

SECTION 131413 - WATERSLIDES

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and General Provisions of the contract, including General and Supplementary Conditions and Division 1 - specification sections, apply to the work specified in this section.

1.02 SUMMARY

- A. Furnish labor, material, equipment and services for installation of the fiberglass waterslide(s) including foundations, anchor bolts and support structure.
- B. The outdoor waterslide must have an approximate slide length of 95 lineal feet at the centerline, a vertical drop of approximately 9 feet and consist of multiple turns, entry sections and straight sections as shown on the project plans. Length must include the starter tub and end cap (return flange).
- C. Provide minimum interior cross section, 36-inch-wide x 24-inch-deep, with the side riser on the outside of curves forming a 230-degree enclosure. Splashguards on the outside of slide high wall, as necessary, must be an integral part of slide section. Bolt-on sections are not permitted.
- D. Design, furnish and provide foundation system, structural supports and other related work to meet specified and indicated criteria.
- E. Furnish and install fiberglass waterslides and special effects as indicated on the drawings, specified herein, and as necessary for proper completion including, but is not necessarily limited to:
 - 1. Fiberglass flume components.
 - 2. Flume structural support systems including foundations and support columns.
 - 3. Tower, platforms, stairways and related supports.
 - 4. Installation supervision, ride testing and certification.
 - 5. Labor, materials and equipment to complete the installation.
 - 6. Operations and maintenance manuals.
 - 7. On site startup training.
 - 8. Proper signage as required.
- F. Related work specified elsewhere (completed by others):
 - 1. Demolition and repairs to decks, fences and landscaping.
 - 2. Construction of concrete drilled pier or spread footer foundations, columns and flatwork as required.
 - 3. Electrical works, buildings, permits and modifications to the pool walls and waterslide areas. Necessary utilities required for installation and operation of the waterslide and special effects areas (if applicable) as specified by manufacturer.
 - 4. Supply and installation of mechanical equipment and pool piping as necessary for slide operation.
 - 5. Building wall and pool wall penetrations, weather proofing and/or sealing of building penetrations once waterslide is installed.
 - 6. Installation and supply of mechanical and electrical equipment, including but not limited to waterslide pumps, controls and switches, electrical connections and wiring, and related piping clear to starter tubs.

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- a. Drainage, ballast tanks, filtration, pumps, etc., for runout and splashdown pools if applicable.
 - b. Plumbing connections per manufacturer's schematic, including balanced T-connections for multi-feed waterslides.
 - c. Plumbing supports, including clamps applied to waterslide support tower.
 - d. Electrical bonding/grounding
 - e. Grouting under base plates and installation of weep holes.
 - f. Grating if applicable.
7. The waterslide manufacturer will need adequate access at all times to and around the area of the waterslide. At a minimum, the manufacturer will need unobstructed access for an all-terrain manlift and a 10,000 lb. Lull. Depending on the complexity of the waterslide and at the waterslide manufacturer's sole discretion, a 25-ton crane may also be utilized.
- G. Concrete foundations:
1. Concrete foundation design must be completed by the slide manufacturer and constructed by the general contractor or pool builder.
 2. Anchor bolts for the slide foundations must be supplied by the waterslide manufacturer along with full size paper templates for anchor bolt spacing.
- H. Materials:
1. The waterslide(s), tower and stairways, structural steel supports and fiberglass must be installed by the slide manufacturer or by a manufacturer-certified installation company.
- I. Color:
1. Color must be integral to the fiberglass. Fiberglass color must be selected from a minimum of 180 RAL standard colors supplied by the waterslide manufacturer.
- 1.02 QUALITY ASSURANCE
- A. Supplier must demonstrate their specific experience and competency in the manufacturing and installation of waterslides.
 - B. The supplier must have completed at least five installations comparable to the system specified herein within the last 5 years. Submit a list of such projects with name, address and current telephone number of the Owner's operator and Architect of Record to the Architect with bid on bid date.
 - C. The Owner reserves the right to reject the bid if the evidence submitted by, or investigation of, such bidder fails to satisfy the Owner that such bidder is properly qualified to carry out the obligation of the contract and to complete work described or if bidder does not have the qualifications stated herein.
- 1.03 REGULATORY AGENCY REQUIREMENTS AND ENGINEERING SERVICES
- A. In addition to complying with applicable codes and regulations, comply with pertinent recommendations contained in:
 1. Waterslide flumes must comply with "WWA Considerations for Operating Safety", 1989, as published by the World Waterpark Association.
 2. "Specifications for the Design, Fabrication and Erection of Structural Steel for Buildings" of the American Institute of Steel Construction.
 3. "Code for Welding in Building Construction" of the American Welding Society.

