

# INVITATION TO BID

## **Plymouth District Library: Planting Improvements**

**Due Date:** Monday, July 8, 2024 – 10:30 a.m.

InSite Design Studio, Inc.

**Issued By:**

InSite Design Studio, Inc.

412 Longshore Drive

Ann Arbor, Mi 48105

# INSTRUCTIONS TO BIDDERS

The Plymouth District Library (hereinafter referred to as 'the library') is issuing an invitation to bid for the planting of its front, side, and back areas.

CONTACT: Shannan Gibb-Randall  
734-995-4194  
[sjibb-randall@insite-studio.com](mailto:sjibb-randall@insite-studio.com)

DUE DATE: Monday, July 8, 2024 at 10:30 am  
*Bids received after this time will not be considered.*

## GENERAL

The project includes:

- Mobilization
- Erosion control
- Demolition and removal of site elements
- Site utility work
- Coordination with irrigation contractor
- Lawn replacement
- Tree and shrub planting
- Perennial and vine planting
- One-year plant guarantee period
- Necessary permits

## NOTICE OF ON-SITE PRE-BID MEETING

A mandatory pre-bid meeting for this project will be held on Tuesday June 18, 2024 at 10:30AM at The Plymouth District Library located at 223 S. Main St., Plymouth, MI 48170.

Attendance at this meeting is required to submit a bid. Administrative and technical questions regarding this project will be answered at this time. The pre-bid conference is for information only. Any answers furnished will not be official until verified in writing by the Designer, InSite Design Studio. Answers that change or substantially clarify the bid will be affirmed in an addendum.

## PREPARATION OF BIDS

Bids should be prepared providing a straight-forward, concise description of the Bidder's ability to meet the requirements of the Invitation to Bid (ITB). Bids must be submitted on the "Bid Forms" provided with each blank properly filled in. If forms are not fully completed it may disqualify the bid. No alternative bid will be considered unless alternative bids are specifically requested. If alternatives are requested, any deviation from the specification must be fully described, in detail on the "Alternate" section of Bid form.

Each person signing the Bid certifies that he/she is the person in the Bidder's firm/organization responsible for the decision as to the fees being offered in the Bid and has not and will not participate in any action contrary to the terms of this provision.

The selected bid to complete the planting plans for the library will be informed by the end of the week of July 8, 2024. All other bidders will be notified as well.

## BASIS OF PROPOSAL

Proposals are solicited on a lump sum basis, with informative unit prices, as provided in the Bid Form. Bidders shall submit a Proposal on a unit price basis for each item of Work listed in the Proposal schedule. The total of all estimated prices will be the sum of the products of the estimated quantity of each item and the corresponding unit price. Discrepancies between the multiplication of units of Work and unit prices will be resolved in favor of the unit prices.

# QUESTIONS OR CLARIFICATION ON ITB

Questions shall be emailed to:

Shannan Gibb-Randall of InSite Design Studio at [sgibb-randall@insite-studio.com](mailto:sgibb-randall@insite-studio.com) by June 26, 2024 at 11:00AM.

Subject heading: ITB Plymouth District Library: Planting Improvements

Responses will be emailed to all attendees of the pre-bid meeting no later than July 1<sup>st</sup> at 5:00PM.

Any error, omissions or discrepancies in the specification discovered by a prospective contractor and/or service provider shall be brought to the attention of Shannan Gibb-Randall at [sgibb-randall@insite-studio.com](mailto:sgibb-randall@insite-studio.com) after discovery as soon as possible. Further, the contractor and/or service provider shall not be allowed to take advantage of errors, omissions or discrepancies in the specifications.

## ADDENDA

If it becomes necessary to revise any part of the ITB, notice of the Addendum will be emailed to all invited Bidders.

Each Bidder must in its Bid, to avoid any miscommunications, acknowledge all addenda which it has received, but the failure of a Bidder to receive, or acknowledge receipt of; any addenda shall not relieve the Bidder of the responsibility for complying with the terms thereof.

The Plymouth District Library (Owner), in addition to the Designer will not be bound by oral responses to inquiries or written responses other than written addenda.

## BID SUBMISSION

All Bids are due and must be either delivered in a sealed envelope to the Plymouth District Library, or sent electronically via email to InSite Design Studio. All bids whether sent electronically or in a sealed envelope should arrive on or before July 8, 2024 10:30 a.m. EST. Bids submitted late or via oral, telephonic, or facsimile will not be considered or accepted. Each Bidder is responsible for submission of their bid. Additional time for submission of bids past the stated due date and time will not be granted to a single Bidder; however, additional time may be granted to all Bidders when the library determines in its sole discretion that circumstances warrant it.

Each Bidder must submit one (1) original Bid with **ITB Plymouth District Library: Planting Improvements** as subject.

Bids that are **hard copy** can be addressed and delivered to:

Shannan Gibb-Randall, c/o Loreen Graham

The Plymouth District Library

223 S. Main St., Plymouth, MI 48170

Clearly mark **ITB Plymouth District Library: Planting Improvements** on the outside of the envelope.

Or

Bids can be **emailed in a .pdf format** to:

Shannan Gibb-Randall

[sgibb-randall@insite-studio.com](mailto:sgibb-randall@insite-studio.com)

with **ITB Plymouth District Library: Planting Improvements** as the subject line.

All Bids received on or before the Due Date will be opened and recorded immediately. No immediate decisions are rendered.

Hand-delivered hard copy bids will be date/time stamped/signed by staff at Plymouth District Library at the address above in order to be considered. Normal business hours are 10:00 a.m. to 9:00 p.m. Monday through Thursday, and 10:00 a.m. to 5:00 p.m. Friday through Saturday, excluding Holidays. The Plymouth District Library will not be liable to any Bidder for any unforeseen circumstances, delivery or postal delays, or email delivery receipt or compatibility issues. Postmarking to the Due Date will not substitute for receipt of the Bid. Each Bidder is responsible for submission of their Bid.

Additional time for submission of bids past the stated due date and time will not be granted to a single Bidder; however, additional time may be granted to all Bidders when InSite Design Studio determines in its sole discretion that circumstances warrant it.

## CONSIDERATIONS FOR AWARD ACCEPTANCE

The Plymouth District Library in conjunction with InSite Design Studio intends to award a Contract to the most qualified bidder for a reasonable price. Price is important, but is not the sole basis for the decision. The contractor should make an effort to highlight experience through past projects of similar scale and task that clearly demonstrate an understanding for the elements necessary to construct this design, especially a deep understanding of intricate planting plans. The planting areas within the plans are all within high-traffic areas, (both pedestrian and otherwise) and therefore our goal is to ensure that the selected contractor will deliver a project that excels in both appearance

and longevity. Communication and follow-up with the Designer and Facilities Supervisor is required to provide input in developing a working schedule.

Bidders will be subject to background checks. Additionally, Bidders must submit:

- Familial Disclosure Statement, if needed
- Notarized Iran Economic Sanctions Act Affidavit

## OFFICIAL DOCUMENTS

Copies of the bid documents obtained from outside of correspondence with InSite Design Studio are not Official copies. Addenda and other bid information will only be emailed to Bidders from InSite Design Studio. If you obtained bid documents from other sources, it is recommended that you request Official Documents from InSite Design Studio.

## FORMS TO SUBMIT FOR BID

Complete and sign all forms requested for completion in this Invitation to Bid:

- Bid Proposal Form
  - Cost Proposal
  - Legal Status of Bidder
  - References
  - Major Subcontractors
  - Comparable Projects
  - Submitter Details
- Familial Disclosure Statement, if needed
- Notarized Iran Economic Sanctions Act Affidavit

## WITHDRAWAL OF BIDS

After the time of opening, no Bid may be withdrawn for the period of thirty (30) days

## CONTRACT TIME

Planting shall be completed during Fall, 2024 and, if necessary, Spring, 2025, no later than June 15, 2025. More specificity about schedule will be covered during the Pre-Bid Meeting. Consideration will be given to contract time in evaluating bids.

## Night, Saturday or Sunday Work

Except in an Emergency, all Work at the site must take place during normal working hours; 7:00 AM - 6:00 PM, during business days. If the Contract Documents allow work outside the normal hours, the Contractor must provide a written notice to the Owner and Contract Holder twenty-four hours before performing such Work.

## Major Subcontractors

The Bidder shall identify on Bid Form each major subcontractor it expects to engage for this Contract if the work to be subcontracted is 15% or more of the bid sum or over \$25,000, whichever is less. The Bidder also shall identify the work to be subcontracted to each major subcontractor. The Bidder shall not change or replace a subcontractor without approval by the InSite Design Studio, or the Plymouth District Library. As identified in the Bid Form, it is the Contractor's responsibility to coordinate and work with this pre-selected Irrigation Contractor.

## Construction Conditions

It is required that each bidder will examine the Contract Documents for this work and make a personal examination of the site of the proposed work and surroundings. It is also expected that s/he will obtain first-hand information concerning the available facilities for receiving, transporting, handling and storing construction equipment and materials and concerning other local conditions that may affect his/her work.

## Permits and Regulations

The Contractor must secure and pay for all permits, permit or plan review fees and licenses necessary for the prosecution of the work.

The Contractor shall give all notices and comply with all laws, ordinances, rules and regulations bearing on the conduct of the work as drawn and specified. If the Contractor observes that the contract documents are at variance with those requirements, it shall promptly notify the Supervising Professional in writing, and any necessary changes shall be adjusted as provided in the Contract for changes in the work.

## Debarment

Submission of a Bid in response to this ITB is certification that the Bidder is not currently debarred, suspended, proposed for debarment, and declared ineligible or voluntarily excluded from participation in this transaction by any State or Federal departments or agency. Submission is also in agreement that InSite Design Studio will be notified of any changes in this status.

## Cost Liability

InSite Design Studio or The Library assumes no responsibility or liability for costs incurred by the Bidder prior to the execution of the contract. By submitting a bid, a bidder agrees to bear all costs incurred or related to the preparation, submission and selection process for the bid.

## Reservation of Rights

The Plymouth District Library reserve the right to accept any bid or alternative bid proposed in whole or in part, to reject any or all bids or alternatives bids in whole or in part and to waive irregularity and/or informalities in any bid and to make the award in any manner deemed in the best interest of The Plymouth District Library.



**BID PROPOSAL FORM**

OWNER: Plymouth District Library  
PROJECT: Plymouth District Library: Planting Improvements  
LANDSCAPE ARCHITECT: InSite Design Studio, Inc.  
412 Longshore Drive  
Ann Arbor, Michigan 48104  
Attn: Shannan Gibb-Randall, PLA, Project Manager  
sgibb-randall@insite-studio.com  
office: (734) 995-4194 cell: (734) 864-6113

CONTRACT: Planting

NAME OF BIDDER: \_\_\_\_\_

BIDDERS ADDRESS: \_\_\_\_\_

BIDDER'S TELEPHONE: \_\_\_\_\_

BIDDER'S EMAIL: \_\_\_\_\_

TO: InSite Design Studio, Inc. c/o, Loreen Graham, Plymouth District Library  
223 S Main St  
Plymouth, MI 48170  
Attn: Shannan Gibb-Randall, PLA, Project Manager  
sgibb-randall@insite-studio.com  
office: (734) 995-4194 cell: (734) 864-6113

**Bids may be sent electronically or to The Plymouth District Library in a sealed envelope.**

**COST PROPOSAL**

PROPOSAL FOR: **Plymouth District Library: Planting Improvements**

The Bidder, familiar with all conditions to be encountered affecting the cost of the work and with the Contract Documents: the Specifications and Drawings, does hereby propose to perform all work required to be performed and to furnish all of the labor, materials, tools, equipment, and services necessary to complete the work required in connection with the above project, all in accordance with the contract documents.

**PROPOSAL**

Pursuant to and in compliance with your Invitation for Bids, and Contract Documents dated June 13, 2024, relating to the above-named project, the undersigned agrees to enter into an agreement with the Owner to complete the project for The Plymouth District Library – Planting Improvements in accordance with the said Contract Documents for the **Total Proposal Sum** of

\_\_\_\_\_ DOLLARS

(\$ \_\_\_\_\_)

Said sum to be subject to all terms of the Contract and to include all money allowances called for in the specifications applicable thereto, based on the following prices.

**1. Total Proposal Sum**

The Total Proposal Sum will be based on lump sums and unit price sums. The schedule of prices shall be submitted on the form provided and be for work described herein or called for in the Plans and Specifications. Unit price and lump sum prices shall be based on furnishing all labor, material, equipment, transportation, services, necessary appurtenant work, overhead (insurance, etc.) and profit as required to complete the work specified for each item. The Owner reserves the right to accept or reject any item and to increase or decrease any quantity based on the unit price sums or lump sums.

