ADDENDUM No. 1
7/13/11

Malletts Creek Steam Bank Stabilization
Washtenaw County Water Resources Commissioner’s Office
Bid #6627

The following changes, additions, and/or clarifications to the Contract Documents shall be incorporated in said documents and shall be allowed for in the unit prices bid by the Contractor such that the unit prices indicated in the Bid Form shall represent the conditions as set forth in the Contract Documents and this addendum. The bidder shall acknowledge the receipt of this addendum on page 1 of the Bid Form.

This Addendum contains 47 pages and 2 plan sheets.

ADDITIONS AND CHANGES TO THE PLANS

1. Add the following note to sheet 20:
   “THE CONTRACTOR SHALL FURNISH IMPORTED CLEAN TOPSOIL IN AREAS WHERE EMERGENT WETLAND, AQUATIC WETLAND AND DETENTION BASIN SEED MIXES ARE PROPOSED. IMPORTED TOPSOIL WILL BE PAID FOR AS: Topsoil, 6”. ALL OTHER DISTURBED AREAS OF THE PROJECT SHALL BE RESTORED WITH SALVAGED OR FURNISHED TOPSOIL AND SHALL BE INCIDENTAL TO THE WORK.”

2. Delete sheets 21 & 22 and replace with the revised sheets 21 & 22 included in this addendum.

3. Replace the tables for live stakes on sheet 26 of the plans with the table included in this addendum.

4. Replace the table for bare root shrubs on sheet 27 of the plans with the table included in this addendum.

ADDITIONS AND CHANGES TO THE SPECIFICATIONS

5. The minutes from the mandatory Pre-Bid meeting held on July 11, 2011 are attached and hereby made part of the contract documents.

6. The Michigan Department of Environment has issued two permits for this project. Copies of the permits are included with this addendum.

TABLE OF CONTENTS

7. Delete the TABLE OF CONTENTS in its entirety and replace with the revised TABLE OF CONTENTS included in this addendum (2 pages).

REQUEST FOR PROPOSAL

8. Modify the bid date under and time under “Sealed Proposals” on Page 1 to read as follows:

   “By July 21, 2011 by Time 3:00 pm.”

Please remember that the Ann Arbor Art Fair will be going on at this time and the downtown area in the City of Ann Arbor will be very crowded and congested. Therefore plan on ample time to get your bid in by the due date and time. There might not be any street parking available because of the art fair.

SECTION 00 41 00 - BID FORM

9. Delete page 4 of the BID FORM section in its entirety and replace with the revised BID FORM included in this addendum (Pages 4A).
SECTION 00 73 10 – REQUIREMENTS FOR FEDERAL FUNDING

10. Delete the Davis Bacon/Prevailing Wage Rates section in its entirety and replace with the Davis Bacon/Prevailing Wage Rates included in this addendum (Pages 1-6).

SECTION 01 22 00 - UNIT PRICES

11. Delete the UNIT PRICES section in its entirety and replace with the UNIT PRICES included in this addendum (Pages 1 -18).

SECTION 31 20 00 - EARTH MOVING

12. Delete items 1 through 5 of “C. Related Sections:” on Page 1.

SECTION 31 22 22 - OPEN CHANNEL EXCAVATION

13. Modify item "2.5 Live Stakes:" on Page 1 to read as follows:

“Live stakes shall be as described in 32 92 19, Stream Bank Stabilization.”

14. Modify item 3.2 D on Page 2 to read as follows:

D. Contractor shall check flow line elevations every 100 ft. (Grade stakes will be provided by Engineer). Over excavation of 0.3 ft. or greater will be filled with stone to the proposed flow line as incidental cost to the Contractor.”

15. Modify item 3.2 L on Page 2 to read as follows:

L. Repair and replace field tile and footing drain/sump pump outlets, as directed by Engineer.

SECTION 31 22 23 – COUNTY FARM BASIN EARTHWORK

16. Modify section title and footers to read as follows:

“COUNTY FARM BASIN EARTHWORK”

17. Modify item 3.03 A on Page 1 to read as follows:

A. Any agreements that the Contractor makes with the landowner concerning the placement of fill on park property shall be the sole responsibility of the Contractor. The Owner will not become involved with any such agreements and will not be liable for damages that the Contractor may cause to public or private property.

SECTION 31 22 74 – SOIL EROSION PREVENTION AND SEDIMENTATION CONTROL

18. Modify item 1.4. A on Page 1 to read as follows:

A. Perform and maintain work in accordance with the Soil Erosion and Sedimentation Control, Part 91 of Act 451 of 1994, and corresponding rules of the Michigan Department of Environmental Quality.

SECTION 31 25 25 – TOE PROTECTION

19. Modify item 2.02 A on Page 1 to read as follows:
A. Boulders used shall be a minimum of 2’ wide as measured along the shortest dimension. **Material shall be dense, durable and free from earth, rock dust, or other foreign material. Shale and stone with shale seams are not acceptable.** Material shall be washed stone boulders. Boulders shall be naturally shaped or tumbled to simulate weathering. Voids between boulders shall be plugged with naturally shaped stones.

SECTION 31 25 27 – CROSS VANES, W-WEIRS & VANE ARMS

20. Modify item 2.02 A on Page 1 to read as follows:

B. Boulders used shall be a minimum of 2’ feet wide as measured along the shortest dimension and 3 feet wide as measured along the **longest** dimension. Material shall be dense, durable and free from earth, rock dust or other foreign material. Shale and stone with shale seams are not acceptable. Boulders shall be naturally shaped or tumbled to simulate weathering. Voids between boulders shall be plugged with naturally shaped stones.

SECTION 32 92 27 – STREAM BANK STABILIZATION WITH LIVE STAKES

21. Modify section title and footers to read as follows:

“STREAM BANK STABILIZATION WITH LIVE STAKES”
REPLACE TABLE ON SHEET 26 WITH THE FOLLOWING:

LIVE STAKES
TO BE USED ON ALL STREAM BANKS. LIVE STAKES SHALL BE NO LESS THAN 1/4" DIAMETER AND 3' LONG. NO MORE THAN 1/3 OF THE LENGTH SHALL EXPOSED. IF THE LIVE STAKE CAN NOT BE DRIVEN TO DEPTH, THEN THE EXPOSED PORTION SHALL BE CUT TO 8" FROM THE GROUND SURFACE. LIVE STAKES WILL BE PLACED 2.5’ O.C. FROM THE LOW WATER MARK TO TOP OF BANK.

<table>
<thead>
<tr>
<th>Scientific</th>
<th>Common</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cephalanthus occidentalis</td>
<td>Buttonbush</td>
<td>1489</td>
</tr>
<tr>
<td>Cornus amomum</td>
<td>Silky Dogwood</td>
<td>1489</td>
</tr>
<tr>
<td>Cornus sericea (C. stolonifera)</td>
<td>Red Osier Dogwood</td>
<td>1489</td>
</tr>
<tr>
<td>Physocarpus opulifolius</td>
<td>Ninebark</td>
<td>1489</td>
</tr>
<tr>
<td>Salix discolor</td>
<td>Pussy Willow</td>
<td>1489</td>
</tr>
<tr>
<td>Salix exigua ssp interior</td>
<td>Sandbar Willow</td>
<td>1489</td>
</tr>
<tr>
<td>Salix sericea</td>
<td>Silky Willow</td>
<td>1489</td>
</tr>
<tr>
<td>Sambucus canadensis</td>
<td>Elderberry</td>
<td>1489</td>
</tr>
<tr>
<td>Viburnunum dentatum</td>
<td>Arrow Wood</td>
<td>1489</td>
</tr>
</tbody>
</table>

Total = 13,400
BARE ROOT TREES AND SHRUBS NOTES
(FOR COUNTY FARM PARK DETENTION POND)
BAREROOT TREES AND SHRUBS SHALL BE WELL ROOTED: MINIMUM HEIGHT 18-24".
TREES AND SHRUBS SHALL BE PLACED 10’ O.C. AS DIRECTED BY THE PROJECT
ENGINEER. THE TREES AND SHRUBS SHALL NOT BE PLANTED IN ROWS, BUT
PLANTED IN A "SHOTGUN" PATTERN FOR A MORE NATURAL APPEARANCE.

<table>
<thead>
<tr>
<th>Scientific</th>
<th>Common</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Cornus Stolonifera</em></td>
<td>Red Osier Dogwood</td>
<td>7</td>
</tr>
<tr>
<td><em>Cornus amomum</em></td>
<td>Silky Dogwood</td>
<td>7</td>
</tr>
<tr>
<td><em>Viburnum opolus americanum</em></td>
<td>Highbush Cranberry</td>
<td>7</td>
</tr>
<tr>
<td><em>Lindera benzoin</em></td>
<td>Spicebush</td>
<td>7</td>
</tr>
<tr>
<td><em>Salix sericea</em></td>
<td>Silky Willow</td>
<td>7</td>
</tr>
<tr>
<td><em>Sambucus canadensis</em></td>
<td>Elderberry</td>
<td>7</td>
</tr>
<tr>
<td><em>Viburunum dentatum</em></td>
<td>Arrow Wood</td>
<td>7</td>
</tr>
<tr>
<td><strong>Total =</strong> 50</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Trees and Shrubs to be installed between 825’ and 827’*

<table>
<thead>
<tr>
<th>Scientific</th>
<th>Common</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Cersis canadensis</em></td>
<td>Red Bud</td>
<td>9</td>
</tr>
<tr>
<td><em>Amelanchier interior</em></td>
<td>Serviceberry</td>
<td>9</td>
</tr>
<tr>
<td><em>Carpinus caroliniana</em></td>
<td>Ironwood</td>
<td>9</td>
</tr>
<tr>
<td><em>Aronia prunifolia</em></td>
<td>Chokeberry</td>
<td>9</td>
</tr>
<tr>
<td><em>Cornus florida</em></td>
<td>Flowering Dogwood</td>
<td>9</td>
</tr>
<tr>
<td><strong>Total =</strong> 45</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
1. Introduction  (Harry Sheehan – WCWRCO)
   a. Project Team Introduction:
      i. Harry Sheehan – Project Manager (WCWRC)
      ii. Dennis Wojcik – Deputy Water Resource Commissioner (WCWRC)
      iii. Jeff Dehring – Washtenaw County Parks and Recreation
      iv. Ron Cavallaro – Consultant Project Manager (OHM)
      v. Patrick Droze – Consultant Design Engineer (OHM)
   b. County Requirements
      Harry Sheehan introduced the project and presented several items of note:
      i. All Contractors attending the prebid were advised to sign in. The provided
         email address will be used to notify for any addenda.
      ii. It was indicated that the pre bid meeting is mandatory and any company
         with attendees can bid on the project. If a company is not represented at
         the meeting, Washtenaw County will not accept their bid. A sign in sheet
         will be included in the minutes.
      iii. Bids are due on July 18, 2011 at 2:00 pm. Bids must be received on time
         or they will be considered late and not accepted. Bidders shall provide one
         original and 3 copies (one copy unbound) and an electronic version in pdf
         format submitted on CD-RW, DVD or USB drive.
      NOTE: THE BID DATE IS REVISED TO: JULY 21, 2011 AT 3PM
      iv. Purchasing and procedural questions must be directed to Anne Strieter
         (Washtenaw County Purchasing).
         t: (734) 222-6749 | e: strietera@ewashtenaw.org
      v. Harry Sheehan will handle any technical questions.
         t: (734) 222-6851 | e: sheehanh@ewashtenaw.org
      vi. The question period ends on Wednesday, July 13, 2011 at 12:00 PM.
      vii. Addendum(s) – An addendum will be issued for this project. All addendums
         will be posted on the Purchasing website.
      viii. Insurance requirements - The requirements for insurance are listed in the
         service contract in the request for proposal.
ix. Contract – The sample contract is listed in the request for proposal. Make note that this project is using federal funds and therefore does have 5 articles relating to the federal dollars. Davis Bacon wages do apply, Cub Agreement (Contract Unity Board) does not apply to this bid.
x. Website – Purchasing’s website http://bids.ewashtenaw.org will list meeting attendees as well as any addendums that will be issued.
xii. After the bid opening - The bid opening is open to the public. The amounts will be recorded by the Clerk’s office. The Clerk’s office, approximately 2 days after the bid opening will have the official recording of the bids which will be posted on Purchasing’s website.
xii. Award – Award and denial letters will go out to each vendor that submits a bid. It will also be posted on Purchasing’s website.
xiii. Bonds – The project will require a bids bond, payment bond, performance bond and a 2 year maintenance and guarantee bond.

