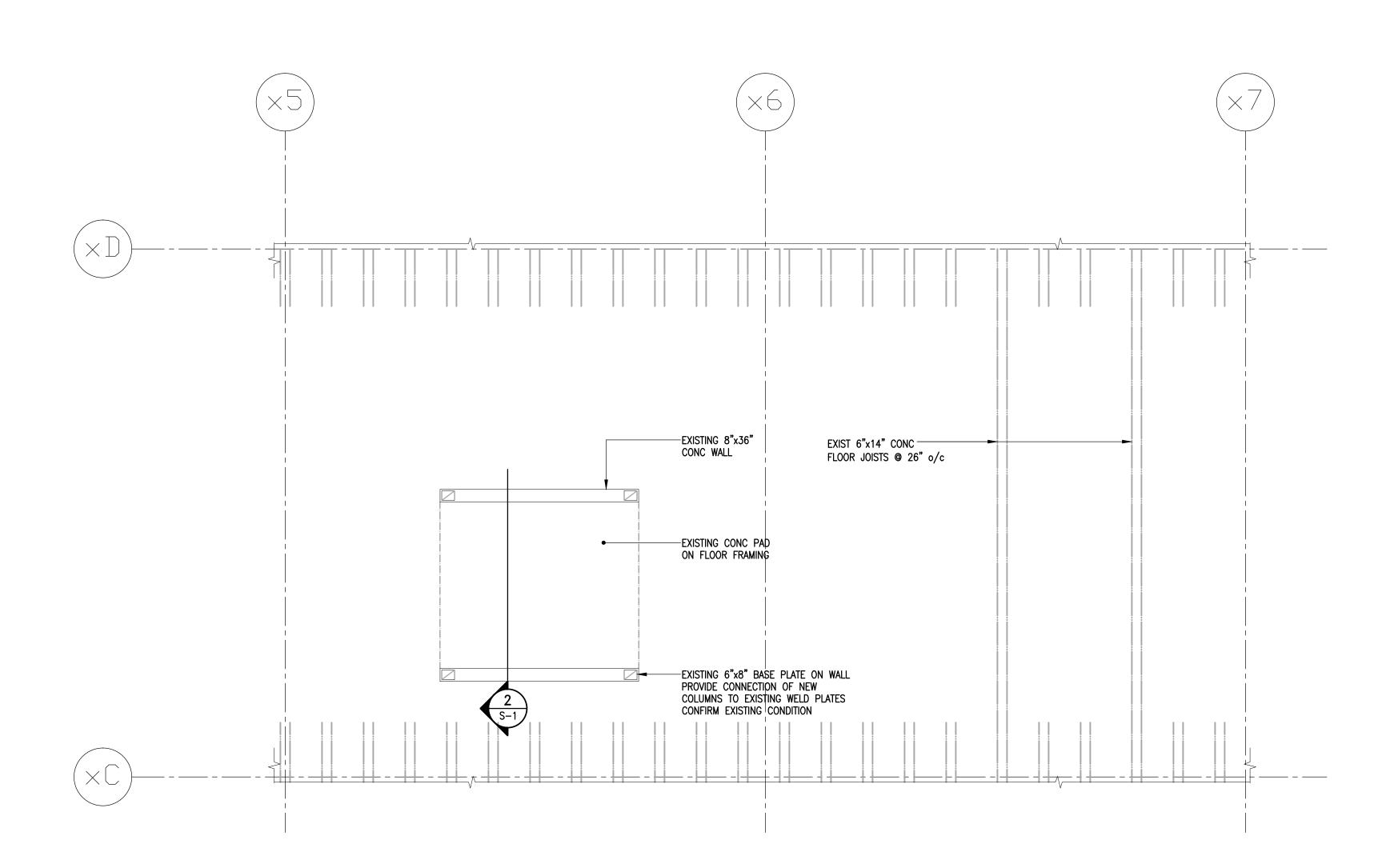
