

INSTRUCTIONS TO BIDDERS

Replacement of the existing approximate 9,660 square foot roofing system (Area 3) with new adhered APDM roofing.

Optional areas include (Area 1) approximately 1,122 square feet and (Area 2) approximately 6,160 square feet. The Contractor shall inspect and advise the owner on the need to replace these areas of roofing with new adhered EPDM roofing. The owner will make final determination on replacement of these areas of roofing.

Repair or replace deteriorated or damaged steel deck in accordance with Section 2.

The Work will be in accordance with the attached Specifications.

All bidding Contractors shall attend a mandatory pre-bid walk through on Monday, September 24, 2007, at 10:00 a.m. Contractors shall meet in the lobby at the Department of Public Safety, 804 East High Street, Mt. Pleasant, Michigan 48858.

The sealed bids must be received at 1:30 p.m. on Monday, October 8, 2007, for consideration. Roof bids must be clearly marked on the outside of the envelope to ensure they are opened at the correct time. The sealed bids shall be mailed or delivered to:

Nancy Ridley
City of Mt. Pleasant
401 North Main Street
Mt. Pleasant, Michigan 48858

All inquiries or requests for clarification should be addressed to:

Greg Walterhouse
City of Mt. Pleasant
804 East High Street
Mt. Pleasant, Michigan 48858
Phone: (989) 779-5152

All bids shall be in full conformity with the Specifications. Bids are to be firm and cannot be withdrawn for a period of 30 calendar days after opening. Bids submitted by telephone, or facsimile, will not be accepted. The Owner reserves the right to reject any and all bids and to award the Contract to other than the low bidder, and to waive irregularities and/or formalities.

Bids shall state price in both figures and writing, shall be signed personally by the bidder and by a partner or a duly authorized officer for the corporation, and shall give the bidder's business address and telephone number.

Bids shall be based only on the materials, construction and equipment named or described in the Contract Documents. Suggested voluntary alternate bids for work other than that specified or shown will be given due consideration, but are subject to the terms and requirements of the General Conditions of the Contract.

Submit a minimum of three references with contact information.

Bid/Construction Schedule

Bids sent September 12, 2007

Mandatory pre-bid meeting on September 24, 2007, 10:00 a.m.

Bids due on October 8, 2007, 1:30 p.m.

Bids considered by City Commission on October 22, 2007.

Start of work Monday, October 29, 2007

Work completed Friday, November 30, 2007.

TAXES

The City of Mt. Pleasant is tax exempt.

Sealed bids shall also include all premiums, assessments, and other like payments, charges, and costs incidental to the work covered by the Contract Documents.

BID SHEET

AREA	EPDM ADHERED ROOF	STEEL DECK REPAIR REPLACEMENT	MASONRY WORK
Area 1 1,122 square feet			
Area 2 6,160 square feet			
Area 3 9,600 square feet			

GENERAL REQUIREMENTS

1. INSURANCE

The Contractor shall provide proof of insurance in the following amounts.
The City shall be listed as an additional insured.

INSURANCE REQUIREMENTS		
Type	Limit of Liability	City Contractors
Worker's Compensation And Employer's Liability	Statutory Coverage B \$100,000	X
Public Liability		
Bodily Injury	\$250,000 each person \$500,000 each accident	X
Property Damage	\$250,000 each accident \$250,000 each aggregate	X
Automobile Liability		
Bodily Injury	\$250,000 each person \$500,000 each accident	X
Property Damage	\$250,000 each accident \$250,000 each aggregate	X
Additional Insured		
Clause	City of Mt. Pleasant to be specifically named in policy as additional insured	X
Excess liability (required unless risk normal)	\$1,000,000 each occurrence	X

2. SUMMARY OF WORK

It is not the intent of this summary to include all items required to accomplish the Work. The Contractor shall take whatever steps necessary to assure that all work required which is not described herein, but required for a complete and watertight Work product, shall be completed at no additional cost to the Owner.

All work shall be completed no later than thirty (30) days from issuance of the contract.

Replacement of the existing approximate 9,660 square foot roofing system (Area 3) with new adhered APDM roofing.

Optional areas include (Area 1) approximately 1,122 square feet and (Area 2) approximately 6,160 square feet. The Contractor shall inspect and advise the owner on the need to replace these areas of roofing with new adhered EPDM roofing. The owner will make final determination on replacement of these areas of roofing.

Repair or replace deteriorated or damaged steel deck in accordance with Section 2.

- A. Remove existing roofing, all insulation, and sheet metal to expose the roof deck and flashing substrates.
- B. Removal of any abandoned roof penetrations and curbs and repair of the roof deck.
- C. Review of existing roof deck conditions with the Owner for verification of conditions and determination of roof deck treatments.
 - 1. Determination of treatment of existing roof deck in-place prior to deck treatment.
 - 2. Documentation of the square footage of in-place roof deck materials to be repaired or replaced.
 - 3. Documentation of the amounts of new materials, either 22 ga. Roof deck or roof deck coatings, used for each repair or replacement location.
- D. Review of the existing roof deck to determine if fastening is in compliance with current building code, and increasing deck fastening on an as needed basis, as is required by the Michigan Rehabilitation Code for Existing Buildings.
- E. Replacement of deteriorated nailers.
- F. Inspection of existing roof drains and replacement on an as needed basis as authorized by the Owner.
- G. Installation of new roof insulation and tapered insulation saddles.
- H. Installation of new adhered single-ply roofing system and all associated flashings, sealants, accessories, and new sheet metal components required for watertight roofing systems.
- I. Complete any incidental tuckpointing or removal and replacement of sealant assemblies associated with sheet metal flashings and terminations

in masonry walls, which are required in the new roofing system to provide a complete and watertight roofing system.

