Part 1 General

1.1 SUMMARY

.1 Related Sections:

.1 Section 01 33 00 - Submittal Procedures.

.2 Section 01 35 33 - Health and Safety Requirements.

.3 Section 01 74 21 - Construction/Demolition Waste Management and Disposal.

1.2 REFERENCES

.1 American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc. (ASHRAE)

.2 Canadian Sheet Steel Building Institute (CSSBI)

.1 CSSBI 30M-[95], Standard for Steel Building Systems.

.3 Department of Justice Canada (Jus)

.1 Canadian Environmental Protection Act (CEPA), 1999, c. 33.

.2 Transportation of Dangerous Goods Act (TDGA), 1992, c. 34.

.4 Health Canada/Workplace Hazardous Materials Information System (WHMIS)

.1 Material Safety Data Sheets (MSDS).

.5 National Research Council (NRC)/Institute for Research in Construction (IRC)

.1 Construction Technology Update No. 9-[1997], Evolution of Wall Design for Controlling Rains Penetration.

.2 Construction Technology Update No. 17-[1998], Pressure Equalization in Rainscreen Wall systems.

.3 Construction Technology Update No. 34-[1999], Designing Exterior Walls According to the Rainscreen Principle.

.4 NRCC 38726-[1995], National Building Code of Canada (NBC).

.5 CSA A-277 – Procedure for Factory Certification of Buildings

1.3 SYSTEM DESCRIPTION

.1 Provide building structure and enclosure to physical dimensions shown on drawings.

.2 Building occupancy as defined by National Building Code of Canada is Group D for the office area and Group B, Division 1 for the detention area.

.3 Generally, building is intended to provide office spaces for Stewart Port of Entry.

1.4 DESIGN REQUIREMENTS

.1 Design Requirements for Prefabricated Facility Buildings and Structures are listed in Appendix A – Building Requirements and cover the following structures:

.1 Main Building

.2 PIL Booth
.3 Covered Inspection Lane
.4 Secondary Inspection Covered Canopy
.5 Generator Shed

1.5 PERFORMANCE REQUIREMENTS

.1 Performance Requirements for Prefabricated Facility Buildings and Structures are listed in Appendix A – Building Requirements and cover the following structures:

.1 Main Building
.2 PIL Booth
.3 Covered Inspection Lane
.4 Secondary Inspection Covered Canopy
.5 Generator Shed

.2 Maximum deflection for roofing under full specified live load as per latest CAN/CSA Z240 MH Manufactured Homes and NBC Requirements whichever more stringent.

.3 Maximum deflection for exterior cladding under full specified exterior wind induced loads as per latest CAN/CSA Z240 MH Manufactured Homes and NBC Requirements whichever more stringent.

.4 Maintain following tolerances for building structure and enclosure elements.

.1 Maximum variation from plane or location shown on shop drawings: 1 mm/1 m of length and up to 1 mm/5 m maximum.
.2 Maximum offset from true alignment between two adjacent members abutting end to end, in line: 0.75 mm.

1.6 SUBMITTALS

.1 Make submittals in accordance with Section 01 33 00 - Submittal Procedures.

.2 Submit shop drawings stamped and signed by signature and qualified professional Engineer registered or licensed in Province of British Columbia Canada for fabricator designed assemblies, components and connections. Stipulation to this effect may appear on submitted drawings.

.3 Indicate plans and grid lines, structural members and connection details, bearing and anchorage details, roof cladding, wall cladding, framed openings, accessories, schedule of materials and finishes, camber and loadings, fasteners and welds.

.4 Indicate detailed description of mechanical, electrical and other systems in Work.

.5 Describe requirements of other systems of components related to this Work but provided by others.

.1 Obtain necessary information required to detail this Work including methods of integration and securing.

.6 Submit erection drawings to Departmental Representative for approval, before construction.

.7 Indicate erection dimensions and methods.

.8 Manufacturer's Field Reports: submit to Departmental Representative manufacturer's written report, within 3 days of review, verifying compliance of Work, as described in PART 3 - FIELD QUALITY CONTROL.

