



**BOARD OF CONTRACT AND SUPPLY  
CITY OF PROVIDENCE, RHODE ISLAND**

# **REQUEST FOR PROPOSALS**

**Item Description: JOSEPH WILLIAMS FIELD PLAYGROUND IMPROVEMENTS**

**Date to be opened: OCTOBER 13, 2020**

**Issuing Department: PARKS DEPARTMENT**

## **QUESTIONS**

- Please direct questions relative to the bidding process, how to fill out forms, and how to submit a bid (Pages 1-8) to Purchasing Agent Patti Jordan.
  - Phone: (401) 680-5264
  - Email: [pjordan@providenceri.gov](mailto:pjordan@providenceri.gov)
    - Please use the subject line “**RFP Question**”
- Please direct questions relative to the Minority and Women’s Business Enterprise Program and the corresponding forms (Pages 9-13) to the MBE/WBE Outreach Director for the City of Providence, Grace Diaz
  - Phone: (401) 680-5766
  - Email: [gdiaz@providenceri.gov](mailto:gdiaz@providenceri.gov)
    - Please use subject line “**MBE WBE Forms**”
- Please direct questions relative to the specifications outlined (beginning on page 14) to the issuing department’s subject matter expert:
  - **Brian F. Byrnes – Deputy Superintendent of Parks**
  - **401-660-9308**
  - **Bbyrnes@providenceri.gov**

**Pre-bid Conference (NON-MANDATORY)**

**TUESDAY, SEPTEMBER 29, 11:00 AM**

**999 ELMWOOD AVENUE, PROVIDENCE, RI (SITE)**



**BOARD OF CONTRACT AND SUPPLY  
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**INSTRUCTIONS FOR SUBMISSION**

Bids may be submitted up to **2:15 P.M.** on the above meeting date at the **Department of the City Clerk, Room 311, City Hall, 25 Dorrance Street, Providence.** At 2:15 P.M. all bids will be publicly opened and read at the Board of Contract Meeting in the City Council Chambers, on the 3<sup>rd</sup> floor of City Hall.

- Bidders must submit **2 copies** of their bid in sealed envelopes or packages labeled with the captioned **Item Description** and the **City Department to which the RFP and bid are related.** (On page 1)
- Communications to the Board of Contract and Supply that are not competitive sealed bids (i.e. product information/samples) should have “**NOT A BID**” written on the envelope or wrapper.
- Only use form versions and templates included in this RFP. If you have an old version of a form do not recycle it for use in this bid.
- The bid envelope and information relative to the bid must be addressed to:

**Board of Contract and Supply  
Department of the City Clerk – City Hall, Room 311  
25 Dorrance Street  
Providence, RI 02903**

**\*\*PLEASE NOTE:** This bid may include details regarding information that you will need to provide (such as proof of licenses) to the issuing department before the formalization of an award.

*This information is NOT requested to be provided in your initial bid by design.*

**All bids submitted to the City Clerk become public record. Failure to follow instructions could result in information considered private being posted to the city’s Open Meetings Portal and made available as a public record. The City has made a conscious effort to avoid the posting of sensitive information on the City’s Open Meetings Portal, by requesting that such sensitive information be submitted to the issuing department only at their request.**



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**BID PACKAGE CHECKLIST**

Digital forms are available in the City of Providence Purchasing Department Office or online at <http://www.providenceri.gov/purchasing/how-to-submit-a-bid/>

The bid package **MUST** include the following, in this order:

- Bid Form 1: Bidder's Blank as the cover page/ 1<sup>st</sup> page (*see page 6 of this document*)
- Bid Form 2: Certification of Bidder as 2<sup>nd</sup> page (*see page 7 of this document*)
- Bid Form 3: Certificate Regarding Public Records (*see page 8 of this document*)
- Forms from the Minority and Women Business Enterprise Program: Based on Bidder Category. *See forms and instructions enclosed (pages 9-13) or on: <https://www.providenceri.gov/purchasing/minority-women-owned-business-mbewbe-procurement-program/>*

**\*Please note: MBE/WBE forms must be completed for EVERY bid submitted and must be inclusive of ALL required signatures. Forms without all required signatures will be considered incomplete.**

- Bidder's Proposal/Packet: Formal response to the specifications outlined in this RFP, including pricing information and details related to the good(s) or service(s) being provided. Please be mindful of formatting responses as requested to ensure clarity.
- Financial Assurance, *if requested* (as indicated on page 5 of this document under "Bid Terms")

**All of the above listed documents are REQUIRED.** (With the exception of financial assurances, which are only required if specified on page 5.)

**\*\*\*Failure to meet specified deadlines, follow specific submission instructions, or enclose all required documents with all applicable signatures will result in disqualification, or in an inability to appropriately evaluate bids.**



**BOARD OF CONTRACT AND SUPPLY**  
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**NOTICE TO VENDORS**

1. The Board of Contract and Supply will make the award to the lowest qualified and responsible bidder.
2. In determining the lowest responsible bidder, cash discounts based on preferable payment terms will not be considered.
3. Where prices are the same, the Board of Contract and Supply reserves the right to award to one bidder, or to split the award.
4. No proposal will be accepted if the bid is made in collusion with any other bidder.
5. Bids may be submitted on an "equal in quality" basis. The City reserves the right to decide equality. Bidders must indicate brand or the make being offered and submit detailed specifications if other than brand requested.
6. A bidder who is an out-of-state corporation shall qualify or register to transact business in this State, in accordance with the Rhode Island Business Corporation Act, RIGL Sec. 7-1.2-1401, et seq.
7. The Board of Contract and Supply reserves the right to reject any and all bids.
8. Competing bids may be viewed in person at the Department of the City Clerk, City Hall, Providence, immediately upon the conclusion of the formal Board of Contract and Supply meeting during which the bids were unsealed/opened. Bids may also be accessed electronically on the internet via the City's [Open Meetings Portal](#).
9. As the City of Providence is exempt from the payment of Federal Excise Taxes and Rhode Island Sales Tax, prices quoted are not to include these taxes.
10. In case of error in the extension of prices quoted, the unit price will govern.
11. The contractor will **NOT** be permitted to: a) assign or underlet the contract, or b) assign either legally or equitably any monies or any claim thereto without the previous written consent of the City Purchasing Director.
12. Delivery dates must be shown in the bid. If no delivery date is specified, it will be assumed that an immediate delivery from stock will be made.
13. A certificate of insurance will normally be required of a successful vendor.
14. For many contracts involving construction, alteration and/or repair work, State law provisions concerning payment of prevailing wage rates apply ([RIGL Sec. 37-13-1 et seq.](#))
15. No goods should be delivered or work started without a Purchase Order.
16. **Submit 2 copies of the bid to the City Clerk, unless the specification section of this document indicates otherwise.**
17. Bidder must certify that it does not unlawfully discriminate on the basis of race, color, national origin, gender, gender identity or expression, sexual orientation and/or religion in its business and hiring practices and that all of its employees are lawfully employed under all applicable federal, state and local laws, rules and regulations. (See Bid Form 2.)



**BOARD OF CONTRACT AND SUPPLY**  
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**BID TERMS**

1. Financial assurances may be required in order to be a successful bidder for Commodity or Construction and Service contracts. If either of the first two checkboxes below is checked, the specified assurance must accompany a bid, or the bid will not be considered by the Board of Contract and Supply. The third checkbox indicates the lowest responsible bidder will be contacted and required to post a bond to be awarded the contract.
  - a)  A certified check for \$\_\_\_\_\_ must be deposited with the City Clerk as a guarantee that the Contract will be signed and delivered by the bidder.
  - b)  A bid bond in the amount of 5 per centum (%) of the proposed total price, must be deposited with the City Clerk as a guarantee that the contract will be signed and delivered by the bidder; and the amount of such bid bond shall be retained for the use of the City as liquidated damages in case of default.
  - c)  A performance and payment bond with a satisfactory surety company will be posted by the bidder in a sum equal to one hundred per centum (100%) of the awarded contract.
  - d)  No financial assurance is necessary for this item.
2. Awards will be made within **sixty (60) days of bid opening**. All bid 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 in accordance with the general specifications. It is agreed that deliveries and/or completion are subject to strikes, lockouts, accidents and Acts of God.

**The following entry applies only for COMMODITY BID TERMS:**

4. Payment for partial delivery will not be allowed except when provided for in blanket or term contracts.

**The following entries apply only for CONSTRUCTION AND SERVICE BID TERMS:**

5. Only one shipping charge will be applied in the event of partial deliveries for blanket or term contracts.
6. Prior to commencing performance under the contract, the successful bidder shall attest to compliance with the provisions of the Rhode Island Worker's Compensation Act, RIGL 28-29-1, et seq. If exempt from compliance, the successful bidder shall submit a sworn Affidavit by a corporate officer to that effect, which shall accompany the signed contract.
7. Prior to commencing performance under the contract, the successful bidder shall, submit a certificate of insurance, in a form and in an amount satisfactory to the City.



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**BID FORM 1: Bidders Blank**

1. Bids must meet the attached specifications. Any exceptions or modifications must be noted and fully explained.
2. Bidder's responses must be in ink or typewritten, and all blanks on the bid form should be completed.
3. The price or prices proposed should be stated both in **WRITING** and in **FIGURES**, and any proposal not so stated may be rejected. **Contracts exceeding twelve months must specify annual costs for each year.**
4. Bids **SHOULD BE TOTALED** so that the final cost is clearly stated (unless submitting a unit price bid), however **each item should be priced individually**. Do not group items. Awards may be made on the basis of *total* bid or by *individual items*.
5. All bids **MUST BE SIGNED IN INK**.

**Name of Bidder (Firm or Individual):** \_\_\_\_\_

Contact Name: \_\_\_\_\_

Business Address: \_\_\_\_\_

Business Phone #: \_\_\_\_\_

Contact Email Address: \_\_\_\_\_

Agrees to bid on (Write the "Item Description" here): \_\_\_\_\_

If the bidder's company is based in a state *other than Rhode Island*, list name and contact information for a local agent for service of process that *is located within Rhode Island* \_\_\_\_\_

Delivery Date (if applicable): \_\_\_\_\_

Name of Surety Company (if applicable): \_\_\_\_\_

Total Amount in Writing\*: \_\_\_\_\_

Total Amount in Figures\*: \_\_\_\_\_

***\* If you are submitting a unit price bid, please insert "Unit Price Bid"***

***Use additional pages if necessary for additional bidding details.***

\_\_\_\_\_  
Signature of Representation

\_\_\_\_\_  
Title



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**BID FORM 2: Certification of Bidder**  
(Non-Discrimination/Hiring)

Upon behalf of \_\_\_\_\_ (Firm or Individual Bidding),

I, \_\_\_\_\_ (Name of Person Making Certification),

being its \_\_\_\_\_ (Title or "Self"), hereby certify that:

1. Bidder does not unlawfully discriminate on the basis of race, color, national origin, gender, sexual orientation and/or religion in its business and hiring practices.
2. All of Bidder's employees have been hired in compliance with all applicable federal, state and local laws, rules and regulations.

I affirm by signing below that I am duly authorized on behalf of Bidder, on  
this \_\_\_\_\_ day of \_\_\_\_\_ 20\_\_\_\_.

\_\_\_\_\_  
Signature of Representation

\_\_\_\_\_  
Printed Name



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**BID FORM 3: Certificate Regarding Public Records**

Upon behalf of \_\_\_\_\_ (Firm or Individual Bidding),

I, \_\_\_\_\_ (Name of Person Making Certification),

being its \_\_\_\_\_ (Title or "Self"), hereby certify an

understanding that:

1. All bids submitted in response to Requests for Proposals (RFP's) and Requests for Qualification (RFQ's), documents contained within, and the details outlined on those documents become public record upon receipt by the City Clerk's office and opening at the corresponding Board of Contract and Supply (BOCS) meeting.
2. The Purchasing Department and the issuing department for this RFP/RFQ have made a conscious effort to request that sensitive/personal information be submitted directly to the issuing department and only at request if verification of specific details is critical the evaluation of a vendor's bid.
3. The requested supplemental information may be crucial to evaluating bids. Failure to provide such details may result in disqualification, or an inability to appropriately evaluate bids.
4. If sensitive information that has not been requested is enclosed or if a bidder opts to enclose the defined supplemental information prior to the issuing department's request in the bidding packet submitted to the City Clerk, the City of Providence has no obligation to redact those details and bears no liability associated with the information becoming public record.
5. The City of Providence observes a public and transparent bidding process. Information required in the bidding packet may not be submitted directly to the issuing department at the discretion of the bidder in order to protect other information, such as pricing terms, from becoming public. Bidders who make such an attempt will be disqualified.

I affirm by signing below that I am duly authorized on behalf of Bidder, on

this \_\_\_\_\_ day of \_\_\_\_\_ 20\_\_\_\_.

\_\_\_\_\_  
Signature of Representation

\_\_\_\_\_  
Printed Name



**BOARD OF CONTRACT AND SUPPLY  
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## WBE/MBE Form Instructions

The City of Providence actively seeks Minority and Women business enterprises to participate in bids to meet the City's procurement needs. Pursuant to the City of Providence Code of Ordinances, Chapter 21, Article II, Sec. 21-52 (Minority and Women's Business Enterprise) and Rhode Island General Laws (as amended), Chapter 31-14, et seq. (Minority Business Enterprise), Minority Business Enterprise (MBE) and Women's Business Enterprise (WBE) participation goals apply to contracts.

The goal for Minority Business Enterprise (MBE) participation is **10%** of the total bid value.

The goal for Women's Business Enterprise (WBE) participation is **10%** of the total bid value.

The goal for combined MBE/WBE participation is **20%** of the total bid value.

Only businesses certified with the State of Rhode Island as minority and/or women business enterprises are counted towards the City's goals. Eligible minority or women-owned businesses are encouraged to seek certification from the State of Rhode Island Minority Business Enterprise Compliance Office at: <http://odeo.ri.gov/offices/mbeco/>

**Note:** MBE certification with the State of Rhode Island on the basis of Portuguese heritage is not currently recognized by the City of Providence's MBE program.

### **Bid Requirements:**

**All Bidders:** All bidders must complete and submit the **MBE/WBE Participation Affidavit** indicating whether or not they are a state-certified MBE/WBE and acknowledging the City's participation goals. Submission of this form is required with **every bid**. Your bid will not be accepted without an affidavit.

**Bidders who will be subcontracting:** Bidders who will be subcontracting must submit the **Subcontractor Disclosure Form** as part of their bid submission. All subcontractors, regardless of MBE/WBE status, must be listed on this form. Business NAICS codes can be found at <https://www.naics.com/search/>. Awarded bidders are required to submit **Subcontractor Utilization and Payment Reports** with each invoice.

### **Waiver Requests:**

If the percentage of the total amount of the bid being awarded to MBE or WBE vendors is less than 20% (Box F on the Subcontractor Disclosure Form) and the prime contractor is not a Rhode Island State-certified MBE or WBE, the Bidder must complete the **MBE/WBE Waiver Request Form** for review. Waivers will be considered on a case by case basis.

No waiver will be granted unless the waiver request includes documentation that demonstrates that the Bidder has made good faith efforts to achieve the City's stated participation goals. Waivers must be reviewed and signed by the City of Providence's MBE/WBE Outreach Director, Grace Diaz, or her designee. Department Directors cannot recommend a bidder for award if this form is applicable and absent. If the bid does not meet the participation goals of the City of Providence and a waiver is not filed with the signature of the MBE/WBE Outreach Director or her designee, the bid will not be accepted.

### **Verifying MBE/WBE Certification**

It is the responsibility of the bidder to confirm that every MBE/WBE named in a proposal and included in a contract is certified by the Rhode Island Minority Business Enterprise Compliance office. The current MBE/WBE directory is available at the State of RI MBE Office, One Capitol Hill, 2nd Floor, Providence, RI, or online at <http://odeo.ri.gov/offices/mbeco/mbe-wbe.php>. You can also call (401) 574-8670 to verify certification, expiration dates, and services that the MBE/WBE is certified to provide. Note: MBE certification with the State of Rhode Island on the basis of Portuguese heritage is not currently recognized by the City of Providence's MBE program.



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**Form Instructions:**

Access all bid forms from <http://www.providenceri.gov/oeo/> or <http://www.providenceri.gov/purchasing/minority-women-owned-business-mbewbe-procurement-program/>. **Download** the forms as blank PDFs. Once saved on your computer, fill them out using the Adobe program. The fillable PDFs must be completed in Adobe in order to be saved properly. Google Chrome and similar platforms do not allow for the forms to be saved as filled PDFs. Therefore, please download the blank forms to your computer, then fill them out and save.

**Assistance with Form Requirements**

Examples of completed forms can be found on the City of Providence website at <http://www.providenceri.gov/oeo/> or <http://www.providenceri.gov/purchasing/minority-women-owned-business-mbewbe-procurement-program/>.

**Contract Requirements:**

Prime contractors engaging subcontractors must submit the *Subcontractor Utilization and Payment Report* to the City Department's Fiscal Agent with every invoice and with request for final payment. This form is not submitted as a part of the initial bid package.

For contracts with duration of less than 3 months, this form must be submitted along with the contractor's request for final payment. The form must include all subcontractors utilized on the contract, both MBE/WBE and non- MBE/WBE, the total amount paid to each subcontractor for the given period and to date. During the term of the contract, any unjustified failure to comply with the MBE/WBE participation requirements is a material breach of contract.

**Questions?**

For more information or for assistance with MBE/WBE Forms, contact the City of Providence MBE/WBE Outreach Director, Grace Diaz, at [mbwbe@providenceri.com](mailto:mbwbe@providenceri.com) or (401) 680-5766.



**BOARD OF CONTRACT AND SUPPLY  
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**MBE/WBE PARTICIPATION AFFIDAVIT**

Item Discussion (as seen on RFP):

\_\_\_\_\_  
\_\_\_\_\_

Prime Bidder: \_\_\_\_\_

Prime Bidder (Company) Phone Number: \_\_\_\_\_

Which one of the following describes your business' status in terms of Minority and/or Woman-Owned Business Enterprise certification with the State of Rhode Island?     MBE     WBE     Neither MBE nor WBE

**By initialing the following sections and signing the bottom of this document in my capacity as the contractor or an authorized representative of contractor, I make this Affidavit:**

It is the policy of the City of Providence that minority business enterprises (MBEs) and women business enterprises (WBEs) should have the maximum opportunity to participate in procurements and projects as prime contractors and vendors. Pursuant to Sec. 21-52 of the Providence Code of Ordinances and Chapter 31-14 *et seq.* of the Rhode Island General Laws (as amended), MBE and WBE participation goals apply to contracts.

The goal for Minority Business Enterprise (MBE) participation is 10% of the total bid value.  
The goal for Women's Business Enterprise (WBE) participation is 10% of the total bid value.  
The goal for combined MBE/WBE participation is 20% of the total bid value.

**I acknowledge the City of Providence's goals of supporting MBE/WBE certified businesses.** Initial \_\_\_\_\_

If awarded the contract, I understand that my company must submit to the Minority and Women's Business Coordinator at the City of Providence (MBE/WBE Office), copies of all executed agreements with the subcontractor(s) being utilized to achieve the participation goals and other requirements of the RI General Laws. **I understand that these documents must be submitted prior to the issuance of a notice to proceed.** Initial \_\_\_\_\_

**I understand that, if awarded the contract, my firm must submit to the MBE/WBE Office canceled checks and reports required by the MBE/WBE Office on a quarterly basis verifying payments to the subcontractors(s) utilized on the contract.**  
Initial \_\_\_\_\_

If I am awarded this contract and find that I am unable to utilize the subcontractor(s) identified in my Statement of Intent, I understand that I must substitute another certified MBE and WBE firm(s) to meet the participation goals. **I understand that I may not make a substitution until I have obtained the written approval of the MBE/WBE Office.**  
Initial \_\_\_\_\_

**If awarded this contract, I understand that authorized representatives of the City of Providence may examine the books, records and files of my firm from time to time, to the extent that such material is relevant to a determination of whether my firm is complying with the City's MBE/WBE participation requirements.**  
Initial \_\_\_\_\_

**I do solemnly declare and affirm under the penalty of perjury that the contents of the foregoing Affidavit are true and correct to the best of my knowledge, information and belief.**

\_\_\_\_\_  
Signature of Bidder

\_\_\_\_\_  
Printed Name

\_\_\_\_\_  
Company Name

\_\_\_\_\_  
Date



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**SUBCONTRACTOR DISCLOSURE FORM**

Fill out this form only if you WILL SUBCONTRACT with other parties. If you will not subcontract any portion of the proposed bid, do not fill out this form.

Prime Bidder: \_\_\_\_\_ Primary NAICS \_\_\_\_\_

Code: \_\_\_\_\_

Item Description (as seen on RFP): \_\_\_\_\_

Please list all Subcontractors below. Include the total dollar value that you propose to share with each subcontractor and the dollar amount to be subcontracted. Please check off MBE and WBE where applicable. The directory of all state-certified MBE/WBE firms is located at [www.mbe.ri.gov](http://www.mbe.ri.gov). Business NAICS codes can be found at <https://www.naics.com/search/>

Proposed Subcontractor	MBE	WBE	Primary NAICS Code	Date of Mobilization	\$ Value of Subcontract
					\$
					\$
					\$
					\$
					\$
					\$
<b>A. MBE SUBCONTRACTED AMOUNT:</b>					\$
<b>B. WBE SUBCONTRACTED AMOUNT:</b>					\$
<b>C. NON MBE WBE SUBCONTRACTED AMOUNT:</b>					\$
<b>D. DOLLAR AMOUNT OF WORK DONE BY THE PRIME CONTRACTOR:</b>					\$
<b>E. TOTAL AMOUNT OF BID (SUM OF A, B, C, &amp; D):</b>					\$
<b>F. PERCENTAGE OF BID SUBCONTRACTED TO MBEs AND WBEs. (Divide the sum of A and B by E and multiply result by 100).</b>					%

Please read and initial the following statement acknowledging you understand. If the percentage of the total amount of the bid being awarded to MBE or WBE vendors is less than 20% (Box F) and the prime contractor is NOT a Rhode Island State-certified MBE or WBE, you must fill out the MBE/WBE WAIVER REQUEST FORM for consideration by City of Providence MBE/WBE Outreach Director. Initial \_\_\_\_\_

\_\_\_\_\_  
Signature of Bidder

\_\_\_\_\_  
Printed Name



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**MBE/WBE Waiver Request Form**

**Fill out this form only if you are subcontracting and did not meet the 20% MBE/WBE participation goal. State-certified MBE or WBE Prime Bidders are NOT REQUIRED to fill out this form.**

Submit this form to the City of Providence MBE/WBE Outreach Director, Grace Diaz, at [mbe-wbe@providenceri.gov](mailto:mbe-wbe@providenceri.gov), for review **prior to bid submission**. This waiver applies only to the current bid which you are submitting to the City of Providence and does not apply to other bids your company may submit in the future.

Prime Bidder: \_\_\_\_\_

Company Trade: \_\_\_\_\_

Item Discussion (as seen on RFP): \_\_\_\_\_

To receive a waiver, you must list the certified MBE and/or WBE companies you contacted, the name of the primary individual with whom you interacted, and the reason the MBE/WBE company could not participate on this project.

MBE/WBE Company Name	Individual's Name	Company Trade	Why did you choose not to work with this company?

I acknowledge the City of Providence's goal of a combined MBE/WBE participation is 20% of the total bid value. I am requesting a waiver of \_\_\_\_\_ % MBE/WBE (20% minus the value of **Box F** on the Subcontractor Disclosure Form). If an opportunity is identified to subcontract any task associated with the fulfillment of this contract, a good faith effort will be made to select MBE/WBE certified businesses as partners.

\_\_\_\_\_  
Signature of Prime Contractor

\_\_\_\_\_  
Printed Name

\_\_\_\_\_  
Date Signed

\_\_\_\_\_  
Signature of City of Providence  
MBE/WBE Outreach Director

\_\_\_\_\_  
Printed Name of City of Providence  
MBE/WBE Outreach Director

\_\_\_\_\_  
Date Signed



**BOARD OF CONTRACT AND SUPPLY  
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**SUPPLEMENTAL INFORMATION**

If the issuing department for this RFP determines that your firm's bid is best suited to accommodate their need, you will be asked to provide proof of the following prior to formalizing an award.

An inability to provide the outlined items at the request of the department may lead to the disqualification of your bid.

*This information is **NOT** requested to be provided in your initial bid that you will submit to the City Clerk's office by the "date to be opened" noted on page 1. This list only serves as a list of items that your firm should be ready to provide on request.*

**All bids submitted to the City Clerk become public record. Failure to follow instructions could result in information considered private being posted to the city's Open Meetings Portal and made available as a public record.**

**You must be able to provide:**

- Business Tax ID will be requested after an award is approved by the Board of Contract and Supply.
- Proof of Insurance



**BOARD OF CONTRACT AND SUPPLY  
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**BID FORM 3: Supplemental Bid Form**

To whom it may concern:

1. The undersigned, having familiarized (himself) (themselves) (itself) with the **JOSEPH WILLIAMS FIELD PLAYGROUND IMPROVEMENTS** bid affecting the cost of work, and with the Contract Documents (which includes the Invitation for Bids, Instructions to Bidders, Form of Bid Bond, Form of Agreements, form of Non-Collusive Affidavit, Addenda (if any), Drawings, Technical Specification, Form of Surety Bond(s); as prepared by the Providence Parks Department, and on file in the office of the City Clerk 3<sup>rd</sup> Floor, City Hall, Providence, RI 02903, hereby proposes to furnish all supervision, technical personnel, labor, materials, machinery, tools, equipment and services including utility and transportation services, and to perform such other required work for the **JOSEPH WILLIAMS FIELD PLAYGROUND IMPROVEMENTS** and such other required and incidental work, complete, all in accordance with the above listed documents and for the unit prices for work in-place for the following items and quantities.

2. In submitting this Bid, the bidder understands that the right is reserved by The Providence Parks Department to reject any and all Bids, If written notice of acceptance of this Bid is mailed, telegraphed or delivered to the undersigned within (90) days after the opening thereof, or at any time thereafter before this Bid is withdrawn, the undersigned agrees to execute and deliver an Agreement in the prescribed form and furnish the required bond within (10) days after the Agreement is presented to him/her for signature.

Herewith in accordance with the instructions to Bidders.

3. Attached hereto is an affidavit in proof that the undersigned has not colluded with any person in respect to this. Bid or any bids for the Contractor for which this Bid is submitted. Also attached is a Statement of Bidder's Qualifications.

4. Application unit prices are contained in the Agreement (established as the result of either a Unit Price Bid or a Supplemental Schedule of Unit Prices), the City of Providence may order the Contractor to proceed with desired changes in the work, the value of such changes to be determined by the measured quantities involved and the application unit prices specified in the Contract.

5. The City of Providence reserves the right to determine the lowest responsible Bidder based on past experience with the City and/or recommendations by City and/or state agencies with an interest in this procurement. The City reserves the right to award the project to the appropriate bidder in the best interest of the City of Providence.

**CERTIFICATION OF NON-SEGREGATED FACILITIES**

The Bidder certifies that he/she does not maintain or provide for his/her employees any segregated facilities at any of his establishments, and that he/she does not permit his/her employees to perform their services at any location, under his/her control, where segregation facilities are maintained. The Bidder agrees that a breach of this certification will be a violation of the Equal Opportunity Clause in any contract resulting from acceptance of this Bid. As used in this certification, term "segregation facilities" means any waiting rooms, work rooms, rest rooms and wash rooms, restaurants and other eating areas, time clocks, locker rooms and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation and housing facilities provided for employee which are segregated by explicit directive or are in fact segregated on basis of race, color, religion, or national origin, because of habit, local custom, or otherwise. The Bidder agrees that (except where he/she has obtained identical certification from proposed subcontractors for specific time periods) he/she will obtain identical certification from proposed subcontractor prior to the award of subcontracts exceeding \$10,000.00 which are not exempt from provisions of the Equal Opportunity Clause, and that he /she will retain such certifications in his/her files.

**NOTE: The penalty for making false statements in offers is prescribed in 18 U.S.C. & 1001.**

DATE \_\_\_\_\_, 20\_\_



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Name of Bidder and Official Address:  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Name of Authorized Representative (Contact):  
\_\_\_\_\_  
By \_\_\_\_\_  
(Signature)  
Title \_\_\_\_\_

E-Mail: \_\_\_\_\_

Phone: \_\_\_\_\_

Bidder shall indicate, in space provided,  
the earliest possible Project Start-up Date: \_\_\_\_\_, 20 \_\_\_\_\_

**ADDENDA:** The undersigned acknowledges receipt of the following Addenda, if any, and has included the provisions thereof in this Bid (If Any):

<u>Addendum No.</u>	<u>Date</u>	<u>Addendum No.</u>	<u>Date</u>
_____	_____, 20 _____	_____	_____, 20 _____
_____	_____, 20 _____	_____	_____, 20 _____

**Sub-Contractors (If Any):**

**Name:** \_\_\_\_\_ **Scope of Work:** \_\_\_\_\_ **MBE / WBE**  
**Name:** \_\_\_\_\_ **Scope of Work:** \_\_\_\_\_ **MBE / WBE**  
**Name:** \_\_\_\_\_ **Scope of Work:** \_\_\_\_\_ **MBE / WBE**



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**SUPPLEMENTAL BID FORM**

**JOSEPH WILLIAMS FIELD PLAYGROUND IMPROVEMENTS**

**BASE BID:** Joseph Williams Field playground is located in the South Elmwood neighborhood of Providence, on Elmwood Avenue and bordered by Carlisle Street and Alger Avenue. The City of Providence is seeking qualified contractors to perform the following scope of work that shall include but is not limited to the following: Remove and dispose existing playground equipment, furnish and install playground equipment and fitness equipment, furnish and install bituminous concrete walkway, benches, path markings on bituminous concrete, Engineered wood fiber mulch, native boulders, and park entry sign, and furnish and install new light fixtures on existing electrical service.

In addition to stating the Total Base Bid, The bidder shall state Unit Prices for related work listed under each bid item which represents the work items included in the Total Base Bid. The Unit Prices are quoted for computing adjustments to the Base Bid prior to Contract award, as well as during the course of construction, based upon extra work ordered by the City or for work countermanded, reduced or omitted by the City in order to stay within the Project budget.

Base Bid Items and Unit prices are to be Completed prices to be added or deducted on the basis of quantities of work involved, for each item in place in the unit indicated.

