



Department of Public Works
Engineering Division
 Robert F. Phillips, P.E., City Engineer

City-County Building, Room 115
 210 Martin Luther King, Jr. Boulevard
 Madison, Wisconsin 53703
 Phone: (608) 266-4751
 Fax: (608) 264-9275
engineering@cityofmadison.com
www.cityofmadison.com/engineering

Assistant City Engineer
 Gregory T. Fries, P.E.

Principal Engineer 2
 Christopher J. Petykowski, P.E.
 John S. Fahrney, P.E.

Principal Engineer 1
 Christina M. Bachmann, P.E.
 Eric L. Dundee, P.E.

Facilities & Sustainability
 Jeanne E. Hoffman, Manager

Operations Manager
 Kathleen M. Cryan

Mapping Section Manager
 Eric T. Pederson, P.S.

Financial Manager
 Steven B. Danner-Rivers

February 4, 2019

**NOTICE OF ADDENDUM
 ADDENDUM NO. 1**

**CONTRACT NO. 8325
 PROJECT NO. 11399 SPRING HARBOR AT MASTHEAD (NAUTILUS POND)**

Revise and amend the contract document(s) for the above project as stated in this addendum, otherwise, the original document shall remain in effect.

Plan Sheets:

Remove
 Sheet D-1

Insert
 Sheet D-1 (Rev. 02-04-2019)

Specifications:

Remove
 Bid Item 20101 Excavation Cut

Bid Item 90037 Iron Enhanced Filter

Bid Item 90040 Clay Liner Provision and Placement

Insert
 Bid Item 20101 Excavation Cut (*Clay Liner Excavation and Fill quantities removed - See Revised Bid Item Below*)

Bid Item 90037 Iron Enhanced Filter (*Elemental Iron quantity changed from 105 Ton to 72 Ton - See Revised Bid Item Below*)

Proposal Page:

Action	Bid Item	Description	Original Quantity	New Quantity
MODIFY	20101	EXCAVATION CUT	9,440 C.Y.	7,416 C.Y.
REMOVE	90040	CLAY LINER PROVISION AND PLACEMENT	2,024 C.Y.	--

BID ITEM 20101: EXCAVATION CUT

DESCRIPTION

Work under this item shall include all labor, equipment, materials, and incidentals necessary to excavate to grades as represented by the contours on the plan set, as shown on the cross-sections, or as defined in these Special Provisions. The

bid item excludes the stripping of topsoil, which is paid under Bid Item 20221.

Cut and Fill quantities were calculated using the average end area method. Unless there are significant changes (>10% volume change), the plan quantity shall be the final amount for payment. No expansion or shrinkage factors have been applied to the earthwork quantities.

- Total Cut: **13,992 C.Y.**
 - Topsoil Removal 4,552 C.Y. (*Paid Under Bid Item 20221*)
 - Pond & Channel Grading: 5,667 C.Y.
 - Iron Enhanced Filter: 510 C.Y.
 - Infiltration Trench: 290 C.Y.
 - Access Roads: 949 C.Y.

- Total Fill
 - Pond/Site Grading: 2,595 C.Y.
 - Access Road Aggregate: 678 C.Y. (*Paid Under Bid Item 40102*)
 - Iron Enhance Sand Media: 506 C.Y. (*Paid Under Bid Item 90037*)
 - 3-Inch Clear – Infiltration Trench: 209 C.Y. (*Paid Under Bid Item 20217*)
 - Topsoil Placement: 2,088 C.Y. (*Paid Under Bid Item 20221*)

Where topsoil in the pond area is to be placed below the finish grades shown, the over excavation for the placement of topsoil has been included in the excavation quantity. Topsoil segregation, temporary stockpiling, and redistribution over disturbed areas, shall be paid under Bid Item 20221 – Topsoil.

Placement of on-site fill shall be included in this bid item. Excess material generated during pond construction shall be hauled off-site and disposed of by the Contractor at a site provided by the Contractor.

