REGIONAL DISTRICT OF NANAIMO

REQUEST FOR TENDER No. 20-062

Meadowood Community Centre Construction

Addendum 1 (7 pages)
Issued: November 12, 2020

Closing Date & Time: on or before 3:00 PM Pacific Time on November 25, 2020

This addendum shall be read in conjunction with and considered as an integral part of the Request for Tender. Revisions supersede the information contained in the original Tender or previously issued Addendum. No consideration will be allowed for any extras due to any Vendor not being familiar with the contents of this Addendum. All other terms and conditions remain the same.

Addendum to add Structural Drawings (6 pages) to the specification package.

End of Addendum 1

ARCHITECTURAL D 24" x 36"

GENERAL
HEL–001

1. ALL DESIGN HAS BEEN COMPLETED IN ACCORDANCE WITH THE 2018 EDITION OF THE BRITISH COLUMBIA BUILDING CODE, INCLUDING ALL ADDENDA.
2. ALL CONSTRUCTION MUST BE IN ACCORDANCE WITH THE 2018 EDITION OF THE BRITISH COLUMBIA BUILDING CODE, INCLUDING ALL ADDENDA, ALL REFERENCED CODES AND ALL FEDERAL AND MUNICIPAL REGULATIONS AND BY–LAWS.
3. ALL REFERENCED CODES AND STANDARDS SHALL BE AS REFERENCED IN THE 2018 EDITION OF THE BRITISH COLUMBIA BUILDING CODE.
4. DESIGN CRITERIA: kPa (psf)

QUALICUM BEACH					
SNOW LOADS		WIND LOADS		SITE CLASS	
Ss	2.0 kPa (42.0 psf)	q10	0.41kPa (8.55 psf)	D	SEE GEOTECHNICAL REPORT
Sr	0.4 kPa (8.40 psf)	q50	0.53kPa (11.10 psf)		
Is	ULS 1.15/SLS 0.90	Iw	ULS 1.15/SLS 0.75		

SEISMIC LOADS		SPECTRAL ACCELERATION							
Rd	3.0	Sa (0.2)	Sa (0.5)	Sa (1.0)	Sa (2.0)	Sa (5.0)	Sa (10.0)	PGA	PGV
Ro	1.7	0.888	0.838	0.517	0.323	0.108	0.038	0.395	0.629
Ie	ULS 1.15								

SPECIFIED MEZZANINE FLOOR LOADING	SPECIFIED CANOPY ROOF LOADING
SUITE DL = 0.72kPa (15psf) SUITE LL = 4.8kPa (100psf)	DEAD LOAD = 0.48kPa (10psf) SNOW LOAD = 2.0kPa (42psf) NET WIND UPLIFT = 1.0kPa (21psf)
DEFLECTION CRITERIA	DEFLECTION CRITERIA
LIVE LOAD = L/360 TOTAL LOAD = L/240	LIVE LOAD = L/360 TOTAL LOAD = L/240

SPECIFIED LOADS SHOWN ON PLAN DO NOT INCLUDE ANY IMPORTANCE FACTOR.

5. THESE DRAWINGS INCLUDING DIMENSIONS SHALL BE READ IN CONJUNCTION WITH ALL OTHER PROJECT DRAWINGS AND SPECIFICATIONS. CONTRACTOR SHALL REPORT ANY DISCREPANCIES TO THE STRUCTURAL ENGINEER FOR CLARIFICATION PRIOR TO COMMENCING CONSTRUCTION. CONTRACTOR SHALL BE FAMILIAR WITH ALL PROJECT DRAWINGS INCLUDING THOSE OF OTHER DISCIPLINES AND SHALL MAKE ALLOWANCES FOR ALL ITEMS SHOWN ON OTHER DRAWINGS THAT AFFECT THIS CONTRACTOR'S WORK.
6. THESE DRAWINGS SHOW THE COMPLETED STRUCTURE ONLY. PROVIDE TEMPORARY BRACING AND SHORING FOR THE CONSTRUCTION LOADING CONDITIONS AND STABILITY OF THE STRUCTURE DURING CONSTRUCTION. CONSTRUCTION LOADS SHALL NOT EXCEED DESIGN LOADS.
7. THE CONTRACTOR SHALL RETAIN A PROFESSIONAL ENGINEER REGISTERED IN THE PROVINCE OF BRITISH COLUMBIA TO DESIGN AND TAKE RESPONSIBILITY FOR ANY TEMPORARY SHORING, BRACING OR OTHER DESIGNS REQUIRED TO COMPLETE CONSTRUCTION.
8. THE CONTRACTOR SHALL SUBMIT WRITTEN RECOMMENDATIONS FOR FLATWORK PERFORMED DURING COLD (BELOW +5°C) AND HOT (ABOVE +25°C) WEATHER. THE RECOMMENDATIONS SHALL BE PREPARED, SEALED AND SIGNED BY A PROFESSIONAL ENGINEER REGISTERED IN THE PROVINCE OF BRITISH COLUMBIA. A SCHEDULE 'S' SHALL ALSO BE SUBMITTED UPON REQUEST. FLATWORK INCLUDES SLABS ON GRADE, SUSPENDED SLABS, TILT–UP PANELS, MASONRY AND CONCRETE TOPPING.
9. UNDER NO CIRCUMSTANCES SHALL DRAWINGS BE SCALED.
10. CONTRACTOR AND ALL SUB–TRADES SHALL VERIFY ALL DIMENSIONS ON SITE PRIOR TO COMMENCING FABRICATION.

REFERENCE PUBLICATIONS
HEL–002

THESE DRAWINGS REFER TO THE FOLLOWING PUBLICATIONS, AND WHERE SUCH REFERENCE IS MADE, IT SHALL BE TO THE EDITION LISTED BELOW, INCLUDING ALL AMENDMENTS PUBLISHED THERETO.

ACI SP–4–2005
ACI 355.4–11

ANSI/APA PRG 320–2012
ANSI/NAAMM MBG 531–17

ASTM 653/A653M–11

ASTM A53/A53M–18
ASTM A123/A123M–13JAE J429–1999
ASTM A193/A193M–17
ASTM A252–10 (2018)
ASTM A307–12
ASTM A325–10e1
ASTM A416/A416M–12a
ASTM A421/A421M–05
ASTM A497/A497M–07
ASTM A615/A615M–18e1
ASTM A722/A722M–12
ASTM A992/A992M–11 (2015)
ASTM A1011/A1011M–12b
ASTM A1064/A1064M–13
ASTM C957/C957M–14
ASTM D1751–18
ASTM D5055–13e1
ASTM D5456–13a
ASTM F1136–11
ASTM F1554–07ae1
ASTM G109–07 (2013)
ASTM G180–13

ASME B18.6.1–1981 (R2016)

CGSB 1.181–99
CGSB 19.24–M90
CGSB 27.50–M89
CGSB 37.50–M89

CISC/CPMA 1–73a (1975)
CISC/CPMA 2–75 (1975)

CSA 112.10–08 (R2017)

CSA A23.1–14
CSA A23.2–14
CSA A23.4–09
CSA A165–14
CSA A179–14
CSA A370–14
CSA A371–14
CSA A3000–13

CSA B111–1974 (R2003)
CSA B167–16

CSA G30.14–M1983 (R1998)
CSA G30.18–09 (R2014)
CSA G40.20/G40.21–13
CSA G164–M92 (R2003)

CSA O56–10(R2015)
CSA O80–08 (R2012)
CSA O86–14
CSA O112–M1977 (R2006)
CSA O112.7–M1977

CSA O112.9–10 (R2014)
CSA O121–08 (R2013)
CSA O122–06 (R2011)
CSA O122.6–M1977

CSA O141–05 (R2014)
CSA O151–09 (R2014)
CSA O153–13 (R2017)
CSA O177–06 (R2015)
CSA O325–07 (R2012)
CSA O437.0–93

CSA S6–14
CSA S16–14
CSA S136–12
CSA S269.1–1975
CSA S269.3–M92 (R2013)
CSA S413–14

CSA W47.1–09 (R2014)
CSA W48–14
CSA W55.3–08 (R2018)
CSA W59–13
CSA W178.1–14
CSA W178.2–14
CSA W186–M1990 (R2016)

CSSBI 10M–18/12M–18
CSSBI 101M–84

ULC S701–11

SUBMITTALS
HEL–003

1. WHERE SHOP DRAWINGS ARE REQUESTED IN THE GENERAL NOTES THE CONTRACTOR SHALL PROVIDE THEM IN EITHER HARD COPY OR DIGITAL FORMAT TO THE FOLLOWING REQUIREMENTS FOR THE ENGINEER'S REVIEW PRIOR TO FABRICATION. THE SHOP DRAWINGS SHALL INDICATE DETAILS, DIMENSIONS, MATERIALS AND DESIGN LOADS.
2. IF HARD COPY FORMAT IS USED FIVE PAPER COPIES SHALL BE SUBMITTED. UNLESS NOTED OTHERWISE THEY SHALL BE SIGNED AND SEALED BY A SPECIALTY ENGINEER REGISTERED IN THE PROVINCE OF BRITISH COLUMBIA.
3. DRAWINGS NOT SEALED BY THE SPECIALTY ENGINEER SHALL BE ACCOMPANIED BY A LETTER WITH A DRAWING LIST IDENTIFYING ALL DRAWING NUMBERS, TITLES, MOST RECENT REVISION NUMBERS AND DATES. THE LETTER AND DRAWING LIST ARE TO BE SIGNED AND SEALED BY THE SPECIALTY ENGINEER.
4. IF A DIGITAL SUBMISSION IS MADE THE FILES SHALL BE IN PDF FORMAT ON A DISC OR TRANSMITTED VIA E–MAIL. THE SUBMISSION SHALL CONTAIN A LETTER WITH A DRAWING LIST AS DESCRIBED ABOVE SIGNED AND SEALED BY THE SPECIALTY ENGINEER. THE FINAL SUBMISSION SHALL BE MADE AS A HARD COPY BEARING THE ORIGINAL SEAL AND SIGNATURE OF THE SPECIALTY ENGINEER REGISTERED IN THE PROVINCE OF BRITISH COLUMBIA.
5. THE FOLLOWING SUBMISSIONS ARE REQUIRED FOR THIS PROJECT:
   - CONCRETE MIX DESIGNS
   - PRE–ENGINEERED STEEL BUILDING SHOP DRAWINGS*
   - PREFABRICATED WOOD JOIST SHOP DRAWINGS*
   - CORRUGATED METAL ROOFING*
   - STEEL PLATE SHOP DRAWINGS FOR TIMBER CONNECTION

   * INDICATES THE REQUIREMENT THAT SUBMISSION BE SEALED BY A SPECIALTY ENGINEER REGISTERED IN THE PROVINCE OF BRITISH COLUMBIA AND PROVIDE A SCHEDULE 'S' UPON COMPLETION OF THE WORK.
6. SHOP DRAWINGS WHICH ARE REQUIRED TO, BUT DO NOT HAVE THE APPROPRIATE ENGINEERS SEAL AND SIGNATURE WILL NOT BE REVIEWED.
7. SHOP DRAWINGS WILL BE REVIEWED ONLY FOR GENERAL CONFORMITY WITH THE PROJECT DRAWINGS AND SPECIFICATIONS. QUANTITIES AND DETAILED DIMENSIONS ARE THE CONTRACTORS RESPONSIBILITY. THE REVIEW SHALL NOT RELIEVE THE CONTRACTOR FROM COMPLYING WITH ALL THE REQUIREMENTS OF THE CONTRACT DOCUMENTS INCLUDING COORDINATION WITH OTHER TRADES AND DISCIPLINES. THE CONTRACTOR IS RESPONSIBLE FOR ERRORS AND OMISSIONS ON THE SHOP DRAWINGS.
8. SHOP DRAWING SUBMISSIONS FOR THE WORK OF SPECIALTY ENGINEERS SHALL BE AS SET OUT IN THIS SECTION.
9. THE QUALITY ASSURANCE FOR MATERIALS, FABRICATION AND INSTALLATION IS THE RESPONSIBILITY OF THE CONTRACTOR AND HIS SPECIALTY ENGINEER.
10. 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 THE ENGINEERED DESIGN. THE SPECIALTY ENGINEER SHALL THEN PROVIDE THE PROJECT ENGINEER OF RECORD WITH A COMPLETED SCHEDULE 'S' FOR THIS WORK ALONG WITH ANY SKETCHES SHOWING FIELD MODIFICATIONS. THESE SKETCHES SHALL BEAR THE SEAL AND SIGNATURE OF THE SPECIALTY ENGINEER.

