

**CONTRACT DOCUMENTS  
FOR THE  
MALLETTS CREEK DRAIN  
CULVERT EXTENSION AND HEADWALL  
CONSTRUCTION**



JANUARY 2008  
FILE NO. 2006-082  
BID NO. 3924

PROJECT MANAGEMENT SERVICES UNIT  
PUBLIC SERVICES AREA  
CITY OF ANN ARBOR  
100 NORTH FIFTH AVENUE  
ANN ARBOR, MICHIGAN 48107

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ADVERTISEMENT FOR  
**MATTETS CREEK DRAIN CULVERT EXTENSION  
AND HEADWALL CONSTRUCTION**  
FOR THE  
CITY OF ANN ARBOR, MICHIGAN

BID NO. **3924**

Sealed Bids will be received by the Procurement Unit, Fifth Floor, City Hall, on or before **10:00 A.M., March 28, 2008** for construction of the **Mallets Creek Drain Culvert Extension and Headwall Construction**. Bids will be publicly opened and read aloud at this time.

Work to be done includes the **partial existing headwall removal, culvert extension, poured concrete headwall and wing wall construction, gabion placement, excavation and slope grading, temporary flow bypass, seeding, blanket stabilization, and slope cobble placement**, and all related work. Bid documents may be obtained on or after **March 4, 2008** from the office of the Procurement Unit, Fifth Floor, City Hall, Ann Arbor, Michigan.

**A fee of \$35.00 per set** of documents will be charged. No refunds will be given for returned documents.

Each proposal shall be accompanied by a certified check, or Bid Bond by a recognized surety, in the amount of 5% of the total of the bid price. A proposal, once submitted, becomes the property of the City. In the sole discretion of the City, the City reserves the right to allow a bidder to reclaim submitted documents provided the documents are requested and retrieved no later than 48 hours prior to the scheduled bid opening.

The successful Bidder will be required to furnish satisfactory performance and labor and material bonds in the amount of 100% of the bid price and satisfactory insurance coverage.

Precondition for entering into a contract with the City of Ann Arbor is compliance with Chapter 112 of Title IX of the Code of the City of Ann Arbor. The successful Bidder may also be required to comply with Chapter 23 of Title I of the Code of the City of Ann Arbor. Further information is outlined in the contract documents.

After the time of opening, no Bid may be withdrawn for a period of 90 days. The City reserves the right to accept any Bid, to reject any or all Bids, to waive irregularities and/or informalities in any Bid, and to make the award in any manner the City believes to be in its best interest.

Any further information may be obtained from the Procurement Unit, (734) 994-2719.

CITY OF ANN ARBOR, MICHIGAN

## INSTRUCTIONS FOR COMPLETING THE CONTRACT COMPLIANCE FORMS

### City Policy

The "non discrimination in contracts" provision of the City Code, (Chapter 112, Section 9:161) requires contractors/vendors/grantees doing business with the City not to discriminate on the basis of actual or perceived race, color, religion, national origin, sex, age, condition of pregnancy, marital status, physical or mental limitations, source of income, family responsibilities, educational association, sexual orientation, gender identity or HIV status against any of their employees, any City employee working with them, or any applicant for employment. It also requires that the contractors/vendors/grantees include a similar provision in all subcontracts, which they execute, for City work or programs.

This Ordinance further requires that each prospective contractor/vendor submit employment data to the City showing current total employee breakdown by occupation, race and gender. This allows the Human Rights Office to determine whether or not the contractor/vendor has a workforce, which is reflective of the availability of women and under-represented minorities within the contractor's labor recruitment area (the area where they can reasonably be expected to recruit employees). *This data is provided to the City on the Human Rights Office Contract Compliance Forms (attached).*

### To complete the form:

- 1) **If a company has more than one location, then that company must complete 2 versions of the form.**
  - **Form #1** should contain the employment data for the **entire corporation.**
  - **Form #2** should contain the employment data for those employees:
    - who will be working on-site;
    - in the office responsible for completing the contract; or,
    - in the case of non-profit grantees, those employees working on the project funded by the City grant(s).
- 2) If the company has only one location, fill out Form #1 only.
- 3) Complete all data in the upper section of the form including the name of the person who completes the form and the name of the company/organization's president.
- 4) Complete the Employment Data in the remainder of the form. Please be sure to complete all columns including the Total Columns on the far right side of the form, and the Total row and Previous Year Total row at the bottom of the form.
- 5) Return the completed form(s) with ***your completed bid proposal.***

**For assistance in completing the form, contact:**  
Human Resources Office of the City of Ann Arbor  
(734) 994-2803

If a contractor is determined to be out of compliance, the Human Rights Office will work with them to assist them in coming into compliance.

Instructions for contractors 9/03

**CITY OF ANN ARBOR HUMAN RIGHTS OFFICE  
CONTRACT COMPLIANCE FORM**

Form #1

*Entire Organization (Totals for All Locations where applicable)*

Name of Company/Organization: L.J. Construction Inc. Date Form Completed: 3-27-08  
 Name and Title of Person Completing this Form: Laurence F. Totham Name of President: Laurence F. Totham  
 Address: 5863 Kingstard Clifford Michigan 48327 County: Tuscola Phone #: 989 761 0131  
 (Street address) (City) (State) (Zip)  
 Fax#: 989 761 0132 Email Address: LJConstruction@yahoo.com (Area Code)

**EMPLOYMENT DATA**

Job Categories	Number of Employees (Report employees in only one category)														TOTAL A-M COLUMNS
	Male							Female							
	White A	Black or African American B	Asian C	Hispanic or Latino D	Native Hawaiian or Other Pacific Islander F	American Indian or Alaska Native G	White H	Black or African American I	Asian J	Hispanic or Latino K	Native Hawaiian or Other Pacific Islander L	American Indian or Alaska Native M			
Exec/Sr. Level Officials	2														2
Supervisors	4														4
Professionals															
Technicians															
Sales															
Admin. Support															
Craftspeople	1						1								2
Operatives	9			1			1								11
Service Workers	2														2
Laborers/Helper	8			1			2								11
Apprentices															
Other	1														1
<b>TOTAL</b>	<del>25</del> 27			2			4								1
<b>PREVIOUS YEAR TOTAL</b>	<del>25</del> 27			2			4								33

AAF-2

# CITY OF ANN ARBOR HUMAN RIGHTS OFFICE CONTRACT COMPLIANCE FORM

Form #2

*Local Office (Only those employees that will do local or on-site work, if applicable)*

Name of Company/Organization \_\_\_\_\_

Date Form Completed \_\_\_\_\_

Name and Title of Person Completing this Form \_\_\_\_\_

Fax# \_\_\_\_\_ (Area Code) \_\_\_\_\_ Email Address \_\_\_\_\_

### EMPLOYMENT DATA

(Report employees in only one category)

Job Categories	Male							Female					TOTAL COLUMNS A-M		
	Number of Employees														
	A	B	C	D	F	G	H	I	J	K	L	M			
Exec/Sr. Level Officials Supervisors	White	Black or African American	Asian	Hispanic or Latino	Native Hawaiian or Other Pacific Islander	American Indian or Alaska Native	White	Black or African American	Asian	Hispanic or Latino	Native Hawaiian or Other Pacific Islander	American Indian or Alaskan Native			
Professionals															
Technicians															
Sales															
Admin. Support															
Craftspeople															
Operatives															
Service Workers															
Laborers/Helper															
Apprentices															
Other															
<b>TOTAL</b>															
<b>PREVIOUS YEAR TOTAL</b>															

AAf-3

Questions about this form? Call 734/997-1380 or Email: [jcarpenter@ci.ann-arbor.mi.us](mailto:jcarpenter@ci.ann-arbor.mi.us)

City of Ann Arbor

**LIVING WAGE ORDINANCE  
DECLARATION OF COMPLIANCE**

The Ann Arbor Living Wage Ordinance (Section 1:811-1:821 of Chapter 23 of Title I of the Code) requires that employers providing services to the City or recipients of grants for financial assistance (in amounts greater than \$10,000 in a twelve-month period of time) pay their employees who are working on the City project or grant, a minimum level of compensation known as the **Living Wage**. This wage must be paid to the employees for the length of the contract/project.

Companies employing fewer than 5 persons and non-profits employing fewer than 10 persons are exempt from the Ordinance. If this exemption applies to your firm, please check below:

- \_\_\_\_\_ This company is exempt due to the fact that we employ or contract with fewer than 5 individuals.  
\_\_\_\_\_ This **non-profit agency** is exempt due to the fact that we employ or contract with fewer than 10 employees.

The Ordinance requires that all contractors/vendors and/or grantees agree to the following terms:

- a) To pay each of its employees performing work on any covered contract or grant with the City, no less than the living wage, which is defined as \$10.33/hour when health care is provided, or no less than \$11.96/hour for those employers that do *not* provide health care. It is understood that the Living Wage will be adjusted upward each year on April 30, and covered employers will be required to pay the adjusted amount thereafter. The rates stated above include the adjustment for the 2007/08 period.
- b) Please check the boxes below which apply to your workforce:
- Employees who are assigned to *any covered* City project or grant will be paid at or above the applicable living wage without health benefits Yes \_\_\_\_\_ No \_\_\_\_\_
- OR
- Employees who are assigned to *any covered* City project or grant will be paid at or above the applicable living wage with health benefits Yes  No \_\_\_\_\_
- c) To post a notice approved by the City regarding the Living Wage Ordinance in every work place or other location in which employees or other persons contracting for employment are working.
- d) To provide the City payroll records or other documentation as requested; and,
- e) To permit access to work sites to City representatives for the purposes of monitoring compliance, investigating complaints or non-compliance.

The undersigned authorized representative hereby obligates the contractor/vendor or grantee to the above stated conditions under penalty of perjury and violation of the Ordinance.

LJI Construction Firm  
Company Name

5863 Kingston Rd Clifford MI  
Address City State Zip 48727

  
Signature of Authorized Representative

989 761 0131  
Phone (area code)

LAURENCE F. TOTHAM President  
Type or Print Name and Title

LJConstruction@yahoo.com  
Email address

3-27-08  
Date signed

Questions about this form? Please contact:  
Procurement Office City of Ann Arbor  
Phone: 734/994-2719 Fax: 734/994-1795



**YOUR RIGHTS UNDER THE ANN ARBOR  
LIVING WAGE ORDINANCE**

→ **NEW RATE EFFECTIVE APRIL 30, 2007** ←

**\$10.33** per hour

if the employer provides health care benefits\*

**\$11.96** per hour

if the employer does **NOT** provide health care benefits\*

Employers providing services to or for the City of Ann Arbor or recipients of grants or financial assistance from the City of Ann Arbor for a value of more than \$10,000 in a twelve-month period of time **must pay those employees performing work on a City of Ann Arbor contract or grant, the above living wage.**

**ENFORCEMENT**

The City of Ann Arbor may recover back wages either administratively or through court action for the employees that have been underpaid in violation of the law. Persons denied payment of the living wage have the right to bring a civil action for damages in addition to any action taken by the City.

Violation of this Ordinance is punishable by fines of not more than \$500/violation plus costs, with each day being considered a separate violation. Additionally, the City of Ann Arbor has the right to modify, terminate, cancel or suspend a contract in the event of a violation of the Ordinance.

***For Additional Information or to File a Complaint  
Contact:***

**Dee Lumpkin, Procurement Assistant**

**734/994-2719 or [dlumpkin@a2gov.org](mailto:dlumpkin@a2gov.org)**

*\* Health Care benefits includes those paid for by the employer or making an employer contribution toward the purchase of health care. The employee contribution must not exceed \$.50 an hour for an average work week; and the employer cost or contribution must equal no less than \$1/hr for the average work week.*

**The law requires employers to display this poster where employees can readily see it.**

## NOTICE OF PRE-BID CONFERENCE

A pre-bid conference for this project will be held on March 20, 1:30 PM in the Fourth Floor Conference Room of the Guy C. Larcom Building, City Hall, located at 100 N. Fifth Avenue, Ann Arbor, Michigan.

Attendance at this conference is optional, but highly recommended. Administrative and technical questions regarding this project will be answered at this time. If any questions arise whose answers constitute modifications to the bid documents, an addendum will be issued.

## INSTRUCTIONS TO BIDDERS

### General

Work to be done under this Contract is generally described through the detailed specifications and must be completed fully in accordance with the contract documents. All work to be done under this Contract is located in or near the City of Ann Arbor.

The City shall make available to all prospective Bidders, prior to receipt of the Bids, access to the area in which the work is to be performed. Advance notice should be given to the Administering Department in cases where access to the site must be arranged by the City.

Any proposal which does not conform fully with these instructions may be rejected.

### Proposals

Proposals must be submitted on the "Proposal Forms" and "Bid Forms" provided, without removal from the binder, with each blank properly filled in. Sealed proposals will be received by the City of Ann Arbor Purchasing Division, Third Floor, City Hall, Ann Arbor, Michigan, at the time stipulated in the Advertisement, promptly after which proposals will be publicly opened and read aloud. Each proposal must be enclosed in a sealed envelope, endorsed across one end:

### **BID No. 3924, Proposal for Mallets Creek Drain Culvert Extension and Headwall Construction**

The City intends to award a Contract(s) to the lowest responsible Bidder(s). On multi-divisional contracts, separate divisions may be awarded to separate Bidders. The City may also utilize discounts offered in the Bid Forms, if any, to determine the lowest responsible Bidder on each division, and award multiple divisions to a single Bidder, so that the lowest total cost is achieved for the City. For unit price bids, the contract will be awarded based upon the lump sum and unit prices stated by the bidder for the work items specified in the bid documents, with consideration given to any alternates selected by the City. If the City determines that the unit price for any item is materially different for the work item bid than either other bidders or the general market, the City, in its sole discretion, in addition to any other right it may have, may reject the bid as not responsible or non-conforming.

The acceptability of major subcontractors will be considered in determining if a Bidder is responsible. In comparing proposals, the City will give consideration to alternate proposals for items listed in the forms, or other alternates which the Bidder may wish to submit, but preference will be given to Base Bid Proposals.

The City reserves the right to accept any Bid, to reject any or all Bids, to waive irregularities and/or informalities in any Bid, and to make the award in any manner the City believes to be in its best interest.

### Bid Security

Each proposal must be accompanied by a certified check, or Bid Bond by a surety licensed and authorized to do business within the State of Michigan, in the amount of 5% of the total of the bid price.

### Withdrawal of Bids

After the time of opening, no Bid may be withdrawn for the period of days specified in the Advertisement.

### Contract Time

Time is of the essence in the performance of the work under this Contract. The available time for work under this Contract is indicated on page C-1, Article III of the Contract. If these time requirements can not be met,

the Bidder must stipulate on Bid Form Section 3 - Time Alternate its schedule for performance of the work. Consideration will be given to time in evaluating bids.

#### Liquidated Damages

A liquidated damages clause, as given on page C-2, Article III of the Contract, provides that the Contractor shall pay the City as liquidated damages, and not as a penalty, a sum certain per day for each and every day that the Contractor may be in default of completion of the specified work, within the time(s) stated in the Contract, or written extensions.

Liquidated damages clauses, as given in the General Conditions, provide further that the City shall be entitled to impose and recover liquidated damages for breach of the obligations under Chapter 112 of the City Code.

The liquidated damages are for the non-quantifiable aspects of any of the previously identified events and do not cover actual damages that can be shown or quantified nor are they intended to preclude recovery of actual damages in addition to the recovery of liquidated damages.

#### Human Rights Information

Section 5, beginning at page GC-3, outlines the requirements for fair employment practices under City of Ann Arbor Contracts. To establish compliance with this Ordinance, the Bidder must complete and return with its bid completed copies of the white and pink Human Rights Division Contract Compliance Forms (copy attached) or an acceptable equivalent.

#### Wage Requirements

Section 4, beginning at page GC-1, outlines the requirements for payment of prevailing wages or of a "living wage" to employees providing service to the City under this contract. The successful bidder must comply with all applicable requirements and may be required to provide documentary proof of compliance.

#### Subcontractors

The Bidder shall identify each subcontractor it expects to engage for this Contract, on the Bid Form pages provided. The Bidder shall also identify the work to be subcontracted to each subcontractor, and the approximate dollar value of each subcontract.

# L. J. Construction, Inc.

## PROPOSAL

City of Ann Arbor  
Guy C. Larcom Municipal Building  
Ann Arbor, Michigan 48107

Ladies and Gentlemen:

The undersigned, as Bidder, declares that this Bid is made in good faith, without fraud or collusion with any person or persons bidding on the same Contract; that this Bidder has carefully read and examined the bid documents, including Advertisement, Human Rights Division Contract Compliance Forms, Notice of Pre-Bid Conference, Instructions to Bidders, Proposal, Bid Forms, Contract, Bond Forms, General Conditions, Standard Specifications, Detailed Specifications, all Addenda, and the Plans and understands them. The Bidder declares that it conducted a full investigation at the site and of the work proposed and is fully informed as to the nature of the work and the conditions relating to the work's performance. The Bidder also declares that it has extensive experience in successfully completing projects similar to this one.

