REQUEST FOR QUOTATION		
No. 9634	**TROY SCHOOL DISTRICT** **1140 RANKIN, TROY, MICHIGAN 48083** **248-823-4052** **FAX: 248-823-4077**	
DUE DATE 10/1/09 NO LATER THAN 3 p.m.		DATE 9/15/09

REQUEST FOR QUOTE – NOT AN ORDER

THIS FORM MUST BE UTILIZED WHEN RESPONDING TO THIS REQUEST
BID ENVELOPE ENCLOSED

THE RFQ NUMBER MUST APPEAR ON ALL QUOTATIONS AND RELATED CORRESPONDENCE, THIS IS NOT AN ORDER

Quantity	DESCRIPTION	UNIT PRICE	AMOUNT
	Please supply us with your bid to furnish the Troy School District with ROOFING REPLACEMENT AT RANKIN LOCATION Copies of the bid are available at: www.troy.k12.mi.us/purchasing/items_out_for_bid.htm (left column) Bid recaps will be available at: www.troy.k12.mi.us/purchasing/items_out_for_bid.htm (right column) ***FACSIMILE BID IS NOT ACCEPTABLE*** Bids will not be accepted if submitted after the deadline specified (local time) in the advertisement to bid or in the information to bidders. The late submission of a bid makes the bid nonrepsonsive and is a material defect which shall not be waived by the Board of Education. Delays in the mail will not be considered. All Late bids in the mail will be returned to the bidder unopened. Proposal for the submission of alternatives by vendors will be accepted and reviewed. However, if any substitution or departure is not clearly noted and described, it will be understood that the bid intends to exactly meet the specifications. The Board of Education shall be the sole judge as to whether the proposed goods are "equal" or "approved". Quotations must be mailed or delivered to the Purchasing Office, 1140 Rankin, Troy, MI 48083 no later than 3 p.m. on the date shown above. Michigan State Sales and Use Taxes and Federal Excise Taxes do not apply unless otherwise indicated. Exemption certificates will be furnished when necessary. This request imposes no obligations on the buyer. The Board of Education reserves the right to accept or reject any or all bids or to split awards by items or to accept bids, which will best serve the Board of Education.		

THIS AREA MUST BE FILLED IN

DELIVERY TIME	PRICES FIRM FOR	NAME OF COMPANY	TELEPHONE NO.
TERMS		NO. & STREET	FAX #
FOB DELIVERED	ALL DELIVERY CHARGES MUST BE INCLUDED IN PRICES SHOWN	CITY, STATE & ZIP CODE	E-MAIL
CONTACT PERSON (PLEASE PRINT)		SIGNATURE	DATE

Note: All bidders are specifically reminded that a completed Affidavit of Bidder (Familial Disclosure) MUST be completed and submitted with the bid response. Failure to include a completed copy will be grounds for disqualification of bid. The Affidavit of Bidder is required to be notarized for construction bids only. All others only require completion and signature.

AFFIDAVIT OF BIDDER

The undersigned, the owner or authorized officer of _____ (the "Bidder), pursuant to the familial disclosure requirement provided in the _____ _____ (the "School District") advertisement for construction bids, hereby represent and warrant except as provided below, that no familial relationships exist between the over(s) or any employee of _____ and any member of the Board of Education of the School District or the Superintendent of the School District.

List any Familial Relationships:

BIDDER:

_____

By: _____

Its: _____

STATE OF MICHIGAN)
)ss.
COUNTY OF _____)

This instrument was acknowledged before me on the _____ day of _____, 2009, by _____.

_____

,Notary Public

_____County, Michigan

My Commission Expires: _____

Acting in the County of: _____

ADVERTISEMENT TO BID

The **Troy School District** is seeking qualified bids for the **ROOFING REPLACEMENT at the Rankin Street location** as specified. Bid proposals will be received by Troy School District, 1140 Rankin, Troy, MI 48083 delivery or mail, to the attention of Frank Lams by **3:00 p.m**. local time on **THURSDAY, OCTOBER 1, 2009** (The clock used for receiving bids is located at the Rankin office in the main office area). Proposals must be sealed with Bidder's name on the outside of the envelope and designated as follows:

Sealed Proposal
ROOFING REPLACEMENT - RANKIN
Bid Package 9634
Contractor Name, Address, Phone Number

Proposals shall be based on the requirements set forth in this bid package specification. Any resultant contract shall be based on these specifications.

Accepted Bidders will be required, as a condition precedent to award of Contract, to furnish in the amount of 100% of the contract price, satisfactory Performance Bond and Payment Bond and Certificates of Insurance as required.

Unless otherwise specifically set forth, this Project is subject to state sales and/or use taxes and Bidder is required to include such taxes in its Bid Proposal.

Bid Proposals will be publicly opened immediately following receipt of bids by the Troy School District and evaluated by Owner with awards subsequently made by Troy School District.

The Owner shall not open, consider or accept a Bid Proposal that is received after the date and time specified for bid submission in this Advertisement for Bids.

Bidding Documents will be available for examination and distribution on or after September 4, 2009. Examination may be made at the following locations:

- Troy School District, 1140 Rankin, Troy, MI 48083
- Construction Association of Michigan, 43636 Woodward Ave., Bloomfield, MI 48302

A pre-bid conference (ATTENDANCE STRONGLY ENCOURAGED) and site tour will be held at 1140 Rankin Street, Troy, MI 48083 on **Thursday, September 24, 2009 at 9:00 am.** All Bidders should plan to attend the pre-bid conference. Troy School District is not responsible for providing information to those who do not attend the pre-bid conference.

Bid Proposals shall be on forms furnished by **Troy School District**. Bidders will be required to submit with their Bid Proposals, a notarized Familial Relationship Disclosure Form, a Bid Security by a qualified surety authorized to do business in the State of Michigan where the Project is located, an OSHA Form 300 for the most recent completed year, their worker's compensation Experience Modification Rate (EMR) factor and any other information required in the Instructions to Bidders. Bidders shall not withdraw Bid Proposals for a period of **ninety (90)** days after date for receipt of Bid Proposals.

The right to accept or reject any or all Bid Proposals, either in whole or in part, to waive any informalities or irregularities therein and to award the contract to other than the low bidder is reserved by Troy School District.

All Bid Proposals shall be accompanied by the sworn and notarized statement disclosing any familial relationship that exists between the owner or any employee of the Bidder and any member of the School Board or the superintendent of the School District. Bid proposals that do not include this sworn and notarized disclosure statement will not be considered accepted.

The successful bidder and its subordinate parties shall comply with the Prevailing Wage Requirements for all work as required by the State of Michigan Public Act 166 Dated 1965 As Amended.

End of Advertisement

TROY SCHOOL DISTRICT
RANKIN ROOF REPLACEMENT
BID 9634

BID SECURITY

A. Bid security in the form of a bid bond issued by a qualified surety, certified check or cashier's check in the amount of five percent (5%) of the Base Bid amount will be required at the time of submission of the Bid Proposal. Bid bonds shall b e duly executed by the bidder, as principal and by a surety that is properly licensed and authorized to do business in the state in which the Work is to be performed. All sureties providing bonds for this Project must be listed in the latest version of the Department of Treasury's Circular 570, entitled "Companies Holding Certificates of Authority as Acceptable Sureties on Federal bonds and as Acceptable Reinsuring Companies", with the bond amount less than or equal to the underwriting limitation, and/or have an A.M. best rating of A- or better.

B. Bid bond shall pledge that the Bidder, with the understanding that if its Bid Proposal is accepted, will enter into the Agreement with Troy School District for any of the Bid Category(ies) accepted from its Bid Proposal and will, if required, furnish performance and payment bonds covering the faithful performance of the Agreement and the payment of all obligations arising there under. The attorney-in-fact, who signs the surety bond, must submit along with the bond, a certified and effectively dated copy of his/her power of attorney.

C. Bid bond form AIA Document A310 is approved for use on this Project.

D. The bid security obligees shall be **Troy School District** and the amount of the bid security shall become their property in the event that the Bidder fails, within Sixty (60) days of notice of award or receipt of the Agreement form, to execute the Agreement, and deliver the performance and payment bonds as described. In such case, the bid security shall be forfeited to Troy School District as liquidated damages, not as a penalty.

E. The Owner will have the right to retain the bid security(ies) of Bidders to whom an award is being considered until either (a) the Agreement has been executed and bonds, if required, have been furnished, or (b) the specified time has elapsed so that Bid Proposals may be withdrawn, or (c) all Bid Proposals have been rejected.

F. Bid security will be returned to the successful bidders after the Agreement has been executed, and acceptance of required performance and payment bonds. The bid security of Bidders that are not under consideration for award of the Agreement will be returned to those Bidders.

SUBMISSION OF BIDS

A. All copies of the Bid Proposal, the bid security and any other documents required to be submitted with the Bid Proposal shall be enclosed in a sealed opaque

envelope. The envelope shall be addressed to the party receiving the bids and shall be identified with the Project name, the bidder's name and address, if applicable, the designated portion of the Work for which the Bid Proposal is submitted. If the Bid Proposal is sent by mail, the sealed envelope shall be enclosed in a separate mailing envelope with the notation "SEALED BID ENCLOSED" on the face of the envelope.

B. Bid Proposals shall be deposited at the designated location prior to the time and date for receipt of Bid Proposals indicated in the Advertisement to Bid, or any extension thereof made by Addendum. Bid Proposals received after the date and time for receipt of bids will be returned unopened.

C. The Bidder shall assume full responsibility for timely delivery at the location designated for receipt of Bid Proposals.

D. Oral, telephonic, facsimile, emailed or telegraphic Bid Proposals or bid securities are invalid and will not receive consideration.

E. Bid Proposals will only be accepted for individual Bid Categories. Bidders are required to bid an entire Bid Category. Bidders may bid more than one Bid Category. Combined bids covering several Bid Categories may not be accepted unless separate bid amounts are listed for each Bid Category making up the combined bid amount. The amount for a combined bid, however, need not be equal in amount to the total of the individual category bids.

MODIFICATION OR WITHDRAWAL OF BID PROPOSAL

A. A Bid Proposal may not be modified, withdrawn or canceled by the Bidder after the stipulated time period and date designated for the receipt of Bid Proposals, and each Bidder so agrees in submitting its Bid.

B. Prior to the time and date designated for receipt of Bid Proposals, any Bid Proposal submitted may be modified or withdrawn by notice to the party receiving Bid Proposals at the place designated for their receipt. Such notice shall be in writing over the signature of the Bidder.

C. Withdrawn Bid Proposals may be submitted up to the time designated for the receipt of bids provided that they are then fully in conformance with these Instructions to Bidders.

D. Bid security under B. or C., above shall be in an amount for the Base Bid as modified or resubmitted.

CONSIDERATION OF BIDS

OPENING OF BIDS

A. Bid Proposals received on time will be open publicly.

B. Bid Proposals shall be held open and irrevocable for **Forty-five (45)** days after the receipt of bids.

REJECTION OF BIDS

A. **Troy School District** shall have the right to reject any or all bid Proposals and to reject a Bid Proposal not accompanied by the required bid security or by other information required by the Bidding Documents, or to reject a Bid Proposal which is in any way incomplete or irregular.

B. Bid Proposals are considered irregular and may be rejected for any of the following reasons unless otherwise provided by law:

1. If Bid Proposal Form furnished is not used or is altered.
2. If there are unauthorized additions, qualified or conditional Bid Proposals, or irregularities of any kind which may make the Bid Proposal incomplete, indefinite, or ambiguous as to its meaning.
3. If Bidder adds any provisions reserving right to accept or reject any award, or enter into the Agreement pursuant to an award.
4. If Unit or Lump Sum prices or Alternates contained in the Bid Proposal are obviously unbalanced either in excess of, or below, reasonable cost analysis values.
5. If Bidder fails to complete the Bid Proposal Form where information is requested so the Bid Proposal form cannot be properly evaluated.
6. Bidder is deemed to not be the Lowest Responsive, Responsible Bidder by definition and prevailing statutes.
7. Bidder does not submit with its Bid Proposal a sworn and notarized statement of Familial Disclosure.

ACCEPTANCE OF BID (AWARD)

A. It is the intent of the **Troy School District** to award the Agreement to the Lowest Responsive and Responsible Bidder provided the Bid Proposal has been submitted in accordance with the requirements of the bidding Documents and does not exceed the funds available. **Troy School District** shall have the right to waive any informality or irregularity in any bid Proposal received and to accept Bid Proposals which, in its judgment, are in its own best interest which includes not awarding to the low bidder. **Troy School District** reserves the right to reject any bid Proposal in its sole discretion except where otherwise provided by law.

B. **Troy School District** shall have the right to accept any Alternates in any order or combination and to determine the low bidder on the basis of the sum of the Base Bid, Voluntary Alternates and Alternates accepted.

INSURANCE REQUIREMENTS

As a condition of performing work under the Agreement, Contractor will keep in force, at all times during performance of the Work, policies of insurance covering all Basic Insurance Requirements and any applicable Supplemental Insurance Requirements. The requirements identified below are minimum requirements. If

the Agreement or other Contract Documents impose additional or higher standards, contractor shall meet those as well. Where a Controlled Insurance Program ("CIP") is specified in the Contract Documents, these insurance requirements shall not apply to coverage supplied by the CIP, but shall apply to coverage which Contractor is required to carry outside the scope of the CIP.

Basic Insurance Requirements

Workers' Compensation covering Contractor's statutory obligations in the State(s) in which the Work is to be performed or Federal statutory obligations, if applicable to the Project and Employers' Liability insurance with limits of liability of $1,000,000 per accident. Where applicable, a US Longshore and Harborworker's Compensation Act endorsement must be included.

If Contractor employs the services of leased employees for the Work or for a portion of the Work, it will be required to submit evidence, to the satisfaction of the Troy School District, that such leased employees are fully covered by the minimum limits of Workers' Compensation and Employers' Liability Insurance. Such evidence shall include, but not be limited to, submission of the applicable leasing agreement.

Automobile Liability insurance with the limit of $1,000,000 per accident covering Contractor's owned, non-owned and hired automobiles.

. Commercial General Liability Insurance written on the 1988 ISO OCCURRENCE policy form or subsequent versions with the limits of liability as follows:

General Aggregate	$2,000,000
Products-Completed Operations Aggregate	$2,000.000
Personal/Advertising Injury	$2,000,000
Each Occurrence	$2,000.000

This coverage shall include coverage for premises-operations, independent contractors' protective products and completed operations, personal injury and broad form property damage (including coverage for explosion, collapse, and underground hazards), and Contractual Liability protection with respect to Contractor's indemnification obligations under the Contract Documents. Products-completed operations coverage must be maintained for at least two years after final completion of the Project.

General Provisions

Every policy must be written by an insurance company licensed in the state of Michigan and is reasonably acceptable to the Troy School District.

For Employer's Liability, Commercial General Liability and Automobile Liability may be attained by a combination of an underlying policy with an umbrella or excess liability policy.

The Troy School District shall be endorsed as additional insureds on Contractor's liability insurance (including general liability, excess liability, automobile liability and pollution liability, where applicable, with respect to liability arising out of activities performed by or on behalf of Contractor. The coverage provided by the additional insured endorsement shall be at least as broad as the Insurance Service Office, Inc.'s Additional insured, Form B CG 20 10 11 85 or CG 20 26 11 85. Forms that do not provide additional insured status for completed operations will not be accepted.

Contractor will furnish, before any work is started, certificates of insurance showing the required coverage Receipt by Troy School District of a non-conforming certificate of insurance without objection, or Troy School District's failure to collect a certificate of insurance, shall not waive or alter Contractor's duty to comply with the insurance requirements. Modifications to these insurance will not be effective unless made in a writing executed by an authorized representative of the Troy School District. Upon written request by Troy School District, contractor will provide copies of its insurance policies.

Evidence of the required insurance is to be provided to Troy School District on ACORD Certificate Form 25-S and must indicate:

Any coverage exclusions or deviations from the 1988 ISO commercial general liability form or subsequent versions;

Best's rating for each insurance carrier at A minus VII or better;

That the issuing insurance company will provide thirty (30) days written notice of cancellation to the certificate holder and the words "endeavor to" and "but failure to mail such notice shall impose no obligation or liability of any kind upon the company, its agents or representatives" do not apply or have been removed;

That additional insured endorsements have been provided as required under the Contract Documents;

and

Any deductibles over $10,000 applicable to any coverage.

All coverage must be primary and not excess over or contributory with any other valid, applicable and collectible insurance in force for Troy School District, or other insureds.

Contractor will provide full coverage for all of Contractor's equipment, property and tools used in the Work.

Contractor shall waive, and shall require (by endorsement or otherwise) its insurers providing the coverage required by these insurance requirements to waive, subrogation rights against Troy School District, and all other additional insureds for losses and damages incurred and/or paid under the insurance policies required by these insurance requirements or other insurance applicable to Contractor or its Subordinate Parties, and will include this same requirement in contracts with its Subordinate Parties. If the policies of insurance referred to in this paragraph require an endorsement to provide for continued coverage where there is a waiver of subrogation, the owners of each policies will cause them to be so endorsed.

Contractor will send or fax a copy of these insurance requirements to its agent when an insurance certificate is requested to assure that the policies comply with the insurance requirements.

If Contractor requires its Subordinate Parties to provide additional insured endorsements in favor of Contractor, those endorsements shall be extended to Troy School District and all other required additional insureds.

Contractor's duty to provide the insurance coverage set forth in these insurance requirements is a severable obligation from Contractor's indemnification obligations under the Contract Documents. Nothing in these insurance requirements shall be deemed to limit Contractor's liability under the Agreement.

TROY SCHOOL DISTRICT
ROOF REPLACEMENT SPECIFICATIONS – RANKIN WAREHOUSE
Bid 9634

PART 1 GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including the Conditions of the Contract and Division 01 Specification Sections apply to this section.

1.2 SUMMARY

It is the intent of the Troy School District to get a fully protected, insulated, positive-sloped modified built-up roof system with slag aggregate cover and all required sheet metal and roof penetrations for a totally warranted 25 year No Dollar Limit roof system including the metal flashing and coping.

ITEM 1: Over Roof Area #2 measuring 143' X 82'= 11,726 square feet: Tear-Off existing top roof, flashing and coping. Cut through existing graveled bottom roof assembly and peel-off roofing plies leaving existing 2.5" polyisocyanurate base insulation in place. Remove all wet or damaged insulation. Inspect and repair or replace rusted metal deck. Install new 2.5" Polyisocyanurate insulation to fill voids, mechanically fasten entire base insulation to meet F.M. I-60. Install a top layer of 1/2" H.D. fiberboard in hot asphalt. Install roof perlite roof saddles at east wall drain valleys. Install a new HPR modified roof with slag aggregate cover. Install all 2-ply modified flashings, sheet metal flashing, drain flashing and new perimeter metal coping. Paint all rusted metal flashing, stacks and collars.

ITEM 2: Over Roof Area #3 measuring 143' X 61' = 8,723 square feet: Tear-Off all roofing flashing and insulation down to the metal deck. Remove perimeter coping. Inspect and repair or replace rusted metal deck. Install new base layer of 1.5" Polyisocyanurate insulation screwed through the metal deck to meet F.M. I-60 followed by a top layer of 1/2" H.D. fiberboard in hot asphalt. Install roof perlite roof saddles at east wall drain valleys. Install a new HPR modified roof with slag aggregate cover. Install all 2-ply modified flashings, sheet metal flashing, drain flashing and new perimeter metal coping. Paint all rusted metal flashing, stacks and collars. Install a new 30" X 36" raised curb Roof hatch and interior ladder.

This Section includes the following:

1. Modified bituminous membrane roofing over prepared substrate.
2. Roof Insulation.
3. Roof Saddles.
4. Roof substrate board.
5. Sheet Metal Flashing and Trim

1.3 REFERENCES

A. American Society of Civil Engineers (ASCE):

1. ASCE 7-02, Minimum Design Loads for Buildings and Other Structures.

B. American Society for Testing and Materials (ASTM):

1. ASTM D41 Standard Specification for Asphalt Primer Used in Roofing, Dampproofing and Waterproofing.

2.	ASTM D451	Standard Test Method for Sieve Analysis of Granular Mineral Surfacing For Asphalt Roofing Products.
3.	ASTM D1079	Terminology Relating to Roofing and Waterproofing.
4.	ASTM D1227	Standard Specification for Emulsified Asphalt Used as a Protective Coating for Roofing.
5.	ASTM D1863	Standard Specification for Mineral Aggregate Used on Built-Up Roofs.
6.	ASTM D2822	Standard Specification for Asphalt Roof Cement.
7.	ASTM D2824	Standard Specification for Aluminum-Pigmented Asphalt Roof Coatings, Nonfibered, Asbestos Fibered, and Fibered without Asbestos
8.	ASTM D4601	Standard Specification for Asphalt-Coated Glass Fiber Base Sheet Used in Roofing.
9.	ASTM D5147	Standard Test Methods for Sampling and Testing Modified Bituminous Sheet Material.
10.	ASTM D6162	Standard Specification for Styrene Butadiene Styrene (SBS) Modified Bituminous Sheet Materials Using a Combination of Polyester and Glass Fiber Reinforcements.
11.	ASTM D6163	Standard Specification for Styrene Butadiene Styrene (SBS) Modified Bituminous Sheet Materials Using Glass Fiber Reinforcements.
12.	ASTM E108	Standard Test Methods for Fire Tests of Roof Coverings.

C. Factory Mutual Research (FM):

1. Roof Assembly Classifications.

D. National Roofing Contractors Association (NRCA):

1. Roofing and Waterproofing Manual.

E. Underwriters Laboratories, Inc. (UL):

1. Fire Hazard Classifications.

F. Warnock Hersey (WH):

1. Fire Hazard Classifications.

1.4 PERFORMANCE REQUIREMENTS

A. General: Provide and install a long-term, quality roof system that meets or exceeds all current NRCA guidelines as stated in the most recent edition of the NRCA Roofing and Waterproofing Manual.

B. Material Compatibility: Provide roofing materials that are compatible with one another under conditions of service and application required, as demonstrated by roofing manufacturer based on testing and field experience.

1.5 PREBID MEETING

Vendors are strongly encouraged to attend at 9:00am on Thursday, September 24, 2009 at 1140 Rankin St., Troy, MI 48083. All information regarding these specifications and existing roof conditions will be addressed at this meeting. Troy School District will not be responsible for providing additional access to this site subsequent to this meeting. Attendance at this meeting will be considered when evaluating all bid responses.