- J. Remove and replace coping system, including required nailers and waterproofing beneath the new sheet metal components, as needed.

3. STEEL DECK ROOF

- A. The work covered under this section includes the removal and replacement of deteriorated steel roof decking, overlay of deteriorated decking with new steel decking, and cleaning and painting rusted steel decking. Type of roof deck rehabilitation treatment and quantities shall be reviewed with the Owner prior to proceeding, and documented for accurate and fair compensation to the Contractor by the Owner.
- B. The Work also includes installation of new roof decking or flat stock steel over openings created by the removal of abandoned roof penetrations and curbs.
- C. The Contractor is responsible for providing the following submittals to the Owner. These submittals must be reviewed by the Owner prior to any authorized new roof deck work.
 - 1. Manufacturer's literature on steel deck panels
 - 2. Shop drawings of deck layout, perimeter closures, supplementary framing, deck penetrations, the roof sump assemblies, and other accessories.
- D. The Contractor shall be responsible for the proper submittal of all Shop Drawings to the Owner for review. The drawings shall have been checked by the Contractor prior to such submission and shall carry a notice of the Contractor's approval. Drawings shall clearly state the name of the manufacturer and code number, sizes, etc. For simplicity, in most cases, only one material has been specified to denote standard of quality and performance; however, other makes having the same quality, similar construction and appearance may be submitted for approval prior to the closing of bids.
- E. Acceptance of Shop Drawings by the Owner does not relieve Contractor from the full performance of the Contract.
- F. Sections of roof deck to be removed shall be reviewed and verified by the Contractor and Owner.
- G. Criteria for roof deck replacement shall include the following conditions:

1. Significant corrosion and pitting of the steel deck resulting in holes through the deck.
 2. Significant corrosion of steel deck resulting in loss of integrity of deck ribs.
 3. Corrosion resulting in a loss of cross section deck thickness of 50 percent or more.
- H. Areas of isolated holes in the deck shall be repaired with either 18 gauge flat stock steel, or by overlaying new steel roof deck.
- I. All cutting that may be necessary shall be carefully done by the Contractor. Damage through the neglect of this clause shall be made good by the Contractor.
- J. No cutting of structural members or burning or drilling of holes through beams shall be done without written approval of the Owner.
- K. New steel decking shall be minimum 22 gauge, AISI G90 galvanized steel. Acceptable manufacturers are:
- A. United Steel Deck, Inc.
 - B. Vulcraft Div., Nucor Corp.
 - C. Other deck manufacturers may be submitted for the Owner's review and approval prior to award of contract.
- L. New deck units shall be 1-1/2 inch wide rib (Type B), and have a minimum yield strength of 33 ksi, as specified by the Steel Deck Institute (SDI). New deck sheets shall be 36 inches wide, or match existing as applicable.
- M. Where required, perimeter closure plates shall be fabricated from ASTM A526 galvanized sheet metal being the same thickness as the steel roof deck.
- N. Where required, sump pans shall be fabricated from 14 gage galvanized steel, and shall have dimensions of 33 inches by 29 inches, with a 1-1/2 in drop. Flanges shall be three inches.
- O. Steel reinforcement for underdeck support shall be as follows:

- A. For roof sump openings and curbed penetrations up to 36 inches by 36 inches reinforcement steel shall be 3 inches by ¼ inch angle.
 - B. For curbed openings larger than 36 inches by 36 inches, reinforcement steel shall be 4 inch by 4 inches by 3/8 inch angle.
- P. Fasteners for side laps shall be size 12, carbon steel screws, case hardened in accordance with AISI 1022. Thread-per-inch rating and minimum length requirements of fasteners shall be as required by the specific fastener manufacturer for the use, performance requirements, and deck thickness specified herein. Hot dipped threaded fasteners are not acceptable for this application.
- Q. Flat stock sheet metal for repair of holes smaller than 10 inches in diameter, shall be minimum 18 gage, and shall conform to ASTM A361, with a G90 galvanized coating.
- R. Paint for treatment of wire brush cleaned sections of rusted steel roof deck shall be a rust inhibiting primer specifically manufactured for coating steel. Acceptable manufacturers and products are:
- A. Benjamin Moore & Co. – M07-70 Universal Metal Primer Modified Alkyd Primer
 - B. Pittsburgh Paints (PPG) – MultiPrime® 97-680 Series Modified Alkyd Primer
- S. For coating of corroded structural steel components, prime and top coat shall be a direct to rust epoxy mastic coating, tinted to blend with existing steel components. Acceptable manufacturers and products are:
- A. Benjamin Moore & Co. – M45L Series Low Cure Epoxy Mastic Coating.
 - B. Pittsburgh Paints (PPG) – Pitt Guard® 97-946 Series Direct-To-Rust Epoxy Mastic Coating.
- T. Before starting work, shut off all utilities that will effect installation of the new roof deck. This activity shall be coordinated with the facility maintenance personnel. After the work is complete coordinate activation of utilities with facility personnel.
- U. The Contractor shall be responsible on a daily basis for verifying the presence of all conduit, fire protection, or other components which may be

attached to the underside of the roof deck in the day's work area. This shall be performed before any roof deck replacement begins. All components attached to the underside of the deck shall be restored to their current condition or better upon completion of this project.