The Bidder acknowledges that it has not received or relied upon any representations or warrants of any nature whatsoever from the City of Ann Arbor, its agents or employees, and that this Bid is based solely upon the Bidder's own independent business judgment.

The undersigned proposes to perform all work shown on the plans or described in the bid documents, including any addenda issued, and to furnish all necessary machinery, tools, apparatus, and other means of construction to do all the work, furnish all the materials, and complete the work in strict accordance with all terms of the Contract of which this proposal is one part.

In accordance with these bid documents, and Addenda numbered 3, the undersigned, as Bidder, proposes to perform at the sites in and/or around Ann Arbor, Michigan, all the work included herein for the amounts set forth in the Bid Forms.

The Bidder declares that it has become fully familiar with the liquidated damage clauses for completion times and for compliance with City Code Chapter 112, understands and agrees that the liquidated damages are for the non-quantifiable aspects of non-compliance and do not cover actual damages that may be shown and agrees that if awarded the Contract, all liquidated damage clauses form part of the Contract.

The Bidder declares that it has become fully familiar with the provisions of Chapter 14, Section 1:319 (Prevailing wages) and Chapter 23 (Living Wage) of the Code of the City of Ann Arbor and that it understands and agrees to comply, to the extent applicable to employees providing services to the City under this Contract, with the wage and reporting requirements stated in the City Code provisions cited. Bidder further agrees that the cited provisions of Chapter 14 and Chapter 23 form a part of this Contract.

The Bidder encloses a certified check or Bid Bond in the amount of 5% of the total of the Bid Price. The Bidder agrees both to contract for the work and to furnish the necessary Bonds and insurance documentation within 10 days after being notified of the acceptance of the Bid.

If this Bid is accepted by the City and the Bidder fails to contract and furnish the required Bonds and insurance documentation within 10 days after being notified of the acceptance of this Bid, then the Bidder shall be considered to have abandoned the Contract and the certified check or Bid Bond accompanying this Proposal shall become due and payable to the City.

If the Bidder enters into the Contract in accordance with this Proposal, or if this Proposal is rejected, then the accompanying check or Bid Bond shall be returned to the Bidder.


In submitting this Bid, it is understood that the right is reserved by the City to accept any Bid, to reject any or all Bids, to waive irregularities and/or informalities in any Bid, and to make the award in any manner the City believes to be in its best interest.

SIGNED THIS 27 DAY OF March, 2008

Bidder's Name L.J. Construction Inc.  
5863 S. Kingston Rd.  
Clifford, MI 48727  
1-989-761-0131

Official Address

Telephone Number

  
Authorized Signature of Bidder

Lawrence F. Jouhan  
(Printed Name of Signer Above) Pres.

**LEGAL STATUS OF BIDDER**

*(The Bidder shall fill out the appropriate form and strike out the other two.)*

Bidder declares that it is:

-----

\* A corporation organized and doing business under the laws of the state of Michigan, for whom Laurence F. Jocham bearing the office title of President, whose signature is affixed to this proposal, is authorized to execute contracts.

-----

\* A partnership, list all members and the street and mailing address of each:

~~\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_~~

Also identify the County and State where partnership papers are filed:

County of \_\_\_\_\_, State of \_\_\_\_\_.

-----

\* An individual, whose signature with address, is affixed to this proposal \_\_\_\_\_

~~\_\_\_\_\_  
(Initial here)~~

-----

**BID FORM**  
Section 1 - Price Proposal

Item No.	Pay Item	Pay Unit	Qty	Unit Price	Total
102	Audio Visual Tape Coverage (3 copies)	LS	1	\$ 1500.00	\$ 1500.00
110	Minor Traffic Control	LS	1	\$ 4000.00	\$ 4000.00
111	Lighted Barricade, Type II (drum), Furnished	EA	33	\$ 15.00	\$ 495.00
112	Lighted Barricade, Type II (drum), Operated	EA	33	\$ 1.00	\$ 33.00
113	Lighted Barricade, Type III, Furnished & Operated	EA	5	\$ 50.00	\$ 250.00
115	Temporary Signs, Type B	SF	284.5	\$ 3.25	\$ 924.63
201	Project Supervision	LS	1	\$ 19000.00	\$ 19000.00
202	General Conditions	LS	1	\$ 6000.00	\$ 6000.00
203	Clearing and Tree Removal	LS	1	\$ 500.00	\$ 500.00
204	Remove & Dispose of Ex. Block Headwalls & Fences	LS	1	\$ 1000.00	\$ 1000.00
205	84-inch Concrete Radius Segment	EA	1	\$ 1800.00	\$ 1800.00
206	84-inch Concrete Pipe	LF	8	\$ 600.00	\$ 4800.00
207	Headwall Structure (inc. apron, footing & cutoff wall)	LS	1	\$ 18000.00	\$ 18000.00
208	North Wing Wall	LS	1	\$ 4000.00	\$ 4000.00
209	South Wing Wall	LS	1	\$ 4000.00	\$ 4000.00
210	Gabion Placement	SYD	50	\$ 50.00	\$ 2500.00
211	Sediment Traps	EA	1	\$ 100.00	\$ 100.00
212	Temporary Flow Bypass	LS	1	\$ 3000.00	\$ 3000.00
212A	Temporary Flow Bypass Alternate	LS	1	\$ 6600.00	\$ 6600.00
213	Cofferdam	EA	1	\$ 3000.00	\$ 3000.00
214	Machine Grading	LS	1	\$ 5000.00	\$ 5000.00
215	Temporary Chain Link Construction Fence, 6 ft	LF	427	\$ 15.00	\$ 6405.00
216	Blanket Stabilization	SYD	280	\$ 2.00	\$ 560.00
217	Topsoil, Fertilizer, Seeding	SYD	280	\$ 4.00	\$ 1120.00
218	Mud Tracking Mat	EA	1	\$ 1000.00	\$ 1000.00
219	Boulder Stone Placement	SYD	35	\$ 75.00	\$ 2625.00
220	Tilia americana 'Redmond American Linden	EA	1	\$ 400.00	\$ 400.00
221	Cornus Sornus Sericea' Red Osier Dogwood	EA	16	\$ 600.00	\$ 9600.00
222	Viburnum Dentatum' Arrowwood Viburnum	EA	18	\$ 50.00	\$ 900.00
224	Structure Undercut and Backfill	CYD	5	\$ 29.00	\$ 145.00
310	Sewer, CL 50 DIP, 16-inch	LF	14	\$ 75.00	\$ 1050.00
311	Sewer, CL 50 DIP, 8-inch	LF	9	\$ 39.00	\$ 351.00
360	Manhole, Type 1, (0-10 ft deep)	EA	1	\$ 1500.00	\$ 1500.00
367	Single Inlet	EA	2	\$ 250.00	\$ 500.00
392	Pipe Undercut & Refill (6A)	CYD	10	\$ 25.00	\$ 250.00
516	Edge Drain, Wrapped, 6-inch	LF	37	\$ 9.00	\$ 333.00
702	Inlet Filter	EA	2	\$ 100.00	\$ 200.00
703	Silt Fence	LF	240	\$ 2.00	\$ 480.00
895	Chain Link Fence, vinyl clad, 4 ft high	LF	48	\$ 15.00	\$ 720.00

GRAND TOTAL (with Item 212) \$ 108,041.63

GRAND TOTAL (with Item 212A) \$ 111,641.63



**BID FORM**

**Section 2 - Material and Equipment Alternates**

The Base Bid proposal price shall include materials and equipment selected from the designated items and manufacturers listed in the bidding documents. This is done to establish uniformity in bidding and to establish standards of quality for the items named.

If the Contractor wishes to quote alternate items for consideration by the City, it may do so under this Section. A complete description of the item and the proposed price differential must be provided. Unless approved at the time of award, substitutions where items are specifically named will be considered only as a negotiated change in Contract Sum.

<u>Item Number</u>	<u>Description</u>	<u>Add/Deduct Amount</u>
--------------------	--------------------	--------------------------

If the Bidder does not suggest any material or equipment alternate, the Bidder **MUST** complete the following statement:

For the work outlined in this request for bid, the bidder does NOT propose any material or equipment alternate under the contract.

  
\_\_\_\_\_  
Signature of Authorized Representative of Bidder

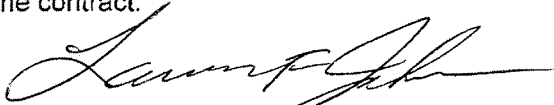
**BID FORM**

Section 3 - Time Alternate

If the Bidder takes exception to the time stipulated in Article III of the Contract, Time of Completion, page C-1, it is requested to stipulate below its proposed time for performance of the work. Consideration will be given to time in evaluating bids.

If the Bidder does not suggest any time alternate, the Bidder **MUST** complete the following statement:

For the work outlined in this request for bid, the bidder does NOT propose any time alternate under the contract.



Signature of Authorized Representative of Bidder

BID FORM

Section 4 - Subcontractors

For purposes of this contract, a Subcontractor is anyone (other than the Contractor) who performs work (other than or in addition to the furnishing of materials, plans or equipment) at or about the construction site, directly or indirectly for or on behalf of the Contractor (and whether or not in privity of contract with the Contractor), but shall not include any individual who furnishes merely the individual's own personal labor or services.

For the work outlined in these documents the Bidder expects to engage the following subcontractors to perform the work identified:

<u>Type of Work</u>	<u>Name and Address</u>	<u>Value of Subcontract</u>
Earthwork & Grading	_____	\$ _____
	_____	
	_____	
Structural Concrete	_____	\$ _____
	_____	
	_____	
Drainage Structure Adjustments	_____	\$ _____
	_____	
	_____	
Underground Utilities	_____	\$ _____
	_____	
	_____	
Barricades and Signs	<u>Poco Inc.</u>	\$ <u>1562.51</u>
	<u>42000 Van Dorn Rd</u>	
	<u>Canton MI 48188</u>	
	_____	
Pavement Markings	_____	\$ _____
	_____	
	_____	

**BID FORM**

Section 4 (continued) - Subcontractors

<u>Type of Work</u>	<u>Name and Address</u>	<u>Value of Subcontract</u>
Other	<u>Margolis Co.</u> <u>9600 Cherry Hill</u> <u>Ypsilanti M. 48198</u>	\$ <u>2908,00</u>

If the Bidder does not expect to engage any subcontractor, the Bidder **MUST** complete the following statement:

For the work outlined in this request for bid, the bidder does NOT expect to engage any subcontractor to perform work under the contract.

\_\_\_\_\_  
Signature of Authorized Representative of Bidder

## CONTRACT

THIS AGREEMENT is made on the 5th day of May, 2008, between the CITY OF ANN ARBOR, a Michigan Municipal Corporation, 100 N. Fifth Avenue, Ann Arbor, Michigan 48104 (“City”) and L. J. Construction, Inc. (“Contractor”) a Michigan Corporation, 5863 S. Kingston Road, Clifford, MI 48727.

Based upon the mutual promises below, the Contractor and the City agree as follows:

### ARTICLE I - Scope of Work

The Contractor agrees to furnish all of the materials, equipment and labor necessary; and to abide by all the duties and responsibilities applicable to it for the project titled “ **Mallets Creek Drain Culvert Extension and Headwall Construction** ” in accordance with the requirements and provisions of the following documents, including all written modifications incorporated into any of the documents, which are incorporated as part of this Contract:

Human Rights Division Contract Compliance Forms	General Conditions
Bid Forms	Standard Specifications
Proposal	Detailed Specifications
Contract and Exhibits	Plans
Bonds	Addenda

### ARTICLE II - Definitions

Administering Department means **Public Services Area** .

Supervising Professional means **Homayoon Pirooz, P.E., Project Management Manager** or other persons acting under the authorization of the Director of the Administering Department.

Project means **Mallets Creek Drain Culvert Extension and Headwall Construction**, Bid No. **3924**.

### ARTICLE III - Time of Completion

(A)The work to be completed under this Contract shall begin **in accordance with the "Detailed Specification for Project Schedule and Contract Award" contained elsewhere herein, and only** after the Contractor’s receipt of a fully executed Contract.

(B)The entire work for this Contract shall be completed within the timeframes **outlined in the "Detailed Specification for Project Schedule and Contract Award."**

(C) Failure to complete all the work within the time(s) specified above, including any extension granted in writing by the Supervising Professional, shall obligate the Contractor to pay the City, as liquidated damages and not as a penalty, \$500 for each calendar day of delay in the completion of all the work. If any liquidated damages are unpaid by the Contractor, the City shall be entitled to deduct these unpaid liquidated damages from the monies due the Contractor.

As an independent requirement, where the Detailed Specifications identify certain portions of the work to be completed within a shorter period of time and the Contractor fails to complete each portion within the shorter period specified for each portion, including any extension granted in writing by the Project Supervisor, the City is entitled to deduct from the monies due the Contractor, as liquidated damages and not as a penalty, the amount identified in the Detailed Specifications for each portion of the work not timely completed for each calendar day of delay in completion of each portion of the work.

The liquidated damages are for the non-quantifiable aspects of any of the previously identified events and do not cover actual damages that can be shown or quantified nor are they intended to preclude recovery of actual damages in addition to the recovery of liquidated damages.

Liquidated damages under this section are in addition to any liquidated damages due under Section 5 of the General Conditions.

#### ARTICLE IV - The Contract Sum

(A) The City shall pay to the Contractor for the performance of the Contract, the unit prices as given in the Bid Forms for the estimated total of:

One Hundred and Eleven Thousand Six Hundred Forty One and 63/100 Dollars  
(\$111,641.63)

(B) The amount paid shall be equitably adjusted to cover changes in the work ordered by the Supervising Professional but not required by the contract documents.

#### ARTICLE V - Assignment

This Contract may not be assigned or subcontracted without the written consent of the City.

## ARTICLE VI - Choice of Law

This Contract shall be construed, governed, and enforced in accordance with the laws of the State of Michigan. By executing this agreement, the Contractor and the City agree to venue in a court of appropriate jurisdiction sitting within Washtenaw County for purposes of any action arising under this Contract.

Whenever possible, each provision of the contract will be interpreted in a manner as to be effective and valid under applicable law. The prohibition or invalidity, under applicable law, of any provision will not invalidate the remainder of the contract.

## ARTICLE VII - Relationship of the Parties

The parties of the Contract agree that it is not a contract of employment but is a contract to accomplish a specific result. Contractor is an independent contractor performing services for the City. Nothing contained in this Contract shall be deemed to constitute any other relationship between the City and the Contractor.

Contractor certifies that it has no personal or financial interest in the project other than the compensation it is to receive under the Contract. Contractor certifies that it is not, and shall not become, overdue or in default to the City for any contract, debt, or any other obligation to the City including real or personal property taxes. City shall have the right to set off any such debt against compensation awarded for services under this agreement.

## ARTICLE VIII - Notice

All notices given under this contract shall be in writing, and shall be by personal delivery or by certified mail with return receipt requested to the parties at their respective addresses as specified in the contract documents or other address the Contractor may specify in writing..

## ARTICLE IX - Indemnification

To the fullest extent permitted by law, for any loss not covered by insurance under this contract, Contractor shall indemnify, defend and hold harmless the City, its officers, employees and agents harmless from all suits, claims, judgments and expenses including attorney's fees resulting or alleged to result, in whole or in part, from any act or omission, which is in any way connected or associated with this contract, by the Contractor or anyone acting on the Contractor's behalf under this contract. Contractor shall not be responsible to indemnify the City for losses or damages caused by or resulting from the City's sole negligence.

ARTICLE X - Entire Agreement

This Contract represents the entire understanding between the City and the Contractor and it supersedes all prior representations or agreements whether written or oral. Neither party has relied on any prior representations in entering into this Contract. This Contract may be altered, amended or modified only by written amendment signed by the City and the Contractor.

