CITY OF PORT ALBERNI

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CITY OF PORT ALBERNI
PUBLIC SAFETY BUILDING RENOVATIONS

Addendum #3

REQUEST FOR PROPOSAL
RFP 024-21

Contractor Questions and Answers

The City of Port Alberni (Owner) is inviting RFP Tenders from qualified contractors for the renovations of the Public Safety Building.

Contact:
Rob Kraneveldt, Facilities Operations Supervisor, Phone: 250-720-2511, Fax: 723-5633 or Email: rob_kraneveldt@portalberni.ca

Public Safety Building – Questions and Answers (12-26-21 to 01-13-01)

December 26,2021
Thank you all for attending the site visit at the Public Safety Building on December 21, 2021.

Please check regularly for any addendums related to this tender at:

- Civic Info BC https://www.civicinfo.bc.ca/bids
- BCBid https://www.bcbid.gov.bc.ca/open.dll/welcome?language=En
- City of Port Alberni: https://portalberni.ca/bid-opportunities

Some follow ups from the site visit:

The deadline for submitting your tenders has been extended to **January 20, 2022 @ 2:30pm**. If submitting electronically, please request notification of receipt.

Files Uploaded to the BOX account:

Quote for the cash allowance mentioned for the DDC Controls portion: https://portalberni.box.com/s/n101mku7mfrvhf5pz602yk3f0l3nc202

Structural Addendum referencing attachment details for the vinyl room divider partition: https://portalberni.box.com/s/fan8l4j3v12ougkxzz41oog4dcjwbs4h

Updated Architectural Plans: https://portalberni.box.com/s/2vhba5vz2x96ulgeqj4sfwtjqjrxcey8

Updated Electric Drawings: https://portalberni.box.com/s/n464y44apm7q8ase6ppzsc8beb3mjbex

Networking Products and Methods Specifications: https://portalberni.box.com/s/d95caazx82blvtikeiou89g3zq8464ky

Ethernet Camera Methods and Specifications: https://portalberni.box.com/s/l0yyxthgbe4doy47qdbxr3lsaz88l53y

21-344 3075 3rd Ave-Structural (R2)-S101: https://portalberni.box.com/s/mmfw52dk4nwx6xjdqq8oslrt1g8oc64b

If you have any further questions or have troubles accessing any of the links, please get in touch with me.

A few more questions were asked regarding :

January 10, 2022

1. Can you send in an RFI regarding Access control and Intrusion required manufacture or who is the contact for this info? Port Tech as referenced in the drawings is permanently closed.
   Access controls and building security systems reference PortTech, though they are now listed as permanently closed. Instead please contact Scott Security Systems, Mark Aussem (250-735-0385), who took over the customers of PortTech Security. Mark, helped design the system for the Public Safety Building so he should be able to answer any questions.

2. Could I ask you if the access ladder is to be galvanized or prime painted?
   Regarding the roof access ladder, it can be constructed of aluminum or galvanized with the important components being that is lockable and that the to rails extend up above the roof line. See attached sample photo of a similar ladder we had fabricated local for our City Hall.

3. Drawing E02 references a location where an HDMI is to be run. There is suppose to be a symbol B which does not exist. Confirm which spare light fixtures are to be included. There is a discrepancy with the newly issued drawings.

   Spare light fixtures to be included in the order 1 x Type A2 Fixture, and 1 x Type S1 Fixture as shown by sheet notes G and H on sheet E02. Regarding the HDMI location, the power and system plan on sheet E02 already shows symbol B in office 3.

January 5 , 2022

1. I am looking for more specification on the carpet so it can be priced. They would like to know if it is a Broadloom or Carpet tile so they can provide pricing for a mid level product? Or if you have a specific carpet that you would like to use in the Port Alberni Public Safety Building?
   There was a question asked about carpeting for the Public Safety Building in the interior offices. I have talked to the managers, that will be occupying the facility once renovated and they have decided they do not want any carpet. So, it will be vinyl plank in the interior offices. I have asked a local flooring supplier to suggest a grade which I can share later today when they send the specs.

   For a quality reference, our local flooring supplier (Flooring Depot), suggested we base the vinyl plank with the following or similar specs:

   Vinyl spec:
   Runway 20 vinyl plank
   20 mil wear layer
   2.5mm thickness
   Polyurethane with ceramic bead finish

January 12, 2022

1. Are Auto Operators not required for the Accessible Washroom #01?
   An automatic opener is not required by code for the washroom door. The code requires the door to "… be operable with one hand in a closed fist position" and "… with a force not more than 22 N". (newtons). However, we would like the door to have an electronic lock that can be disengaged remotely by the receptionist to "buzz" patrons in to the washroom.

2. Will Port Alberni be responsible for power usage costs?
   Yes, the City will be responsible for power usage costs

3. Will Port Alberni be responsible for the cost of Building Permit?
   The City will be responsible for taking out and covering the cost of the Building Permit

4. Is a sidewalk permit required?
   A Sidewalk Closure Permit will be required. It can be obtained at our City Hall, by contacting our Development Service Clerk and there is a $50 permit fee for that, at the contractor's expense.

January 13, 2022

1. Please confirm tender authority
   City of Port Alberni – City Council, will also need to approve award of this Tender.

2. Please confirm if Question/Answer emails will be sent to bidders via formal addendums
   Some addendums have already been issued formally, and some questions have been answered via email. It will depend on the nature of the question; however, all questions and answers have been shared with the whole group regardless of who has asked the question.

3. The online box portal shows an addendum #1 to the structural drawings (S203), however there are no other structural drawings uploaded, please confirm S203 is the only page for structural.

   I believe that S203 is the only structural drawing. I have CC'd Sorensen Trilogy to provide confirmation. The front canopy/glass entry is the only structural element, and they also provided an addendum to include attachment detail for the sliding room partition.

4. Please confirm the type of contract this will be and year (e.g. CCDC 2 2008 or CCDC 2 2020)

   The City is actively reviewing their contract documentation and procurement practices. I believe, however then Tender document and a simple contract that highlights the general terms is what will be put forth on this project.

January 13, 2022

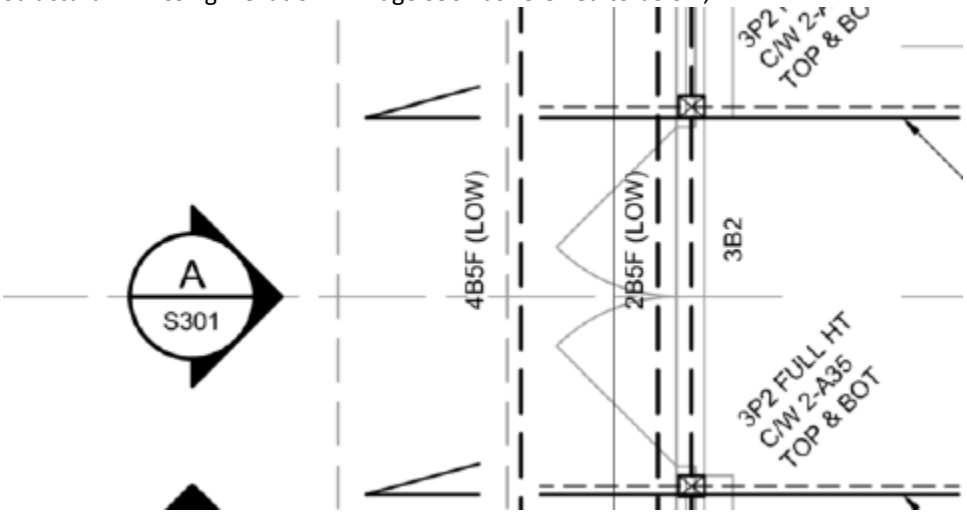
Question 1:

1. We putting together the pricing for this project and I wanted to confirm that we'll be ok to bid as equal with Samsung against the below Mitsubishi system.
   Samsung is acceptable.

January 13, 2022

It looks like the specified model has low ambient cooling down to -40F. The system that I would propose will only have low ambient cooling to 0F (-18C). I suspect that 0F will be sufficient for Port Alberni's climate, but I wanted to confirm.

2. Structural - Rebar Contractor requires more details on the Foundation Footing and Wall rebar, spacing, type required for both
3. Structural – Provide Strength of concrete required for foundation, Interior and exterior sog.
4. Structural – Missing Elevation A - Page S301 as referred to below;



The addendum needs to be used in conjunction with the building permit set (see attached). The addendum pages (S203) supersede those in the permit set.

GENERAL

1. THE STRUCTURAL DESIGN HAS BEEN COMPLETED IN ACCORDANCE WITH THE GOVERNING BUILDING CODE AND ADDENDA.

2. STRUCTURAL DESIGN CRITERIA:

PORT ALBERNI			2018 BRITISH COLUMBIA BUILDING CODE					
SNOW LOAD CRITERIA			SEISMIC DATA		SEISMIC LOAD CRITERIA			
Ss	2.60 kPa (54.20 psf)		Sa(0.2)	0.987	CONCRETE SHEAR WALLS			
Sr	0.40 kPa (8.35 psf)		Sa(0.5)	0.946	Rd	Ro	Ie	
Is	ULS	SLS	Sa(1.0)	0.614	1.5	1.3	1.0	
1.0	1.0	0.9	Sa(2.0)	0.383	WOOD BASED PANEL SHEAR WALLS			
WIND LOAD CRITERIA			Sa(5.0)	0.126	3.0	1.7	1.0	
q10	0.25 kPa (5.21 psf)		Sa(10.0)	0.045	GEOTECHNICAL CRITERIA			
q50	0.32 kPa (6.67 psf)				SOIL CAPACITY			SITE CLASS
Iw	ULS	SLS	PGA	0.450g	ULS	SLS		
1.0	1.0	0.75	PGV	0.702g	100 kPa (2000 psf)	75 kPa (1500 psf)		D ASSUMED

3. ALL CODES AND STANDARDS ARE TO BE AS REFERENCED IN THE THE BUILDING CODE. WHERE STANDARDS ARE NOT REFERENCED, THE LATEST EDITION OF THE BUILDING CODES AND STANDARDS ARE TO BE REFERRED TO.

4. CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE APPLICABLE BUILDING CODE INCLUDING ALL ADDENDA, REFERENCED CODES AND FEDERAL AND MUNICIPAL REGULATIONS AND BYLAWS.

5. THE STRUCTURAL DOCUMENTS INCLUDING DIMENSIONING SHALL BE READ IN CONJUNCTION WITH ALL OTHER PROJECT DRAWINGS AND SPECIFICATIONS. THE CONTRACTOR SHALL REPORT ANY DISCREPANCIES TO THE STRUCTURAL ENGINEER FOR CLARIFICATION PRIOR TO COMMENCING CONSTRUCTION. THE CONTRACTOR SHALL MAKE ALLOWANCES FOR ITEMS REFERRED TO IN OTHER DOCUMENTS THAT ARE NOT INDICATED IN THE STRUCTURAL DOCUMENTS.

6. REFER TO THE ARCHITECTURAL DRAWINGS FOR REQUIRED FIRE SEPARATIONS, FIRE RATINGS AND ASSEMBLIES AS WELL AS ROOF AND FLOOR ELEVATIONS, SLOPES AND DRAIN LOCATIONS.

7. THE STRUCTURAL DOCUMENTS SHOW THE COMPLETED STRUCTURE ONLY. THE CONTRACTOR IS RESPONSIBLE FOR ANY TEMPORARY BRACING AND SHORING THAT MAY BE REQUIRED DURING CONSTRUCTION.

8. THE CONTRACTOR SHALL RETAIN A PROFESSIONAL ENGINEER REGISTERED IN THE PROVINCE OF APPLICABLE IN ACCORDANCE WITH WORK SAFE BC REGULATIONS FOR THE DESIGN AND FIELD REVIEW OF ANY TEMPORARY SHORING, BRACING, SCAFFOLDING OR OTHER TEMPORARY STRUCTURES THAT MAY BE REQUIRED TO COMPLETE CONSTRUCTION. UNDER NO CIRCUMSTANCES ARE THE CONSTRUCTION LOADS IMPOSED BY TEMPORARY STRUCTURES TO EXCEED THE DESIGN LOADING INDICATED IN THE STRUCTURAL DOCUMENTS.

9. THE CONTRACTOR IS RESPONSIBLE FOR THE LAYOUT OF THE STRUCTURE INCLUDING STRUCTURAL COMPONENTS AND ASSEMBLIES.

10. UNDER NO CIRCUMSTANCES ARE THE STRUCTURAL DRAWINGS TO BE SCALED.

FIELD REVIEW

1. THE CONTRACTOR SHALL PROVIDE SORENSEN TRILOGY ENGINEERING LTD WITH A MINIMUM OF 24 HOURS (1 WORKING DAY) NOTICE FOR FIELD REVIEW.

2. FIELD REVIEWS ARE CARRIED OUT IN ORDER TO CONFIRM GENERAL CONFORMANCE WITH THE STRUCTURAL DOCUMENTS. FIELD REVIEWS DO NOT RELIEVE THE CONTRACTOR OR SUB-TRADES OF THEIR RESPONSIBILITY TO COMPLY WITH THE CONTRACT DOCUMENTS.

3. WORK WHICH HAS BEEN REVIEWED AND COMMENTED ON IS NOT NECESSARILY CONSIDERED COMPLETE AND MAY RECEIVE FURTHER COMMENTARY DURING FUTURE REVIEWS.

4. ALL WORK WHICH HAS BEEN DEEMED UNSATISFACTORY BY THE STRUCTURAL ENGINEER DUE TO POOR WORKMANSHIP, FAULTY MATERIALS, ERRORS OR OMISSIONS, NONCOMPLIANCE WITH PROJECT DOCUMENTS, OR OTHER CAUSES SHALL BE REMOVED AND REPLACED AS DIRECTED BY THE STRUCTURAL ENGINEER. COST OF REMEDIATION OF UNSATISFACTORY WORK SHALL BE BORNE BY THE CONTRACTOR.

5. ALL WORK TO BE REVIEWED SHALL BE SUBSTANTIALLY COMPLETE AT TIME OF REVIEW. THE FOLLOWING ITEMS ARE CONSIDERED TO BE THE MINIMUM STRUCTURAL FIELD REVIEWS REQUIRED FOR THE PROJECT:

CONCRETE:
1. REINFORCING STEEL SHALL BE REVIEWED PRIOR TO PLACING CONCRETE.
2. REINFORCING IN CONCRETE WALLS AND COLUMNS SHALL BE REVIEWED PRIOR TO "BUTTONING UP" FORMS.
3. ALL EMBEDS ARE TO BE TIED INTO FINAL POSITION PRIOR TO FIELD REVIEW.
4. A COPY OF THE FIELD REVIEWS PERFORMED BY THE GEOTECHNICAL ENGINEER SHALL BE AVAILABLE ON SITE PRIOR TO SORENSEN TRILOGY ENGINEERING LTD COMMENCING A FIELD REVIEW.

MASONRY:
1. REINFORCING STEEL SHALL BE REVIEWED PRIOR TO PLACING GROUT.
2. VERTICAL AND HORIZONTAL REINFORCING SHALL BE IN PLACE AT THE TIME OF THE REVIEW.
3. ALL EMBEDS ARE TO BE TIED INTO FINAL POSITION PRIOR TO FIELD REVIEW.

STRUCTURAL STEEL:
1. STEEL WORK SHALL BE REVIEWED AFTER ALL MEMBERS HAVE BEEN FABRICATED AND ARE IN THEIR FINAL POSITION WITH CONNECTIONS COMPLETE.
2. A COPY OF THE FIELD REVIEW PERFORMED BY THE SPECIALTY ENGINEER SHALL BE AVAILABLE ON SITE PRIOR TO SORENSEN TRILOGY ENGINEERING LTD COMMENCING A FIELD REVIEW.
3. STEEL DECKING SHALL BE REVIEWED PRIOR TO PLACING CONCRETE OR COVERING.
4. ALL GROUT UNDER BASE PLATES IS TO BE PLACED PRIOR TO FIELD REVIEW.

TIMBER FRAMING
1. FLOOR AND ROOF DIAPHRAGMS SHALL BE REVIEWED PRIOR TO COVERING.
2. A COPY OF THE FIELD REVIEWS PERFORMED BY THE SPECIALTY ENGINEER SHALL BE AVAILABLE ON SITE PRIOR TO SORENSEN TRILOGY ENGINEERING LTD COMMENCING A FIELD REVIEW.
3. TIMBER FRAMING SHALL BE REVIEWED AFTER MECHANICAL AND ELECTRICAL IS SUBSTANTIALLY COMPLETE.

6. FIELD REVIEWS REQUIRED BY SPECIALTY ENGINEERS SHALL BE PROVIDED TO SORENSEN TRILOGY ENGINEERING LTD WITH WRITTEN CONFIRMATION THAT THE WORK IS SUBSTANTIALLY COMPLETE AND IN GENERAL CONFORMANCE WITH THE REVIEWED SHOP DRAWINGS. CONFIRMATION SHALL BE PROVIDED PRIOR TO SORENSEN TRILOGY ENGINEERING LTD PERFORMING ANY FIELD REVIEWS OF THE ASSOCIATED WORK.

7. MATERIAL TESTING REPORTS SHALL BE FORWARDED TO SORENSEN TRILOGY ENGINEERING LTD.

8. IF THE ENGINEER IS NOT PROVIDED WITH THE OPPORTUNITY TO PERFORM THE REQUIRED FIELD REVIEWS AND DOES NOT RECEIVE WRITTEN CONFIRMATIONS FROM THE SPECIALTY ENGINEERS FINAL CERTIFICATION OF THE PROJECT WILL NOT BE ISSUED.

STRUCTURAL SHOP DRAWINGS

1. AS REQUESTED IN THE GENERAL NOTES, THE, CONTRACTOR SHALL SUPPLY THE STRUCTURAL ENGINEER WITH PDF SETS OF SHOP DRAWINGS FOR THE ENGINEERS REVIEW PRIOR TO FABRICATION. THE SHOP DRAWINGS SHALL INDICATE DETAILS, MATERIALS AND DESIGN LOADS AND INCLUDE REFERENCE MATERIAL AS SPECIFIED IN SPECIFIC GENERAL NOTE SECTIONS.

2. SHOP DRAWINGS SHALL BE SEALED BY A SPECIALTY ENGINEER REGISTERED IN THE APPLICABLE PROVINCE WHERE SO NOTED IN THE GENERAL NOTES.

3. THE FOLLOWING SUBMISSIONS ARE REQUIRED FOR THIS PROJECT:

CONCRETE MIX DESIGNS *
EPOXY REINFORCING PERFORMANCE TEST CERTIFICATES
NAIL SAMPLES FOR USE IN TIMBER SHEAR WALLS AND DIAPHRAGMS
PREFABRICATED WOOD TRUSS SHOP DRAWINGS INCLUDING LAYOUTS*
STRUCTURAL COMPOSITE LUMBER SHOP DRAWINGS *
HEAVY TIMBER SHOP DRAWINGS *
FALL RESTRAINT AND/OR FALL ARREST SYSTEM SHOP DRAWINGS *
STRUCTURAL SUPPORT AND SEISMIC RESTRAINT OF NON-STRUCTURAL ELEMENTS.

