

**SPECIFICATIONS &
CONTRACT DOCUMENTS**

FOR

**PAYNE RECREATION CENTER
GYMNASIUM ROOFING PROJECT**



CITY OF MORAINE, OHIO
MONTGOMERY COUNTY

OCTOBER 2019

THIS SHEET LEFT INTENTIONALLY BLANK

DOCUMENT 00 01 10 - TABLE OF CONTENTS

00 01 10 Table of Contents

BIDDING REQUIREMENTS

Legal Notice
Bidding Information
Instructions to Bidders
Contractor's Insurance
Contractor Alert
AIA A305 Contractor's Qualification Statement
 Bid Guaranty and Contract Bond
 Affidavit-Personal Property Taxes
 Affidavit-Non-Collusion
 Affidavit-Corporate Authorization
 Affidavit-Drug and Alcohol Policy and Procedure
 Affidavit-ORC 3517.13 Compliance
 Affidavit-Insurance
 Affidavit-Compliance Prevailing Wages
 DMA Forms
 Government Business and Funding Contracts
 Certificate of Fiscal Officer
 Proposal / Bid Form

PREVAILING WAGES

Asbestos Local 50 Zone 2
Labor Local 1410 Building
Roofer Local 75
Sheet Metal Local 24 [Dayton]

CONTRACT

Form of Contract Agreement

TECHNICAL SPECIFICATIONS

01 00 00 General Requirements
01 33 00 Submittals
02 41 00-07 01 50 Demolition and Maintenance of Roofing
06 10 53 Rough Carpentry for Roofing
07 53 00-07 62 00-07 71 00
 Roofing & Sheet Metal and Specialties

REPORTS

Adhesion Reports

DRAWINGS

A1.1 Project Information
A1.2 Roof Plan / Roof Matrix / Roof Details

END OF DOCUMENT

THIS SHEET LEFT INTENTIONALLY BLANK

BIDDING REQUIREMENTS

THIS SHEET LEFT INTENTIONALLY BLANK

LEGAL NOTICE
ADVERTISEMENT FOR BIDS

The City of Moraine will receive sealed bid proposals for **PAYNE RECREATION CENTER GYMNASIUM ROOFING PROJECT** until **October 22nd, 2019** at **10:00 a.m.** local time, at the Moraine Municipal Building, 4200 Dryden, Moraine, Ohio, 45439 at which time and place they will be publicly opened and read aloud.

Copies of the specifications, proposal and contract forms are available on the City's website: www.ci.moraine.oh.us, "About the City" tab, "Legal Notices" on dropdown menu.

A mandatory pre-bid meeting and walk-through will be held on October 15, 2019, at 10:00 a.m. at Payne Recreation Center Building, 3800 Main St., Moraine, Ohio 45439.

Each proposal shall be signed with the full name and business address of each interested company and shall be accompanied by a security bond issued by a bonding company authorized to do business in the State of Ohio, or by a certified check on a solvent bank in the amount of ten percent (10%) of the amount of the submitted main contract proposal. Bond or certified check must be payable to the City of Moraine as a guarantee that if the proposal is accepted, a contract will be executed and its performance secured by a satisfactory bond in the amount of one hundred percent (100%) of the contract price or irrevocable letter of credit.

The proposal must be made on the forms provided in the Contract Documents, or a copy thereof, with a price quoted for the proposed maintenance services.

City Council reserves the right to accept or reject any or all proposals, to waive any informalities or irregularities in the bids received, or to accept any proposal which is deemed most favorable to the City of Moraine.

Mike Davis, Acting City Manager

Advertised: October 2, 2019, October 9, 2019

THIS SHEET LEFT INTENTIONALLY BLANK

BIDDING INFORMATION

All bids must be submitted on forms provided in this packet. Bids must be regular in every respect and no changes, deletions, or special conditions shall be made or included in the bid form.

Bid documents shall be submitted in a sealed envelope, marked with the Bidder's return address, and be labeled "Bid Documents for Municipal Building Roofing Project" and addressed as follows:

To: Mike Davis
Acting City
Manager
City of Moraine
4200 Dryden Road
Moraine, OH 45439

Bid Opening: October 22nd, 2019, at 10:00 a.m. local time.

No Bidder may withdraw its bid after the specified time of the opening of the bids.

A mandatory pre-bid meeting and walk through will be held October 15, 2019, at 10:00 a.m. at Payne Recreation Center, 3800 Main St. Moraine, Ohio 45439.