- V. The Contractor shall ensure polyethylene or other type of interior protection is installed in areas of exposed roof deck prior to commencing roof deck removal and replacement, or repair activities.
- W. New steel roof deck and all associated accessories, fasteners and welds shall be installed in accordance with the deck manufacturer's recommendations, and SDI requirements and design standards. Should a discrepancy arise, the more stringent standard shall apply.
- X. Steel deck repairs shall be in accordance with SDI recommendations, and as specified herein.
- Y. After removing existing roofing, demolition of the existing steel deck to expose the structural framing shall be performed.
- Z. Care must be taken to protect the building interior during the deck replacement operations.
 - AA. Exposed structural steel which exhibits corrosion shall be cleaned and treated with the specified epoxy coating.
 - BB. Do not remove any more deck than can be replaced and made watertight in a single day. Leaving sections of the building open is unacceptable.
 - CC. Place deck on structural steel roof framing so that the units are flat and square to one another along both the transverse and longitudinal axis of the units. Care shall be taken not to bend or damage the side lap interlocks.
 - DD. Ends shall be centered over bearing points. Position units to be aligned accurately and to provide a minimum 4-inch end lap before anchoring in place. At no time shall the end of a new steel deck panel have less than 3 inches bearing on structural steel.
 - EE. New steel deck replacement units shall be a minimum of two spans. Single span deck replacement is not acceptable. Contractor shall review existing structural steel and provide the Owner a layout verifying the minimum two span requirement will be met prior to installing any new deck panels.

- FF. Where possible, weld steel deck units to the supporting steel at ends and intermediate supports not more than 12 inches on center, providing a minimum 3/4 fastening pattern. Welding shall comply with the requirements of the American Welding Society (AWS). Welds shall be installed in the deck ribs at each supporting member. Use welding washers where required by the steel roof deck manufacturer and SDI.
- GG. If welding of the steel deck is not feasible, new deck units shall be fastened to the supporting steel with a minimum size 12 threaded steel fasteners specifically designed for anchoring metal roof deck to structural steel. Fasteners shall be installed six inches on center in the deck ribs.
- HH. Fasten side laps with self-tapping size 12 or larger threaded fasteners spaced a maximum of 36 inches on center.
- II. Steel closure plate shall be installed in locations along the perimeters where deck layout results in conditions unsuitable for supporting the new roof insulation. All gaps 3 inches wide or larger shall be covered.
- JJ. Where deteriorated steel roof deck is not removed and replaced, but exhibits corrosion too severe for recoating, new 22 gauge steel decking or 18 gauge flat stock steel shall be overlaid over the existing roof deck.
 - A. Existing deteriorated roof deck shall be cleaned and coated as described in 3.40 of this Section.
 - B. After new coatings have been applied, overlay the existing deck. New overlayment shall be fastened in place using size 12 fasteners as described in Paragraphs 3.25 and 3.26 of this Section.
- KK. If required as part of the roof deck replacement, install additional steel angle cross bracing between structural steel support members at the roof drain locations. Specified steel angles shall be welded to the roof deck and provide a steel support cradle for installation of the sump pan.
- LL. Cut out steel roof deck within the cross bracing to accommodate the sump pan. Place sump pan, and anchor with a minimum size 12 threaded fastener placed in each corner and the center point of each side. After anchoring the sump pan in place, cut out center to accommodate new roof drain assembly.

MM. Remove roof penetrations and curbs designated by the Owner as abandoned.

4. JOB CONDITIONS

- A. The existing roofing and the new roofing shall not be used as a staging platform unless the roof is properly protected and materials are properly supported in a manner acceptable to the Owner, and meeting applicable local building codes and MIOSHA requirements. Ground level staging area shall be chosen so as to minimize damage to landscaping and disruption of vehicular and pedestrian traffic.
- B. Roofing operations shall not be conducted when winds can disturb materials. Incomplete work shall be protected by providing suitable ballast to prevent blow off by wind.
- C. Removed materials shall not be thrown from the roof. Chutes or appropriate devices shall be employed to convey debris to proper containers.
- D. The Contractor shall clean out all roof drains, gutters, scuppers, and conductors prior to start of work and maintain and protect them throughout the course of the work.
- E. Provide materials and equipment which are, by compliance with appropriate standards, recognized in the construction industry as being suitable for intended use in each case, and capable of being maintained properly through the course of anticipated use at the project site.
- F. Electrical Power Cords: Use only grounded extension cords; “hard-service” type where exposed to abrasion and traffic. Use single lengths, or tape intermediate connections with waterproof electrical tape, or use waterproof connectors.
- G. Tarpaulins: Tarpaulins shall be waterproof and fire-retardant type, UL labeled with a flame spread rating of 15 or less.
- H. The Contractor shall provide two rolls of tarpaulins specified above, which shall be stored inside the facility, for use in covering equipment if a leak occurs during the roofing operations.
- I. Fire Extinguishers: Provide 10 pound ABC dry chemical extinguishers or a combination of several extinguishers of NFPA recommended types for exposures in each case. Maintain a minimum of one fire extinguisher of

each type at the site. A current certification tag shall be affixed to each extinguisher.

- J. Plywood: Plywood shall be exterior type, prime painted and finished painted. For safety barriers and similar direct-contact uses, provide minimum 5/8 inch thick plywood.

5. USE OF PREMISES

The Contractor expressly undertakes at its own expense:

- A. To stage materials, equipment and employee vehicles to ensure the truck bay doors are not blocked at any time during this project.
- B. To take every precaution against injuries to persons or damages to property.
- C. To comply with the regulations governing the use of premises which are occupied and to perform the Contract in such a manner as not to interrupt or interfere with the operations of the facility.
- D. To store apparatus, materials, supplies and equipment in such orderly fashion as will not unduly interfere with the progress of their Work or the Work of any subcontractors.

