

PART 1 - GENERAL

- 1.1 SECTION INCLUDES .1 Provide all labour, materials, methods, equipment, accessories for a complete aluminum curtain wall, including, but not necessarily limited to following:
1. Frames
 2. Frame anchorage
 3. Air Barrier tie-in
 4. Splines & Connectors
 5. Hermetically sealed glazing
 6. Glazing blocks, shims
 7. Sealing gaskets
 8. Sealants
- 1.2 RELATED SECTIONS .1 Division 01
- 1.3 SYSTEM DESCRIPTION
- .1 Design, fabrication, installation.
 - .2 Aluminum curtain wall frames.
 - .3 Aluminum entrance frames, aluminum doors.
 - .4 Sealed insulating glass units.
 - .5 Spandrel glazing, single glass glazing.
 - .6 Insulated air barrier panels.
 - .7 Incidental, required aluminum covers, formed aluminum flashings.
 - .8 Aluminum cap, base, counter flashings, closer.
 - .9 Brake metal section.
 - .10 Accessories, related fittings, clamping bars, cap plates gaskets, fasteners, anchoring devices, thermal break materials.
 - .11 Finish process to exposed aluminum.
 - .12 Back priming of metal surfaces.
 - .13 Glazing beads, seals, gaskets, tape, base shims.
 - .14 Caulking, sealants, backup materials for caulking interior, exterior curtain walls to adjacent materials.
 - .15 Protective coating on finished aluminum, glass.

- .16 Steel, aluminum sub-framing, attachment, reinforcing items, anchors and clips as shown and as required.
 - .17 Shop priming steel sub-framing, reinforcing, attachment steel.
 - .18 Related support angles, plates.
 - .19 Cleaning down aluminum, glass at completion of installation.
 - .20 Flexible membrane vapour retarder/air seal.
 - .21 Metal vapour retarder/air seal anchor plates.
 - .22 Aluminum door hardware specified.
- 1.4 DESIGN & PERFORMANCE REQUIREMENTS
- .1 Design components / assemblies to comply with requirements for "Post Disaster" buildings.
 - .2 This project shall be designed and constructed in accordance with Section 01 47 13, LEED Requirements.
 - .3 Design curtain wall systems to:
 - .1 Limit stress in aluminum, structural components to 13,000 psi under maximum load.
 - .2 Limit lateral deflection under full design load, to maximum L/200 clear span, or glass manufacture's limitations, whichever is less.
 - .3 Withstand maximum wind pressures, suction loads, acting normal to plane of surface, in accordance with National Building Code of Canada 2005 as amended by the Manitoba Building Code Regulation 127/2006, including "Climatic and Seismic Information for Building Design in Canada, Division B, Appendix C.
 - .4 Allow for areas of high positive, negative pressure created by configuration of buildings, their proximity to neighboring buildings.
 - .5 Limit deflection of any member, in direction parallel to wall plane, when member carries full design not to exceed 75% design clearance dimension between that member, panel, glass, other part immediately below.
 - .6 Permit adequate freedom thermal movement, minimize stresses on sealants. Allow for expansion, contraction of members, in range from -20 C. to +76 C. surface temperatures, without detrimental effects, buckling, opening of joints, undue stress on fasteners.
 - .7 Provide complete thermal separation between exterior, interior metal components.
 - .8 Limit air infiltration, ex filtration to maximum 0.06 cfm/sq. ft. at static pressure difference 1.56 psf tested to ASTM E283-73.
 - .9 Exclude water penetration to NAAMM standard TM-1-68T.

	.4	Design, detail, fabricate steel structural design to CSA S16-1969.
	.5	Provide copies structural design calculations.
	.6	Base entire exterior skin design on "Rain Screen", pressure equalized system. Provide complete air, vapour seal within system grid with gaskets, baffles, overlaps, seals, openings between cavities, outside, of sufficient cross-section to provide pressure equalization. Baffle openings or guard to minimize direct water entry.
	.7	Design, verify maximum glass sizes, thickness, strength, etc., for glass types specified, to support design, maximum allowable uniform static loads, using design factor of 2.5.
	.8	Design glass to support design live load 40 lbs/lin. ft., concurrent concentrated load 200 lbs. 3'-6", above floor level, where glazed opening still height is less than 3'-6", difference in adjacent level greater than 2'0".
	.9	Design spandrel glass to meet U.S. General Service Administration Public Building Service Guide Specification PBS 4-0885, February 70.
	.10	All glazing shall provide a thermal performance index equal to, or better than, U 1.6.
<u>1.5 QUALITY ASSURANCE</u>	.1	Quality Assurance in accordance with Division 01.
<u>PART 2 - PRODUCTS</u>		
<u>2.1 ALUMINUM FRAMING</u>	.1	In accordance with performance specifications
<u>2.2 GLAZING</u>	.1	In accordance with performance specifications
<u>PART 3 - EXECUTION</u>		
<u>3.1 INSTALLATION</u>	.1	Install Curtain Wall Systems
<u>3.2 COMMISSIONING</u>	.1	Verify fit, finish and performance compliance