**FOR CONTRACTOR**

By \_\_\_\_\_

Its:

By \_\_\_\_\_

Its:

**FOR THE CITY OF ANN ARBOR**

By \_\_\_\_\_

John Hieftje, Mayor

By \_\_\_\_\_

Jacqueline Beaudry, City Clerk

**Approved as to substance**

By \_\_\_\_\_

Roger W. Fraser, City Administrator

By \_\_\_\_\_

Sue F. McCormick  
Public Services Area Administrator

**Approved as to form and content**

By \_\_\_\_\_

Stephen K. Postema, City Attorney



PERFORMANCE BOND

- (1) \_\_\_\_\_ of \_\_\_\_\_ (referred to as "Principal"), and \_\_\_\_\_, a corporation duly authorized to do business in the State of Michigan (referred to as "Surety"), are bound to the City of Ann Arbor, Michigan (referred to as "City"), for \$ 111,641.63, the payment of which Principal and Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, by this bond.
- (2) The Principal has entered a written contract with the City dated May 5, 2008, for: The Mallets Creek Drain Culvert Extension and Headwall Construction and this bond is given for that contract in compliance with Act No. 213 of the Michigan Public Acts of 1963, as amended, being MCL 129.201 et seq.
- (3) Whenever the Principal is declared by the City to be in default under the contract, the Surety may promptly remedy the default or shall promptly:
- (a) complete the contract in accordance with its terms and conditions; or
- (b) obtain a bid or bids for submission to the City for completing the contract in accordance with its terms and conditions, and upon determination by Surety of the lowest responsible bidder, arrange for a contract between such bidder and the City, and make available, as work progresses, sufficient funds to pay the cost of completion less the balance of the contract price; but not exceeding, including other costs and damages for which Surety may be liable hereunder, the amount set forth in paragraph 1.
- (4) Surety shall have no obligation to the City if the Principal fully and promptly performs under the contract.
- (5) Surety agrees that no change, extension of time, alteration or addition to the terms of the contract or to the work to be performed thereunder, or the specifications accompanying it shall in any way affect its obligations on this bond, and waives notice of any such change, extension of time, alteration or addition to the terms of the contract or to the work, or to the specifications.

**SIGNED AND SEALED** this \_\_\_\_\_ day of \_\_\_\_\_, 200\_\_.

\_\_\_\_\_  
(Name of Surety Company)

\_\_\_\_\_  
(Name of Principal)

By \_\_\_\_\_  
(Signature)

By \_\_\_\_\_  
(Signature)

Its \_\_\_\_\_  
(Title of Office)

Its \_\_\_\_\_  
(Title of Office)

Name and address of agent:

Approved as to form:

\_\_\_\_\_  
Stephen K. Postema, City Attorney

LABOR AND MATERIAL BOND

- (1) \_\_\_\_\_ of \_\_\_\_\_, (referred to as "Principal"), and \_\_\_\_\_, a corporation duly authorized to do business in the State of Michigan, (referred to as "Surety"), are bound to the City of Ann Arbor, Michigan (referred to as "City"), for the use and benefit of claimants as defined in Act 213 of Michigan Public Acts of 1963, as amended, being MCL 129.201 et seq., in the amount of \$111,641.63, for the payment of which Principal and Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, by this bond.
- (2) The Principal has entered a written contract with the City dated May 5, 2008, for: The Mallets Creek Drain Culvert Extension and Headwall Construction; and this bond is given for that contract in compliance with Act No. 213 of the Michigan Public Acts of 1963 as amended;
- (3) If the Principal fails to promptly and fully repay claimants for labor and material reasonably required under the contract, the Surety shall pay those claimants.
- (4) Surety's obligations shall not exceed the amount stated in paragraph 1, and Surety shall have no obligation if the Principal promptly and fully pays the claimants.

**SIGNED AND SEALED** this \_\_\_\_\_ day of \_\_\_\_\_, 200\_\_.

\_\_\_\_\_  
(Name of Surety Company)

\_\_\_\_\_  
(Name of Principal)

By \_\_\_\_\_

By \_\_\_\_\_

(Signature)

(Signature)

Its \_\_\_\_\_

Its \_\_\_\_\_

(Title of Office)

(Title of Office)

Approved as to form:

Name and address of agent:

Stephen K. Postema, City Attorney

## GENERAL CONDITIONS

### Section 1 - Execution, Correlation and Intent of Documents

The contract documents shall be signed in 2 copies by the City and the Contractor.

The contract documents are complementary and what is called for by any one shall be binding. The intention of the documents is to include all labor and materials, equipment and transportation necessary for the proper execution of the work. Materials or work described in words which so applied have a well-known technical or trade meaning have the meaning of those recognized standards.

In case of a conflict among the contract documents listed below in any requirement(s), the requirement(s) of the document listed first shall prevail over any conflicting requirement(s) of a document listed later.

- (1) Addenda in reverse chronological order;
- (2) Detailed Specifications;
- (3) Standard Specifications;
- (4) Plans;
- (5) General Conditions;
- (6) Contract;
- (7) Bid Forms;
- (8) Bond Forms;
- (9) Proposal.

### Section 2 - Order of Completion

The Contractor shall submit with each invoice, and at other times reasonably requested by the Supervising Professional, schedules showing the order in which the Contractor proposes to carry on the work. They shall include the dates at which the Contractor will start the several parts of the work, the estimated dates of completion of the several parts, and important milestones within the several parts.

### Section 3 - Familiarity with Work

The Bidder or its representative shall make personal investigations of the site of the work and of existing structures and shall determine to its own satisfaction the conditions to be encountered, the nature of the ground, the difficulties involved, and all other factors affecting the work proposed under this Contract. The Bidder to whom this Contract is awarded will not be entitled to any additional compensation unless conditions are clearly different from those which could reasonably have been anticipated by a person making diligent and thorough investigation of the site.

The Bidder shall immediately notify the City upon discovery, and in every case prior to submitting its Bid, of every error or omission in the bidding documents that would be identified by a reasonably competent, diligent Bidder. In no case will a Bidder be allowed the benefit of extra compensation or time to complete the work under this Contract for extra expenses or time spent as a result of the error or omission.

### Section 4 - Wage Requirements

Under this Contract, the Contractor shall conform to Chapter 14 of Title I of the Code of the City of Ann Arbor as amended; which in part states "...that all craftsmen, mechanics and laborers employed directly on the site in connection with said improvements, including said employees of subcontractors, shall receive the prevailing wage for the corresponding classes of craftsmen, mechanics and laborers, as determined by statistics for the Ann Arbor area compiled by the United States Department of Labor. At the request of the City, any contractor or subcontractor shall provide satisfactory proof of compliance with the contract provisions required by the Section."

Where the Contract and the Ann Arbor City Ordinance are silent as to definitions of terms required in determining contract compliance with regard to prevailing wages, the definitions provided in the Davis-Bacon Act as amended (40 U.S.C. 278-a to 276-a-7) for the terms shall be used.

Further, to the extent that any employees of the Contractor providing services under this contract are not part of the class of craftsmen, mechanics and laborers who receive a prevailing wage in conformance with Section 1:319 of Chapter 14 of Title I of the Code of the City of Ann Arbor, the Contractor agrees to conform to Chapter 23 of Title I of the Code of the City of Ann Arbor, as amended, which in part states:

**1:814. Applicability.**

- (1) This Chapter shall apply to any person that is a contractor/vendor or grantee as defined in Section 1:813 that employs or contracts with five (5) or more individuals; provided, however, that this Chapter shall not apply to a non-profit contractor/vendor or non-profit grantee unless it employs or contracts with ten (10) or more individuals.
- (2) This Chapter shall apply to any grant, contract, or subcontract or other form of financial assistance awarded to or entered into with a contractor/vendor or grantee after the effective date of this Chapter and to the extension or renewal after the effective date of this Chapter of any grant, contract, or subcontract or other form of financial assistance with a contractor/vendor or grantee.

**1:815. Living Wages Required.**

- (1) Every contractor/vendor or grantee, as defined in Section 1:813, shall pay its covered employees a living wage as established in this Section.
  - (a) For a covered employer that provides employee health care to its employees, the living wage shall be \$9.42 an hour, or the adjusted amount hereafter established under Section 1:815(3).
  - (b) For a covered employer that does not provide health care to its employees, the living wage shall be \$10.91 a hour, or the adjusted amount hereafter established under Section 1:815(3).
- (2) In order to qualify to pay the living wage rate for covered employers providing employee health care under subsection 1:815(1)(a), a covered employer shall furnish proof of said health care coverage and payment therefor to the City Administrator or his/her designee.
- (3) The amount of the living wage established in this Section shall be adjusted upward no later than April 30, 2002, and every year thereafter by a percentage equal to the percentage increase, if any, in the federal poverty guidelines as published by the United States Department of Health and Human Services for the years 2001 and 2002. Subsequent annual adjustments shall be based upon the percentage increase, if any, in the United States Department of Health and Human Services poverty guidelines when comparing the prior calendar year's poverty guidelines to the present calendar year's guidelines. The applicable percentage amount will be converted to an amount in cents by multiplying the existing wage under Section 1.815(1)(b) by said percentage, rounding upward to the next cent, and adding this amount of cents to the existing living wage levels established under Sections 1:815(1)(a) and 1:815(1)(b). Prior to April 1 of each calendar year, the City will notify any covered employer of this adjustment by posting a written notice in a prominent place in City Hall, and, in the case of a covered employer that has provided an address of record to the City, by a written letter to each such covered employer.

Section 5 - Non-Discrimination

The Contractor agrees to comply with the nondiscrimination provisions of Chapter 112 of the Ann Arbor City Code and to take affirmative action to assure that applicants are employed and that employees are

treated during employment in a manner which provides equal employment opportunity and tends to eliminate any inequality based upon race, national origin or sex. The Contractor agrees to comply with the provisions of Section 9:161 of Chapter 112 of the Ann Arbor City Code and in particular the following excerpts:

9:161 NONDISCRIMINATION BY CITY CONTRACTORS

- (1) All contractors proposing to do business with the City of Ann Arbor shall satisfy the nondiscrimination administrative policy adopted by the City Administrator in accordance with the guidelines of this section. All contractors shall receive approval from the Director prior to entering into a contract with the City, unless specifically exempted by administrative policy. All City contractors shall take affirmative action to insure that applicants are employed and that employees are treated during employment in a manner which provides equal employment opportunity and tends to eliminate inequality based upon race, national origin or sex.
- (2) Each prospective contractor shall submit to the City data showing current total employment by occupational category, sex and minority group. If, after verifying this data, the Director concludes that it indicates total minority and female employment commensurate with their availability within the contractor's labor recruitment area, i.e., the area from which the contractor can reasonably be expected to recruit, said contractor shall be accepted by the Director as having fulfilled affirmative action requirements for a period of one year at which time the Director shall conduct another review. Other contractors shall develop an affirmative action program in conjunction with the Director. Said program shall include specific goals and timetables for the hiring and promotion of minorities and females. Said goals shall reflect the availability of minorities and females within the contractor's labor recruitment area. In the case of construction contractors, the Director shall use for employment verification the labor recruitment area of the Ann Arbor-Ypsilanti standard metropolitan statistical area. Construction contractors determined to be in compliance shall be accepted by the Director as having fulfilled affirmative action requirements for a period of six (6) months at which time the Director shall conduct another review.
- (3) In hiring for construction projects, contractors shall make good faith efforts to employ local persons, so as to enhance the local economy.
- (4) All contracts shall include provisions through which the contractor agrees, in addition to any other applicable Federal or State labor laws:
  - (a) To set goals, in conference with the Human Resources Director, for each job category or division of the work force used in the completion of the City work;
  - (b) To provide periodic reports concerning the progress the contractor has made in meeting the affirmative action goals it has agreed to;
  - (c) To permit the Director access to all books, records and accounts pertaining to its employment practices for the purpose of determining compliance with the affirmative action requirements.
- (5) The Director shall monitor the compliance of each contractor with the nondiscrimination provisions of each contract. The Director shall develop procedures and regulations consistent with the administrative policy adopted by the City Administrator for notice and enforcement of non-compliance. Such procedures and regulations shall include a provision for the posting of contractors not in compliance.
- (6) All City contracts shall provide further that breach of the obligation not to discriminate shall be a material breach of the contract for which the City shall be entitled, at its option, to do any or all of the following:

- (a) To cancel, terminate, or suspend the contract in whole or part and/or refuse to make any required periodic payments under the contract;
- (b) Declare the contractor ineligible for the award of any future contracts with the City for a specified length of time;
- (c) To recover liquidated damages of a specified sum, said sum to be that percentage of the labor expenditure for the time period involved which would have accrued to minority group members had the affirmative action not been breached;
- (d) Impose for each day of non-compliance, liquidated damages of a specified sum, based upon the following schedule:

<u>Contract Amount</u>	<u>Assessed Damages Per Day of Non-Compliance</u>
10,000 - 24,999	\$ 25.00
25,000 - 99,999	50.00
100,000 - 199,999	100.00
200,000 - 499,999	150.00
500,000 - 1,499,999	200.00
1,500,000 - 2,999,999	250.00
3,000,000 - 4,999,999	300.00
5,000,000 - and above	500.00

- (e) In addition the contractor shall be liable for any costs or expenses incurred by the City of Ann Arbor in obtaining from other sources the work and services to be rendered or performed or the goods or properties to be furnished or delivered to the City under this contract.

#### Section 6 - Materials, Appliances, Employees

Unless otherwise stipulated, the Contractor shall provide and pay for all materials, labor, water, tools, equipment, light, power, transportation, and other facilities necessary or used for the execution and completion of the work. Unless otherwise specified, all materials incorporated in the permanent work shall be new, and both workmanship and materials shall be of the highest quality. The Contractor shall, if required, furnish satisfactory evidence as to the kind and quality of materials.

The Contractor shall at all times enforce strict discipline and good order among its employees, and shall seek to avoid employing on the work any unfit person or anyone not skilled in the work assigned.

Adequate sanitary facilities shall be provided by the Contractor.

#### Section 7 - Qualifications for Employment

The Contractor shall employ competent laborers and mechanics for the work under this Contract. For work performed under this Contract, employment preference shall be given to qualified local residents.

#### Section 8 - Royalties and Patents

The Contractor shall pay all royalties and license fees. It shall defend all suits or claims for infringements of any patent rights and shall hold the City harmless from loss on account of infringement except that the City shall be responsible for all infringement loss when a particular process or the product of a particular

manufacturer or manufacturers is specified, unless the City has notified the Contractor prior to the signing of the Contract that the particular process or product is patented or is believed to be patented.

#### Section 9 - Permits and Regulations

The Contractor must secure and pay for all permits, permit or plan review fees and licenses necessary for the prosecution of the work. These include but are not limited to City building permits, right-of-way permits, lane closure permits, right-of-way occupancy permits, and the like. The City shall secure and pay for easements shown on the plans unless otherwise specified.

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

#### Section 10 - Protection of the Public and of Work and Property

The Contractor is responsible for the means, methods, sequences, techniques and procedures of construction and safety programs associated with the work contemplated by this contract. The Contractor, its agents or sub-contractors, shall comply with the "General Rules and Regulations for the Construction Industry" as published by the Construction Safety Commission of the State of Michigan and to all other local, State and National laws, ordinances, rules and regulations pertaining to safety of persons and property.

The Contractor shall take all necessary and reasonable precautions to protect the safety of the public. It shall continuously maintain adequate protection of all work from damage, and shall take all necessary and reasonable precautions to adequately protect all public and private property from injury or loss arising in connection with this Contract. It shall make good any damage, injury or loss to its work and to public and private property resulting from lack of reasonable protective precautions, except as may be due to errors in the contract documents, or caused by agents or employees of the City. The Contractor shall obtain and maintain sufficient insurance to cover damage to any City property at the site by any cause.

In an emergency affecting the safety of life, or the work, or of adjoining property, the Contractor is, without special instructions or authorization from the Supervising Professional, permitted to act at its discretion to prevent the threatened loss or injury. It shall also so act, without appeal, if authorized or instructed by the Supervising Professional.

Any compensation claimed by the Contractor for emergency work shall be determined by agreement or in accordance with the terms of Claims for Extra Cost - Section 15.

#### Section 11 - Inspection of Work

The City shall provide sufficient competent personnel for the inspection of the work.

The Supervising Professional shall at all times have access to the work whenever it is in preparation or progress, and the Contractor shall provide proper facilities for access and for inspection.

If the specifications, the Supervising Professional's instructions, laws, ordinances, or any public authority require any work to be specially tested or approved, the Contractor shall give the Supervising Professional timely notice of its readiness for inspection, and if the inspection is by an authority other than the Supervising Professional, of the date fixed for the inspection. Inspections by the Supervising Professional shall be made promptly, and where practicable at the source of supply. If any work should

be covered up without approval or consent of the Supervising Professional, it must, if required by the Supervising Professional, be uncovered for examination and properly restored at the Contractor's expense.

Re-examination of any work may be ordered by the Supervising Professional, and, if so ordered, the work must be uncovered by the Contractor. If the work is found to be in accordance with the contract documents, the City shall pay the cost of re-examination and replacement. If the work is not in accordance with the contract documents, the Contractor shall pay the cost.

