

INVITATION TO BID

ITB # 4275

GATE AND FENCE IMPROVEMENTS

Federal Project Number J-26-0005-1710
State Contract Number FM 81-01-C 34



Due Date: April 4, 2013 by 10:00 AM

Issued By:

City of Ann Arbor
Procurement Unit
301 E. Huron Street
Ann Arbor, MI 48107

Prepared by:

URS Corporation, Inc
3950 Sparks Drive SE
Grand Rapids, Michigan 49546
URS PROJECT NUMBER 12943839

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ADVERTISEMENT TO BID
CITY OF ANN ARBOR

ITB #4275

Sealed Bids will be received by the City of Ann Arbor Procurement Unit, Fifth (5th) Floor, Guy Larcom City Hall, on or before April 4, 2013 at 10:00 AM for construction of Gate and Fence Improvements. Bids will be publicly opened and read aloud at this time.

Work to be done includes the construction of Gate and Fence Improvements and all related work. Michigan prequalification N96M for fence and gate work is required.

Bid documents, specifications, plans and addendum shall be downloaded by bidders at either of the following web sites, Michigan Inter-governmental Trade Network (MITN) www.mitn.info or City of Ann Arbor web site www.A2gov.org.

DBE participation is NOT required on this project.

Each Bid 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 Bid, 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: (i) compliance with Chapter 112 of Title IX of the Code of the City of Ann Arbor. (ii) compliance with applicable prevailing wage and living wage requirements of 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After the time of opening, no Bid may be withdrawn for a period of 60 days.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 Ann Arbor Procurement Office,
(734) 794-6576

CITY OF ANN ARBOR PROCUREMENT UNIT

NOTICE OF PRE-BID CONFERENCE

A pre-bid conference for this project will be held on Thursday, March 21, 2013 at 10:00 AM at the Ann Arbor Airport Conference Room, located at, 801 Airport Road, Ann Arbor, Michigan 48108.

Attendance at this conference is optional, but highly recommended. Administrative and technical questions regarding this project will be answered at this time. The pre-bid meeting is for information only. Any answers furnished will not be official until verified in writing by the Financial Service Area, Procurement Unit. Answers that change or substantially clarify the bid will be affirmed in an addendum.

Access to Facilities can be made available by contacting Airport Manager, Matt Kulhanek at 734-794-6310.

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 Service Area/Unit in cases where access to the site must be arranged by the City.

Any Bid which does not conform fully to these instructions may be rejected.

Preparation of Bids

Bids should be prepared providing a straight-forward, concise description of the Bidder's ability to meet the requirements of the ITB. Bids shall be written in ink or typewritten. No erasures are permitted. Mistakes may be crossed out and corrected and must be initialed and dated in ink by the person signing the Bid.

Bids must be submitted on Page Number BF-1 and on the "Bid Forms" provided with each blank properly filled in. If forms are not fully completed it may disqualify the bid.

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

Questions or Clarification on ITB Specifications

All questions regarding this ITB shall be submitted via email. Emailed questions and inquires will be accepted from any and all prospective Bidders in accordance with the terms and conditions of the ITB.

All questions shall be due on or before March 28, 2013 at 8:00 AM and should be addressed as follows:

Specification/Scope of Work questions emailed to dave.helmstetter@urs.com

Bid Process and HR Compliance questions emailed to klancaster@A2Gov.org

Addenda

If it becomes necessary to revise any part of the ITB, notice of the Addendum will be posted to Michigan Inter-governmental Trade Network (MITN) www.mitn.info and/or City of Ann Arbor web site www.A2gov.org for all parties to download.

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

The City will not be bound by oral responses to inquiries or written responses other than written addenda.

Bid Submission

All Bids are due and must be delivered to the City of Ann Arbor Procurement Unit on or before **April 4, 2013 by 10:00 AM**. Bids submitted late or via oral, telephonic, telegraphic, electronic mail or facsimile **will not** be considered or accepted.

Each Bidder must submit one (1) original Bid and two (2) Bid copies in a sealed envelope clearly marked: **ITB 4275 – Gate and Fence Improvements**

Bids must be addressed and delivered to:

City of Ann Arbor
Finance Department, 5th Floor
Karen Lancaster
301 East Huron Street
P.O. Box 8647
Ann Arbor, MI 48107

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

Bids will be date/time stamped/signed at the address above in order to be considered. Normal business hours are 8:00 a.m. to 4:00 p.m. Monday through Friday. The City will not be liable to any Bidder for any unforeseen circumstances, delivery or postal delays. Postmarking to the Due Date will not substitute for receipt of the Bid. Each Bidder is responsible for submission of their Bid.

Additional time will not be granted to a single Bidder; however, additional time may be granted to all Bidders when the City determines that circumstances warrant it.

Award

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 alternatives 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 unit prices and the lump sum 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 Bids, the City will give consideration to alternate Bids for items listed in the bid forms.

Official Documents

The City of Ann Arbor shall accept no alternates to the bid documents made by the Bidder unless those alternatives are set forth in the "Alternate" section of Bid form.

The City of Ann Arbor officially distributes bid documents from the Procurement Unit or through the Michigan Intergovernmental Trade Network (MITN). Copies of the bid documents obtained from any other source are not Official copies. Addenda and other bid information will only be posted to these official distribution sites. . If you obtained City of Ann Arbor Bid documents from other sources, it is recommended that you register on www.MITN.info and obtain an official Bid.

Bid Security

Each bid 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 60 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 Human Rights Division Contract Compliance Forms (Appendix A and B) 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 provide documentary proof of compliance when requested.

Major Subcontractors

The Bidder shall identify each major subcontractor it expects to engage for this Contract if the work to be subcontracted is 15% or more of the bid sum or over \$50,000, whichever is less. The Bidder also shall identify the work to be subcontracted to each major subcontractor.

Debarment

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

Disclosures

After bids are opened, all information in a bidder’s bid is subjected to disclosure under the provisions of Michigan Public Act No. 442 of 1976, as amended (MCL 15.231 et seq.) know as the “Freedom of Information Act.” The Freedom of Information Act also provides for the complete disclosure of contracts and attachments thereto except where specifically exempted.

Bid Protest

All Bid protests must be in writing and filed with the Purchasing Agent within five (5) business days of the award action. The bidder must clearly state the reasons for the protest. If a bidder contacts a City Service Area/Unit and indicates a desire to protest an award, the Service Area/Unit shall refer the bidder to the Purchasing Agent. The Purchasing Agent will provide the bidder with the appropriate instructions for filing the protest. The protest shall be reviewed by the City Administrator or designee whose decision shall be final.

Reservation of Rights

The City of Ann Arbor reserves the right to accept any bid or alternative bid proposed in whole or in part, to reject any or all bids or alternatives bids in whole or in part and to waive irregularity and/or informalities in any bid and to make the award in any manner deemed in the best interest of the City.

INVITATION TO BID

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, Bid, 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 Bid is one part.

In accordance with these bid documents, and Addenda numbered _____, 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 Bid shall become due and payable to the City.

If the Bidder enters into the Contract in accordance with this Bid, or if this Bid 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 _____ DAY OF _____, 2013.

Bidder's Name

Official Address

Telephone Number

Authorized Signature of Bidder

(Print Name of Signer Above)

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 _____, for whom _____, bearing the office title of _____, whose signature is affixed to this Bid, 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 Bid: _____
(initial here)

BID FORM
Section 1 - Schedule of Prices

<u>Item</u>	<u>Description</u>	<u>Unit</u>	<u>Estimated Quantity</u>	<u>Unit Price</u>	<u>Total Price</u>
1000400	MOBILIZATION AND GENERAL CONDITIONS	LS	1	\$ _____	\$ _____
1000410	SAFETY AND SECURITY	LS	1	\$ _____	\$ _____
1000535	PERMITS	DLR	1,000	\$ _____	\$ _____
1517001	MISC – FENCE REMOVAL AND OFFSITE DISPOSAL	LFT	757	\$ _____	\$ _____
1627001	MISC. – 4' CHAIN LINK FENCE WITH TOP RAIL AND TENSION WIRE	LFT	244	\$ _____	\$ _____
1627001	MISC. – 8' CHAIN LINK FENCE WITH TOP AND BOTTOM RAIL	LFT	175	\$ _____	\$ _____
1627050	MISC. – STOP SIGN WITH GATE INSTRUCTIONS, AS SPECIFIED	EA	12	\$ _____	\$ _____
1627051	MISC. - AUTOMATIC GATE #1 24'x10', AS SPECIFIED	LS	1	\$ _____	\$ _____
1627051	MISC. – AUTOMATIC GATE #2A 12'x8', AS SPECIFIED	LS	1	\$ _____	\$ _____
1627051	MISC. – AUTOMATIC GATE #2B 12'x8', AS SPECIFIED	LS	1	\$ _____	\$ _____
1627051	MISC. – AUTOMATIC GATE #3 20'x8', AS SPECIFIED	LS	1	\$ _____	\$ _____
1627051	MISC. – AUTOMATIC GATE #4 20'x8', AS SPECIFIED	LS	1	\$ _____	\$ _____
1627051	MISC. – AUTOMATIC GATE #5 20'x8', AS SPECIFIED	LS	1	\$ _____	\$ _____
6207050	MISC. – PAVEMENT MARKING, STOP LOCATIONS AS SPECIFIED, WITH REFLECTIVE BEADS	EA	12	\$ _____	\$ _____
TOTAL BASE BID				\$ _____	\$ _____

BF-1

BID FORM

Section 2 - Material and Equipment Alternates

The Base Bid 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. Award will be made on the base bid only.

The City wishes to have the contractor bid the following alternate item for consideration by the City. A complete description of the item and the proposed price differential has been 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.

This work item will replace work item 162051 Misc. -Automatic Gate # 2A as specified and work item 162051 Misc.- Automatic Gate # 2B, as specified.

<u>Item Number</u>	<u>Description</u>	<u>Amount</u>
8007051	MISC. ALT BID AUTOMATIC GATE 2, 20' x 8' as specified	\$ _____

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

BF-3

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.

Subcontractor (Name and Address)

Work

Amount

If the Bidder does not expect to engage any major 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 major subcontractor to perform work under the contract.

Signature of Authorized Representative of Bidder

CONTRACT

THIS AGREEMENT is made on the _____ day of _____, 2013, between the CITY OF ANN ARBOR, a Michigan Municipal Corporation, 301 E. Huron Street, Ann Arbor, Michigan 48104 (“City”) and _____ (“Contractor”)

(An individual/partnership/corporation, include state of incorporation)

(Address)

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 “Gate and Fence Improvements” 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
Living Wage Declaration of
Compliance Forms
(if applicable)
Bid Forms
Contract and Exhibits
Bonds

General Conditions
Standard Specifications
Detailed Specifications
Plans
Addenda

ARTICLE II - Definitions

Administering Service Area/Unit means Fleet & Facilities Unit

Supervising Professional means Fleet & Facilities Unit Manager or other persons acting under the authorization of the Administrator/Manager of the Administering Service Area/Unit.

Project means Gate and Fence Improvements Bid No. ITB-4275

ARTICLE III - Time of Completion

- (A) The work to be completed under this Contract shall begin immediately after the Contractor’s receipt of a fully executed Contract.
- (B) The entire work for this Contract shall be completed within 24 consecutive calendar days. Shorter completion times for certain portions of the work are specified in the Detailed Specifications.
- (C) Failure to complete all the work within the time 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, an amount equal to \$500.00 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

Unit Price Contracts

- (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:

_____ Dollars (\$_____)

- (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. The parties stipulate that the venue referenced in this Contract is for convenience and waive any claim of non-convenience.

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, 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.

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 \$ _____, 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 _____, 2013, for: _____ 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 _____, 2013.

(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 \$ _____, 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 _____, 2013, for _____; 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 _____, 2013.

(Name of Surety Company)

(Name of Principal)

By
(Signature)

By
(Signature)

Its
(Title of Office)

Its
(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) Bid.

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 an 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.

Contractor agrees that all subcontracts entered into by the Contractor shall contain similar wage provision covering subcontractor's employees who perform work on this contract.

Section 5 - Non-Discrimination

The Contractor agrees to comply, and to require its subcontractor(s) to comply, with the nondiscrimination provisions of Section 209 of the Elliot-Larsen Civil Rights Act (MCL 37.2209). The Contractor further agrees to comply with the nondiscrimination provisions of Chapter 112 of the Ann Arbor City Code and to assure that applicants are employed and that employees are treated during employment in a manner which provides equal employment opportunity. 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.

CONTRACTOR'S DECLARATION

I hereby declare that I have not, during the period _____, 20____, to _____, 20____, 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 _____, 20_____, 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 _____, 20_____
_____, _____ County, Michigan

Notary Public

_____ County, MI

My commission expires on: _____

APPENDIX A - CONTRACT COMPLIANCE FORMS

City of Ann Arbor Procurement Office INSTRUCTIONS FOR CONTRACTORS

For Completing CONTRACT COMPLIANCE FORM

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 that 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 that 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 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) to your contact in the City Department for whom you will be conducting the work.

For assistance in completing the form, contact:
Procurement Office of the City of Ann Arbor
(734) 794-6576

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

CITY OF ANN ARBOR HUMAN RIGHTS OFFICE
CONTRACT COMPLIANCE FORM
Entire Organization (Totals for All Locations where applicable)

Form #1

Name of Company/Organization _____ Date Form Completed _____

Name and Title of Person Completing this Form _____ Name of President _____

Address _____ County _____ Phone # _____
 (Street address) (City) (State) (Zip) (Area Code)

Fax# _____ Email Address _____
 (Area Code)

EMPLOYMENT DATA

Job Categories	Number of Employees (Report employees in only one category)												TOTAL COLUMNS A-L
	Male						Female						
	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 Latino	or Native Hawaiian or Other Pacific Islander	American Indian or Alaskan Native	
	A	B	C	D	E	F	G	H	I	J	K	L	
Exec/Sr. Level Officials													
Supervisors													
Professionals													
Technicians													
Sales													
Admin. Support													
Craftspeople													
Operatives													
Service Workers													
Laborers/Helper													
Apprentices													
Other													
TOTAL													
PREVIOUS YEAR TOTAL													

**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 _____ Name of President _____

Address _____ County _____ Phone # _____
 (Street address) (City) (State) (Zip) (Area Code)

Fax# _____ Email Address _____
 (Area Code)

EMPLOYMENT DATA

Job Categories	Number of Employees (Report employees in only one category)												TOTAL COLUMNS A-L
	Male						Female						
	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	
	A	B	C	D	E	F	G	H	I	J	K	L	
Exec/Sr. Level Officials													
Supervisors													
Professionals													
Technicians													
Sales													
Admin. Support													
Craftspeople													
Operatives													
Service Workers													
Laborers/Helper													
Apprentices													
Other													
TOTAL													
PREVIOUS YEAR TOTAL													

APPENDIX B – LIVING WAGE FORMS

**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 \$12.17/hour when health care is provided, or no less than \$13.57/hour for those employers that do *not* provide health care. It is understood that the Living Wage will be adjusted each year on April 30, and covered employers will be required to pay the adjusted amount thereafter. The rates stated above include any adjustment for 2012.

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.

Company Name

Address City State Zip

Signature of Authorized Representative

Phone (area code)

Type or Print Name and Title

Email address

Date signed

Questions about this form? Please contact:

Procurement Office City of Ann Arbor
Phone: 734/794-6576

LW-2

CITY OF ANN ARBOR

RATE EFFECTIVE MAY 1, 2012 - ENDING APRIL 30, 2013

\$12.17 per hour

If the employer provides health care benefits*

\$13.57 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.

* Health Care benefits include 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.

For Additional Information or to File a Complaint Contact:

Karen Lancaster, Purchasing Agent
734/794-6500 or klancaster@a2gov.org.

The Law Requires Employers to Display This Poster Where Employees Can Readily See It.

MICHIGAN DEPARTMENT OF TRANSPORTATION
AERONAUTICS-AIRPORTS PROGRAM

FEDERAL REQUIREMENTS

CIVIL RIGHTS ACT OF 1964, TITLE VI
CONTRACTUAL REQUIREMENTS
49 CFR PART 21
AC 150/5100-15
(01/14/2008)

During the performance of this contract, the contractor, for itself, its assignees and successors in interest (hereinafter referred to as the "contractor") agrees as follows:

1. **Compliance with Regulations.** The contractor shall comply with the Regulations relative to nondiscrimination in federally assisted programs of the Department of Transportation (hereinafter, "DOT") Title 49, Code of Federal Regulations, Part 21, as they may be amended from time to time (hereinafter referred to as the Regulations), which are herein incorporated by reference and made a part of this contract.

2. **Nondiscrimination.** The contractor, with regard to the work performed by it during the contract, shall not discriminate on the grounds of race, color, or national origin in the selection and retention of subcontractors, including procurements of materials and leases of equipment. The contractor shall not participate either directly or indirectly in the discrimination prohibited by section 21.5 of the Regulations, including employment practices when the contract covers a program set forth in Appendix B of the Regulations.

3. **Solicitations for Subcontracts, Including Procurements of Materials and Equipment.** In all solicitations either by competitive bidding or negotiation made by the contractor for work to be performed under a subcontract, including procurements of materials or leases of equipment, each potential subcontractor or supplier shall be notified by the contractor of the contractor's obligations under this contract and the Regulations relative to nondiscrimination on the grounds of race, color, or national origin.

4. **Information and Reports.** The contractor shall provide all information and reports required by the Regulations or directives issued pursuant thereto and shall permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by the Sponsor or the Federal Aviation Administration (FAA) to be pertinent to ascertain compliance with such Regulations, orders, and instructions. Where any information required of a contractor is in the exclusive possession of another who fails or refuses to furnish this information, the contractor shall so certify to the sponsor or the FAA, as appropriate, and shall set forth what efforts it has made to obtain the information.

5. **Sanctions for Noncompliance.** In the event of the contractor's noncompliance with the nondiscrimination provisions of this contract, the sponsor shall impose such contract sanctions as it or the FAA may determine to be appropriate, including, but not limited to:

- a. Withholding of payments to the contractor under the contract until the contractor complies, and/or
- b. Cancellation, termination, or suspension of the contract, in whole or in part.

6. **Incorporation of Provisions.** The contractor shall include the provisions of paragraphs 1 through 5 in every subcontract,

including procurements of materials and leases of equipment, unless exempt by the Regulations or directives issued pursuant thereto. The contractor shall take such action with respect to any subcontract or procurement as the sponsor or the FAA may direct as a means of enforcing such provisions including sanctions for noncompliance. Provided, however, that in the event a contractor becomes involved in, or is threatened with, litigation with a subcontractor or supplier as a result of such direction, the contractor may request the Sponsor to enter into such litigation to protect the interests of the sponsor and, in addition, the contractor may request the United States to enter into such litigation to protect the interests of the United States.

AIRPORT AND AIRWAY IMPROVEMENT ACT OF 1982,
SECTION 520
GENERAL CIVIL RIGHTS PROVISIONS
Title 49 47123
AC 150/5100-15, Para. 10.c.
(01/14/2008)

The contractor assures that it will comply with pertinent statutes, Executive orders and such rules as are promulgated to assure that no person shall, on the grounds of race, creed, color, national origin, sex, age, or handicap be excluded from participating in any activity conducted with or benefiting from Federal assistance. This provision obligates the tenant/concessionaire/lessee or its transferee for the period during which Federal assistance is extended to the airport a program, except where Federal assistance is to provide, or is in the form of personal property or real property or interest therein or structures or improvements thereon. In these cases the provision obligates the party or any transferee for the longer of the following periods: (a) the period during which the property is used by the airport sponsor or any transferee for a purpose for which Federal assistance is extended, or for another purpose involving the provision of similar services or benefits or (b) the period during which the airport sponsor or any transferee retains ownership or possession of the property. In the case of contractors, this provision binds the contractors from the bid solicitation period through the completion of the contract. This provision is in addition to that required of Title VI of the Civil Rights Act of 1964.

LOBBYING AND INFLUENCING FEDERAL EMPLOYEES
49 CFR Part 20, Appendix A
(01/14/2008)

(1) No Federal appropriated funds shall be paid, by or on behalf of the contractor, to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the making of any Federal grant and the amendment or modification of any Federal grant.

(2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with any Federal grant, the contractor shall complete and submit Standard Form-LLL,

“Disclosure of Lobby Activities,” in accordance with its instructions.

ACCESS TO RECORDS AND REPORTS

49 CFR PART 18.36(i)

FAA Order 5100.38

(01/14/2008)

The Contractor shall maintain an acceptable cost accounting system. The Contractor agrees to provide the Sponsor, the Federal Aviation Administration, and the Comptroller General of the United States or any of their duly authorized representative's access to any books, documents, papers, and records of the contractor which are directly pertinent to the specific contract for the purpose of making audit, examination, excerpts and transcriptions. The Contractor agrees to maintain all books, records and reports required under this contract for a period of not less than three years after final payment is made and all pending matters are closed.

DISADVANTAGED BUSINESS ENTERPRISES

49 CFR Part 26

(01/14/2008)

Contract Assurance (§26.13) - The contractor or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR Part 26 in the award and administration of DOT assisted contracts. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy, as the recipient deems appropriate.

Prompt Payment (§26.29) - The prime contractor agrees to pay each subcontractor under this prime contract for satisfactory performance of its contract no later than *ten* days from the receipt of each payment the prime contractor receives from *Michigan Department of Transportation*. The prime contractor agrees further to return retainage payments to each subcontractor within *ten* days after the subcontractor's work is satisfactorily completed. Any delay or postponement of payment from the above referenced time frame may occur only for good cause following written approval of the *Engineer*.

ENERGY CONSERVATION REQUIREMENTS

49 CFR Part 18.36

(01/14/2008)

The contractor agrees to comply with mandatory standards and policies relating to energy efficiency that are contained in the state energy conservation plan issued in compliance with the Energy Policy and Conservation Act (Public Law 94-163)

BREACH OF CONTRACT TERMS SANCTIONS

49 CFR PART 18.36

(01/14/2008)

For all contracts in excess of \$100,000:

Any violation or breach of terms of this contract on the part of the contractor or their subcontractors may result in the suspension or termination of this contract or such other action that may be necessary to enforce the rights of the parties of this agreement. The duties and obligations imposed by the Contract Documents

Revised: 01/14/2008

and the rights and remedies available thereunder shall be in addition to and not a limitation of any duties, obligations, rights and remedies otherwise imposed or available by law.

RIGHTS TO INVENTIONS

49 CFR PART 18.36(i)(8)

FAA order 5100.38

(01/14/2008)

All rights to inventions and materials generated under this contract are subject to regulations issued by the FAA and the Sponsor of the Federal grant under which this contract is executed.

TRADE RESTRICTION CLAUSE

49 CFR PART 30.13

FAA order 5100.38

(01/14/2008)

The contractor or subcontractor, by submission of an offer and/or execution of a contract, certifies that it:

- a. is not owned or controlled by one or more citizens of a foreign country included in the list of countries that discriminate against U.S. firms published by the Office of the United States Trade Representative (USTR);
- b. has not knowingly entered into any contract or subcontract for this project with a person that is a citizen or national of a foreign country on said list, or is owned or controlled directly or indirectly by one or more citizens or nationals of a foreign country on said list;
- c. has not procured any product nor subcontracted for the supply of any product for use on the project that is produced in a foreign country on said list.

Unless the restrictions of this clause are waived by the Secretary of Transportation in accordance with 49 CFR 30.17, no contract shall be awarded to a contractor or subcontractor who is unable to certify to the above. If the contractor knowingly procures or subcontracts for the supply of any product or service of a foreign country on said list for use on the project, the Federal Aviation Administration may direct through the Sponsor cancellation of the contract at no cost to the Government.

Further, the contractor agrees that, if awarded a contract resulting from this solicitation, it will incorporate this provision for certification without modification in each contract and in all lower tier subcontracts. The contractor may rely on the certification of a prospective subcontractor unless it has knowledge that the certification is erroneous.

The contractor shall provide immediate written notice to the sponsor if the contractor learns that its certification or that of a subcontractor was erroneous when submitted or has become erroneous by reason of changed circumstances. The subcontractor agrees to provide written notice to the contractor if at any time it learns that its certification was erroneous by reason of changed circumstances.

This certification is a material representation of fact upon which reliance was placed when making the award. If it is later determined that the contractor or subcontractor knowingly rendered an erroneous certification, the Federal Aviation Administration may direct through the Sponsor cancellation of the contract or subcontract for default at no cost to the Government.

Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render, in good faith, the certification required by this provision. The knowledge and information of a contractor is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

This certification concerns a matter within the jurisdiction of an agency of the United States of America and the making of a false, fictitious, or fraudulent certification may render the maker subject to prosecution under Title 18, United States Code, Section 1001.

VETERAN'S PREFERENCE
Title 49 U.S.C. 47112(c)
AC 150/5100-6d
(01/14/2008)

In the employment of labor (except in executive, administrative, and supervisory positions), preference shall be given to Veterans of the Vietnam era and disabled veterans as defined in Section 515(c)(1) and (2) of the Airport and Airway Improvement Act of 1982. However, this preference shall apply only where the individuals are available and qualified to perform the work to which the employment relates..

DAVIS BACON REQUIREMENT
29 CFR PART 5.5
AC 150/5100-6d
(01/14/2008)

This applies to all contracts and subcontracts in excess of \$2,000:

1. Minimum Wages

(i) All laborers and mechanics employed or working upon the site of the work will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by the Secretary of Labor under the Copeland Act (29 CFR Part 3)), the full amount of wages and bona fide fringe benefits (or cash equivalent thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics.

Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph (1)(iv) of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in 29 CFR Part 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: *Provided*, That the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification and wage rates conformed under (1)(ii) of this section) and the Davis-Bacon poster (WH-1321) shall be posted at all times by the contractor and

its subcontractors at the site of the work in a prominent and accessible place where it can easily be seen by the workers.

(ii)(A) The contracting officer shall require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. The contracting officer shall approve an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met:

(1) The work to be performed by the classification requested is not performed by a classification in the wage determination; and

(2) The classification is utilized in the area by the construction industry; and

(3) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(B) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the contracting officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by the contracting officer to the Administrator of the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, Washington, D.C. 20210. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(C) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits where appropriate), the contracting officer shall refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Administrator for determination. The Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(D) The wage rate (including fringe benefits where appropriate) determined pursuant to subparagraphs (1)(ii) (B) or (C) of this paragraph, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

(iii) Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.

(iv) If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, *Provided*, that the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

2. Withholding.

The Federal Aviation Administration or the Sponsor shall upon its

own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld from the contractor under this contract or any other Federal contract with the same prime contractor, or any other Federally-assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of work, all or part of the wages required by the contract, the Federal Aviation Administration may, after written notice to the contractor, sponsor, applicant, or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

3. Payrolls and basic records.

(i) Payrolls and basic records relating thereto shall be maintained by the contractor during the course of the work and preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work. Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in 1(b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5(a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis-Bacon Act, the contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual costs incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

(ii)(A) The contractor shall submit weekly, for each week in which any contract work is performed, a copy of all payrolls to the applicant, sponsor, or owner, as the case may be, for transmission to the Federal Aviation Administration. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under paragraph 5.5(a)(3)(i) above. This information may be submitted in any form desired. Optional Form WH-347 is available for this purpose and may be purchased from the Superintendent of Documents (Federal Stock Number 029-005-00014-1), U.S. Government Printing Office, Washington, D.C. 20402. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors.

(B) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:

(1) That the payroll for the payroll period contains the information required to be maintained under paragraph (3)(i) above and that such information is correct and complete;

(2) That each laborer and mechanic (including each helper, apprentice and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate,

either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in Regulations 29 CFR Part 3;

(3) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.

(C) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the "Statement of Compliance" required by paragraph (3)(ii)(B) of this section.

(D) The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under Section 1001 of Title 18 and Section 231 of Title 31 of the United States Code.

(iii) The contractor or subcontractor shall make the records required under paragraph (3)(i) of this section available for inspection, copying or transcription by authorized representatives of the Sponsor, the Federal Aviation Administration or the Department of Labor, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, the Federal agency may, after written notice to the contractor, sponsor, applicant or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

4. Apprentices and Trainees.

(i) Apprentices. Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Bureau of Apprenticeship and Training, or with a State Apprenticeship Agency recognized by the Bureau, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Bureau of Apprenticeship and Training or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice. The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the contractor's or subcontractor's registered program shall be observed. Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination

for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination. In the event the Bureau of Apprenticeship and Training, or a State Apprenticeship Agency recognized by the Bureau, withdraws approval of an apprenticeship program, the contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(ii) Trainees. Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration. The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration. Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. In the event the Employment and Training Administration withdraws approval of a training program, the contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(iii) Equal Employment Opportunity. The utilization of apprentices, trainees and journeymen under this part shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR Part 30.

5. Compliance With Copeland Act Requirements.

The contractor shall comply with the requirements of 29 CFR Part 3, which are incorporated by reference in this contract.

6. Subcontracts.

The contractor or subcontractor shall insert in any subcontracts the clauses contained in 29 CFR Part 5.5(a)(1) through (10) and such other clauses as the Federal Aviation Administration may by appropriate instructions require, and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in 29 CFR Part 5.5.

7. Contract Termination: Debarment.

A breach of the contract clauses in paragraph 1 through 10 of this section may be grounds for termination of the contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

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8. Compliance With Davis-Bacon and Related Act Requirements.

All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR Parts 1, 3, and 5 are herein incorporated by reference in this contract.

9. Disputes Concerning Labor Standards.

Disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR Parts 5, 6 and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and the contracting agency, the U.S. Department of Labor, or the employees or their representatives.

10. Certification of Eligibility.

(i) By entering into this contract, the contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

(ii) No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

(iii) The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001.

EQUAL EMPLOYMENT OPPORTUNITY
41 CFR PART 60-1.4
Executive Order 11246
AC 150/5100-15, Para. 22.a.
(01/14/2008)

This applies to contracts in excess of \$10,000. During the performance of this contract, the contractor agrees as follows:

1. The contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, or national origin. The contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment without regard to their race, color, religion, sex, or national origin. Such action shall include, but not be limited to the following: Employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this nondiscrimination clause.

2. The contractor will, in all solicitations or advertisements for employees placed by or on behalf of the contractor, state that all qualified applicants will receive considerations for employment without regard to race, color, religion, sex, or national origin.

3. The contractor will send to each labor union or representative of workers with which s/he has a collective bargaining agreement or other contract or understanding, a notice to be provided advising the said labor union or workers' representatives of the contractor's commitments under this section, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

4. The contractor will comply with all provisions of Executive

Order 11246 of September 24, 1965, as amended, and of the rules, regulations, and relevant orders of the Secretary of Labor.

5. The contractor will furnish all information and reports required by Executive Order 11246 of September 24, 1965, and by rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his books, records, and accounts by the administering agency and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.

6. In the event of the contractor's noncompliance with the nondiscrimination clauses of this contract or with any of the said rules, regulations, or orders, this contract may be canceled, terminated or suspended in whole or in part and the contractor may be declared ineligible for further Government contracts or federally assisted construction contracts in accordance with procedure authorized in Executive Order 11246 of September 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order 11246 of September 24, 1965, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.

7. The contractor will include the portion of the sentence immediately preceding paragraph (1) and the provisions of paragraphs (1) through (7) in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to section 204 of Executive Order 11246 of September 24, 1965, so that such provisions will be binding upon each subcontractor or vendor. The contractor will take such action with respect to any subcontract or purchase order as the administering agency may direct as a means of enforcing such provision, including sanctions for noncompliance: *Provided, however,* that in the event a contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the administering agency the contractor may request the United States to enter into such litigation to protect the interests of the United States.

CERTIFICATION OF NONSEGREGATED FACILITIES
41 CFR PART 60-1.8
Executive order 11246
AC 150/5100-15, Para. 22.b.
(01/14/2008)

This applies to all contracts and subcontracts in excess of \$10,000.

By submission of this bid, the execution of this contract or subcontract, or the consummation of this material supply agreement or purchase order, as appropriate, the bidder, Federal-aid construction contractor, subcontractor, material supplier, or vendor, as appropriate, certifies that she or he does not maintain or provide, for his employees, any segregated facilities at any of his establishments and that she or he does not permit his employees to perform their services at any location, under his control, where segregated facilities are maintained. The federally-assisted construction contractor certifies that she or he will not maintain or provide, for his employees, segregated facilities at any of his establishments and that she or he will not permit his employees to perform their services at any location under his control where segregated facilities are maintained. The federally-assisted construction contractor agrees that a breach of this certification is a violation of the Equal Opportunity Clause in this contract.

As used in this certification, the term "segregated facilities" means any waiting rooms, work areas, restrooms, and washrooms, restaurants and other eating areas, time clocks, locker rooms and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing

facilities provided for employees which are segregated by explicit directives or are, in fact, segregated on the basis of race, color, religion, or national origin because of habit, local custom, or any other reason. The federally-assisted construction contractor agrees that (except where she or he has obtained identical certifications from proposed subcontractors for specific time periods) she or he will obtain identical certifications from proposed subcontractors prior to the award of subcontracts exceeding \$10,000 which are not exempt from the provisions of the Equal Opportunity Clause and that she or he will retain such certifications in his files.