**BASE BID:** The Base Bid scope of work for this project shall include, but not be limited to the following:

**All Work Included in this Project Shall be Completed for the lump sum of:**

\_\_\_\_\_ Dollars

(\$ \_\_\_\_\_), **TOTAL BASE BID**

**UNIT PRICES:**

- 1. Remove and Dispose (2) swing sets, slide, seesaw, jungle gym, funnel ball, arch climber, and barrel roller**

\_\_\_\_\_ **LS** \$ \_\_\_\_\_  
*price in writing*

- 2. Provide tree protection**

\_\_\_\_\_ **EA** \$ \_\_\_\_\_  
*price in writing*

- 3. Furnish and Install 3” Bituminous Concrete Pavement (1.5” binder coarse/1.5” top course)**

\_\_\_\_\_ **SF** \$ \_\_\_\_\_  
*price in writing*

**BIDDER:** \_\_\_\_\_



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**4. Furnish and Install pavement markings (white)**

\_\_\_\_\_ LS \$ \_\_\_\_\_  
*price in writing*

**5. Furnish and Install Engineered wood fiber mulch**

\_\_\_\_\_ CY \$ \_\_\_\_\_  
*price in writing*

**6. Furnish and Install (3) Dumor 6' benches model #39-60-I in ground mount**

\_\_\_\_\_ EA \$ \_\_\_\_\_  
*price in writing*

**7. Furnish and Install Kompan Nature Giant L – PCT1109**

\_\_\_\_\_ LS \$ \_\_\_\_\_  
*price in writing*

**8. Furnish and Install Kompan Coach – PCE105501**

\_\_\_\_\_ LS \$ \_\_\_\_\_  
*price in writing*

**9. Furnish and Install (2) Kompan #ELE400024-3717G Spinner Bowl**

\_\_\_\_\_ EA \$ \_\_\_\_\_  
*price in writing*

**10. Furnish and Install Kompan #KSW926CUSTOM Three Bay Swing, 2 belt seats, 2 infant seats, 1 basket seat**

\_\_\_\_\_ LS \$ \_\_\_\_\_  
*price in writing*

**11. Furnish and Install Kompan Jump Pod Set – FSW22100**

\_\_\_\_\_ LS \$ \_\_\_\_\_  
*price in writing*

**12. Furnish and Install Kompan Over Under Bars – FSW21400**

\_\_\_\_\_ LS \$ \_\_\_\_\_  
*price in writing*

**BIDDER:** \_\_\_\_\_



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**13. Furnish and Install Kompan Multi Net – FSW20700**

\_\_\_\_\_ LS \$ \_\_\_\_\_  
*price in writing*

**14. Furnish and Install Kompan Square Pull Up Station – FSW21801**

\_\_\_\_\_ LS \$ \_\_\_\_\_  
*price in writing*

**15. Furnish and Install Landscape Boulders 36”- 42”**

\_\_\_\_\_ EA \$ \_\_\_\_\_  
*price in writing*

**16. Furnish and Install Landscape Boulders 42”- 48”**

\_\_\_\_\_ EA \$ \_\_\_\_\_  
*price in writing*

**17. Furnish and Install Eaton Washington light pole WA31040RS5BK with Streetworks LED luminaire ACN-080-LED-D-U-55-X-4-1-BK or approved equals on existing service**

\_\_\_\_\_ EA \$ \_\_\_\_\_  
*price in writing*

**18. Furnish and Install park entry sign – in-ground mount**

\_\_\_\_\_ EA \$ \_\_\_\_\_  
*price in writing*

**BIDDER:** \_\_\_\_\_

*Please note that the list above is not intended to include all items required to complete the base bid scope of work but can and shall be used to adjust the contract prior to or after award – in the best interest of the City of Providence.*



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**BID DOCUMENTS:**

The complete set of Bid Documents consists of the Bid Form, Technical Specifications, Minority Participation Forms, and the following Drawings:

**DRAWINGS:**

- **L1 – COVER**
- **L2 – DEMOLITION PLAN**
- **L3 – SITE CONSTRUCTION PLAN**
- **L4 – ELECTRICAL PLAN**
- **L5 – CONSTRUCTION DETAILS**
- **L6 – CONSTRUCTION DETAILS**

**TECHNICAL SPECIFICATION:**

- **010000 GENERAL REQUIREMENTS**
- **015639 TEMPORARY TREE AND PLANT PROTECTION**
- **024119 SELECTIVE DEMOLITION**
- **101426 POST AND PANEL SIGNAGE**
- **116800 PLAY FIELD EQUIPMENT AND STRUCTURES**
- **265600 EXTERIOR LIGHTING**
- **321216 ASPHALT PAVING**
- **321723 PAVEMENT MARKINGS**
- **321816.13 PLAYGROUND PROTECTIVE SURFACING**
- **323300 SITE FURNISHINGS**
- **329113 SOIL PREPARATION**
- **329200 TURF AND GRASSES**

**ADDITIONAL INFORMATION REQUIRED WITH BID:**

- Qualifications to Perform Work – See Form Below for Information Required
- Minority Participation Forms – 10% MBE / 10 % WBE Goal on this Project
- Addenda (If Any) - Must Be Acknowledged on Bid Form
- Product Information for Items Submitted as ‘Or Equal’ to Specified Materials

**PROVISIONS OF THIS PROJECT:**

- Upon the Issuance of the Award from the Board of Contract – the City shall issue a Contract to be executed by the City and the vendor incorporating the bid specifications. All Provisions of the Specifications are binding.
- Any Permits Required by the City of Providence and/or State of Rhode Island Shall be Obtained by the Vendor – Permit Fees by the City of Providence Shall be Waived – the State ADA Fee Must be Paid
- The Davis Bacon Act Applies (**HUD Projects**) – Prevailing Wages Must Be Paid for On Site Hours – On-Site Interviews will be Conducted During the Project – Employees Shall be Advised of the Prevailing Wage Rates Prior to Mobilization on Site



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- Certified payrolls Must be Submitted With Pay Requests Including Monthly Utilizations Form
- Performance and Payment Bonds (If Required) Must be Submitted within 10 Days of Award or Bid Bond Will be Forfeited
- An Insurance Certificate Shall be Submitted to the City Within 10 Days of Award
- A Copy of the Vendors Contractor's License Must be Submitted within 10 Days of Award
- All On-Site Personnel Shall be Licensed (If Required) and Shall have Proof of All Licenses Required by the State of Rhode Island to Perform the Work Required
- Pay Requests Must be Submitted on Approved AIA Billing Documents (City will Provide if Needed)
- All Subcontractors Shall be Listed on the Bid Form – All Insurance & Payroll Requirements Apply
  - General Contractor Shall be the Insurance Certificate Holder and the City Shall be Named as 'Additionally Insured' with Respect to Liability Insurance
- A Submittal Log Must be Submitted within 10 Days of Award

**CLOSE OUT DOCUMENTS:**

- Prior to Final Payment the Vendor Shall Provide the Following:
  - Copies of Permits Signed off and Approved (If Any)
  - Operating Manuals and Warranties Shall Be Transferred and/or Delivered
  - Full and Completed As-Built Drawings Shall be Submitted for Approval
  - Training Shall be Provided to City Personnel (If Required)
  - Certification by Manufactures Representative (If Required)

**QUALIFICATIONS:**

Qualifications will be evaluated on the basis of similar project experience for:

- a. Completion of at least 3 similar projects within the past five years.
- b. Size and dollar value of similar completed projects.
- c. Contractor's performance with similar projects. (references will be checked)
- d.. Relevant experience of individuals assigned to the project.

Questions regarding this bid package shall be submitted via e-mail to **Patti Jordan** at [pjordan@providenceri.gov](mailto:pjordan@providenceri.gov) and **Brian Byrnes, Deputy Superintendent of Parks** at [bbyrnes@providenceri.gov](mailto:bbyrnes@providenceri.gov) , no later than five (5) working days before the bid opening date.

Brian Byrnes is the project contact and can be reached at 401-660-9308.



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**TECHNICAL SPECIFICATIONS**

**This project qualifies for prevailing wages per the **Prevailing Wages Statute or the Davis Bacon Act (HUD)**. Certified payrolls will need to be submitted to the owner for all hours worked on site for this project. The Wage Decision for this project shall be as recorded on the Bid Date and is available on the RI Department of Labor website.**

**Federal Labor Standards  
U.S. Department of Housing & Urban Development**

**Applicability**

The Project of Program to which the Construction work covered by this contract pertains is being assisted by the United States of America and the following Federal Labor Standards Provisions are included in this Contract pursuant to the provisions applicable to such Federal assistance.

A.1. (i) Minimum Wages. All laborers and mechanics employed or working up on the site of the work (or under the United States Housing Act of 1937 or under the Housing Act of 1949 in the construction of development of the project) will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR Part 3), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics. Contributions made or costs reasonably anticipated for bona fide fringe benefits under Section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of 29 CFR 5.5(a)(1)(iv); also, regular contributions made or costs incurred for more than weekly period (but not less often than quarterly) under plans, funds, or programs, which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification or work actually performed, without regard to skill, excepts as provided in 29 CFR Part 5.5 (a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: Provided, that the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification and wage rates conformed under 29 CFT part 5.5(a)(1)(ii) and the Davis-Bacon poster (WH-1321) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

(ii) (a) Any class of laborers or mechanics which is not listed in the wage determination and which is to be employed under the contact shall be classified in conformance with the wage determination. HUD shall approve an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met:

- (1) The work to be performed by the classification requested is not performed by a classification in the wage determination; and
- (2) The classification is utilized in the area by the construction industry; and
- (3) The proposed wage rate, including any bona fide fringe benefits, bears a relationship to the wage rates contained in the wage determination.

(b) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and HUD or its designee on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by HUD or its designee to the Administrator of the Wage and Hour Division, Employment Standards Administration, U.S. Department of labor, Washington, D.C. 20210. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise HUD or its designee or will notify HUD or its designee within the 30-day period that additional time is necessary. (Approved by the Office of Management and Budget under OMB control number 1215-0140.)



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(c) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and HUD or its designee do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), HUD or its designee shall refer the questions, including the views of all interested parties and the recommendation of HUD or its designee to the Administrator for determination. The Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise HUD or its designee or will notify HUD or its designee within the 30-day period that additional time is necessary. (Approved by the Office of Management and Budget under OMB Control Number 1215-0140.)

(d) The wage rate (including fringe benefits where appropriate) determined pursuant to subparagraphs (1)(b) or (c) of this paragraph, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

(iii) Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.

(iv) If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, Provided, That the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program. (Approved by the Office of Management and Budget under OMB Control Number 1215-0140.)

2. Withholding. HUD or its designee shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld from the contractor under this contract or any other Federal contract with the same prime contractor, or any other Federally-assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime contractor so much that the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees and helpers, employed by the contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee or helper, employed or working on the site of the work (or under the United States Housing Act of 1937 or under the Housing Act of 1949 in the construction or development of the project), all or part of the wages required by the contract. HUD or its designee may, after written notice to the contractor, sponsor, applicant, or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased. HUD or its designee may, after written notice to the contractor, disburse such amounts withheld for and on account of the contractor or subcontractor to the respective employees to whom they are due. The comptroller General shall make such disbursements in the case of direct Davis-Bacon Act contracts.

3. (i) Payrolls and basic records. Payrolls and basic record relating thereto shall be maintained by the contractor during the course of the work preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work (or under the United States Housing Act of 1937, or under the Housing Act of 1949, in the construction or development of the project). Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in Section 1(b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of labor has found under 29 CFR 5.5 (a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonable anticipated in providing benefits under a plan or program described in Section 1(b)(2)(B) or the Davis-Bacon Act, the contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs. (Approved by the Office of Management and Budget under OMB Control Numbers 1215-0140 and 1215-0017.)

(ii) (a) The contractor shall submit weekly for each in which any contract work is performed a copy of all payrolls to HUD or its designee if the agency is a party to the contract, but if the agency is not such a party, the contractor will submit the payrolls to the applicant, sponsor or owner, as the case may be, for transmission to HUD or its designee. The



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payrolls submitted shall set out accurately and completely all of the information required to be maintained under 29 CFR Part 5.5(a)(3)(i). This information may be submitted in any form desired. Optional Form WH-34 is available for this purpose and may be purchased from the Superintendent of Documents (Federal Stock Number 029-005-00014-1), Government Printing Office, Washington, Dc 20402. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors. (Approved by the Office of Management and Budget under OMB Control Number 1215-0149.)

(b) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the contractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:

(1) That the payroll for the payroll period contains the information required to be maintained under 20 CFR Part 5.5

(a)(3)(i) and that such information is correct and complete;

(2) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in 29 CFR Part 3;

(3) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.

(c) The weekly submission of a property executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the "Statement of Compliance" required by paragraph AA.3. (ii)(b) of this section.

(d) The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under Section 1001 of Title 18 and Section 231 of Title 31 of the United States Code. (iii) The contractor or subcontractor shall make the records required under paragraph A.3. (i) of this section available for inspection, copying, or transcription by authorized representatives of HUD or its designee or the Department of Labor, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, HUD or its designee may, after written notice to the contractor, sponsor, applicant, or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR Part 5.12.

4. (i) Apprentices and Trainees. Apprentices. Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Bureau of Apprenticeship and Training, or with a State Apprenticeship Agency recognized by the Bureau, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprentice program, who is not individually registered in the program, but who has been certified by the Bureau of Apprenticeship and Training or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice. The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the contractor's or subcontractor's registered program shall be observed. Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination. In the event the Bureau of Apprenticeship and Training, or a State Apprenticeship Agency recognized by



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the Bureau, withdraws approval of an apprenticeship program, the contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(ii) Trainees. Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration. The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration. Every trainee must be paid not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. In the event the Employment and Training Administration withdraws approval of a training program, the contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(iii) Equal employment opportunity. The utilization of apprentices, trainees and journeymen under this part shall be in conformity with the equal employment opportunity requirement of Executive Order 11246, as amended, and 29 CFR Part 30.

5. Compliance with Copeland Act requirements. The contractor shall comply with the requirements of 29 CFR Part 3, which are incorporated by reference in this contract.

6. Subcontracts. The contractor or subcontractor will insert in any subcontract the clauses contained in 29 CFR 5.5(a)(1) through (10) and such other clauses as HUD or its designee may by appropriate instructions require, and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all contract clauses in 29 CFR Part 5.5

7. Contracts termination; debarment. A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract, and for debarment as a contractor as provided in 29 CFR 5.12

8. Compliance with Davis-Bacon and Related Act Requirements. All ruling and interpretations of the Davis-Bacon and Related Act contained in 29 CFR Parts 1, 3, and 5 are herein incorporated by reference in this contract.

9. Disputes concerning labor standards. Disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR Parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and HUD or its designee, the U.S. Department of Labor, or the employees or their representatives.

10. (i) Certification of Eligibility. By entering in to this contract, the contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of Section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1) or to be awarded HUD contracts or participate in HUD programs pursuant to 24 CFR part 24.

(ii) No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of Section 3(a) of the Davis-Bacon Act of 29 CFR 5.12(a)(1) or to be awarded HUD contracts or participate in HUD programs pursuant to 24 CFR Part 24.

(iii) The penalty to making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001. Additionally, U.S. Criminal Code, Section 1010, Title 18, U.S.C., "Federal Housing Administration transaction", provides in part: "Whoever, for the purpose of ...influencing in any way the action of such Administration...makes, utter or publishes any statement, knowing the same to be false...shall be fined not more than \$5,000 or imprisoned not more than two years, or both."



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11. Complaints, Proceedings, or Testimony by Employees. No laborer or mechanic to whom the wage, salary, or other labor standards provisions of this Contract are applicable shall be discharged or in any other manner discriminated against by the Contractor or any subcontractor because such employee has filed any complaint or instituted or caused to be instituted any proceeding or has testified or is about to testify in any proceeding under or relating to the labor standards applicable under this Contract to his employer.

B. Contract Work Hours and Safety Standards Act. As used in this paragraph, the terms "laborers" and "mechanics" include watchmen and guards.

(1) Overtime requirements. No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.

(2) Violation; liability for unpaid wages; liquidated damages. In the event of any violation of the clause set forth in subparagraph (1) or this paragraph, the contractor and any subcontractor responsible therefore shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in subparagraph (1) of this paragraph, in the sum of \$25 for each calendar day on which such individual was required or permitted to work in excess of forty hours without payment of the overtime wages required by the clause set forth in subparagraph (1) of this paragraph.

(3) Withholding for unpaid wages for liquidated damages. HUD or its designees shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold of cause to be withheld from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contract, or any other Federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in subparagraph (2) of this paragraph.

(4) Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses set forth in subparagraph (1) through (4) of this paragraph and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in subparagraphs (1) through (4) of this paragraph.

C. Health and Safety

(1) No laborer or mechanic shall be required to work in surrounding or under working conditions which are unsanitary, hazardous, or dangerous to his health and safety as determined under construction safety and health standards promulgated by the Secretary of Labor by regulation.

(2) The Contractor shall comply with all regulations issued by the Secretary of Labor pursuant to Title 29 Part 1926 (formerly Part 1518) and failure to comply may result in imposition of sanctions pursuant to the Contract Work Hours and Safety Standards Act (Public Law 91-54, 83 Stat. 96).

(3) The Contractor shall include the provisions of this Article in every subcontract so that such provisions will be binding on each subcontractor. The Contractor shall take such action with respect to any subcontract as the Secretary of Housing and Urban Development or the Secretary of Labor shall direct as a means of enforcing such provisions.

Questions regarding this bid shall be sent via e-mail to Brian Byrnes at [bbyrnes@providenceri.gov](mailto:bbyrnes@providenceri.gov). Questions and responses will be sent to all bidders.

"General Decision Number: RI20200001 08/14/2020

Superseded General Decision Number: RI20190001

State: Rhode Island

Construction Types: Building, Heavy (Heavy and Marine) and Highway

Counties: Rhode Island Statewide.

BUILDING CONSTRUCTION PROJECTS (does not include residential construction consisting of single family homes and apartments up to and including 4 stories) HEAVY, HIGHWAY AND MARINE CONSTRUCTION PROJECTS

Note: Under Executive Order (EO) 13658, an hourly minimum wage of \$10.80 for calendar year 2020 applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2015. If this contract is covered by the EO, the contractor must pay all workers in any classification listed on this wage determination at least \$10.80 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in calendar year 2020. If this contract is covered by the EO and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must pay workers in that classification at least the wage rate determined through the conformance process set forth in 29 CFR 5.5(a)(1)(ii) (or the EO minimum wage rate, if it is higher than the conformed wage rate). The EO minimum wage rate will be adjusted annually. Please note that this EO applies to the above-mentioned types of contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but it does not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(2)-(60). Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

Modification Number	Publication Date
0	01/03/2020
1	01/24/2020
2	02/21/2020
3	03/06/2020
4	03/13/2020
5	05/01/2020
6	05/22/2020
7	06/05/2020
8	06/19/2020
9	07/24/2020
10	08/14/2020

ASBE0006-006 12/01/2019

Rates Fringes

HAZARDOUS MATERIAL HANDLER  
(Includes preparation, wetting, stripping, removal scrapping, vacuuming, bagging & disposing of all insulation materials, whether they contain asbestos or not, from mechanical systems).....\$ 36.60 22.40

ASBE0006-008 09/01/2019

Rates Fringes

Asbestos Worker/Insulator  
Includes application of all insulating materials, protective coverings, coatings & finishes to all types of mechanical systems.\$ 43.60 29.90

B0IL0029-001 01/01/2017

	Rates	Fringes
BOILERMAKER.....	\$ 42.42	24.92

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BRR1003-001 06/01/2020

	Rates	Fringes
Bricklayer, Stonemason, Pointer, Caulker & Cleaner.....	\$ 42.55	28.02

-----  
BRR1003-002 03/01/2020

	Rates	Fringes
Marble Setter, Terrazzo Worker & Tile Setter.....	\$ 40.78	28.92

-----  
BRR1003-003 03/01/2020

	Rates	Fringes
Marble, Tile & Terrazzo Finisher.....	\$ 34.10	27.88

-----  
CARP0330-001 06/05/2020

	Rates	Fringes
CARPENTER (Includes Soft Floor Layer).....	\$ 39.13	28.60
Diver Tender.....	\$ 40.13	28.60
DIVER.....	\$ 50.73	28.60
Piledriver.....	\$ 39.13	28.60
WELDER.....	\$ 40.13	28.60

FOOTNOTES:

When not diving or tending the diver, the diver and diver tender shall receive the piledriver rate. Diver tenders shall receive \$1.00 per hour above the pile driver rate when tending the diver.

Work on free-standing stacks, concrete silos & public utility electrical power houses, which are over 35 ft. in height when constructed: \$.50 per hour additional.

Work on exterior concrete shear wall gang forms, 45 ft. or more above ground elevation or on setback: \$.50 per hour additional.

The designated piledriver, known as the ""monkey"": \$1.00 per hour additional.

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CARP1121-002 01/06/2020

	Rates	Fringes
MILLWRIGHT.....	\$ 39.07	29.15

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ELEC0099-002 06/01/2020

	Rates	Fringes
ELECTRICIAN.....	\$ 41.61	57.24%
Teledata System Installer.....	\$ 31.21	13.10%+14.93

FOOTNOTES:

Work of a hazardous nature, or where the work height is 30 ft. or more from the floor, except when working OSHA-approved lifts: 20% per hour additional.

Work in tunnels below ground level in combined sewer outfall: 20% per hour additional.

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ELEV0039-001 01/01/2020

	Rates	Fringes
ELEVATOR MECHANIC.....	\$ 53.25	34.765+a+b

FOOTNOTES:

A. PAID HOLIDAYS: New Years Day; Memorial Day; Independence Day; Labor Day; Veterans' Day; Thanksgiving Day; the Friday after Thanksgiving Day; and Christmas Day.

B. Employer contributes 8% basic hourly rate for 5 years or more of service of 6% basic hourly rate for 6 months to 5 years of service as vacation pay credit.

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ENGI0057-001 06/01/2020

	Rates	Fringes
Operating Engineer: (power plants, sewer treatment plants, pumping stations, tunnels, caissons, piers, docks, bridges, wind turbines, subterranean & other marine and heavy construction work)		
GROUP 1.....	\$ 42.55	26.95+a
GROUP 2.....	\$ 40.55	26.95+a
GROUP 3.....	\$ 36.17	26.95+a
GROUP 4.....	\$ 33.32	26.95+a
GROUP 5.....	\$ 39.60	26.95+a
GROUP 6.....	\$ 30.40	26.95+a
GROUP 7.....	\$ 24.40	26.95+a
GROUP 8.....	\$ 36.25	26.95+a
GROUP 9.....	\$ 40.17	26.95+a

a. BOOM LENGTHS, INCLUDING JIBS:

- 150 feet and over + \$ 2.00
- 180 feet and over + \$ 3.00
- 210 feet and over + \$ 4.00
- 240 feet and over + \$ 5.00
- 270 feet and over + \$ 7.00
- 300 feet and over + \$ 8.00
- 350 feet and over + \$ 9.00
- 400 feet and over + \$10.00

a. PAID HOLIDAYS:

New Year's Day, President's Day, Memorial Day, July Fourth, Victory Day, Labor Day, Columbus Day, Veterans Day, Thanksgiving Day, Christmas Day. a: Any employee who works 3 days in the week in which a holiday falls shall be paid for the holiday.

a. FOOTNOTES:

Hazmat work: \$2.00 per hour additional.  
Tunnel/Shaft work: \$5.00 per hour additional.

POWER EQUIPMENT OPERATORS CLASSIFICATIONS

GROUP 1: Cranes, lighters, boom trucks and derricks

GROUP 2: Digging machine, Ross Carrier, locomotive, hoist, elevator, bidwell-type machine, shot & water blasting machine, paver, spreader, graders, front end loader (3 yds. and over), vibratory hammer & vacuum truck, roadheaders, forklifts, economobile type equipment, tunnel boring machines, concrete pump and on site concrete plants.

GROUP 3: Oilers on cranes.

GROUP 4: Oiler on crawler backhoe.

GROUP 5: Bulldozer, bobcats, skid steer loader, tractor, scraper, combination loader backhoe, roller, front end loader (less than 3 yds.), street and mobile-powered sweeper (3-yd. capacity), 8-ft. sweeper minimum 65 HP).

GROUP 6: Well-point installation crew.

GROUP 7: Utility Engineers and Signal Persons

GROUP 8: Heater, concrete mixer, stone crusher, welding machine, generator and light plant, gas and electric driven pump and air compressor.

GROUP 9: Boat & tug operator.

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ENGI0057-002 05/01/2020

	Rates	Fringes
Power Equipment Operator (highway construction projects; water and sewerline projects which are incidental to highway construction projects; and bridge projects that do not span water)		
GROUP 1.....	\$ 35.70	26.95+a
GROUP 2.....	\$ 30.40	26.95+a
GROUP 3.....	\$ 24.40	26.95+a
GROUP 4.....	\$ 30.98	26.95+a
GROUP 5.....	\$ 34.68	26.95+a
GROUP 6.....	\$ 34.30	26.95+a
GROUP 7.....	\$ 29.95	26.95+a
GROUP 8.....	\$ 31.33	26.95+a
GROUP 9.....	\$ 33.28	26.95+a

a. FOOTNOTE: a. Any employee who works three days in the week in which a holiday falls shall be paid for the holiday.

a. PAID HOLIDAYS: New Year's Day, President's Day, Memorial Day, July Fourth, Victory Day, Labor Day, Columbus Day, Veterans Day, Thanksgiving Day & Christmas Day.

POWER EQUIPMENT OPERATOR CLASSIFICATIONS

GROUP 1: Digging machine, crane, piledriver, lighter, locomotive, derrick, hoist, boom truck, John Henry's, directional drilling machine, cold planer, reclaimer, paver, spreader, grader, front end loader (3 yds. and over), vacuum truck, test boring machine operator, veemere saw, water blaster, hydro-demolition robot, forklift, economobile, Ross Carrier, concrete pump operator and boats

GROUP 2: Well point installation crew

GROUP 3: Utlity engineers and signal persons

GROUP 4: Oiler on cranes

GROUP 5: Combination loader backhoe, front end loader (less than 3 yds.), forklift, bulldozers & scrapers and boats

GROUP 6: Roller,skid steer loaders, street sweeper

GROUP 7: Gas and electric drive heater, concrete mixer, light plant, welding machine, pump & compressor

GROUP 8: Stone crusher

GROUP 9: Mechanic & welder

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ENGI0057-003 06/01/2020

BUILDING CONSTRUCTION

	Rates	Fringes
Power Equipment Operator		
GROUP 1.....	\$ 41.82	26.95+a
GROUP 2.....	\$ 39.82	26.95+a
GROUP 3.....	\$ 39.60	26.95+a
GROUP 4.....	\$ 35.60	26.95+a
GROUP 5.....	\$ 32.75	26.95+a
GROUP 6.....	\$ 38.90	26.95+a
GROUP 7.....	\$ 38.47	26.95+a

GROUP 8.....\$ 35.79 26.95+a

a. BOOM LENGTHS, INCLUDING JIBS:

- 150 ft. and over: + \$ 2.00
- 180 ft. and over: + \$ 3.00
- 210 ft. and over: + \$ 4.00
- 240 ft. and over: + \$ 5.00
- 270 ft. and over: + \$ 7.00
- 300 ft. and over: + \$ 8.00
- 350 ft. and over: + \$ 9.00
- 400 ft. and over: + \$10.00

a. PAID HOLIDAYS: New Year's Day, President's Day, Memorial Day, July Fourth, Victory Day, Labor Day, Columbus Day, Veterans Day, Thanksgiving Day & Christmas Day. a: Any employee who works 3 days in the week in which a holiday falls shall be paid for the holiday.

a. FOOTNOTE: Hazmat work: \$2.00 per hour additional. Tunnel/Shaft work: \$5.00 per hour additional.

POWER EQUIPMENT OPERATORS CLASSIFICATIONS

GROUP 1: Cranes, lighters, boom trucks and derricks.

GROUP 2: Digging machine, Ross carrier, locomotive, hoist, elevator, bidwell-type machine, shot & water blasting machine, paver, spreader, front end loader (3 yds. and over), vibratory hammer and vacuum truck

GROUP 3: Telehandler equipment, forklift, concrete pump & on-site concrete plant

GROUP 4: Fireman & oiler on cranes

GROUP 5: Oiler on crawler backhoe

GROUP 6: Bulldozer, skid steer loaders, bobcats, tractor, grader, scraper, combination loader backhoe, roller, front end loader (less than 3 yds.), street and mobile powered sweeper (3 yds. capacity), 8-ft. sweeper (minimum 65 hp)

GROUP 7: Well point installation crew

GROUP 8: Heater, concrete mixer, stone crusher, welding machine, generator for light plant, gas and electric driven pump & air compressor

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IRON0037-001 09/16/2019

	Rates	Fringes
IRONWORKER.....	\$ 36.27	28.98

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LABO0271-001 06/02/2019

BUILDING CONSTRUCTION

	Rates	Fringes
LABORER		
GROUP 1.....	\$ 31.80	25.05
GROUP 2.....	\$ 32.05	25.05
GROUP 3.....	\$ 32.55	25.05
GROUP 4.....	\$ 32.80	25.05
GROUP 5.....	\$ 33.80	25.05

LABORERS CLASSIFICATIONS

GROUP 1: Laborer, Carpenter Tender, Mason Tender, Cement Finisher Tender, Scaffold Erector, Wrecking Laborer, Asbestos Removal [Non-Mechanical Systems]

GROUP 2: Asphalt Raker, Adzemen, Pipe Trench Bracer, Demolition Burner, Chain Saw Operator, Fence & Guard Rail Erector, Setter of Metal Forms for Roadways, Mortar Mixer, Pipelayer, Riprap & Dry Stonewall Builder, Highway Stone Spreader, Pneumatic Tool Operator, Wagon Drill Operator,

Tree Trimmer, Barco-Type Jumping Tamper, Mechanical Grinder Operator

GROUP 3: Pre-Cast Floor & Roof Plank Erectors

GROUP 4: Air Track Operator, Hydraulic & Similar Self-Powered Drill, Block Paver, Rammer, Curb Setter, Powderman & Blaster

GROUP 5: Toxic Waste Remover

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LABO0271-002 06/02/2019

HEAVY AND HIGHWAY CONSTRUCTION

	Rates	Fringes
LABORER		
COMPRESSED AIR		
Group 1.....	\$ 49.23	23.50
Group 2.....	\$ 38.75	23.50
Group 3.....	\$ 51.23	23.50
FREE AIR		
Group 1.....	\$ 41.30	23.50
Group 2.....	\$ 38.75	23.50
Group 3.....	\$ 43.30	23.50
LABORER		
Group 1.....	\$ 31.80	23.05
Group 2.....	\$ 32.05	23.05
Group 3.....	\$ 32.80	23.05
Group 4.....	\$ 25.30	23.05
Group 5.....	\$ 33.80	23.05
OPEN AIR CAISSON, UNDERPINNING WORK AND BORING CREW		
Bottom Man.....	\$ 37.80	23.05
Top Man & Laborer.....	\$ 36.85	23.05
TEST BORING		
Driller.....	\$ 38.25	23.05
Laborer.....	\$ 36.85	23.05

LABORER CLASSIFICATIONS

GROUP 1: Laborer; Carpenter tender; Cement finisher tender; Wrecking laborer; Asbestos removers [non-mechanical systems]; Plant laborer; Driller in quarries

GROUP 2: Adzeperson; Asphalt raker; Barcotype jumping tamper; Chain saw operators; Concrete and power buggy operator; Concrete saw operator; Demolition burner; Fence and guard rail erector; Highway stone spreader; Laser beam operator; Mechanical grinder operator; Mason tender; Mortar mixer; Pneumatic tool operator; Riprap and dry stonewall builder; Scaffold erector; Setter of metal forms for roadways; Wagon drill operator; Wood chipper operator; Pipelayer; Pipe trench bracer

GROUP 3: Air track drill operator; Hydraulic and similar powered drills; Brick paver; Block paver; Rammer and curb setter; Powderperson and blaster

GROUP 4: Flagger & signaler

GROUP 5: Toxic waste remover

LABORER - COMPRESSED AIR CLASSIFICATIONS

GROUP 1: Mucking machine operator, tunnel laborer, brake person, track person, miner, grout person, lock tender, gauge tender, miner: motor person & all others in compressed air

GROUP 2: Change house attendant, powder watchperson, top person on iron

GROUP 3: Hazardous waste work within the ""HOT"" zone

LABORER - FREE AIR CLASSIFICATIONS

GROUP 1: Grout person - pumps, brake person, track person,

form mover & stripper (wood & steel), shaft laborer, laborer topside, outside motorperson, miner, conveyor operator, miner welder, heading motorperson, erecting operator, mucking machine operator, nozzle person, rodperson, safety miner, shaft & tunnel, steel & rodperson, mole nipper, concrete worker, form erector (wood, steel and all accessories), cement finisher (this type of work only), top signal person, bottom person (when heading is 50' from shaft), burner, shield operator and TBM operator

GROUP 2: Change house attendant, powder watchperson

GROUP 3: Hazardous waste work within the ""HOT"" zone

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PAIN0011-005 06/01/2020

	Rates	Fringes
PAINTER		
Brush and Roller.....	\$ 35.62	22.55
Epoxy, Tanks, Towers, Swing Stage & Structural Steel.....	\$ 37.62	22.55
Spray, Sand & Water Blasting.....	\$ 38.62	22.55
Taper.....	\$ 36.37	22.55
Wall Coverer.....	\$ 36.12	22.55

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PAIN0011-006 06/01/2020

	Rates	Fringes
GLAZIER.....	\$ 39.18	22.55

FOOTNOTES:

SWING STAGE: \$1.00 per hour additional.

PAID HOLIDAYS: Labor Day & Christmas Day.

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PAIN0011-011 06/01/2020

	Rates	Fringes
Painter (Bridge Work).....	\$ 52.25	22.55

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PAIN0035-008 06/01/2011

	Rates	Fringes
Sign Painter.....	\$ 24.79	13.72

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PLAS0040-001 06/03/2019

BUILDING CONSTRUCTION

	Rates	Fringes
CEMENT MASON/CONCRETE FINISHER...	\$ 36.00	27.15

FOOTNOTE: Cement Mason: Work on free swinging scaffolds under 3 planks width and which is 20 or more feet above ground and any offset structure: \$.30 per hour additional.

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PLAS0040-002 07/01/2019

HEAVY AND HIGHWAY CONSTRUCTION

	Rates	Fringes
CEMENT MASON/CONCRETE FINISHER...	\$ 32.85	22.20

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PLAS0040-003 07/01/2019

	Rates	Fringes
PLASTERER.....	\$ 37.55	27.50

PLUM0051-002 03/02/2020

	Rates	Fringes
Plumbers and Pipefitters.....	\$ 43.69	30.05

ROOF0033-004 06/01/2020

	Rates	Fringes
ROOFER.....	\$ 39.15	27.31

SFRI0669-001 01/02/2020

	Rates	Fringes
SPRINKLER FITTER.....	\$ 45.67	24.74

\* SHEE0017-002 07/01/2020

	Rates	Fringes
Sheet Metal Worker.....	\$ 38.29	36.72

TEAM0251-001 05/01/2019

HEAVY AND HIGHWAY CONSTRUCTION

	Rates	Fringes
TRUCK DRIVER		
GROUP 1.....	\$ 27.96	26.8525+A+B+C
GROUP 2.....	\$ 27.61	26.8525+A+B+C
GROUP 3.....	\$ 27.66	26.8525+A+B+C
GROUP 4.....	\$ 27.71	26.8525+A+B+C
GROUP 5.....	\$ 27.81	26.8525+A+B+C
GROUP 6.....	\$ 28.21	26.8525+A+B+C
GROUP 7.....	\$ 28.41	26.8525+A+B+C
GROUP 8.....	\$ 27.91	26.8525+A+B+C
GROUP 9.....	\$ 28.16	26.8525+A+B+C
GROUP 10.....	\$ 27.96	26.8525+A+B+C

FOOTNOTES:

A. Paid Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day and Christmas Day, plus Presidents' Day, Columbus Day, Veteran's Day & V-J Day, providing the employee has worked at least one day in the calendar week in which the holiday falls.

B. Employee who has been on the payroll for 1 year or more but less than 5 years and has worked 150 Days during the last year of employment shall receive 1 week's paid vacation; 5 to 10 years - 2 weeks' paid vacation; 10 or more years - 3 week's paid vacation.

C. Employees on the seniority list shall be paid a one hundred dollar (\$100.00) bonus for every four hundred (400) hours worked, up to a maximum of five hundred dollars (\$500.00)

All drivers working on a defined hazard material job site shall be paid a premium of \$2.00 per hour over applicable rate.