#### Section 12 - Superintendence

The Contractor shall keep on the work site, during its progress, a competent superintendent and any necessary assistants, all satisfactory to the Supervising Professional. The superintendent will be responsible to perform all on-site project management for the Contractor. The superintendent shall be experienced in the work required for this Contract. The superintendent shall represent the Contractor and all direction given to the superintendent shall be binding as if given to the Contractor. Important directions shall immediately be confirmed in writing to the Contractor. Other directions will be confirmed on written request. The Contractor shall give efficient superintendence to the work, using its best skill and attention.

#### Section 13 - Changes in the Work

The City may make changes to the quantities of work within the general scope of the Contract at any time by a written order and without notice to the sureties. If the changes add to or deduct from the extent of the work, the Contract Sum shall be adjusted accordingly. All the changes shall be executed under the conditions of the original Contract except that any claim for extension of time caused by the change shall be adjusted at the time of ordering the change.

In giving instructions, the Supervising Professional shall have authority to make minor changes in the work not involving extra cost and not inconsistent with the purposes of the work, but otherwise, except in an emergency endangering life or property, no extra work or change shall be made unless in pursuance of a written order by the Supervising Professional, and no claim for an addition to the Contract Sum shall be valid unless the additional work was ordered in writing.

The Contractor shall proceed with the work as changed and the value of the work shall be determined as provided in Claims for Extra Cost - Section 15.

#### Section 14 - Extension of Time

Extension of time stipulated in the Contract for completion of the work will be made if and as the Supervising Professional may deem proper under any of the following circumstances:

- (1) When work under an extra work order is added to the work under this Contract;
- (2) When the work is suspended as provided in Section 20;
- (3) When the work of the Contractor is delayed on account of conditions which could not have been foreseen, or which were beyond the control of the Contractor, and which were not the result of its fault or negligence;
- (4) Delays in the progress of the work caused by any act or neglect of the City or of its employees or by other Contractors employed by the City;
- (5) Delay due to an act of Government;



- (6) Delay by the Supervising Professional in the furnishing of plans and necessary information;
- (7) Other cause which in the opinion of the Supervising Professional entitles the Contractor to an extension of time.

The Contractor shall notify the Supervising Professional within 7 days of an occurrence or conditions which, in the Contractor's opinion, entitle it to an extension of time. The notice shall be in writing and submitted in ample time to permit full investigation and evaluation of the Contractor's claim. The Supervising Professional shall acknowledge receipt of the Contractor's notice within 7 days of its receipt. Failure to timely provide the written notice shall constitute a waiver by the Contractor of any claim.

In situations where an extension of time in contract completion is appropriate under this or any other section of the contract, the Contractor understands and agrees that the only available adjustment for events that cause any delays in contract completion shall be extension of the required time for contract completion and that there shall be no adjustments in the money due the Contractor on account of the delay.

#### Section 15 - Claims for Extra Cost

If the Contractor claims that any instructions by drawings or other media issued after the date of the Contract involved extra cost under this Contract, it shall give the Supervising Professional written notice within 7 days after the receipt of the instructions, and in any event before proceeding to execute the work, except in emergency endangering life or property. The procedure shall then be as provided for Changes in the Work-Section 13. No claim shall be valid unless so made.

If the Supervising Professional orders, in writing, the performance of any work not covered by the contract documents, and for which no item of work is provided in the Contract, and for which no unit price or lump sum basis can be agreed upon, then the extra work shall be done on a Cost-Plus-Percentage basis of payment as follows:

- (1) The Contractor shall be reimbursed for all reasonable costs incurred in doing the work, and shall receive an additional payment of 15% of all the reasonable costs to cover both its indirect overhead costs and profit;
- (2) The term "Cost" shall cover all payroll charges for employees and supervision required under the specific order, together with all worker's compensation, Social Security, pension and retirement allowances and social insurance, or other regular payroll charges on same; the cost of all material and supplies required of either temporary or permanent character; rental of all power-driven equipment at agreed upon rates, together with cost of fuel and supply charges for the equipment; and any costs incurred by the Contractor as a direct result of executing the order, if approved by the Supervising Professional;
- (3) If the extra is performed under subcontract, the subcontractor shall be allowed to compute its charges as described above. The Contractor shall be permitted to add an additional charge of 5% percent to that of the subcontractor for the Contractor's supervision and contractual responsibility;
- (4) The quantities and items of work done each day shall be submitted to the Supervising Professional in a satisfactory form on the succeeding day, and shall be approved by the Supervising Professional and the Contractor or adjusted at once;
- (5) Payments of all charges for work under this Section in any one month shall be made along with normal progress payments. Retainage shall be in accordance with Progress Payments-Section 16.

No additional compensation will be provided for additional equipment, materials, personnel, overtime or special charges required to perform the work within the time requirements of the Contract.

When extra work is required and no suitable price for machinery and equipment can be determined in accordance with this Section, the hourly rate paid shall be 1/40 of the basic weekly rate listed in the Rental Rate Blue Book published by Dataquest Incorporated and applicable to the time period the equipment was first used for the extra work. The hourly rate will be deemed to include all costs of operation such as bucket or blade, fuel, maintenance, "regional factors", insurance, taxes, and the like, but not the costs of the operator.

#### Section 16 - Progress Payments

The Contractor shall submit each month, or at longer intervals, if it so desires, an invoice covering work performed for which it believes payment, under the Contract terms, is due. The submission shall be to the City's Finance Department - Accounting Division. The Supervising Professional will, within 10 days following submission of the invoice, prepare a certificate for payment for the work in an amount to be determined by the Supervising Professional as fairly representing the acceptable work performed during the period covered by the Contractor's invoice. To insure the proper performance of this Contract, the City will retain a percentage of the estimate in accordance with Act 524, Public Acts of 1980. The City will then, following the receipt of the Supervising Professional's Certificate, make payment to the Contractor as soon as feasible, which is anticipated will be within 15 days.

An allowance may be made in progress payments if substantial quantities of permanent material have been delivered to the site but not incorporated in the completed work if the Contractor, in the opinion of the Supervising Professional, is diligently pursuing the work under this Contract. Such materials shall be properly stored and adequately protected. Allowance in the estimate shall be at the invoice price value of the items. Notwithstanding any payment of any allowance, all risk of loss due to vandalism or any damages to the stored materials remains with the Contractor.

In the case of Contracts which include only the Furnishing and Delivering of Equipment, the payments shall be; 60% of the Contract Sum upon the delivery of all equipment to be furnished, or in the case of delivery of a usable portion of the equipment in advance of the total equipment delivery, 60% of the estimated value of the portion of the equipment may be paid upon its delivery in advance of the time of the remainder of the equipment to be furnished; 30% of the Contract Sum upon completion of erection of all equipment furnished, but not later than 60 days after the date of delivery of all of the equipment to be furnished; and payment of the final 10% on final completion of erection, testing and acceptance of all the equipment to be furnished; but not later than 180 days after the date of delivery of all of the equipment to be furnished, unless testing has been completed and shows the equipment to be unacceptable.

With each invoice for periodic payment, the Contractor shall enclose a Contractor's Declaration - Section 43, and an updated project schedule per Order of Completion - Section 2.

#### Section 17 - Deductions for Uncorrected Work

If the Supervising Professional decides it is inexpedient to correct work that has been damaged or that was not done in accordance with the Contract, an equitable deduction from the Contract price shall be made.

#### Section 18 - Correction of Work Before Final Payment

The Contractor shall promptly remove from the premises all materials condemned by the Supervising Professional as failing to meet Contract requirements, whether incorporated in the work or not, and the Contractor shall promptly replace and re-execute the work in accordance with the Contract and without

expense to the City and shall bear the expense of making good all work of other contractors destroyed or damaged by the removal or replacement.

If the Contractor does not remove the condemned work and materials within 10 days after written notice, the City may remove them and, if the removed material has value, may store the material at the expense of the Contractor. If the Contractor does not pay the expense of the removal within 10 days thereafter, the City may, upon 10 days written notice, sell the removed materials at auction or private sale and shall pay to the Contractor the net proceeds, after deducting all costs and expenses that should have been borne by the Contractor. If the removed material has no value, the Contractor must pay the City the expenses for disposal within 10 days of invoice for the disposal costs.

The inspection or lack of inspection of any material or work pertaining to this Contract shall not relieve the Contractor of its obligation to fulfill this Contract and defective work shall be made good. Unsuitable materials may be rejected by the Supervising Professional notwithstanding that the work and materials have been previously overlooked by the Supervising Professional and accepted or estimated for payment or paid for. If the work or any part shall be found defective at any time before the final acceptance of the whole work, the Contractor shall forthwith make good the defect in a manner satisfactory to the Supervising Professional. The judgment and the decision of the Supervising Professional as to whether the materials supplied and the work done under this Contract comply with the requirements of the Contract shall be conclusive and final.

#### Section 19 - Acceptance and Final Payment

Upon receipt of written notice that the work is ready for final inspection and acceptance, the Supervising Professional will promptly make the inspection. When the Supervising Professional finds the work acceptable under the Contract and the Contract fully performed, the Supervising Professional will promptly sign and issue a final certificate stating that the work required by this Contract has been completed and is accepted by the City under the terms and conditions of the Contract. The entire balance found to be due the Contractor, including the retained percentage, shall be paid to the Contractor by the City within 30 days after the date of the final certificate.

Before issuance of final certificates, the Contractor shall file with the City:

- (1) The consent of the surety to payment of the final estimate;
- (2) The Contractor's Affidavit in the form required by Section 44.

In case the Affidavit or consent is not furnished, the City may retain out of any amount due the Contractor, sums sufficient to cover all lienable claims.

The making and acceptance of the final payment shall constitute a waiver of all claims by the City except those arising from:

- (1) unsettled liens;
- (2) faulty work appearing within 12 months after final payment;
- (3) hidden defects in meeting the requirements of the plans and specifications;
- (4) manufacturer's guarantees.

It shall also constitute a waiver of all claims by the Contractor, except those previously made and still unsettled.

#### Section 20 - Suspension of Work

The City may at any time suspend the work, or any part by giving 5 days notice to the Contractor in writing. The work shall be resumed by the Contractor within 10 days after the date fixed in the written

notice from the City to the Contractor to do so. The City shall reimburse the Contractor for expense incurred by the Contractor in connection with the work under this Contract as a result of the suspension.

If the work, or any part, shall be stopped by the notice in writing, and if the City does not give notice in writing to the Contractor to resume work at a date within 90 days of the date fixed in the written notice to suspend, then the Contractor may abandon that portion of the work suspended and will be entitled to the estimates and payments for all work done on the portions abandoned, if any, plus 10% of the value of the work abandoned, to compensate for loss of overhead, plant expense, and anticipated profit.

#### Section 21 - Delays and The City's Right to Terminate Contract

If the Contractor refuses or fails to prosecute the work, or any separate part of it, with the diligence required to insure completion, ready for operation, within the allowable number of consecutive calendar days specified plus extensions, or fails to complete the work within the required time, the City may, by written notice to the Contractor, terminate its right to proceed with the work or any part of the work as to which there has been delay. After providing the notice the City may take over the work and prosecute it to completion, by contract or otherwise, and the Contractor and its sureties shall be liable to the City for any excess cost to the City. If the Contractor's right to proceed is terminated, the City may take possession of and utilize in completing the work, any materials, appliances and plant as may be on the site of the work and useful for completing the work. The right of the Contractor to proceed shall not be terminated or the Contractor charged with liquidated damages where an extension of time is granted under Extension of Time - Section 14.

If the Contractor is adjudged a bankrupt, or if it makes a general assignment for the benefit of creditors, or if a receiver is appointed on account of its insolvency, or if it persistently or repeatedly refuses or fails except in cases for which extension of time is provided, to supply enough properly skilled workers or proper materials, or if it fails to make prompt payments to subcontractors or for material or labor, or persistently disregards laws, ordinances or the instructions of the Supervising Professional, or otherwise is guilty of a substantial violation of any provision of the Contract, then the City, upon the certificate of the Supervising Professional that sufficient cause exists to justify such action, may, without prejudice to any other right or remedy and after giving the Contractor 3 days written notice, terminate this Contract. The City may then take possession of the premises and of all materials, tools and appliances thereon and without prejudice to any other remedy it may have, make good the deficiencies or finish the work by whatever method it may deem expedient, and deduct the cost from the payment due the Contractor. The Contractor shall not be entitled to receive any further payment until the work is finished. If the expense of finishing the work, including compensation for additional managerial and administrative services exceeds the unpaid balance of the Contract Sum, the Contractor and its surety are liable to the City for any excess cost incurred. The expense incurred by the City, and the damage incurred through the Contractor's default, shall be certified by the Supervising Professional.

#### Section 22 - Contractor's Right to Terminate Contract

If the work should be stopped under an order of any court, or other public authority, for a period of 3 months, through no act or fault of the Contractor or of anyone employed by it, then the Contractor may, upon 7 days written notice to the City, terminate this Contract and recover from the City payment for all acceptable work executed plus reasonable profit.

#### Section 23 - City's Right To Do Work

If the Contractor should neglect to prosecute the work properly or fail to perform any provision of this Contract, the City, 3 days after giving written notice to the Contractor and its surety may, without prejudice to any other remedy the City may have, make good the deficiencies and may deduct the cost from the payment due to the Contractor.

#### Section 24 - Removal of Equipment and Supplies

In case of termination of this Contract before completion, from any or no cause, the Contractor, if notified to do so by the City, shall promptly remove any part or all of its equipment and supplies from the property of the City, failing which the City shall have the right to remove the equipment and supplies at the expense of the Contractor.

The removed equipment and supplies may be stored by the City and, if all costs of removal and storage are not paid by the Contractor within 10 days of invoicing, the City upon 10 days written notice may sell the equipment and supplies at auction or private sale, and shall pay the Contractor the net proceeds after deducting all costs and expenses that should have been borne by the Contractor and after deducting all amounts claimed due by any lien holder of the equipment or supplies.

#### Section 25 - Responsibility for Work and Warranties

The Contractor assumes full responsibility for any and all materials and equipment used in the construction of the work and may not make claims against the City for damages to materials and equipment from any cause except negligence or willful act of the City. Until its final acceptance, the Contractor shall be responsible for damage to or destruction of the project (except for any part covered by Partial Completion and Acceptance - Section 26). The Contractor shall make good all work damaged or destroyed before acceptance. All risk of loss remains with the Contractor until final acceptance of the work (Section 19) or partial acceptance (Section 26). The Contractor is advised to investigate obtaining its own builders risk insurance.

The Contractor shall guarantee the quality of the work for a period of one year. The Contractor shall also unconditionally guarantee the quality of all equipment and materials that are furnished and installed under the contract for a period of one year. At the end of one year after the Contractor's receipt of final payment, the complete work, including equipment and materials furnished and installed under the contract, shall be inspected by the Contractor and the Supervising Professional. Any defects shall be corrected by the Contractor at its expense as soon as practicable but in all cases within 60 days. Any defects that are identified prior to the end of one year shall also be inspected by the Contractor and the Supervising Professional and shall be corrected by the Contractor at its expense as soon as practicable but in all cases within 60 days.

The Contractor shall assign all manufacturer or material supplier warranties to the City prior to final payment. The assignment shall not relieve the Contractor of its obligations under this paragraph to correct defects.

#### Section 26 - Partial Completion and Acceptance

If at any time prior to the issuance of the final certificate referred to in Acceptance and Final Payment - Section 19, any portion of the permanent construction has been satisfactorily completed, and if the Supervising Professional determines that portion of the permanent construction is not required for the operations of the Contractor but is needed by the City, the Supervising Professional shall issue to the Contractor a certificate of partial completion, and immediately the City may take over and use the portion of the permanent construction described in the certificate, and exclude the Contractor from that portion.

The issuance of a certificate of partial completion shall not constitute an extension of the Contractor's time to complete the portion of the permanent construction to which it relates if the Contractor has failed to complete it in accordance with the terms of this Contract. The issuance of the certificate shall not release the Contractor or its sureties from any obligations under this Contract including bonds.

If prior use increases the cost of, or delays the work, the Contractor shall be entitled to extra compensation, or extension of time, or both, as the Supervising Professional may determine.

Section 27 - Payments Withheld Prior to Final Acceptance of Work

The City may withhold or, on account of subsequently discovered evidence, nullify the whole or part of any certificate to the extent reasonably appropriate to protect the City from loss on account of:

- (1) Defective work not remedied;
- (2) Claims filed or reasonable evidence indicating probable filing of claims by other parties against the Contractor;
- (3) Failure of the Contractor to make payments properly to subcontractors or for material or labor;
- (4) Damage to another Contractor.

When the above grounds are removed or the Contractor provides a Surety Bond satisfactory to the City which will protect the City in the amount withheld, payment shall be made for amounts withheld under this section.