* INDICATES THE REQUIREMENT THAT THE SUBMISSION BE SEALED BY A SPECIALTY ENGINEER.

4. SHOP DRAWINGS WILL BE REVIEWED BY SORENSEN TRILOGY ENGINEERING LTD FOR THE SOLE PURPOSE OF ASCERTAINING GENERAL CONFORMANCE WITH THE PROJECT STRUCTURAL DRAWINGS AND SPECIFICATIONS. THE SHOP DRAWING REVIEW DOES NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY FOR ERRORS OR OMISSIONS IN THE SHOP DRAWINGS OR OF THE RESPONSIBILITY TO MEET ALL REQUIREMENTS OF THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL CONFIRM ALL QUANTITIES AND DIMENSIONS AND COORDINATE ALL CONSTRUCTION AND THE WORK OF ALL SUB-TRADES.

5. SHOP DRAWINGS WHICH DO NOT HAVE THE REQUIRED SPECIALTY ENGINEER'S SEAL AND SIGNATURE WILL NOT BE REVIEWED.

6. THE SPECIALTY ENGINEER OR HIS REPRESENTATIVE SHALL VISIT THE SITE AND REVIEW THE COMPLETED WORK DESIGNED AND DETAILED ON HIS SHOP DRAWINGS TO SATISFY HIMSELF THAT THE FINISHED COMPONENTS AND ASSEMBLIES ARE IN COMPLIANCE WITH HIS DESIGN AND THE REVIEWED SHOP DRAWINGS. THE SPECIALTY ENGINEER SHALL PROVIDE THE STRUCTURAL ENGINEER WITH A COMPLETED SCHEDULE 'S' FOR THIS WORK ALONG WITH ANY SKETCHES INDICATING FIELD MODIFICATIONS. THESE SKETCHES SHALL BEAR THE SEAL AND SIGNATURE OF THE SPECIALTY ENGINEER.

FOUNDATIONS

1. FOUNDATIONS HAVE BEEN DESIGNED FOR THE FOLLOWING BEARING CAPACITIES IN ACCORDANCE WITH THE GOVERNING BUILDING CODE & ADDENDA.

DESCRIPTION	ULT LIMIT STATES	SPEC LIMIT STATES	SEISMIC LOADING
FOOTINGS	150 kPa (3100 psf)	100 kPa (2000 psf)	ULS UNO

2. ALL FOOTINGS TO BE CENTERED BELOW WALLS AND COLUMNS UNLESS NOTED OTHERWISE.

3. FOOTING ELEVATIONS INDICATED ON THE STRUCTURAL DRAWINGS AND IN THE GEOTECHNICAL REPORT ARE FOR INFORMATION PURPOSES ONLY AND REPRESENT A MINIMUM DEPTH OF COVER.

4. FOUNDATION BEARING MATERIAL SHALL BE PROTECTED BEFORE AND AFTER CONCRETE PLACEMENT FROM RAIN, FROST, SNOW AND WATER INFILTRATION.

5. CLEAN ALL DAMAGED AND LOOSE MATERIAL BELOW FOOTINGS PRIOR TO FORMING AND PLACING CONCRETE.

6. WHEN REQUIRED BY SITE CONDITIONS AND AS DIRECTED BY THE GEOTECHNICAL ENGINEER, PLACE A GROUND SEAL BELOW FOOTINGS. GROUND SEALS ARE TO BE A MINIMUM OF 50mm (2") OF 10 MPa (1500 psi) CONCRETE UNLESS NOTED OTHERWISE BY THE GEOTECHNICAL ENGINEER.

7. FIRM BEARING DEPTHS FOR FOOTINGS AND FILL WILL BE ESTABLISHED FROM THE GEOTECHNICAL REPORT AT THE TIME OF TENDERING. ANY QUERIES REGARDING THE ESTABLISHMENT OF THE DEPTHS SHALL BE DIRECTED TO THE GEOTECHNICAL ENGINEER.

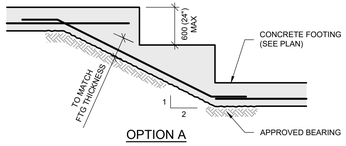
8. VARIABLE SITE CONDITIONS, UNDERGROUND SERVICES AND EXISTING STRUCTURES MAY REQUIRE ADJUSTMENT OF THE FOOTING ELEVATIONS AND/OR FOUNDATION DETAILS. THE CONTRACTOR SHALL MAKE ALLOWANCES FOR MINOR VARIANCES IN HIS BID ACCORDINGLY. THE CONTRACTOR SHALL CONTACT THE GEOTECHNICAL ENGINEER AND STRUCTURAL ENGINEER WHEN SITE CONDITIONS SUBSTANTIALLY DIFFER FROM WHAT IS INDICATED ON THE STRUCTURAL DRAWINGS AND IN THE GEOTECHNICAL REPORT PRIOR TO COMMENCING FOUNDATION WORK.

9. THE CONTRACTOR SHALL COORDINATE THE CONSTRUCTION OF FOUNDATIONS WITH UNDERGROUND SERVICES AS INDICATED ON THE CIVIL, MECHANICAL, ELECTRICAL AND ARCHITECTURAL DRAWINGS. FOOTINGS SHALL NOT BE UNDERMINED BY SERVICE TRENCHES, PITS, ETC. CONFLICTS SHALL BE REPORTED TO THE ARCHITECT AND STRUCTURAL ENGINEER PRIOR TO FORMING AND PLACING CONCRETE.

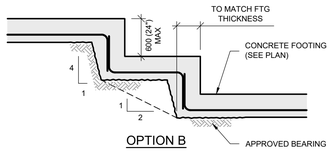
10. MINIMUM COMPACTION OF GRANULAR FILL MATERIAL BELOW ALL FOOTINGS AND SLABS SHALL BE IN ACCORDANCE WITH THE GEOTECHNICAL REPORT. HOWEVER, UNDER NO CIRCUMSTANCES SHALL THE COMPACTION BELOW THE FOOTINGS AND SLABS BE LESS THEN 98% CORRECTED STANDARD PROCTOR DENSITY AND 95% CORRECTED STANDARD PROCTOR DENSITY RESPECTIVELY. MATERIAL TESTING REPORTS FOR BEARING MATERIAL SHALL BE FORWARDED TO SORENSEN TRILOGY ENGINEERING LTD PRIOR TO PLACING CONCRETE.

11. NO FOUNDATIONS SHALL BE POURED PRIOR TO THE REVIEW AND APPROVAL OF THE BEARING MATERIAL BY THE GEOTECHNICAL ENGINEER OF RECORD.

12. MAXIMUM SLOPE OF BEARING MATERIAL FOR STEPPED AND SLOPED FOOTINGS SHALL BE LIMITED TO 2:1 (HORIZONTAL:VERTICAL) UNLESS NOTED OTHERWISE IN WRITING BY THE GEOTECHNICAL ENGINEER. MAXIMUM VERTICAL SLOPE FOR STEPPED FOOTINGS SHALL BE LIMITED TO 1:4 (HORIZONTAL:VERTICAL) WITH STEPS SPACED IN ORDER TO MAINTAIN A 2:1 (HORIZONTAL:VERTICAL.) BEARING SLOPE BETWEEN STEPS.



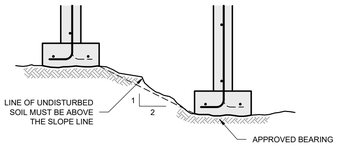
OPTION A



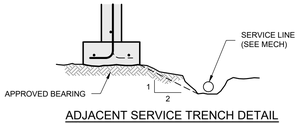
OPTION B

STEPPED FOOTING DETAIL
NTS

13. FOOTINGS AND SERVICES ADJACENT TO NEW OR EXISTING FOOTINGS SHALL BE POSITIONED SUCH THAT THE MAXIMUM SLOPE BETWEEN FOOTINGS AND SERVICES SHALL BE LIMITED TO 2:1 (HORIZONTAL:VERTICAL) UNLESS NOTED OTHERWISE IN WRITING BY THE GEOTECHNICAL ENGINEER.

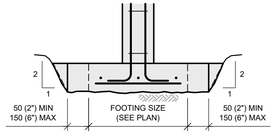


ADJACENT FOOTING DETAIL
NTS



ADJACENT SERVICE TRENCH DETAIL
NTS

14. FORMLESS FOOTINGS ARE ACCEPTABLE PROVIDED THE EXCAVATIONS ARE OVER EXCAVATED BY A MINIMUM OF 50mm (2") AND A MAXIMUM OF 150mm (6") ALONG ALL SIDES. SIDES OF EXCAVATIONS FOR FORMLESS FOOTINGS ARE TO BE SLOPED AT A MAXIMUM SLOPE OF 1:2 (HORIZONTAL:VERTICAL). ALL LOOSE MATERIAL TO BE REMOVED FROM FOOTINGS PRIOR TO POUR.



FORMLESS FOOTING DETAIL
NTS

15. FOUNDATION WALLS SHALL HAVE FLOOR SYSTEMS COMPLETED PRIOR TO BACKFILLING UNLESS NOTED OTHERWISE IN WRITING BY THE STRUCTURAL ENGINEERING.

16. BACKFILL MATERIAL SHALL BE CLEAN, FREE DRAINING GRANULAR MATERIAL. COMPACTION SHALL BE LIMITED TO HAND OPERATED COMPACTION EQUIPMENT WITHIN 1200mm (4'-0") OF THE BACKFILLED WALL UNLESS DIRECTED OTHERWISE BY THE GEOTECHNICAL ENGINEER AND APPROVED IN WRITING BY THE STRUCTURAL ENGINEER.

CAST-IN-PLACE CONCRETE

1. ALL CONCRETE WORK SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF CSA A23.1 AND A23.2.

2. CONCRETE MIXES SHALL CONFORM TO CSA A23.1 AND A23.2 AND SHALL HAVE THE FOLLOWING PROPERTIES UNLESS NOTED OTHERWISE. CEMENT SHALL BE GU - GENERAL USE UNLESS SPECIFIED OTHERWISE.

DESCRIPTION	28 DAY STR	MAX AGG	MAX SLUMP	AIR	EXPOSURE
INTERIOR					
FOOTINGS - TYPICAL	25 MPa (3625 psi)	19mm (3/4")	75mm (3")	-	N
FOOTINGS - CONCRETE SHEAR WALL	30 MPa (4350 psi)	19mm (3/4")	75mm (3")	-	N
WALLS - TYPICAL	25 MPa (3625 psi)	19mm (3/4")	75mm (3")	4-7%	F-2
WALLS - CONCRETE SHEAR WALL	30 MPa (4350 psi)	19mm (3/4")	75mm (3")	4-7%	F-2
COLUMNS - INTERIOR	30 MPa (4350 psi)	19mm (3/4")	75mm (3")	-	N
SUSPENDED SLABS & BEAMS - INT	35 MPa (5076 psi)	19mm (3/4")	75mm (3")	-	N
SUSP. SLABS SUPPORTING VEHICLES	35 MPa (5076 psi)	19mm (3/4")	75mm (3")	5-8%	C1
SLAB ON GRADE - INTERIOR	30 MPa (4350 psi)	19mm (3/4")	75mm (3")	-	N
TOPPING	32 MPa (4640 psi)	10mm (3/8")	75mm (3")	-	N
HOUSEKEEPING PADS	30 MPa (4350 psi)	19mm (3/4")	75mm (3")	4-7%	F-2
ICF WALLS	25 MPa (3625 psi)	10mm (3/8")	150mm (6")	-	-
EXTERIOR					
RETAINING WALLS	30 MPa (4350 psi)	19mm (3/4")	75mm (3")	4-7%	F-2
COLUMNS - EXTERIOR	30 MPa (4350 psi)	19mm (3/4")	75mm (3")	4-7%	F-2
SUSPENDED SLABS & BEAMS - EXT	35 MPa (5076 psi)	19mm (3/4")	75mm (3")	4-7%	F-2
SLAB ON GRADE - EXTERIOR	32 MPa (4640 psi)	19mm (3/4")	75mm (3")	5-8%	C-2

3. CONCRETE TESTING SHALL BE CARRIED OUT IN ACCORDANCE WITH CSA A23.1, A23.2 AND A23.3. THE MINIMUM NUMBER OF TESTS PERFORMED SHALL BE AS PER CSA A23.2. ADDITIONAL TESTING SHALL BE PERFORMED AT THE DISCRETION OF THE STRUCTURAL ENGINEER. THE CONTRACTOR SHALL COORDINATE THE TESTING AND PROVIDE THE TESTING AGENCY WITH ADEQUATE NOTICE OF THE REQUIRED TESTS. THE OWNER SHALL EITHER PAY FOR OR PROVIDE AN ALLOWANCE WITHIN THE CONTRACT FOR THE COSTS OF MATERIAL TESTING.

4. THE CONTRACTOR SHALL PROVIDE SUITABLE ON-SITE FACILITIES FOR CURING OF TEST CYLINDERS.

5. ALL CONCRETE CURING SHALL BE IN ACCORDANCE WITH CSA A23.1. SPECIAL PRECAUTIONS SHALL BE TAKEN FOR PLACING AND CURING CONCRETE ABOVE 30°C (85°F) AND BELOW 5°C (40°F).

6. CHAMFER ALL EXPOSED EDGES OF CONCRETE WITH A 19mm (¾") CHAMFER UNLESS NOTED OTHERWISE IN THE ARCHITECTURAL DRAWINGS AND SPECIFICATIONS.

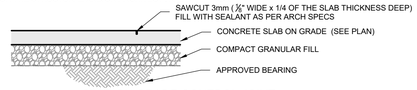
7. CONCRETE FINISHES SHALL BE IN ACCORDANCE WITH CSA A23.1 AND AS FOLLOWS UNLESS NOTED OTHERWISE IN THE ARCHITECTURAL DRAWINGS AND SPECIFICATIONS:

INTERIOR SLABS	TROWEL FINISH
EXTERIOR SLABS	BROOM FINISH
SLABS TO RECEIVE CONCRETE TOPPING	ROUGH BROOM FINISH
WALLS	FILL ALL DEFECTS LARGER THAN 25mm (1") DIAMETER AND GRIND RIDGES FLUSH WITH SURROUNDING SURFACES
SUSPENDED SLABS AND BEAMS	FILL ALL DEFECTS LARGER THAN 19mm (¾") DIAMETER AND GRIND RIDGES FLUSH WITH SURROUNDING SURFACES
CONSTRUCTION JOINTS	ROUGH WITH 6mm (¼") AMPLITUDE

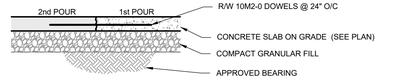
8. ALL REINFORCING STEEL SHALL HAVE THE FOLLOWING CLEAR COVER DISTANCES UNLESS NOTED OTHERWISE. REFER TO THE ARCHITECTURAL DRAWINGS AND SPECIFICATIONS FOR LOCATIONS OF FIRE SEPARATIONS AND FIRE RESISTANCE RATINGS (FRR).

DESCRIPTION	0-1 HR FRR	2 HR FRR	3 HR FRR
SURFACES PLACED IN CONTACT WITH SOIL OR FILL	75mm (3")	75mm (3")	75mm (3")
FORMED SURFACES EXPOSED TO GROUND OR WEATHER	50mm (2")	50mm (2")	50mm (2")
WALLS	40mm (1 1/2")	40mm (1 1/2")	40mm (1 1/2")
COLUMNS	40mm (1 1/2")	50mm (2")	50mm (2")
BEAMS	20mm (3/4")	25mm (1")	40mm (1 1/2")
SUSPENDED SLABS	20mm (3/4")	25mm (1")	35mm (1 3/8")

9. CONTROL JOINTS SHALL BE PROVIDED IN BOTH DIRECTIONS IN ALL SLAB-ON-GRADE LOCATIONS AT A MAXIMUM SPACING OF 4500mm (15'-0") FOR UNREINFORCED SLABS AND 6000mm (20'-0") FOR REINFORCED SLABS UNLESS NOTED OTHERWISE ON THE STRUCTURAL AND/OR ARCHITECTURAL DRAWINGS.

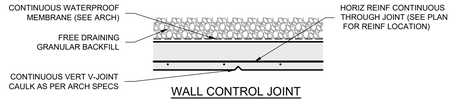


SLAB ON GRADE CONTROL JOINT
NTS

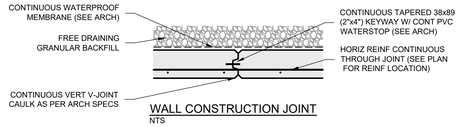


SLAB ON GRADE CONSTRUCTION JOINT
NTS

10. CONTROL JOINTS IN WALLS SHALL BE PROVIDED AT A MAXIMUM SPACING OF 9000mm (30'-0") UNLESS INDICATED OTHERWISE IN THE ARCHITECTURAL DRAWINGS AND SPECIFICATIONS.



WALL CONTROL JOINT
NTS



WALL CONSTRUCTION JOINT
NTS

11. JOINT FILLER SHALL BE INSTALLED IN EXPANSION JOINTS AND CONSTRUCTION JOINTS UNLESS INDICATED OTHERWISE IN THE ARCHITECTURAL DRAWINGS AND SPECIFICATIONS.

12. WATERSTOPS SHALL BE INSTALLED WHERE INDICATED IN ACCORDANCE WITH THE MANUFACTURER'S WRITTEN INSTRUCTIONS. WATERSTOPS SHALL BE RIGIDLY TIED IN PLACE WITHOUT DISTORTION OR PUNCTURE. REINFORCING IS NOT TO BE DISPLACED DURING WATERSTOP PLACEMENT.

13. EMBEDDED PLATES AND ANCHOR BOLTS FOR STRUCTURAL STEEL SHALL BE SECURELY TIED OR FASTENED INTO PLACE PRIOR TO POURING CONCRETE. ALL ANCHOR BOLTS FOR MEMBERS OTHER THAN STANDARD TIMBER WALL FRAMING SHALL BE INSTALLED USING A TEMPLATE. "WET DOWELING" OF ANCHOR BOLTS AND EMBEDDED PLATES IS NOT PERMITTED.

14. INSTALL EMBEDDED DOVETAIL ANCHOR SLOTS IN CAST-IN-PLACE CONCRETE FOR DOVETAIL MASONRY ANCHORS @ 400mm (16") WHERE CONCRETE BLOCK WALLS MEET CONCRETE WALLS OR COLUMNS UNLESS NOTED OTHERWISE.

15. FORMWORK SHALL REMAIN IN PLACE UNTIL THE FOLLOWING CRITERIA HAS BEEN MET:

DESCRIPTION	COMP STR	MIN TIME
STRUCTURAL CONCRETE WALLS AND COLUMNS	8 MPa (1200 psi)	3 DAYS
ARCHITECTURAL CONCRETE WALLS AND COLUMNS	10 MPa (1500 psi)	3 DAYS

16. CONCRETE STRENGTHS SHALL BE CONFIRMED BY TEST CYLINDERS PRIOR TO STRIPPING FORMWORK UNLESS ALTERNATE MEANS HAVE BEEN APPROVED BY THE STRUCTURAL ENGINEER.

17. SHORING FOR SLABS AND BEAMS SHALL REMAIN IN PLACE FOR A MINIMUM OF 21 DAYS AND CONCRETE HAS ACHEIVED THE DESIGN STRENGTH.