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4. "Specifications for Architecturally Exposed Structural Steel" of the American Institute of Steel Construction.
 5. "Manual of Standard Practice for Detailing Reinforced Concrete Structures", Publication ACI 315-92 of the American Concrete Institute.
 6. American Concrete Institute. ACI 301-10 Structural Concrete for Buildings. 2010.
 7. "ASTM" requirements for steel components, of the American Society of Testing Materials.
 8. Governing Building Code IBC 2009.
- B. Where provisions of pertinent codes and standards conflict with this specification, the more stringent must govern.
- 1.04 COORDINATION AND CLARIFICATION
- A. Coordinate with other trades affecting and affected by work in this section.
 - B. The CONTRACTOR must establish with the selected waterslide installer and with other trades having related work in this Section that work necessary to complete the installation is included in his bid to the General Contractor. Further the waterslide supplier in his bid to the CONTRACTOR will list specifically those items of related work not included in his proposal.
 - C. When in doubt regarding the responsibility for work covered in this section and/or discovery of errors or omissions in the bidding documents, the CONTRACTOR and/or supplier must notify the Architect and request a clarification prior to the bid date.
- 1.05 CONTRACTORS ALTERNATIVE PROPOSAL
- A. Suppliers to submit their bid based on materials, equipment and methods as specified in this section. Substitutions of material, equipment or method must be submitted in accordance with the specified procedure described in Division 1. Required changes to the construction documents must be described in writing and costs or changes must be included in the price quoted to complete the installation.
- 1.06 SUBMITTALS
- A. Division 1 requirements.
 - B. Shop Drawings
 1. Provide a complete set of checked shop drawings required to fabricate and assemble systems that is signed and sealed by a Licensed Professional Engineer in the State of Georgia.
 2. Statements
 - a. Provide the Owner with copies of permits and receipts for fee payments.
 3. Test Reports
 - a. Submit a sample form of performance test reports that will be used by the installer following slide erection, prior to beginning slide installation.
 - C. Include complete product data indexed, tabbed and referenced to specifications.
 - D. Include complete shop drawings, directly from the manufacturer at appropriate scale, illustrating the fabrication and installation of the waterslide and support structure.
 - E. Submit engineering design calculations that are prepared and sealed by a Professional Engineer licensed in the State of Georgia, with shop drawings for waterslide layouts, structures and footings. Provide rough-in information for interfacing mechanical and electrical work. Shop drawings must include plans, elevations, cross sections, details, sleeves, inserts and anchors must be cast into concrete, and calculations required to construct the waterslide and associated feature footing structures. A licensed professional engineer must utilize existing soils and geotechnical data in

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the preparation of the structural design criteria. Provide design calculations and support data required to show compliance with performance requirements specified, including design assumptions concerning element restraint. Calculations must be certified and sealed by the licensed professional engineer. Provide a design in response to actual site conditions.

- F. Installation of the waterslide and associated feature footings must not commence until detailed plans and specifications are approved by the department having jurisdiction. The responsibility for costs associated with obtaining such approval must be part of the General Construction contract.
- G. Specify water supply requirements and required pump characteristics to Architect/Engineer, for approval, prior to preparation of fabrication drawings.
- H. Guarantee / Warranty
 - 1. Work of this section must be warranted against defects of material and/or application for a period of one (1) year from date of acceptance. Failures that may occur within this warranty period, due to defective installation and/or materials, must upon written notification of such failure be immediately repaired or replaced in a timely manner. The exterior of the fiberglass parts that are exposed to view must have a three (3) year color retention limited warranty such that the parts will not exhibit more than 15% color degradation during the warranty period. The exterior finish of the painted steel structure must have a three (3) year warranty.