Section 28 - Contractor's Insurance

A. The Contractor shall procure and maintain during the life of this Contract, including the guarantee period and during any warranty work, such insurance policies, including those set forth below, as will protect itself from all claims for bodily injuries, death or property damage which may arise under this Contract; whether the acts were made by the Contractor or by any subcontractor or anyone employed by them directly or indirectly. The following insurance policies are required:

1. Worker's Compensation Insurance in accordance with all applicable state and federal statutes. Further, Employers Liability Coverage shall be obtained in the following minimum amounts:

Bodily Injury by Accident - \$500,000 each accident  
Bodily Injury by Disease - \$500,000 each employee  
Bodily Injury by Disease - \$500,000 each policy limit

2. Commercial General Liability Insurance equivalent to, as a minimum, Insurance Services Office form CG 00 01 07 98. The City of Ann Arbor shall be named as an additional insured. There shall be no added exclusions or limiting endorsements including, but not limited to: Products and Completed Operations, Explosion, Collapse and Underground coverage or Pollution. Further, the following minimum limits of liability are required:

\$1,000,000 Each occurrence as respect Bodily Injury Liability or Property Damage Liability, or both combined.

\$2,000,000 Per Job General Aggregate

\$1,000,000 Personal and Advertising Injury

\$2,000,000 Products and Completed Operations Aggregate

3. Motor Vehicle Liability Insurance, including Michigan No-Fault Coverages, equivalent to, as a minimum, Insurance Services Office form CA 00 01 07 97. The City of Ann Arbor shall be

named as an additional insured. There shall be no added exclusions or limiting endorsements. Coverage shall include all owned vehicles, all non-owned vehicles and all hired vehicles. Further, the limits of liability shall be \$1,000,000 for each occurrence as respects Bodily Injury Liability or Property Damage Liability, or both combined.

4. Umbrella/Excess Liability Insurance shall be provided to apply excess of the Commercial General Liability, Employers Liability and the Motor Vehicle coverage enumerated above, for each occurrence and for aggregate in the amount of \$1,000,000.
- B. Insurance required under Section A.2 and A.3 of this Contract shall be considered primary as respects any other valid or collectible insurance that the City may possess, including any self-insured retentions the City may have; and any other insurance the City does possess shall be considered excess insurance only and shall not be required to contribute with this insurance. Further, the Contractor agrees to waive any right of recovery by its insurer against the City.
- C. In the case of all Contracts involving on-site work, the Contractor shall provide to the City before the commencement of any work under this Contract documentation demonstrating it has obtained the above mentioned policies. Documentation must provide and demonstrate an unconditional 30 day written notice of cancellation in favor of the City of Ann Arbor. Further, the documentation must explicitly state the following: (a) the policy number; name of insurance company; name and address of the agent or authorized representative; name and address of insured; project name; policy expiration date; and specific coverage amounts; (b) any deductibles or self-insured retentions which shall be approved by the City, in its sole discretion; (c) that the policy conforms to the requirements specified. An original certificate of insurance may be provided as an initial indication of the required insurance, provided that no later than 21 calendar days after commencement of any work the Contractor supplies a copy of the endorsements required on the policies. Upon request, the Contractor shall provide within 30 days a copy of the policy(ies) to the City. If any of the above coverages expire by their terms during the term of this Contract, the Contractor shall deliver proof of renewal and/or new policies to the Administering Service Area/Unit at least ten days prior to the expiration date.
- D. Any Insurance provider of Contractor shall be admitted and authorized to do business in the State of Michigan and shall carry and maintain a minimum rating assigned by A.M. Best & Company's Key Rating Guide of A- Overall and a minimum Financial Size Category of V. Insurance policies and certificates issued by non-admitted insurance companies are not acceptable unless approved in writing by the City.

#### Section 29 - Surety Bonds

Bonds will be required from the successful bidder as follows:

- (1) A Performance Bond to the City of Ann Arbor for the amount of the bid(s) accepted;
- (2) A Labor and Material Bond to the City of Ann Arbor for the amount of the bid(s) accepted.

Bonds shall be executed on forms supplied by the City in a manner and by a Surety Company satisfactory to the City Attorney.

#### Section 30 - Damage Claims

The Contractor shall be held responsible for all damages to property of the City or others, caused by or resulting from the negligence of the Contractor, its employees, or agents during the progress of or connected with the prosecution of the work, whether within the limits of the work or elsewhere. The Contractor must restore all property injured including sidewalks, curbing, sodding, pipes, conduit, sewers or other public or private property to not less than its original condition with new work.

### Section 31 - Refusal to Obey Instructions

If the Contractor refuses to obey the instructions of the Supervising Professional, the Supervising Professional shall withdraw inspection from the work, and no payments will be made for work performed thereafter nor may work be performed thereafter until the Supervising Professional shall have again authorized the work to proceed.

### Section 32 - Assignment

Neither party to the Contract shall assign the Contract without the written consent of the other. The Contractor may assign any monies due to it to a third party acceptable to the City.

### Section 33 - Rights of Various Interests

Whenever work being done by the City's forces or by other contractors is contiguous to work covered by this Contract, the respective rights of the various interests involved shall be established by the Supervising Professional, to secure the completion of the various portions of the work in general harmony.

The Contractor is responsible to coordinate all aspects of the work, including coordination of, and with, utility companies and other contractors whose work impacts this project.

### Section 34 - Subcontracts

The Contractor shall not award any work to any subcontractor without prior written approval of the City. The approval will not be given until the Contractor submits to the City a written statement concerning the proposed award to the subcontractor. The statement shall contain all information the City may require.

The Contractor shall be as fully responsible to the City for the acts and omissions of its subcontractors, and of persons either directly or indirectly employed by them, as it is for the acts and omissions of persons directly employed by it.

The Contractor shall cause appropriate provisions to be inserted in all subcontracts relative to the work to bind subcontractors to the Contractor by the terms of the General Conditions and all other contract documents applicable to the work of the subcontractors and to give the Contractor the same power to terminate any subcontract that the City may exercise over the Contractor under any provision of the contract documents.

Nothing contained in the contract documents shall create any contractual relation between any subcontractor and the City.

### Section 35 - Supervising Professional's Status

The Supervising Professional has the right to inspect any or all work. The Supervising Professional has authority to stop the work whenever stoppage may be appropriate to insure the proper execution of the Contract. The Supervising Professional has the authority to reject all work and materials which do not conform to the Contract and to decide questions which arise in the execution of the work.

The Supervising Professional shall make all measurements and determinations of quantities. Those measurements and determinations are final and conclusive between the parties.



#### Section 36 - Supervising Professional's Decisions

The Supervising Professional shall, within a reasonable time after their presentation to the Supervising Professional, make decisions in writing on all claims of the City or the Contractor and on all other matters relating to the execution and progress of the work or the interpretation of the contract documents.

#### Section 37 - Storing Materials and Supplies

Materials and supplies may be stored at the site of the work at locations agreeable to the City unless specific exception is listed elsewhere in these documents. Ample way for foot traffic and drainage must be provided, and gutters must, at all times, be kept free from obstruction. Traffic on streets shall be interfered with as little as possible. The Contractor may not enter or occupy with agents, employees, tools, or material any private property without first obtaining written permission from its owner. A copy of the permission shall be furnished to the Supervising Professional.

#### Section 38 - Lands for Work

The Contractor shall provide, at its own expense and without liability to the City, any additional land and access that may be required for temporary construction facilities or for storage of materials.

#### Section 39 - Cleaning Up

The Contractor shall, as directed by the Supervising Professional, remove at its own expense from the City's property and from all public and private property all temporary structures, rubbish and waste materials resulting from its operations unless otherwise specifically approved, in writing, by the Supervising Professional.

#### Section 40 - Salvage

The Supervising Professional may designate for salvage any materials from existing structures or underground services. Materials so designated remain City property and shall be transported or stored at a location as the Supervising Professional may direct.

#### Section 41 - Night, Saturday or Sunday Work

No night or Sunday work (without prior written City approval) will be permitted except in the case of an emergency and then only to the extent absolutely necessary. The City may allow night work which, in the opinion of the Supervising Professional, can be satisfactorily performed at night. Night work is any work between 8:00 p.m. and 7:00 a.m. No Saturday work will be permitted unless the Contractor gives the Supervising Professional at least 48 hours but not more than 5 days notice of the Contractor's intention to work the upcoming Saturday.

#### Section 42 - Sales Taxes

Under State law the City is exempt from the assessment of State Sales Tax on its direct purchases. Contractors who acquire materials, equipment, supplies, etc. for incorporation in City projects are not likewise exempt. State Law shall prevail. The Bidder shall familiarize itself with the State Law and prepare its Bid accordingly. No extra payment will be allowed under this Contract for failure of the Contractor to make proper allowance in this bid for taxes it must pay.

Section 43

**CONTRACTOR'S DECLARATION**

I hereby declare that I have not, during the period \_\_\_\_\_, 200\_\_, to \_\_\_\_\_, 2007, performed any work, furnished any materials, sustained any loss, damage or delay, or otherwise done anything in addition to the regular items (or executed change orders) set forth in the Contract titled

\_\_\_\_\_ for which I shall ask, demand, sue for, or claim compensation or extension of time from the City, except as I hereby make claim for additional compensation or extension of time as set forth on the attached itemized statement. I further declare that I have paid all payroll obligations related to this Contract that have become due during the above period and that all invoices related to this Contract received more than 30 days prior to this declaration have been paid in full except as listed below.

There is/is not (Contractor please circle one and strike one as appropriate) an itemized statement attached regarding a request for additional compensation or extension of time.

\_\_\_\_\_  
Contractor

\_\_\_\_\_  
Date

By \_\_\_\_\_  
(Signature)

Its \_\_\_\_\_  
(Title of Office)

Past due invoices, if any, are listed below.

Section 44

**CONTRACTOR'S AFFIDAVIT**

The undersigned Contractor, \_\_\_\_\_, represents that on \_\_\_\_\_, 2007, it was awarded a contract by the City of Ann Arbor, Michigan to \_\_\_\_\_ under the terms and conditions of a Contract titled \_\_\_\_\_

The Contractor represents that all work has now been accomplished and the Contract is complete.

The Contractor warrants and certifies that all of its indebtedness arising by reason of the Contract has been fully paid or satisfactorily secured; and that all claims from subcontractors and others for labor and material used in accomplishing the project, as well as all other claims arising from the performance of the Contract, have been fully paid or satisfactorily settled. The Contractor agrees that, if any claim should hereafter arise, it shall assume responsibility for it immediately upon request to do so by the City of Ann Arbor.

The Contractor, for valuable consideration received, does further waive, release and relinquish any and all claims or right of lien which the Contractor now has or may acquire upon the subject premises for labor and material used in the project owned by the City of Ann Arbor.

This affidavit is freely and voluntarily given with full knowledge of the facts.

\_\_\_\_\_  
Contractor

By \_\_\_\_\_  
(Signature)

Its \_\_\_\_\_  
(Title of Office)

Subscribed and sworn to before me, on this \_\_\_\_ day of \_\_\_\_\_, 2007,

\_\_\_\_\_, \_\_\_\_\_ County, Michigan  
Notary Public

My commission expires on: \_\_\_\_\_

## STANDARD SPECIFICATIONS

All work under this contract shall be performed in accordance with the Public Services Department Standard Specifications in effect at the date of availability of the contract documents stipulated in the Advertisement. All work under this Contract which is not included in these Standard Specifications, or which is performed using modifications to these Standard Specifications, shall be performed in accordance with the Detailed Specifications included in these contract documents.

A copy of the Public Services Department Standard Specifications may be purchased from the Project Management Services Unit, (Fourth Floor, City Hall, Ann Arbor, Michigan), for \$35.00 per copy. In addition, a copy of these Standard Specifications is available for public viewing at the Project Management Services Unit, for review Monday through Friday between the hours of 8:30 a.m. and 4:00 p.m.

## DETAILED SPECIFICATION FOR CONSTRUCTION SEQUENCING

The following is a suggested construction procedure. It is intended to outline the desired sequence of construction to be followed by the Contractor. This outline does not detail the full range of materials and processes needed to complete the work under this Contract.

Following is the priority of construction:

1. The Contractor shall submit a work plan which specifically outlines all phases of the work and attend a pre-construction meeting at which the plan will be adjusted if necessary and approved by the City of Ann Arbor and Washtenaw County Drain Commissioner (WCDC).
2. The Contractor shall contact "MISS DIG" at least 72 hours prior to beginning work under this Contract.
3. The Contractor shall install traffic control devices, as detailed on the Plans, including barricades for construction access to work zone.
4. The Contractor shall install temporary chain link fencing along the perimeter of the work area to indicate the work area limits, which shall coincide with the boundary of construction activities, including stockpiling of materials. Existing trees to remain shall also be properly protected by fencing installed by the Contractor. The Contractor will be working in close proximity to commercial buildings in the construction site area. Care should be exercised at all times with regard to minimizing impact to the commercial buildings.
5. The Contractor shall install appropriate soil erosion control devices prior to beginning any clearing or excavation. Included in the soil erosion control installation work, the Contractor shall stockpile on-site additional material necessary to provide maintenance and/or repair of silt fence, gravel filters, etc., as the work progresses. Soil erosion control measures shall be continually monitored and maintained as necessary by the Contractor to avoid sedimentation beyond the limits of the confined work area.
6. The Contractor shall coordinate construction activities with prevalent weather conditions to make every attempt not to create a significant restriction of the existing open drain in the event of a rainstorm. Dry weather flows shall be bypassed through work area via the storm sewer bypass to be installed as part of this project. The culvert extension and headwalls shall be constructed so as to not block wet weather flows. Contractor shall submit with his work plan a detailed procedure for emergency flow bypass.
7. The Contractor shall begin construction by verifying and determining the location and depth of the water main and utility conduits crossing the culvert. This pipe shall be protected from construction traffic.
8. The Contractor shall set up all temporary erosion control, work area fences and flow bypass within the work zone outlined on the plans.

9. The Contractor shall supply a construction sequencing schedule for all elements of work required for the project. A maximum of six weeks of State Street lane closure shall be allowed to install the culvert extension and headwalls.
10. The Contractor shall completely restore areas disturbed as a result of construction activities.
11. Upon completion of all restoration, the Contractor shall remove all temporary traffic control measures. After appropriate ground cover vegetation, slope and stone placement, gabions, headwalls and miscellaneous erosion protection has been established in-place, the Contractor shall remove temporary soil erosion control measures.
12. The trucking access route shall be via I-94 and State Street.

**DETAILED SPECIFICATION  
FOR  
TRAFFIC ROUTE SUPERVISION**

DESCRIPTION

This work shall include the supervision necessary for safely coordinating construction traffic with the existing traffic on State Street and the driveway to 3131 State Street. It will include the placement of all signs and barricades as detailed on the plans, specifications, or as directed by the Engineer. The Contractor shall be responsible for maintaining truck loading at sufficient weight levels so as to not damage City streets. Any damage to the roads or adjacent commercial lawn areas outside the work zone shall be repaired at the Contractor's expense. Truck access shall be via I-94 and State Street.

MEASUREMENT AND PAYMENT

Traffic control items shall be paid at the contract unit item bid. Payment for supervision of traffic route shall be included in the cost of pay item, "GENERAL CONDITIONS".

**DETAILED SPECIFICATION  
FOR  
UTILITIES COORDINATION**

The following utility owners may have facilities located within the right-of-way:

The City of Ann Arbor	734-994-1760
Michigan Consolidated Gas Company	734-577-7150
Detroit Edison Company	734-761-4042
Ameritech	734-996-5350
COMCAST (Cable TV)	734-420-4763

On all projects:        **3 Working Days Before You Dig** - **Call MISS DIG - Toll Free  
800-482-7171**

The owners of public or private utilities whose facilities are not in conflict with the work proposed in this Contract and which do not present a hazard to the public or an extraordinary hazard to the Contractor's operations will not be required to move their facilities.

When utilities which are, or are not, shown on the plans must be moved to new locations, no additional compensation will be paid to the Contractor for reasonable delays beyond the control of the City of Ann Arbor.

Delays due to work stoppages by employees of utility companies, material shortages or the encountering of existing utilities that are, or are not, shown on the plans, which result in delays on any portion of this project may be considered the basis for a claim for an extension of contract time, but will not be considered the basis for a claim for extra compensation or an adjustment in Contract Unit Prices.

**PAYMENT**

Payment for utilities coordination shall be included in the cost of the pay item, "GENERAL CONDITIONS".



**DETAILED SPECIFICATIONS  
FOR  
PROJECT SCHEDULE AND CONTRACT AWARD**

The entire work under this Contract shall be completed in accordance with, and subject to, the scheduling requirements as outlined below, and all of the other requirements of the Contract Documents.