18. SHORING AND RE-SHORING SHALL BE DESIGNED BY A SPECIALTY ENGINEER REGISTERED IN THE PROVINCE OF APPLICABLE. FOR MULTI-STOREY SLAB CONSTRUCTION, SHORING SHALL BE PROVIDED FOR A MINIMUM OF THREE LEVELS BELOW THE SLAB BEING CONSTRUCTED. SHORING DRAWINGS SHALL BE SUBMITTED TO THE STRUCTURAL ENGINEER FOR REVIEW OF THE EFFECT SHORING MAY HAVE ON THE BUILDING STRUCTURE ONLY.

LEGEND

SF1	NEW STRIP FOOTING
PF1	NEW PAD FOOTING
	NEW CONCRETE WALL
	CONCRETE BLOCK WALL
	LOAD BEARING STUD WALL
	NON-LOAD BEARING STUD WALL
	WALL BELOW
	WOOD STUD SHEAR WALL
	SHEAR WALL HOLD-DOWN
2B3	WOOD BEAM
DP1	WOOD POST
	WOOD JOISTS
	WOOD TRUSS OR O.W.S. JOIST
GT	WOOD GIRDER TRUSS
W310x33	STEEL BEAM
W310x33 C50	STEEL BEAM WITH CAMBER
M 50 kNm / M 50 kNm	STEEL MOMENT CONNECTION W/ LOADS SHOWN (ELEVATION)
M 50 kNm — M 50 kNm	STEEL MOMENT CONNECTION W/ LOADS SHOWN (PLAN)
50 kN	DRAG STRUT LOAD
	BEAM SPLICE LOCATION
or	STEEL BRACE FRAME
-100	TOP OF BEAM ELEVATION (RELATIVE TO AN ESTABLISHED DATUM)
WP	WORK POINT

12 / S3.2	SECTION/ELEVATION SYMBOL SECTION/ELEVATION NUMBER SHEET WHERE DRAWN
1 / S4.1	PLAN DETAIL SYMBOL DETAIL NUMBER SHEET WHERE DRAWN
P1	PILE TYPE
PC1	PILE CAP TYPE
Z1	ZONE TYPE
CW1	CONCRETE WALL TYPE
CC1	CONCRETE COLUMN TYPE
CP1	CONCRETE PIER TYPE
CB1	CONCRETE BEAM TYPE
GB1	GRADE BEAM TYPE
ST1	SLAB THICKENING
WP1	WALL PANEL (PRE-CAST OR TILT-UP)
BP1	BASE PLATE TYPE
SC1	STEEL COLUMN TYPE
MF1	MOMENT FRAME NUMBER
MW1	MASONRY WALL TYPE
ML1	MASONRY LINTEL TYPE
TW1	TIMBER STUD WALL TYPE
PS1	PUNCHING SHEAR REINFORCING
500x2200	SLAB BAND SIZE
300	SUSPENDED SLAB THICKNESS
T12	SLAB BAND TOP STEEL
B12	SLAB BAND BOTTOM STEEL
10-S6	STIRRUP DESIGNATION
1 / EL 100.00	REVISION NUMBER TOP OF FOOTING ELEVATION (PLANS ONLY)
EL 100.00 T/O CONC	ELEVATION SYMBOL USE ON PLANS, SECTIONS AND ELEVATIONS. ADD ARROW HEAD FOR SECTIONS

NOT FOR CONSTRUCTION

REVISIONS			
ISSUE	DATE	DESCRIPTION	ENG
2	08DEC2021	BUILDING PERMIT	SK
1	24NOV2021	COORDINATION	SK

ISSUES

sorensen TRILOGY
STRUCTURAL ENGINEERING SOLUTIONS
NANAIMO (250) 585-1360 VICTORIA (778) 265-7360
www.sorensentrilogy.ca

CLIENT: CITY OF PORT ALBERNI

PROJECT: 3075 3RD AVE PORT ALBERNI, B.C.

TITLE: GENERAL NOTES

DESIGN: SK
DRAFT: KH
CHECK: -
DATE: 01OCT2021
SCALE: AS NOTED
PROJ # 21-344

SEAL:

S101

REINFORCING STEEL

1. REINFORCING STEEL SHALL BE TO THE FOLLOWING STANDARDS UNLESS NOTED OTHERWISE:

DESCRIPTION	STANDARD	GRADE
WELDED WIRE MESH	CSA G30.5	400
10M REINFORCING BAR AND LARGER	CSA G30.18R	400R
REINFORCING TO BE WELDED	CSA G30.18W	400W
PRE-STRESSING STRANDS	CSA G279	1870

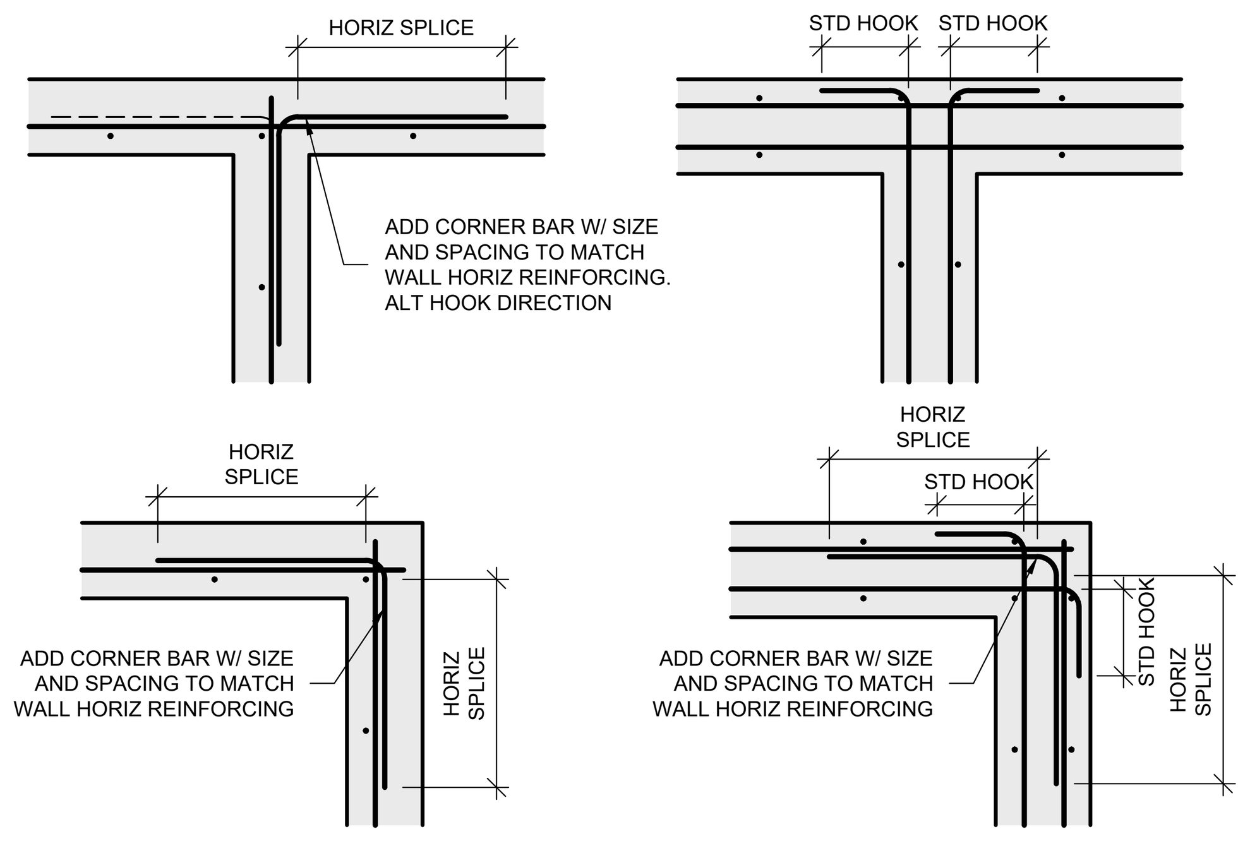
2. WHEN REQUESTED BY THE STRUCTURAL ENGINEER MILL CERTIFICATES SHALL BE SUPPLIED FOR ALL WELDABLE REINFORCING STEEL USED IN CONCRETE SHEAR WALLS AND CONCRETE FRAMES.

3. WELDING OF REINFORCING STEEL SHALL CONFORM TO CSA W186 "WELDING OF REINFORCING BARS IN REINFORCED CONCRETE CONSTRUCTION". WELDING OF REINFORCING SHALL BE ALLOWED ONLY AS NOTED ON THE PLANS. WHERE WELDING OF REINFORCING IS REQUIRED MILL CERTIFICATES FOR WELDABLE REINFORCING SHALL BE PROVIDED PRIOR TO WELDING. WRITTEN PERMISSION FROM THE STRUCTURAL ENGINEER IS REQUIRED FOR ANY WELDING NOT SPECIFIED FOR IN THE STRUCTURAL DRAWINGS.

4. ALL REINFORCING BARS SHALL BE TIED SECURELY IN PLACE TO PREVENT DISPLACEMENT.

5. DOWELS ARE TO BE TIED IN PLACE PRIOR TO PLACING CONCRETE. "WET DOWELING" OF ANY REINFORCING STEEL IS NOT PERMITTED WITHOUT THE WRITTEN APPROVAL OF THE STRUCTURAL ENGINEER.

6. PROVIDE CORNER BARS TO MATCH HORIZONTAL WALL REINFORCING UNLESS NOTED OTHERWISE ON STRUCTURAL DRAWINGS.



WALL CORNER REINFORCING
NTS

7. WHERE CONCRETE SURFACES ARE TO BE EXPOSED, ONLY NON-CORROSIVE TYPE REINFORCING CHAIRS SHALL BE USED TO SUPPORT REINFORCING STEEL.

8. LAP LENGTHS AND EMBEDMENTS FOR REINFORCING STEEL SHALL BE AS FOLLOWS UNLESS NOTED OTHERWISE ON THE STRUCTURAL DRAWINGS:

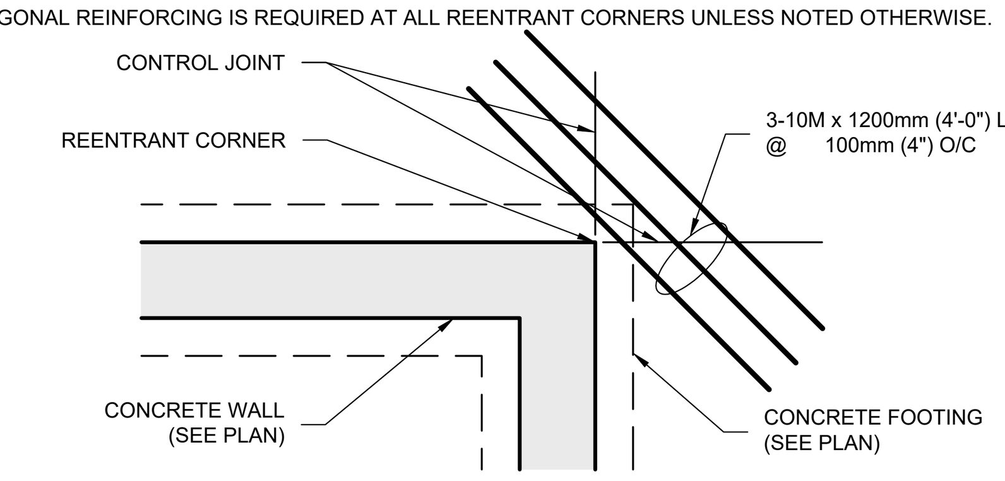
CONCRETE STRENGTH	BAR SIZE					
	10M	15M	20M	25M	30M	35M
	TENSION	TENSION	TENSION	TENSION	TENSION	TENSION
20 MPa	420 (16.5")	630 (24.8")	840 (33.0")	1310 (51.6")	1570 (61.8")	1835 (72.2")
25 MPa	375 (14.8")	565 (22.2")	750 (29.5")	1170 (46.1")	1405 (55.3")	1640 (64.6")
30 MPa	345 (13.6")	515 (20.3")	690 (27.2")	1070 (42.1")	1285 (50.6")	1500 (59.0")
35 MPa	320 (12.6")	475 (18.7")	635 (25.0")	990 (39.0")	1190 (46.9")	1385 (54.5")

9. FOR HORIZONTAL BARS WITH MORE THAN 12" (300) CONCRETE COVER BELOW THE BAR, MULTIPLY LENGTHS NOTED ABOVE BY (1.3) (DOES NOT INCLUDE HORIZONTAL BARS IN WALLS).

10. THE SPLICE TYPE FOR COLUMNS SHALL BE A COMPRESSION SPLICE UNLESS NOTED OTHERWISE ON THE STRUCTURAL DRAWINGS. ALL OTHER MEMBERS SHALL USE TENSION SPLICES.

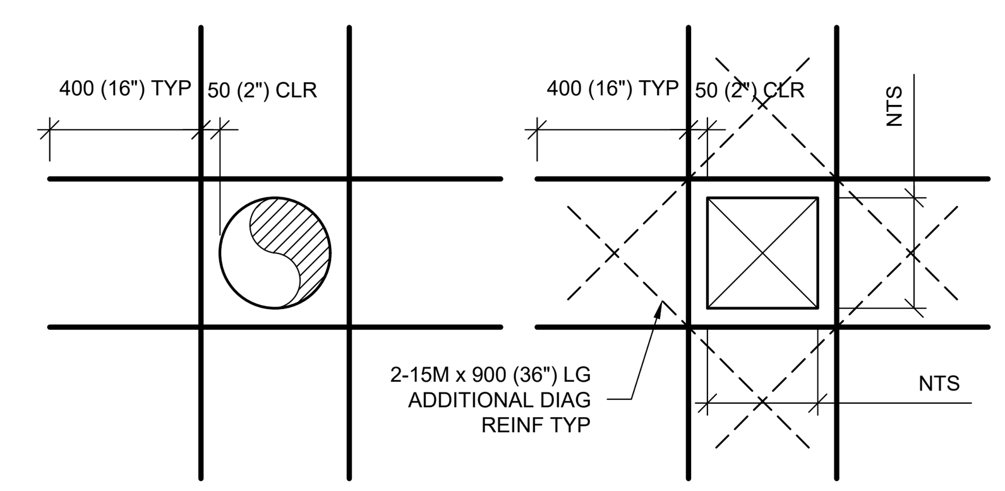
11. HOOKS ON ALL TIES SHALL BE BENT AT LEAST 135° AND HAVE A MINIMUM LEG OF 12 TIMES THE BAR DIAMETER UNLESS NOTED OTHERWISE ON THE STRUCTURAL DRAWINGS.

12. DIAGONAL REINFORCING IS REQUIRED AT ALL REENTRANT CORNERS UNLESS NOTED OTHERWISE.



REENTRANT CORNER REINFORCING
NTS

13. PROVIDE 2-15M EACH SIDE OF OPENINGS EXTENDED 450mm (18") BEYOND EDGE OF OPENING UNLESS NOTED OTHERWISE. RECTANGULAR OPENINGS TO HAVE ADDITIONAL 2-15M x 900mm (3'-0") LG DIAGONALS AT ALL CORNERS UNLESS NOTED OTHERWISE.



REINFORCING AROUND OPENINGS IN SLABS AND WALLS
NTS

CONCRETE COLD WEATHER REQUIREMENTS

1. THE REQUIREMENTS OF CSA A23.1 AND THE FOLLOWING SHALL BE MET WHEN PLACING CONCRETE DURING COLD WEATHER BELOW 5°C (40°F):

A. FORCASTED TEMPERATURE NOT BELOW 2°C (35°F).
   1. MIXING WATER SHALL BE HEATED TO MAINTAIN CONCRETE TEMPERATURE OF 10°C (50°F) AT POINT OF POUR.
   2. CONCRETE SHALL NOT BE PLACED ON OR AGAINST ANY SURFACE THAT IS BELOW 5°C (40°F).
   3. THE CONTRACTOR SHALL BE PREPARED TO COVER SLABS IN THE EVENT OF AN UNEXPECTED DROP IN AIR TEMPERATURE.
   4. THE CONCRETE TEMPERATURE SHALL BE MAINTAINED ABOVE 10°C (50°F) FOR AT LEAST 7 DAYS OR UNTIL THE CONCRETE REACHES 70% OF DESIGN STRENGTH.

B. FORCASTED AIR TEMPERATURE BETWEEN 2°C (35°F) AND MINUS 4°C (25°F)
   1. FORMS AND REINFORCING STEEL SHALL BE FREE FROM ICE AND SNOW.
   2. MIXING WATER SHALL BE HEATED TO MAINTAIN CONCRETE TEMPERATURE OF 10°C (50°F) AT POINT OF POUR.
   3. CONCRETE SHALL NOT BE PLACED ON OR AGAINST ANY SURFACE THAT IS BELOW 5°C (40°F).
   4. SLABS SHALL BE COVERED IN CANVAS OR SIMILAR MATERIAL PLACED A FEW INCHES OFF THE CONCRETE SURFACE.
   5. DURING WINDY WEATHER THE STOREY BELOW THE POUR LOCATIONS SHALL BE ENCLOSED.
   6. PROTECTION SHALL BE MAINTAINED FOR A MINIMUM OF 3 DAYS.
   7. THE CONCRETE TEMPERATURE SHALL BE MAINTAINED ABOVE 10°C (50°F) FOR AT LEAST 7 DAYS. IN ADDITION, THE CONCRETE SHALL BE KEPT ABOVE FREEZING UNTIL THE CONCRETE REACHES 70% OF DESIGN STRENGTH.

C. FORCASTED AIR TEMPERATURE BELOW MINUS 5°C (23°F)
   1. FORMS AND REINFORCING STEEL SHALL BE FREE FROM ICE AND SNOW.
   2. MIXING WATER SHALL BE HEATED TO MAINTAIN CONCRETE TEMPERATURE OF 10°C (50°F) AT POINT OF POUR.
   3. CONCRETE SHALL NOT BE PLACED ON OR AGAINST ANY SURFACE THAT IS BELOW 5°C (40°F).
   4. SLABS SHALL BE COVERED IN CANVAS OR SIMILAR MATERIAL PLACED A FEW INCHES OFF THE CONCRETE SURFACE.
   5. DURING WINDY WEATHER THE STOREY BELOW THE POUR LOCATIONS SHALL BE ENCLOSED AND MAINTAINED FOR A MINIMUM OF 3 DAYS AFTER THE POUR.
   6. PROTECTION SHALL BE MAINTAINED FOR A MINIMUM OF 3 DAYS.
   7. THE CONCRETE TEMPERATURE AT ALL SURFACES SHALL BE MAINTAINED ABOVE 20°C (68°F) FOR AT LEAST 3 DAYS OR ABOVE 10°C (50°F) FOR AT LEAST 7 DAYS. IN ADDITION, THE CONCRETE SHALL BE KEPT ABOVE FREEZING UNTIL THE CONCRETE REACHES 70% OF DESIGN STRENGTH.
   8. ENCLOSURES MUST BE CONSTRUCTED SO THAT THE AIR CAN CIRCULATE OUTSIDE THE OUTER EDGES OF MEMBERS.
   9. STOREY BELOW SHALL BE ENCLOSED AND ARTIFICIAL HEAT PROVIDED. HEATING TO BE STARTED AT LEAST THREE HOURS PRIOR TO POURING AND MAINTAINED FOR MINIMUM OF THREE DAYS THEREAFTER.