**PROPOSAL FORM**

- LS= lump sum
- EA= each
- SF= square foot
- PV= per visit
- LF= linear foot
- CY= cubic yard

**BASE BID:**

Bidder will complete the Work in accordance with the Contract Documents for the following prices:

<u>Item No.</u>	<u>Description</u>	<u>Lump Sum</u>
1	Mobilization	\$ _____
2	Site Preparation	\$ _____
3	Soil Erosion Control	\$ _____
4	Site Utilities	\$ _____
5	Planting, Plant Guarantee	\$ _____
<b>Total Lump Sum</b>		<b>\$ _____</b>

The above contract prices are used as the Base Bid. The Base Bid is partially based on the Informative Unit Prices listed below. Adjustments to quantities shall be based on the prices provided by the Bidder/Contractor below. The prices provided below must be consistent with the Base Bid or the Owner has the right to reject the Proposal. Not all elements of the project are listed below as informative unit prices. The Contractor is required to read the Pay Item descriptions (for items above and below) as well as thoroughly review the whole set of Contract Documents to determine the Total Proposal Sum.

**Informative Unit Prices**

Ongoing Erosion Control Practices	LS	\$ _____
Construction fence	LF	\$ _____
Tree protection fence	LF	\$ _____
Strip existing grass	SY	\$ _____
Remove and dispose existing vegetation	LS	\$ _____
Protection of Existing Utilities	LS	\$ _____
Coordination with irrigation contractor	LS	\$ _____
Amend soil for planting beds	CY	\$ _____
Replace damaged sod	LS	\$ _____
Mulch for landscape beds	CY	\$ _____
Steel edging for planting beds	LF	\$ _____
C-10 Victor Stanley Bench	EA	\$ _____

**Tree and Shrub Planting**

<i>Cornus florida</i> (2" cal.)	EA	\$ _____
<i>Crateagus virdis</i> 'Winter King' (2" cal.)	EA	\$ _____
<i>Rhus aromatica</i> 'Gro-Low' (#3 cont.)	EA	\$ _____
<i>Rhus copallinum</i> var. <i>latifolia</i> (#3 cont.)	EA	\$ _____

**Perennial and Vine Planting**

<i>Actaea racemosa</i> (plug)	EA	\$ _____
<i>Agastache</i> 'Blue Fortune' (1 gal.)	EA	\$ _____
<i>Amsonia</i> 'Blue Ice Blue Star' (1 gal.)	EA	\$ _____
<i>Amsonia hubrichtii</i> (1 gal.)	EA	\$ _____
<i>Andropogon gerardii</i> 'Blackhawks' (1 gal.)	EA	\$ _____
<i>Asclepias exaltata</i> (plug)	EA	\$ _____
<i>Astragalus canadensis</i> (plug)	EA	\$ _____
<i>Baptisia australis</i> (1 gal.)	EA	\$ _____
<i>Campanula americana</i> (plug)	EA	\$ _____
<i>Carex pensylvanica</i> (plug)	EA	\$ _____
<i>Conoclinium coelestinum</i> (plug)	EA	\$ _____
<i>Deschampsia cespitosa</i> 'Goldtau' (1 gal)	EA	\$ _____
<i>Echinacea purpurea</i> 'Virgin' (1 gal.)	EA	\$ _____
<i>Eupatorium rugosum</i> 'Chocolate' (1 gal.)	EA	\$ _____
<i>Geranium maculatum</i> (plug)	EA	\$ _____
<i>Geum triflorum</i> (plug)	EA	\$ _____
<i>Gillenia trifoliata</i> (1 gal.)	EA	\$ _____
<i>Helianthus divaricatus</i> (plug)	EA	\$ _____
<i>Juniperus procumbens</i> 'Nana' (1 gal.)	EA	\$ _____
<i>Liatris spicata</i> 'Kobold' (1 gal.)	EA	\$ _____
<i>Lonicera sempervirens</i> 'John Clayton' (1 gal.)	EA	\$ _____
<i>Oenothera biennis</i> (plug)	EA	\$ _____
<i>Packera paupercula</i> (plug)	EA	\$ _____
<i>Panicum virgatum</i> 'Shenandoah' (1 gal.)	EA	\$ _____
<i>Parthenocissus quinquefolia</i> (1 gal.)	EA	\$ _____
<i>Penstemon hirsutus</i> (plug)	EA	\$ _____
<i>Phlox divaricata</i> (plug)	EA	\$ _____
<i>Ruellia humilis</i> (plug)	EA	\$ _____
<i>Schizachyrium scoparium</i> 'Standing Ovation' (1 gal.)	EA	\$ _____
<i>Silphium terebinthinaceum</i> (plug)	EA	\$ _____
<i>Solidago rugosa</i> 'Fireworks' (1 gal.)	EA	\$ _____
<i>Sporobolus heterolepis</i> (plug)	EA	\$ _____
<i>Symphotrichum ericoides</i> 'Snow Flurry' (1 gal.)	EA	\$ _____

<i>Symphotrichum oblongifolium</i> 'October Skies' (1 gal.)	EA	\$ _____
<i>Thalictrum aquilegifolium</i> 'Black Stockings' (1 gal.)	EA	\$ _____
One-year plant guarantee	PV	\$ _____
Tree removal permit	EA	\$ _____
Tree planting permit	EA	\$ _____

**LEGAL STATUS OF BIDDER**

Address, Legal Status and Signature of Bidder

The undersigned bidder does hereby designate the address, given below, as the legal address to which all notices, directions, or other communications may be served or mailed.

Street \_\_\_\_\_

City \_\_\_\_\_

State \_\_\_\_\_

The bidder has the legal status below:

\_\_\_\_\_ Individual

\_\_\_\_\_ Partnership

\_\_\_\_\_ Corporation incorporated under the laws of the State of \_\_\_\_\_

**REFERENCES**

Provide Three References from Similar Projects

**Reference One:**

Name \_\_\_\_\_

Project Name \_\_\_\_\_

Email and Phone Number \_\_\_\_\_

**Reference Two:**

Name \_\_\_\_\_

Project Name \_\_\_\_\_

Email and Phone Number \_\_\_\_\_

**Reference Three:**

Name \_\_\_\_\_

Project Name \_\_\_\_\_

Email and Phone Number \_\_\_\_\_

**MAJOR SUBCONTRACTORS**

The names and addresses of all persons indicated as partners or subcontractors in this proposal are as follows:

NAME

ADDRESS

**COMPARABLE PROJECTS**

Provide Three Comparable Projects

**Project One:**

Project Name \_\_\_\_\_

Role/Involvement \_\_\_\_\_

**Project Two:**

Project Name \_\_\_\_\_

Role/Involvement \_\_\_\_\_

**Project Three:**

Project Name \_\_\_\_\_

Role/Involvement \_\_\_\_\_

**SUBMITTER DETAILS**

This proposal is submitted in the name of

\_\_\_\_\_  
(Contractor Name)

Signed By \_\_\_\_\_

Typed Name \_\_\_\_\_

Title \_\_\_\_\_

Date \_\_\_\_\_



# IRAN BUSINESS RELATIONSHIP AFFIDAVIT

**BID OPPORTUNITY:** \_\_\_\_\_

STATE OF MICHIGAN  
COUNTY OF WAYNE

\_\_\_\_\_, BEING DULY SWORN  
deposes and says that:

- Pursuant to the Michigan Iran Economic Sanctions Act, 2012 P.A. 517, by submitting a bid, proposal or response, the respondent certifies, under civil penalty for false certification, that it is not an "Iran linked business," as that term is defined in the Act.*
- The undersigned is duly authorized to execute this affidavit on behalf of the bidder.

Subscribed and sworn to before me this  
\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_  
a notary public in and for said County,

\_\_\_\_\_  
Notary Public

My Commission expires: \_\_\_\_\_

\_\_\_\_\_  
Authorized Signature

\_\_\_\_\_  
Printed Name of Signatory

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

\_\_\_\_\_  
Address

\_\_\_\_\_  
City, State, Zip Code

\_\_\_\_\_  
Area Code & Phone Number

## Pay Item Descriptions and Payment Procedures

### UNIT PRICES

#### Method of Measurement

#### A. General

All items of work for this contract will be measured in units as indicated on the Proposal and as noted herein. CF, cubic feet; CY, cubic yard; PV, per visit; EA, each; LS, lump sum; LF, linear feet; SY, square yard; SF, square feet; CF, cubic feet.

### Unit Price Pay Items for development of Total Lump Sum Cost

#### 1 Mobilization

Payment for this item shall include project costs related to preparatory work, operations and General Requirements and includes photo-documentation of existing conditions and any necessary permits. The lump sum (LS) amount shall be paid in increments on a basis of work completed. The total amount for Mobilization may not exceed 5% of the total cost of the project.

#### 2 Site Preparation

Payment for this item shall include project costs related to protection of any site elements, removal and disposal or salvage of materials including but not limited to: existing trees, shrubs, and perennials to be removed and disposed, existing grass to be stripped, existing site elements to be removed, moved, salvaged, protected, or stored if specified by designer. Measurement for this item will be made as a lump sum (LS) for all work described. Payment will be based on schedule of values and an agreed upon percentage of work completed.

#### 3 Soil Erosion Control

Payment for this item shall include project costs related to installation and maintenance of an approved soil erosion control system per jurisdictional and permit requirements. Any as-needed items such as inlet filters and/or compost socks to maintain and secure stockpiles should be included here. The lump sum (LS) amount shall be paid in increments on a basis of work 25% for installation, 5% increments per month to 50%, and 25% for completion of removal.

#### 4 Site Utilities

Payment for this item shall include all labor, material and equipment necessary for the temporary removal and reinstallation of utilities. Utilities for temporary removal and reinstallation include, but are not limited to: irrigation lines and sleeves; existing lighting infrastructure. Measurement for this item will be made as a lump sum (LS) for all work described. Payment will be based on schedule of values and an agreed upon percentage of work completed.

#### 5 Planting, Plant Guarantee

Payment for this item shall include all labor, material and equipment necessary for the installation of all plantings and mulch specified for this site, and to provide site visits as needed for ensuring success of plantings. Planting, Plant Guarantee work includes, but is not limited to: amending soil for planting beds, landscape bed mulch installation, Tree and Shrub Planting, Perennial and Vine Planting, and the One Year Plant Guarantee. Measurement for this item will be made as a lump sum (LS) for all work described. Payment will be based on schedule of values and an agreed upon percentage of work completed.

**The following items shall be used to adjust the Base Bid prices if adjustment in quantities are made:**

#### ***Erosion Control: Inlet Filter***

The contract unit price for Erosion Control: Inlet Filter shall be payment in full for all labor, materials, and equipment necessary to furnish, install, and maintain catch basin or inlet protection per standard practices during the as-needed stockpiling of any topsoil on site. Removal and disposal of the protection devices and accumulated sediment upon final completion of the project shall be considered as included in the work. The work shall also include removal of accumulated sediment from the ground surface and from the drainage structure sumps. Maintenance work will include removal and replacement of filters as directed by the Consultant and/or Owner. The completed work shall be paid for at the contract unit price of each (EA).



***Erosion Control: Compost Sock for Offsite Stockpile***

The contract unit price for Erosion Control: Compost Sock for Offsite Stockpile shall be payment in full for all labor, material, and equipment to install and maintain compost socks for erosion and sediment control purposes along the as-needed offsite topsoil stockpile in accordance with the Specifications and Drawings. This includes any necessary erosion control practices to contain sediment as a result of as-needed stockpiling. The completed work shall be paid for at the contract unit price of linear foot (LS).

***On-Going Erosion Control Practices***

The contract unit price for On-going Erosion Control Practices shall be payment in full for all labor, material, and equipment necessary to ensure consistent and proper management of errant sedimentation build-up, including maintenance of inlet filters (as-needed), proper placement of stockpiles (as-needed), and dust control for the construction site as well as the materials, equipment and vehicular storage area in the parking lot south of the library, and the route from this area to the construction site. Maintenance includes sweeping, removal of built-up sediments, replacement of failed compost socks, and the wetting of stockpiles. The completed work shall be paid for at the contract unit price of lump sum (LS).

***Construction Fence***

The contract unit price for Construction Fence shall be payment in full for all labor, materials, and equipment necessary to furnish, install, and maintain the construction fence in accordance with the Specifications and Drawings. Removal and disposal of the construction fence upon final completion of the project shall be considered included in the work. The completed work shall be paid for at the contract unit price of linear foot (LF).