1.07 MAINTENANCE MANUALS AND CLOSE-OUT SUBMITTALS

- A. Submit one digital copy of complete operating and maintenance instructions covering installed equipment. Include wiring diagrams, lubrication and user maintenance instructions.
- B. Include manufacturer's recommended maintenance schedule, parts lists, piping diagram and troubleshooting information.
- C. Include one set of approved submittals as a part of each O & M manual.
- D. Certification letter: Provide a certification letter from the slide manufacturer to the owner stating that the slide has been installed properly and is functioning according to the slide manufacturer's recommendations.

1.08 PRODUCT DELIVERY, STORAGE AND HANDLING

- A. Deliver material in manufacturer's original, unopened containers and crates with labels intact and legible.
- B. Deliver materials in sufficient time and quantity to allow continuity of work and compliance with approved construction schedule.
- C. Handle materials in a manner to prevent damage.
- D. Store materials on clean raised platforms with weather protective covering when stored outdoors. Provide continuous protection of materials against damage or deterioration.

PART 2 - PRODUCTS

2.01 SLIDE CONFIGURATIONS

- A. The preliminary slide layouts have been developed utilizing a slide path design provided by Splashtacular. Slides by Avalanche, and Vortex International are acceptable provided they meet deck accessibility and support tower requirements without design changes.

2.02 FIBERGLASS FLUME SLIDE COMPONENTS

- B. Fiberglass Laminate Materials

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1. Gel Coat
 - a. Interior gel coat must be high quality isophthalic polyester with U.V. inhibitors. 18 to 20 mil thick ride surface, 20 mils exterior coating. Translucent and opaque fiberglass must also have exterior UV protection clear coat. Follow instructions in Gel Coat Application Procedure ISO PP025.0 and Control Spray Procedure ISO PP020.0.
 2. Resins
 - a. Thixotropic promoted low-profile polyester resin with alternate layers of continuous roving chop and 18 oz. woven roving.
 3. Structure
 - a. Fiberglass lamination with sandwich panel centerline reinforcement. Standard flume section must be 3/16-inch-thick, minimum weight 20 oz. per square foot. Flanges must be minimum 1/4-inch-thick and extend at least 3-inch from the slide surface, "L" type. Verify gel coat thickness using a mil gauge as described in Mil Gauge Procedure ISO PP095.0.
 4. No fill material to fiberglass slide other than aforementioned products are allowed without written approval prior to erection.
 5. Confirm proper cure level on the gel coat following the guidelines in Barcol Impressor Procedure ISO PP090.0.
 6. Apply chopped glass reinforcement according to specified thickness using Spray Up Procedure ISO PP030.0 and Control Spray Procedure ISO PP020.0.
 7. Verify laminate thickness using a mil gauge as described in Mil Gauge Procedure ISO PP095.0.
 8. Verify proper cure on the part per guidelines in Barcol Impressor Procedure ISO PP 090.0.
 9. Using guidelines in De-Molding Procedure ISO PP075.0, remove the completed part from the mold.
 10. Trim edges and perform required cut outs per customer specifications.
 11. Inspect part to verify compliance to specifications and apply required quality sticker per Quality Inspection Procedure ISO PP145
 12. The exterior of the fiberglass parts that are exposed to view must be coated with an exterior UV protection clear coat.
- C. Joints, Connections and Seams
1. Flume to flume joints must be fastened with 3/8-inch stainless steel bolts, washers (2 per bolt) and self-locking nuts. Indoor installations must utilize 316 stainless-steel flange hardware.
 2. Flume to support system connections must be made with galvanized hardware and must be connected separately from waterslide section connections to the exterior flange of the flume. Hardware will not be painted.
 3. Connections must be external to flume interior. No connection, hardware or penetration must be made to flume interior.
 4. Fiberglass joint connections must be made using waterproof, non-shrink caulking with suitable adhesion to fiberglass. Silicone sealants will not be permitted. The slide manufacturer must supply caulking material.
 5. Using fiberglass or gel coat over seams within the riding surface is not permitted. Sanding within the slide surface should be minimized to maintain adequate gel coat thickness and gloss. Sanded areas must be polished to a high gloss until undetectable.
- D. Color

