PART 1 GENERAL

1.1 SECTION INCLUDES

.1 Shop fabricated ferrous metal items galvanized and prime painted.

.2 Shop fabricated stainless steel items.

1.2 RELATED SECTIONS

.1 Section 05120-Strucrural Steel.

.2 Section 05210-Steel joists.

.3 Section 09900 - Painting: Paint finish.

1.3 REFERENCES

.1 ANSI A14.3 - Ladders, Fixed, Safety Requirements.

.2 ASTM A36 - Structural Steel.

.3 ASTM A53 - Hot-Dipped, Zinc-coated Welded and Seamless Steel Pipe.

.4 ASTM A283 - Carbon Steel Plates, Shapes, and Bars.

.5 ASTM A307 - Carbon Steel Bolts and Studs, 60,000 psi Tensile Strength.

.6 ASTM A167 - Stainless and Heat-Resisting Chromium-Nickel Steel Plate, Sheet, and Strip.

1.4 SUBMITTALS FOR REVIEW

.1 Shop Drawings: Indicate profiles, sizes, connection attachments, reinforcing, anchorage, size and type of fasteners, and accessories. Include erection drawings, elevations, and details where applicable.

.2 Indicate welded connections using standard AWS A2.0 welding symbols. Indicate net weld lengths.

1.5 QUALIFICATIONS

.1 Prepare Shop Drawings under direct supervision of a Professional Structural Engineer experienced in design of this work and licensed at the place where the Project is located

PART 2 PRODUCTS

2.1 MATERIALS

.1 Steel Sections: ASTM A36. .

.2 Plates: ASTM A283 .

.3 Pipe: ASTM A53, Grade B Schedule 40 .

.4 Bolts, Nuts, and Washers: ASTM A325.

.5 Welding Materials: Type required for materials being welded.

.6 Ladders: ANSI A14.3.

.7 Shop and Touch-Up Primer: SPCC 15, Type 1, red oxide .

.8 Stainless Steel: ASTM A167, Type 304 commercial grade, No. 4 finish.

2.2 FABRICATION

.1 Fit and shop assemble items in largest practical sections, for delivery to site.

.2 Fabricate items with joints tightly fitted and secured.

.3 Continuously seal joined members by continuous welds.

.4 Grind exposed joints flush and smooth with adjacent finish surface. Make exposed joints butt tight, flush, and hairline. Ease exposed edges to small uniform radius.

.5 Exposed Mechanical Fastenings: Flush countersunk screws or bolts; unobtrusively located; consistent with design of component, except where specifically noted otherwise.

.6 Supply components required for anchorage of fabrications. Fabricate anchors and related components of same material and finish as fabrication, except where specifically noted otherwise.

2.3 FABRICATION TOLERANCES

.1 Squareness: 3 mm maximum difference in diagonal measurements.

.2 Maximum Offset Between Faces: 1.5 mm.

.3 Maximum Misalignment of Adjacent Members: 1.5 mm.

.4 Maximum Bow: 3 mm in 1.2 m.

.5 Maximum Deviation From Plane: 1.5 mm in 1.2 m.

2.4 FINISHES - STEEL

.1 Clean surfaces of rust, scale, grease, and foreign matter prior to finishing.

.2 Do not prime surfaces in direct contact with concrete or where field welding is required.

.3 Prime paint items with one coat.

.4 Stainless steel: #4 Satin finish.

PART 3 EXECUTION

3.1 EXAMINATION

.1 Verify that field conditions are acceptable and are ready to receive work.

3.2 PREPARATION

.1 Clean and strip primed steel items to bare metal where site welding is required.

3.3 INSTALLATION

.1 Install items plumb and level, accurately fitted, free from distortion or defects.

.2 Provide for erection loads, and for sufficient temporary bracing to maintain true alignment until completion of erection and installation of permanent attachments.

.3 Field weld components indicated on shop drawings.

.4 Perform field welding in accordance with AWS D1.1.

.5 Obtain approval prior to site cutting or making adjustments not scheduled.

.6 After erection, prime welds, abrasions, and surfaces not shop primed, except surfaces to be in contact with concrete.

3.4 ERECTION TOLERANCES

.1 Maximum Variation From Plumb: 6 mm.

.2 Maximum Offset From True Alignment: 3 mm.

.3 Maximum Out-of-Position: 3 mm.

3.5 SCHEDULE

.1 The following Schedule is a list of principal items only. Refer to Drawing details for items not specifically scheduled.

.2 Elevator Pit Ladder: Steel as detailed – prime paint.

.3 Brackets at Security counter: as detailed – prime paint.

.4 Metal Sleeves on second floor containing mechanical piping. As detailed – prime painted.

.5 Half height wall support: 76mm x 76 mm HSS Posts (2 required) – prime painted.

.6 Metal angles at window openings as back up for curtain wall: As detailed – prime painted.

.7 Painted steel railings: 38 mm steel pipe, welded construction. Carry ends of handrail 305 mm past last post each end.- prime paint.

.8 Stainless steel handrail: 38 stainless steel pipe.

.1 Handrail bracket. 16 mm dia. Stainless steel Brackets welded to 75 mm dia. X6 mm stainless steel plate, with 3 countersunk holes for wall attachment.

.2 Provide one bracket 300 mm from each end of handrail and maximum 1000 mm on centre throughout the length of the handrail.

.3 All stainless steel to have #4 finish. All fasteners to be stainless steel.

END OF SECTION