1.6 SUBMITTALS FOR REVIEW

A. Product Data: Provide manufacturer's technical product data for each type of roofing product specified. Include data substantiating that materials comply with specified requirements.

B. Samples: Submit **two (2)** samples of the following:.

1. All Insulation boards.
2. All Membranes, base sheets, ply sheets, modified flashing base and mineral cap, modified field cap sheet.
3. Pre-painted metal flat stock
4. ½ lb. sample of roofing slag aggregate for review.

C. Specimen Warranty: Provide an unexecuted copy of the warranty specified for this Project, identifying the terms and conditions required of the Manufacturer and the Owner.

1.7 SUBMITTALS FOR INFORMATION

A. Manufacturer's Installation Instructions: Submit installation instructions and recommendations indicating special precautions required for installing the membrane.

B. Manufacturer's Certificate: Certify that roof system furnished is approved by Factory Mutual, Underwriters Laboratories, Warnock Hersey or approved third party testing facility in accordance with ASTM E108, Class **A** for external fire and meets local or nationally recognized building codes.

C. Manufacturer's Certificate: Certify that the roof system is adhered properly to meet or exceed the requirements of FM **1-60.**

D. Manufacturer's Certificate: Certify that the roof system furnished **is approved by** Factory Mutual Approval Standard 4470.

E. Manufacturer's Certificate: Certify that materials are manufactured in the United States and conform to requirements specified herein, are chemically and physically compatible with each other, and are suitable for inclusion within the total roof system specified herein.

F. Manufacturer's Certificate: Submit a certified copy of the roofing manufacturer's ISO 9001 compliance certificate.

G. Test Reports: Submit test reports, prepared by an independent testing agency, for all modified bituminous sheet roofing, indicating compliance with ASTM D5147.

H. Written certification from the roofing system manufacturer certifying the applicator is currently authorized for the installation of the specified roof system.

I. Design Loads: Submit copy of manufacturer's minimum design load calculations according to ASCE 7-02, Method 2 for Components and Cladding, sealed by a registered professional engineer employed by the system manufacturer as a full-time staff engineer. In no case shall the design loads be taken to be less than those detailed in Design and Performance Criteria article of this specification.

J. Qualification data for firms and individuals identified in Quality Assurance Article below.

1.8 CONTRACT CLOSEOUT SUBMITTALS

A. General: Comply with Requirements of Division 01 Section – Closeout Submittals.

B. Special Project Warranty: Provide specified warranty for the Project, executed by the authorized agent of the Manufacturer.

C. Roofing Maintenance Instructions. Provide a manual of manufacturer's recommendations for maintenance of installed roofing systems.

1.9 QUALITY ASSURANCE

A. Manufacturer Qualifications: Company specializing in manufacturing the products specified in this section with not less than **12** years documented experience **and have ISO 9001 certification**.

B. Installer Qualifications: Company specializing in modified bituminous roofing installation with not less than **5** years experience and authorized by roofing system manufacturer as qualified to install manufacturer's roofing materials.

C. Installer's Field Supervision: Maintain a full-time Supervisor/Foreman on job site during all phases of roofing work while roofing work is in progress. Maintain proper supervision of workmen.

1. Maintain a copy of the Contract Documents in the possession of the Supervisor/Foreman and on the roof at all times.

D. Source Limitations: Obtain all components of roof system from a single manufacturer. Secondary products that are required shall be recommended and approved in writing by the roofing system Manufacturer.

1. Upon request of the Owner, submit Manufacturer's written approval of secondary components in list form, signed by an authorized agent of the Manufacturer.

E. Source Quality Control: Manufacturer shall have in place a documented, standardized quality control program such as ISO-9001 approval.

1.10 PRE-INSTALLATION CONFERENCE

A. Pre-Installation Roofing Conference: Convene a pre-roofing conference approximately two (2) weeks before scheduled commencement of modified bituminous roofing system installation and associated work**.**

B. Require attendance of installer of each component of associated work, installers of deck or substrate construction to receive roofing work, installers of rooftop units and other work in and around roofing which must precede or follow roofing work (including mechanical work if any), Owner, roofing system manufacturer's representative, and other representatives directly concerned with performance of the Work, including (where applicable) Owner's insurers, testing agencies and governing authorities.

C. Objectives of conference include:

1. Review foreseeable methods and procedures related to roofing work, including set up and mobilization areas for stored material and work area.
2. Tour representative areas of roofing substrates (decks), inspect and discuss condition of substrate, roof drains, curbs, penetrations and other preparatory work performed by others.
3. Review structural loading limitations of deck and inspect deck for loss of flatness and for required attachment.
4. Review roofing system requirements (drawings, specifications and other contract documents).
5. Review required submittals both completed and yet to be completed.
6. Review and finalize construction schedule related to roofing work and verify availability of materials, installer's personnel, equipment and facilities needed to make progress and avoid delays.
7. Review required inspection, testing, certifying and material usage accounting procedures.
8. Review weather and forecasted weather conditions and procedures for coping with unfavorable conditions, including possibility of temporary roofing (if not mandatory requirement).
9. Record discussion of conference including decisions and agreements (or disagreements) reached and furnish copy of record to each party attending. If substantial disagreements exist at conclusion of conference, determine how disagreements will be resolved and set date for reconvening conference.
10. Review notification procedures for weather or non-working days.

D. The Owner's Representative will designate one of the conference participants to record the proceedings and promptly distribute them to the participants for record.

E. The intent of the conference is to resolve issues affecting the installation and performance of roofing work. Do not proceed with roofing work until such issues are resolved the satisfaction of the Owner and Engineer of Record. This shall not be construed as interference with the progress of Work on the part of the Owner or Engineer of Record.

1.11 DELIVERY, STORAGE AND HANDLING

A. Deliver products to site with seals and labels intact, in manufacturer's original containers, dry and undamaged.

B. Store and handle roofing sheets in a dry, well-ventilated, weather-tight place to prevent moisture exposure. Store rolls of felt and other sheet materials on pallets or other raised surface. Stand all roll materials on end. Cover the roll goods with a canvas tarpaulin or other breathable material (not polyethylene).

C. Do not leave unused materials on the roof overnight or when roofing work is not in progress unless protected from weather and other moisture sources.

D. Secure all material and equipment on the job site. If any material or equipment is stored on the roof, load limits must be monitored to assure that the integrity of the deck is not compromised at any time. Damage to the deck caused by the Contractor's actions will be the sole responsibility of the Contractor and will be repaired or replaced at his expense.

1.12 MANUFACTURER'S INSPECTIONS

A. When the project is in progress, the roofing system manufacturer will provide the following:

1. Report progress and quality of the work as observed.
2. Provide **daily** job site inspections.
3. Report to the owner in writing any failure or refusal of the Contractor to correct unacceptable practices called to the Contractor's attention.
4. Confirm after completion that manufacturer has observed no applications procedures in conflict with the specifications other than those that may have been previously reported and corrected.

1.13 PROJECT CONDITIONS

A. Proceed with roofing work only when existing and forecasted weather conditions will permit unit of work to be installed in accordance with manufacturer's recommendations and warranty requirements.

B. Do not apply roofing insulation or membrane to damp deck surface.

C. Do not expose materials subject to water or solar damage in quantities greater than can be weatherproofed during same day.

1.14 SEQUENCING AND SCHEDULING

A. Sequence installation of roofing with related units of work specified in other sections to ensure that roof assemblies including roof accessories, flashing, trim and joint sealers are protected against damage from effects of weather, corrosion and adjacent construction activity.

B. Complete all roofing field assembly work each day. Phased construction will not be accepted.

1.15 WARRANTY

A. Upon completion of installation, and acceptance by the Owner, the manufacturer will supply to the Owner the appropriate warranty.

B. Installer will submit a five (5) year warranty to the membrane manufacturer with a copy directly to Owner.

C. Upon completion of installation, and acceptance by the Owner, the manufacturer will supply to the Owner a **twenty-five (25) year warranty** which is inclusive, not prorated and carry no dollar limitations. The warranty will cover roof assembly, flashing details including metal flashing. Damages caused by storm, vandalism and other trades are not included in warranty. The standard N.R.C.A. or M.R.C.A. guarantee form is acceptable.

1.16 DESIGN AND PERFORMANCE CRITERIA

A. Uniform Wind Uplift Load Capacity

1. Installed roof system shall withstand negative (uplift) design wind loading pressures complying with the following criteria. Attachment shall be installed exactly as given in article 3.3 G.

a. Design Code: ASCE 7-02, Method 2 for Components and Cladding.
b. Category III Building with an Importance Factor of 1.15
c. Wind Speed: 90 mph
d Ultimate Pullout Value: Fasteners shall reach minimum allowable by manufacturer for each deck type
e. Exposure Category: B
f. Design Roof Height: 25 feet.
g. Minimum Building Width: 143 feet.
h. Roof Pitch: 1/4 inch per foot.
i. Topographic Factor: 1.00

Roof Area	**Design Uplift Pressure:**
Zone 1 - Field of roof	15.9 psf
Zone 2 - Eaves<, ridges, hips,> and rakes	26.7 psf
Zone 3 - Corners	40.2 psf

B. Snow Load: 25 psf.

C. Live Load: 20 psf, or not to exceed original building design.

PART 2 - PRODUCTS

2.1 PRODUCTS, GENERAL

A. Refer to Division 01 Section "Common Product Requirements."

B. Basis of Design: Materials, manufacturer's product designations, and/or manufacturer's names specified herein shall be regarded as the minimum standard of quality required for work of this Section. Comply with all manufacturer and contractor/fabricator quality and performance criteria specified in Part 1.

C. Substitutions: Products proposed as equal to the products specified in this Section shall be submitted in accordance with Bidding Requirements and Division 01 provisions.

1. Proposals shall be accompanied by a copy of the manufacturer's standard specification section. That specification section shall be signed and sealed by a professional engineer licensed in the state in which the installation is to take place. Substitution requests containing specifications without licensed engineer certification shall be rejected for non-conformance.

2. Include a list of three (3) projects of similar type and extent, located within a one hundred mile radius from the location of the project. In addition, the three projects must be at

least five (5) years old and be available for inspection by the Architect, Owner or Owner's Representative.

3. Equivalency of performance criteria, warranty terms, submittal procedures, and contractual terms will constitute the basis of acceptance.

4. The Owner's decision regarding substitutions will be considered final. Unauthorized substitutions will be rejected.

2.2 ACCEPTABLE MANUFACTURERS

The design is based upon roofing systems engineered and manufactured by The Garland Company. All bidders should note that alternative roofing materials which substantially meet or exceed these specifications will be given equal consideration in evaluating the bid results. This bid specification is not meant to limit responses to a single source, rather it is meant to establish a basis for comparison.

2.3 DESCRIPTION

A. Modified bituminous roofing work including but not limited to:

1. Hot Bitumen: ASTM D312, Type III steep asphalt on roof with slopes up to (3) three inches in (12) twelve inches (3:12 slope) having the following characteristics:

a.	Softening Point	185°F - 205°F
b.	Flash Point	500°F
c.	Penetration @ 77°F	15-35 units
d.	Ductility @ 77°F	2.5 cm

2. Base Flashing Backer Ply Modified Membrane: One (1) ply of 40 mil SBS base flashing ply covered by an additional layer of mineral-surfaced modified bitumen membrane and set in bitumen in the 2-ply flashing system.

3. Top Flashing Ply Modified Membrane: STRESSPLY EUV Mineral; 155 mil SBS and SIS (Styrene-Butadiene-Styrene and Styrene-Isoprene-Styrene) rubber modified membrane incorporating post consumer recycled rubber and reinforced with a super strong fiberglass and polyester composite scrim. Surfaced with the highly reflective Starburst™ white mineral. This top flashing ply covers the base ply backer sheet in the 2-ply flashing system.

4. Minimum two (2) plies of approved ASTM D2178, Type IV glass fiber roofing felt bonded to the prepared substrate with hot bitumen forms the base plies of all field roofing.

5. Modified Membrane: STRESSPLY PLUS; 105 mil SBS (Styrene-Butylene-Styrene) rubber modified roofing membrane incorporating recycled rubber and reinforced with a fiberglass and polyester composite scrim. This Modified cap sheet membrane is installed as the top ply over the two (2) base plies of fiberglass ply felts covering all flat (slopes up to 2-1/2:12) field roofing all set in hot bitumen.

6. Surfacing**:** Flood coat of hot bitumen and ASTM D1863 roofing aggregate consisting of new roofing slag at all flat areas up to two and one half inch (2-1/2") slope in twelve (12) inches.

7 . Hot Surfacing Bitumen for slopes up to one and one-half (½) inch per foot**:** ASTM D312, Type III steep asphalt having the following characteristics:

a.	Softening Point	185°F - 205°F
b.	Flash Point	500°F
c.	Penetration @ 77°F	15-35 units
d.	Ductility @ 77°F	2.5 cm

8. Cold Surfacing Bitumen for re-pouring and gravelling flat areas that pond water after Initial pour and slag: Coal tar based bitumen having the following characteristics:

Black•Knight Cold:

a.	Flash Point	105°F
b.	Viscosity (cps)	120,000
c.	Solids Content	89%vol

2.4 BITUMINOUS MATERIALS

A. Asphalt Primer: V.O.C. compliant, ASTM D41.

B. Asphalt Roofing Mastic: V.O.C. compliant, ASTM D2822, Type II.

C. Interply Adhesive and flood coat: ASTM D312, Type III (for up to a 1-1/2:12 slope).

D. Cold Applied Flood Coat Adhesive: heavy bodied, fiber-reinforced, coal tar pitch top coat for areas that pond water after initial flood coat of hot asphalt and slag aggregate cover. Performance Requirements:

1.	Non-Volatile Content	ASTM D-4479	30%
2.	Density	ASTM D-1475	9.0 lb./gal.
3.	V.O.C.	ASTM D-3960	Less than 270
4.	Viscosity Stroboscopic	ASTM D-4449	120,000 grams
5.	Flash Point	ASTM D 93	105ºF

2.5 SHEET MATERIALS

A. Felt Plies:

1. Fiberglass Felts: ASTM D2178, Type IV

B. Base Flashing Ply:

1. 40 mil SBS modified membrane with woven fiberglass scrim reinforcement with the following minimum performance requirements according to ASTM D5147:

Properties (Finished Membrane):		
Tensile Strength (ASTM D5147)		
2 in/min. @73.4 ± 3.6°F	MD 205 lbf/in	CMD 205 lbf/in
Tear Strength (ASTM D5147)		
2 in/min. @ 73.4 ± 3.6°F	MD 295 lbf	CMD 280 lbf
Elongation at Maximum Tensile (ASTM D5147)		
2 in/min. @ 73.4 ± 3.6°F	MD 4.5%	CMD 5.0%

C. Modified Flashing Ply:

1. STRESSPLY EUV MINERAL; ASTM D-6162, Type III Grade G

Tensile Strength (ASTM D-5147)		
2 in/min. @ 73.4 ± 3.6°F	MD 700 lbf/in	CMD 750 lbf/in
Tear Strength (ASTM D-5147)		
2 in/min. @ 73.4 ± 3.6°F	MD 1300 lbf	CMD 1400 lbf
Elongation at Maximum Tensile (ASTM D-5147)		
2 in/min. @ 73.4 ± 3.6°F	MD 6.0%	CMD 6.0%
Low Temperature Flexibility (ASTM D-5147):		Passes -30°F
Reflectivity (DNS Method)		45-50%

D. Modified Membrane Properties (Finished Membrane) Field Roofing:

1. STRESSPLY PLUS; ASTM D6162, Type III Grade S (up to slopes of 2” in 12 inches)

Tensile Strength (ASTM D5147)		
2 in/min. @ 73.4 ± 3.6°F	MD 310 lbf/in	CMD 310 lbf/in
50 mm/min. @ 23 ± 3°C	MD 54.25 kN/m	CMD 54.25 kN/m
Tear Strength (ASTM D5147)		
2 in/min. @ 73.4 ± 3.6°F	MD 500 lbf	CMD 500 lbf
50 mm/min. @ 23 ± 3°C	MD 2224 N	CMD 2224 N
Elongation at Maximum Tensile (ASTM D5147)		
2 in/min. @ 73.4 ± 3.6°F	MD 3.5%	CMD 3.5%
50 mm/min. @ 23 ± 3°C	MD 3.5%	CMD 3.5%
Low Temperature Flexibility (ASTM D5147):		Passes -30°F (-34°C)

2.6 SURFACINGS

A. Roofing Aggregate: To conform to ASTM D-1863 for all smooth surfaced cap sheet field roofing.

a. Slag

B. Mineral Surfaced Membranes - Roofing Granules shall meet requirements of ASTM D-451 and/or be recommended by the membrane manufacturer. Loose granules for bleed out shall match size and color of granulated membrane sheet.

1. Starburst™ Minerals

Initial Reflectance of Mineral Sheet	50% - 60%
Aged Reflectance of Mineral Sheet	> 50%
Bulk Mineral Reflectance	65% - 85%
Specific Gravity	> 2.5

C. Aluminum Trowel-Grade Mastic (Seal vertical laps in conjunction with Garmesh reinforcing membrane in a 3-course application): Silver Flash aluminum roof mastic has the following characteristics:

Flash Point	>103°F min.
Weight/Gallon	8.3 lbs. /gal.
Reflectivity	>60%

D. Non-Fibered Aluminum Paint (Paint all asphalt spills and tracking on vertical flashing: Garla-Brite; non-fibered aluminum paint having the following characteristics:

Flash Point	103°F (39°C) min.
Weight/Gallon	7.9 lbs./gal. (1.0 g/cm3)

2.7 RELATED MATERIALS

A. General: Provide preformed roof insulation boards that comply with requirements and referenced standards, selected from manufacturer's standard sizes and of thicknesses indicated.

A. Polyisocyanurate Insulation: shall be Polyisocyanurate foam insulation complying with physical properties of Federal Specification HH-I-1972/GEN. Insulation shall have a minimum 'R' Value of 5.8 per inch and compressive strength of minimum 16 psi per ASTM D-1621. The insulation shall be compatible to the roofing material manufacturer, with appropriate facing on surface.

1. Manufacturers:

    1. Celotex Corporation.
    2. Firestone Building Products Company.
    3. GAF Materials Corporation.
    4. Johns Manville International, Inc.

B. Provide preformed wood fiberboard or perlite saddles, crickets, tapered edge strips, and other insulation shapes where indicated for sloping to drain. Fabricate to slopes indicated. Tapered Edge Strips and Cants: ASTM C 208-94, asphalt coated fiberboard, tapered edge strips tapered from 1-5/8 inch to 1/8 inch, size: 12" x 48". Cants 3 ½" x 3 ½"

D. Provide ½" asphalt coated high density fiberboard substrate over foam insulation.

E. All fasteners, nails and caps shall be per roofing manufacturer's installation specifications for specified insulation and corresponding to roofing deck materials are to be fastened to, and shall meet current FM Standard 4470 for corrosion resistance.

F. Nails and Fasteners: Non-ferrous metal or galvanized steel, except that hard copper nails shall be used with copper; aluminum or stainless steel nails shall be used with aluminum; and stainless steel nails shall be used with stainless steel. Fasteners shall be self-clinching type of penetrating type as recommended by the manufacturer of the deck material. Nails and fasteners shall be flush-driven through flat metal discs of not less than one (1) inch diameter. Omit metal discs when one-piece composite nails or fasteners with heads not less than one (1) inch diameter are used.

I. Metal Discs: Flat discs or caps of zinc-coated sheet metal not lighter than twenty eight (28) gauge and not less than one (1) inch in diameter. Form discs to prevent dishing. Bell or cup shaped caps are not acceptable.

J. Walkway Pads: Factory formed recycled rubber, nonporous, with a slip-resisting surface texture, manufactured specifically for adhering to modified bituminous membrane roofing as a protection course for foot traffic, of the following thickness:

1. ¾" thick for use in high traffic areas
2. Products: Subject to compliance with requirements, provide one of the following:

    a. Supplied by membrane manufacturer.

K. Walkway Pad Adhesive: Adhesive used to adhere approved walk way pads as recommended and furnished by the membrane manufacturer

L. Rust Inhibitive Paint: As recommended and furnished by the membrane manufacturer for mechanical units and other metal surfaces to control and prevent surface rust.

M. Urethane Sealant: One part, non-sag sealant as recommended and furnished by the membrane manufacturer for moving joints.

1.	Tensile Strength (ASTM D412)	250 psi
2.	Elongation (ASM D412)	950%
3.	Hardness, Shore A (ASTM C920)	35
4.	Adhesion-in-Peel (ASTM C920)	30 pli

N. Butyl Tape: 100% solids, asbestos free and compressive tape designed to seal as recommended and furnished by the membrane manufacturer.

O, Non-Shrink Grout: Use an all weather fast setting chemical action concrete material to fill pitch pans.

1. Flexural Strength (ASTM C-78 (modified))	7 days 1100psi
2. High Strength (ASTM C-109 (modified))	24 days 8400lbs (3810kg)

P. Pitch Pocket Sealer: Two part, 100% solids, self leveling, polyurethane sealant for filling pitch pans as recommended and furnished by the membrane manufacturer.

1.	Durometer (ASTM D2240)	40-50 Shore
2.	Elongation (ASTM D 412)	250%
3.	Tensile Strength (ASTM D 412)	200 @ 100 mil

Q. Flashing Boot: Neoprene pipe boot for sealing single or multiple pipe penetrations adhered in approved adhesives as recommended and furnished by the membrane manufacturer.

R. Roof Drains: Drain system as recommended and furnished by the membrane manufacturer.

S. Pitch pans, Rain Collar 24 gauge stainless or 20oz copper. All joints should be welded/soldered watertight. See details for design.

T. Drain Flashings should be 4lb sheet lead formed and rolled

U. Plumbing stacks should be 4lb sheet lead formed and rolled.

PART 3 - EXECUTION

3.1 EXECUTION, GENERAL

A. Comply with requirements of Division 01 Section “Common Execution Requirements.”

3.2 PREPARATION

A. Coordinate with Owner to shut down air intake equipment in the vicinity of the Work. Cover air intake louvers before proceeding with re-roofing work that could affect indoor air quality or activate smoke detectors in the ductwork.

B. During removal operations, have sufficient and suitable materials on-site to facilitate rapid installation of temporary protection in the event of unexpected rain.