1. The Contractor shall begin the work on this project on or after July 7, 2008 and only upon receipt of the fully executed Contract.
2. The State Street sidewalk closure and parking area closure shall be allowed for a maximum of six weeks to facilitate the removal and replacement of the culvert and road repair work. The Contractor shall submit a schedule which identifies when this closure should occur within the overall project time frame.
3. The entire work under this Contract, including stabilization, project cleanup, and the removal of all traffic control devices for the project, shall be completed on or before September 15.
4. The Contractor's schedule is subject to approval by the Washtenaw County Drain Commissioner (WCDC) and the City of Ann Arbor.

Failure to meet the entire Contract completion date, all as specified herein, including approved time extensions granted thereto, as determined by the Engineer, shall entitle the City of Ann Arbor to deduct from the monies due the Contractor as Liquidated Damages, and not as a penalty, an amount identified in the Contract (page C-1) for each calendar day of delay in the completion of the work as specified herein. Liquidated damages may be combined, such that they can be assessed concurrently and their amounts for each calendar day of delay accumulate independently for each portion of the work not timely completed in accordance with the intermediate and final completion dates specified herein.

The Contractor shall be furnished with two (2) copies of the Contract for his/her execution on or about May 19, 2008. The Contractor shall properly execute both copies of the Contract and return them, with the required Bonds and Insurance Certificates, to the City of Ann Arbor by May 26, 2008. The Contractor shall not begin the work before the applicable date(s), as described herein, and in no case before receipt of the fully-executed contract. Final executed Contract is expected June 16, 2008.

**DETAILED SPECIFICATION  
FOR  
ITEM NO. 201 - PROJECT SUPERVISION**

**DESCRIPTION**

The Contractor shall designate a full-time Project Supervisor to act as the Contractor's agent/representative, and to be responsible for scheduling and coordination of all subcontractors, suppliers, other governmental agencies, and all public and private utility companies.

The Project Supervisor shall not be an active crew member of the Contractor, shall not be an active member or employee of any subcontractor's work force, and shall not perform general or specialized labor tasks.

**The Project Supervisor shall work exclusively on this project, and shall put forth his/her full effort into the organization and coordination of the work of this project.**

Prior to the pre-construction meeting, the Contractor shall designate a proposed Project Supervisor by name, and shall furnish the City with a current, thorough, detailed summary of the proposed Project Supervisor's work history, outlining all previous supervisory experience on projects of a similar size and nature. The detailed work history shall include personal and professional references (names and phone numbers) of persons (previous owners or agents) who can attest to the qualifications and work history of the proposed Project Supervisor. Proposed candidates for Project Supervisor shall have a demonstrated ability to work harmoniously with the City, the public, subcontractors, and all other parties typically involved with work of this nature. The Supervising Professional will have the authority to reject a proposed Project Supervisor whom he/she considers unqualified.

The Project Supervisor shall be available 24 hours-per-day to provide proper supervision, coordination and scheduling of the project for the duration of the Contract. The Contractor shall furnish the City with telephone numbers of the Project Supervisor in order to provide 24 hour-per-day access during business and non-business hours, including weekends and holidays.

The Project Supervisor shall be equipped by the Contractor with a mobile telephone to provide the City with 24 hour-per-day access to him/her during daily construction activities, during transit to and from the construction site, and during all non-business hours including weekends and holidays.

The Project Supervisor shall be equipped with assistants as necessary to provide project supervision as specified herein, and in accordance with the Contract.

**DUTIES AND RESPONSIBILITIES**

The Project Supervisor shall work harmoniously with the City, the public, subcontractors, and all other parties typically involved with work of this nature.

The Project Supervisor shall have a thorough, detailed understanding and working knowledge of all construction practices and methods specified elsewhere herein, as well as the handling,

placement, testing and inspection of aggregates, aggregate products, bituminous concrete, and portland cement concrete materials.

The Project Supervisor shall be responsible for all of the work of all of the Contractor's, subcontractors' and suppliers' work forces.

The Project Supervisor shall be responsible for proper and adequate maintenance (emissions, safety, and general operation) of all of the Contractor's, subcontractors' and suppliers' equipment and vehicles.

The Project Supervisor shall be responsible for the legal, proper and safe parking/storage of all of the Contractor's, subcontractors' and suppliers' equipment, work vehicles, and employee's vehicles.

The Project Supervisor shall schedule and coordinate the work of all parties involved in the project, including utility companies, testing agencies, governmental agencies, all City departments (such as Utilities and Transportation), and City inspectors.

The Project Supervisor shall coordinate and schedule the work of any independent survey crews that may be retained by the City to witness and reset existing and new geographic/benchmark monuments. Failure to have existing monuments witnessed and reset may result in delays to the Contractor's work. Costs for such delays will be the Contractor's sole responsibility.

The Project Supervisor shall coordinate and schedule both Testing inspectors and City inspectors in a timely manner, to assure proper and timely testing and inspection of the work.

The Project Supervisor shall review the Inspector's Daily Reports (IDRs) for accuracy, and shall sign all IDRs on a daily basis as the representative of the Contractor. Items to be reviewed include descriptions, locations and measurements of quantities of work performed, workforce, equipment, and weather.

The Project Supervisor shall be responsible for its subcontractors' review and initialing of IDRs containing work items performed by each respective subcontractors.

The Project Supervisor shall submit to the Engineer, an updated, detailed schedule of the proposed work on a weekly basis, and an update of all proposed changes on a daily basis, all in accordance with the Detailed Specification for Project Schedule contained elsewhere herein.

The Project Supervisor shall schedule and chair a weekly progress meeting with the Engineer and all subcontractors to discuss the work. Upon the completion of each meeting, the Project Supervisor shall prepare and distribute, to all present, a written summary of the meeting's minutes. Those in attendance shall review the minutes and, if necessary, comment on any deficiencies or errors prior to or at the next scheduled progress meeting.

### **ADDITIONAL PERFORMANCE REQUIREMENTS**

If, in the sole opinion of the Supervising Professional, the Project Supervisor is not adequately performing the duties as outlined in this Detailed Specification, the following system of notices will be given to the contractor with the associated penalties:

- First Notice – A warning will be issued in writing to the contractor detailing the deficiencies in the Project Supervision. The contractor must respond within 7 calendar days in writing with a plan to correct the stated deficiencies. Failure to respond within 7 calendar days will result in the issuing of a second notice.
- Second Notice – A second warning will be issued in writing to the contractor further detailing the deficiencies in the Project Supervision. A deduction of 10% will be made from the original Project Supervision contract amount. The contractor must respond within 7 calendar days in writing with a plan to correct the stated deficiencies. Failure to respond within 7 calendar days will result in the issuing of a third notice. At this time, the City reserves the right to meet with personnel with the necessary authority within the Contractor's organization to discuss the deficiencies in the Project Supervision.
- Third Notice – A third notice will be issued in writing to the contractor further detailing the deficiencies in the Project Supervision. An additional deduction of 25% will be made from the original Project Supervision contract amount, and the Project Supervisor shall be removed from the project, and replaced immediately with another individual to be approved by the Supervising Professional.

Should, in the sole opinion of the Supervising Professional, the Project Supervisor fail to perform his/her duties and responsibilities as described herein to such a degree that the successful completion of the project is put in jeopardy, the above system of notices may be foregone, and the Contractor shall immediately replace the Project Supervisor upon receipt of written notice. Failure to provide adequate project supervision, as determined by the Engineer, shall be considered basis for the Supervising Professional to suspend work without extension of contract time or additional compensation.

### **MEASUREMENT AND PAYMENT**

This item of work will be paid for on a pro rata basis at the time of each progress payment. Measurement will be based on the ratio between work completed during the payment period and the total contract amount. When all of the work of this Contract has been completed, the measurement of this item shall be 1.0 Lump Sum, minus any deductions incurred for inadequate performance as described herein. This amount will not be increased for any reason, including extensions of time, extras, and/or additional work.

The completed work as measured for this item of work will be paid for at the Contract Unit Price for the following Contract (Pay) Item:

#### **PAY ITEM**

Project Supervision

#### **PAY UNIT**

Lump Sum

The unit price for this item of work shall include all labor, material, and equipment costs to perform all the work specified in the Standard Specifications and as modified by this Detailed Specification.

**DETAILED SPECIFICATION  
FOR  
ITEM NO. 202 - GENERAL CONDITIONS**

DESCRIPTION

This item shall include all work described and required by the Plans and Specifications for which no item of work is listed in the Bid Form, including but not limited to:

- Scheduling and organization of all work, subcontractors, suppliers, testing, inspection, surveying, and staking
- Coordination of, and cooperation with, other contractors, agencies, departments, and utilities
- Protection and maintenance of utilities
- Placing, maintaining, and removing all soil erosion and sedimentation controls
- Maintaining drainage
- Maintaining drives, drive openings, sidewalks, bike paths, mail deliveries, and solid waste/recycle pick-ups
- Storing all materials and equipment off lawn areas
- Site clean-up
- Coordination efforts to furnish and operate various-size vehicles/equipment as directed by the Engineer
- Furnishing and operating vacuum-type street cleaning equipment
- Furnishing and operating vacuum-type utility structure cleaning equipment
- Furnishing and operating both vibratory plate and pneumatic-type ("pogo-stick") compactors
- Furnishing and operating a backhoe during all work activities
- Noise and dust control
- Mobilization(s) and demobilization(s)
- Furnishing submittals and certifications for materials and supplies
- Disposing of excavated materials and debris
- All miscellaneous and incidental items such as overhead, insurance, and permits.
- Miscellaneous work area pumping.

MEASUREMENT AND PAYMENT

This item of work will be paid for on a pro rata basis at the time of each progress payment. Measurement will be based on the ratio between work completed during the payment period and the total contract amount. When all of the work of this Contract has been completed, the measurement of this item shall be 1.0 Lump Sum.

The completed work as measured for this item of work will be paid for at the Contract Unit Price for the following Contract (Pay) Item:

<u>PAY ITEM</u>	<u>PAY UNIT</u>
General Conditions	Lump Sum

The unit price for this item of work shall include all labor, material, and equipment costs to perform all the work specified in the Standard Specifications and as modified by this Detailed Specification.

**DETAILED SPECIFICATIONS  
FOR  
ITEM NO. 203 - CLEARING & TREE REMOVAL**

DESCRIPTION

This work shall consist of the complete removal of all trees, stumps and brush as required for the construction of the culvert replacement, flow bypass, storm sewer, slope stabilization and as indicated within the clearing limits shown on the Plans. This work shall include all required work including topsoil striping, removing trees and brush, their stumps and roots from the ground, and disposing of all removed materials. Trees outside the clearing limits and those within the limits designated for saving shall be left undisturbed. Trees within the limits designated for saving must be surrounded with protective fencing. In addition, all landmark trees shall have protective fencing. All work shall be performed in accordance with the requirements of Section 201 - Clearing, of the 2003 MDOT Standard Specifications for Construction and this Detailed Specification. The Contractor shall strip the existing topsoil from the bank areas disturbed, temporarily stockpile this soil and use it for replacement topsoil for areas to be re-topsoiled as specified on the Plans and in the Specifications.

MEASUREMENT AND PAYMENT

The unit price for "Clearing & Tree Removal" includes all labor, equipment and material costs associated with the complete removal and proper disposal of trees and brush, as specified herein, including, but not limited to, cutting, excavation, backfill, compaction and proper disposal off-site of the removed materials.

PAY ITEM

PAY UNIT

Item No. 203, Clearing & Tree Removal

Lump Sum

**DETAILED SPECIFICATIONS  
FOR  
ITEM NO. 204, REMOVE AND DISPOSE OF EXISTING CONCRETE BLOCK,  
HEADWALLS, AND FENCES**

DESCRIPTION

This work item shall include excavation, removal and disposal of the existing concrete block, headwalls as directed on the plans, and fences as noted on the Plans. All work shall be in accordance with the Michigan Department of Transportation 2003 Standard Specifications Section 204 - Removing Miscellaneous Structures and Materials.

MATERIALS

Backfill Materials - Granular, MDOT Class III

EXCAVATION

All removed materials shall be disposed of off-site. The backfill of areas as necessary to coordinate with proposed construction will be with Class III sand compacted to 95% maximum density.

MEASUREMENT AND PAYMENT

PAY ITEM

PAY UNIT

Item 204 - Removal and Dispose of Existing Concrete Block,  
Headwalls, and Fences

Lump Sum

**DETAILED SPECIFICATIONS  
FOR  
ITEM NO. 205, 84-INCH CONCRETE RADIUS SEGMENT  
ITEM NO. 206, 84-INCH CONCRETE PIPE**

DESCRIPTION

This work shall consist of constructing a culvert extension of the size specified, including field measuring the existing pipe prior to ordering the radius segment, fabrication and placement of the specified bends. This work shall be done in accordance with the Michigan Department of Transportation 2003 Standard Specifications Section 401 - Culverts, and the City of Ann Arbor Standard Specifications for Utility Installation, except as modified on the Plans or as stated in this Detailed Specification. It shall include all excavation, backfill to subgrades, materials, placement, dewatering and all labor necessary to install the reinforced concrete culvert extension. Dimensions of the existing pipe must be field measured by the contractor and given to the manufacturer to make sure the radius segment fits the existing pipe.

MATERIALS

Concrete Pipe: The culvert shall comply with MDOT Section 909 - Drainage Products, and shall meet ASTM C-76 Class IV, reinforcement and wall thickness.

Watertight Joints: As specified in MDOT Section 909.

CONSTRUCTION METHOD

As per Section 401.03 of MDOT 2003 Standard Specifications for Construction. Backfill shall be per Plan Typical Trench Section.

The Contractor shall be responsible for preparing a stable subgrade to allow placement of the culvert bedding materials and culvert.

MEASUREMENT AND PAYMENT

PAY ITEM

PAY UNIT

Item 205, 84-Inch Concrete Radius Segment  
Item 206, 84-Inch Concrete Pipe

EA  
LF



**DETAILED SPECIFICATIONS  
FOR  
ITEM NO. 207 - HEADWALL STRUCTURE  
ITEM NO. 208 - NORTH WING WALL  
ITEM 209 - SOUTH WING WALL**

DESCRIPTION

This work shall consist of constructing Portland cement concrete headwall structure and wing walls, including headwall apron, footings and cutoff wall and wing wall footings, shear key and wing walls. This work consists of furnishing all labor, materials, form work, excavation, backfill, bedding, and temporary shoring to accomplish construction of the structures at the location as noted on the Plans. This work shall conform to the Michigan Department of Transportation 2003 Standard Specifications for Construction Section 706 - Structural Concrete Construction.

This work shall also include placement of expansion and contraction joints and waterproofing as specified on the Plans. Pumping as necessary will be required to maintain a dry excavation. Miscellaneous work area pumping will be paid for as part of General Conditions.

MATERIALS

Concrete:	Grade S2
Steel:	Epoxy-Coated per MDOT 706.02
Curing Material:	per MDOT 706.02
Temporary Sheet Pile Wall:	per MDOT 704.02

All other materials per MDOT Section 706.02.

CONSTRUCTION METHOD

Per MDOT Section 706.03, Forms, Type A, Surface. Finish shall be rubbed surface finish on exposed faces of headwalls and retaining walls.

MEASUREMENT AND PAYMENT

<u>PAY ITEM</u>	<u>PAY UNIT</u>
Item 207 - Headwall Structure (inc. apron footing & cutoff wall)	Lump Sum
Item 208 - North Wing Wall	Lump Sum
Item 209 - South Wing Wall	Lump Sum

**DETAILED SPECIFICATIONS  
FOR  
ITEM NO. 210, GABION PLACEMENT**

DESCRIPTION

This work item shall include the furnishing and placing of steel wire baskets, geotextile liner fabric, and the furnishing and filling of these baskets with stones to form channel bed and scour protection as shown on the Plans, as detailed in the specifications, and as directed by the Engineer.

MATERIALS

- A. Steel wire used in gabions shall be galvanized with zinc coating exceeding Federal Specification requirements (QQ-W-461H, Class 3).
1. Gabions: Mesh steel wire diameter shall be 0.118", in a triple twist hexagonal weave having an opening of 3 1/4" x 4 1/2"; mesh edge wire and selvedge wire diameter shall be 0.1535"; and the steel wire diameter for lacing the baskets together shall be 0.0866". Baskets will be 1.0' high, 3.0' wide, and 6', 9' or 12' long as required to complete installation.
- B. Stone for gabions shall be from 4" - 8" in diameter. Stone shall be hard, durable and clean and must be natural aggregates.
- C. Geotextile fabric shall meet MDOT 2003 Standard Specification for Liner Section 910.0.

CONSTRUCTION METHODS

Before setting or placing the gabion or mattress baskets, the channel or ground area shall be made relatively smooth and even, and the geotextile fabric placed uniformly with minimum 18" overlap. The baskets shall be placed empty and laced together along the perimeter of all contact surfaces. Place eight ties per basket, two per side.

