INVITATION TO BID

The Brunswick School Department (Owner) is soliciting sealed proposals for the construction of the Kate Furbish Elementary School Playground located at 75 Jordan Avenue, Brunswick, Maine.

Proposals will be received until **2:00PM on Thursday, April 16** at the Brunswick School Department, 46 Federal Street, Brunswick, ME at which time they will be publically opened and read aloud. No late bids will be accepted.

The Owner reserves the right to waive any informality in, or to reject any or all bids if it be in the interest of the Owner to do so. Prequalification statements may be required at the option of the Owner. Each proposal shall be submitted in the form prescribed in the specifications.

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PROJECT SCOPE

MARCH 2020

Kate Furbish is a new construction elementary school to open Fall 2020. The project includes K-2nd grade play areas on the east and west sides of the building and an enclosed pre-k play space.

The project scope for Kate Furbish Playground includes, but is not limited to, the following:

Base Bid

Installation

- 1. Installation of commercial play equipment listed below
- 2. Grading of hills, paths, planting beds and sand areas
- 3. Installation retaining walls and steps
- 4. Installation of play tunnels
- 5. Installation of log and boulder edging
- 6. Construction of wood structures including wood bridge, boardwalk, wood platforms, stage and raised sand table
- 7. Installation of stone pavers, mulch and stone dust
- 8. Preparation of planting beds
- 9. Installation of seasonal waterline (water source located at building within project limits)
- 10. Grading, loaming and seeding of disturbed areas
- 11. Plantings
- 12. Asphalt paint

Additional information:

- Play Equipment purchase by Brunswick School Department:
 - New Dome Climber (1)
 - Geodesic Dome (1)
 - Accelerator Swing (1)
 - Revolutions Spinner (1)
 - Slides (3)
 - 4-Bay Swings (1)
 - **3-Bay Swing + Add-a Bay Tire Swing (1)**
 - o Bison Hand Pump
 - Berliner Net Climber (1)
 - Hang Bar (2)
 - Basketball hoop (2)
 - Wiggle Disc (3)

- Play Equipment installation by Contractor.
- Contractor responsible for taking delivery, unloading and inspecting all playground equipment upon delivery.
- Shed by others- contractor to prepare pad and coordinate delivery
- Contractor responsible for preparing site and coordination installation of wood play structures including wood teepees, treefort, wood boat (west side), mud kitchens
- A pre-construction meeting with the Facilities Director is required to coordinate construction/safety requirements.

Requests for Information:

- Requests for information shall be addressed to Sashie Misner- email: semisner@gmail.com
- Requests shall be received by April 10, 2020 and responses distributed to all plan holders

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INFORMATION TO BIDDERS

1. Receipt of Bids

a. Brunswick School Department (herein called the "Owner"), invites bids on the forms attached hereto; all blanks of which must be appropriately filled in. Bids will be received by the Owner at Brunswick School Department, located at 46 Federal Street Brunswick, Maine 04011 until 2:00PM on Thursday, April 16, 2020. The envelope containing the Bid Form must be sealed, addressed to the above office and designated as follows:

Bid for Construction Kate Furbish Playground

Bids may also be emailed to
Kelly Wentworth, Business Manager at <u>kwentworth@brunswick.k12.me.us</u>
Emailed bids must be received in the following manner:
Subject Line to state- Bid for Construction Kate Furbish Playground
Body of Email should only state name of bidder, his/her address, and the name of the project for which the bid is submitted.
Full bid proposal shall be in a pdf form and attached to the email
Emailed bids will not be opened until the date and time listed above. No confirmation of receipt will be issued.

2. Preparation of Proposal

- a. Proposals must be submitted on the actual form of bid furnished herewith. All blank spaces for bid prices must be filled in, in ink, in both words and figures, with the total lump sum for which the proposal is made.
- b. In addition to the base bid, the unit prices shall be filled in.
- c. All mailed bids must be submitted in sealed envelopes bearing on the outside the name of the bidder, his/her address, and the name of the project for which the bid is submitted.
- d. Emailed bids must be submitted using the following Subject Line Bid for Construction Kate Furbish Playground

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Body of Email should only state name of bidder, his/her address, and the name of the project for which the bid is submitted. Full bid proposal shall be in a pdf form and attached to the email. Emailed bids will not be opened until the date and time listed above. No confirmation of receipt will be issued.

e. At the time of the opening of bids, each bidder will be presumed to have inspected the site and to have read and to be thoroughly familiar with the plans and specifications. The failure or omission of any bidder to examine any form, instrument, or documents, shall in no way relieve any bidder from any obligation with respect to his/her bid.

3. Addenda and Interpretation

 a. No interpretation of the meaning of the plans, specifications, or other contract documents will be made to any bidder orally. Every request for such interpretation is suggested to be in writing via email for the best clarity to the bidder's requests. Requests should be made to:

Sashie Misner (Project landscape architect) Email: semisner@gmail.com

Requests for additional information must be received by APRIL 10, 2020. Any and all such interpretations and supplemental instructions will be in the form of written Addenda to the specifications which, if issued, will be emailed to all bidders no later than one (1) day prior to the date fixed for opening of bids. Failure of any bidder to receive any such Addendum or interpretation shall not relieve any bidder from any obligation under his bid as submitted. All Addenda so issued shall become part of the contract documents.

4. Interview

a. At the discretion of the Brunswick School Department, some or none of the Bidders may be invited to an interview before making a final decision.

5. Award or Rejection of Bids

a. The bidder to whom the award is made will be notified at the earliest possible date. The Owner, however, reserves the right to reject any and all bids and to waive any informality in bids received, and to accept any bid whenever such rejection, waiver or acceptance is in the interest of the Owner. The Owner also reserves the right to reject the bid of a bidder who is not in a position to perform the Contract or who has

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previously failed to complete on time contracts of a similar nature, in the sole opinion of the Owner.

6. Preconstruction Conference

a. After award of a contract and prior to the start of work, the Contractor will be required to attend a preconstruction conference with the Brunswick School Department Facilities Manager and project landscape architect. The conference will serve to acquaint the participants with the general plan of the construction operation and all other requirements of the contract.

7. Construction Bonds

a. 100 percent Performance Bond

8. Construction Layout

- a. Contractor shall be responsible for performing all construction layouts to guide and control performance of items of the work according to the Drawings and Specifications.
- b. This includes establishing and maintaining construction layout points, preparing computations, line grade stakes, etc.

9. Time of Completion

- a. The Owner anticipates a construction start date no later than May 1, 2020, unless weather or conditions relating to the current COVID-19 virus require a later start.
- b. The Owner wishes to complete the Site Improvements, including associated plantings, within 60 calendar days from the construction start date or no later than August 15, 2020.

10. Insurance

a. The successful bidder shall supply the Brunswick School Department a certificate of insurance listing the **Brunswick School Department as both certificate holder and additionally named insured**. Coverage shall be for not less than the following amounts:

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- b. General liability including comprehensive form, premises/operations, underground explosion and collapse hazard, products/completed operations, contractual, independent contractors, broad form property damage and personal injury:
 - (1) \$1,000,000 Bodily Injury and Property Damage Each Occurrence
 - (2) \$2,000,000 Bodily Injury and Property Damage Aggregate
 - (3) \$2,000,000 Personal Injury Aggregate
- c. Automobile liability, including any auto, hired autos and non-owned autos:
 - (1) \$1,000,000 bodily injury and property damage combined.
- d. Workers' Compensation and Employer's Liability:
 - (1) \$500,000 each accident
 - (2) \$500,000 Disease- Policy limit
 - (3) \$500,000 Disease- Each employee
- e. All policies and certificates of insurance shall carry a 30 day notice of cancellation or expiration, and notices of cancellation or expiration shall be sent to the Owner.

11. Permits

a. The Contractor shall be responsible for coordinating construction permits with the Town of Brunswick in accordance with town policy and regulations.

12. General Conditions

- a. The selected bidder shall enter into a contract with the Owner and shall meet the requirements and conditions set forth and referenced within this Document.
- b. Brunswick School Department disclaims any and all responsibility for injury to Bidder, their agents, or others while examining the job site, or at any other time.

13. Payment Schedule

- a. Based on requisitions for payment submitted to the Owner by the Contractor, the Owner shall make progress payments on account of the Contract Amount to the Contractor every 30 days.
- b. The amount of each progress payment shall be computed as follows:
 - Take that unit portion of the Contract Sum properly allocable to completed work in the schedule of values, less retainage of 5 percent.

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- Add that portion of the Contract Sum properly allocable to materials and equipment delivered and suitably stored at the site for subsequent construction, less retainage of 5 percent.
- Subtract the aggregate of previous payments.
- c. Final payment, constituting the final unpaid balance of the Contract Sum, shall be made when:
 - The Contract has been fully performed by the Contractor.
 - A Certification of Acceptability has been issued by the Landscape Architect for all new plantings.
 - A final Certificate for Payment has been issued by the Owner or Landscape Architect.

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BID FORM

BIDS DUE: 2:00 PM, APRIL 16, 2020

Bidder:

To:

Kelly Wentworth, Business Manager Brunswick School Department 46 Federal Street, Brunswick kwentworth@brunswick.k12.me.us Phone: 207-319-1900

- A. All bids must be presented on this completed Bid Form. Bids must bear the handwritten signature of a duly authorized member or employee of the organization making the bid.
- B. The undersigned hereby declares that he has carefully examined the location of the proposed work, the Information to Bidders, Plans and Specifications, and he proposes and agrees if this Bid is accepted, that he will contract with Brunswick School Department to provide all mobilization, machinery, tools, apparatus, and other means of construction, and to do all the work, and furnish all the materials necessary to complete the work in the manner and time herein prescribed, and according to the requirements therein set forth and that he will take in full payment for furnishing all labor and materials necessary to construct the playground at Kate Furbish Elementary School complete for the amount of:

Dollars (\$)

Bidder shall provide a cost breakdown of the Base E	Bid as follows:	
Manufactured Equipment Installation	\$	
Geodesic Dome & New Dome		
Swings (2 sets-refer to plan)		
Accelerator Swing		
Revolutions Spinner		
Pre-K Play Space Installation	\$	
Logs	\$	
Bid F	orm - 1	

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Boulders	\$
Horizontal Log Climber (east side woods area-Sheet L3)	\$

C. This Bid includes the following Addenda to the Drawings and Specifications:

Addendum No._____Date:_____

Addendum No. Date:

- D. The undersigned will complete the work under this Contract by <u>August 15, 2020</u> unless the Owner shall authorize or direct a further extension.
- E. Work is anticipated to be able to begin in May 2020. Contractor shall include a proposed schedule for construction.
- F. Owner has the right to reject any or all bids.

Signature of person, firm or corporation in making bid:

Witness	<u>By</u>	
Date	Title	
	Address	

SECTION 116800 - PLAY EQUIPMENT AND STRUCTURES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, apply to this Section.

1.2 SUMMARY

- A. Section includes playground equipment as follows:
 - 1. Freestanding playground equipment.
- B. Related Requirements:
 - 1. Section 32300 "Playground Improvements" for other playground features.

1.3 DEFINITIONS

- A. Definitions in ASTM F 1487 apply to Work of this Section.
- B. CPSI: Certified Playground Safety Inspector.
- 1.4 PREINSTALLATION MEETINGS
 - A. Preinstallation Conference: Conduct conference at Project site.

1.5 QUALITY ASSURANCE

- A. Installer Qualifications: An entity that employs installers and supervisors who have at least 5 years of installing commercial play equipment and preferably experience installing natural playgrounds.
- B. Testing Agency: Shall be CPSI certified.

PART 2 - PRODUCTS (Not Applicable)

2.1 PERFORMANCE REQUIREMENTS

A. Safety Standard: Provide playground equipment according to ASTM F 1487.

2.2 FREESTANDING PLAYGROUND EQUIPMENT

- A. Swing Set: Arch style with straight legs providing upright support.
 - 1. Metal Frame: Galvanized-steel pipe or tubing.
 - a. Leg Upright(s): Not less than 2-3/8-inch OD.
 - b. Overhead Beam: Not less than 3-1/2-inch OD.
 - 2. Overhead Beam Height: 8 ft. from pivot point to protective surfacing below.
 - 3. Suspension Members: Manufacturer's standard.
 - 4. Swing Connector: Double clevis and bolt link.
 - 5. Swing Hanger: Galvanized manufacturer's standard.
 - 6. Swing Seats: U-shaped flexible belt seat made from rubber and one ADA seat.
 - 7. Capacity: Four bay. Eight swings total.
- B. Dome Climbers:
 - 1. Manufacturer: Miracle
 - a. Equipment: New Dome Climber, 13 ft. diameter
 - b. Equipment: Geodesic Dome, 13 ft. diameter

C. Spinner:

- 1. Manufacturer: Miracle
 - a. Equipment: Revolutions Spinner

2.

D. Disc Swing:

- 1. Manufacturer: Miracle
 - a. Equipment: Accelerator Swing
- E. Slide: Single descending hill chute. One at six-foot height. One at five-foot height.
 - 1. <u>Manufacturer:</u> PlayVentures Inc or approved equal
 - 2. Plan Configuration: Straight chute as indicated on drawings.
 - 3. Sit-Down Entrance: With sit bar, canopy or hood enclosure and overhead handhold.
 - 4. Frame: Manufacturer's standard galvanized-steel pipe or tubing.
 - 5. Sliding Surface: Inclined.
 - 6. Sliding Surface Construction: U-shaped, continuous stainless-steel sheet or plastic with integral, full-length side rails.
 - 7. Age Appropriateness: Five through 12 years.

- F. Net Climber (Horizontal):
 - 1. <u>Manufacturer:</u> Berliner
 - 2. Age Appropriateness: Five through 12 years.
- G. Horizontal Hang Bars/ Turning Bar
 - 1. Manufacturer: PlayVentures Inc or approved equal
- H. Water Pump
 - 1. <u>Manufacturer:</u> Bison Pumps
 - 2. Playground hand pump with buried plastic tank

2.3 CAST-IN-PLACE CONCRETE

- A. Concrete Materials and Properties: Concrete for normal-weight, air-entrained concrete with minimum 28-day compressive strength of 3500 psi, 3-inch slump, and 1-inch-maximum-size aggregate.
- B. Materials and methods of construction shall comply with the following standards and association recommendations:
 - 1. American Society for Testing and Materials
 - 2. American Concrete Institute
 - 3. MEDOT Specifications

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates, areas, and conditions, with Installer present, for compliance with requirements for earthwork, subgrade elevations, surface and subgrade drainage, and other conditions affecting performance of the Work.
 - 1. Do not begin installation before final grading required for placing playground equipment and protective surfacing is completed.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION

- A. Comply with manufacturer's written installation instructions for each equipment type unless more stringent requirements are indicated. Anchor playground equipment securely, positioned at locations and elevations indicated.
 - 1. Maximum Equipment Height: Coordinate installed fall heights of equipment with finished elevations and critical-height values of protective surfacing. Set equipment so fall heights and elevation requirements for age group use and accessibility are within required limits. Verify that playground equipment elevations comply with requirements for each type and component of equipment.
- B. Post and Footing Excavation: Excavate holes for posts and footings as indicated in firm, undisturbed or compacted subgrade soil.
- C. Post Set on Subgrade: Level bearing surfaces with drainage fill to required elevation.
- D. Post Set with Concrete Footing:
 - 1. Set equipment posts in concrete footing. Protect portion of posts above footing from concrete splatter. Verify that posts are set plumb or at the correct angle, alignment, height, and spacing.
 - a. Place concrete around posts and vibrate or tamp for consolidation. Hold posts in position during placement and finishing operations until concrete is sufficiently cured.
 - 2. Embedded Items: Follow equipment manufacturer's written instructions and drawings to ensure correct installation of anchorages for equipment.
 - 3. Finishing Footings: Smooth top, and shape to shed water.

