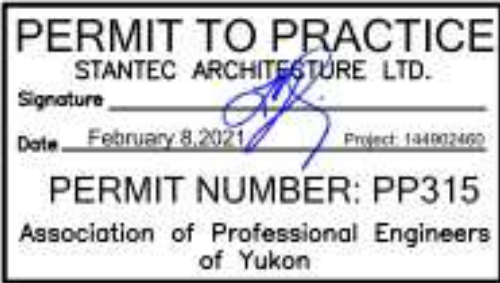


Consultant

RATIO

Seal



1	ISSUED FOR PHASE 2.3 TENDER	2021-01-29
Revision/	Description/Description	Date/Date
Client/client		

PARKS CANADA

Project title/Titre du projet

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GENERAL NOTES

Project No./No. du projet	Sheet/ Feuille	Revision no./ La Révision no.
PRO 842	S001	1

DESIGN NOTES

GENERAL

- ALL CODES REFERENCED ARE TO BE THE LATEST VERSION AT THE DATE OF ISSUE.
- DESIGN IS BASED ON THE NATIONAL BUILDING CODE 2015.
- READ THESE DESIGN NOTES IN CONJUNCTION WITH THE CONTRACT SPECIFICATIONS AND ALL OTHER CONTRACT DOCUMENTS.
- OBTAIN DEPARTMENTAL REPRESENTATIVE APPROVAL BEFORE CUTTING, BORING, OR SLEEVEING LOAD-BEARING MEMBERS UNLESS NOTED OTHERWISE.
- THE STRUCTURAL DRAWINGS ARE FOR THE COMPLETED PROJECT. STABILITY OF THE EXISTING AND NEW STRUCTURE DURING CONSTRUCTION REMAINS THE RESPONSIBILITY OF THE CONTRACTOR.
- REFER TO ARCHITECTURAL BASEMENT DEMOLITION PLAN - A2.212.
- REFER TO ARCHITECTURAL DRAWINGS FOR SMALL OPENINGS, AND SLOPES NOT INDICATED ON THE STRUCTURAL DRAWINGS.
- OPENINGS AND SLEEVES INDICATED ON THE STRUCTURAL DRAWINGS ARE FOR REFERENCE ONLY. COORDINATE ALL OPENING LOCATIONS AND DIMENSIONS WITH THE APPROPRIATE DEPARTMENTAL REPRESENTATIVE AND THE TRADE CONTRACTOR PRIOR TO CONSTRUCTION.
- REVIEW ALL DRAWINGS AND CHECK DIMENSIONS PRIOR TO IMPLEMENTING THE WORK. REPORT ANY DISCREPANCIES TO THE DEPARTMENTAL REPRESENTATIVE FOR CLARIFICATION BEFORE PROCEEDING.
- COORDINATE PLACEMENT AND LOCATION OF ITEMS BY SUBSEQUENT TRADES. RELEVANT TRADES SHALL REVIEW PRIOR TO ERECTION AND/OR INSTALLATION.
- NOTIFY THE DEPARTMENTAL REPRESENTATIVE A MINIMUM OF 5 BUSINESS DAYS PRIOR TO ANY REQUIRED SITE REVIEWS.

EXISTING STRUCTURES

- THE STRUCTURAL DESIGN IS BASED ON INFORMATION GATHERED FROM THE EXISTING DRAWINGS AND FROM LIMITED VISUAL OBSERVATIONS ON SITE.
- VERIFY ALL EXISTING DIMENSIONS, CONDITIONS AND MEMBER SIZE ON SITE PRIOR TO IMPLEMENTING AFFECTED WORK.
- NOTIFY THE DEPARTMENTAL REPRESENTATIVE OF ANY SITE CONDITIONS THAT DIFFER FROM THE CONTRACT DOCUMENTS. SHORE AND UNDERPIN EXCAVATIONS AS REQUIRED TO PREVENT DISTURBANCE TO ADJACENT STRUCTURES, STREETS, SIDEWALKS AND UTILITIES.

DESIGN LOADS

- UNLESS NOTED OTHERWISE, THE LOADS NOTED IN TABLES AND ON DRAWINGS ARE UNFACTORED.
- CLIMATIC INFORMATION REFER TO CLIMATIC INFORMATION TABLE
- SITE INFORMATION REFER TO SITE INFORMATION TABLE
- DESIGN LOADS REFER TO DESIGN LOADS TABLE
- LATERAL LOADS
  - LATERAL LOADS ARE RESISTED BY TIMBER SHEAR WALLS.
- CONSTRUCTION LOADS SHALL NOT EXCEED THE LOADS NOTED ON THE DRAWINGS.

DELEGATED DESIGN

- PORTIONS OF THE DETAILED DESIGN ARE DELEGATED TO THE CONTRACTOR. RETAIN A PROFESSIONAL ENGINEER REGISTERED IN THE YUKON TO COMPLETE THE DESIGN.
- SUBMIT SHOP DRAWINGS FOR COMPONENTS REQUIRING DELEGATED DESIGN UNDER THE SEAL AND SIGNATURE OF THE ENGINEER RESPONSIBLE FOR THE DESIGN.
- THE FOLLOWING COMPONENTS REQUIRE DELEGATED DESIGN:
  - CONCRETE MIX DESIGNS
- THE ENGINEER RESPONSIBLE FOR THE DELEGATED DESIGN IS ALSO RESPONSIBLE FOR REVIEW OF FABRICATION AND INSTALLATION OF THE COMPONENTS.
- UPON COMPLETION OF THE WORK, CERTIFY IN WRITING TO THE DEPARTMENTAL REPRESENTATIVE THAT SUCH REVIEW HAS BEEN COMPLETED.
- REFER TO SPECIFICATIONS FOR FURTHER REQUIREMENTS.

FOUNDATION AND GEOTECHNICAL NOTES

- FOUNDATION DESIGN IS BASED ON THE FOUNDATION INVESTIGATION SOILS REPORT NUMBER WARC03404-01 PREPARED BY TETRA TECH, TITLED DESKTOP GEOTECHNICAL EVALUATION - NEW SERVICE BUILDING AND HERITAGE COURTHOUSE, DAWSON CITY, YT, AND DATED MAY 8, 2018.
- COURTHOUSE FOOTINGS HAVE BEEN DESIGNED BASED ON A ULS FACTORED BEARING RESISTANCE OF 100 kPa.
- EXPOSED SUBGRADE SHALL BE INSPECTED IN THE FIELD BY A PROFESSIONAL GEOTECHNICAL ENGINEER REGISTERED IN THE YUKON AND SUBGRADE PREPARATION SHALL BE DONE ACCORDINGLY.
- BEARING SURFACES IS DELEGATED TO CONTRACTOR, THE SURFACE TO BE INSPECTED IN THE FIELD BY A PROFESSIONAL GEOTECHNICAL ENGINEER REGISTERED IN THE YUKON PRIOR TO PLACING CONCRETE AND PAID BY CONTRACTOR.
- REMOVE ALL ORGANIC MATERIAL FROM THE BUILDING AREA AS OUTLINED IN THE GEOTECHNICAL REPORT.
- REMOVE ALL LOOSE OR SATURATED MATERIAL AND GROUNDWATER FROM THE BASE OF FOOTING EXCAVATIONS BY APPROVED METHODS PRIOR TO PLACING FOUNDATIONS.
- PROTECT EXCAVATIONS FOR FOOTINGS FROM RAIN, SNOW, FREEZING TEMPERATURES, STANDING WATER, LOSS OF MOISTURE AND DEGRADATION BY APPROVED METHODS.
- UNLESS NOTED OTHERWISE SHOWN ON PLAN, FOUNDATION ELEMENTS ARE TO BE CENTERED UNDER WALLS AND COLUMNS.
- FOR BACKFILL MATERIAL SEE GEOTECHNICAL REPORT.
- PROVIDE VAPOUR RETARDER UNDER SLABS-ON-GRADE, FOR SPECIFICATION SEE ARCH.

CAST-IN-PLACE REINFORCED CONCRETE

- CONCRETE MATERIALS, QUALITY, MIXING, PLACING, FORMWORK AND OTHER CONSTRUCTION PRACTICES TO CONFORM TO THE LATEST EDITION OF CSA A23.1, A23.2, AND A23.3.
- SUPPLY CONTROLLED CONCRETE IN ACCORDANCE WITH CSA-A23.1 WITH PROPERTIES NOTED IN CONTROLLED CONCRETE TABLE.
- USE TYPE GU CEMENT FOR ALL CONCRETE UNLESS NOTED OTHERWISE IN CONTROLLED CONCRETE TABLE.
- NOTIFY DEPARTMENTAL REPRESENTATIVE 5 BUSINESS DAYS PRIOR TO CONCRETE POURS TO ALLOW FOR REVIEW OF REINFORCEMENT.
- DO NOT USE ADMIXTURES CONTAINING CALCIUM CHLORIDE.
- FIELD AND LABORATORY TESTING OF CONCRETE TO BE COMPLETED BY A THIRD PARTY TESTING AND INSPECTION AGENCY APPROVED BY AND RESPONSIBLE TO THE DEPARTMENTAL REPRESENTATIVE. TESTING AGENCY SHALL BE CERTIFIED TO CSA-A283 AND TESTING TO BE COMPLETED IN ACCORDANCE WITH CSA-A23.2. TESTING PAID FOR BY CONTRACTOR.
- SUBMIT CONCRETE MIX SHOP DRAWING PRIOR TO PLACING CONCRETE.
- DO NOT PLACE LOAD ON NEW CONCRETE OR POUR NEW CONCRETE ON NEW CONCRETE UNTIL AT LEAST 75% OF ITS 28 DAY STRENGTH IS ATTAINED. CONCRETE QUALITY CONTROL TESTING SHALL BE COMPLETED BY QUALIFIED PERSONNEL AND REPORTS ARE TO BE SUBMITTED TO THE DEPARTMENTAL REPRESENTATIVE.
- BUILDING IS NOT TO BE PUT INTO SERVICE UNTIL ALL CONCRETE COMPONENTS HAVE CURED FOR 28 DAYS OR PROOF THAT THE 28 DAY STRENGTH HAS BEEN ATTAINED THROUGH QUALITY CONTROL TESTING.
- FILL ALL HOLES IN CONCRETE MEMBERS CAUSED BY CONSTRUCTION PRACTICE WITH NON-SHRINK GROUT WITH A COMPRESSIVE STRENGTH EQUAL TO THAT OF THE CONCRETE.
- CONCRETE SHALL NOT BE POURED IN AN UNCONFINED MANNER FROM A HEIGHT OF MORE THAN 1220mm.
- ALL BENDS IN PRIMARY REINFORCEMENT TO HAVE A RADIUS OF NOT LESS THAN 3 TIMES THE BAR DIAMETER.
- QUALITY CONTROL TESTING OF THE CONCRETE AND GROUTS MUST BE COMPLETED BY QUALIFIED PERSONNEL AND REPORTS ARE TO BE SUBMITTED TO THE DEPARTMENTAL REPRESENTATIVE.

CONCRETE REINFORCEMENT

- REINFORCEMENT STEEL TO CONFORM TO CSA-G30.19 GRADE 400W.
- DO NOT WELD REINFORCEMENT UNLESS APPROVED IN WRITING BY DEPARTMENTAL REPRESENTATIVE. REINFORCEMENT TO BE WELDED TO CONFORM TO CSA-G30.18, GRADE 400W. WELDING ONLY PERMITTED BY AN ORGANIZATION CERTIFIED TO CSA-W186.
- NOTIFY THE DEPARTMENTAL REPRESENTATIVE PRIOR TO CONCRETE PLACEMENT TO ALLOW FOR REVIEW OF REINFORCEMENT.
- CLEAR CONCRETE COVER TO REINFORCEMENT - REFER TO CLEAR CONCRETE COVER TO REINFORCEMENT TABLE.
- STANDARD END HOOK LENGTHS FOR REINFORCEMENT - REFER TO STANDARD END HOOKS TABLE.
- REINFORCEMENT SPLICERS - REFER TO REINFORCEMENT SPLICES TABLE.
- ALL REINFORCEMENT TO BE SUPPORTED AT 900 mm MAXIMUM SPACING.

TIMBER

- ALL WOODEN MEMBERS SHALL BE DESIGNED AND CONSTRUCTED IN ACCORDANCE WITH THE LATEST EDITION OF CSA 086.
- READ THESE DESIGN NOTES IN CONJUNCTION WITH ADDITIONAL NOTES AND NOTES UNDER SCHEDULES ON EACH FLOOR&ROOF FRAMING PLANS.
- SUPPLY WOOD WITH PROPERTIES NOTED IN TIMBER GRADES TABLE.
- ALL BLOCKING BETWEEN ROOF/FLOOR RAFTERS/JOISTS ON TOP OF SHEAR WALL (GRID LINES A,B,C,D,1,4) SHALL BE ATTACHED TO DOUBLE TO PLATE WITH MIN. 10d COMMON NAILS @ 100mm o/c. UNLESS NOTED OTHERWISE NAILING FOR FRAMING SHALL CONFORM TO TABLE 9.23.3.4 NBCC 2015
- ALL NEW FLOOR SHEATHING SHALL BE GLUED AND NAILED TO SUPPORTING MEMBERS (EXISTING SHEATHING AND JOIST BELOW) WITH ADHESIVE USING ACCEPTABLE PRODUCT LEPAGE PL400 (OTHER PRODUCT HAVING THE SAME CHARACTERISTICS WILL NOT BE EXCLUDED) IN ADDITION TO NAILING. UNLESS NOTED IN SCHEDULES ON SHEETS, DO NOT REPLACE/REMOVE ANY STRUCTURAL MEMBERS WITHOUT THE WRITTEN APPROVAL OF DEPARTMENTAL REPRESENTATIVE.
- EXISTING DAMAGED SHEATHING SHALL BE REPLACED TO MATCH THE EXISTING AND FASTEN TO PRIMARY FLOOR STRUCTURE AS NOTED AS NOTED UNDER DIAPHRAGM TABLES ON S102,S103,S104. 5% OF THE EXISTING FLOOR SHEATHING IS EXPECTED TO BE DAMAGED AND REPLACED AND PAID BY CONTRACTOR.
- EXISTING ROOF PLANKS SHEATHING CAN BE TEMPORARILY REMOVED DURING THE ROOF MEMBER UPGRADE AND RE-INSTALLED BACK. DAMAGED PLANKS SHALL BE REPLACED TO MATCH THE EXISTING, AND FASTENED TO PRIMARY ROOF STRUCTURE AS NOTED UNDER ROOF DIAPHRAGM SCHEDULE ON S106. 10% OF THE EXISTING ROOF SHEATHING IS EXPECTED TO BE DAMAGED AND REPLACED AND PAID BY CONTRACTOR.
- SUBMIT SHOP DRAWING SHOWING CUSTOM HANGER INCLUDING FASTENERS AS SHOWN ON 2/S105 FOR APPROVAL PRIOR TO INSTALLATION.
- SUBMIT SHOP DRAWING FOR ALL HANGERS, LATERAL TIES PLATES AND ANGLES INCLUDING FASTENERS FOR APPROVAL PRIOR TO INSTALLATION.
- ENSURE ALL 75mm LONG NAILS HAVE A MINIMUM DIAMETER OF 3.66mm AND ALL 64mm LONG NAILS HAVE A MINIMUM DIAMETER OF 3.25mm. ALL SHEAR WALL NAILS SHALL HAVE FULL HEADS.
- OBTAIN DEPARTMENTAL REPRESENTATIVE APPROVAL BEFORE DRILLING THROUGH THE EXISTING, UPGRADED AND NEW FLOOR JOISTS.
- UNLESS NOTED OTHERWISE INSTALL NEW BLOCKING BETWEEN ALL FLOOR JOIST AT THE SUPPORTS.
- BLOCK ALL EXTERIOR AND INTERIOR SHEAR WALLS AT 1220mm INTERVALS (MAX) AND SHEATH ACCORDING TO SHEATHING SCHEDULE OR NOTE BELOW.
- ROOF/FLOOR FULL DEPTH BLOCKING SHALL BE INSTALLED AS SHOWN ON DETAILS.