6. CONTRACTOR'S SUPERINTENDENT

- A. The Contractor shall provide the services of a competent superintendent from the beginning of the Work to the date of final completion of the Contract.
- B. The Superintendent shall be at all times in charge of the Work, shall be provided with such assistance as is necessary to properly carry on the individual branches of the Work, and shall at all times maintain competent supervision of the Contractor's own Work and that of its subcontractors to ensure compliance with the Contract requirements.
- C. The Superintendent and on-site Foreman shall coordinate with the Owner's Consultant for approval and proper documentation of quantities for all steel deck repair or replacement to ensure full and prompt reimbursement from the Owner. Deck treatments not approved by the Owner and properly documented shall not be compensated for.
- D. The Contractor shall provide a staff adequate to coordinate and expedite the Work properly.

- E. The Contractor shall be solely responsible for all construction means, methods, techniques, sequence and procedures and for coordinating all portions of the Work under the Contract.
- F. The Contractor shall be solely responsible for initiating, maintaining, and supervising all safety precautions and programs connected with the Work.

7. CUTTING AND PATCHING

- A. The Contractor shall do all cutting, fitting, or patching that may be required to make several parts of the Work come together properly.
- B. Any cost caused by defective or ill-timed work shall be borne by the Contractor.
- C. The Contractor shall not endanger any work by cutting or otherwise, and shall not cut or alter the work of any other contractor, except with the written consent of the Owner.

8. CLEANING

- A. The Contractor shall at all times keep the Owner's premises and the adjoining premises, driveways, and streets clean of rubbish caused by the Contractor's operations and at the completion of the work shall remove all the rubbish, tools, equipment, temporary work and surplus materials, from and about the premises, and shall leave the Work clean and ready for use. If the Contractor does not attend to such cleaning immediately upon request, the Owner may cause such cleaning to be done by others and charge the cost of same to the Contractor.
- B. The Contractor shall clean up all rubbish from employee's lunches and breaks, including food wrappers, drink containers, bags, cups and other debris, immediately at the end of the lunch period or break. At no time shall such debris be left strewn about the site, either on the surface of the roof or on the ground.
- C. The Contractor will be responsible for all damage from fire which originates in, or is propagated by, accumulations of rubbish or debris resulting from the Work.
- D. All rubbish and debris shall be disposed of off the Owner's property in an approved landfill site. No open burning of debris or rubbish will be permitted. Job site shall be left neat and clean at the completion of each day's operation. Dumpster location must be approved by the owner and ground pads shall be placed under the dumpster to protect the ground surface.

E. In addition to all of the above requirements, upon completion of the Work or of an individual section thereof, the Contractor, immediately prior to turning over the Work or completed portion thereof to the Owner, shall arrange for the proper and complete performance of the following:

- Removal of paint, adhesive, primer or bitumen spillage or overspray, smeared caulking or sealing compounds and similar defects, from all finish surfaces including mechanical and electrical devices and equipment.
- Removal and replacement of caulking or sealant beads not properly adhering to substrate.
- Restoration of previously finished surfaces damaged due to failure or removal of protective measures.
- Cleaning by washing all soiled concrete walks where exposed.

F. The Contractor's employees shall at no time wear dirty work boots, gloves or clothing into the building, except as required in the case of an emergency. Contractor shall clean all stains resulting from dirty boots or clothing from the interior and exterior of the building.

9. TEMPORARY ELECTRICAL SERVICE

A. The Contractor shall provide and maintain any temporary electrical service required for the Work. At the completion of the Work, all such temporary electrical facilities shall be removed and disposed of by the Contractor.

B. Temporary service shall comply with the regulations and requirements of the National Electric Code and any local rules and regulations governing temporary electrical installation.

10. TEMPORARY TELEPHONE SERVICE

No use of the Owner's telephones will be permitted.

11. WATER FOR CONSTRUCTION

A. Water for construction or demolition will be available on the site.

- B. Methods of conveying this water shall be approved by the Owner's Representative and shall not interfere with the operations of the facility.
- C. At the completion of the Work, all such methods of conveying water shall be removed.

12. DRINKING WATER AND SANITARY FACILITIES

- A. The Contractor will provide drinking water facilities adequate for all personnel engaged in the Work, located in a readily accessible location.
- B. The Contractor shall provide necessary temporary sanitary facilities. Use of Owner's facilities will not be permitted. The location of temporary sanitary facilities shall be approved by the Owner prior to site delivery.

13. CONTRACTOR'S MEASUREMENTS

- A. Before ordering material, preparing Shop Drawings, or doing any work, each Contractor shall perform field measurements at the building to verify all dimensions which may affect the Work.
- B. The Contractor shall also verify in-place materials to ensure new materials are adequate to meet Project requirements. Any discrepancies shall be brought to the attention of the Owner for clarification before bids are submitted.
- C. The Contractor assumes full responsibility for the accuracy of the field measurement figures, and for installation of appropriate materials. No allowance for additional compensation will be considered for discrepancies of actual field dimensions, or due to the Contractor's failure to verify in-place materials.

14. CONTRACTOR'S RESPONSIBILITY

It is not the responsibility of the Owner to notify the Contractor when to commence, to cease, or to resume work; to give early notice of the rejection of faulty work; nor in any way to superintend so as to relieve the Contractor of responsibility for any consequences of neglect or carelessness.

15. PROGRESS MEETINGS

When directed by the Owner, meetings shall be held for the purpose of coordinating, expediting, and reviewing the Work. The Contractor and subcontractors will be required to have qualified representatives at these meetings, empowered to make decisions concerning the Project.

16. WORK SCHEDULE

Before the signing of the Contract, a definite time schedule shall be agreed upon in general by all parties concerned, and within a reasonable time after the Contractor has been notified by the Owner of being awarded the Contract, they shall submit to the Owner a schedule of operations giving the dates that each part or branch of the Work will be started and completed.

17. LAYING OUT THE WORK

The contractor shall lay out all work in accordance with existing ordinances, clearances and conditions and establish all equipment locations.