3.3 FIELD QUALITY CONTROL

- A. Testing Agency: Engage a qualified testing agency to perform tests and inspections.
- B. Perform the following tests and inspections with the assistance of a factory-authorized service representative.
 - 1. Perform inspection and testing for each type of installed playground equipment according to ASTM F 1487.
- C. Playground equipment items will be considered defective if they do not pass tests and inspections.
- D. Prepare test and inspection reports.
- E. Notify Architect and Owner 48 hours in advance of date(s) and time(s) of testing and inspection

END OF SECTION

SECTION 31 05 12- SITE EARTHWORK

PART 1 GENERAL

1.1 DESCRIPTION:

- A. Bidding requirements, conditions of the contract and pertinent portions of sections in Division One of these specifications, apply to the section as fully as though repeated herein.
- B. Work under this section includes:
 - 1. Removals The Contractor shall perform all work necessary for clearing and grubbing and/or removal, backfill and disposal of all existing materials noted on the Drawings, as well as temporary structures installed for construction.
 - 2. Limit of Work Take special care to keep all operations within the Limit of Work as defined by the fenced play area. The Contractor shall take all necessary precautions to protect existing site elements to remain.
 - 3. Grade and Elevation
 - a. The Drawings indicate, in general, the alignment and finished grade elevations. The Owner's Authorized Representative, Engineer or Landscape Architect, however, may make such adjustments in grades and alignment as are found necessary in order to avoid interference.
 - b. The Contractor shall establish the lines and grades in conformity with the Drawings and maintain by means of suitable stakes placed in the field.
 - 4. Protection of Existing Structures and Utilities
 - a. Barricade open excavations occurring as part of this work and post with warning signs. Backfilling or secured covering of excavations shall be required.
 - b. Notify appropriate owners before excavating adjacent to poles, cables, pipes, and other utilities.
 - c. Note that location of existing underground utilities on plans is approximate and may be incomplete. Responsibility for exact locations and protection of all utilities rest with the Contractor.
 - d. Conflicts between existing and new structures to be built under this contract shall be reported to the Owner's Authorized Representative, Engineer or Landscape Architect

- 5. Erosion and Sedimentation Control
 - a. The General Contractor shall perform all work necessary to control erosion. Installation of erosion control structures prior to construction shall be performed in accordance with the Standards of the U.S. Department of Agriculture, Soil Conservation Service, "Maine Erosion and Sediment Control Handbook for Construction: Best Management Practices" by the Cumberland County SWCD, State of Maine.
 - b. Weekly inspections, as well as routine inspections following rain falls, shall be conducted by the Contractor of all temporary and permanent erosion control devices until final acceptance of the project. Necessary repairs shall be made immediately to correct undermining or deterioration. Final acceptance shall include a site inspection to verify the stability of all disturbed areas and slopes. Until final inspection, all erosion and sedimentation control measures shall immediately be cleaned, and repaired by the Contractor after each storm event, as required. Disposal of all temporary erosion control devices shall be the responsibility of the Contractor. Removal of temporary erosion control devices shall not occur until a minimum 75% catch of vegetation occurs or permanent structural measures are in place.

1.2 SUBMITTALS:

- A. General: Submit the following in accordance with Conditions of Contract.
 - 1. Tests for soil density and/or gradations as herein designated shall be taken at the option of the Architect, Engineer and or Landscape Architect. Costs of testing shall be paid by the Owner.
 - 2. Soil samples representative of the borrow source and suitable laboratory testing shall be furnished by the Contractor for each material listed in Section 2.1. Test results shall be submitted at least two (2) weeks prior to their proposed use or placement on the site. In the event a proposed material does not meet the specified gradation requirements, the material type shall not be placed on-site until an alternative borrow source is selected and the laboratory test results indicate the material meets the specified gradation requirements.

Note: Contractor shall provide testing for loam in accordance with Section 32-90-00.

- 3. Compaction tests shall be determined on the basis of laboratory Proctor tests (ASTM D.1557, Modified Proctor).
- 4. Field density tests not specified on a comparative basis shall be to the percent density specified in this Section for both earth excavation and earth and granular type fills. Tests shall be in accordance with ASTM D.1556, ASTM D.2167, ASTM D.2922 OR ASTM D.3017.

1.3 QUALITY ASSURANCE:

- A. Conform to all applicable town, county and state codes for excavation, earthwork and disposal of debris.
- B. Conform to all applicable standards of the various utility companies.
- C. References Where M.D.O.T. appears it shall be taken to mean The State of Maine Department of Transportation Specifications, Highways and Bridges (Latest Revision).
- D. Reference Standards

The following most current publications form part of this specification to the extent indicated by references thereto and shall be followed for all construction testing:

American Society for Testing and Materials (ASTM):

D 422	Method for Particle Size Analysis of Soils
D 698	Test for Moisture-Density Relations of Soils Using 5.5 lb. (2.5
	kg) hammer and 12-inch (304.8mm) Drop (Standard Proctor)
D 1556	Test for Density of Soil in Place by the Sand Cone Method
D 1557	Test for Moisture-Density Relations of Soils Using 10-lb (4.5
	Kg) hammer and 18-inch (457 mm) Drop (Modified Proctor)
D 1559	Test Method for Resistance to Plastic Flow of Bituminous
	Mixtures Using Marshall Apparatus
D 2167	Test for Density of Soil in Place by the Rubber Balloon Method
D 2216	Laboratory Determination of Moisture Content of Soil
D 2487	Classification of Soils for Engineering Purposes
D 2922	Tests for Density of Soil and Soil-Aggregate in Place by Nuclear
	Methods (Shallow Depth)
D 3017	Test for Moisture Content of Soil and Soil-Aggregate in Place by
	Nuclear Methods (Shallow Depth)
D 4318	Test for Plastic Limit, Liquid Limit, & Plasticity Index of Soils
C 25	Chemical Analysis of Limestone, Quicklime and Hydrated Lime
C 110	Physical Testing for Quicklime and Hydrated Lime, Wet Sieve
	Method
C 618	Specification for Fly Ash and Raw or Calcined Natural Pozzolan
	for Use as a Mineral Admixture in Portland Cement Concrete

E. Drawings do not purport to show above ground objects existing on site. Contractor shall visit site and acquaint himself with all observable conditions as they exist before submitting his Bid.

PART 2 PRODUCTS

2.1 MATERIAL:

SITE EARTHWORK

- A. Fill Materials: Backfill and ordinary fill materials shall be as follows:
 - 1. Materials from excavation: Excavated material which can be readily spread and compacted, and consists of mineral soil, substantially free of organic materials, loam, wood, rubbish or other perishable substance may be used for common fill. Boulders (rocks over eight (8) inches) shall be removed from excavated material before using for fill.
 - 2. Aggregate Base, Crushed M.D.O.T. 703.06, (a), Type A. (No rocks larger than two inches). Compacted at 95% ASTM D-1557
 - 3. Aggregate Subbase Gravel M.D.O.T. 703.06, (a), Type C, Size of stone no larger than six (6) inches. Compacted at 95% ASTM D-1557.
 - 4. Aggregate Subbase Gravel, M.D.O.T. 703.06 (b) Type D (no stone larger than 4 inches compacted at 95% ASTM D 1557.
 - 5. Structural Fill M.D.O.T. 703.06, (a), Type C. Size of stone no larger than six (6) inches, and further limited to a maximum particle size equal to three (3) inches within twelve (12) inches of slab grade. Compacted at 95% ASTM D-1557
 - 6. Aggregate for Foundation Backfill: M.D.O.T. 703.6 (a) Type B. Size of stone no larger than four (4) inches.
 - 7. Drainage Stone M.D.O.T. 703.22, Type C. Vibrated with hand vibrating plate.
 - 8. Native silty sand (Glacial till) found on-site can be re-used for subgrade preparation subject to approval of the Project Landscape Architect or Engineer and provided that the natural moisture content at the time of placement and compaction is at slightly below optimum moisture as determined by MPMDD. Compacted at 95% ASTM D-1557.
- B. Suitable Backfill Material
 - 1. Structural fill or natural material excavated during the course of construction, excluding debris, pieces of pavement, organic matter, topsoil, all wet or soft muck, peat, or clay, all excavated ledge material, and all rocks over six (6) inches in largest dimension, or any material which will not provide sufficient support or maintain the completed construction in a stable condition, all approved by the Owner's Authorized Representative, Engineer or Landscape Architect. (Exception: may not be used to backfill foundation).
- C. Geotextile Materials
 - 1. Acceptable Geotextiles and Geogrids:
 - a. Mirafi 600x
 - b. Phillips 66 Supac 6WS

- c. Dupont Typar 3401 and 3601
- d. Trevira S1114 and S1120
- e. AMOCO 2006
- f. Tensar SS-1 and SS-2
- g. Exxon GTF-200 or 350
- h. Conwed Stratagrid GB-5033
- i. Miragrid 3xT
- 2. Filter/Drainage Geotextiles:
 - a. Mirafi 160N or equal

PART 3 EXECUTION

- 3.1 EXECUTION:
 - A. Earth Excavation Removal and disposal of pavements and other obstructions visible on ground surface, underground structures and utilities indicated to be demolished and removed, any material indicated in the data on subsurface conditions, and other materials encountered that are not classified as rock excavation or unauthorized excavation.
 - B. Rock Excavation Removal and disposal of materials encountered that cannot be excavated without continuous and systematic drilling and blasting or continuous use of a ripper or other special equipment except such materials that are classed as earth excavation.
 - 1. Typical Materials: Boulders 2 cu. yd. or more in volume, solid rock, rock in ledges, and rock-hard cementitious aggregate deposits.
 - 2. Intermittent drilling performed to increase production and not necessary to permit excavation of material encountered will be classified as earth excavation.
 - C. Unauthorized Excavation
 - 1. Removal of materials beyond indicated subgrade elevations or dimensions without specific direction of the Owner's Authorized Representative, Engineer or Landscape Architect.
 - 2. Under footings, fill unauthorized excavation by filling with Structural Fill and compacting to 95 percent of ASTM D-1557 without altering top elevation.
 - D. Topsoil Removal Topsoil shall be stripped to its entire depth from area within the Limit of Work and reusable materials shall be temporarily removed from the site, screened, and returned to the site as needed. Stripped topsoil shall be free from clay, large stones, debris, and peat. Topsoil for reuse on site shall be screened and tested in accordance with Section 32 90 00 – Planting.

E. General Excavation

- Grades, Dimensions excavate where indicated and as necessary to obtain subgrades as shown on the Drawings and hereinafter specified. All excavation shall include the satisfactory removal of all materials of whatever substance encountered within the indicated limits. Where footing excavations are into Sandy Silt, trenches should be excavated using a smooth bucket to prevent subgrade disturbance. Soft and wet areas should be over excavated and replaced with crushed stone and/or Geotextile Fabric (Non-woven, minimum weight of 10 ounces per square yard). Only suitable materials shall be used or stockpiled for later use in backfill preparation. Disturbed subgrade material shall be removed prior to pouring of footings and replaced with either compacted structural fill or thickened footing concrete. All footing subgrades shall be approved by the owner's representative prior to pouring concrete for footings.
- 2. The Contractor shall provide temporary drains, ditches and the necessary equipment, as required, to maintain the site of work and adjacent areas in a well drained condition. Keep all excavations free of both ground and surface water at all times. All water pumped or drained from the work shall be disposed of so as not to endanger public health, property or any portion of the work under construction or completed.
- 3. Excavation shall not be made below specified subgrades except where rock or unstable material is encountered. If suitable bearing is not found at levels shown on the Drawings, the Architect, Engineer and or the Owner's Representative shall be notified in writing immediately so that adjustments or changes may be made. Material removed below specified subgrade without the approval of the Project Engineer and or Owner's Representative shall be replaced and compacted with an approved gravel at the Contractor's expense.
- 4. All work shall be carried out in a manner consistent with the regulations of such Federal, State and Local authorities as may have jurisdiction over such activities.
- F. Excavation and Backfilling
 - 1. Perform excavation as indicated for specified depths. During excavation, stockpile materials suitable for backfilling in an orderly manner far enough from bank of trench to avoid overloading, slides or cave-ins.
 - 2. Remove excavated materials not required or not suitable for backfill or embankments and waste as specified. Any structures discovered during excavation(s) shall be disposed of as specified.
 - 3. Prevent surface water from flowing into trenches or other excavations by temporary grading or other methods, as required. Remove accumulated

water in trenches or other excavations by pumping or other acceptable methods.

- 4. Open cut excavation with trenching machine or backhoe. Where machines other than ladder or wheel-type trenching machines are used, do not use clods for backfill. Dispose of unsuitable material and provide other suitable material at no additional cost to Owner.
- 5. Excavations for all foundation work shall be backfilled with structural fill meeting specifications set forth herein.
- G. Rock Excavation
 - 1. Soils investigations indicate that removal of rock (ledge) will not be required for this project. If however, removal of rock is required, the Contractor shall take the following steps:
 - a. Uncover and expose material claimed as rock.
 - b. Notify the Landscape Architect immediately before proceeding with any work in this regard.
 - c. Obtain written consent and approval from local authorities for the methods to be used before proceeding with blasting or related work.
 - d. Handle and employ explosives as stipulated in the Manual of Accident Prevention in Construction of the A.G.C.
 - 2. Rock excavation shall include boulders over two (2) cubic yards in volume and masses of rock or conglomerate masses requiring systematic drilling and blasting to be removed.
 - 3. Payment
 - a. Payment for rock required to be removed shall be based upon a cubic yard basis. Provide ledge removal inspection for quantity verification of ledge removal by the site contractor.
 - b. Method of ledge blasting shall be by mechanical method only.
 - c. Payment for rock trench excavation shall be calculated to depths of twelve (12) inches below bottoms of footings. Removal cost shall be based upon a unit cost to include rock removal and required trench backfill material.

- d. Rock excavation removed with open masses but below the required elevation for the mass, as for footing drains, shall not be considered as trench excavation.
- e. Excavation which does not meet the above requirements for Rock Excavation will be classified as General Earth Excavation.

H. Drainage

1. The Contractor shall provide and maintain ample means and devices (including spare units kept ready for immediate use in case of breakdowns) with which to intercept and/or remove promptly and dispose of properly all water entering excavations. Such excavations shall be kept dry until the structures and appurtenances to be built therein, have been completed to such extent that they will not be damaged.

I. Compaction

- 1. Compaction densities specified herein shall be the percentage of the maximum dry density obtainable at optimum moisture content as determined and controlled in accordance with ASTM D.1557. Field density tests shall be made in accordance with ASTM D.1556, D.2167 or D.2922. Each layer of backfill shall be moistened or dried as required, and shall be compacted to the required densities unless otherwise specified in the project specifications.
- 2. Fills placed under footings and walks shall be compacted to not less than 95 percent of the ASTM D 1557 maximum dry density.
- 3. Fills adjacent to building walls from the exterior face of the building and/or retaining walls to a point not less than 10'-0" from the exterior face of the wall shall be compacted to not less than 92 percent of the ASTM D. 698 maximum compaction dry densities as herein before specified.