TRUCK DRIVER CLASSIFICATIONS

GROUP 1: Pick-up trucks, station wagons, & panel trucks

GROUP 2: Two-axle on low beds

GROUP 3: Two-axle dump truck

GROUP 4: Three-axle dump truck

GROUP 5: Four- and five-axle equipment

GROUP 6: Low-bed or boom trailer.

GROUP 7: Trailers when used on a double hook up (pulling 2 trailers)

GROUP 8: Special earth-moving equipment, under 35 tons

GROUP 9: Special earth-moving equipment, 35 tons or over

GROUP 10: Tractor trailer

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WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

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Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at [www.dol.gov/whd/govcontracts](http://www.dol.gov/whd/govcontracts).

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (ii)).

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The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of ""identifiers"" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than ""SU"" or ""UAVG"" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

Survey Rate Identifiers

Classifications listed under the ""SU"" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates

the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

#### Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

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#### WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

- \* an existing published wage determination
- \* a survey underlying a wage determination
- \* a Wage and Hour Division letter setting forth a position on a wage determination matter
- \* a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations  
Wage and Hour Division  
U.S. Department of Labor  
200 Constitution Avenue, N.W.  
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator  
U.S. Department of Labor  
200 Constitution Avenue, N.W.  
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board  
U.S. Department of Labor  
200 Constitution Avenue, N.W.

Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

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END OF GENERAL DECISION"

# Joseph Williams Field Playground Improvements

999 Elmwood Avenue  
Providence, Rhode Island 02907

Division	Section Title	Pages
<b>SPECIFICATIONS GROUP</b>		
<b><i>General Requirements Subgroup</i></b>		
<b>DIVISION 01</b>	<b>- GENERAL REQUIREMENTS</b>	
010000	GENERAL REQUIREMENTS	17
015639	TEMPORARY TREE AND PLANT PROTECTION	5
<b><i>Facility Construction Subgroup</i></b>		
<b>DIVISION 02</b>	<b>- EXISTING CONDITIONS</b>	
024119	SELECTIVE DEMOLITION	3
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## SECTION 010000 - GENERAL REQUIREMENTS

### PART 1 - GENERAL

1.1 All work done under this Contract shall also be in conformance with the Drawings and these Supplemental Technical Specifications.

#### A. SCOPE OF WORK

1. The general summary of work to be done under this contract consists of, but shall not be limited, to the following as shown in the Contract Documents:

#### B. WORK COVERED BY CONTRACT DOCUMENTS

C. The Contractor shall execute the scope of work indicated on Plans and Specifications to enhance the use and operations of the site as shown within the project limits.

D. Work shall be as specifically indicated, shown or described in the Drawings, Technical Specifications, and other Contract Documents.

#### E. PROJECT INFORMATION

##### 1. OWNER

- a. City of Providence Parks Department Roger Williams Park Dalrymple Boathouse, 1000 Elmwood Avenue, Providence, RI 02907, Telephone: 401.680.7200
- b. Superintendent of Parks: Wendy Nilsson

##### 2. OWNER'S REPRESENTATIVE

- a. Lindsey Langenburg 269.832.0653

### 1.2 PROJECT LOCATION

A. Joseph Williams Field, 999 Elmwood Avenue, Providence, RI 02907

### PART 2 - PRODUCTS

#### 2.1 CONTRACTOR USE OF PREMISES

A. The Contractor's use of premises shall be within the limits shown on the Drawings and as defined in the Standard Form of Agreement, for the performance of the Work.

1. The Contractor shall maintain vehicular access and utility service to the abutting properties at all times throughout the course of the construction.
2. The Contractor shall assume full responsibility for security of all materials and equipment on the site, including those of the subcontractors.



3. If directed by the Owner's Representative, the Contractor shall relocate or move any stored items that interfere with operations of the Owner.
4. The Contractor may elect to obtain (at no cost to the Owner) additional storage or work areas off-site if needed to perform the work.

## 2.2 OWNER OCCUPANCY REQUIREMENTS

- A. The Owner (City) anticipates that site inclusive of all on-site amenities beyond the Limit of Work will remain open throughout the course of construction.
- B. Contractor shall provide the Owner's Representative with a written plan describing the sequences and durations anticipated for the execution of the Work.

## 2.3 MOBILIZATION, SITE PREPARATION, & DEMOLITION

- A. THE WORK SPECIFIED IN THIS SECTION INCLUDES:
  1. Mobilization of all personnel and equipment;
  2. Preparing the construction site for construction operations;
  3. Materials to be removed and legally disposed of off site.
  4. When applicable, verifying and utilizing survey control points as shown on the Drawings
  5. Protecting existing site features to remain, such as fences, trees, shrubs and grassed areas outside the limit of work.
  6. Protecting underground and overhead utilities and other existing facilities from damage.
  7. Where applicable, provisions for site access and of traffic control.
  8. At cessation of site improvement operations: Site clean-up
  9. De-mobilization of all personnel and equipment.

## 2.4 CONSTRUCTION STAGING/STOCKPILE AREAS

- A. Staging areas within the Park is permitted as shown on the Plans with the prior consent of and coordination with the Owner.
- B. Restoration of the site to pre-existing condition shall be the sole responsibility of the Contractor.

## 2.5 MATERIALS AND EQUIPMENT:

- A. Materials to be Removed and Stockpiled.
  1. Materials directed to be removed and stockpiled shall be removed, transported to and stacked in a location directed by the Owner's Representative. All materials shall be neatly stacked as directed.
  2. If the Owner's Representative determines that any part of the materials identified to be stockpiled are unsuitable for re use on the site or by the Owner elsewhere, such materials shall be evaluated for legal disposal by Owner's Representative and Contractor.



- B. Signs: Conform to requirements of Temporary Facilities and Controls.
- C. Temporary Site Protection: Temporary chain-link fence, if so desired shall be furnished, installed and maintained at no additional cost to the Owner. At the completion of all work at the site, the Contractor shall remove all temporary fencing and restore the site to its original condition at no additional cost to the Owner.

## 2.6 TEMPORARY CONSTRUCTION FACILITIES AND UTILITIES

- A. Make arrangements with the Owner's Representative for storage of materials and equipment in designated locations at the construction site. If staged on site, materials shall be secured from vandalism and or theft.
- B. Plastic construction fence or snow fencing if installed shall be maintained in good condition. Provide barricades, barrels, fencing and/or other barriers around excavations and trenches as required for safety. Upon completion, temporary fencing shall be removed and the affected area restored existing condition.

## 2.7 SITE MAINTENANCE

- A. Control dust from Contractor operations in accordance with specified dust control measures.
- B. Maintain the Site during construction in a manner that will not obstruct use on neighborhood streets. Proceed with the work in an orderly manner, maintaining the construction site free of debris and unnecessary equipment or materials.
- C. Legally dispose of all debris, rubbish, hazardous materials, oil, and grease in accordance with local ordinances.
- D. Maintain safety and security of the construction site and any stockpiled or staged materials or equipment if left on site.

## 2.8 TRAFFIC CONTROL

- A. For all of his operations, the Contractor shall provide appropriate traffic control in accordance with, TEMPORARY FACILITIES AND CONTROLS. The purposes of the traffic control are 1) to ensure that operations in the project area are performed in a safe and orderly manner, and 2) to minimize the impact of truck and equipment traffic and noise on adjacent homes near the project area. The Contractor shall be responsible for obtaining any and all required permits and approvals.
- B. Police Details, if required by the City, shall be paid directly to and coordinated with Providence Public Safety by the Owner.



## 2.9 DEMOBILIZATION

- A. Contractor shall be responsible for site security and safety at all times. Upon substantial completion of the work, Contractor shall remove all excess materials, equipment, construction debris, temporary facilities and construction measures (fencing, signs, barriers, etc.) from the project area, and shall leave the site in suitable condition for full occupancy and use by the Owner. The sedimentation and erosion controls installed as part of the Work may not necessarily be removed at this time (see below).
- B. The Owner's Representative shall be the sole judge of whether the site has been suitably cleaned.
- C. Upon suitable stabilization of all disturbed "erodible" areas (e.g. acceptable level of grass growth in loamed and seeded areas, mulch applied and stable in planting areas, etc.), contractor shall remove and legally dispose of all sedimentation and erosion control measures (silt fence, hay bales, catch basin inserts, etc.). See Section 024119 Selective Demolition and 329200 Turf and Grasses for directives and procedures.

## PART 3 - EXECUTION

### 3.1 GENERAL REQUIREMENTS

- A. The construction site entrance shall be as indicated on the plans. The Owner will provide access to any locked gate. Any tracked debris from the site present on adjacent roadways shall be removed and the roads swept daily to remove any excess mud, dirt, or rock originating from the site. Trucks hauling material shall be covered and equipped with gates that prevent material from falling out. If present, catch basins within 100 feet of site entry and exit locations shall be protected with inlet sediment control devices and maintained for the duration of the work.
- B. Identify, clearly mark and protect all survey monuments, temporary bench marks as well as any adjacent contractors' work and facilities (if applicable). Repair or replacement shall be at Contractor's sole expense if damaged by Contractor.
- C. Protect existing culverts, sewers, and all other utilities including gas, telecommunications, electricity, and water. Repair or replace at Contractor's sole expense if damaged by Contractor.
- D. Utilize or install drum or sawhorse barricades or backfill all open excavations, holes, trenches, and depressions occurring at construction sites or occurring as part of this work.

### 3.2 CHANGE ORDER PROCEDURE

#### A. DESCRIPTION

- 1. The Contractor shall comply with this procedure in the process of giving notification of change and preparing and submitting a proposal for adjustment due to a desired, perceived, or actual change in the work. Changes in the work, or period of performance of the work, may be directed in writing by the Owner's Representative or may be



requested by the Contractor. In either case, payment for work accomplished under a modification may not be made until a formal contract modification, incorporating the change into the contract, has been issued and executed. Therefore, it is incumbent upon the Contractor to comply fully with this procedure and to expedite the resolution of changes.

### 3.3 CHANGE SUBMITTALS

- A. When requested, the Contractor shall submit the following to the Owner's Representative in accordance with the Submittals procedures described in these specifications:
  - 1. Proposal cover letter on Contractor's letterhead;
  - 2. Detailed price proposal;
  - 3. Drawings or other explanatory data; and
  - 4. Time extension statement with justification if any time extension is requested.

### 3.4 COMPLIANCE

- A. The Contractor shall take such measures as needed to assure familiarity and compliance by its staff with these procedures. If change proposals are incomplete, unclear, or ambiguous or are not supported by adequate documentation, the data will be returned and the Contractor shall resubmit or supplement the proposal as requested by the Owner's Representative. Delay resulting from the Contractor's noncompliance with this procedure shall not in itself constitute the basis for an extension in the time of performance under the contract.

### 3.5 PROCESSING CHANGES INITIATED BY THE OWNER'S REPRESENTATIVE

- A. The Owner's Representative will initiate changes only in writing. The Owner will sign any Request for Proposal (RFP). This will establish an Extra Work Order (EWO) number, by which the change will be identified until such time as it may be incorporated into the contract by formal Change Order (CO).
- B. The Contractor may or may not be authorized to proceed with the changed work pending resolution of changes in the contract price or time of performance. If the work described in the RFP becomes critical to the timely performance of the Contractor's work, a written request for a Notice to Proceed must be forwarded to the Owner immediately. The Owner will issue any Notice to Proceed. This unilateral modification to the contract may be subject to further negotiation regarding price and time for completion.
- C. Payment for changed work, covered by an authorized modification, will not be made until a notice to proceed covering the changed work has been executed.
- D. The Contractor shall prepare and submit its proposal for change to include at a minimum:
  - 1. A cover letter referencing the EWO number and citing the attachments, if any, which constitute the Contractor's total proposal.



2. A detailed price proposal showing labor, construction equipment, and material quantities and prices at the lowest practical level of each element of the work.
  3. Any drawings, sketches, catalog cuts, samples, certifications, or other data required to be submitted by the Owner's Representative that is required to fully document
  4. A statement of the proposed change in the time of completion of the contract, together with all required justification for such a change.
  5. A statement to the effect that there is "no change in price and/or time of completion of the work under this contract as a result of this proposed change", if that is the case.
- E. The Owner may accept the Contractor's proposal without negotiation. Alternatively, upon receipt of a proposal which is satisfactory in form, the Owner's Representative may require negotiation with the Contractor to arrive at a fair and equitable change in the contract price and time of completion. Upon agreement, a contract modification will be issued by the Owner for Contractor's execution.

### 3.6 PROCESSING CHANGES INITIATED BY THE CONTRACTOR

- A. Should the Contractor feel that a change to the work under the contract, or to the contract itself, is necessary or desirable, it shall propose such a change to the Owner's Representative. This proposed change shall include a clear and concise description of the proposed change, along with that information cited in above.
- B. Within a reasonable time, the Owner's Representative will review the Contractor's proposal and determine if the proposed change is in the Owner's best interest. If so, Contractor will be advised of this and a an EWO number will be assigned to Contractor's proposal.

### 3.7 EXECUTING CHANGED WORK

- A. The Contractor is cautioned not to proceed with the work described in a proposed change until it is authorized to do so in writing by the Owner's Representative.

### 3.8 TERMINATIONS AND DELAYS

- A. Termination of Contract: If the Contractor or any of his/her subcontractors refuses or fails to prosecute the work with such diligence as will insure its completion within the time specified in these Contract Documents, or as modified, as provided for in these Contract Drawings, or violates any other Provisions of this Contract, the Local Public Agency, Local Public Agency, City, by written notice to the Contractor, may terminate the Contractor's right to proceed with the Work. Upon such termination, the City of Providence may take over the work and prosecute the same to completion, by contract or otherwise, and the Contractor and his/her sureties shall be liable to the City of Providence for any additional cost incurred by the City of Providence in its completion of the work and they shall also be liable to the City of Providence for liquidated damages for any delay in the completion of the work as provided below. work and they shall also be liable to the City of Providence for liquidated damages for any delay work. in the completion of the work as provided below. work. If the Contractor's right to proceed is so terminated, the Local Public Agency Local Public Agency City may take possession of and utilize in completing the work such materials, tools, equipment, and plants as may be on the site

of the work and necessary thereof. Project work must commence 30 days after award of Contract or as mutually agreed upon by the Contractor and the Owner. The Contractor is required to submit a Work Schedule including all items included in the scope of work. The Work Schedule shall mirror the Schedule of Values which should be in chronological order. Both items are identified in the standard Pre-Bid and Pre-Construction Meeting Minutes as required. The work shall be continuous and the Contractor shall staff the project appropriately to meet the agreed upon work schedule. De- Mobilization from the project, prior to completion, must be agreed upon in writing by the Owner.

### 3.9 INSPECTION OF WORK

#### A. DESCRIPTION

1. Work included in this Section consists of periodic observation of construction of the project. The Contractor's work shall be monitored periodically by the Owner's Representative
2. The Owner's Representative presence on site or construction observation work is inspectional in nature and will not include supervision or direction of the actual work of the contractor.
3. In no event will the Owner's Representative be responsible or liable for the contractor's use or administration of personnel, machinery, staging, or other temporary or precautionary construction, safety precautions or procedures, or for compliance by the contractor with the provisions, terms, or specifications of the contract. Observation services provided by the Owner's Representative are solely for the benefit of the Owner.
4. The Contractor shall keep the Owner's Representative informed concerning the work status and projected work schedule through regular communications.
5. The Contractor shall not cover any work related to the required field visits until one of the following occurs:
  - a. The Contractor is authorized by the Owner's Representative to proceed after the field visit.
  - b. The field visit is re-scheduled by the Owner's Representative to a later construction event
  - c. The field visit is waived in writing by the Owner's Representative
6. The Contractor shall request a Final Inspection seven calendar days in advance of the planned completion date. After review of the Notice of Completion, the Owner's Representative may reject the Notice for cause or schedule the Final Inspection. The Owner's Representative will perform its Final Inspection on all phases of the work and develop a comprehensive punch list, which will be provided to the Contractor.
7. The Final Inspection will be scheduled when the punch list items discovered during the Final Inspection have been corrected. If discovered, the Owner's Representative may add new items to the punch list at this inspection.
8. The Contractor is advised that the Owner's Representative will not accept the work until the Owner's Representative determines Substantial Completion has been achieved. Therefore, to minimize its risk, the Contractor should schedule its work to be substantially complete in time to allow the Final Inspection and punch list work to occur in advance of the Project Close Out Date. Due to the construction time period and the anticipated weather conditions, substantially complete will be defined as the completion of construction for all item and the temporary stabilization of all disturbed areas,



excluding planting and final seeding. Planting and final seeding is to occur during the time periods specified..

9. Nothing in this Section shall be construed to limit the Owner's Representative right to inspect the work at any time.

### 3.10 CONSTRUCTION SCHEDULES

#### A. DESCRIPTION

1. Work included in this Section consists of preparation, submittal, and updating of the project.

### 3.11 CONSTRUCTION SCHEDULE

#### A. Submit the following to the Owner's Representative in accordance with the Submittals Section. Submittals are for the record or approval as indicated.

1. The proposed construction schedule shall be submitted for approval within five (5) calendar days after receipt of Notice to Proceed.
2. Submit contract Weekly Summary Reports to the Owner's Representative for the record at weekly site meeting at request by the Owner.
3. Submit construction progress schedule including a two week look ahead as back up to progress invoices.

#### B. The construction schedule shall show all work activities for completion of the work to be performed under this contract and will reflect Contractor's general sequential approach to the work. The construction schedule will be in a bar chart format. The minimum level of detail (number of activities) shall include the activities described in the Schedule of Values and the Scope of the Work. The construction schedule shall demonstrate completion of all work within the period of performance of the contract in a reasonable and achievable manner.

### 3.12 PERIODIC SCHEDULE UPDATES

#### A. The Contractor shall support monthly payment requests with an approved construction schedule marked to indicate progress. Submit updated schedule as necessary.

#### B. When in the opinion of the Owner's Representative changes in the work occur that significantly affect the schedule, the Contractor shall submit a revised construction schedule for approval. The revised construction schedule shall be submitted within 10 calendar days after it is requested by the Owner's Representative. The current approved construction schedule shall be used as a baseline for progress reporting.

#### C. Acts of God: Claims for additional compensation for 'Acts of God' will be reviewed by the Owner. It is the Contractor's responsibility to secure the work site daily and failure to provide adequate provisions to do so may result in repairs to the site at the Contractor's expense. Documented 'Acts of God' such as the state issuing a 'State of Emergency' may result in the



Owner's authorization to proceed repair funded by the Owner. No work shall proceed without written authorization by the Owner.

### 3.13 SUBMITTAL PROCEDURES

#### A. DESCRIPTION

1. This Specification Section covers the preparation and submission of all work plans, drawings, samples, manufacturer's literature and brochures, installation instructions, and operation and maintenance manuals as specified herein and in the various sections of these Specifications.
2. A Submittal Schedule shall be submitted for approval within five (5) calendar days after receipt of Notice to Proceed.

### 3.14 DRAWINGS

- A. The term "drawings" as used herein includes 'Shop Drawings' as required for fabrication, erection and installation, layout, and setting of proposed improvements; lists or schedules of materials and catalogues and brochures; performance and test data; and all other drawings and descriptive data pertaining to materials and methods of construction as may be required to show that the materials, equipment, or systems and the positions thereof conform to the requirements of the Contract Documents.
- B. Where specified and if so directed by the Owner's Representative provide shop drawings that are accompanied by design computations.
- C. Sheet sizes of drawings shall not exceed 24 in. by 36 in. The title block on all drawings shall bear the name of the Owner, the name of the project, and the project location.
- D. The Contractor's drawings shall be submitted electronically in PDF format to the Owner's Representative for review and approval.
- E. The Contractor shall maintain a complete set of construction drawings at the jobsite, clearly marked to reflect as-built conditions. Upon completion of the work, the Contractor shall submit these Record Drawings to the Owner's Representative.
- F. The Owner's Representative will review drawings and schedules only for conformance with the design of the Project and for compliance with the Contract Documents and Contract Drawings. The Contractor shall make any and all updates and corrections required by the Owner's Representative
- G. Drawings shall be reviewed and returned within ten (10) working days of receipt of drawings at jobsite. Drawings and all supporting data, catalogs, or similar information shall be prepared by the Contractor or his suppliers and subcontractors but shall be submitted as instruments of the Contractor.
- H. The Owner's Representative review of drawings will be of a general nature and shall not relieve the Contractor from responsibility for errors and omissions of any sort, for deviations from



Drawings or Specifications, or for conflict with the work of others that may result from such deviations. The Owner's Representative review of drawings will not relieve the Contractor of responsibility to complete the work in accordance with the requirements of the Contract Documents.

- I. After Notice of Award, the Contractor shall submit a Submittal Schedule to the Owner's Representative. The Contractor's schedule shall be brought up to date from time to time to show the latest changes, omissions, and additions. The Schedule will be based on the Contractor's Construction Schedule and will show when the Contractor will submit the drawings and when he/she expects them to be returned so that construction activities shown on the Construction Schedule are not interrupted. There will be a minimum of three weeks between these two activities. Specific methods and routines for handling drawing reviews shall be established in advance within the general framework of the Contract Documents.
- J. Work for which the Contractor's submittals are required shall not be started until the submittals have been reviewed and accepted in writing by the Owner or Landscape Architect. Owner or Landscape Architect. Owner or Landscape Architect. Owner or Landscape Architect. Owner's Representative. Any revision by the Contractor of a previously accepted submittal must be accepted in writing by the Owner's Representative before implementation.

### 3.15 SAMPLES

- A. The Contractor shall, at his or her expense, furnish the Owner's Representative with samples of the various materials as specified in these Specification and Drawings. Samples shall be delivered to the office of the Owner's Representative at the Contractor's expense.

### 3.16 PRODUCT DATA

- A. The Contractor shall submit to the Owner's Representative all required Material Safety Data Sheets (MSDS) and all Product Data Sheets and any other relevant product information for all items identified in the Technical Specifications and Drawings. All data shall be furnished by the Contractor in accordance with the approved schedule.

#### B. SUBMITTAL LOG

1. Contractor to provided the following information:
  - a. An I.D. number for each item
  - b. Specification Section, Paragraph Number and Line Item Number (ie. 321313 / 1.3 / A)
  - c. Item Name
  - d. Description of the Item
  - e. Date Submitted
  - f. Status: Approved / Approved As Noted / Rejected
  - g. Sub-Contractor (If any) providing the material
  - h. Comments



### 3.17 QUALITY CONTROL DESCRIPTION

- A. This Section provides the requirements for Contract quality control (QC) pertaining to the Work, including:
  - 1. QC of products and workmanship;
  - 2. Manufacturer's instructions; and
  - 3. Manufacturer's certificates and field services.

### 3.18 WORKMANSHIP

- A. The Contractor shall comply with industry standards of the region, except when more restrictive tolerances or specified requirements indicate more rigid standards or more precise workmanship.
- B. The Contractor shall provide suitably-qualified personnel to produce work of specified quality.
- C. The Contractor shall secure products in place with positive anchorage devices designed and sized to withstand stresses, vibration, and racking.
- D. The Contractor shall provide materials to match approved samples.

### 3.19 MANUFACTURER'S INSTRUCTIONS

- A. The Contractor shall require compliance with instructions in full detail, including each step in sequence. Should instructions conflict with the Contract Documents, the Contractor shall request clarification from the Owner's Representative before proceeding.

### 3.20 MANUFACTURER'S CERTIFICATES

- A. When required in individual Specifications sections, the Contractor shall submit manufacturer's certificates, in duplicate, certifying that products meet or exceed specified requirements.

### 3.21 TESTING LABORATORY SERVICES (NIC)

- A. Not Utilized in this Contract
- B. (Modify as Required)

### 3.22 MANUFACTURER'S FIELD SERVICES

- A. When required by the manufacturer or Owner's Representative, the Contractor shall have the manufacturer provide a qualified representative to observe field conditions, conditions of surfaces and installation, and quality of workmanship as applicable and to make written report of observations and recommendations to the Owner's Representative



### 3.23 AUTHORITY OF OWNER'S REPRESENTATIVE

- A. The Owner's Representative will decide all questions that may arise as to the quality and acceptability of materials furnished. All questions that may arise as to the interpretation of the Contract Drawing and Specifications shall be determined by the Owner's Representative.
- B. The Owner and Owner's Representative shall not be responsible for the Contractor's means, methods, techniques, sequences, or procedures of construction or the safety precautions and programs incident thereto, and the Owner's Representative will not be responsible for the Contractor's failure to perform the work in accordance with the Contract Documents.
- C. The Owner's Representative will not be responsible for the acts or omissions of the Contractor or any subcontractors, of the agents or employees of any Contractor or subcontractor, or of any other persons at the site or otherwise performing any of the work.

### 3.24 COORDINATION OF DRAWINGS AND SPECIFICATIONS

- A. The Contractor shall take no advantage of any apparent error or omission in the Contract Drawings or Specifications. In the event the Contractor discovers such a discrepancy, error or omission, he shall immediately notify the Owner's Representative. After review and consultation with the Owner's Representative the Owner's Representative will issue clarifications, provide interpretations and make such corrections as may be deemed necessary for the Contractor to proceed with fulfilling the intent of the Contract Drawings and Specifications.
- B. When general reference is made on the Contract Drawings or within the Specifications to any cited Standard Specifications, it shall refer to the current edition of such Specifications or the latest revision thereof or interim Specifications adopted and in effect on the date of Effective Date of Agreement. In the event of a conflict between the Contract Drawings and the specifications, the Owner's Representative shall be notified to provide a clarification to the Contractor.

### 3.25 COOPERATION WITH UTILITIES

- A. The Contractor will notify all utility companies, all pipeline owners, or other parties affected and endeavor to have all necessary adjustments of the public or private utility fixtures, pipelines, and other appurtenances within or adjacent to the limits of construction made as soon as practical.
- B. Water lines, gas lines, wire lines, service connections, water and gas meter boxes, water and gas valve boxes, light standards, cableways, signals, and all other utility appurtenances within the limits of the proposed construction which are to be crossed, relocated or adjusted are to be moved by the Contractor or its designated agents, except as otherwise noted on the Contract Drawings. In the case of utility lines, the Contractor shall coordinate with the respective utilities for their removal and relocation.
- C. Attention is directed to the possible existence of underground facilities not known to the Owner's Representative or in a location different from that which is shown on the Contract



Drawings. The Contractor shall take steps to ascertain the exact location of all underground facilities prior to doing work that may damage such facilities or interfere with their service.

### 3.26 INDEPENDENT TESTING AND INSPECTION (NIC)

- A. Not Applicable under this Contract

### 3.27 REQUIREMENTS

- A. The requirements for sampling and testing or inspection are specified in the Specifications and Drawings. The Contractor shall maintain a complete and up-to-date file of all quality control documentation at the jobsite.

### 3.28 MATERIAL AND EQUIPMENT

#### A. DESCRIPTION

- 1. This Specification Section includes the requirements for the transportation, handling, storage, and protection of materials and equipment as specified herein and in the various Sections of these Specifications. This Section also addresses the procedure for Contractor-proposed product substitutions.

### 3.29 MANUFACTURER REQUIREMENTS

- A. In general, the Contractor shall receive, handle, and store materials and equipment in accordance with manufacturer's recommendations and in a manner which will protect such items from damage or deterioration.
- B. GENERAL
- C. Products include the material, equipment, and systems used on this Project. Comply with the Specifications, Drawings and referenced standards as minimum requirements.

### 3.30 TRANSPORTATION AND HANDLING

- A. The Contractor shall receive, handle, and store materials and equipment supplied by him/her in a manner that will protect such items from damage or deterioration in accordance with procedures provided by product manufacturers and the Owner.
- B. Promptly inspect the shipments to assure that the products comply with requirements, the quantities are correct, and the products are undamaged.



### 3.31 STORAGE AND PROTECTION

- A. Materials and equipment shall be stored off the ground on blocking or pallets and shall be covered for protection from vandalism and weather damage.
- B. Materials and equipment shall be stored, tested, and cleaned prior to use, in accordance with the Specification and all specific manufacturers' requirements. Damaged or nonconforming items shall be removed immediately to a separated storage area for expeditious removal from site.
- C. The Contractor shall provide a secure outside storage area in the vicinity of the site.

### 3.32 SUBSTITUTIONS

- A. Substitutions will be considered only when a product becomes unavailable due to no fault of the Contractor or when deemed appropriate by the Owner's Representative
- B. Document each request with complete data substantiating the compliance of the proposed substitution with the Contract Documents.
- C. The requested substitution proposed constitutes a representation that the Contractor:
  - 1. Has investigated the proposed product and determined that it meets or exceeds, in all respects, the specified product.
  - 2. Will provide the same warranty for substitution as for the specified product.
  - 3. Will coordinate installation and make other changes which may be required for the Work to be complete in all respects.
  - 4. Waives claims for additional costs which may subsequently become apparent.
- D. Substitutions will be considered when they are indicated or implied on shop drawings or product data submittals without separate written request, or when acceptance will require substantial revision of the Contract Documents.
- E. The Owner's Representative will determine acceptability of the proposed substitution, and will notify the Contractor of acceptance or rejection in writing within a reasonable time. Only one request for the substitution will be considered for each product. When substitution is not accepted, the Contractor shall provide the specified product.

### 3.33 REJECTED MATERIALS AND DEFECTIVE WORK

- A. Materials furnished by the Contractor and rejected by the Owner's Representative as unsuitable or not in conformity with the specifications shall forthwith be removed from the job-site and work area by the Contractor, and shall not be made use of elsewhere in the work.
- B. Any errors, defects, or omissions in the execution of work or in the materials furnished by the Contractor, even though they may have been passed or overlooked or have appeared after the completion of the work, discovered at any time before the final payment is made hereunder, shall be forthwith rectified and made good by and at the expense of the Contractor and in a manner satisfactory to the Owner or Owner's Representative.



- C. The Contractor shall reimburse the Owner for any expense, losses or damages incurred in consequence of any defect error, omission or act of the Contractor or his employees, as determined by the Owner's Representative, occurring previous to the final payment.

### 3.34 PROJECT CLOSEOUT

#### A. DESCRIPTION

- 1. This Section specifies administrative and procedural requirements for the project closeout including, but not limited to:
  - a. Project record document (As-Built drawings) submittal. Maintain a clean, undamaged set of blue or black line white-prints of Contract Drawings and Shop Drawings. Mark the set to show the actual installation where the installation varies substantially from the Work as originally shown. Mark whichever drawing is most capable of showing conditions fully and accurately; where Shop Drawings are used, record a cross-reference at the corresponding location on the Contract Drawings. Give particular attention to concealed elements that would be difficult to measure and record at a later date.
  - b. Organize record drawing sheets into manageable sets, bind with durable paper cover sheets, and print suitable titles, dates and other identification on the cover of each set. Upon completion of work, submit record drawings to the Owner's Representative.
- 2. Record Specifications
  - a. Maintain one complete copy of the Project Manual, including addenda. Mark these documents to show substantial variations in actual Work performed in comparison with the Specifications and modifications. Give particular attention to substitutions, selection of options and similar information on elements that are concealed or cannot otherwise be readily discerned later by direct observation. Note related record drawing information and Product Data. Upon completion of the Work, submit record Specifications.
- 3. Test Results
  - a. Not Applicable this project
- 4. REMOVAL OF PROTECTION
  - a. Remove temporary protection and facilities installed for protection of the Work during construction. Fencing and erosion and sediment control measures and best management practices can be removed after permanent measures have been established.

### 3.35 WARRANTIES

#### A. DESCRIPTION

- 1. This Section specifies general administration and procedural requirements for warranties and bonds required by the Contract Documents, including manufacturers' standard warranties on products and special warranties.
  - a. Refer to the General Conditions for terms of the Contractor's special warranty of workmanship and materials;
  - b. General closeout requirements are included in Section "Project Closeout"; and



- c. Specific requirements for warranties for the Work and products and installations that are specified to be warranted are included in the specifications and Drawings.
2. Disclaimers and Limitations
  - a. Manufacturer's disclaimers and limitations on product warranties do not relieve the Contractor of the warranty on the Work that incorporates the products, nor does it relieve suppliers, manufacturers, and subcontractors required to countersign special warranties with the Contractor.

## B. DEFINITIONS

1. Standard Warranties
  - a. Standard product warranties are pre-printed written warranties published by individual manufacturers for particular products and are specifically endorsed by the manufacturer to the Owner.
2. Special Warranties
  - a. Special warranties are written required by or incorporated in the Contract Documents, either to extend time limits provided by standard warranties or to provide greater rights for the Owner.

## C. WARRANTY REQUIREMENTS

1. Related Damages and Losses
  - a. When correcting warranted Work that has failed, remove and replace other Work that has been damaged as a result of such failure or that must be removed and replaced to provide access for corrections of warranted Work.
2. Reinstatement of Warranty
  - a. When Work covered by a warranty has failed and been corrected by replacement or rebuilding, reinstate the warranty by written endorsement. The reinstated warranty shall be equal to the original warranty with an equitable adjustment for depreciation.
3. Replacement Cost
  - a. Upon determination that Work covered by a warranty has failed, replace or rebuild the Work to an acceptable condition complying with requirements of Contract Documents. The Contractor is responsible for the cost of replacing or rebuilding defective Work regardless of whether the Owner's Representative has benefited from use of the Work through a portion of its anticipated useful service life.
4. Owner's Recourse
  - a. Written warranties made to the Owner are in addition to implied warranties, and shall not limit the duties, obligations, rights and remedies otherwise available under the law, nor shall warranty periods be interpreted as limitations on time in which the Owner can enforce such other duties, obligations, rights and remedies.
5. Rejection of Warranties
  - a. The Owner's Representative reserves the right to reject warranties and to limit selections to products with warranties not in conflict with requirements of the Contract Documents. The Owner's Representative reserves the right to refuse to accept Work for the Project where a special warranty, certification, or similar commitment is required on such Work or part of the Work, until evidence is presented that entities required to counter sign such commitments are willing to do so.