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1. Color must be integral to the fiberglass. The color must be selected by the Architect and Owner from available colors submitted with the bid in the form of color chart or color chips. Color variations within the inside and outside of slide must be an option to the Owner. Color may be different inside and outside or staggered per piece on open flumes as well as enclosed slides. Starter tubs will have same interior and exterior color. Non-visible portions of runout sections will not be required to have a gel-coat application.

E. Waterslide must be furnished with the following components:

1. Entry tray must be pre-plumbed for water injection downstream of the rider entry point. Rider entry area must be a non-skid surface, with no steps permitted.
2. Waterslide must be constructed so that water loss does not occur. Risers or built-up sections are required for ride safety and to control water loss, must be provided on curved flume sections. Risers must be integral to the flume, and bolt-on sections will not be acceptable.
3. Riser ends to provide a smooth transition at the beginning and ending of each riser must be provided integral to the flume section.
4. End of each slide runout must be complete with an end cap, at least 1'-6" long, and flush with the sides of the runout. An adjustable PVC or fiberglass weir must be installed per the drawings at the end of the runout so that flow into the main drain below the end cap can be controlled.
5. Factory pre-drilling of sections.
6. Waterproof joint sealant
7. Stainless steel assembly hardware

2.03 FLUME SLIDE STRUCTURAL SUPPORT SYSTEM

- A. The flume support towers, tower foundations and stair systems must consist of elements necessary to support the fiberglass flume or tube safely and securely from starting platform to the slide terminus and consist of:
1. Concrete footings and foundations, including excavation, backfill and compaction.
 2. Concrete/Steel support columns.
 3. Structural steel tower and stair system.
 4. Guard railing, balustrades and handrails must be painted galvanized steel tubing. Stainless steel railings are acceptable.
 5. Connecting hardware.
- B. Design of slide supports, and footings must be certified by a Licensed Structural Engineer in the State of Georgia. Design must accommodate the local soil conditions as indicated, and the stresses generated by the water flume ride during use.
- C. Concrete
1. Cast-in-place
 - a. Minimum compressive strength must be 3,000 psi at 28 days. Maximum size aggregate must be $\frac{3}{4}$ inch. Slump must not be more than 3 inches. Concrete must be vibrated but not excessively so as to cause segregation of materials. Check applicable drawings for locations of block-outs, anchors, inserts, etc. before concrete is placed.
 2. Reinforcing Steel

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- a. $F_y = 60,000$ psi min. for: ASTM A615 (deformed bar) or equivalent. ASTM A82 (welded wire fabric) or equivalent.
 3. Unless otherwise noted, concrete cover to reinforcing must be as follows; Footing 3 in. and walls, pedestals and columns 1 ½ in.
 4. Concrete procedures to conform to latest ACI Building Code.
 5. Steel reinforcing lap splices for concrete slab must be a minimum of #6 bar diameter.
- D. Structural Steel
1. Structural supports, tower and walkway systems must be designed to safely support these facilities given the following design criteria:
 2. Seismic zone as required for the project location.
 3. Wind speed as required for the project location.
 4. Snow load (as required where slide is being installed).
 5. Live load of 100 psf.
 6. Must consist of radial arms with end yoke type fastening assembly for each support point. (Note: A central column support with radial arms may be used to support circular sections of 180 degrees or greater.)
 7. Structural steel must be new material of sizes and shapes listed in current AISC handbooks and as indicated on drawings.
 8. Shapes and plates
 - a. ASTM A36 or equivalent minimum $F_y = 36,000$ psi (248.2 MpA)
 9. Square structural section
 - a. ASTM A500 minimum $F_y = 46,000$ psi (317 MpA).
 10. Round steel pipes
 - a. ASTM A53 Grade B minimum $F_y = 35,000$ psi (241.3 MpA).
 11. Cast steel: ASTM A27 minimum $F_y = 35,000$ psi or equivalent.
 12. Tension rods, bolts and anchor bolts: ASTM A36 minimum allowable tensile stress F_t -19,100 psi (131.7 MpA).
 13. Structural bolts
 - a. ASTM A325, friction type or equivalent minimum allowable shear stress, F_v -21,000 psi (144.8 MpA). Minimum allowable tensile stress, F_t -44,000 psi (303.4 MpA).
 14. Welding electrodes
 - a. E480XX electrode (E70XX). Minimum allowable shear stress, F_v -21,000 psi (144.8 MpA).
 15. Grout
 - a. Masterflow 713 or approved equal non-shrink, non-metallic grout. Use as recommended by manufacturer.
 16. Plates, shapes and tubes in contact must be welded with ¼ inch minimum fillet welds around unless otherwise indicated.
 17. Unless otherwise noted steel, structure must be galvanized.