FIELD REVIEWS
HEL–005

1. THE CONTRACTOR SHALL PROVIDE THE ENGINEER WITH A MINIMUM OF 48 HOURS (2 WORKING DAYS) ADVANCE NOTICE FOR FIELD REVIEWS.
2. THE FOLLOWING FIELD REVIEWS ARE CONSIDERED TO BE THE MINIMUM NUMBER OF STRUCTURAL FIELD REVIEWS REQUIRED FOR THE PROJECT:

   CONCRETE: REINFORCING STEEL SHALL BE REVIEWED PRIOR TO PLACING CONCRETE. REINFORCING IN CONCRETE WALLS SHALL BE REVIEWED PRIOR TO "BUTTONING UP" WALL FORMS.

   TIMBER: FRAMING SHALL BE REVIEWED PRIOR TO COVERING ANY FRAMING AND BEFORE ADDITIONAL LOADS SUCH AS CONCRETE TOPPING AND MECHANICAL EQUIPMENT ARE APPLIED.
3. IF THE ENGINEER IS NOT PROVIDED WITH THE OPPORTUNITY TO PERFORM THE REQUIRED FIELD REVIEWS, FINAL CERTIFICATION OF THE PROJECT WILL NOT BE ISSUED.

MECHANICAL AND ADHESIVE ANCHORS
HEL–046

1. ALL ANCHORS ARE TO BE INSTALLED IN CONCRETE HAVING A MINIMUM AGE OF 21 DAYS AT THE TIME OF ANCHOR INSTALLATION, AND 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 ASTM F1554 GRADE 36 THREADED ROD. REFER TO DRAWINGS FOR ANCHOR LOCATIONS, SIZES, CENTRES AND EMBEDMENT LENGTH.

   USE HILTI HIT–HY200 WHEN:
   A QUICK CURE IS REQUIRED,
   CONDITIONS ARE DRY, OR SATURATED
   HOLES ARE HAMMER DRILLED,
   HOLES ARE NOT OVER–SIZED,
   BASE MATERIAL TEMPERATURE IS ABOVE MINUS 10° CELCIUS.

   NOTE; CONCRETE THAT HAS BEEN EXPOSED TO WATER IN THE PRECEEDING 14 DAYS IS ASSUMED TO BE STATURATED.

   USE HILTI HIT RE500–V3 WHEN:
   EXTENDED WORKING TIME IS REQUIRED AND CURE TIME IS NOT CRITICAL,
   HOLES ARE DRILLED USING DIAMOND CORE, PNEUMATIC OR HAMMER DRILLS,
   DEEP EMBEDMENT IS SPECIFIED,
   THE APPLICATION IS UNDERWATER, OR
   HOLES ARE OVERSIZED.
4. REFER TO DRAWINGS FOR MECHANICAL ANCHOR LOCATIONS, SIZES, CENTRES AND EMBEDMENT LENGTH.
5. HOLES FOR MECHANICAL ANCHORS SHALL BE CLEANED OUT WITH HIGH PRESSURE AIR OR BRUSH PRIOR TO ANCHOR INSTALLATION.
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. ALL ADHESIVE ANCHORS ARE TO HAVE A PERIODIC SPECIAL INSPECTION PERFORMED IN ACCORDANCE WITH ACI 355.4. THE SPECIAL INSPECTION SHALL BE PERFORMED BY A CERTIFIED ACI/CRSI ADHESIVE ANCHOR INSTALLATION INSPECTOR, OR EQUIVALENT. THE SPECIAL INSPECTOR MUST BE HIRED BY THE OWNER, OR AN OWNER'S REPRESENTATIVE (THE CONTRACTOR IS NOT ALLOWED TO HIRE THE SPECIAL INSPECTOR THEMSELVES). THE SPECIAL INSPECTOR SHALL SUBMIT A REPORT TO THE ENGINEER OF RECORD THAT THE MATERIALS USED, AND THE INSTALLATION PROCEDURES USED CONFORM WITH THE CONTRACT DOCUMENTS AND THE MANUFACTURER'S WRITTEN INSTRUCTIONS.

FOUNDATIONS
HEL–006

1. REFER TO GEOTECHNICAL REPORT PREPARED BY: LEWKOWICH ENGINEERING ASSOCIATES SEPTEMBER 3, 2015
2. DESIGN VALUES:

	FACTORED BEARING RESISTANCE	BEARING PRESSURE FOR SETTLEMENT
	200 kPa (3000 psf)	100 kPa (3000 psf)

3. CENTRE ALL FOOTINGS UNDER COLUMNS AND WALLS UNLESS NOTED OTHERWISE.
4. FOUNDATION BEARING MATERIAL SHALL BE PROTECTED FROM RAIN, FROST, SNOW AND WATER INFILTRATION. NO FOUNDATIONS SHALL BE POURED BEFORE BEARING MATERIAL HAS BEEN REVIEWED AND APPROVED BY GEOTECHNICAL ENGINEER. THE GEOTECHNICAL ENGINEER SHALL BE PROVIDED WITH NOTICE PRIOR TO CONCRETE POURS AS DESCRIBED IN "FIELD REVIEWS".
5. FOOTING DEPTHS INDICATED ON THE DRAWINGS AND IN GEOTECHNICAL REPORT ARE GENERAL AND REPRESENT MINIMUM VALUES TO BE USED. FIRM BEARING DEPTHS FOR FOOTINGS AND FILL SHALL BE ESTABLISHED FROM THE GEOTECHNICAL REPORT AT THE TIME OF TENDERING. ANY QUERIES REGARDING THE ESTABLISHMENT OF THESE DEPTHS SHALL BE DIRECTED TO THE GEOTECHNICAL ENGINEER. VARIABLE SITE SOIL CONDITIONS, UNDERGROUND SERVICES AND EXISTING STRUCTURES MAY REQUIRE ADJUSTMENT OF FOOTING DEPTHS. THE CONTRACTOR SHALL MAKE ALLOWANCES FOR MINOR VARIATIONS IN FOOTING DEPTHS IN HIS BID. CONTACT GEOTECHNICAL AND STRUCTURAL ENGINEER FOR INSTRUCTIONS REGARDING SITE CONDITIONS THAT DIFFER FROM WHAT IS SHOWN ON DRAWINGS AND INDICATED IN THE GEOTECHNICAL REPORT.
5. FOOTINGS ARE TO BE AT ELEVATIONS INDICATED ON THE DRAWINGS, AND ARE TO BEAR ON UNDISTURBED NATIVE SOILS OR ENGINEERED FILL. BOTH CONDITIONS ARE TO BE REVIEWED AND APPROVED BY THE GEOTECHNICAL ENGINEER. FIRM BEARING DEPTHS FOR FILL SHALL BE ESTABLISHED FROM THE GEOTECHNICAL REPORT AT THE TIME OF TENDERING. ANY QUERIES REGARDING THE ESTABLISHMENT OF THESE DEPTHS SHALL BE DIRECTED TO THE GEOTECHNICAL ENGINEER. VARIABLE SITE SOIL CONDITIONS, UNDERGROUND SERVICES AND EXISTING STRUCTURES MAY REQUIRE ADJUSTMENT OF THESE ELEVATIONS. THE CONTRACTOR SHALL MAKE ALLOWANCES FOR MINOR VARIATIONS IN ELEVATIONS IN HIS BID. CONTACT GEOTECHNICAL AND STRUCTURAL ENGINEER FOR INSTRUCTIONS REGARDING SITE CONDITIONS THAT DIFFER FROM WHAT IS SHOWN ON DRAWINGS AND INDICATED IN THE GEOTECHNICAL REPORT.
6. CONTRACTOR SHALL COORDINATE CONSTRUCTION OF FOUNDATIONS WITH UNDERGROUND SERVICES AS SHOWN ON CIVIL, MECHANICAL, ELECTRICAL, AND ARCHITECTURAL DRAWINGS. CONFLICTS SHALL BE REPORTED TO THE ARCHITECT FOR RESOLUTION.
7. UNLESS NOTED OTHERWISE, THE MINIMUM ASSUMED COMPACTION UNDER ALL FOOTINGS AND SLABS FOR COMPACTED GRANULAR FILLS IS 98% CORRECTED STANDARD PROCTOR DENSITY. GEOTECHNICAL ENGINEER OR TESTING AGENCY TO CONFIRM PRIOR TO PLACING CONCRETE.
8. THE BASE COURSE BELOW SLABS ON GRADE SHALL BE COMPOSED OF INERT, CLEAN, TOUGH, DURABLE CRUSHED AGGREGATE, UNIFORM IN QUALITY AND FREE FROM SOFT OR DISINTEGRATED PIECES. THE AGGREGATE PARTICLES SHALL BE UNIFORM IN QUALITY AND FREE FROM AN EXCESS OF FLAT OR ELONGATED PARTICLES. IN THE ABSENCE OF SATISFACTORY PERFORMANCE RECORDS OVER A 5 YEAR PERIOD OF THE PARTICLE SOURCE OF AGGREGATE, IT'S SOUNDNESS SHALL BE TESTED IN ACCORDANCE WITH ASTM C88 USING MAGNESIUM SULPHATE. MAXIMUM WEIGHTED AVERAGE LOSSES FOR COURSE AGGREGATE SHALL BE 20% AND FOR FINE AGGREGATE 25%. THE SAND EQUIVALENT VALUE WHEN TESTED IN ACCORDANCE WITH ASTM D2419 SHALL NOT BE LESS THAN 40. THE LOS ANGELES ABRASION VALUE WHEN TESTED IN ACCORDANCE WITH ASTM C131 SHALL HAVE A MAXIMUM LOSS BY MASS OF 25%. THE AGGREGATE GRADATION SHALL FALL WITHIN THE FOLLOWING LIMITS WHEN TESTED IN ACCORDANCE WITH ASTM C136;

SIEVE SIZE (US STD.)	25mm	19	9.5	4.75	2.36	1.18	0.3	0.075
% PASSING BY WEIGHT	100	80–100	50–100	35–70	25–50	15–35	5–20	0–5

   SUB–BASE BELOW THE BASE COURSE SHALL BE PIT RUN GRAVEL AS SPECIFIED BY THE GEOTECHNICAL ENGINEER.

PRE–ENGINEERED STEEL BUILDINGS
HEL–045

1. FOUNDATIONS HAVE BEEN DESIGNED AS PER LOADS PROVIDED BY PRE–ENG MANUFACTURER JOB NO. –––––
2. THE PRE–ENGINEERED STEEL BUILDING SHALL BE DESIGNED BY A PROFESSIONAL ENGINEER REGISTERED IN THE PROVINCE OF BRITISH COLUMBIA TO THE SITE SPECIFIC DESIGN CRITERIA FOR THE PROJECT.
3. THE BUILDING MANUFACTURER SHALL SUBMIT SHOP DRAWINGS AS SPECIFIED UNDER 'SUBMITTALS' TO THE PROJECT ENGINEER FOR REVIEW PRIOR TO FABRICATION. ERECTION AND DETAIL DRAWINGS SHALL SHOW SIZE, CONFIGURATIONS AND LOCATIONS OF ALL STEEL BUILDING COMPONENTS AND BE MARKED "ISSUED FOR CONSTRUCTION". COLUMN REACTIONS SHALL BE INCLUDED.
4. UPON COMPLETION THE PRE–ENGINEERED STEEL BUILDING SHALL BE INSPECTED BY A PROFESSIONAL ENGINEER REGISTERED IN BRITISH COLUMBIA. A SCHEDULE 'S' SHALL BE SUBMITTED TO THE PROJECT ENGINEER TO CERTIFY THAT THE BUILDING HAS BEEN SUPPLIED AND ERECTED IN ACCORDANCE WITH THE REVIEWED SHOP DRAWINGS.
5. THE CONTRACTOR SHALL CONFIRM THE FOLLOWING WITH THE STEEL BUILDING SUPPLIERS SHOP DRAWINGS PRIOR TO POURING CONCRETE:
   - BASEPLATE SIZES
   - ANCHOR BOLT SIZE AND LOCATION
   - GENERAL ARRANGEMENT OF BUILDING FRAMES
6. VERIFY ALL DIMENSIONS WITH PRE–ENGINEERED STEEL BUILDING SHOP DRAWINGS, AS ISSUED FOR CONSTRUCTION, AND NOTIFY THE ENGINEER IMMEDIATELY OF ANY DISCREPANCIES.
7. CONFIRM ALL DOOR OPENING SIZES AND LOCATIONS WITH THE CLIENT PRIOR TO CONSTRUCTION.
8. GROUT BELOW BASEPLATES TO BE 48 MPa (7000 psi) AT 28 DAYS.