***Tree Protection Fence***

The contract unit price for Tree Protection Fence shall be payment in full for all labor, materials, and equipment necessary to furnish, install, and maintain the tree protection fence in accordance with the Specifications and Drawings. Removal and disposal of the tree protection fence upon final completion of the project shall be considered included in the work. Restoration of disrupted areas adjacent to the tree protection fence shall be considered part of this item. The completed work shall be paid for at the contract unit price of linear foot (LF).

***Strip Existing Grass***

The contract unit price for Strip Existing Grass shall be payment in full for all labor, material, and equipment necessary to strip and dispose of any existing grass in accordance with the Specifications and Drawings. The completed work shall be paid for at the contract unit price of square yard (SY).

***Remove and Dispose Existing Vegetation***

The contract unit price for Remove and Dispose Existing vegetation shall be payment in full for all labor, material and equipment necessary to completely remove the trees, shrubs, perennials, and groundcovers including all foliage and surficial root systems, chipping, and to properly dispose of the materials off in accordance with specifications and drawings. When tree removal is called for, the payment shall include removal or grinding of the stump. The completed work shall be paid for at the contract unit price of lump sum (LS).

***Protection of Existing Utilities***

The contract unit price for Protection of Existing Utilities shall be payment in full for all labor, material and equipment required to furnish, install, and maintain utility protection in accordance with the Specifications and Drawings. Removal and disposal of the protection upon final completion of the project shall be considered included in the work. The completed work shall be paid for at the contract unit price of lump sum (LS).

***Coordination with Irrigation Contractor***

The contract unit price for Coordination with Irrigation Contractor shall be payment in full for all communication and coordination with the irrigation contractor in accordance with the Specifications and Drawings. The library has an existing irrigation contractor that may require coordination for planting bed watering schedules and zone designation. The only price included in the bid under Coordination with Irrigation Contractor is the price of time for coordination with the contractor for any necessary collaboration for a successful planting installation. The completed work shall be paid for at the contract unit price of lump sum (LS).

***Amend Soil for Planting Beds***

The contract unit price for Amend Topsoil for Planting Beds shall be payment in full for all labor, material, and equipment to integrate compost and organics into the existing topsoil, as well as fine grade the beds as defined in the Specifications and Drawings. The completed work shall be paid for at the contract unit price of cubic yard (CY).

***Mulch for Landscape Beds***

The contract unit price for Mulch for Landscape Beds shall be payment in full for all labor, material, and equipment to install mulch in accordance with the Specifications and Drawings. Payment for installation of mulch shall include all items necessary to complete the installation. The completed work shall be paid for at the contract unit price of cubic yard (CY).

***Replace Damaged Sod***

The contract unit price for Replace Damaged Sod shall be payment in full for all labor, material, and equipment to install sod in accordance with the Specifications and Drawings. Payment for installation of sod shall include all items necessary to complete the installation. The completed work shall be paid for at the contract unit price of lump sum (LS).

***Steel Edging for Landscape Beds***

The contract unit price for Steel Edging for Landscape Beds shall be payment in full for all labor, material, and equipment to install steel edging in accordance with the Specifications and Drawings. Payment for installation of steel edging shall include all items necessary to complete the installation. The completed work shall be paid for at the contract unit price of linear foot (LF).

***Benches on Lawn***

The contract unit price for Benches on Lawn shall be payment in full for all labor, material, and equipment to place the benches in accordance with the Specifications and Drawings. Payment for placement of benches shall include all items necessary to complete the placement. The completed work shall be paid for at the contract unit price of each (EA).

***Tree and Shrub Planting***

The contract unit price for Tree and Shrub Planting shall be payment in full for all labor, material, and equipment necessary to install shrubs and trees as defined in the Specifications and Drawings. Payment for tree and shrub planting shall include the planting of all shrubs and trees in accordance with the Specifications and Drawings. The completed work shall be paid for at the contract unit price of each (EA).

***Perennial and Vine Planting***

The contract unit price for Perennial and Native Plug Planting shall be payment in full for all labor, material, and equipment to provide and install native plugs and perennials as defined in the Specifications and Drawings. The completed work shall be paid for at the contract unit price of each (EA).

***One-Year Plant Guarantee***

The contract unit price for One-Year Plant Guarantee shall include all labor, material and equipment necessary to guarantee the planting for one (1) period as defined in the Specifications. Payment for plant guarantee shall include the following: any necessary replacement, monthly reporting, communication, and all other equipment and processes necessary for a successful plant guarantee period. The completed work shall be paid for at the contract unit price per visit (PV).

***Permits***

Payment for this item shall include all direct fees and charges incurred by the Contractor related to permits.

# Contractor's Application For Payment No. \_\_\_\_\_

	Application Period:	Application Date:
To (Owner):	From (Contractor):	Via (Consultant)
Project:	Contract:	
Owner's Contract No.:	Contractor's Project No.:	Consultant's Project No.:

## APPLICATION FOR PAYMENT

### Change Order Summary

Approved Change Orders		
Number	Additions	Deductions
TOTALS		
NET CHANGE BY CHANGE ORDERS		

1. ORIGINAL CONTRACT PRICE .....	\$	
2. Net change by Change Orders.....	\$	
3. CURRENT CONTRACT PRICE (Line 1 ± 2) .....	\$	
4. TOTAL COMPLETED AND STORED TO DATE (Column F on Progress Estimate) .....	\$	
5. RETAINAGE:		
a. ____ % x \$ _____ Work Completed .....	\$	
b. ____ % x \$ _____ Stored Material .....	\$	
c. Total Retainage (Line 5a + Line 5b) .....	\$	
6. AMOUNT ELIGIBLE TO DATE (Line 4 - Line 5c) .....	\$	
7. LESS PREVIOUS PAYMENTS (Line 6 from prior Application) .....	\$	
8. AMOUNT DUE THIS APPLICATION .....	\$	
9. BALANCE TO FINISH, PLUS RETAINAGE (Column G on Progress Estimate + Line 5 above).....	\$	

## CONTRACTOR'S CERTIFICATION

The undersigned Contractor certifies that: (1) all previous progress payments received from Owner on account of Work done under the Contract have been applied on account to discharge Contractor's legitimate obligations incurred in connection with Work covered by prior Applications for Payment; (2) title of all Work, materials and equipment incorporated in said Work or otherwise listed in or covered by this Application for Payment will pass to Owner at time of payment free and clear of all Liens, security interests and encumbrances (except such as are covered by a Bond acceptable to Owner indemnifying Owner against any such Liens, security interest or encumbrances); and (3) all Work covered by this Application for Payment is in accordance with the Contract Documents and is not defective.

By:	Date:
-----	-------

Payment of:	\$ _____	(Line 8 or other - attach explanation of other amount)
is recommended by:	_____	_____ (Date)
	(Consultant)	
Payment of:	\$ _____	(Line 8 or other - attach explanation of other amount)
is approved by:	_____	_____ (Date)
	(Owner)	

## GENERAL CONDITIONS

### 1. DEFINITION OF TERMS

Whenever, in these specifications, the term "InSite Design Studio, Inc. or Owner is used, it shall be deemed to mean **Plymouth District Library** or its authorized representative.

Whenever, in these specifications, the term "Site Consultant" or "Landscape Architect" is used, it shall be taken to mean InSite Design Studio, Inc.

### 2. LABOR LAWS AND ORDINANCES

The Contractor shall obey and abide by all the laws of the State of Michigan relating to the employment of labor on public work and all ordinances of the State and local authorities with jurisdiction respecting and regulating public improvements.

### 3. PLANS

The location of the proposed improvements and the character, form, and dimensions of the same are shown forth by a set of drawings. Where figures are given on these drawings, they shall have precedence over dimensions taken by scale.

### 4. PLANS AND SPECIFICATIONS COOPERATIVE

The plans and these specifications are intended to be cooperative. They shall be construed as supplementary each to the other and any work called for on the plans and not particularly mentioned in the specifications, or described in the specifications and not shown on the plans, is to be regarded as included under this contract the same as if set forth in the specifications and exhibited on the plans.

Where detailed specification provisions are in conflict with statements to follow provisions of a manufacturer's specification or manufacturers furnished instructions, the Contractor shall notify the Landscape Architect in writing. The Landscape Architect shall determine which provisions take precedence, unless resolution of the conflict is therein specified.

### 5. CHANGES IN THE WORK

The Owner may make changes in the work of the Contractor by making alterations therein, or by making additions thereto, or by omitting work therefrom, without invalidating the contract, and without relieving or releasing the Contractor from any guaranty given by him pursuant to the Contract provisions. All such work shall be executed under the conditions of the Contract.

Except in an emergency endangering life or property, the Contractor shall make no change unless he has received a prior written order from the Owner, countersigned by the Landscape Architect, authorizing the change. Any change in the work shall be ordered and the adjustment of the contract price or time shall be determined by issuance of a Change Order providing for an agreed lump sum adjustment.

For each Change Order issued, the Contractor shall furnish an itemized bona fide, written proposal and with such supporting papers as the Landscape Architect may require.

For any item involved in a change for which a unit price (including all items of cost, and overhead and profit) has been duly established, either as provided in the contract or by subsequent agreement, the change in contract price shall be determined by applying the unit price to the net quantity of the item involved without further allowance for overhead and profit.

No work other than that to be paid for at the prices named in the contract shall be done by the Contractor except upon a written order from the Landscape Architect and the Owner, which order shall describe the work to be done. In the absence of such written order from the Owner, the Contractor will not be entitled to payment for any such additional or extra work. All claims for extra work must be presented for payment as soon as practical after such work is done. The Owner must approve payment of such claims for extra work.

6. FIELD OBSERVATION

The Landscape Architect and the Owner may provide for the observation of any work done under the contract. The Landscape Architect and the Owner shall have free access to all parts of the work. No work shall be covered or concealed until it has been examined by the Landscape Architect and the Owner. The Contractor shall furnish all information relating to the work, and the materials therefore, which the Landscape Architect and the Owner may deem necessary or pertinent.

The Contractor shall cooperate in setting and preserving stakes, bench marks, and in all other things that are necessary to satisfactorily complete the work. The Landscape Architect and the Owner shall have authority to reject and to suspend any work that is being improperly done in the opinion of the Landscape Architect and the Owner.

7. OBLIGATIONS OF THE CONTRACTOR

The observation or lack of observation of any work pertaining to this contract shall not relieve the Contractor of any of his obligations to fulfill his/her contract as herein prescribed, and defective work shall be made good notwithstanding that such work has been previously overlooked by the Landscape Architect and the Owner and accepted or estimated for payment or paid for. If the work or any part thereof shall be found defective at any time before the final acceptance of the whole work, the Contractor shall forthwith make good such defect, in a manner satisfactory to the Landscape Architect and the Owner.

8. DECISION OF THE OWNER

The judgment and the decision of the Owner as to whether the work done under this contract comply with the requirements of these specifications, and the intent of this project, shall be conclusive and final. All improper or defective work must be corrected, as to comply with these specifications and subject to the approval of the Owner.

9. NO CHARGE FOR HINDRANCE OR DELAYS

The Contractor shall make no claim or charge against the Owner or any agent thereof for any hindrances or delays from any cause whatsoever during the progress of the work embraced in this contract.

10. COOPERATION OF THE CONTRACTOR

The Contractor shall have at all times copies of the plans and specifications on the work and shall furnish each foreman and require him to have with him on the work, a copy of that part of the plans and specifications which appertain to the work he is directing. The Contractor or an authorized representative shall be on the work site at all times when construction is in progress. Their name and address shall be on file with the Owner and he/she shall be available to call at any time.

11. STORAGE OF MATERIAL AND SUPPLIES

Material and supplies may, if necessary, be stored on the site within the construction area or in the designated are shown on the plans, but drainage and erosion control must be provided. Any damage to property by reason of such storing of material must be repaired by the Contractor or at his expense. The Contractor must not (except after consent from the proper parties) enter or occupy with workers/staff, tools, or material, any land outside the property of the Owner.

12. OWNER NOT RESPONSIBLE FOR

Owner will not be responsible for any supplies, material, tools, or machinery, or for any finished or unfinished work done under these specifications which may be destroyed by any cause or agency prior to the completion of any acceptance of work.

13. LIABILITY FOR DAMAGES

The Contractor shall put up and maintain such barriers or lights or both as will effectively prevent any accident in consequence of his work, and shall take all the other necessary and proper precautions against causing damage to persons or property. S/he shall be liable for all damages of every nature occasioned in any way by his acts or neglect, or by the acts or neglect of his agents, employees, or workmen, and shall reimburse the Owner for all damages, losses, and costs suffered by it by reason of such acts or neglects.