NO FURTHER INSPECTIONS OR QUESTIONS WILL BE PERMITTED AFTER THE PRE-BID MEETING AND WALK-THROUGH.

Project Estimated Amount: \$130,000.00

THIS SHEET LEFT INTENTIONALLY BLANK

INSTRUCTIONS TO BIDDERS

1. Bidding documents include the Bidding Requirements and the proposed Contract Documents. The Bidding Requirements consist of the Legal Notice or Invitation to Bid, Instructions to Bidders, Supplementary Instructions to Bidders, the bid for, and contract forms. The proposed Contract Documents consist of the form of agreement between the Owner and Contractor, Conditions of the Contract (General, Supplemental, and other Provisions), Specifications and all Addenda issued prior to the execution of this Contract.
2. The Bidder, by making a Bid, represents that:
 - A. The Bidder has read and understands the Bidding Documents and the Bid is made in accordance herewith.
 - B. The Bidder has read and understands the Bidding Documents or contract documents to the extent that such documentation relates to the work for which the Bid is submitted.
 - C. The Bidder has visited sites, become familiar with local conditions, become familiar with the equipment listed in the Contract Documents, and has correlated the Bidder's personal observations with the requirements of the proposed Contract Documents and shall report to the Superintendent errors, inconsistencies or ambiguities discovered.
 - D. The Bid is based upon the materials, equipment and systems required by the Bidding Documents without exception.
3. Interpretations, corrections and changes of the Bidding Documents will be made by Addendum. Interpretations, corrections and changes of the Bidding Documents made in any other manner will not be binding, and Bidders shall not rely upon them.
4. Addenda
 - A. Addenda will be mailed or delivered to all who are known by the issuing office to have received a complete set of Bidding Documents.
 - B. Copies of Addenda will be made available for inspection wherever Bidding Documents are on file for that purpose.
 - C. No Addenda will be issued later than four (4) days prior to the date for receipt of Bids except an Addendum withdrawing the request for Bids or one that includes postponement of the date for receipt of Bids.

- D. Each Bidder shall ascertain prior to submitting a Bid that the Bidder has received all Addenda issued, and Bidder shall acknowledge receipt in the Bid.
5. Bidding Procedures – Form and Style of Bids
- A. Bids shall be submitted on forms identical to the form included with the Bidding Documents.
 - B. All blanks on the bid form shall be filled in by typewriter or manually in ink.
 - C. Where indicated by the makeup of the bid form, sums shall be expressed in both words and figures, and in case of discrepancy between the two, the amount written in words shall govern.
 - D. The signer of the Bid must initial alterations and erasures.
 - E. Each copy of the Bid shall include the legal name of the Bidder and a statement that the Bidder is a sole proprietor, partnership, corporation, or other legal entity. Each copy shall be signed by the person or persons legally authorized to bind the Bidder to a contract. A bid by a corporation shall further give the State of incorporation and have the corporate seal affixed. A bid submitted by an agent shall have a current power of attorney attached certifying the agent's authority to bind the Bidder.
6. Bidding Procedures – Submission of Bids
- A. All copies of the Bid and other documents required for submission with the Bid shall be enclosed in a sealed envelope. The envelope shall be addressed to the party receiving the Bids and shall be identified with the project name, and the Bidder's name and address. If the Bid is sent by mail, the sealed envelope shall be enclosed in a separate mailing envelope with the notation "SEALED BID ENCLOSED" on the face thereof.
 - B. Bids shall be deposited at the designated location prior to the time and date for receipt of Bids. Bids received after the time and date for receipt of Bids will be returned unopened.
 - C. Bidder shall assume full responsibility for timely delivery at the location designated for receipt of Bids.
 - D. Oral, telephonic or telegraphic Bids are invalid and will not receive consideration.