If there are substantial changes in the pond grading, City crews shall survey the area and the difference in Excavation Cut over/under the existing terrain shall be calculated on an in-place basis by the Project Engineer.

All on-site stockpiles shall be enclosed with a silt fence paid under Bid Items 21022, Silt Fence – Provide, Install & Maintain; and 21023, Silt Fence – Remove and Restore. No material is permitted to be stockpiled in the pond, or the wooded areas. The Contractor shall not store Excavation Cut on site, with the exception of topsoil, for periods longer than 1 day, without permission of the Project or Construction Engineer. The Contractor shall be mindful of predicted weather events and remove cut material accordingly. The entire project site serves as a floodplain, and unnecessary material shall not be stored on site.

METHOD OF MEASUREMENT

Excavation Cut within the limits shown in the plan set, or as defined in these Special Provisions, shall be paid based on the “Plan Quantity” without measurement thereof. The plan quantity was computed using the average end area method, based on cross-sections. No changes to this quantity shall be approved unless there are modifications to the plan that result in significant (>10%) increase or decrease in quantity.

BASIS OF PAYMENT

Excavation Cut shall be paid at the contract unit price for the work as described above, which shall be considered full compensation for all labor, materials, equipment, and incidentals necessary to complete this item of work.

BID ITEM 90037: IRON ENHANCED FILTER

DESCRIPTION

Work under this item includes construction of the Iron Enhanced Filter as defined in the plan set. This bid item includes the provision and placement of the iron enhanced media. Underdrain materials, geotextile filter fabric, and surface stones shall be paid under the appropriate bid items.

MATERIALS

The Iron Enhanced Filter shall be constructed with the following materials.

- Geotextile Filter Fabric Type SAS Non Woven:
 - Estimated Quantity: 1,310 S.Y. (*Paid Under Bid Item 20140*)
- 4" Corrugated, Flexible, Polyethylene pipe with pre-cut slits. Pipe with pre-drilled holes will not be permitted.
 - Estimated Quantity: 750 L.F. (*Paid Under Bid Item 90038*)
- Schedule 40 PVC Risers and appropriate connectors or junctions to construct cleanouts for the underdrain pipe.
 - Estimated Quantity: 20 L.F. (*Paid Under Bid Item 90044*)
- Pea-gravel
 - Estimated Quantity: 28 C.Y. or 56 Ton (*Paid Under Bid Item 90038*)
- ASTM C33 Sand, or Engineer Approved Equivalent:
 - Estimated Quantity: 471 C.Y. or 1036 Ton
- Elemental Iron, Sizing Equivalent to ASTM C33 Sand, elemental iron and sand will be fully integrated prior to placement.
 - Estimated Quantity: 35 C.Y. or 72 Ton
- River Cobbles
 - Estimated Quantity: 8-9 C.Y. or 14.5 Ton (*Paid Under Bid Item 90036*)
- Boulders
 - Estimated Quantity: 102 stones, or 30 Ton (*Paid Under Bid Item 90035*)

Elemental Iron shall be sourced from Connelly –GPM Inc., or from an Engineer approved equivalent.

Connelly-GPM Inc.
3154 South California Ave.
Chicago, IL 60608
Ph: (773) 247-7231

CONSTRUCTION

The Contractor shall excavate the Iron Enhanced Filter (IEF) bed to the lines and grades shown on the plan set. Filter fabric shall be placed in accordance with manufacturer's recommendations and without gaps or tears.

Filter underdrain pipes shall be placed as shown in the plan set, approximate 20-feet apart, and shall run the length of the IEF. Underdrains shall be sloped at approximately 0.5%. This can be achieved by either sloping the bed of the IEF, or by sloping pipe bedding. Cleanouts shall be placed at underdrain ends, or where multiple pipes join.