- b. All warranties shall be submitted to the Owner in accordance with conditions of the Contract and the Submittals.

D. WARRANTY PERIOD

1. All warranties required by the Contract documents shall commence on the date of Final Acceptance

END OF SECTION 010000



## SECTION 015639 - TEMPORARY TREE AND PLANT PROTECTION

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General Requirements, apply to this Section.

#### 1.2 SUMMARY

- A. Section includes general protection and pruning of existing trees and plants that are affected by execution of the Work, whether temporary or permanent construction.
- B. Related Requirements:
  - 1. Section 311000 "Site Clearing" for removing existing trees and shrubs.

#### 1.3 DEFINITIONS

- A. (DBH): Diameter breast height; diameter of a trunk as measured by the average of the smallest and largest diameters at a height **54 inches** above the ground line for trees with caliper of **8 inches** or greater as measured at a height of **12 inches** above the ground.
- B. Plant-Protection Zone: Area surrounding individual trees, shrubs, or other vegetation to be protected during construction and indicated on Drawings.
- C. Tree-Protection Zone: Area surrounding individual trees or groups of trees to be protected during construction and indicated on Drawings .
- D. Vegetation: Trees, shrubs, groundcovers, grass, and other plants.

#### 1.4 PRE- CONSTRUCTION MEETINGS

- A. Pre-construction Conference: Conduct conference at Project site .
  - 1. Review methods and procedures related to temporary tree and plant protection including, but not limited to, the following:
    - a. Tree-service firm's personnel, and equipment needed to make progress and avoid delays.
    - b. Arborist's responsibilities.
    - c. Coordination of Work and equipment movement with the locations of protection zones.
    - d. Trenching by hand or with air spade within protection zones.
    - e. Field quality control and maintenance.



- f. Coordination by Parks Department City Forester and Forestry crews.

## 1.5 ACTION SUBMITTALS

- A. Contractor shall arrange site visit with City Forester prior to mobilization to determine the scope of pruning by the Parks Department Forestry Division or Contractor as indicated on the drawings.

## 1.6 QUALITY ASSURANCE

- A. Arborist Qualifications: Licensed arborist in jurisdiction where Project is located .

## 1.7 FIELD CONDITIONS

- A. The following practices are prohibited within protection zones:
1. Storage of construction materials, debris, or excavated material.
  2. Moving or parking vehicles or equipment.
  3. Foot traffic.
  4. Erection of sheds or structures.
  5. Impoundment of water.
  6. Excavation or other digging unless otherwise indicated.
  7. Attachment of signs to or wrapping materials around trees or plants unless otherwise indicated.
- B. Prohibit heat sources, flames, ignition sources, and smoking within or near protection zones and organic mulch.

## PART 2 - PRODUCTS

### 2.1 MATERIALS

- A. Backfill Soil: Stockpiled soil mixed with planting soil of suitable moisture content and granular texture for placing around tree; free of stones, roots, plants, sod, clods, clay lumps, pockets of coarse sand, concrete slurry, concrete layers or chunks, cement, plaster, building debris, and other extraneous materials harmful to plant growth.
1. Mixture: Well-blended mix of two parts stockpiled soil to one part planting soil .
- B. Protection-Zone Fencing: Fencing fixed in position and meeting the following requirements:
1. Plastic Protection-Zone Fencing: Plastic construction fencing constructed of high-density extruded and stretched polyethylene fabric with **2-inch** maximum opening in pattern and weighing a minimum of **0.4 lb/ft.**; remaining flexible from **minus 60 to plus 200 deg F**; inert to most chemicals and acids; minimum tensile yield strength of **2000 psi** and ultimate tensile strength of **2680 psi**; secured with plastic bands or galvanized-steel or



stainless-steel wire ties; and supported by tubular or T-shape galvanized-steel posts spaced not more than 96 inches apart.

- a. Height: 72 inches .
- b. Color: High-visibility orange, nonfading.

### PART 3 - EXECUTION

#### 3.1 PREPARATION

- A. Protect tree root systems from damage caused by runoff or spillage of noxious materials while mixing, placing, or storing construction materials. Protect root systems from ponding, eroding, or excessive wetting caused by dewatering operations.

#### 3.2 PROTECTION ZONES

- A. Protection-Zone Fencing: Install protection-zone fencing along edges of protection zones before materials or equipment are brought on the site and construction operations begin in a manner that will prevent people from easily entering protected areas except by entrance gates. Construct fencing so as not to obstruct safe passage or visibility at vehicle intersections where fencing is located adjacent to pedestrian walkways or in close proximity to street intersections, drives, or other vehicular circulation.
- B. Protection-Zone Signage: Install protection-zone signage in visibly prominent locations in a manner approved by Owner's Representative. Install one sign on protection-zone fencing. Sign to read "Tree Protection Zone - Do not Disturb". Sign to be printed on 24"x 36" white panel with black lettering at a minimum of 3" height lettering .
- C. Maintain protection zones free of trash.
- D. Maintain protection-zone fencing in good condition as acceptable by Owner's Representative and remove when construction operations are complete and equipment has been removed from the site.
  1. Do not remove protection-zone fencing, even temporarily, to allow deliveries or equipment access through the protection zone.
  2. Temporary access is permitted subject to preapproval in writing by Owner's Representative if a root buffer effective against soil compaction is constructed as directed by Owner's Representative. Maintain root buffer so long as access is permitted.

#### 3.3 EXCAVATION

- A. General: Excavate at edge of protection zones and for trenches indicated within protection zones according to requirements in Section 312000 "Earth Moving" unless otherwise indicated.
- B. Trenching within Protection Zones: Where utility trenches are required within protection zones, excavate under or around tree roots by hand or with air spade, or tunnel under the roots as

directed by Owner's Representative. Do not cut main lateral tree roots or taproots larger than 2" without direction from Owner's Representative; cut only smaller roots that interfere with installation of utilities. Cut roots as required for root pruning. If excavating by hand, use narrow-tine spading forks to comb soil and expose roots.

- C. Redirect roots in backfill areas where possible. If encountering large, main lateral roots, expose roots beyond excavation limits as required to bend and redirect them without breaking. If encountered immediately adjacent to location of new construction and redirection is not practical, cut roots approximately **3 inches** back from new construction and as required for root pruning.
- D. Do not allow exposed roots to dry out before placing permanent backfill. Provide temporary earth cover and wrap with dampened burlap. Water and maintain in a moist condition. Temporarily support and protect roots from damage until they are permanently relocated and covered with soil or as directed by Owner's Representative.

### 3.4 ROOT PRUNING

- A. Prune tree roots that are affected by temporary and permanent construction. Prune roots as follows:
  - 1. Cut roots manually by digging a trench and cutting exposed roots with sharp pruning instruments; do not break, tear, chop, or slant the cuts. Do not use a backhoe or other equipment that rips, tears, or pulls roots.
  - 2. No roots larger than two (2) inches in diameter may be cut without permission of the City Forester. Cuts must be made with hand-pruner, handsaws, or chainsaws.
  - 3. Temporarily support and protect roots from damage until they are permanently redirected and covered with soil.
  - 4. Cover exposed roots with burlap and water regularly.
  - 5. Backfill as soon as possible according to requirements in Section 312000 "Earth Moving."
- B. Root Pruning within Protection Zone: Clear and excavate by hand or with air spade to the depth of the required excavation to minimize damage to tree root systems. If excavating by hand, use narrow-tine spading forks to comb soil to expose roots. Cleanly cut roots as close to excavation as possible.

### 3.5 REGRADING

- A. Lowering Grade: Where new finish grade is indicated below existing grade around trees, slope grade beyond the protection zone. Maintain existing grades within the protection zone.
- B. Lowering Grade within Protection Zone: Where new finish grade is indicated below existing grade around trees, slope grade away from trees as recommended by Owner's Representative unless otherwise indicated.
  - 1. Root Pruning: Prune tree roots exposed by lowering the grade. Do not cut main lateral roots or taproots; cut only smaller roots. Cut roots as required for root pruning.

- C. Minor Fill within Protection Zone: Where existing grade is 2 inches or less below elevation of finish grade, fill with backfill soil. Place backfill soil in a single uncompacted layer and hand grade to required finish elevations.

### 3.6 REPAIR AND REPLACEMENT

- A. General: Repair or replace trees, shrubs, and other vegetation indicated to remain or to be relocated that are damaged by construction operations, in a manner approved by Owner's Representative.
  - 1. Submit details of proposed pruning and repairs.
  - 2. Perform repairs of damaged trunks, branches, and roots within 24 hours according to arborist's written instructions.
  - 3. Replace trees and other plants that cannot be repaired and restored to full-growth status, as determined by Owner's Representative. Replacement trees to be equal to the total diameter of mature tree by multiple equal diameter specimens.
- B. Trees: Remove and replace trees tha damaged during construction operations that Owner's Representative determines are incapable of restoring to normal growth pattern.
  - 1. Small Trees: Provide new trees of same size and species as those being replaced for each tree that measures 4" or smaller in caliper size.
  - 2. Large Trees: Provide multiple trees of 2-1/2" - 3" caliper size to equal total diameter of tree being replaced.
    - a. Species: As determined by Owner's Representative.
- C. Soil Aeration: Where directed by Owner's Representative, aerate surface soil compacted during construction. Aerate to loosen soil 10 feet beyond drip line and no closer than 36" to tree trunk with air spade.

### 3.7 DISPOSAL OF SURPLUS AND WASTE MATERIALS

- A. Disposal: Remove excess excavated material, displaced trees, trash, and debris and legally dispose of them off Owner's property.

END OF SECTION 015639



## SECTION 024119 - SELECTIVE DEMOLITION

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

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

#### 1.2 SUMMARY

- A. Section Includes:

- 1. Demolition and removal of selected site elements.

- B. Related Requirements:

- 1. Section 011000 "Summary" for restrictions on use of the premises, Owner-occupancy requirements, and phasing requirements.
  - 2. Section 015639 "Temporary Tree and Plant Protection" for temporary protection of existing trees and plants that are affected by selective demolition.

#### 1.3 DEFINITIONS

- A. Remove: Detach items from existing construction and legally dispose of them off-site unless indicated to be salvaged or reinstalled.
- B. Existing to Remain: Leave existing items that are not to be removed and that are not otherwise indicated to be salvaged or reinstalled.
- C. Dismantle: To remove by disassembling or detaching an item from a surface, using gentle methods and equipment to prevent damage to the item and surfaces; disposing of items unless indicated to be salvaged or reinstalled.

#### 1.4 MATERIALS OWNERSHIP

- A. Unless otherwise indicated, demolition waste becomes property of Contractor.
- B. Historic items, relics, antiques, and similar objects including, but not limited to, cornerstones and their contents, commemorative plaques and tablets, and other items of interest or value to Owner that may be uncovered during demolition remain the property of Owner.
  - 1. Carefully salvage in a manner to prevent damage and promptly return to Owner.



### 1.5 PRE DEMOLITION MEETINGS

- A. Predemolition Conference: Conduct conference at Project site .
  - 1. Inspect and discuss condition of construction to be selectively demolished.

### 1.6 FIELD CONDITIONS

- A. Conditions existing at time of inspection for bidding purpose will be maintained by Owner as far as practical.
  - 1. Before selective demolition, Owner will remove the following items:
    - a. surface mounted and freestanding trash receptacles. .
- B. Notify Owner Representative of discrepancies between existing conditions and Drawings before proceeding with selective demolition.
- C. Hazardous Materials: It is not expected that hazardous materials will be encountered in the Work.
  - 1. Hazardous materials will be removed by Owner before start of the Work.
  - 2. If suspected hazardous materials are encountered, do not disturb; immediately notify Owner Representative. Hazardous materials will be removed by Owner under a separate contract.
- D. Utility Service: Maintain existing utilities indicated to remain in service and protect them against damage during selective demolition operations.

## PART 2 - PRODUCTS

## PART 3 - EXECUTION

### 3.1 EXAMINATION

- A. Verify that utilities have been disconnected and capped before starting selective demolition operations.

### 3.2 SELECTIVE DEMOLITION, GENERAL

- A. General: Demolish and remove existing construction only to the extent required by new construction and as indicated. Use methods required to complete the Work within limitations of governing regulations and as follows:
  - 1. Dispose of demolished items and materials promptly.



- B. Site Access and Temporary Controls: Conduct selective demolition and debris-removal operations to ensure minimum interference with roads, streets, walks, walkways, and other adjacent occupied and used facilities.

### 3.3 SELECTIVE DEMOLITION PROCEDURES FOR SPECIFIC MATERIALS

- A. Bituminous Concrete: Demolish in small sections. Using power-driven saw, cut concrete to a depth of at least **3/4 inch** at junctures with construction to remain. Dislodge concrete from reinforcement at perimeter of areas being demolished, cut reinforcement, and then remove remainder of concrete. Neatly trim openings to dimensions indicated.

### 3.4 DISPOSAL OF DEMOLISHED MATERIALS

- A. Remove demolition waste materials from Project site and dispose of them in an EPA-approved construction and demolition waste landfill acceptable to authorities having jurisdiction.
  - 1. Do not allow demolished materials to accumulate on-site.
  - 2. Remove and transport debris in a manner that will prevent spillage on adjacent surfaces and areas.
- B. Burning: Do not burn demolished materials.

END OF SECTION 024119



## SECTION 101426 - POST AND PANEL/PYLON SIGNAGE

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

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

#### 1.2 SUMMARY

- A. Section Includes:

- 1. Nonilluminated post-and-panel signs.

- B. Related Requirements:

- 1. Section 033000 "Cast-in-Place Concrete" for concrete foundations, concrete fill in postholes, and setting anchor bolts in concrete foundations for signs.

#### 1.3 COORDINATION

- A. Furnish templates and tolerance information for placement of sign-anchorage devices embedded in permanent construction by other installers.

- B. Furnish templates for placement of electrical service embedded in permanent construction by other installers.

#### 1.4 ACTION SUBMITTALS

- A. Shop Drawings: For signage.

- 1. Include fabrication and installation details and attachments to other work.
  - 2. Show sign mounting heights, locations of supplementary supports to be provided by other installers, and accessories.
  - 3. Show message list, typestyles, graphic elements, and layout for each sign at least actual size .

- B. Samples for Verification: For each type of sign assembly, showing all components and with the required finish(es), in manufacturer's standard size unless otherwise indicated and as follows:

- 1. Post-and-Panel Signs: Full-size Sample .
  - 2. Full-size Samples, if approved, will be returned to Contractor for use in Project.



1.5 CLOSEOUT SUBMITTALS

1.6 QUALITY ASSURANCE

1.7 FIELD CONDITIONS

- A. Field Measurements: Verify locations of anchorage devices embedded in permanent construction by other installers by field measurements before fabrication, and indicate measurements on Shop Drawings.

1.8 WARRANTY

- A. Special Warranty: Manufacturer agrees to repair or replace components of signs that fail in materials or workmanship within specified warranty period.
  - 1. Failures include, but are not limited to, the following:
    - a. Deterioration of finishes beyond normal weathering.
    - b. Deterioration of embedded graphic image.
    - c. Separation or delamination of sheet materials and components.
  - 2. Warranty Period: 10 years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 POST-AND-PANEL SIGNS

- A. Post-and-Panel Sign : Sign of single-panel configuration; with smooth, uniform surfaces and support assembly; with message and characters having uniform faces, sharp corners, and precisely formed lines and profiles; and as follows:
  - 1. **Manufacturers:** Subject to compliance with requirements, provide products by the following:
    - a. Fossil Industries, Inc.
  - 2. Composite Sign Panels: Custom High Pressure Decorative laminate consisting of decorative surface papers, impregnated with melamine resins, bonded under heat and pressure to kraft papers impregnated with phenolic resins.
    - a. Composite-Sheet Thickness: 1/2" .
  - 3. Posts: Aluminum .
    - a. Shape: Square .
    - b. Size: **3 by 3 inches** .
    - c. Installation Method: Direct burial .
    - d. Finish and Color: Black baked enamel or powder coat .



## 2.2 MATERIALS

- A. Aluminum Sheet and Plate: **ASTM B 209** , alloy and temper recommended by aluminum producer and finisher for type of use and finish indicated.
- B. Polycarbonate Sheet: ASTM C 1349, Appendix X1, Type II (coated, mar-resistant, UV-stabilized polycarbonate), with coating on both sides.

## 2.3 ACCESSORIES

- A. Fasteners and Anchors: Manufacturer's standard as required for secure anchorage of signs, noncorrosive and compatible with each material joined, and complying with the following unless otherwise indicated:
  - 1. Use concealed fasteners and anchors unless indicated to be exposed.
  - 2. For exterior exposure, furnish stainless-steel devices unless otherwise indicated.
  - 3. Exposed Metal-Fastener Components, General:
    - a. Fabricated from same basic metal and finish of fastened metal unless otherwise indicated.
    - b. Fastener Heads: For nonstructural connections, use screws and bolts with tamper-resistant, Button Head slots unless otherwise indicated.
  - 4. Inserts: Furnish inserts to be set by other installers into concrete or masonry work.
- B. Bituminous Paint: Cold-applied asphalt emulsion complying with ASTM D 1187/D 1187M.
- C. Anchoring Materials:
  - 1. Nonshrink, Nonmetallic Grout: Factory-packaged, nonstaining, noncorrosive, nongaseous grout complying with ASTM C 1107/C 1107M. Provide grout specifically recommended by manufacturer for interior and exterior applications.
  - 2. Anchoring Cement: Factory-packaged, nonshrink, nonstaining, hydraulic-controlled expansion cement formulation for mixing with water at Project site to create pourable anchoring, patching, and grouting compound.
    - a. Water-Resistant Product: At exterior locations, provide formulation that is resistant to erosion from water exposure without needing protection by a sealer or waterproof coating and that is recommended by manufacturer for exterior use.

## 2.4 FABRICATION

- A. General: Provide manufacturer's standard sign assemblies according to requirements indicated.
  - 1. Preassemble signs in the shop to greatest extent possible. Disassemble signs only as necessary for shipping and handling limitations. Clearly mark units for reassembly and installation, in locations concealed from view after final assembly.
  - 2. Mill joints to tight, hairline fit. Form assemblies and joints exposed to weather to resist water penetration and retention.

3. Comply with AWS for recommended practices in welding and brazing. Provide welds and brazes behind finished surfaces without distorting or discoloring exposed side. Clean exposed welded and brazed joints of flux, and dress exposed and contact surfaces.
  4. Conceal fasteners and anchors unless indicated to be exposed; locate exposed fasteners where they will be inconspicuous.
  5. Internally brace signs for stability, to meet structural performance loading without oil-canning or other surface deformation, and for securing fasteners.
- B. Sign Message Panels: Construct sign-panel surfaces to be smooth and to remain flat under installed conditions within a tolerance of plus or minus **1/16 inch** measured diagonally from corner to corner.
1. Coordinate dimensions and attachment methods to produce message panels with closely fitting joints. Align edges and surfaces with one another in the relationship indicated.
  2. Increase panel thickness or reinforce with concealed stiffeners or backing materials as needed to produce surfaces without distortion, buckles, warp, or other surface deformations.
  3. Continuously weld joints and seams unless other methods are indicated; grind, fill, and dress welds to produce smooth, flush, exposed surfaces with welds invisible after final finishing.
- C. Post Fabrication: Fabricate posts designed for structural performance indicated and of lengths required for installation method indicated for each sign.
1. Aluminum Posts: Manufacturer's standard **0.125-inch-** thick, extruded-aluminum tubing unless otherwise indicated, with brackets or slots to engage sign panels. Include post caps, fillers, spacers, junction boxes, access panels, reinforcement where required for loading conditions, and related accessories required for complete installation.
  2. Direct Burial: Fabricate posts **36 inches** longer than height of sign to permit direct burial or embedment in concrete foundations or concrete-filled postholes.

## 2.5 GENERAL FINISH REQUIREMENTS

- A. Protect mechanical finishes on exposed surfaces from damage by applying a strippable, temporary protective covering before shipping.
- B. Appearance of Finished Work: Noticeable variations in same piece are not acceptable. Variations in appearance of adjoining components are acceptable if they are within the range of approved Samples and are assembled or installed to minimize contrast.
- C. Directional Finishes: Run grain with long dimension of each piece and perpendicular to long dimension of finished trim or border surface unless otherwise indicated.
- D. Organic, Anodic, and Chemically Produced Finishes: Apply to formed metal after fabrication but before applying contrasting polished finishes on raised features unless otherwise indicated.



## 2.6 ALUMINUM FINISHES

- A. Baked-Enamel or Powder-Coat Finish: AAMA 2603 except with a minimum dry film thickness of **1.5 mils** . Comply with coating manufacturer's written instructions for cleaning, conversion coating, and applying and baking finish.

## PART 3 - EXECUTION

### 3.1 EXAMINATION

- A. Examine substrates, areas, and conditions, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of the Work.
- B. Verify that sign-support surfaces are within tolerances to accommodate signs.
- C. Verify that anchorage devices embedded in permanent construction are correctly sized and located to accommodate signs.
- D. Verify that electrical service is correctly sized and located to accommodate signs.
- E. Proceed with installation only after unsatisfactory conditions have been corrected.

### 3.2 INSTALLATION

- A. General: Install signs using installation methods indicated and according to manufacturer's written instructions.
  - 1. Install signs level, plumb, and at locations and heights indicated, with sign surfaces free of distortion and other defects in appearance.
  - 2. Install signs so they do not protrude or obstruct according to the accessibility standard.
  - 3. Before installation, verify that sign components are clean and free of materials or debris that would impair installation.
  - 4. Corrosion Protection: Coat concealed surfaces of exterior aluminum in contact with grout, concrete, masonry, wood, or dissimilar metals, with a heavy coat of bituminous paint.

### 3.3 INSTALLING POSTS

- A. Vertical Tolerance: Set posts plumb within a tolerance of **1/16 inch in 3 feet**.
- B. Direct-Burial Method:
  - 1. Excavation: Excavate posthole to dimensions indicated. Reconstruct subgrade that is not firm, undisturbed, or compacted soil, or that is damaged by freezing temperatures, frost, rain, accumulated water, or construction activities by excavating an additional **12 inches**, backfilling with satisfactory soil or well-graded aggregate, and compacting to original subgrade elevation.



2. Setting in Cast-in-Place Concrete: Set post in position, support to prevent movement, and place concrete in posthole as indicated on Drawings.

### 3.4 ADJUSTING AND CLEANING

- A. Remove and replace damaged or deformed signs and signs that do not comply with specified requirements. Replace signs with damaged or deteriorated finishes or components that cannot be successfully repaired by finish touchup or similar minor repair procedures.
- B. Remove temporary protective coverings and strippable films as signs are installed.
- C. On completion of installation, clean exposed surfaces of signs according to manufacturer's written instructions, and touch up minor nicks and abrasions in finish. Maintain signs in a clean condition during construction and protect from damage until acceptance by Owner.

END OF SECTION 101426

# FOSSIL

I N D U S T R I E S

## FOSSIL TECHNICAL SPECIFICATIONS

### For Products Description for Custom High Pressure Laminate (CHPL)

#### Solid Composite Panels

##### General Description.

Fossil solid composite panels are, fire retardant, impervious to moisture, extremely resistant to UV rays, scratching, impact, and graffiti. Fossil outdoor panels are protected with a 10 year UV inhibitor. Graphics are made using 12-Color High Definition printing technology. Panels are entirely made in the U.S.A. Thickness from 0.028" to 1". Grades over 1/2" are self-supporting and can be fitted with threaded inserts.

#### Laminate Grades

##### General Description.

Laminate grades are manufactured with a smooth sub-surface image on one side and a sanded surface on the other side to allow proper bonding to the supporting substrate. Bonding FOSSIL laminate panels to substrate materials should be done according to the proven principles of veneering. Particleboard and MDF are among the many suitable substrates on which a FOSSIL laminate grade panels can be bonded. Fossil 0.028" panels can be formed to simple bends and profiles. FOSSIL 0.048" is a general purpose panel suitable for practically all flat (horizontal or vertical) applications. Panels are fire retardant, resistant to moisture, extremely resistant to UV rays, scratching, impact, and graffiti. Fossil outdoor panels are protected with a 10 year UV inhibitor. Graphics are made using 12-Color High Definition printing technology. Panels are entirely made in the U.S.A.

#### Thickness

0.028"	(.889mm)
0.048"	(1.2mm)
1/16"	(1.5mm)
1/8"	(3mm)
1/4"	(6mm)
1/2"	(12mm)
3/4"	(19mm)
1"	(25mm)

#### Weight

Grade	Pounds Per Sq. Ft.
0.028"	= 0.30
0.048	= 0.34
1/16"	= . 0.45
1/8"	= . 0.91
1/4"	= 1.8
1/2"	= 3.6
3/4"	= 5.4
1"	= 7.2

**Surface Finish**

Semi-Gloss: A reflective finish that accentuates detail and diminishes reflective light. Reflectivity of 30 + or - 5 gloss units. UV Inhibitors added to outdoor finish.

**Core Color:**

Black

**Strength:**

M.D. Machine Direction Length of the sheet

C.D. Cross Direction Width of the sheet

P.S.I. Pounds Per Square Inch

Ft/Lbs/IN Foot Pounds Per Inch

**Comprehensive Strength:**

M.D. 193,064 Kpa (31,000 PSI) C.D. 172,378 Kpa (25,000 PSI)

**Tensile Strength:**

M.D. 151,693 Kpa (22,000 PSI) C.D. 110,322 Kpa (16,000 PSI)

**Flexural Strength:**

M.D. 158,588 Kpa (23,000 PSI) C.D. 103,427 Kpa (15,000 PSI)

**Impact (Edgewise):**

M.D. 0.6 FT/LBS/IN C.D. 0.5 FT/LBS/I

**Rockwell Hardness M Scale:**

95 to 115

**PRODUCT PROPERTIES:*****Product Description:***

Custom High Pressure Decorative Laminate consisting of decorative surface papers, impregnated with melamine resins, bonded under heat and pressure to kraft papers impregnated with phenolic resins.

***NEMA:***

FOSSIL CHPL panels exceed the standards for decorative laminates established by the National Electrical Manufacturers Association NEMA LD3-1991. These standards establish the minimum criteria for resistance to wear, boiling water, high temperature, cigarette burns, fading, dimensional stability, staining, appearance and formability (bending and postforming grades).

***Chemical & Stain Resistant:***

FOSSIL panels are perfectly suited for commercial use where chemical products are used. They are resistant to common house-hold products, solvents, mild alkalis, and diluted mild acids. Some staining agents, especially those with grease bases paint or ink, will require the use of a solvent for removal. These stains can be removed using turpentine, 100% mineral spirits, isopropyl "rubbing alcohol", Goof Off "Graffiti Remover" or WD-40, lacquer thinner, acetone or MEK.

***Static Electricity:***

FOSSIL CHPL panels do not store static electricity and are therefore suitable for use in controlled environments where accumulation and retention of static electricity must be avoided.

**Fire Retardant:**

FOSSIL CHPL & CFBL interior panels are suitable for application where fire retardant properties are required by building codes.

CHPL Sheet thickness: 0.028" (.889mm)

1. Class A Rating.
2. Meet or Exceeding performance requirements of NEMA LD 3-2005 Grade VGF.
3. Surface burning characteristics in accordance with ASTM E 84; unbonded: Flame spread 25-40; Smoke developed 100-170.

CHPL Sheet thickness: 0.048" to 1/16" (1.2mm to 1.5mm)

1. Class A Rating.
2. Meet or Exceeding performance requirements of NEMA LD 3-2005 Grade HGF.
3. Surface burning characteristics in accordance with ASTM E 84; unbonded: Flame spread 25; Smoke developed 95-120.

CHPL Sheet thickness: 1/8" to 1" (8.5mm to 25.4mm)

1. Class A Rating.
2. Meet or Exceeding performance requirements of NEMA LD 3-2005.
3. Surface burning characteristics in accordance with ASTM E 84; unbonded: Flame spread 10; Smoke developed 95.

**Toxicity Test:** LC50 Pittsburgh Protocol Toxicity Test. Equal to and no more toxic than wood or paper.

**Dimensional Change:**

Thickness: .028". NEMA STD. VPG: Machine Direction 1.1 (Max). Cross Direction 1.4 (Max).  
Thickness: .048". NEMA STD. HGS: Machine Direction 0.50% (Max). Cross Direction 0.80% (Max).  
Thickness: 1/16". NEMA LD3. HGS: Machine Direction 0.50% (Max). Cross Direction 0.80% (Max).  
Thickness: 1/8". NEMA LD3. HGS: Machine Direction 0.50% (Max). Cross Direction 0.80% (Max).  
Thickness: 1/4". NEMA LD3. HGS: Machine Direction 0.50% (Max). Cross Direction 0.80% (Max).  
Thickness: 1/2". NEMA LD3. HGS: Machine Direction 0.50% (Max). Cross Direction 0.80% (Max).  
Thickness: 3/4". NEMA LD3. HGS: Machine Direction 0.50% (Max). Cross Direction 0.80% (Max).  
Thickness: 1". NEMA LD3. HGS: Machine Direction 0.50% (Max). Cross Direction 0.80% (Max).

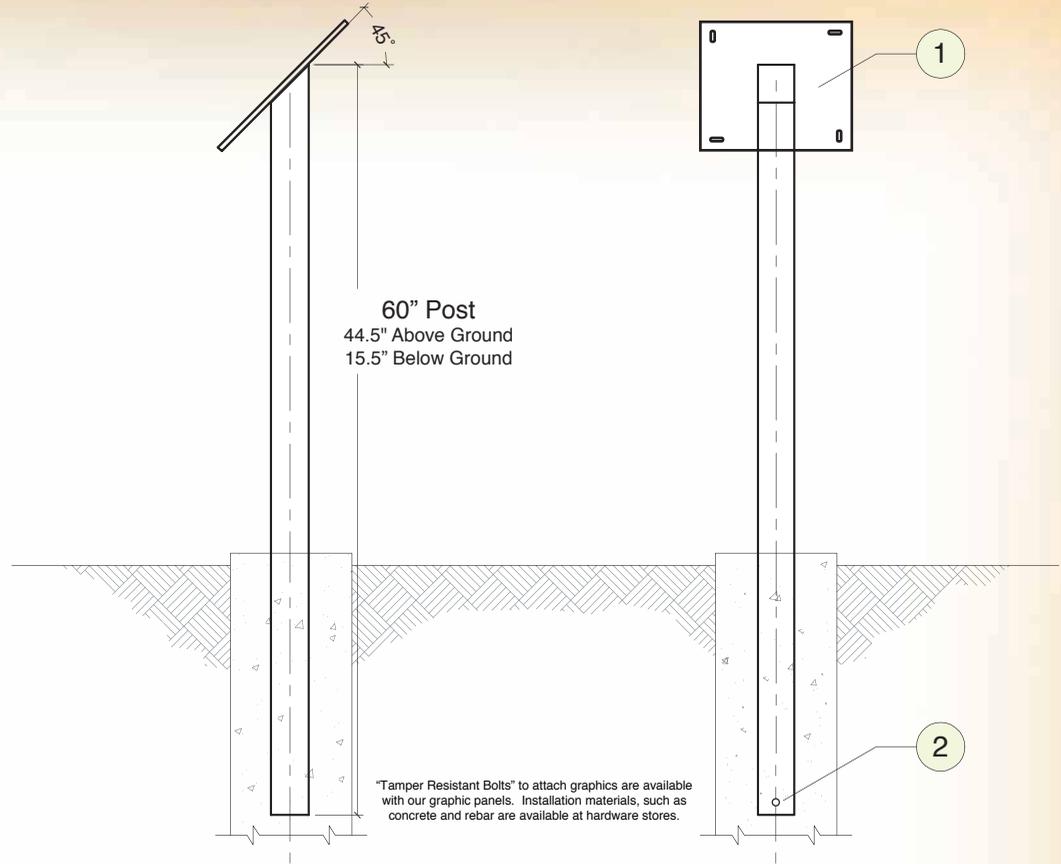
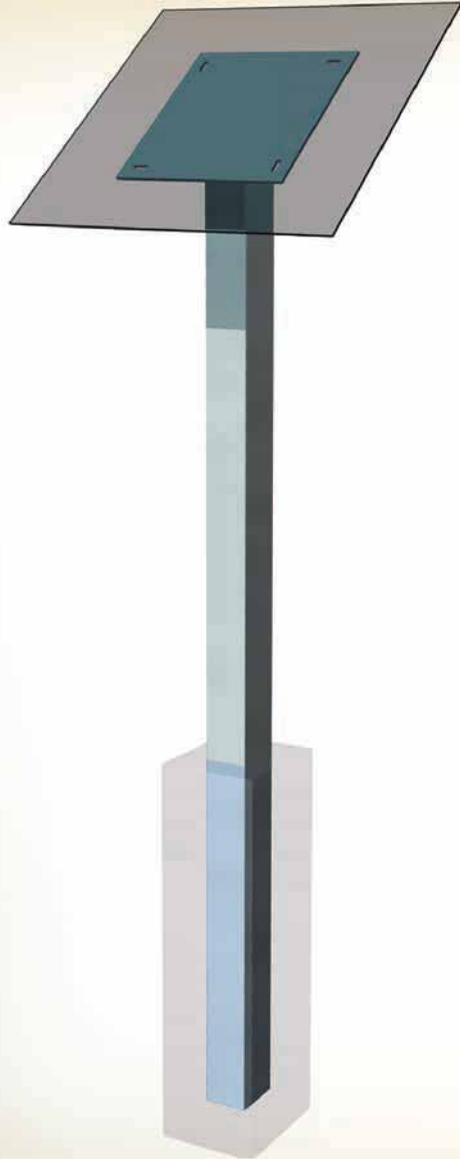
**NSF Product Listing:** NSF/ANSI Standard 35 - Laminated Plastics for Surfacing Food Service Equipment

**DISCLAIMER:**

This information is presented to assist you in determining what grades of material may meet the requirements of your project. Purchaser shall determine the suitability of the product for its' intended use, and purchaser assumes all risks and liability whatsoever in connection therewith. All statements, technical advice and recommendations contained herein are based on tests and information believed to be reliable, but the accuracy there of is not guaranteed, and is made in lieu of all warranties, express or implied: seller's and manufacturer's only obligation shall be to replace the quantity of product proven to be defective. Neither seller nor manufacturer shall be liable for any injury, loss or damage, direct or consequential, arising out of the use of or the inability to use the product.