- E. A Bid must remain open for acceptance for a period of sixty (60) days from the date of bid opening. A bid may be extended thereafter upon mutual agreement of the Owner and the Bidder.
7. Bidding Procedures – Modification or Withdrawal of Bid
- A. A Bid may not be modified, withdrawn or canceled by the Bidder during the stipulated period following the time and date designated for the receipt of Bids, and each Bidder so agrees in submitting a Bid.
 - B. Prior to the time and date designated for receipt of Bids, a Bid submitted may be modified or withdrawn by notice to the party receiving Bids at the place designated for receipt of such Bids. Such notice shall be in writing over the signature of the Bidder or by telegram. If by telegram, written confirmation over the signature of the Bidder shall be mailed and postmarked on or before the date and time set for receipt of Bids. A change shall be so worded as not to reveal the amount of the original Bid.
 - C. Withdrawn Bids may be resubmitted up to the date and time designated for the receipt of Bids provided they are then in full conformance with these Instructions to Bidders.
8. The Owner is soliciting Bids pursuant to the bid process. If the Owner awards a Contract, it shall be to the lowest responsible Bidder provided the Bid has been submitted in accordance with the requirements of the Bidding Documents and does not exceed the funds available. The Owner shall have the right to waive informalities or irregularities in a Bid. The Owner shall have the right to reject any or all Bids, reject a Bid not accompanied by any data required by the Bidding Documents, or reject a Bid that is in any way incomplete or irregular.
9. The Owner shall have the right to accept Alternates in any order or combination, unless otherwise specifically provided in the bidding Documents, and to determine the low Bidder on the basis of the sum of the base Bid and Alternates accepted.
10. Bidders to whom award of a Contract is under consideration shall submit a Contractor's Qualification Statement.
11. Persons and entities proposed by the Bidder and to whom the Owner and Superintendent have made no reasonable objection must be used on the work for which they were proposed and shall not be changed except with written consent of the Owner and Superintendent.
- 12. This is a prevailing wage job and the successful Bidder must comply with all applicable laws, rules and regulations applicable thereto.**

THIS SHEET LEFT INTENTIONALLY BLANK

Contractor's and Subcontractor's Insurance

SECTION 11. The Contractor and/or subcontractor on this work will be required to take out and maintain during the life of this Contract, the comprehensive commercial insurance listed below, and approval of the insurance by the Owner shall not relieve or decrease the liability of the Contractor hereunder. The Contractor shall purchase the insurance listed below to protect the Owner and authorized representatives from all claims incurred by the action(s) of the Contractor and/or subcontractors in completion of this work.

- I. Compensation and Employees' General Liability Insurance
The Contractor shall procure and shall during the life of this Contract hold Workers Compensation coverage for all of Contractor's employees to be engaged in work under this Contract; and in case any such work is sublet, the Contractor shall require the subcontractor similarly to provide Workers Compensation coverage for all of the latter's employees to be engaged in such work, unless such employees are covered by the protection afforded by the Contractor's Workers Compensation coverage. The Employees Liability limit shall be as provided by statutory requirements of the State. In case any class of employees is engaged in hazardous work protected under the Workers Compensation statute, the Contractor shall provide and shall cause each subcontractor to provide Employer's General Liability Insurance for the protection of such of his employees not otherwise protected.

- II. Public Liability and Owner's or Contractor's Protective Insurance
The Contractor shall take out and maintain this type of insurance and shall require any of his subcontractors performing work covered by the Contract to do the same in order to protect themselves from claims for damage to property which may arise from operations under this Contract, whether such operations be by Contractor or by any Subcontractor or by anyone directly or indirectly employed by either of them.
 - A. (Comprehensive) Automobile Liability Coverage:
 - i. Bodily injury including wrongful death in an amount not less than Five Hundred Thousand Dollars (\$500,000.00) for each person and One Million Dollars (\$1,000,000.00) for each accident.
 - ii. Property damage in an amount not less than One Hundred Thousand Dollars (\$100,000.00) for each accident.

 - B. (Comprehensive) General Liability Coverage:
 - i. Bodily injury including wrongful death in an amount not less than Five Hundred Thousand Dollars (\$500,000.00) for

each person and One Million Dollars (\$1,000,000.00) for each accident, and

- ii. Property damage in an amount not less than One Hundred Thousand Dollars (\$100,000.00) for each accident, and an aggregate liability of Two Hundred Fifty Thousand Dollars (\$250,000.00).

III. Scope of Insurance and Special Hazards

The insurance required under paragraph II hereof shall be primary insurance and provide adequate protection for the Owner, its elected officials, employees, or volunteers, Contractor and subcontractor respectively, against damage claims which may arise from operations under this Contract, whether such operations are by the insured or by anyone directly or indirectly employed by Contractor, and also against any of the special hazards which may be encountered in the performance of the Contract. Each of the aforesaid policies shall include the Owner as named insured and will provide that such policy will not be canceled until after the Owner shall have been given twenty (20) business days written notice of the proposed cancellation. Contractor's insurance shall be the primary insurance, and any insurance maintained by Owner, its elected officials, employees, or volunteers shall be excess to the Contractor's insurance and shall not contribute to it.