- PROVIDE DOUBLE BLOCKING UNDER ALL PARTITIONS PARALLEL AND PERPENDICULAR TO THE JOISTS.
- ALL COLUMNS SHALL BE BLOCKED THROUGH THE FLOORS ASSEMBLY. BLOCKING (STUB COLUMN) SHALL BE EQUAL IN SIZE AND GRADE TO THE COLUMN ABOVE.
- WALL ANCHORAGE TO MAIN FLOOR SLAB AND FOUNDATION SHALL BE AS SHOWN ON THE DRAWING.
- UNLESS NOTED OTHERWISE ALL BUILT UP BEAMS, JOISTS SHALL BE LAMINATED USING ACCEPTABLE PRODUCT LEPAGE PL400 (OTHER PRODUCT HAVING THE SAME CHARACTERISTICS WILL NOT BE EXCLUDED) ADHESIVE AND 06mm STRUCTURAL SCREWS ACCEPTABLE PRODUCT SIMPSON STRONG TIE "SDS" SCREWS -OTHER PRODUCT HAVING THE SAME CHARACTERISTICS WILL NOT BE EXCLUDED. SCREWS LENGTH SHALL BE EQUAL TO THE THICKNESS OF TWO PLIES. SCREW CONFIGURATIONS AS PER DETAILS.
- UNLESS NOTED OTHERWISE ALL BUILT UP RAFTERS SHALL BE LAMINATED USING ACCEPTABLE PRODUCT LEPAGE PL400 (OTHER PRODUCT HAVING THE SAME CHARACTERISTICS WILL NOT BE EXCLUDED) ADHESIVE AND NAILED. NAIL LENGTH SHALL BE EQUAL TO THE THICKNESS OF TWO PLIES. NAIL CONFIGURATION AS PER DETAIL.
- UNLESS NOTED OTHERWISE ALL BUILT UP COLUMNS SHALL BE LAMINATED USING ACCEPTABLE PRODUCT LEPAGE PL400 (OTHER PRODUCT HAVING THE SAME CHARACTERISTICS WILL NOT BE EXCLUDED) ADHESIVE AND NAILS. NAIL LENGTH SHALL BE EQUAL TO THE THICKNESS OF TWO PLIES. UNLESS NOTED OTHERWISE PLIES CONFIGURATION AND FASTENING LAYOUT SHALL DONE IN ACCORDANCE WITH PART 9 OF THE NBCC 2015.
- UNLESS NOTED OTHERWISE ALL BUILT UP WALL STUDS IN THE BASEMENT SHALL BE LAMINATED USING ACCEPTABLE PRODUCT LEPAGE PL400 (OTHER PRODUCT HAVING THE SAME CHARACTERISTICS WILL NOT BE EXCLUDED) ADHESIVE AND NAILS. NAIL LENGTH SHALL BE EQUAL TO THE THICKNESS OF TWO PLIES. UNLESS NOTED OTHERWISE PLIES CONFIGURATION AND FASTENING LAYOUT SHALL DONE IN ACCORDANCE WITH PART 9 OF THE NBCC 2015.
- UNLESS NOTED OTHERWISE WALL STUDS ATTACHED TO PLATE AS PER TIMBER STUDS PLATE FASTENING SCHEDULE ON S002
- INSTALL ROOF AND WALL ANCHORAGE AS PER DETAILS.
- IF AT ANY POINT WALL SHEATHING MUST BE JOINED WHERE NO STUD OR WALL PLATE EXISTS, AN ADDITIONAL STUD OR BLOCKING MUST BE INSTALLED AT THE SHEATHING SEAM DEPENDING ON THE ORIENTATION OF THE SEAM.
- ALL BOLTS CONNECTING WOOD TO WOOD OR WOOD TO CONCRETE SHALL BE GRADE ASTM A307. BOLTS SHALL BE GALVANIZED EXCEPT THOSE EMBEDDED INTO CONCRETE.
- ALL BOLTS AND WOOD FASTENERS SUCH AS A NAILS OR SCREWS IN THE BASEMENT SHALL BE HOT DIP GALVANIZED.
- ALL BOLTS AND WOOD FASTENERS SUCH AS A NAILS OR SCREWS PERMANENTLY EXPOSED TO THE ATMOSPHERE SHALL BE GALVANIZED OR ZINC PLATED.
- ALL BOLTS AND WOOD FASTENERS SUCH AS A NAILS OR SCREWS USED WITH PRESERVATIVE TREATED LUMBER SHALL BE HOT-DIP GALVANIZED IN ACCORDANCE WITH ASTM A153.
- PROVIDE A MINIMUM OF 2 BOLTS IN BOLTED CONNECTIONS.
- UNLESS NOTED OTHERWISE JOIST HANGERS, TIES AND OTHER STEEL CONNECTORS SHALL BE GALVANIZED. WHERE THE CONNECTORS ARE USED WITH PRESERVATIVE TREATED LUMBER AND IN THE BASEMENT SHALL BE HOT DIP GALVANIZED.
- ALL CONSTRUCTION CONNECTORS SHALL BE INSTALLED AS PER MANUFACTURER SPECIFICATION TO DEVELOP FULL CAPACITY.
- ALL DIMENSIONAL LUMBER TO BE PERMANENTLY EXPOSED TO THE EXTERIOR ATMOSPHERE SHALL BE PRESERVATIVE TREATED - UNNOISED OR FINISHED WITH A WEATHER RESISTANT COATING. ALL ENGINEERED LUMBER (LVL, PSL & GLULAM MEMBERS) TO BE PERMANENTLY EXPOSED TO THE EXTERIOR ATMOSPHERE SHALL BE TREATED WITH A WEATHER RESISTANT COATING APPLIED AT THE MANUFACTURER'S FACILITY PRIOR TO SHIPMENT TO SITE.
- ALL NEW AND/OR EXISTING LUMBER, TIMBER, ENGINEERED WOOD IN CONTACT WITH NEW ADDITIONAL STEEL PLATE REINFORCEMENT SHALL BE FINISHED WITH A WEATHER RESISTANT COATING.
- INSTALL SILL GASKET UNDER THE ALL SILL PLATES IN CONTACT WITH CONCRETE.
- IN ADDITION TO TYPICAL SHEATHING PRACTICE, ALL WALL SHEATHING ON EXTERIOR WALLS SHALL EXTEND FROM THE TOP PLATES OF THE STUD WALL BELOW TO THE BOTTOM PLATE OF THE STUD WALL ABOVE. NAILING PATTERN IN SHEATHING AT THESE LOCATIONS SHALL BE EQUAL TO THE NAILING PATTERN SPECIFIED FOR THE SHEATHING BELOW.
- ALL SHEAR WALLS SHALL BE SHEATHED TO UNDERSIDE OF FLOOR SHEATHING ABOVE OR EQUIPPED WITH RIM JOISTS TO TRANSFER LOAD INTO CONNECTING SHEAR WALLS.
- ALL INTERIOR AND EXTERIOR SHEAR WALLS SHALL HAVE DOUBLE CONTINUOUS TOP CHORD.
- ALL NEW AND/OR EXISTING LUMBER IN CONTACT WITH NEW ADDITIONAL STEEL SHALL BE FINISHED WITH A WEATHER RESISTANT COATING. SEE SPECIFICATION SECTION 06 05 00.
- MINIMUM REQUIRED SPACING, END AND EDGE DISTANCES FOR FASTENERS SHALL BE ACCORDING TO CSA 086-14.
- RETREAT ALL CUT ENDS OF PRESSURE TREATED LUMBER WHICH REQUIRE ON-SITE CUTTING.

STRUCTURAL STEEL

- DESIGN, FABRICATION, ERECTION, AND OTHER CONSTRUCTION PRACTICES TO CONFORM TO CSA-S16 AND THE CISC CODE OF STANDARD PRACTICE FOR STRUCTURAL STEEL.
- STEEL TO BE FABRICATED AND ERECTED BY A SHOP CERTIFIED BY THE CANADIAN WELDING BUREAU TO THE REQUIREMENTS OF CSA-W47.1, DIVISION 1 OR 2.1 ONLY.
- WELDING TO REINFORCEMENT STEEL ONLY BY A SHOP CERTIFIED TO CSA-W186 WITH REINFORCEMENT CONFORMING TO CSA-G30.18, GRADE 400W.
- SUPPLY STEEL WITH PROPERTIES NOTED IN STEEL GRADES TABLE.
- WELDING TO CONFORM TO CSA-W59.
- ALL STEEL MEMBERS IN CONTACT WITH PRESERVATIVE TREATED LUMBER SHALL BE HOT DIP GALVANIZED.
- ALL FASTENERS USED IN BASEMENT SHALL BE HOT DIP GALVANIZED.
- SHOP GALVANIZING TO CONFORM TO ASTM A123/A123M-15.

- ALL EXPOSED WELDS TO BE CONTINUOUS. GRIND ALL EXPOSED WELDS SMOOTH, INCLUDING PAINTED STEEL.
- CONNECTIONS NOT DETAILED ON THE STRUCTURAL DRAWINGS SHALL BE DESIGNED AND DETAILED BY A PROFESSIONAL STRUCTURAL ENGINEER REGISTERED IN YUKON TERRITORY AT THE STEEL FABRICATOR'S EXPENSE.
- DO NOT SPlice MATERIAL WITHOUT THE WRITTEN APPROVAL OF THE DEPARTMENTAL REPRESENTATIVE. WHERE GRANTED, A COMPLETE NON-DESTRUCTIVE EXAMINATION WILL BE MANDATORY AND PAID FOR BY THE CONTRACTOR.
- SQUARE CUT OR FULL STRENGTH WELD ALL COLUMNS AT BASE PLATES AND AT TOP WHERE BEARING UNDER CONTINUOUS BEAMS.
- ALL BOLTS AND WOOD FASTENERS PERMANENTLY EXPOSED TO THE ATMOSPHERE SHALL BE GALVANIZED OR ZINC PLATED. ALL WELDS SHALL HAVE AN ULTIMATE STRENGTH OF NOT LESS THAN 490 MPa (E490XX ELECTRODES).
- CLEAN, PREPARE AND PRIME ALL STRUCTURAL STEEL, UNLESS HOT DIP GALVANIZED COATING IS SPECIFY.
- ALL EXISTING SCREW JACKS SHALL BE CLEANED OFF THE RUST AND PAINTED WITH ZINC-RICH PAINT.

EXISTING STRUCTURE LEVELING

- ALL EXISTING FLOOR FINISHES SHALL BE REMOVED PRIOR TO RE-LEVELING.
- FLOOR STRUCTURE LEVEL 1,2 & 3 SHALL BE RE-LEVELLED BEFORE ANY UPGRADE WORK.
- ROOF STRUCTURE SHALL BE RE-LEVELLED BEFORE ANY UPGRADE WORK.
- THE MAXIMUM ACCEPTABLE TOLERANCE FOR FLOOR DEFORMATION AFTER RE-LEVELING IS 6.35mm IN 2438mm (= 1/384).
- THE MAXIMUM ACCEPTABLE TOLERANCE FOR ROOF DEFORMATION AFTER RE-LEVELING IS 6.80mm IN 2438mm (= 1/360).
- CONTRACTOR IS TO SURVEY THE STRUCTURE AFTER RE-LEVELING AND SUBMIT SURVEY REPORT FOR EACH FLOOR LEVEL AND ROOF TO DEPARTMENTAL REPRESENTATIVE FOR APPROVAL PRIOR TO ANY UPGRADE WORK. SURVEY REPORT SHALL FOLLOW THE SAME GRID AS THE PROVIDED SURVEY OF THE EXISTING.

ADHESIVE ANCHORING SYSTEM

- SUBMIT SHOP DRAWING FOR ADHESIVE ANCHORING SYSTEM FOR HOLDDOWNS AND DOWELS TO EXISTING AND/OR NEW CONCRETE. ACCEPTABLE PRODUCT -HILTI HIT HY 200 - OTHER PRODUCT HAVING THE SAME CHARACTERISTICS WILL NOT BE EXCLUDED.



CLIMATIC INFORMATION	
TO BE READ IN CONJUNCTION WITH DESIGN LOADS DESIGN NOTES	
SNOW LOAD (1/50), S <sub>s</sub>	2.9 kPa
SNOW LOAD (1/50), S <sub>f</sub>	0.1 kPa
HOURLY WIND PRESSURE (1/10)	0.24 kPa
HOURLY WIND PRESSURE (1/50)	0.31 kPa
SEISMIC RESPONSE, S <sub>a</sub> (0.2)	0.396
SEISMIC RESPONSE, S <sub>a</sub> (0.5)	0.277
SEISMIC RESPONSE, S <sub>a</sub> (1.0)	0.168
SEISMIC RESPONSE, S <sub>a</sub> (2.0)	0.087
SEISMIC RESPONSE, S <sub>a</sub> (5.0)	0.030
SEISMIC RESPONSE, S <sub>a</sub> (10.0)	0.012
SEISMIC RESPONSE, PGA	0.185
SEISMIC RESPONSE, PGA	0.174

SITE INFORMATION	
TO BE READ IN CONJUNCTION WITH DESIGN LOADS DESIGN NOTES	
IMPORTANCE CATEGORY	NORMAL
WIND EXPOSURE TYPE	OPEN TERRAIN
INTERNAL PRESSURE CATEGORY	2
FOUNDATION SITE CLASS	D

DESIGN LOADS	
TO BE READ IN CONJUNCTION WITH DESIGN LOADS DESIGN NOTES	
BASEMENT PERIMETER WALL	
EQUIVALENT FLUID PRESSURE DRY/ FULLY SATURATED	1120/1620* kg/m <sup>2</sup>
GROUND LIVE LOAD SURCHARGE	4.8 kPa
LEVEL 1 FLOOR	
DEAD LOAD	2.5 kPa
LIVE LOAD	4.8 kPa
LIVE LOAD - MECH. ROOM	4.8 kPa**
LEVEL 2 FLOOR	
DEAD LOAD	2.5 kPa
LIVE LOAD - CORRIDORS (GL A-E/2-3) AND STAIRS	4.8 kPa
LIVE LOAD - ELSEWHERE	2.4 kPa
LEVEL 3 FLOOR	
DEAD LOAD - GL C-D/1-4 (OCCUPIED SPACE)	2.5 kPa
DEAD LOAD - ELSEWHERE	1.0 kPa
LIVE LOAD - GL C-D/1-4 (OCCUPIED SPACE)	2.4 kPa
ROOFS	
DEAD LOAD	1.0 kPa
BASIC SNOW LOAD	2.42 kPa
ACCUMULATED SNOW LOAD	REFER TO DIAGRAM-S601

NOTE:  
FLOOR SUPERIMPOSED DEAD LOAD INCLUDING SELF-WEIGHT OF FLOOR ASSEMBLY, 1.0kPa FOR PARTITIONS 1.0kPa AND 0.5kPa FOR MECHANICAL AND ELECTRICAL.  
\* FULLY SATURATED CONDITIONS CONSIDERED AS A SHORT TERM LOADING  
\*\* OR ACTUAL EQUIPMENT WEIGHT (WHICHEVER IS GREATER)

TIMBER GRADES		
TO BE READ IN CONJUNCTION WITH TIMBER FRAMING DESIGN NOTES		
MEMBER TYPE	GRADE	
NEW SHEATHING		
FLOORING	CANADIAN SOFTWOOD PLYWOOD TONGUE AND GROOVE, 18.5 mm THICKNESS, EXTERIOR GRADE, MIN. MARKING OF 2R24	
ROOF	CANADIAN SOFTWOOD PLYWOOD, 15.5 mm TONGUE AND GROOVE, EXTERIOR GRADE, MIN. MARKING OF 2R24	
WALLS	CANADIAN SOFTWOOD PLYWOOD, 12.5 mm THICKNESS, EXTERIOR GRADE, MIN. MARKING OF 2R24 (PRESSURE TREATED -BASEMENT)	
EXISTING LUMBER		
EXISTING JOISTS AND BEAMS	HOSPITAL ADDITION D FIR-L NO. 1NO. 2 GRADE ELSEWHERE S-P-F NO. 1NO. 2 GRADE	
EXISTING COLUMNS	HOSPITAL ADDITION D FIR-L NO. 1NO. 2 GRADE ELSEWHERE S-P-F NO. 1NO. 2 GRADE	
EXISTING LOAD BEARING WALL STUDS	HOSPITAL ADDITION D FIR-L NO. 1NO. 2 GRADE ELSEWHERE S-P-F NO. 1NO. 2 GRADE, PRESERVATIVE TREATED UNINCISED-BASEMENT AREA	
COLUMNS-BALCONY	S-P-F NO. 1NO. 2 GRADE	
NEW SAWN LUMBER		
JOISTS AND BUILT-UP BEAMS	S-P-F NO. 1NO. 2 GRADE	
BUILT-UP COLUMNS	S-P-F NO. 1NO. 2 GRADE, (USE PRESSURE TREATED UNINCISED LUMBER IN BASEMENT)	
NEW WALL STUDS	S-P-F NO. 1NO. 2 GRADE, (USE PRESSURE TREATED UNINCISED LUMBER IN BASEMENT)	
NEW FOUNDATION PADS SF02	S-P-F NO. 1NO. 2 GRADE PRESSURE TREATED UNINCISED	
NEW TIMBER		
NEW FOUNDATION PADS SF03-05, SF06-13	S-P-F NO. 2 GRADE PRESSURE TREATED	
STRUCTURAL COMPOSITE LUMBER		
JOISTS, BEAMS - LAMINATED VENEER LUMBER-LVL	GRADE	2.0E
	MODULUS OF ELASTICITY	13789 MPa
	FLEXURAL BENDING STRESS F <sub>b</sub>	33129 kPa
	COMPRESSION PERPENDICULAR TO GRAIN F <sub>c</sub>	9411 kPa
	COMPRESSION PARALLEL TO GRAIN F <sub>c</sub>	27613 kPa
COLUMNS - PARALLEL STRAND LUMBER-PSL	GRADE	2.0E
	MODULUS OF ELASTICITY	13789 MPa
	FLEXURAL BENDING STRESS F <sub>b</sub>	36955 kPa
	COMPRESSION PERPENDICULAR TO GRAIN F <sub>c</sub>	7825 kPa
	COMPRESSION PARALLEL TO GRAIN F <sub>c</sub>	31922 kPa
TENSION F <sub>t</sub>		25855 kPa

NOTE:  
ALL LUMBER USED IN BASEMENT SHALL BE PRESERVATIVE TREATED UNINCISED.

STEEL GRADES	
TO BE READ IN CONJUNCTION WITH STRUCTURAL STEEL DESIGN NOTES	
MEMBER TYPE	GRADE
ROLLED W-SHAPES, TEES	CSA G40.21 350W OR ASTM A992 GRADE 50
WELDED WIDE FLANGE SECTIONS	CSA G40.21 350W
HOLLOW STRUCTURAL SECTIONS	CSA G40.21 350W CLASS C
OTHER STRUCTURAL SHAPES AND PLATES	CSA G40.21 300W
BOLTS (STEEL TO STEEL)	ASTM A325
BOLTS (STEEL TO WOOD)	ASTM A307
ANCHOR RODS	ASTM F1554 GRADE 36
THREADED ROD	ASTM A36
HOLDOWN ANCHOR ROD TO CONCRETE	ASTM F1554 GRADE 36

NOTE:  
1. ALL FASTENERS USED IN BASEMENT SHALL BE HOT DIP GALVANIZED  
2. ALL STEEL MEMBERS IN CONTACT WITH PRESSURE TREATED LUMBER SHALL BE HOT DIP GALVANIZED

REINFORCEMENT SPLICES					
TO BE READ IN CONJUNCTION WITH CONCRETE REINFORCEMENT DESIGN NOTES					
BAR SIZE	COMPRESSION SPLICE (mm)	TENSION SPLICE (mm)			
		VERTICAL OR BOTTOM HORIZONTAL BARS		TOP HORIZONTAL BARS	
		UNCOATED BARS	EPOXY COATED BARS	UNCOATED BARS	EPOXY COATED BARS
10M	300	400	600	500	650
15M	450	550	850	750	950
20M	600	700	1000	900	1150
25M	750	1100	1650	1400	1650
30M	900	1300	1950	1700	2200
35M	1025	1550	2300	2000	2600
NOTE 1: THIS TABLE IS BASED ON NORMAL WEIGHT CONCRETE F <sub>c</sub> = 35 MPa AND ON REINFORCING STEEL f <sub>y</sub> = 400 MPa.					
NOTE 2: TOP HORIZONTAL BARS ARE DEFINED AS HORIZONTAL REINFORCEMENT PLACED SUCH THAT MORE THAN 300 mm OF CONCRETE IS CAST IN THE MEMBER BELOW THE REINFORCEMENT.					
NOTE 3: FOR STANDARD EMBEDMENT DEPTH INTO CONCRETE, DIVIDE BASIC TENSION LAP SPLICE NUMBERS BY 1.3.					