C. Maintain roof drains in functioning condition to ensure roof drainage at end of each workday. Prevent debris from entering or blocking roof drains and conductors. Use roof-drain plugs specifically designed for this purpose. Remove roof-drain plugs at end of each workday, when no work is taking place, or when rain is forecast.

1. If roof drains will be temporarily blocked or unserviceable due to roofing system removal or partial installation of new membrane roofing system, provide alternative drainage method to remove water and eliminate ponding. Do not permit water to enter into or under existing membrane roofing system components that are to remain.

D. Verify that rooftop utilities and service piping have been shut off before commencing Work

E. Verify that openings, curbs, pipes, conduit, sleeves, ducts, and other items which penetrate the roof are set solidly, and that cant strips, nailing strips, and reglets are set in place.

3.3 ROOFING DEMOLITION

A. General: Notify Owner each day of extent of roof tear-off proposed.

B. Remove aggregate ballast from roofing membrane.

C. Remove loose aggregate from aggregate-surfaced built-up bituminous roofing with a power broom.

D. Roof Peel-Off On Roof Area #2:

1. Tear-Off top roof membrane and remove loose gravel from bottom roof.
2. Peel-Off bottom roof assembly (field and flashing) down to existing 2.5” Polyisocyanurate insulation
3. Remove damaged and/or wet 2.5” Polyisocyanurate insulation.

F. Roof Tear-Off On Roof Area #3: Remove existing roofing membrane, insulation and other membrane and metal flashing down to the metal deck.

3.4 EXAMINATION

A. Verify that deck surfaces and project conditions are ready to receive work of this section.

B. Verify that deck is supported and secured to structural members.

C. Verify that deck is clean and smooth, free of depressions, projections or ripples, and is properly sloped to drains.

D. Verify that adjacent roof substrate components do not vary more than 1/4 inch in height.

E. Verify that deck surfaces are dry. Verify that metal deck flutes are clean and dry.

G. Verify that openings, curbs, pipes, conduit, sleeves, ducts, and other items which penetrate the roof are set solidly, and that cant strips, wood nailing strips and reglets are set in place.

3.5 PREPARATION – METAL DECK

A. Verify that all welds are good, that the deck is in plane and that it is free from damage and deflection.
B. Inspect and Repair and/or Replace any damaged steel decking. Use unit price schedule to cost replacement.

3.6 GENERAL INSTALLATION REQUIREMENTS

A. Cooperate with manufacturer, inspection and test agencies engaged or required to perform services in connection with installing the roof system.

B. Insurance/Code Compliance: Where required by code, install and test the roofing system to comply with governing regulation and specified insurance requirements.

C. Protect other work from spillage of roofing materials and prevent materials from entering or clogging drains and conductors. Replace or restore other work damaged by installation of the modified bituminous roofing system.

D. Coordinate installation of roofing system components so that insulation and roofing plies are not exposed to precipitation or left exposed overnight. Provide cut-offs at end of each day's work to cover exposed ply sheets and insulation with two (2) plies of #15 organic roofing felt set in full moppings of bitumen and with joints and edges sealed with roofing cement. Remove cut-offs immediately before resuming work.

E. Asphalt Bitumen Heating: Heat and apply bitumen in accordance with the Equiviscous Temperature (EVT) Method as recommended by National Roofing Contractors Association (NRCA). Do not raise temperature above minimum normal fluid-holding temperature necessary to attain EVT (plus 5°F at point of application) more than one (1) hour prior to time of application. Determine flash point, finished blowing temperature, EVT, and fire-safe handling temperature of bitumen either from information by manufacturer or by suitable test.

1. Do not exceed recommended temperature limits during bitumen heating. Do not heat to a temperature higher than twenty five degrees (25°) below flash point.
2. Discard bitumen that has been held at temperature exceeding Finishing Blowing Temperature (FBT) for more than three (3) hours. Keep kettle lid closed except when adding bitumen.

F. Bitumen Mopping Rate:

1. Interply Mopping**:** Apply bitumen at the rate of approximately twenty five (25) lbs. of bitumen per roof square.

2. Modified Membrane Mopping: Apply bitumen at the rate of approximately thirty (30) lbs. of bitumen per roof square.

3. Flood Coat**:** Apply bitumen at the rate of approximately sixty (60) to seventy (70) lb of bitumen per square (plus or minus twenty five (25) percent on a total job average basis).

G. Substrate Joint Penetrations: Prevent bitumen from penetrating substrate joints, entering building, or damaging roofing system components or adjacent building construction.

H. Apply roofing materials as specified by manufacturer's instructions.

1. Keep roofing materials dry before and during application.

2. Do not permit phased construction.

3. Complete application of roofing plies, modified sheet and flashing in a continuous operation.

4. Begin and apply only as much roofing in one day as can be completed that same day.

I. Cut-Offs (Waterstops): At end of each day's roofing installation, protect exposed edge of incomplete work, including ply sheets and insulation. Provide temporary covering of two (2) plies of #15 organic roofing felt set in full moppings of bitumen with joints and edges sealed.

J. Raised Roof Areas with Mineral-Surfaced Cap Sheet, Broadcast minerals into the bleed out of bitumen while bitumen is at its recommended EVT temperature to achieve uniform color throughout.

3.8 INSULATION INSTALLATION

A. Roof Area #2: Replace the damaged and/or wet original 2.5" Polyisocyanurate with new 2.5" Polyisocyanurate insulation fastened to FM I-60. Install a top layer consisting of 1/2 inch High-Density Fiberboard over the base layer insulation (existing insulation) set with off-set joints in hot steep asphalt.

B. Roof Area #3: Install base layer of 1.5" Polyisocyanurate insulation mechanically fastened to the steel deck according to the fastening patterns following FM I-60. Install second layer consisting of 1/2 inch High-Density Fiberboard set with off-set joints in hot steep asphalt.

C. Roof Areas #2 and #3: Perlite roof saddles will be installed between all drains and drains and outside walls in hot asphalt.

3.9 FELT PLY INSTALLATION

A. Fiberglass Plies: Install two (2) fiberglass ply sheets in twenty five (25) lbs per square of bitumen shingled uniformly to achieve three plies over the entire prepared substrate. Shingle in direction of slope of roof to shed water on each area of roof. Do not step on felt rolls until asphalt has cooled, fish mouths should be cut and patched.

B. Lap ply sheet ends eight (8) inches. Stagger end laps twelve (12) inches (304mm) minimum.

C. Lightly broom in fiberglass plies to assure complete adhesion.

D. Extend plies two (2) inches beyond top edges of cants at wall and roof projection**s** and equipment bases.

E. Install base flashing ply to all perimeter and projection details after membrane application.

3.10 MODIFIED MEMBRANE APPLICATION

A. Solidly bond the modified membrane to the base layers with specified asphalt at the rate of twenty five (25) to thirty (30) lbs per 100 square feet.

B. The modified membrane roll must push a puddle of asphalt in front of it with asphalt slightly visible at all side laps. Exercise care during application to eliminate air entrapment under the membrane.

C. Apply pressure to all seams to ensure that the laps are solidly bonded to substrate.

D. Install subsequent rolls of modified membrane across the roof as above with a minimum of four (4) inch side laps and eight (8) inch end laps. Stagger the end laps. Apply the modified membrane in the same direction as the previous layers but stagger the laps so they do not coincide with the laps of the base layers.

E. Apply asphalt no more than five (5) feet ahead of each roll being embedded.

F. Extend membrane two (2) inches beyond top edge of all cants in full moppings of the specified asphalt as shown on the drawings.

3.11 FLASHING MEMBRANE INSTALLATION (2-Ply. Base and Mineral Cap)

A. Seal all curb, wall and parapet flashings with an application of mastic and mesh on a daily basis. Do not permit condition**s** to exist that will allow moisture to enter behind, around or under the roof or flashing membrane.

B. Prepare all walls, penetration**s,** expansion joints to be flashed with asphalt primer at the rate of one hundred (100) square feet per gallon. Allow primer to dry tack free.

C. Use the 40 mill modified membrane as the base flashing membrane. Adhere to the underlying base flashing ply with specified asphalt unless otherwise noted in these specifications. Install the Mineral Surfaced modified flashing membrane over the base ply. Nail off at a minimum of eight (8) inches o.c. from the finished roof at all vertical surfaces.

D. Solidly adhere the entire sheet of flashing membrane to the substrate. Tops of all flashings that are not run up and over curb shall be secured through termination bar 6” and sealed at top.

E. Seal all vertical laps of flashing membrane with a three-course application of trowel-grade aluminized Silver-Flash mastic and fiberglass mesh.

F. Coping Cap Detail No. MBH-20:

1. Minimum flashing height is eight (8) inches above finished roof height. Maximum flashing height is twenty four (24) inches. Prime vertical wall at a rate of one hundred (100) square feet per gallon and allow to dry.

2. Set cant in bitumen. Run all field plies over cant a minimum of two (2) inches.

3. Attach tapered board (do not use organic fiberboard or perlite) to top of wall.

4. Install base flashing ply covering entire wall and wrapped over top of wall and down face with six (6) inches on to field of roof and set in hot asphalt. Nail membrane at eight (8) inches o.c.

5. Install a second ply of modified flashing ply in bitumen over the base flashing ply, nine (9) inches on to the field of the roof. Apply a three-course application of mastic and mesh at all seams and allow to cure and aluminize.

6. Install continuous cleat and fasten at six (6) inches o.c. to outside wall.

7. Install new metal coping cap hooked to continuous cleat.

8. Fasten inside cap twenty four (24) inches o.c. with approved fasteners and neoprene washers through slotted holes which allow for expansion and contraction.

G. Curb Detail/Air Handling Station Detail No. MBH-33:

1. Minimum curb height is eight (8) inches above finished roof height. Prime vertical at a rate of one hundred (100) square feet per gallon and allow to dry.

2. Set cant in bitumen. Run all field plies over cant a minimum of two (2) inches.

3. Install base flashing ply covering curb set in bitumen with six (6) inches on to field of the roof.

4. Install a second ply of modified flashing ply in bitumen over the base flashing ply, nine (9) inches on to the field of the roof. Apply a three-course application of aluminized mastic and mesh at all vertical seams and allow to cure and aluminize.

5. Install pre-manufactured counterflashing with fasteners and neoprene washers or per manufacturer's recommendations.

6. Set equipment on neoprene pad and fasten as required by equipment manufacturer.

H. Exhaust Fan Detail No. MBH-36:

1. Minimum curb height is eight (8) inches above finished roof height. Prime vertical at a rate of one hundred (100) square feet per gallon and allow to dry.

2. Set cant in bitumen. Run all plies over cant a minimum of two (2) inches.

3. Install base flashing ply covering curb with six (6) inches on to field of the roof.

4. Install a second ply of modified flashing ply installed over the base flashing ply**,** nine (9) inches on to field of the roof. Attach top of membrane to top of wood curb and nail at eight (8) inches o.c. Apply a three-course application of mastic and mesh at all vertical seams and allow to cure and aluminize.

5. Install metal exhaust fan over the wood nailers and flashing to act as counterflashing. Fasten per manufacturer's recommendation.

J. Passive Vent/Air Intake Detail No. MBH-37:

1. Minimum curb height is eight (8) inches above finished roof height. Prime vertical at a rate of one hundred (100) square feet per gallon and allow to dry.

2. Set cant in bitumen. Run all plies over cant a minimum of two (2) inches.

3. Install base flashing ply covering curb with six (6) inches on to the field of the roof.

4. Install a second ply of modified flashing ply installed over the base flashing ply**,** nine (9) inches on to field of the roof. Attach top of membrane to top of wood curb and nail at eight (8) inches o.c. Apply a three-course application of mastic and mesh at all vertical seams and allow to cure and aluminize.

5. Install passive vent/air intake over the wood nailers and flashing to act as counterflashing. Fasten per manufacturer's recommendations.

K. Roof Drain Detail No. MBH-40:

1. Plug drain to prevent debris from entering plumbing.

2. Taper insulation to drain minimum of twenty four (24) inches from center of drain.

3. Run roof system plies over drain. Cut out plies inside drain bowl.

4. Set lead/copper flashing (thirty (30) inch square minimum) in ¼ inch bed of mastic. Run lead/copper into drain a minimum of two (2) inches. Prime lead/copper at a rate of one hundred (100) square feet per gallon and allow to dry.

5. Install base flashing ply forty (40) inch square minimum in bitumen.

6. Install clamping ring and assure that all plies are under the clamping ring. Install copper gravel stop around outer perimeter of drain sump per current N.R.C.A. standards.

7. Remove drain plug and install CAST IRON strainer. Note: No plastic or polyethylene strainers are allowed. If original strainer is missing install new matching cast iron strainer.

8. Install copper gravel stop around perimeter of sump basin.

L. Plumbing Stack Detail No. MBH-50:

1. Minimum stack height is twelve (12) inches.

2. Run roof system over the entire surface of the roof. Seal the base of the stack with elastomeric sealant.

3. Prime flange of new sleeve. Install properly sized sleeves set in ¼ inch bed of roof cement.

4. Install base flashing ply in bitumen.

5. Install modified membrane in bitumen.

6. Caulk the intersection of the membrane with elastomeric sealant.

7. Insulate inside of sleeve to prevent condensation.

8. Turn sleeve a minimum of one (1) inch down inside of stack.

M. Heat Stack Detail No. MBH-51:

1. Minimum stack height is twelve (12) inches.

2. Run roof system over the entire surface of the roof. Seal the base of the stack with elastomeric sealant.

3. Prime flange of new sleeve. Install properly sized sleeves set in ¼ inch bed of roof cement.

4. Install base flashing ply in bitumen.

5. Install modified membrane in bitumen.

6. Caulk the intersection of the membrane with elastomeric sealant.

7. Install new collar over cape. Weld collar or install stainless steel draw brand.

N. Pitch Pocket Detail No. MBH-52:

1. Run all plies up to the penetration.

2. Place the pitch pocket over the penetration and prime all flanges.

3. Strip in flange of pitch pocket with one (1) ply of base flashing ply. Extend six (6) inches onto field of roof.

4. Install second layer of modified membrane extending nine (9) inches onto field of the roof.

5. Fill pitch pocket half full with non-shrink grout. Let this cure and top off with pourable sealant.

6. Caulk joint between roof system and pitch pocket with roof cement.

O. Pitch Pocket Umbrella Detail No. MBH-53:

1. Run all plies up to the penetration.

2. Place the pitch pocket over the penetration and prime all flanges.

3. Strip in flange of pitch pocket with one (1) ply of base flashing ply. Extend six (6) inches onto field of roof.

4. Install second layer of modified membrane extending nine (9) inches onto field of the roof.

5. Fill pitch pocket half full with non-shrink grout. Let this cure and top off with pourable sealant.

6. Caulk joint between roof system and pitch pocket with roof cement.

7. Place a watershedding type bonnet over the top of the pitch pocket and clamp the top with a drawband collar. Caulk the upper edge of the band with an elastomeric sealant.

P. Installation of New Roof Hatch and Interior Wall Ladder on Roof Area #3

1. Locate position of new 30” X 36” Aluminum Roof Hatch and Curb at southwest corner of

Roof Area #3 at District Maintenance Shop Work Area.

2. Cut hole is existing metal deck to fit curb unit of new roof hatch.
3. Insert Prefabricated Roof Hatch and add necessary metal support bracing.
4. Install new steel ladder anchored to west wall under the roof hatch.
5. Install roof insulation, cant, new roof and flashing around new roof hatch.
6. Install walkway pads completely around all four (4) sides of roof hatch 36" wide.`

3.12 APPLICATION OF SURFACING

A. Aggregate Surfacing**:**

1. Apply slag aggregate at the rate of five hundred (500) lbs. per square. Uniformly embed aggregate in a flood coat of bitumen at a rate of sixty (60) to seventy (70) lbs per square coverage after felt flashings, tests, repairs, and corrective actions have been completed and approved.

2. Areas that pond water after initial flood coat and slag surfacing will receive a second flood coat consisting of Black Knight Coal Tar Pitch coating at 10 gallons per square and then additional slag installed to completely obliterate the all black bleed through staining.

B. Aluminum Coating**:**

1. All vertical laps will be stripped in with a three (3) course application of Aluminized fibrated mastic and fiberglass membrane.

2. Paint all asphalt tracking or spills on mineral-surfaced flashing and raised roofing with manufacturer's non-fibrated aluminum paint installed at a rate of one-half gallon per square per coat. This shall be a two-coat application with the finished stroke in one direction. All black marks or spill must be completely covered with aluminum paint so that no bleed through can be seen.

C. Paint all rusted metal on roof penetrations, stack and curbs with a base coat of Rust-go red-oxide primer followed by at top coat of Rust-go Aluminum rust paint. NO VISIABLE RUST will be allowed when job is complete.

3.13 FIELD QUALITY CONTROL

A. Perform daily field inspection of each roof project.

B. Note defects and have the Roofing Contractor correct defects or irregularities discovered during field inspection.

C. Require attendance of roofing materials manufacturers' representatives at site during installation of the roofing system. A copy of the specification should also be on site at all times.

3.14 CLEANING

A. Remove bitumen adhesive drippings from all walls, windows, floors, ladders and finished surfaces.

B. In areas where finished surfaces are soiled by asphalt or any other sources of soiling caused by work of this section, consult manufacturer of surfaces for cleaning instructions and conform to their instructions.

C. Repair or replace defaced or disfigured finishes caused by work of this section.

3.15 CONSTRUCTION WASTE MANAGEMENT

A. Remove and properly dispose of waste products generated during roofing procedures. Comply with requirements of authorities having jurisdiction

3.16 FINAL INSPECTION

A. At completion of roofing installation and associated work, meet with the Roofing Contractor, installer of associated work, Owner, roofing system manufacturer's representative, and other representatives directly concerned with performance of roofing system.

B. Walk roof surface areas of the building, inspect perimeter building edges as well as flashing of roof penetrations, walls, curbs and other equipment. List all items requiring correction or completion and furnish copy of punch list to each party in attendance.

C. The roofing system manufacturer reserves the right to request a thermographic scan of the roof during final inspection to determine if any damp or wet materials have been installed. The thermographic scan shall be provided by the Troy School District.

D. If core cuts verify the presence of damp or wet materials, the Roofing Contractor shall be required to replace the damaged areas at his own expense.

E. Repair or replace deteriorated or defective work found at time above inspection as required to a produce an installation which is free of damage and deterioration at time of Substantial Completion and according to warranty requirements.

F. Notify the **Owner** upon completion of corrections.

G. Following the final inspection, provide written notice of acceptance of the installation from the roofing system manufacturer.

H. Immediately correct roof leakage during construction. If the Contractor does not respond within twenty four (24) hours, the Owner will exercise rights to correct the Work under the terms of the Conditions of the Contract.

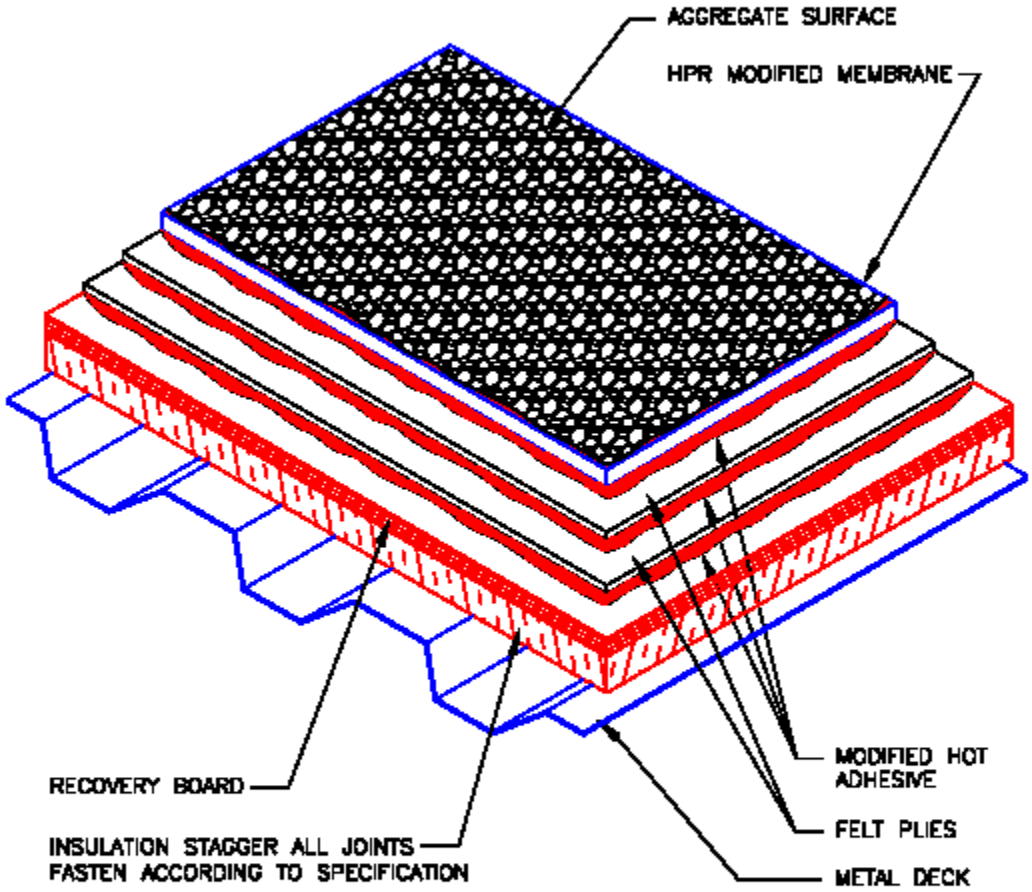
3.17 DEMONSTRATION AND TRAINING

A. At a time and date agreed to by the Owner, instruct the Owner's facility manager, or other representative designated by the Owner, on the following procedures:

1. Roof troubleshooting procedures.
2. Notification procedures for reporting leaks or other apparent roofing problems.
3. Roofing maintenance.
4. The Owner's obligations for maintaining the roofing warranty in effect and force.
5. The Manufacturer's obligations for maintaining the roofing warranty in effect and force.

FILENAME: MBRM-03

GRAVEL FINISH



ALL PLIES SET IN BITUMEN SEE SPECIFICATIONS FOR SURFACING

since 1895

THE GARLAND COMPANY, INC.

GARLAND CANADA, INC.

