Invitation for Bids[1]

Town of Coventry, Rhode Island

Department: Parks and Recreation

Description: "Quidnick Improvement Project and Playground Install 2026

Bid Closure & Bid Opening

Sealed Bid Responses[2] to this IFB shall be received until 4:00pm on January 9, 2026, by the Town Clerk's Office located within the Coventry Town Hall at 1670 Flat River Road, Coventry, RI, 02816. The forgoing date and time shall mean and is the "Bid Closure", which sets the hard deadline for the submission of all Bid Response documents.

Generally, the normal business hours for the Town of Coventry (hereinafter "Town") are Monday through Friday between the hours of 8:30 a.m. and 4:30 p.m. and Town offices are closed on legal holidays recognized by the Town. Please consult the Town's calendar on its website (www.coventryri.gov) for current information.

Bids shall be opened publicly and read out loud in the Town Council Chambers located at the aforementioned address on 10:00am on January 12, 2026. Each bid, together with the name of the bidder, shall be recorded and an abstract of each bid made available for public inspection. Subsequent to the awarding of the bid, all documents will be retained in accord with state law concerning public record retention (R.I. Gen. Laws §§ 38-1-1 et seq. and 42-8.1-1 et seq.) as well as all regulations promulgated by the Rhode Island Department of State (www.sos.ri.gov).

Any bid received after the Bid Closure will not be accepted and will be returned to the bidder unopened. It is the bidder's responsibility to ensure that its Bid Response is received in a timely manner in the Town Clerk's prior to Bid Closure.

[1] Invitation for Bid may be hereinafter referred to as "IFB."

[2] "Bid Response" documents or "Bid Responses" shall mean and include the "Bid Response Package", which is published by the Town of Coventry as part of this IFB, **and** shall include any supporting documentation prescribed herein or by law, and which may be necessary, ancillary and/or corollary to the bidder's response being complete and responsive to this IFB.

INSTRUCTIONS TO BIDDERS[3]

This IFB and Bid Response form may be obtained in person at the Town Clerk's Office during normal business hours or online at https://coventryri.gov beginning December 2, 2025.

1. Bid Responses

1. A bidder's Bid Response to this IFB must include: (1) IFB Response – Bid Form; (2) Vendor Responsibility Form with attachments provided by the vendor; (3) Equal Opportunity Employer Statement and Certification; (4) Non-Collusion Statement; (5) any and all supporting documents, as may be specified or required herein, submitted by the bidder to supplement the Bid Response; and (6) any and all documentation required by Coventry Code of Ordinances Chapter 56 § 11. The foregoing documentation shall constitute the bidder's entire, sealed, competitive bid proposal to the Town to provide the service(s) and/or good(s) requested by the Town in this IFB.

2. All Bid Responses must be provided in person, in hard copy, and in the Office of the Town Clerk. All Bid Responses must be in ink and have the original "wet" signature of the bidder or its duly authorized agent on all documents and forms requiring a signature. Under no circumstance will Bid Responses be accepted by any digital or electronic means, including but not limited to telephone, fax, or email.

3. Bid Responses shall be submitted in a sealed envelope large enough to accommodate all Bid Response documents and it shall be clearly marked **"Quidnick Improvement Project"** on the exterior of the envelope.

4. Bid Response documents shall include an original Bid Response, plus three (3) copies.

5. All Bid Responses will be accepted by the Town and reviewed by the Town in accord with all IFB Instructions, General Conditions, and any other specifications stated herein or attached hereto by the Town. Any departure from, exceptions to, or modifications of this IFB by a bidder must be noted by the bidder and fully explained, in its bid response.

6. Any communication of any kind and in any manner or medium with the Town that is not a Bid Response to this IFB should be marked, labeled, designated or entitled - "NOT a Bid Response" or "NOT a Bid" written on the envelope.

7. Bid Responses shall contain all necessary mathematical computations and figures. In addition, any prices and/or pricing set forth in the Bid Response should be stated in words

[3] The terms "Bidder" and "Vendor" as may be used in this IFB and the Response Package are used interchangeably. The use of the term "Vendor" does not imply and is not intended to mean that a contractual or quasi-contractual vendor relationship exists between any Bidder and the Town.

and in numbers. The Town reserves its right to reject any Response to this IFB on the basis that pricing is not so stated or any Response in which there is a lack of agreement or congruity between the pricing as stated in words and the pricing set forth in numbers.

8. A bidder must itemize the pricing of each aspect of the Bid Response, where applicable and whenever possible. In addition, the pricing and financial aspects of a Bid Response MUST be totaled when and where applicable by sub-total and by overall total amount. The Town reserves its right to make an award on the basis of total proposed amount of an IFB Response or by individually priced items in an IFB Response.

9. Each bidder's IBF Response shall, for individuals, state the full name and place of residence; and the names of persons or firms with whom the bidder is submitting a joint proposal. All bids made by a legally cognizable entity (i.e., LLCs, corporations, partnerships etc…) shall disclose the names and addresses of senior managers, shareholders, principals and anyone else holding an ownership interest in the entity.

2. <u>Bidder and Bid Qualifications; Bid Evaluation</u>

Bidders and bid qualifications are evaluated by the Town in accord with R.I. Gen. Laws § 45-55-5(b), Coventry Home Rule Charter Art. X § 10.23, and the Coventry Code of Ordinances Chapter 56 § 11. The bid award will be based on the *lowest qualified evaluated bid.*

The Town reserves its right to conduct due diligence as it deems necessary to assess the bidder's performance capability, capacity, qualifications and any other criteria required by the IFB to provide the service(s) and/or good(s) requested in the IFB. At the Town's request, bidders shall furnish any and all additional information and data as may be requested by the Town for its due diligence.

3. <u>Required Attachments to the Bid Response</u>

Each Bid Response shall include the following:

a. IFB Bid Response – Bid Form;
b. Vendor Responsibility form;
c. Equal Opportunity Employer form;
d. Non-Collusion Statement;
e. Vendor's proposed form of contract;
f. Any other information that may be required due to the nature of the good(s) and/or service(s) to be provided; and
g. Any and all information required by the Coventry Code of Ordinances Chapter 56 § 11.

4. <u>Acceptance or Rejection of Bids; Town's Reservation of Rights</u>

The Town will accept or reject bids no later than ninety (90) days following the date on which bids are opened. The Town reserves the right to reject or accept any or all bids or portion thereof where such acceptance or rejection would, in the Town's sole discretion, be in the best interest of

the Town, and further reserves the right to reduce or modify the scope of the procurement/purchase of goods and/or services in order to meet funding limits, budget and scheduling constraints.

6. IFB Terms, Specifications and Questions

Bidders must examine the IFB carefully as to the specification of service(s) and/or good(s) the Town is requesting. In case doubt shall arise as to the meaning or intent of anything shown in the specifications, an inquiry shall be made in writing to the Town before the bid is submitted. The submission of a Bid Response shall indicate that the bidder thoroughly understands the terms of the IFB and specifications.

If a bidder has questions, requires additional information, or requires some clarification regarding the IFB, please contact (in writing ONLY via email) the following person at the Town no later than December 30 at 4:00pm:

> Scott Sevegny, Director of Parks and Recreation Department, at parksdirector@coventryri.gov.

5. Addenda – Individual and other Bidders

Any bidder specific due diligence is addenda that the bidder shall include as a necessary part of the bidder's Bid Response. Any addenda, including response(s) to bidders' questions, issued after the request for bids are distributed shall be covered in the Bid Response.

GENERAL CONDITIONS

1. Reservations

a. The Town may waive minor differences in specifications provided these differences do not violate the intent of the specification or materially affect the operation for which the item is being acquired.

b. Bids which show omission, irregularity, alteration of forms, or additions not called for, and conditional or unconditional, unresponsive bids or bids obviously unbalanced may be rejected.

c. The Town reserves the right to award contracts on a lump sum or an individual item basis or such combination thereof as the interests of the Town may require.

d. If in the Town's judgment, the Town's best interest will be served by doing so, the Town reserves the right to reject any and/or all bids; to accept a portion of a bid or bids only; to advertise for new bids; to proceed to do the work otherwise; or to abandon the work.

e. If a Bid Response is made in collusion with any other bidder, then both bids will be rejected.

f. A responder who is an out-of-state corporation shall qualify or register to transact business in this State, in accordance with General Laws of the State of Rhode Island.

g. In determining the lowest qualified evaluated bid, cash discounts for payments less than thirty (30) days will not be considered.

h. The Town reserves the right to award to one bidder, or to split the award among bidders.

i. All bids will be disclosed at the formal proposal opening. After a reasonable lapse of time, tabulation of proposals may be seen on the Town's website (www.coventryri.gov)

j. As the Town is exempt from the payment of Federal Excise Taxes and Rhode Island Sales Tax, prices quoted are not to include these taxes.

k. In case of error in the extension of prices quoted, the unit price will be considered.

l. A vendor will not be permitted to either assign or underlet the contract, nor assign legally or equitably any money hereunder, or its claim thereto without the previous written consent of the Town Manager.

m. Delivery dates must be shown on the bid proposal. If no delivery date is specified, it will be assumed that an immediate delivery from stock will be made.

n. A certificate of insurance (hereinafter "COI") shall be required of a successful bidder within ten (10) calendar days of the contract award and shall be provided to the Town. The "Town of Coventry" shall be an *additionally named insured* in the title holder box of the COI.

o. Bid proposals may be submitted on an "equal" in quality basis. The Town reserves the right to decide equality. Responders must indicate brand or make offered and submit detailed specifications if other than the brand requested.

p. For contracts involving construction, alteration and/or repair work, the provisions of R.I. General Law § 37-13-1 et seq., concerning payment of prevailing wage rates apply.

q. No goods should be delivered, services provided or work commenced without Notice from the Town.

2. <u>Disputes</u>

In cases of disputes as to whether a good, service or work quoted or delivered meets the IFB specifications, the decision of the Town shall be final and binding on both parties.

3. <u>Failure to Deliver</u>

In the event the vendor fails to deliver, provide and/or perform the goods, services or work pursuant to the terms of the contract, the Town shall have the right to purchase and procure on the open market such goods, services or work specified in the IFB and the Town shall be entitled to damages as a result of such failure.

4. <u>Insurance</u>

The vendor shall maintain such commercial general liability and broad form property damage insurance and Workers' Compensation Insurance as will protect the Town from any and all claims under Workers' Compensation Act, and from any other claims for loss or damages or for general injury or damage to property which may arise from vendor's operations under the contract; whether such operations be by themselves or by any subcontractor or anyone directly or indirectly employed by either of them. The COI shall be on an occurrences basis.

The vendor shall name the Town of Coventry, 1670 Flat River Road, Coventry, RI 02816, as a certificate holder and additional insured to the required insurance policy and will furnish a COI to the Town within ten (10) calendar days from the date of award, but in no event later than the date of execution of the contract.

Specific minimum coverage limits are as follows:

1. Comprehensive Liability Insurance: Limits of Coverage (Applies ONLY to Contractors performing services in and/or for the Town; NOT for supply only Contracts) for commercial general liability and broad form property damage coverage are to be no less than Five Million Dollars ($5,000,000.00) occurrence/Five Million Dollars ($5,000,000.00) aggregate personal injury and death and Five Million Dollars ($5,000,000.00) property damage. Five Million Dollars ($5,000,000.00) aggregate, where insurance aggregates apply.

2. Workers' Compensation: Contractor shall maintain Worker's Compensation coverage for the duration of the contract. Evidence of coverage must be presented before the final contract is signed by the Town.

Failure to provide current insurance shall result in termination of the contract.

5. Indemnification

The successful bidder/vendor will be required to indemnify, defend and hold the Town harmless against any and all liability to any person or persons or damage to any property for or by any reason of any condition or malfunction of the materials used, and against any and all claims made or liability to any person or persons by reason of any act or omission or negligence of the bidder or any of its agents, servants, or employees. This indemnification shall include reasonable attorney's fees incurred by the Town in connection with such claim or liability.

Vendor further agrees to indemnify and hold harmless the Town from and against any and all liability in any way arising out of or related to vendor's operation and/or performance of its obligations hereunder. The indemnity shall be the broadest form available and shall include indemnity against any liability arising out of or caused by the negligence of the vendor, its agents, subcontractors, and employees.

6. Inspections

The Town has the right to inspect and test all goods, services, materials, equipment and machines called for by the contract, to the extent practicable at all times and places during the term of the contract. The Town shall perform inspections and tests in a manner that will not unduly delay the provision of goods, services or work under the contract. If any of the goods, services, materials, equipment and machines or work do not conform to contract specifications, the Town may require the contractor to perform its contractual obligation again or provide replacement performance of the vendor's contractual obligations in conformity with contract specifications, at no increase in contract amount.

CONSTRUCTION AND SERVICE IFB TERMS

1. It is hereby mutually understood and agreed that no payment for extra work shall or will be claimed or made unless ordered in writing by the Town Manager or his designee.

2. Awards will be made within ninety (90) days of the IFB Response or bid opening. All proposal prices will be considered firm, unless qualified otherwise. Requests for price increases will not be honored.

3. Failure to deliver within the time quoted or failure to meet specifications may result in default action in accordance with the general specifications. It is agreed that deliveries and/or completion are subject to strikes, lockouts, accidents and Acts of God.

4. Only one shipping charge will be applied in the event of partial deliveries for blanket purchases or term contracts.

5. The successful bidder shall, prior to commencing performance under the contract, attach and submit evidence that they have complied with the provisions of the Rhode Island Worker's Compensation Act. If the successful bidder is exempt from compliance under the Worker's

Compensation Act, an officer of the successful responder shall so state by way of sworn Affidavit which shall accompany the signed contract.

6. Minority Business Enterprise (MBE) – Contractors must supply an MBE Action Plan which demonstrates that 10% of the dollar value of the work performed shall be performed by MBE, WBE, or DBE where it has been determined that subcontract opportunities exist, and where certified Minority Business Enterprises are available.

   Respondents should be aware of all applicable MBE requirements, as set forth in R. I. Gen. Laws § 37- 14.1-1, et seq. The mandate is for a minimum ten percent (10%) participation by MBE's in all school procurements. For further information, contact the State MBE Administrator at (401) 574-8253 or Dorinda.Keene@doa.ri.gov, or visit the website http://www.mbe.ri.gov/.

7. Successful bidder must ensure contractors and sub-contractors shall ensure the payment of Prevailing Wages in accordance with the county the work is performed as required under the Davis-Bacon Act. The successful bidder also must provide documentation to the Town of Coventry. All contractor and sub-Contractor contracts issued under this project must contain Davis-Bacon Act clauses and requirements.

BACKGROUND INFORMATION

The Town of Coventry's Quidnick Field is comprised of a basketball court and Little League field, both currently in use, as well as being the site of a former playground. Through this project, the Town will provide upgrades to the aging park facilities, including installation of a new Landscape Structures, Inc. playground designed for children ages 2-5 and 5-12 (playground to be furnished by Owner and installed by Contractor), installation of a new basketball court (to be installed by Owner), and associated site improvements including stormwater management, site furnishings, and site landscaping (by Contractor).

The goal of the project is to modernize the facility, improve playability and durability, and continue providing quality recreational opportunities for Coventry residents in the Quidnick neighborhood.

IFB SPECIFICATIONS

The contractor proposes the following, which includes all material, equipment, labor, insurance, permits and fees:

SCOPE OF WORK

Project: Renovations to Quidnick Field
Location: 191 MacArthur Blvd, Coventry RI 02816
Owner: Town of Coventry, Department of Parks & Recreation

The Work of this Contract is installation of sedimentation and erosion controls, site preparation and demolition, earthwork, installation of accessible pedestrian walks, installation of Owner-furnished playground equipment, installation of engineered wood fiber safety surfacing, installation of owner-furnished site furnishings, installation of stormwater management features, installation of fencing, and landscape restoration, as described in the Contract Documents, for Quidnick Field, located at 191 Macarthur Boulevard, Coventry, Rhode Island ("Project"). The Work also includes coordination with Owner-furnished post-tension concrete basketball court installation, which is installed by Owner's Vendor and is not part of the Work of this contract.

Bid Alternate No. 1 includes improvements to Harris Playground located at 108 Howard Avenue, Coventry, Rhode Island, including installation of Owner-furnished playground equipment, installation of engineered wood fiber safety surfacing, installation of perimeter curbing, and coordination with site preparation, demolition, and earthwork performed by Owner. For complete description of Work, refer to attached Technical Specifications and Construction Drawings.

A copy of a valid up to date Landscape Structures, Inc. (LSI) certified installer certificate is required with your bid submission for the playground installation. If sub-contracting the playground equipment install, please include the information for the Certified sub-contractor. This information is required for your bid to be considered a valid submission.

Work performed as part of this Invitation to Bid is subject to the provisions of the Davis-Bacon Act. It will be the responsibility of the contractor to comply in full and submit any required documentation to the Town of Coventry.

A PRE-BID CONFERENCE IS SCHEDULED FOR Tuesday, December 16, 2025 at 10:00am. Interested parties should meet at Quidnick Field, 191 MacArthur Boulevard, Coventry, RI 02816.

Questions concerning the pre-bid walk through should be directed to Director of Parks and Recreation, Scott Sevegny, at parksdirector@coventryri.gov.

SEE ATTACHED CONSTRUCTION DESIGN DOCUMENTS FOR ADDITIONAL INFORMATION ABOUT THE PROJECT.

WORK SCHEDULE
Contractor shall coordinate with the Parks and Recreation Director, or her designee, a proposed work schedule prior to commencement of the project. Project may commence upon approval of work schedule.

Invitation for Bids

Town of Coventry, Rhode Island

IFB Response – Bid Form

LUMP SUM BID:
The undersigned proposes to the Town of Coventry the contract price specified below for the specifications contained herein.

QUIDNICK PLAYGROUND INSTALLATION AND SITE IMPROVEMENTS:

Bid amount in words: _____

Bid amount in numbers: $_____

HARRIS PLAYGROUND INSTALLATION (Bid-alternate)

Bid amount in words: _____

Bid amount in numbers: $_____

CONTRACTOR INFORMATION:

Name of general bidder: _____

FEIN or SSN: _____

Address of bidder: _____

Telephone number of bidder: _____

Signature:_____Title:_____Date: _____

Email Address: _____

Bidder's signature: _____

Date: _____

The bidder shall deliver and provide all labor, equipment, and materials to complete the bid items awarded. At a minimum, all bidder pricing shall include all labor, repairs and miscellaneous expenses related to the items awarded.

The bidder hereby declares and agrees to provide all of the forgoing in connection with its provision of the good(s) and/or service(s) in accord with all of the terms, conditions and requirements of the IFB and in any formal contract.

Name and Address of Bidder (individual or legal entity, as applicable):

Bidder email address and website address:

Bidder's authorized agent's office phone and cell phone:

Signature:_____ Title:_____ Date: _____

Vendor Responsibility Form

Each prospective vendor is invited and required to provide answers to the following questions in the space provided or on a separate sheet of paper (preferred):

1. Summarize your experience in providing the good(s) and/or service(s) outlined in the attached specifications:

_____
_____
_____

2. List the names, addresses, contact names, telephone numbers and email address for four (4) customers for which the bidder has provided similar goods or services as well as the time period over which the goods and/or services were provided:

_____
_____
_____

3. List the name and address of a local financial institution that is able to provide the Town with an adequate credit reference:

_____
_____
_____

4. Have you included a copy of a valid up to date LSI certified installer certificate in this bid package submission? If sub-contracting the playground equipment install, have you included the information for the Certified sub-contractor?

_____
_____
_____

Bidder: _____
Print Name of Company

Address: _____

_____

By: _____
Signature of Person Authorized to Sign Bid

_____
Print Name and Title of Person Authorized to Sign Bid

Equal Opportunity Employer Statement and Certification

The undersigned hereby states and certifies that:

1. This Company provides equal employment opportunities (EEO) to all employees and applicants for employment without regard to race, color, religion, sex, national origin, age, disability or genetics. In addition to federal law requirements, this company complies with applicable state and local laws governing nondiscrimination in employment in every location in which the company has facilities. This policy applies to all terms and conditions of employment, including recruiting, hiring, placement, promotion, termination, layoff, recall, transfer, leave of absence, compensation and training.
2. This Company expressly prohibits any form of workplace harassment based on race, color, religion, gender, sexual orientation, gender identity or expression, national origin, age, genetic information, disability, or veteran status.

Bidder: _____
Print Name of Company

Address: _____

_____

By: _____
Signature of Person Authorized to Sign Bid

_____
Print Name and Title of Person Authorized to Sign Bid

Non-Collusion Statement

The undersigned hereby deposes and states that:

The bidder has not been a party with other bidders to any agreement or to otherwise colluded with other bidders to bid a fixed or uniform price in connection with this IFB.

Bidder by: _____
Signature of Person Authorized to Sign Bid

_____
Print Name and Title of Person Authorized to Sign Bid

Date: _____

STATE/COMMONWEALTH OF _____
COUNTY OF _____

In_____ on this_____day of_____, 2024, before me, the undersigned notary public, personally appeared_____personally known to the notary or proved to the notary through satisfactory evidence of identification, which was_____, to be the person who signed this Statement and acknowledged to the notary that_____signed it voluntarily for its stated purpose.

_____
Notary Public

BID ALTERNATE NO. 1

RENOVATIONS TO HARRIS PLAYGROUND

108 HOWARD AVENUE, COVENTRY, RHODE ISLAND

DECEMBER 10, 2025

BID NO. 076-25

DRAWING LIST:

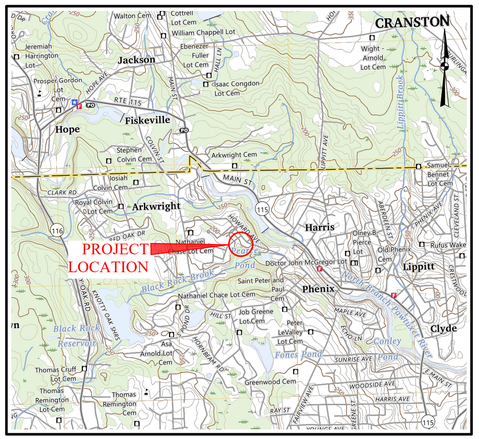
COVER SHEET

EX-1 EXISTING CONDITIONS PLAN

C-1 SITE PREPARATION, DEMOLITION, EROSION AND SEDIMENT CONTROL PLAN

C-2 LAYOUT, GRADING, AND DRAINAGE PLAN

PL-1 PLAYGROUND PLAN



LOCUS PLAN

U.S.G.S. Crompton Quadrangle
1" = 2000'

PREPARED FOR:

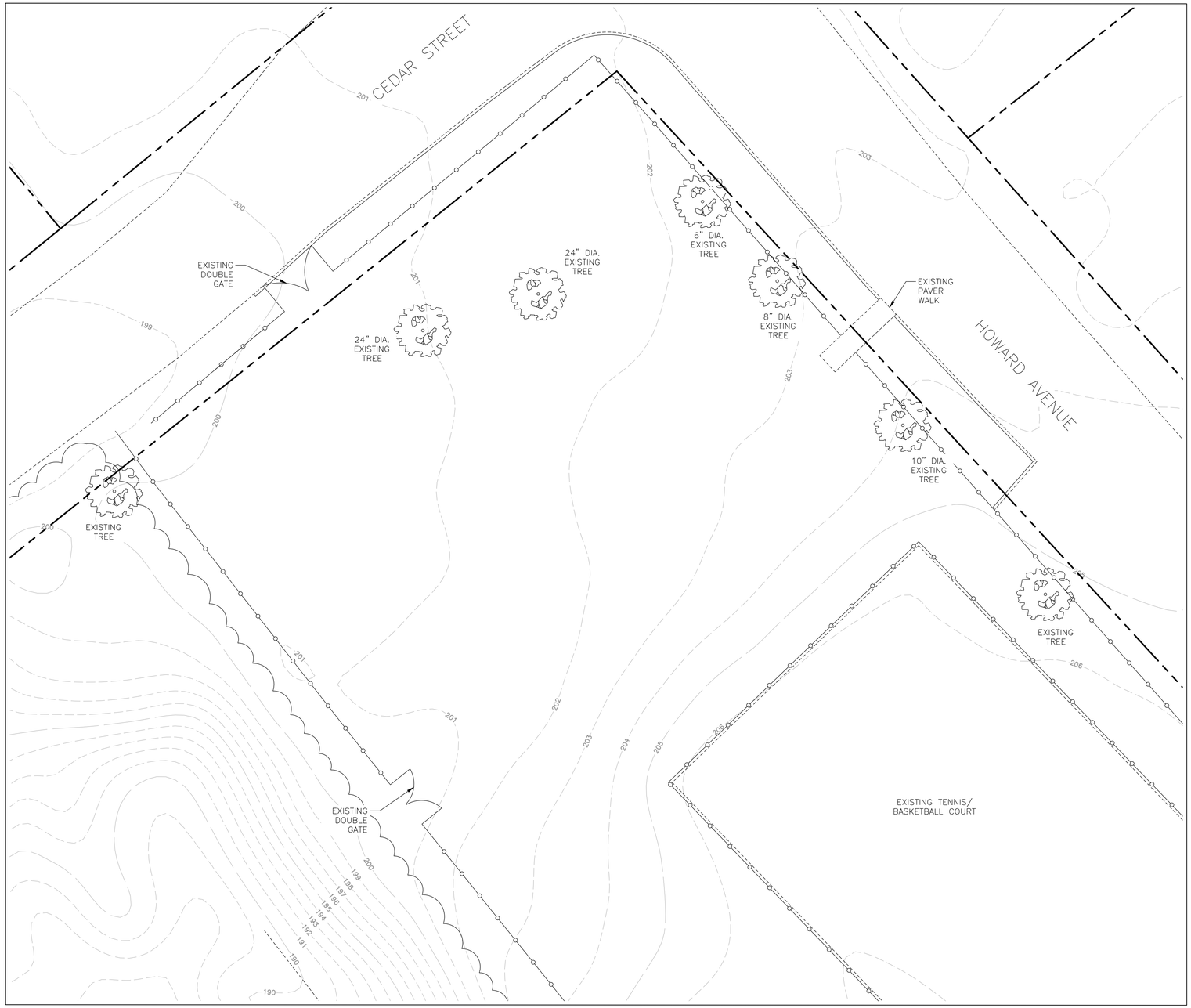
Town of Coventry
Parks and Recreations Department
Coventry Town Hall
1670 Flat River Road,
Coventry, RI 02816

DESIGNER:

GZA GeoEnvironmental, Inc.
Engineers and Scientists
ONE FINANCIAL PLAZA
1350 Main Street, Suite 1400
Springfield, MA 01103
413-726-2100

A PARK IMPROVEMENT PROJECT FUNDED BY:

RHODE ISLAND DEPARTMENT OF ENVIRONMENTAL MANAGEMENT (RIDEM)
OPEN SPACE GRANT



EXISTING CONDITIONS PLAN

0 5' 10' 20' 30'
SCALE IN FEET 1" = 10'

N

LEGEND

- EXISTING PROPERTY LINE
- EXISTING 1 FT. CONTOUR
- EXISTING 5 FT. CONTOUR
- EXISTING EDGE OF PAVEMENT (APPROX.)
- EXISTING EDGE OF CURB
- EXISTING CHAIN LINK FENCE
- EXISTING TREELINE
- EXISTING TREE

EXISTING CONDITIONS NOTES:

1. CONTOUR AND ELEVATIONS BASED UPON 2022 RHODE ISLAND STATEWIDE LIDAR DATA PROJECT USING NAD83 (2011) STATE PLANE RHODE ISLAND HORIZONTAL DATUM, AND NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).
2. PARCEL LINES OBTAINED FROM TOWN OF COVENTRY ONLINE GIS PROGRAM PARCEL DATA AND ARE APPROXIMATE (BASED ON INFORMATION FROM THE TOWN TAX ASSESSOR'S DEPARTMENT, TOWN OF COVENTRY MIS DEPARTMENT, AND CARTOGRAPHICS ASSOCIATES, INC.)
3. EXISTING CONDITIONS INFORMATION BASED ON LIMITED SITE OBSERVATIONS AND MEASUREMENTS TAKEN BY GZA GEOENVIRONMENTAL, INC. ON OCTOBER 27, 2025.
4. HOWARD AVENUE AND CEDAR STREET EXISTING EDGE OF PAVEMENT IS APPROXIMATE.

NO.	ISSUE/DESCRIPTION	BY	DATE

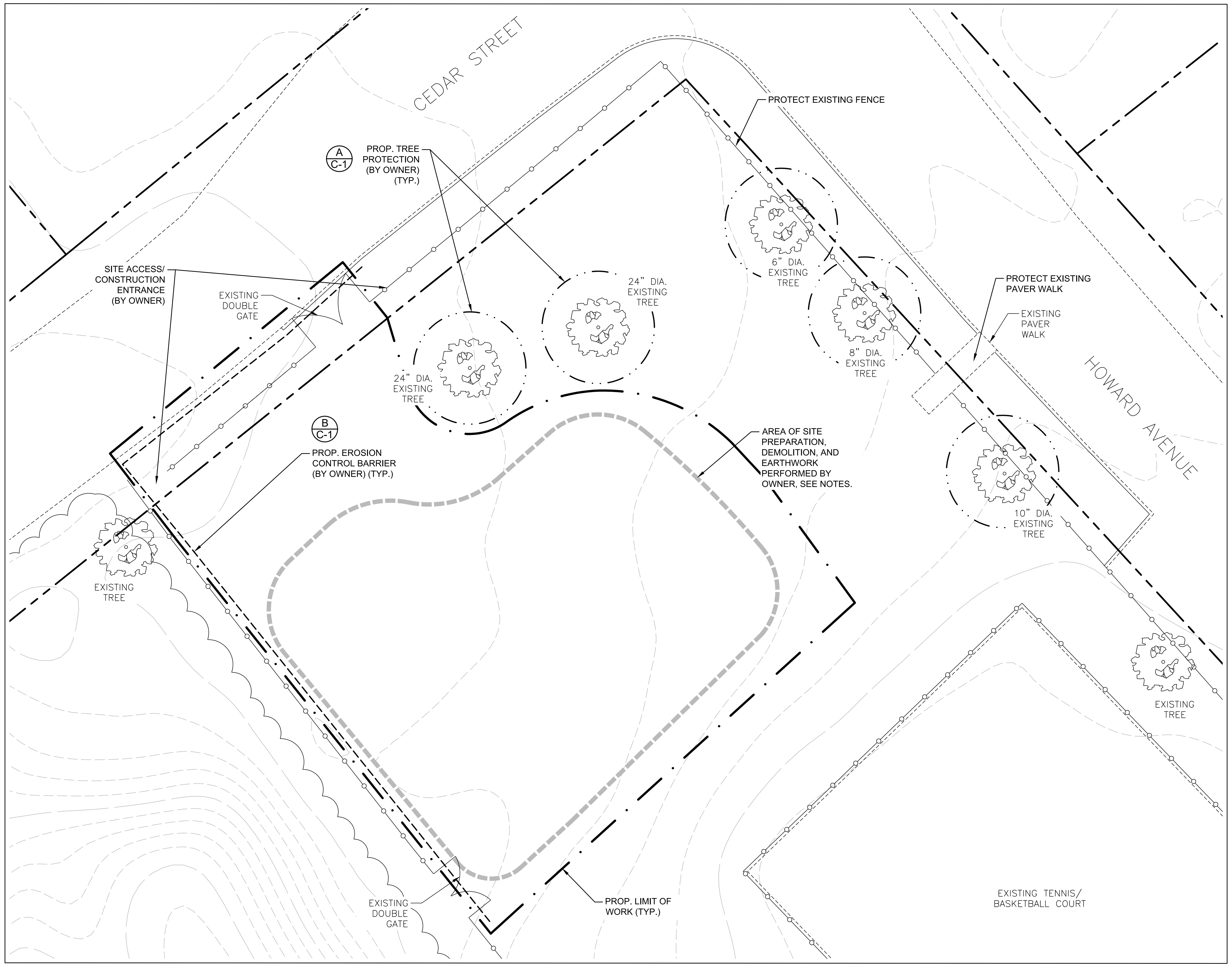
RENOVATIONS TO HARRIS PLAYGROUND
108 HOWARD AVENUE
COVENTRY, RHODE ISLAND

EXISTING CONDITIONS PLAN

PREPARED BY:
GZA GeoEnvironmental, Inc.
www.gza.com

PREPARED FOR:
TOWN OF COVENTRY
1670 FLAT RIVER ROAD

PROJ MGR: DCS	REVIEWED BY: ARD	CHECKED BY: TRG	DRAWING
DESIGNED BY: DCS	DRAWN BY: HGW	SCALE: AS SHOWN	EX-1
DATE: DECEMBER 10, 2025	PROJECT NO. 15.0167425.00	REVISION NO.	SHEET NO.



0 5' 10' 20' 30'
SCALE IN FEET 1" = 10'

SITE PREPARATION, DEMOLITION, EROSION AND SEDIMENT CONTROL PLAN

SEDIMENT AND EROSION CONTROLS (BY OWNER):

1. SITE SEDIMENT AND EROSION CONTROLS WILL BE FURNISHED, INSTALLED, AND MAINTAINED BY OWNER.
2. SEDIMENT BASINS AND TRAPS, PERIMETER BERMS, SEDIMENT BARRIERS AND OTHER MEASURES INTENDED TO TRAP SEDIMENT WILL BE CONSTRUCTED BY OWNER PRIOR TO ANY LAND DISTURBING ACTIVITY AND WILL BE MADE FUNCTIONAL BEFORE UPSLOPE LAND DISTURBANCE TAKES PLACE.
3. ALL EROSION CONTROL MEASURES WILL BE CONSTRUCTED AND MAINTAINED IN ACCORDANCE WITH APPLICABLE PUBLISHED STANDARDS AND SPECIFICATIONS AND THE "RHODE ISLAND EROSION AND SEDIMENT CONTROL HANDBOOK" (RHODE ISLAND STATE CONSERVATION COMMITTEE (SCC), ISSUED 1989, UPDATED 2016).
4. A CONSTRUCTION ENTRANCE FOR THIS PROJECT WILL BE INSTALLED BY OWNER.
5. ALL CATCH BASINS OR OTHER DRAIN INLETS WHICH MAY RECEIVE STORMWATER FROM DISTURBED AREAS WILL BE PROVIDED WITH SUITABLE INLET PROTECTION CONSISTING OF AN OPEN-TOP FILTER FABRIC BAG THAT IS DESIGNED TO HANG UNDERNEATH A STORM GRATE TO FILTER SEDIMENT-LADEN STORMWATER.
6. PRIOR TO REMOVAL OF SEDIMENT CONTROL MEASURES, OWNER WILL STABILIZE ALL CONTRIBUTORY DISTURBED AREAS USING AN APPROVED PERMANENT SEED MIXTURE WITH REQUIRED SOIL AMENDMENTS AND AN APPROVED ANCHORED MULCH.

SITE PREPARATION, DEMOLITION, AND EARTHWORK PERFORMED BY OWNER:

1. TREE PROTECTION WILL BE ESTABLISHED AND MAINTAINED BY OWNER.
2. WITHIN AREA SHOWN ON PLAN, OWNER WILL STRIP AND STOCKPILE TOPSOIL, EXCAVATE SOIL TO ELEVATION OF BOTTOM OF PROP. ENGINEERED WOOD FIBER STONE BASE, AND ROUGH GRADE FOOTPRINT OF PROP. PLAYGROUND AREA. CONTRACTOR TO CONFIRM GRADES PREPARED BY OWNER PRIOR TO INSTALLATION OF PLAYGROUND AND EWF.

EARTHWORK PERFORMED BY CONTRACTOR:

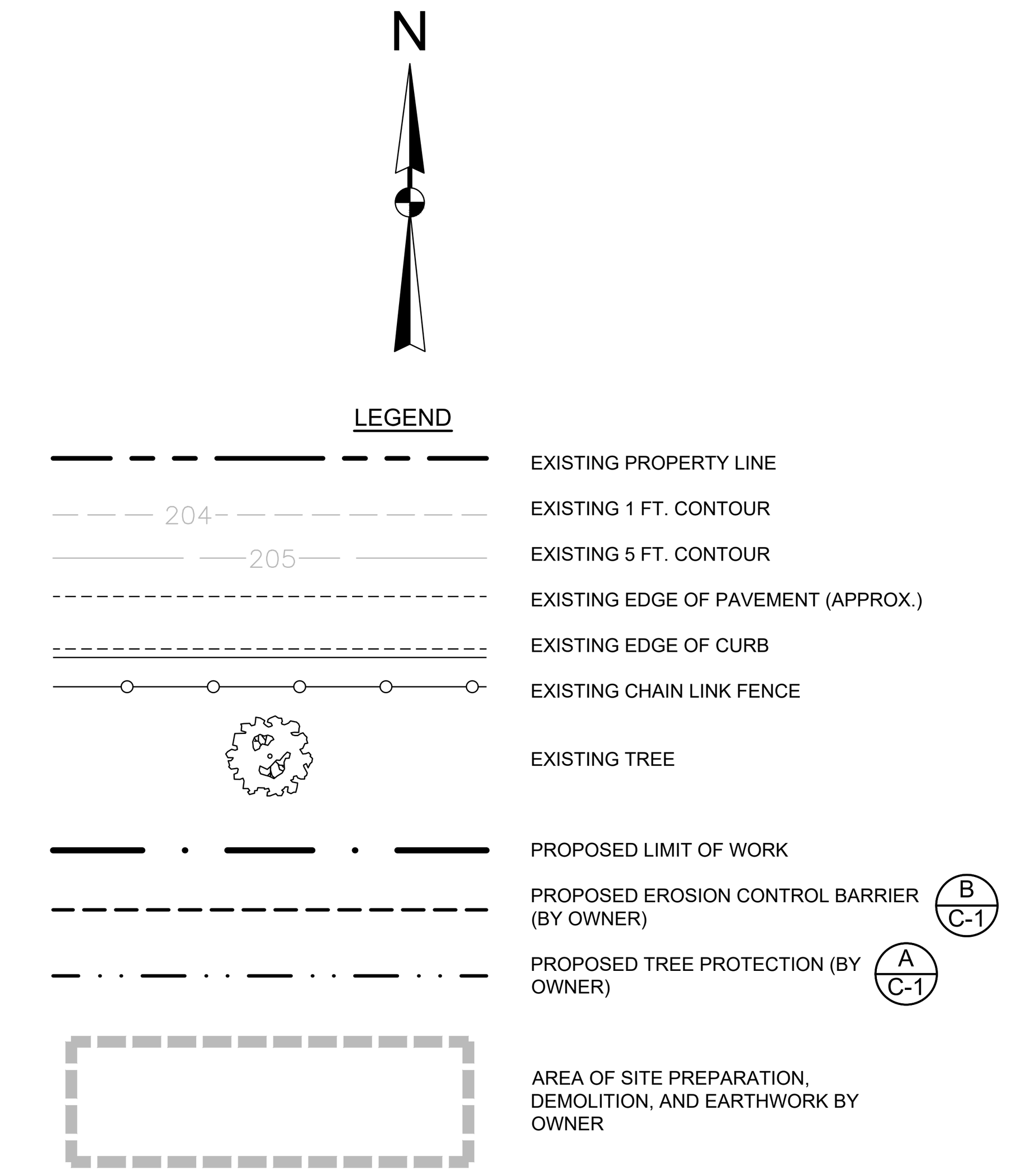
1. CONTRACTOR TO PERFORM EARTHWORK ASSOCIATED WITH INSTALLATION OF PLAYGROUND STRUCTURES, CURBS, AND SITE FURNISHINGS, INCLUDING FINE GRADING OF PLAYGROUND AREA AND EXCAVATION FOR PLAYGROUND FOOTINGS, BENCH FOOTINGS, AND EXCAVATION FOR CURBING.

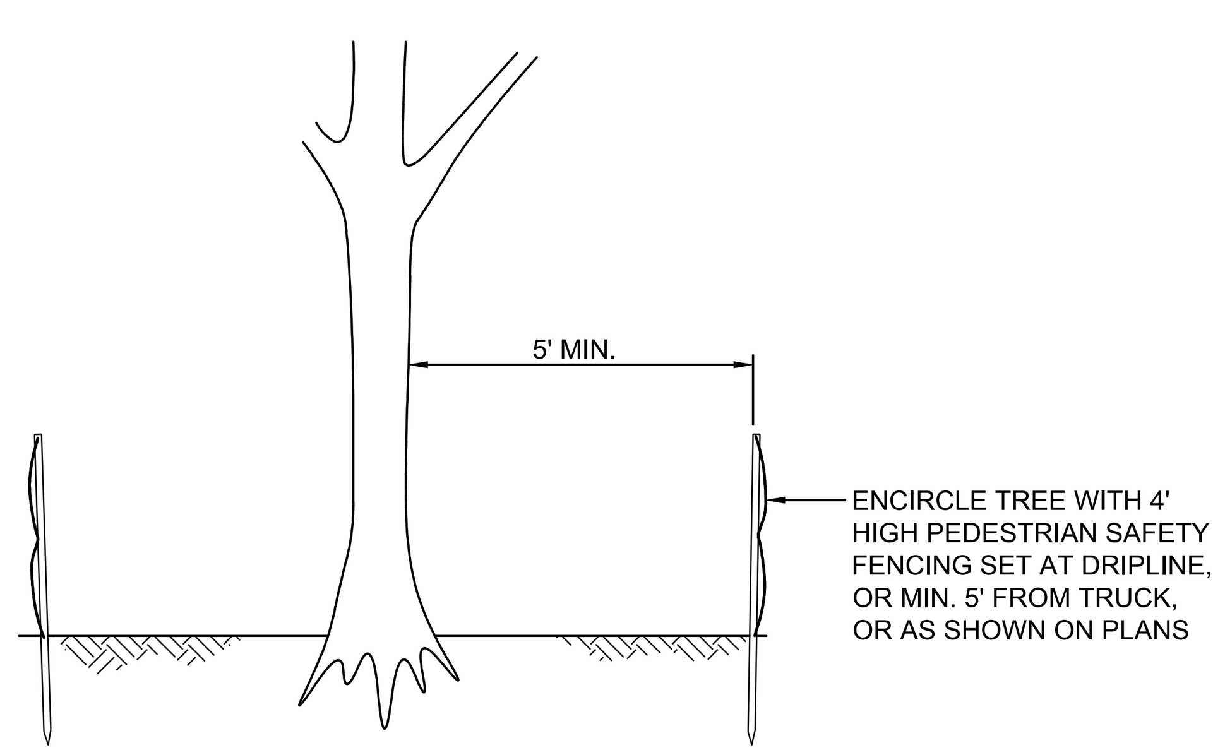
SITE RESTORATION (BY OWNER):

1. UPON COMPLETION OF WORK PERFORMED BY CONTRACTOR, OWNER WILL PERFORM FINISH GRADING IN AREAS OUTSIDE OF PROPOSED PLAYGROUND PERIMETER CURBS, AND WILL APPLY SEED AND ANCHORED STRAW MULCH, OR OTHER APPROVED STABILIZATION MEASURES TO ALL DISTURBED AREAS. ALL AREAS NOT OTHERWISE SURFACED WILL RECEIVE MINIMUM 6" LOAM AND WILL BE SEEDED, MULCHED, AND ESTABLISHED AS LAWN (BY OWNER).

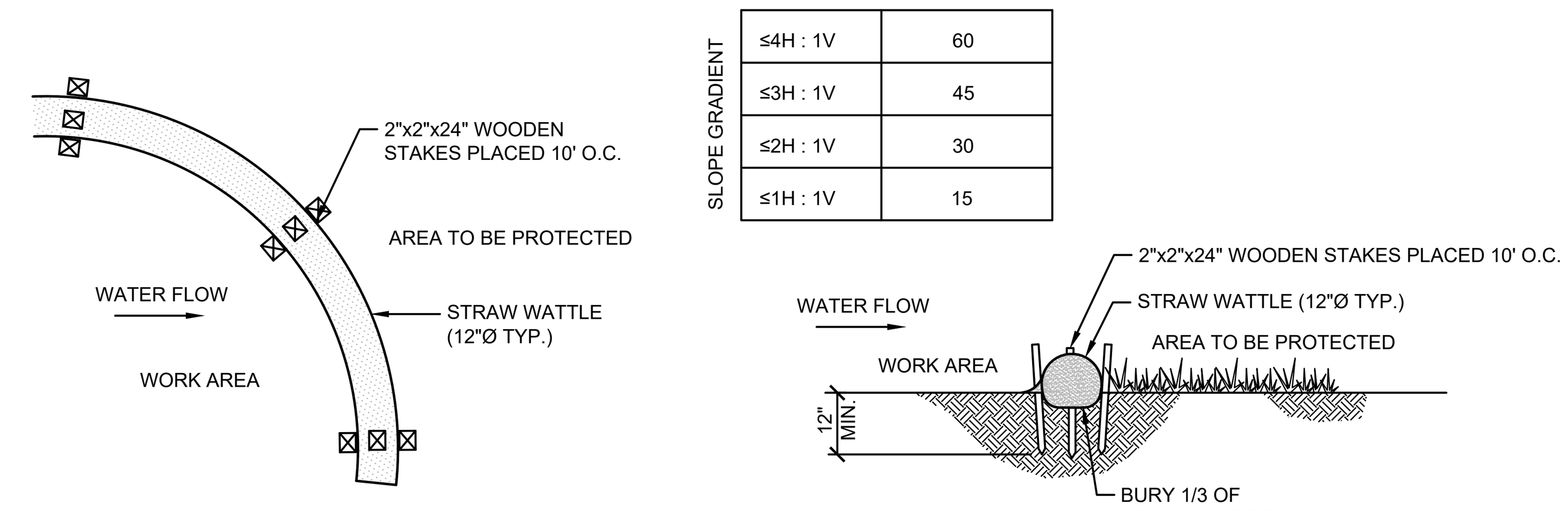
GENERAL NOTES:

1. PLANS DO NOT PURPORT TO SHOW ALL UTILITIES. CONTRACTOR SHALL CONTACT DIG-SAFE (1-888-344-7233) A MINIMUM OF 72 BUSINESS HOURS PRIOR TO BEGINNING EXCAVATION WORK AT THE SITE.
2. THE ACCURACY AND COMPLETENESS OF ANY UNDERGROUND AND OVERHEAD UTILITIES AS SHOWN ON THE DRAWINGS ARE NOT GUARANTEED. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT LOCATION, SIZE, TYPE, ETC. OF ALL UTILITIES THAT MAY BE AFFECTED BY THE WORK OF THIS PROJECT.
3. PRIOR TO COMMENCING ANY WORK, THE CONTRACTOR SHALL REVIEW SCHEDULING AND SITE SAFETY WITH THE OWNER. CONTRACTOR SHALL ENSURE THAT THEIR OPERATIONS HAVE THE MINIMUM POSSIBLE IMPACT ON ALL AREAS OF THE PROPERTY. THE PROPERTY WILL NOT BE OPEN TO THE PUBLIC DURING THE LIFE OF THE PROJECT, AREAS OF THE PROPERTY MAY BE UTILIZED BY THE CONTRACTOR FOR STAGING.
4. WORK OUTSIDE THE TYPICAL LIMIT OF WORK SHALL BE COORDINATED WITH OWNER AND THE TOWN OF COVENTRY, AS APPROPRIATE.
5. TEMPORARY CLOSURE OF SIDEWALKS AND/OR WORK WITHIN THE RIGHT OF WAY SHALL BE COORDINATED WITH COVENTRY DEPARTMENT OF PUBLIC WORKS.
6. THE PROPERTY PERIMETER IS NOT ENTIRELY FENCED AND IS SUBJECT TO RANDOM ENTRY BY UNAUTHORIZED PERSONNEL. THE CONTRACTOR SHALL PROTECT THE PUBLIC FROM THE HAZARDS ASSOCIATED WITH THEIR WORK AT ALL TIMES, INCLUDING THE INSTALLATION OF TEMPORARY BARRICADES, SIGNAGE INDICATING "PARK CLOSED" AND FENCING AT ACCESS POINTS TO ACTIVE WORK AREAS.
7. CONTRACTOR SHALL COORDINATE ALL WORK WITH THE TOWN OF COVENTRY DEPARTMENT OF PARKS & RECREATION ; DEPARTMENT OF PUBLIC WORKS ; POLICE DEPARTMENT; AND FIRE DISTRICT, AS NECESSARY.
8. UNLESS OTHERWISE NOTED, ALL WORK AND MATERIALS SHALL COMPLY WITH APPLICABLE SECTIONS OF THE RHODE ISLAND DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS.
9. CONTRACTOR SHALL NOT REMOVE TREES UNLESS SPECIFICALLY DIRECTED TO DO SO BY THE OWNER'S REPRESENTATIVE. LIMBS MAY BE PRUNED AS ABSOLUTELY NECESSARY FOR ACCESS, UPON APPROVAL OF THE OWNER'S REPRESENTATIVE. ROOT SYSTEMS SHALL BE PROTECTED AND LEFT UNDISTURBED TO THE MAXIMUM EXTENT PRACTICAL. WHERE ROOTS MUST BE CUT, ROOTS SHALL BE NEATLY AND CLEANLY PRUNED, SHALL BE KEPT CONTINUALLY MOIST, AND SHALL BE BACKFILLED AS SOON AS POSSIBLE.
10. CONTRACTOR SHALL PERFORM ALL EXCAVATIONS IN STRICT CONFORMANCE WITH APPLICABLE STATE, LOCAL, AND O.S.H.A. RULES, AS AMENDED.
11. UPON COMPLETION OF OWNER-PERFORMED SITE PREPARATION, DEMOLITION, AND EARTHWORK, CONTRACTOR SHALL DEMOLISH, RAZE, REMOVE, AND DISPOSE OF ANY REMAINING FOOTINGS, STONES, PIPING, VEGETATION, STRUCTURES, AND OTHER OBSTRUCTIONS TO NEW WORK WHICH MAY BE ENCOUNTERED DURING THE WORK, EXCEPT OPERATING UTILITIES AND THOSE ITEMS FOR WHICH OTHER PROVISIONS HAVE BEEN MADE FOR REMOVAL AND/OR PROTECTION. ALL MATERIALS TO BE DISPOSED OF SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE DISPOSED OF AT AN OFF-SITE LOCATION; IN ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE, AND FEDERAL REGULATIONS.
12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CONTROL OF DUST AND DIRT RISING AND SCATTERING IN THE AIR DURING CONSTRUCTION AND SHALL PROVIDE WATER SPRINKLING, CALCIUM CHLORIDE, OR OTHER EFFECTIVE MEANS OF CONTROL.
13. ALL WASTE MATERIALS GENERATED AT THE SITE SHALL BE IMMEDIATELY REMOVED AND DISPOSED OF OR STORED IN A SECURELY-COVERED CONTAINER IN ACCORDANCE WITH LOCAL AND STATE REGULATIONS. CONTAINER SHALL BE EMPTIED ON A REGULAR BASIS AND AS NECESSARY. NO CONSTRUCTION WASTE OR DEBRIS SHALL BE BURIED ONSITE.





A C-1 TREE PROTECTION (BY OWNER)
NTS



RECOMMENDED SPACING ON SLOPES FOR 12" WATTLE

SLOPE GRADIENT	
≤4H : 1V	60
≤3H : 1V	45
≤2H : 1V	30
≤1H : 1V	15

B C-1 STRAW WATTLE FOR SEDIMENT CONTROL (BY OWNER)
NTS

NO.	ISSUE/DESCRIPTION	BY	DATE

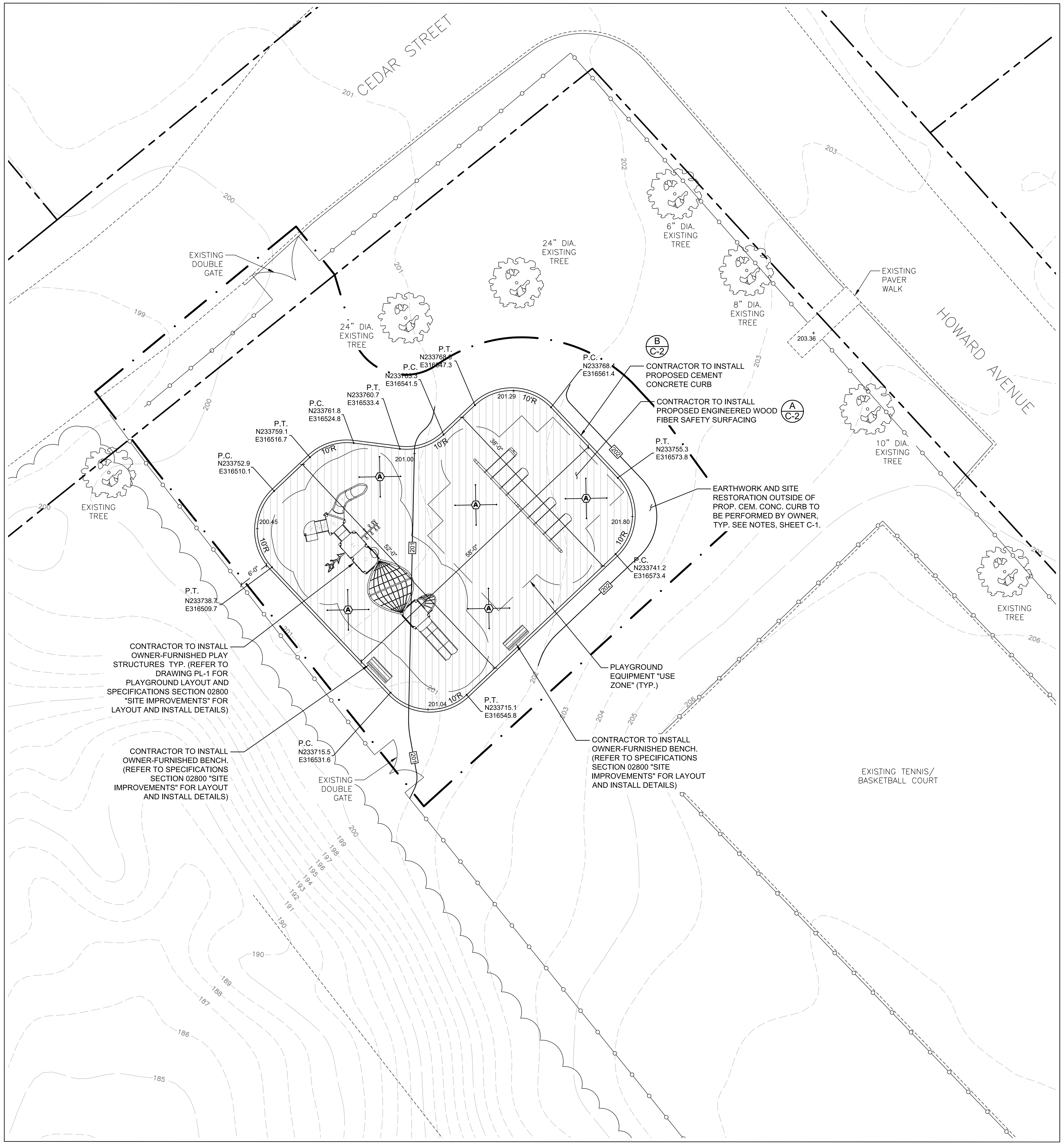
RENOVATIONS TO HARRIS PLAYGROUND
108 HOWARD AVENUE
COVENTRY, RHODE ISLAND

SITE PREPARATION, DEMOLITION,
EROSION AND SEDIMENT CONTROL PLAN

PREPARED BY: GZA GeoEnvironmental, Inc. www.gza.com

PREPARED FOR: TOWN OF COVENTRY 1670 FLAT RIVER ROAD

PROJ MGR: DCS	REVIEWED BY: ARD	CHECKED BY: TRG	DRAWING
DESIGNED BY: DCS	DRAWN BY: HGW	SCALE: AS SHOWN	C-1
DATE: DECEMBER 10, 2025	PROJECT NO. 15.0167425.00	REVISION NO.	SHEET NO.



LAYOUT, GRADING, AND DRAINAGE PLAN

0 5' 10' 20' 30'
SCALE IN FEET 1" = 10'

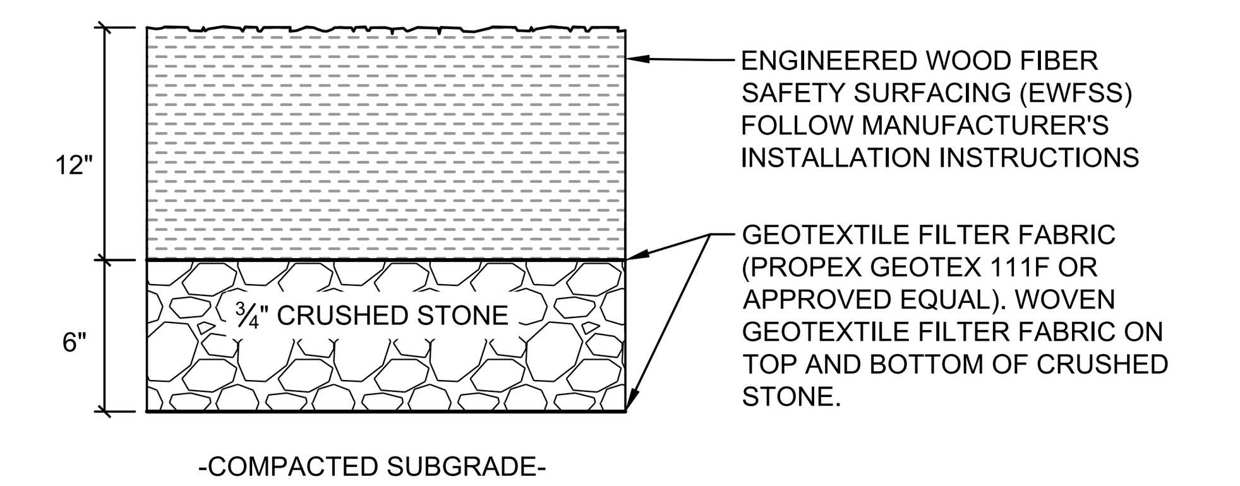
N

LEGEND

- EXISTING PROPERTY LINE
- EXISTING 1 FT. CONTOUR
- EXISTING 5 FT. CONTOUR
- EXISTING EDGE OF PAVEMENT (APPROX.)
- EXISTING CHAIN LINK FENCE
- EXISTING TREE
- PROPOSED LIMIT OF WORK
- PROPOSED CEMENT CONCRETE CURB
- PROPOSED CONTOUR
- 202.89 PROPOSED SPOT GRADE

SURFACE LEGEND

- PROPOSED ENGINEERED WOOD FIBER SAFETY SURFACING (EWFSS) (A / C-2)



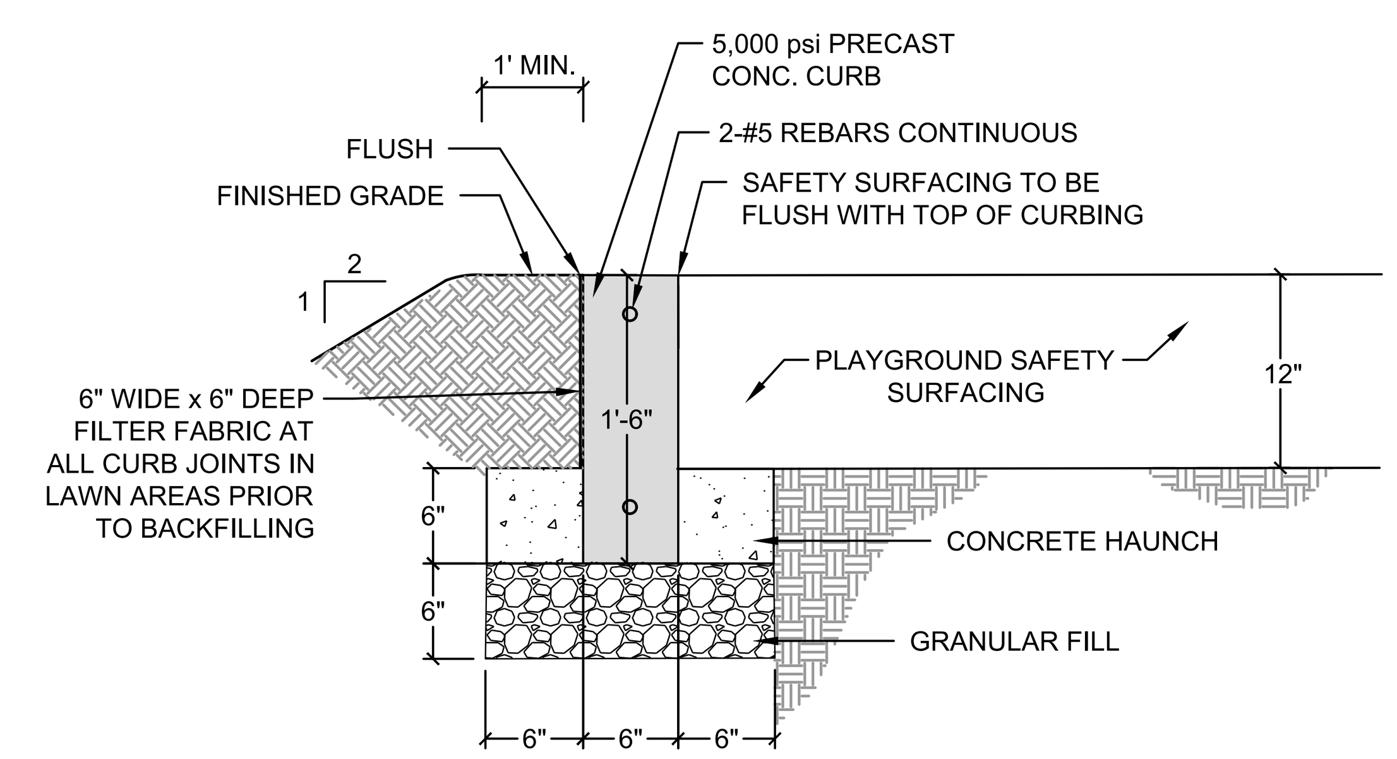
A / C-2 ENGINEERED WOOD FIBER SAFETY SURFACE (EWFSS)
NTS

OWNER-FURNISHED / CONTRACTOR-INSTALLED ITEMS

THE CONTRACTOR SHALL SCHEDULE AND COORDINATE DELIVERY OF CERTAIN MATERIALS AND EQUIPMENT TO THE PROJECT SITE OR TO THE CONTRACTOR'S DESIGNATED SECURE STORAGE LOCATION. CONTRACTOR SHALL INSPECT, ACCEPT, OFF-LOAD, STORE, LOAD, SECURE, ASSEMBLE, DELIVER TO THE PROJECT SITE AT THE APPROPRIATE TIME, AND INSTALL. THE OWNER WILL PURCHASE THESE MATERIALS AND EQUIPMENT SEPARATELY FROM THIS CONTRACT, FOR ASSEMBLY AND INSTALLATION BY THE CONTRACTOR. REFER TO SPECIFICATIONS SECTION 01010 AND 02800.

NOTE:

CONTRACTOR TO PROVIDE FINE GRADING FOR PLAYGROUND INSTALLATION INCLUDING CURBING AND SAFETY SURFACING.



B / C-2 FLUSH CEMENT CONCRETE CURB AT PLAYGROUND SAFETY SURFACE
NTS

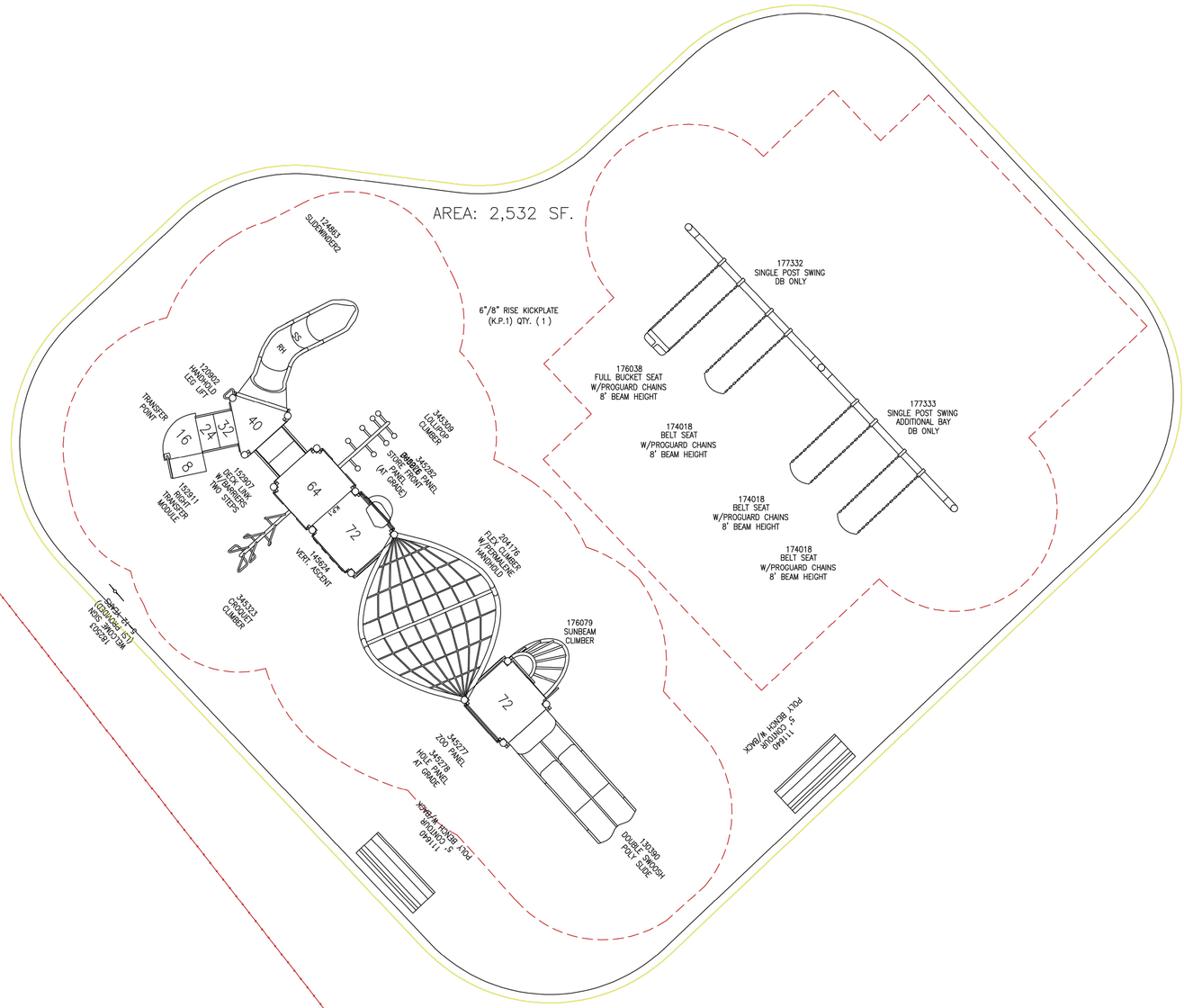
NO.	ISSUE/DESCRIPTION	BY	DATE

RENOVATIONS TO HARRIS PLAYGROUND
108 HOWARD AVENUE
COVENTRY, RHODE ISLAND

LAYOUT AND GRADING PLAN

PREPARED BY: GZA GeoEnvironmental, Inc. www.gza.com
PREPARED FOR: TOWN OF COVENTRY 1670 FLAT RIVER ROAD

PROJ MGR: DCS	REVIEWED BY: ARD	CHECKED BY: TRG	DRAWING
DESIGNED BY: DCS	DRAWN BY: HGW	SCALE: AS SHOWN	C-2
DATE: DECEMBER 10, 2025	PROJECT NO. 15.0167425.00	REVISION NO.	SHEET NO.



TOTAL ELEVATED PLAY COMPONENTS	8
TOTAL ELEVATED COMPONENTS ACCESSIBLE BY RAMP	0 REQUIRED 0
TOTAL ELEVATED COMPONENTS ACCESSIBLE BY TRANSFER	5 REQUIRED 4
TOTAL ACCESSIBLE GROUND LEVEL COMPONENTS SHOWN	6 REQUIRED 3
TOTAL DIFFERENT TYPES OF GROUND LEVEL COMPONENTS	4 REQUIRED 4

landscape structures

IPEMA CERTIFIED ASTM F1487

The play components identified on this plan are IPEMA certified. (Unless model number is preceded with *) The use and layout of these components conform to the requirements of ASTM F1487. To verify product certification, visit www.ipema.org

THIS PLAY AREA & PLAY EQUIPMENT IS DESIGNED FOR AGES 5–12 YEARS UNLESS OTHERWISE NOTED ON PLAN.

IT IS THE MANUFACTURERS OPINION THAT THIS PLAY AREA DOES CONFORM TO THE A.D.A. ACCESSIBILITY STANDARDS, ASSUMING AN ACCESSIBLE PROTECTIVE SURFACING IS PROVIDED, AS INDICATED, OR WITHIN THE ENTIRE USE ZONE.

THIS CONCEPTUAL PLAN WAS BASED ON INFORMATION AVAILABLE TO US. PRIOR TO CONSTRUCTION, DETAILED SITE INFORMATION INCLUDING SITE DIMENSIONS, TOPOGRAPHY EXISTING UTILITIES, SOIL CONDITIONS, AND DRAINAGE SOLUTIONS SHOULD BE OBTAINED, EVALUATED, & UTILIZED IN THE FINAL DESIGN. PLEASE VERIFY ALL DIMENSIONS OF PLAY AREA, SIZE, ORIENTATION, AND LOCATION OF ALL EXISTING UTILITIES, EQUIPMENT, AND SITE FURNISHINGS PRIOR TO ORDERING. SLIDES SHOULD NOT FACE THE HOT AFTERNOON SUN.

CHOOSE A PROTECTIVE SURFACING MATERIAL THAT HAS A CRITICAL HEIGHT VALUE TO MEET THE MAXIMUM FALL HEIGHT FOR THE EQUIPMENT (REF. ASTM F1487 STANDARD CONSUMER SAFETY PERFORMANCE SPECIFICATION FOR PLAYGROUND EQUIPMENT FOR PUBLIC USE, SECTION 8 CURRENT REVISION). THE SUBSURFACE MUST BE WELL DRAINED. IF THE SOIL DOES NOT DRAIN NATURALLY IT MUST BE TILED OR SLOPED 1/8" TO 1/4" PER FOOT TO A STORM SEWER OR A "FRENCH DRAIN".

IT IS THE MANUFACTURER'S OPINION AND INTENT THAT THE LAYOUT OF THESE COMPONENTS CONFORM WITH THE U.S. CONSUMER PRODUCT SAFETY COMMISSION'S (CPSC) "HANDBOOK FOR PUBLIC PLAYGROUND SAFETY".

DESIGNED BY:
JRA

601 7th STREET SOUTH – P.O. BOX 198
DELANO, MINNESOTA 55328
PH: 1-800-328-0035 FAX: 1-763-972-6091

Date	Previous Drawing #	Initials

DRAWING
PL-1

O'BRIEN & SONS INCORPORATED

HARRIS PLAYGROUND

COVENTRY, RI

M.E. O'BRIEN & SONS, INC.
ANDREW KIMBALL

SYSTEM TYPE:
PLAYBOOSTER/IND

DRAWING #:
ME025902

ISO 14001:2004 CERTIFIED
ISO 9001:2000 Certified

QUIDNICK IMPROVEMENT PROJECT AND PLAYGROUND INSTALL 2026

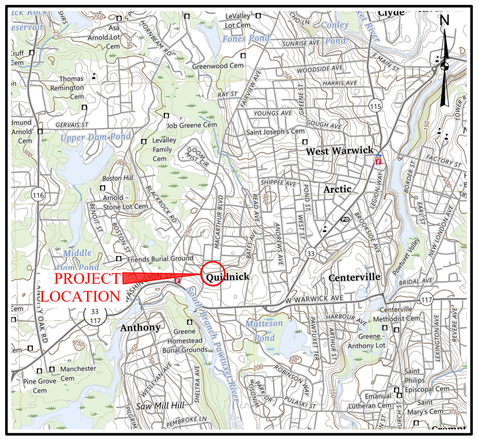
191 MACARTHUR BLVD, COVENTRY, RHODE ISLAND

DECEMBER 10, 2025

BID NO. 076-25

DRAWING LIST:

	COVER SHEET
EX-1	EXISTING CONDITIONS PLAN
C-1	SITE PREPARATION, DEMOLITION, EROSION AND SEDIMENT CONTROL PLAN
C-2	EROSION AND SEDIMENT CONTROL NOTES AND DETAILS
C-3	LAYOUT PLAN
C-4	GRADING AND DRAINAGE PLAN
C-5	SITE DETAILS
PL-1	PLAYGROUND PLAN



LOCUS PLAN

U.S.G.S. Crompton Quadrangle
1" = 2000'

PREPARED FOR:

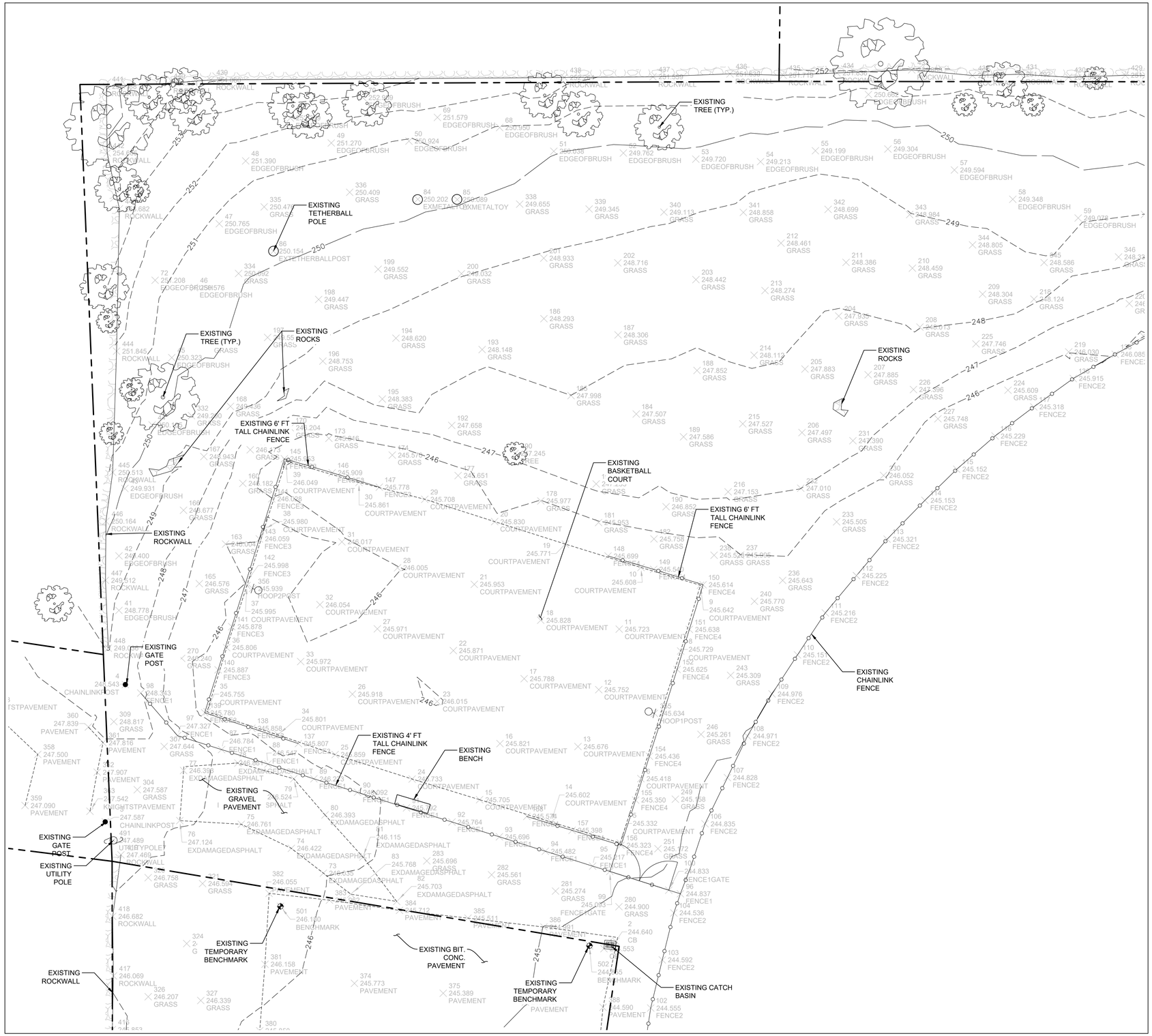
Town of Coventry
Parks and Recreations Department
Coventry Town Hall
1670 Flat River Road,
Coventry, RI 02816

DESIGNER:

GZA GeoEnvironmental, Inc.
Engineers and Scientists
ONE FINANCIAL PLAZA
1350 Main Street, Suite 1400
Springfield, MA 01103
413-726-2100

A PARK IMPROVEMENT PROJECT FUNDED BY:

U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT (HUD)
COMMUNITY DEVELOPMENT BLOCK GRANT (CDBG)



EXISTING CONDITIONS PLAN

0 5' 10' 20' 30'

SCALE IN FEET 1" = 10'

N

LEGEND

- EXISTING PROPERTY LINE (APPROX.)
- EXISTING 1 FT. CONTOUR
- EXISTING 5 FT. CONTOUR
- EXISTING EDGE OF PAVEMENT (APPROX.)
- EXISTING CHAIN LINK FENCE
- EXISTING TREE
- EXISTING TEMPORARY BENCHMARK
- EXISTING GATE POST
- EXISTING UTILITY POST
- EXISTING CATCH BASIN
- EXISTING ROCK OUTCROPPING

EXISTING CONDITIONS INFORMATION SOURCES:

BASE PLAN INFORMATION WAS OBTAINED FROM GPS SURVEY PERFORMED BY GZA INC. ON MAY 2, 2025.

HORZIONATAL DATUM NAD 83 RHODE ISLAND, VERTICAL DATUM NAVD88.

PARCEL LINES OBTAINED FROM TOWN OF COVENTRY ONLINE GIS PROGRAM PARCEL DATA AND ARE APPROXIMATE (BASED ON INFORMATION FROM THE TOWN TAX ASSESSOR'S DEPARTMENT, TOWN OF COVENTRY MIS DEPARTMENT, AND CARTOGRAPHICS ASSOCIATES, INC.)

NO.	ISSUE/DESCRIPTION	BY	DATE

QUIDNICK IMPROVEMENT PROJECT AND PLAYGROUND INSTALL 2026

191 MACARTHUR BLVD, COVENTRY, RHODE ISLAND

EXISTING CONDITIONS PLAN

PREPARED BY:		PREPARED FOR:	
GZA GeoEnvironmental, Inc. www.gza.com		TOWN OF COVENTRY 1670 FLAT RIVER ROAD	
PROJ MGR: DCS	REVIEWED BY: ARD	CHECKED BY: TRG	DRAWING EX-1
DESIGNED BY: DCS	DRAWN BY: HGW	SCALE: AS SHOWN	
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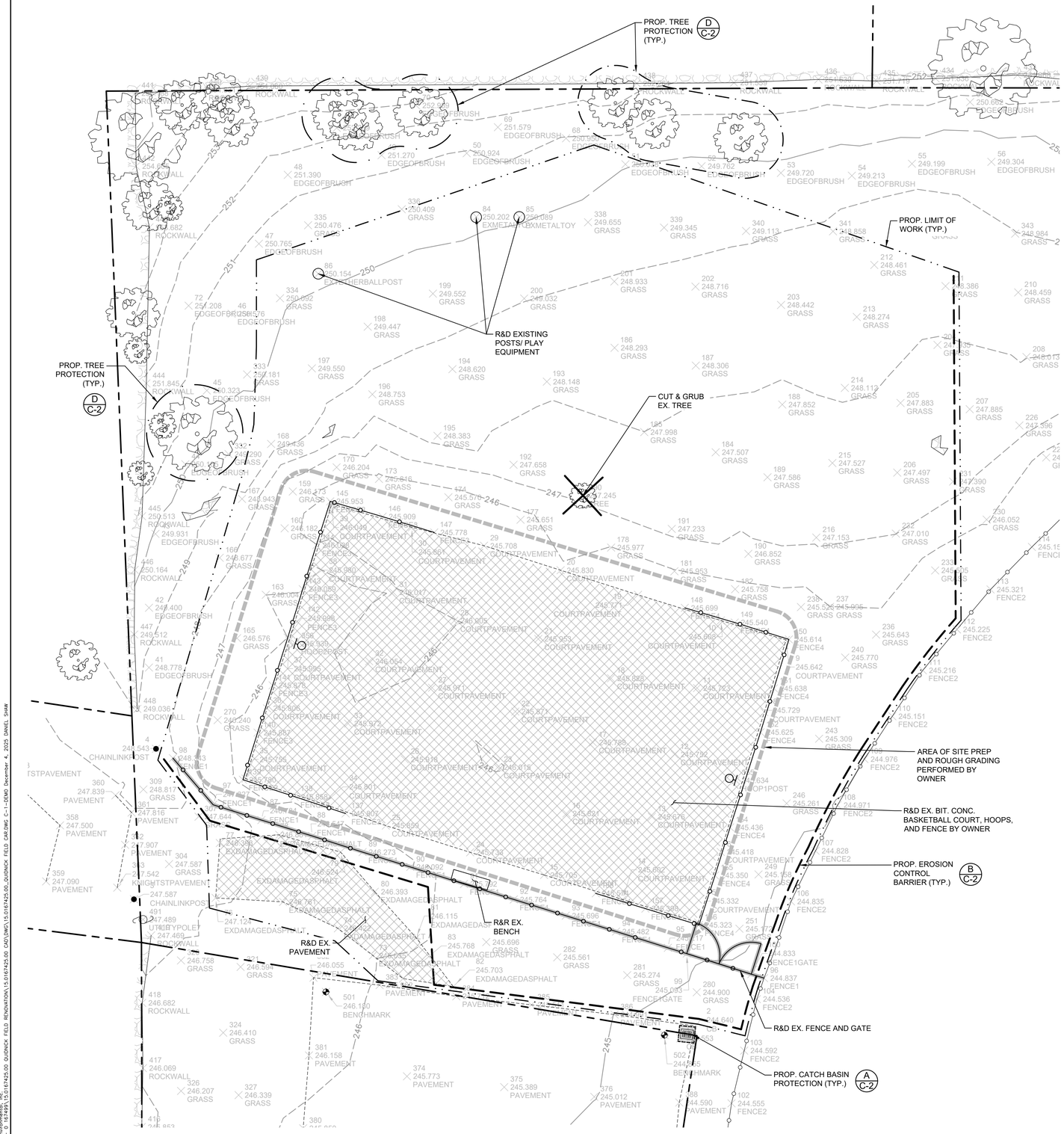

SITE PREPARATION, DEMOLITION, EROSION AND SEDIMENT CONTROL PLAN

0 5' 10' 20' 30'

SCALE IN FEET 1" = 10'

SITE CONSTRUCTION / DEMOLITION NOTES:

1. PLANS DO NOT PURPORT TO SHOW ALL UTILITIES. CONTRACTOR SHALL CONTACT DIG-SAFE (1-888-344-7233.) A MINIMUM OF 72 BUSINESS HOURS PRIOR TO BEGINNING EXCAVATION WORK AT THE SITE.
2. THE ACCURACY AND COMPLETENESS OF ANY UNDERGROUND AND OVERHEAD UTILITIES AS SHOWN ON THE DRAWINGS ARE NOT GUARANTEED. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT LOCATION, SIZE, TYPE, ETC. OF ALL UTILITIES THAT MAY BE AFFECTED BY THE WORK OF THIS PROJECT.
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6. UNLESS OTHERWISE NOTED, ALL WORK AND MATERIALS SHALL COMPLY WITH APPLICABLE SECTIONS OF THE RHODE ISLAND DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS.
7. CONTRACTOR SHALL NOT REMOVE TREES UNLESS SPECIFICALLY DIRECTED TO DO SO BY THE OWNER'S REPRESENTATIVE. LIMBS MAY BE PRUNED AS ABSOLUTELY NECESSARY FOR ACCESS, UPON APPROVAL OF THE OWNER'S REPRESENTATIVE. ROOT SYSTEMS SHALL BE PROTECTED AND LEFT UNDISTURBED TO THE MAXIMUM EXTENT PRACTICAL. WHERE ROOTS MUST BE CUT, ROOTS SHALL BE NEATLY AND CLEANLY PRUNED, SHALL BE KEPT CONTINUALLY MOIST, AND SHALL BE BACKFILLED AS SOON AS POSSIBLE.
8. CONTRACTOR SHALL PERFORM ALL EXCAVATIONS IN STRICT CONFORMANCE WITH APPLICABLE STATE, LOCAL, AND O.S.H.A. RULES, AS AMENDED.
9. CONTRACTOR SHALL DEMOLISH, RAZE, REMOVE, AND DISPOSE OF ALL PAVEMENTS, PIPING, VEGETATION, STRUCTURES, AND OTHER OBSTRUCTIONS TO NEW WORK, EXCEPT OPERATING UTILITIES AND THOSE ITEMS FOR WHICH OTHER PROVISIONS HAVE BEEN MADE FOR REMOVAL AND/OR PROTECTION. ALL MATERIALS TO BE DISPOSED OF SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE DISPOSED OF AT AN OFF-SITE LOCATION; IN ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE, AND FEDERAL REGULATIONS.
10. AT ALL AREAS OF PAVEMENT REMOVAL, THE PAVING EDGE TO REMAIN SHALL BE SAW CUT THROUGH THE ENTIRE PAVEMENT THICKNESS AND SHALL FORM A CLEAN EDGE. WHERE CEMENT CONCRETE SIDEWALKS ARE TO BE REMOVED, SAW CUT SHALL BE MADE AT THE NEAREST APPROPRIATE EXISTING JOINT.
11. REPLACE DISTURBED SURFACES WITH MATERIALS AND THICKNESS TO MATCH EXISTING.
12. ALL AREAS NOT OTHERWISE SURFACED SHALL RECEIVE MINIMUM 6" LOAM AND SHALL BE SEEDED, MULCHED, AND ESTABLISHED AS LAWN.
13. ANY TREES AND OTHER VEGETATION CUT SHALL BE COMPLETELY REMOVED FROM THE SITE AND DISPOSED OF AT NO ADDITIONAL COST TO THE OWNER. ANY TREES OR BRUSH TO BE REMOVED SHALL BE CLEANLY CUT FLUSH WITH THE GROUND. STUMPS OR ROOT BALLS SHALL NOT BE REMOVED EXCEPT WHERE NECESSARY OR WHERE "CUT AND GRUB" INDICATED ON PLAN.

SITE PREPARATION AND DEMOLITION PERFORMED BY OWNER:

1. OWNER WILL REMOVE AND DISPOSE OF EXISTING BASKETBALL COURT, HOOP, AND BASKETBALL FENCE.
2. OWNER WILL PERFORM SITE PREPARATION AND ROUGH GRADING OF EXISTING BASKETBALL COURT AND EXTENT OF SURROUNDING AREA INDICATED ON PLAN.
3. OWNER WILL INSTALL PERIMETER SEDIMENTATION AND EROSION CONTROL BARRIERS ASSOCIATED WITH BASKETBALL COURT DEMOLITION AND CONSTRUCTION, WITHIN AREA INDICATED ON PLAN.

N

LEGEND

- EXISTING PROPERTY LINES (APPROX.)
- 194 EXISTING 1 FT. CONTOUR
- 195 EXISTING 5 FT. CONTOUR
- EXISTING EDGE OF PAVEMENT (APPROX.)
- EXISTING CHAIN LINK FENCE
- EXISTING TREE
- EXISTING TEMPORARY BENCH MARK
- EXISTING GATE POST
- EXISTING UTILITY POST
- EXISTING CATCH BASIN
- EXISTING ROCK OUTCROPPING
- PROPOSED LIMIT OF WORK
- PROPOSED CATCH BASIN PROTECTION A C-2
- PROPOSED EROSION CONTROL BARRIER B C-2
- PROPOSED TREE PROTECTION D C-2
- EXISTING PAVEMENT, STRUCTURES AND MISCELLANEOUS EQUIPMENT TO BE REMOVED IN THESE AREAS
- R&D EXISTING FENCE
- CUT AND GRUB TREE
- AREA OF SITE PREPARATION, DEMOLITION, AND GRADING PERFORMED BY OWNER

R&S = REMOVE AND SAVE, STACK, STORE
R&D = REMOVE AND DISPOSE OF
R&R = REMOVE AND REUSE, RELOCATE

GENERAL NOTES:
1. WORK OUTSIDE THE TYPICAL LIMIT OF WORK SHALL BE COORDINATED WITH OWNER AND THE TOWN OF COVENTRY, AS APPROPRIATE.
2. TEMPORARY CLOSURE OF SIDEWALKS AND/OR WORK WITHIN THE RIGHT OF WAY SHALL BE COORDINATED WITH COVENTRY DEPARTMENT OF PUBLIC WORKS.

NO.	ISSUE/DESCRIPTION	BY	DATE

QUIDNICK IMPROVEMENT PROJECT AND PLAYGROUND INSTALL 2026

191 MACARTHUR BLVD, COVENTRY, RHODE ISLAND

SITE PREPARATION, DEMOLITION, EROSION AND SEDIMENT CONTROL PLAN

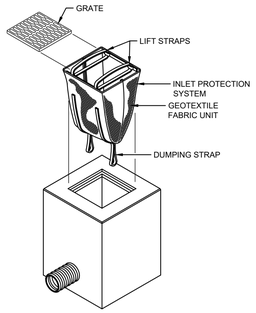
PREPARED BY:
GZA GeoEnvironmental, Inc.
www.gza.com

PREPARED FOR:
TOWN OF COVENTRY
1670 FLAT RIVER ROAD

PROJ MGR: DCS	REVIEWED BY: ARD	CHECKED BY: TRG	DRAWING C-1
DESIGNED BY: DCS	DRAWN BY: HGW	SCALE: AS SHOWN	
DATE: DECEMBER 10, 2025	PROJECT NO. 15.0167425.00	REVISION NO.	SHEET NO.

SEDIMENT AND EROSION CONTROL NOTES:

1. SEDIMENT BASINS AND TRAPS, PERIMETER BERMS, SEDIMENT BARRIERS AND OTHER MEASURES INTENDED TO TRAP SEDIMENT SHALL BE CONSTRUCTED AS A FIRST STEP IN ANY LAND DISTURBING ACTIVITY AND SHALL BE MADE FUNCTIONAL BEFORE UPSLOPE LAND DISTURBANCE TAKES PLACE.
2. THE CONTRACTOR SHALL CONSTRUCT ALL EROSION AND SEDIMENT CONTROL MEASURES PER THE SEDIMENT AND EROSION CONTROL PLAN PRIOR TO BEGINNING ANY OTHER LAND DISTURBANCES, SHALL ENSURE THAT ALL RUNOFF FROM DISTURBED AREAS IS DIRECTED TO THE SEDIMENT CONTROL DEVICES, AND SHALL NOT REMOVE ANY EROSION OR SEDIMENT CONTROL MEASURES UNTIL THE AREAS DRAINING TO THEM ARE FINAL STABILIZED. THE CONTRACTOR SHALL INSPECT DAILY AND MAINTAIN CONTINUOUSLY IN EFFECTIVE OPERATING CONDITION ALL EROSION AND SEDIMENT CONTROL MEASURES UNTIL SUCH TIME AS THEY ARE REMOVED. CONDUCT INSPECTIONS AND REPORTING IN ACCORDANCE WITH ALL PERMITS.
3. IMMEDIATELY UPON DISCOVERING UNFORESEEN CIRCUMSTANCES POSING THE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION, THE CONTRACTOR SHALL IMPLEMENT APPROPRIATE BEST MANAGEMENT PRACTICES (BMPS) TO ELIMINATE THE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION. THE CONTRACTOR SHALL INSTALL AND MAINTAIN, AT NO ADDITIONAL COST TO THE OWNER, ANY ADDITIONAL EROSION CONTROL MEASURES DEEMED NECESSARY FOR PERMIT COMPLIANCE BY THE CONTRACTOR, THE OWNER AND/OR THEIR REPRESENTATIVES, OR BY FEDERAL/STATE/LOCAL GOVERNMENT INSPECTORS.
4. ALL EROSION CONTROL MEASURES SHALL BE CONSTRUCTED AND MAINTAINED IN ACCORDANCE WITH APPLICABLE PUBLISHED STANDARDS AND SPECIFICATIONS AND THE "RHODE ISLAND EROSION AND SEDIMENT CONTROL HANDBOOK" (RHODE ISLAND STATE CONSERVATION COMMITTEE (SCC), ISSUED 1989, UPDATED 2016).
5. A CONSTRUCTION ENTRANCE FOR THIS PROJECT IS MANDATORY TO PREVENT TRACKING OF SEDIMENT ONTO PUBLIC THOROUGHFARES. THE CONTRACTOR SHALL PROTECT ALL POINTS OF CONSTRUCTION INGRESS AND EGRESS TO PREVENT THE DEPOSITION OF MATERIALS ONTO TRAVERSED PUBLIC THOROUGHFARES. ALL MATERIALS DEPOSITED ONTO PUBLIC THOROUGHFARES SHALL BE REMOVED IMMEDIATELY.
6. ALL SEDIMENT BASINS, TRAP EMBANKMENTS, SWALES, PERIMETER DIKES, AND PERMANENT SLOPES STEEPER OR EQUAL TO 3:1 SHALL BE STABILIZED WITH SOD, SEED AND ANCHORED STRAW MULCH, OR OTHER APPROVED STABILIZATION MEASURES, COMMENCING IMMEDIATELY WHEN WORK IS COMPLETE AND COMPLETING THE WORK WITHIN 14 CALENDAR DAYS OF INITIATION OR 7 DAYS IF THE TOTAL AREA DISTURBED ONSITE IS MORE THAN 5 ACRES AT ANY TIME OR IF THE SITE HAS DISCHARGES TO SEDIMENT OR NUTRIENT IMPAIRED WATERS OR TO A TIER 2, 2.5, OR 3 WATER. NO AREAS OUTSIDE OF THE PERIMETER SEDIMENT CONTROL BARRIER OR LIMIT OF WORK SHALL BE DISTURBED.
7. THE CONTRACTOR SHALL APPLY SOD, SEED AND ANCHORED STRAW MULCH, OR OTHER APPROVED STABILIZATION MEASURES TO ALL DISTURBED AREAS IMMEDIATELY UPON CESSATION OF ACTIVITY AND SHALL COMPLETE THE EFFORT WITHIN 14 CALENDAR DAYS AFTER STRIPPING AND GRADING ACTIVITIES HAVE CEASED ON THAT AREA, UNLESS SHORTER TIMELINES APPLY TO THE SITE DUE TO THE ITEMS INDICATED IN #6 ABOVE (LARGER AREAS OF DISTURBANCE, DISCHARGES TO IMPAIRED OR HIGH QUALITY WATERS, ETC.). MAINTENANCE SHALL BE PERFORMED AS NECESSARY TO ENSURE CONTINUED STABILIZATION.
8. STOCKPILES WHICH HAVE NOT BEEN USED FOR 14 CALENDAR DAYS, SHALL BE STABILIZED THROUGH THE APPLICATION OF SOD, SEED AND ANCHORED STRAW MULCH, OR OTHER APPROVED STABILIZATION MEASURES.
9. ALL CATCH BASINS OR OTHER DRAIN INLETS WHICH MAY RECEIVE STORMWATER FROM DISTURBED AREAS SHALL BE PROVIDED WITH SUITABLE INLET PROTECTION CONSISTING OF AN OPEN-TOP FILTER FABRIC BAG THAT IS DESIGNED TO HANG UNDERNEATH A STORM GRATE TO FILTER SEDIMENT-LADEN STORMWATER. A SINGLE ROW OF HAYBALES AROUND THE INLET GRATE SHALL ALSO BE INSTALLED AND MAINTAINED UNTIL PAVING HAS BEEN COMPLETED.
10. EFFLUENT FROM DEWATERING OPERATIONS AND LINE FLUSHING DISCHARGES SHALL BE DIRECTED INTO FIBER MATS, NETTING, RIPRAP, OR NATURALLY OCCURRING GROUND COVER TO MINIMIZE EROSION. EFFLUENT FROM DEWATERING OPERATIONS SHALL BE PUMPED EITHER TO SEDIMENT TANKS, SEDIMENT BAGS, AND/OR SEDIMENT TRAPS FOR SEDIMENT REMOVAL. DEWATERING SHALL BE PERFORMED IN ACCORDANCE WITH THE "RHODE ISLAND EROSION AND SEDIMENT CONTROL HANDBOOK" (RHODE ISLAND STATE CONSERVATION COMMITTEE (SCC), ISSUED 1989, UPDATED 2016) AND IN A MANNER THAT DOES NOT ADVERSELY AFFECT AREAS OUTSIDE OF THE LIMIT OF WORK.
11. TEMPORARY SEDIMENT TRAP(S) SHALL BE CLEANED OUT AND RESTORED TO ORIGINAL DIMENSIONS WHEN SEDIMENT HAS ACCUMULATED TO A POINT ONE HALF (1/2) THE DEPTH BETWEEN THE OUTLET CREST AND THE BOTTOM OF THE TRAP.
12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CONTROL OF DUST AND DIRT RISING AND SCATTERING IN THE AIR DURING CONSTRUCTION AND SHALL PROVIDE WATER SPRINKLING, CALCIUM CHLORIDE, OR OTHER EFFECTIVE MEANS OF CONTROL.
13. ALL WASTE MATERIALS GENERATED AT THE SITE SHALL BE IMMEDIATELY REMOVED AND DISPOSED OF OR STORED IN A SECURELY-COVERED CONTAINER IN ACCORDANCE WITH LOCAL AND STATE REGULATIONS. CONTAINER SHALL BE EMPTIED ON A REGULAR BASIS AND AS NECESSARY. NO CONSTRUCTION WASTE OR DEBRIS SHALL BE BURIED ONSITE.
14. PERMANENT SWALES OR OTHER POINTS OF CONCENTRATED WATER FLOW SHALL BE STABILIZED WITH SOD OR SEED AND WITH AN APPROVED EROSION CONTROL MATTING OR BY OTHER APPROVED STABILIZATION MEASURES.
15. FOR FINISHED GRADING, THE CONTRACTOR SHALL PROVIDE ADEQUATE GRADIENTS SO AS TO PREVENT WATER FROM STANDING ON THE SURFACE OF LAWNS MORE THAN 24 HOURS AFTER THE END OF A RAINFALL, EXCEPT IN DESIGNATED DRAINAGE COURSES AND SWALE FLOW AREAS WHICH MAY DRAIN AS LONG AS 48 HOURS AFTER THE END OF A RAINFALL, AND PROVIDE POSITIVE DRAINAGE AWAY FROM ALL BUILDING FOUNDATIONS OR OPENINGS.
16. PRIOR TO REMOVAL OF SEDIMENT CONTROL MEASURES THE CONTRACTOR SHALL STABILIZE ALL CONTRIBUTORY DISTURBED AREAS USING SOD OR AN APPROVED PERMANENT SEED MIXTURE WITH REQUIRED SOIL AMENDMENTS AND AN APPROVED ANCHORED MULCH. AREAS BROUGHT TO FINISHED GRADE DURING THE SEEDING SEASON SHALL BE PERMANENTLY STABILIZED IMMEDIATELY WITH EFFORTS COMPLETED WITHIN 14 CALENDAR DAYS OF ESTABLISHMENT UNLESS MORE STRINGENT STABILIZATION DEADLINES APPLY TO THE SITE. WHEN PROPERTY IS BROUGHT TO FINISHED GRADE DURING THE MONTHS WHEN PERMANENT STABILIZATION IS FOUND TO BE IMPRACTICAL, AN APPROVED TEMPORARY SEED AND STRAW ANCHORED MULCH OR OTHER ACCEPTABLE MEANS SHALL BE APPLIED TO DISTURBED AREAS.
17. TEMPORARY SEDIMENT CONTROL DEVICES SHALL BE REMOVED WITHIN (30) CALENDAR DAYS FOLLOWING ESTABLISHMENT OF PERMANENT STABILIZATION IN ALL CONTRIBUTORY DRAINAGE AREAS. STORMWATER MANAGEMENT STRUCTURES USED TEMPORARILY FOR SEDIMENT CONTROL SHALL BE CLEANED AND CONVERTED TO THEIR PERMANENT CONFIGURATION WITHIN THIS TIME PERIOD AS WELL. ALL STORM DRAINAGE STRUCTURES, SUMPS, AND PIPES SHALL BE CLEANED OF ALL SEDIMENTS PRIOR TO FINAL PAYMENT.

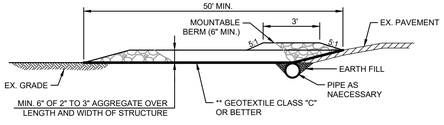


INSTALLATION AND MAINTENANCE GUIDELINES

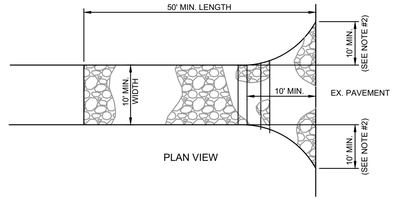
INSTALLATION: REMOVE THE GRATE FROM CATCH BASIN. IF USING OPTIONAL OIL ABSORBENTS; PLACE ABSORBENT PILLOW IN UNIT. STAND THE GRATE ON END. MOVE THE TOP LIFTING STRAPS OUT OF THE WAY AND PLACE THE GRATE INTO THE GEOTEXTILE FABRIC UNIT SO THAT THE GRATE IS BELOW THE TOP STRAPS AND ABOVE THE LOWER STRAPS. HOLDING THE LIFTING DEVICES, INSERT THE GRATE INTO THE INLET.

MAINTENANCE: REMOVE ALL ACCUMULATED SEDIMENT AND DEBRIS FROM VICINITY OF UNIT AFTER EACH STORM EVENT. AFTER EACH STORM EVENT AND AT REGULAR INTERVALS, LOOK INTO THE GEOTEXTILE FABRIC UNIT. IF THE CONTAINMENT AREA IS MORE THAT 1/3 FULL OF SEDIMENT, THE UNIT MUST BE EMPTIED. TO EMPTY UNIT, LIFT THE UNIT OUT OF THE INLET USING THE LIFTING STRAPS AND REMOVE THE GRATE. IF USING OPTIONAL OIL ABSORBENTS; REPLACE ABSORBENT WHEN NEAR SATURATION.

A / C-2 CATCH BASIN SEDIMENTATION PROTECTION
NTS



SECTION



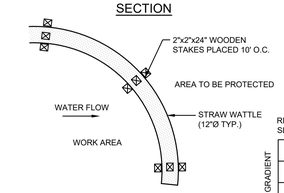
PLAN VIEW

C / C-2 STABILIZED CONSTRUCTION ENTRANCE
NTS

STABILIZED CONSTRUCTION ENTRANCE SPECIFICATIONS

1. LENGTH - MINIMUM OF 50' ("30' FOR SINGLE RESIDENCE LOT).
2. WIDTH - 10' MINIMUM, SHOULD BE FLARED AT THE EXISTING ROAD TO PROVIDE A TURNING RADIUS.
3. GEOTEXTILE FABRIC (FILTER CLOTH) SHALL BE PLACED OVER THE EXISTING GROUND PRIOR TO PLACING STONE. **THE PLAN APPROVAL AUTHORITY MAY NOT REQUIRE SINGLE FAMILY RESIDENCES TO USE GEOTEXTILE.
4. STONE - CRUSHED AGGREGATE (2" TO 3") OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT SHALL BE PLACED AT LEAST 6" DEEP OVER THE LENGTH AND WIDTH OF THE ENTRANCE.
5. SURFACE WATER - ALL SURFACE WATER FLOWING TO OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED THROUGH THE ENTRANCE, MAINTAINING POSITIVE DRAINAGE. PIPE INSTALLED THROUGH THE STABILIZED CONSTRUCTION ENTRANCE SHALL BE PROTECTED WITH A MOUNTABLE BERM WITH 5:1 SLOPES AND A MINIMUM OF 6" OF STONE OVER THE PIPE. PIPE HAS TO BE SIZED ACCORDING TO THE DRAINAGE. WHEN THE SCE IS LOCATED AT A HIGH SPOT AND HAS NO DRAINAGE TO CONVEY A PIPE WILL NOT BE NECESSARY. PIPE SHOULD BE SIZED ACCORDING TO THE AMOUNT OF RUNOFF TO BE CONVEYED. A 6" MINIMUM DIAMETER PIPE WILL BE REQUIRED.
6. LOCATION - A STABILIZED CONSTRUCTION ENTRANCE SHALL BE LOCATED AT EVERY POINT WHERE CONSTRUCTION TRAFFIC ENTERS OR LEAVES A CONSTRUCTION SITE. VEHICLES LEAVING THE SITE MUST TRAVEL OVER THE ENTIRE LENGTH OF THE STABILIZED CONSTRUCTION ENTRANCE.

