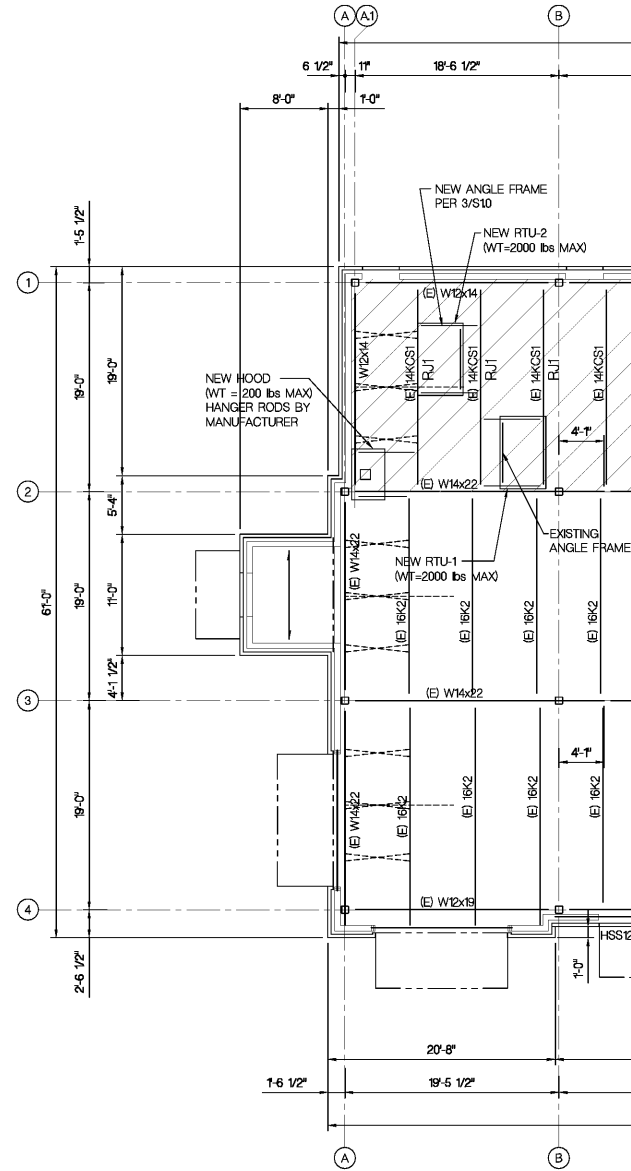


Order Plans



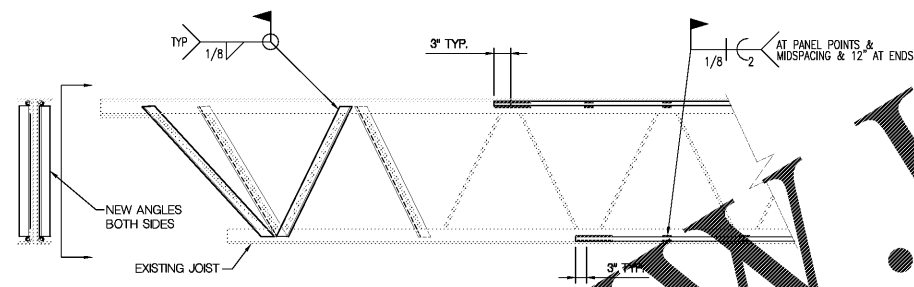
1 PARTIAL EXISTING ROOF FRAMING PLAN
SCALE: 1/8" = 1'-0"

SNOW DESIGN LOAD SCHEDULE INTERNATIONAL BUILDING CODE (2012)			
ITEM	SYMBOL	VALUE	REFERENCE
GROUND SNOW LOAD	P _g	30	TABLE 1606.2
SNOW EXPOSURE FACTOR	C _e	10	TABLE 1606.3.1
SNOW LOAD IMPORTANCE FACTOR	I _s	10	TABLE 1604.5
THERMAL FACTOR	C _t	10	TABLE 1606.3.2
FLAT-ROOF SNOW LOAD	P _f	21	SECTION 1608.3
RISK CATEGORY	-	2	

DESIGN LOAD SCHEDULE (POUNDS PER SQ. FT)	
COMPONENT	ROOF
CONCRETE SLAB	5
ROOF & INSULATION	5
WOOD FRAMING	5
STEEL & JOIST	5
CEILING	5
TOTAL DEAD LOAD	20
TOTAL LIVE LOAD	30
TOTAL LOAD	50