With gabions, the first basket shall be firmly anchored and tension shall be applied to the other end with a come-a-long or other means, in order to achieve the proper alignment. Anchoring may be accomplished by partially filling the first gabion with stone.

After filling, the top of the basket shall be folded shut and wired to the ends, sides and diaphragms.

Stones in the exposed face(s) shall be hand placed using selected stones to enhance appearance and prevent bulging. The last lift of stone shall be level with the top of the gabion to properly close the lid and provide an even surface for the next course.

The gabions shall be recessed per typical plan cross-section at locations noted on the plans. Gabions shall be cut, as necessary to fit the proposed channel cross-section. Cut baskets shall be immediately buttressed with the end of the adjacent gabion so as to maintain their proper shapes and then filled with stone.

MEASUREMENT AND PAYMENT

The completed work as measured shall be paid for at the contract unit prices for the following contract (pay) items:

<u>PAY ITEM</u>	<u>PAY UNIT</u>
Item 210, Gabion Placement	SYD

Gabions shall be measured as the area covered in square yards including baskets, stones, and fabric. Stone and fabric shall not be paid for separately, but as one unit.

**DETAILED SPECIFICATION  
FOR  
ITEM NO. 211 - SEDIMENT TRAPS**

DESCRIPTION

This work shall consist of properly installing temporary sediment traps at locations indicated on the plans and as directed by the Engineer, maintaining during the entire construction period, and removing at the end of construction or when the site has been deemed stabilized by the Engineer.

CONSTRUCTION METHOD

The channel bottom in the area of the sediment trap shall be excavated one (1) feet below the channel bottom to allow room for sediment build-up. Excavated materials shall be dried and utilized in the grading operation or disposed of off-site.

MEASUREMENT AND PAYMENT

Payment for sediment traps shall include removal and disposal of the sediment as required until upstream areas have been stabilized.

PAY ITEM

PAY UNIT

Item 211 - Sediment Traps

EA

**DETAILED SPECIFICATIONS  
FOR  
ITEM 212 - TEMPORARY FLOW BYPASS  
ITEM 212A - TEMPORARY FLOW BYPASS ALTERNATE  
ITEM NO. 213 - COFFERDAM**

DESCRIPTION

The work shall consist of constructing a temporary flow bypass to route creek flows around or through the work area. The work will consist of constructing a temporary a 24-inch ADS N-12 or approved equal sewer pipe, and construction of a temporary coffer dam, including coffer dam placement and removal and maintenance of the culvert work area such that storm event high flows can pass through the work area. In general, the work area must be free of equipment and materials at the end of work days so an emergency high flow can pass through the work area. The cofferdams must be maintained at levels during non-work periods that will allow emergency high flows to pass through the work area without causing a harmful backwater. The Contractor shall also maintain at the site a pumping capability to augment his bypass operation as necessary. This work to include related sidewalk removal and replacement, trenching and grading work required for the flow bypass alternate.

MATERIALS

All storm sewer, pipe and manhole materials shall be as specified in the City of Ann Arbor Public Services Department Standard Specifications. Cofferdams shall at a minimum be constructed of materials as shown on the Plans. The Contractor shall include such other materials as necessary to accomplish the low flow containment and rerouting around the work area.

CONSTRUCTION METHOD

Per City of Ann Arbor Public Services Department Standard Specifications.

SUBMITTALS

The Contractor shall submit a shop drawing of the cofferdam construction for review and approval. Contractor shall submit a shop drawing of the selected bypass alternative for review and approval. The Contractor shall be fully responsible for the operation and maintenance of the cofferdams. The Contractor should include any other such measures as necessary to accomplish the cofferdam construction and to successfully implement the flow bypass. The detail provided on the Plan is considered to be the minimum effort required for cofferdam construction; however, any such materials and work effort necessary for successful implementation of the cofferdam is the Contractor's responsibility. The Contractor shall also submit an emergency response plan that addresses how storm flow events will be handled. The plan should address how the cofferdams will be left during non-work periods (nights, weekends) and how the work area will be maintained during non-work periods.

MEASUREMENT AND PAYMENT

No separate payment will be for pumping operations required by the Contractor as part of flow bypassing and/or general operational requirements to accomplish the culvert, headwall, and retaining wall construction. This pumping operation shall be considered as included in payment for General Conditions.

Storm sewer or storm sewer piping shall be installed as part of the Bypass Lump Sum basis per directions on the plan. The payment for cofferdams shall be on a unit price basis and shall be payment in full for all materials, labor and installation, operation and ultimate removal of the cofferdams. The temporary flow bypass materials, including sheet piling for the alternate, installation, operation, relocation, as necessary, and removal shall be paid for on a Lump Sum basis. Contractor to bid temporary flow bypass and temporary flow bypass alternate. The Temporary Flow Bypass Alternate pipe can be left in place.

PAY ITEM

Item 212 - Temporary Flow Bypass  
Item 212A - Temporary Flow Bypass Alternate  
Item 213 - Cofferdam

PAY UNIT

Lump Sum  
Lump Sum  
EA

**DETAILED SPECIFICATION  
FOR  
ITEM NO. 214 - MACHINE GRADING**

DESCRIPTION

This work shall conform to the Division IX of the City of Ann Arbor Public Services Department Standard Specifications, including the following additional work:

- 1) All excavation and backfill for the proposed culvert, headwalls and wing walls.
- 2) All slope grading as necessary to establish subgraded for slope treatment and/or finish slope grades.
- 3) All finish grading for work area restoration, including topsoil placement.
- 4) All slope grading and materials placement not included in other pay items.
- 5) Removal of all excess material from the construction site.

MATERIALS AND CONSTRUCTION METHOD

As per the City of Ann Arbor Standard Specifications.

MEASUREMENT AND PAYMENT

PAY ITEM

Item 214 - Machine Grading

PAY UNIT

Lump Sum

**DETAILED SPECIFICATION  
FOR  
ITEM 215 - TEMPORARY 6.0 FT CHAIN LINK CONSTRUCTION FENCE**

DESCRIPTION

This work shall consist of installing a temporary chain link fence at the locations as specified in the Plan in accordance with Division 1X of the City of Ann Arbor Public Services Department Standard Specifications, except that the unit price shall also include the removal of the fence upon completion of the project work.

MATERIALS AND CONSTRUCTION METHOD

Per the City of Ann Arbor Standard Specifications.

MEASUREMENT AND PAYMENT

PAY ITEM

PAY UNIT

Item 215 - Temporary 6.0 ft Chain Link Construction Fence

LF



**DETAILED SPECIFICATION  
FOR  
ITEM 216, BLANKET STABILIZATION  
ITEM NO. 217, TOPSOIL, FERTILIZING, SEEDING**

DESCRIPTION

This work of topsoil, fertilizer and seeding consists of furnishing from offsite sources and placing the topsoil at depths specified, fertilizing and seeding all disturbed areas. The work of blanket stabilization consists of furnishing materials and performing all work necessary to install straw blanket on slopes, or as directed by the engineer.

MATERIALS

All materials shall meet the requirements of the following specifications. The blanket shall consist of clean wheat straw from agricultural crops made into a knitted straw blanket that is machine assembled. The straw shall be evenly distributed throughout the blanket. One side of the blanket shall be covered with a photodegradable synthetic mesh that is adhered to the straw by a knitting process using degradable thread.

Width (min)	7.5 feet
NOTE: Products equal to this specification but of different roll widths may be acceptable at the discretion of the Engineer.	
Length	120 feet average
Weight per roll	50 lbs. $\pm$ 1 lb.
Weight per sq. yd.	50 lbs. $\pm$ 10 percent
Volume per roll	100 sq. yds. average

Staples shall be made of 11 gauge or heavier steel wire. "U" shaped staples shall have legs 6 inches long and a 1-inch crown.

The area to be covered shall be properly prepared, topsoiled, fertilized, and seeded before the blanket is placed. When the mat is unrolled, the netting shall be on top and the fibers shall be in contact with the soil. In ditches, blankets shall be unrolled in the direction of the flow of water. The end of the upstream blanket shall overlap the buried end of the downstream blanket a maximum of 8 inches and a minimum of 4 inches, forming a junction slot. This junction slot shall be stapled across at 8-inch intervals, alternating the center row so that the staples form a "X" pattern. A common row of staples shall be used on adjoining blankets. Overlaps shall be limited to one for each 6 feet of width.

The Contractor shall maintain the blanket until all work on the contract has been completed and accepted. Maintenance shall consist of the repair of areas where damaged by any cause. All damaged areas shall be repaired to reestablish the condition and grade of the soil prior to application of the covering and shall be refertilized, reseeded, and remulched as directed.

CONSTRUCTION METHODS

All topsoil, fertilizer and seed mixes shall meet the City of Ann Arbor material specifications in accordance with the Public Services Department Standard Specifications for Class A lawn mix.

The work of preparing the subsoil, topsoiling, fertilizing, seeding and placing mulch blanket shall be performed in accordance with the City of Ann Arbor Public Works Department Standard Specifications and this Detailed Specification.

MEASUREMENT AND PAYMENT

Blanket stabilization shall be measured by the square yard of finished surface. No allowance will be made for overlap.

Topsoil, fertilizer, and seeding shall be measured by the square yard (SYD).

Payment shall include the labor, material and equipment cost for placement as specified.

PAY ITEM

PAY UNIT

Item No. 216, Blanket Stabilization

SYD

Item No. 217, Topsoil, Fertilizing, Seeding

SYD

**DETAILED SPECIFICATION  
FOR  
ITEM NO. 218, MUD TRACKING MAT**

DESCRIPTION

These work items shall include the furnishing, placement and removal of a mud tracking mat at locations as detailed on the plans and per plan construction details.

MATERIALS

Mud Tracking Mat - MDOT 6A Stone

MEASUREMENT AND PAYMENT

PAY ITEM

Item No. 218 - Mud Tracking Mat

PAY UNIT

EA

**DETAILED SPECIFICATION  
FOR  
ITEM NO. 219, BOULDER STONE PLACEMENT**

DESCRIPTION

This work item shall include the relocating and placing of all boulder materials for creek bed and ditch slope boulders, as detailed in the Specifications, and as directed by the Engineer. All work shall be performed in accordance with MDOT (2003 edition), and the City of Ann Arbor standard details and specifications unless otherwise indicated.

MATERIALS

Existing boulders at the site shall be used.

CONSTRUCTION METHODS

Boulders shall be replaced on bank slopes as noted on the plans. Boulders shall be securely seated into the grade and interlocked to prohibit rolling down slope. Excess boulders will be placed securely along the bank at locations noted on the plan.

MEASUREMENT AND PAYMENT

The completed work as measured shall be paid for at the contract unit prices for the following contract (pay) items:

<u>PAY ITEM</u>	<u>PAY UNIT</u>
Item No. 219 - Boulder Stone Placement	SYD

**DETAILED SPECIFICATION  
FOR  
ITEM NOS. 220 - 222, LANDSCAPING ITEMS**

DESCRIPTION

This work item shall include the furnishing and planting of all plant materials for the project, including backfilling with prepared soil, watering and cultivating; and includes all materials and incidental operations required to complete the work as detailed in the Specifications and as directed by the Engineer. This work shall be done per the City Standard Specification, except as noted in this detailed specification.

MATERIALS

A. Plant materials shall be as specified on the Plans.

CONSTRUCTION METHODS

Plant materials and live stakes shall be installed in the proportion and pattern as indicated on the drawing, as detailed in the Plans, and as called for in the City of Ann Arbor standard specifications.

GUARANTEE

This guarantee shall include the extension of the City standard guarantee period from one to two years for all plant material and line stakes.

MAINTENANCE

Definition of Maintenance and Guarantee Period for Plant Material: The first maintenance and guarantee period begins the spring following planting and continues until the end of that growing season. The second maintenance and guarantee period is the following growing season. A growing season is defined as the beginning of May through mid-November. If planting is not completed prior to the end of May, the first maintenance and guarantee period includes the remainder of that growing season, plus the next growing season.

MAINTENANCE METHODS

Annual invasive grasses and forbs, such as crabgrass, garlic mustard, dames rocket, purple loosestrife or other invasive plants shall be spot controlled beginning in May with cutting and/or specified herbicide. Control shall continue through the end of the first growing season and/or before the plants set seed. Cut material must be removed from the site and properly disposed.

MEASUREMENT AND PAYMENT

The cost of watering and cultivating as specified shall be included in each plant's unit price. After initial planting, 75% of each unit price shall be certified for payment. Fifteen percent (15%) shall be paid at the completion of the fifth (5th) watering and cultivation in the first growing season, and the final ten percent (10%) shall be paid at the time of final acceptance.

The final inspection of all planting work and the Contract will be made by the Contractor and Engineer at the end of the maintenance and guarantee period(s).

Before final acceptance is given, the terms of the warranty shall be met and the site be cleared of all debris, soil piles and containers. Site preparation, as well as the mulched planting bed and required site clean up detailed in the City of Ann Arbor Specifications, are included in the unit price for each plant.

The completed work as measured for these items of work shall be paid for at the contract unit price each for the specified contract item.

The cost of the 2-year guarantee, maintenance and weed control as specified shall be included in each plant's unit price.

<u>PAY</u>		<u>PAY</u>
<u>ITEM</u>		<u>UNIT</u>
220	Rubrum 'October Glory' Red Maple	EA
221	Viburnum Dentatum, Arrowwood Viburnum	EA
222	Cornus Sericea, Red Osier Dogwood	EA

**DETAILED SPECIFICATION  
FOR  
ITEM NO. 223 - GROUTED RIPRAP**

DESCRIPTION

This item of work shall include excavation and placement of geo-technical separator fabric and grouted riprap per MDOT 2003 Standard Specifications for Construction Section 813.

MATERIALS

Per MDOT 2003 Standard Specifications for Construction Section 813.02 for plain riprap and grout.

CONSTRUCTION METHOD

Per MDOT Standard Specification for Construction Section 813.03.

MEASUREMENT AND PAYMENT

The unit pay item includes all materials and equipment necessary for placement of grouted riprap.

<u>PAY ITEM</u>	<u>PAY UNIT</u>
Grouted Riprap	SYD

**DETAILED SPECIFICATION  
FOR  
ITEM NO. 224 - STRUCTURE UNDERCUT AND BACKFILL**

**DESCRIPTION**

This work shall consist of excavating unstable material from beneath the headwall and retaining wall structure bearing areas. Undercuts shall be measured from a point 8 inches beneath the existing grade to the depth excavated. Undercutting shall be as directed by the Engineer. Undercut shall be backfilled in six inch lifts compacted to 100% maximum density.

**MATERIALS**

MDOT 6A crushed limestone.

**CONSTRUCTION METHOD**

Construction methods shall conform to the City of Ann Arbor Public Services Department Standard Specifications and MDOT 2003 Standard Specifications for Construction Section 206.

**MEASUREMENT AND PAYMENT**

This item of work shall be paid for on a per cubic yard basis of undercut and include the excavation, removal of excess material from the site, trimming the excavation, backfilling in 6 inch lifts with the required backfill materials and compaction of the backfill materials. All labor, materials and equipment costs are to be included in the undercut unit price.

**PAY ITEM**

**PAY UNIT**

Item No. 224 – Structure Undercut and Backfill

CYD



**DETAILED SPECIFICATION  
FOR  
PROTECTION OF UTILITIES**

DESCRIPTION

Damages to utilities by the Contractor's operations shall be repaired by the utility owner at the Contractor's expense. Delays to the work due to utility repairs are the sole responsibility of the Contractor.

The Contractor shall keep construction debris out of utilities at all times. The Contractor shall be back charged an amount of \$50.00 per day for each manhole/inlet/utility pipe that contains construction debris caused as a result of the Contractor's (including subcontractors and suppliers) work.

The Contractor is solely responsible for any damages to the utilities or abutting properties due to construction debris.

Certain sanitary and storm sewers within the influence of construction may have been cleaned and videotaped prior to construction. The City may also choose to videotape utility line(s) during or after the work of this Contract to inspect them for damages and/or construction debris. If such inspection shows damage and/or debris, then all costs of such inspection, cleaning, repairs, etc, shall be the Contractor's sole responsibility. If such inspection is negative, the City will be responsible for the costs of such inspection.

Costs for this work will not be paid for separately, but shall be included in the bid price of the Contract Item "General Conditions."

**DETAILED SPECIFICATION  
FOR  
VACUUM TYPE STREET AND  
UTILITY STRUCTURE CLEANING EQUIPMENT**

DESCRIPTION

The Contractor shall furnish and operate throughout the construction period, vacuum type street cleaning and utility structure cleaning equipment (Vac-All, Vactor, etc.) approved by the Engineer, as and when directed by the Engineer for dust control, for dirt/debris control, and for street cleaning immediately prior to, and for street and utility structure cleaning after completion of the project. The cleaning equipment shall be of sufficient power to remove dust, dirt, and debris from the pavement and from utility structures in and adjacent to the construction area.