18. CONTINUITY OF SERVICES

Continuity of all existing services in the building shall be maintained throughout the construction period. Where it is necessary to tie into the existing electrical service, water or waste systems, it shall be done as directed by the Owner. The Contractor shall also provide temporary lines or bypasses that may be required to maintain continuous service in the building.

19. GLASS PROTECTION

The Contractor will be held responsible for all breakage or other damage to glass up to the time the Work is completed.

20. FIRE PREVENTION

Take all precautions to eliminate possible fire hazards at the site, including but not limited to enforcing the following requirements:

- All combustible debris shall be removed from the building and storage areas on a daily basis, including empty paint, adhesive, and primer containers, oily rags, bitumen mops, etc.
- No bitumen heating kettles shall be allowed in the building, or within 50 feet of building exterior walls, except with written authorization from the Owner designating the exact location.
- Paints, thinners, adhesives, primers or other highly flammable materials shall be stored only in well-ventilated areas at ground level, unless otherwise approved by the Owner, and all mixing and preparation shall be restricted to such areas. All such materials shall be handled in accordance with safe practice and the requirements of

authorities having jurisdiction, and in no case shall empty containers, or oily or paint soaked rags be left in the building at the end of a shift.

- No open fires on the site.
- Insofar as possible, avoid storage of large quantities of flammable materials at the site.
- Gasoline may not be stored in any building at any stage of the construction.

21. WELDING

- A. No open flame welding will be permitted within the building or upon the building except by express permission of the Owner.
- B. All welding, insofar as possible, shall be done with an electric arc welding machine. However, the same protective means as outlined above must be employed.

22. SMOKING

There shall be no smoking on the roof, within the building, or in any area where flammable materials are being stored or used. The Contractor shall be responsible for the conduct of the Contractor's employees relative to this smoking restriction.

23. USE OF SYSTEM

The placing of work or any part thereof into use, even though with the Owner's consent, shall not be construed as acceptance of the work by the Owner, nor shall it be construed to obligate the Owner in any way to accept improper work or defective materials.

24. STANDARD SPECIFICATIONS

- A. Code Listing: Any referenced standards which are part of the Building Code in effect for this project shall comply with the edition date published in the referenced edition of the Building Code.
- B. Non-code Listings: Any reference to standards of any society, institute, association, or governmental agency which is not part of the Building Code for this project shall be the edition in effect at the time of opening of bids, except as otherwise specifically stated in this Project Manual.

- C. Rules, regulations or laws of any controlling governmental agency shall govern when they are more stringent than the requirements of these contract specifications.

25. INSPECTION AND TESTS

- A. The Owner shall at all times have access to the work wherever it is in preparation or in progress, and the contractor shall provide proper facilities for such access and for observation.
- B. No failure of the Owner, during the progress of the Work, to discover or reject materials or work not in accordance with the Contract Specifications and Drawings shall be deemed an acceptance thereof nor a waiver of defects therein and no payment or partial or entire occupancy of the premises by the Owner shall be construed to be an acceptance of work or materials which are not strictly in accordance with the Contract Documents.
- C. Where tests are specifically called for in the Specifications, the Owner shall pay all costs of such tests and engineering services. Where tests are not specifically called for in the Specifications, but are required by the Owner, the Owner shall pay all costs of such tests and engineering services unless the tests indicate that the workmanship or materials used by the Contractor are not in conformity with the Drawings, Specifications, or approved Shop Drawings. In such event, the Contractor shall pay for the tests, shall remove all work and materials so failing to conform and replace it with work and materials that are in full conformity.

26. SUBMITTALS

- A. All submittals required by the Specifications shall be submitted in the number stated in an individual specification Section.
- B. Each sample shall be clearly identified with an attached label, showing the project number and title, the names of the Contractor, manufacturer (and supplier if same is not the manufacturer), the brand name or number identification, pattern, color or finish designation, and the location in the work.
- C. Each submittal shall be covered by a transmittal letter, properly identified with the project title and number and a brief description of the item being submitted.
- D. Contractor shall be responsible for all costs of packing, shipping and incidental expenses connected with delivery of the samples to the Owner.

- E. If the initial sample is not approved, prepare and submit additional sets until approval is obtained.
- F. Materials supplied or installed which do not conform to the appearance, quality, profile, texture, or other determinant of the approved samples, will be rejected and shall be replaced with satisfactory materials at the Contractor's expense.

27. PARKING

A limited number of parking spaces will be made available in locations at the site designated by the Owner. The Contractor shall be responsible for ensuring all personnel engaged in the project comply with the Owner's requirements.

28. ACCIDENT PREVENTION AND PROCEDURES

- A. Promptly report in writing to the Owner all accidents which cause death, personal injury or property damages, arising out of or in connection with the performance of the Work, whether on or adjacent to the site. Where death or serious injuries or serious damages are caused, the accident shall be reported immediately by telephone or messenger to the Owner.
- B. If any claim is made by anyone against the Contractor or any subcontractor on account of any accident, promptly report the facts in writing to the Owner giving full detail of the claim.

29. PROJECT SAFETY

- A. Contractor shall assume full responsibility for complying with and enforcing all rules and regulations of all federal, state, and municipal authorities having jurisdiction, including those of any Occupational Safety and Health Act.
- B. The requirements outlined hereinafter are to be considered as minimal, and where the requirements of any of the above authorities having jurisdiction conflict with the requirements of this section, the maximum condition shall prevail.
- C. Any items damaged due to failure to comply with these requirements shall be corrected or replaced, to the satisfaction of the Owner without cost to the Owner.
- D. Assume full responsibility for enforcing compliance with any protective measures indicated in specific sections of the work.

- E. Provide all barricades, night lanterns, guard rails, and other safety measures at points of danger in accordance with the requirements of federal, state, and municipal regulations.