Filter underdrains shall be covered with a layer of pea-gravel that will serve as a gradation filter for the sand. Pea gravel depths shall not exceed 1-foot total, including pipe diameter.

The iron enhanced filter media shall consist of ASTM C33 sand mixed with elemental iron. The mixing rate shall be 5-8% iron by volume. The media shall be thoroughly and completely mixed. Mixing off-site is acceptable, and preferred, if it can occur in a controlled environment. If mixed on-site, the media shall be mixed via a minimum of 20 passes in each direction with a rototiller. Media shall be placed in lifts that are appropriate for thorough rototiller mixing.

The Contractor shall keep the IEF media clean and dry until placement occurs.

The Contractor shall keep the IEF off-line until all surrounding banks and contributing areas have been fully stabilized, with the exception of the trucking route for the media. If the Contractor does not maintain the material in good condition

prior to the IEF coming on-line, the media shall be replaced at no additional cost to the City.

River Cobbles shall be placed at the pipe outfall to stabilize the sand. Boulders shall be placed to serve as a flow separator and for aesthetic purposes. Therefore, the placement of the boulders will be directed by the Engineer. Boulders shall be individually placed in an orderly manner.

Pricing, field conditions, and other factors may impact the ultimate size of the IEF. Quantities of this bid item may be altered. Alterations of this bid item quantity shall not result in a revision of the contract unit price.

METHOD OF MEASUREMENT

Iron Enhanced Filter shall be measured per Square Foot of surface area fully constructed in the field and approved by the Construction Engineer or Project Engineer.

BASIS OF PAYMENT

Iron Enhanced Filter shall be measured and paid at the contract unit price, which shall be considered full compensation for construction of the IEF, including provision and placement of the sand and elemental iron. Excavation Cut, Geotextile Filter Fabric, Filter Underdrain, River Cobbles, and Boulders shall all be paid separately, under the appropriate bid items.

Please acknowledge this addendum on page E1 of the contract documents and/or in Section E: Bidder's Acknowledgement on Bid Express.

Electronic version of these documents can be found on the Bid Express web site at:

<http://www.bidexpress.com>

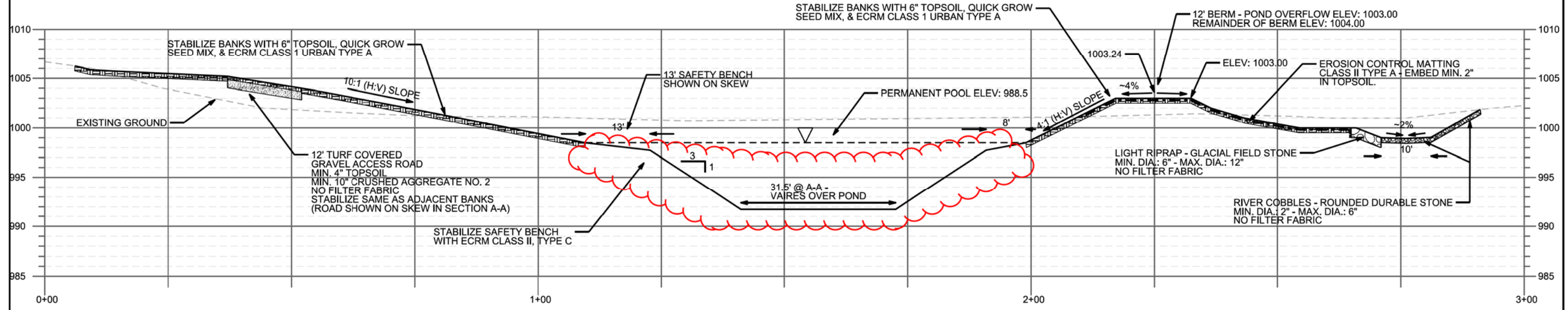
If you are unable to download plan revisions associated with the addendum, please contact the Engineering office at 608-266-4751 receive the material by another route.