SECTION

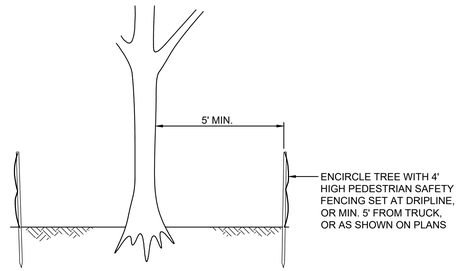


PLAN

RECOMMENDED SPACING ON SLOPES FOR 12" WATTLE

SLOPE GRADIENT	
≤4H : 1V	60
≤3H : 1V	45
≤2H : 1V	30
≤1H : 1V	15

B / C-2 STRAW WATTLE FOR SEDIMENT CONTROL
NTS



D / C-2 TREE PROTECTION
NTS

NO.	ISSUE/DESCRIPTION	BY	DATE

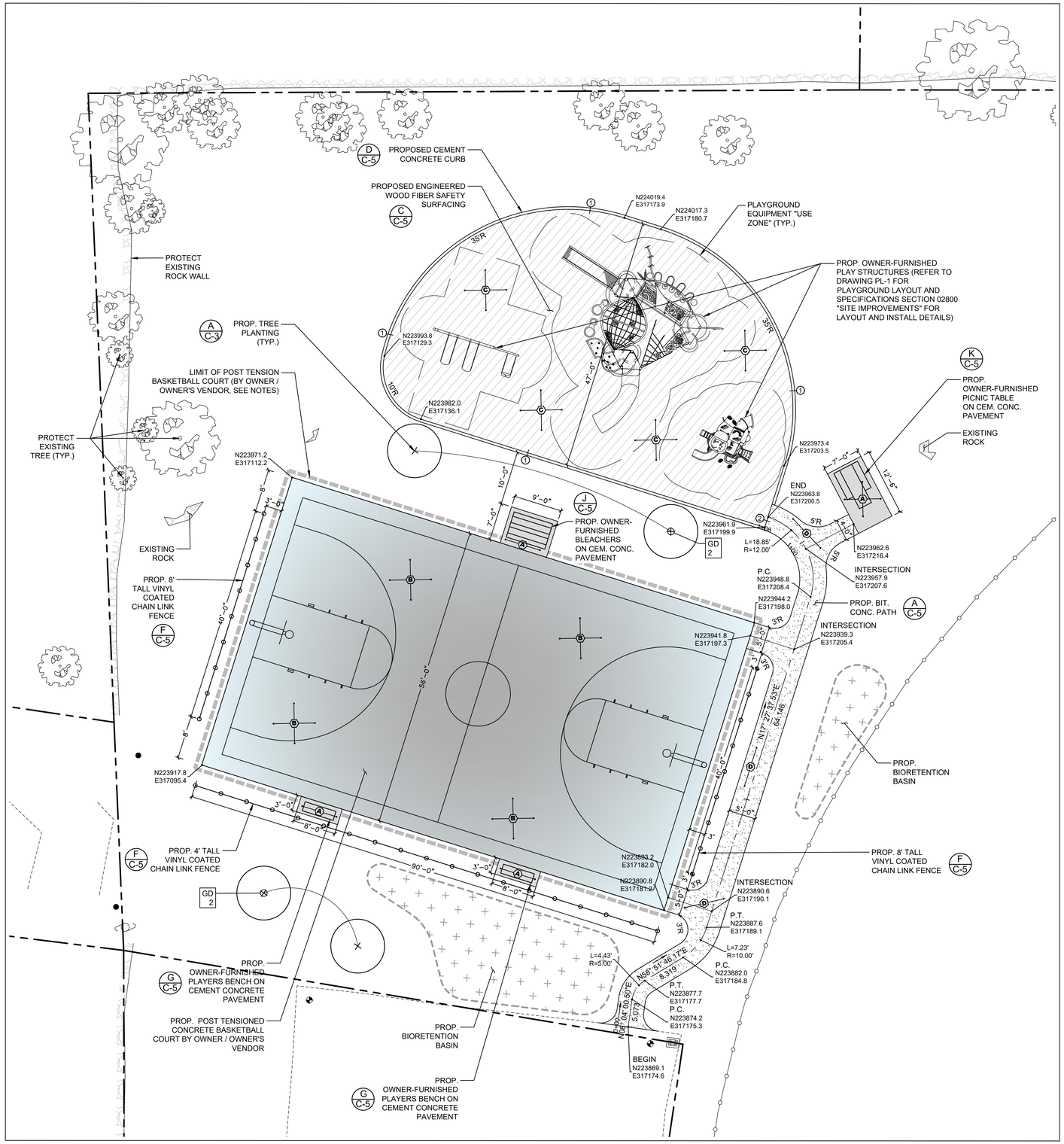
QUIDNICK IMPROVEMENT PROJECT
AND PLAYGROUND INSTALL 2026
191 MACARTHUR BLVD, COVENTRY, RHODE ISLAND

EROSION AND SEDIMENT CONTROL
NOTES AND DETAILS

PREPARED BY:
GZA GeoEnvironmental, Inc.
www.gza.com

PREPARED FOR:
TOWN OF COVENTRY
1670 FLAT RIVER ROAD

PROJ MGR: DCS	REVIEWED BY: ARD	CHECKED BY: TRG	DRAWING C-2
DESIGNED BY: DCS	DRAWN BY: HGW	SCALE: AS SHOWN	
DATE: DECEMBER 10, 2025	PROJECT NO. 15.0167425.00	REVISION NO.	SHEET NO.



LAYOUT PLAN

0 5' 10' 20' 30'
SCALE IN FEET 1" = 10'

OWNER-FURNISHED / CONTRACTOR-INSTALLED ITEMS
THE CONTRACTOR SHALL SCHEDULE AND COORDINATE DELIVERY OF CERTAIN MATERIALS AND EQUIPMENT TO THE PROJECT SITE OR TO THE CONTRACTOR'S DESIGNATED SECURE STORAGE LOCATION. CONTRACTOR SHALL INSPECT, ACCEPT, OFF-LOAD, STORE, LOAD, SECURE, ASSEMBLE, DELIVER TO THE PROJECT SITE AT THE APPROPRIATE TIME, AND INSTALL. THE OWNER WILL PURCHASE THESE MATERIALS AND EQUIPMENT SEPARATELY FROM THIS CONTRACT, FOR ASSEMBLY AND INSTALLATION BY THE CONTRACTOR. REFER TO SPECIFICATIONS SECTION 01010 AND 02800.

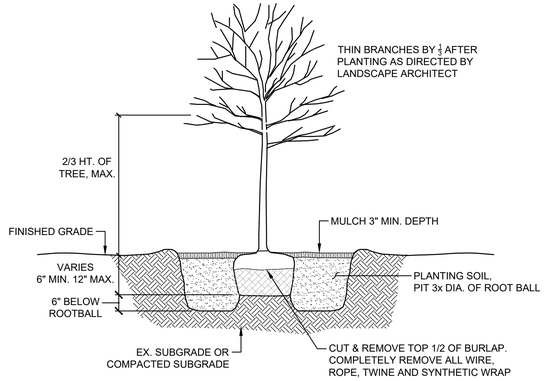
OWNER-FURNISHED / OWNER'S VENDOR-INSTALLED ITEMS
THE OWNER/ OWNER'S VENDOR IS RESPONSIBLE FOR INSTALLATION OF POST TENSIONED CEMENT CONCRETE BASKETBALL COURT AND BASKETBALL HOOPS. CONTRACTOR RESPONSIBLE FOR INSTALLATION OF ALL OTHER OWNER-FURNISHED EQUIPMENT/ FURNISHINGS. CONTRACTOR SHALL NOT INSTALL PAVEMENT OR SITE IMPROVEMENTS ABUTTING BASKETBALL COURT UNTIL COMPLETION OF BASKETBALL COURT INSTALLATION BY OWNER'S VENDOR. CONTRACTOR TO COORDINATE WITH OWNER'S VENDOR.

SITE RESTORATION / LAWNS
1. ALL AREAS DISTURBED DUE TO CONSTRUCTION OPERATIONS AND NOT DESIGNATED FOR OTHER SURFACE TREATMENT SHALL RECEIVE A 6" DEPTH OF TOPSOIL, AND SHALL BE FINE-GRADED AND SEEDED TO LAWN, PER LANDSCAPE SPECIFICATIONS SECTION 02970.
2. NO IRRIGATION IS PROPOSED; HOWEVER, LAWN AREAS MAY BE WATERED AS NEEDED TO ENSURE FOR THE ESTABLISHMENT OF LAWN.

PLANTING NOTES:
1. CONTRACTOR SHALL REVIEW ALL SITE UTILITY PLANS AND COORDINATE WITH THE GENERAL CONTRACTOR TO AVOID HAZARDS AND CONFLICTS WITH EXISTING/ NEW UNDERGROUND UTILITIES.
2. ALL PLANTS SHALL BE HEALTHY NURSERY STOCK MEETING REQUIREMENTS OF NURSERYMEN'S ASSOCIATION STANDARDS FOR TYPE, SIZE, AND CONDITION. ALL OTHERS WILL BE REJECTED.
3. ALL TREE PITS SHALL RECEIVE A 3" SETTLED DEPTH OF AGED SHREDDED HEMLOCK BARK MULCH. IMMEDIATELY AFTER INSTALLATION OF MULCH, THE CONTRACTOR SHALL THOROUGHLY WET ALL BEDS WITH THE EQUIVALENT OF 2" RAINFALL TO SETTLE MULCH TO 3" DEPTH.
4. PLANT LIST IS INFORMATIONAL ONLY. IF THERE IS A DISCREPANCY BETWEEN QUANTITIES SHOWN ON THE PLANT LIST AND THOSE SHOWN ON THE PLANS, QUANTITIES SHOWN ON THE PLAN SHALL GOVERN.

PLANT LIST:

ABBREV.	COMMON / BOTANICAL NAME	SIZE	QTY.	REMARKS
GD	Espresso Kentucky Coffee Tree / *Gymnocladus dioicus 'Espresso-JFS'*	2.5" CAL	4	B & B



A C-3 TREE PLANTING DETAIL
NTS

N

LEGEND
- EXISTING PROPERTY LINES (APPROX.)
- EXISTING EDGE OF PAVEMENT (APPROX.)
- EXISTING CHAIN LINK FENCE
- EXISTING TREE
- EXISTING TEMPORARY BENCH MARK
- EXISTING GATE POST
- EXISTING UTILITY POST
- EXISTING CATCH BASIN
- EXISTING ROCK OUTCROPPING
- PROPOSED EDGE OF PAVEMENT (E C-5)
- PROPOSED FENCE
- PROPOSED TREE PLANTING (A C-3)
- PROPOSED BIORENTION BASIN (I C-5)
- WORK WITHIN THIS AREA BY OWNER / OWNER'S VENDOR, CONTRACTOR TO COORDINATE

SURFACE LEGEND
- PROPOSED CEMENT CONCRETE PAVEMENT (B C-5)
- PROPOSED BASKETBALL COURT IN POST TENSIONED CONCRETE, BY OWNER / OWNER'S VENDOR (L C-5)
- PROPOSED ENGINEERED WOOD FIBER SAFETY SURFACING (EWFSS) (C C-5)
- PROPOSED BITUMINOUS CONCRETE PAVEMENT (A C-5)
- PROPOSED ENGINEERED WOOD FIBER SAFETY SURFACING AT CEMENT CONC. CURB (D C-5)
- PROPOSED ENGINEERED WOOD FIBER SAFETY SURFACING AT BIT. CONC. PAVEMENT (E C-5)

NO.	ISSUE/DESCRIPTION	BY	DATE

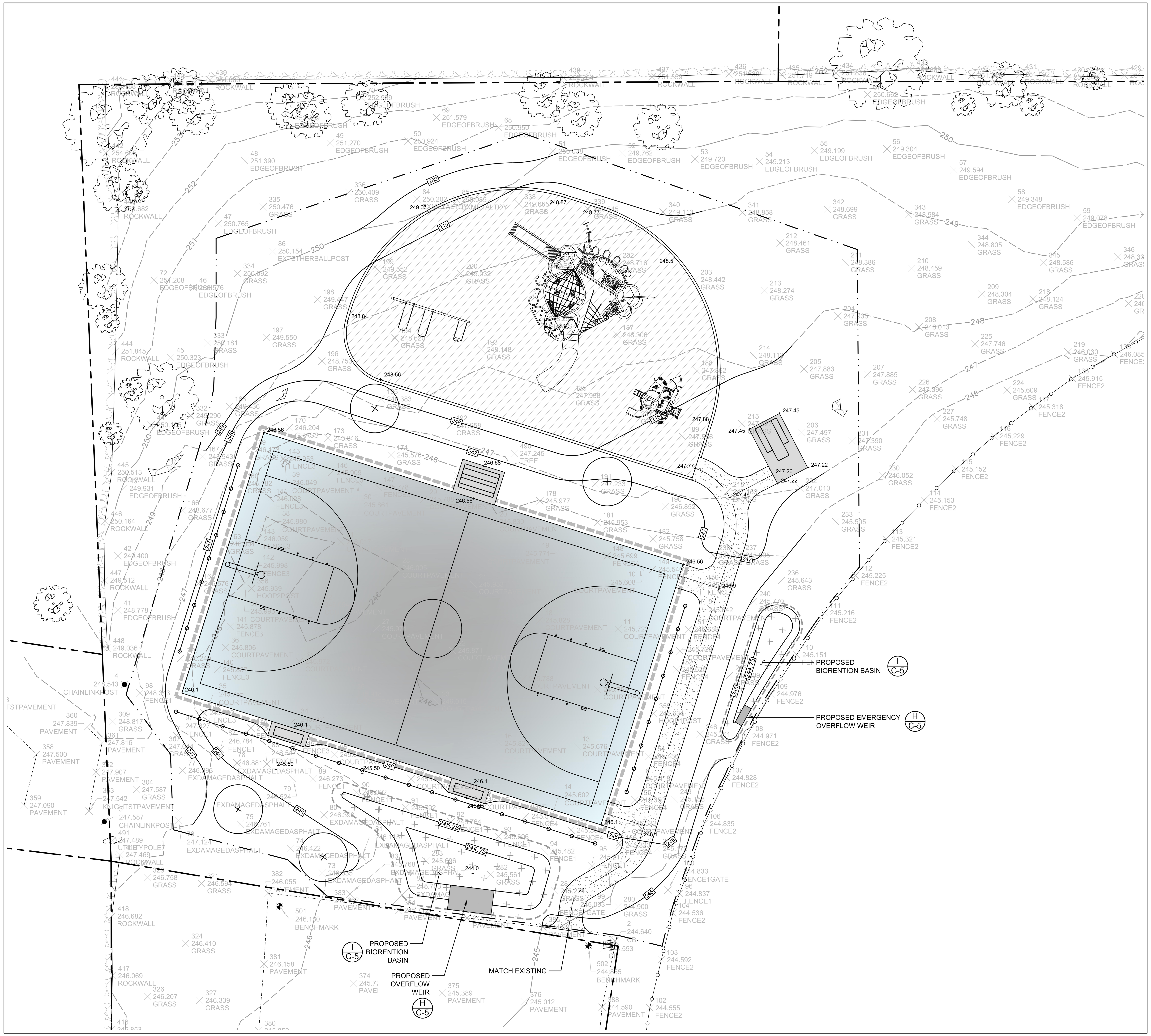
QUIDNICK IMPROVEMENT PROJECT AND PLAYGROUND INSTALL 2026
191 MACARTHUR BLVD, COVENTRY, RHODE ISLAND

LAYOUT PLAN

PREPARED BY:
GZA GeoEnvironmental, Inc.
www.gza.com

PREPARED FOR:
TOWN OF COVENTRY
1670 FLAT RIVER ROAD

PROJ MGR: DCS	REVIEWED BY: ARD	CHECKED BY: TRG	DRAWING C-3
DESIGNED BY: DCS	DRAWN BY: HGW	SCALE: AS SHOWN	SHEET NO.
DATE: DECEMBER 10, 2025	PROJECT NO. 15.0167425.00	REVISION NO.	



GRADING AND DRAINAGE PLAN

SCALE IN FEET 1" = 10'

N

LEGEND

- EXISTING PROPERTY LINE (APPROX.)
- EXISTING 1 FT. CONTOUR
- EXISTING 5 FT. CONTOUR
- EXISTING EDGE OF PAVEMENT (APPROX.)
- EXISTING CHAIN LINK FENCE
- EXISTING TREE
- EXISTING TEMPORARY BENCH MARK
- EXISTING GATE POST
- EXISTING UTILITY POST
- EXISTING CATCH BASIN
- PROPOSED LIMIT OF WORK
- PROPOSED EDGE OF PAVEMENT
- PROPOSED CHAINLINK FENCE
- PROPOSED TREE PLANTING
- 245 PROPOSED CONTOUR
- 246.89 PROPOSED SPOT GRADE
- PROPOSED BIORETENTION BASIN I C-5
- WORK WITHIN THIS AREA BY OWNER / OWNER'S VENDOR, INCLUDING EARTHWORK AND GRADING. CONTRACTOR TO COORDINATE.

NOTES:

1. WHERE PROPOSED GRADES ARE NOT PROVIDED, WALKWAYS SHALL BE GRADED TO DRAIN AND FOLLOW EXISTING GROUND SURFACE AND SHALL BE GRADED AS TO PROVIDE A MAXIMUM RUNNING SLOPE OF NOT MORE THAN 5% AND A MAXIMUM CROSS SLOPE OF NOT MORE THAN 2%.
2. PROPOSED LAYOUT AND GRADING FOR WALKWAYS SHALL BE STAKED IN FIELD PRIOR TO CONSTRUCTION FOR REVIEW AND ACCEPTANCE BY OWNER/ OWNER'S REPRESENTATIVE.

EARTHWORK PERFORMED BY OWNER:

- WHERE INDICATED ON PLANS, OWNER WILL STRIP AND STOCKPILE TOPSOIL, PERFORM ROUGH AND FINISH GRADING OF SUBGRADES TO PROPOSED SLOPES INDICATED ON PLAN, AND FURNISH AND INSTALL GRAVEL BORROW AND PROCESSED GRAVEL BASE COURSES IN AREAS OF PROPOSED PAVING, AS SHOWN IN DETAIL L ON SHEET C-5, INCLUDING FINE GRADING AND COMPACTION. POST-TENSION CONCRETE BASKETBALL COURT INSTALLED BY OWNER'S VENDOR.
- CONTRACTOR TO COORDINATE WITH OWNER TO VERIFY FINISHED GRADES OF OWNER-INSTALLED POST-TENSION BASKETBALL COURT AREA AND MATCH GRADES AS SHOWN.

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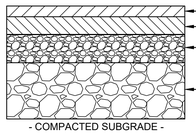
QUIDNICK IMPROVEMENT PROJECT
AND PLAYGROUND INSTALL 2026
191 MACARTHUR BLVD, COVENTRY, RHODE ISLAND

GRADING AND DRAINAGE PLAN

PREPARED BY:	PREPARED FOR:
GZA GeoEnvironmental, Inc. www.gza.com	TOWN OF COVENTRY 1670 FLAT RIVER ROAD

PROJ MGR: DCS	REVIEWED BY: ARD	CHECKED BY: TRG	DRAWING
DESIGNED BY: DCS	DRAWN BY: HGW	SCALE: AS SHOWN	C-4
DATE: DECEMBER 10, 2025	PROJECT NO. 15.0167425.00	REVISION NO.	SHEET NO.

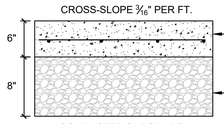


NOTES:

PROVIDE BITUMINOUS MATERIALS IN ACCORDANCE WITH THE REQUIREMENTS OF RI DOT STANDARD SPECIFICATIONS.

A C-5 TYPICAL SECTION BITUMINOUS CONCRETE PAVEMENT

NTS

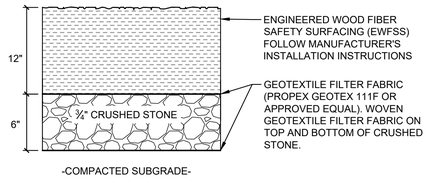


NOTES:

1. CONTRACTION JOINTS EVERY 10 FEET
2. 4,000 PSI MIN. STRENGTH, CLASS D.
3. LIGHT BROOM FINISH

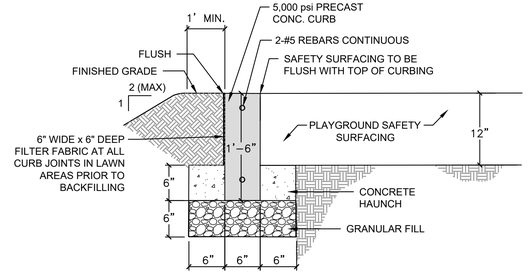
B C-5 TYPICAL SECTION CEMENT CONCRETE PADS

NTS



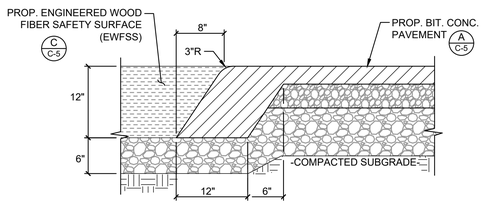
C C-5 ENGINEERED WOOD FIBER SAFETY SURFACE (EWFSS)

NTS



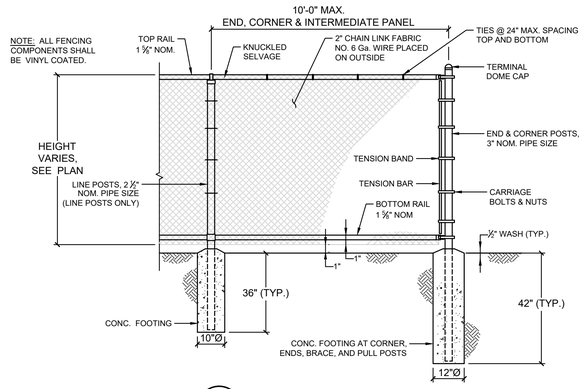
1 D C-5 FLUSH CEMENT CONCRETE CURB AT PLAYGROUND SAFETY SURFACE

NTS



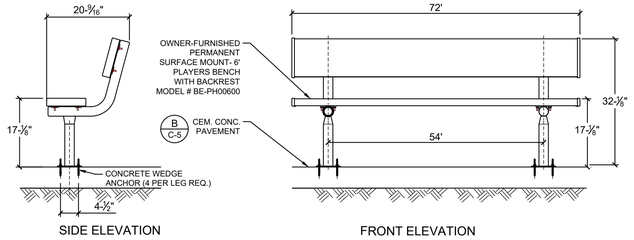
2 E C-5 THICKENED BIT. CONC. WALK EDGE AT EWFSS

NTS



F C-5 CHAIN LINK FENCE

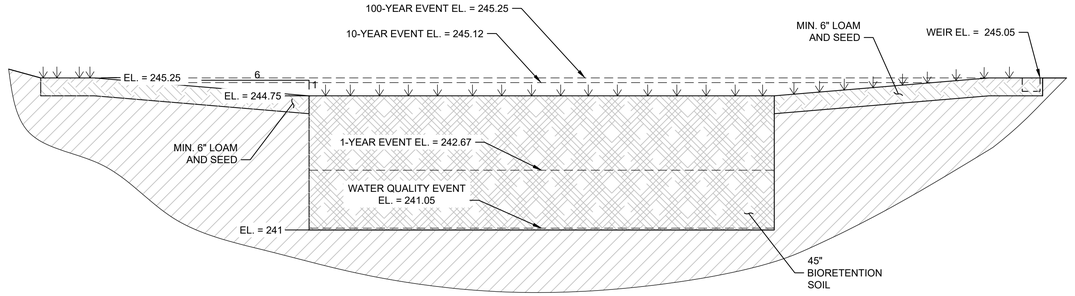
NTS



NOTE:
BENCHES FURNISHED BY OWNER, INSTALLED BY CONTRACTOR.

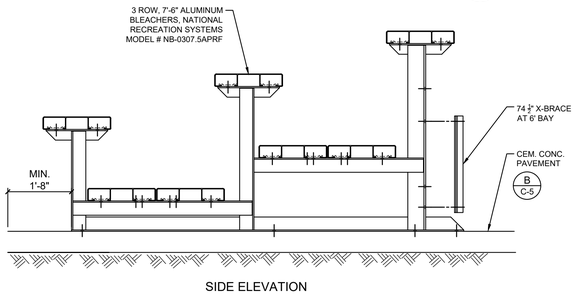
G C-5 PLAYER BENCH INSTALLATION DETAIL

NTS

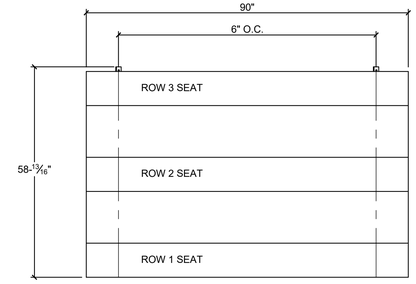


I C-5 BIORETENTION BASIN

NTS



SIDE ELEVATION

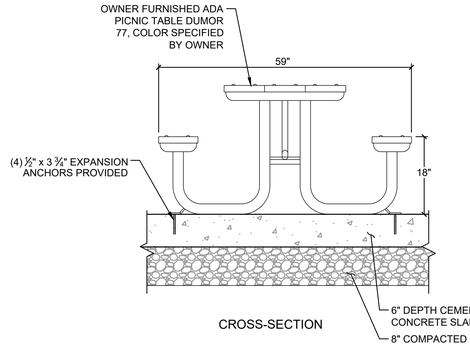


TOP ELEVATION

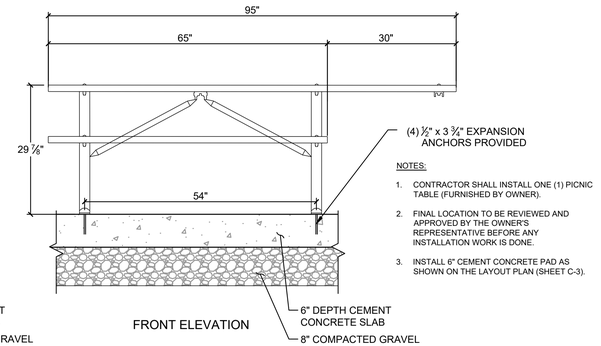
J C-5 BLEACHERS INSTALLATION DETAIL

NTS

NOTE:
BLEACHERS FURNISHED BY OWNER, INSTALLED BY CONTRACTOR.



CROSS-SECTION

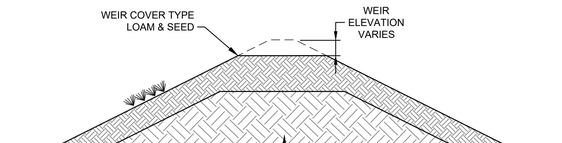


FRONT ELEVATION

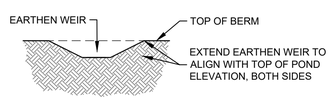
NOTE:
BENCHES FURNISHED BY OWNER, INSTALLED BY CONTRACTOR.

K C-5 PICNIC TABLE DETAIL

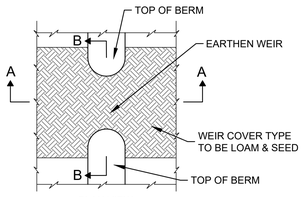
NTS



SECTION A-A
NOT TO SCALE



SECTION B-B
NOT TO SCALE

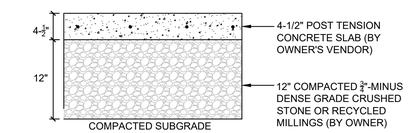


PLAN VIEW
NOT TO SCALE

WEIR TABLE					
LOCATION	TOP OF POND ELEV. (FT)	WEIR INVERT (FT)	WEIR BREADTH (FT)	WEIR LENGTH (FT)	COVER
SOUTHERN BIORETENTION BASIN	245.25	245.05	5	9	LOAM AND SEED
EASTERN BIORETENTION AREA	245	244.95	1.50	4	LOAM AND SEED

H C-5 EARTHEN WEIR DETAIL

NTS



L C-5 (BY OWNER) DENSE GRADE BASE FOR POST-TENSION CONCRETE SURFACE

NTS

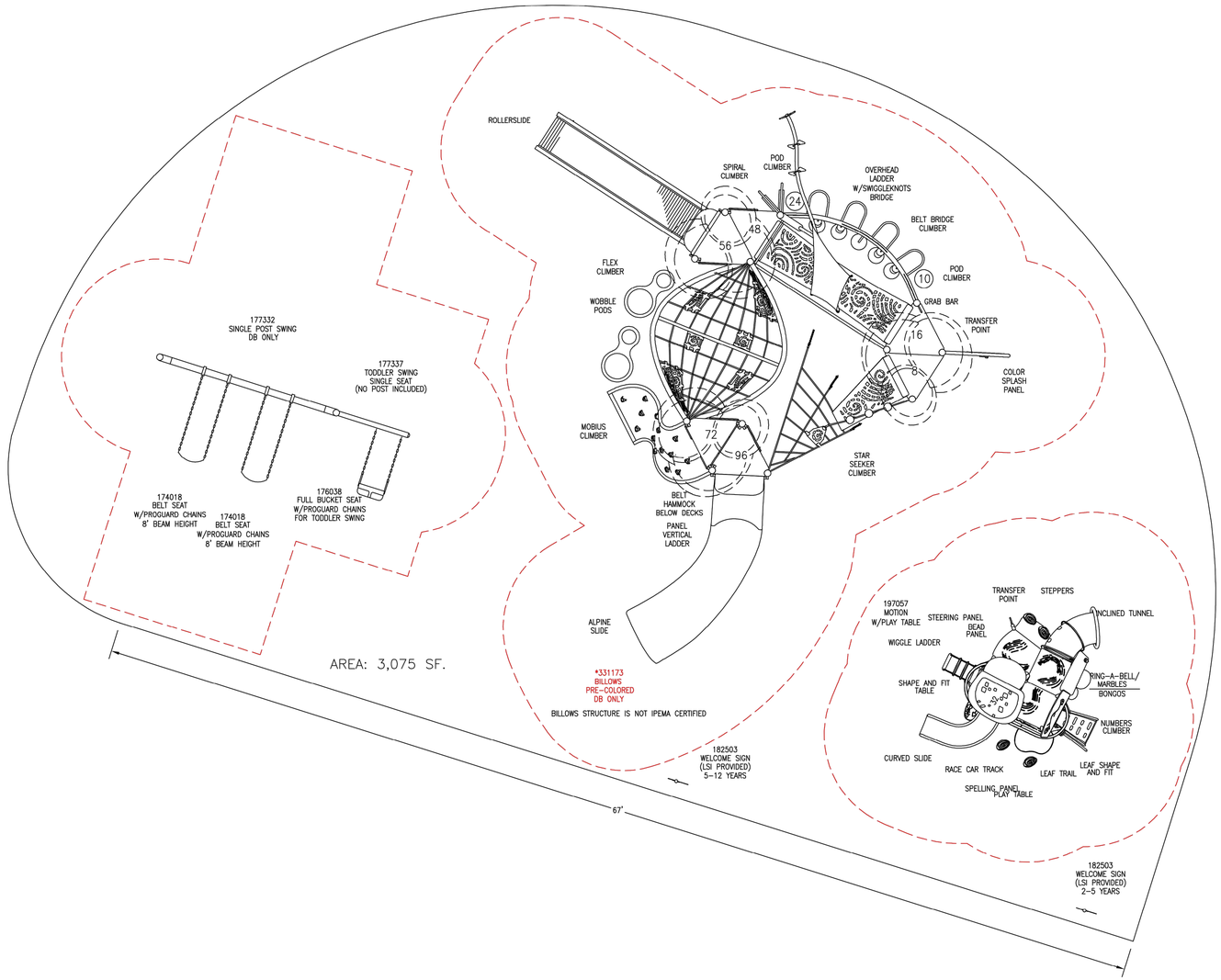
NO.	ISSUE/DESCRIPTION	BY	DATE

QUIDNICK IMPROVEMENT PROJECT AND PLAYGROUND INSTALL 2026

191 MACARTHUR BLVD, COVENTRY, RHODE ISLAND

SITE DETAILS

PREPARED BY:		PREPARED FOR:	
GZA GeoEnvironmental, Inc. www.gza.com		TOWN OF COVENTRY 1670 FLAT RIVER ROAD	
PROJ MGR: DCS	REVIEWED BY: ARD	CHECKED BY: TRG	DRAWING
DESIGNED BY: DCS	DRAWN BY: HGW	SCALE: AS SHOWN	C-5
DATE: DECEMBER 10, 2025	PROJECT NO. 15.0167425.00	REVISION NO.	SHEET NO.



landscape structures

IPEMA CERTIFIED ASTM F1487

The play components identified on this plan are IPEMA certified. (Unless model number is preceded with *) The use and layout of these components conform to the requirements of ASTM F1487. To verify product certification, visit www.ipema.org

THIS PLAY AREA & PLAY EQUIPMENT IS DESIGNED FOR AGES 2–12 YEARS UNLESS OTHERWISE NOTED ON PLAN.

IT IS THE MANUFACTURERS OPINION THAT THIS PLAY AREA DOES CONFORM TO THE A.D.A. ACCESSIBILITY STANDARDS, ASSUMING AN ACCESSIBLE PROTECTIVE SURFACING IS PROVIDED, AS INDICATED, OR WITHIN THE ENTIRE USE ZONE.

THIS CONCEPTUAL PLAN WAS BASED ON INFORMATION AVAILABLE TO US. PRIOR TO CONSTRUCTION, DETAILED SITE INFORMATION INCLUDING SITE DIMENSIONS, TOPOGRAPHY EXISTING UTILITIES, SOIL CONDITIONS, AND DRAINAGE SOLUTIONS SHOULD BE OBTAINED, EVALUATED, & UTILIZED IN THE FINAL DESIGN. PLEASE VERIFY ALL DIMENSIONS OF PLAY AREA, SIZE, ORIENTATION, AND LOCATION OF ALL EXISTING UTILITIES, EQUIPMENT, AND SITE FURNISHINGS PRIOR TO ORDERING. SLIDES SHOULD NOT FACE THE HOT AFTERNOON SUN.

CHOOSE A PROTECTIVE SURFACING MATERIAL THAT HAS A CRITICAL HEIGHT VALUE TO MEET THE MAXIMUM FALL HEIGHT FOR THE EQUIPMENT (REF. ASTM F1487 STANDARD CONSUMER SAFETY PERFORMANCE SPECIFICATION FOR PLAYGROUND EQUIPMENT FOR PUBLIC USE, SECTION 8 CURRENT REVISION). THE SUBSURFACE MUST BE WELL DRAINED. IF THE SOIL DOES NOT DRAIN NATURALLY IT MUST BE TILED OR SLOPED 1/8" TO 1/4" PER FOOT TO A STORM SEWER OR A "FRENCH DRAIN".

IT IS THE MANUFACTURER'S OPINION AND INTENT THAT THE LAYOUT OF THESE COMPONENTS CONFORM WITH THE U.S. CONSUMER PRODUCT SAFETY COMMISSION'S (CPSC) "HANDBOOK FOR PUBLIC PLAYGROUND SAFETY".

DESIGNED BY:
JRA

601 7th STREET SOUTH – P.O. BOX 198
DELANO, MINNESOTA 55328
PH: 1-800-328-0035 FAX: 1-763-972-6091

Date	Previous Drawing #	Initials

TOTAL ELEVATED PLAY COMPONENTS	10				
TOTAL ELEVATED COMPONENTS ACCESSIBLE BY RAMP	0	REQUIRED	0		
TOTAL ELEVATED COMPONENTS ACCESSIBLE BY TRANSFER	5	REQUIRED	5		
TOTAL ACCESSIBLE GROUND LEVEL COMPONENTS SHOWN	4	REQUIRED	3		
TOTAL DIFFERENT TYPES OF GROUND LEVEL COMPONENTS	4	REQUIRED	4		

TOTAL ELEVATED PLAY COMPONENTS	8				
TOTAL ELEVATED COMPONENTS ACCESSIBLE BY RAMP	0	REQUIRED	0		
TOTAL ELEVATED COMPONENTS ACCESSIBLE BY TRANSFER	5	REQUIRED	4		
TOTAL ACCESSIBLE GROUND LEVEL COMPONENTS SHOWN	6	REQUIRED	3		
TOTAL DIFFERENT TYPES OF GROUND LEVEL COMPONENTS	5	REQUIRED	5		

DRAWING
PL-1

O'BRIEN & SONS INCORPORATED

QUIDNICK FIELD

COVENTRY, RI

M.E. O'BRIEN & SONS, INC.
ANDREW KIMBALL

SYSTEM TYPE:
SMART PLAY/IND

DRAWING #:
ME025563

ISO 14001:2004 CERTIFIED

ISO 9001:2000 Certified

SECTION 01000

GENERAL REQUIREMENTS

PART 1 - GENERAL

1.01 DESCRIPTION OF WORK

A. Contractor shall provide control of site access and activities, mobilize personnel, equipment, and materials to the project site, install erosion controls, provide maintenance of the project area and facilities in existing condition or better, and coordinate certain work performed by the Town of Coventry as summarized on the drawings and specifications. The contractor shall provide site access as deemed necessary by the Town.

B. The Contractor shall keep a record set of prints on which they are to record all approved changes and/or additions to the work made to meet field conditions. This set of drawings is to be given to the Owner at the completion of their work for their use.

C. The Contractor shall have a minimum of five years' experience in site construction and installation of playground equipment. References shall be provided with the bid.

D. Substantial Completion shall be attained by August 14, 2026, and Final Completion by August 28, 2026.

1.02 QUALITY CONTROL

A. General:

1. Protection: Site safety is the Contractor's responsibility. Comply with all applicable regulations and safety orders in effect at the place of construction. Protect this and adjacent properties from all damage due to Contractor's operations. Protect open excavations, trenches, etc., with fences, covers or railings as required to maintain safe pedestrian and vehicular traffic. Maintain safe and efficient vehicular travel along the public thoroughfares which may be affected by this project.

2. Responsibility: The Contractor is responsible for the finished condition of their work. Notify the Owner promptly in writing if any conditions exist which are contrary to requirements. Restore street pavements, walks, curbs, gutters, trees, etc., that may be damaged in the performance of work in a manner prescribed by any authorities having jurisdiction. The Contractor shall be responsible for repairing all damage caused to areas outside the limit of work at no cost to the Owner.

3. Accuracy Of Data: Site data given herein and on the Plans are based upon existing available information and accuracy is not guaranteed. All property and easement lines are approximate only. Any questions regarding property ownership should be brought to the attention of the Town for resolution prior to the execution of work. Contractor shall not use or disturb adjacent private property without written authorization from the legal property owner.

4. Existing Utilities: The Contractor shall verify on site, the location and depth (elevation) of all utilities and services before excavation. Contractor shall call the regional Dig-Safe number 811, Town of Coventry, and local utilities a minimum of 72 hours prior to any excavation operations.

B. Owner-Furnished Playground Installer Requirements**:**

a. **Installer of the Playground equipment must be Landscape Structures Inc Certified and have their certification up to date.** Please provide up to date certificate from Landscape Structures clearly stating installers name and dates of certification with your bid documents to

be considered an eligible bidder of this project. Misrepresentation of certification could lead to your bid being disqualified. If needing a certified installer you may contact Andrew Kimball with M.E. O'Brien & Sons for an active list of LSI-certified installers in this area. He may be reached at andrew_kimball@obrienandsons.com or via cell at 508-243-9727.

1.03 CODES AND STANDARDS

A. All work and materials shall conform to the latest applicable sections under the Rhode Island Department of Transportation Standard Specifications for Road and Bridge Construction, 2025 Edition, as amended, hereinafter referred to as the "Standard Specifications", The State of Rhode Island Building & Fire Code Regulations, as well as the codes and standards referenced in the individual Sections. In case of conflict, the codes and standards referenced in the individual Sections shall govern. Americans with Disabilities Act (ADA) standards apply to the public facilities at the park.

B. All work and materials shall be in full accordance with the latest rules, regulations, and safety orders of state, county, town, municipality, and utility laws, rules, and regulations. Nothing in these Plans and Specifications shall be construed to permit work not conforming to the above.

C. When the Specifications call for material or construction of better quality or larger size than is required by the above-mentioned codes and standards, then the provisions of the Specifications shall take precedence over the requirements of said codes and standards. If there is any direct conflict between the above-referenced codes and standards and Plans or Specifications, the codes and standards shall govern. Contractor shall furnish, without extra charge, any additional material and labor when required to comply with these codes and standards, even though the work is not mentioned in the Specifications or shown on the Plans.

D. Inspection, protection, and maintenance of the project area facilities shall be ongoing by the Contractor throughout the life of the project. The Contractor shall provide all labor, materials, and equipment necessary to maintain the project facilities during the period of this contract.

PART 2 - PRODUCTS

Not Applicable to this Section.

PART 3 - EXECUTION

Not applicable to this Section

3.01 EXISTING IMPROVEMENTS

A. Except as specified in other Sections, Contractor shall maintain, reconstruct, replace or repair, or cause to be reconstructed, at their own expense, all existing utilities, walls, roads, driveways, fences, services, and other structures or improvements of whatever nature, which are to remain which may be damaged, removed, disrupted, or otherwise disturbed by the Contractor, whether the features are shown on the Plans or not; and the Contractor shall leave all existing systems and utilities in a workable and operating condition at the end of the work, at their own expense and at no additional cost to the Town, other than that provided for within the Landscape Work specification.

3.02 CARE OF EXISTING TREES AND VEGETATION

A. Trees and vegetation outside work limits shall not be cut or damaged without the express written approval of the Owner.

3.03 DAMAGE ALONG EASEMENTS AND PUBLIC THOROUGHFARES

A. Town representatives and Contractor shall meet on-site to assess and photo document the structural condition of adjacent primary access ways prior to initiation of Contractor activities.

B. Contractor shall not block, prohibit, or restrict public access to adjacent private properties or driveways or to portions of the site not within the active work areas.

* * * END OF SECTION * * *

SECTION 01010

SUMMARY OF WORK

PART 1 - GENERAL

1.01 GENERAL PROVISIONS

A. CONTRACT DOCUMENTS: This Section does not stand alone. Comply with all Contract Documents, Conditions of the Contract, Division 1 General Requirements, Drawings, and other documents which define the Terms and Conditions and Work associated with the Contract.

B. The General Provisions of the Contract, including GENERAL and SUPPLEMENTARY CONDITIONS AND GENERAL REQUIREMENTS (if any), apply to the work specified in this Section.

C. Examine all other Sections of the Specifications for requirements that affect the Work of this Section whether or not such Work is specifically mentioned in this Section.

D. Coordinate work with that of all other trades or contracts affecting or affected by the Work of this Section. Cooperate with such trades to ensure the steady progress of all work under the Contract.

1.02 INTENT OF THE WORK

A. The Work of this Contract is installation of accessible pedestrian walks, installation of Owner-furnished playground equipment, installation of engineered wood fiber safety surfacing, installation of owner-furnished site furnishings, installation of stormwater management features, installation of fencing, and landscape restoration, as described in the Contract Documents, for Quidnick Field, located at 191 Macarthur Boulevard, Coventry, Rhode Island (“Project”). The Work also includes coordination with Owner-furnished post-tension concrete basketball court installation, which is installed by Owner’s Vendor and the Town (demolition of existing court) and is not part of the Work of this contract.

    a. Bid Alternate No. 1 includes installation of Owner-furnished playground equipment at Harris Playground located at 108 Howard Avenue, Coventry, Rhode Island, installation of engineered wood fiber safety surfacing, installation of perimeter curbing, and coordination with site preparation, demolition, and earthwork performed by the Town.

B. The Work of this Contract at Quidnick Field is funded by A Community Development Block Grant from the U.S. Department of Housing and Urban Development (HUD).

C. The Project is administered by the Department of Parks and Recreations, Town of Coventry, Rhode Island.

1.03 LOCATION OF THE WORK

A. The Project site encompasses the existing basketball court, playground area, and adjacent landscape and stormwater management areas, as defined by the limit of work on the contract drawings. For Bid Alternate No. 1, the Project site also includes the portion of the park known as “Harris Playground” indicated on the contract drawings.

1.04 GENERAL SCOPE OF THE WORK

A. The general elements of the Work shown on the Drawings and specifications include, but are not limited to:

- Obtain all necessary permits and comply with all Owner-obtained and existing permits for the Site.
- Supply all labor, equipment and materials to complete the Work.
- Install, maintain, and replace as necessary sediment and erosion controls.
- Provide traffic and access control, including detouring of vehicular and pedestrian traffic around the Project Site as necessary.
- Site preparation, clearing, and grubbing.
- Excavation and backfill need to establish design grades.
- Installation of stormwater management systems.
- Installation of Owner-furnished playground equipment, players benches, picnic table, and spectator bleachers.
- Tree protection, and hazard tree pruning as required.
- Landscape restoration including lawn establishment and stormwater management systems.
- Potential installation of Alternate Bid items, including Owner-furnished playground equipment and site furnishings at Harris Playground, located at 108 Howard Avenue, Coventry, Rhode Island.

B. The Contractor shall be responsible for coordinating and scheduling their Work with the Town, protecting existing structures, parking areas, roadways, driveways and other property outside the limits of work, and restoring the condition of all land and features disturbed by the Work.

C. The Contractor shall at all times employ Best Management Practices to control sediment transport and erosion at the Site and prevent potential contamination of soil or water resources. Sediment and erosion control measures shall be deployed during all phases of construction and both temporary and permanent site stabilization measures shall be used. The sediment and erosion control measures shown on the Drawings and described in the Specifications shall be considered the minimum acceptable and shall be supplemented by the Contractor as necessary to meet the intent of the Specifications and the conditions of project permits.

D. The Contract Drawings specifically delineate limits of work for the Contractor, as well as areas not to be disturbed. The Contractor shall be strictly monitored for compliance with these boundaries. Proper environmental and housekeeping procedures by the Contractor are of highest priority. If the Contractor feels additional staging or lay-down areas are required, the Contractor may request an extension of the boundaries to the Town in writing, as described in Section 01000. Trees along the limit of work and the possible contractor staging areas as called out on the Contract Drawings and in the specifications are to be protected from harm.

E. The Work required by the Contract Drawings and Specifications shall include furnishing all labor, skill, supervision, tools, construction, equipment, temporary facilities, materials, and performing all operations necessary for the proper completion of the contract work as shown on the Drawings and Specifications, and as required by the Town. Following the Notice to Proceed, the Contractor shall submit a schedule showing how the various work items are to be accomplished.

F. The Contractor shall provide all materials, fuels, labor, and other items necessary for the protection of the Work from hot or cold weather, precipitation, surface water flow, groundwater, or other potentially adverse conditions which might cause harm to completed Work or Work underway. The Contractor shall, at no additional cost to the Town, be prepared to remove personnel, equipment, and materials from areas of potential inundation in the event of excessive flows and be prepared to restore any damage and resume work at the site.

1.05 SPECIAL PROVISIONS OF THE WORK

A. Contractor-furnished materials and equipment: Contractor shall inspect, accept, off-load, store, load, secure, assemble, deliver to the project site at the appropriate time, and install. All contractor-furnished items will be as listed elsewhere in the Specifications or on the Drawings. The Contractor shall schedule and coordinate delivery of the materials and equipment to the construction site or to the Contractor's designated secure storage location. Refer to Specifications Section 02800 for more detailed information about Contractor-Furnished items and Contractor's responsibility.

B. Use of Premises

1. Contractor shall have full use of the premises for construction operations, with the exception that areas outside of the limit of work and erosion control barriers shall be off limits to the Contractor's operations and shall continue to be open to use by the Owner/general public.

2. The Contractor shall be responsible for site safety and security. The Contractor shall restrict public access to work area and maintain safe public access to other portions of the site. This may include the use of temporary fencing or other means to limit pedestrian flow throughout the project site. Due to the nature of the site as a multi-use public facility, restricting all public access to the site is not feasible.

3. The Contractor shall provide, erect, maintain and remove "Area Closed" signage acceptable to the Owner.

C. Scheduling and Sequencing: Contractor shall be responsible to schedule and sequence their Work in a manner as to meet the schedule for final completion stipulated in the Contract.

1. The site includes a softball / baseball field which is not part of the Project area. Any temporary closure of access to this field is prohibited. Any work that may impact the field shall be coordinated with the Town of Coventry, and shall be summarized by the Contractor and submitted to the Town and Landscape Architect or Engineer in a Response for Information (RFI) during the preconstruction phase of the project .

D. Contractor shall coordinate the Work of this contract with the Owner and the Owner's representative and any contractors employed by the Owner.

1. Post Tension Concrete Basketball Court is furnished by Owner and installed by Owner's Vendor, and is outside the Work of this contract. Site preparation for this area, including demolition of existing basketball court, grading, and installation of base materials, is by Owner. Contractor to coordinate with the Town / Owner and provide construction access to the basketball court area as needed.

1.06 CONTRACT DRAWINGS & SPECIFICATIONS

A. The site location and the Work are shown on the Contract Drawings and described in the Specifications. The Work shall be constructed in accordance with the Drawings and Specifications and any shop drawings submitted by contractor as approved by the Landscape Architect or Engineer. Details shown on the Drawings are indicative of the types of structures required and are subject to revision, alteration, modification, and variation. Such revisions, alterations, modifications, or variations in said Drawings as are desirable in the opinion of the Town and Landscape Architect, on account of conditions encountered or for other reasons, shall not be considered a variation of terms of this contract and the assent of the surety on the bond accompanying this contract to such revisions, alterations, modifications, or variations shall not be required.

B. All said Drawings, Specifications and contract documents shall be considered together, so that any work referenced in these documents shall be executed by the Contractor.

C. Listed dimensions on the Drawings shall prevail over scaled. Any question regarding the work shall be summarized in RFI submitted to the Town and Landscape Architect for clarification. The Town and landscape architect will provide a written response to the Contractor's RFI for clarification.

D. Plans, calculations, estimates of quantities, and any statements made in the Information for Bidders or otherwise as to the conditions under which the Work shall be performed, are not guaranteed by the Town to be correct or to be a complete representation of all existing data on the current site conditions affecting the Work, and the Contractor is responsible to make their own examination of the existing site conditions, Drawings, Specifications and Contract documents and will make no claim for damages on account of any errors, inaccuracies, or omissions that may be found. The Contractor shall not take any advantage or have any claim for damages on account of any discrepancy, error or omission in any plans, calculations, estimates of quantities, or any statements made in the Information for Bidders or otherwise as to the conditions under which the Work is to be performed, and shall report such discrepancy, error, or omission to the Town in writing as a RFI, as soon as it comes to their knowledge, and before proceeding with Work relating to such discrepancy, error, or omission.

E. Any correction or modification of the Drawings or specifications may be made by the Town when necessary for the proper fulfillment of their purpose or for their proper interpretation. When there is a conflict between the Drawings and the Specifications, the Town shall be the sole judge of which provision shall be controlling.

1.07 DEFINITIONS OF PARTIES REFERENCED IN SPECIFICATIONS

A. References to the "Contractor" within the Contract Documents and Technical Specifications shall mean the entity legally contracted by the Town of Scituate to perform and complete the Work of this Contract.

B. References to the "Resident Engineer", "Engineer", "Engineering Design Consultant", "Landscape Architect", "Designer", "Consultant", "Town", or "Owner" within the Contract Documents and Technical Specifications shall refer to the Town of Coventry or parties delegated by the Town of Coventry.

PART 2 - PRODUCTS

Not Used

PART 3 - EXECUTION

Not Used

* * * END OF SECTION * * *

SECTION 01 03 00

BID ALTERNATES

1.01 SCOPE:

A. This Section describes the Bid Alternate(s) which appear in the Contract Documents. Consult the individual Sections for the detailed requirements of the Alternates. Bid Alternate(s) are graphically depicted on the Drawings.

B. Bid prices for the Alternates shall include all labor, equipment, materials, overhead, profit, and all other expenses incidental to the Work under the Alternates.

C. The Contractor and any Subcontractors shall be responsible for examining the scope of the Alternates as generally defined herein and for recognizing modifications to the Work caused by the Alternates and including the cost thereof in the bid prices.

D. Work required under the selected alternates will be in addition to that required under the Base Bid.

E. If the Owner selects Bid Alternate No. 1, it will be added consecutively to the Base Bid. The lowest eligible bidder may be determined based on the lowest Base Bid or combination of Base Bid and Bid Alternate No. 1 and any subsequent alternates, as the Owner may so choose.

1.02 BID ALTERNATE NO. 1:

A. BID ALTERNATE NO. 1: shall include installation of Owner-furnished playground equipment at Harris Playground located at 108 Howard Ave, Coventry, Rhode Island. Work shall include installing Owner-furnished playground and benches, furnishing and installing curbing, and furnishing and installing engineered wood fiber safety surfacing and stone base, as well as coordination with Owner-performed site preparation, demolition, and earthwork. Refer to Drawings and Specification Section 02500 Paving and Surfacing, and Section 02800 Site Improvements, and related sections.

1.03 TIME:

A. Selection of the Bid Alternate(s) will not result in an extension of the Contract Time for Completion.

1.04 ATTACHMENTS TO THIS SECTION

A. Attachments to this Section include the following:
1. Playground and Bench Installation Instructions – by Landscape Structures

****** END OF SECTION ******

ATTACHMENTS TO SECTION 010300 “BID ALTERNATES”

- Bid Alt 1: Playground Installation Instructions – by Landscape Structures, Inc. (Harris Playground)

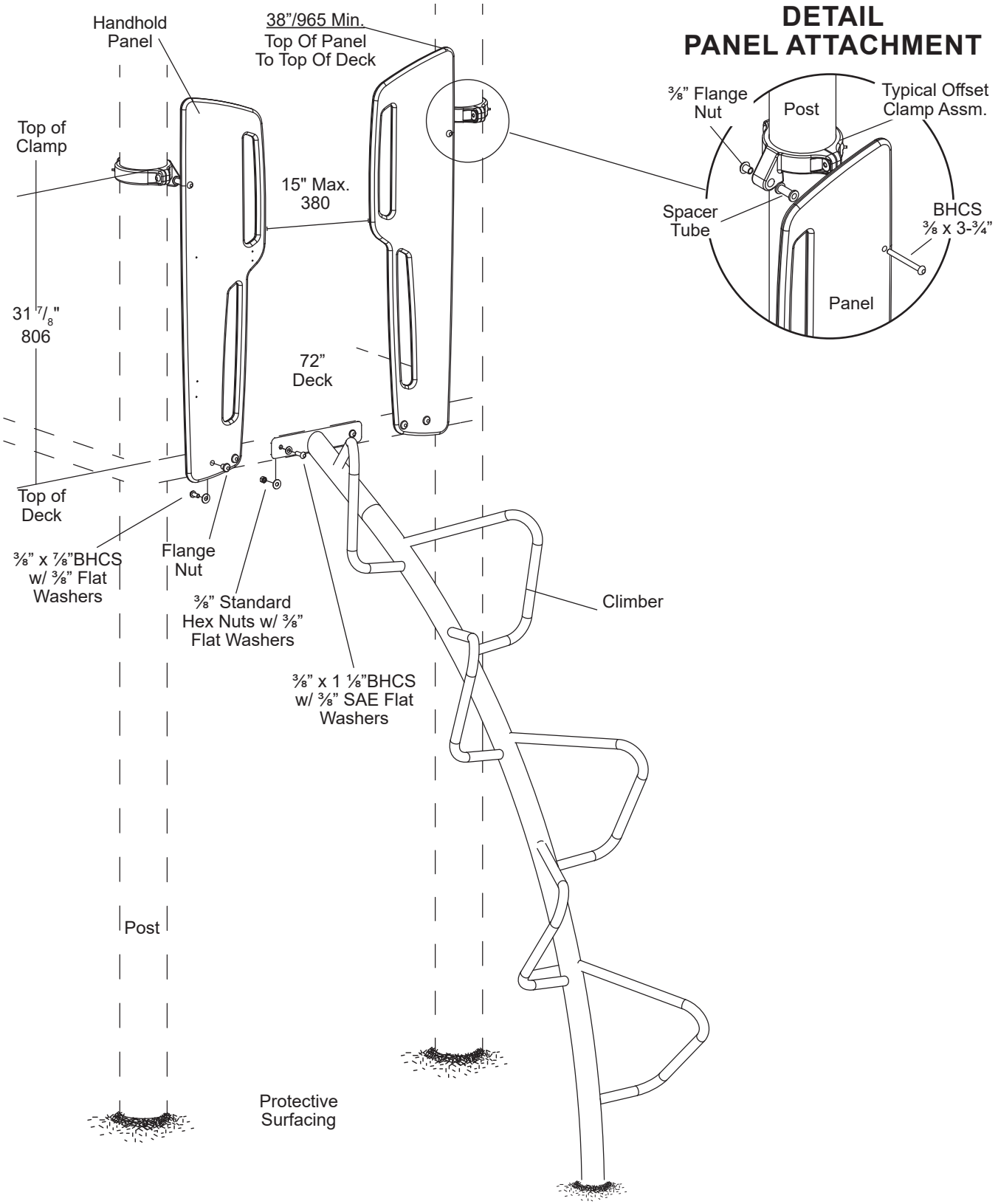
MEO25643

landscape structures®

ISO 14001 CERTIFIED

ISO 9001 Certified

SAFETY NOTE
Choose a protective surfacing material that has a Critical Height Value of at least the height of the Highest Accessible Part/Fall Height of the adjacent equipment. (Ref. ASTM F1487.)



DETAIL PANEL ATTACHMENT

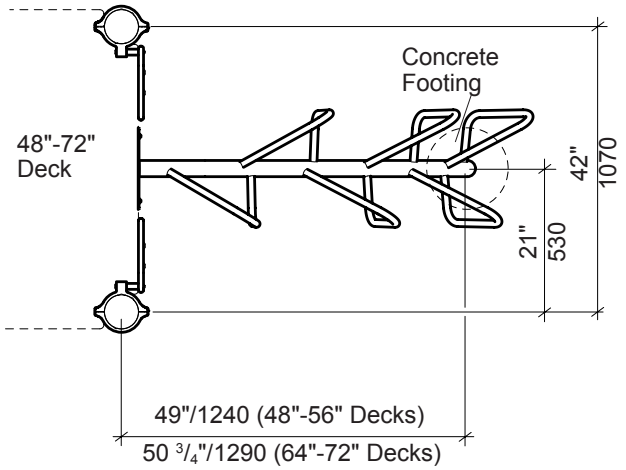
PlayBooster® 345323 Croquet Climber, 48"-72" Deck

601 7TH STREET SOUTH, DELANO, MINNESOTA 55328-8605 888-574-4678 LSI Install Help 888-438-6574 LSI Direct 763-972-5200 Int. FAX (763) 972-3185

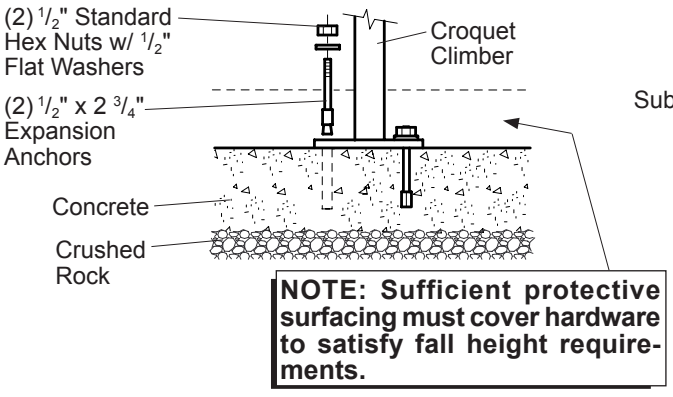
Document #34519500

SAFETY NOTE
Choose a protective surfacing material that has a Critical Height Value of at least the height of the Highest Accessible Part/Fall Height of the adjacent equipment. (Ref. ASTM F1487.)

PLAN VIEW/FOOTING LAYOUT

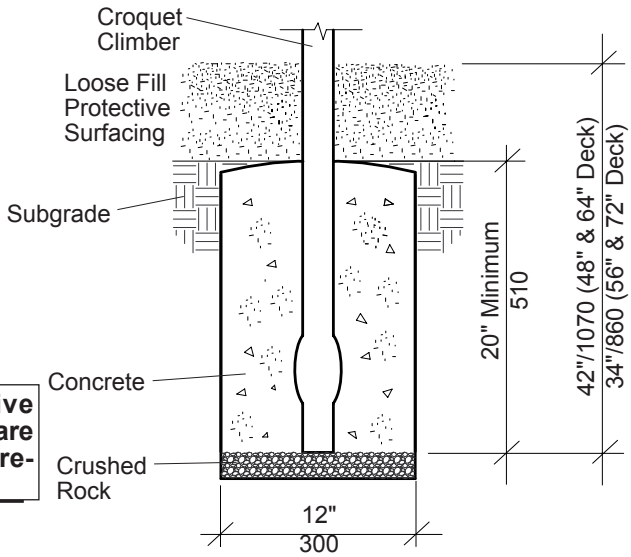


DETAIL
SURFACE MOUNT



NOTE: Sufficient protective surfacing must cover hardware to satisfy fall height requirements.

DETAIL
DIRECT BURY



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PlayBooster® 345323 Croquet Climber, 48”-72” Deck

Parts List

Part#	Description	Qty.
100610	1/4” x 5/8” Drive Rivet, AL/SST	2
105327	5” Half Clamp, Specify Color	2
113468	7/8” O.D. x 1 11/16” Spacer Tube, Specify Color	2
113729	5” Offset Hanger Clamp, Specify Color	2
346076	Handhold Panel, Specify Color	2
176202	48”-56” Croquet Climber, DB, Specify Color	1
175792	64”-72” Croquet Climber, DB, Specify Color	1
176111	48” Croquet Climber, SM, Specify Color	1
176112	56” Croquet Climber, SM, Specify Color	1
176113	64” Croquet Climber, SM, Specify Color	1
176114	72” Croquet Climber, SM, Specify Color	1
176385	**Croquet Climber Hardware Package**	1
100196	3/8” x 7/8” BHCS w/Pin, SST	4
100198	3/8” x 1 1/8” BHCS w/Pin, SST	6
100327	3/8” Standard Hex Nut, SST	2
100351	3/8” Tee Nut, SST	4
100353	3/8” Flange Nut w/Pin, SST	6
100362	3/8” Flat Washers, SST	6
100365	3/8” SAE Flat Washers, SST	2
124460	3/8” x 3 3/4” BHCS w/Pin, SST	2
111392	**2-Hole (SM) Hardware Package**	1
100266	1/2” x 2 3/4” Expansion Anchors	2
100322	1/2” Standard Hex Nut, SST	2
100363	1/2” Flat Washer, SST	2

DB = Direct Bury
SM = Surface Mount

Specifications

Croquet Climber: Weldment comprised of 2.375” O.D. RS20 (.095”-.105” wall) galvanized steel tube, 1.029” O.D. RS20 (.070”-.080” wall) galvanized steel tube, and 1/4” HRPO steel sheet. Finish: ProShield®, color specified.

Handhold Panel: Permalene®, color specified.

Spacer Tube: Made from 6061-T6 aluminum 7/8” O.D. x 1 11/16”. Finish: ProShield, color specified.

Clamps: Cast aluminum. Finish: ProShield, color specified.

Fasteners: Primary fasteners shall be socketed and pinned tamperproof in design, stainless steel (SST) per ASTM F 879 unless otherwise indicated (see specific product installation/specifications).

Installation Time: **SM** - Approx. 1 1/2 man hours
DB - Approx. 2 man hours
Concrete: **DB** - Approx. 1.31 cu. ft.
Weight: **DB** 65 lbs. (48”-56”)
DB 68 lbs. (64”-72”)
SM 57 lbs. (48”)
SM 58 lbs. (56”)
SM 63 lbs. (64”)
SM 64 lbs. (72”)
Fall Height: Deck Height

Installation Instructions

1) **(Direct Bury)** Dig footing hole spaced as shown.

2) Attach the handhold panels to the face of the deck, using 3/8” x 7/8” BHCS w/pin with 3/8” flat washers and 3/8” flange nuts w/pin.

3) Attach handhold panels to the offset hanger clamps, using 3/8” x 3 3/4” BHCS w/pin, 7/8” O.D. x 1 11/16” spacer tubes and 3/8” flange nuts w/pin. Refer to the Panel Attachment Detail.

4) Attach offset hanger clamps to posts, using 5” half clamps, 3/8” x 1 1/8” BHCS w/pin and 3/8” tee nuts. Refer to the Typical Offset Hanger Clamp Spec Sheet.

5) Attach Croquet climber to deck, using 3/8” x 1 1/8” BHCS w/pin with 3/8” SAE flat washers and 3/8” standard hex nuts with 3/8” flat washers.

6) Install 1/4” x 5/8” drive rivets in all 5” half clamps. Drill through hole in 5” half clamp and into 5” post with a 1/4” or “F” (only) drill bit, insert drive rivet into hole through clamp and into post. Hammer drive rivet pin in until flush with head. Refer to the Typical Offset Hanger Clamp Spec Sheet.

7) **(Direct Bury)** With Croquet climber plumb, pour concrete footing. Allow concrete footing to cure for a minimum of 72 hours before users are allowed to play on the structure.

   (Surface Mount) With Croquet climber plumb, drill 1/2” x 3” deep holes through mounting plates using hammer drill and 1/2” masonry bit. Tap expansion anchors into drilled holes. Fasten mounting plates to expansion anchors, using 1/2” standard hex nuts with 1/2” flat washers.

8) Install protective surfacing before users are allowed to play on the component.

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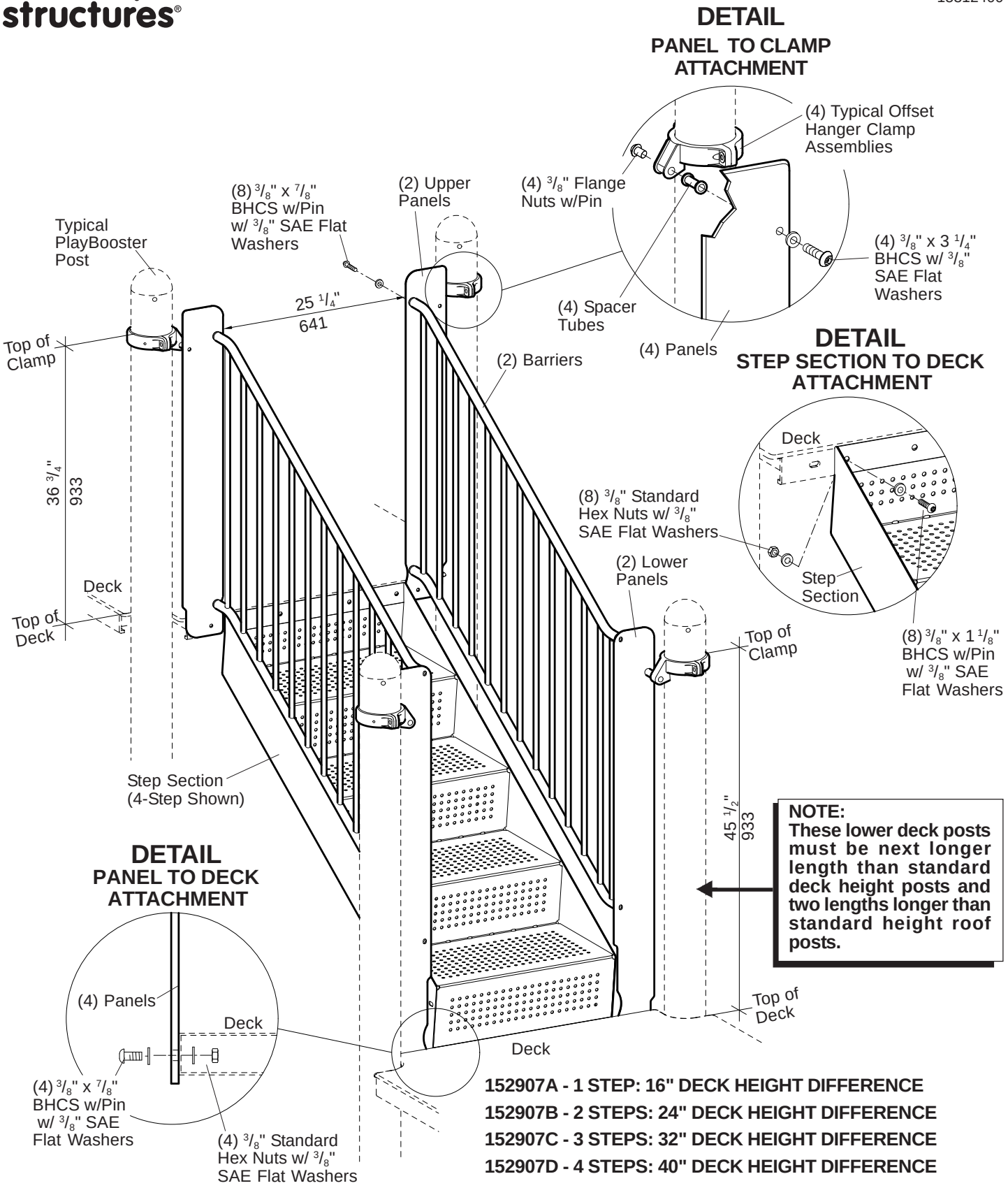
SAFETY NOTE

Choose a protective surfacing material that has a Critical Height Value of at least the height of the Highest Accessible Part/Fall Height of the adjacent equipment. (Ref. *ASTM F1487*.)

15312400



152907A - 1 STEP: 16" DECK HEIGHT DIFFERENCE

152907B - 2 STEPS: 24" DECK HEIGHT DIFFERENCE

152907C - 3 STEPS: 32" DECK HEIGHT DIFFERENCE

152907D - 4 STEPS: 40" DECK HEIGHT DIFFERENCE

PlayBooster® 152907 Deck Link, w/ Barriers

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Document #15628400

PlayBooster® 152907 Deck Link, w/ Barriers

Parts List

Part#	Description	Qty.
144696	1-Step Section, Specify Color	1
144698	2-Step Section, Specify Color	1
144700	3-Step Section, Specify Color	1
144702	4-Step Section, Specify Color	1
144703	1-Step Barrier, Specify Color	2
144705	2-Step Barrier, Specify Color	2
144707	3-Step Barrier, Specify Color	2
144709	4-Step Barrier, Specify Color	2
153896	Lower Panel, Specify Color	2
153895	Upper Panel, Specify Color	2
113468	Spacer Tube, Specify Color	4
100610	1/4" x 5/8" Drive Rivet, AL/SST	4
105327	5" Half Clamp, Specify Color	4
113729	Offset Hanger Clamp, Specify Color	4
156283	**Deck Link Barr/Hrail Hardware Package**	1
100168	3/8" x 3 1/4" BHCS, SST	4
100196	3/8" x 7/8" BHCS w/Pin, SST	12
100198	3/8" x 1 1/8" BHCS w/Pin, SST	16
100327	3/8" Standard Hex Nut, SST	12
100351	3/8" Tee Nut, SST	8
100353	3/8" Flange Nut w/Pin, SST	4
100365	3/8" SAE Flat Washer, SST	36

Specifications

Panels: Zinc plated 7 GA. (.179") HR flat steel. Finish: ProShield®, color specified.

Step Section: Formed from 12 GA (.105) sheet steel conforming to ASTM A1011. Standing surface is 24 3/8" wide x 14" deep and is perforated with 5/16" diameter holes. Finish: TenderTuff, color specified.

Barrier: Weldment comprised of 1.125" O.D. x 11 Ga. (.120" wall) steel tubing, 5/8" O.D. steel bar with 203 or 303 stainless steel inserts with 3/8" internal threads. Finish: TenderTuff, color specified.

Spacer Tube: Made from 6061-T6 aluminum 7/8" O.D. x 1 11/16". Finish: ProShield, color specified.

Clamps: Cast aluminum. Finish: ProShield, color specified.

Fasteners: Primary fasteners shall be socketed and pinned tamperproof in design, stainless steel (SST) per ASTM F 879 unless otherwise indicated (see specific product installation/specifications).

Installation Time: Approx. 1 1/2 man hours

Weight:
1-Step - 130 lbs.
2-Step - 182 lbs.
3-Step - 236 lbs.
4-Step - 296 lbs.

Fall Height: Deck Height

Installation Instructions

1) Attach step section to decks using 3/8" x 1 1/8" BHCS w/pin with 3/8" SAE flat washers and 3/8" standard hex nuts with 3/8" SAE flat washers, as shown. Refer to the Step Section To Deck Attachment Detail.

2) Attach upper and lower panels to the face of the deck using 3/8" x 7/8" BHCS w/pin with 3/8" SAE flat washers and 3/8" standard hex nuts with 3/8" SAE flat washers. Refer to the Panel to Deck Attachment Detail.

3) Attach offset hanger clamps to posts at heights shown using 5" half clamps, 3/8" x 1 1/8" BHCS w/pin with 3/8" tee nuts. Refer to the Typical Offset Hanger Clamp Spec Sheet.

4) Attach upper and lower panels to offset hanger clamps using 3/8" x 3 1/4" BHCS with 3/8" SAE flat washers, spacer tubes and 3/8" flange nuts w/pin. Refer to the Panel To Clamp Attachment Detail.

5) Attach barriers to upper and lower panels using 3/8" x 7/8" BHCS w/pin and 3/8" SAE flat washers, as shown.

6) Install 1/4" x 5/8" drive rivets in all 5" half clamps. Refer to the Typical Offset Hanger Clamp Spec Sheet.

7) Install protective surfacing before users are allowed to play on the structure.

Eco #53000 Document #15628400 replaces #15312400. Added 3/8" x 1 1/8" BHCS w/Pin to hardware package.

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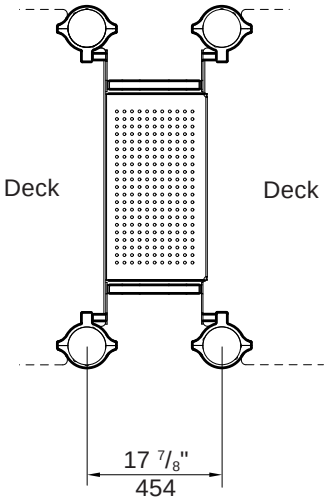
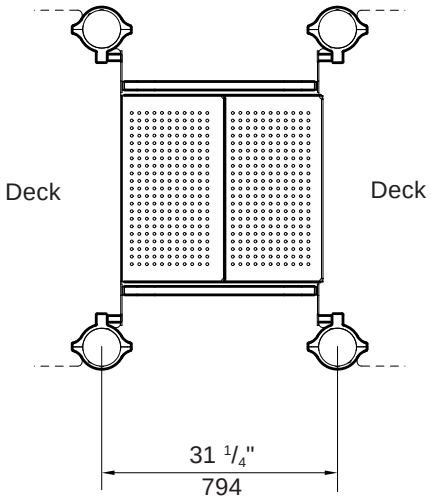
PLAN VIEW/FOOTING LAYOUTS

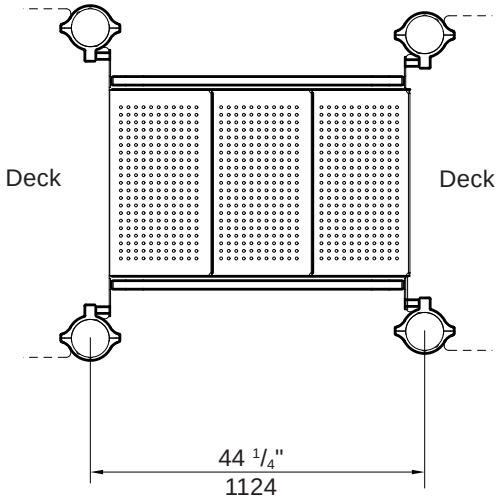
FOOTINGS/ 1-STEP



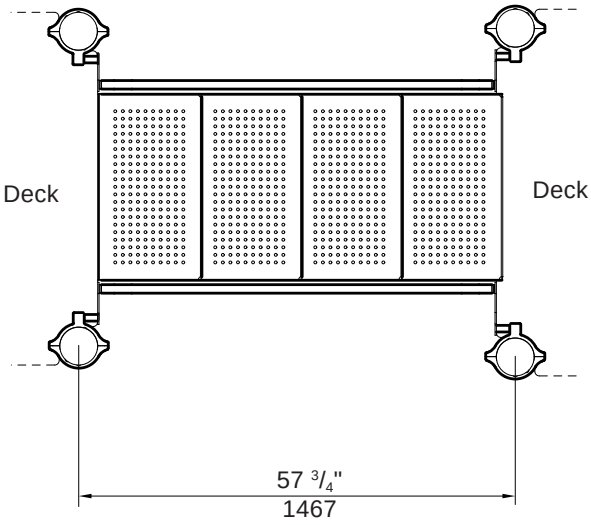
FOOTINGS/ 2-STEP



FOOTINGS/ 3-STEP



FOOTINGS/ 4-STEP



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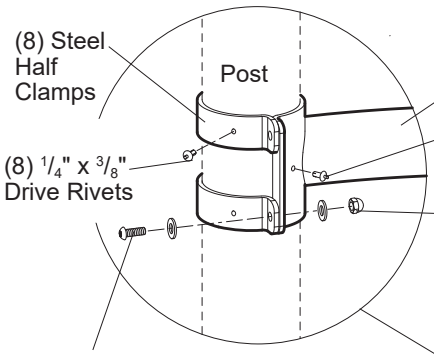
SAFETY NOTE

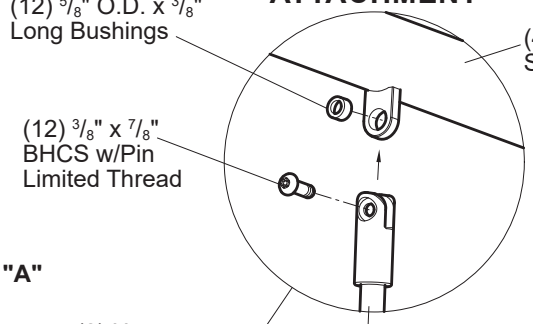
Choose a protective surfacing material that has a Critical Height Value of at least the height of the Highest Accessible Part/Fall Height of the adjacent equipment. (Ref. ASTM F1487.)

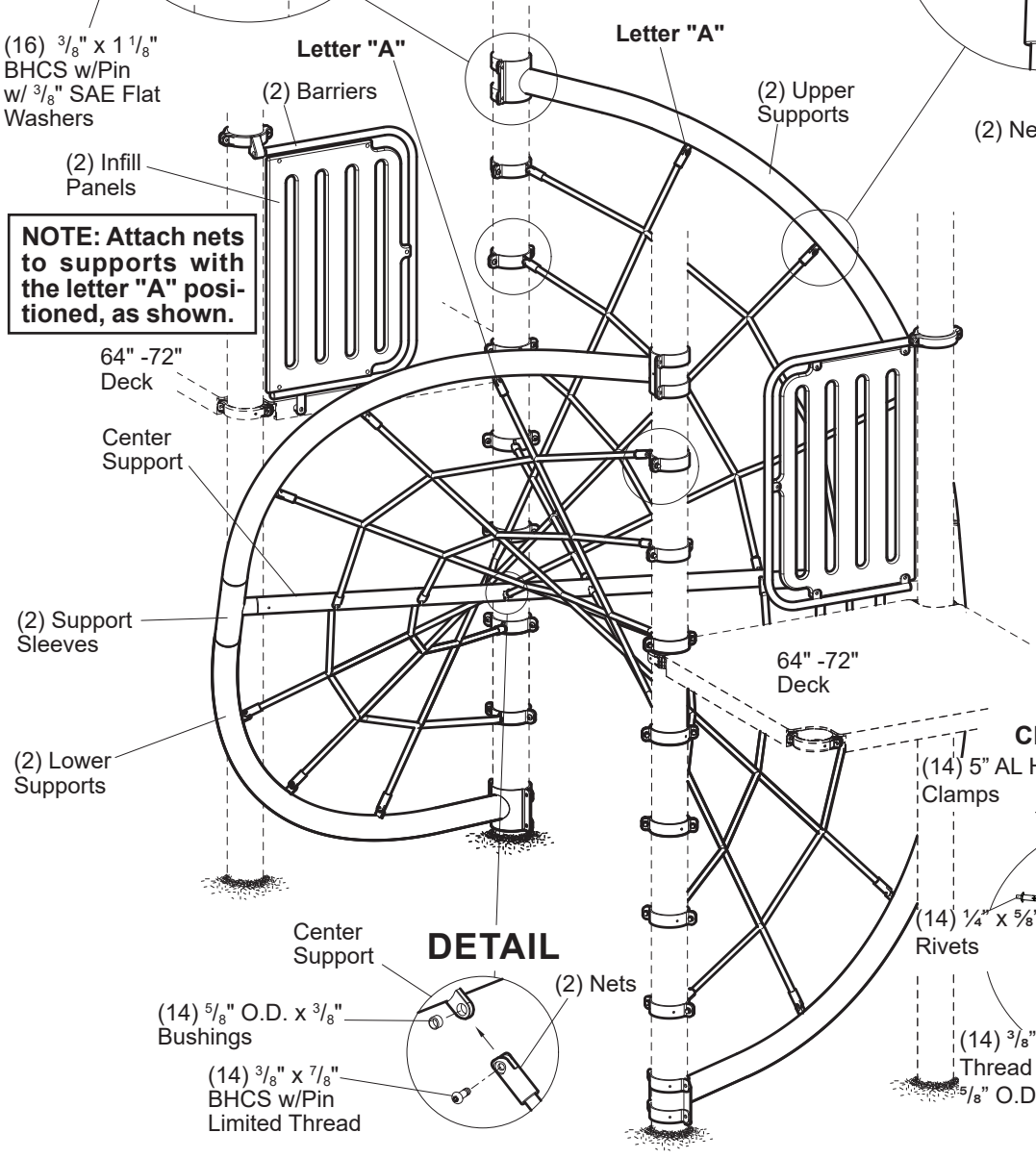
NOTE: Prior to installing Flex Climber, identify adjacent component clamp locations. Lower all clamps if there is a support clamp conflict.

DETAIL
SUPPORT ATTACHMENT



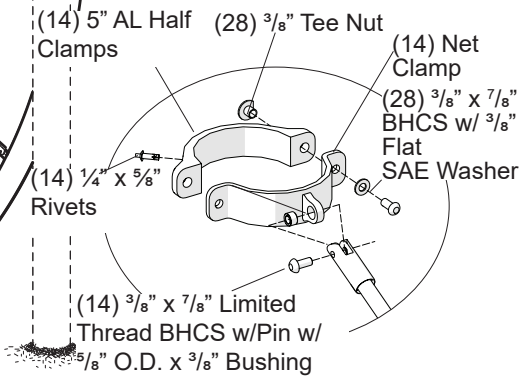
DETAIL
NET TO SUPPORT ATTACHMENT





NOTE: Attach nets to supports with the letter "A" positioned, as shown.

DETAIL
CLAMP ATTACHMENT



DETAIL

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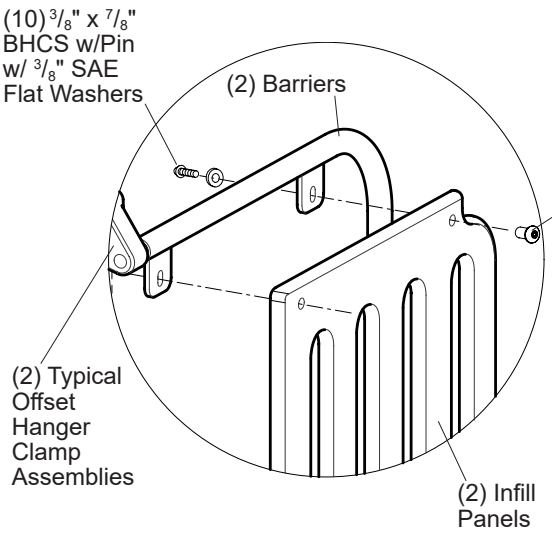
SAFETY NOTE

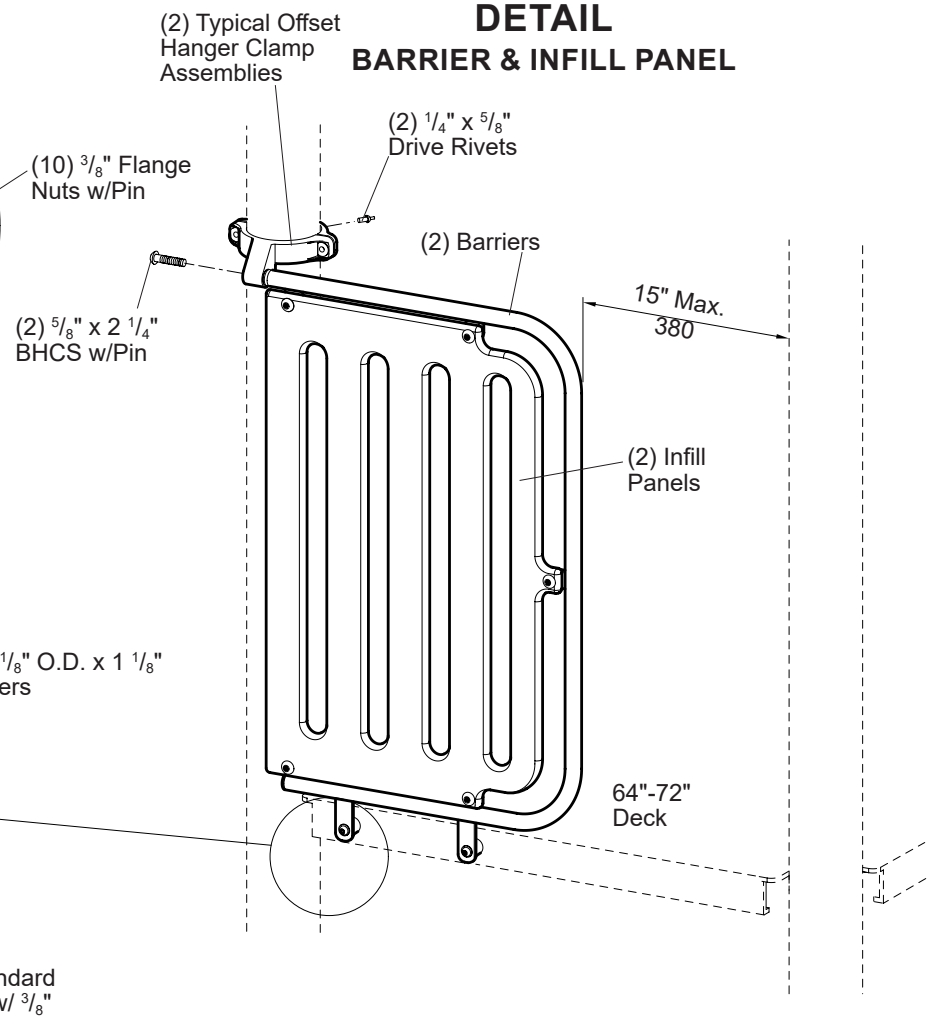
Choose a protective surfacing material that has a Critical Height Value of at least the height of the Highest Accessible Part/Fall Height of the adjacent equipment. (Ref. ASTM F1487.)

BARRIER ATTACHMENT DETAILS

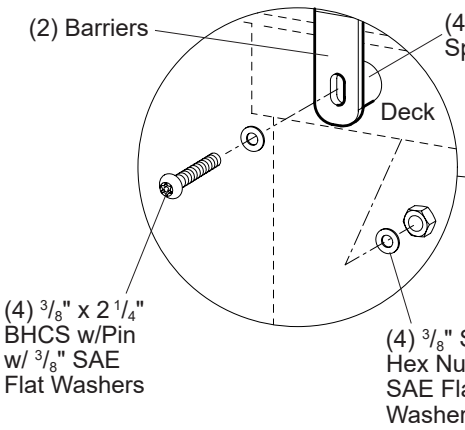
DETAIL
INFILL PANEL ATTACHMENT



DETAIL
BARRIER & INFILL PANEL



DETAIL
BARRIER TO DECK ATTACHMENT



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DETAIL
CLIMBER ASSEMBLY

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SAFETY NOTE
Choose a protective surfacing material that has a Critical Height Value of at least the height of the Highest Accessible Part/Fall Height of the adjacent equipment. (Ref. ASTM F1487.)

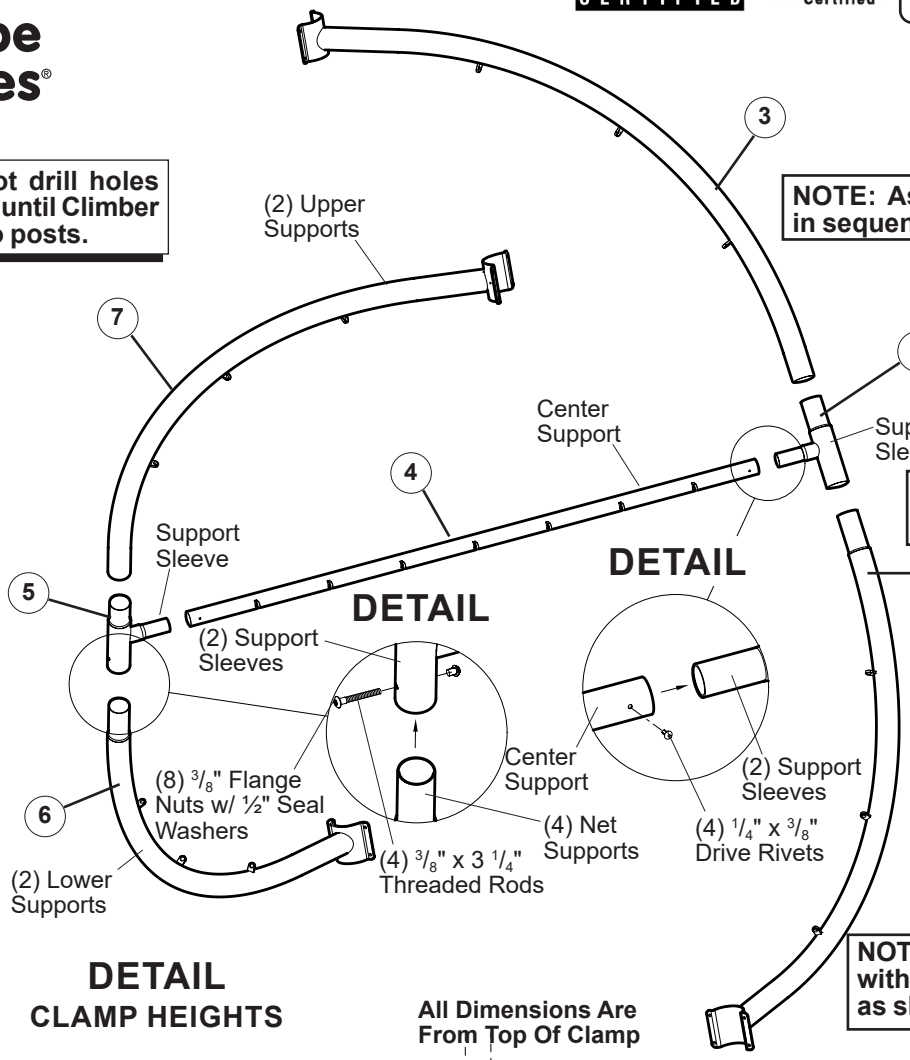
NOTE: Do not drill holes for fasteners until Climber is attached to posts.

NOTE: Assemble climber in sequence 1 thru 7.

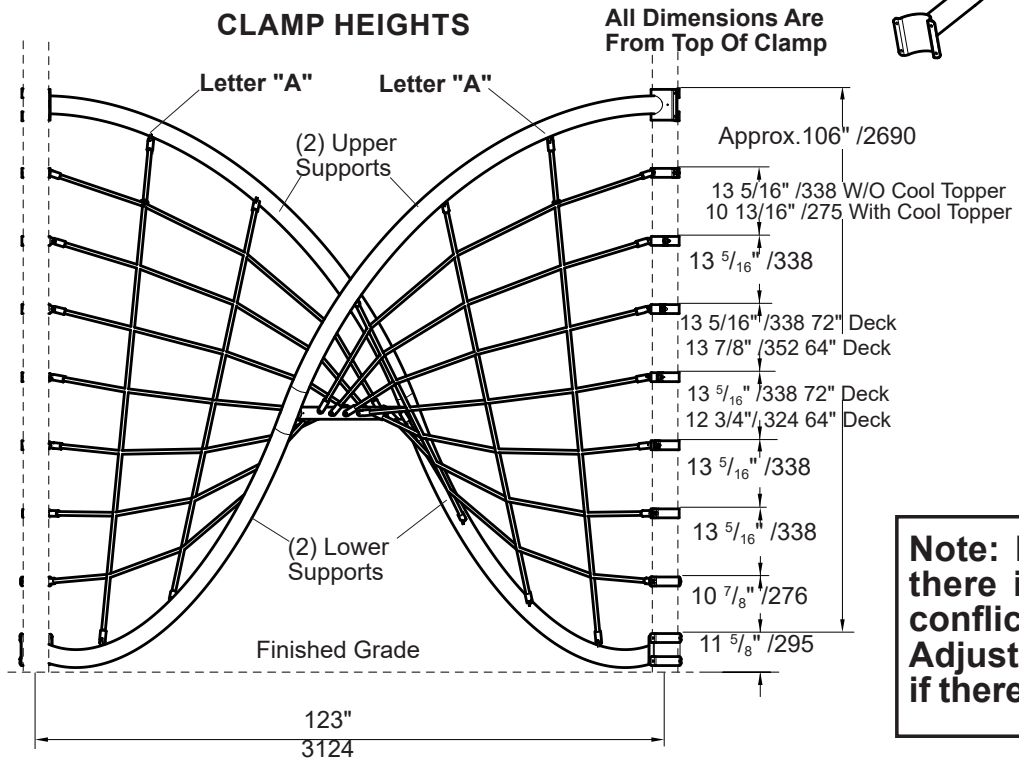
NOTE : ORIENT THE MALE END UP

NOTE: Do not install 1/4" x 3/8" drive rivets until Climber is attached to posts.

NOTE: Attach nets to supports with the letter "A" positioned, as shown.



DETAIL
CLAMP HEIGHTS



Note: Lower all clamps if there is a support clamp conflict.
Adjust net clamp location if there is a clamp conflict.

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SAFETY NOTE

Choose a protective surfacing material that has a Critical Height Value of at least the height of the Highest Accessible Part/Fall Height of the adjacent equipment. (Ref. ASTM F1487.)

Parts List

Part#	Description	Qty.
100610	1/4" x 5/8" Drive Rivet, AL/SST	16
100611	1/4" x 3/8" Drive Rivet, AL/SST	12
104731	1 3/4" Steel Half Clamp, Specify Color	8
105327	5" Half Clamp, Specify Color	16
113729	5" Offset Hanger Clamp, Specify Color	2
151072	1 1/8" O.D. x 1 1/8" Spacer, AL., Specify Color	4
161898	Net Clamp, Specify Color	14
170931	Infill Panel, Specify Color	2
170930	Barrier, Specify Color	2
192608	Center Support, Specify Color	1
202623	Flex Climber Net, Specify Color	2
208736	Upper Support, Specify Color	2
201306	Lower Support, Specify Color	2
201311	Sleeve, Specify Color	2
170993	**Single Barrier w/Infill Hardware Package**	2
100196	3/8" x 7/8" BHCS w/Pin, SST	10
100198	3/8" x 1 1/8" BHCS w/Pin, SST	4
100199	3/8" x 2 1/4" BHCS w/Pin, SST	4
100203	5/8" x 2 1/4" BHCS w/Pin, SST	2
100327	3/8" Standard Hex Nut, SST	4
100351	3/8" Tee Nut, SST	4
100353	3/8" Flange Nut w/Pin, SST	10
100365	3/8" SAE Flat Washer, SST	18
295006	**Flex Climber Hardware Package**	1
100198	3/8" x 1 1/8" BHCS w/Pin, SST	16
100365	3/8" SAE Flat Washer, SST	74
100349	3/8" Low Crown Cap Nut, SST	16
100290	3/8" x 7/8" BHCS w/Pin Limited Thread, SST	40
100353	3/8" Flange Nut w/Pin, SST	8
100611	1/4" x 3/8" Drive Rivet, AL./SST	4
127179	5/8" O.D. x 3/8" Bushing, SST	40
176539	3/8" x 3 1/4" Threaded Rod, SST	4
100196	3/8" x 7/8" BHCS w/Pin, SST	28
223098	1/2" ID x 1" OD Master Seal Washer	8
100351	3/8" Tee Nut, SST	28

Specifications

Cable Assembly: **(Cable)** Made of tightly woven polyester-wrapped, six-stranded galvanized-steel cable with a polypropylene core. **(Cable Connectors)** 6063-T6 aluminum.

Net Support: Weldment comprised of 3.500" (88,9 mm) O.D. RS20 .125" (3,18 mm) wall galvanized steel tubing, 3/8" (9,53 mm) thick SST plate, and 1/4" (6,35 mm) HRPO flat steel. Finish: ProShield®, color specified.

Center Support: Weldment comprised of 2.375" (60,33 mm) O.D. RS40 (.130" - .140") (3,30 mm-3,56 mm) wall galvanized steel tubing and 3/8" (9,53 mm) thick SST plate. Finish: ProShield, color specified.

Support Sleeve: Weldment comprised of 3.500" (88,9 mm) O.D. RS20 .125" (3,18 mm) wall galvanized steel tubing, and 2.375" (60,33 mm) O.D. RS40 (.130" - .140") (3,30 mm-3,56 mm) wall galvanized steel tubing. Finish: ProShield, color specified.

Infill Panel: Recycled Permalene®, color specified.

Barrier: Weldment comprised of 1.125" (28,58 mm) O.D. 11 Ga. (.120") (3,05 mm) wall steel tube per ASTM A513 with 203 or 303 stainless steel threaded inserts with 5/8" (15,88 mm) internal threads and 1/4" (6,35 mm) tabs. Finish: TenderTuff®, color specified.

Steel Half Clamps: Fabricated from of 1/4" (6,35 mm) HRPO flat steel. Finish: ProShield, color specified.

Net Clamp: Weldment comprised of 1/4" (6,35 mm) x 1 3/4" (44,45 mm) HRPO flat steel and .375" (9,53 mm) stainless steel sheet. Finish: ProShield, color specified.

5" Clamps: Cast aluminum. Finish: ProShield, color specified.

Fasteners: Primary fasteners shall be socketed and pinned tamperproof in design, stainless steel (SST) per ASTM F 879 unless otherwise indicated (see specific product installation/specifications).

Installation Time: Approx. 6 man hours
Weight: 393 lbs.
Fall Height: 103" (2,62 m)

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SAFETY NOTE

Choose a protective surfacing material that has a Critical Height Value of at least the height of the Highest Accessible Part/Fall Height of the adjacent equipment. (Ref. ASTM F1487.)

PlayBooster® 204176 Flex Climber, w/Permalene Infills

Installation Instructions

1) Attach infill panels to barriers. Refer to the Barrier Attachment Details.
2) Attach barriers to decks. Refer to the Barrier Attachment Details.
3) Attach offset hanger clamps to barriers. Refer to the Barrier Attachment Details
4) Attach offset hanger clamps to posts, using 5" half clamps, $^{3}/_{8}$" x 1 $^{1}/_{8}$" BHCS w/pin and $^{3}/_{8}$" tee nuts. Refer to the Typical Offset Hanger Clamp Assembly Sheet.
5) Attach lower net support to post at height shown. Assemble upper and lower supports to support sleeve, as shown. Attach upper net support to post. Refer to the Climber Assembly Detail. **NOTE:** *Assemble climber in sequence 1 thru 7.*
6) Slide center support onto support sleeve. Assemble upper and lower supports to support sleeve, as shown. Attach net supports to post. Refer to the Climber Assembly Detail. **NOTE:** *Assemble climber in sequence 1 thru 7.*
7) Drill through holes in supports and support sleeves with a $^{17}/_{32}$" drill bit. Attach supports to support sleeves using $^{3}/_{8}$" flange nuts with ½" Seal washers and $^{3}/_{8}$" x 3 $^{1}/_{4}$" threaded rods.
8) Attach net clamps to posts at height shown.
9) Attach nets to net supports, center support and net clamps with the **letter "A"** positioned on top, as shown.
10) Drill through holes in center support and into support sleeves with a $^{1}/_{4}$" or “F” (only) drill bit, insert $^{1}/_{4}$" x $^{3}/_{8}$" drive rivets into holes. Hammer drive rivet pin in until flush with head.
11) Install $^{1}/_{4}$" x $^{3}/_{8}$" drive rivets in all steel half clamps. Drill through hole in steel half clamps and into 5" post with a $^{1}/_{4}$" or “F” (only) drill bit, insert drive rivet in hole through clamp and into post. Hammer drive rivet pin in until flush with head.
12) Install $^{1}/_{4}$" x $^{5}/_{8}$" drive rivets in all 5" half clamps. Drill through hole in 5" half clamps and into 5" post with a $^{1}/_{4}$" or “F” (only) drill bit, insert drive rivet in hole through clamp and into post. Hammer drive rivet pin in until flush with head. Refer to the Typical Offset Hanger Clamp Spec Sheet.
13) Install protective surfacing before users are allowed to play on the structure.

ECO# 0102126 Document 29501400 replace 21842600. Clamps changed to Aluminum updated clamp heights

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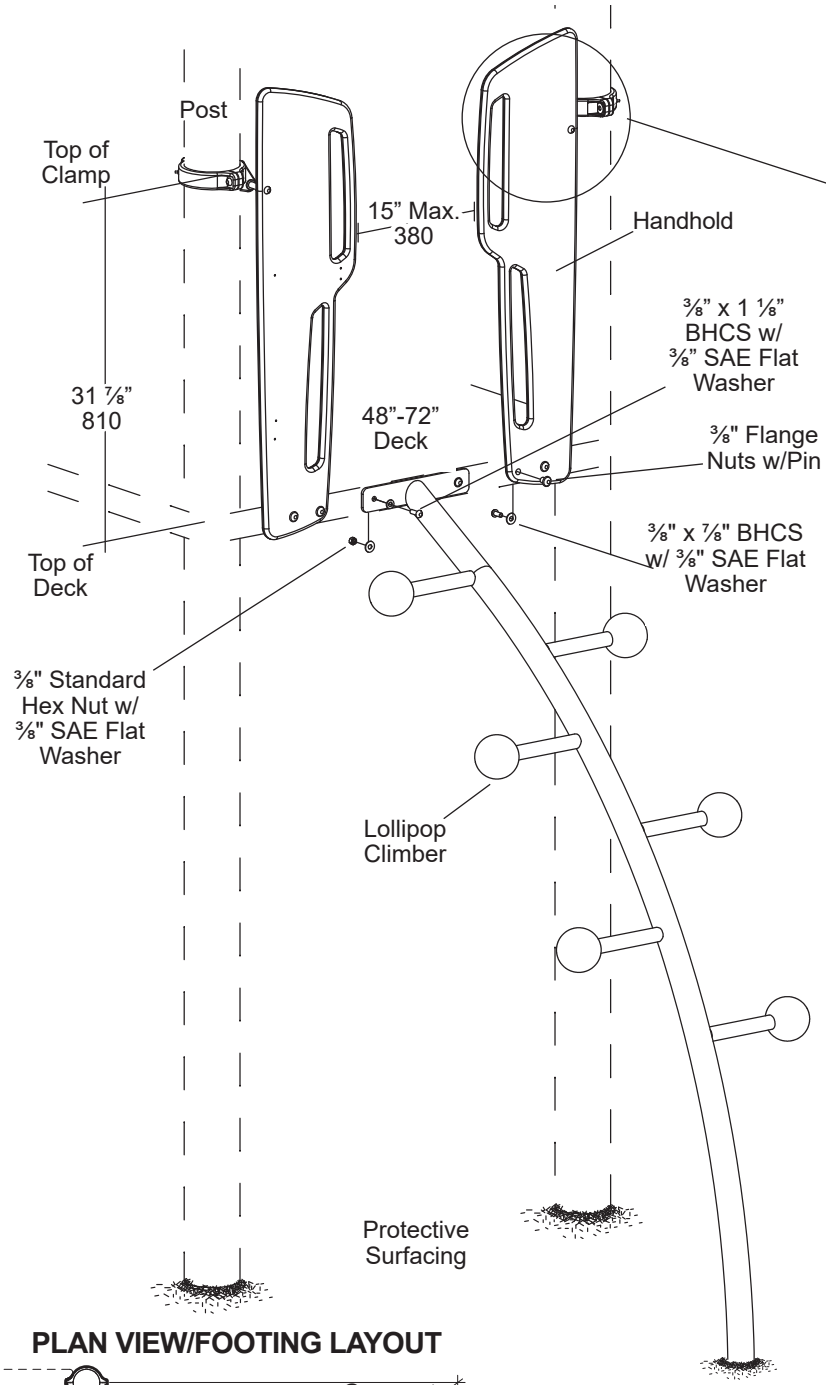
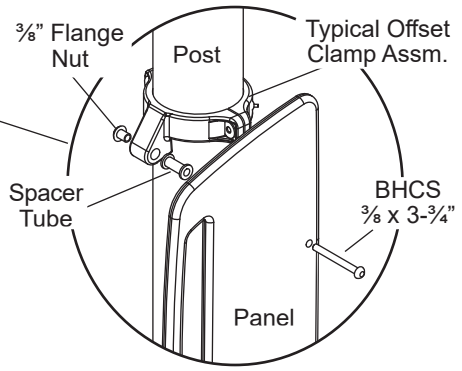
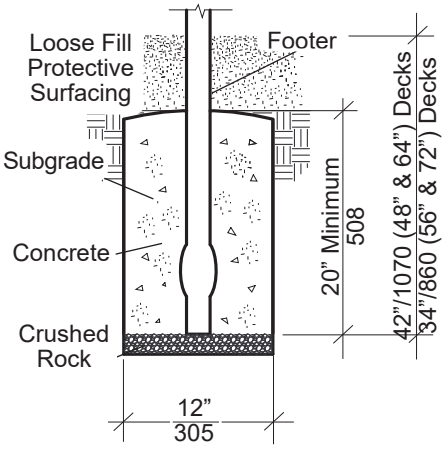
SAFETY NOTE
Choose a protective surfacing material that has a Critical Height Value of at least the height of the Highest Accessible Part/Fall Height of the adjacent equipment. (Ref. ASTM F1487.)



DETAIL PANEL ATTACHMENT

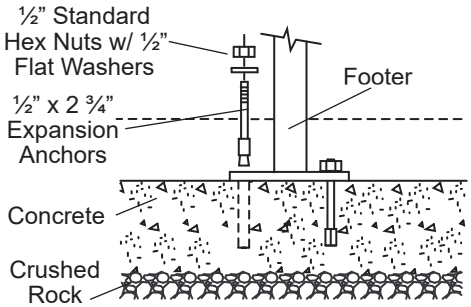


DETAIL DIRECT BURY

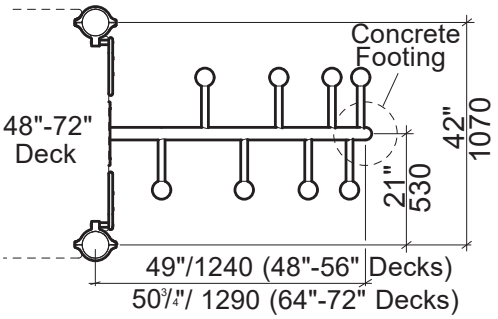


DETAIL SURFACE MOUNT

NOTE: Sufficient protective surfacing must cover hardware to satisfy fall height requirements.



PLAN VIEW/FOOTING LAYOUT



PlayBooster® 345309 Lollipop Climber, 48"-72" Deck

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Document #34517800

PlayBooster® 345309 Lollipop Climber, 48”-72” Deck

Parts List

Part#	Description	Qty.
100610	1/4” x 5/8” Drive Rivet, AL/SST	2
105327	5” Half Clamp, Specify Color	2
113468	7/8” O.D. x 1 11/16” Spacer Tube, Specify Color	2
113729	5” Offset Hanger Clamp, Specify Color	2
346076	Handhold Panel, Specify Color	2
175873	48”-56” Lollipop Climber, DB, Specify Color	1
175871	64”-72” Lollipop Climber, DB, Specify Color	1
176115	48” Lollipop Climber, SM, Specify Color	1
176116	56” Lollipop Climber, SM, Specify Color	1
176117	64” Lollipop Climber, SM, Specify Color	1
176118	72” Lollipop Climber, SM, Specify Color	1
176384	**Lollipop Climber Hardware Package**	1
100196	3/8” x 7/8” BHCS w/Pin, SST	4
100198	3/8” x 1 1/8” BHCS w/Pin, SST	6
100327	3/8” Standard Hex Nut, SST	2
100351	3/8” Tee Nut, SST	4
100353	3/8” Flange Nut w/Pin, SST	6
100362	3/8” Flat Washer, SST	6
100365	3/8” SAE Flat Washer, SST	2
124460	3/8” x 3 3/4” BHCS w/Pin, SST	2
111392	**2-Hole (SM) Hardware Package**	1
100266	1/2” x 2 3/4” Expansion Anchors	2
100322	1/2” Standard Hex Nut, SST	2
100363	1/2” Flat Washer, SST	2

DB = Direct Bury
SM = Surface Mount

Specifications

Lollipop Climber: Weldment comprised of 1.315” O.D. RS20 (.080”-.090” wall) galvanized steel tube, 2.375” O.D. RS20 (.095”-.105” wall) galvanized steel tube, 1/4” HRPO steel sheet and 10 GA. (.135”) HRPO steel. Finish: ProShield®, color specified.