2. WHEN POURING CONCRETE TOPPING ON METAL DECK USE THE PRECAUTIONS SPECIFIED IN ITEM C ABOVE.

CONCRETE HOT WEATHER REQUIREMENTS

1. THE REQUIREMENTS OF CSA A23.1 SHALL BE MET WHEN PLACING CONCRETE DURING HOT WEATHER ABOVE 30°C (°F)

CONCRETE CONSTRUCTION TOLERANCES

1. THE REQUIREMENTS OF CSA A23.1 SHALL APPLY EXCEPT AS NOTED BELOW:
   1. IF TIGHTER TOLERANCES ARE DICTATED BY THE WORK OF OTHER DISCIPLINES THOSE TOLERANCES SHALL APPLY.
   2. WHERE DEVIATIONS FROM THE SPECIFIED TOLERANCES OCCUR AND ARE ACCEPTABLE TO THE PROJECT ENGINEER AND ARCHITECT THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADJUSTMENTS TO OTHER BUILDING ELEMENTS TO ACCOMMODATE VARIATION(S). THE COST OF THESE ACCOMMODATIONS OR REQUIRED REMEDIAL WORK SHALL BE BOURNE BY THE CONTRACTOR.
2. VARIATIONS FROM PLUMB:
   1. IN THE LINES AND SURFACES OF COLUMNS, PIERS, WALLS AND ARRISES: 0.25% OF THE HEIGHT (1 IN 400) WITH A MAXIMUM OF 40mm (1 1/2") OVER THE ENTIRE HEIGHT OF THE STRUCTURE
   2. ONLY ONE CURVATURE ALLOWED PER 3000mm (10'-0").
   3. THE TOLERANCE GIVEN IS THE MAXIMUM VARIATION FROM A PLUMB LINE WITH ALL MEASUREMENTS BEING TAKEN TO THE SAME SIDE OF THE LINE.
   4. THE TOLERANCE FOR EXPOSED CORNER COLUMNS, CONTROL JOINTS, GROOVES AND OTHER CONTINUOUS LINES SHALL BE AS FOLLOWS UNLESS NOTED OTHERWISE;
      A. 0.125% (1 IN 800) OF HEIGHT, MAXIMUM 20mm (3/4")
      B. ONLY ONE CURVATURE ALLOWED PER 3000mm (10'-0")
      C. MAXIMUM VARIATION IN WINDOW BAYS OF 0.20% (1 IN 500) OF THE OPENING.
3. VARIATIONS FROM LEVEL, GRADES OR CAMBERS INDICATED ON THE DRAWINGS:
   1. UNLESS SPECIFIED OTHERWISE FLOOR FINISHES SHALL BE CLASS A "INSTITUTIONAL AND COMMERCIAL FLOOR" WITH A MAXIMUM TOLERANCE OF ±8mm IN 3000mm (3/8" IN 10'-0").
   2. ONLY ONE CURVATURE ALLOWED PER 3000mm (10'-0").
   3. THE TOLERANCE GIVEN IS THE MAXIMUM VARIATION FROM SPECIFIED LEVELS.
   4. NOTE THAT CLOSER TOLERANCES MAY BE REQUIRED FOR THE QUALITY OF FINISHED FLOOR SURFACES CALLED FOR ELSEWHERE IN THE CONTRACT DOCUMENTS.
4. LOCATION OF COLUMNS AND WALLS
   1. TO BE IN ACCORDANCE WITH CSA A23.1.
5. VARIATION IN CROSS SECTIONAL DIMENSIONS OF COLUMNS AND BEAMS AND THICKNESS OF SLABS AND WALLS
   1. TO BE IN ACCORDANCE WITH CSA A23.1.
   2. ONLY ONE CURVATURE ALLOWED PER 3000mm (10'-0").
6. FOOTINGS
   1. VARIATIONS IN DIMENSIONS IN PLAN TO BE PLUS 50mm (2")/MINUS 10mm (3/8")
   2. MISPLACEMENT OR ECCENTRICITY TO BE WITHIN 2% OF THE FOOTING WIDTH IN THE DIRECTION OF MISPLACEMENT BUT NOT MORE THEN 50mm (2").
   3. REDUCTION IN THICKNESS SHALL BE A MAXIMUM OF 5% OF THE SPECIFIED THICKNESS
7. THE CONTRACTOR SHALL DETERMINE IF MORE STRINGENT REQUIREMENTS ARE SPECIFIED ELSEWHERE IN THE CONTRACT DOCUMENTS BY ANY DISCIPLINE OR REQUIRED BY MATERIAL AND EQUIPMENT SUPPLIERS.

MECHANICAL & ADHESIVE ANCHORS

1. ALL ANCHORS ARE TO BE INSTALLED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S WRITTEN INSTRUCTIONS.

2. ALL ANCHORS ARE TO BE THE ADHESIVE TYPE. MECHANICAL ANCHORS ARE ONLY TO BE USED WHEN SPECIFICALLY CALLED UP ON THE DRAWINGS. SUBSTITUTIONS MUST BE APPROVED BY THE PROJECT ENGINEER PRIOR TO USE.

3. UNLESS NOTED OTHERWISE, ADHESIVE ANCHORS SHALL BE HILTI 'HAS' ROD. REFER TO DRAWINGS FOR ANCHOR LOCATIONS, SIZES, CENTRES AND EMBEDMENT LENGTH. USE HILTI HIT-HY200 OR HILTI HIT ICE ADHESIVE AS NOTED BELOW.
   A. USE HILTI HIT-HY200 MAX WHEN:
   1. A QUICK CURE IS REQUIRED
   2. CONDITIONS ARE DRY
   3. HOLES ARE HAMMER DRILLED
   4. HOLES ARE NOT OVER-SIZED
   5. BASE MATERIAL TEMPERATURE IS ABOVE -10° CELSIUS AND BELOW 40° CELSIUS.

   B. WHEN THE BASE MATERIAL TEMPERATURE IS ABOVE -23° CELSIUS AND BELOW 30° CELSIUS, HILTI HIT-ICE MAY BE USED IN NON-SEISMIC APPLICATIONS W/ THE APPROVAL OF THE ENGINEER.

4. HOLES FOR ADHESIVE ANCHORS SHALL BE CLEANED OUT WITH HIGH PRESSURE AIR AND IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATIONS.

5. REFER TO DRAWINGS FOR MECHANICAL ANCHOR LOCATIONS, SIZES, CENTRES AND EMBEDMENT LENGTH.

6. INSTALLERS OF HILTI PRODUCTS SHALL HAVE RECEIVED TRAINING BY HILTI (CANADA) CORP. IN THE USE OF THE SPECIFIED PRODUCTS. THE GENERAL CONTRACTOR SHALL PROVIDE THE DESIGN ENGINEER WITH A LETTER STATING THAT THIS TRAINING HAS BEEN COMPLETED.

7. 10% OF ALL ADHESIVE ANCHORS ARE TO BE LOAD TESTED. IF ANY TESTS FAIL THEN ALL ADHESIVE ANCHORS ARE TO BE TESTED. ANY FAILING CONNECTIONS ARE TO BE RE-INSTALLED.

CONCRETE BLOCK MASONRY

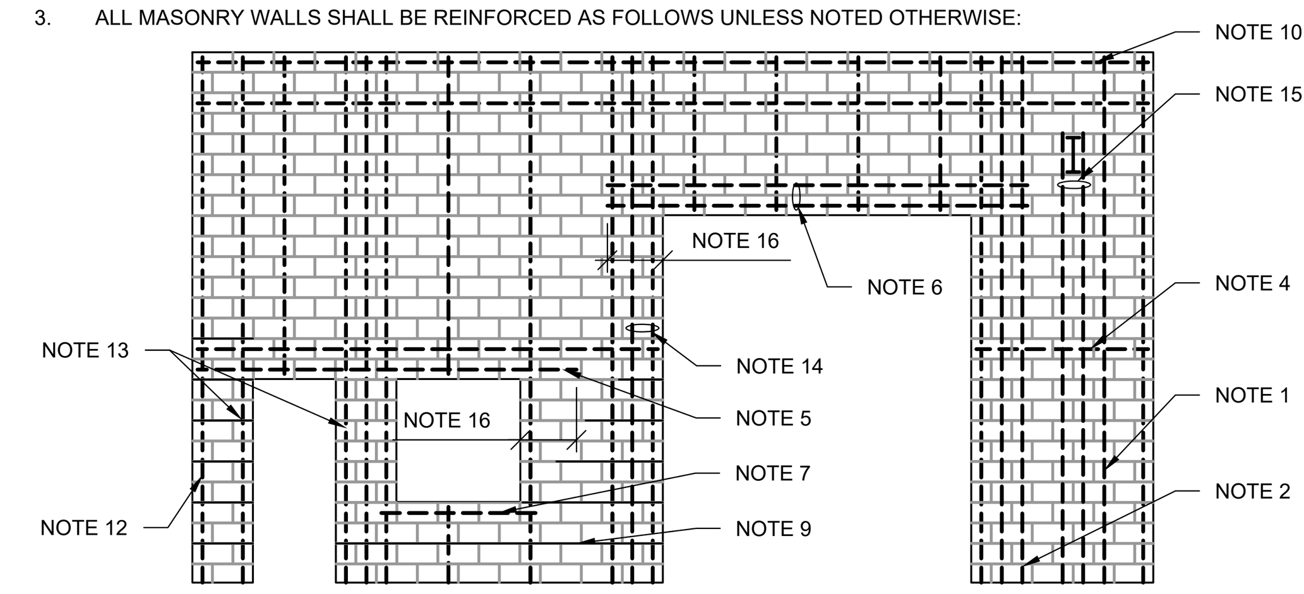
1. MASONRY WORK SHALL CONFORM TO CAN3-S304.1 (DESIGN), CAN3-A371 (WORKMANSHIP) AND THE FOLLOWING STANDARDS:

DESCRIPTION	STANDARD	GRADE
CONCRETE BLOCK	CSA-A165.1 SERIES 04	CLASS H/15/A/M
REINFORCING STEEL	CSA G30.18	400R
WIRE REINFORCING	CSA G30.14 & CSA G30.15	#9 ASWG LADDER
GROUT	CSA A179	20 MPa (3000 psi)
CONNECTORS	CSA A370	
MORTAR	CSA A179	TYPE S

2. LAP LENGTHS FOR REINFORCING STEEL INCLUDING REINFORCING AT INTERSECTIONS AND CORNERS SHALL BE AS FOLLOWS UNLESS NOTED OTHERWISE:

	WIRE REINF	10M	15M	20M
LAP LENGTH	200mm (8")	400mm (16")	600mm (24")	900mm (36")

3. ALL MASONRY WALLS SHALL BE REINFORCED AS FOLLOWS UNLESS NOTED OTHERWISE:



A. VERTICAL REINFORCING
   1. 15M @ 800mm (32")
   2. FOUNDATION DOWEL SIZE AND SPACING TO MATCH WALL ABOVE
   3. ALL VERTICAL REINFORCING TO BE CENTERED IN WALL
B. HORIZONTAL REINFORCING
   4. 2-15M CONTINUOUS IN BOND BEAM AT MAXIMUM 2400mm (8'-0")
   5. SINGLE COURSE LINTEL WITH 2-15M ABOVE ALL OPENINGS UP TO 1500mm (5'-0")
   6. TWO COURSE LINTEL WITH 2-15M ABOVE OPENINGS BETWEEN 1500mm (5'-0") AND 2400mm (8'-0")
   7. SINGLE COURSE BOND BEAM W/ 2-15M BELOW ALL OPENINGS
   8. INSTALL MESH GROUT STOP BELOW BOND BEAM COURSES
   9. ASWG #9 LADDER REINFORCING EVERY SECOND COURSE
   10. 2-15M CONTINUOUS IN BOND BEAM AT TOP OF PARAPET
   11. ADDITIONAL BOND BEAMS AS INDICATED ON THE STRUCTURAL DRAWINGS
C. PROVIDE 1 - 15M FULL HEIGHT VERTICAL BAR AT THE FOLLOWING LOCATIONS:
   12. UNSUPPORTED ENDS OF WALLS, CORNERS AND INTERSECTIONS
   13. EACH SIDE OF DOORS AND OTHER OPENINGS LESS THEN 2400mm (8'-0") WIDE
   14. TWO CORES EACH SIDE OF DOORS OR OTHER OPENINGS LARGER THEN 2400mm (8'-0") WIDE
   15. ALL CORES BELOW CONCENTRATED LOADS SUCH AS BEAMS AND COLUMNS WITH NUMBER OF CORES TO SUIT CONNECTION DETAILS
D. PROVIDE LINTELS AT THE FOLLOWING LOCATIONS:
   16. TOP OF OPENINGS AND EXTEND A MINIMUM 600mm (24") BEYOND EDGES.

4. COLD AND HOT WEATHER CONSTRUCTION SHALL BE IN ACCORDANCE WITH CSA-A371. WHEN TEMPERATURE IS BELOW 5°C (40°F) NO MASONRY SHALL BE ERECTED UNLESS THE MATERIALS AND WORK ARE ENCLOSED AND HEATED. USE SPECIAL PRECAUTIONS WHEN TEMPERATURE IS ABOVE 30°C (86°F).

5. ALL JOINTS SHALL BE FLUSH, FULL BED JOINTS UNLESS NOTED OTHERWISE.

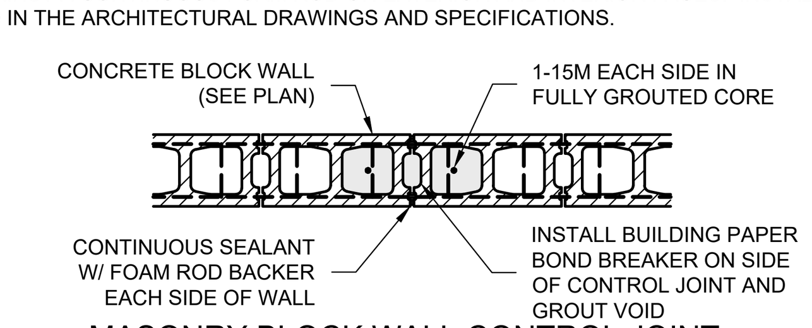
6. ALL MASONRY TO BE PLACED IN A RUNNING BOND PATTERN UNLESS NOTED OTHERWISE.

7. BOND BEAMS, LINTELS AND CELLS CONTAINING REINFORCING STEEL TO BE FILLED WITH GROUT. VIBRATE TO COMPLETELY FILL CELLS. KEEP CORES TO BE GROUTED CLEAR OF LOOSE MATERIAL AND MORTAR FINS.

8. FILL CELLS IN 2400mm (8'-0") LIFTS OR BETWEEN BOND BEAMS, WHICH EVER IS LESS.

9. PROVIDE CLEAN-OUTS AT BOTTOM OF ALL REINFORCING CORES FOR GROUT POURS OVER 1500mm (5'-0").

10. PROVIDE VERTICAL CONTROL JOINTS AT MAXIMUM 9000mm (30'-0") OR AS INDICATED ON THE STRUCTURAL DRAWINGS. HORIZONTAL REINFORCING STEEL SHALL CONTINUE THROUGH THE CONTROL JOINT. CAULK CONTROL JOINTS AGAINST A CONTINUOUS FOAM ROD ON EXTERIOR AND INTERIOR FACES. INSTALL EXPANSION JOINTS AS INDICATED IN THE ARCHITECTURAL DRAWINGS AND SPECIFICATIONS.

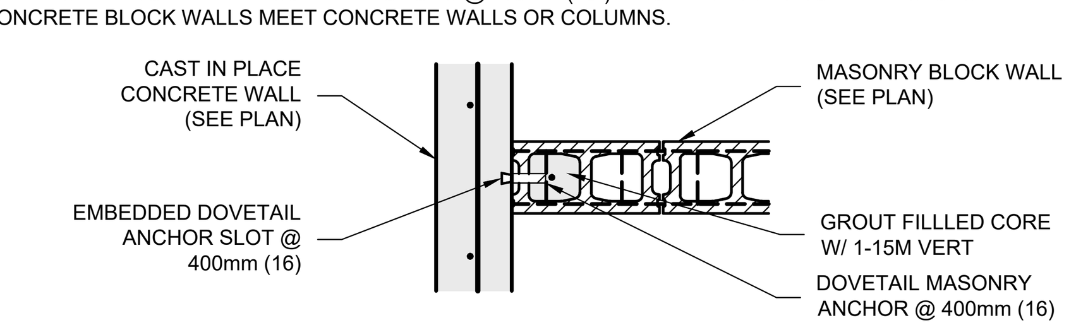


MASONRY BLOCK WALL CONTROL JOINT
NTS

11. REFER TO ARCHITECTURAL DRAWINGS AND SPECIFICATIONS FOR TYPE AND LOCATION OF ARCHITECTURAL BLOCKS, SPECIAL DETAILING, BLOCK AND MORTAR COLOURS, ETC.

12. REFER TO ARCHITECTURAL DRAWINGS FOR ELEVATIONS OF TOP OF MASONRY WALLS AND COORDINATE REQUIREMENTS WITH ALL TRADES.

13. INSTALL DOVETAIL MASONRY ANCHORS @ 400mm (16") INTO EMBEDDED DOVETAIL SLOTS WHERE CONCRETE BLOCK WALLS MEET CONCRETE WALLS OR COLUMNS.

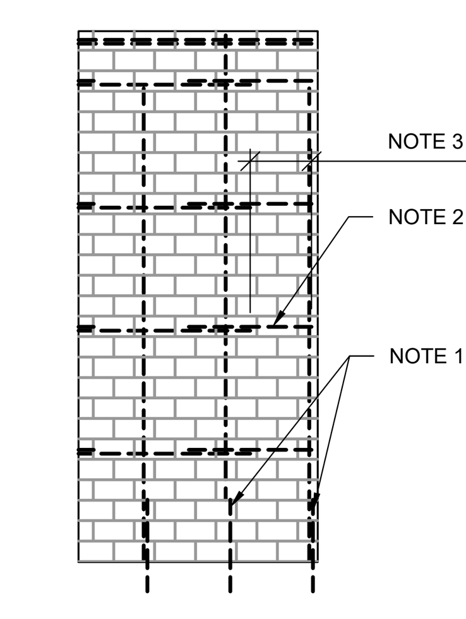


CONCRETE/ MASONRY WALL CONNECTION
NTS

14. PROVIDE CONCRETE FILLED CORES AT ALL LOCATIONS WHERE METAL FABRICATIONS, EQUIPMENT, UTILITIES, ETC ARE FASTENED TO MASONRY WALLS.