Sincerely,

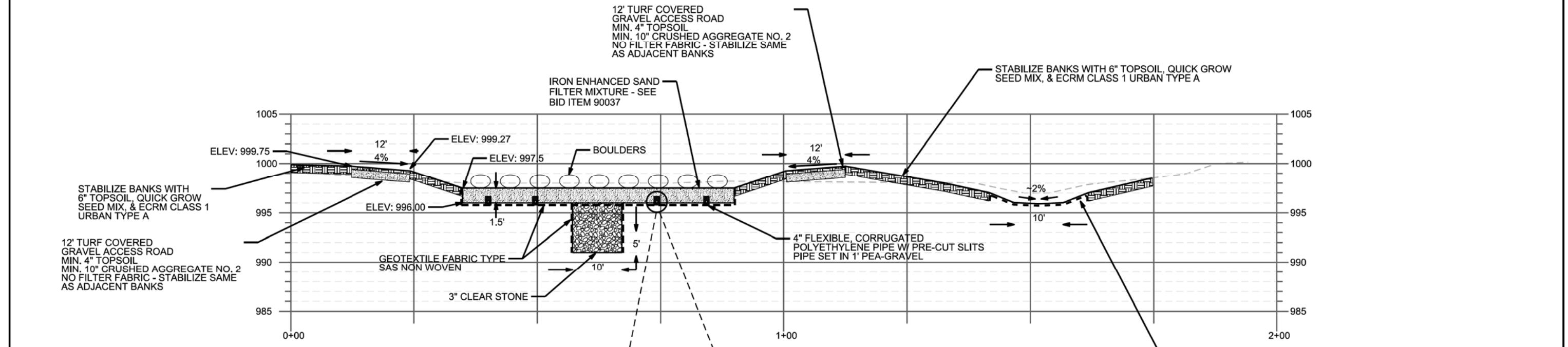
A handwritten signature in black ink, appearing to read "Robert Phillips". The signature is stylized with large, overlapping loops for the letters "R" and "P".

Robert F. Phillips, P.E., City Engineer

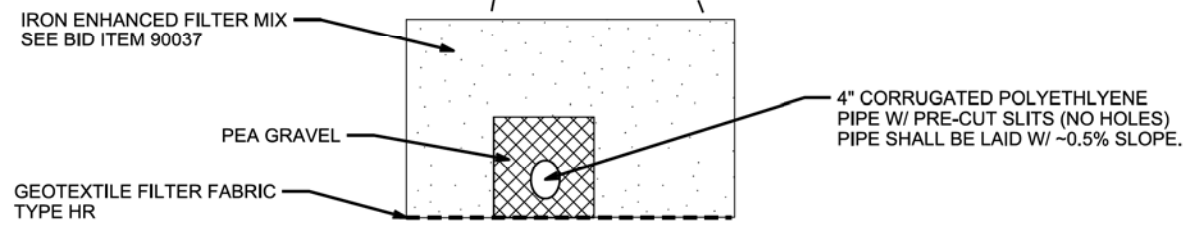
Cc: Greg Fries



NOTE:
 ALL STONE PLACED WITHIN THE CHANNEL SHALL BE PLACED SUCH THAT THE TOP STONE IS FLUSH WITH THE ADJACENT CHANNEL GRADE. STONES SHALL NOT BE SIGNIFICANTLY ELEVATED BEYOND THE CHANNEL.



AFTER GRADING CHANNEL, THE CONTRACTOR SHALL COMPACT THE CHANNEL BED WITH BUCKET TO STABILIZE BED MATERIAL. PLACE ECRM CLASS II TYPE C MATTING ON ALL BED SECTIONS NOT STABILIZED W/ RIPRAP.



PLOT SCALE: _____
 PLOT NAME: _____
 REV. DATE: _____
 ORIGINATOR: CITY OF MADISON, STREETS DIVISION