REINFORCING STEEL
HEL–014

1. REINFORCING STEEL SHALL BE DEFORMED STEEL 400 GRADE AND SHALL CONFORM TO CAN/CSA–G30.18
2. WELDABLE LOW ALLOY DEFORMED STEEL REINFORCING BARS, GRADE 400W, SHALL CONFORM TO CAN/CSA–G30.18. MILL CERTIFICATES SHALL BE SUPPLIED TO THE STRUCTURAL ENGINEER FOR ALL WELDABLE REINFORCING STEEL USED IN THE PROJECT.
3. WELDED WIRE FABRIC, DEFORMED, SHALL CONFORM TO ASTM 1064/1064M OR ASTM A497/A497M.
4. WELDING OF REINFORCING STEEL SHALL CONFORM TO CSA W186–M "WELDING OF REINFORCING BARS IN REINFORCED CONCRETE CONSTRUCTION". WELDING OF REINFORCING SHALL BE ALLOWED ONLY AS NOTED ON 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 ADDITIONAL WELDING.
5. ALL REINFORCING BARS SHALL BE TIED SECURELY TO PREVENT DISPLACEMENT.
6. UNLESS NOTED OTHERWISE ON PLANS, LAP LENGTHS FOR REINFORCING STEEL SHALL BE AS FOLLOWS:

REINFORCING BAR LAP LENGTHS						
CONCRETE MPa	BAR SIZE					
	10M	15M	20M	25M	30M	35M
20	430 (17")	635 (25")	840 (33")	1320 (52")	1575 (62")	1855 (73")
25	380 (15")	560 (22")	760 (30")	1195 (47")	1370 (54")	1650 (65")
30	355 (14")	510 (20")	710 (28")	1065 (42")	1295 (51")	1500 (59")
35	330 (13")	480 (19")	660 (26")	990 (39")	1195 (47")	1395 (55")
40	305 (12")	455 (18")	610 (24")	940 (37")	1120 (44")	1320 (52")
45	280 (11")	430 (17")	560 (22")	890 (35")	1040 (41")	1245 (49")

NOTES;
1. MULTIPLY VALUES BY 1.3 FOR HORIZONTAL REINFORCEMENT PLACED IN SUCH A WAY THAT MORE THAN 12" OF FRESH CONCRETE IS CAST IN THE MEMBER BELOW THE SPLICE.
2. MULTIPLY VALUES BY 1.5 FOR EPOXY COATED REINFORCEMENT WITH CLEAR COVER LESS THAN 3 BAR DIAMETERS OR BAR SPACING LESS THAN 7 BAR DIAMETERS.
3. MUTLIPLY VALUES BY 1.2 FOR ALL EPOXY COATED REINFORCEMENT OTHER THAN IN 2. ABOVE.

7. NO SPLICES OTHER THAN THOSE NOTED ON THE DRAWINGS ARE PERMITTED WITHOUT WRITTEN PERMISSION FROM THE STRUCTURAL ENGINEER.
8. WHERE CONCRETE SURFACES ARE TO BE EXPOSED ONLY NON–CORROSIVE TYPE REINFORCING CHAIRS SHALL BE USED TO SUPPORT THE REINFORCING STEEL.
9. DOWELS ARE TO BE TIED IN PLACE PRIOR TO POURING CONCRETE – "WET DOWELING" OF ANY REINFORCING STEEL IS NOT PERMITTED WITHOUT THE WRITTEN APPROVAL OF THE STRUCTURAL ENGINEER.
10. HOOKS ON ALL TIES SHALL BE BENT AT LEAST 135° AND HAVE A MINIMUM LEG OF 6 TIMES THE TIE BAR DIAMETER.
11. PROVIDE CORNER BARS TO MATCH HORIZONTAL WALL REINFORCEMENT.
12. ALL VERTICAL REINFORCING TO FOUNDATION WALLS AND PIERS SHALL HAVE A STANDARD HOOK AND BE EMBEDDED IN THE FOOTING.
13. ALL BARS SHALL BE BENT AT TEMPERATURES GREATER THAN 10°C.
14. NO BARS WHICH ARE PARTIALLY EMBEDDED IN CONCRETE SHALL BE FIELD BENT EXCEPT AS SHOWN ON THE DRAWINGS OR APPROVED IN WRITING BY THE PROJECT STRUCTURAL ENGINEER.

CAST–IN–PLACE CONCRETE
HEL–015

1. ALL CONCRETE WORK SHALL CONFORM TO THE REQUIREMENTS OF CSA A23.1 AND A23.2.
2. CONCRETE MIXES, AGGREGATES AND CEMENTITIOUS MATERIALS, INCLUDING PORTLAND CEMENT AND PORTLAND LIMESTONE CEMENT, SHALL CONFORM TO CAN/CSA A23.1 AND A23.2 AND CAN/CSA–A3000 AND SHALL HAVE THE FOLLOWING PROPERTIES BASED UPON PERFORMANCE CRITERIA PROPORTIONING:

CLASS	28 DAY STRENGTH	EXPOSURE	MAX AGGREGATE SIZE
FOOTINGS	25MPa (3500 psi)	F–2	19mm
FOUNDATION WALLS & PIERS	25 MPa (3500 psi)	F–2	19mm
EXT. SLAB ON GRADE	32 MPa (4600 psi)	C–2	19mm
INT. SLAB ON GRADE	30 MPa (4000 psi)	N	19mm

3. PORTLAND LIMESTONE CEMENT (PLC) SHALL MEET THE REQUIREMENTS OF CSA A3000 FOR LIMESTONE CEMENTS.
4. CONCRETE TESTING SHALL BE CARRIED OUT BY THE CONTRACTOR AND PAID FOR BY THE OWNER AND SHALL BE IN ACCORDANCE WITH CAN/CSA A23.1 AND A23.2. THE MINIMUM NUMBER OF TESTS PERFORMED SHALL BE AS PER CSA A23.2. ADDITIONAL TESTING SHALL BE PERFORMED AT THE DIRECTION OF THE STRUCTURAL ENGINEER. CONTRACTOR SHALL PROVIDE TESTING AGENCY WITH ADEQUATE NOTICE TO PROVIDE TESTING AS REQUIRED.
5. CHAMFER ALL EXPOSED EDGES OF CONCRETE WITH A 19mm (3/4") CHAMFER UNLESS NOTED OTHERWISE.
6. CONCRETE FINISHES SHALL BE IN ACCORDANCE WITH CAN/CSA A23.1 AND AS FOLLOWS UNLESS NOTED OTHERWISE:

INTERIOR SLABS;	TROWELED FINISH
EXTERIOR SLABS;	BROOM FINISH
WALLS (TYPICAL);	FILL ALL DEFECTS LARGER THAN 25mm (1") DIAMETER AND GRIND RIDGES FLUSH WITH SURROUNDING SURFACES
EXPOSED AGGREGATE;	SEE ARCHITECTURAL DRAWINGS AND SPECIFICATIONS

7. ALL CONCRETE CURING SHALL BE IN ACCORDANCE WITH CAN/CSA A23.1. SPECIAL PRECAUTIONS SHALL BE TAKEN PER CSA A23.1 FOR PLACING AND CURING CONCRETE AT OR ABOVE 27° C AND AT OR BELOW 5° C.
8. UNLESS NOTED OTHERWISE, OR REQUIRED FOR FIRE RESISTANCE RATING, ALL REINFORCING STEEL SHALL HAVE THE FOLLOWING CLEAR COVER DISTANCES:

CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH	75 mm (3")
EXTERIOR MEMBERS	40 mm (1.5")
INTERIOR BEAMS, GIRDERS, COLUMNS, AND PILES	30 mm (1.25")
INTERIOR SLABS, WALLS, JOISTS, SHELLS AND FOLDED PLATES	20 mm (0.75")

* IN ADDITION, COVER MUST BE AT LEAST 1.0x THE BAR DIAMETER FOR INTERIOR EXPOSURE, AND 1.5x THE BAR DIAMETER FOR EXTERIOR EXPOSURE

9. CONTROL JOINTS SHALL BE PROVIDED IN BOTH DIRECTIONS IN ALL SLABS–ON–GRADE AT A MAXIMUM SPACING OF 3660mm (12'–0") FOR UNREINFORCED SLABS AND 6100mm (20'–0") FOR REINFORCED SLABS, UNLESS NOTED OTHERWISE ON DRAWINGS.
10. WATER STOPS SHALL BE INSTALLED WHERE INDICATED, WITH ALL JOINTS WELDED, IN ACCORDANCE WITH THE MANUFACTURER'S WRITTEN INSTRUCTIONS. THE STOPS SHALL BE RIGIDLY TIED IN PLACE. DO NOT DISTORT OR PUNCTURE WATER STOP. DO NOT DISPLACE REINFORCING BAR DURING PLACEMENT.
11. JOINT FILLER SHALL BE INSTALLED IN ALL EXPANSION AND CONSTRUCTION JOINTS.
12. EMBEDDED PLATES AND ANCHOR BOLTS FOR STRUCTURAL STEEL SHALL BE SECURELY TIED OR FASTENED IN PLACE PRIOR TO POURING CONCRETE. ALL ANCHOR BOLTS SHALL BE LAID OUT USING A TEMPLATE. "WET DOWELING" OF ANCHOR BOLTS AND EMBEDDED PLATES IS NOT PERMITTED.

LIST OF ABBREVIATIONS

ALT	–––	ALTERNATE	LVL	–––	LAMINATED VENEER LUMBER
ARCH	–––	ARCHITECTURAL	LV	–––	LENGTH VARIES
BCE	–––	BOTTOM CHORD EXTENSION	MAX	–––	MAXIMUM
B/S	–––	BOTH SIDES	MECH	–––	MECHANICAL
BLL	–––	BOTTOM LOWER LAYER	MIN	–––	MINIMUM
BUL	–––	BOTTOM UPPER LAYER	NIC	–––	NOT IN CONTRACT
C/W	–––	COMPLETE WITH	NF	–––	NEAR FACE
℄	–––	CENTRE LINE	No	–––	NUMBER
CLR	–––	CLEAR	NTS	–––	NOT TO SCALE
CIP	–––	CAST IN PLACE	O/A	–––	OVERALL
CONC	–––	CONCRETE	o/c	–––	ON CENTRE
COL	–––	COLUMN	O/F	–––	OUTSIDE FACE
CONT	–––	CONTINUOUS	OPP	–––	OPPOSITE
CJ	–––	CONTROL JOINT	OWSJ	–––	OPEN WEB STEEL JOIST
CP	–––	COMPLETE PENETRATION	PL	–––	PLATE
DJ	–––	DRAG JOIST	PP	–––	PARTIAL PENETRATION
DP	–––	DEEP	PT	–––	PRESSURE TREATED (LUMBER)
DL	–––	DEAD LOAD	PSL	–––	PARALLEL STRAND LUMBER
DS	–––	DRAG STRUT	RD	–––	ROOF DRAIN
DT	–––	DRAG TRUSS	REINF	–––	REINFORCE(MENT)
DWG	–––	DRAWING	R/W	–––	REINFORCE WITH
E/E	–––	EACH END	SCL	–––	STRUCTURAL COMPOSITE LUMBER
E/F	–––	EACH FACE	SDL	–––	SUPERIMPOSED DEAD LOAD
E/S	–––	EACH SIDE	STIR	–––	STIRRUP
ELEC	–––	ELECTRICAL	STL	–––	STEEL
ELEV	–––	ELEVATION	SIM	–––	SIMILAR
EM	–––	EMBEDDED PLATE	S/W	–––	SHORT WAY
E/W	–––	EACH WAY	SWL	–––	SAFE WORKING LOAD
EXT	–––	EXTERIOR	THK	–––	THICK
(E)	–––	EXISTING	T&B	–––	TOP AND BOTTOM
FD	–––	FLOOR DRAIN	T&C	–––	TENSION AND COMPRESSION
FF	–––	FAR FACE	T&G	–––	TONGUE AND GROOVE
GALV	–––	GALVANIZED	TJ	–––	TIE JOIST
GT	–––	GIRDER TRUSS	THK	–––	THICK
H.1.E.	–––	HOOKED ONE END	TLL	–––	TOP LOWER LAYER
H.2.E.	–––	HOOKED TWO ENDS	TUL	–––	TOP UPPER LAYER
HORIZ	–––	HORIZONTAL	T.O.	–––	TOP OF
INT	–––	INTERIOR	TYP	–––	TYPICAL
LG	–––	LONG	U/S	–––	UNDERSIDE
LL	–––	LIVE LOAD	UNO	–––	UNLESS NOTED OTHERWISE
LLH	–––	LONG LEG HORIZONTAL	VERT	–––	VERTICAL
LLV	–––	LONG LEG VERTICAL	VIF	–––	VERIFY IN FIELD
L/W	–––	LONG WAY	W/	–––	WITH
			WP	–––	WORK POINT