Handhold Panel: Permalene®, color specified.

Spacer Tube: Made from 6061-T6 aluminum 7/8” O.D. x 1 11/16”. Finish: ProShield, color specified.

Clamps: Cast aluminum. Finish: ProShield color specified.

Fasteners: Primary fasteners shall be socketed and pinned tamperproof in design, stainless steel (SST) per ASTM F 879 unless otherwise indicated (see specific product installation/specifications).

Installation Time: **SM** - Approx. 1 1/2 man hours
DB - Approx. 2 man hours
Concrete: **DB** - Approx. 1.31 cu. ft.
Weight: **DB** 63 lbs. (48”-56”)
DB 71 lbs. (64”-72”)
SM 59 lbs. (48”)
SM 60 lbs. (56”)
SM 66 lbs. (64”)
SM 68 lbs. (72”)
Fall Height: Deck Height

Installation Instructions

1) **(Direct Bury)** Dig footing hole spaced as shown.

2) Attach the handhold panels to the face of the deck using 3/8” x 7/8” BHCS with 3/8” flat Washer and 3/8” flange nuts w/pin.

3) Attach handhold panels to the offset hanger clamps, using 3/8” x 3 3/4” BHCS w/pin, 7/8” O.D. x 1 11/16” spacer tubes and 3/8” flange nuts w/pin. Refer to the Panel Attachment Detail.

4) Attach offset hanger clamps to posts at height shown using 5” half clamps, 3/8” x 1 1/8” BHCS and 3/8” tee nuts. Refer to the Typical Offset Hanger Clamp Spec Sheet.

5) Attach Lollipop climber to deck, using 3/8” x 1 1/8” BHCS with 3/8” SAE flat Washer and 3/8” standard hex nuts with 3/8” flat Washer.

6) Install 1/4” x 5/8” drive rivets in all 5” half clamps. Drill through hole in 5” half clamp and into 5” post with a 1/4” or “F” (only) drill bit, insert drive rivet into hole through clamp and into post. Hammer drive rivet pin in until flush with head. Refer to the Typical Offset Hanger Clamp Spec Sheet.

7) **(Direct Bury)** With Lollipop climber plumb, pour concrete footing. Allow concrete footing to cure for a minimum of 72 hours before users are allowed to play on the structure.

   (Surface Mount) With Lollipop climber plumb, drill 1/2” x 3” deep holes through mounting plates using hammer drill and 1/2” masonry bit. Tap expansion anchors into drilled holes. Fasten mounting plates to expansion anchors, using 1/2” standard hex nuts with 1/2” flat Washer.

8) Install protective surfacing before users are allowed to play on the component.

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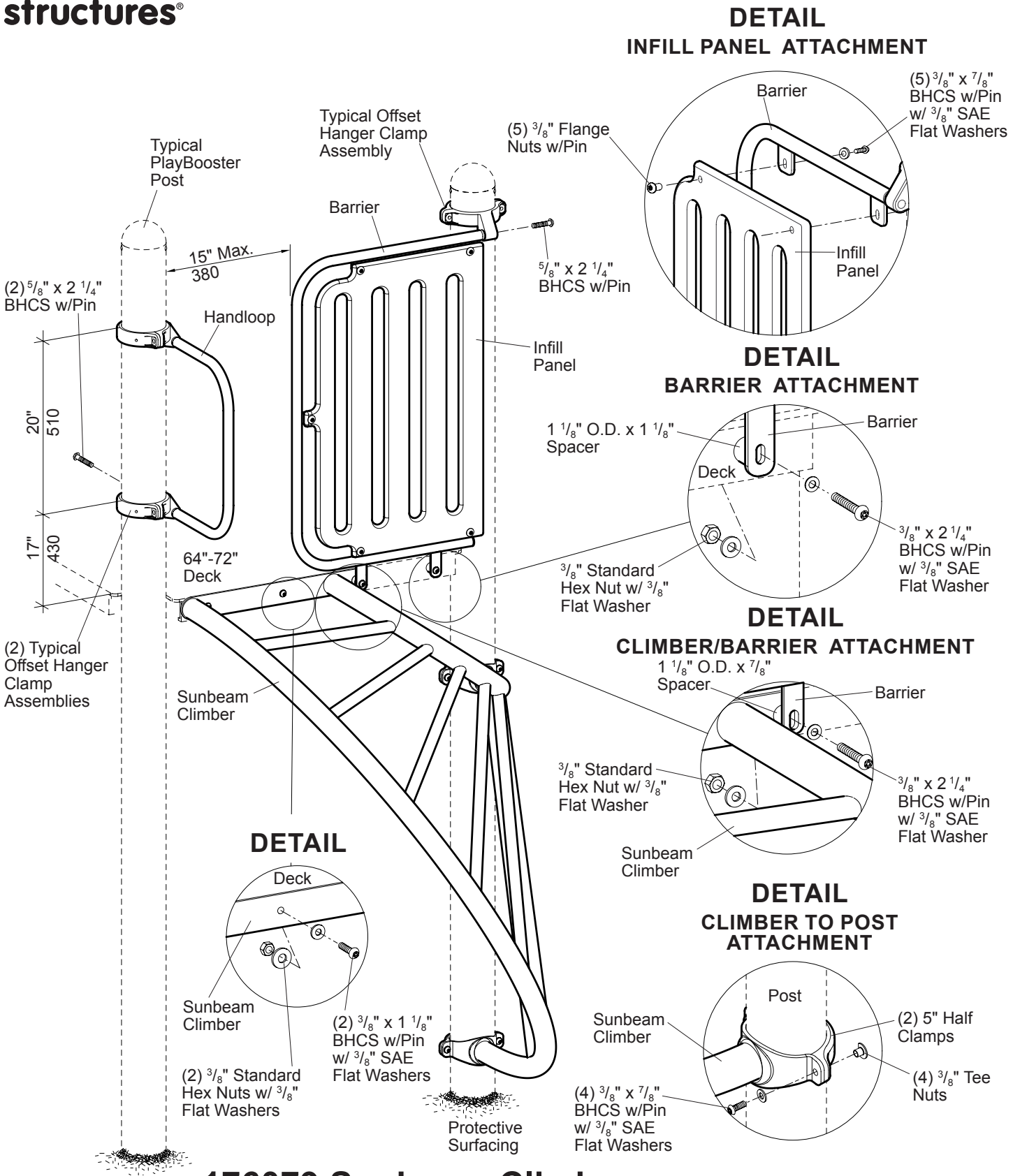
SAFETY NOTE

Choose a protective surfacing material that has a Critical Height Value of at least the height of the Highest Accessible Part/Fall Height of the adjacent equipment. (Ref. ASTM F1487.)

17608600



PlayBooster® 176079 Sunbeam Climber, 64"-72" Deck

601 7TH STREET SOUTH, DELANO, MINNESOTA 55328-8605 888-574-4678 LSI Install Help 888-438-6574 LSI Direct 763-972-5200 Int. FAX (763) 972-3185

PlayBooster® 176079 Sunbeam Climber, 64"-72" Deck

Parts List

Part#	Description	Qty.
100610	1/4" x 5/8" Drive Rivet, AL/SST	5
105327	5" Half Clamp, Specify Color	5
108542	Handloop, Specify Color	1
113729	5" Offset Hanger Clamp, Specify Color	3
151072	1 1/8" O.D. x 1 1/8" Spacer, Specify Color	1
170930	Barrier, Specify Color	1
170931	Barrier Infill Panel, Specify Color	1
176050	Sunbeam Climber, Specify Color	1
176344	1 1/8" O.D. x 7/8" Spacer, Specify Color	1
176386	**Sunbeam Climber Hardware Package**	1
100196	3/8" x 7/8" BHCS w/Pin, SST	9
100198	3/8" x 1 1/8" BHCS w/Pin, SST	8
100199	3/8" x 2 1/4" BHCS w/Pin, SST	2
100203	5/8" x 2 1/4" BHCS w/Pin, SST	3
100327	3/8" Standard Hex Nut, SST	4
100351	3/8" Mod T-Nut, SST	10
100353	3/8" Flange Nut w/Pin, SST	5
100362	3/8" Flat Washer, SST	4
100365	3/8" SAE Flat Washer, SST	13

Specifications

Sunbeam Climber: Weldment comprised of 1.315" O.D. RS20 (.080"-.090" wall) galvanized steel tube, 2.375" O.D. RS40 (.130"-.140" wall) galvanized steel tube, and 1/4" HRPO steel sheet. Finish: ProShield®, color specified.

Barrier: Weldment comprised of 1.125" O.D. 11 Ga. (.120") steel tube per ASTM A513 with 203 or 303 stainless steel threaded insert with 5/8" internal threads and 1/4" tabs. Finish: TenderTuff™, color specified.

Handloop: Weldment comprised of 1.125" O.D. 11 GA (.120") steel tubing with 203 or 303 stainless steel inserts, with 5/8" internal threads. Finish: TenderTuff, color specified.

Infill Panel: Permalene®, color specified.

Clamps: Cast aluminum. Finish: ProShield, color specified.

Fasteners: Primary fasteners shall be socketed and pinned tamperproof in design, stainless steel (SST) per ASTM F 879 unless otherwise indicated (see specific product installation/specifications).

Installation Time: Approx. 1 1/4 man hours
Weight: 118 lbs.
Fall Height: Deck Height

Installation Instructions

1) Attach Sunbeam climber to deck, using 3/8" x 1 1/8" BHCS w/pin with 3/8" SAE flat washers and 3/8" standard hex nuts with 3/8" flat washers. Refer to Detail.

2) Attach Sunbeam climber to post, using 5" half clamps, 3/8" x 7/8" BHCS w/pin with 3/8" SAE flat washers and 3/8" tee nuts. Refer to Climber To Post Attachment Detail.

3) Place 1 1/8" O.D. x 7/8" spacer between barrier tab and Sunbeam Climber. Attach barrier, 1 1/8" O.D. x 7/8" spacer and Sunbeam Climber to deck, using 3/8" x 2 1/4" BHCS w/pin with 3/8" SAE flat washer and 3/8" standard hex nut with 3/8" flat washer. Refer to the Climber/Barrier Attachment Detail.

4) Place 1 1/8" O.D. x 1 1/8" spacer between barrier tab and deck. Attach barrier and 1 1/8" O.D. x 1 1/8" spacer to deck, using 3/8" x 2 1/4" BHCS w/pin with 3/8" SAE flat washer and 3/8" standard hex nut with 3/8" flat washer. Refer to the Barrier Attachment Detail.

5) Attach barrier to offset hanger clamp, using 5/8" x 2 1/4" BHCS w/pin.

6) Attach infill panel to barrier, using 3/8" x 7/8" BHCS w/pin with 3/8" SAE flat washers and 3/8" flange nuts w/pin. Refer to the Infill Panel Attachment Detail.

7) Mark locations for clamps on posts per dimensions on front of sheet. Attach offset hanger clamps to posts, using 5" half clamps, 3/8" x 1 1/8" BHCS w/pin and 3/8" tee nuts. Refer to the Typical Offset Hanger Clamp Assembly Sheet. Attach handloop to offset hanger clamp assemblies, using 5/8" x 2 1/4" BHCS w/pin.

8) Install 1/4" x 5/8" drive rivets in all 5" half clamps. Drill through hole in 5" half clamp and into 5" post with a 1/4" or "F" (only) drill bit, insert drive rivet into hole through clamp and into post. Hammer drive rivet pin in until flush with head. Refer to the Typical Offset Hanger Clamp Spec Sheet.

9) Install protective surfacing before users are allowed to play on the structure.

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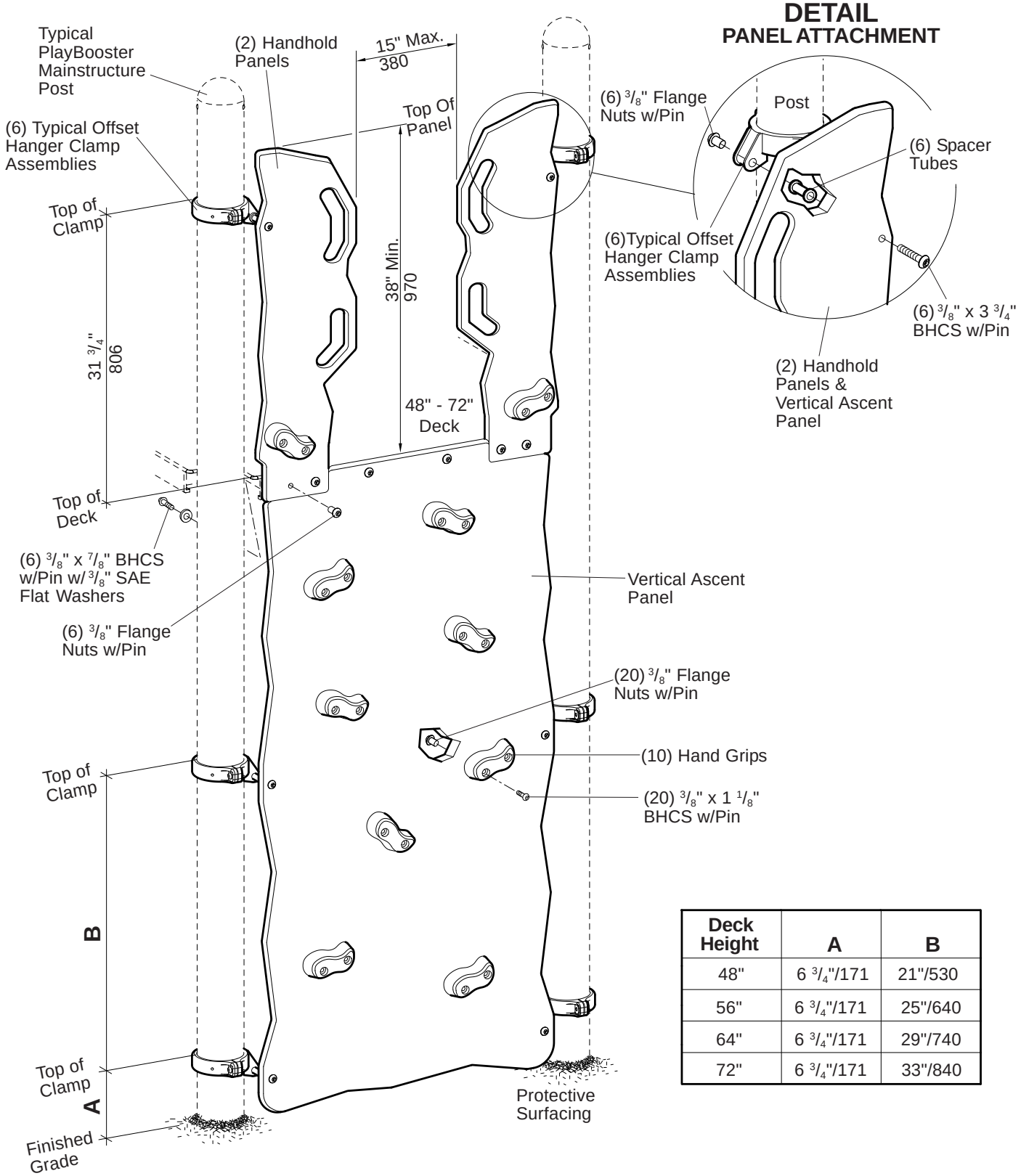
SAFETY NOTE

Choose a protective surfacing material that has a Critical Height Value of at least the height of the Highest Accessible Part/Fall Height of the adjacent equipment. (Ref. *ASTM F1487*.)

15489700



Deck Height	A	B
48"	6 3/4"/171	21"/530
56"	6 3/4"/171	25"/640
64"	6 3/4"/171	29"/740
72"	6 3/4"/171	33"/840

PlayBooster® 145624 Vertical Ascent®, 48"-72"

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Document #18298100

PlayBooster® 145624 Vertical Ascent®, 48"-72"

Parts List

Part#	Description	Qty.
182957	Vertical Ascent Handhold Panel, Specify Color	2
145597	Vertical Ascent Panel, 48" Deck, Specify Color	1
145596	Vertical Ascent Panel, 56" Deck, Specify Color	1
145595	Vertical Ascent Panel, 64" Deck, Specify Color	1
145585	Vertical Ascent Panel, 72" Deck, Specify Color	1
105327	5" Half Clamp, Specify Color	6
113729	Offset Hanger Clamp, Specify Color	6
113468	Spacer Tube, Specify Color	6
100610	1/4" x 5/8" Drive Rivet, AL/SST	6
145792	**Hand Grip Set**	1
143110	Hand Grip, Blue	2
143110	Hand Grip, Yellow	2
143110	Hand Grip, Red	3
143110	Hand Grip, Green	3
145616	**Vertical Ascent Hardware Package**	1
100196	3/8" x 7/8" BHCS w/Pin, SST	6
100198	3/8" x 1 1/8" BHCS w/Pin, SST	32
100351	3/8" Tee Nut, SST	12
100353	3/8" Flange Nut w/Pin, SST	32
100365	3/8" SAE Flat Washer, SST	6
124460	3/8" x 3 3/4" BHCS w/Pin, SST	6

Specifications

Hand Grip: Made from Polyester Resin. Hand Grips measure approx. 5 3/4" long x 2 1/4" wide x 1 3/4" high.

Panels: Solid color Permalene®, color specified.

Spacer Tube: Made from 6061-T6 aluminum 7/8" O.D. Finish: ProShield®, color specified.

Clamps: Cast aluminum. Finish: ProShield, color specified.

Fasteners: Primary fasteners shall be socketed and pinned tamperproof in design, stainless steel (SST) per ASTM F 879 unless otherwise indicated (see specific product installation/specifications).

Installation Time: Approx. 2 man hours

Weight:
48" Deck Height - 83 lbs.
56" Deck Height - 91 lbs.
64" Deck Height - 99 lbs.
72" Deck Height - 106 lbs.

Fall Height:
53 1/2"/1358 (48" Deck Height)
61 1/2"/1562 (56" Deck Height)
69 1/2"/1765 (64" Deck Height)
77 1/2"/1968 (72" Deck Height)

Installation Instructions

1) Attach handhold panels and vertical ascent panel to deck using 3/8" x 7/8" BHCS w/pin with 3/8" SAE flat washers and 3/8" flange nuts w/pin, as shown.

2) Attach handhold panels and vertical ascent panel to offset hanger clamps using 3/8" x 3 3/4" BHCS w/pin, spacer tubes and 3/8" flange nuts w/pin. Refer to the Panel Attachment Detail.

3) Attach offset hanger clamps to posts at heights shown using 5" half clamps, 3/8" x 1 1/8" BHCS w/pin and 3/8" tee nuts. Refer to the Typical Offset Hanger Clamp Spec Sheet.

4) Attach hand grips to handhold panels and vertical ascent panel using 3/8" x 1 1/8" BHCS w/pin and 3/8" flange nuts w/pin, as shown.

5) Install 1/4" x 5/8" drive rivets in all 5" half clamps. Refer to the Typical Offset Hanger Clamp Spec Sheet.

6) Install protective surfacing before users are allowed to play on the structure.

Eco #54466 Document 18298100 replaces 15489700. Replaced handhold panels.

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ISO 9001 Certified

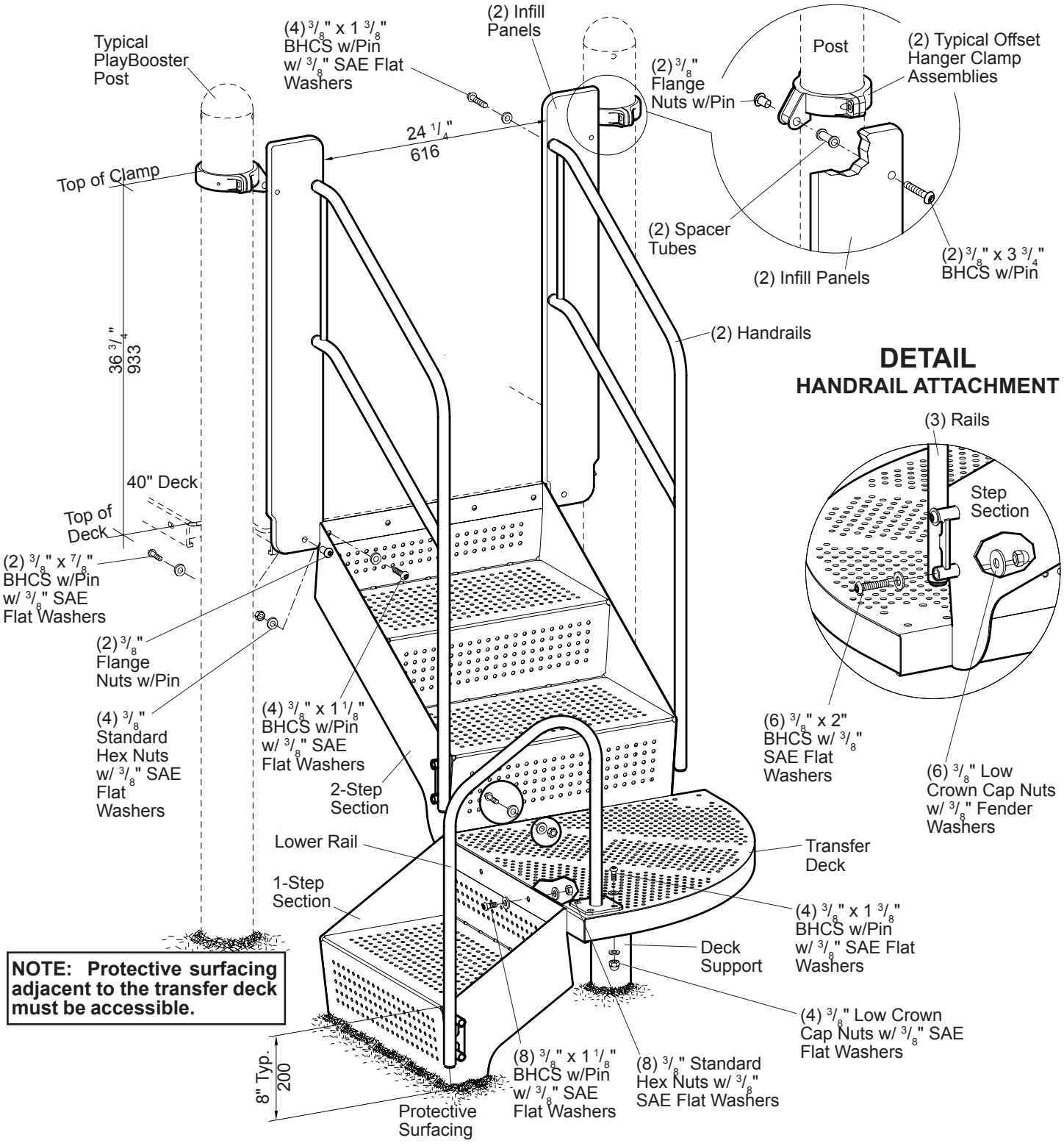
SAFETY NOTE

Choose a protective surfacing material that has a Critical Height Value of at least the height of the Highest Accessible Part/Fall Height of the adjacent equipment. (Ref. ASTM F1487.)

20402300

NOTE: The illustration shown is a left hand orientation. Refer to the site plan drawing for the specified orientation

DETAIL
PANEL ATTACHMENT



NOTE: Protective surfacing adjacent to the transfer deck must be accessible.

DETAIL
HANDRAIL ATTACHMENT

PlayBooster® 152911 Transfer Module, 40", w/Handrails

601 7TH STREET SOUTH, DELANO, MINNESOTA 55328-8605 888-574-4678 LSI Install Help 888-438-6574 LSI Direct 763-972-5200 Int. FAX (763) 972-3185

PlayBooster® 152911 Transfer Module, 40", w/Handrails

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Parts List

Part#	Description	Qty.
100610	1/4" x 5/8" Drive Rivet, AL/SST	2
105327	5" Half Clamp, Specify Color	2
113468	7/8" O.D. x 1 11/16" Spacer Tube, Specify Color	2
113729	Offset Hanger Clamp, Specify Color	2
181371	Deck Support (DB), Specify Color	1
181373	Deck Support (SM), Specify Color	1
181374	Step Support (DB), Specify Color	1
181376	Step Support (SM), Specify Color	1
144696	1-Step Section, Specify Color	1
144698	2-Step Section, Specify Color	1
152639	2-Step Handrail, Specify Color	2
152641	Lower Rail, Specify Color	1
153398	Transfer Deck, Specify Color	1
153399	Infill Panel, Specify Color	2
204034	**Transfer Module Hardware Package**	1
100173	3/8" x 2" BHCS, SST	6
100196	3/8" x 7/8" BHCS w/Pin, SST	4
100198	3/8" x 1 81/8" BHCS w/Pin, SST	20
100327	3/8" Standard Hex Nut, SST	16
100351	3/8" Tee Nut, SST	4
100353	3/8" Flange Nut w/Pin, SST	4
100365	3/8" SAE Flat Washer, SST	54
113027	3/8" x 1 3/8" BHCS w/Pin, SST	8
124460	3/8" x 3 3/4" BHCS w/Pin, SST	2
100378	3/8" Fender Washer, SST	6
100349	3/8" Low Crown Cap Nut, SST	12
111393	**4-Hole (SM) Hardware Package**	1
100263	1/4" x 2 3/4" Expansion Anchors	4
100327	3/8" Standard Hex Nut, SST	4
100365	3/8" SAE Flat Washers, SST	4
121256	**2-Hole (SM) Hardware Package**	1
100263	1/4" x 2 3/4" Expansion Anchors	2
100327	3/8" Standard Hex Nut, SST	2
100365	3/8" SAE Flat Washers, SST	2

DB = Direct Bury
SM = Surface Mount

Specifications

Deck: Flange formed from 12 GA (.105") sheet steel conforming to ASTM A1011. Standing surface is perforated with 5/16" diameter holes and measures 29" per (2) sides. Finish: TenderTuff™, color specified.

Railings: Weldment comprised of formed 1 1/8" O.D. x 11 GA (.120") steel tubing with 203 or 303 stainless steel inserts with 3/8" internal threads. Finish: TenderTuff, color specified.

Step Sections: Formed from 12 GA (.105") sheet steel conforming to ASTM A1011. Standing surface is 24 3/8" wide x 14" deep and is perforated with 5/16" diameter holes. Finish: TenderTuff, color specified.

Spacer Tube: Made from 6061-T6 aluminum 7/8" O.D. x 1 11/16". Finish: ProShield®, color specified.

Panel: Solid color Permalene® panel, color specified.

Deck Support: Weldment comprised of 3 1/2" O.D. RS20 (.125") galvanized steel tubing and 3/8" O.D. x 5" long rod. Finish: ProShield, color specified.

Step Support: Weldment comprised of 1.660 O.D. RS20 (.080"-.095) and 1 3/4" x 1 3/4" x 1/8" HR angle. Finish: ProShield, color specified.

Clamps: Cast aluminum. Finish: ProShield, color specified.

Fasteners: Primary fasteners shall be socketed and pinned tamperproof in design, stainless steel (SST) per ASTM F 879 unless otherwise indicated (see specific product installation/specifications).

Installation Time: **SM** - Approx. 3 man hours
DB - Approx. 4 man hours
Concrete Req.: Approx. 3.4 cu. ft.
Weight: **SM** - 225 lbs.
DB - 240 lbs.
Fall Height: Deck Height

Installation Instructions

1) **(Direct Bury)** Dig footings as shown. Refer to your Plan View/Footing Layout.

2) Attach the deck support to the transfer deck using 3/8" x 7/8" BHCS w/pin and 3/8" low crown cap nuts with 3/8" SAE flat washers. **NOTE:** *Make sure 3/8" rod on support is under support strap on deck as shown.* Refer to the Deck Support Attachment Detail.

3) Attach the 2-step section to the transfer deck using 3/8" x 1 1/8" BHCS w/pin with 3/8" SAE flat washers and 3/8" standard hex nuts with 3/8" SAE flat washers.

4) Attach the 2-step section to the face of the mainstructure deck using 3/8" x 1 1/8" BHCS w/pin with 3/8" SAE flat washers and 3/8" standard hex nuts with 3/8" SAE flat washers.

5) Attach the step support to the 1 step section using 3/8" x 1 1/8" BHCS w/pin with 3/8" SAE flat washers and 3/8" standard hex nuts with 3/8" SAE flat washers. Refer to the Step Support Attachment Detail.

6) Attach the 1-step section to the transfer deck using 3/8" x 1 1/8" BHCS w/pin with 3/8" SAE flat washers and 3/8" standard hex nuts with 3/8" SAE flat washers.

7) Attach offset hanger clamps to posts at heights shown using 5" half clamps, 3/8" x 1 1/8" BHCS w/pin and 3/8" tee nuts. Refer to the Typical Offset Hanger Clamp Spec Sheet.

8) Attach infill panels to the face of the mainstructure deck using 3/8" x 7/8" BHCS w/pin with 3/8" SAE flat washers and 3/8" flange nuts w/pin.

9) Attach infill panels to offset hanger clamp assemblies using 3/8" x 3 3/4" BHCS, spacer tubes and 3/8" flange nuts w/pin. See Panel Attachment Detail.

10) Attach the handrails to the 2-step section using 3/8" x 2" BHCS with 3/8" SAE flat washers and 3/8" low crown cap nuts with 3/8" fender washers. Refer to the Handrail Attachment Detail.

11) Attach the handrails to the infill panels using 3/8" x 1 3/8" BHCS w/pin and 3/8" SAE flat washers.

12) Attach the lower rail to the transfer deck using 3/8" x 1 3/8" BHCS w/pin with 3/8" SAE flat washers and 3/8" low crown cap nuts with 3/8" SAE flat washers.

13) Attach the lower rail to the 1-step section using 3/8" x 2" BHCS with 3/8" SAE flat washers and 3/8" low crown cap nuts with 3/8" fender washers. Refer to the Handrail Attachment Detail.

14) **(Direct Bury)** With transfer deck and steps level and supports plumb, pour concrete footings. Allow concrete footings to cure a minimum of 72 hours before users are allowed to play on the structure.

(Surface Mount) Mark holes for expansion anchors on concrete slab through support plates. Detach the module from the mainstructure and slide module aside, drill 3/8" x 3" deep holes on marks using hammer drill and 3/8" masonry bit. Reposition module over drilled holes and tap expansion anchors into drilled holes. Fasten support plates to expansion anchors using 3/8" standard hex nuts with 3/8" SAE flat washers. Reattach module to structure.

15) Install 1/4" x 5/8" drive rivets in all 5" half clamps. Refer to the Typical Offset Hanger Clamp Spec Sheet.

16) Install protective surfacing before users are allowed to play on the structure.

Eco 0101327 Document 24445100 replaces 20402300. Orientation note added.

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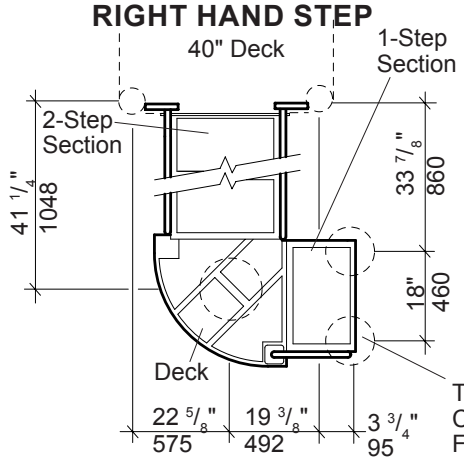
NOTE: Refer to the site plan drawing for proper orientation.

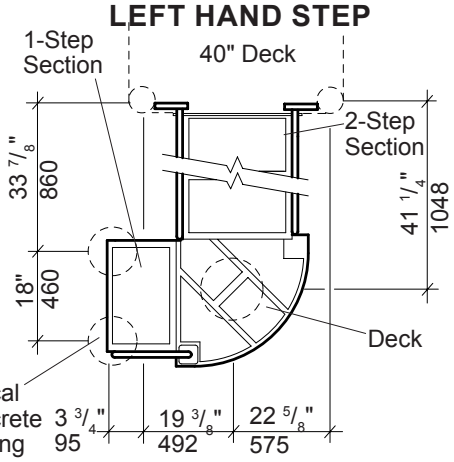
SAFETY NOTE
Choose a protective surfacing material that has a Critical Height Value of at least the height of the Highest Accessible Part/Fall Height of the adjacent equipment. (Ref. ASTM F1487.)

204023a

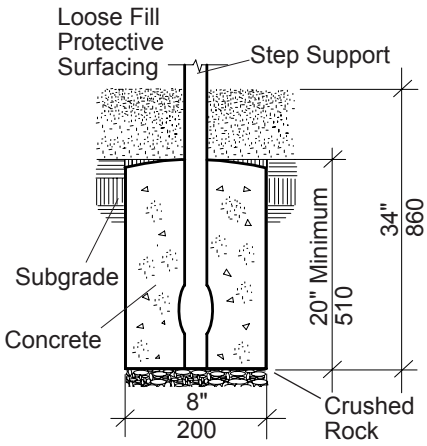
PLAN VIEW FOOTING LAYOUT
RIGHT HAND STEP



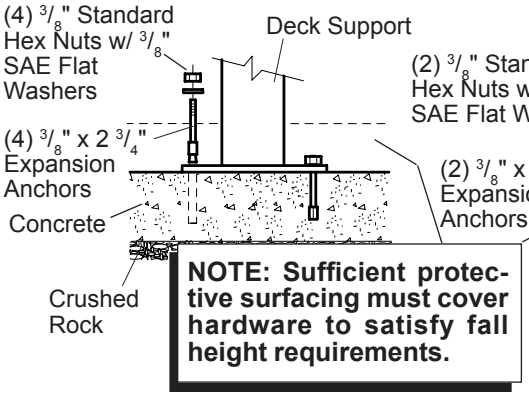
PLAN VIEW FOOTING LAYOUT
LEFT HAND STEP



DETAIL
STEP SUPPORT BURY

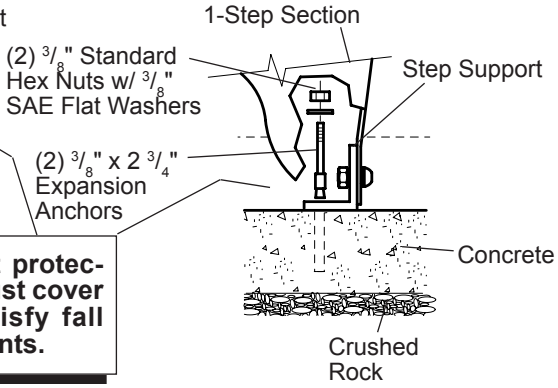


DETAIL
SURFACE MOUNT DECK SUPPORT

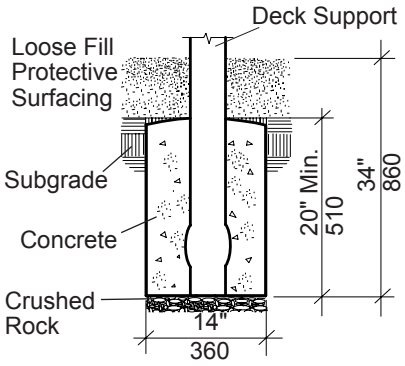


NOTE: Sufficient protective surfacing must cover hardware to satisfy fall height requirements.

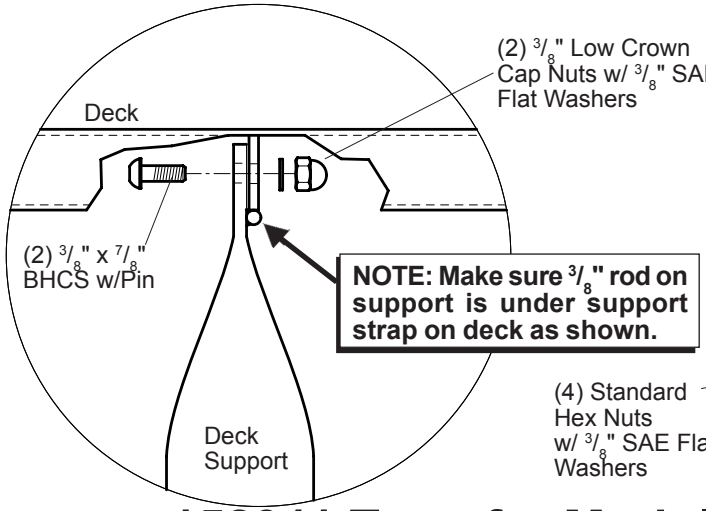
DETAIL
SURFACE MOUNT STEP SUPPORT



DETAIL
DECK SUPPORT BURY

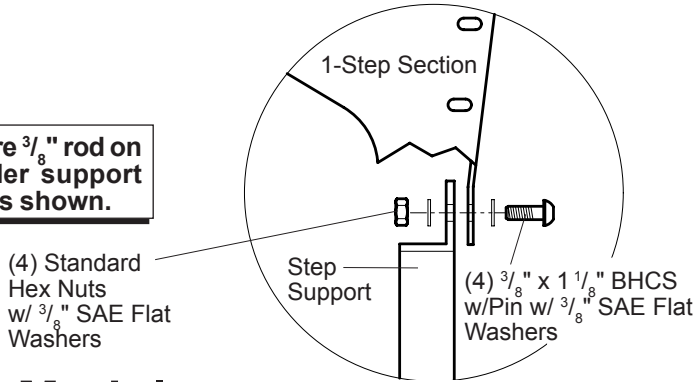


DETAIL
DECK SUPPORT ATTACHMENT



NOTE: Make sure 3/8" rod on support is under support strap on deck as shown.

DETAIL
STEP SUPPORT ATTACHMENT



PlayBooster® 152911 Transfer Module, 40", w/Handrails

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Document #24445100

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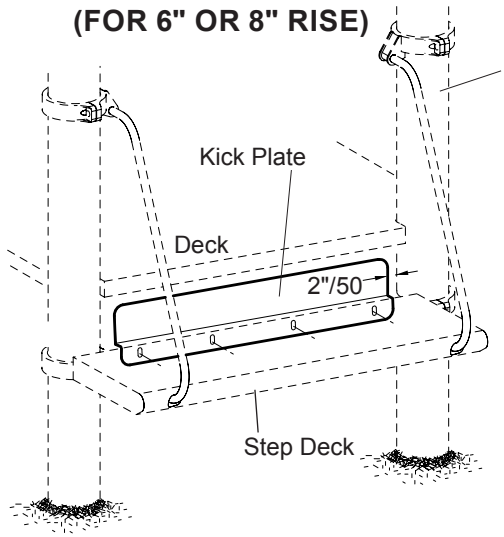
SAFETY NOTE

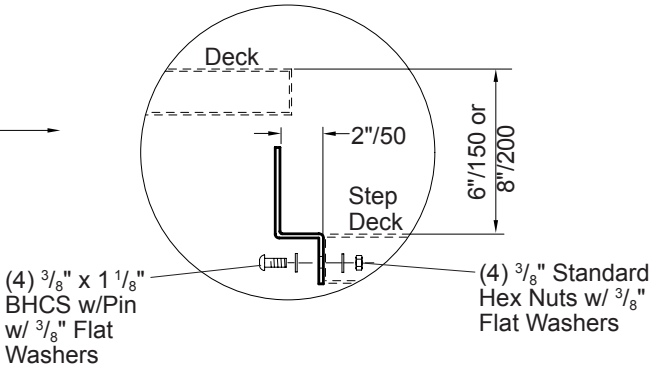
Choose a protective surfacing material that has a Critical Height Value of at least the height of the Highest Accessible Part/Fall Height of the adjacent equipment. (Ref. ASTM F1487.)

16574300

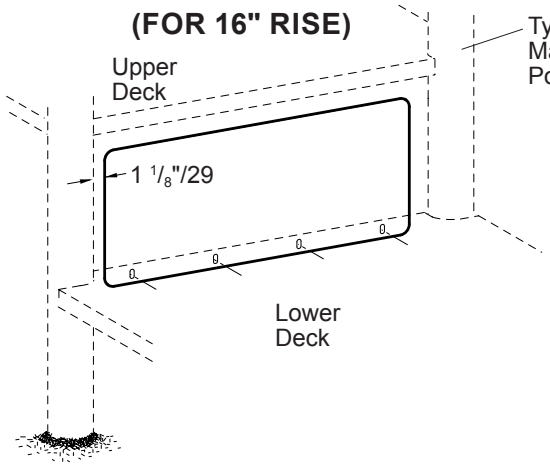
KICK PLATE
(FOR 6" OR 8" RISE)



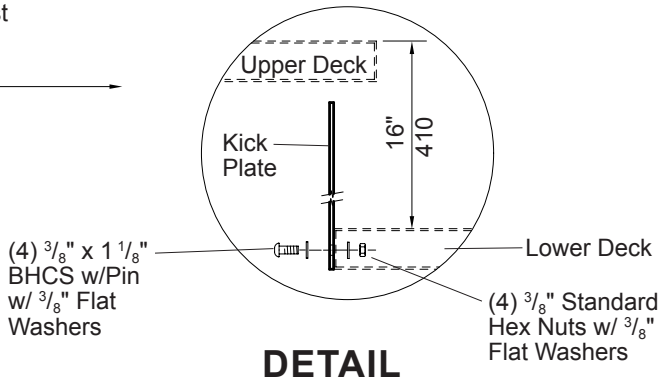
DETAIL
KICK PLATE ATTACHMENT (FOR 6" OR 8" RISE)



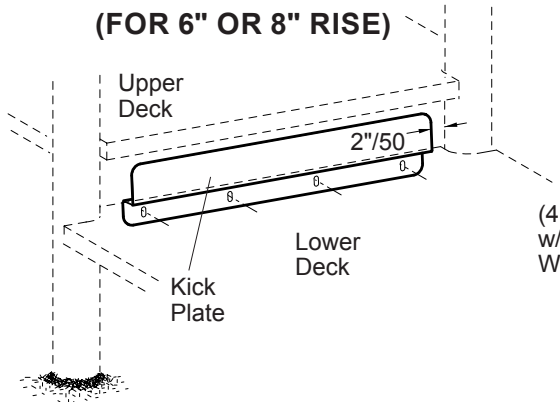
KICK PLATE
(FOR 16" RISE)



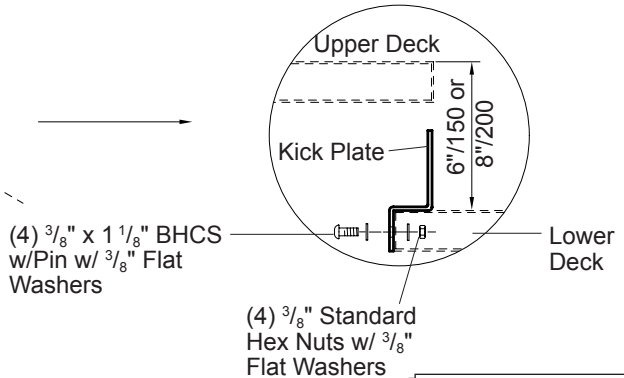
DETAIL
KICK PLATE ATTACHMENT (FOR 16" RISE)



KICK PLATE
(FOR 6" OR 8" RISE)



DETAIL
KICK PLATE ATTACHMENT (FOR 6" OR 8" RISE)



NOTE: Kick Plates mount to face of lower deck.

PlayBooster® 121948 Kick Plates, Tenderdecks, 6", 8" & 16"

601 7TH STREET SOUTH, DELANO, MINNESOTA 55328-8605 888-574-4678 LSI Install Help 888-438-6574 LSI Direct 763-972-5200 Int. FAX (763) 972-3185

PlayBooster® 121948 Kick Plates, Tenderdecks, 6", 8" & 16"

Parts List

Part#	Description	Qty.
121819	Kick Plate (For 6" or 8" Rise), Specify Color	1
121818	Kick Plate (For 16" Rise), Specify Color	1
156058	**Kick Plate Tenderdeck Hardware Package**	1
100198	$^3/_8$" x 1 $^1/_8$" BHCS w/Pin, SST	4
100327	$^3/_8$" Standard Hex Nut, SST	4
100362	$^3/_8$" Flat Washer, SST	8

Specifications

Kick Plate: Fabricated from 11 GA (.120") HR flat steel. Finish: TenderTuff™, brown or gray in color.

Fasteners: Primary fasteners shall be socketed and pinned tamperproof in design, stainless steel (SST) per ASTM F 879 unless otherwise indicated (see specific product installation/specifications).

Installation Time: Approx. $^1/_4$ man hour

Weight: Kick Plate (For 6" or 8" Rise) 13 lbs.
Kick Plate (For 16" Rise) 23 lbs.

Installation Instructions

1) Locate kick plates as labeled on your plan drawing.

2) Attach kick plate using $^3/_8$" x 1 $^1/_8$" BHCS w/pin with $^3/_8$" flat washers and $^3/_8$" standard hex nuts with $^3/_8$" flat washers, as shown. **NOTE:** *Kick plates mount to face of lower deck.*

3) Install protective surfacing before users are allowed to play on the structure.

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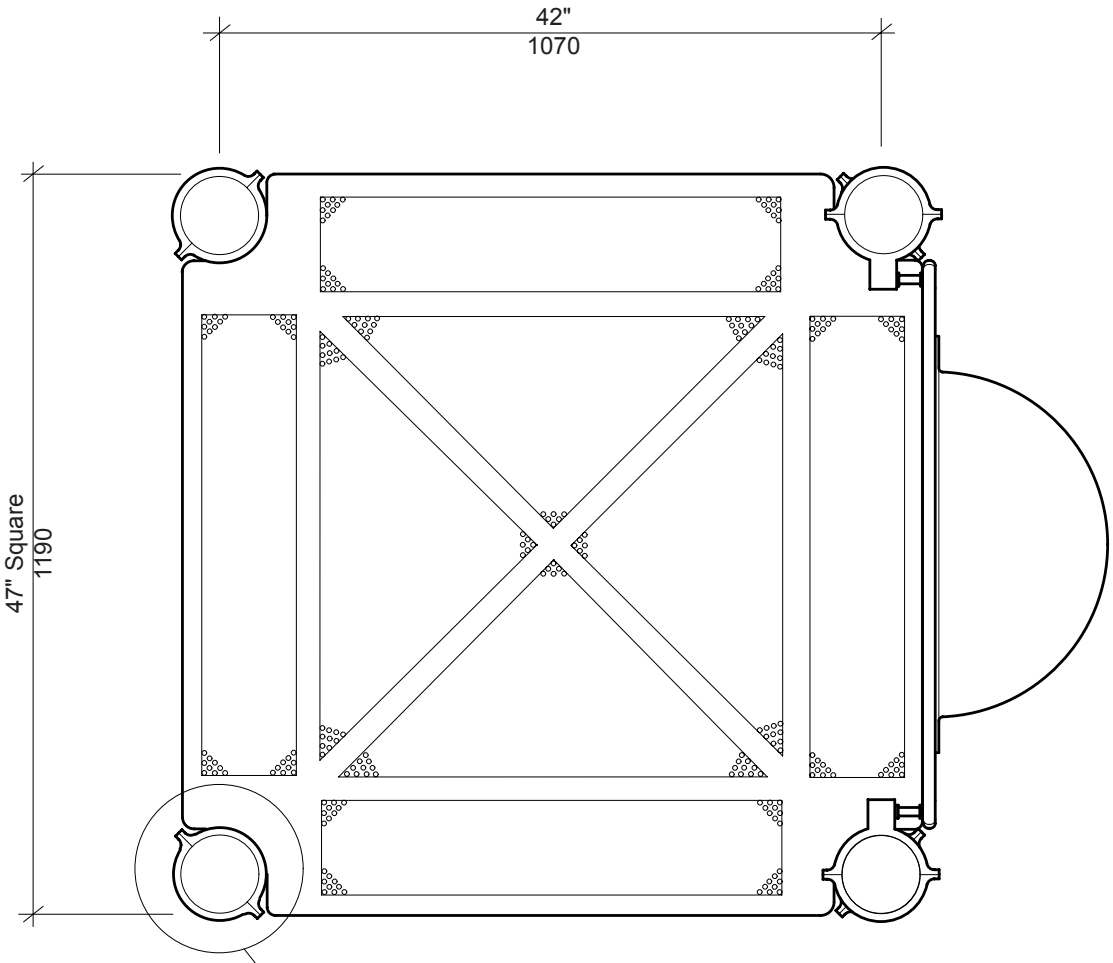
SAFETY NOTE

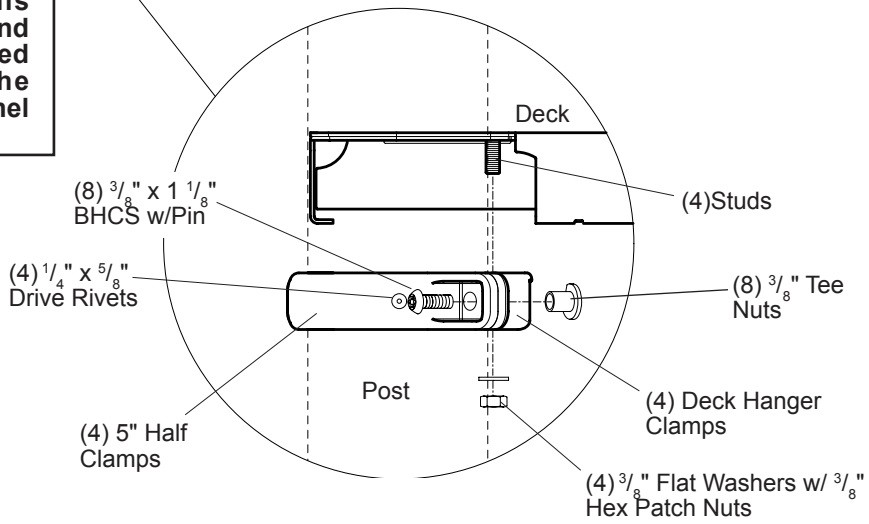
Choose a protective surfacing material that has a Critical Height Value of at least the height of the Highest Accessible Part/Fall Height of the adjacent equipment. (Ref. ASTM F1487.)

14582100



DETAIL
DECK HANGER CLAMP

NOTE: When using this deck, ALL enclosures and components are mounted on the OUTSIDE of the posts like the bubble panel shown above.



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111228 Square Deck

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PlayBooster® 111228 Square Deck

Parts List

Part#	Description	Qty.
145656	Tenderdeck, Specify Color	1
105327	5" Half Clamp, Specify Color	4
106022	5" Deck Hanger Clamp, Specify Color	4
119491	**Hardware Package**	1
100198	$^3/_8$" x 1 $^1/_8$" BHCS w/Pin, SST	8
100321	$^3/_8$" Hex Patch Nut, SST	4
100351	$^3/_8$" Tee Nut, SST	8
100362	$^3/_8$" Flat Washer, SST	4
100610	$^1/_4$" x $^5/_8$" Drive Rivet, SST	4

Specifications

Square Deck: Flange formed from 12 GA (.105") sheet steel conforming to ASTM A1011. Standing surface is perforated with $^5/_{16}$" diameter holes. Deck face has (4) slotted holes for face mounting components. The finished size measures 2 $^5/_8$" x 47" x 47". Finish: TenderTuff™, color specified.

Deck Hanger Clamp Assembly: Cast aluminum. Finish: ProShield®, color specified.

Fasteners: Primary fasteners shall be socketed and pinned tamperproof in design, stainless steel (SST) per ASTM F 879 unless otherwise indicated (see specific product installation/specifications).

Installation Time: Approx. 1 man hour

Weight: 119 lbs.

Installation Instructions

1) Mark posts for the appropriate height of the deck you are installing.
2) Fasten hanger clamps to marked position on posts. See Detail on front of sheet.
3) Lift deck into position, lining up studs underneath deck with deck hanger clamp as shown. Attach with $^3/_8$" flat washers and $^3/_8$" hex patch nuts.
4) Level deck and plumb posts. Install the drive rivets in all 5" half clamps. Refer to the Typical Offset Hanger Clamp Spec Sheet.
5) After all enclosures/components are installed, pour concrete footings per the Typical Concrete Footing Detail Sheet.
6) Install protective surfacing before users are allowed to play on the structure.

Eco #52264 Document #14582100 replaces #13954600. Replaced Tenderdeck.

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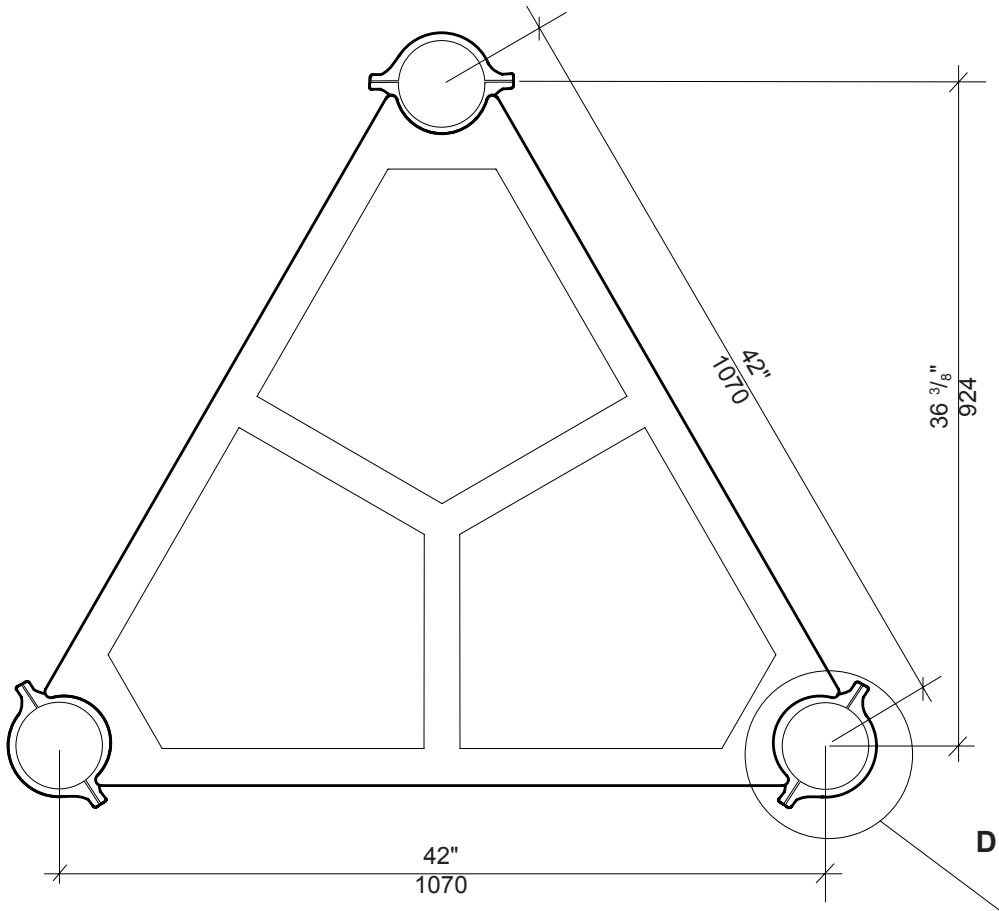
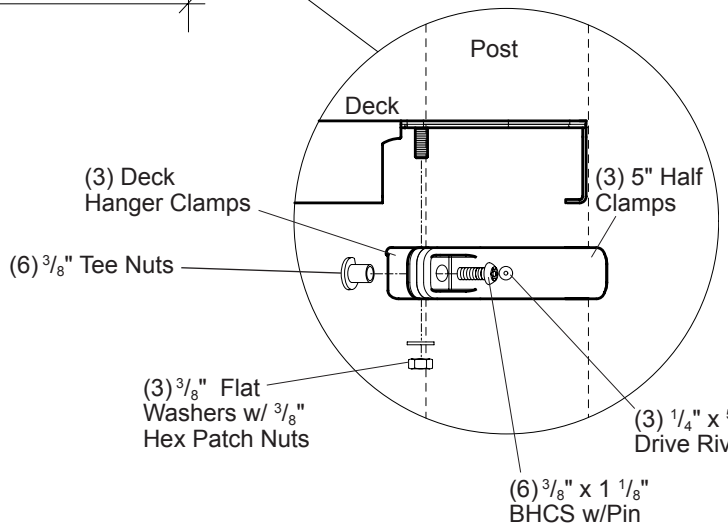
SAFETY NOTE

Choose a protective surfacing material that has a Critical Height Value of at least the height of the Highest Accessible Part/Fall Height of the adjacent equipment. (Ref. ASTM F1487.)

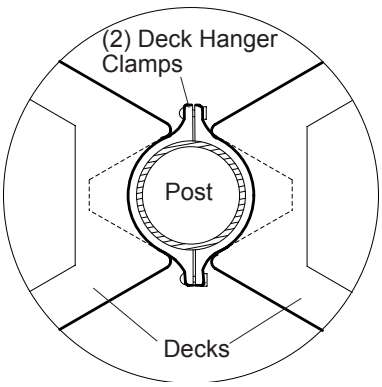
14582400



DETAIL
DECK HANGER CLAMP



DETAIL



Configuration for Back to Back Decks at Same Height.

PlayBooster® 111231 Triangular Tenderdeck

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PlayBooster® 111231 Triangular Tenderdeck

Parts List

Part#	Description	Qty.
145657	Tri-Deck, Specify Color	1
105327	5" Half Clamp, Specify Color	3
106022	Deck Hanger Clamp, Specify Color	3
120203	**Triangular Deck Hardware Package**	1
100198	$^3/_8$" x 1 $^1/_8$" BHCS w/Pin, SST	6
100321	$^3/_8$" Hex Patch Nut, SST	3
100351	$^3/_8$" Tee Nut, SST	6
100362	$^3/_8$" Flat Washer, SST	3
100610	$^1/_4$" x $^5/_8$" Drive Rivet, AL/SST	3

Specifications

Triangular Deck: Flange formed from 12 GA (.105") sheet steel conforming to ASTM A1011. Standing surface is perforated with $^5/_{16}$" diameter holes. Deck face has (4) slotted holes for face mounting components. The finished size measures 2 $^5/_8$" x 37 $^3/_4$". Finish: TenderTuff™, color specified.

Deck Hanger Clamp Assembly: Cast aluminum. Finish: ProShield®, color specified.

Fasteners: Primary fasteners shall be socketed and pinned tamperproof in design, stainless steel (SST) per ASTM F 879 unless otherwise indicated (see specific product installation/specifications).

Installation Time: Approx. $^1/_2$ man hour

Weight: 61 lbs.

Installation Instructions

1) Mark posts for the appropriate height of the deck you are installing.
2) Fasten deck hanger clamps to marked position on posts. See Detail on the front of this sheet.
3) Lift deck assembly into position, lining up stud underneath deck with deck hanger clamp as shown. Attach using $^3/_8$" hex patch nuts with $^3/_8$" flat washers. With deck level and posts plumb, final tighten all hardware.
4) Install $^1/_4$" x $^5/_8$" drive rivets in all 5" half clamps. Refer to the Typical Offset Hanger Clamp Spec Sheet.
5) After attachment of enclosures and components is complete, pour concrete footings. Allow concrete footings to cure a minimum of 72 hours before users are allowed to play on the structure.
6) Install protective surfacing before users are allowed to play on the structure.

Eco #52268 Document #14582400 replaces #13954200. Replaced Tri-Deck.

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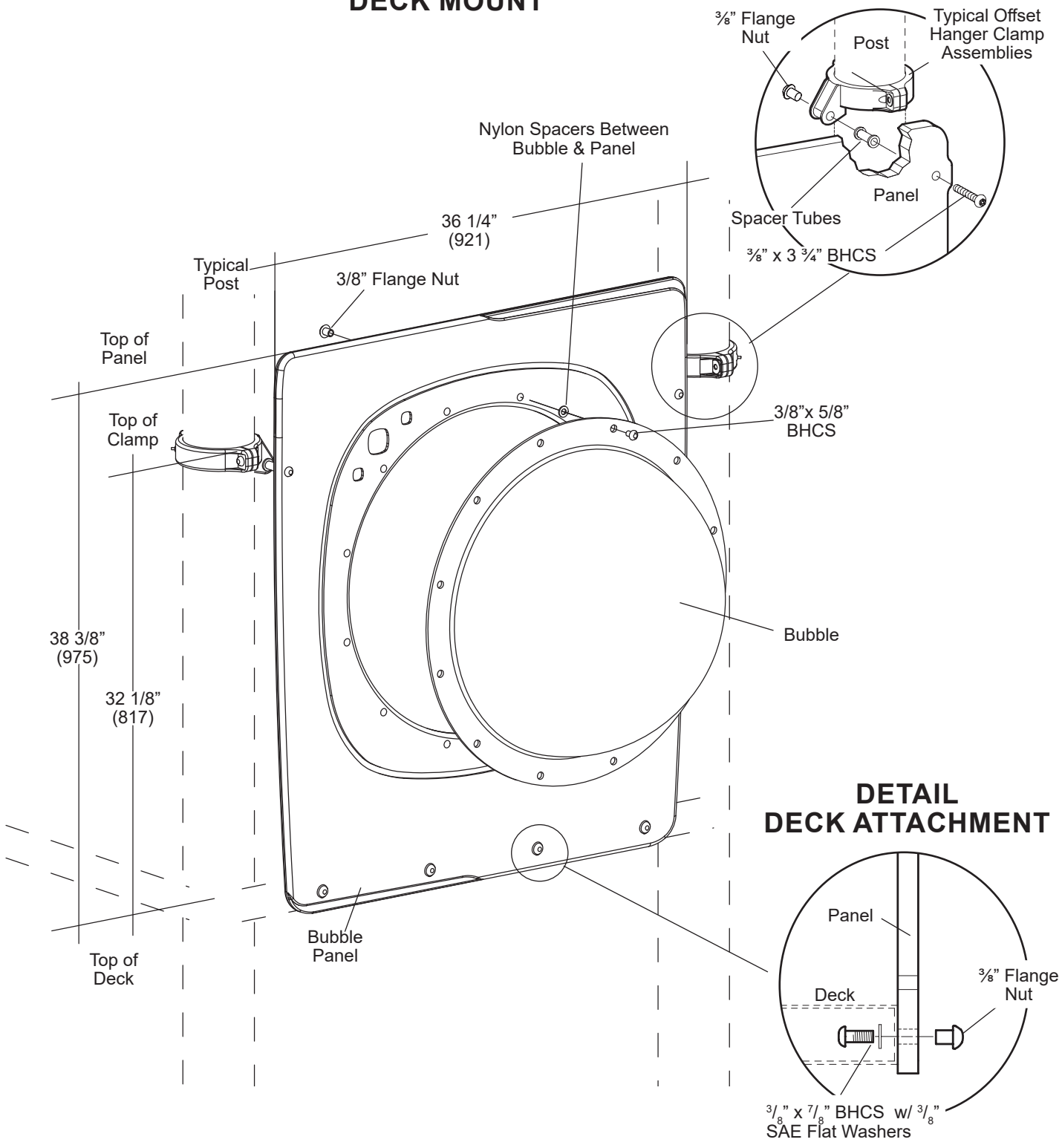
SAFETY NOTE
Choose a protective surfacing material that has a Critical Height Value of at least the height of the Highest Accessible Part/Fall Height of the adjacent equipment. (Ref. ASTM F1487.)

DECK MOUNT



DETAIL PANEL ATTACHMENT

DETAIL DECK ATTACHMENT

345282 Bubble Panel

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Document #34511700

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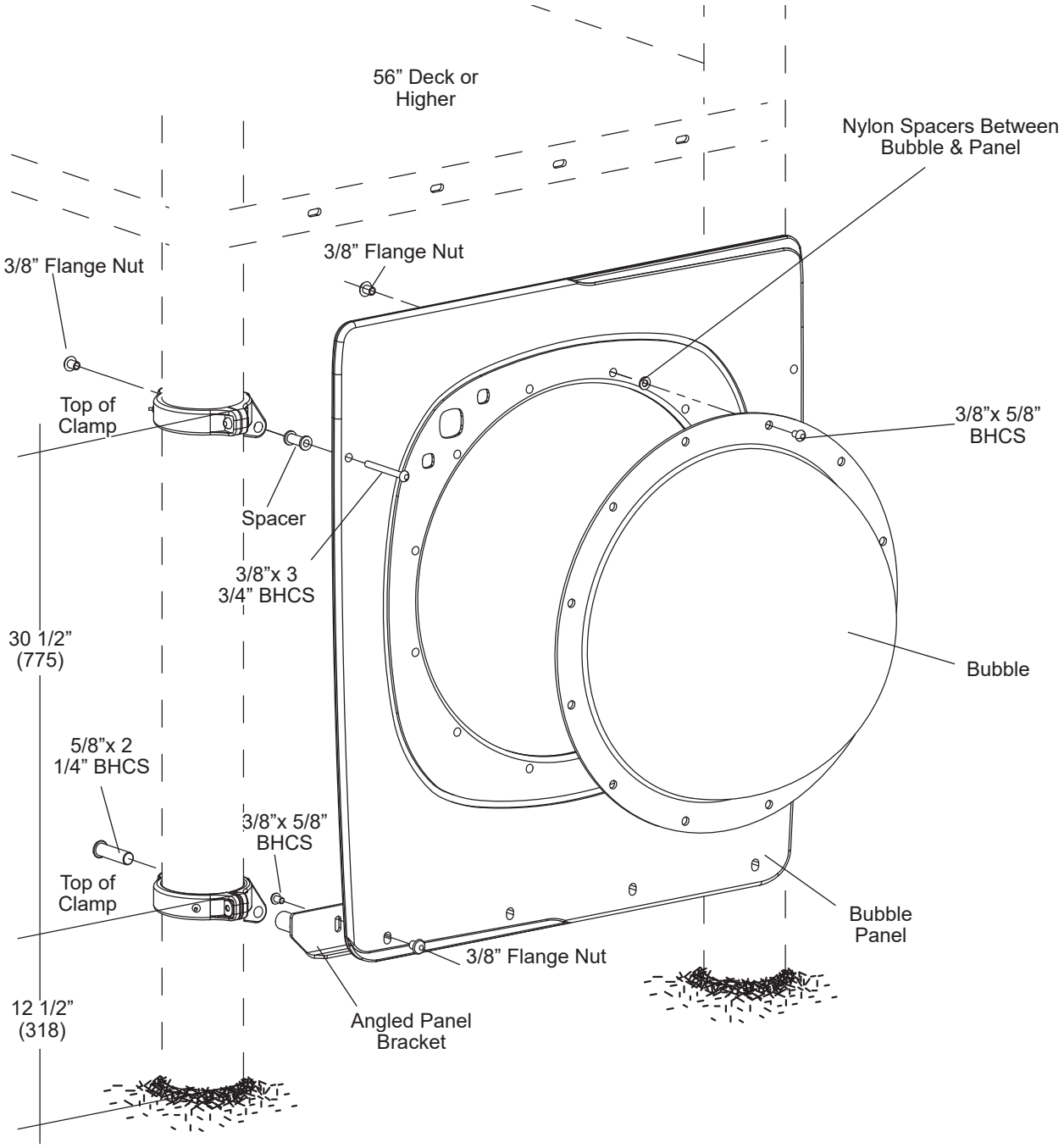
SAFETY NOTE
Choose a protective surfacing material that has a Critical Height Value of at least the height of the Highest Accessible Part/Fall Height of the adjacent equipment. (Ref. ASTM F1487.)

BELOW DECK MOUNT



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PlayBooster® 345282 Bubble Panel

Parts List

Number	Product Name	QTY.
	ABOVE DECK	
105327	5" Half Clamp, Specify Color	2
113729	Offset Hanger Clamp, Specify Color	2
113468	Spacer Tube, Specify Color	2
119883	Bubble	1
345595	Bubble Panel, Specify Color	1
115385	**Bubble Hardware Package**	**1**
100195	3/8" x 5/8" BHCS w/Pin, SST	12
100353	3/8" Flange Nut w/Pin, SST	12
112501	Nylon Spacer	12
124900	**Tenderdeck Mounting Hardware Package**	**1**
124460	3/8" x 3 3/4" BHCS w/Pin, SST	2
100196	3/8" x 7/8" BHCS w/Pin, SST	4
100198	3/8" x 1 1/8" BHCS w/Pin, SST	4
100351	3/8" Tee Nut, SST	4
100353	3/8" Flange Nut w/Pin, SST	6
100365	3/8" SAE Flat Washer, SST	4
	BELOW DECK	
105327	5" Half Clamp, Specify Color	4
113729	Offset Hanger Clamp, Specify Color	4
113468	Spacer Tube, Specify Color	2
113464	Angled Panel Bracket, Specify Color	1
119883	Bubble	1
345595	Bubble Panel, Specify Color	1
100610	1/4" x 5/8" Drive Rivet, AL/SST	4
115385	**Bubble Hardware Package**	**1**
100195	3/8" x 5/8" BHCS w/Pin, SST	12
100353	3/8" Flange Nut w/Pin, SST	12
112501	Nylon Spacer	12
124947	**Below Deck Mounting Hardware Package**	**1**
124460	3/8" x 3 3/4" BHCS w/Pin, SST	2
100195	3/8" x 5/8" BHCS w/Pin, SST	4
100198	3/8" x 1 1/8" BHCS w/Pin, SST	8
100203	5/8" x 2 1/4" BHCS w/Pin, SST	2
100351	3/8" Tee Nut, SST	8
100353	3/8" Flange Nut w/Pin, SST	6

Specifications

Permalene Panel:	Permalene®, color specified.
Bubble:	Vacuum formed .230" x 26 3/8" diameter clear polycarbonate.
Nylon Spacer:	3/8" I.D. nylon washer.
Angled Panel Brkt:	Weldment comprised of .190" thick 5052 aluminum formed angle with (2) 6061-T6 aluminum threaded tubes 1 1/8" O.D. x 1 1/2" long. Finish: Powdercoat, color specified.
Spacer Tube:	Made from 6061-T6 aluminum 7/8" O.D. x 1 11/16". Finish: Powdercoat, color specified.
Offset Hanger Clamp Assembly:	Cast aluminum. Finish: Powdercoat, color specified.
Fasteners:	Primary fasteners shall be socketed and pinned tamperproof in design, stainless steel (SST) per ASTM F 879 unless otherwise indicated (see specific product installation/specifications).
Installation Time:	Above Deck Approx. 3/4 man hour Below Deck Approx. 1 man hour
Weight:	Above Deck 38 lbs. Below Deck 46 lbs.

Installation Instructions

ABOVE DECK (See Sheet 1 of 2)

1) Attach bubble to panel with panel laying on its backside. Position the (12) nylon spacers over the panel holes. Place the (12) 3/8" x 5/8" BHCS w/pin through the bubble holes, lower bubble onto panel and secure using 3/8" flange nuts w/pin from backside of panel.
2) Attach panel to the face of the deck using 3/8" x 7/8" BHCS w/pin with 3/8" SAE flat washers and 3/8" flange nuts w/pin. See Detail.
3) Attach offset hanger assemblies to posts at height shown. Using half clamps and 3/8" x 1 1/8" BHCS w/pin and with 3/8" tee nuts. Refer To The Typical Offset Hanger Clamp Assembly Sheet.
4) Attach panel to offset hanger assemblies using 3/8" x 3 3/4" BHCS w/pin, spacer tubes and 3/8" flange nuts w/pin. See Panel Attachment Detail.
5) Install protective surfacing before users are allowed to play on the structure.

BELOW DECK (See Sheet 2 of 2)

1) Attach bubble to panel with panel laying on its backside. Position the (12) nylon spacers over the panel holes. Place the (12) 3/8" x 5/8" BHCS w/pin through the bubble holes, lower bubble onto panel and secure using 3/8" flange nuts w/pin from backside of panel.
2) Attach offset hanger assemblies to posts at height shown. Using half clamps and 3/8" x 1 1/8" BHCS w/pin and with 3/8" tee nuts. Refer To The Typical Offset Hanger Clamp Assembly Sheet.
3) Attach angled panel bracket to bottom of panel using 3/8" x 5/8" BHCS w/pin and 3/8" flange nuts w/pin. See Below Deck Mount.
4) Attach angled panel bracket with panel to offset rail hanger assembly using 5/8" x 2 1/4" BHCS w/pin. See Below Deck Mount.
5) Attach top of panel to offset rail hanger assemblies using 3/8" x 3 3/4" BHCS w/pin, spacer tubes and 3/8" flange nuts w/pin. See Typical Attachment To Post Detail.
6) Install 1/4" x 5/8" drive rivets in all 5" half clamps. Refer to the Typical Offset Hanger Clamp Assembly sheet.
7) Install protective surfacing before users are allowed to play on the structure.

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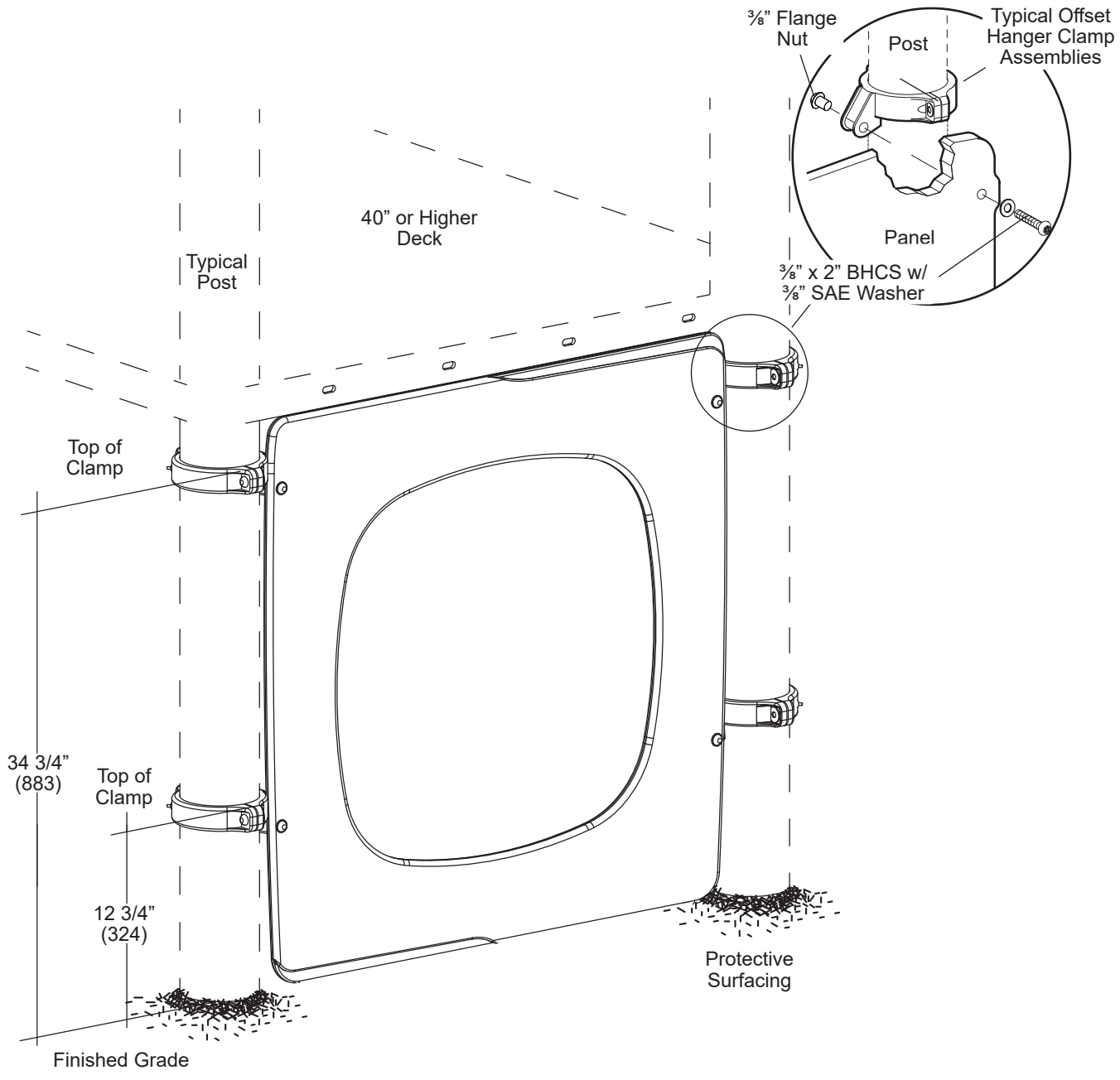
SAFETY NOTE
Choose a protective surfacing material that has a Critical Height Value of at least the height of the Highest Accessible Part/Fall Height of the adjacent equipment. (Ref. ASTM F1487.)

DETAIL PANEL ATTACHMENT



NOTE: This Panel is used at ground level only, under 40" or higher decks.

NOTE: If mounting panel under a 48" deck, there must be less than 3 1/2" clearance from top of panel to bottom of deck.

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345278 Hole Panel

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Document #34511300

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PlayBooster® 345278 Hole Panel

Parts List

Part#	Description	Qty.
105327	5” Half Clamp, Specify Color	4
113729	Offset Hanger Clamp, Specify Color	4
346372	Hole Panel, Specify Color	1
133444	**Panel Attachment Hardware Package**	**1**
100173	3/8” x 2” BHCS, SST	4
100198	3/8” x 1 1/8” BHCS w/Pin, SST	8
100351	3/8” Tee Nut, SST	8
100353	3/8” Flange Nut w/Pin, SST	4
100610	1/4” x 5/8” Drive Rivet, AL/SST	4
100365	3/8” SAE Flat Washer, SST	4

Specifications

Hole Panel: Permalene® , color specified.

Offset Hanger Clamp Assembly: Cast aluminum. Finish: ProShield®, color specified.

Fasteners: Primary fasteners shall be socketed and pinned tamperproof in design, stainless steel (SST) per ASTM F 879 unless otherwise indicated (see specific product installation/specifications).

Installation Time: Approx. 1 man hour

Weight: 34 lbs.

Installation Instructions

1) Attach offset hanger clamp assemblies to posts at height shown, using half clamps and $^{3}/_{8}$” x 1 $^{1}/_{8}$” BHCS w/pin with $^{3}/_{8}$” tee nuts. Refer To The Typical Offset Hanger Clamp Spec Sheet.

2) Attach panel to offset hanger clamp assemblies, using $^{3}/_{8}$” x 2” BHCS with $^{3}/_{8}$” SAE flat washers and $^{3}/_{8}$” flange nuts w/pin. See Panel Attachment Detail.

3) Install $^{1}/_{4}$” x $^{5}/_{8}$” drive rivets in all 5” half clamps. Refer to the Typical Offset Hanger Clamp Spec Sheet.

4) Install protective surfacing before users are allowed to play on the structure.

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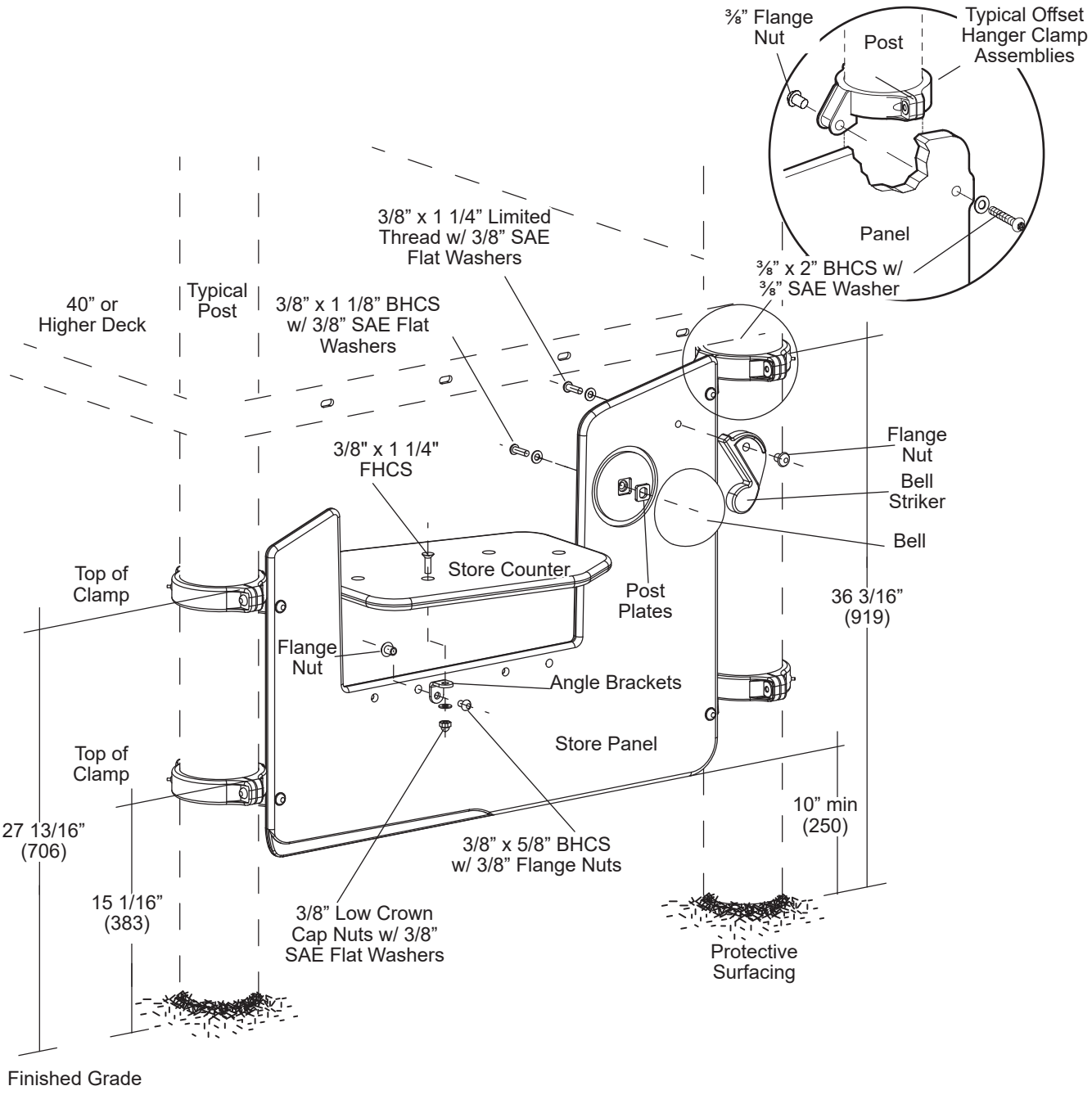
SAFETY NOTE
Choose a protective surfacing material that has a Critical Height Value of at least the height of the Highest Accessible Part/Fall Height of the adjacent equipment. (Ref. ASTM F1487.)

DETAIL PANEL ATTACHMENT



NOTE: This Panel is used at ground level only, under 40" or higher decks.

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345276 Storefront Panel

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Document #34511000

PlayBooster® 345276 Storefront Panel

Parts List

Part#	Description	Qty.
105327	5” Half Clamp, Specify Color	4
113729	Offset Hanger Clamp, Specify Color	4
353530	Storefront Panel, Specify Color	1
353537	Store Counter, Specify Color	1
158434	Bell 5” PNT	1
158318	Bell Striker Accent	1
133444	**Panel Attachment Hardware Package**	**1**
100173	3/8” x 2” BHCS, SST	4
100198	3/8” x 1 1/8” BHCS w/Pin, SST	8
100351	3/8” Tee Nut, SST	8
100353	3/8” Flange Nut w/Pin, SST	4
100610	1/4” x 5/8” Drive Rivet, AL/SST	4
100365	3/8” SAE Flat Washer, SST	4
353997	**Store Counter Top Bell Hardware Package**	**1**
100195	3/8” x 5/8” BHCS w/Pin, SST	4
100252	3/8” x 1 1/4” Flat Head Cap Screw, SST	4
100349	3/8” Low Crown Cap Nut, SST	4
100353	3/8” Flange Nut w/Pin, SST	5
100365	3/8” SAE Flat Washer, SST	6
188664	Steel Angle Bracket, Silver	4
100292	BHCS 6LP LTHD 3/8x1-1/4i, SST	2
158335	Post Plate,SST	1

Specifications

Storefront Panel: Permalene® color specified.

Bell Striker: Permalene® color specified.

Offset Hanger Clamp Assembly: Cast aluminum. Finish: ProShield®, color specified.

Fasteners: Primary fasteners shall be socketed and pinned tamperproof in design, stainless steel (SST) per ASTM F 879 unless otherwise indicated (see specific product installation/ specifications).

Bells: Fabricated from 10 GA. (.135”) HRPO low carbon steel. Finish: ProShield®, color specified.

Installation Time: Approx. 1 man hour

Weight: 29 lbs.

Installation Instructions

1) Attach offset hanger clamp assemblies to posts at height shown, using half clamps and 3/8” x 1 1/8” BHCS w/pin with 3/8” tee nuts. Refer To The Typical Offset Hanger Clamp Spec Sheet.

2) Attach panel to offset hanger clamp assemblies, using 3/8” x 2” BHCS with 3/8” SAE flat washers and 3/8” flange nuts w/pin.

3) Attach angle brackets to storefront panel using 3/8” x 5/8” BHCS w/ pin through angles and 3/8” flange nuts w/pin through panel. Attach store counter top to angle brackets using 3/8” x 1 1/4” flat head cap screws through counter top and 3/8” low crown cap nuts with 3/8” SAE flat washers underneath angles.

4) Attach the bell striker to bell panel, using using 3/8” x 1 1/4” limited thread BHCS w/pin with 3/8” SAE flat washers and 3/8” flange nuts w/pin, as shown.

6) Insert the post plate into bell panel cutout. Attach the bell to bell panel, using 3/8” x 1 1/8” BHCS w/pin and 3/8” SAE flat washers, as shown.

7) Install 1/4” x 5/8” drive rivets in all 5” half clamps. Refer to the Typical Offset Hanger Clamp Spec Sheet.

8) Install protective surfacing before users are allowed to play on the structure.

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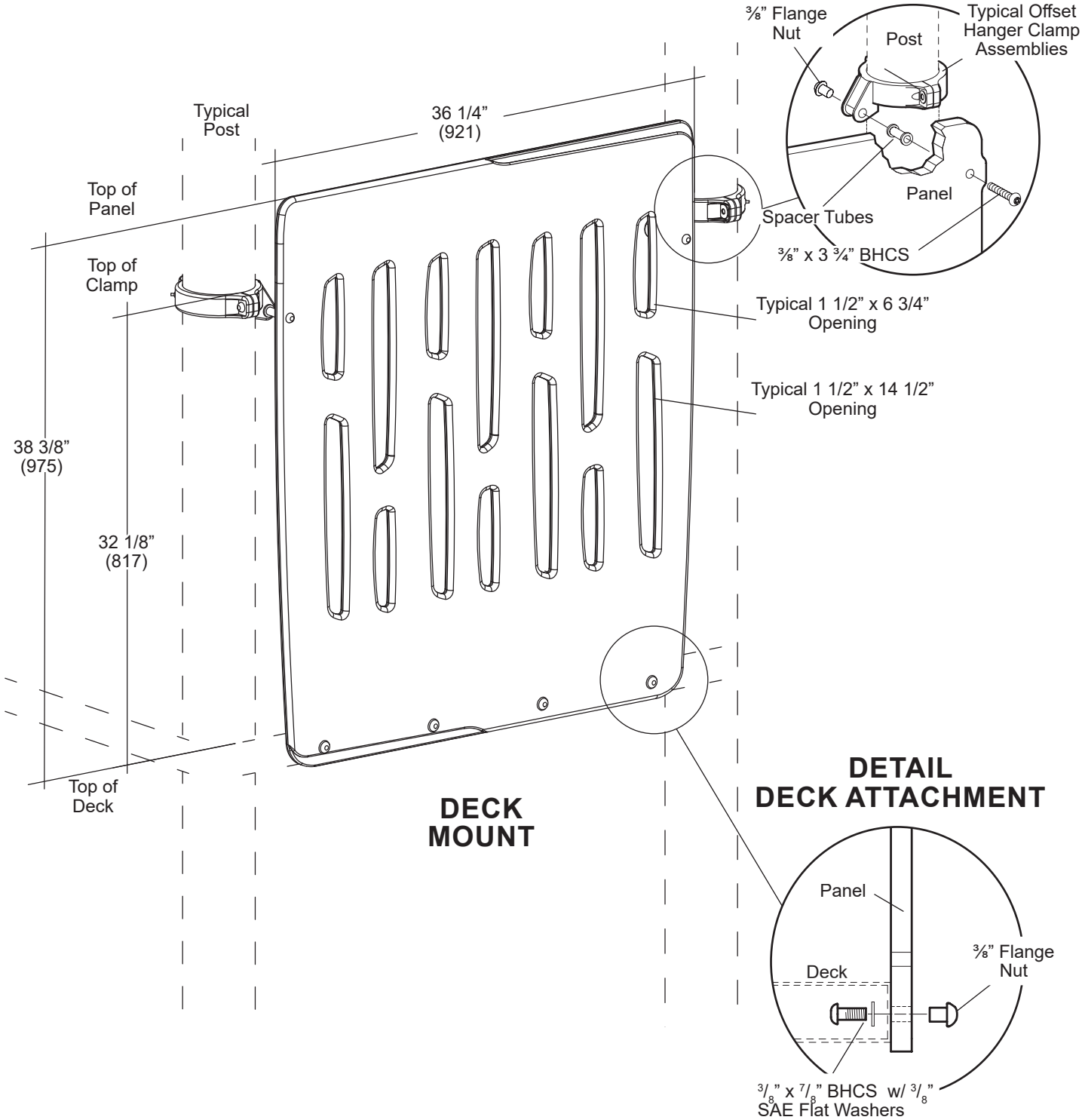
SAFETY NOTE
Choose a protective surfacing material that has a Critical Height Value of at least the height of the Highest Accessible Part/Fall Height of the adjacent equipment. (Ref. ASTM F1487.)



DECK MOUNT

DETAIL PANEL ATTACHMENT

DETAIL DECK ATTACHMENT

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345277 Zoo Panel

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Document #34511200

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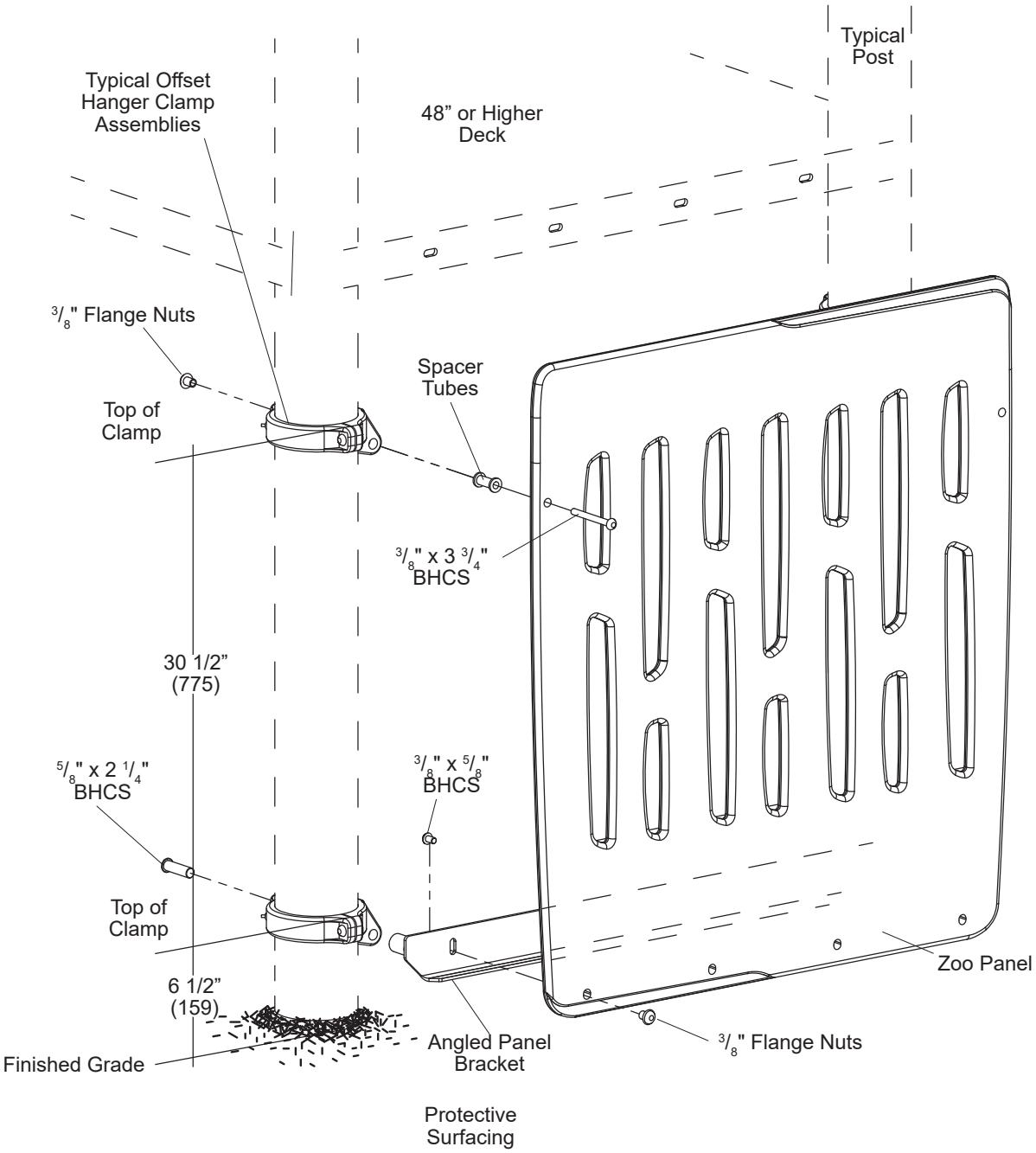
SAFETY NOTE

Choose a protective surfacing material that has a Critical Height Value of at least the height of the Highest Accessible Part/Fall Height of the adjacent equipment. (Ref. ASTM F1487.)



345277 Zoo Panel

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Document #34511200

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PlayBooster® 345277 Zoo Panel

Parts List

Number	Product Name	QTY.
	ABOVE DECK	
105327	5" Half Clamp, Specify Color	2
113729	Offset Hanger Clamp, Specify Color	2
113468	Spacer Tube, Specify Color	2
345586	Zoo Panel, Specify Color	1
124900	**Tenderdeck Mounting Hardware Package**	**1**
124460	3/8" x 3 3/4" BHCS w/Pin, SST	2
100196	3/8" x 7/8" BHCS w/Pin, SST	4
100198	3/8" x 1 1/8" BHCS w/Pin, SST	4
100351	3/8" Tee Nut, SST	4
100353	3/8" Flange Nut w/Pin, SST	6
100365	3/8" SAE Flat Washer, SST	4
	BELOW DECK	
105327	5" Half Clamp, Specify Color	4
113729	Offset Hanger Clamp, Specify Color	4
113468	Spacer Tube, Specify Color	2
113464	Angled Panel Bracket, Specify Color	1
345586	Zoo Panel, Specify Color	1
100610	1/4" x 5/8" Drive Rivet, AL/SST	4
124947	**Below Deck Mounting Hardware Package**	**1**
124460	3/8" x 3 3/4" BHCS w/Pin, SST	2
100195	3/8" x 5/8" BHCS w/Pin, SST	4
100198	3/8" x 1 1/8" BHCS w/Pin, SST	8
100203	5/8" x 2 1/4" BHCS w/Pin, SST	2
100351	3/8" Tee Nut, SST	8
100353	3/8" Flange Nut w/Pin, SST	6

Specifications

Panel:	Permalene®, color specified.
Angled Panel Brkt:	Weldment comprised of .190" thick 5052 aluminum formed angle with (2) 6061-T6 aluminum threaded tubes 1 1/8" O.D. x 1 1/2" long. Finish: ProShield®, color specified.
Spacer Tube:	Made from 6061-T6 aluminum 7/8" O.D. x 1 11/16". Finish: ProShield, color specified.
Offset Hanger Clamp Assembly:	Cast aluminum. Finish: ProShield, color specified.
Fasteners:	Primary fasteners shall be socketed and pinned tamperproof in design, stainless steel (SST) per ASTM F 879 unless otherwise indicated (see specific product installation/specifications).
Installation Time:	Above Deck Approx. 3/4 man hour Below Deck Approx. 1 man hour
Weight:	Above Deck 32 lbs. Below Deck 40 lbs.

Installation Instructions

ABOVE DECK (See Sheet 1 of 2)

1) Attach panel to the face of the deck, using 3/8" x 7/8" BHCS w/pin with 3/8" SAE flat washers and 3/8" flange nuts w/pin. See Detail.

2) Attach offset hanger clamp assemblies to posts at height shown, using half clamps and 3/8" x 1 1/8" BHCS w/pin with 3/8" tee nuts. Refer To The Typical Offset Hanger Clamp Spec Sheet.

3) Attach panel to offset hanger clamp assemblies using 3/8" x 3 3/4" BHCS w/pin, spacer tubes and 3/8" flange nuts w/pin. See Panel Attachment Detail.

4) Install protective surfacing before users are allowed to play on the structure.

BELOW DECK (See Sheet 2 of 2)

1) Attach offset hanger clamp assemblies to posts at height shown, using half clamps and 3/8" x 1 1/8" BHCS w/pin with 3/8" tee nuts. Refer To The Typical Offset Hanger Clamp Spec Sheet.

2) Attach angled panel bracket to bottom of panel, using 3/8" x 5/8" BHCS w/pin and 3/8" flange nuts w/pin. See Panel Attachment Detail.

3) Attach angled panel bracket with panel to offset hanger clamp assembly using 5/8" x 2 1/4" BHCS w/pin. See Below Deck Mount.

4) Attach top of panel to offset hanger clamp assemblies using 3/8" x 3 3/4"BHCS w/pin, spacer tubes and 3/8" flange nuts w/pin. See Typical Attachment To Post Detail.

5) Install 1/4" x 5/8" drive rivets in all 5" half clamps. Refer to the Typical Offset Hanger Clamp Spec Sheet.

6) Install protective surfacing before users are allowed to play on the structure.

landscape structures®

ISO 14001 CERTIFIED

ISO 9001 Certified

SAFETY NOTE

Choose a protective surfacing material that has a Critical Height Value of at least the height of the Highest Accessible Part/Fall Height of the adjacent equipment. (Ref. ASTM F1487.)

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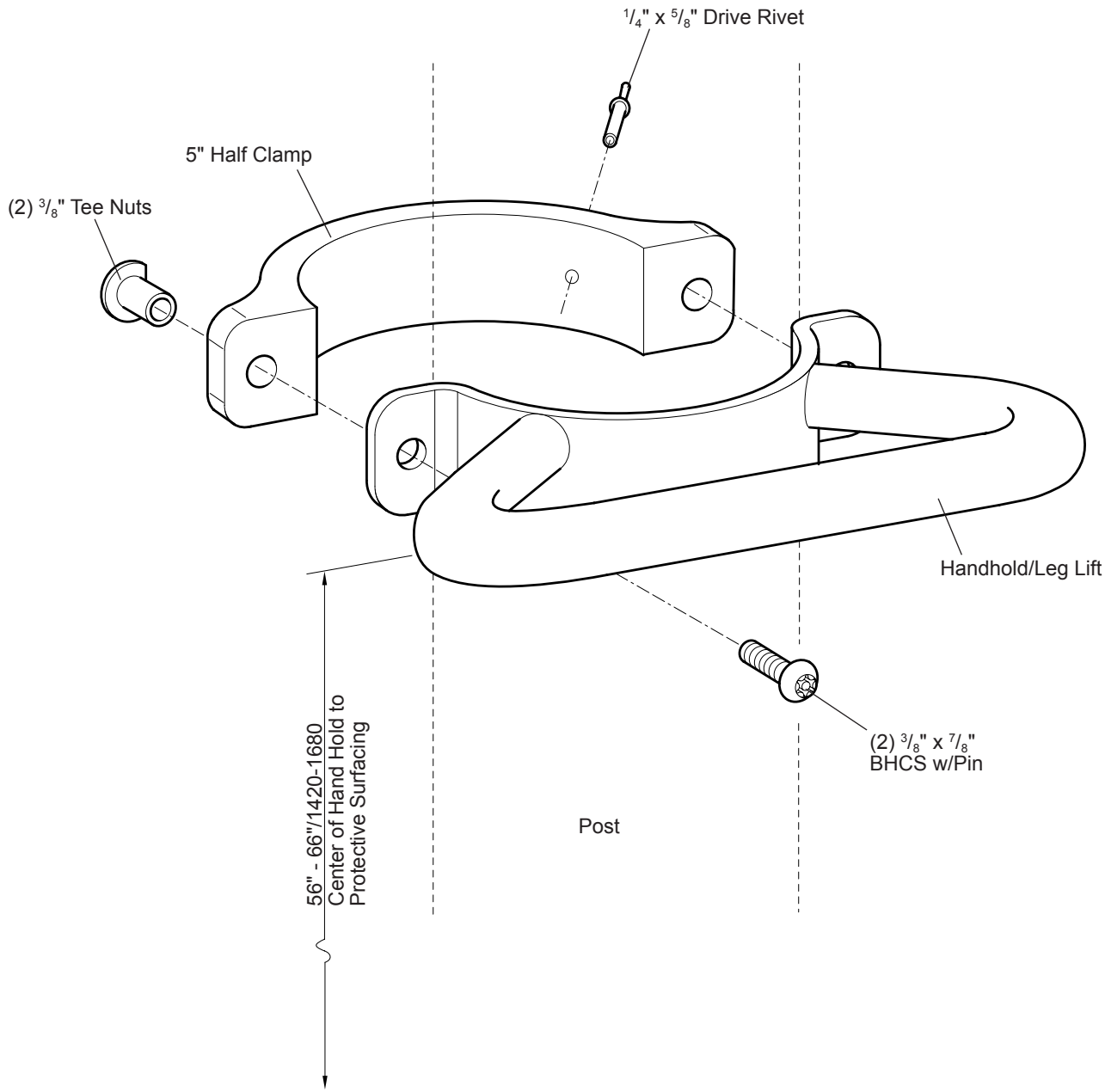

PlayBooster®

120902 Handhold/ Leg Lift

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PlayBooster® 120902 Handhold/Leg Lift

Parts List

Part#	Description	Qty.
105327	5" Half Clamp, Specify Color	1
138029	Handhold/Leg Lift, Specify Color	1
106518	**Hand Hold Hardware Package**	1
100196	3/8" x 7/8" BHCS w/Pin, SST	2
100351	3/8" Tee Nut, SST	2
100610	1/4" x 5/8" Drive Rivet, AL/SST	1

Specifications

Half Clamp: Cast aluminum. Finish: ProShield®, color specified.

Hand Hold: Weldment comprised of formed 7/8" O.D. 11 GA (.120") and 1/4" x 1 3/4" stainless steel half clamps. Finish: TenderTuff™, color specified.

Fasteners: Primary fasteners shall be socketed and pinned tamperproof in design, stainless steel (SST) per ASTM F 879 unless otherwise indicated (see specific product installation/specifications).

Installation Time: Approx. 1/4 man hour

Weight: 4 lbs.

Installation Instructions

1) Attach handhold/leglift to post at height shown, using a 5" half clamp, 3/8" x 7/8" BHCS w/pin and 3/8" tee nuts.

2) Install 1/4" x 5/8" drive rivet in 5" half clamp. Refer to the Offset Hanger Clamp Spec Sheet.

3) Install protective surfacing before users are allowed to play on the structure.

Eco #51073 Document #13859500 replaces #13549800. Changed hand hold half clamp to stainless steel.
Eco #54828 Removed the color brown from handhold/leg lift and added color specified to description.

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SAFETY NOTE

Choose a protective surfacing material that has a Critical Height Value of at least the height of the Highest Accessible Part/Fall Height of the adjacent equipment. (Ref. ASTM F1487.)

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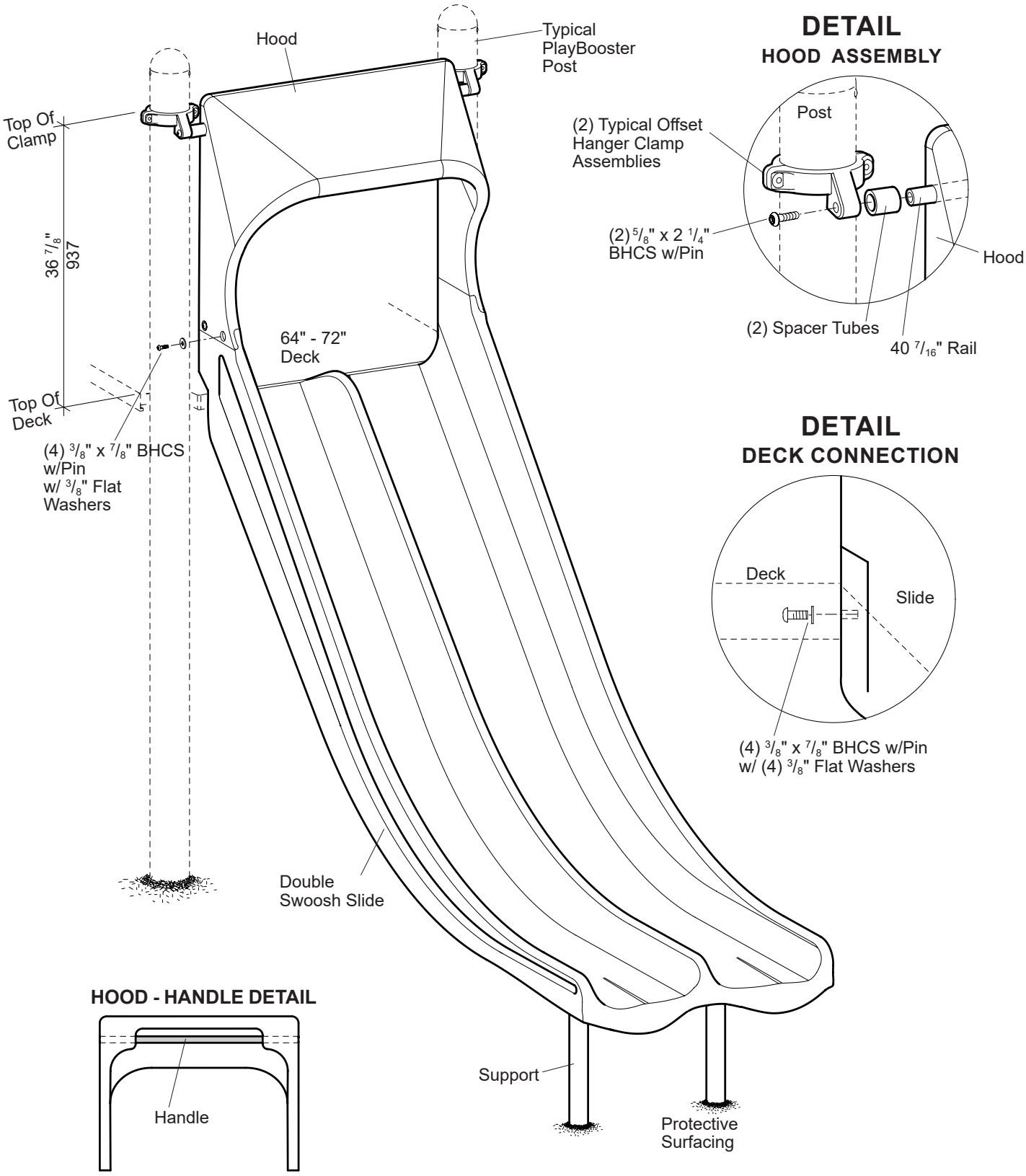

PlayBooster® 130390 Double Swoosh Slide®, 64"-72"

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Document #26473700

PlayBooster® 130390 Double Swoosh Slide®, 64"-72"

Parts List

Part#	Description	Qty.
128823	Double Swoosh Slide®, 64"/72", Specify Color	1
128777	Slide Hood, Specify Color	1
100583	40 7/16" Aluminum Rail, Specify Color	1
132443	Spacer Tube, Specify Color	2
105327	5" Half Clamp, Specify Color	2
113729	Offset Hanger Clamp, Specify Color	2
100610	1/4" x 5/8" Drive Rivet AL/SST	2
150941	Support (DB), Specify Color	2
151021	Support 64" Deck (SM), Specify Color	2
151022	Support 72" Deck (SM), Specify Color	2
264735	**Double Swoosh Slide Hardware Package**	1
100196	3/8" x 7/8" BHCS w/Pin, SST	8
100203	5/8" x 2 1/4" BHCS w/Pin, SST	2
100292	3/8" x 1 1/4" BHCS w/Pin Ltd. Thread Bolt, SST	4
100351	3/8" Tee Nut, SST	4
100362	3/8" Flat Washer, SST	16
111442	Rubber Bushing	4
100198	⅜" x 1 ⅛" BHCS w/Pin, SST	4
121348	**4 Hole (SM) Hardware Package**	1
100266	1/2" x 2 3/4" Expansion Anchor	4
100322	1/2" Standard Hex Nut, SST	4
100363	1/2" Flat Washer, SST	4

DB = Direct Bury
SM = Surface Mount

Specifications

Slide: Rotationally molded from U.V. stabilized linear low density polyethylene, color specified.