4.	Loam areas:	90%

- 5. All other areas: 85%
- 6. Methods and equipment proposed for compaction shall be subject to the prior acceptance by Owner's Authorized Representative, Engineer or Landscape Architect. Compaction generally shall be done with vibrating equipment. Displacement of, or injury to the pipe and structure shall be avoided. Movement of in-place pipe or structures shall be at the Contractor's risk. Any pipe or structure damaged thereby shall be replaced or repaired as directed by the Owner's Authorized Representative, Engineer or Landscape Architect and at the expense of the Contractor.
- J. Filling and Subgrade Preparation

- 1. All materials shall be placed and compacted to conform to the lines, elevations and cross-sections indicated on the Drawings. Do not start fills until the area has been inspected and approved by the Owner's Authorized Representative, Engineer or Landscape Architect.
- 2. Fill shall not be placed on a surface of frozen material, nor shall snow, ice, frozen earth or debris be incorporated in the fill. All materials shall be approved by the Owner's Authorized Representative, Engineer or Landscape Architect before being placed.
- 3. Unless specifically stated otherwise on the Drawings, areas exposed by excavation, removal of structural foundations or stripping and on which subgrade preparations are to be performed, shall be compacted to a minimum of 95% of maximum dry density, in accordance with ASTM D 1557. Subgrades consisting of native sands or silty sands shall be compacted with a 15 ton highway roller. These areas shall then be proof-rolled to detect any areas of insufficient compaction. Proof-rolling shall be accomplished by making a minimum of two (2) complete passes with a fully-loaded tandem-axle dump truck, or approved equivalent, in each of the two perpendicular directions. Areas of failure shall be excavated and re-compacted as stated above.
- 4. If sufficient suitable fill material is not available from excavations under this Contract, additional fill, suitable for use, shall be brought to the site from other sources. Subgrade fill in pavement areas shall consist of Gravel Borrow (M.D.O.T. 703.20) or Structural Fill (MeDOT 703.06 (a) Type C. Place in maximum 12 inch layers and compact to 92 percent of maximum density in accordance with ASTM D 1557. Each layer shall be free from ruts and shall meet compaction requirements before next layer is placed. Maintain layers with crown or other practical means of drainage.
- 5. Stones in fills shall be well distributed. Do not have stones over six (6) inches in diameter within twelve (12) inches of subgrade.
- K. Finish Grading
 - 1. Grade all areas where finish grade elevations or contours are indicated on Drawings, other than paved areas and buildings, including excavated areas, filled and transition areas, and landscaped areas. Graded areas shall be uniform and smooth, free from rock, debris, or irregular surface changes. Finished subgrade surface shall not be more than 0.10 feet above or below established finished subgrade elevation, and all ground surfaces shall vary uniformly between indicated elevations. Ditches and swales shall be graded to allow for proper drainage without ponding and in a manner that will minimize erosion potential. For topsoil application, refer to Section 32 90 00, Plantings.

- 2. Correct all settlement and eroded areas within one year after date of completion at no additional expense to Owner. Bring grades to proper elevation. Replant or replace any grass, shrubs, trees or other vegetation disturbed by construction using corrective measures.
- L. Work In Public Streets
 - 1. Work done in existing Municipal streets shall be done in accordance with local and/or State requirements as applicable.

3.2 INSPECTION:

- A. If Owner elects to test, an independent testing laboratory selected and paid by the Owner shall be retained to perform construction testing on site. Field density test may be ordered for each foot of depth of backfill at an average of 200 feet along the trench.
- B. If compaction requirements are not complied with at any time during the construction process, remove and re-compact deficient areas until proper compaction is obtained at no additional expense to Owner.
- C. Field density test shall be required road construction, interval to be determined by Owner's Authorized Representative, Engineer or Landscape Architect.
- D. The Contractor shall furnish all necessary samples for laboratory tests and shall provide assistance and cooperation during field tests. The Contractor shall plan his operations to allow adequate time for laboratory tests and to permit taking of field density tests during compaction.
- E. The independent testing laboratory shall prepare test reports that indicate test location, elevation data and test results. The Owner's Authorized Representative, Engineer or Landscape Architect, and Contractor shall be provided with copies of reports within 72 hours of time test was performed. In the event that any test performed fails to meet these Specifications, the Owner's Representative and Contractor shall be notified immediately by the independent testing laboratory.
- F. All costs related to retesting due to failures shall be paid for by the Contractor at no additional expense to the Owner. The Owner reserves the right to employ an independent testing laboratory and to direct any testing that is deemed necessary. Contractor shall provide free access to site for testing activities.

3.3 CLEAN-UP:

A. The Contractor shall remove all debris, construction equipment, and material from the areas to be loamed and seeded.

...END OF SECTION 31 05 12

SITE EARTHWORK

SECTION 321816.13 - PLAYGROUND PROTECTIVE SURFACING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section Includes:1. Organic loose-fill surfacing.

1.3 DEFINITIONS

- A. Definitions in ASTM F 2223 apply to Work of this Section.
- B. Critical Height: Standard measure of shock attenuation according to ASTM F 2223; same as "critical fall height" in ASTM F 1292. According to ASTM F 1292, this approximates "the maximum fall height from which a life-threatening head injury would not be expected to occur."

1.4 ACTION SUBMITTALS

- A. Submittals shall comply with the requirements of Section 013300 "Submittal Procedures" and the individual sections specifying the work.
- B. Shop Drawings: For each type of protective surfacing.
 - 1. Include fall heights and use zones for equipment and structures specified in Section 116800 "Play Field Equipment and Structures," coordinated with the critical heights for protective surfacing.

1.5 INFORMATIONAL SUBMITTALS

- A. Qualification Data: For Installer and testing agency.
- B. Material Certificates: For each type of loose-fill surfacing.Retain "Product Certificates" Paragraph below to require submittal of product certificates from manufacturers.
- C. Field quality-control reports.
- D. Sample Warranty: For manufacturer's special warranty.

1.6 CLOSEOUT SUBMITTALS

A. Maintenance Data: For playground protective surfacing to include in maintenance manuals.

1.7 QUALITY ASSURANCE

A. Installer Qualifications: An entity that employs installers and supervisors who are trained and approved by manufacturer.

1.8 WARRANTY

- A. Special Warranty: Manufacturer and Installer agree to repair or replace components of protective surfacing that fail in materials or workmanship within specified warranty period.
 - 1. Failures include, but are not limited to, the following:
 - a. Reduction in impact attenuation as measured by reduction of critical fall height.
 - b. Deterioration of protective surfacing and other materials beyond normal weathering.
 - 2. Warranty Period: 2 years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Source Limitations: Obtain protective surfacing materials from single source from single manufacturer.
 - 1. Provide geosynthetic accessories of each type from source recommended by manufacturer of protective surfacing materials.

2.2 PERFORMANCE REQUIREMENTS

- A. Impact Attenuation: Critical fall height tested according to ASTM F 1292.
- B. Accessibility Standard: Minimum surfacing performance according to ASTM F 1951.

2.3 ORGANIC LOOSE-FILL SURFACING

A. Engineered Wood Fiber: ASTM F 2075; containing no bark, leaves, twigs, or foreign or toxic materials; tested for accessibility according to ASTM F 1951.

- 1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:
 - a. Fibar Group LLC (The).
 - b. GameTime; a PlayCore, Inc. company.
 - c. Sof Solutions Inc.
 - d. Supreme Forest Products.
 - e. Zeager Bros., Inc.
- 2. Critical Height: 10 feet.
- 3. Uncompressed Material Depth: Not less than as required for critical height indicated.

2.4 GEOSYNTHETIC ACCESSORIES

- A. Drainage/Separation Geotextile: Nonwoven, needle-punched geotextile, manufactured for drainage applications and made from polyolefins or polyesters; with the following minimum properties:
 - 1. Weight: 4 oz./sq. yd.; ASTM D 5261.
 - 2. Water Flow Rate: 150 gpm/sq. ft. according to ASTM D 4491.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates, areas, and conditions, with Installer present, for compliance with requirements for subgrade elevations, slope, and drainage and for other conditions affecting performance of the Work.
 - 1. Verify that substrates are sound and without high spots, ridges, holes, and depressions.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

A. Prepare substrates to receive surfacing products according to protective surfacing manufacturer's written instructions.

3.3 INSTALLATION OF GEOSYNTHETIC ACCESSORIES

A. Install geosynthetic accessories before edging and according to playground surface system manufacturer's and geosynthetic manufacturer's written instructions and in a manner that cannot become a tripping hazard.

1. Drainage/Separation Geotextile: Completely cover area beneath protective surfacing, overlapping geotextile sides and edges a minimum of 8 inches with adhesively bonded or taped seams.

3.4 INSTALLATION OF LOOSE-FILL SURFACING

- A. Apply components of loose-fill surfacing according to manufacturer's written instructions to produce a uniform surface.
- B. Edging: Place and permanently secure edging in place.
- C. Loose Fill: Place loose-fill materials to required depth after installation of playground equipment support posts and foundations. Include manufacturer's recommended amount of additional material to offset mechanical compaction.
- D. Grading: Uniformly grade loose fill to an even surface free from irregularities.
- E. Compaction: After initial grading, mechanically compact loose fill before finish grading.
- F. Finish Grading: Hand rake to a uniformly smooth finished surface and to required elevations.

3.5 FIELD QUALITY CONTROL

- A. Testing Agency: Engage a qualified testing agency to perform tests.
- B. Perform the following tests with the assistance of a factory-authorized service representative:
 - 1. Perform "Installed Surface Performance Test" according to ASTM F 1292 for each protective surfacing type and thickness in each playground area.
- C. Playground protective surfacing will be considered defective if it does not pass tests.
- D. Prepare test reports.

END OF SECTION

SECTION 323000 – PLAYGROUND IMPROVEMENTS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings

1.2 SUMMARY

- A. Section includes playground features as follows:
 - 1. Playground boulders.
 - 2. Log edging.
 - 3. Recycled granite block
 - 4. Tunnel.
 - 5. Vertical logs.
 - 6. Horizontal log steps.
 - 7. Wood structures (bench, bridge, pergola/mud kitchen).
- B. Related Requirements:
 - 1. Section 116800 "Playground Equipment and Structures" for playground equipment.

1.3 DEFINITIONS

- A. Definitions in ASTM F 1487 apply to Work of this Section.
- B. CPSI: Certified Playground Safety Inspector.

1.4 PREINSTALLATION MEETINGS

A. Preinstallation Conference: Conduct conference at Project site.

1.5 ACTION SUBMITTALS

- A. Submittals shall comply with the requirements of the individual sections specifying the work.
- B. Qualifications Data: For Installer.
- C. Product Data: For each type of product.
- D. Shop Drawings: For retaining wall tunnel at west side1. Include materials and construction details

PLAYGROUND IMPROVEMENTS

E. Commercial Equipment Installer Qualifications: An entity that employs installers and supervisors who have at least 5 years of installing commercial play equipment and preferably experience installing natural playgrounds.

1.6 WARRANTY

- A. Special Warranty: Contractor agrees to repair or replace components of playground equipment that fail in materials or workmanship within specified warranty period.
 - 1. Failures include, but are not limited to, the following:
 - a. Structural failures.
 - b. Deterioration of wood, and other materials beyond normal weathering and use.
 - 2. Warranty Period: Five years from date of Substantial Completion.

PART 2 – PRODUCTS

2.1 BOULDERS

A. Boulders shall be weathered, matching in color, appearance, shape and texture. Boulders must be free of scars, gouges and other marks from mechanical sources. Selected boulders shall have at least one flat/semi flat side and be approved by Project Landscape Architect and Owner.

Small: 2' tall x 2' wide (2' diameter)

Large: 30''-36'' tall x 30''x36'' wide (3' diameter)

B. Natural variations and markings which are characteristics of the stone and do not impair strength or appearance are acceptable. Provide only sound stone, free from defects detrimental to appearance and durability.

Boulder Wall Examples:



Boulder Slope Examples:



2.2 MULCH PATHWAY

A. Mulch shall be Superhumus as supplied by Casella Organics located at 135 Presumpscot St, Unit 1, Portland, ME (207) 347.3600

2.4 LOG EDGING

- A. Logs shall be very resistant hardwood varieties including (Black Locust, Cedar, White Oak), and/or contractor shall use salvaged stockpiled logs from downed trees on site and be approved by Project Landscape Architect and Owner.
- B. Horizonal logs may be hardwood varieties not listed above. Approve alternate varieties with project landscape architect.
- C. Logs shall have smoothed exposed edges.
- D. 8-inch minimum diameter. Horizontal logs shall be 4' length minimum.

2.5 RECYCLED/RECLAIM GRANITE

- A. Recycled granite block shall be straight sections of reclaim granite.
- B. Granite shall be weathered and natural in color.
- C. Natural variations in color and markings which are characteristics of the stone and do not impair strength or appearance are acceptable. Provide only sound stone, free from defects detrimental to appearance and durability.
- D. Provide sound stone uniform in color and texture, free from mineral stains, other foreign matter and defects detrimental to appearance and durability.





Recycled Granite Examples:

2.6 TUNNEL

- A. Tunnel shall be ADS N-12, 30 inch diameter (unless specified otherwise) smooth interior corrugated pipe.
- B. Supplier shall be ADS Pipe, 44 Pine Aire Way, Winthrop, ME (207) 450.9987 or approved equal.

2.7 VERTICAL LOGS

- A. Logs shall be rot resistant varieties including (Black Locust, Cedar, White Oak).
- B. Cedar posts 6" diameter or greater may be used.

2.8 HORIZONTAL LOG STEPS

- A. Logs shall be rot resistant varieties including (Black Locust, Cedar, White Oak).
- B. Size: 4 foot length min

2.9 WOOD STRUCTURES

A. Stage, platform, boardwalk



Boardwalk example

PART 3 – EXECUTION

- 3.1 INSPECTION
 - A. Examine substrate and installation conditions. Do not start work until unsatisfactory conditions are corrected.
 - B. Do not build on frozen ground.

3.2 PREPARATION

A. Establish lines, levels and approximate grades.

3.3 GRANITE BLOCK

- A. Install granite block intended for seating/stepping with flat sides up.
- B. Construct granite block on prepared base to lines, grades and sections as shown on the drawings and details.
- C. Compact gravel base to 95%.
- D. Where block is used as steps, minimum tread depth (measured nose to nose) shall be 12 inches. Overlap steps a minimum of 2 inches.
- E. Adjacent riser heights may vary. Do not pair blocks with more than 5 inch difference together.
- F. Finish grade and prepare adjacent surfacing as shown on plans.

3.4 BOULDER SLOPE/ INDIVIDUAL BOULDERS

- A. Excavate material as necessary to set boulders minimum 1/3 diameter into ground and on existing base material. Compact base material as necessary.
- B. Set boulders in accordance with grading plan and site details. Set boulders plumb, level and in alignment. Use care in moving to avoid scratching, chipping or gouging the surfaces. Adjust elevations of boulders by shimming as necessary.
- C. Backfill around boulder wall with excavated material and grade adjacent areas as shown on grading plan and site details.

3.5 TUNNEL

- A. Excavate material as necessary to set tunnel as shown on grading plan and site detail. Compact base material as necessary.
- B. Set tunnel in accordance with grading plan and site details. Set tunnel with a slight slope
- C. Tunnel wall shall consist of recycled granite block and/or logs, wood posts or boulders.
- D. Backfill around tunnel with excavated material and grade adjacent areas as shown on grading plan and site details.
- E. Finish grade and prepare adjacent surfacing as shown on plans.

END OF SECTION

SECTION 32 90 00- PLANTING

PART 1 GENERAL

1.1 DESCRIPTION:

- A. Bidding requirements, conditions of the contract and pertinent portions of sections in Division One of these specifications, apply to the section as fully as though repeated herein.
- B. Work under this section shall include all labor, materials, services, equipment and accessories necessary to furnish and install trees and turf in accordance with the specifications and applicable Drawings.
- C. Related work:
 - 1. Section 31 05 12, Site Earthwork.

1.2 SUBMITTALS:

- A. General: Submit the following in accordance with Conditions of Contract and Division 1 Specification Sections.
- B. Tests specified in this Section shall be paid for by the Contractor. Certifications required must be submitted to the Landscape Architect and or Owner's Representative for approval before use of materials on the site.
- C. The **Contractor shall be required to take representative soil samples of the topsoil** to be provided from several locations (on-site) in the area(s) under consideration for testing. Imported topsoil shall also require test results prior to placement. Tests shall be made by a State Commercial Soil Testing Laboratory using methods approved by the Association of Official Agricultural Chemist or the State Agricultural Experiment Station, or by the University of Maine at Orono. Testing shall include chemical balance (pH) **as well as organic content.** The required pH level shall be between 6.6-7.3% and the organic content shall be between 6.5-8%.
- D. The Contractor shall provide testing data for composted soil amendment if required to supplement the required minimum organic content.
- E. The Contractor shall provide the Dealer's Guarantee Statement for grass seed mix.

