

**Supply of Playground Equipment for Victoria South and  
Colony Parks**

**BID DATE: February 9, 2017**

**BID TIME: 10 am CST**

PREPARED BY:

HOFFMAN ESTATES PARK DISTRICT  
1685 W. Higgins Road  
Hoffman Estates IL 60169-2998  
Telephone: (847) 885-7500  
Facsimile: (847) 885-7523

## HOFFMAN ESTATES PARK DISTRICT

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Date November 21, 2016

Dear Bidder:

The bid materials for **Supply of Playground Equipment for Victoria South and Colony Parks** includes : Invitation to bid, Specification Package, CAD file with playground areas, performance playground designs, pictures of performance playground equipment, playground equipment design score sheet and bid proposal forms package. All pertinent information is included within these items. Please look at the specifications to make sure your proposed products conform to the minimum specification standards. You will be required to have your designs pre-approved prior to bid submission. Vendor's submission for preliminary approval shall include a statement that they have read all the specifications and that their designs meet or exceed the minimum specification standards. In addition, each vendor shall submit plans, sections and 3-D views of their designs along with the play value review document for each playground project on the excel spread sheet provided as part of this bid package. Any form other than the excel form provided will not be accepted.

Preliminary design concepts must be submitted to staff no later than January 18, 2017. At that time staff will work with vendors to develop playground concept(s) that meet the district's minimum play value requirements. If changes are required, bidders will have until 2 pm on January 31, 2017 to resubmit their design for staff review and possible acceptance. At 3 pm on the 31st staff will then post the list of accepted vendor designs. All vendors with approved concept designs will then complete the bid paperwork along with final bid pricing to be opened on February 9, 2017.

Bids from non-approved vendors will be returned unopened. Final decision on vendor approval will be determined by HEPD staff.

Prior to submitting, please copy your proposal and retain one copy for your records.

I look forward to reviewing your bid proposal and working together with you on these projects. Should you have any questions or comments please contact me at (847) 561-2172.

Sincerely,

*Gary T. Buczkowski*  
Division Director of Planning & Development

## INVITATION TO BID

Sealed bids for **Supply of Playground Equipment for Victoria South and Colony Parks** will be received by the Hoffman Estates Park District at our office; 1685 West Higgins Road, Hoffman Estates, Illinois 60169 until **exactly 10:00 A.M. February 9, 2017**, and then publicly opened and read. Bids submitted after the closing time will be returned unopened.

The Hoffman Estates Park District Board of Commissioners will make final award.

Proposals shall be submitted on the attached Quotation Form and returned in sealed envelope. No bidder may withdraw his proposal after the hour set for the opening thereof, or before award of the Contract, unless said award is delayed for a period exceeding thirty (30) calendar days.

The Hoffman Estates Park District requires all bidders to comply with all provisions of the Park District Prevailing Wage Ordinance **O-16-03**. This ordinance specifies that no less than the general prevailing rate of wages as found by the Park District or Department of Labor or determined by a court on review shall be paid each draft type of worker or mechanic needed to execute the contract or perform the work.

The Hoffman Estates Park District may reject any or all of the bids on any basis and without disclosure of a reason. The failure to make such a disclosure shall not result in accrual of any right, claim, or cause of action by an unsuccessful Bidder against the Hoffman Estates Park District.

Bid results and the award of the bid will be published on the Hoffman Estates Park District website [www.heparks.org](http://www.heparks.org) under General Information/Bid Information.

Sincerely,

*Gary T. Buczkowski*  
Division Director of Planning & Development

HOFFMAN ESTATES PARK DISTRICT

INSTRUCTIONS TO BIDDERS

1. Identification of Project

The official name and location of the project shall henceforth be known as:

**Supply of Playground Equipment for Victoria South and Colony Parks**

The official name and address of the project owner shall henceforth be known as:

HOFFMAN ESTATES PARK DISTRICT  
1685 West Higgins Road  
Hoffman Estates, IL 60169-2998

Last date for submission of concept plans for pre-approval: 5 pm **January 18, 2017**

*Note: Vendors will be allowed to schedule review meetings with staff to review submissions and make necessary changes so as to meet desired final product intent. Sustainability information must be submitted at this time to have designs considered and or approved as equal.*

Final date to receive pre-approval of playground plans **January 31, 2017. A list of successful bidders will be posted by 3 pm on the 31<sup>th</sup>. Only designs receiving pre-approval will be accepted and opened at the time of bid opening.** All others will be returned unopened.

Bid Opening: **February 9, 2017**

Committee Approval: **February 21, 2017**

Board Approval: **February 28, 2017**

Contract Awarded: **March 1, 2017**

Commencement of Work: Commencement of paperwork shall begin immediately upon notification of award. The bidder understands that all equipment purchased under this bid shall be delivered to the park districts yard no later than six weeks after issuance of the Purchase Order.

2. Explanation to Bidders

Any explanation desired by a bidder regarding the meaning or interpretation of the invitation for bids, drawings, specifications, etc., must be requested in writing and with sufficient time allowed for a reply to reach bidders before the submission of their bids.

Any interpretation made will be in the form of an amendment of the invitation for bids, drawings, specifications, etc., and will be furnished to all prospective bidders. Its receipt by the bidder must be acknowledged in the space provided on the Bid Form or by letter or

telegram received before the time set for opening of bids. Oral explanations or instructions given before the award of the contract will not be binding.

### 3. Preparation and Submission of Bids

Before submitting proposal, each bidder shall carefully examine all documents pertaining to the Work and visit the sites to verify conditions under which Work will be performed.

Submission of bid will be considered presumptive evidence that the Bidder has visited the site and is conversant with local facilities and difficulties, the requirements of the documents and of pertinent State or Local Codes, State of Labor and Material Markets, and has made due allowance in his bid for all contingencies. Include in bid all costs of labor, material, equipment, allowance, fees, permits, guarantees, applicable taxes (sales tax does not apply), insurance and contingencies, with overhead and profit necessary to produce a completed project, or to complete those portions of the Work necessary to produce a completed project, or to complete those portions of the Work covered by the specifications on which proposal is made, including all trades, without further cost to the Owner. Obtain all permits and arrange for all inspections. Pay all fees and costs incurred.

No compensation will be allowed by reason of any difficulties which the Bidder could have discovered reasonably, prior to bidding.

