### **PROJECT MANUAL**

### **FOR**

# GREENVILLE TOWER RIVERSIDE PARK SPLASH PAD PROJECT

### **CONTRACT D - RESTORATION WORK**

### **CITY OF GREENVILLE**

### **MONTCALM COUNTY, MICHIGAN**

January 17, 2020

Project Number: 26-01790

PREPARED BY:

CITY OF GREENVILLE ENGINEERING DEPARTMENT 411 S. LAFAYETTE GREENVILLE, MICHIGAN 48838 (616) 754-5645

and

PM BLOUGH, INC P.O. BOX 102 GRAND HAVEN, MICHIGAN 49417 (616) 402-2398



## CITY OF GREENVILLE

"Danish Festival City"

411 South Lafayette Street Greenville, Michigan 48838 Phone: (616)754-5645 Fax: (616)754-6320 infocity@greenvillemi.org

### ADVERTISEMENT FOR BIDS GREENVILLE TOWER RIVERSIDE PARK SPLASH PAD PROJECT CONTRACT D - RESTORATION WORK

The City of Greenville will receive sealed bids to restore the area around a new Splash Pad in Tower Riverside Park. The Project will include: design-build irrigation system; 2,830 square yards of hydroseeding and landscaping to include Michigan native plantings. Additive Alternate items will also be considered if the budget will allow them that include: 265 feet of decorative fence; 2,830 square yards of sodding; and adjustments in quantities for Phase 2 items. Bids will be received at the office of the City Clerk, 411 S. Lafayette, Greenville, Michigan until Tuesday, February 18, 2020 at 2:00 p.m. All bids will be opened and publicly read at that time in the City Hall Conference Room.

This Project is funded through the Land and Water Conservation Fund and will require compliance with all related Federal and State requirements.

This Advertisement and Instruction for Bidders have been posted in the following locations:

Greenville City Hall, 411 S. Lafayette, Greenville, Michigan 48838 City of Greenville Website Bid Posting at: http://greenvillemi.org/bids-rfps/ Builders Exchange website at: https://home.grbx.com/ Construction Association of Michigan website at: https://buildwithcam.com/

Construct Connect website at: https://www.constructconnect.com/

The Contract Documents may be examined at the following location: Greenville City Hall, 411 S. Lafayette, Greenville, Michigan 48838

Copies of the Contract Documents may be obtained from:

Greenville City Clerk's Office at Greenville City Hall, 411 S. Lafayette, Greenville, Michigan 48838 or by email upon request to: dhinken@greenvillemi.org at no cost to the Bidder.

> NORICE T. RASMUSSEN Clerk-Treasurer

## GREENVILLE TOWER RIVERSIDE PARK SPLASH PAD PROJECT CONTRACT D –RESTORATION WORK

## CITY OF GREENVILLE MONTCALM COUNTY, MICHIGAN

### PROJECT NUMBER: 26-01790 GREENVILLE PROJECT NUMBER: 401-751-975.601 PROJECT MANUAL INDEX

ADVERTISEMENT FOR BIDS	2
PROJECT MANUAL INDEX	3 - 4
INSTRUCTIONS TO BIDDERS  Scope of Work Coordination of Work Project Bid Documents Questions from Bidders Bidders Investigation Bidder Experience and Qualifications Bids Alternative Items Alternate Bids Pricing Quantities Delivery Taxes, Terms and Conditions Electronic or Alternate Forms of Bidding Not Allowed Bid Envelope Labelling Bid Bond Bidder References Bidder Proposed Subcontractors and Material Suppliers Bid Review Process Rights Reserved by the City Bid Rejection Appeal Contractor Execution of Contract Performance and Payment Bonds Insurance Notice to Proceed	3 - 4 5 - 11
<ul> <li>Contract Time</li> <li>Liquidated Damages</li> <li>Permits</li> <li>Construction Staking and Layout</li> </ul>	
<ul> <li>Non-Discrimination Clause</li> <li>Reference Specifications</li> <li>Holidays &amp; Weekends</li> </ul>	

• Parks to Remain Open

• Applicable State And Federal Requirements

BID FORM	12 - 16
REFERENCES	17 - 18
IDENTIFICATION OF SUBCONTRACTORS & MATERIAL SUPPLIERS	19 – 21
AGREEMENT	22 – 24
ATTACHMENT A – GENERAL CONDITIONS	25 - 29
SPECIFICATION AND DRAWING NOTES	30
SPECIAL PROVISIONS	31 - 52
MOBILIZATION	
FENCING Decorative (Additive Alternate) Screen	
FURNISHINGS Benches Garbage Bin Recycling Bin	
LANDSCAPING Betula Nigra, Tree Form, 2 inch Amelanchier arborea, -inch (Serviceberry) Michigan Native Planting Area Compost, Haul & Spread, 4-inch Hydroseeding Sodding (Additive Alternative)	
IRRGATION SYSTEM DESIGN / BUILD	
Sample Holding Tank Drawings.	

### **INSTRUCTIONS TO BIDDERS**

### SCOPE OF WORK:

The Scope of Work for the GREENVILLE TOWER RIVERSIDE PARK SPLASH PAD CONTRACT D –RESTORATION WORK Project includes restoration items such as the design and provide an irrigation system holding tank; the design, provide and install: pump, piping and controls for an irrigation system to care for 26,000 square feet of lawn; provide and install benches and other appurtenances; transporting and spreading compost; hydroseeding; and planting trees and Michigan native plants in a defined pattern.

If the budget will allow, decorative fencing, sodding and item adjustments for Phase 2 could be added to the Contract.

### **COORDINATION OF WORK:**

The entire Project is comprised of this Contract and Contract A – Site Work, which includes removals, underground work, excavation and grading; Contract B – Splash Activity System, which includes controls, electrical, piping and surface features; and Contract C – Concrete Work, which includes sidewalks and splash pad surfaces.

The Contract D – Restoration work is anticipated to take place after other work is complete, except the Contract A Contractor will install the irrigation system holding tank with other underground work.

### Sequence of Work:

- Contract A removals and earth balancing to subgrade.
- 2. Contract A & B underground
- 3. Contract C Seatwall

- 4. Contract C Flatwork
- 5. Contract A final grading
- 6. Contract D work
- 7. Contract B surface mounts & start up

### PROJECT BID DOCUMENTS:

The Project BID Documents include a set of Plans for each location prepared by PM Blough, Inc. and this Project Manual. Any conflicts found in the drawings or Project Manual shall be brought to the attention of the City Engineer for a determination of prevailing information.

### **QUESTIONS FROM BIDDERS:**

All questions from BIDDERS, regarding any part of the Plans or Project Manual, shall be directed in writing to:

Doug Hinken, P.E., City Engineer City of Greenville 411 S. Lafayette Street Greenville, MI 48838

Or by email at: dhinken@greenvillemi.org

Instructions to Bidders
GREENVILLE TOWER RIVERSIDE PARK SPLASH PAD PROJECT
CONTRACT D –RESTORATION WORK
Bid Date: February 18, 2020, 2:00 p.m.
Page 2 of 8

The City Engineer will obtain answers to written questions, either through PM Blough, Inc. or direct knowledge, depending on the area of plans and Project Manual pertaining to the question. All questions, answers or resulting Addenda will be posted publicly to the *City Bid Postings* section at the bottom of the City of Greenville Webpage at <a href="https://www.greenvillemi.org">www.greenvillemi.org</a> and all known Bidders.

### **BIDDER'S INVESTIGATION:**

Prior to submission of the BID, all BIDDERS shall make, and shall be deemed to have made a careful examination of the site, the Scope of Work, and the Project Manual included herewith. Each BIDDER is responsible for inspecting the site and for reading the CONTRACT DOCUMENTS to become thoroughly familiar with the Scope of the Work. The failure or omission of any BIDDER to do any of the foregoing shall in no way relieve any BIDDER from any obligation in respect to his BID. BIDDERS must satisfy themselves of the accuracy of the estimated quantities in BID Schedule by examination of the site and a review of the drawings and Project Manual; including ADDENDA. After BIDS have been submitted, the BIDDER shall not assert that there was a misunderstanding concerning the quantities or nature of the WORK to be supplied.

The OWNER shall provide to BIDDERS prior to BIDDING, all information which, is pertinent to, and delineates and describes, the land owned and rights-of-way acquired or to be acquired.

The CONTRACT DOCUMENTS contain the provisions required for the assembly and conveyance by BIDDER, and acceptance by OWNER, of the Project. Information obtained from an officer, agent, or employee of the OWNER or any other person shall not affect the risks or obligations assumed by the CONTRACTOR or relieve him from fulfilling any of the conditions of the contract.

### BIDDER EXPERIENCE AND QUALIFICATIONS

It is the intention of the OWNER to award this contract to the lowest responsive and responsible BIDDER, and reserves the right to reject any and all bids, or postpone the bid due date, for sound, documentable business reasons. A responsive and responsible BIDDER is one who has indicated their intention to BID, has completely filled in the appropriate forms and other documents required; and has otherwise demonstrated a good-faith effort to submit a complete bid. The OWNER reserves the right to waive any minor irregularities or informalities in the BIDS.

The Apparent Low BIDDER shall have shown responsiveness and responsibility by indicating their intention to BID, completely filling in all appropriate forms and other required documentation and submitting three references documenting successful experience on similar work and identifying all intended subcontractors and material suppliers that comply with all federal eligibility requirements.

No BIDDER shall withdraw his BID for a period of ninety (90) days after the date of the BID opening without forfeiture of his BID BOND.

Instructions to Bidders
GREENVILLE TOWER RIVERSIDE PARK SPLASH PAD PROJECT
CONTRACT D –RESTORATION WORK
Bid Date: February 18, 2020, 2:00 p.m..
Page 3 of 8

### BIDS:

BIDS for this Project will be publicly solicited and will result in a firm fixed-price contract that will include both lump sum and unit price items. The BID FORM includes 5 pages including a signed statement of compliance; acknowledgement of ADDENDA and a listing the items of work for the BIDDER to fill in unit prices and total prices. All signatures must be original and in ink. The BID FORM shall be completely and legibly filled in with ink or printed or typed.