Spacer Tube: Fabricated from 1.3125 O.D. x 16 Ga. (.065) steel tubing. Finish: ProShield®, color specified.

Hood: Rotationally molded from U.V. stabilized linear low density polyethylene, color specified.

Rail: Extruded from 1.125" O.D. x .312" W. 6005-T5 aluminum. Finish: ProShield, color specified.

Support: Weldment comprised of 2.375" O.D. RS-20 (.095" - .105") galvanized steel tubing and 1/4" x 3" mounting plate. Finish: ProShield, color specified.

Offset Hanger Clamp Assembly: Cast aluminum. Finish: ProShield, color specified.

Fasteners: Primary fasteners shall be socketed and pinned tamperproof in design, stainless steel (SST) per ASTM F 879 unless otherwise indicated (see specific product installation/specifications).

Installation Time: **SM** - Approx. 2 man hours
DB - Approx. 3 man hours
Concrete Req.: Approx. 2.6 cu. ft.
Area Req.: 6' (1,83 m) minimum use zone at exit
Weight: 179 lbs.
Fall Height: 64" (1,63 m) Deck Height
6' (1,83 m) Deck Height

Installation Instructions

Direct Bury

1) Dig footings spaced as shown.
2) Attach the supports to the slide using 3/8" x 1 1/4" BHCS w/Pin limited thread bolts, 3/8" flat washers, rubber bushings and 3/8" flat washers. Refer to the Support Attachment Detail.
3) Attach the slide to the face of the deck using 3/8" x 7/8" BHCS w/Pin with 3/8" flat washers. Refer to the Deck Connection Detail.
4) Attach the slide hood to the slide using 3/8" x 7/8" BHCS w/Pin with 3/8" flat washers.
5) Insert 40 7/16" rail through top of hood, place spacer tubes over each end of the 40 7/16" rail and attach to posts at height shown using offset hanger clamp assemblies. Refer to the Typical Offset Hanger Clamp Spec Sheet.
6) Prop the end of the slide according to the proper deck height. With support plumb pour concrete footings. Allow concrete footing to cure for a minimum of 72 hours before users are allowed to play on the structure.
7) Install protective surfacing before users are allowed to play on the structure.

Surface Mount

1) Attach the supports to the slide using 3/8" x 1 1/4" BHCS w/Pin limited thread bolts, 3/8" flat washers, rubber bushings and 3/8" flat washers. Refer to the Support Detail.
2) Attach the slide to the face of the deck using 3/8" x 7/8" BHCS w/Pin with 3/8" flat washers. Refer to the Deck Connection Detail.
3) Mark anchor bolt locations on concrete slab through holes in anchor plates and disconnect slide from the face of the deck. Drill 1/2" x 3" deep holes on marks into concrete using a hammer drill and 1/2" masonry bit. Tap expansion anchors into drilled holes. Reposition slide and reattach to the face of the deck following step 2. Fasten support to expansion anchors using 1/2" standard hex nuts with 1/2" flat washers.
4) Attach the slide hood to the slide using 3/8" x 7/8" BHCS w/Pin with 3/8" flat washers.
5) Insert 40 7/16" rail through top of hood, place spacer tubes over each end of the 40 7/16" rail and attach to posts at height shown using offset hanger clamp assemblies. Refer to the Typical Offset Hanger Clamp Spec Sheet.
6) Install protective surfacing before users are allowed to play on the structure.

Eco #0101754 Document #26473700 replaces #24331900. Replace double swooosh hdw pkg.

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SAFETY NOTE

Choose a protective surfacing material that has a Critical Height Value of at least the height of the Highest Accessible Part/Fall Height of the adjacent equipment. (Ref. ASTM F1487.)

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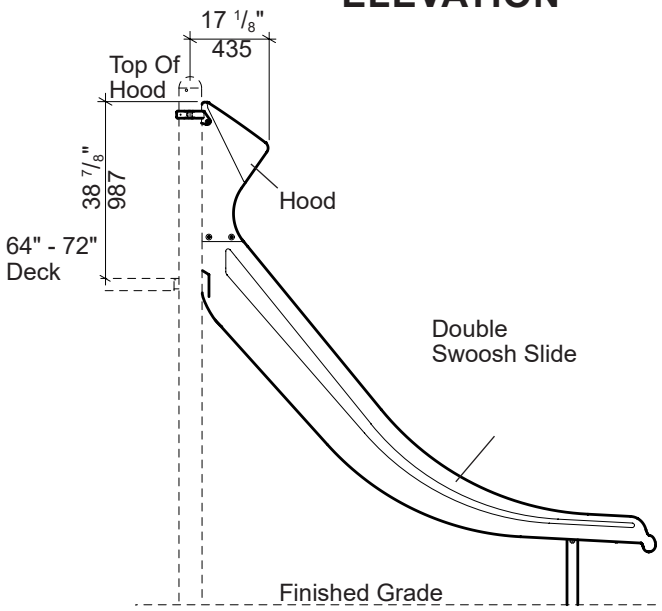
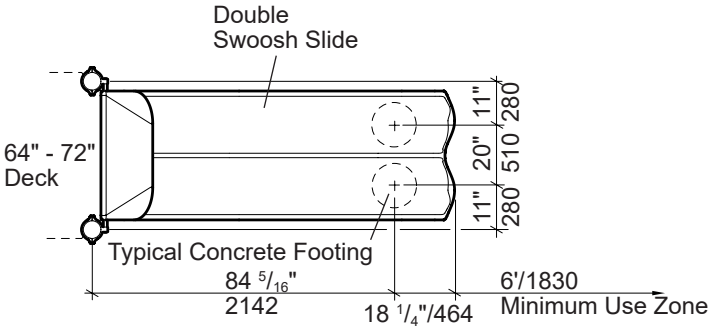
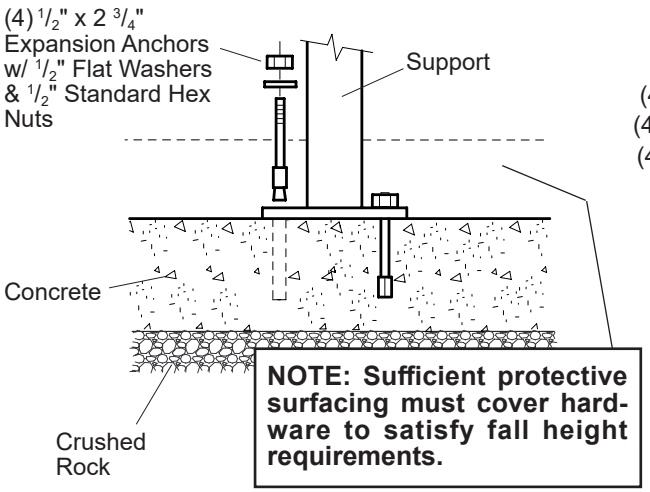
ELEVATION



PLAN VIEW/FOOTING LAYOUT

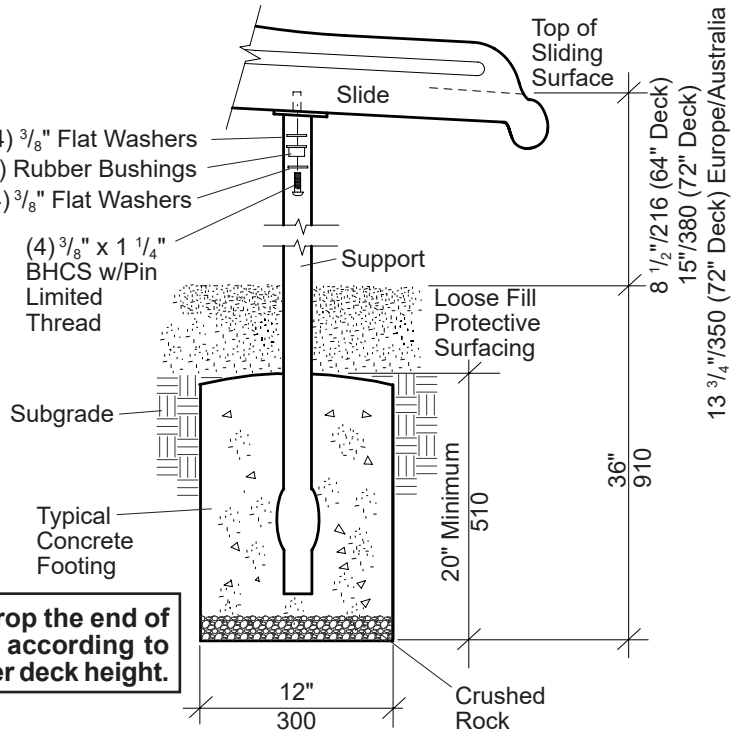


DETAIL
SURFACE MOUNT



NOTE: Sufficient protective surfacing must cover hardware to satisfy fall height requirements.

DETAIL
SUPPORT ATTACHMENT



NOTE: Prop the end of the slide according to the proper deck height.

PlayBooster® 130390 Double Swoosh Slide®, 64"-72"

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Document #26473700

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ISO 14001 CERTIFIED

ISO 9001 Certified

SAFETY NOTE

Choose a protective surfacing material that has a Critical Height Value of at least the height of the Highest Accessible Part/Fall Height of the adjacent equipment. (Ref. ASTM F1487.)

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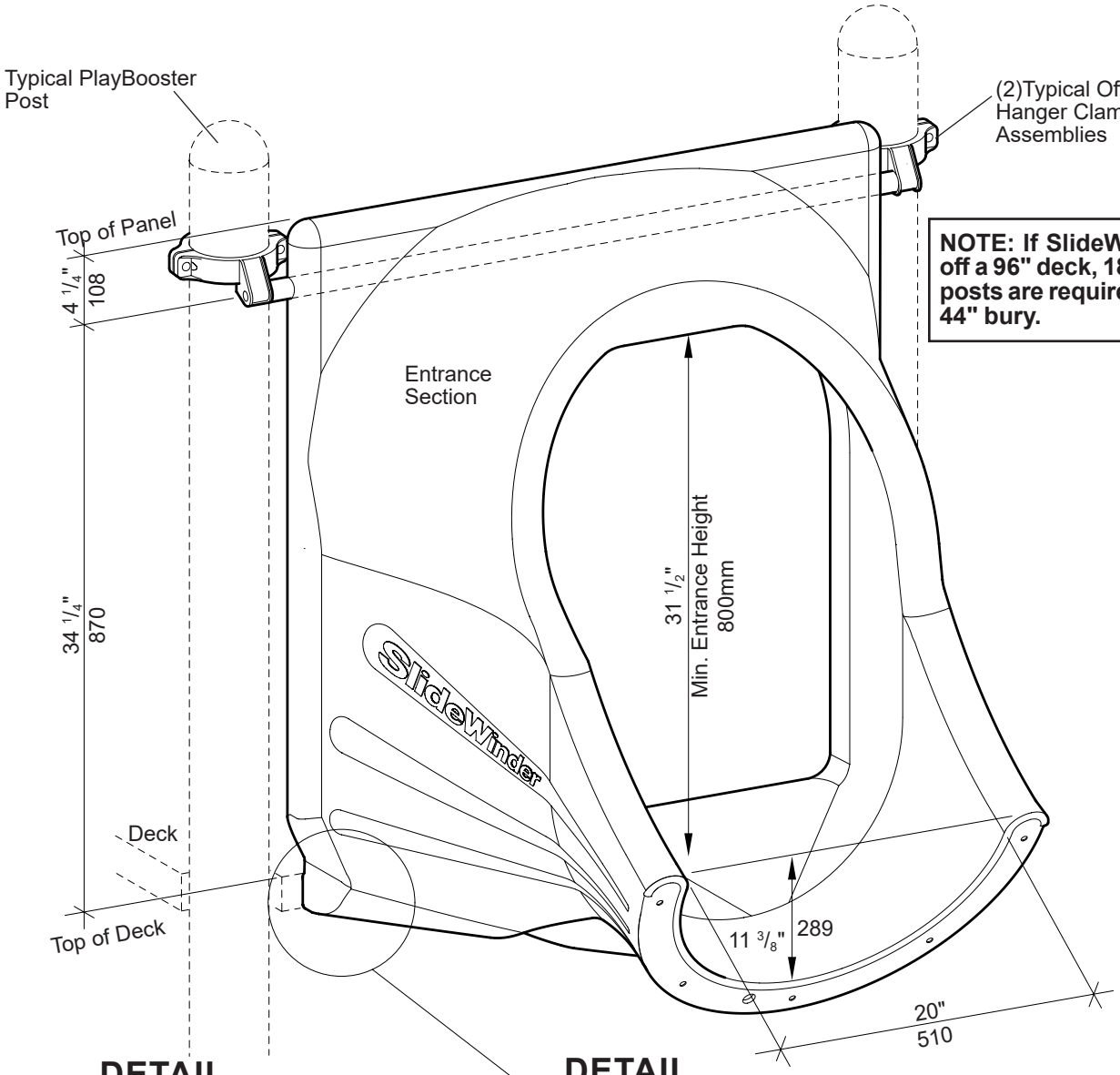
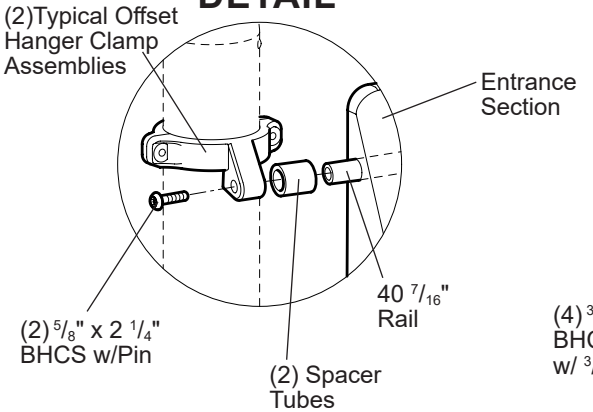
ENTRANCE SECTION ATTACHMENT

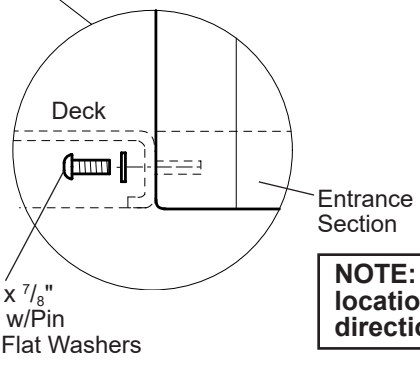


NOTE: If SlideWinder is off a 96" deck, 182" steel posts are required with a 44" bury.

DETAIL



DETAIL



NOTE: Refer to your plan drawing for location of footings and layout and direction of SlideWinder sections.

PlayBooster® **124863 SlideWinder2®, 32"-96"**

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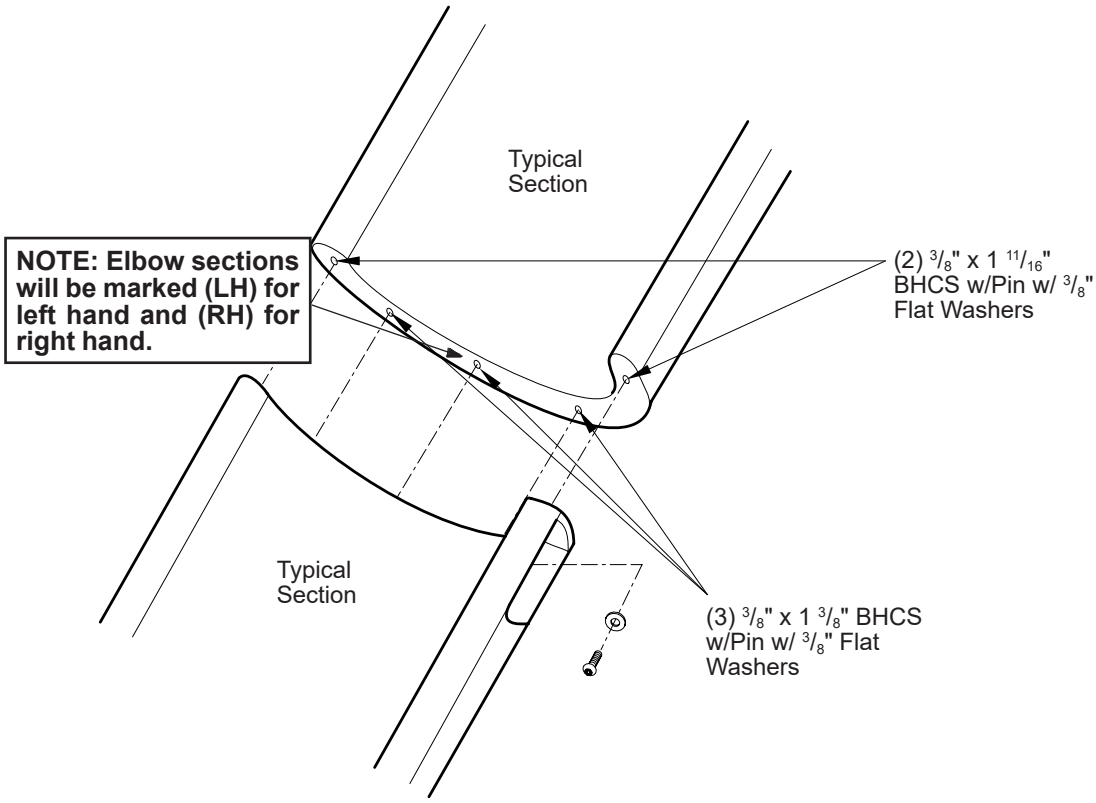
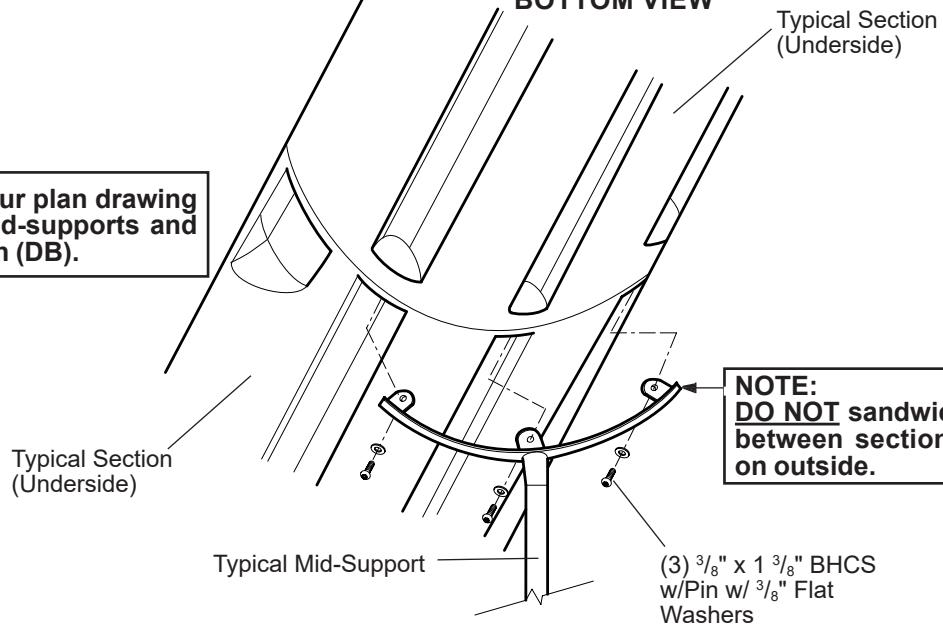
DETAIL
TYPICAL SLIDE SECTION



NOTE: Elbow sections will be marked (LH) for left hand and (RH) for right hand.

NOTE: Fasten top of slide section with pockets to bottom of slide section without pockets.

DETAIL
TYPICAL MID-SUPPORT
(48"- 96" SLIDES ONLY)
BOTTOM VIEW



NOTE:Refer to your plan drawing for location of mid-supports and their footing depth (DB).

NOTE:
<u>DO NOT</u> sandwich support between sections. Mount on outside.

PlayBooster® 124863 SlideWinder2® Details

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SAFETY NOTE

Choose a protective surfacing material that has a Critical Height Value of at least the height of the Highest Accessible Part/Fall Height of the adjacent equipment. (Ref. ASTM F1487.)

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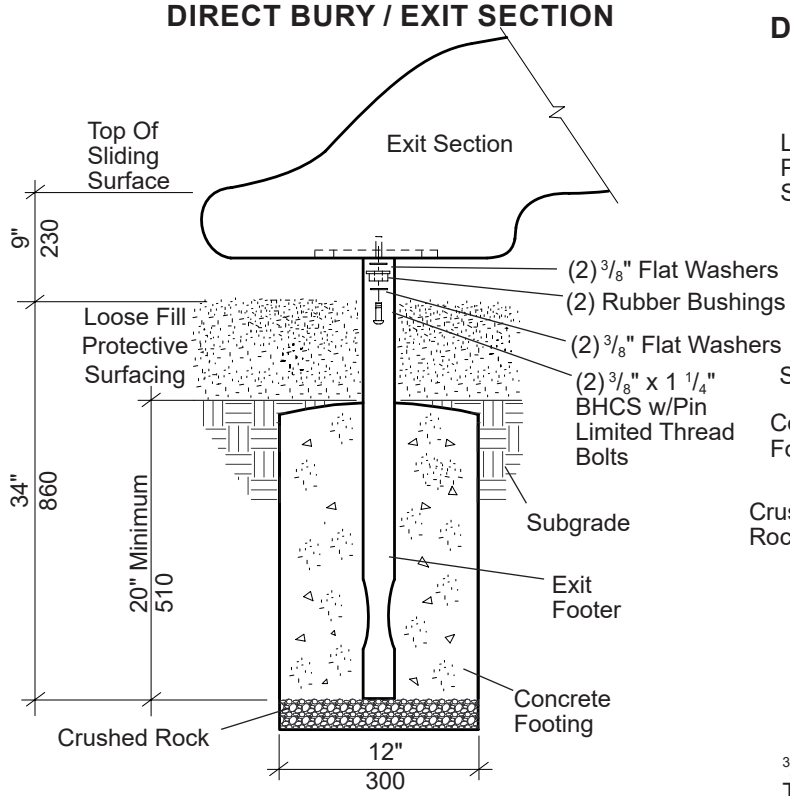
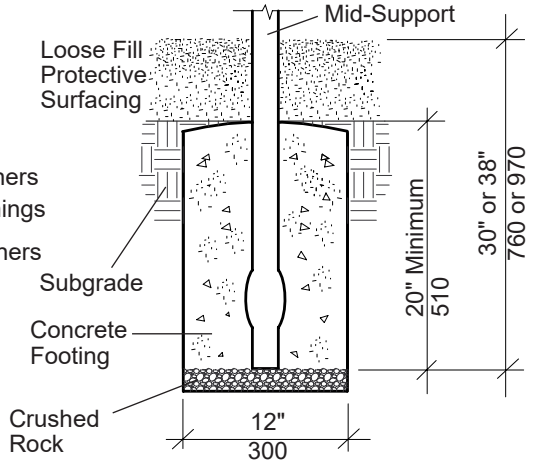
DETAIL
DIRECT BURY / EXIT SECTION

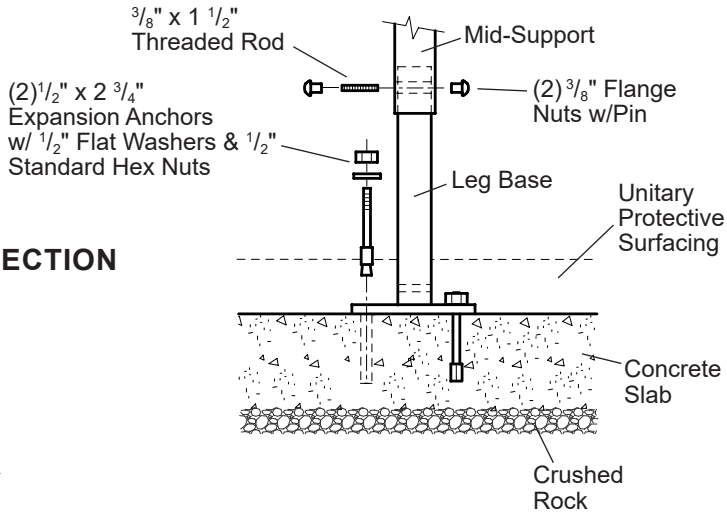


NOTE: Attach bolts in the center of the footer slots to allow for expansion and contraction. Snug bolts down only, do not overtighten!

DETAIL
DIRECT BURY / MID-SUPPORTS



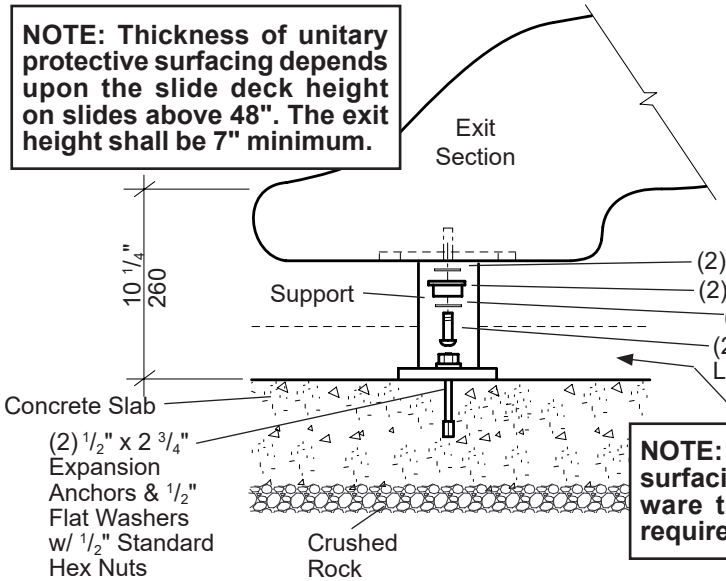
DETAIL
SURFACE MOUNT / MID-SUPPORTS



NOTE: Exit Heights may vary if the protective surfacing is not level. Do not put pressure/tension on the entrance section when adjusting the exit height.

DETAIL
SURFACE MOUNT / EXIT SECTION

NOTE: Thickness of unitary protective surfacing depends upon the slide deck height on slides above 48". The exit height shall be 7" minimum.



NOTE: Sufficient protective surfacing must cover hardware to satisfy fall height requirements.

PlayBooster® 124863 SlideWinder2® Details

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Document #24023600

PlayBooster® 124863 SlideWinder2®, 32"-96"

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Parts List

Part#	Description	Qty.
124867	Right Elbow Section, Specify Color	*
124868	Left Elbow Section, Specify Color	*
125655	Straight Section (15 1/4" Long), Specify Color	*
124864	Straight Section (30 1/2" Long), Specify Color	*
100583	40 7/16" Rail, Specify Color	1
105327	5" Half Clamp, Specify Color	2
113729	Offset Hanger Clamp, Specify Color	2
100610	1/4" x 5/8" Drive Rivet, AL/SST	2
125562	Support Base (SM), Specify Color	*
128434	66" Mid-Support (DB), Specify Color	*
128077	82" Mid-Support (DB), Specify Color	*
128078	106" Mid-Support (DB), Specify Color	*
128079	20 3/4" Mid-Support (SM), Specify Color	*
128080	29" Mid-Support (SM), Specify Color	*
128081	37 1/8" Mid-Support (SM), Specify Color	*
128082	45 1/4" Mid-Support (SM), Specify Color	*
128261	Exit Footer (DB), Specify Color	1
128262	Exit Footer (SM), Specify Color	1
124876	Entrance Section, Specify Color	1
124877	Exit Section, Specify Color	1
132443	Spacer Tube, Specify Color	2
121371	**Entrance/Deck Mounting Hardware Package**	1
100196	3/8" x 7/8" BHCS w/Pin, SST	4
100362	3/8" Flat Washer, SST	4
154942	**SlideWinder Section Hardware Package**	*
100362	3/8" Flat Washer, SST	*
113027	3/8" x 1 3/8" BHCS w/Pin, SST	*
123224	3/8" x 1 11/16" BHCS w/Pin, SST	*
124342	**Rail Hardware Package**	1
100198	3/8" x 1 1/8" BHCS w/Pin, SST	4
100203	5/8" x 2 1/4" BHCS w/Pin, SST	2
100351	3/8" Tee Nut, SST	4
125670	**Mid-Support Hardware Package (SM)**	*
100266	1/2" x 2 3/4" Expansion Anchor	*
100322	1/2" Standard Hex Nut, SST	*
100353	3/8" Flange Nut w/Pin, SST	*
100363	1/2" Flat Washer, SST	*
115813	3/8" x 1 1/2" Threaded Rod, SST	*
128373	**Exit Support Hardware Package (DB)**	1
100292	3/8" x 1 1/4" BHCS w/Pin Limited Thread Bolt, SST	2
100362	3/8" Flat Washer, SST	4
111442	Rubber Bushing	2
128343	**Exit Support Hardware Package (SM)**	1
100266	1/2" x 2 3/4" Expansion Anchor	2
100292	3/8" x 1 1/4" BHCS w/Pin Limited Thread Bolt, SST	2
100322	1/2" Standard Hex Nut, SST	2
100362	3/8" Flat Washer, SST	4
100363	1/2" Flat Washer, SST	2
111442	Rubber Bushing	2

DB = Direct Bury
SM = Surface Mount
*** = Quantity Varies Per Deck Height**

Specifications

Slide Sections: Rotationally molded from U.V. stabilized linear low density polyethylene, color specified.

Rail: 1 1/8" O.D. 6005-T5 aluminum extrusion with 5/16" walls. Finish: ProShield®, color specified.

Mid-Support: Weldment comprised of 1.900" O.D. RS-20 (.090" - .100") galvanized steel tubing and 3/16" x 1 1/4" zinc plated steel strap. Finish: ProShield, color specified.

Support Base (SM): Weldment comprised of 1.660" O.D. RS-20 (.085" - .095") galvanized steel tubing and 1/4" x 3" x 8" mounting plate. Finish: ProShield, color specified.

Spacer Tube: Fabricated from 1.3125 O.D. x 16 Ga. (.065) steel tubing. Finish: ProShield, color specified.

Exit Footer: Weldment comprised of 2.375" O.D. RS-20 (.095" - .105") galvanized steel tubing and 1/4" x 3" x 7 1/2" mounting plate. Finish: ProShield, color specified.

Offset Hanger Clamp Assy.: Cast aluminum. Finish: ProShield, color specified.

Fasteners: Primary fasteners shall be socketed and pinned tamperproof in design, stainless steel (SST) per ASTM F 879 unless otherwise indicated (see specific product installation/specifications).

Installation Time:
32" - 48" Approx. 3 man hours
56" - 72" Approx. 4 man hours
96" Approx. 5.5 man hours

Concrete Req.:
30" Depth - Approx. 1.3 cu. ft.
34" Depth - Approx. 1.5 cu. ft.
38" Depth - Approx. 1.8 cu. ft.

Weight:
32" - 134 lbs.
40" - 146 lbs.
48" - 172 lbs.
56" - 184 lbs.
64" - 197 lbs.
72" - 247 lbs.
96" - 280 lbs.

Fall Height: Deck Height

Installation Instructions

1) Refer to your plan drawing for location of footings and direction of SlideWinder sections.
2) **(Direct Bury)** Dig footing holes spaced as shown, depending upon slide. Refer to the Direct Bury Exit Section and Direct Bury Mid-Support Details.
3) Place 40 7/16" rail in entrance section, place spacer tubes over each end of the 40 7/16" rail, attach offset hanger clamps using 5/8" x 2 1/4" BHCS w/Pin.
4) Fasten SlideWinder sections together loosely starting in the middle and working your way to the outside of each section, using 3/8" x 1 3/8" BHCS w/Pin with 3/8" flat washers on the 3 inside holes and 3/8" x 1 11/16" BHCS w/pin with 3/8" flat washers on the 2 outside holes. When all bolts are started, pull the tops flush with each other and tighten. The left elbow section reads (LH) and the right elbow section reads (RH). Attach entrance and exit section last. Refer to the Typical Slide Section Detail.
5) **(Direct Bury)** If required attach mid-supports, refer to your plan drawing for locations. Attach mid-supports to slide using 3/8" x 1 3/8" BHCS w/Pin. Refer to the Typical Mid-Support Detail.

   (Surface Mount) If required attach mid-supports, refer to your plan drawing for locations. Assemble mid-supports by placing support base inside mid-support and attach using 3/8" x 1 1/2" threaded rod and 3/8" flange nuts w/pin. Refer to the Surface Mount/Mid-Support Detail. Attach mid-supports to slide using 3/8" x 1 3/8" BHCS w/Pin. Refer to the Typical Mid-Support Detail.
6) Attach exit footer to base of slide using 3/8" x 1 1/4" BHCS w/Pin limited thread bolts, 3/8" flat washers, rubber bushings and 3/8" flat washers. **NOTE:** *Attach bolts in the center of the slots to allow for expansion and contraction. Snug bolts down only, do not overtighten. See Direct Bury/Exit Section Detail.*
7) With SlideWinder fully assembled, attach entrance section to the face of the deck using 3/8" x 7/8" BHCS w/Pin and 3/8" flat washers.
8) Attach offset hanger clamps to posts using 5" half clamps, 3/8" x 1 1/8" BHCS w/Pin and 3/8" tee nuts. Refer to the Typical Offset Hanger Clamp Spec Sheet.
9) **(Direct Bury)** With supports plumb pour concrete footings. Allow concrete footings to cure for a minimum of 72 hours before users are allowed to play on the structure.

   (Surface Mount) Mark anchor bolt locations on concrete slab through holes in anchor plates. Drill 1/2" x 3" deep holes on marks into concrete using a hammer drill and 1/2" masonry bit. Tap 1/2" x 2 3/4" expansion anchors into drilled holes and fasten using 1/2" standard hex nuts with 1/2" flat washers.
10) Install protective surfacing before users are allowed to play on the structure.

Eco #0101244 Document 24023600 replaces 17787300. Slide exit height defined.
4/24/2023 - Update to weight and install for 96"Deck additional footer.

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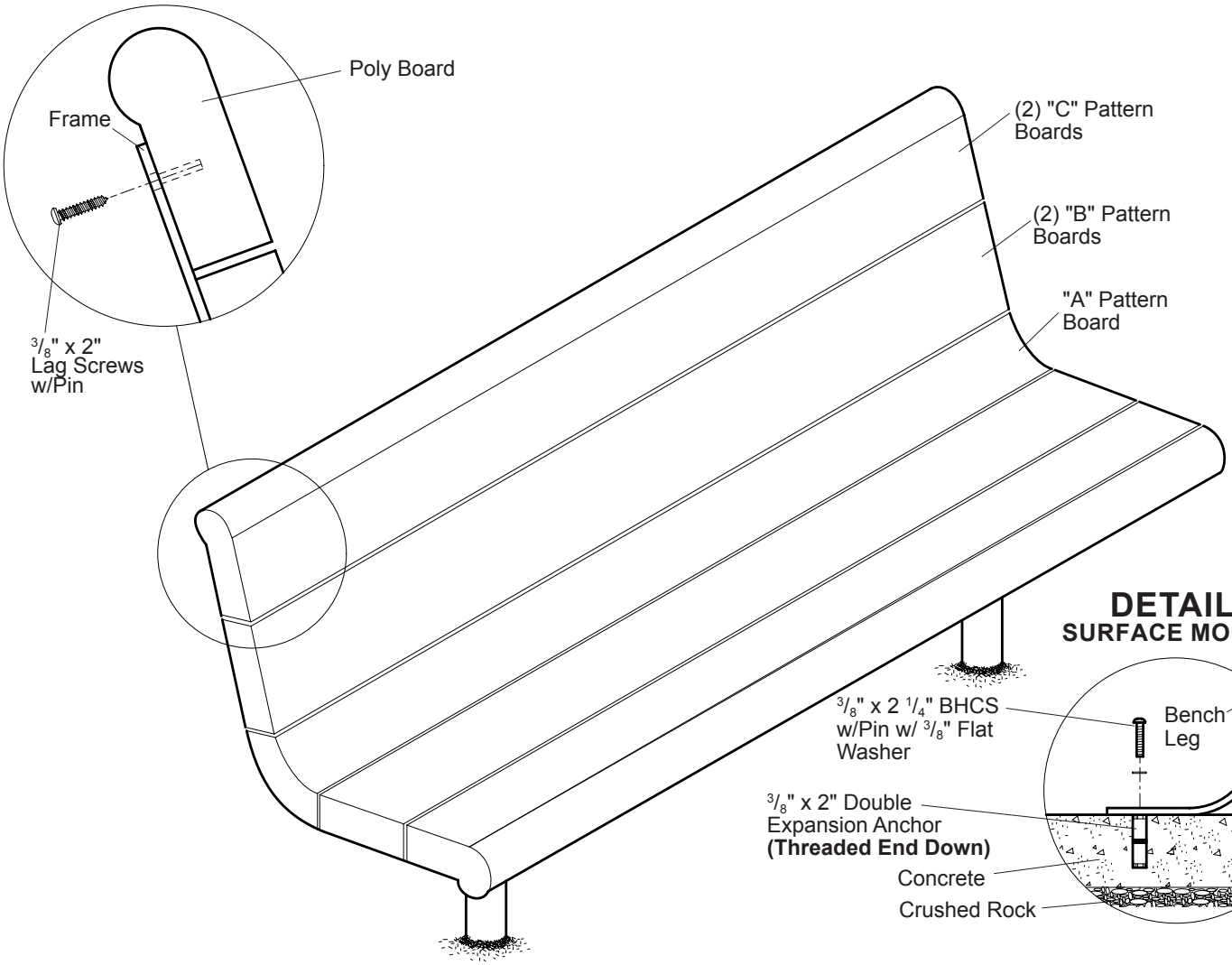
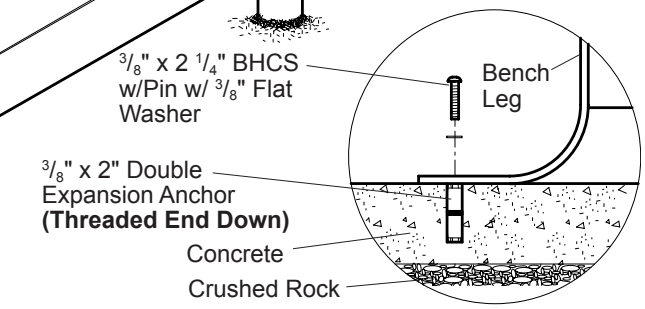
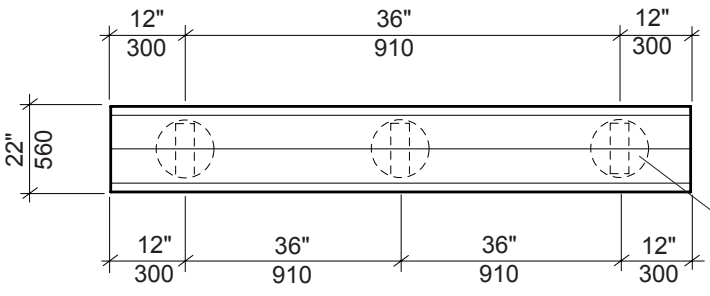
18819400



DETAIL
SURFACE MOUNT

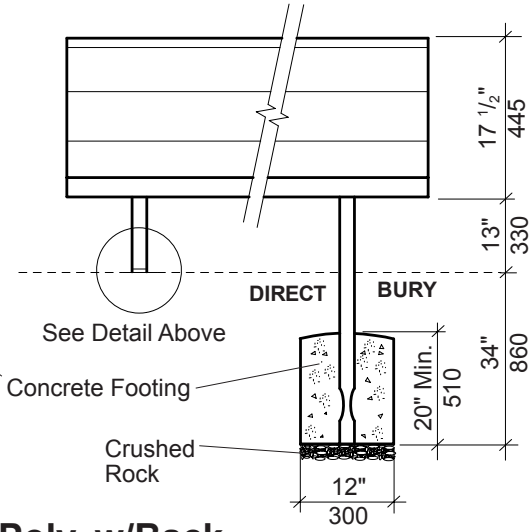


PLAN VIEW
5' BENCH



8' BENCH

ELEVATION



Site Furnishings 111640 Bench, Contour Poly, w/Back

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Site Furnishings 111640 Bench, Contour Poly, w/Back

Parts List

Part#	Description	Qty . 5'	8'
111674	5' Board, A Pattern	1	
111675	5' Board, B Pattern	2	
111676	5' Board, C Pattern	2	
111677	8' Board, A Pattern		1
111678	8' Board, B Pattern		2
111679	8' Board, C Pattern		2
111653	Bench Frame Single, DB, Specify Color	2	3
111654	Bench Frame Single, SM, Specify Color	2	3
111668	**Poly Bench, Direct Bury Hardware Package**	2	3
139039	$^3/_8$" x 2" Lag Screw w/Pin, SST	10	15
188203	**Poly Bench, Surface Mount Hardware Pkg.**	2	3
139039	$^3/_8$" x 2" Lag Screw w/Pin, SST	10	15
100199	$^3/_8$" x 2 $^1/_4$" BHCS w/Pin, SST	4	6
187933	$^3/_8$" x 2" Double Expansion Anchor	4	6
100362	$^3/_8$" Flat Washer, SST	4	6

DB = Direct Bury
SM = Surface Mount

Specifications

Poly Board: Recycled 2 $^1/_2$" x 6 $^7/_8$" cedar colored high-density polyethylene.

Bench Frame (DB): Weldment comprised of 2 $^3/_8$" RS-40 (.130-.140) Galvanized steel tubing and formed $^3/_8$" x 3" HR steel. Finish: ProShield®, color specified.

Bench Frame (SM): Weldment comprised of formed $^3/_8$" x 3" HR steel, $^3/_8$" x 2 $^1/_2$" HR steel and $^1/_4$" x 2" x 8" center brace. Finish: ProShield, color specified.

Fasteners: Primary fasteners shall be socketed and pinned tamperproof in design, stainless steel (SST) per ASTM F 879 unless otherwise indicated (see specific product installation/specifications).

Installation Time:
SM - Approx. 1 $^1/_4$ man hours
DB - Approx. 1 $^3/_4$ man hours

Concrete Req:
5' DB - Approx. 2.66 cu. ft.
8' DB - Approx. 4 cu. ft.

Weight:
5' SM - 170 lbs.
5' DB - 166 lbs.
8' SM - 267 lbs.
8' DB - 285 lbs.

Installation Instructions

Direct Bury

1) Attach boards to frames as shown, using $^3/_8$" x 2" lag screws w/pin.

2) Dig footing holes, as shown. Set assembled bench in footing holes and prop in plumb and level position. Pour concrete footings and let cure for 24 hours before using.

Surface Mount

1) Attach boards to frames as shown, using $^3/_8$" x 2" lag screws w/pin.

2) Set assembled bench in proper position and use a center punch to mark expansion anchor locations.

3) Move bench aside and drill $^3/_4$" x 2 $^1/_4$" deep holes into concrete, using a hammer drill and $^3/_4$" masonry bit. **NOTE:** *Drill holes perpendicular to the work surface. To assure full holding power, do not ream holes or allow the drill to wobble. Verify hole depth after drilling. Clean holes using compressed air.*

4) Tap double expansion anchors **(with threaded end down)** into drilled holes. Reposition bench. Fasten bench to expansion anchors, using $^3/_8$" x 2 $^1/_4$" BHCS w/pin and $^3/_8$" flat washers.

Eco #54691 Document 18819400 replaces 17066200. Replaced expansion anchors with double expansion anchors.

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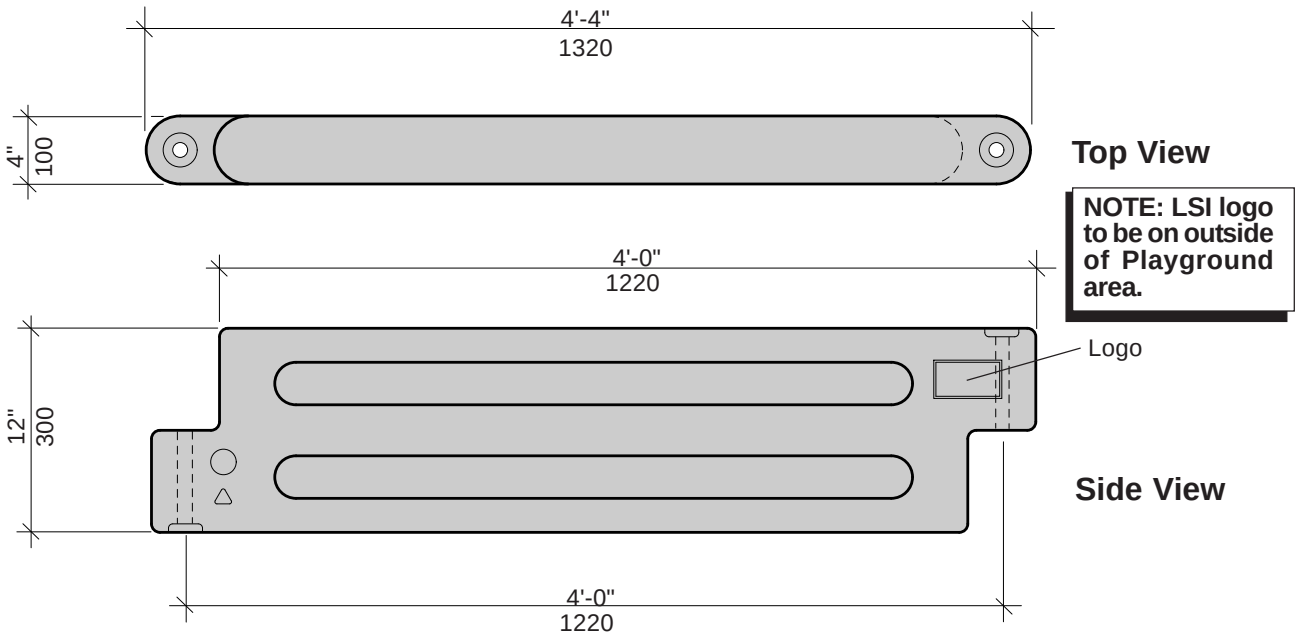
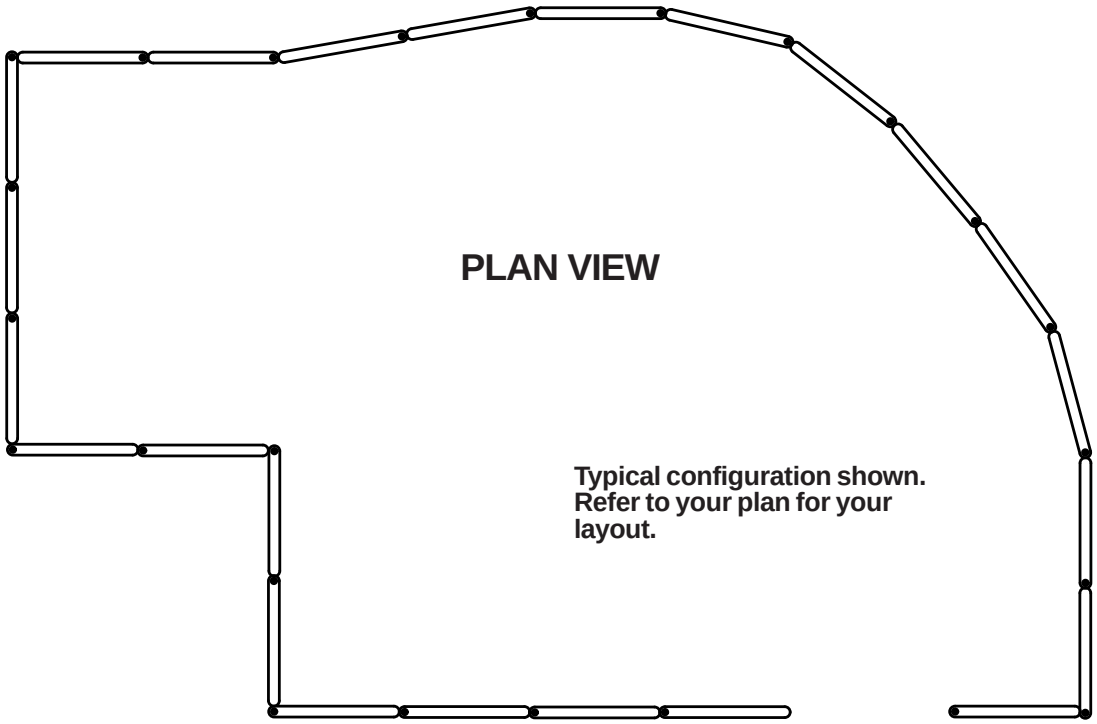
SAFETY NOTE

Choose a protective surfacing material that has a Critical Height Value of at least the height of the Highest Accessible Part/Fall Height of the adjacent equipment. (Ref. *ASTM F1487*.)

11921500

TUFFTIMBER





TuffTimbers

119214 TuffTimbers™, 4'

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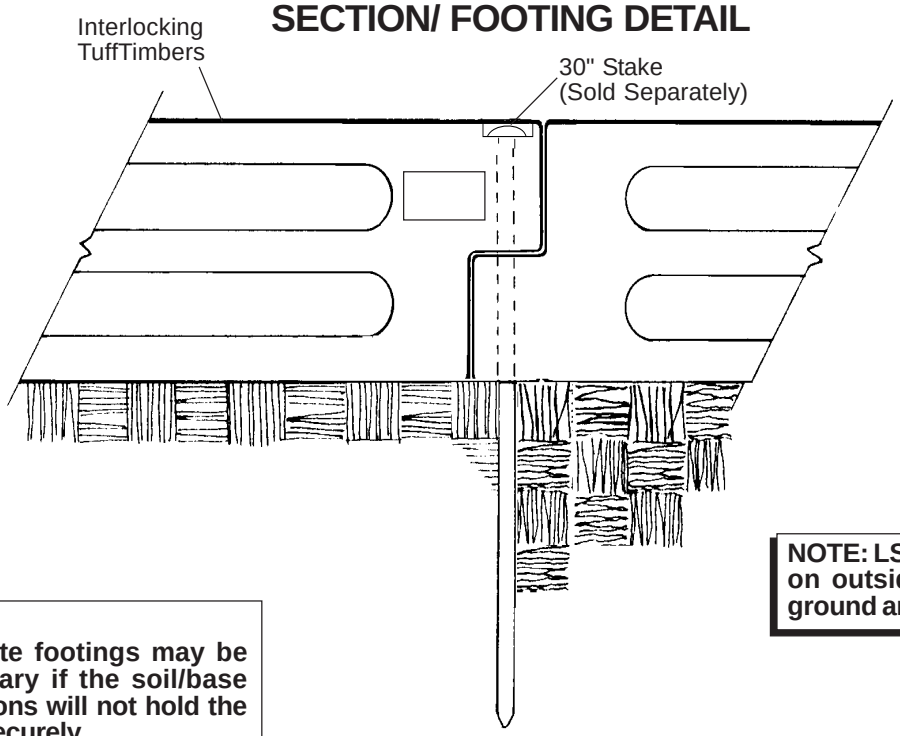
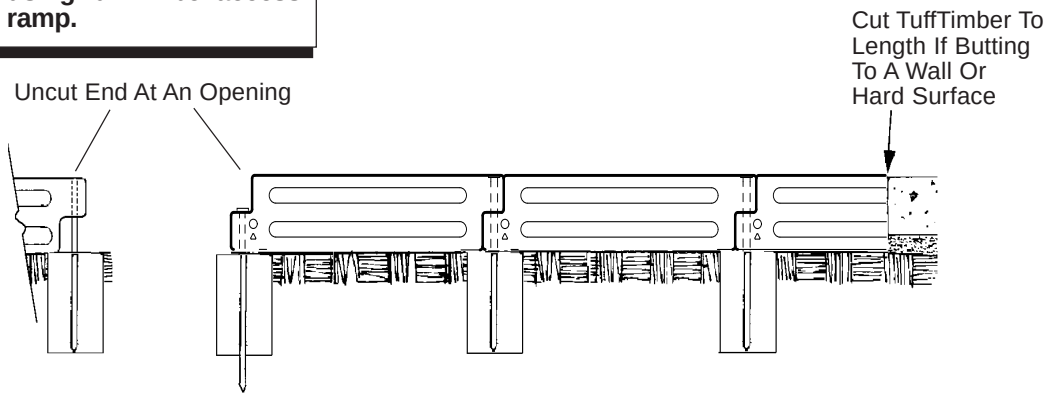
SECTION/ FOOTING DETAIL



NOTE: LSI logo to be on outside of Play-ground area.

NOTE:
Concrete footings may be necessary if the soil/base conditions will not hold the stake securely.

NOTE: Orientation of TuffTimbers is critical if using TuffTimber access ramp.



TuffTimbers™

TuffTimber Details

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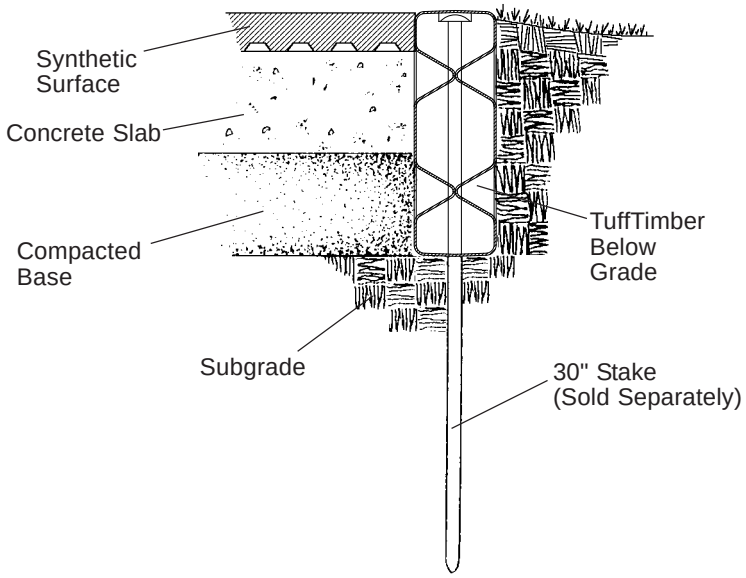
SAFETY NOTE

Choose a protective surfacing material that has a Critical Height Value of at least the height of the Highest Accessible Part/Fall Height of the adjacent equipment. (Ref. *ASTM F1487*.)

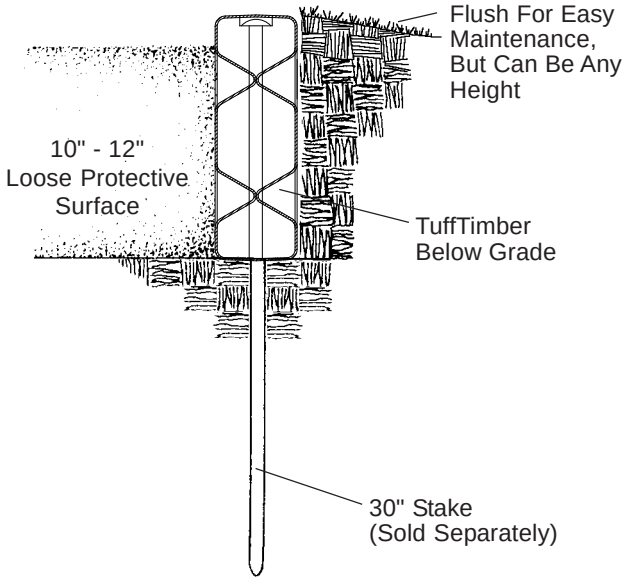
156382b0

BELOW GRADE

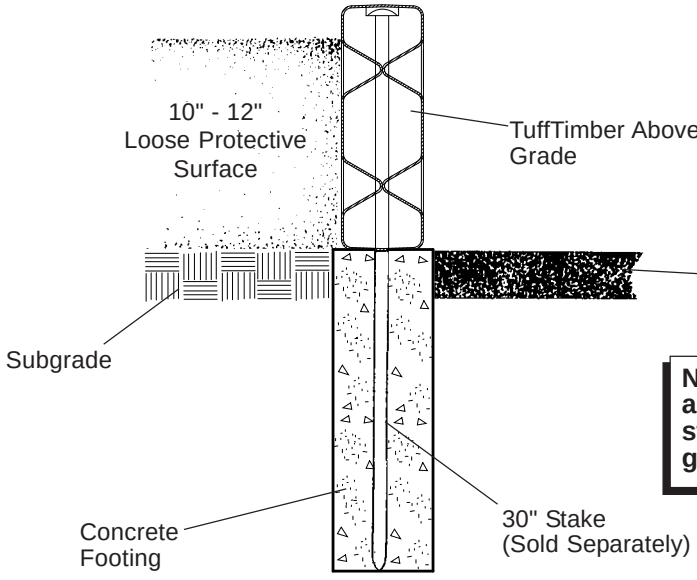
END CROSS SECTION
SYNTHETIC SURFACE



END CROSS SECTION
LOOSE MATERIAL



END CROSS SECTION
ABOVE GRADE



NOTE: Concrete footings are recommended, when installing TuffTimbers above grade without back fill.

TuffTimbers™ **Installation Options w/Various Protect. Surfaces** Sheet 2 of 2

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TuffTimbers™ 119214 TuffTimbers, 4'

Parts List

Part#	Description	Qty.
100626-00	30" Stake (Sold Separately)	As Req.
120456-00	TuffTimber, Black	As Req.

Specifications

Stake: Made from $^{3}/_{4}$" dia. x 30" long shaft. Finish: Dacromet.

TuffTimber: Blow-molded from U.V. stabilized 25% recycled/reclaimed linear high-density polyethylene. Walls are minimum .080" thick x 4" wide x 12" high x 4'-4" long, black in color.

Installation Time: With concrete approx. $^{1}/_{4}$ man hour per Tuff Timber with stake.
With no concrete approx. $^{1}/_{4}$ man hour per (2) Tuff Timbers with stakes.

Concrete Req.: Approx. .30 cu. ft. per stake

Weight: TuffTimber with stake 14 lbs.

Installation Instructions

1) Install before backfilling with protective surfacing.
2) Position TuffTimbers, as shown on your plan drawing, with logo facing up. Pound stakes through interlocking TuffTimbers into subgrade. Keep TuffTimbers straight and plumb.

If Concrete Footings Are Required

1) Install before backfilling with protective surfacing.
2) Dig footing for stakes, 6" diameter x 18" deep and 4' on center. Refer to your plan drawing for location of timbers.
3) Pour concrete into several footing holes and lay TuffTimbers in position over surface with logo facing up and on outside of playground area. Pound stakes through interlocking TuffTimbers and into concrete. Keep TuffTimbers straight and plumb. Continue pouring concrete and laying out TuffTimbers until perimeter of play area is complete.
4) Allow 48 hours for concrete to cure before backfilling.

Eco #53005 Document #15638200 replaces #14180100. Removed Above Grade Detail.

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SAFETY NOTE

Choose a protective surfacing material that has a Critical Height Value of at least the height of the Highest Accessible Part/Fall Height of the adjacent equipment. (Ref. *ASTM F1487*.)

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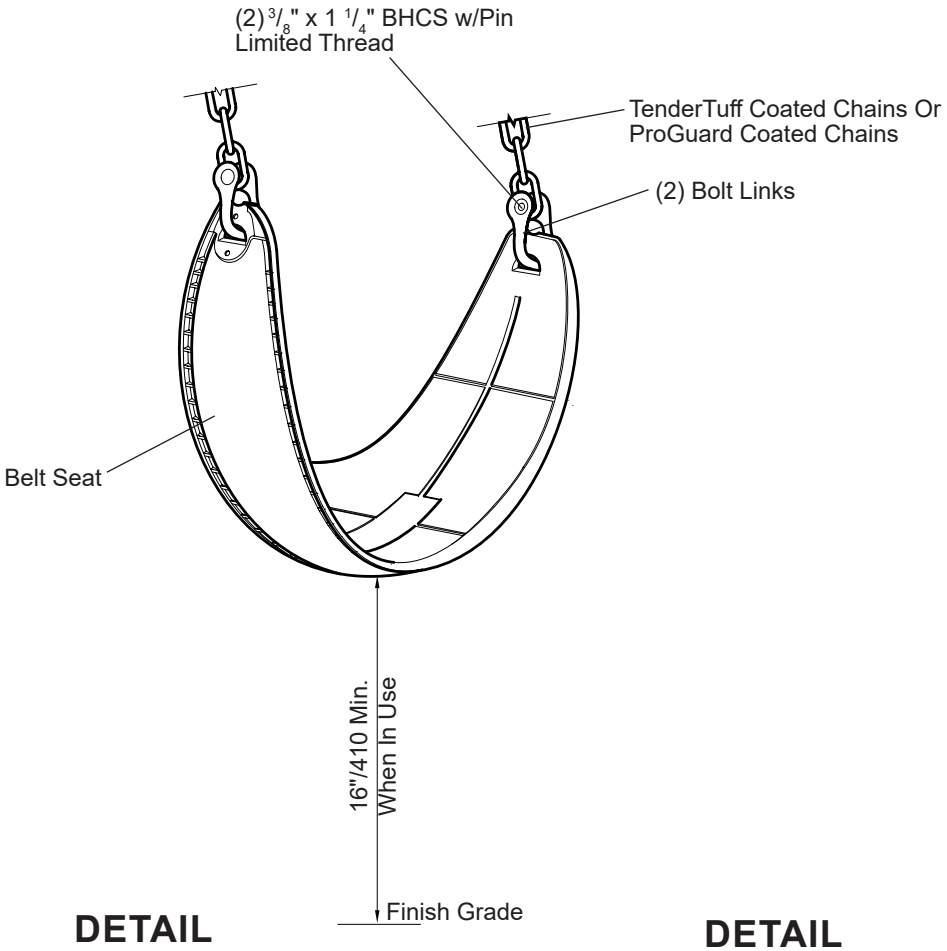
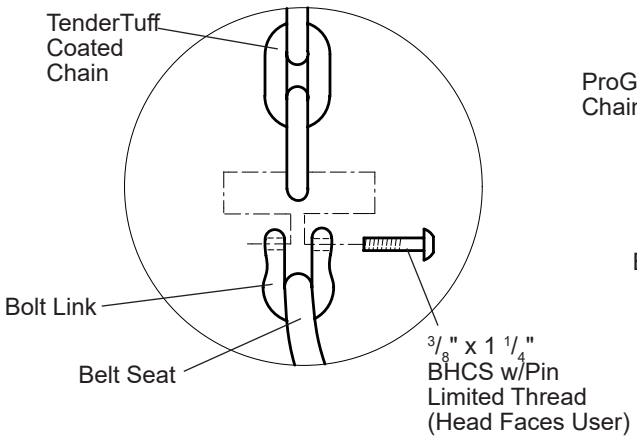
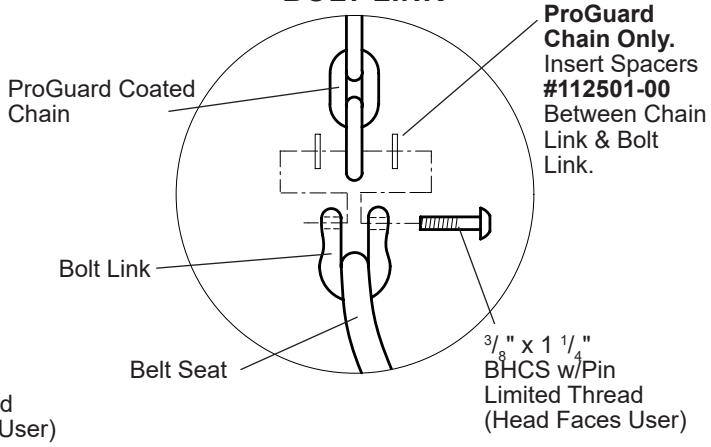


DETAIL
BOLT LINK



DETAIL
BOLT LINK



Swings

174018 Belt Seat

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Swings 174018 Belt Seat

Parts List

Part #	Description	Qty.
	7 Ft. High Beam	
128842	Belt Swing Seat, Black	1
178679	57 7/16" Chain, TenderTuff, Specify Color	2
175251	57 7/16" Chain, ProGuard	2
132672	**Bolt Link w/Bolt & Spacers**	1
100292	3/8" x 1 1/4" BHCS w/Pin Ltd. Thread, SST	2
138915	Bolt Link, SST	2
112501	Chain Spacer	4
132635	**Bolt Link w/Bolt Hardware Package**	1
100292-00	3/8" x 1 1/4" BHCS w/Pin Ltd. Thread, SST	2
138915	Bolt Link, SST	2
	8 Ft. High Beam	
128842	Belt Swing Seat, Black	1
152050	67 7/8" Chain, TenderTuff, Specify Color	2
174404	67 7/8" Chain, ProGuard	2
132672	**Bolt Link w/Bolt & Spacers**	1
100292	3/8" x 1 1/4" BHCS w/Pin Ltd. Thread, SST	2
138915	Bolt Link, SST	2
112501	Chain Spacer	4
132635	**Bolt Link w/Bolt Hardware Package**	1
100292	3/8" x 1 1/4" BHCS w/Pin Ltd. Thread, SST	2
138915	Bolt Link, SST	2
	10 Ft. High Beam	
128842	Belt Swing Seat, Black	1
152052	90 11/16" Chain, TenderTuff, Specify Color	2
174884	90 11/16" Chain, ProGuard	2
132672	**Bolt Link w/Bolt & Spacers**	1
100292	3/8" x 1 1/4" BHCS w/Pin Ltd. Thread, SST	2
138915	Bolt Link, SST	2
112501	Chain Spacer	4
132635	**Bolt Link w/Bolt Hardware Package**	1
100292	3/8" x 1 1/4" BHCS w/Pin Ltd. Thread, SST	2
138915	Bolt Link, SST	2

Specifications

Chain Spacer: Made from white nylon measuring .080" x .785" O.D.

Chain/ProGuard: Steel 3/16" straight link chain, 800 lb. working load limit. Finish: ProGuard.

Chain/Coated: Steel 3/16" straight link chain, 800 lb. working load limit. Finish: TenderTuff®, color specified.

Belt Seats: Molded from U.V. stabilized black EPDM rubber encapsulating a weldment comprised of a 22 GA (.029") spring stainless steel sheet, and (4) .105" thick stainless steel washers. The belt seat elliptical shape measures 7" wide x 26" long x .700" thick.

Bolt Link: Stainless Steel.

Fasteners: Primary fasteners shall be socketed and pinned tamperproof in design, stainless steel (SST) per ASTM F 879 unless otherwise indicated (see specific product installation/specifications).

Installation Time: 1/4 man hour per seat

Weight: 8 lbs. (7 Ft. Beam w/ProGuard Chains)
9 lbs. (7 Ft. Beam w/TenderTuff Chains
8 lbs. (8 Ft. Beam w/ProGuard Chains)
9 lbs. (8 Ft. Beam w/TenderTuff Chains)
10 lbs. (10 Ft. Beam w/ProGuard Chains)
11 lbs. (10 Ft. Beam w/TenderTuff Chains)

Installation

NOTE: *Refer to Swing Frame assembly for swing hanger type.*

Swing Hangers With Double Clevis

1) Attach chains to double clevis using 3/8" x 1 1/4" BHCS w/pin limited thread, as shown.
2) Attach chains to belt seat using bolt links with 3/8" x 1 1/4" BHCS w/ pin limited thread. Be sure bolt heads face user. **NOTE:** *Use chain spacers as shown when installing ProGuard chains.*
3) Install protective surfacing before users are allowed to play on the structure.

Anti-wrap Swing Hangers

1) Attach chains to aluminum clevis using 3/8" x 7/8" BHCS w/pin limited thread, as shown.
2) Attach chains to belt seat using bolt links with 3/8" x 1 1/4" BHCS w/ pin limited thread. Be sure bolt heads face user. **NOTE:** *Use chain spacers as shown when installing ProGuard chains.*
3) Install protective surfacing before users are allowed to play on the structure.

5/14/25 - Clarification and note added for swing hanger components being part of swing frame assembly.

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SAFETY NOTE

Choose a protective surfacing material that has a Critical Height Value of at least the height of the Highest Accessible Part/Fall Height of the adjacent equipment. (Ref. *ASTM F1487*.)

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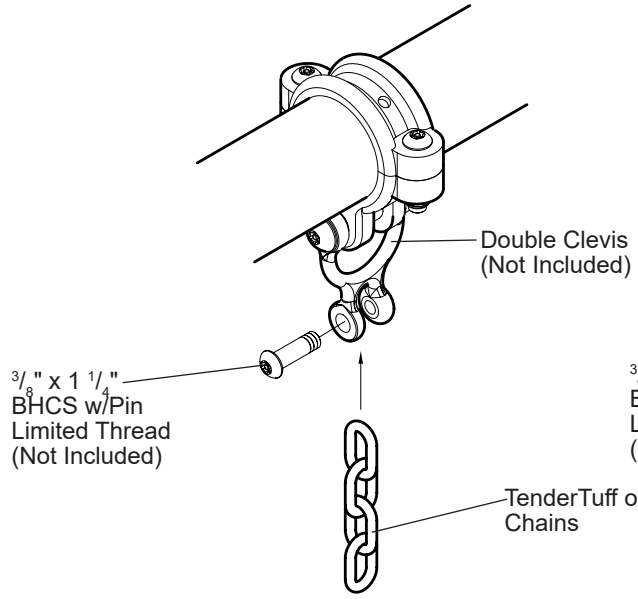
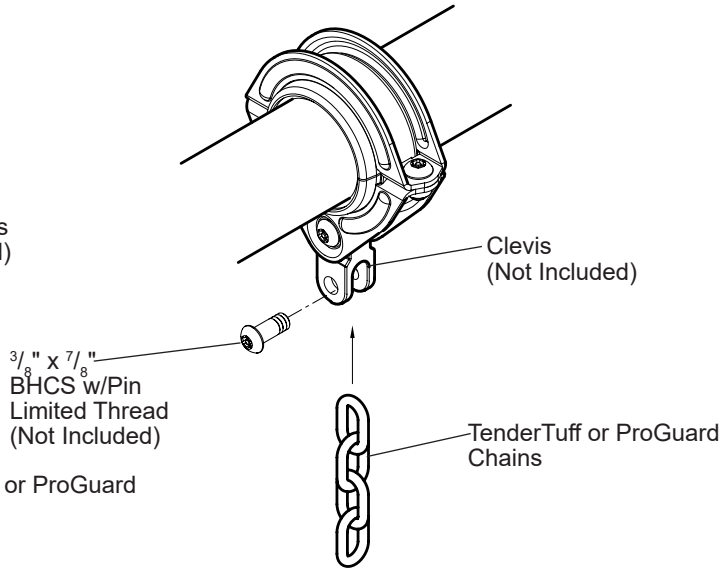
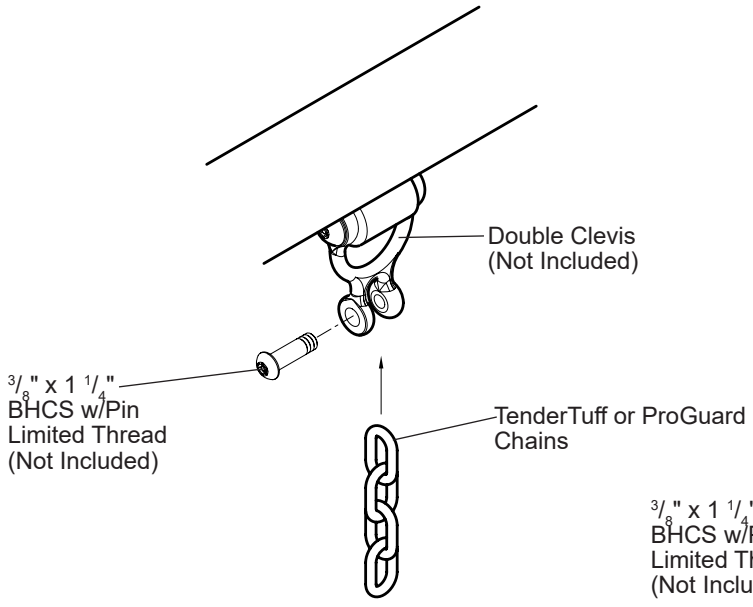
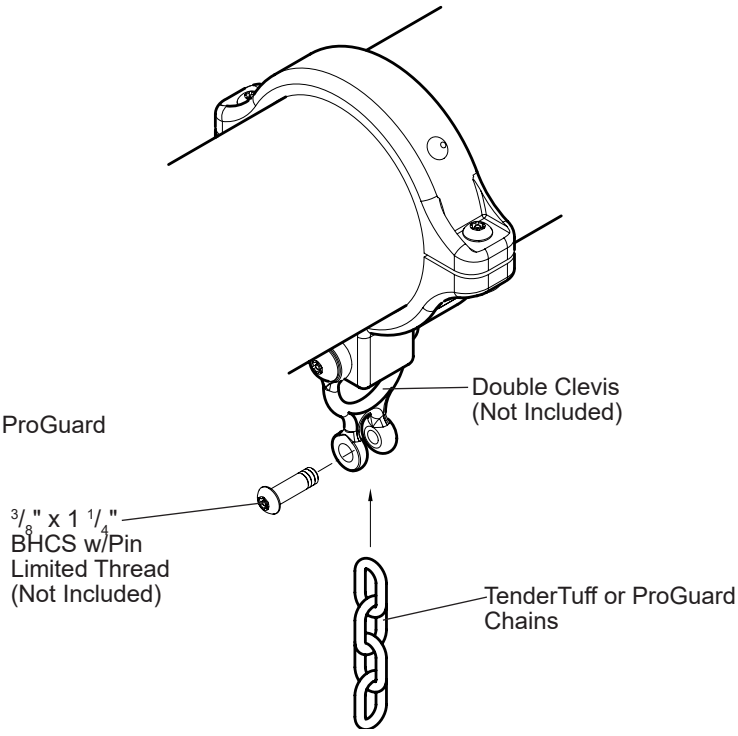
SWING HANGER OPTIONS

Swing Hanger Components included with Swing Frame.









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SAFETY NOTE

Choose a protective surfacing material that has a Critical Height Value of at least the height of the Highest Accessible Part/Fall Height of the adjacent equipment. (Ref. *ASTM F1487*.)

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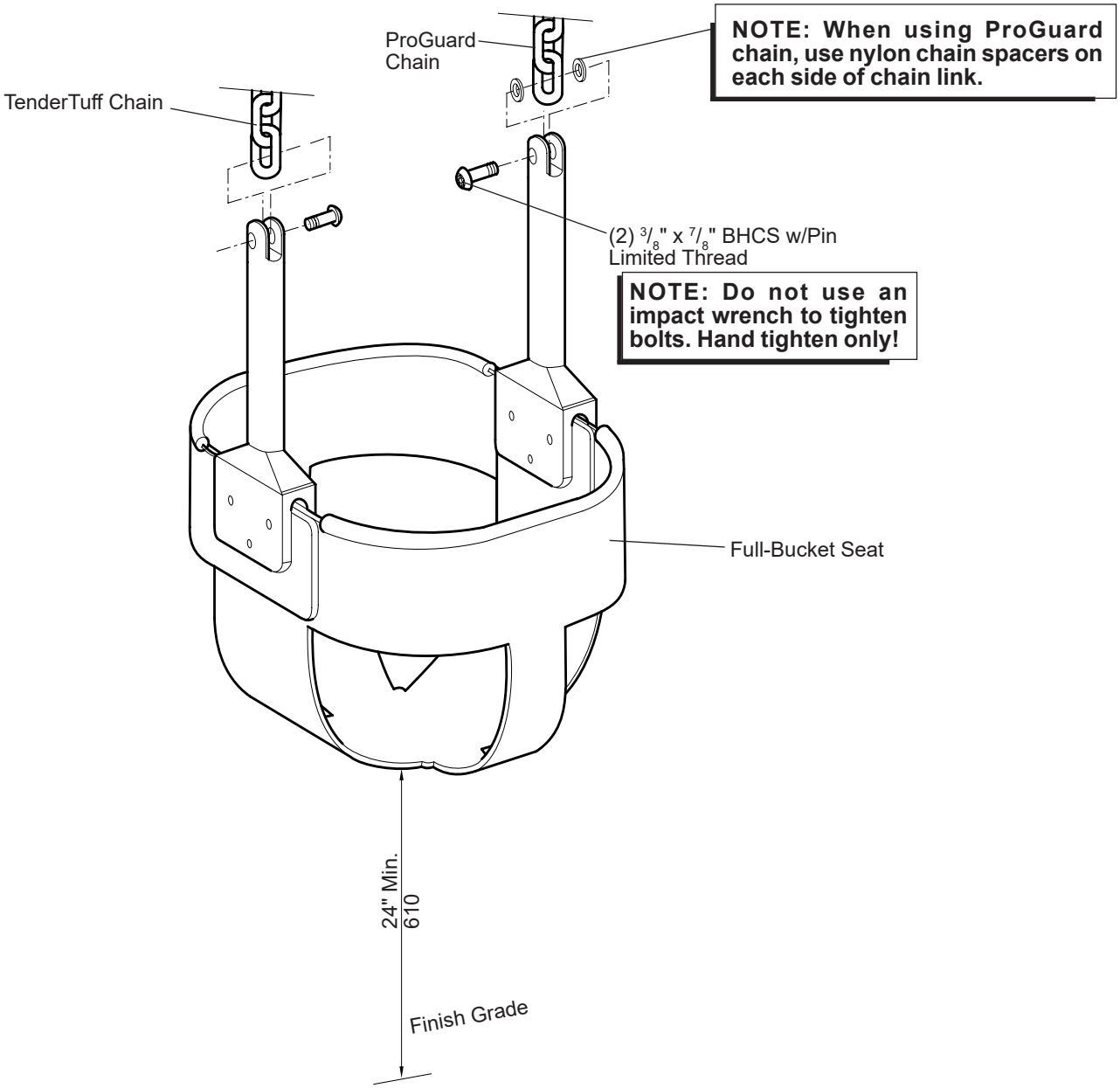

Swings

176038 Full-Bucket Seat, w/Chains

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Document #21059200

Swings 176038 Full-Bucket Seat, w/Chains

Parts List

Part#	Description	Qty.
	7 Ft. High Beam (5" Dia. Beam)	
186276	Full-Bucket Swing Seat, Black	1
141739	43 3/16" Chain, TenderTuff, Specify Color	2
175248	43 3/16" Chain, ProGuard	2
138414	**Bucket Seat Hardware Package**	1
100290	3/8" x 7/8" BHCS w/Pin Limited Thread, SST	2
112501	Chain Spacer (For ProGuard Chains Only)	4
	8 Ft. High Beam	
186276	Full-Bucket Swing Seat, Black	1
160110	52 9/16" Chain, TenderTuff, Specify Color	2
174882	52 9/16" Chain, ProGuard	2
138414	**Bucket Seat Hardware Package**	1
100290	3/8" x 7/8" BHCS w/Pin Limited Thread, SST	2
112501	Chain Spacer (For ProGuard Chains Only)	4
	10 Ft. High Beam	
186276	Full-Bucket Swing Seat, Black	1
152051	76 7/16" Chain, TenderTuff, Specify Color	2
174883	76 7/16" Chain, ProGuard	2
138414	**Bucket Seat Hardware Package**	1
100290	3/8" x 7/8" BHCS w/Pin Limited Thread, SST	2
112501	Chain Spacer (For ProGuard Chains Only)	4
	7 Ft. High Beam (Tot)	
186276	Full-Bucket Swing Seat, Black	1
152053	37 1/2" Chain, TenderTuff, Specify Color	2
175247	37 1/2" Chain, ProGuard	2
138414	**Bucket Seat Hardware Package**	1
100290	3/8" x 7/8" BHCS w/Pin Limited Thread, SST	2
112501	Chain Spacer (For ProGuard Chains Only)	4
	75" High Beam (Toddler)	
186276	Full-Bucket Swing Seat, Black	1
152016	29 7/8" Chain, TenderTuff, Specify Color	2
174881	29 7/8" Chain, ProGuard	2
138414	**Bucket Seat Hardware Package**	1
100290	3/8" x 7/8" BHCS w/Pin Limited Thread, SST	2
112501	Chain Spacer (For ProGuard Chains Only)	4

Specifications

Full-Bucket Seat: Seat shall be molded of U.V. stabilized, high quality, black rubber, encapsulating a 24 gauge stainless steel reinforcement plate. Handle cast from 356-T6 aluminum alloy with black polyarmor paint finish. Handle attaches to seat with (3) 1/4" x 1 5/16" long stainless steel rivets. The finished size of the full bucket shall be 9" deep x 10 1/2" wide.

Chain/Coated: Steel 3/16" straight link chain, 800 lb. working load limit. Finish: TenderTuff, color specified.

Chain/ProGuard: Steel 3/16" straight link chain, 800 lb. working load limit. Finish: ProGuard.

Fasteners: Primary fasteners shall be socketed and pinned tamperproof in design, stainless steel (SST) per ASTM F 879 unless otherwise indicated (see specific product installation/specifications).

Installation Time: 1/4 man hour per seat

Weight:
14 lbs. (7 FT. Beam 5" Dia. w/TenderTuff Chain)
13 lbs. (7 FT. Beam 5" Dia. w/ProGuard Chain)
14 lbs. (8 FT. Beam w/TenderTuff Chain)
14 lbs. (8 FT. Beam w/ProGuard Chain)
17 lbs. (10 FT. Beam w/TenderTuff Chain)
16 lbs. (10 FT. Beam w/ProGuard Chain)
12 lbs. (7 FT. Beam w/TenderTuff Chain)
12 lbs. (7 FT. Beam w/ProGuard Chain)
11 lbs. (75" Beam w/TenderTuff Chain)
11 lbs. (75" Beam w/ProGuard Chain)

Installation Instructions

NOTE: *Refer to Swing Frame assembly for swing hanger type.*

Swing Hangers with Double Clevis

1) Attach chains to double clevis using 3/8" x 1 1/4" BHCS w/pin limited thread bolts, as shown.
2) Attach chains to full-bucket seat using 3/8" x 7/8" BHCS w/pin limited thread bolts. Be sure bolt heads face user. **NOTE:** *Use chain spacers as shown when installing ProGuard chains.*
3) Install protective surfacing before users are allowed to play on the structure.

Anti-wrap Swing Hangers

1) Attach chains to aluminum clevis using 3/8" x 7/8" BHCS w/pin limited thread bolts, as shown.
2) Attach chains to full-bucket seat using 3/8" x 7/8" BHCS w/pin limited thread bolts. Be sure bolt heads face user. **NOTE:** *Use chain spacers as shown when installing ProGuard chains.*
3) Install protective surfacing before users are allowed to play on the structure.

5/14/2025 Clarification and note added to swing hanger components being part of swing frame assembly.
2/10/2016 Added Hand Tighten Only Note.

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ISO 9001 Certified

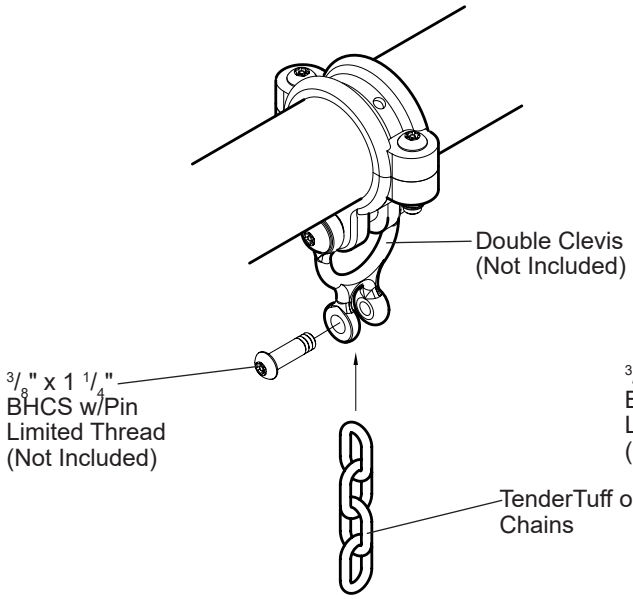
SAFETY NOTE

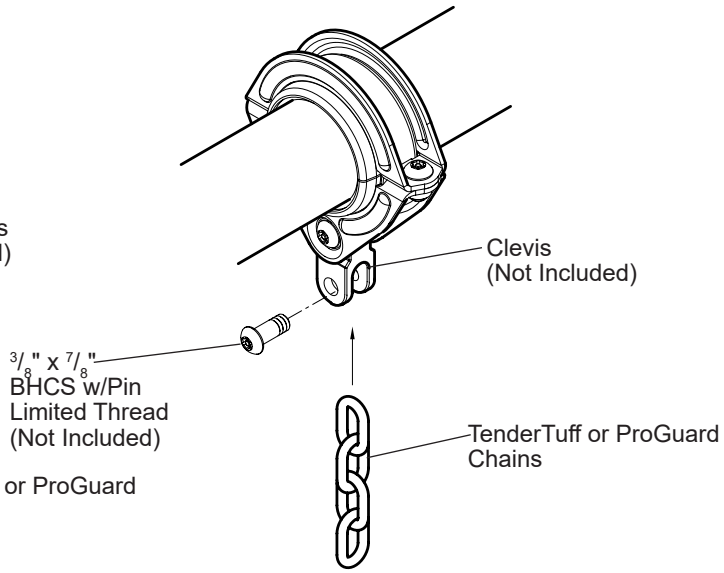
Choose a protective surfacing material that has a Critical Height Value of at least the height of the Highest Accessible Part/Fall Height of the adjacent equipment. (Ref. *ASTM F1487*.)

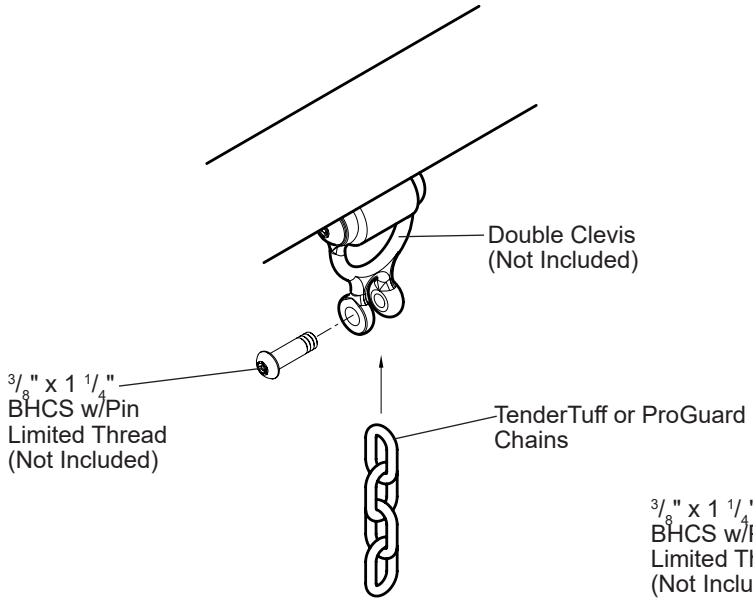
177460b

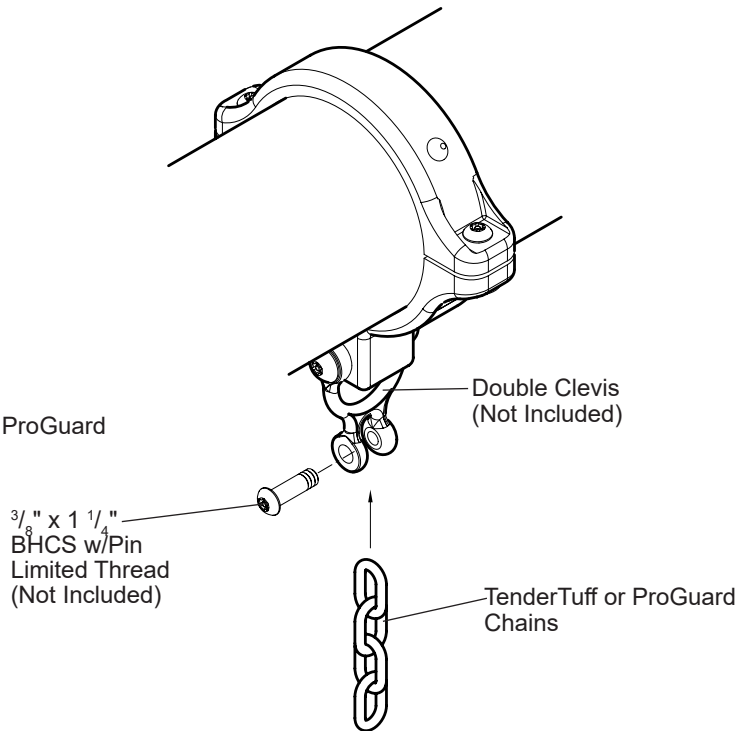
SWING HANGER OPTIONS

Swing Hanger Components included with Swing Frame.









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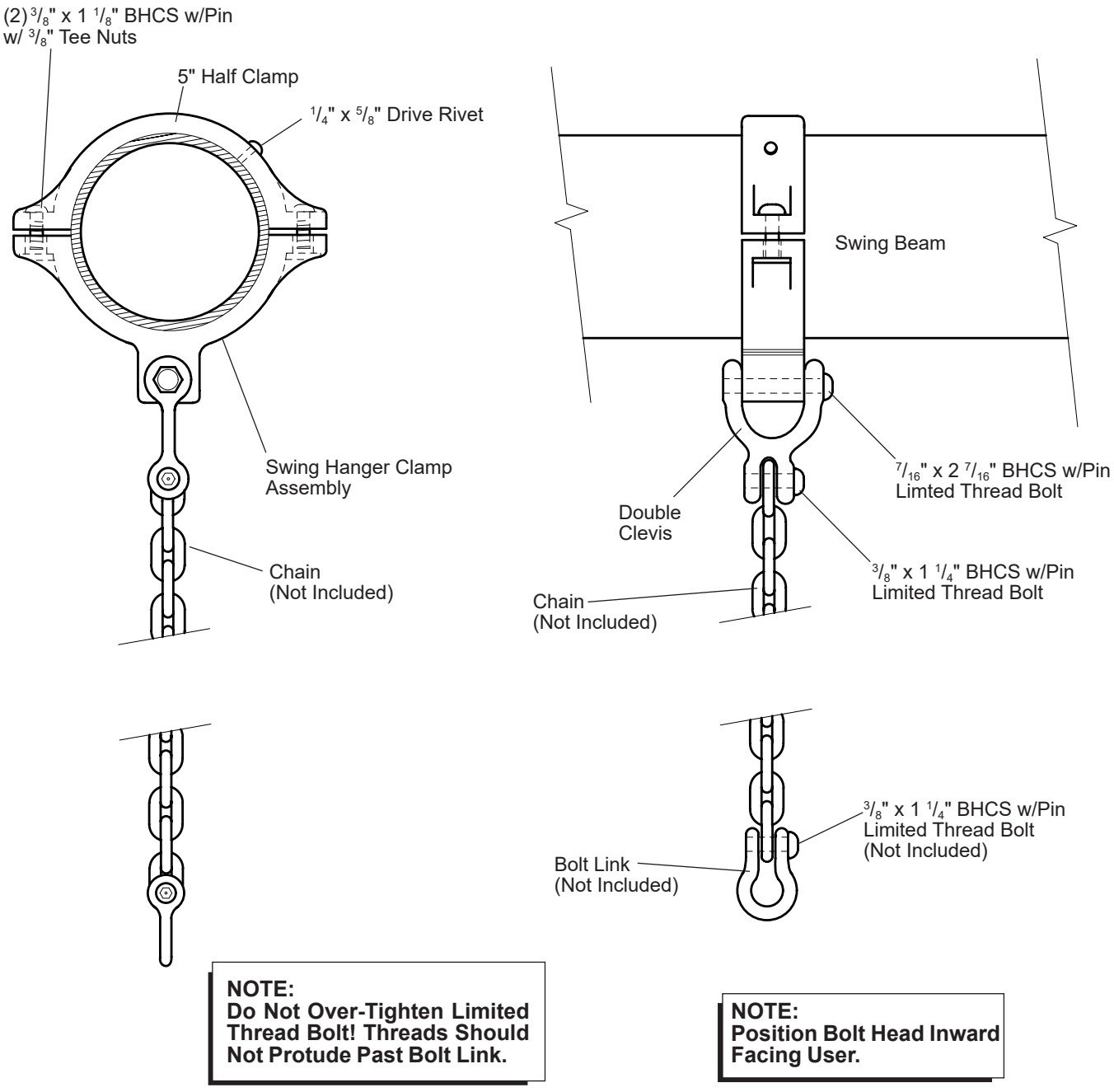
SAFETY NOTE

Choose a protective surfacing material that has a Critical Height Value of at least the height of the Highest Accessible Part/Fall Height of the adjacent equipment. (Ref. ASTM F1487.)

13616300



NOTE:
Do Not Over-Tighten Limited Thread Bolt! Threads Should Not Protude Past Bolt Link.

NOTE:
Position Bolt Head Inward Facing User.

Swings

111418 Swing Hanger, Belt Swing

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Swings 111418 Swing Hanger, Belt Swing

Parts List

Part#	Description	Qty.
105327-01	5" Half Clamp, Specify Color	1
100198-00	3/8" x 1 1/8" BHCS w/Pin, SST	2
100351-00	3/8" Tee Nut, SST	2
100610-00	1/4" x 5/8" Drive Rivet, AL/SST	1
100292-00	3/8" x 1 1/4" BHCS w/Pin Ltd. Thread Bolt, SST	1
121291-00	**Swing Hanger Clamp Assy. Specify Color**	1
121289-00	Swing Hanger Clamp, Specify Color	1
127068-00	7/16" x 2 7/16" BHCS w/Pin Ltd. Thread Bolt, SST	1
138917-00	Swing Hanger Double Clevis SST	1
100667-00	Oilite Bushing	1

Specifications

Hanger Clamp Assembly: Cast aluminum. Finish: ProShield®, color specified.

Double Clevis: Stainless Steel.

Fasteners: Primary fasteners shall be socketed and pinned tamperproof in design, stainless steel (SST) per ASTM F 879 unless otherwise indicated (see specific product installation/specifications).

Installation Time: Approx. 1/2 man hour

Weight: 6 lbs.

Installation Instructions

1) Locate and mark location of clamp on beam.

2) Attach 5" half clamp and swing hanger clamp to beam using 3/8" x 1 1/8" BHCS w/pin and 3/8" tee nuts. *Tighten evenly.*

3) ***IMPORTANT:*** *Drill through holes in 5" half clamps and into 5" pipe with a 1/4" or "F" (only) drill bit, tap 1/4" x 5/8" drive rivets through 5" half clamps and into pipe, to ensure that clamps remain secure.*

4) Attach swing chain to double clevis using 3/8" x 1 1/4" BHCS w/pin limited thread bolts.

5) Attach swing seat to chains using bolt links with 3/8" x 1 1/4" BHCS w/pin limited thread bolts. **NOTE:** *Do not over-tighten limited thread bolt. Threads should not protrude past bolt link. Position bolt head inward facing user.*

ECO #54506 Document #18379700 replaces #13616300. Changed Double Clevis material to Stainless Steel.

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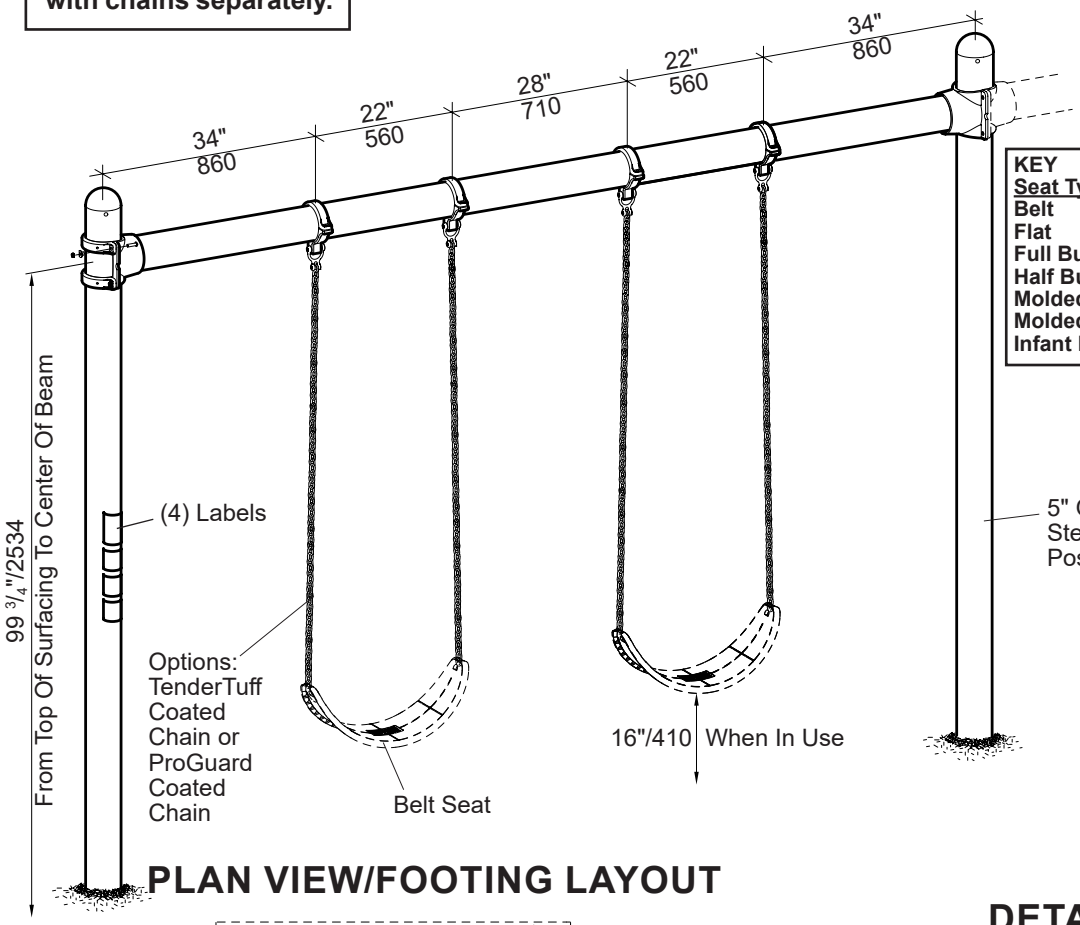
SAFETY NOTE

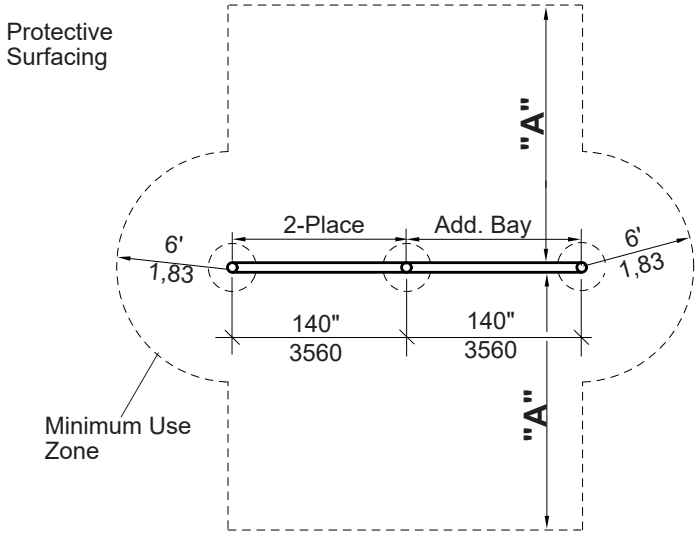
Choose a protective surfacing material that has a Critical Height Value of at least the height of the Highest Accessible Part/Fall Height of the adjacent equipment. (Ref. ASTM F1487.)

NOTE: Model numbers are for swing frames only, order swing seats with chains separately.

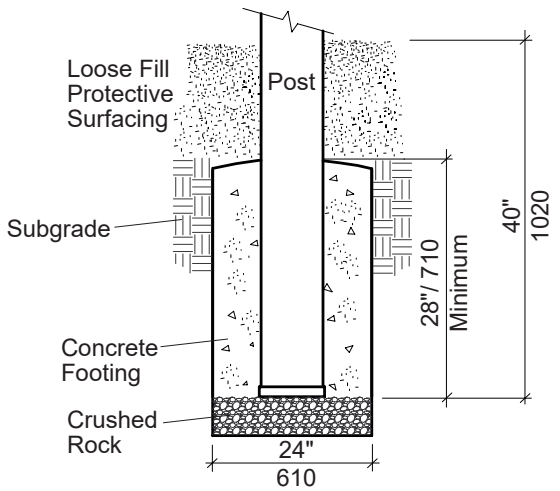


KEY	
Seat Type	**Dimension "A"**
Belt	16'-0" (4,88 m)
Flat	16'-0" (4,88 m)
Full Bucket	12'-0" (3,66 m)
Half Bucket	16'-0" (4,88 m)
Molded Bucket	16'-0" (4,88 m)
Molded Bucket/Harness	16'-0" (4,88 m)
Infant Full Bucket	N/A

PLAN VIEW/FOOTING LAYOUT



DETAIL
CONCRETE FOOTING



Model #177333 Additional Bay

Swings

177332/177333 Single Post Swing Frame

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Document #30164000

Swings 177332/177333 Single Post Swing Frame

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Parts List

Part#	Description	Qty. 2 Pl	Qty. Add Bay
216492	Swing Beam, Specify Color	1	1
220966	148" Steel Post Assy., Specify Color	2	1
105327	5" Half Clamp, Specify Color	8	4*
100610	1/4X5/8i DRV, Rivet, AS	8	8
121291	**Swing Hanger Clamp Assy. Specify Color**	4	4
121289	Swing Hanger Clamp, Specify Color	4	4
127068	$^{7}/_{16}$" x 2 $^{7}/_{16}$" BHCS w/Pin Ltd. Thread, SST	4	4
138917	Swing Hanger Double Clevis	4	4
100667	Oilite Bushing	4	4
243802	**Hdw Pkg 5iOD Swing Beam.**	1	1
100198	$^{3}/_{8}$" x 1 $^{1}/_{8}$" BHCS w/Pin, SST	8	8
234397	BHCS 6LP LTHD 7/16 x 1 11/16i, SSTST	8	8
100292	$^{3}/_{8}$" x 1 $^{1}/_{4}$"BHCS w/Pin Ltd. Thread, SST	4	4
100351	$^{3}/_{8}$" Tee Nut, SST	8	8
156846	Play Safe Label, 2-12 Yrs.	1	1
234937	$^{7}/_{16}$" D Cut Washer, SST	16	16
182213	Hot Surface Warning Label	1	1
182212	Entanglement Warning Label	1	1
115176	Hard Surface Warning Label	1	1
100330	$^{7}/_{16}$" Nylok Hex Nut	8	8

*** = 5" Half Clamps From 2 PL. End Of Beam Need To Be Used.**

Specifications

Post: See PlayBooster® (PB) General Specifications.

Swing Beam: Weldment comprised of tee clamps and 5" O.D. extruded 6005-T5 aluminum alloy tube with a .125" wall. Finish: ProShield®, color specified.

Clamp: Cast aluminum. Finish: ProShield,, color specified.

Fasteners: Primary fasteners shall be socketed and pinned tamperproof in design, stainless steel (SST) per ASTM F 879 unless otherwise indicated (see specific product installation/ specifications).

Installation Time: **2-Place** - Approx. 6 man hours
Additional Bay - Approx. 3 man hours

Concrete Req.: **2-Place** - Approx. 14 cu. ft.
Additional Bay - Approx. 7 cu. ft.

Area Req: **2-Place** - 24'-1" x 24' (7,3 m x 7,31 m) Full bucket seats.
2-Place - 24'-1" x 32' (7,3 m x 9,75 m) For all other seats.
Additional Bay - 11'-8" x 24' (3,56 m x 7,31 m) Full bucket seats.
Additional Bay - 11'-8" x 32' (3,56 m x 9,75 m) For all other seats.

Weight: **2-Place** - 206 lbs.
Additional Bay - 122 lbs.

Installation Instructions

1) Dig footings spaced as shown. Refer to Concrete Footing Detail.

2) Set posts in footing holes and attach swing beam using 5" half clamps with $^{7}/_{16}$" BHCS w/Pin, $^{7}/_{16}$" D-Cut Washers, and $^{7}/_{16}$" Nylok nuts. Refer to the Swing Beam Attachment Detail. Center of beam should be 99 $^{3}/_{4}$" above finished grade. When installing back to back swing beams refer to the Back To Back Tee Clamps Detail. **NOTE:** *Tighten all BHCS w/ pin equally.*

3) Level beam and plumb posts and temporarily prop in position. Pour concrete footings and let cure for 72 hours before proceeding.