2. Project Summary

a. Project Schedule
   i. The project is expected to begin on or after August 15, 2011
   ii. The substantial completion date is May 1, 2012
   iii. The final completion date is June 15, 2012

b. Project Access
   i. Several Access points have been provided for the project. These are shown on Sheets 4 and 5 of the plans and should be used for construction.
   ii. The contractor shall access Malletts Creek as shown on the plans. Bank and channel restoration work shall take place from one side of channel and/or center of channel only to minimize disturbance to trees and vegetation. Spoils material that meets the material specifications shall be used in the restoration work where possible. Any remaining unsuitable spoils and spoils not reused shall be removed to an approved off-site location. Cost is incidental.

c. Project Sequence
   i. Construction shall be completed in a manner that minimizes the extent of un-restored construction. Spoil areas and any graded channel shall be restored immediately upon the completion of finish grading.
   ii. The County Farm Park detention pond shall not be opened to diverted stream flow until all seed and plants have germinated.
d. Vegetation Removal/Indiana Bat Habitat
   i. Per the United States Fish and Wildlife Service, trees that have potential Indiana Bat roost habitat locations may not be removed until after November 1st through April 15th of the following year. Roost trees are defined as dead or leaning trees with hanging limbs or shredding bark, deep furrows, or identifiable cavities. trees that may require removal must be identified with flagging by the contractor and evaluated by the engineer prior to removal. Every effort to minimize the necessity for removing mature potential roost trees must be taken by the contractor. Cost is incidental.

e. Testing
   i. Soil testing and concrete testing is required for the construction of the detention pond outlet structure and culverts in accordance with the specifications. It is the contractor’s responsibility to retain the services of a qualified testing firm to perform this work. The foundations of the detention pond structures shall rest on undisturbed soils or engineered fill, each having a minimum bearing capacity of 3,000 pounds per square foot (psf). Cost for testing is incidental.

f. Permits
   i. MDEQ
      1. A permit is anticipated before construction. No fees are anticipated for the permit.
   ii. WCRC
      1. The Washtenaw County Road Commission is waiving bonds and permit fees for the work required on Chalmers Drive which is under jurisdiction of the WCRC. The WCWRC will retain earnings on the contract in lieu of the contractor supplying an additional performance bond to WCRC for the work on Chalmers Drive.
   iii. City of Ann Arbor
      1. The City of Ann Arbor estimates for the Lane Closure and Right of Way Permits at approximately $2,000.00. The Contractor is responsible for all fees, insurance, bonds and inspection associated with this permit.

3. Anticipated Addendum Items (Patrick Droze – OHM)
   a. Pre-Bid Meeting minutes
   b. Traffic Control plan modification (include flag control for access driveways)
c. Miscellaneous modifications to the request for proposal.

d. Live stake and bare root shrub quantities

4. County Farm Park Discussion

   (Jeff Dehring – WCPRC)

   a. The project proposes access through the County Farm Park maintenance facility driveway. The contractor will need to coordinate work with the County Farm Park staff.

   b. The contractor will need to work in a manner that protects the Britton Woods area (located on the west end of the park south of the Drain). Work should be limited to north side of the drain.

5. Open to Questions

   (Contractors and Project Team)

   Q 1. Will the owner provide survey and layout services?
       A. Yes.

   Q 2. What is the engineers estimate for the proposed work?
       A. Approximately 3 million

   Q 3. Will the owner provide survey and layout services?
       A. Yes.

   Q 4. Will the Contractor be required to dewater the excavation for Detail A?
       A. The stream level varies. The contractor will need to deploy methods to install the stone at the prescribed depth noted on the plan details.

   Q 5. Is it acceptable to temporary block off portions of the stream to install stone?
       A. Yes.

   Q 6. Is flow data available?
       A. The USGS maintains a stream gauge at the south end of the project.
       http://waterdata.usgs.gov/usa/nwis/uv?site_no=04174518

   Q 7. Can the excavated material be restored to behind the coir fiber block on Detail B? Can the material be spread above the excavation?
       A. Yes. The intent is to leave material in place whenever possible. Spoils should be above the bank where possible. Spoils are not permitted in manicured lawn areas on private property (adjacent to Exmoor Drive)

   Q 8. Is the project stationed currently?
       A. No. Flagging is present on the banks, but it does not list stationing.

   Q 9. Is the pond at County Farm Park existing or proposed?
       A. Proposed.
       It was reminded that portions of the project are on County Property and City property. The City will
review and approve the proposed access corridors prior to construction.

Q 9. Has there been consideration to extend the bid date?
A. The project team will consider the request to extend the bid date and will notify bidders via Addendum No. 1.

NOTE: THE BID DATE WILL BE REVISED TO: JULY 21, 2011 AT 3PM

Q 10. Is this project funded through ARRA?
A. No.

Q 11. Are the rounded boulders required to be natural stone?
A. Yes. The boulders are intended to mimic the existing substrate present in Malletts Creek. Crushed limestone/concrete, shale or other non-weathered stone will not be accepted.

Q 12. Are items 53 and 54 to be considered from the point of substantial completion? What does the work entail?
A. Yes. The 1 and 2 year time frames will be from the date that the basins are substantially complete. Specification 32 71 40 provides additional details.

There being no further questions, the meeting was thereupon adjourned at 1:35 PM.

ADDITIONAL QUESTIONS RECEIVED AFTER THE MEETING (VIA E-MAIL)

Q 13. Can we use existing fallen trees for items #50 and #51?
A. Existing trees removed from the project may be utilized as habitat structures provided they meet the size listed in the specification.

Q 14. Who do we need to contact to find out what permits are needed and the cost of them for the Mallet Creek job.
A. Permit fees are provided in the meeting notes.

Q 15. There are no stakes onsite currently. How are we supposed to know where the grading limits are and where the clearing limits are for the large pond shown on Sheet 20. To bid this item at least some staking should be onsite now.
A. The aerials have been provided on the plans to provide bidders with point of reference for proposed work.

Q 16. Access #5 - "obtain permission from the Boy Scouts of America" - what happens if they do not allow?
A. Access will be gained through an existing public sanitary sewer/drainage easement – permission from the property owner is not required.

Q 17. Are you expecting the contractor to access the project running equipment along the bottom of the creek for most of the project? Obviously, there is not way to access along the edge due to heavy woods/trees.
A. Construction access within the drain easement and along the drain is to be completed as needed by the Contractor but should minimize impacts to existing natural areas and trees. There are no objections to working within the channel.
<table>
<thead>
<tr>
<th>Q 18. We do not think it is possible to install Details A-D under current flow conditions. The excavated areas will not stay open and will be unstable due to ground conditions. How do you expect contractor to excavate, install geo-fabric/large boulders and what do you expect us to do with slop?</th>
</tr>
</thead>
<tbody>
<tr>
<td>A The methods shown on the details are based on projects completed by the USDA’s National Resources Conservation Service and have been implemented on numerous stream bank stabilization projects nationally and local projects designed by staff of OHM and Niswander Environmental. The contractor should review flow data and site conditions.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Q 19. Access is a huge issue on the project. Due to steep slopes and heavy woods its not clear what is incidental and what is being paid for. Perhaps access should already be bid out and installed prior to bidding this project? Access points could be used for future maintenance considerations, such as removing logs/trees, that should have been removed every other year.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A The contract provides an allowance for constructing and restoring project access areas.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Q 20. Is item #5 for the work associated with Item #42 “County Farm Basin Earthwork”?</th>
</tr>
</thead>
<tbody>
<tr>
<td>A No. As noted in the Unit Price Section, this applies to Selective Removal areas as noted on sheet 23 of the plans.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Q 21. Do you intend to do any other clearing and grubbing for access areas and pay for this using item #5?</th>
</tr>
</thead>
<tbody>
<tr>
<td>A See question 19.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Q 22. Is there an estimated plus or minus spoil count for item #42? Will this are balance? Is there an area we build a berm on/near this pond? Can contractor use existing stripped topsoil for replacement on finished pond?</th>
</tr>
</thead>
<tbody>
<tr>
<td>A We anticipate finish grading as shown on sheet 20 of the plans and the work to include all work as noted in Section 01 22 00, item 1.5, 42 of Addendum No. 1.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Q 23. Item #43 “topsoil 6” - however detail &quot;D&quot; calls for 3&quot; of topsoil? Does detail &quot;D&quot; include topsoil at 3” and should be include in that pay item or will Item #43 be paid separately? Does topsoil need to be imported at all?</th>
</tr>
</thead>
<tbody>
<tr>
<td>A Item 43 is related to the County Farm Park basins only as noted in section 01 22 00, Item 1.5, 43 of Addendum No. 1. Placing either salvaged or furnished topsoil is included in item 33 (Detail D, Bank Stabilization with Live Stakes).</td>
</tr>
<tr>
<td>Company Name</td>
</tr>
<tr>
<td>--------------</td>
</tr>
<tr>
<td>STANTE, INC.</td>
</tr>
<tr>
<td>Glencorp Inc.</td>
</tr>
<tr>
<td>Cardno</td>
</tr>
<tr>
<td>Company Name</td>
</tr>
<tr>
<td>-----------------------</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Orchards N. Higgins, Inc.</td>
</tr>
<tr>
<td>3390 Traver Point Rd, STE A</td>
</tr>
<tr>
<td>Ann Arbor, MI 48106</td>
</tr>
<tr>
<td>L.J. Construction Inc</td>
</tr>
<tr>
<td>5863 Kingston Rd</td>
</tr>
<tr>
<td>Clifford, MI 48127</td>
</tr>
<tr>
<td>TSP Environmental</td>
</tr>
<tr>
<td>12641 Sturte Rd</td>
</tr>
<tr>
<td>Livonia, MI 48150</td>
</tr>
<tr>
<td>M&amp;A Pools EX</td>
</tr>
<tr>
<td>15945 Cotton Ridge Rd</td>
</tr>
<tr>
<td>Springport, MI</td>
</tr>
</tbody>
</table>
Addendum No. 1
Page 15 of 47

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
PERMIT

ISSUED TO:

Attn: Harry Sheehan
P.O. Box 8645
Ann Arbor, MI 48103

Permit No. 11-81-0014-P
Issued July 11, 2011
Extended
Revised
Expires July 11, 2016

This permit is being issued by the Michigan Department of Environmental Quality (MDEQ) under the provisions of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA) and specifically:

☐ Part 301 Inland Lakes and Streams
☐ Part 315 Dam Safety
☐ Part 325 Great Lakes Submerged Lands
☐ Part 323 Shorelands Protection and Management
☐ Part 303 Wetlands Protection
☐ Part 353 Sand Dune Protection and Management
☐ Part 31 Floodplain/Water Resources Protection

Permission is hereby granted, based on permittee assurance of adherence to State requirements and permit conditions to:

Permitted Activity:

Install rock cross vane grade control structures and construct an offline regional detention basin to facilitate the maintenance and improvement of the County Farm Drain. All work shall be completed in accordance with the attached plans and specifications of this permit.