BIDS shall be signed personally by the duly authorized representative of the BIDDER, and shall include proof of that authority with the BID FORM. The TOTAL BID shall also be submitted in written form. If there is a discrepancy between the written number and the figures, the written number will take priority.

All BIDS must be submitted on the BID FORM included in these BID DOCUMENTS and received in the Office of the City Clerk at City Hall, 411 S. Lafayette Street, Greenville, Michigan 48838, on or before Tuesday, February 18, 2020 at 2 p.m. A BID will be considered complete as follows: All 5 pages of the fully completed, signed BID, acknowledging any ADDENDA; proof of authority to sign on behalf of the BIDDER, which could include a certified copy of resolutions or power of attorney, or other attestations; a fully executed BID BOND in the amount of 5% of the bid amount; a list of references for similar work; and identification of proposed Sub-Contractors and Material Suppliers.

### **ALTERNATE ITEMS**

There are alternate items listed on the Bid Form that will be considered additive, if the bid results are less than budgeted amounts or are otherwise desired to be added to the Contract. The items decorative fencing and sodding may be added individually. The Phase 2 Splash Pad items will only be added as a combined unit and are also dependent on the results of Contract B Bid Results.

### **ALTERNATE BIDS**

Bidders are cautioned that any alternate bid, unless requested by Purchasing, or any changes, insertions, or omissions to the terms and conditions, specifications, or any other requirements of this bid, may be considered non-responsive, and at the opinion of the City, may result in rejection of the bid.

### **PRICING**

Prices shall be stated in units of quantity specified in the Bid Document. In case of a discrepancy in computing the amount of the bid, the unit price bid will govern.

Instructions to Bidders
GREENVILLE TOWER RIVERSIDE PARK SPLASH PAD PROJECT
CONTRACT D –RESTORATION WORK
Bid Date: February 18, 2020, 2:00 p.m.
Page 4 of 8

### **QUANTITIES**

All quantities stated, unless indicated otherwise are estimates and the City reserves the right to increase or decrease the quantity at the unit price bid as best fits its needs.

### **DELIVERY**

Bids shall include all charges for delivery, packing, crating, installation, etc., unless otherwise stated in the bid document. Material deliveries will be the responsibility of the contractor and the contractor will be on-site to receive deliveries. It is the vendor's responsibility to protect the public from harm and the site from any damage. Vendors are also responsible to secure all deliveries.

### TAXES, TERMS AND CONDITIONS

The City of Greenville is exempt from Federal Excise, State Sales Tax, and Personal Property Tax. Please review The State of Michigan's REVENUE ADMINISTRATIVE BULLETIN 1999 – 2 for clarification. http://www.treas.state.mi.us/lawrules/rabs/1999/rab9902.htm

### **ELECTRONIC OR ALTERNATE FORMS OF BIDDING NOT ALLOWED:**

The Greenville City Charter does not allow electronic, faxed or alternate forms of bidding.

### **BID ENVELOPE LABELING:**

Please mark " SPLASH PAD CONTRACT D" on the outside of the envelope, along with the BIDDERS name and address, and submit to the City Clerk's Office prior to the BID opening. If forwarded by mail, the sealed envelope containing the BID must be enclosed in another envelope.

### **BID BOND:**

A BID BOND, in the amount of not less than 5% of the bid amount shall be included with the BID. It shall be supplied through a company that is licensed to do business in the State of Michigan on a form that is consistent with the industry standard of practice. The BID BOND shall be payable to the City of Greenville in the event that the BIDDER fails to execute the Contract according to these Project Manual. Attorneys-in-fact who sign BID BONDS or payment BONDS and performance BONDS must file with each BOND a certified and effective dated copy of their power of attorney.

Instructions to Bidders
GREENVILLE TOWER RIVERSIDE PARK SPLASH PAD PROJECT
CONTRACT D –RESTORATION WORK
Bid Date: February 18, 2020, 2:00 p.m.
Page 5 of 8

### **BIDDER REFERENCES:**

The BIDDER shall submit, with the BID, a listing of a minimum of three references for successfully completed, similar Work. Each reference shall include the following:

- 1. Brief description of the Work, including similar BID items.
- 2. Project Owner
- 3. Owner Contact

- 4. Owner Address
- 5. Owner Telephone
- 6. Owner Email Address

### BIDDER PROPOSED SUBCONTRACTORS AND MATERIAL SUPPLIERS:

Proposed Subcontractors and Material Suppliers shall be listed on the Form provided following the BID FORM and submitted as part of the BID.

### **BID REVIEW PROCESS:**

When the BIDS are publically opened the TOTAL BASE BID will be read aloud and recorded and will be the basis for determining the lowest responsive and responsible BIDDER. The lowest, responsive and responsible BIDDER will be determined from the TOTAL BASE BID PRICE and required submittals

The BIDS and required submittals will be reviewed, tabulated and checked by the City of Greenville and demonstration by the BIDDER that they are competent for the Work through supplied references and whether the list of proposed Subcontractors and Material Suppliers is complete and compliant with Federal and State requirements. If a non-compliant Subcontractor or Material Supplier is discovered the APPARENT LOW BIDDER will have 5 business days to submit a compliant substitute without adjustment to BID UNIT PRICES.

If the APPARENT LOW BIDDER cannot find a suitable substitute in the required time frame they may be subject to forfeiture of their BID BOND, and the second APPARENT LOW BIDDER will be considered for the Project.

When a suitable APPARENT LOW BIDDER has been determined, the City of Greenville will make a recommendation of Award to the Greenville City Council. A Notice of Intent to Award will be issued and forwarded to the MDNR/LWCF for their review and concurrence. The Notice of Award will be issued to the BIDDER following review and approval of the AGREEMENT by the MDNR.

### **RIGHTS RESERVED BY THE CITY:**

The CITY OF GREENVILLE reserves the right to accept to reject any or all BIDS for sound, documentable business reasons. The competency and responsibility of BIDDERS will be considered in awarding CONTRACTS. The CITY OF GREENVILLE does not obligate himself to accept the lowest

Instructions to Bidders
GREENVILLE TOWER RIVERSIDE PARK SPLASH PAD PROJECT
CONTRACT D –RESTORATION WORK
Bid Date: February 18, 2020, 2:00 p.m.
Page 6 of 8

or any other bid. The CITY OF GREENVILLE reserves the right to waive any informality or minor defects in any or all bids. The CITY OF GREENVILLE reserves the right to increase or decrease quantities of BID ITEMS without additional compensation.

Any BID may be withdrawn prior to the above scheduled time for the opening of BIDS or authorized postponement thereof without forfeiture of the BID BOND. Any BID received after the time and date specified shall not be considered. No BIDDER may withdraw a BID within 90 days after the actual date of the opening thereof. Should there be reasons why the CONTRACT cannot be awarded within the specified period; the time may be extended by mutual agreement between the CITY OF GREENVILLE and the BIDDER.

### **BID REJECTION APPEAL:**

If an APPARENT LOW BIDDER is rejected for recommendation to Award the Project, the City will give a written notice stating the reason(s) for the rejection. The Bidder has the right of appeal and shall submit a written statement of appeal within 5 days of the date on the written notice of rejection. The statement shall clearly state the dispute and offer evidence to support their claim that the reasons for rejection are not valid. The appeal will be presented to the Greenville City Council at the meeting where the Bids are to be approved for their final decision.

### **CONTRACTOR EXECUTION OF CONTRACT:**

Upon issuance of the NOTICE OF AWARD, the BIDDER shall be referred to as the CONTRACTOR and shall execute the CONTRACT within 14 days and submit 2 copies of said duly sealed CONTRACT document with original signatures; INSURANCE certificate and Required BONDS. Failure to execute the CONTRACT in a timely manner shall be cause for the OWNER to exercise the BID BOND and commence acceptance with the next APPARENT LOW BIDDER. The BID BOND of all BIDDERS will be returned upon CONTRACT execution.

### PERFORMANCE AND PAYMENT BONDS:

The successful bidder will be required to furnish PAYMENT and PERFORMANCE BONDS in the amount of the CONTRACT prior to 14 days before beginning the Project. The Bonds shall remain in effect until the final acceptance of the project. BONDS shall be supplied through a company that is licensed to do business in the State of Michigan on a form that is consistent with the industry standard of practice.

### **INSURANCE:**

All policies required shall be written by a company licensed to do business in the State of Michigan. The amount of INSURANCE coverage shall be as follows: All Contractors / Subcontractors must carry Workers Compensation Insurance as required by law. Bodily Injury / Property Damage: \$1,000,000

Instructions to Bidders
GREENVILLE TOWER RIVERSIDE PARK SPLASH PAD PROJECT
CONTRACT D –RESTORATION WORK
Bid Date: February 18, 2020, 2:00 p.m.
Page 7 of 8

Each Occurrence; \$2,000,000 Aggregate. The CITY OF GREENVILLE shall be named as an additional insured on all liability policies. The CONTRACTOR shall notify the CITY OF GREENVILLE immediately of any damages on the Project Site, whether or not the CONTRACTOR is liable. The CITY OF GREENVILLE shall receive an INSURANCE certificate prior to 14 days before beginning the Project.

Cancellation Notice: Workers' Compensation Insurance, Commercial General Liability Insurance, and Motor Vehicle Liability Insurance, as described above, shall include an endorsement stating that it is understood and agreed that Thirty (30) days, Ten (10) days for non-payment of premium, Advance Written Notice of Cancellation, Non-Renewal, Reduction, and/or Material Change shall be sent to: City of Greenville, 411 S. Lafayette, Greenville, MI 48838.

### NOTICE TO PROCEED:

The CITY OF GREENVILLE will issue a NOTICE TO PROCEED after receipt of the fully executed CONTRACT and required BONDS and INSURANCE certificate. The CONTRACTOR shall begin Work as soon as practical when the Work is ready.

### **CONTRACT TIME:**

The City anticipates completion of the entire Project by June 30, 2020. The Contract D work is anticipated to be ready by June 1, 2020. However, it is understood that this work is dependent on others. The Contractor shall have 30 calendar days to complete this work once it has commenced. Once begun, the Contractor shall work continuously on site until it is complete. An extension of time request, made in writing by the Contractor, will only be considered if it can be demonstrated that circumstances beyond the control of the Contractor led to the extension and that there were no idle days lost for the convenience of the Contractor.