SYMBOLS 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
WP WORK POINT
PL POINT LOAD

SECTION/ELEVATION SYMBOL
1 / S301 — SECTION/ELEVATION NUMBER, SHEET WHERE DRAWN
PLAN DETAIL SYMBOL
1 / S402 — DETAIL NUMBER, SHEET WHERE DRAWN
(Z1) ZONE TYPE
(CW1) CONCRETE WALL TYPE
(CP1) CONCRETE PIER TYPE
(ST1) SLAB THICKENING
(BP1) BASE PLATE TYPE
(SC1) STEEL COLUMN TYPE
1 REVISION NUMBER
100.000 TOP OF FOOTING ELEVATION (PLANS ONLY)
100.00 T.O. SLAB ELEVATION MARKER

STRUCTURAL DRAWING LIST

S101 GENERAL NOTES
S102 GENERAL NOTES AND TYPICAL DETAILS
S103 TYPICAL SHEARWALL DETAILS
S104 TYPICAL SHEARWALL DETAILS

S201 FOUNDATION PLAN PLANS
S202 MEZZANINE FRAMING PLAN

S301 SECTIONS AND DETAILS

STRUCTURAL DRAWING ISSUE RECORD

ISSUE No.	ISSUE DATE (YYYY.MM.DD)	ISSUED FOR	DRAWING NUMBER S101	S102	S201	S202	S301
01	2020.10.29	TENDER	●	●	●	●	●

ISSUES		
No.	DATE YYYY.MM.DD	ISSUED FOR
01	2020.10.29	TENDER

SUB CONSULTANT

ISSUED FOR TENDER

NOT FOR CONSTRUCTION

MEADOWOOD COMMUNITY CENTRE

1830 GALVIN PLACE, QUALICUM BEACH, BC

HEROLD ENGINEERING
3701 Shenton Rd, Nanaimo, BC V9T 2H1
Tel: 250–751–8558 Fax: 250–751–8559
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GENERAL NOTES

DESIGNED: JV	ENGINEER'S SEAL
DESIGN REVIEW	
DRAFTED: NW	
DRAFTING REVIEW	
PROJECT No.: 0837–052	CLIENT DRAWING No.: n/a
SCALE: AS SHOWN	PERMIT No.: n/a
HEL DRAWING No.: S101	REVISION: 01

DESTROY ALL DRAWINGS SHOWING PREVIOUS REVISION

File: H:\Projects\0837–052 Meadowood Community Centre\BUILDING– STRUCTURAL\04S Drawings\Structural\0837–052–S101.dwg Plot Time: Oct. 30, 20 3:01 PM User: nwhite

WOOD FRAME CONSTRUCTION HEL-029

1. ALL WOOD FRAMING, INCLUDING BRIDGING, NAILING AND OTHER DETAILS SHALL BE AS INDICATED ON THE STRUCTURAL DRAWINGS AND COMPLY WITH CAN/CSA-086 AND THE CURRENT BRITISH COLUMBIA BUILDING CODE.
2. ALL NAILS SHALL MEET ASTM F1667 REQUIREMENTS FOR ENGINEERED CONSTRUCTION NAILS.
3. WOOD SCREWS SHALL MEET THE REQUIREMENTS OF ASME B18.61.
4. BOLTS SHALL HAVE PRE-DRILLED HOLES 1-2mm LARGER THAN THE BOLT DIAMETER.
5. LAG SCREWS SHALL CONFORM TO CSA B34. PRE-DRILLED HOLES FOR LAG SCREWS MAY BE LUBRICATED WITH SOAP OR OTHER NON-PETROLEUM BASED LUBRICANT.
6. ALL CONNECTORS AND FRAMING ANCHORS SPECIFIED ON THE DRAWINGS ARE BY SIMPSON STRONG-TIE, UNLESS NOTED OTHERWISE. ALTERNATES MUST BE PRE-APPROVED IN WRITING BY THE ENGINEER OF RECORD PRIOR TO ORDERING. INSTALLATION OF COMPONENTS AND ASSEMBLIES, INCLUDING STRONG-WALL SHEAR WALLS AND STRONG FRAMES, SHALL BE IN ACCORDANCE WITH THE MANUFACTURERS WRITTEN INSTRUCTIONS AND/OR SHOP DRAWINGS.
7. THE USE OF FINGER JOINTED WOOD SHALL BE RESTRICTED TO VERTICAL MEMBERS UNLESS PRIOR APPROVAL IS GIVEN BY THE ENGINEER OF RECORD. FINGER JOINTED WOOD SHALL BE GRADE STAMPED IN ACCORDANCE WITH NLGA SPS 1
8. SHEAR WALLS SHALL BE CONSTRUCTED AS DETAILED ON THE DRAWINGS. ALL COUPLERS FOR HOLD DOWN RODS SHALL HAVE MIN 125% CAPACITY OF CONNECTING RODS AND SHALL HAVE "WITNESS" HOLES AS PER SIMPSON STRONG-TIE CNW COUPLER NUTS OR EQUIVALENT.
9. FLOOR SHEATHING AND ROOF SHEATHING TO BE AS DETAILED ON THE DRAWINGS. PANEL EDGE NAILING PATTERN SHALL ALSO APPLY TO DRAG STRUTS AND DIAPHRAGM EDGES.
10. THE FOLLOWING MINIMUM SHANK DIAMETERS SHALL APPLY TO NAILS SPECIFIED ON THE STRUCTURAL DRAWINGS. IN PARTICULAR SHEAR WALL SHEATHING, AND FLOOR AND ROOF DIAPHRAGMS:

NAIL SIZE	MINIMUM SHANK DIAMETER
57mm (2.25")	2.52 mm (0.099")
65mm (2.50")	3.33 mm (0.131")
76mm (3.00")	3.76 mm (0.148")
83mm (3.25")	3.76 mm (0.148")
89mm (3.50")	4.12 mm (0.162")

11. DIAPHRAGM AND SHEARWALL NAILS SHALL BE FULL HEADED NAILS.
12. DIAPHRAGM AND SHEARWALL NAILS SHALL NOT BE LESS THAN 10mm (⅜") FROM THE EDGE OF THE PANEL OR EDGE OF THE FRAMING MEMBER.
13. DIAPHRAGM AND SHEARWALL NAILING SHALL NOT BE OVER-DRIVEN BY MORE THAN THE FOLLOWING:

PANEL THICKNESS	OVER-DRIVE
9.5mm (⅜")	1.4mm (0.056")
12.5mm (½")	1.9mm (0.075")
15.9mm (⅝")	2.4mm (0.094")
19.0mm (¾")	2.9mm (0.113")

14. ALL STRUCTURAL LUMBER SHALL COMPLY WITH CSA-O141 AND SHALL BE KILN DRIED TO MAXIMUM 19% MOISTURE CONTENT PRIOR TO INSTALLATION.
15. ALL WOOD FRAMING TO BE SPF#2 OR BETTER UNLESS NOTED OTHERWISE, BEARING THE GRADE STAMP OF AN AGENCY CERTIFIED BY THE CANADIAN LUMBER STANDARDS ACCREDITATION BOARD.
16. PLYWOOD FOR ROOFS, FLOORS AND WALLS SHALL BE EXTERIOR GRADE DOUGLAS FIR PLYWOOD TO CSA-O121 OR CANADIAN SOFTWOOD PLYWOOD TO CSA-O151. OSB MAY BE SUBSTITUTED FOR PLYWOOD ON INTERIOR SHEAR WALLS ONLY. OSB SHALL BE EXTERIOR GRADE CONFORMING TO CSA O325. SUBSTITUTION MUST BE APPROVED BY THE PROJECT ENGINEER IN WRITING.

PLYWOOD THICKNESS	EQUIVALENT OSB MARK
⅜"	2R24
½"	2R32 /2F16 OR 1F16
⅝"	2R40 /2F20

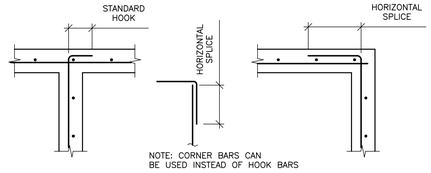
17. PLYWOOD PANELS FOR FLOORS AND ROOFS SHALL BE LAID WITH A HALF-SHEET STAGGER AND BE FASTENED TO SUPPORTS WITH 65mm (2½") COMMON NAILS AT 150mm o/c (6") ALONG PANEL EDGES AND 300mm (12") o/c ALONG INTERMEDIATE SUPPORTS UNLESS NOTED OTHERWISE ON THE PLANS. THICKNESS AS NOTED ON THE DRAWINGS.
18. PLYWOOD PANELS FOR WALLS SHALL BE LAID WITH A HALF-SHEET STAGGER AND BE FASTENED TO SUPPORTS WITH 65mm (2½") COMMON NAILS AT 75mm o/c (3") ALONG PANEL EDGES FOR BLOCKED EDGES, 150mm o/c (6") FOR UNBLOCKED EDGES, AND 300mm (12") o/c ALONG INTERMEDIATE SUPPORTS UNLESS NOTED OTHERWISE ON THE PLANS. PLYWOOD THICKNESS AS NOTED ON THE DRAWINGS.
19. SHEARWALL PANELS SHALL NOT BE GLUED IN PLACE UNLESS PRIOR APPROVAL IS RECEIVED FROM THE ENGINEER OF RECORD.
20. PLYWOOD FOR DIAPHRAGMS AND SHEARWALLS SHALL HAVE A 2mm GAP BETWEEN PANELS.
21. EXTERIOR WALLS TALLER THAN 2400mm (8'-0") SHALL HAVE ALL PANEL EDGES BLOCKED WITH 38x89 (2x4) ON THE FLAT.
22. 'ACQ' (AMINE COPPER QUAT) PRESSURE TREATED WOOD SHALL BE USED WHERE SPECIFIED ON THE DRAWINGS, WHERE TIMBER COMES IN DIRECT CONTACT WITH CONCRETE OR MASONRY, AND WHERE IT IS EXPOSED TO THE WEATHER. CUT SURFACES OF TREATED TIMBER ARE TO RECEIVE A BRUSH APPLIED COAT OF COLOURED PRESERVATIVE. WORK SHALL BE IN ACCORDANCE WITH CSA-080 SERIES-08. 'CCA' (CHROMATED COPPER ARSENATE) IS NOT TO BE USED. TREATED WOOD PRODUCTS SHALL BEAR THE STAMP OF THE CANADIAN WOOD PRESERVERS BUREAU (CWPB).
23. FASTENERS FOR USE IN ACQ TREATED TIMBER SHALL BE HOT DIP GALVANIZED IN ACCORDANCE WITH ASTM A653, CONNECTORS SHALL HAVE A G185 GALVANIZED DESIGNATION OR MEET ASTM A123. ALTERNATIVELY ALL METAL CONNECTORS INCLUDING NAILS, BOLTS, HANGERS, HOLD-DOWNS, STEEL STRAPS, POST BASES, ETC. SHALL BE STAINLESS STEEL TYPES 304 OR 316. REFER ALSO TO THE PRESERVATIVE MANUFACTURER'S WRITTEN RECOMMENDATIONS.
24. WALL STUDS SHALL NOT BE NOTCHED, DRILLED OR OTHERWISE DAMAGED SO THAT THE UNDAMAGED PORTION OF THE STUD IS LESS THAN TWO-THIRDS OF THE DEPTH OF THE STUD IF THE STUD IS LOADBEARING OR 40mm (1½") IF THE STUD IS NON-BEARING, UNLESS THE WEAKENED STUDS ARE SUITABLY REINFORCED. SUCH REINFORCEMENT SHALL BE APPROVED BY THE PROJECT ENGINEER PRIOR TO THE REINFORCING BEING CARRIED OUT.
25. TOP AND BOTTOM PLATES IN WALLS SHALL NOT BE NOTCHED, DRILLED OR OTHERWISE DAMAGED SO THAT THE UNDAMAGED WIDTH IS LESS THAN 50mm (2"), UNLESS THE WEAKENED PLATES ARE SUITABLY REINFORCED. SUCH REINFORCEMENT SHALL BE APPROVED BY THE PROJECT ENGINEER PRIOR TO THE REINFORCING BEING CARRIED OUT. IF PLATES ARE TO BE USED AS DRAG STRUTS SEE DETAILS.
26. ALL POSTS, INCLUDING 2-PLY POSTS, ARE TO BE CARRIED DOWN TO BEARING AND SOLID BLOCKED AT EACH FLOOR LEVEL.
27. EXCEPT AT SHEARWALLS, ANCHOR BOLTS SHALL BE 16ø x 200 LONG @ 1200o/c (⅝"ø x 8" @ 48"o/c) MAXIMUM. LOCATE BOLTS WITHIN 300mm OF EACH WALL END AND EACH SIDE OF OPENINGS WHICH EXTEND TO THE TOP OF CONCRETE. REFER TO SHEARWALL SCHEDULE FOR SHEARWALL ANCHOR BOLTS.
28. ALL BOLTS USED IN WOOD FRAME CONSTRUCTION SHALL CONFORM TO ASTM A307 OR SAE J429 GRADE 2. THREADED ROD SHALL BE TO ASTM F1554 GRADE 36 (36 ksi YIELD STRENGTH). USE OF OTHER BOLTS MUST BE PRE-APPROVED BY THE ENGINEER OF RECORD.