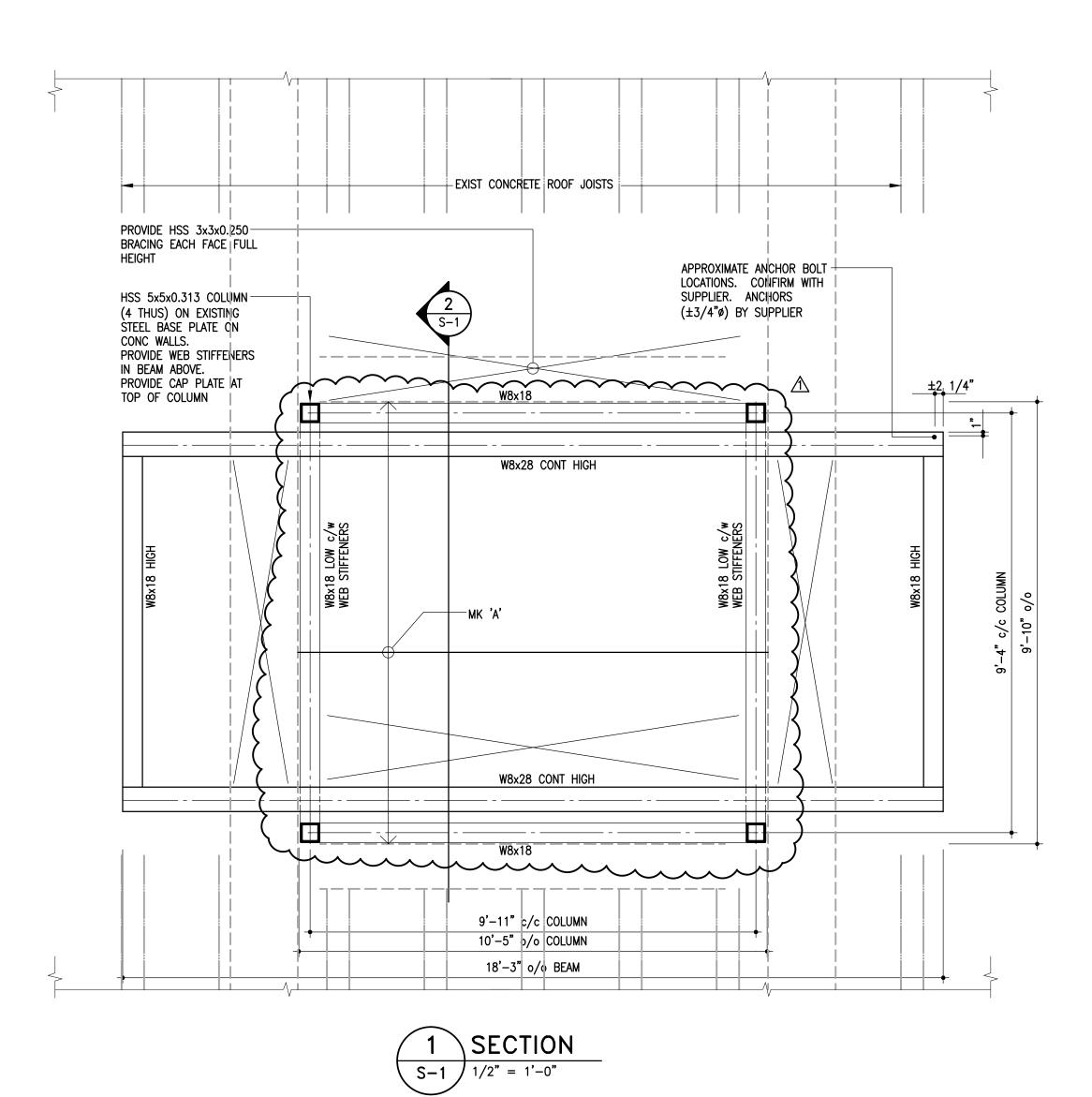