REQUIREMENT FOR AFFIRMATIVE ACTION
Executive Order 11246
41 CFR Parts 60 - 4
AC 150/5100-15, Para. 22.c.
Vol. 45 Federal Register pg. 65984 10/3/80
(01/14/2008)

This applies to all contracts and subcontracts in excess of \$10,000.

1. The Offeror's or Bidder's attention is called to the "Equal Opportunity Clause" and the "Standard Federal Equal Employment Opportunity Construction Contract Specifications" set forth herein.

2. The goals and timetables for minority and female participation, expressed in percentage terms for the contractor's aggregate workforce in each trade on all construction work in the covered area, are as follows:

Timetables
GOALS FOR FEMALE PARTICIPATION IN EACH TRADE
6.9%

GOALS FOR MINORITY PARTICIPATION FOR EACH TRADE
(Vol. 45 Federal Register pg. 65984 10/3/80)

Geographical Area (By Counties)	Goals (Percent)
Lapeer, Livingston, Macomb, Oakland, St. Clair, Wayne	17.7
Sanilac	16.7
Saginaw	14.3
Genesee, Shiawassee	12.6
Muskegon, Oceana	9.7
Monroe	8.8
Washtenaw	8.5
Lenawee	7.3
Barry, Calhoun	7.2
Berrien, Cass, St. Joseph	6.2
Kalamazoo, VanBuren	5.9
Clinton, Eaton, Ingham, Ionia	5.5
Branch, Hillsdale	5.5
Alcona, Alpena, Arenac, Cheboygan, Chippewa, Clare, Crawford, Gladwin, Gratiot, Huron, Iosco, Isabella, Luce, Mackinac, Midland, Montmorency, Ogemaw, Oscoda, Otsego, Presque Isle, Roscommon, Tuscola	5.2

Kent, Ottawa	5.2
Jackson	5.1
Allegan, Antrim, Benzie, Charlevoix, Emmet, Grand Traverse, Kalkaska, Lake, Leelanau, Manistee, Mason, Mecosta, Missaukee, Montcalm, Newaygo, Osceola, Wexford	4.9
Bay	2.2
Gogebic, Ontonagon	1.2
Alger, Baraga, Delta, Dickinson, Houghton, Iron, Keweenaw, Marquette, Menominee, Schoolcraft	1.0

These goals are applicable to all the contractor's construction work (whether or not it is Federal or federally-assisted) performed in the covered area. If the contractor performs construction work in a geographical area located outside of the covered area, it shall apply the goals established for such geographical area where the work is actually performed. With regard to this second area, the contractor also is subject to the goals for both its Federally involved and non-federally involved construction.

The contractor's compliance with the Executive Order and the regulations in 41 CFR Part 60-4 shall be based on its implementation of the Equal Opportunity Clause, specific affirmative action obligations required by the specifications set forth in 41 CFR 60-4.3(a), and its efforts to meet the goals. The hours of minority and female employment and training shall be substantially uniform throughout the length of the contract, and in each trade, and the contractor shall make a good faith effort to employ minorities and women evenly on each of its projects. The transfer of minority or female employees or trainees from contractor to contractor or from project to project, for the sole purpose of meeting the contractor's goals, shall be a violation of the contract, the Executive Order, and the regulations in 41 CFR Part 60-4. Compliance with the goals will be measured against the total work hours performed.

3. The contractor shall provide written notification to the Director, OFCCP, within 10 working days of award of any construction subcontract in excess of \$10,000 at any tier for construction work under the contract resulting from this solicitation. The notification shall list the name, address, and telephone number of the subcontractor; employer identification number of the subcontractor; estimated dollar amount of the subcontract; estimated starting and completion dates of subcontract; and the geographical area in which the subcontract is to be performed.

4. As used in this notice and in the contract resulting from this solicitation, the "covered area" is contained in the advertisement.

STANDARD FEDERAL EQUAL EMPLOYMENT
OPPORTUNITY CONSTRUCTION CONTRACT
SPECIFICATIONS
41 CFR Part 60.4.3
Executive Order 11246
AC 150/5100-15, Para. 22.c.
(01/14/2008)

This applies to all contracts and subcontracts in excess of \$10,000.

1. As used in these specifications:

- a. "Covered area" means the geographical area described in the solicitation from which this contract resulted;
- b. "Director" means Director, Office of Federal Contract

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Compliance Programs (OFCCP), U.S. Department of Labor, or any person to whom the Director delegates authority;

c. "Employer identification number" means the Federal social security number used on the Employer's Quarterly Federal Tax Return, U.S. Treasury Department Form 941;

d. "Minority" includes:

- (1) Black (all) persons having origins in any of the Black African racial groups not of Hispanic origin);
- (2) Hispanic (all persons of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish culture or origin regardless of race);
- (3) Asian and Pacific Islander (all persons having origins in any of the original peoples of the Far East, Southeast Asia, the Indian Subcontinent, or the Pacific Islands); and
- (4) American Indian or Alaskan native (all persons having origins in any of the original peoples of North America and maintaining identifiable tribal affiliations through membership and participation or community identification).

2. Whenever the contractor, or any subcontractor at any tier, subcontracts a portion of the work involving any construction trade, it shall physically include in each subcontract in excess of \$10,000 the provisions of these specifications and the Requirements for Affirmative Action which contains the applicable goals for minority and female participation and which is set forth in the solicitations from which this contract resulted.

3. If the contractor is participating (pursuant to 41 CFR 60-4.5) in a Hometown Plan approved by the U.S. Department of Labor in the covered area either individually or through an association, its affirmative action obligations on all work in the Plan area (including goals and timetables) shall be in accordance with that Plan for those trades which have unions participating in the Plan. Contractors shall be able to demonstrate their participation in and compliance with the provisions of any such Hometown Plan. Each contractor or subcontractor participating in an approved plan is individually required to comply with its obligations under the EEO clause and to make a good faith effort to achieve each goal under the Plan in each trade in which it has employees. The overall good faith performance by other contractors or subcontractors toward a goal in an approved Plan does not excuse any covered contractor's or subcontractor's failure to take good faith efforts to achieve the Plan goals and timetables.

4. The contractor shall implement the specific affirmative action standards provided in paragraphs 18.7a through 18.7p of these specifications. The goals set forth in the solicitation from which this contract resulted are expressed as percentages of the total hours of employment and training of minority and female utilization the contractor should reasonably be able to achieve in each construction trade in which it has employees in the covered area. Covered construction contractors performing construction work in a geographical area where they do not have a Federal or federally assisted construction contract shall apply the minority and female goals established for the geographical area where the work is being performed. Goals are published periodically in the Federal Register in notice form, and such notices may be obtained from any Office of Federal Contract Compliance Programs office or from Federal procurement contracting officers. The contractor is expected to make substantially uniform progress in meeting its goals in each craft during the period specified.

5. Neither the provisions of any collective bargaining agreement nor the failure by a union with whom the contractor has a collective bargaining agreement to refer either minorities or

women shall excuse the contractor's obligations under these specifications, Executive Order 11246 or the regulations promulgated pursuant thereto.

6. In order for the non-working training hours of apprentices and trainees to be counted in meeting the goals, such apprentices and trainees shall be employed by the contractor during the training period and the contractor shall have made a commitment to employ the apprentices and trainees at the completion of their training, subject to the availability of employment opportunities. Trainees shall be trained pursuant to training programs approved by the U.S. Department of Labor.

7. The contractor shall take specific affirmative actions to ensure equal employment opportunity. The evaluation of the contractor's compliance with these specifications shall be based upon its effort to achieve maximum results from its actions. The contractor shall document these efforts fully and shall implement affirmative action steps at least as extensive as the following:

a. Ensure and maintain a working environment free of harassment, intimidation, and coercion at all sites, and in all facilities at which the contractor's employees are assigned to work. The contractor, where possible, will assign two or more women to each construction project. The contractor shall specifically ensure that all foremen, superintendents, and other onsite supervisory personnel are aware of and carry out the contractor's obligation to maintain such a working environment, with specific attention to minority or female individuals working at such sites or in such facilities.

b. Establish and maintain a current list of minority and female recruitment sources, provide written notification to minority and female recruitment sources and to community organizations when the contractor or its unions have employment opportunities available, and maintain a record of the organizations' responses.

c. Maintain a current file of the names, addresses, and telephone numbers of each minority and female off-the-street applicant and minority or female referral from a union, a recruitment source, or community organization and of what action was taken with respect to each such individual. If such individual was sent to the union hiring hall for referral and was not referred back to the contractor by the union or, if referred, not employed by the contractor, this shall be documented in the file with the reason therefore along with whatever additional actions the contractor may have taken.

d. Provide immediate written notification to the Director when the union or unions with which the contractor has a collective bargaining agreement has not referred to the contractor a minority person or female sent by the contractor, or when the contractor has other information that the union referral process has impeded the contractor's efforts to meet its obligations.

e. Develop on-the-job training opportunities and/or participate in training programs for the area which expressly include minorities and women, including upgrading programs and apprenticeship and trainee programs relevant to the contractor's employment needs, especially those programs funded or approved by the Department of Labor. The contractor shall provide notice of these programs to the sources compiled under 7b above.

f. Disseminate the contractor's EEO policy by providing notice of the policy to unions and training programs and requesting their cooperation in assisting the contractor in meeting its EEO obligations; by including it in any policy manual and collective bargaining agreement; by publicizing it in the company newspaper, annual report, etc.; by specific review of the policy with all management personnel and with all minority and female employees at least once a year; and by posting the company EEO

policy on bulletin boards accessible to all employees at each location where construction work is performed.

g. Review, at least annually, the company's EEO policy and affirmative action obligations under these specifications with all employees having any responsibility for hiring, assignment, layoff, termination, or other employment decisions including specific review of these items with onsite supervisory personnel such a superintendents, general foremen, etc., prior to the initiation of construction work at any job site. A written record shall be made and maintained identifying the time and place of these meetings, persons attending, subject matter discussed, and disposition of the subject matter.

h. Disseminate the contractor's EEO policy externally by including it in any advertising in the news media, specifically including minority and female news media, and providing written notification to and discussing the contractor's EEO policy with other contractors and subcontractors with whom the contractor does or anticipates doing business.

i. Direct its recruitment efforts, both oral and written, to minority, female, and community organizations, to schools with minority and female students; and to minority and female recruitment and training organizations serving the contractor's recruitment area and employment needs. Not later than one month prior to the date for the acceptance of applications for apprenticeship or other training by any recruitment source, the contractor shall send written notification to organizations, such as the above, describing the openings, screening procedures, and tests to be used in the selection process.

j. Encourage present minority and female employees to recruit other minority persons and women and, where reasonable provide after school, summer, and vacation employment to minority and female youth both on the site and in other areas of a contractor's workforce.

k. Validate all tests and other selection requirements where there is an obligation to do so under 41 CFR Part 60-3.

l. Conduct, at least annually, an inventory and evaluation at least of all minority and female personnel, for promotional opportunities and encourage these employees to seek or to prepare for, through appropriate training, etc., such opportunities.

m. Ensure that seniority practices, job classifications, work assignments, and other personnel practices do not have a discriminatory effect by continually monitoring all personnel and employment related activities to ensure that the EEO policy and the contractor's obligations under these specifications are being carried out.

n. Ensure that all facilities and company activities are non-segregated except that separate or single user toilet and necessary changing facilities shall be provided to assure privacy between the sexes.

o. Document and maintain a record of all solicitations of offers for subcontracts from minority and female construction contractors and suppliers, including circulation of solicitations to minority and female contractor associations and other business associations.

p. Conduct a review, at least annually, of all supervisor's adherence to and performance under the contractor's EEO policies and affirmative action obligations.

8. Contractors are encouraged to participate in voluntary associations, which assist in fulfilling one or more of their affirmative action obligations (18.7a through 18.7p). The efforts

of a contractor association, joint contractor union, contractor community, or other similar groups of which the contractor is a member and participant, may be asserted as fulfilling any one or more of its obligations under 18.7a through 18.7p of these specifications provided that the contractor actively participates in the group, makes every effort to assure that the group has a positive impact on the employment of minorities and women in the industry, ensures that the concrete benefits of the program are reflected in the contractor's minority and female workforce participation, makes a good faith effort to meet its individual goals and timetables, and can provide access to documentation which demonstrates the effectiveness of actions taken on behalf of the contractor. The obligation to comply, however, is the contractor's and failure of such a group to fulfill an obligation shall not be a defense for the contractor's noncompliance.

9. A single goal for minorities and a separate single goal for women have been established. The contractor, however, is required to provide equal employment opportunity and to take affirmative action for all minority groups, both male and female, and all women, both minority and non-minority. Consequently, if the particular group is employed in a substantially disparate manner (for example, even though the contractor has achieved its goals for women generally,) the contractor may be in violation of the Executive Order if a specific minority group of women is underutilized.

10. The contractor shall not use the goals and timetables or affirmative action standards to discriminate against any person because of race, color, religion, sex, or national origin.

11. The contractor shall not enter into any subcontract with any person or firm debarred from Government contracts pursuant to Executive Order 11246.

12. The contractor shall carry out such sanctions and penalties for violation of these specifications and of the Equal Opportunity Clause, including suspension, termination, and cancellation of existing subcontracts as may be imposed or ordered pursuant to Executive Order 11246, as amended, and its implementing regulations, by the Office of Federal Contract Compliance Programs. Any contractor who fails to carry out such sanctions and penalties shall be in violation of these specifications and Executive Order 11246, as amended.

13. The contractor, in fulfilling its obligations under these specifications, shall implement specific affirmative action steps, at least as extensive as those standards prescribed in paragraph 18.7 of these specifications, so as to achieve maximum results from its efforts to ensure equal employment opportunity. If the contractor fails to comply with the requirements of the Executive Order, the implementing regulations, or these specifications, the Director shall proceed in accordance with 41 CFR 60-4.8.

14. The contractor shall designate a responsible official to monitor all employment related activity to ensure that the company EEO policy is being carried out, to submit reports relating to the provisions hereof as may be required by the Government, and to keep records. Records shall at least include for each employee, the name, address, telephone number, construction trade, union affiliation if any, employee identification number when assigned, social security number, race, sex, status (e.g., mechanic, apprentice, trainee, helper, or laborer), dates of changes in status, hours worked per week in the indicated trade, rate of pay, and locations at which the work was performed. Records shall be maintained in an easily understandable and retrievable form; however, to the degree that existing records satisfy this requirement, contractors shall not be required to maintain separate records.

15. Nothing herein provided shall be construed as a limitation upon the application of other laws which establish different standards of compliance or upon the application of requirements for the hiring of local or other area residents (e.g., those under the Public Works Employment Act of 1977 and the Community Development Block Grant Program).

TERMINATION OF CONTRACT
49 CFR Part 18.36(i)(2)
FAA order 5100.38
(01/14/2008)

This applies to all contracts and subcontracts in excess of \$10,000.

a. The Sponsor may, by written notice, terminate this contract in whole or in part at any time, either for the Sponsor's convenience or because of failure to fulfill the contract obligations. Upon receipt of such notice services shall be immediately discontinued (unless the notice directs otherwise) and all materials as may have been accumulated in performing this contract, whether completed or in progress, delivered to the Sponsor.

b. If the termination is for the convenience of the Sponsor, an equitable adjustment in the contract price shall be made, but no amount shall be allowed for anticipated profit on unperformed services.

c. If the termination is due to failure to fulfill the contractor's obligations, the Sponsor may take over the work and prosecute the same to completion by contract or otherwise. In such case, the contractor shall be liable to the Sponsor for any additional cost occasioned to the Sponsor thereby.

d. If, after notice of termination for failure to fulfill contract obligations, it is determined that the contractor had not so failed, the termination shall be deemed to have been effected for the convenience of the Sponsor. In such event, adjustment in the contract price shall be made as provided in paragraph 2 of this clause.

e. The rights and remedies of the sponsor provided in this clause are in addition to any other rights and remedies provided by law or under this contract.

CERTIFICATION REGARDING DEBARMENT,
SUSPENSION, INELIGIBILITY AND VOLUNTARY
EXCLUSION
49 CFR Part 29
FAA order 5100.38
(01/14/2008)

This applies to all contracts and subcontracts in excess of \$25,000.

The bidder/offeror certifies, by submission of this proposal or acceptance of this contract, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency. It further agrees by submitting this proposal that it will include this clause without modification in all lower tier transactions, solicitations, proposals, contracts, and subcontracts. Where the bidder/offeror/contractor or any lower tier participant is unable to certify to this statement, it shall attach an explanation to this solicitation/proposal.

CONTRACT WORKHOURS AND SAFETY STANDARDS ACT
REQUIREMENTS
29 CFR PART 5.5
AC 150/5100-6d
(01/14/2008)

This applies to all contracts and subcontracts in excess of \$100,000.

1. Overtime Requirements.

No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic, including watchmen and guards, in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.

2. Violation; Liability for Unpaid Wages; Liquidated Damages.

In the event of any violation of the clause set forth in paragraph (1) above, the contractor and any subcontractor responsible therefore shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph 1 above, in the sum of \$10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph 1 above.

3. Withholding for Unpaid Wages and Liquidated Damages.

The Federal Aviation Administration or the Sponsor shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any monies payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other Federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph 2 above.

4. Subcontractors.

The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraphs 1 through 4 and also a clause requiring the subcontractor to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs 1 through 4 of this section.

CLEAN AIR AND WATER POLLUTION CONTROL
49 CFR Part 18.36(i)(12)
Section 306 of the Clean Air Act
Section 508 of the Clean Air Act
(01/14/2008)

This applies to all contracts and subcontracts in excess of \$100,000. Contractors and subcontractors agree:

a. That any facility to be used in the performance of the contract or subcontract or to benefit from the contract is not listed on the Environmental Protection Agency (EPA) List of Violating

Facilities;

b. To comply with all the requirements of Section 114 of the Clean Air Act, as amended, 42 U.S.C. 1857 et seq. and Section 308 of the Federal Water Pollution Control Act, as amended, 33 U.S.C. 1251 et seq. relating to inspection, monitoring, entry, reports, and information, as well as all other requirements specified in Section 114 and Section 308 of the Acts, respectively, and all other regulations and guidelines issued thereunder;

c. That, as a condition for the award of this contract, the contractor or subcontractor will notify the awarding official of the receipt of any communication from the EPA indicating that a facility to be used for the performance of or benefit from the contract is under consideration to be listed on the EPA List of Violating Facilities;

d. To include or cause to be included in any construction contract or subcontract which exceeds \$ 100,000 the aforementioned criteria and requirements.

Revised: 01/14/2008

PROGRESS SCHEDULE

The Contractor shall start work within ten (10) days of the date specified in the written "Notice to Proceed" issued by the Sponsor or Sponsor's representative.

Estimated starting date is on or about April 29th, 2013.

The entire contract work shall be completed in Twenty Four (24) calendar days.

Liquidated Damages, Per Calendar Day:

\$500.00 per Calendar Day

Insurance Requirements:

See Contractor Insurance Requirements

The awarded bidder shall be prepared to present a tentative schedule for construction at a pre-construction meeting with representatives of the Airport Sponsor, AERO (MDOT Airports Division), and (on Federal projects) the Federal Aviation Administration. The detailed progress schedule shall be established at the meeting, unless otherwise provided, and shall consider any dates or timing specified by the plans or contract documents.

Subcontractors which materially affect the work schedule shall also be present and shall concur in the established progress schedule.

The Engineer shall establish the time and place for the pre-construction meeting.

SPECIAL PROVISIONS FOR TAXES

1 OF 1

04/01/94
01/23/97
03/25/04

The Contractor shall include, and will be deemed to have included, in its bid and contract price all applicable Michigan Sales and Use taxes which have been enacted into law as of the date the bid is submitted. To the extent of any conflict, this Special provision controls over Section 70-01 of the General Provisions for Construction of Airports.

ATTACHMENT "A"

PROHIBITION OF DISCRIMINATION IN STATE CONTRACTS

In connection with the performance of work under this contract, the Contractor agrees as follows:

1. In accordance with Act No. 453, Public Acts of 1976, the Contractor hereby agrees not to discriminate against an employee or applicant for employment with respect to hire, tenure, terms, conditions, or privileges of employment, or a matter directly or indirectly related to employment, because of race, color, religion, national origin, age, sex, height, weight, or marital status. Further, in accordance with Act No. 220, Public Acts of 1976 as amended by Act No. 478, Public Acts of 1980, the Contractor hereby agrees not to discriminate against an employee or applicant for employment with respect to hire, tenure, terms, conditions, or privileges of employment or a matter directly or indirectly related to employment, because of a handicap that is unrelated to the individual's ability to perform the duties of a particular job or position. A breach of the above covenants shall be regarded as a material breach of this contract.
2. The Contractor hereby agrees that any and all subcontracts to this contract, whereby a portion of the work set forth in this contract is to be performed, shall contain a covenant the same as hereinbefore set forth in Section 1 of this Appendix.
3. The Contractor will take affirmative action to insure that applicants for employment and employees are treated without regard to their race, color, religion, national origin, age, sex, height, weight, marital status or a handicap that is unrelated to the individual's ability to perform the duties of a particular job or position. Such action shall include, but not be limited to, the following: employment, upgrading, demotion or transfer, recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship.
4. The Contractor will, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, national origin, age, sex, height, weight, marital status or handicap that is unrelated to the individual's ability to perform the duties of a particular job or position.
5. The Contractor or his collective bargaining representative will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding, a notice advising the said labor union or workers' representative of the Contractor's commitments under this Appendix.
6. The Contractor will comply with all relevant published rules, regulations, directives, and orders of the Michigan Civil Rights Commission which may be in effect prior to the taking of bids for any individual state project.
7. The Contractor will furnish and file compliance reports within such time and upon such forms as provided by the Michigan Civil Rights Commission, said forms may also elicit information as to the practices, policies, program, and employment statistics of each subcontractor as well as the Contractor himself, and said Contractor will permit access to his books, records, and accounts by the Michigan Civil Rights Commission, and/or its agent, for purposes of investigation to ascertain compliance with this contract and relevant with rules, regulations, an orders of the Michigan Civil Rights Commission.
8. In the event that the Civil Rights Commission finds, after a hearing held pursuant to its rules, that a contractor has not complied with the contractual obligations under this agreement, the Civil Rights Commission may, as part of its order based upon such findings, certify said findings to the Administrative Board of the State of Michigan, which Administrative Board may order the cancellation of the contract found to have been violated, and/or declare the Contractor ineligible for future contracts with the state and its political and civil subdivisions, departments, and officers, and including the governing boards of institutions of higher education, until the Contractor complies with said order of the Civil Rights. Notice of said declaration of future ineligibility may be given to any or all of the persons with whom the Contractor is declared ineligible to contract as a contracting party in future contracts. In any case before the Civil Rights Commission in which cancellation of an existing contract is a possibility, the contracting agency shall be notified of such possible remedy and shall be given the option by the Civil Rights Commission to participate in such proceedings.
9. The Contractor will include, or incorporate by reference, the provisions of the foregoing paragraphs (1) through (8) in every subcontract or purchase order unless exempted by the rules, regulations or orders of the Michigan Civil Rights Commission, and will provide in every subcontract or purchase order that said provisions will be binding upon each subcontractor or seller.

The Civil Rights Commission referred to is the Michigan Civil Rights Commission.

APPENDIX B

CERTIFICATION FOR FEDERAL-AID CONTRACTS

The prospective participant certifies, by signing and submitting this bid or proposal, to the best of his/her knowledge and belief, that:

1. No federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any federal agency, a member of Congress, an officer or employee of Congress, or an employee of a member of Congress in connection with the awarding of any federal contract, the making of any federal grant, the making of any federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any federal contract, grant, loan, or cooperative agreement.
2. If any funds other than federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any federal agency, a member of Congress, an officer or employee of Congress, or an employee of a member of Congress in connection with this federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form To Report Lobbying," in accordance with its instructions.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by Section 1352, Title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

The prospective participant also agrees by submitting his/her bid or proposal that he/she shall require that the language of this certification be included in all lower tier subcontracts, which exceed \$100,000 and that all such sub-recipients shall certify and disclose accordingly.

TITLE VI ASSURANCE

APPENDIX C

During the performance of this contract, the contractor, for itself, its assignees and successors in interest (hereinafter referred to as the “contractor”) agrees as follows:

1. **Compliance with Regulations.** The contractor will comply with the Regulations relative to nondiscrimination in federally assisted programs of the Department of Transportation (hereinafter “DOT”) Title 49, Code of Federal Regulations, Part 21, as they may be amended from time to time (hereinafter referred to as the Regulations), which are herein incorporated by reference and made a part of this contract.
2. **Nondiscrimination.** The contractor, with regard to the work performed by it during the contract, will not discriminate on the grounds of race, color, or national origin in the selection and retention of subcontractors, including procurement of materials and leases of equipment. The contractor will not participate either directly or indirectly in the discrimination prohibited by Section 21.5 of the Regulations, including employment practices when the contract covers a program set forth in Appendix B of the Regulations.
3. **Solicitation for Subcontracts, including Procurement of Materials and Equipment.** In all solicitations either by competitive bidding or negotiation made by the contractor for work to be performed under a subcontract, including procurement of materials of leases of equipment, each potential subcontractor or supplier will be notified by the contractor of the contractor’s obligations under this contract and the Regulations relative to nondiscrimination on the grounds of race, color, or national origin.
4. **Information and Reports.** The contractor will provide all information and reports required by the Regulations or directives issued pursuant thereto and will permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by the Sponsor or the Federal Aviation Administration (FAA) to be pertinent to ascertain compliance with such Regulations, orders, and instructions. Where any information required of a contractor is in the exclusive possession of another who fails or refuses to furnish this information, the contractor will so certify to the Sponsor of the FAA, as appropriate, and will set forth what efforts it has made to obtain the information.
5. **Sanctions for Noncompliance.** In the event of the contractor’s noncompliance with the nondiscrimination provisions of this contract, the Sponsor will impose such contract sanctions as it or the FAA may determine to be appropriate, including, but not limited to:
 - a. Withholding of payments to the contractor under the contract until the contractor complies, and/or
 - b. Cancellation, termination, or suspension of the contract, in whole or in part.
6. **Incorporation of Provisions.** The contractor will include the provisions of Paragraphs 1 through 5 in every subcontract, including procurement of materials and leases of equipment, unless exempt by the Regulations or directive issued pursuant thereto. The contractor will take such action with respect to any subcontract or procurement as the Sponsor or the FAA may direct as a means of enforcing such provisions including sanctions for noncompliance. Provided, however, that in the event a contractor becomes involved in, or is threatened with, litigation with a subcontractor or supplier as a result of such direction, the contractor may request the Sponsor to enter into such litigation to protect the interests of the Sponsor and, in addition, the contractor may request the United States to enter into such litigation to protect the interests of the United States.

MICHIGAN DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION FOR

PROMPT PAYMENT

AERO: RMB 02-12-01

The following subsection is added to the GENERAL PROVISIONS FOR CONSTRUCTION OF AIRPORTS.

90-10 Prompt Payment. The Prime Contractor agrees to pay each subcontractor for the satisfactory completion of work associated with the subcontractor no later than ten (10) calendar days from the receipt of each payment the Prime Contractor receives from the Department. The Prime Contractor agrees further to return retainage payments to each subcontractor within ten (10) calendar days after the subcontractor's work is satisfactorily completed. Any delay or postponement of payment from these time frames may occur only upon receipt of written approval from the Engineer. These requirements are also applicable to all sub-tier subcontractors and shall be made part of all subcontract agreements.

This prompt payment provision is a requirement of 49 CFR § 26.29 and does not confer third-party beneficiary right or other direct right to a subcontractor against the Department. This provision applies to both DBE and non-DBE subcontractors.

- A. **Satisfactory Completion.** Satisfactory completion is defined for the purpose of this prompt payment provision as when:
1. The Engineer finds the work completed in accordance with the contract, plans, and specifications.
 2. All required paperwork, including material certifications, payrolls, etc., has been received and approved by the Engineer.
 3. The Engineer has inspected and approved the work and has determined the final quantities.
- B. **Non-Payment Claims.** All notifications of failure to meet prompt payment provisions shall be referred by the subcontractor to the Prime Contractor and must be made in writing within thirty (30) calendar days of the date the payment was to be received.

The Prime Contractor must include in all subcontract agreements notice to subcontractors of their right to prompt payment and return of retainage under 49 CFR § 26.29.

The Prime Contractor must include in all subcontracts, language providing that the Contractor will use an approved alternative dispute resolution process to resolve prompt payment differences. The Department will provide the parties with a list of approved mediators and arbitrators. The parties must agree on a mediator or arbitrator within twenty five (25) calendar days after a written complaint has been sent by the subcontractor. The cost of mediation or arbitration will be borne by the parties involved or as determined by the mediator. Qualified costs of mediation, for certified DBE's, will be paid by the Department based on current procedures. The DBE must contact the Office of Equal Opportunity for information on current procedures and to receive reimbursement.

Copies of all documents related to prompt payment claims will be provided to the Engineer to be included in the project files.

SPECIAL NOTICE

W-9

In order for payments to be issued through the Michigan Department of Transportation the designated low bidder prior to award of the contract, shall file with the contracting office a 'Request for Taxpayer Identification Number and Certification'. This must be US Department of Treasury, Internal Revenue Service Form W-9. Following on the next page is the form W-9 which must be completed and returned to the contracting office prior to the award of this contract.

Request for Taxpayer Identification Number and Certification

**Give form to the
 requester. Do not
 send to the IRS.**

Print or type See Specific Instructions on page 2.	Name	
	Business name, if different from above	
	Check appropriate box: <input type="checkbox"/> Individual/ Sole proprietor <input type="checkbox"/> Corporation <input type="checkbox"/> Partnership <input type="checkbox"/> Other ▶	
	<input type="checkbox"/> Exempt from backup withholding	
	Address (number, street, and apt. or suite no.)	
City, state, and ZIP code		
Requester's name and address (optional)		
List account number(s) here (optional)		

Part I Taxpayer Identification Number (TIN)

Enter your TIN in the appropriate box. For individuals, this is your social security number (SSN). **However, for a resident alien, sole proprietor, or disregarded entity, see the Part I instructions on page 3.** For other entities, it is your employer identification number (EIN). If you do not have a number, see **How to get a TIN** on page 3.

Social security number
+

or

Employer identification number
+

Note: If the account is in more than one name, see the chart on page 4 for guidelines on whose number to enter.

Part II Certification

Under penalties of perjury, I certify that:

1. The number shown on this form is my correct taxpayer identification number (or I am waiting for a number to be issued to me), **and**
2. I am not subject to backup withholding because: (a) I am exempt from backup withholding, or (b) I have not been notified by the Internal Revenue Service (IRS) that I am subject to backup withholding as a result of a failure to report all interest or dividends, or (c) the IRS has notified me that I am no longer subject to backup withholding, **and**
3. I am a U.S. person (including a U.S. resident alien).

Certification instructions. You must cross out item 2 above if you have been notified by the IRS that you are currently subject to backup withholding because you have failed to report all interest and dividends on your tax return. For real estate transactions, item 2 does not apply. For mortgage interest paid, acquisition or abandonment of secured property, cancellation of debt, contributions to an individual retirement arrangement (IRA), and generally, payments other than interest and dividends, you are not required to sign the Certification, but you must provide your correct TIN. (See the instructions on page 4.)

Sign Here	Signature of U.S. person ▶	Date ▶
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Purpose of Form

A person who is required to file an information return with the IRS, must obtain your correct taxpayer identification number (TIN) to report, for example, income paid to you, real estate transactions, mortgage interest you paid, acquisition or abandonment of secured property, cancellation of debt, or contributions you made to an IRA.

U.S. person. Use Form W-9 only if you are a U.S. person (including a resident alien), to provide your correct TIN to the person requesting it (the requester) and, when applicable, to:

1. Certify that the TIN you are giving is correct (or you are waiting for a number to be issued),
2. Certify that you are not subject to backup withholding, or
3. Claim exemption from backup withholding if you are a U.S. exempt payee.

Note: If a requester gives you a form other than Form W-9 to request your TIN, you must use the requester's form if it is substantially similar to this Form W-9.

Foreign person. If you are a foreign person, use the appropriate Form W-8 (see **Pub. 515**, Withholding of Tax on Nonresident Aliens and Foreign Entities).

Nonresident alien who becomes a resident alien.

Generally, only a nonresident alien individual may use the terms of a tax treaty to reduce or eliminate U.S. tax on certain types of income. However, most tax treaties contain a provision known as a "saving clause." Exceptions specified in the saving clause may permit an exemption from tax to continue for certain types of income even after the recipient has otherwise become a U.S. resident alien for tax purposes.

If you are a U.S. resident alien who is relying on an exception contained in the saving clause of a tax treaty to claim an exemption from U.S. tax on certain types of income, you must attach a statement that specifies the following five items:

1. The treaty country. Generally, this must be the same treaty under which you claimed exemption from tax as a nonresident alien.
2. The treaty article addressing the income.
3. The article number (or location) in the tax treaty that contains the saving clause and its exceptions.
4. The type and amount of income that qualifies for the exemption from tax.
5. Sufficient facts to justify the exemption from tax under the terms of the treaty article.