STRUCTURAL COMPOSITE LUMBER (SCL) HEL-033

1. ALL SCL MEMBERS SHALL BE DESIGNED AND MANUFACTURED TO ASTM D5456
2. LAMINATED VENEER LUMBER (LVL) AND PARALLEL STRAND LUMBER (PSL) SHALL CONFORM TO CAN/CSA-086.
3. THE MANUFACTURER SHALL SUBMIT SHOP DRAWINGS AS SPECIFIED UNDER 'SUBMITTALS' TO THE PROJECT ENGINEER FOR REVIEW PRIOR TO FABRICATION. THE MANUFACTURER 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 FRAMING AS BEING COMPLETE.
4. STRUCTURAL COMPOSITE LUMBER (SCL) MEMBERS SHALL BE INSTALLED ACCORDING TO THE MANUFACTURER'S INSTRUCTIONS. MEMBERS SHALL BE PROTECTED FROM MOISTURE AS PER THE MANUFACTURER'S WRITTEN REQUIREMENTS WHEN STORED ON SITE AND AFTER INSTALLATION.
5. LVL MEMBERS SHALL BE GRADE 1.9E UNLESS NOTED OTHERWISE. BEAMS UP TO 3 PLY WIDE SHALL BE NAILED TOGETHER AND 4 PLY BEAMS BOLTED TOGETHER IN ACCORDANCE WITH THE MANUFACTURER'S WRITTEN INSTRUCTIONS.
6. PSL MEMBERS SHALL BE GRADE 2.0E UNLESS NOTED OTHERWISE.
7. DRILLING, NOTCHING AND CUTTING OF MEMBERS IS NOT PERMITTED UNLESS APPROVED BY THE PROJECT ENGINEER. SUCH APPROVAL SHOULD BE REQUESTED WITH THE SHOP DRAWING SUBMISSION.
8. SUPPLIERS OF FRAMING MATERIALS USING SYSTEMS NOT CALLED FOR ON THE STRUCTURAL DRAWINGS SHALL RECEIVE APPROVAL FROM THE STRUCTURAL ENGINEER PRIOR TO SHOP DRAWING PRODUCTION. THE APPLICATION SHALL INCLUDE THE PRODUCTS TECHNICAL LITERATURE WHICH SHALL BE SUFFICIENT FOR THE ENGINEER TO DETERMINE THE SYSTEM AND PRODUCT SUITABILITY ON THE PROJECT.

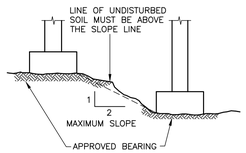
PRE-ENGINEERED WOOD JOISTS HEL-030

1. DESIGN OF PREFABRICATED JOISTS SHALL BE CARRIED OUT IN ACCORDANCE WITH CAN/CSA-086.
2. PREFABRICATED JOISTS SHALL MEET THE REQUIREMENTS OF AND BE DESIGNED TO ASTM D-5055. ADHESIVES USED IN THEIR MANUFACTURE SHALL MEET CSA O112.6 OR CSA O112.7. ALTERNATE ADHESIVES MEETING CSA O112.9 OR CSA O112.10 MAY BE USED.
3. UNDER NO CIRCUMSTANCES SHALL FLANGES OF PREFABRICATED JOISTS BE NOTCHED OR CUT.
4. WEB OPENINGS, BEARING LENGTHS AND WEB STIFFENER REQUIREMENTS ARE THE RESPONSIBILITY OF THE MANUFACTURER.
5. FABRICATION OF PREFABRICATED JOISTS SHALL BE CARRIED OUT IN ACCORDANCE WITH CAN/CSA 3-086 AND THE REVIEWED SHOP DRAWINGS.
6. PREFABRICATED JOISTS 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.
7. TEMPORARY HORIZONTAL AND VERTICAL BRACING OF JOISTS SHALL BE IMPLEMENTED UNTIL PERMANENT BRACING AND DECKING ARE INSTALLED.
8. THE PREFABRICATED JOIST MANUFACTURER SHALL ACCOMMODATE ALL OPENINGS IN ACCORDANCE WITH THE ARCHITECTURAL PLANS WITH APPROPRIATE GIRDERS. PROVIDE FOR ALL ARCHITECTURAL, MECHANICAL, AND ELECTRICAL EQUIPMENT SUPPORTED BY THE ROOF OR FLOORS. REFER TO THE DRAWINGS OF THESE DISCIPLINES.
9. THE JOIST MANUFACTURER SHALL SUBMIT SHOP DRAWINGS AS SPECIFIED UNDER 'SUBMITTALS' TO THE PROJECT ENGINEER FOR REVIEW PRIOR TO FABRICATION. THE MANUFACTURER SHALL INSPECT THE ERECTED JOISTS TO VERIFY CORRECT INSTALLATION AND PROVIDE THE STRUCTURAL ENGINEER WITH WRITTEN CONFIRMATION OF SUCH PRIOR TO THE STRUCTURAL ENGINEER CERTIFYING THE FRAMING AS BEING COMPLETE.
10. LATERAL SPLAY OF JOISTS TO BE LIMITED TO 13mm (½") FROM TRUE ALIGNMENT.
11. DO NOT STACK PLYWOOD OR OTHER MATERIALS ON JOISTS BEFORE TEMPORARY BRACING OR SHEATHING HAS BEEN INSTALLED. UNDER NO CIRCUMSTANCES ARE APPLIED CONSTRUCTION LOADS TO EXCEED DESIGN LOADS.
12. LUMBER USED IN THE FABRICATION OF THE JOISTS IS TO BE SPF#2 OR BETTER COMPLYING WITH CAN/CSA-O141 AND NLGA STANDARD RULES FOR CANADIAN LUMBER.
13. DO NOT CUT OR REMOVE JOIST MATERIAL WITHOUT THE PRIOR WRITTEN APPROVAL OF THE SPECIALTY STRUCTURAL ENGINEER.
14. THE JOIST MANUFACTURER SHALL PROVIDE FULL-HEIGHT BLOCKING BETWEEN JOISTS AT ALL EXTERIOR WALLS AND OVER SHEAR WALLS PERPENDICULAR TO JOIST SPANS. JOISTS SHALL BE ALIGNED OVER SHEAR WALLS WHEN SHEAR WALLS RUN PARALLEL TO JOISTS TO FACILITATE CONNECTION BETWEEN DIAPHRAGM AND SHEAR WALL. CHECK THE DRAWINGS FOR OTHER SIMILAR LOCATIONS.



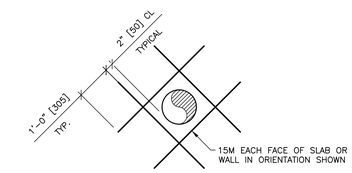
TYPICAL WALL REINFORCING AT CORNERS

NOT TO SCALE

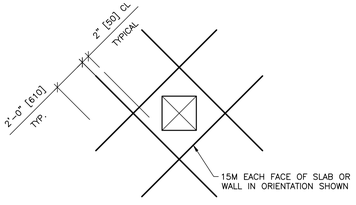


TYPICAL ADJACENT FOOTINGS

NOT TO SCALE



CIRCULAR

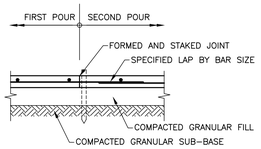


RECTANGULAR

FOR OPENINGS UP TO 24"x24"

TYPICAL REINFORCING AROUND OPENINGS

NOT TO SCALE

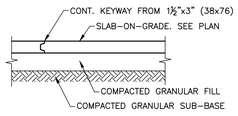


NOTE; COAT EDGE OF FIRST SLAB POUR WITH CURING COMPOUND PRIOR TO SECOND POUR.

REINFORCED SLAB

TYPICAL SLAB-ON-GRADE CONSTRUCTION JOINT

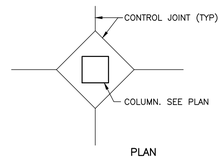
NOT TO SCALE



UNREINFORCED SLAB

TYPICAL SLAB-ON-GRADE CONSTRUCTION JOINT

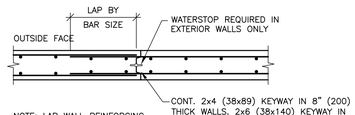
NOT TO SCALE



PLAN

TYPICAL CONTROL JOINTS AT COLUMN

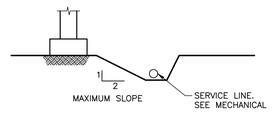
NOT TO SCALE



REFER TO ARCHITECTURAL DRAWINGS FOR WATERPROOFING SPECIFICATIONS AND GEOTECHNICAL REPORT FOR BACKFILL REQUIREMENTS.