PARTIAL ROOF PLAN - NEW CONSTRUCTION • REMOVAL OF EXISTING COOLING TOWER UNIT AND FRAMING BY OTHERS. DO NOT DAMAGE EXISTING CONCRETE FRAMING AROUND OPENING. DESIGN ROOF LIVE LOAD = 36 PSF



SIXTH FLOOR MACHINE ROOM PLAN - NEW CONSTRUCTION REMOVAL OF EXISTING COOLING TOWER UNIT AND FRAMING BY OTHERS. DO NOT DAMAGE EXISTING WELD PLATES ON CONCRETE WALL. DESIGN FLOOR LIVE LOAD = 100 PSF

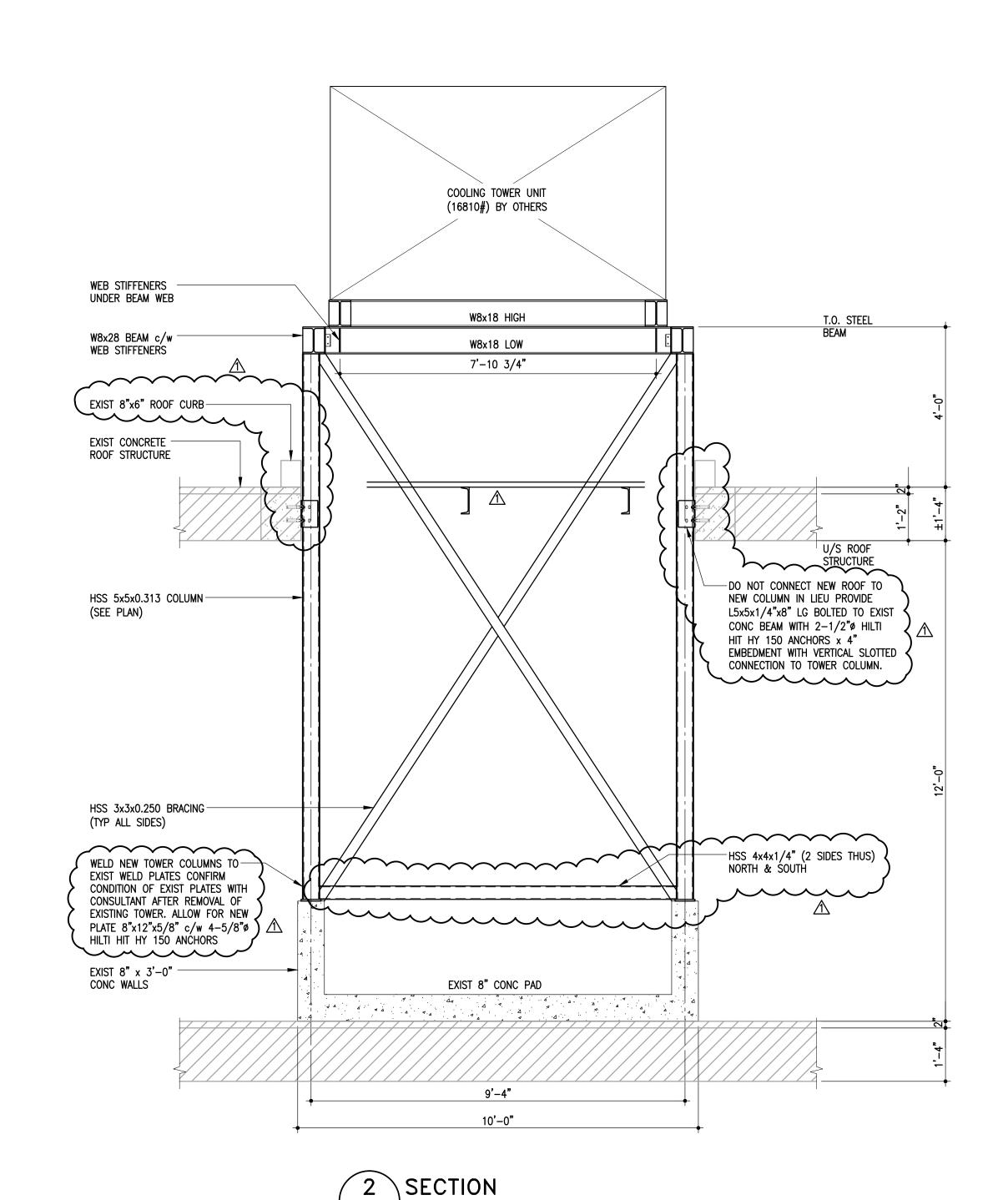
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 GENERAL CONTRACTOR TO CONFIRM AND COORDINATE EXACT UNIT SIZE AND ANCHOR BOLT LOCATIONS FROM SUPPLIER WITH SUPPORT DIMENSIONS PRIOR TO FABRICATION. COOLING TOWER UNIT NOT SHOWN FOR CLARITY (BY OTHERS). MAX UNIT OPERATING WEIGHT = 16810# MAX VERTICAL REACTION LOAD AT ANCHOR = 4375# (UNFACTORED) MAX HORIZONTAL REACTION LOAD AT ANCHOR = 125# (UNFACTORED) PROVIDE 3/8"

Ø DRAIN HOLE AT BASE OF HSS SECTIONS TYP SITE CONFÍRM EXIST STRUCTURE & DIMENSIONS PROVIDE WEB STIFFENERS IN ALL BEAMS WHICH CROSS OVER ALL COLUMNS OR BEAMS CONFIRM FINAL STEEL FINISH WITH OWNER