Contractor agrees to hold Owner harmless and indemnify Owner, its elected officials, employees, and volunteers for any and all claims resulting from the actions of the Contractor, its officials, employees, volunteers, and any subcontractors.

CONTRACTOR'S ALERT

REMINDER

If you are the successful bidder for work on any state, county, township, municipal corporation, school district, or other political subdivision of the State of Ohio, please keep in mind that if after award of the contract you are required to perform additional work as a result of the enactment or amendment of any statutes, ordinances, and regulations, including but not limited to those dealing with prevention of environmental pollution, then you are entitled to a change order for the cost of said additional work plus reasonable profit. The owner must issue a change order describing said additional work to you. **NOTE: You are not entitled to payment until an approved change order has been issued.**

THIS SHEET LEFT INTENTIONALLY BLANK

AIA[®] Document A305[™] – 1986

Contractor's Qualification Statement

The Undersigned certifies under oath that the information provided herein is true and sufficiently complete so as not to be misleading.

SUBMITTED TO:

ADDRESS:

SUBMITTED BY:

NAME:

ADDRESS:

PRINCIPAL OFFICE:

- Corporation
- Partnership
- Individual
- Joint Venture
- Other

NAME OF PROJECT: *(If applicable)*

TYPE OF WORK: *(File a separate form for each Classification of Work.)*

- General Construction
- HVAC
- Electrical
- Plumbing
- Other: *(Specify)*

This form is approved and recommended by the American Institute of Architects (AIA) and The Associated General Contractors of America (AGC) for use in evaluating the qualifications of contractors. No endorsement of the submitting party or verification of the information is made by AIA or AGC.

§ 1.0 ORGANIZATION

§ 1.1 How many years has your organization been in business as a Contractor?

§ 1.2 How many years has your organization been in business under its present business name?

§ 1.2.1 Under what other or former names has your organization operated?

§ 1.3 If your organization is a corporation, answer the following:

§ 1.3.1 Date of incorporation:

§ 1.3.2 State of incorporation:

§ 1.3.3 President's name:

§ 1.3.4 Vice-president's name(s):

§ 1.3.5 Secretary's name:

§ 1.3.6 Treasurer's name:

§ 1.4 If your organization is a partnership, answer the following:

§ 1.4.1 Date of organization:

§ 1.4.2 Type of partnership, if applicable.

§ 1.4.3 Name(s) of general partner(s):

§ 1.5 If your organization is individually owned, answer the following:

§ 1.5.1 Date of organization:

§ 1.5.2 Name of owner:

§ 1.6 If the form of your organization is other than those listed above, describe it and name the principals:

§ 2.0 LICENSING

§ 2.1 List jurisdictions and trade categories in which your organization is legally qualified to do business, and indicate registration or license numbers, if applicable.

§ 2.2 List jurisdictions in which your organization's partnership or trade name is filed.

§ 3.0 EXPERIENCE

§ 3.1 List the categories of work that your organization normally performs with its own forces.

§ 3.2 Claims and Suits

(If the answer to any of the questions below is yes, attach details.)

§ 3.2.1 Has your organization ever failed to complete any work awarded to it?

§ 3.2.2 Are there any judgments, claims, arbitration proceedings or suits pending or outstanding against your organization or its officers?

§ 3.2.3 Has your organization filed any law suits or requested arbitration with regard to construction contracts within the last five years?

§ 3.3 Within the last five years, has any officer or principal of your organization ever been an officer or principal of another organization when it failed to complete a construction contract?

(If the answer is yes, attach details.)

§ 3.4 On a separate sheet, list major construction projects your organization has in progress, giving the name of project, owner, architect, contract amount, percent complete and scheduled completion date.

§ 3.4.1 State total worth of work in progress and under contract:

§ 3.5 On a separate sheet, list the major projects your organization has completed in the past five years, giving the name of project, owner, architect, contract amount, date of completion and percentage of the cost of the work performed with your own forces.

§ 3.5.1 State average annual amount of construction work performed during the past five years:

§ 3.6 On a separate sheet, list the construction experience and present commitments of the key individuals of your organization.