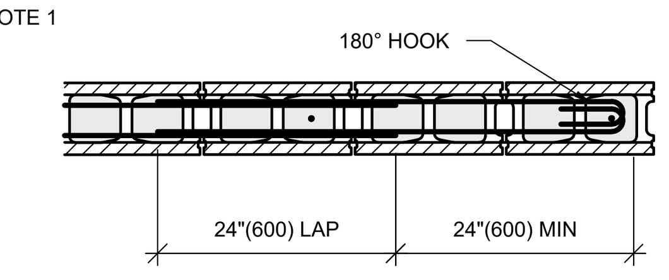
15. EXTEND ALL NON-LOAD BEARING MASONRY WALLS TO WITHIN 40mm (1 1/2") OF STRUCTURE ABOVE IN ACCORDANCE WITH THE STRUCTURAL TYPICAL DETAILS. LATERALLY SUPPORT TOP OF WALL IN ACCORDANCE WITH THE DETAILS AND FILL GAP WITH COMPRESSIBLE ACCOUSTIC OR FIRE-STOP MATERIAL AS INDICATED ON THE ARCHITECTURAL DRAWINGS TO MAINTAIN FIRE RESISTANCE RATING.

16. PROVIDE TEMPORARY BRACING FOR ALL WALLS AND COLUMNS UNTIL MASONRY HAS BEEN SUITABLY ANCHORED TO STRUCTURE IN ACCORDANCE WITH THE STRUCTURAL DRAWINGS AND THE FLOOR AND ROOF DIAPHRAGMS ARE COMPLETE.



A. VERTICAL REINFORCING
   1. STAGGER ALTERNATE LAP SPLICE LOCATION

B. HORIZONTAL REINFORCING
   2. 180° HOOK REQUIRED AT END OF WALLS AND OPENINGS
   3. SPLICES IN HORIZONTAL REINF TO BE LOCATED MIN 600mm (24") FROM END OF WALLS AND OPENINGS



ADDITIONAL DUCTILE MASONRY WALLS (Rd = 2.0) REQUIREMENTS
NTS

WOOD FRAME CONSTRUCTION

1. ALL WOOD FRAMING INCLUDING BRIDGING, NAILING AND OTHER DETAILS SHALL BE IN ACCORDANCE WITH THE STRUCTURAL DRAWINGS, CSA O86-14 AND THE CURRENT APPLICABLE BUILDING CODE.

2. ALL WOOD FRAMING TO BE SPF#2 OR BETTER BEARING THE GRADE STAMP OF AN AGENCY CERTIFIED BY THE CANADIAN LUMBER STANDARDS ACCREDITATION BOARD UNLESS NOTED OTHERWISE.

3. THE CONTRACTOR AND SUB-TRADES SHALL VERIFY ALL DIMENSIONS AND EXISTING CONDITIONS ON SITE PRIOR TO COMMENCING FABRICATION.

4. PLYWOOD FOR ROOFS, FLOORS AND WALLS SHALL BE EXTERIOR GRADE DOUGLAS FIR PLYWOOD TO CSA-O121 OR CANADIAN SOFTWOOD PLYWOOD TO CSA-O151 U.N.O.

5. THE USE OF FINGER JOINTED WOOD MEMBERS FOR STRUCTURAL MEMBERS SHALL BE RESTRICTED TO THOSE LOADED IN AXIAL COMPRESSION ONLY. USE OF FINGER JOINTED WOOD MEMBERS FOR EXTERIOR STUDS AND NON-COMPRESSION MEMBERS IS NOT ACCEPTABLE. FINGER JOINTED STUDS SHALL NOT BE USED FOR SHEAR WALL HOLD-DOWN BUILT-UP POSTS.

6. EXTERIOR WALLS IN EXCESS OF 3600mm (12'-0") SHALL HAVE BLOCKING AT 2400mm (8'-0") O/C MAX.

7. WALL STUDS SHALL NOT BE NOTCHED, DRILLED OR OTHERWISE DAMAGED SO THAT THE UNDAMAGED PORTION OF THE STUD IS LESS THAN TWO THIRDS (2/3) OF THE DEPTHS OF THE STUD IF THE STUD IS LOAD BEARING OR 40mm (1 1/2") IF THE STUD IS NON-LOAD BEARING UNLESS THE STUDS ARE SUITABLY REINFORCED. SUCH REINFORCEMENT SHALL BE APPROVED BY THE STRUCTURAL ENGINEER.

8. TOP AND BOTTOM PLATES IN WALLS SHALL NOT BE NOTCHED, DRILLED OR OTHERWISE DAMAGED SO THAT THE UNDAMAGED WIDTH IS LESS THEN 50mm (2") UNLESS THE PLATES ARE SUITABLY REINFORCED. SUCH REINFORCEMENT SHALL BE APPROVED BY THE STRUCTURAL ENGINEER.

9. ALL POSTS AND BUILT-UP STUDS ARE TO BE CARRIED DOWN TO FOUNDATION INCLUDING SOLID BLOCKING AT EACH FLOOR/DECK LEVEL.

10. SHEAR WALLS SHALL BE CONSTRUCTED AS DETAILED ON THE STRUCTURAL DRAWINGS. ALL COUPLERS FOR HOLD DOWN RODS SHALL HAVE A MINIMUM 125% CAPACITY OF CONNECTING RODS AND SHALL HAVE "WITNESS" HOLES AS PER SIMPSON STRONG TIE CNW COUPLER NUTS OR EQUIVALENT.

11. PLYWOOD PANELS FOR WALLS SHALL BE LAID WITH A HALF SHEET STAGGER AND BE FASTENED TO SUPPORTS WITH 64mm (2 1/2") COMMON NAILS AT 150mm (6") O/C ALONG PANEL EDGES AND 300mm (12") O/C ALONG INTERMEDIATE SUPPORTS UNLESS NOTED OTHERWISE ON THE STRUCTURAL DRAWINGS.

12. PLYWOOD PANELS FOR FLOORS AND ROOFS SHALL BE LAID WITH A HALF SHEET STAGGER AND BE FASTENED TO SUPPORTS WITH 64mm (2 1/2") COMMON NAILS AT 150mm (6") O/C ALONG PANEL EDGES AND 300mm (12") O/C ALONG INTERMEDIATE SUPPORTS UNLESS NOTED OTHERWISE ON THE STRUCTURAL DRAWINGS. PANEL EDGE NAILING SHALL ALSO APPLY TO DRAG STRUTS AND DIAPHRAGM EDGES.

13. A MOCKUP OF A SHEAR WALL PANEL AND/OR A SAMPLE OF THE PROPOSED NAIL TYPE SHALL BE SUBMITTED TO THE STRUCTURAL ENGINEER UPON REQUEST FOR REVIEW AND APPROVAL PRIOR TO COMMENCING FRAMING. THE MOCKUP MAY FORM PART OF THE FINAL CONSTRUCTION. THE FOLLOWING MINIMUM SHANK DIAMETERS SHALL BE USED FOR ALL DIAPHRAGM AND SHEAR WALL NAILING:

COMMON NAIL SIZE	MIN SHANK DIAMETER
64mm (2 1/2")	3.25mm (0.128")
75mm (3")	3.66mm (0.144")

14. BOLTS AND LAG SCREWS USED IN TIMBER CONSTRUCTION SHALL BE IN ACCORDANCE WITH "CSA STANDARD B34 MISCELLANEOUS BOLTS AND SCREWS". SIZES SHALL BE AS SPECIFIED ON THE STRUCTURAL DRAWINGS AND MATERIAL GRADE SHALL BE MINIMUM A307 OR EQUIVALENT.

15. "ACQ" (AMINE COPPER QUAT) PRESSURE TREATED WOOD SHALL BE USED WHERE SPECIFIED ON THE STRUCTURAL DRAWINGS, WHERE TIMBER IS IN DIRECT CONTACT WITH CONCRETE OR CONCRETE BLOCK, AND WHERE TIMBER IS EXPOSED TO THE WEATHER. CUT AND DRILLED SURFACES OF TREATED TIMBER ARE TO RECEIVE A BRUSH APPLIED COAT OF COLOURED PRESERVATIVE. WORK SHALL BE IN ACCORDANCE WITH CSA-O80. "CCA" (CHROMATED COPPER ARSENATE) IS NOT ACCEPTABLE.

16. FASTENERS FOR USE WITH "ACQ" TREATED TIMBER SHALL BE HOT DIP GALVANIZED IN ACCORDANCE WITH ASTM A153. CONNECTORS SHALL HAVE A G185 GALVANIZED DESIGNATION OR MEET ASTM A653. ALTERNATIVELY, ALL METAL CONNECTORS INCLUDING NAILS, BOLTS, HANGERS, HOLD-DOWNS, STEEL STRAPS, POST BASES, ETC SHALL BE STAINLESS STEEL. REFER TO THE PRESERVATIVE MANUFACTURE'S WRITTEN RECOMMENDATIONS FOR ADDITIONAL REQUIREMENTS.

17. EXCEPT AT SHEARWALLS., ANCHOR BOLTS SHALL BE 5/8"Ø @ 4'-0" O/C MAXIMUM SPACING AND HAVE 5" MINIMUM CONCRETE EMBEDMENT. LOCATE BOLTS WITHIN 12" OF EACH WALL END AND EACH SIDE OF OPENINGS WHICH EXTEND TO THE TOP OF CONCRETE. REFER TO THE SHEARWALL SCHEDULE FOR SHEARWALL ANCHOR BOLTS.

18. WOOD DETAILS, INCLUDING STAIRS AND STRINGERS NOT SHOWN ON DRAWINGS SHALL BE FRAMED IN ACCORDANCE WITH PART 9 OF THE THE MOST RECENT BUILDING CODE.

PRE-ENGINEERED WOOD JOISTS AND TRUSSES

1. DESIGN OF PREFABRICATED JOISTS AND TRUSSES SHALL BE CARRIED OUT IN ACCORDANCE WITH CSA-086

2. FABRICATION OF PREFABRICATED JOISTS AND TRUSSES SHALL BE CARRIED OUT IN ACCORDANCE WITH CSA-086 AND THE REVIEWED SHOP DRAWINGS.

3. THE CONTRACTOR AND SUB-TRADES SHALL VERIFY ALL DIMENSIONS AND EXISTING CONDITIONS ON SITE PRIOR TO COMMENCING FABRICATION.

4. LUMBER USED IN THE FABRICATION OF PREFABRICATED JOISTS AND TRUSSES SHALL BE SPF#2 OR BETTER COMPLYING WITH CSA-0141 AND NLGA STANDARD RULES FOR CANADIAN LUMBER.

5. PREFABRICATED JOISTS AND TRUSSES SHALL BE TRANSPORTED, STORED AND ERECTED IN ACCORDANCE WITH THE MANUFACTURER'S WRITTEN INSTRUCTIONS IN SUCH A MANNER THAT BENDING, WARPING AND OVERTURNING ARE PREVENTED.

6. THE PREFABRICATED JOIST AND TRUSS MANUFACTURER SHALL ACCOMMODATE ALL SKYLIGHTS AND ROOF OPENINGS AS INDICATED ON THE ARCHITECTURAL AND STRUCTURAL DRAWINGS WITH APPROPRIATE FRAMING.

7. DESIGN OF THE PREFABRICATED JOISTS AND TRUSSES SHALL BE BASED UPON THE LOADING CONDITION INDICATED ON THE STRUCTURAL DRAWINGS AND PROVIDE FOR ALL ARCHITECTURAL, MECHANICAL AND ELECTRICAL EQUIPMENT SUPPORTED BY THE ROOF AND/OR FLOORS AS INDICATED ON THE RESPECTIVE CONSULTANTS DRAWINGS AND SPECIFICATIONS.

8. TEMPORARY HORIZONTAL AND CROSS BRACING OF JOISTS AND TRUSSES SHALL BE IMPLEMENTED UNTIL PERMANENT BRACING OR DIAPHRAGMS ARE INSTALLED.

9. LATERAL SPLAY OF TRUSSES TO BE LIMITED TO 19mm (3/4") TOTAL FROM ALIGNMENT UNLESS NOTED OTHERWISE ON THE STRUCTURAL DRAWINGS.

10. LATERAL SPLAY OF JOISTS TO BE LIMITED TO 13mm (1/2") FROM TRUSS ALIGNMENT UNLESS NOTED OTHERWISE ON THE STRUCTURAL DRAWINGS.

11. DO NOT CUT OR REMOVE JOIST OR TRUSS MATERIAL WITHOUT THE PRIOR WRITTEN APPROVAL OF THE SPECIALTY STRUCTURAL ENGINEER.

12. THE TRUSS MANUFACTURER SHALL PROVIDE FULL HEIGHT BLOCKING PANELS BETWEEN TRUSSES AT ALL EXTERIOR WALLS AND SHEAR WALLS WHERE THE TRUSSES RUN PERPENDICULAR TO THE WALLS. TRUSSES SHALL BE ALIGNED OVER SHEAR WALLS WHEN SHEAR WALLS RUN PARALLEL TO TRUSSES.

13. THE TRUSS AND JOIST MANUFACTURERS SHALL SUPPLY THE STRUCTURAL ENGINEER WITH PDF SETS OF SHOP DRAWINGS SEALED BY A SPECIALTY ENGINEER REGISTERED IN THE PROVINCE OF APPLICABLE FOR REVIEW PRIOR TO FABRICATION UNLESS NOTED OTHERWISE BY THE STRUCTURAL ENGINEER IN WRITING. THE MANUFACTURER OR HIS REPRESENTATIVE SHALL INSPECT THE ERECTED JOISTS AND/OR TRUSSES TO VERIFY CORRECT INSTALLATION AND PROVIDE THE STRUCTURAL ENGINEER WITH WRITTEN CONFIRMATION OF SUCH PRIOR TO THE STRUCTURAL ENGINEER CERTIFYING THE TIMBER FRAMING AS SUBSTANTIALLY COMPLETE.

STRUCTURAL COMPOSITE LUMBER (SCL)

1. LAMINATED VENEER LUMBER (LVL) AND PARALLEL STRAND LUMBER (PSL) SHALL CONFORM TO CSA-O86.

2. LVL MEMBERS SHALL BE WESTERN SPECIES GRADE 1.9E OR BETTER UNLESS NOTED OTHERWISE ON THE STRUCTURAL DRAWINGS. BEAMS UP TO 3 PLY'S WIDE SHALL BE NAILED TOGETHER AND 4 PLY BEAMS SHALL BE BOLTED TOGETHER IN ACCORDANCE WITH THE MANUFACTURER'S WRITTEN INSTRUCTIONS.

3. PSL MEMBERS SHALL BE GRADE 2.0E OR BETTER UNLESS NOTED OTHERWISE ON THE STRUCTURAL DRAWINGS.

4. THE CONTRACTOR AND SUB-TRADES SHALL VERIFY ALL DIMENSIONS AND EXISTING CONDITIONS ON SITE PRIOR TO COMMENCING FABRICATION.

5. STRUCTURAL COMPOSITE LUMBER (SCL) MEMBERS SHALL BE INSTALLED ACCORDING TO THE MANUFACTURER'S WRITTEN INSTRUCTIONS. MEMBERS SHALL BE PROTECTED FROM MOISTURE AS PER THE MANUFACTURER'S WRITTEN REQUIREMENTS WHEN STORED ON SITE AND AFTER INSTALLATION.

6. DRILLING, NOTCHING AND CUTTING OF MEMBERS IS NOT PERMITTED UNLESS APPROVED IN WRITING BY THE STRUCTURAL ENGINEER AND THE SPECIALTY ENGINEER.

7. THE SCL MANUFACTURER SHALL SUPPLY THE STRUCTURAL ENGINEER WITH PDF SETS OF SHOP DRAWINGS FOR REVIEW PRIOR TO FABRICATION UNLESS NOTED OTHERWISE BY THE STRUCTURAL ENGINEER IN WRITING. IN ADDITION TO SHOP DRAWINGS, THE MANUFACTURER IS TO SUPPLY THE STRUCTURAL ENGINEER WITH PRODUCT TECHNICAL LITERATURE. THE MANUFACTURER OR HIS REPRESENTATIVE SHALL INSPECT THE INSTALLED PRODUCT TO VERIFY CORRECT INSTALLATION AND PROVIDE THE STRUCTURAL ENGINEER WITH WRITTEN CONFIRMATION OF SUCH PRIOR TO THE STRUCTURAL ENGINEER CERTIFYING THE TIMBER FRAMING AS SUBSTANTIALLY COMPLETE.

NOT FOR CONSTRUCTION

REVISIONS

ISSUE	DATE	DESCRIPTION	ENG
2	08DEC2021	BUILDING PERMIT	SK
1	24NOV2021	COORDINATION	SK

ISSUES

sorensen TRILOGY
STRUCTURAL ENGINEERING SOLUTIONS
NANAIMO (250) 585-1360 VICTORIA (778) 265-7360
www.sorensentrilogy.ca

CLIENT: CITY OF PORT ALBERNI

PROJECT: 3075 3RD AVE
PORT ALBERNI, B.C.

TITLE: GENERAL NOTES

DESIGN: SK
DRAFT: KH
CHECK: -
DATE: 01OCT2021
SCALE: AS NOTED
PROJ # 21-344
SEAL:

S102

TYPICAL FRAMING DETAILS

1. ALL ROWS MUST BE STAGGERED

2. MINIMUM EDGE DISTANCE TO BE MINIMUM 2"

3. LOADS MUST BE APPLIED EVENLY ACROSS FULL LENGTH OF BEAM OTHERWISE STRUCTURAL ENGINEER TO SPECIFY CONNECTIONS.

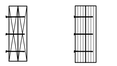
4. CONNECTIONS DO NOT APPLY TO SIDE LOADED BEAMS. STRUCTURAL ENGINEER TO SPECIFY CONNECTIONS FOR SIDE LOADED BEAMS.

5. AN ADDITIONAL ROW OF SCREWS ARE REQUIRED FOR BEAM DEPTHS GREATER THAN 14".

6. MAXIMUM WIDTH OF BEAMS NOT TO EXCEED 7".

ASSEMBLY A

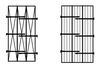
3" WIDE 2-PLY DIMENSIONAL LUMBER | 3½" WIDE 2-PLY SCL*



3 - 3" NAILS @ 12" O/C

ASSEMBLY B

4½" WIDE 3-PLY DIMENSIONAL LUMBER | 5¼" WIDE 3-PLY SCL*



3 - 3" NAILS @ 12" O/C E/S

ASSEMBLY C

6" WIDE 4-PLY DIMENSIONAL LUMBER

2 - ¼"Ø x6" SIMPSON SCREWS (OR EQ.) @ 16" O/C

ASSEMBLY D

7" WIDE 4-PLY SCL*

2 - ¼"Ø x6½" SIMPSON SCREWS (OR EQ.) @ 16" O/C

ASSEMBLY E

5¼" WIDE 2-PLY SCL*

3 - 3" NAILS @ 12" O/C

ASSEMBLY F

7" WIDE 3-PLY SCL*

3 - 3" NAILS @ 12" O/C

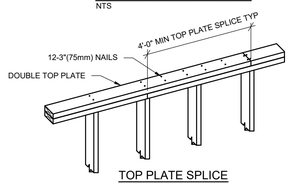
ASSEMBLY G

7" WIDE 2-PLY SCL*

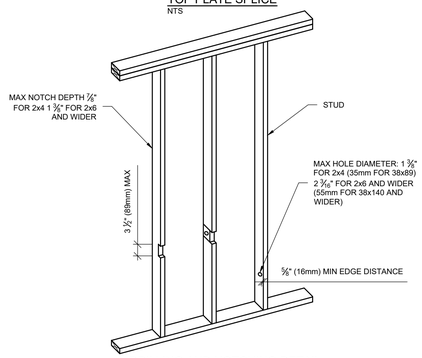
2 - ½"Ø THRU BOLT @ 24" O/C

*SCL - STRUCTURAL COMPOSITE LUMBER (LVL, PARRALAM ETC.)