4) Locate, mark and attach swing hanger clamps to beam in locations shown. Refer to the Swing Hanger Clamp Attachment Detail.

5) **NOTE:** *Refer to specific swing seat installation document for attaching chains and seats.*

6) Install $^{1}/_{4}$" x $^{5}/_{8}$" drive rivets in all 5" half clamps. Refer to the Typical Offset Hanger Clamp Spec Sheet. Refer to the Back To Back Tee Clamps Detail.

7) Apply Play Safe and Warning Labels, as shown.

8) Install protective surfacing before users are allowed to play on the swing.

ECO# 0102179 Document 30164000 replaces 24382000 Change to molded seat w/harness use zone

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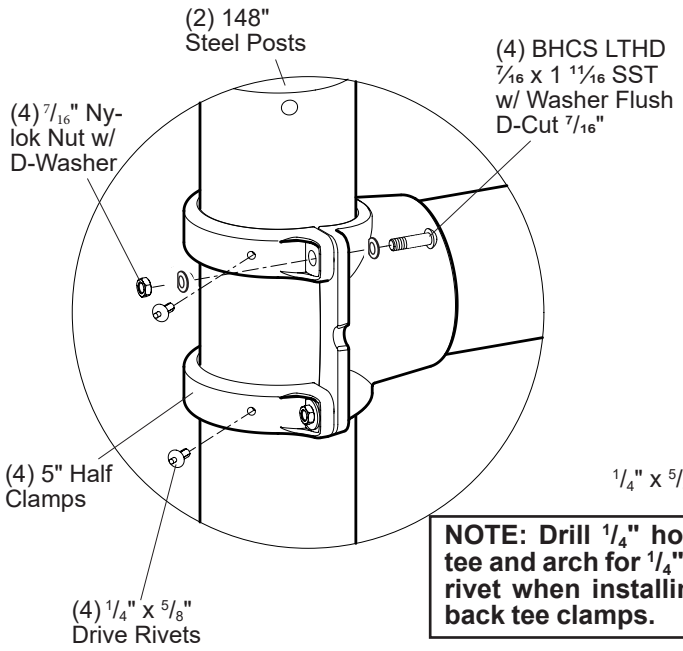
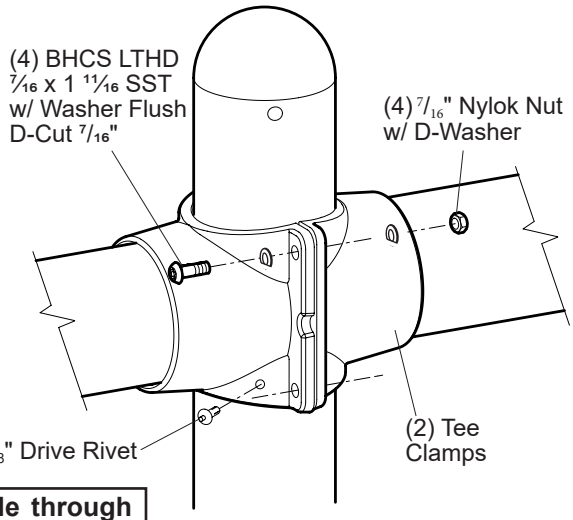
SAFETY NOTE

Choose a protective surfacing material that has a Critical Height Value of at least the height of the Highest Accessible Part/Fall Height of the adjacent equipment. (Ref. ASTM F1487.)

DETAIL
BEAM ATTACHMENT



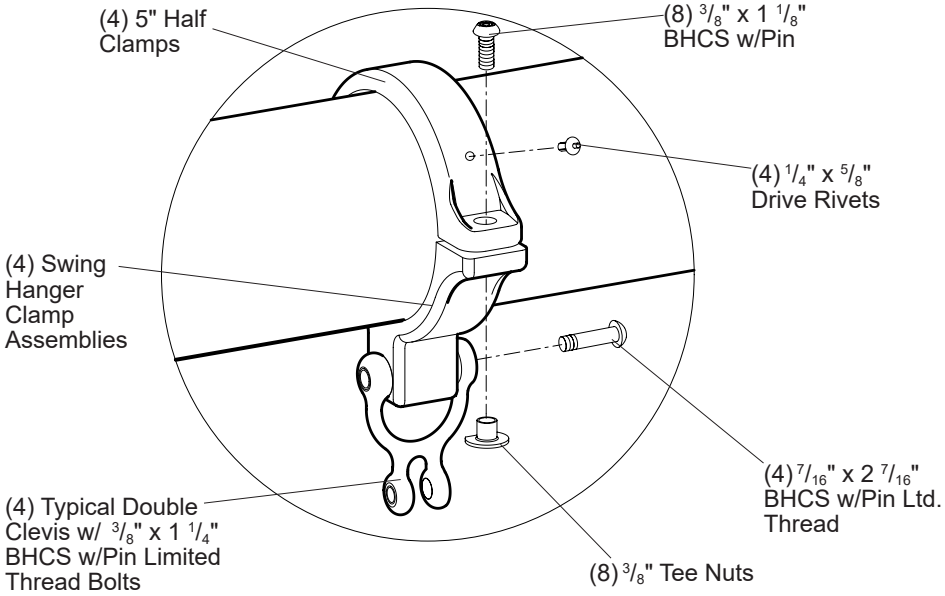
DETAIL
BACK TO BACK TEE CLAMPS



NOTE: Drill 1/4" hole through tee and arch for 1/4" x 5/8" drive rivet when installing back to back tee clamps.

NOTE: Tighten all BHCS w/Pin equally.

DETAIL
SWING HANGER ATTACHMENT



Swings **177332/177333 Single Post Swing Frame**

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Document #30164000

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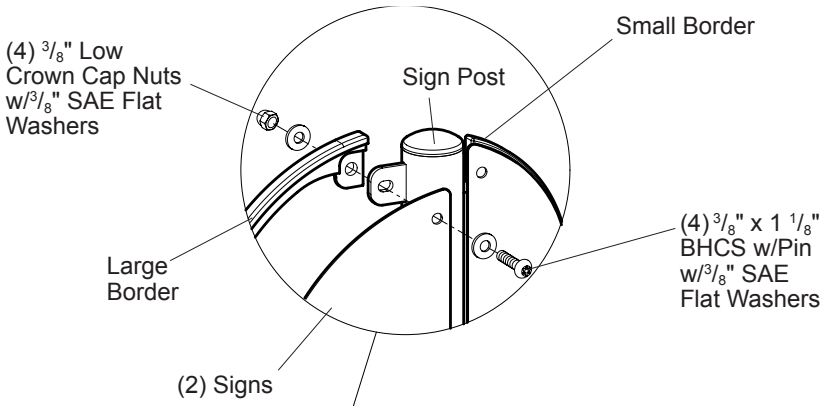
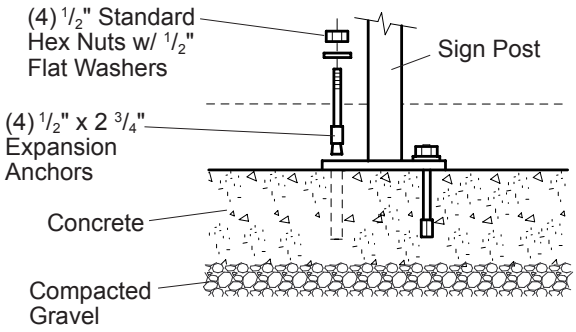
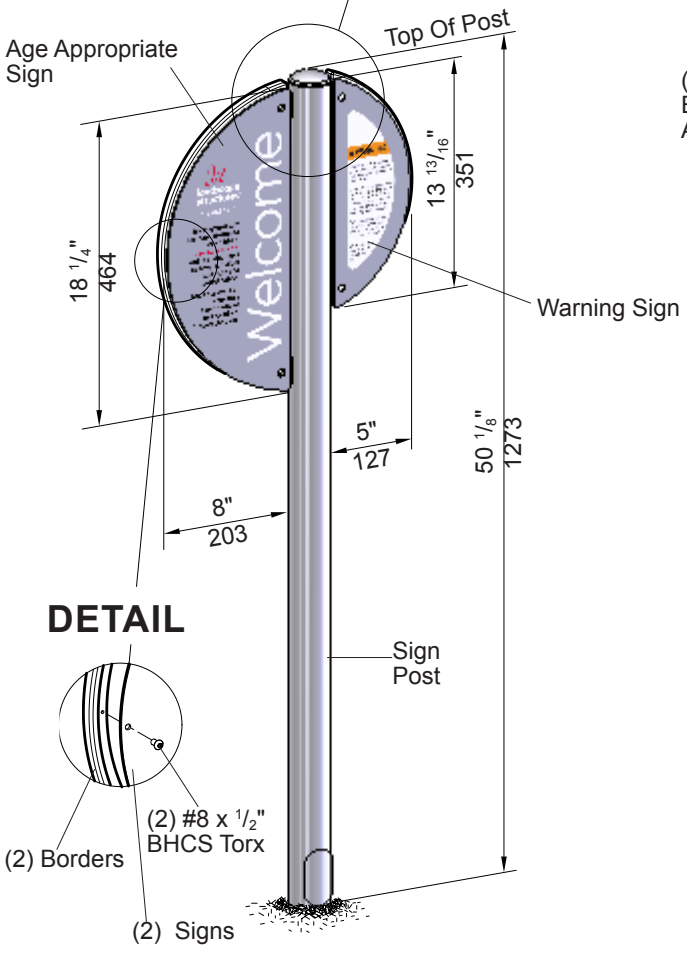
21325600

DETAIL
SIGN ATTACHMENT



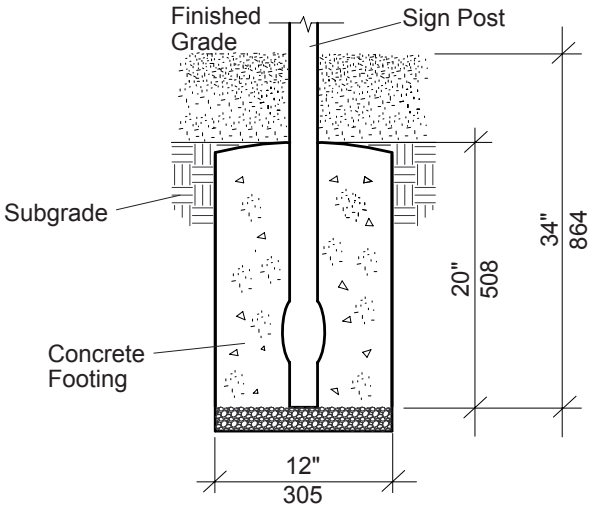
DETAIL
SURFACE MOUNT





DETAIL

DETAIL
DIRECT BURY FOOTING



Model 182503 - Landscape Structures Provided Welcome Sign
Model 182504 - Welcome Sign

Signs

Welcome Sign

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Welcome Sign

Parts List

Part#	Description	Qty.
219911	Warning Sign,Gray	1
219912	Age Appropriate Sign, 2-12 Years, Gray	*
219913	Age Appropriate Sign, 2-5 Years, Gray	*
219914	Age Appropriate Sign, 5-12 Years, Gray	*
219915	Age Appropriate Sign, 1 1/2-5 Years, Gray	*
219916	Age Appropriate Sign, 1 1/2-12 Years, Gray	*
219918	Age Appropriate Sign, 6-23 Months, Gray	*
180598	Sign Post (DB), Specify Color	*
181119	Sign Post (SM), Specify Color	*
193782	Large Border, Black	1
193783	Small Border, Black	1
213258	**Age/Warning Sign Hardware Package**	1
100198	3/8" x 1 1/8" BHCS w/Pin, SST	4
100349	3/8" Low Crown Cap Nut, SST	4
100365	3/8" SAE Flat Washer, SST	8
168323	#8 x 1/2" BHCS Torx, SST	2
169413	1/4-6 Lobe T-15 Tamp. Bit	1
121348	**4 Hole (SM) Hardware Package**	1
100266	1/2" x 2 3/4" Expansion Anchor	4
100322	1/2" Standard Hex Nut, SST	4
100363	1/2" Flat Washer, SST	4

DB = Direct Bury
SM = Surface Mount
*** = Quantity Determined By Your Order**

Specifications

Sign Panel: Panel is fabricated from $^1/_8$" (.125")(3,17 mm) aluminum plate. Finish: ProShield®, gray in color. **(Sign)** Digital image is transfered to a $^1/_8$" (.125")(3,17 mm) ProShield coated aluminum plate, then infused into the ProShield.

Border: Permalene, black in color.

Post: Weldment comprised 2.375" (60,33 mm) O.D. RS20 (.095-.105) (2,41 mm-2,67 mm) wall galvanized tube, $^1/_4$" (6,35 mm) HRPO steel sheet and aluminum post cap. Finish: ProShield, color specified.

Fasteners: Primary fasteners shall be socketed and pinned tamperproof in design, stainless steel (SST) per ASTM F 879 unless otherwise indicated (see specific product installation/specifications).

Installation Time: **(DB)** Approx. 1 man hour
(SM) Approx. $^1/_2$ man hour
Concrete Req: Approx. 1.31 cu. ft.
Weight: **(DB)** - 24 lbs.
(SM) - 27 lbs.

Installation Instructions

Direct Bury

1) Dig footing hole to depth and diameter shown.

2) Attach sign panels and borders to post as shown, using $^3/_8$" x 1 $^1/_8$" BHCS with $^3/_8$" SAE flat washers and $^3/_8$" low crown cap nuts with $^3/_8$" SAE flat washers. Attach signs to borders using #8 x $^1/_2$" BHCS Torx.

3) Set sign assembly in footing hole and temporarily brace in plumb position.

4) Pour concrete footing. After concrete has cured, remove bracing.

Surface Mount

1) Attach sign panels and borders to post as shown, using $^3/_8$" x 1 $^1/_8$" BHCS with $^3/_8$" SAE flat washers and $^3/_8$" low crown cap nuts with $^3/_8$" SAE flat washers. Attach signs to borders using #8 x $^1/_2$" BHCS Torx.

2) With sign in proper position, using a $^1/_2$" masonry bit and hammer drill, drill 3" deep holes into concrete slab through holes in post plate. Tap $^1/_2$" x 2 $^3/_4$" expansion anchors into holes and secure using $^1/_2$" standard hex nuts with $^1/_2$" flat washers.

ECO 0100730 Document 22074200 replaces 21325600. Replaced signs.

SECTION 01 20 00

PROJECT COORDINATION AND MEETINGS

PART 1 - GENERAL

1.01 GENERAL PROVISIONS

A. CONTRACT DOCUMENTS: This Section does not stand alone. Comply with all Contract Documents, Conditions of the Contract, Division 1 General Requirements, Drawings, and other documents that define the Work of the Contract.

B. The General Provisions of the Contract, including GENERAL and SUPPLEMENTARY CONDITIONS AND GENERAL REQUIREMENTS (if any), apply to the work specified in this Section.

C. Examine all other Sections of the Specifications for requirements that affect the Work of this Section whether or not such Work is specifically mentioned in this Section.

D. Coordinate work with that of all other trades or contracts affecting or affected by the Work of this Section. Cooperate with such trades to ensure the steady progress of all work under the Contract.

1.02 SUMMARY

A. The Contractor shall be required to attend weekly progress meetings prior to and during execution of the Work, or as necessary to facilitate the smooth and orderly execution of the Work. All meetings shall be in-person or virtual as determined by the Town.

B. All meetings with the Town (or its representative) shall be attended by the Contractor's Superintendent and other personnel having authority to legally bind Contractor to issues discussed and resolved during the meetings. The Contractor's subcontractor(s) may also be required to attend such meetings. Subcontractor attendance shall be at the discretion of the Landscape Architect, Engineer and/or the Town.

C. Formal meetings that require attendance by the Contractor are as follows:

1. Pre-construction Conference
2. Progress Meetings (Weekly)
3. Punch list Meeting
4. Closeout (Final Acceptance) Meeting

D. The Contractor shall be required to attend all meetings ordered or requested by representatives of regulatory agencies with jurisdiction over the site or any aspect of the work being performed at the site, either by the Contractor or others.

1.03 PRE-CONSTRUCTION CONFERENCE

A. The Contractor shall not commence Work at the Site until a pre-construction conference has been held at the Site or another mutually agreed on location at which representatives of the Contractor and Town's representatives are present. The pre-construction conference(s) will be arranged by the Town and is intended to establish lines of communication between the parties involved, review contract compliance, establish project schedules, discuss proposed performance methods, and coordinate Work to be performed by the Contractor and their

subcontractors. The time and place of the pre-construction conference(s) shall be determined after the Contract has been executed by the Contractor and the Town.

1.04 PROGRESS MEETINGS

A. The Contractor and all Subcontractors shall be required to attend Progress Meetings as deemed necessary by the Town (or its Representative). The purpose of these meetings is to coordinate the efforts of all Contractor(s) and to update the Town with respect to progress, and resolve outstanding issues.

B. Meetings will be held at a time to be determined by the Town. These meetings will be held once per week and shall be mandatory. Additional meetings will be scheduled as need to support the work. Teleconferences may be held in lieu of physical meetings, as appropriate and if acceptable to the Town.

C. The Contractor shall be prepared to discuss progress, planned resolutions to problems and anticipated problems that could delay timely completion of the Work. The Contractor shall bring to each meeting: updated schedule, daily work summaries, weekly progress reports, and other pertinent information as requested by the Town.

D. The Contractor will record the meeting minutes and distribute them to the Town, Subcontractors, and Attendees.

E. Immediately following each progress meeting where revisions to the Progress Schedule / Critical Path Schedule have been made or recognized (regardless of whether agreed to by each entity represented), the Contractor shall revise the Schedule. The Contractor shall reissue the revised Schedule concurrently with the report of each meeting, unless extensive revisions require a longer revision period, but in any case, reissue within 5 days after meeting. At intervals matching the preparation of payment requests, revise and reissue the Schedule to show actual progress of the Work in relation to the latest revision of the Schedule.

F. The Town may waive individual Progress Meetings, as appropriate.

1.05 PUNCH LIST MEETING

A. Upon substantial completion of the project, the Contractor shall attend a “punch list” meeting with the Town and Landscape Architect. The purpose of this meeting shall be to discuss and list all items which require additional attention or work by the Contractor prior to final acceptance. A “punch list” memorandum will be prepared by the Town documenting this meeting and provided to the Contractor.

1.06 CLOSEOUT (FINAL ACCEPTANCE) MEETING

A. Upon resolution of all items listed on the “punch list”, the Contractor shall meet with the Town and Landscape Architect at the Site to verify completion such that the Town can issue final acceptance. At this meeting the Contractor shall provide to the Town all outstanding documentation, records, spares, maintenance items, or other information and materials.

1.07 JOB SITE ADMINISTRATION

A. The Contractor shall keep a competent and authorized supervisory representative at the Site during all working hours who shall act as the agent of the Contractor. The supervisory representative’s responsibilities shall include ensuring all issues/questions raised by the Town are addressed in a timely fashion. The Contractor shall provide the Town with written notice if they intend to change their superintendent for the Project. The Contractor shall make every effort to maintain the same superintendent for the duration of the Project.

B. The Contractor shall only employ competent workers on the job who have received training applicable to the nature and extent of the work they are employed to perform. Whenever the Town notifies the Contractor in writing that, in their opinion, any worker on the job, whether employed by the Contractor or any of their subcontractors, is incompetent, unfaithful, disorderly, or otherwise unsatisfactory, such worker shall be discharged from the contract Work and shall not be employed on it, except with the written consent of the Town.

PART 2 - PRODUCTS

Not Used

PART 3 - EXECUTION

Not Used

* * * END OF SECTION * * *

SECTION 01 30 00

SUBMITTALS

PART 1 - GENERAL

1.01 GENERAL PROVISIONS

A. CONTRACT DOCUMENTS: This Section does not stand alone. Comply with all Contract Documents, Conditions of the Contract, Division 1 General Requirements, Drawings, and other documents that define the Work of the Contract.

B. The General Provisions of the Contract, including GENERAL and SUPPLEMENTARY CONDITIONS AND GENERAL REQUIREMENTS (if any), apply to the work specified in this Section.

C. Examine all other Sections of the Specifications for requirements that affect the Work of this Section whether or not such Work is specifically mentioned in this Section.

D. Coordinate work with that of all other trades or contracts affecting or affected by the Work of this Section. Cooperate with such trades to ensure the steady progress of all work under the Contract.

1.02 DESCRIPTION

A. This section specifies the general requirements and procedures for preparing and transmitting data to the Town for information or review. Required submittals are specified herein as well as under applicable sections of the Contract Specifications.

1.03 CONTRACTOR'S DRAWINGS

A. The Contract Plans and these Specifications show the general arrangement and such details as are necessary to provide a description of the work to be performed.

B. The Contractor shall prepare shop and working drawings, for temporary and permanent work as required under the applicable sections of the Contract Specifications, complete with all relevant calculations, descriptions, technical and performance data, as necessary to adequately perform the work. The Contractor shall take responsibility for such drawings and for the safe and successful construction of the work.

C. Shop drawings shall be presented in a clear and thorough manner, complete with respect to dimensions, design criteria, materials of construction, and like information to enable the Town to review information as required.

D. Sheet size: 8-1/2" x 11" or larger, as required. Typically, significant shop drawings shall be 24” x 36”. Sheet size requirements shall apply to both paper and digital submissions.

1.04 CONSTRUCTION PROGRESS SCHEDULES

A. Submit the overall project schedule no later than ten (10) working days after Notice to Proceed.

B. The overall project schedule shall identify all major work items or activities, including material procurement, and shall provide an estimate of start date, duration, completion date, and float (if any) for each item or activity. The schedule shall identify dependencies among work items or

activities and project milestones. It is preferred that the overall project schedule be in Gantt chart format, but alternate formats shall be permitted.

C. Submit revised schedules with each Application for Payment, identifying changes since the previous version, and indicating status of all work items or activities.

1.05 SAMPLES

A. Submit samples as necessary and as stipulated within each individual section of these Specifications to illustrate functional and aesthetic characteristics of the Product, with integral parts and attachment devices. Coordinate sample submittals for interfacing work with the Town.

B. Any samples shall be clearly identified as to material, manufacturer, any pertinent catalog numbers, and use for which intended, and shall be of sufficient size and quantity to clearly illustrate functional characteristics of the item, with integrally related parts and attachment devices.

1.06 RELATED WORK SPECIFIED ELSEWHERE

A. Required submittals are listed under the relevant Section of the Contract and Specifications. It shall be the Contractor's responsibility to read each Section and provide the submittal required therein.

1.07 CONTRACTOR RESPONSIBILITIES

A. Review all submittals, shop drawings and samples prior to submission.

B. Determine and verify:

1. Field measurements.
2. Field construction criteria.
3. Catalog numbers and similar data.
4. Conformance to specifications.

C. Coordinate each submittal with requirements of work and of Contract Documents.

D. Notify Town in writing, at time of submission, of any deviations in submittals from requirements of Contract Documents. Any such deviations permitted by Town will require modifications to the Contract Documents.

E. Begin no fabrication or work which requires submittals until submittals have been approved by the Town.

1.08 SUBMISSION REQUIREMENTS

A. Make submittals to Town promptly in accordance with approved schedule and in such sequence as to cause no delay in work. Allow five (5) working days following receipt of submittal or resubmittal for review. All submittals shall be provided in PDF format. If requested by the Town, the Contractor shall provide up to three (3) paper copies of submittals.

B. Shop Drawings: Shop Drawings shall be submitted to the Town for review. Review of shop drawings by the Town will be for the limited purpose of checking for conformance with information given in the design concept expressed in the Contract Documents. Shop drawings shall be presented in a clear and thorough manner, complete with respect to dimensions, design criteria, materials of construction, and the like information to enable the Town to review information as

required.

C. In addition, submittals shall contain:

1. Date and sequential number of submission, along with Section number of the Technical Specification to which the submittal refers.
2. Project title and number.
3. Names of:
    a. Contractor
    b. Manufacturer/Supplier
4. Identification of product, with specification section number.
5. Field dimensions, clearly identified as such.
6. Relation to adjacent or critical features of work or materials.
7. Applicable standards, such as ASTM or other applicable federal or state regulations.
8. Identification of deviations from Contract Documents.
9. Identification of revisions on re-submittals.

D. Each submittal shall be numbered. The numbering system shall utilize the Section number to which the submittal pertains and then a sequential number designating the order of the submittal for that Section.

E. Resubmission Requirements: Make any corrections, additions and/or changes in submittals required by the Town and re-submit revised editions. Revised submittals shall be designated with a revision number.

1.09 CERTIFICATES

A. When specified in individual Specification Sections, submit certification by the manufacturer, installation/application subcontractor.

B. Indicate material or Product conforms to or exceeds specified requirements. Submit supporting reference data, affidavits, and certificates as appropriate.

C. Certificates may be recent or previous test results on material or Product but must be acceptable to the Town.

1.10 DISTRIBUTION

A. The Contractor will distribute submittals electronically to the Town in PDF format. Contractor shall promptly report any inability to comply with revisions. Paper copies of submittals shall be provided to the Town if requested.

1.11 TOWN'S DUTIES

A. The Town will review submittals only for general conformance to design concept of project and compliance with information given in Contract Documents. Review shall not extend to means, methods, sequences, techniques or procedures of performing the Work or to safety precautions or program incident thereto. Review of a separate item as such will not indicate approval of assembly in which item functions.

B. The Town will return the submittal to the Contractor for distribution or for resubmission, if required by the Contract Documents and/or due to the Town's opinion of their non-compliance and/or incompleteness. Work shall not commence until all submittals related to it are submitted and accepted by the Town.

C. The Town's review of submittals shall not relieve Contractor from responsibility for any deviations from Contract Documents unless Contractor has, in writing, called attention to such deviation at time of submission and has received written concurrence pursuant to Contract Documents to specific deviation.

D. The Town will have the final authority to judge the adequacy of the Contractor's submittal and shall have final authority for approval or rejection.

1.12 SUBMITTALS REGARDING THE PERFORMANCE OF THE WORK

A. During the performance of the Work, the Contractor shall submit progress reports, as requested by the Town. Progress reports shall be submitted at the beginning of (or before) progress meetings (Section 01 20 00 - Project Coordination and Meetings). Such reports shall contain:

1. A summary of Work activities occurring during the period covered by the report.
2. The type of materials and/or major equipment being installed by the Contractor and the total number of employees working in each category on each particular day.
3. The names of the subcontractors working and the type of materials and/or major equipment being installed by each, together with the total number of employees working for each subcontractor on each particular day.
4. The excavation, compaction, and other equipment being used by the Contractor and each subcontractor.
5. A discussion of problems encountered, and corrective actions taken, as appropriate.

PART 2 - PRODUCTS

Not Used

PART 3 - EXECUTION

Not used.

* * * END OF SECTION * * *

SECTION 01570

TEMPORARY EROSION AND SEDIMENTATION CONTROLS

PART 1 - GENERAL

1.01 GENERAL PROVISIONS

A. CONTRACT DOCUMENTS: This Section does not stand alone. Comply with all Contract Documents, Conditions of the Contract, Division 1 General Requirements, Drawings, Specifications and other documents that define the Work of the Contract.

B. The General Provisions of the Contract, including GENERAL and SUPPLEMENTARY CONDITIONS AND GENERAL REQUIREMENTS (if any), apply to the work specified in this Section.

C. Examine all other Sections of the Specifications for requirements that affect the Work of this Section whether or not such Work is specifically mentioned in this Section.

D. Coordinate work with that of all other trades or contracts affecting or affected by the Work of this Section. Cooperate with such trades to ensure the steady progress of all work under the Contract.

1.02 DESCRIPTION OF WORK

A. Contractor shall furnish all labor, materials, equipment, and supervision, and shall perform all operations required to complete the Work shown on the Drawings, as directed by the Owner, as herein specified, and as required to properly complete the Work of the Contract.

B. The Work includes, but is not limited to, the following as outlined in these Specifications or shown on the Contract Plans:

1. Installation of erosion and sedimentation controls as shown on the Drawings and as necessary to prevent sediments from the project area from leaving the limit of work or entering the existing or proposed storm drain systems in the vicinity.

2. Maintaining erosion and sedimentation controls throughout the construction process.

3. Remove erosion and sedimentation controls, when erodible surfaces have been stabilized at the completion of the project and when directed by the Owner and Landscape Architect.

C. All sedimentation and erosion controls shall comply with the terms of any environmental permits issued for this project.

D. Stabilized Construction Entrances shall be installed as detailed on the drawings, at no additional cost to the Owner, where deemed necessary by the Town to prevent the tracking of mud, sediments, soil, or debris onto the public ways or onto surfaces unprotected by downgradient erosion and sedimentation controls.

E. No sedimentation shall be allowed to discharge from the work limits or onto pavements placed under this project. The Contractor shall employ whatever means and measures are required to prevent the deposition of sediments onto any pavement or pavement base courses or granular subbase courses placed under this contract. No soil or aggregate materials shall be placed or

stockpiled on any pavement or pavement base courses or granular subbase courses placed under this contract.

1.03 RELATED WORK SPECIFIED ELSEWHERE

A. Section 02 10 00 - Site Preparation and Demolition
B. Section 02 30 00 - Earthwork
C. Section 02 97 00 - Landscape Work

1.04 QUALITY ASSURANCE

A. Codes and Standards:

1. All work and materials shall conform to the latest applicable sections under the state's various jurisdictions; the Rhode Island Department of Transportation (RIDOT) Standard Specifications for Road and Bridge Construction, hereinafter referred to as the "Standard Specifications"; as well as the codes and standards referenced in the individual Sections. In case of conflict, the codes and standards referenced in the individual Sections shall govern.

2. All Work and materials shall also be in full accordance with the latest rules, regulations, and safety orders of the State's Division of Industrial Safety OSHA, A.N.S.I. - A10.1 Safety Code for Building Construction, and all other state, county, Town, municipality, and the utility laws rules, and regulations. Nothing in these Plans and Specifications shall be construed to permit Work not conforming to the above.

3. When the Specifications call for material or construction of better quality or larger size than is required by the above-mentioned codes and standards, then the provisions of the Specifications shall take precedence over the requirements of said codes and standards. If there is any direct conflict between the above-referenced codes and standards and Plans or Specifications, the codes and standards shall govern.

1.05 SUBMITTALS

A. Contractor shall submit shop drawings and/or material data sheets and manufacturer's specifications for all materials required under this Section.

B. Review of submittals by the Engineer or Owner shall not relieve the Contractor from the responsibility for the details of installation and dimensions necessary for the proper construction of the Work as required.

C. The Contractor shall notify the Owner immediately of availability for specified material or delay of materials.

PART 2 - PRODUCTS

2.01 STRAW WATTLE

A. Straw wattle shall consist of a three-dimensional tubular sediment control device typically used for perimeter control of sediment on and around construction activities. Basis of Design: American Excelsior Company, Premier Straw Wattle.

B. Straw Wattle shall consist of a 100% clean, weed-free straw fiber matrix confined by a burlap net to form a log of specific length and 12” diameter.

C. Filtration media shall consist of certified weed-free agricultural straw fibers.

D. Stakes for anchoring of Straw wattle shall consist of hardwood, in lengths and quantities in conformance with Straw wattle manufacturer's recommendations.

2.02 CATCH BASIN PROTECTION

A. Catch basin protection shall consist of an open-top geotextile bag that is specifically designed to hang underneath a storm grate to filter sediment-laden stormwater runoff.

B. The unit shall have lifting straps to allow removal of the unit and manual inspection of the system.

C. The unit shall have orange monofilament fabric manufactured in the U.S.. Basis of Design: Dandy Sack®, by Dandy Products, Inc. Mount Vernon, OH.

2.03 OTHER MATERIALS

A. Other materials required for completion of the Work in this Section shall be of adequate quality and construction such that intended performance is satisfied.

PART 3 - EXECUTION

3.01 CONSTRUCTION

A. Location and Type of Sedimentation Control Barrier: Temporary erosion and sedimentation controls shall be installed as shown on the Drawings, as necessary to control erosion, or as directed by the Owner or recommended by the Engineer. Unless a specific type of Sedimentation Control Barrier is indicated on the drawings or directed by the Owner, the type of system shall be at the Contractor's option, subject to the requirements of this Specification.

1. Catch Basin Protection
   a. Remove the grate from catch basin or drop inlet and install the geotextile filter bag in accordance with manufacturer's recommendations. Re-install grate into catch basin or drop inlet frame, ensuring that the grate is fully and securely seated.

B. Soil Stockpiling Specifications

1. Any area proposed for use as a stockpile site shall be reviewed and approved by the Owner or prior to its use.

2. Any excavated soil or sediment material and topsoil stockpiles shall be located and stabilized so as to minimize washing into wetland areas, waterways, or drainage systems.

3. Any stockpiles of potentially erodible soil which are to remain in place for more than two weeks shall receive temporary seeding and mulching or other means of temporary stabilization and shall have a sedimentation control barrier (silt fencing or erosion logs) installed around the entire perimeter of the pile. Said sediment control barrier shall be in addition to any project perimeter barriers indicated on the Drawings.

4. Any stockpiles which show signs of erosion shall have additional mulch and seed placed on them, or other temporary stabilization measures employed, until they have been considered stabilized by the Owner and Engineer.

C. Removal

1. Temporary erosion and sedimentation controls shall be removed from the site only after the immediate stabilization of disturbed upgradient areas, as defined in Section 02970 -Landscape Work.

D. Maintenance

1. Areas of construction shall remain in stable condition at the close of each construction day. Erosion controls shall be inspected daily at a minimum and maintained or reinforced as necessary to meet the Specifications given on the Drawings or other permit requirements, if appliable.

2. All areas disturbed by Contractor's operations shall be restored to original condition or better upon completion of the project.

3. During active construction, sedimentation control barriers shall be inspected at the close of each workday and after each rainstorm. Any breaches in the siltation barriers shall be repaired prior to the continuation of the Work.

4. All erosion control devices shall be inspected regularly. Any entrapped silt shall be removed areas as required to maintain function of the barrier(s)/device(s), and sedimentation control barriers and other devices shall be replaced as necessary. No additional payment will be made for cleaning, maintenance, or replacement of erosion controls.

5. Erosion control devices shall remain in place until all disturbed surfaces have been stabilized with a vegetative or other permanent cover and until the Owner has authorized their removal.

6. All open trenches shall be filled and stabilized at the close of each workday.

3.02 ADDITIONAL EROSION AND SEDIMENTATION CONTROLS

A. The erosion and sedimentation controls described herein and as shown on the Drawings are the minimum measures required to mitigate the disturbance of soil at the site. The Contractor shall be solely responsible to select, erect, maintain, and dispose of other sediment and erosion controls as necessary to meet the requirements of this Section and applicable regulations and permit requirements, at no additional cost to the Owner.

B. The Owner's Representative may make periodic inspections of the site and shall advise the Contractor of the need for additional erosion and sedimentation controls necessary to meet the performance standards of this Section.

C. Additional erosion and sedimentation control necessary to address transient conditions on the site, such as following the placement of topsoil but prior to the establishment of grass cover, shall be provided by the Contractor as needed and at no additional cost to the Owner.

3.03 REMOVAL AND CLEANUP

After the site has been fully stabilized against erosion and upon the approval of the Town, remove sediment control devices and accumulated silt. Legally dispose of off-site all accumulated silt and all sedimentation and siltation control devices such as, but not limited to straw wattles, catch basin protection, siltation fencing, sand bags, and other related products.

* * * END OF SECTION * * *

SECTION 01 57 00

TEMPORARY TRAFFIC AND ACCESS CONTROL

PART 1 - GENERAL

1.01 GENERAL PROVISIONS

A. CONTRACT DOCUMENTS: This Section does not stand alone. Comply with all Contract Documents, Conditions of the Contract, Division 1 General Requirements, Drawings, and other documents that define the Work of the Contract.

B. The General Provisions of the Contract, including GENERAL and SUPPLEMENTARY CONDITIONS AND GENERAL REQUIREMENTS (if any), apply to the work specified in this Section.

C. Examine all other Sections of the Specifications for requirements that affect the Work of this Section whether or not such Work is specifically mentioned in this Section.

D. Coordinate work with that of all other trades or contracts affecting or affected by the Work of this Section. Cooperate with such trades to ensure the steady progress of all work under the Contract.

1.02 DESCRIPTION

A. The Contractor shall furnish all labor, materials, and equipment and shall perform all work required to install, maintain, and remove temporary access and traffic control systems at the Project Site, including staging areas, parking areas, public ways accessing the site, pedestrian access and detours if proposed.

B. The Contractor shall coordinate with the Town for the protection of traffic and pedestrians on existing roads which will be interfered with by the Contractor's operations. Where traffic is maintained, the Work shall be so conducted and guarded so that there will be at all times a safe passageway for all.

C. It is the intent of the Work of this Section that the Contractor shall take such steps as are necessary to:
   - Protect the safety of the public on public ways and on public property, including the site.
   - Exclude the public from the job site for the safety of the public and security of the Contractor's work and equipment.

D. The Contractor will need to move equipment and materials to and from the Project Site. The Contractor shall provide traffic control including, but not limited to, temporary signage, fences, and other barriers, as required to protect public safety. Conform to all requirements of the State of Rhode Island, County, Town, or local laws and requirements for traffic control. Conformance with the Contract Documents does not relieve the Contractor of responsibility for public safety. The Contractor is solely responsible for traffic control and for conformance with all traffic control regulations. The Contractor will be responsible for all safety measures necessary to protect the public from construction traffic. This shall include, but not be limited to, enforcing strict adherence by construction vehicles to posted speed limits and informing all drivers of the utmost need for safety during all construction-related activities.

E. The Work for this Section shall include furnishing of Police Details, as determined necessary by the Coventry Police Department and the Town, to regulate traffic and protect pedestrians on existing public highways and streets which will be interfered with by the Contractor's operations.

Where traffic is maintained, the Work shall be conducted and guarded so that there will be safe passage at all times.

1. If police details are determined necessary by the Coventry Police Department and the Town during the course of construction, the Town shall be responsible for the cost of such police details.

F. Proper signage and barriers shall be provided and maintained to provide notice of restricted areas, to inform the public of possible hazards, to direct the Contractor's forces to proper access routes, staging areas, and parking areas, and to provide all other relevant instructions or notices consistent with the Work of this Section.

G. Any modifications to the proposed traffic patterns must be fully coordinated with the Town, including obtaining permission for the erection of temporary signs and traffic controls in the Town.

H. The Contractor shall protect non-Contractor-owned vehicular traffic, stored materials, site, and structures from damage and shall repair or replace same if damaged during construction at no additional cost.

1.03 SITE ACCESS CONTROL

A. The Contractor is hereby notified that the Site and proposed laydown area(s) are within an area frequented by the public. As such, special care must be taken to exclude unauthorized entry both during and outside of work hours.

B. The Contractor shall provide access control fencing to prevent unauthorized entry to construction areas, delineate temporary contractor staging areas, and protect existing facilities, adjacent properties, and the public from damage from construction operations. Temporary barriers may be required elsewhere on the site, as determined by the Town, and shall be provided at no extra cost.

C. The work area must be fully-fenced with temporary chain link fencing to protect the public. Alternate limits require approval from the Town.

D. The Contractor shall provide all general access and traffic control signage necessary at the site, including signs indicating the area as closed to the public, a hardhat area, etc.

E. Playground Closed Signage: The Contractor shall provide, erect, maintain, and remove "Playground Closed" signage acceptable to the Owner. Signs shall be of high visibility and shall be placed at a suitable frequency to effectively notify the public of the condition of the park.

1.03 SUBMITTALS

- Products to be used as signs and barriers, including temporary barriers and fencing. Submittal shall include content and location of signs as well as location of barriers. If temporary barriers/fences are proposed to be relocated throughout construction, the Contractor shall describe his approach in the submittal.

PART 2 - PRODUCTS

2.01 TEMPORARY BARRIERS

A. The Contractor shall provide protection for plants, trees, existing structures, and existing utilities, and replace those damaged during construction at no additional cost. It shall be the Contractor's sole responsibility to select the location and appropriate construction of all temporary barriers.

B. Chain link fencing shall include galvanized wire mesh fabric with a maximum opening size of 2.5 inches and a minimum wire gauge of 12. The minimum height of the fence shall be 6 feet. All posts shall be galvanized steel or equivalent. Vertical support posts and top and bottom rails and all required hardware for proper erection of a stable fence and gates shall be provided. Vertical posts may be embedded or may be equipped with stabilizing stands. The fence shall be stable in winds up to 40 mph.

2.02 TRAFFIC CONTROL MATERIALS

A. All products used shall be in conformance with the latest addition of the Rhode Island Department of Transportation (RIDOT) Standard Specifications for Road and Bridge Construction, as amended.

B. Temporary Traffic Control devices need not be new but must be in first class condition and acceptable to the Town. Temporary Traffic Control devices not up to standards shall be removed from the site and replace with acceptable products at no additional cost to the Town.

C. In the event that traffic controls are needed after dark, appropriate lighted and/or reflective barriers, flashers, signals, etc., shall be provided.

2.03 SIGNAGE

A. Signage shall be as specified in this Section and as shown on the Contract Drawings.

B. Temporary traffic control signs on public ways and in parking lots shall conform to the requirements of the latest edition of Rhode Island Department of Transportation (RIDOT) Standard Specifications for Road and Bridge Construction, as amended.

C. Other temporary access and traffic control signage shall be commercially printed, all-weather signs on a stiff backing. Where appropriate, signs shall conform to OSHA guidelines. In general, signs shall be a minimum of 4 square feet in area and shall utilize colors that are highly visible.

D. All signage shall be firmly affixed on wooden or metal posts at an appropriate height. Signs shall not be affixed to trees in a manner that will result in permanent damage.

2.04 LOCKS AND KEYS

A. If the Contractor installs any temporary locks restricting access to the site, he shall provide the Town with two sets of keys, each, for any locks installed on access gates at the site.

PART 3 - EXECUTION

3.01 GENERAL ACCESS CONTROL

A. The Contractor shall be responsible for preparing and executing a Temporary Traffic Control Plan for the work site, public roads, and traffic onto the site in accordance with the needs of their schedule and work plan. The plan shall be approved by the Town and all relevant local authorities, as necessary. The Contractor is responsible for all necessary interaction, consultation, and coordination.

B. The Contractor shall be responsible to extend and relocate access and traffic controls as Work progresses and removing or changing signage and barriers at the beginning and end of each workday, as required by their Plan. The Contractor shall also maintain existing roads and paths accessing the site as well as the construction area.

C. The Contractor shall be responsible for all work and materials, including temporary fill, steel road plates, etc., required to protect roadways, access roads, and parking lots.

D. The Contractor shall provide appropriate safety equipment and training to all personnel assisting with Traffic Control and to all personnel who will drive vehicles onto the site.

E. Once construction has begun, the Contractor shall take all reasonable steps to exclude the public from the construction and staging areas, including fences, barriers, signs, etc. The Contractor shall determine the locations and install temporary chain link fencing as required to provide adequate site access control during the Work. The Contractor shall ensure that barriers are replaced each night and over weekends so that access to the site is restricted during non-work hours.

F. The Contractor shall take such steps as are necessary to prevent the spilling of materials and liquids onto the paved surface of the roads. The Contractor shall be responsible for such actions as are necessary, including cleaning, sweeping, etc. as directed by the Town, to keep these surfaces clean. The Contractor shall not wash soil, sediment, or other material into surface water bodies, ditches, or storm drains.

G. Upon completion of the work, the Contractor shall remove all items associated with the Temporary Traffic Control Plan and restore any disturbed areas.

* * * END OF SECTION * * *

SECTION 02 10 00

SITE PREPARATION AND DEMOLITION

PART 1 - GENERAL

1.01 GENERAL PROVISIONS

A. All references to the “Standard Specifications” refer to “Rhode Island Department of Transportation (RIDOT) Standard Specifications for Road and Bridge Construction and all Addenda and revisions thereto.

B. CONTRACT DOCUMENTS: This Section does not stand alone. Comply with all Contract Documents, Conditions of the Contract, Division 1 General Requirements, Drawings, and other documents that define the Work of the Contract.

C. The General Provisions of the Contract, including GENERAL and SUPPLEMENTARY CONDITIONS AND GENERAL REQUIREMENTS (if any), apply to the work specified in this Section.

D. Examine all other Sections of the Specifications for requirements that affect the Work of this Section whether or not such Work is specifically mentioned in this Section.

E. Coordinate work with that of all other trades or contracts affecting or affected by the Work of this Section. Cooperate with such trades to ensure the steady progress of all work under the Contract.

1.02 DESCRIPTION OF WORK

A. Work Included: Provide labor, materials, and equipment necessary to complete the work of this Section, including, but not limited to the following:

1. Locate and stake out all construction and underground utilities.
2. Install safety fencing, security fencing, informational signage, and erosion controls as required, as shown on the Drawings, or as directed by the Owner.
3. Perform all necessary clearing and grubbing operations.
4. Remove, wholly or in part, and satisfactorily dispose of all foundations, bituminous concrete, signs, paving, curbs, structures, railings, trees, vegetation, trash, and any other obstructions which are not designated to remain.
5. Backfill any resulting holes, trenches, or pits.

B. Site Preparation and Demolition by Owner: Within the area surrounding the basketball court as shown on the Project Drawings, the Town of Coventry will provide demolition, site preparation, and earthwork. This area is outside of the Work of this contract. Contractor to coordinate with the Town of Coventry.

1.03 SUBMITTALS

A. Prior to the start of Work, the Contractor shall submit a construction-phasing plan to the Owner’s Representative for review and approval. The outline of this plan shall include the following information:

1. Description of the equipment to be used.
2. Description of the sedimentation and erosion controls.
3. Description of general methodology to be used (i.e., pavement removal techniques, subgrade preparation, compaction, surfacing, etc.)
4. Identification of sequencing for areas to be disturbed and paved. The plan must identify which areas will be under existing conditions, unpaved, base coat, and finish coat, at any one time.
5. General description of off-site trucking of removed material, source of asphaltic and concrete materials, etc.

1.04 QUALITY ASSURANCE

A. Codes and Standards:

1. All work and materials shall conform to the latest applicable sections of the Standard Specifications, as well as the codes and standards referenced in the individual sections. In case of conflict, the codes and standards referenced in the individual sections shall govern.
2. All work and materials shall also be in full accordance with the latest rules, regulations, and safety orders of state, county, town, municipality, and utility laws, rules, and regulations. Nothing in these Contract Documents shall be construed to permit work not conforming to the above.
3. Site clearing and demolition Work shall be conducted in accordance with the applicable safety requirements of the State's Administrative code, the Associated General Contractors' Manual of Accident Prevention in Construction, latest edition, and the applicable requirements of the Building code, latest applicable edition.

B. Permits and Licenses:

1. The Contractor shall secure all local permits required to complete the Work and shall pay all charges and fees for same, without cost to the Owner, and give all notices necessary and incidental to the due and lawful prosecution of the work.

C. Ordinances and Protection:

1. Conform to all federal, state, and local ordinances relating to the protection of the public and Contractor's personnel and the flow of traffic. Provide protection for persons and property throughout the progress of the work.
2. The limits of the project are indicated on the Contract Documents. The Contractor shall confine their operations within the limits of work as indicated.
3. Clearing and grubbing work shall not be commenced until the construction area is secured and all erosion control measures are installed.

1.05 LAYOUT WORK

A. Perform the required field layout to establish lines, hubs, grade stakes, and other layout necessary to construct the Work.

B. Grades, lines, levels, and permanent markers:

1. Staking: Contractor shall locate and stake out all new facilities. The staked location and alignment of the facilities shall be reviewed by the Town prior to any operations by the Contractor or his subcontractor.

2. Responsibility for Correctness: Contractor is solely responsible for the correctness of the layout and for establishing the location of any buried utility lines. In the event there is any conflict

between actual conditions and the Contract Documents, Contractor shall notify the Town immediately and shall not proceed with the work until directed by the Town.

3. Preservation of Markers: All stakes, boundary lines, corner markers, benchmarks or survey markers, etc., which are existing or may be established in any part of the site, shall be carefully preserved and respected by the Contractor and shall be restored at the Contractor's expense if lost or destroyed as a result of their operations.

1.06 LOCATION OF UNDERGROUND OBSTRUCTIONS

A. The Contract Documents do not purport to show all objects existing on the site. The location of existing piping and underground utilities has been determined from the best available information. During construction the possibility of utilities other than those shown may be encountered or designated. In areas where it is necessary that exact locations of underground lines be known, the Contractor shall, at their own expense, furnish all labor and tools to either verify and substantiate or definitely establish the location of the lines.

B. Locate and mark all underground pipelines and utilities within construction area.

C. Contact Dig-Safe (1-888-DIG-SAFE, 811) 72 business hours prior to commencing work.

D. Contact Town of Coventry for location of their utilities.

PART 2 - PRODUCTS

Not used.

PART 3 - EXECUTION

3.01 SITE INVESTIGATION

A. Contractor shall visit the site to determine the full extent of the site clearing and demolition work and any other matters that in any way affect the Work. Failure of the Contractor to acquaint themself with all available information concerning conditions will not relieve them from responsibility for estimating the difficulty or the cost of the Work.

3.02 ACCURACY OF DATA

A. Site data given on the Contract Documents are as exact as could be secured, but their absolute accuracy cannot be guaranteed. Exact locations, distances, and elevations shall be finally governed by field conditions and the instructions of the Town.

3.03 EXISTING UTILITIES

A. The Contractor shall verify on site, the location and depth (elevation) of all utilities and services before excavation. The Contractor shall make utility notifications as described above and in accordance with state excavation safety regulations.

3.04 EXISTING IMPROVEMENTS

A. Except as specified in other Sections, Contractor shall relocate, reconstruct, replace or repair, or cause to be relocated, reconstructed, replaced or repaired at their own expense, all existing utilities, walls, fences, services, and other structures or improvements of whatever nature, which are in the line of construction or which may be damaged, removed, disrupted, or otherwise disturbed by the Contractor, whether shown on the Contract Documents or not; and the Contractor shall connect, or cause to be connected, such utilities to existing systems and leave all in a workable and operating condition at their own expense.

B. Contractor shall, at their own expense, construct, or cause to be constructed, temporary utilities to maintain continuous service to surrounding buildings and facilities and adjacent property owners.

3.05 SITE ACCESS

A. Access to the site shall be via the public rights of way within the Town of Coventry.

B. The Contractor is responsible for securing the active work area to restrict unauthorized access and for protecting the public from the Contractor's actions and work areas.

C. The Contractor shall condition all of their activities in order to provide for the continued use of the public rights of way.

D. See SECTION 01570 - TEMPORARY TRAFFIC AND ACCESS CONTROL

3.06 CARE OF EXISTING TREES

A. No trees or timber outside of the work area or within the tree protection zone may be cut or damaged.

B. Existing trees to remain shall be protected from damage by constructing temporary barriers or fences at, or near, the drip line of the tree. Vehicles, equipment, materials, and debris shall not be placed or parked in these areas. Due to the nature of this project, it is anticipated that providing dripline protection throughout the wooded area may not be feasible. In such locations, the Contractor shall proceed with care to protect existing trees and vegetation from damage. Costs associated with removal and replacement of existing trees damaged during construction shall be the responsibility of the Contractor at no additional cost to the Town.

3.07 INSTALLATION OF SAFETY FENCING/BARRIERS

A. Temporary Safety Fencing/Barriers shall be installed around all open excavations and around all other active work areas as required to maintain safe pedestrian and vehicle traffic and as otherwise necessary to isolate the Work from the public.

B. The Contractor shall provide protection for existing structures and existing utilities, and replace those damaged during construction at no additional cost to the Town. It shall be the Contractor’s sole responsibility to select the location and appropriate construction of all temporary barriers.

C. See SECTION 01570 - TEMPORARY TRAFFIC AND ACCESS CONTROL

3.08 CLEARING, GRUBBING, DEMOLISHING, AND DISPOSAL

A. Demolish, raze, remove and dispose of all pavements, piping, structures, and other obstructions to new Work, except operating utilities and those items for which other provisions have been made for removal and/or protection. Unless otherwise indicated, all materials shall become the property of the Contractor and shall be legally disposed of at an off-site location.

B. Contractor is to review all tree removals in the field with the Town prior to removal. Disposal of all

trees, branches, snags, brush, stumps, etc., resulting from the clearing and grubbing shall be the responsibility of the Contractor and shall be disposed of by chipping and grinding and removal from the property to a legal disposal area. No on-site burning will be allowed.

C. All costs in connection with disposing of the material will be at the Contractor's expense. Material disposed of shall be in a manner that will avoid all hazards, such as damage to existing structures, construction in progress, trees and vegetation. The Contractor shall be responsible for compliance with all federal, state and local laws and regulations relative to the disposal.

3.09 FILLING AND BACKFILLING

A. Pits and depressions shall be filled with approved non-compressible material as soon as possible. Broken concrete, masonry, asphalt, or debris will not be permitted for filling of pits.

B. See SECTION 02300 - EARTHWORK.

* * * END OF SECTION * * *

SECTION 02300

EARTHWORK

PART 1 - GENERAL

1.01 GENERAL PROVISIONS

A. CONTRACT DOCUMENTS: This Section does not stand alone. Comply with all Contract Documents, Conditions of the Contract, Division 1 General Requirements, Drawings, and other documents that define the Work of the Contract.

B. The General Provisions of the Contract, including GENERAL and SUPPLEMENTARY CONDITIONS AND GENERAL REQUIREMENTS (if any), apply to the work specified in this Section.

C. Examine all other Sections of the Specifications for requirements that affect the Work of this Section, whether or not such Work is specifically mentioned in this Section.

D. Coordinate work with that of all other trades or contracts affecting or affected by the Work of this Section. Cooperate with such trades to ensure the steady progress of all work under the Contract.

1.02 SUMMARY

A. In general, the proposed construction includes the following:

1. Demolition and removal of any existing foundations, slabs, pavements, and other obstructions to the work.

2. Subgrade preparation, including placement and compaction of fill.

3. Installation of Owner-furnished playground equipment and site amenities;

4. Installation of playground protective safety surfacing;

5. Installation of chain link fences;

6. Sidewalk and pedestrian improvements, including bituminous concrete walkways;

7. Installation of bioretention swales;

8. Planting lawns, trees, and shrubs;

9. Miscellaneous site improvements.

B. The Contractor shall furnish all labor, materials, equipment, and incidental work to excavate and transport excavated materials on site (and imported materials), and to backfill excavations as necessary to complete the Work described herein, but not limited to the following.

1. Stripping and separate stockpiling of topsoil, existing fill, and other excavated soil to be reused on site.

2. Excavation, stockpiling, removal, and legal disposal of all excess excavated earth, demolition material, and other miscellaneous excavated materials not to be reused on site.

3. Excavations for walking trails, landscaped areas, and site amenities in accordance with the Project Specifications and Contract Drawings.

4. Supply, transport, placement, and compaction, as required, of soil fill, base, and subbase materials from on-site and off-site sources, including Structural Fill, Select Fill, Crushed Stone, Pavement Base and Subbase, and Geotextile Fabric in accordance with the plans and these Specifications.

5. Rough and fine grading of all subgrades, intensive surface compaction, and compaction of existing materials and of fills, backfills, and refills.

6. Furnishing of all necessary screened borrow topsoil, screening and organic amending of onsite topsoil, spreading of screened onsite and borrow topsoil.

7. Dewatering by pumping, bailing, and other acceptable means as necessary so that all earthwork and earthwork-related activities will be conducted “in the dry.”

8. Employing and implementing all methods required to effectively control dust created by the Work of this and other Sections.

9. Obtaining all permits, licenses, and approvals of appropriate municipal and utility authorities, prior to commencing the Work of this and other Sections, and pay all costs incurred therefrom.

10. Cooperation and coordination with the Engineer and/or Owner’s Testing Agency conducting field and laboratory testing of compaction of fill materials and general earthwork observation activities.

12. Furnish all materials, equipment, and labor for excavation, subgrade preparation, necessary bedding materials, and compacted backfill for all site utilities.

13. No sedimentation shall be allowed to impact pavements placed under this project. The Contractor shall employ whatever means and measures are required to prevent the deposition of sediments onto any pavement or pavement base courses or granular subbase courses placed under this contract. No soil or aggregate materials shall be placed or stockpiled on any pavement or pavement base courses or granular subbase courses placed under this contract.

1.03 RELATED WORK

A. The following is a list of related work items that shall be performed or furnished under other Sections of these Specifications as indicated.

1. All other Work of the Contract.
2. Section 02100 Site Preparation and Demolition
3. Section 01560 Erosion and Sedimentation Control
4. Section 02500 Paving and Surfacing
5. Section 02970 Landscape Work

1.04 REFERENCES

A. Rhode Island State Building Code, latest edition.

B. The Rhode Island Department of Transportation (RIDOT) Standard Specifications for Road and Bridge Construction, as amended (Standard Specifications).

C. All Drawings and all other Sections of the Specifications.

D. American Society for Testing and Materials (ASTM)

1. C136 - Method for sieve analysis of fine and coarse aggregates.
2. D1140 – Standard Test Methods for Determining the Amount of Material Finer than 75-µm (No. 200) Sieve in Soils by Washing
3. D1557 - Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Modified Effort (Modified Proctor).
4. D2487 - Standard Practice for Classification of Soils for Engineering Purposes
5. D4318 Standard Test Methods for Liquid Limit, Plastic Limit, and Plasticity Index of Soils.
6. D6913 – Standard Test Methods for Particle-Size Distribution (Gradation) of Soils Using Sieve Analysis
7. D6938 Standard Test Method for In-Place Density and Water Content of Soil and Soil-Aggregate by Nuclear Methods (Shallow Depth)

E. Occupational Safety and Health Administration (OSHA) Regulations, 29 CFR Part 1926 - Including, but not limited to, Excavations and Excavation Support, Current Revision.

1.05 SUBMITTALS

A. The Contractor shall submit for review to the Town, in writing, the following for review and shall not start earthwork activities until the entire submittal is acceptable to the Town.

1. Proposed sequence of construction, names of subcontractors, methods of construction including equipment to be used, proposed locations of access routes, and Contractor's facilities and staging areas within the Site.

B. The Contractor shall submit to the Town for evaluation the following:

1. Samples: Provide representative soil samples (a minimum of 10 lbs) along with test results for submit grain size analysis and Modified Proctor Density test results for all off-site and on-site fill soils proposed for use on site at least seven (7) working days prior to intended use.
2. Lab test results for the onsite topsoil materials and any proposed borrow topsoil, including amendments.
3. Samples and specifications for geotextiles and other related materials at least ten (10) days prior to delivery.

1.06 SUBSURFACE SOIL DATA

A. Project-specific subsurface explorations have not been performed.

B. The Contractor shall carefully examine the site and all conditions affecting the Work under this Section. No claim for additional costs will be allowed because of lack of full knowledge of existing conditions as indicated in the Contract Documents, or obvious from observation at the site.

1.07 SITE DRAINAGE AND DEWATERING

A. Upon mobilizing at the site, the Contractor shall assume responsibility for site and subsurface drainage and shall maintain such drainage during the length of their Contract, always protecting and maintaining the existing subsurface conditions in adjacent areas. If necessary, temporary measures may include, but are not limited to, the construction of drainage ditches and berms to divert and/or reduce the amount of surface water flowing over exposed subgrades during construction.

B. Dewatering of groundwater is not anticipated as part of this project. If groundwater is encountered during excavation, the Contractor shall stop work and notify the Town.

1.09 EXCAVATION CLASIFICATIONS

A. Earth Excavation or “Excavation” consists of removal of materials encountered to the subgrade elevations and contours indicated on the Drawings and subsequent reuse or disposal of the materials removed. All excavation is unclassified.

B. Unauthorized Excavation consists of removal of materials beyond indicated subgrade elevations or dimensions without specific direction of the Town or as directed in the Project Plans and Specifications. Unauthorized excavation, as well as remedial work directed by the Town to correct unauthorized excavation shall be at the Contractor’s expense.

1.10 EXCAVATION

A. The Contractor shall perform all excavations of every description and of whatever substances encountered, in a manner as required to allow for performance of the Work as specified in the Contract Documents and to permit access for the purpose of observing the work. Bottoms of trenches and excavations shall be protected from frost and shall be firm, dry and in an acceptable condition to receive new work; work (fill and structures) shall not be placed on frozen soil nor shall work be placed on wet or unstable surfaces.

B. All excavations made in open cuts will be controlled by the conditions existing at the various locations. In no case shall earth be excavated or disturbed by machinery so near to the finished subgrade for structures and utilities as to result in the disturbance of the earth below the subgrade.

1.11 PERMITS, CODES, AND SAFETY REGULATIONS

A. All work shall conform to the Specifications and shall comply with applicable codes, permits, orders of conditions and regulations.

B. Comply with all rules, regulations, laws, permits and ordinances of all authorities having jurisdiction. All labor, materials, equipment, and services necessary to make the work comply with such requirements shall be provided without additional cost to the Owner.

C. Comply with the provisions of the Manual of Accident Prevention in Construction of the Associated General Contractors of America, Inc., and the requirements of OSHA, United States Department of Labor.

1.12 PROJECT CONDITIONS

A. The Contractor shall perform the following Work relating to the project conditions at the site:

1. Visit the Site to review all details of the Work and working conditions and to verify dimensions in the field including interferences from adjacent structures. Notify the Town in writing of any discrepancy before performing any other Work.

2. Be responsible for any damage caused by construction activities, including but not limited to damage to existing structures, roadways, and utilities, and shall repair any damage to the satisfaction of the Town and at no cost to the Town.

1.13 SNOW REMOVAL

A. Work is not anticipated during winter weather conditions. If such weather occurs, the Contractor shall determine whether to clear snow from the construction area or stop work until conditions improve. Costs associated with either option shall be the responsibility of the Contractor.

B. The Contractor shall not place fill over frozen soils. Frozen soils shall be removed prior to fill placement.

PART 2 - PRODUCTS

2.01 MATERIALS

A. All fill shall be free from ice, snow, roots, sod, rubbish, environmental contaminants, and other deleterious or organic matter. Gradation requirements for fill materials shall meet the requirements described below. Grain size analyses of all proposed fill materials shall be performed in accordance with ASTM D 1140 and ASTM D 6913.

The maximum stone size shall be 3 inches where used below foundations, slabs, retaining walls, and as pavement base and subbase courses; elsewhere, maximum stone sizes shall be 2/3 of the loose lift thickness.

B. Granular Borrow Materials: Off-site granular material, including crushed stone products, imported for use, shall have characteristics as stated below. The type of granular fill used in specific locations at the site shall be as shown on the Contract Drawings or as specified by the Town.

1. Sand-Gravel Fill (Structural Fill): Sand-Gravel Fill shall consist of hard, durable sand and gravel, and shall be free from ice and snow, roots, sod, rubbish, and other deleterious or organic matter. Sand-Gravel Fill shall conform to the following gradation requirements:

Sieve Size	Percent Finer by Weight Granular Fill
*	100
½ -inch	50-85
No. 4	40-75
No. 10	30-60
No. 40	10-35
No. 100	5-20**
No. 200	0-10

* Four inches (4") where placed as base course; elsewhere, two-thirds (2/3) of the loose lift thickness; Two inches (2") where placed as bedding and backfill around utilities

** The amount passing the No. 100 sieve should be between forty percent (40%) and seventy percent (70%) of that amount passing the No. 40 sieve.

2. Gravel Borrow (Pavement Subbase): Gravel Borrow shall be inorganic soil free of clay, loam, ice and snow, roots, sod, rubbish, and other deleterious or organic matter; graded within the following limits:

Sieve Size	Percent Finer by Weight Granular Fill
3-inch	100
½-inch	50-85
No. 4	40-75
No. 50	8-28
No. 200	0-10

3. Processed Gravel Borrow (Pavement Base Course): Processed Gravel Borrow shall consist of inert material that is hard, durable stone and coarse sand, free from loam and clay, surface coatings and deleterious materials. The coarse aggregate shall have a percentage of wear, by the Los Angeles Abrasion Test, of not more than 50% graded within the following limits:

Sieve Size	Percent Finer by Weight Processed Gravel Borrow
3-inch	100
1 ½ inch	70-100
¾ inch	50-85
No. 4	30-60
No. 200	0-10

C. Crushed Stone: Crushed stone to meet the Standard Specification for gradation requirements under M01.09.

D. Geotextile Fabric: Geotextile Fabric shall be used to separate crushed stone from surrounding soils. The fabric shall consist of Mirafi 700X or 140N or an approved equal.

E. Ordinary Fill: Ordinary Fill for use as general fill and backfill in landscaped areas shall be friable inorganic soil essentially free of trash, ice, snow, tree stumps, roots, and organic materials. Ordinary fill shall contain no stone or rubble exceeding two-thirds of the specified loose lift thickness for material placement.

F. On-Site Soils: The excavated on-site materials, including existing fill soils will not likely meet the recommended gradation requirements for Structural Fill. Although they do not meet the gradation specifications, the naturally deposited soils and existing fill may be suitable for use as Structural Fill within the limits of proposed structures, and within the recommended lateral limits below foundations assuming that the materials are placed and compacted as indicated in these Project Specifications and that significant care is taken during and after fill placement, to control moisture and minimize disturbance and subject to testing and acceptance by the Engineer. These soils may be difficult to properly compact if the moisture content is wet or dry of the optimum compaction water content. The Contractor shall be aware that reliance on or use of these materials as Structural Fill may impact the schedule. Use of on-site materials by the Contractor shall be at the Contractor's sole risk and shall not result in impacts to the project schedule or additional cost to the Owner. These materials shall not be used where free-draining materials are required, such as subbase and base course layers (below pavements and slabs) or as backfill for retaining wall structures.

G. Loam Borrow: Off-site loam, to be furnished from sources outside of the project limits, shall consist of loose, friable, sandy loam, or loam topsoil, free of admixture of subsoil, refuse, stumps, rocks, brush, weeds and other materials which will prevent the formation of a suitable seed bed. No stones in excess of one and one-quarter inch (1-1/4") in diameter will be tolerated. The soils shall conform to the following gradation:

Sieve Size	Percent Finer by Weight Loam Borrow
1-inch	90-100
No. 4	70-95
No. 40	30-85
No. 100	25-50
No. 200	20-40*

*No more than 15 percent of loam shall be clay.

The loam shall contain at least 5%, but not more than 20%, organic material as determined by the loss during ignition of oven-dried samples. Test samples shall be dried to a constant weight at a temperature of 221°F ± 5°F. Loam shall be amended with well-cured compost as necessary to achieve minimum organic content. The acidity range of the Loam Borrow shall be pH 5.5 to 7.0.

Loam shall not have greater than 500 ppm salt.

All topsoil shall, at the Contractor's expense, be subjected to a Standard Soil Test with Organic Matter which shall include reporting of the following parameters: pH, Buffer pH, Extractable Nutrients, Extractable Heavy Metals (e.g. Lead), Cation Exchange Capacity, Percent Base Saturation, Percent Organic Matter, and Total Soil Nitrogen. The laboratory test results shall provide recommendations for nutrient and pH adjustments.

A standard soil test shall be performed for every 500 CY of topsoil or loam used at the site. A minimum of one test shall be performed on each distinct on-site topsoil or off-site loam source.

Soil testing shall be performed at the University of Massachusetts Soil and Plant Tissue Testing Laboratory or at an accredited testing laboratory acceptable to the Owner.

The Contractor shall notify the Town of the location of the source of supply for the loam at least ten days prior to delivery of the loam to the project site. Any imported materials which do not meet the above requirements shall be rejected and removed from the site.

H. Bioretention Soil: Bioretention soil shall be a uniform mix, free of heavy clay, stones, stumps, roots or other similar objects larger than 2 inches. It shall not contain noxious weeds (such as knotweed). Bioretention Soil shall have a texture of loamy sand under the USDA textural classification system. It shall consist of 85-88% sand, 8-12% silt and 0-2% clay, as determined by USDA grain size fractions. Bioretention Soil shall have an organic content of 3 to 5% by weight.

I. On-Site Topsoil Testing Requirements: On-site topsoil may be stripped, screened, amended and re-used provided it meets the requirements of Section M18 “Landscaping Materials” of the Standard Specifications. Soils excavated from areas with invasive plant species shall be stockpiled separately and managed as directed by Owner.

All topsoil shall, at the Contractor’s expense, be subjected to a Standard Soil Test with Organic Matter which shall include reporting of the following parameters: pH, Buffer pH, Extractable Nutrients, Extractable Heavy Metals (e.g. Lead), Cation Exchange Capacity, Percent Base Saturation, Percent Organic Matter, and Total Soil Nitrogen. The laboratory test results shall provide recommendations for nutrient and pH adjustments.

A standard soil test shall be performed for every 500 CY of topsoil or loam used at the site. A minimum of one test shall be performed on each distinct on-site topsoil or off-site loam source.

Soil testing shall be performed at the University of Massachusetts Soil and Plant Tissue Testing Laboratory or at an accredited testing laboratory acceptable to the Owner.

J. Other Soil Materials: Other soil materials proposed for use at the site shall meet Standard Specifications. The Owner shall have sole authority to authorize the use of alternative soil materials. No additional payment shall be made for substituted materials.

K. Unsuitable Materials: Unsuitable materials shall include organics, wood, trash, plastic, metal, and other materials designated as such by the Engineer. Determination of suitability of materials for use.

PART 3 - EXECUTION

3.01 EXAMINATION

A. The Contractor shall check all work areas to satisfy itself as to actual conditions. The Contractor shall be responsible for establishing all control points and marks necessary for the Work. Precautions shall be taken to preserve the materials outside the lines of the limit of Work in the most undisturbed condition possible. The Contractor shall perform the following Work:

1. Identify and check all required lines, levels, contours, and datum.

2. Notify the Engineer in writing of unexpected subsurface conditions and discontinue affected work in area until notified to resume work.

3. Identify and flag known utility locations. Notify “DIG SAFE” and all appropriate utility companies and organizations to locate utilities.

4. Verify that fill materials to be backfilled meet the criteria outlined herein.

3.02 PROTECTION OF ADJACENT WORK

A. Protect all adjacent structures, from damage by excavation work, including structures, foundations, utilities, and pavements to remain. All damage caused by the Contractor's operations shall be repaired to their original or equivalent condition at no additional cost to the Owner.

B. Grade excavation tops to prevent surface water run-off into excavations and onto adjacent properties to the extent practicable. Provide straw bales and silt fences in accordance with the Project Drawings and Specifications.

C. The work area shall be graded, shaped, and otherwise drained in such a manner as to avoid soil erosion, siltation, drainage channels, or damage to existing vegetation and property.

D. Protect plant life, grassed areas, and other features outside of anticipated excavation limits.

3.03 CLEARING AND GRUBBING

A. Clearing and grubbing shall be performed in accordance with the Drawings and Specifications.

B. See SECTION 02 10 00 – SITE PREPARATION & DEMOLITION

3.04 GENERAL EXCAVATION

A. Perform excavation as required within the limits of the Work as indicated on the Contract Plans and as specified herein. The Town may be present to observe the Work as it progresses, and will be the sole judge as to the suitability of site soils for the proposed construction. The presence or non-presence of the Town to observe earthwork shall not relieve the Contractor of their sole responsibility for completion of the Work in accordance with the requirements of these Specifications and as indicated on the Drawings.

B. The Contractor shall excavate and backfill in a manner and sequence that will provide proper drainage at all times.

C. The Contractor shall slope all banks unless properly shored. In no case should slope height, slope inclination, or excavation depth, exceed those specified in local, State and Federal safety regulations. Specifically, the current OSHA Health and Safety Standards for Excavations, 29 CFR Part 1926 should be followed.

The Contractor's "responsible person", as defined in 29 CFR Part 1926, will evaluate the soil exposed in the excavations as part of the Contractor's safety procedures and establish a minimum lateral distance from the crest of the slope for all vehicles and impressed loads such as, but not limited to, spoil piles. Likewise, the Contractor's "responsible person" will establish protective measures for exposed slope faces.

D. The Contractor shall correct all unauthorized or non-OSHA compliant excavations at no additional cost to the Town.

3.07 PERMANENT DRAINAGE

A. Permanent drainage features are to be installed per Contract Drawings and Specifications.

3.04 FILLING AND BACKFILLING

A. Backfill Material Selection: Unless otherwise specified or directed, material used for all filling and backfilling shall meet the requirements specified under Products (Part 2).

B. All backfill placed shall be Structural Fill or other as specified in the Project Specifications, dependent on the fill location, whichever is more stringent. Suitable on-site materials, if present, may be used in lieu of Structural Fill provided they can be placed and compacted as required herein and subject to testing and acceptance by the Town. Place backfill to a maximum loose lift thickness that does not exceed 12 inches. The maximum loose lift thickness shall be decreased based on the equipment used in order to attain the required degree of compaction. Maintain backfill material with a uniform moisture content within two percent of the optimum moisture content as determined by ASTM D1557.

C. Just prior to placing backfill, the areas shall be cleaned of all excess construction material and debris and the bottom of excavations shall be in a thoroughly compacted condition.

D. The finished subgrade of the fills and filled excavations upon which structures or pavements are to be constructed or upon which topsoil is to be placed, shall not be disturbed by traffic or other operations, and shall be maintained in a satisfactory condition. The storage or stockpiling of materials on finished subgrade will not be permitted.

E. Uniform smooth grading of all areas to be graded, as indicated and as directed, including excavated and filled sections, embankments, slopes and adjacent transition areas, and all areas disturbed as a result of the Contractor's operations, shall be accomplished. The finished surfaces shall be reasonably smooth, compacted and free from surface irregularities.

F. Do not place frozen soils, nor place fill over frozen soils.

G. All excess earth and rock materials generated as a result of the Work required to complete this Contract shall be entirely removed from the site and legally disposed of off-site.

3.05 COMPACTION

A. Except as otherwise specified or directed, place and compact materials to the specified density in continuous horizontal layers not exceeding a loose lift thicknesses of 12 inches. Suggested lift thicknesses and the number of passes are given the Table below. The Contractor shall be solely responsible for attaining the required degree of compaction and shall adjust lift thicknesses or used alternative compaction equipment to demonstrate that the required compaction is achieved.

Suggested Lift Thicknesses and Number of Passes For Various Compactors:

Compaction Method	Maximum Stone Size*	Maximum Loose Lift Thickness		Minimum Number of Passes	
		Below Structures and Pavement	Less Critical Area	Below Structures and Pavement	Less Critical Area
Hand-operated vibratory plate or light roller in confined areas	3"	6"	8"	6	4
Hand-operated vibratory drum rollers weighing at least 1,000# in confined areas	6"	8"	10"	6	4

Light vibratory drum roller, minimum dynamic force of 3,000# per foot of drum width	6”	10"	14"	6	4
Medium to heavy vibratory drum roller, minimum dynamic force 5,000 to 8,000# per foot drum width	8"	12"	18"	6	4

* And no more than two-thirds (2/3) loose lift thickness.

B. Placement of fill below and adjacent to structures and pavement shall be performed in horizontal loose lifts not exceeding 12 inches in thickness and compacted with vibratory equipment. The maximum loose lift thickness shall be decreased based on the equipment used in order to attain the recommended degree of compaction. Should vibrations due to compaction equipment become an issue immediately adjacent to the existing building, compaction may be accomplished with static rolling with small hand-operated equipment depending on the nature of the soils.

The degree of compaction shall be based on the maximum dry density as determined by ASTM Test D-1557. The recommended minimum compaction is specified below for different areas.

Fill Area		Percent of Maximum Dry Density
Below Structures (footings, slabs, walls)	-	95%
Pavement/Sidewalk/Exterior Slab Base and Subbase	-	95%
Pavement Base and Subbase	-	95%
Below Pavement Subbase	-	92%
Areas of General Landscape	-	90%

C. Moisture Control:

1. Fill that is too wet for proper compaction shall be disced, harrowed, or otherwise dried to a proper moisture content to allow compaction to the required density. If fill cannot be dried within 24 hours of placement, it shall be removed and replaced with drier fill.

2. Fill that is too dry for proper compaction shall receive water uniformly applied over the surface of the loose layer. Sufficient water shall be added to allow compaction to the required density. Water shall be provided as needed by the Contractor at his own expense.

3.06 INSTALLATION OF BIORETENTION BASIN

A. Excavate to the lines and grades shown on the Drawings for installation of the bioretention basin. Care shall be taken to ensure that the bottom of the excavation is not compacted by heavy equipment traffic. The bioretention soil layer shall be placed loose. Contractor shall hydroseed the bioretention soil as shown in the drawings in accordance with Section 029700 Landscape Work.

3.07 TOLERANCES

A. Unless indicated otherwise in the Drawings or Specifications, vertical tolerances shall be sufficient to meet ADA and SFTAG accessibility requirements. Additionally, tolerances shall be such that all transitions between surface types are smooth and level.

3.08 MAINTENANCE

A. Protect newly graded areas from traffic and erosion, and keep free from trash and weeds.

B. Where completed compacted areas are disturbed by subsequent construction operations or adverse weather, scarify the surface, reshape and compact prior to further construction.

C. Protect excavations to prevent cave-in or loose soil from falling into excavation. Observe OSHA standards for trenching and excavation.

D. The areas surrounding the work site shall be kept clean and free of excavated soil at all times. Every effort shall be made to prevent excavated soil from migrating from the work site.

3.09 FIELD QUALITY CONTROL

A. The Town may perform testing and analyses of all fill materials. Fill material proposed for use on site shall be tested in accordance with ASTM D1140, ASTM D6913, ASTM D1557, and other applicable references. Only washed sieves are allowed.

B. The Town may observe fill placement, and earthwork activities for conformance with the Drawings and Specifications.

* * * END OF SECTION * * *

SECTION 02 50 00

PAVING AND SURFACING

PART 1 - GENERAL

1.01 GENERAL PROVISIONS

A. CONTRACT DOCUMENTS: This Section does not stand alone. Comply with all Contract Documents, Conditions of the Contract, Division 1 General Requirements, Drawings, and other documents which define the Work of the Contract.

B. The General Provisions of the Contract, including GENERAL and SUPPLEMENTARY CONDITIONS AND GENERAL REQUIREMENTS (if any), apply to the work specified in this Section.

C. Examine all other Sections of the Specifications for requirements which affect the Work of this Section whether or not such Work is specifically mentioned in this Section.

D. Coordinate work with that of all other trades or contracts affecting or affected by the Work of this Section. Cooperate with such trades to ensure the steady progress of all work under the Contract.

1.02 DESCRIPTION OF WORK

A. Work Included: Provide labor, materials and equipment necessary to complete the work of this Section, including, but not limited to the following:

1. Bituminous Concrete Pavement.
2. Cement Concrete Pavement
3. Other paving and surfacing work as may be required to ensure the completion of this project.

1.03 SUBMITTALS

A. Refer to DIVISION I for submittal provisions and procedures.

B. Provide copies of materials certificates signed by material producer and Contractor, certifying that each material item complies with, or exceeds, specified requirements.

C. For bituminous concrete base and pavement sections, submit design mix and test reports prepared by a professional testing laboratory acceptable to the Owner with all submittals.

1.04 REFERENCED STANDARDS

A. American Concrete Institute (ACI):

1. ACI 117 "Standard Specifications for Tolerances for Concrete Construction and Materials"
2. ACI 301- “Specifications for Structural Code”
2. ACI 302 IR "Recommended Practice for Concrete Floor and Slab Construction."
3. ACI 303.1 "Standard Specification for Cast-In-Place Architectural Concrete."
4. ACI 304 "Recommended Practice for Measuring, Mixing, Transporting and Placing of Concrete."
5. ACI 305R "Recommended Practice for Hot Weather Concreting."
6. ACI 306R "Recommended Practice for Cold Weather Concreting."
7. ACI 318- Building Code Requirements for Structural Concrete and Commentary.

B. American Society for Testing and Materials (ASTM):

1. ASTM C 67, Standard Test Methods for Sampling and Testing Brick and Structural ClayTile, Section 8, Freezing and Thawing.
2. ASTM C 136, Standard Test Method for Sieve Analysis of Fine and Coarse Aggregates.
3. ASTM C 140, Standard Test Methods for Sampling and Testing Concrete Masonry Units and Related Units.
4. ASTM C 144 Standard Specifications for Aggregate for Masonry Mortar.
5. ASTM D 448, Standard Classification for Sizes of Aggregate for Road and Bridge Construction.
6. ASTM C 936, Standard Specification for Solid Concrete Interlocking Paving Units.
7. ASTM C 979, Standard Specification for Pigments for Integrally Colored Concrete.
8. ASTM D 698 Test Methods for Moisture Density Relations of Soil and Soil Aggregate Mixtures Using a 5.5 lb (24.4 N) Rammer and 12 in. (305 mm) drop.
9. ASTM D 977, Standard Specification for Emulsified Asphalt.
10. ASTM D 1557 Test Methods for Moisture Density Relations of Soil and Soil Aggregate Mixtures Using a 10-lb (44.5 N) Rammer and 18 in. (457 mm) drop.
11. ASTM C1645 Standard Test Method for Freeze-thaw and De-icing Salt Durability of Solid Concrete Interlocking Paving Units
12. ASTM D 1883, Test Method for California Bearing Ratio of Laboratory-Compacted Soils.
13. ASTM D 2940 Graded Aggregate Material for Bases or Subbases for Highways or Airports.
14. ASTM D 3381, Standard Specification for Viscosity-Graded Asphalt Cement for Use in Pavement Construction.
15. ASTM D 4254, Standard Test Methods for Minimum Index Density and Unit Weight of Soils and Calculation of Relative Density

C. American Association of State Highway and Transportation Officials (AASHTO):

1. AASHTO M194 "Chemical Admixtures."

D. All work shall be performed in accordance with the latest rules, regulations and safety orders of O.S.H.A. and all other local, state and federal worker safety laws. Nothing in the Contract Documents shall be construed to permit work not in accordance with the above.

E. When the Contract Documents call for material or construction of better quality or larger size than required by the above codes and standards, then the provisions of the Contract Documents shall take precedence.

1.05 QUALITY ASSURANCE

A. Pavement materials shall not be placed until the Owner’s Representative has inspected and approved the sub-base.

B. Weather Conditions: Bituminous concrete material shall not be placed when the ambient temperature is below 40° Fahrenheit, or when there is frost in the base, or at any other time when weather conditions are unsuitable.

D. Paving Contractor Qualifications:

1. Utilize an installer having successfully completed various pavement installations similar in design, material, and extent indicated on this project.

E. Codes and Standards:

1. All work and materials shall conform to the latest applicable sections under the Rhode Island Department of Transportation (RIDOT) Standard Specifications for Road and Bridge Construction, as amended, hereinafter referred to as the "Standard Specifications", as well as the codes and standards referenced in the individual sections. In case of conflict, the codes and standards referenced

in the individual sections shall govern.

2. American Concrete Institute (ACI):

   a. ACI 301 "Specification for Structural Concrete for Buildings."
   b. ACI 302 IR "Recommended Practice for Concrete Floor and Slab Construction."
   c. ACI 303.1 "Standard Specification for Cast-In-Place Architectural Concrete."
   d. ACI 304 "Recommended Practice for Measuring, Mixing, Transporting and Placing of Concrete."
   e. ACI 305R "Recommended Practice for Hot Weather Concreting."
   f. ACI 306R "Recommended Practice for Cold Weather Concreting."

3. American Society for Testing and Materials (ASTM):

   a. ASTM C309 "Liquid Membrane-Forming Compounds for Curing Concrete."
   b. ASTM C494 "Standard Specification for Chemical Admixtures for Concrete."
   c. ASTM C979 "Standard Specification for Pigments for Integrally Colored Concrete."

4. American Association of State Highway and Transportation Officials (AASHTO):

   a. AASHTO M194 "Chemical Admixtures."

5. When the Contract Documents call for material or construction of better quality or larger size than required by the above codes and standards, then the provisions of the Contract Documents shall take precedence.

1.06 CONTROL AND TESTING

A. The Contractor shall cooperate with the Owner's testing personnel so as to permit proper observation and testing of the work without unnecessary delays.

PART 2 - PRODUCTS

2.01 BITUMINOUS CONCRETE

A. Pavement: Bituminous concrete pavement shall conform to materials standards for Asphalt Concrete of the Standard Specifications.

2.02 TACK COAT

A. Emulsified asphalt CRS-1, CRS-1H or CSS-1H; diluted with equal parts water.

PART 3 - EXECUTION

3.01 REMOVAL

A. Contractor shall remove existing paving, sidewalks, and curbing as noted on the plans and within the limits of demolition. All removed material shall become the property of the Contractor and shall be removed off site and disposed of in accordance with applicable regulations by the Contractor.

B. Removal limits are shown on the plans and may be revised by the Owner's Representative upon field

review.

C. Unless prior approval is granted by the Owner's Representative, removal beyond the limits as shown on the plans will be considered as for the Contractor's convenience and no additional payment will be made for such work, including excavation, refilling and additional paving of any such areas as required to replace the removed materials.

3.02 BITUMINOUS CONCRETE PAVEMENT

A. Preparation:

1. Contractor shall place gravel borrow subbase and processed gravel base as shown on the drawings. Gravel shall be compacted to 95% of the maximum dry density as described by ASTM D1557 (Modified Proctor).

2. Contractor shall tack coat the vertical saw cut edge where new bituminous pavement will abut existing pavements. Tack coat shall be applied by brush or spray to contact bituminous surfaces at a rate between 0.05 and 0.15 gallons per square yard of surface.

3. After sub-base has been prepared, the Contractor shall check all frames, covers, boxes, and other miscellaneous castings located in proposed pavement to ensure they are accurately positioned and set to the proper slope and elevation. All covers and grates shall be set flush with finished pavement surface.

B. Paving

1. General: Place bituminous concrete mixture on prepared surface free from standing water. The minimum surface temperature of the base shall be 60°F when only one roller is used for breakdown rolling (15 minutes) or 40°F when two rollers are used (8 minutes). Spread mixture at minimum temperature of 275 deg. F. Place inaccessible and small areas by hand. Place each course to required grade, cross-section, and appropriate thickness to yield required minimum depth after rolling.

2. Place bituminous concrete in widest strip practical. After first strip has been placed and rolled, place succeeding strips and extend rolling to overlap previous strips. Courses shall be placed in approximately equal layers not exceeding 3 inches in depth after compaction. Care shall be taken to match abutting pavements in elevation and grade with a smooth transition.

3. Joints: Make joints between old and new pavements, or between successive days' work, to ensure continuous bond between adjoining work. Construct joints to have same texture, density and smoothness as other sections of bituminous concrete course. Clean contact surfaces and apply tack coat. The longitudinal joint in one layer shall offset the joint in the layer immediately below by 12 inches.

4. Begin rolling with a steel-wheeled roller when mixture will bear roller weight without excessive displacement. Compact mixture with hot hand tampers or vibrating plate compactors in areas inaccessible to rollers.

5. Breakdown Rolling: Accomplish breakdown or initial rolling immediately following rolling of joints and outside edge. Check surface after breakdown rolling, and repair displaced areas by loosening and filling with hot material.

6. Second Rolling: Follow breakdown rolling as soon as possible, while mixture is still hot. Continue second rolling until mixture has been thoroughly compacted.

7. Finish Rolling: Perform finish rolling while mixture is still warm enough for removal of roller marks.

Continue rolling until roller marks are eliminated and course has attained 95 percent maximum density as measured by the density test specified in SECTION 02200 – GENERAL EARTHWORK.

8. Remove and replace paving areas mixed with foreign materials or otherwise defective. Cut-out such areas and fill with fresh, hot bituminous concrete. Compact by rolling to maximum surface density and smoothness.

9. After final rolling, do not permit vehicular traffic on pavement until it has cooled and hardened. Erect barricades to protect paving from traffic until mixture has cooled enough not to become marked.

*****END OF SECTION*****

SECTION 02 80 00

SITE IMPROVEMENTS

PART 1 - GENERAL

1.01 GENERAL PROVISIONS

A. CONTRACT DOCUMENTS: This Section does not stand alone. Comply with all Contract Documents, Conditions of the Contract, Division 1 General Requirements, Drawings, and other documents that define the Work of the Contract.

B. The General Provisions of the Contract, including GENERAL and SUPPLEMENTARY CONDITIONS AND GENERAL REQUIREMENTS (if any), apply to the work specified in this Section.

C. Examine all other Sections of the Specifications for requirements that affect the Work of this Section whether or not such Work is specifically mentioned in this Section.

D. Coordinate work with that of all other trades or contracts affecting or affected by the Work of this Section. Cooperate with such trades to ensure the steady progress of all work under the Contract.

1.02 DESCRIPTION OF WORK

A. Provide labor, materials and equipment necessary to complete the Work of this Section, including, but not limited to the installation and/or furnishing of the following items:

1. Playground Equipment
2. Picnic Table
3. Players Benches
4. Spectator Bleachers
5. **Bid Alternate No. 1:** Harris Playground Equipment

1.03 SUBMITTALS

A. Refer to DIVISION 1 for submittal provisions and procedures.

B. Provide full submittals for all items required under this Section.

C. Provide copies of materials certificates signed by material producer and Contractor, certifying that each material item complies with, or exceeds, specified requirements.

1.04 QUALITY ASSURANCE

A. Codes and Standards:

1. All work and materials shall conform to the latest applicable sections of the Rhode Island Department of Transportation (RIDOT) Standard Specifications for Road and Bridge Construction, as amended, hereinafter referred to as the “Standard Specifications”, as well as the codes and standards referenced in the individual sections of this specification. In case of conflict, the

codes and standards referenced in the individual sections shall govern.
2. All work shall be in full accordance with the latest rules, regulations and safety orders of O.S.H.A. and all other local, state and federal worker safety laws. Nothing in the Contract Documents shall be construed to permit work not in accordance with the above.
3. When the Contract Documents call for material or construction of better quality or larger size than required by the above codes and standards, then the provisions of the Contract Documents shall take precedence.
4. Comply with applicable requirements of the Rhode Island State Building Code and Americans with Disabilities Act (ADA).

1.05 ATTACHMENTS TO THIS SECTION

A. Attachments to this Section include the following:
   1. Playground Installation Instructions – by Landscape Structures
   2. Picnic Table Installation Instructions – by DuMor, Inc.
   3. Bench Installation Instructions – by National Recreation Systems
   4. Bleacher Installation Instructions – by National Recreation Systems

1.05 RELATED WORK SPECIFIED ELSEWHERE

A. Section 02 30 00 - Earthwork
B. Section 02 50 00 - Paving and Surfacing

PART 2 - MATERIALS

2.01 OWNER-FURNISHED ITEMS

A. “Owner-furnished items” will be furnished by the Owner and delivered to Contractor’s designated storage location. Contractor shall be responsible to inspect, accept, off-load, store, load, secure, assemble, deliver to the project site at the appropriate time, and install. All owner-furnished items shall be Models as listed elsewhere herein or on the Drawings. The Contractor shall schedule, and coordinate delivery of the Owner furnished materials and equipment to the construction site or to the Contractor’s designated secure storage location. The Owner will purchase these materials and equipment separately from this contract, for assembly and installation by the Contractor.

B. The Contractor shall off-load and safely store all items until installation is scheduled. When items are un-crated for assembly, the Owner’s Representative shall be adequately notified to allow for inspection to confirm the condition of the item on delivery. After inspection and documentation of condition, the Contractor may proceed with the assembly and/or installation.

C. List of Items to be furnished by the Owner:
   1. Quidnick Field:

Description	Quantity	Model
Benches	2	National Recreation Systems #BE-PH00600: 6' Long Surface Mount Bench w/ Back
Bleachers	1	National Recreation Systems #NB-0307.5APRF: 3 row x 7'6" Non-Elevated Bleacher
Picnic Table	1	Dumor #77-68-1D: 8' Long Douglas Fir Slat Picnic Table, ADA, Powdercoat Finish

Playground Equipment (refer to drawings)		**Landscape Structures, Inc.** **331173A** **Billows Pre-Colored Freestanding Play** **197057C** **Motion w/Play Table** **177332A** **Single Post Swing Frame 8' Beam Height** **174018A** **Belt Seat ProGuard Chains for 8' Beam Height** **177337A** **Toddler Swing Add-On Beam** **176038G** **Full Bucket Seat ProGuard Chains for Toddler Swing** **182503A** **Welcome Sign (LSI Provided) Ages 2-5 years** **182503C** **Welcome Sign (LSI Provided) Ages 5-12 years**

2. Harris Playground (**Bid Alternate No. 1**):

Description	**Quantity**	**Model**
Playground Equipment (refer to drawings)		**Landscape Structures, Inc.**
PlayBooster® Climbers with Permalene Handholds	1	345323B Croquet Climber 64"Dk DB
	1	152907B Deck Link w/Barriers Steel end panels 2 Steps
	1	204176A Flex Climber w/Permalene Handhold Equal Decks 72"Dk
	1	345309B Lollipop Climber 64"Dk DB
	1	176079A Sunbeam Climber
	1	145624D Vertical Ascent 72"Dk

Decks	1	152911B Curved Transfer Module Right 40"Dk DB
	1	121948A Kick Plate 8"Rise
	3	111228A Square Tenderdeck
	1	111231A Triangular Tenderdeck
Enclosures	1	345282A Bubble Panel Above Deck
	1	345278A Hole Panel
	1	345276A Storefront Panel
	1	345277A Zoo Panel Above Deck
Motion & More Fun	1	120902A Handhold Leg Lift
Posts	1	111404E 116"Alum Post DB
	2	111404D 124"Alum Post DB
	2	111404B 140"Alum Post DB
	4	111404A 148"Alum Post DB
	2	111404M 148"Steel Post DB
	2	111404W 156"Steel Post DB
Slides	1	130390A Double Swoosh Slide 72"Dk DB[1]
	1	124863B SlideWinder2 40"Dk DB 1 Right

Freestanding Play Signs	1	182503C Welcome Sign (LSI Provided) Ages 5-12 years Direct Bury
Site Furnishings	2	111640C 5' Contour Poly Bench w/Back No Armrests DB
Swings	3	174018A Belt Seat ProGuard Chains for 8' Beam Height
	1	176038A Full Bucket Seat ProGuard Chains for 8' Beam Height
	1	177332A Single Post Swing Frame 8' Beam Height Only DB Only
	1	177333A Single Post Swing Frame Additional Bay 8' Beam Height Only DB Only

2.02 PORTLAND CEMENT CONCRETE

A. Portland cement concrete for foundations and anchorages shall meet the requirements for "Portland cement concrete (Air-entrained 4,000 psi, ¾", 610 lb/cy)", as specified in Subsection M4.02.00 of the Standard Specifications as well as the codes and standards referenced in the individual sections of this Specification. In case of conflict, the codes and standards referenced in the individual sections shall govern.

2.03 ENGINEERED WOOD FIBER SAFETY SURFACING

A. Engineered Wood Fiber Playground Surfacing shall consist of randomly sized wood fibers derived from 100% pre-consumer recovered wood and meeting the following requirements:
   1. Sieve Analysis, ASTM F2075: Meets criteria.
   2. Hazardous metal, ASTM F2075: Meets criteria.
   3. Tramp metal, ASTM F2075: Meets criteria.
   4. Impact, ASTM F1292-13: 8 inches meets criteria up to 8 foot fall height and 12 inches meets criteria up to 12 foot fall height.
   5. Accessibility, ASTM F1951-14: Meets criteria.
   6. Resistance to Flammability, 16 FR Part 1630 Standard for Surface. Flammability of Carpets and Rugs (FFI-70), Modified Procedure. Not Oven Dried: Meets Criteria.
   7. Flammability, 16 CFR 1500.44, Federal Hazardous Substances Act Title 16, Chapter II, Subchapter C for Rigid and Pliable Solids: Did not ignite.
   8. IPEMA Certification: 8-inches/8-feet., 12-inches/12-feet. Fall protection. F1292.
   9. Tramp metals, Heavy Metals: ASTM F2075, meets criteria.

B. Basis of Design: Manufacturer: Zeager Bros., Inc., Middletown, Pennsylvania; (Phone) 800-346-8524, or approved equal.

2.04 CHAIN LINK FENCING

A. Manufacturers: Provide products complying with requirements of the contract documents and manufactured by one of the following:

1. Zinc-coated galvanized steel fencing, black PVC-coated fabric and all components:

   a. American Security Fence Corporation
   b. Anchor Fence, Inc.
   c. Eastern Wholesale Fence Co., Inc., Bohemia, NY

B. Fencing Accessories

1. Material and finish of accessories shall match fencework specified in the Standard Specifications, Section M.8.09.0 or as specified herein. Fence fabric and all components shall be black PVC-coated.

2. Caps:
   a. Formed steel, malleable or cast iron, or aluminum alloy, with ring to receive top rail or loop to receive tension wire according to fence configuration.
   b. Snug-fitting, weathertight closure of posts.

3. Rail Ends: Formed steel, malleable or cast iron, or aluminum alloy.

4. Rail Sleeves:
   a. Formed of same material as rail.
   b. Minimum length: 6 inches.
   c. Rails with 3-inch swaged ends will not require rail sleeves.

5. Wire Ties and Clips:
   a. Size: Not less than fabric wire gauge size.
   b. Minimum zinc coating weight: 0.8 once per square foot.

6. Brace Bands and Tension Bands:
   a. ¾ inch by 1/10 inch thick (nominal).

7. Tension Bars:
   a. ¾ by 3/16 inch (or equivalent section) for 1-3/4 and 2-inch mesh.
   b. Continuous length to match fabric width.

8. Truss Rods:
   a. 5/16 inch minimum diameter rod.

9. Permit latching and locking operation from either side of gate.
   a. Padlock eye integral part of latch.

C. Fabric:
1. Material: zinc-coated steel, ASTM F 668, Type 2b.

2. Core wire diameter: 0.148 inch (9 gauge).
3. Mesh size: 2 inches.
4. Fabric width: 36, 48, 72 and 96 inches where called for.

D. Fence Framework:

1. Zinc coating of steel shapes (ASTM A 90):

a. Hot-dipped zinc-coating of line posts; weight of coating 2.0 ounces per square foot; hot-dip zinc coating of terminal posts; weight of coating, 2.0 ounces per square foot.
b. All rails to be hot-dip zinc coated; weight of coat; 2.0 ounces per square foot.

2. Toprail, bottom rail length: 18 foot minimum lengths.
3. Material: Conform to ASTM F 669, Light Industrial category.
   a. Group IA: Steel pipe.
4. Rail size: 1.660 inches outside diameter by 0.112 inch wall thickness, 1.82 pounds per foot.
5. Line post size: 2 3/8" diameter, 16 gauge.

2.05 ANCHOR FASTENERS

A. Except where indicated on the drawings, anchors in concrete slabs shall consist of Hilti Kwik Bolt-TZ expansion anchor safe set system, in Type 304 stainless steel, per ICC ESR-1917.
B. Anchor diameter shall be as required by the manufacturer of the item being fastened.
C. Install anchors per the manufacturer's printed installation instructions, as included in the anchor packaging.

PART 3 - EXECUTION

3.01 PLAYGROUND EQUIPMENT (OWNER-FURNISHED)

A. Install owner-furnished playground equipment in accordance with manufacturer's written instructions by Landscape Structures. Owner-supplied play equipment will be a manufactured product from Landscape Structures Inc.; 601 7th Street South; Delano, MN 55328. This equipment shall be installed by the Contractor in accordance with the manufacturer's requirements by a Landscape Structures, Inc.

B. All uprights shall be set plumb and true, vertical and braced until concrete footing has set. Do not begin installation until final grades and elevations have been established. Install all uprights prior to installation of granular base course, bituminous concrete, and Poured-in-Place or Engineered wood fiber safety surfacing.

3.02 PLAYERS BENCHES, PICNIC TABLES, AND SPECTATOR SEATING (OWNER-FURNISHED)

A. Do not begin installation and assembly until final grading and surfacing is completed, unless otherwise permitted.

B. Review installation locations with the Owner prior to installing concrete base. Install concrete footing as detailed on Drawings.

C. Install concrete pad for free-standing benches, picnic tables, and spectator seating as detailed on Drawings.

D. Do not install concrete pad for free-standing benches and spectator seating until completion of post-tensioned concrete basketball court (by Owner/ Owner's Vendor). Contractor to coordinate with Owner's Vendor.

D. Drill concrete footing for anchor bolts to diameters and spacing indicated on Drawings and per anchor manufacture recommendations. Anchor bolts, washers, and nuts shall be stainless steel. Peen threads or tack-weld nuts in place for security purposes.

E. Protect all benches from damage due to construction operations.

3.03 ENGINEERED WOOD FIBER SAFETY SURFACING

A. Review project drawings and verify that playground equipment use zones, clearances, and reach ranges will comply with ASTM F1487, Sections 8, 9, and 10.

3.04 CHAIN LINK FENCING

A. Verify that line of fence has been properly identified.

B. Verify that proper grade has been established.

C. Verify location of underground utilities and structures.

D. Begin fence construction only after adequate clearance on both sides of fence is available.

E. Layout:

1. Install fencing true to line and grade.
2. Elevation of fence shall follow ground line unless otherwise indicated on drawings. Bottom of fabric or pickets shall run at a uniform distance above ground of 1 ½" inch, plus or minus ½ inch.

F. Install braces, fabric, and other components in accordance with manufacturer's recommendations and to meet or exceed requirements of ASTM F 567.

G. Pull fabric taut and secure to rails at 1 foot on both sides of each post and at intervals of 24 inches, maximum, on center.

H. Secure fabric to line posts with tie wires or clips at intervals of 15 inches, maximum, on center.

I. Secure fabric to terminal posts for the full width of fabric by using stretcher bars and bands or by integrally weaving fabric to fastening loops on posts.

* * * END OF SECTION * * *

ATTACHMENTS TO SECTION 02800 "SITE IMPROVEMENTS"

- Playground Installation Instructions- by Landscape Structures, Inc. (Quidnick Field)
- Dumor, Inc- Installation Instructions – 77-68-1D Picnic Tables
- NRS Bleachers and Players Benches, (#NB-0307.5APRF, #BE-PH00600)

MEO25563

landscape structures

ISO 14001 CERTIFIED

ISO 9001 Certified

SAFETY NOTE

Choose a protective surfacing material that has a Critical Height Value of at least the height of the Highest Accessible Part/Fall Height of the adjacent equipment. (Ref. ASTM F1487.)

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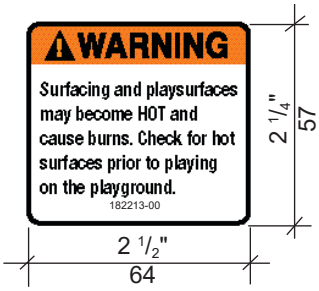

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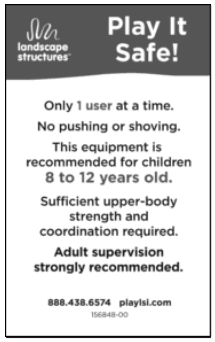

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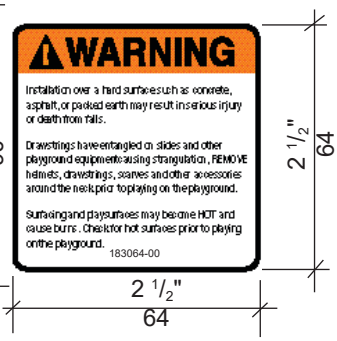

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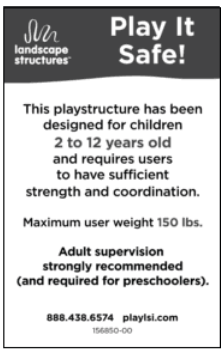

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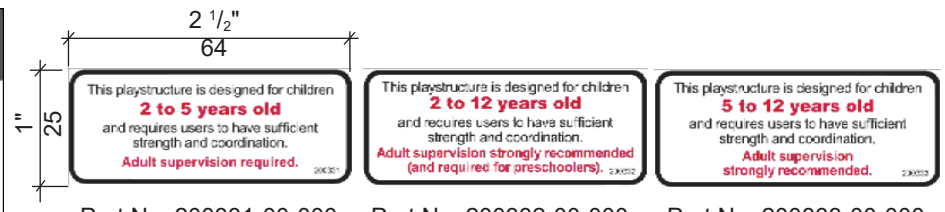

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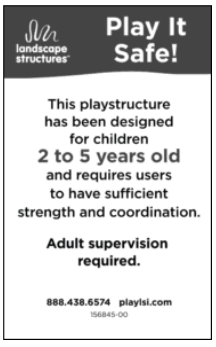

Part No. 156845-00-000

NOTE: The Playstructure design will determine which Play It Safe sticker will be supplied.

INSTRUCTIONS:

Surface must be clean and dry prior to applying sticker. Peel backing sheet away from back of sticker and place sticker in position. Using backing sheet, rub over face of sticker to burnish down into place. Choose a location visible to adults in a conspicuous location on product. Stickers work best on painted parts. Where possible, avoid placing on rotationally-molded plastic parts, TenderTuff-coated parts or where children may step and wear off sticker. This applies to both Freestanding Play items and Composite Playstructures. Apply sticker adjacent to or visible from the primary entrance to the structure. Apply 4'-5' above the surface. Apply at least (1) one to every structure and (2) two to large Composite Playstructures.

PB/PS/FP/Evos®/Weevos®

Warning Labels

601 7TH STREET SOUTH, DELANO, MINNESOTA 55328-8605 888-574-4678 LSI Install Help 888-438-6574 LSI Direct 763-972-5200 Int. FAX (763) 972-3185

Document #25780600

landscape structures

ISO 14001 CERTIFIED

ISO 9001 Certified

SAFETY NOTE

Choose a protective surfacing material that has a Critical Height Value of at least the height of the Highest Accessible Part/Fall Height of the adjacent equipment. (Ref. ASTM F1487.)