Example. Article 20 of the U.S.-China income tax treaty allows an exemption from tax for scholarship income received by a Chinese student temporarily present in the United States. Under U.S. law, this student will become a resident alien for tax purposes if his or her stay in the United States exceeds 5 calendar years. However, paragraph 2 of the first Protocol to the U.S.-China treaty (dated April 30, 1984) allows the provisions of Article 20 to continue to apply even after the Chinese student becomes a resident alien of the United States. A Chinese student who qualifies for this exception (under paragraph 2 of the first protocol) and is relying on this exception to claim an exemption from tax on his or her scholarship or fellowship income would attach to Form W-9 a statement that includes the information described above to support that exemption.

If you are a **nonresident alien or a foreign entity** not subject to backup withholding, give the requester the appropriate completed Form W-8.

What is backup withholding? Persons making certain payments to you must under certain conditions withhold and pay to the IRS 30% of such payments (29% after December 31, 2003; 28% after December 31, 2005). This is called "backup withholding." Payments that may be subject to backup withholding include interest, dividends, broker and barter exchange transactions, rents, royalties, nonemployee pay, and certain payments from fishing boat operators. Real estate transactions are not subject to backup withholding.

You will **not** be subject to backup withholding on payments you receive if you give the requester your correct TIN, make the proper certifications, and report all your taxable interest and dividends on your tax return.

Payments you receive will be subject to backup withholding if:

1. You do not furnish your TIN to the requester, or
2. You do not certify your TIN when required (see the Part II instructions on page 4 for details), or
3. The IRS tells the requester that you furnished an incorrect TIN, or
4. The IRS tells you that you are subject to backup withholding because you did not report all your interest and dividends on your tax return (for reportable interest and dividends only), or
5. You do not certify to the requester that you are not subject to backup withholding under 4 above (for reportable interest and dividend accounts opened after 1983 only).

Certain payees and payments are exempt from backup withholding. See the instructions below and the separate **Instructions for the Requester of Form W-9**.

Penalties

Failure to furnish TIN. If you fail to furnish your correct TIN to a requester, you are subject to a penalty of \$50 for each such failure unless your failure is due to reasonable cause and not to willful neglect.

Civil penalty for false information with respect to withholding. If you make a false statement with no reasonable basis that results in no backup withholding, you are subject to a \$500 penalty.

Criminal penalty for falsifying information. Willfully falsifying certifications or affirmations may subject you to criminal penalties including fines and/or imprisonment.

Misuse of TINs. If the requester discloses or uses TINs in violation of Federal law, the requester may be subject to civil and criminal penalties.

Specific Instructions

Name

If you are an individual, you must generally enter the name shown on your social security card. However, if you have changed your last name, for instance, due to marriage without informing the Social Security Administration of the name change, enter your first name, the last name shown on your social security card, and your new last name.

If the account is in joint names, list first, and then circle, the name of the person or entity whose number you entered in Part I of the form.

Sole proprietor. Enter your **individual** name as shown on your social security card on the "Name" line. You may enter your business, trade, or "doing business as (DBA)" name on the "Business name" line.

Limited liability company (LLC). If you are a single-member LLC (including a foreign LLC with a domestic owner) that is disregarded as an entity separate from its owner under Treasury regulations section 301.7701-3, **enter the owner's name on the "Name" line.** Enter the LLC's name on the "Business name" line.

Other entities. Enter your business name as shown on required Federal tax documents on the "Name" line. This name should match the name shown on the charter or other legal document creating the entity. You may enter any business, trade, or DBA name on the "Business name" line.

Note: *You are requested to check the appropriate box for your status (individual/sole proprietor, corporation, etc.).*

Exempt From Backup Withholding

If you are exempt, enter your name as described above and check the appropriate box for your status, then check the "Exempt from backup withholding" box in the line following the business name, sign and date the form.

Generally, individuals (including sole proprietors) are not exempt from backup withholding. Corporations are exempt from backup withholding for certain payments, such as interest and dividends.

Note: *If you are exempt from backup withholding, you should still complete this form to avoid possible erroneous backup withholding.*

Exempt payees. Backup withholding is **not required** on any payments made to the following payees:

1. An organization exempt from tax under section 501(a), any IRA, or a custodial account under section 403(b)(7) if the account satisfies the requirements of section 401(f)(2);
2. The United States or any of its agencies or instrumentalities;
3. A state, the District of Columbia, a possession of the United States, or any of their political subdivisions or instrumentalities;
4. A foreign government or any of its political subdivisions, agencies, or instrumentalities; or
5. An international organization or any of its agencies or instrumentalities.

Other payees that **may be exempt** from backup withholding include:

6. A corporation;
7. A foreign central bank of issue;
8. A dealer in securities or commodities required to register in the United States, the District of Columbia, or a possession of the United States;

- 9. A futures commission merchant registered with the Commodity Futures Trading Commission;
- 10. A real estate investment trust;
- 11. An entity registered at all times during the tax year under the Investment Company Act of 1940;
- 12. A common trust fund operated by a bank under section 584(a);
- 13. A financial institution;
- 14. A middleman known in the investment community as a nominee or custodian; or
- 15. A trust exempt from tax under section 664 or described in section 4947.

The chart below shows types of payments that may be exempt from backup withholding. The chart applies to the exempt recipients listed above, **1** through **15**.

If the payment is for . . .	THEN the payment is exempt for . . .
Interest and dividend payments	All exempt recipients except for 9
Broker transactions	Exempt recipients 1 through 13 . Also, a person registered under the Investment Advisers Act of 1940 who regularly acts as a broker
Barter exchange transactions and patronage dividends	Exempt recipients 1 through 5
Payments over \$600 required to be reported and direct sales over \$5,000 ¹	Generally, exempt recipients 1 through 7 ²

¹ See **Form 1099-MISC**, Miscellaneous Income, and its instructions.
² However, the following payments made to a corporation (including gross proceeds paid to an attorney under section 6045(f), even if the attorney is a corporation) and reportable on Form 1099-MISC are **not exempt** from backup withholding: medical and health care payments, attorneys' fees; and payments for services paid by a Federal executive agency.

Part I. Taxpayer Identification Number (TIN)

Enter your TIN in the appropriate box. If you are a **resident alien** and you do not have and are not eligible to get an SSN, your TIN is your IRS individual taxpayer identification number (ITIN). Enter it in the social security number box. If you do not have an ITIN, see **How to get a TIN** below.

If you are a **sole proprietor** and you have an EIN, you may enter either your SSN or EIN. However, the IRS prefers that you use your SSN.

If you are a single-owner **LLC** that is disregarded as an entity separate from its owner (see **Limited liability company (LLC)** on page 2), enter your SSN (or EIN, if you have one). If the LLC is a corporation, partnership, etc., enter the entity's EIN.

Note: See the chart on page 4 for further clarification of name and TIN combinations.

How to get a TIN. If you do not have a TIN, apply for one immediately. To apply for an SSN, get **Form SS-5**, Application for a Social Security Card, from your local Social Security Administration office or get this form on-line at www.ssa.gov/online/ss5.html. You may also get this form by calling 1-800-772-1213. Use **Form W-7**, Application for IRS Individual Taxpayer Identification Number, to apply for an ITIN, or **Form SS-4**, Application for Employer Identification Number, to apply for an EIN. You can get Forms W-7 and SS-4 from the IRS by calling 1-800-TAX-FORM (1-800-829-3676) or from the IRS Web Site at www.irs.gov.

If you are asked to complete Form W-9 but do not have a TIN, write "Applied For" in the space for the TIN, sign and date the form, and give it to the requester. For interest and dividend payments, and certain payments made with respect to readily tradable instruments, generally you will have 60 days to get a TIN and give it to the requester before you are subject to backup withholding on payments. The 60-day rule does not apply to other types of payments. You will be subject to backup withholding on all such payments until you provide your TIN to the requester.

Note: Writing "Applied For" means that you have already applied for a TIN or that you intend to apply for one soon.

Caution: A disregarded domestic entity that has a foreign owner must use the appropriate Form W-8.

Part II. Certification

To establish to the withholding agent that you are a U.S. person, or resident alien, sign Form W-9. You may be requested to sign by the withholding agent even if items 1, 3, and 5 below indicate otherwise.

For a joint account, only the person whose TIN is shown in Part I should sign (when required). Exempt recipients, see **Exempt from backup withholding** on page 2.

Signature requirements. Complete the certification as indicated in 1 through 5 below.

1. Interest, dividend, and barter exchange accounts opened before 1984 and broker accounts considered active during 1983. You must give your correct TIN, but you do not have to sign the certification.

2. Interest, dividend, broker, and barter exchange accounts opened after 1983 and broker accounts considered inactive during 1983. You must sign the certification or backup withholding will apply. If you are subject to backup withholding and you are merely providing your correct TIN to the requester, you must cross out item 2 in the certification before signing the form.

3. Real estate transactions. You must sign the certification. You may cross out item 2 of the certification.

4. Other payments. You must give your correct TIN, but you do not have to sign the certification unless you have been notified that you have previously given an incorrect TIN. "Other payments" include payments made in the course of the requester's trade or business for rents, royalties, goods (other than bills for merchandise), medical and health care services (including payments to corporations), payments to a nonemployee for services, payments to certain fishing boat crew members and fishermen, and gross proceeds paid to attorneys (including payments to corporations).

5. Mortgage interest paid by you, acquisition or abandonment of secured property, cancellation of debt, qualified tuition program payments (under section 529), IRA or Archer MSA contributions or distributions, and pension distributions. You must give your correct TIN, but you do not have to sign the certification.

What Name and Number To Give the Requester

For this type of account:	Give name and SSN of:
1. Individual	The individual
2. Two or more individuals (joint account)	The actual owner of the account or, if combined funds, the first individual on the account ¹
3. Custodian account of a minor (Uniform Gift to Minors Act)	The minor ²
4. a. The usual revocable savings trust (grantor is also trustee)	The grantor-trustee ¹
b. So-called trust account that is not a legal or valid trust under state law	The actual owner ¹
5. Sole proprietorship or single-owner LLC	The owner ³
For this type of account:	Give name and EIN of:
6. Sole proprietorship or single-owner LLC	The owner ³
7. A valid trust, estate, or pension trust	Legal entity ⁴
8. Corporate or LLC electing corporate status on Form 8832	The corporation
9. Association, club, religious, charitable, educational, or other tax-exempt organization	The organization
10. Partnership or multi-member LLC	The partnership
11. A broker or registered nominee	The broker or nominee
12. Account with the Department of Agriculture in the name of a public entity (such as a state or local government, school district, or prison) that receives agricultural program payments	The public entity

¹ List first and circle the name of the person whose number you furnish. If only one person on a joint account has an SSN, that person's number must be furnished.

² Circle the minor's name and furnish the minor's SSN.

³ **You must show your individual name**, but you may also enter your business or "DBA" name. You may use either your SSN or EIN (if you have one).

⁴ List first and circle the name of the legal trust, estate, or pension trust. (Do not furnish the TIN of the personal representative or trustee unless the legal entity itself is not designated in the account title.)

Note: *If no name is circled when more than one name is listed, the number will be considered to be that of the first name listed.*

Privacy Act Notice

Section 6109 of the Internal Revenue Code requires you to provide your correct TIN to persons who must file information returns with the IRS to report interest, dividends, and certain other income paid to you, mortgage interest you paid, the acquisition or abandonment of secured property, cancellation of debt, or contributions you made to an IRA or Archer MSA. The IRS uses the numbers for identification purposes and to help verify the accuracy of your tax return. The IRS may also provide this information to the Department of Justice for civil and criminal litigation, and to cities, states, and the District of Columbia to carry out their tax laws. We may also disclose this information to other countries under a tax treaty, or to Federal and state agencies to enforce Federal nontax criminal laws and to combat terrorism.

You must provide your TIN whether or not you are required to file a tax return. Payers must generally withhold 30% of taxable interest, dividend, and certain other payments to a payee who does not give a TIN to a payer. Certain penalties may also apply.



NOTICE TO CONTRACTORS / CONSULTANTS

Fraud and Abuse Hotline

The Michigan Department of Transportation (MDOT) has established a Fraud Abuse Hotline for employees, contractors, consultants, and others to report suspected fraud or abuse, such as: prevailing wage non-compliance, theft, kickbacks, wrongful claims, contract fraud, use of materials that do not comply with specifications, unapproved substitution of materials, commodities, or test samples, or failure to follow contract procedures.

Anyone with knowledge of any activity involving the potential for fraud or abuse is requested to call the Hotline at (toll free) 1-866-460-6368 or 517-241-2256.

Every prime contractor shall keep posted on the constructions site, in a conspicuous place, a copy of this Notice.

NOTICE TO BIDDERS

BUY AMERICAN-STEEL AND MANUFACTURED PRODUCTS FOR CONSTRUCTION CONTRACTS (JAN 1991)

(A) The Aviation Safety and Capacity Expansion Act of 1990 provides that preference be given to steel and manufactured products produced in the United States when funds are expended pursuant to a grant issued under the airport Improvement Program. The following terms apply:

1. **Steel and manufactured products.** As used in this clause, steel and manufactured products include (1) steel produced in the United States or (2) a manufactured product produced in the United States, if the cost of its components mined, produced or manufactured in the United States exceeds 60 percent of the cost of all its components and final assembly has taken place in the United States. Components of foreign origin of the same class or kind as the products referred to in subparagraphs (B) (1) shall be treated as domestic.
2. **Components.** As used in this clause, components means those articles, materials, and supplies incorporated directly into steel and manufactured products.
3. **Cost of Components:** This means the costs for production of the components, exclusive of final assembly labor costs.

(B) The successful bidder will be required to assure that only domestic steel and manufactured products will be used by the contractor, subcontractors, material men and suppliers in the performance of this contract, except those -

1. That the U.S. Department of Transportation has determined, under the Aviation Safety and Capacity Expansion Act of 1990, are not produced in the United States in sufficient and reasonably available quantities and of a satisfactory quality;
2. That the U.S. Department of Transportation has determined, under the Aviation Safety and Capacity Expansion Act of 1990, that domestic preference would be inconsistent with the public interest; or
3. That inclusion of domestic material will increase the cost of the overall project contract by more than 25 percent.

BUY AMERICAN CERTIFICATE

By submitting a bid on this proposal package, except for those items listed by the bidder below, the bidder certifies that steel and each manufactured product, is produced in the United States (as defined in the clause Buy American - Steel and Manufactured Products for Construction Contracts) and that components of unknown origin are considered to have been produced or manufactured outside the United States.

Should the successful bidder propose to use any products not produced in America, this list should be submitted to the MDOT-Bureau of Aeronautics contact person (listed in the proposal), within ten (10) working days after the bid opening date.

Bidders may obtain from MDOT-Bureau of Aeronautics a list of articles, materials, and supplies excepted from this provision.

PRODUCT

COUNTY OF ORIGIN

If any products are submitted the successful bidder should also attach a complete rationale for using products not produced in America. These materials will not be allowed to be incorporated into the project until approval has been received from the Federal Aviation Administration. Failure to receive approval from the Federal Aviation Administration will not relieve the contractor from completing the job as specified at the contract unit price

January 1993

NOTICE TO BIDDERS

CERTIFIED PAYROLLS

- A. Certified weekly payrolls covering the contractor's and all subcontractor's work forces shall be submitted to the Project Engineer along with the Weekly Employment and OJT Report (form 1199) on all federally funded projects, except these requirements shall not apply to any contract of \$2,000 or less, or airport sponsor negotiated projects in accordance with CFR 29, Part 3.
- B. Certified weekly payrolls covering the contractor's and the subcontractor's work force will not be required of STATE FUNDED PROJECTS. However, the weekly employment and OJT Report (form 1199) shall be submitted to the Project Engineer on all STATE FUNDED PROJECTS of \$10,000 or more and employing three or more people.
- C. On those contracts involving two or more projects and job numbers and the type of funding is mixed, the necessity for submission of payrolls will be determined on a contract by contract basis. If the Department puts only the wage rates issued by the U.S. Department of Labor in the proposal, payrolls must be submitted on all projects and the federal requirements apply. If the Department includes both the wage rates issued by the U.S. Department of Labor and the Michigan Department of Labor, then the wage requirements apply to the respective federally funded and non-federally funded project.

All payrolls submitted shall identify minority and female employees by preceding the name with an ethnic code notation. Ethnic code groups are (B) Black, (H) Hispanic, (NA) American Indian or Alaskan Eskimo, and (A) Asian or Pacific Islander. Use (F) for female.

All payrolls shall also identify each employee's work classification, including level, i.e., Laborer Group 1, 2, etc., Operating Engineer Group 1, 2, etc., Truck Driver under 8 cu. yds., etc.

Payrolls on federally funded projects are used for determining compliance with federal wage standard provisions.

These requirements are supplemental to other required contract provisions carried in this bid proposal.

U.S. Department of Labor
 Employment Standards Administration
 Wage and Hour Division

PAYROLL

(For Contractor's Optional Use; See Instructions, Form WH-347 Inst.)

Persons are not required to respond to the collection of information unless it displays a currently valid OMB control number.



OMB No.: 1215-0149
 Expires: 03/31/2006

NAME OF CONTRACTOR OR SUBCONTRACTOR

PROJECT AND LOCATION: _____

PROJECT OR CONTRACT NO.: _____

(1) NAME, ADDRESS, AND SOCIAL SECURITY NUMBER OF EMPLOYEE	(2) NO. OF HOLIDAYS WITH- HOLDING	(3) WORK CLASSIFICATION	(4) DAY AND DATE							(5) TOTAL HOURS	(6) RATE OF PAY	(7) GROSS AMOUNT EARNED	(8) DEDUCTIONS				(9) NET WAGES PAID FOR WEEK
			MON	TUE	WED	THUR	FRI	SAT	SUN				FICA	WITH- HOLDING TAX	OTHER	TOTAL DEDUCTIONS	
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We estimate that it will take an average of 56 minutes to complete this collection of information, including time for reviewing instructions searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. If you have any comments regarding these estimates or any other aspect of this collection of information, including suggestions for reducing this burden, send them to the Administrator, Wage and Hour Division, ESA, U. S. Department of Labor, Room S3502, 200 Constitution Avenue, N. W., Washington, D. C. 20210.

(b) WHERE FRINGE BENEFITS ARE PAID IN CASH

-- Each laborer or mechanic listed in the above referenced payroll has been paid, as indicated on the payroll, an amount not less than the sum of the applicable basic hourly wage rate plus the amount of the required fringe benefits as listed in the contract, except as noted in Section 4(c) below.

(c) EXCEPTIONS

EXCEPTION (CRAFT)	EXPLANATION

REMARKS:

NAME AND TITLE	SIGNATURE
<p>THE WILLFUL FALSIFICATION OF ANY OF THE ABOVE STATEMENTS MAY SUBJECT THE CONTRACTOR OR SUBCONTRACTOR TO CIVIL OR CRIMINAL PROSECUTION. SEE SECTION 1001 OF TITLE 18 AND SECTION 231 OF TITLE 31 OF THE UNITED STATES CODE.</p>	

Date _____
 I, _____ (Name of Signatory Party) _____ (Title)
 do hereby state:

(1) That I pay or supervise the payment of the persons employed by _____ (Contractor or Subcontractor) _____ on the _____ (Building or Work) _____; that during the payroll period commencing on the _____ day of _____, and ending the _____ day of _____, all persons employed on said project have been paid the full weekly wages earned, that no rebates have been or will be made either directly or indirectly to or on behalf of said _____ (Contractor or Subcontractor) _____ from the full

weekly wages earned by any person and that no deductions have been made either directly or indirectly from the full wages earned by any person, other than permissible deductions as defined in Regulations, Part 3 (29 CFR Subtitle A), issued by the Secretary of Labor under the Copeland Act, as amended (48 Stat. 948, 63 Stat. 108, 72 Stat. 957; 76 Stat. 357; 40 U.S.C. 278c), and described below:

(2) That any payrolls otherwise under this contract required to be submitted for the above period are correct and complete; that the wage rates for laborers or mechanics contained therein are not less than the applicable wage rates contained in any wage determination incorporated into the contract; that the classifications set forth therein for each laborer or mechanic conform with the work he performed.

(3) That any apprentices employed in the above period are duly registered in a bona fide apprenticeship program registered with a State apprenticeship agency recognized by the Bureau of Apprenticeship and Training, United States Department of Labor, or if no such recognized agency exists in a State, are registered with the Bureau of Apprenticeship and Training, United States Department of Labor.

(4) That:
 (a) WHERE FRINGE BENEFITS ARE PAID TO APPROVED PLANS, FUNDS, OR PROGRAMS

-- in addition to the basic hourly wage rates paid to each laborer or mechanic listed in the above referenced payroll, payments of fringe benefits as listed in the contract have been or will be made to appropriate programs for the benefit of such employees, except as noted in Section 4(c) below.

SUPPLEMENTAL PROVISION

SUBJECT: GENERAL PAY ITEMS OF THE CONTRACT

When one or both of the following items are included in the contract proposal, they shall be interpreted as follows:

MOBILIZATION AND GENERAL CONDITIONS shall include preparatory, continuing, and close out operations which are necessary direct costs to the Contractor but are of a general nature and not directly attributable to, or specified as incidental to, other contract pay items. This item shall include, but is not limited to, movement of personnel, equipment, supplies and incidentals to the project sites; establishment of the Contractor's offices, buildings, and facilities necessary to undertake the work; operations which must be performed and costs incurred prior to beginning work on other pay items; preconstruction costs exclusive of bidding costs; continuing general conditions and general maintenance of the contract; restoration and general clean up of the contract areas; and other similar costs.

The total sum of all payments for this item shall not exceed the original contract amount bid for mobilization, regardless of the fact that the Contractor may have for any reason, shut down his work on the project, moved equipment away from the project and then back again, or for additional quantities or items of work added to the contract.

SAFETY AND SECURITY shall include direct costs to the Contractor involving safety of aircraft, on site surface transportation, and the general public, which costs are not directly attributable to, or specified as incidental to, other contract pay items. This item shall include, but is not limited to, furnishing, installing, maintaining, moving and removing of all necessary temporary signs, flags, barricades, lights, and devices, to protect air traffic in active air operations areas, and affected pedestrians and surface transportation in contract areas; operations and vehicle identification divices on controlled airports; providing security of Contractor's areas and openings in boundaries of certified air carrier airports; and other similar costs.

Method of Measurement: The items of Mobilization and General Conditions, and Safety and Security, shall be measured as lump sum items, when required and furnighed for the life of the contract.

Basis of Payment: Item 1000400, Mobilization and General Conditions Lump Sum
 Item 1000410, Safety and Security Lump Sum

AIRPORT PROGRAM

**MICHIGAN DEPARTMENT OF TRANSPORTATION
BUREAU OF AERONAUTICS**

These items shall be paid for by partial payments as the contract progresses, in accordance with the following schedule.

<u>Percent of Original Contract Earned</u>	<u>Percent of Bid Price for Item 1000400 Allowed</u>	<u>Percent of Bid Price for Item 1000410 Allowed</u>
5	25	15
15	40	20
25	50	25
50	75	50
75	90	75
100 (or contract completion)	100	100

SUPPLEMENTAL PROVISION

If the bid price for Item 1000400 exceeds 10 percent of the total original contract amount, including Item 1000400, the schedule shown for Item 1000410 shall be used for making partial payments for Item 1000400.

**MICHIGAN DEPARTMENT OF TRANSPORTATION
BUREAU OF AERONAUTICS - STANDARD SPECIFICATION
F-162
Chain Link Fence**

DESCRIPTION

1.1 This item covers the requirements for furnishing materials and constructing new chain link fences and gates in accordance with the details included herein and as shown on the plans and in the bid proposal.

with aluminum alloy fabric will be of aluminum alloy.

Galvanized steel pipe will conform to the requirements of ASTM A120, Schedule 40, except the hydrostatic testing requirement is waived. Galvanizing will be in accordance with ASTM A123.

MATERIALS

1.2 Fabric. The fabric will be woven with a 9-gauge wire in a 2-inch mesh and will be of the following types, as specified:

Acrylic-coated steel pipe will conform to the requirements of Federal Specification RR-F-191/3 for Class 1 steel pipe, Grade B.

Type 1. Galvanized steel fabric will conform to the requirements of ASTM A392, Class II.

The steel used in all structural shapes will conform to the requirements of ASTM A572, Grade 45, and will be galvanized in accordance with the requirements of ASTM A123.

Type 2. Aluminum-coated steel fabric will conform to the requirements of ASTM A491.

Roll formed sections will be fabricated from material meeting the requirements of ASTM A570, Grade 45, and will be galvanized in accordance with the requirements of ASTM A123.

Type 3. Aluminum alloy fabric will conform to the requirements of ASTM B211, alloy 6061-T94.

Aluminum alloy will conform to the requirements of ASTM B429, alloy 6063-T6, Schedule 40, for extruded pipe and tube.

Type 4. Polyvinyl chloride-coated steel will conform to the requirements of Federal Specification RR-F-191/1.

Aluminum alloy will conform to the requirements of ASTM B221, alloy 6063-T6, for extruded bar, shape, and tube.

2.2 Barbed Wire. Barbed wire will be 2 strand 12-1/2 gauge wire with 4 point barbs and will be of the following types, as specified:

Vinyl coated steel will conform to the requirements of Federal Specification RR-F-191/3.

Type A. Zinc coated barbed wire will conform to the requirements of ASTM A121, Class 3.

ASTM A123 specifies a zinc coating weight of not less than 2.0 ounces per square foot. Federal Specification RR-F-191/3 specifies a zinc coating weight of not less than 1.0 ounce per square foot for Grade B pipe with an external chromate coating of 30 micrograms per square inch and an acrylic coating of 0.0005 inches or greater.

Type B. Aluminum coated barbed wire will conform to the requirements of ASTM A585, Class II.

2.3 Posts, Rails and Braces. Posts, rails, and braces furnished for use in conjunction with zinc-coated steel fabric or with aluminum coated steel fabric will be of zinc-coated steel or acrylic-coated steel pipe, and those furnished for use in conjunction

The dimensions of the posts, rails, and braces will be in accordance with Tables 1 through VI of Federal Specification RR-F-191/3.

2.4 Gates. Gate frames will consist of galvanized steel pipe, acrylic-coated steel pipe or aluminum alloy pipe, and conform to the specifications for the same material under Section 2.3. The fabric will be of the same type material as used in the fence.

2.5 Wire Ties and Tension Wires. Wire fabric ties, wire ties, and tension wire for use in conjunction with a given type of fabric will be of the same material identified with the fabric type. The tension wire will be 7-gauge coiled spring wire, coated similarly to the respective wire fabric being used.

Wire fabric ties will be hog rings, aluminum wire, or galvanized steel wire not less than 9-gauge.

All material will conform to Federal Specification RR-F-191/4.

2.6 Miscellaneous Fittings and Hardware. Miscellaneous steel fittings and hardware for use with zinc-coated or aluminum-coated steel fabric will be of commercial grade steel or better quality, wrought or cast as appropriate to the article, and sufficient in strength to provide a balanced design when used in conjunction with fabric, posts, and wires of the quality specified herein. All steel fittings and hardware will be protected with zinc coating applied in conformance with ASTM A153. Miscellaneous aluminum fittings for use with aluminum alloy fabric will be wrought or cast aluminum alloy. Barbed wire support arms will withstand a load of 250 pounds (113 kg) applied vertically to the outermost end of the arm.

2.7 Concrete. Concrete will be of a commercial grade with a minimum 28-day compressive strength of 2500 psi. Testing may be waived if either the concrete is furnished by a reputable transit mix firm approved by the Engineer, or the materials are approved by the Engineer when the concrete is mixed on the site.

When tests are waived, as heretofore mentioned, the concrete will be a standard 6 bag mix, with 1" maximum coarse aggregate, unless otherwise specified, and will have a slump range of 2 - 5 inches.

2.8 Marking. Each roll of fabric will carry a tag

showing the kind of base metal (steel, aluminum, or aluminum alloy number), kind of coating, the gauge of the wire, the length of fencing in the roll, and the name of the manufacturer. Posts, wire, and other fittings will be identified as to manufacturer, kind of base metal (steel, aluminum alloy number), and kind of coating.

2.9 Warning Signs. Warning signs, when specified, will be of suitable enameled metal, of the size, type, material, wording, and color specified on the plans.

CONSTRUCTION METHOD

3.1 Clearing and Grubbing Fence Line. All trees, brush, stumps, logs, and other debris will be cleared and grubbed a minimum width of 5 feet on outside of fence and 10 feet on airport side of fence, or as specified on the plans. When fence is located along property line, the fence will be located 5 feet from property line.

Clearing and grubbing of the fence line is incidental to the fence pay item.

3.2 Installing Posts. All posts will be set in concrete at the required dimension and depth and at the spacing shown on the plans.

The concrete will be thoroughly compacted around the posts by tamping or vibrating and will have a smooth finish slightly higher than the ground and sloped to drain away from the posts. All posts will be set plumb and to the required grade and alignment. No materials will be installed on the posts, nor will the posts be disturbed in any manner within 7 days after the individual post footing is completed.

Should rock be encountered at a depth less than the planned footing depth, a hole 2 inches (50mm) larger than the greatest dimension of the posts will be drilled to a depth of 12 inches (3000mm). After the posts are set the remainder of the drilled hole will be filled with grout, composed of one part Portland cement and two parts mortar sand. Any remaining space above the rock will be filled with concrete in the manner described above.

In lieu of drilling, the rock may be excavated to the

required footing depth. No extra compensation will be made for rock excavation.

3.3 Installing Top Rails. The top rail will be continuous and will pass through the post tops. The couplings used to join the top rail lengths will allow for expansion.

3.4 Installing Braces. Horizontal brace rails, with diagonal truss rods and turnbuckles, will be installed at all terminal posts.

3.5 Installing Fabric. The wire fabric will be firmly attached to the posts and braced in the manner shown on the plans. All wire will be stretched taut and will be installed to the required elevations. The fence will generally follow the contour of the ground, with the bottom of the fence fabric no less than 1 inch (25mm) or more than 4 inches (100mm) from the ground surface. Grading will be performed where necessary to provide a neat appearance.

At locations of small natural swales or drainage ditches and where it is not practical to have the fence conform to the general contour of the ground surface, longer posts may be used and multiple strands of barbed wire stretched thereon to span the opening below the fence. The vertical clearance between strands of barbed wire will be 6 inches (150mm) or less.

Openings below the fence may also be spanned with barbed wire fastened to stakes.

3.6 Electrical Grounds. Electrical grounds will be constructed where a power line passes over the fence and at 500-foot (150m) intervals. The ground will be installed directly below the point of crossing. The ground will be accomplished with a copper clad rod 8 feet (2.4m) long and a minimum of 5/8 inch (15mm) in diameter driven vertically until the top is 6 inches (150mm) below the ground surface. A No. 6 solid copper conductor will be clamped to the rod and to the fence in such a manner that each element of the fence is grounded.

3.7 Installing Gates. The gates will be hung on gate fittings as shown on the plans. The lower hinge (ball and socket type) will be placed on top of the concrete footing in which the gate post is set; the

concrete in the footing will extend up to the bottom of the lower hinge. The sockets for the cane or foot bolts will be set in concrete so that the plunger pin will fit perfectly in the socket when the gate is in a closed position. Gates will be erected to swing in the direction indicated and will be provided with gate stops as specified or as shown on the plans. All hardware will be thoroughly secured, properly adjusted, and left in perfect working order. Hinges and diagonal bracing in gates will be adjusted so that the gates will hang level.

3.8 Existing Fence Connections. Wherever the new fence joins an existing fence, either at a corner or at the intersection of straight fence lines, a corner post with a brace post will be set at the junction and braced the same as herein described for corner posts or as shown on the plans.

If the connection is made at other than the corner of the new fence, the last span of the old fence will contain a brace span.

3.9 Warning Signs. When warning signs are specified to be furnished and installed, they will be constructed to the specifications detailed on the plans, and fastened to the fence fabric by ties made of the same material used for fence ties. Signs will be installed with their top edge approximately 4 to 6 inches below the top of fence, but not more than 5-1/2 feet above ground on fences over 6 feet in height.

3.10 Cleaning Up. The contractor will remove in the vicinity of the completed work all tools, buildings, equipment, etc., used during construction.

METHOD OF MEASUREMENT

4.1 Chain link fence will be measured for payment by the linear foot (meter). Measurement will be along the top of the fence from center to center of end posts, excluding the length occupied by gate openings.

Gates will be measured as complete units.

Barbed wire extension arms with barbed wire, when specified, will be measured in the same manner as fence. Barbed wire extensions on gates are a part of the specified gate.

Closure of openings under fence, when specified will be measured as units for each closure made and accepted, that exceeds the size specified for incidental closures.

Ground rods will be measured as units for each ground rod installed and accepted.

Warning signs, when specified, will be measured as units for each size of type sign installed and accepted.

BASIS OF PAYMENT

5.1 Chain Link Fence. Payment will be made at the contract unit price per linear foot for each height and type of chain link fence specified. This price will be full compensation for furnishing all materials and for all preparation, erection, and installation of these materials, and for all labor, equipment, tools and incidentals necessary to complete the item.

5.2 Gates. Payment will be made at the contract unit price per each for each height, width, and type of single-leaf or double-leaf gate specified. This price will be full compensation for furnishing all materials, and all preparation, erection, and installation of these materials, and for all labor, equipment, tools and incidentals necessary to complete the item.