1.7 QUALITY ASSURANCE

.1 Site Meetings: as part of Manufacturer's Services described in Part 3 - FIELD QUALITY CONTROL, schedule site visits, to review Work, at stages listed.

.1 After delivery and storage of products, and when preparatory work is complete but before installation begins.

.2 Twice during progress of Work at 33% and 66% complete.

.3 Upon completion of Work, after cleaning is carried out.

.2 Health and Safety.

.1 Do construction occupational health and safety in accordance with Section 01 35 33 - Health and Safety Requirements.

1.8 DELIVERY, STORAGE AND HANDLING

.1 Waste Management and Disposal:

.1 Separate waste materials for reuse and recycling in accordance with Section 01 74 21 - Construction/Demolition Waste Management and Disposal.

.2 Remove from site and dispose of packaging materials at appropriate recycling facilities.

.3 Collect and separate for disposal paper, plastic, polystyrene, corrugated cardboard, packaging material in appropriate on-site bins for recycling in accordance with Waste Management Plan (WMP).

.4 Separate for reuse and recycling and place in designated containers Steel, Metal and Plastic waste in accordance with Waste Management Plan.

.5 Place materials defined as hazardous or toxic in designated containers.

.6 Handle and dispose of hazardous materials in accordance with CEPA, TDGA, Regional and Municipal regulations.

.7 Ensure emptied containers are sealed and stored safely.

.8 Unused sealant materials must not be disposed of into sewer system, into streams, lakes, onto ground or in other location where it will pose health or environmental hazard.

.9 Fold up metal and plastic banding, flatten and place in designated area for recycling.

1.9 INDOOR AIR QUALITY (IAQ) MANAGEMENT PLAN

.1 Develop and implement Indoor Air Quality (IAQ) Management Plan in accordance with Section 01 33 00 - Submittal Procedures and Section for construction and preoccupancy phases of building.

1.10 WARRANTY

.1 For work of this section 13 34 23 - Fabricated Structures, provide a 24 months warranty period.

Part 2 Products

2.1 SUSTAINABLE REQUIREMENTS

.1 Materials and products in accordance with Appendix A – Building Requirements.

2.2 MATERIALS

.1 Provide in accordance with Appendix A – Building Requirements

- .1 Building materials
- .2 Fire resistive building elements
- .3 Glass and glazing materials
- .4 Sealants
- .5 Thermal and Moisture Protection

2.3 FABRICATION

.1 Maintain air and vapour and thermal barrier throughout building enclosure elements.

.2 Locate vapour barrier on warm side of thermal insulation.

.3 Locate air barrier as detailed.

.4 Complete enclosure assembly with exterior skin, glass units, access units, doors, inner air/vapour seal membrane, thermal insulation and interior finish in accordance with Appendix A – Building Requirements.

.5 Accurately fit and rigidly frame together joints, corners and mitres.

- .1 Match components carefully to produce continuity of line and design.
- .2 Make joints and connections toward exterior weathertight.
- .3 Provide hairline joints for materials in contact.
- .4 Co-ordinate location of visible joints.

2.4 FINISHES

.1 Provide in accordance with Appendix A – Building Requirements and approved by Departmental Representative.

Part 3 Execution

3.1 ERECTION

.1 Do prefabricated metal building Work to CSSBI 30M.

.2 Erect building structure and enclosure elements.

3.2 FIELD QUALITY CONTROL

.1 Manufacturer's Field Services:

.1 Obtain written report from manufacturer verifying compliance of Work, in handling, installing, applying, protecting and cleaning of product and submit Manufacturer's Field Reports as described in PART 1 - SUBMITTALS.

.2 Provide manufacturer's field services consisting of product use recommendations and periodic site visits for inspection of product installation in accordance with manufacturer's instructions.

.3 Schedule site visits, to review Work, as directed in PART 1 - QUALITY ASSURANCE.

3.3 CLEANING

.1 Remove excess sealant by moderate use of low VOC mineral spirits or other solvent as directed by sealant manufacturer.

.2 Clean surfaces.

3.4 PROTECTION

.1 Provide protection to finished surfaces with strippable coatings, strippable wrappers, plywood or sheet materials as required before acceptance of Work.

END OF SECTION