All proposals must be made upon the Proposal Form furnished by the Owner attached hereto and should give the amounts bid for work, in numbers, and must be signed and acknowledged by the contractor. In order to insure consideration, the Proposal should be enclosed in an envelope marked "Bid Proposal for Hoffman Estates Park District – **Supply of Playground Equipment for Victoria South and Colony Parks due 10 am CST February 9, 2017** showing the return address of the sender and addressed to: Hoffman Estates Park District, 1685 W. Higgins Road, Hoffman Estates, Illinois 60195. Bids must be sealed, marked and addressed as directed above. Failure to do so may result in a premature opening of, or a failure to open, such bid.

The proposal submitted must not contain erasures, inter-lineations, or other corrections unless each correction is suitably authenticated by affixing in the margin immediately opposite the correction the surname or surnames of the person or persons signing the bid.

Modifications of bids already submitted will be considered if received at the office designated in the invitation for bids by the time set for opening of bids. Telegraphic modifications will be considered, but should not reveal the amount of the original or revised bid. Unless called for, alternate bids will not be considered.

### 4. Prices

The prices are to include the furnishing of all materials, equipment, tools, insurance, bonds, warranties, and all other facilities, and the performance of all labor and services necessary for the proper completion of the Work except as may be otherwise expressly provided in the Contract Documents.

## 5. Time Schedule

The timely execution of any project is extremely important. As this work's timeliness will have a direct effect with other trade components and ultimately on the project's completion. An important factor in evaluating the bids and awarding the contract is this work's timeliness which will have a direct effect on subsequent trade or Contracts and the ultimate completion of the Project. The successful bidder will have to acknowledge that his price and proposed work will be completed according to the proposed schedule provided as part of this bid process.

## 6. Late Bids and Modifications or Withdrawals

Bids and modifications or withdrawals thereof received at the office designated in the invitation for bids after the exact time set for opening of bids will not be considered.

## 7. Withdrawal of Bids

Bids may be withdrawn by written or telegraphic request received from bidders prior to the time set for opening of bids.

## 8. Public Opening of Bids

Bids will be publicly opened at the time set for opening in the invitation for bids. Their content will be made public for the information of bidders and others interested, who may be present either in person or by representative.

## 9. Award of Contract

- A. Award of Contract will be made to the lowest responsible bidder, as determined by the Board of Commissioners of the Hoffman Estates Park District, whose bid conforms to the invitation for bid.
- B. The Board of Park Commissioners may reject any or all of the bids on any basis and without disclosure of a reason. The failure to make such a disclosure shall not result in accrual of any right, claim, or cause of action by any unsuccessful bidder against the Hoffman Estates Park District.

## 10. Authorization to Proceed

The accepted bidder shall be issued a Purchase Order from the Owner as authorization to proceed.

## 11. Postponement of Date for Opening Proposals

The Owner reserves the right to postpone the date of presentation and opening of proposals and will give telegraphic notice of any such postponement to each interested party.

# **SPECIFICATIONS**

## **SUPPLEMENTARY CONDITIONS**

### **SECTION I – GENERAL**

#### **1. Application**

The General Conditions and Supplementary General Conditions shall be used in conjunction with and are a part of any and all Sections of the Specifications and all Contracts and Subcontracts that may be made for the completion of the work in all its parts as identified and described in the Contract Documents.

#### **2. Definitions**

Owner: The Hoffman Estates Park District, Board of Commissioners, Staff and its appointed Owner's Representative.

Contractor: A firm, corporation or individual with whom the Owner makes a direct Contract for the construction of all or any portion of the work.

Engineer: The authorized Representative of the Owner.

Landscape Architect Gary Buczkowski an employee of the Hoffman Estates Park District.

The words "approve", "equal to", "as directed", etc., are interpreted and will be taken to mean "to the satisfaction of the Owner." Samples shall be submitted and approvals shall be requested in ample time to avoid any delays should resubmission of an item be necessary.

#### **3. Contract Documents**

The Contract Documents shall consist of Invitation and Instructions to Bidders; the proposal, the Owner's Purchase Order, the Drawings, the Supplementary Conditions and the Specifications.

#### **4. Payment**

Final Payment will be made only after the delivery and acceptance of the equipment in conformance with the plans and specification and upon proper invoicing along with all waivers, sworn statements, guarantee statements, and other documents set forth in the Contract Documents. Final payment will be made approximately thirty (30) days after invoicing.

#### **5. Preparation of Bids**

Before submitting proposal, each bidder shall examine carefully all documents pertaining to the work and visit the sites to verify conditions under which work will be performed.

Submission of bid will be considered presumptive evidence that the Bidder has visited the site and is conversant with local facilities and difficulties, the requirements of the



documents and of pertinent State, County or Local Codes, State of Labor and Material Markets, and has made due allowance in his bid for all contingencies.

Include in bid all costs of labor, material, equipment, allowance, fees, permits, guarantees, applicable taxes (**sales tax does not apply**), insurance and contingencies, with overhead and profit necessary to complete those portions of the work covered by the specifications on which proposal is made, including all trades, without further cost to the Owner. Obtain all permits and arrange for all inspections. Pay all fees, permits and costs incurred.

No compensation will be allowed by reason of any difficulties, which the Bidder could have discovered prior to bidding.

6. Materials

Materials shall conform to the drawings, specifications, manufacturer's specifications for all products incorporated into the work, and all applicable standards and guidelines.

Some specific equipment and materials have been specified for use on this project to establish minimum performance requirements or desired features. To receive consideration of alternate equipment or materials, the Bidder must submit all appropriate product data and receive pre-bid approval from the Owner prior to bid. All materials are subject to the approval by the Owner both before and after incorporation in the project.

All condemned material or work shall be removed from the premises and properly disposed of.

7. Law Compliance

All project construction work shall comply with all State and Municipal Laws and Regulation, and with all Local Ordinances and Rules pertaining to this work. Such Laws, Regulations, Ordinances and Rules shall be considered a part of these specifications.

8. Expediting

Place orders for materials and equipment immediately upon receipt of Contract or Notice to Proceed and follow up vigorously to insure adequate and timely supply to the work. Perform all tracings and expediting actions and arrange to get workmen in the job at the proper time to avoid delays.

10. Guarantee

All Guarantees and warranties shall be as outlined in the technical specifications. Any shortages of materials shall be the responsibility of the bidder and resolved so as not to cause delays in installation or completion of the project.

11. Labor Law

The Contractor and each and every Subcontractor performing work at the site of the project to which this Contract relates shall comply with applicable and provisions of all pertinent Federal, State, and Local Labor Laws.