5.3 Barbed Wire. Payment will be made at the contract unit price per linear foot for barbed wire extension arms with barbed wire. This price will be full compensation for furnishing all materials and all preparation, erection, and installation of these materials, and for all labor, equipment, tools, and incidentals necessary to complete the item.

5.4 Ground Rods. Payment will be made at the contract unit price per each for each ground rod specified and installed. This price will be full compensation for furnishing all materials and all preparation, erection, and installation of these materials, and for all labor, equipment, tools, and incidentals necessary to complete the item.

5.5 Miscellaneous. Payment will be made at the contract unit price per each for each item of closure of opening under fence or warning sign specified and installed. These prices will be full

compensation for furnishing all materials, and for all preparation, erection, and installation of these materials, and for all labor, equipment, tools, and incidentals necessary to complete each item.

Payment will be made under the nomenclature and seven digit item number specified in the plans and proposal for each type of chain link fence work required per linear foot or per each, as applicable.

The first three digits of any item number for work included under this specification will be 162, i.e., 162XXXX.

TESTING AND MATERIAL REQUIREMENTS

ASTM A120	Pipe, Steel, Black and Hot-Dipped Zinc-Coated (Galvanized) Welded and Seamless, for Ordinary Uses.
ASTM 1121	Zinc-Coated (Galvanized) Steel Barbed Wire
ASTM A123	Zinc (Hot Galvanized) coatings on Products Fabricated from Rolled, Pressed, and Forged Steel Shapes, Plates, Bars, and Strip
ASTM A153	Zinc-Coating (Hot-Dip) on Iron and Steel Hardware
ASTM A392	Zinc-Coated Steel Chain Link Fence Fabric
ASTM A491	Aluminum-Coated Steel Chain Link Fence Fabric
ASTM A570	Hot-Rolled Carbon Steel Sheet and Strip Structural Quality
ASTM A572	High Strength Low Alloy Columbium-Vanadium Steels of Structural Quality
ASTM A585	Aluminum-Coated Steel Barbed Wire
ASTM B211	Aluminum Alloy Bar, Rod, and Wire
ASTM B221	Aluminum Alloy Extruded Bars,

Rods, Wire Shapes and Tubes

*RR-F-191/1 – Fencing, Wire and Post, Metal
(Chain Link Fence Fabric)

*RR-F-191/3 – Fencing, Wire and Post, Metal
(Chain Link Fence Posts, Top Rails
and Braces)

*RR-F-191/4 – Fencing, Wire and Post, Metal
(Chain Link Fence Accessories)

**NOTE: Others as required by referenced
specifications**

***Federal Specifications**

**MICHIGAN DEPARTMENT OF TRANSPORTATION
BUREAU OF AERONAUTICS - STANDARD SPECIFICATION
L-108
Installation of Underground Cable for Airports**

DESCRIPTION

1.1 This item shall consist of underground cable furnished and installed in accordance with this specification at the locations and in accordance with the design, dimensions, and details shown in the plans. This item shall include the installation of cable and counterpoise wire. Installation of cable or counterpoise shall be in trench, duct or conduit or by plowing in place. It shall include splicing, cable marking, and testing of the installation and all incidentals necessary to place the cable in operating condition as a completed unit to the satisfaction of the Engineer. This item shall not include the installation of the duct or conduit.

EQUIPMENT AND MATERIALS

2.1 **General.**

(a) Airport lighting equipment and materials covered by the FAA specifications shall have the prior approval of the Federal Aviation Administration, Airports Service, Washington, D.C. 20591, and shall be listed in the most recent Advisory Circular 150/5345-1, Approved Airport Lighting Equipment.

(b) All other equipment and materials covered by other referenced specifications shall be subject to acceptance through manufacturer's certification of compliance with the applicable specification when requested by the Engineer.

2.2 **Cable.** Underground cable shall conform to the requirements of Specification for L-824, Underground Electrical Cables for Airport Lighting Circuits. The following classifications apply in Specification L-824:

Type A--Single and multiple conductor

cable rated 600 volt and 5000 volts having rubber insulation and an overall jacket.

Type B--Single and multiple conductor cable rated 600 volts and 5000 volts having ethylene propylene insulation and an overall jacket.

Type C--Single and multiple conductor cables rated 600 volts and 5000 volts having cross-linked polyethylene insulation. Multiple conductor cables shall have an overall jacket.

For power cable, conductor size shall not be smaller than No. 8 AWG. For control cable, conductor size shall be not less than No. 12 AWG. When specified in the plans or documents, No. 14 AWG cable, of the type therein noted, may be used as control cable for connection to relays designed to operate at less than 100 volts. These limits on conductor sizes shall not apply to leads furnished by manufacturers on transformers and fixtures.

If telephone control cable is specified, copper shielded, polyethylene insulated and jacketed, No. 19 AWG telephone cable conforming to the United States Department of Agriculture, Rural Electrification Administration (REA) Bulletin 345-14, REA Specification for Fully Color-coded, Polyethylene Insulated, Double Polyethylene-Jacketed Telephone Cables for Direct Burial, shall be used.

Where counterpoise conductors are to be installed and where soil conditions would adversely affect bare copper wire, thermoplastic wire conforming to Fed. Spec. J-C-30, Type TW, 600 volt, may be used.

2.3 **Bare Copper Wire (Counterpoise).** Bare copper wire for counterpoise installations shall be stranded wire conforming to ASTM

Specifications B-3 and B-8.

2.4 Cable Connections. In-line connections of underground primary cables shall be of the type called for in the plans or in the proposal, and shall be one of the types listed below. Splices shall be made in accordance with Sec. 3.9.

(a) **The Cast Splice.** A cast splice, employing a plastic mold and using epoxy resin equal to that manufactured by Minnesota Mining and Manufacturing Company (3M-Co.), "Scotchcast" Kit No. 82-A, or as manufactured by Hysol Corporation, "Hyseal Epoxy Splice" Kit No. #1135, for potting the splice is approved. 89-D1 is an approved splice kit for telephone control cable.

(b) **The Vulcanized Splice.** A vulcanized splice employing Joy Manufacturing Company's Vulcanizing Kit No. X-1604-8 or equal is approved for field vulcanized splices. The proper molds for various cables sizes shall be used.

(c) **The Field-attached Plug in Splice.** Figure 14 of Specification for L-823 Plug and Receptacle, Cable Connectors, employing connector kits, is approved for field attachment to single conductor cable.

(d) **The Factory-molded Plug in Splice.** Specification for L-823 Connectors, Factory-Molded to Individual Conductors, are approved.

(e) **The Taped Splice.** Taped splices employing field-applied rubber, or synthetic rubber tape covered with plastic tape are approved. The rubber tape should meet the requirements of Mil. Spec. MIL-I-3825 and the plastic tape should comply with Mil. Spec. MIL-I-7798 or Fed. Spec. HH-1-595. In all the above cases, connections of cable conductors shall be made using crimp connectors utilizing a crimping tool designed to make a complete crimp before the tool can be removed. No. 19 AWG telephone control wire may be connected

by means of wrapped and soldered splice, 3M Company Moisture Proof UR Type Connector, or equal, or by a method approved by the Engineer.

(f) Unless otherwise specified, the use of the various types of splices are limited as follows:

1. The cast splice--Home runs, extensions to existing cables.
2. The vulcanized splice--No limitations.
3. The field attached plug in splice--No limitations.
4. The factory-molded plug in splice--No limitations.
5. The taped splice--in manholes and vaults.

2.5 Concrete. Concrete for cable markers shall conform to Specification Item P-610, "Structural Portland Cement Concrete."

CONSTRUCTION METHODS

3.1 General. The Contractor shall install the specified cable at the approximate locations indicated in the airport lighting layout plans. The Engineer shall indicate specific locations.

Cable connections between lights will be permitted only at the light locations for connecting the underground cable to the primary leads of the Individual insulating transformers. The Contractor shall be responsible for providing cable in continuous lengths for home runs or other long cable runs without connections, unless otherwise authorized in writing by the Engineer or shown in the plans.

3.2 Installation in Duct or Conduit. This item includes the installation of the cable in duct or conduit as described below. The maximum number and voltage ratings of cables installed in each duct shall be in accordance with the latest

National Electric Code, or the code of the local agency having jurisdiction.

The Contractor shall make no connections or joints of any kind in cables installed in conduits or ducts.

The duct or conduit shall be installed as a separate item in accordance with Item L-110, "Installation of Airport Underground Electrical Duct." The Contractor shall make sure that the duct is open, continuous, and clear of debris before installing cable. The cable shall be installed in a manner to prevent harmful stretching of the conductor, injury to the insulation, or damage to the outer protective covering. The ends of all cables shall be sealed with moisture-seal tape before pulling into conduit and it shall be left sealed until connections are made. Where more than one cable is to be installed in a duct under the same contract, all cable shall be pulled in the duct at the same time. The pulling of a cable through ducts or conduits may be accomplished by hand winch or power winch with the use of cable grips or pulling eyes. Pulling tensions should be governed by recommended standard practices for straight pulls or bends. A lubricant recommended for the type of cable being installed shall be used where pulling lubricant is required. Duct or conduit markers temporarily removed for excavations shall be replaced as required.

3.3 Trenching. If specified, the existing sod shall be carefully stripped and properly stored. Trenches for cables may be excavated manually or with mechanical trenching equipment. Walls of trenches shall be essentially vertical so that a minimum of shoulder surface is disturbed. Road patrols or graders shall not be used to excavate the trench with their blades. The bottom surface of trenches shall be essentially smooth and free from coarse aggregate. Unless otherwise specified, cable trenches shall be excavated to a minimum depth of 18 inches below finished grade, except as follows:

(a) When off the airport or crossing under a roadway or driveway, the minimum depth shall be 36 inches unless otherwise specified.

(b) Minimum cable depth when crossing under a railroad track, shall be 42 inches unless otherwise specified.

The Contractor shall excavate all cable trenches to a width not less than 6 inches. The trench shall be widened where more than two cables are to be installed parallel in the same trench. Unless otherwise specified in the plans, all cables in the same location and running in the same general direction shall be installed in the same trench.

When rock excavation is encountered, the rock shall be removed to a depth of at least 3 inches below the required cable depth and it shall be replaced with bedding material of earth or sand containing no mineral aggregate particles that would be retained on a 1/4 inch sieve. The Contractor shall ascertain the type of soil or rock to be excavated before bidding. All excavation shall be unclassified.

3.4 Installation in Trenches. The Contractor shall not use a cable plow for installing the cable. Mechanical cable laying equipment may be used in conjunction with a trenching machine if specified on project plans and specifications; and it shall provide for physical inspection of cable prior to backfilling. Sharp bends or kinks in the cable shall not be permitted.

Cables shall be unreeled in place alongside or in the trench and shall be carefully placed along the bottom of the trench. The cable shall not be unreeled and pulled into the trench from one end.

Where two or more cables are laid parallel in the same trench, they shall be placed laterally a minimum distance of 3 inches apart, and the trench shall be widened sufficiently to accomplish this.

Cables crossing over each other shall have a minimum of 3 inch vertical displacement with the topmost cable kept at or below the minimum required depth below finished grade.

Not less than 1 foot of cable slack shall be left on each side of all connections, insulating transformers, light units, and at all other points where the cable is connected to field equipment. The slack cable shall be placed in the trench in a series of S curves. Additional slack cable shall be left in runway light bases, handholes, manholes, etc., where it is required to bring the cables above ground level to make connections. The amount of slack cable shall be stipulated by the Engineer, or as shown in the plans and specifications.

3.5 Backfilling. After the cable has been installed, the trench shall be backfilled. The first layer of backfill shall be 4 inches deep, loose measurement, and shall be sand containing no mineral aggregate particles that would be retained on a 1/4 inch sieve. This layer shall not be compacted. The second layer shall be 4 inches deep, loose measurement, and shall be either sand or earth containing no particles that would be retained on a 1 inch sieve. The requirement for sand may be waived by the Engineer if the existing soil is sand meeting the backfill specification. The remainder of the backfill shall be excavated or imported material and shall not contain stone or aggregate larger than 4 inches maximum diameter. The third and subsequent layers of the backfill shall not exceed 8 inches in maximum depth, loose measurement.

The second, and subsequent layers shall be thoroughly tamped and compacted to at least the density of the adjacent undisturbed soil, and to the satisfaction of the Engineer. If necessary to obtain the desired compaction, the backfill material shall be moistened or aerated as required.

Trenches shall not be excessively wet and shall not contain pools of water during backfilling operations. The trench shall be completely

backfilled and tamped level with the adjacent surface, except that when sod is to be placed over the trench, the backfilling shall be stopped at a depth equal to the thickness of the sod to be used, with proper allowance for settlement. Any excess excavated material shall be removed and disposed of in accordance with instructions issued by the Engineer.

3.6 Restoration. Where sod has been removed, it shall be replaced as soon as possible after the backfilling is completed. All areas disturbed by the trenching, storing or dirt, cable laying, pad construction, and other work shall be restored to its original condition. The restoration shall include any necessary topsoiling, fertilizing, liming, seeding, sodding, sprigging, or mulching. All such work shall be performed in accordance with the FAA Standard Turfing Specifications. The Contractor shall be held responsible for maintaining all disturbed surfaces and replacements until final acceptance.

Restoration of turfed areas shall be accomplished by using a seed mixture and fertilizer specified in Standard Specification T-901 at the rates specified therein.

3.7 Cable Plowing Cable plowing when specified shall be accomplished using equipment and construction methods meeting the following specifications:

Equipment:

The plowing equipment shall be of the vibratory type with a vibrating rate of at least 1,200 cycles per minute. The vibrating unit shall be attached to a tractor unit in such a manner that the tractor does not dampen the vibration.

The plow blade shall be of sufficient length to permit installation of the cable at the specified depth. The shoe throat shall be sized for the number and size cables specified. The cable way and guides shall be smooth, free of obstructions and sharp edges and shall not cause bending of the cable at shorter than 3" radius, nor cause excessive cable strain.

When several conductors, including counterpoise, are installed in a single operation, the plow shall have feeds for each wire to provide specified separation.

Installation:

Cable routing shall be offset by 2 feet from the light line (on side away from runways and taxiways). A hole shall be dug in the cable route at each light location.

Cable reels may be mounted on the tractor or cable unreeled along the proposed cable route before plowing. In the former case, unreeling of the cable shall not cause excessive tension in the cable.

After the tractor and plow are positioned at the beginning of a run, sufficient cable slack shall be pulled through the throat. The plow shall be lowered into the hole and the cable hand held for the start of plowing.

At each light hole, plow movement and vibration shall be stopped, the plow raised and the required amount of slack cable hand pulled. Care shall be taken during this operation that the cable at the entrance into the light hole shall not be pulled from the specified depth. Plowing shall be continued by lowering the plow, starting it and holding the cable by hand until it is firmly in place.

The plow shall not be backed onto the cable.

If an underground obstruction is encountered, the plow shall be lifted out of the ground and the obstruction removed by hand digging. Care must be taken that the cable has no bends sharper than 3" radius and is not subject to excessive tension.

After installation of cable by plowing, the disturbed earth shall be leveled and, if necessary, compacted by a device approved by the Engineer.

Ends of cable shall be taped immediately after

cutting to prevent moisture from entering the cable.

Personnel:

Plow operators shall be experienced and qualified by schooling and/or experience. Proof of such qualification may be required from the Contractor.

3.8 Cable Markers. The location of runway light circuits shall be marked by a concrete slab marker, 2 feet square and 4 inches thick, extending approximately 1 inch above the surface. Each cable run from the line of runway lights to the equipment vault shall be marked at a maximum of every 200 feet along the cable run, with an additional marker at each change of direction of cable run. All other cable buried directly in the earth shall be marked in the same manner. The Contractor shall not install slab markers where cables lie in straight lines between obstruction light poles which are spaced 300 feet apart, or less. Cable markers shall be installed immediately above the cable. The Contractor shall impress the word "CABLE" and directional arrows on each cable marking slab. The letters shall be approximately 4 inches high and 3 inches wide, with width of stroke 1/2 inch and 1/4 inch deep.

The location of each underground cable connection, except at lighting units or insulating transformers, shall be marked by a concrete marker slab placed above the connection. The Contractor shall impress the work "SPLICE" on each slab. He or she also shall impress additional circuit identification symbols on each slab if so desired by the Engineer.

3.9 Splicing. Connections of the type shown in the plans shall be made by experienced personnel regularly engaged in this type of work and shall be made as follows:

(a) **Cast Splices.** These shall be made by using crimp connectors for joining conductors. Molds shall be assembled, and the compound shall be mixed and poured in

accordance with manufacturer's instructions and to the satisfaction of the Engineer.

(b) Vulcanized Splices. These shall be made by using crimp connectors for joining conductors. The splice shall be made, using compounds furnished by the manufacturer, in accordance with his or her instructions and to the satisfaction of the Engineer.

(c) Field-Attached Plug in Splices. These shall be assembled in accordance with manufacturer's instructions. These splices shall be made by plugging directly into mating connectors. In all cases the joint where the connectors come together shall be wrapped and at least one layer of rubber or synthetic rubber tape and one layer of plastic tape, one half lapped, extending at least 1-1/2 inches on each side of the joint.

(d) Factory-Molded Plug in Splices. These shall be made by plugging directly into mating connectors. In all cases, the joint where the connectors come together shall be wrapped with at least one layer of rubber or synthetic rubber tape and one layer of plastic tape, one-half lapped, extending at least 1-1/2 inches on each side of the joint.

(e) Taped Splices. A taped splice shall be made in the following manner:

Bring the cables to their final position and cut so that the conductors will butt. Remove insulation and jacket allowing for bare conductor of proper length to fit compression sleeve connector with 1/4 inch of bare conductor on each side of the connector. Use a sharp knife to pencil insulation and jacket at approximately the same angle as a pencil point. Care must be taken to avoid nicking or injuring the conductor during removal of insulation or penciling. Do not use emery paper on splicing operation since it contains metallic particles. The copper conductors shall be thoroughly cleaned. Join the conductors by inserting them equidistant into the compression connection sleeve. Crimp

conductors firmly in place with crimping tool that requires a complete crimp before tool can be removed. Test the crimped connection by pulling on the cable. Scrape the insulation to assure that the entire surface over which the tape will be applied (plus 3 inches on each end) is clean. After scraping, wipe the entire area with a clean lint-free cloth. Do not use solvents.

Apply high-voltage rubber tape one-half lapped over bare conductor. This tape should be tensioned as recommended by the manufacturer. Voids in the connector area may be eliminated by highly elongating the tape, stretching it just short of its breaking point. Throughout the rest of the splice, less tension should be used. Always attempt to exactly half-lap to produce a uniform buildup. Continue buildup to 1-1/2 times cable diameter over the body of the splice with ends tapered a distance of approximately 1 inch over the original jacket. Cover rubber tape with two layers of vinyl pressure-sensitive tape one-half lapped. Do not use glyptol or lacquer over vinyl tape as they react as solvents to the tape. No further cable covering or splice boxes are required.

If shielded cable is to be spliced, prepare cable as for a regular taped splice, except that the neoprene jacket shall be removed a distance not less than 5 inches from the beginning of the penciled portion. Carefully unwrap the shielding tape from that portion where jacket has been removed and cut off so that it extends about 1 inch from end of the jacket. Proceed with the taped splice as described above and tape up to 1/4 inch from the shield on both ends. Build up rubber tape to a thickness equal to the insulation thickness or 5/16 inch over connector.

Next wrap one-half lapped layer of semi-conducting tape (Scotch No. 13 Semi-Conducting Tape, or equal) over splicing tape and 1/4 inch onto the shielding tape. Wrap a fine, flat shielding braid one-half lapped over the splice extending 1/2 inch onto the metallic shielding. Solder ends of braid to metallic shielding tape. A bonding wire, (Minimum No. 14 stranded copper) equal to the current carrying

capacity of the metallic shield, should have the individual strands wrapped around the metallic shield at both ends of the splice. These strands should be tack soldered to the shield in several places. The cable sheath should be replaced by wrapping with two one-half lapped layers of vinyl tape extending 2 inches onto the cable jacket.

The above described splice is for a straight-through splice with continuity of shielding.

3.10 Bare Counterpoise Wire Installation and Grounding for Lightning Protection. If shown in the plans or specified in job specifications, a stranded bare copper wire, No. 8 AWG minimum size, shall be installed for lightning protection of the underground cables. The bare counterpoise wire shall be installed in the same trench for the entire length of the insulated cables it is designed to protect, and shall be placed at a distance of approximately 4 inches from the insulated cable. The counterpoise wire shall be securely attached to each light fixture base, or mounting stake. The counterpoise wire shall also be securely attached to copper or copper-clad ground rods installed not more than 1,000 feet apart around the entire circuit. The ground rods shall be of the length and diameter specified in the plans, but in no case shall they be less than 8 feet long nor less than 5/8 inch in diameter.

The counterpoise system shall terminate at the transformer vault or at the power source. It shall be securely attached to the vault or equipment grounding system. The connections shall be made as shown in the project plans and specifications

Bare counterpoise wires shall be securely bonded together at all locations where two or more wires intersect, cross or join.

3.11 Testing. The Contractor shall furnish all necessary equipment and appliances for testing the underground cable circuits after installation. The Contractor shall test and demonstrate to the satisfaction of the Engineer

the following:

- (a) That all lighting power and control circuits are continuous and free from short circuits.
- (b) That all circuits are free from unspecified grounds.
- (c) That the insulation resistance to ground of all non-grounded series circuits is not less than 50 megohms.
- (d) That the insulation resistance to ground of all non-grounded conductors of multiple circuits is not less than 50 megohms.
- (e) That all circuits are properly connected in accordance with applicable wiring diagrams.
- (f) That all circuits are operable. Tests shall be conducted that include operating each control not less than 10 times and each lighting and power circuit shall be operated continuously at least one hour at each step without any interruption.

METHOD OF MEASUREMENT

4.1 The quantity of trench to be paid for shall be the linear feet of trench, of the minimum widths and depths specified, including the excavation, backfill, and restoration, completed, measured as excavated and accepted as satisfactory. Separate measurement shall be made for trenches of the various widths listed under "Basis of Payment." No separate measurement will be made for various depth unless otherwise specified.

4.2 The footage of cable or counterpoise wire, plowed, installed in trench, duct, or conduit, to be paid for, shall be the number of linear feet of cable or counterpoise wire, of each size or type, plowed, installed in trench, duct, or conduit, measured in place, completed, ready for operation, and accepted as satisfactory. The measurements shall be made from point to point,

such as fixture to duct end or cable turn to vault wall. No measurement or payment will be made for slack or loops, or for offsets to fixtures of 24 inches or less. Such extra cable shall be considered as incidental to the work.

HH-1-595 Insulation Tape, Electrical, Pressure-Sensitive Adhesive, Plastic, for Low-Temperature Application

Separate measurement shall be made for each cable or counterpoise wire, plowed in place, installed in trench, duct or conduit.

ASTM SPECIFICATIONS

B-3 Soft or Annealed Copper Wire
 B-8 Concentric-Lay-Stranded Copper Conductor, Hard, Medium-Hard, or Soft

BASIS OF PAYMENT

5.1 Payment will be made at the contract unit price per linear foot for cable trench of the width and depths specified; for cable and bare counterpoise wire of the sizes and types specified; constructed or installed, and accepted by the Engineer. This price shall be full compensation for furnishing all materials and for all preparations and installation of these materials, and for all labor, equipment, tools, and incidentals necessary to complete this item.

MILITARY SPECIFICATIONS

MIL-1-3825 Insulation Tape, Electrical, Self-Fusing, For Use in Electronics, Communications, and Allied Equipment
 MIL-1-7798 Insulation Tape, Electrical Pressure-Sensitive Adhesive, Plastic

Payment will be made under the nomenclature and seven digit item number specified in the plans and proposal for cable plowing/trenching, cable trench, underground cable (size and type), and bare counterpoise wire (size), per linear foot, as applicable.

NOTE: Others as required by referenced Specifications. Cross-referenced Specifications required: P-610, T-901.

The first three digits of any item for work included under this specification shall be 108, i.e. 108XXXX.

FAA SPECIFICATIONS

<u>Number</u>	<u>Title</u>
AC 150/5345-7	Specification for L-824 Underground Electrical Cables for Airport Lighting Circuits
AC 150/5345-26	Specifications for L-823 Plug and Receptacle Cable Connectors
J-C-30	Cable and Wire, Electrical Power, Fixed Installation

**MICHIGAN DEPARTMENT OF TRANSPORTATION
BUREAU OF AERONAUTICS - STANDARD SPECIFICATION
L-125
Installation of Airport Lighting Systems
Including Applicable Subparts**

DESCRIPTION

1.1. This item shall consist of airport runway and taxiway lighting systems, taxiway guidance signs and visual approach aids, furnished and installed in accordance with this specification, the applicable subparts and referenced specifications. The systems shall be installed at the location and in accordance with the dimensions, design, and details shown in the plans. This item shall include furnishing of all equipment, materials, services, and incidentals necessary to place the systems in operation as completed units to the satisfaction of the Engineer.

The items of work of the airport lighting system that fall within the scope of other lighting specifications shall be constructed and paid for as items of those specifications, as follows:

Specification	L-101 - Airport Rotating Beacon
	L-102 - Airport Hazard Beacon
	L-103 - Airport Beacon Towers
	L-107 - Airport Wind Cones
	L-108 - Airport Underground Cable
	L-109 - Airport Transformer Vault and Vault Equipment
	L-110 - Airport Underground Electrical Duct
	L-112 - Airport Wind Tee
	L-119 - Airport Obstruction Lights

1.2 **Subparts to This Specification.** Details pertaining to a specific system covered in this item are contained in the subparts listed in paragraphs 125-1.3 through 125-1.7.

The pertinent parts of the Equipment, Materials, Installation, Testing and Inspection Sections of the Advisory Circulars listed in paragraphs 125-1.3 through 125-1.7, as may be required for the contractor to satisfactorily complete the work, are included in the subparts and one or more of them, as specified, shall govern the work. Those portions of the Advisory Circulars that pertain to design or maintenance or to work included under another specification have been omitted.

The identification numbers of the Advisory Circulars designated herein do not show revision or change suffixes. The edition or change in effect as of the date of the applicable subpart is included and specified. Subsequent applicable revisions or changes will be noted in the plans.

The Advisory Circulars of the 150/5340 and 150/5345 series that are mentioned in the subparts are material and manufacturing specifications and are correlated to the L-800 series of FAA lighting equipment specifications. A cross listing of these advisory circulars with the corresponding equipment specifications is reproduced in the Bibliography (paragraph 125-2.2).

Approved: MAC 4-1-76 FAA 5-6-76

1.3 Subpart "A". Runway and Taxiway Edge Lighting Systems (AC 150/5340-24).

1.4 Subpart "B". Economy Approach Lighting Aids (AC 150/5340-14).

1.5 Subpart "C". Taxiway Guidance Sign System (AC 150/5340-18).

1.6 Subpart "D". Installation Details for Runway Centerline and Touchdown Zone Lighting Systems (AC 150/5340-4).

1.7 Subpart "E". Taxiway Centerline Lighting System (AC 150/5340-19).

EQUIPMENT AND MATERIALS

2.1 General.

(a) Airport lighting equipment and materials covered by FAA specifications shall have the prior approval of the Federal Aviation Administration, Washington, D.C. 20591, and shall be listed in Advisory Circular 150/5345-1, Approved Airport Lighting Equipment.

(b) All other equipment and materials covered by other referenced specifications shall be subject to acceptance through the manufacturer's certification of compliance with the applicable specifications.

(c) Descriptions of the equipment and materials required for a particular system are contained in the applicable subpart or in the plans.

2.2 Bibliography of Current Airport Lighting Materials Specifications.

All equipment requiring FAA approval shall meet the following specifications, as applicable. Advisory Circular and specification revision or change suffixes are not shown. The edition or change current at the date of plans shall govern unless otherwise noted. Use of later editions or changes is permissible.

Advisory Circular 150/5345	FAA Spec. Number	Short Title
-1	--	Approved Airport Lighting Equipment List
-2	L-810	Obstruction Light
-3	L-821	Lighting Panel for Remote Control
-4	L-829	Taxiway Guidance Signs
-5	L-847	Circuit Selector Switch, 5KV, 20a
-7	L-824	Underground Electrical Cables
-10	L-828	Constant Current Regulators
-11	L-812	Constant Current Regulators, Remote Operation
-12	L-801	Rotating Beacon for Small Airports
-13	L-841	Auxiliary Relay Cabinet Assembly
-18	L-811	Constant Current Regulator, Direct Operation
-21	L-813	Constant Current Regulator for Taxiway Lights
-26	L-823	Plug and Receptacle Cable Connectors
-27	L-807	Eight Foot and Twelve Foot Wind Cones
-28	L-851	Visual Approach Slope Indicators

-30	L-846	Electrical Wire, Circuits in Pavement
-36	L-808	Lighted Wind Tee
-39	L-853	Runway and Taxiway Retroreflective Markers
-42	L-857	Airport Light Bases, Transformer Housing
-43	L-856	High Intensity Obstruction Light
-44	L-858	Retroreflective Taxiway Guidance Signs
-45	--	Lightweight Approach Light Structure
-46	L-850	Semiflush Runway Lights
-46	L-852	Semiflush Taxiway Lights
-47	L-830	Isolation Transformers
-48	L-860	Low Intensity Edge Lights
-48	L-861	Medium Intensity Edge Lights
-48	L-862	High Intensity Edge Lights
Advisory Circular 150/5340	FAA Spec. Number	Short Title
-14	L-848	Medium Intensity Approach Light Equipment
-14	L-849	Condenser Discharge Flashing Light
-14	L-854	Radio Controls
-14	L-859	Omnidirectional Lead-in Approach Lights

Other Pertinent Material Specifications

<u>Number</u>	<u>Short Title</u>
AC 150/5340-8	Airport 51' Tubular Beacon Tower
CAA 291	Airport 36 Inch Beacon
CAA 446	300 mm Hazard Beacon
MIL-I-7854	12' Wind Cone
MIL-T-8637	Airport Beacon Towers (Structural)

CONSTRUCTION METHODS

3.1 General. The installation and testing details for the systems shall be as specified in the applicable subparts and in the plans.

3.2 Placing Lights. The light fixture shall be installed at the approximate location indicated in the plans. The exact location shall be as directed by the project engineer.

3.3 Inspection and Testing.

(a) **General.** All final inspections and tests, for equipment installed under this contract, shall be conducted in the presence of the project engineer and the authorized representative of the Bureau of Aeronautics and (when required) the Federal Aviation Administration, prior to final acceptance. The contractor shall have the following test equipment, and personnel to operate same, available at the final inspection:

1. Voltmeter with proper scales
2. Clamp-on ammeter with proper scales
3. 5000V megger
4. Ground resistance testing equipment

The contractor shall also provide necessary tools, material, and personnel to perform the following for the final inspection:

1. Open and close any and all equipment

- enclosures, regulators, junction boxes, terminal panels, square duct, etc.
2. Open and close isolation transformer housings.
 3. Open and reconnect splices (other than cast type).
 4. Uncover and rebury DEB isolation transformers.
 5. Expose a section of cable of sufficient length in each homerun to verify the cable meets the specifications listed in the plans and proposal.
 6. Demonstrate aiming angles of VASI, REIL and beacon.
 7. Demonstrate operation of any and all lighting, power and control systems.
 8. Demonstrate in each constant current regulator:
 - a. Operation under local and/or remote control.
 - b. Current measurements for each brightness step.
 - c. Inspect voltage, inspect transformer connections and output voltage measurements.

(b) **System Inspection.** The contractor shall perform the following inspections and checks:

1. Inspect each light unit to determine that it is installed correctly, at the proper height and location, and properly aligned, leveled and oriented.
2. Check all equipment covered by FAA specifications to determine that the manufacturers have supplied approved equipment. The equipment shall also be checked for general conformance with

specification requirements.

3. Check input voltage of power and control circuits to determine that the voltage is within limits required for proper equipment operation. Specific voltage tolerances shall be as specified in the applicable subpart or in the plans. Proper voltage taps shall be selected on equipment where taps are provided.
4. Check wiring and electrical components (fuses, circuit breakers, transformers, etc.) to determine that ratings are correct and the components are properly installed.
5. Check all nuts, bolts and other hardware to determine that all components are secure.
6. Further inspections pertaining to a particular lighting system shall be accomplished as listed in the applicable subpart.
7. The contractor shall correct, to the satisfaction of the project engineer, any installation or equipment deficiencies revealed by these inspections at no additional cost to the project.

(c) **System Tests.** The contractor shall perform the following tests:

1. The installation shall be tested by operating the systems continuously for at least one-half hour or such other period as directed by the project engineer.
2. Each lighting control shall be operated not less than ten times or as directed by the project engineer.
3. Completed primary circuits shall be meggered to insure an insulation resistance to ground of at least 50 megohms. **Caution:** In a parallel (multiple) system all lamps must be removed or primary circuit disconnected prior to meggering.

4. All grounding systems shall be checked to insure the resistance to ground of these systems does not exceed 10 ohms for electric vault grounding and 25 ohms for other grounding systems.
5. Further tests pertaining to a particular lighting system shall be conducted according to provisions in the applicable subpart.
6. The contractor shall repair or replace any equipment not performing to the satisfaction of the project engineer. Repair or replacement shall be at the discretion of the project engineer and shall be at no additional cost to the project.