30. OWNER-OCCUPIED AREAS

The Contractor shall protect occupied areas from damage by the elements, infiltration of dust, and supply the Owner with a schedule of specific daily work areas and hours prior to roofing renovation operations.

31. FORM OF GUARANTEE

Contractor shall provide the Owner of the Contractor's standard 2-year warranty and manufacturer's 20 year warranty for the new adhered EPDM roofing system.

32. COMPLIANCE WITH CODES AND REGULATIONS

The entire work shall be carried out in full compliance with all applicable laws, codes, rules and regulations of all federal, state, and municipal governments and authorities having jurisdiction. It shall be the duty of the Contractor to fully understand all such requirements and to ensure that such are fully and faithfully carried out. All permits and associated fees shall be the responsibility of the Contractor to apply for and pay for.

33. JOB CONDITIONS

- A. The Contractor shall make provisions for secure storage of materials and equipment while at the project site. The Owner shall not be held responsible for any materials or equipment missing from the site or damaged by vandalism, nor shall the Owner be charged for replacement of any missing or damaged materials or equipment.
- B. The Owner will coordinate site access with the Contractor to minimize any inconvenience to the Owner. This facility will be occupied and in use during this work. If necessary, the Contractor shall phase all work so site access is always available. The Contractor will provide and install all necessary temporary signage required.
- C. Confine equipment, storage of materials, debris, and the operations and movement of workmen within the limits established by the Owner.
- D. Existing components and finishes damaged during this work shall be restored to original condition or shall be replaced with new materials as directed by the Owner.

- E. Proceed with this work only when weather conditions will permit unrestricted use of materials and installation methods for the work being done. During periods of cold weather work, all mastics, primers, and sealants must be stored warm, and must remain warm until immediately prior to usage.
- F. The Contractor shall be responsible for laying out the work on site in conformance with the Project Documents and shall be responsible for any damage caused by reason of any inaccuracy on its part.

34. UTILITIES

- A. Prior to any field work, a meeting shall be scheduled between the Contractor and the Owner. The purpose of this meeting is to locate all used and non-used utilities within the work area and to identify all abandonments to be removed from the roof.
- B. Do not interrupt existing utilities serving facilities occupied and used by the Owner, except when permitted in writing by the Owner and then only after acceptable temporary utility services have been provided.
- C. Existing utility systems and service lines remaining, if damaged, shall be repaired at the Contractor's expense. If specified, relocation of existing utility systems and service lines to accommodate the completion of the project shall be accomplished in accordance with local codes and ordinances. Contractor shall contact utility companies for information pertaining to locations and construction of existing utility lines.

35. PERMITS, REGULATIONS, AND INSPECTIONS

- A. All demolition and site clearance is subject to all provisions of applicable local ordinances and regulations.
- B. All work shall be executed and inspected in accordance with the codes of all state, county, and local authorities having jurisdiction.
- C. All fees for licenses and inspection shall be paid by the Contractor.
- D. Should any changes in the Specifications be required to conform to the regulations of regulatory agencies, the Contractor shall notify the Owner at the time of bid submittal. After entering into the Contract, the Contractor will complete all work necessary for the complete and approved installation without extra expenses to the Owner.

36. QUALITY CONTROL – GENERAL REQUIREMENTS

- A. The Owner may employ and pay for the services of a Consultant to perform quality control and testing during installation to determine if materials and methods conform to the Specifications.
- B. The Contractor shall furnish such casual labor as is necessary to obtain and handle samples at the project or at other sources of materials.
- C. The Contractor is responsible to advise the Owner and Consultant sufficiently in advance of operations to allow completion of quality tests and for the assignment of personnel. A minimum of 24 hour notice to the Consultant is required in order to schedule field personnel for quality control testing.

37. LANDSCAPING

- A. Asphalt and concrete paved surfaces and concrete sidewalks shall be protected with steel plates or plywood against spillage or breakage due to construction traffic associated with materials storage and staging. All stained or broken pavement and sidewalks shall be cleaned or replaced by the Contractor at no additional cost to the Owner.
- B. As much as possible, grassy landscaped surfaces shall be protected with plywood sheathing to minimize damages. Landscaping shall be returned to the original condition at the close of the project.
- C. Site irrigation shall be marked by the Owner prior to project start up, and irrigation zones affecting materials storage and staging shall be turned off. The Contractor shall be responsible for protecting existing irrigation lines and sprinkler heads from construction activities. All damages to the irrigation system as a result of roofing activities shall be repaired by the Contractor at no cost to the Owner.

38. STORAGE

- A. Fire and Police Department emergency response departure routes shall be clear at all times. At no time shall garage doors be blocked by vehicles, ladders, materials, or equipment.
- B. Store materials and equipment only within designated staging area or contract limits.
- C. Stored materials shall not interfere with building operations, be exposed to weather if unsuitable, or invite tampering or theft. Storage is at the Contractor's risk.

39. DUST/POLLUTION CONTROL

- A. Provide protection facilities, operate temporary facilities, conduct construction activities, and enforce strict discipline for personnel at the project site in ways and by methods which comply with environmental protection regulations, and which minimize the possibility that air might be polluted or that other undesirable and deleterious effects might result from performance of the Work at the project site.
- B. Roof deck removal operations can cause considerable dirt and dust in the building space or ceiling space. Where roof deck removal is required, follow the procedures listed below:
 - 1. If there is not a ceiling, or if the ceiling is the lay-in type, all of the critical equipment and furniture within the space shall be covered as directed by the Owner.
 - 2. If possible, shut down the air handling units during removal operations. If not, install 85% efficiency filters and new prefilters.
 - 3. During removal and replacement of roofing components or roof decking, station a laborer in the space below with a vacuum cleaner and portable radio, and instructions to begin immediate cleanup if dust and dirt begin to enter the space, and to report excess fumes or dangerous conditions to the foreman. The superintendent shall check the space at least every 30 minutes.