§ 4.0 REFERENCES

§ 4.1 Trade references:

§ 4.2 Bank references:

§ 4.3 Surety

§ 4.3.1 Name of bonding company:

§ 4.3.2 Name and address of agent:

§ 5.0 FINANCING

§ 5.1 Financial Statement

§ 5.1.1 Attach a financial statement, preferably audited, including your organization's latest balance sheet and income statement showing the following items:

- .1 Current Assets (e.g., cash, joint venture accounts, accounts receivable, notes receivable, accrued income, deposits, materials inventory and prepaid expenses);
- .2 Net Fixed Assets;
- .3 Other Assets;
- .4 Current Liabilities (e.g., accounts payable, notes payable, accrued expenses, provision for income taxes, advances, accrued salaries and accrued payroll taxes); and
- .5 Other Liabilities (e.g., capital, capital stock, authorized and outstanding shares par values, earned surplus and retained earnings).

§ 5.1.2 Name and address of firm preparing attached financial statement, and date thereof:

§ 5.1.3 Is the attached financial statement for the identical organization named on page one?

§ 5.1.4 If not, explain the relationship and financial responsibility of the organization whose financial statement is provided (e.g., parent-subsidiary).

§ 5.2 Will the organization whose financial statement is attached act as guarantor of the contract for construction?

§ 6.0 SIGNATURE

§ 6.1 Dated this _____ day of _____ 20____

Name of organization:

By:

Title:

§ 6.2

M _____ being
duly sworn deposes and says that the information provided herein is true and sufficiently complete so as not to be
misleading.

Subscribed and sworn before me this _____ day of _____ 20____

Notary Public:

My commission expires:

CAUTION: You should sign an original AIA Contract Document, on which this text appears in RED. An original assures that changes will not be obscured.

THIS SHEET LEFT INTENTIONALLY BLANK

Bid Guaranty and Contract Bond

(ORC 153.571)

KNOW ALL MEN BY THESE PRESENTS, that we, the undersigned

_____, as Principal, and

_____, as Surety, are hereby

held and firmly bound unto the *City of Moraine* as Obligee in the penal sum of the

dollar amount of the bid submitted by the Principal to the Obligee on

_____ to undertake the Project known as the

PAYNE RECREATION CENTER GYMNASIUM ROOFING PROJECT

The penal sum referred to herein shall be the dollar amount of the Principal's bid to the Obligee, incorporating any additive or deductive alternate proposals made by the Principal on the date referred to above to the Obligee, which are accepted by the Obligee. In no case shall the penal sum exceed the amount of

_____ dollars

(\$_____).

(If above line is left blank, the penal sum will be the full amount of the Principal's bid, including alternates. Alternatively, if completed, the amount stated must not be less than the full amount of the bid, including alternates, in dollars and cents. A percentage is not acceptable.)

For the payment of the penal sum well and truly to be made, we hereby jointly and severally bind ourselves, our heirs, executors, administrators, successors, and assigns.

Signed this _____ day of _____, 2019.

THE CONDITION OF THE ABOVE OBLIGATION IS SUCH that whereas the above named Principal has submitted a bid for _____

NOW, THEREFORE, if the Obligee accepts the bid of the Principal and the Principal fails to enter into a proper contract in accordance with the bid and specifications; and in the event the Principal pays to the Obligee the difference not to exceed ten percent of the penalty hereof between the amount specified in the bid and such larger amount for which the Obligee may in good faith contract with the next lowest bidder to perform the work covered by the bid; or in the event the Obligee does not award the contract to the next lowest bidder and resubmits the project for bidding, the Principal pays to the Obligee the difference not to exceed ten percent of the penalty hereof between the amount specified in the bid, or the costs, in connection with resubmission, of printing new contract documents, required advertising, and printing and mailing notices to prospective bidders, whichever is less, then this obligation shall be null and void, otherwise to remain in full force and effect. If the Obligee accepts the bid of the Principal and the Principal within ten days after award of the contract enters into a proper contract in accordance with the bid and specifications, which said contract is made a part of this bond the same as though set forth herein; and

IF THE SAID _____ shall well and faithfully do and perform the things agreed by the *City of Moraine, Ohio* to be done and performed according to the terms of said contract; and shall pay all lawful claims of

subcontractors, materialmen, and laborers, for labor performed and materials furnished in the carrying forward, performing, or completing of said contract; we agreeing and assenting that this undertaking shall be for the benefit of any materialman or laborer having a just claim, as well as for the Obligee herein; then this obligation shall be void; otherwise the same shall remain in full force and effect; it being expressly understood and agreed that the liability of the Surety for any and all claims hereunder shall in no event exceed the penal amount of this obligation as herein stated.