STRUCTURAL NOTES

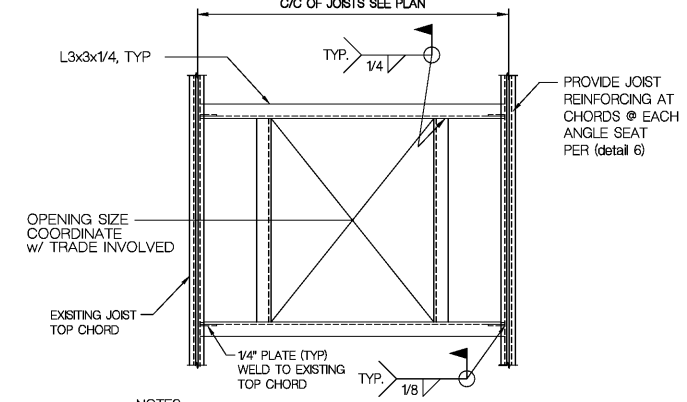
- BUILDING CODE
- THE STRUCTURE IS DESIGNED IN ACCORDANCE WITH DISTRICT OF COLUMBIA CONSTRUCTION CODE (DCDCMFR) (BC 2012).
- GENERAL
- FOR LOADING CRITERIA SEE ADJACENT TABLE.
- THE STRUCTURE HAS BEEN DESIGNED TO WITHSTAND THE WIND PRESSURES SPECIFIED IN SECTION 1609.0 OF THE INTERNATIONAL BUILDING CODE. SEE THE ATTACHED LOAD TABLE.
- THE EXISTING ROOF STRUCTURE HAS NOT BEEN MODIFIED AND IS ASSUMED TO HAVE BEEN DESIGNED TO WITHSTAND THE WIND AND SNOW LOADS SPECIFIED IN THE INTERNATIONAL BUILDING CODE AND SECTION 7 OF ASCE 7. SEE THE ATTACHED DESIGN DATA TABLE ON THIS SHEET.
- IN ADDITION TO THE FLAT ROOF SNOW LOAD STATED ABOVE, A SNOW LOAD PROVISION FOR DRIFTING SNOW HAS BEEN PROVIDED IN ACCORDANCE WITH THE REQUIREMENTS OF THE INTERNATIONAL BUILDING CODE, SECTION 1608.7 AND 1608.8 AND ASCE 7, SECTIONS 7.7 AND 7.8.
- THE EXISTING STRUCTURE HAS NOT BEEN MODIFIED AND IS ASSUMED TO HAVE BEEN DESIGNED TO WITHSTAND THE SEISMIC FORCES SPECIFIED IN SECTION 1613.0 OF THE INTERNATIONAL BUILDING CODE.
- METHODS, PROCEDURES, AND SEQUENCES OF CONSTRUCTION ARE THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO MAINTAIN AND INSURE THE INTEGRITY OF THE STRUCTURE AT ALL STAGES OF CONSTRUCTION.
- CONTRACTOR MUST FABRICATE AND ERECT STEEL IN ACCORDANCE WITH OSHA SAFETY REQUIREMENTS, 29 CFR PART 1926 SAFETY STANDARDS FOR STEEL ERECTION; FINAL RULE.
- STRUCTURAL MEMBERS HAVE BEEN LOCATED AND DESIGNED TO ACCOMMODATE THE MECHANICAL EQUIPMENT AND OPENINGS SPECIFIED BY THE MECHANICAL CONSULTANT. ANY SUBSTITUTIONS RESULTING IN REVISIONS TO THE STRUCTURE SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR IN COORDINATION WITH THE STRUCTURAL ENGINEER.
- THE GENERAL CONTRACTOR AND SUB-CONTRACTOR SHALL DETERMINE THE SCOPE OF THE STRUCTURAL WORK FROM THE CONTRACT DOCUMENTS AS A WHOLE. THE STRUCTURAL DRAWINGS SHALL NOT BE CONSIDERED SEPARATELY FOR PURPOSES OF BIDDING THE STRUCTURAL WORK. DUE CONSIDERATION SHALL BE GIVEN TO OTHER STRUCTURAL WORK OR RELATED TO THE STRUCTURE, INCLUDING NECESSARY COORDINATION DESCRIBED OR IMPLIED BY THE ARCHITECTURAL AND MECHANICAL DRAWINGS.
- WRITTEN PERMISSION MUST BE OBTAINED FROM BEI STRUCTURAL ENGINEERS, INC. PRIOR TO THE REPRODUCTIVE USE OF THE STRUCTURAL CONTRACT DOCUMENTS IN ANY MANNER AS STRUCTURAL SHOP DRAWING DOCUMENTS.
- ALL DIMENSIONS ON DRAWINGS SHALL BE GENERAL INFORMATION ONLY. NO DIMENSIONAL INFORMATION SHALL BE OBTAINED BY LOOKING AT THE DRAWING.
- THE GENERAL CONTRACTOR IS RESPONSIBLE FOR COORDINATION OF ALL RESULTING REVISIONS TO THE STRUCTURAL SYSTEM AS A RESULT OF ACCEPTANCE OF CONTRACTOR PROPOSED ALTERNATIVES OR SUBSTITUTIONS.
- THE GENERAL CONTRACTOR IS RESPONSIBLE FOR FITTING NEW WORK WITH EXISTING CONSTRUCTION. INFORMATION ON EXISTING BUILDINGS SHOWN IN THESE DRAWINGS WAS BASED UPON THE INFORMATION SUPPLIED TO THE STRUCTURAL ENGINEER. THIS INFORMATION IS NOT AS-BUILT DATA AND THE ACTUAL AS-BUILT CONSTRUCTION MAY DIFFER FROM THAT REPRESENTED IN THESE DRAWINGS. CONTRACTOR SHALL VERIFY ALL INFORMATION. VARIATIONS FROM THE DIMENSIONS INDICATED ON THE CONTRACT DOCUMENTS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT AND/OR THE STRUCTURAL ENGINEER.
- THE SCOPE OF THE EXISTING STRUCTURE SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR. PROVIDE TEMPORARY SHORING WHERE MODIFICATIONS/ALTERATIONS TO EXISTING STRUCTURE IS REQUIRED. THE SHORING DRAWINGS/CALCULATIONS SHALL BE SIGNED AND STAMPED BY A REGISTERED STRUCTURAL ENGINEER IN THE STATE OF MICHIGAN AND SUBMITTED FOR APPROVAL PRIOR TO START OF DEMO WORK.
- PRINCIPAL OPENINGS IN THE STRUCTURE ARE INDICATED ON THE CONTRACT DOCUMENTS. REFER TO THE ARCHITECTURAL, MECHANICAL, ELECTRICAL, AND PLUMBING DRAWINGS FOR SLEEVES, CURBS, INSERTS, ETC. NOT HEREIN INDICATED. OPENINGS IN SLABS WITH A MAXIMUM SIDE DIMENSION OR DIAMETER OF 12 INCHES OR LESS SHALL NOT REQUIRE ADDITIONAL FRAMING OR REINFORCEMENT, UNLESS NOTED OTHERWISE. THE LOCATION OF SLEEVES OR OPENINGS IN STRUCTURAL MEMBERS SHALL BE SUBMITTED TO THE STRUCTURAL ENGINEER FOR REVIEW.
- ALL NON-PRIMARY STRUCTURAL ELEMENTS SUCH AS STAIRS, RAILINGS, METAL STUDS, STOREFRONTS, MULLIONS, ETC. SHALL BE DESIGNED BY A REGISTERED ENGINEER TO MEET THE MINIMUM REQUIREMENTS OF THE LOCAL BUILDING CODES. SUBMIT CALCULATIONS AND SHOP DRAWINGS WITH A SIGNED SEAL OF THE RESPONSIBLE REGISTERED ENGINEER FOR THE LOCAL JURISDICTION.



