

## REQUEST FOR BID

### DESTINATION PLAYGROUND – MAIN STREET PARK

#### CITY OF DAWSONVILLE

**Based on the following specifications, if interested, please provide a bid for the playground systems, equipment and components. If you in any way depart from the equipment, components or other items specified within this document, please indicate any and all substitutions. Any and all substitutions must meet or exceed the specifications outlined in this document and must not change the design or layout of components or playground equipment.**

#### **General Requirements**

1. All pricing should include manufacturing and installation of playground components, border timbers, cubic yards of engineered wood fiber playground surfacing, and turf PIP rubber surfacing to match the custom playground design/drawing and configuration.
2. The supplier must have a current GSA contract.
3. All playground components must be American made.
4. The user capacity for this playground should be no less than 406 persons.
5. Accessible safety surfacing material is required beneath and around all equipment.
6. All slide fall zone surfacing area must meet or exceed those outlined in the CPSC's 2008 Handbook for Public Playground Safety.
7. The destination playground must be surfaced with resilient material and minimum fall zone protection for 11,168 square feet per design configuration utilizing engineered wood fiber playground surfacing and turf PIP rubber surface to match the design colors.
8. Structures must be designed for children ages 5-12 years old.
9. Space requirements must meet ASTM standards.
10. Play components must be IPEMA certified with the use and layout of same in conformance with the requirement of ASTM F1487 and CPSC playground safety guidelines with the exceptions of the Volito Swing and the Konnection Swing®.
11. NSF requirements must be registered to ISO 9001 or ISO 14001.
12. ADA Accessibility Guidelines (ADAAG Conformance) as specified by the owner for this project must include:
  - Minimum of 72 play events
  - Minimum of 25 elevated play events
  - Minimum number of 9 elevated play events accessible by ramp
  - Minimum number of 21 elevated play events accessible by transfer station
  - Minimum number of 47 ground level play events
  - Minimum number of 11 types of ground level play events
13. Where indicated in the plan, Nucleus®, Voltage® and Little Buddies® components must be used.
14. Nucleus® and Voltage® components must utilize KoreKonnnect® direct-bolt clamp systems and these must be covered by a 100 -year, non-prorated warranty.
15. Little Buddies® components must use Burke, Direct-Bolt connection system and these must be covered by 100-year warranty.

16. All deck components must utilize Ezkonnnect® deck mounting system with self-leveling capabilities and 2-bolts per corner deck attachments.
17. Platforms must be Burke's oversized, vinyl coated, non-slip platforms constructed of heavy-duty punched steel that can support more than 2 tons. Vinyl coating must be California compliant, free of lead and other hazardous heavy metals.
18. All hardware must be stainless steel, tamper-resistant and covered by a 100-year warranty.
19. All upright posts and metal components must be painted with Burke's premium powder coat to prevent fading and reduce, deter rust, and last longer.
20. All component colors must match the selected color list, no exceptions.
21. All plastic components must be manufactured using rotomolded plastics with UV-16 protection and must be covered under a non-pro-rated 15-year warranty.
22. All climbing cables must be flexible enough to provided movement, yet strong enough to be safe and last. Ropes must be made from 6 polyester cords with steel reinforcement wrapped around a synthetic fiber core. Each cord must contain 8 galvanized steel strands tightly covered with polyester multi-fibers.
23. RopeVenture® cables must consist of 6 strands, each containing 24 stainless steel reinforcing strands within a nylon sleeve, wrapped around a solid nylon core.
24. All swivel connectors at the end of ropes must be aluminum and must allow assembly at any angle with no unwanted twists in the net. Aluminum fittings must be used to secure joints and must be swaged in place to prevent any movement causing undo wear between the rope and fitting.
25. Protective surfacing for this design must accommodate the proper critical fall height required by each component meeting ASTM and CPSC standards.

### **Component Descriptions and Quantities**

26. 85 ea - Burke StoneBorders, black 12" x 6' w/two 30" drive pins covered by 15-year warranty, #046-0053
27. 3 ea – Burke StoneBorder, Plugs, black covered by 15-year warranty, #046-0054
28. 1 ea – Drive Pin, 30", #046-0056
29. 21 ea – Burke Playmats, 3' x 5' x 2", black, #046-0521

### **Burke Basics**

30. 2 ea – Burke Single Post Swing Assembly, 5" OD, Burke Premium Powder Coat, green, #550-0093
31. 6 ea – Burke Single Post Swing Add-on, 5" OD, Burke Premium Power Coat, green, #550-0094
32. 6 ea – Belt Seat, pair, 8'beam, standard chain, #550-0112
33. 1 ea – Freedom Inclusive Swing Seat, pair, 8' beam, Rotomolded color green w/ PVC covered chain, #550-0175
34. 1 ea – Molded Rubber Tot Swing Seat, pair, 8' beam, w/PVC covered chain
35. 1 ea – Burke Konnection Swing®, pair, 8' beam, green w/PVC covered chain
36. 1 ea – Burke Zipventure, 100', green, #550-0180
37. 1 ea – Volito, multi-user swing, #550-0180
38. 1 ea - KONNECTION SWING, PAIR, #550-0194
39. 1 ea – FS 2 BRANCH TREE CLIMBER, #560-0522
40. 1 ea - CRUISER WITH ADAPTER, #560-0563

41. 1 ea – REV8 Rotating Climber, #560-0576
42. 1 ea - VOLTA INCLUSIVE SPINNER, #560-2579
43. 1 ea - COMET II, #560-2589
44. 6 ea - 6' PVC TRADITIONAL BENCH W/BACK, #580-0172
45. 4 ea - 6' PVC TRADITIONAL PICNIC TABLE, #580-0176
46. 4 ea - PVC LC STAT PLASTIC DOME, #580-0189
47. 2 ea - 8' PVC PERSONALIZED BENCH, STATIONARY, #580-0207
48. 1 ea - SNARE DRUM ELEMENT, #580-0303
49. 1 ea - TOM-TOM DRUMS ELEMENT, #580-0304
50. 1 ea - RAIN WHEEL DRUM ELEMENT, #580-0305
51. 1 ea - 8' PVC TRADITIONAL ADA PICNIC TABLE, #580-1012
52. 1 ea – FS Sign, Custom/Custom to read “MAIN STREET PARK”, #580-01302
53. 8 ea - NOVO ARC BENCH, #580-1312
54. 1 ea - FS SIGN, AGES 5-12, #580-1315
55. 1 ea - FS SIGN, AGES 2-5, #580-1317
56. 8 ea - NOVO ARC STOOL, #580-1318
57. 4 ea - NOVO TEARDROP COUNTER CLIMBER, #580-1319

#### Boulders/GFRC

58. 2 ea - ROCKVENTURE CRISSCROSS LINK RP, #560-0565
59. 1 ea - ROCKVENTURE TRAVERSE LINK RR, #560-0567
60. 1 ea - ROCKVENTURE SUSPENSION LADDER, #560-0570
61. 2 ea - ROCKVENTURE ROPE CLIMBING ROCK, #560-0571

#### Intensity

62. 1 ea – INTENSITY TREE BRANCH CLIMBER-4, # 370-0868

#### Little Buddies

63. 1 ea – LITTLE BUDDIES, POST, STD,81 13/16,GL-8, #640-0146
64. 1 ea – LITTLE BUDDIES, POST MOUNTED BELL, #640-0156

#### Nucleus

65. 1 ea - 8" CLOSURE PLATE, #270-0050
66. 2 ea - UNITARY ENCLOSURE, #270-0112
67. 2 ea - SQUARE PLATFORM, #270-0130
68. 6 ea - HEXAGONAL PLATFORM S5P, #270-0131
69. 3 ea – BALCONY, #270-0148
70. 1 ea - CLUBHOUSE UNITARY ENCLOSURE, #270-0192
71. 1 ea - 8" RISE RAMP W/ BARRIERS, #270-0220
72. 2 ea - 8" RISE RAMP W/ GUARDRAILS, #270-0221
73. 1 ea - 8" RISE ENTRANCE RAMP W/ GUARDRAIL, #270-0223
74. 1 ea - HALF PLATFORM, #270-0290
75. 1 ea - ASCEND ROCK CLIMBER, 32"-40", #370-0037
76. 1 ea - CONVEX CLIMBER 24"-32", #370-0178

77. 1 ea - SIDE STEPPER 48" - 56", #370-0184
78. 1 ea - ZIPPER CLIMBER 48" - 56", #370-0185
79. 1 ea - POD WALK 32", #370-0270
80. 1 ea - 32" TRANSITION STAIR W/BARRIER, #370-0468
81. 2 ea - 40" TRANSITION STAIR W/BARRIER, #370-0469
82. 2 ea - TRANSFER STATION, HANDRAIL 32", #370-07181
83. 1 ea - HORIZONTAL OVERHEAD, 2-5, #370-0756
84. 1 ea - CLUBHOUSE BOARD CLIMBER 72", #370-0771
85. 1 ea - CLUBHOUSE LEAF CLIMBER 40" – 48", #370-0777
86. 1 ea - TREE BRANCH CLIMBER 32", #370-0860
87. 1 ea - TREE BRANCH CLIMBER 72", #370-0865
88. 1 ea - 48" DOUBLE LEAF SEATS, #470-0386
89. 1 ea – SLIDE, VIPER R 48-56, #470-0542
90. 1 ea – SLIDE, VIPER L2 64-72, #470-0549
91. 2 ea – SLIDES, VIPER SPIRAL 112, #470-0561
92. 1 ea – SLIDE, VIPER R 32, #470-0563
93. 1 ea – SLIDE, VIPER II RL 48-56, #470-0568
94. 1 ea - CLUBHOUSE HEX ROOF FOR TREE TRUNK, #470-0632
95. 1 ea - CLUBHOUSE HEX ROOF, # 470-0638
96. 1 ea - HEX SHADEPLAY CANOPY, #470-0671
97. 2 ea - SINGLE POST SHADEPLAY 15' X 15' CANOPY W/OUT POST, #470-0673
98. 1 ea - PIPE WALL, #570-3394
99. 1 ea - CUSTOM ARCH SIGN, To read: WELCOME TO MAIN STREET PARK, #570-0584
100. 1 ea - RAINDROPS ACTIVITY PANEL, #570-0717
101. 1 ea - HYPNO ACTIVITY PANEL, #570-0718
102. 1 ea - BUBBLE MIRROR ACTIVITY PANEL, #570-0719
103. 6 ea - CLUBHOUSE FULL BOARD PANEL, # 570-0782
104. 1 ea - CHARADE PANEL, ABOVE PLATFORM, #570-0797
105. 1 ea - SPROCKET PANEL, ABOVE PLATFORM, #570-1679
106. 1ea - PLATFORM WHEELCHAIR GUARD, # 570-1754
107. 1ea- CHIMES PANEL, #570-1851
108. 1 ea - ADA SPIRAL SPINNER ACCESSIBLE REACH PANEL, #570-2620
109. 2 ea - HALF PIPE WALL, #570-2624
110. 1 ea - BEE ACCESSIBLE REACH PANEL FOR BALCONY, #570-2672
111. 1 ea - CAR ACCESSIBLE REACH PANEL FOR BACONY, #570-2673
112. 1 ea – NPPS (National Program for Playground Safety) Safety Kit, #600-0104
113. 6 ea - POST ASSEMBLY 5" OD X 91", #670-0001
114. 13 ea - POST ASSEMBLY 5" OD X 107", #670-0002
115. 1 ea - INSTALLATION KIT, INTENSITY, #670-0099
116. 1 ea - MAINTENANCE KIT, INTENSITY, #670-0103
117. 6 ea - ROOF POST 5" OD X 220", #670-0148
118. 1 ea - POST MOUNTED BELL, #670-0156
119. 6 ea - POST, SWAGED ROOF 5" OD X 171", #670-0161
120. 6 ea - POST, SWAGED ROOF 5" OD X 220", #670-0163
121. 4 ea - POST ASSEMBLY 5" OD X 123", #670-0165
122. 4 ea - POST ASSEMBLY 5" OD X 139", #670-0166
123. 2 ea - POST ASSEMBLY 5" OD X 158", #670-0168
124. 2 ea - ROOF POST 5" OD X 7GA X 207 ½", #670-0396