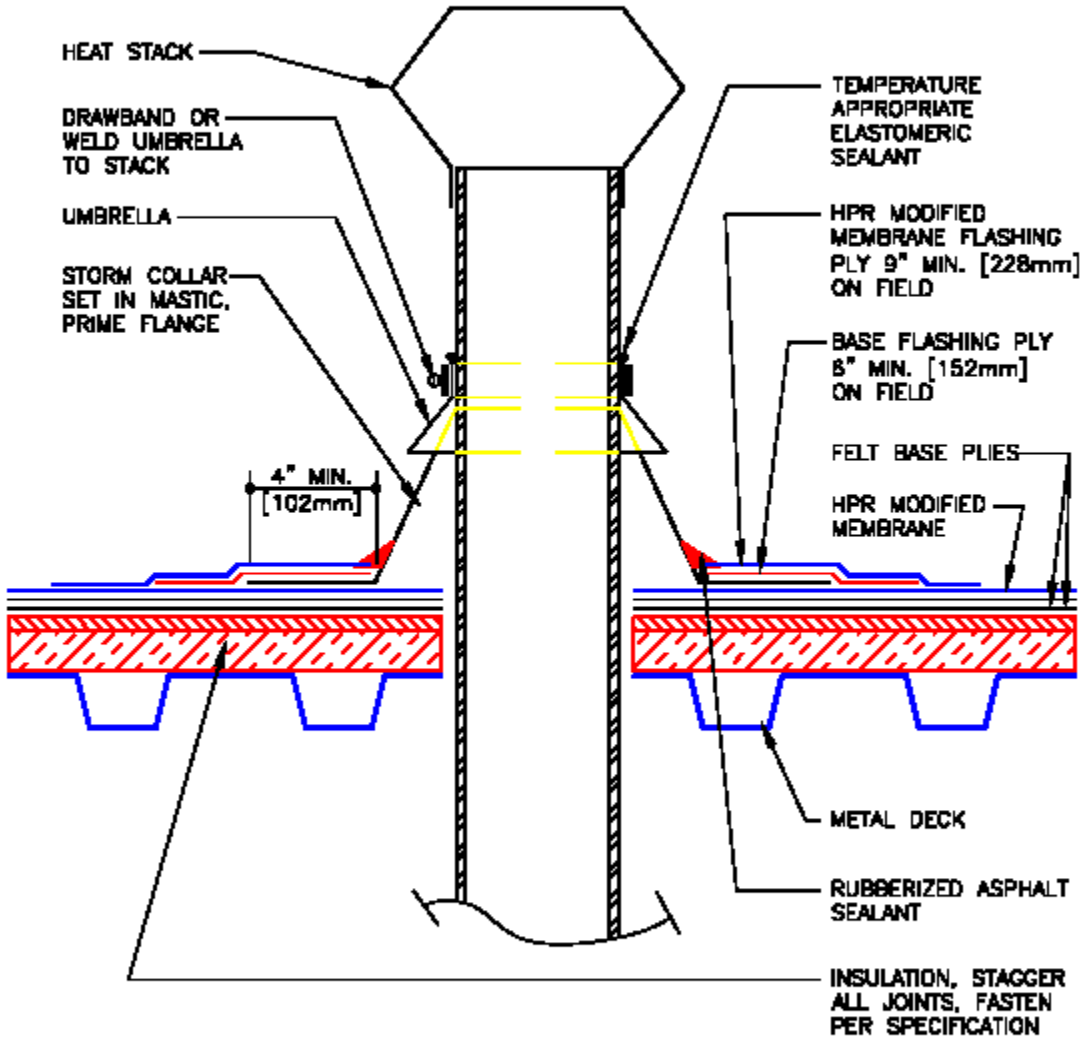
THE GARLAND COMPANY UK, LTD

GRAVEL FINISH

HOT APPLIED

FILENAME: MBRM-51

HEAT STACK



ALL PLIES SET IN BITUMEN
SEE SPECIFICATIONS FOR SURFACING

since 1895

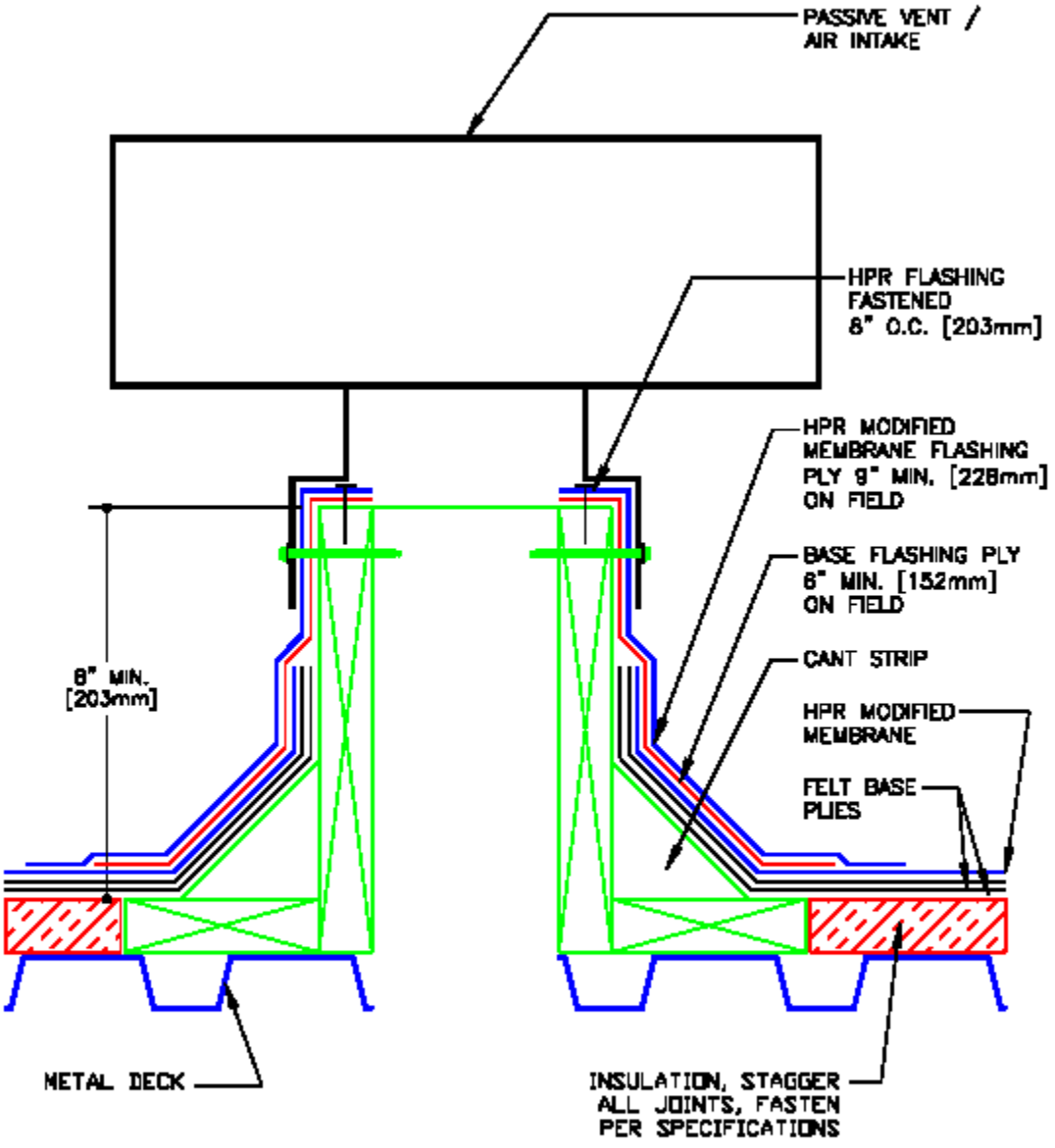
THE GARLAND COMPANY, INC.
GARLAND CANADA, INC.
THE GARLAND COMPANY UK, LTD

HEAT STACK

HOT APPLIED

FILENAME: MBRM-37

PASSIVE VENT/AIR INTAKE



ALL PLIES SET IN BITUMEN
SEE SPECIFICATIONS FOR SURFACING

THE GARLAND COMPANY, INC.
GARLAND CANADA, INC.
THE GARLAND COMPANY UK, LTD

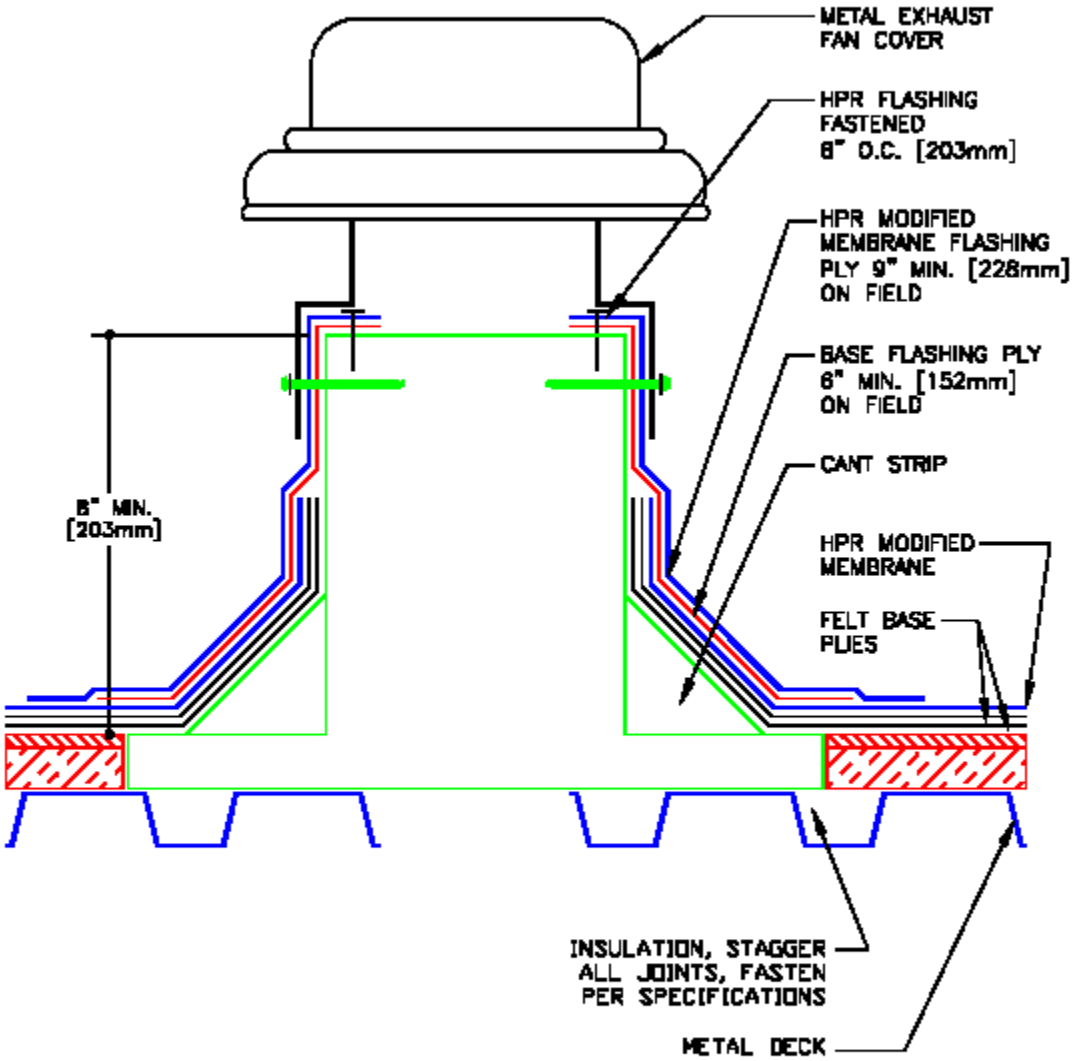
since 1895

PASSIVE VENT/AIR INTAKE

HOT APPLIED

FILENAME: MBRM-36

EXHAUST FAN DETAIL



ALL PLIES SET IN BITUMEN
SEE SPECIFICATIONS FOR SURFACING

since 1895

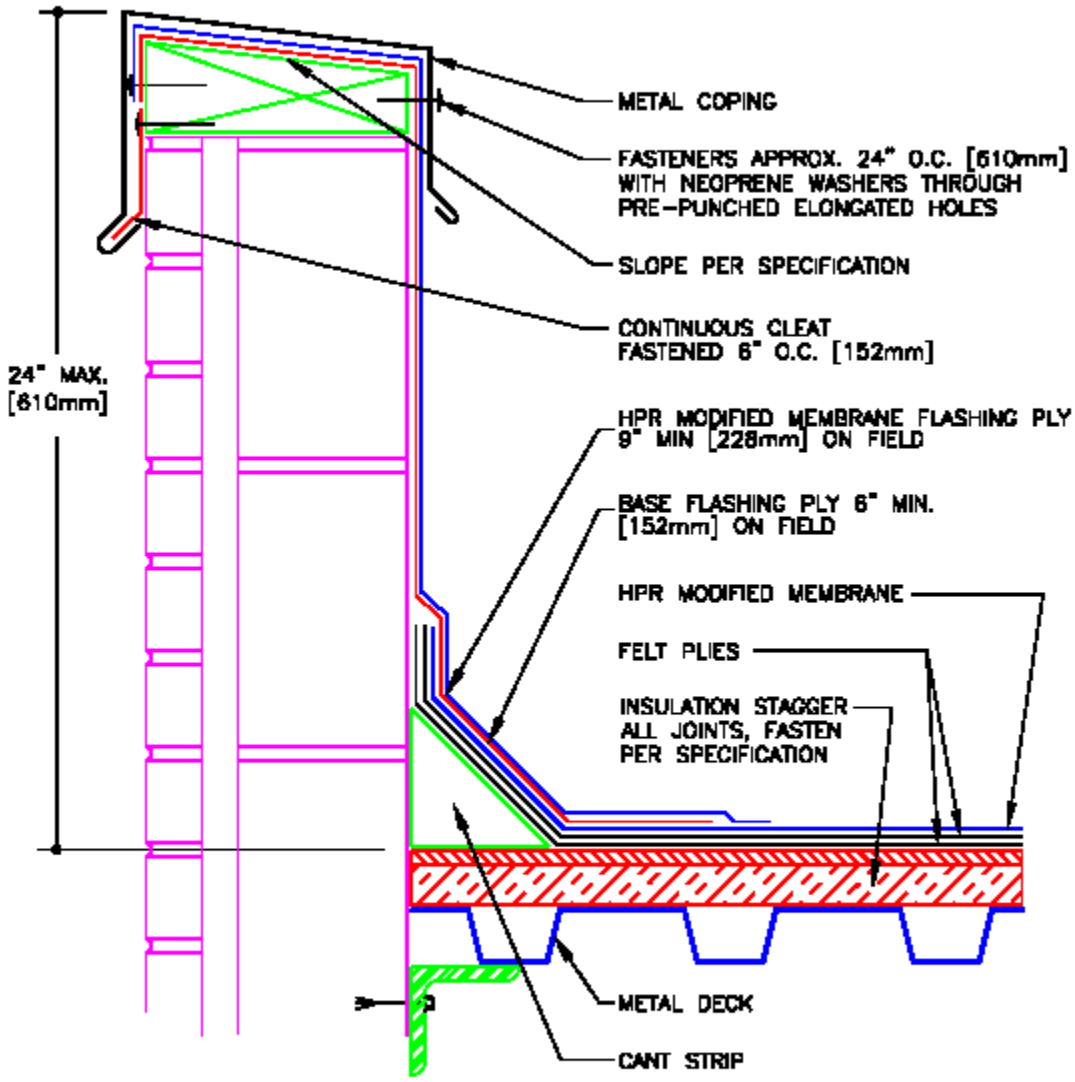
THE GARLAND COMPANY, INC.
GARLAND CANADA, INC.
THE GARLAND COMPANY UK, LTD

EXHAUST FAN DETAIL

HOT APPLIED

FILENAME: MBRM-20

COPING CAP



ALL PLIES SET IN BITUMEN
SEE SPECIFICATIONS FOR SURFACING

since 1895

THE GARLAND COMPANY, INC.

GARLAND CANADA, INC.

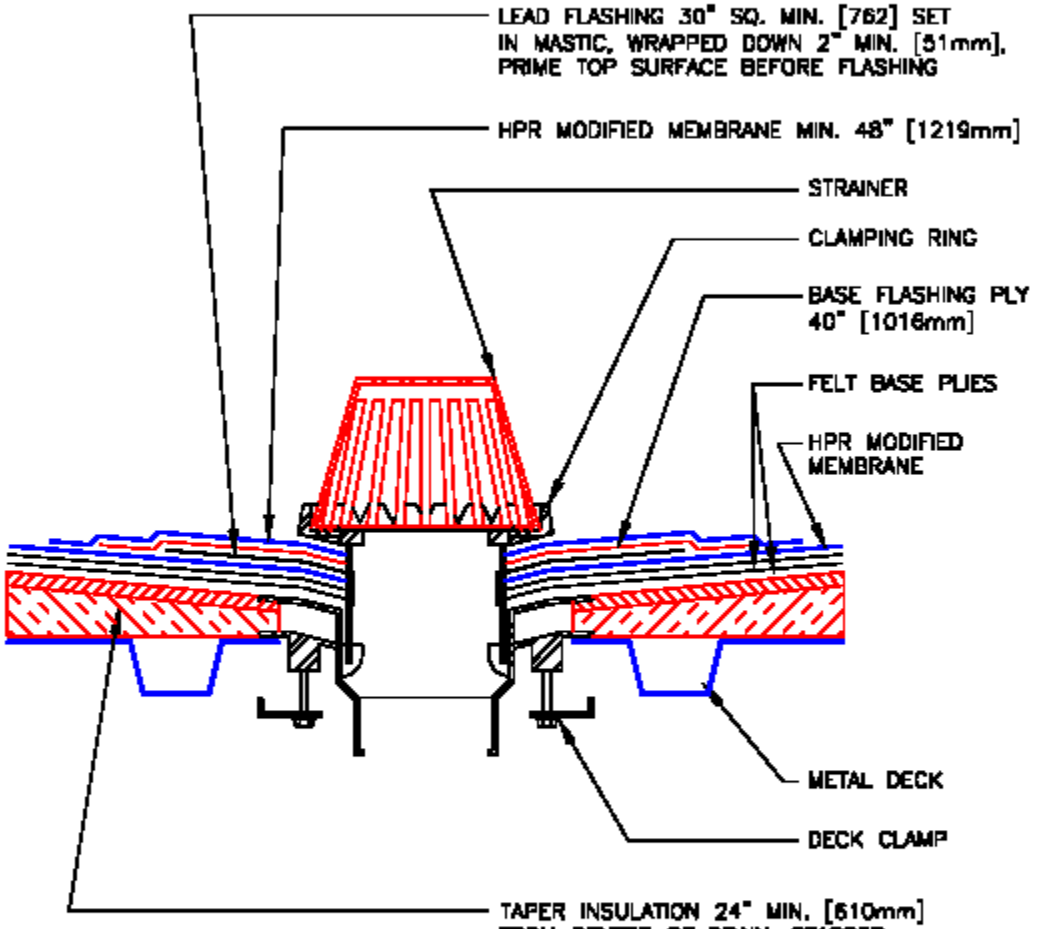
THE GARLAND COMPANY UK, LTD

COPING CAP

HOT APPLIED

FILENAME: MBRM-40

ROOF DRAIN



ALL PLIES SET IN BITUMEN
SEE SPECIFICATIONS FOR SURFACING

since 1895

THE GARLAND COMPANY, INC.

GARLAND CANADA, INC.