CLEAR CONCRETE COVER TO REINFORCEMENT			
TO BE READ IN CONJUNCTION WITH CONCRETE REINFORCEMENT DESIGN NOTES			
EXPOSURE CONDITION	EXPOSURE CLASS		
	N	F-1, F-2, S-1, S-2, S-3	C-XL, C-1, C-2, C-3, A-1, A-2, A-3
CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH	-	75 mm	75 mm
BEAMS, GIRDERS, COLUMNS, AND PILES TO TIES/STIRRUPS (EXCEPT AS NOTED BELOW)	30 mm	40 mm	60 mm
SLABS, WALLS, JOISTS, SHELLS, AND FOLDED PLATES (EXCEPT AS NOTED BELOW)	20 mm	40 mm	60 mm
RATIO OF COVER TO NOMINAL BAR DIAMETER	1.0	1.5	2.0
RATIO OF COVER TO NOMINAL MAXIMUM AGGREGATE SIZE	1.0	1.5	2.0
NOTE THE LARGEST COVER REQUIRED FOR ANY ONE ELEMENT SHALL GOVERN.			

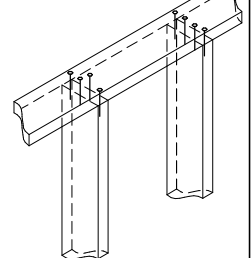
STANDARD END HOOKS								
TO BE READ IN CONJUNCTION WITH CONCRETE REINFORCEMENT DESIGN NOTES								
BAR SIZE	10M	15M	20M	25M	30M	35M	45M	55M
90 HOOK LENGTH								
180 HOOK LENGTH								
	180	260	310	400	510	640	790	1020
	140	180	210	280	350	550	670	860

CONTROLLED CONCRETE							
TO BE READ IN CONJUNCTION WITH CAST-IN-PLACE REINFORCED CONCRETE DESIGN NOTES							
CONCRETE ELEMENT	CLASS OF EXPOSURE	MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS (MPa)	MINIMUM COMPRESSIVE STRENGTH AT 56 DAYS (MPa)	MAXIMUM AGGREGATE SIZE (mm)	AIR CONTENT %	MAX. W/C RATIO	CEMENT TYPE
COURTHOUSE - ADDITION TO EXISTING STRIP FOOTING	C-2	32	-	20	5-8	0.45	GU

HOLDOWN SCHEDULE			
HOLDOWN DESIGNATION	MIN. SIZE OF STUD	MIN. ANCHOR BOLT DIAMETER (mm)	MIN. FACTORED TENSILE RESISTANCE (kN) (S)
H0-01	MIN. 3.0xL	15	12.0 kN
H0-02	MIN. 3.0xL	15	27.2 kN
H0-03	MIN. 3.0xL	NA	PREFABT STRIP 15.0xM
H0-04	MIN. 3.0xMIN. 3.0xL	15	DOUBLE HOLDOWN - 2x20.0 kN
H0-05	MIN. 3.0xMIN. 3.0xL	15	DOUBLE HOLDOWN - 2x27.2 kN
H0-06	MIN. 3.0xL	NA	STRAP TIE 15.0 kN

NOTE:  
1. STRUCTURAL SCREENS SHALL BE USED FOR ALL HOLDOWNS.  
2. USE FASTENERS AS PER MANUFACTURER SPECIFICATION.  
3. SEE GENERAL HOLDOWN PLACEMENT DETAIL ON 14.2.006 & 14.1.1.011.  
4. SEE 14.4.001 FOR HOLDOWN LOCATIONS AT GL 1.14.  
5. DOUBLE HOLDOWN SHALL BE INSTALLED (STAGGERED) AS PER MANUFACTURER SPECIFICATION. SEE DETAIL ON 3.006 & 3.011.  
6. PREFABT STRIPS FOR INSTALLATION WITH RAMPOUR JUST BACKS.  
7. EMBEDMENT LENGTH TO EXISTING CONCRETE SHALL BE AS PER ANCHORING SYSTEM'S 10mm. SUBMIT ADHESIVE ANCHORING SYSTEM SHOP DRAWING FOR APPROVAL. ACCEPTABLE PRODUCT - HELIX HT HT 300 - OTHER PRODUCT HAVING THE SAME CHARACTERISTICS WILL NOT BE EXCLUDED.  
8. MIN. DOUBLE HOLDOWN ANCHOR ROD SPACING TO CONCRETE: 160mm. SEE DETAIL ON 3.011.  
9. UNLESS NOTED OTHERWISE, USE 17.1.1 BOLT UP COLUMN AT BASEMENT. FOR LOCATION SEE 14.4.001.

TIMBER STUDS PLATE FASTENING		
STUD SIZE	STUD TYPE	#FASTENERS
30x40	DIMENSIONAL LUMBER	4
30x50	DIMENSIONAL LUMBER	5
30x55	DIMENSIONAL LUMBER	7
30x60	DIMENSIONAL LUMBER	8
30x60x40x140	ENGINEERED LUMBER	4
30x60x40x150	ENGINEERED LUMBER	5
30x50x40x200	ENGINEERED LUMBER	7
30x50x40x200	ENGINEERED LUMBER	8
30x50x40x200	ENGINEERED LUMBER	9
NOTES		
DIMENSIONAL LUMBER - USE 1.0x100mm FRAMING WALLS.		
ENGINEERED LUMBER - USE 150x100mm WOOD SCREENS.		
APPLIES TO LAYER UP TOP OR BOTTOM PLATE IN CONTACT WITH STUDS.		



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RATIO

Seal



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Revision/	Description/Description	Date/Date
Revision		

Client/client

PARKS CANADA

Project title/Titre du projet

301 FRONT STREET  
DAWSON, YT Y0B 1G0

FORMER TERRITORIAL  
COURTHOUSE

Consultant Signature Box Only

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PCA PROJECT LEAD  
**TRAVIS WEBER**

PCA PROJECT MANAGER

**JOSHUA KUMMERFIELD**

Drawing title/Titre du dessin

DESIGN TABLES

Project No./No. du projet

PRO 842

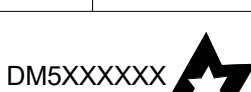
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Revision no./  
La Révision  
no.

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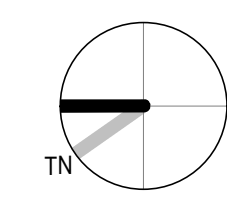




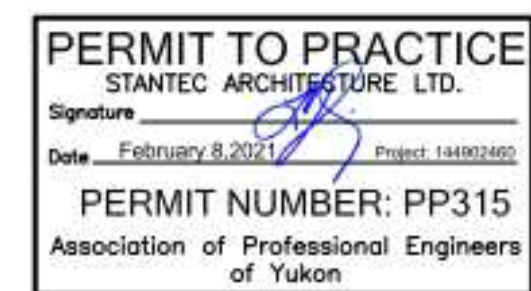


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**LEVEL 3 FLOOR/CEILING  
FRAMING**

Project No./No. du projet

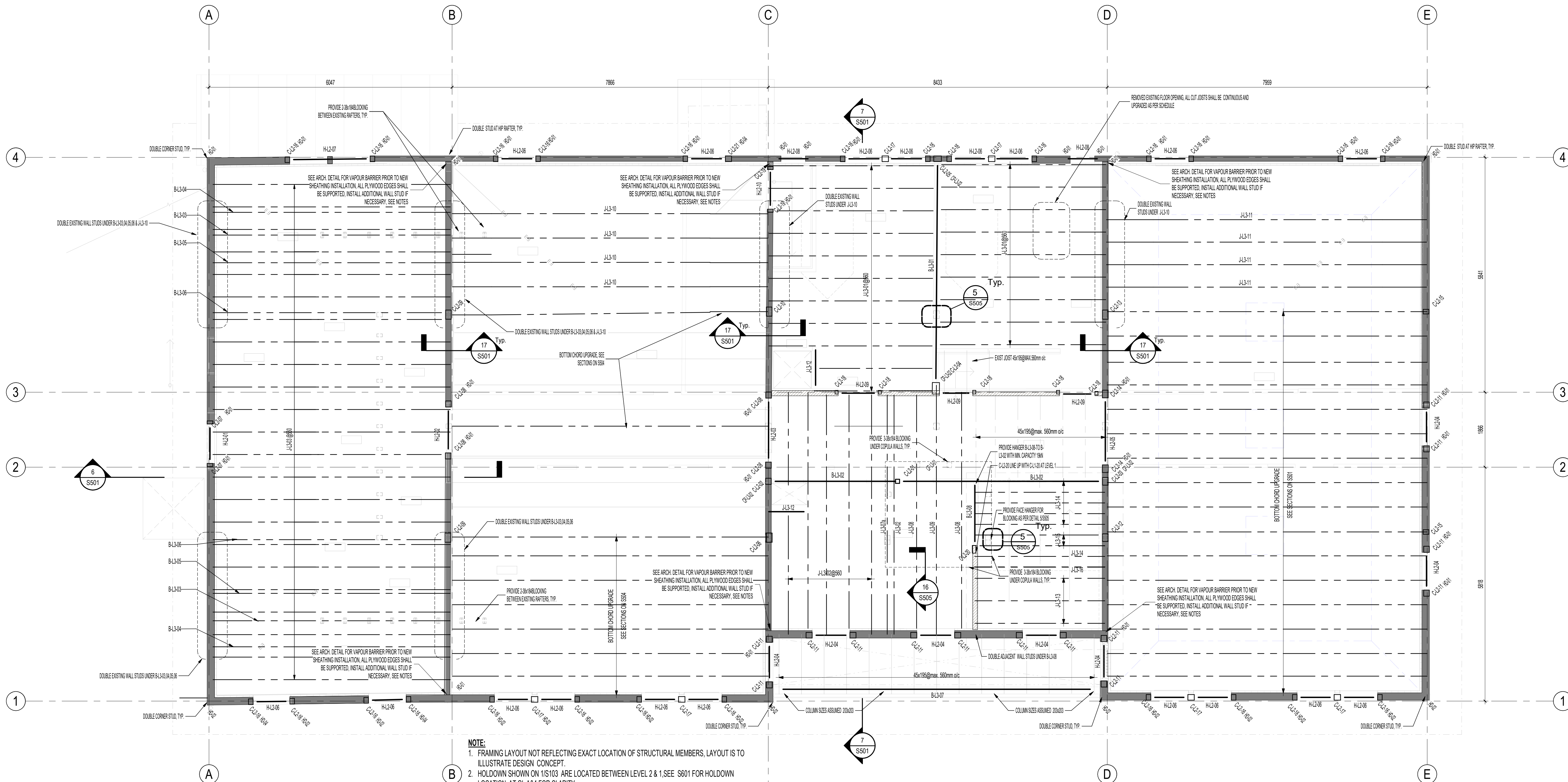
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**S104**

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La Révision,  
no.

**1**



- NOTE:**
1. FRAMING LAYOUT NOT REFLECTING EXACT LOCATION OF STRUCTURAL MEMBERS, LAYOUT IS TO ILLUSTRATE DESIGN CONCEPT
  2. HOLDDOWN SHOWN ON VIS103 ARE LOCATED BETWEEN LEVEL 2 & 1 SEE S601 FOR HOLDDOWN LOCATION AT GL A84 FOR CLARITY
  3. ALL EXISTING ROOF & FLOOR MEMBERS SHALL BE RE-LEVELLED PRIOR UPGRADE WORK, FOR DETAILS SEE GENERAL NOTES ON S601 - EXISTING STRUCTURE LEVELING
  4. FOR EXACT SIZE OF THE WALL OPENING SEE ARCH. DRAWINGS AND SCHEDULE
  5. UNDERSIDE OF THE CEILING LEVELS ABOVE THE COURTROOMS SHALL REMAIN AT ORIGINAL LEVEL

**1 S104 LEVEL 3 FLOOR/CEILING FRAMING**  
1:50

LEVEL 3 BEAM SCHEDULE		
BEAM DESIGNATION	EXISTING BEAM SIZE	NEW BEAM SIZE
BL3-01	-	444x69 2.0x LVL
BL3-02	UNKNOWN	444x69 2.0x LVL
BL3-03	-	344x69 2.0x LVL
BL3-04	-	344x69 2.0x LVL
BL3-05	-	344x69 2.0x LVL
BL3-06	-	344x69 2.0x LVL
BL3-07	330x108	EXIST 330x108 NEW 230x104
BL3-08	-	330x108

- NOTE:**
1. B.L. 3/08 SUPPORTING PARTERS ONLY
  2. B.L. 3/08 SUPPORTING HP PARTER ONLY
  3. UNLESS NOTED OTHERWISE SEE DETAIL VIS0101 ALL ADDITIONAL PILES SHALL BE ATTACHED TO EXISTING BEAM/JOIST FOLLOWING BUILT-UP BEAM REQUIREMENTS SEE S601
  4. FULL LENGTH OF THE BEAM SHALL BE PROVIDED

LEVEL 3 FLOOR/CEILING JOIST SCHEDULE			
JOIST DESIGNATION	EXISTING JOIST SIZE AND SPACING	NEW JOIST SIZE NEW JOIST SIZE AND SPACING	DETAIL
JL3-01	4x10 @ max. 500	EXIST 4x10 NEW 230x126 @ max. 500 oc	2501
JL3-02	4x10 @ max. 500	EXIST 4x10 NEW 230x126 @ max. 500 oc	1501
JL3-03	30x140 @ max. 500	EXIST 30x140 NEW 230x126 @ max. 500 oc	1501
JL3-04	NOT USED	-	-
JL3-05	NOT USED	-	-
JL3-06	NOT USED	-	-
JL3-07	NOT USED	-	-
JL3-08	44x108	EXIST 44x108 NEW 344x126 LVL	-
JL3-09	4x10 @ max. 500	EXIST 4x10 NEW 230x126 LVL @ max. 500 oc	1501
JL3-10	-	244x126 @ max. 500	-
JL3-11	4x10 @ max. 500	EXIST 4x10 NEW 244x126 LVL @ max. 500 oc	1502
JL3-12	-	230x126	-
JL3-13	4x10 @ max. 500	EXIST 4x10 NEW 230x126 @ max. 500 oc	2501
JL3-14	4x10 @ max. 500	EXIST 4x10 NEW 230x126 @ max. 500 oc	2501
JL3-15	4x10	EXIST 4x10 NEW 230x126	-
JL3-16	34x108	-	-

- NOTE:**
1. UNLESS NOTED OTHERWISE ALL ADDITIONAL PILES SHALL BE ATTACHED TO EXISTING BEAM/JOIST FOLLOWING BUILT-UP BEAM REQUIREMENTS SEE S601
  2. UNLESS NOTED OTHERWISE MAXIMUM FULL LENGTH OF EXISTING JOIST SHALL BE PROVIDED
  3. UNDERSIDE OF THE CEILING LEVELS ABOVE THE COURTROOMS SHALL REMAIN AT ORIGINAL LEVEL

LEVEL 2 COLUMN SCHEDULE				
COLUMN DESIGNATION	EXISTING COLUMN SIZE	NEW COLUMN SIZE	JACK STUD	WING STUD
CL2-01	-	HSS 100x106x4	-	-
CL2-02	-	430x40	-	-
CL2-03	-	530x40	-	-
CL2-04	-	170x100x12 FSL	-	-
CL2-05	-	530x40	-	-
CL2-06	-	530x40	-	-
CL2-07	50x140x10	EXIST NEW 330x140	1	2
CL2-08	UNKNOWN	430x40	3	1
CL2-09	UNKNOWN	730x40	-	-
CL2-10	UNKNOWN	730x40	-	-
CL2-11	50x140x10x10x10x10	EXIST NEW 430x140	2	2
CL2-12	UNKNOWN	530x40	-	-
CL2-13	UNKNOWN	630x40	-	-
CL2-14	UNKNOWN	530x40	4	1
CL2-15	UNKNOWN	330x40	-	-
CL2-16	50x140x10x10x10x10	EXIST NEW 330x140	1	2
CL2-17	115x140x10x10x10x10	-	11	2
CL2-18	UNKNOWN	230x40	1	1
CL2-19	UNKNOWN	230x40	1	1
CL2-20	50x140x10x10x10x10	EXIST NEW 430x140	1	1

**NOTE:** RE-LEVEL EXISTING DOUBLE ENDING STUDS AS BUILT-UP COLUMN. SEE NOTES ON S601

LEVEL 2 HEADER SCHEDULE		
HEADER DESIGNATION	EXISTING HEADER SIZE	NEW HEADER SIZE
HL2-01	230x140 FLAT	330x140
HL2-02	240x120	344x108 2.0x LVL
HL2-03	-	344x108 2.0x LVL
HL2-04	230x140 FLAT	330x140
HL2-05	150x100x10	344x108 2.0x LVL
HL2-06	230x140 FLAT	330x140
HL2-07	230x140 FLAT	330x140
HL2-08	230x140 FLAT	230x140
HL2-09	UNKNOWN	230x140
HL2-10	UNKNOWN	330x140

LEVEL 2 SHEAR WALL / LOAD BEARING WALL SCHEDULE				
WALL LOCATION	EXISTING WALL STUDS	NEW WALL STUDS	SHEATHING	WALING
GL 1/AC D/E	50x140 @ MAX 500mm oc	NA	EXISTING DIAGONAL SHEATHING	-
GL 1/B/C/D	50x140 @ MAX 500mm oc	NA	EXISTING DIAGONAL SHEATHING	-
GL 3/C/D	50x140 @ MAX 500mm oc	NA	EXISTING	-
GL 4/A/B	50x140 @ MAX 500mm oc	ALL EXISTING DISCONT. STUDS SHALL BE SPLICED WITH CONT. NEW 30x140 @ MAX. 500mm oc	EXISTING DIAGONAL SHEATHING	-
GL 4/B/E	50x140 @ MAX 500mm oc	NA	EXISTING DIAGONAL SHEATHING	-
GL 4/F/A	50x140 @ MAX 500mm oc	NA	EXISTING DIAGONAL SHEATHING	-
GL 5/A	50x140 @ MAX 500mm oc	NA	EXISTING DIAGONAL SHEATHING	-
GL 5/B	50x140 @ MAX 500mm oc	EXIST 50x140 NEW 30x140 @ max. 500mm oc	EXISTING DIAGONAL SHEATHING	-
GL 1/C	50x140 @ MAX 500mm oc	NA	NEW 125mm PLYWOOD	75mm WALLS @ 100mm oc
GL 1/D	50x140 @ MAX 500mm oc	EXIST 50x140 NEW 30x140 @ max. 500mm oc	NEW 125mm PLYWOOD	75mm WALLS @ 100mm oc
GL 1/E	50x140 @ MAX 500mm oc	NA	EXISTING DIAGONAL SHEATHING	-
GL 1/F	50x140 @ MAX 500mm oc	NA	EXISTING DIAGONAL SHEATHING	-
GL 1/G	50x140 @ MAX 500mm oc	EXIST 50x140 NEW 30x140 @ max. 500mm oc	EXISTING	-

