

Part 1 GENERAL

1.1 RELATED WORK

- .1 Electrical Division

1.2 REGULATORY REQUIREMENTS

- .1 All items supplied to be CSA approved.

1.3 SUBMITTALS

- .1 All submittals shall comply with Section 01 33 00.
- .2 Submit manufacturer's product data, operation & maintenance data, and shop drawings to indicate performance criteria, sizes, layouts, materials, finishes, electrical requirements, wiring diagrams, installation details, mounting bolt locations, floor templates, and user operation.
- .3 Within 3 days of verifying compliance and completion of Work of this Section, the manufacturer's representative shall submit a Field Report to the Construct Administrator.

1.4 QUALITY ASSURANCE

- .1 The manufacturer shall have experience in the manufacture of pedestrian control equipment for a minimum of ten (10) years.
- .2 The installer must be authorized by the manufacturer as a representative, and be trained and approved to install the units specified in the Work.

1.5 WARRANTY

- .1 Provide a written minimum one (1) year manufacturer's warranty against any defects in materials and workmanship from the Date of Substantial Performance.
- .2 Provide a written one (1) year warranty against any defects in labour, installation, and workmanship, from the Date of Substantial Performance.

Part 2 PRODUCTS

2.1 DEVICE REQUIREMENTS

- .1 Pedestrian control barrier lanes consisting of stainless steel pedestals, with clear tempered glass, bi-directional swinging panels, hinged on a vertical axis. Device(s) shall be activated by a signal from detection beams, a security access control device, and/or proprietary equipment.
- .2 Pedestrian lanes to be barrier-free, with no loss of function or security, in accordance with all applicable Building and Safety Codes.
- .3 Drive mechanism shall electronically control the passage swing panels in both directions, with adjustable opening and closing speeds.
- .4 Safety photocells shall prevent the barriers from closing upon an obstruction. Should an obstruction be detected, an alarm shall sound.
- .5 In event of power failure, barriers must push open with minimal force to permit free egress from the building.
- .6 The barriers shall be capable of fully opening in the direction of exit travel, with a connection to the fire alarm system by others.

2.2 DEVICE OPERATION

- .1 Entry: User to present card to Attendant to activate the barrier panels through an HMI Desktop Controller system with a push button located at the Reception desk, which will swing open the panels for a programmed time duration in the direction of travel, and then return to the closed position.
- .2 Emergency exit: the barrier panels shall be able to be pushed open at any time, in the direction of exit, to leave the building.

2.3 ELECTRONIC CONTROL GATES

- .1 Accessible, waist-high turnstile gate with controlled foot traffic flow one direction/uncontrolled in other direction, with a manual control head and adjustable hydraulic shock suppression, steel locking bars, cams, and roller assemblies, permanently lubricated bearings, and key lock feature to lock/unlock, or override controls. ADA rated for barrier-free access. Cabinet to be of a 14 gauge, Type 304 stainless steel in a No. 4 satin finish. Standard BA top black lids. Acceptable product: Model "SpeedStile FLs" by Gunnebo Canada (contact: Nathan Chen, Tel. 403.899.4488). Include related 110V, 15A, 60 Hz. electrical power supply to each of 2 end pedestals and 1 center pedestal. Quantity: 2 x 900mm wide ADA lanes total; refer to drawings for locations.

Part 3 EXECUTION

3.1 INSPECTION

- .1 Verify that surfaces and internal wall blocking are ready to receive the Work and opening dimensions are as instructed by the manufacturer.
- .2 Beginning of installation means acceptance of substrate conditions.

3.2 INSTALLATION

- .1 Install in accordance with manufacturer's instructions.

3.3 MOUNTING HEIGHTS (to meet Building code requirements and unless otherwise noted; confirm locations with Contract Administrator)

- .1 Mirrors: supply by Section 08 80 00 and mount bottom of mirror not more than 1000mm above the finish floor.
- .2 Toilet paper dispensers: mount beside toilets near front edge of toilet at approx. 700mm above the finish floor (above grab bars in accessible stalls).
- .3 Sanitary napkin disposal: mount beside toilet paper dispenser towards the back wall.
- .4 Soap dispensers: close to the lavatory, not more than 1200mm above the finish floor.
- .5 Mount all grab bars, blocking, and anchorage to withstand loads as required in the Code.
- .6 Grab bars at accessible toilets: mount horizontally between 840 - 900mm above the finished floor. The centre of the 900mm long bar beside the toilet shall extend no less than 450 mm in both directions from the most forward point of the water closet, and the 600 long bar behind the toilet shall be centered on the toilet.
- .7 Grab bars at urinals: mount vertically so centerline of bar is 950mm above the finished floor and locate each bar not more than 380mm horizontally from centerline of urinal.