1.3 QUALITY ASSURANCE:

- A. Provide plants which are true to name. Tag one of each bundle or Lot with the name and size of plants and shall conform to ANSI Z260.1 Nursery Stock, latest edition, of the American Association of Nurserymen, Inc.
- B. Workmanship: Perform work in accordance with the best standards of practice for Landscape work and under the continual supervision of a competent foreman capable of interpreting the Drawings and Specifications.

- C. Submit documentation to Landscape Architect of Record within twenty-five (25) days after award of contract stating that plant material is available. Any and all substitutions due to unavailability must be requested in writing prior to confirmation of ordering.
- D. Plants shall be subject to review and approval of Landscape Architect of Record at place of growth or upon delivery for conformity to specifications. Such approval shall not impair the right of review and rejections during progress of the work. Submit written request for review of plant material at place of growth or project location to Landscape Architect of Record. Notification for on-site inspection shall be a minimum of 48 hours before inspection. Written request shall state the place of growth and quantity of plants to be reviewed. Landscape Architect of Record reserves the right to refuse review at this time if, in his judgment, sufficient quantity of plants is not available for review. Review shall be for character and form.
- E. Certificate of Acceptability: <u>Inspection of the work covered by this Section to determine</u> <u>completion of the work involved will be made at the conclusion of the Maintenance</u> <u>Period upon written notice requesting such inspection submitted by the Landscape</u> <u>Contractor at least ten (10) days prior to the anticipated date.</u> The condition of turf and plantings will be noted and determination made by the Landscape Architect whether maintenance shall continue.

1.4 GUARANTEE:

A. Turf and plantings shall be guaranteed for one (1) full year after certification of acceptability by the Landscape Architect and shall be alive and in satisfactory growth at the end of the guarantee period, except for damage resulting from causes beyond the responsibility of the Contractor. <u>The Contractor shall provide the Owner with a written guarantee upon certification of acceptability</u>. For plant material in question at the end of the guarantee, the Landscape Architect, Owner and Contractor shall determine a reasonable extension of the guarantee period.

PART 2 PRODUCTS

2.1 MATERIALS:

- A. Topsoil The Contractor shall furnish and place topsoil to give the specified depths. <u>The Contractor shall furnish and place 18 inches of loam in all tree pits, and 6 inches rolled under all turf areas</u>. Topsoil mix shall be placed in all tree pits as shown on the Drawings. Natural loam topsoil shall be of uniform quality, free from hard clods, still clay, hard pan sods, stones over ³/₄ inches and undesirable inorganic materials. The Owner and/or Landscape Architect reserves the right to reject on or after delivery any materials which do not, in his or her opinion, meet these Specifications.
- B. Additives:
 - 1. Humus Ground or shredded peat that has been stockpiled at least one year prior to use, or commercial bagged peat.
- 2. Manure Well-rotted unleached stable manure with no more that 25% straw, shavings, or sawdust content. A mixture of one (1) cubic yard of peat humus or peat moss and 100 lbs. of commercial dehydrated-bagged manure such as Bovung or Spurigon may be used.
- 3. Mulch for Plants Well-rotted (black) shredded pine bark as approved by the Landscape Architect.
- 4. Lime Commercial ground lime with no less than 85% total carbonates, 50% passing a 100 mesh sieve and 90% passing a 200 mesh sieve as approved by the Landscape Architect. Coarser material will be accepted provided that specific rates of application increased proportionately.
- 5. Compost soil amendment Acceptable compost for "compost manufactured topsoil" shall conform to EPA Chapter 40 CFR 503 (pathogen, metals and vector attraction reduction) as well as applicable state regulations.
- C. Commercial Fertilizer
 - 1. Seeding 19-26-5 dust free homogenous granular material such as Scotts Pro-Turf Starter Fertilizer or an approved equal (application rate as recommended by manufacturer).
 - 2. Sodding 10-6-4 with 50% nitrogen derived from urea form, such as Agway Turfwood Special Premium or an approved equal (application rate as recommended by manufacturer).
 - 3. Super phosphate 0-20-0 in unopened bags with manufacturer analysis printed on the bag.
- D. Plant Materials Furnish plants shown and specified on the Drawings and listed in the plant materials list. Discrepancies between the number of plants shown on the Drawings and the number listed in the plant list shall not be grounds for additional renumeration for the Contractor. Plants shall be nursery grown, typical of their species or variety and have a normal habit of growth. Any plant with broken, damaged, or badly bruised branches, trunks, or root balls shall be rejected.
 - 1. Sizes: Plants larger than specified in the plant list may be used if approved by the Landscape Architect but use of such plants shall not increase the contract price. If the use of the larger plants is approved, the spread of roots or ball of earth shall be increased in proportion to the size of the plants.
 - 2. Substitutions: In the event that trees, shrubs or other plant material specified in the plant list are impossible or unreasonably difficult to obtain, the Contractor shall immediately notify the Landscape Architect to discuss appropriate substitutions. No substitutions of plant material may be made without the approval of the Landscape Architect.

- E. Grass Seed
 - 1. Grass Seed mixtures shall be fresh, clean, new crop seed. Seed may be mixed by an approved method on the site, or may be mixed by the dealer. If the seed is mixed on the site, each variety shall be delivered in the original containers which shall bear the dealer's guaranteed statement of the composition of the mixture and the percentage of purity of each variety. <u>The Dealer's Guarantee Statement shall be delivered to the Landscape Architect.</u>
 - 2. Grass seed mixture for Lawn Areas shall be of the following types of seed:

Park Mix by Allen, Sterling & Lothrop or approved equal

- 35% Kentucky Bluegrass 85/80
- 20% Creeping Red Fescue
- 15% Chewings Fescue
- 15% Perennial Ryegrass
- 15% Ryegrass
- F. Sod Sod shall be well-established turf of even thickness consisting of a Bluegrass blend, 90% Bluegrass and 10% Fescue. Sod shall be as provided by Winding Brook Sod Farm, Lyman, Maine or approved equal.

PART 3 EXECUTION

3.1 INSTALLATION:

- A. Pre-Plant Weed Control
 - 1. If live perennial weeds exist on site at the beginning of work, spray with a nonselective systemic contact herbicide, as recommended and applied by an approved licensed landscape pest control advisor and applicator. Leave sprayed plants intact for at least fifteen days to allow systemic kill or as directed by advisor.
 - 2. Maintain site weed free until final acceptance by Owner utilizing mechanical, manual and/or chemical treatment.
 - 3. Project Planting Beds adjacent to seeded lawn areas from over spray of seed mix. Germinating grass shall be removed before planting and mulching of beds. Contractor shall be responsible for removal of grass and or weeds after installation of plant material during maintenance period.
- B. Planting of Trees and Shrubs
 - Plants must be located by the Contractor and approved by the Landscape Architect before pits are dug. The Contractor shall notify the Landscape Architect at least 48 hours prior to scheduling installation of plant material. Locations as shown on the Drawings may be varied due to existing conditions.

- 2. Preparation of Soil <u>Manure, peat humus and super phosphate additives shall be</u> <u>incorporated into topsoil by placing the additives over topsoil piles and turning</u> <u>piles at least 3 times or until thoroughly mixed.</u> (Refer to planting detail).
- 3. Staking and guying: Trees shall be staked at the time of planting as shown on the typical section of Tree Planting Detail.
- 4. Pruning and Mulching:
 - a. Remove all dead wood and/or suckers and all broken or badly bruised branches. All pruning shall conform to standards established by the National Arborist Association. Trees damaged during installation shall be removed and replaced at the direction of Project Landscape Architect and or Owner's Representative.
 - b. Immediately after planting operations are completed, cover all tree and shrub pits with three (3) inch layer of specified mulch. The limit of this mulch for trees shall be the area of the pit, <u>Mulch depth shall not exceed</u> (3) inches.
- 5. Watering
 - a. The Contractor shall be responsible for thoroughly watering all plant material upon installation.
 - b. Watering shall be monitored on a daily basis when temperatures exceed 70 degrees. The depth of moisture in all tree plantings shall be adequate to prevent wilting.
 - c. Watering (as required) of plant material shall continue for the duration of the maintenance period until certification of acceptability.
- C. Loaming and Seeding
 - 1. Conduct planting operations under favorable weather conditions. Areas not required to be developed otherwise shall be seeded to turf.
 - 2. Compost Manufactured Topsoil The soil (source material) shall be free of lumps, plants, weeds, roots and other debris over 2 inches in any dimension and free of stones over inch in any dimension. The organic compost shall be uniformly incorporated into the loam source by rolling and tumbling, by a frontend loader or by processing in a mixing plant. The material shall be mixed sufficiently to produce a homogenous soil, free of lumps and clods. In addition to the requirements for the compost amendment, the Contractor shall provide documentation that the recommended rate of fertilizer, per the testing analysis, has been applied to lawn areas prior to seeding.
 - 3. Prior to placing loam, scarify subgrade areas; remove all rocks over two (2) inches and debris; and set grade stakes as necessary. Place topsoil evenly over all areas to be loamed to a minimum thickness of six (6) inches. Hand rake to remove clods, lumps, brush, roots, and stones over ³/₄ inches in diameter. Hand

PLANTINGS

roll to show depressions and uneven grades. Regrade as necessary to obtain smooth, even grades. Surplus topsoil shall become the property of the Contractor and shall be removed off the site.

- 4. Apply additives (lime, fertilizer, compost etc.) as per the recommendation of the testing lab. Apply additives and harrow into top two (2) inches of the seedbed.
- 5. Sow seed specified by use of a mechanical spreader at the rates specified. Rake lightly in; roll with 200 lb. roller and water with a fine spray. Avoid spreading of grass seed mix in all designated planting beds.
- 6. Following compaction, apply a one- (1) inch layer of <u>straw</u> to hasten germination.
- 7. Full even growth in all areas must be guaranteed. The maintenance period shall continue after seeding and until the lawns are certified acceptable by the Landscape Architect. A minimum uniform catch of turf meeting 80% shall be required.
- 8. Repair damage resulting from erosion, gullies, washouts or other similar causes if such damage occurs before certification of acceptability of turf and planting by the Landscape Architect.
- 9. Sod After all grading has been completed, the soil shall be irrigated within 12-24 hours before laying the sod. Sod shall not be laid on soil that is dry and powdery.
- 10. The first row of sod shall be laid in a straight line with subsequent rows placed parallel to and tightly against each other. Lateral joints shall be staggered to promote a uniform growth and strength. Care shall be exercised to insure that the sod is not stretched or overlapped and that all joints are butted tight in order to prevent voids which cause air drying of the roots.
- 11. The Contractor shall water sod immediately after installation to prevent drying during progress of the work. It shall then be thoroughly irrigated to a depth sufficient that the underside of the new sod pad and soil immediately below the sod is thoroughly wet.
- 12. Rolling of the sod shall be required to properly join sod to the bed after the sod is installed and twenty-four (24) to forty-eight (48) hours after initial watering. The Contractor shall roll the required area with a roller which weights seventy-five (75) to one hundred (100) pounds per square foot of roller width. The completed sod surface shall be true to finish grades as shown on plans and even and firm at all points.
- 13. Watering
 - a. First and Second Week The Contractor shall provide all labor and arrange for all watering necessary for establishment of the turf. In the absence of adequate rainfall, watering shall be performed daily or as often as necessary during the first and second week and in sufficient

PLANTINGS

quantities to maintain moist soil to a depth of at least four (4) inches. Watering should be done during the heat of the day to help prevent wilting.

b. <u>Watering shall continue to be the responsibility of the Contractor until</u> such time as the Owner or project Landscape Architect has certified acceptance of lawn areas.

3.2 MAINTENANCE:

- A. General Maintenance shall begin immediately after each portion of seed and each plant is planted and shall continue in accordance with the following:
 - 1. Lawns: The Contractor shall be responsible for establishing a uniform stand of the specified seed and until a Certification of Acceptability is received. No bare spots shall be allowed. After the seed has started, all areas and parts of areas that fail to show a uniform stand of grass, for any reason whatsoever, shall be seeded or sodded repeatedly until all areas are covered with a satisfactory growth of grass. The Contractor shall be responsible for the first two (2) mowings.
 - 2. New Plantings: Protect and maintain new planting until the end of the lawn maintenance period, or, if installed after the lawn maintenance period, until installation of planting is certified acceptable by the Landscape Architect. Maintenance shall include watering, spraying and dusting for insect and fungal control, mulching, tightening and repairing guys, replacement of sick or dead plants, resetting plants to proper grades or upright position, and restoration of planting saucer, and all other care needed for proper growth and maintenance of the plants. Planting completed after the lawn preparation shall provide proper protection to lawn areas. Any damage resulting from planting operations shall be promptly repaired.
 - 3. Spraying and Dusting: During the maintenance and guarantee periods, the Contractor shall do all seasonal spraying and/or dusting of trees and shrubs as required.
 - 4. Protection: Planting areas and plants shall be protected against trespassing and damage of any kind. If any plants become damaged or injuries occur, they shall be treated or replaced as directed.
 - 5. Damage: Damage resulting from erosion, gullies, washouts, or other causes shall be repaired by filling with topsoil, tamping, re-fertilizing, and sodding by the Contractor at his own expense if such damage occurs prior to certification of acceptability of turf and plantings by the Landscape Architect.
 - 6. Responsibility: The Contractor's responsibility for maintenance shall cease at the time of certification of acceptability by the Landscape Architect. During the guarantee period, the Contractor shall be held responsible for making replacements, but no maintenance shall be required, other than spraying and dusting.

3.3 REPLACEMENT:

A. <u>At the end of the guarantee period, inspection will be made by the Landscape Architect</u> <u>upon written notice requesting such inspection and shall submitted by the Contractor at</u> <u>least ten (10) days before the anticipated date.</u> Any plant required under this Contract that is dead or not in satisfactory condition, as determined by the Landscape Architect, shall be removed from the site. These, and any other plants missing due to the negligence of the Contractor, shall be replaced with plants of the same type and size as originally specified. Replanting shall be done as soon as conditions permit, but during the normal planting season. Plant items in accordance with these specifications.

3.4 CLEANUP:

A. The Landscape Contractor shall remove all debris, construction equipment, excess fill, rocks, and other excess material caused by his work, from the site upon completion of his portion of the work.

