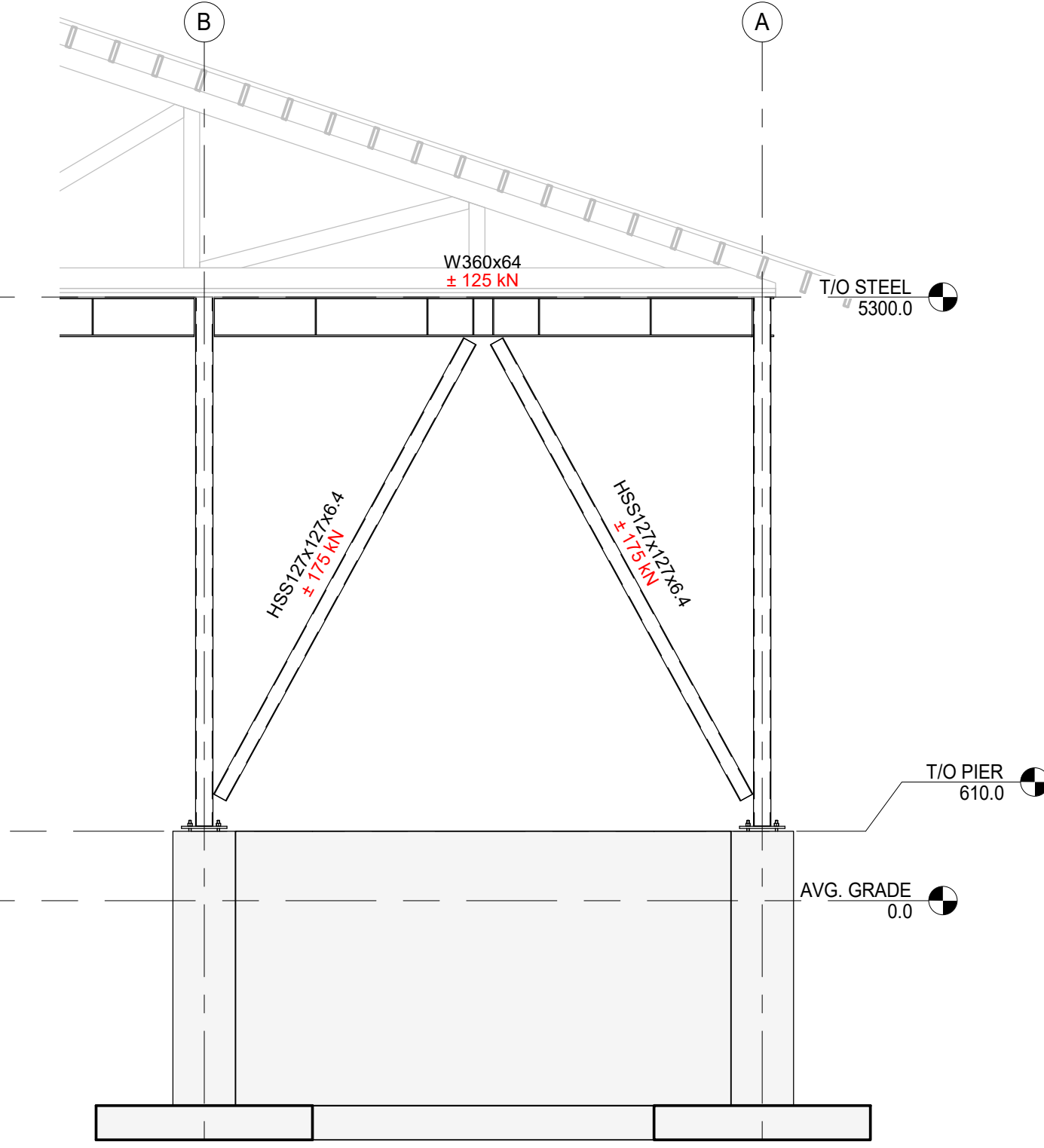
NOTE:
COMPRESSION OR TENSION FACTORED
LOADS HAVE BEEN MULTIPLIED BY Rd=1.5



