



## GENERAL NOTES

- STRUCTURAL DESIGN IS IN ACCORDANCE WITH THE ALBERTA BUILDING CODE 2014 AND THE NATIONAL BUILDING CODE 2010 STRUCTURAL COMMENTARIES (PART 4).
- READ THE STRUCTURAL DRAWINGS IN CONJUNCTION WITH OTHER CONTRACT DOCUMENTS.
- OPENINGS AND SLEEVES SHOWN ARE LOCATED AND DIMENSIONED FOR DETAILING PURPOSES ONLY. THE EXACT SIZES AND LOCATIONS MUST BE COORDINATED WITH THE CONSULTANT AND TRADE CONTRACTOR OR SUB CONTRACTOR DURING CONSTRUCTION.
- THE STRUCTURAL DRAWINGS ARE FOR THE COMPLETED PROJECT. THE CONTRACTOR IS RESPONSIBLE FOR THE SAFETY OF WORKERS AND THE STABILITY OF THE STRUCTURE DURING CONSTRUCTION. CONSTRUCTION LOADS SHALL NOT EXCEED THE LOADS TABULATED IN THE DESIGN NOTES.
- ALL DIMENSIONS ARE IN MILLIMETERS UNLESS NOTED OTHERWISE.

## EXISTING STRUCTURE NOTES

- THE STRUCTURAL DESIGN IS BASED UPON INFORMATION SHOWN ON THE AS-BUILT DRAWINGS (ISSUED IN 1978) FOR THE EXISTING BUILDINGS.
- REPORT TO THE CONSULTANT DISCREPANCIES THAT HAVE THE POTENTIAL TO AFFECT THE WORK AND OBTAIN INSTRUCTION PRIOR TO PROCEEDING.

## DESIGN NOTES FOR NEW AHU'S

- GROUND SNOW LOAD: 1.7kPa
  - ASSOCIATED RAIN LOAD: 0.1kPa
- LATERAL LOADS FROM WIND AND EARTHQUAKE:
  - WIND LOADS
    - REFERENCE VELOCITY PRESSURE ( $q_1/50$ ): 0.45 kPa
  - REFERENCE SPECIFICATIONS
    - CAN/CSA S16.1 "LIMIT STATES DESIGN OF STEEL STRUCTURES"
    - CSA A23.3 "DESIGN OF CONCRETE STRUCTURES"
    - CSA A23.1 "CONCRETE MATERIALS AND METHODS OF CONSTRUCTION"
    - CSA G40.21 "STRUCTURAL QUALITY STEELS"
    - CSA W59 "WELDED STEEL CONSTRUCTION"
- CHECK ALL DIMENSIONS AND DETAILS PRIOR TO CONSTRUCTION TO ENSURE COMPATIBILITY. ANY DISCREPANCIES OR DESIRED MODIFICATIONS SHALL BE REPORTED TO THE ENGINEER. ALL MATERIALS AND WORKMANSHIP TO CONFORM TO ALBERTA BUILDING CODE, LATEST EDITION

## STRUCTURAL STEEL

- DESIGN, FABRICATE, AND ERECT STRUCTURAL STEEL IN ACCORDANCE WITH CAN/CSA-S16 AND THE CISC CODE OF STANDARD PRACTICE FOR STRUCTURAL STEEL.
- MATERIAL REQUIREMENTS
  - STRUCTURAL SHAPES AND PLATES: CAN/CSA-G40.20/G40.21 GRADE 300W
  - BOLTS: ATSM A325
  - SHOP PRIMER AND FIELD TOUCH UP PRIMER: CAN/CGSB-1.40
  - METAL DECK ASTM A653/A653M, ZINC COATED (GALVANIZED) BY HOT DIP PROCESS, STRUCTURAL (PHYSICAL QUALITY)
- WELDING SHALL CONFORM TO CSA W59 AND BE DONE WITH MATCHING ELECTRODES.
- FABRICATOR SHALL ASSUME RESPONSIBILITY FOR THE DESIGN OF ALL STRUCTURAL CONNECTIONS. CONNECTIONS SHALL BE SHOP WELDED AND FIELD BOLTED UNLESS SPECIFIED OTHERWISE.
- ALL EXTERIOR STEEL MEMBERS TO BE HOT DIP GALVANIZED.
- TOUCH UP PAINT TO MATCH EXISTING AS REQUIRED.

## REINFORCED CONCRETE

- CONCRETE
  - CONCRETE STRENGTH IN ACCORDANCE WITH SPECIFICATIONS
  - ALL CONCRETE AND REINFORCED CONCRETE IN ACCORDANCE WITH CSA A23.1
  - PROVIDE 20 mm CHAMFER AT ALL EXPOSED EDGES, UNLESS NOTED OTHERWISE
- REINFORCEMENT
  - ALL CONCRETE REINFORCEMENT IN ACCORDANCE WITH CSA G30.18
  - REINFORCING BARS TO BE BILLET STEEL, DEFORMED BARS, GRADE 400 R
  - ACCURATELY PLACE REINFORCEMENT AND SECURE AGAINST DISPLACEMENT DURING CONCRETE PLACING. SUPPORT SHALL BE BY MEANS OF GALVANIZED OR PLASTIC CHAIRS, SPACERS, OR GALVANIZED HANGERS AND THE RECOMMENDATIONS OF "REINFORCING STEEL MANUAL OF STD PRACTICE" (REINFORCING STEEL INSTITUTE OF CANADA)
  - PROVIDE 50 mm COVER FOR REINFORCEMENT UNLESS NOTED OTHERWISE

## COORDINATION

- INSTALL ALL MECHANICAL AND ELECTRICAL EQUIPMENT AND ANCHOR BOLTS IN ACCORDANCE WITH CERTIFIED SHOP DRAWINGS SUPPLIED BY THE MANUFACTURER AND REVIEWED BY THE ENGINEER
- REFER TO MECHANICAL AND ARCHITECTURAL DRAWINGS FOR LOCATIONS OF OPENINGS, STANDS, PADS, AND INFILLS.

## DO NOT SCALE DRAWINGS

Revision/	Description/Description	Date/Date
0	ISSUED FOR TENDER	2017.08.18
1		
2		
3		
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Client/client  
**PUBLIC WORKS &  
GOVERNMENT SERVICES  
CANADA**

Project title/Titre du projet

**EDMONTON MAXIMUM  
SECURITY INSTITUTION**

Approved by/Approve par  
J. MAH

Designed by/Concept par  
C. LUO

Drawn by/Dessiné par  
B. WYNNYK

PWSC Project Manager/Administrateur de Projets TFSOC  
ANDREW GILLES

PWSC, Architectural and Engineering Resources Manager/  
Ressources Architectural et de Directeur d'ingénierie, TFSOC

Client/client  
PUBLIC WORKS & GOVERNMENT SERVICES CANADA

Drawing title/Titre du dessin

**STRUCTURAL  
AHU SUPPORTS  
ROOF PLANS & DETAILS**

Project No./No. du projet	Sheet/Feuille	Revision no./ La Révision no.
R.078013.001	S1 OF 103	0