- .8 Grab bar in accessible shower stalls: mount horizontally between 700 and 800mm above the finished floor and locate so that 300mm of the grab bar length overlaps with the folding shower seat on the end wall of the stall.
- .9 Robe hook: mounted between 1100mm to the centre of the hook and locate on a clear wall space, unless specifically shown on the drawings.
- .10 Folding shelf: mount between 1100mm to the top of the shelf when open and locate on clear wall space, unless specifically shown on the drawings.
- .11 Electric Hand dryers and other wall-mounted items: mount on wall with clearance to each side and so that controls are no more than 1100mm above the finished floor in an area that has a clear floor space no less than 900 x 1200mm.
- .12 Folding Baby Change Table: mount horizontally so that the top of the unit, in the folded position, is 1200mm above the finished floor. Locate on a clear wall space or at indicated on the drawings.
- .13 Folding seats in accessible shower stalls: mount horizontally so the seat will be at 450mm above the finished floor and centre it in the end wall of the shower stall.
- .14 Recessed soap dish in accessible shower stalls: mount horizontally at 900mm above the finished floor to the bottom of the dish and locate so that the closest edge of this dish aligns with the front edge of the folding seat in the open position.
- .15 Safety coat hooks in Change Rooms: Refer to millwork details and interior elevations for locations and spacing.

END OF SECTION

Part 1 GENERAL

1.1 WORK OF THIS SECTION

- .1 Design, manufacture, supply, delivery, and installation of all aquatic play structures and items as specified herein, and as indicated on the drawings, including Dwgs. SP-1 and SP-2 by Western Recreation & Development Inc.
- .2 All equipment specified shall be from one supplier typically.

1.2 REGULATORY REQUIREMENTS

- .1 American Society for Testing and Materials (ASTM), latest edition.
 - .1 ASTM F2461, Standard Practice for Manufacture, Construction, Operation, and Maintenance of Aquatic Play Equipment
 - .2 ASTM F2376, Standard Practice for Classification, Design, Manufacture, Construction, and Operation of Water Slide Systems
- .2 Manitoba Health, "Construction and Design Guidelines for Swimming Pools and Other Recreational Water Facilities, Section 1.1.1. Waterslides and Receiving Basins" (current Draft)
- .3 Canadian Playground Safety Institute (CPSI)
- .4 CAN/CSA Z614, Children's Playspaces and Equipment, latest edition.

1.3 QUALITY ASSURANCE

- .1 Manufacturer shall have designed, manufactured, supplied, and installed aquatic play structures and items of similar nature and scope to that specified, successfully for a minimum of 5 years and at a minimum of 10 installations. Upon request, the manufacturer shall provide a listing of these installations and a Certificate of Insurance AA rated for both products and general liability.
- .2 Installer shall be certified by the Manufacturer for training and experience in installing aquatic play structures of similar scope, for a minimum of 5 years.
- .3 The manufacturer shall designate a certified playground safety representative to supervise the installation and adjustment of play structures, to meet all applicable requirements, Codes, and standards.

1.4 SUBMITTALS

- .1 All submittals shall comply with Section 01 33 00.
- .2 For each item, submit manufacturer's product data, installation instructions, safety data sheets, safety performance standards, and operation and maintenance data.
- .3 For each item, submit shop drawings showing components, connection details, layouts, dimensions, heights and fall protection zones, finishes, colours, and compliance with the above ASTM standards.
- .4 Submit structural integrity tests, vertical tests, and maximum number of users rated for each play structure. Submit certificates of compliance that materials meet all requirements and the tests to which the material has been subjected to.

1.5 DELIVERY, STORAGE, AND HANDLING

- .1 Submit a delivery schedule of play structures and items, at least 14 calendar days prior to delivery.
- .2 Deliver and handle all items in accordance with manufacturer's written instructions, and store in a dry, covered area. Keep items in original packaging until ready for installation.

1.6 WARRANTY

- .1 Provide a written manufacturer's warranty against any defects in materials, manufacture, assembly, and workmanship, AND provide a written installer's warranty against any defects in labour and installation, for one (1) year from the Date of Substantial Performance.