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18. CONTRACTOR must supply temporary bracing to take care of loads on the structure during erection to ensure the safety of the structure, leave as long as it is required, and remove when safety is assured.
 19. Flumes and support arms must be properly set and installed prior to installation of permanent column bracing. Additional column bracing as required by the engineer, in addition to those noted on the drawing, must be provided upon site inspection.
 20. Hollow structural sections must be closed airtight with end plates sealed with welds.
 21. Steel must be thoroughly cleaned of loose mill scale, loose rust, oil and dirt.
 22. Surface must be welded must be free from loose scale, rust, paint or other foreign matter. Care must be taken to minimize stresses due to heat expansion, contraction and distortion by using proper sequence in welding and by other approved methods.
 23. Fabrication and erection must conform to the latest editions of the ASTM Specifications and Code of Practice; welding must be done by welders certified with AWS-D-1.1
 24. Equivalent structural steel sizes listed in current AISC or CISC Handbook may be used upon approval of the Architect/Engineer.
 25. Definitions
 - a. ASTM – American Society of Testing Materials.
 - b. AISC – American Institute of Steel Construction
- E. Column Systems
1. A single or multiple steel/concrete post system must be used.
- F. Starting Towers/Stairways/Railings
1. The starting tower/stairway must consist of:
 - a. A steel/concrete top deck, stair and support system supporting the starting chute for the outdoor slide. Guard railing, balustrades and handrails must be galvanized steel tubing.
 - b. Painted galvanized steel or stainless-steel handrails.
 - c. Bracing and structural support (non-corrodible).
 - d. Concrete Foundation, columns and flatwork as required by the design.
 2. Design
 - a. An Engineer licensed in the State of Georgia must certify the structure design. Structure must be sized to handle the user volumes, the height required by the flume length, and the location on the existing topography.
 - b. Stair design must follow current UBC Code per State Building Codes.
 - c. Coordinate with slide manufacturer.
 3. Concrete Footings and Piers
 - a. Must be designed and constructed to support the design loads.
 - b. Concrete must have a minimum twenty-eight (28) day compressive strength of 4,000 psi.
 - c. Footings must be on undisturbed soil.
 - d. Vertical members must be on concrete footings, above grade and be secured with flange plates and anchor bolts.
 4. Hardware