40. SECURITY

- A. Do not allow unauthorized persons in the work area. Carefully monitor and control all access to work areas.
- B. Exercise all due care, caution, and control as required to secure and maintain the work and staging areas.
- C. As this facility houses Police and Fire Department operations, access to the building interior shall be restricted with only those Contractor employees necessary for safety watch during roof deck treatments and the subsequent clean up allowed inside the building.

41. FIRE PRECAUTIONS

- A. If gasoline powered hoists are to be used, they shall be shut down for refueling. Gasoline in small containers shall be stored in approved safety cans at least 50 feet away from the building.

B. Trash receptacles shall not be located near openings in the building wall.

42. CONSTRUCTION AIDS

- A. Provide scaffolding, ramps, runways, staging, temporary stairs, ladders, sheeting, shoring, cross-lot bracing, bridges, guard rails, barriers, closures, demolition waste chutes, platforms, swing stages, and temporary partitions. Except as otherwise indicated, design, construction, and maintenance of these facilities is sole responsibility of the Contractor. Provide facilities as needed to accommodate the entire work of the project.
- B. Construct demolition waste chutes of spiral-formed metal ducts, or of heavy plywood or wood planking, rigidly braced and tightly joined so as to minimize dust disbursement. Support securely at each floor level. Provide water spray system at discharge of chute, adequate to eliminate noticeable dust disbursement. When necessary to adequately control dust, wrap chute with plastic tarpaulins and provide temporary enclosure at discharge.
- C. Provide adequate hoisting facilities for both materials and employees. Do not allow employees to ride hoists which comply only with requirements for materials hoisting. Selection of type, size, and number of hoisting facilities for temporary use at project site is Contractor's option. Shore existing floors as required to accommodate special load requirements of any temporary hoisting devices.

43. BARRICADES, WARNING SIGNS AND LIGHTS

Comply with recognized standards and code requirements for erection of substantial and structurally adequate barricades where needed to prevent accidents and losses. Where exposure potential exists, paint with appropriate colors, graphics, and warning signs to inform personnel at site, and the general public, of the hazard being protected. Provide lighting, including flashing red lights where appropriate.

44. TEMPORARY ENCLOSURES

- A. Provide temporary enclosures of material, equipment, work in progress, and completed portions of work so as to afford protection for both the work and persons from whatever deleterious effects may result from general exposure, foul weather, construction operations and similar elements and activities at the site. Coordinate temporary enclosures with ventilating and trying-of-the-work requirements so as to avoid dangerous conditions and deleterious effects.

- B. Provide enclosures by securely installing tarpaulins or other equivalent materials, using a minimum of wood framing and other combustible materials. Close floor/deck openings with substantial load-bearing wood-framing, or provide barriers or handrails with warning signs and lights. Any fall protection enclosures are to meet MIOSHA standards.
- C. Where temporary wood/plywood enclosure exceeds 100 square feet in area, use fire-retardent treated wood/plywood (UL labeled "A") for main sheathing, and use a minimum of non-treated wood framing and trim; or use other equivalent fire-resistive materials.

45. SAFETY

- A. Contractor shall establish safety requirements to cover the following:
 - 1. For the protection from injury to employees engaged in the execution of the Contract and to other persons;
 - 2. To prevent damage to property, materials, and equipment; and
 - 3. To avoid work interruptions in the performance of the Contract.
- B. Contractor shall maintain an accurate records of:
 - 1. All accidents resulting in personal injury or property damage;
 - 2. Proper investigation of the cause of the same; and
 - 3. Corrective actions whenever necessary.
- C. Notification in writing of non-compliance with the requirements as specified herein shall be given to the subcontractor by the Contractor. The subcontractor, after receipt of such notice, shall immediately correct the condition. Such notice given by the Contractor shall be deemed sufficient for the purpose.
- D. Contractor is to bind every subcontractor, and every subcontractor shall be bound to the terms of these Specifications to the same degree and in the same sense as though they were the Contractor.

46. OPERATIONS AND TERMINATIONS

- A. Maintained Operations: Maintain operation of temporary enclosures, heating, cooling, humidity control, ventilation, and similar facilities on a 24-hour-per-day basis where required to achieve indicated results in the work, and avoid possibility of damage to the work and temporary

facilities. Prevent water filled piping and vessels from freezing, whether temporary or permanent, by either drainage or by insulating or heating.

- B. Termination and Removal: When need has ended for each temporary construction facility, or for a substantial element of the facility, or when it has been replaced by authorized use of a permanent facility, or not later than time of substantial completion, the Contractor shall promptly remove each temporary facility unless requested to retain it for a longer period of time. Complete work which may have been delayed because of interferences caused by temporary facilities, and restore work which may have been affected by temporary facilities. Repair damaged work, clean exposed surfaces, and replace work which cannot be satisfactorily restored. Except as otherwise indicated, materials and equipment of temporary facilities remain the property of the Contractor.

47. MASONRY WORK

- A. The work required under this Division shall include all materials, labor, equipment, and services necessary to furnish and install masonry components in accordance with the Specifications.
- B. Base Bid work consists of incidental tuckpointing of masonry walls as required for a complete and watertight roof and flashing installation, and rehabilitation of weeps on brick masonry wall if applicable.
- C. Materials and construction methods shall follow the practice defined by the following standard specifications unless otherwise specified:
 - 1. American Society for Testing and Materials (ASTM) Standards Specified.
 - 2. Brick Industry Association (BIA) Standards.
- D. No new work shall be started without the written approval of the Owner if temperature is anticipated to drop below 40 degrees F for the next 24 hour period or if it is raining.