END OF SECTION 32 90 00

KATE FURBISH: ADDITIONAL INFORMATION

A. <u>Swings:</u> Miracle Recreation Salesperson: Eric Welzel, Maine Recreation and Design/phone: 207-751-4323 Email: <u>Eric@maine-playgrounds.com</u>

5" Arch Commercial Swing Set Galvanized with Add-a-bay Tire Swing

3-bay, 8 foot ht. arch swing with add-a-bay tire swing (5 swing seats, 1 ADA swing & 1 tire swing)

1- ADA swing seat

Information required: Color selection

B. <u>New Dome (13 foot diameter)</u>: Miracle Recreation



Salesperson: Eric Welzel, Maine Recreation and Design/phone: 207-751-4323 Email: <u>Eric@maine-playgrounds.com</u> Information required: Color selection

- C. <u>Hillslide</u>: PlayVentures, Inc. Salesperson: Margie Salt, Park Street Playgrounds phone: 978-664-0239 Information required: Color selection/ Delivery- equipment may be required on site to off-load slides from truck
- <u>Turning Bar:</u> PlayVentures, Inc. Salesperson: Margie Salt, Park Street Playgrounds phone: 978-664-0239
 2 & 3 level hang bar for ages 6-10

Information required: Color selection



E. <u>Wiggle Disc</u> PlayVentures, Inc. Salesperson: Margie Salt, Park Street Playgrounds phone: 978-664-0239



F. <u>Swings:</u> Miracle Recreation Salesperson: Eric Welzel, Maine Recreation and Design/phone: 207-751-4323 Email: <u>Eric@maine-playgrounds.com</u>

3.5" Arch Commercial Swing Set
4-bay, 8 foot ht. (7 swing seats, 1 ADA swing)
Cost: \$5,859.27 (\$5,187/ Shipping: \$672.27)
Information required: Color selection

G. <u>Accelerator Swing:</u> Miracle Recreation Salesperson: Eric Welzel, Maine Recreation and Design/phone: 207-751-4323 Email: <u>Eric@maine-playgrounds.com</u>



Information required: Color selection

H. <u>Revolution Spinner:</u> Miracle Recreation Salesperson: Eric Welzel, Maine Recreation and Design/phone: 207-751-4323 Email: <u>Eric@maine-playgrounds.com</u>



Information required: Color selection

I. <u>Geodesic Dome (13 foot diameter): Miracle Recreation</u> Salesperson: Eric Welzel, Maine Recreation and Design/phone: 207-751-4323 Email: <u>Eric@maine-playgrounds.com</u>





J. <u>Berliner Net Climber:</u> Berliner Salesperson: Margie Salt, Park Street Playgrounds phone: 978-664-0239 Horizontal net climber with attachment to wood tree fort

Information required: Color selection



- PRE-K
 - K. <u>Hillslide (1)</u>: PlayVentures, Inc. Salesperson: Margie Salt, Park Street Playgrounds phone: 978-664-0239

Information required: Color selection/ Delivery- equipment may be required on site to off-load slides from truck

L. <u>Playground hand pump with Tank:</u> Bison Pumps/ phone: 800-339-2601 www.bisonpumps.com

Hand pump with buried plastic tank

GENERAL AREAS

M. <u>Basketball Hoop:</u> Future Pro, Inc (800) 328-4625/ 509 Warren Ave, Portland, ME 04103 <u>kevin@futureproinc.com/</u> www.futureproinc.com

3-1/2" Tough Duty Rectangle Steel Playground Basketball System

Quantity: 2

<u>WOOD</u>

Log & Boulder Edging Example



Log Seating Example







Vertical Log Example





Kate Furbish Elementary, ME. USP.03807



Posts



Black

Ropes

Clamps





Berliner Seilfabrik Play Equipment Corporation

96 Brookfield Oaks Dr., Suite 140, Greenville, SC 29607

Phone: +1-864-627-1092 Fax: +1-864-627-1178

www.berliner-playequipment.com info@berliner-playequipment.com





Please note: Current design is for conceptual purposes only and is subject to change.







Please note: Current design is for conceptual purposes only and is subject to change.



CombiNation Kate Furbish Elementary Brunswick, ME.



Please note: Current design is for conceptual purposes only and is subject to change.



1800 Mearns Road, Unit GG Warminster, PA 18974 Tel: 800.799.7529 or 215-672-6097 Fax: 215-675-8702 Email: sales@playventuresinc.com



Playground Equipment Specifications

© **2015 PlayVentures, Inc.** All rights reserved. Specifications are subject to change without notice. Product specifications listed were correct at time of publication. However, PlayVentures, Inc. has a commitment to continuous product development and improvement and therefore reserves the right to improve or alter specifications or discontinue products without notice.

Playground Equipment Designs

It is the opinion of the manufacturer that playground equipment designs are developed in compliance with the most recent published edition of the following safety standards:

ASTM F 1487 Standard Consumer Safety Performance Specification for Playground Equipment for Public Use Consumer Product Safety Commission (CPSC) Handbook for Public Playground Safety Americans with Disabilities Act (ADA) accessibility standards Canadian CAN/CSA-Z614 Children's PlaySpaces and Equipment

General Specifications

0.75. (19mm) Sheet Polyethylene Parts

0.75. (19mm) sheet polyethylene parts are stress-relieved high-density polyethylene with ultraviolet (U.V.) light stabilizers and anti-static guard. Sheet polyethylene parts contain maximum 67% recycled content and are 100% recyclable. Materials comply with:

ASTM D 790 (Flex Modulus) ASTM D 638 (Tensile Strength) ASTM D 648 (Heat Distortion Temperature)

Hardware and Fasteners

All hardware and fasteners are either stainless steel or carbon steel treated with special Magni 550 coating to resist corrosion. Hardware and fasteners are tamper resistant unless otherwise specified. All load bearing connections include compressions rings in posts and beams. All necessary hardware and fasteners are provided with playstructure.



Lumber

Lumber is southern yellow pine grade marked #1 or better, S4S. Lumber is milled smooth on all sides and is kiln dried after treatment to thoroughly season to moisture content of 19% or less for 2" nominal dimensions and 25% or less for 3" or thicker nominal dimensions. The edges will be eased to 3/8" radius during the milling process. Other characteristics are in accordance with "Standard Grading Rules of Southern Pine Inspections Bureau" latest edition or "Timber Products Inspection". The lumber is pressure treated with MCA (micronized copper azole). The 2" is treated to above ground retention of 0.05 pcf uCA-C. The 3" and thicker is treated to a ground contact retention of 0.14 pcf uCA-C. All treatments are in accordance with the American Wood Protection Association.

Metal Preparation for Powder Coat Paint Finish

Metal preparation for powder coat paint finish consists of either a multiple bath system including a rust-prohibitive iron phosphate wash or sandblasting. Parts are free of excess weld splatter.

Powder-Coat Paint Finish

Polyester dry powder-coating is electro-statically applied and oven cured at 400°F (200°C). Finished membrane is 3-5 mil (0.076-0.127mm) and includes additives for resistance to ultraviolet (U.V.) degradation. Finished membrane complies with the following performance standards:

ASTM D 522 (Mandrel Bending) ASTM D 2794-90 (Impact) ASTM B 117-90 (Salt Spray Resistance) ASTM D 3359B (Cross Hatch Adhesion) ASTM D 2247-87 (Humidity Resistance) ASTM D 3363 (Pencil Hardness) ASTM D 822 (Weatherability) ASTM D 2454 (Overbake Resistance)

Polyethylene Coating

Polytheylene coating is Polyarmor® G17, a function- alized polyethylene copolymer-based thermoplastic powder coating designed for maximum mechani- cal performance, impact resistance and UV-stability. Polyarmor® G17 is a good general-purpose protective coating. On Polis Park Furniture PlaySteel decks will be coated in a fluidized bed to an overall thickness of 25 to 30 mil and cured in an oven at 425°F. Thickness shall average approximately 1/8" (3.2 mm) providing a safe, resilient surface. Materials comply with the following performance standards:

ASTM D 792 (Specific Gravity) ASTM D 2240 (Hardness Shore D) ASTM D 1525 (Vicat Softening Point) ASTM D 638 (Elongation) ASTM B 117 (Salt Spray) ASTM D 4060 (Taber Abrasion) ASTM D 523 (Gloss) ASTM D 4541 (Adhension) ASTM B 2794 (Impact Resistance) ASTM D 638 (Tensile Strenght) ASTM D 2247 (Humidity Resistance) ASTM G 53 (QUV) ASTM D 522 (Flexibility) ASTM D 1238 (Melt Index)





Recycled Plastic

Recycled plastic is injection molded 100% solid blended recycled plastic consisting of 96% polyolefins (HDPE/LDPE/PP), 2% PET, 1% PS, and 1% other. Recycled plastic is ultraviolet (U.V.) light resistant, skid resistant when wet, resistant to infestation by borers, and will not leach. Recycled plastic contains no preservatives. Specific gravity is 0.96. Expansion and contraction with 122°F (50°C) temperature variation is 0.3%. Melting point is 374°F (190°C). Compression strength is 1200 to 2400 lb/in2 (8274 to 16548 kPa) depending on profile. No absorption, solubility, or evaporation.

Rotationally Molded Plastic Parts

Rotationally molded plastic parts are molded from linear medium-density polyethylene resin with ultraviolet (U.V.) light stabilizers and color molded in. Rotationally molded plastic parts have an average wall thickness ranging from 0.125" (3mm) to 0.375" (10mm), as specified. Rotationally molded plastic parts comply with the following performance standards:

ASTM D 790 (Flex Modulus) ASTM D 638 (Tensile Strength) ASTM D 648 (Heat Distortion Temperature) ARM-STD (Low Temperature Impact)

Steel Tube Components

Steel tube components comply with ASTM standards A- 500 or A-513. Steel tube components are pre-galvanized. Any steel that is not pre-galvanized is zinc-coated before or after fabrication with the exception of any steel receiving a Plastisol coating.

Welded Components

Welded components are Canadian Welding Bureau (CWB) certified under CSA standards W47.1 Div. 2.1 and W47.2 Div. 2.1.

Horizontal Guardrail Panel

Horizontal guardrail panel consists of two 2.5" x 5.5" (64mm x 140mm) pressure treated southern yellow pine rails fastened directly to the vertical posts.

PlayWood Plus Horizontal Decks

PlayWood Plus decks are a mechanical assembly consisting of a pressure treated southern yellow pine frame and deck boards. The frame consists of 2.5" x 5.5" (64mm x 140mm) framing members. The deck surface consists of 1.5" x 5.5" (38mm x 140mm) southern yellow pine deck boards between which there is a 0.375" (10 mm) space.

Steel Handrail Module is a welded assembly of 1.315" (33mm) O.D. x 12 gauge (3mm) Allied Flo-Coat® galvanized steel tube, 0.25" x 2.25" (6mm x 57mm) zinc-plated hot-rolled mild flat steel. The assembly is powder coated after fabrication.



Vertical Posts

Vertical posts for PlayWood Plus are 5.5" (140mm) square pressure treated southern yellow pine complete with a cast aluminum upright cap. Post caps are powder-coat painted stamped aluminum and secured with four # $10 \times 1-1/2$ " stainless steel pan head screws

Wood Handrails

Handrails consist of 2.5" x 5.5" (64mm x 140mm) pressure treated southern yellow pine machined to the appropriate shape. All handrails are secured to posts with 3/8" x 7-1/2" carriage bolts, 1/2" flat washers, 1/2" lock washers, and special stainless steel 3/8" x 1" long torx head safety sleeve nuts

Roof Decking

Roof deck boards are custom made "log siding" profile single lap joint boards molded from PlayVentures, Inc. designed molding heads. Log siding boards are molded from a standard 2" x 6" MCA treated kiln dried timber.



Project Number: R0068200003 PlayArea: Inclusive Spinner | Traditional Play Project Name: Project Location: Sales Representative: Maine Recreation and Design LLC 347 Lunt Road Brunswick,ME 04011 207-751-4323

Installation Instructions

Please, read all information in this manual before starting to install your equipment.

Date: 3/20/20 12:00:00 AM

I400008E

12SEP19





NDTE: FOR UNDERSURFACING & FOOTINGS REFER TO SEPARATE INSTRUCTIONS

AUTHORIZED BY: TRACY ARCHER

200203413 REVOLUTION INCLUSIVE SPINNER

Item	tem Code Description		Qty.
1	906783*	LT GROUP SPINNER US	
2	996273*	WHEEL F/SPINNER]
3	907587DBW	POST ASSEMBLY - LT GROUP SPINNER] '
4	996606BLK	TUBE-WHEEL WELDMENT	
5	993297	WIRE, BB, 3 GA X 12"	2
6	HW996618-1	HRDW PKG WHL TN SN S1/1	1
2996273*WHEEL F/SPINNER3907587DBWPOST ASSEMBLY - LT GROUP SPINNER4996606BLKTUBE-WHEEL WELDMENT5993297WIRE, BB, 3 GA X 12"6HW996618-1HRDW PKG WHL TN SN S1/1Note: An (*) by a part number (CODE) indicates: Color Code			

Required.

HRDW PKG WHL TN SN S1/1 - HW996618-1

Item	Code	Description	Qty.
7	104930	BOLT 3/8-16 X 1 1/8 BHCS 6 LOBE 18-8 SS	2
8	117071	WASHER 3/8 (7/16 ID X 1 7/16 OD) X 3/16	1
9	104924	BOLT 3/8-16 X 2 1/2 BHCS 6 LOBE 18-8 SS	1
10	304290	SCREW SET 5/16" X 3/4" SS	2



I400008E

SHEET 2 OF 4

AUTHORIZED BY: 12SEP19

TRACY ARCHER

BEFORE STARTING INSTALLATION OF YOUR LITTLE TIKES COMMERCIAL PRODUCT PLEASE READ INSTRUCTIONS THOROUGHLY

This playevent is designed to suit a level site. Should there be any slopes on the site, care should be taken to accommodate the entry and exit points and to maintain the correct heights.

The site must be checked for adverse or unusual conditions. i.e.

- 1) Exposed, cracked or loose concrete footings.
- 2) Worn, scattered or compressed surface material.
- 3) Exposed roots, rocks or other environmental obstacles that form potential trip hazards.
- 4) Broken glass, refuse, or foreign objects around and on play equipment.
- 5) Poor drainage areas.
- 6) All sites especially those close to existing buildings must be checked for electrical or gas lines and drainage before digging.

As the owner, it is most important that you are aware of your responsibility for the safe use of your new play equipment. It is necessary to install equipment correctly according to the installation instructions provided and inspect the equipment regularly at intervals specified within the "Maintenance Manual", located in your maintenance kit. During inspection, if any part is found to be damaged or excessively worn, equipment should immediately be put out of service while the part is replaced. Lack of maintenance will result in premature wear, reduced life expectancy and possible failure.

All Little Tikes Commercial Play Systems playevents have been designed and engineered to meet all applicable safety guidelines, but if installed improperly, problems may occur such as: protruding hardware, entrapment gaps between 89mm [3.5"] to 229mm [9"], or string entanglements. Any accessible bolt ends that protrude beyond the face of the nut by more than two threads should be trimmed and peened smooth by the installer. Once your installation is complete, always inspect your work. Installation must be done to the manufacturer's assembly manual and applicable safety guidelines and/or standards.

The area immediately surrounding and above the play structure must be free of obstructions such as buildings, trees, other play equipment, etc.; must be kept clear for entries, exits and traffic. Make sure your site has the required surfacing and fall area designated on your Playground Layout Drawings.

ADULT SUPERVISION RECOMMENDED

I400008E SHEET 3 OF 4



I400008E SHEET 4 OF 4

AUTHORIZED BY: 12SEP19 TRACY ARCHER



TEST SPINNER OPERATION

4. Giving spinner a firm push, note number of revolutions and ensure spinner revolves freely, quitely and smoothly.

- If spinner successfully and smoothly revolves 1 to 1 1/4 times before coming to a complete stop, move ahead to next step.
- If spinner revolves LESS than 1 time before coming to a complete stop, locate 6 recessed bolts on post assembly (shown at left) and LOOSEN counter clockwise 1/8th of a turn (45°) in all 6 recessed bolt locations.
- If spinner revolves MORE than 1 1/4 times before coming to a complete stop, locate 6 recessed bolts on post assembly (shown at left) and TIGHTEN clockwise 1/8th of a turn (45°) in all 6 recessed bolt locations.

Retry spinning and continue to adjust as needed for smooth operation.

NOTE: This test needs to be repeated every 3-6 months after installation depending upon usage.

ATTACH WHEEL-SPIN

5. Set wheel-spin atop tube, ensuring "star" arms on tube set into recessed "star" indentations on wheel-spin's underneath side. It is IMPORTANT that these line up correctly to create a cog-wheel effect. Fasten via hardware shown. Bolt will fasten into center bolt hole on tube.



ŁINE UP "STAR" ON TUBE WITH "STAR" RECESS UNDERNEATH WHEEL-SPIN

Miracle Installation Guide

January 09, 2019

Rev. J

Accelerator Swing



IMPORTANT! Prior to installation of <u>any</u> components, refer to **Playsystem Installation Guidelines and Tips** in the *Install 101* section of your manual. This section will provide important tips pertaining to site preparation, footings, system stabilization, and other necessary information vital to the success of your installation.