### **LIQUIDATED DAMAGES:**

This Project is a vital component to the Greenville Park system and is highly anticipated. Liquidated damages will be applied at a rate of \$900 per calendar day for each day until the work is completed unless an extension is granted.

### PERMITS:

The CONTRACTOR will provide a Soil Erosion and Sedimentation Control (SESC) permits for each location.

The CITY OF GREENVILLE will provide the necessary permitting for the work within the River and floodplain and for discharge of Splash Pad runoff.

Instructions to Bidders
GREENVILLE TOWER RIVERSIDE PARK SPLASH PAD PROJECT
CONTRACT D –RESTORATION WORK
Bid Date: February 18, 2020, 2:00 p.m.
Page 8 of 8

### CONSTRUCTION STAKING AND LAYOUT

The CITY will be responsible for staking and layout of the project, upon timely requests by the Contractor.

### NON-DISCRIMINATION CLAUSE

Non-Discrimination clause that states that the project must comply with all requirements of the 1976 PA 453 (Elliott-Larsen Civil Rights Act) and 1976 PA 220 (Persons with Disabilities Civil Rights Act), as amended.

### REFERENCE SPECIFICATIONS:

The specifications for this Project shall be the Michigan Department of Transportation (MDOT Spec) 2012 Standard Specifications for Construction except Division 1 and as provided for by Special Provision, herein.

### **HOLIDAYS & WEEKENDS:**

All work shall be done during the work week defined as being Monday through Friday between 7 am and 7 pm, unless otherwise authorized. No work shall be done over the Memorial Day holiday period.

### **PARKS TO REMAIN OPEN:**

The Project site is an active Park with a variety of activities during the summer months. The City will make reasonable accommodations for Contractor operations, but the Park will remain open for public use during the Work. The Contractor shall ensure that trails remain passable and that materials and equipment are safely stored and secured when work is not progressing.

The Park hosts a concert series on Thursday evenings throughout the summer. Work shall end in the Park by 5:00 pm on Thursdays and all materials and equipment suitably secured and protected.

### APPLICABLE STATE AND FEDERAL REQUIREMENTS:

State requirements include:

- Compliance with the 1976 PA 453 (Elliot-Larsen Civil Rights Act) and 1976PA 220 (Persons with Disabilities Civil Rights Act), as amended.
- Award cannot be made to a contractor, subcontractor or an employer whose name appears in the Michigan 22 IC1912 (Rev. 11/29/2018)
- Federal Davis-Bacon Wage Rates Compliance with the federal Davis-Bacon Act (40 USC 276a to 276a-7) is not required.

### **BID FORM**

Proposal of	(hereinafter called
"BIDDER"), organized and existing under the laws of the State of	
doing business as *	
To the City of Greenville (hereinafter called "OWNER")	

In compliance with your Advertisement for Bids, BIDDER hereby proposes to perform all WORK for the construction of the <u>GREENVILLE TOWER RIVERSIDE PARK SPLASH PAD</u>

<u>PROJECT, CONTRACT D – RESTORATION WORK</u> in strict accordance with the CONTRACT DOCUMENTS, within the time set forth therein, and at the prices stated below.

By submission of this BID, each BIDDER certifies, and in the case of a joint BID each party thereto certifies as to his own organization, that this BID has been arrived at independently, without consultation, communication, or agreement as to any matter relating to this BID with any other BIDDER or with any competitor.

BIDDER hereby agrees to execute the CONTRACT within 14 days of the date of the NOTICE OF AWARD and commence WORK under this CONTRACT on or before 10 days following the NOTICE TO PROCEED and fully complete the PROJECT within 30 days of Commencement.. BIDDER further agrees to pay liquidated damages in the amount of \$900 per calendar day for each day beyond the specified Completion date, or as extended by mutual agreement of the OWNER and CONTRACTOR.

<sup>\*</sup>Insert "a corporation", "a partnership", or "an individual" as applicable.

### BIDDER acknowledges receipt of the following ADDENDA:

The following addenda have been received, are hereby acknowledged, and their execution is included in the above proposal amount:

Addendum No	Dated	Addendum No	Dated
Addendum No	Dated	Addendum No	Dated
Addendum No	Dated	Addendum No	Dated

### **CERTIFICATION**

The BIDDER certifies that he/she has examined all sections of the CONTRACT DOCUMENTS and the location of the Work described herein and is fully informed as to the nature of the Work and the conditions relating thereto.

BIDDER understands that the quantities shown are approximate only and are subject to either increase or decrease. The BIDDER acknowledges that the OWNER may request adjustments to the BID ITEM quantities after the BID DATE and that such adjustments will be made, in writing, at the BID UNIT PRICES.

The BIDDER shall include and shall be deemed to have included, in his/her BID, all Michigan sales and use taxes currently imposed by legislative enactment and as administered by the Michigan Department of Revenue on the BID DATE.

The BIDDER acknowledges that the BIDS include costs for compliance with State and Federal Contract Clauses.

The BIDDER shall base bids on the materials or products specified or shown on the drawings.

All Work described in the CONTRACT DOCUMENTS and required for completion of the Project shall be considered to be incidental unless designated as a pay item on the BID FORM. Pay items shall not be used for any components installed for the convenience/or advantage of the CONTRACTOR regardless of the fact that the type of component is described on the BID FORM.

The undersigned certifies that he or she is duly authorized to sign on behalf of the BIDDER and is including proof of such authority as part of the BID.

### BID

Code	Item	Qty	Unit	Unit Price	Bid Price
1500001	Mobilization (Special Provision)	1	LSUM		
8087001	Fence, Screen (Special Provision)	32	Ft		
8150547	Betula Nigra, Tree Form, 2 inch (Special Provision)	1	Ea		
8157050	Amelanchier arborea, 1-inch (Serviceberry) (Special Provision)	3	Ea		
8157051	Michigan Native Planting Area (Special Provision)	1	LSUM		
8157001	Benches (Special Provision)	5	Ea		
8157001	Garbage Bin (Special Provision)	1	Ea		
8157001	Recycling Bin (Special Provision)	1	Ea		
8167011	Compost, Haul & Spread, 4-inch (Special Provision)	2830	Syd		
8167011	Hydroseeding (Special Provision)	2830	Syd		
8237051	Irrigation System Design / Build (Special Provision)	1	LSUM		
8237051	Irrigation System Holding Tank, Matl (Special Provision)	1	Each		

### WRITTEN AMOUNT

ADDITI	VE ALTERNATE PHAS	SE 1			
Code	ltem	Qty	Unit	Unit Price	Bid Price
8087001	Fence, Decorative (Special Provision)	265	Ft		
8160055	Adjustment for Sodding (Special Provision)	2900	Syd		
TOTAL ADDITIVE ALTERNATE PHASE1 BID					
WRITTEN AMOUNT					

ADDITI	VE ALTERNATE PHAS	E 2			
Code	ltem	Qty	Unit	Unit Price	Bid Price
8157001	Benches (Special Provision)	3	Ea		
8160062	Compost, Haul & Spread, 4-inch (Special Provision)	-114	Syd		
8160055	Hydroseeding (Special Provision)	-114	Syd		
8237051	Irrigation System Adj (Special Provision)	1	DLR		
TOTAL ADDITIVE ALTERNATE PHASE 2 BID					
WRITTEN AMOUNT					

Respectfully submitted.	
Date of Proposal:	
Signature:	Witness:
Name (Printed):	Seal: (If corporation, affix seal)
Title:	
Address:	_
	_
Phone No:	Email Address

### **BIDDER REFERENCES**

BRIEF DESCRIPTION OF	REFERENCE PROJECT 1:	
Project Owner		
Owner Contact		
Owner Address		
Owner Telephone		
Owner Email Address		
BRIEF DESCRIPTION OF	REFERENCE PROJECT 2:	
Project Owner		
Owner Contact		
Owner Address		
Owner Telephone		
Owner Email Address		

BRIEF DESCRIPTION OF REFERENCE PROJECT 3:				
Project Owner				
Owner Contact				
Owner Address				
Owner Telephone				
Owner Email Address				

### **IDENTIFICATION OF SUBCONTRACTORS**

SUBCONTRACTED ITEM OF WORK	SUBCONTRACTOR NAME / ADDRESS
<del></del>	

### **IDENTIFICATION OF MATERIAL SUPPLIER**

MATERIAL	SUPPLIER NAME / ADDRESS
	·
	-
-	
	<del></del>
	-
	-

quirements:	
abmitted By:	
rganization:	
gnature/Title:	
ate:	_

I hereby certify to the accuracy and completeness of all information on this form and that, to the best of my knowledge, the above listed Subcontractors and Material Suppliers meet all applicable State and Federal

### **AGREEMENT**

THIS AGREEMENT, made this day of, by and between the City of Greenville,		
hereinafter called "OWNER" and doing business as a		
(business, partnership, corporation) and located athereinafter		
called "CONTRACTOR".		
WITNESSETH: That for and in consideration of the payments and agreements hereinafter		
mentioned:		
1. The CONTRACTOR will commence and complete the construction of		
GREENVILLE TOWER RIVERSIDE PARK SPLASH PAD PROJECT CONTRACT D - RESTORATION WORK		
2. The CONTRACTOR will furnish all of the material, supplies, tools, equipment, labor		
and other services necessary for the construction and completion of the PROJECT described		
herein.		
3. The CONTRACTOR will commence the work required by the CONTRACT		
DOCUMENTS within $\underline{10}$ calendar days after the date of the NOTICE TO PROCEED, weather		
permitting and will have the Project complete the same within 30 days from commencement unless		
the period for completion is extended otherwise by the CONTRACT DOCUMENTS.		
4. The CONTRACTOR agrees to perform all of the WORK described in the		
CONTRACT DOCUMENTS and comply with the terms therein for the sum of \$, or		
as shown in the BID schedule.		