12. Time Schedule/Major Repairs

Work under the Contract shall commence within five (5) calendar days after given "Written Notice to Proceed" by Owners (or date specified) and shall continue with due diligence until due completion.

The Contractor shall agree to a time schedule setting up order of procedure and time allowed for each branch of work. Contractor shall make every effort to adhere to these schedules, but reasonable modifications will be permitted from time to time to compensate for delays due to strikes or conditions beyond Contractor's control, exclusive of weather.

13. Assignment

The Contractor or any Subcontractor shall not assign the Contract or any monies due to become due to him hereunder, to any Person, Firm, or Corporation without previous written consent of the Owner.

14. Extras

No extra work shall be allowed or paid for unless a Change Order is made and accepted by the Owner in writing.

15. Liens

No payment shall become due until the Contractor, if required, shall deliver to Owner a complete release of all liens arising out of this Contract, or receipts in full in lieu thereof and, if required in either case, an affidavit that so far as he has knowledge or information, the releases and receipts include all the labor and material for which a lien could be filed. If any lien remains unsatisfied after all payments are made, the Contractor shall refund to the Owner all monies that the latter may be compelled to pay in discharging such a lien, including all costs and a reasonable attorney's fee.

16. Default

In case of default by the Contractor, the Owner may procure the articles or services from other sources and hold the Contractor responsible for any excess cost occasioned thereby.

17. Cancellation of Contract

If the Contractor or any of his Sub-contractors shall, in the judgment of the Hoffman Estates Park District, be unable to carry on the work satisfactorily, or if the Contractor or

any of his Sub-contractors shall violate any of the provisions of this contract, or in case of bankruptcy of the Contractor, or failure of the Contractor to pay for supplies or workmen, or a work-stoppage, or a failure by the Contractor to provide sufficient workmen or sufficient material for the job, the Owner may serve written notice upon the Contractor and his Surety of his intention to terminate the Contract, and, if within seven (7) days after the service of such notice, the Contractor or the Sub-contractor or the Surety have not proceeded to carry on the work in accordance with this Contract and to the satisfaction of the Owner, this Contract shall cease and terminate and the Owner shall have the right to take over the work and prosecute the same to completion by Contract for the account and at the expense of the Contractor and the Surety; and the Contractor and Surety shall be liable to the Owner for any excess costs occasioned by the Owner thereby, and in such event the Owner may take possession of and utilize in completing the work such materials, appliances, and

plants as may be on the site of the work and necessary therefore; provided, however, that in the event the Owner determines that the failure of the Contractor, Sub-contractor or Surety to carry on the work in accordance with this Contract has resulted in an emergency which will require that the Owner take over the work immediately, to avoid loss or waste of a substantial part of the work already performed, the Owner may immediately take over the work and prosecute the same at the expense of the Contractor and Surety to the extent necessary to avoid damage, and may prosecute the same at the expense of the Contractor and Surety to the extent necessary to avoid damage, and may prosecute the same to completion at the expense of the Contractor and the Surety unless within seven (7) days after the services of the above described notice, the Contractor, Sub-contractor or Surety has proceeded to carry on the work in accordance with this Contract and to the satisfaction of the Hoffman Estates Park District.

#### 18. Lien Waivers (if applicable)

Neither by partial nor final payment will the Owner be deemed to have waived any remedy for defective work or negligence on the part of the Contractor or any other portion of the Contract which, by its nature, survives after time of payment.

Supporting partial Waivers of Lien for each Subcontractor, supplier and prime contractor must accompany each request for progress payment.

Waivers must spell out exact description of work performed for which Waiver is issued and state whether dollar amount is full amount received or amount of work less retainage, held by prime contractor.

For final payment it is necessary to submit final waivers in the full amount of the Contracts for all Subcontractors, suppliers and prime contractors.

Waivers must be accompanied by a sworn statement listing Subcontractors and suppliers, the amount of their Contracts and the amount requested.

## 19. Illinois Prevailing Wage Provision

The Contractor and /or supplier doing work on the project and **on the owner's premises** shall comply with the Illinois Prevailing Wage Ordinance adopted by the Hoffman Estates Park District. The provision states that all labor required to complete the project will be paid at no less than the prevailing rate determined by the Illinois Department of Labor.

The Contractor and each subcontractor is required to provide at the time of pay request or at least once monthly, a copy of a certified payroll of labor used in conjunction with the project(s). The certification shall include each worker's name, address, telephone number (when available), Social Security Number, classification(s), and the occupation of all laborers, workers and mechanics employed by the Contractor and each subcontractor in conjunction with the project(s). The records shall also show the actual hourly wages paid in each pay period to each employee and the number of hours worked each day and in each workweek by each employee. While participating on a park project, each contractor's payroll records shall include the starting and ending times of work each day for each employee.

Should there be no request for payment presented to Hoffman Estates Park District; the Contractor shall submit the certified payroll records monthly either by mail or electronically to the Hoffman Estates Park District.

The certified payroll shall be accompanied by a statement by the Contractor or subcontractors which avers: such records are true and accurate; the hours by rate paid to each worker is not less than the general prevailing wages as required by the Prevailing Wage Act; and the Contractor or subcontractor is aware that the filing of a certified payroll that he/she knows to be false is a Class B misdemeanor. The Hoffman Estates Park District shall accept any reasonable submission by the Contractor that meets the requirement of the Prevailing Wage Act.

# SPECIFICATIONS

## Playgrounds

### **PART 1 GENERAL PLAYGROUND SPECIFICATIONS:**

1.01 Safety Standards & Guidelines. All public playground equipment supplied shall meet all applicable provisions of the current “Handbook for Public Playground Safety” published by the Consumer Product Safety Commission (CPSC), and of ASTM F1487-11”Standard Consumer Safety Performance Specification for Playground Equipment for Public Use”, published by the American Society for Testing and Materials (ASTM). Products bearing the certification seal of the International Play Equipment Manufacturers Association (IPEMA) have received written validation of compliance with ASTM F1487-11.

Quality System Certification. The manufacturer’s quality system is certified to ISO 9001, ISO 14001 and OHSAS 1800.