January 09, 2019







Accelerator Swing

Accelerator Swing STEP 3 ATTACH ROPES TO ARCH TOP 3a. Locate the bagged hardware for (PN 995530) and attach ropes to arch as shown. Repeat for other side. PN 925379 PN 925378 -0 г **С**]) NYLON BEARING NYLON WASHER PN 995530 SUSPENDED ELEMENT (DISH, CABLES, BUMPER) PN 117012 PN 925375 WASHER 3/8 SPLIT-BOLT 3/8-16 X 1 LOCK 18-8 SS BHCS SS PN 925377 FASTENER SS PN 925382 FLAT WASHER 1/4 SS PN 925380 NUT 1/2-13-NYLOCK SS THIS SPACE INTENTIONALLY LEFT BLANK

Accelerator Swing

STEP 4 ATTACH SWING BODY TO ROPES

4a. Attach ropes to swing body in four (4) places as shown below.



FINAL STEP

Proceed with *Final Assembly* installation located behind *Installations 101* in Installation Manual.

2014



Rev. J

Accelerator Swing

Accelerator Swing

Bill of Materials						
MODEL 2014 ACCELER	MODEL 2014 ACCELERATOR SWING:					
<u>OTY</u>	<u>PART</u>	DESCRIPTION				
1	924564*	ARCH F/ACCELERATOR SWING, PTD				
2	924533*	POST WELDMENT, ACCELERATOR SWING, PTD				
1	995530	SUSPENDED ELEMENT (DISH, CABLES, BUMPER)				
1	924939 999046*	PARTS CARTON, 2014 PARTS CARTON - TOUCH-UP PAINT-SWINGS				
1	986348	PARTS CARTON - GENERIC AND WARNING LABELS				
PARTS CARTON 92495	9.					
QTY	PART	DESCRIPTION				
4	200001826	CAP SCREW HEX HD M8 X 1.25 X 75 MM W/PATCH				
8	200008483	WASHER BOWED M11 23.5 X 11.7 X 1.57 MM				
4	200002145	BOLT M8 X 1.25 FEMALE 10.3 X 30 MM				
1	304024	BIT 6 LOBE 1-45 TAMPER RESISTANT				
2	117012	WASHER 3/8 SPLIT LUCK 18-8 SS				
PARTS WITH 995530:						
OTY	PART	DESCRIPTION				
2	925375	BOLT 3/8-16 X 1 BHCS				
2	925377	FASTENER SS WASHER NVLON				
2	925370	BEARING NYLON				
2	925380	NUT 1/2-13 NYLOK SS				
2	925382	FLAT WASHER 1/4 SS				

Miracle Installation Guide

Swing Seats

IMPORTANT! Prior to installation of <u>any</u> components, refer to the "Owner/Operator Manual". This manual will provide important information pertaining to site preparation, footings, system stabilization and other necessary information vital to the success of your installation.

Medale included in this installation guide:						
Models included in this installation guide:						
MODEL	DESCRIPTION	PAGE				
284	Slashproof Seat w/Shackles - 10'	2				
2840	Slashproof Seat w/Chain - 8'	2				
2840TT	SP Swing Seat, 8' T/R w/Tens Tough Chain	2				
2841	Slashproof Seat w/Chain - 10'	2				
2841TT	SP Swing Seat, 10' T/R w/Tens Tough Chain	2				
299	Tot Seat 360° w/Clevis	2				
2990	Tot Seat 360° w/Chain - 8'	2				
2990TT	SP Swing Chair, 8' T/R w/Tens Tough Chain\	2				
2740	Inclusive Swing Seat w/Chain - 8'	2				
2741	Inclusive Swing Seat w/Chain - 10'	2				
2760	Generation Swing Seat Assembly MREC	2				
 Note: Deck Systems are NOT included in these assemblies. An (*) by part numbers indicate: Color Code Required. Please refer to Construction Drawings for the model particular to your system. 						
TOOLS AND EQUIPMENT REQUIRED						
Refer to "Installations 101"						
1. Concrete for f	ootings, wheelbarrow or mixer, 5 gallon bucket, water	supply				
2. Digging equipment for footings (spade shovel, post hole digger, auger)						
3. Bracing materials (2x4s, wood pieces, concrete blocks, bricks, sawhorses, jack stands,						
4. Open end wre	anch sel, Alien and 6-Iode wrenches of dits, socket set	l, screwarivers				
5. Step ladder(s)						

- 6. Tape measure and level
- 7. Adult installer

Swing Seats

13DEC19





Page 2 of 6



Swing Seats

STEP 1 INSTALL SWING FRAMES PER SEPARATE INSTRUCTIONS

1a. Install swing frame and allow concrete footings to fully cure (usually 72 hours) be fore assembling chains and seats to frame.

STEP 2 ATTACH SEAT WITH "D" SHACKLES

2a. Attach seat to chains using two (2) "D" shackles with bolts. Depending on your installation, the chains may need to be shortened to ensure the correct seat height.



Swing Seats

13DEC19

Rev. AH



Note: The correct height of the seats above finished grade when a user is sitting in the seat is:

- 12" minimum for pre-school age children
- 12" minimum for school-age children
- 24" minimum for tot swings

FINAL STEP

Proceed with *Final Assembly* installation located behind *Installations 101* in Installation Manual.



Swing Seats

|--|

SLASHPROOF SEAT			
Model 284	Component 990931*	<u>Quantity</u> 1	Description PARTS CARTON, S/P SEAT W/SHACKLES
<u>Model</u> 2840 (For 8' Top Rail)	<u>Component</u> 990932 990931*	<u>Quantity</u> 1 1	<u>Description</u> PARTS CARTON - (2) - 71" CHAINS PARTS CARTON, S/P SEAT W/SHACKLES
<u>Model</u> 2840TT (For 8' Top Rail)	<u>Component</u> 990931* 294	<u>Quantity</u> 1 1	<u>Description</u> PARTS CARTON, S/P SEAT W/SHACKLES CHAIN SWING 71" TENSILE TOUGH 8' T/R
<u>Model</u> 2841 (For 10' Top Rail)	<u>Component</u> 990933 990931*	<u>Quantity</u> 1 1	<u>Description</u> PARTS CARTON - (2) - 7'-10" CHAINS PARTS CARTON, S/P SEAT W/SHACKLES
<u>Model</u> 2841TT (For 10' Top Rail)	<u>Component</u> 284 295	<u>Quantity</u> 1 1	<u>Description</u> SLASH PROOF SEAT W/SHACKLES CHAIN SWING 94", TENSILE TOUGH 10' T/R
360 DEGREE TOT SEAT <u>Model</u> 299	<u>Component</u> 990934*	<u>Quantity</u> 1	Description PARTS CARTON, S/P CHAIR W/SHACKLES
<u>Model</u> 2990 (For 8' Top Rail)	<u>Component</u> 990935 990934*	<u>Quantity</u> 1 1	<u>Description</u> PARTS CARTON - (2) - 4'-3" CHAINS PARTS CARTON, S/P CHAIR W/SHACKLES
<u>Model</u> 2990TT (For 8' Top Rail)	<u>Component</u> 990934* 296	<u>Ouantity</u> 1 1	<u>Description</u> PARTS CARTON, S/P CHAIR W/SHACKLES CHAIN SWG 51" TENSILE TOUGH F/360 DEG ST
INCLUSIVE SWING SEAT Model 2740 2741	<u>Component</u> 925289* 925288*	<u>Quantity</u> 1 1	Description INCLUSIVE RACING SEAT - 8' ASSEMBLY INCLUSIVE RACING SEAT - 10' ASSEMBLY
GENERATION SWING SEA Model 2760	AT <u>Component</u> 907604*	<u>Quantity</u> 1	Description GENERATION SWING SEAT ASSEMBLY - MREC
L			

Rev. AH

Swing Seats

284, 2840, 2840TT, 2841, 2841TT, 299, 2990, 2990TT, 2740, 2741, 2760

13DEC19

Rev. AH

REPLACEMENT KITS FOR MAINTENANCE					
2740 an	d 2741 - Inclusiv	e Swing Seat			
ITEMOUANTITY923422AS NEEDED		DESCRIPTION INCL SWG SEA	DESCRIPTION INCL SWG SEAT RES REPLACEMENT KIT		
	<u>COMPONENT</u> 304262 200097726	<u>QUANTITY</u> 4 2	<u>DESCRIPTION</u> YOKE FRICTION SPACER SCREW MACH BUTTONHEAD M10 X 1.5 X 38MM		
<u>ITEM</u> 925297	<u>OUANTITY</u> AS NEEDED	DESCRIPTION REPLACEMEN	IT LATCH F/INCL SWG SEAT		
	<u>COMPONENT</u> 906487 925298 925294 906499 906500 925295 925295 925296 200002010 200097726	<u>QUANTITY</u> 1 1 1 1 1 1 1 1 1	DESCRIPTION LATCH LOCATOR SLEEVE LATCH GRIP ROUND LATCH FRONT PLATE LONG LATCH SPRING PLATE LATCH SPRING PLATE LATCH BACKING PLATE LONG LATCH COMPRESSION SPRING 1.63" LONG SCREW MACH BUTTON HEAD M10 X 1.5 X 16MM SCREW MACH BUTTONHEAD M10 X 1.5 X 38MM		
I <u>TEM QUANTITY</u> 902840 AS NEEDED		<u>DESCRIPTION</u> HDWR BAG F/I	NCL SWING SEAT 10FT TOP RAIL		
	<u>COMPONENT</u> 903695 903694 903699 200035993 200035994	<u>QUANTITY</u> 2 2 1 6 6	DESCRIPTION INCLUSIVE SWING CHAIN 1, 52 LINKS F/10FT INCLUSIVE SWING CHAIN 2, 68 LINKS F/10FT INCLUSIVE SWING CHAIN 3, 13 LINKS SHACKLE "D" STYLE 41MM 300 S.S. (SMALL) BOLT M10 X 1.5 X 27MM 300 SS 6-LOBE(SM)		
<u>ITEM</u> 902841	<u>OUANTITY</u> AS NEEDED	DESCRIPTION HDWR BAG F/I	NCL SWING SEAT 8FT TOP RAIL		
	<u>COMPONENT</u> 906502 906118 903699 200035993 200035994	<u>QUANTITY</u> 2 1 6 6	DESCRIPTION INCLUSIVE SWING CHAIN 1, 34 LINKS F/8FT INCLUSIVE SWING CHAIN 2, 50 LINKS F/8FT INCLUSIVE SWING CHAIN 3, 13 LINKS SHACKLE "D" STYLE 41MM 300 S.S. (SMALL) BOLT M10 X 1.5 X 27MM 300 SS 6-LOBE(SM)		

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Miracle Installation Guide

October 11, 2018

Rev. E

Geodesic Climbers - 8', 13', 18' Diameter

Galvanized and Mira-Cote™

IMPORTANT! Prior to installation of <u>any</u> components, refer to **Playsystem Installation Guidelines and Tips** in the *Install 101* section of your manual. This section will provide important tips pertaining to site preparation, footings, system stabilization, and other necessary information vital to the success of your installation.

Models included in this installation guide:					
MODEL_	DESCRIPTION	PAGE			
401	Geodesic Climber, Galvanized, 8' Diameter	2			
401-2	Geodesic Climber, Mira-Cote™, 8' Diameter	2			
402	Geodesic Climber, Galvanized, 13' Diameter	2			
402-2	Geodesic Climber, Mira-Cote™, 13' Diameter	2			
403	Geodesic Climber, Galvanized, 18' Diameter	3			
403-2	Geodesic Climber, Mira-Cote™, 18' Diameter	3			

Note:

- An (*) by part numbers indicate: Color Code Required.
- Please refer to Construction Drawings for the model particular to your system. Use this installation guide for footing dimensions and attachments.

TOOLS AND EQUIPMENT REQUIRED

Also see 'Suggested Tools & Equipment' (Doc. # D70052) in "Installations 101"

- 1. Concrete for footings, wheelbarrow or mixer, 5 gallon bucket, water supply
- 2. Digging equipment for footings (spade shovel, post hole digger, auger)
- 3. Bracing materials (2x4's, concrete blocks, jack stands, sawhorses, etc.)
- 4. Tape measure and level
- 5. Drill motor, various bits, extension cords, power supply
- 6. Open end wrench set, Allen and 6-lobe wrenches or bits, socket set, screwdrivers
- 7. Adult installers 2 minimum




Rev. E

Geodesic Climbers - 8', 13', 18' Diameter Galvanized and Mira-Cote™

403, 403-2**

Geodesic Climber, Galvanized, 18' Diameter (**) Model 403-2 Horizontal Ladder, Mira-Cote™, 18' Diameter not shown. Appearance and installation identical.



Protective Area: 31' DIA.

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October 11, 2018

Rev. E

Geodesic Climbers - 8', 13', 18' Diameter

Galvanized and Mira-Cote[™]

STEP 1 SORT AND LAYOUT PIECES OF CLIMBER

1a. Sort and layout the pieces on the ground, per model, as shown below.

Note: Pay attention to the five (5) hole and six (6) hole connecting plates.

A. Models 401 and 401-2: Top View



STEP 2 ASSEMBLE UNIT UPSIDE-DOWN

2a. Start with the center connecting plate and build outward, assembling the unit upside-down. Finger tighten the nuts.

Note: "C" clamps and drift pins are very helpful as the assembling progresses. The smooth side of trimmed bar ends face away from connecting plates. The farther into the installation, the harder it will be to fit the rungs into the openings. It works best to have workers on opposite sides pressing down on the climber while a third worker is installing the rungs. The tight fit of the rungs is essential for a strong structure.



Geodesic Climbers - 8', 13', 18' Diameter

Galvanized and Mira-Cote™

STEP 3 DIG FOOTINGS

3a. Once the climber has been assembled, upside-down, position it right side up. Mark and dig footings 6" in diameter by 12" deep (24" from top of finished grade).

Note: Several people may be required to turn assembly upright without damage. Do not pour concrete until component has been installed per instructions and braced in position, leveled and plumbed.



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Galvanized and Mira-Cote™

STEP 4 SORT AND LAYOUT PIECES OF CLIMBER

4a. Sort and layout the pieces on the ground, per model, as shown below.

Note: Pay attention to the five (5) hole and six (6) hole connecting plates.

B. Models 402, 402-2, 403 and 403-2: Top View



4b. Refer to step 3 for footing details.



Rev. E

Geodesic Climbers - 8', 13', 18' Diameter



FINAL STEP

Proceed with *Final Assembly installation* located behind *Installations 101* in the Installation Manual.

401, 401-2, 402, 402-2, 403, 403-2

Rev.