Costs for this work will not be paid for separately, but shall be included in the bid price of the Contract Item "General Conditions."

**DETAILED SPECIFICATION  
FOR  
SITE CLEAN-UP**

DESCRIPTION

Immediately after completion of construction on each street, the Contractor shall clean the entire area within the influence of construction, including but not limited to all pavement, sidewalks, lawn areas, and underground utility structures, of all materials which may have accumulated prior to or during the construction.

Costs for this work will not be paid for separately, but shall be included in the bid price of the Contract Item "General Conditions."

**DETAILED SPECIFICATION  
FOR  
CONTRACT DRAWINGS / PLANS**

DESCRIPTION

The Contractor shall carefully check and review all Drawings/Plans and advise the Engineer of any errors or omissions discovered. The Drawings/Plans may be supplemented by such additional Drawings/Plans and sketches as may be necessary or desirable as the work progresses. The Contractor shall perform all work shown on any additional or supplemental Drawings/Plans issued by the Engineer.

**DETAILED SPECIFICATION  
FOR  
MATERIALS AND SUPPLIES CERTIFICATION**

DESCRIPTION

The following materials and supplies shall be certified by the manufacturer or supplier as having been tested for compliance with the Specifications:

- Cements, coatings, admixtures and curing materials
- Sands and aggregates
- Steel and fabricated metal
- Portland cement concrete mixtures
- Reinforcing steel for concrete
- reinforcing fibers for concrete
- Pre-cast concrete products
- Storm sewer pipe
- High density polyethylene pipe
- Edge drain and underdrain pipe
- geotextile filter fabric and stabilization fabric/grids

The Contractor shall submit all certifications to the Engineer for review and approval a minimum of three business days prior to any scheduled delivery, installation, and/or construction of same.

Costs for this work will not be paid for separately, but shall be included in the bid price of the Contract Item "General Conditions."

**DETAILED SPECIFICATION  
FOR  
HAND AUGER SOIL BORINGS AND DATA**

DESCRIPTION

Data pertaining to existing hand auger soil borings which may be included in these Contract Documents are provided to help the Engineer and Contractor determine the soil conditions existing within the construction area. The City in no way guarantees existing conditions to be the same as shown in the data. The Contractor is solely responsible for any and all conclusions he/she may draw from the data.

**DETAILED SPECIFICATION  
FOR  
WORKING IN THE RAIN**

DESCRIPTION

The Contractor shall not work in the rain unless authorized in writing by the Engineer. The Engineer may delay or stop the work due to threatening weather conditions. The Contractor shall not be compensated for unused materials or downtime due to rain, or the threat of rain. The Contractor is solely responsible for repairing all damages to the work and to the site, which are caused as a result of working in the rain.

**DETAILED SPECIFICATION  
FOR  
WORKING IN THE DARK**

DESCRIPTION

The Contractor shall not work in the dark except as approved by the Engineer and only when lighting for night work is provided as detailed elsewhere in this contract.

The Engineer may stop the work, or may require the Contractor to defer certain work to another day, if, in the Engineer's opinion, the work cannot be completed within the remaining daylight hours, or if inadequate daylight is present to either properly perform or inspect the work.

The Contractor will not be compensated for unused materials or downtime, when delays or work stoppages are directed by the Engineer for darkness and/or inadequate remaining daylight reasons.

The Contractor is solely responsible for repairing all damages to the work and to the site, including road infrastructures, road subgrades, and any adjacent properties, which are caused as a result of working in the dark.

**DETAILED SPECIFICATION  
FOR  
QUANTITIES AND UNIT PRICES**

DESCRIPTION

Quantities as given are approximate and are estimated for bidding purposes. Quantities are not guaranteed and may vary by any amount. While it is the City's intent to complete the project substantially as drawn and specified herein, quantities may be changed or reduced to zero for cost savings or other reasons. The City reserves the right to change the quantities, delete streets, or add streets, and no adjustment in unit price will be made for any change in any quantity.

**DETAILED SPECIFICATION  
FOR  
GENERAL CONSTRUCTION NOTES**

DESCRIPTION

The following notes pertain to all Plan sheets issued as part of this Contract, and these notes shall be considered part of each Plan sheet.

- 1 All work shall conform to latest revision of the City Standard Specifications.
- 2 The Contractor shall maintain access to all drives throughout the course of construction. Drives shall never be closed during non-working hours, unless otherwise authorized in writing by the Engineer.
- 3 The Contractor shall completely restore all existing site features to better than, or equal to, their existing condition.
- 4 The Contractor shall be aware that there are above-ground and below-ground utilities existing in and on these streets which include, but are not limited to: gas mains and service leads; water mains and service leads; storm sewer mains and service leads; sanitary sewer mains and service leads; telephone poles, wires, cables and conduits; electrical poles, wires, cables and conduits; cable television wires, cables and conduits, and other various utilities. The Contractor shall conduct all of its work so as not to damage or alter in any way, any existing utility, except where specified on the Plans or where directed by the Engineer. The City has videotaped and cleaned all sanitary and storm sewers, including storm sewer inlet leads, and has found all of these facilities to be in good condition, with the exception of those shown on the Plans for repairs or replacement.
- 5 The Contractor is solely responsible for any delays, damages, costs and/or charges incurred due to and/or by reason of any utility, structure, feature and/or site condition, whether shown on the Plans or not, and the Contractor shall repair and/or replace, at its sole expense, to as good or better condition, any and all utilities, structures, features and/or site conditions which are impacted by reason of the work, or injured by its operations, or injured during the operations of its subcontractors or suppliers.
- 6 No extra payments or adjustments to unit prices will be made for damages, delays, costs and/or charges due to existing utilities, structures, features and/or site conditions not shown or being incorrectly shown or represented on the Plans.

July 31, 2007

Mr. Nicholas Hutchinson, P.E., Project Engineer  
City of Ann Arbor  
Public Services Area/Project Management  
100 North Fifth Avenue  
P.O. Box 8647  
Ann Arbor, Michigan 48107-8647

**RE:** Subsurface Exploration  
Proposed Culvert Replacement – Malletts Creek at State Street  
City of Ann Arbor, Washtenaw County, Michigan  
PSI Report Number: 379-70032-109

Dear Mr. Hutchinson:

In accordance with your request, Professional Service Industries, Inc. (PSI) has completed the hand auger boring and limited subsurface sampling for the above referenced project. The purpose of the exploration was to determine the subsurface conditions at the site.

#### **EXPLORATION PROCEDURES**

As directed by Mr. Lee Farner of Midwestern Consulting, PSI performed one hand auger boring near the proposed headwall. The hand auger boring was performed to a depth of 5 feet. Grab samples from the bucket auger were obtained at intervals no greater than 1 foot.

At the time of this exploration, the existing ground surface was covered with boulders. PSI had planned to perform at least one additional hand auger boring, but due to the existing boulders, a second boring location was not available.

The approximate location of the test boring is presented on the Boring Location Plan, which is appended to this letter. After completion of the hand augering operations, the borehole was backfilled with the excavated soil.

#### **SUBSURFACE CONDITIONS**

Approximately 12 inches of sand and gravel was encountered at the boring location. The sand and gravel was underlain by sandy clay containing trace amounts of organics to a depth of about 2 feet below the existing ground surface. Below the sandy clay, silty sand containing trace amounts of organics was encountered to an approximate depth of 3 1/4 feet. The silty sand was underlain by a saturated layer of sandy silt that extended to a depth of about 4 1/4 feet, followed by silty clay to the final explored depth of the hand auger.

AUG 06 2007

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City of Ann Arbor  
Project Management

The driller looked for indications of groundwater seepage both during and after drilling. Perched water was encountered within Boring B-1 during drilling at a depth of about 3½ feet. Collapse of Boring B-1 upon removal of the bucket augers precluded measurement of the groundwater level upon completion of the drilling operations.

#### **GENERAL FOUNDATION RECOMMENDATIONS**

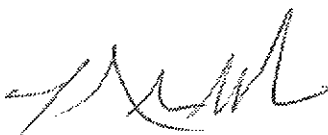
Based on the subsurface conditions encountered during our drilling operations, adequate soils are available at this site for the support of shallow foundations employing a moderate allowable bearing pressure. The foundations should extend through the organic-containing soils and saturated silt layer to bear on undisturbed native silty clay. Alternately, the foundations may bear on compacted engineered fill placed over the silty clay layer following the removal of the unsuitable organic-containing and saturated soils.

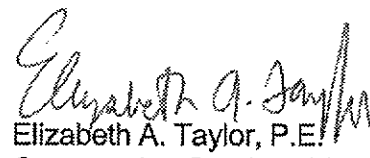
As mentioned previously, perched water was encountered within Boring B-1 at a depth of about 3½ feet below the existing grades. If perched accumulations are present at the time of construction, we recommend pre-drainage of the site using perimeter drainage or sump and pump dewatering methods to allow for successful over-excavation, subgrade preparation and fill placement activities. Significant difficulties will occur if perched water is present in the silty granular soils and construction proceeds without some measure of dewatering. If effective dewatering is not performed prior to and during any undercutting operations or excavations, the resulting subgrade will likely become saturated and "quick" conditions could occur.

The foundation excavations should be observed by a representative of PSI prior to steel or concrete placement to assess that the foundation materials are capable of supporting the design loads and are consistent with the materials discussed in this letter report.

We appreciate the opportunity to perform this geotechnical study and look forward to continued participation during the design and construction phases of this project. If you have any questions regarding this report, or if we may be of further service, please contact our office.

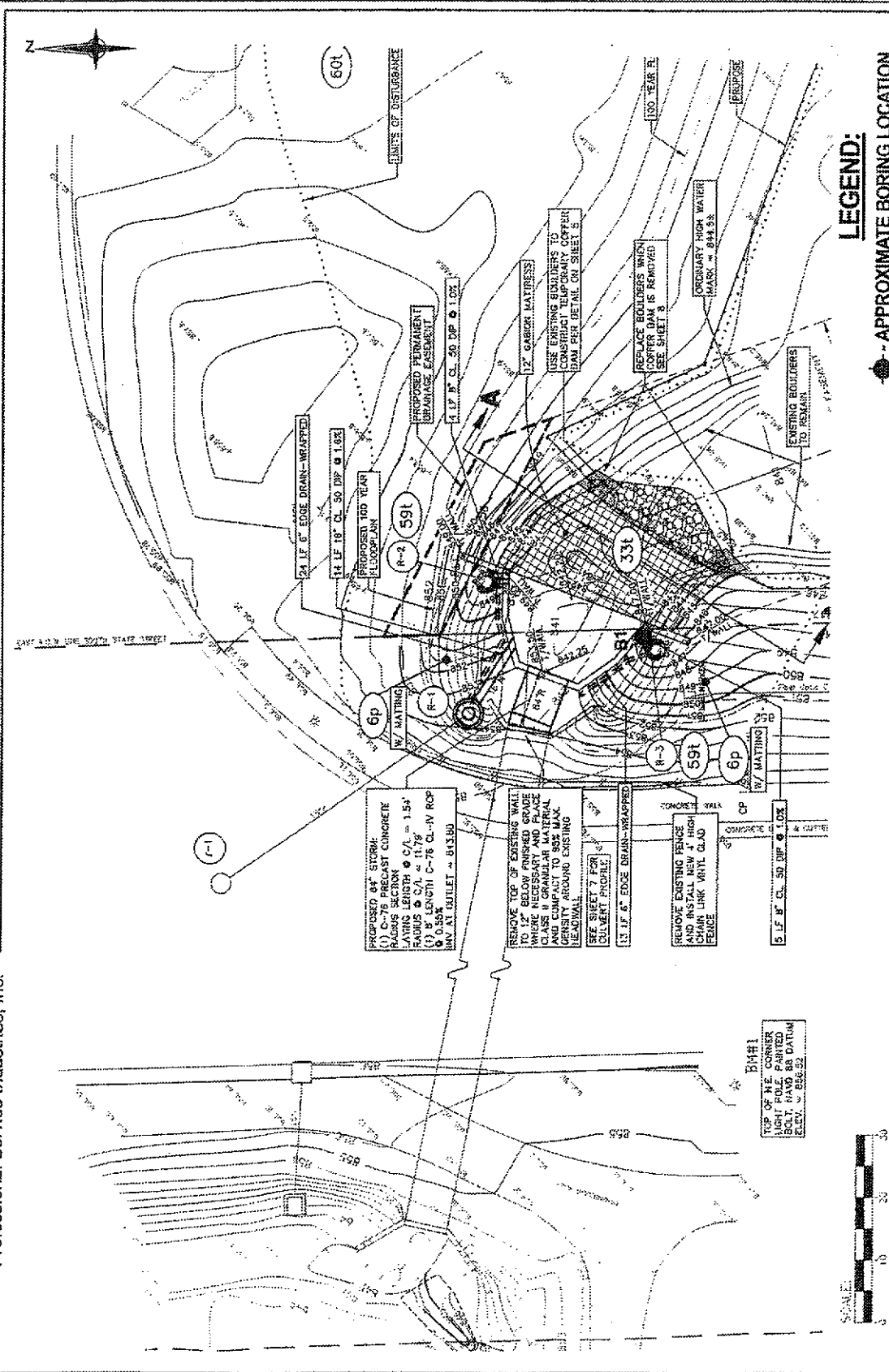
Respectfully,  
**PROFESSIONAL SERVICE INDUSTRIES, INC.**

  
Theresa M. Marsik, P.E.  
Project Manager

  
Elizabeth A. Taylor, P.E.  
Construction Services Manager


Attached: Boring Location Plan, Log of Boring B-1






<p><b>PROJECT NAME:</b>          PROPOSED CULVERT REPLACEMENT -          MALLETTS CREEK AT STATE STREET          CITY OF ANN ARBOR, WASHTENAW COUNTY, MICHIGAN</p>	<p><b>BORING LOCATION PLAN</b></p> <p>REPRODUCED FROM A CONSTRUCTION PLAN DATED 3-26-07          PREPARED BY MIDWESTERN CONSULTING AND GIVEN TO          PSI FOR USE IN THE SOIL EXPLORATION</p>	<p><b>REPORT NUMBER:</b>          379-70032-109</p> <p><b>DRW. NO.</b>          1</p>
<p><b>DATE:</b> July 31, 2007          Scale: As shown</p>		



Client: <b>City of Ann Arbor</b>	PSI Project #: <b>379-70032</b>	Hand Auger Log Number: <b>B-1</b>	 Professional Service Industries, Inc.
Project: <b>Proposed Culvert Replacement - Malletts Creek at State Street</b>	Sheet: <b>1</b> of <b>1</b>	Location: <b>City of Ann Arbor, Washtenaw County, Michigan</b>	

Sample No./Type	Sample Location	Sample Recovery	Graphical Log	Description of Material	Depth (ft)	Blows Per Foot	Moisture Content (%)	Plastic Limit (%)	Liquid Limit (%)	Dry Unit Wt (lb/cu.ft.)	"N" Blows Per Foot 0 20 40 60	Unconfined Compressive Strength (tsf) ●	Calibrated Hand Penetrometer (tsf) ○
Surface Elevation: <b>843.3 +/-</b>													
				12 inches of SAND AND GRAVEL, moist.									
1HA				SANDY CLAY (CL) - some gravel, trace organics, occasional hair roots, mottled brown and dark brown, very moist.	1		18						
2HA				SILTY SAND (SM) - fine, trace organics, occasional silt and clay seams, occasional hair roots, brown, moist.	2		20						
3HA					3		17						
4HA					4		26						
5HA				SANDY SILT (ML) - occasional clay seams, brown, wet.	4		28						
6HA				SILTY CLAY (CL) - few gravel, trace sand, occasional sand partings, brown, moist.	5		20						
				END OF BORING	5								

Note: The stratification lines indicated here are approximate. In-situ, the transition between soil types may be gradual.

<input checked="" type="checkbox"/> Water Level While Drilling <u>3' 6"</u> <input checked="" type="checkbox"/> Water Level At Completion _____ <u>Wet Collapse @ 4' 6"</u> After Completion	Boring Started: <b>7/25/2007</b>	Completed: <b>7/25/2007</b>	Engineer: <b>TMM</b>
	Drilling Method: <b>Hand Auger</b>	Office: <b>Plymouth</b>	Drawn By: <b>TMM</b>
	Driller: <b>J. A.</b>	Hole Depth (ft): <b>5</b>	Approved: 
Note: Hand Auger backfilled with soil unless otherwise noted.			