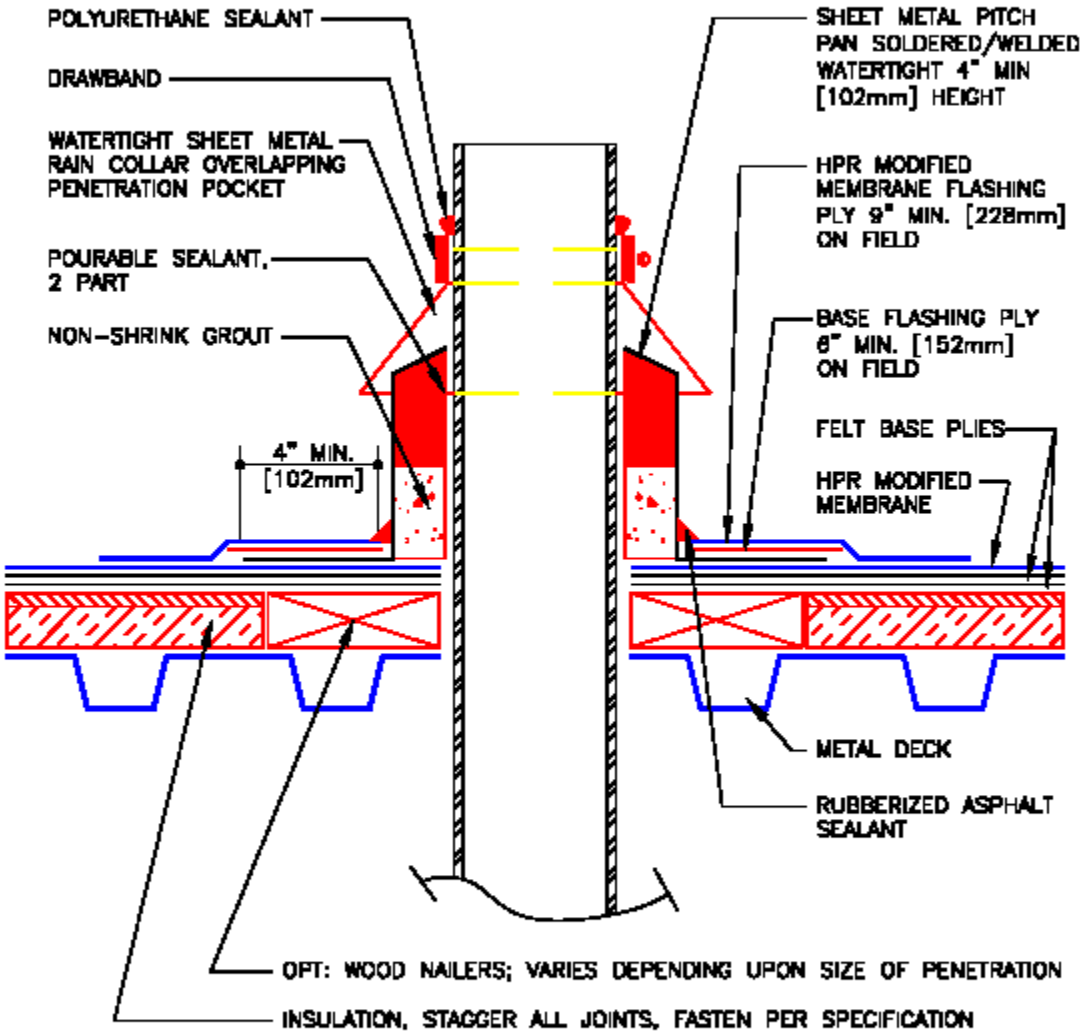
THE GARLAND COMPANY UK, LTD

ROOF DRAIN

HOT APPLIED

FILENAME: MRMH-53

PITCH POCKET W/UMBRELLA



ALL PLIES SET IN BITUMEN
SEE SPECIFICATIONS FOR SURFACING

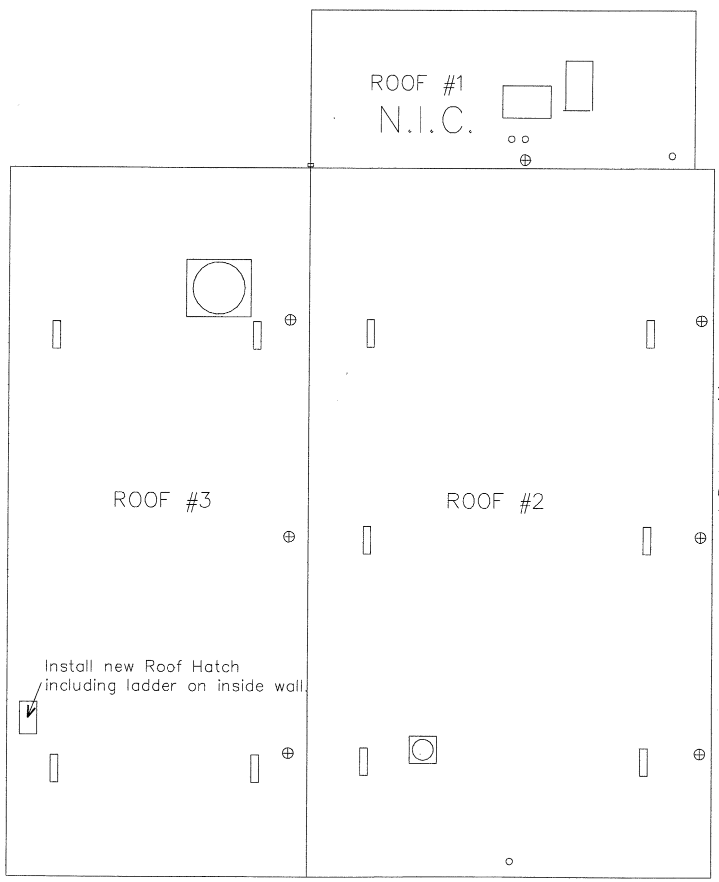
since 1898

THE GARLAND COMPANY, INC.
GARLAND CANADA, INC.
THE GARLAND COMPANY UK, LTD

PITCH POCKET W/UMBRELLA

HOT APPLIED

TROY MAINTENANCE BUILDING
ROOF DIAGRAM



2009

SCOPE OF WORK:

ROOF #2

1) Tear-Off existing top roof, flashing & coping, Cut through bottom gravelled roof assembly & Peel-Off membrane leaving existing 2.5" Polyiso insulation in place. Remove & Replace damaged and/or wet insulation in kind. Fasten to F. M. I-60.
2) Inspect & repair/replace damaged steel deck using unit prices.

ROOF #3

1) Tear-off all roofing, flashing & insulation down to metal deck.
2) Inspect & repair/replace damaged steel deck using unit prices.
3) Install 1.5" Polyiso Insulation to F.M. 1-60.
4) Install new roof hatch with ladder on inside wall.

ROOFS #2 & #3

1) Install 1/2" H.D. fiberboard in asphalt over the base insulation.
2) Install Fiberboard saddles between all drains & drains & walls.
3) Install HPR StressPlly modified roof assembly in hot asphalt.
4) Install 2-Ply HPR flashing system.
5) Complete all other sheet metal & flashing details.
6) Flood coat roof with hot asphalt with slag cover.
7) Low spots that pond water will be repoured with Cold Coal Tar Pitch coating and Regravelled with additional Slag.
8) Inspect finished roof with manufacturer & complete punch list.
9) Issue Manufacturer's 25 year No Dollar Limit Roof Warranty.

The GARLAND COMPANY, Inc.

Project: TROY MAINTENANCE BUILDING
1140 RANKIN, TROY, MI 48083

Scale: 1" = 30'-0"

Date: August 2009 | Sheet: of

Troy School District
Bid 9634
ROOFING BID PROPOSAL FORM

To: Troy School District
4400 Livernois, Troy, Michigan 48098

The undersigned declares that he has carefully examined the instructions and Specifications dated August 17, 2009 and will furnish these items with such Specifications for the price set forth in this bid.

The undersigned has checked carefully the bid figures and understands that he shall be responsible for any error of omission in this bid offer and is in receipt of all addenda as issued.

It is understood and agreed that all items bid will be delivered f.o.b. job site and remain firm for at least forty-five (45) days from date of bid opening. It is further understood and agreed that the Troy School District Board of Education reserves the right to reject any or all bids, or parts of bids, or to split awards by items or to accept bids, which will best serve the interests of the Board of Education.

FIRM BIDS FOR ROOF REPLACEMENT TROY RANKIN MAINTENACE WAREHOUSE:

ITEM 1: Over Roof Area #2 measuring 143' X 82'= 11,726 square feet: Tear-Off existing top roof, flashing and coping. Cut through existing graveled bottom roof assembly and peel-off roofing plies leaving existing 2.5" polyisocyanurate base insulation in place. Remove all wet or damaged insulation. Inspect and repair or replace rusted metal deck. Install new 2.5" Polyisocyanurate insulation to fill voids, mechanically fasten entire base insulation to meet F.M. I-60. Install a top layer of 1/2" H.D. fiberboard in hot asphalt. Install roof perlite roof saddles at east wall drain valleys. Install a new HPR modified roof with slag aggregate cover. Install all 2-ply modified flashings, sheet metal flashing, drain flashing and new perimeter metal coping. Paint all rusted metal flashing, stacks and collars. Issue manufacturer's 25 year No Dollar Limit roof warranty with a firm bid for the total sum of $_____

(_____)

ITEM 2: Over Roof Area #3 measuring 143' X 61' = 8,723 square feet: Tear-Off all roofing flashing and insulation down to the metal deck. Remove perimeter coping. Inspect and repair or replace rusted metal deck. Install new base layer of 1.5" Polyisocyanurate insulation screwed through the metal deck to meet F.M. I-60 followed by a top layer of 1/2" H.D. fiberboard in hot asphalt. Install roof perlite roof saddles at east wall drain valleys. Install a new HPR modified roof with slag aggregate cover. Install all 2-ply modified flashings, sheet metal flashing, drain flashing and new perimeter metal coping. Paint all rusted metal flashing, stacks and collars. Install a new 30" X 36" raised curb Roof hatch and interior ladder. Issue manufacturer's 25 year No Dollar Limit roof warranty with a firm bid for the total sum of $_____

(_____)

ITEM 3: SUM TOTAL OF ALL ITEMS 1 AND 2 ON TROY RANKIN MAINTENACE WAREHOUSE AS LISTED ABOVE FOR THE FIRM BID OF $_____

(_____)

2009 TROY SCHOOLS ROOFING BID PROPOSAL FORM (CONTINUED)

ROOFING PROPOSAL SUPPLEMENT FOR UNIT PRICES ROOFING PROJECTS

The unit prices listed below shall be submitted with bid. The unit prices shall be utilized in conjunction with minor additions or deletions to the work of this contract, or for work required due to unforeseen conditions.
The unit prices listed will also be used in awarding miscellaneous repairs to various schools. Unit prices submitted shall include all cost of materials, labor, insurance, taxes, bond premiums, overhead and profit.

UNIT PRICES
The cost of work, added to or omitted from this contract, shall be computed at the prices listed below:

1. Steel deck scrape rust and paint with red oxide primer…….....…….…..…$_____(Per Sq. Ft.)

2. Steel Deck Replacement.....…….…….. .$_____(Per Sq. Ft.)

3. New 4" cast iron drain and Installation /no additional piping…….…..….....$_____(Each)

4. New drain piping to existing drain lines…..……..……..$_____(Per Lin. Ft.)

5. 2" x 4" wood nailers (to replace damaged) installed…….…...…...…..…$_____(Per Lin. Ft.)

6. 2" x 6" wood nailers (to replace damaged) installed……..…….…..$_____(Per Lin. Ft.)

7. 2" x 8" wood nailers (to replace damaged) installed…….$_____(Per Lin. Ft.)

8. 2" x 10" wood nailers (to replace damaged) installed…….$_____(Per Lin. Ft.)

9. 2.5" Polyisocyanurate Rigid Insulation Board to Replace Unsalvageable (damaged or wet) original base insulation on Roof Area #2:

   1-5 squares… ..…$_____(Per Sq. Ft.)

   6-20 squares…..…$_____(Per Sq. Ft.)

   > 20 squares..……$_____(Per Sq. Ft.)

Proposal Guarantee Bid Bond _____ Certified Check _____ .

Name of Company _____.

Signature and Title _____.
of Representative

Address _____.

Telephone _____ Fax Number _____

Start Date _____ Terms _____ Date _____.

Estimated Time of Completion _____days

JENNIFER M.
GRANHOLM
GOVERNOR

Michigan Department of Energy, Labor & Economic Growth
Wage & Hour Division
PO Box 30476
Lansing , MI 48909-7976
517.335.0400
www.michigan.gov/wagehour

STANLEY "SKIP" PRUSS
DIRECTOR

Informational Sheet: Prevailing Wages on State Projects
General Information Regarding Fringe Benefits

Certain fringe benefits **may** be credited toward the payment of the Prevailing Wage Rate:

- If a fringe benefit is paid directly to a construction mechanic
- If a fringe benefit contribution or payment is made on behalf of a construction mechanic
- If a fringe benefit, which may be provided to a construction mechanic**,** is pursuant to a written contract or policy
- If a fringe benefit is paid into a fund, for a construction mechanic

When a fringe benefit is not paid by an hourly rate, the hourly credit will be calculated based on the annual value of the fringe benefit divided by 2080 hours per year (52 weeks @ 40 hours per week).

The following is an example of the types of fringe benefits allowed and how an hourly credit is calculated:

Vacation	40 hours X $14.00 per hour = $560/2080 =	$.27
Dental insurance	$31.07 monthly premium X 12 mos. = $372.84 /2080 =	$.18
Vision insurance	$5.38 monthly premium X 12 mos. = $64.56/2080 =	$.03
Health insurance	$230.00 monthly premium X 12 mos. = $2,760.00/2080 =	$1.33
Life insurance	$27.04 monthly premium X 12 mos. = $324.48/2080 =	$.16
Tuition	$500.00 annual cost/2080 =	$.24
Bonus	4 quarterly bonus/year x $250 = $1000.00/2080 =	$.48
401k Employer Contribution	$2000.00 total annual contribution/2080 =	$.96
Total Hourly Credit		$3.65

Other examples of the types of fringe benefits allowed:

- Sick pay
- Holiday pay
- Accidental Death & Dismemberment insurance premiums

The following are examples of items that **will not** be credited toward the payment of the Prevailing Wage Rate

- Legally required payments, such as:
  - Unemployment Insurance payments
  - Workers' Compensation Insurance payments
  - FICA (Social Security contributions, Medicare contributions)
- Reimbursable expenses, such as:
  - Clothing allowance or reimbursement
  - Uniform allowance or reimbursement
  - Gas allowance or reimbursement
  - Travel time or payment
  - Meals or lodging allowance or reimbursement
  - Per diem allowance or payment
- Other payments to or on behalf of a construction mechanic that are not wages or fringe benefits, such as:
  - Industry advancement funds
  - Financial or material loans

STATE OF MICHIGAN

JENNIFER M. GRANHOLM
GOVERNOR

DEPARTMENT OF ENERGY, LABOR & ECONOMIC GROWTH
LANSING

STANLEY "SKIP" PRUSS
DIRECTOR

REQUIREMENTS OF THE PREVAILING WAGES ON STATE PROJECTS ACT, PUBLIC ACT 166 OF 1965

The Michigan Department of Labor & Economic Growth determines prevailing rates pursuant to the Prevailing Wages on State Projects Act, Public Act 166 of 1965, as amended. The purpose of establishing prevailing rates is to provide minimum rates of pay that must be paid to workers on construction projects for which the state or a school district is the contracting agent and which is financed or financially supported by the state. By law, prevailing rates are compiled from the rates contained in collectively bargained agreements which cover the locations of the state projects. The official prevailing rates provide an hourly rate which includes wage and fringe benefit totals for designated construction mechanic classifications. The overtime rates also include wage and fringe benefit totals. Please pay special attention to the overtime and premium pay requirements. Prevailing wage is satisfied when wages plus fringe benefits paid to a worker are equal to or greater than the required rate.

State of Michigan responsibilities under the law:

- The department establishes the prevailing rate for each classification of construction mechanic ***requested by a contracting agent*** prior to contracts being let out for bid on a state project.

Contracting agent responsibilities under the law:

- If a contract is not awarded or construction does not start within 90 days of the date of the issuance of rates, a re-determination of rates must be requested by the contracting agent.
- Rates for classifications needed but not provided on the Prevailing Rate Schedule, ***must*** be obtained ***prior*** to contracts being let out for bid on a state project.
- The contracting agent, by written notice to the contractor and the sureties of the contractor known to the contracting agent, may terminate the contractor's right to proceed with that part of the contract, for which less than the prevailing rates have been or will be paid, and may proceed to complete the contract by separate agreement with another contractor or otherwise, and the original contractor and his sureties shall be liable to the contracting agent for any excess costs occasioned thereby.

Contractor responsibilities under the law:

- Every contractor and subcontractor shall keep posted on the construction site, in a conspicuous place, a copy of all prevailing rates prescribed in a contract.
- Every contractor and subcontractor shall keep certified payrolls, as used in the industry, of each and every construction mechanic, and verification of such certified payroll in writing by either a representative or auditor/certified accountant at the end of such a

certified payroll. These records should include the occupation and indicate the hours worked on each project for each classification and the actual wages and benefits paid. This record shall be available for reasonable inspection by the contracting agent or the department.

- Each contractor or subcontractor is separately liable for the payment of the prevailing rate to its employees.
- The prime contractor is responsible for advising all subcontractors of the requirement to pay the prevailing rate prior to commencement of work.
- The prime contractor is secondarily liable for payment of prevailing rates that are not paid by a subcontractor.
- A construction mechanic shall only be paid the apprentice rate if registered with the United States Department of Labor, Bureau of Apprenticeship and Training and the rate is included in the contract.

Enforcement:

A person who has information of an alleged prevailing wage violation on a state project may file a complaint with the Wage & Hour Division. The department will investigate and attempt to resolve the complaint informally. During the course of an investigation, if the requested records and posting certification are not made available in compliance with Section 5 of Act 166, the investigation will be concluded and a referral to the Office of Attorney General for civil action will be made. The Office of Attorney General will pursue costs and fees associated with a lawsuit if filing is necessary to obtain records.

A violation of Act 166 may result in the contractor's name being added to the Prevailing Wage Act Violators List published on the division's website, updated monthly. This list includes the names and addresses of contractors and subcontractors the division has found in violation of Act 166 based on complaints from individuals and third parties. The Prevailing Wage Act Violators List is intended to inform contracting agents of contractors that have violated Act 166 for use in determining who should receive state-funded projects.

State of Michigan
Department of Energy, Labor and Economic Growth

Wage and Hour Division
6546 Mercantile Way, Suite 5
PO Box 30476
Lansing, MI 48909-7976
Telephone: 517-335-0400
Fax: 517-335-0077
www.michigan.gov/wagehour

Official Request #: 1180
Requestor: TROY SCHOOL DISTRICT
Project Description: ROOF REPLACEMENT
Project Number: MAINTENANCE & OPERATIONS BUILDING

Oakland County

Official 2009 Prevailing Wage Rates for State Funded Projects

Issue Date: 9/3/2009
Contract must be awarded by: 12/2/2009

Classification Name / Description		Last Updated	Straight Hourly	Time and a Half	Double Time	Overtime Provision
Asbestos & Lead Abatement Laborer						
Asbestos & Lead Abatement Laborer 4 ten hour days @ straight time allowed Monday-Saturday, must be consecutive calendar days	MLDC	8/6/2009	$35.55	$47.67	$59.78	H H H X X X X D Y
Asbestos & Lead Abatement, Hazardous Material Handler						
Asbestos and Lead Abatement, Hazardous Material Handler 4 ten hour days @ straight time allowed Monday-	AS207	6/11/2009	$34.05	$46.53	$59.00	H H H X X X X D Y
Boilermaker						
Boilermaker	BO169	8/14/2009	$54.70	$81.08	$107.45	H H H H H H H D Y
Apprentice Rates:						
1st 6 months			$40.31	$59.49	$78.67	
2nd 6 months			$41.45	$61.21	$80.95	
3rd 6 months			$42.57	$62.88	$83.19	
4th 6 months			$43.69	$64.57	$85.43	
5th 6 months			$44.81	$66.24	$87.67	
6th 6 months			$49.53	$73.40	$97.26	
7th 6 months			$49.32	$73.01	$96.69	
8th 6 months			$51.58	$76.40	$101.21	
Bricklayer						
Bricklayer, stone mason, pointer, cleaner, caulker	BR1	12/4/2008	$50.18	$75.27	$100.36	H H D H D D D D N
Apprentice Rates:						
First 6 months			$30.22	$45.33	$60.44	
2nd 6 months			$32.07	$48.10	$64.14	
3rd 6 months			$33.92	$50.88	$67.84	
4th 6 months			$35.77	$53.66	$71.54	
5th 6 months			$37.62	$56.43	$75.24	
6th 6 months			$39.47	$59.20	$78.94	
7th 6 months			$41.32	$61.98	$82.64	
8th 6 months			$43.17	$64.76	$86.34	

Official Rate Schedule

Every contractor and subcontractor shall keep posted on the construction site, in a conspicuous place, a copy of all prevailing wage and fringe benefit rates prescribed in a contract.

Classification Name / Description		Last Updated	Straight Hourly	Time and a Half	Double Time	Overtime Provision
Carpenter						
Carpet and Resilient Floor Layer, (does not include installation of prefabricated formica & parquet flooring which is to be paid carpenter rate)	CA1045	2/2/2009	$43.24	$61.36	$79.47	H H H H D D D D N
Apprentice Rates:						
1st 6 months			$21.10	$28.15	$35.19	
2nd 6 months			$25.12	$34.17	$43.23	
3rd 6 months			$26.93	$36.89	$46.85	
4th 6 months			$28.75	$39.62	$50.49	
5th 6 months			$30.56	$42.34	$54.11	
6th 6 months			$32.37	$45.06	$57.73	
7th 6 months			$34.17	$47.75	$61.33	
8th 6 months			$35.99	$50.48	$64.97	
Carpenter	CA687Z1	1/29/2009	$48.05	$68.47	$88.89	H H D H D D D D Y
Apprentice Rates:						
1st Year			$29.68	$40.91	$52.15	
3rd 6 months			$31.72	$43.98	$56.23	
4th 6 months			$33.75	$47.02	$60.29	
5th 6 months			$35.80	$50.09	$64.39	
6th 6 months			$37.85	$53.17	$68.49	
7th 6 months			$39.89	$56.24	$72.57	
8th 6 months			$41.93	$59.29	$76.65	
Piledriver	CA687Z1P	1/29/2009	$48.05	$68.47	$88.89	H H D H D D D D Y
Apprentice Rates:						
1st 6 months			$29.68	$40.91	$52.15	
2nd 6 months			$33.75	$47.02	$60.29	
3rd 6 months			$37.85	$53.17	$68.49	
4th 6 months			$41.93	$59.29	$76.65	
Subdivision of county .						
Cement Mason						
Cement Mason	br1cm	12/18/2008	$45.26	$63.65	$82.04	H H D H H H H D N
Apprentice Rates:						
1st 6 months			$26.62	$35.82	$45.01	
2nd 6 months			$28.45	$38.56	$48.67	
3rd 6 months			$32.13	$44.09	$56.03	
4th 6 months			$35.80	$49.59	$63.37	
5th 6 months			$37.64	$52.35	$67.05	
6th 6 months			$41.31	$57.85	$74.39	

Classification Name / Description			Last Updated	Straight Hourly	Time and a Half	Double Time	Overtime Provision
Drywall							
Drywall Taper		PT-22-D	9/1/2006	$38.45	$50.90	$63.35	H H D H D D D D N
	Apprentice Rates:						
	First 3 months			$26.00	$32.23	$38.45	
	Second 3 months			$28.49	$35.96	$43.43	
	Second 6 months			$30.98	$39.69	$48.41	
	Third 6 months			$33.47	$43.43	$53.39	
	4th 6 months			$34.71	$45.29	$55.87	
Electrician							
Road Way Electrical Work Double time due after 16 hours on any calendar day and all hours Sunday.		EC-17	11/19/2007	$45.37	$65.63	$85.90	H H H H H H H D Y
	Apprentice Rates:						
	1st 6 months			$29.17	$41.34	$53.50	
	2nd 6 months			$31.19	$44.36	$57.54	
	3rd 6 months			$33.21	$47.40	$61.58	
	4th 6 months			$35.23	$50.43	$65.62	
	5th 6 months			$37.25	$53.46	$69.66	
	6th 6 months			$41.32	$59.57	$77.80	
Subdivision of county	Holly not included						
Inside Wireman		EC-58-IW	1/7/2008	$53.62	$71.49	$89.36	H H H H H H H D N
	Apprentice Rates:						
	0-1000 hours			$32.18	$39.33	$46.48	
	1000-2000 hours			$33.97	$42.02	$50.06	
	2000-3500 hours			$35.75	$44.68	$53.62	
	3500-5000 hours			$37.54	$47.38	$57.20	
	5000-6500 hours			$41.12	$52.74	$64.36	
	6500-8000 hours			$44.68	$58.08	$71.48	
Sound and Communication Installer/Technician		EC-58-SC	1/7/2008	$32.54	$44.20	$55.86	H H H H H H H D N
	Apprentice Rates:						
	Period 1			$20.88	$26.71	$32.54	
	Period 2			$22.04	$28.46	$34.86	
	Period 3			$23.21	$30.21	$37.20	
	Period 4			$24.38	$31.96	$39.54	
	Period 5			$25.55	$33.72	$41.88	
	Period 6			$26.71	$35.46	$44.20	

Official Request 1180
Requestor: TROY SCHOOL DISTRICT
Project Description: ROOF REPLACEMENT

Project Number: MAINTENANCE & OPERATIONS BUILDING
County: Oakland

Official Rate Schedule

Every contractor and subcontractor shall keep posted on the construction site, in a conspicuous place, a copy of all prevailing wage and fringe benefit rates prescribed in a contract.