### 1.02 WARRANTY

**All warranties shall be full replacement of product including all shipping costs to Hoffman Estates, Illinois. Replacement items shall carry the same warranty as the original part being replaced. At no time shall a prorated formula be used to determine replacement value.**

1. FIFTEEN (15) YEAR ONE HUNDRED (100) YEAR WARRANTY on aluminum deck posts, steel deck posts, the fastening system, and associated fastening hardware against structural failure due to weather corrosion or defects in materials or workmanship.
2. WARRANTY on steel support legs and plastic components against structural failure due to weather corrosion or defects in materials or workmanship.
3. FIFTEEN (15) YEAR WARRANTY on play system steel components including railings, rungs, and rigid climbers against structural failure due to defects in materials or workmanship.
4. FIFTEEN (15) YEAR WARRANTY on plastic components against structural failure due to defects in materials or workmanship.
5. FIFTEEN (15) YEAR WARRANTY on all steel coated decks against failure due to weather corrosion or defects in materials or workmanship.
6. THREE (3) YEAR WARRANTY on Slash proof Seats and 360 degree Buck Tot Seats for Swings against structural failure due to defects in materials or workmanship.
7. ONE (1) YEAR WARRANTY against structural failure due to defects in materials or workmanship on the following products and components: main support materials and decks; all pool slide support structures, stairways, landings, and railings, bleachers; and all products and components not specifically listed above, including, without limitation, all moving parts and flexible climbers.

8. WARRANTY shall begin with the acceptance of the completed, installed playground and upon certification of adherence to specifications by manufacturer's representative. By the owner upon certification of playground by the manufacturer's designated representative.
9. LIFETIME WARRANTY on positive bolt-through fastening systems.

### 1.03 MANUFACTURING GREEN INITIATIVES

Each bidder shall acknowledge that the manufacture he represents and for which this bid is comprised has obtained ISO 9001 and ISO 14001 certified. Other environmental initiatives can be listed by the bidder on the bid form. Such items may be used to determine the final low qualified bidder in cases where the lowest two bids received are \$500 dollars or less in difference in bid amount. Such determination shall be made by staff prior to presentation to the reviewing body and be publicly noted as part of the bid tabulation.

### 1.04 GENERAL PROJECT DESCRIPTIONS BY PARK LOCATIONS

#### **VICTORIA SOUTH PLAYGROUND FOR CHILDREN 2-5 years (Exhibit A)**

This playground should include at minimum one 36" high deck with a minimum of 13 square feet which is serviced by an ADA transfer deck/stair unit. A single bed way slide shall come off one the remaining sides. The remaining elevated sides shall have a House panel and a door panel. Two ground panels shall be attached to the structure and consist of a Piano sound music panel and a Abacus panel. All posts used on this structure and associated equipment shall be no less than 3 ½" OD x11GA galvanized steel tubing.

Play value of components submitted shall be reviewed by staff to determine whether or not they are conceptually equal to the elements provided in the performance specification. A value will be given by HEPD staff for each component. The total component value shall be no less than **4.5** for this composite structure.

#### **VICTORIA SOUTH PLAYGROUND FOR CHILDREN 5-12 years (Exhibit A)**

This playground should include at minimum decks at 24", 72", 84" & 96" A.F.S. These decks shall be accessed by a series of stairs and or transfer deck components that conform to the minimum ADA requirements. The total deck area shall be no less than 70 square feet. A plastic molded spiral slide shall come off a 72" min. height deck A.F.S. Two serpentine slides traveling in different directions shall come off the 96" minimum deck A.F.S. Tube sections slides will not be allowed. No less than **14** additional play components shall be attached to the decks or be linked adjacent to comprise this composite structure. In order to be approved, the bidder must provide similar type equipment compared to the equipment listed below from the already pre-approved three performance design vendors.

Play value of components submitted shall be reviewed by staff to determine whether or not they are conceptually equal to the elements provided in the performance specification. A value will be given by HEPD staff for each component. The total component value including **9.0** points for the three slides shall be no less than **36.75** for this composite structure.

All posts used on the deck structure and associated equipment shall be no less than 5" OD x11GA galvanized steel tubing.

One bucket spinner shall be supplied.

A single post / three bay swing set equipped with four belt seats and one bucket seat shall be included in the design and provided as part of the bid price.

All listed above equipment shall fit within the existing concrete curb area and shall meet the minimum fall zone requirements of CPSC.

### **COLONY PLAYGROUND FOR CHILDREN 2-5 years (Exhibit A)**

This playground should include at minimum one 36" & 48" high deck with a minimum of 29 square feet which is serviced by an ADA transfer deck/stair unit. The two decks shall be covered with Metal Gabel shade roofs. Connecting the two decks is a inclined Arch bridge. A single bed twister slide shall come off the 48" high deck. A double poly slide shall come off the 36" deck. Off one of the sides of the 48" deck is a tire climber. The other side of the 48" deck is a Lily pod step-up with hand rails. A steering wheel shall be located on the outside of one of the deck structures with a lily pad step to gain access. An electric piano panel will provide enclosure on one of the sides of the 36" deck. All posts used on this structure and associated equipment shall be no less than 3 1/2" OD x11GA galvanized steel tubing.

Play value of components submitted shall be reviewed by staff to determine whether or not they are conceptually equal to the elements provided in the performance specification. A value will be given by HEPD staff for each component. The total component value shall be no less than **9.25** for this composite structure.

### **PART 2 TECHNICAL DATA & SPECIFICATIONS PLAYGROUND EQUIPMENT**

The owner understands that most play equipment design is proprietary and or unique to each manufacture and for this reason the owner will entertain other designs so long as the scope and design intent is met along with the minimum manufacturing specifications. Such designs shall be reviewed by the owner prior to the acceptance of bids. All alternate approvals of design shall be made in writing by the owner.

#### **2.01 General Product Material Specifications Playground Equipment**

##### **A. Direct Bolt Clamps**

Shall be cast aluminum heat-treated alloy A356-T6 with a tensile strength of at least 34,000 psi, yield strength of at least 24,000 psi, shear of 20,700 psi, and elongation of 3.50% minimum. Each casting shall clamp to the post with two connection bolts. Clamp casting shall encapsulate the component attached to support surge loads, preventing surge loads being supported by only the hardware. Clamp shall be finished with a baked on powder coating.

If compression clamps are used they shall have 3 attachment points plus 2 hammer drive pins and shall be Die Formed 12 gauge steel with welded 11 gauge attachment bracket.