3.4 Equipment Operation and

Maintenance Manuals. The contractor shall provide to the airport owner through the project engineer, prior to final inspection, one copy of all lighting equipment operation and maintenance manuals, pamphlets, brochures, etc., in good condition, as supplied by the equipment manufacturer.

METHOD OF MEASUREMENT

4.1 The quantity of runway and taxiway lights, taxiway guidance signs and visual approach aids of the specifications and descriptions specified in the bid schedule, shall be the number of each type unit installed in place, ready for operation and accepted.

BASIS OF PAYMENT

5.1 Payment shall be made at the respective contract unit prices for each type of runway and taxiway lights, taxiway guidance signs and visual approach aids. These prices shall be full compensation for furnishing all materials and for all preparation, assembly, and installation of these materials, and for all labor, equipment, tools, and incidentals necessary to complete this

item.

Payment will be made under the respective item numbers and item nomenclature specified under the applicable subparts on a per unit (unless otherwise specified) basis.

Separate items will be established for each type light unit, approach aid, or lump sum work specified in the plans. The items shall be further identified by lens color, lamp wattage, mounting type, specification number, etc., as required, to provide separate descriptions and quantities for the various items.

The first three digits of any item number for work included under this specification shall be 125.

**MICHIGAN DEPARTMENT OF TRANSPORTATION
AIRPORTS DIVISION
STANDARD SPECIFICATION
P-605
Joint Sealing Filler**

DESCRIPTION

1.1 This item shall consist of providing and installing a resilient and adhesive joint sealing filler capable of effectively sealing joints and cracks in pavements.

delivered to the job site in the manufacturer's original sealed container. Each container shall be marked with the manufacturer's name, batch or lot number, the safe heating temperature and shall be accompanied by the manufacturer's certification stating that the compound meets the requirements of this specification.

MATERIALS

2.1 Joint Sealers. Joint Sealing materials shall meet the requirements of one or more of the following, as required by the project specifications:

Fed. Spec. SS-S-200E(2) – Sealants, Joint, Two-Component, Jet-Fuel-Resistant, Cold Applied for Portland Cement Concrete Pavement.

ASTM D 1854 - Jet-Fuel Resistant Concrete Joint Sealer, Hot-Applied Elastic Type.

ASTM D 3406 – Joint Sealant, Hot-Applied, Elastomeric-Type, for Portland Cement Concrete Pavements

ASTM D 3569-Joint Sealant, Hot-Applied, Elastomeric Jet-Fuel-Resistant Type, for Portland Cement Concrete Pavements.

ASTM D 3581- Joint Sealant, Hot-Applied, Jet-Fuel-Resistant Type, for Portland Cement Concrete and Tar-Concrete Pavements.

ASTM D 5893 – Cold Applied, Single Component, Chemically Curing Silicone Joint Sealant for Portland Cement Concrete Pavements.

ASTM D 6690 - Joint and Crack Sealants, Hot-Applied, for Concrete and Asphalt Pavements.

Each lot or batch of sealing compound shall be

CONSTRUCTION METHODS

3.1 Time of Application. Joints shall be sealed as soon after completion of the curing period as feasible and before the pavement is opened to traffic, including construction of equipment. The pavement temperature shall be above 40°F (4°C) at the time of installation of preformed joint seals. The pavement temperature shall be above 50°F (10°C) at the time of installation of poured joint sealing material.

If the pavement must be opened to traffic prior to placement of the sealant, the Contractor shall temporarily fill the joint with a jute or nylon rope immediately after the joint is sawed. The rope shall be slightly larger than the joint and should be forced into the joint so that the top of the rope is 1/8 inch below the pavement surface. The rope shall be removed immediately prior to cleaning.

3.2 Preparation of Joints.

(a) Sawing. All joints shall be sawed in accordance with specifications and plan details. Immediately after sawing the joint, the resulting slurry shall be completely removed from joint and adjacent area by flushing with a jet of water, and by use of other tools as necessary.

(b) Sealing. Immediately before sealing, the joints shall be thoroughly cleaned of all laitance

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(accumulation of fine particles on the surface of fresh concrete), curing compound, and other foreign material. Cleaning shall be accomplished by sandblasting, wire brushing, or high pressure water blast. Sand blasting shall be accomplished in a minimum of two passes. One pass per joint face with the nozzle held at an angle directly toward the joint face and not more than 3 inches from it. Upon completion of cleaning, the joints shall be blown out with compressed air free of oil and water. Only air compressors with operable oil and water traps shall be used to prepare the joints for sealing. The joint faces shall be surface dry when the seal is applied.

3.3 Installation of Sealants. Joints shall be inspected for proper width, depth, alignment, and preparation, and shall be approved by the Engineer before sealing is allowed. Sealants shall be installed in accordance with the following requirements:

(a) **Hot Applied Sealants.** The joint sealant shall be applied uniformly solid from bottom to top and shall be filled without formation of entrapped air or voids. A backing material shall be placed as shown on the plans and shall be both non-reactive and non-adhesive to the concrete or the sealant material. The heating kettle shall be an indirect heating type, constructed as a double boiler. A positive temperature control and mechanical agitation shall be provided. The sealant shall not be heated to more than 20°F (-11°C) below the safe heating temperature. The safe heating temperature can be obtained from the manufacturer's shipping container. A direct connecting pressure type extruding device with nozzles shaped for insertion into the joint shall be provided. Any sealant spilled on the surface of the pavement, structures and/or lighting fixtures shall be removed immediately.

(b) **Cold Applied Sealants.** Cold applied joint sealing compound shall be applied by means of pressure equipment that will force

the sealing material to the bottom of the joint and completely fill the joint without spilling the material on the surface of the pavement. A backing material shall be placed as shown on the plans and shall be non-reactive and non-adhesive to the concrete or the sealant material. Sealant which does not bond to the concrete surface of the joint walls, contains voids, or fails to set to a tack-free condition will be rejected and replaced by the Contractor at no additional cost. Before sealing the joints, the Contractor shall demonstrate that equipment and procedures for preparing, mixing, and placing the sealant will produce a satisfactory joint seal. This shall include the preparation of two small batches and the application of the resulting material. Any sealant spilled on the surface of the pavement, structures and/or lighting fixtures shall be removed immediately.

METHOD OF MEASUREMENT

4.1 Joint sealing material shall be measured by the linear foot of sealant in place, complete, and accepted.

BASIS OF PAYMENT

5.1 Payment for joint sealing material shall be made at the contract unit price. The price shall be full compensation for furnishing all materials, for all preparation, delivering, and placing of these materials, and for all labor, equipment, tools, and incidentals necessary to complete the item.

Payment will be made under the nomenclature and seven digit item number specified in the plans and proposals for each type of joint sealing filler material required.

The first three digits of any item number for work included under this specification shall be 605, i.e. 605XXXX.

MATERIAL & TESTING REQUIREMENTS

ASTM D 1854	Jet-Fuel Resistant Concrete Joint Sealer, Hot-Applied Elastic Type
ASTM D 3406	Joint Sealant, Hot-Applied, Elastomeric-Type, for Portland Cement Concrete Pavements
ASTM D 3569	Joint Sealant, Hot-Applied, Elastomeric, Jet-Fuel Resistant Type, for Portland Cement Concrete Pavements
ASTM D 3581	Joint Sealant, Hot-Applied, Jet-Fuel Resistant Type, for Portland Cement Concrete and Tar-Concrete Pavements
ASTM D 5893	Cold Applied, Single Component, Chemically Curing Silicone Joint Sealant for Portland Cement Concrete Pavements.
ASTM D 3581	Joint Sealant, Hot-Applied, Jet-Fuel Resistant Type, for Portland Cement Concrete and Tar-Concrete Pavements
ASTM D 5893	Cold Applied, Single Component, Chemically Curing Silicone Joint Sealant for Portland Cement Concrete Pavements.
ASTM D 6690	Joint and Crack Sealants, Hot-Applied, for Concrete and Asphalt Pavements.
FED SPEC SS-S-200E(2)	Sealants, Joint, Two-Component, Jet-Fuel-Resistant, Cold Applied for Portland Cement Concrete Pavement.
ASTM D 412	Test Methods for Vulcanized Rubber and Thermoplastic Elastomers – Tension
ASTM D 1644	Test Methods for Nonvolatile Content of Varnishes

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**MICHIGAN DEPARTMENT OF TRANSPORTATION
BUREAU OF AERONAUTICS - STANDARD SPECIFICATION
P-610
Structural Portland Cement Concrete**

DESCRIPTION

1.1 This item shall consist of either plain or reinforced structural portland cement concrete, prepared and constructed in accordance with these specifications, at the locations and of the form and dimensions shown on the plans. The concrete shall be composed of coarse aggregate, fine aggregate, portland cement, and water.

MATERIALS

2.1 **General.** Only approved materials, conforming to the requirements of these specifications, shall be used in the work. They may be subjected to inspection and tests at any time during the progress of their preparation or use. The source of supply of each of the materials shall be approved by the Engineer before delivery or use is started. Representative preliminary samples of the materials shall be submitted by the Contractor, when required, for examination and test. Materials shall be stored and handled to insure the preservation of their quality and fitness for use and shall be located to facilitate prompt inspection. All equipment for handling and transporting materials and concrete must be clean before any material or concrete is placed therein.

In no case shall the use of pit-run or naturally mixed aggregates be permitted. Naturally mixed aggregate shall be screened and washed, and all fine and coarse aggregates shall be stored separately and kept clean. The mixing of different kinds of aggregates from different sources in one storage pile or alternating batches of different aggregates will not be permitted.

When this specification is used for fence post footings, manholes, catch basins, inlets,

headwalls, light bases, windcone and beacon footings, electrical duct, sidewalk, curbing, cable markers, and other non-critical structures, the requirements for testing, as specified in 2.2 through 2.11 and 3.2 through 3.5, will be waived if either the concrete is furnished by a reputable transit mix firm approved by the Engineer, or the materials are approved by the Engineer when the concrete is mixed on the site. However, when any items, such as electrical duct or poured manholes are placed in or under a pavement intended to support aircraft of 60,000 pounds or more gross weight, such tests will be required. When large amounts of concrete are used on the project, such tests may be required if so indicated on the plans.

When the project includes portland cement concrete pavement, P-501, the paving aggregates may be used for P-610 concrete, unless construction conditions dictate that a finer aggregate is required. This provision does not apply to buildings.

2.2 **Coarse Aggregate.** The coarse aggregate for concrete shall meet the requirements of AASHTO M 80. The percentage of wear shall be not more than 45 at 500 revolutions as determined by AASHTO T 96.

Coarse aggregate shall be well graded from coarse to fine and shall meet one of the gradations shown in Table 1, using AASHTO T 27.

2.3 **Fine Aggregate.** The fine aggregate for concrete shall meet the requirements of AASHTO M 6.

The fine aggregate shall be well graded from fine to coarse and shall meet the grading requirements in Table 2, when tested in accordance with AASHTO T 27:

TABLE 1
REQUIREMENTS FOR GRADATION OF COARSE AGGREGATE

Sieve designation (square openings)	Percentage by weight passing sieves						
	2"	1 1/2"	1"	3/4"	1/2"	3/8"	No. 4
No. 4 to 3/4 inch	---	—	100	90-100	—	20-55	0-10
No. 4 to 1 inch	---	100	90-100	—	25-60	—	0-10
No. 4 to 1 1/2 inch	100	95-100	—	35-70	—	10-30	0-5

TABLE 2
REQUIREMENTS FOR GRADATION OF FINE AGGREGATE

<u>Sieve designation</u>	<u>Percentage by weight</u>
3/8 inch	100
No. 4	95-100
No. 16	45-80
No. 30	25-55
No. 50	10-30
No. 100	2-10

Blending will be permitted, if necessary, in order to meet the gradation requirements for fine aggregate. Fine aggregate deficient in the percentage of material passing the No. 50 mesh sieve may be accepted, provided that such deficiency does not exceed 5% and is remedied by the addition of pozzolanic or cementitious materials other than portland cement, as specified in 2.6 on admixtures, in sufficient quantity to produce the required workability as approved by the Engineer.

2.4 Cement. The cement used shall be portland cement conforming to the requirements of the type specified:

- (a) Portland cement AASHO M 85
- (b) Air-entraining portland cement . . .
. AASHO M 134
- (c) Portland blast-furnace slag cement
. AASHO M 151

(d) Air-entraining portland blast furnace slag cement
. AASHO ;M 151

The Contractor shall furnish vendors' certified test reports for each carload, or equivalent, of cement shipped to the project. The report shall be delivered to the Engineer before permission to use the cement is granted. All such test reports shall be subject to verification by testing sample materials received for use on the project.

2.5 Water. The water used in concrete shall be free from sewage, oil, acid, strong alkalies, vegetable matter, and clay and loam. If the water is of questionable quality, it shall be tested in accordance with AASHO T 26.

2.6 Admixtures. The use of any material added to the concrete mix shall be approved by the Engineer. Before approval of any material, the

Contractor shall be required to submit the results of complete physical and chemical analyses made by an acceptable testing laboratory. Subsequent tests shall be made of samples taken by the Engineer from the supply of the material being furnished or proposed for use on the work to determine whether the admixture is uniform in quality with that approved.

Pozzolanic admixtures shall be fly ash meeting the requirements of ASTM C 350 or raw or calcined natural pozzolans meeting the requirements of ASTM C 402.

Air-entraining admixtures shall meet the requirements of AASHTO M 154. Air-entraining admixtures shall be added at the mixer in the amount necessary to produce the specified air content.

Water-reducing, set-controlling admixtures shall meet the requirements of ASTM C 494, Type A, water reducing or Type D, water-reducing and retarding. Water-reducing admixtures shall be added at the mixer separately from air-entraining admixtures in accordance with the manufacturer's printed instructions.

2.7 Premolded Joint Material. Premolded joint material for expansion joints shall meet the requirements of one of the following: AASHTO M 33, M 90, M 153, or M 213.

2.8 Joint Filler. The filler for joints shall meet the requirements of AASHTO M 18, grade A or B, or item P-605, unless otherwise specified in the proposal.

2.9 Steel Reinforcement. Concrete reinforcing shall consist of deformed bars of either structural, intermediate, or hard grade billet steel meeting AASHTO M 31; deformed bars of rail steel meeting AASHTO M 42; or welded wire fabric meeting AASHTO M 55. To qualify as deformed, bars shall conform to the requirements of AASHTO M 137.

2.10 Calcium Chloride. When calcium chloride is permitted by the Engineer in the

concrete as an accelerator, it shall meet the requirements of AASHTO M 144.

2.11 Cover Materials for Curing. Curing materials shall conform to one of the following specifications:

- (a) Cotton Mats for Curing Concrete AASHTO M 73
- (b) Waterproof Paper for Curing Concrete AASHTO M 139
- (c) Polyethylene Sheeting for Curing Concrete AASHTO M 171
- (d) Burlap Cloth made from Jute or Kenaf AASHTO M 182
- (e) Liquid Membrane-Forming Compounds for Curing Concrete (Type 2) AASHTO M 148

CONSTRUCTION METHODS

3.1 General. The Contractor shall furnish all labor, materials, and services necessary for, and incidental to, the completion of all work as shown on the drawings and specified herein. All machinery and equipment owned or controlled by the Contractor, which he/she proposes to use on the work, shall be of sufficient size to meet the requirements of the work, and shall be such as to produce satisfactory work; all work shall be subject to the inspection and approval of the Engineer. The Contractor shall employ at all times a sufficient force of workmen of such experience and ability that the work can be prosecuted in a satisfactory and workmanlike manner.

3.2 Concrete Proportions. The concrete shall consist of a mixture of coarse aggregate, fine aggregate, portland cement, and water. All aggregates and bulk cement shall be measured by weight. In proportioning aggregates and mixing water, compensation shall be made for the weight of moisture in the aggregates, and this shall be determined periodically.

CONCRETE PROPORTIONS
(Materials for one cubic yard of concrete)

Type of coarse aggregate	Cement content (min. bags)	Net water (max. gallons)	Weights in pounds dry aggregate		Slump range (inches)
			Fine Aggregate	Total aggregate	
Gravel	6	35	1070-1190	3210	2-5
Crushed stone	6	38	1220-1360	3200	2-5
Slag	6	38	1330-1470	2930	2-5

The proportions in the above table are based on the use of well-graded aggregates. If it is impossible with the aggregates selected to prepare concrete of the proper consistency without exceeding the maximum net water content specified, the total weight of aggregate shall be reduced by the Engineer until concrete of the proper consistency is obtained without exceeding the maximum net water content specified. However, the Contractor shall not be compensated for any additional cement which may be required by such adjustment.

The weights specified in the above table were calculated for aggregates of the following bulk specific gravities: Natural sand and gravel, 2.65; crushed stone, 2.70; slag 2.30. For aggregates of specific gravities differing more than ±0.02 from those given above, the weights given in the tables shall be corrected. The quantities shown for cement and water shall control, and the weights of aggregates shall be varied to secure the proper yield based on absolute volumes. When a special mix requiring a reduction in the amount of water is desired, the quantities of aggregates shall be increased to maintain the specified yield.

Yield test, made in accordance with specification AASHTO T 121, shall be made by the Engineer for the purpose of determining the cement content per cubic yard of concrete. If at any time such cement content is found to be less than that specified per cubic yard, the batch weights shall be reduced until the amount of

cement per cubic yard of concrete conforms to the requirements.

The net mixing water shall be adjusted for the moisture contained in the aggregates, and for the moisture which they will absorb, in order to determine the amount of water to be added at the mixer. The absorption of the fine and coarse aggregates shall be determined by AASHTO T 84 and T 85.

When an air-entraining agent or air-entraining portland cement is used, there will be a bulking of the mortar of the concrete due to the amount on entrained air. To keep the cement factor specified at the correct amount, the weight of the fine aggregate shall be reduced, as directed by the Engineer. The reduction in the fine aggregate shall be determined by yield tests as specified. Under average conditions the reduction of the sand should be about 3% of the total weight of the fine and coarse aggregate. The air content of the concrete shall be between 3 and 6%, by volume.

The air content by volume shall be based on measurements made on concrete immediately after discharge from the mixer in accordance with AASHTO T 121 or T 152.

When tests are waived, as heretofore mentioned, the concrete shall be a standard 6 bag mix, with 1" maximum coarse aggregate, unless otherwise specified, and shall have a slump range of 2-5 inches.

3.3 Control Tests. When directed by the Engineer, the Contractor shall make test cylinders or beams from the concrete as mixed for the work as herein specified.

Concrete cylindrical test specimens shall be made in accordance with AASHTO T 23 and beam specimens shall be made in accordance with AASHTO T 97. The Contractor shall cure and store the test specimens under such conditions as directed. The Engineer will make the actual tests on the specimens at no expense to the Contractor.

3.4 Proportioning and Measuring Devices. When package cement is used, the quantity for each batch shall be equal to one or more whole sacks of cement. The aggregates shall be measured separately by weight. If aggregates are delivered to the mixer in batch trucks, the exact amount for each mixer charge shall be contained in each batch compartment. Weighing boxes or hoppers shall be approved by the Engineer and shall provide means of regulating the flow of aggregates into the batch box so that the required and exact weight of aggregates can be readily obtained.

3.5 Consistency. The consistency of the concrete shall be checked by the slump test specified in AASHTO T 119.

3.6 Mixing. Concrete may be mixed at the construction site, at a central point, or wholly or in part in truck mixers. Whichever mixing process is used, concrete of the specified proportions and consistency shall be produced.

3.7 Mixing Conditions. The concrete shall be mixed only in quantities required for immediate use. Concrete shall not be mixed while the air temperature is below 40°F without permission of the Engineer. If permission is granted for mixing under such conditions, aggregates or water, or both, shall be heated and the concrete shall be placed at a temperature not less than 50°F nor more than 100°F. The Contractor shall be held responsible for any

defective work, resulting from freezing or injury in any manner during placing and curing, and shall replace such work at his or her expense.

Retempering of concrete by adding water or any other material shall not be permitted.

The delivery of concrete to the job shall be in such a manner that batches of concrete will be deposited at uninterrupted intervals.

3.8 Forms. Concrete shall not be placed until all the forms and reinforcements have been inspected and approved by the Engineer. Forms shall be of suitable material and shall be of the type, size, shape, quality and strength to build the structure as designed on the plans. The forms shall be true to line and grade and shall be mortar-tight and sufficiently rigid to prevent displacement and sagging between supports. The Contractor shall bear responsibility for their adequacy. The surfaces of forms shall be smooth and free from irregularities, dents, sags and holes.

The internal ties shall be arranged so that, when the forms are removed, no metal will show in the concrete surface or discolor the surface when exposed to weathering. All forms shall be wetted with water or with a nonstaining mineral oil which shall be applied shortly before the concrete is placed. Forms shall be constructed so that they can be removed without injuring the concrete or concrete surface. The forms shall not be removed before the expiration of at least 30 hours from vertical faces, walls, slender columns, and similar structures; forms supported by falsework under slabs, beams, girders, arches, and similar construction shall not be removed until tests indicate that at least 60% of the design strength of the concrete has developed.

3.9 Placing Reinforcement. All reinforcement shall be accurately placed, as shown on the plans, and shall be firmly held in position during concreting. Bars shall be fastened together at intersections. The

reinforcement shall be supported by approved metal chairs. Shop drawings, lists, and bending details shall be supplied by the Contractor when required.

3.10 Embedded Items. Before placing concrete, any items that are to be embedded shall be firmly and securely fastened in place as indicated. All such items shall be clean and free from coating, rust, scale, oil or any foreign matter. The embedding of wood shall be avoided. The concrete shall be spaded and consolidated around and against embedded items.

3.11 Placing Concrete. All concrete shall be placed during daylight, unless otherwise approved. The concrete shall not be placed until the depth and character of foundation, the adequacy of forms and falsework, and the placing of the steel reinforcing have been approved. Concrete shall be placed as soon as practical after mixing and in no case later than one hour after water has been added to the mix. The method and manner of placing shall be such to avoid segregation and displacement of the reinforcement. Troughs, pipes, and chutes shall be used as an aid in placing concrete when necessary. Dropping the concrete a distance of more than five feet, or depositing a large quantity at one point, will not be permitted. Concrete shall be placed upon clean, damp surfaces, free from running water, or upon properly consolidated soil.

The concrete shall be compacted with suitable mechanical vibrators operating within the concrete. When necessary, vibrating shall be supplemented by hand spading with suitable tools to assure proper and adequate compaction. Vibrators shall be manipulated so as to work the concrete thoroughly around the reinforcement and embedded fixtures and into corners and angles of the forms. The vibration at any joint shall be of sufficient duration to accomplish compaction but shall not be prolonged to the point where segregation occurs. Concrete deposited under water shall be carefully placed

in a compact mass in its final position by means of a tremie, a closed bottom dump bucket, or other approved method and shall not be disturbed after being deposited.

3.12 Construction Joints. When the placing of concrete is suspended, necessary provisions shall be made for joining future work before the placed concrete takes its initial set. For the proper bonding of old and new concrete, such provisions shall be made for grooves, steps, keys, dovetails, reinforcing bars or other devices as may be prescribed. The work shall be arranged so that a section begun on any day shall be finished during daylight of the same day. Before depositing new concrete on or against concrete which has hardened, the surface of the hardened concrete shall be cleaned by a heavy steel broom, roughened slightly, wetted, and covered with a neat coating of cement paste or grout.

3.13 Expansion Joints. Expansion joints shall be constructed at such points and of such dimensions as may be indicated on the drawings. The premolded filler shall be cut to the same shape as that of the surfaces being joined. The filler shall be fixed firmly against the surface of the concrete already in place in such manner that it will not be displaced when concrete is deposited against it.

3.14 Defective Work. Any defective work disclosed after the forms have been removed shall be immediately removed and replaced. If any dimensions are deficient, or if the surface of the concrete is bulged, uneven, or shows honeycomb, which in the opinion of the Engineer cannot be repaired satisfactorily, the entire section shall be removed and replaced at the expense of the Contractor.

3.15 Surface Finish. All exposed concrete surfaces shall be true, smooth, free from open or rough spaces, depressions, or projections. The concrete in horizontal plane surfaces shall be brought flush with the finished top surface at the proper elevation and shall be struck-off with a

straightedge and floated. Mortar finishing shall not be permitted, nor shall dry cement or sand-cement mortar be spread over the concrete during the finishing of horizontal plane surfaces.

When directed, the surface finish of exposed concrete shall be a rubbed finish. If forms can be removed while the concrete is still green, the surface shall be pointed and wetted and then rubbed with a wooden float until all irregularities are removed. If the concrete has hardened before being rubbed, a carborundum stone shall be used to finish the surface. When approved, the finishing can be done with a rubbing machine.

3.16 Curing and Protection. All concrete shall be properly cured and protected by the Contractor. The work shall be protected from the elements, flowing water, and from defacement of any nature during the building operations. The concrete shall be cured as soon as it has sufficiently hardened by covering with an approved material. Water-absorptive coverings shall be thoroughly saturated when placed and kept saturated for a period of at least three days. All curing mats or blankets shall be sufficiently weighed or tied down to keep the concrete surface covered and to prevent the surface from being exposed to currents of air. Where wooden forms are used, they shall be kept wet at all times until removed to prevent the opening of joints and drying out of the concrete. Traffic shall not be allowed on concrete surfaces for seven days after the concrete has been placed.

Special curing protection may be waived by the Engineer if the areas of finished concrete exposed to the weather are small.

3.17 Drains or Ducts. Drainage pipes, conduits and ducts that are to be encased in concrete shall be installed by the Contractor before the concrete is placed. The pipe shall be held rigidly so that it will not be displaced or moved during the placing of the concrete.

3.18 Cold Weather Protection. When concrete is placed at temperatures below 40°F, the Contractor shall provide satisfactory methods and means to protect the mix from injury by freezing. The aggregates, or water, or both, shall be heated in order to place the concrete at temperatures between 50° and 100°F..

Calcium chloride may be incorporated in the mixing water when directed by the Engineer. Not more than two pounds of Type 1 nor more than 1.6 pounds of Type 2 shall be added per bag of cement. After the concrete has been placed, the Contractor shall provide sufficient protection such as cover, canvas, framework, heating apparatus, etc., to enclose and protect the structure and maintain the temperature of the mix at not less than 50°F until at least 60% of the designed strength has been attained.

3.19 Filling Joints. All joints which require filling shall be thoroughly cleaned, and any excess mortar or concrete shall be cut out with proper tools. Joint filling shall not be started until after final curing and shall be done only when the concrete is completely dry. The cleaning and filling shall be carefully done with proper equipment and in a manner to obtain a neat looking joint free from excess filler.

METHOD OF MEASUREMENT

4.1 The yardage of portland cement concrete to be paid for shall be the number of cubic yards of concrete complete in place and accepted. In computing the yardage of concrete for payment, the dimensions used shall be those shown on the plans or ordered by the Engineer. No measurement or other allowances shall be made for forms, falsework, cofferdams, pumping, bracing, expansion joints, or finishing of the concrete. No deductions in yardage shall be made for the volumes of reinforcing steel or embedded items.

4.2 The amount of reinforcing steel to be paid for shall be the calculated theoretical

number of pounds placed, as shown on the plans, complete in place and accepted. The unit weight used for deformed bars shall be the weight of plain square or round bars of equal nominal size. If so indicated on the plans, the amount to be paid for shall include the weight of metal pipes and drains, metal conduits and ducts, or similar materials indicated and included.

BASIS OF PAYMENT

5.1 Payment shall be made at the contract unit price per cubic yard for structural portland cement concrete and per pound for reinforcing steel. These prices shall be full compensation for furnishing all materials, and for all labor, equipment, tools and incidentals necessary to complete the item.

Payment will be made under the nomenclature and seven digit item number specified in the plans and proposal for each type of portland cement concrete and reinforcing steel work required per cubic yard, per square foot, per linear foot, or per pound, as applicable.

The first three digits of any item number for work included under this specification shall be 610, i.e. 610XXXX.

TESTING AND MATERIAL REQUIREMENTS

Test and Short Title

AASHTO T 27 - Gradation
 AASHTO T 96 - Abrasion
 AASHTO T 26 - Water
 AASHTO T 121 - Yield
 AASHTO T 84 - Absorption
 AASHTO T 85 - Absorption
 AASHTO T 152 - Air Content
 AASHTO T 23 - Cylinders
 AASHTO T 97 - Beams
 AASHTO T 119 - Slump

Material and Short Title

AASHTO M 80 - Aggregate
 AASHTO M 6 - Aggregate
 AASHTO M 85 - Portland Cement
 AASHTO M 134 - Air-Entrained Portland Cement
 AASHTO M 151 - Slag Portland Cement Concrete
 ASTM C 350 - Fly-Ash
 ASTM C 402 - Pozzolans
 AASHTO M 154 - Air-Entrained Add.
 ASTM C 494 - Retarder
 AASHTO M 33 - Joint Material
 AASHTO M 90 - Joint Material
 AASHTO M 153 - Joint Material
 AASHTO M 213 - Joint Material
 AASHTO M 18 - Joint Material
 AASHTO M 31 - Steel
 AASHTO M 42 - Steel
 AASHTO M 55 - Steel
 AASHTO M 137 - Steel
 AASHTO M 144 - Accelerator
 AASHTO M 73 - Cotton Mats
 AASHTO M 139 - Paper
 AASHTO M 171 - Polyethylene
 AASHTO M 182 - Burlap
 AASHTO M 148 - Membrane

Notice to Bidders

Safety Plan Compliance Document Form

The prime contractor and all tiers of subcontractors shall comply with all provisions of the safety and operations plan and notes as specified in the construction documents. The prime contractor shall take responsibility for subcontractor and lower tier subcontractor compliance.

The prime contractor is responsible for advising all subcontractors of the safety plan requirements prior to commencement of work.

The prime contractor must execute the attached form and submit to MDOT at the pre-construction meeting.

SAFETY PLAN COMPLIANCE DOUCMENT (SPCD)

(Submit the SPCD prior to issuance of the Notice to Proceed)

Project Location: _____

Project Name: _____

Contract Date or Construction Safety Phasing Plan Approval: _____

Contractor's Official Name: _____

Contact Person: _____ Telephone: _____

Street Address: _____

City: _____ State: _____ Zip: _____

General Statement:

I have read and will abide by the Construction Safety Phasing Plan (CSPP) and will also abide by any conditions outlined in the FAA Advisory Circular 150/5370-2F, Operational Safety on Airports During Construction.

Supplemental Information:

If the CSPP located in the Contract Documents covers the subject and no additional information is needed, the statement should say, "No supplemental information". If additional room is needed, provide on another piece of paper.

I, _____, have read the CSPP for the above referenced project, approved on _____, and will abide by it as written and with the following additions as noted:

1. Coordination

Statement:

2. Phasing

Statement:

3. Areas and operations affected by the construction activity

These areas and operations are identified in the CSPP and do not require an entry in this document.

4. Protection of NAVAIDs

Statement:

5. Contractor Access

- a. How the contractor will maintain the integrity of the airport security fence.

Statement:

- b. Listing of individuals requiring driver training (for certificated airports and as requested)

NA for this Airport

- c. Types of radios, who will monitoring radios, who to contact if the contractor's designated person cannot be reached by radio.

Statement:

- d. Details on how the contractor will escort material delivery vehicles.

Statement:

6. Wildlife Management. Discuss the following:

- a. Methods and Procedures to prevent wildlife attraction..

Statement:

- b. Wildlife reporting procedures.

Statement:

- 7. **Foreign Object Debris (FOD) management.** Discuss equipment and methods for control of FOD, including construction debris and dust.

Statement:

- 8. **Hazardous Material (HAZMAT) management.** Discuss equipment and methods for responding to hazardous spills.

Statement:

- 9. **Notification of construction activities.** Provide the following:

- a. Contractor points of contact.

Statement:

- b. Contractor emergency contact

Statement:

- c. Listing of tall or other requested equipment proposed for use on the airport and the timeframe for submitting 7460-1 forms not previously submitted by the airport operator.

Statement:

- d. Batch plant details, including 7460-1 submittal.

Statement:

- 10. Inspection requirements.** Discuss daily (or more frequent) inspections and special inspection procedures.

Statement:

- 11. Underground utilities.** Discuss proposed methods of identifying and protecting underground utilities.

Statement:

12. Penalties

These penalties are identified in the CSPP and do not require an entry in this document.

- 13. Special conditions.** Discuss proposed actions for each special condition identified in the CSPP.

Statement:

- 14. Runway and taxiway visual aids.** Including marking, lighting, signs, and visual NAVAIDS.

Statement:

- 15. Marking and signs for access routes.** Discuss proposed methods of demarcating access routes for vehicle drivers.

Statement:

- 16. Hazard marking and lighting.** Discuss proposed equipment and methods for identifying excavation areas.

Statement:

- 17. Protection of runway and taxiway safety areas.** Include object free areas, obstacle free zones, and approach/departure surfaces as required. Discuss proposed methods of identifying, demarcating, and protecting airport surfaces including:

- a. Equipment and methods for maintaining Taxiway Safety Area standards

Statement:

- b. Equipment and methods for separation of construction operations from aircraft operations, including details of barricades.

Statement:

- 18. Other limitations on construction**

These limitations are identified in the CSPP and do not require an entry in this document.

Certification Statement:

I certify the above information is true and will abide by the requirements listed above.