251714	5i Formed Play Safe Plate 6-23 Months w/Attaching HDW
251736	5i Formed Play Safe Plate 2-5 Years w/Attaching HDW
251712	5i Formed Play Safe Plate 2-12 Years w/Attaching HDW
251713	5i Formed Play Safe Plate 5-12 Years w/Attaching HDW
251715	5i Formed Play Safe Plate 1.5-5 Years w/Attaching HDW
251716	5i Formed Play Safe Plate 1.5-12 Years w/Attaching HDW
251720	3.5i Formed Play Safe Plate 6-23 Months w/Attaching HDW
251717	3.5i Formed Play Safe Plate 2-5 Years w/Attaching HDW
251718	3.5i Formed Play Safe Plate 2-12 Years w/Attaching HDW
251719	3.5i Formed Play Safe Plate 5-12 Years w/Attaching HDW
251721	3.5i Formed Play Safe Plate 1.5-5 Years w/Attaching HDW
251722	3.5i Formed Play Safe Plate 1.5-12 Years w/Attaching HDW
251726	Flat Large Play Safe Plate 6-23 Month w/Attaching HDW
251723	Flat Large Play Safe Plate 2-5 Years w/Attaching HDW
251724	Flat Large Play Safe Plate 2-12 Years w/Attaching HDW
251725	Flat Large Play Safe Plate 5-12 Years w/Attaching HDW
251727	Flat Large Play Safe Plate 1.5-5 Years w/Attaching HDW
251728	Flat Large Play Safe Plate 1.5-12 Years w/Attaching HDW

251731	Flat Small Play Safe Plate 6-23 Month w/Attaching HDW
251729	Flat Small Play Safe Plate 2-5 Years w/Attaching HDW
251730	Flat Small Play Safe Plate 2-12 Years w/Attaching HDW
251735	Flat Small Play Safe Plate 5-12 Years w/Attaching HDW
251732	Flat Small Play Safe Plate 1.5-5 Years w/Attaching HDW
251733	Flat Small Play Safe Plate 1.5-12 Years w/Attaching HDW

601 7TH STREET SOUTH, DELANO, MINNESOTA 55328-8605 888-574-4678 LSI Install Help 888-438-6574 LSI Direct 763-972-5200 Int. FAX (763) 972-3185

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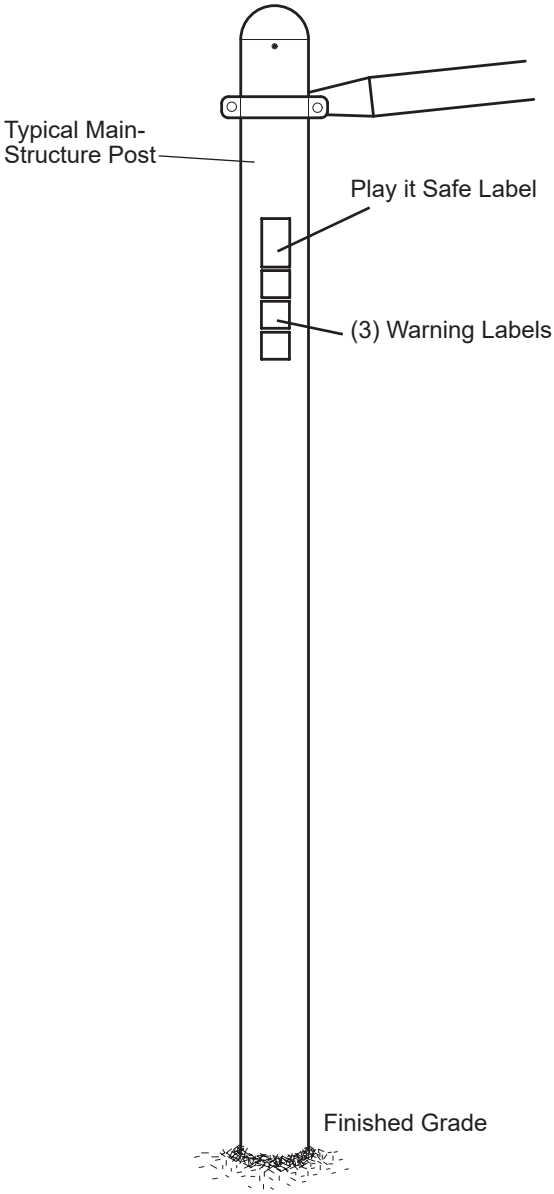
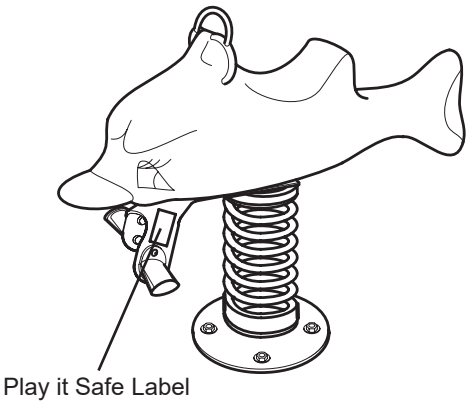
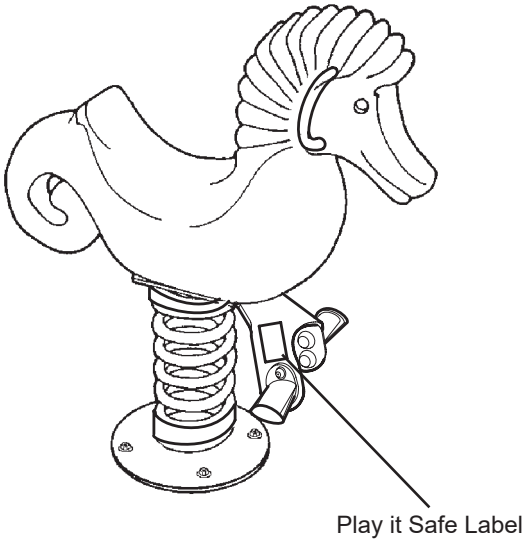
ISO 9001 Certified

SAFETY NOTE

Choose a protective surfacing material that has a Critical Height Value of at least the height of the Highest Accessible Part/Fall Height of the adjacent equipment. (Ref. ASTM F1487.)







Warning Labels

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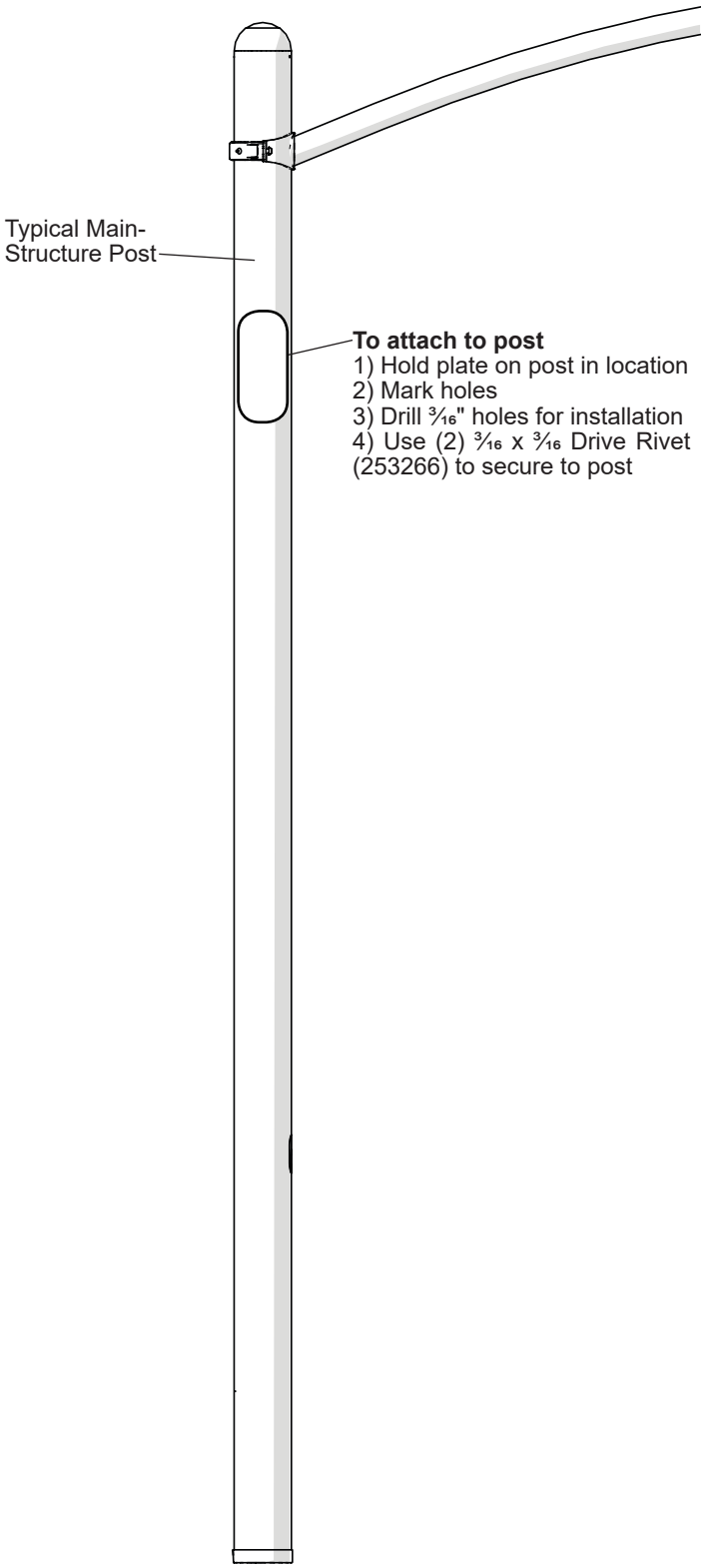
Document #25780600

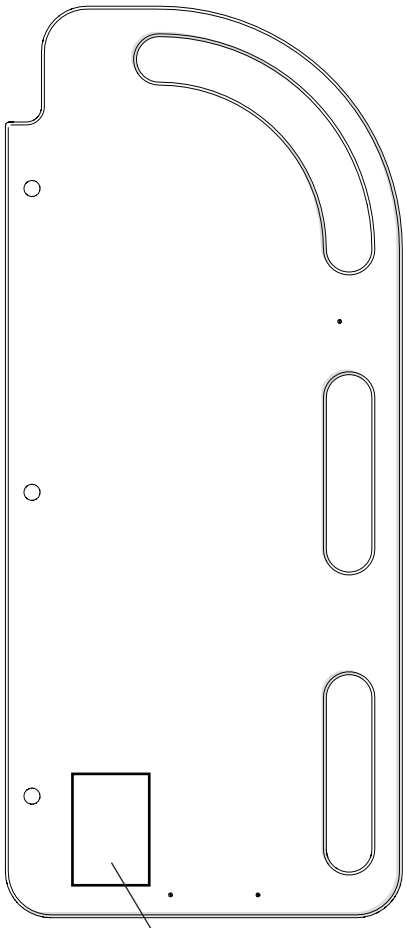
landscape structures

5" formed plate mounts to 5" posts.
3.5" formed plate mounts to 3.5" posts



To attach to post
1) Hold plate on post in location
2) Mark holes
3) Drill 3⁄16" holes for installation
4) Use (2) 3⁄16 x 3⁄16 Drive Rivet (253266) to secure to post

Large flat plate mounts to flat surfaces



To attach to permalene
1) Hold plate on surface in location
2) Mark holes
3) Drill ⅛" x $^1/_2$" deep holes for installation
4) Use (2) TorX #14 x ½ Cap Screw (129671) to attach to panel

PB/PS/FP/Evos®/Weevos®

Warning Labels

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Eco 0101597 Document #25780600 replaces #20151300. Added warning signs to document

Document #25780600

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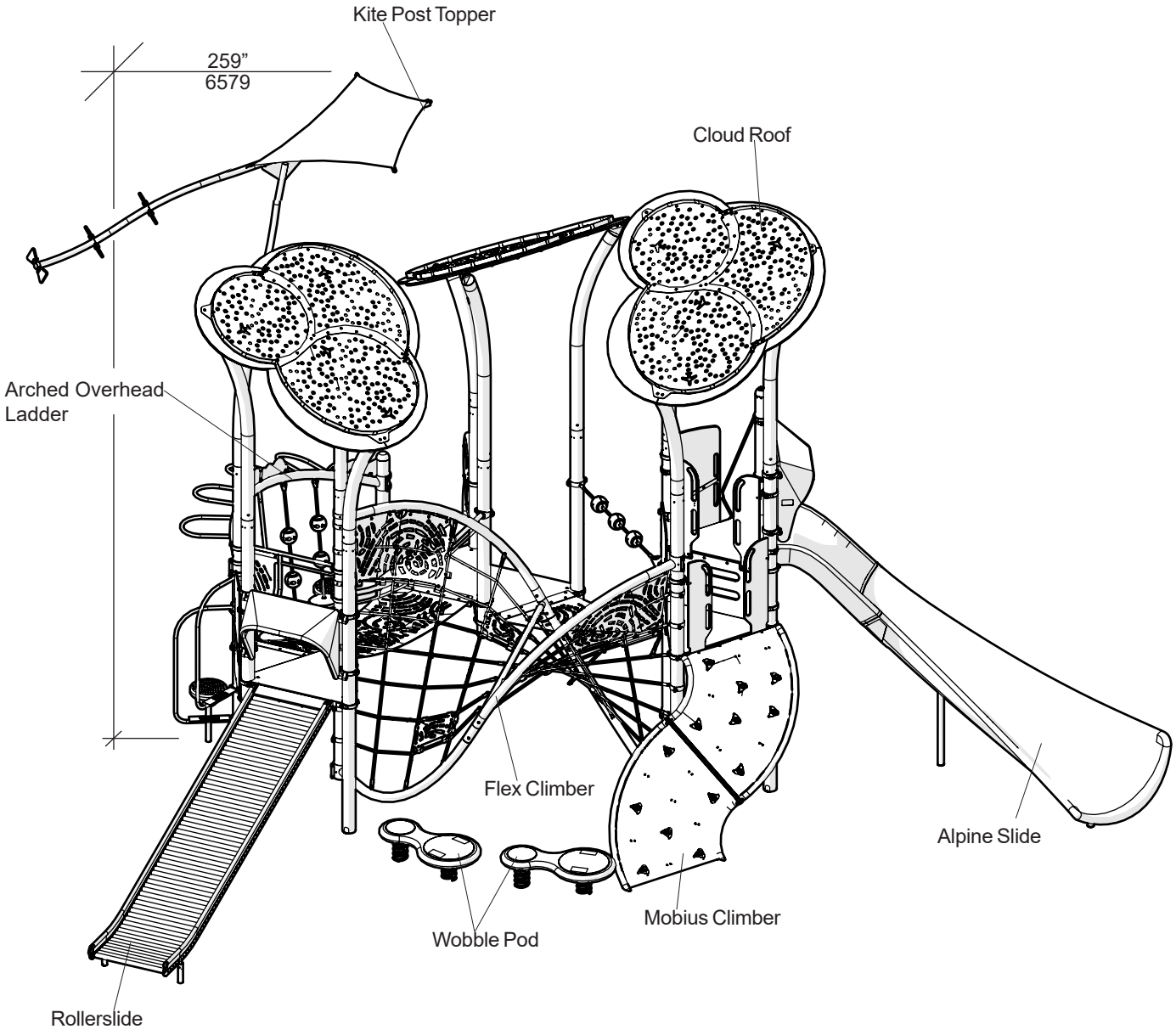
SAFETY NOTE

Choose a protective surfacing material that has a Critical Height Value of at least the height of the Highest Accessible Part/Fall Height of the adjacent equipment. (Ref. *ASTM F1487*.)



Billows™ Structure

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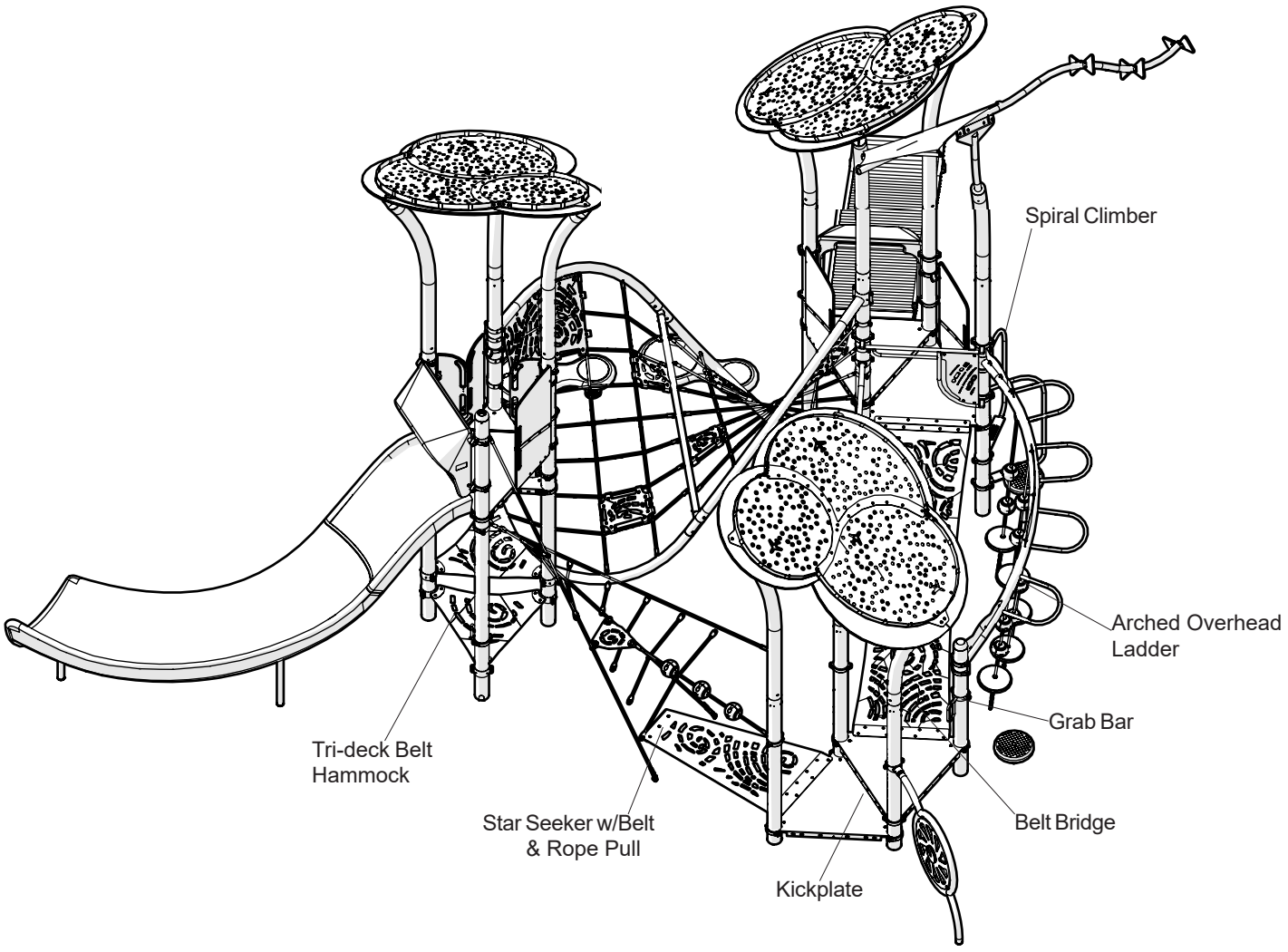

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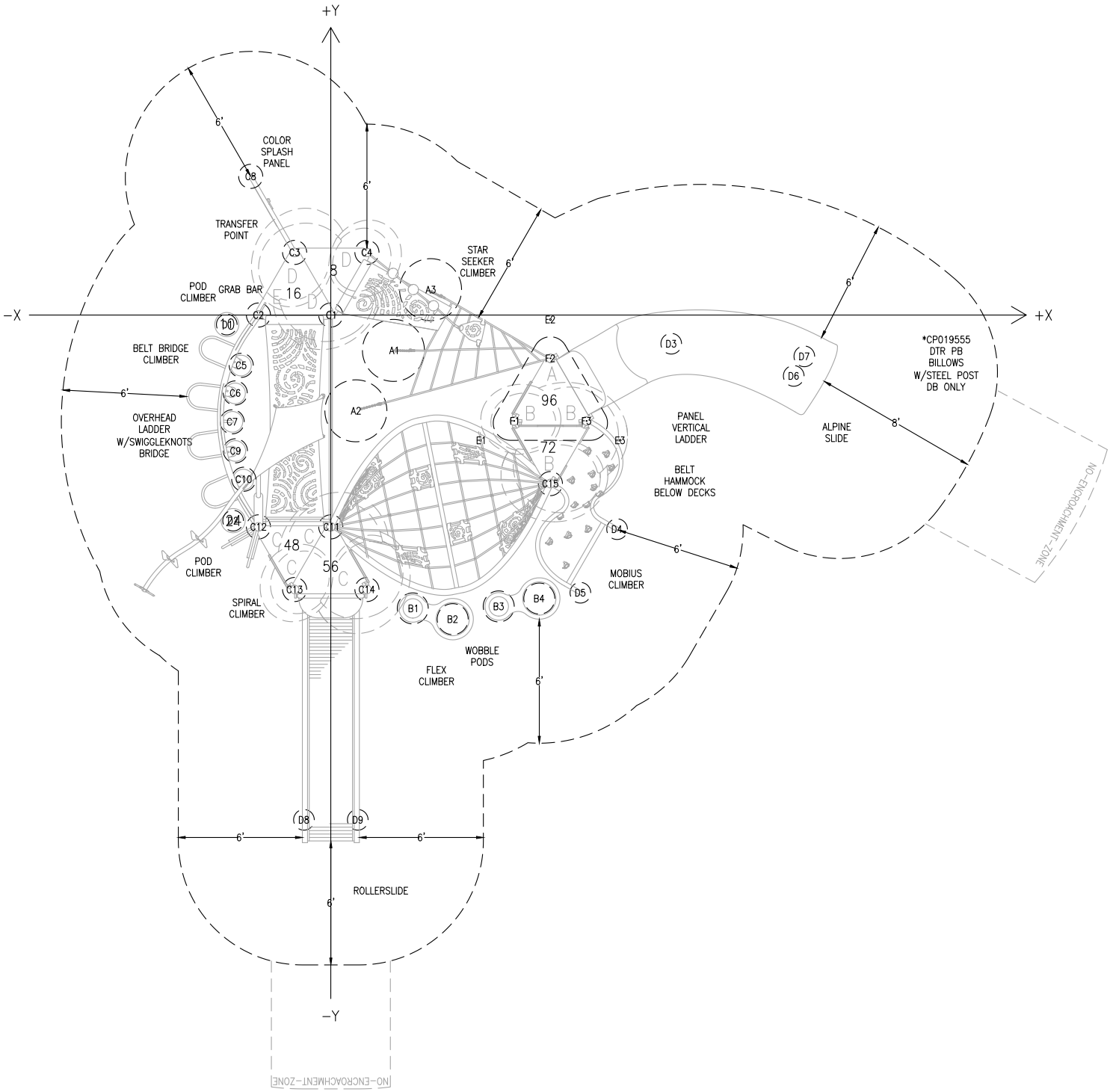

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QTY. POST/ARCH LENGTHS

1 A 190" Post DB (44" Bury) 217224
3 B 174" Steel Roof Post DB 107547
4 C 158" Alum Roof Post DB 107718
3 D 110" Steel Roof Post DB 128781
1 E 100" Alum Post DB 107685

N.	I.D.	X (ft-in)	Y (ft-in)	Dist. to O	DIA (in)
1	A1	3'-0 1/2"	-1'-8 1/2"	3'-6"	36
2	A2	1'-2 1/2"	-4'-7 1/2"	4'-9 1/2"	36
3	A3	4'-10"	1'-2 1/2"	5'	36
4	B1	3'-11 1/2"	-14'-2 1/2"	14'-9"	18
5	B2	5'-11"	-14'-8 1/2"	15'-10"	18
6	B3	8'-1 1/2"	-14'-1"	16'-3 1/2"	18
7	B4	10'-1"	-13'-8 1/2"	17'-0 1/2"	18
8	C1	0"	0"	0"	14
9	C2	-3'-6"	0"	3'-6"	14
10	C3	-1'-9"	3'-0 1/2"	3'-6"	14
11	C4	1'-9"	3'-0 1/2"	3'-6"	14
12	C5	-4'-4"	-2'-5"	4'-11 1/2"	14
13	C6	-4'-7 1/2"	-3'-9 1/2"	5'-11 1/2"	14
14	C7	-4'-9"	-5'-2"	7'-0 1/2"	14
15	C8	-3'-10 1/2"	6'-8 1/2"	7'-9"	14
16	C9	-4'-7 1/2"	-6'-7"	8'-0 1/2"	14
17	C10	-4'-2 1/2"	-7'-11 1/2"	9'	14
18	C11	0"	-10'-3"	10'-3"	14
19	C12	-3'-6"	-10'-3"	10'-10"	14
20	C13	-1'-9"	-13'-3 1/2"	13'-4 1/2"	14
21	C14	1'-9"	-13'-3 1/2"	13'-4 1/2"	14
22	C15	10'-7 1/2"	-8'-2"	13'-4 1/2"	14
23	D1	-5'-0 1/2"	-5 1/2"	5'-0 1/2"	12
24	D2	-4'-8 1/2"	-9'-11 1/2"	11'	12
25	D3	16'-5 1/2"	-1'-4 1/2"	16'-6 1/2"	12
26	D4	13'-10"	-10'-4 1/2"	17'-3 1/2"	12
27	D5	12'-1"	-13'-5 1/2"	18'-1"	12
28	D6	22'-5"	-2'-11 1/2"	22'-7"	12
29	D7	22'-11"	-2'	23'	12
30	D8	-1'-3 1/2"	-24'-5"	24'-5 1/2"	12
31	D9	1'-3 1/2"	-24'-5"	24'-5 1/2"	12
32	E1	7'-3"	-6'-1"	9'-5 1/2"	TRENCH
33	E2	10'-7 1/2"	-2 1/2"	10'-7 1/2"	TRENCH
34	E3	14'	-6'-0 1/2"	15'-3"	TRENCH
35	F1	8'-10 1/2"	-5'-1 1/2"	10'-3"	POST
36	F2	10'-7 1/2"	-2'-1"	10'-10"	POST
37	F3	12'-4 1/2"	-5'-1 1/2"	13'-4 1/2"	POST

C11 - 107718
C12 – 107718
C13 – 107718
C14 – 107718

C1 – 128781
C2 – 107685
C3 – 128781
C4 - 128781

F1 – 107547
F2 – 217224
F3 – 107547
C15 – 107547

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SAFETY NOTE

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FOOTING CHART FOR PLANNING ONLY, NOT FOR CONSTRUCTION

N.	I.D.	X (ft–in)	Y (ft–in)	Dist. to O	DIA (in)
1	A1	1'–8 1/2"	3'–0 1/2"	3'–6"	36
2	A2	4'–7 1/2"	1'–2 1/2"	4'–9 1/2"	36
3	A3	–1'–2 1/2"	4'–10"	5'	36
4	B1	14'–2 1/2"	3'–11 1/2"	14'–9"	18
5	B2	14'–8 1/2"	5'–11"	15'–10 1/2"	18
6	B3	14'–1"	8'–1 1/2"	16'–3 1/2"	18
7	B4	13'–8 1/2"	10'–1"	17'–0 1/2"	18
8	C1	0"	0"	0"	14
9	C2	0"	–3'–6"	3'–6"	14
10	C3	–3'–0 1/2"	–1'–9"	3'–6"	14
11	C4	–3'–0 1/2"	1'–9"	3'–6"	14
12	C5	2'–5"	–4'–4"	4'–11 1/2"	14
13	C6	3'–9 1/2"	–4'–7 1/2"	5'–11 1/2"	14
14	C7	5'–2"	–4'–9"	7'–0 1/2"	14
15	C8	–6'–8 1/2"	–3'–10 1/2"	7'–9"	14
16	C9	6'–7"	–4'–7 1/2"	8'–0 1/2"	14
17	C10	7'–11 1/2"	–4'–2 1/2"	9'	14
18	C11	10'–3"	0"	10'–3"	14
19	C12	10'–3"	–3'–6"	10'–10"	14
20	C13	13'–3 1/2"	–1'–9"	13'–5"	14
21	C14	13'–3 1/2"	1'–9"	13'–5"	14
22	C15	8'–2"	10'–7 1/2"	13'–5"	14
23	D1	5 1/2"	–5'–0 1/2"	5'–0 1/2"	12
24	D2	9'–11 1/2"	–4'–8 1/2"	11'	12
25	D3	1'–4 1/2"	16'–5 1/2"	16'–6 1/2"	12
26	D4	10'–6 1/2"	14'–1 1/2"	17'–7 1/2"	12
27	D5	13'–7 1/2"	12'–4"	18'–4 1/2"	12
28	D6	2'–11 1/2"	22'–5"	22'–7"	12
29	D7	2'	22'–11"	23'	12
30	D8	24'–5"	–1'–3 1/2"	24'–5 1/2"	12
31	D9	24'–5"	1'–3 1/2"	24'–5 1/2"	12
32	E1	6'–1"	7'–3"	9'–5 1/2"	TRENCH
33	E2	2 1/2"	10'–7 1/2"	10'–7 1/2"	TRENCH
34	E3	6'–0 1/2"	14'	15'–3"	TRENCH
35	F1	5'–1 1/2"	8'–10 1/2"	10'–3"	REF PT
36	F2	2'–1"	10'–7 1/2"	10'–10"	REF PT
37	F3	–11'–5"	0"	11'–5"	REF PT
38	F4	0"	–12'–1 1/2"	12'–1 1/2"	REF PT
39	F5	5'–1 1/2"	12'–4 1/2"	13'–5"	REF PT
40	F6	31'–5 1/2"	0"	31'–5 1/2"	REF PT
41	F7	0"	31'–7"	31'–7"	REF PT
42	F8	7'–2 1/2"	30'–9 1/2"	31'–7 1/2"	REF PT

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SAFETY NOTE

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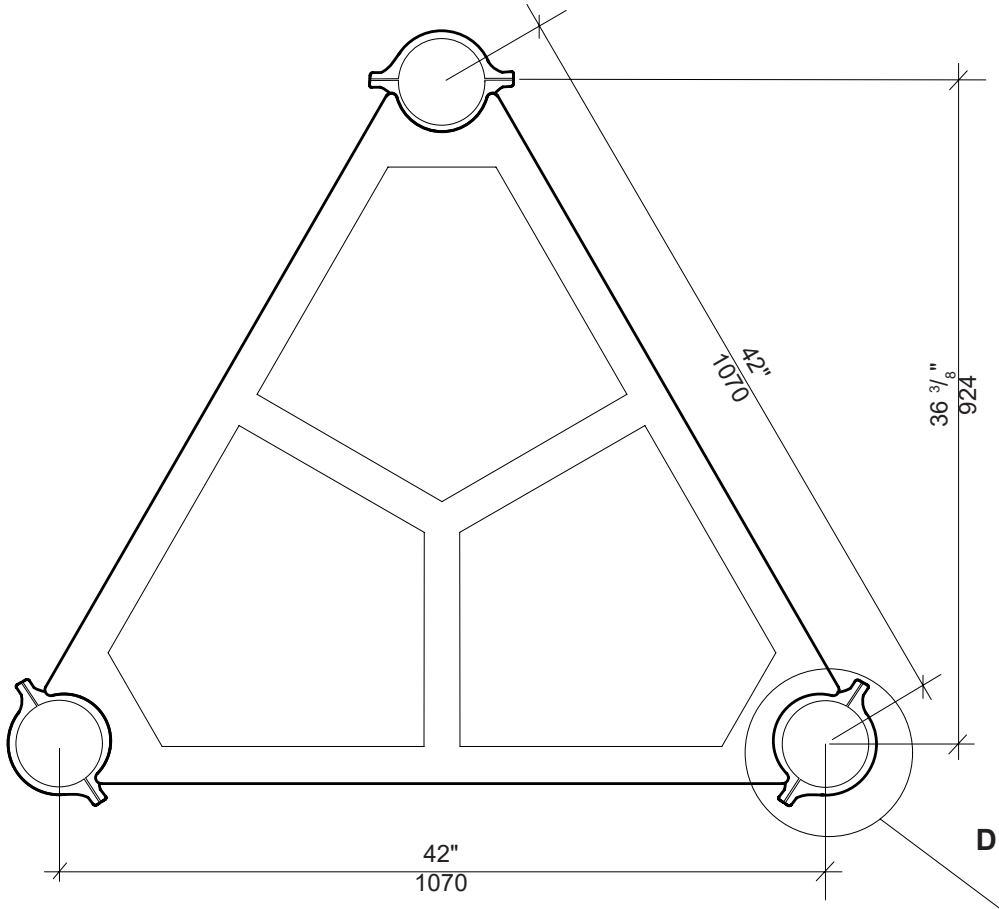
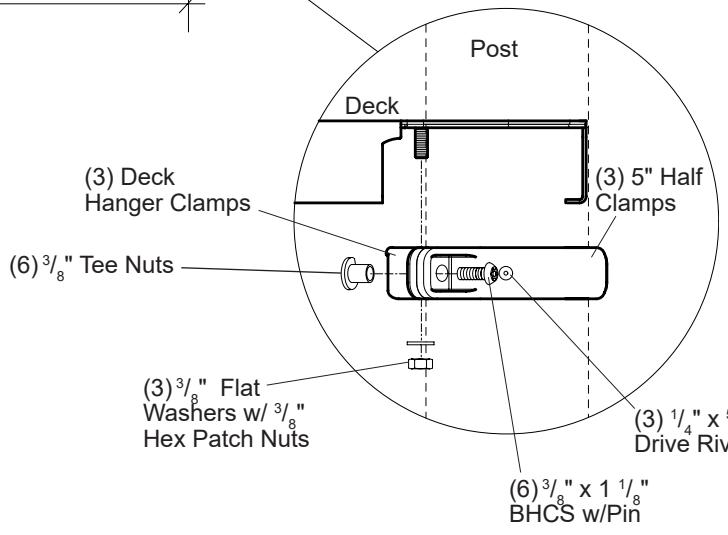
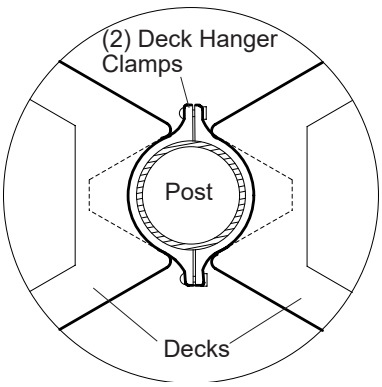
TRI DECK



DETAIL
DECK HANGER CLAMP



DETAIL



Configuration for Back to Back Decks at Same Height.

Billows™ Structure

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Document #28332801

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Parts List

Part#	Description	Qty.
145657	Tri-Deck, Specify Color	1
105327	5" Half Clamp, Specify Color	3
106022	Deck Hanger Clamp, Specify Color	3
	Triangular Deck Hardware Package	1
100198	3/8" x 1 1/8" BHCS w/Pin, SST	6
100321	3/8" Hex Patch Nut, SST	3
100351	3/8" Tee Nut, SST	6
100362	3/8" Flat Washer, SST	3
100610	1/4" x 5/8" Drive Rivet, AL/SST	3

Specifications

Triangular Deck: Flange formed from 12 GA (.105") sheet steel conforming to ASTM A1011. Standing surface is perforated with 5/16" diameter holes. Deck face has (4) slotted holes for face mounting components. The finished size measures 2 5/8" x 37 3/4". Finish: TenderTuff™, color specified.

Deck Hanger Clamp Assembly: Cast aluminum. Finish: ProShield®, color specified.

Fasteners: Primary fasteners shall be socketed and pinned tamperproof in design, stainless steel (SST) per ASTM F 879 unless otherwise indicated (see specific product installation/specifications).

Installation Time: Approx. 1/2 man hour

Weight: 61 lbs.

Installation Instructions

1) Mark posts for the appropriate height of the deck you are installing.
2) Fasten deck hanger clamps to marked position on posts. See Detail on the front of this sheet.
3) Lift deck assembly into position, lining up stud underneath deck with deck hanger clamp as shown. Attach using 3/8" hex patch nuts with 3/8" flat washers. With deck level and posts plumb, final tighten all hardware.
4) Install 1/4" x 5/8" drive rivets in all 5" half clamps. Refer to the Typical Offset Hanger Clamp Spec Sheet.
5) After attachment of enclosures and components is complete, pour concrete footings. Allow concrete footings to cure a minimum of 72 hours before users are allowed to play on the structure.
6) Install protective surfacing before users are allowed to play on the structure.

Eco #52268 Document #14582400 replaces #13954200. Replaced Tri-Deck.

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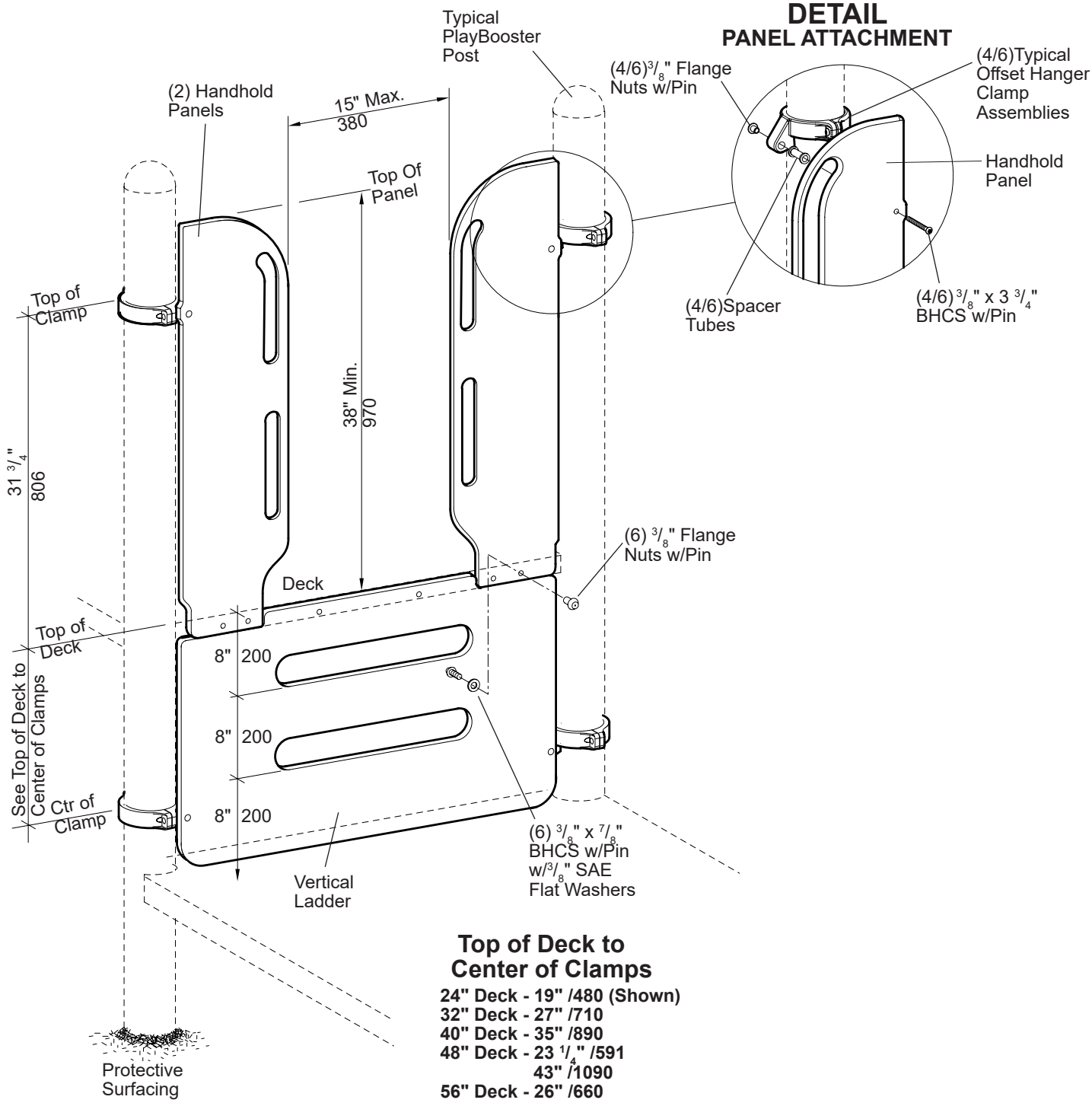
VERTICAL LADDER



Top of Deck to Center of Clamps

24" Deck - 19" /480 (Shown)
32" Deck - 27" /710
40" Deck - 35" /890
48" Deck - 23 1/4" /591
43" /1090
56" Deck - 26" /660
51" /1300
64" Deck - 31 1/4" /794
59" /1500
72" Deck - 34" /860
67" /1700

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Parts List

Part#	Description	Qty.
142120	24" Vertical Ladder Panel, Specify Color	1
142119	32" Vertical Ladder Panel, Specify Color	1
142118	40" Vertical Ladder Panel, Specify Color	1
142117	48" Vertical Ladder Panel, Specify Color	1
142116	56" Vertical Ladder Panel, Specify Color	1
142115	64" Vertical Ladder Panel, Specify Color	1
142114	72" Vertical Ladder Panel, Specify Color	1
139563	Handhold Panel, Specify Color	2
105327	5" Half Clamp, Specify Color	4/6
113729	Offset Hanger Clamp, Specify Color	4/6
113468	Spacer Tube, Specify Color	4/6
100198	3/8" x 1 1/8" BHCS w/Pin, SST	8/12
100351	3/8" Tee Nut, SST	8/12
	(24" through 40") Tenderdeck Hardware Pkg.	1
124460	3/8" x 3 3/4" BHCS w/Pin, SST	4
100196	3/8" x 7/8" BHCS w/Pin, SST	6
100353	3/8" Flange Nut w/Pin, SST	10
100365	3/8" SAE Flat Washer, SST	6
	(48" through 72") Tenderdeck Hardware Pkg.	1
124460	3/8" x 3 3/4" BHCS w/Pin, SST	6
100196	3/8" x 7/8" BHCS w/Pin, SST	6
100353	3/8" Flange Nut w/Pin, SST	12
100365	3/8" SAE Flat Washer, SST	6

Specifications

HandholdPanel/ Vertical Ladder: Solid color Permalene®, color specified.

Spacer Tube: Made from 6061-T6 aluminum 7/8" O.D. x 1 11/16". Finish: ProShield®, color specified.

Offset Hanger Clamp Assembly: Cast aluminum. Finish: ProShield, color specified.

Fasteners: Primary fasteners shall be socketed and pinned tamperproof in design, stainless steel (SST) per ASTM F 879 unless otherwise indicated (see specific product installation/specifications).

Installation Time: 24"-40" - Approx. 1 1/4 man hour
48"-72" - Approx. 1 1/2 man hour

Weight: 24" Vertical Ladder - 40 lbs.
32" Vertical Ladder - 48 lbs.
40" Vertical Ladder - 54 lbs.
48" Vertical Ladder - 63 lbs.
56" Vertical Ladder - 68 lbs.
64" Vertical Ladder - 75 lbs.
72" Vertical Ladder - 81 lbs.

Installation Instructions

1) Attach vertical ladder and handhold panels to the face of the deck using 3/8" x 7/8" BHCS w/pin with 3/8" SAE flat washers and 3/8" flange nuts w/pin, as shown.

2) Attach offset hanger clamps to posts at heights shown. Using half clamps and 3/8" x 1 1/8" BHCS w/pin with 3/8" tee nuts. Refer To The Typical Offset Hanger Clamp Spec Sheet.

3) Using a 3/8" drill bit, drill out the lower set of 1/8" pilot holes in ladder. **NOTE:** *If there is a clamp conflict using the holes in this position, drill out and use the upper set of holes instead.*

4) Attach vertical ladder and handhold panels to the offset hanger clamp assemblies using 3/8" x 3 3/4" BHCS w/pin, spacer tubes and 3/8" flange nuts w/pin. See Panel Attachment Detail.

5) Install protective surfacing before users are allowed to play on the structure.

Eco #51521 Document #14208200 replaces #13991600. Replaced handhold panels & vertical ladder panels.

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SAFETY NOTE

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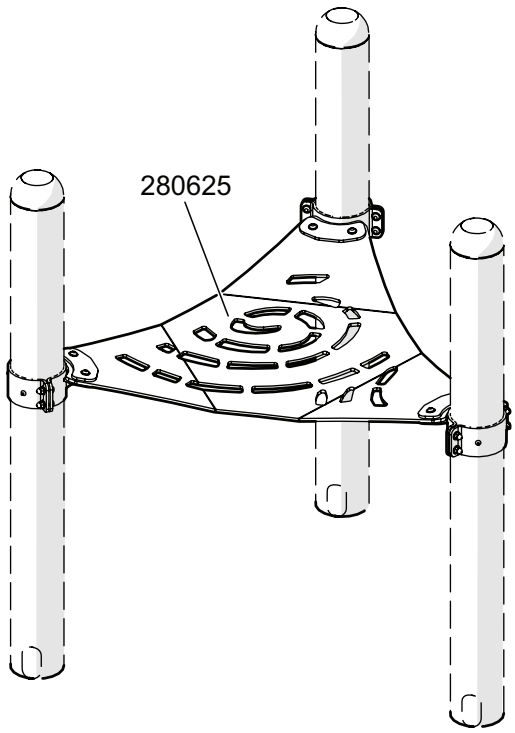
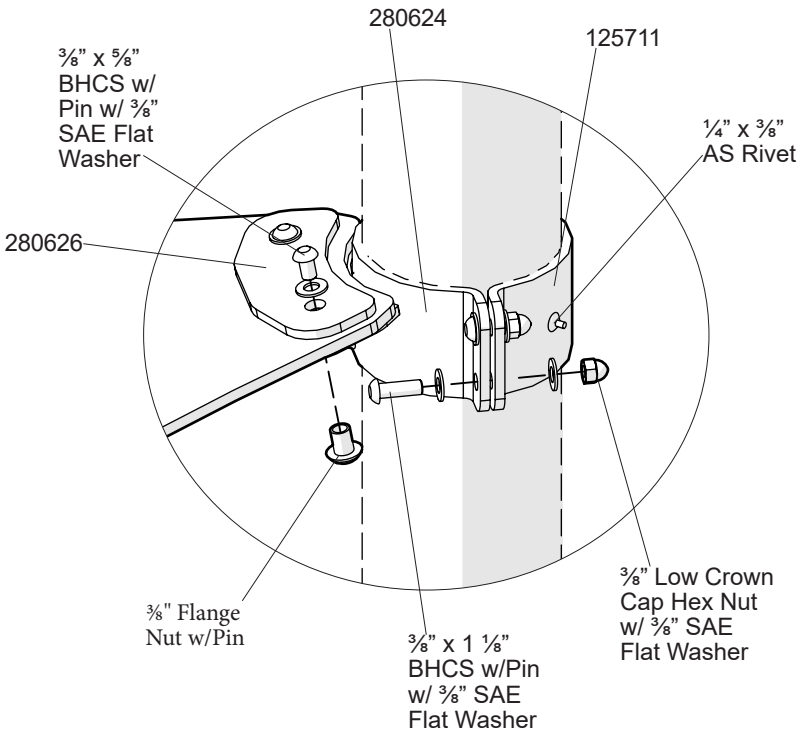
TRI DECK BELT HAMMOCK





Parts List

PART NUMBER	DESCRIPTION	QTY.
280626	CUST BELT ATCH PLATE PNT	3
280625	CUST TRI-DECK HAMMOCK BELT	1
280624	CUST BELT ATCH CLAMP PNT	3

125711	HALF CLMP 3iWD 2/HOLE PNT	3
100611	RVT 1/4X3/8 AS (GRIP=.328/.422)	6
100365	WASHER FLAT SAE 3/8i SST	30
100353	FLG NUT 6LP 3/8-16 SST	6
100349	3/8 HEX NUT L/C CAP	12
100198	BHCS 6LP 3/8x1-1/8i SST	12
100195	BHCS 6LP 3/8x5/8i SST	6

Installation Instructions

1) Assemble structure following steps and details shown. Use 2D layout as a reference.

2) Install protective surfacing before users are allowed to play on the structure.

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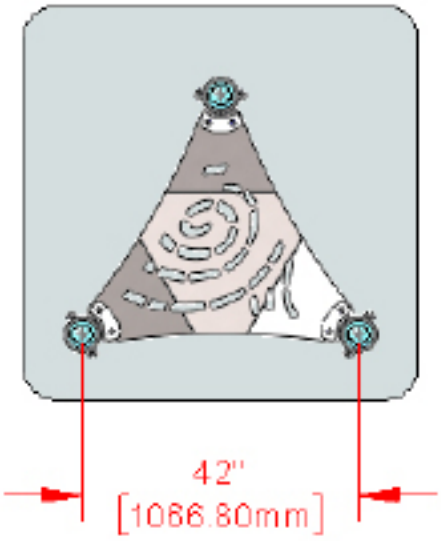

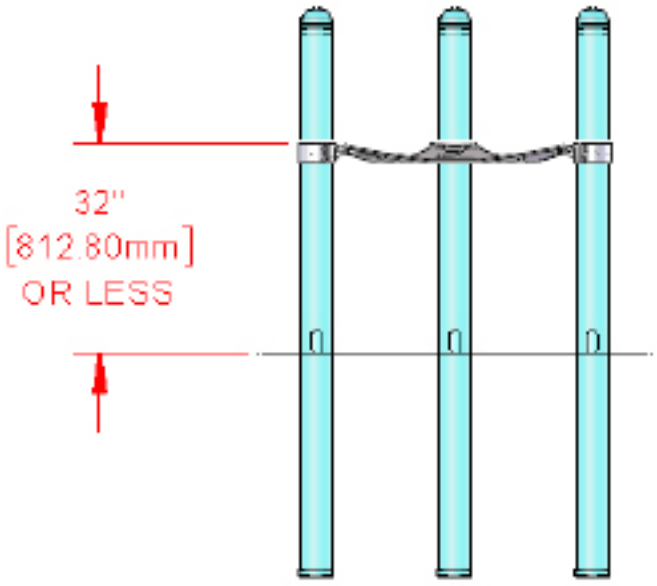

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SAFETY NOTE

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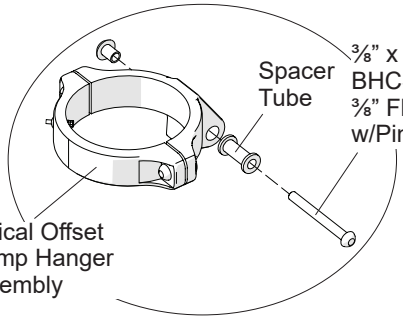
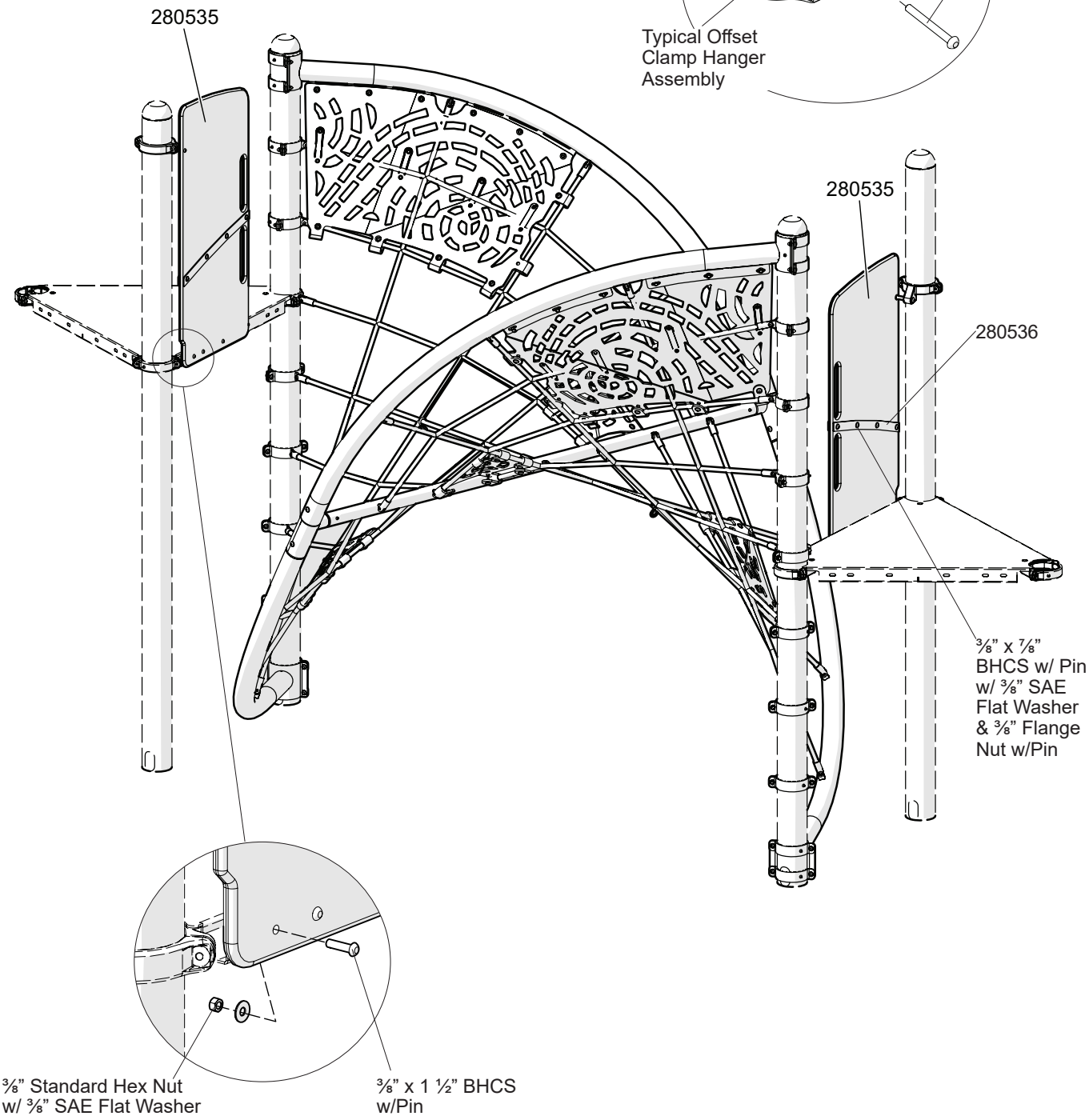
FLEX CLIMBER

DETAIL
CLAMP ATTACHMENT





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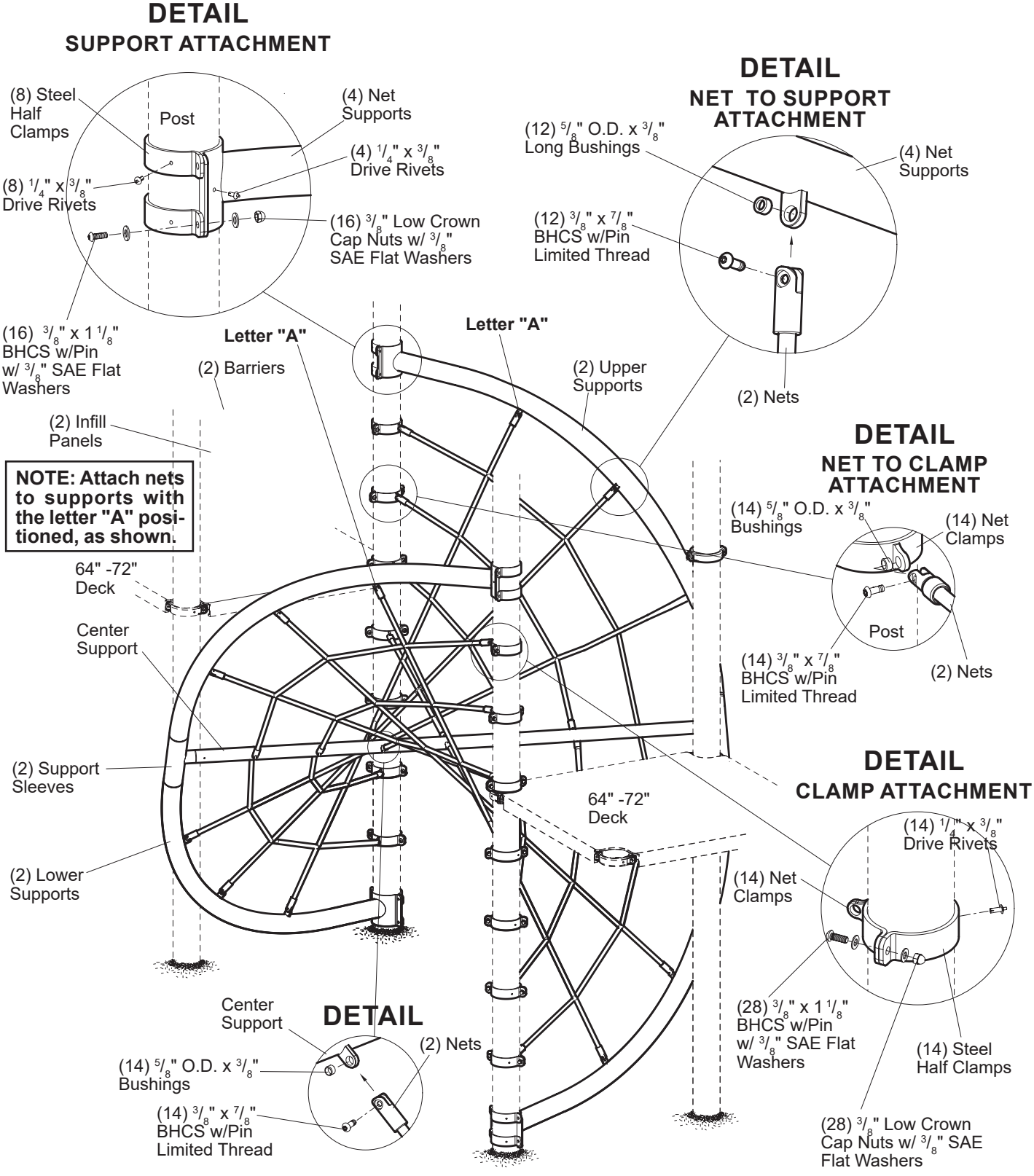

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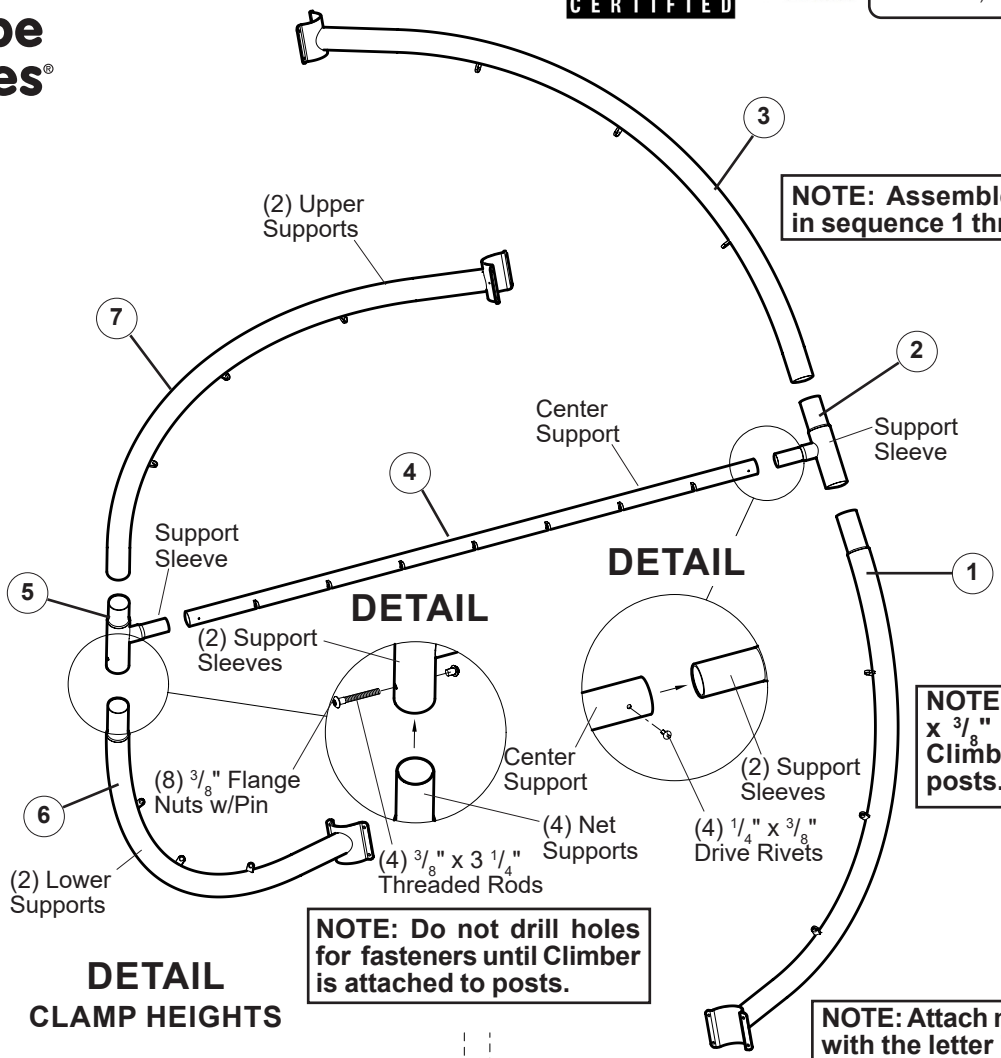
DETAIL
CLIMBER ASSEMBLY



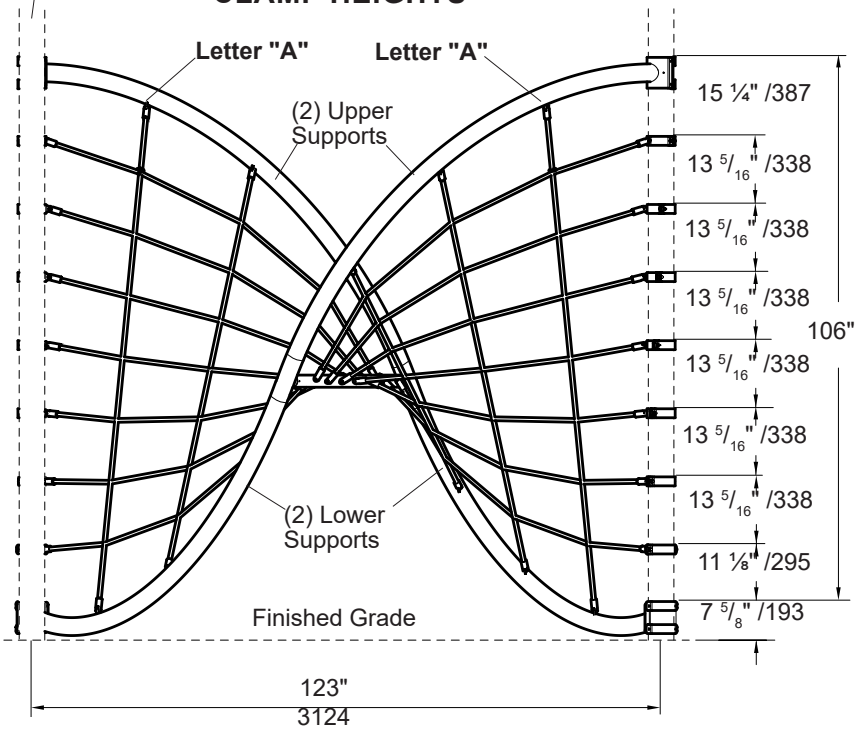
NOTE: Assemble climber in sequence 1 thru 7.

NOTE: Do not install 1/4" x 3/8" drive rivets until Climber is attached to posts.

NOTE: Do not drill holes for fasteners until Climber is attached to posts.

NOTE: Attach nets to supports with the letter "A" positioned, as shown.

DETAIL
CLAMP HEIGHTS



NOTE: Lower all clamps if there is a clamp conflict.

All Dimensions Are From Top Of Clamp

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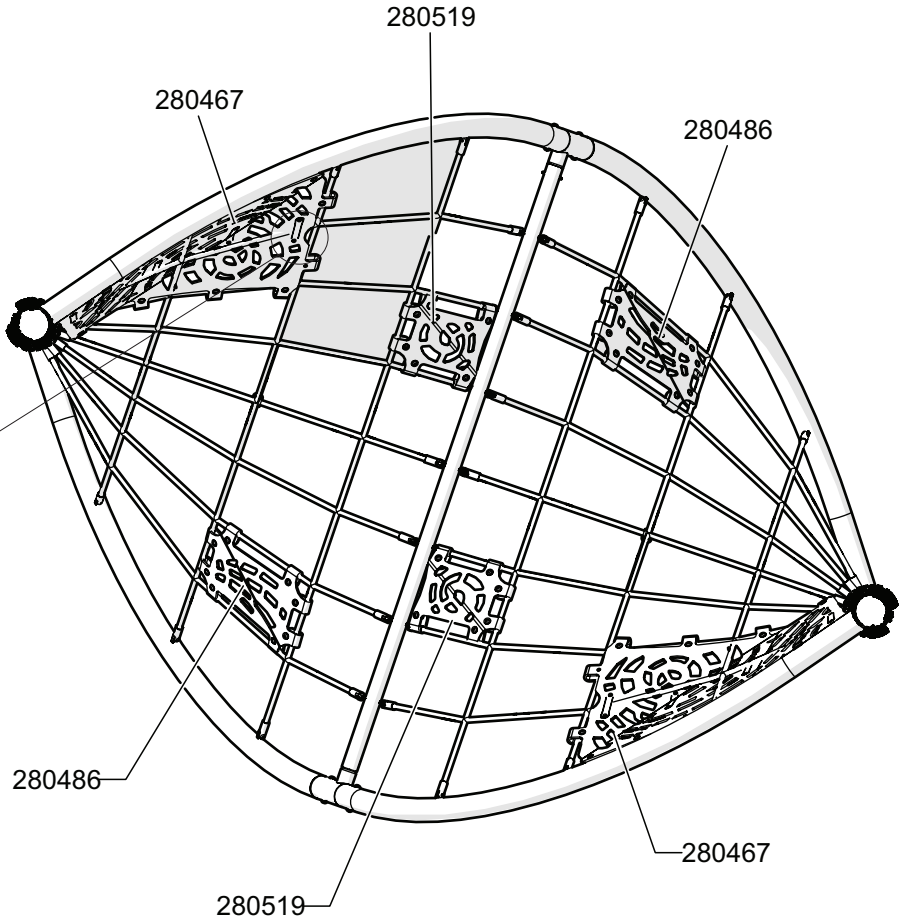
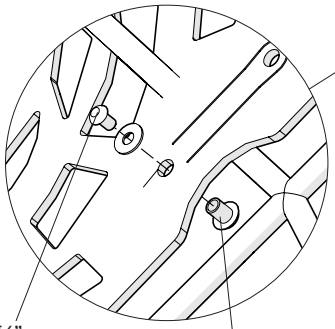
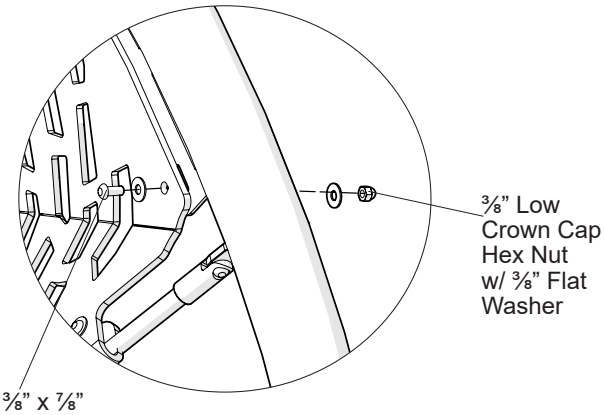


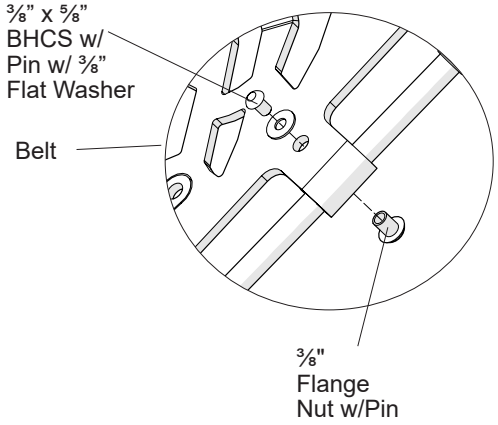
DETAIL
BELT STRAP ATTACHMENT



DETAIL
BELT TO FLANGE ATTACHMENT



DETAIL
BELT ATTACHMENT



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SAFETY NOTE

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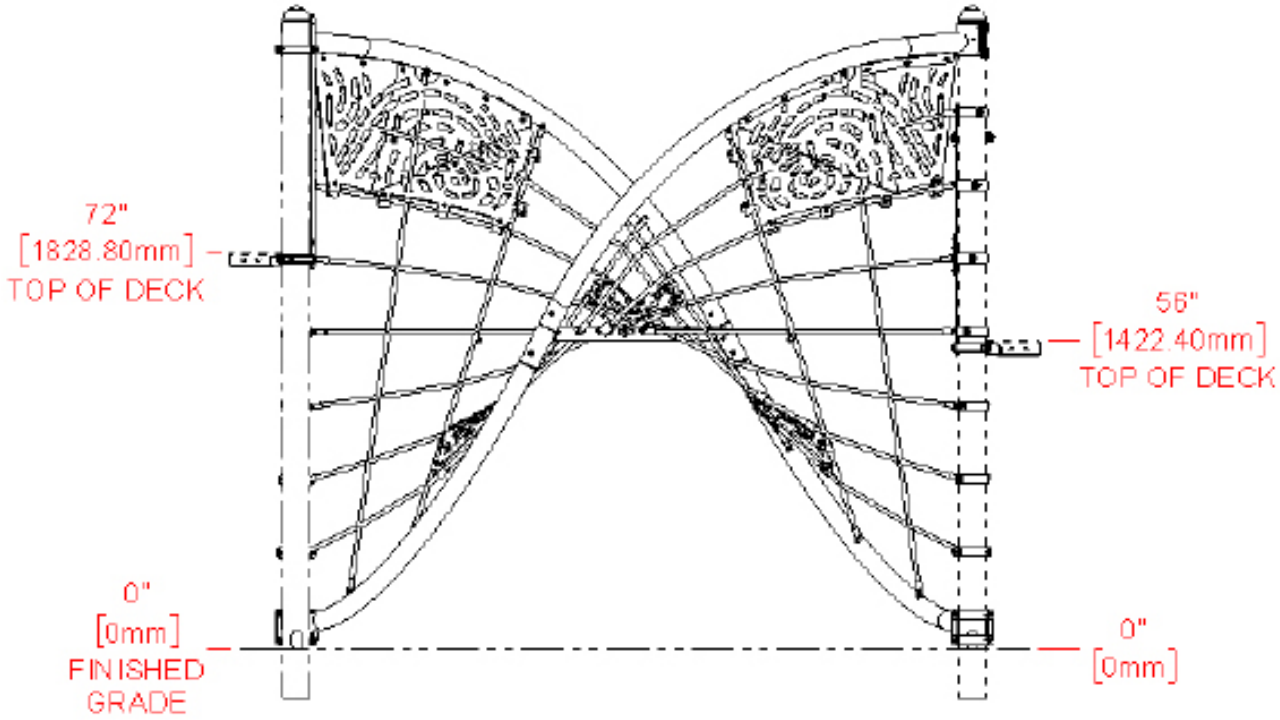

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SAFETY NOTE

Choose a protective surfacing material that has a Critical Height Value of at least the height of the Highest Accessible Part/Fall Height of the adjacent equipment. (Ref. *ASTM F1487*.)

Parts List

PART NUMBER	DESCRIPTION	QTY.
280536	CUST 3/4 BARRIER ACCENT STRIPE PNT	4
280535	CUST 3/4 BARRIER PERM	2
280519	CUST FLEX CLIMBER IN-FILL 3 BELT	2
280486	CUST FLEX CLIMBER IN-FILL 2 BELT	2
280478	CUST FLEX CLIMBER SPRT FEMALE PNT	2
280467	CUST FLEX CLIMBER IN-FILL 1 BELT	2
202623	BK FLEX CLIMBER NET	2
201311	FLEX CLIMBER SLEEVE PNT	2
201306	DOUBLE HELIX LOWER NET SUPPORT	2
192608	HELIX CENTER SPRT	1
176539	THD ROD 3/8X3-1/4 SST PAT	4
161898	PROPRIETARY NET CLMP	14
127179	BUSH 5/8OD X 3/8 LG SST	40
124460	BHCS 6LP 3/8x3-3/4i SST	2
113729	CLAMP OFFSET 5 RAIL HGR	2
113468	TUBE 7/8OD X 1-11/16 PNT	2
105327	CLMP HALF 5 AL	2
104731	CLMP HALF 1-3/4i STL	22
100611	RVT 1/4X3/8 AS (GRIP=.328/.422)	30
100610	RVT 1/4X5/8 AS (GRIP=.578/.672)	2
100365	WASHER FLAT SAE 3/8i SST	96
100362	WASHER FLAT 3/8i SST	82
100353	FLG NUT 6LP 3/8-16 SST	70
100351	MOD T-NUT 3/8-16 SST	4
100349	3/8 HEX NUT L/C CAP	56
100327	HEX NUT STD 3/8-16 SST	6
100290	BHCS 6LP LTHD 3/8X7/8iSST	40
100198	BHCS 6LP 3/8x1-1/8i SST	48
100196	BHCS 6LP 3/8x7/8i SST	20
100195	BHCS 6LP 3/8x5/8i SST	52
100171	BHCS 6LP 3/8x1-1/2iSSTPAT	6

Installation Instructions

1) Assemble structure following steps and details shown. Use 2D layout as a reference.

2) Install protective surfacing before users are allowed to play on the structure.

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Specifications

Cable Assembly: **(Cable)** Made of tightly woven polyester-wrapped, six-stranded galvanized-steel cable with a polypropylene core. **(Cable Connectors)** 6063-T6 aluminum.

Net Support: Weldment comprised of 3.500" (88,9 mm) O.D. RS20 .125" (3,18 mm) wall galvanized steel tubing, $^{3}/_{8}$" (9,53 mm) thick SST plate, and $^{1}/_{4}$" (6,35 mm) HRPO flat steel. Finish: ProShield®, color specified.

Center Support: Weldment comprised of 2.375" (60,33 mm) O.D. RS40 (.130" - .140") (3,30 mm-3,56 mm) wall galvanized steel tubing and $^{3}/_{8}$" (9,53 mm) thick SST plate. Finish: ProShield, color specified.

Support Sleeve: Weldment comprised of 3.500" (88,9 mm) O.D. RS20 .125" (3,18 mm) wall galvanized steel tubing, and 2.375" (60,33 mm) O.D. RS40 (.130" - .140") (3,30 mm-3,56 mm) wall galvanized steel tubing. Finish: ProShield, color specified.

Infill Panel: Recycled Permalene®, color specified.

Barrier: Weldment comprised of 1.125" (28,58 mm) O.D. 11 Ga. (.120") (3,05 mm) wall steel tube per ASTM A513 with 203 or 303 stainless steel threaded inserts with $^{5}/_{8}$" (15,88 mm) internal threads and $^{1}/_{4}$" (6,35 mm) tabs. Finish: TenderTuff®, color specified.

Steel Half Clamps: Fabricated from of $^{1}/_{4}$" (6,35 mm) HRPO flat steel. Finish: ProShield, color specified.

Net Clamp: Weldment comprised of $^{1}/_{4}$" (6,35 mm) x 1 $^{3}/_{4}$" (44,45 mm) HRPO flat steel and .375" (9,53 mm) stainless steel sheet. Finish: ProShield, color specified.

5" Clamps: Cast aluminum. Finish: ProShield, color specified.

Fasteners: Primary fasteners shall be socketed and pinned tamperproof in design, stainless steel (SST) per ASTM F 879 unless otherwise indicated (see specific product installation/specifications).

Installation Time: Approx. 6 man hours
Weight: 393 lbs.
Fall Height: 99" (2,51 m)

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SAFETY NOTE

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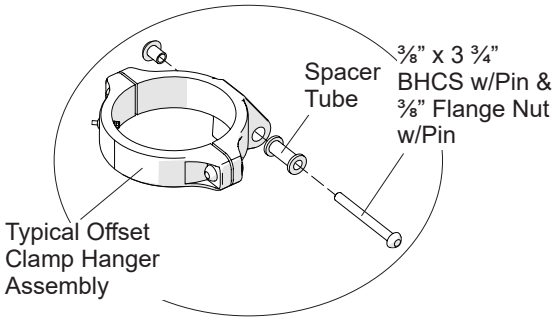
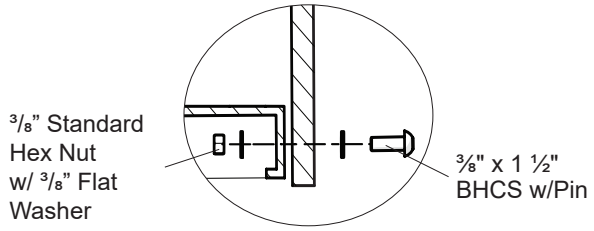
STAR SEEKER

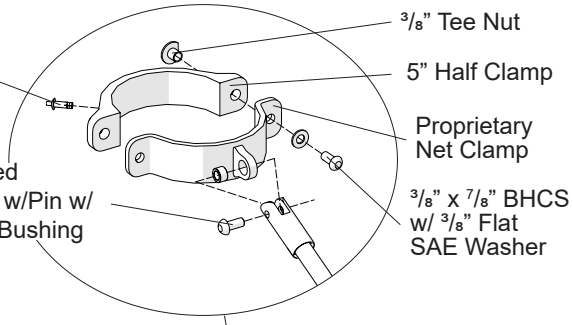
DETAIL
CLAMP/PERM ATTACHMENT

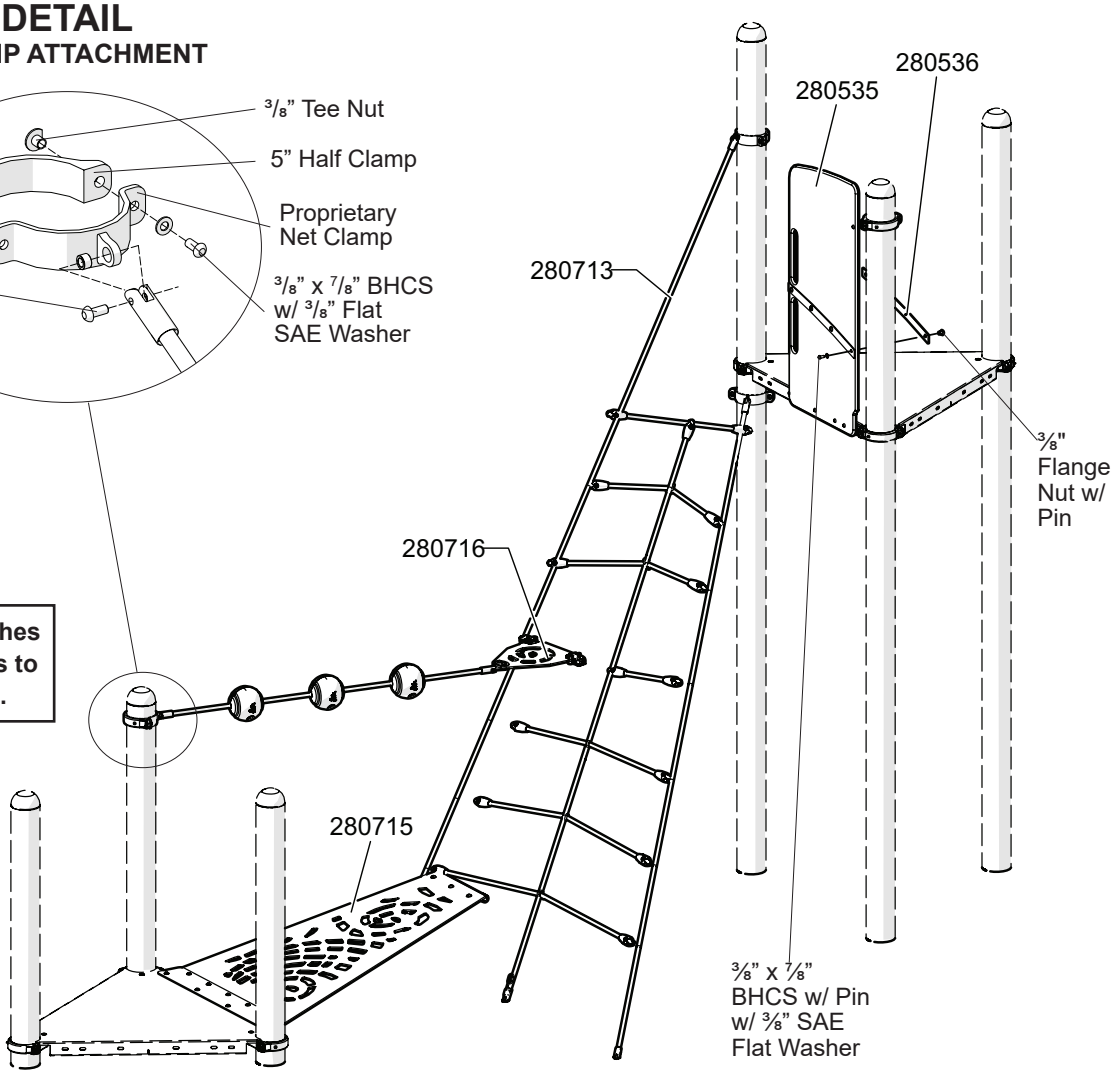


DETAIL
DECK ATTACHMENT



DETAIL
CLAMP ATTACHMENT





NOTE: 280716 has notches on the flap that attaches to the rope with ball knots.

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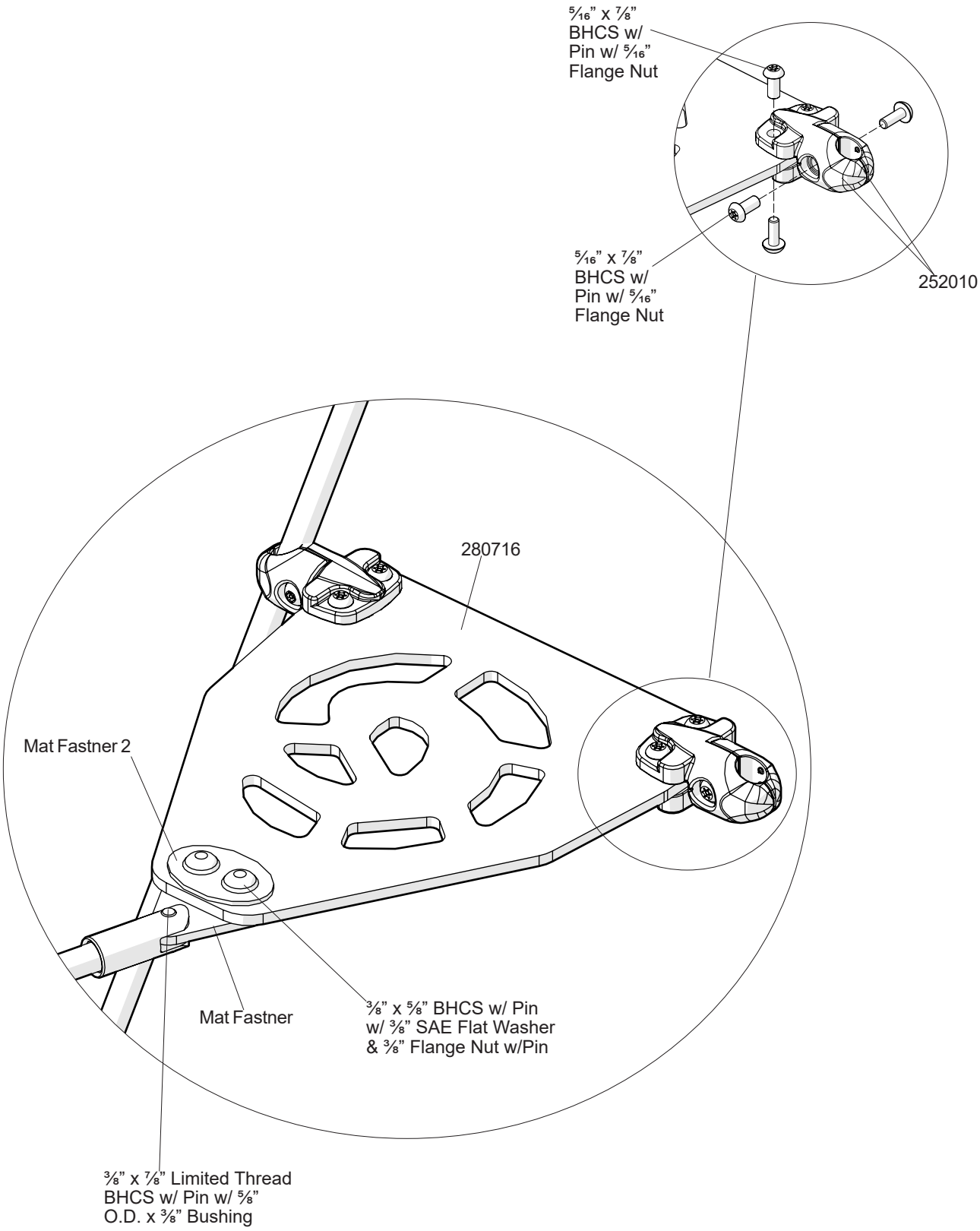

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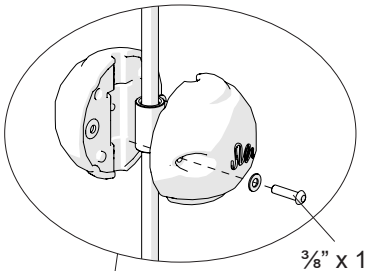
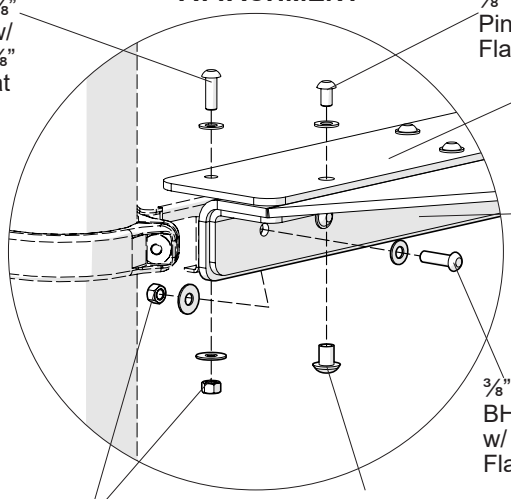
DETAIL
SWIGGLEKNOT ATTACHMENT



⅜" x 1 ½" BHCS w/Pin w/ ⅜" SAE Flat Washer

DETAIL
BELT TO DECK ATTACHMENT



⅜" x 1 ⅛" BHCS w/ Pin w/ ⅜" SAE Flat Washer

⅜" x ⅝" BHCS w/ Pin w/ ⅜" SAE Flat Washer

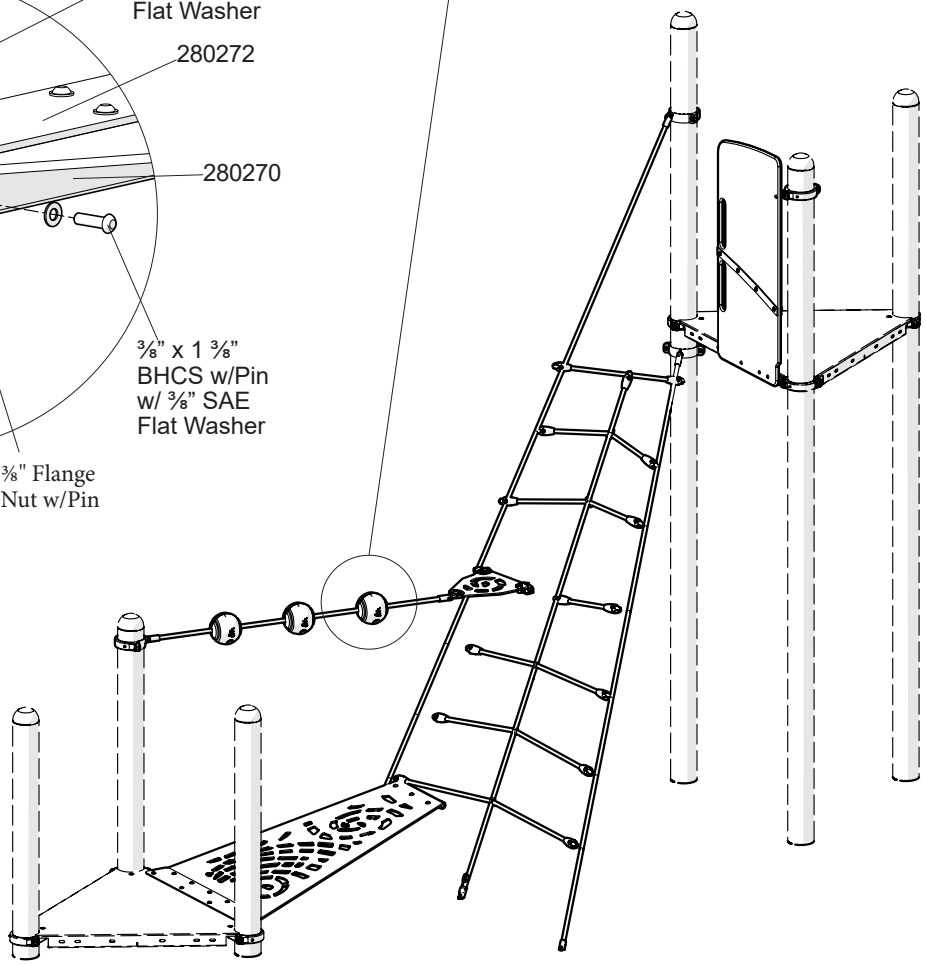
280272

280270

⅜" x 1 ⅜" BHCS w/Pin w/ ⅜" SAE Flat Washer

⅜" Flange Nut w/Pin

⅜" Standard Hex Nut w/ ⅜" Flat Washer



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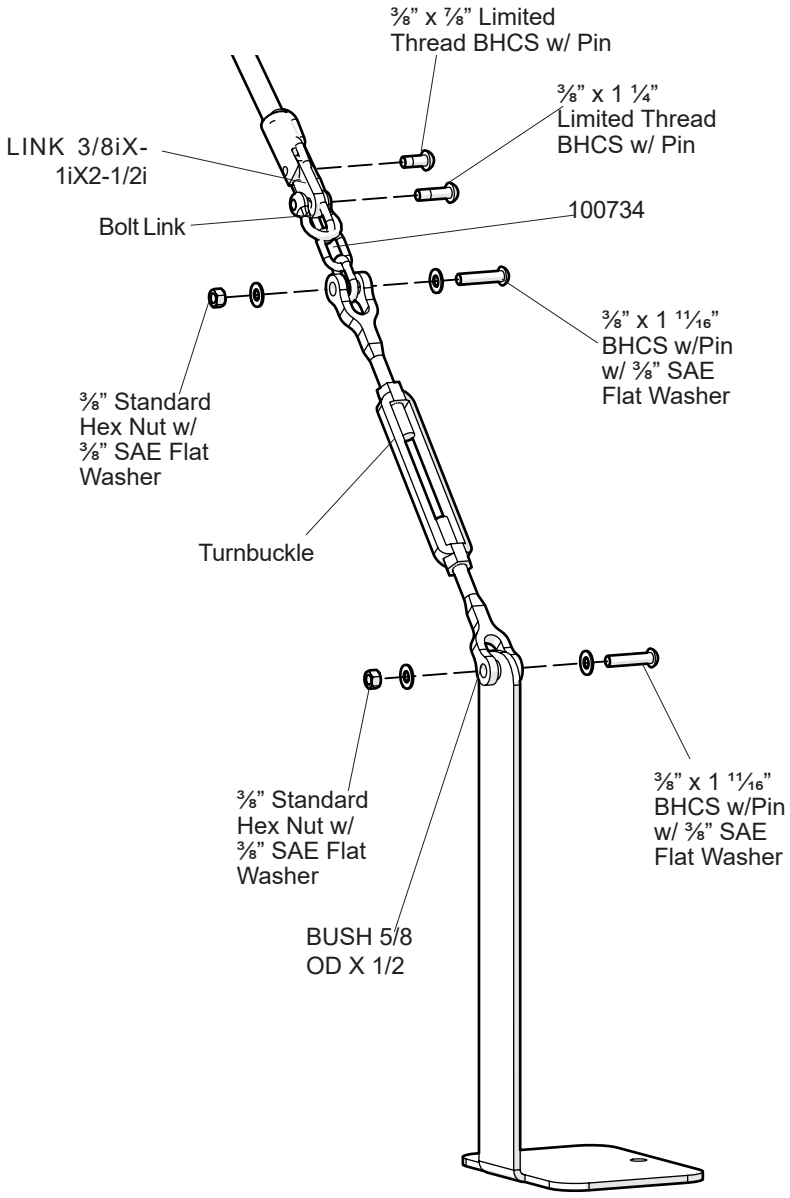

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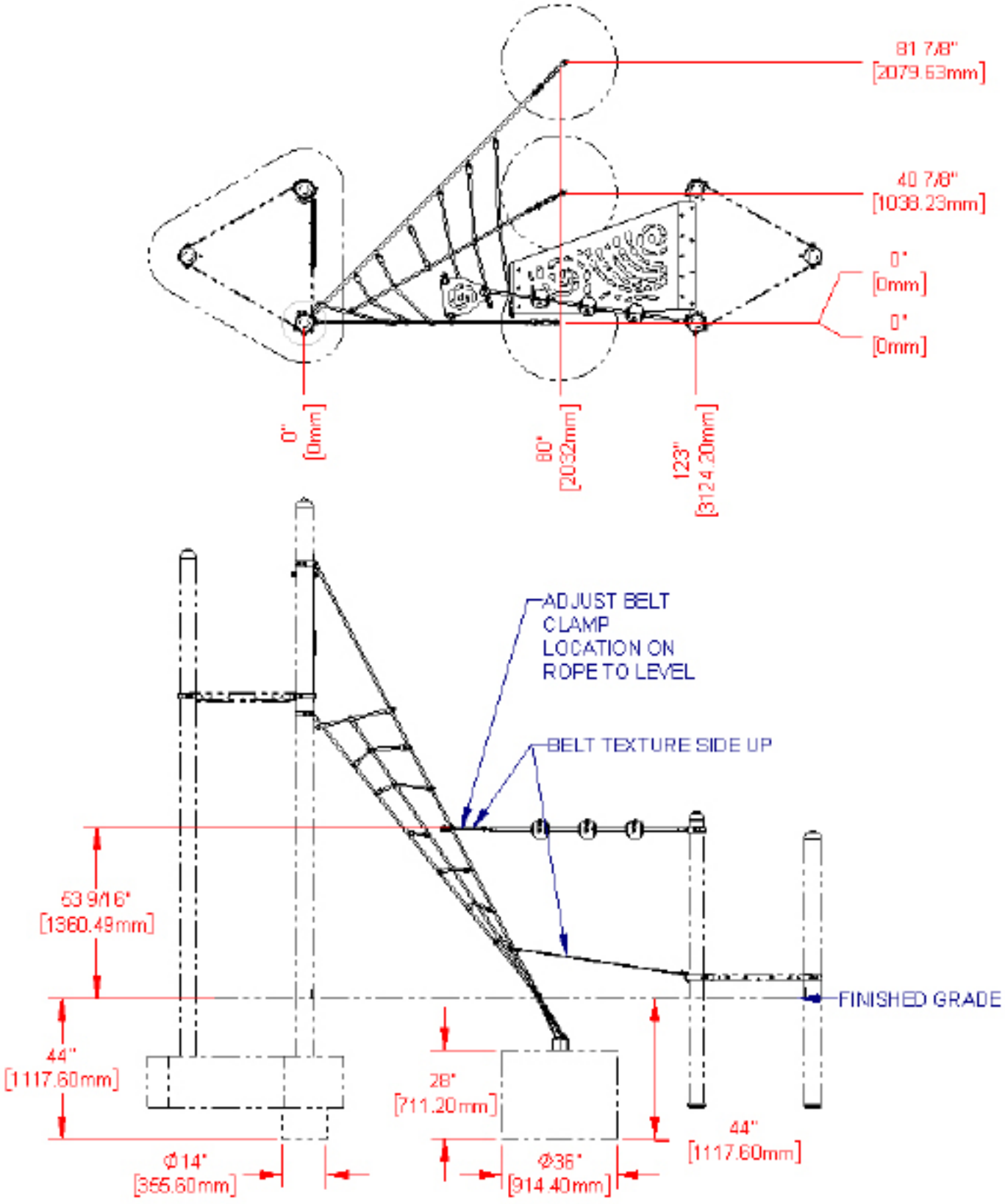

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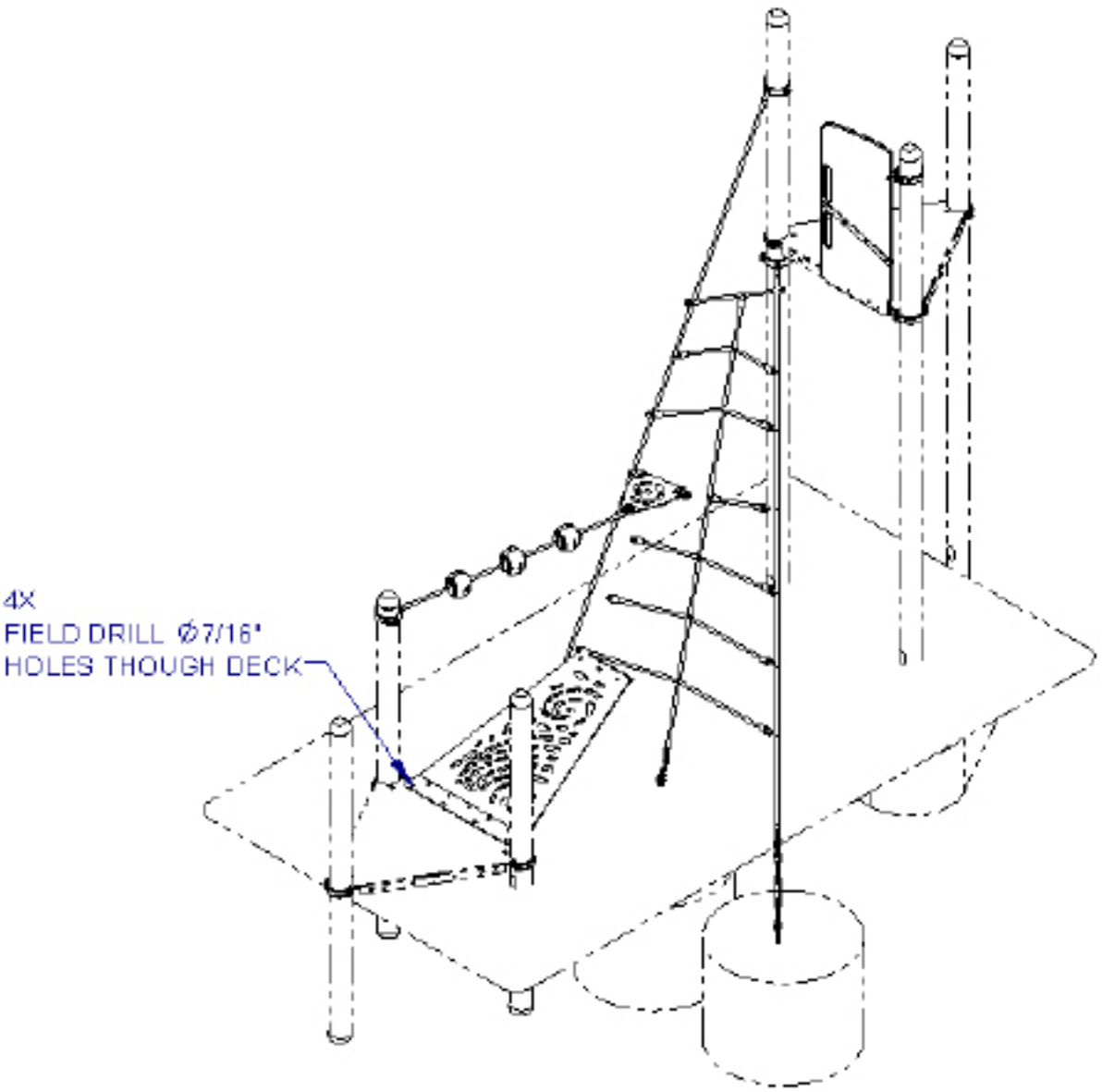

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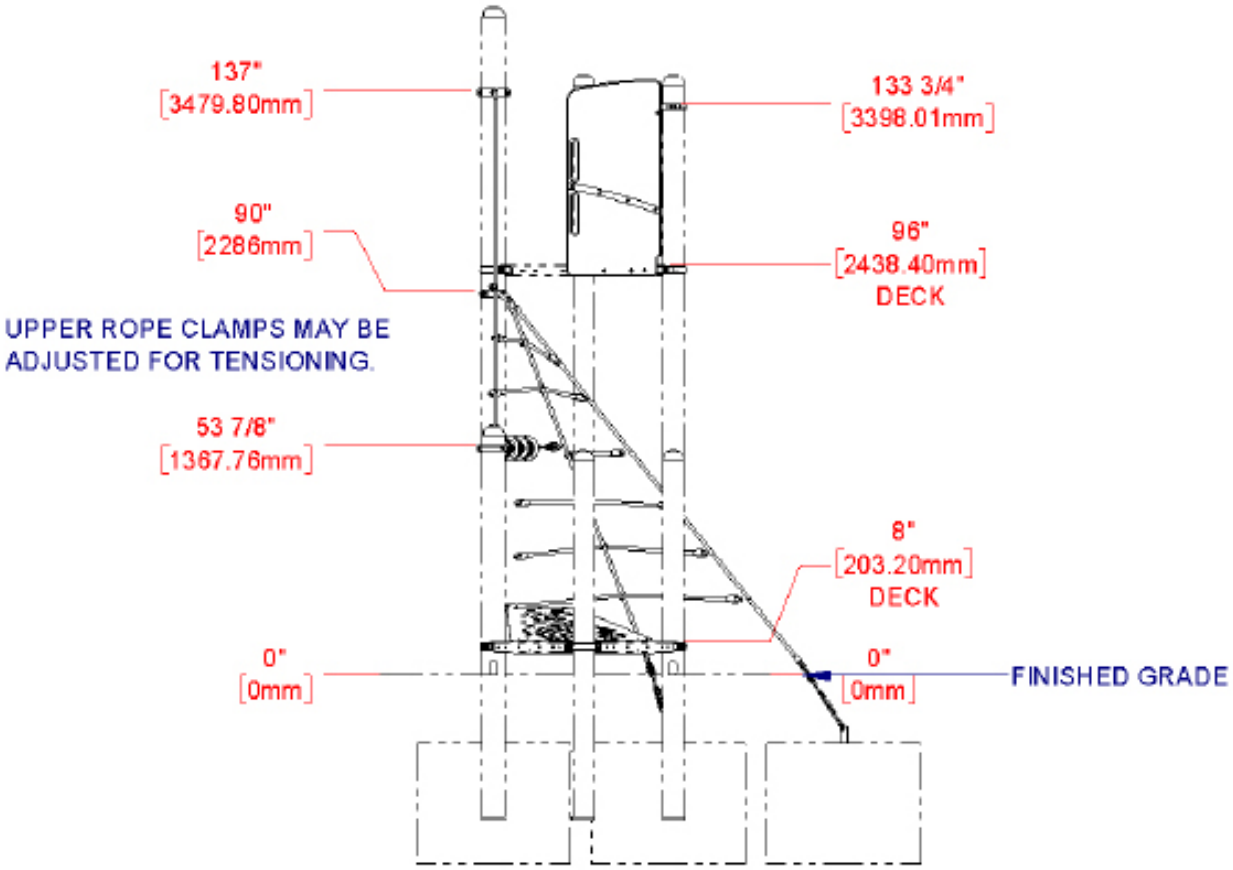

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Parts List

SAFETY NOTE

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PART NUMBER	DESCRIPTION	QTY.
283160	CUST 62i 3 KNOTS ROPE	1
280716	CUST TRIANGLE PLATFORM BELT	1
280715	CUST STAR SEEKER BASE BELT	1
302824	CUST 72i STAR SEEKER ROPE	1
280536	CUST 3/4 BARRIER ACCENT STRIPE PNT	2
280535	CUST 3/4 BARRIER PERM	1
280272	CUST BELT BRIDGE 33.5i ATCH PLATE LOWER PNT	1
280270	CUST BELT BRIDGE 33.5i ATCH LOWER ANGLE PNT	1
252010	HELICAL BELT CASTING	4
247871	SINGLE ROPE FOOTER HDG	3
193985	RUBBER MAT FASTENER2	1
193984	RUBBER MAT FASTENER	1
192748	CABLE BALL KNOT HALF	6
175006	FLG NUT 6LP 5/16-18 SST	6
162921	LINK 3/8iX1iX2-1/2i SST	3
161898	PROPRIETARY NET CLMP	3
157002	TURNBUCKLE	3
156962	BUSH 5/8 OD X 1/2 LG SST	3
138915	BOLT LINK SST	3
132626	BHCS HP 5/16 X 7/8i SST	6
127179	BUSH 5/8OD X 3/8 LG SST	7
124460	BHCS 6LP 3/8x3-3/4i SST	1
123224	BHCS 6LP 3/8x1-11/16i SST	6
113729	CLAMP OFFSET 5 RAIL HGR	1
113468	TUBE 7/8OD X 1-11/16 PNT	1
113027	BHCS 6LP 3/8x1-3/8i SST	6
105327	CLMP HALF 5 AL	4
100734	CHAIN 7.5i	3
100610	RVT 1/4X5/8 AS (GRIP=.578/.672)	4
100365	WASHER FLAT SAE 3/8i SST	45
100362	WASHER FLAT 3/8i SST	16
100353	FLG NUT 6LP 3/8-16 SST	15
100351	MOD T-NUT 3/8-16 SST	8
100327	HEX NUT STD 3/8-16 SST	19
100292	BHCS 6LP LTHD 3/8X1-1/4i SST	3
100290	BHCS 6LP LTHD 3/8X7/8iSST	7
100198	BHCS 6LP 3/8x1-1/8i SST	6
100196	BHCS 6LP 3/8x7/8i SST	10
100195	BHCS 6LP 3/8x5/8i SST	10
100171	BHCS 6LP 3/8x1-1/2iSSTPAT	9

Installation Instructions

1) Assemble structure following steps and details shown. Use 2D layout as a reference.

   Direct Bury - With structure square, plumb and level, pour concrete footings. Allow concrete to cure a minimum of 72 hours before users are allowed to play on the structure.

2) Install protective surfacing before users are allowed to play on the structure.