## B. Platforms

1. Platforms shall be one piece all welded construction consisting of 12 GA HRPO steel shell and gussets, PVC coated after fabrication. Punched holes shall not pass a 3/8" dowel on horizontal surfaces. Gussets and or angles shall be welded and positioned so that no point on the deck surface is greater than 8" from the support. Platforms shall connect to posts with self-leveling fastening system, with two attachment points per corner, one of those being an open ended slot for easy assembly. Platform fasteners shall attach to threaded inserts which are CNC precision factory installed into the posts.
2. Recycled Platforms shall be one piece all welded construction consisting of 12 GA HRPO steel shell and gussets, PVC coated after fabrication. Platforms shall connect to posts with self-leveling fastening system, with two attachment points per corner, one of those being an open ended slot for easy assembly. Platform fasteners shall attach to threaded inserts which are CNC precision factory installed into the posts. Boards are a one piece solid, non-hollow foamed recycled HDPE (ReHDPE).
3. 90 Degree Platform shall be one piece all welded construction consisting of 12 GA HRPO steel shell and gussets, PVC coated after fabrication. Platforms shall connect to posts with self-leveling fastening system, with two attachment points per corner, one of those being an open ended slot for easy assembly. Platform fasteners shall attach to threaded inserts which are CNC precision factory installed into the posts. Barriers shall be one piece all welded construction consisting of 1.315" OD x 12 GA & 1.029" OD x 14 GA galvanized steel tubing, and 10 GA galvanized steel plate. Finished with a bake on powder coating.
4. The Tri Deck shall be constructed using 12 gauge sheet steel which shall be formed and fabricated into required designs and punched with a uniform hole pattern. The Decks will be Play-Tuff(TM) coated after fabrication. The Mounting Blocks shall be two part and precision die- cast from a high strength aluminum alloy. The Mounting Blocks will be Powder Coated as specified.
5. The Vertical Deck Fillers shall be fabricated from .120" sheet aluminum. The Vertical Deck fillers will be Powder Coated as specified.
6. The ADA Steps shall be fabricated using 12 gauge punched steel with reinforcing cross members and gussets. All surfaces to be Play-Tuff(TM) coated. The ADA Step Walls shall be fabricated using 1.315" O.D. 12 gauge steel railing welded to 1.029" O.D. 14 gauge evenly spaced vertical rungs with welded 1/4" brackets and will be Powder Coated as specified.
7. The Steps & Decks shall be fabricated from 12 gauge punched sheet steel with reinforcing cross members and gussets. Each Step and Deck shall be Play-Tuff(TM) coated after fabrication. The Step rails shall be fabricated from 1.315" O.D. 12 gauge and 1.660" O.D. 11 gauge steel tubing and will be powder coated as specified. The Step Deck Legs shall be fabricated from 1.660" O.D. 11 gauge steel tubing welded to a 10 gauge mounting bracket. The Step Deck Leg will be Powder Coated as specified.



### C. Fasteners

1. Button head cap screws and socket head cap screws shall be 302HQ corrosion resistant, passivated, stainless steel, tamper resistant, and pre-treated with a locking/sealing adhesive.
2. Other stainless steel hardware shall be 302HQ corrosion resistant stainless steel.
3. Non stainless steel hardware shall be zinc plated grade 5 steel.
4. Threaded Post Nut Inserts shall be a corrosion resistant threaded insert crimped into post. Inserts shall be precision CNC located and factory installed for all attachment points.

D. Rotationally Molded Plastic Parts shall be manufactured from color compounded, linear, low-density polyethylene with an average of .250" wall thickness and textured non-sliding surfaces. Plastic parts shall be UV stabilized to UV-12 minimum and shall have a density of 0.935 per ASTM D-1505. Plastic parts shall have a tensile strength at yield no less than 2500 psi with flexural modulus of 87,200 psi. Rotationally Molded parts shall comply with ASTM-D-790 (Flex Modulus), ASTM –D-638 (Tensile Strength), ASTM –D-648 (Heat Deflection Temperature), ARM-STD (Low Temperature Impact) and rated UL 94.

E. HDPE plastic panel parts shall be precision cut form a single solid sheet of either .50" or .75" thick UV-stabilized extruded high-density polyethylene with colors molded in, with a durable matte finish. The material will have a density of 59.6 lbs./cu.ft. and a tensile strength of 4000 psi. All edges shall be rounded or chamfered for safe play.

F. Posts, steel shall be cold-formed steel tubing with a yield test of at least 50,000 psi and a tensile strength of at least 55,000 psi. Tube members shall comply with ASTM A-135 and ASTM A-500 Grade A and shall be tested according to ASTM E-8.

1. Tubing Exteriors shall be triple coated for maximum exterior protection: galvanized, then coated with a chromate conversion coating and finished with a baked-on powder-coat.
2. Tubing interiors shall be coated with a corrosion resistant zinc-rich coating.
3. Tubing and cap finished with a baked on powder coating.
4. Standard posts shall be an assembly consisting of the galvanized steel tubing with a cast aluminum cap factory installed in the post with 1/8" x 15/32" stainless steel pinned aluminum drive rivets.

Or

Machined tube aluminum

## 2.02 Descriptions of Coatings

- A. PVC Coating (Poly-Vinyl Chloride): Prior to coating, each part shall be chemically washed submerged in a heat-activated primer and dried. After drying, each part shall be pre-heated to a temperature no less than 350 degrees F and immersed in liquid PVC. Play/usage surfaces shall have coating thickness of .085-.150 in. Park and site surfaces (i.e. benches, picnic tables) shall have coating thickness of .050-.080 in. PVC shall comply with California Assembly Bill #1108 by having a concentration that does not exceed 0.1% of the following phthalates; DINP, DIDP, DnOP, DEHP, or BBP. This formulation is also free of heavy metals such as Lead and Cadmium. The PVC shall have:
1. Tensile strength of no less than 1830 psi per ASTM 412.
  2. Elongation of no less than 350% per ASTM 412.
  3. Tear strength of no less than 250 lb./in. per ASTM 624.
  4. Hardness of 75+/- 3 (Durometer, Shore A) per ASTM 2240.
  5. UV stabilizer shall be added to PVC to withstand one year in QUV panel tester without any significant color drift.
  6. Burn Rate will meet or exceed Federal Safety Standard MVSS 302. This is the same as UL 94 HB rating.
- B. Standard/Super Durable Powder Coating: Prior to powder coating, all parts shall be cleaned, and pretreated with a non-phosphate and non-chromic process. A polyester/TGIC powder coating with superior color-, gloss-, and UV-stabilizing qualities shall be 2.0 mils minimum and shall be cured in an oven at temperatures no less than 356 degrees F and no more than 392 degrees F. The powder-coat shall have the following properties:
1. Adhesion: No less than 5B [the edges of the cuts are completely smooth; none of the squares of the lattice is detached.] (cross hatch/tape adhesion test per ASTM D3359 Method B).
  2. Hardness: No less than 2H (pencil hardness test per ASTM B3363).
  3. Resistance to Impact: Cracking at the perimeter of the concave area, but no cracking pick off from 80 in/lb. director or reverse impact (ASTM D2794).
  4. Resistance to Bending: No visible cracking (1/8" bending test per ASTM 522).
  5. Resistance to Salt Spray: No more than 1/32" undercutting and no blistering in 500 hours (salt spray test per ASTM B117).
  6. Resistance to Humidity: No more than 1/32" undercutting and no blistering in 500 hours (humidity test per ASTM D2247).
  7. Degree of Gloss: No less than 80% reflected (specular gloss test at 60 degree per ASTM D523).