**SELECTED COLOR LIST**

<b>Color Group</b>	<b>Color</b>
<i>Phase 1</i>	
Rotomolded	Green
Platform	Brown
Accessory	Tan
Kore Konnect	Green
2 Color Extruded/Flat (outer)	Lime
2 Color Extruded/Flat (inner)	Black
Sprocket Main Panel & Cruiser Seat Backs	Lime
Sprocket Overlay & Cruiser Side Panels	Tan
Post	Green
1 Color Extruded/Flat	Lime
Canopy	Green
<i>Phase 2</i>	
Platform	Brown
Accessory	Tan
Kore Konnect	Green
Rotomolded	Green
Post	Green
1 Color Extruded/Flat	Lime
2 Color Extruded/Flat (outer)	Lime
2 Color Extruded/Flat (inner)	Black
<i>Phase 3</i>	
Drums	Green
1 Color Extruded/Flat	Lime
2 Color Extruded/Flat (outer)	Lime
2 Color Extruded/Flat (inner)	Black
Post	Green
Accessory	Tan
Rotomolded	Green
<i>Phase 4</i>	
Accessory	Tan
1 Color Extruded/Flat	Lime
Post	Green
Canopy	Green
<i>Phase 5</i>	
Table/Bench Legs	Galvanized
Table/Bench	Brown
Contemporary Swing Fittings	Green
Accessory	Tan
Rotomolded	Green
Platform	Brown
Post	Green

1 Color Extruded/Flat Lime

Overridden Colors

470-0386 48" DOUBLE LEAF SEATS

Post Green

**SPECIFICATINS FOR BCI BURKE PLAY STRUCTURES**

**PART 1 GENERAL**

**1.01 Section Includes**

A. Installation of a playground structure model [132-112135-3] as shown on the plans and herein specified.

**1.02 Related Sections**

- A. 31 10 00 – Site Preparation.
- B. 31 00 00 - Earthwork.
- C. 32 18 00 – Athletic and Recreational Surfacing.

**1.03 Quality Assurance**

- A. Installer Qualifications - An experienced installer familiar with local building codes and with the latest safety guidelines, who has completed installation of playground structures similar in material, design, and extent to that indicated for this project, and whose work has resulted in construction with a record of successful in-service performance.
- B. Acceptable Manufacturers - Provide play structure/components as manufactured by BCI Burke Company, LLC, P.O. Box 549, 600 Van Dyne Road, Fond du Lac, Wisconsin 54936-0549, Tel: (920) 921-9220, Fax: (920) 921-9566, Toll Free: 1-800-266-1250, [www.bciburke.com](http://www.bciburke.com).
- C. Product Options - Drawing indicates size, components and dimensional requirements of playground structure and is based on the specific system indicated.

**1.04 Submittals**

- A. Product Data: Include physical characteristics such as materials, dimensions and finish.
- B. Shop Drawings: Show assembly and installation details.
- C. Samples for Verification: Color selections for [upright posts], [steel accessories], [freestanding panels & signs], [swings], [Kid Koasters™], [plastic components], [other].
- D. Warranty: Include manufacturer's standard warranty.

**1.05 References**

- A. ASTM F1487 Standard Consumer Safety Performance Specification for Playground Equipment for Public use CAN/CSA-Z614 Children's Playspaces and Equipment.
- B. ASTM F1292 Standard Specification for Impact Attenuation of Surface Systems Under and Around Playground Equipment.
- C. U.S. Consumer Products Safety Commission Handbook for Public Playground Safety.
- D. Americans with Disabilities Act (ADA) Accessibility Guidelines for Buildings and Facilities; Play Areas, amended November 20, 2000.

## 1.06 Delivery, Storage and Handling

- A. Inspect all components on delivery to ensure that no damage occurred during shipping or handling. Materials shall be stored in original undamaged packaging in such a manner to ensure proper ventilation and drainage, and to protect against damage, weather, vandalism, and theft until ready for installation. Inspect components prior to installation.

## PART 2 MATERIALS

### 2.01 General product material specifications

#### A. Clamps

1. KoreKonnnect™ clamp castings [Nucleus, Voltage] 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.
2. Clamp Castings [Little Buddies] 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 one connection bolt. Clamp shall be finished with a baked on powder coating.

#### B. Platforms

1. Platforms [Nucleus, Voltage, Little Buddies] One piece all welded construction consisting of 12 GA HRPO steel shell and gussets, PVC coated after fabrication. Platforms shall connect to posts with EZKonnnect (patent pending) 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 [Nucleus] One piece all welded construction consisting of 12 GA HRPO steel shell and gussets, PVC coated after fabrication. Platforms shall connect to posts with EZKonnnect (patent pending) 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 [Nucleus, Voltage] One piece all welded construction consisting of 12 GA HRPO steel shell and gussets, PVC coated after fabrication. Platforms shall connect to posts with EZKonnnect (patent pending) 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 baked on powder coating.

#### 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 [Nucleus, Voltage, Little Buddies] 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-15 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.
- E. HDPE plastic panel parts shall be precision cut from 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 4000psi. All edges shall be rounded or chamfered for safe play.
- F. Posts, steel [Nucleus, Voltage, Little Buddies] shall be cold-formed steel tubing with a yield test of at least 42,000 psi and a tensile strength of at least 58,000 psi. Tube members shall comply with ASTM A-135 and ASTM A-500 Grade B minimum 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.
  5. Posts [Nucleus, Intensity] shall be 5" OD x 11 GA galvanized steel tubing.
  6. Posts [Little Buddies] shall be 2 3/8" OD x 12 GA galvanized steel tubing.
  7. Posts [Voltage] Post shall be 3 1/2" OD x 11 GA galvanized steel tubing.
- G. Posts, aluminum [Nucleus, Voltage, Intensity] shall be extruded aluminum tubing with a yield test of at least 35,000 psi and a tensile strength of at least 38,000 psi. Tube members shall comply with and shall be tested according to ASTM B-241. Standard posts shall be an assembly consisting of the extruded aluminum tubing with a cast aluminum cap factory installed in the post with 1/8" x 15/32" stainless steel pinned aluminum drive rivets.
1. Posts [Nucleus, Intensity] shall be 5" OD x 11 GA aluminum tubing.
  2. Posts [Voltage] Post shall be 3 1/2" OD x 11 GA aluminum tubing.

## 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° 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 a 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 a UL 94 HB rating.

B. Powder Coating - Standard: 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 3.0 – 6.0 mils thick and shall be cured in an oven at temperatures no less than 356° F and no more than 392° 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 direct 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 1/8" undercutting and no blistering in 1000 hours (salt spray test per ASTM B117).
6. Resistance to Humidity: No more than 1/8" undercutting and no blistering in 1000 hours (humidity test per ASTM D2247)
7. Degree of Gloss: No less than 80% reflected (specular gloss test at 60° per ASTM D523).

C. Powder Coating - Super Durable: 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 3.0 – 6.0 mils thick and shall be cured in an oven at temperatures no less than 356° F and no more than 392° 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 direct or reverse impact (ASTM D2794).
4. Resistance to Bending: No visible cracking (1/8" bending test per ASTM 522).
5. Resistance to Acid Salt Spray: No more than 1/32" undercutting and no blistering in 3000 hours (salt spray test per ASTM G85 Annex 5).
6. Resistance to Humidity: No more than 1/32" undercutting and no blistering in 3000 hours (humidity test per ASTM D2247)
7. Degree of Gloss: No less than 80% reflected (specular gloss test at 60° per ASTM D523).

8. Weathering: No less than 4 (tested per EN 20105-A02)

9. Light fastness: No less than Grade 7 (tested per EC ISO 105-B02)

D. Powder Coating - Coastal Package: All metal parts will be coated with a two-part powder coat system that consists of a primer in addition to the top coat of Super Durable powder coating. Note: Top coat may be Standard powder coating for certain colors due to availability. Prior to powder coating, all parts shall be cleaned, treated with a phosphate-free cleaner and sealed with a non-chromic process. An epoxy-based zinc-free primer shall be a minimum of 3.0 mils thick and cured in an oven at temperatures no less than 338°F. This two-coat powder coating system provides superior color, gloss and UV stabilizing properties, good chemical resistance, along with excellent corrosion protection properties consisting of the following:

1. Resistance to Humidity: No more than 1/32" undercutting and no blistering in 1000 hours (humidity test per ASTM D2247).

2. Resistance to Salt Spray: No more than 1/32" undercutting and no blistering in 3000 hours (salt spray test per ASTM B117).

E. Corrosion protection: All metal parts will either have inherent corrosion protection such as stainless steel, aluminum or galvanized steel, or they will be pre-treated prior to powder coating with either an e-coat or zinc clear chromate coating for superior corrosion protection.

### **2.03 Barriers & Enclosures**

A. Center Mount Enclosure [Nucleus, Voltage] One piece all welded construction consisting of 3 1/2" 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. Enclosures [Little Buddies] 3/4" co-extruded H.D.P.E.

C. Enclosures and Stanchions [Nucleus, Voltage, Little Buddies ] 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 [Nucleus, Voltage] One piece all 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 [Voltage] 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 [Nucleus, Voltage, Little Buddies] 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 1/2" x 1/2" x 10 GA formed galvanized steel plate. Finished with a baked-on powder coating.

G. Platform-to-Platform Bars [Voltage] 1.315" x 12 GA galvanized steel tubing finished with a baked-on powder coating.

H. Slotted Barrier [Nucleus, Voltage, Little Buddies] 3/4" co-extruded H.D.P.E.

### **2.04 Brackets**

A. Panel Brackets [Voltage] 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 [Voltage] Bracket shall be one piece all welded construction consisting of 8 GA galvanized steel plate and 3/16" stainless steel plate. Finished with a baked-on powder coating.
- C. Mounting Brackets [Voltage] Bracket 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 [Little Buddies] Tube 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 [Voltage] Tube 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 [Voltage, Nucleus] Bracket shall be 14 GA galvanized steel plate finished with a baked-on powder coating.
- G. Steering Wheel Mount Bracket [Voltage, Little Buddies] 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 30in DRIVE PIN**

- A. 30in DRIVE PIN: 3/4" X 30" galvanized pin.