Water Course Affected: County Farm Drain
Property Location: Washtenaw County, City of Ann Arbor, Section 3
Subdivision, Lot Town/Range 3S, 8E Property Tax No. 09-12-03-100-001

Authority granted by this permit is subject to the following limitations:
A. Initiation of any work on the permitted project confirms the permittee's acceptance and agreement to comply with all terms and conditions of this permit.
B. The permittee in exercising the authority granted by this permit shall not cause unlawful pollution as defined by Part 31, Floodplain/Water Resources Protection of the NREPA.
C. This permit shall be kept at the site of the work and available for inspection at all times during the duration of the project or until its date of expiration.
D. All work shall be completed in accordance with the plans and specifications submitted with the application and/or plans and specifications attached hereto.
E. No attempt shall be made by the permittee to forbid the full and free use by the public of public waters at or adjacent to the structure or work approved herein.
F. It is made a requirement of this permit that the permittee give notice to public utilities in accordance with Act 53 of the Public Act of 1974 and comply with each of the requirements of that act.
G. This permit does not convey property rights in either real estate or material, nor does it authorize any injury to private property or invasion of public or private rights, nor does it waive the necessity of seeking federal assent, all local permits or complying with other state statutes.
H. This permit does not prejudice or limit the right of a riparian owner or another person to institute proceedings in any circuit court of this state when necessary to protect his rights.
I. Permittee shall notify the MDEQ within one week after the completion of the activity authorized by this permit, by completing and forwarding the attached, preaddressed post card to the office addressed thereon.
J. This permit shall not be assigned or transferred without the written approval of the MDEQ.
K. Failure to comply with conditions of this permit may subject the permittee to revocation of permit and criminal and/or civil action as cited by the specific State Act, Federal Act and/or Rule under which this permit is granted.
L. Work to be done under authority of this permit is further subject to the following special instructions and specifications:
1) This permit placard shall be kept posted at the work site, in a prominent location at all times for the duration of the project, or until permit expiration.

2) This permit is being issued for the maximum time allowed under Part 301, Inland Lakes and Streams, of the Natural Resources and Environmental Protection Act, PA 451 of 1994, as amended, including all permit extensions allowed under administrative rule R 281.813. Therefore, no extensions of this permit will be granted. Initiation of the construction work authorized by this permit indicates the permittee's acceptance of this condition. The permit, when signed by the MDEQ, will be for a five-year period beginning at the date of issuance.

3) All work shall be completed in accordance with the attached plans and the terms and conditions of this permit.

4) Prior to initiating construction, authorized by this permit, the permittee is required to provide a copy of the permit to the contractor(s) for review.

5) The property owner, contractor(s), and any agent involved in exercising this permit are held responsible to ensure the project is constructed in accordance with all drawings and specifications contained in this permit. The contractor is required to provide a copy of the permit to all subcontractors doing work authorized by this permit.

6) Notification shall be made to the MDEQ's Water Resources Division, five days prior to starting the project. Please notify James Sallee at:

   4th Floor State Office Building
   301 East Louis Glick Highway
   Jackson, Michigan 49201
   Telephone: 517-780-7910

7) All dredge/excavated spoils including organic and inorganic soils, vegetation, and other material removed shall be placed on upland (non-wetland, non-floodplain or non-bottomland), prepared for stabilization, and stabilized with sod and/or seed and mulch in such a manner to prevent and ensure against erosion of any material into any waterbody, wetland, or floodplain.

8) All raw areas resulting from the permitted construction activity shall be promptly and effectively stabilized with sod and/or seed and mulch (or other technology specified by this permit or project plans) in a sufficient quantity and manner to prevent erosion and any potential siltation to surface waters or wetlands.

9) All fill shall consist of clean, washed rock that is free of fines, other soil materials, any contaminants, or pollutants.

10) If the project, or any portion of the project, is stopped and lies uncompleted for any length of time other than that encountered in a normal work week, every precaution shall be taken to protect the uncompleted work from erosion, including the placement of temporary gravel bag riprap or other acceptable temporary protection.

11) No work shall be done in the stream during periods of above-normal flows except as necessary to prevent erosion.

12) If any change or deviation from the permitted activity becomes necessary, the permittee shall request, in writing, a revision of the permitted activity and/or mitigation plan from the MDEQ. Such revision requests shall include complete documentation supporting the modification and revised plans detailing the proposed modification. Proposed modifications must be approved, in writing, by the MDEQ prior to being implemented.
13) In issuing this permit, the MDEQ has relied on the information and data that the permittee has provided in connection with the permit application. If, subsequent to the issuance of this permit, such information and data prove to be false, incomplete, or inaccurate, the MDEQ may modify, revoke, or suspend the permit, in whole or in part, in accordance with the new information.

14) The permittee shall indemnify and hold harmless the State of Michigan and its departments, agencies, officials, employees, agents and representatives for any and all claims or causes of action arising from acts or omissions of the permittee, or employees, agents, or representatives of the permittee, undertaken in connection with this permit. This permit shall not be construed as an indemnity by the State of Michigan for the benefit of the permittee or any other person.

15) The authority to conduct the activity as authorized by this permit is granted solely under the provisions of the governing act as identified above. This permit does not convey, provide, or otherwise imply approval of any other governing act, ordinance, or regulation, nor does it waive the permittee's obligation to acquire any local, county, state or federal approval or authorization, necessary to conduct the activity.

Dan Wyant, Director
Michigan Department of Environmental Quality

By

James Sallee
Water Resources Division

cc: City of Ann Arbor Clerk
Mr. Steve Niswander, Niswander Environmental
MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
PERMIT

ISSUED TO:

Attn: Harry Sheehan
P.O. Box 8645
Ann Arbor, MI 48103

This permit is being issued by the Michigan Department of Environmental Quality (MDEQ) under the provisions of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA) and specifically:

- Part 301 Inland Lakes and Streams
- Part 303 Wetlands Protection

Permission is hereby granted, based on permittee assurance of adherence to State requirements and permit conditions to:

Permitted Activity:

Install vane arms, a W weir, and cross vane grade control structures to facilitate the maintenance and improvement of Malletts Creek. All work shall be completed in accordance with the attached plans and specifications of this permit.

Water Course Affected: Malletts Creek
Property Location: Washtenaw County, City of Ann Arbor, Section 35
Subdivision, Lot Town/Range 2S, 6E Property Tax No. 09-09-35-306-006 -004 -900 -302-904

Authority granted by this permit is subject to the following limitations:

A. Initiation of any work on the permitted project confirms the permittee's acceptance and agreement to comply with all terms and conditions of this permit.
B. The permittee in exercising the authority granted by this permit shall not cause unlawful pollution as defined by Part 31, Floodplain/Water Resources Protection of the NREPA.
C. This permit shall be kept at the site of the work and available for inspection at all times during the duration of the project or until its date of expiration.
D. All work shall be completed in accordance with the plans and the specifications submitted with the application and/or plans and specifications attached hereto.
E. No attempt shall be made by the permittee to forbid the full and free use by the public of public waters at or adjacent to the structure or work approved herein.
F. It is made a requirement of this permit that the permittee give notice to public utilities in accordance with Act 53 of the Public Act of 1974 and comply with each of the requirements of that act.
G. This permit does not convey property rights in either real estate or material, nor does it authorize any injury to private property or invasion of public or private rights, nor does it waive the necessity of seeking federal, all local permits or complying with other state statutes.
H. This permit does not prejudice or limit the right of a riparian owner or other person to institute proceedings in any circuit court of this state when necessary to protect his rights.
I. Permittee shall notify the MDEQ within one week after the completion of the activity authorized by this permit, by completing and forwarding the attached, preaddressed post card to the office addressed thereon.
J. This permit shall not be assigned or transferred without the written approval of the MDEQ.
K. Failure to comply with conditions of this permit may subject the permittee to revocation of permit and criminal and/or civil action as cited by the specific State Act, Federal Act and/or Rule under which this permit is granted.
L. Work to be done under authority of this permit is further subject to the following special instructions and specifications:

July 13, 2011
0115-11-0011
Addendum No. 1
Page 18 of 47
1) This permit placard shall be kept posted at the work site, in a prominent location at all times for the duration of the project, or until permit expiration.

2) This permit is being issued for the maximum time allowed under Part 301, Inland Lakes and Streams and Part 303, Wetlands Protection, of the Natural Resources and Environmental Protection Act, PA 451 of 1994, as amended, including all permit extensions allowed under the administrative rules R 281.813 and R 281.923. Therefore, no extensions of this permit will be granted. Initiation of the construction work authorized by this permit indicates the permittee’s acceptance of this condition. The permit, when signed by the MDEQ, will be for a five-year period beginning at the date of issuance.

3) All work shall be completed in accordance with the attached plans and the terms and conditions of this permit.

4) Prior to initiating construction, authorized by this permit, the permittee is required to provide a copy of the permit to the contractor(s) for review.

5) The property owner, contractor(s), and any agent involved in exercising this permit are held responsible to ensure the project is constructed in accordance with all drawings and specifications contained in this permit. The contractor is required to provide a copy of the permit to all subcontractors doing work authorized by this permit.

6) Notification shall be made to the MDEQ's Water Resources Division, five days prior to starting the project. Please notify James Sallee at:

4th Floor State Office Building
301 East Louis Glick Highway
Jackson, Michigan 49201
Telephone: 517-780-7910

7) All dredge/excavated spoils including organic and inorganic soils, vegetation, and other material removed shall be placed on upland (non-wetland, non-floodplain or non-bottomland), prepared for stabilization, and stabilized with sod and/or seed and mulch in such a manner to prevent and ensure against erosion of any material into any waterbody, wetland, or floodplain.

8) All raw areas resulting from the permitted construction activity shall be promptly and effectively stabilized with sod and/or seed and mulch (or other technology specified by this permit or project plans) in a sufficient quantity and manner to prevent erosion and any potential siltation to surface waters or wetlands.

9) All fill shall consist of clean, washed rock that is free of fines, other soil materials, any contaminants, or pollutants.

10) If the project, or any portion of the project, is stopped and lies uncompleted for any length of time other than that encountered in a normal work week, every precaution shall be taken to protect the uncompleted work from erosion, including the placement of temporary gravel bag riprap or other acceptable temporary protection.

11) No work shall be done in the stream during periods of above-normal flows except as necessary to prevent erosion.

12) If any change or deviation from the permitted activity becomes necessary, the permittee shall request, in writing, a revision of the permitted activity and/or mitigation plan from the MDEQ. Such revision requests shall include complete documentation supporting the modification and revised plans detailing the proposed modification. Proposed modifications must be approved, in writing, by the MDEQ prior to being implemented.
13) In issuing this permit, the MDEQ has relied on the information and data that the permittee has provided in connection with the permit application. If, subsequent to the issuance of this permit, such information and data prove to be false, incomplete, or inaccurate, the MDEQ may modify, revoke, or suspend the permit, in whole or in part, in accordance with the new information.

14) The permittee shall indemnify and hold harmless the State of Michigan and its departments, agencies, officials, employees, agents and representatives for any and all claims or causes of action arising from acts or omissions of the permittee, or employees, agents, or representatives of the permittee, undertaken in connection with this permit. This permit shall not be construed as an indemnity by the State of Michigan for the benefit of the permittee or any other person.

15) The authority to conduct the activity as authorized by this permit is granted solely under the provisions of the governing act as identified above. This permit does not convey, provide, or otherwise imply approval of any other governing act, ordinance, or regulation, nor does it waive the permittee’s obligation to acquire any local, county, state or federal approval or authorization, necessary to conduct the activity.