## 2.03 Barriers & Enclosures

- A. Center Mount Enclosure shall be one piece of welded construction consisting of 3 ½" OD X 11 GA, 1.315" OD X 12 GA galvanized steel tubing and 10 GA galvanized sheet. Finished with a baked on powder coating.
- B. Enclosure on structures for children 2-5 years old shall be ¾" co-extruded H.D.P.E.
- C. Enclosures and Stanchions shall be one piece all welded construction consisting of 1.315" OD x 14 GA, 1.315" OD x 12 GA, and 1.029" OD x 14 GA galvanized steel tubing, and HDPE threaded inserts. Finished with a baked-on powder coating.
- D. Enclosure, Offset shall be one piece of welded construction consisting of 1.315" OD x 14 GA and 1.029" OD x 14 GA galvanized steel tubing, and HDPE threaded inserts. Finished with a baked-on powder coating.
- E. Internal Barrier shall consist of four separate parts each being all welded construction consisting of 1.660" OD x 12 GA and 1.315" OD x 14 GA galvanized steel tube, and 10 GA galvanized steel plate finished with a baked-on powder coating
- F. Pipe Walls shall be one piece, all welded construction consisting of 1.315" OD x 14 GA and 1.029" OD x 14 GA galvanized steel tubing, and 1 ½" x ½" x 10 GA formed galvanized steel plate. Finished with a baked-on powder coating.
- G. Platform-to-Platform Bars shall be 1.315: x 12 GA galvanized steel tubing with a baked on powder coating.
- H. Slotted Barriers shall be made of ¾" co-extruded H.D.P.E.

## 2.04 Brackets

- A. Panel Brackets for accessible reach panels, upper board panels and battlement panels shall be one piece all welded construction consisting of 7 GA stainless steel formed plate and 10 GA galvanized sheet steel finished with a baked on powder coating.
- B. Flat Panel Mounting Brackets shall be one piece all welded construction consisting of 8 GA stainless steel formed plate and 3/16" stainless steel plate. Finished with a baked on powder coating.
- C. Mounting Brackets shall be one piece all welded construction consisting of 3/16" stainless steel plate and 1.029: OD x 14 GA or 1.315" OD x 12 GA galvanized steel tubing. Finished with a baked on powder coating.
- D. Mounting Tubes shall be one piece all welded construction consisting of 1.315" OD x 14 GA galvanized steel tubing and a stainless steel threaded insert. Finished with a baked on powder coating.

- E. Panel Mounting Tubes shall be one piece all welded construction consisting of 3/16" stainless steel plates and 1.315" OD x 12 GA galvanized steel tubing. Finished with a baked on powder coating.
- F. Slide Entrance Brackets shall be 14 GA galvanized steel plate finished with a baked on powder coating.
- G. Steering Wheel Mount Bracket shall be one piece all welded construction consisting of a 3/16" stainless steel plate, 1.315" OD x 14 GA galvanized tubing and a stainless steel threaded insert. Finished with a baked on powder coating.

#### 2.05 24" Transition Stair W/Barriers

- A. Casting, Straight Bracket: A356-T6 Aluminum, Heat-Treated. Finished with baked on powder coating.
- B. Top Stair Barrier: One piece welded construction consisting of 1.315" OD x 12 GA & 1.029" OD x 12 GA galvanized steel tubing and 10 GA galvanized steel plate. Finished with a baked on powder coating.
- C. 24" Transition Barrier: One piece welded construction consisting of 1.315" OD x 12 GA & 1.029" OD x 12 GA galvanized steel tubing, malleable iron plug and 10 GA galvanized steel plate. Finished with a baked on powder coating.
- D. Bottom Stair Transition B: One piece welded construction consisting of 1.315" OD x 12 GA & 1.029" OD x 12 GA galvanized steel tubing and 10 GA galvanized steel plate. Finished with a baked on powder coating.
- E. 24" Accessible Stairs: One piece welded construction consisting of 12 GA HRPO steel surfaces, sides, and gussets. PVC coated after fabrications.

#### 2.06 40" Transition Stair w/Barriers

- A. Casting, Straight Bracket: A356-T6 Aluminum, Heat-Treated. Finished with baked on powder coating.
- B. Top Stair Barrier: One piece all welded construction consisting of 1.315" OD x 12 GA & 1.029" OD x 12 GA galvanized steel tubing and 10 GA galvanized steel plate. Finished with a baked on powder coating.
- C. 40" Transition Barrier: One piece all welded construction consisting of 1.315" OD x 12 GA & 1.029" OD x 12 GA galvanized steel tubing, malleable iron plug and 10 GA galvanized steel plate. Finished with a baked on powder coating.
- D. Bottom Stair Transition B: One piece all welded construction consisting of 1.315" OD x 12 GA & 1.029" OD x 12 GA galvanized steel tubing and 10 GA galvanized steel plate. Finished with a baked on powder coating.
- E. 40" Accessible Stairs: One piece all welded construction consisting of 12 GA HRPO steel surfaces, sides, and gussets. PVC coated after fabrication.

#### 2.07 Swing Units

- A. Galvanized 4/0 Chain 86 3: 3/8" diameter, 4/0 straight coil chain.
- B. Molded Rubber Seat: Molded rubber, reinforced with a steel insert. Riveted galvanized attachment hardware.