REMOVE SLIDING HATCH ACCESS AND INFILL EXISTING OPENING AS FOLLOWS: PROVIDE 1 1/2 X 0.03 STEEL DECK ON C8x11.5 AT 4'-0" O.C. AND AT EACH SIDE OF COLUMN c/w 8x10x5/8 WELD PLATE BOLTED TO EXISTING CONCRETE BEAM WITH 2-5/8" HILTI KB x 4" EMBEDMENT. ELEVATION OF TOP OF CHANNEL 3" BELOW TOP OF ÉXISTING CONCRETE CURB. PROVIDE \(\alpha\x\)4x4x3/8 ANGLE DECK SUPPORT AROUND PERIMETER CONNECTED TO CHANNELS AND BOLTED TO CONCRETE BEAMS ON EACH SIDE OF OPENING WITH 1/2"ø HILTI KB11 x 4" EMBEDMENT AT 8" o/c. PROVIDE L5x5x1/4"x8" LG BOLTED TO EXIST CONC BEAM WITH 2-1/2" HILTI HIT HY 150 ANCHORS x 4" EMBEDMENT WITH VERTICAL SLOTTED CONNECTION TO TOWER COLUMN. PROVIDE 1 1/2" RIGID INSULATION OVER STEEL DECK AND PROVIDE ROOFING ABOVE MATERIALS TO MATCH EXISTING SYSTEM WITH FLASHING OVER EXISTING PERIMETER CONCRETE CURB. SEAL ALL OPENINGS REQUIRED FOR MECHANICAL LINE PENETRATIONS AND AT COOLING TOWER SUPPORT COLUMN PENETRATIONS.



**GENERAL NOTES** 

1. STRUCTURAL DESIGN BASED ON THE NATIONAL BUILDING CODE OF CANADA 2005 EDITION. A) IMPORTANCE CATEGORY: NORMAL

B) WIND LOAD: Q50 = 9.4 P.S.F. C) GROUND SNOW LOAD: SS = 39.6 P.S.F. ASSOCIATED RAIN LOAD: SR = 4.2 P.S.F.

. SEISMIC SITE CLASSIFICATION: NOT APPLICABLE

3. DO NOT SCALE DRAWINGS. 4. ALL DIMENSIONS ARE TO BE VERIFIED WITH THE MECHANICAL DRAWINGS PROJECT DRAWINGS AND EXISTING SITE CONDITIONS PRIOR TO CONSTRUCTION. 5. THESE STRUCTURAL DRAWINGS SHOW THE COMPLETED STRUCTURE AND DO NOT INDICATE ALL COMPONENTS NECESSARY FOR SAFETY DURING CONSTRUCTION. THE GENERAL CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR SAFETY ON AND AROUND THE JOBSITE DURING CONSTRUCTION.

STRUCTURAL STEEL

1. THE STRUCTURAL STEEL FABRICATOR'S ENGINEER SHALL BE RESPONSIBLE FOR LOCATING AND DESIGNING PROVISIONS FOR ALL TEMPORARY FALL PROTECTION SYSTEMS REQUIRED DURING CONSTRUCTION TO MEET MANITOBA WORKPLACE HEALTH AND SAFETY REGULATIONS.

2. STRUCTURAL STEEL TO CONFORM TO CSA-G40.21, "STRUCTURAL QUALITY STEELS" AND CSA-G40.20 "GENERAL REQUIREMENTS FOR ROLLED OR WELDED STRUCTURAL QUALITY STEEL". 3. ALL ROLLED OR STEEL STRUCTURAL SECTIONS SHALL BE G40.21-50W. ALL HOLLOW STRUCTURAL SECTIONS TO BE G40.21-50W CLASS C. ALL ANGLES, CHANNELS AND PLATES SHALL BE G40.21-44W.

4. FABRICATION AND ERECTION OF STRUCTURAL STEEL SHALL BE PERFORMED IN ACCORDANCE WITH CAN/CSA S16.1-01, "STEEL STRUCTURES FOR BUILDINGS". 5. ALL WELDING SHALL CONFORM TO THE LATEST EDITION OF CSA W59, "WELDED STEEL

CONSTRUCTION". FABRICATORS SHALL BE PROPERLY CERTIFIED IN ACCORDANCE WITH CSA W47.1, "CERTIFICATION OF COMPANIES FOR FUSION WELDING OF STEEL STRUCTURES". 6. ALL BOLTED CONNECTIONS TO USE A325 HIGH STRENGTH BOLTS. MINIMUM CONNECTION SHALL

CONSIST OF 2 BOLTS. 7. ALL STRUCTURAL STEEL IS TO RECEIVE ONE COAT OF CISC/CPMA 1-73A QUICK DRYING SHOP PRIMER. STEEL TO BE CLEANED IN CONFORMANCE WITH SSPC-SP2. STEEL RECEIVING FINISH PAINTING TO HAVE ONE COAT OF CISC/CPMA 2-75 QUICK DRYING SHOP PRIMER. STEEL TO BE

CLEANED IN CONFORMANCE WITH SSPC-SP7. 8. NO HOLES PERMITTED IN TOP FLANGE OF BEAMS AT COLUMNS WHERE BEAMS ARE CONTINUOUS OVER COLUMNS.