14. DAMAGES AND RESTORATION OF PROPERTY

The Contractor shall alone be held responsible for all injuries to persons, and for all damages to the property of the Owner or others, caused by or resulting from the negligence of him/herself, his/her employees or agents, during the progress of, or connected with the prosecution of the work, whether within the limits of the work or elsewhere. S/he must restore all injured property, including sidewalks, curbing, sodding, pipes, conduits, sewers, and other public or private property to a condition as good as it was when s/he entered on the work.

15. OMISSION OR MISTAKE OF CONTRACTOR

The Contractor shall pay to the Owner all expenses, losses, and damages, as determined by the Owner, incurred in consequence of any defect, omission, or mistake of the Contractor or his employees.

16. USE OF COMPLETED PORTIONS OF WORK

The use of any portion of any work done under the terms of this contract shall not be construed as an acceptance of such work. Where thus directed for use by the Owner, the Contractor shall not be held responsible for injuries to the work caused by such use.

17. INSURANCE

Proof that the firm is an equal opportunity employer and possesses professional liability insurance, workman's compensation, and no-fault vehicle insurance as according to the following requirements:

**Workman's Compensation:** The Vendor shall procure and maintain during the life of this contract, Worker's Compensation Insurance, including employers Liability Coverage, in accordance with all applicable statutes of the State of Michigan

**Comprehensive General Liability:** The Vendor shall procure and maintain during the life of the blanket purchase order, Commercial General Liability insurance on an "Occurrence Basis" with limits of liability not less than \$1,000,000 per occurrence and/or aggregate combined single limit, Personal Injury, Bodily Injury, and Property Damage. Coverage shall include the following extensions: a) Contractual Liability; b) Products and Completed Operations Liability with limits of liability not less than \$1,000,000; c) Independent Contractors Coverage; d) Broad Form General Liability Extensions or equivalent.

**Motor Vehicle Liability:** The Vendor shall procure and maintain during the life of this contract Motor Vehicle Liability Insurance with limits of liability no not less than \$1,000,000 per occurrence combined single limit Bodily Injury and Property Damage. Coverage shall include all owned vehicles, all non-owned vehicles and all hired vehicles.

**Additional Insured:** Commercial General Liability and Motor Vehicle Liability Insurance, as described above, shall include an endorsement stating the following shall be Additional Insured: "Plymouth District Public Library, all elected and appointed officials, all employees, and volunteers, all boards, commission and/or authorities and board members, including employees, agents and volunteers thereof, and InSite Design Studio".

Certificates of Insurance shall be filed with the Owner before the work to be done under this contract is begun.

The said insurance policy shall contain a clause whereby said policy cannot be cancelled until after a written notice of intention to cancel has been filed with the Owner at least ten (10) days prior to the date of cancellation.

18. DISORDERLY EMPLOYEES

Disorderly, intemperate, or incompetent persons must not be employed, retained, or allowed upon the work site. Foremen and workmen who neglect or refuse to comply with the instructions of the Owner in regard to conduct, shall at the Owner's request, be promptly discharged, and shall not thereafter be reemployed on this project, without the Owner's consent. The Contractor shall not permit nor suffer the introduction or use of intoxicating liquor or other drugs upon or about the work embraced in this contract.

19. CONTRACTOR TO GIVE NOTICE

The Contractor shall give the Owner at least three (3) days notice before commencing work on any contract.

20. PROTECTION OF MONUMENTS, BENCH MARKS, AND STAKES

The Contractor must carefully protect from disturbance or injury all municipal monuments, stakes, and bench marks, and shall not excavate nearer than three (3) feet to any of them without the permission of the Owner or until they have been removed, witnessed, or otherwise disposed of by the Owner.

21. CLEANING UP

Upon the completion of the principal work and as an unbroken continuance of work, the Contractor shall clean up and leave in neat condition all the premises that he has occupied during the construction period. He shall remove from the premises all surplus earth, debris, and rubbish, and all unused materials, together with all tools and equipment. Such cleaning up must be completed within ten (10) days after the principal work has been completed.

22.....INCIDENTALS

All the work to be done by the Contractor for which specific unit prices are not named by the contract, as well as any minor details of work not specifically mentioned in the specifications, but obviously necessary for the proper completion of the work, shall be considered as incidental and as being a part of and included in the work for which prices are named in the contract. The Contractor will not be entitled to any extra or additional compensation thereof.

23. MANNER OF PAYMENT

The Contractor shall submit each month, or at longer intervals if desired by the Contractor, an invoice covering work previously performed for which the Contractor believes payment is due under this contract. Progress payments shall be made to the Contractor for actual quantities of completed work. Such payments shall be based upon the estimate of the Contractor and shall be approved by the Owner in the amount of the apparently acceptable work completed within the payment period.

All partial and final payment requests shall be submitted on the Contractor's Application for Payment provided and shall completely describe and account for all items in accordance with the provisions of the forms. No other forms of payment requests will be accepted.



A retainer of 10% of the value of the work in place shall be withheld from the contract until the project is deemed complete. On all contracts which have more than three (3) progress payments, the retained funds will be paid to the Contractor with the final progress payment.

On all contracts that include the installation of plant material, the previously mentioned "other specific causes relating to the Contractor's performance under the contract" shall be deemed to include the need by the Owner to monitor the survival of the plant material. Therefore, a total of 10% of the value of the planting portion of the contract shall be retained for a period of one year per the terms listed above.

The Owner shall make the final certificate for payment within thirty (30) days after the completion and acceptance of all work. Labor, materials and other things to be done or furnished by the Contractor hereunder, and payment shall not be due and payable to the Contractor, until he has complied with all the provisions hereof, and has discharged all debts, liens, obligations, claims and charges against said work or him arising out of said work, and made proof thereof satisfactory to the Owner. Before a final payment will be made, the Contractor shall submit the following to the Owner:

- A. A sworn statement certifying all bills for labor and materials have been paid.
- B. A sworn statement waiving any further claim (other than the final payment) by the Contractor against the Owner.

All payment shall take due account of additions to or deductions from the Contract price as herein provided. The acceptance by the Contractor of the proffered final payment shall operate as a release to the Owner and every agent thereof from all claims and liability to the Contractor for anything done or furnished for, or relating to or affecting the work. Furthermore, said acceptance by the Contractor shall be conclusive evidence of his acceptance and approval of estimates, accounting and deductions, and full payment by the Owner of all work, labor, materials and services done or furnished hereunder, and of full satisfaction, discharge, release and waiver of all claims and demands of or on behalf of the Contractor against the Owner arising out of this agreement and execution thereof. At the option of the Owner, the Owner may invoke the dispute resolution provisions of Section 4 of 1980 PA 524, MCLA 125-1564.

24. FAILURE TO COMPLETE IN SPECIFIED TIME

The Contractor shall commence work within the number of days specified in the proposal for commencement of work, at such points as the Owner may approve and shall thereafter continue it at such points and in such order or precedence as the Owner may from time to time approve. The Owner may extend, in writing, the time for the commencement of the work when required due to unexpected or unnatural conditions.

The rate of progress shall be such that the whole work shall be performed in accordance with the terms of this contract or before the date stated in the proposal.

The time in which this contract is to be performed and the work is to be completed is of the essence of this agreement.

25. ABANDONMENT OF CONTRACT

If the work to be done under this contract shall be abandoned or if this contract or any part thereof

shall be sublet without the previous written consent of the Owner or if at any time the Owner shall be of the opinion that the conditions herein specified as to the rate of progress are not fulfilled, or that the work or any part thereof is unnecessarily or unreasonably delayed, or that the Contractor has violated any of the provisions of this contract, the Owner may notify the Contractor in writing to discontinue all work or any part thereof as the Owner may designate and the Owner may thereupon, by contract or otherwise, as they may determine, complete the work, or such part thereof.

26. QUALIFICATIONS OF EMPLOYMENT

The Contractor shall employ competent laborers and mechanics for the work under this contract.

27. BENCH MARKS AND REFERENCE POINTS

The Contractor shall establish and maintain grades, benchmarks, and other significant reference lines or points necessary to complete the work.

28. EXISTING UTILITIES

Existing utilities whether or not they are shown on the drawings shall be protected from damage.

29. AGGREGATE COST NOT TO BE INCREASED

Any changes in the plans, specifications, character of materials used, or method of doing the work, that may increase the aggregate cost of the work may be authorized and validated only by a formal supplemental contract regularly executed by all of the parties of the original contract.

30. SURVEYS

The Owner will make available all boundary information that is presently on file. All lines and levels necessary to the location and erection of the work under this contract shall be established and maintained by a competent surveyor employed by this Contractor.

31. PERMITS

Contractor is responsible for the procurement and payment for all permits and licenses necessary for the complete prosecution of the work. Required inspections for all permits will be arranged by the Contractor.

32. COMMUNICATIONS

All notices, demands, requests, instructions, approvals, proposals, and claims must be in writing.

A notice to or demand upon the Contractor shall be sufficiently given if delivered at the office of the Contractor stated on the signature page of the Contract or deposited in the United States mail in a sealed, postage-paid envelope or via email.

33. CHANGE OF CONTRACT

The Owner reserves the right to reduce or increase the amount of the contract work. All change orders shall be based on the unit prices established in the proposal at the time of bidding and shall

not be valid unless signed by the Owner and Landscape Architect.

34. BID PRICE

The total bid price is based on the scope of work as indicated on the drawings, and in the specifications and includes all separate prices and unit prices.

35. PROTECTION

Portions of the project area will continue in use by the public during the course of the construction operation and therefore requires special user protection at all excavation and other hazardous areas at all times.

Provide and erect all required fences, barricades and other safety precautions in accordance with local, state and federal codes.

Remove all protection devices and guards when work is completed and restore all disturbed or damaged areas that result from this work.

36. INSPECTION OF SITE BY CONTRACTORS

No plea of ignorance of conditions that may exist, or of difficulties that may be encountered in the execution of the work under this Contract, as a result of the bidder's failure to make prudent examinations and investigations, will be accepted as an excuse for any failure or omission on the part of the Contractor to fulfill in every detail all requirements of the Contract Documents, or will be accepted as a basis for a claim for extra compensation, damages, or for an extension of the time of completion.

The submission of a proposal shall, in itself, be conclusive evidence that the bidder has made all examinations he deemed necessary to properly prepare a proposal, meeting all the contract requirements.

37. DEBRIS REMOVAL

The Contractor must remove and dispose from site to legal dump area all debris caused by his work. Debris must be removed from the project site each day.

38. WORK & PAYMENT SCHEDULING CONFERENCE AND WORK PLAN

Immediately after execution of the Contract but prior to the start of work, the Owner shall convene a Work Scheduling Conference. The Contractor shall present to the Owner and Landscape Architect his/her proposed work and employment sequence for accomplishing the work of the Contract. This work schedule shall be presented with appropriate graphic materials, including CPM Charts and scaled drawings showing areas in which work is to occur in phases.

CPM Charts shall identify all tasks to be performed, inter-relationships between tasks and designate the time period that each task is to be performed beginning with the date Notice to Proceed is issued.

All materials presented at the meeting shall be submitted to the Owner for review and approval. The Contractor shall be responsible for work performance in accordance with the approved work

schedule and shall continually update the schedule and perform in accordance therewith so that work shall be completed in the time specified in the Contract Documents at no additional cost to the Owner.

The Owner's approval of the Contractor's work and payment schedule does not relieve the Contractor of any of the responsibilities otherwise designated to him under this Contract.

39. PRE-PERFORMANCE CONFERENCE

Prior to the start of work, the Owner shall call a conference at a location designated at that time for the purpose of discussing all working conditions pertaining to the Contract. The conference shall be attended by the Contractor and his foreman who will be on the job daily to supervise the work and handle any items which may arise that need immediate decisions. Representatives of the Owner will be present. This conference may be scheduled to coincide with the work and payment scheduling conference.

40. SCHEDULING AND USE OF PREMISES

The Owner shall approve the sequence of construction. Where directed, the Contractor shall perform a complete installation for each type of work. These sample installations shall set the minimum standards of quality for work in compliance with the Construction Contract Documents. The Contractor shall not proceed with other installations of the same type of work until approval in writing of sample installation by Landscape Architect and Owner has been received.

Approval of sample installation does not indicate acceptance of all remaining work.

The Owner will designate a staging area for construction equipment. It is understood that the Contractor shall supply his own utilities and security for this area.

The Contractor must maintain safe ingress and egress for users of the adjacent park areas during construction.