- A. Advertisement For BIDS
- B. Information For BIDDERS
- C. BID
- D. BID BOND
- E. Identification of Subcontractors and Material Suppliers
- F. Agreement
- G. Payment BOND
- H. Performance BOND
- I. NOTICE OF AWARD
- J. NOTICE TO PROCEED
- K. CHANGE ORDERS
- L. DRAWINGS prepared by <u>PM Blough Inc, entitled "SPLASH PAD 26-01790"</u>, dated January 17, 2020.
- M. PROJECT MANUAL issued by the City of Greenville Engineering Department dated January 17, 2020.
- N. ADDENDA:
- 6. The OWNER will pay to the CONTRACTOR in the manner and at such times as set forth in the General Conditions such amounts as required by the CONTRACT DOCUMENTS.
- 7. This Agreement shall be binding upon all parties hereto and their respective heirs, executors, administrators, successors, and assigns.

IN WITNESS WHEREOF, the parties hereto have executed, or caused to be executed by their duly authorized officials, this Agreement in <u>two (2) copies</u> each of which shall be deemed an original on the date first above written.

	OWNER:
	City of Greenville
	BY:
	Name: <u>George M. Bosanic</u>
	Title: <u>City Manager</u>
(SEAL)	
ATTEST:	
Name:Douglas W. Hinken	
Title: <u>City Engineer</u>	
	CONTRACTOR:
	BY:
	Name:
	Address:
(SEAL)	
ATTEST:	
Name:	
Title:	

## ATTACHMENT A GENERAL CONDITIONS

### 1.0 Assignment of Contract and Other Contracts

- 1.1 The Contractor shall not assign the Contract or any part thereof without the written consent of the City.
- 1.2 The City reserves the right to let other contracts in connection with this Work even if of like character to the Work under this Contract. The Contractor shall coordinate this Work with such other concerns.
- 1.3 If any part of the contractor's work depends for proper execution or results upon the work of any other contractor, the contractor shall inspect and promptly report to the City any defects in such work that render it unsuitable for such proper execution and results. The Contractor's failure to so inspect and report shall constitute and acceptance of the other contractor's work.

### 2.0 Materials and Workmanship

- 2.1. All workmanship shall conform to the best current practices of the respective trades, and all equipment, materials, and articles incorporated in the Work under the contract shall be new and of a grade consistent in the opinion of the City with the quality and performance requirements of their respective kinds for the purpose. The Contractor, shall if required, furnish evidence as to kind and quality of materials.
- 2.2 In general, it is the intent of these Conditions to permit the use of equipment of any manufacture so long as they are fully consistent in the opinion of the City with the quality and performance requirements of the job. This is indicated by the use of the works "or approved equal" following a specific trade name or manufacturer.
- 2.3 Material installed on the project shall be carefully inspected by the City. The Contractor shall within twenty-four (24) hours after receiving written notice from the City remove from the grounds or buildings all material, fixtures, or apparatus deemed by the City as failing to conform to the Specifications and/or Plans and/or to the conditions of the Contract.
- 2.4 The City shall have the right to order the Work wholly or partially stopped until the objectionable work, materials, fixtures, or apparatus are removed, or to declare the contract forfeited for non-performance or not being executed according to the intent or meaning of the Specifications and/or Plans.

### 3.0 Use of the Premises

The Contractor shall confine his equipment apparatus, the storage of materials and operations of his employees to the limits indicated by law, ordinances, permits, or directions of the City, and shall not unnecessarily encumber the premises with his materials or equipment.

### 4.0 Damages and Save Harmless Clause

To the fullest extent permitted by law the Contractor agrees to defend, pay in behalf of, indemnify, and hold harmless City of Greenville, Michigan its elected and appointed officials, employees and volunteers, and others working in behalf of the City against any and all claims, demands, suits, or loss, including all costs connected therewith, and for any damages which may be asserted, claimed, or recovered against or from the City, its elected and appointed officials, employees, volunteers, or others working in behalf of the City, by reason of personal injury, including bodily injury or death

and/or property damage, including loss thereof, which arises out of or is in any way connected or associated with this contract.

- 4.1 The contractor shall be responsible for damage to the project property that may be caused by his work.
- 4.2 The Contractor assumes all risks of damages or injuries, including death, to property or persons used or employed on or in connection with the Work, and all risks of damages or injuries, including death, to any persons or property wherever located, resulting from any action, omission, or operation under the contract or in connection with the Work, whether such action, omission, or operation is in any manner directly or indirectly caused, occasioned, or contributed to in whole or in part, or claimed to be caused, occasioned, or contributed to in whole or in part by the contractor, any subcontractor, any material supplier, anyone directly or indirectly employed by any of them, or any other person. Contractor shall indemnify, hold harmless, and defend the City, their employees. agents, servants, and representatives from and against any and all suits, actions, legal or administrative proceedings, demands, loss, expense, damage, liability, and claims of whatever nature (including but not limited to attorney's fees), regardless of the merit thereof, which may be asserted against the City, their employees, agents, servants, and representatives on account of any such damages or injuries described above, including death, whether or not such damages or injuries, including death, are or are alleged to be caused, occasioned, or contributed to in part by the negligence of the City, their employees, agents, servants, or representatives, and whether or not the contractor and the City are alleged to be jointly liable for such damages or injuries, including death, except the contractor shall not be obligated to indemnify the City hereunder for any damages or injuries, including death, caused by or resulting from the City's sole negligence or willful misconduct.

### 5.0 Cleaning

The Contractor shall at all times keep the project property and the adjoining premises clean of rubbish caused by the Contractor's operations and at the completion of the Work shall remove all rubbish, tools, equipment, temporary work, and surplus materials from and about the project property and shall leave the Work Area clean and ready for use.

### 6.0 Permits and Inspections

The contractor shall obtain all necessary permits required by laws and regulations, give all required notices, and pay all lawful fees in accordance with requirements for this Work and the locality in which the project is being built. The Contractor shall deliver to the City certificates of inspection where such are required.

### 7.0 Insurance

Insurance shall be provided in accordance with policy amounts, and coverage described in the Instructions to Bid.

### 8.0 Safety

The Contractor shall perform all work in accordance with "The General Safety Rules and Regulations for the Construction Industry" as promulgated by the State Construction Safety Commission under the authority of the Safety Act, Act 89 of the Public Acts of 1963, as amended, and the Federal Occupational Safety and Health Acts of 1970, Public Law 91-596, 84 Stat. 1590, as amended, and MiOSHA regulations.

### 9.0 Non-Discrimination

In connection with the performance of Work under this Contract, the Contractor agrees not to discriminate against any employee or applicant for employment because of sex, race, religion, color or national origin. The aforesaid provision shall include, but not be limited to the following: recruitment or recruitment advertising; employment, upgrading, demotion, or transfer; and layoff and selection for training, including apprenticeship. Contractor shall comply with the Elliott Larsen Civil Rights Act, 1976 PS 453, as amended, MCL37.2101 et seq., the Persons with disabilities Civil

Rights Act, 1976 PA 220 as amended, MCL37.1101 et seq., and all other federal, state, and local fair employment practices and equal opportunity laws and covenants regarding discrimination.

#### 10.0 **Liens**

The Contractor shall deliver the Workfree and clear of liens. A Waiver of Lien shall be submitted with the final invoice.

#### 11.0 Guarantees

In addition to the specific guarantees required by the Specifications for the Work to be performed under this Contract, the contractor shall furnish a written guarantee of all the Work to be performed under this Contract against defects in materials or workmanship for a period of one year from the date of final acceptance of the complete Work by the City. The Contractor shall within a reasonable time after receipt of written notice thereof, make good any defects in materials or workmanship which may develop during said period and any damage of other work caused by said defects or the repairing of same at his own expense and without cost to the City.

### 12.0 Bonding Requirements

Refer to Instructions to Bidders

### 13.0 Violations and Failure to Comply

If the Contractor is willfully violating any of the provisions of this Contract, or should the work or any part thereof, be not fully completed within the time granted in the Contract by the City then, in any such case, the City may notify the Contractor, in writing, to discontinue all work, or any part thereof, and the contractor shall discontinue the work as directed. Said notice may be served either personally or by leaving a copy at the usual place of residence or business of said Contractor or by mailing such notice to the address given at the time of the signing of this Contract; if the contractor consists of more than one person, service may be made on any or all of them. The City may thereupon according to law, enter upon and take possession of the work, or any part thereof. The City may re-advertise and re-let the uncompleted portions of said Contract and all expense or financial loss to the Owner arising from completing said Contract, including adjustments to the contract Performance Bond and all additional contract security, and for the cost of additional managerial and administrative services, shall be deducted by the Owner out of monies then due or to become due, the Contractor under this Contract. In case such expense shall exceed the amount which would have been payable under this Contract, if the same had been completed by the Contractor, the contractor or his Sureties shall pay the amount of such excess to the Owner in proportion to amounts the Owner in proportion to amounts the Owner had been obligated to pay the Contractor pursuant to this Contract. Should such expense be less than the amount payable under this Contract had the same been completed by the contractor, he shall receive the difference from the Owner. In such instance, the Owner shall each pay the Contractor in proportion to amounts the Owner had been obligated to pay the Contractor pursuant to this Contract. In cases this Contract or any alterations or modifications thereof be thus terminated, the decision of the Owner shall be conclusive and said Contractor shall not be allowed to claim or received any compensation or damages for not being allowed to proceed with the Work.

#### 14.0 Extension of Time

If the contractor finds it impossible for reasons beyond his control to complete the work within the time specified, or as extended in accordance with the provisions of this paragraph, he may, at any time prior to the expiration of the time, as extended, make a written request to the Owner for an extension of time setting forth the reasons which he believes will justify the granting of his request. The contractor's plea that insufficient time was specified is not a valid reason for extension of time. If the Owner finds that the Contractor's work was delayed because of conditions beyond the control and without the fault of the Contractor, they may extend the time for completion in such amount as conditions justify. The extended time for completion shall then be in full force and effect, the same as though it were the original time for completion.