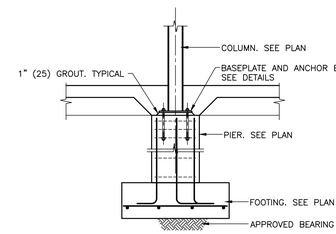
TYPICAL WALL CONSTRUCTION JOINT

NOT TO SCALE



TYPICAL SERVICE TRENCH

NOT TO SCALE

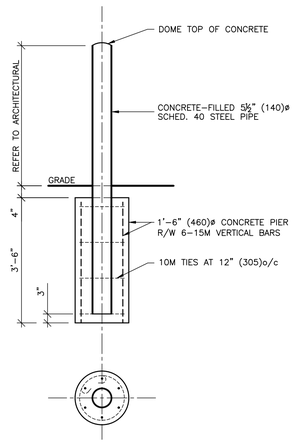


DETAIL WITH PEDESTAL

AT INTERIOR COLUMN

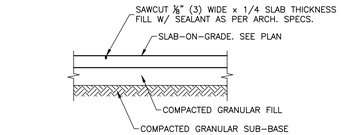
TYPICAL PAD FOOTIING DETAIL

NOT TO SCALE



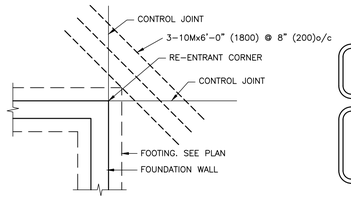
TYPICAL BOLLARD DETAIL

NOT TO SCALE



TYPICAL SLAB-ON-GRADE CONTROL JOINT

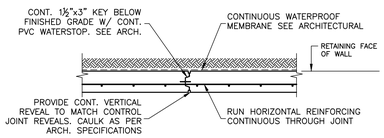
NOT TO SCALE



AT RE-ENTRANT CORNER

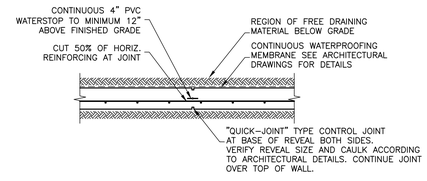
TYPICAL CONTROL JOINT

NOT TO SCALE



FOUNDATION WALL CONSTRUCTION JOINT

1/2"=1'-0"

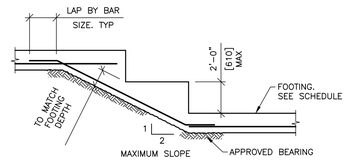


– FOR EXTERIOR WALLS BELOW GRADE AND EXTERIOR WALLS EXPOSED TO WEATHER ABOVE GRADE

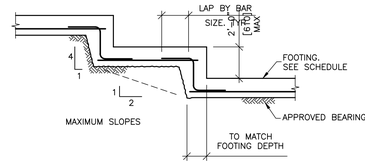
– SPACE AT 20'-0" MAXIMUM UNLESS NOTED OTHERWISE ON DRAWINGS.

FOUNDATION WALL CONTROL JOINT

1/2"=1'-0"



OPTION 2



OPTION 1

TYPICAL STEPPED FOOTING DETAIL

NOT TO SCALE

ISSUES

No.	DATE YYYY.MM.DD	ISSUED FOR
01	2020.10.29	TENDER

SUB CONSULTANT

ISSUED FOR TENDER

NOT FOR CONSTRUCTION

MEADOWOOD COMMUNITY CENTRE

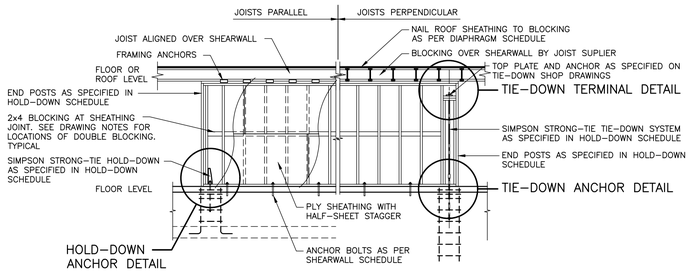
1830 GALVIN PLACE, QUALICUM BEACH, BC

HEROLD ENGINEERING
3701 Shenton Rd, Nanaimo, BC V9T 2H1
Tel: 250-751-8558 Fax: 250-751-8559
Email: mail@heroldengineering.com

GENERAL NOTES & TYPICAL DETAILS

DESIGNED JV	ENGINEER'S SEAL
DESIGN REVIEW	
DRAFTED NW	
DRAFTING REVIEW	
PROJECT No. 0837-052	CLIENT DRAWING No. n/a
SCALE AS SHOWN	PERMIT No. n/a
HEL DRAWING No. S102	REVISION 01

DESTROY ALL DRAWINGS SHOWING PREVIOUS REVISION

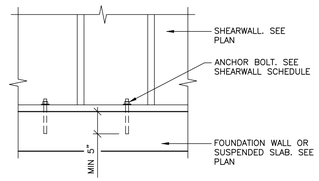


SHEARWALL KEY ELEVATION

NOT TO SCALE

DRAWING NOTES

1. DETAILS ON THIS SHEET SHOW CRITICAL CONNECTIONS TO TRANSFER LOADS THROUGH THE BUILDING. ANY VARIATION FROM THESE DETAILS MUST RECEIVE APPROVAL FROM THE PROJECT ENGINEER PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DESIGN AND REMEDIATION IF FRAMING DOES NOT CONFORM TO THESE DETAILS,
2. SEE FRAMING PLANS FOR SHEAR WALL TYPES AND LOCATIONS,
3. PLACING PLYWOOD SHEETS VERTICALLY IS ACCEPTABLE,
4. NO PANEL JOINTS ARE TO OCCUR AT END POSTS,
5. SHEATHING TO BE D.FIR PLYWOOD OR OSB. SEE GENERAL NOTES FOR GRADE. OSB MAY ONLY BE USED ON INTERIOR SHEAR WALLS IN ACCORDANCE WITH THE GENERAL NOTES.
6. NAIL SPACING AT ALL PANEL EDGES IS TO BE AS PER THE SHEAR WALL SCHEDULE
7. SHEAR WALL INTERMEDIATE SUPPORT NAILS TO BE THE SAME AS EDGE NAILS BUT @ 12" o/c
8. FOR 2½" NAILS @ 2" o/c, AND 3" NAILS AT ANY SPACING, PROVIDE DOUBLE BLOCKING @ PANEL EDGES, TYPICAL.
9. 2½" NAILS TO BE 0.131" DIAMETER; 3" NAILS TO BE 0.148" DIAMETER.
10. PLACE PLYWOOD FOR SINGLE SIDED WALLS ON SAME SIDE AS SYMBOL ON PLAN
11. SHEATHING AND BLOCKING FOR DOUBLE SIDED SHEAR WALLS ARE SHOWN WITH BROKEN LINES. NAILING AND FRAMING ANCHORS SPECIFIED APPLY TO BOTH SIDES OF THE WALL.

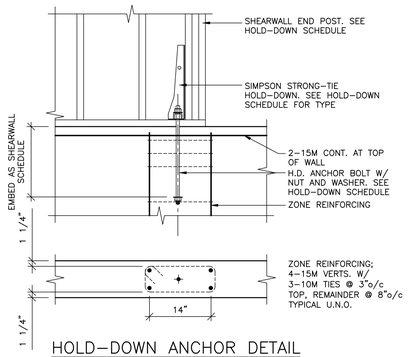


NOTE; ANCHOR BOLTS MAY BE CAST INTO THE CONCRETE OR DRILLED AND GROUTED LATER. IF DRILLED USE EPOXY ADHESIVE. MECHANICAL ANCHORS ARE NOT PERMITTED WITHOUT PRIOR WRITTEN PERMISSION FROM THE PROJECT ENGINEER. SEE GENERAL NOTES FOR ANCHOR AND ADHESIVE TYPE.

FOR SHEARWALLS WITH HOLD-DOWNS

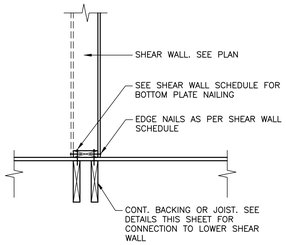
TYPICAL ANCHOR BOLT

SCALE 3/4"=1'-0"



HOLD-DOWN ANCHOR DETAIL

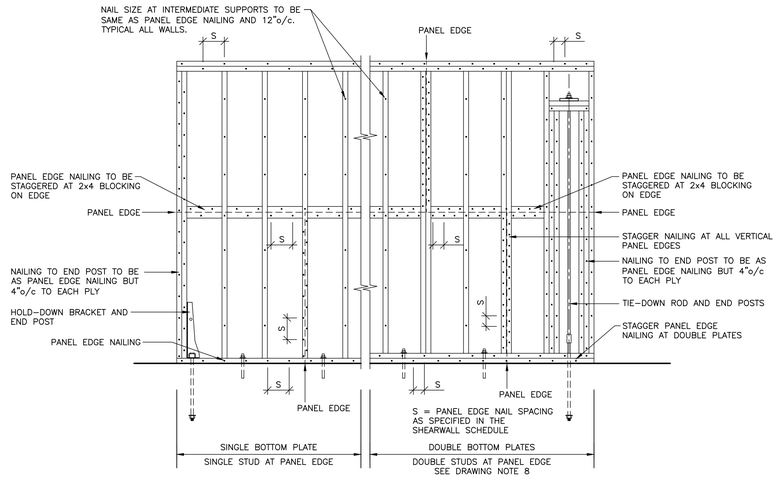
SCALE 3/4"=1'-0"



SHEAR WALLS TO FLOORS WITHOUT CONCRETE TOPPING

TYPICAL WALL PLATE NAILING

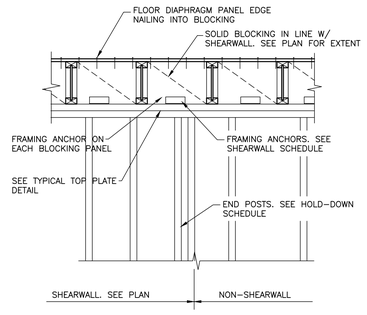
SCALE 3/4"=1'-0"



FOR SHEARWALL SHEATHING

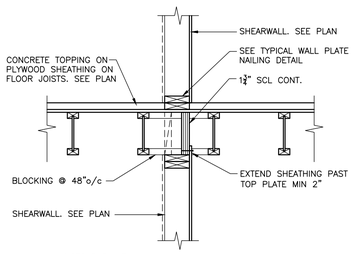
SHEARWALL NAILING PATTERNS

NOT TO SCALE



SHEARWALL DRAG STRUT DETAIL

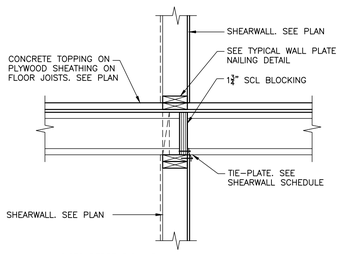
SCALE 3/4"=1'-0"



JOISTS PARALLEL

INTERIOR SHEARWALL

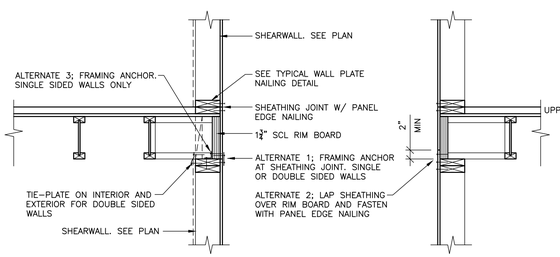
SCALE 3/4"=1'-0"



JOISTS PERPENDICULAR

INTERIOR SHEARWALL

SCALE 3/4"=1'-0"

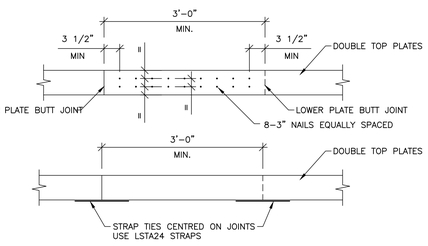


SHEARWALL TO FLOOR OR ROOF

ALTERNATE CONNECTIONS

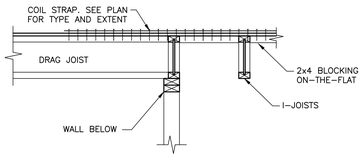
SCALE 3/4"=1'-0"

NOTE: THESE ALTERNATES CAN BE APPLIED TO ANY DETAIL SHOWING FLOOR OR ROOF CONNECTIONS TO A SHEARWALL.