41. TESTING

If the Contract Documents, laws, ordinances, rules, regulations or orders of any public authority having jurisdiction require any portion of the work to be inspected, tested or approved, the Contractor shall give the Landscape Architect timely notice of its readiness so the Landscape Architect may observe such inspection, testing or approval. The Contractor shall bear all costs of such inspections, tests or approvals conducted by public authorities. Unless otherwise provided, the Owner shall bear all costs of other inspections, tests or approval.

If the Landscape Architect determines that any work requires special inspection, testing, or approval, he will, upon written authorization from the Owner, instruct the Contractor to order such special inspection, testing, or approval, and the Contractor shall give notice. If such special inspection or testing reveals a failure of the work to comply with the requirements of the Contract Documents, the Contractor shall bear all costs thereof, including compensation for the Landscape Architect's additional services made necessary by such failure; otherwise the Owner shall bear such costs, and an appropriate Change Order shall be issued.

Required certificates of inspection, testing or approval shall be secured by the Contractor and

promptly delivered by him to the Landscape Architect.

If the Landscape Architect is to observe the inspections, tests or approvals required by the Contract Documents, he will do so promptly and, where practicable, at the source of supply.

# SPECIFICATIONS

## **Plymouth District Library: Planting Improvements**

**Due Date:** July 8, 2024 – 10:30 a.m.

InSite Design Studio, Inc.

**Issued By:**

InSite Design Studio, Inc.

412 Longshore Drive

Ann Arbor, Mi 48105

# SECTION 31 10 00 SITE PREPARATION

## PART 1 - GENERAL

### 1.01 SUMMARY

- A. Scope: Prepare site as shown on the drawings and as specified herein.
- B. Extent of work shall include but not be limited to:
  - 1. Protection of persons and property
  - 2. Salvaging of existing elements to remain
  - 3. Protection of existing vegetation
  - 4. Removal and disposal of existing vegetation
  - 5. Stripping and stockpiling of topsoil with erosion control
  - 6. Demolition, Removal & Disposal of above and below grade improvements
  - 7. Erosion Control
  - 8. Coordination with irrigation contractor

### 1.02 RELATED DOCUMENTS

- A. Attention is directed to Bidding and Contracting requirements, drawings and general provisions of the Contract, including General Conditions and Division 1 Specification sections, which are hereby made part of this section.
- B. Related Sections:
  - 1. Erosion and Sedimentation Controls 31 25 00
  - 2. Fine Grading, Lawn Seeding, and Site Stabilization 32 92 00
  - 3. Plants 32 93 00

### 1.03 PERMITS

- A. The CONTRACTOR shall secure the necessary permits to remove any existing trees, protect any existing trees, and to plant any proposed trees.

### 1.04 REFERENCE SPECIFICATION

- A. Materials and Work covered under this Section shall be in accordance with MDOT (2020 edition), Wayne County, and City of Plymouth standards and specifications unless otherwise indicated. If a conflict exists between specifications, the more rigorous shall govern.

### 1.05 QUALITY ASSURANCE

- A. Use adequate numbers of skilled workers who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the work of this Section.

### 1.06 REGULATORY REQUIREMENTS

- A. Conform to applicable county and state law for disposal of debris at locations outside of Owner's property.
- B. Coordinate clearing Work with existing utilities

## PART 2 - PRODUCTS

### 2.01 CONSTRUCTION FENCE

- A. Fence shall be TENAX safety fence available through Construction Supply, 1.800.887.6767 or approved substitution.
- B. Line, corner, terminal, gate posts, and frames shall be steel. Tie wire shall be aluminum.

### 2.02 TOPSOIL

- A. Topsoil shall be as described in - FINE GRADING, LAWN SEEDING and SITE STABILIZATION SECTION (32 92 00) - of these specifications.

## **PART 3 - EXECUTION**

### **3.01 PROTECTION OF PERSONS AND PROPERTY**

- A. Construction Fence shall be installed as indicated on the plans and in addition any area where the CONTRACTOR feels it is necessary to protect vegetation, structures, private properties, or secure construction and hazardous areas. Additional fence beyond what is indicated on the plans shall be installed at the CONTRACTOR'S expense.
- B. Construction fence shall be installed per manufactures standards and specifications.
- C. Protect structures, sidewalks, pavements, and other facilities from damage caused by settlement, lateral movement, undermining, washout, and other hazards created by all construction operations.
- D. Use means necessary to protect persons and property as required by local and state governing authorities including traffic warning devices when working in right-of-way.
- E. Maintain access to the site at all times. Protect Benchmarks from damage or displacement. Locate, identify and protect utilities that remain from damage. Protect trees, existing lighting, hardscape elements, site furnishings, plant growth and features designated to remain as final landscaping.

### **3.02 PROTECTION OF EXISTING VEGETATION**

- A. Prior to commencing work arrange an on-site meeting with the CONSULTANT to review limits of grading, and subsequent, tree/vegetation protection or removal.
- B. Trees not indicated to be removed or transplanted with or without tree protection should not be injured or defaced in any way. Any damage shall be replaced or repaired by a skilled tree surgeon approved by the CONSULTANT at no expense to the OWNER. Installation of construction fence shall serve as tree protection and shall not damage bark or root structure of tree.
- C. Storage of materials, parking vehicles, excess foot traffic, or stockpiling inside the drip line of trees to remain shall not be permitted.
- D. When stripping existing topsoil for planting beds within the critical root zone of the existing Red Maple at the front of the building, the CONTRACTOR shall only use hand tools or limited herbicide to prevent any damage to the root system of the tree.
- D. Owner shall be justly compensated for any damage to existing trees, whether repairable or not, at the rate of \$100.00 per inch of cross-section diameter at 48" above grade for non-heritage trees (ex: 10" DBH x \$100 = \$1000) or \$150.00 per inch of cross-section diameter at 48" above grade for heritage trees (ex: 10" DBH x \$150 = \$1500). Any damaged or removed trees without first obtaining a permit will be 125% of the above pricing plus an additional \$500 fine.

### **3.03 UTILITY SERVICES**

- A. Protect existing utilities indicated or made known.
- B. Coordinate with utility companies and agencies as required, arrange necessary shut off and obtain written approval before interrupting existing utilities.
- C. Provide necessary bypass connections to maintain service to occupied areas or adjacent properties.

### **3.04 SOIL EROSION**

- A. The following is in addition to soils erosion control plans and notes.
- B. Operations shall be conducted in such a manner as to reduce and contain erosion. The amount of time land is exposed to the elements by grading operations shall be the minimum.
- C. Public Act 346, the Soil Erosion and Sedimentation Control Act of 1972, must be complied with. Should the local regulatory agency determine that the construction operation is in violation of the Soil Erosion Act, the CONTRACTOR shall take immediate action to remedy the situation.
- D. Responsibility to render the site erosion free is the CONTRACTOR'S. Approval by the CONSULTANT of any method to accomplish this does not relieve the CONTRACTOR of full responsibility.
- E. Use means necessary to prevent dust from becoming a nuisance to the public, to neighbors and to other work being performed on or near the site.
- F. Delays due to shut down from non-compliance with the Soil Erosion Act are the responsibility of the CONTRACTOR and shall be at the CONTRACTOR's expense.
- G. All temporary erosion control measures shall be installed as indicated on plans and in such a construction sequence so as to prevent erosion and sedimentation.



- H. The CONTRACTOR is unable to establish a permanent cover; all disturbed areas shall be seeded prior to the 15th of October with temporary erosion control as defined in the – FINE GRADING, LAWN SEEDING and SITE STABILIZATION Section (32 92 00) – of these specifications and at rate of pounds per acre as indicated on drawings.
- I. Any disturbed area not paved, seeded or mulched, or built upon by November 15, shall be mulched by the CONTRACTOR with temporary mulch at a rate and as specified in the FINE GRADING, LAWN SEEDING and SITE STABILIZATION Section (32 92 00) - of these Specifications.
- J. The CONTRACTOR shall maintain sedimentation and erosion controls as indicated on plans. The CONTRACTOR shall remove silt from the bottom of any catch basins and traps, and establish finished grade prior to the installation of the permanent seed cover.

### 3.05 REMOVAL AND DISPOSAL OF EXISTING VEGETATION

- A. As specified on the plans, the CONTRACTOR shall review all tree removals with the CONSULTANT prior to any operations.
- B. Completely remove all trees, herbaceous vegetation, woody shrubs and stumps from areas as noted on the drawings and as directed by the CONSULTANT. Remove without injury to trees to remain. Do any additional cutting or trimming only as necessary and as directed by the CONSULTANT in accordance with standard horticultural practice.
- C. Stumps shall be completely removed or ground. The stump hole or other holes from which obstructions have been removed shall be backfilled to the adjacent grade in accordance with - FINE GRADING, LAWN SEEDING and SITE STABILIZATION SECTION (32 92 00) – of these specifications.

### 3.06 DEMOLITION

- A. Remove and Dispose: completely remove and properly dispose of off-site all items referenced on the plans and miscellaneous debris except salvageable material indicated on the plans or by the OWNER. Backfill in accordance with the - FINE GRADING, LAWN SEEDING and SITE STABILIZATION SECTION (32 92 00) – of these specifications.
- B. Any damage to adjacent pavement, pavement base, subbase, or utility structures caused as a result of the removal of the bituminous or concrete surface is the complete responsibility of the CONTRACTOR and shall be corrected by the CONTRACTOR at his/her expense.
- C. Remove and Salvage: carefully remove, clean and salvage items referenced on the plans. Items shall be delivered and stored, as directed by the OWNER and CONSULTANT. Items to be salvaged will remain the property of the OWNER.
- D. Dispose of all materials from the site in a legal manner.
- E. Do not store or permit debris to accumulate on the job site.
- F. Burning is not permitted.

### 3.07 Erosion Control

- A. Remove and Dispose: completely remove and properly dispose of off-site all items referenced on the plans and miscellaneous debris except salvageable material indicated on the plans or by the OWNER. Backfill in accordance with the - FINE GRADING, LAWN SEEDING and SITE STABILIZATION SECTION (32 92 00) – of these specifications.
- B. Any damage to adjacent pavement, pavement base, sub base, or utility structures caused as a result of the removal of the bituminous or concrete surface is the complete responsibility of the CONTRACTOR and shall be corrected by the CONTRACTOR at his/her expense.
- C. Remove and Salvage: carefully remove, clean and salvage items referenced on the plans. Items shall be delivered and stored, as directed by the OWNER and CONSULTANT. Items to be salvaged will remain the property of the OWNER.
- D. Dispose of all materials from the site in a legal manner.
- E. Do not store or permit debris to accumulate on the job site.
- F. Burning is not permitted.

END OF SECTION

# SECTION 31 25 00 EROSION AND SEDIMENTATION CONTROLS

## PART 1 - GENERAL

### 1.01 SUMMARY

- A. This Section includes conducting earthwork and earth change activity operations in a manner to protect Waters of the State (of Michigan), storm drains, and adjacent properties from soil erosion and sedimentation.

### 1.02 RELATED DOCUMENTS

- A. Attention is directed to Bidding and Contracting Requirements, Drawings, and General Provisions of the Contract, including General Conditions and the City of Plymouth Standard Specifications for Construction, which are hereby made part of this Section.
- B. Related Sections:
  - 1. Site Preparation 31 10 00
  - 2. Fine Grading, Lawn Seeding, and Site Stabilization 32 92 00
  - 3. Plants 32 93 00

### 1.03 DEFINITIONS

- A. "Waters of the State" includes the Great Lakes and their connecting waters, lakes, ponds, and streams which may or may not be serving as a County drain as defined by the drain code; or any other body of water that has definite banks, a bed, and visible evidence of a continued flow or continued occurrence of water or wetlands regulated under Part 303 of Act 451 of Michigan compiled laws.

### 1.04 SUBMITTALS

- A. Submit product information for materials proposed for use.

### 1.05 QUALITY CONTROL

- A. Requirements of regulatory agencies: For earth changes, comply with the following:
  - 1. Part 91, Soil Erosion and Sedimentation Control (SESC) of the Natural Resource & Environmental Protection Act, 1994 PA 451, as amended (Part 91).

### 1.06 PERFORMANCE REQUIREMENTS

- A. Implement the Soil Erosion Control Plan including required maintenance during construction and final removal as directed in the Plans, and as needed per site conditions, and as required by site inspections by City of Plymouth.
- B. Control runoff, soil erosion, and sedimentation. No sediment should leave the site.
- C. Prevent wind erosion. No visible emissions (dust) should leave the site.
- D. Comply with Wayne County and City of Plymouth Sedimentation Control Procedures.