TYPICAL JOIST REINFORCEMENT					
MARK	CHORD REINFORCING STEEL (V50)			DIAGONAL MEMBER REINFORCEMENT	
	SIZE	LENGTH (NOTE 2)	LOCATION (NOTE 3)	SIZE	# MEMBERS (NOTE 4)
RU1	-	-	-	1 x 1 x 1/8	2 @ BOTH ENDS

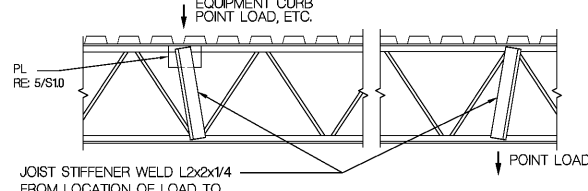
- NOTES:
- ALL WELDS TO BE E70 LOW HYDROGEN.
 - CENTER REINFORCEMENT ON CENTER OF JOIST SPAN & EXTEND 3" PAST PANEL PT.
 - "T" TOP, "B" BOTTOM, "S" SIDES.
 - NUMBER OF DIAGONAL MEMBERS FROM EACH END.

2 EXISTING JOIST REINFORCEMENT DETAIL
SCALE: 3/4" = 1'-0"



- NOTES:
- LOCATE L3x3x1/4 BELOW ALL EQUIPMENT CURBS AND AROUND ALL ROOF OPENINGS.
 - CONTRACTOR SHALL PROVIDE LOCATION AND SIZE OF OPENINGS ON SHOP DRAWINGS PRIOR TO STEEL FABRICATION.