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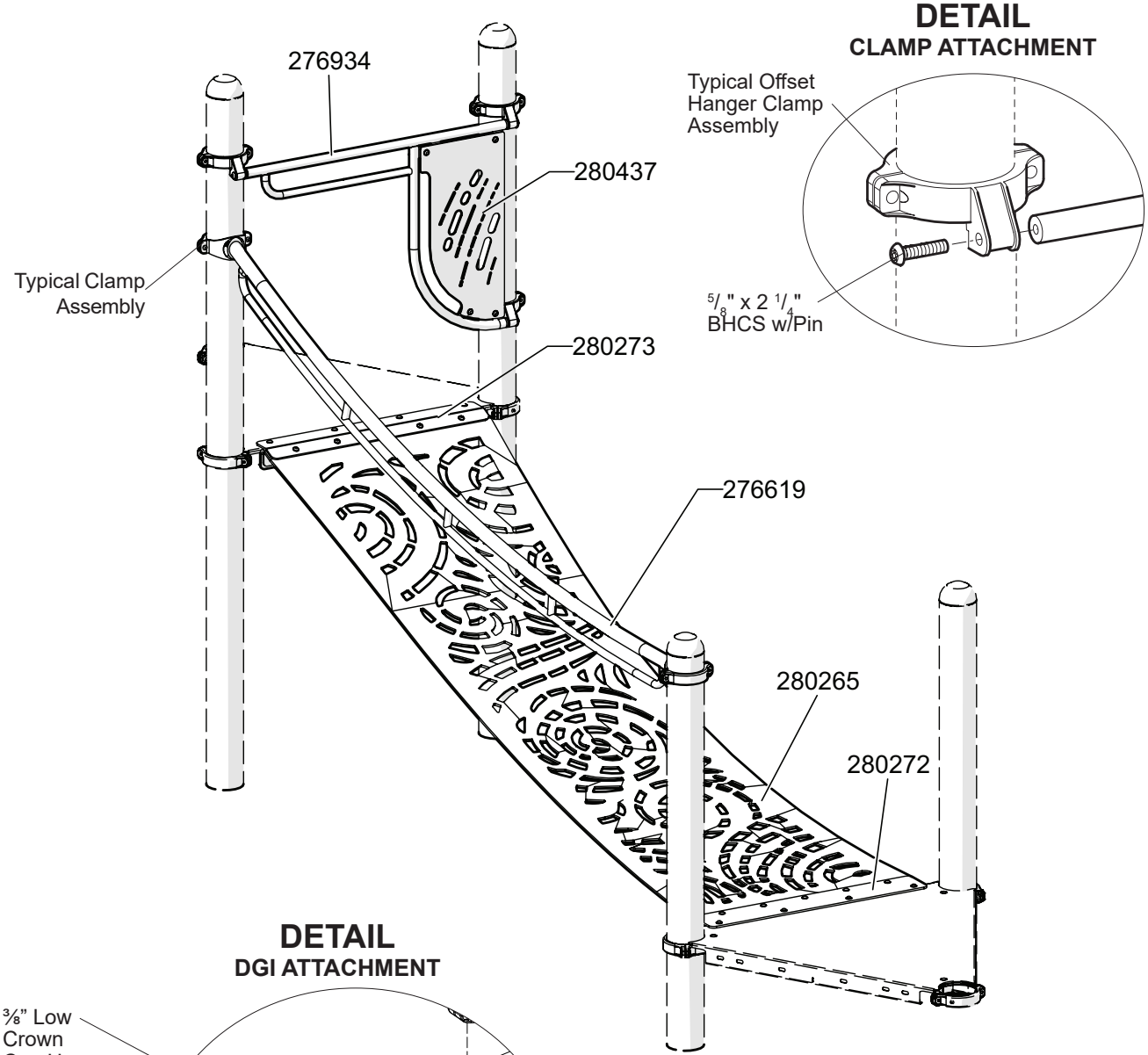
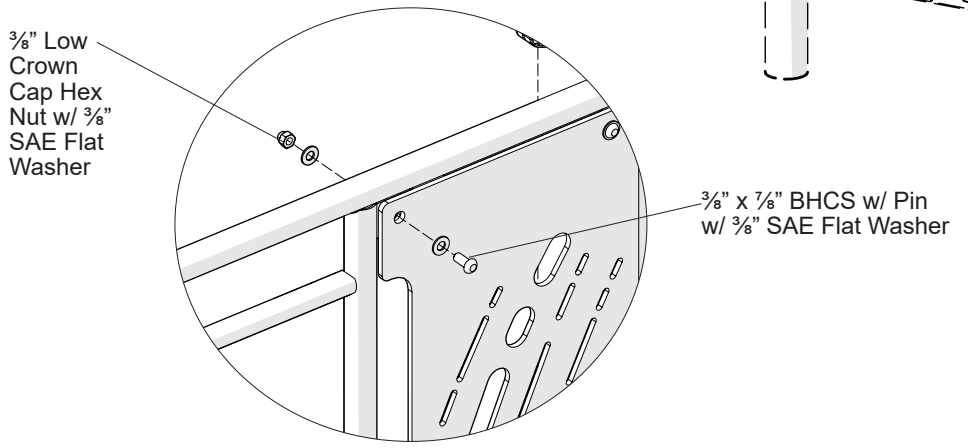
BELT CLIMBER



DETAIL
CLAMP ATTACHMENT

DETAIL
DGI ATTACHMENT



Billows™ Structure

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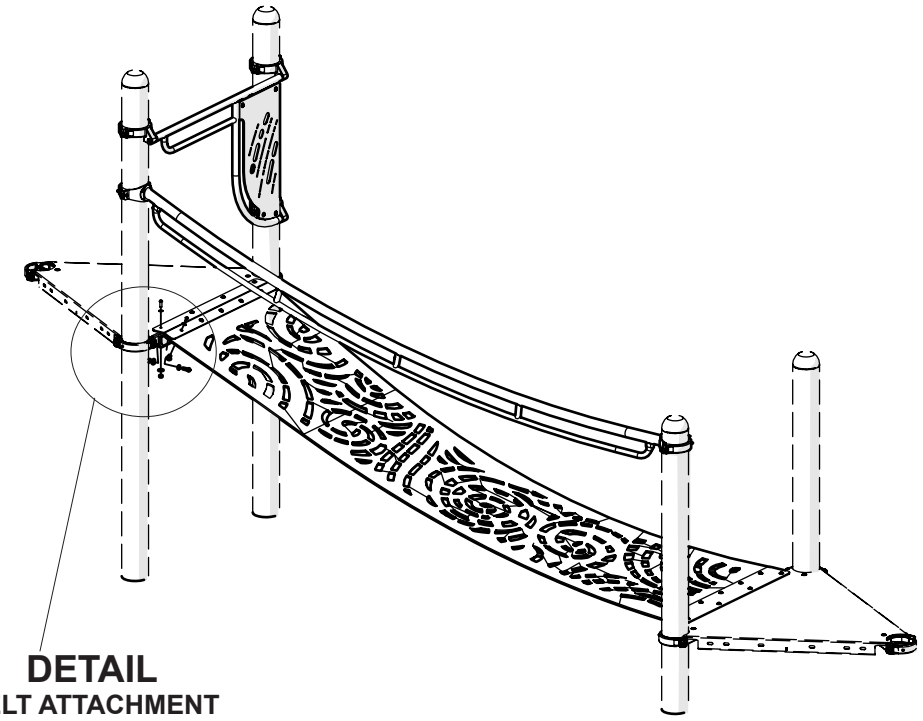
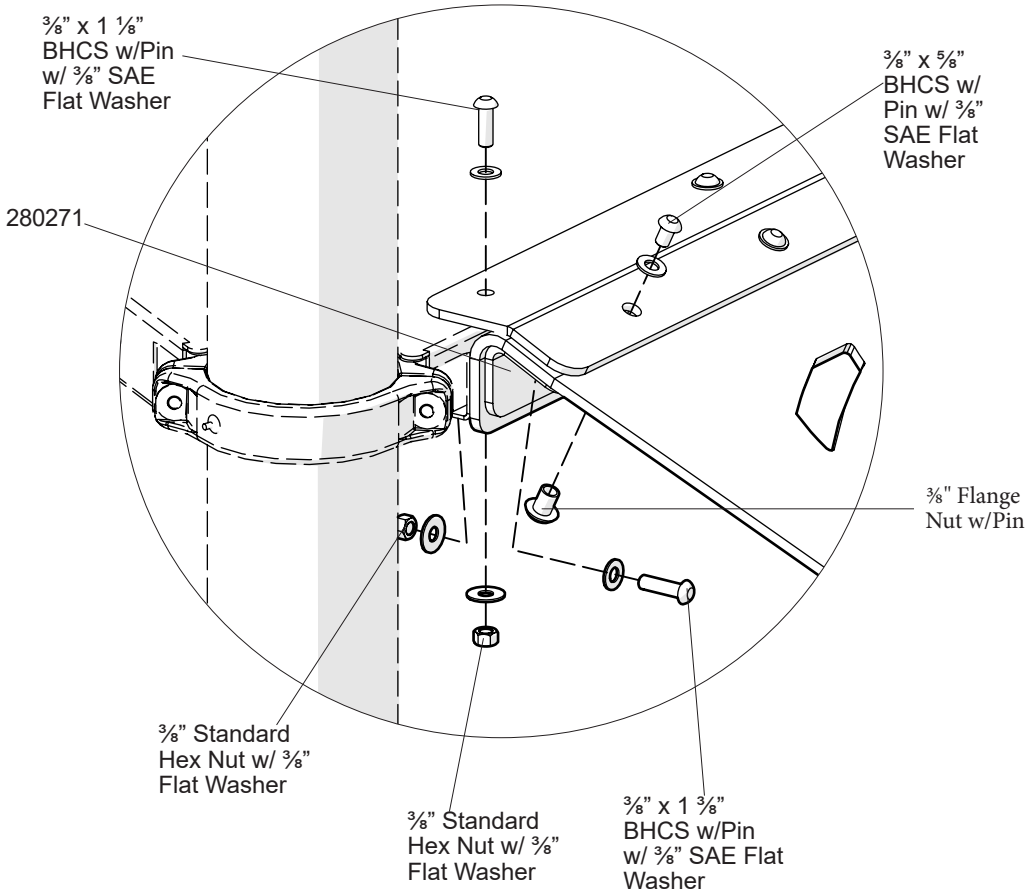
SAFETY NOTE

Choose a protective surfacing material that has a Critical Height Value of at least the height of the Highest Accessible Part/Fall Height of the adjacent equipment. (Ref. *ASTM F1487*.)



DETAIL
BELT ATTACHMENT



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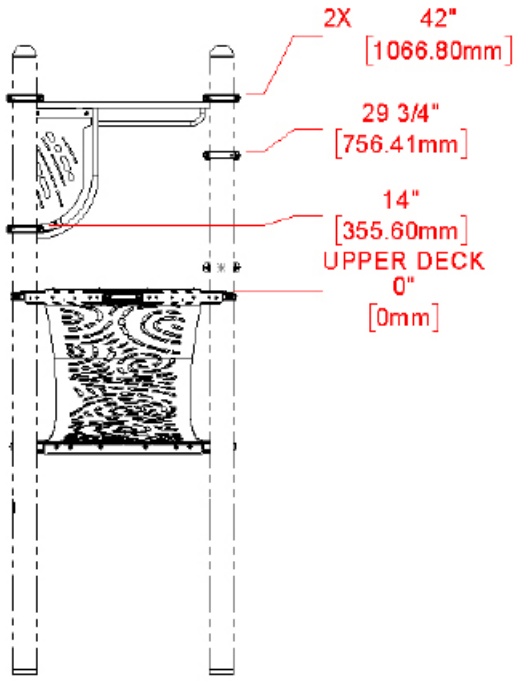

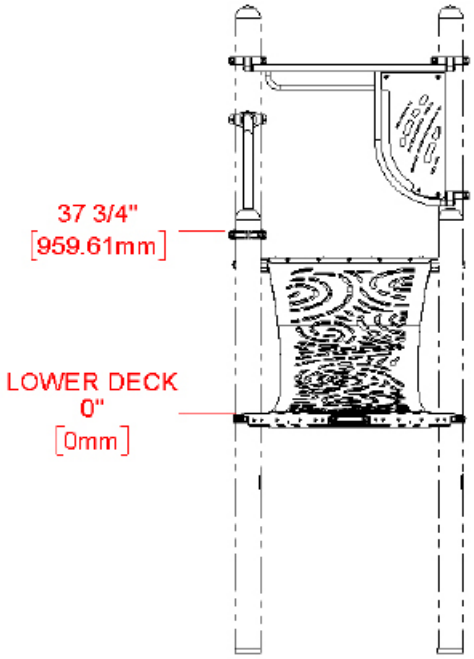

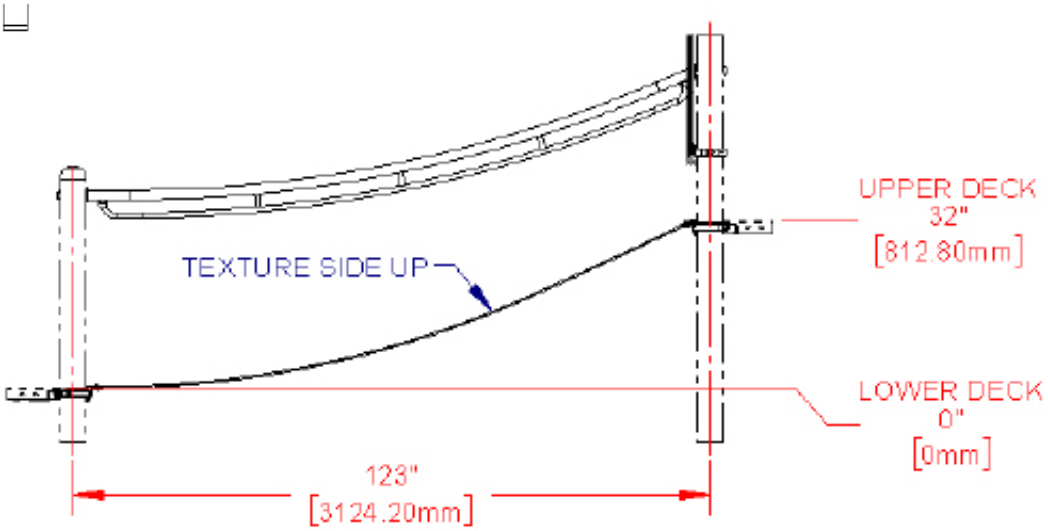

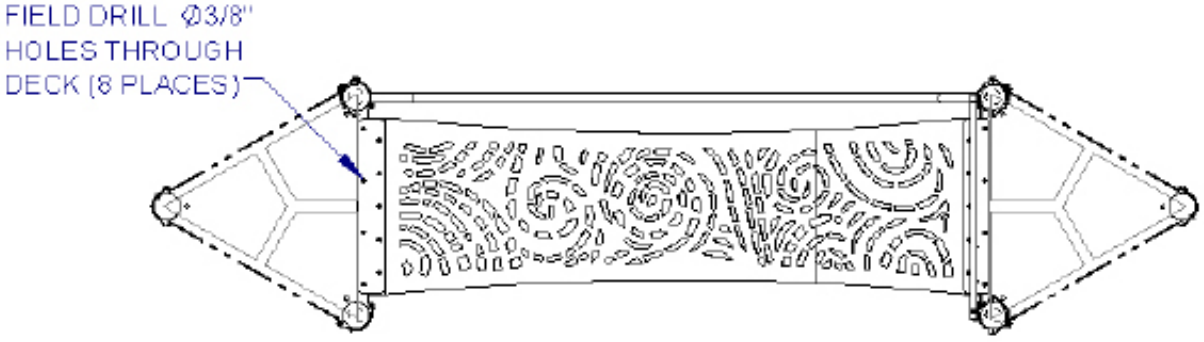

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Parts List

PART NUMBER	DESCRIPTION	QTY.
280437	CUST BELT CLIMBER HHOLD DGI	1
280273	CUST BELT BRIDGE 33.5i ATCH PLATE UPPER PNT	1
280272	CUST BELT BRIDGE 33.5i ATCH PLATE LOWER PNT	1
280271	CUST BELT BRIDGE 33.5i ATCH UPPER ANGLE PNT	1
280270	CUST BELT BRIDGE 33.5i ATCH LOWER ANGLE PNT	1
280265	CUST BRIDGE 34i WIDE 123i OC 32i DK BELT	1
276934	CUST GRAB RAIL SIT DOWN BAR PNT	1
276619	CUST HRAIL 123i OC 24i RISE PNT	1
113729	CLAMP OFFSET 5 RAIL HGR	3
113027	BHCS 6LP 3/8x1-3/8i SST	12
105327	CLMP HALF 5 AL	5
100610	RVT 1/4X5/8 AS (GRIP=.578/.672)	5
100365	WASHER FLAT SAE 3/8i SST	38
100362	WASHER FLAT 3/8i SST	20
100353	FLG NUT 6LP 3/8-16 SST	10
100351	MOD T-NUT 3/8-16 SST	10
100349	3/8 HEX NUT L/C CAP	4
100327	HEX NUT STD 3/8-16 SST	20
100203	5/8 X 2 1/4 BHCS 6LP SST W/PATCH	3
100198	BHCS 6LP 3/8x1-1/8i SST	18
100196	BHCS 6LP 3/8x7/8i SST	4
100195	BHCS 6LP 3/8x5/8i SST	10

Installation Instructions

1) Assemble structure following steps and details shown. Use 2D layout as a reference.
2) Mount belt and attach bent bracket to side face of uppper deck.
3) Mount belt and attach bent bracket to side face of lower deck.
4) Mount attach plates to top side of belt and bolt to bent brackets.
5) Field drill holes in deck top face, and then fasten in place.
6) Install protective surfacing before users are allowed to play on the structure.

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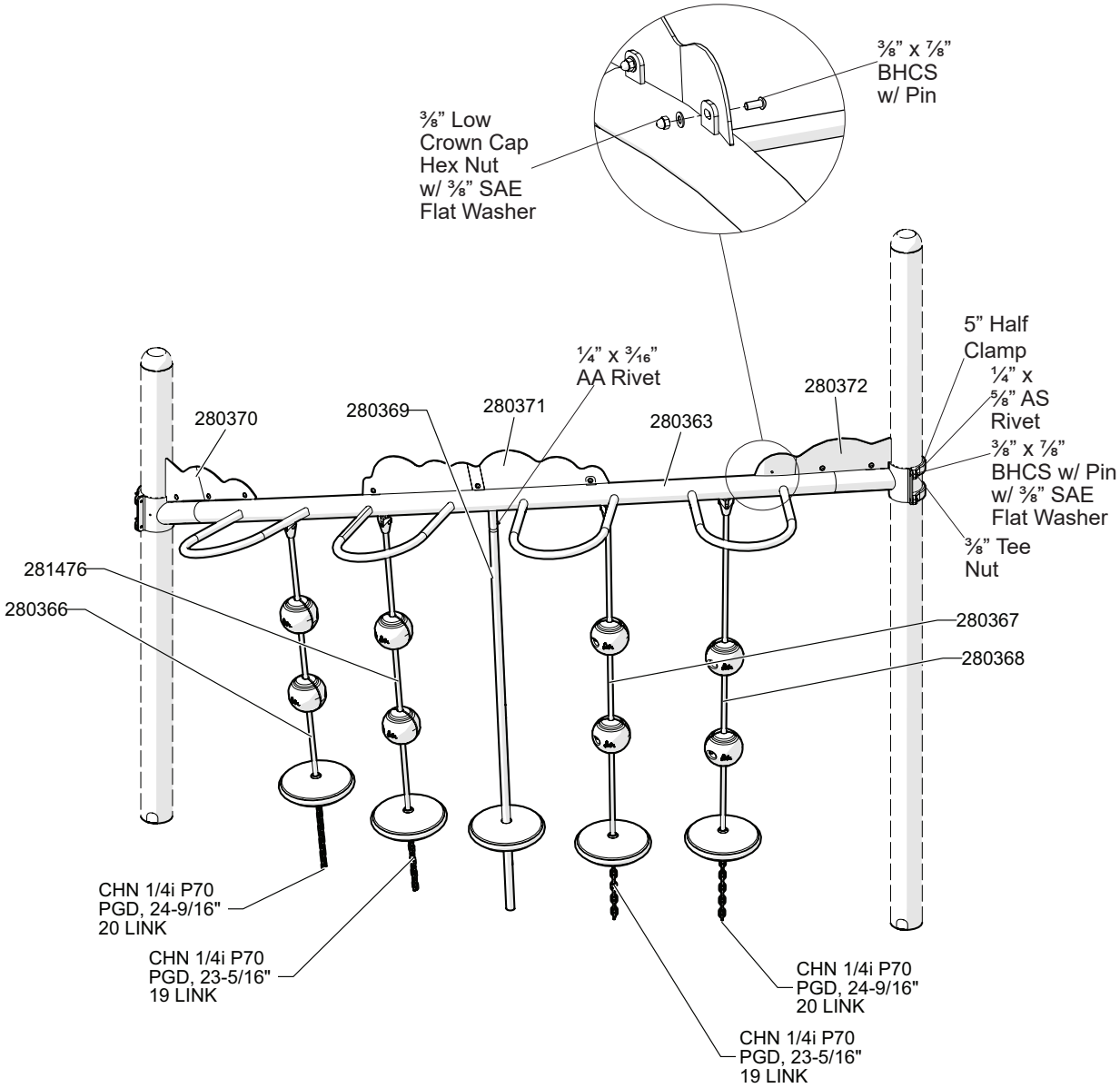
ARCHED OVERHEAD LADDER

INSTALL STEPS:

1. Mount pods to the support post and place in desired location.
2. Attach main beam to posts with support telescoped underneath.
3. Attach ropes to the main beam and to the footer chains.
4. Mount digiuse panels to top of main beam.

DETAIL
DGI ATTACHMENT



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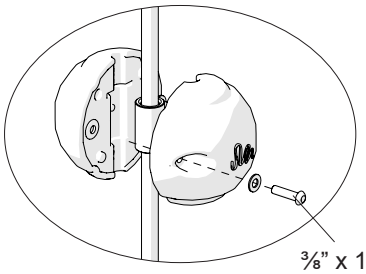
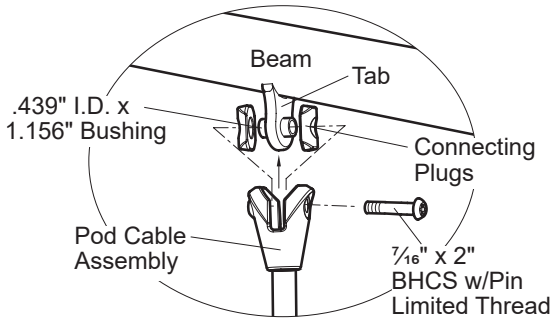
DETAIL
SWIGGLEKNOT ATTACHMENT

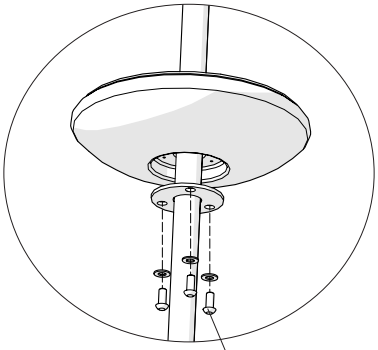


⅜" x 1 ½" BHCS w/Pin w/ ⅜" SAE Flat Washer

DETAIL
CABLE ATTACHMENT

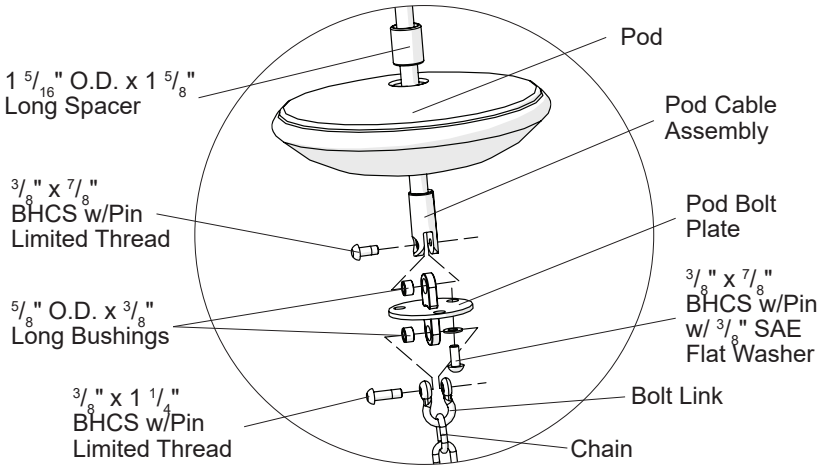


DETAIL
POD ATTACHMENT



⅜" x ⅞" BHCS w/ Pin w/ ⅜" SAE Flat Washer

DETAIL
POD ATTACHMENT



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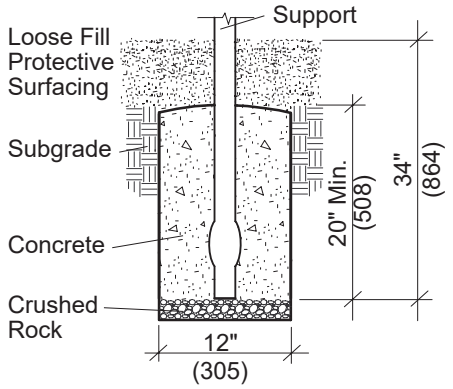
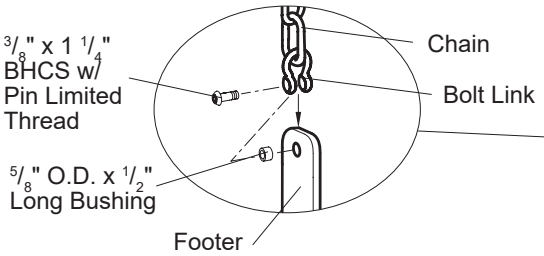
DETAIL
DIRECT BURY



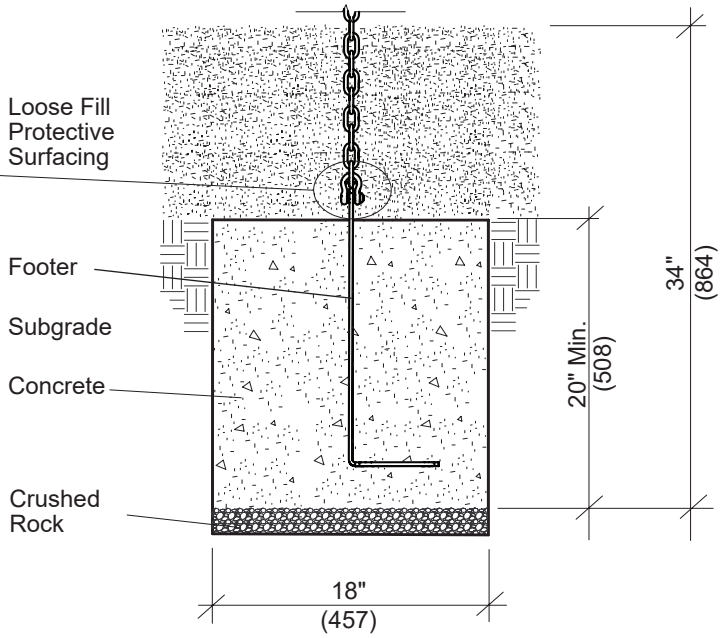
DETAIL
PLATE FOOTER ATTACHMENT



IMPORTANT! Tension ropes/nets before pouring concrete footings.

NOTE: The hole depth for the footer needs to be deep enough, so the footer plate does not contact the bottom of the hole. The weight of the concrete will force the footer plate down, further tightening the cable.

DETAIL
DIRECT BURY



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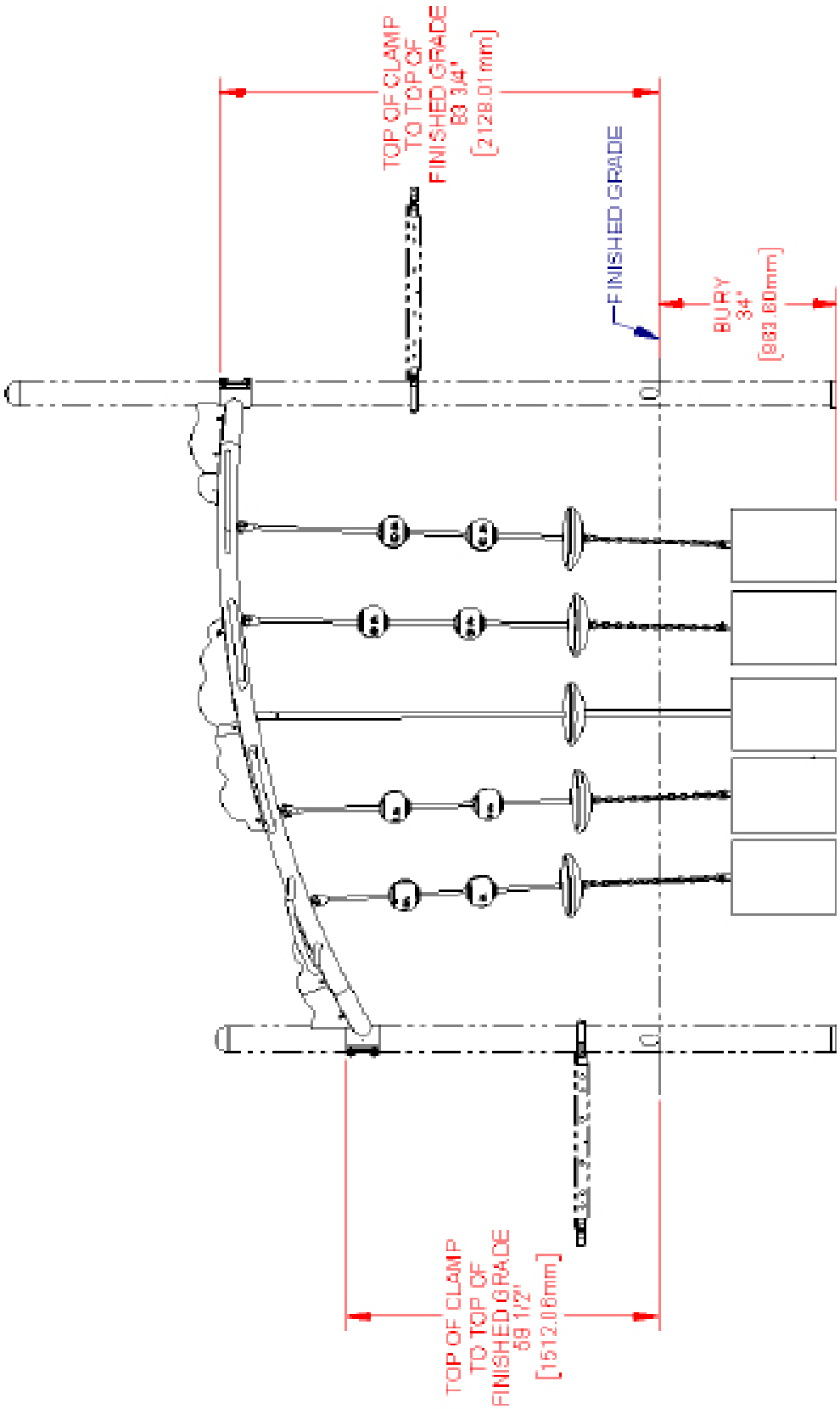

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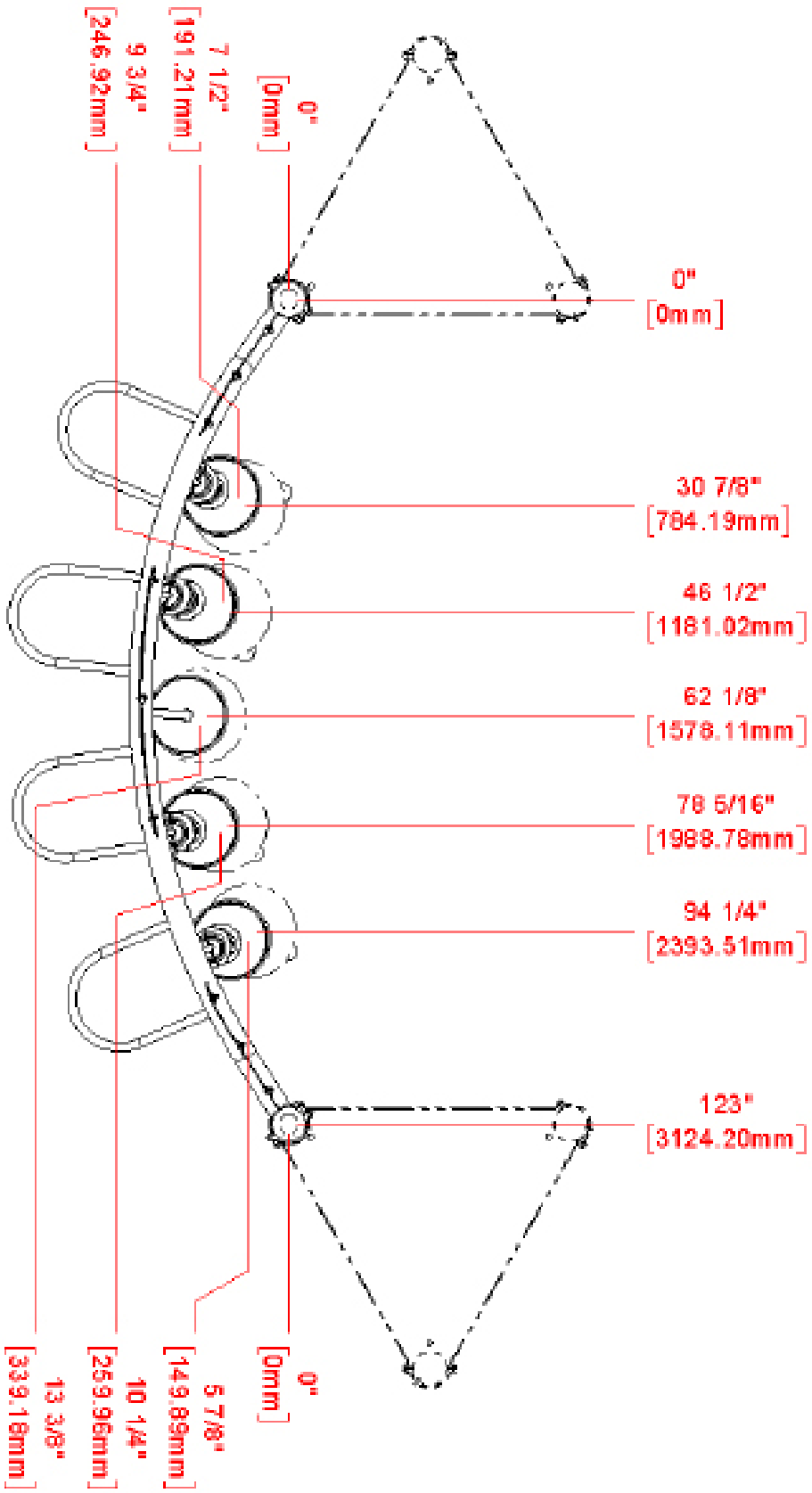

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Parts List

PART NUMBER	DESCRIPTION	QTY.
281476	CUST SWIGGLEKNOT 5 ROPE	1
280372	CUST OVHD LADR 3 DGI	1
280371	CUST OVHD LADR 2 DGI	1
280370	CUST OVHD LADR 1 DGI	1
280369	CUST 123iOC ARCHED OVHD LADR SPRT 2 WELDT PNT	1
280368	CUST SWIGGLEKNOT 4 ROPE	1
280367	CUST SWIGGLEKNOT 3 ROPE	1
280366	CUST SWIGGLEKNOT 2 ROPE	1
280363	CUST 123iOC ARCHED OVHD LADR BM WELDT PNT	1
247871	SINGLE ROPE FOOTER HDG	4
200438	CHN 1/4i P70 PGD, 23-5/16" 19 LINK	2
196890	CHN 1/4i P70 PGD, 24-9/16" 20 LINK	2
192748	CABLE BALL KNOT HALF	16
178586	SWIGGLE STIX SPACER TB	4
177932	POD BOLT PLATE	4
162729	CONN PLUG HALF ABS	8
157704	7/16 X 2 6LP BHCS LTHD	4
157224	BSHG .439i ID X 1.156 SST	4
156962	BUSH 5/8 OD X 1/2 LG SST	4
154460	EVOS CLIMB ACROSS POD	5
138915	BOLT LINK SST	8
127179	BUSH 5/8OD X 3/8 LG SST	8
105327	CLMP HALF 5 AL	4
100610	RVT 1/4X5/8 AS (GRIP=.578/.672)	4
100609	RVT 1/4X3/16 AA (GRIP=.141/.234)	1
100365	WASHER FLAT SAE 3/8i SST	57
100351	MOD T-NUT 3/8-16 SST	8
100349	3/8 HEX NUT L/C CAP	9
100292	BHCS 6LP LTHD 3/8X1-1/4i SST	8
100290	BHCS 6LP LTHD 3/8X7/8iSST	4
100196	BHCS 6LP 3/8x7/8i SST	32
100171	BHCS 6LP 3/8x1-1/2iSSTPAT	16

Installation Instructions

1) Assemble structure following steps and details shown. Use 2D layout as a reference.

   Direct Bury - With structure square, plumb and level, pour concrete footings. Allow concrete to cure a minimum of 72 hours before users are allowed to play on the structure.

2) Install protective surfacing before users are allowed to play on the structure.

Specifications

Arched Overhead Ladder: Weldment comprised of Galvanized RS20 steel tube 1.315” OD, 0.25” sheet HRPO steel, Galvanized RS20 steel 3.5” OD

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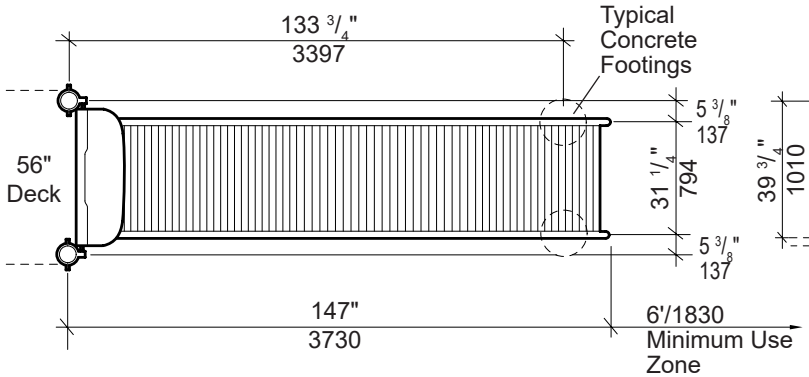
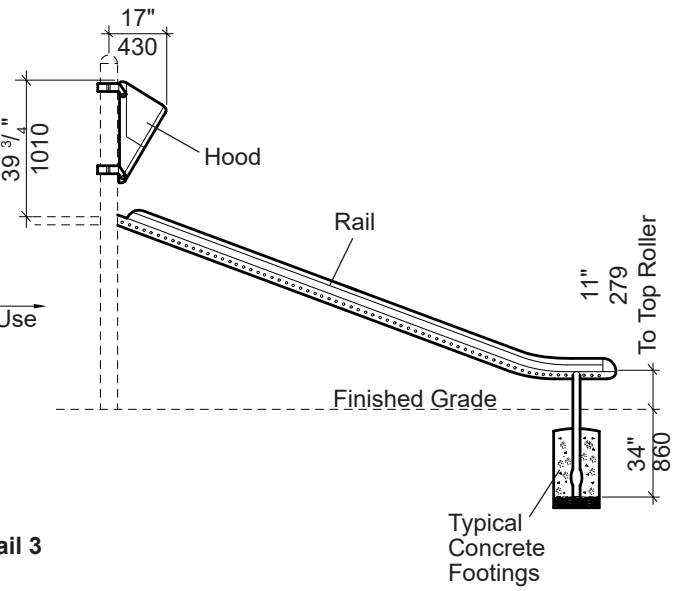
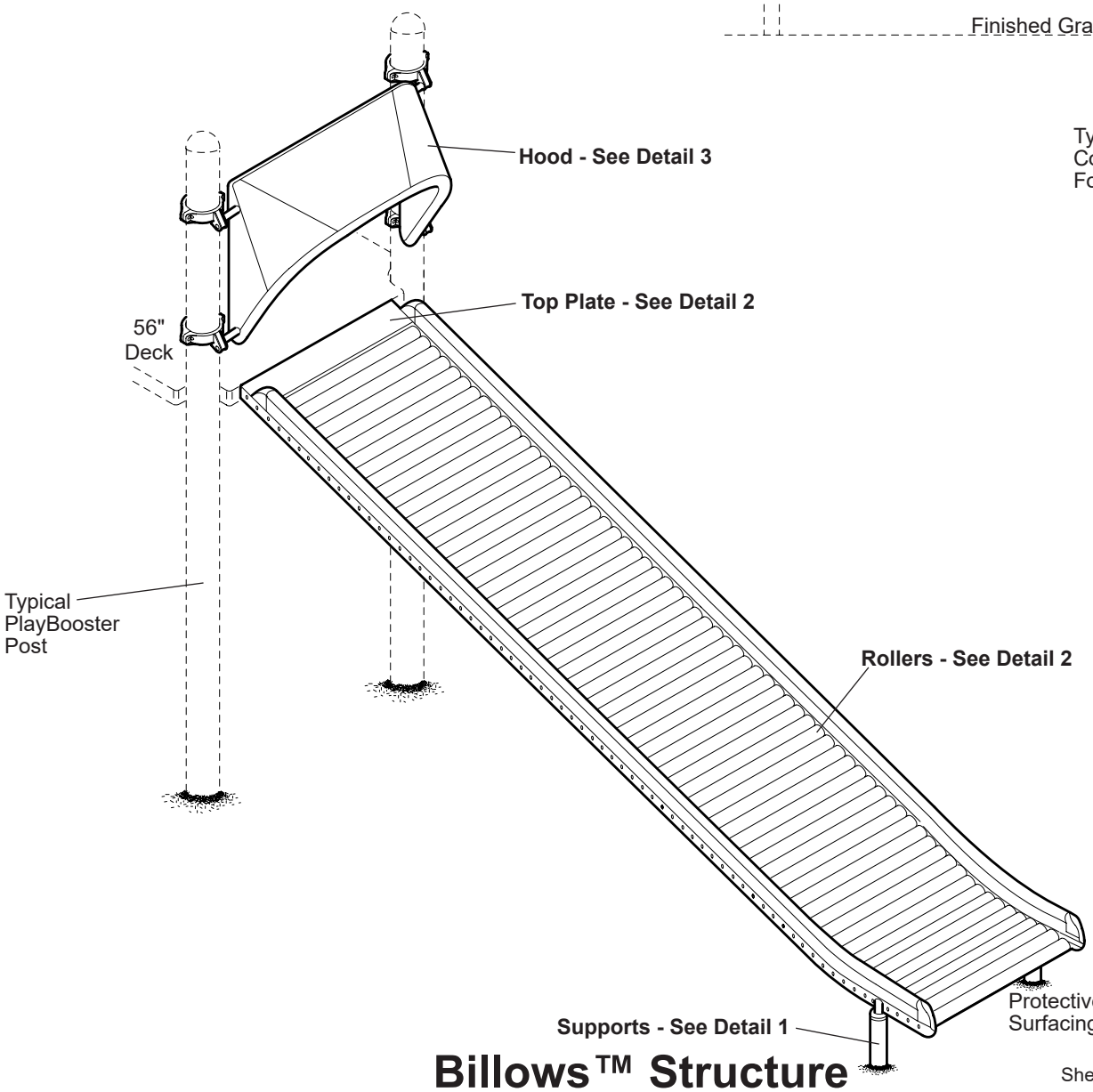
ROLLERSLIDE

PLAN VIEW/FOOTING LAYOUT



ELEVATION





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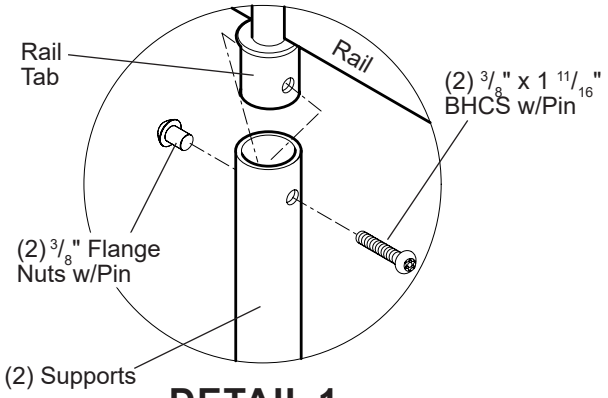
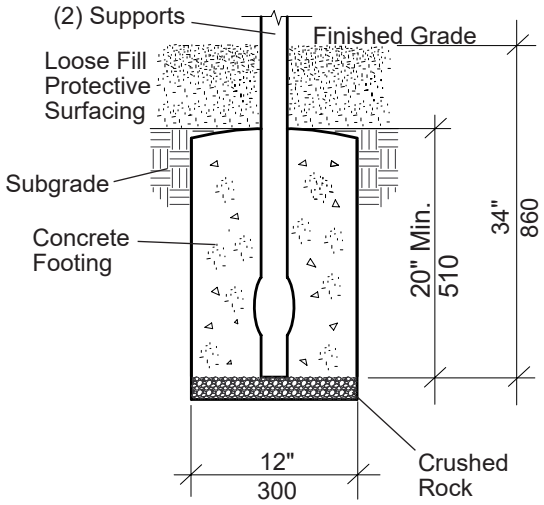
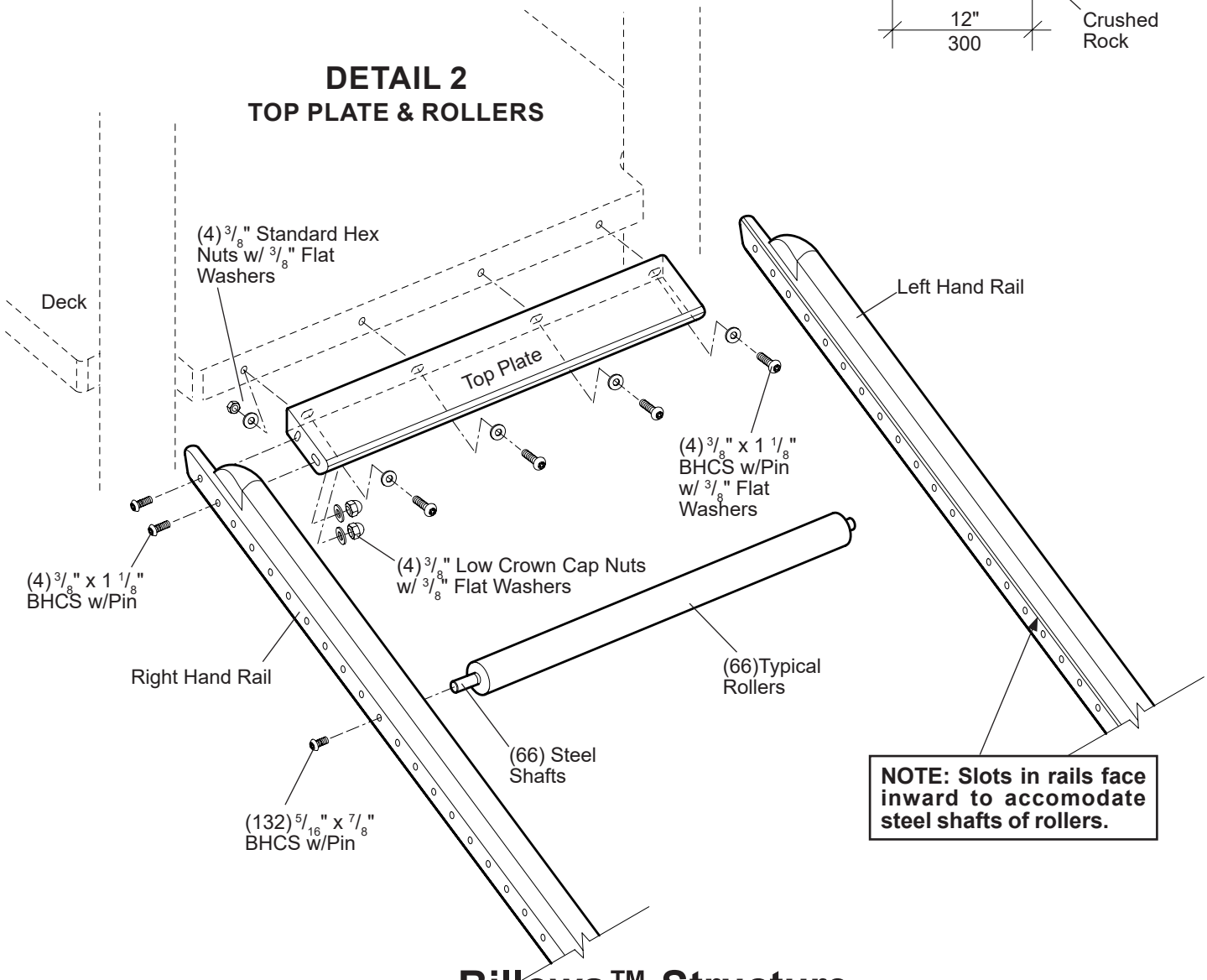


DETAIL 1
SUPPORTS

DETAIL
DIRECT BURY



DETAIL 2
TOP PLATE & ROLLERS



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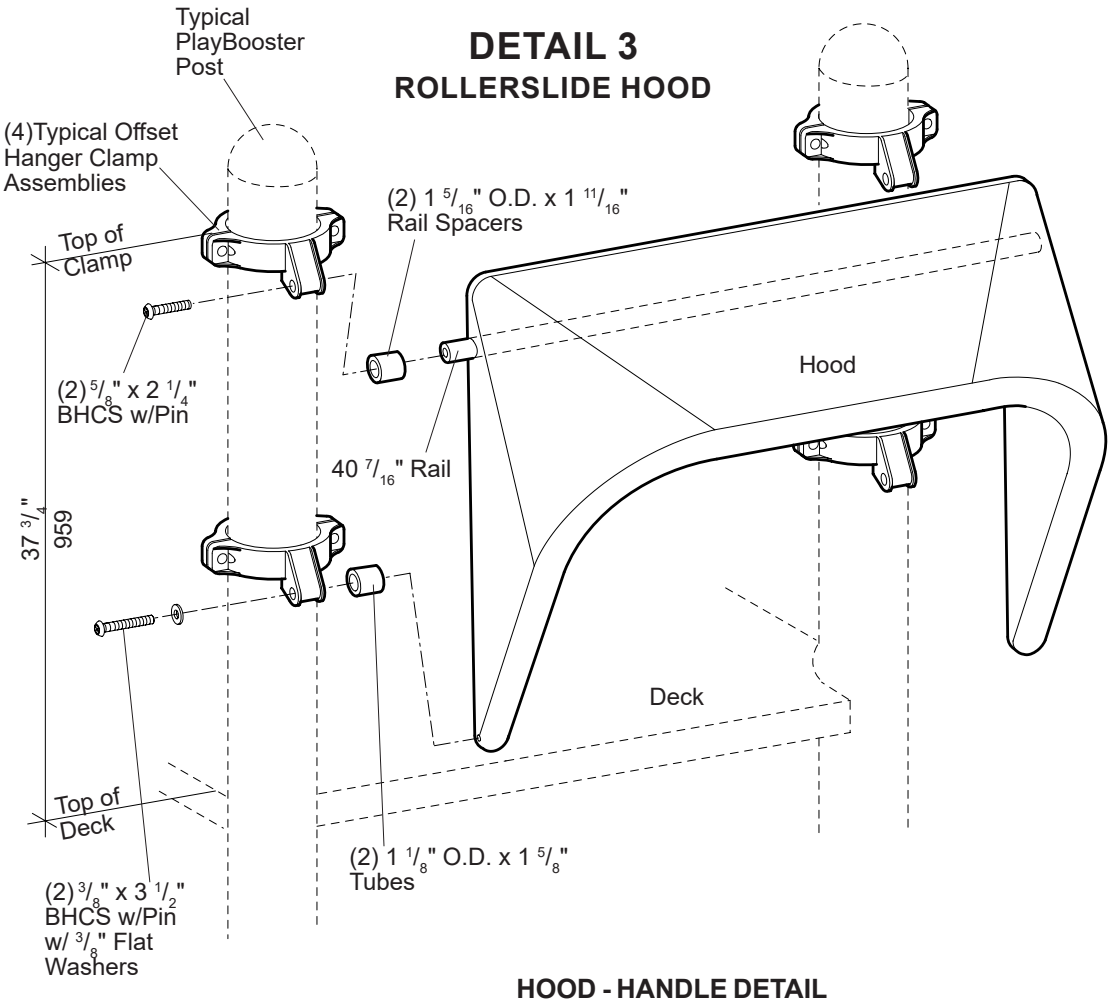
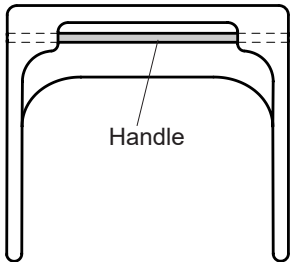
DETAIL 3
ROLLERSLIDE HOOD



HOOD - HANDLE DETAIL



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Parts List

Part#	Description	Qty.
103977	Support, (DB), Specify Color	2
103089	Support, (SM), Specify Color	2
104278	30 3/8" Roller Shaft	66
115347	Roller Assembly, Specify Color	66
135145	Top Plate, Specify Color	1
126957	Double Slide Hood, Specify Color	1
100583	40 7/16" Rail, Specify Color	1
105288	1 1/8" O.D. x 1 5/8" Tube, Specify Color	2
105327	5" Half Clamp, Specify Color	4
113729	Offset Hanger Clamp, Specify Color	4
167133	Rail 56" Rollerslide (LH), Specify Color	1
167134	Rail 56" Rollerslide (RH), Specify Color	1
132443	Rail Spacer, Specify Color	2
Double Slide Hood Hardware Package		1
100198	3/8" x 1 1/8" BHCS w/Pin, SST	8
100200	3/8" x 3 1/2" BHCS w/Pin, SST	2
100203	5/8" x 2 1/4" BHCS w/Pin, SST	2
100351	3/8" Tee Nut, SST	8
100362	3/8" Flat Washer, SST	2
100610	1/4" x 5/8" Drive Rivet, AL/SST	4
Rollerslide 56" Deck Hardware Package		1
123224	3/8" x 1 11/16" BHCS w/Pin, SST	2
132626	5/16" x 7/8" BHCS w/Pin, SST	132
100198	3/8" x 1 1/8" BHCS w/Pin, SST	8
100327	3/8" Standard Hex Nut, SST	4
100353	3/8" Flange Nut w/Pin, SST	2
100362	3/8" Flat Washer, SST	12
100349	3/8" Low Crown Cap Nut, SST	4

DB = Direct Bury

(LH) = Left Hand
(RH) = Right Hand

Specifications

Hood: Rotationally molded from U.V. stabilized linear low density polyethylene, color specified.

Rollers: Fabricated from 1.900" O.D. x 16 GA (.060") galvanized steel tubing. Finish: TenderTuff™, color specified.

Roller Shafts: Fabricated from $^{1}/_{2}$" diameter CRS zinc-plated with yellow chromate finish.

Support Leg: Fabricated from 1.900" O.D. RS-20 (.090" - .100") galvanized steel tubing. Finish: ProShield®, color specified.

Rails: Extruded from 6005-T1 aluminum. Finish: ProShield, color specified.

Top Plate: Formed from 10 GA (.135") 304-2B SST. Finish: TenderTuff, color specified.

Rail: 1 $^{1}/_{8}$" O.D. 6005-T5 aluminum extrusion with $^{5}/_{16}$" walls. Finish: ProShield, color specified.

Tube: 1 $^{1}/_{8}$" O.D. x 1 $^{5}/_{8}$" long aluminum tube. Finish: ProShield, color specified.

Spacer Tube: Made from 6061-T6 aluminum $^{7}/_{8}$" O.D. x 1 $^{11}/_{16}$". Finish: ProShield, color specified.

Offset Hanger Clamp Assembly: Cast aluminum. Finish: ProShield, color specified.

Fasteners: Primary fasteners shall be socketed and pinned tamperproof in design, stainless steel (SST) per ASTM F 879 unless otherwise indicated (see specific product installation/specifications).

Installation Time: Approx. 5 $^{1}/_{2}$ man hours
Concrete Req.: Approx. 2.6 cu. ft.
Exit Req.: 6' (1,83 m) minimum use zone at exit
Weight: 522 lbs.
Fall Height: 56" (1,42 m)

Installation Instructions

1) **(Direct Bury)** Dig footing holes spaced as shown.

2) Attach the supports to bottom of rails as shown in Detail 1, using $^{3}/_{8}$" x 1 $^{11}/_{16}$" BHCS w/Pin with $^{3}/_{8}$" flange nuts w/Pin. **NOTE:** *Insert flange nuts w/Pin through side facing deck.*

3) Attach top plate to deck, as shown in Detail 2, using $^{3}/_{8}$" x 1 $^{1}/_{8}$" BHCS w/Pin with $^{3}/_{8}$" flat washers and $^{3}/_{8}$" standard hex nuts with $^{3}/_{8}$" flat washers.

4) Locate left and right rollerslide rails and attach to top plate using $^{3}/_{8}$" x 1 $^{1}/_{8}$" BHCS w/Pin and $^{3}/_{8}$" low crown cap nuts with $^{3}/_{8}$" flat washers, as shown in Detail 2,

5) Insert the 30 $^{3}/_{8}$" steel roller shafts into the rollers. Starting at top, next to the top plate, attach all roller assemblies to rails, as shown in Detail 2, using $^{5}/_{16}$" x $^{7}/_{8}$" BHCS w/Pin.

6) Insert 40 $^{7}/_{16}$" rail through top of hood, place rail spacer tube on each end of the 40 $^{7}/_{16}$" rail and attach to posts at height shown using offset hanger clamp assemblies. Refer to the Typical Offset Hanger Clamp Spec Sheet. Fasten bottom of hood to offset hanger clamp assemblies using $^{3}/_{8}$" x 3 $^{1}/_{2}$" BHCS w/Pin with $^{3}/_{8}$" flat washers through clamp and spacer tubes and into threaded inserts in hood. Refer to Detail 3.

7) **(Direct Bury)** With supports plumb pour concrete footings. Allow concrete footings to cure for a minimum of 72 hours before users are allowed to play on the structure.

8) Install $^{1}/_{4}$" x $^{5}/_{8}$" drive rivets in all 5" half clamps. Refer to the Typical Offset Hanger Clamp Spec Sheet.

9) Install protective surfacing before users are allowed to play on the structure.

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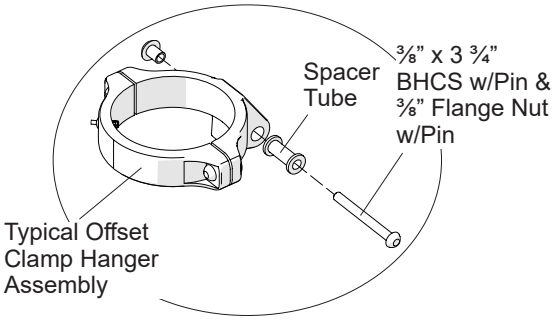
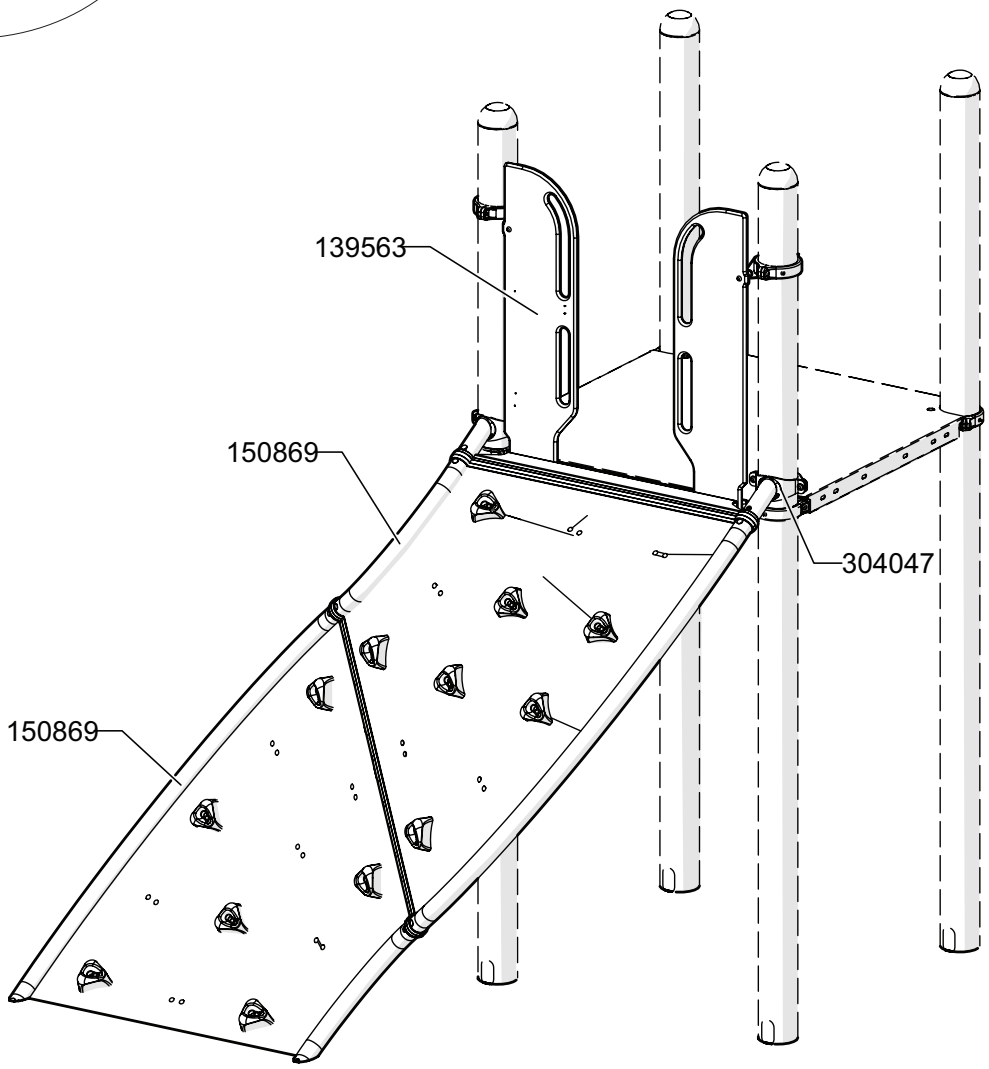
SAFETY NOTE

Choose a protective surfacing material that has a Critical Height Value of at least the height of the Highest Accessible Part/Fall Height of the adjacent equipment. (Ref. *ASTM F1487*.)

MOBIUS CLIMBER

DETAIL
CLAMP ATTACHMENT





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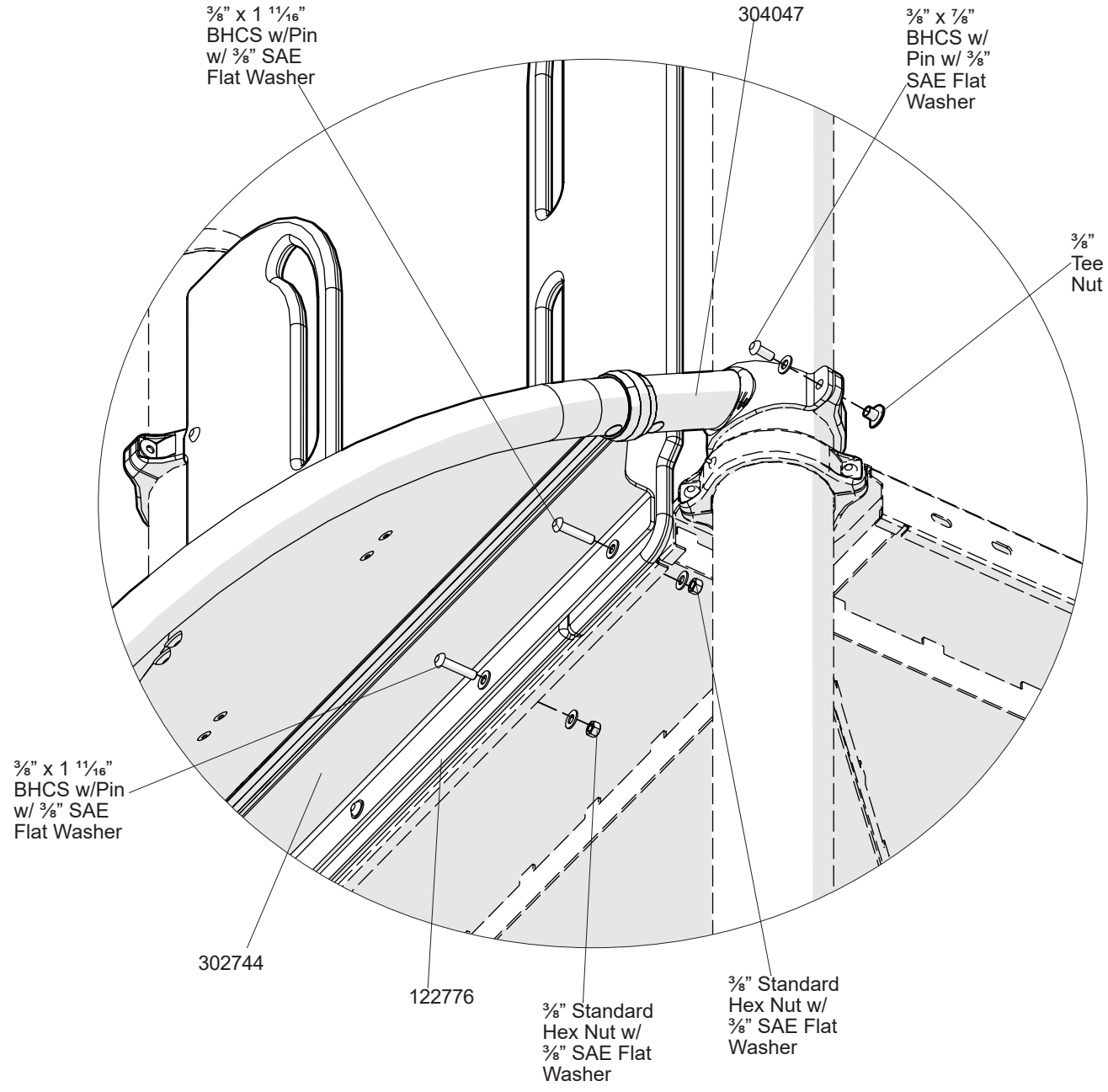

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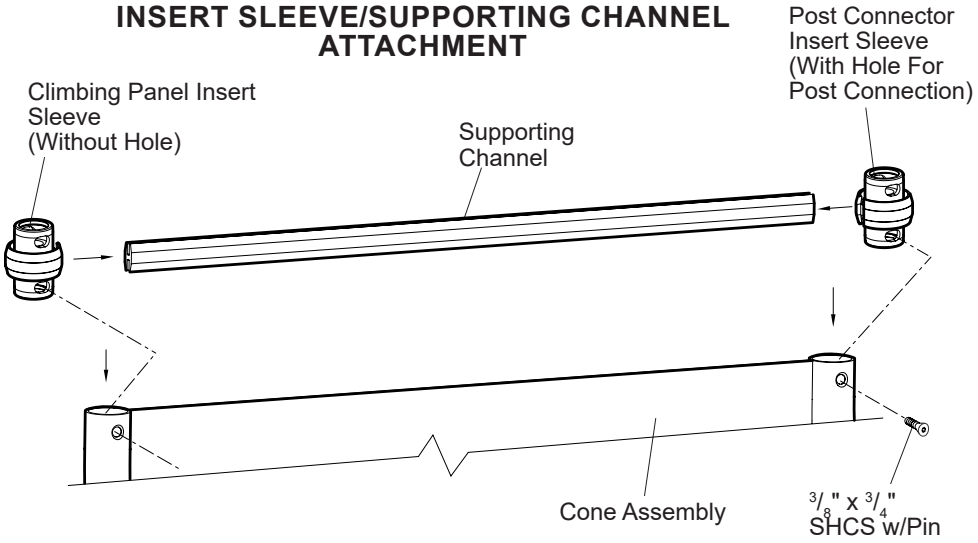
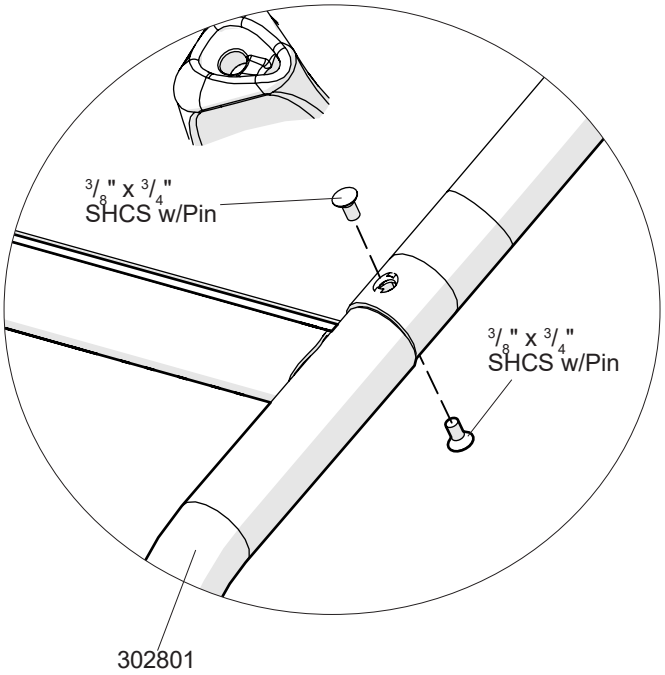
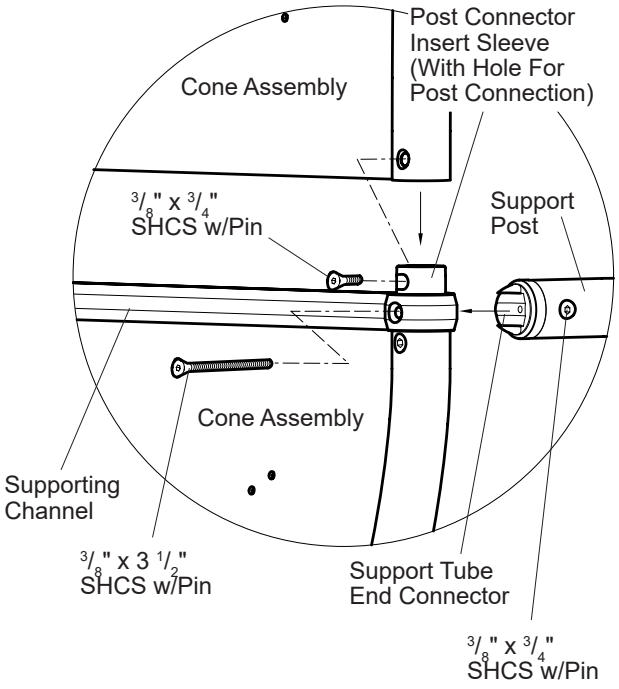
DETAIL
INSERT SLEEVE/SUPPORTING CHANNEL ATTACHMENT



DETAIL
H-FRAME TO CONE ASSEMBLY ATTACHMENT



DETAIL
CONE ASSEMBLY ATTACHMENT



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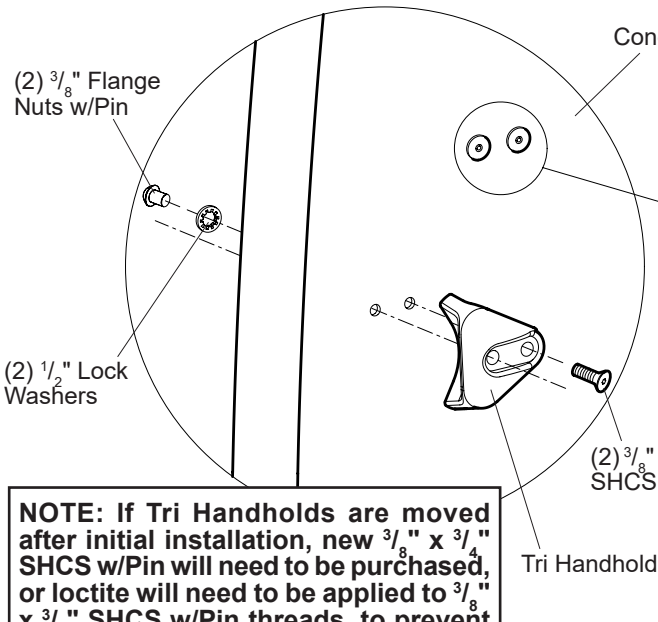
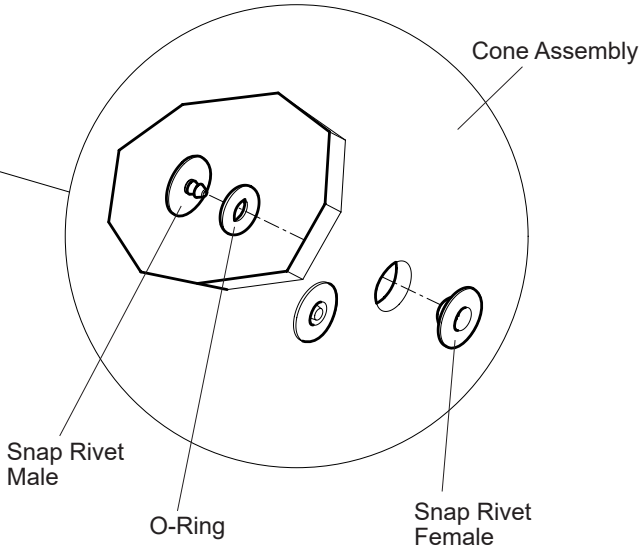
DETAIL
TRI HANDHOLD ATTACHMENT

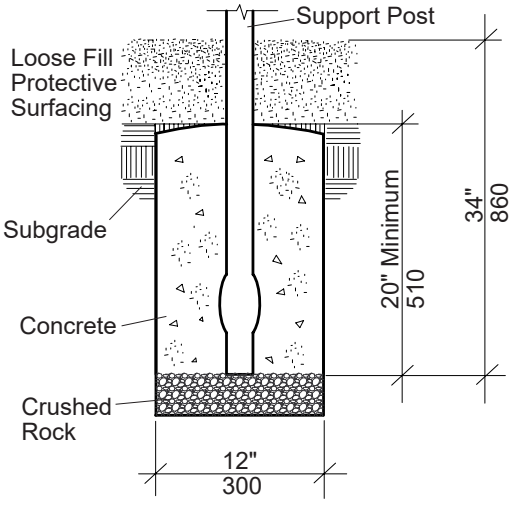


NOTE: If Tri Handholds are moved after initial installation, new 3/8" x 3/4" SHCS w/Pin will need to be purchased, or loctite will need to be applied to 3/8" x 3/4" SHCS w/Pin threads, to prevent bolts from coming loose. Loctite can be purchased from your local hardware store.

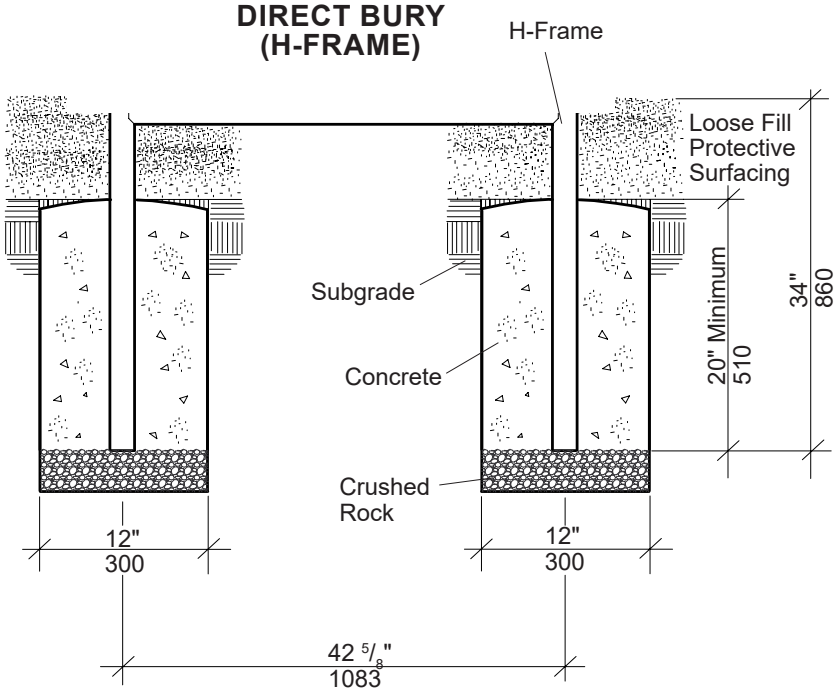
DETAIL
SNAP RIVET ATTACHMENT (FOR FILLING UNUSED HOLES)



DETAIL
DIRECT BURY (SUPPORT POST)



DETAIL
DIRECT BURY (H-FRAME)



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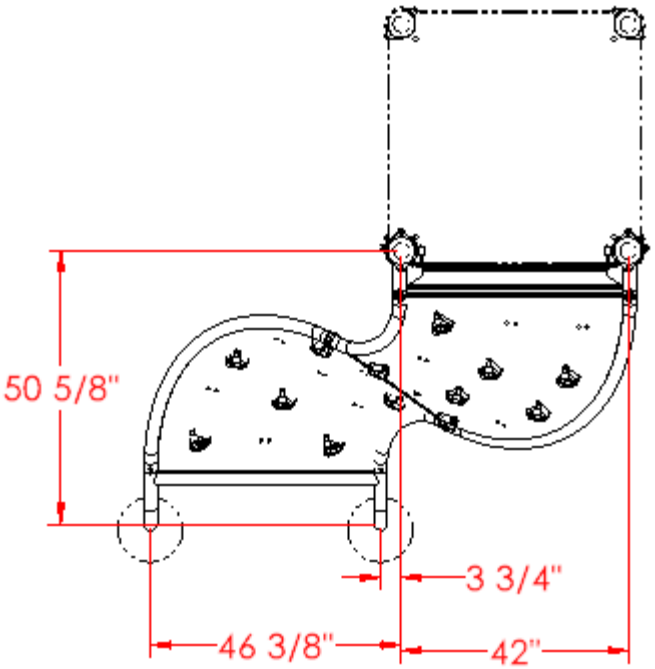

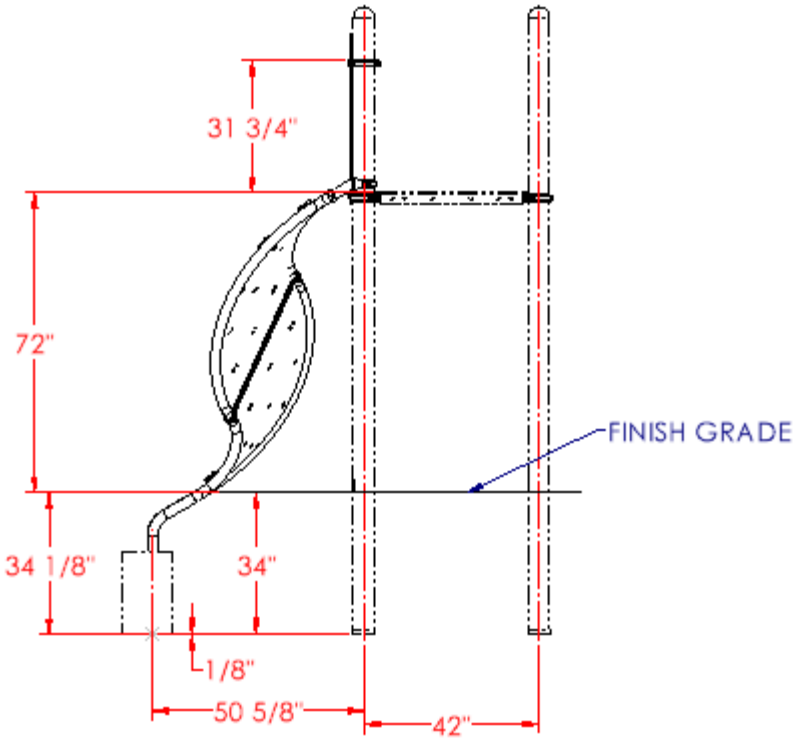

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Parts List

PART NUMBER	DESCRIPTION	QTY.
304047	MOBIUS CLIMBER RH CLAMP	1
304046	MOBIUS CLIMBER LH CLAMP	1
302801	H-FRAME MOBIUS CLIMBER ASM	1
302744	DECK MOUNTING BRACKET MOBIUS CLIMBER	1
182457	O-RING 7/16ODX1/4ID	22
166603	CLMBG PNL INSRT SLV ASY	4
160021	SNAP RIVET FEMALE	22
160020	SNAP RIVET MALE	22
153284	TRI HGRIP	13
152315	WASHER LOCK INT-T 1/2 SST	26
150952	AL SPRTG CHNL ANDZ	2
150869	45 DEG CONE ASY ANDZ	2
148686	3/8 X 3/4 6LP SHCS SST W/PATCH	46
139563	HANDHOLD PNL PB	2
124460	BHCS 6LP 3/8x3-3/4i SST	2
123224	BHCS 6LP 3/8x1-11/16i SST	4
122776	PERM ATCH SPCR CLMRS	1
113729	CLAMP OFFSET 5 RAIL HGR	2
113468	TUBE 7/8OD X 1-11/16 PNT	2
105327	CLMP HALF 5 AL	4
100610	RVT 1/4X5/8 AS (GRIP=.578/.672)	4
100365	WASHER FLAT SAE 3/8i SST	12
100353	FLG NUT 6LP 3/8-16 SST	28
100351	MOD T-NUT 3/8-16 SST	8
100327	HEX NUT STD 3/8-16 SST	4
100198	BHCS 6LP 3/8x1-1/8i SST	4
100196	BHCS 6LP 3/8x7/8i SST	4

Installation Instructions

1) Assemble structure following steps and details shown. Use 2D layout as a reference.

   (Direct Bury) With structure square, plumb and level, pour concrete footings. Allow concrete to cure a minimum of 72 hours before users are allowed to play on the structure.

2) Install protective surfacing before users are allowed to play on the structure.

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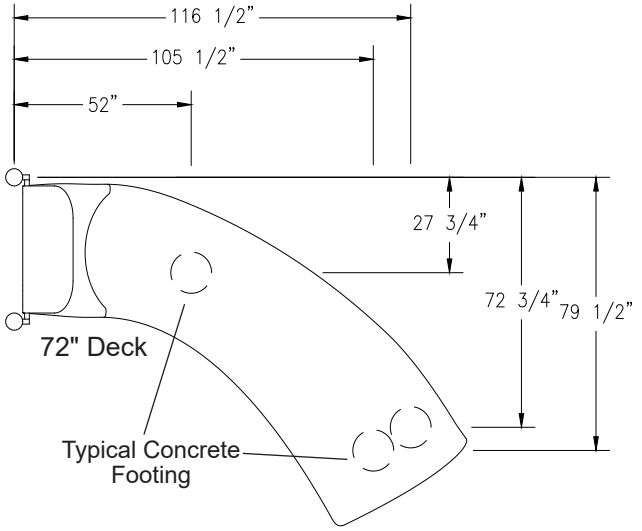
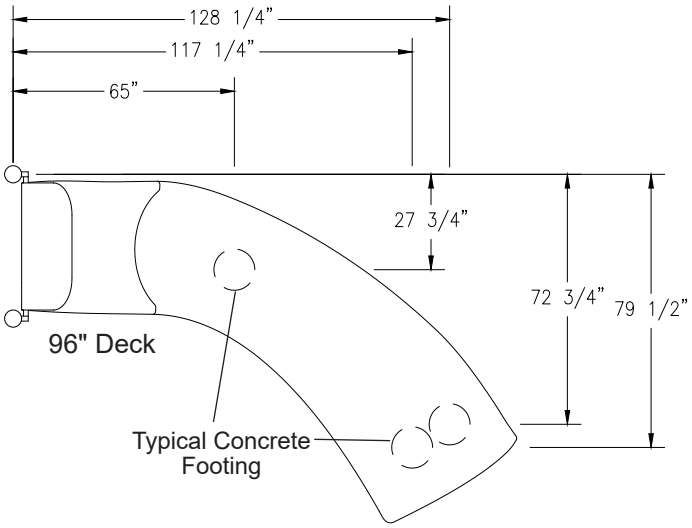
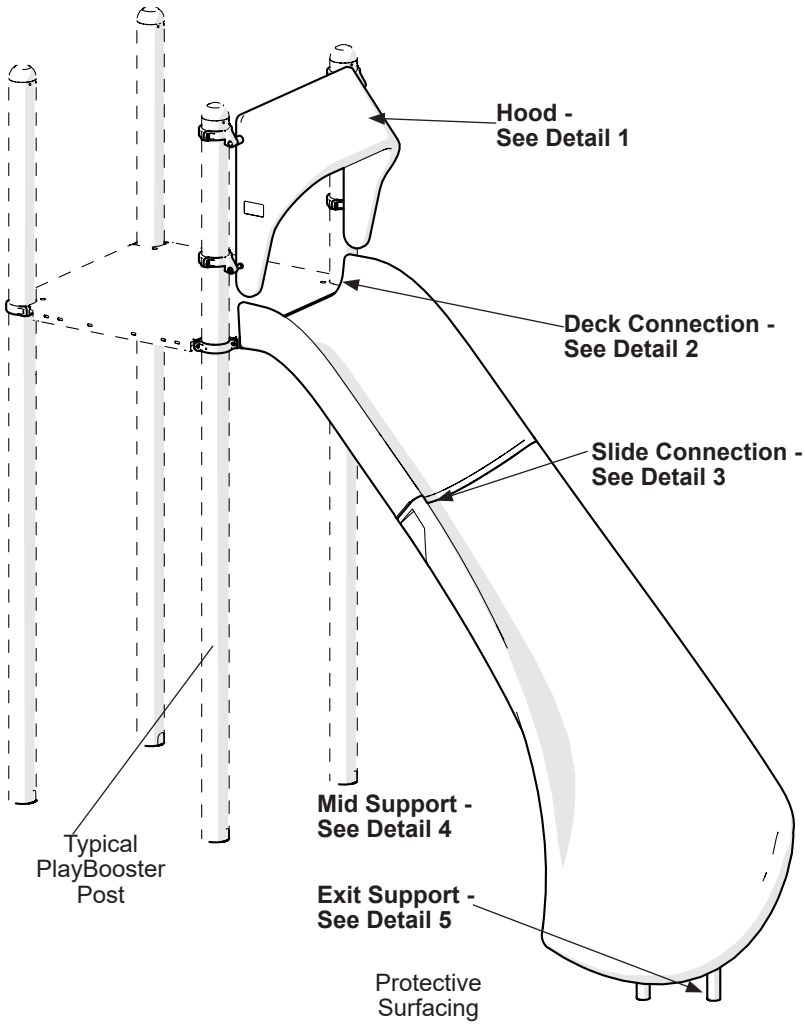
ALPINE SLIDE

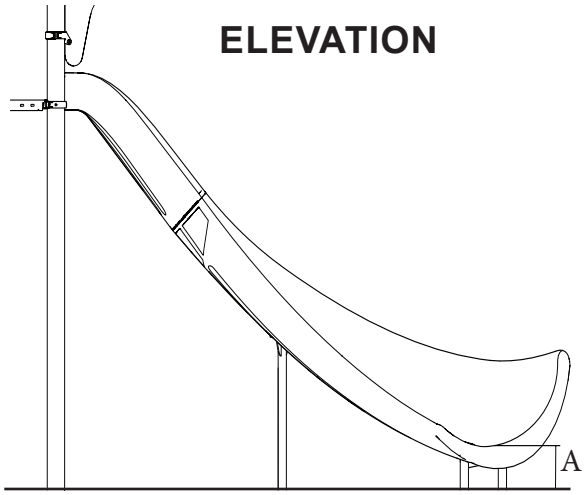
PLAN VIEW/FOOTING LAYOUT







ELEVATION



Dimensions for A

72" Deck	10 ¾"
80" Deck	13 ¼"
88" Deck	11 ¼"
96" Deck	14 ½"

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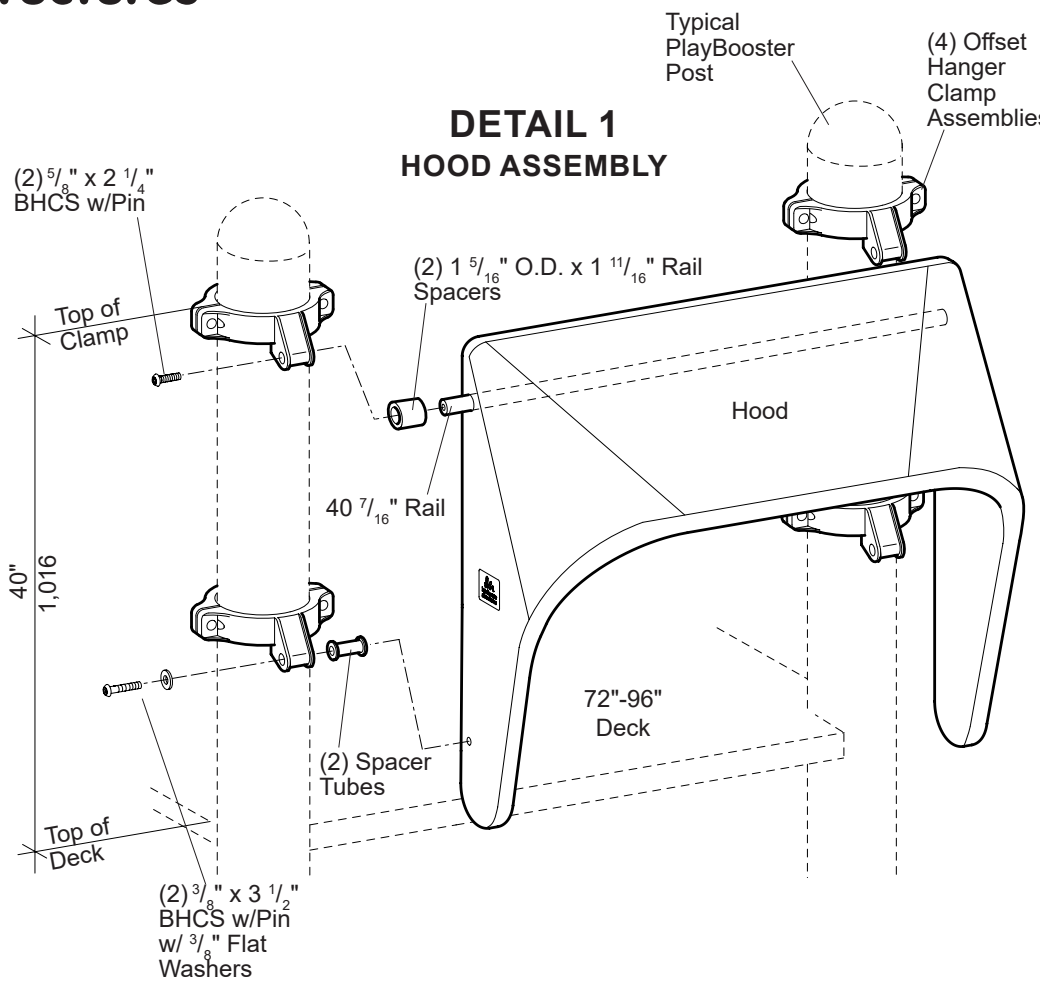
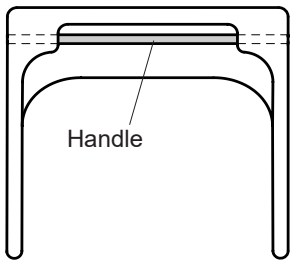
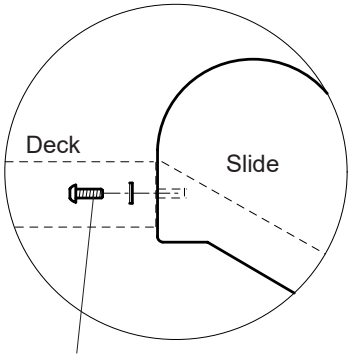
DETAIL 1
HOOD ASSEMBLY



HOOD - HANDLE DETAIL



DETAIL 2
DECK CONNECTION



(4) 3/8" x 1 1/8" BHCS w/ Pin w/ (4) 3/8" Flat Washers

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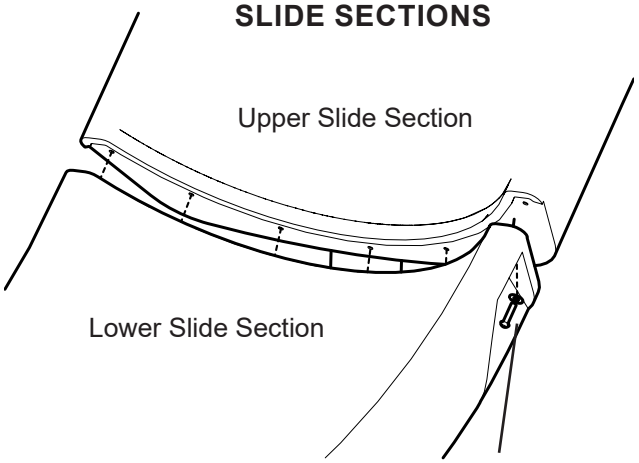
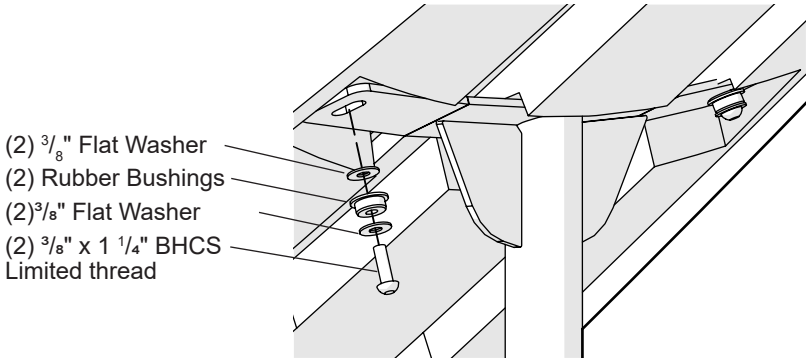
DETAIL 3
SLIDE SECTIONS



DETAIL 4
MID SUPPORT



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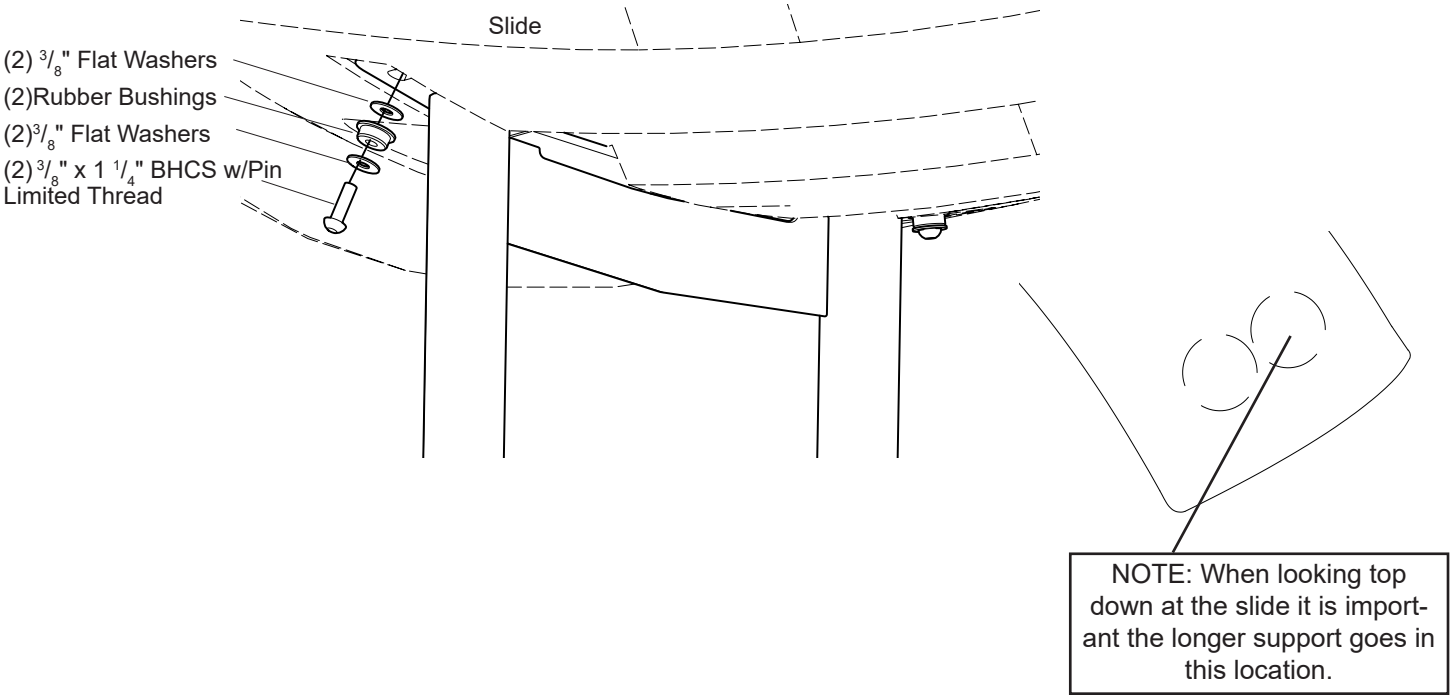
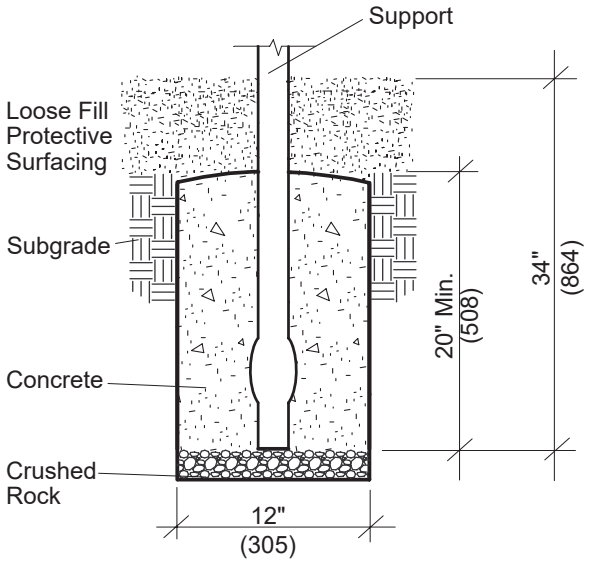
DETAIL 5
EXIT SUPPORT



NOTE: When looking top down at the slide it is important the longer support goes in this location.

DETAIL
DIRECT BURY



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Parts List

Part#	Description	Qty.
264337	Alpine Slide Upper 96” PB, Specify Color	1
266289	Alpine Slide Upper 72” PB, Specify Color	1
264335	Alpine Slide Lower, Specify Color	1
264338	Alpine Slide Exit Support DB, Specify Color	1
264339	Alpine Slide Mid Support DB, Specify Color	1
273409	Alpine Slide Exit Support SM, Specify Color	1
273410	Alpine Slide Mid Support SM, Specify Color	1
100583	PBolt 40 7⁄16” AL PNT, Specify Color	1
105327	Clamp Half 5” AL, Specify Color	4
113729	Clamp Offset 5” Rail Hanger, Specify Color	4
131987	Hood Double Slide 34” x 37”, Specify Color	1
132443	Tube 1 ⅜” OD x 1 11⁄16” PNT, Specify Color	2
113468	Tube ⅞” OD x 1 11⁄16” AL/PNT, Specify Color	2
Alpine Slide Hardware Package		1
100198	BHCS ⅜” x 1 ⅛”, SST	4
100292	BHCS ⅜” x 1 ¼”, SST	4
100362	Washer Flat ⅜”, SST	19
111442	Rubber Bushing	4
123224	BHCS ⅜” x 1 11⁄16”, SST	7
Slide Hood Hardware Package		1
100198	BHCS ⅜” x 1 ⅛”, SST	8
100200	BHCS ⅜” x 3 ½”, SST	2
100203	BHCS ⅜” x 2 ¼”, SST	2
100351	Nut Mod-T ⅜” x 16, SST	8
100362	Flat Washer ⅜”, SST	2
100610	Drive Rivet ¼" x ⅝”	4

DB = Direct Bury

Specifications

Clamp: Cast aluminum. Finish: ProShield, Color Specified.

Fasteners: Primary fasteners shall be socketed and pinned tamperproof in design, stainless steel (SST) per ASTM F 879 unless otherwise indicated (see specific product installation/specifications).

Slide: Rotationally molded from U.V. stabilized linear low density polyethylene, color specified.

Exit Support: Weldment comprised of 2.375” (60,32 mm) O.D. x .120” (3,04 mm) black steel tubing and 1/4” (6,35 mm) x 3” (76,2 mm)mounting plate. Finish: ProShield, Color Specified.

Spacer Tube: Fabricated from 1.312 (33,33 mm) O.D. x 16 Ga. (.065) (1,65 mm) steel tubing. Finish: ProShield, Color Specified.

Hood: Rotationally molded from U.V. stabilized linear low density polyethylene, color specified.

Rail: Extruded from 1.125” (28,57 mm) O.D. x .312” (7,92 mm)W. 6005-T5 aluminum. Finish: ProShield, Color Specified.

Specifications are subject to change without notice.

Installation Time: Approx. 4.5 man hours

Concrete Req.: Approx. 4 cu. ft.

Area Req.: 72" Deck 6' (1,82 m) minimum use zone at exit
96" Deck 8' (2,44 m) minimum use zone at exit

Weight: 72" Deck DB 268 lbs.
72" Deck SM 245 lbs.
96" Deck DB 297 lbs.

Fall Height: 72" Deck (1,02 m)
96" Deck (1,22 m)

Installation Instructions

1) **(Direct Bury)** Dig footings spaced as shown.

2) Insert 40 7/16" rail through top of hood, place rail spacer tube on each end of the 40 7/16" rail and attach to posts at height shown using offset hanger clamp assemblies. Refer to the Typical Offset Hanger Clamp Spec Sheet. Fasten bottom of hood to clamps using 3/8" x 3 1/2" BHCS w/pin, 3/8" flat washers and spacer tubes. Refer to Detail 1.

3) Attach supports to base of slide using 3/8" x 1 1/4" BHCS w/Pin limited thread bolts, 3/8" SAE flat washers, rubber bushings and 3/8" flat washers. Refer to Detail 3. **NOTE:** *Attach bolts in the center of the slots to allow for expansion and contraction. Snug bolts down only, do not over-tighten!*

4) Attach upper slide section to lower slide section using 3/8" x 1 11/16" BHCS w/pin and 3/8" flat washers. Refer to Slide Section Detail 3

5) Attach slide to the face of the deck using 3/8" x 1 1/8" BHCS w/ Pin with 3/8" flat washers. Refer To Deck Connection Detail 2.

6) Install 1/4" x 5/8" drive rivets in all 5" half clamps, refer to the Typical Offset Hanger Clamp Spec Sheet.

7) **(Direct Bury)** With supports plumb, pour concrete footings. Allow concrete footings to cure for a minimum of 72 hours before users are allowed to play on the structure.

8) Install protective surfacing before users are allowed to play on the structure.

ECO-0101985 Document 27804000 replaces 27204500. Added elevation view for exit heights.