Dan Wyant, Director
Michigan Department of Environmental Quality

By: 

James Sallee
Water Resources Division

c: City of Ann Arbor Clerk
Mr. Steve Niswander, Niswander Environmental
## TABLE OF CONTENTS

### BIDDING REQUIREMENTS
- 00 11 13 REQUEST FOR PROPOSAL ................................................................. 00 11 13_1-4
- 00 21 13 INSTRUCTIONS TO BIDDERS ....................................................... 00 21 13_1-9
- 00 41 00 BID FORM ..................................................................................... 00 41 00_1-7
- 00 43 13.01 BID GUARANTEE ....................................................................... 00 43 13.01_1
- 00 43 13.02 BID BOND ............................................................................... 00 43 13.02_1-2
- 00 44 36 SUBCONTRACTOR LISTING ......................................................... 00 44 36_1-2
- 00 43 37 EPA FORM 6100-3 DBE SUB. PERF. FORM .................................... 00 43 37_1-2
- 00 43 38 EPA FORM 6100-4 DBE SUB. UTIL. FORM ................................. 00 43 38_1-2
- 00 43 39 DEBARMENT FORM ..................................................................... 00 43 39_1
- 00 45 13 STATEMENT OF QUALIFICATIONS .............................................. 00 45 13_1-3

### CONTRACT FORMS
- 00 51 00 NOTICE OF AWARD .................................................................... 00 51 00_1
- 00 52 13 SERVICE CONTRACT ................................................................. 00 52 13_1-8
- 00 55 00 NOTICE TO PROCEED .................................................................. 00 50 00_1
- 00 61 13.13 PERFORMANCE BOND ......................................................... 00 61 13.13_1-2
- 00 61 13.16 PAYMENT BOND .................................................................... 00 61 13.16_1-2
- 00 61 19 MAINTENANCE AND GUARANTEE BOND ...................................... 00 61 19_1-3
- 00 65 16 CERTIFICATE OF SUBSTANTIAL COMPLETION C-625............... 00 65 16_1
- 00 65 19 CONTRACTORS AFFIDAVIT ....................................................... 00 65 19_1
- 00 65 20 CONTRACTORS DECLARATION .................................................. 00 65 20_1
- 00 65 76 CONTRACTOR’S APPLICATION FOR PAYMENT C-620 ............ 00 65 76_1-4

### CONDITIONS OF THE CONTRACT
- 00 72 00 STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT ..1-49
- 00 73 00 SUPPLEMENTARY CONDITIONS ............................................... 00 73 00_1-4
- 00 73 10 REQUIREMENTS FOR FEDERAL FUNDING ............................... 00 73 10_1-24

### TECHNICAL SPECIFICATIONS

#### DIVISION 1 - GENERAL REQUIREMENTS
- 01 10 00 SUMMARY .................................................................................. 01 10 00_1-3
- 01 22 00 UNIT PRICES .............................................................................. 01 22 00_1-18
- 01 26 00 CONTRACT MODIFICATION PROCEDURES............................. 01 26 00_1-2
- 01 29 00 PAYMENT PROCEDURES ......................................................... 01 29 00_1-3
- 01 31 00 PROJECT MANAGEMENT AND COORDINATION ..................... 01 31 00_1-6
- 01 32 00 CONSTRUCTION PROGRESS DOCUMENTATION .................. 01 32 00_1-3
- 01 33 00 SUBMITTAL PROCEDURES ....................................................... 01 33 00_1-7
- 01 40 00 QUALITY REQUIREMENTS ....................................................... 01 40 00_1-5
- 01 42 00 REFERENCES ............................................................................. 01 42 00_1-16
- 01 50 00 TEMPORARY FACILITIES AND CONTROLS .............................. 01 50 00_1-5
- 01 60 00 PRODUCT REQUIREMENTS ........................................................ 01 60 00_1-5
- 01 73 00 EXECUTION .............................................................................. 01 73 00_1-7
DIVISION 3 - CONCRETE
03 30 00 OUTLET CONTRL STRUCTURE .......................................................... 03 30 00_1-3

DIVISION 31 – EARTHWORK
31 10 00 SITE CLEARING ....................................................................................... 31 10 00_1-6
31 20 00 EARTH MOVING .................................................................................... 31 20 00_1-16
31 22 22 OPEN CHANNEL EXCAVATION ............................................................. 31 22 22_1-5
31 22 23 COUNTY FARM BASIN EARTHWORK .................................................. 31 22 23_1-2
31 22 74 SOIL EROSION PREVENTION AND SEDIMENTATION CONTROL ...... 31 22 74_1-3
31 25 25 TOE PROTECTION .................................................................................. 31 25 25_1-2
31 25 26 PRE FORMED SCOUR HOLE ................................................................. 31 25 26_1-2
31 25 27 CROSS VANE, “W” WEIR AND VANE ARM ....................................... 31 25 27_1-1
31 50 00 SHEET PILE DIVERSION ..................................................................... 31 50 00_1-1

DIVISION 32 – EXTERIOR IMPROVEMENTS
32 10 00 BASES AND PAVING ............................................................................ 32 13 13_1-5
32 71 10 WILDLIFE HABITAT STRUCTURES ...................................................... 32 71 10_1-2
32 71 20 DETENTION BASIN PLANTING ........................................................... 32 71 20_1-3
32 71 30 DETENTION BASIN SEEDING ............................................................... 32 71 30_1-5
32 71 40 VEGETATIVE ESTABLISHMENT AND INVASIVE REMOVALS .......... 32 71 40_1-3
32 92 19 NATIVE SEEDING ................................................................................ 32 92 19_1-5
32 92 27 STREAMBANK STABILIZATION WITH LIVE STAKES ....................... 32 92 27_1-2
32 92 28 VEGETATED GEOGRID ....................................................................... 32 92 28_1-2
32 93 00 TREES AND SHRUBS ......................................................................... 32 93 00_1-2

DIVISION 33 – UTILITIES
33 05 16 SANITARY SEWER ............................................................................... 33 05 16_1-4
33 40 00 STORM DRAINAGE UTILITIES .......................................................... 33 40 00_1-9

APPENDIX A – DEBRIS JAM LOG
<table>
<thead>
<tr>
<th>ITEM</th>
<th>DESCRIPTION</th>
<th>QTY</th>
<th>UNIT</th>
<th>UNIT PRICE</th>
<th>AMOUNT</th>
</tr>
</thead>
<tbody>
<tr>
<td>27</td>
<td>Access Pathway</td>
<td>160</td>
<td>Ft</td>
<td>$</td>
<td>$</td>
</tr>
<tr>
<td>28</td>
<td>Traffic Maintenance and Control</td>
<td>1</td>
<td>Ea</td>
<td>$</td>
<td>$</td>
</tr>
<tr>
<td>29</td>
<td>Detail A, Boulder Toe Protection</td>
<td>4860</td>
<td>Ft</td>
<td>$</td>
<td>$</td>
</tr>
<tr>
<td>30</td>
<td>Detail B, Coir Fiber Block Toe Protection</td>
<td>2200</td>
<td>Ft</td>
<td>$</td>
<td>$</td>
</tr>
<tr>
<td>31</td>
<td>Detail C, Bank Full Shelf</td>
<td>1255</td>
<td>Ft</td>
<td>$</td>
<td>$</td>
</tr>
<tr>
<td>32</td>
<td>Detail D, Bank Stabilization with Live Stakes</td>
<td>3977</td>
<td>Syd</td>
<td>$</td>
<td>$</td>
</tr>
<tr>
<td>33</td>
<td>Detail E, Excavation, Channel</td>
<td>805</td>
<td>Ft</td>
<td>$</td>
<td>$</td>
</tr>
<tr>
<td>34</td>
<td>Detail F, Vegetated Geogrid</td>
<td>60</td>
<td>Syd</td>
<td>$</td>
<td>$</td>
</tr>
<tr>
<td>35</td>
<td>Cross Vane, Main Channel (Malletts Creek)</td>
<td>8</td>
<td>Ea</td>
<td>$</td>
<td>$</td>
</tr>
<tr>
<td>36</td>
<td>Cross Vane, Bypass Channel</td>
<td>3</td>
<td>Ea</td>
<td>$</td>
<td>$</td>
</tr>
<tr>
<td>37</td>
<td>Cross Vane, Main Channel (County Farm Drain)</td>
<td>23</td>
<td>Ea</td>
<td>$</td>
<td>$</td>
</tr>
<tr>
<td>38</td>
<td>W Weir</td>
<td>2</td>
<td>Ea</td>
<td>$</td>
<td>$</td>
</tr>
<tr>
<td>39</td>
<td>Vane Arm</td>
<td>37</td>
<td>Ea</td>
<td>$</td>
<td>$</td>
</tr>
<tr>
<td>40</td>
<td>Pre-Formed Scour Hole</td>
<td>2</td>
<td>Ea</td>
<td>$</td>
<td>$</td>
</tr>
<tr>
<td>41</td>
<td>Riprap, Rounded Natural Cobble</td>
<td>136</td>
<td>Syd</td>
<td>$</td>
<td>$</td>
</tr>
<tr>
<td>42</td>
<td>County Farm Basin Earthwork</td>
<td>1</td>
<td>LS</td>
<td>$</td>
<td>$</td>
</tr>
<tr>
<td>43</td>
<td>Topsoil, 6&quot;</td>
<td>8200</td>
<td>Syd</td>
<td>$</td>
<td>$</td>
</tr>
<tr>
<td>44</td>
<td>Emergent Wetland Seed Mix</td>
<td>0.3</td>
<td>Acre</td>
<td>$</td>
<td>$</td>
</tr>
<tr>
<td>45</td>
<td>Aquatic Wetland Seed Mix</td>
<td>0.4</td>
<td>Acre</td>
<td>$</td>
<td>$</td>
</tr>
<tr>
<td>46</td>
<td>Short Grass Prairie Seed Mix</td>
<td>2.5</td>
<td>Acre</td>
<td>$</td>
<td>$</td>
</tr>
<tr>
<td>47</td>
<td>Tall Grass Prairie Seed Mix</td>
<td>2.3</td>
<td>Acre</td>
<td>$</td>
<td>$</td>
</tr>
<tr>
<td>48</td>
<td>Detention Basin Seed Mix</td>
<td>1</td>
<td>Acre</td>
<td>$</td>
<td>$</td>
</tr>
<tr>
<td>49</td>
<td>Habitat Structures, Root Wad</td>
<td>5</td>
<td>Ea</td>
<td>$</td>
<td>$</td>
</tr>
<tr>
<td>50</td>
<td>Habitat Structures, Log</td>
<td>5</td>
<td>Ea</td>
<td>$</td>
<td>$</td>
</tr>
<tr>
<td>51</td>
<td>Habitat Structures, Whole Tree</td>
<td>5</td>
<td>Ea</td>
<td>$</td>
<td>$</td>
</tr>
<tr>
<td>52</td>
<td>Bareroot shrub, 24-36 inch</td>
<td>95</td>
<td>Ea</td>
<td>$</td>
<td>$</td>
</tr>
<tr>
<td>53</td>
<td>Vegetation Establishment &amp; Invasive Removals, 1st Year</td>
<td>1</td>
<td>LS</td>
<td>$</td>
<td>$</td>
</tr>
<tr>
<td>54</td>
<td>Vegetation Establishment &amp; Invasive Removals, 2nd Year</td>
<td>1</td>
<td>LS</td>
<td>$</td>
<td>$</td>
</tr>
</tbody>
</table>
Davis-Bacon/Prevailing Federal Wage Rates

P.L. 111-88 requires compliance with the Davis Bacon Act and adherence to the current U.S. Department of Labor Wage Decision. Attention is called to the fact that not less than the minimum salaries and wages as set forth in the Contract Documents (see Wage Decision included herein) must be paid on this project. The Wage Decision, including modifications, must be posted by the Contractor on the job site. A copy of the Federal Labor Standards Provisions is included and is hereby a part of this contract.
General Decision Number: MI100178 07/01/2011 MI178
State: Michigan
Construction Type: Heavy
County: Washtenaw County in Michigan.

HEAVY CONSTRUCTION PROJECTS

<table>
<thead>
<tr>
<th>Modification Number</th>
<th>Publication Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>01/07/2011</td>
</tr>
<tr>
<td>1</td>
<td>04/01/2011</td>
</tr>
<tr>
<td>2</td>
<td>05/13/2011</td>
</tr>
<tr>
<td>3</td>
<td>06/03/2011</td>
</tr>
<tr>
<td>4</td>
<td>07/01/2011</td>
</tr>
</tbody>
</table>

CARP0687-006 06/01/2010

Rates Fringes
CARPENTER, Includes Form Work...$ 29.07 20.222

ELEC0252-009 06/01/2010

Rates Fringes
ELECTRICIAN...............$ 38.57 18.59

* ENGI0326-008 06/01/2011

Rates Fringes
OPERATOR: Power Equipment
GROUP 1....................$ 38.29 19.70
GROUP 2....................$ 36.79 19.70
GROUP 3....................$ 35.29 19.70
GROUP 4....................$ 34.99 19.70
GROUP 5....................$ 34.17 19.70
GROUP 6....................$ 33.31 19.70
GROUP 7....................$ 32.34 19.70
GROUP 8....................$ 30.63 19.70
GROUP 9....................$ 23.32 19.70

FOOTNOTES: Tower cranes: to be paid the crane operator rate determined by the combined length of the mast and the boom. If the worker must climb 50 ft. or more to the work station, $.25 per hour additional. Derrick and cranes where the operator must climb 50 ft. or more to the work station, $.25 per hour additional to the applicable crane operator rate.