**2.06 32" 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. 32" 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. 32" ACCESSIBLE STAIRS: One piece all welded construction consisting of 12 GA HRPO steel surfaces, sides, and gussets. PVC coated after fabrication.

**2.07 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.

#### **2.08 48" DOUBLE LEAF SEATS**

- A. 48" DOUBLE LEAF SEAT FRAM: One piece all welded construction consisting of 1.315" OD x 14 GA galvanized steel tubing and formed 3/16" stainless steel plates. Finished with a baked-on powder coating.
- B. LEAF STEP: Cast aluminum alloy finished with a baked-on powder coating.

#### **2.09 6' PVC TRADITIONAL PICNIC TABLE, PORTABLE**

- A. BRACE, TABLE: 1.315" OD Tube
- B. 6 SEAT/BACK: One piece all welded construction consisting of 14 GA HRPO steel. PVC coated after fabrication.
- C. 6' TABLE TOP: One piece all welded construction consisting of 14 GA HRPO steel. PVC coated after fabrication.
- D. FRAME, TABLE: One piece all welded construction consisting of 2.375" OD x 12 GA steel tubing and sheet steel. Finished with a baked-on powder coating.

#### **2.10 6' PVC TRADITIONAL BENCH W/BACK, STATIONARY**

- A. 6 SEAT/BACK: One piece all welded construction consisting of 14 GA HRPO steel. PVC coated after fabrication.
- B. INGROUND LEGS, BENCH W/BA: One piece all welded construction consisting of 2 3/8" OD x 12 GA steel tubing and sheet steel. Finished with a baked-on powder coating.

#### **2.11 6ft STONEBORDER/2 DRIVE PINS**

- A. 6ftSTONEBORDER/2 DRV PINS: Stone Borders: 1/8" thick, linear, low density, recycled polyethylene with double wall construction and a textured outside surface. Drive Pins: 3/4" dia. galvanized steel.

#### **2.12 8" CLOSURE PLATE**

- A. S5 8" CLOSURE PLATE: 14 GA galvanized steel plate finished with a baked-on powder coating.

#### **2.13 8" RISE ENTRANCE RAMP W/ GUARDRAILS**

- A. CASTING, 90 DEGREE BRACKE: A356-T6 Aluminum, Heat- Treated. Finished with baked on powder coating.
- B. ENTRANCE PLATE: 7 GA HR steel. PVC coated after fabrication.
- C. TUBE 1.315 OD X 32 5/8: 1.315" OD x 12 GA galvanized steel tubing finished with a baked-on powder coating.

- D. 8' RAMP: One piece all welded construction consisting of 12 GA surfaces and 7 GA gussets. PVC coated after fabrication.
- E. 8' GUARDRAIL, S5: One piece all welded construction consisting of 1.315" OD x 14 GA & 1.900" OD x 11 GA galvanized steel tubing and 12 GA. Finished with a baked-on powder coating.

**2.14 8" RISE RAMP W/ BARRIERS**

- A. CASTING, 90 DEGREE BRACKE: A356-T6 Aluminum, Heat- Treated. Finished with baked on powder coating.
- B. 8' RAMP: One piece all welded construction consisting of 12 GA surfaces and 7 GA gussets. PVC coated after fabrication.
- C. 8' LH BARRIER, S5: One piece all welded construction consisting of 1.315" OD x 14 GA & 1.900" OD x 11 GA galvanized steel tubing and 12 GA. Finished with a baked-on powder coating.
- D. 8' RH BARRIER, S5: One piece all welded construction consisting of 1.315" OD x 14 GA & 1.900" OD x 11 GA galvanized steel tubing and 12 GA. Finished with a baked-on powder coating.

**2.15 8" RISE RAMP W/ GUARDRAILS**

- A. CASTING, 90 DEGREE BRACKE: A356-T6 Aluminum, Heat- Treated. Finished with baked on powder coating.
- B. 8' RAMP: One piece all welded construction consisting of 12 GA surfaces and 7 GA gussets. PVC coated after fabrication.
- C. 8' GUARDRAIL, S5: One piece all welded construction consisting of 1.315" OD x 14 GA & 1.900" OD x 11 GA galvanized steel tubing and 12 GA. Finished with a baked-on powder coating.

**2.16 8' PVC PERSONALIZED BENCH, STATIONARY**

- A. INGROUND LEGS, BENCH W/BA: One piece all welded construction consisting of 2 3/8" OD x 12 GA steel tubing and sheet steel. Finished with a baked-on powder coating.
- B. 8' PVC BENCH SEAT/BACK, I: One piece all welded construction consisting of 12 GA HRPO steel. PVC coated after fabrication.
- C. 8' PVC CUSTOM PERSONALIZE: One piece all welded construction consisting of 12 GA HRPO steel. PVC coated after fabrication.

**2.17 8' PVC TRADITIONAL ADA PICNIC TABLE, BOTH ENDS**

- A. BRACE, TABLE: 1.315" OD Tube
- B. 6 SEAT/BACK: One piece all welded construction consisting of 14 GA HRPO steel. PVC coated after fabrication.
- C. 8' ADA PVC TABLE TOP: One piece all welded construction consisting of 14 GA HRPO steel. PVC coated after fabrication.
- D. FRAME, TABLE: One piece all welded construction consisting of 2.375" OD x 12 GA steel tubing and sheet steel. Finished with a baked-on powder coating.

**2.18 ADA SPIRAL SPINNER ACCESSIBLE REACH PANEL**

- A. BRONZE BEARING .377 X .75: Oil impregnated, bronze.
- B. SPIRAL SPINNER: 3/4" co-extruded HDPE.

- C. PANEL, ADA SPINNER ACCESS: 3/4" extruded HDPE.
- D. STEER WHEEL STANDOFF KPSL: 1 3/8" OD threaded cold rolled steel round.
- E. PANEL MOUNT BRACKET: One piece all welded construction consisting of 10 GA galvanized sheet steel and a formed 3/16" stainless steel plate, finished with a baked-on powder coating.

### **2.19 ASCEND ROCK CLIMBER, 32"-40"**

- A. CASTING, STRAIGHT BRACKET: A356-T6 Aluminum, Heat- Treated. Finished with baked on powder coating.
- B. FORMED PLATE 63 DEG X 26: 10 GA galvanized steel plate finished with a baked-on powder coating.
- C. PANEL, ASCEND ROCK CLIMBE: 3/4" Co-extruded HDPE.
- D. ROCK CLIMBING HOLD: Molded professional grade rock climbing hold with stainless steel washers.
- E. TUBE, 1.029" OD X 14 GA X: Formed from galvanized steel tubing of at least 1.029" OD x 14 GA wall. Finished with a baked-on powder coating.
- F. SUPPORT, ASCEND ROCK CLIM: One piece all welded construction consisting of 1.315" OD x 12 GA galvanized steel tubing, and 10 GA galvanized steel cap. Finished with a baked-on powder coating.
- G. S5 UNITARY ENCLOSURE: 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.

### **2.20 BALCONY**

- A. CASTING, 90 DEGREE BRACKE: A356-T6 Aluminum, Heat- Treated. Finished with baked on powder coating.
- B. PLATFORM, S5 BALCONY: 12 GA HRPO sheet, finished with a PVC Coating
- C. BARRIER, S5 BALCONY: One piece all welded construction consisting of 1.315" OD x 12 GA, 1.315" OD x 14 GA, & 1.029" x 14 GA galvanized steel tubing, and 10 GA galvanized sheet steel. Finished with a baked-on powder coating.

### **2.21 BEE ACCESSIBLE REACH PANEL BALCONY**

- A. BUMBLE BEE: 3/4" co-extruded HDPE.
- B. BEE PANEL, ACCESSIBLE REA: -
- C. PANEL MOUNT BRACKET: One piece all welded construction consisting of 10 GA galvanized sheet steel and a formed 3/16" stainless steel plate, finished with a baked-on powder coating.
- D. STANDOFF: 1/2" OD threaded stainless steel

### **2.22 BELT SEAT, 8' PAIR, STD CHAIN**

- 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: 1/4" Nylatron GS.

D. LOCKTITE: 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 1/2" bolt.

### **2.23 BUBBLE MIRROR ACTIVITY PANEL**

A. BUBBLE MIRROR ACTIVITY PA: Assembly consisting of welded bracket, formed 10 ga galv steel plate, 1.029" OD galv tubing, linear, low density, rotationally molded, U.V. stabilized polyethylene with double wall construction, molded in 1/4" T-nut inserts, and a textured surface, routed HDPE panels 1/2", polycarbonate bubble window with mirror finish, SS hardware.

### **2.24 CAR ACCESSIBLE REACH PANEL BALCONY**

A. KNOB: 3/4" extruded HDPE.

B. CAR PANEL LEVER: 3/4" Extruded HDPE.

C. CAR PANEL, ACCESSIBLE REA: -

D. PANEL MOUNT BRACKET: One piece all welded construction consisting of 10 GA galvanized sheet steel and a formed 3/16" stainless steel plate, finished with a baked-on powder coating.

E. STANDOFF: 1/2" OD threaded stainless steel

F. KING PIN, 7/8" DIA. X 2 1: 304 Stainless Steel

G. STANDOFF, 13/16": 1/2" OD threaded stainless steel tubing.

H. STEERING WHEEL ASSEMBLY: Assembly Consisting of a one piece all welded steering wheel made of 14 GA spun steel and 1 3/8" OD Steel Tube and a bronze bearing. Steering wheel is PVC coated after fabrication.

### **2.25 CHARADE PANEL, ABOVE PLATFORM**

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. TUBE 1.315" OD X 42 1/2": 1.315" O.D. GALV TUBING

D. PANEL MOUNTING PLATE: One piece all welded construction consisting of 10 GA and 14 GA galvanized steel plates. Finished with a baked-on powder coating.

E. CHARADE PANEL ASSEMBLY: Assembly consisting of a 1/4" LLDPE double wall rotationally molded panel, 1/4" clear polycarbonate window, 1/2" extruded HDPE, extruded HDPE and acetal and stainless-steel balls all assembled together with stainless steel hardware.

### **2.26 CHIMES PANEL**

A. CASTING, FLAT PANEL: A356-T6 Aluminum, Heat- Treated. Finished with baked on powder coating.

B. CHIMES PANEL ASSEMBLY: Assembly consisting of 3/4" extruded H.D.P.E. panels, 1" OD x .049" wall stainless steel tubes, 1/16" diameter stainless steel wire rope, zinc plated steel washers, zinc plated copper compression sleeves, and stainless-steel screws, T-nuts & 3/8" washers.

### **2.27 CLUBHOUSE BOARD CLIMBER 72"**

- A. CASTING, STRAIGHT BRACKET: A356-T6 Aluminum, Heat- Treated. Finished with baked on powder coating.
- B. TUBE 1.315 OD X 32 5/8: 1.315" OD x 12 GA galvanized steel tubing finished with a baked-on powder coating.
- C. RECYCL BRD 2 X 4 X 24 7/8: 100% recycled post-consumer, high-density polyethylene plastic with U.V. inhibitors.
- D. WOOD PLANK K: 3/4" Recycled HDPE
- E. WOOD PLANK L: 3/4" Recycled HDPE
- F. CLUBHOUSE UNITARY ENCLOSURE: One piece all welded construction consisting of 1.315" OD x 12 GA galvanized steel tubing, zinc plated steel nut inserts, and HDPE threaded inserts. Finished with a baked-on powder coating.
- G. SUPPORT RAIL: One piece all welded construction of 10 & 12 GA HRPO steel. PVC coated after fabrication.