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SAFETY NOTE

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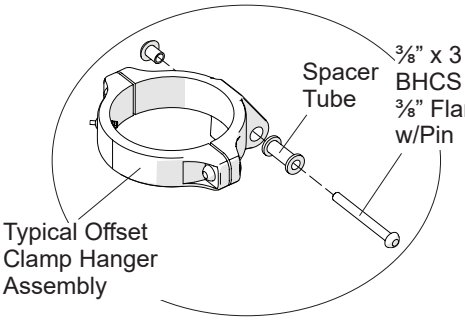
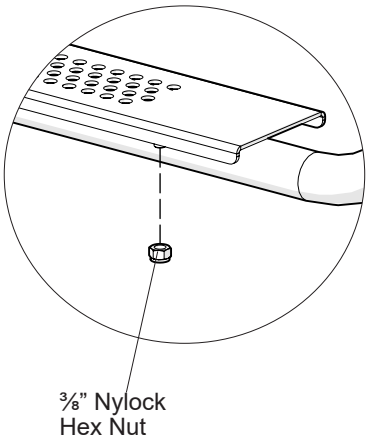
SPIRAL CLIMBER

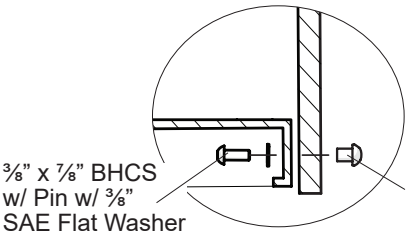
DETAIL
CLAMP ATTACHMENT

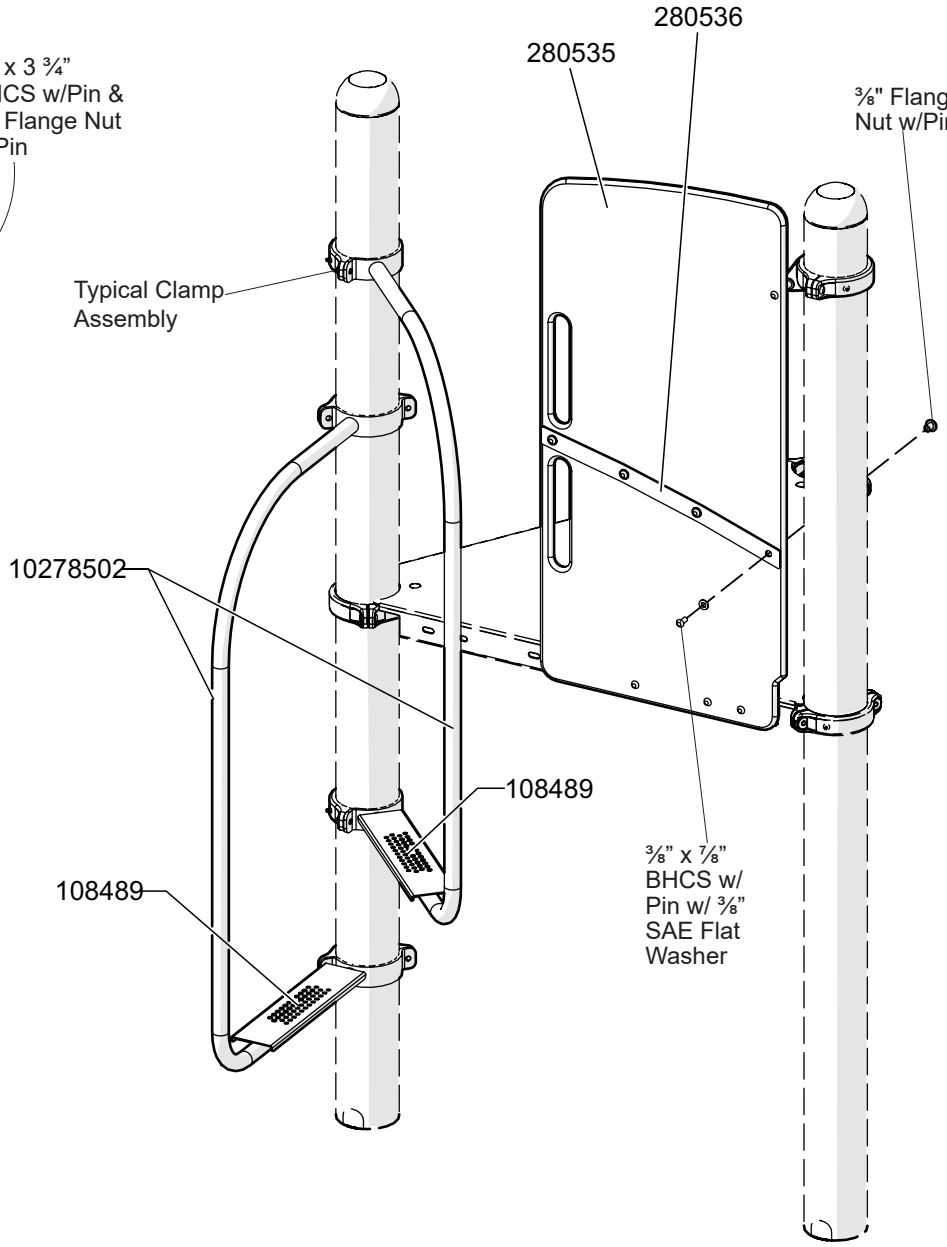


DETAIL
STEP ATTACHMENT



DETAIL
DECK ATTACHMENT





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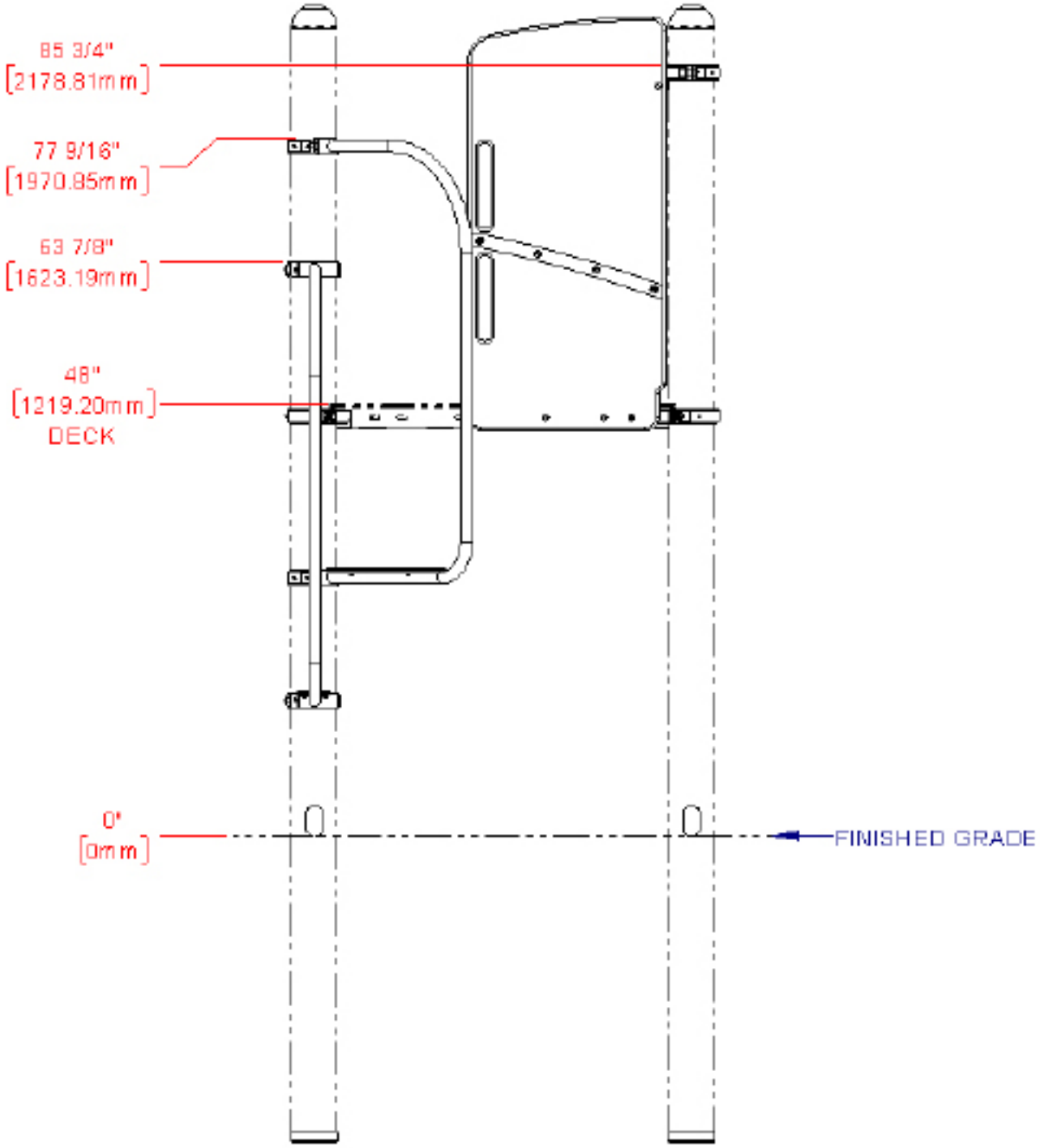

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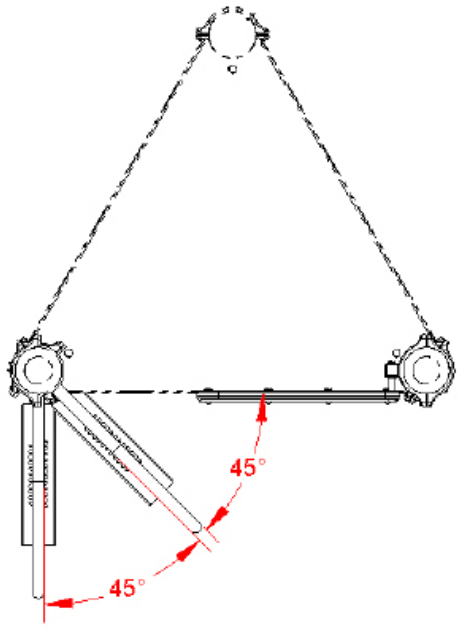
Choose a protective surfacing material that has a Critical Height Value of at least the height of the Highest Accessible Part/Fall Height of the adjacent equipment. (Ref. *ASTM F1487*.)



Parts List

PART NUMBER	DESCRIPTION	QTY.
280536	CUST 3/4 BARRIER ACCENT STRIPE PNT	2
280535	CUST 3/4 BARRIER PERM	1
124460	BHCS 6LP 3/8x3-3/4i SST	1
113729	CLAMP OFFSET 5 RAIL HGR	1
113468	TUBE 7/8OD X 1-11/16 PNT	1
108489	TREAD SPIRAL CLMR PVC	2
105327	CLMP HALF 5 AL	5
102785	SPIRAL CLIMBER PNT	2
100610	RVT 1/4X5/8 AS (GRIP=.578/.672)	5
100365	WASHER FLAT SAE 3/8i SST	12
100362	WASHER FLAT 3/8i SST	3
100353	FLG NUT 6LP 3/8-16 SST	5
100351	MOD T-NUT 3/8-16 SST	10
100329	5/16-18 HEX NUT NYLOCK	8
100327	HEX NUT STD 3/8-16 SST	3
100198	BHCS 6LP 3/8x1-1/8i SST	2
100196	BHCS 6LP 3/8x7/8i SST	12
100171	BHCS 6LP 3/8x1-1/2iSSTPAT	3

Installation Instructions

1) Assemble structure following steps and details shown. Use 2D layout as a reference.

2) Install protective surfacing before users are allowed to play on the structure.

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SAFETY NOTE

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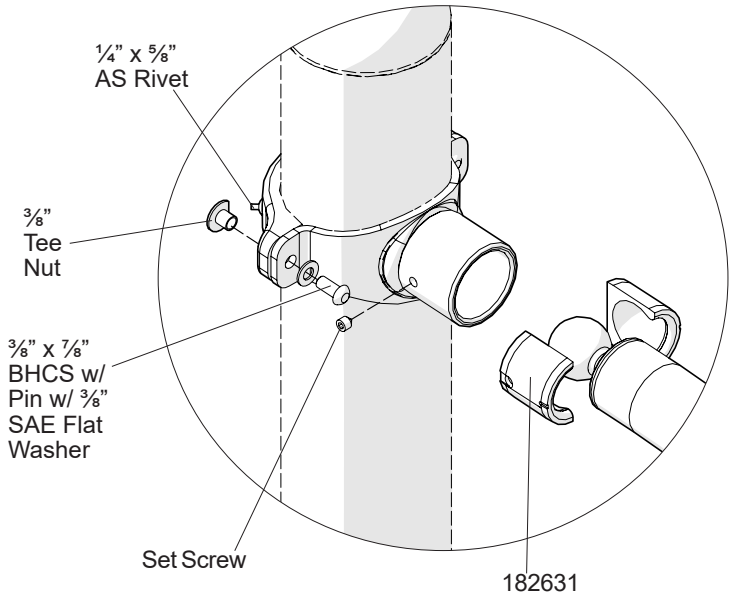
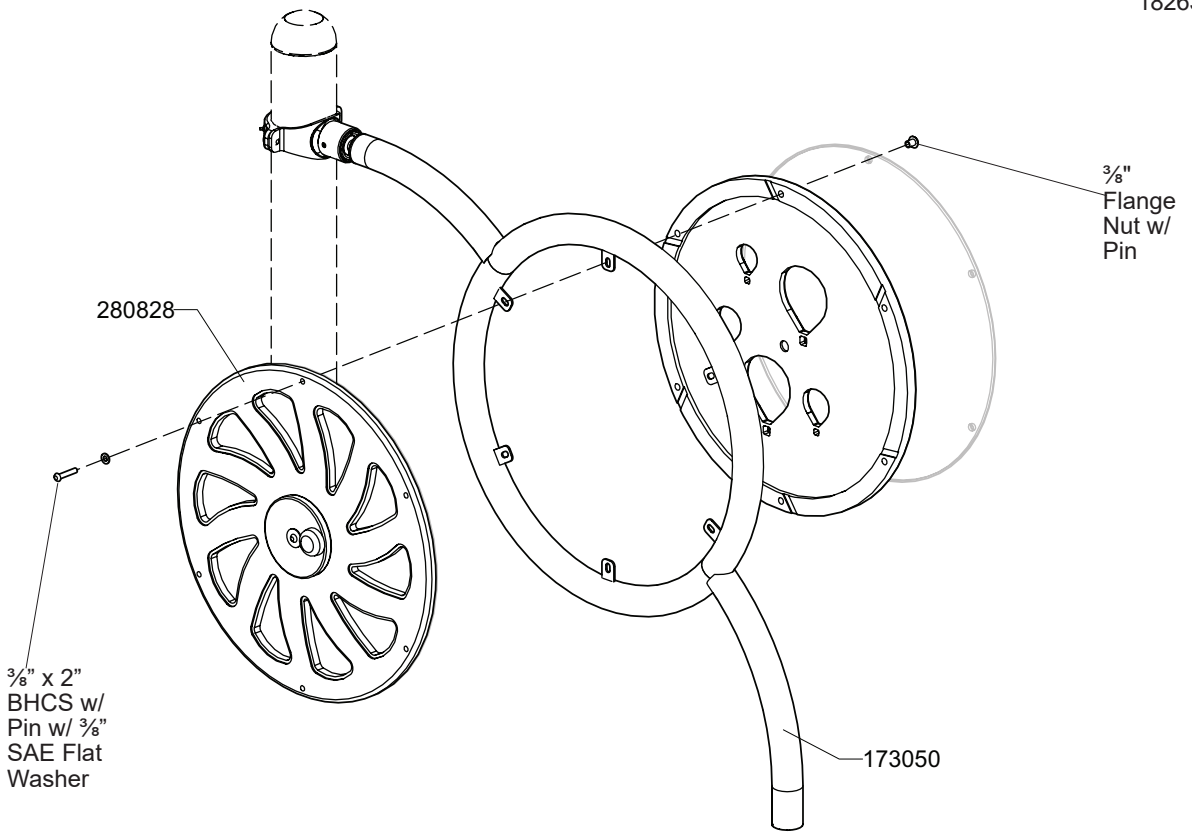
COLOR SPLASH WHEEL

DETAIL
CLAMP ATTACHMENT





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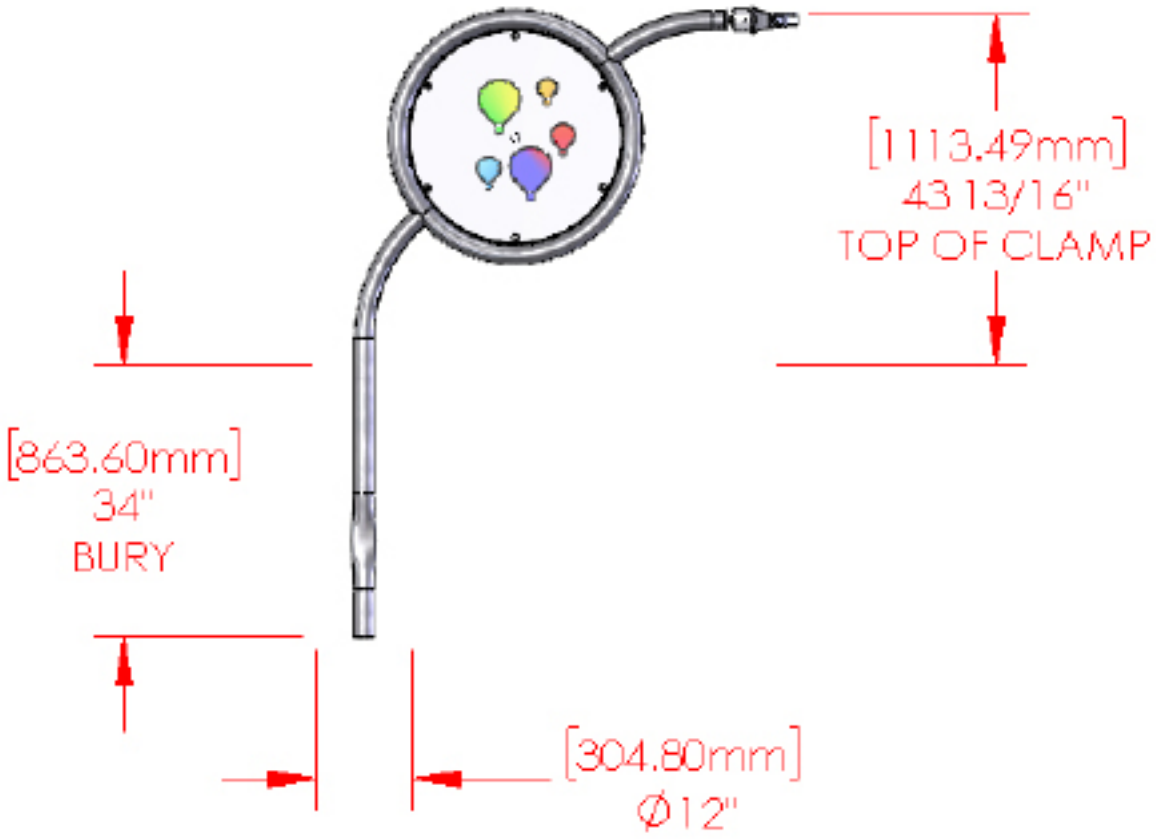

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Parts List

PART NUMBER	DESCRIPTION	QTY.
280828	CUST COLOR SPLASH WHEEL ASY	1
182632	PB CLAMP HOUSING PNT	1
182631	PB CLAMP BUSHING AL	2
173050	WEEVOS PANEL FRAME DB	1
105327	CLMP HALF 5 AL	1
100610	RVT 1/4X5/8 AS (GRIP=.578/.672)	1
100365	WASHER FLAT SAE 3/8i SST	8
100353	FLG NUT 6LP 3/8-16 SST	6
100351	MOD T-NUT 3/8-16 SST	2
100298	SET SCR 3/8 X 7/16i SST	2
100196	BHCS 6LP 3/8x7/8i SST	2
100173	BHCS 6LP 3/8x2i SST PAT	6

Installation Instructions

1) Assemble structure following steps and details shown. Use 2D layout as a reference.

   Direct Bury - With structure square, plumb and level, pour concrete footings. Allow concrete to cure a minimum of 72 hours before users are allowed to play on the structure.

2) Install protective surfacing before users are allowed to play on the structure.

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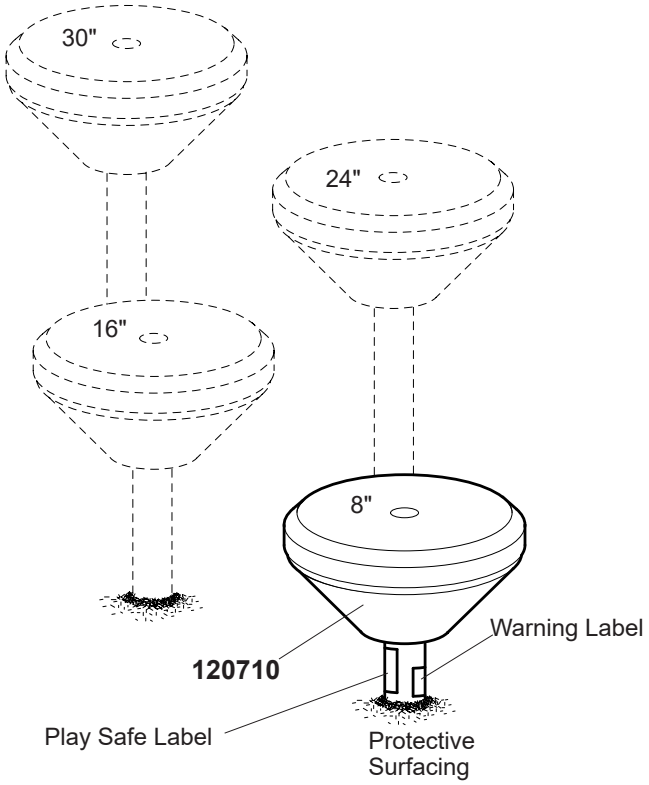
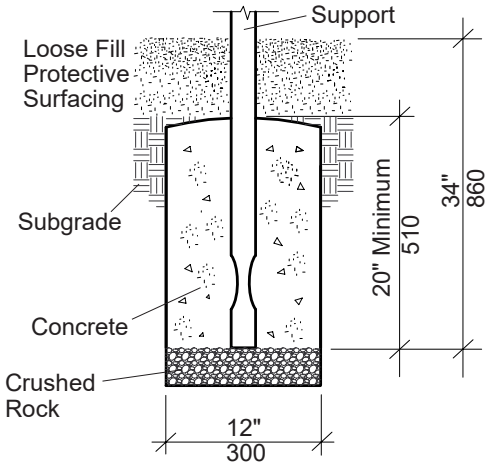
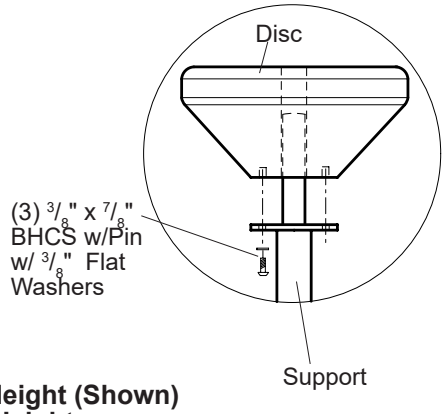
POD CLIMBERS



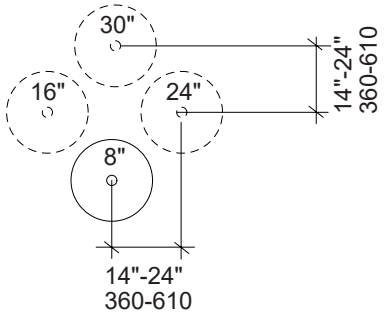
DETAIL
DIRECT BURY



DETAIL
DISC ATTACHMENT



PLAN VIEW/FOOTING LAYOUT
(Layout Varies - See Your Plan)



120710 8" Height (Shown)
158997 10" Height
120711 16" Height
158998 20" Height
120712 24" Height
120713 30" Height

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Climbers Pod Climbers

Parts List

Part#	Description	Qty.
126956	Disc, Specify Color	*
169340	Support 8" (SM), Specify Color	*
169339	Support 8" (DB), Specify Color	*
169342	Support 10" (SM), Specify Color	*
169341	Support 10" (DB), Specify Color	*
169344	Support 16" (SM), Specify Color	*
169343	Support 16" (DB), Specify Color	*
156625	Support 20" (SM), Specify Color	*
156627	Support 20" (DB), Specify Color	*
120605	Support 24" (SM), Specify Color	*
120601	Support 24" (DB), Specify Color	*
153987	Support 30" (SM), Specify Color	*
153988	Support 30" (DB), Specify Color	*
Disc Climber Hardware Package		1
100196	$^3/_8$" x $^7/_8$" BHCS w/Pin, SST	3
100365	$^3/_8$" Flat Washer, SST	3

*** = Quantity Determined By Your Order**

Specifications

Disc: Rotationally molded from U.V. stabilized linear low density polyethylene, disc measures 14" in diameter x 7" high, color specified.

Support: Weldment comprised of 1.900" O.D. RS20 (.090" - .100" Wall), 1.315" O.D. RS20 (.080" - 090" Wall) and $^3/_{16}$" x 5" diameter plate. Finish: ProShield®, color specified.

Fasteners: Primary fasteners shall be socketed and pinned tamperproof in design, stainless steel (SST) per ASTM F 879 unless otherwise indicated (see specific product installation/specifications).

Installation Time: **DB** - Approx. $^3/_4$ man hour each
Concrete Req.: Approx. 1.31 cu. ft. each
Weight: 8" - 12 lbs.
10" - 13 lbs.
16" - 14 lbs.
20" - 15 lbs.
24" - 15 lbs.
30" - 16 lbs.

Installation Instructions

1) **(Direct Bury)** Dig footing as shown. See your Plan View/Footing Layout.
2) Attach disc to support using $^3/_8$" x $^7/_8$" BHCS w/pin with $^3/_8$" flat washers, as shown.
3) **(Direct Bury)** Position support in footing hole and pour concrete footing. With support post plumb, prop support to hold in position.
4) Apply labels as shown.
5) Install protective surfacing before users are allowed to play on the structure.

Eco #54517 Document #18381300 replaces #16934500. Added warning label to hardware package.

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SAFETY NOTE

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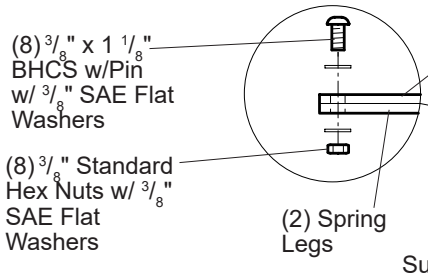
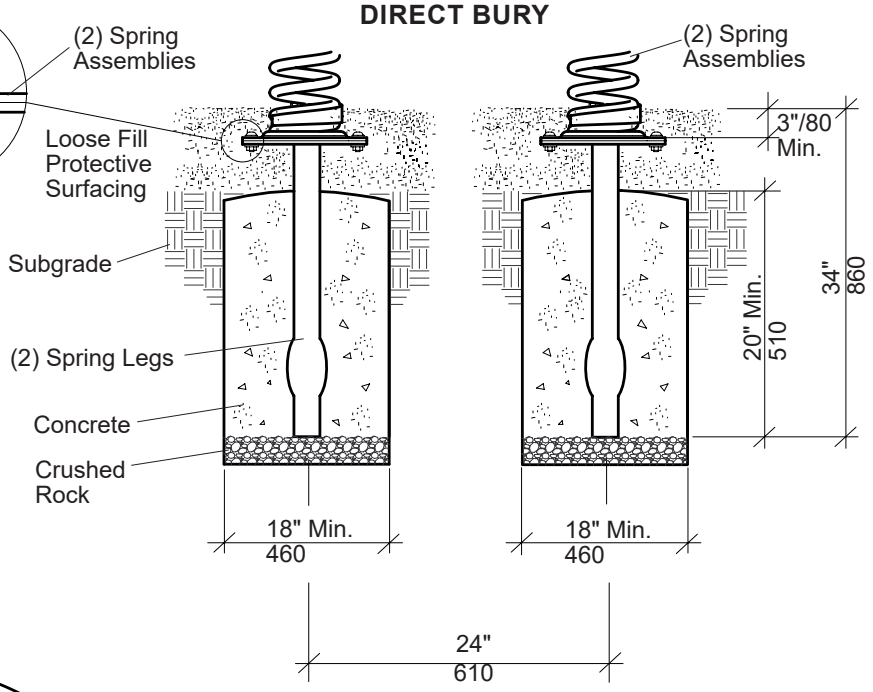
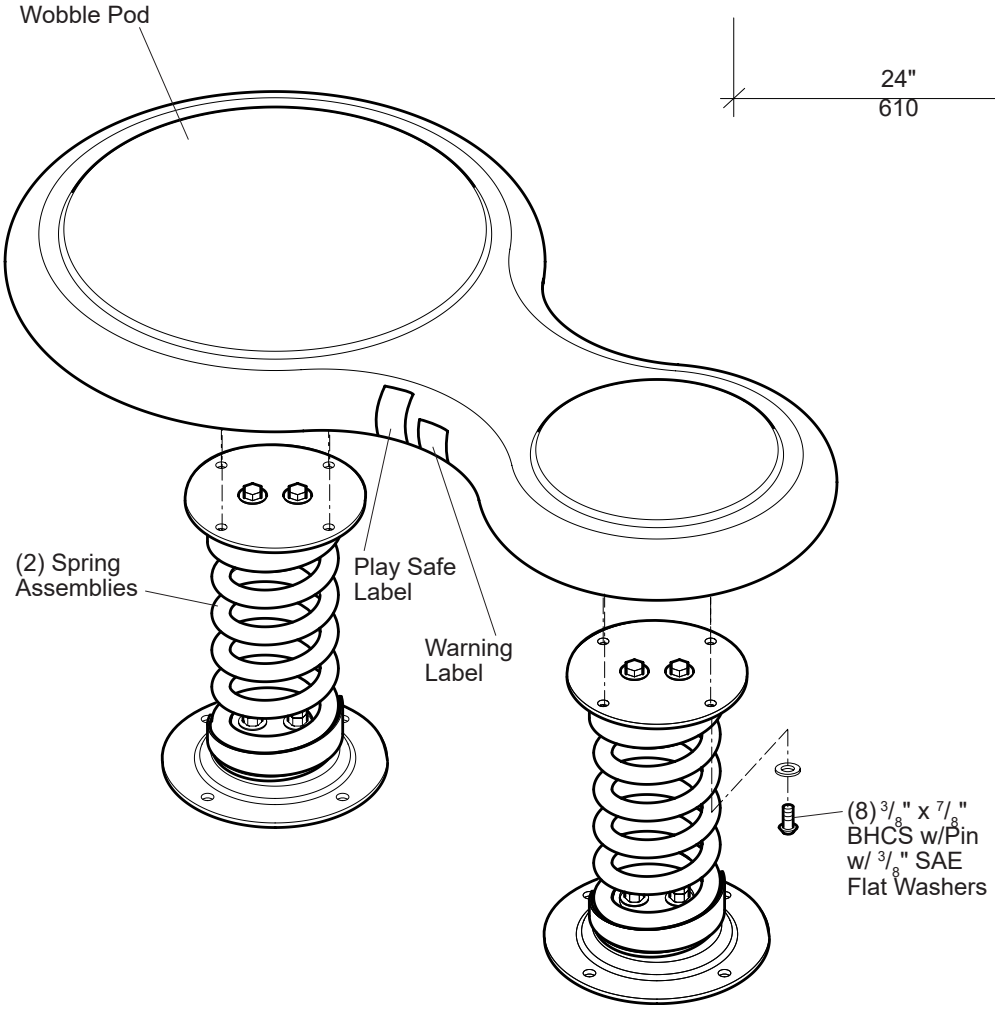
WOBBLE POD

DETAIL
SPRING LEG ATTACHMENT



DETAIL
DIRECT BURY





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Document #28332801

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Parts List

Part#	Description	Qty.
115154	Spring Leg, Specify Color	2
154631	Wobble Pod, Specify Color	1
156913	Spring Assembly w/Plates, Specify Color	2
	Wobble Pod Hardware Package	1
100196	3/8" x 7/8" BHCS w/Pin, SST	8
100198	3/8" x 1 1/8" BHCS w/Pin, SST	8
100327	3/8" Standard Hex Nut, SST	8
100365	3/8" SAE Flat Washer, SST	24

Specifications

Wobble Pod: Rotationally molded from U.V. stabilized linear low density polyethylene, color specified.

Spring Assembly: Comprised of 5 5/8" diameter 13/16" tempered alloy steel coil, 1/4" thick HRPO zinc plated steel, 1/4" thick HRPO sheet steel and spring wedge casting made from A-356 T-6 aluminum. Finish: ProShield®, color specified.

Spring Leg: Weldment comprised of 3 1/2" O.D. RS20 (.120" - .130" Wall) galvanized steel tubing and 1/4" x 10" diameter HRPO zinc plated steel mounting plate. ProShield, color specified.

Fasteners: Primary fasteners shall be socketed and pinned tamperproof in design, stainless steel (SST) per ASTM F 879 unless otherwise indicated (see specific product installation/specifications).

Installation Time: Approx. 2 man hours
Concrete Req.: Approx. 6 cu. ft.
Area Req.: 6' (1,83 m) minimum use zone
Weight: 122 lbs.

Fall Height: 16" (410 mm)

Installation Instructions

1) Dig footing holes as shown. Refer to the Site Plan for proper location of Wobble Pods.
2) Attach spring assemblies to Wobble Pod, using 3/8" x 7/8" BHCS w/pin with 3/8" SAE flat washers, as shown.
3) Attach spring legs to spring assemblies, using 3/8" x 1 1/8" BHCS w/pin with 3/8" SAE flat washers and 3/8" standard hex nuts with 3/8" SAE flat washers, as shown. Refer to the Spring Leg Attachment Detail.
4) With Wobble Pod propped in plumb position, pour concrete footings. Allow concrete footings to cure for a minimum of 72 hours before users are allowed to play on the structure.
5) Apply labels as shown.
6) Install protective surfacing before users are allowed to play on the component.

Eco #54517 Document 18462900 replaces 15747200. Added labels to hardware package.

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SAFETY NOTE

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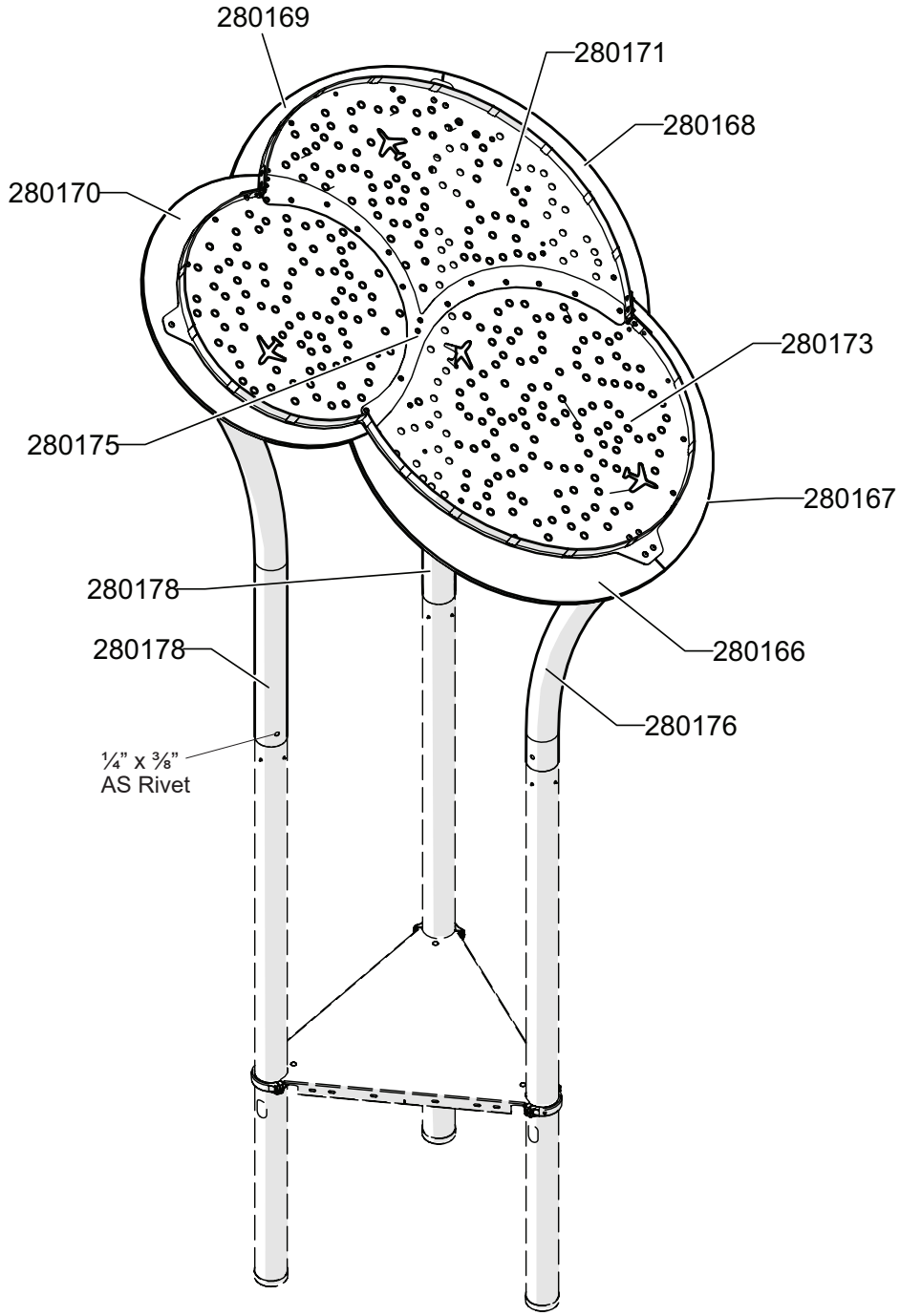
CLOUD ROOF



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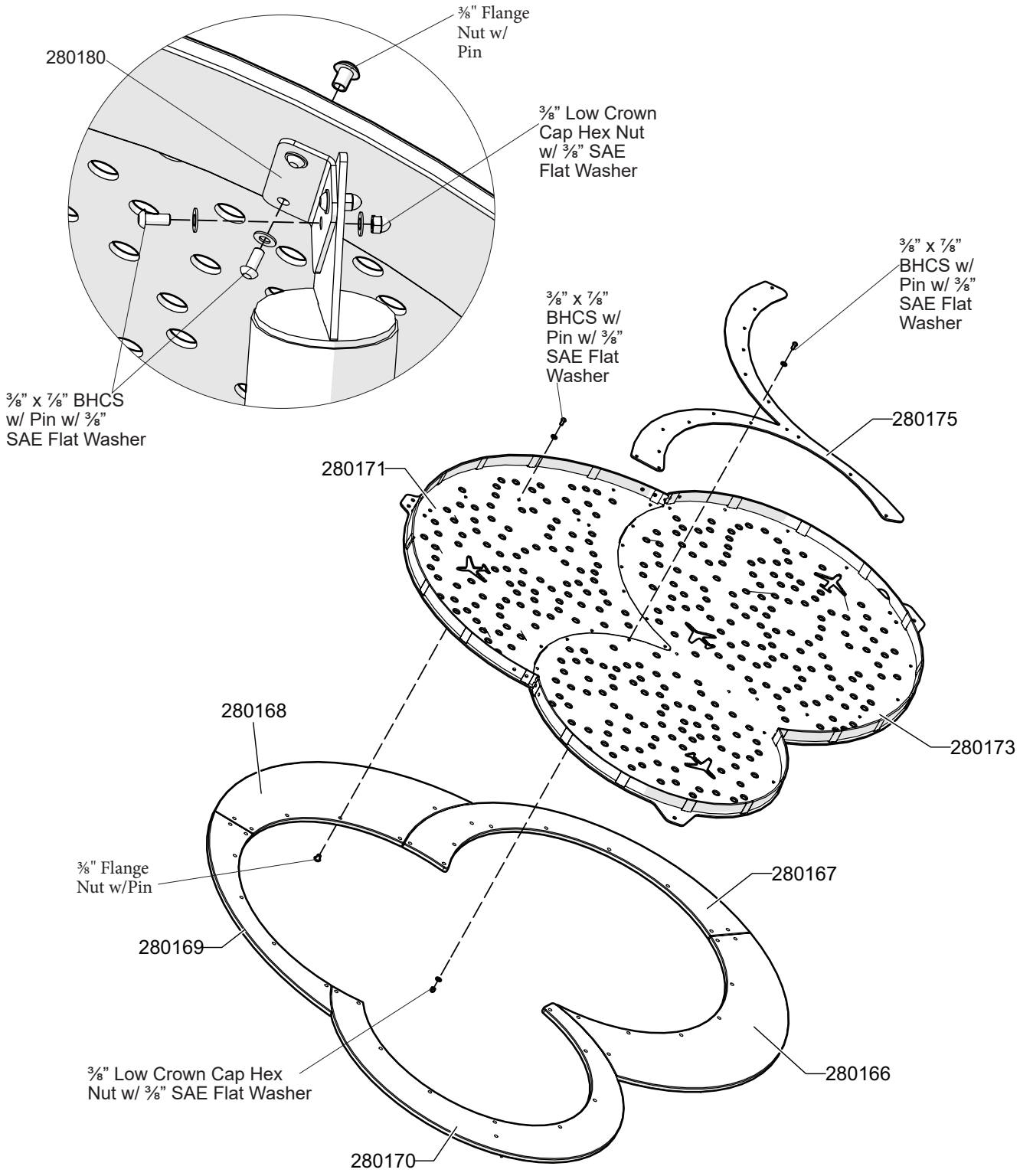
DETAIL
ROOF ATTACHMENT



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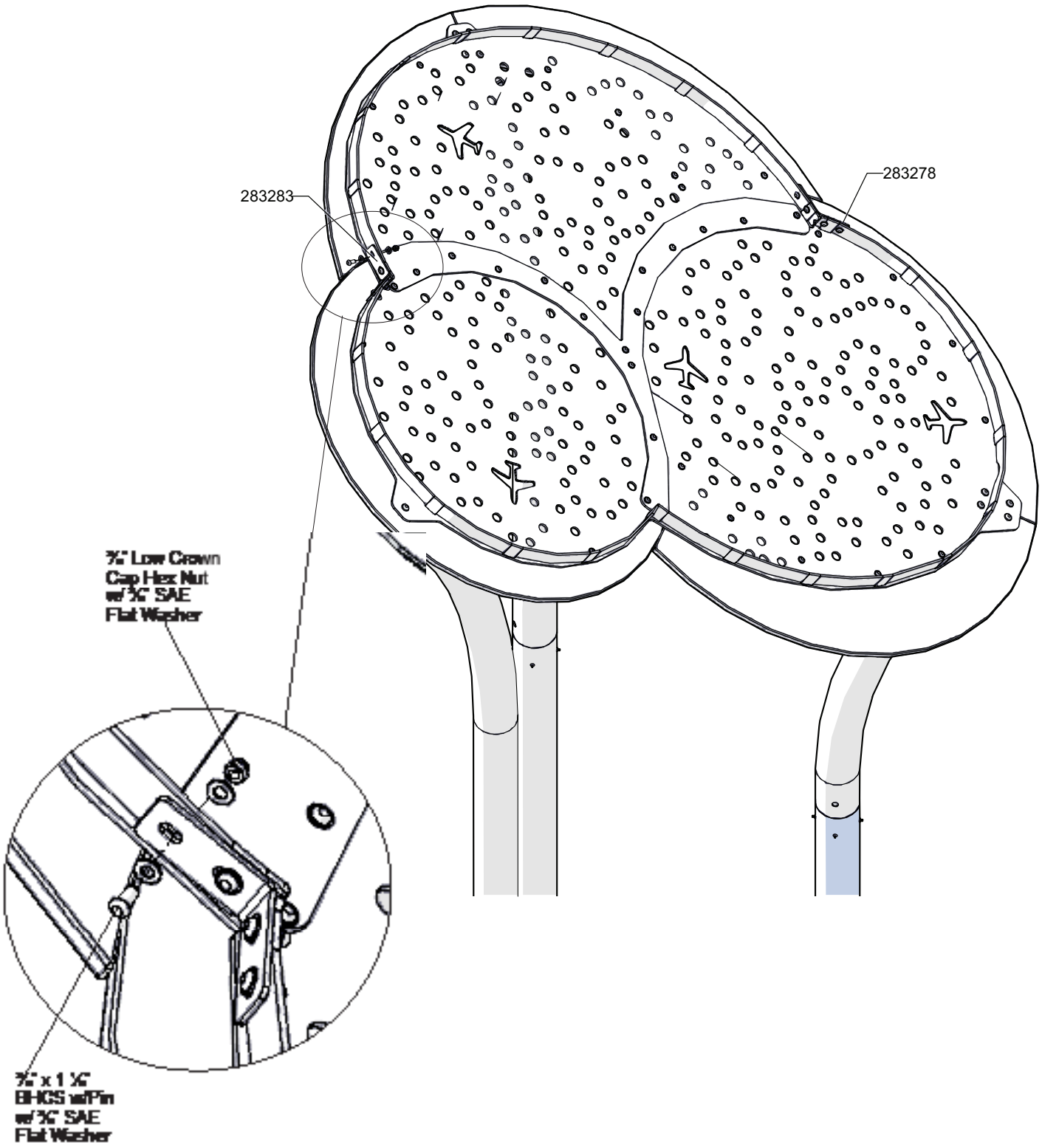

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Parts List

PART NUMBER	DESCRIPTION	QTY.
283283	CUST CLOUD ROOF SPRT ANGLE 2 PNT	1
283278	CUST CLOUD ROOF SPRT ANGLE 1 PNT	1
281869	CUST CLOUD RF BRKT 3 PNT	1
280180	CUST CLOUD RF BRKT 2 PNT	1
280179	CUST CLOUD RF BRKT 1 PNT	1
280178	CUST CLOUD PST EXT 2 WELDT PNT	2
280176	CUST CLOUD PST EXT 1 WELDT PNT	1
280175	CUST CLOUD PLT PNT	1
280173	CUST CLOUD PERF 2 PNT	1
280171	CUST CLOUD PERF 1 PNT	1
280170	CUST CLOUD ARCH 5 PERM	1
280169	CUST CLOUD ARCH 4 PERM	1
280168	CUST CLOUD ARCH 3 PERM	1
280167	CUST CLOUD ARCH 2 PERM	1
280166	CUST CLOUD ARCH 1 PERM	1
100611	RVT 1/4X3/8 AS (GRIP=.328/.422)	12
100365	WASHER FLAT SAE 3/8i SST	88
100353	FLG NUT 6LP 3/8-16 SST	40
100349	3/8 HEX NUT L/C CAP	24
100198	BHCS 6LP 3/8x1-1/8i SST	7
100196	BHCS 6LP 3/8x7/8i SST	57

Installation Instructions

1) Assemble structure following steps and details shown. Use 2D layout as a reference.

2) Install protective surfacing before users are allowed to play on the structure.

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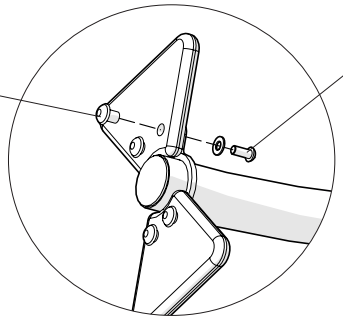
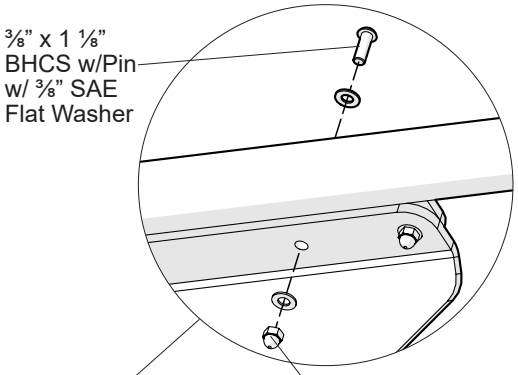
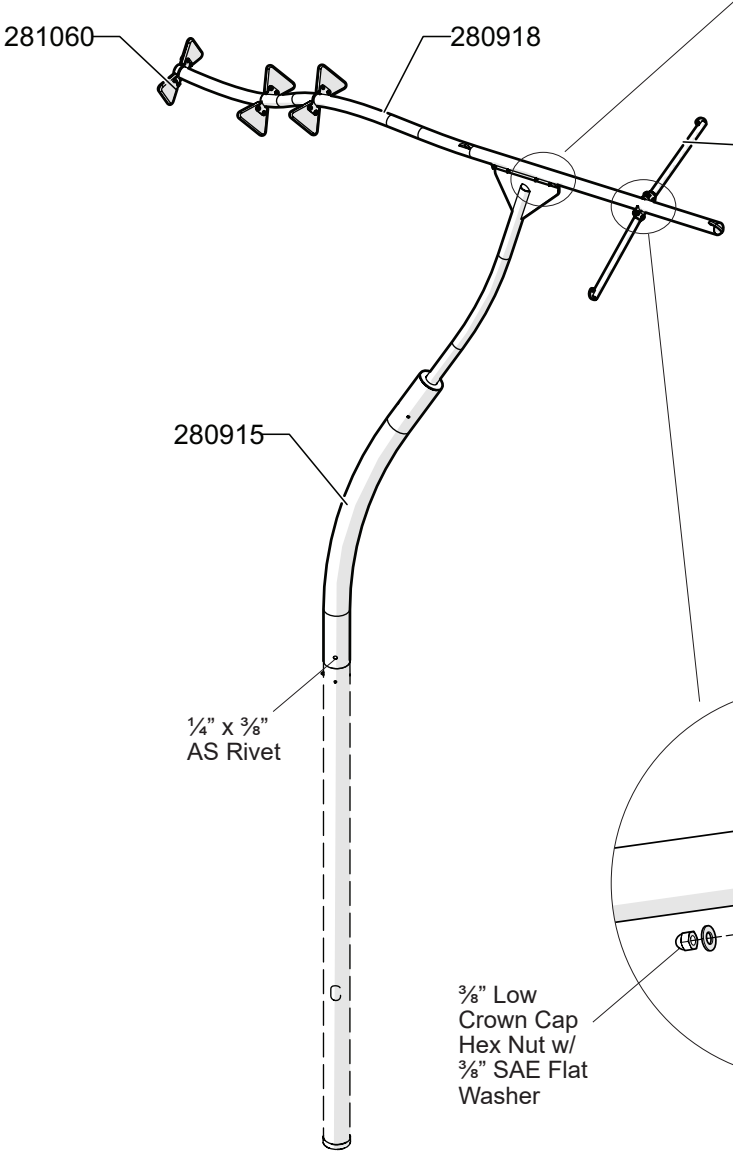
KITE POST TOPPER

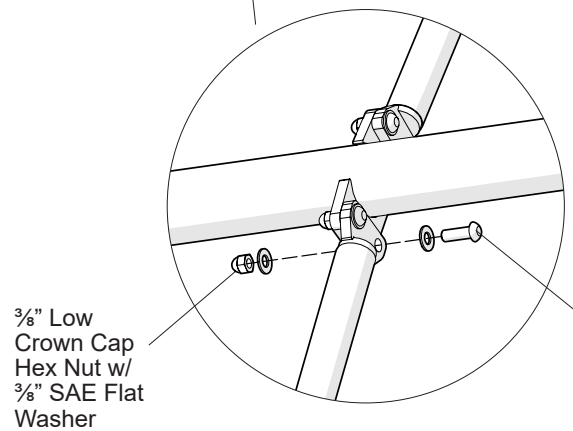
DETAIL
PERM ATTACHMENT



DETAIL
KITE POST TOPPER ATTACHMENT







NOTES:

1. **Attach a shackle (260526) to each of the tabbed corners of the kite frame.**
2. **Run the wire cable (284811) through the kite fabric and each of the shackles.**
3. **Draw the cable taught and secure it over itself using the cable clamps (259028).**

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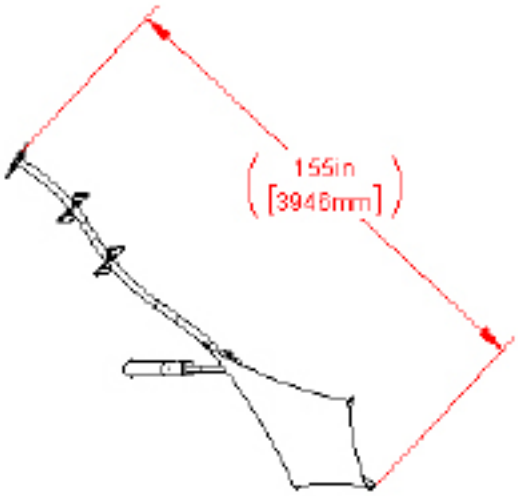
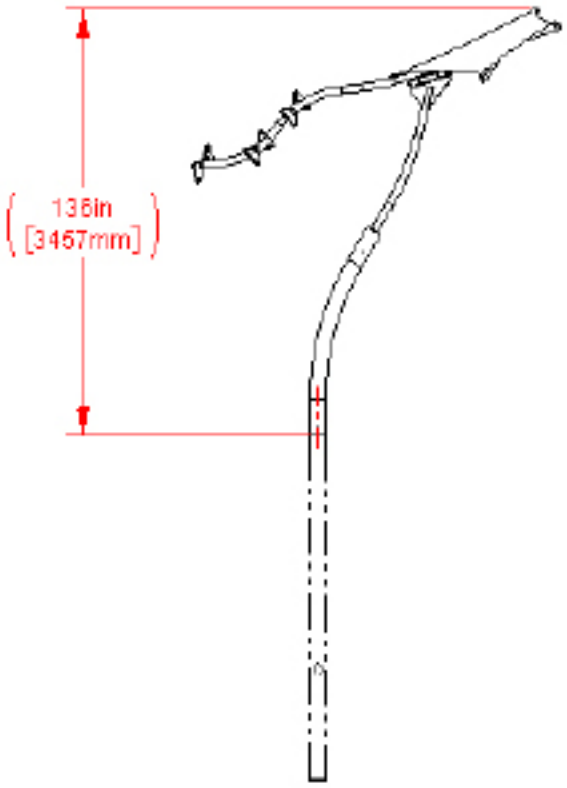
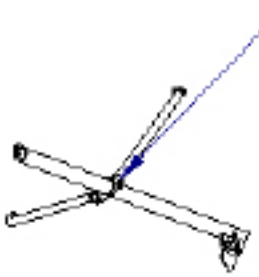
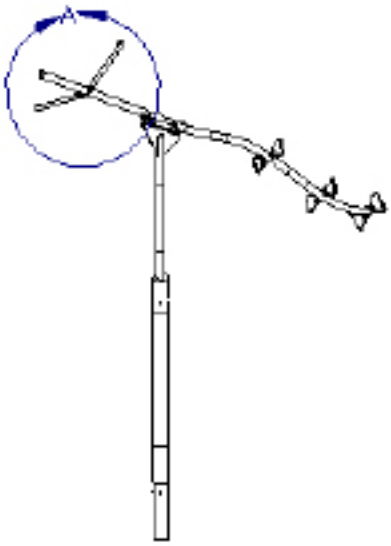






1. INSTALL TOP BOLT ON ARMS.
2. INSTALL SHADE.
3. ROTATE ARMS DOWN INTO PLACE TO TENSION SHADE.
4. INSTALL LOWER BOLT ON ARMS.



DETAIL A
SCALE 1 : 24

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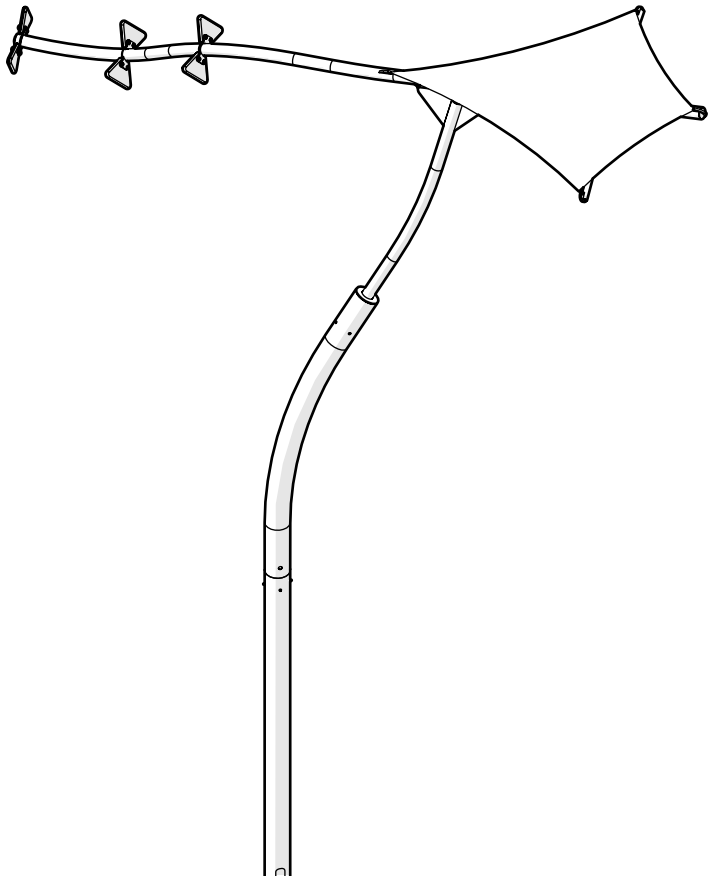

Parts List

PART NUMBER	DESCRIPTION	QTY.
281380	CUST BILLOWS KITE FABRIC KIT	1
281060	CUST KITE TAIL TIE PERM	6
281048	CUST KITE POST TOPPER ARM PNT	2
280918	CUST KITE POST TOPPER SPINE PNT	1
280915	CUST KITE POST TOPPER STEM PNT	1
100611	RVT 1/4X3/8 AS (GRIP=.328/.422)	4
100365	WASHER FLAT SAE 3/8i SST	28
100353	FLG NUT 6LP 3/8-16 SST	12
100349	3/8 HEX NUT L/C CAP	8
100198	BHCS 6LP 3/8x1-1/8i SST	8
100196	BHCS 6LP 3/8x7/8i SST	12

Installation Instructions

1) Assemble structure following steps and details shown. Use 2D layout as a reference.

2) Install protective surfacing before users are allowed to play on the structure.

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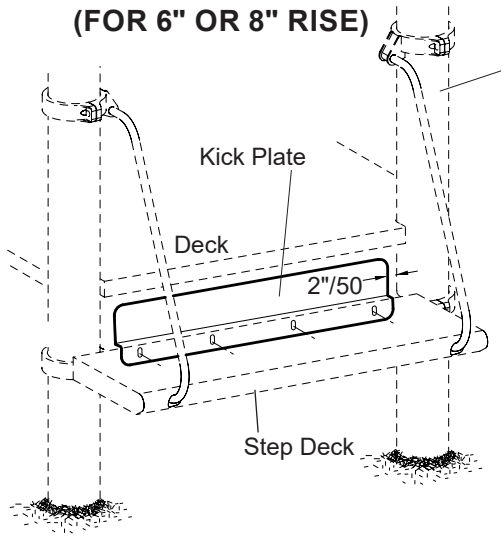
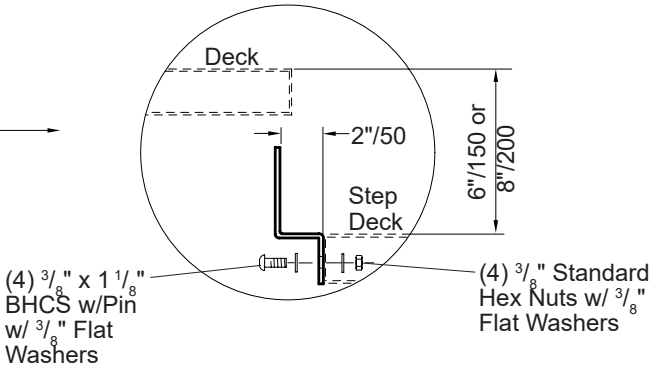
KICKPLATE

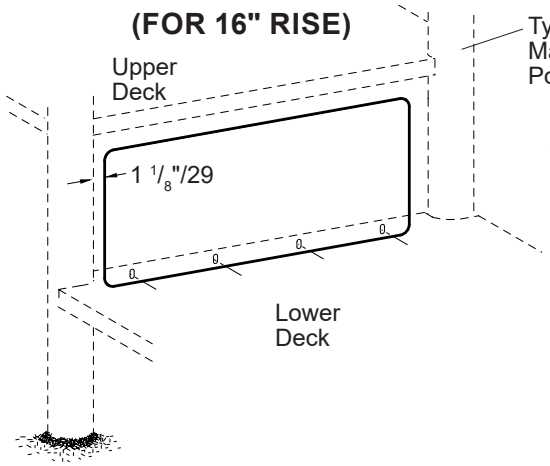
KICK PLATE
(FOR 6" OR 8" RISE)



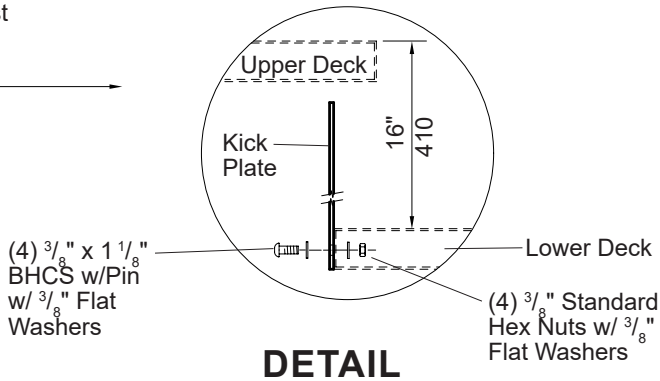
DETAIL
KICK PLATE ATTACHMENT (FOR 6" OR 8" RISE)



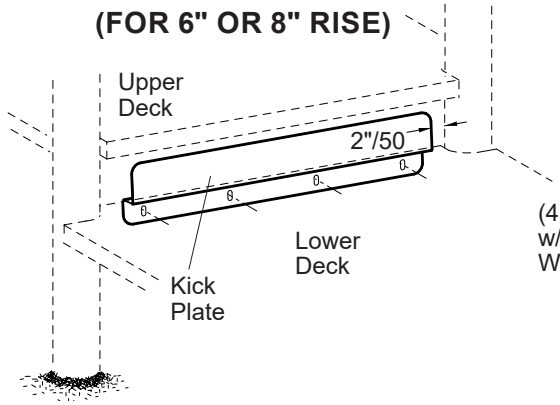
KICK PLATE
(FOR 16" RISE)



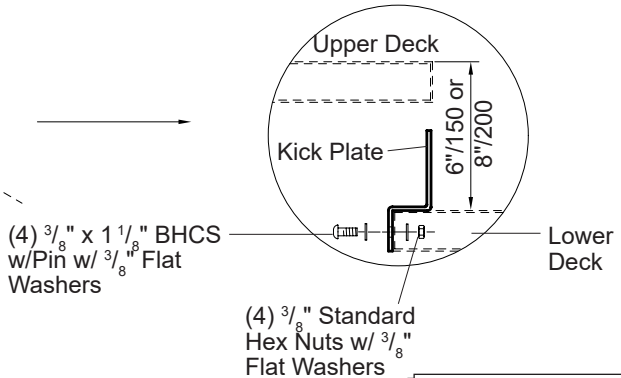
DETAIL
KICK PLATE ATTACHMENT (FOR 16" RISE)



KICK PLATE
(FOR 6" OR 8" RISE)



DETAIL
KICK PLATE ATTACHMENT (FOR 6" OR 8" RISE)



NOTE: Kick Plates mount to face of lower deck.

Billows™ Structure

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Parts List

Part#	Description	Qty.
121819	Kick Plate (For 6" or 8" Rise), Specify Color	1
121818	Kick Plate (For 16" Rise), Specify Color	1
	Kick Plate Tenderdeck Hardware Package	1
100198	$^3/_8$" x 1 $^1/_8$" BHCS w/Pin, SST	4
100327	$^3/_8$" Standard Hex Nut, SST	4
100362	$^3/_8$" Flat Washer, SST	8

Specifications

Kick Plate: Fabricated from 11 GA (.120") HR flat steel. Finish: TenderTuff™, brown or gray in color.

Fasteners: Primary fasteners shall be socketed and pinned tamperproof in design, stainless steel (SST) per ASTM F 879 unless otherwise indicated (see specific product installation/specifications).

Installation Time: Approx. $^1/_4$ man hour

Weight: Kick Plate (For 6" or 8" Rise) 13 lbs.
Kick Plate (For 16" Rise) 23 lbs.

Installation Instructions

1) Locate kick plates as labeled on your plan drawing.

2) Attach kick plate using $^3/_8$" x 1 $^1/_8$" BHCS w/pin with $^3/_8$" flat washers and $^3/_8$" standard hex nuts with $^3/_8$" flat washers, as shown. **NOTE:** *Kick plates mount to face of lower deck.*

3) Install protective surfacing before users are allowed to play on the structure.

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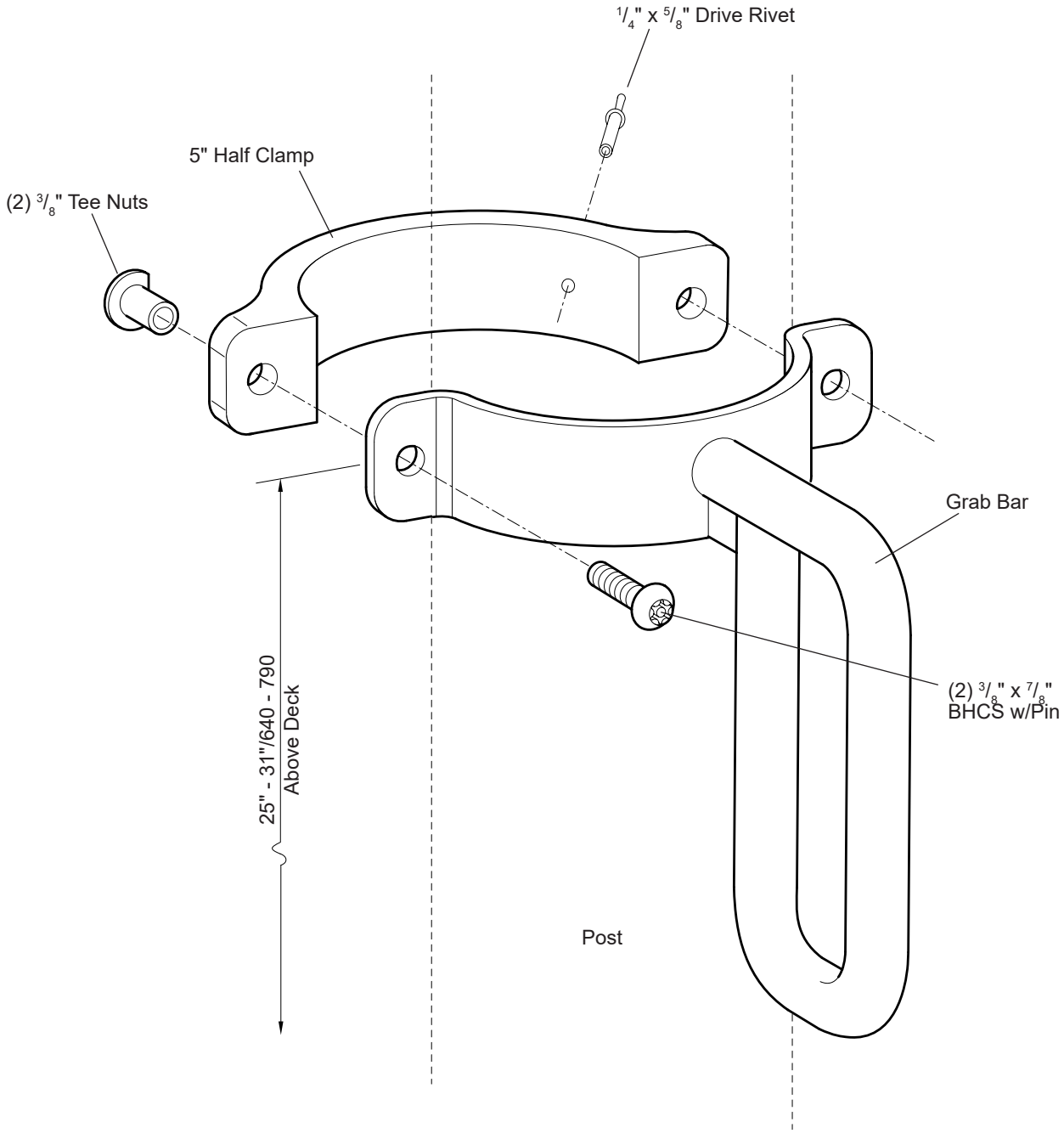
SAFETY NOTE

Choose a protective surfacing material that has a Critical Height Value of at least the height of the Highest Accessible Part/Fall Height of the adjacent equipment. (Ref. *ASTM F1487*.)

GRAB BAR



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Parts List

Part#	Description	Qty.
105327	5" Half Clamp, Specify Color	1
141541	Grab Bar, Specify Color	1
	Grab Bar Hardware Package	1
100196	$^3/_8$" x $^7/_8$" BHCS w/Pin, SST	2
100351	$^3/_8$" Tee Nut, SST	2
100610	$^1/_4$" x $^5/_8$" Drive Rivet, AL/SST	1

Specifications

Grab Bar: Weldment comprised of formed $^7/_8$" O.D. 11 GA (.120") and $^1/_4$" x 1 $^3/_4$" stainless steel half clamp. Finish: TenderTuff™, color specified.

Half Clamp: Cast aluminum. Finish: ProShield®, color specified.

Fasteners: Primary fasteners shall be socketed and pinned tamperproof in design, stainless steel (SST) per ASTM F 879 unless otherwise indicated (see specific product installation/specifications).

Installation Time: Approx. $^1/_4$ man hour

Weight: 5 lbs.

Installation Instructions

1) Attach grab bar to post at height shown, using a 5" half clamp, $^3/_8$" x $^7/_8$" BHCS w/pin and $^3/_8$" tee nuts.

2) Install $^1/_4$" x $^5/_8$" drive rivet in 5" half clamp. Refer to the Offset Hanger Clamp Spec Sheet.

3) Install protective surfacing before users are allowed to play on the structure.

ECO #51463 Document #14161500 replaces #13549700. Changed Grab Bar half clamp to stainless steel.

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SAFETY NOTE

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Additional Specifications

Cloud roof - Two color Permalene®, color specified. Perforated weldment comprised of 0.25i AL plates

Steel Half Clamps: Fabricated from of 1 /4" (6,35 mm) HRPO flat steel. Finish: ProShield, color specified.

Decks: Flange formed from 11 GA (.120") sheet steel conforming to ASTM A1011. Standing surface is perforated with 5 /16" diameter holes. Deck face has (4) slotted holes for face mounting components. Finish: TenderTuff, color specified.

Cable/Net Assemblies: (Cable) Made of tightly woven polyester-wrapped, six-stranded galvanized-steel cable with a polypro¬-pylene core. (Cable Connectors) 6063-T6 aluminum.

Belting: .315" (8,00 mm) Thick mini rough top rubber belting with polyester fabric plys, black in color.

Belt Bridge Handrail: weldment comprised of 1.9" O.D. .095" wall (RS20) and 1.029" O.D. .083 wall (RS20) galvanized steel.

Belt Bridge Brackets: Formed from 0.250" aluminum plate.

DigiFuse Barrier Panels: Assembled from 1/4" (6,35 mm) thick aluminum sheet. Dye sublimation printed digital artwork is fused onto the powdercoated substrate. Solid col¬or Permalene®, color specified,

Permalene® Panels: Two color panel, color specified.

Fasteners: Primary fasteners shall be socketed and pinned tamperproof in design, stainless steel (SST) per ASTM F 879 unless otherwise indicated (see specific product installation/ specifications).

5" Clamps: Cast aluminum. Finish: ProShield, Color Specified.

Steel Posts: Cut from 5" O.D. .120" wall (11GA) galvanized steel.

Aluminum Posts: Cut from 5" O.D. .125" wall aluminum.

Post Toppers: Formed from 5" O.D. .120" wall (11GA) galvanized steel. Post caps are Fabricated from sand-cast alloy 356. Finish: Pro- Shield, color specified. Sleeve is cut from 4.69" OD X 24i galvanized steel.

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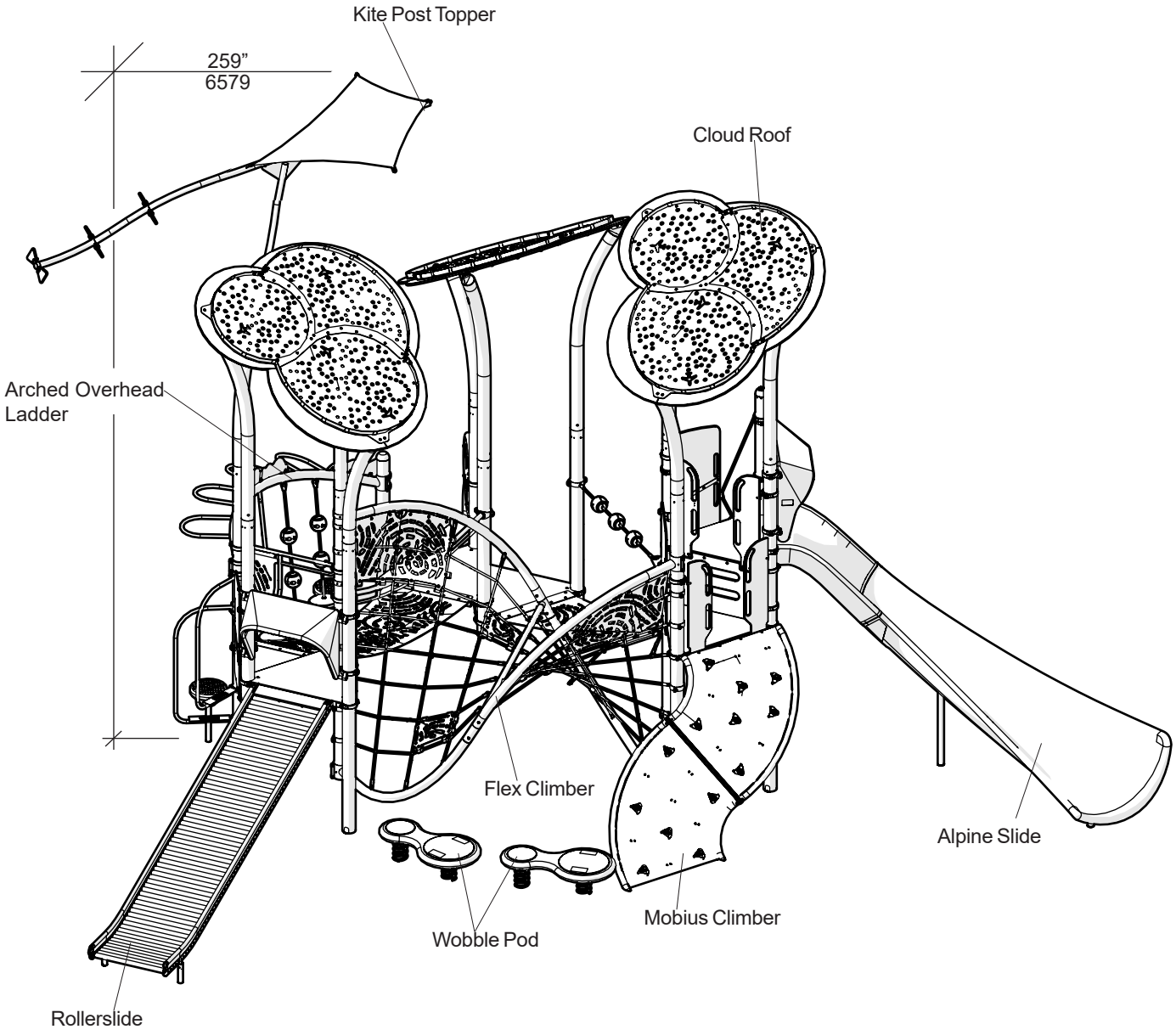

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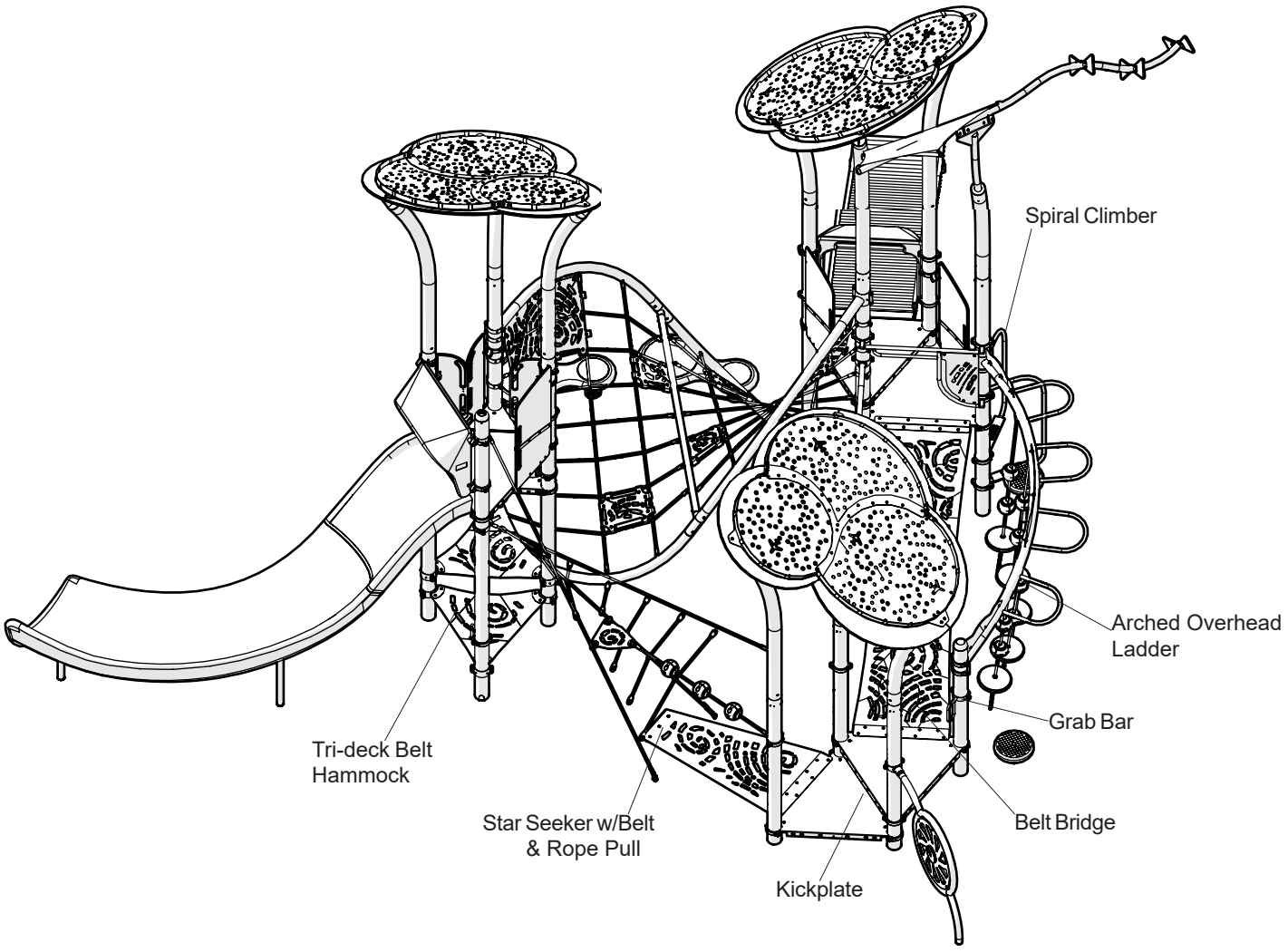

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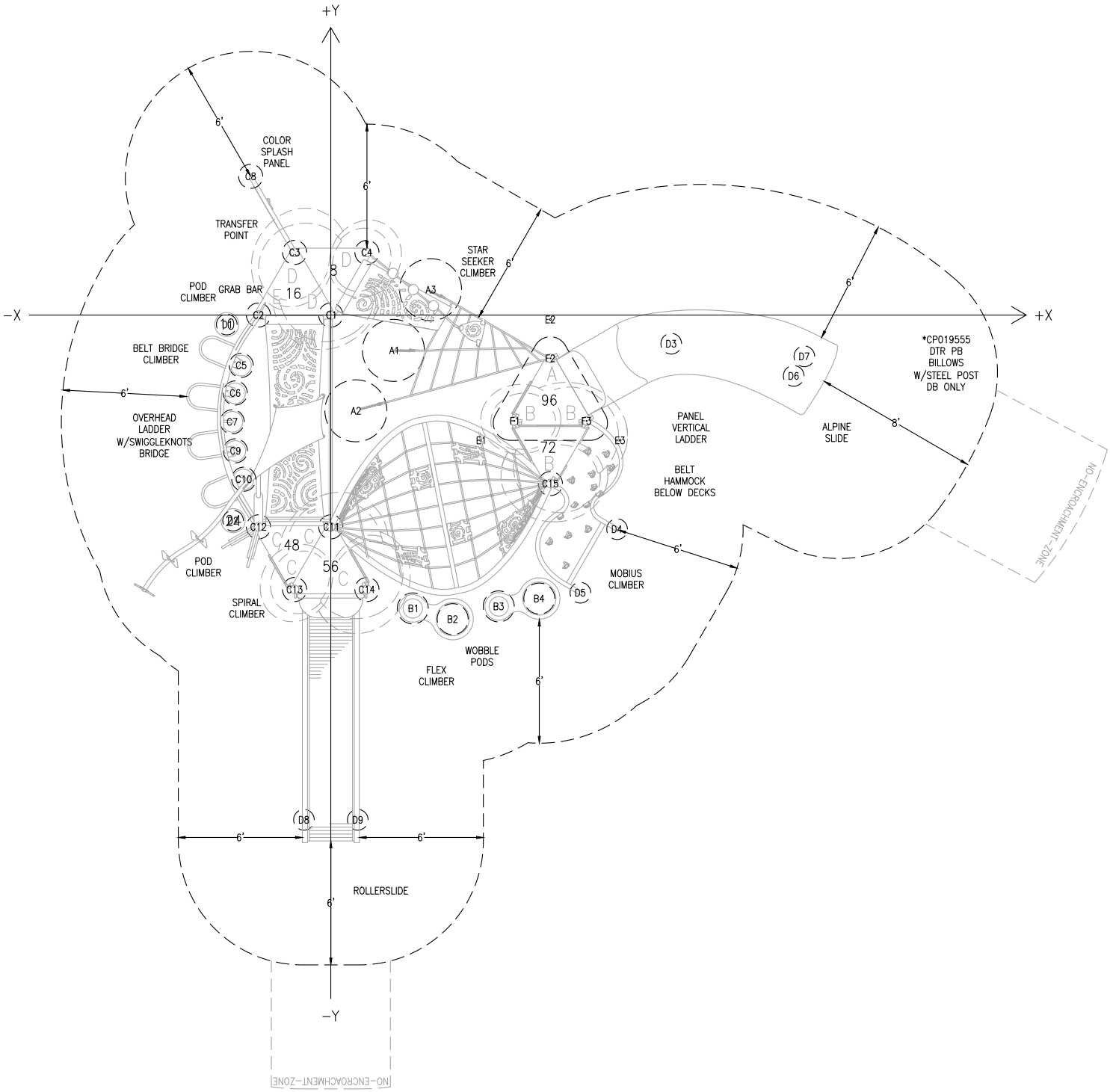

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QTY. POST/ARCH LENGTHS

1 A 190" Post DB (44" Bury) 217224
3 B 174" Steel Roof Post DB 107547
4 C 158" Alum Roof Post DB 107718
3 D 110" Steel Roof Post DB 128781
1 E 100" Alum Post DB 107685

N.	I.D.	X (ft-in)	Y (ft-in)	Dist. to O	DIA (in)
1	A1	3'-0 1/2"	-1'-8 1/2"	3'-6"	36
2	A2	1'-2 1/2"	-4'-7 1/2"	4'-9 1/2"	36
3	A3	4'-10"	1'-2 1/2"	5'	36
4	B1	3'-11 1/2"	-14'-2 1/2"	14'-9"	18
5	B2	5'-11"	-14'-8 1/2"	15'-10"	18
6	B3	8'-1 1/2"	-14'-1"	16'-3 1/2"	18
7	B4	10'-1"	-13'-8 1/2"	17'-0 1/2"	18
8	C1	0"	0"	0"	14
9	C2	-3'-6"	0"	3'-6"	14
10	C3	-1'-9"	3'-0 1/2"	3'-6"	14
11	C4	1'-9"	3'-0 1/2"	3'-6"	14
12	C5	-4'-4"	-2'-5"	4'-11 1/2"	14
13	C6	-4'-7 1/2"	-3'-9 1/2"	5'-11 1/2"	14
14	C7	-4'-9"	-5'-2"	7'-0 1/2"	14
15	C8	-3'-10 1/2"	6'-8 1/2"	7'-9"	14
16	C9	-4'-7 1/2"	-6'-7"	8'-0 1/2"	14
17	C10	-4'-2 1/2"	-7'-11 1/2"	9'	14
18	C11	0"	-10'-3"	10'-3"	14
19	C12	-3'-6"	-10'-3"	10'-10"	14
20	C13	-1'-9"	-13'-3 1/2"	13'-4 1/2"	14
21	C14	1'-9"	-13'-3 1/2"	13'-4 1/2"	14
22	C15	10'-7 1/2"	-8'-2"	13'-4 1/2"	14
23	D1	-5'-0 1/2"	-5 1/2"	5'-0 1/2"	12
24	D2	-4'-8 1/2"	-9'-11 1/2"	11'	12
25	D3	16'-5 1/2"	-1'-4 1/2"	16'-6 1/2"	12
26	D4	13'-10"	-10'-4 1/2"	17'-3 1/2"	12
27	D5	12'-1"	-13'-5 1/2"	18'-1"	12
28	D6	22'-5"	-2'-11 1/2"	22'-7"	12
29	D7	22'-11"	-2'	23'	12
30	D8	-1'-3 1/2"	-24'-5"	24'-5 1/2"	12
31	D9	1'-3 1/2"	-24'-5"	24'-5 1/2"	12
32	E1	7'-3"	-6'-1"	9'-5 1/2"	TRENCH
33	E2	10'-7 1/2"	-2 1/2"	10'-7 1/2"	TRENCH
34	E3	14'	-6'-0 1/2"	15'-3"	TRENCH
35	F1	8'-10 1/2"	-5'-1 1/2"	10'-3"	POST
36	F2	10'-7 1/2"	-2'-1"	10'-10"	POST
37	F3	12'-4 1/2"	-5'-1 1/2"	13'-4 1/2"	POST

C11 - 107718
C12 – 107718
C13 – 107718
C14 – 107718

C1 – 128781
C2 – 107685
C3 – 128781
C4 - 128781

F1 – 107547
F2 – 217224
F3 – 107547
C15 – 107547

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SAFETY NOTE

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FOOTING CHART FOR PLANNING ONLY, NOT FOR CONSTRUCTION

N.	I.D.	X (ft–in)	Y (ft–in)	Dist. to O	DIA (in)
1	A1	1'–8 1/2"	3'–0 1/2"	3'–6"	36
2	A2	4'–7 1/2"	1'–2 1/2"	4'–9 1/2"	36
3	A3	–1'–2 1/2"	4'–10"	5'	36
4	B1	14'–2 1/2"	3'–11 1/2"	14'–9"	18
5	B2	14'–8 1/2"	5'–11"	15'–10 1/2"	18
6	B3	14'–1"	8'–1 1/2"	16'–3 1/2"	18
7	B4	13'–8 1/2"	10'–1"	17'–0 1/2"	18
8	C1	0"	0"	0"	14
9	C2	0"	–3'–6"	3'–6"	14
10	C3	–3'–0 1/2"	–1'–9"	3'–6"	14
11	C4	–3'–0 1/2"	1'–9"	3'–6"	14
12	C5	2'–5"	–4'–4"	4'–11 1/2"	14
13	C6	3'–9 1/2"	–4'–7 1/2"	5'–11 1/2"	14
14	C7	5'–2"	–4'–9"	7'–0 1/2"	14
15	C8	–6'–8 1/2"	–3'–10 1/2"	7'–9"	14
16	C9	6'–7"	–4'–7 1/2"	8'–0 1/2"	14
17	C10	7'–11 1/2"	–4'–2 1/2"	9'	14
18	C11	10'–3"	0"	10'–3"	14
19	C12	10'–3"	–3'–6"	10'–10"	14
20	C13	13'–3 1/2"	–1'–9"	13'–5"	14
21	C14	13'–3 1/2"	1'–9"	13'–5"	14
22	C15	8'–2"	10'–7 1/2"	13'–5"	14
23	D1	5 1/2"	–5'–0 1/2"	5'–0 1/2"	12
24	D2	9'–11 1/2"	–4'–8 1/2"	11'	12
25	D3	1'–4 1/2"	16'–5 1/2"	16'–6 1/2"	12
26	D4	10'–6 1/2"	14'–1 1/2"	17'–7 1/2"	12
27	D5	13'–7 1/2"	12'–4"	18'–4 1/2"	12
28	D6	2'–11 1/2"	22'–5"	22'–7"	12
29	D7	2'	22'–11"	23'	12
30	D8	24'–5"	–1'–3 1/2"	24'–5 1/2"	12
31	D9	24'–5"	1'–3 1/2"	24'–5 1/2"	12
32	E1	6'–1"	7'–3"	9'–5 1/2"	TRENCH
33	E2	2 1/2"	10'–7 1/2"	10'–7 1/2"	TRENCH
34	E3	6'–0 1/2"	14'	15'–3"	TRENCH
35	F1	5'–1 1/2"	8'–10 1/2"	10'–3"	REF PT
36	F2	2'–1"	10'–7 1/2"	10'–10"	REF PT
37	F3	–11'–5"	0"	11'–5"	REF PT
38	F4	0"	–12'–1 1/2"	12'–1 1/2"	REF PT
39	F5	5'–1 1/2"	12'–4 1/2"	13'–5"	REF PT
40	F6	31'–5 1/2"	0"	31'–5 1/2"	REF PT
41	F7	0"	31'–7"	31'–7"	REF PT
42	F8	7'–2 1/2"	30'–9 1/2"	31'–7 1/2"	REF PT

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SAFETY NOTE

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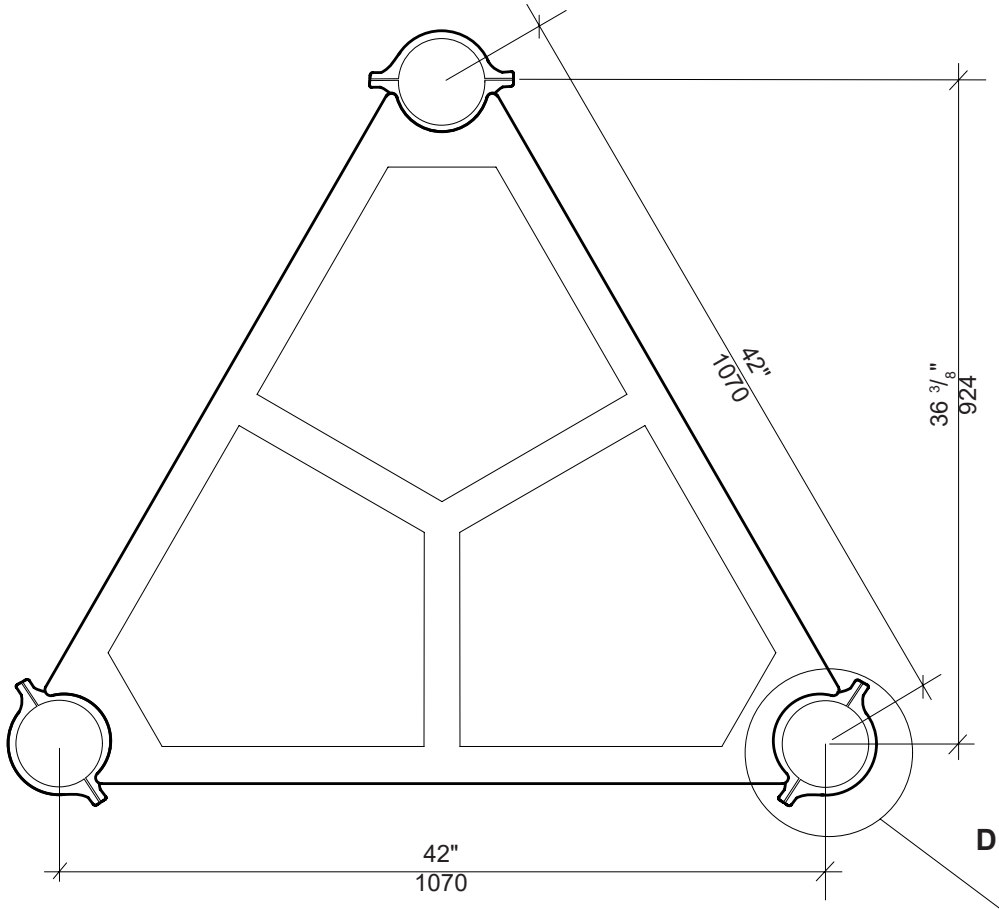
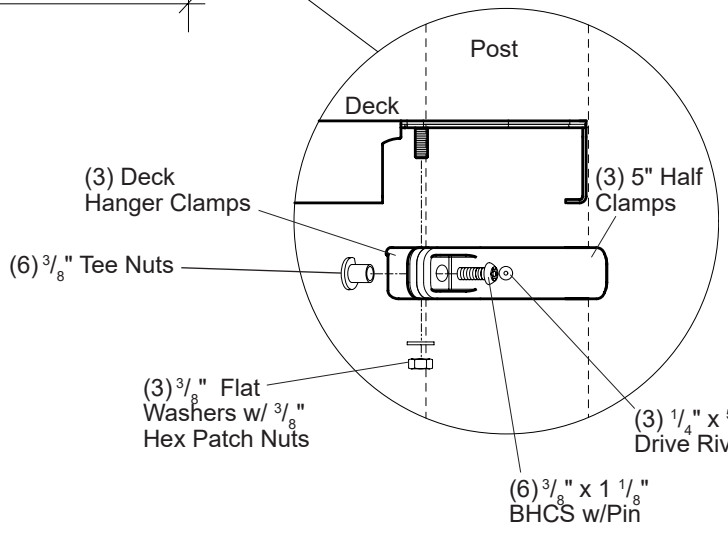
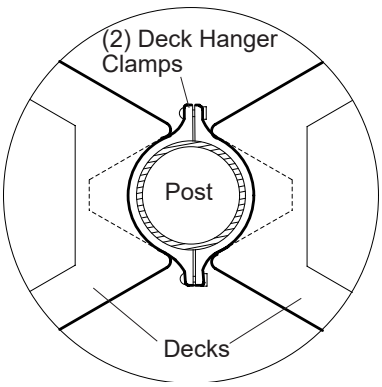
TRI DECK



DETAIL
DECK HANGER CLAMP



DETAIL



Configuration for Back to Back Decks at Same Height.

Billows™ Structure

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Parts List

Part#	Description	Qty.
145657	Tri-Deck, Specify Color	1
105327	5" Half Clamp, Specify Color	3
106022	Deck Hanger Clamp, Specify Color	3
	Triangular Deck Hardware Package	1
100198	3/8" x 1 1/8" BHCS w/Pin, SST	6
100321	3/8" Hex Patch Nut, SST	3
100351	3/8" Tee Nut, SST	6
100362	3/8" Flat Washer, SST	3
100610	1/4" x 5/8" Drive Rivet, AL/SST	3

Specifications

Triangular Deck: Flange formed from 12 GA (.105") sheet steel conforming to ASTM A1011. Standing surface is perforated with 5/16" diameter holes. Deck face has (4) slotted holes for face mounting components. The finished size measures 2 5/8" x 37 3/4". Finish: TenderTuff™, color specified.

Deck Hanger Clamp Assembly: Cast aluminum. Finish: ProShield®, color specified.

Fasteners: Primary fasteners shall be socketed and pinned tamperproof in design, stainless steel (SST) per ASTM F 879 unless otherwise indicated (see specific product installation/specifications).

Installation Time: Approx. 1/2 man hour

Weight: 61 lbs.

Installation Instructions

1) Mark posts for the appropriate height of the deck you are installing.
2) Fasten deck hanger clamps to marked position on posts. See Detail on the front of this sheet.
3) Lift deck assembly into position, lining up stud underneath deck with deck hanger clamp as shown. Attach using 3/8" hex patch nuts with 3/8" flat washers. With deck level and posts plumb, final tighten all hardware.
4) Install 1/4" x 5/8" drive rivets in all 5" half clamps. Refer to the Typical Offset Hanger Clamp Spec Sheet.
5) After attachment of enclosures and components is complete, pour concrete footings. Allow concrete footings to cure a minimum of 72 hours before users are allowed to play on the structure.
6) Install protective surfacing before users are allowed to play on the structure.

Eco #52268 Document #14582400 replaces #13954200. Replaced Tri-Deck.

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SAFETY NOTE

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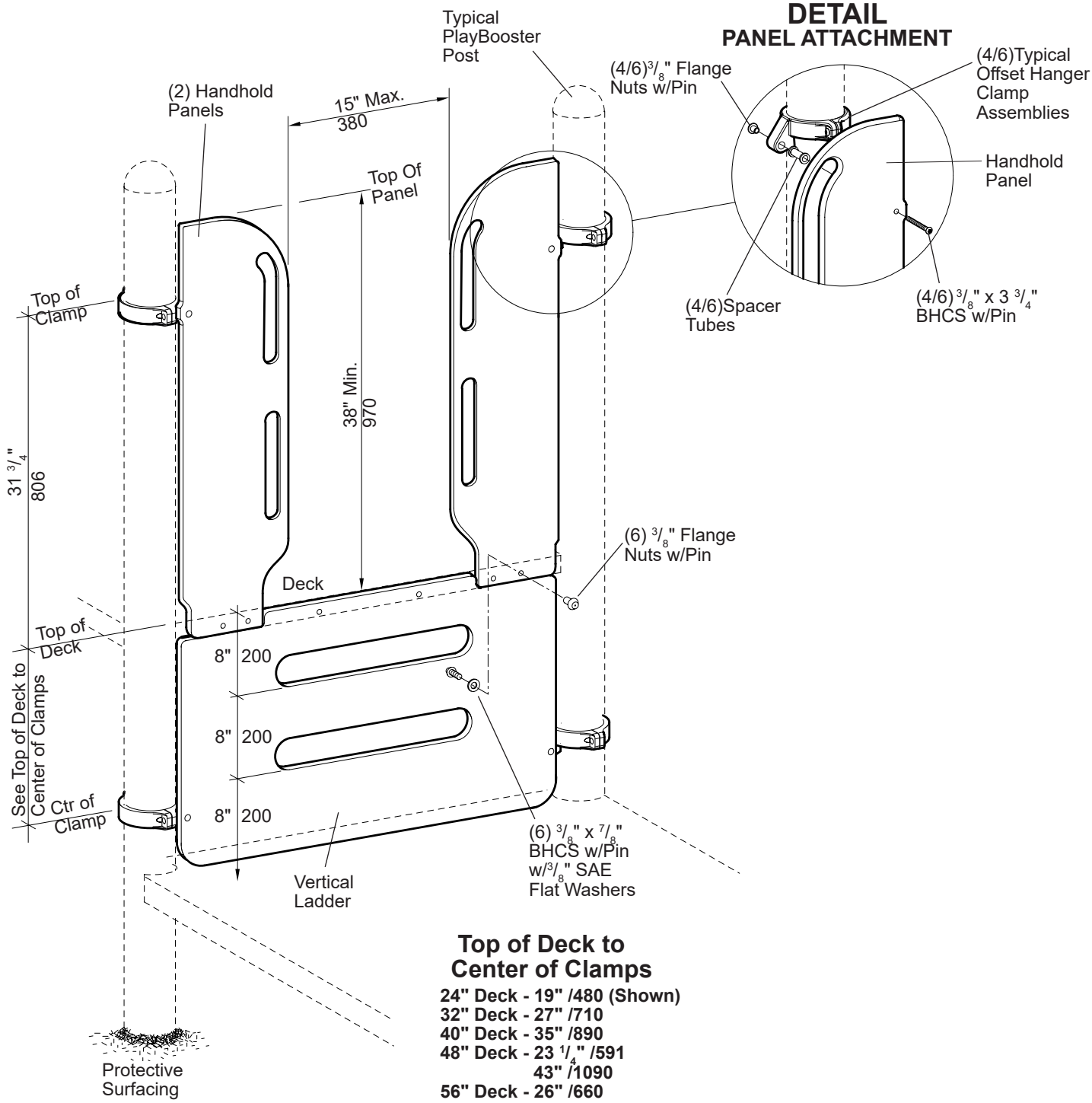
VERTICAL LADDER



Top of Deck to Center of Clamps

24" Deck - 19" /480 (Shown)
32" Deck - 27" /710
40" Deck - 35" /890
48" Deck - 23 1/4" /591
43" /1090
56" Deck - 26" /660
51" /1300
64" Deck - 31 1/4" /794
59" /1500
72" Deck - 34" /860
67" /1700

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Parts List

Part#	Description	Qty.
142120	24" Vertical Ladder Panel, Specify Color	1
142119	32" Vertical Ladder Panel, Specify Color	1
142118	40" Vertical Ladder Panel, Specify Color	1
142117	48" Vertical Ladder Panel, Specify Color	1
142116	56" Vertical Ladder Panel, Specify Color	1
142115	64" Vertical Ladder Panel, Specify Color	1
142114	72" Vertical Ladder Panel, Specify Color	1
139563	Handhold Panel, Specify Color	2
105327	5" Half Clamp, Specify Color	4/6
113729	Offset Hanger Clamp, Specify Color	4/6
113468	Spacer Tube, Specify Color	4/6
100198	3/8" x 1 1/8" BHCS w/Pin, SST	8/12
100351	3/8" Tee Nut, SST	8/12
	(24" through 40") Tenderdeck Hardware Pkg.	1
124460	3/8" x 3 3/4" BHCS w/Pin, SST	4
100196	3/8" x 7/8" BHCS w/Pin, SST	6
100353	3/8" Flange Nut w/Pin, SST	10
100365	3/8" SAE Flat Washer, SST	6
	(48" through 72") Tenderdeck Hardware Pkg.	1
124460	3/8" x 3 3/4" BHCS w/Pin, SST	6
100196	3/8" x 7/8" BHCS w/Pin, SST	6
100353	3/8" Flange Nut w/Pin, SST	12
100365	3/8" SAE Flat Washer, SST	6

Specifications

HandholdPanel/ Vertical Ladder: Solid color Permalene®, color specified.

Spacer Tube: Made from 6061-T6 aluminum 7/8" O.D. x 1 11/16". Finish: ProShield®, color specified.

Offset Hanger Clamp Assembly: Cast aluminum. Finish: ProShield, color specified.

Fasteners: Primary fasteners shall be socketed and pinned tamperproof in design, stainless steel (SST) per ASTM F 879 unless otherwise indicated (see specific product installation/specifications).

Installation Time: 24"-40" - Approx. 1 1/4 man hour
48"-72" - Approx. 1 1/2 man hour

Weight: 24" Vertical Ladder - 40 lbs.
32" Vertical Ladder - 48 lbs.
40" Vertical Ladder - 54 lbs.
48" Vertical Ladder - 63 lbs.
56" Vertical Ladder - 68 lbs.
64" Vertical Ladder - 75 lbs.
72" Vertical Ladder - 81 lbs.

Installation Instructions

1) Attach vertical ladder and handhold panels to the face of the deck using 3/8" x 7/8" BHCS w/pin with 3/8" SAE flat washers and 3/8" flange nuts w/pin, as shown.

2) Attach offset hanger clamps to posts at heights shown. Using half clamps and 3/8" x 1 1/8" BHCS w/pin with 3/8" tee nuts. Refer To The Typical Offset Hanger Clamp Spec Sheet.

3) Using a 3/8" drill bit, drill out the lower set of 1/8" pilot holes in ladder. **NOTE:** *If there is a clamp conflict using the holes in this position, drill out and use the upper set of holes instead.*

4) Attach vertical ladder and handhold panels to the offset hanger clamp assemblies using 3/8" x 3 3/4" BHCS w/pin, spacer tubes and 3/8" flange nuts w/pin. See Panel Attachment Detail.

5) Install protective surfacing before users are allowed to play on the structure.

Eco #51521 Document #14208200 replaces #13991600. Replaced handhold panels & vertical ladder panels.

landscape structures®

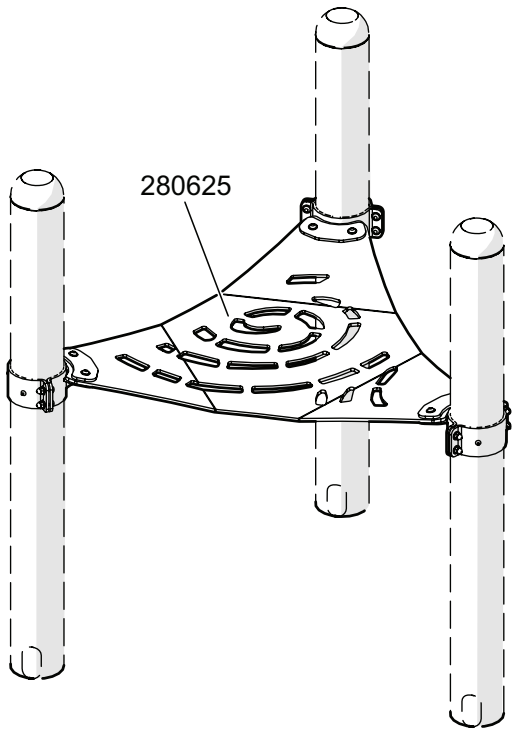
ISO 14001 CERTIFIED

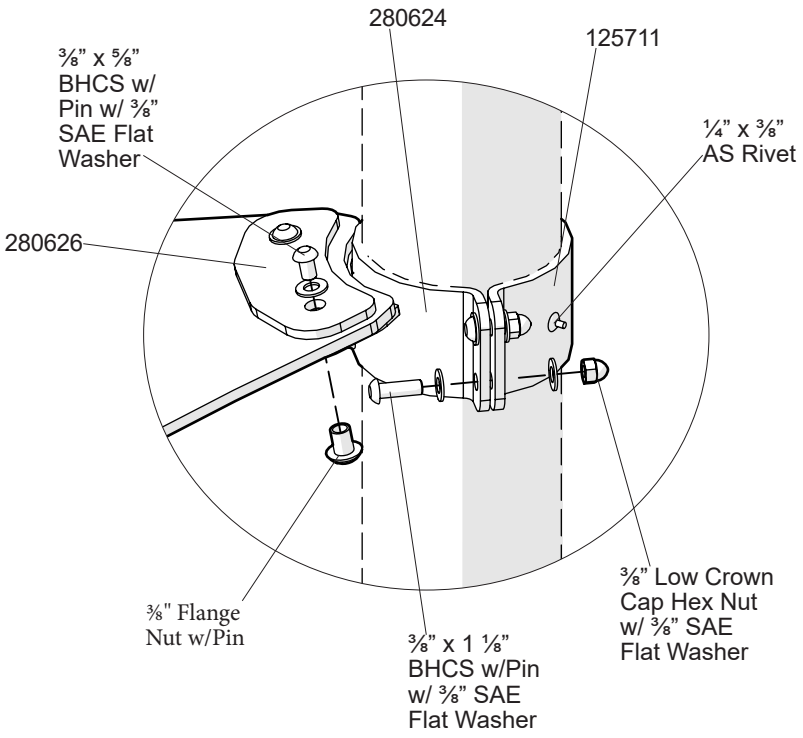
ISO 9001 Certified

SAFETY NOTE

Choose a protective surfacing material that has a Critical Height Value of at least the height of the Highest Accessible Part/Fall Height of the adjacent equipment. (Ref. *ASTM F1487*.)

TRI DECK BELT HAMMOCK





Parts List

PART NUMBER	DESCRIPTION	QTY.
280626	CUST BELT ATCH PLATE PNT	3
280625	CUST TRI-DECK HAMMOCK BELT	1
280624	CUST BELT ATCH CLAMP PNT	3

125711	HALF CLMP 3iWD 2/HOLE PNT	3
100611	RVT 1/4X3/8 AS (GRIP=.328/.422)	6
100365	WASHER FLAT SAE 3/8i SST	30
100353	FLG NUT 6LP 3/8-16 SST	6
100349	3/8 HEX NUT L/C CAP	12
100198	BHCS 6LP 3/8x1-1/8i SST	12
100195	BHCS 6LP 3/8x5/8i SST	6

Installation Instructions

1) Assemble structure following steps and details shown. Use 2D layout as a reference.

2) Install protective surfacing before users are allowed to play on the structure.

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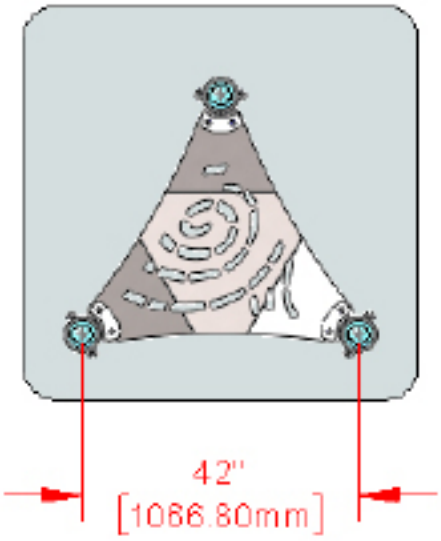
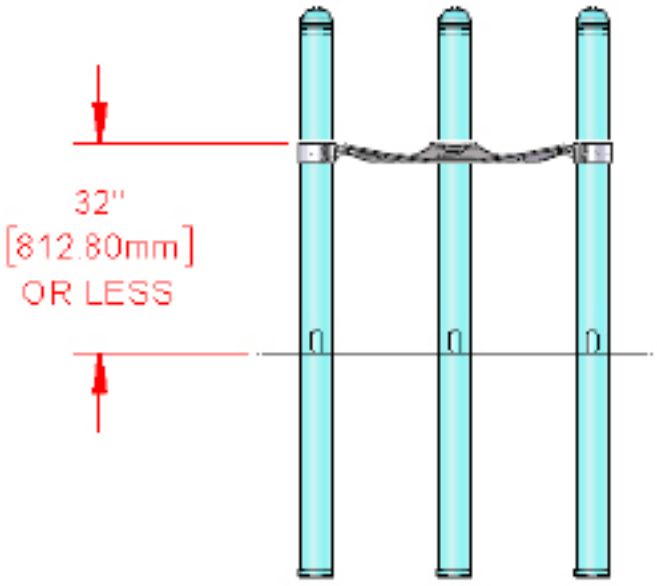
SAFETY NOTE

Choose a protective surfacing material that has a Critical Height Value of at least the height of the Highest Accessible Part/Fall Height of the adjacent equipment. (Ref. *ASTM F1487*.)





Billows™ Structure

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