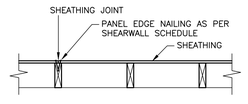
TOP PLATE SPLICE DETAIL

NOT TO SCALE



TYPICAL COIL STRAP DETAIL

NTS



2½" OR SHORTER NAILS AT 3"o/c AND MORE

FOR SHEARWALLS

PANEL JOINTS IN SINGLE SIDED WALL

SCALE 3/4"= 1'-0"

ISSUES

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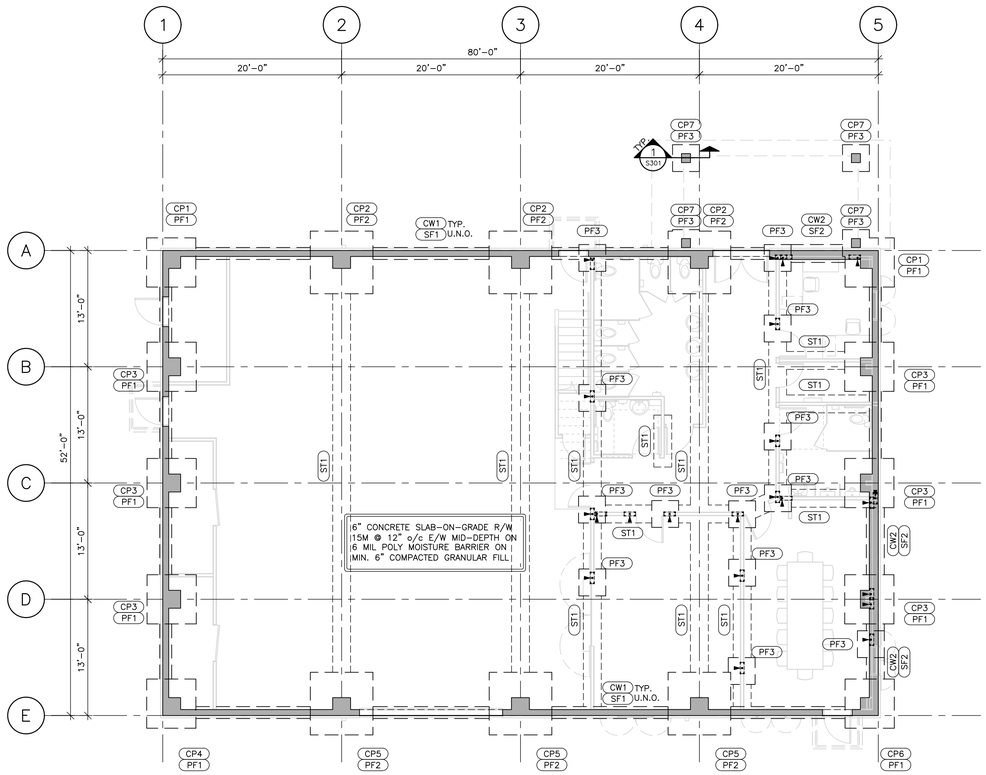
TYPICAL SHEARWALL DETAILS

DESIGNED JV	ENGINEER'S SEAL
DESIGN REVIEW	
DRAFTED NW	
DRAFTING REVIEW	
PROJECT No. 0837-052	CLIENT DRAWING No. n/a
SCALE AS SHOWN	PERMIT No. n/a
HEL DRAWING No. S103	REVISION 01

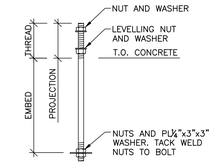
DESTROY ALL DRAWINGS SHOWING PREVIOUS REVISION



FOUNDATION PLAN
1/8" = 1'-0"

NOTE: STRUCTURAL SEISMIC SEPARATION OF 5" MIN. MUST BE MAINTAINED BETWEEN MEZZANINE AND STEEL BUILDING

NOTE:
THESE PLANS HAVE BEEN PREPARED FROM ARCHITECTURAL BASE PLANS AND PRE-ENGINEERED STEEL BUILDING DRAWINGS. ALL DIMENSIONS ARE TO BE CONFIRMED WITH ARCHITECTURAL AND PRE-ENGINEERED STEEL BUILDING DRAWINGS MARKED "ISSUED FOR CONSTRUCTION". ANY DISCREPANCIES ARE TO BE REPORTED TO THE ENGINEER PRIOR TO CONSTRUCTION FOR EVALUATION.



ANCHOR BOLT DETAIL
NOT TO SCALE

CONCRETE WALL SCHEDULE

MARK	WIDTH	REINFORCING	LOCATION
CW1	8"	15M @ 16" o/c E/W	CENTRED
CW2	12"	15M @ 16" o/c E/W	BOTH FACES

NOTES: ALL UNLABELLED CONCRETE WALLS ARE CW1.

ANCHOR BOLT SCHEDULE

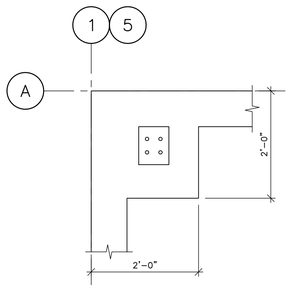
DIAMETER	MINIMUM EMBED	PROJECTION
1/2"	AS PER DRAWING	4"
3/4"	16"	4"
1 1/4"	24"	4"
2"	44"	4"

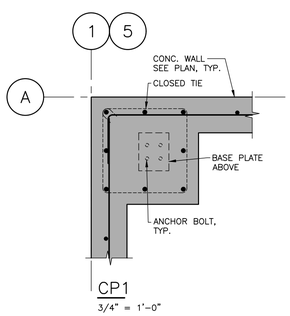
NOTES: ALL BOLTS TO HAVE NUT AND WASHER TACK WELDED TO BOTTOM END

FOOTING SCHEDULE

MARK	SIZE	REINFORCEMENT	MIN. FTG DEPTH *
PF1	5'-6"x5'-6"x1'-0"	6-20M E/W T&B	4'-0"
PF2	7'-0"x7'-0"x1'-2"	7-20M E/W T&B	4'-0"
PF3	3'-0"x3'-0"x1'-0"	3-15M E/W T&B	2'-0"
SF1	1'-4"x8" DP	2-15M E/W BOT.	2'-0"
SF2	2'-0"x1'-0" DP	3-15M E/W BOT.	2'-0"
ST1	2'-0"x1'-0" DP	2-20M CONT. LAP BARS 48"	-

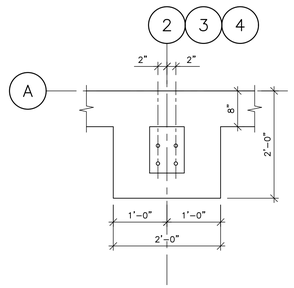
1. MINIMUM FOOTING DEPTHS ARE MEASURED TO BOTTOM OF FOOTING FROM FINISHED GRADE FOR EXTERIOR FOOTINGS AND FROM TOP OF SLAB ON GRADE FOR INTERIOR FOOTINGS. WHERE GRADE IS HIGHER THAN THE SLAB, MEASURE FROM THE TOP OF THE SLAB TO THE BOTTOM OF THE EXTERIOR FOOTING.
2. ANCHOR BOLTS AND EMBEDDED ITEMS ARE NOT TO EXTEND INTO FOOTINGS UNLESS DETAILED OTHERWISE. LOWER FOOTINGS IF REQUIRED TO HAVE THESE ITEMS COMPLETELY WITHIN PIERS OR FOUNDATION WALLS.
3. ALL UNLABELLED STRIP FOOTINGS ARE SF1

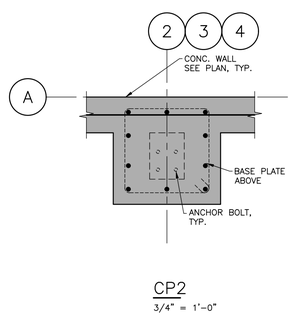




CP1
3/4" = 1'-0"

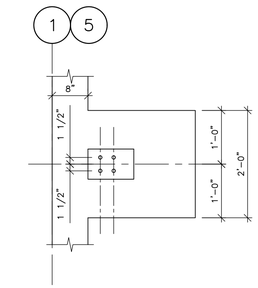
8-20M VERTS.
3-10M CLOSED TIES @ 3" o/c TOP
REMAINDER @ 8" o/c

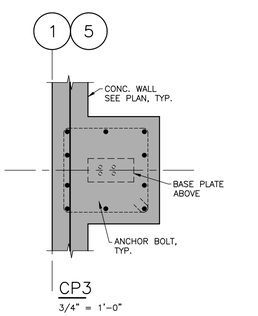




CP2
3/4" = 1'-0"

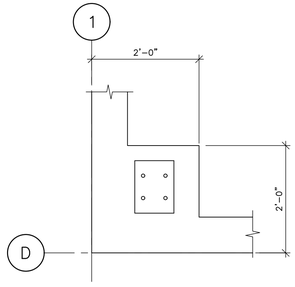
10-20M VERTS.
3-10M CLOSED TIES @ 3" o/c TOP
REMAINDER @ 8" o/c

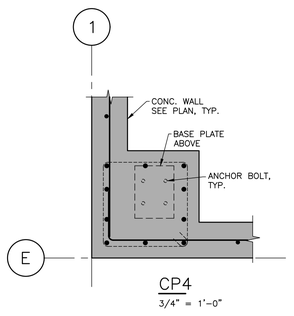




CP3
3/4" = 1'-0"

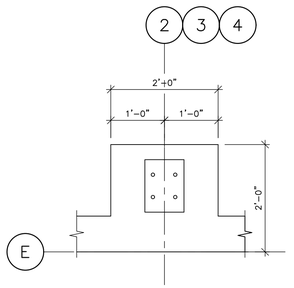
6-20M VERTS.
3-10M CLOSED TIES @ 3" o/c TOP
REMAINDER @ 8" o/c

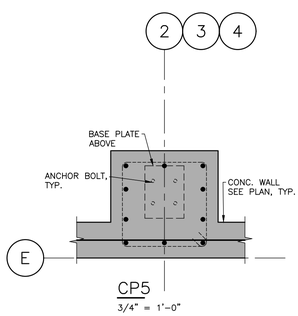




CP4
3/4" = 1'-0"

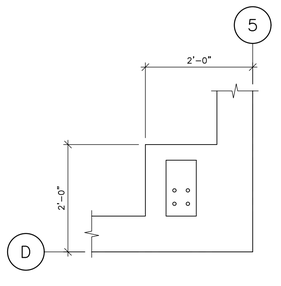
10-20M VERTS.
3-10M CLOSED TIES @ 3" o/c TOP
REMAINDER @ 8" o/c

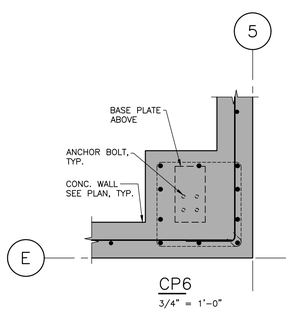




CP5
3/4" = 1'-0"

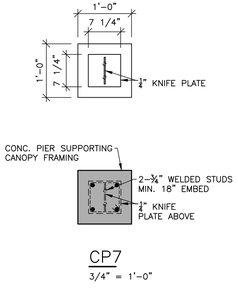
10-20M VERTS.
3-10M CLOSED TIES @ 3" o/c TOP
REMAINDER @ 8" o/c





CP6
3/4" = 1'-0"

10-20M VERTS.
3-10M CLOSED TIES @ 3" o/c TOP
REMAINDER @ 8" o/c



CP7
3/4" = 1'-0"

4-15M VERTS.
3-10M CLOSED TIES @ 3" o/c TOP
REMAINDER @ 10" o/c

ISSUES

No.	DATE YYYY.MM.DD	ISSUED FOR
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SUB CONSULTANT