THE SAID Surety hereby stipulates and agrees that no modifications, omissions, or additions in or to the terms of said contract or in or to the plans or specifications therefore shall in any way affect the obligations of said Surety on its bond.

Principal:

Surety:

By:_____

By:_____

Title:_____

Title:_____

THIS SHEET LEFT INTENTIONALLY BLANK

AFFIDAVIT

Regarding payment of Montgomery County Personal Property Taxes (Bidder to complete and execute either Part A or Part B).

STATE OF _____)

) SS:

COUNTY OF _____)

Part A. That _____, being duly sworn, affirms that as of _____, 2019, _____ is not charged with any delinquent personal property taxes on the general tax list of personal property of Montgomery County, Ohio.

Bidder

OR _____

Part B. That _____, being duly sworn, affirms that _____ is currently charged with Montgomery County delinquent personal property taxes in the amount of \$_____ with interest in the amount of _____, and penalties in the amount of \$_____, due to said Montgomery County, Ohio.

Bidder

SWORN TO and subscribed before me this _____ day of _____, 2019.

Notary Public in and for

_____ County, Ohio.

My commission expires: _____

NOTE: If this statement indicates that the taxpayer was charged with any such taxes, a copy of the statement shall be transmitted by the Director of Finance to the County Treasurer within thirty (30) days of the date it is submitted.

NOTE: A copy of this statement shall be incorporated into the contract, and no payment shall be made with respect to said contract unless such statement has been incorporated as a part thereof.

Affidavit of Compliance
NON-COLLUSION AFFIDAVIT

STATE OF _____)

) SS:

COUNTY OF _____)

_____, being first duly sworn, deposes and says that he/she is the

_____ (sole owner, partner, president, secretary, etc.) of

_____, the party making the foregoing proposal or bid; that such bid is genuine and not collusive or sham; and that said bidder has not colluded, conspired, connived or agreed, directly or indirectly, with any other bidder or person, to put in a sham bid, or that such other person shall refrain from bidding, and has not in any manner, directly or indirectly, sought by agreement or collusion or communication or conference, with any person, to fix the bid price of affiant or any other bidder, or to fix any overhead, profit, or cost element of said bid price, or of that of any other bidder, or to secure any advantage against any company, person or persons interested in the proposed contract; and that all statements contained in said proposal or bid are true. Further, that such bidder has not, directly or indirectly, submitted this bid, or the contents thereof, or divulged information or data relative thereto to any association or to any member or agent thereof.

Affiant

SWORN TO and subscribed before me this _____ day of _____, 2019.

Notary Public in and for

_____ County, _____

state

My commission expires: _____

THIS SHEET LEFT INTENTIONALLY BLANK

AFFIDAVIT

(TO BE COMPLETED IF THE CONTRACTOR IS A CORPORATION)

STATE OF _____)

) SS:

COUNTY OF _____)

_____, being duly sworn, deposes and says that he/she is

_____ (president, secretary, etc.) of

_____, a corporation organized and existing under and by virtue of

the laws of the State of _____, and having its principal office at

_____.

(number and street)

_____, _____.

(city)

(state)

Affiant further states that he is familiar with the records, minute books and by-laws of

_____.

(name of corporation)

Affiant further states that _____,

(name)

(title)

of the corporation, is duly authorized to sign the contract for the provision of services for the
PAYNE RECREATION CENTER GYMNASIUM ROOFING PROJECT or said corporation by virtue of

(State whether a provision of bylaws or a resolution of the Board of Directors. If by resolution, give date of adoption.)

Affiant

SWORN TO and subscribed before me this _____ day of _____, 2019.

Notary Public in and for

_____ County, _____
state

My commission expires: _____

AFFIDAVIT

Drug and Alcohol Abuse Prevention and Testing Policy and Procedure

This Affidavit is required when needed regarding existence of a program and compliance with the Omnibus Transportation Employee Testing Act of 1991 (the "Act"). The Act requires that any bidder who supplies operators of safety sensitive equipment provide a **Drug and Alcohol Abuse Prevention and Testing Policy and Procedure**. The program shall provide the minimal standards as stated in the Act and cover such issues as pre-employment, reasonable suspicion, random, post-accident, return-to-work, and follow-up testing of safety-sensitive employees.