- NOTE:**
1. ALL WALL STUDS SHALL BE CONTINUOUS FROM BOTTOM PLATE TO DOUBLE TOP PLATE. NOT CONTINUOUS STUDS SHALL BE SPLICED WITH NEW CONT. STUDS AS PER SCHEDULE
  2. ALL PLYWOOD SHEATHING SHALL BE SUPPORTED BY STUDS AND SOLID BLOCKING. SEE GENERAL NOTES
  3. ALL BEARING WALLS IN THE TABLE ABOVE SHALL BE SHEATHED BY EXISTING AND/OR NEW SHEATHING. WHERE EXISTING SHEATHING IS REMOVED OR MISSING NEW SHEATHING SHALL BE INSTALLED
  4. WAILING PATTERNS NOTED ABOVE PERTAIN ONLY TO SHEATHING PANEL EDGES. THE INTERIOR OF THE SHEATHING PANELS MAY BE WALLED AT 300mm oc
  5. WALL PENETRATIONS SHALL BE REINFORCED WITH FRAMING MEMBERS AND FASTENERS (90mm LONG WALLS @ 90mm OC) TO MAINTAIN DIAPHRAGM ACTION
  6. ALL BEARING WALLS - REINFORCED WALLS @ 125mm SHALL HAVE CONT. DOUBLE TOP PLATE
  7. ALL EXISTING NOT USED FRAMED OPENING IN LOAD BEARING WALLS SHALL BE RE-FRAMED WITH FULL LENGTH STUDS AS PER TABLE ABOVE

LEVEL 3 DIAPHRAGM SCHEDULE				
LOCATION	FRAMING	EXISTING SHEATHING	NEW SHEATHING	WALING
GL 1/AC/D FLOOR	VAR @ VAR MAX 500mm oc	EXIST. TAG PLANKS + 1mm PLYWOOD	125mm PLYWOOD ON TOP OF EXISTING	NEW PLYWOOD 75mm WALLS @ 100mm TO JOIST & FULL DEPTH BLOCKING 30mm WALLS @ 100mm oc TO EXIST. SHEATHING

- NOTE:**
1. EXISTING DAMAGED SHEATHING SHALL BE REPLACED. USE 125mm LONG WALLS TO JOIST FOR 100mm WIDE BORDERS. USE 125mm LONG WALLS TO JOIST FOR 100mm OR WIDER BORDERS. SEE SCHEDULE FOR EXISTING PLYWOOD SHEATHING REPLACEMENT. SEE GENERAL NOTES - TIMBER
  2. WAILING PATTERNS NOTED ABOVE PERTAIN ONLY TO SHEATHING PANEL EDGES. THE INTERIOR OF THE SHEATHING PANELS MAY BE WALLED AT 300mm oc
  3. FLOOR OPENING AND PENETRATIONS SHALL BE REINFORCED WITH FRAMING MEMBERS AND FASTENERS (90mm LONG WALLS @ 90mm OC) TO MAINTAIN DIAPHRAGM ACTION
  4. SEE DETAIL 2/501/10

COLUMN CAP SCHEDULE				
COLUMN CAP DESIGNATION	MIN. FACTORED RESISTANCE (kN)	MIN. FACTORED RESISTANCE (kN)	a (mm)	b (mm)
CL 1/AC D/E	422kN	210kN	175	-
CL 1/AC D/E	-	-	-	-

- NOTE:**
1. USE FASTENERS AS PER MANUFACTURER SPECIFICATION. WHERE THE PLYWOOD SHEATHING IS USED UNDER FASTENERS
  2. SEE DETAIL 2/501/10
  3. USE PLYWOOD SHEATHING ON EACH FACE OF BEAM WHEN COLUMN CAP IS UNDER FRAME
  4. EXISTING CONDITION SHALL BE CHECKED PRIOR PURCHASE

**HOLDOWN SCHEDULE SEE S602  
AND HOLDOWN LAYOUT  
DIAGRAMS FOR EXTERIOR  
WALLS AT GL 1 & 4 ON S601**

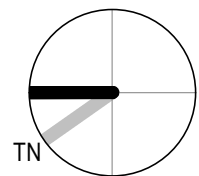






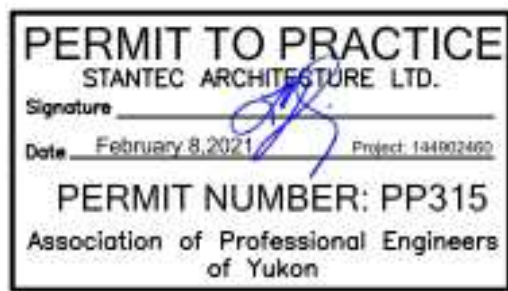
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RATIO



NORTH

Seal



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Revision/	Description/Description	Date/Date
Revision		

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PARKS CANADA

Project title/Titre du projet

301 FRONT STREET  
DAWSON, YT Y0B 1G0

FORMER TERRITORIAL  
COURTHOUSE

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Drawing title/Titre du dessin

CAP ROOF PLAN

Project No./No. du projet

PRO 842

Sheet/ Feuille

S106

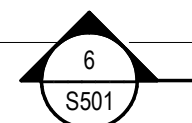
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SEE ARCH DETAIL FOR ROOF SPACE  
VENTILATION AT HIP RAFTERS, END  
WALLS, UPPER/LOWER ROOF, TYP.

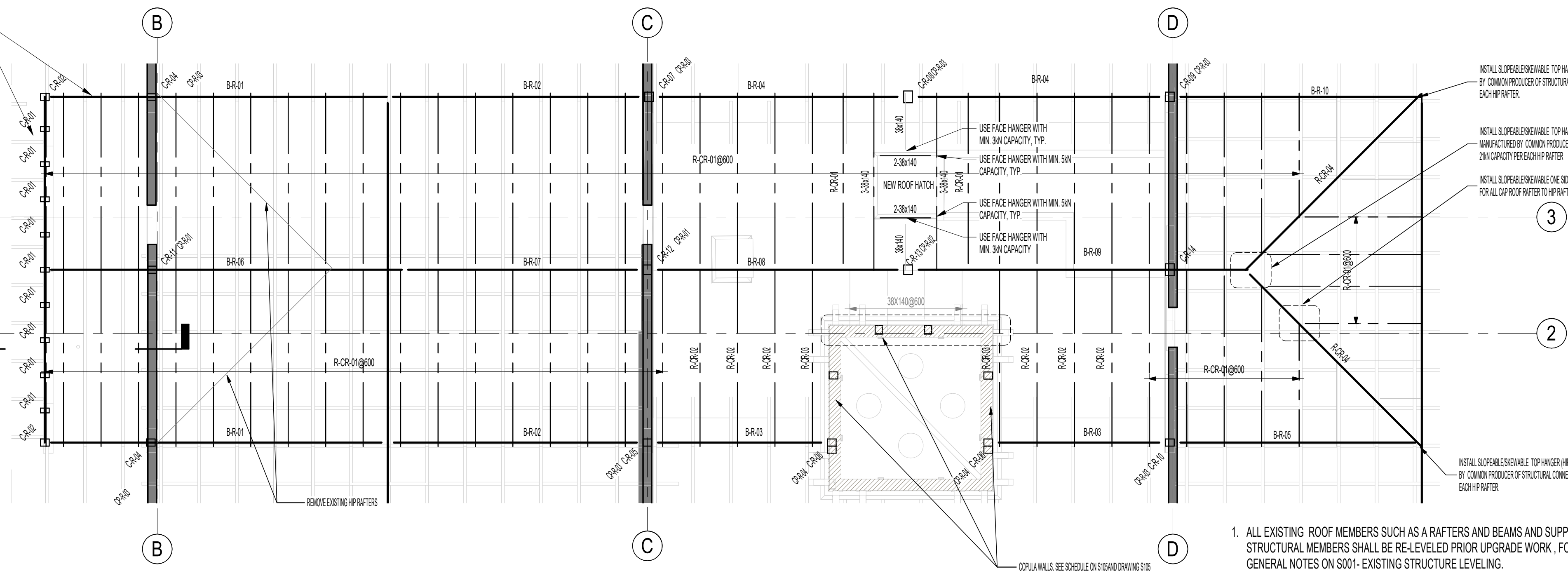
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2



**1 CAP ROOF FRAMING PLAN**  
S106 1:50

- ALL EXISTING ROOF MEMBERS SUCH AS A RAFTERS AND BEAMS AND SUPPORT STRUCTURAL MEMBERS SHALL BE RE-LEVELLED PRIOR TO UPGRADE WORK, FOR DETAILS SEE GENERAL NOTES ON S001- EXISTING STRUCTURE LEVELING.
- FOR FALL ARREST ANCHOR POINT SEE ARCH. DRAWINGS. THE ANCHOR POINTS SHALL BE INSTALL ON DOUBLED RAFTER AND THE NEW PLYWOOD SHEATHING SHALL BE NAILED ALONG FULL LENGTH OF LOWER AND UPPER RAFTER WITH 75mm LONG NAILS AT 50mm o/c.
- SEE ARCH DETAIL FOR ROOF SPACE VENTILATION AT HIP RAFTERS, END WALLS, UPPER/LOWER ROOF, TYP.

RAFTER/ROOF FRAME SCHEDULE			
RAFTER DESIGNATION	EXISTING RAFTER SIZE AND SPACING	NEW RAFTER SIZE AND SPACING	DETAIL
RCR-01	38x140 @ max. 800	EXIST. 38x140 @ max. 800mm	15501
RCR-02	38x140 @ max. 800	EXIST. 38x140 @ max. 800mm	15501
RCR-03	38x140 @ max. 800	EXIST. 38x140 @ max. 800mm	15501
RCR-04	38x140 @ max. 800	EXIST. 38x140 @ max. 800mm	15501
BR-01	45x15	EXIST. 45x15 • NEW 238x14	35502
BR-02	45x15	EXIST. 45x15 • NEW 44x14x14	15502
BR-03	45x15 @ max. 800	EXIST. 45x15 • NEW 38x14 @ max. 800mm	15501
BR-04	38x14	EXIST. 38x14 • NEW 238x14	15501 & 15502
BR-05	38x140 @ max. 800	EXIST. 38x14 • NEW 238x14 @ max. 800mm	15501 & 15502
BR-06	38x140 @ max. 800	EXIST. 38x14 • NEW 238x14 @ max. 800mm	15501
PP-01			35501
PP-02			45501
PP-03			25502
PP-04			35502
PP-05			45502
PP-06			15503
PP-07			25503
PP-08			35503

- NOTE:
- EXISTING OUT RAFTER 45x15 SHALL BE SPICED WITH FULL LENGTH 238x14 EXISTING CROSS BEAM OUT.
  - RCR-01 - PROVIDE ADDITIONAL JOIST 38x140 EVERY 1000mm LONG, AS SHOWN IN SECTION.
  - UNLESS NOTED OTHERWISE, SEE DETAIL 15503. ALL ADDITIONAL PILES SHALL BE ATTACHED TO EXISTING BEAM JOIST FOLLOWING BUILT UP BEAM REQUIREMENTS SEE S001.
  - UNLESS NOTED OTHERWISE, ALL DETAIL FULL LENGTH OF EXISTING RAFTER SHALL BE UPGRADED.
  - ALL NEW AND/OR EXISTING LUMBER IN CONTACT WITH NEW ADDITIONAL STEEL SHALL BE FINISHED WITH A WEATHER RESISTANT COATING.

ROOF/LEVEL 3 BEAM SCHEDULE			
BEAM DESIGNATION	EXISTING BEAM SIZE	NEW BEAM SIZE	DETAIL
BR-01	50x18	EXIST. 50x18 • NEW 244x202 238x14	75501
BR-02	50x18	EXIST. 50x18 • NEW 244x202 238x14	75501
BR-03	UNKNOWN	EXIST. 50x18 • NEW 244x202 238x14	75501
BR-04	UNKNOWN	EXIST. 50x18 • NEW 244x202 238x14	75501
BR-05	50x18	EXIST. 50x18 • NEW 244x202 238x14	75501
BR-06	60x28	EXIST. 60x28 • NEW 244x202 238x14	75501
BR-07	60x28	EXIST. 60x28 • NEW 244x202 238x14	75501
BR-08	60x28	EXIST. 60x28 • NEW 244x202 238x14	75501
BR-09	60x28	EXIST. 60x28 • NEW 244x202 238x14	75501
BR-10	50x18	EXIST. 50x18 • NEW 244x202 238x14	75501

- NOTE:
- UNLESS NOTED OTHERWISE, SEE DETAIL 15503. ALL ADDITIONAL PILES SHALL BE ATTACHED TO EXISTING BEAM JOIST FOLLOWING BUILT UP BEAM REQUIREMENTS SEE S001.
  - FULL LENGTH OF THE BEAM SHALL BE UPGRADED.

ROOF/LEVEL 3 COLUMN SCHEDULE		
COLUMN DESIGNATION	EXISTING COLUMN SIZE	NEW COLUMN SIZE
CR-01	38x140	EXIST. 38x140 • NEW 238x140*
CR-02	238x140	EXIST. 238x140 • NEW 238x140*
CR-03	-	338x140
CR-04	-	338x140
CR-05	UNKNOWN	338x140
CR-06	UNKNOWN	338x140
CR-07	UNKNOWN	438x140
CR-08	UNKNOWN	538x140
CR-09	UNKNOWN	438x140
CR-10	UNKNOWN	338x140
CR-11	UNKNOWN	338x140
CR-12	UNKNOWN	438x140
CR-13	UNKNOWN	538x140
CR-14	UNKNOWN	538x140
CR-15	50x18	EXIST. 50x18 • NEW 238x140

- NOTE:
- EXISTING STUD 38x140 SUPPORTING BEAM ABOVE NEW 238x140 DIRECTLY SUPPORTING RAFTERS
  - \* FULL LENGTH ADDITIONAL PILES 38x140 SHALL PROVIDE SUPPORT FOR HIP RAFTER
  - CAPABLE TO BE USED TO SUPPORT NEW SHEATHING SHALL BE NAILED TO COLUMN
  - ALL COLUMNS SHALL BE BLOKED AT FLOOR LEVEL

COLUMN CAP SCHEDULE				
COLUMN CAP DESIGNATION	MIN. FACTORED RESISTANCE (kN)	MIN. FACTORED RESISTANCE (kN)	MIN. FACTORED RESISTANCE (kN)	MIN. FACTORED RESISTANCE (kN)
CR-01	42.8 kN	218.9 kN	175	140
CR-02	42.8 kN	218.9 kN	211	140
CR-03	30.8 kN	163.7 kN	140	140
CR-04 (END CAP)	24.3 kN	82.7 kN	140	140

- NOTE:
- USE FASTENERS AS PER MANUFACTURER SPECIFICATION, WHERE THE PLYWOOD SHEATHING ARE USED LONGER FASTENERS
  - SEE TYP. DETAIL 15501
  - USE PLYWOOD SHEATHING ON EACH FACE OF BEAM WHEN COLUMN CAP IS WIDER THAN BEAM
  - EXISTING CONDITION SHALL BE CHECKED PRIOR PURCHASE

LEVEL 3 SHEAR WALL / LOAD BEARING WALL SCHEDULE				
	WALL LOCATION	EXISTING WALL STUDS	NEW WALL STUDS	WALLING
	INTERIOR GL-1	-	38x140 @ 100mm o/c	15mm PLYWOOD
	INTERIOR GL-2	50x140 @ 50mm o/c	-	15mm PLYWOOD
	INTERIOR GL-3	50x140 @ 50mm o/c	-	15mm PLYWOOD
	INTERIOR GL-4 (BGC)	-	38x140 @ 100mm o/c	15mm PLYWOOD
	COPULA WALLS	50x140 @ UNKNOWN BUT MAX. 600mm o/c	EXIST. 50x140 • NEW 38x140 @ 400mm o/c*	EXISTING

- NOTE:
- ALL WALL STUDS SHALL BE CONTINUOUS FROM BOTTOM PLATE TO DOUBLE TOP PLATE, NOT CONTINUOUS STUDS SHALL BE SPICED WITH NEW JOINT. STUDS, RAFTER SCHEDULE
  - ALL PLYWOOD EDGES SUPPORTED BY STUDS AND SOLID BLOKING, SEE GENERAL NOTES
  - WALLING PATTERNS NOTED ABOVE PERTAIN ONLY TO SHEATHING PANEL EDGES. THE INTERIOR OF THE SHEATHING PANELS MAY BE NAILED AT 300mm o/c
  - WALL PENETRATIONS SHALL BE ADEQUATELY REINFORCED AND BLOKED WITH FRAMING MEMBERS AND FASTENERS (6mm LONG NAILS @ 50mm O/C) TO MAINTAIN DIAPHRAGM ACTION
  - ALL SHEATHING - REINFORCED WALLS SHALL BE CONT. DOUBLE TOP PLATE
  - \* CONFIRM FULL HEIGHT OF THE STUD TO DEPARTMENTAL REPRESENTATIVE PRIOR TO UPGRADE COPULA WALLS FOR APPROVAL. REINSTALL EXISTING DIAGONAL BRACING AFTER WALL STUDS UPGRADE

ROOF DIAPHRAGM SCHEDULE			
LOCATION	FRAMING	SHEATHING	WALLING
GL-1 & 4	VARYING VAR. MAX. 80mm o/c	EXISTING 38mm THICK SHEATHING PLYWOOD INSTALL 15mm PLYWOOD, DAMAGED SHEATHING SHALL BE REPLACED	NEW PLYWOOD - 15mm LONG NAILS @ MAX. 100 o/c TO JOIST 38mm NAILS @ 100mm o/c TO EXIST. SHEATHING

- NOTE:
- WHERE EXISTING SHEATHING IS TEMPORARILY REMOVED AND RE-INSTALLED OR DAMAGED AND REPLACED USE 44mm LONG NAILS TO JOIST. SEE GENERAL NOTES - TIMBER
  - WALLING PATTERNS NOTED ABOVE PERTAIN ONLY TO SHEATHING PANEL EDGES. THE INTERIOR OF THE SHEATHING PANELS MAY BE NAILED AT 300mm o/c
  - ROOF OPENING AND PENETRATIONS SHALL BE ADEQUATELY REINFORCED AND BLOKED WITH FRAMING MEMBERS AND FASTENERS (6mm LONG NAILS @ 50mm O/C) TO MAINTAIN DIAPHRAGM ACTION