Classification Name / Description		Last Updated	Straight Hourly	Time and a Half	Double Time	Overtime Provision
Elevator Constructor						
Elevator Constructor	EL 36		$56.46		$94.99	D D D D D D D D Y
Elevator Constructor		8/7/2007				
	Apprentice Rates:					
	1st Year Apprentice		$37.74		$58.93	
	2nd Year Apprentice		$41.90		$66.94	
	3rd Year Apprentice		$43.98		$70.95	
	4th Year Apprentice		$48.14		$78.96	
Glazier						
Glazier	GL-357		$45.20	$59.80		H H H H H H H H Y
If a four 10 hour day workweek is scheduled, four 10s must be consecutive, M-F.		6/10/2009				
	Apprentice Rates:					
	1st 6 months		$31.29	$38.59		
	2nd 6 months		$32.82	$40.85		
	3rd 6 months		$35.89	$45.38		
	4th 6 months		$37.42	$47.64		
	5th 6 months		$38.96	$49.91		
	6th 6 months		$40.49	$52.17		
	7th 6 months		$42.02	$54.43		
	8th 6 months		$45.09	$58.96		
Heat and Frost Insulator						
Spray Insulation	AS25S		$20.14	$29.14		H H H H H H H H N
		3/5/2007				
Heat and Frost Insulator and Asbestos Worker						
Heat and Frost Insulators and Asbestos Workers	AS25		$53.15	$68.54	$83.92	H H H H H H H D Y
Four 10s must be worked for a minimum of 2 weeks consecutively, Monday thru Thursday. All hours worked in excess of 10 will be paid at double time. All hours worked on the fifth day, Monday thru Friday will paid at time and one-half.		8/14/2009				
	Apprentice Rates:					
	1st Year		$39.30	$47.76	$56.22	
	2nd Year		$42.38	$52.38	$62.38	
	3rd Year		$43.92	$54.69	$65.46	
	4th Year		$47.00	$59.31	$71.62	

Classification Name / Description		Last Updated	Straight Hourly	Time and a Half	Double Time	Overtime Provision
Ironworker						
Fence, Sound Barrier & Guardrail erection/installation and Exterior Signage work Four ten hour work days may be worked during Monday-Saturday.	IR-25-F1	8/13/2009	$30.80	$42.63	$54.45	X X H X X X D D Y
	Apprentice Rates:					
	60% Level		$21.10	$28.19	$35.29	
	65% Level		$22.31	$30.00	$37.68	
	70% Level		$23.53	$31.81	$40.09	
	75% Level		$24.74	$33.61	$42.48	
	80% Level		$25.95	$35.41	$44.87	
Siding, Glazing, Curtain Wall 4 tens may be worked Monday thru Thursday @ straight time. If bad weather, Friday may be a make up day. If holiday celebrated on a Monday, 4 10s may be worked Tuesday thru Friday. Work in excess of 12 hours per day must be paid @ double time.	IR-25-GZ2	8/14/2009	$41.86	$52.62	$63.37	H H H H H H D D Y
	Apprentice Rates:					
	Level 1		$25.93	$32.38	$38.84	
	Level 2		$27.99	$34.98	$41.97	
	Level 3		$30.06	$37.59	$45.12	
	Level 4		$32.13	$40.20	$48.26	
	Level 5		$34.19	$42.80	$51.40	
	Level 6		$36.26	$45.40	$54.54	
Pre-engineered Metal Work	IR-25-PE-Z1-Z2	5/8/2008	$41.69	$52.37	$63.04	X X H X X X X D Y
	Apprentice Rates:					
	1st level		$23.47	$28.51	$33.55	
	2nd level		$25.12	$30.85	$36.58	
	3rd level		$26.78	$33.19	$39.61	
	4th level		$28.44	$35.55	$42.66	
	5th level		$30.10	$37.90	$45.70	
	6th level		$31.36	$39.65	$47.93	
Reinforced Iron Work	IR-25-RF	8/14/2009	$51.36	$73.35	$95.34	H H D H D D D D N
	Apprentice Rates:					
	Level 1		$31.67	$43.52	$55.36	
	Level 2		$34.21	$47.33	$60.44	
	Level 3		$36.74	$51.12	$65.50	
	Level 4		$39.28	$54.93	$70.58	
	Level 5		$41.81	$58.73	$75.64	
	Level 6		$44.35	$62.54	$80.72	

Classification Name / Description		Last Updated	Straight Hourly	Time and a Half	Double Time	Overtime Provision
Rigging Work	IR-25-RIG	8/14/2009	$56.98	$85.28	$113.58	H H H H H H H D N
Apprentice Rates:						
Level 1& 2			$32.28	$48.17	$64.05	
Level 3			$35.11	$52.41	$69.71	
Level 4			$37.93	$56.64	$75.35	
Level 5			$40.76	$60.89	$81.01	
Level 6			$43.59	$65.13	$86.67	
Decking 4 tens may be worked Monday thru Thursday @ straight time. If bad weather, Friday may be a make up day. If holiday celebrated on a Monday, 4 10s may be worked Tuesday thru Friday. Work in excess of 12 hours per day must be paid @ double time.	IR-25-SD	8/14/2009	$48.94	$73.16	$97.37	H H H H H H D D Y
Structural, ornamental, conveyor, welder and pre-cast 4 tens may be worked Monday thru Thursday @ straight time. If bad weather, Friday may be a make up day. If holiday celebrated on a Monday, 4 10s may be worked Tuesday thru Friday. Work in excess of 12 hours per day must be paid @ double time.	IR-25-STR	8/14/2009	$57.11	$85.41	$113.71	H H H H H H D D Y
Apprentice Rates:						
Levels 1 & 2			$32.28	$48.17	$64.05	
Level 3			$35.11	$52.41	$69.71	
Level 4			$37.93	$56.64	$75.35	
Level 5			$40.76	$60.89	$81.01	
Level 6			$43.58	$65.12	$86.65	
Level 7			$46.41	$69.37	$92.31	
Level 8			$49.24	$73.60	$97.97	
Industrial Door erection & construction	IR-25-STR-D	3/28/2008	$35.72	$47.34	$58.96	H H D H H H D D Y
Laborer Construction Laborer, Mason Tender, Carpenter Tender, Drywall Handler, Concrete Laborer, Cement Finisher tender, concrete chute and concrete Bucket Handler, Concrete Laborer, Demolition Laborer	L1076-A-A	7/10/2009	$38.76	$54.96	$71.15	H H D H D D D D Y
Apprentice Rates:						
0-1,000 work hours			$32.99	$46.30	$59.61	
1,001-2,000 work hours			$34.14	$48.02	$61.91	
2,001-3,000 work hours			$35.30	$49.76	$64.23	
3,001-4,000 work hours			$37.61	$53.23	$68.85	

Classification Name / Description		Last Updated	Straight Hourly	Time and a Half	Double Time	Overtime Provision
Signal man (on sewer & caisson work); air,electric or gasoline tool operator (including concrete vibrator operator,acetylene torch & air hammer operator); scaffold builder, caisson worker	L1076-A-B	7/10/2009	$39.02	$55.35	$71.67	H H D H D D D D Y
Lansing Burner, Blaster & Powder Man	L1076-A-C	7/10/2009	$39.51	$56.08	$72.65	H H D H D D D D Y
Furnance battery heater tender, burning bar & oxy-acetylene gun, expediter man, top man and/or bottom man (blast furnace work)	L1076-A-D	7/10/2009	$39.26	$55.71	$72.15	H H D H D D D D Y
Cleaner/ sweeper laborer, furniture laborer	L1076-A-E	7/10/2009	$33.31	$46.78	$60.25	H H D H D D D D Y
Demolition Laborer	L1076-D	7/10/2009	$38.76	$54.96	$71.15	H H D H D D D D Y
Plasterer Tender, Plastering Machine Operator	LPT-1	8/6/2009	$40.14	$57.03	$73.91	H H D H D D D D N
Apprentice Rates:						
0 - 1,000 hours			$32.99	$46.30	$59.61	
1,001 - 2,000 hours			$34.14	$48.02	$61.91	
2,001 - 3,000 hours			$35.30	$49.76	$64.23	
3,001 - 4,000 hours			$37.61	$53.23	$68.85	
Laborer - Hazardous						
Class A Laborer - performing work in conjunction with site preparation and other preliminary work prior to actual removal, handling, or containment of hazardous waste substances not requiring use of personal protective equipment required by state or federal regulations; or a laborer performing work in conjunction with the removal, handling, or containment of hazardous waste substances when used of personal protective equipment level "D" is required.	LHAZ-Z2-A	11/14/2008	$38.76	$54.89	$71.01	H H H H H H H D Y
Apprentice Rates:						
0-1,000 work hours			$32.88	$46.07	$59.25	
1,001-2,000 work hours			$34.05	$47.82	$61.59	
2,001-3,000 work hours			$35.23	$49.60	$63.95	
3,001-4,000 work hours			$37.58	$53.12	$68.65	

Classification Name / Description		Last Updated	Straight Hourly	Time and a Half	Double Time	Overtime Provision
Class B Laborer - performing work in conjunction with the removal, handling, or containment of hazardous waste substances when the use of personal protective equipment levels "A", "B" or "C" is required.	LHAZ-Z2-B	11/14/2008	$39.76	$56.39	$73.01	H H H H H H H D Y
Apprentice Rates:						
0-1,000 work hours			$33.62	$47.18	$60.73	
1,001-2,000 work hours			$34.85	$49.02	$63.19	
2,001-3,000 work hours			$36.08	$50.87	$65.65	
3,001-4,000 work hours			$38.53	$54.54	$70.55	
Laborer Underground - Tunnel, Shaft & Caisson						
Class I - Tunnel, shaft and caisson laborer, dump man, shanty man, hog house tender, testing man (on gas), and watchman.	LAUCT-Z1-1	9/24/2008	$34.54	$45.45	$56.35	H H H H H H H D Y
Apprentice Rates:						
0-1,000 work hours			$29.67	$38.14	$46.61	
1,001-2,000 work hours			$30.64	$39.59	$48.55	
2,001-3,000 work hours			$31.62	$41.07	$50.51	
3,001-4,000 work hours			$33.57	$43.99	$54.41	
Class II - Manhole, headwall, catch basin builder, bricklayer tender, mortar man, material mixer, fence erector, and guard rail builder.	LAUCT-Z1-2	9/24/2008	$34.65	$45.61	$56.57	H H H H H H H D Y
Apprentice Rates:						
0-1,000 work hours			$29.75	$38.26	$46.77	
1,001-2,000 work hours			$30.73	$39.73	$48.73	
2,001-3,000 work hours			$31.71	$41.20	$50.69	
3,001-4,000 work hours			$33.67	$44.14	$54.61	
Class III - Air tool operator (jack hammer man, bush hammer man and grinding man), first bottom man, second bottom man, cage tender, car pusher, carrier man, concrete man, concrete form man, concrete repair man, cement invert laborer, cement finisher, concrete shoveler, conveyor man, floor man, gasoline and electric tool operator, gunnite man, grout operator, welder, heading dinky man, inside lock tender, pea gravel operator, pump man, outside lock tender, scaffold man, top signal man, switch man, track man, tugger man, utility man, vibrator man, winch operator, pipe jacking man, wagon drill and air track operator and concrete saw operator (under 40	LAUCT-Z1-3	9/24/2008	$34.71	$45.70	$56.69	H H H H H H H D Y
Apprentice Rates:						
0-1,000 work hours			$29.79	$38.32	$46.85	
1,001-2,000 work hours			$30.78	$39.81	$48.83	
2,001-3,000 work hours			$31.76	$41.27	$50.79	
3,001-4,000 work hours			$33.73	$44.23	$54.73	

Classification Name / Description		Last Updated	Straight Hourly	Time and a Half	Double Time	Overtime Provision
Class IV - Tunnel, shaft and caisson mucker, bracer man, liner plate man, long haul dinky driver and well point	LAUCT-Z1-4	9/24/2008	$34.89	$45.97	$57.05	H H H H H H H D Y
Apprentice Rates:						
0-1,000 work hours			$29.93	$38.53	$47.13	
1,001-2,000 work hours			$30.92	$40.01	$49.11	
2,001-3,000 work hours			$31.91	$41.50	$51.09	
3,001-4,000 work hours			$33.90	$44.49	$55.07	
Class V - Tunnel, shaft and caisson miner, drill runner, keyboard operator, power knife operator, reinforced steel or mesh man (e.g. wire mesh, steel mats, dowel bars)	LAUCT-Z1-5	9/24/2008	$35.14	$46.35	$57.55	H H H H H H H D Y
Apprentice Rates:						
0-1,000 work hours			$30.12	$38.81	$47.51	
1,001-2,000 work hours			$31.12	$40.31	$49.51	
2,001-3,000 work hours			$32.13	$41.83	$51.53	
3,001-4,000 work hours			$34.14	$44.85	$55.55	
Class VI - Dynamite man and powder man.	LAUCT-Z1-6	9/24/2008	$35.47	$46.84	$58.21	H H H H H H H D Y
Apprentice Rates:						
0-1,000 work hours			$30.37	$39.19	$48.01	
1,001-2,000 work hours			$31.39	$40.72	$50.05	
2,001-3,000 work hours			$32.41	$42.25	$52.09	
3,001-4,000 work hours			$34.45	$45.31	$56.17	
Class VII - Restoration laborer, seeding, sodding, planting, cutting, mulching and topsoil grading and the restoration of property such as replacing mail boxes, wood chips, planter boxes and flagstones.	LAUCT-Z1-7	9/24/2008	$28.75	$36.76	$44.77	H H H H H H H D Y
Apprentice Rates:						
0-1,000 work hours			$25.32	$31.61	$37.91	
1,001-2,000 work hours			$26.01	$32.65	$39.29	
2,001-3,000 work hours			$26.69	$33.67	$40.65	
3,001-4,000 work hours			$28.06	$35.73	$43.39	
Landscape Laborer						
Landscape Specialist includes air, gas, and diesel equipment operator, lawn sprinkler installer on landscaping work where seeding, sodding, planting, cutting, trimming, backfilling, rough grading or maintenance of landscape projects occurs.	LLAN-Z1-A	7/9/2009	$25.38	$35.06	$44.74	X X H X X X H D Y

Sundays paid at time & one half. Holidays paid at double

Classification Name / Description		Last Updated	Straight Hourly	Time and a Half	Double Time	Overtime Provision
All work pertaining to landscaping where seeding, sodding, planting, cutting, trimming, backfilling, rough grading or maintaining of landscape projects occurs which may include small power tool operator, lawn sprinkler installer helper, material mover, & truck driver. Sundays paid at time & one half. Holidays paid at double time.	LLAN-Z1-B	7/9/2009	$21.16	$28.73	$36.30	X X H X X X H D Y
Marble Finisher						
Marble Finisher A 4 ten workweek may be worked Monday thru Thursday or Tuesday thru Friday.	BR1-MF	8/11/2009	$41.37	$51.86	$62.34	H H D H D D D D Y
Apprentice Rates:						
Level 1			$18.11	$24.00	$29.89	
Level 2			$19.25	$25.71	$32.17	
Level 3			$25.69	$32.40	$39.12	
Level 4			$27.09	$34.50	$41.92	
Level 5			$28.53	$36.15	$43.77	
Level 6			$30.07	$38.06	$46.06	
Level 7			$31.68	$39.73	$47.79	
Level 8			$33.10	$41.42	$49.74	
Marble Mason						
Marble Mason A 4 ten workweek may be worked Monday thru Thursday or Tuesday thru Friday.	BR1-MM	8/11/2009	$47.85	$61.58	$75.30	H H D H D D D D Y
Apprentice Rates:						
Level 1			$23.92	$31.19	$38.47	
Level 2			$26.83	$34.85	$42.87	
Level 3			$31.79	$40.02	$48.26	
Level 4			$34.40	$43.55	$52.69	
Level 5			$36.55	$45.94	$55.33	
Level 6			$40.04	$51.10	$62.16	
Level 7			$40.67	$51.90	$63.14	
Level 8			$41.56	$53.24	$64.92	
Operating Engineer						
Crane with boom & jib or leads 120' or longer	EN-324-A120	6/5/2008	$50.71	$67.65	$84.58	H H D H D D D D Y
Crane with boom & jib or leads 140' or longer	EN-324-A140	6/5/2008	$51.53	$68.88	$86.22	H H D H D D D D Y
Crane with boom & jib or leads 220' or longer	EN-324-A220	6/5/2008	$51.83	$69.33	$86.82	H H D H D D D D Y
Crane with boom & jib or leads 300' or longer	EN-324-A300	6/5/2008	$53.33	$71.58	$89.82	H H D H D D D D Y

Official Request 1180
Requestor: TROY SCHOOL DISTRICT
Project Description: ROOF REPLACEMENT

Project Number: MAINTENANCE & OPERATIONS BUILDING
County: Oakland

Official Rate Schedule

Every contractor and subcontractor shall keep posted on the construction site, in a conspicuous place, a copy of all prevailing wage and fringe benefit rates prescribed in a contract.

Classification Name / Description		Last Updated	Straight Hourly	Time and a Half	Double Time	Overtime Provision
Crane with boom & jib or leads 400' or longer	EN-324-A400	6/5/2008	$54.83	$73.83	$92.82	H H D H D D D D Y
Compressor or welding machine	EN-324-CW	6/5/2008	$39.86	$51.37	$62.88	H H D H D D D D Y
Forklift, lull, extend-a-boom forklift	EN-324-FL	6/5/2008	$47.17	$62.34	$77.50	H H D H D D D D Y
Fireman or oiler	EN-324-FO	6/5/2008	$38.83	$49.83	$60.82	H H D H D D D D Y
Regular crane, job mechanic, concrete pump with boom	EN-324-RC	6/5/2008	$49.85	$66.36	$82.86	H H D H D D D D Y
Regular engineer, hydro-excavator, remote controlled concrete breaker	EN-324-RE	6/5/2008	$48.88	$64.90	$80.92	H H D H D D D D Y
Apprentice Rates:						
Period 1			$38.92	$50.14	$61.35	
Period 2			$40.53	$52.55	$64.57	
Period 3			$42.12	$54.94	$67.75	
Period 4			$43.72	$57.34	$70.95	
Period 5			$45.32	$59.73	$74.15	
Period 6			$46.93	$62.15	$77.37	
Operating Engineer - Marine Construction						
Diver/Wet Tender, Engineer (hydraulic dredge)	GLF-1	5/6/2009	$54.09	$71.02	$87.94	X X H H H H H D Y
Holiday pay= $104.86 per hour						
Subdivision of county all Great Lakes, islands therein, & connecting & tributary waters						
Crane/Backhoe Operator,70 ton or over Tug Operator, Mechanic/Welder, Assistant Engineer (hydraulic dredge), Leverman (hydraulic dredge), Diver Tender	GLF-2	5/6/2009	$52.59	$68.77	$84.94	X X H H H H H D Y
Holiday pay = $101.11 per hour						
Subdivision of county All Great Lakes, islands therein, & connecting & tributary waters						
Deck Equipment Operator, Machineryman, Maintenance of Crane, Tug/Launch Operator, Loader, Dozer on Barge, Deck Machinery	GLF-3	5/6/2009	$49.04	$63.44	$77.84	X X H H H H H D Y
Holiday pay = $92.24 per hour						
Subdivision of county All Great Lakes, islands therein, & connecting & tributary waters						

Classification Name / Description		Last Updated	Straight Hourly	Time and a Half	Double Time	Overtime Provision
Deck Equipment Operator, (Machineryman/Fireman), (4 equipment units or more), Off Road Trucks, Deck Hand, Tug Engineer, & Crane Maintenance 50 ton capacity and under or Backhoe 115,000 lbs or less, Assistant Tug Operator	GLF-4	5/6/2009	$44.19	$56.17	$68.14	X X H H H H H D Y
Subdivision of county All Great Lakes, islands therein, & connecting & tributary waters						
Operating Engineer Hazardous Waste Class I						
Level A - Fully encapsulating chemical resistant suit w/ pressure demand, full face piece SCBA or pressure demand supplied air respirator w/ escape SCBA. The highest available level of respiratory, skin and eye	EN-324-HWCI-Z1A	10/1/2008	$48.54	$64.41	$80.27	H H H H H H H D Y
Apprentice Rates:						
1st 6 months			$38.67	$49.77	$60.88	
2nd 6 months			$40.25	$52.15	$64.04	
3rd 6 months			$41.84	$54.53	$67.22	
4th 6 months			$43.43	$56.92	$70.40	
5th 6 months			$45.01	$59.28	$73.56	
6th 6 months			$46.60	$61.68	$76.74	
Level B & C protection. B - Pressure demand, full face SCBA or pressure demand supplied air respirator w/ escape SCBA w/chemical resistant clothing. C - Full face piece, air purifying canister-equipped respirator w/chemical resistant clothing.	EN-324-HWCI-Z1B	10/1/2008	$47.59	$62.98	$78.37	H H H H H H H D Y
Apprentice Rates:						
1st 6 months			$38.01	$48.79	$59.56	
2nd 6 months			$39.55	$51.10	$62.64	
3rd 6 months			$41.09	$53.41	$65.72	
4th 6 months			$42.62	$55.70	$68.78	
5th 6 months			$44.16	$58.02	$71.86	
6th 6 months			$45.70	$60.32	$74.94	
Level D - Coveralls, safety boots, glasses or chemical splash goggles and hard hats.	EN-324-HWCI-Z1D	10/1/2008	$46.29	$61.03	$75.77	H H H H H H H D Y
Apprentice Rates:						
1st 6 months			$37.09	$47.41	$57.72	
2nd 6 months			$38.56	$49.61	$60.66	
3rd 6 months			$40.04	$51.83	$63.62	
4th 6 months			$41.52	$54.05	$66.58	
5th 6 months			$42.99	$56.25	$69.52	
6th 6 months			$44.46	$58.46	$72.46	