(Updated: 11-1-2016)

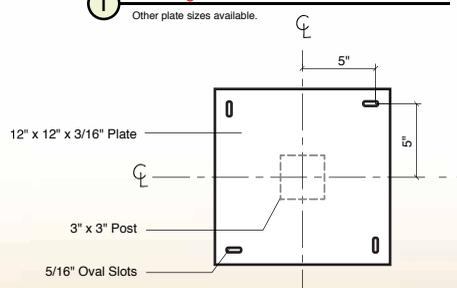
- Black Powder Coated Aluminum
- Custom Sizes and Colors Available



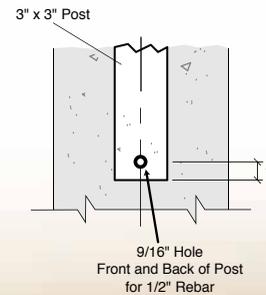
**SIDE**

**FRONT**

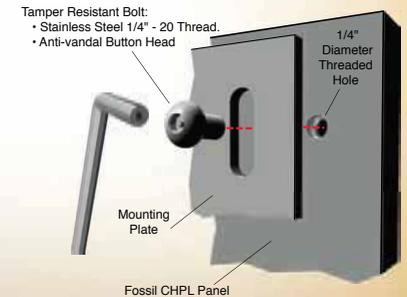
**1 Mounting Plate**  
Other plate sizes available.



**2 Underground Portion of Post**



**3 Attaching Panel to Hardware**





## SECTION 116800 - PLAY FIELD EQUIPMENT AND STRUCTURES

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General Conditions apply to this Section.

#### 1.2 SUMMARY

- A. Section includes playground equipment as follows:
  - 1. Freestanding playground equipment.
  - 2. Composite playground equipment.

#### 1.3 DEFINITIONS

- A. Definitions in ASTM F 1487 apply to Work of this Section.
- B. IPEMA: International Play Equipment Manufacturers Association.

#### 1.4 PRE-CONSTRUCTION MEETINGS

- A. Pre-construction Conference: Conduct conference at Project site .

#### 1.5 ACTION SUBMITTALS

- A. Product Data: For each type of product.
- B. Shop Drawings: For each type of playground equipment.
  - 1. Include plans, elevations, sections, and attachment details.
  - 2. Include fall heights and use zones for playground equipment, coordinated with the critical-height values of protective surfacing specified in Section 321816.13 "Playground Protective Surfacing."
- C. Samples for Initial Selection: For each type of exposed finish.
  - 1. Manufacturer's color charts.
  - 2. Include Samples of accessories involving color selection.
- D. Samples for Verification: For each type of exposed finish on the following products:



1. Include Samples of accessories to verify color and finish selection.

#### 1.6 INFORMATIONAL SUBMITTALS

- A. Qualification Data: For Installer and testing agency.
- B. Product Certificates: For each type of playground equipment.
- C. Material Certificates: For the following items:
  1. Shop finishes.
  2. Wood-Preservative Treatment: Include certification by treating plant that states type of preservative solution and pressure process used, net amount of preservative retained, and compliance with applicable standards.

#### 1.7 CLOSEOUT SUBMITTALS

- A. Maintenance Data: For playground equipment and finishes to include in maintenance manuals.

#### 1.8 WARRANTY

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

### PART 2 - PRODUCTS

#### 2.1 MANUFACTURERS

- A. Playground equipment and components shall have the IPEMA Certification Seal.
- B. The following playground equipment and components shall have the IPEMA Certification Seal:
  1. Kompan #PCT1109 Nature Giant L
  2. Kompan #PCE105501 Coach
  3. Kompan #ELE400024-3717G Spinner Bowl
  4. Kompan #KSW926CUSTOM Three Bay Swing, 2 belt seats, 2 infant seats, 1 basket seat
  5. Kompan #FSW22100 Jump Pod Set
  6. Kompan #FSW21400 Over Under Bars
  7. Kompan #FSW20700 Multi Net
  8. Kompan #FSW21801 Square Pull Up Station



## 2.2 PERFORMANCE REQUIREMENTS

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

## 2.3 MATERIALS

- A. Aluminum: Material, alloy, and temper recommended by manufacturer for type of use and finish indicated.
- B. Steel: Material types, alloys, and forms recommended by manufacturer for type of use and finish indicated.
- C. Stainless-Steel Sheet: Type 304; finished on exposed faces with No. 2B finish.
- D. Hardware: Manufacturer's standard; commercial-quality; corrosion-resistant; hot-dip galvanized steel and iron, stainless steel, or aluminum; of a vandal-resistant design.
- E. Fasteners: Manufacturer's standard; corrosion-resistant; hot-dip galvanized or zinc-plated steel and iron, or stainless steel; permanently capped; and theft resistant.

## 2.4 CAST-IN-PLACE CONCRETE

- A. Concrete Materials and Properties: Comply with requirements in Section 033000 "Cast-in-Place Concrete" **ACI 301/** for normal-weight, air-entrained concrete with minimum 28-day compressive strength of **3000 psi**, **3-inch** slump, and **1-inch-** maximum-size aggregate.
- B. Concrete Materials and Properties: Dry-packaged concrete mix complying with ASTM C 387/C 387M and mixed at site with potable water, according to manufacturer's written instructions, for normal-weight concrete with minimum 28-day compressive strength of **3000 psi**, **3-inch** slump, and **1-inch-** maximum-size aggregate.

## PART 3 - EXECUTION

### 3.1 EXAMINATION

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



### 3.2 INSTALLATION

- A. Comply with manufacturer's written installation instructions for each equipment type unless more stringent requirements are indicated. Anchor playground equipment securely, positioned at locations and elevations indicated.
  - 1. Maximum Equipment Height: Coordinate installed fall heights of equipment with finished elevations and critical-height values of protective surfacing. Set equipment so fall heights and elevation requirements for age group use and accessibility are within required limits. Verify that playground equipment elevations comply with requirements for each type and component of equipment.
- B. Post and Footing Excavation: Excavate holes for posts and footings as indicated in firm, undisturbed or compacted subgrade soil.
- C. Post Set on Subgrade: Level bearing surfaces with drainage fill to required elevation.
- D. Post Set with Concrete Footing: Comply with Section 033000 "Cast-in-Place Concrete" **ACI 301** dry-packaged concrete-mix manufacturer's written instructions for measuring, batching, mixing, transporting, forming, and placing concrete.
  - 1. Set equipment posts in concrete footing. Protect portion of posts above footing from concrete splatter. Verify that posts are set plumb or at the correct angle, alignment, height, and spacing.
    - a. Place concrete around posts and vibrate or tamp for consolidation. Hold posts in position during placement and finishing operations until concrete is sufficiently cured.
  - 2. Embedded Items: Follow equipment manufacturer's written instructions and drawings to ensure correct installation of anchorages for equipment.
  - 3. Finishing Footings: Smooth top, and shape to shed water.

END OF SECTION 116800

# Spinner Bowl

ELE400024



Item no. ELE400024-3717LG

### General Product Information

Dimensions LxWxH 1'10"x1'8"x2'0"

Age group 5-12

Play capacity (users) 1

Color options 



This wildly or mildly spinning piece with its cute rounded design evokes squeals of joy when children rotate again and again. With its easily accessible, tilted spinning bowl it invites children of all abilities and a wide age span to play. The small footprint allows for placing 2-3 Spinner Bowls together, encouraging social play. The variety of play opportunities include

sitting in, on edge of, pushing, pulling or even standing in the spinner bowl. These make the Spinner Bowl a long-time attraction. The tilted bowl allows the child to adjust the spinning speed with their body movements. This trains the logical thinking to speed up by scooping up or slow down by spreading arms and legs out. Spinner Bowls train the sense of balance,

which is mandatory for concentration skills and the ability to sit still. Pushing or being pushed by others trains social-emotional skills such as turn-taking.



# Spinner Bowl

ELE400024



The Spinner Bowl is made of recyclable PE. The bowl is moulded in one piece with integrated metal thread bushings and a water drain hole to ensure high durability in all climates around the world.



Heavy duty engineered bearing system with single row deep groove ball bearings with rubber seals. The fully closed bearing construction is lifetime lubricated and maintenance free.



The steel surfaces are hot dip galvanized inside and outside with lead free zinc. The galvanization has excellent corrosion resistance in outside environments and requires low maintenance.



The Spinner Bowl is available in five different color options.



The sand colored variant is made of rotomolded stone mixed PE material with non skid surface texture. Minor differences in the stone mix visuality of the material are to be expected.

Item no. ELE400024-3717LG

### Installation Information

Max. fall height	1'6"
Safety surfacing area	149 ft <sup>2</sup>
Numbers of installers (persons)	2
Total installation time	1.2
Excavation volume	0.14 yd <sup>3</sup>
Concrete volume	0.08 yd <sup>3</sup>
Footing depth (standard)	2'11"
Shipment weight	44 lbs
Anchoring options	In-ground <input checked="" type="checkbox"/> Surface <input checked="" type="checkbox"/>

### Warranty Information

Hollow PE Parts	10 years
Bearing construction	5 years
Galvanized steel	10 years
Hardware	10 years
Spare parts guaranteed	10 years

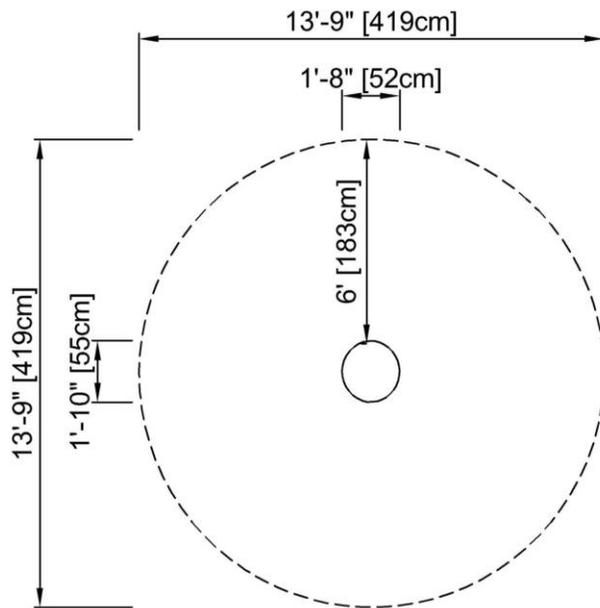
Elevated activities <b>0</b>	Accessible elevated activities	Accessible ground level activities	Accessible ground level play types
Present	<b>0</b>	<b>1</b>	<b>1</b>
Required	<b>0</b>	<b>1</b>	<b>1</b>

# Spinner Bowl

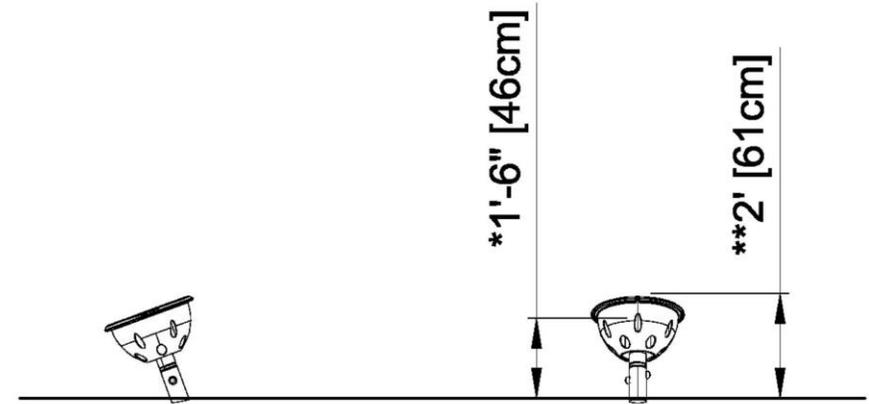
ELE400024

\* Max fall height | \*\* Total height | \*\*\* Safety surfacing area

\* Max fall height | \*\* Total height



ELE400024LG  
\*1'-6" / 46cm  
\*\*2'-0" / 61cm  
\*\*\*148.3ft<sup>2</sup> / 13.8m<sup>2</sup>



ELE400024  
1:100

[Click to see 1:100 ratio TOP VIEW](#)

[Click to see 1:100 ratio SIDE VIEW](#)

# Spinner Bowl

ELE400024



## Tilted, spinning bowl

**Physical:** the sense of balance and the coordination are supported when spinning. This effects the ability to sit still for longer periods. Muscles are developed when pushing or pulling friends.

**Social-Emotional:** cooperation, helping others, turn-taking.

**Cognitive:** logical thinking when speeding up or slowing down the spin by either curling up or stretching.



## Deep bowl

**Social-Emotional:** feeling of security when scooping in the bowl. Inclusive for all abilities.

# Spinner Bowl

ELE400024



## PHYSICAL

Joy of movement:  
motor skills, muscle, cardio  
and bone density



## SOCIAL-EMOTIONAL

Joy of being together:  
teamwork, tolerance and  
sense of belonging



## COGNITIVE

Joy of learning:  
curiosity, understanding of causal  
relationships and knowledge of the world



## CREATIVE

Joy of creating:  
co-creation and experimenting  
with materials



### BALANCE

To balance is to stay upright when walking or standing on a surface that makes this challenging (e.g. a wobbly, inclined, or narrow surface).



### HANG IN ARMS

To hang in arms is the act of carrying the body with the hands or arms, possibly to traverse to another platform or play item.



### SENSORY

To sense is the act of taking in information with the sensory system: seeing, feeling, hearing or sensing with the body.



### BOUNCE

To bounce is the act of bouncing on a responsive, flexible, elastic or tensile surface.



### JUMP

To jump is the act of jumping up or down on a hard surface.



### SLIDE

To slide is the act of moving fast downwards seated on a slide.



### CLIMB

To climb is the act of moving upwards, cross-coordinating arms and legs, on a vertical or inclined surface or net.



### PULL

To pull is the act of pulling an item towards you or you towards an item with one or both hands, or possibly using the entire body.



### SOCIALIZE

To socialize is the act of meeting, communicating or cooperating in an activity that stimulates and facilitates social interaction.



### CONSTRUCT

To construct is the act of creating new patterns, shifting items or materials to new positions or constructing with materials that can be transformed or manipulated.



### PUSH

To push is the act of pushing an item away from you with one or both hands, possibly with the entire body.



### SPIN

To spin involves a fast, repeated horizontal or vertical turn of the body on a piece of equipment that facilitates the movement.



### CRAWL

To crawl is the movement of moving forwards or backwards, cross-coordinating arms and legs, on a horizontal or slightly inclined surface.



### ROCK

To rock is the action of rocking back and forth, or sideways, on e.g. a piece of spring equipment.



### SWAY

To sway is the movement of swaying back and forth, or around, lying, seated or possibly standing, in a pendulant or circular movement, e.g. on a hammock or on a rope.



### DRAMATIC PLAY

Dramatic play is motivated through play items that stage a frame, place or environment for acting out make believe or role play scenarios.



### ROTATE

To rotate involves a vertical or horizontal slower paced turn of the body, facilitated by a piece of equipment.



### SWING

To swing is the movement of swinging back and forth, or in circular movement, seated, standing or lying, in an unhindered arc.



### GLIDE

To glide is the act of moving from one point to another without shifting the feet, in a horizontal or vertical movement, in a seated, lying or standing position, letting gravity do the work.



### RULES PLAY

Rules play is motivated through play items that suggest games-with-rules, cooperation and team work, e.g. tic-tac-toe, timers or ball games.



### WONDER

To wonder is motivated through play items that make children need and use their logical, abstract or creative thinking skills, as well as their memory.

# MULTI NET

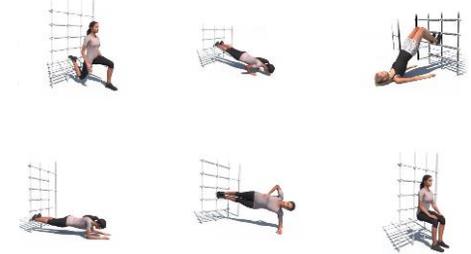
FSW207



Item no. FSW20700-0901

### General Product Information

Dimensions LxWxH	3'11"x5"x7'10"
Age group	13+
Capacity (users)	
Color options	



A climbing structure with an overhead pull up bar that offers support for varying the difficulty levels of own bodyweight exercises. The Multi Net is perfect as a training tool preparing for climbing movements in obstacle and survival runs. The Multi Net has a clear instruction sign showing the basic exercise and a QR code. By clicking on the QR code users can connect to

the KOMPAN Fitness App, where they will find multiple exercises and workouts at every level. The Multi Net is standard available in Orange, RAL2010 and Grey, RAL7012. All other RAL colors are available on request. It will always be possible to match the surroundings or color theme!

# MULTI NET

FSW207



Main posts with hot dip galvanized steel footing are available in different materials: Pressure impregnated pine wood posts. Pre-galvanized inside and outside with powder coated top finish steel posts. Lead free aluminium with color anodized top finish.



The connectors are made of die-cast aluminium, specially alloyed for the outdoor environments and heavy usage. The screws attaching the connectors are stainless steel and protected by zinc washers.



Climbing nets are made of UV-stabilized PP rope with inner steel cable reinforcement. The rope is induction treated to obtain maximum fixation between steel and rope which provides excellent wear and tear resistance. All rope connectors are made of 100% recyclable PA material.



All KOMPAN fitness products are compliant with the ASTM F3101 & EN16630 Outdoor Fitness Standards. Load tests are performed as a static test by adding dynamic factors as well as safety factors to the specified load of 78kg per user. A product intended for 1 user is loaded with 420kg.



The information sign is made of a PA6 (Polyamide) and shows the most relevant exercise and a QR code. When scanned the QR code will link to an animated illustration of the exercise and offers the possibility of downloading the KOMPAN sport & fitness App, which will provide a large amount of exercises and workouts.



KOMPAN fitness products are standard available in Orange, RAL2010 and Grey, RAL7012. All other RAL colors are available on request. It will always be possible to match the surroundings or color theme!

Item no. FSW20700-0901

### Installation Information

Max. fall height	7'8"
Safety surfacing area	97 ft2
Numbers of installers (persons)	2
Total installation time	3.2
Excavation volume	0.07 yd3
Concrete volume	0.03 yd3
Footing depth (standard)	2'9"
Shipment weight	132 lbs
Anchoring options	In-ground <input checked="" type="checkbox"/> Surface <input checked="" type="checkbox"/>

### Warranty Information

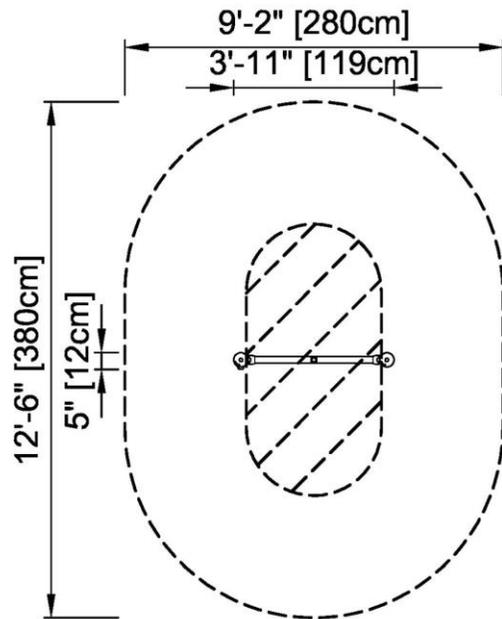
HDG structural parts	Lifetime
Post	10 years
Connectors	10 years
Ropes & nets	5 years
Spare parts guaranteed	10 years

# MULTI NET

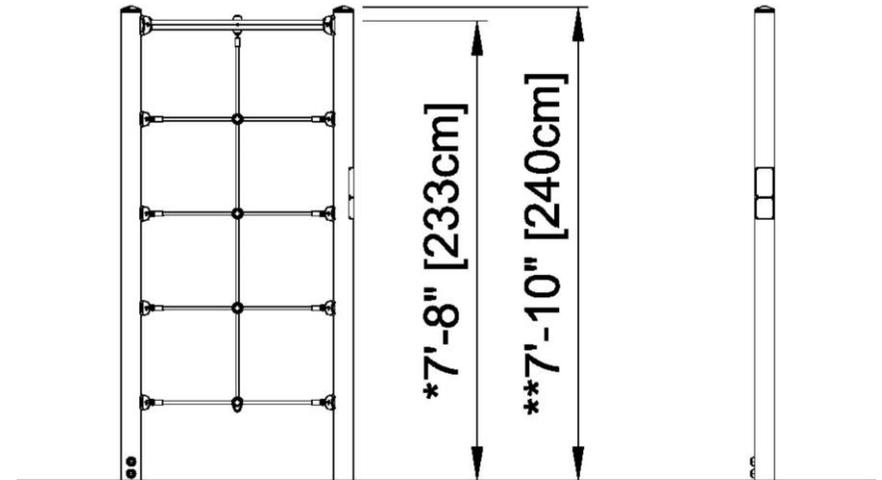
FSW207

\* Max fall height | \*\* Total height | \*\*\* Safety surfacing area

\* Max fall height | \*\* Total height



FSW20700  
\* 7'-8" / 233cm  
\*\* 7'-10" / 240cm  
\*\*\*96ft<sup>2</sup> / 9m<sup>2</sup>  
1/8" = 1'-0"



FSW20700-xx01  
1:100

[Click to see 1:100 ratio TOP VIEW](#)

[Click to see 1:100 ratio SIDE VIEW](#)

# Over Under

FSW214



The trained athletes will go over the high bar and underneath the low bar, while the beginners will do it the other way around. This is a great way to train strength, agility, coordination and flexibility. The Over Under obstacle is a great example that everyone can be challenged at their own level. Because the bars are positioned closely to another, a

combination of lower body and upper body strength is required to overcome this obstacle. Rounded corners make it safe and simple for anyone to try exercises in which they swing over their legs over the bar.

Item no. FSW21400-0900

## General Product Information

Dimensions LxWxH 18'7"x4'11"x3'10"

Age group 13+

Capacity (users)

Color options



# Over Under

FSW214



Main posts with hot dip galvanized steel footing are available in different materials: Pressure impregnated pine wood posts. Pre-galvanized inside and outside with powder coated top finish steel posts. Lead free aluminium with color anodized top finish.



The connectors are made of die-cast aluminium, specially alloyed for the outdoor environments and heavy usage. The screws attaching the connectors are stainless steel and protected by zinc washers.



Bars intended as grips during exercises are made of hot-dip galvanized steel  $\varnothing 38\text{mm}$ . A great diameter to support the wrist when doing dips or handstands.

Item no. FSW21400-0900	
Installation Information	
Max. fall height	3'10"
Safety surfacing area	491 ft <sup>2</sup>
Numbers of installers (persons)	2
Total installation time	3.7
Excavation volume	0.30 yd <sup>3</sup>
Concrete volume	0.13 yd <sup>3</sup>
Footing depth (standard)	2'11"
Shipment weight	308 lbs
Anchoring options	In-ground <input checked="" type="checkbox"/> Surface <input checked="" type="checkbox"/>
Warranty Information	
Post	10 years
HDG structural parts	Lifetime
Spare parts guaranteed	10 years



All KOMPAN fitness products are compliant with the ASTM F3101 & EN16630 Outdoor Fitness Standards. Load tests are performed as a static test by adding dynamic factors as well as safety factors to the specified load of 78kg per user. A product intended for 1 user is loaded with 420kg.



The information sign is made of a PA6 (Polyamide) and shows the most relevant exercise and a QR code. When scanned the QR code will link to an animated illustration of the exercise and offers the possibility of downloading the KOMPAN sport & fitness App, which will provide a large amount of exercises and workouts.



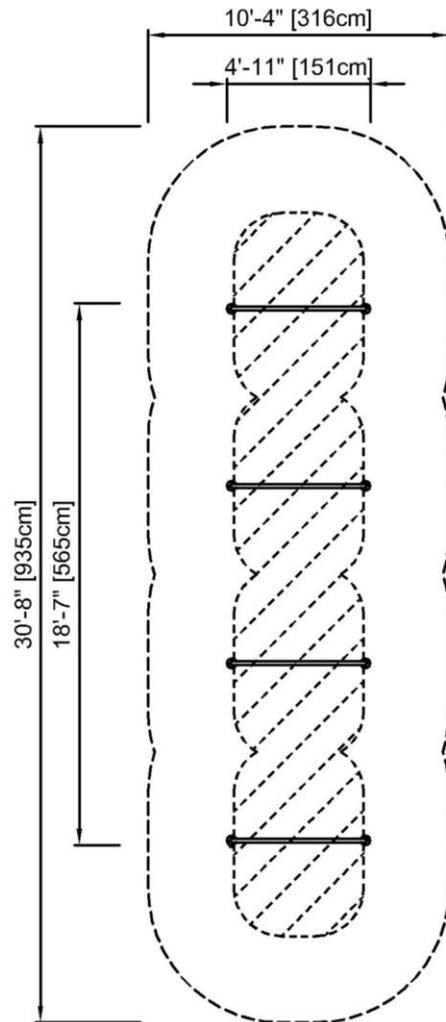
The FSW 214 consist of 4 bars placed at a distance of 175cm. The low bars are 78cm high and the high bars are 118cm high.

# Over Under

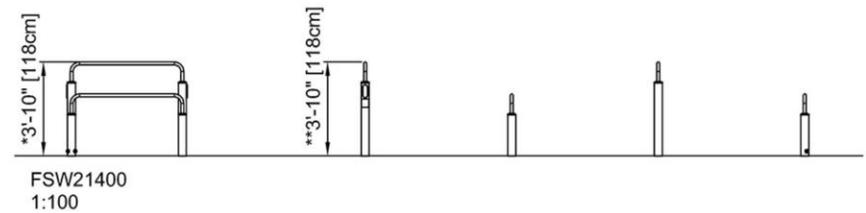
FSW214

\* Max fall height | \*\* Total height | \*\*\* Safety surfacing area

\* Max fall height | \*\* Total height



FSW21400  
\* 3'-10" / 118cm  
\*\* 3'-10" / 118cm  
\*\*\* 299.2ft<sup>2</sup> / 27.8m<sup>2</sup>



[Click to see 1:100 ratio TOP VIEW](#)

[Click to see 1:100 ratio SIDE VIEW](#)

# PULL UP SQUARE PRO

FSW218



Item no. FSW21801-0900

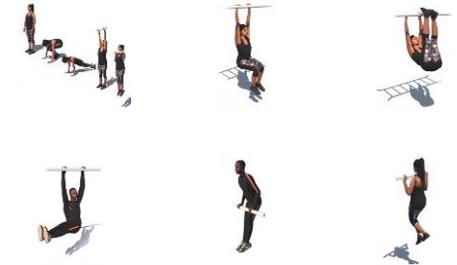
## General Product Information

Dimensions LxWxH 5'5"x5'5"x7'10"

Age group 13+

Capacity (users)

Color options



The Square Pull Up Station can be used in many ways and by multiple users at the same time. Exercises range from normal pull ups to the most dynamic and advanced exercises such as the Flying Monkey, where you fly from one bar to another. The Pull Up Bars are made from solid steel and have a diameter 1 ¼", an ideal size for both men and women to have a

good grip. As the highest bar is connected at a height of 7'8" everyone will be able to hang freely, to make sure that everyone can reach the pull up bars we added 2 stepping pods at different heights.

# PULL UP SQUARE PRO

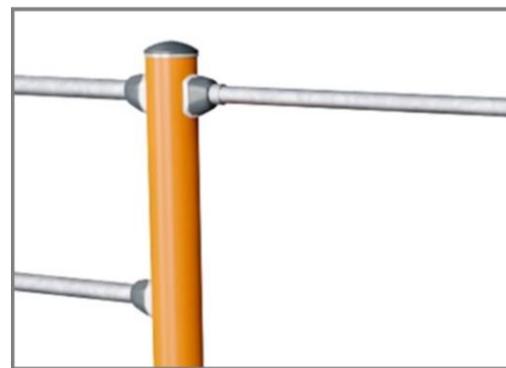
FSW218



Main posts with hot dip galvanized steel footing are available in different materials: Pressure impregnated pine wood posts. Pre-galvanized inside and outside with powder coated top finish steel posts. Lead free aluminium with color anodized top finish.



The connectors are made of die-cast aluminium, specially alloyed for the outdoor environments and heavy usage. The screws attaching the connectors are stainless steel and protected by zinc washers.



All bars intended for pull ups are made of solid,  $\varnothing 32\text{mm} \times 138\text{m}$ , hot dip galvanized, S235JR steel bars. This diameter gives the right grip for everyone.



All KOMPAN fitness products are compliant with the ASTM F3101 & EN16630 Outdoor Fitness Standards. Load tests are performed as a static test by adding dynamic factors as well as safety factors to the specified load of 78kg per user. A product intended for 1 user is loaded with 420kg.



The information sign is made of a PA6 (Polyamide) and shows the most relevant exercise and a QR code. When scanned the QR code will link to an animated illustration of the exercise and offers the possibility of downloading the KOMPAN sport & fitness App, which will provide a large amount of exercises and workouts.



Steps are made of extruded aluminium with a non-skid surface. Aluminium has high corrosion resistance and ensures durability of the product. Steps have been mounted at heights of 34,7cm and 54,7cm this creates an easy access to reach the overhead activity

Item no. FSW21801-0900

### Installation Information

Max. fall height	7'8"
Safety surfacing area	223 ft <sup>2</sup>
Numbers of installers (persons)	2
Total installation time	3.7
Excavation volume	0.14 yd <sup>3</sup>
Concrete volume	0.05 yd <sup>3</sup>
Footing depth (standard)	2'11"
Shipment weight	309 lbs
Anchoring options	In-ground <input checked="" type="checkbox"/> Surface <input checked="" type="checkbox"/>

### Warranty Information

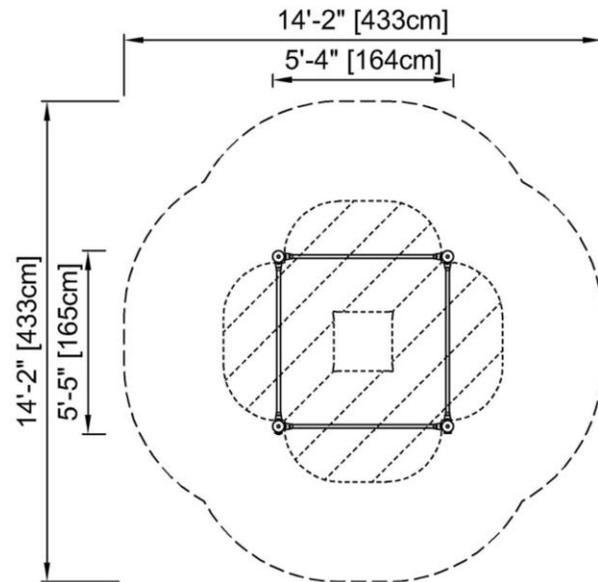
Post	10 years
Connectors	10 years
HDG structural parts	Lifetime
Spare parts guaranteed	10 years

# PULL UP SQUARE PRO

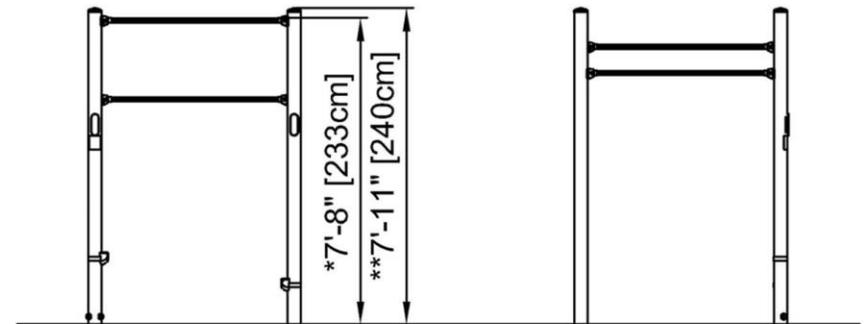
FSW218

\* Max fall height | \*\* Total height | \*\*\* Safety surfacing area

\* Max fall height | \*\* Total height



FSW21801  
\* 7'-8" / 233cm  
\*\* 7'-10" / 240cm  
\*\*\* 157,2ft<sup>2</sup> / 14.6m<sup>2</sup>



FSW21801  
1:100

[Click to see 1:100 ratio TOP VIEW](#)

[Click to see 1:100 ratio SIDE VIEW](#)

# Jump Pod Set

FSW221



Item no.	
General Product Information	
Dimensions LxWxH	0"x0"x2'0"
Age group	13+
Capacity (users)	
Color options	



A set of three jump pods in the height of 10cm, 30 cm and 60 cm. Through combining different heights and arranging them with varying distance to have multiple difficulty levels, they are a great addition to any obstacle course. The material of the pods is carefully chosen to provide a good grip, even when it is wet.