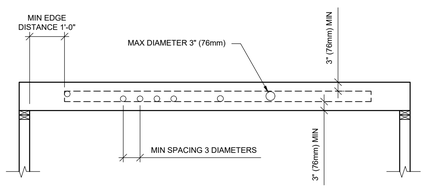
BEAM FASTENING DETAILS
NTS



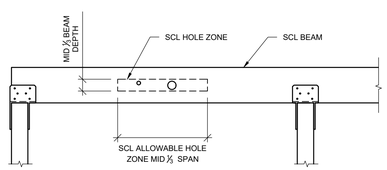
TOP PLATE SPLICE
NTS



DRILLING AND NOTCHING DETAIL
NTS



ALLOWABLE HOLES IN DIMENSIONAL LUMBER JOISTS
NTS



NOTES:

1. ALLOWED HOLE ZONE SUITABLE FOR LVL BEAM WITH UNIFORM LOAD ONLY
2. ROUND HOLES ONLY
3. NO HOLES IN CANTILEVER
4. NO HOLES IN LVL BEAM IN PLANK ORIENTATION
5. MAXIMUM ROUND HOLE SIZE: 2"Ø

SCL* ALLOWABLE FIELD MODIFICATION
NTS

*SCL - STRUCTURAL COMPOSITE LUMBER (LVL, PARRALAM ETC.)

MISCELLANEOUS METAL FABRICATIONS

1. MISCELLANEOUS METAL FABRICATIONS INCLUDE SUCH ITEMS AS METAL STAIRS AND LADDERS, ANGLE LINTELS, PIPE RAILINGS, CORNER GUARDS, BOLLARDS, TRENCH COVERS AND FRAMES, CONNECTORS FOR CONNECTIONS OF OTHER MATERIALS, ETC.

2. DESIGN OF MISCELLANEOUS METAL FABRICATIONS IS TO BE IN ACCORDANCE WITH CSA-S16.1.

3. DESIGN AND FABRICATE METAL STAIRS TO THE LATEST EDITION OF THE APPLICABLE BUILDING CODE AND THE ARCHITECTURAL AND STRUCTURAL DRAWINGS. FABRICATION AND INSTALLATION TO BE IN ACCORDANCE WITH THE METAL STAIR MANUAL AMP-510 BY THE NATIONAL ASSOCIATION OF ARCHITECTURAL METAL MANUFACTURERS.

4. ALL WELDING SHALL BE IN ACCORDANCE WITH CSA W59-03 AND SHALL BE PERFORMED BY FABRICATORS "FULLY APPROVED" BY THE CANADIAN WELDING BUREAU UNDER CSA W55-3. FABRICATING SHOPS TO HAVE A MINIMUM DIVISION 2.1 CERTIFICATION BY THE CANADIAN WELDING BUREAU TO THE REQUIREMENTS OF CSA W47.1 AND CSA 255.3 FOR RESISTANCE WELDING OF STRUCTURAL COMPONENTS. THE FABRICATOR SHALL SUBMIT PROOF OF CERTIFICATION TO THE STRUCTURAL ENGINEER PRIOR TO COMMENCING FABRICATION.

5. MATERIALS SUPPLIED IN MISCELLANEOUS METAL FABRICATIONS ARE TO BE IN ACCORDANCE WITH THE FOLLOWING STANDARDS:

DESCRIPTION	STANDARD	GRADE
STEEL SECTIONS	CSA G40.21	350W
STEEL PLATE	CSA G40.21	300W
STEEL PIPE	ASTM A53/A53M	300W
METAL BAR GRATING	ANSI/NAAMM MBG 531	-
WELDING MATERIAL	CSA W59	-
FILLER METALS AND ALLIED MATERIALS FOR METAL ARC WELDING	CSA W48	-
ANCHOR BOLTS	ASTM A307	F1554-GR-36
ERECTION BOLTS	ASTM A325	A325
GROUT	-	15 MPa @ 24 HRS

6. THE CONTRACTOR AND SUB-TRADES SHALL VERIFY ALL DIMENSIONS AND EXISTING CONDITIONS ON SITE PRIOR TO COMMENCING FABRICATION.

7. THE CONTRACTOR SHALL PROVIDE TEMPORARY BRACING DURING CONSTRUCTION. THE BRACING SHALL BE DESIGNED, INSTALLED AND MAINTAINED BY THE CONTRACTOR. THE BRACING SHALL BE REMOVED ONLY AFTER THE INSTALLATION IN COMPLETE.

8. FABRICATE WORK SQUARE, PLUMB, STRAIGHT AND ACCURATE TO THE REQUIRED SIZES WITH JOINTS CLOSELY FITTED AND PROPERLY SECURED. WHERE POSSIBLE, SHOP FIT AND ASSEMBLE READY FOR ERECTION. EXPOSED WELDS ARE TO BE CONTINUOUS FOR THE FULL LENGTH OF THE JOINT AND GROUND SMOOTH AND FLUSH UNLESS NOTED OTHERWISE ON THE STRUCTURAL DRAWINGS. USE SELF-TAPPING, SHAKE-PROOF, FLAT HEADED SCREWS ON ITEMS REQUIRING ASSEMBLY WITH SCREWS UNLESS NOTED OTHERWISE.

9. ALL STEEL WORK SHALL BE SHOP PRIMED EXCEPT PARTS TO BE EMBEDDED INTO CONCRETE OR GALVANIZED UNLESS NOTED OTHERWISE. PRIMING SHALL BE IN ACCORDANCE WITH CISC/CPMA-1-73a "QUICK DRYING PRIMER" WHEN NO TOP COAT IS REQUIRED AND IN ACCORDANCE WITH CISC/CPMA-2-75 WHEN TOP COAT IS SPECIFIED. WHEN A TOP COAT IS SPECIFIED THE PRIMER SHALL BE SELECTED TO ENSURE COMPATIBILITY WITH THE SPECIFIED SYSTEM.

10. HOT DIP GALVANIZE ALL EXTERIOR STEEL WORK AND STEEL WHICH PROTRUDES THROUGH THE BUILDING ENVELOPE UNLESS NOTED OTHERWISE. ITEMS SPECIFIED TO BE GALVANIZED SHALL BE HOT DIP GALVANIZED TO ASTM A-123-08 WITH A MINIMUM ZINC COATING OF 600g/sqm. FIELD TOUCHUP ALL ABRASIONS, SCRATCHES, WELDS AND BOLTS.

11. ISOLATE ALUMINUM SECTIONS FROM DISSIMILAR METALS EXCEPT STAINLESS STEEL, ZINC OR WHITE BRONZE WITH BITUMINOUS PAINT. ALL FASTENERS TO BE COMPATIBLE WITH MATERIALS THROUGH WHICH THEY PASS.

12. DELIVER, STORE, HANDLE AND PROTECT MATERIALS FROM DAMAGE. INSTALL PLUMB AND TRUE IN LOCATIONS SPECIFIED ON THE DRAWINGS. SECURELY FASTEN TO BUILDING STRUCTURE AS DETAILED.

13. THE STEEL FABRICATOR SHALL SUPPLY THE STRUCTURAL ENGINEER WITH PDF SETS OF SHOP DRAWINGS FOR REVIEW PRIOR TO FABRICATION UNLESS NOTED OTHERWISE BY THE STRUCTURAL ENGINEER IN WRITING. SHOP DRAWINGS SHALL INDICATE ALL DETAILS, MATERIALS, SPECIFICATIONS AND DESIGN LOADS AND BE SEALED BY A PROFESSIONAL ENGINEER REGISTERED IN THE PROVINCE OF APPLICABLE. SHOP DRAWINGS SHALL BE COORDINATED WITH THE WORK OF OTHER DISCIPLINES SUCH AS BUT NOT LIMITED TO ARCHITECTURAL, MECHANICAL AND ELECTRICAL. THE SPECIALITY ENGINEER OR HIS REPRESENTATIVE SHALL INSPECT THE ERECTED STEEL WORK TO VERIFY CORRECT INSTALLATION AND PROVIDE WRITTEN CONFIRMATION OF SUCH TO THE STRUCTURAL ENGINEER PRIOR TO THE STRUCTURAL ENGINEER CERTIFYING THE PROJECT AS SUBSTANTIALLY COMPLETE.

14. A COPY OF THE FABRICATOR'S CANADIAN WELDING BUREAU CERTIFICATES SHALL BE INCLUDED WITH THE SHOP DRAWING SUBMISSION.

STRUCTURAL MOVEMENTS AND TOLERANCES

1. STRUCTURAL MOVEMENTS AND DEFLECTIONS IN ADDITION TO STANDARD CONSTRUCTION TOLERANCES TO BE ACCOMODATED IN THE DESIGN OF NON-STRUCTURAL ELEMENTS SHALL BE AS FOLLOWS UNLESS INDICATED OTHERWISE ON THE STRUCTURAL DRAWINGS:

DESCRIPTION	DEFLECTION
DEFLECTION OF CONCRETE ELEMENTS:	
VERTICAL DEFLECTIONS OF COLUMNS AND WALLS DUE TO SHRINKAGE AND CREEP	3mm/3600mm(1/8"/12'-0")±
DIFFERENTIAL DEFLECTIONS BETWEEN ADJACENT COLUMNS AND BETWEEN ADJACENT COLUMNS AND WALLS	20mm (3/4")±
VERTICAL DEFLECTIONS OF EDGE BEAMS AND EDGES OF SLABS	25mm (1")±
DIFFERENTIAL DEFLECTIONS OF EDGE BEAMS AND EDGES OF SLABS	16mm (5/8")±
VERTICAL DEFLECTIONS OF INTERIOR BEAMS AND SLABS	25mm (1")±
DIFFERENTIAL DEFLECTIONS OF INTERIOR BEAMS AND SLABS	16mm (5/8")±
MOVEMENT OF EXPANSION JOISTS:	
PERPENDICULAR DISPLACEMENT	50mm (2")±
PARALLEL DISPLACEMENT	50mm (2")±
VERTICAL DISPLACEMENT	25mm (1")±
DIFFERENTIAL FLOOR/FLOOR HORIZONTAL DRIFT:	
DRIFT W/O DAMAGE TO NON-STRUCTURAL ELEMENTS	13mm (1/2")±
DRIFT W/O COLLAPSE OF NON-STRUCTURAL ELEMENTS	2% OF FLR/FLR HT

NON-STRUCTURAL ELEMENTS

1. NON-STRUCTURAL ELEMENTS SHALL INCLUDE BUT SHALL NOT BE LIMITED TO THE FOLLOWING:

1. MASONRY VENEER AND GLASS BLOCK AND THEIR ATTACHMENT TO THE BUILDING STRUCTURE.
2. NON-LOAD BEARING MASONRY BLOCK.
3. ARCHITECTURAL PRECAST CONCRETE AND PRECAST CLADDING.
4. HANDRAILS AND GUARDRAILS AND OTHER ARCHITECTURAL COMPONENTS SUCH AS CANOPIES, CELINGS, MILLWORK, SKYLIGHTS AND FLAG POLES.
5. NON-STRUCTURAL CONCRETE TOPPING.
6. FALL RESTRAINT ANCHORS, LAYOUT AND THEIR ATTACHMENT TO THE BUILDING STRUCTURE.
7. ELEVATORS, ESCALATORS AND CONVEYING SYSTEMS.
8. WINDOW WASHING EQUIPMENT AND ITS ATTACHMENT TO THE BUILDING STRUCTURE.
9. MECHANICAL AND ELECTRICAL EQUIPMENT AND THEIR ATTACHMENT TO THE BUILDING STRUCTURE.
10. LANDSCAPING ELEMENTS SUCH AS LIGHT POLES, BENCHES AND FREE STANDING PLANTERS.

2. DESIGN LOADING FOR NON-STRUCTURAL ELEMENTS AND THEIR ATTACHMENT SHALL BE IN ACCORDANCE WITH THE DESIGN CRITERIA SPECIFIED IN THE GENERAL NOTES, APPLICABLE BUILDING CODE, LOCAL AND REGIONAL REGULATIONS AND BYLAWS, AND OTHER SPECIFIC CODES RELEVANT TO THE NON-STRUCTURAL ELEMENT.

3. DEFLECTION CRITERIA OF STUDS, GLAZING, CLADDING AND OTHER NON-STRUCTURAL ELEMENTS SHALL MEET THE REQUIREMENTS OF THE STRUCTURAL DOCUMENTS, MANUFACTURER'S SPECIFICATIONS AND RELEVANT BUILDING CODES. HOWEVER, UNDER NO CIRCUMSTANCES SHALL OUT-OF-PLANE DEFLECTIONS EXCEED THE FOLLOWING LIMITS:

NON-STRUCTURAL ELEMENT	DEFLECTION LIMIT
SIDING, CLADDING OR EXTERIOR INSULATION	L/180 MAX 25mm (1")
GLAZING	L/180 MAX 25mm (1")
PRECAST PANELS	L/360 MAX 25mm (1")
GWB OR STUCCO SURFACES	L/360 MAX 25mm (1")
BRICK VENEER	L/720 MAX 25mm (1")

3. THE CONTRACTOR SHALL SUPPLY THE STRUCTURAL ENGINEER WITH PDF SETS OF SHOP DRAWINGS FOR REVIEW PRIOR TO FABRICATION UNLESS NOTED OTHERWISE BY THE STRUCTURAL ENGINEER IN WRITING. SHOP DRAWINGS FOR NON-STRUCTURAL ELEMENTS SHALL BE SUBMITTED TO THE STRUCTURAL ENGINEER FOR REVIEW OF THE IMPACT ON THE BUILDING STRUCTURAL ELEMENTS ONLY. SHOP DRAWINGS SHALL INDICATE ALL DETAILS, MATERIALS, SPECIFICATIONS AND DESIGN LOADS AND BE SEALED BY A PROFESSIONAL ENGINEER REGISTERED IN THE PROVINCE OF APPLICABLE. SHOP DRAWINGS SHALL BE COORDINATED WITH THE WORK OF OTHER DISCIPLINES SUCH AS ARCHITECTURAL, MECHANICAL AND ELECTRICAL. THE SPECIALTY ENGINEER OR HIS REPRESENTATIVE SHALL VISIT THE SITE AND REVIEW THE COMPLETED WORK TO SATISFY HIMSELF THAT THE FINISHED COMPONENTS AND ASSEMBLIES ARE IN COMPLIANCE WITH HIS DESIGN AND SHOP DRAWINGS. THE SPECIALTY ENGINEER SHALL PROVIDE THE STRUCTURAL ENGINEER WITH A COMPLETED SCHEDULE 'S' FOR THIS WORK ALONG WITH ANY SKETCHES INDICATING FIELD MODIFICATIONS. THESE SKETCHES SHALL BEAR THE SEAL AND SIGNATURE OF THE SPECIALTY ENGINEER.

NOT FOR CONSTRUCTION

REVISIONS

ISSUE	DATE	DESCRIPTION	ENG
2	08DEC2021	BUILDING PERMIT	SK
1	24NOV2021	COORDINATION	SK

ISSUES

sorensen TRILOGY
STRUCTURAL ENGINEERING SOLUTIONS
NANAIMO (250) 585-1360 VICTORIA (778) 265-7360
www.sorensentrilogy.ca

CLIENT: CITY OF PORT ALBERNI

PROJECT: 3075 3RD AVE PORT ALBERNI, B.C.

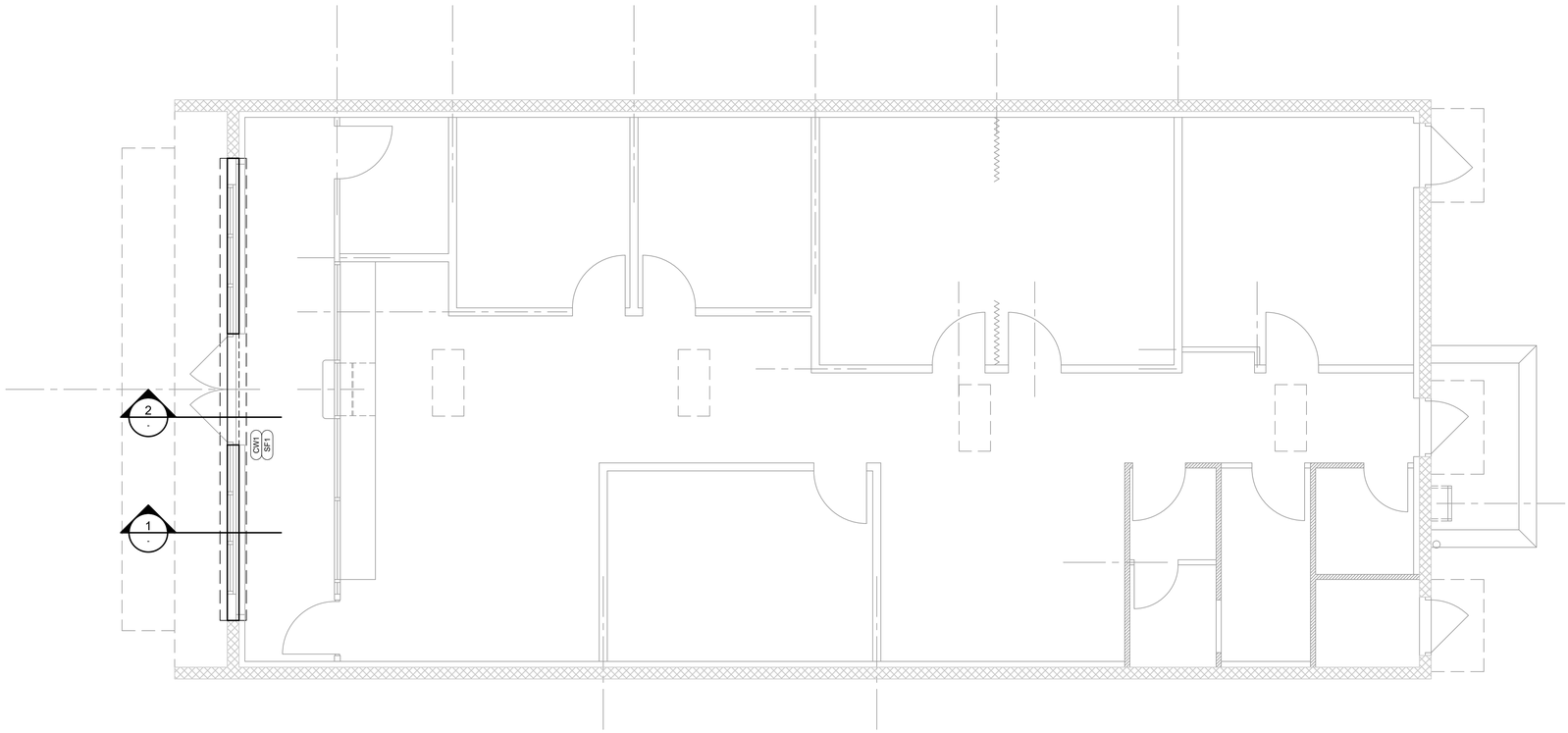
TITLE: GENERAL NOTES

DESIGN: SK
DRAFT: KH
CHECK: -
DATE: 01OCT2021
SCALE: AS NOTED
PROJ #: 21-344

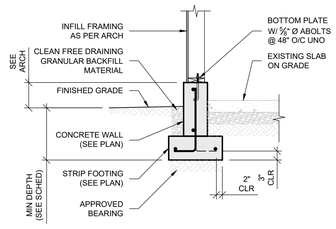
SEAL:

S103

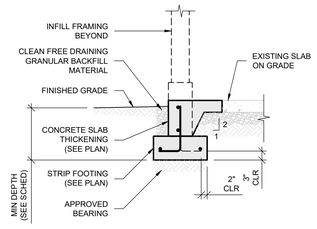
NOTE:
THESE PLANS HAVE BEEN PREPARED FROM ARCHITECTURAL BASE PLANS. ALL DIMENSIONS ARE TO BE CONFIRMED WITH CURRENT ARCHITECTURAL DRAWINGS AND DISCREPANCIES REPORTED TO THE ENGINEER PRIOR TO CONSTRUCTION FOR EVALUATION.