Classification Name / Description		Last Updated	Straight Hourly	Time and a Half	Double Time	Overtime Provision
Level D When Capping Landfill Coveralls, safety boots, glasses or chemical splash goggles and hard hats.	EN-324-HWCI-Z1DCL	10/1/2008	$46.04	$60.66	$75.27	H H H H H H H D Y
	Apprentice Rates:					
	1st 6 months		$36.92	$47.15	$57.38	
	2nd 6 months		$38.39	$49.35	$60.32	
	3rd 6 months		$39.85	$51.55	$63.24	
	4th 6 months		$41.31	$53.74	$66.16	
	5th 6 months		$42.77	$55.93	$69.08	
	6th 6 months		$44.23	$58.11	$72.00	
Operating Engineer Hazardous Waste Class II						
Level A - Fully encapsulating chemical resistant suit w/ pressure demand, full face piece SCBA or pressure demand supplied air respirator w/ escape SCBA. The highest available level of respiratory, skin and eye	EN-324-HWCII-Z1A	10/1/2008	$44.31	$58.06	$71.81	H H H H H H H D Y
Level B & C protection. B - Pressure demand, full face SCBA or pressure demand supplied air respirator w/ escape SCBA w/chemical resistant clothing. C - Full face piece, air purifying canister-equipped respirator w/chemical resistant clothing.	EN-324-HWCII-Z1B	10/1/2008	$43.36	$56.64	$69.91	H H H H H H H D Y
Level D - Coveralls, safety boots, glasses or chemical splash goggles and hard hats.	EN-324-HWCII-Z1D	10/1/2008	$42.06	$54.69	$67.31	H H H H H H H D Y
Level D When Capping Landfill Coveralls, safety boots, glasses or chemical splash goggles and hard hats.	EN-324-HWCII-Z1DCL	10/1/2008	$41.81	$54.31	$66.81	H H H H H H H D Y
Operating Engineer Hazardous Waste Crane w/ Boom & Jib leads 140' or longer						
Level A - Fully encapsulating chemical resistant suit w/ pressure demand, full face piece SCBA or pressure demand supplied air respirator w/ escape SCBA. The highest available level of respiratory, skin and eye	EN-324-HW140-Z1A	10/1/2008	$51.19	$68.38	$85.57	H H H H H H H D Y
Level B & C protection. B - Pressure demand, full face SCBA or pressure demand supplied air respirator w/ escape SCBA w/chemical resistant clothing. C - Full face piece, air purifying canister-equipped respirator w/chemical resistant clothing.	EN-324-HW140-Z1B	10/1/2008	$50.24	$66.96	$83.67	H H H H H H H D Y
Level D Coveralls, safety boots, glasses or chemical splash goggles and hard hats.	EN-324-HW140-Z1D	10/1/2008	$48.94	$65.01	$81.07	H H H H H H H D Y
Level D When Capping Landfill Coveralls, safety boots, glasses or chemical splash goggles and hard hats.	EN-324-HW140-Z1DCL	10/1/2008	$48.69	$64.63	$80.57	H H H H H H H D Y

Classification Name / Description	Last Updated	Straight Hourly	Time and a Half	Double Time	Overtime Provision
Operating Engineer Hazardous Waste Crane w/ Boom & Jib leads 220' or longer					
Level A - Fully encapsulating chemical resistant suit w/ pressure demand, full face piece SCBA or pressure demand supplied air respirator w/ escape SCBA. The highest available level of respiratory, skin and eye	EN-324-HW220-Z1A 10/1/2008	$51.49	$68.83	$86.17	H H H H H H H D Y
Level B & C protection. B - Pressure demand, full face SCBA or pressure demand supplied air respirator w/ escape SCBA w/chemical resistant clothing. C - Full face piece, air purifying canister-equipped respirator w/chemical resistant clothing.	EN-324-HW220-Z1B 10/1/2008	$50.54	$67.41	$84.27	H H H H H H H D Y
Level D Coveralls, safety boots, glasses or chemical splash goggles and hard hats.	EN-324-HW220-Z1D 10/1/2008	$49.24	$65.46	$81.67	H H H H H H H D Y
Level D When Capping Landfill Coveralls, safety boots, glasses or chemical splash goggles and hard hats.	EN-324-HW220-Z1DCL 10/1/2008	$48.99	$65.08	$81.17	H H H H H H H D Y
Operating Engineer Hazardous Waste Regular Crane, Job Mechanic, Dragline Operator, Boom Truck Operator, Power Shovel Operator and Concrete Pump with boom					
Level D When Capping Landfill Coveralls, safety boots, glasses or chemical splash goggles and hard hats.	EN-324-HWRC-Z1DCL 10/1/2008	$46.39	$61.18	$75.97	H H H H H H H D Y
Operating Engineer Hazardous Waste Regular Crane, Job Mechanic, Dragline Operator, Boom Truck Operator, Power Shovel Operator and Concrete Pump with Boom Operator					
Level D - Coveralls, safety boots, glasses or chemical splash goggles and hard hats.	EN-324-HWRC-Z1D 10/1/2008	$47.26	$62.49	$77.71	H H H H H H H D Y
Operating Engineer Hazardous Waste Regular Crane, Job Mechanic, Dragline Operator, Boom Truck Operator, Power Shovel Operator and Concrete Pump with booms					
Level B & C protection. B - Pressure demand, full face SCBA or pressure demand supplied air respirator w/ escape SCBA w/chemical resistant clothing. C - Full face piece, air purifying canister-equipped respirator w/chemical resistant clothing.	EN-324-HWRC-Z1B 10/1/2008	$48.56	$64.44	$80.31	H H H H H H H D Y
Operating Engineer Hazardous Waste Regular Crane, Job Mechanic, Dragline Operator, Boom Truck Operator, Power Shovel Operators and Concrete Pump with booms					
Level A - Fully encapsulating chemical resistant suit w/ pressure demand, full face piece SCBA or pressure demand supplied air respirator w/ escape SCBA. The highest available level of respiratory, skin and eye	EN-324-HWRC-Z1A 10/1/2008	$49.51	$65.86	$82.21	H H H H H H H D Y

Classification Name / Description		Last Updated	Straight Hourly	Time and a Half	Double Time	Overtime Provision
Operating Engineer Steel Work						
Forklift, 1 Drum Hoist	EN-324-ef	6/2/2009	$54.06	$71.85	$89.63	H H D H H H D D Y
Crane w/ 120' boom or longer	EN-324-SW120	6/2/2009	$56.51	$75.52	$94.53	H H D H H H D D Y
Crane w/ 120' boom or longer w/ Oiler	EN-324-SW120-O	6/2/2009	$57.51	$77.02	$96.53	H H D H H H D D Y
Crane w/ 140' boom or longer	EN-324-SW140	6/2/2009	$57.69	$77.29	$96.89	H H D H H H D D Y
Crane w/ 140' boom or longer W/ Oiler	EN-324-SW140-O	6/2/2009	$58.69	$78.79	$98.89	H H D H H H D D Y
Boom & Jib 220' or longer	EN-324-SW220	6/2/2009	$57.96	$77.70	$97.43	H H D H H H D D Y
Crane w/ 220' boom or longer w/ Oiler	EN-324-SW220-O	6/2/2009	$58.96	$79.20	$99.43	H H D H H H D D Y
Boom & Jib 300' or longer	EN-324-SW300	6/2/2009	$59.46	$79.95	$100.43	H H D H H H D D Y
Crane w/ 300' boom or longer w/ Oiler	EN-324-SW300-O	6/2/2009	$60.46	$81.45	$102.43	H H D H H H D D Y
Boom & Jib 400' or longer	EN-324-SW400	6/2/2009	$60.96	$82.20	$103.43	H H D H H H D D Y
Crane w/ 400' boom or longer w/ Oiler	EN-324-SW400-O	6/2/2009	$61.96	$83.70	$105.43	H H D H H H D D Y
Crane Operator, Job Mechanic, 3 Drum Hoist &	EN-324-SWCO	6/2/2009	$56.15	$74.98	$93.81	H H D H H H D D Y
Apprentice Rates:						
0-999 hours			$44.35	$57.53	$70.71	
1,000-1,999 hours			$46.23	$60.35	$74.47	
2,000-2,999 hours			$48.12	$63.19	$78.25	
3,000-3,999 hours			$50.01	$66.02	$82.03	
4,000-4,999 hours			$51.89	$68.84	$85.79	
5,000 hours			$53.77	$71.66	$89.55	
Crane w/ Oiler	EN-324-SWCO-O	6/2/2009	$57.15	$76.48	$95.81	H H D H H H D D Y
Compressor or Welder Operator	EN-324-SWCW	6/2/2009	$48.70	$63.81	$78.91	H H D H H H D D Y
Hoisting Operator, 2 Drum Hoist, & Rubber Tire Backhoe	EN-324-SWHO	6/2/2009	$55.51	$74.02	$92.53	H H D H H H D D Y
Oiler	EN-324-SWO	6/2/2009	$47.29	$61.69	$76.09	H H D H H H D D Y

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Classification Name / Description		Last Updated	Straight Hourly	Time and a Half	Double Time	Overtime Provision
Tower Crane & Derrick where work is 50' or more above first level	EN-324-SWTD50	6/2/2009	$57.24	$76.62	$95.99	H H D H H H D D Y
Tower Crane & Derrick 50' or more w/ Oiler where work station is 50' or more above first level	EN-324-SWTD50-O	6/2/2009	$58.24	$78.12	$97.99	H H D H H H D D Y
Operating Engineer Underground						
Class I Equipment	EN-324A1-UC1	9/26/2008	$46.04	$60.63	$75.22	H H H H H H H D Y
Apprentice Rates:						
0-999 hours			$36.93	$47.14	$57.35	
1,000-1,999 hours			$38.39	$49.33	$60.27	
2,000-2,999 hours			$39.85	$51.52	$63.19	
3,000-3,999 hours			$41.30	$53.70	$66.09	
4,000-4,999 hours			$42.76	$55.88	$69.01	
5,000-5,999 hours			$44.23	$58.09	$71.95	
Class II Equipment	EN-324A1-UC2	9/26/2008	$41.31	$53.54	$65.76	H H H H H H H D Y
Class III Equipment	EN-324A1-UC3	9/26/2008	$40.58	$52.44	$64.30	H H H H H H H D Y
Class IV Equipment	EN-324A1-UC4	9/26/2008	$40.01	$51.59	$63.16	H H H H H H H D Y
Master Mechanic	EN-324A1-UMM	9/26/2008	$46.29	$61.01	$75.72	H H H H H H H D Y
Painter						
Painter (8 hours of repaint work performed on Sunday shall be paid time & one half rate)	PT-22-P	5/26/2006	$38.01	$50.24	$62.47	H H D H D D D D N
Apprentice Rates:						
First 6 months			$25.78	$31.89	$38.01	
Second 6 months			$29.45	$37.40	$45.35	
Third 6 months			$30.67	$39.23	$47.79	
Fourth 6 months			$31.89	$41.06	$50.23	
Fifth 6 months			$33.12	$42.91	$52.69	
Final 6 months			$34.34	$44.73	$55.13	
Sandblasting & spraywork performed, on highway bridges, overpases, tanks or steel, OR spraywork & sandblasting done with a scaffold height of 40' above the	PT-22-S	6/1/2006	$38.81	$51.44	$64.07	H H D H D D D D N

Classification Name / Description		Last Updated	Straight Hourly	Time and a Half	Double Time	Overtime Provision
Pipe and Manhole Rehab						
General Laborer for rehab work or normal cleaning and cctv work-top man, scaffold man, CCTV assistant, jetter-vac assistant	TM247	6/16/2009	$26.00	$34.90		H H H H H H H H N
Tap cutter/CCTV Tech/Grout Equipment Operator: unit driver and operator of CCTV; grouting equipment and tap cutting equipment	TM247-2	6/16/2009	$30.50	$41.65		H H H H H H H H N
CCTV Technician/Combo Unit Operator: unit driver and operator of cctv unit or combo unit in connection with normal cleaning and televising work	TM247-3	6/16/2009	$29.25	$39.77		H H H H H H H H N
Boiler Operator: unit driver and operator of steam/water heater units and all ancillary equipment associated	TM247-4	6/16/2009	$31.00	$42.40		H H H H H H H H N
Combo Unit driver & Jetter-Vac Operator	TM247-5	6/22/2009	$31.00	$42.40		H H H H H H H H N
Pipe Bursting & Slip-lining Equipment Operator	TM247-6	6/22/2009	$32.00	$43.90		H H H H H H H H N
Pipefitter						
Pipefitter	PF-636	7/9/2009	$59.71	$79.56	$95.91	H H D H D D D D N
Apprentice Rates:						
1st & 2nd periods			$26.33	$34.68	$41.68	
3rd period			$28.33	$37.68	$45.68	
4th period			$29.58	$39.56	$48.18	
5th period			$30.83	$41.43	$50.68	
6th period			$32.08	$43.30	$53.18	
7th period			$33.33	$45.18	$55.68	
8th period			$34.33	$46.68	$57.68	
9th period			$35.33	$48.18	$59.68	
10th period			$36.76	$50.32	$62.54	
Plasterer						
Plasterer	BR1P	12/16/2008	$43.84	$65.76	$87.68	H H H H H H H D N
Apprentice Rates:						
1st 6 months			$22.41	$33.62	$44.82	
2nd 6 months			$25.99	$38.99	$51.98	
3rd 6 months			$29.56	$44.34	$59.12	
4th 6 months			$33.13	$49.70	$66.26	
5th 6 months			$36.70	$55.05	$73.40	
6th 6 months			$40.27	$60.41	$80.54	

Classification Name / Description		Last Updated	Straight Hourly	Time and a Half	Double Time	Overtime Provision
Plasterer	PL67	6/4/2007	$42.87	$58.16	$73.45	H H H X D D D D N
Apprentice Rates:						
1st 6 months			$24.52	$30.63	$36.75	
2nd 6 months			$27.58	$35.23	$42.87	
3rd 6 months			$30.64	$39.81	$48.99	
4th 6 months			$33.70	$44.41	$55.11	
5th 6 months			$36.75	$48.98	$61.21	
6th 6 months			$39.81	$53.57	$67.33	
Plumber						
Plumber	PL-98	8/18/2009	$57.58	$74.45	$89.31	H H D H D D D D N
Apprentice Rates:						
Period 1			$17.76	$24.31	$30.86	
Period 2			$17.76	$24.31	$30.86	
Period 3			$30.79	$39.88	$48.96	
Period 4			$31.42	$40.82	$50.22	
Period 5			$32.58	$42.56	$52.54	
Period 6			$33.73	$44.28	$54.84	
Period 7			$34.88	$43.61	$54.74	
Period 8			$36.05	$47.76	$59.48	
Period 9			$37.20	$49.49	$61.78	
Period 10			$38.35	$51.22	$64.08	
Roofer						
Commercial Roofer Straight time is not to exceed ten (10) hours per day or forty (40) hours per week.	RO-149-WOM	8/18/2008	$48.46	$62.29	$76.62	H H D H H H D D N
Apprentice Rates:						
Apprentice 1			$32.62	$39.86	$48.04	
Apprentice 2			$36.80	$44.80	$53.30	
Apprentice 3			$38.22	$46.93	$56.14	
Apprentice 4			$39.25	$48.48	$58.20	
Apprentice 5			$40.47	$50.30	$60.64	
Apprentice 6			$41.87	$52.40	$63.44	

Classification Name / Description		Last Updated	Straight Hourly	Time and a Half	Double Time	Overtime Provision
Sheet Metal Worker						
Sheet Metal Worker	SHM-80		$57.23	$74.59	$91.94	H H D H D D D D Y
A 4 10 schedule may be worked during Monday thru		8/18/2009				
	Apprentice Rates:					
	First Year		$39.07	$47.92	$56.75	
	Second Year		$40.39	$49.89	$59.39	
	Third Year		$41.75	$51.93	$62.11	
	Fourth Year		$44.42	$55.93	$67.45	
	Fifth Year		$47.12	$59.99	$72.85	
Siding & Decking	SHM-80-SD		$39.32	$51.57	$63.82	H H H H H H H D Y
		9/2/2009				
Sprinkler Fitter						
Sprinkler Fitter	SP 704		$59.87	$79.21	$98.55	H H D H D D D D Y
4 ten hour days allowed Monday-Friday only in those weeks containing a holiday and the preceding or succeeding the holiday week		7/31/2009				
	Apprentice Rates:					
	1st Period		$24.02	$31.75	$39.49	
	2nd Period		$38.60	$47.31	$56.01	
	3rd Period		$40.53	$50.20	$59.87	
	4th Period		$42.46	$53.09	$63.73	
	5th Period		$44.40	$56.01	$67.61	
	6th Period		$46.33	$58.90	$71.47	
	7th Period		$48.27	$61.81	$75.35	
	8th Period		$50.20	$64.71	$79.21	
	9th Period		$52.13	$67.60	$83.07	
	10th Period		$54.07	$70.51	$86.95	
Terrazzo						
Terrazzo Finisher	BR1-TRF		$41.84	$52.56	$63.28	H H D H D D D D Y
A 4 ten workweek may be worked Monday thru Thursday or Tuesday thru Friday.		8/11/2009				
	Apprentice Rates:					
	Level 1		$18.11	$24.00	$29.89	
	Level 2		$19.25	$25.71	$32.17	
	Level 3		$25.69	$32.40	$39.12	
	Level 4		$27.09	$34.50	$41.92	
	Level 5		$28.53	$36.15	$43.77	
	Level 6		$30.07	$38.06	$46.06	
	Level 7		$31.68	$39.73	$47.79	
	Level 8		$33.10	$41.42	$49.74	

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Terrazzo Worker	BR1-TRW		$47.31	$60.77	$74.22	H H D H D D D D Y
A 4 ten workweek may be worked Monday thru Thursday or Tuesday thru Friday.		8/11/2009				
Apprentice Rates:						
Level 1			$23.92	$31.19	$38.47	
Level 2			$26.83	$34.85	$42.87	
Level 3			$31.79	$40.02	$48.26	
Level 4			$34.40	$43.55	$52.69	
Level 5			$36.55	$45.94	$55.33	
Level 6			$40.04	$51.10	$62.16	
Level 7			$40.67	$51.90	$63.14	
Level 8			$41.56	$53.24	$64.92	
Tile						
Tile Finisher	BR1-TF		$41.39	$51.89	$62.38	H H D H D D D D Y
A 4 ten workweek may be worked Monday thru Thursday or Tuesday thru Friday.		8/11/2009				
Apprentice Rates:						
Level 1			$18.11	$24.00	$29.89	
Level 2			$19.25	$25.71	$32.17	
Level 3			$25.69	$32.40	$39.12	
Level 4			$27.09	$34.50	$41.92	
Level 5			$28.53	$36.15	$43.77	
Level 6			$30.07	$38.06	$46.06	
Level 7			$31.68	$39.73	$47.79	
Level 8			$33.10	$41.42	$49.74	
Tile Layer	BR1-TL		$47.26	$60.69	$74.12	H H D H D D D D Y
A 4 ten workweek may be worked Monday thru Thursday or Tuesday thru Friday.		8/11/2009				
Apprentice Rates:						
Level 1			$23.92	$31.19	$38.47	
Level 2			$26.83	$34.85	$42.87	
Level 3			$31.79	$40.02	$48.26	
Level 4			$34.40	$43.55	$52.69	
Level 5			$36.55	$45.94	$55.33	
Level 6			$40.04	$51.10	$62.16	
Level 7			$40.67	$51.90	$63.14	
Level 8			$41.56	$53.24	$64.92	
Truck Driver						
on all trucks of 8 cubic yard capacity or less	TM-RB1	9/17/2008	$35.84	$36.44		H H H H H H H H Y

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of all trucks of 8 cubic yard capacity or over	TM-RB1A	9/17/2008	$35.94	$36.59		H H H H H H H H Y
on euclid type equipment	TM-RB1B	9/17/2008	$36.09	$36.81		H H H H H H H H Y
Underground Laborer Open Cut, Class I						
Construction Laborer	LAUC-Z1-1	9/18/2008	$34.39	$45.22	$56.05	H H H H H H H D Y
Apprentice Rates:						
0-1,000 work hours			$29.55	$37.96	$46.37	
1,001-2,000 work hours			$30.52	$39.41	$48.31	
2,001-3,000 work hours			$31.49	$40.87	$50.25	
3,001-4,000 work hours			$33.42	$43.77	$54.11	
Underground Laborer Open Cut, Class II						
Mortar and material mixer, concrete form man, signal man, well point man, manhole, headwall and catch basin builder, guard rail builders, headwall, seawall, breakwall, dock builder and fence erector.	LAUC-Z1-2	9/18/2008	$34.50	$45.39	$56.27	H H H H H H H D Y
Apprentice Rates:						
0-1,000 work hours			$29.64	$38.09	$46.55	
1,001-2,000 work hours			$30.61	$39.55	$48.49	
2,001-3,000 work hours			$31.58	$41.01	$50.43	
3,001-4,000 work hours			$33.53	$43.93	$54.33	
Underground Laborer Open Cut, Class III						
Air, gasoline and electric tool operator, vibrator operator, drillers, pump man, tar kettle operator, bracers, rodder, reinforced steel or mesh man (e.g. wire mesh, steel mats, dowel bars, etc.), cement finisher, welder, pipe jacking and boring man, wagon drill and air track operator and concrete saw operator (under 40 h.p.), windlass and tugger man, and directional boring man.	LAUC-Z1-3	5/5/2009	$34.55	$45.46	$56.37	H H H H H H H D Y
Apprentice Rates:						
0-1,000 work hours			$29.67	$38.14	$46.61	
1,001-2,000 work hours			$30.65	$39.61	$48.57	
2,001-3,000 work hours			$31.63	$41.08	$50.53	
3,001-4,000 work hours			$33.57	$43.99	$54.41	
Underground Laborer Open Cut, Class IV						
Trench or excavating grade man.	LAUC-Z1-4	9/18/2008	$34.63	$45.58	$56.53	H H H H H H H D Y
Apprentice Rates:						
0-1,000 work hours			$29.73	$38.23	$46.73	
1,001-2,000 work hours			$30.71	$39.70	$48.69	
2,001-3,000 work hours			$31.69	$41.17	$50.65	
3,001-4,000 work hours			$33.65	$44.11	$54.57	

Official Request 1180
Requestor: TROY SCHOOL DISTRICT
Project Description: ROOF REPLACEMENT

Project Number: MAINTENANCE & OPERATIONS BUILDING
County: Oakland

Official Rate Schedule

Every contractor and subcontractor shall keep posted on the construction site, in a conspicuous place, a copy of all prevailing wage and fringe benefit rates prescribed in a contract.