	Bill of	Material
MODEL 401		
MODEL 401-2, same	e BOM except use PN 970565, I	PN 970566
<u>QUANTITY</u>	PART NUMBER	DESCRIPTION
1	970563	ROD CTN 401-RED-(1 OF 2)
1	970564	ROD CTN 401-DB-(2 OF 2)
1	984593	PARTS CARTON 401/4012
1	984594	PARTS CTN ANCHOR 10 PCS.
1	994989	PARTS CARTON - 2-5 LABEL
1	116048	LABEL, 2" X 2" WHITE POLYESTER THERM
1	116049	LAMINATE, CLEAR, 2" X 2" W/PERMANENT
PARTS CARTON 40	1/4012 - 984593	
<u>QUANTITY</u>	PART NUMBER	DESCRIPTION
140	104084	BOLT 3/8 - 16 X 3/4 CARR GRD 5
140	110031	NUT 3/8 - 16 HEX 18-8 SS
140	117105	WASHER 3/8 INTERNAL TOOTH LOCK 18-8
16	970561BLK	CONNECTOR PLATE 5 HOLE BLACK
10	970562BLK	CONNECTOR PLATE 6 HOLE BLACK
1	116021	LABEL MIRACLE ID - GENERIC
1	116022	LABEL WARNING - PLAYGROUND
1	116099	LABEL, PLAY SMART RULES
MODEL 402		DESCRIPTION
1	970575	$\frac{DESCRIPTION}{ROD CTN 402-BL}$ (1 OF 9)
2	970576	ROD CTN 402-SN-(2 AND 3 OF 9)
1	970577	ROD CTN 402-SN/BK-(4 OF 9)
1	970578	ROD CTN 402-BK (5 OF 9)
1	970579	ROD CTN 402-RD-(6 OF 9)
2	970580	ROD CTN 402-YW-(7 AND 8 OF 9)
1	970614	ROD CTN 402-GR-(9 OF 9)
1	975737	PARTS CARTON 402/403 (1 OF 3)
1	975738	PARTS CARTON 402/403 (2 OF 3)
1	984577	PARTS CARTON 402/403 (3 OF 3)
2	984594	PARTS CTN ANCHOR 10 PCS.
1	994990	PARTS CARTON - 2-12 LABEL
1	116048	LABEL, 2" X 2" WHITE POLYESTER THERN
1	116040	

Page 8 of 12



	Bill of Ma	aterial cont.
MODEL 402		
<u> UANTITY</u>	PART NUMBER	DESCRIPTION
1	970575	ROD CTN 402-BL-(1 OF 9)
2	970576	ROD CTN 402-SN-(2 AND 3 OF 9)
1	970577	ROD CTN 402-SN/BK-(4 OF 9)
1	970578	ROD CTN 402-BK-(5 OF 9)
1	970579	ROD CTN 402-RD-(6 OF 9)
2	970580	ROD CTN 402-YW-(7 AND 8 OF 9)
1	970614	ROD CTN 402-GR-(9 OF 9)
1	975737	PARTS CARTON 402/403 (1 OF 3)
1	975738	PARTS CARTON 402/403 (2 OF 3)
1	984577	PARTS CARTON 402/403 (3 OF 3)
2	984594	PARTS CTN ANCHOR 10 PCS.
1	994990	PARTS CARTON - 2-12 LABEL
1	116048	LABEL, 2" X 2" WHITE POLYESTER THERMAL
1	116049	LAMINATE, CLEAR, 2" X 2" W/PERMANENT
PARTS CARTON 40 <u>QUANTITY</u> 200 23 1 1 1	02/403 - 975737 <u>PART NUMBER</u> 104084 970562BLK 116021 116022 116099	<u>DESCRIPTION</u> BOLT 3/8 - 16 X 3/4 CARR GRD 5 CONNECTOR PLATE 6 HOLE BLACK LABEL MIRACLE ID - GENERIC LABEL WARNING - PLAYGROUND LABEL, PLAY SMART RULES
PARTS CARTON 40)2/403 - 975738	
<u> UANTITY</u>	PART NUMBER	DESCRIPTION
400	110031	NUT 3/8 - 16 HEX 18-8 SS
400	117105	WASHER 3/8 INTERNAL TOOTH LOCK 18-8 SS
22	970561BLK	CONNECTOR PLATE 5 HOLE BLACK
PARTS CARTON 40)2/403 - 984577	
QUANTITY	PART NUMBER	DESCRIPTION
200	104084	BOLT 3/8 - 16 X 3/4 CARR GRD 5

Geodesic Climbers - 8', 13', 18' Diameter

403-2
403,
402-2,
402,
401-2,
401,

	Bill of Ma	iterial cont.
MODEL 402-2		
QUANTITY	PART NUMBER	DESCRIPTION
1	970581	ROD CTN 4022-BL-(1 OF 9)
2	970582	ROD CTN 4022-SN-(2 AND 3 OF 9)
1	970583	ROD CTN 4022-SN/BK-(4 OF 9)
1	970584	ROD CTN 4022-BK-(5 OF 9)
1	970585	ROD CTN 4022-RD-(6 OF 9)
2	970586	ROD CTN 4022-YW-(7 AND 8 OF 9)
1	970615	ROD CTN 4022-GR-(9 OF 9)
1	975737	PARTS CARTON 402/403 (1 OF 3)
1	975738	PARTS CARTON 402/403 (2 OF 3)
1	984577	PARTS CARTON 402/403 (3 OF 3)
2	984594	PARTS CTN ANCHOR 10 PCS.
1	994990	PARTS CARTON - 2-12 LABEL
1	116048	LABEL, 2" X 2" WHITE POLYESTER THERMAL
1	116049	LAMINATE, CLEAR, 2" X 2" W/PERMANENT
PARIS CARION 40		
<u>QUANTITY</u>	PART NUMBER	
200	104084	BULL 3/8 - 16 X 3/4 CARR GRD 5
Z3 1	970502BLK	
1	116021	
1	116002	LADEL WARNING - PLATGROUND
	110077	LADEL, FLAT SWART RULLS
PARTS CARTON 40		
<u>QUANTITY</u> 400	PART NUMBER	
400	117105	
400		WASHER 3/8 INTERNAL TOUTH LOCK 18-8 S
100	970301DLK	CONNECTOR PLATE 5 HOLE BLACK
22		
22 PARTS CARTON 40)2/403 - 984577	
22 PARTS CARTON 40 <u>QUANTITY</u>)2/403 - 984577 <u>PART NUMBER</u>	DESCRIPTION
22 PARTS CARTON 40 <u>QUANTITY</u> 200	02/403 - 984577 <u>PART NUMBER</u> 104084	<u>DESCRIPTION</u> BOLT 3/8 - 16 X 3/4 CARR GRD 5



Geodesic Climbers - 8', 13', 18' Diameter

	Bill of Ma	aterial cont.
MODEL 403		
QUANTITY	PART NUMBER	DESCRIPTION
1	970587	ROD CTN 403-BL-(1 OF 9)
2	970588	ROD CTN 403-SN-(2 AND 3 OF 9)
1	970589	ROD CTN 403-SN/BK-(4 OF 9)
	970590	ROD CTN 403-BK-(5 OF 9)
1	970591	ROD CTN 403-RD-(6 OF 9)
2	970592	ROD CTN 403-YW-(7 AND 8 OF 9)
1	970616	ROD CTN 403-GR-(9 OF 9)
1	975737	PARTS CARTON 402/403 (1 OF 3)
1	975738	PARTS CARTON 402/403 (2 OF 3)
1	984577	PARTS CARTON 402/403 (3 OF 3)
2	984594	PARTS CTN ANCHOR 10 PCS.
1	994991	PARTS CARTON - 5-12 LABEL
1	116048	LABEL, 2" X 2" WHITE POLYESTER THERMAL
	116049	LAMINATE, CLEAR, 2" X 2" W/PERMANENT
	00/400 075707	
PARIS CARION 4	02/403 - 9/5/3/	DECODIDITION
<u>JUANTITY</u>	PART NUMBER	
200		BULL 3/8 - 10 X 3/4 CARR GRD 5
20 1	970302DLN 114031	
1	116021	
1	116022	LADEL WARNING - PLATGROUND
I	110077	LADEL, FEAT SWART ROLES
PARTS CARTON 4	02/403 - 975738	
<u>UUANTITY</u> 400	<u>PART NUMBER</u>	
100		
400 22		WASHER 3/8 INTERNAL TOUTH LOCK 18-8 SS
LL	A1020 IRFK	CONNECTOR PLATE 5 HOLE BLACK
PARTS CARTON 4	02/403 - 984577	
<u>UANTITY</u>	PART NUMBER	DESCRIPTION
200	104084	BOLT 3/8 - 16 X 3/4 CARR GRD 5
22	970562BLK	CONNECTOR PLATE 6 HOLE BLACK

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	Bill of Ma	aterial cont.
MODEL 403-2		
<u>QUANTITY</u>	PART NUMBER	DESCRIPTION
1	970593	ROD CTN 4032-BL-(1 OF 9)
2	970594	ROD CTN 4032-SN-(2 AND 3 OF 9)
1	970595	ROD CTN 4032-SN/BK-(4 OF 9)
1	970596	ROD CTN 4032-BK-(5 OF 9)
1	970597	ROD CTN 4032-RD-(6 OF 9)
2	970598	ROD CTN 4032-YW-(7 AND 8 OF 9)
1	970617	ROD CTN 4032-GR-(9 OF 9)
1	975737	PARTS CARTON 402/403 (1 OF 3)
1	975738	PARTS CARTON 402/403 (2 OF 3)
1	984577	PARTS CARTON 402/403 (3 OF 3)
2	984594	PARTS CIN ANCHOR 10 PCS.
1	994991	PARTS CARTON - 5-12 LABEL
1	116048	LABEL, 2" X 2" WHILE POLYESTER THERMAL
I	110049	LAWINATE, CLEAR, Z AZ W/PERMANENT
PARTS CARTON 4	02/403 - 975737	
<u>QUANTITY</u>	<u>PART NUMBER</u>	DESCRIPTION
200	104084	BOLT 3/8 - 16 X 3/4 CARR GRD 5
23	970562BLK	CONNECTOR PLATE 6 HOLE BLACK
1	116021	LABEL MIRACLE ID - GENERIC
1	116022	LABEL WARNING - PLAYGROUND
1	116099	LABEL, PLAY SMART RULES
PARTS CARTON 4	02/403 - 975738	
<u>QUANTITY</u>	PART NUMBER	DESCRIPTION
400	110031	NUT 3/8 - 16 HEX 18-8 SS
400	117105	WASHER 3/8 INTERNAL TOOTH LOCK 18-8 SS
22	970561BLK	CONNECTOR PLATE 5 HOLE BLACK
PARTS CARTON 4	02/403 - 984577	
<u>QUANTITY</u>	PART NUMBER	DESCRIPTION
200	104084	BOLT 3/8 - 16 X 3/4 CARR GRD 5
22	970562BLK	CONNECTOR PLATE 6 HOLE BLACK

401, 401-2, 402, 402-2, 403, 403-2

Miracle Installation Guide

Dome Climber with Orbs

IMPORTANT! Prior to installation of <u>any</u> components, refer to **Playsystem Installation** Guidelines and Tips in the Install 101 section of your manual. This section will provide important tips pertaining to site preparation, footings, system stabilization, and other necessary information vital to the success of your installation.



TOOLS AND EQUIPMENT REQUIRED

Also see 'Suggested Tools & Equipment' (Doc. # D70052) in "Installations 101"

- 1. Concrete for footings, wheelbarrow or mixer, 5 gallon bucket, water supply
- 2. Digging equipment for footings (spade shovel, post hole digger, auger)
- 3. Bracing materials (2x4's, jack stands, stakes, etc.)
- 4. Tape measure and level
- 5. Open end wrench set, Allen and 6-lobe wrenches or bits, socket set, screwdrivers
- 6. Drill, bits, extension cords, power supply
- 7. Step ladder
- 8. Adult installer

155,

Rev. C







March 13, 2019



Dome Climber with Orbs



155-1

455-1





Dome Climber with Orbs

STEP 4 ATTACH DOME ORB ARMS

4a. Locate the dome orb arms and attach to the climber in two (2) places; set dome ribbon and orb arms into footings.



STEP 5 ATTACH CASTINGS

5a. Attach casting "B" to all three (3) dome weldments by aligning holes in castings vertically and tighten bolts. Total of six (6) places.

Note: These bolts will be inaccessible when dome weldments are attached to the hub ring.





Dome Climber with Orbs



455-1

Dome Climber with Orbs STEP 8 INSTALL TEK SCREWS

8a. Verify spacing of the dome weldments and install tek screws as shown below. Total of six (6) places.



STEP 9 ATTACH ORB HALVES

9a. Install lag screws to connect orb halves. Total of ten (10) places.



455-1





FINAL STEP

Proceed with *Final Assembly installation* located behind *Installations 101* in Installation Manual. Tighten all hardware and pour concrete.

Miracle Installation Guide

June 14, 2018

Rev. N

Arch Swing Frames

Tots' Choice®

Arch Swing Frames -

1 Bay, 2 Bay, 3 Bay, 4 Bay, Therapeutic Seat Bays & Extensions and 1 Bay Extension

IMPORTANT! Prior to installation of <u>any</u> components, refer to **Playsystem Installation Guidelines and Tips** in the *Install 101* section of your manual. This section will provide important tips pertaining to site preparation, footings, system stabilization, and other necessary information vital to the success of your installation.

Models included in this installation guide:

MODEL_	DESCRIPTION	PAGE
718-852-2	Arch Swing Frame - 1 Bay (for 2 Seats)	2
718-852-4	Arch Swing Frame - 2 Bay (for 4 Seats)	2
718-852-6	Arch Swing Frame - 3 Bay (for 6 Seats)	3
718-852-8	Arch Swing Frame - 4 Bay (for 8 Seats)	3
718-852-1H	Arch Swing Frame - Therapeutic Swing Seat or Generation Swing	4
718-852-2HH	Arch Swing Frame - Therapeutic Swing Seat or Generation Swing -	
	1 Bay (for 2 Seats)	4
718-852-1HX	Arch Swing Extension - Therapeutic Swing Seat or Generation Swing	5
718-852-2HHX	Arch Swing Extension - Therapeutic Swing Seat or Generation Swing -	
	1 Bay (for 2 Seats)	5
718-852-2X	Arch Swing Extension - 1 Bay (for 2 Seats)	6

TOOLS AND EQUIPMENT REQUIRED

Also see 'Suggested Tools & Equipment' (Doc. # D70052) in "Installations 101"

- 1. Concrete for footings, wheelbarrow or mixer, 5 gallon bucket, water supply
- 2. Digging equipment for footings (spade shovel, post hole digger, auger)
- 3. Bracing materials (2x4s, wood pieces, concrete blocks, bricks, jackstands, sawhorses, etc.)
- 4. Tape measure and level
- 5. Open end wrench set, Allen and 6-lobe wrenches or bits, socket set, screwdrivers
- 6. Drill, bits, extension cords, power supply
- 7. Rubber mallet
- 8. Step ladder
- 9. Adult installers 2 minimum

ы L 718-852-2, 718-852-4, 718-852-6, 718-852-8, 718-852-1Н, 718-852-2НН 718-852-1НХ, 718-852-2ННХ, 718-852-2Х







Tots' Choice®

Arch Swing Frames -

1 Bay, 2 Bay, 3 Bay, 4 Bay, Therapeutic Seat Bays & Extensions and 1 Bay Extension







Tots' Choice®

Arch Swing Frames -

1 Bay, 2 Bay, 3 Bay, 4 Bay, Therapeutic Seat Bays & Extensions and 1 Bay Extension







June 14, 2018



Tots' Choice®

Arch Swing Frames -

1 Bay, 2 Bay, 3 Bay, 4 Bay, Therapeutic Seat Bays & Extensions and 1 Bay Extension

Note: Optional footing layouts for five (5) or more bays using Bay Extension Model's 718-852-1HX and 718-852-2HHX. More than eight (8) bays, please contact your service representative.



718-852-1HX, 718-852-2HHX, 718-852-2X

Rev. N

Tots' Choice® Arch Swing Frames -

1 Bay, 2 Bay, 3 Bay, 4 Bay, Therapeutic Seat Bays & Extensions and 1 Bay Extension

STEP 1 DIG FOOTINGS

1a. Dig footings per *Footing Layout*, Construction Drawings and *Footing Details installation*. Place blocking material in bottom of footing holes.

Note: Do not pour concrete for footings until model is fully assembled per instructions and braced in position, leveled and plumbed.

STEP 2 FASTEN HEADERS TO ARCHES

2a. Set arches on ground with stubs facing each other. Firmly seat ends of header within each arch stub, aligning mating bolt holes.

Note: Ensure that weldments for clevises are on underside of header assembly, for later attachment of swing chains and seats.

Install Tip: Once header is in stub, all four (4) bolt holes must be aligned. If necessary for alignment, run a 11/16" drill bit through all four (4) holes. Do not allow bit to wander, creating a larger hole.

2b. Install a bolt and washer in one end of threaded pin and tap through header and arch stub, then install a bolt and washer on opposite side. Repeat at other end of header.







Arch Swing Frames

Tots' Choice®

Arch Swing Frames -

1 Bay, 2 Bay, 3 Bay, 4 Bay, Therapeutic Seat Bays & Extensions and 1 Bay Extension

STEP 3 SET SWING FRAME INTO FOOTINGS

- 3a. Repeat *Step 2* for remaining arches and headers, if applicable.
- 3b. Lift frame assembly and set in footings. Ensure that arches are plumb and that headers are level. Block in position so that bottom surface of headers are **96**" (8'- 0") from finished grade. Ensure all hardware is securely tightened.