FOUNDATION PLAN
1/4" = 1'-0"



1 - SECTION
1/2" = 1'-0"



2 - SECTION
1/2" = 1'-0"

CONCRETE WALL SCHEDULE			
MARK	WIDTH	REINFORCING	LOCATION
CW1	8"	15M CONT, TOP 15M @ 20" O/C E/W	MID

NOTE:
1. REFER TO GENERAL NOTES FOR CONCRETE COVER AND REINFORCING SPLICE LENGTHS

CONCRETE FOOTING SCHEDULE			
MARK	SIZE	REINFORCING	MIN DEPTH
SF1	8"x18"	2-15M CONT, BOT	18" DP

NOTE:
1. REFER TO GENERAL NOTES FOR CONCRETE COVER.
2. FOOTING DEPTHS ARE MEASURED FROM FINISHED GRADE/TOP OF CONCRETE SLAB TO TO UNDERSIDE OF FOOTING

NOT FOR CONSTRUCTION

REVISIONS

ISSUE	DATE	DESCRIPTION	ENG
2	08DEC2021	BUILDING PERMIT	SK
1	24NOV2021	COORDINATION	SK

ISSUES

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CLIENT: CITY OF PORT ALBERNI

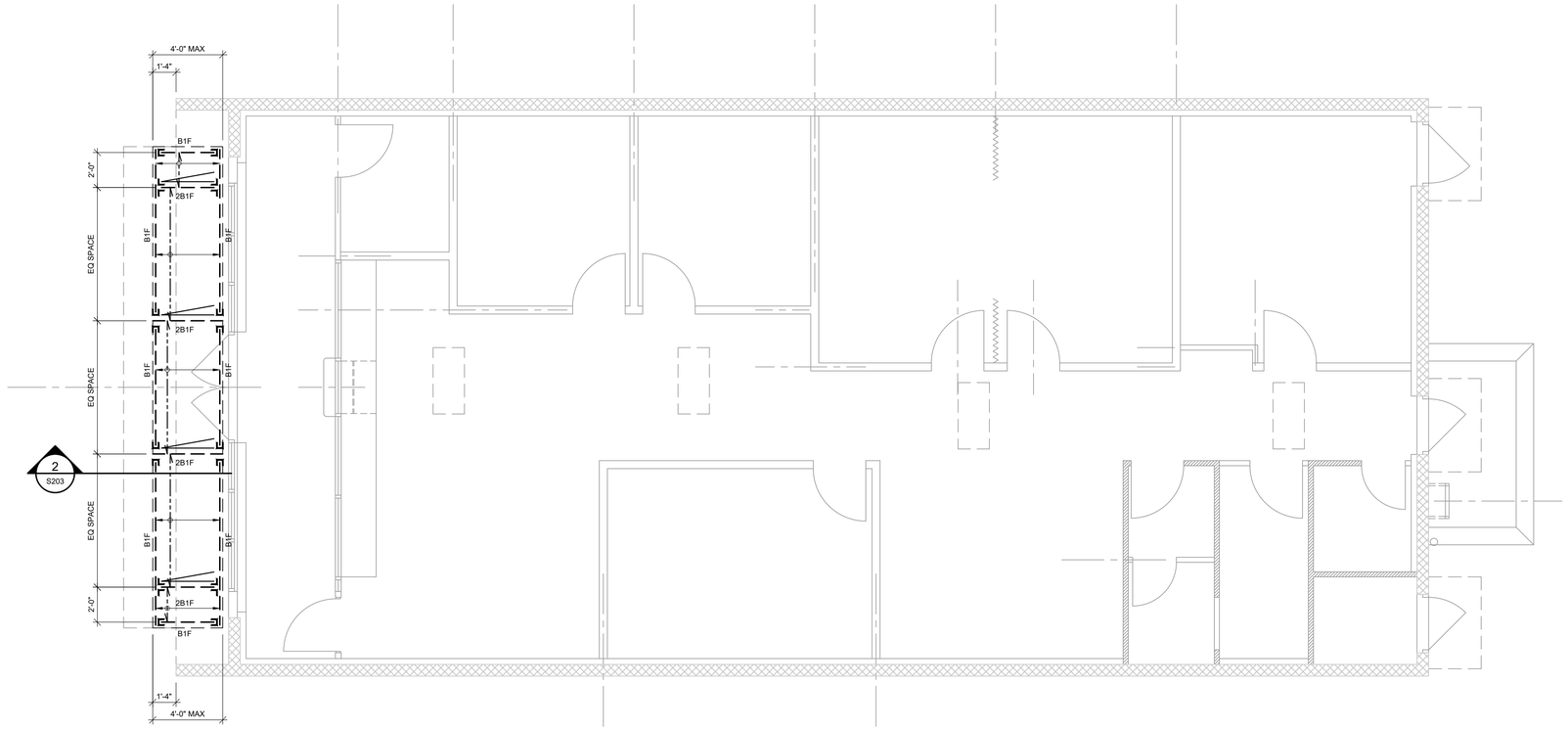
PROJECT: 3075 3RD AVE
PORT ALBERNI, B.C.

TITLE: FOUNDATION PLAN

DESIGN: SK
DRAFT: KH
CHECK: -
DATE: 01OCT2021
SCALE: AS NOTED
PROJ # 21-344

SEAL:

S201



CANOPY FRAMING PLAN

1/4" = 1'-0"

NOTE:
THESE PLANS HAVE BEEN PREPARED FROM ARCHITECTURAL BASE PLANS. ALL DIMENSIONS ARE TO BE CONFIRMED WITH CURRENT ARCHITECTURAL DRAWINGS AND DISCREPANCIES REPORTED TO THE ENGINEER PRIOR TO CONSTRUCTION FOR EVALUATION.

SPECIFIED ROOF LOADING

LOADING CONDITION	LOADING
DEAD LOAD	0.72 kPa (15 psf)
SNOW LOAD	2.48 kPa (51.8 psf)
LIVE LOAD DEFLECTION LIMIT	L/360
TOTAL LOAD DEFLECTION LIMIT	L/240

TIMBER DIAPHRAGM SCHEDULE

MARK	DESCRIPTION
D1	½" PLYWOOD SHEATHING, UNBLOCKED, NAILED TO FRAMING MEMBERS W/ 2½" NAILS @ 6" O/C AT PANEL EDGES, DRAG STRUTS AND EXTERIOR WALLS & 12" O/C OVER INTERMEDIATE FRAMING MEMBERS
D2	½" PLYWOOD SHEATHING, WITH PANEL EDGES FULLY BLOCKED, NAILED TO FRAMING MEMBERS W/ 2½" NAILS @ 4" O/C AT PANEL EDGES, DRAG STRUTS AND EXTERIOR WALLS & 12" O/C OVER INTERMEDIATE FRAMING MEMBERS
D3	⅝" PLYWOOD SHEATHING, UNBLOCKED, NAILED TO FRAMING MEMBERS W/ 2½" NAILS @ 6" O/C AT PANEL EDGES, DRAG STRUTS AND EXTERIOR WALLS & 12" O/C OVER INTERMEDIATE FRAMING MEMBERS
D4	⅝" PLYWOOD SHEATHING, WITH PANEL EDGES FULLY BLOCKED, NAILED TO FRAMING MEMBERS W/ 2½" NAILS @ 2" O/C AT PANEL EDGES, DRAG STRUTS AND EXTERIOR WALLS & 12" O/C OVER INTERMEDIATE FRAMING MEMBERS

NOTE:
1. REFER TO GENERAL NOTES FOR TIMBER FRAMING AND NAIL SPECIFICATIONS

TIMBER BEAM SCHEDULE

MARK	DESCRIPTION	GRADE
B1	2x8	SPF
B2	2x10	SPF
B3	1¾"x9½" SCL	2.0E
B4	1¾"x11⅞" SCL	2.0E
B5	1¾"x16" SCL	2.0E

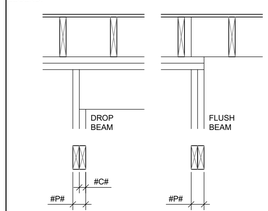
LEGEND:

NOTE:
1. ALL BEAMS DROPPED UNLESS NOTED OTHERWISE
2 ALL UNLABELLED BEAMS ARE 2-PLY 2x10
3. REFER TO GENERAL NOTES FOR TIMBER FRAMING SPECIFICATIONS

TIMBER POST/CRIPPLE SCHEDULE

POST	DESCRIPTION	CRIPPLE
P1	2x4 SPF#2	C1
P2	2x6 SPF#2	C2

LEGEND:



NOTE:
1. ALL UNLABELLED POSTS SUPPORTING FLUSH BEAMS TO BE 2 PLY
2. ALL UNLABELLED POSTS SUPPORTING DROP BEAMS TO BE 2 PLY W/ 1 STUD AND 1 CRIPPLE
3. REFER TO GENERAL NOTES FOR TIMBER FRAMING SPECIFICATIONS

NOT FOR CONSTRUCTION

REVISIONS

ISSUE	DATE	DESCRIPTION	ENG
2	08DEC2021	BUILDING PERMIT	SK
1	24NOV2021	COORDINATION	SK

ISSUES

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CLIENT: CITY OF PORT ALBERNI

PROJECT: 3075 3RD AVE PORT ALBERNI, B.C.

TITLE: CANOPY FRAMING PLAN

DESIGN: SK

DRAFT: KH

CHECK: -

DATE: 01OCT2021

SCALE: AS NOTED

PROJ # 21-344

SEAL:

S202

NOTE:
THESE PLANS HAVE BEEN PREPARED FROM ARCHITECTURAL BASE PLANS. ALL DIMENSIONS ARE TO BE CONFIRMED WITH CURRENT ARCHITECTURAL DRAWINGS AND DISCREPANCIES REPORTED TO THE ENGINEER PRIOR TO CONSTRUCTION FOR EVALUATION.

NOT FOR CONSTRUCTION

REVISIONS			
ISSUE	DATE	DESCRIPTION	ENG
2	08DEC2021	BUILDING PERMIT	SK
1	24NOV2021	COORDINATION	SK

ISSUES

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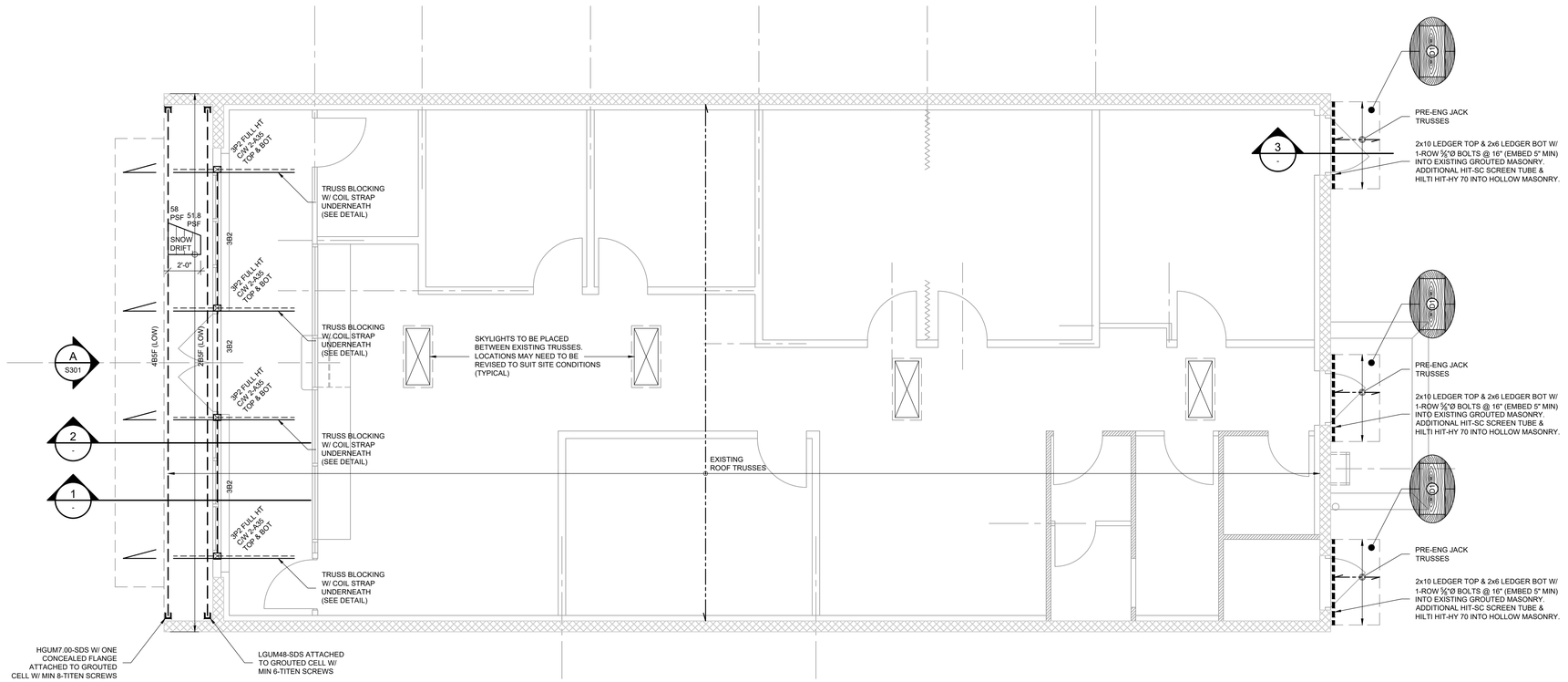


ROOF FRAMING PLAN
1/4" = 1'-0"

SPECIFIED ROOF LOADING	
LOADING CONDITION	LOADING
DEAD LOAD	0.72 kPa (15 psf)
SNOW LOAD	2.48 kPa (51.8 psf)
LIVE LOAD DEFLECTION LIMIT	L/360
TOTAL LOAD DEFLECTION LIMIT	L/240

TIMBER DIAPHRAGM SCHEDULE	
MARK	DESCRIPTION
D1	½" PLYWOOD SHEATHING, UNBLOCKED, NAILED TO FRAMING MEMBERS W/ 2½" NAILS @ 6" O/C AT PANEL EDGES, DRAG STRUTS AND EXTERIOR WALLS & 12" O/C OVER INTERMEDIATE FRAMING MEMBERS
D2	½" PLYWOOD SHEATHING, WITH PANEL EDGES FULLY BLOCKED, NAILED TO FRAMING MEMBERS W/ 2½" NAILS @ 4" O/C AT PANEL EDGES, DRAG STRUTS AND EXTERIOR WALLS & 12" O/C OVER INTERMEDIATE FRAMING MEMBERS
D3	⅝" PLYWOOD SHEATHING, UNBLOCKED, NAILED TO FRAMING MEMBERS W/ 2½" NAILS @ 6" O/C AT PANEL EDGES, DRAG STRUTS AND EXTERIOR WALLS & 12" O/C OVER INTERMEDIATE FRAMING MEMBERS
D4	⅝" PLYWOOD SHEATHING, WITH PANEL EDGES FULLY BLOCKED, NAILED TO FRAMING MEMBERS W/ 2½" NAILS @ 2" O/C AT PANEL EDGES, DRAG STRUTS AND EXTERIOR WALLS & 12" O/C OVER INTERMEDIATE FRAMING MEMBERS

NOTE:
1. REFER TO GENERAL NOTES FOR TIMBER FRAMING AND NAIL SPECIFICATIONS

TIMBER BEAM SCHEDULE		
MARK	DESCRIPTION	GRADE
B1	2x8	SPF
B2	2x10	SPF
B3	1¾"x9½" SCL	2.0E
B4	1¾"x11⅞" SCL	2.0E
B5	1¾"x16" SCL	2.0E

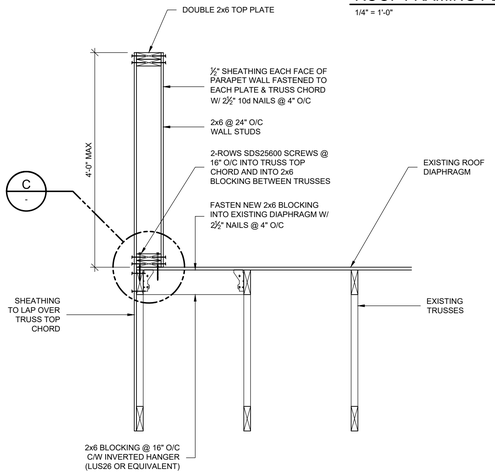
LEGEND:
#B1F
NUMBER OF PLIES
BEAM SIZE
DENOTES FLUSH BEAM

NOTE:
1. ALL BEAMS DROPPED UNLESS NOTED OTHERWISE
2 ALL UNLABELLED BEAMS ARE 2-PLY 2x10
3. REFER TO GENERAL NOTES FOR TIMBER FRAMING SPECIFICATIONS

TIMBER POST/CRIPPLE SCHEDULE		
POST	DESCRIPTION	CRIPPLE
P1	2x4 SPF#2	C1
P2	2x6 SPF#2	C2

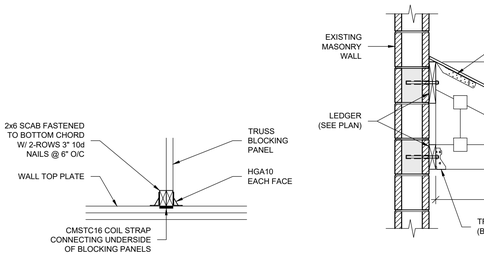
LEGEND:
DROP BEAM
FLUSH BEAM
#C#
#P#
#P#

NOTE:
1. ALL UNLABELLED POSTS SUPPORTING FLUSH BEAMS TO BE 2 PLY
2. ALL UNLABELLED POSTS SUPPORTING DROP BEAMS TO BE 2 PLY W/ 1 STUD AND 1 CRIPPLE
3. REFER TO GENERAL NOTES FOR TIMBER FRAMING SPECIFICATIONS

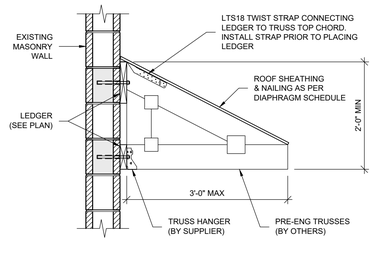


1 SECTION
3/4" = 1'-0"

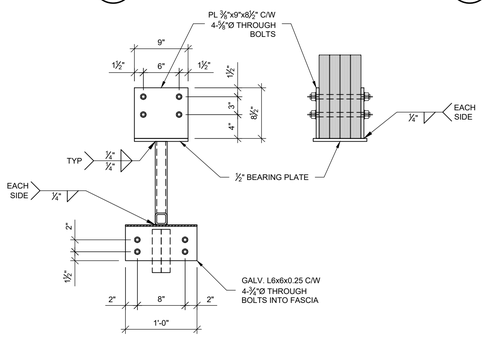
2 SECTION
3/4" = 1'-0"



B SECTION
3/4" = 1'-0"



3 SECTION
3/4" = 1'-0"



A SECTION
1" = 1'-0"

C DETAIL
3/4" = 1'-0"

CLIENT: CITY OF PORT ALBERNI

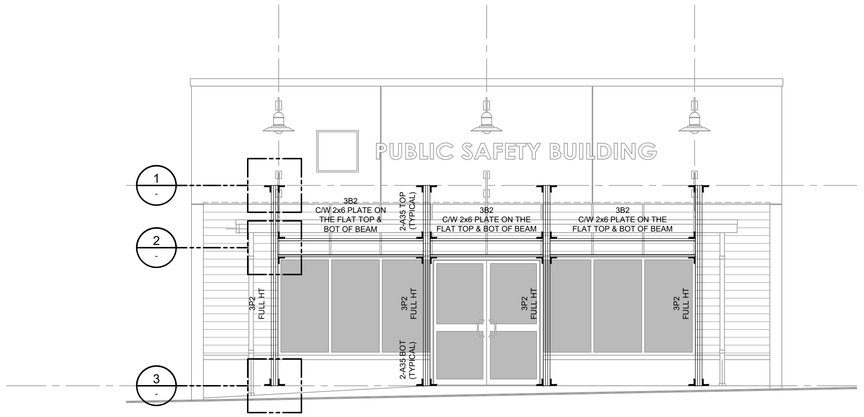
PROJECT: 3075 3RD AVE PORT ALBERNI, B.C.