### 15.0 Discrepancies in Drawings

Any discrepancies found between the Drawings and specifications and site conditions or any errors or omissions in the Drawings and Specifications shall be immediately reported o the owner who shall promptly contact the consultant to correct such error or omission in writing. Any work done by the contractor after his discovery of such discrepancies, errors or omissions shall be done at the Contractor's risk.

### 16.0 Equipment Data

The contractor shall furnish three (3) copies of complete catalog data for every manufactured item of equipment and all components to be used in the work, including specific performance data, material description, rating, capacity, working pressure, material gage or thickness, brand name, catalog number and general type. Submission shall be with not less than a cover letter itemizing and identifying the materials and providing them in an organized and neat fashion.

### 17.0 Construction Staking

The Contractor shall furnish all surveys, lines and grades reasonably necessary for the control of the work, including making careful and accurate measurements and for constructing all work accurately to the lines and grades as shown on the Drawings. The contractor shall have the responsibility to carefully preserve and protect U.S. government corners, property corners, bench marks, monuments, and reference points (hereinafter referred to as "Survey Control Points") and construction stakes. In case of loss or disturbance of said points during the construction period, the contractor shall pay the cost of replacement and shall be responsible for any mistakes that may be caused by such loss or disturbance.

### 18.0 Sanitary Provisions

The Contractor shall provide and maintain sanitary conveniences for the use of all persons employed in the work. The Contractor shall prohibit the committing of a nuisance with the work or upon lands about the work. Any employee found violating these provisions shall be discharged and not again employed without written consent of the Owner. Any temporary facilities will be removed immediately at the completion of the project.

#### 19.0 Additional Work

Additional work beyond the project scope will require written authorization and agreement by the Owner as to the work scope and price to be paid for the work. Any work completed by the Contractor without written documentation from the Owner may risk non-payment for the work. Any additional work that is required in an emergency to protect life and property shall be performed by the Contractor as required and the Owner notified as soon as possible concerning the work required.

#### 20.0 Requests for Payment

The Contractor may submit monthly Requests for Payment for work done and materials delivered and property stored on the site. Each request shall state the work completed for each item, the percentage of the item complete, previous payments, and remaining contract amounts. When payment is requested for materials stored on the site, the requests shall be accompanied by invoices or other information as requested. The Requests for Payment will include a 10% retainage for all payment requested. This retainage will be held according to current laws by the Owner until full project completion.

With each Request, A Contractor's Declaration declaring that the Contractor has not performed any work, furnished any material, sustained any loss, damage or delay, for any reason, including soil conditions encountered or created, or otherwise done anything for which he will ask, demand, sue for, or claim compensation from the owner except as shown on the Declaration and if required shall submit receipts or other vouchers showing his payments for materials and labor, including payments to sub-contractors.

### 21.0 Existing Utilities

Prior to commencing work, the contractor will contact Miss Dig and have the existing utilities identified. Additional private utilities shall be discussed on site with the Owner prior to commencing work. The contractor shall had dig to locate utilities where ever deemed practical.

### **End of General Conditions**

### **GENERAL SPECIFICATIONS**

The General Specifications for the project shall be "Standard Specification for Construction 2012" and "Standard Plans" of the Michigan Department of Transportation unless otherwise stated within the Project Documents or Drawings.(MDOT Spec)

### **DRAWINGS**

The Drawings for the project shall separate plans at two locations, namely: "GREENVILLE TOWER RIVERSIDE PARK SPLASH PAD PROJECT 26-01790" as prepared by PM Blough, Inc., Sheets 1 through 17 and dated January 17, 2020 and any additional drawings added by way of addenda or Change Order.

### **SPECIAL PROVISIONS**

This Project includes items that are not standard to MDOT Specifications. The following Special Provisions describe the work for these non-standard items.

**MOBILIZATION** 

**FENCING** 

**FURNISHINGS** 

LANDSCAPING

IRRGATION SYSTEM DESIGN / BUILD

### CITY OF GREENVILLE

### SPECIAL PROVISION FOR MOBILIZATION

LOCAL:DES:DWH 1 of 1 01/17/2020

### PART 1 – GENERAL

1.1 SCOPE – The Mobilization pay item is intended to include the cost of moving equipment, project setup and administration, bonding costs and any other miscellaneous, legitimate business cost to the Contractor that is not covered by other items.

PART 2 – PRODUCTS (Not used)

### PART 3 – EXECUTION

- 3.1 BONDING Performance and Payment Bonds as required in Information to Bidders.
- 3.2 INSURANCE As required in Information to Bidders.
- 3.3 PERMITS No known permits required by Contractor.
- 3.4 EQUIPMENT TRANSPORTATION & STORAGE Tower Riverside Park will be open to the public with the exception of the Work area. There is limited space available for equipment storage and staging as needed. Every attempt will be made to find suitable arrangements for reasonable Contractor requests in this regard.
- 3.5 PROJECT OVERSIGHT The Contractor shall have a responsible, competent person in charge of every aspect of the Work.
- PART 4 MEASUREMENT AND PAYMENT Mobilization will be paid as a lump sum The Contractor may request payment for this item after the beginning of the Work.

Pay Item Pay Unit

Mobilization LSUM

**END OF SECTION** 

### CITY OF GREENVILLE

### SPECIAL PROVISION FOR FENCING

LOCAL:DES:DWH 1 of 2 07/23/2019

a. Description- The work covered by this section includes the furnishing all materials, equipment and labor to provide and install the FENCING as shown on the Plans and the following specification pages. The specification is based on Ultra Fence products, but others may bid if it can be demonstrated that they are equal in all respects.

#### b. Materials-

Fencing, Decorative (Additive Alternate): All members shall be square, Auminum Alloy 6005-T5 conforming to ASTM B 221. The ultimate strength of all members shall be 35,000 psi. All joints shall be continuously welded full depth. Fence sections shall consist of 6-foot long, 3-inch square vertical posts spaced at 6-feet on center, with post caps at the top of each. Each section shall include 2 horizontal ¾-inch square pickets with an overall outside span of 4-feet; and 2 horizontal ¾-inch square pickets located 6-inches below the top member and above the bottom member. Vertical pickets shall be ¾-inch square pickets, equally spaced within the section. Fence sections shall be powder coated satin black, to be confirmed by the Owner. All fasteners shall be stainless steel and the color shall match. Fence sections shall come with a lifetime guarantee against defects in workmanship and/or materials. Additionally, the powdercoat finish shall be unconditionally guaranteed for life against cracking, peeling or chipping.

Approved Product: Ultra Fence UAF-200 Flat Top Flush Bottom Commercial Detail, Ultra Aluminum Manufacturing, 2124 Grand Commercial Drive, Howell, MI 48855, <a href="https://www.ultrafence.com">www.ultrafence.com</a>, Phone: 800-656-4420, or approved equal.

Fencing, Screen: Framing members shall be extruded Auminum Alloy 6005-T5 conforming to ASTM B 221. The ultimate strength of all members shall be 35,000 psi. The aluminum members shall be powder coated brown or as approved by the Owner. The screening members shall be variegated vinyl, tongue-and-groove inserts in "Mocha Walnut" color. A color sample shall be submitted to the Owner for approval prior to ordering. Fence sections shall be 6-feet high and 8-feet long and consist of 4-inch square vertical posts. Each section shall have a horizontal bottom member, a horizontal middle member and a horizontal top member of a "Hamilton" profile. The framing shall be fitted with 7/8-inch by 6-inch tongue-on-groove vinyl members, placed vertically and tightly held in place. All fasteners shall be stainless steel and exposed faces

color-matched. Fence sections shall come with a lifetime guarantee against defects in workmanship and/or materials. Additionally, the powdercoat finish shall be unconditionally guaranteed for life against cracking, peeling or chipping.

Approved Product: Eclipse VP, Ultra Aluminum Manufacturing, 2124 Grand Commercial Drive, Howell, MI 48855, <a href="https://www.ultrafence.com">www.ultrafence.com</a>, Phone: 800-656-4420, or approved equal.

<u>Concrete:</u> Same as site concrete, MDOT designated S1.

### c. Execution-

<u>Fencing</u>, <u>Decorative</u> (Additive Alternate): Fence sections shall be protected against damage throughout the installation process. Dig post holes 9-inches in diameter and angled so that the center of the hole is at the existing sidewalk edge to a depth of 42-inches. Set and secure fence sections in place so that the lowest horizontal member is parallel to and 2-inches above adjacent finished concrete surface. Fill each post hole with concrete to within 4-inches of the surface. Protect the fence against concrete splatter during the installation using cling wrap or other similar means. Continue to support the fence until the base is sufficiently set.