## **2.28 CLUBHOUSE FULL BOARD PANEL**

- A. CASTING, STRAIGHT BRACKET: A356-T6 Aluminum, Heat- Treated. Finished with baked on powder coating.
- B. TUBE 1.315" OD X 42 1/2": 1.315" OD x 14 GA galvanized steel tubing and zinc plated steel nut inserts. Finished with a bake- on powder coating.
- C. WOOD PLANK A: 3/4" Recycled HDPE
- D. WOOD PLANK B: 3/4" Recycled HDPE
- E. WOOD PLANK C: 3/4" Recycled HDPE
- F. WOOD PLANK D: 3/4" Recycled HDPE
- G. WOOD PLANK E: 3/4" Recycled HDPE
- H. WOOD PLANK F: 3/4" Recycled HDPE
- I. WOOD PLANK G: 3/4" Recycled HDPE
- J. WOOD PLANK H: 3/4" Recycled HDPE

## **2.29 CLUBHOUSE HEX ROOF**

- A. CLUBHOUSE HEX ROOF SUPPORT: One piece all welded construction consisting of 5" OD X 3/16 wall tubing, 12 ga galv sheet steel, 10 ga galv sheet steel, 8 ga galv sheet steel and 3/8-16 X 3/4" weld screws. Finished with a baked-on powder coating.
- B. CLUBHOUSE HEX ROOF ASSEMBLY: Assembly consisting of: All welded 12 GA and 14 GA galvanized steel formed supports finished with a baked on powdercoat, 3/4" recycled HDPE wood planks, zinc plated steel screws and 18-8 stainless steel flat and split lock washers.
- C.
- D. CLUBHOUSE HEX ROOF ASSEMBLY: Assembly consisting of: All welded 12 GA and 14 GA galvanized steel formed supports finished with a baked on powdercoat, 3/4" recycled HDPE wood planks, zinc plated steel screws and 18-8 stainless steel flat and split lock washers.



E. CLUBHOUSE HEX ROOF ASSEMB: Assembly consisting of: All welded 12 GA and 14 GA galvanized steel formed supports finished with a baked on powdercoat, 3/4" recycled HDPE wood planks, zinc plated steel screws and 18-8 stainless steel flat and split lock washers.

F.

### **2.30 CLUBHOUSE HEX ROOF FOR TREE TRUNK**

A. CLUBHOUSE TREE TRUNK HEX: One piece all welded construction consisting of 5.125" OD X .188" wall tubing, 12 ga galv sheet steel, 10 ga galv sheet steel, 8 ga galv sheet steel and 3/8-16 X 3/4" weld screws. Finished with a baked-on powder coating.

B. CLUBHOUSE HEX ROOF ASSEMB: Assembly consisting of: All welded 12 GA and 14 GA galvanized steel formed supports finished with a baked on powdercoat, 3/4" recycled HDPE wood planks, zinc plated steel screws and 18-8 stainless steel flat and split lock washers.

C.

D. CLUBHOUSE HEX ROOF ASSEMB: Assembly consisting of: All welded 12 GA and 14 GA galvanized steel formed supports finished with a baked on powdercoat, 3/4" recycled HDPE wood planks, zinc plated steel screws and 18-8 stainless steel flat and split lock washers.

E. CLUBHOUSE HEX ROOF ASSEMB: Assembly consisting of: All welded 12 GA and 14 GA galvanized steel formed supports finished with a baked on powdercoat, 3/4" recycled HDPE wood planks, zinc plated steel screws and 18-8 stainless steel flat and split lock washers.

F.

### **2.31 CLUBHOUSE LEAF CLIMBER 40" - 48"**

A. CASTING, STRAIGHT BRACKET: A356-T6 Aluminum, Heat- Treated. Finished with baked on powder coating.

B. WOOD PLANK K: 3/4" Recycled HDPE

C. WOOD PLANK L: 3/4" Recycled HDPE

D. LEAF CLIMBER 40 - 48": One piece 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.

E. CLUBHOUSE UNITARY ENCLOSURE: One piece all welded construction consisting of 1.315" OD x 12 GA galvanized steel tubing, zinc plated steel nut inserts, and HDPE threaded inserts. Finished with a baked-on powder coating.

F. LEAF STEP: Cast aluminum alloy finished with a baked-on powder coating.

### **2.32 CLUBHOUSE UNITARY ENCLOSURE**

A. CASTING, STRAIGHT BRACKET: A356-T6 Aluminum, Heat- Treated. Finished with baked on powder coating.

B. WOOD PLANK K: 3/4" Recycled HDPE

C. WOOD PLANK L: 3/4" Recycled HDPE

D. CLUBHOUSE UNITARY ENCLOSURE: One piece all welded construction consisting of 1.315" OD x 12 GA galvanized steel tubing, zinc plated steel nut inserts, and HDPE threaded inserts. Finished with a baked-on powder coating.

### **2.33 COMET II**

- A. THRUST BALL BEARING 2 3/4: Heavy duty, precision thrust, sealed ball bearing.
- B. COVER, SPINNER: 3/4" extruded HDPE
- C. ANCHOR POST, COMET: One piece all welded construction consisting of 5 1/2" dia steel housing with 2 3/4" dia. shaft, 1/4" & 7 GA HR steel plate and gussets. Finished with a baked-on powder coat.
- D. COMET II WELDMENT: One piece all welded construction consisting of formed 2 3/8" OD x 10 GA galvanized steel tubing and 8 GA galvanized steel plate. Finished with a baked-on powder coating.
- E.

### **2.34 CONVEX CLIMBER 24"-32"**

- A. CASTING, STRAIGHT BRACKET: A356-T6 Aluminum, Heat- Treated. Finished with baked on powder coating.
- B. CONVEX CLIMBER 24/32: One piece all welded construction consisting of 1.315" OD x 14 GA & 1.900" OD x 11 GA galvanized steel tubing, and 10 GA galvanized steel plate. Finished with a baked-on powder coating.
- C. S5 UNITARY ENCLOSURE: 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.

### **2.35 CRUISER WITH ADAPTER**

- A. BUMPER BRACKET: 8 gage galv sheet steel
- B. THRUST BEARING: Bronze
- C. SEAT BACK: 3/4" Extruded HDPE
- D. SIDE SKIRT PANEL: 3/4" Extruded HDPE
- E. END SKIRT PANEL: 3/4" Extruded HDPE
- F. SIDE PANEL: 1/2" Extruded HDPE
- G. SIDE PANEL: 1/2" Extruded HDPE
- H. SIDE PANEL: 1/2" Extruded HDPE
- I. SIDE PANEL: 1/2" Extruded HDPE
- J. CRUISER PANEL: 3/4" Co-extruded HDPE
- K. BASE FRAME: Welded fabrication consisting of 3" x 5" structural channel, 3/8" HRPO steel plates, 1/4" HRPO steel plates, 8 ga. galv plates. Finished with E-coat primer and baked on powder coating.
- L. ROCKING FRAME: Welded fabrication consisting of 2" square structural tubing, 3/8" HRPO steel plates, 8 ga and 12 ga. galv plates. Finished with E-coat primer and baked on powder coating.
- M. ROCKER PLATFORM: One piece all welded construction consisting of 12 GA surfaces and 12 GA gussets. PVC coated after fabrication.
- N. PLATFORM ADAPTER : One piece all welded construction consisting of 12 GA surfaces, 12 GA gussets and mounting plates. PVC coated after fabrication.

- O. BACK WELDMENT: One piece all welded construction consisting of 1.315" OD x 14 GA galvanized steel tubing, 10 GA galvanized steel plate and malleable iron plug. Finished with a baked-on powder coating.
- P. SIDE WELDMENT: One piece all welded construction consisting of 1.315" OD x 14 GA galvanized steel tubing, 10 GA galvanized steel plate and zinc plated steel nut insert. Finished with a baked-on powder coating.
- Q. SIDE WELDMENT: One piece all welded construction consisting of 1.315" OD x 14 GA galvanized steel tubing, 10 GA galvanized steel plate and zinc plated steel nut insert. Finished with a baked-on powder coating.
- R. SEAT SIDE ARCH: One piece all welded construction consisting of 1.315" OD x 14 GA galvanized steel tubing, 10 GA galvanized steel plate and malleable iron plug. Finished with a bake- on powder coating.
- S. SEAT SIDE ARCH: One piece all welded construction consisting of 1.315" OD x 14 GA galvanized steel tubing, 10 GA galvanized steel plate and malleable iron plug, Finished with a baked-on powder coating.
- T. SEAT: One piece all welded construction consisting of 12 GA surfaces and 12 GA gusset. PVC coated after fabrication.
- U. HANDLE: One piece all welded construction consisting of 1.315" OD x 14 GA galvanized steel tubing and malleable iron plugs. Finished with a baked-on powder coating.
- V. HANDLE SUPPORT: One piece all welded construction consisting of 1.315" OD x 14 GA galvanized steel tubing and malleable iron plugs. Finished with a baked-on powder coating.
- W. BRACKET, MOUNTING 2 1/4 x: 10 GA galvanized steel with a baked-on powder coating.
- X. LOCKTITE: Thread Locker; CAUTION: May irritate eyes, skin and respiratory system. Contains: polyglycol dimethacrylate, polyglycol oleate propylene glycol, titanium dioxide, and cumene hydroperoxide.
- Y. SPACER: Stainless steel
- Z. BUMPER: Neoprene rubber
- AA. SHOCK ABSORBER: Gas charged dampener with ball joint connection ends.
- BB. PIVOT ARM ASSEMBLY: Machined 6061-T6 Aluminum with pressed in Bronze bushings.
- CC. PIVOT PIN ASSEMBLY LONG: Assembly consisting of 10 ga galv plate, machined 416 Stainless Steel pin, hardened and stainless-steel screws.
- DD. PIVOT PIN ASSEMBLY: Assembly consisting of 10 ga galv plate, machined 416 Stainless Steel pin, hardened and stainless- steel screws.

### **2.36 CUSTOM ARCH SIGN**

- A. ARCH SIGN BRACKET: One piece all welded construction consisting of 10 GA galvanized sheet steel and a formed 3/16" stainless steel plate, finished with a baked-on powder coating.
- B. CUSTOM ARCH SIGN NUCLEUS: 3/4" co-extruded HDPE.

### **2.37 FREEDOM SWING SEAT, PAIR, 8' BEAM, STD CHAIN**

- A. CHAIN 4/0 (47 1/8"): 3/8" diameter, 4/0 straight coil chain.