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- a. Steel hardware, ASTM A-7 or A-36 (hot dipped galvanized).
 - b. Bolts, Federal Specification FF-B-SC1.
5. Starting Tower
- a. Starting tower structure must be constructed of a galvanized steel support deck with a slip resistant finish surface consisting. Coordinate design with building structural engineer and slide manufacturer.
 - b. Awning structure to cover upper slide platform that is designed for local wind loads must be provided. Awning must be high density knitted polyethylene cloth, with an epoxy painted steel frame to support the structure. Bottom of awning must be no less than 7.6 feet above platform. Awning color must be selected by Engineer/Owner.
6. Stairs and Railings
- a. Prefabricated stairway sections must include stringers constructed of hot dip galvanized steel. Stair treads and landings must be of non-corrosive and impervious fiberglass or vinyl with appropriate non-slip surface. Colors must be chosen from waterslide manufacturer color chart. Stairway systems, handrails and guardrails must comply with applicable codes.
 - 1) Switchback and wraparound towers: Stair treads will be pultruded fiberglass treads with an integral riser and bottom plate. Stair tread width will be 40" wide (36" between grabrails, with grabrails on both sides of the stairs).
 - b. Rail system must be a minimum of 42-inch-high, including height above starter tub section, non-climbable and designed to prevent accidental exit. Guard railing, balustrades and handrails must be painted galvanized steel tubing. Stainless steel railings are acceptable. Handrails must be provided to meet code requirements. Color selection by Architect/Engineer and Owner.
 - c. Railing must surround top platform on sides (except at slide start area). Railings must be provided along stair section and continue from the top platform area, down to the bottom of the finish deck.
 - d. Stair system from finish deck to top platform must be a minimum of 36 inches in clear width.
 - e. A chain with removable self-closing hook and sign labeled "CLOSED" must be provided across the entry of each waterslide at the top of the waterslide platform.
 - f. A swing gate with self-closing hook and sign labeled "CLOSED" must be provided across the stair entry point on the deck of the waterslide.
 - g. Rules Signage: Provide two (2) rules signs with manufacture's recommended waterslide rules. Mount one sign at the top platform and one (1) at the stair base. Both slide rule signs must be clearly visible to the slide users.
7. Finish
- a. Ferrous metal parts (Steel components of waterslide must be factory painted with field touch-up as required.)
 - 1) Surface Preparation
 - a) Blast surfaces that must be coated to the extent of an SSPC-SP6 commercial-grade level of cleanliness. Create a 1.5 – 2.0 mil profile and prime before rust bloom forms on the surface.
 - 2) Primer

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- a) Spray apply in the shop, one full coat of Tnemec Series 90-97 Aromatic Urethane Zinc-Rich or Amercoat 68 HS primer to a DFT of 4.0 mils. Allow to cure as per data sheet (4 hours at 75 deg. F.) before applying topcoat.
- 3) Topcoat
 - a) Spray apply in the shop one even finish coat of Tnemec Series 74-Color Endura-Shield. Acrylic Polyurethane or Ameron PSX-700 finish to a minimum DFT of 5.0 mils. Allow to cure as per data sheet (6 hours at 75 deg. F.) before handling/loading in the shop.
- 4) Field Touchup
 - a) If the broken area of the shop applied film is rough from scaring, disc-abrade that area smooth and then solvent clean it as per an SSPC-SP1, level of cleanliness. Brush or roller apply one coat of Tnemec Series 135 Chembuild or Ameron epoxy primer. Allow to cure as per data sheet. Brush or roller apply one coat of Tnemec Series 74 or Ameron PSX-700 shop applied color to bring the film up to specification thickness.
- b. Piping
 - 1) Above grade plumbing must be Schedule 80 PVC, unless otherwise noted. Refer to drawings for sizes and connection details.
 - 2) Above grade waterslide piping must be painted to match waterslide tower color. Paint and primer must be approved for painted PVC application. Primer must be Pro Shield Waterborne Primer/Sealer (05-208) as manufactured by Columbia Paint & Coating; paint must be Industrial Acrylic DTM Polyurethane (05-502) as manufactured by Columbia Paint & Coating or approved equal. Contractor to confirm color with Architect on site prior to painting.
- c. Top deck and landing must have a non-slip finish.
- d. The stair system and treads must consist of galvanized steel pans with brushed finish concrete finish or vinyl tread inserts. Stair treads and platform must have a slip-resistant finish.
- e. Exposed concrete vertical surfaces must have an exposed aggregate finish.
- f. Seal concrete with a minimum of two (2) coats of H&C silicone acrylic concrete sealer, FLR Paints, Inc, or approved equal.
- g. Colors must be as selected by the Owner and Architect/Engineer.