Printed Name of Bidder

Signature

Title

Date

**MICHIGAN DEPARTMENT OF TRANSPORTATION
BUREAU OF AERONAUTICS - STANDARD SPECIFICATION
T-901
Seeding**

DESCRIPTION

1.1 This item shall consist of turfing the areas shown on the plans or designated by the Engineer. Turfing shall include advance preparation of the seed bed, fertilizing, and seeding. The work shall be accomplished during the seasons indicated on Map "A" unless otherwise specified.

Seeding or fertilizing of other than standard seed mixtures and at other than standard rates, shall be accomplished when specifically designated items, mixture rates are included in the plans or documents.

MATERIALS

2.1 **Seed.** The seed mixtures shown in Table 1 are standard mixtures for Michigan airports. The specific mixture to be used, or mixtures other than in the table, will be specified in the plans or documents. Seed shall conform to the requirements of Fed. Spec. JJJ-S-181.

Seed shall be furnished separately or in mixtures in standard containers with the seed name, lot number, net weight, percentages of purity and of germination and hard seed, and percentage of maximum weed seed content clearly marked for each kind of seed. The Contractor shall furnish the Engineer duplicate signed copies of a statement by the vendor certifying that each lot of seed has been tested by a recognized laboratory for seed testing within 6 months of date of delivery. This statement shall include: name and address of laboratory, date of test, lot number for each kind of seed, and the results of tests as to name, percentages of purity and of germination, and percentage of weed content for each kind of seed furnished and, in case of a

mixture, the proportions of each kind of seed.

2.2 **Lime.** Lime, if specified, shall be ground limestone containing not less than 85% of total carbonates, and shall be ground to such fineness that 90% will pass through a No. 20 mesh sieve and 50% will pass through a No. 100 mesh sieve. Coarser material will be acceptable, providing the rates of application are increased to provide not less than the minimum quantities and depth specified on the basis of the two sieve requirements above. Dolomitic lime or a high magnesium lime shall contain at least 10% of magnesium, oxide. Lime shall be applied at a rate of 2000 pounds per square acre and incorporated to a depth of 4 inches unless other rates and depths are shown in the plans or documents.

2.3 **Fertilizer.** Fertilizer is included as a part of the turfing pay item. All areas, shown on the plans or designated by the Engineer to be turfed, shall be fertilized with the following standard minimum pounds of available plant food per square acre: 60 lbs. Nitrogen (N); 60 lbs. Phosphoric Acid (P₂O₅); and 60 lbs. Potash (K₂O). This is equivalent to a commercial 12-12-12 fertilizer applied at 500 lbs. per acre

Fertilizer shall meet the specified requirements of the applicable state and federal laws. They shall be furnished in standard containers with name, weight, and guaranteed analysis of contents clearly marked thereon. No cyanamide compounds or hydrated lime shall be permitted in mixed fertilizers.

The fertilizers may be supplied in one of the following forms:

- (a) A dry, free-flowing fertilizer suitable for application by a common fertilizer spreader;
- (b) A finely-ground fertilizer soluble in water, suitable for application by power sprayers; or

(c) A granular or pellet form suitable for application by blower equipment.

soil shall be relatively free from large stones, roots, stumps, or other materials that will interfere with subsequent sowing of seed, compacting, and establishing turf, and shall be approved by the Engineer before being placed.

2.4 Soil for Repairs. The soil for fill and topsoiling of areas to be repaired shall be at least of equal quality to that which exists in areas adjacent to the area to be repaired. The

SEEDS FEDERAL SPECIFICATION JJJ-S-181				STANDARD MIXTURES PERCENTAGE			
Name	Minimum % Pure Seed	Minimum % Germination & Hard Seed	Maximum % Weed Seed	A	B	C	D
Kentucky Blugrass (Pod pratensis)	85	80	0.5	85			
Red Fescue (Festuca rubra var.)	98	85	0.5		95		
Perennial Ryegrass (Lolium perenne)	98	90	0.5	15	5		100
Cereal Rye (Secal cereale)	97	85	0.1			100	
STANDARD POUNDS PER ACRE APPLICATION				100	100	80	50
INTENDED USE (FOR GUIDANCE OF DESIGNER ONLY)				Rich Loams Mucks Terminal Lawns	Sands and Clays	Temp. Cover	

CONSTRUCTION METHODS

3.1 Advance Preparation and Cleanup.

After grading of areas have been completed and before applying fertilizer and ground limestone, areas to be seeded shall be raked or otherwise cleared of stones larger than 2 inches in any diameter, sticks, stumps, and other debris which might interfere with sowing of seed, growth of grasses, or subsequent maintenance of grass-covered areas. If any damage by erosion by

other causes has occurred after the completion of grading and before beginning the application of fertilizer and ground limestone, the Contractor shall repair such damage. This may include filling gullies, smoothing irregularities, and repairing other incidental damage.

An area to be seeded shall be considered a satisfactory seedbed without additional treatment if it has recently been thoroughly loosened and worked to a depth of not less than

5 inches as a result of grading operations and, if immediately prior to seeding, the top 3 inches of soil is loose, friable, reasonably free from large clods, rocks, large roots, or other undesirable matter, and if shaped to the required grade.

However, when the area to be seeded is sparsely sodded, weedy, barren and unworked, or packed and hard, any grass and weeds shall first be cut or otherwise satisfactorily disposed of, and the soil then scarified or otherwise loosened to a depth not less than 5 inches. Clods shall be broken and the top 3 inches of soil shall be worked into a satisfactory seedbed by discing, or by use of cultipackers, rollers, drags, harrows, or other appropriate means.

3.1 **Dry Application Method.**

(a) **Liming.** Lime, if required, shall be applied separately and prior to the application of any fertilizer or seed and only on seedbeds which have previously been prepared as described above. The lime shall then be worked into the top 3 inches of soil after which the seedbed shall again be properly graded and dressed to a smooth finish.

(b) **Fertilizing.** Following advance preparations and cleanup, and liming if required, fertilizer shall be uniformly spread at the rate which will provide not less than the minimum quantity required by this spec. or as specified in the plans and documents.

(c) **Seeding.** Grass seed shall be sown at the rate specified in Table 1 or as specified in the plans and documents immediately after fertilizing, and the fertilizer and seed shall be raked within the depth range stated. Sowing of seed shall be done with a Brillion seeder or approved equal except that small areas or lawns may be seeded by broadcast or hoppers. Grain drills will not be permitted. When a Brillion type seeder is used, raking or rolling, as specified in paragraph (d), will not be required. In no case shall the seed be

covered to a depth greater than $\frac{1}{4}$ inch.

Seeds of legumes, either alone or in mixtures shall be inoculated before mixing or sowing, in accordance with the instructions of the manufacturer of the inoculant. When seeding is required at other than the seasons indicated on Map "A" or as specified on the plans and documents a cover crop shall be sown by the same methods required for grass and legume seeding.

(d) **Rolling.** After the seed has been properly covered, the seedbed shall be immediately compacted by means of an approved lawnroller, weighting 40 to 65 pounds per foot of width for clay soil (or any soil having a tendency to pack), and weighing 150 to 200 pounds per acre of width for sandy or light soils.

3.3 **Wet Application Method.**

(a) **General.** The Contractor may elect to apply seed and fertilizer (and lime, if required) by spraying them on the previously prepared seedbed in the form of an aqueous mixture and by using the methods and equipment described herein. The rates of application shall be as required by this specification or as specified in the plans and documents.

(b) **Spraying Equipment.** The spraying equipment shall have a container or water tank equipped with a liquid level gauge calibrated to read in increments not larger than 50 gallons over the entire range of the tank capacity, mounted so as to be visible to the nozzle operator. The container or tank shall also be equipped with a mechanical power-driven agitator capable of keeping all the solids in the mixture in complete suspension at all times until used.

The unit shall also be equipped with a pressure pump capable of delivering 100 gallons per minute at a pressure of 100 pounds per square

inch. The pump shall be mounted in a line which will recirculate the mixture through the tank whenever it is not being sprayed from the nozzle. All pump passages and pipe lines shall be capable of providing clearance for 5/8 inch solids. The power unit for the pump and agitator shall have controls mounted so as to be accessible to the nozzle operator. There shall be an indicating pressure gauge connected and mounted immediately at the back of the nozzle.

The nozzle pipe shall be mounted on an elevated supporting stand in such a manner that it can be rotated through 360 degrees horizontally and inclined vertically from at least 20 degrees below to at least 60 degrees above the horizontal. There shall be a quick-acting, three-way control valve connecting the recirculating line to the nozzle pipe and mounted so that the nozzle operator can control and regulate the amount of flow of mixture delivered to the nozzle. At least three different types of nozzles shall be supplied so that mixtures may be properly sprayed over distances varying from 20 feet to 100 feet. One shall be a close-range ribbon nozzle, one a medium-range ribbon nozzle, and one a long-range jet nozzle. For ease of removal and cleaning, all nozzles shall be connected to the nozzle pipe by means of quick-release couplings.

In order to reach areas inaccessible to the regular equipment, an extension hose at least 50 feet in length shall be provided to which the nozzles may be connected.

(c) **Mixtures.** Lime, if required, shall be applied separately, in the quantity specified, prior to the fertilizing and seeding operations. Not more than 220 pounds of lime shall be added to and mixed with each 100 gallons of water. Seed and fertilizer shall be mixed together in the relative proportions specified, but not more than a total of 220 pounds of these combined solids shall be added to and mixed with each 100 gallons of water.

All water used shall be obtained from fresh water sources and shall be free from injurious chemicals and other toxic substances harmful to plant life. Brackish water shall not be used at any time. The Contractor shall identify to the Engineer all sources of water at least 2 weeks prior to use. The Engineer may take samples of the water at the source or from the tank at any time and have a laboratory test the samples for chemical and saline content. The Contractor shall not use any water from any source which is disapproved by the Engineer following such tests.

All mixtures shall be constantly agitated from the time they are mixed until they are finally applied to the seedbed. All such mixtures shall be used within 2 hours from the time they were mixed or they shall be wasted and disposed of at locations acceptable to the Engineer.

(d) **Spraying.** Lime, if required, shall be sprayed only upon previously prepared seedbeds. After the applied lime mixture has dried, the lime shall be worked into the top 3 inches, after which the seedbed shall again be properly graded and dressed to a smooth finish.

Mixtures of seed and fertilizer shall only be sprayed upon previously prepared seedbeds on which the lime, if required, shall already have been worked in. The mixtures shall be applied by means of a high-pressure spray which shall always be directed upward into the air so that the mixtures will fall to the ground like rain in a uniform spray. Nozzles or sprays shall never be directed toward the ground in such a manner as might produce erosion or runoff.

Particular care shall be exercised to insure that the application is made uniformly and at the prescribed rate and to guard against misses and overlapped areas. Proper predetermined quantities of the mixture in accordance with specifications shall be used to cover specified sections of known area. Checks on the rate and uniformity of application may be made by

observing the degree of wetting of the ground or by distributing test sheets of paper or pans over the area at intervals and observing the quantity of material deposited thereon.

On surfaces which are to be mulched as indicated by the plans or designated by the Engineer, seed and fertilizer applied by the spray method need not be raked into the soil or rolled. However, on surfaces on which mulch is not to be used, the raking and rolling operations will be required after the soil has dried.

3.4 Maintenance of Seeded Areas. The Contractor shall protect seeded areas against traffic or other use by warning signs or barricades, as approved by the Engineer. Surfaces gullied or otherwise damaged following seeding shall be repaired by regrading and reseeded as directed. The Contractor shall mow, water as directed, and otherwise maintain seeded areas in a satisfactory condition until final inspection and acceptance of the work.

Approximately 45 days after turfing, an inspection shall be made by all parties concerned to determine if the turf is acceptable. If it is determined that certain areas did not receive the proper distribution of seed and/or fertilizer or the specifications were not adhered to, the Contractor, at his or her own expense, will be required to re-turf those areas. This repair work shall be done between the specified turfing dates, under the direction of the Engineer.

If it is determined by the inspection that an established turf cannot be expected on all or part of the turfing area, through no fault of the Contractor, the Contractor will be required to re-turf, with payment, all areas designated by the Engineer. Payment, for re-turfing under this condition, will be made to the Contractor at the contract unit price bid for "Turfing." Before re-turfing is authorized, a change order covering increased area and extending contract time shall

be executed and all parties concerned shall have approved it.

METHOD OF MEASUREMENT

4.1 The area of turfing, or liming to be paid for shall be the number of acres and tenths thereof, measured by surface area, of the specified work prepared, completed, and accepted.

BASIS OF PAYMENT

5.1 The area of turfing type work, determined as provided above, shall be paid for at the contract unit price per acre for the specified work which price and payment shall constitute full compensation for removing debris, tilling, smooth and finish grading, furnishing and applying all materials, and for all labor, equipment, tools, and incidentals necessary to complete the work.

Payment will be made under the nomenclature and seven digit item number specified in the plans and proposal for each type of turfing work required per square meter.

The first three digits of any item number for work included under this specification shall be 901, i.e. 901XXXX.

TESTING AND MATERIAL REQUIREMENTS

Test and Short Title

None

Material and Short Title

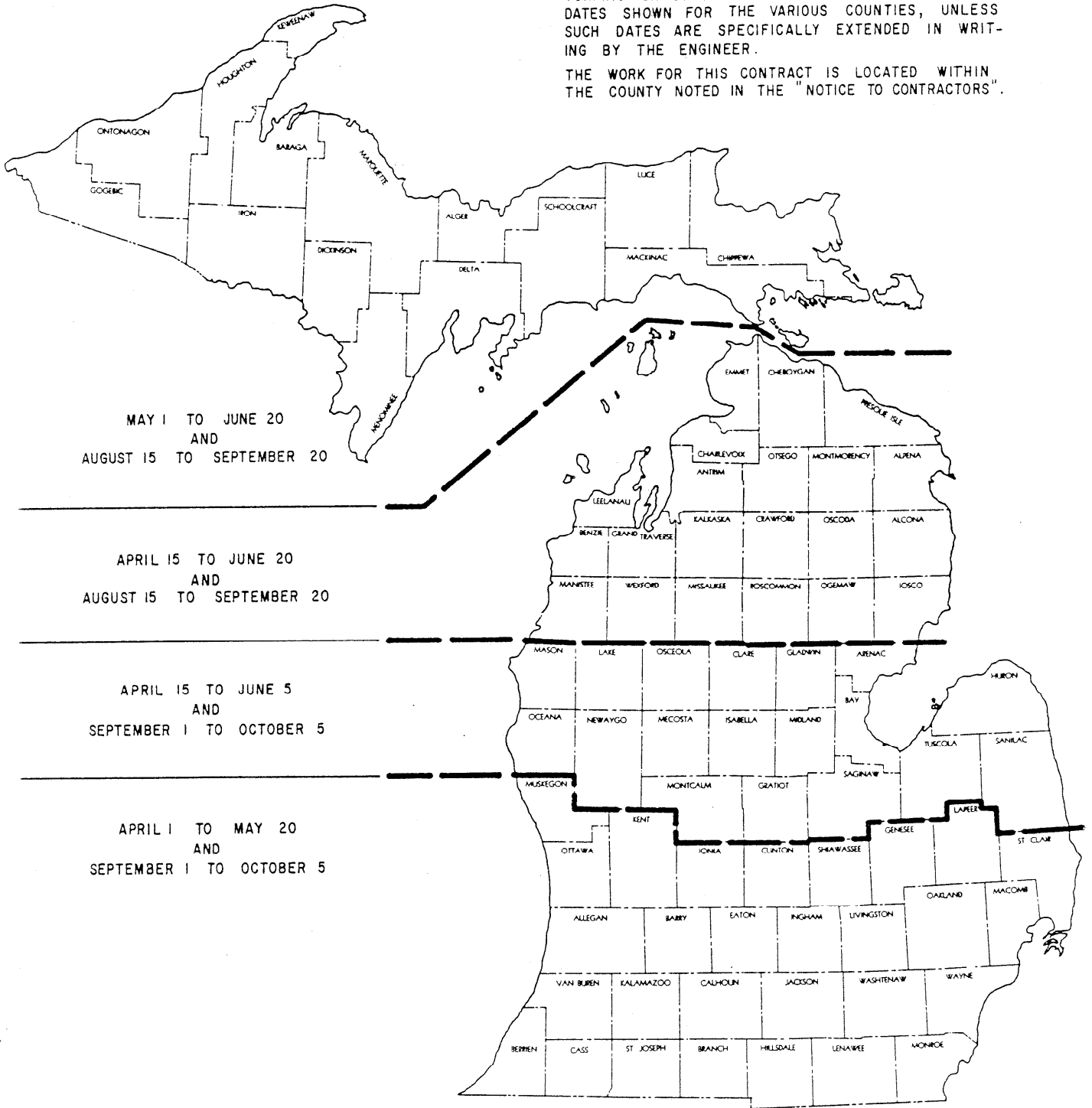
*JJJ-S-181-Seed

*Federal Specification

MAP A

TURFING SHALL BE ACCOMPLISHED ONLY BETWEEN THE DATES SHOWN FOR THE VARIOUS COUNTIES, UNLESS SUCH DATES ARE SPECIFICALLY EXTENDED IN WRITING BY THE ENGINEER.

THE WORK FOR THIS CONTRACT IS LOCATED WITHIN THE COUNTY NOTED IN THE "NOTICE TO CONTRACTORS".



ALLOWABLE TURFING SEASONS IN MICHIGAN

**MICHIGAN DEPARTMENT OF TRANSPORTATION
AIRPORTS DIVISION - STANDARD SPECIFICATION**

**T-908
Mulching**

DESCRIPTION

1.1 This item shall consist of furnishing, hauling, placing, and securing mulch on surfaces indicated on the plans or designated by the Engineer.

MATERIALS

2.1 **Mulch Material.** Acceptable mulch shall be the materials listed below or any approved locally available material that is similar to those specified. Low grade, musty, spoiled, partially rotted hay, straw, or other materials unfit for animal consumption will be acceptable. Mulch materials, that contain matured seed of species which would volunteer and be detrimental to the proposed over seeding, or to surrounding farm land, will not be acceptable. Straw or other mulch material which is fresh and/or excessively brittle, or which is in such an advanced stage of decomposition as to smother or retard the planted grass, will not be acceptable.

(a) **Hay.** Hay shall be native hay, sudan grass hay, broomsedge hay, legume hay, or similar hay or grass clippings.

(b) **Straw.** Straw shall be the threshed plant residue of oats, wheat, barley, rye, or rice from which grain has been removed.

(c) **Hay Mulch Containing Seed.** Hay mulch shall be mature hay containing viable seed of native grasses or other desirable species stated in the special provisions or as approved by the Engineer. The hay shall be cut and handled so as to preserve the maximum quantity of viable seed. Hay mulch that cannot be hauled and spread immediately after cutting shall be placed in weather-resistant stacks or baled and stored in a dry location until used.

(d) **Manufactured Mulch.** Cellulose-fiber or wood-pulp mulch shall be products commercially available for use in spray applications.

(e) **Asphalt Binder.** Asphalt binder material shall conform to the requirements of ASTM D977, Type SS-1 or RS-1.

2.2 **Inspection.** Within 5 days after acceptance of the bid, the Engineer shall be notified of sources and quantities of mulch materials available and the Contractor shall furnish him with representative samples of the materials to be used. These samples may be used as standards with the approval of the Engineer and any materials brought on the site which do not meet these standards shall be rejected.

CONSTRUCTION METHODS

3.1 **Mulching.** Before spreading mulch, all large clods, stumps, stones, brush, roots, and other foreign material shall be removed from the area to be mulched. Mulch shall be applied immediately after seeding. The spreading of the mulch may be by hand methods, blower, or other mechanical methods, provided a uniform covering is obtained.

Mulch materials shall be furnished, hauled, and evenly applied on the area shown on the plans or designated by the Engineer. Straw or hay shall be spread over the surface to a uniform thickness at the rate of 2 to 3 tons per acre to provide a loose depth of not less than 1-1/2 inches nor more than 3 inches. Other organic material shall be spread at a rate directed by the Engineer. Mulch may be blown on the slopes and the use of cutters in the equipment for this purpose will be permitted to the extent that at least 95% of the mulch in place on the slope shall be 6 inches or more in length. When mulches applied by the blowing method are cut, the loose depth in place shall be not less than 1 inch nor more than 2 inches.

3.2 **Securing Mulch.** The mulch shall be held in place by light discing, a very thin covering of topsoil, small brush, pins, stakes, wire mesh, asphalt binder, or other adhesive material approved by the Engineer. Where mulches have been secured by either of the asphalt binder methods, it will not be permissible to walk on the slopes after the binder has been applied. The Contractor is warned that in the application of asphalt binder material, he or she must take every precaution to guard against damaging or disfiguring structures or property on or adjacent to the areas worked and that he or she will be held responsible for any such damage resulting from his/her operations. If the "Peg and String" methods is used, the mulch

shall be secured by the use of stakes or wire pins driven into the ground on 5 foot centers or less. Binder twine shall be strung between adjacent stakes in straight lines and criss-crossed diagonally over the mulch, after which the stakes shall be firmly driven nearly flush to the ground to draw the twine down tight onto the mulch.

3.3 Care and Repair.

(a) The Contractor shall care for the mulched areas until final acceptance of the project. Such care shall consist of providing protection against traffic or other use by placing warning signs, as approved by the Engineer, and erecting any barricades that may be shown on the plans before or immediately after mulching has been completed on the designated areas.

(b) The Contractor shall be required to repair or replace any mulching that is defective or becomes damaged until the project is finally accepted.

When, in the judgment of the Engineer, such defects or damages are the result of poor workmanship or failure to meet the requirements of the specifications, the cost of the necessary repairs or replacement shall be borne by the Contractor. However, once the Contractor has completed the mulching of any area in accordance with the provisions of the specifications and to the satisfaction of the Engineer, no additional work at his/her expense will be required, but subsequent repairs and replacements deemed necessary by the Engineer shall be made by the Contractor and will be paid for as additional extra work.

(c) If the "Asphalt Spray" method is used, all mulched surfaces shall be sprayed with asphalt binder material so that the surface has a uniform appearance. The binder shall be uniformly applied to the mulch at the rate of approximately 8.0 gallons per 1,000 square feet, or as directed by the Engineer, with a minimum of 6.0 gallons and a maximum of 10 gallons per 1,00 square feet depending on the type of mulch and the effectiveness of the binder securing it. Bituminous binder material may be sprayed on the mulched slopes areas from either the top or the bottom of the slope. An approved spray nozzle shall be used. The nozzle shall be operated at a distance of not less than 4 feet from the surface of the mulch and uniform distribution of the bituminous material shall be

required. A pump or an air compressor of adequate capacity shall be used to insure uniform distribution of the bituminous material.

(d) If the "Asphalt Mix" method is used, the mulch shall be applied by blowing, and the asphalt binder material shall be sprayed into the mulch as it leaves the blower. The binder shall be uniformly applied to the mulch at the rate of approximately 8.0 gallons per 1,000 square feet or as directed by the Engineer, with a minimum of 6.0 gallons and a maximum of 10 gallons per 1,000 square feet depending on the type of mulch and the effectiveness of the binder securing it.

METHOD OF MEASUREMENT

4.1 Mulching shall be measured in acres and tenths or per square yard on the basis of the actual surface area mulched and accepted.

Manufactured netting mulch shall be measured in square yards on the basis of the actual surface area mulched and accepted.

BASIS OF PAYMENT

5.1 Payment will be made at the contract unit price per acre or per square yard as specified for the type of mulching. This price shall be full compensation for furnishing all materials and for placing and anchoring the materials, and for all labor, equipment, tools, and incidentals necessary to complete the item.

Payment will be made under the nomenclature and seven digit item number specified in the plans and proposal for each type of mulching required per acre or per square yard, as applicable.

The first three digits of any item number for work included under this specification shall be 908, i.e. 908XXXX.

TESTING AND MATERIAL

Material and Short Title
ASTM D977 - Emulsified Asphalt

General Decision Number: MI130001 01/04/2013 MI1

Superseded General Decision Number: MI20120001

State: Michigan

Construction Types: Highway (Highway, Airport & Bridge xxxxx and Sewer/Incid. to Hwy.)

Counties: Michigan Statewide.

Modification Number	Publication Date
0	01/04/2013

CARP0004-004 06/01/2011

REMAINDER OF STATE

	Rates	Fringes
CARPENTER (Piledriver).....	\$ 25.34	15.42

 CARP0004-005 06/01/2012

LIVINGSTON (Townships of Brighton, Deerfield, Genoa, Hartland, Oceola & Tyrone), MACOMB, MONROE, OAKLAND, SANILAC, ST. CLAIR AND WAYNE COUNTIES

	Rates	Fringes
CARPENTER (Piledriver).....	\$ 28.24	22.70

 ELEC0017-005 06/04/2012

	Rates	Fringes
Line Construction		
Groundman/Driver.....	\$ 26.24	11.56
Journeyman Signal Tech, Communications Tech, Tower Tech & Fiber Optic Splicers.	\$ 35.58	13.97
Journeyman Specialist.....	\$ 40.92	15.34
Operator A.....	\$ 30.16	12.57
Operator B.....	\$ 28.19	12.06

Classifications

Journeyman Specialist: Refers to a crew of only one person working alone.

Operator A: Shall be proficient in operating all power equipment including: Backhoe, Excavator, Directional Bore and Boom/Digger truck.

Operator B: Shall be proficient in operating any 2 of the above mentioned pieces of equipment listed under Operator A.

 ENGI0324-003 06/01/2012

ALCONA, ALPENA, ARENAC, BAY, CHEBOYGAN, CLARE, CLINTON, CRAWFORD, GENESEE, GLADWIN, GRATIOT, HURON, INGHAM, IOSCO, ISABELLA, JACKSON, LAPEER, LENAWEE, LIVINGSTON, MACOMB, MIDLAND, MONROE, MONTMORENCY, OAKLAND, OGEMAW, OSCODA, OTSEGO, PRESQUE ISLE, ROSCOMMON, SAGINAW, ST. CLAIR, SANILAC, SHIAWASSEE, TUSCOLA, WASHTENAW AND WAYNE COUNTIES:

	Rates	Fringes
OPERATOR: Power Equipment (Steel Erection)		
GROUP 1.....	\$ 42.62	19.95
GROUP 2.....	\$ 43.62	19.95
GROUP 3.....	\$ 41.12	19.95
GROUP 4.....	\$ 42.12	19.95
GROUP 5.....	\$ 39.62	19.95
GROUP 6.....	\$ 40.62	19.95
GROUP 7.....	\$ 39.35	19.95
GROUP 8.....	\$ 40.35	19.95
GROUP 9.....	\$ 38.90	19.95
GROUP 10.....	\$ 39.90	19.95
GROUP 11.....	\$ 38.17	19.95
GROUP 12.....	\$ 39.17	19.95
GROUP 13.....	\$ 37.81	19.95
GROUP 14.....	\$ 38.81	19.95
GROUP 15.....	\$ 37.17	19.95
GROUP 16.....	\$ 35.47	19.95
GROUP 17.....	\$ 30.36	19.95
GROUP 18.....	\$ 28.95	19.95

FOOTNOTE:

Paid Holidays: New Year's Day, Memorial Day, Fourth of July, Labor Day, Thanksgiving Day and Christmas Day.

POWER EQUIPMENT OPERATOR CLASSIFICATIONS

GROUP 1: Engineer when operating combination of boom and jib 400' or longer

GROUP 2: Engineer when operating combination of boom and jib 400' or longer on a crane that requires an oiler

GROUP 3: Engineer when operating combination of boom and jib 300' or longer

GROUP 4: Engineer when operating combination of boom and jib 300' or longer on a crane that requires an oiler

GROUP 5: Engineer when operating combination of boom and jib 220' or longer

GROUP 6: Engineer when operating combination of boom and jib 220' or longer on a crane that requires an oiler

GROUP 7: Engineer when operating combination of boom and jib 140' or longer

GROUP 8: Engineer when operating combination of boom and jib 140' or longer on a crane that requires an oiler

GROUP 9: Tower crane & derrick operator (where operator's work station is 50 ft. or more above first sub-level)

GROUP 10: Tower crane & derrick operator (where operator's work station is 50 ft. or more above first sub-level) on a crane that requires an oiler

GROUP 11: Engineer when operating combination of boom and jib 120' or longer

GROUP 12: Engineer when operating combination of boom and jib 120' or longer on a crane that requires an oiler

GROUP 13: Crane operator; job mechanic and 3 drum hoist and excavator

GROUP 14: Crane operator on a crane that requires an oiler

GROUP 15: Hoisting operator; 2 drum hoist and rubber tired backhoe

GROUP 16: Forklift and 1 drum hoist

GROUP 17: Compressor or welder operator

GROUP 18: Oiler

 ENGI0324-004 07/01/2012

AREA 1: ALLEGAN, BARRY, BERRIEN, BRANCH, CALHOUN, CASS, EATON, HILLSDALE, IONIA, KALAMAZOO, KENT, LAKE, MANISTEE, MASON, MECOSTA, MONTCALM, MUSKEGON, NEWAYGO, OCEANA, OSCEOLA, OTTAWA, ST. JOSEPH, VAN BUREN

AREA 2: ANTRIM, BENZIE, CHARLEVOIX, EMMET, GRAND TRAVERSE, KALKASKA, LEELANAU, MISSAUKEE AND WEXFORD COUNTIES:

	Rates	Fringes
OPERATOR: Power Equipment (Steel Erection)		
AREA 1		
GROUP 1.....	\$ 29.34	20.20
GROUP 2.....	\$ 29.09	20.20
GROUP 3.....	\$ 28.59	20.20
GROUP 4.....	\$ 23.49	20.20
GROUP 5.....	\$ 21.84	20.20
GROUP 6.....	\$ 19.24	20.20
AREA 2		
GROUP 1.....	\$ 29.34	20.20
GROUP 2.....	\$ 29.09	20.20
GROUP 3.....	\$ 28.09	20.20
GROUP 4.....	\$ 23.19	20.20
GROUP 5.....	\$ 21.54	20.20
GROUP 6.....	\$ 18.74	20.20

FOOTNOTES:

Crane operator with main boom and jib 300' or longer: \$1.50 additional to the group 1 rate. Crane operator with main boom and jib 400' or longer: \$3.00 additional to the group

1 rate.

PAID HOLIDAYS: New Year's Day, Memorial Day, Fourth of July, Labor Day, Thanksgiving Day and Christmas Day.

POWER EQUIPMENT OPERATOR CLASSIFICATIONS:

GROUP 1: Crane Operator with main boom & jib 400', 300', or 220' or longer.

GROUP 2: Crane Operator with main boom & jib 140' or longer, Tower Crane; Gantry Crane; Whirley Derrick.

GROUP 3: Regular Equipment Operator, Crane, Dozer, Loader, Hoist, Straddle Wagon, Mechanic, Grader and Hydro Excavator.

GROUP 4: Air Tugger (single drum), Material Hoist Pump 6" or over, Elevators, Brokk Concrete Breaker.