- B. CHAIN 4/0 (72"): 3/8" diameter, 4/0 straight coil chain.
- C. CHAIN 4/0 (22 1/2") PVC C: 3/8" diameter, 4/0 straight coil chain. PVC coated after fabrication.
- D. SPACER 1.13 OD X .25: 1/4" Nylatron GS.
- E. LOCKTITE: Thread Locker; CAUTION: May irritate eyes, skin and respiratory system. Contains: polyglycol dimethacrylate, polyglycol oleate propylene glycol, titanium dioxide, and cumene hydroperoxide.
- F. U BOLT W/ PLATE & NUTS, 5: Stainless steel hardware
- G. FREEDOM SWING SEAT ASSEMB: Seat with harness made of 1/4" thick, linear, low density, rotationally molded, U.V. stabilized polyethylene with double wall construction, molded in 3/8" T-nut inserts and a textured surface assembled together using an aluminium rod, stainless steel hardware, shims, springs, pins & standoffs along with a rubber bumper.

### **2.38 FS 2 BRANCH TREE CLIMBER**

- A. RING SPACER: 1/4" thick, linear, low density, rotationally molded, U.V. stabilized polyethylene with double wall construction and a textured surface.
- B. RING CAP: linear, low density, rotationally molded, U.V. stabilized polyethylene with double wall construction and a textured surface.
- C. SLEEVE: Linear, low density rotationally molded, U.V. stabilized, polyethylene, .250" thick, single wall construction. Textured outside surface.
- D. HAND HOLD: 1/4" thick, linear, low density, rotationally molded, U.V. stabilized polyethylene with double wall construction and a textured surface.
- E. SPACER: 1/2" Extruded HDPE.
- F. POST, 3" SQ X 11 GA X 105: 3" square x 11 GA galvanized steel. Finished with a baked-on powder coating.

### **2.39 FS SIGN, AGES 2-5**

- A. PLATE, SIGN FRAME: One-piece construction consisting of 8 GA galvanized steel plate. Finished with a baked-on powder coating.
- B. CAP: 3/4" co-extruded HDPE
- C. WELDMENT, SIGN POST: One piece all welded construction consisting of 8 GA galvanized steel plate, 2.375" OD X 12 GA galvanized steel tubing, and 1.029" OD x 14 GA galvanized steel tubing.
- D. Finished with a baked-on powder coating.
- E. SIGN, WARNING AGES 2-5: A full color graphic sign printed on 3 mm DiBond.

### **2.40 FS SIGN, AGES 5-12**

- A. PLATE, SIGN FRAME: One-piece construction consisting of 8 GA galvanized steel plate. Finished with a baked-on powder coating.
- B. CAP: 3/4" co-extruded HDPE
- C. WELDMENT, SIGN POST: One piece all welded construction consisting of 8 GA galvanized steel plate, 2.375" OD X 12 GA galvanized steel tubing, and 1.029" OD x 14 GA galvanized steel tubing.

- D. Finished with a baked-on powder coating.
- E. SIGN, WARNING AGES 5-12: A full color graphic sign printed on 3 mm DiBond.

#### **2.41 FS SIGN, CUSTOM/CUSTOM**

- A. FS SIGN FRAME: 10 GA GALV steel finished with baked-on black powder coating.
- B. ARCH POST, SIGN: One piece all welded construction consisting of 2 3/8" OD x 12 GA galvanized steel tubing and 10 GA galvanized sheet steel. Finished with a baked-on powder coating.
- C. CUSTOM SIGN, BOTH SIDES: A full color graphic sign printed on 3 mm DiBond

#### **2.42 HALF PIPE WALL**

- A. CASTING, STRAIGHT BRACKET: A356-T6 Aluminum, Heat- Treated. Finished with baked on powder coating.
- B. HALF PIPE WALL: 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. Finished with a baked-on powder coating.

#### **2.43 HALF PLATFORM**

- A. HALF PLATFORM: 12 GA HRPO sheet, finished with a PVC Coating

#### **2.44 HEX SHADEPLAY CANOPY**

- A. PIN, DOWEL, 1/2 DIA X 1 1: Hardened steel with a zinc chromate finish.
- B. PLATE: 8 GA galvanized steel plate. Finished with a baked-on powder coating.
- C. TUBE, FORMED 1.900" OD X: One-piece construction of 1.900" OD 11 GA galvanized steel tubing. Finished with a baked-on powder coating.
- D. INSERT, CONNECTOR 1" X 1: 1" x 1 1/4" HR steel bar. Finished with a baked-on powder coating.
- E. RAFTER, S5 LONG TENSIONIN: One-piece welded construction of 1.900" OD 11 GA, 1.660" OD 12 GA and 5" OD 11 GA galvanized steel tubing. Finished with a baked-on powder coating.
- F. ARM, SHORT TENSIONING: One-piece welded construction of galvanized steel tubing. Finished with a baked-on powder coating.
- G. END CAP: Aluminum. Finished with a baked-on powder coating.
- H. HEX SHADEPLAY CANOPY W/CA: Monofilament and tape construction high density polyethylene knitted shade fabric with vinyl covered galvanized cables, zinc-plated copper cable fasteners hot galvanized dipped turnbuckles. Performance Specification: Shade Canopy shall withstand uplift values of 19.63 PSF at a maximum of 90 MPH wind speed.

#### **2.45 HEXAGONAL PLATFORM S5P**

- A. HALF HEX 4 POST S5 PLATFO: One-piece platform all welded construction consisting of 12 GA surfaces, gussets, and corner plates. PVC coated after fabrication.

#### **2.46 HEXAGONAL PLATFORM S5P**

- A. HALF HEX 4 POST S5 PLATFO: One-piece platform all welded construction consisting of 12 GA surfaces, gussets, and corner plates. PVC coated after fabrication.

## **2.47 HORIZONTAL OVERHEAD, 2-5**

- A. MOUNT BRACKET 1.029OD X 5: One piece all welded construction consisting of 1.029" OD x 14 GA galvanized steel tubing and a formed 3/16" stainless steel plate. Finished with a baked-on powder coating.
- B. OVERHEAD HORIZONTAL, 2-5: One piece all welded construction consisting of 1.315" OD x 12 GA and 1.029" OD x 14 GA galvanized steel tubing. Finished with a baked-on powder coating.
- C. TAKE-OFF ANCHOR: 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 a baked-on powder coating.
- D. RUBBER WEDGE 19 1/2 x 3 1: Composed of SBR (recycled tire rubber) and EPDM (new synthetic) rubber granules and one component polyurethane binder. The rubber granules and the binder are inert in their cured state, leaving us with a finished product that does not require an MSDS sheet.
- E. ADHESIVE TUBE: Single component urethane adhesive - see MSDS sheet located in your Installation Guidelines Structure Book.

## **2.48 HYPNO ACTIVITY PANEL**

- A. HYPNO ACTIVITY PANEL ASSE: Assembly consisting of welded bracket, formed 10 ga galv steel plate, 1.029" OD galv tubing, linear, low density, rotationally molded, U.V. stabilized polyethylene with double wall construction, molded in 1/4" T-nut inserts, and a textured surface, routed HDPE panels 1/2", bronze bushing, SS shaft standoff, injection molded HDPE bolt covers, SS hardware.

## **2.49 KONNECTION SWING, PAIR**

- A. GALVANIZED 4/0 CHAIN 7 5/: 4/0 straight coil chain.
- B. MAIN SEAT, KONNECTION SWI: Linear, low density rotationally molded, U.V. stabilized, polyethylene, .250" thick, double wall construction. Textured outside surface.
- C.
- D. KONNECTION SWING FRAME: One piece all welded construction consisting of 1.315" x 12 GA galvanized steel tubing, 1.029" x 14 GA galvanized steel tubing, and 1/4" HRS zinc-coated steel plating. Finished with baked on powder coat.
- E. LOCKTITE: Thread Locker; CAUTION: May irritate eyes, skin and respiratory system. Contains: polyglycol dimethacrylate, polyglycol oleate propylene glycol, titanium dioxide, and cumene hydroperoxide.
- F. BACK REST, KONNECTION SWI: -

## **2.50 NOVO ARC BENCH**

- A. PANEL, NOVO ARC BENCH SEA: 3/4" Extruded HDPE
- B. WELDMENT, POST 3 1/2" OD: One piece all welded construction consisting of 3 1/2" OD x 8 GA galvanized tubing and 12 GA galvanized sheet steel. Finished with a baked-on powder coating.
- C. WELDMENT, NOVO ARC BENCH: One piece all welded construction consisting of 1.315" OD x 14 GA galvanized tubing and 12 GA galvanized sheet steel. Finished with a baked-on powder coating.

## **2.51 NOVO ARC STOOL**

- A. PANEL, NOVO ARC BENCH SEA: 3/4" Extruded HDPE

- B. WELDMENT, NOVO ARC BENCH: One piece all welded construction consisting of 1.315" OD x 14 GA galvanized tubing and 12 GA galvanized sheet steel. Finished with a baked-on powder coating.
- C. WELDMENT, POST 3 1/2" OD: One piece all welded construction consisting of 3 1/2" OD x 8 GA galvanized tubing, 1.315" OD x 14 GA galvanized tubing and 12 GA and 8 GA galvanized sheet steel. Finished with a baked-on powder coating.

#### **2.52 NOVO TEARDROP COUNTER CLIMBER**

- A. PANEL, NOVO COMMA COUNTER: 3/4" Extruded HDPE
- B. WELDMENT, POST 5" OD X 7: One piece all welded construction consisting of 5" OD x 11 GA galvanized tubing and 12 GA galvanized sheet steel. Finished with a baked-on powder coating.
- C. WELDMENT, NOVO COUNTER TO: One piece all welded construction consisting of 1.315" OD x 12 GA galvanized tubing and 12 GA galvanized sheet steel. Finished with a baked-on powder coating.

#### **2.53 NPPS SUPERVISION SAFETY KIT**

- A. NPPS DVD: National Program for Playground Safety supervision safety kit including training manual, training DVD, and supervision fanny pack with supplies.

#### **2.54 PIPE WALL**

- A. CASTING, STRAIGHT BRACKET: A356-T6 Aluminum, Heat- Treated. Finished with baked on powder coating.
- B. S5 PIPE WALL: 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. Finished with a baked-on powder coating.

#### **2.55 PLATFORM WHEELCHAIR GUARD**

- A. CASTING, FLAT PANEL: A356-T6 Aluminum, Heat- Treated. Finished with baked on powder coating.
- B. WHEELCHAIR GUARD PANEL: 3/4" Extruded HDPE Routed

#### **2.56 PLAYMAT 3' X 5' X 2"**

- A. PLAYMAT 3' X 5' X 2": 100% recycled rubber buffings bonded with urethane.

#### **2.57 PLUG**

- A. PLUG: Low linear density polyethylene.

#### **2.58 POD WALK 32"**

- A. CASTING, STRAIGHT BRACKET: A356-T6 Aluminum, Heat- Treated. Finished with baked on powder coating.
- B. FORMED TUBE, 1.660 X 103: Formed 1.660" OD x 12 GA galvanized steel tubing finished with baked on powder coating.
- C. POD WALK SUPPORT 40: One piece all welded construction consisting of 2 3/8" OD x 12 GA galvanized steel tubing and 10 GA galvanized sheet steel. Finished with a baked-on powder coating.
- D. POD WALK SUPPORT 56: One piece all welded construction consisting of 2 3/8" OD x 12 GA galvanized steel tubing and 10 GA galvanized steel plate. Finished with a baked-on powder coating.