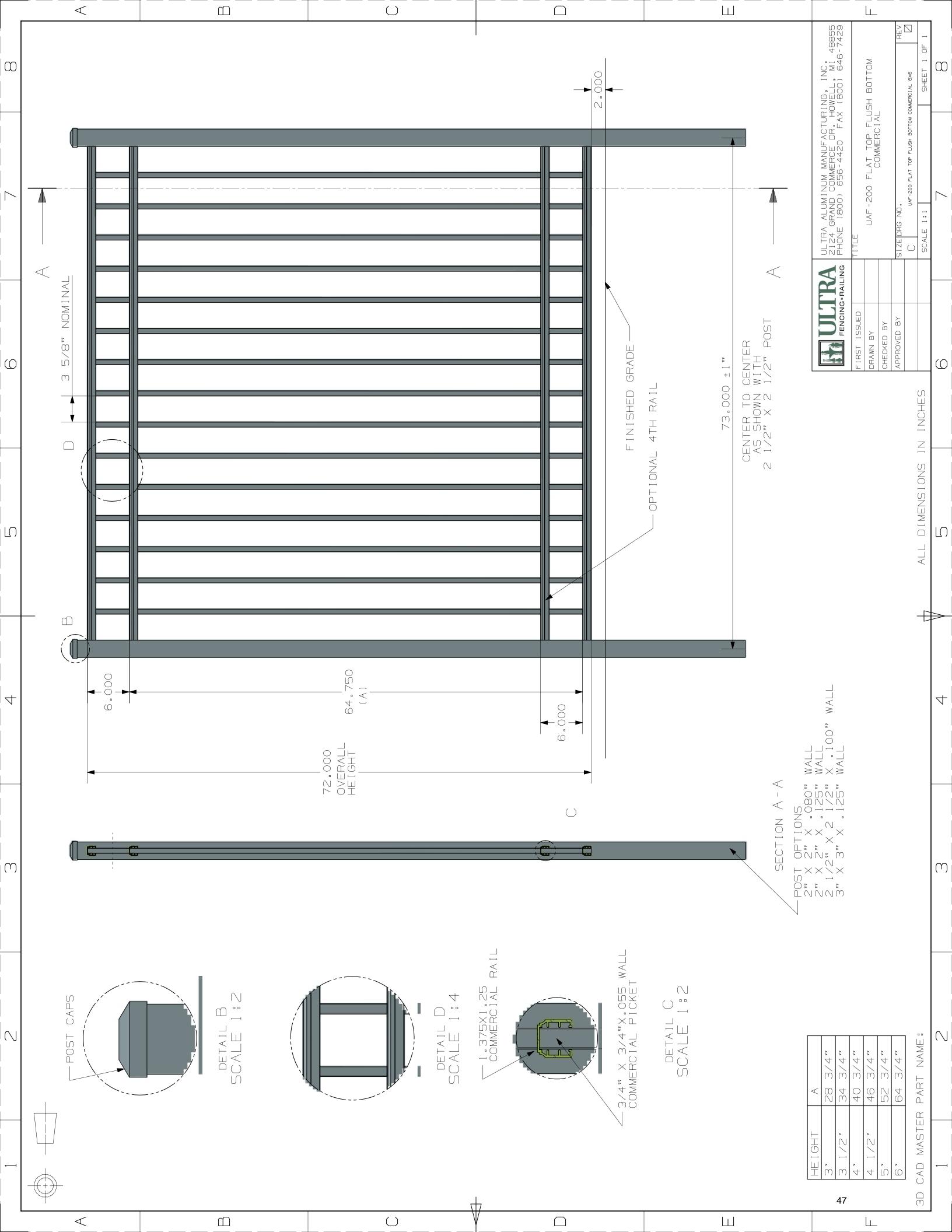
<u>Fencing, Screen:</u> Fence sections shall be protected against damage throughout the installation process. Install according to the manufacturer's instructions.

### d. Measurement and Payment

Payment for FENCE, DECORATIVE and FENCE, SCREEN shall be made for a complete installation including all materials, labor, equipment, warranty and any other item needed to complete the work. They shall be measured by foot along the bottom of the fence to the outside of the outer-most posts.

Pay item	Pay Unit
Fence, Decorative (Additive Alternate)	Ft
Fence, Screen	Ft

**END OF SECTION** 



### **Eclipse™ Secure Cover-Up Fencing** by Ultra Aluminum™











### Privacy, with the Strength of Ultra Aluminum.

Eclipse ™ aluminum privacy screening features strength and durability that you just can't get from a typical vinyl or wood fence systems. It's the ideal privacy panel for a residential, commercial or industrial application, as patio or balcony screening, to contain or shield air conditioning equipment, dumpsters, pipes, and electrical systems. Eclipse™ privacy fencing is designed to last for years and years without the worry of ongoing maintenance.



### Materials

All Ultra Aluminum<sup>™</sup> components are extruded from Ultrum<sup>™</sup> 6005-T5 alloy, with a minimum ultimate strength of 35,000 psi. Ultra Aluminum<sup>™</sup> posts come in a variety of thicknesses, and are also Powercoat<sup>™</sup> finished.



### **Ultra Lifetime Warranty**

Ultra Aluminum™ products are guaranteed for life against defects in workmanship and/or materials. The Powercoat™ finish is guaranteed for life against cracking, peeling or chipping.

Manufactured by Ultra Aluminum Manufacturing Inc.



ULTRAFENCE.COM 800-656-4420



Ultra and the picket caps logo is a registered trademark of Ultra Aluminum Manufacturing Inc.

# CITY OF GREENVILLE

# SPECIAL PROVISION FOR FURNISHINGS

LOCAL:DES:DWH 1 of 4 04/25/2019

a. Description- The work covered by this section includes the procurement and installation of site furnishings. It shall include all labor, equipment and materials necessary to procure and receive delivery of site furnishings, assemble, install and secure furnishings in place.

### b. Materials-

# Benches

- A. Cast Aluminum frame
- B. Frame finish: Powder Coated Black
- C. Dimensions: 6 feet long x 24" wide x 32" high
- D. Seat Dimensions: 71 inches long x 15.5 inches wide x 17 inches high
- E. Back and seat slats: High grade, recycled plastic, contoured.
- F. Slat Color: Desert tan.
- G. Product Warranty: 50 years
- H. Acceptable Manufacturer: Barco Sterling (SKU KBC1350), or approved equal

# Garbage Bin

- A. Made from recycled plastic
- B. Color: Black
- C. Legend: None
- D. Side load
- E. Minimum of 33 gallon capacity.
- F. Rigid plastic liner
- G. Acceptable Manufacturer: Barco (SKU KRC0414), or approved equal

# Recycling Bin

- A. Made from recycled plastic
- B. Color: green
- C. Legend: standard recycle symbol
- D. Side load
- E. Circular 5" hole for plastic bottles
- F. Minimum of 33 gallon capacity.
- G. Rigid plastic liner
- H. Acceptable Manufacturer: Barco (SKU KRC0414), or approved equal.

Anchor Bolts, Washers and Nuts:

- A. Stainless Steel lag bolts ASTM A320
- B. Size appropriate for the application.
- C. Two part epoxy anchor system.

# Anchor Angle:

- A. Stainless Steel angle for anchoring bins ASTM A320
- B. Size appropriate for the application.

# c. Execution-

Benches: Assemble the benches according to manufacturer's recommendation. Locate the bench in place and mark anchor holes. Drill holes to receive anchor bolts to appropriate depth and set in place with epoxy anchor material per manufacturer recommendations. Place bench on anchor bolts, add lock washer and tighten nuts.

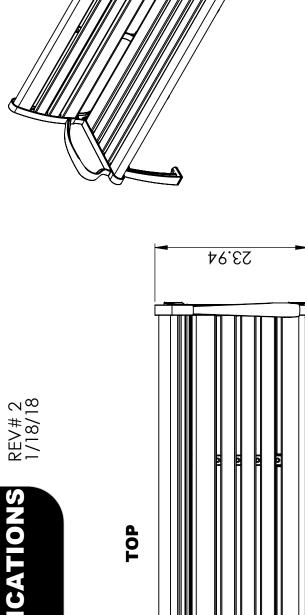
Garbage and Recycling Bins: Set bins in location and set anchor angle plates in place. Mark anchor bolt holes. Drill holes to receive anchor bolts to appropriate depth and set in place with epoxy anchor material per manufacturer recommendations. Place bench on anchor bolts, add lock washer and tighten nuts.

# d. Measurement and Payment

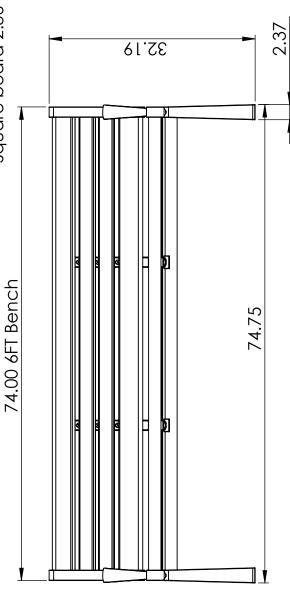
Pay item	Pay Unit
Benches	Ea
Garbage Bin	Ea
Recycling Bin	Ea

**END OF SECTION** 

# ENCH SPECIFICATIONS C1350



Tear drop board  $3.75" \times 1.34" 2.88"$  of flat surface on board Bull nosed board  $3.75" \times 1.34" 3.00"$  of flat surface on board Square board  $2.36" \times 1.34"$ 



ALL DIMENSIONS ARE SHOWN IN INCHES

22.28

CONSTRUCTION MATERIALS:
Recycled Plastic
Cast Aluminum
HARDWARE:
Stainless Steel

54



# **Two-Tone Panel Design Custom Recycling Containers**

Add a Custom Message with Text & Symbol or Full Color Graphic

- · Choose a top load or side load 33-gallon recycler
- · Made from premium-quality, maintenancefree 100% recycled plastic lumber
- · Includes rigid plastic liner for easy waste disposal
- · No artwork or set-up fees
- You'll receive a confirmation proof for your approval







No Returns on Custom Recyclers

# STEP 1. CHOOSE ONE PANEL COLOR AND ONE FRAME COLOR

# Panel/Frame/Engraving Colors











**Donated** by

Johnson

**Facilities** 

**KRC0404** 







# STEP 3. CHOOSE TEXT AND SYMBOL RECYCLER

# **Custom Text And Symbol Recycling Container** A. Add your personalized message

· Add up to 4 lines of text, 10 characters per line

### AND/OR

# B. Choose your symbol





COMPOST







PAPER

CANS

CAN AND GLASS BOTTLE

# STEP 2. CHOOSE OPENING SHAPE AND PHRASE

















OR

# **STEP 3. CUSTOM SIGNAGE RECYCLER**





# **Recycling Container** C. Email a full-color

or greater

**Custom Signage** 

- 12" x 12" custom graphic to logos@barcoproducts.com 12" x 12" graphic is mounted on metal plate with protective
  - over-laminate Accepted files include .jpg, .png, .tif, .eps, .psd, .ai at 300 DPI
  - Please reference your order number in the email
  - If email is not possible, call Customer Service for other options

MODEL #	DESCRIPTION	DIMENSIONS	WEIGHT	PRICE	SALE PRICE	6+
******************	EXT/SYMBOL RECYCLER					
	33-gal. custom text/symbol top load & liner	19.5" sq. x 35" h	60 lbs.	\$804.00 ea.	\$698.85 ea.	\$648.85 ea.
KRC0404		19.5" sq. x 40" h	65 lbs.	\$861.00 ea.	\$748.85 ea.	\$688.85 ea.
KRC0414	33-gal. custom text/symbol side load & liner	19.5 54. 7 40 11	00 1001			
<b>CUSTOM S</b>	IGN RECYCLER				AT40 0F	\$688.85 ea.
KRC0408	33-gal. custom signage top load & liner	19.5" sq. x 35" h	60 lbs.	\$861.00 ea.	\$748.85 ea.	
*************	33-gal. custom signage side load & liner	19.5" sq. x 40" h	65 lbs.	\$919.00 ea.	\$798.85 ea.	\$738.85 ea.
KRC0418	33-gai. custom signage side load & liner			+ shipping	+ shipping	+ shipping

Have a custom logo or symbol you'd like to engrave instead? Call our Customer Service Team for details and a quote!