TITLE: ROOF FRAMING PLAN

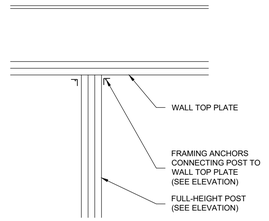
DESIGN:	SK
DRAFT:	KH
CHECK:	-
DATE:	01OCT2021
SCALE:	AS NOTED
PROJ #	21-344

SEAL:

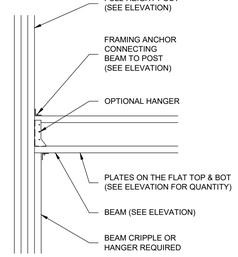
S203



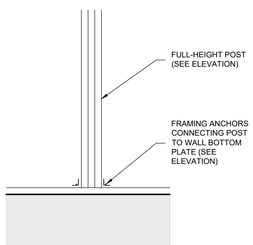
A S203 ELEVATION
1/4" = 1'-0"



1 - TYPICAL POST CONNECTION (TOP)
3/4" = 1'-0"



2 - TYPICAL BEAM-TO-POST CONNECTION
3/4" = 1'-0"



3 - TYPICAL POST CONNECTION (BOTTOM)
3/4" = 1'-0"

NOTE:
THESE PLANS HAVE BEEN PREPARED FROM ARCHITECTURAL BASE PLANS. ALL DIMENSIONS ARE TO BE CONFIRMED WITH CURRENT ARCHITECTURAL DRAWINGS AND DISCREPANCIES REPORTED TO THE ENGINEER PRIOR TO CONSTRUCTION FOR EVALUATION.

SPECIFIED ROOF LOADING	
LOADING CONDITION	LOADING
DEAD LOAD	0.72 kPa (15 psf)
SNOW LOAD	2.48 kPa (51.8 psf)
LIVE LOAD DEFLECTION LIMIT	L/360
TOTAL LOAD DEFLECTION LIMIT	L/240

TIMBER DIAPHRAGM SCHEDULE	
MARK	DESCRIPTION
D1	½" PLYWOOD SHEATHING, UNBLOCKED, NAILED TO FRAMING MEMBERS W/ 2½" NAILS @ 6" O/C AT PANEL EDGES, DRAG STRUTS AND EXTERIOR WALLS & 12" O/C OVER INTERMEDIATE FRAMING MEMBERS
D2	½" PLYWOOD SHEATHING, WITH PANEL EDGES FULLY BLOCKED, NAILED TO FRAMING MEMBERS W/ 2½" NAILS @ 4" O/C AT PANEL EDGES, DRAG STRUTS AND EXTERIOR WALLS & 12" O/C OVER INTERMEDIATE FRAMING MEMBERS
D3	⅜" PLYWOOD SHEATHING, UNBLOCKED, NAILED TO FRAMING MEMBERS W/ 2½" NAILS @ 6" O/C AT PANEL EDGES, DRAG STRUTS AND EXTERIOR WALLS & 12" O/C OVER INTERMEDIATE FRAMING MEMBERS
D4	⅜" PLYWOOD SHEATHING, WITH PANEL EDGES FULLY BLOCKED, NAILED TO FRAMING MEMBERS W/ 2½" NAILS @ 2" O/C AT PANEL EDGES, DRAG STRUTS AND EXTERIOR WALLS & 12" O/C OVER INTERMEDIATE FRAMING MEMBERS

NOTE:
1. REFER TO GENERAL NOTES FOR TIMBER FRAMING AND NAIL SPECIFICATIONS

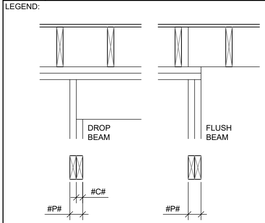
TIMBER BEAM SCHEDULE		
MARK	DESCRIPTION	GRADE
B1	2x8	SPF
B2	2x10	SPF
B3	1¾"x9¼" SCL	2.0E
B4	1¾"x11⅞" SCL	2.0E
B5	1¾"x16" SCL	2.0E

LEGEND:

NOTE:
1. ALL BEAMS DROPPED UNLESS NOTED OTHERWISE
2 ALL UNLABELLED BEAMS ARE 2-PLY 2x10
3. REFER TO GENERAL NOTES FOR TIMBER FRAMING SPECIFICATIONS

TIMBER POST/CRIPPLE SCHEDULE		
POST	DESCRIPTION	CRIPPLE
P1	2x4 SPF#2	C1
P2	2x6 SPF#2	C2

LEGEND:



NOTE:
1. ALL UNLABELLED POSTS SUPPORTING FLUSH BEAMS TO BE 2 PLY
2. ALL UNLABELLED POSTS SUPPORTING DROP BEAMS TO BE 2 PLY W/ 1 STUD AND 1 CRIPPLE
3. REFER TO GENERAL NOTES FOR TIMBER FRAMING SPECIFICATIONS

NOT FOR CONSTRUCTION

REVISIONS

ISSUE	DATE	DESCRIPTION	ENG
2	08DEC2021	BUILDING PERMIT	SK
1	24NOV2021	COORDINATION	SK

ISSUES

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CLIENT: CITY OF PORT ALBERNI

PROJECT: 3075 3RD AVE
PORT ALBERNI, B.C.

TITLE: FRAMING ELEVATION

DESIGN: SK
DRAFT: KH
CHECK: -
DATE: 01OCT2021
SCALE: AS NOTED
PROJ #: 21-344

SEAL:

S301

NOTE:
THESE PLANS HAVE BEEN PREPARED FROM ARCHITECTURAL BASE PLANS. ALL DIMENSIONS ARE TO BE CONFIRMED WITH CURRENT ARCHITECTURAL DRAWINGS AND DISCREPANCIES REPORTED TO THE ENGINEER PRIOR TO CONSTRUCTION FOR EVALUATION.

NOT FOR CONSTRUCTION

REVISIONS			
ISSUE	DATE	DESCRIPTION	ENG
3	23DEC2021	ADDENDUM #1	KT
2	08DEC2021	BUILDING PERMIT	SK
1	24NOV2021	COORDINATION	SK

ISSUES

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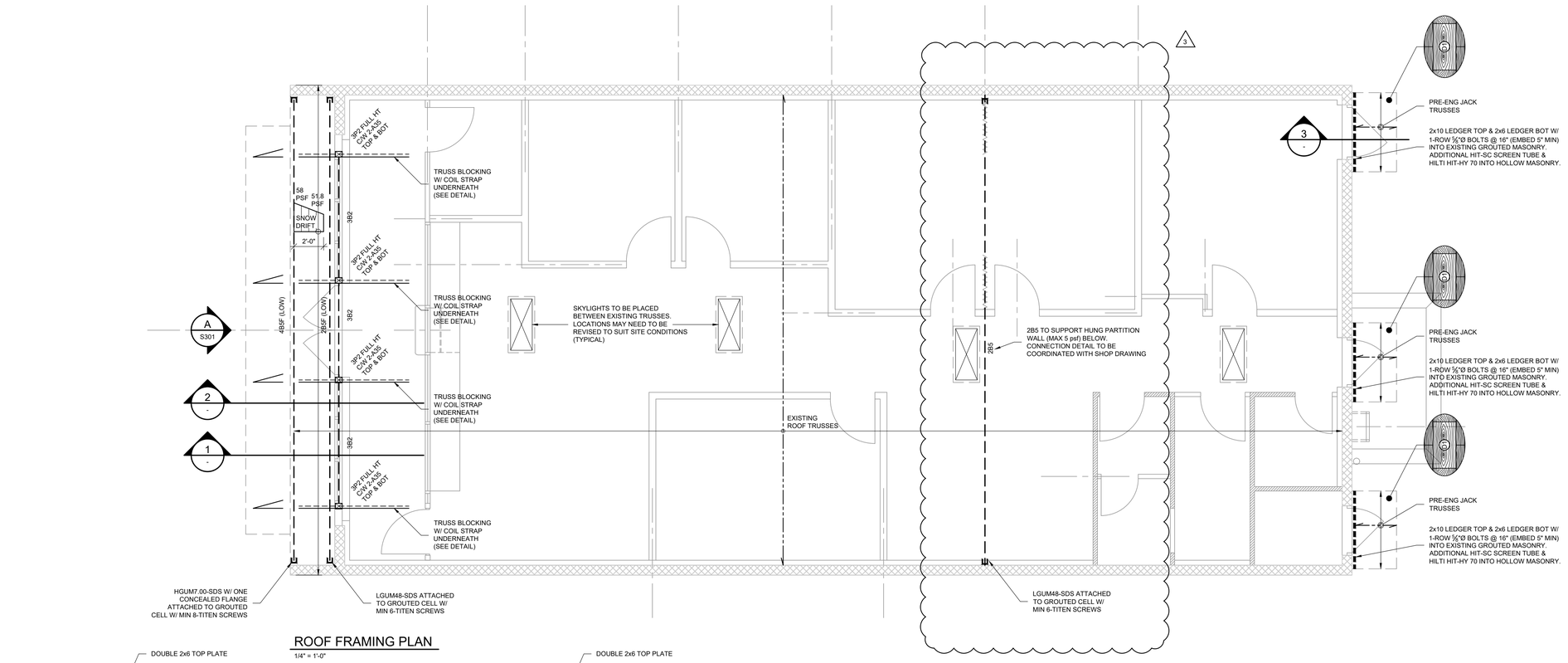
ROOF FRAMING PLAN
1/4" = 1'-0"



SPECIFIED ROOF LOADING

LOADING CONDITION	LOADING
DEAD LOAD	0.72 kPa (15 psf)
SNOW LOAD	2.48 kPa (51.8 psf)
LIVE LOAD DEFLECTION LIMIT	L/360
TOTAL LOAD DEFLECTION LIMIT	L/240

TIMBER DIAPHRAGM SCHEDULE

MARK	DESCRIPTION
D1	½" PLYWOOD SHEATHING, UNBLOCKED, NAILED TO FRAMING MEMBERS W/ 2½" NAILS @ 6" O/C AT PANEL EDGES, DRAG STRUTS AND EXTERIOR WALLS & 12" O/C OVER INTERMEDIATE FRAMING MEMBERS
D2	½" PLYWOOD SHEATHING, WITH PANEL EDGES FULLY BLOCKED, NAILED TO FRAMING MEMBERS W/ 2½" NAILS @ 4" O/C AT PANEL EDGES, DRAG STRUTS AND EXTERIOR WALLS & 12" O/C OVER INTERMEDIATE FRAMING MEMBERS
D3	⅝" PLYWOOD SHEATHING, UNBLOCKED, NAILED TO FRAMING MEMBERS W/ 2½" NAILS @ 6" O/C AT PANEL EDGES, DRAG STRUTS AND EXTERIOR WALLS & 12" O/C OVER INTERMEDIATE FRAMING MEMBERS
D4	⅝" PLYWOOD SHEATHING, WITH PANEL EDGES FULLY BLOCKED, NAILED TO FRAMING MEMBERS W/ 2½" NAILS @ 2" O/C AT PANEL EDGES, DRAG STRUTS AND EXTERIOR WALLS & 12" O/C OVER INTERMEDIATE FRAMING MEMBERS

NOTE:
1. REFER TO GENERAL NOTES FOR TIMBER FRAMING AND NAIL SPECIFICATIONS

TIMBER BEAM SCHEDULE

MARK	DESCRIPTION	GRADE
B1	2x8	SPF
B2	2x10	SPF
B3	1¾"x9¼" SCL	2.0E
B4	1¾"x11⅞" SCL	2.0E
B5	1¾"x16" SCL	2.0E

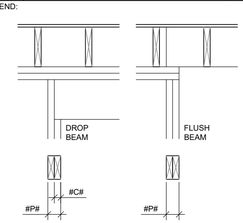
LEGEND:
#B1F — NUMBER OF PLIES, BEAM SIZE, DENOTES FLUSH BEAM

NOTE:
1. ALL BEAMS DROPPED UNLESS NOTED OTHERWISE
2 ALL UNLABELLED BEAMS ARE 2-PLY 2x10
3. REFER TO GENERAL NOTES FOR TIMBER FRAMING SPECIFICATIONS

TIMBER POST/CRIPPLE SCHEDULE

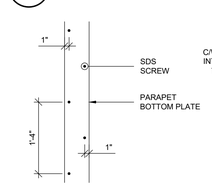
POST	DESCRIPTION	CRIPPLE
P1	2x4 SPF#2	C1
P2	2x6 SPF#2	C2

LEGEND:

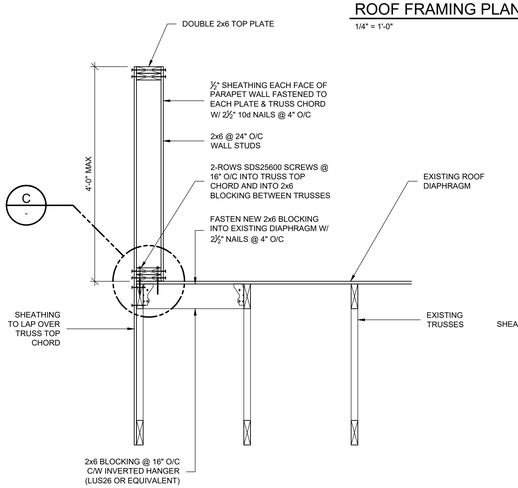


NOTE:
1. ALL UNLABELLED POSTS SUPPORTING FLUSH BEAMS TO BE 2 PLY
2. ALL UNLABELLED POSTS SUPPORTING DROP BEAMS TO BE 2 PLY W/ 1 STUD AND 1 CRIPPLE
3. REFER TO GENERAL NOTES FOR TIMBER FRAMING SPECIFICATIONS

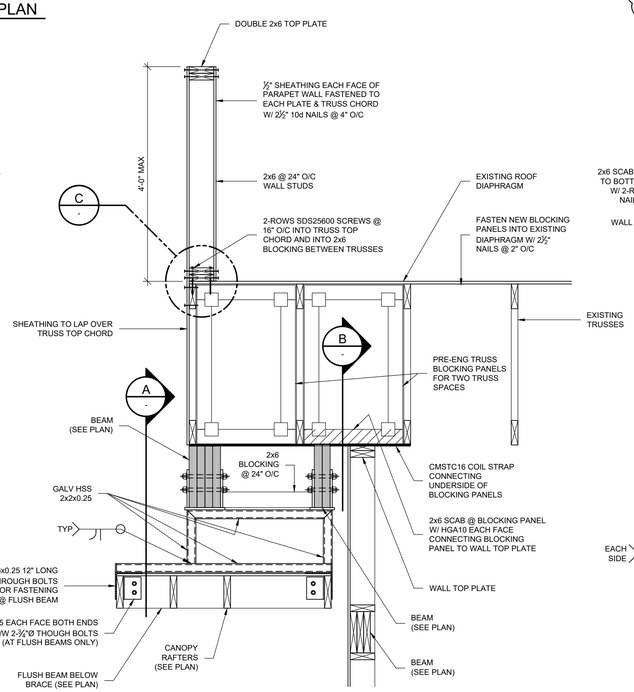
C DETAIL
3/4" = 1'-0"



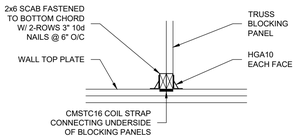
1 SECTION
3/4" = 1'-0"



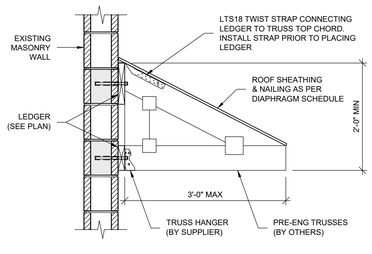
2 SECTION
3/4" = 1'-0"



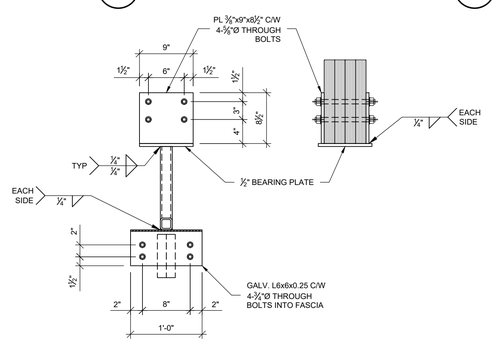
B SECTION
3/4" = 1'-0"



3 SECTION
3/4" = 1'-0"



A SECTION
1" = 1'-0"



CLIENT: CITY OF PORT ALBERNI

PROJECT: 3075 3RD AVE PORT ALBERNI, B.C.

TITLE: ROOF FRAMING PLAN

DESIGN:	SK
DRAFT:	KH
CHECK:	-
DATE:	01OCT2021
SCALE:	AS NOTED
PROJ #	21-344

SEAL:

S203