E. S5 UNITARY ENCLOSURE W/ N: 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.

F. POD WALK TOP: Formed 1/8" sheet steel with studs welded into place. PVC coated after fabrication.

### **2.59 POST MOUNTED BELL**

A. GALVANIZED 4/0 CHAIN 12": 4/0 straight coil chain.

B. KNOB: 3/4" extruded HDPE.

C. BELL BRACKET: One piece all welded construction. Finished with a baked-on powder coating.

D. TUBE, BELL: One piece all welded construction consisting of 5" OD X SCH 10 aluminum tubing and 5" OD aluminum plate. Finished with a baked-on powder coating.

E. SPACER 1.13 OD X .25: 1/4" Nylatron GS.

### **2.60 POST MOUNTED BELL**

A. GALVANIZED 4/0 CHAIN 12": 4/0 straight coil chain.

B. KNOB: 3/4" extruded HDPE.

C. BELL BRACKET: One piece all welded construction. Finished with a baked-on powder coating.

D. TUBE, BELL: One piece all welded construction consisting of 5" OD X SCH 10 aluminum tubing and 5" OD aluminum plate. Finished with a baked-on powder coating.

E. SPACER 1.13 OD X .25: 1/4" Nylatron GS.

### **2.61 PVC LC STAT PLASTIC DOME**

A. PERM SUPP PVC L.C.: One piece all welded construction consisting of 1.660" OD x 13 GA galvanized steel tubing and 10 GA galvanized steel plate. Finished with a baked-on powder coating.

B. PVC LITTER CONTAINER 32: One piece all welded construction consisting of 14 GA HRPO steel. PVC coated after fabrication.

C. LINER 32 GALLON: plastic

D. PLASTIC DOME COVER: Dome is made of linear, low density, U.V. stabilized polyethylene and has a smooth outside surface.

### **2.62 RAIN WHEEL DRUM ELEMENT**

A. DRUM, 10": An average of 3/16" thick, linear, low density, rotationally molded, U.V. stabilized polyethylene with single wall construction, molded in 3/8" T-nut inserts, and a textured outside surface.

B. POST CAP INSERT: 1/2" extruded HDPE.

C. POST CAP: 3/4" extruded HDPE.

D. FORMED END TUBE: One piece all welded construction consisting of 2.375" OD X 10 GA galvanized tubing, 14 GA galvanized sheet steel, and zinc plated steel inserts. Finished with a baked-on powder coat.

E. BRACKET W/ TAB: One piece all welded construction consisting of formed 10 GA galvanized sheet steel and 8 GA galvanized sheet steel. Finished with a baked-on powder coat.



F. RAIN WHEEL DRUM ELEMENT A: Assembly consisting of 3/4" extruded H.D.P.E. panels, 1" OD x .049" wall stainless steel tubes, 1/16" diameter stainless steel wire rope, zinc plated steel washers, zinc plated copper compression sleeves, and stainless-steel screws, T-nuts & 3/8" washers.

### **2.63 RAINDROPS ACTIVITY PANEL**

A. RAINDROPS ACTIVITY PANEL : Assembly consisting of welded bracket, formed 10 ga galv steel plate, 1.029" OD galv tubing, linear, low density, rotationally molded, U.V. stabilized polyethylene with double wall construction, molded in 1/4" T-nut inserts, and a textured surface, routed HDPE panels 3/4", Polycarbonate windows, SS balls, sealed ball bearings, injection molded HDPE bolt covers, SS hardware.

### **2.64 REV8**

A. ROPE ASSEMBLY: Rope consists of 6 right hand, regular lay strands, closed around a synthetic fiber core, with each preformed strand consisting of 8 galvanized steel wires tightly covered with polyester fibers. Aluminum end connectors and ferrules with stainless steel screws.

B. RING SECTION: One piece all welded construction consisting of formed 2 3/8" OD x 10 GA galvanized steel tubing and 8 GA galvanized steel plate. Finished with a baked-on powder coating.

C. PLATFORM SECTION: One piece all welded construction consisting of 12 GA steel surfaces and gussets. PVC coated after fabrication.

D. SUPPORT POST: One piece all welded construction consisting of 5.56" OD Sch 40 Galvanized Pipe and machined stainless steel.

E. ROTATIONAL POST: One piece all welded construction consisting of 6.63" OD Sch 40 Stainless Steel Pipe and 8 GA galvanized steel sheet. machined stainless steel. Finished with a baked-on powder coating.

F. ROTATIONAL TOP: One piece all welded construction consisting of stainless steel and 8 GA galvanized steel plate. Finished with a baked-on powder coating.

G. CLIMBER SUPPORT: One-piece welded construction of 1.900" OD 11 GA galvanized steel tubing. Finished with a baked-on powder coating.

H. CROSS BAR: One piece all welded construction consisting of 1.315" OD x 12 GA galvanized steel tubing and 8 GA galvanized steel plate. Finished with a baked-on powder coating.

I. COUPLING: Machined nylon material.

J. UPPER BEARING: Machined nylon bearing material.

K. SPLIT LOWER BEARING: Machined nylon bearing material.

### **2.65 ROCKVENTURE CRISSCROSS RP**

A. ROPE ASSEMBLY, CRISSCROSS: Rope consists of 6 right hand, regular lay strands, closed around a synthetic fiber core, with each preformed strand consisting of 8 galvanized steel wires tightly covered with polyester fibers. Aluminum end connectors and ferrules with stainless steel screws.

B. BRACKET, ROPE CONNECTION: One piece all welded construction consisting of a formed 3/16" stainless steel plate and a 8 GA galvanized steel sheet. Finished with a baked-on powder coating.

## **2.66 ROCKVENTURE ROPE CLIMBING ROCK**

- A. ROCKVENTURE PLACEHOLDER: Rock shall be manufactured from Glass Fiber Reinforced Concrete (GFRC) with Alkali Resistant (AR) type glass fiber formulated for concrete. GFRC shall be 1,500 pounds per square inch in tension, 5,000 pounds per square inch in compression. GFRC is colored with an integral color, remainder of rock is sealed with a V-Seal. Final coloring is achieved with a latex stain formulated for concrete. Integrated rectangular tubing for lifting and anchoring is 7 GA low-carbon steel. 8 GA galvanized steel tabs for rope connections.

## **2.67 ROCKVENTURE SUSPENSION LADDER**

- A. GALVANIZED 4/0 CHAIN 44": 4/0 straight coil chain, 3/8" diameter.
- B. ANCHOR TUBE: 1.315" OD x 12 GA galvanized steel tubing.
- C. ROPE ASSEMBLY, SUSPENSION: Rope consists of 6 right hand, regular lay strands, closed around a synthetic fiber core, with each preformed strand consisting of 8 galvanized steel wires tightly covered with polyester fibers. Aluminum end connectors and ferrules with stainless steel screws.

## **2.68 ROCKVENTURE TRAVERSE RR**

- A. ROPE ASSEMBLY, TRAVERSE: Rope consists of 6 right hand, regular lay strands, closed around a synthetic fiber core, with each preformed strand consisting of 8 galvanized steel wires tightly covered with polyester fibers. Aluminum end connectors and ferrules with stainless steel screws.

## **2.69 SIDE STEPPER 48" - 56"**

- A. CASTING, STRAIGHT BRACKET: A356-T6 Aluminum, Heat-Treated. Finished with baked on powder coating.
- B. SIDE STEPPER 48-56: One piece all welded construction consisting of 1.900" OD x 11 GA and 1.029" OD x 14 GA galvanized steel tubing, and 10 GA galvanized steel plate. Finished with a baked-on powder coating.
- C. S5 UNITARY ENCLOSURE: 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.

## **2.70 SINGLE POST SHADEPLAY 15' X 15' CANOPY W/O POST**

- A. PIN, DOWEL, 1/2 DIA X 1 1: Hardened steel with a zinc chromate finish.
- B. TOP PLATE ASSEMBLY: One-piece welded construction of 8 GA steel plate and 4.500" OD 11 GA HPRO EW steel tubing. Finished with a baked-on powder coating.
- C. RAFTER, 15' X 15' CANOPY: One-piece welded construction of 1.900" OD 11 GA, 1.660" OD 12 GA and 10 GA galvanized steel plate. Finished with a baked-on powder coating.
- D. ARM, SHORT TENSIONING: One-piece welded construction of galvanized steel tubing. Finished with a baked-on powder coating.
- E. END CAP: Aluminum. Finished with a baked-on powder coating.
- F. 15' X 15' SQUARE SHADEPLA: Monofilament and tape construction high density polyethylene knitted shade fabric with vinyl covered galvanized cables, zinc-plated copper cable fasteners hot galvanized dipped turnbuckles. Performance Specification: Shade Canopy shall withstand uplift values of 19.63 PSF at a maximum of 90 MPH wind speed.

### **2.71 SINGLE POST SWING ADD-ON 5" OD**

- A. PENDULUM CASTING: Galvanize plated, grade 32510, malleable iron
- B. POST CAP 5" OD AL: A356 - ALUMINUM
- C. BRONZE BEARING .377 X .75: Oil impregnated, bronze.
- D. BEAM, SWING 5" OD X 134": One piece all welded construction consisting of 5" OD x 11 GA galvanized steel tubing and 8 GA galvanized steel plate. Finished with a baked-on powder coating.
- E. LOCKTITE: Thread Locker; CAUTION: May irritate eyes, skin and respiratory system. Contains: polyglycol dimethacrylate, polyglycol oleate propylene glycol, titanium dioxide, and cumene hydroperoxide.
- F. POST ASSEMBLY 5" OD X 147: Assembly consisting of 5" OD x 11 GA galvanized steel tubing, 1/4" wall cast aluminum cap, and 1/8" x 15/32" aluminum drive rivets. Tubing and cap finished with a baked-on powder coating.

### **2.72 SINGLE POST SWING ASSEMBLY 5" OD**

- A. PENDULUM CASTING: Galvanize plated, grade 32510, malleable iron
- B. POST CAP 5" OD AL: A356 - ALUMINUM
- C. HALF CLAMP, 5" OD: 8 GA galvanized steel plate finished with a baked-on powder coating.
- D. BRONZE BEARING .377 X .75: Oil impregnated, bronze.
- E. BEAM, SWING 5" OD X 134": One piece all welded construction consisting of 5" OD x 11 GA galvanized steel tubing and 8 GA galvanized steel plate. Finished with a baked-on powder coating.
- F. LOCKTITE: Thread Locker; CAUTION: May irritate eyes, skin and respiratory system. Contains: polyglycol dimethacrylate, polyglycol oleate propylene glycol, titanium dioxide, and cumene hydroperoxide.
- G. POST ASSEMBLY 5" OD X 147: Assembly consisting of 5" OD x 11 GA galvanized steel tubing, 1/4" wall cast aluminum cap, and 1/8" x 15/32" aluminum drive rivets. Tubing and cap finished with a baked-on powder coating.

### **2.73 SNARE DRUM ELEMENT**

- A. DRUM, 15": An average of 3/16" thick, linear, low density, rotationally molded, U.V. stabilized polyethylene with single wall construction, molded in 3/8" T-nut inserts, and a textured outside surface.
- B. PANEL, SNARE DRUM ELEMENT: 3/4" co-extruded HDPE.
- C. POST CAP INSERT: 1/2" extruded HDPE.
- D. POST CAP: 3/4" extruded HDPE.
- E. FORMED END TUBE: One piece all welded construction consisting of 2.375" OD X 10 GA galvanized tubing, 14 GA galvanized sheet steel, and zinc plated steel inserts. Finished with a baked-on powder coat.
- F. BRACKET W/ TAB: One piece all welded construction consisting of formed 10 GA galvanized sheet steel and 8 GA galvanized sheet steel. Finished with a baked-on powder coat.