3 TYPICAL STEEL FRAME AT AT ROOF OPENING AT EXISTING JOISTS
SCALE: 3/4" = 1'-0"



- NOTES:
- JOIST STIFFENERS ARE REQUIRED WHERE POINT LOADS OCCUR BETWEEN JOIST PANEL POINTS.
 - JOIST STIFFENERS NOT REQUIRED FOR THE FOLLOWING CONDITIONS:
 - POINT LOADS < 250 LBS @ JOIST TOP CHORD
 - POINT LOADS < 100 LBS @ JOIST BOT CHORD

4 JOIST STIFFENER DETAIL
SCALE: 3/4" = 1'-0"

- STRUCTURAL STEEL
 - ALL STRUCTURAL STEEL SHALL BE FABRICATED AND ERECTED IN ACCORDANCE WITH THE LATEST AISC CODE. ALL WIDE FLANGE SHAPES SHALL BE ASTM A992/A572 GRADE 50. ALL OTHER STRUCTURAL STEEL SHALL BE ASTM A36 UNO.
 - ALL STEEL SHALL HAVE A SHOP COAT OF RUST INHIBITIVE PAINT.
 - ALL STEEL SHALL BE THOROUGHLY CLEANED IN ACCORDANCE WITH SSPC- SP3 PRIOR TO PAINTING.
- STRUCTURAL STEEL DETAILING, FABRICATION AND ERECTION SHALL CONFORM TO THE AISC "SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS" AND THE AISC "CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES".
- TYPICAL CONNECTION DETAILS ARE INDICATED ON THE DRAWINGS. THE FABRICATOR SHALL PREPARE THE SHOP DRAWINGS FOR THE PROJECT BASED ON THIS CONNECTION DESIGN INFORMATION. IF ALTERNATE CONNECTION DESIGNS ARE USED, THE FABRICATOR SHALL HAVE A REGISTERED PROFESSIONAL ENGINEER PREPARE THE CONNECTION DESIGNS. SUCH DESIGNS SHALL BE SUBMITTED WITH THE SHOP DRAWINGS AND SHALL BEAR THE SEAL OF THE RESPONSIBLE PROFESSIONAL ENGINEER. THE FABRICATOR IS RESPONSIBLE FOR THE SELECTION, DESIGN AND DETAILING OF ALL CONNECTIONS NOT FULLY DETAILED ON THE CONTRACT DRAWINGS. CONNECTIONS SHALL BE DESIGNED AND DETAILED IN ACCORDANCE WITH THE AISC "MANUAL OF STEEL CONSTRUCTION - ALLOWABLE STRESS DESIGN", NINTH EDITION. TABLE I AND TABLE II OF PART 4 SHOULD BE USED. THE END REACTION OF THE CONNECTED BEAM SHALL BE DETERMINED FROM PART 2 "ALLOWABLE LOADS ON BEAMS" FOR THE MEMBER SIZE AND SPAN INDICATED, UNLESS A DESIGN REACTION IS INDICATED ON THE PLANS. IN NO CASE SHALL THE END REACTION BE TAKEN AS LESS THAN 120 KIPS.
- STEEL FABRICATOR IS SOLELY RESPONSIBLE FOR SURVEYING AND VERIFICATION OF EXISTING CONDITIONS INCLUDING BUT NOT LIMITED TO THE LOCATION, ELEVATION, AND DIMENSIONS OF EXISTING WALLS AND FRAMING.
- PRIOR TO DETAILING CONNECTIONS FOR STRUCTURAL STEEL, THE STEEL FABRICATOR SHALL SUBMIT FOR APPROVAL REPRESENTATIVE DETAILS AND CALCULATIONS FOR EACH TYPE OF STRUCTURAL STEEL CONNECTION TO BE UTILIZED. AFTER APPROVAL, THE CONNECTIONS MAY BE INCORPORATED INTO THE SHOP DRAWINGS, ALONG WITH A TABLE OF DESIGN CAPACITIES FOR THE RANGE OF CONNECTIONS TO BE USED.
- WELDING SHALL CONFORM TO THE AMERICAN WELDING SOCIETY STANDARD D11 ELECTRODES FOR SHOP AND FIELD WELDS SHALL CONFORM TO AWS A5.1 OR AWS A5.5, CLASS E70XX, LOW HYDROGEN.
- ALL FIELD WELDING SHALL BE PERFORMED BY WELDERS CERTIFIED, AS DESCRIBED IN "AMERICAN WELDING SOCIETY'S STANDARD QUALIFICATION PROCEDURE", AWS D11, TO PERFORM THE TYPE OF WORK REQUIRED.
- SPLICING OF STRUCTURAL STEEL MEMBERS WHERE NOT DETAILED ON THE CONTRACT DOCUMENTS IS PROHIBITED WITHOUT THE PRIOR APPROVAL OF THE STRUCTURAL ENGINEER AS TO LOCATION, TYPE OF SPLICE AND CONNECTION TO BE MADE.

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REVISION		
No.	DATE	DESCRIPTION

DWG DATE: 06-29-2018
DRAWN BY: staff
PROJECT No.: 17157
DWG TITLE:
STRUCTURAL ROOF PART PLAN, NOTES & DETAILS

SHEET No.
S1.0