GROUP 5: Air Compressor, Welder, Generators, Conveyors

GROUP 6: Oiler and fire tender

ENGI0324-005 09/01/2012

AREA 1: GENESEE, LAPEER, LIVINGSTON, MACOMB, MONROE, OAKLAND, ST. CLAIR, WASHTENAW AND WAYNE COUNTIES

AREA 2: ALCONA, ALLEGAN, ALPENA, ANTRIM, ARENAC, BARRY, BAY, BENZIE, BERRIEN, BRANCH, CALHOUN, CASS, CHARLEVOIX, CHEBOYGAN, CLARE, CLINTON, CRAWFORD, EATON, EMMET, GLADWIN, GRAND TRAVERSE, GRATIOT, HILLSDALE, HURON, INGHAM, IONIA, IOSCO, ISABELLA, JACKSON, KALAMAZOO, KALKASKA, KENT, LAKE, LEELANAU, LENAWEE, MANISTEE, MASON, MECOSTA, MIDLAND, MISSAUKEE, MONTCALM, MONTMORENCY, MUSKEGON, NEWAYGO, OCEANA, OGEMAW, OSCEOLA, OSCODA, OTSEGO, OTTAWA, PRESQUE ISLE, ROSCOMMON, SAGINAW, SANILAC, SHIAWASSEE, ST. JOSEPH, TUSCOLA, VAN BUREN AND WEXFORD COUNTIES

Rates Fringes

OPERATOR: Power Equipment
(Undrground construction
(including sewer)

AREA 1:

GROUP 1.....\$ 29.98 20.25

GROUP 2.....	\$ 25.25	20.25
GROUP 3.....	\$ 24.52	20.25
GROUP 4.....	\$ 23.95	20.25
AREA 2:		
GROUP 1.....	\$ 28.27	20.25
GROUP 2.....	\$ 23.38	20.25
GROUP 3.....	\$ 22.88	20.25
GROUP 4.....	\$ 22.60	20.25

POWER EQUIPMENT OPERATOR CLASSIFICATIONS

GROUP 1: Backfiller tamper; Backhoe; Batch plant operator (concrete); Clamshell; Concrete paver (2 drums or larger); Conveyor loader (Euclid type); Crane (crawler, truck type or pile driving); Dozer; Dragline; Elevating grader; Endloader; Gradall (and similar type machine); Grader; Mechanic; Power shovel; Roller (asphalt); Scraper (self-propelled or tractor drawn); Side boom tractor (type D-4 or equivalent and larger); Slip form paver; Slope paver; Trencher (over 8 ft. digging capacity); Well drilling rig; Concrete pump with boom operator; Hydro Excavator

GROUP 2: Boom truck (power swing type boom); Crusher; Hoist; Pump (1 or more - 6-in. discharge or larger - gas or diesel-powered or powered by generator of 300 amperes or more - inclusive of generator); Side boom tractor (smaller than type D-4 or equivalent); Tractor (pneu-tired, other than backhoe or front end loader); Trencher (8-ft. digging capacity and smaller); Vac Truck

GROUP 3: Air compressors (600 cfm or larger); Air compressors (2 or more-less than 600 cfm); Boom truck (non-swinging, non-powered type boom); Concrete breaker (self-propelled or truck mounted - includes compressor); Concrete paver (1 drum-1/2 yd. or larger); Elevator (other than passenger); Maintenance person; Pump (2 or more-4-in. up to 6-in. discharge-gas or diesel powered - excluding submersible pumps); Pumpcrete machine (and similar equipment); Wagon drill (multiple); Welding machine or generator (2 or more-300 amp. or larger - gas or diesel powered)

GROUP 4: Boiler; Concrete saw (40 hp or over); Curing machine (self-propelled); Farm tractor (with attachment); Finishing machine (concrete); Fire person; Hydraulic pipe pushing machine; Mulching equipment; Oiler; Pumps (2 or more up to

4-in. discharge, if used 3 hours or more a day, gas or diesel powered - excluding submersible pumps); Roller (other than asphalt); Stump remover; Trencher (service); Vibrating compaction equipment, self-propelled (6 ft. wide or over); End dump operator; Sweeper (Wayne type); Water wagon and Extend-a boom forklift

 ENGI0324-006 06/01/2012

AREA 1: GENESEE, MACOMB, MONROE, OAKLAND, WASHTENAW AND WAYNE COUNTIES

AREA 2: ALCONA, ALGER, ALLEGAN, ALPENA, ANTRIM, ARENAC, BARAGA, BARRY, BAY, BENZIE, BERRIEN, BRANCH, CALHOUN, CASS, CHARLEVOIX, CHEBOYGAN, CHIPPEWA, CLARE, CLINTON, CRAWFORD, DELTA, DICKINSON, EATON, EMMET, GLADWIN, GOGEBIC, GRAND TRAVERSE, GRATIOT, HILLSDALE, HOUGHTON, HURON, INGHAM, IONIA, IOSCO, IRON, ISABELLA, JACKSON, KALAMAZOO, KALKASKA, KENT, KEWEENAW, LAKE, LAPEER, LEELANAU, LENAWEE, LIVINGSTON, LUCE, MACKINAC, MANISTEE, MARQUETTE, MASON, MECOSTA, MENOMINEE, MIDLAND, MISSAUKEE, MONTCALM, MONTMORENCY, MUSKEGON, NEWAYGO, OCEANA, OGEMAW, ONTONAGON, OSCEOLA, OSCODA, OTSEGO, OTTAWA, PRESQUE ISLE, ROSCOMMON, SAGINAW, ST. CLARE, ST. JOSEPH, SANILAC, SCHOOLCRAFT, SHIAWASSEE, TUSCOLA, VAN BUREN AND WEXFORD COUNTIES

	Rates	Fringes
Power equipment operators: (AIRPORT, BRIDGE & HIGHWAY CONSTRUCTION)		
AREA 1		
GROUP 1.....	\$ 29.11	20.25
GROUP 2.....	\$ 22.38	20.25
GROUP 3.....	\$ 23.68	20.25
GROUP 4.....	\$ 21.82	20.25
GROUP 5.....	\$ 21.65	20.25
AREA 2		
GROUP 1.....	\$ 29.11	20.25
GROUP 2.....	\$ 22.23	20.25
GROUP 3.....	\$ 23.53	20.25
GROUP 4.....	\$ 21.67	20.25
GROUP 5.....	\$ 21.35	20.25

POWER EQUIPMENT OPERATOR CLASSIFICATIONS

GROUP 1: Asphalt plant operator; Crane operator (does not

include work on bridge construction projects when the crane operator is erecting structural components); Dragline operator; Shovel operator; Locomotive operator; Paver operator (5 bags or more); Elevating grader operator; Pile driving operator; Roller operator (asphalt); Blade grader operator; Trenching machine operator (ladder or wheel type); Auto-grader; Slip form paver; Self-propelled or tractor-drawn scraper; Conveyor loader operator (Euclid type); Endloader operator (1 yd. capacity and over); Bulldozer; Hoisting engineer; Tractor operator; Finishing machine operator (asphalt); Mechanic; Pump operator (6-in. discharge or over, gas, diesel powered or generator of 300 amp. or larger); Shouldering or gravel distributing machine operator (self-propelled); Backhoe (with over 3/8 yd. bucket); Side boom tractor (type D-4 or equivalent or larger); Tube finisher (slip form paving); Gradall (and similar type machine); Asphalt paver (self-propelled); Asphalt planer (self-propelled); Batch plant (concrete-central mix); Slurry machine (asphalt); Concrete pump (3 in. and over); Roto-mill; Swinging boom truck (over 12 ton capacity); Hydro demolisher (water blaster); Farm-type tractor with attached pan

GROUP 2: Screening plant operator; Washing plant operator; Crusher operator; Backhoe (with 3/8 yd. bucket or less); Side boom tractor (smaller than D-4 type or equivalent); Sweeper (Wayne type and similar equipment); Vacuum truck operator; Batch plant (concrete dry batch)

GROUP 3: Grease Truck

GROUP 4: Air compressor operator (600 cu. ft. per min or more); Air compressor operator (two or more, less than 600 cfm); Wagon drill operator; Concrete breaker; Tractor operator (farm type with attachment)

GROUP 5: Boiler fire tender; Oiler; Fire tender; Trencher (service); Flexplane operator; Cleftplane operator; Grader operator (self-propelled fine-grade or form (concrete)); Finishing machine operator (concrete); Boom or winch hoist truck operator; Endloader operator (under 1 yd. capacity); Roller operator (other than asphalt); Curing equipment operator (self-propelled); Concrete saw operator (40 h.p. or over); Power bin operator; Plant drier operator (asphalt); Vibratory compaction equipment operator (6 ft. wide or over); Guard post driver operator (power driven);

All mulching equipment; Stump remover; Concrete pump (under 3-in.); Mesh installer (self-propelled); Tractor operator (farm type); End dump; Skid steer

 ENGI0324-007 05/01/2012

ALGER, BARAGA, CHIPPEWA, DELTA, DICKINSON, GOGEBIC, HOUGHTON, IRON, KEWEENAW, LUCE, MACKINAC MARQUETTE, MENOMINEE, ONTONAGON AND SCHOOLCRAFT COUNTIES:

	Rates	Fringes
OPERATOR: Power Equipment (Steel Erection)		
Compressor, welder and forklift.....	\$ 24.03	19.95
Crane operator, main boom & jib 120' or longer.....	\$ 27.78	19.95
Crane operator, main boom & jib 140' or longer.....	\$ 28.03	19.95
Crane operator, main boom & jib 220' or longer.....	\$ 28.28	19.95
Mechanic with truck and tools.....	\$ 28.78	19.95
Oiler and fireman.....	\$ 22.73	19.95
Regular operator.....	\$ 27.28	19.95

 ENGI0324-008 10/01/2012

ALCONA, ALGER, ALLEGAN, ALPENA, ANTRIM, ARENAC, BARAGA, BARRY, BAY, BENZIE, BERRIEN, BRANCH, CALHOUN, CASS, CHARLEVOIX, CHEBOYGAN, CHIPPEWA, CLARE, CLINTON, CRAWFORD, DELTA, DICKINSON, EATON, EMMET, GENESEE, GLADWIN, GOGEBIC, GRAND TRAVERSE, GRATIOT, HILLSDALE, HOUGHTON, HURON, INGHAM, IONIA, IOSCO, IRON, ISABELLA, JACKSON, KALAMAZOO, KALKASKA, KENT, KEWEENAW, LAKE, LAPEER, LEELANAU, LENAWEE, LIVINGSTON, LUCE, MACKINAC, MACOMB, MANISTEE, MARQUETTE, MASON, MECOSTA, MENOMINEE, MIDLAND, MISSAUKEE, MONTCALM, MONTMORENCY, MONROE, MUSKEGON, NEWAYGO, OAKLAND, OCEANA, OGEMAW, ONTONAGON, OSCEOLA, OSCODA, OTSEGO, OTTAWA, PRESQUE ISLE, ROSCOMMON, SAGINAW, ST. CLARE, ST. JOSEPH, SANILAC, SCHOOLCRAFT, SHIAWASSEE, TUSCOLA, VAN BUREN, WASHTENAW, WAYNE AND WEXFORD COUNTIES

Rates Fringes

OPERATOR: Power Equipment
(Sewer Relining)

GROUP 1.....	\$ 29.65	12.39
GROUP 2.....	\$ 28.12	12.39

SEWER RELINING CLASSIFICATIONS

GROUP 1: Operation of audio-visual closed circuit TV system, including remote in-ground cutter and other equipment used in connection with the CCTV system

GROUP 2: Operation of hot water heaters and circulation systems, water jettors and vacuum and mechanical debris removal systems

ENGI0325-010 05/01/2012

ALGER, BARAGA, CHIPPEWA, DELTA, DICKINSON, GOGEBIC, HOUGHTON, IRON, KEWEENAW, LUCE, MACKINAC, MARQUETTE, MENOMINEE, ONTONAGON AND SCHOOLCRAFT COUNTIES:

	Rates	Fringes
OPERATOR: Power Equipment (Underground Construction)		
Crane operator, main boom & jib 120' or longer.....	\$ 27.38	19.95
Crane operator, main boom & jib 140' or longer.....	\$ 27.63	19.95
Crane operator, main boom & jib 220' or longer.....	\$ 27.88	19.95
GROUP 1.....	\$ 26.88	19.95
GROUP 2.....	\$ 23.63	19.95
GROUP 3.....	\$ 23.05	19.95
GROUP 4.....	\$ 22.11	19.95
Mechanic with truck and tools.....	\$ 28.38	19.95

FOOTNOTES: Swing boom truck operator over 15 tons: \$.50 per hour additional. Hydraulic crane operator 75 tons and under: \$.75 per hour additional. Hydraulic crane operator over 75 tons: \$1.00 per hour additional. Lattice boom crane operator: \$1.50 per hour additional. Crusher pit, shafts and tunnel workers: \$2.00 per hour additional.

POWER EQUIPMENT OPERATOR CLASSIFICATIONS

GROUP 1: Regular equipment operator, crane, dozer, front end loader, job mechanic, pumpcrete and squeezeconcrete, concrete pump, excavator, milling and pulverizing machines, scraper (self-propelled and tractor drawn), welder

GROUP 2: Air track drill, boom truck (non-swing), concrete mixer, material hoist and tugger, pump 6" and over, beltconcrete, sweeping machine, trencher, winches, well points and freeze systems

GROUP 3: Air compressor, conveyor, concrete saw, farm tractor (without attachments), fork truck, generator, guard post driver, mulching machine, pumps under 6-in., welding machine and grease person

GROUP 4: Oiler, fire tender, heater operator, brock concrete breaker, elevators (other than passenger), end dumps and skid steer

Crane Operator with main boom and jib 300' or longer shall be paid an additional one dollar and fifty cents (\$1.50) per hour above the 220' of boom and jib wage rate.

Crane Operator with main boom and jib 400' or longer shall be paid an additional one dollar and fifty cents (\$1.50) per hour above the 300 foot of boom wage rate (\$3.00)

ENGI0325-011 10/01/2011

AREA 1: GENESEE, LAPEER, LIVINGSTON, MACOMB, MONROE, OAKLAND, ST. CLAIR, WASHTENAW AND WAYNE COUNTIES

AREA 2: ALCONA, ALGER, ALLEGAN, ALPENA, ANTRIM, ARENAC, BARAGA, BARRY, BAY, BENZIE, BERRIEN, BRANCH, CALHOUN, CASS, CHARLEVOIX, CHEBOYGAN, CHIPPEWA, CLARE, CLINTON, CRAWFORD, DELTA, DICKINSON, EATON, EMMET, GLADWIN, GOGEBIC, GRAND TRAVERSE, GRATIOT, HILLSDALE, HOUGHTON, HURON, INGHAM, IONIA, IOSCO, IRON, ISABELLA, JACKSON, KALAMAZOO, KALKASKA, KENT, KEWEENAW, LAKE, LEELANAU, LENAWEE, LUCE, MACKINAC, MANISTEE, MARQUETTE, MASON, MECOSTA, MENOMINEE, MIDLAND, MISSAUKEE, MONTCALM, MONTMORENCY, MUSKEGON, NEWAYGO, OCEANA, OGEMAW, ONTONAGON, OSCEOLA, OSCODA, OTSEGO, OTTAWA, PRESQUE ISLE, ROSCOMMON,

SAGINAW, ST. JOSEPH, SANILAC, SCHOOLCRAFT, SHIAWASSEE,
TUSCOLA, VAN BUREN AND WEXFORD COUNTIES

	Rates	Fringes
Power equipment operators - hazardous waste removal: (AREA 1)		
AREA 1: LEVEL A		
Engineer when operating crane with boom and jib or leads 140' or longer....	\$ 34.68	19.70
Engineer when operating crane with boom and jib or leads 220' or longer....	\$ 34.98	19.70
GROUP 1.....	\$ 32.03	19.70
GROUP 2.....	\$ 27.80	19.70
Regular crane operator, mechanic, dragline operator, boom truck operator and concrete pump with boom operator, power shovel operator.....	\$ 33.00	19.70
AREA 1: LEVEL B AND C		
Engineer when operating crane with boom and jib or leads 140' or longer....	\$ 33.73	19.70
Engineer when operating crane with boom and jib or leads 220' or longer....	\$ 34.03	19.70
GROUP 1.....	\$ 31.08	19.70
GROUP 2.....	\$ 26.85	19.70
Regular crane operator, mechanic, dragline operator, boom truck operator and concrete pump with boom operator, power shovel operator.....	\$ 32.05	19.70
AREA 1: LEVEL D WHEN CAPPING LANDFILL		
Engineer when operating crane with boom and jib or leads 140' or longer....	\$ 32.18	19.70
Engineer when operating crane with boom and jib		

or leads 220' or longer.....\$ 32.48	19.70
GROUP 1.....\$ 29.53	19.70
GROUP 2.....\$ 25.30	19.70
Regular crane operator, mechanic, dragline operator, boom truck operator and concrete pump with boom operator, power shovel operator.....\$ 29.88	19.70
AREA 1: LEVEL D	
Engineer when operating crane with boom and jib or leads 140' or longer.....\$ 32.43	19.70
Engineer when operating crane with boom and jib or leads 220' or longer.....\$ 32.73	19.70
GROUP 1.....\$ 29.78	19.70
GROUP 2.....\$ 25.55	19.70
Regular crane operator, mechanic, dragline operator, boom truck operator and concrete pump with boom operator, power shovel operator.....\$ 30.75	19.70
Power equipment operators - hazardous waste removal: (AREA 2)	
AREA 2: LEVEL A	
Engineer when operating crane with boom and jib or leads 140' or longer.....\$ 32.97	19.70
Engineer when operating crane with boom and jib or leads 220' or longer.....\$ 33.27	19.70
GROUP 1.....\$ 30.32	19.70
GROUP 2.....\$ 25.92	19.70
Regular crane operator, mechanic, dragline operator, boom truck operator and concrete pump with boom operator, power shovel operator.....\$ 31.29	19.70
AREA 2: LEVEL B AND C	
Engineer when operating crane with boom and jib or leads 140' or longer.....\$ 31.91	19.70

Engineer when operating crane with boom and jib or leads 220' or longer.....	\$ 32.23	19.70
GROUP 1.....	\$ 29.37	19.70
GROUP 2.....	\$ 24.98	19.70
Regular crane operator, mechanic, dragline operator, boom truck operator and concrete pump with boom operator, power shovel operator.....	\$ 30.34	19.70
AREA 2: LEVEL D WHEN CAPPING LANDFILL		
Engineer when operating crane with boom and jib or leads 140' or longer.....	\$ 30.47	19.70
Engineer when operating crane with boom and jib or leads 220' or longer.....	\$ 30.77	19.70
GROUP 1.....	\$ 27.82	19.70
GROUP 2.....	\$ 23.43	19.70
Regular crane operator, mechanic, dragline operator, boom truck operator and concrete pump with boom operator, power shovel operator.....	\$ 28.79	19.70
AREA 2: LEVEL D		
Engineer when operating crane with boom and jib or leads 140' or longer.....	\$ 30.72	19.70
Engineer when operating crane with boom and jib or leads 220' or longer.....	\$ 31.02	19.70
GROUP 1.....	\$ 28.07	19.70
GROUP 2.....	\$ 23.68	19.70
Regular crane operator, mechanic, dragline operator, boom truck operator and concrete pump with boom operator, power shovel operator.....	\$ 29.04	19.70

HAZARDOUS WASTE REMOVAL CLASSIFICATIONS

Group 1: Backhoe, batch plant operator, clamshell, concrete breaker when attached to hoe, concrete cleaning

decontamination machine operator, concrete pump, concrete paver, crusher, dozer, elevating grader, endloader, farm tractor (90 h.p. and higher), gradall, grader, heavy equipment robotics operator, loader, pug mill, pumpcrete machines, pump trucks, roller, scraper (self-propelled or tractor drawn), side boom tractor, slip form paver, slope paver, trencher, ultra high pressure waterjet cutting tool system, vactors, vacuum blasting machine operator, vertical lifting hoist, vibrating compaction equipment (self-propelled), well drilling rig and hydro excavator

GROUP 2: Air compressor, concrete breaker when not attached to hoe, elevator, end dumps, equipment decontamination operator, farm tractor (less than 90 h.p.), forklift, generator, heater, mulcher, pigs (portable reagent storage tanks), power screens, pumps (water), stationary compressed air plant, sweeper, welding machine and water wagon

 ENGI0325-012 05/01/2012

AREA 1: MACOMB, MONROE, OAKLAND, ST. CLAIR, WASHTENAW AND WAYNE COUNTIES

AREA 2: ALCONA, ALGER, ALLEGAN, ALPENA, ANTRIM, ARENAC, BARAGA, BARRY, BAY, BENZIE, BERRIEN, BRANCH, CALHOUN, CASS, CHARLEVOIX, CHEBOYGAN, CHIPPEWA, CLARE, CLINTON, CRAWFORD, DELTA, DICKINSON, EATON, EMMET, GENESEE, GLADWIN, GOGEBIC, GRAND TRAVERSE, GRATIOT, HILLSDALE, HOUGHTON, HURON, INGHAM, IONIA, IOSCO, IRON, ISABELLA, JACKSON, KALAMAZOO, KALKASKA, KENT, KEWEENAW, LAKE, LAPEER, LEELANAU, LENAWEE, LIVINGSTON LUCE, MACKINAC, MANISTEE, MARQUETTE, MASON, MECOSTA, MENOMINEE, MIDLAND, MISSAUKEE, MONTCALM, MONTMORENCY, MUSKEGON, NEWAYGO, OCEANA, OGEMAW, ONTONAGON, OSCEOLA, OSCODA, OTSEGO, OTTAWA, PRESQUE ISLE, ROSCOMMON, SAGINAW, ST. JOSEPH, SANILAC, SCHOOLCRAFT, SHIAWASSEE, TUSCOLA, VAN BUREN AND WEXFORD COUNTIES

Rates Fringes

Power equipment operators -
 gas distribution and duct
 installation work:

AREA 1		
GROUP 1.....	\$ 26.68	20.20
GROUP 2.....	\$ 26.55	20.20
GROUP 3.....	\$ 25.42	20.20

GROUP 4.....	\$ 24.85	20.20
AREA 2		
GROUP 1.....	\$ 25.77	20.20
GROUP 2-A.....	\$ 25.67	20.20
GROUP 2-B.....	\$ 25.45	20.20
GROUP 3.....	\$ 24.67	20.20
GROUP 4.....	\$ 24.17	20.20

SCOPE OF WORK: The construction, installation, treating and reconditioning of pipelines transporting gas vapors within cities, towns, subdivisions, suburban areas, or within private property boundaries, up to and including private meter settings of private industrial, governmental or other premises, more commonly referred to as "distribution work," starting from the first metering station, connection, similar or related facility, of the main or cross country pipeline and including duct installation.

AREA 1:

GROUP 1: Backhoe, crane, grader, mechanic, dozer (D-6 equivalent or larger), side boom (D-4 equivalent or larger), trencher(except service), endloader (2 yd. capacity or greater).

GROUP 2: Dozer (less than D-6 equivalent), endloader (under 2 yd. capacity), side boom (under D-4 capacity), backfiller, pumps (1 or 2 of 6-inch discharge or greater), boom truck (with powered boom), tractor (wheel type other than backhoe or front endloader).

GROUP 3: Tamper (self-propelled), boom truck (with non-powered boom), concrete saw (20 hp or larger), pumps (2 to 4 under 6-inch discharge), compressor (2 or more or when one is used continuously into the second day) and trencher(service).

GROUP 4: Oiler, hydraulic pipe pushing machine, grease person and hydrostatic testing operator.

AREA 2:

GROUP 1: Mechanic, crane (over 1/2 yd. capacity), backhoe (over 1/2 yd. capacity), grader (Caterpillar 12 equivalent or larger)

GROUP 2-A: Trencher(except service), backhoe (1/2 yd. capacity or less)

GROUP 2-B: Crane (1/2 yd. capacity or less), compressor (2 or more), dozer (D-4 equivalent or larger), endloader (1 yd. capacity or larger), pump (1 or 2 six-inch or larger), side boom (D-4 equivalent or larger)

GROUP 3: Backfiller, boom truck (powered), concrete saw (20 hp or larger), dozer (less than D-4 equivalent), endloader (under 1 yd. capacity), farm tractor (with attachments), pump (2 - 4 under six-inch capacity), side boom tractor(less than D-4 equivalent), tamper (self-propelled), trencher service and grader maintenance

GROUP 4: Oiler, grease person and hydrostatic testing operator

IRON0008-007 07/01/2012

ALGER, BARAGA, CHIPPEWA, DELTA, DICKINSON, GOGEBIC, HOUGHTON, IRON, KEWEENAW, LUCE, MACKINAC MARQUETTE, MENOMINEE, ONTONAGON AND SCHOOLCRAFT COUNTIES:

	Rates	Fringes
Ironworker - pre-engineered metal building erector.....	\$ 23.70	6.95
IRONWORKER		
General contracts		
\$10,000,000 or greater.....	\$ 25.60	22.67
General contracts less than \$10,000,000.....	\$ 22.51	22.67

Paid Holidays: New Year's Day, Memorial Day, July 4th, Labor Day, Thanksgiving Day & Christmas Day.

IRON0025-002 06/04/2012

ALCONA, ALPENA, ARENAC, BAY, CHEBOYGAN, CLARE, CLINTON, CRAWFORD, GENESEE, GLADWIN, GRATIOT, HURON, INGHAM, IOSCO, ISABELLA, JACKSON, LAPEER, LIVINGSTON, MACOMB, MIDLAND, MONTMORENCY, OAKLAND, OGEMAW, OSCODA, OTSEGO, PRESQUE ISLE, ROSCOMMON, SAGINAW, SANILAC, SHIAWASSEE, ST. CLAIR, TUSCOLA, WASHTENAW AND WAYNE COUNTIES:

	Rates	Fringes
Ironworker - pre-engineered metal building erector		
Alcona, Alpena, Arenac, Cheboygan, Clare, Clinton, Crawford, Gladwin, Gratiot, Huron, Ingham, Iosco, Isabella, Jackson, Lapeer, Livingston (west of Burkhardt Road), Montmorency, Ogemaw, Oscoda, Otsego, Presque Isle, Roscommon, Sanilac, Shiawassee, Tuscola & Washtenaw (west of U.S. 23).	\$ 22.17	20.13
Bay, Genesee, Lapeer, Livingston (east of Burkhardt Road), Macomb, Midland, Oakland, Saginaw, St. Clair, The University of Michigan, Washtenaw (east of U.S. 23) & Wayne...	\$ 23.39	21.13
IRONWORKER		
Ornamental and Structural...	\$ 33.29	25.34
Reinforcing.....	\$ 28.74	23.35

 IRON0055-005 07/01/2012

LENAWEE AND MONROE COUNTIES:

	Rates	Fringes
IRONWORKER		
Pre-engineered metal buildings.....	\$ 23.59	18.95
All other work.....	\$ 28.32	18.95

 IRON0292-003 06/01/2012

BERRIEN AND CASS COUNTIES:

	Rates	Fringes
IRONWORKER (Including		

pre-engineered metal building
 erector).....\$ 26.38 17.91

 IRON0340-001 06/01/2012

ALLEGAN, ANTRIM, BARRY, BENZIE, BRANCH, CALHOUN, CHARLEVOIX,
 EATON, EMMET, GRAND TRAVERSE, HILLSDALE, IONIA, KALAMAZOO,
 KALKASKA, KENT, LAKE, LEELANAU, MANISTEE, MASON, MECOSTA,
 MISSAUKEE, MONTCALM, MUSKEGON, NEWAYGO, OCEANA, OSCEOLA,
 OTTAWA, ST. JOSEPH, VAN BUREN AND WEXFORD COUNTIES:

	Rates	Fringes
IRONWORKER (Including pre-engineered metal building erector).....	\$ 20.68	23.32

 LAB00005-006 10/01/2012

	Rates	Fringes
Laborers - hazardous waste abatement: (ALCONA, ALPENA, ANTRIM, BENZIE, CHARLEVOIX, CHEBOYGAN, CRAWFORD, EMMET, GRAND TRAVERSE, IOSCO, KALKASKA, LEELANAU, MISSAUKEE, MONTMORENCY, OSCODA, OTSEGO, PRESQUE ISLE AND WEXFORD COUNTIES - Zone 10)		

Levels A, B or C.....	\$ 18.62	12.17
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Work performed in
 conjunction with site
 preparation not requiring
 the use of personal
 protective equipment;

Also, Level D.....	\$ 17.62	12.17
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Laborers - hazardous waste
 abatement: (ALGER, BARAGA,
 CHIPPEWA, DELTA, DICKINSON,
 GOGEBIC, HOUGHTON, IRON,
 KEWEENAW, LUCE, MACKINAC,
 MARQUETTE, MENOMINEE,
 ONTONAGON AND SCHOOLCRAFT

COUNTIES - Zone 11)		
Levels A, B or C.....\$ 23.55		12.20
Work performed in conjunction with site preparation not requiring the use of personal protective equipment;		
Also, Level D.....\$ 22.55		12.20
Laborers - hazardous waste abatement: (ALLEGAN, BARRY, BERRIEN, BRANCH, CALHOUN, CASS, IONIA COUNTY (except the city of Portland); KALAMAZOO, KENT, LAKE, MANISTEE, MASON, MECOSTA, MONTCALM, MUSKEGON, NEWAYGO, OCEANA, OSCEOLA, OTTAWA, ST. JOSEPH AND VAN BUREN COUNTIES - Zone 9)		
Levels A, B or C.....\$ 20.33		12.17
Work performed in conjunction with site preparation not requiring the use of personal protective equipment;		
Also, Level D.....\$ 19.33		12.17
Laborers - hazardous waste abatement: (ARENAC, BAY, CLARE, GLADWIN, GRATIOT, HURON, ISABELLA, MIDLAND, OGEMAW, ROSCOMMON, SAGINAW AND TUSCOLA COUNTIES - Zone 8)		
Levels A, B or C.....\$ 21.31		12.17
Work performed in conjunction with site preparation not requiring the use of personal protective equipment;		
Also, Level D.....\$ 20.31		12.17
Laborers - hazardous waste abatement: (CLINTON, EATON AND INGHAM COUNTIES; IONIA COUNTY (City of Portland); LIVINGSTON COUNTY (west of Oak Grove Rd., including the City of Howell) - Zone 6)		

Levels A, B or C.....\$ 22.21	12.17
Work performed in conjunction with site preparation not requiring the use of personal protective equipment;	
Also, Level D.....\$ 21.21	12.17
Laborers - hazardous waste abatement: (GENESEEE, LAPEER AND SHIAWASSEE COUNTIES - Zone 7)	
Levels A, B or C.....\$ 23.31	12.21
Work performed in conjunction with site preparation not requiring the use of personal protective equipment;	
Also, Level D.....\$ 22.31	12.21
Laborers - hazardous waste abatement: (HILLSDALE, JACKSON AND LENAWEЕ COUNTIES - Zone 4)	
Levels A, B or C.....\$ 21.92	11.99
Work performed in conjunction with site preparation not requiring the use of personal protective equipment;	
Also, Level D.....\$ 20.92	11.99
Laborers - hazardous waste abatement: (LIVINGSTON COUNTY (east of Oak Grove Rd. and south of M-59, excluding the city of Howell); AND WASHTENAW COUNTY - Zone 3)	
Levels A, B or C.....\$ 28.19	13.13
Work performed in conjunction with site preparation not requiring the use of personal protective equipment;	
Also, Level D.....\$ 27.19	13.13
Laborers - hazardous waste abatement: (MACOMB AND WAYNE COUNTIES - Zone 1)	
Levels A, B or C.....\$ 27.34	15.92

Work performed in conjunction with site preparation not requiring the use of personal protective equipment; Also, Level D.....	\$ 26.34	15.92
Laborers - hazardous waste abatement: (MONROE COUNTY - Zone 4)		
Levels A, B or C.....	\$ 29.35	13.49
Work performed in conjunction with site preparation not requiring the use of personal protective equipment; Also, Level D.....	\$ 28.35	13.49
Laborers - hazardous waste abatement: (OAKLAND COUNTY and the Northeast portion of LIVINGSTON COUNTY bordered by Oak Grove Road on the West and M-59 on the South - Zone 2)		
Level A, B, C.....	\$ 27.34	15.92
Work performed in conjunction with site preparation not requiring the use of personal protective equipment; Also, Level D.....	\$ 26.34	15.92
Laborers - hazardous waste abatement: (SANILAC AND ST. CLAIR COUNTIES - Zone 5)		
Levels A, B or C.....	\$ 24.83	14.61
Work performed in conjunction with site preparation not requiring the use of personal protective equipment; Also, Level D.....	\$ 23.83	14.61

* LAB00259-001 09/01/2012

AREA 1: MACOMB, OAKLAND AND WAYNE COUNTIES
 AREA 2: ALCONA, ALGER, ALLEGAN, ALPENA, ANTRIM, ARENAC, BARAGA, BARRY, BAY, BENZIE, BERRIEN, BRANCH, CALHOUN, CASS, CHARLEVOIX,

CHEBOYGAN, CHIPPEWA, CLARE, CLINTON, CRAWFORD, DELTA, DICKINSON, EATON, EMMET, GENESEE, GLADWIN, GOGEBIC, GRAND TRAVERSE, GRATIOT, HILLSDALE, HOUGHTON, HURON, INGHAM, IONIA, IOSCO, IRON, ISABELLA, JACKSON, KALAMAZOO, KALKASKA, KENT, KEWEENAW, LAKE, LAPEER, LEELANAU, LENAWEE, LIVINGSTON, LUCE, MACKINAC, MANISTEE, MARQUETTE, MASON, MECOSTA, MENOMINEE, MIDLAND, MISSAUKEE, MONROE, MONTCALM, MONTMORENCY, MUSKEGON, NEWAYGO, OCEANA, OGEMAW, ONTONAGON, OSCEOLA, OSCODA, OTSEGO, OTTAWA, PRESQUE ISLE, ROSCOMMON, SAGINAW, ST. CLARE, ST. JOSEPH, SANILAC, SCHOOLCRAFT, SHIAWASSEE, TUSCOLA, VAN BUREN, WASHTENAW AND WEXFORD COUNTIES

	Rates	Fringes
Laborers - tunnel, shaft and caisson:		
AREA 1		
GROUP 1.....	\$ 21.37	15.53
GROUP 2.....	\$ 21.48	15.53
GROUP 3.....	\$ 21.54	15.53
GROUP 4.....	\$ 21.72	15.53
GROUP 5.....	\$ 21.97	15.53
GROUP 6.....	\$ 22.30	15.53
GROUP 7.....	\$ 15.58	15.53
AREA 2		
GROUP 1.....	\$ 22.43	12.17
GROUP 2.....	\$ 22.52	12.17
GROUP 3.....	\$ 22.62	12.17
GROUP 4.....	\$ 22.78	12.17
GROUP 5.....	\$ 23.04	12.17
GROUP 6.....	\$ 23.35	12.17
GROUP 7.....	\$ 15.62	12.17

SCOPE OF WORK: Tunnel, shaft and caisson work of every type and description and all operations incidental thereto, including, but not limited to, shafts and tunnels for sewers, water, subways, transportation, diversion, sewerage, caverns, shelters, aquafers, reservoirs, missile silos and steel sheeting for underground construction.