#### **2.74 SPROCKET PANEL, ABOVE PLATFORM**

- A. CASTING, FLAT PANEL: A356-T6 Aluminum, Heat- Treated. Finished with baked on powder coating.
- B. SPROCKET PANEL, NUCLEUS: Assembly consisting of 3/4" extruded H.D.P.E. panel, 1/2" extruded H.D.P.E. gears, 1/4" clear polycarbonate window, nylon washers and stainless-steel hardware.

#### **2.75 SQUARE PLATFORM**

- A. SQUARE PLATFORM S5P: 12 GA HRPO sheet, finished with a PVC Coating

#### **2.76 SQUARE PLATFORM**

- A. SQUARE PLATFORM S5P: 12 GA HRPO sheet, finished with a PVC Coating

#### **2.77 TOM-TOM DRUMS ELEMENT**

- A. DRUM, 10": An average of 3/16" thick, linear, low density, rotationally molded, U.V. stabilized polyethylene with single wall construction, molded in 3/8" T-nut inserts, and a textured outside surface.
- B. PANEL, TOM-TOM DRUMS ELEM: 3/4" co-extruded HDPE.
- C. POST CAP INSERT: 1/2" extruded HDPE.
- D. POST CAP: 3/4" extruded HDPE.
- E. FORMED END TUBE: One piece all welded construction consisting of 2.375" OD X 10 GA galvanized tubing, 14 GA galvanized sheet steel, and zinc plated steel inserts. Finished with a baked-on powder coat.
- F. BRACKET W/ TAB: One piece all welded construction consisting of formed 10 GA galvanized sheet steel and 8 GA galvanized sheet steel. Finished with a baked-on powder coat.

#### **2.78 TRANSFER STATION, HANDRAIL 32"**

- A. CASTING, STRAIGHT BRACKET: A356-T6 Aluminum, Heat- Treated. Finished with baked on powder coating.
- B. SINGLE STEP HANDRAIL: Formed 1.315" OD x 12 GA galvanized steel tubing finished with a baked-on powder coating.
- C. TUBE, 1.315 x 47 1/2": 1.315" OD x 12 GA galvanized steel tubing finished with a baked-on powder coating.
- D. SPACER, STAIR HANDRAIL: 3/4" extruded HDPE.
- E. EXIT SUPPORT: 1.660" OD x 13 GA galvanized steel tubing finished with a baked-on powder coating.
- F. SINGLE STEP P: One piece all welded construction consisting of 12 GA surfaces and gussets. PVC coated after fabrication.
- G. RIGHT HANDRAIL 16": Formed 1.315" OD x 12 GA galvanized steel tubing finished with a baked-on powder coating.
- H. LEFT HANDRAIL 16": Formed 1.315" OD x 12 GA galvanized steel tubing finished with a baked-on powder coating.
- I. 16" ACCESSIBLE STAIRS: One piece all welded construction consisting of 12 GA HRPO steel surfaces, sides, and gussets. PVC coated after fabrication.

J. TRANSFER PLATFORM SQUARE: One piece all welded construction consisting of 12 GA surfaces, gussets, and corners. PVC coated after fabrication.

### **2.79 TRANSFER STATION, HANDRAIL 32"**

- A. CASTING, STRAIGHT BRACKET: A356-T6 Aluminum, Heat- Treated. Finished with baked on powder coating.
- B. SINGLE STEP HANDRAIL: Formed 1.315" OD x 12 GA galvanized steel tubing finished with a baked-on powder coating.
- C. TUBE, 1.315 x 47 1/2": 1.315" OD x 12 GA galvanized steel tubing finished with a baked on powder coating.
- D. SPACER, STAIR HANDRAIL: 3/4" extruded HDPE.
- E. EXIT SUPPORT: 1.660" OD x 13 GA galvanized steel tubing finished with a baked-on powder coating.
- F. SINGLE STEP P: One piece all welded construction consisting of 12 GA surfaces and gussets. PVC coated after fabrication.
- G. RIGHT HANDRAIL 16": Formed 1.315" OD x 12 GA galvanized steel tubing finished with a baked-on powder coating.
- H. LEFT HANDRAIL 16": Formed 1.315" OD x 12 GA galvanized steel tubing finished with a baked-on powder coating.
- I. 16" ACCESSIBLE STAIRS: One piece all welded construction consisting of 12 GA HRPO steel surfaces, sides, and gussets. PVC coated after fabrication.
- J. TRANSFER PLATFORM SQUARE: One piece all welded construction consisting of 12 GA surfaces, gussets, and corners. PVC coated after fabrication.

### **2.80 TREE BRANCH CLIMBER 32"**

A. METAL CLIMBER: -

### **2.81 TREE BRANCH CLIMBER 72"**

A. METAL CLIMBER: -

### **2.82 TREE BRANCH CLIMBER-4**

A. METAL CLIMBER: -

### **2.83 UNITARY ENCLOSURE**

- A. CASTING, STRAIGHT BRACKET: A356-T6 Aluminum, Heat- Treated. Finished with baked on powder coating.
- B. S5 UNITARY ENCLOSURE: 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.

### **2.84 UNITARY ENCLOSURE**

- A. CASTING, STRAIGHT BRACKET: A356-T6 Aluminum, Heat- Treated. Finished with baked on powder coating.

B. S5 UNITARY ENCLOSURE: 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.

**2.85 VIPER II RL 48-56**

- A. CASTING, 90 DEGREE BRACKET: A356-T6 Aluminum, Heat- Treated. Finished with baked on powder coating.
- B. TUBE 1.315" OD X 48 3/4": 1.315" OD X 12 GA, galvanized tubing. Finished with a baked-on powder coating.
- C. ENTRANCE SLIDE SECTION: 1/4" thick, linear, low density, rotationally molded, U.V. stabilized polyethylene with double wall construction, molded in 3/8" T-nut inserts, and a textured surface.
- D. EXIT SLIDE SECTION: 1/4" thick, linear, low density, rotationally molded, U.V. stabilized polyethylene with double wall construction, molded in 3/8" T-nut inserts, and a textured surface.
- E. STRAIGHT SLIDE SECTION: 1/4" thick, linear, low density, rotationally molded, U.V. stabilized polyethylene with double wall construction, and a textured surface.
- F. 45 DEG LEFT SLIDE SECTION: 1/4" thick, linear, low density, rotationally molded, U.V. stabilized polyethylene with double wall construction, and a textured surface.
- G. 45 DEG RIGHT SLIDE SECTION: 1/4" thick, linear, low density, rotationally molded, U.V. stabilized polyethylene with double wall construction, and a textured surface.
- H. DOUBLE SLIDE HOOD: Double wall, linear low density, rotationally molded, U.V. stabilized polyethylene with double wall construction, molded in 3/8" T-nut inserts, and a textured surface.
- I. 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 a baked-on powder coating.
- J. SLIDE ENTRANCE PLATFORM: Welded platform 12 gage shell and gussets. Finished with PVC coating.
- K. HOOD MOUNT BRACKET 1.315": 10 gage mounting plate welded to 1.315" OD tubing. Finished with baked on powder coat.
- L. SLIDE SUPPORT 2J: 8 gage formed plate welded to 1.660" OD tubing. Finished with baked on powder coat.

**2.86 VIPER L2 64-72**

- 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: Double wall, linear low density, rotationally molded, U.V. stabilized polyethylene with double wall construction, molded in 3/8" T-nut inserts, and a textured surface.
- D. ENTRANCE SLIDE SECTION: 1/4" thick, linear, low density, rotationally molded, U.V. stabilized polyethylene with double wall construction, molded in 3/8" T-nut inserts, and a textured surface.
- E. EXIT SLIDE SECTION: 1/4" thick, linear, low density, rotationally molded, U.V. stabilized polyethylene with double wall construction, molded in 3/8" T-nut inserts, and a textured surface.
- F. STRAIGHT SLIDE SECTION: 1/4" thick, linear, low density, rotationally molded, U.V. stabilized polyethylene with double wall construction, and a textured surface.

- G. 45 DEG LEFT SLIDE SECTION: 1/4" thick, linear, low density, rotationally molded, U.V. stabilized polyethylene with double wall construction, 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 a 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 coating.
- J. SLIDE BARRIER LEFT: One piece all welded construction consisting of 1.315" OD x 12 GA galvanized steel tubing, 10 GA galvanized sheet steel, and HDPE threaded inserts. Finished with a baked-on powder coating.
- K. SLIDE BARRIER RIGHT: One piece all welded construction consisting of 1.315" OD x 12 GA galvanized steel tubing, 10 GA galvanized sheet steel, and HDPE threaded inserts. Finished with a baked-on powder coating.
- L. SLIDE SUPPORT 2J: 8 gage formed plate welded to 1.660" OD tubing. Finished with baked on powder coat.

### **2.87 VIPER R 32**

- 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: Double wall, linear low density, rotationally molded, U.V. stabilized polyethylene with double wall construction, molded in 3/8" T-nut inserts, and a textured surface.
- D. ENTRANCE SLIDE SECTION: 1/4" thick, linear, low density, rotationally molded, U.V. stabilized polyethylene with double wall construction, molded in 3/8" T-nut inserts, and a textured surface.
- E. EXIT SLIDE SECTION: 1/4" thick, linear, low density, rotationally molded, U.V. stabilized polyethylene with double wall construction, molded in 3/8" T-nut inserts, and a textured surface.
- F. 45 DEG RIGHT SLIDE SECTIO: 1/4" thick, linear, low density, rotationally molded, U.V. stabilized polyethylene with double wall construction, and a textured surface.
- G. 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 a baked-on powder coating.
- H. 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 coating.
- I. SLIDE BARRIER LEFT: One piece all welded construction consisting of 1.315" OD x 12 GA galvanized steel tubing, 10 GA galvanized sheet steel, and HDPE threaded inserts. Finished with a baked-on powder coating.
- J. SLIDE BARRIER RIGHT: One piece all welded construction consisting of 1.315" OD x 12 GA galvanized steel tubing, 10 GA galvanized sheet steel, and HDPE threaded inserts. Finished with a bake-on powder coating.