POWER EQUIPMENT OPERATOR CLASSIFICATIONS

GROUP 1: Crane with boom & jib or leads 400' or longer
GROUP 2: Crane with boom & jib or leads 300' or longer
GROUP 3: Crane with boom & jib or leads 220' or longer

GROUP 4: Crane with boom & jib or leads 140' or longer

GROUP 5: Crane with boom & jib or leads 120' or longer

GROUP 6: Regular crane operator

GROUP 7: Backhoe/Excavator, Bobcat/Skid Loader, Boring Machine, Broom/Sweeper, Bulldozer, Grader/Blade, Loader, Roller, Scraper, Tractor, Trencher

GROUP 8: Forklift

GROUP 9: Oiler

IRONWORKER

Reinforcing..................$ 29.49 22.10
Structural..................$ 34.54 22.93

Landscape Laborer

GROUP 1.....................$ 19.81 6.25
GROUP 2.....................$ 15.59 6.25

LANDSCAPE LABORER CLASSIFICATIONS

GROUP 1: Landscape specialist, including air, gas and diesel equipment operator, lawn sprinkler installer and skidsteer (or equivalent)

GROUP 2: Landscape laborer: small power tool operator, material mover, truck driver and lawn sprinkler installer tender

LABORER

GROUP 1.....................$ 26.21 12.45
GROUP 2.....................$ 26.41 12.45
GROUP 3.....................$ 26.53 12.45

LABORER CLASSIFICATIONS

GROUP 1: Common or General; Grade Checker

GROUP 2: Mason Tender - Cement/Concrete
GROUP 3: Pipelayer

<table>
<thead>
<tr>
<th>Classification</th>
<th>Rates</th>
<th>Fringes</th>
</tr>
</thead>
<tbody>
<tr>
<td>PAINTER</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brush &amp; Roller..........................$ 25.06</td>
<td>14.75</td>
<td></td>
</tr>
<tr>
<td>Spray....................................</td>
<td>$ 25.86</td>
<td>14.75</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Classification</th>
<th>Rates</th>
<th>Fringes</th>
</tr>
</thead>
<tbody>
<tr>
<td>CEMENT MASON/CONCRETE FINISHER...............</td>
<td>$ 31.91</td>
<td>14.34</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Classification</th>
<th>Rates</th>
<th>Fringes</th>
</tr>
</thead>
<tbody>
<tr>
<td>PLUMBER.....................................</td>
<td>$ 37.19</td>
<td>19.30</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Classification</th>
<th>Rates</th>
<th>Fringes</th>
</tr>
</thead>
<tbody>
<tr>
<td>TRUCK DRIVER: Off the Road</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Truck............................$ 20.82</td>
<td>3.69</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Classification</th>
<th>Rates</th>
<th>Fringes</th>
</tr>
</thead>
<tbody>
<tr>
<td>TRUCK DRIVER</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dump Truck under 8 cu.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>yds.; Tractor Haul Truck....................</td>
<td>$ 24.595</td>
<td>5.78+a</td>
</tr>
<tr>
<td>Dump Truck, 8 cu. yds. and</td>
<td></td>
<td></td>
</tr>
<tr>
<td>over......................................</td>
<td>$ 24.695</td>
<td>5.78+a</td>
</tr>
<tr>
<td>Lowboy/Semi-Trailer Truck....................</td>
<td>$ 24.845</td>
<td>5.78+a</td>
</tr>
</tbody>
</table>

FOOTNOTE: a.
Effective 4/1/2010 - $327.95 per week.
Effective 4/1/2011 - $331.00 per week.
Effective 4/1/2012 - $351.00 per week.

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

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29 CFR 5.5(a)(1)(ii)).
In the listing above, the "SU" designation means that rates listed under the identifier do not reflect collectively bargained wage and fringe benefit rates. Other designations indicate unions whose rates have been determined to be prevailing.

WAGE DETERMINATION APPEALS PROCESS

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

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

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

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

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

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:
The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

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

   Administrative Review Board
   U.S. Department of Labor
   200 Constitution Avenue, N.W.
   Washington, DC 20210

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

END OF GENERAL DECISION
SECTION 01 22 00 - UNIT PRICES

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

A. This Section includes administrative and procedural requirements for unit prices.

B. Related Sections include the following:
   1. Division 01 Section "Contract Modification Procedures" for procedures for submitting and handling Change Orders.
   2. Division 01 Section "Quality Requirements" for general testing and inspecting requirements.

1.3 DEFINITIONS

A. Unit price is stated on the Bid Form, as a price per unit of measurement for materials or services added to or deducted from the Contract Sum by appropriate modification, if estimated quantities of Work required by the Contract Documents are increased or decreased.

1.4 PROCEDURES

A. Unit prices include all necessary material, plus cost for delivery, installation, insurance, applicable taxes, overhead, and profit.

B. Measurement and Payment: as described in list below.

C. Owner reserves the right to reject Contractor's measurement of work-in-place that involves use of established unit prices and to have this work measured, at Owner's expense, by an independent surveyor acceptable to Contractor.

1.5 LIST OF UNIT PRICES

A list of unit prices is included below. Specification Sections referenced in the schedule contain requirements for materials described under each unit price.

1. Mobilization, Max. 10%

The completed work as measured for MOBILIZATION will be paid for at the contract unit price for the following contract item (pay item):

<table>
<thead>
<tr>
<th>Pay Item</th>
<th>Pay Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mobilization, Max., 10%</td>
<td>lump sum</td>
</tr>
</tbody>
</table>

The lump sum price shall be payment in full for all preparatory work and operations which may include, but is not limited to, the following items:

1. The movement of personnel, equipment, supplies, and incidentals to the project site.
2. The establishment of the Contractor’s offices, buildings, and other facilities to work on the project.
3. Other work and operations that must be performed.
4. Expenses incurred, prior to beginning work on the various contract items on the project site.
5. Pre-construction costs, exclusive of bidding costs, which are necessary direct costs to the project rather than directly attributable to other pay items under the contract.
6. Permits, bonds, etc.

The pay item will state the maximum amount that can be bid. When the percentage of the original contract amount earned is less than 5 percent, the costs of project specific bonding, insurances, and permits will be reimbursed when a paid invoice is received by the Engineer. The costs of these will then be made in accordance with the Partial Payment Schedule shown below. The original contract amount is the total value of all contract items including the mobilization item. The percentage earned is exclusive of the mobilization item. The total sum of all payments for this item shall not exceed the original contract amount bid for mobilization, regardless of the fact that the Contractor may have, for any reason, shut down his work on the project, moved equipment away from the project and then back again, or for additional quantities or items of work added to the contract.

Partial Payment Schedule

<table>
<thead>
<tr>
<th>Percentage of Original Contract Amount Earned</th>
<th>Percentage of Bid Price for Mobilization Allowed</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>50</td>
</tr>
<tr>
<td>10</td>
<td>75</td>
</tr>
<tr>
<td>25</td>
<td>100</td>
</tr>
</tbody>
</table>

When a pay item for mobilization is not included in the proposal, payment for any such work is considered to have been included in payments made for other items of work.

2. **Channel Clearing, County Farm Park**

The completed work as measured for CHANNEL CLEARING, COUNTY FARM PARK will be paid for at the contract pay unit price for the following contract items (pay item):

<table>
<thead>
<tr>
<th>Pay Item</th>
<th>Pay Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Channel Clearing, County Farm Park</td>
<td>Station</td>
</tr>
</tbody>
</table>

The contract unit price shall be payment in full for all labor, material and equipment necessary to completely remove all surface material within the proposed drain grading limits. The contract unit price shall include all work necessary to remove and properly dispose of all surface items including trees of any size, roots, stumps, logs, vegetation, boulders, rock, masonry material and debris material. Any items not listed shall be incidental this pay item. Removal shall include costs required to properly dispose of material offsite or chip trees in a location approved by the OWNER.

Should trees be chipped, the pay item includes equipment and labor necessary to transport wood chips to a location at County Farm Park to be determined by the OWNER and ENGINEER.
3. **Clearing and Grubbing**

The completed work as measured for CLEARING AND GRUBBING will be paid for at the contract pay unit price for the following contract items (pay items):

<table>
<thead>
<tr>
<th>Pay Item</th>
<th>Pay Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clearing &amp; Grubbing</td>
<td>Acre</td>
</tr>
</tbody>
</table>

The contract unit price shall be payment in full for all labor, material and equipment necessary to completely remove all surface material within the proposed construction influence area. Removal shall include all surface items including trees of any size, roots, stumps, logs, vegetation, boulders, rock, masonry material and debris material. Any items not listed shall be incidental this pay item. Removal shall include costs required to properly dispose of material offsite.

Should trees be chipped, the pay item includes equipment and labor necessary to transport wood chips to a location at County Farm Park to be determined by the OWNER and ENGINEER.

4. **Woody Debris Removal**

The completed work as measured for WOODY DEBRIS REMOVAL will be paid for at the contract pay unit price for the following contract items (pay item):

<table>
<thead>
<tr>
<th>Pay Item</th>
<th>Pay Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Woody Debris Removal</td>
<td>Each</td>
</tr>
</tbody>
</table>

Woody Debris Removal shall be paid for by the unit of each for each identified woody obstruction on the plans within Malletts Creek. Fallen trees, shrubs and all associated debris shall be cleared from the area.

The pay item includes the complete removal of woody material and other objects creating in channel obstructions. Woody material shall be cut to length and placed on the top of the bank and affixed to the ground as noted on the plans. Debris, brush, sediments and other foreign material shall be removed and disposed of offsite to an approved location.

5. **Selective Tree Removal, Over 12 inch**

The completed work as measured for SELECTIVE TREE REMOVAL will be paid for at the contract unit price for the following contract items (pay items):

<table>
<thead>
<tr>
<th>Pay Item</th>
<th>Pay Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Selective Tree Removal</td>
<td>Each</td>
</tr>
</tbody>
</table>

The size of trees will be determined by the average diameter of the tree trunk, measured to the nearest full inch, at a point 4 ½ feet above the base of the tree at the ground line. Trees having major limbs lower than 4 ½ feet from the ground shall be measured at the smallest diameter below such limbs.

The contract unit price shall be payment in full for all labor, material and equipment necessary to completely remove the tree, including all foliage and root systems, backfill the remaining hole, and to properly dispose of the materials off site. When tree removal is called for, the payment shall include removal of the stump. Separate payments for tree and stump removal shall not be made for the same tree. Removal of trees under 12" in...
diameter as well as logs, debris, brush, shrubs, topsoil, and other vegetation will be con-
sidered as included in the pay item for Clearing and Grubbing.

This pay item only applies to the selective invasive removal areas noted on the Soil Ero-
sion Control plan, Sheet 23 of the plans.

6. **Erosion Control, Inlet Protection, Fabric Drop**

The completed work as measured for EROSION CONTROL, INLET PROTECTION
FABRIC DROP will be paid for at the contract unit price for the following contract item
(pay item):

<table>
<thead>
<tr>
<th>Pay Item</th>
<th>Pay Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Erosion Control, Inlet Protection, Fabric Drop</td>
<td>each</td>
</tr>
</tbody>
</table>

The contract unit price shall be payment in full for all labor, materials, and equipment
necessary to furnish, install, and maintain catch basin or inlet protection in accordance
with the plan notes and details. Maintenance work will include removal and replacement
of filters as directed by the Engineer. Removal and disposal of the protection devices
and accumulated sediment upon final completion of the project.