Part 2 PRODUCTS

2.1 MATERIALS

- .1 Provide materials which are standard products of the manufacturer, and which are regularly engaged in the manufacture of aquatic play structures. Submit the tests and certificates listed under Quality Control.
- .2 All metal components shall have factory-drilled holes, be corrosion resistant typically, and be free of excess weld and spatter. Components with extra holes not filled by hardware or covered by components shall be rejected.
- .3 Any steel components shall comply with ASTM A135/A135M, A500/A500M, and A513/A513M, and shall be stainless steel. Min. tensile strength shall be 310 MPa with min. yield of 225 MPa. Remove tailings and sharp protrusions and burnish all edges.
- .4 Any aluminum components shall be type 6061-T6, 6062-T6, or 6063-T6, and shall conform to ASTM B221M/B221. Min. tensile strength shall be 270 MPa and min. yield shall be 250 MPa. Cast aluminum alloy shall conform to ASTM B179, B26/26M, and B108/B108M.
- .5 All fasteners, hardware, and anchors shall be countersunk, corrosion resistant, and rated for a pool environment. When secured, hardware shall be tamperproof, and require special tools for loosening and removal.
- .6 Any plastic components shall be UV resistant, colour-stabilized polyethylene or nylon to ASTM F1487, and non-toxic with no discernible contaminants such as paper, foil, or wood, with a max. 3% air voids. Material shall be free of splinters, chips, peels, buckling, and cracks, and be resistant to solar heat gain, fading, cracking, or fogging. Components with extra holes not filled by hardware or covered by components shall be rejected.
- .7 All items specified and supplied shall be CSA approved.

2.2 FINISHES

- .1 Powder coated surfaces shall receive an electrostatic zinc factory coating prior to painting. Factory powder coating shall be electrostatically applied and oven-cured, in accordance with: ASTM D3359, D173/D173M, D3363, D2794, D2454, B117, and D822.
- .2 Factory prime PVC coating with a clear acrylic thermosetting solution. Primed parts shall be preheated prior to dipping. Liquid polyvinyl chloride shall be UV stabilized and mold-resistant. Cure coated parts and achieve a min. 2mm thickness, within 0.5mm tolerance. Coating shall have an 85 durometer hardness to ASTM D3363, and shall be slip-resistant.
- .3 All paint shall be factory applied to a minimum of 2 coats, and shall resist weather, cracking, peeling, and fading.
- .4 Only sealants approved by the manufacturer are permitted.

2.3 CONFIGURATION

- .1 Refer to Spray Pad/Wading Pool drawings for aquatic play structures layout and locations. Confirm play structure configurations, platform heights, fall height, and maximum equipment height, in the scale shop drawing submission, and indicate any configurations revisions, equipment layout with use zone perimeters, designated play surface spot elevations, maximum equipment height spot elevations, platform spot elevations, and protective barriers and guardrails.

2.4 SPLASH PAD FLOOR SURFACING

- .1 Coordinate with and refer to Section 32 79 00, Rubber Safety Surfacing.

2.5 OTHER SYSTEMS (Refer to Dwgs. SP-1 and SP-2 by Western Recreation & Development Inc.)

- .1 Supply and install all pumps, filters, controllers, chlorine tanks, acid tanks, water reservoirs, valves, fittings, etc., as indicated on the equipment list and as shown for both the Spray Pad and Wading Pool, and to achieve a complete operational system. Include all related piping systems to the drains for the pool drainage system around the Wading Pool perimeter edge. Refer to Mechanical drawings and specifications for the drains specified.

Part 3 EXECUTION

3.1 PREPARATION

- .1 Coordinate finished floor elevations, slopes, and drains are correct and as intended on the drawings and as required by all applicable regulations.
- .2 Coordinate that thicknesses of the rubber safety surfacing are where they are required for proper fall protection to meet all applicable regulations.

3.2 LAYOUT

- .1 Before start of installation, temporarily mark out the entire play structure on floor surfacing with painters tape, to ensure proper clearances at all edges, proper access and egress, zone perimeters, and general circulation.
- .2 Ensure that 'use zones' (fall zones) are clear of hard surfaces, objects, or obstacles, and fall clearly within the rubber safety surfacing area. Recheck that fall heights are addressed.

3.3 INSTALLATION

- .1 Install all components in accordance with manufacturer's written installation instructions, and to comply with all applicable regulations.
- .2 Recheck for: tight hardware and connectors, filled component holes, sharp points, edges, protrusions, pinch, crush, or shear points, suspended and other hazards, and address as necessary. Designated certified safety inspector to provide a written report describing the results of this evaluation.
- .3 Replace any products and/or hardware that does not comply. Any damage as a result of a failed installation, shall be at the expense of the Contractor.

3.4 SIGNAGE

- .1 Supply and install any signage or warning/identification labels as required by applicable regulations, which might identify safety precautions, maximum number of users, etc.

3.5 CLEAN UP AND PROTECTION

- .1 Remove all packing materials from the Site and recycle when possible.
- .2 Clean all surfaces of dirt, stains, filings, and other blemishes from shipment and installation. Follow cleaning methods and agents recommended by the manufacturer.
- .3 Protect work area with temporary barricades and signage, until Substantial Performance is achieved.

END OF SECTION