### CITY OF GREENVILLE

# SPECIAL PROVISION FOR LANDSCAPING

LOCAL:DES:DWH 1 of 6 6/21/19

a. Description- The work covered by this section includes the furnishing all materials, equipment and labor to install the LANDSCAPING items as described herein and shown on the Plans. It shall include all labor, equipment, materials and noted warranties as required.

# b. Materials -

- 2.01 TREES: Shall be as noted.
  - A. QUALITY AND SIZE: Plant materials shall conform to the size given and shall be of sound, health, vigorous, and free from plant disease and insect pests or their eggs, and shall have healthy root systems. All measurements such as spread, ball size, number of cones, quality designations, etc., shall be in accordance with the latest edition of AMERICAN STANDARDS FOR NURSERY STOCK, by the American Association of Nurserymen. Plants will have been nursery grown in Zones 5 of the USDA Hardiness Zone Map. Inspection of nursery stock will be made at the nursery by the Landscape Architect whenever such inspection is deemed advisable. Approval on such inspection shall not be construed as an acceptance of it. Acceptance for planting will not be made until the stock has been delivered and inspected at the planting project site. Inspection will include examination of the root systems of plants. Plants may be examined by removing soil from the root systems of balled or container grown plants, or digging in the nursery row. Sufficient plant root systems will be inspected of each species and separate plant source to determine the extent and condition of plant root systems. Payment will not be made for plants rendered unsuitable for planting because of root system inspection. The Contractor shall give the Landscape Architect at least 24 hour notice before making any delivery of stock, and each shipment shall be accompanied by an invoice indicating sizes, species and varieties included.
  - B. SUBSTITUTIONS: Will be permitted only upon submission of proof that the specified plants are not obtainable and with the written authorization of the Landscape Architect. All requests for price adjustments due to the substitutions shall be submitted in writing to the Landscape Architect for approval along with the request for use of the substitution.
  - C. ROOT PROTECTION: Plant roots must be protected at all times to ensure full recovery of the plant. Over-established plants, as evidenced by "pot bound" root

- ends will not be accepted. No balled and bur lapped plants shall be planted if the ball is cracked or broken.
- D. DECIDUOUS SHADE TREES: Deciduous shade trees shall be straight and symmetrical with a crown having a persistent main leader. The amount of crown shall be in good overall proportion to the total height of the tree. Where a clump is specified, it shall have a minimum of two stems originating from a common base at the ground line. Spaded trees may be acceptable upon approval of the Landscape Architect.
- E. STORAGE AND TRANSPORTING: During delivery, all plant materials will be protected sufficiently to eliminate any damage resulting from wind damage, rough or jarring bumps, or any other transportation concerns that may affect any part of the plant. Immediately following delivery or uprooting, plants shall be installed or healed in moist soil and kept moist. The area shall be protected from the construction operations.
- 2.02 MICHIGAN NATIVE PLANTINGS: Shall be as noted as either seed or healthy plugs.
- 2.03 COMPOST: The City of Greenville produces high-quality compost material that shall be used on this Project. It is located at 1850 Owen Mumaw Industrial Drive in Greenville, less than 2 miles from the site. The Contractor will need to load, transport and spread the material.
- 2.04 BALLING MATERIAL: Balling material shall be untreated burlap. Synthetic materials or plastic will not be permitted for balling. All synthetic materials and wire baskets must be removed at the time of planting.

### 2.05 FERTILIZER:

<u>Tree</u>: The fertilizer shall be applied per manufacturer's recommendation for all trees. Fertilizer shall be Tree Rooter 10-22-22 by Doggett Fertilizers developed for new plantings or as approved. All substitutions must be pre-approved by the Owner prior to any substitutions.

<u>Michigan Native Plants:</u> As needed to support the growth of the Michigan Native Plantings in the soil provided.

Hydroseed: The fertilizer shall have a composition of 19-19-19.

- 2.06 PEAT MOSS: Peat moss shall consist of finely shredded sphagnum or fibrous peat moss of a commercial grade supplied in bales. Acidity shall be a pH of 4.0 –7.0. Not less than 90% organic matter by eight on oven dried basis and not less than 35% or more than 55% moisture by weight. The ash content will be 10% maximum.
- 2.07 PREPARED SOIL MIX: The prepared planting soil mix shall contain 3 parts topsoil,

(the topsoil can be that stripped from the Project) 1 part peat moss or compost, and 1 part sand per each yard of prepared soil mix or as approved by the Owner.

# 2.08 MULCH:

<u>Trees & Planting Areas:</u> Mulch shall be shredded hardwood mulch. Natural in color and not dyed. Mulch shall be free of any sticks, rocks, dirt, litter, or non-natural materials.

<u>Hydroseed:</u> The mulch shall be 50% wood fiber and 50% recycled paper with tackifier added and dyed green.

- 2.09 TACKIFIER: Shall be Guar Gum at 95%, by weight, and the other 5% being dispersing and crosslinking additives, or as otherwise allowed by MDOT 917.15.
- 2.09 STONE: Small stone shall be natural glacial river run rounded stone 2" or smaller for around utility boxes as noted on plans. Match stone in place on site. Larger stone in planting beds for stormwater control to match on-site stone size.
- 2.10 LANDSCAPE FABRIC: Shall meet standard MDOT specifications for Geotextile Separators Section 910.03C.
- 2.11 EDGING: Shall be flexible polyethylene edging material a minimum of 6-inches deep and black in color.
- 2.11 SEED: The seed mixture for hydroseeding shall be MDOT designation THM as specified in Section 917.16
- 2.12 SODDING (Additive Alternate)

# c. Execution -

- 3.01 TREE PLANTING: Shall be done in accordance with the details.
- A. PLANTING SCHEDULE: Planting shall be completed in accordance with the Contract.
- B. PRUNING AND REPAIR: Upon completion of planting, all trees and shrubs shall be pruned and limited to the minimum necessary to remove dead or injured twigs and branches and to compensate for the loss of roots from transplanting. Pruning shall be done in such a manner as not to change the natural habit or shape of the plant. All cuts shall be made flush, and cuts, over 3/4 inches in diameter shall be painted with tree paint.

# C. PLANTING:

1. EXCAVATION OF PLANTING HOLES: Excavate holes, centered at staked locations. Excavate holes large enough to permit placing eighteen inches of

prepared soil laterally beyond the ends of root balls. Make holes deep enough to allow setting the root ball on undisturbed soil at the proper depth so that the natural grade meets the proposed grade. Variance implanting hole sizes within beds can be approved by the Landscape Architect. Remove excavated material from the site at the time the hole is dug. Backfill planting holes with the prepares soil and fertilizer at the time of planting. Do not allow plants to sit in holes uncovered allowing he roots to dry out. Water plant sufficiently throughout the planting process and once planting is complete.

- 2. BALLED STOCK: Set plants plumb. Plant them so their depth after settling, is the same as the depth in their original location. Water in the prepared soil and firm at intervals during backfilling under and around the ball to eliminate air pockets. Do not damage the root ball during the tamping operation. When the plant hole has been backfilled and compacted to on-half depth, remove the burlap and lacing from the around the trunk and form the upper half of the ball. Remove all wire baskets and non-biodegradable materials from the hole. Continue backfilling the hole with prepared soil until it is flush with the ground surface after compaction.
- 3. CONTAINER GROWN STOCK: Remove plants from the containers at the time of planting. Plant as specified for balled stock. Take care not to damage or break branches or damage roots during the removal of the container.
- E. STAKING, GUYING AND WRAPPING: Trees shall not be staked, guyed or wrapped unless specifically requested.
- F. PRUNING: Prune only dead and broken branches from the plants or branches directed for removal by the landscape architect. If the removal of dead and broken branches leaves an unnatural plant shape, the contractor will be responsible for replacement of the plant.
- G. CLEAN UP: Immediately upon completion of the planting, clean up all surplus materials and dispose of them off site. Repair and reestablish turf in rutted areas as directed.
- 3.02 MICHIGAN NATIVE PLANTING AREA: Shall be prepared in the shape shown on the Plan, between the drip-line of the Serviceberry Trees.
- A. PREPARATION: Place edging material in the shape of the planting area and lock seams together. The top of edging shall be placed 1 inch above the finish compost spread for the lawn area. Place a mound of Prepared Soil Mix up to 6-inches deep within the edging area.
- B. PLANTING: Plant seed or plugs in quantity and spacing according to Nursery directions in a pattern as shown on the Plans.
- 3.03 MAINTENANCE BY THE CONTRACTOR: Shall begin when the project commences and continue until substantial completion and written provisional

acceptance is received from the Landscape Architect.

- A. PLANTING MAINTENANCE: Shall include all watering, pruning, cultivations, weeding, wound dressing, disease and pest control, protective spraying, replacement of unacceptable material, straightening plants which lean or sag, adjustment of plants which settle or are planted too low, and any other procedure consistent with good horticultural practice necessary to insure normal, vigorous and healthy growth of all work under this section.
  - B. CONTRACTOR'S RESPONSIBILITY: The Contractor shall assume that the Owner will give the plantings no care during the construction period. The Contractor shall be responsible for the use of all materials, labor and equipment, and any injury to the plant material caused by such material, labor and equipment shall be corrected and repaired by the Contractor at no additional expense to the Owner.
  - C. OWNER'S INSTRUCTION: The Owner shall be instructed in writing by the Contractor as to how to care for the plant materials. Copies shall be delivered to the Landscape Architect and the Owner.