7. **Erosion Control, Silt Fence**

The completed work as measured for EROSION CONTROL, SILT FENCE will be paid for
at the contract unit price for the following contract item (pay item):

<table>
<thead>
<tr>
<th>Pay Item</th>
<th>Pay Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Erosion Control, Silt Fence</td>
<td>foot</td>
</tr>
</tbody>
</table>

Silt fence shall be measured in place horizontally by linear feet. The length shall be
measured along the top of fence from end of fence to end of fence.

The contract unit price shall be payment in full for all labor, materials, and equipment
necessary to furnish, install, and maintain the silt fence in accordance with the plan notes
and details. Removal and disposal of the silt fence and accumulated sediment upon final
completion of the project shall be considered as included in the work. Placement and
maintenance of stone outlet filters at low points along the silt fence line shall also be con-
sidered as included in the silt fence work. Maintenance work will include removal and re-
placement of silt fence and outlet filters as directed by the Engineer. Restoration of dis-
rupted areas shall be paid for separately under the appropriate surface restoration pay
items.

8. **Protective Fence**

The completed work as measured for PROTECTIVE FENCE will be paid for at the con-
tract unit price for the following contract item (pay item):
Pay Item  Pay Unit
Protective Fence  foot

Protective Fence shall be measured in place horizontally by linear feet. The length shall be measured along the top of fence from end of fence to end of fence.

The contract unit price shall be payment in full for all labor, materials, and equipment necessary to furnish, install, and maintain the protective fence in accordance with the plan notes and details. The fence shall be maintained through the project and shall be restored to its full extents at the end of each work day. Removal of the protective fence upon final completion of the project shall be considered as included in the work. Restoration of disrupted areas shall be restored per the plans.

9. Erosion Control, Gravel Access Road

The completed work as measured for EROSION CONTROL, GRAVEL ACCESS ROAD will be paid for at the contract unit price for the following contract item (pay item):

Pay Item  Pay Unit
Erosion Control, Gravel Access Approach  foot

Gravel Access Approach shall be measured in place horizontally by the lineal foot. The length shall be measured at the center of the roadway beginning at the limit of the road to the tie in point with the public road or other paved/improved surface.

The contract unit price shall be payment in full for all labor, materials, and equipment necessary to furnish, install, and maintain the gravel access approach in accordance with the plan notes and details. The contract unit price shall be payment in full for all labor, material, and equipment necessary to place gravel tracking mats as described on the plans. The cost of geotextile and stone are included in the cost of the gravel access road. Maintenance of the gravel, including adding clean stone and removing old stone shall be included for the duration of the project. The removal and disposal of geotextile and stone after construction completion shall also be included.

10. Illicit Discharge Elimination, Sanitary Structure Rehabilitation

The completed work as measured FOR ILLICIT DISCHARGE ELIMINATION, SANITARY STRUCTURE REHABILITATION will be paid for at the contract unit price for the following contract items (pay items):

Pay Item  Pay Unit
Illicit Discharge Elimination, Sanitary Structure Rehabilitation  Each

This item shall be paid when the structure involved requires external sealing of the existing adjusting rings or brick and mortar chimney. Payment shall include cleaning of the exterior surface of the chimney, adjusting rings, or precast manhole sections upon which a mortar parge coat will be applied. Any additional excavation required to expose the entire chimney or adjusting ring section beyond what is paid for under the item for the required rehabilitation method shall be considered incidental to this item of work. Backfilling and compaction of approved material shall also be considered incidental to this item of work and restoration to its original condition.
11. Ditch Cleanout

The completed work as measured for DITCH CLEANOUT will be paid for at the contract pay unit price for the following contract item (pay item)"

<table>
<thead>
<tr>
<th>Pay Item</th>
<th>Pay Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ditch Cleanout</td>
<td>Station</td>
</tr>
</tbody>
</table>

Channel grading work shall be measured in place horizontally by station (100 feet). The length shall be measured along the centerline of the re-graded existing side channel from end to end.

This item applies for side channels that intersect the main branch of County Farm Drain or Malletts Creek. The contract unit price shall be payment in full for all labor, material and equipment necessary to complete rough and fine grading of the channel between the proposed top of bank, centerline and top of bank and any other work incidental thereto. Channel grading work also includes grading of the banks to ensure that the top of bank does not exceed 1:2 slopes. The contract unit price shall be payment in full for all labor, materials, and equipment necessary to re-grade the existing drain channel to the elevation and cross section that is called for on the plans. Furnishing suitable embankment material as well as disposing of excess or unsuitable material and any necessary spoils leveling shall be considered as incidental to the channel grading. Over-excavation of the re-graded channel area shall also be considered as included in the work in order to allow for placement of topsoil and seed or sod up to the plan finished grade.

12. Drain Cleanout

The completed work as measured for DRAIN CLEANOUT will be paid for at the contract pay unit price for the following contract item (pay item)"

<table>
<thead>
<tr>
<th>Pay Item</th>
<th>Pay Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drain Cleanout</td>
<td>Station</td>
</tr>
</tbody>
</table>

Drain cleanout work shall be measured in place horizontally by station (100 feet). The length shall be measured along the centerline of the re-graded existing County Farm Drain channel as specified on the plans.

The contract unit price shall be payment in full for all labor, material and equipment necessary to complete rough and fine grading of the channel between the proposed top of bank, centerline and top of bank and any other work incidental thereto. During rough grading work, existing cobble shall be salvaged for use in establishing the channel bottom during fine grading.

Drain Cleanout work also includes grading of the banks to ensure that the top of bank does not exceed slopes noted on the plans. The contract unit price shall be payment in full for all labor, materials, and equipment necessary to re-grade the existing drain channel to the elevation and cross section that is called for on the plans. Furnishing suitable embankment material as well as disposing of excess or unsuitable material and any necessary spoils leveling shall be considered as incidental to the channel grading. Over-excavation of the re-graded channel area shall also be considered as included in the work in order to allow for placement of topsoil and seed and cobble bottom up to the plan finished grade.

Drain Cleanout also includes the complete restoration of the channel and all disturbed areas upon completion of fine grading. The bottom of the channel shall be restored using
salvaged cobble stone from the existing channel to a depth of 12 inches. The channel banks shall be restored with 3” of topsoil with streambank seed mix specified on the plans. The bank shall be stabilized with double netted cocoanut erosion control matting to a depth of 4’ above the channel bottom. Double netted straw matting is acceptable in any other impacted areas. Drain cleanout also includes the placement of live stakes within the channel bank areas as shown on the plans.

13. **Drain Cleanout, 10’ Base Width, 2 Stage Channel**

The completed work as measured FOR DRAIN CLEANOUT, 10’ BASE WIDTH, 2 STAGE CHANNEL will be paid for at the contract pay unit price for the following contract item (pay item)*

<table>
<thead>
<tr>
<th>Pay Item</th>
<th>Pay Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drain Cleanout, 10’ Base Width, 2 Stage Channel</td>
<td>Station</td>
</tr>
</tbody>
</table>

Drain cleanout work shall be measured in place horizontally by station (100 feet). The length shall be measured along the centerline of the re-graded existing County Farm Drain channel as specified on the plans.

The contract unit price shall be payment in full for all labor, material and equipment necessary to complete rough and fine grading of the channel between the proposed top of bank, centerline and top of bank and any other work incidental thereto. During rough grading work, existing cobble shall be salvaged for use in establishing the channel bottom during fine grading.

Drain Cleanout work also includes grading of the banks to ensure that the top of bank does not exceed 1:2 slopes. The contract unit price shall be payment in full for all labor, materials, and equipment necessary to re-grade the existing drain channel to the elevation and cross section that is called for on the plans. Furnishing suitable embankment material as well as disposing of excess or unsuitable material and any necessary spoils leveling shall be considered as incidental to the channel grading. Over-excavation of the re-graded channel area shall also be considered as included in the work in order to allow for placement of coir fiber blocks, topsoil and seed and cobble bottom up to the plan finished grade.

Drain Cleanout also includes the complete restoration of the channel and all disturbed areas upon completion of fine grading. The bottom of the channel shall be formed using coir fiber blocks and restored using salvaged cobble stone from the existing channel to a depth of 12 inches. The channel banks shall be restored with 3” of topsoil with streambank seed mix specified on the plans. The bank shall be stabilized with double netted cocoanut erosion control matting to a depth of 4’ above the channel bottom. Double netted straw matting is acceptable in any other impacted areas. Drain cleanout also includes the placement of live stakes within the channel bank areas as shown on the plans.

14. **Drain Cleanout, 14’ Base Width, 2 Stage Channel**

The completed work as measured FOR DRAIN CLEANOUT, 14’ BASE WIDTH, 2 STAGE CHANNEL will be paid for at the contract pay unit price for the following contract item (pay item)*

<table>
<thead>
<tr>
<th>Pay Item</th>
<th>Pay Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drain Cleanout, 14’ Base Width, 2 Stage Channel</td>
<td>Station</td>
</tr>
</tbody>
</table>

* all pay items are subject to the terms and conditions of the contract.
Drain cleanout work shall be measured in place horizontally by station (100 feet). The length shall be measured along the centerline of the re-graded existing County Farm Drain channel as specified on the plans.

The contract unit price shall be payment in full for all labor, material and equipment necessary to complete rough and fine grading of the channel between the proposed top of bank, centerline and top of bank and any other work incidental thereto. During rough grading work, existing cobble shall be salvaged for use in establishing the channel bottom during fine grading construction.

Drain Cleanout work also includes grading of the banks to ensure that the top of bank does not exceed 1:2 slopes. The contract unit price shall be payment in full for all labor, materials, and equipment necessary to re-grade the existing drain channel to the elevation and cross section that is called for on the plans. Furnishing suitable embankment material as well as disposing of excess or unsuitable material and any necessary spoils leveling shall be considered as incidental to the channel grading. Over-excavation of the re-graded channel area shall also be considered as included in the work in order to allow for placement of coir fiber blocks, topsoil and seed and cobble bottom up to the plan finished grade.

Drain Cleanout also includes the complete restoration of the channel and all other disturbed areas upon completion of fine grading. The bottom of the channel shall be formed using coir fiber blocks and restored using salvaged cobble stone from the existing channel to a depth of 12 inches. The channel banks shall be restored with 3" of topsoil with streambank seed mix specified on the plans. The bank shall be stabilized with double netted cocoonut erosion control matting to a depth of 5’ above the channel bottom. Double netted straw matting is acceptable in any other impacted areas. Drain cleanout also includes the placement of live stakes within the channel bank areas as shown on the plans.

15. **Culv, Cl E, Conc, 18 inch**
16. **Culv, Cl E, Conc, 48 inch**
17. **Sewer, Cl IV, 36 inch, Tr Det A**

The completed work as measured for CULVERTS will be paid for at the contract unit price for the following contract items (pay items):

<table>
<thead>
<tr>
<th>Pay Item</th>
<th>Pay Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Culv, Cl E, Conc, 18 inch</td>
<td>Foot</td>
</tr>
<tr>
<td>Culv, Cl E, Conc, 48 inch</td>
<td>Foot</td>
</tr>
</tbody>
</table>

Culverts and storm sewer shall be measured in place horizontally by linear feet. The length shall be measured along the centerline of the pipe from end of pipe to end of pipe or to center of structure. Radius pipe or bend sections will be measured and paid for as storm sewer. The measurement shall not include the length of end sections, which shall be paid for separately.

The contract unit price shall be payment in full for all labor, materials, and equipment necessary to construct the culvert and storm sewer. The payment for storm sewer shall include the following (except such items for which separate prices are received on the Bid Form): clearing; excavating; trenching; disposal of items from clearing; disposal of unsuitable or excess excavated materials; temporary sheeting, bracing and shoring of excavations; support, relocation, replacement, connection or reconnection of existing pipe lines, building leads and utilities; furnishing and placing of pipe, jointing materials, fittings, bulkheads, plugs, adaptors; furnishing and placing of required bedding, backfill, and fill
materials; complete cleanup and surface restoration. Removal of an existing storm sewer shall be considered as included in the price for the new storm sewer construction if the new storm sewer is being constructed in the same trench as the existing sewer.