# Jump Pod Set

FSW221



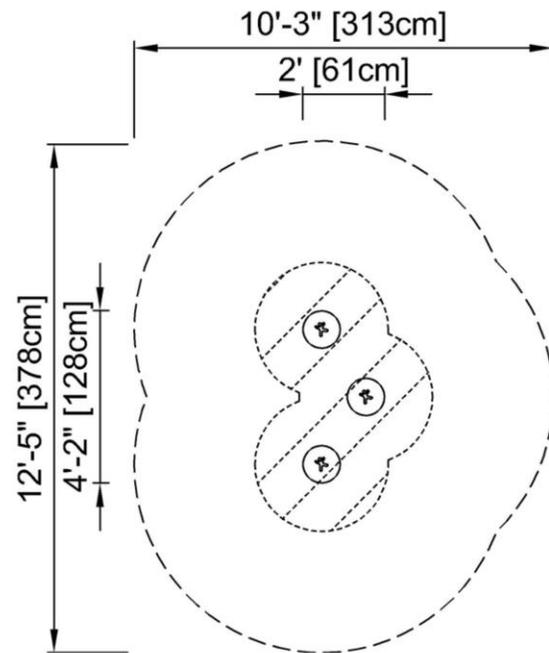
Item no.	
<b>Installation Information</b>	
Max. fall height	2'0"
Safety surfacing area	169 ft <sup>2</sup>
Numbers of installers (persons)	2
Total installation time	
Excavation volume	0.00 yd <sup>3</sup>
Concrete volume	0.00 yd <sup>3</sup>
Footing depth (standard)	0"
Shipment weight	0 lbs
Anchoring options	In-ground ✓
	Surface ✓
<b>Warranty Information</b>	
SBR rubber	2 years
HDG structural parts	Lifetime

# Jump Pod Set

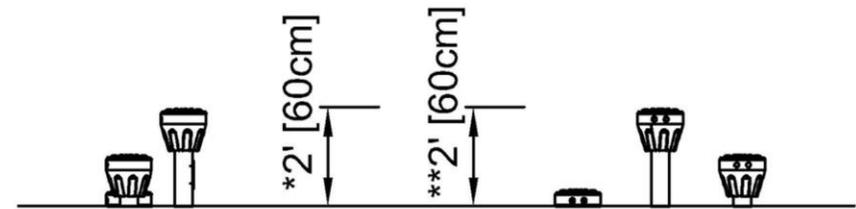
FSW221

\* Max fall height | \*\* Total height | \*\*\* Safety surfacing area

\* Max fall height | \*\* Total height



FSW22100  
\*\* 2' / 60cm  
\*\*\* 101.2ft<sup>2</sup> / 16.7m<sup>2</sup>



FSW22100  
1:100

[Click to see 1:100 ratio TOP VIEW](#)

[Click to see 1:100 ratio SIDE VIEW](#)

# COACH

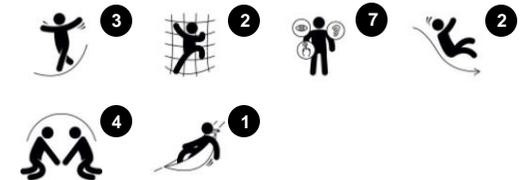
PCE105501



Item no. PCE105501-0903

### General Product Information

Dimensions LxWxH	10'6"x12'4"x5'11"
Age group	2-5
Play capacity (users)	9
Color options	



Wow! The Coach has a simple and elegant design that is loaded with play. This supports longer playtimes, and encourages families to play outdoors, for health and social benefits. At ground level, the hammock makes a nice gateway to the play. The swaying movement gives a great thrill, especially to young children. The access to the elevated play encourages

physical and social activity for all children. The double slide is especially designed for social interaction, which supports cooperation and turn-taking skills for all. Sliding additionally trains the sense of balance and the trunk stability of the child. This supports the general movement stability. The Coach is designed to enhance play flow, so that children can play

from all sides. This encourages longer playtimes and social interaction through play.



Panels of 19mm EcoCore™. EcoCore™ is a highly durable, eco friendly material, which is not only recyclable after use, but also consists of a core produced from 100% recycled material.



The ELEMENTS roofs are made of recyclable PE with a minimum wall thickness of 5 mm to ensure high durability in all climates around the world. The steel pipes are hot dip galvanized inside and outside for maximum durability.



Sails of commercial 95 high density PE knitted specially for sun-shade structures. The sails are treated with UV stabilizers to ensure a long life-time. The sails are supported by a hot dip galvanized steel frame and tightened by stainless steel devices.

Item no. PCE105501-0903	
Installation Information	
Max. fall height	3'3"
Safety surfacing area	412 ft2
Numbers of installers (persons)	2
Total installation time	13.7
Excavation volume	0.50 yd3
Concrete volume	0.03 yd3
Footing depth (standard)	2'9"
Shipment weight	751 lbs
Anchoring options	In-ground <input checked="" type="checkbox"/>
Warranty Information	
EcoCore HDPE	Lifetime
Post	10 years
HPL decks	10 years
Sun shading sails	2 years
Spare parts guaranteed	10 years



ELEMENTS decks are made of 17.8mm thick HPL supported by a unique designed aluminium frame with multiple attachment options by usage of aluminium connectors. The main posts are made of high quality pre-galvanized steel with powder coated top finish. Post tops are closed with caps of UV stabilized nylon (PA6).



The slides are available in either molded PE in different colors or in full stainless steel AISI304 t= 2mm.

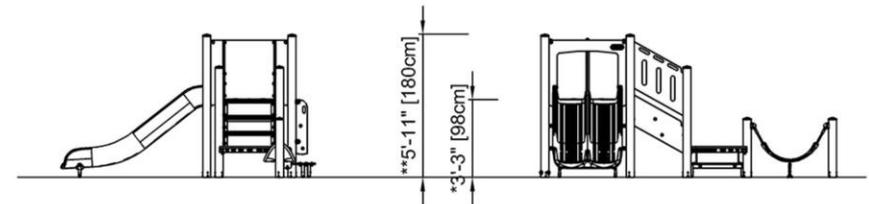
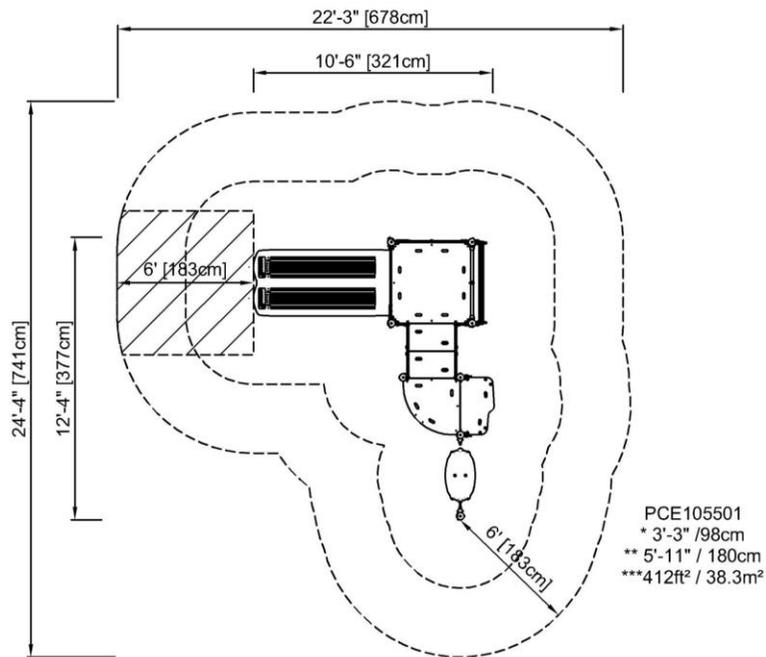


All steel activities has a unique surface treatment of hot dip galvanized base and powder coated top finish to provide durable products with long lifetime for all environments.

Elevated activities 2	Accessible elevated activities	Accessible ground level activities	Accessible ground level play types
Present	2	1	1
Required	1	1	1

\* Max fall height | \*\* Total height | \*\*\* Safety surfacing area

\* Max fall height | \*\* Total height



PCE105501  
1:100

[Click to see 1:100 ratio TOP VIEW](#)

[Click to see 1:100 ratio SIDE VIEW](#)



## Platform

**Social-Emotional:** the platform allows for more children to be together and share. Important life skills like courage, self-esteem, consideration and turn-taking are built.



## Pipe ladder

**Physical:** cross-coordination and eye-hand coordination are supported when children climb the ladder. The climbing also supports leg and arm muscles.

**Social-Emotional:** social interaction when hanging out together, learning about turn taking and cooperation.



## Accessible stairway

**Physical:** climbing the accessible stairway is for all and supports cross-coordination as well as arm and leg muscles. For young children, walking stairs and alternating feet is developed.

**Social-Emotional:** room for active breaks and adult helpers. An inclusive space.



## Double slide

**Physical:** sliding develops spatial awareness and a sense of balance. Furthermore, the core muscles are trained when sitting upright going down.

**Social-Emotional:** invites socializing, supports parent-child and peer-to-peer play.

**Cognitive:** young children train their understanding of space, speed and distances when sliding down quickly.



## Hammock

**Physical:** coordination and sense of balance when swaying.

**Social-Emotional:** pushing friends gently back and forth, turn-taking.

**Cognitive:** for toddlers cause and effect understanding.





**PHYSICAL**  
Joy of movement:  
motor skills, muscle, cardio  
and bone density



**SOCIAL-EMOTIONAL**  
Joy of being together:  
teamwork, tolerance and  
sense of belonging



**COGNITIVE**  
Joy of learning:  
curiosity, understanding of causal  
relationships and knowledge of the world



**CREATIVE**  
Joy of creating:  
co-creation and experimenting  
with materials



**BALANCE**  
To balance is to stay upright when walking or standing on a surface that makes this challenging (e.g. a wobbly, inclined, or narrow surface).



**HANG IN ARMS**  
To hang in arms is the act of carrying the body with the hands or arms, possibly to traverse to another platform or play item.



**SENSORY**  
To sense is the act of taking in information with the sensory system: seeing, feeling, hearing or sensing with the body.



**BOUNCE**  
To bounce is the act of bouncing on a responsive, flexible, elastic or tensile surface.



**JUMP**  
To jump is the act of jumping up or down on a hard surface.



**SLIDE**  
To slide is the act of moving fast downwards seated on a slide.



**CLIMB**  
To climb is the act of moving upwards, cross-coordinating arms and legs, on a vertical or inclined surface or net.



**PULL**  
To pull is the act of pulling an item towards you or you towards an item with one or both hands, or possibly using the entire body.



**SOCIALIZE**  
To socialize is the act of meeting, communicating or cooperating in an activity that stimulates and facilitates social interaction.



**CONSTRUCT**  
To construct is the act of creating new patterns, shifting items or materials to new positions or constructing with materials that can be transformed or manipulated.



**PUSH**  
To push is the act of pushing an item away from you with one or both hands, possibly with the entire body.



**SPIN**  
To spin involves a fast, repeated horizontal or vertical turn of the body on a piece of equipment that facilitates the movement.



**CRAWL**  
To crawl is the movement of moving forwards or backwards, cross-coordinating arms and legs, on a horizontal or slightly inclined surface.



**ROCK**  
To rock is the action of rocking back and forth, or sideways, on e.g. a piece of spring equipment.



**SWAY**  
To sway is the movement of swaying back and forth, or around, lying, seated or possibly standing, in a pendulant or circular movement, e.g. on a hammock or on a rope.



**DRAMATIC PLAY**  
Dramatic play is motivated through play items that stage a frame, place or environment for acting out make believe or role play scenarios.



**ROTATE**  
To rotate involves a vertical or horizontal slower paced turn of the body, facilitated by a piece of equipment.



**SWING**  
To swing is the movement of swinging back and forth, or in circular movement, seated, standing or lying, in an unhindered arc.



**GLIDE**  
To glide is the act of moving from one point to another without shifting the feet, in a horizontal or vertical movement, in a seated, lying or standing position, letting gravity do the work.



**RULES PLAY**  
Rules play is motivated through play items that suggest games-with-rules, cooperation and team work, e.g. tic-tac-toe, timers or ball games.



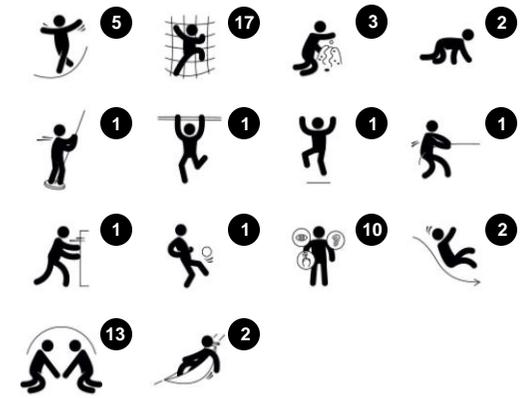
**WONDER**  
To wonder is motivated through play items that make children need and use their logical, abstract or creative thinking skills, as well as their memory.

# GIANT L

PCT1109



Item no. PCT110901-0902	
General Product Information	
Dimensions LxWxH	29'10"x36'5"x21'4"
Age group	5-12
Play capacity (users)	36
Color options	



WOW! The Giant L's sky-high climb-slide-meet features attract children hugely. The Giant has a unique variety of speedysliding, gentle swaying and challenging climbing activities. All these are in a see-through tower, promoting thrill and social interaction. This ensures vigorous play, over and over. The slides are main attractions. The open and closed slide

offer each their thrilling ride. This is severe fun and stimulates social-emotional skills such as self-regulation and empathy. The varied climbing activities add choice for all. The speedystairs train cardio. The tower net and steep steps train cross-coordination, muscles and the sense of space. Play shells, talking tube, hammock and tic-tac-toe create an

inviting ground level space for meeting and socializing, with rich opportunities for all to participate and make friends in play.

# GIANT L

PCT1109



Panels of 19mm EcoCore™. EcoCore™ is a highly durable, eco friendly material, which is not only recyclable after use, but also consists of a core produced from 100% recycled material.



All decks are supported by unique designed aluminium profiles with multiple attachment options by usage of pressure molded aluminum connectors. The HPL decks with a thickness of 17.8mm with a very high wearing strength and a unique KOMPAN nonskid surface texture.



The main posts have an alloy with improved tensile and yield strength to ensure superior structural integrity of the high towers. The posts has hot dip galvanized base and powder coated top finish which ensure long lifetime.



High-quality polycarbonate with a thickness of 15mm. The graphic prints are added by a unique multi-layer print process where the inner layer is the image and outer transparent layer functions as protection. Both PC panel and the water-based lacquer are UV stabilized to prevent fading.



Fully welded steel frame with 45° cross welded steel grid of round steel pins with a diameter of 4mm. The airflow panel contributes to the overall structural integrity of the GIANT towers.



Curved and straight tunnel slide of either PE or stainless-steel material and supported by multiple steel rods to a center steel post. The tunnel slides are designed with perfect curve and inclination for a playful ride.

Item no. PCT110901-0902

### Installation Information

Max. fall height	9'9"
Safety surfacing area	1,192 ft <sup>2</sup>
Numbers of installers (persons)	2
Total installation time	152.8
Excavation volume	17.47 yd <sup>3</sup>
Concrete volume	7.68 yd <sup>3</sup>
Footing depth (standard)	2'11"
Shipment weight	5,682 lbs
Anchoring options	In-ground ✓

### Warranty Information

EcoCore HDPE	Lifetime
Post	10 years
HPL decks	10 years
Ropes & nets	5 years
Spare parts guaranteed	10 years

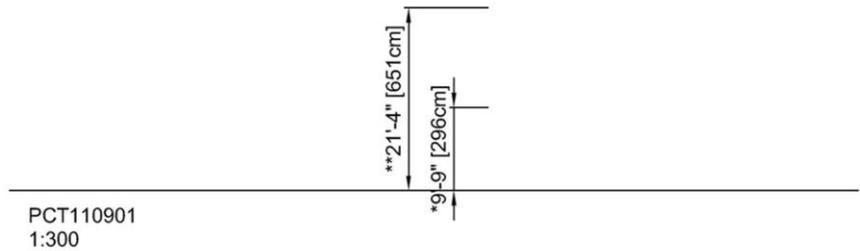
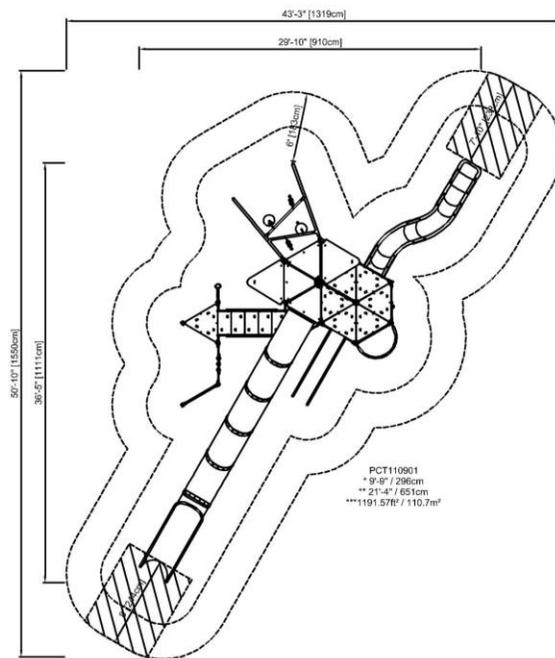
Elevated activities 11	Accessible elevated activities	Accessible ground level activities	Accessible ground level play types
Present	8	4	3
Required	6	4	3

# GIANT L

PCT1109

\* Max fall height | \*\* Total height | \*\*\* Safety surfacing area

\* Max fall height | \*\* Total height



[Click to see 1:100 ratio TOP VIEW](#)

[Click to see 1:100 ratio SIDE VIEW](#)



## Transparent panels

**Social-Emotional:** the see-through panel adds the possibility to watch and contact friends on ground level when up high.

**Cognitive:** the see through-effect adds a feeling of thrill when used up high.



## Climb-through hole

**Physical:** the hole allows for climbing and crawling through, developing cross-coordination, proprioception and spatial awareness.

**Social-Emotional:** cooperation and turn-taking when passing one another.



## Peak climber

**Physical:** cross-coordination and muscle strength are developed when climbing and crawling across the unequally dispersed ropes. Balance and spatial awareness are supported when standing on turning spheres or climbing across or up.

**Social-Emotional:** turn-taking and socializing skills are supported when sitting with friends or interacting across the net.



## Long tube slide

**Physical:** sliding develops spatial awareness and a sense of balance. Furthermore, the core muscles are trained when sitting upright going down.

**Social-Emotional:** thrill when going down fast. Empathy stimulated by turn-taking. Feeling of security when stopping on extra long slide mouth.



## Play shell

**Physical:** the swaying movement stimulates the sense of balance, necessary to sit still on a chair.

**Social-Emotional:** meeting, taking a break and turn-taking are supported, skills necessary to learn how to avoid conflicts.



## Tower net

**Physical:** the children have a fast access up the horizontal rungs, and a slower climb up the sloping rungs. The net can be climbed from both sides, levelling the challenge of accessing the platform. Cross-coordination and sense of space is supported, as well as arm and leg muscles.

**Social-Emotional:** the two-sided net allows for social interaction. The spaciousness invites socializing.

**Cognitive:** logical thinking and planning when planning how best to enter the platform from the net.



## Tic-tac-toe panel

**Social-Emotional:** stimulates communication and turn-taking skills.

**Cognitive:** support rules understanding, strategic thinking.



## Banister bars

**Physical:** balance, spatial awareness and coordination are developed when going down, as well as arm, leg and core muscles when holding tight. Landing strengthens bone density, which is built for life in early childhood.

**Social-Emotional:** turn-taking and risk-taking.



## Movable hammock

**Physical:** sense of balance when swaying, body pressure when lying.

**Social-Emotional:** meeting, pushing friends gently back and forward, turn-taking.

**Creative:** changing direction and position of hammock.



# GIANT L

PCT1109



## PHYSICAL

Joy of movement:  
motor skills, muscle, cardio  
and bone density



## SOCIAL-EMOTIONAL

Joy of being together:  
teamwork, tolerance and  
sense of belonging



## COGNITIVE

Joy of learning:  
curiosity, understanding of causal  
relationships and knowledge of the world



## CREATIVE

Joy of creating:  
co-creation and experimenting  
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### WONDER

To wonder is motivated through play items that make children need and use their logical, abstract or creative thinking skills, as well as their memory.



## SECTION 265600 - EXTERIOR LIGHTING

### PART 1 - GENERAL

#### 1.1 SUMMARY

- A. Section includes exterior luminaires, poles, and accessories.

#### 1.2 UNIT PRICE - MEASUREMENT AND PAYMENT

- A. Exterior Luminaire:
  - 1. Basis of Measurement: Each.
  - 2. Basis of Payment: Includes concrete base, luminaire pole, and luminaire with lamps and accessories. connection to power source.

#### 1.3 REFERENCES

- A. American National Standards Institute:
  - 1. ANSI C82.1 - American National Standard for Lamp Ballast-Line Frequency Fluorescent Lamp Ballast.
  - 2. ANSI C82.4 - American National Standard for Ballasts-for High-Intensity-Discharge and Low-Pressure Sodium Lamps (Multiple-Supply Type).

#### 1.4 SUBMITTALS

- A. Section 013300 - Submittal Procedures: Submittal procedures.
- B. Shop Drawings: Indicate dimensions and components for each luminaire not standard Product of manufacturer.
- C. Product Data: Submit dimensions, ratings, and performance data.
- D. Samples: Submit two color chips **3 x 3 inch** in size illustrating luminaire finish color where indicated in luminaire schedule.

#### 1.5 QUALIFICATIONS

- A. Manufacturer: Company specializing in manufacturing products specified in this section with minimum three years documented experience.



1.6 DELIVERY, STORAGE, AND HANDLING

- A. Section 010000- General Requirements: Product storage and protection

1.7 COORDINATION

- A. Furnish bolt templates and pole mounting accessories to installer of pole foundations.

1.8 MAINTENANCE MATERIALS

- A. Section 017000 - Execution and Closeout Requirements: Spare parts and maintenance products.
- B. Furnish two 2 ballasts of each lamp type installed.

PART 2 - PRODUCTS

2.1 LUMINAIRES

- A. Product Description: Complete exterior luminaire assemblies, with features, options, and accessories as scheduled.

2.2 METAL POLES

- A. Manufacturers:
  - 1. Eaton
  - 2. Substitutions: Approved equal.
- B. Material and Finish: Aluminum with black powdercoat finish.
- C. Section Shape and Dimensions: Washington Base, Round Straight Shaft 4" at base, 0.125" wall thickness,.
- D. Height: As indicated on Drawings.
- E. Base: Concrete .
- F. Accessories:
  - 1. Handhole.
  - 2. Anchor bolts.
  - 3. Access door located in the base secured with tamper proof hex socket security machine screws .



### PART 3 - EXECUTION

#### 3.1 EXAMINATION

- A. Verify foundations are ready to receive fixtures.

#### 3.2 INSTALLATION

- A. Install concrete bases for lighting poles at locations as indicated on Drawings, in accordance with Section 033000.
- B. Install poles plumb. Install double nuts to adjust plumb. Grout around each base.
- C. Install lamps in each luminaire.
- D. Bond and ground luminaires ,metal accessories and metal poles in accordance with Section 260526. Install supplementary grounding electrode at each pole.

#### 3.3 FIELD QUALITY CONTROL

- A. Operate each luminaire after installation and connection. Inspect for improper connections and operation.

#### 3.4 CLEANING

- A. Clean finishes and touch up damage.

#### 3.5 PROTECTION OF FINISHED WORK

- A. Relamp luminaries having failed lamps at Substantial Completion.

#### 3.6 SCHEDULES

END OF SECTION 265600

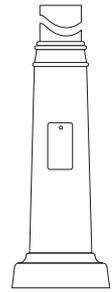
**ORDERING INFORMATION**

**SAMPLE NUMBER:** ASP0840RS5BK

Base Type	Mounting Height (Feet)	Shaft Size at Base (Inches)	Wall Thickness (Inches)	Shaft Type	Luminaire	Color	Options (Add as Suffix)
ASP=Aspen	08=8' 10=10' 12=12' 14=14' 16=16' 18=18'	5=5"	2=0.188" 3=0.250"	RS=Round Straight SF=Straight Fluted	4=4" O.D. Tenon <sup>1</sup> 5=3" O.D. Tenon	AP=Grey BK=Black BZ=Bronze DP=Dark Platinum GM=Graphite Metallic GN=Hartford Green WH=White	C=Provision for Convenience Outlet E=GFI Convenience Outlet G=Ground Lug

**NOTES:** 1. Provides 4" tenon on 5" shafts or no tenon on 4" shafts allowing slip over of Epic Collection, Slide and Flite arm accessories. See individual product specifications for additional information.

**BASE HEIGHT:** 40"  
**BOLT CIRCLE:** 15"



ASP ASPEN

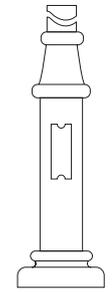
**ORDERING INFORMATION**

**SAMPLE NUMBER:** BWR0841RS5BK

Base Type	Mounting Height (Feet)	Shaft Size at Base (Inches)	Wall Thickness (Inches)	Shaft Type	Luminaire	Color	Options (Add as Suffix)
BWR=Broadway	08=8' 10=10' 12=12' 14=14' 16=16' 18=18' 20=20' 25=25' 30=30'	8=8" <sup>1</sup>	1=0.156 2=0.188" 3=0.250"	RT=Round Tapered	5=3" O.D. Tenon	AP=Grey BK=Black BZ=Bronze DP=Dark Platinum GM=Graphite Metallic GN=Hartford Green WH=White	C=Provision for Convenience Outlet E=GFI Convenience Outlet G=Ground Lug

**NOTES:** 1. Pole tapers to 4" at pole top.

**BASE HEIGHT:** 42"  
**BOLT CIRCLE:** 12"



BWR BROADWAY

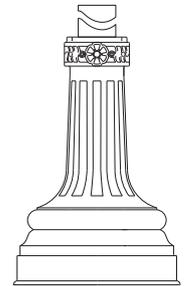
**ORDERING INFORMATION**

**SAMPLE NUMBER:** CHI0840RS5BK

Base Type	Mounting Height (Feet)	Shaft Size at Base (Inches) <sup>1</sup>	Wall Thickness (Inches)	Shaft Type	Luminaire	Color	Options (Add as Suffix)
CHI=Charleston	08=8' 10=10' 12=12' 14=14' 16=16' 18=18'	4=4" 5=5" 6=6"	0=0.125" 2=0.188"	RS=Round Straight SF=Straight Fluted	4=4" O.D. Tenon <sup>2</sup> 5=3" O.D. Tenon	AP=Grey BK=Black BZ=Bronze DP=Dark Platinum GM=Graphite Metallic GN=Hartford Green WH=White	C=Provision for Convenience Outlet E=GFI Convenience Outlet G=Ground Lug

**NOTES:** 1. 4" shaft size available in 8', 10' and 12' mounting heights. 5" shaft size available in 8', 10', 12', 14' and 16' mounting heights. 6" shaft size available in 12', 14', 16' and 18' mounting heights. 2. Provides 4" tenon on 5" shafts or no tenon on 4" shafts allowing slip over of Epic Collection, Slide and Flite arm accessories. See individual product specifications for additional information.

**BASE HEIGHT:** 32"  
**BOLT CIRCLE:** 10-3/4"



CHI CHARLESTON

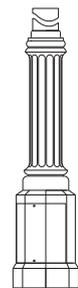
**ORDERING INFORMATION**

**SAMPLE NUMBER:** CPR0840RS5BK

Base Type	Mounting Height (Feet)	Shaft Size at Base (Inches)	Wall Thickness (Inches)	Shaft Type	Luminaire	Color	Options (Add as Suffix)
CPR=Chesapeake	08=8' 10=10' 12=12' 14=14'	4=4" 5=5"	0=0.125" 2=0.188"	RS=Round Straight SF=Straight Fluted	4=4" O.D. Tenon <sup>1</sup> 5=3" O.D. Tenon	AP=Grey BK=Black BZ=Bronze DP=Dark Platinum GM=Graphite Metallic GN=Hartford Green WH=White	C=Provision for Convenience Outlet E=GFI Convenience Outlet G=Ground Lug

**NOTES:** 1. Provides 4" tenon on 5" shafts or no tenon on 4" shafts allowing slip over of Epic Collection, Slide and Flite arm accessories. See individual product specifications for additional information.

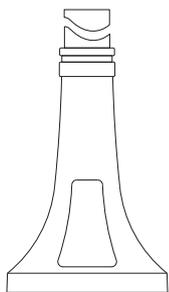
**BASE HEIGHT:** 46-5/8"  
**BOLT CIRCLE:** 13-1/4"



CPR CHESAPEAKE

**WARNING:** The use of unauthorized accessories such as banners, signs, cameras or pennants for which the pole was not designed voids the Cooper Lighting Pole Warranty and may result in pole failure causing serious injury or property damage. Upon request, Cooper Lighting will supply information regarding total loading capacity. Cooper Lighting's Pole Warranty is void unless poles are used and installed as a complete pole/luminaire combination. This warranty specifically excludes failure as the result of a third party act or omission, misuse, unanticipated uses, fatigue failure or similar phenomena resulting from induced vibration, harmonic oscillation or resonance associated with movement of air currents around the product.

Specifications and dimensions subject to change without notice. Consult your Cooper Lighting Representative or visit [www.cooperlighting.com](http://www.cooperlighting.com) for available options, accessories and ordering information.



STL SEATTLE

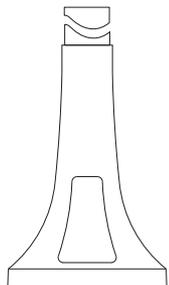
**ORDERING INFORMATION**

**SAMPLE NUMBER:** STL0842RS5BK

Base Type	Mounting Height (Feet)	Shaft Size at Base (Inches)	Wall Thickness (Inches)	Shaft Type	Luminaire	Color	Options (Add as Suffix)
STL=Seattle	08=8' 10=10' 12=12' 14=14' 16=16'	4=4"	2=0.188" 3=0.250"	RS=Round Straight SF=Straight Fluted	4=4" O.D. Tenon <sup>1</sup> 5=3" O.D. Tenon	AP=Grey BK=Black BZ=Bronze DP=Dark Platinum GM=Graphite Metallic GN=Hartford Green WH=White	C=Provision for Convenience Outlet E=GFI Convenience Outlet G=Ground Lug

**NOTES:** 1. Provides 4" tenon on 5" shafts or no tenon on 4" shafts allowing slip over of Epic Collection, Slide and Flite arm accessories. See individual product specifications for additional information.

**BASE HEIGHT:** 23"  
**BOLT CIRCLE:** 8"



TAM TAMPA

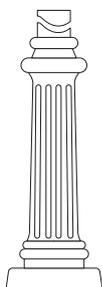
**ORDERING INFORMATION**

**SAMPLE NUMBER:** TAM1041RS5BK

Base Type	Mounting Height (Feet)	Shaft Size at Base (Inches)	Wall Thickness (Inches)	Shaft Type	Luminaire	Color	Options (Add as Suffix)
TAM=Tampa	10=10' 12=12' 14=14' 16=16' 18=18'	5=5"	1=0.156 2=0.188"	RS=Round Straight SF=Straight Fluted	4=4" O.D. Tenon <sup>1</sup> 5=3" O.D. Tenon	AP=Grey BK=Black BZ=Bronze DP=Dark Platinum GM=Graphite Metallic GN=Hartford Green WH=White	C=Provision for Convenience Outlet E=GFI Convenience Outlet G=Ground Lug

**NOTES:** 1. Provides 4" tenon on 5" shafts or no tenon on 4" shafts allowing slip over of Epic Collection, Slide and Flite arm accessories. See individual product specifications for additional information.

**BASE HEIGHT:** 30"  
**BOLT CIRCLE:** 8-1/2"



UBN UTICA

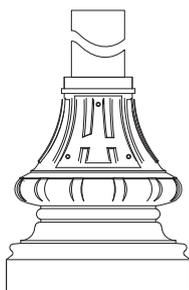
**ORDERING INFORMATION**

**SAMPLE NUMBER:** UBN0840RS5BK

Base Type	Mounting Height (Feet)	Shaft Size at Base (Inches)	Wall Thickness (Inches)	Shaft Type	Luminaire	Color	Options (Add as Suffix)
UBN=Utica	08=8' 10=10' 12=12'	4=4" 5=5"	0=0.125" 2=0.188"	RS=Round Straight SF=Straight Fluted	4=4" O.D. Tenon <sup>1</sup> 5=3" O.D. Tenon	AP=Grey BK=Black BZ=Bronze DP=Dark Platinum GM=Graphite Metallic GN=Hartford Green WH=White	C=Provision for Convenience Outlet E=GFI Convenience Outlet G=Ground Lug

**NOTES:** 1. Provides 4" tenon on 5" shafts or no tenon on 4" shafts allowing slip over of Epic Collection, Slide and Flite arm accessories. See individual product specifications for additional information.