Classification Name / Description		Last Updated	Straight Hourly	Time and a Half	Double Time	Overtime Provision
Underground Laborer Open Cut, Class V						
Pipe Layer	LAUC-Z1-5	9/18/2008	$34.69	$45.67	$56.65	H H H H H H H D Y
	Apprentice Rates:					
	0-1,000 work hours		$29.78	$38.31	$46.83	
	1,001-2,000 work hours		$30.76	$39.77	$48.79	
	2,001-3,000 work hours		$31.74	$41.25	$50.75	
	3,001-4,000 work hours		$33.71	$44.20	$54.69	
Underground Laborer Open Cut, Class VI						
Grouting man, top man assistant, 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.	LAUC-Z1-6	9/18/2008	$32.14	$41.85	$51.55	H H H H H H H D Y
	Apprentice Rates:					
	0-1,000 work hours		$27.87	$35.44	$43.01	
	1,001-2,000 work hours		$28.72	$36.71	$44.71	
	2,001-3,000 work hours		$29.58	$38.01	$46.43	
	3,001-4,000 work hours		$31.29	$40.57	$49.85	
Underground Laborer Open Cut, Class VII						
Restoration laborer, seeding, sodding, planting, cutting, mulching and topsoil grading and the restoration of property such as replacing mail boxes, wood chips, planter boxes, flagstones etc.	LAUC-Z1-7	9/18/2008	$28.76	$36.78	$44.79	H H H H H H H D Y
	Apprentice Rates:					
	0-1,000 work hours		$25.33	$31.63	$37.93	
	1,001-2,000 work hours		$26.02	$32.67	$39.31	
	2,001-3,000 work hours		$26.70	$33.69	$40.67	
	3,001-4,000 work hours		$28.07	$35.74	$43.41	

ENGINEERS - CLASSES OF EQUIPMENT LIST

UNDERGROUND ENGINEERS

CLASS I

Backfiller Tamper, Backhoe, Batch Plant Operator, Clam-Shell, Concrete Paver (2 drums or larger), Conveyor Loader (Euclid type), Crane (crawler, truck type or pile driving), Dozer, Dragline, Elevating Grader, End Loader, Gradall (and similar type machine), Grader, Power Shovel, Roller (asphalt), Scraper (self propelled or tractor drawn), Side Broom Tractor (type D-4 or larger), Slope Paver, Trencher (over 8' digging capacity), Well Drilling Rig, Mechanic, Slip Form Paver, Hydro Excavator.

CLASS II

Boom Truck (power swing type boom), Crusher, Hoist, Pump (1 or more 6" discharge or larger gas or diesel powered by generator of 300 amps 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' digging capacity and smaller), Vac Truck.

CLASS III

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, ½ yard or larger), Elevator (other than passenger), Maintenance Man, Mechanic Helper, Pump (2 or more 4" up to 6" discharge, gas or diesel powered, excluding submersible pump), Pumpcrete Machine (and similar equipment), Wagon Drill Machine, Welding Machine or Generator (2 or more 300 amp or larger, gas or diesel powered).

CLASS IV

Boiler, Concrete Saw (40HP or over), Curing Machine (self-propelled), Farm Tractor (w/attachment), Finishing Machine (concrete), Firemen, Hydraulic Pipe Pushing Machine, Mulching Equipment, Oiler (2 or more up to 4", exclude submersible), Pumps (2 or more up to 4" discharge if used 3 hrs or more a day-gas or diesel powered, excluding submersible pumps), Roller (other than asphalt), Stump Remover, Vibrating Compaction Equipment (6' wide or over), Trencher (service) Sweeper (Wayne type and similar equipment), Water Wagon, Extend-a-Boom Forklift.

HAZARDOUS WASTE ABATEMENT ENGINEERS

CLASS I

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, Hydro Excavator, 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 Operator, Vactors, Vacuum Blasting Machine Operator, Vertical Lifting Hoist, Vibrating Compaction Equipment (self-propelled), and Well Drilling Rig.

CLASS II

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, Water Wagon and Welding Machine.

Revised: 05/23/08

Michigan Department Energy, Labor & Economic Growth
Wage & Hour Division
Overtime Provisions for MICHIGAN PREVAILING WAGE RATE
COMMERCIAL SCHEDULE

1. Overtime is represented as a nine character code. Each character represents a certain period of time after the first 8 hours Monday thru Friday.

	Monday thru Friday	Saturday	Sunday & Holidays
First 8 Hours		4	8
9th Hour	1	5	
10th Hour	2	6	
Over 10 hours	3	7	

Overtime for Monday thru Friday after 8 hours:
the 1st character is for time worked in the 9th hour *(8.1 - 9 hours)*
the 2nd character is for time worked in the 10th hour *(9.1 - 10 hours)*
the 3rd character is for time worked beyond the 10th hour *(10.1 and beyond)*

Overtime on Saturday:
the 4th character is for time worked in the first 8 hours on Saturday *(0 - 8 hours)*
the 5th character is for time worked in the 9th hour on Saturday *(8.1 - 9 hours)*
the 6th character is for time worked in the 10th hour *(9.1 - 10 hours)*
the 7th character is for time worked beyond the 10th hour *(10.01 and beyond)*

Overtime on Sundays & Holidays
The 8th character is for time worked on Sunday or on a holiday

Four Ten Hour Days
The last character indicates if an optional 4-day 10-hour per day workweek can be worked.

2. Overtime Indicators Used in the Overtime Provision:
   H - means TIME AND ONE-HALF due
   X - means TIME AND ONE-HALF due after 40 HOURS worked
   D - means DOUBLE PAY due
   Y - means YES. An optional 4-day 10-hour per day workweek can be worked without paying overtime after 8 hours worked.
   N - means NO. An optional 4-day 10-hour per day workweek *can not* be worked without paying overtime after 8 hours worked.

3. EXAMPLES:
   HHHHHHHDN - This example shows that the 1½ rate must be used for time worked after 8 hours Monday thru Friday *(characters 1 - 3);* for all hours worked on Saturday, 1½ rate is due *(characters 4 - 7).* Work done on Sundays or holidays must be paid double time *(character 8).* The N *(character 9)* indicates that 4 ten-hour days is not an acceptable workweek at regular pay.

   XXXHHHHDY - This example shows that the 1½ rate must be used for time worked after 40 hours are worked Monday thru Friday *(characters 1-3);* for hours worked on Saturday, 1½ rate is due *(characters 4 – 7).* Work done on Sundays or holidays must be paid double time *(character 8).* The Y *(character 9)* indicates that 4 ten-hour days is an acceptable alternative workweek.

(REV 06/04/09)

TROY SCHOOL DISTRICT
RANKIN ROOF REPLACEMENT
BID# 9634
ADDENDUM #1
Issued September 30, 2009

RE: Addendum #1 for Troy Schools Roof Specification, for roof replacement Rankin Street Warehouse – Bid #9634 dated September 15, 2009

Gentlemen:
The Following items came up at the Troy Schools Pre-Bid Meeting held on Thursday, September 24, 2009 and questions from attending contractors listed above For Bid # 9634. **All respondents to this bid MUST acknowledge receipt of this addendum with their bid submission. Failure to acknowledge this addendum may result in disqualification of bid.**

1) PART 1 GENERAL 1.2 SUMMARY ITEM 1 and ITEM 2 will now read:

ITEM 1: Over Roof Area #2 measuring 143' X 82'= 11,726 square feet: Tear-Off existing top roof, flashing and coping. Cut through existing graveled bottom roof assembly and peel-off roofing plies leaving existing 2.0" polyisocyanurate base insulation in place. Remove all wet or damaged insulation. Inspect and repair or replace rusted metal deck. Install new 2.0" Polyisocyanurate insulation to fill voids, Install new 1/2" H.D. fiberboard mechanically fastened over the entire base 2.0" Polyisocyanurate insulation to meet F.M. I-60. Install a second layer of 1/2" H.D. fiberboard in hot asphalt. Install roof saddles at east wall drain valleys. Install a new HPR modified roof with slag aggregate cover. Install all 2-ply modified flashings, sheet metal flashing, drain flashing and new perimeter metal coping. Paint all rusted metal flashing, stacks and collars.

ITEM 2: Over Roof Area #3 measuring 143' X 61' = 8,723 square feet: Tear-Off all roofing flashing and insulation down to the metal deck. Remove perimeter coping. Install new 2" X 8" nailer over existing perimeter nailers. Inspect and repair or replace rusted metal deck. Install new base layer of 1.5" Polyisocyanurate insulation screwed through the metal deck to meet F.M. I-60 followed by a top layer of 1/2" H.D. fiberboard in hot asphalt. Install roof saddles at east wall drain valleys. Install a new HPR modified roof with slag aggregate cover. Install all 2-ply modified flashings, sheet metal flashing, drain flashing and new perimeter metal coping. Paint all rusted metal flashing, stacks and collars. Install a new 30" X 36" raised curb Roof hatch and interior ladder.

2) 2.7 RELATED MATERIALS
Section D shall now read:
Provide 2 layers of asphalt coated high density ½" fiberboard substrate over 2" original and/or replaced base Polyisocyanurate insulation, Clipping the 1st layer to F.M. 1-60 and mopping on the 2nd layer in hot asphalt on Roof Area #2. Provide one layer ½" asphalt coated high density fiberboard substrate over foam insulation on Roof Area #3.
Section R shall now read:
Roof Drains: Drain system – Remove existing drains and install six (6) new metal drains, rings and baskets retrofitted to existing PVC drain lines as recommended by the membrane manufacturer.
Section T shall now read:
Sheet Metal shall be prepainted 24 gauge Galvalume steel shop fabricated to meet enclosed N.R.C.A. details.
Section V shall now read:
Sheet Metal shall be prepainted 24 gauge Galvalume steel shop fabricated to meet enclosed N.R.C.A. details.

3) PART 3-EXECUTION

3.2 Roofing Demolition Section E. shall now read:

E. Roof Peel-Off On Roof Area #2:

1. Tear-Off top roof membrane and remove loose gravel from bottom roof.
2. Peel-Off bottom roof assembly (field and flashing) down to existing 2.0" Polyisocyanurate insulation
3. Remove damaged and/or wet 2.0" Polyisocyanurate insulation.

3.8 Insulation Installation shall now read:

A. Roof Area #2: Replace the damaged and/or wet original 2.0" Polyisocyanurate with new 2.0" Polyisocyanurate insulation. fastened to FM I-60. . Install new 2.0" Polyisocyanurate insulation to fill voids, Install new 1/2" H.D. fiberboard mechanically fastened over the entire base 2.0" Polyisocyanurate insulation to meet F.M. I-60. Install a second layer of 1/2" H.D. fiberboard in hot asphalt, set with off-set joints in hot steep asphalt.

B. Roof Area #3: Install base layer of 1.5" Polyisocyanurate insulation mechanically fastened to the steel deck according to the fastening patterns following FM I-60. Install second layer consisting of 1/2 inch High-Density Fiberboard set with off-set joints in hot steep asphalt.

C. Roof Areas #2 and #3: Install roof saddles at east wall drain valleys between all drains and drains and outside walls in hot asphalt. Note: A total positive slope must be achieved with no ponded water allowed.

3.11 FLASHING MEMBRANE INSTALLATION (2-Ply. Base and Mineral Cap) Section F., Section K. and Section P. shall now read:

F. Coping Cap Detail No. MBH-20:

1. Minimum flashing height is six (6) inches above finished roof height. Maximum flashing height is twenty four (24) inches. Prime vertical wall at a rate of one hundred (100) square feet per gallon and allow to dry.

2. Set cant in bitumen. Run all field plies over cant a minimum of two (2) inches.

3. Attach new 2" X 8" wood nailer over Roof area #3.

4. Install base flashing ply covering entire wall and wrapped over top of wall and down face with six (6) inches on to field of roof and set in hot asphalt. Nail membrane at eight (8) inches o.c.

5. Install a second ply of modified flashing ply in bitumen over the base flashing ply, nine (9) inches on to the field of the roof. Apply a three-course application of mastic and mesh at all seams and allow to cure and aluminize.

6. Install continuous cleat and fasten at six (6) inches o.c. to outside wall.

7. Install new 24 gauge painted metal coping cap with sloped top face hooked to continuous cleat.

8. Fasten inside cap twenty four (24) inches o.c. with approved fasteners and neoprene washers through slotted holes which allow for expansion and contraction.

K. Roof Drain Detail No. MBH-40:

1. Remove and Replace All six (6) drains and install new cast iron drains that have rings that will accept the lead and roof plies. Plug drain to prevent debris from entering plumbing.

2. Taper insulation to drain minimum of twenty four (24) inches from center of drain.

3. Run roof system plies over drain. Cut out plies inside drain bowl.

4. Set lead/copper flashing (thirty (30) inch square minimum) in ¼ inch bed of mastic. Run lead/copper into drain a minimum of two (2) inches. Prime lead/copper at a rate of one hundred (100) square feet per gallon and allow to dry.

5. Install base flashing ply forty (40) inch square minimum in bitumen.

6. Install clamping ring and assure that all plies are under the clamping ring. Install copper gravel stop around outer perimeter of drain sump per current N.R.C.A. standards.

7. Remove drain plug and install CAST IRON strainer. Note: No plastic or polyethylene strainers are allowed. If original strainer is missing install new matching cast iron strainer.

8. Install copper gravel stop around perimeter of sump basin.

9. Adapt existing PVC drain line and connect to new cast iron drain.

P. Installation of New Roof Hatch and Interior Wall Ladder on Roof Area #3

1. Locate position of new 30" X 36" steel or aluminum roof hatch and curb at southwest corner of Roof Area #3 at District Maintenance Shop Work Area.
2. Cut hole is existing metal deck to fit prefabricated curb unit of new roof hatch.
3. Insert Prefabricated Roof Hatch and add necessary metal support bracing.
4. Install new steel ladder anchored to west wall under the roof hatch.
5. Install roof insulation, cant, new roof and flashing around new roof hatch.
6. Install walkway pads completely around all four (4) sides of roof hatch 36" wide.

The NEW Roofing Bid Proposal Form shows changes in Scope of Work Item 1 and Item 2 and Unit Prices Item 9. Thickness of Base Insulation on Roof #2 is 2" and **not** 2-1/2" thick.

ROOFING BID PROPOSAL FORM

To: Troy School District
4400 Livernois, Troy, Michigan 48098

The undersigned declares that he has carefully examined the instructions and Specifications dated August 17, 2009 and will furnish these items with such Specifications for the price set forth in this bid.

The undersigned has checked carefully the bid figures and understands that he shall be responsible for any error of omission in this bid offer and is in receipt of all addenda as issued.

It is understood and agreed that all items bid will be delivered f.o.b. job site and remain firm for at least forty-five (45) days from date of bid opening. It is further understood and agreed that the Troy School District Board of Education reserves the right to reject any or all bids, or parts of bids, or to split awards by items or to accept bids, which will best serve the interests of the Board of Education.

FIRM BIDS FOR ROOF REPLACEMENT TROY RANKIN MAINTENACE WAREHOUSE:

ITEM 1: Over Roof Area #2 measuring 143' X 82'= 11,726 square feet: Tear-Off existing top roof, flashing and coping. Cut through existing graveled bottom roof assembly and peel-off roofing plies leaving existing 2.0" polyisocyanurate base insulation in place. Remove all wet or damaged insulation. Inspect and repair or replace rusted metal deck. Install new 2.0" Polyisocyanurate insulation to fill voids, Install new 1/2" H.D. fiberboard mechanically fastened over the entire base 2.0" Polyisocyanurate insulation to meet F.M. I-60. Install a second layer of 1/2" H.D. fiberboard in hot asphalt. Install roof saddles at east wall drain valleys. Install a new HPR modified roof with slag aggregate cover. Install all 2-ply modified flashings, sheet metal flashing, drain flashing and new perimeter metal coping. Paint all rusted metal flashing, stacks and collars. Issue manufacturer's 25 year No Dollar Limit roof warranty with a firm bid for the total sum of $_____

(_____)

ITEM 2: Over Roof Area #3 measuring 143' X 61' = 8,723 square feet: Tear-Off all roofing flashing and insulation down to the metal deck. Remove perimeter coping. Install new 2" X 8" nailer over existing perimeter nailers. Inspect and repair or replace rusted metal deck. Install new base layer of 1.5" Polyisocyanurate insulation screwed through the metal deck to meet F.M. I-60 followed by a top layer of 1/2" H.D. fiberboard in hot asphalt. Install roof saddles at east wall drain valleys. Install a new HPR modified roof with slag aggregate cover. Install all 2-ply modified flashings, sheet metal flashing, drain flashing and new perimeter metal coping. Paint all rusted metal flashing, stacks and collars. Install a new 30" X 36" raised curb Roof hatch and interior ladder. Issue manufacturer's 25 year No Dollar Limit roof warranty with a firm bid for the total sum of $_____

(_____)

ITEM 3: SUM TOTAL OF ALL ITEMS 1 AND 2 ON TROY RANKIN MAINTENACE WAREHOUSE AS LISTED ABOVE FOR THE FIRM BID OF $_____

(_____)

REVISED PAGE ONE OF TWO

2009 TROY SCHOOLS ROOFING BID PROPOSAL FORM (CONTINUED)

ROOFING PROPOSAL SUPPLEMENT FOR UNIT PRICES ROOFING PROJECTS

The unit prices listed below shall be submitted with bid. The unit prices shall be utilized in conjunction with minor additions or deletions to the work of this contract, or for work required due to unforeseen conditions.
The unit prices listed will also be used in awarding miscellaneous repairs to various schools. Unit prices submitted shall include all cost of materials, labor, insurance, taxes, bond premiums, overhead and profit.

UNIT PRICES
The cost of work, added to or omitted from this contract, shall be computed at the prices listed below:

1. Steel deck scrape rust and paint with red oxide primer….....$_____(Per Sq. Ft.)

2. Steel Deck Replacement.....…….…….. $_____(Per Sq. Ft.)

3. New 4" cast iron drain and Installation /no additional piping…….….....$_____(Each)

4. New drain piping to existing drain lines….....$_____(Per Lin. Ft.)

5. 2" x 4" wood nailers (to replace damaged) installed…….....$_____(Per Lin. Ft.)

6. 2" x 6" wood nailers (to replace damaged) installed……...$_____(Per Lin. Ft.)

7. 2" x 8" wood nailers (to replace damaged) installed…….……. $_____(Per Lin. Ft.)

8. 2" x 10" wood nailers (to replace damaged) installed…….……. $_____(Per Lin. Ft.)

9. 2.0" Polyisocyanurate Rigid Insulation Board to Replace Unsalvageable (damaged or wet) original base insulation on Roof Area #2:

1-5 squares…$_____(Per Sq. Ft.)

6-20 squares..$_____(Per Sq. Ft.)

> 20 squares...$_____(Per Sq. Ft.)

Proposal Guarantee Bid Bond _____ Certified Check _____ .

RECIPT OF ADDENDUM #1 HEREBY ACKNOWLEDGED:_____

Name of Company _____.

Signature and Title _____.
of Representative

Address _____.

Telephone _____ Fax Number _____

Start Date _____ Terms _____ Date _____.

Estimated Time of Completion _____days

REVISED PAGE TWO OF TWO

END OF ADDENDUM #1

Troy School District
Roofing Replacement-Rankin
Bid 9634

	Esko Roofing	Port Huron Roofing	Royal Roofing	Lutz Roofing	Fisher Roofing	T.F. Beck Co.	Crane Roofing	Ann Arbor Roofing	LaDuke Roofing
Base Quote Item #1	$ 64,858.00	$ 78,600.00	$ 82,465.00	$ 90,600.00	$ 85,630.00	$ 101,746.00	$ 97,475.00	$ 99,200.00	$ 114,224.00
Base Quote Item #2	49,928.00	65,000.00	62,385.00	73,200.00	72,820.00	82,740.00	81,890.00	83,500.00	84,274.00
Base Quote Item #3	**112,786.00**	**143,600.00**	**144,850.00**	**158,000.00**	**158,450.00**	**$169,691.00** if #1 & #2 awarded	**179,365.00**	**182,700.00**	**198,498.00**
Unit Prices									
Steel deck scrape rust/sq ft.	3.75	3.20	1.85	1.25	1.85	1.00	3.50	3.50	3.25
Steel deck replacement/sq ft.	7.00	6.00	5.00	5.50	6.50	5.50	6.00	6.00	5.00
New 4" cast iron drain/each	1,000.00	1,200.00	650.00	600.00	550.00	660.00	475.00	1,000.00	675.00
New drain piping/lin ft.	12.00	12.00	25.00	20.00	18.00	6.00	30.00	150.00	T & M
2" x 4" wood nailers/lin ft	3.50	3.00	2.25	3.50	1.75	2.00	2.00	3.50	3.50
2" x 6" wood nailers/lin ft	3.75	3.50	2.75	3.75	2.25	2.50	2.50	4.00	3.70
2" x 8" wood nailers/lin ft	3.85	3.80	3.00	4.00	2.70	3.00	3.00	4.50	3.90
2" x 10" wood nailers/lin ft	4.10	4.00	3.50	4.25	3.20	4.00	4.00	5.00	4.10
2.0" Insulation Board									
1-5 squares/sq ft	4.00	1.85	2.00	1.50	1.60	3.53	2.25	3.50	0.95
6-20 squares/sq ft	3.75	1.80	1.90	1.40	1.40	3.49	2.25	3.00	0.92
>20 squares/sq ft	3.50	1.75	1.70	1.25	1.35	3.47	2.25	2.50	0.90
Addendum #1 Acknowledgement	**No**	**No**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**

Christen/Detroit: Bid retracted prior to opening
Duralast: No Response
J.K.M. Enterprises: No Response
North Roofing: No Response
Schena Roofing: No Response
Schreiber Corp.: No Familial Disclosure Submitted
Stephenson Roofing: No Response