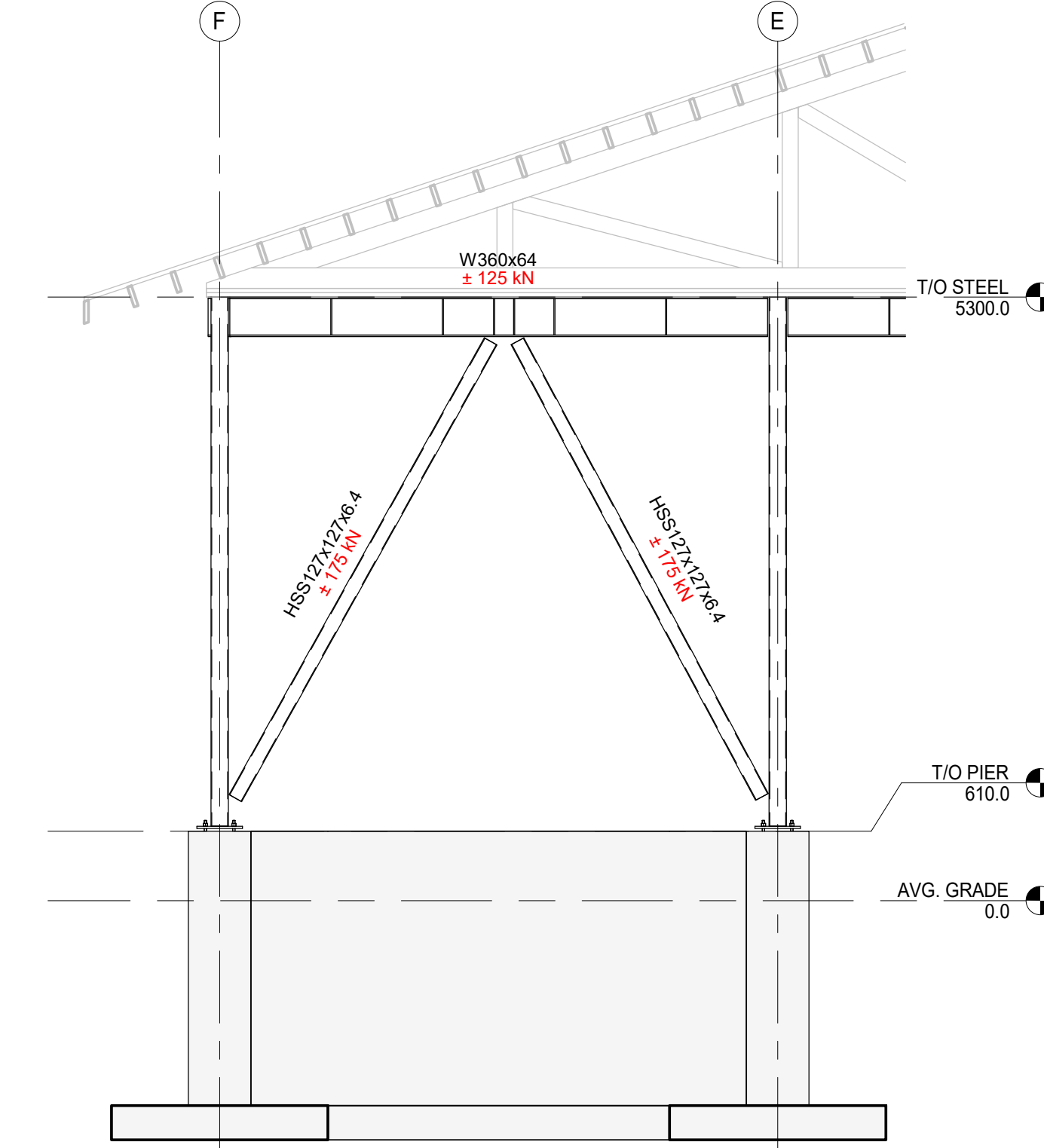
BF-5
BRACE FRAME ELEVATION
1 : 50



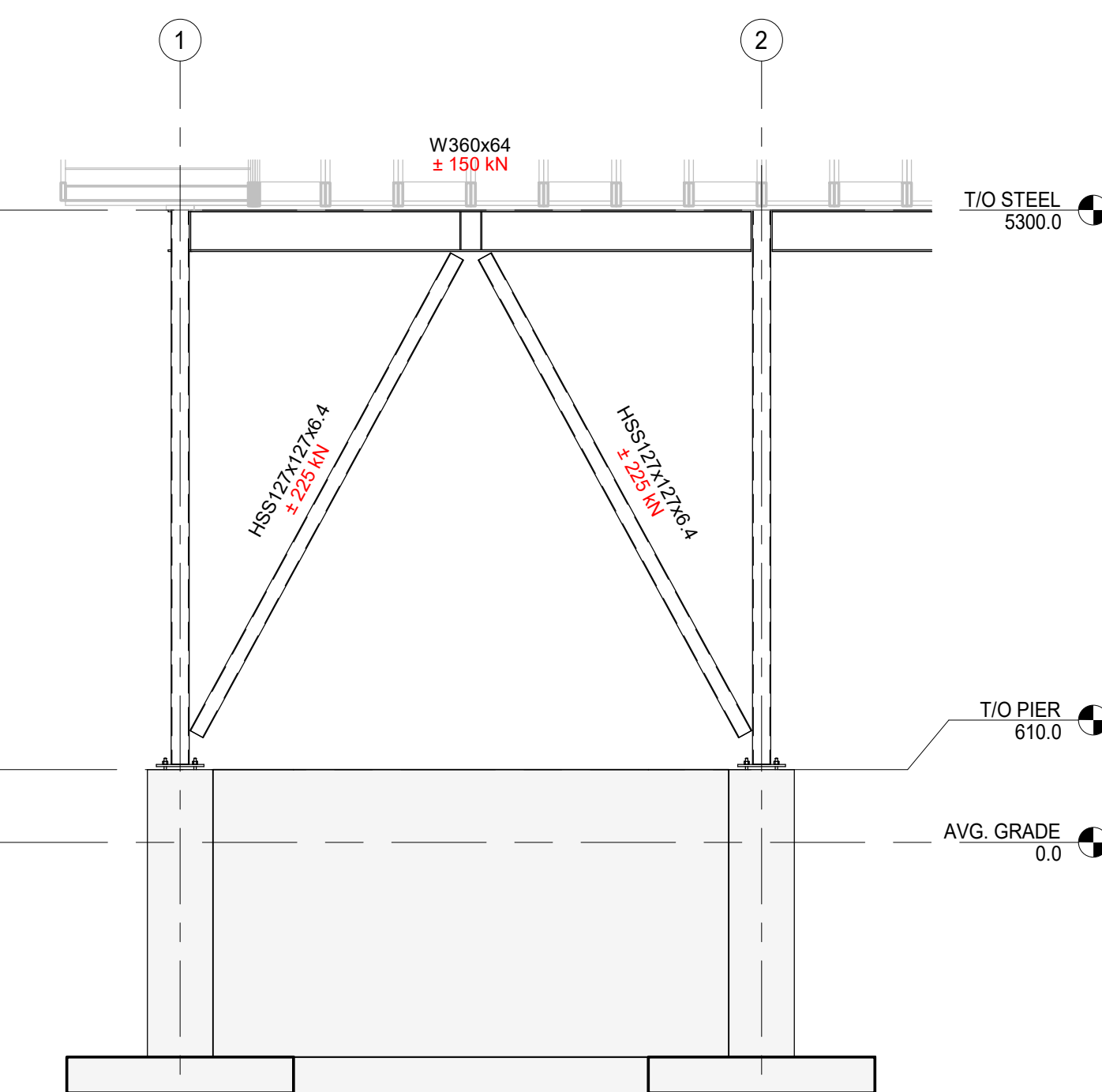
BF-6
BRACE FRAME ELEVATION
1 : 50