**BASE HEIGHT:** 31-3/8"  
**BOLT CIRCLE:** 12-1/2"



WA3 WASHINGTON

**ORDERING INFORMATION**

**SAMPLE NUMBER:** WA30840RS5BK

Base Type	Mounting Height (Feet)	Shaft Size at Base (Inches) <sup>1</sup>	Wall Thickness (Inches)	Shaft Type	Luminaire	Color	Options (Add as Suffix)
WA3=Washington 3	08=8' 10=10' 12=12' 14=14' 16=16' 18=18'	4=4" 5=5" 6=6"	0=0.125" 2=0.188"	RS=Round Straight SF=Straight Fluted	4=4" O.D. Tenon <sup>2</sup> 5=3" O.D. Tenon	AP=Grey BK=Black BZ=Bronze DP=Dark Platinum GM=Graphite Metallic GN=Hartford Green WH=White	C=Provision for Convenience Outlet E=GFI Convenience Outlet G=Ground Lug

**NOTES:** 1. 4" shaft size available in 8', 10' and 12' mounting heights. 5" shaft size available in 8', 10', 12', 14' and 16' mounting heights. 6" shaft size available in 12', 14', 16' and 18' mounting heights. 2. Provides 4" tenon on 5" shafts or no tenon on 4" shafts allowing slip over of Epic Collection, Slide and Flite arm accessories. See individual product specifications for additional information.

**BASE HEIGHT:** 21"  
**BOLT CIRCLE:** 10-3/4"

**WARNING:** The use of unauthorized accessories such as banners, signs, cameras or pennants for which the pole was not designed voids the Cooper Lighting Pole Warranty and may result in pole failure causing serious injury or property damage. Upon request, Cooper Lighting will supply information regarding total loading capacity. Cooper Lighting's Pole Warranty is void unless poles are used and installed as a complete pole/luminaire combination. This warranty specifically excludes failure as the result of a third party act or omission, misuse, unanticipated uses, fatigue failure or similar phenomena resulting from induced vibration, harmonic oscillation or resonance associated with movement of air currents around the product.

Specifications and dimensions subject to change without notice. Consult your Cooper Lighting Representative or visit [www.cooperlighting.com](http://www.cooperlighting.com) for available options, accessories and ordering information.

## DESCRIPTION

The ACN/ARC/CLB Generation Series LED is a marriage of traditional shapes and contemporary styling. Its superior photometrics offer excellent illumination and uniformity for many of today's applications. Its styling blends well in many settings – historic districts, downtown streetscapes, roadways, residential neighborhoods, as well as city parks and educational campuses. The Generation Series LED sets a new standard for decorative post top luminaires.

<b>Catalog #</b>		<b>Type</b>
<b>Project</b>		
<b>Comments</b>		<b>Date</b>
<b>Prepared by</b>		

## SPECIFICATION FEATURES

### Construction

**HOUSING:** Heavy-duty cast aluminum housing and removable door. A single quarter turn fastener on the removable door provides tool-less access to wiring compartment. **CAGE ASSEMBLIES:** Cage assembly uprights and medallions are manufactured of heavy-duty cast aluminum and mounted to the exterior of the base housing via four stainless steel fasteners. Cage rings constructed of extruded aluminum and finished to match housing. **TOPS AND FINIALS:** Choose from multiple spun aluminum or acrylic tops and cast aluminum finials for customized fixture style. All solid tops are made of heavy-duty spun aluminum. **TWISTLOCK GLOBE:** The optional twistlock assembly offers ease of maintenance through instant access to both the LED and wiring compartment by twisting the top refractor assembly and lifting it from the mating lock plate.

### Optical

**REFRACTIVE GLOBE:** High efficiency refractive optical systems are precisely designed utilizing a combination of refractive and reflective prisms. Available in Type III or Type V distributions. Lighting grade acrylic ensures long lasting optical clarity and resistance to discoloration.

### Electrical

120-277V 50/60Hz operation. 10kV/10kA common and differential mode surge protection standard. Thermal management transfers heat rapidly away from the LED source for optimal efficiency and light output. Ambient operating temperature from -40°C to 40°C. Standard three-position tunnel type compression terminal block.

### Mounting

Base casting slipfits over a standard 3" O.D. tenon and secured via four stainless steel allen head fasteners. 3G vibration tested.

### Finish

Cast and spun components finished in a five-stage premium TGIC polyester powder coat paint, 2.5 mil nominal thickness for superior protection against fade and wear. Consult your Streetworks representative for a complete selection of standard colors including black, bronze, grey, white, dark platinum, graphite metallic and hartford green. RAL and custom color matches available.

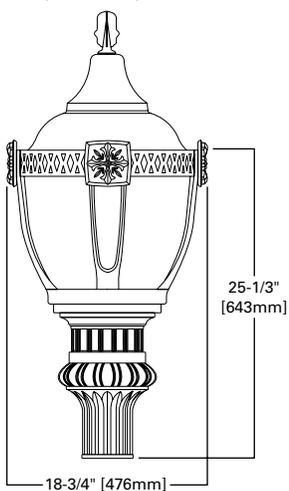
### Warranty

Five-year warranty.

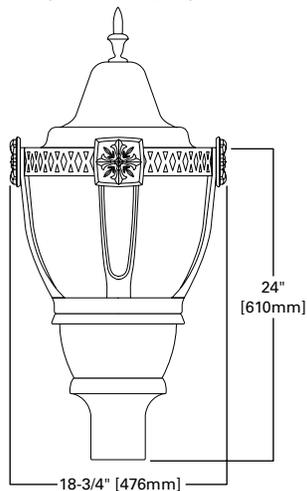


## DIMENSIONS

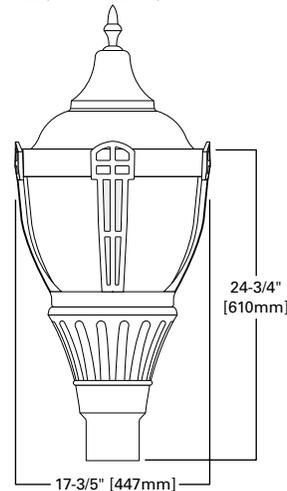
ACN (Acorn Base)



ARC (Architectural Base)



CLB (Classical Base)



## ACN/ARC/CLB GENERATION SERIES LED

LED

DECORATIVE POST TOP  
LUMINAIRE

### CERTIFICATION DATA

UL/cUL Wet Location Listed

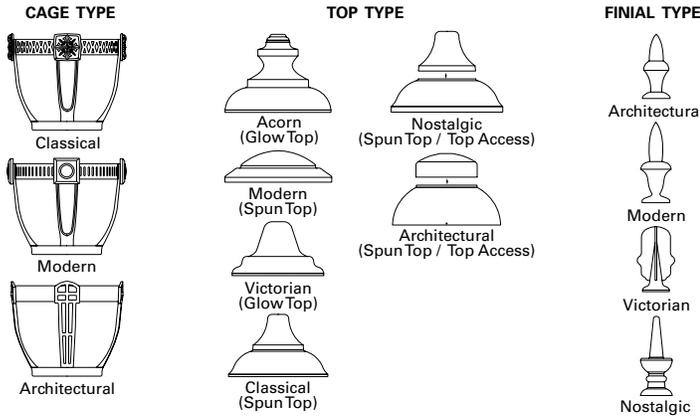
### EPA

Effective Projected Area:  
2.1 Square Feet

### SHIPPING DATA

Approximate Net Weight:  
50 lbs. (23 kgs.)

CONFIGURATIONS



LUMEN TABLE

Distribution	Correlated Color Temperature (CCT)	Cage Type	Top Type	Total Lumens (Full Brightness)	Luminaire Wattage (Nominal)
Type III	4000K	None	Glow	11,060	99W
Type III	4000K	None	Solid	8,467	99W
Type III	4000K	Any	Glow	7,776	99W
Type III	4000K	Any	Solid	5,778	99W
Type V	4000K	None	Glow	10,571	99W
Type V	4000K	None	Solid	9,365	99W
Type V	4000K	Any	Glow	7,537	99W
Type V	4000K	Any	Solid	6,087	99W

LUMEN MAINTENANCE

Ambient Temperature	TM-21 Lumen Maintenance (36,000 Hours)	Theoretical L70 (Hours)
15°C	>93%	240,000
25°C	>92%	210,000
40°C	>89%	117,000

ORDERING INFORMATION

Sample Number: ACN-080-LED-E-U-33-1-7-3-BK

Product Family <sup>1</sup>	LED Series	Driver / Lumen Package	Voltage	Refractor Type	Cage Type <sup>4</sup>	Top Type	Finial Type
<b>ACN=Acorn Base</b> <b>ARC=Architectural Base</b> <b>CLB=Classical Base</b>	<b>080-LED=080 Series</b>	<b>E=Non-Dimming <sup>2</sup></b> <b>D=Dimming <sup>2</sup></b> <b>E50=Non-Dimming / 50% Lumen Output <sup>3</sup></b> <b>D50=Dimming / 50% Lumen Output <sup>3</sup></b>	<b>U=Universal (120-277V)</b>	<b>33=Type III</b> <b>55=Type V</b>	<b>Classical</b> <b>1=Classical</b> <b>A=Classical Sun Gold</b> <b>B=Classical Antique Gold</b> <b>C=Classical Colonial Bronze</b> <b>Modern</b> <b>2=Modern</b> <b>D=Modern Sun Gold</b> <b>E=Modern Antique Gold</b> <b>F=Modern Colonial Bronze</b> <b>Architectural</b> <b>3=Architectural</b> <b>G=Architectural Sun Gold</b> <b>H=Architectural Antique Gold</b> <b>J=Architectural Colonial Bronze</b> <b>X=None</b>	<b>1=Acorn</b> <b>2=Modern</b> <b>3=Victorian</b> <b>4=Classical (Top Access)</b> <b>6=Nostalgic (Top Access)</b> <b>7=Architectural (Top Access)</b>	<b>1=Victorian</b> <b>2=Modern</b> <b>3=Architectural</b> <b>4=Nostalgic</b> <b>X=None</b>
<b>Color</b>	<b>Options (Add as Suffix)</b>		<b>Accessories (Order Separately)</b>				
<b>AP=Grey</b> <b>BZ=Bronze</b> <b>BK=Black</b> <b>DP=Dark Platinum</b> <b>GN=Hartford Green</b> <b>GM=Graphite Metallic</b> <b>WH=White</b>	<b>2L=Two Circuits <sup>5</sup></b> <b>SH=Street Side / House Side Switching <sup>5</sup></b> <b>B=Decorative Brass Banding <sup>6</sup></b> <b>C=Copper Accents</b> <b>4=Internal NEMA Photocontrol Receptacle</b> <b>4N7=Internal NEMA 7-PIN Twistlock Photocontrol Receptacle <sup>7,8,9</sup></b> <b>U=UL/CSA Listed</b> <b>P=Polycarbonate Refractor</b> <b>GHSS=Generation House Side Shield</b> <b>7030=70 CRI / 3000K <sup>10</sup></b>		<b>OA1222=10kV Surge Module</b> <b>GLK080EU=Generations LED Retrofit Light Engine Kit</b> <b>GLK080EU2L=Generations LED Retrofit Light Engine Kit wired for Two Circuit Dimming</b> <b>GLK080EUSH=Generations LED Retrofit Light Engine Kit wired for Street Side / House Side Dimming</b> <b>GL/GHSS=Field Installed Generation House Side Shield</b>				

NOTES:

- Customer is responsible for engineering analysis to confirm pole and fixture compatibility for all applications. Refer to our white paper WP513001EN for additional support information.
- Six LEDs.
- Three LEDs. Approximately 50% output and energy usage. Consult IES files on ACN/ARC/CLB product page for actual lumen and wattage values.
- Cage type painted to match base.
- Not available with E50 or D50 options.
- Available with Acorn and Victorian tops only.
- Height of dimming node/photocontrol cannot exceed 2.8" at outer edge.
- Depending on characteristics of dimming node, may need to extend antenna out of housing. Consult your lighting representative at Eaton for more information.
- Not available with ARC base.
- Extended lead times apply. Use dedicated IES files for 3000K.



## SECTION 321216 - ASPHALT PAVING

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

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

#### 1.2 SUMMARY

- A. Section Includes:

- 1. Hot-mix asphalt paving.
- 2. Asphalt surface treatments.

- B. Related Requirements:

- 1. and Section 024119 "Selective Demolition" for demolition and removal of existing asphalt pavement.

#### 1.3 PREINSTALLATION MEETINGS

- A. Preinstallation Conference: Conduct conference at Project site .

- 1. Review methods and procedures related to hot-mix asphalt paving including, but not limited to, the following:
  - a. Review proposed sources of paving materials, including capabilities and location of plant that will manufacture hot-mix asphalt.
  - b. Review requirements for protecting paving work, including restriction of traffic during installation period and for remainder of construction period.

#### 1.4 ACTION SUBMITTALS

- A. Product Data: For each type of product.

- 1. Include technical data and tested physical and performance properties.
- 2. Job-Mix Designs: Certification, by authorities having jurisdiction, of approval of each job mix proposed for the Work.

#### 1.5 INFORMATIONAL SUBMITTALS

- A. Qualification Data: For manufacturer and testing agency.

- B. Material Certificates: For each paving material.

## 1.6 QUALITY ASSURANCE

- A. Regulatory Requirements: Comply with materials, workmanship, and other applicable requirements of of State of Rhode Island Department of Transportation Standard Specification for Road and Bridge Construction for asphalt paving work.
  - 1. Measurement and payment provisions and safety program submittals included in standard specifications do not apply to this Section.

## 1.7 FIELD CONDITIONS

- A. Environmental Limitations: Do not apply asphalt materials if subgrade is wet or excessively damp, if rain is imminent or expected before time required for adequate cure, or if the following conditions are not met:
  - 1. Asphalt Base Course: Minimum surface temperature of 40 deg F and rising at time of placement.

## PART 2 - PRODUCTS

### 2.1 AGGREGATES

- A. General: Use materials and gradations that have performed satisfactorily in previous installations.
- B. Coarse Aggregate: ASTM D 692/D 692M, sound; angular crushed stone, crushed gravel.
- C. Fine Aggregate: ASTM D 1073 , sharp-edged natural sand or sand prepared from stone, gravel, or combinations thereof.
  - 1. For hot-mix asphalt, limit natural sand to a maximum of 20 percent by weight of the total aggregate mass.

### 2.2 MIXES

- A. Hot-Mix Asphalt: Dense-graded, hot-laid, hot-mix asphalt plant mixes and complying with the following requirements:
  - 1. Provide mixes with a history of satisfactory performance in geographical area where Project is located.
  - 2. Bituminous Base Course: shall conform to the requirements of Rhode Island Standard Specifications Section 402 and M. 03.01 for Base Course .
  - 3. Bituminous Surface: Shall conform to the requirements of the Rhode Island Standard Specifications Section 402 and M.03.01 for surface course Class I-1.

4. Processed Gravel Base: Gravel base shim course in accordance with State of Rhode Island Standard Specification, Subsection M01.09, meeting the gradation requirements of Table -1, Column 1, with 100% passing 3-inch Square Mesh Sieves.

### PART 3 - EXECUTION

#### 3.1 EXAMINATION

- A. Verify that subgrade is dry and in suitable condition to begin paving.
- B. Proceed with paving only after unsatisfactory conditions have been corrected.

#### 3.2 PREPARATION

- A. Protection: Provide protective materials, procedures, and worker training to prevent asphalt materials from spilling, coating, or building up on curbs, driveway aprons, manholes, and other surfaces adjacent to the Work.
- B. Proof-roll subgrade below pavements with heavy pneumatic-tired equipment to identify soft pockets and areas of excess yielding. Do not proof-roll wet or saturated subgrades.
  1. Completely proof-roll subgrade in one direction , repeating proof-rolling in direction perpendicular to first direction. Limit vehicle speed to **3 mph**.
  2. Proof roll with a loaded 10-wheel, tandem-axle dump truck weighing not less than **15 tons**.
  3. Excavate soft spots, unsatisfactory soils, and areas of excessive pumping or rutting, as determined by Architect, and replace with compacted backfill or fill as directed.

#### 3.3 REPAIRS

- A. Crack and Joint Filling: Remove existing joint filler material from cracks or joints to a depth of **1/4 inch** .
  1. Clean cracks and joints in existing hot-mix asphalt pavement.
  2. Use emulsified-asphalt slurry to seal cracks and joints less than **1/4 inch** wide. Fill flush with surface of existing pavement and remove excess.
  3. Use hot-applied joint sealant to seal cracks and joints more than **1/4 inch** wide. Fill flush with surface of existing pavement and remove excess.

#### 3.4 SURFACE PREPARATION

- A. Immediately before placing asphalt materials, remove loose and deleterious material from substrate surfaces. Ensure that prepared subgrade is ready to receive paving.

### 3.5 PLACING HOT-MIX ASPHALT

- A. Machine place hot-mix asphalt on prepared surface, spread uniformly, and strike off. Place asphalt mix by hand in areas inaccessible to equipment in a manner that prevents segregation of mix. Place each course to required grade, cross section, and thickness when compacted.
  - 1. Place hot-mix asphalt base course in number of lifts and thicknesses indicated.
  - 2. Spread mix at a minimum temperature of **250 deg F**.
  - 3. Begin applying mix along centerline of crown for crowned sections and on high side of one-way slopes unless otherwise indicated.
  - 4. Regulate paver machine speed to obtain smooth, continuous surface free of pulls and tears in asphalt-paving mat.
- B. Place paving in consecutive strips not less than **10 feet** wide unless infill edge strips of a lesser width are required.
  - 1. After first strip has been placed and rolled, place succeeding strips and extend rolling to overlap previous strips. Overlap mix placement about **1 to 1-1/2 inches** from strip to strip to ensure proper compaction of mix along longitudinal joints.
  - 2. Complete a section of asphalt base course before placing asphalt surface course.
- C. Promptly correct surface irregularities in paving course behind paver. Use suitable hand tools to remove excess material forming high spots. Fill depressions with hot-mix asphalt to prevent segregation of mix; use suitable hand tools to smooth surface.

### 3.6 JOINTS

- A. Construct joints to ensure a continuous bond between adjoining paving sections. Construct joints free of depressions, with same texture and smoothness as other sections of hot-mix asphalt course.
  - 1. Clean contact surfaces and apply tack coat to joints.
  - 2. Offset longitudinal joints, in successive courses, a minimum of **6 inches**.
  - 3. Offset transverse joints, in successive courses, a minimum of **24 inches**.
  - 4. Compact joints as soon as hot-mix asphalt will bear roller weight without excessive displacement.
  - 5. Compact asphalt at joints to a density within 2 percent of specified course density.

### 3.7 COMPACTION

- A. General: Begin compaction as soon as placed hot-mix paving will bear roller weight without excessive displacement. Compact hot-mix paving with hot, hand tampers or with vibratory-plate compactors in areas inaccessible to rollers.
  - 1. Complete compaction before mix temperature cools to **185 deg F**.



- B. Breakdown Rolling: Complete breakdown or initial rolling immediately after rolling joints and outside edge. Examine surface immediately after breakdown rolling for indicated crown, grade, and smoothness. Correct laydown and rolling operations to comply with requirements.
- C. Intermediate Rolling: Begin intermediate rolling immediately after breakdown rolling while hot-mix asphalt is still hot enough to achieve specified density. Continue rolling until hot-mix asphalt course has been uniformly compacted to the following density:
  - 1. Average Density: 96 percent of reference laboratory density according to ASTM D 6927 , but not less than 94 percent or greater than 100 percent.
  - 2. Average Density: 92 percent of reference maximum theoretical density according to ASTM D 2041/D 2041M, but not less than 90 percent or greater than 96 percent.
- D. Finish Rolling: Finish roll paved surfaces to remove roller marks while hot-mix asphalt is still warm.
- E. Edge Shaping: While surface is being compacted and finished, trim edges of pavement to proper alignment. Bevel edges while asphalt is still hot; compact thoroughly.
- F. Repairs: Remove paved areas that are defective or contaminated with foreign materials and replace with fresh, hot-mix asphalt. Compact by rolling to specified density and surface smoothness.
- G. Protection: After final rolling, do not permit vehicular traffic on pavement until it has cooled and hardened.
- H. Erect barricades to protect paving from traffic until mixture has cooled enough not to become marked.

### 3.8 INSTALLATION TOLERANCES

- A. Pavement Thickness: Compact each course to produce the thickness indicated within the following tolerances:
  - 1. Base Course: Plus or minus **1/2 inch**.
  - 2. Surface Course: Plus **1/4 inch**, no minus.
- B. Pavement Surface Smoothness: Compact each course to produce a surface smoothness within the following tolerances as determined by using a **10-foot** straightedge applied transversely or longitudinally to paved areas:
  - 1. Base Course: **1/4 inch** .
  - 2. Surface Course: **1/8 inch** .

END OF SECTION 321216



## SECTION 321723 - PAVEMENT MARKINGS

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

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

#### 1.2 SUMMARY

- A. Section Includes:
  - 1. Painted markings applied to asphalt paving.

#### 1.3 PREINSTALLATION MEETINGS

- A. Preinstallation Conference: Conduct conference at Project site .
  - 1. Review methods and procedures related to marking asphalt paving or concrete surfaces including, but not limited to, the following:
    - a. Review requirements for protecting pavement markings, including restriction of traffic during installation period.

#### 1.4 ACTION SUBMITTALS

- A. Product Data: Include technical data and tested physical and performance properties.
  - 1. Pavement-marking paint, solvent-borne.
  - 2. Glass beads.
- B. Shop Drawings:
  - 1. Indicate pavement markings, colors, lane separations, defined parking spaces, and dimensions to adjacent work.
  - 2. Indicate, with international symbol of accessibility, spaces allocated for people with disabilities.
- C. Samples: For each exposed product and for each color and texture specified; on rigid backing, **8 inches** square.



## 1.5 QUALITY ASSURANCE

- A. Regulatory Requirements: Comply with materials, workmanship, and other applicable requirements of Rhode Island Department of Transportation (RIDOT) of Section T.20 for pavement-marking work.
  - 1. Measurement and payment provisions and safety program submittals included in standard specifications do not apply to this Section.

## 1.6 FIELD CONDITIONS

- A. Environmental Limitations: Proceed with pavement marking only on clean, dry surfaces and at a minimum ambient or surface temperature of 55 deg F for water-based materials, and not exceeding 95 deg F.

## PART 2 - PRODUCTS

### 2.1 MANUFACTURERS

- A. Manufacturers: Subject to compliance with requirements, provide products by the following:
  - 1. Sherwin-Williams Company (The).
- B. Source Limitations: Obtain pavement-marking paints from single source from single manufacturer.

### 2.2 PERFORMANCE REQUIREMENTS

- A. Accessibility Standard: Comply with applicable provisions in the USDOJ's "2010 ADA Standards for Accessible Design" the ABA standards of the Federal agency having jurisdiction and ICC A117.1 .

### 2.3 PAVEMENT-MARKING PAINT

- A. Pavement-Marking Paint, Solvent-Borne: MPI #32, solvent-borne traffic-marking paint.
  - 1. Color: White .
- B. Glass Beads: AASHTO M 247, Type 1 or FS TT-B-1325D, Type 1 , made of 100 percent recycled glass.
  - 1. Roundness: Minimum 80 percent true spheres by weight.



### PART 3 - EXECUTION

#### 3.1 EXAMINATION

- A. Verify that pavement-marking substrate is dry and in suitable condition to begin pavement marking in accordance with manufacturer's written instructions.
- B. Proceed with pavement marking only after unsatisfactory conditions have been corrected.

#### 3.2 PAVEMENT MARKING

- A. Do not apply pavement-marking paint until layout, colors, and placement have been verified with Architect.
- B. Allow asphalt paving or concrete surfaces to age for a minimum of 30 days before starting pavement marking.
- C. Sweep and clean surface to eliminate loose material and dust.
- D. Apply paint with mechanical equipment to produce pavement markings, of dimensions indicated, with uniform, straight edges. Apply at manufacturer's recommended rates to provide a minimum wet film thickness of **15 mils** .
  - 1. Apply graphic symbols and lettering with paint-resistant, die-cut stencils, firmly secured to asphalt paving or concrete surface. Mask an extended area beyond edges of each stencil to prevent paint application beyond stencil. Apply paint so that it cannot run beneath stencil.
  - 2. Broadcast glass beads uniformly into wet markings at a rate of **6 lb/gal.**.

#### 3.3 PROTECTING AND CLEANING

- A. Protect pavement markings from damage and wear during remainder of construction period.
- B. Clean spillage and soiling from adjacent construction using cleaning agents and procedures recommended by manufacturer of affected construction.

END OF SECTION 321723



## SECTION 321816.13 - PLAYGROUND PROTECTIVE SURFACING

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General Requirements, apply to this Section.

#### 1.2 SUMMARY

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

#### 1.3 DEFINITIONS

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

#### 1.4 ACTION SUBMITTALS

- A. Product Data: For each type of product.
- B. Samples for Initial Selection: For each type of exposed finish.
- C. Samples for Verification: For each type of protective surfacing and exposed finish.
  - 1. Loose-Fill Surfacing: Minimum 1 quart.

#### 1.5 INFORMATIONAL SUBMITTALS

- A. Qualification Data: For Installer and testing agency.
- B. Material Certificates: For each type of loose-fill surfacing.



## 1.6 QUALITY ASSURANCE

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

## 1.7 WARRANTY

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

## PART 2 - PRODUCTS

### 2.1 MANUFACTURERS

- A. Source Limitations: Obtain protective surfacing materials , including loose-fill accessories, from single source from single manufacturer.

### 2.2 PERFORMANCE REQUIREMENTS

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

### 2.3 ORGANIC LOOSE-FILL SURFACING

- A. Engineered Wood Fiber: ASTM F 2075; containing no bark, leaves, twigs, or foreign or toxic materials ; tested for accessibility according to ASTM F 1951.
  - 1. Critical Height: 9'-9"
  - 2. Uncompressed Material Depth: Not less than as required for critical height indicated .

## PART 3 - EXECUTION

### 3.1 EXAMINATION

- A. Examine substrates, areas, and conditions, with Installer present, for compliance with requirements for subgrade elevations, slope, and drainage and for other conditions affecting performance of the Work.



1. Verify that substrates are sound and without high spots, ridges, holes, and depressions.
- B. Hard-Surface Substrates: Verify that substrates are satisfactory for unitary, protective surfacing installation and that substrate surfaces are dry, cured, and uniformly level within recommended tolerances according to protective surfacing manufacturer's written requirements for cross-section profile.
- C. Proceed with installation only after unsatisfactory conditions have been corrected.

### 3.2 PREPARATION

- A. Prepare substrates to receive surfacing products according to protective surfacing manufacturer's written instructions.
- B. Hard-Surface Substrates: Clean surface free of laitance, efflorescence, curing compounds, and other contaminants incompatible with protective surfacing.
  1. Repair: Fill holes and depressions in unsatisfactory surfaces with leveling and patching material.
  2. Treatment: Mechanically abrade or otherwise prepare concrete substrates according to protective surfacing manufacturer's written instructions to achieve adequate roughness.

### 3.3 INSTALLATION OF LOOSE-FILL SURFACING

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

END OF SECTION 321816.13



## SECTION 323300 - SITE FURNISHINGS

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

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

#### 1.2 SUMMARY

- A. Section Includes:
  - 1. Seating.
  - 2. Trash receptacles.

#### 1.3 ACTION SUBMITTALS

- A. A. Manufacturer's Literature: Submit copies of each of manufacturer's material descriptions, dimensions, details, and installation instructions for the following. Submit manufacturer's material descriptions for primer coat and finish coat.

#### 1.4 INFORMATIONAL SUBMITTALS

- A. Complete Shop Drawings for the following: 1. Shop Drawings for installation of 6' bench with back

#### 1.5 CLOSEOUT SUBMITTALS

- A. Maintenance Data: For site furnishings to include in maintenance manuals.
- B. The Contractor shall furnish and deliver standard written manufacturer's guarantee in Owner's name covering all materials and workmanship under this Section 323300, Site Furnishings, in addition to, and not in lieu of, guarantee requirements set forth under Section 010000, GENERAL REQUIREMENTS, and other liabilities which the Contractor may have by law or other provisions of the Contract Documents.
- C. Supplier shall pay for repairs of any damage to any part of the project caused by defects in his work and for any repair to the materials or equipment caused by replacement. All repairs are to be done to the satisfaction of the Owner's Representative.
- D. Any part of the work installed under this contract requiring excessive maintenance shall be considered as being defective, and shall be replaced by the Supplier during the one year guarantee period at no cost to the Owner.



## PART 2 - PRODUCTS

### 2.1 SEATING

- A. 72" long bench with backrest, direct bury, recycled HDPE color: cedar with black supports, (model #88-60PL) as manufactured by Dumor, Inc P.O. Box 142 Mifflintown, PA 17059 or approved equal

### 2.2 TRASH RECEPTACLES

- A. 24" x 32" round black steel trash receptacle with dome lid surface mount Model # 26BTR5/ETR55/DL3 as manufactured by The Cary Company.

### 2.3 FABRICATION

- A. Factory Assembly: Factory assemble components to greatest extent possible to minimize field assembly. Clearly mark units for assembly in the field.

### 2.4 GENERAL FINISH REQUIREMENTS

- A. Appearance of Finished Work: Noticeable variations in same piece are unacceptable. Variations in appearance of adjoining components are acceptable if they are within the range of approved Samples and are assembled or installed to minimize contrast.

## PART 3 - EXECUTION

### 3.1 EXAMINATION

- A. Examine areas and conditions, with Installer present, for compliance with requirements for correct and level finished grade, mounting surfaces, installation tolerances, and other conditions affecting performance of the Work.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

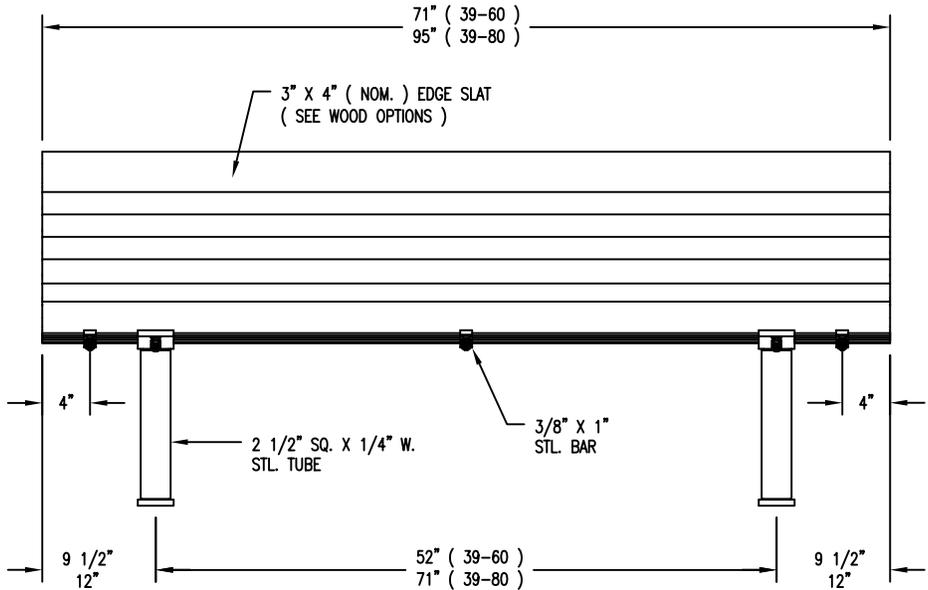
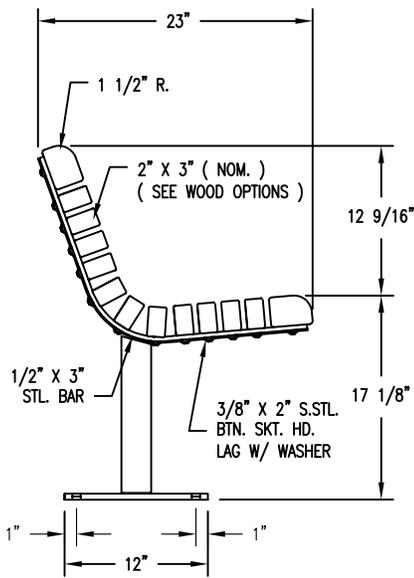
### 3.2 INSTALLATION

- A. Comply with manufacturer's written installation instructions unless more stringent requirements are indicated. Complete field assembly of site furnishings where required.
- B. All metal inserts, anchor slots, anchors, anchor bolts, fastenings, and other fastening devices, for attachment of site improvement items to pavements, except as otherwise specified under other Sections of this Specification, shall be in specified, provided, delivered installed and paid for under the work of this Section 02800, Site Furnishings.