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HEROLD ENGINEERING
3701 Shenton Rd, Nanaimo, BC V9T 2H1
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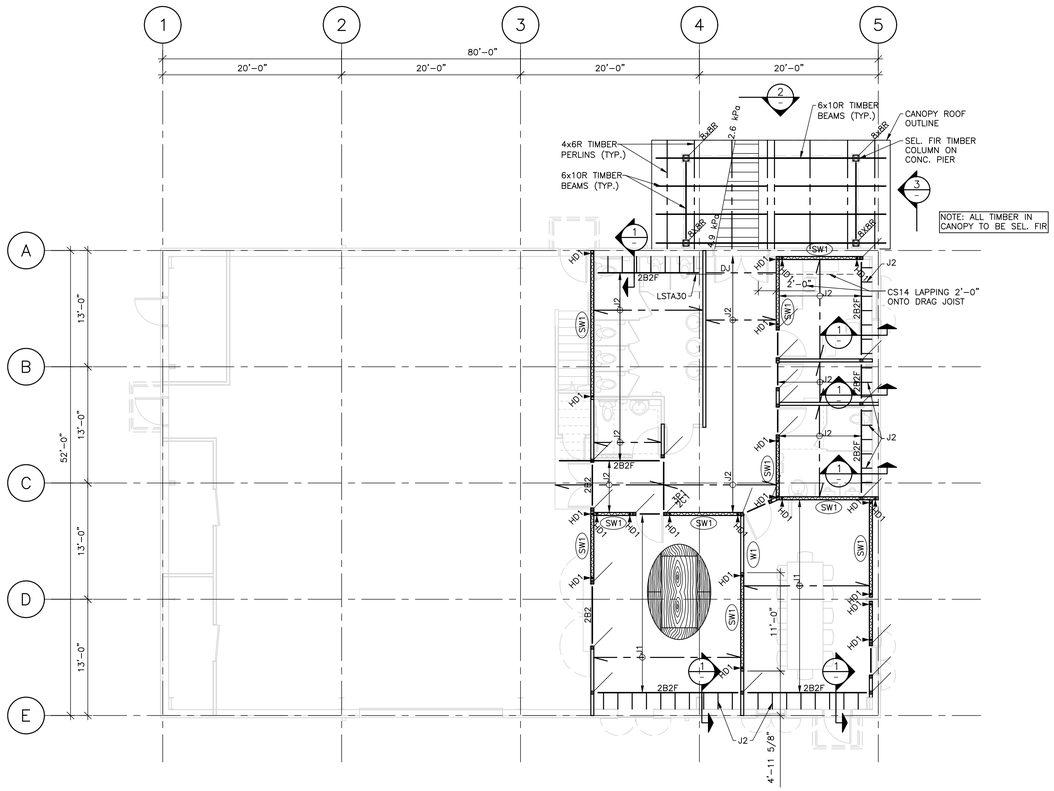
FOUNDATION PLAN

DESIGNED JV	ENGINEER'S SEAL
DESIGN REVIEW	
DRAFTED NW	
DRAFTING REVIEW	
PROJECT No. 0837-052	CLIENT DRAWING No. n/a
SCALE AS SHOWN	PERMIT No. n/a
HEL DRAWING No. S201	REVISION 01

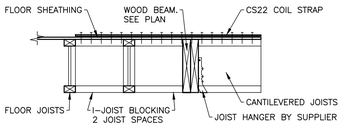
DESTROY ALL DRAWINGS SHOWING PREVIOUS REVISION



MEZZANINE & CANOPY FRAMING PLAN

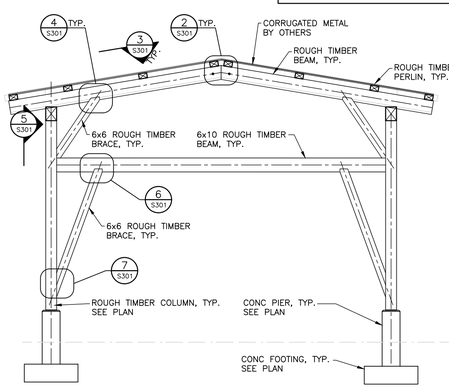
1/8" = 1'-0"

NOTE: STRUCTURAL SEISMIC SEPARATION OF 5" MIN. MUST BE MAINTAINED BETWEEN MEZZANINE AND STEEL BUILDING

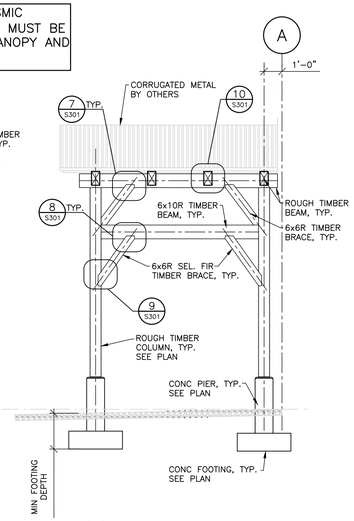


1 — SECTION
3/4" = 1'-0"

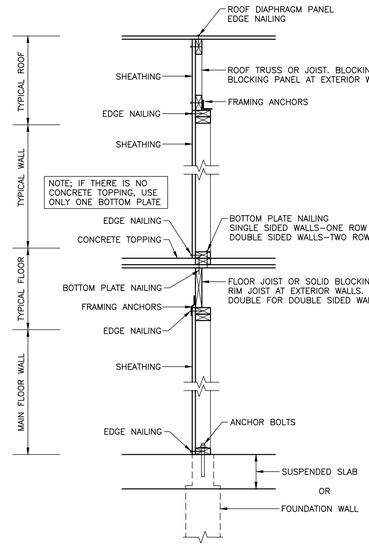
NOTE: STRUCTURAL SEISMIC SEPARATION OF 7" MIN. MUST BE MAINTAINED BETWEEN CANOPY AND STEEL BUILDING



2 — CANOPY FRONT/BACK ELEVATION
1/4" = 1'-0"



3 — CANOPY SIDE ELEVATION
1/4" = 1'-0"



SHEARWALL KEY SECTION NOT TO SCALE

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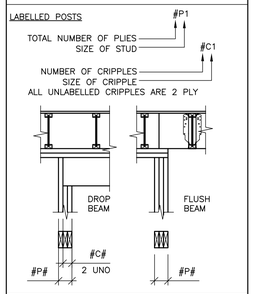
POST SCHEDULE

POST TYPE	SIZE	CRIPPLE TYPE
P1	2x4 SPF #1/#2	C1

POST LEGEND

UNLABELLED POSTS TO BE 2 PLY; 1 STUD & 1 CRIPPLE FOR DROPPED BEAMS

LABELLED POSTS

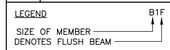


NOTE: GRAVITY POSTS SPECIFIED HERE AND ON PLAN ARE IN ADDITION TO SHEARWALL POSTS

WOOD BEAM SCHEDULE

TYPE	SIZE
B1	2x10 SPF #1/#2
B2	1¾x11⅞ SCL 2.0E

LEGEND



NOTES:
1. ALL BEAMS DROPPED U.N.O.
2. SCL GRADE TO BE 2.0E U.N.O.
3. MULTI PLY SCL NOT ALLOWED UNLESS APPROVED BY ENGINEER
4. ALL UNLABELLED BEAMS ARE 2B1

JOIST SCHEDULE

TYPE	SIZE
J1	11⅞" I-JOIST @ 12" o/c
J2	11⅞" I-JOIST @ 19.2" o/c

NOTES:

WALL SCHEDULE

TYPE	SIZE
W1	2x4 @ 12" o/c SPF #1/#2
W2	2x4 @ 16" o/c SPF #1/#2

NOTES:
1. ALL UNLABELLED WALLS TO BE W2.

SHEAR WALL SCHEDULE

MARK	PLYWOOD	EDGE NAILS	FRAMING ANCHORS	BOTTOM PLATE NAILING	BOTTOM PLATE ANCHOR BOLTS	REMARKS
SW1	½" PLY ONE SIDES	2½"@6"o/c	A35@19.2"o/c		½"ø@48"o/c 8" LONG 5" EMBED	

NOTE; SEE DRAWING NOTES ON SHEAR WALL DETAIL SHEET. ALL TIE-DOWNS, HOLD-DOWNS AND FRAMING ANCHORS ARE BY SIMPSON STRONG-TIE UNLESS NOTED OTHERWISE. ALTERNATES ARE TO BE APPROVED IN WRITING BY THE PROJECT ENGINEER PRIOR TO MATERIAL ORDERING.
POSTS SPECIFIED HERE ARE IN ADDITION TO GRAVITY POSTS SPECIFIED ON PLAN.
STUD SIZE AND SPACING TO BE AS PER BEARING WALL SCHEDULE UNLESS NOTED OTHERWISE HERE OR ON THE PLANS.
ALL SHEAR WALL PANEL EDGES ARE TO BE BLOCKED.

HOLD-DOWN SCHEDULE

MARK	HOLD-DOWN TYPE	ROD DIAMETER	MIN. ROD EMBED	MIN. FULL HEIGHT STUDS AT HOLD-DOWN LEVEL 1	MIN. FULL HEIGHT STUDS AT HOLD-DOWN LEVEL 2	REMARKS
HD1	HDU5	⅝"ø	20"	2-2x6 E/S OR 2-2x4 E/S	2-2x6 E/S OR 2-2x4 E/S	

NOTE; ALL TIE-DOWNS AND HOLD-DOWNS ARE BY SIMPSON STRONG-TIE. ALTERNATES ARE TO BE APPROVED BY THE ENGINEER PRIOR TO MATERIAL ORDERING.

ISSUES

No.	DATE YYYY-MMM-DD	ISSUED FOR
01	2020.10.29	TENDER

SUB CONSULTANT

ISSUED FOR TENDER

NOT FOR CONSTRUCTION

MEADOWOOD COMMUNITY CENTRE

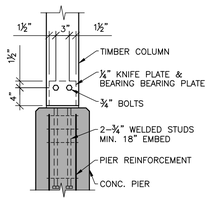
1830 GALVIN PLACE, QUALICUM BEACH, BC

HEROLD ENGINEERING
3701 Shenton Rd, Nanaimo, BC V9T 2H1
Tel: 250-751-8558 Fax: 250-751-8559
Email: mail@heroldengineering.com

MEZZANINE FRAMING PLANS

DESIGNED JV	ENGINEER'S SEAL
DESIGN REVIEW	
DRAFTED NW	
DRAFTING REVIEW	
PROJECT No. 0837-052	CLIENT DRAWING No. n/a
SCALE AS SHOWN	PERMIT No. n/a
HEL DRAWING No. S202	REVISION 01

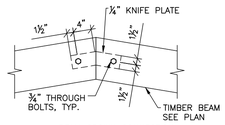
DESTROY ALL DRAWINGS SHOWING PREVIOUS REVISION



CANOPY PIER

1 S201 SECTION

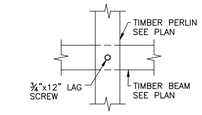
3/4" = 1'–0"



BEAM CROWN CONNECTION

2 S202 CANOPY ELEVATION

3/4" = 1'–0"

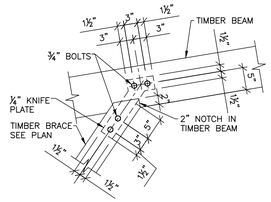


PERLIN TO BEAM CONNECTION

3 S202 CANOPY DETAIL

3/4" = 1'–0"

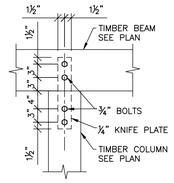
PLAN VIEW



BRACE TO BEAM CONNECTION

4 S202 CANOPY ELEVATION

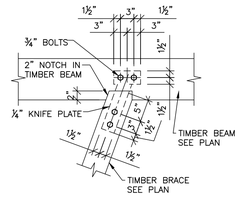
3/4" = 1'–0"



COLUMN TO BEAM CONNECTION

5 S202 CANOPY ELEVATION

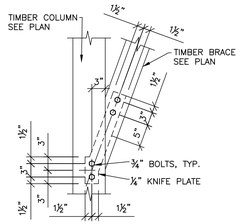
3/4" = 1'–0"



BRACE TO BEAM CONNECTION

6 S202 CANOPY ELEVATION

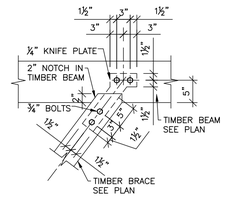
3/4" = 1'–0"



COLUMN TO BRACE CONNECTION

7 S202 CANOPY ELEVATION

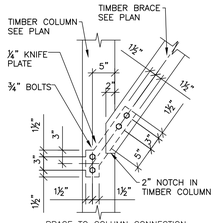
3/4" = 1'–0"



BRACE TO BEAM CONNECTION

8 S202 CANOPY ELEVATION

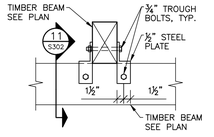
3/4" = 1'–0"



BRACE TO COLUMN CONNECTION

9 S202 CANOPY ELEVATION

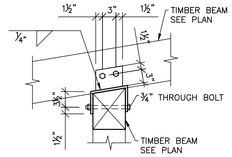
3/4" = 1'–0"



BEAM TO BEAM CONNECTION

10 S202 CANOPY SECTION

3/4" = 1'–0"



BEAM TO BEAM CONNECTION

11 S202 CANOPY SECTION

3/4" = 1'–0"

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SECTIONS AND DETAILS

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SCALE AS SHOWN	PERMIT No. n/a
HEL DRAWING No. S301	REVISION 01

DESTROY ALL DRAWINGS SHOWING PREVIOUS REVISION