9. ALL BEAMS CONTINUOUS OVER COLUMNS ARE TO HAVE WEB STIFFENERS THE SAME SIZE AND ORIENTATION AS THE COLUMN BELOW, UNLESS OTHERWISE NOTED. 10. ANCHOR BOLTS TO BE GRADE ASTM A307 PROVIDED BY STEEL SUPPLIER AND SET BY THE GENERAL CONTRACTOR.

11. FABRICATOR TO NOTIFY ENGINEER OF ANY PROPOSED MEMBER SUBSTITUTIONS AND CHANGED CONNECTION DETAILS. 12. THE STRUCTURAL STEEL SUPPLIER SHALL PROVIDE AND BE RESPONSIBLE FOR ALL HOLES IN

STEEL SECTIONS REQUIRED BY OTHER TRADES. SECTION SHALL BE STRENGTHENED WHERE REQUIRED TO GUARANTEE THE ORIGINAL STRENGTH OF THE BEAM. ANY CUTTING OF STEEL AT THE JOB SITE SHALL BE DONE ONLY AS DIRECTED AND APPROVED BY THE ENGINEER. 13. THE STRUCTURAL STEEL ERECTOR SHALL BE RESPONSIBLE FOR SUPPLYING AND ERECTING ALL

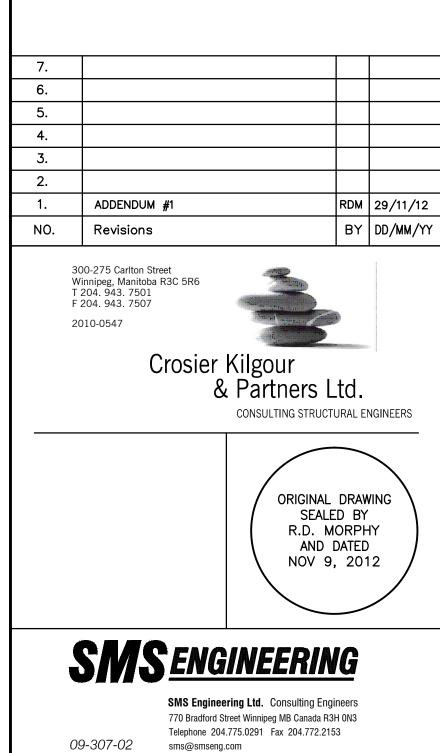
TEMPORARY GUYING AND BRACING OF THE STEEL FRAMING TO PROVIDE STABILITY FOR THE STRUCTURE AS A WHOLE. THESE SHALL REMAIN IN PLACE UNTIL ALL STEEL BRACING IS ERECTED, WELDED IN PLACE. 14. STRUCTURAL STEEL SUPPLIER IS TO SUBMIT ENGINEERING DRAWINGS BEARING THE SEAL OF A

PROFESSIONAL ENGINEER REGISTERED IN THE PROVINCE OF MANITOBA COVERING THE DESIGN OF CONNECTIONS, TO THE PROJECT DESIGN ENGINEER FOR REVIEW PRIOR TO FABRICATION. CONNECTION DESIGN TO INCLUDE FOR ALL ADJUSTABLE CONNECTIONS REQUIRED TO SUIT FABRICATION AND ERECTION PROCEDURES AND TOLERANCES.

<u>ADDENDUM #1</u>

 NEW HOLE FOR CHILLER RELIEF VALVE (1.5" DIAMETER) MAY BE CORED THROUGH ROOF DECK AREA BETWEEN CONCRETE JOISTS AS NOTED ON MECHANICAL. DO NOT DAMAGE EXISTING CONCRETE JOISTS. SEAL AROUND PENETRATION.

• SEALED SHOP DRAWINGS ARE TO BE PROVIDED FOR STEEL FRAMING CONNECTIONS AS PER GENERAL NOTE #14.



Project Title CITY OF WINNIPEG COOLING PLANT REPLACEMENT 151 PRINCESS STREET BID OPPORTUNITY 887-2012

MACHINE ROOM COOLING PLANT PLANS AND SECTIONS

Revision Number Drawing Number