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SECTION DETAILS

Project No./No. du projet

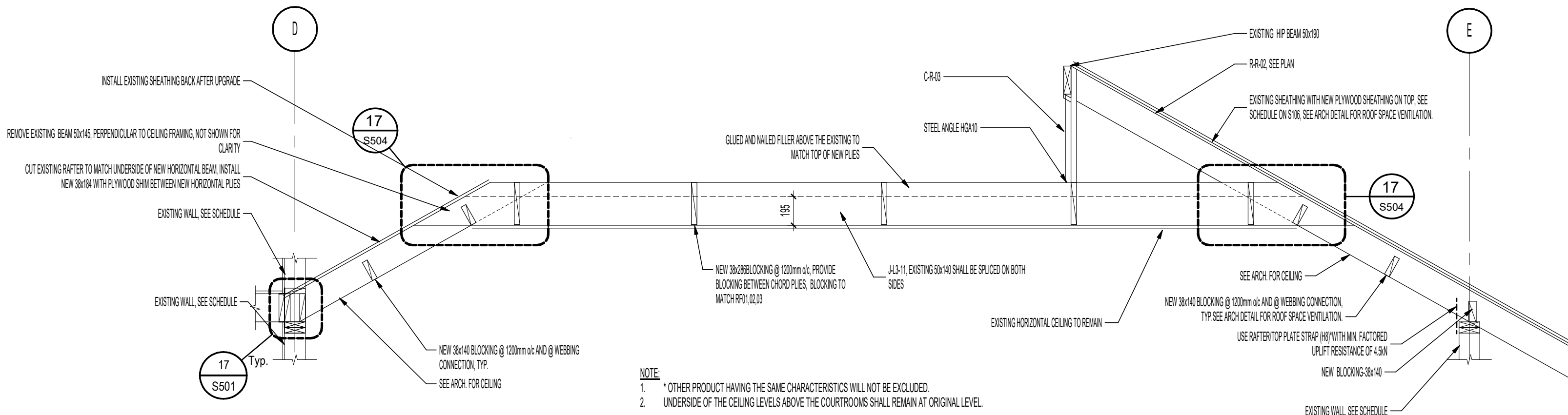
PRO 842

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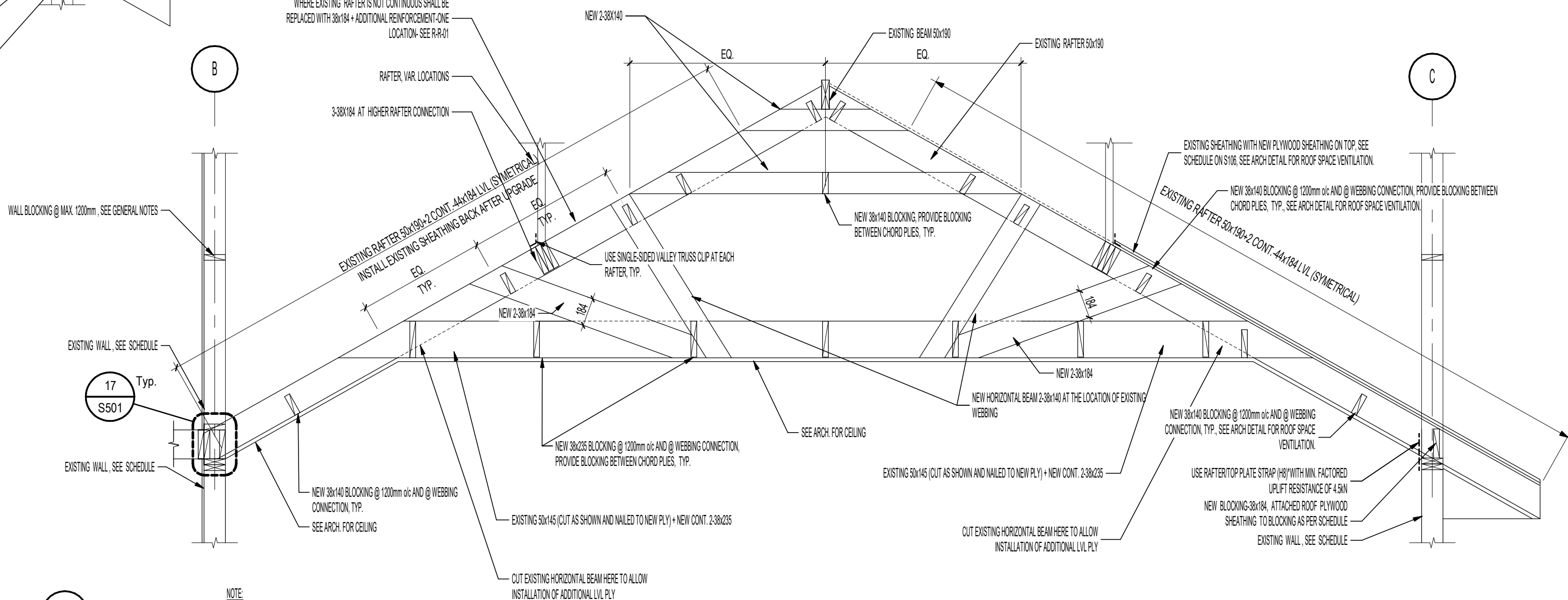
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Revision no./  
La Révision no.

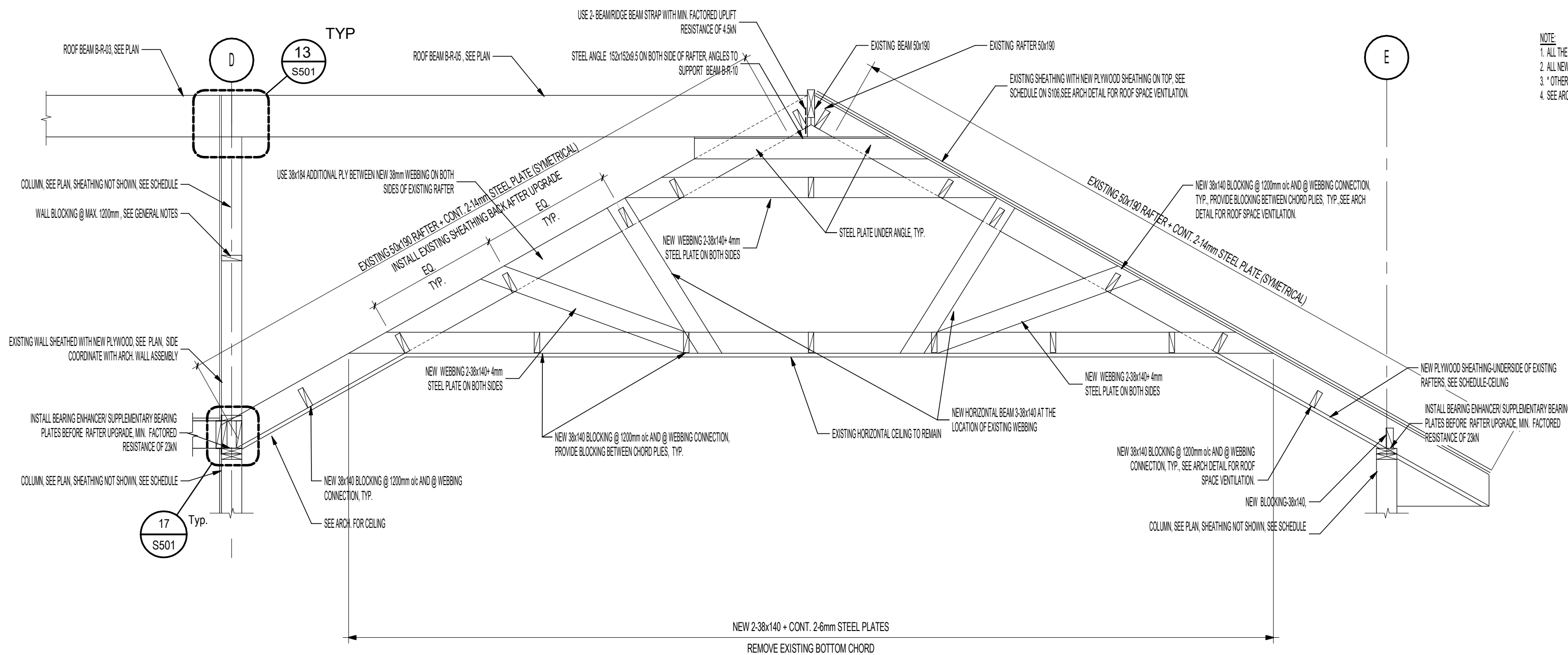
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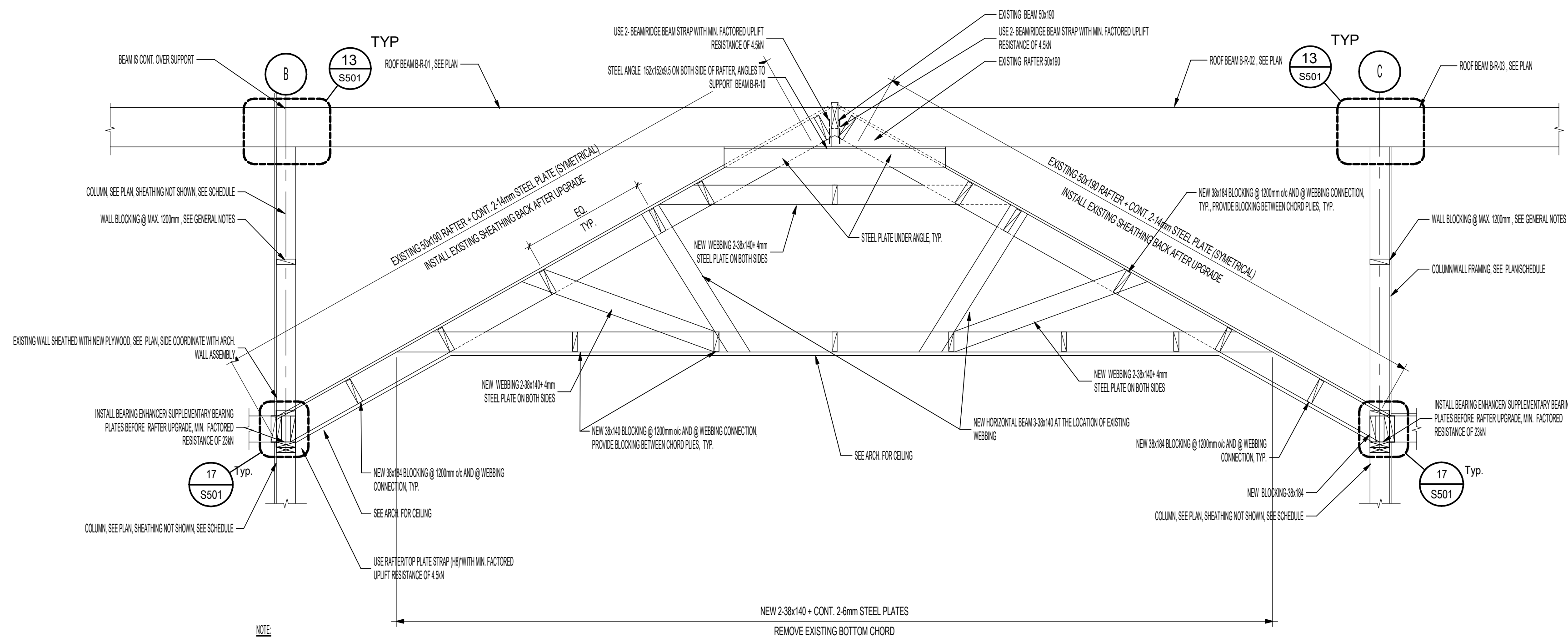
**1 ROOF CEILING UPGRADE**  
S502 1 : 25



**3 ROOF FRAME UPGRADE RF04**  
S502 1 : 25



**2 ROOF FRAME UPGRADE RF03**  
S502 1 : 25



**4 ROOF FRAME UPGRADE RF05**  
S502 1 : 25



WALL BLOCKING @ MAX. 1200mm SEE GENERAL NOTES

EXISTING WALL, SEE SCHEDULE

17 Typ. S501

B

INSTALL EXISTING SHEATHING BACK AFTER JOIST

EXISTING BEAM 30x10

NEW 30x140

EXISTING RAFTER 30x10

EXISTING 30x14

INSTALL EXISTING SHEATHING BACK AFTER JOIST

SEE RACK FOR CEILING

NEW 30x140 BLOCKING @ 1200mm ON WING @ WEARING CONNECTION, TIP

NEW 30x140 BLOCKING @ 1200mm ON WING @ WEARING CONNECTION, TIP

EXISTING 30x14 WHERE DISCONNECTED SHALL BE REPLACED WITH 30x140 MIN 1200mm OVERLAP ON EACH END

SEE RACK FOR CEILING

EXISTING WALL, SEE SCHEDULE

17 Typ. S501

C

NOTE

1 ALL BLOCKING SHOWN FOR ILLUSTRATION PURPOSES ONLY. BLOCKING SHALL MATCH BEAM JOIST

2 ALL NEW AND/OR EXISTING LUMBER IN CONTACT WITH NEW ADDITIONAL STEEL SHALL BE FINISHED WITH A WEATHER RESISTANT COATING

S503 1:50

1 : 50

1 RO

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## BO

1:25

## DO

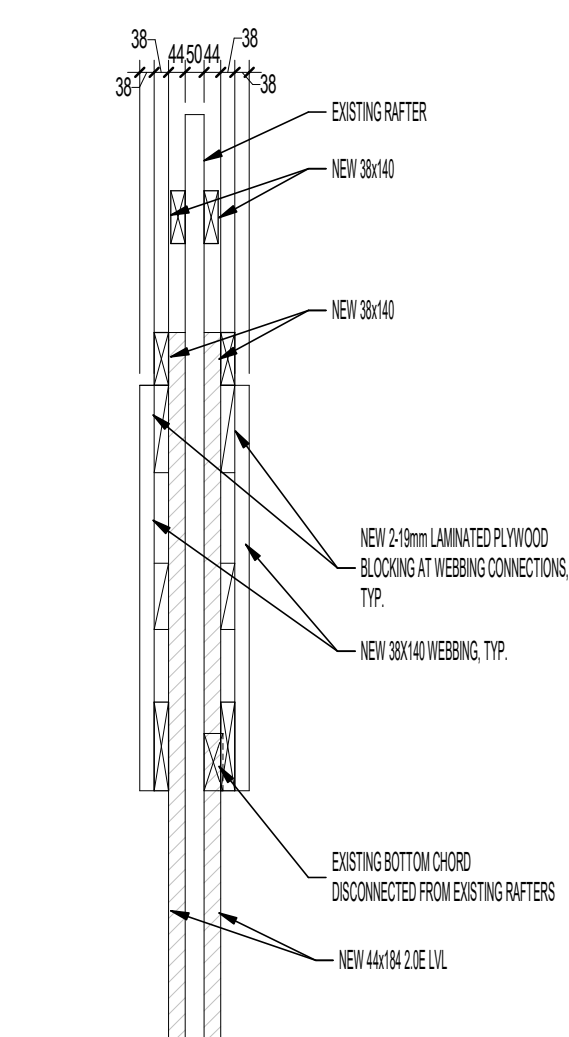
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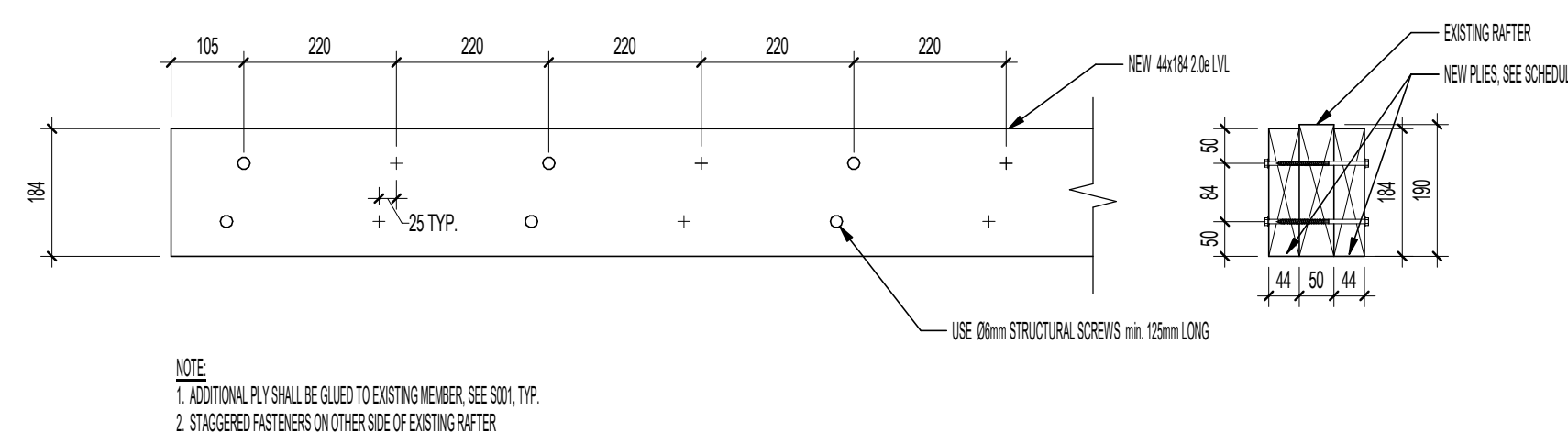
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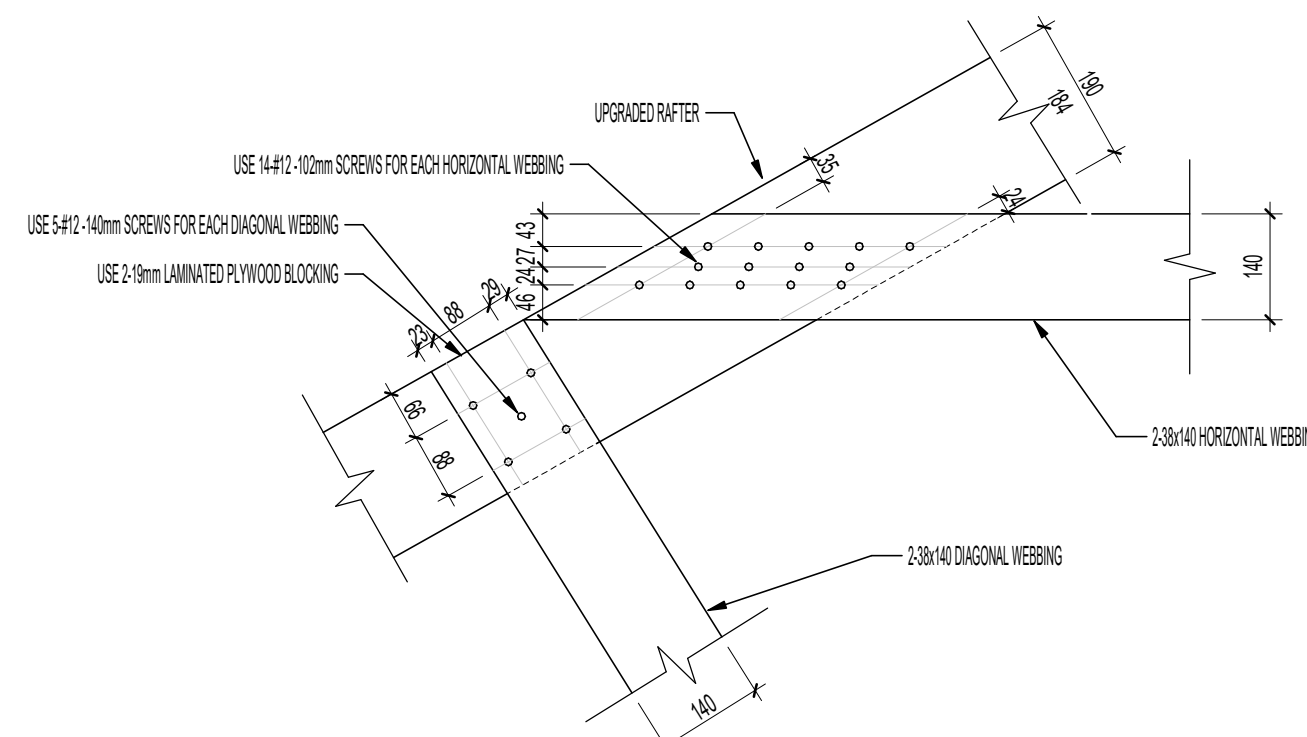