Payment for culvert shall also include up to 18 inches of trench undercut and refill with compacted MDOT 6A crushed gravel or 6A crushed concrete unless otherwise shown in the plan details. If additional undercut is required beyond 18 inches, then it shall be paid for separately as Trench Undercut and Refill.

The designation “Trench B” shall indicate compacted sand backfill for the trench in accordance with the plan details. “Trench A” shall indicate suitable, job-excavated material for trench backfill. Culvert classes shall be per the MDOT 2003 Standard Specifications for Construction.

The contract unit price shall also include payment in full for dewatering of the excavation as described in the Earthwork section. The contract unit price does not include dewatering by means of deep wells or well points. In the event that dewatering by means of deep wells or well points is required, as determined by the Engineer, then this work shall be paid for separately.

18. Culv End Sect, Conc, 12 inch
19. Culv End Sect, Conc, 15 inch
20. Culv End Sect, Conc, 18 inch
21. Culv End Sect, Conc, 36 inch
22. Culv End Sect, Conc, 42 inch
23. Culv End Sect, Conc, 48 inch

The completed work as measured for CULVERT END SECTIONS will be paid for at the contract unit price for the following contract items (pay items):

<table>
<thead>
<tr>
<th>Pay Item</th>
<th>Pay Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Culv End Sect, Conc, ___ inch</td>
<td>each</td>
</tr>
</tbody>
</table>

The contract price shall be payment in full for all labor, material, and equipment necessary to furnish and install the end sections, associated storm sewer and riprap in accordance with the plan details. The pay item shall also include the removal of the existing storm sewer and end section. Excavation, trenching, bedding, backfill, and disposal of excess or unsuitable materials shall be included in the contract unit price for culvert end sections. Concrete footings and bar screens shall be included as part of the end sections and shall not be paid for separately. Geotextile and riprap are included and shall not be paid for separately.
24. **Outlet Control Structure**

The completed work as measured for OUTLET CONTROL STRUCTURE will be paid for at the contract unit price for the following contract items (pay items):

<table>
<thead>
<tr>
<th>Pay Item</th>
<th>Pay Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Outlet Control Structure</td>
<td>each</td>
</tr>
</tbody>
</table>

The contract unit price shall be payment in full for all labor, materials and equipment necessary to construct the structure. Each structure shall be complete with base, frames and covers, stubs, pipe opening, channels, and sumps (where appropriate) as called for in the plan details. Payment for outlet control structures shall include the following (except such items for which separate prices are received on the bid form): excavating; disposal of unsuitable or excess excavated materials; temporary sheeting, bracing and shoring of excavations; soil testing; placing and compacting stone base, furnishing and placing of forms, steel rebar, concrete, jointing materials, fittings, anchors, channels, water stops, weir/orifice plate, plate stiffeners, safety grate, plate securing assembly, slide gate frame; bulkheads, and plugs; cleaning; furnishing and placing of required bedding, backfill and fill materials; final adjustment or reconstruction of grating to finished grade; complete cleanup and surface restoration of area.

The contract unit price shall also include payment in full for dewatering of the excavation as described in the Earthwork section. The contract unit price does not include dewatering by means of deep wells or well points. In the event that dewatering by means of deep wells or well points is required, as determined by the Engineer, then this work shall be paid for separately.

25. **Sheet Pile Diversion Structure**

The completed work as measured for SHEET PILE DIVERSION STRUCTURE will be paid for at the contract unit price for the following contract items (pay items):

<table>
<thead>
<tr>
<th>Pay Item</th>
<th>Pay Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sheet Pile Diversion Structure</td>
<td>Lump sum</td>
</tr>
</tbody>
</table>

The contract unit price shall be payment in full for all labor, materials, and equipment necessary to furnish and install the sheet piling weir and orifice in accordance with the plan details. Any excavation, backfill, tie backs, braces or supports that are needed during the sheet piling installation or removal work shall be considered as incidental to the sheet piling.

The pay item includes the construction of the sheet pile during the County Farm Drain channel construction and cutting an orifice into the weir upon full establishment of the storm water detention basin as determined by the ENGINEER.

26. **Remove and Replace Sidewalk, Conc, 6 inch**

The completed work as measured for REMOVE AND REPLACE SIDEWALK will be paid for at the contract unit prices for the following contract items (pay items):

<table>
<thead>
<tr>
<th>Pay Item</th>
<th>Pay Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Remove and Replace Sidewalk, Conc, 6 inch</td>
<td>square foot</td>
</tr>
</tbody>
</table>
Removal and replacement of concrete sidewalk shall be measured in place and shall be paid for based upon the length and width measurements of the sidewalk area as determined by the Engineer.

The contract unit price shall be payment in full for all labor, materials, and equipment necessary to remove the existing pavement and construct sidewalk of the required thickness in accordance with the plan details. Furnishing, placing, and compacting a 6-inch thick 21AA aggregate base shall be considered as incidental to the sidewalk placement. Any necessary excavation, backfill, and disposal of excess materials and restoration shall also be considered as incidental to the sidewalk construction.

27. Access Pathway

The completed work as measured for ACCESS PATHWAY will be paid for at the contract unit price for the following contract item (pay item):

<table>
<thead>
<tr>
<th>Pay Item</th>
<th>Pay Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Access Pathway Foot</td>
<td>Foot</td>
</tr>
</tbody>
</table>

Access Pathway construction shall be measured along the centerline of pathway from end of path to end of path.

The contract unit price shall be payment in full for all labor, materials, and equipment necessary to perform all earthwork for construction of the access path. The contract unit price shall include items such as removing topsoil and vegetation, excavating, grading, and compacting earth along the pathway route, stockpiling, sterilizing the subgrade, and finish grading. Furnishing, grading, and compacting suitable embankment material as well as removing excess or unsuitable material shall also be considered as part of the Access Pathway. In addition, root trimming, clearing, brushing, and removal of trees under 6 inches in diameter shall be considered as part of the work unless separate pay items have been included in the bid form. The pathway shall be restored with 4" of 21AA aggregate upon completion of grading activities.

28. Traffic Maintenance and Control

The completed work as measured for TRAFFIC MAINTENANCE AND CONTROL will be paid for at the contract unit price for the following contract item (pay item):

<table>
<thead>
<tr>
<th>Pay Item</th>
<th>Pay Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Traffic Maintenance and Control lump sum</td>
<td>lump sum</td>
</tr>
</tbody>
</table>

The contract lump sum price shall be payment in full for all labor, materials, and equipment necessary to furnish, install, and maintain all signs, cones, barricades, flagging, etc. as required by the Michigan Manual of Uniform Traffic Control Devices and the Supplemental Specifications and as required by the City of Ann Arbor and the Washtenaw County Road Commission. Removal of any temporary signs or other traffic control equipment upon completion of the project shall be considered as incidental to the traffic maintenance and control work.

29. Detail A, Boulder Toe Protection

The completed work as measured for BOULDER TOE PROTECTION will be paid for at the contract unit price for the following contract item (pay item):
30. **Detail B, Coir Fiber Block Toe Protection**

The completed work as measured for COIR FIBER BLOCK TOE PROTECTION will be paid for at the contract unit price for the following contract item (pay item):

<table>
<thead>
<tr>
<th>Pay Item</th>
<th>Pay Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Detail B, Coir Fiber Block Toe Protection</td>
<td>Foot</td>
</tr>
</tbody>
</table>

Coir Fiber Block Toe Protection will be measured in place by lineal foot along the length of the toe stabilization work and includes all materials, labor, and equipment necessary to complete the work as shown on the plans and details. The work shall include removing any impacted vegetation or trees, excavating the existing channel bank, placing geotextile fabric, placing coir fiber blocks and backfilling the excavation. Excavated material shall be placed above the boulders on the bank. Finish grading of the area around the toe protection will not be paid for separately, but is included in the contract item Detail B, Coir Fiber Block Toe Protection.

31. **Detail C, Bank Full Shelf**

The completed work as measured for BANK FULL SHELF will be paid for at the contract unit price for the following contract item (pay item):

<table>
<thead>
<tr>
<th>Pay Item</th>
<th>Pay Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Detail C, Bank Full Shelf</td>
<td>Foot</td>
</tr>
</tbody>
</table>

Bank Full Shelf will be measured in place by lineal foot along the length of the shelf construction and includes all materials, labor, and equipment necessary to complete the work as shown on the plans and details. The work shall include removing any impacted vegetation or trees, excavating the existing channel bank, placing geotextile fabric, placing boulders and earth and backfilling the excavation. Excavated material shall be placed above the shelf on the bank. Finish grading of the area around the shelf will not be paid for separately, but is included in the contract item Detail C, Bank Full Shelf.

32. **Detail D, Bank Stabilization with Live Stakes**

The completed work as measured for BANK STABILIZATION WITH LIVE STAKES will be paid for at the contract unit price for the following contract item (pay item):

<table>
<thead>
<tr>
<th>Pay Item</th>
<th>Pay Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Detail D, Bank Stabilization with Live Stakes</td>
<td>Square yard</td>
</tr>
</tbody>
</table>

Boulder Toe Protection will be measured in place by lineal foot along the length of the toe stabilization work and includes all materials, labor, and equipment necessary to complete the work as shown on the plans and details. The work shall include removing any impacted vegetation or trees, excavating the existing channel bank, placing geotextile fabric, placing boulders and backfilling the excavation. Excavated material shall be placed above the boulders on the bank. Finish grading of the area around the toe protection will not be paid for separately, but is included in the contract item Detail A, Boulder Toe Protection.
Payment for Detail D, Bank Stabilization with Live Stakes shall be measured by area in square yard in place. The pay item includes all materials, labor and equipment required to install Detail D, Bank Stabilization with Live Stakes. This work includes the removal of all trees, vegetation or debris which existing within the proposed work area. The bank shall be sloped per the details, but no steeper than 2:1 (horizontal: vertical) slope or as shown on the plans. Excavated material shall be placed above the bank where possible or in designated spoils pile locations as noted on the plans.

Upon completion of bank sloping work, the banks shall be restored. Restoration shall include Topsoil Surface, Furnished or Salvaged; Streambank seed mix as specified on the plans, double netted cocoanut erosion control matting, and live stakes. Restoration shall include watering until vigorous turf growth is established.

33. **Detail E, Excavation, Channel**

The completed work as measured for EXCAVATION, CHANNEL will be paid for at the contract unit price for the following contract item (pay item):

<table>
<thead>
<tr>
<th>Pay Item</th>
<th>Pay Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Detail E, Excavation, Channel</td>
<td>Foot</td>
</tr>
</tbody>
</table>

Payment for Detail E, Excavation shall be measured in length by the foot. The pay item applies to areas where the existing toe will be relocated outside of the existing channel as noted on the plans and as directed by the engineer. The pay item includes all, labor and equipment required to widen the existing channel. This work includes the removal of all trees, vegetation or debris which existing within the proposed work area. The excavated work area shall be restored with salvaged or furnished stream cobble upon completion of excavation.

34. **Detail F, Vegetated Geogrid**

The completed work as measured for VEGETATED GEOGRID will be paid for at the contract unit price for the following contract item (pay item):

<table>
<thead>
<tr>
<th>Pay Item</th>
<th>Pay Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Detail F, Vegetated Geogrid</td>
<td>Square yard</td>
</tr>
</tbody>
</table>

Payment for Detail E, Vegetated Geogrid shall be measured by area in square yard in place. The pay item includes all materials, labor and equipment required to install Detail F, Vegetated Geogrid. This work includes the removal of all trees, vegetation or debris which existing within the proposed work area. The bank shall be sloped per the details, but no steeper than 1:1 (horizontal: vertical) slope. Slope work shall include the installation of geosynthetic netting to form engineered soil lifts along with any anchoring and backfill compaction, live stakes and any other materials or work necessary to construct per the details. Excavated material shall be used in the construction or placed as directed by engineer above the bank where possible or in designated spoils pile locations as noted on the plans.