### 1.07 REFERENCES

- A. Guidebook of Best Management Practices for Michigan Watersheds ([http://www.michigan.gov/deq/0,1607,7-135-3313\\_3682\\_3714-118554--,00.html](http://www.michigan.gov/deq/0,1607,7-135-3313_3682_3714-118554--,00.html))
- B. City of Plymouth Standard Specifications for Construction

## PART 2 – PRODUCTS

### 2.01 GENERAL

- A. Inlet filters shall be silt sack, Dandy Bag, or approved equal.
- B. Compost socks shall be 8" min. width, and shall be approved of by the CONSULTANT prior to purchase and installation.

## **PART 3 - EXECUTION**

### **3.01 GENERAL**

- A. Where the following events result in the need for additional or modified soil erosion and sedimentation control installations to meet the objective of the referenced procedures, provide remedial installations on a timely basis:
  - 1. Unanticipated alterations to the construction schedule, or
  - 2. Unanticipated site conditions except severe weather damage such as a tornado, flood, or fire.
- B. Install temporary erosion and sedimentation control measures prior to or upon commencement to earthwork activities.
  - 1. Place stockpiles and other spoil piles away from the drainage system to minimize sediment transport.
    - Keep as few stockpiles as possible during the course of the project. Place compost socks around any soil pile prior to storage of material. If the stockpile and/or spoil pile must remain onsite overnight, or if the weather conditions indicate the chance for precipitation:
      - a. Cover the pile with water-repellent material to prevent erosion, or
      - b. Install compost socks around the base of the pile to prevent transport of sediment to the storm water system, and wet the pile as needed to prevent wind erosion, or
      - c. Apply other control methods as appropriate to the site.
    - 2. Where runoff enters the existing storm water system, protect the storm system from sedimentation.
      - a. Temporary inlet protection must prevent the release of sediment and allow for proper drainage.
        - i. Use of burlap is not acceptable as a soil erosion and sedimentation control measure.
        - ii. If filter fabric is used on drains, ensure the filter fabric is placed over (not under) the storm grates to facilitate maintenance (cleaning) of the controls.
        - iii. If high storm water flows are expected, use silt sacks or Dandy Bags in lieu of filter fabric for drain protection. Based on site conditions select regular or high flow silt sacks as appropriate.
- C. Utilize a water truck as needed or as directed by CONSULTANT or OWNER for dust control.
- D. CONTRACTOR shall remove sediment tracked onto the pavement on a daily basis at minimum. Use sweeper more frequently as dictated by site conditions. Vacuum sweeper shall be used as directed by CONSULTANT or OWNER if CONTRACTOR's methods are determined to be inadequate for removal of sediment from paved surfaces.
- E. Maintain erosion and sedimentation controls on a daily basis until the Contract has been completed and accepted. Maintenance shall include:
  - 1. Repair of damaged installations,
  - 2. Replacement of lost soil erosion and sedimentation control measures, and
  - 3. Periodic removal of collected silt and sedimentation as required or directed to maintain effectiveness of the silt traps, filters, and basins.
- F. Correct non-conforming soil erosion and sedimentation control work on a timely basis within 24 hours, if Waters of the State are being impacted, or within five (5) days if not impacting Waters of the State.

### **3.02 CLEAN UP**

- A. Remove temporary erosion control measures after permanent soil erosion measures are in place and the area is stabilized unless ordered by the OWNER's representative to remain in place. Care shall be taken during removal to prevent soil erosion and sedimentation.
- B. Clean any pavement that has had stored stockpiles of soil.

**END OF SECTION**

# SECTION 32 92 00 FINE GRADING, LAWN SEEDING and SITE STABILIZATION

## PART 1 - GENERAL

### 1.01 SUMMARY

- A. Provide all fine grading and seeding where shown on Drawings, as specified herein and as necessary for a complete and proper installation.
- B. Work shall include but not be limited to:
  - 1. Integrating compost into landscape bed areas.
  - 2. Lawn sod installation at any existing lawn areas disturbed during the planting installation.

### 1.02 RELATED DOCUMENTS

- A. Attention is directed to Bidding and Contracting Requirements, Drawings and General Provisions of the Contract, including General Conditions and the Wayne County Standard Specifications for Construction, which are hereby made part of this Section.
- B. Related sections:
  - 1. Site Preparation 31 10 00
  - 2. Erosion and Sedimentation Controls 31 25 00
  - 4. Plants 32 93 00

### 1.03 REFERENCE SPECIFICATION

- A. AOSA -Association of Official Seed Analysis: Rules for testing Seeds, Journal of Seed Technology, 1991 Edition
- B. TAPPI-Technical Association of the Pulp and Paper Industry
- C. AOAC - Official Methods of Analysis, Association of Official Analytical Chemists.
- D. Materials and work covered under this Section shall be in accordance with MDOT (2020 edition), Wayne County, Standard Specifications for Construction unless otherwise indicated. If a conflict exists between specifications, the more rigorous shall govern.

### 1.04 QUALITY ASSURANCES

- A. Soil amendments: Copies of invoices shall be provided to the CONSULTANT. Samples must be provided if requested by the CONSULTANT.
- B. Seed: Provide the CONSULTANT with manufacturer's certification of compliance to the Specifications prior to seeding.
- C. The CONTRACTOR shall notify the CONSULTANT of seed sources 30 days after the contract award.
- D. CONTRACTOR shall review seed sources with CONSULTANT prior to ordering and shall submit an invoice following purchase and delivery of the seed.
- E. Installation of seed shall be carried out by CONTRACTOR and their employees who are thoroughly experienced and skilled in the necessary crafts and who are completely familiar with the specified requirements and methods needed for proper performance of the work of this section. The CONTRACTOR shall have a minimum of five (5) years documented experience in comparable work.
- F. Grading and seeding layout shall be reviewed by the CONSULTANT prior to completion.

### 1.05 SUBMITTALS

- A. The CONTRACTOR shall submit to the CONSULTANT sources for seed 30 days after contract award.
- B. The CONTRACTOR shall submit to the CONSULTANT a plan and schedule for seeding at least two (2) weeks prior to the scheduled commencement of work.
- C. The CONTRACTOR shall submit to the CONSULTANT results of the soils analysis and starter fertilizer recommendation dictated in TOPSOIL section of this Specification.

### 1.06 DELIVERY, STORAGE AND HANDLING

- A. Soil amendments shall be kept dry.
- B. Seed shall be delivered in original sealed containers, labeled in accordance with State Regulations and the US Department of Agriculture Rules and Regulations under the Federal Seed Act. Seed shall be stored in such a manner that it will be protected from damage by heat, moisture, rodents, or other causes.

#### 1.07 SEEDING TIME

- A. Permanent lawn sod shall be done between May 1 and June 15, or between August 15 and September 15 or as otherwise approved by the CONSULTANT.
- B. Erosion control matrix can be seeded in the fall prior to the spring planting or within the same planting season, as conditions necessitate for erosion control and establishment of the permanent seed matrices.

## PART 2 - PRODUCTS

### 2.01 STARTER FERTILIZER

- A. Starter fertilizer for lawn seed and sod: Starter fertilizer shall be Milorganite (6-2-0), available through Rhino Seed and Landscape Supply, Brighton, Michigan (800.482.3130), or approved substitute.

### 2.02 Lawn Sod

- A. Replace any existing lawn areas disturbed during the construction process with sod chosen by the OWNER and approved by the CONSULTANT.
- B. Sod shall be sourced from a local source approved by the CONSULTANT.

### 2.03 WATER

- A. Source: If not available on site, shall be provided by the CONTRACTOR. CONTRACTOR may rent a hydrant meter from Oakland County's field operations unit, and must install backflow preventer on the meter assembly. Rent is \$1000 with the fee being applied to water use counted by the hydrant meter. Any unused portion of the rental fee returned to the CONTRACTOR at the time the CONTRACTOR returns the meter assembly to the OWNER. If the CONTRACTOR exceeds the rental amount at time of return, the CONTRACTOR shall pay Customer Service the difference.
- B. Quality: Water supplied by the CONTRACTOR shall be free of substances harmful to plant growth.

### 2.04 TOPSOIL

- A. Follow requirements outlined in the – SITE PREPARATION 31 10 00 Section – of these specifications for information on existing topsoil.
- B. Quantity: The CONTRACTOR shall be responsible for estimating the quantity of imported topsoil necessary to obtain the specified depth of topsoil to be re-spread. The CONTRACTOR shall report any discrepancy between work on the Plans and in the Specifications to the CONSULTANT.
- C. Imported topsoil shall be friable sandy loam capable of supporting optimal plant growth and development. It shall be free of clay lumps, subsoil, invasive weeds and seeds, stones, sticks and other extraneous materials.
- D. Analysis for existing and any necessary imported topsoil for planting areas shall be done at the CONTRACTOR'S expense and shall be submitted to OWNER/CONSULTANT for approval prior to use.
  - a. The structural topsoil analysis for PLANTING AREAS shall include the following and be within the listed parameters:
  - b. 1. Clay content: 5-15%
  - c. 2. pH range: 6.0-7.5
  - d. 3. Organic matter content: 5-10%
  - e. Testing for topsoil for Planting areas may be performed through A&L Great Lakes Laboratories, Inc., Fort Wayne Indiana 260.483.4759.
- E. Soil materials for backfill and fill at all locations shall be satisfactory site-excavation or borrow materials, unless otherwise indicated. If site-excavated material is unsatisfactory or insufficient to meet fill requirements,

furnish approved borrow material at CONTRACTOR'S expense. Borrow material shall be obtained from approved off-site sources

#### 2.05 COMPOST

- A. Compost shall be used only from a facility registered within the State of Michigan, or as approved by CONSULTANT.

#### 2.06 SOD

- A. Sod shall meet MDOT standards and specifications for Class A Sod.
- B. Type: Kentucky Bluegrass Blend
- C. Quality:
  1. Dense, healthy, field-grown on mineral topsoil (less than 10% organic content) with the grass having been mowed at one-inch height before lifting from field.
  2. Dark green in color, relatively free of thatch, free from diseases, weeds and harmful insects.
  3. Reasonable free of objectionable grassy and broadleaf weeds. Sod will be considered weed free if no more than ten such weeds are found per hundred square feet of sod.
  4. Sod will be rejected if found to contain the following weeds: Bermuda grass, bent grass, perennial sorrel, and brome grass.
  5. Sod grown on peat will not be approved.

### PART 3 - EXECUTION

#### 3.01 AMENDING TOPSOIL and FINE GRADING

- A. Repair topsoil as directed by the CONSULTANT so that finish grades are met.
- B. Compost shall be placed to a minimum depth of two (2) inches for planting bed areas thoroughly mixed into the top eight (8) inches of soil, varying not more than one (1) inch in ten (10) feet, ensuring positive drainage away from building throughout.
- C. Final grades will be reviewed by the CONSULTANT prior to demobilization/completion.

#### 3.02 SODDING

- A. Sod shall be installed at locations indicated on plans. In addition an approved sod may be used in lieu of seed at the CONTRACTOR'S option and expense if he/she feels it is in the best interest of lawn establishment.
- B. Scarify subgrade, spread topsoil. Fertilize topsoil area to be sodded with starter fertilizer at a rate recommended by testing agency defined in the TOPSOIL section of these specifications. Incorporate fertilizer into upper three to four inches of soil.
- C. Timing:
  1. Install sod within 24 hours of delivery
  2. Sod not transplanted within 24 hours of delivery will be rejected.
- D. Rolling Sod Bed: Roll amended soil with 200 pound water-ballast roller.
- E. Moistening Sod Bed: After all unevenness in the soil surface has been corrected, lightly moisten the soil immediately prior to laying the sod.
- F. Laying the Sod:
  1. Lay the first row of sod in a straight line, with subsequent rows parallel to and tightly against each other, with no spaces between strips.
  2. Stagger lateral joints.
  3. Sodded areas shall be flush with adjoining existing lawn or seeded areas.
  4. Do not stretch or overlap sod
  5. Butt all joints tightly to eliminate all voids.
  6. Use a sharp knife to cut sod to fit curves.
- G. Tamping and Rolling Sod:
  1. Thoroughly tamp and roll sod with a 200 pound water-ballast roller to make contact with sod bed.
  2. Roll each entire section of completed sod.
- H. Slopes of 3:1 or Greater

1. Lay sod with staggered joints secure by pegs driven through sod into soil until pegs are flush with turf.
  2. Space pegs 18 inches on center.
  3. Pegs to be 1-inch square x 6-inch length of lath.
- I. Watering: Thoroughly water sod immediately after installation to wet the underside of the new sod pad and the soil immediately below to a depth of 6".