PART 3 - EXECUTION

3.01 SYSTEMS INSTALLATION

- A. The waterslide installer must assemble and install equipment, special parts and accessories in accordance with these specifications and detailed layouts and shop drawings of equipment supplier.
- B. Installer must furnish and provide anchors and inserts must be imbedded including fittings, inserts, structure sleeves and required anchorage.
- C. Provide equipment and systems in accordance with manufacturer's directions.
- D. The waterslide must be as described in the specifications. Items are detailed and specified as a guide reference and for dimensional purposes. The CONTRACTOR must make provisions accordingly and submit shop drawings and submittals based on that data.
- E. Installer must coordinate, supervise and approve work by other trades responsible for work related to this section. Work in this section must be performed by the waterslide installer except as noted.

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3.02 SITE CONDITIONS

A. Inspection

1. Prior to installation of the work of this section, carefully inspect the installed work of other trades and verify that such work is complete to the point where this installation may properly commence.
2. Verify that fiberglass slide and structural support systems may be fabricated and erected in strict accordance with the original design, the approved shop drawings and the referenced standards.

B. Discrepancies

1. In the event of discrepancy, immediately notify the Architect.
2. Do not proceed with fabrication or installation in areas of discrepancy until such discrepancies are fully resolved.

3.03 FABRICATION

A. Fabricate the waterslide and structural support systems in strict accordance with the approved shop drawings and referenced standards.

B. Use of dissimilar metals in contact is not permitted.

3.04 INSTALLATION OF FOOTINGS AND FOUNDATIONS

A. Foundations must be installed in strict accordance with the approved shop drawings prepared by Professional Engineer. Supplies, labor, and installation will be the sole responsibility of others and not the responsibility of the slide manufacturer. The waterslide manufacturer will supply hot-dip galvanized anchor bolts and associated hardware. Installation must be in accordance with manufacturer's structural drawings and instructions.

3.05 INSTALLATION & SUPPLY OF HYDRAULIC PACKAGE

A. Minimum Required Water Supply:

1. Slide A: 1000 GPM

3.06 WELDING

A. General

1. For details of joints, comply with requirements for AWS joints accepted without qualification tests.
2. Use ASTM A-233, E-70XX series electrodes.
3. Follow applicable sections of AWS specifications.

B. Types of welds unless otherwise noted. Field welds will not be permitted.

1. Make fillet welds 1/4 inch minimum.
2. Make butt welds full penetration welds.

3.07 ERECTION

A. General

1. Erect the fiberglass waterslides and structural support systems in strict accordance with the approved shop drawings and pertinent regulations and standards.

B. Tolerance

1. Align structural steel straight, plumb and level with a tolerance of 1 in 500.

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C. Fiberglass Joints

1. Flange to flange connections must be made utilizing the waterproof caulking supplied by the fiberglass manufacturer and must be joined in such a way as to provide for a safe and matless ride. Joints must be aligned for a completely smooth riding surface, that is, alignment must be within 1/64 inch and in no case must the downstream side of the joint be above the upstream side of the joint.

D. Steel Finishes

1. Scarred surfaces must be cleaned and cold galvanized with zinc rich paint.

3.08 CLEAN-UP

- A. Upon completion of the work of this Section, immediately remove fiberglass, debris and rubbish occasioned by this work to the approval of the Architect and at no additional cost to the Owner.

3.09 START-UP AND INSTRUCTION

- A. Supply the services of an experienced operator/instructor after waterslides have been completed and initially placed in operation. During this period, the Owner's representatives who will be operating the pool must be thoroughly instructed in the phases of the slide operation. Prior to leaving the job, obtain written certification from the designated Owner's representative acknowledging that the instruction period has been completed and necessary operating information provided. A minimum of one (1) 2-hour session is required.

3.10 CONCLUSION

- A. It is the intention of these specifications to provide a complete installation of the waterslides as described. Accessory construction and apparatus necessary or advantageous in the operation or testing or high performance of the work must be included. The omission of specific reference to the work necessary for such complete installation must not be interpreted as relieving the waterslide supplier or installer from furnishing and installing such parts. Such omission or clarification must be brought to the attention of the Architect prior to bidding.

END OF SECTION 131413