- C. Spacer 1.13 OD x .25: ¼" Nylatron GS.
- D. Loctite: Thread Locker; CAUTION: May irritate eyes, skin and respiratory system. Contains: polyglycol dimethacrylate, polyglycol oleate propylene glycol, titanium dioxide, and cumene hydroperoxide.
- E. Clevis Shackle W/Bolt: 5/16" Shackle with a 3/8" x 1 ½" bolt.

## 2.08 Spring Toys

- A. Spring Casting: Grade 32510, malleable iron. Zinc-Clearchromate plating.
- B. Bottom Plate 9 7/8 SQ: ¼" HR steel plate finished with a baked on powder coating.
- C. Burke-A-Saurus Panel RH: ½" co-extruded H.D.P.E.
- D. Burke-A-Saurus Panel LH: ½" co-extruded H.D.P.E.
- E. Seat: ¾" extruded HDPE
- F. Back: ¾" extruded HDPE.
- G. Rubber Spring Cover: EPDM Elastomer compound flexible tube.
- H. Coil Spring: One piece all welded construction consisting of 13/16" OD spring steel and ¾" diameter HR steel round finished with a black baked on powder coating.
- F. Frame: One piece all welded construction consisting of 1.029" OD x 14 GA ¼" HR steel plate, 3/8" stainless steel T-nuts, 3/8" zinc plated steel flange nuts. Finished with a baked on powder coating.
- G. Tube Assy: One piece all welded construction consisting of 1.029" OD x 14 GA galvanized tubing and 3/8" stainless steel T-nuts. Finished with a baked on powder coating.

## 2.10 Plastic Slides

- A. Casting, Straight Bracket: A356-T6 Aluminum, Heat-treated. Finished with baked on powder coating.
- B. Casting, Side Filler, Lon: A56 Aluminum. Finished with baked on powder coating.
- C. Slide Hood, Narrow Slide: ¼" thick, linear, low density, rotationally molded, UV stabilized polyethylene with double wall construction, molded in 3/8" T-nut inserts and a textured surface.
- D. Entrance Slide Section: ¼" thick, linear, low density, rotationally molded, UV stabilized polyethylene with double wall construction, molded in 3/8" T-nut inserts and a textured surface.
- E. Exit Slide Section: ¼" thick, linear, low density, rotationally molded, UV stabilized polyethylene with double wall construction, molded in 3/8" T-nut inserts and a textured surface.
- F. Straight Slide Section: ¼" thick, linear, low density, rotationally molded, UV stabilized polyethylene with double wall construction, molded in 3/8" T-nut inserts and a textured surface.
- G. 45 Deg Left Slide Section: ¼" thick, linear, low density, rotationally molded, UV stabilized polyethylene with double wall construction, molded in 3/8" T-nut inserts and a textured surface.

- H. Support, Slide Exit: One piece all welded construction consisting of 2 3/8" OD x 12 GA galvanized steel tubing and 8 GA galvanized sheet steel. Finished with baked on powder coating.
- I. Mount Tube: One piece all welded construction consisting of a 1.315" OD x .083" wall galvanized tube and a 12L14 steel threaded insert. Finished with a baked on powder coat.
- J. Slide Barrier Left: One piece all welded construction consisting of a 1.315" OD x 12 GA galvanized steel tubing, 10 GA galvanized sheet steel, and HDPE threaded inserts. Finished with a baked on powder coat.
- K. Slide Barrier Right: One piece all welded construction consisting of a 1.315" OD x 12 GA galvanized steel tubing, 10 GA galvanized sheet steel, and HDPE threaded inserts. Finished with a baked on powder coat
- L. Slide Support 4J: 8 gage formed plate welded to 1.660" OD tubing. Finished with baked on powder coat.
- M. Slide Support 2J: 8 gage formed plate welded to 1.660" OD tubing. Finished with baked on powder coat.

### 3.00 Composite playground components

- A. The Disc Pole Climber Half Disc shall be made from high density 3/4" sheet plastic specially formulated for optimum UV stability and color retention. The Disc Pole Climber poles shall be fabricated using 1.660" O.D. 11 gauge steel tubing with welded 1/4" thick steel plates and will be powder Coated as specified.
- B. The Angled Rung Climber RV shall be fabricated using 2.375" O.D. 11 gauge steel tubing and 1.315" O.D. 12 gauge steel handles and rung with welded 1/4" thick steel mounting bracket. the Angled rung Climber RV will be Powder Coated as specified.
- C. The Angled Wave Rung Climber RV shall be fabricated using 2.375" O.D. 11 gauge steel tubing and 1.315" O.D. 12 gauge steel handles and rungs with welded 1/4" thick steel mounting bracket. The angled Wave Rung Climber RV will be Powder Coated as specified.
- D. The Cliffhanger Climber Frame shall be fabricated using 1.315" O.D. 12 gauge steel tubing with welded 1/2" thick steel tab and 3/8" thick steel tabs and will be Powder Coated as specified. The Cliffhanger Climber Handrail shall be fabricated using 1.315" O.D. 12 gauge steel tubing with welded 1.029" O.D. 14 gauge steel handle and 3/8" thick steel tabs and will be Powder Coated as specified. The Cliffhanger Climber Wall shall be fabricated using 1.315" O.D. 12 gauge steel tubing with welded 1.029" O.D. 14 gauge steel rails, 1/4" thick steel mounting clevises, 1/4" thick steel tabs, and 1/2" thick steel tab and will be Powder Coated as specified. The Promenade Deck shall be fabricated using punched, formed and welded 12 gauge sheet steel and shall be Play-Tuff(TM) coated after fabrication. The Mounting Blocks shall be two-part and precision die-cast from a high strength aluminum alloy and will be Powder Coated as specified. The Socket Clamps shall be two-part and and precision die-cast from a high strength aluminum alloy and will be Powder Coated as specified.
- E. The Boulder Stack Bottom Cap shall be made from high density 3/4" sheet plastic specially formulated for optimum UV stability and color retention. The Boulder Stack Filler Plate shall be fabricated using punched 10 gauge sheet steel and will be Powder Coated as specified. The Boulder stack Leg shall be fabricated using 1.660" O.D. 11 gauge steel tubing with a welded 1/4" thick steel mounting plate and will be Powder Coated as specified. The Geo Wave Vent Plug shall be made from high

density 3/4" sheet plastic specially formulated for optimum UV stability and color retention. The Rock Spacer shall be made from high density 1" sheet plastic specially formulated for optimum UV stability and color retention. The Top, Mid & Base Rock shall be constructed of UV-stabilized, rotationally molded, linear, low density polyethylene with an average wall thickness of .250".