### 3.04 GUARANTY:

Trees and Plants: All plantings shall be guaranteed to increase in size at the end of each growing season, equal to the last year of twig elongation prior to planting. The Contractor shall replace at the end of one year, at no additional cost to the Owner, any plant materials that are dead or that are, in the opinion of the Landscape Architect, in an unhealthy or unsightly condition, that have lost their natural shape due to dead branches, excessive pruning, or inadequate or improper maintenance. All plant materials rejected shall be removed from the site and legally disposed of by the Contractor at no additional cost to the Owner. Replaced materials shall be in accordance with the original specifications and carry a one year guaranty. There will be no limit as to the number of replacements.

<u>Seed or Sod</u>: The Contractor shall guaranty that seed or sod will became fully established within the expected growth rate and thickness and be free from weeds. The grass shall be uniform with a minimum average density of 20 blades per square inch within a year of planting. The Contractor shall be responsible for reseeding or sodding, as necessary, through a full growing season.

- 3.05 HYDROSEEDING: The hydroseed mixture shall be combined with water in a tank so that the seed is applied at a rate of 330 lbs/acre; the fertilizer is applied at a rate of 275 lbs/acre; and mulch is applied at a rate of 1500 lbs/acre. The applicator shall be operated in a manner to deliver the mixture at the specified rate and provide uniform coverage over the prepared surface.
- 3.06 SODDING (Additive Alternate): If the budget will allow for sodding, Kentucky Bluegrass sod shall be used in lieu of Hydroseeding. It shall be placed directly on the prepared compost material according to MDOT Section 816.

# d. Measurement and Payment -

Trees of the species and size noted on the Plans shall be measured and paid for as each unit installed according to the Plans and these Specifications. Payment shall include the stated Guaranty for the planting.

Michigan Native Planting Area is defined area with specific species and areas shown on the Plans. Payment will be made as a Lump Sum and shall include edging, prepared soil mix, seeds or plugs, watering and stated Guaranty.

Compost Haul & Spread shall be paid for at the Contract unit price as measured to the nearest geometric dimensions for disturbed areas for a depth of 4-inches. The units shall be per cubic yard.

Hydroseeding shall be paid for at the Contract unit price as measured to the nearest geometric dimensions for disturbed areas. The units shall be per square yard.

Adjustment for Sodding (Additive Alternate): If used, will be paid for at the Contract unit price as measured to the nearest geometric dimensions for disturbed areas for the sum of the unit price of Hydroseeding and the differential unit price for Sodding. The units shall be per square yard.

Pay item	Pay Unit
Betula Nigra, Tree Form, 2 inch	Ea
Amelanchier arborea, 1-inch (Serviceberry)	Ea
Michigan Native Planting Area	LSUM
Compost, Haul & Spread, 4-inch	Cyd
Hydroseeding	Syd
Adjustment for Sodding (Additive Alternate)	Syd

**END OF SECTION** 

### CITY OF GREENVILLE

# SPECIAL PROVISION FOR IRRIGATION SYSTEM DESIGN / BUILD

LOCAL:DES:DWH 1 of 01/17/2020

- **a. Description-** The work covered by this section includes the furnishing all materials, equipment and labor to provide and install IRRIGATION SYSTEM DESIGN / BUILD as shown on the Plans.
- **b. Scope of Design –** The intended outcome of this Design / Build system is to use runoff from the Splash Pad, stored in a holding tank, to supply water for an above-ground standard sprinkling system to sustain 26,000 square feet of lawn.

It is thought that the system will include a runoff control tank, pump in the tank; controls; piping; valves; fittings and sprinkler heads, as necessary.

There is an existing control panel in the southeast section of the work area that controls an irrigation system in public right of way. This would be the preferred site for the controls for this system. There is public water supply and electrical at this location. There does not appear to be room in the existing box for additional zones, but by placing both controls in the same area it reduces the footprint of control boxes in the Park.

The Runoff Collection Tank is shown to be downstream of the Splash Pad and a 2,600 gallon holding tank is shown on the Plans for illustrative purposes only. The tank shall be sized so that the system operates exclusively on stored water. The system shall also have the ability to use public water supply if there is a problem with the pump or the tank volume is temporarily insufficient to adequately irrigate the area. This should be a rare occurrence.

It is intended that zone sprinkling will operate at night time hours for an above-ground sprinkling system.

- **c. Measure of Performance –** The Design / Build Contractor will be responsible for all aspects of the Work described herein. The flow of Work is expected to be as follows:
  - 1. The City will make a Base CAD drawing available, upon request from Dropbox, to assist in the work. (Pre-Bid)
  - 2. The Contractor will submit a design and material specifications to the City for review and approval. (Post-Bid)

- 3. Upon approval the Contractor will purchase the required materials and coordinate work schedules with the Contract A Contractor and the City.
- 4. The Contractor will deliver the holding tank and all necessary fittings to the site in coordination with Contract A. The installation and connection of the tank is covered in Contract A by others.
- The Contractor will install the system after earth balancing and concrete work, but before lawn installation, or as otherwise agreed upon by the other Contractor and the City.
- 6. The Contractor will start the system after the lawn is in place and will issue a two year warranty to the City of Greenville after receiving a written Notice of Acceptance from the City.
- 7. The Contractor shall submit a CAD as-built plan to the City. (Post Contract)

If the system does not operate as intended as evidenced by poor health of the lawn for lack of proper water or coverage, or by equipment use records, the Contractor shall make adjustments as necessary including replacing ineffective equipment, pipes, valves or lawn as required.

### d. Materials-

Runoff Collection Tank:

<u>Size:</u> Sized for the needs of the system. It is intended to collect the runoff from the Splash Pad until full, with an overflow to discharge to the drainfield as shown on the Plans. The collected water shall be sufficient to supply the sprinkling needs for the lawn.

<u>Material:</u> Concrete, HDPE or other suitable material specifically designed and intended for underground installation.

<u>Features:</u> The inlet and outlet shall be set at the elevation set on the Plans. Connections to piping and wall penetrations shall be standard Sch 40 PVC and shall be water-tight. There shall be a minimum of 24-inch clear dimension entry-way with a bolt down lid at ground level.

<u>Basis for Drawing:</u> The tank shown on the Plan is a 2600 gallon corrugated HDPE manufactured by Norwesco, Inc. of St. Bonifacius, MN. A cut sheet is included with this specification. The limits of plumbing-work for connections is based on this tank. It is shown for reference only and other configurations shall be considered if they meet the stated design parameters.

Pump:

<u>Size:</u> The static pressure at Tower Riverside Park on the public water supply is 75 psi. The pump shall be sized for sufficient capacity to nearly match the water supply system pressure and supply the system zones adequate volume and rate to maintain the lawn.

<u>Features:</u> Shall be securely attached to the Runoff Collection Tank. Easily maintained. Fitted with a check valve designed to close in the infrequent occurrence that the system is operated by the public water supply. Automatic shut off at low level. Minimum operating efficiency of 80% using 120 v single phase power source.

*Pipe:* The pipe shall be standard PVC irrigation pipe, sized for the system being designed. Connections to fittings shall be water tight and suitable for the pipe and system.

### Controls:

<u>Manufacturer</u>: Controls for the system shall be manufactured by the same company as that of all the system components so that they are completely compatible.

Enclosure: They shall be housed in an appropriately sized enclosure

<u>Concrete for Pad (if needed):</u> MDOT S3 or equivalent with 28-day compressive strength = 3,000 psi and no admixtures except air entrainment in the range of 5.5 - 8%.

# **Design Operating Parameters**:

- 1. Monitor and record operation data: A data recorder shall be included to record the following data so that system operation can be evaluated:
  - a. Date & time for pump on, time/date for pump off
  - b. Date & time for Low water level in the holding tank.
  - c. Date & time for opening of valve to public water supply
  - d. Date & time for closing of valve to public water supply.

Recorded data shall be downloadable to USB drive or other means that are easily obtainable. Remote operation or downloads are not necessary or desired.

- 2. Programmable Timer: The system shall include a programmable timer that allows for automated system operation. The timer shall be programmable to set the time and duration of each zone's operation.
- 3. The default operation shall be for an automatic valve to public water supply to be in the closed position and operating from the pump in the holding tank. The pump shall run to programmed time off or low water level. If low water level is reached prior to shut off by timer, the automatic valve shall open to the public water supply for the duration of the remaining time and shut when the time is reached.
- 4. There could be a situation with prolonged wet weather that the holding tank may

not be full when the timer calls the system to be on. It is not desired to use public water supply to water the lawn during wet weather. The system shall incorporate a rain sensor to override the timer in such a case.

- 5. The system shall have the capability to operate in a manual override mode.
- Electrical supply wiring to controls and the pump shall be sized, installed and connected by a qualified electrician according to appropriate and applicable codes. Routing for the power supply wire and other control wiring between the control panel and the pump shall avoid being placed under the splash pad concrete.

There is an existing electrical line between the panel and the existing control box that is located under the proposed splash pad concrete. This wire shall be relocated to be buried in the same trench with the wire from the proposed control panel to the pump, as described in the previous paragraph.

Sprinkling System: All materials for the sprinkling system, including but not limited to: heads, valves, controls, fittings and other proprietary items shall be name-brand, locally available parts that are consistent through all components. Acceptable manufacturer brands: Rain Bird, Toro, Hunter or pre-approved equal.

### e. Execution-

Runoff Collection Tank: The Runoff Collection Tank shall be provided and delivered to the site for installation by others.

*Pump:* The pump shall be installed according to the pump manufacturer and secured in the holding tank in such a way that operation of the pump does not cause undue wear or damage to the tank.

*Pipe:* The pipe shall be installed according to the approved plan and all connections shall be water tight and not leaking. The pipe shall be carefully measured to above-the-ground features so the as-built system can be accurately drawn on a CAD drawing for submittal to the City.

Controls: Controls shall be installed according to the approved Plan and all applicable codes and laws.

*Sprinkling System:* All components for the system shall be installed according to the approved Plan and manufacturer's instructions.

# f. Measurement and Payment

Pay item
Irrigation System Design / Build
Irrigation System Holding Tank, Matl

Pay Unit LSUM Each

**END OF SECTION** 