### 3.03 LAWN WEEDS

- A. Invasive grasses such as crabgrass, smooth brome, reed canary, quack grass or other invasive grasses and/or forbs shall be spot controlled beginning in May with Herbicide-A (or approved substitution) until the end of the first full growing season and/or before the plants set seed. Lawn herbiciding maintenance shall not threaten any adjacent planting areas. Alert the CONSULTANT if a conflict between lawn maintenance and the health of the planting areas exists.

### 3.04 EROSION CONTROL BLANKET INSTALLATION

- A. Install erosion control blanket per manufacturer's specifications in locations indicated on Plans. In addition, erosion control blanket shall be installed where the CONTRACTOR feels it necessary to stabilize the site. Additional blanket beyond what is indicated on the Plans shall be provided and installed at the expense of the CONTRACTOR.
- B. Begin at top of the slope by anchoring the blanket in a 6-inches deep x 6-inches wide trench. Backfill and compact the trench after staking.
- C. Roll the blankets down the slope in the direction of the water flow.
- D. The edges of parallel blankets must be staked with approximately two (2)-inch overlap. When blankets must be spliced down the slope, place blankets end over end (shingle style) with approximately six (6)-inch overlap. Stake through overlapped area, approximately 12 inches apart.
- E. In general, stake blanket approximately one (1) stake per one (1) square foot.

### 3.06 MULCHING

- A. Lawn seeded areas shall be mulched per MDOT Specifications, latest edition.

### 3.07 ESTABLISHMENT AND ACCEPTANCE: LAWN

- A. The OWNER will water and maintain lawn for this project. OR CONTRACTOR may use building water to maintain lawn for this project.

END OF SECTION

## SECTION 32 93 00 PLANTS

### PART 1 - GENERAL

#### 1.01 SUMMARY

- A. Provide Planting where shown on drawings as specified herein, and as needed for a complete and proper installation.
- B. Work shall include:
  - 1. Tree and shrub planting
  - 2. Perennial and vine planting
  - 3. Landscape bed steel edging

#### 1.02 RELATED DOCUMENTS

- A. Attention is directed to Bidding and Contracting requirements, drawings and general provisions of the Contract, including General Conditions and Division 1 Specification sections, which are hereby made part of this section.
- B. Related Sections:
  - 1. Fine Grading, Lawn Seeding and Site Stabilization 32 92 00
  - 2. Plant Maintenance and Guarantee Period 32 93 20

#### 1.03 REFERENCE SPECIFICATIONS

- A. AOSA -Association of Official Seed Analysis:
- B. Rules for testing Seeds, Journal of Seed Technology, 1991 Edition
- C. TAPPI-Technical Association of the Pulp and Paper Industry
- D. AOAC - Official Methods of Analysis, Association of Official Analytical Chemists.
- E. Materials and Work covered under this Section shall be in accordance with MDOT (2012 edition), Wayne County, and City of Plymouth standards and specifications unless otherwise indicated. If a conflict exists between specifications, the more rigorous shall govern.

#### 1.04 QUALITY ASSURANCE

- A. CONTRACTOR shall provide CONSULTANT with a list specifying sources of plant material.
- B. Inspection: The CONSULTANT may inspect plants at place of growth or on site prior to planting. Rejected material shall be immediately removed from site. Material damaged during planting may be rejected after planting. Material approved at place of growth, but damaged during transportation may also be rejected.
- C. Installation of plants shall be carried out by Contractors and their employees who are thoroughly experienced and skilled in the necessary crafts and who are completely familiar with the specified requirements and methods needed for proper performance of the work of this section. The CONTRACTOR shall have a minimum of five (5) years documented experience in comparable work.

#### 1.05 DELIVERY, STORAGE AND HANDLING

- A. Plant material delivery shall be the same day as planting. No plants shall be stored at the site without permission of the CONSULTANT. Plants shall be carefully loaded and unloaded so as not to damage branching or root mass. Dropping of material will not be allowed. Plants in full leaf shall be thoroughly wetted down and completely covered with a wet tarp during transportation.
- B. All plant roots must be kept in a moist condition.
- C. Digging and Handling Plant Material: Digging shall be during the dormant season, preferably between 1 October and 1 May. Plant material which is poorly packed, or which arrives with the roots in a dry condition, as a result of improper packing, delay in transit, or from any other cause, will not be accepted. Stock shall be handled in such a manner that the roots shall remain intact, the branches unbroken, and the bark intact and not loosened from the wood. Stock shall be protected from drying and from temperatures below 50°F and in excess of 90°F prior to planting.



## 1.06 SUBMITTALS

- A. The CONTRACTOR shall submit to the CONSULTANT sources for all plant material 30 (thirty) days after contract award

## PART 2 - PRODUCTS

### 2.01 PLANTS

- A. Material shall be of the size, genus, species, variety and any other special designation as shown and scheduled for on the drawings, on the attached Proposal Form or in these Specifications. No substitution of species, variety or size shall be accepted without written approval from the CONSULTANT and OWNER. Plant material shall be nursery grown, under climatic conditions similar to those in the locality of the project.
- B. Quality: Plants shall comply with the recommendations and requirements of ANSI Z60.1 "American Standard for Nursery Stock." Plants shall be healthy, vigorous stock, grown in a recognized nursery in accordance with good horticultural practice and free of disease, insects, eggs, larvae and defects such as knots, sunscald, injuries, abrasions, or disfigurement.
  - 1. Plants balled with plastic burlap will not be accepted.
- C. Labeling: All plants shall be labeled with securely-attached waterproof tab bearing legible designation of botanical and common name.
- D. Formal arrangements if/where shown on planting plan shall have trees selected for uniform height and spread.

### 2.02 TOPSOIL

- A. Topsoil shall be as described in - FINE GRADING, LAWN SEEDING and SITE STABILIZATION Section (32 92 00) - of these specifications.

### 2.03 FERTILIZER

- A. Fertilizer shall be slow release, at minimum 50% derived from a natural, organic source, 12-0-6 or approved substitution.

### 2.04 COMPOST

- A. Compost shall be used from one of the following options:
  - a. Ann Arbor Compost Center: 4170 Platt Rd, Ann Arbor, Mi 48108. (410)-849-6117.
  - b. City of Ann Arbor, available from City of Ann Arbor Materials Recovery Facility 1(734) 971-8600.
  - c. Alternative source approved of by CONSULTANT.

### 2.05 AMENDED SOIL

- A. Amended soil shall be prepared on site by mixing four (4) parts topsoil, one (1) part compost and adding starter fertilizer for planting beds at the recommended rate as defined in the TOPSOIL section of the Fine Grading, Lawn Seeding and Site Stabilization section of these specifications.

### 2.06 PLANTING MIX

- A. Planting mix shall consist of 50% excavated material (from same stratification as removed); thoroughly mixed with 50% amended soil.

### 2.07 PRE-PLANTING SUPPORT

- A. Material for support through transplanting shock shall be Bio-Plex Technical Transplant Concentrate and Plant Enhancer or approved substitution. This product is available through Bio-plex, Inc., 1.800.441.3573

### 2.08 WATER

- A. Source: Building water is available to the CONTRACTOR
- B. Quality: Water supplied by the CONTRACTOR shall be free of substances harmful to plant growth.

### 2.09 MULCH

- A. Material around isolated trees and in planting bed areas shall be non-dyed shredded hardwood bark free of weeds, soil, sticks or trash, and shall have a uniform appearance. A sample shall be approved by CONSULTANT prior to application.

1. Colored or dyed mulch will not be accepted.

## 2.10 LOCATION STAKES

- A. Stakes for plant locations shall be 1" X 2" X 3', and supplied by the CONTRACTOR.

## 2.11 TREE SUPPORT

- A. Stakes for tree support shall be 2" x 2" hardwood stakes or approved equal driven 6-8" outside of the rootball.
- B. Support shall be 2"-3" wide belt-like nylon or plastic straps DO NOT USE rope or wire encased in a hose.
- C. Tree support should include any transplanted trees.

## 2.12 STEEL LANDSCAPING EDGING

- A. Steel Landscaping Edging shall be painted DURAEDGE, 3/16" thick x 4" depth with interlocking joints, corner joints and steel stakes, as manufactured and supplied by The J.D. Russell Company, 1.800.888.9708, or approved substitution.
- B. Color shall be determined by CONSULTANT prior to ordering.

## PART 3 - EXECUTION

### 3.01 PLANTING SUPPORT

- A. If trees and/or shrubs are planted from May through August, or when there are drought conditions during September through April, the CONTRACTOR shall provide planting support to each balled and burlapped specimen with Bio-Plex Technical Transplant Concentrate and Plant Enhancer (per manufacturer's instructions on label) by means of:
  1. A foliar application (through spray) upon receipt of trees and shrubs
  2. A root application (through tree gators) upon planting of trees and shrubs

### 3.02 LAYOUT

- A. Locations of trees, shrubs, perennials and groundcover shall be established by the CONTRACTOR according to plans.
- B. Locations for trees and shrubs shall be identified with stakes. Different species shall be clearly labeled and marked with different color ribbon, paint or permanent marker on the stake.
- C. The location of the grant funded replacement tree shall be staked by the CONSULTANT, the location of which does not appear on plans.
- D. Perennials, ornamental grasses shall be laid out in their containers on top of the ground.
- E. Groundcover zones shall be laid out by paint.
- F. Review: The CONTRACTOR shall notify the CONSULTANT when staking and layout is completed and allow two working days for modifications and notice to proceed with planting.

### 3.03 TREE and SHRUB PLANTING

- A. Balled and/or container stock as per detail:
  1. Set plants plumb.
  2. **B&B STOCK:**
    - a. Remove all bindings and burlap from top one half of ball and remove from site.
    - b. Cut wires of basket and fold completely down into hole.
  - CONTAINER STOCK:**
    - a. Remove all containers and packaging material before planting and remove from site.
  3. Backfill with planting mix. Water and foot compact at intervals. Do not damage root structure.
  4. Mulch to a depth as shown on the details and soak the mulch with water. Thoroughly soak root ball with water. Mulch is not necessary for prairie shrubs.
  5. Prune all dead wood at first live lateral bud in accordance with standard horticultural practices using sharp instruments cleaned frequently. If necessary, any additional pruning will be directed by the CONSULTANT. Do not prune terminal leader or branch tips. A plant's natural form shall not be compromised by any pruning activities. Promptly remove all pruned material from site.
  6. STAKE all trees as follows:
    - a. Stakes shall be driven 6"-8" outside of the rootball.

- b. Loosely stake tree to allow for trunk flexing.
  - c. Attach support straps around tree trunk just below first branch of tree (2 per tree on opposite sides of the tree).
  - d. Remove all tree support after one year.
7. Remove all nursery applied tree wrap, tape or string from trunk and crown. Remove any tags or labels and remove from site.

#### **3.04 PERENNIAL, and GROUNDCOVER PLANTING**

- A.** Container stock as per detail:
1. Remove all containers and packaging material before planting and remove from site.
  2. Set plants plumb.
  3. Backfill with planting mix. Do not damage root structure.
  4. Mulch to a depth as shown on the details and soak the mulch with water. Thoroughly soak root matter with water.

**END OF SECTION**

# SECTION 32 93 20 PLANT MAINTENANCE and GUARANTEE PERIOD

## PART 1 - GENERAL

### 1.01 SUMMARY

- A. The CONTRACTOR shall furnish all labor, materials, equipment, transportation, services and necessary appurtenant work as required to complete the work as shown on the Plans and/or as specified herein.
- B. Extent of work shall include but not be limited to:
  - 1. Disease and insect control
  - 2. Pruning
  - 3. Fertilizer Application
  - 4. Mulching
  - 5. Removal of plant support and tags (if any)
  - 6. Watering
  - 7. Guarantee of Plant Material for one year

### 1.02 RELATED DOCUMENTS

- A. Attention is directed to Bidding and Contracting requirements, drawings and general provisions of the Contract, including General Conditions and Division 1 Specification sections, which are hereby made part of this section.
- B. Related Sections:
  - 1. Fine Grading, Lawn Seeding and Site Stabilization 32 92 00
  - 2. Plants 32 93 00

### 1.03 REFERENCE SPECIFICATION

- A. Materials and Work covered under this Section shall be in accordance with MDOT (2012 edition), Wayne County, and City of Plymouth standards and specifications unless otherwise indicated. If a conflict exists between specifications, the more rigorous shall govern.

### 1.04 QUALITY ASSURANCE

- A. Use adequate numbers of skilled workers who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the work of this Section.