### **2.88 VIPER R 48-56**

- 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: Double wall, linear low density, rotationally molded, U.V. stabilized polyethylene with double wall construction, molded in 3/8" T-nut inserts, and a textured surface.
- D. ENTRANCE SLIDE SECTION: 1/4" thick, linear, low density, rotationally molded, U.V. stabilized polyethylene with double wall construction, molded in 3/8" T-nut inserts, and a textured surface.
- E. EXIT SLIDE SECTION: 1/4" thick, linear, low density, rotationally molded, U.V. stabilized polyethylene with double wall construction, molded in 3/8" T-nut inserts, and a textured surface.
- F. STRAIGHT SLIDE SECTION: 1/4" thick, linear, low density, rotationally molded, U.V. stabilized polyethylene with double wall construction, and a textured surface.
- G. 45 DEG RIGHT SLIDE SECTIO: 1/4" thick, linear, low density, rotationally molded, U.V. stabilized polyethylene with double wall construction, 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 a 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 coating.
- J. SLIDE BARRIER LEFT: One piece all welded construction consisting of 1.315" OD x 12 GA galvanized steel tubing, 10 GA galvanized sheet steel, and HDPE threaded inserts. Finished with a baked-on powder coating.
- K. SLIDE BARRIER RIGHT: One piece all welded construction consisting of 1.315" OD x 12 GA galvanized steel tubing, 10 GA galvanized sheet steel, and HDPE threaded inserts. Finished with a baked-on powder coating.
- L. SLIDE SUPPORT 2J: 8 gage formed plate welded to 1.660" OD tubing. Finished with baked on powder coat.

## **2.89 VIPER SPIRAL 112**

- 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: Double wall, linear low density, rotationally molded, U.V. stabilized polyethylene with double wall construction, molded in 3/8" T-nut inserts, and a textured surface.
- D. ENTRANCE SLIDE SECTION: 1/4" thick, linear, low density, rotationally molded, U.V. stabilized polyethylene with double wall construction, molded in 3/8" T-nut inserts, and a textured surface.
- E. EXIT SLIDE SECTION: 1/4" thick, linear, low density, rotationally molded, U.V. stabilized polyethylene with double wall construction, molded in 3/8" T-nut inserts, and a textured surface.
- F. STRAIGHT SLIDE SECTION: 1/4" thick, linear, low density, rotationally molded, U.V. stabilized polyethylene with double wall construction, and a textured surface.
- G. SPIRAL 90 DEG SLIDE SECTI: 1/4" thick, linear, low density, rotationally molded, U.V. stabilized polyethylene with double wall construction, 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 a 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 coating.
- J. SLIDE BARRIER LEFT: One piece all welded construction consisting of 1.315" OD x 12 GA galvanized steel tubing, 10 GA galvanized sheet steel, and HDPE threaded inserts. Finished with a baked-on powder coating.
- K. SLIDE BARRIER RIGHT: One piece all welded construction consisting of 1.315" OD x 12 GA galvanized steel tubing, 10 GA galvanized sheet steel, and HDPE threaded inserts. Finished with a baked-on powder coating.
- L. SLIDE SUPPORT 3J: 8 gage formed plate welded to 1.660" OD tubing. Finished with baked on powder coat.
- M. SLIDE SUPPORT 4J: 8 gage formed plate welded to 1.660" OD tubing. Finished with baked on powder coat.
- N. SLIDE SUPPORT 2J: 8 gage formed plate welded to 1.660" OD tubing. Finished with baked on powder coat.
- O. VIPER SPIRAL SUPPORT 112: 8 gage formed plate welded to formed 1.660" OD galvanized tubing. Finished with baked on powder coat.

## **2.90 VOLITO**

- A. VOLITO ROPE ASSEMBLY: 16 mm diameter polyamide (nylon) rope cable with UV protection. Aluminum end connector and ferrule and stainless-steel ferrule.
- B. POST, SWAGED ROOF 3 1/2" : 3 1/2" OD x 11GA galvanized steel tubing finished with a baked on powder coating.
- C. ROD 3/8" OD X 3 1/8": 3/8" Stainless Steel Rod.
- D. SWING ARCH: One piece all welded construction consisting of 3 1/2" OD x 11 GA galvanized steel tubing, machined stainless steel and baked on powder coat.
- E. LOCKTITE: Thread Locker; CAUTION: May irritate eyes, skin and respiratory system. Contains: polyglycol dimethacrylate, polyglycol oleate propylene glycol, titanium dioxide, and cumene hydroperoxide.
- F. BRASS SPACER 7/16" OD X: Brass Tube 7/16" OD X .028" Wall
- G. SWING PIVOT: Machined stainless steel finished with a baked-on powder coating.
- H. BEARING FLANGED BRONZE 3/: Oil impregnated, bronze.
- I. VOLITIO SEAT W/BUMPER, CO: Weldment consisting of formed steel with a powder coated finish and a rubber bumper.

## **2.91 VOLTA INCLUSIVE SPINNER**

- A. PLATE, 8" OD: 8" OD x 12 GA galvanized steel plate
- B. THRUST BALL BEARING 2 3/4: Heavy duty, precision thrust, sealed ball bearing.
- C. VOLTA INCLUSIVE SPINNER: Linear, low density rotationally molded, U.V. stabilized, polyethylene, .250" thick, double wall construction. Textured outside surface.

- D. BASE, CAROUSEL PLATFORM: One piece all welded construction consisting of 3 1/4" OD DOM steel tubing, 1/4" & 7 GA HR steel plate, and 2 3/4" dia. steel round with e-coat plating. Finished with a baked-on powder coat.
- E. FRAME, VOLTA SPINNER: One piece all welded construction consisting of 5 1/2" OD x 3/8" wall DOM steel tubing hub with 1.9" OD galvanized steel support arms, 8 GA mounting plate, 12 GA mounting plate, and 12 GA preventative plate, finished with a baked on powder coating
- F. SPEED LIMITER, VOLTA SPIN: Assembly consisting of a high torque low speed hydraulic motor with flow control valving, a stainless-steel motor coupling, a steel bracket, stainless steel set screws, zinc plated steel hardware, steel hydraulic fittings and hose ends.

**2.92 ZIPPER CLIMBER 48" - 56"**

- A. CASTING, STRAIGHT BRACKET: A356-T6 Aluminum, Heat- Treated. Finished with baked on powder coating.
- B. LT ZIPPER CLIMBER 48/56: One piece all welded construction consisting of 1.900" OD x 11 GA & 1.029" OD x 14 GA galvanized steel tubing, and 10 GA galvanized steel plate. Finished with a baked-on powder coating.
- C. RT ZIPPER CLIMBER 48/56: One piece all welded construction consisting of 1.900 OD x 11 GA galvanized steel tubing side supports, 7 GA attachment plate and 1.029" OD x 14 GA galvanized steel tubing rungs. Finished with a baked-on powder coating.
- D. S5 UNITARY ENCLOSURE: 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.

**2.93 ZIPVENTURE 100 FT**

- A. PENDULUM CASTING: Galvanize plated, grade 32510, malleable iron
- B. EYE BOLT 5/8"-11 X 6": Alloy steel finished with zinc plating.
- C. ENTRANCE RAMP: 7 GA HRPO steel sheet. Finished with a PVC coating.
- D. PLATE, TROLLEY PENDULUM: 10 GA galvanized steel, protected with powder coated paint.
- E. GALVANIZED 4/0 CHAIN 78 3: 3/8" diameter, 4/0 straight coil chain.
- F. SHORT POST: 2.375" OD X 10 GA galvanized steel tubing. Finished
- G. with a baked-on powder coating.
- H. LONG POST: 2.375" OD X 10 GA galvanized steel tubing. Finished
- I. with a bake- on powder coating.
- J. TUBE 1.315" OD X 23 15/16: -
- K. BRONZE BEARING .377 X .75: Oil impregnated, bronze.
- L. BEARING, SPHERICAL Ø5/8 X: Alloy steel, heat treated, hard chrome plated. PTFE liner.
- M. THREADED INSERT PLASTIC: 1 3/8" OD HDPE Plastic.
- N. PLATFORM TREAD: 1/2" extruded HDPE.
- O. PLATE, TURNBUCKLE COVER: 1/2" extruded HDPE.

- P. SLIDER, CABLE COVER: 1/2" extruded HDPE.
- Q. PANEL, TROLLEY COVER: 1/2" extruded HDPE.
- R. ANCHOR ARCH FRONT SUPPORT: 5" OD X 11 GA galvanized steel tubing. Finished with a baked-on powder coating.
- S. ANCHOR ARCH BACK SUPPORT: 5" OD X 11 GA galvanized steel tubing. Finished with a baked-on powder coating.
- T. ANCHOR ARCH FRONT SUPPORT: 5" OD X 11 GA galvanized steel tubing. Finished with a baked-on powder coating.
- U. ANCHOR ARCH BACK SUPPORT: 5" OD X 11 GA galvanized steel tubing. Finished with a baked-on powder coating.
- V. SHAFT, GROUND SS Ø5/8 X 4: Stainless steel.
- W. PIN Ø1/2 X 1 3/4" HEADLES: Stainless steel pin with alloy steel E-clips finished with black oxide.
- X. ANCHOR ARCH: 1/2" steel plate, zinc plated and 5" OD X 11 GA galvanized steel tubing. Finished with a baked-on powder coating.
- Y.
- Z. SIDE CLIMBER: 2.375" OD X 10 GA galvanized steel tubing and 1.315" OD X 12 GA galvanized steel tubing. Finished with baked on powder coating.
- AA. WELDMENT, TOP RAMP: One piece all welded construction consisting of 12 GA HRPO sheet steel. Finished with a PVC coating.
- BB. WELDMENT, CURVED RAMP: One piece all welded construction consisting of 12 GA and 7 GA HRPO sheet steel. Finished with a PVC coating.
- CC. HOSE, TROLLEY CHAIN COVER: EPDM rubber.
- DD. CLEVIS SHACKLE W/BOLT: 5/16" Shackle with a 3/8" X 1 1/2" bolt.
- EE. THIMBLE, 1/2" WIRE ROPE H: Galvanized steel.
- FF. ZIP LINE SEAT: EPDM rubber and galvanized steel.
- GG. CLIP, WIRE ROPE 1/2": Galvanized steel.
- HH. LINK, TURNBUCKLE: Machined aluminum.
- II. LINK: Machined aluminum.
- JJ. PLATE, TROLLEY CENTER: Machined aluminum.
- KK. PULLEY, 2 OD X 3/8 ID X 1: Stainless steel and sealed bearings.
- LL. 19 X 7 WIRE ROPE ASSEMBLY: Galvanized steel wire rope with one end swaged into a loop around a heavy-duty galvanized thimble.
- MM.
- NN. CLIP, WIRE ROPE 3/8": Galvanized steel.
- OO. ZIP LINE TENSIONING KIT: Steel come-along with yellow dichromate and bright zinc finishes and polyester webbing.

PP.

QQ. U BOLT W/ WASHERS & NUTS: stainless steel

RR. ASSEMBLY, ZIP LINE BRAKE: Stainless steel, EPDM rubber and PVC plastic.

SS. ASSEMBLY, ZIP LINE BUMPER: Stainless steel, EPDM rubber and PVC plastic.

### **PART 3 EXECUTION**

#### **3.01 Site Preparation**

A. All new installation shall be laid out by the contractor in accordance with the construction plans.

#### **3.02 Installation**

A. Install play structure in compliance with manufacturer's written instructions.

B. Install components in sequence as recommended by manufacturer.

C. Install play structure as indicated on the drawings provided.

D. Variations from the installation indicated must be approved.

E. Variations from the installation indicated and all costs for removal and replacement will be the responsibility of the contractor.

#### **3.03 Cleaning**

A. The contractor shall clean the jobsite of excess materials, including post hole excavations.

#### **3.04 Demonstration**

A. Instruct the owner's personnel on proper operation and maintenance of playground components.