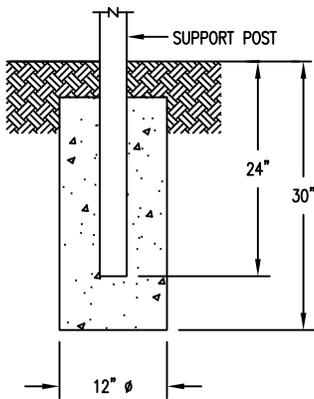


- C. Unless otherwise indicated, install site furnishings after landscaping and paving have been completed.
- D. Free-standing site improvement items shall be set plumb and horizontal regardless of the pitch of the finished surrounding grade unless otherwise shown on the Contract Documents.
- E. The Contractor shall be responsible for timing the delivery of site improvement items so as to minimize the on-site storage time prior to installation. All stored materials are the responsibility of the Contractor and shall be protected from weather, careless handling and vandalism.
- F. Contractor shall be responsible for the correct location of site improvement items. Take particular care to maintain shapes, plumb and level during the pouring of concrete.
- G. All Work shall be accurately set to established lines and elevations and rigidly set in place to supporting construction.
- H. Install site furnishings level, plumb, true, and positioned at locations approved in the field by Owner's Representative.
- I. Post Setting: Set cast-in support posts in concrete footing with smooth top, shaped to shed water. Protect portion of posts above footing from concrete splatter. Verify that posts are set plumb or at correct angle and are aligned and at correct height and spacing. Hold posts in position during placement and finishing operations until concrete is sufficiently cured.
- J. Posts Set into Voids in Concrete: Form or core-drill holes for installing posts in concrete to depth recommended in writing by manufacturer of site furnishings and **3/4 inch** larger than OD of post. Clean holes of loose material, insert posts, and fill annular space between post and concrete with nonshrink, nonmetallic grout or anchoring cement, mixed and placed to comply with anchoring material manufacturer's written instructions, with top smoothed and shaped to shed water.

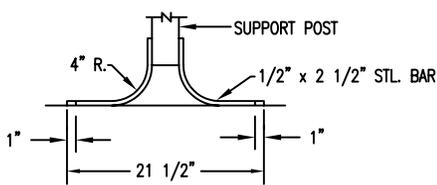
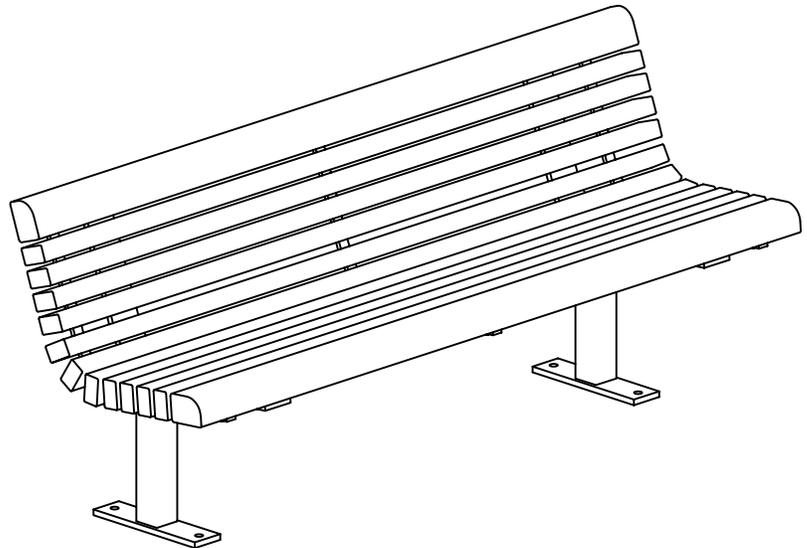
END OF SECTION 323300



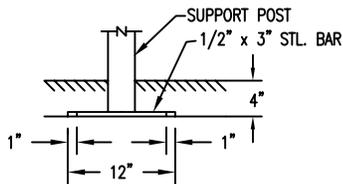
S-2 SURFACE



S-1 EMBEDMENT



S-3 GULL WING



S-4 SUB FLOOR

LENGTH OPTIONS

- 6' BENCH
- 8' BENCH

NOTES

- 1.) ALL STL. MEMBERS COATED W/ ZINC RICH EPOXY THEN FINISHED W/ POLYESTER POWDER COATING.
- 2.) ALL WOOD MEMBERS TREATED W/ CLEAR PRESERVATIVE.
- 3.) 1/2" X 3 3/4" EXPANSION BOLTS PROVIDED FOR S-2, S-3 & S-4 OPTIONS.

WOOD OPTIONS

- 'C' & BTR. DOUGLAS FIR KD S4S EE
- IPE S4S EE
- OTHER \_\_\_\_\_

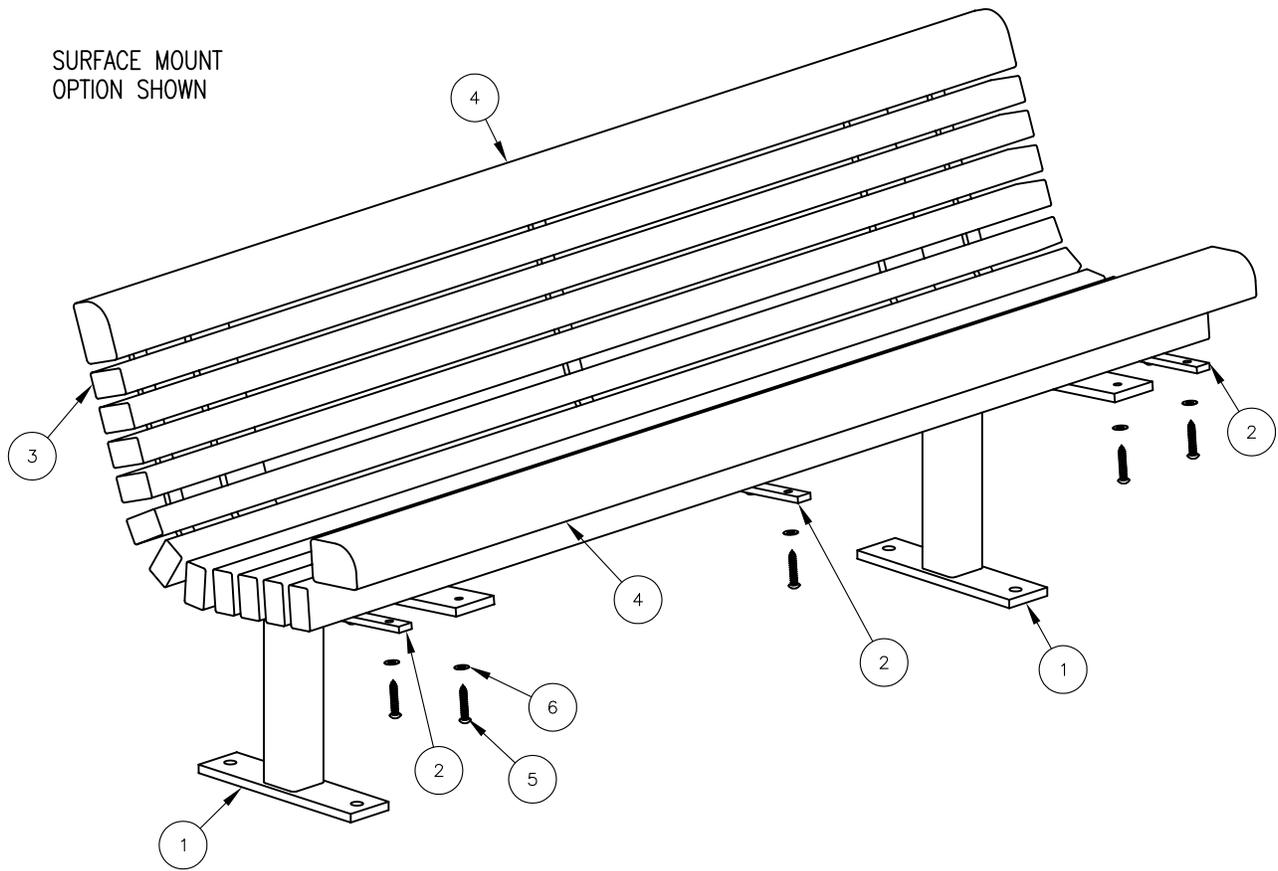
**DuMor, inc.**  
 P.O. Box 142 Mifflintown, PA 17059-0142

SCALE : NONE  
 DATE DRAWN : 3/24/94  
 DRAWN BY : AH  
 DATE REV. : 10/26/11  
 REV. BY : ESS

TITLE : BENCH  
 REV. E  
 DRAWING NUMBER : 39 SERIES

SHEET 1 OF 2

SURFACE MOUNT  
OPTION SHOWN



**STEP 1:**

- USE 2 - PCS. SEAT SUPPORT FOR SURFACE MOUNT ( 1 )
- 2 - PCS. 3" X 4" X 71" WOOD EDGE SLAT ( 4 )
- 11 - PCS. 2" X 3" X 71" WOOD INT'R SLAT ( 3 )
- 26 - PCS. 3/8" X 2" SS. BTN. SKT. HD. LAG SCR. ( 5 )
- 26 - PCS. 3/8" SS. FLAT WASHER ( 6 )

ATTACH SLATS ( 3 & 4 ) TO SEAT SUPPORT FOR SURFACE MOUNT ( 1 ) USING HARDWARE ( 5 & 6 ). TIGHTEN TO SNUG FIT. REPEAT UNTIL ALL SLATS ARE ATTACHED.

**STEP 2:**

- USE 3 - PCS. CONTOUR STRAP ( 2 )
- 39 - PCS. 3/8" X 2" SS. BTN. SKT. HD. LAG SCR. ( 5 )
- 39 - PCS. 3/8" SS. FLAT WASHER ( 6 )

ATTACH CONTOUR STRAP ( 2 ) TO STEP 1 ASSEMBLY USING HARDWARE ( 5 & 6 ). TIGHTEN TO SNUG FIT.

**STEP 3:**

UPON COMPLETION OF BENCH ASSEMBLY SQUARE ALL COMPONENTS THEN TIGHTEN ALL HARDWARE.

**STEP 4:**

ANCHOR ACCORDING TO SUPPORT OPTION USED.

**NOTE:**

- 1.) DURING ASSEMBLY PROCEDURE;  
DO NOT COMPLETELY TIGHTEN HARDWARE.
- 2.) THE ACTUAL PARTS WILL NOT BE NUMBERED;  
NUMBERS ONLY APPLY TO DRAWING.
- 3.) SEE SPEC. SHEET 1 FOR MOUNTING OPTION.

ITEM	QTY	PART NO	DESCRIPTION
1	2	0-39-00-03/S-2	SUPPORT FOR SURFACE MT
2	3	0-39-00-04	CONTOUR STRAP
3	11	0-39-60-01	2" X 3" X 71" WOOD SLAT
4	2	0-39-60-02	3" X 4" X 71" WOOD EDGE SLAT
5	65	1-13-016	3/8" X 2" SS BTN SKT HD LAG SCR
6	65	1-22-024	3/8" SS FLAT WASHER

**DuMor, inc.**  
P.O. Box 142 Mifflintown, PA 17059-0142

SCALE : NONE  
DATE DRAWN : 3/24/94  
DRAWN BY : AH  
DATE REV. : 12/15/08  
REV. BY : ESS

TITLE : BENCH ASSEMBLY

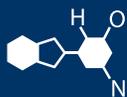
REV. D

DRAWING NUMBER

39 SERIES

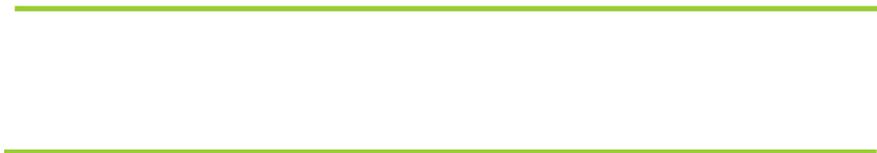
SHEET 2 OF 2

# IF YOU...



MIX IT. FILL IT. PACK IT. SHIP IT.

# WE HAVE A PRODUCT FOR YOU



Part #

26BTRD

Color

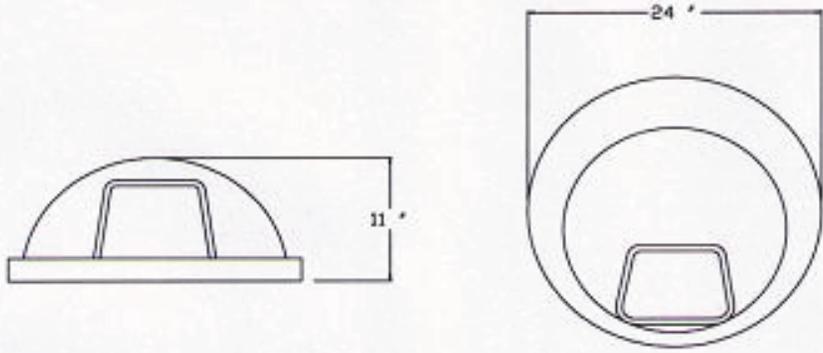
Black

Material

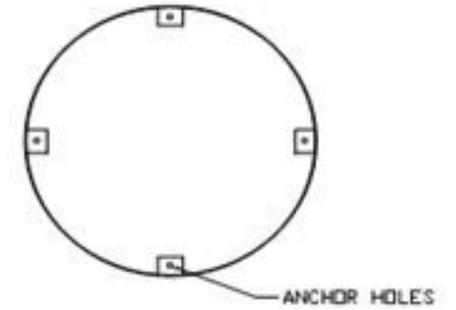
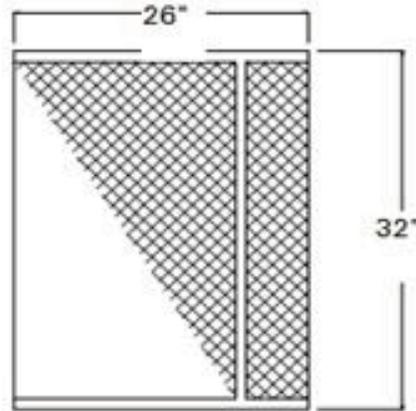
Steel



Note: 55 gallon barrel is required for DL32 to fit with the E TR55 apparatus



Dome Lid is stamped steel for strength and rigidity. Features a lightweight anodized door flap, hinged at top center with hard plastic surround.



**ETR55 with DL32 (55 gallon)**

*Shown with separately priced dome lid. (Container must have 55 gallon drum liner for dome lid to rest on.)*

**Materials:**

- 3/4" 9 gauge expanded metal wrap**
- 12 gauge vertical support bands**
- 12 gauge formed horizontal support bands**

**Unit is designed for portable or "bolt down" application. Unit should be secured to a location with use of the four (4) anchor holes.**

DMF	55 GALLON TRASH RECEPTACLE
4/9/2009	<b>ETR55 / DL32</b>
	 Supplied By: <b>The Cary Company</b> Ph: 630-629-6600 www.thecarycompany.com
ETR55.OVV	



## SECTION 329113 - SOIL PREPARATION

### PART 1 - GENERAL

#### 1.1 1.1 DESCRIPTION OF WORK

- A. Provide all materials, equipment and labor necessary to complete the work as indicated on the drawings or as specified herein.
- B. The principal work of this section includes, but may not be limited to, the following:
  - 1. Grading and Spreading Loam.
  - 2. Preparations of Areas for Seeding.

#### 1.2 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General Requirements, apply to this Section.

#### 1.3 SUMMARY

- A. Related Requirements:
  - 1. Section 329200 "Turf and Grasses" for placing planting soil for turf and grasses.

#### 1.4 ACTION SUBMITTALS

- A. Certified analysis and source of off-site loam to be provided. Certification shall list soil additives to loam including rates and type.
- B. Product Data: For each type of product.
  - 1. Include recommendations for application and use.
  - 2. Include test data substantiating that products comply with requirements.
  - 3. Include sieve analyses for aggregate materials.
- C. Samples: For each bulk-supplied material, 1-quart volume of each in sealed containers labeled with content, source, and date obtained. Each Sample shall be typical of the lot of material to be furnished; provide an accurate representation of composition, color, and texture.

#### 1.5 QUALITY ASSURANCE

- A. Contractor shall specialize in work outlined with a minimum of five (5) years experience on similar projects.



- B. Do not make substitutions without written approval. If specified materials are not available, obtain approval for substitution from the Owner's Representative.

#### 1.6 DELIVERY, STORAGE, AND HANDLING

- A. Packaged Materials: Deliver packaged materials in original, unopened containers showing weight, certified analysis, name and address of manufacturer, and compliance with state and Federal laws if applicable.
- B. Bulk Materials:
  - 1. Do not dump or store bulk materials near structures, utilities, walkways and pavements, or on existing turf areas or plants.
  - 2. Provide erosion-control measures to prevent erosion or displacement of bulk materials, discharge of soil-bearing water runoff, and airborne dust reaching adjacent properties, water conveyance systems, or walkways.
  - 3. Do not move or handle materials when they are wet or frozen.

### PART 2 - PRODUCTS

#### 2.1 CLEAN SCREENED LOAM

- A. Loam shall consist of screened fertile, loose, friable fine sandy loam or sandy loam free of subsoil, refuse, stumps, roots, rocks, cobbles, stones, brush, noxious weeds, litter and other materials which are larger than one inch (1") in any dimension and which will prevent healthy plant growth. Organic matter shall constitute not less than five percent (5%) nor more than twenty percent (20%) as determined by wet combustion method (Chromic acid reduction). The Contractor shall notify the Owner or Owner's Representative of the intended source of loam to be employed at least two (2) weeks prior to the intended time of use to allow time for sampling.
- B. Loam shall possess good filtration and permeability rates, and shall possess a mechanical analysis where: N 85% of sand size is 0.5 to 1.0 mm and N 95% of sand mix is between 0.5 and 2.0 mm and no more than 5% of mix is less than 0.5 mm.
- C. Acidity range of approximately pH 5.5 to 7.5 when tested according to methods of testing or A.O.A.C. and organic content not less than 5% nor more than 20% as determined by wet combustion method (Chromic acid reduction).

#### 2.2 LIMESTONE

- A. Dolomitic limestone contain up to 50% magnesium carbonate in a dry, granular form. Limestone shall be ground to such a fineness that at least 50% will pass through a 100-mesh sieve and 90% to 100% will pass through a 20-mesh sieve.



### 2.3 JUTE MESH

- A. Where indicated on the Plans, Jute mesh shall be uniform, open, plain weave of undyed and unbleached single jute yarn, a minimum of four (4) feet in width plus or minus one (1) inch. There shall be 78 warp ends per width and 41 weft ends per yard. Weight shall average 1.22 pounds per linear yard, plus or minus 5%.
- B. Staples for Erosion Control Materials: 9 gauge staples shall be used with jute mesh: 11 gauge with woven paper.

### 2.4 WATER

- A. Clean, fresh, potable water.

## PART 3 - EXECUTION

### 3.1 GRADING AND SPREADING LOAM

- A. Remove all debris and other inorganic materials on any prepared subgrades, and reshape and dress any damaged or eroded slopes, swales, and other areas. Scarify and loosen subgrade to a friable condition in any areas where compaction may have occurred. Loam shall not be placed until subgrade is in suitable condition and free of excessive moisture or frozen materials.
- B. Loam shall be spread as required on all disturbed and bare areas to produce an even depth as shown on the Plans. Fill all depressions in existing grades with suitable fill material as specified in Section 312000 prior to spreading loam, then shape and finish grade to depth of loam required.
- C. Area shall be progressively fine graded and machine and hand raked, with loam added as required to correct depressions and other irregularities, to produce smooth and unbroken finish grades and the depth of loam required.
- D. Drawings show grading design intent to achieve a uniform grade not less than 1.25% slope. Finish grades shall conform to lines, grades, sections, and shapes of lawn areas as required. Final grade shall provide positive drainage across all grassed lawn and field areas. Provide smooth, uniform, smooth transitions at all changes and break in grade. Loam is to be held to a consistent depth of 1/2" below adjacent pavements surfaces.
- E. Starter fertilizers: All required materials shall be spread and distributed into the soil at rates and amounts specified herein.
- F. After establishment of finish grade, entire area shall be hand raked and rolled using a light roller.



### 3.2 PREPARATION OF AREAS FOR SEEDING

- A. GENERAL DESCRIPTION: This work shall consist of the preparation of the seed bed. Work shall be done as described herein:
  - 1. Areas shall be finely raked to a finished grade. Substantially, all sticks, litter, wire, weeds, cable or stones larger than one (1") inch in greater dimension shall be removed and disposed of as directed.
  - 2. Where the soil has become compacted, prior to fine raking, areas to be seeded shall be scarified by discing, yolk raking, or other approved method to a minimum depth of three (3) inches.
  - 3. No seeding will be permitted on areas where the seed bed has not been properly prepared or where the soil is compacted.
  - 4. Request inspection of the work for approval before proceeding with seeding operations.

### 3.3 APPLICATION OF LIMESTONE

- A. When applied dry, limestone shall be spread evenly and incorporated thoroughly into the soil by discing or other approved means.
- B. When applied hydraulically, no discing will be necessary.
- C. Granular treatment to be applied at the rate of 25 to 50 lbs. per 1,000 square feet or as required by soil pH test to produce a pH of 6.0 to 6.5.

### 3.4 APPLICATION OF STARTER AND MAINTENANCE FERTILIZER

- A. One application of turf maintenance fertilizer will be required before final acceptance of seeded areas.
- B. Fertilizer shall be Organic-based and be OMRI (Organic Materials Review Institute) Certified
- C. Application Rate: Apply 2-3 pounds per 100 square feet.
- D. Fertilizer shall be applied at a time, which shall be requested in writing by the Contractor, and approved in writing by the Owner's representative.

### 3.5 APPLYING JUTE MESH

- A. Apply jute mesh loosely but smoothly to fit the contour of the finished grade, parallel to and in same direction as the flow of water. The up-slope end of the each separate strip or piece of jute mesh shall be buried in a six (6) inch minimum vertical anchor slot of junction slot with the soil tamped firmly against the mesh. Where more than one width of material is required, edges shall overlap a minimum of twelve (12) inches, and the up-slope section of mesh will be on top. Down-hill ends of the jute mesh shall be folded under approximately four (4) inches and stapled in place. Staples will be inserted through the mesh along edges, overlaps, and in the center of all jute mesh strips at intervals not greater than three (3) feet. All anchor slots, junction slots, check

slots, and terminal folds shall have five (5) staples spaced not more than nine (9) inches on center across widths.

- B. On seeded banks, jute shall be applied immediately after seeding. On shrub banks, apply jute after finish grading. Cut openings in mesh for each plant and plant and mulch as specified.

### 3.6 GENERAL

- A. Place planting soil and fertilizers according to requirements in other Specification Sections.
- B. Verify that no foreign or deleterious material or liquid such as paint, paint washout, concrete slurry, concrete layers or chunks, cement, plaster, oils, gasoline, diesel fuel, paint thinner, turpentine, tar, roofing compound, or acid has been deposited in planting soil.
- C. Proceed with placement only after unsatisfactory conditions have been corrected.

### 3.7 PREPARATION OF UNAMENDED, ON-SITE SOIL BEFORE AMENDING

- A. Excavation: Excavate soil from designated area(s) to a depth of 12 inches and stockpile until amended.
- B. Unacceptable Materials: Clean soil of concrete slurry, concrete layers or chunks, cement, plaster, building debris, oils, gasoline, diesel fuel, paint thinner, turpentine, tar, roofing compound, acid, and other extraneous materials that are harmful to plant growth.
- C. Unsuitable Materials: Clean soil to contain a maximum of 8 percent by dry weight of stones, roots, plants, sod, clay lumps, and pockets of coarse sand.
- D. Screening: Pass unamended soil through a **3-inch** sieve to remove large materials.

### 3.8 PROTECTION

- A. Protect areas of in-place soil from additional compaction, disturbance, and contamination. Prohibit the following practices within these areas except as required to perform planting operations:
  - 1. Storage of construction materials, debris, or excavated material.
  - 2. Parking vehicles or equipment.
  - 3. Vehicle traffic.
  - 4. Foot traffic.
  - 5. Excavation or other digging unless otherwise indicated.
- B. If planting soil or subgrade is overcompacted, disturbed, or contaminated by foreign or deleterious materials or liquids, remove the planting soil and contamination; restore the subgrade as directed by Architect and replace contaminated planting soil with new planting soil.



3.9 CLEANING

- A. Protect areas adjacent to planting-soil preparation and placement areas from contamination. Keep adjacent paving and construction clean and work area in an orderly condition.
- B. Remove surplus soil and waste material including excess subsoil, unsuitable materials, trash, and debris and legally dispose of them off Owner's property unless otherwise indicated.
  - 1. Dispose of excess subsoil and unsuitable materials on-site where directed by Owner.

END OF SECTION 329113



## SECTION 329200 - TURF AND GRASSES

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General Conditions, apply to this Section.

#### 1.2 SUMMARY

- A. Section Includes:
  - 1. Seeding.
  - 2. Hydroseeding.

#### 1.3 DEFINITIONS

- A. Finish Grade: Elevation of finished surface of planting soil.
- B. Pests: Living organisms that occur where they are not desired or that cause damage to plants, animals, or people. Pests include insects, mites, grubs, mollusks (snails and slugs), rodents (gophers, moles, and mice), unwanted plants (weeds), fungi, bacteria, and viruses.
- C. Planting Soil: Existing, on-site soil; imported soil; or manufactured soil that has been modified with soil amendments and perhaps fertilizers to produce a soil mixture best for plant growth. See Section 329113 "Soil Preparation" and drawing designations for planting soils.
- D. Subgrade: The surface or elevation of subsoil remaining after excavation is complete, or the top surface of a fill or backfill before planting soil is placed.

#### 1.4 PRE CONSTRUCTION MEETINGS

- A. Pre Construction Conference: Conduct conference at Project site .

#### 1.5 INFORMATIONAL SUBMITTALS

- A. Certification of Grass Seed: From seed vendor for each grass-seed monostand or mixture, stating the botanical and common name, percentage by weight of each species and variety, and percentage of purity, germination, and weed seed. Include the year of production and date of packaging.
  - 1. Certification of each seed mixture for turf grass . Include identification of source and name and telephone number of supplier.



- B. Product Certificates: For fertilizers, from manufacturer.

#### 1.6 DELIVERY, STORAGE, AND HANDLING

- A. Seed and Other Packaged Materials: Deliver packaged materials in original, unopened containers showing weight, certified analysis, name and address of manufacturer, and indication of compliance with state and Federal laws, as applicable.
- B. Bulk Materials:
  - 1. Do not dump or store bulk materials near structures, utilities, walkways and pavements, or on existing turf areas or plants.
  - 2. Provide erosion-control measures to prevent erosion or displacement of bulk materials; discharge of soil-bearing water runoff; and airborne dust reaching adjacent properties, water conveyance systems, or walkways.
  - 3. Accompany each delivery of bulk materials with appropriate certificates.

#### 1.7 FIELD CONDITIONS

- A. Planting Restrictions: Plant during one of the following periods. Coordinate planting periods with initial maintenance periods to provide required maintenance from date of Substantial Completion .
  - 1. Spring Planting: April 1 - May 31 .
  - 2. Fall Planting: August 15- October 15 .
- B. Weather Limitations: Proceed with planting only when existing and forecasted weather conditions permit planting to be performed when beneficial and optimum results may be obtained. Apply products during favorable weather conditions according to manufacturer's written instructions.

### PART 2 - PRODUCTS

#### 2.1 SEED

- A. Grass Seed: Fresh, clean, dry, new-crop seed complying with AOSA's "Rules for Testing Seeds" for purity and germination tolerances.
- B. Seed Species:
  - 1. Quality: State-certified seed of grass species as listed below for solar exposure.
  - 2. Seed mix for all areas shall conform to Rhode Island State Park Mix with the following grass types and percentages:
    - a. 70% Creeping Red Fescue
    - b. 15% Kentucky Blue grass
    - c. 15 % perennial ryegrass (*Lolium perenne*).



## 2.2 MEADOW GRASSES AND WILDFLOWERS

- A. Wildflower and Native-Grass Seed: Fresh, clean, and dry new seed, of mixed species as follows:
  - 1. Michigan Wildflower Farm Raingarden Seed Mix 40% Forbs, 60% Grasses/Sedge/Rush.
- B. Seed Carrier: Inert material, sharp clean sand or perlite.

## 2.3 FERTILIZERS

- A. Slow-Release Fertilizer: Granular or pelleted fertilizer consisting of 50 percent water-insoluble nitrogen, phosphorus, and potassium in the following composition:
  - 1. Composition: 20 percent nitrogen, 10 percent phosphorous, and 10 percent potassium, by weight.
  - 2. Composition: Nitrogen, phosphorous, and potassium in amounts recommended in soil reports from a qualified soil-testing laboratory.

## PART 3 - EXECUTION

### 3.1 EXAMINATION

- A. Examine areas to be planted for compliance with requirements and other conditions affecting installation and performance of the Work.
  - 1. Verify that no foreign or deleterious material or liquid such as paint, paint washout, concrete slurry, concrete layers or chunks, cement, plaster, oils, gasoline, diesel fuel, paint thinner, turpentine, tar, roofing compound, or acid has been deposited in soil within a planting area.
  - 2. Suspend planting operations during periods of excessive soil moisture until the moisture content reaches acceptable levels to attain the required results.
  - 3. Uniformly moisten excessively dry soil that is not workable or which is dusty.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.
- C. If contamination by foreign or deleterious material or liquid is present in soil within a planting area, remove the soil and contamination as directed by Architect and replace with new planting soil.

### 3.2 PREPARATION

- A. Protect structures; utilities; sidewalks; pavements; and other facilities, trees, shrubs, and plantings from damage caused by planting operations.
  - 1. Protect adjacent and adjoining areas from hydroseeding and hydromulching overspray.
  - 2. Protect grade stakes set by others until directed to remove them.

- B. Install erosion-control measures to prevent erosion or displacement of soils and discharge of soil-bearing water runoff or airborne dust to adjacent properties and walkways.

### 3.3 TURF AREA PREPARATION

- A. Placing Planting Soil: Place and mix planting soil in place over exposed subgrade Blend planting soil in place .
- B. Moisten prepared area before planting if soil is dry. Water thoroughly and allow surface to dry before planting. Do not create muddy soil.
- C. Before planting, obtain Owner representative's acceptance of finish grading; restore planting areas if eroded or otherwise disturbed after finish grading.

### 3.4 SEEDING

- A. Sow seed with spreader or seeding machine. Do not broadcast or drop seed when wind velocity exceeds **5 mph** .
  - 1. Evenly distribute seed by sowing equal quantities in two directions at right angles to each other.
  - 2. Do not use wet seed or seed that is moldy or otherwise damaged.
  - 3. Do not seed against existing trees. Limit extent of seed to outside edge of planting saucer.
- B. Sow seed at a total rate of **3 to 4 lb/1000 sq. ft.** .
- C. Rake seed lightly into top **1/8 inch** of soil, roll lightly, and water with fine spray.
- D. Protect seeded areas from hot, dry weather or drying winds by applying compost mulch within 24 hours after completing seeding operations. Soak areas, scatter mulch uniformly to a thickness of **3/16 inch** , and roll surface smooth.

### 3.5 HYDROSEEDING

- A. Hydroseeding: Mix specified seed, slow-release fertilizer , and fiber mulch in water, using equipment specifically designed for hydroseed application. Continue mixing until uniformly blended into homogeneous slurry suitable for hydraulic application.
  - 1. Mix slurry with nonasphaltic tackifier.
  - 2. Spray-apply slurry uniformly to all areas to be seeded in a one-step process. Apply slurry at a rate so that mulch component is deposited at not less than **1500-lb/acre** dry weight, and seed component is deposited at not less than the specified seed-sowing rate.

### 3.6 TURF MAINTENANCE

- A. General: Maintain and establish turf by watering, fertilizing, weeding, mowing, trimming, replanting, and performing other operations as required to establish healthy, viable turf. Roll,

regrade, and replant bare or eroded areas and remulch to produce a uniformly smooth turf. Provide materials and installation the same as those used in the original installation.

1. Fill in as necessary soil subsidence that may occur because of settling or other processes. Replace materials and turf damaged or lost in areas of subsidence.
2. In areas where mulch has been disturbed by wind or maintenance operations, add new mulch and anchor as required to prevent displacement.
3. Apply treatments as required to keep turf and soil free of pests and pathogens or disease. Use integrated pest management practices whenever possible to minimize the use of pesticides and reduce hazards.

B. Watering: Install and maintain temporary piping, hoses, and turf-watering equipment to convey water from sources and to keep turf uniformly moist to a depth of **4 inches** .

1. Schedule watering to prevent wilting, puddling, erosion, and displacement of seed or mulch. Lay out temporary watering system to avoid walking over muddy or newly planted areas.
2. Water turf with fine spray at a minimum rate of **1 inch** per week unless rainfall precipitation is adequate.

C. Mow turf as soon as top growth is tall enough to cut. Repeat mowing to maintain specified height without cutting more than one-third of grass height. Remove no more than one-third of grass-leaf growth in initial or subsequent mowings. Do not delay mowing until grass blades bend over and become matted. Do not mow when grass is wet. Schedule initial and subsequent mowings to maintain the following grass height:

1. Mow specified seed mix to a height of **1-1/2 to 2 inches** .

### 3.7 SATISFACTORY TURF

A. Turf installations shall meet the following criteria as determined by Architect:

1. Satisfactory Seeded Turf: At end of maintenance period, a healthy, uniform, close stand of grass has been established, free of weeds and surface irregularities, with coverage exceeding 90 percent over any **10 sq. ft.** and bare spots not exceeding **5 by 5 inches** .

B. Use specified materials to reestablish turf that does not comply with requirements, and continue maintenance until turf is satisfactory.

### 3.8 CLEANUP AND PROTECTION

A. Promptly remove soil and debris created by turf work from paved areas. Clean wheels of vehicles before leaving site to avoid tracking soil onto roads, walks, or other paved areas.

B. Remove surplus soil and waste material, including excess subsoil, unsuitable soil, trash, and debris, and legally dispose of them off Owner's property.



- C. Erect temporary fencing or barricades and warning signs as required to protect newly planted areas from traffic. Maintain fencing and barricades throughout initial maintenance period and remove after plantings are established.
- D. Remove nondegradable erosion-control measures after grass establishment period.

END OF SECTION 329200