### 1.05 DEFINITIONS

- A. Definition of Period for lawn and plant material: The Plant Maintenance and Guarantee Period begins the spring following planting and continues until the end of that growing season. A growing season is defined as the beginning of April through mid- November. If planting is not completed prior to the end of May, the First Maintenance and Guarantee Period includes the remainder of that growing season plus the next growing season.
- B. Definition of Period for Planting Areas: The Maintenance and Guarantee Period begins the spring following planting and continues until the end of that growing season. A growing season is defined as the beginning of May through mid-November. If planting is not completed prior to the end of May, the First Maintenance and Guarantee Period includes the remainder of that growing season plus the next growing season.

### 1.06 SCHEDULE

- A. Schedule: A minimum of one visit is required for each of the following time periods during the Guarantee period. During each visit, CONTRACTOR shall complete all necessary tasks to comply with the requirements outlined in these specifications.
  - 1. 1 April to 15 April
  - 2. 1 May to 15 May
  - 3. 1 June to 15 June
  - 4. 1 July to 15 July
  - 5. 1 August to 15 August
  - 6. 1 September to 15 September

- 7. 1 November to 15 November
- B. Verification of visits, in the form or reports and certified payroll covering visits, shall be provided to the OWNER.

#### 1.07 DELIVERY, STORAGE AND HANDLING

- A. Packaged materials shall be delivered in original containers showing weight, analysis and name of manufacturer. Protect materials from deterioration during delivery and storage.

### PART 2 - PRODUCTS

#### 2.01 PESTICIDES & HERBICIDES

- A. Materials shall comply with Local, State and Federal regulations.
- B. Common IPM (Integrative Pest Management) practices shall be followed. Pesticides and herbicides shall be used as a last resort.

#### 2.02 FERTILIZER

- A. Materials shall conform to the standards of the Association of Agricultural Chemists and shall comply with State and Federal regulations.
- B. Fertilizer for woody plants shall be an organic, slow release with a ratio of 3-1-2 or 3-1-1 or approved substitution.
- C. Maintenance fertilizer for lawn shall contain no phosphorus, shall be derived from an organic product, and slow release with a ratio of 27-0-12 or approved substitution. Fertilizer available from Downtown Home and Garden, 734-662-8122.
- D. There shall be no fertilizer applied to planting areas.

#### 2.03 WATER

- A. Source: If not available on site, shall be provided by the CONTRACTOR.
- B. Quality: Water supplied by the CONTRACTOR shall be free of substances harmful to plant growth.

#### 2.04 MULCH

- A. Material shall be shredded hardwood bark free of weeds, soil, sticks or trash, of a uniform appearance.
  - 1. Colored or dyed mulch will not be accepted.

### PART 3 - EXECUTION

#### 3.01 DISEASE and INSECT CONTROL

- A. Monitoring for diseases and insects shall be the responsibility of the CONTRACTOR. The CONTRACTOR shall monitor all plants at all times for disease and insect problems.
- B. Treatment shall take place in accordance with common IPM practices.
- C. Pesticides shall only be used when and where necessary as approved by the OWNER. Manufacturer's directions and precautions must be followed literally. Applicators shall be licensed by the State of Michigan. Applicators shall be knowledgeable in the application of pesticides and appropriate equipment used. Excess pesticides shall be properly removed from the site.

#### 3.02 PRUNING

- A. Prune all dead wood at first live lateral bud in accordance with standard horticulture practices using sharp instruments cleaned frequently. Pruning shall enhance plant development and ornamental qualities. Do not prune terminal leader or branch tips. A plant's natural form shall not be compromised by any pruning activities.
- B. Additional pruning may be required at the request of the OWNER in order to decrease public liability factors.
- C. Remove immediately after pruning all dead, broken and diseased growth and other pruning debris from the site and dispose of in an environmentally sensitive manner.
- D. Plant material that is "topped" by the CONTRACTOR shall be replaced at the CONTRACTOR's expense.

#### 3.03 MAINTENANCE FERTILIZER APPLICATION

- A. Application shall be according to manufacturer's directions.

- B. Woody Plants
  1. Maintenance Fertilizer application for woody plants shall occur in November of the Second Maintenance and Guarantee Period
  2. Topdress at a rate of 1 pound of nitrogen per 1,000 square feet.
- C. Lawn
  3. Maintenance Fertilizer application for lawn shall occur in May and October of the First and Second Maintenance and Guarantee Periods. For Spring seeding, commencement of maintenance fertilizer shall begin the subsequent fall. For Fall seeding, commencement of maintenance fertilizer shall begin the subsequent spring.
  4. For May fertilizing, topdress at a rate of half (.5) a pound of nitrogen per 1,000 square feet.
  5. For October fertilizing, topdress at a rate of one and a half (1.5) pounds of nitrogen per 1,000 square feet.

**3.04 ORNAMENTAL GRASS MAINTENANCE**

- A. Timing: April maintenance visit.
- B. Cut all dead grass from previous season's growth to a height of eight (8) inches to promote new season's growth and allow for overwintering solitary bee survival.
- C. Remove dead grass immediately after cutting all dead growth and other pruning debris from the site and dispose of in an environmentally sensitive manner.

**3.05 MULCHING**

- A. Monitoring: All mulch beds shall be reviewed in June and September for each Maintenance and Guarantee Period. Any beds that do not meet the following conditions shall be replenished.
  1. Depth shall be four (2) inches typical shredded hardwood bark for individual trees and shrub planting areas.
  2. Depth shall be two (2) inches typical shredded hardwood bark for perennial, ornamental grass and wall stabilization planting areas.
  3. Do not allow mulch to be deeper than four (4) inches.
  4. Keep mulch four (4) away from root collar of trees.

**3.06 REMOVAL of TREE SUPPORT and TAGS**

- A. Repair all damaged guys and stakes during First Maintenance and Guarantee Period
- B. Remove all stakes, guys, labels and support material at the end of the First Maintenance and Guarantee Period and remove from site.

**3.07 WATERING**

- A. Monitor all plants during site visits for water stress.
- B. Water as required to keep all plants in optimum condition (1 inch of total water per week, including rainfall). Apply water in a slow trickle to allow water to penetrate down into root zone of plant.

**3.08 GUARANTEE of MATERIAL**

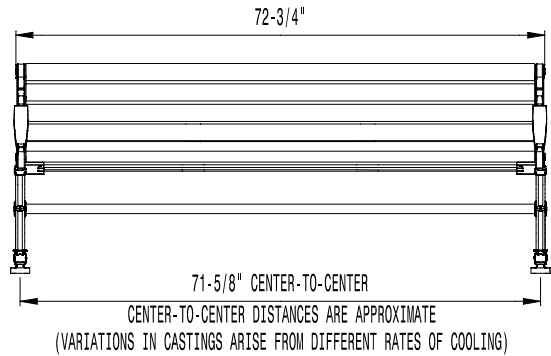
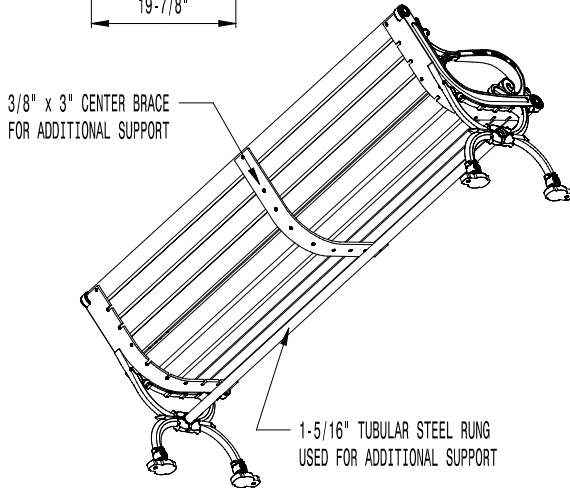
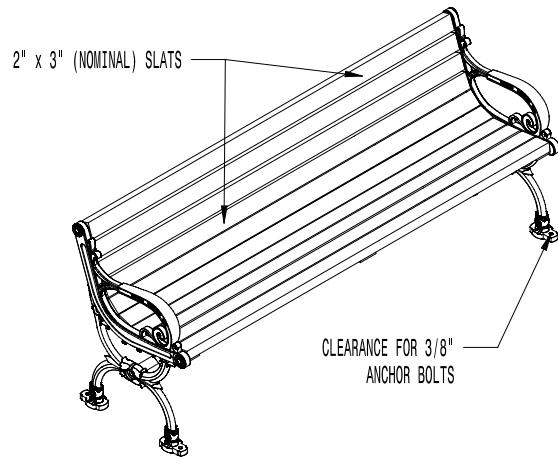
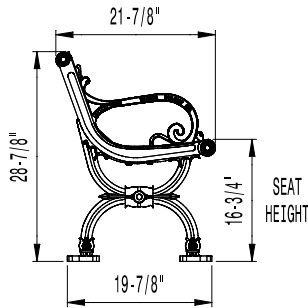
- A. Responsibilities: The CONTRACTOR shall replace, at no cost to the OWNER, all dead vegetation during the Guarantee Period.
- B. Judgment of the plant's health will be the CONSULTANT'S or the OWNER'S.
- C. Planting methods shall be the same as specified herein and in the planting details unless directed by the CONSULTANT.
- D. Limits: Plants replaced during the Maintenance and Guarantee Periods are only under guarantee during those periods.

**END OF SECTION**

*Create a timeless moment.®*

\* ALL DIMENSIONS ARE IN INCHES \*

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**POWDER COATING**

10 STANDARD COLORS, 2 OPTIONAL METALLIC COLORS,  
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IPE WOOD OR 2nd SITE SYSTEMS® REINFORCED RECYCLED PLASTIC SLATS  
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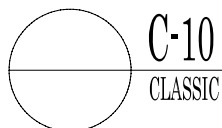
INTERMEDIATE ARMRESTS (BOLT-ON) & CENTER SCROLLED ARMRESTS (BOLT-ON)  
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**LENGTHS**

STANDARD 4'  
 STANDARD 6' (AS SHOWN)  
 STANDARD 8'

**NOTES:**

1. DUCTILE IRON CASTINGS COME WITH A TEN YEAR WARRANTY AGAINST BREAKAGE.
2. DRAWINGS NOT TO SCALE. DO NOT SCALE DRAWINGS.
3. ALL FABRICATED METAL COMPONENTS ARE STEEL SHOTBLASTED, ETCHED, PHOSPHATIZED, PREHEATED, AND ELECTROSTATICALLY POWDER-COATED WITH T.G.I.C. POLYESTER POWDER COATINGS. PRODUCTS ARE FULLY CLEANED AND PRETREATED, PREHEATED AND COATED WHILE HOT TO FILL CREVICES AND BUILD COATING FILM. COATED PARTS ARE THEN FULLY CURED TO COATING MANUFACTURER'S SPECIFICATIONS. THE THICKNESS OF THE RESULTING FINISH AVERAGES 8-10 MILS (200-250 MICRONS).
4. IT IS NOT RECOMMENDED TO LOCATE ANCHOR BOLTS UNTIL BENCH IS IN PLACE. THIS VICTOR STANLEY, INC. PRODUCT MUST BE PERMANENTLY AFFIXED TO THE GROUND. CONSULT YOUR LOCAL CODES FOR REGULATIONS.
5. ANCHOR BOLTS NOT PROVIDED BY VICTOR STANLEY, INC.
6. FOR HIGH SALT ABUSIVE CLIMATES, HOT-DIP GALVANIZING BEFORE POWDER COATING IS AVAILABLE. HOT-DIP GALVANIZING IS PERFORMED FOR VICTOR STANLEY, INC. BY AN EXPERIENCED QUALIFIED FIRM TO WHICH PRODUCTS ARE SHIPPED FOR GALVANIZING. HOT-DIP GALVANIZING INCLUDES AN AGGRESSIVE PRE-TREATMENT AND IMMERSION IN A TANK OF CHARGED LIQUID ZINC AT OR AROUND 860°F (460°C). THE RESULTING SURFACE IS RESISTANT TO RUST BUT HAS SOME UNEVENNESS RESULTING FROM THE BONDING OF THE ZINC TO THE STEEL SURFACE. AS A RESULT, THE POWDER-COATING SURFACE FINISH OVER THAT GALVANIZED SURFACE MAY EXHIBIT BUMPS, UNEVENNESS, AND MAY NOT BE AS SMOOTH AS THE STANDARD FINISH; THIS UNEVEN AND INCONSISTENT FINISH IS NORMAL FOR GALVANIZING. CONTACT MANUFACTURER FOR DETAILS.
7. ALL SPECIFICATIONS ARE SUBJECT TO CHANGE. CONTACT MANUFACTURER FOR DETAILS.
8. THIS PRODUCT IS SHIPPED PARTIALLY UNASSEMBLED.



BENCH WITH DUCTILE IRON END FRAMES  
 SHOWN: STANDARD 6-FOOT LENGTH