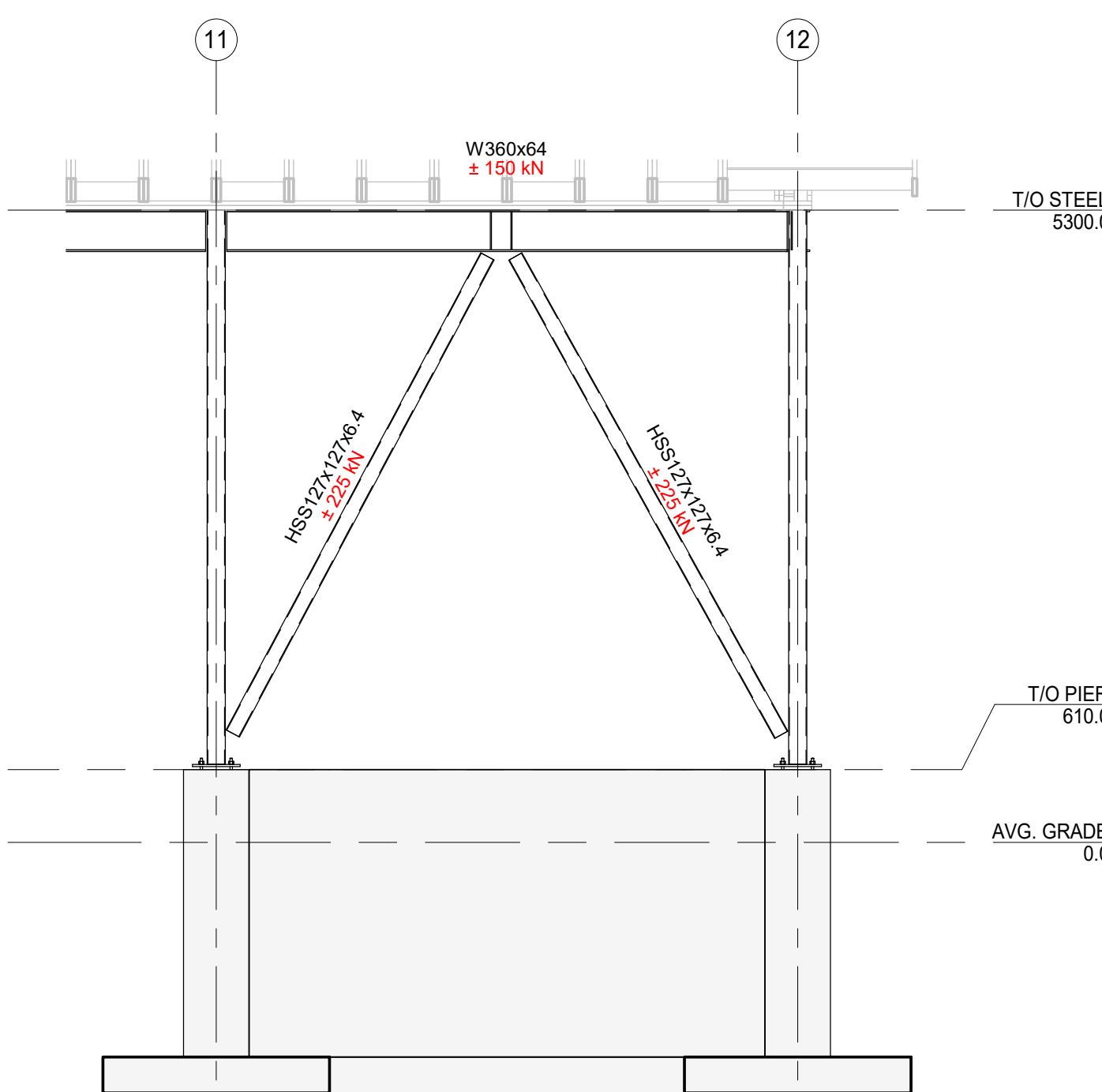
BF-7
BRACE FRAME ELEVATION
1 : 50



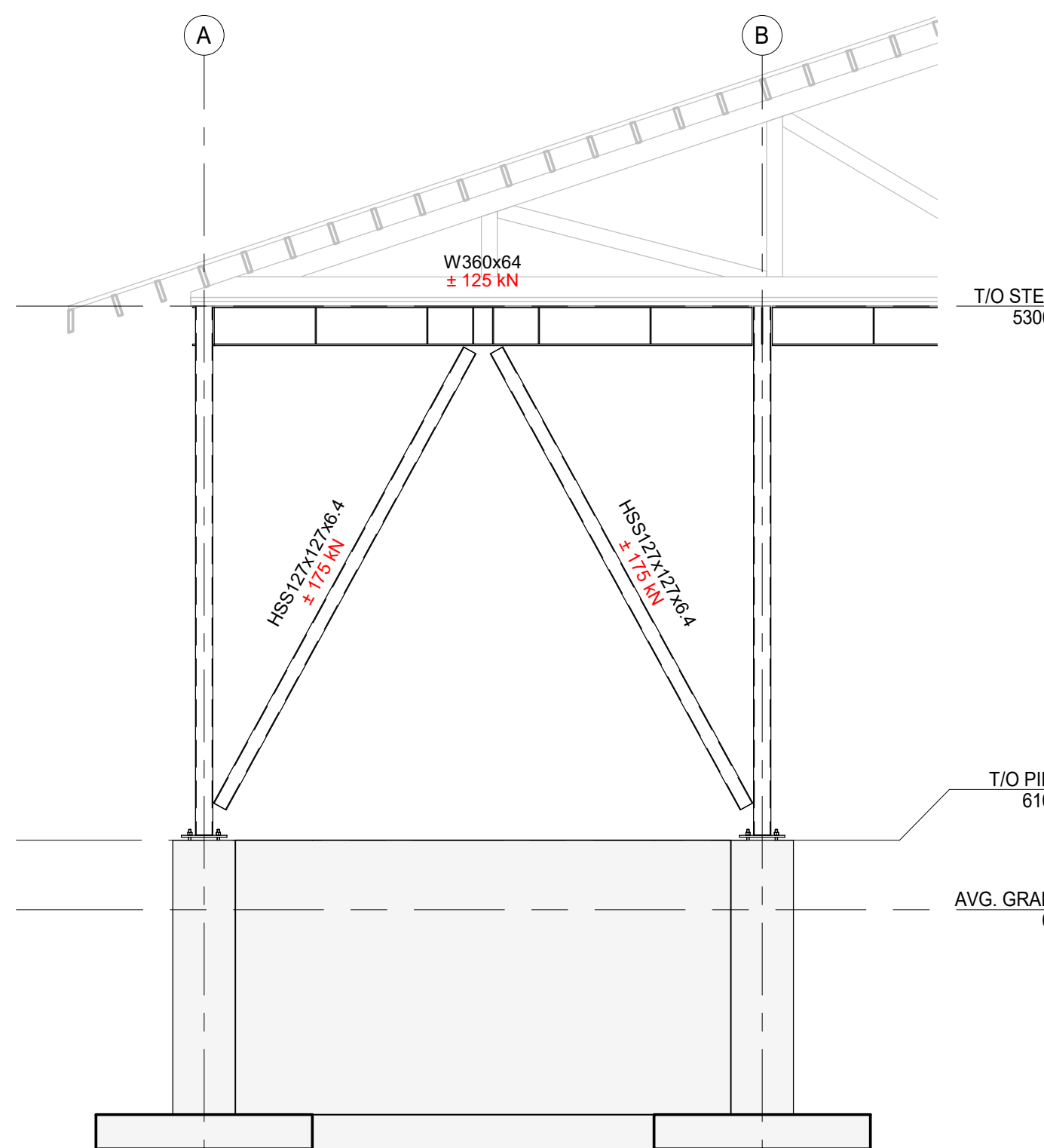
BF-8
BRACE FRAME ELEVATION
1 : 50