- F. The Transition Wall shall be fabricated of 1.315" O.D. tube steel with 1.029" O.D. steel tubing inner rails with 1/2" thick steel tabs welded to the main rail and will be Powder Coated as specified.
- G. The Twister Entry Panel shall be made from high density 3/4" sheet plastic specially formulated for optimum UV-Stability and color retention. The Mounting Lugs shall be precision die-cast from a high strength aluminum alloy and will be Powder Coated as specified.
- H. The Arch Loop Traverse RH shall be fabricated using 2.375" O.D. 10 gauge steel tubing with welded 1-1/2" x 3" 11 gauge Rec. T.S. support, 1.315" O.D. 12 gauge steel loops, 1/4" thick stainless steel mounting bracket, and 1/4" thick steel clevises and will be Powder Coated as specified. The Arch Loop Traverse 1 Mount RH shall be fabricated using 2.375" O.D. 10 gauge steel tubing with welded 1-1/2" x 3" 11 gauge Rec. T.S. support, 1.315" O.D. 12 gauge steel loops, 1/4" thick steel clevises, and stainless steel housing and will be Powder Coated as specified. The Mounting Blocks shall be two-part and precision die-cast from a high strength aluminum alloy and will be Powder Coated as specified.
- I. The Burma Bridge shall be fabricated from 12 gauge punched and formed sheet steel with reinforcing cross members and gussets and shall be Play-Tuff(TM) coated after fabrication. The Burma Bridge wall shall be fabricated of 1.315" O.D. 12 gauge tube steel with welded 1.029" O.D. 14 gauge steel rungs and will be Powder Coated as specified.
- J. The Spiral Slide and Slide Hood shall be manufactured from UV-stabilized LLDPE (linear low-density polyethylene) with an average wall thickness of 1/4". The Spiral Slide Deck shall be fabricated using 12 gauge sheet steel punched and formed with reinforcing cross members and gussets and shall be Play-Tuff(TM) coated after fabrication. The Spiral Slide Wall shall be constructed of 1.315" O.D. 12 gauge tube steel top and bottom rails with welded 1.029" O.D. 14 gauge tube steel vertical rungs with a 1/4" steel wall bracket welded to the outer rails for mounting wall to Spiral Slide and will be Powder Coated as specified. The Spiral Slide Sit Down Bar shall be made from 1.029" O.D. 12 gauge tube steel and will be Powder Coated as specified. The Spiral Slide Wall Brackets shall be fabricated using 1/4" sheet steel Spirals Slide Wall Brackets and 1/4" sheet steel Spiral Slide Wall Tabs and will be Powder Coated as specified. The Single Slide Leg shall be fabricated of 1.660" O.D. 11 gauge tube steel welded onto a 10 gauge steel plate and will be Powder Coated as specified. The Spiral Slide center support Post shall be made from 3.5" O.D. 10 gauge tube steel and will be Powder Coated as specified. The Spiral Slide Bottom Collar shall be fabricated from 1/4" sheet steel and will be Powder Coated as specified.
- K. The Twister Slide shall be manufactured from UV-stabilized LLDPE (linear low-density polyethylene) with an average wall thickness of 1/4". The Single Slide Leg shall be fabricated of 1.660" O.D. 11 gauge tube steel welded onto a 10 gauge steel plate and will be Powder Coated as specified. The twister Slide Support shall be fabricated of 1.660" O.D. 11 gauge tube steel welded onto a 3/16" steel plate and will be Powder Coated as specified.

- L. The Glide-N-Twist Ladder RV shall be fabricated using 2.375" O.D. 11 gauge steel tubing and 1.315" O.D. 12 gauge steel handle and rungs with welded 1/4" thick steel mounting brackets and 3/8" thick steel tabs. The Glide-N-Twist Ladder RV will be Powder Coated as specified. The Wave Glider Rail shall be fabricated using 1.900" O.D. 11 gauge steel tubing with welded 3/8" thick steel tab. The Wave Glider Rail will be Powder Coated as specified.
- M. The Slither Climber shall be constructed of UV-stabilized, rotationally molded, linear, low density polyethylene with an average wall thickness of .250". The Slither Climber Ladder RV shall be fabricated using 2.375" O.D. 11 gauge steel tubing and 1.315" O.D. 12 gauge steel handles and support with welded 1/4" thick steel mounting brackets and will be Powder Coated as specified. The Slither Climber Roto Plug shall be constructed of UV-stabilized, rotationally molded, linear, low density polyethylene with an average wall thickness of .250". The Slither Climber Supports shall be fabricated using 1.660" O.D. 11 gauge steel tubing with welded 1/4" thick steel mounting bracket and will be Powder Coated as specified. The Slither Climber Support Mount Bracket shall be punched and formed from 3/16" thick sheet steel and will be Powder Coated as specified.
- N. The Boogie Board Body shall be manufactured from UV-stabilized LLDPE (linear low-density polyethylene) with an average wall thickness of 1/4". The Boogie Board Bottom Panel, Top Panel and wheels shall be made from high density 3/4" sheet plastic specially formulated for optimum UV-stability and color retention. The Boogie Board Handrails shall be fabricated from 1.660" O.D. 11 gauge tube steel with a welded 1.029" O.D. 14 gauge tube steel inner rung and will be Powder Coated as specified. The Single Slide Leg shall be fabricated of 1.660" O.D. 11 gauge tube steel welded onto a 10 gauge steel plate and will be Powder Coated as specified. The Mounting Blocks shall be two-part and precision die-cast from a high strength aluminum alloy and will be Powder Coated as specified.
- O. The Rope Core Rings shall be fabricated using 1.315" O.D. 12 gauge steel tubing with welded 3/16" thick steel anchors and will be powder coated as specified. The Rope Core Rail shall be fabricated using 2.375" O.D. 11 gauge steel tubing with welded 1.315" O.D. 12 gauge steel tubing with welded 1.315" O.D. 12 gauge 3/16" thick steel anchors and will be powder coated as specified. The Rope Core Rope Set shall be made from 16mm steel reinforced rope with high-strength copolymer plastic intersection connectors and machined aluminum end clevises. The Chain shall be 5/0 galvanized low carbon steel chain with silver shield finish.
- P. The Launch Pad Step shall be constructed of UV-stabilized, rotationally molded, linear, low density polyethylene with an average wall thickness of .250".

## END OF SECTION