STEP 4 BOLT CLEVISES TO HEADER

4a. Bolt clevises to header weldments as shown.



STEP 5 POUR CONCRETE AND INSTALL LABELS

5a. Rope off area to prevent access and pour concrete; allow to cure for 72 hours.

Important Note: Do not hang swing chains and seats until concrete has fully cured per concrete manufacturer's instructions (usually 72 hours) and protective surfacing is installed, to avoid risk of injury to users and damage to play equipment.

5b. Install age appropriate labels per "Placement of Age Appropriate Labels" located in Installations 101 in Installation Manual.

FINAL STEP

Proceed with *Final Assembly installation* located behind *Installations 101* in Installation Manual.



718-852-4, 718-852-6, 718-852-8, 718-852-1H, 718-852-2HH

718-852-2,



Rev. N

Tots' Choice®

Arch Swing Frames -

1 Bay, 2 Bay, 3 Bay, 4 Bay, Therapeutic Seat Bays & Extensions and 1 Bay Extension

MODEL 718-852-4 co PARTS CARTON 983063	nt.			
	<u>OUANTITY</u> 4 4 4 1 1	COMPONENT 104052 104467 117003 104506 104478 104480	DESCRIPTION BOLT, 3/8-16 X 5/8 BHCS 6 LOBE 18-8 SS BOLT 7/16-14 X 2 BHD 6 LOBE 18-8 SS WASHER, 5/16 FLAT 18-8 SS BOLT 3/8-16 X 1 1/4 BHD 6 LOBE 18-8 SS BIT T-50 FOR 7/16 6-LOBE BHD BOLT BIT 6-LOBE T-45 FOR 3/8 BOLTS	
MODEL 718-852-6 QUANTITY 2 3 3 2 1 1 1 1 1 1 3	COMPONENT 983060P 986582P 983063 983079P 999046P 999047P 116048 116049 995603	DESCRIF ARCHED TOP RAI PARTS C ARCHED PARTS C PARTS C LABEL, 2 LAMINAT PARTS C	2TION SWING SUPRT ASY, PTD LASSY 3 1/2 OD W/BUSHINGS ARTON, 718852 SWING SUPPORT, DBL RECEIVER, PTD ARTON - TOUCH-UP PAINT-SWG LEG ARTON - TOUCH-UP PAINT-TOP RAIL "X2" WHIT POLYESTER THERMAL E, CLEAR, 2"X2" W/PERMANENT ARTON - LABELS F/8' HIGH T/R	_
PARTS CARTON 983063 <u>OUANTITY</u> 2 1 1 4 1	<u>COMPONENT</u> 988278 116021 116022 984429ZP HW983063-1 <u>OUANTITY</u> 4 4 4 1 1	DESCRIF PIN, THR LABEL M LABEL W CLEVIS S HRDW P COMPONENT 104052 104467 117003 104506 104478 104480	2TION READED, 5/8" OD X 4" IRACLE ID - GENERIC /ARNING - PLAYGROUND - ENGLISH SWING HANGER ZINC PLATED (DIRECT) KG 7188522 S1/1 DESCRIPTION BOLT, 3/8-16 X 5/8 BHCS 6 LOBE 18-8 SS BOLT 7/16-14 X 2 BHD 6 LOBE 18-8 SS WASHER, 5/16 FLAT 18-8 SS BOLT 3/8-16 X 1 1/4 BHD 6 LOBE 18-8 SS BIT T-50 FOR 7/16 6-LOBE BHD BOLT BIT 6-LOBE T-45 FOR 3/8 BOLTS	

Rev. N

MODEL 718-852-8 QUANTITY 2 4	<u>COMPONENT</u> 983060P		PTION
4 3 1 1	986582P 983063 983079P 999046P 999047P	TOP RAI PARTS (ARCHED PARTS (PARTS (PARTS () SWING SUPRT ASY, PTD LASSY 3 1/2 OD W/BUSHINGS CARTON, 718852) SWING SUPPORT, DBL RECEIVER, PTD CARTON - TOUCH-UP PAINT-SWG LEG CARTON - TOUCH-UP PAINT-TOP RAIL
1 1 4	116048 116049 995603	LABEL, 2 LAMINAT PARTS (2"X2" WHIT POLYESTER THERMAL TE, CLEAR, 2"X2" W/PERMANENT CARTON - LABELS F/8' HIGH T/R
PARTS CARTON 983063 <u>QUANTITY</u> 2 1 1 4 1	<u>COMPONENT</u> 988278 116021 116022 984429ZP HW983063-1 <u>QUANTITY</u>	DESCRIPTIONPIN, THREADED, 5/8" OD X 4"LABEL MIRACLE ID - GENERICLABEL WARNING - PLAYGROUND - ENGLISHCLEVIS SWING HANGER ZINC PLATED (DIRECT)HRDW PKG 7188522 S1/1COMPONENTDESCRIPTION104052	
	4 4 4 1 1	104467 117003 104506 104478 104480	BOLT 7/16-14 X 2 BHD 6 LOBE 18-8 SS WASHER, 5/16 FLAT 18-8 SS BOLT 3/8-16 X 1 1/4 BHD 6 LOBE 18-8 SS BIT T-50 FOR 7/16 6-LOBE BHD BOLT BIT 6-LOBE T-45 FOR 3/8 BOLTS





Tots' Choice®

Arch Swing Frames -

1 Bay, 2 Bay, 3 Bay, 4 Bay, Therapeutic Seat Bays & Extensions and 1 Bay Extension

	Bil	I of Materi	als cont.	es
MODEL 718-852-1H co PARTS CARTON 991508 <u>QUANTITY</u> 2 1 1 2 1 2 1	COMPONENT 988278 116021 116022 116099 984429ZP HW991508-1 QUANTITY 4 2 4 2 4 2 1	<u>DESCRIF</u> PIN, THR LABEL M LABEL W PLAY SM CLEVIS S HRDW PI <u>COMPONENT</u> 104052 104467 117003 104506 104478 104480	PTIONEADED, 5/8" OD X 4"IRACLE ID - GENERICARNING - PLAYGROUND - ENGLISHART RULESWING HANGER ZINC PLATED (DIRECT)(G 7188521H S1/1DESCRIPTIONBOLT, 3/8-16 X 5/8 BHCS 6 LOBE 18-8 SSBOLT 7/16-14 X 2 BHD 6 LOBE 18-8 SSWASHER, 5/16 FLAT 18-8 SSBOLT 3/8-16 X 1 1/4 BHD 6 LOBE 18-8 SSBIT T-50 FOR 7/16 6-LOBE BHD BOLTBIT 6-LOBE T-45 FOR 3/8 BOLTS	Arch Swing Fram
MODEL 718-852-2HH QUANTITY 2 1 1 1 1 1 1 1 1 1 1 1 1	COMPONENT 983060P 991791P 983063 999046P 999047P 116048 116049 995610	DESCRIE ARCHED THERAP PARTS C PARTS C PARTS C LABEL, 2 LAMINAT PARTS C	<u>TION</u> SWING SUPRT ASY, PTD EUTIC TOP RAIL WELDMENT ARTON, 718852 ARTON - TOUCH-UP PAINT-SWG LEG ARTON - TOUCH-UP PAINT-TOP RAIL "X2" WHIT POLYESTER THERMAL E, CLEAR, 2"X2" W/PERMANENT ARTON - LABELS F/THERAPEUTIC SEAT	32-8, 718-852-1Н, 718-852-2НН,
PARTS CARTON 983063 <u>QUANTITY</u> 2 1 1 4 1	<u>COMPONENT</u> 988278 116021 116022 984429ZP HW983063-1	DESCRIF PIN, THR LABEL M LABEL W CLEVIS S HRDW PI	<u>TION</u> EADED, 5/8" OD X 4" IRACLE ID - GENERIC ARNING - PLAYGROUND - ENGLISH SWING HANGER ZINC PLATED (DIRECT) KG 7188522 S1/1	, 718-852-6, 718-85
	<u>QUANTITY</u> 4 4 4 4 1 1	<u>COMPONENT</u> 104052 104467 117003 104506 104478 104480	DESCRIPTION BOLT, 3/8-16 X 5/8 BHCS 6 LOBE 18-8 SS BOLT 7/16-14 X 2 BHD 6 LOBE 18-8 SS WASHER, 5/16 FLAT 18-8 SS BOLT 3/8-16 X 1 1/4 BHD 6 LOBE 18-8 SS BIT T-50 FOR 7/16 6-LOBE BHD BOLT BIT 6-LOBE T-45 FOR 3/8 BOLTS	18-852-2, 718-852-4

	Bil	I of Materi	als cont.
MODEL 718-852-2 PARTS CARTON 983 QUANTITY 2 1	2HH cont. 063 <u>COMPONENT</u> 988278 116021	<u>DESCRIF</u> PIN, THR LABEL M	<u>PTION</u> EADED, 5/8" OD X 4" IRACLE ID - GENERIC
1 4 1	116022 984429ZP HW983063-1	LABEL W CLEVIS S HRDW P	ARNING - PLAYGROUND - ENGLISH SWING HANGER ZINC PLATED (DIRECT) KG 7188522 S1/1
	<u>OUANTITY</u> 4 4 4 1 1	<u>COMPONENT</u> 104052 104467 117003 104506 104478 104480	DESCRIPTION BOLT, 3/8-16 X 5/8 BHCS 6 LOBE 18-8 SS BOLT 7/16-14 X 2 BHD 6 LOBE 18-8 SS WASHER, 5/16 FLAT 18-8 SS BOLT 3/8-16 X 1 1/4 BHD 6 LOBE 18-8 SS BIT T-50 FOR 7/16 6-LOBE BHD BOLT BIT 6-LOBE T-45 FOR 3/8 BOLTS
MODEL 718-852-7	1HX		
<u>QUANTITY</u> 1 1 1 1	<u>COMPONENT</u> 991494P 991508 983079P 995610	DESCRIF THERAP PARTS C ARCHED PARTS C	<u>PTION</u> EUTIC TOP RAIL WELDMENT ARTON, 7188521H SWING SUPPORT, DBL RECEIVER, PTD ARTON - LABELS F/THERAPEUTIC SEAT
PARTS CARTON 991 <u>QUANTITY</u> 2 1 1 1	508 <u>COMPONENT</u> 988278 116021 116022 116099	<u>DESCRIF</u> PIN, THR LABEL M LABEL W PLAY SM	<u>PTION</u> EADED, 5/8" OD X 4" IRACLE ID - GENERIC /ARNING - PLAYGROUND - ENGLISH IART RULES
2 1	9844292P HW991508-1	HRDW P	SWING HANGER ZINC PLATED (DIRECT) KG 7188521H S1/1
	<u>QUANTITY</u> 4	<u>COMPONENT</u> 104052	DESCRIPTION BOLT, 3/8-16 X 5/8 BHCS 6 LOBE 18-8 SS



Rev. N

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1 Bay, 2 Bay, 3 Bay, 4 Bay, Therapeutic Seat Bays & Extensions and 1 Bay Extension

	Bil	l of Materia	als cont.	
MODEL 718-852-2HHX <u>QUANTITY</u> 1 1 1 1	COMPONENT 991791P 983063 983079P 995610	DESCRIP THERAPI PARTS C ARCHED PARTS C	<u>TION</u> EUTIC TOP RAIL WELDMENT ARTON, 718852 SWING SUPPORT, DBL RECEIVER, PTD ARTON - LABELS F/THERAPEUTIC SEAT	
PARTS CARTON 983063 <u>QUANTITY</u> 2 1 1 4 1 1	COMPONENT 988278 116021 116022 984429ZP HW983063-1	<u>DESCRIF</u> PIN, THR LABEL M LABEL W CLEVIS S HRDW PI	<u>TION</u> EADED, 5/8" OD X 4" RACLE ID - GENERIC ARNING - PLAYGROUND - ENGLISH WING HANGER ZINC PLATED (DIRECT) KG 7188522 S1/1	
	<u>QUANTITY</u> 4 4 4 1 1	<u>COMPONENT</u> 104052 104467 117003 104506 104478 104480	DESCRIPTION BOLT, 3/8-16 X 5/8 BHCS 6 LOBE 18-8 SS BOLT 7/16-14 X 2 BHD 6 LOBE 18-8 SS WASHER, 5/16 FLAT 18-8 SS BOLT 3/8-16 X 1 1/4 BHD 6 LOBE 18-8 SS BIT T-50 FOR 7/16 6-LOBE BHD BOLT BIT 6-LOBE T-45 FOR 3/8 BOLTS	
MODEL 718-852-2X <u>QUANTITY</u> 1 1 1 1 1	<u>COMPONENT</u> 986582P 983063 983079P 995603	<u>DESCRIF</u> TOP RAIL PARTS C ARCHED PARTS C	<u>TION</u> .ASSY 3 1/2 OD W/BUSHINGS ARTON, 718852 SWING SUPPORT, DBL RECEIVER, PTD ARTON - LABELS F/8' HIGH T/R	
PARTS CARTON 983063 <u>QUANTITY</u> 2 1	<u>COMPONENT</u> 988278 HW983063-1	<u>Descrip</u> Pin, thr Hrdw Pi	<u>TION</u> EADED, 5/8" OD X 4" KG 7188522 S1/1	
	<u>QUANTITY</u> 4 4 4 4 1 1	<u>COMPONENT</u> 104052 104467 117003 104506 104478 104480	DESCRIPTION BOLT, 3/8-16 X 5/8 BHCS 6 LOBE 18-8 SS BOLT 7/16-14 X 2 BHD 6 LOBE 18-8 SS WASHER, 5/16 FLAT 18-8 SS BOLT 3/8-16 X 1 1/4 BHD 6 LOBE 18-8 SS BIT T-50 FOR 7/16 6-LOBE BHD BOLT BIT 6-LOBE T-45 FOR 3/8 BOLTS	

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FOOTING

DEPTH

FINAL STEP

Installations 101.

STEP 4

to cure.

STEP 5

STEP 6

Pour concrete in remaining Footings, and allow 72 hours

areas required for unit.

If applicable, install cushioning material

(protective surfacing) in, around, and beneath

Establish and adhere to a regular maintenance schedule, checking for loose or missing bolts, worn parts, etc.

If applicable, apply Age Appropriate, Warning, and Manufacturer's I.D. labels. Refer to



FINISHED GRADE

1

FOOTING

DIA

 CUSHIONING

COMPACTED SOIL

MATERIAL

CONCRETE

FOOTING



Pole shall be constructed of 3 ½" outside diameter RS40 flow coated galvanized steel tubing with an 8 ga. wall thickness. Design shall be a bent gooseneck style and allow for a 36" bury into the ground and a 36" extension from the front of the pole to the face of the backboard. Two 1 5/8" diameter 13 ga. flow coated galvanized tubular braces shall support the top of the backboard and connect directly to the pole. Pole shall be designed so that the rim mounts directly to the horizontal pole section through the backboard to eliminate stress on the backboard during play. Pole systems without backboard support braces shall not be considered equal. Pole shall carry a minimum 10-year limited warranty. Backboard shall be constructed of 12 ga. steel and have a 39" x 54" rectangular playing surface. All edges shall be formed to provide a 1 ½" minimum lip to provide additional backboard shall have a white polyester powder coated finish, perforated holes to provide a permanent official size shooting target and carry a minimum 10-year limited warranty. Rim shall be constructed of an official size 5/8" diameter AISI 1018 cold drawn carbon steel ring with continuous wire formed netlocks to accept nylon net (included). Backplate shall be a minimum 3/16" thick. Rim shall be supported by a ½" diameter steel brace. Mounting hardware shall be included. Rim shall carry a 1-year limited warranty, have an orange powder coated finish and be made in the USA. Installation to be completed in accordance with manufacturer's instructions. Do not scale drawings. Entire system shall weigh 235#.

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