Upon completion of bank sloping work, the banks shall be restored. Restoration shall include Topsoil Surface, Furnished or Salvaged; stream bank seed mix as specified on the plans, North American Green C-125 BN or engineer approved equal, and live stakes. Restoration shall include watering until vigorous turf growth is established.
35. **Cross Vane, Main Channel (Malletts Creek)**

36. **Cross Vane, Bypass Channel**

37. **Cross Vane, Main Channel (County Farm Drain)**

The completed work as measured for CROSS VANE will be paid for at the contract unit price for the following contract item (pay item):

<table>
<thead>
<tr>
<th>Pay Item</th>
<th>Pay Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cross Vane, Main Channel (Malletts Creek)</td>
<td>Each</td>
</tr>
<tr>
<td>Cross Vane, Bypass Channel</td>
<td>Each</td>
</tr>
<tr>
<td>Cross Vane, Main Channel (County Farm Drain)</td>
<td>Each</td>
</tr>
</tbody>
</table>

The Contractor shall furnish all labor, tools, equipment and materials necessary for the construction of Cross Vanes in accordance with the plan details. The cost of excavating, trenching, bedding, furnishing and placing geotextile, stone/boulder materials, sand and earth backfill, and the disposal of excess or unsuitable materials shall be included in the contract unit price for the Cross Vanes.

38. **W Weir**

The completed work as measured for W WEIR will be paid for at the contract unit price for the following contract item (pay item):

<table>
<thead>
<tr>
<th>Pay Item</th>
<th>Pay Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>W Weir</td>
<td>Each</td>
</tr>
</tbody>
</table>

The Contractor shall furnish all labor, tools, equipment and materials necessary for the construction of W Weir in accordance with the plan details. The cost of removing vegetation or trees, excavating, trenching, bedding, furnishing and placing geotextile, stone/boulder materials, sand and earth backfill, and the disposal of excess or unsuitable materials shall be included in the contract unit price for the W Weir.

39. **Vane Arm**

The completed work as measured for VANE ARM will be paid for at the contract unit price for the following contract item (pay item):

<table>
<thead>
<tr>
<th>Pay Item</th>
<th>Pay Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vane Arm</td>
<td>Each</td>
</tr>
</tbody>
</table>

The Contractor shall furnish all labor, tools, equipment and materials necessary for the construction of Vane Arm in accordance with the plan details. The cost of removing vegetation or trees, excavating, trenching, bedding, furnishing and placing geotextile, stone/boulder materials, sand and earth backfill, and the disposal of excess or unsuitable materials shall be included in the contract unit price for the Vane Arm.

40. **Pre-Formed Scour Hole**

The completed work as measured for PRE-FORMED SCOUR HOLE will be paid for at the contract unit price for the following contract item (pay item):

<table>
<thead>
<tr>
<th>Pay Item</th>
<th>Pay Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-Formed Scour Hole</td>
<td>Each</td>
</tr>
</tbody>
</table>
The Contractor shall furnish all labor, tools, equipment and materials necessary for the construction of pre-formed scour holes in accordance with the plan details. The cost of excavating, trenching, bedding, furnishing and placing of geotextile, riprap/boulder materials, sand and earth backfill, and the disposal of excess or unsuitable materials shall be included in the contract unit price for the Scour Hole.

41. Riprap, Rounded Natural Cobble

The completed work as measured for RIPRAP, ROUNDED NATURAL COBBLE will be paid for at the contract unit price for the following contract item (pay item):

<table>
<thead>
<tr>
<th>Pay Item</th>
<th>Pay Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Riprap, Rounded Natural Cobble</td>
<td>Square yard</td>
</tr>
</tbody>
</table>

Riprap shall be measured in place and payment shall be based upon the average length and width measurements of the riprap areas.

The contract unit price shall be payment in full for all labor, materials, and equipment necessary to furnish and install the riprap in accordance with the plan details. If the riprap placement details call for geotextile fabric and stone bedding, then these items shall be considered as incidental to the riprap.

42. County Farm Basin Earthwork

The completed work as measured for COUNTY FARM BASIN EARTHWORK will be paid for at the contract unit price for the following contract item (pay item):

<table>
<thead>
<tr>
<th>Pay Item</th>
<th>Pay Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>County Farm Basin Earthwork</td>
<td>Square yard</td>
</tr>
</tbody>
</table>

The Contractor shall furnish all labor, materials, tools, equipment, accessories and services necessary for completing the excavation and backfilling for the items as shown on the Plans and/or as herein required. This also includes subgrade undercutting, complete and continual drainage of excavation, and the disposal of excess excavated material.

The contract lump sum price shall include items such as excavating, grading, stockpiling, and compacting earth; constructing streams, channels, basins and pathways to the elevation and cross section that is called for on the plans; finish grading and meeting all MDEQ permit conditions and Soil Erosion and Sedimentation Control Permits. The cost for furnishing suitable embankment material, as well as disposing of excess or unsuitable material shall be considered as included in "Project Earthwork" and will not be paid for separately. Over-excavation of proposed grading shall also be considered as included in the work in order to allow for placement of topsoil and seed or sod up to the plan-finished grade and as directed by the Engineer. The work shall include all effort to construct drainage channels in accordance with the plan details.

43. Topsoil, 6"

The completed work as measured for TOPSOIL will be paid for at the contract unit price for the following contract items (pay item):

<table>
<thead>
<tr>
<th>Pay Item</th>
<th>Pay Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Topsoil, 6&quot;</td>
<td>square yard</td>
</tr>
</tbody>
</table>
Topsoil surface, of the depth specified, will be measured by area in square yards in place for areas in the County Farm Park basin.

The contract unit price shall be payment in full for all labor, materials and equipment necessary to place the topsoil surface. The payment for topsoil shall include the following (except such items for which separate prices are received on the bid form): preparation of earth bed; harrowing; furnishing and placing topsoil; raking.

### 44. Emergent Wetland Seed Mix  
### 45. Aquatic Wetland Seed Mix  
### 46. Short Grass Prairie Seed Mix  
### 47. Tall Grass Prairie Seed Mix  
### 48. Detention Basin Seed Mix

The completed work as measured for SEEDING will be paid for at the contract unit price for the following contract items (pay items):

<table>
<thead>
<tr>
<th>Pay Item</th>
<th>Pay Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emergent Wetland Seed Mix</td>
<td>Acre</td>
</tr>
<tr>
<td>Aquatic Wetland Seed Mix</td>
<td>Acre</td>
</tr>
<tr>
<td>Short Short Grass Prairie Seed Mix</td>
<td>Acre</td>
</tr>
<tr>
<td>Tall Grass Prairie Seed Mix</td>
<td>Acre</td>
</tr>
<tr>
<td>Detention Basin Seed Mix</td>
<td>Acre</td>
</tr>
</tbody>
</table>

Surface Restoration with seed shall be measured in place by acres and shall be based upon the average length and width measurements of the restored area as determined by the Construction Observer.

The contract unit price shall be payment in full for all labor, materials and equipment necessary to sow the seed at the application rates specified in the contract documents. Restoration includes the placement of 6” topsoil for items Tall Grass Prairie Seed Mix and Short Grass Prairie Seed mix, and double netted straw erosion control matting. Double netted cocoanut fiber erosion control matting shall be provided for the Emergent Wetland, Aquatic Wetland and Detention Basin Seed Mixes. Restored areas shall be watered until vigorous growth has occurred as determined by the ENGINEER.

Topsoil for Emergent Wetland, Aquatic Wetland and Detention Basin Seed Mix will be paid for separately as **Topsoil, 6”** as listed on the bid form.

### 49. Habitat Structures, Root Wad  
### 50. Habitat Structures, Log  
### 51. Habitat Structures, Whole Tree

The completed work as measured for HABITAT STRUCTURES will be paid for at the contract unit price for the following contract items (pay items):

<table>
<thead>
<tr>
<th>Pay Item</th>
<th>Pay Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Habitat Structures, Root Wad</td>
<td>Each</td>
</tr>
<tr>
<td>Habitat Structures, Log</td>
<td>Each</td>
</tr>
<tr>
<td>Habitat Structures, Whole Tree</td>
<td>Each</td>
</tr>
</tbody>
</table>

The contract unit price includes all site preparation, labor, materials, and equipment required to complete the work as specified herein and as detailed on the plans.
52. Bareroot shrub, 24-36 inch
The completed work as measured for BAREROOT SHRUB will be paid for at the contract unit price for the following contract items (pay items):

<table>
<thead>
<tr>
<th>Pay Item</th>
<th>Pay Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bareroot shrub, 24-36 inch</td>
<td>Each</td>
</tr>
</tbody>
</table>

The contract unit price shall be payment in full for all labor, materials, and equipment necessary to furnish and place shrubs as listed in the planting schedule as shown on the plans.

53. Vegetation Establishment & Invasive Removals, 1st Year
54. Vegetation Establishment & Invasive Removals, 2nd Year
The completed work as measured for VEGETATION ESTABLISHMENT & INVASIVE REMOVALS will be paid for at the contract unit price for the following contract items (pay items):

<table>
<thead>
<tr>
<th>Pay Item</th>
<th>Pay Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vegetation Establishment &amp; Invasive Removals, 1st Year</td>
<td>Lump sum</td>
</tr>
<tr>
<td>Vegetation Establishment &amp; Invasive Removals, 2nd Year</td>
<td>Lump sum</td>
</tr>
</tbody>
</table>

All materials, labor and equipment required to complete this work, which includes protection of threatened and endangered species, protection of native species, herbicide, and spot spraying. A kill rate of at least 90 percent of the targeted species must be achieved within two weeks following each visit. Payment will not be made if this percentage is not achieved.

55. Vegetation Protection
The completed work as measured for VEGETATION PROTECTION will be paid for at the contract unit price for the following contract items (pay items):

<table>
<thead>
<tr>
<th>Pay Item</th>
<th>Pay Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vegetation Protection</td>
<td>Lump sum</td>
</tr>
</tbody>
</table>

The contract unit price includes all work necessary to construct and maintain a wildlife deterrent device over the existing detention basin. This includes all labor, materials and tools including hardwood stakes and 40 lb fire line.

56. Project Access Allowance
The completed work as measured for PROJECT ACCESS ALLOWANCE will be paid for at the contract unit price for the following contract items (pay items):

<table>
<thead>
<tr>
<th>Pay Item</th>
<th>Pay Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Access Allowance</td>
<td>Lump sum</td>
</tr>
</tbody>
</table>

The contract unit price shall be payment in full for all labor, material and equipment necessary to construct an access route between a public roadway and the channel work area. Work includes removing brush, trees, shrubs and any other debris and the construction of a temporary construction route suitable for transporting the necessary equipment and material to the job site and also maintaining access to any impacted property.
owners. The unit price also includes all work to restore the impacted areas to a state
equivalent or better than the current state. The Contractor shall arrange for an audio-
video survey to be completed of the proposed access route before mobilization and shall
provide a copy to the City prior to construction for their file.

The Contractor is responsible for maintaining the access throughout construction and en-
suring that the route is constructed in a manner that maintains existing drainage of the
site. In addition, the Contractor is responsible for placing silt fence and any other erosion
control devices to prevent the loss of sediments from the area.

57. Quercus Bicolor, 2 inch
58. Tilia Americana, 2 inch

The completed work as measured for TREE will be paid for at the contract unit price for
the following contract items (pay items):

<table>
<thead>
<tr>
<th>Pay Item</th>
<th>Pay Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quercus Bicolor, 2 inch</td>
<td>Each</td>
</tr>
<tr>
<td>Tilia Americana, 2 inch</td>
<td>Each</td>
</tr>
</tbody>
</table>

The contract unit price shall be payment in full for all labor, materials, and equipment
necessary to furnish and install the appropriate trees as called for on the plans. The
contract unit price shall also include watering trees for the duration of the contract and a
two-year replacement guarantee for any trees that die. All trees shall be clearly marked
with removable identification tags (to be removed only by the Engineer) in order to
facilitate planting of the various species at the proper locations.

END OF SECTION 01 22 00