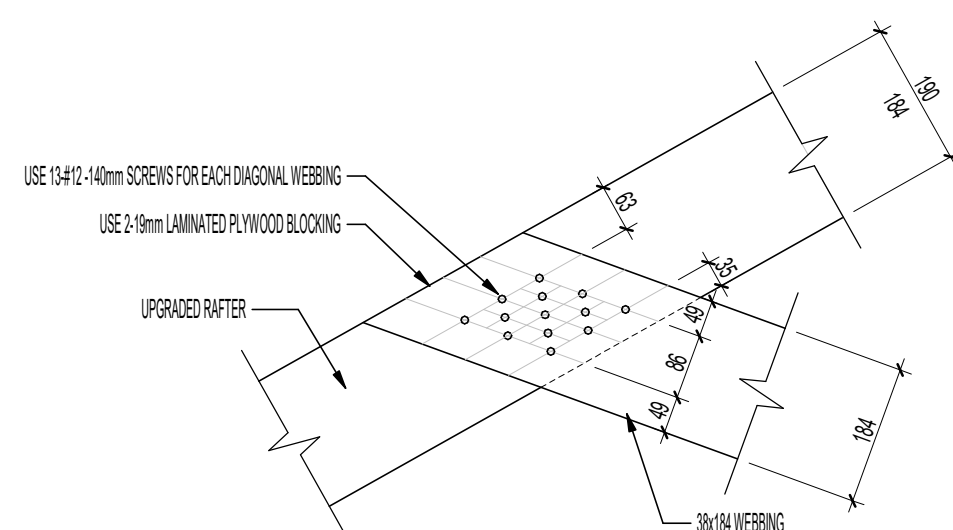
1 RF01 SECTION  
S504 1:20



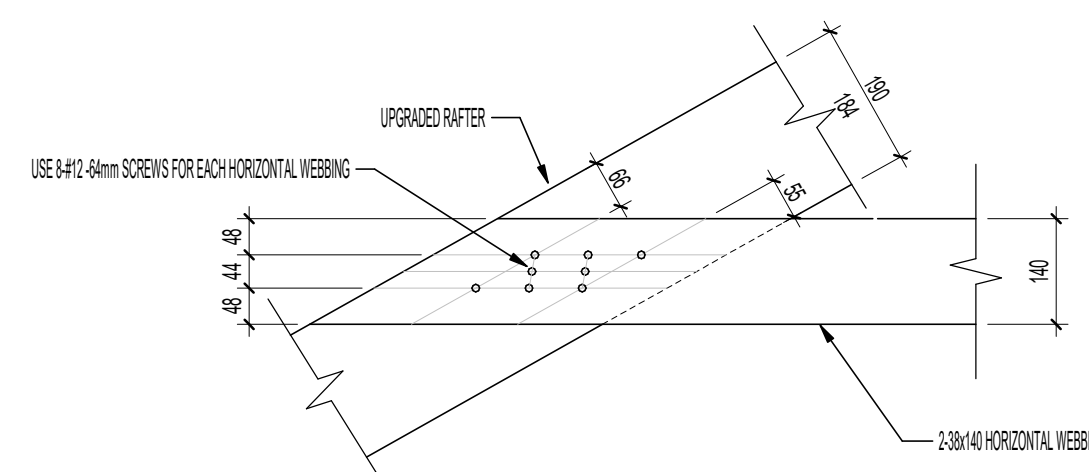
**2 RAFTER-RF01 UPGRADE FASTENER'S LAYOUT**