TUNNEL LABORER CLASSIFICATIONS

GROUP 1: Tunnel, shaft and caisson laborer, dump, shanty, hog house tender, testing (on gas) and watchman

GROUP 2: Manhole, headwall, catch basin builder, bricklayer tender, mortar machine and material mixer

GROUP 3: Air tool operator (jackhammer, bush hammer and grinder), first bottom, second bottom, cage tender, car pusher, carrier, concrete, concrete form, concrete repair, cement invert laborer, cement finisher, concrete shoveler, conveyor, floor, gasoline and electric tool operator, gunite, grout operator, welder, heading dinky person, inside lock tender, pea gravel operator, pump, outside lock tender, scaffold, top signal person, switch person, track, tugger, utility person, vibrator, winch operator, pipe jacking, wagon drill and air track operator and concrete saw operator (under 40 h.p.)

GROUP 4: Tunnel, shaft and caisson mucker, bracer, liner plate, long haul dinky driver and well point

GROUP 5: Tunnel, shaft and caisson miner, drill runner, key board operator, power knife operator, reinforced steel or mesh (e.g. wire mesh, steel mats, dowel bars, etc.)

GROUP 6: Dynamite and powder

GROUP 7: Restoration laborer, seeding, sodding, planting, cutting, mulching and top soil grading; and the restoration of property such as replacing mailboxes, wood chips, planter boxes, flagstones, etc.

LABO0334-001 09/01/2012

	Rates	Fringes
Laborers - open cut:		
ZONE 1 - MACOMB, OAKLAND AND WAYNE COUNTIES:		
GROUP 1.....	\$ 21.22	15.53
GROUP 2.....	\$ 21.33	15.53
GROUP 3.....	\$ 21.38	15.53
GROUP 4.....	\$ 21.46	15.53
GROUP 5.....	\$ 21.52	15.53
GROUP 6.....	\$ 18.97	15.53
GROUP 7.....	\$ 15.59	15.53
ZONE 2 - LIVINGSTON COUNTY (east of M-151 (Oak Grove Rd.)); MONROE AND		

WASHTENAW COUNTIES:

GROUP 1.....	\$ 22.08	12.17
GROUP 2.....	\$ 22.19	12.17
GROUP 3.....	\$ 22.31	12.17
GROUP 4.....	\$ 22.38	12.17
GROUP 5.....	\$ 22.53	12.17
GROUP 6.....	\$ 19.83	12.17
GROUP 7.....	\$ 16.47	12.17

ZONE 3 - CLINTON, EATON,
 GENESEE, HILLSDALE AND
 INGHAM COUNTIES; IONIA
 COUNTY (City of Portland);
 JACKSON, LAPEER AND
 LENAWEЕ COUNTIES;
 LIVINGSTON COUNTY (west of
 M-151 Oak Grove Rd.);
 SANILAC, ST. CLAIR AND
 SHIAWASSEE COUNTIES:

GROUP 1.....	\$ 20.27	12.17
GROUP 2.....	\$ 20.41	12.17
GROUP 3.....	\$ 20.53	12.17
GROUP 4.....	\$ 20.58	12.17
GROUP 5.....	\$ 20.72	12.17
GROUP 6.....	\$ 18.02	12.17
GROUP 7.....	\$ 15.17	12.17

ZONE 4 - ALCONA, ALLEGAN,
 ALPENA, ANTRIM, ARENAC,
 BARRY, BAY, BENZIE,
 BERRIEN, BRANCH,
 CALHOUN, CASS, CHARLEVOIX,
 CHEBOYGAN, CLARE,
 CRAWFORD, EMMET,
 GLADWIN, GRAND TRAVERSE,
 GRATIOT AND HURON
 COUNTIES; IONIA COUNTY
 (EXCEPT THE CITY OF
 PORTLAND); IOSCO,
 ISABELLA, KALAMAZOO,
 KALKASKA, KENT,
 LAKE, LEELANAU, MANISTEE,
 MASON, MECOSTA, MIDLAND,
 MISSAUKEE, MONTCALM,
 MONTMORENCY, MUSKEGON,
 NEWAYGO, OCEANA, OGEMAW,
 OSCEOLA, OSCODA, OSTEGO,
 OTTAWA, PRESQUE ISLE,

ROSCOMMON, SAGINAW, ST.
 JOSEPH, TUSCOLA, VAN BUREN
 AND WEXFORD COUNTIES:

GROUP 1.....	\$ 19.28	12.17
GROUP 2.....	\$ 19.41	12.17
GROUP 3.....	\$ 19.52	12.17
GROUP 4.....	\$ 19.59	12.17
GROUP 5.....	\$ 19.71	12.17
GROUP 6.....	\$ 16.93	12.17
GROUP 7.....	\$ 15.27	12.17

ZONE 5 - ALGER, BARAGA,
 CHIPPEWA, DELTA,
 DICKINSON, GOGEBIC,
 HOUGHTON, IRON,
 KEWEENAW, LUCE, MACKINAC,
 MARQUETTE, MENOMINEE,
 ONTONAGON AND SCHOOLCRAFT
 COUNTIES:

GROUP 1.....	\$ 19.49	12.17
GROUP 2.....	\$ 19.63	12.17
GROUP 3.....	\$ 19.76	12.17
GROUP 4.....	\$ 19.81	12.17
GROUP 5.....	\$ 19.86	12.17
GROUP 6.....	\$ 17.24	12.17
GROUP 7.....	\$ 15.35	12.17

SCOPE OF WORK:

Open cut construction work shall be construed to mean work which requires the excavation of earth including industrial, commercial and residential building site excavation and preparation, land balancing, demolition and removal of concrete and underground appurtenances, grading, paving, sewers, utilities and improvements; retention, oxidation, flocculation and irrigation facilities, and also including but not limited to underground piping, conduits, steel sheeting for underground construction, and all work incidental thereto, and general excavation. For all areas except the Upper Peninsula, open cut construction work shall also be construed to mean waterfront work, piers, docks, seawalls, breakwalls, marinas and all incidental work. Open cut construction work shall not include any structural modifications, alterations, additions and repairs to buildings, or highway work, including roads, streets, bridge construction and parking lots or steel erection work and excavation for the building itself and

back filling inside of and within 5 ft. of the building and foundations, footings and piers for the building. Open cut construction work shall not include any work covered under Tunnel, Shaft and Caisson work.

OPEN CUT LABORER CLASSIFICATIONS

GROUP 1: Construction laborer

GROUP 2: Mortar and material mixer, concrete form person, signal person, well point person, manhole, headwall and catch basin builder, headwall, seawall, breakwall and dock builder

GROUP 3: Air, gasoline and electric tool operator, vibrator operator, driller, pump person, tar kettle operator, bracer, rodder, reinforced steel or mesh person (e.g., wire mesh, steel mats, dowel bars, etc.), welder, pipe jacking and boring person, wagon drill and air track operator and concrete saw operator (under 40 h.p.), windlass and tugger person and directional boring person

GROUP 4: Trench or excavating grade person

GROUP 5: Pipe layer (including crock, metal pipe, multi-plate or other conduits)

GROUP 6: Grouting man, audio-visual television operations and all other operations in connection with closed circuit television inspection, pipe cleaning and pipe relining work and the installation and repair of water service pipe and appurtenances

GROUP 7: Restoration laborer, seeding, sodding, planting, cutting, mulching and top soil grading; and the restoration of property such as replacing mailboxes, wood chips, planter boxes, flagstones, etc.

LABO0465-001 06/01/2012

LABORER: Highway, Bridge and Airport Construction

AREA 1: GENESEE, MACOMB, MONROE, OAKLAND, WASHTENAW AND WAYNE COUNTIES

AREA 2: ALLEGAN, BARRY, BAY, BERRIEN, BRANCH, CALHOUN, CASS,

CLINTON, EATON, GRATIOT, HILLSDALE, HURON, INGHAM, JACKSON, KALAMAZOO, LAPEER, LENAWEE, LIVINGSTON, MIDLAND, MUSKEGON, SAGINAW, SANILAC, SHIAWASSEE, ST. CLAIR, ST. JOSEPH, TUSCOLA AND VAN BUREN COUNTIES

AREA 3: ALCONA, ALPENA, ANTRIM, ARENAC, BENZIE, CHARLEVOIX, CHEBOYGAN, CLARE, CRAWFORD, EMMET, GLADWIN, GRAND TRAVERSE, IONIA, IOSCO, ISABELLA, KALKASKA, KENT, LAKE, LEELANAU, MANISTEE, MASON, MECOSTA, MISSAUKEE, MONTCALM, MONTMORENCY, NEWAYGO, OCEANA, OGEMAW, OSCEOLA, OSCODA, OTSEGO, OTTAWA, PRESQUE ISLE, ROSCOMMON AND WEXFORD COUNTIES

AREA 4: ALGER, BARAGA, CHIPPEWA, DELTA, DICKINSON, GOGEBIC, HOUGHTON, IRON, KEWEENAW, LUCE, MACKINAC, MARQUETTE, MENOMINEE, ONTONAGON AND SCHOOLCRAFT COUNTIES

	Rates	Fringes
LABORER (AREA 1)		
GROUP 1.....	\$ 24.89	12.17
GROUP 2.....	\$ 25.02	12.17
GROUP 3.....	\$ 25.20	12.17
GROUP 4.....	\$ 25.28	12.17
GROUP 5.....	\$ 25.49	12.17
GROUP 6.....	\$ 25.79	12.17
LABORER (AREA 2)		
GROUP 1.....	\$ 22.89	12.17
GROUP 2.....	\$ 23.09	12.17
GROUP 3.....	\$ 23.33	12.17
GROUP 4.....	\$ 23.68	12.17
GROUP 5.....	\$ 23.55	12.17
GROUP 6.....	\$ 23.89	12.17
LABORER (AREA 3)		
GROUP 1.....	\$ 22.14	12.17
GROUP 2.....	\$ 22.35	12.17
GROUP 3.....	\$ 22.64	12.17
GROUP 4.....	\$ 23.08	12.17
GROUP 5.....	\$ 22.70	12.17
GROUP 6.....	\$ 23.13	12.17
LABORER (AREA 4)		
GROUP 1.....	\$ 22.14	12.17
GROUP 2.....	\$ 22.35	12.17
GROUP 3.....	\$ 22.64	12.17
GROUP 4.....	\$ 23.08	12.17
GROUP 5.....	\$ 22.70	12.17

GROUP 6.....\$ 23.13

12.17

LABORER CLASSIFICATIONS

GROUP 1: Asphalt shoveler or loader; asphalt plant misc.; burlap person; yard person; dumper (wagon, truck, etc.); joint filling laborer; miscellaneous laborer; unskilled laborer; sprinkler laborer; form setting laborer; form stripper; pavement reinforcing; handling and placing (e.g., wire mesh, steel mats, dowel bars); mason's tender or bricklayer's tender on manholes; manhole builder; headwalls, etc.; waterproofing, (other than buildings) seal coating and slurry mix, shoring, underpinning; pressure grouting; bridge pin and hanger removal; material recycling laborer; horizontal paver laborer (brick, concrete, clay, stone and asphalt); ground stabilization and modification laborer; grouting; waterblasting; top person; railroad track and trestle laborer; carpenters' tender; guard rail builders' tender; earth retention barrier and wall and M.S.E. wall installer's tender; highway and median installer's tender (including sound, retaining, and crash barriers); fence erector's tender; asphalt raker tender; sign installer; remote control operated equipment.

GROUP 2: Mixer operator (less than 5 sacks); air or electric tool operator (jackhammer, etc.); spreader; boxperson (asphalt, stone, gravel); concrete paddler; power chain saw operator; paving batch truck dumper; tunnel mucker (highway work only); concrete saw (under 40 h.p.) and dry pack machine; roto-mill grounds person.

GROUP 3: Tunnel miner (highway work only); finishers tenders; guard rail builders; highway and median barrier installer; earth retention barrier and wall and M.S.E. wall installer's (including sound, retaining and crash barriers); fence erector; bottom person; powder person; wagon drill and air track operator; diamond and core drills; grade checker; certified welders; curb and side rail setter's tender.

GROUP 4: Asphalt raker

GROUP 5: Pipe layers, oxy-gun

GROUP 6: Line-form setter for curb or pavement; asphalt screed checker/screw man on asphalt paving machines.

 LABO1076-005 04/01/2012

MICHIGAN STATEWIDE

	Rates	Fringes
LABORER (DISTRIBUTION WORK)		
Zone 1.....	\$ 18.28	12.07
Zone 2.....	\$ 16.85	12.07
Zone 3.....	\$ 15.08	12.07
Zone 4.....	\$ 14.45	12.07
Zone 5.....	\$ 14.45	12.07

DISTRIBUTION WORK - The construction, installation, treating and reconditioning of distribution pipelines transporting coal, oil, gas or other similar materials, vapors or liquids, including pipelines within private property boundaries, up to and including the meter settings on residential, commercial, industrial, institutional, private and public structures. All work covering pumping stations and tank farms not covered by the Building Trades Agreement. Other distribution lines with the exception of sewer, water and cable television are included.

Underground Duct Layer Pay: \$.40 per hour above the base pay rate.

Zone 1 - Macomb, Oakland and Wayne

Zone 2 - Monroe and Washtenaw

Zone 3 - Bay, Genesee, Lapeer, Midland, Saginaw, Sanilac, Shiawassee and St. Clair

Zone 4 - Alger, Baraga, Chippewa, Delta, Dickinson, Gogebic, Houghton, Iron, Keweenaw, Luce, Mackinac, Marquette, Menominee, Ontonagon and Schoolcraft

Zone 5 - Remaining Counties in Michigan

 PAIN0022-002 07/01/2008

HILLSDALE, JACKSON AND LENAWEE COUNTIES; LIVINGSTON COUNTY (east of the eastern city limits of Howell, not including the city of Howell, north to the Genesee County line and south to the Washtenaw County line); MACOMB, MONROE, OAKLAND, WASHTENAW AND WAYNE COUNTIES:

	Rates	Fringes
PAINTER.....	\$ 25.06	14.75

FOOTNOTES: For all spray work and journeyman rigging for spray work, also blowing off, \$0.80 per hour additional (applies only to workers doing rigging for spray work on off the floor work. Does not include setting up or moving rigging on floor surfaces, nor does it apply to workers engaged in covering up or tending spray equipment. For all sandblasting and spray work performed on highway bridges, overpasses, tanks or steel, \$0.80 per hour additional. For all brushing, cleaning and other preparatory work (other than spraying or steeplejack work) at scaffold heights of fifty (50) feet from the ground or higher, \$0.50 per hour additional. For all preparatorial work and painting performed on open steel under forty (40) feet when no scaffolding is involved, \$0.50 per hour additional. For all swing stage work-window jacks and window belts-exterior and interior, \$0.50 per hour additional. For all spray work and sandblaster work to a scaffold height of forty (40) feet above the floor level, \$0.80 per hour additional. For all preparatorial work and painting on all highway bridges or overpasses up to forty (40) feet in height, \$0.50 per hour additional. For all steeplejack work performed where the elevation is forty (40) feet or more, \$1.25 per hour additional.

 PAIN0312-001 06/01/2012

EXCLUDES: ALLEGAN COUNTY (Townships of Dorr, Fillmore, Heath, Hopkins, Laketown, Leighton, Manlius, Monterey, Overisel, Salem, Saugatuck and Wayland); INCLUDES: Barry, Berrian, Branch, Calhoun, Cass, Hillsdale, Kalamazoo, St. Joseph, Van Buren

	Rates	Fringes
PAINTER		
Brush and roller.....	\$ 21.05	11.89
Spray, Sandblast, Sign		
Painting.....	\$ 22.25	11.89

 PAIN0845-003 06/01/2011

CLINTON COUNTY; EATON COUNTY (does not include the townships of Bellevue and Olivet); INGHAM COUNTY; IONIA COUNTY (east of Hwy. M 66); LIVINGSTON COUNTY (west of the eastern city limits of Howell, including the city of Howell, north to the Genesee County line and south to the Washtenaw County line); AND SHIAWASSEE COUNTY (Townships of Bennington, Laingsbury and Perry):

	Rates	Fringes
PAINTER.....	\$ 20.74	11.50

PAIN0845-015 06/01/2011		

MUSKEGON COUNTY; NEWAYGO COUNTY (except the Townships of Barton, Big Prairie, Brooks, Croton, Ensley, Everett, Goodwell, Grant, Home, Monroe, Norwich and Wilcox); OCEANA COUNTY; OTTAWA COUNTY (except the townships of Allendale, Blendone, Chester, Georgetown, Holland, Jamestown, Olive, Park, Polkton, Port Sheldon, Tallmadge, Wright and Zeeland):

	Rates	Fringes
PAINTER.....	\$ 20.74	11.50

PAIN0845-018 06/01/2011		

ALLEGAN COUNTY (Townships of Dorr, Fillmore, Heath, Hopkins, Laketown, Leighton, Manlius, Monterey, Overisel, Salem, Saugatuck and Wayland); IONIA COUNTY (west of Hwy. M-66); KENT, MECOSTA AND MONTCALM COUNTIES; NEWAYGO COUNTY (Townships of Barton, Big Prairie, Brooks, Croton, Ensley, Everett, Goodwell, Grant, Home, Monroe, Norwich and Wilcox); OSCEOLA COUNTY (south of Hwy. #10); OTTAWA COUNTY (Townships of Allendale, Blendone, Chester, Georgetown, Holland, Jamestown, Olive, Park, Polkton, Port Sheldon, Tallmadge, Wright and Zeeland):

	Rates	Fringes
PAINTER.....	\$ 20.74	11.50

FOOTNOTES: Lead abatement work: \$1.00 per hour additional.		

PAIN1011-003 06/17/2012

ALGER, BARAGA, CHIPPEWA, DELTA, DICKINSON, GOGEBIC, HOUGHTON,
IRON, KEWEENAW, LUCE, MACKINAC, MARQUETTE, MENOMINEE, ONTONAGON
AND SCHOOLCRAFT COUNTIES:

	Rates	Fringes
PAINTER.....	\$ 24.00	9.56

FOOTNOTES: High pay (bridges, overpasses, watertower): 30 to
80 ft.: \$.65 per hour additional. 80 ft. and over: \$1.30
per hour additional.

PAIN1474-002 06/01/2010

HURON COUNTY; LAPEER COUNTY (east of Hwy. M-53); ST. CLAIR,
SANILAC AND TUSCOLA COUNTIES:

	Rates	Fringes
PAINTER.....	\$ 23.79	12.02

FOOTNOTES: Lead abatement work: \$1.00 per hour additional.
Work with any hazardous material: \$1.00 per hour
additional. Sandblasting, steam cleaning and acid cleaning:
\$1.00 per hour additional. Ladder work at or above 40 ft.,
scaffold work at or above 40 ft., swing stage, boatswain
chair, window jacks and all work performed over a falling
height of 40 ft.: \$1.00 per hour additional. Spray gun
work, pick pullers and those handling needles, blowing off
by air pressure, and any person rigging (setting up and
moving off the ground): \$1.00 per hour additional.
Steeplejack, tanks, gas holders, stacks, flag poles, radio
towers and beacons, power line towers, bridges, etc.: \$1.00
per hour additional, paid from the ground up.

PAIN1803-003 07/23/2012

ALCONA, ALPENA, ANTRIM, ARENAC, BAY, BENZIE, CHARLEVOIX,
CHEBOYGAN, CLARE, CRAWFORD, EMMET, GLADWIN, GRAND TRAVERSE,
GRATIOT, IOSCO, ISABELLA, KALKASKA, LAKE, LEELANAU, MANISTEE,
MASON, MIDLAND, MISSAUKEE, MONTMORENCY AND OGEMAW COUNTIES;
OSCEOLA COUNTY (north of Hwy. #10); OSCODA, OTSEGO, PRESQUE

ISLE, ROSCOMMON, SAGINAW AND WEXFORD COUNTIES:

	Rates	Fringes
PAINTER		
Work performed on water, bridges over water or moving traffic, radio and powerline towers, elevated tanks, steeples, smoke stacks over 40 ft. of falling heights, recovery of lead-based paints and any work associated with industrial plants, except maintenance of industrial plants.....	\$ 22.85	12.30
All other work, including maintenance of industrial plant.....	\$ 21.78	10.75

FOOTNOTES: Spray painting, sandblasting, blowdown associated with spraying and blasting, water blasting and work involving a swing stage, boatswain chair or spider: \$1.00 per hour additional. All work performed inside tanks, vessels, tank trailers, railroad cars, sewers, smoke stacks, boilers or other spaces having limited egress not including buildings, opentop tanks, pits, etc.: \$1.25 per hour additional.

 PLAS0514-001 06/01/2012

ZONE 1: GENESEE, LIVINGSTON, MACOMB, MONROE, OAKLAND, SAGINAW, WASHTENAW AND WAYNE COUNTIES

ZONE 2: ALCONA, ALGER, ALLEGAN, ALPENA, ANTRIM, ARENAC, BARAGO, BARRY, BAY, BENZIE, BERRIEN, BRANCH, CALHOUN, CASS, CHARLEVOIX, CHEBOYGAN, CHIPPEWA, CLARE, CLINTON, CRAWFORD, DELTA, DICKINSON, EATON, EMMET, GLADWIN, GOGEBIC, GRAND TRAVERSE, GRATIOT, HILLSDALE, HOUGHTON, HURON, INGHAM, IONIA, IOSCO, IRON, ISABELLA, JACKSON, KALAMAZOO, KALKASKA, KENT, KEWEENAW, LAKE, LAPEER, LEELANAU, LENAWEE, LUCE, MACKINAC, MANISTEE, MARQUETTE, MASON, MECOSTA, MENOMINEE, MIDLAND, MISSAUKEE, MONTCALM, MONTMORENCY, MUSKEGON, NEWAYGO, OCEANA, OGEMAW,

ONTONAGON, OSCEOLA, OSCODA, OSTEGO, OTTAWA, PRESQUE ISLE,
 ROSCOMMON, SANILAC, SCHOOLCRAFT, SHIAWASEE, ST. CLAIR, ST.
 JOSEPH, TUSCOLA, VAN BUREN AND WEXFORD COUNTIES

	Rates	Fringes
CEMENT MASON/CONCRETE FINISHER		
ZONE 1.....	\$ 29.03	12.05
ZONE 2.....	\$ 27.53	12.05

 PLUM0190-003 05/01/2010

ALCONA, ALGER, ALLEGAN, ALPENA, ANTRIM, ARENAC, BARAGA, BARRY,
 BAY, BENZIE, BERRIEN, BRANCH, CALHOUN, CASS, CHARLEVOIX,
 CHEBOYGAN, CHIPPEWA, CLARE, CLINTON, CRAWFORD, DELTA,
 DICKINSON, EATON, EMMET, GENESEE, GLADWIN, GOGEBIC, GRAND
 TRAVERSE, GRATIOT, HILLSDALE, HOUGHTON, HURON, INGHAM, IONIA,
 IOSCO, IRON, ISABELLA, JACKSON, KALAMAZOO, KALKASKA, KENT,
 KEWEENAW, LAKE, LAPEER, LEELANAU, LENAWEE, LIVINGSTON, LUCE,
 MACKINAC, MACOMB, MANISTEE, MARQUETTE, MASON, MECOSTA,
 MENOMINEE, MIDLAND, MISSAUKEE, MONTCALM, MONTMORENCY, MONROE,
 MUSKEGON, NEWAYGO, OAKLAND, OCEANA, OGEMAW, ONTONAGON, OSCEOLA,
 OSCODA, OTSEGO, OTTAWA, PRESQUE ISLE, ROSCOMMON, SAGINAW, ST.
 CLARE, ST. JOSEPH, SANILAC, SCHOOLCRAFT, SHIAWASSEE, TUSCOLA,
 VAN BUREN, WASHTENAW, WAYNE AND WEXFORD COUNTIES

	Rates	Fringes
Plumber/Pipefitter - gas distribution pipeline:		
Welding in conjunction with gas distribution pipeline work.....	\$ 27.68	18.29
All other work:.....	\$ 20.72	11.15

 SUMI2002-001 05/01/2002

	Rates	Fringes
Flag Person.....	\$ 7.25	
LINE PROTECTOR (ZONE 1: GENESEE, MACOMB, MONROE, OAKLAND, WASHTENAW AND WAYNE)....	\$ 18.98	9.57

LINE PROTECTOR (ZONE 2:
STATEWIDE (EXCLUDING GENESEE,
MACOMB, MONROE, OAKLAND,
WASHTENAW AND WAYNE).....\$ 17.14 10.02

Pavement Marking Machine
(ZONE 1: GENESEE, MACOMB,
MONROE, OAKLAND, WASHTENAW
AND WAYNE COUNTIES)
Group 1.....\$ 23.72 9.57

Pavement Marking Machine
(ZONE 1: GENESEE, MACOMB,
MONROE, OAKLAND, WASHTENAW
AND WAYNE)
Group 2.....\$ 21.35 9.57

Pavement Marking Machine
(ZONE 2: STATEWIDE (EXCLUDING
GENESEE, MACOMB, MONROE,
OAKLAND, WASHTENAW AND WAYNE
COUNTIES)
Group 1.....\$ 21.42 10.02

Pavement Marking Machine
(ZONE 2: STATEWIDE (EXCLUDING
GENESEE, MACOMB, MONROE,
OAKLAND, WASHTENAW AND WAYNE)
Group 2.....\$ 19.28 10.02

WORK CLASSIFICATIONS:

PAVEMENT MARKER GROUP 1: Drives or operates a truck mounted
striper, grinder, blaster, groover, or thermoplastic melter
for the placement or removal of temporary or permanent
pavement markings or markers.

PAVEMENT MARKER GROUP 2: Performs all functions involved for
the placement or removal of temporary or permanent pavement
markings or markers not covered by the classification of
Pavement Marker Group 1 or Line Protector.

LINE PROTECTOR: Performs all operations for the protection or
removal of temporary or permanent pavement markings or
markers in a moving convoy operation not performed by the

classification of Pavement Marker Group 1. A moving convoy operation is comprised of only Pavement Markers Group 1 and Line Protectors.

 TEAM0007-004 06/01/2012

AREA 1: ALCONA, ALGER, ALLEGAN, ALPENA, ANTRIM, ARENAC, BARAGO, BARRY, BAY, BENZIE, BERRIEN, BRANCH, CALHOUN, CASS, CHARLEVOIX, CHEBOYGAN, CHIPPEWA, CLARE, CLINTON, CRAWFORD, DELTA, DICKINSON, EATON, EMMET, GLADWIN, GOGEBIC, GRAND TRAVERSE, GRATIOT, HILLSDALE, HOUGHTON, HURON, INGHAM, IONIA, IOSCO, IRON, ISABELLA, JACKSON, KALAMAZOO, KALKASKA, KENT, KEWEENAW, LAKE, LAPEER, LEELANAU, LENAWEE, LUCE, MACKINAC, MANISTEE, MARQUETTE, MASON, MECOSTA, MENOMINEE, MIDLAND, MISSAUKEE, MONTCALM, MONTMORENCY, MUSKEGON, NEWAYGO, OCEANA, OGEMAW, ONTONAGON, OSCEOLA, OSCODA, OSTEGO, OTTAWA, PRESQUE ISLE, ROSCOMMON, SAGINAW, SANILAC, SCHOOLCRAFT, SHIAWASEE, ST. CLAIR, ST. JOSEPH, TUSCOLA, VAN BUREN AND WEXFORD COUNTIES

AREA 2: GENESEE, LIVINGSTON, MACOMB, MONROE, OAKLAND, WASHTENAW AND WAYNE COUNTIES

	Rates	Fringes
TRUCK DRIVER		
AREA 1		
Euclids, double bottoms and lowboys.....	\$ 24.795	.50 + a+b
Trucks under 8 cu. yds.....	\$ 24.895	.50 + a+b
Trucks, 8 cu. yds. and over.....	\$ 25.045	.50 + a+b
AREA 2		
Euclids, double bottomms and lowboys.....	\$ 24.895	.50 + a+b
Trucks under 8 cu. yds.....	\$ 24.995	.50 + a+b
Trucks, 8 cu. yds. and over.....	\$ 25.145	.50 + a+b

Footnote:
 a. \$351.00 per week
 b. \$49.90 daily

 TEAM0247-004 06/01/2004

AREA 1: ALCONA, ALGER, ALLEGAN, ALPENA, ANTRIM, ARENAC, BARAGO,

BARRY, BAY, BENZIE, BERRIEN, BRANCH, CALHOUN, CASS, CHARLEVOIX, CHEBOYGAN, CHIPPEWA, CLARE, CLINTON, CRAWFORD, DELTA, DICKINSON, EATON, EMMET, GLADWIN, GOGEBIC, GRAND TRAVERSE, GRATIOT, HILLSDALE, HOUGHTON, HURON, INGHAM, IONIA, IOSCO, IRON, ISABELLA, JACKSON, KALAMAZOO, KALKASKA, KENT, KEWEENAW, LAKE, LAPEER, LEELANAU, LENAWEE, LUCE, MACKINAC, MANISTEE, MARQUETTE, MASON, MECOSTA, MENOMINEE, MIDLAND, MISSAUKEE, MONTCALM, MONTMORENCY, MUSKEGON, NEWAYGO, OCEANA, OGEMAW, ONTONAGON, OSCEOLA, OSCODA, OSTEGO, OTTAWA, PRESQUE ISLE, ROSCOMMON, SANILAC, SCHOOLCRAFT, SHIAWASEE, ST. CLAIR, ST. JOSEPH, TUSCOLA, VAN BUREN AND WEXFORD COUNTIES

AREA 2: GENESEE, MACOMB, MONROE, OAKLAND, WASHTENAW AND WAYNE COUNTIES

	Rates	Fringes
Sign Installer		
AREA 1		
GROUP 1.....	\$ 20.18	.15 + a
GROUP 2.....	\$ 19.93	.15 + a
AREA 2		
GROUP 1.....	\$ 21.73	.15 + a
GROUP 2.....	\$ 21.48	.15 + a

FOOTNOTE:

a. \$132.70 per week, plus \$17.80 per day.

SIGN INSTALLER CLASSIFICATION:S

GROUP 1: performs all necessary labor and uses all tools required to construct and set concrete forms required in the installation of highway and street signs

GROUP 2: performs all miscellaneous labor, uses all hand and power tools, and operates all other equipment, mobile or otherwise, required for the installation of highway and street signs

TEAM0247-010 04/29/2012

AREA 1: LAPEER AND SHIAWASSEE COUNTIES

AREA 2: GENESEE, MACOMB, MONROE, OAKLAND, ST. CLAIR, WASHTENAW AND WAYNE COUNTIES

	Rates	Fringes
TRUCK DRIVER (Underground construction)		
AREA 1		
GROUP 1.....	\$ 21.97329.50/wk	+52.90/day
GROUP 2.....	\$ 22.06329.50/wk	+52.90/day
GROUP 3.....	\$ 22.27329.50/wk	+52.90/day
AREA 2		
GROUP 1.....	\$ 22.27329.50/wk	+52.90/day
GROUP 2.....	\$ 22.41329.50/wk	+52.90/day
GROUP 3.....	\$ 22.60329.50/wk	+52.90/day

PAID HOLIDAYS: New Year's Day, Memorial Day, Fourth of July, Labor Day, Thanksgiving Day and Christmas Day.

SCOPE OF WORK: Excavation, site preparation, land balancing, grading, sewers, utilities and improvements; also including but not limited to, tunnels, underground piping, retention, oxidation, flocculation facilities, conduits, general excavation and steel sheeting for underground construction. Underground construction work shall not include any structural modifications, alterations, additions and repairs to buildings or highway work, including roads, streets, bridge construction and parking lots or steel erection.

TRUCK DRIVER CLASSIFICATIONS

GROUP 1: Truck driver on all trucks (EXCEPT dump trucks of 8 cubic yards capacity or over, pole trailers, semis, low boys, Euclid, double bottom and fuel trucks)

GROUP 2: Truck driver on dump trucks of 8 cubic yards capacity or over, pole trailers, semis and fuel trucks

GROUP 3: Truck driver on low boy, Euclid and double bottom

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

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 Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (ii)).

The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of "identifiers" that indicate whether the particular rate is union or non-union.

Union Identifiers

An identifier enclosed in dotted lines beginning with characters other than "SU" denotes that the union classification and rate have found to be prevailing for that classification. Example: PLUM0198-005 07/01/2011. The first four letters , PLUM, indicate the international union and the four-digit number, 0198, that follows indicates the local union number or district council number where applicable , i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. The date, 07/01/2011, following these characters is the effective date of the most current negotiated rate/collective bargaining agreement which would be July 1, 2011 in the above example.

Union prevailing wage rates will be updated to reflect any changes in the collective bargaining agreements governing the rates.

0000/9999: weighted union wage rates will be published annually each January.

Non-Union Identifiers

Classifications listed under an "SU" identifier were derived from survey data by computing average rates and are not union rates; however, the data used in computing these rates may include both union and non-union data. Example: SULA2004-007 5/13/2010. SU indicates the rates are not union majority rates, LA indicates the State of Louisiana; 2004 is the year of the survey; and 007 is an internal number used in producing the wage determination. A 1993 or later date, 5/13/2010, indicates the classifications and rates under that identifier were issued as a General Wage Determination on that date.

Survey wage rates will remain in effect and will not change until a new survey is conducted.

WAGE DETERMINATION APPEALS PROCESS

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

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

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

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

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

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 ~~CFR~~ Part 7). Write to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

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

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

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

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END OF GENERAL DECISION