48. MASONRY SUBMITTALS

- A. The Contractor shall be responsible for providing the following submittals to the Owner. These samples must be reviewed by the Owner prior to any authorized site operations.
 - 2. Provide copies of independent testing of proposed mortar mixes, indicating compliance with ASTM C270, Type S mortar, and tested in accordance with ASTM C780 requirements.

3. Provide copies of materials' certificates signed by material producer and supplier, certifying that each material item complies with, or exceeds, specified requirements. Certificates for brick shall be of tests performed within six months of material purchase date.
- B. After all required submittals have been reviewed, and prior to any restoration work, the Contractor is responsible to convene a pre-construction meeting with the representatives of the Owner with Suppliers in attendance to review specific project installation details and scheduling.

49. MORTAR MATERIALS

- A. Cement – Portland Cement conforming to ASTM C150, Type I.
- B. Masonry Cement – conforming to ASTM C91
- C. Lime – Hydrated lime conforming to ASTM C207, Type S
- D. Aggregates – Natural sands meeting the specifications of ASTM C144.
- E. Water – Clean, potable and free of injurious materials.

50. MASONRY ACCESSORIES

- A. Through wall flashing shall be Perm-A-Barrier as manufactured by Grace Construction Products. Wall flashing membrane shall be a nominal 40 mil thickness, self-sealing rubberized asphalt laminated to a polyethylene film.
- B. Mastics, primers, and sealants for flashing shall be the standard products recommended by flashing membrane manufacturer.
- C. Weep components shall consist of cotton ropes.
- D. Backer rods shall be closed cell polyethylene or an open celled polyethylene rod, or as recommended by the sealant manufacturer. Backer rods shall be a minimum of 50% larger than the opening to be caulked.
- E. Bond breakers shall be a tape material recommended by the sealant manufacturer.
- F. A thermosetting building sealant such as polysulfide (Thiokol), polyurethane or approved equal shall be used to caulk joints and seal sheet metal components.

- G. Primer for caulk shall be of the type recommended by the sealant manufacturer.
- H. Water repellent sealer for limestone coping shall be Chemtrete BSM-40 or preapproved equivalent.

51. DELIVERY, STORAGE AND HANDLING

- A. All materials shall be delivered to the site in their original containers with seals unbroken, and with each container bearing a label identifying the contents and the manufacturer.
- B. All labels shall clearly indicate:
 - 2. Name of manufacturer
 - 3. Manufacturer's product name or product number
 - 4. Manufacturer's lot number
 - 5. Mix ratio
 - 6. Hazardous material rating and appropriate warnings for handling.
- C. Store materials in dry areas and protect. All material shall be stored at temperatures above 40 degrees F, but at no time shall storage temperatures exceed 90 degrees F. Any material damaged by moisture, temperature, and/or poor storage or handling procedures shall be replaced at the Contractor's expense.
- D. Provide material safety data sheets for all materials.

52. MASONRY REHABILITATION PROCEDURES

- A. Work is to be scheduled and done in such manner to allow for maximum use of the entire facility by Owner.
- B. Dispose daily of all debris resulting from this work off the site in an approved manner.
- C. Provide and maintain temporary protection to prevent damage to the brick veneer, roofing, and windows during installation and until rehabilitation activities are complete. When possible, complete masonry rehabilitation (tuckpointing) before new roofing is installed.

- D. Where required, protection of the roof membrane shall consist of rigid foam insulation laid out over the membrane, and overlaid with a plywood working surface.
- E. Provide all necessary shielding of exits, vehicles, and equipment, which are to remain within or adjacent to work area.
- F. Brush clean all masonry as work progresses. Allow mortar droppings to dry and remove by trowel, rubbing or brushing. Clean cured masonry per manufacturer's specifications, however no acidic cleaners shall be used.
 - 2. Cleaners used must be compatible with the new roofing system
 - 3. Any damages to the new EPDM roofing from masonry cleaning solutions shall be repaired at no cost to the Owner.

53. INCIDENTAL TUCKPOINTING

- A. Tuckpointing shall be performed on the masonry wall between upper and lower roofs on an as needed basis to ensure a watertight roofing system.
- B. New mortar shall be pointed into the joints to flush with the surface of the brick masonry. Mortar color and consistency shall be matched to the existing.
- C. After allowing the mortar to set to a stiff consistency, joints shall be tooled to match existing construction.

54. WEEP REHABILITATION

- A. Contractor shall effect any necessary sealant or mortar repairs required as the result of this work task.

55. PROTECTION AND CLEAN-UP

- A. Clean all brick masonry, limestone coping, sheet metal flashings, and EPDM roofing with an approved cleaner or soda blasting, using an airless sprayer, and brushes as needed. Care must be taken not to cause leakage into the building, or damage any new or existing building components.
- B. Clean up all areas and remove all debris, rubbish, and excess from the site.

56. COORDINATION OF THE WORK

- A. The Contractor shall coordinate the work of the other trades and building occupants in order to avoid delays and interferences in the Work, or disruptions of normal Fire and Police Department business activities.
- B. Should conflicts or interferences occur with the work of other contractors on the job, the Contractor shall consult with them for the proper allocation of space and for the arrangement of equipment and materials. In the event of disagreement the matter shall be referred to the Owner for settlement.

57. INSTALLATION

- A. The Contractor shall carry on work in such a manner as to conform to the dates outlined in the progress schedule and, when he has not pursued his work diligently, he shall carry on his work in one or more shifts or by overtime so that all work may be completed within the time as outlined. This shall not be construed as authorization of extra expenses by any Contractor.