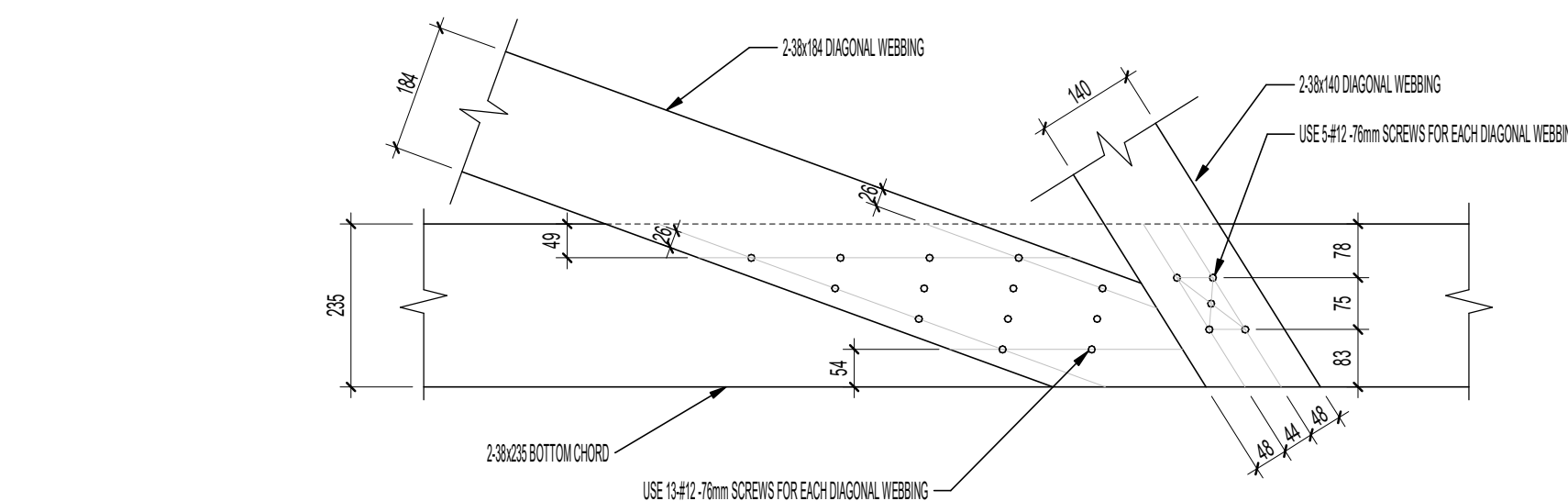
**3 CONNECTION DETAIL 01**  
S504 NTS



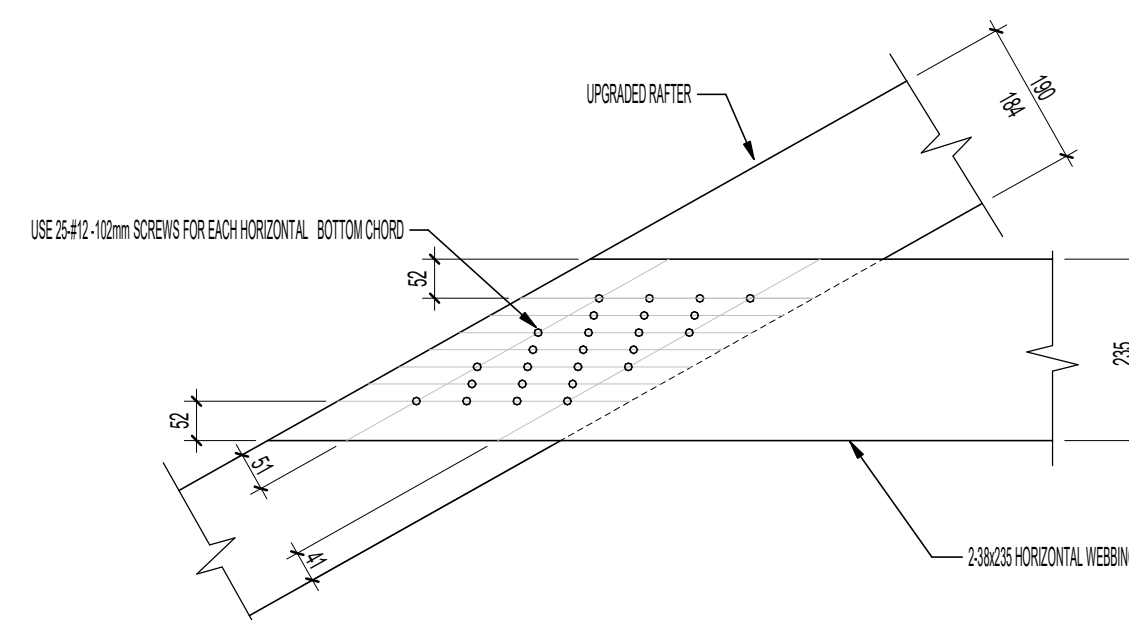
6 CONNECTION DETAIL 04  
S504 NTS



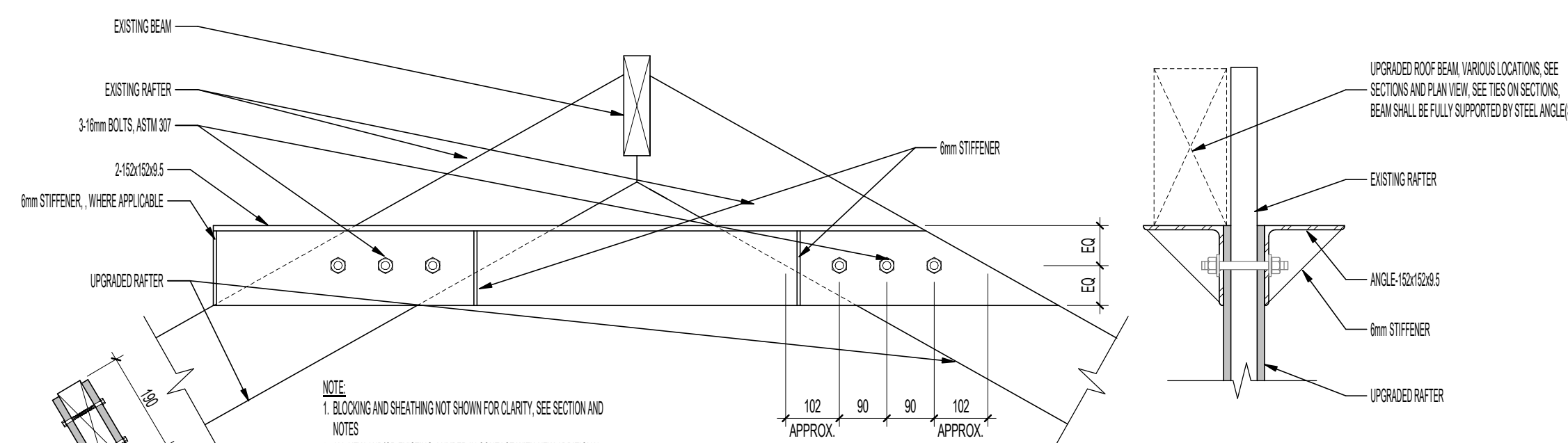
**7 CONNECTION DETAIL 07**



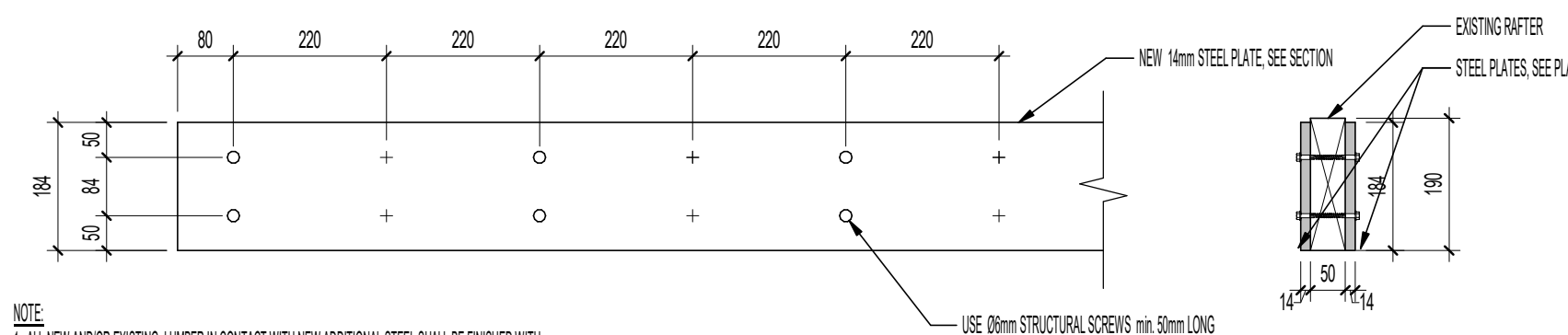
5 CONNECTION DETAIL 03  
S504 NTS



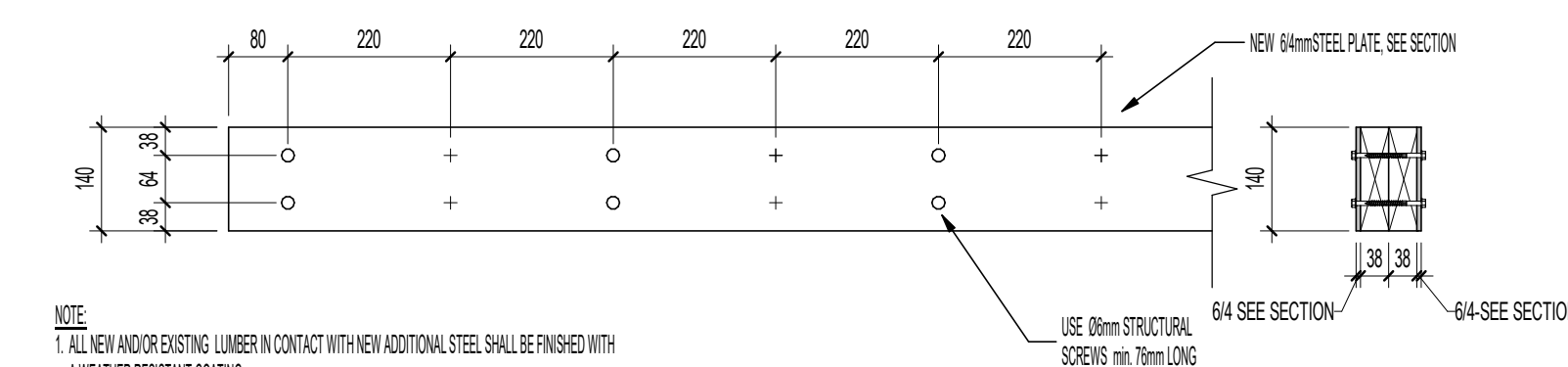
**9 CONNECTION DETAIL 06**  
S504 NTS



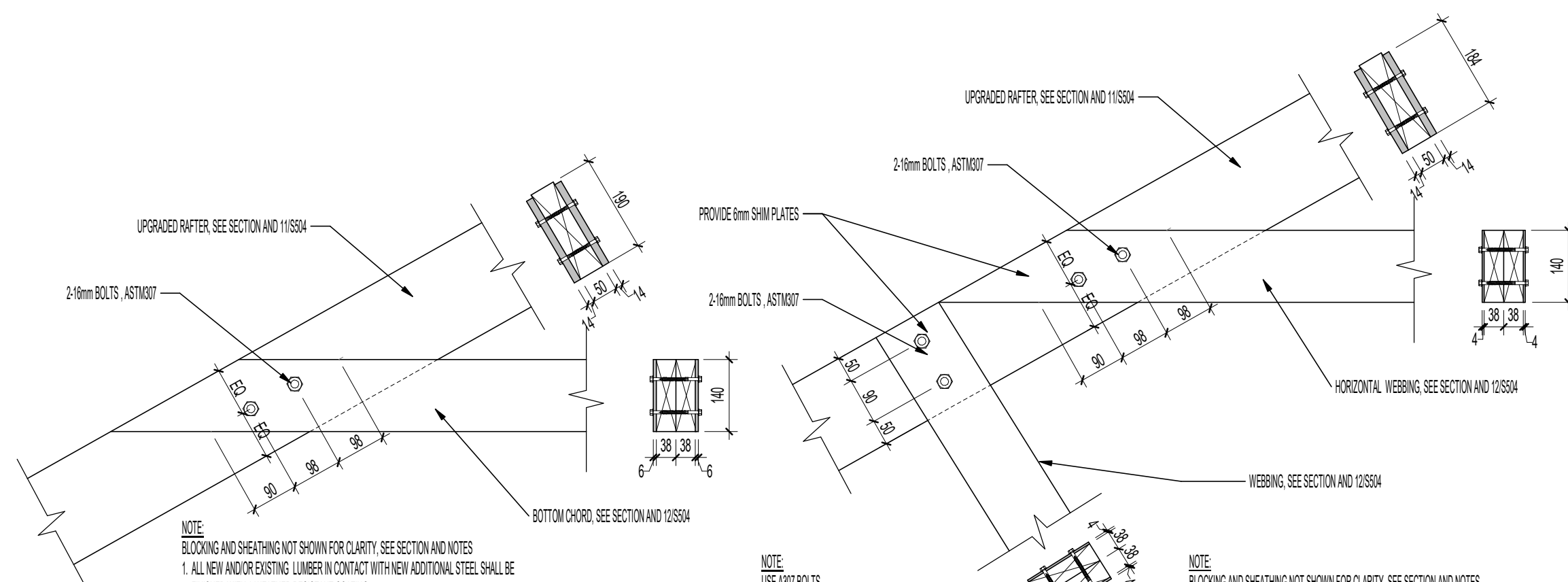
4 CONNECTION DETAIL 12  
S504 1:10



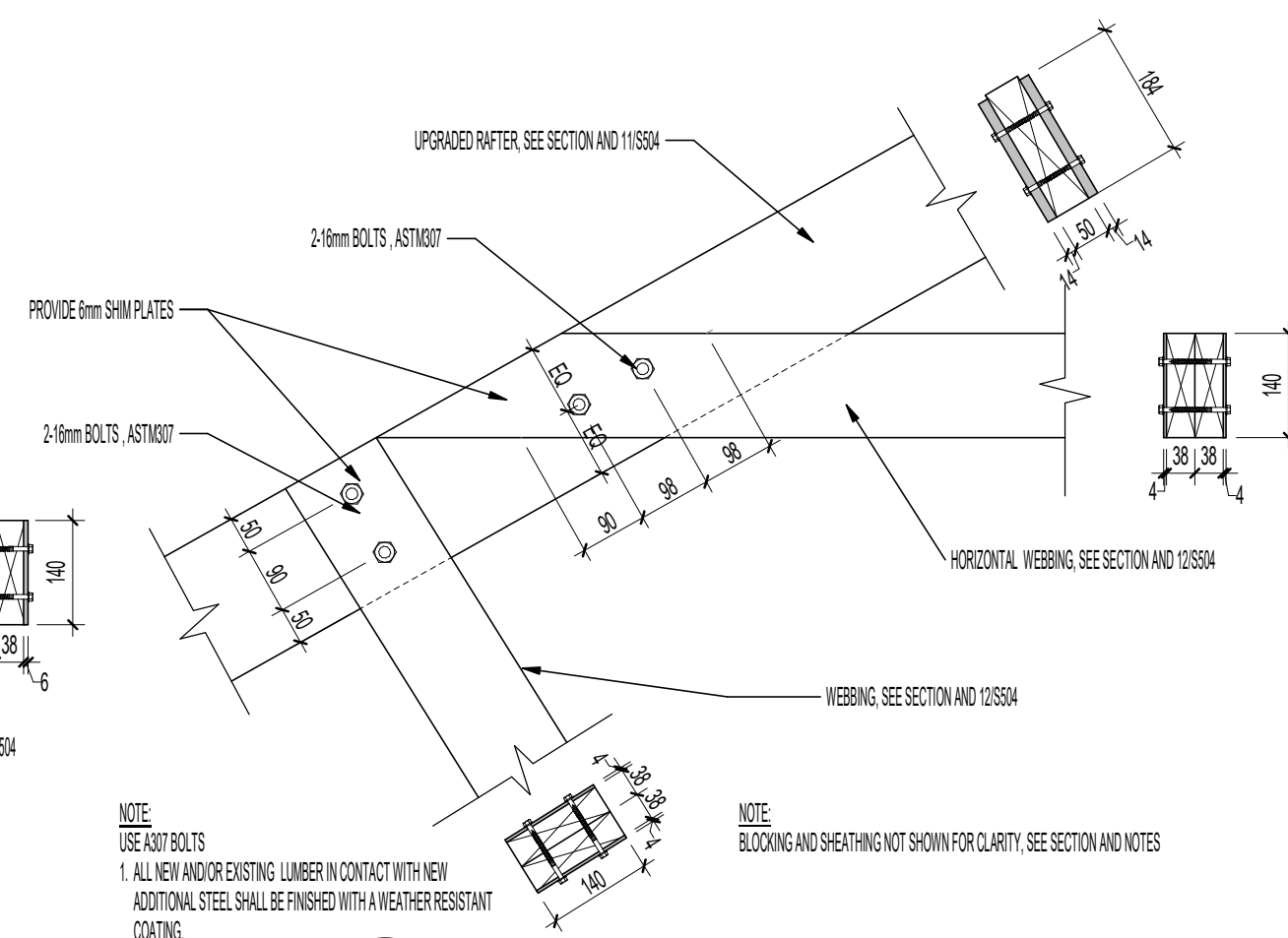
# 11 STEEL PLATE RAFTER UPGRADE FASTENER'S LAYOUT



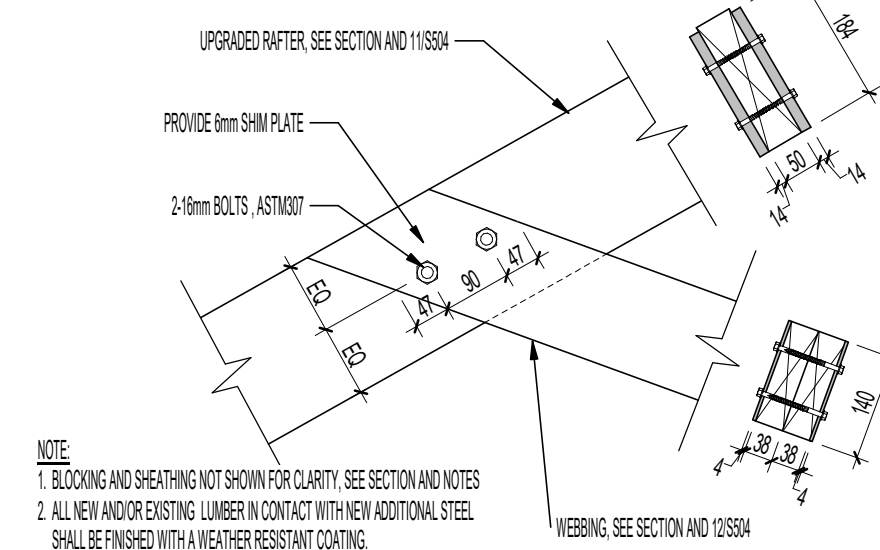
12 **WEBBING UPGRADE FASTENER'S LAYOUT**  
S504 1 : 10



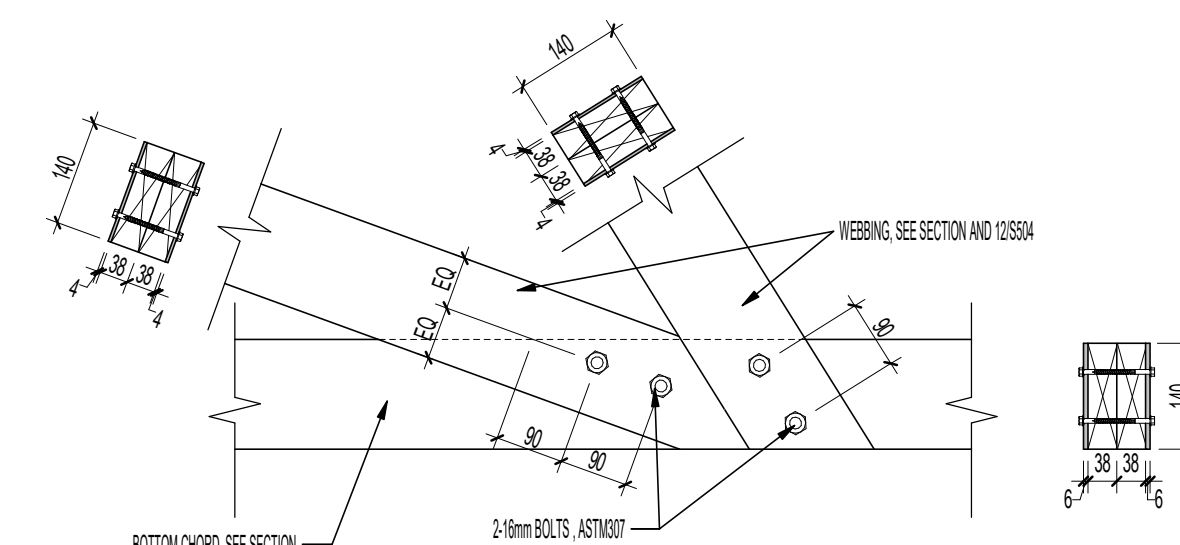
13 CONNECTION DETAIL 08  
S504 1:10



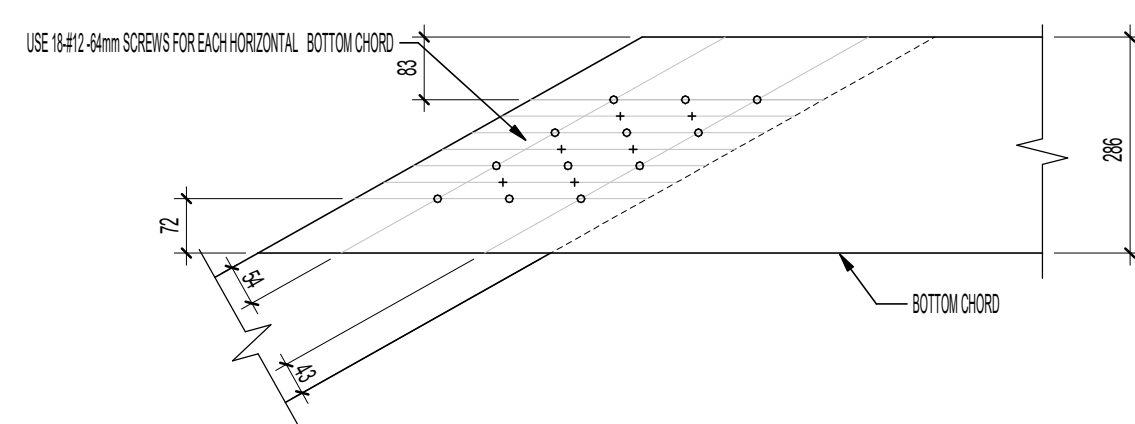
**14** **CONNECTION DETAIL 09**  
S504 1:10



15 CONNECTION DETAIL 10  
S504 1:10

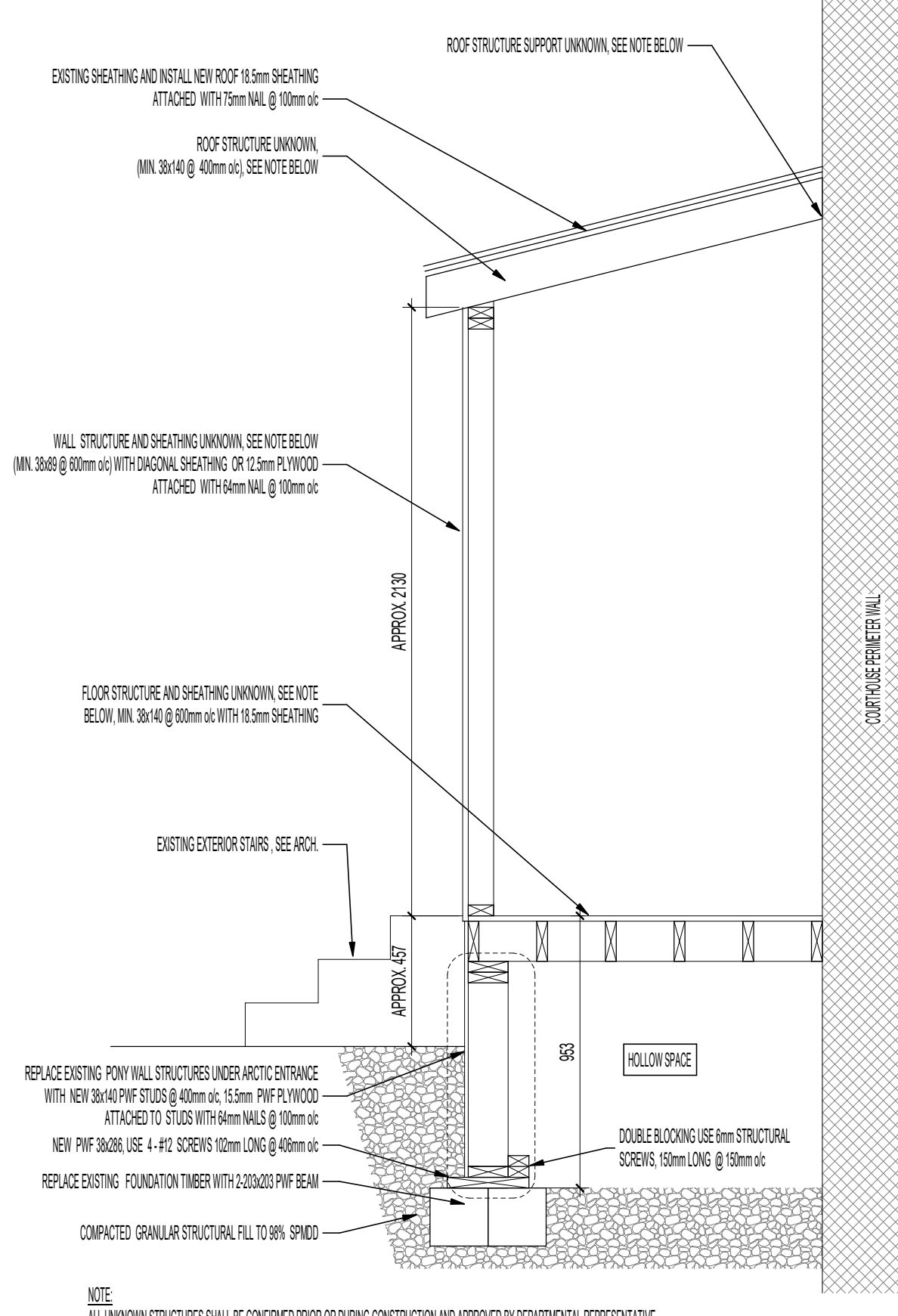
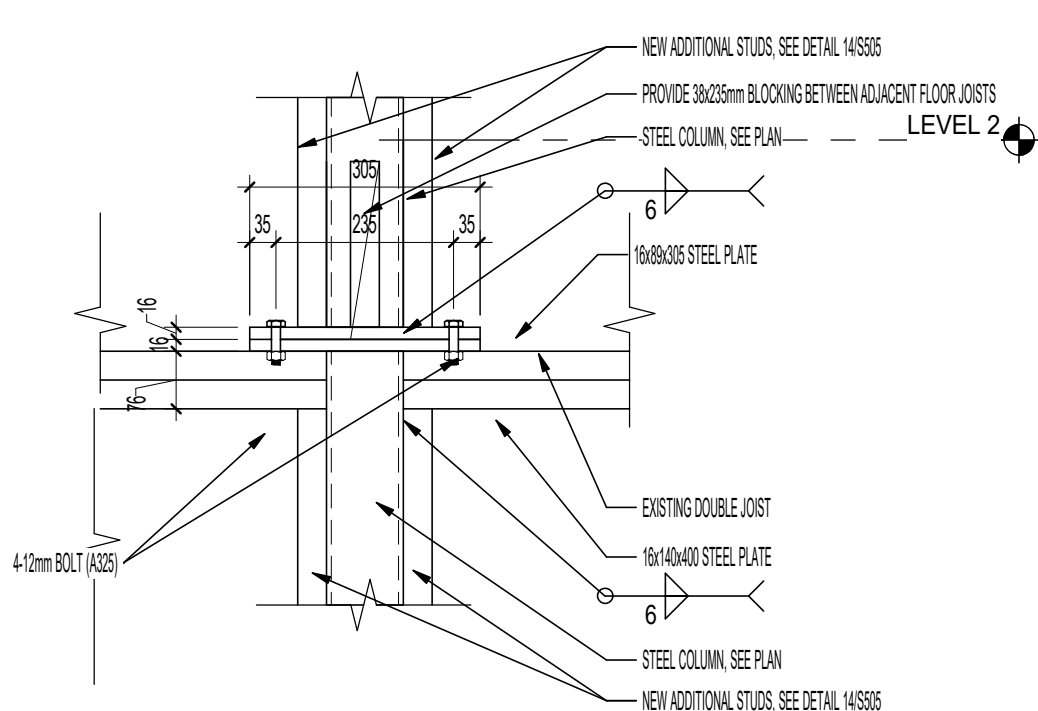
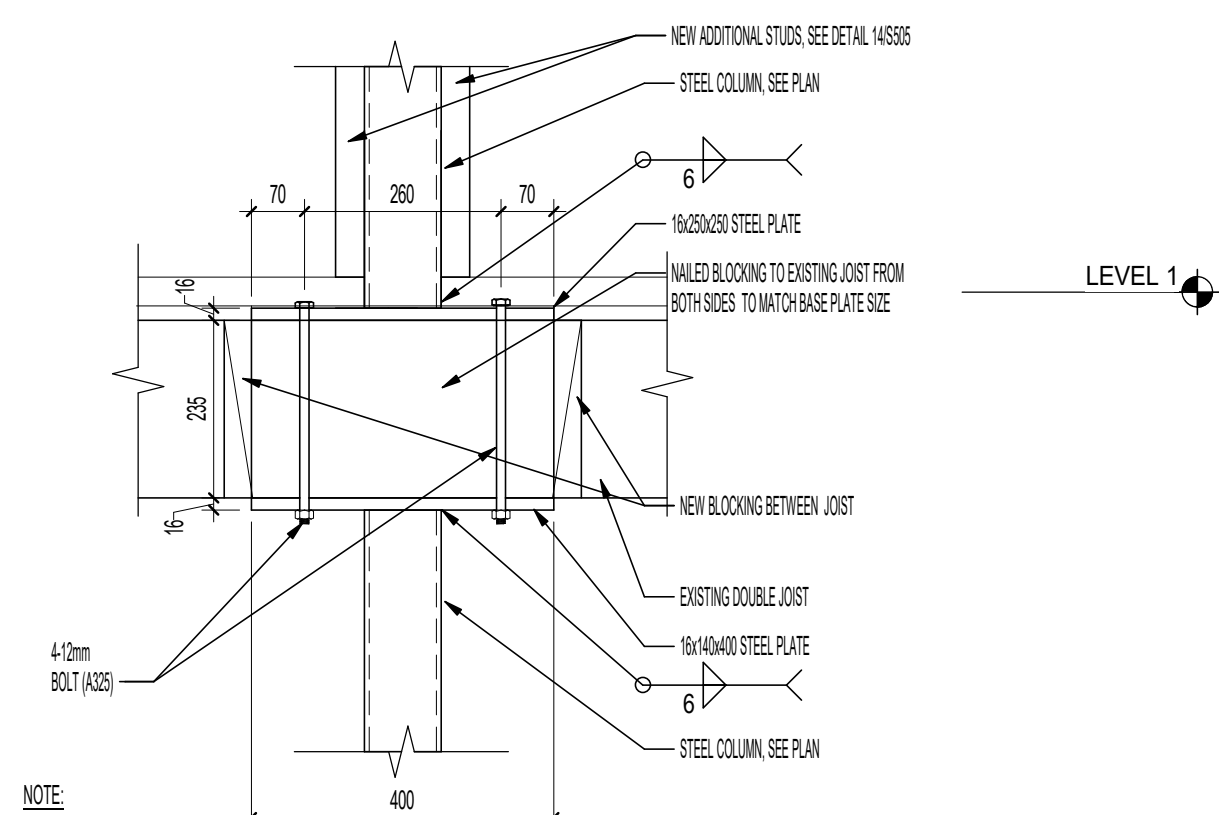
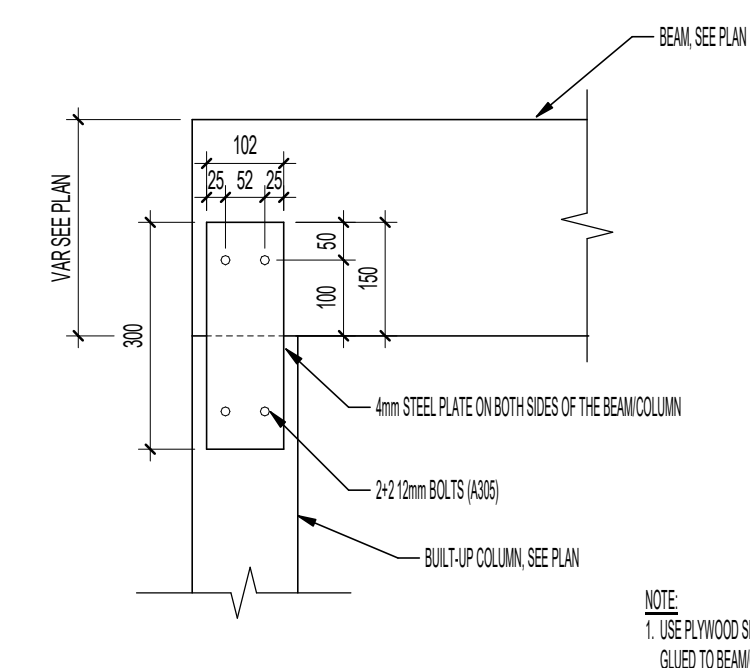