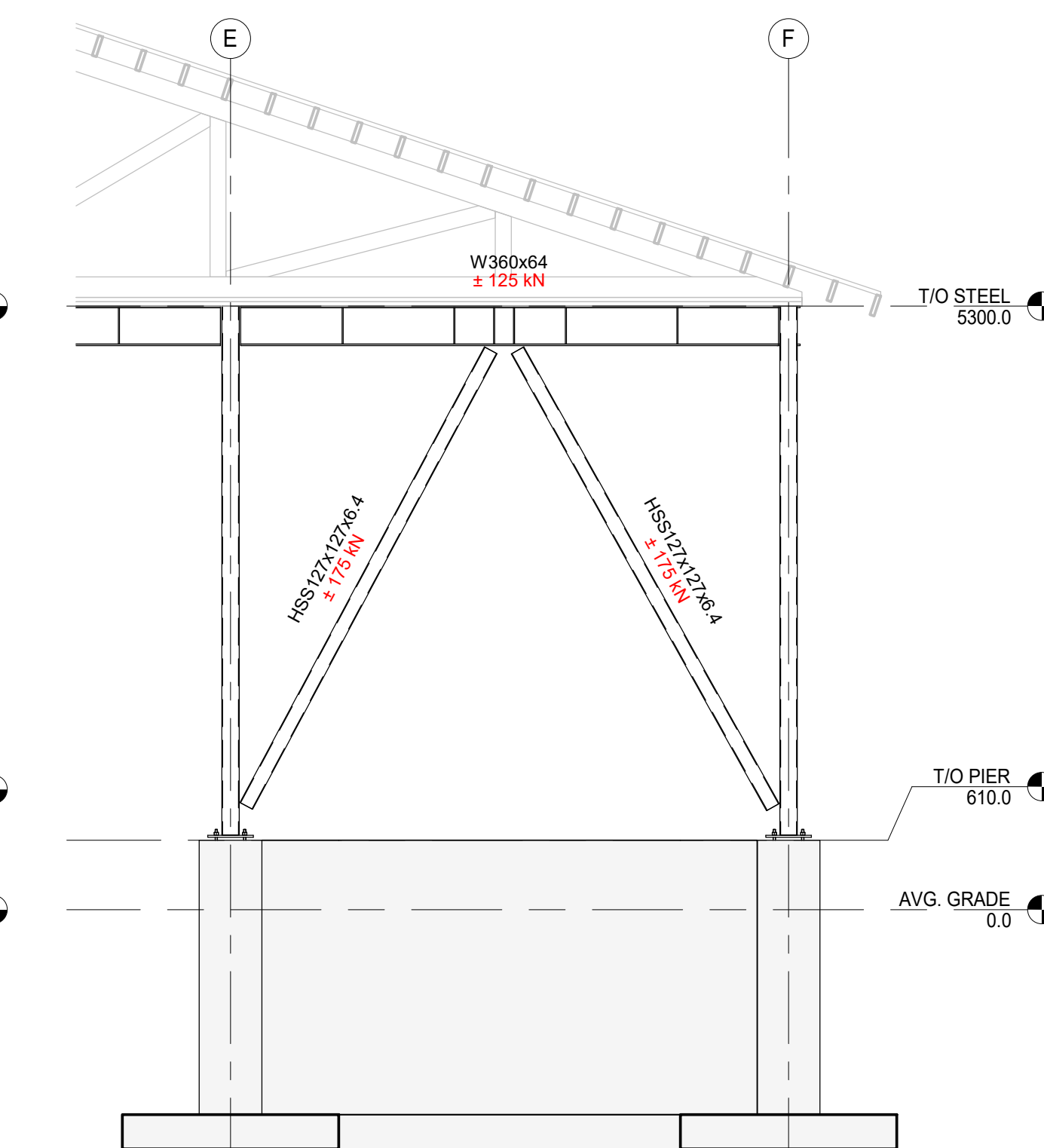
BF-1
BRACE FRAME ELEVATION
1 : 50



BF-2
BRACE FRAME ELEVATION
1 : 50



BF-3
BRACE FRAME ELEVATION
1 : 50



BF-4
BRACE FRAME ELEVATION
1 : 50

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DRAWING TITLE
BRACE FRAME ELEVATIONS

DRAWN A.M.	REVIEWED D.A.H.	SCALE As indicated
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ENGINEERS SEAL
PROJECT No.
24-026

2024-03-15
D.A. HARDING
100194371
S4
REVISION No. 1