16 CONNECTION DETAIL 11  
S504 1:10



17 CONNECTION DETAIL 13  
S504 1:10











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DIAGRAMS

Project No./No. du projet

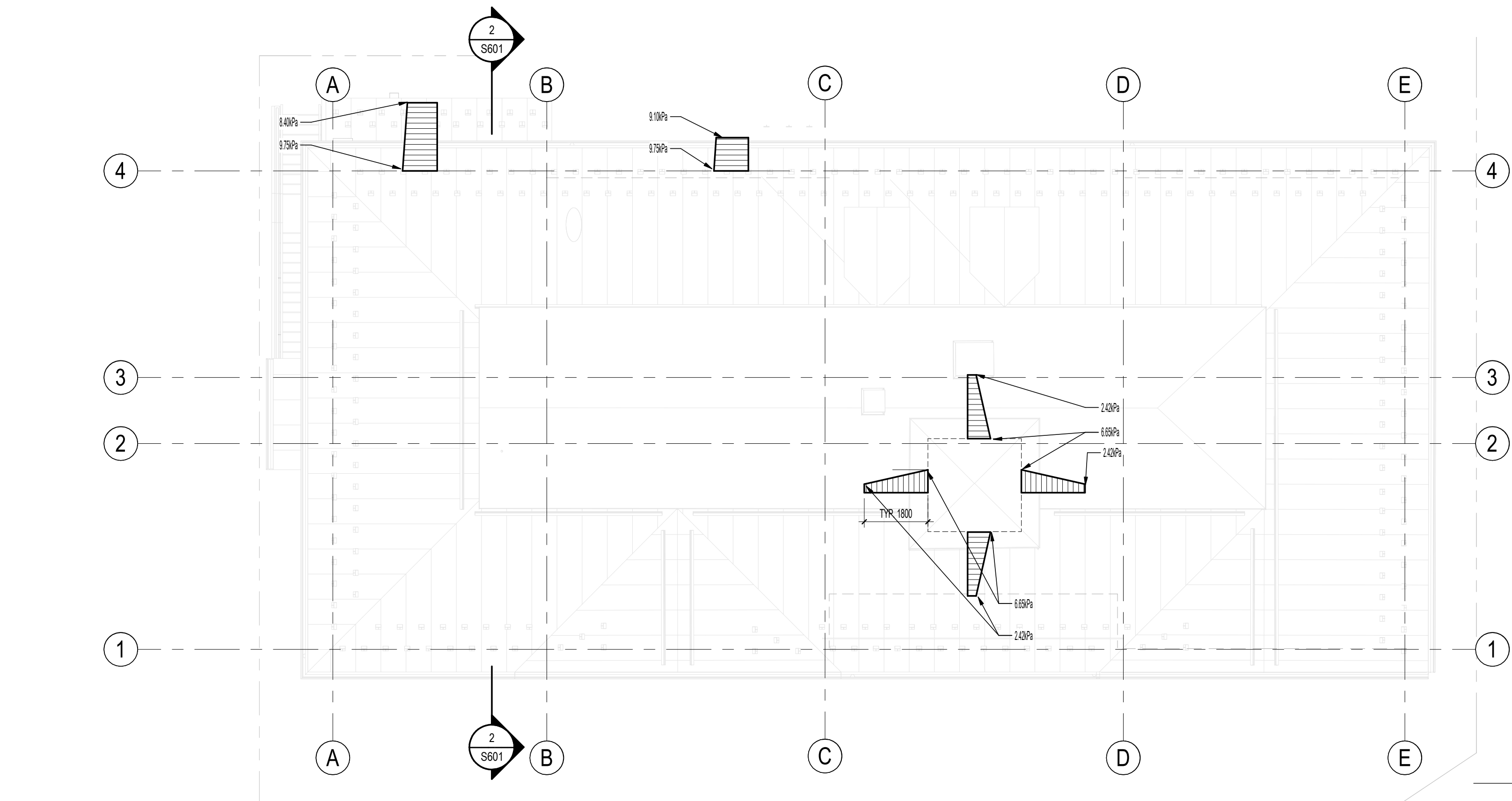
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1 SNOW DRIFT UNFACTORED DIAGRAM

S601

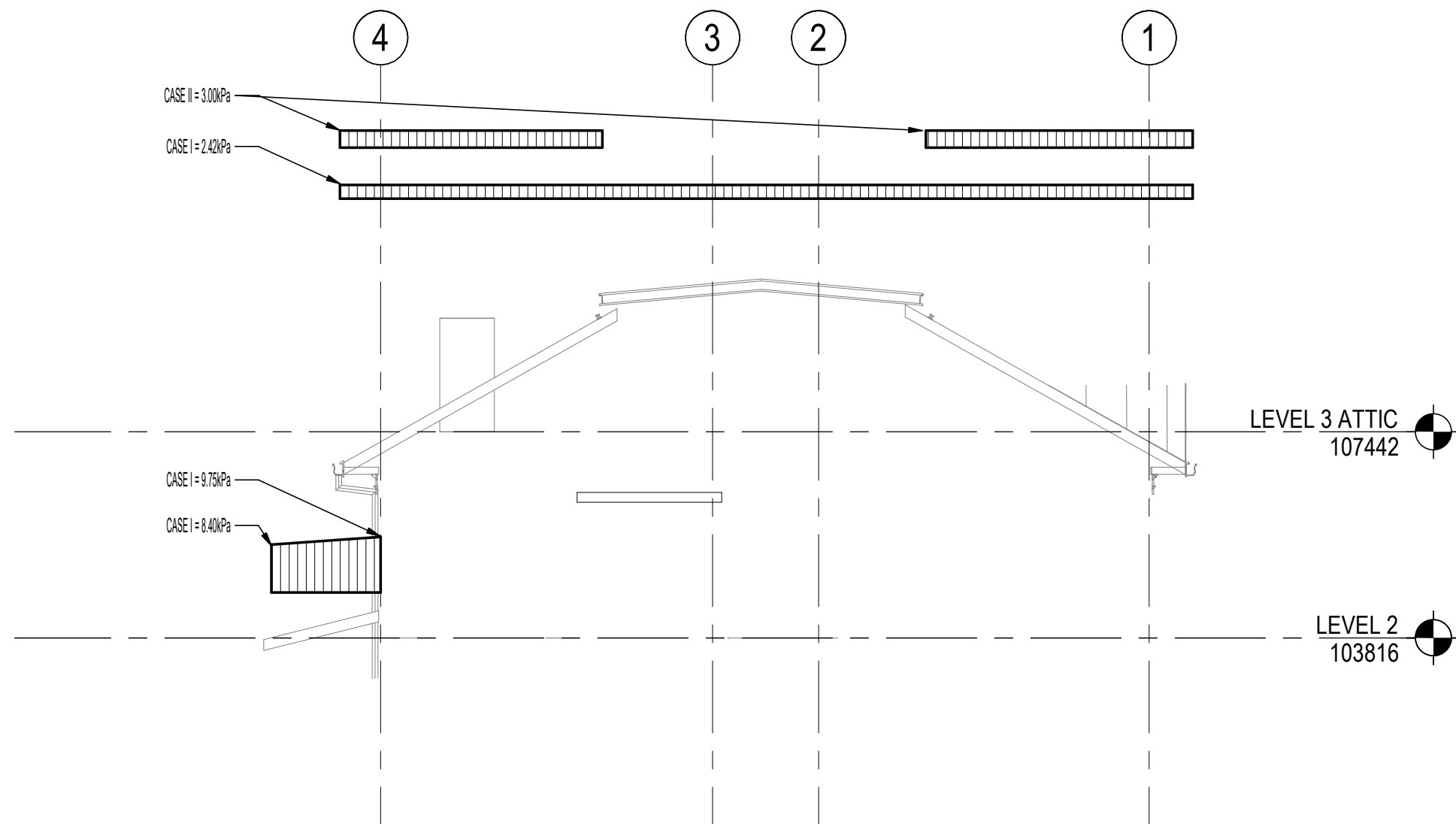
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3 GL-4 - HOLDOWN LAYOUT DIAGRAM

S601

1:100



2 UNFACTORED SNOW LOAD DIAGRAM

S601

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4 GL-1 - HOLDOWN LAYOUT DIAGRAM

S601

1:100



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ISOMETRIC VIEW

Project No. / No. du projet

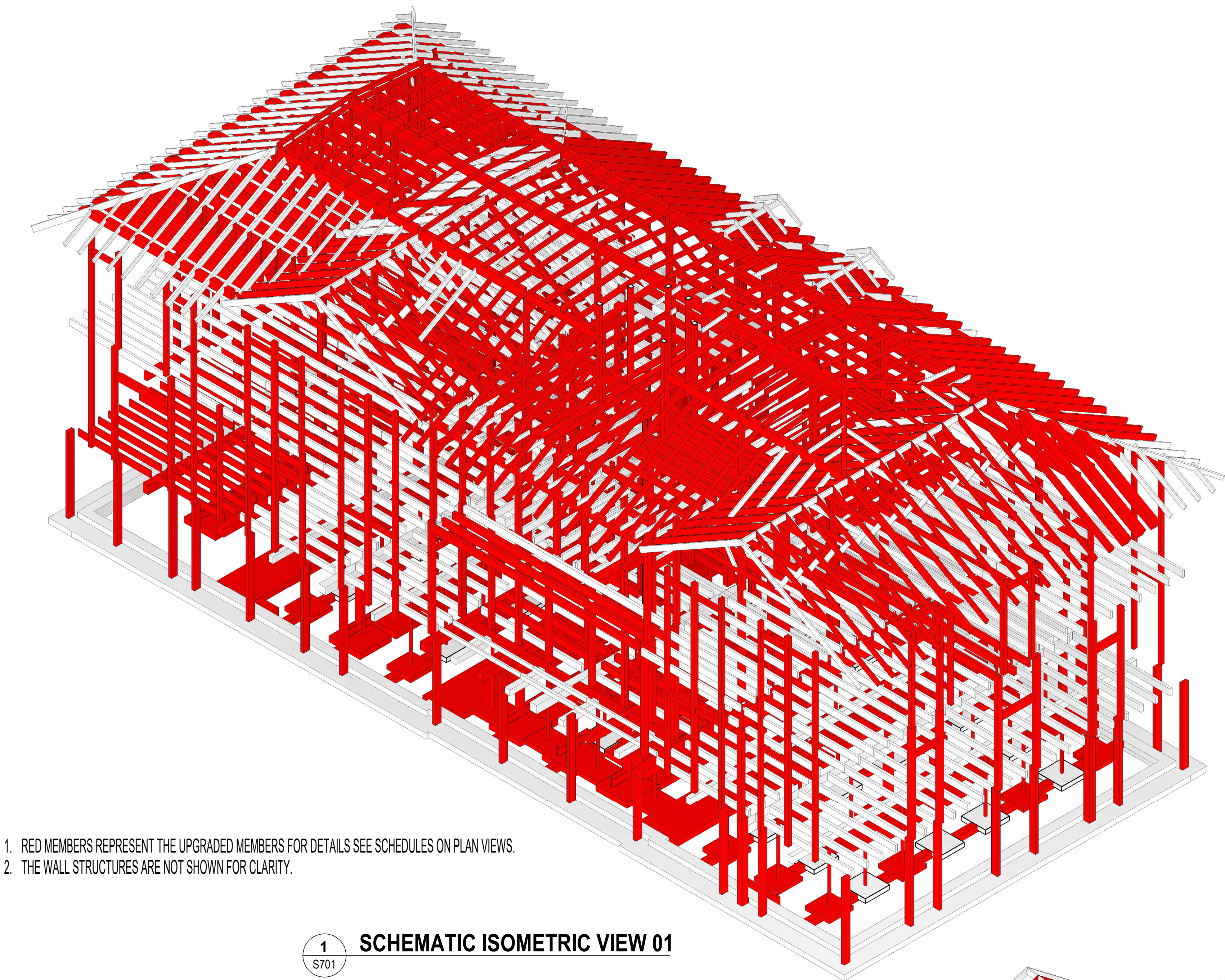
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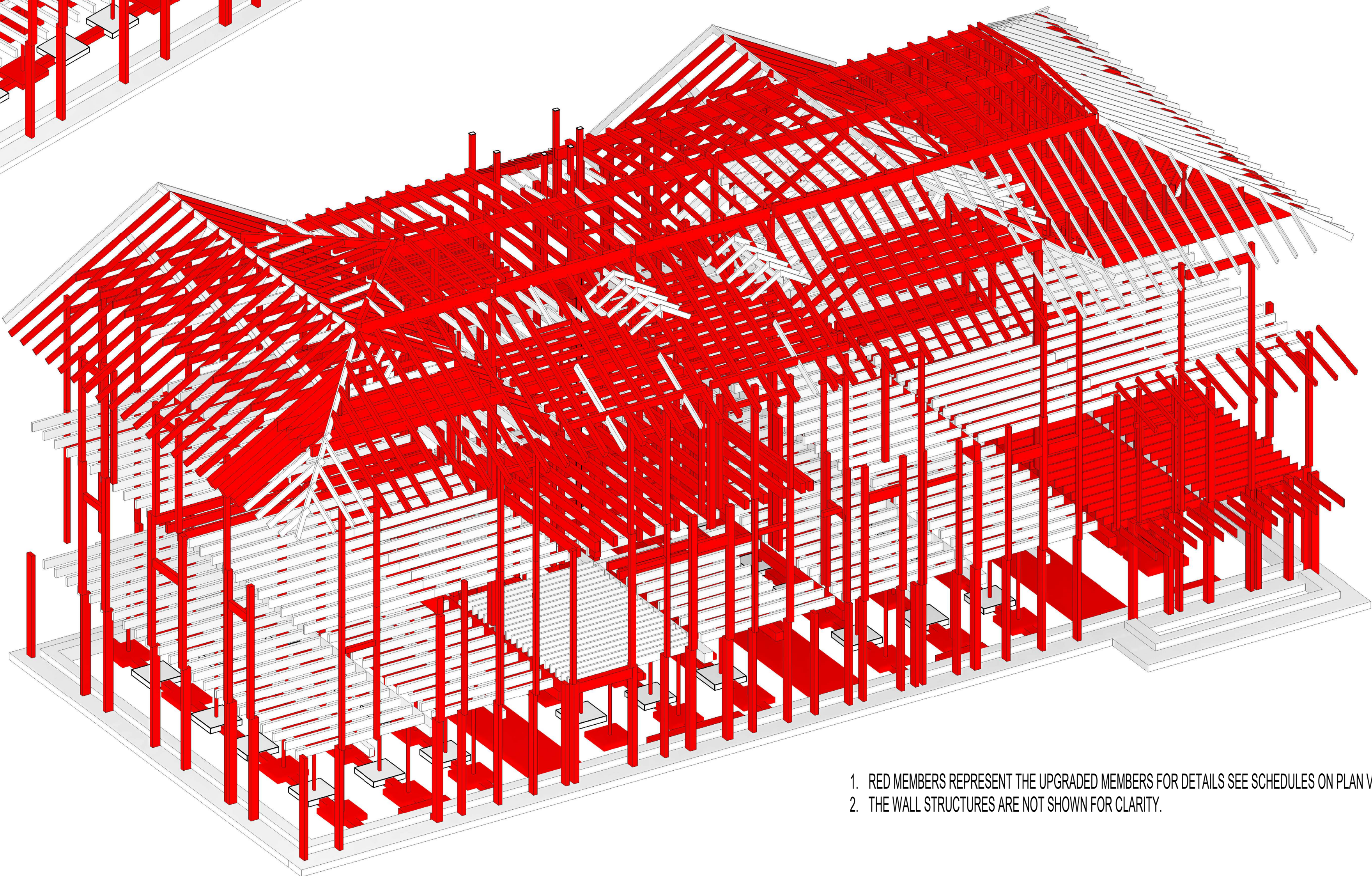
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La Révision  
no.

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1. RED MEMBERS REPRESENT THE UPGRADED MEMBERS FOR DETAILS SEE SCHEDULES ON PLAN VIEWS.
2. THE WALL STRUCTURES ARE NOT SHOWN FOR CLARITY.

1 SCHEMATIC ISOMETRIC VIEW 01  
S701



1. RED MEMBERS REPRESENT THE UPGRADED MEMBERS FOR DETAILS SEE SCHEDULES ON PLAN VIEWS.
2. THE WALL STRUCTURES ARE NOT SHOWN FOR CLARITY.

2 SCHEMATIC ISOMETRIC VIEW 02  
S701