The bidder is to complete and have notarized this Affidavit if successful in receiving the contract and may be required to provide a copy of the policy.

STATE OF _____)

) SS:

COUNTY OF _____)

_____, being duly sworn, affirms that as of _____, 20____,

_____ has developed and implemented a Drug and Alcohol Abuse Prevention and Testing Policy and Procedure in compliance with the Act.

Affiant

SWORN TO and subscribed before me this ____ day of _____, 2019.

Notary Public in and for

_____ County, _____

state

My commission expires: _____

NOTE: A copy of this statement shall be incorporated into the contract, and no payment shall be made with respect to said contract unless such statement has been incorporated as a part thereof.

THIS SHEET LEFT INTENTIONALLY BLANK

**AFFIDAVIT IN COMPLIANCE WITH SECTION 3517.13
OF THE OHIO REVISED CODE**

STATE OF _____

COUNTY OF _____ SS:

Personally appeared before me the undersigned, as an individual or as a

representative of _____ for a
(Name of Entity)

contract for **PAYNE RECREATION CENTER GYMNASIUM ROOFING PROJECT** to be let by the City of Moraine, who, being duly cautioned and sworn, make the following statement with respect to prohibited activities constituting a conflict of interest or other violations under Ohio Revised Code Section 3517.13, and further states that the undersigned has the authority to make the following representation on behalf of himself or herself or of the business entity:

- 1) That none of the following have **individually** made within the previous twenty-four months and that, if awarded a contract for the purchase of goods or services aggregating more than \$10,000 in a calendar year, none of the following Individually will make, beginning on the date the contract is awarded and extending until one year following the conclusion of the contract, as an individual, one or more campaign contributions totaling in excess of \$1,000, to any member of the City of Moraine Council or their individual campaign committees:
 - a) myself;
 - b) any partner or owner of the partnership or other unincorporated business (if applicable);
 - c) any shareholder of the professional association organized under Chapter 1785 of the Ohio Revised Code (if applicable);
 - d) any trustee of the trust (if applicable);
 - e) any administrator or executor of the estate (if applicable);
 - f) any owner of more than 20% of the corporation or business trust (if applicable);
 - g) each spouse of any person identified in (a) through (f) of this section;
 - h) each child seven years of age to seventeen years of age of any person identified in divisions (a) through (f) of this section;
- 2) That none of the following have **collectively** made within the previous twenty-four months, and that, if awarded a contract for the purchase of goods or services aggregating more than \$10,000 in a calendar year, none of the following **collectively** will make, beginning on the date the contract is awarded and extending until one year following the conclusion of the contract, one or more campaign contributions totaling in excess of \$2,000, to any member of the City of Moraine Council or their individual campaign committees:
 - a) myself;

- b) any partner or owner of the partnership or other unincorporated business (if applicable);
 - c) any shareholder of the professional association organized under Chapter 1785 of the Ohio Revised Code (if applicable);
 - d) any trustee of the trust (if applicable);
 - e) any administrator or executor of the estate (if applicable);
 - f) any owner of more than 20% of the corporation or business trust (if applicable);
 - g) each spouse of any person identified in (a) through (f) of this section;
 - h) each child seven years of age to seventeen years of age of any person identified in divisions (a) through (f) of this section;
 - i) any political action committee affiliated with the corporation, business trust, partnership or other unincorporated business, association, estate or trust identified in (a) through (f) of this section;
 - j) Any combination of persons identified in (a) through (i) of this section;
- 3) I do hereby acknowledge that to knowingly make any false statement herein may subject me and/or the above-named entity to the penalties set forth in Section 3517.992 of the Ohio Revised Code.

Further, Affiant sayeth naught.

Signature _____

Title _____

Sworn to before me and subscribed in my presence this _____ day of
 _____, 2019.

 Notary Public

My Commission Expires: _____

The requirements of Ohio Revised Code Section 3517.13 are only applicable to contributions made **on or after April 4, 2007** (Section 631.05, Amended Substitute Ohio House Bill 119).

Affidavit of Insurance

STATE OF _____)

) KNOW ALL MEN BY THESE PRESENTS

COUNTY OF _____)

BEFORE ME, the undersigned authority, on this day, personally appeared

_____, who being duly sworn, stated that he/she is
(Affiant)

_____, of _____,
(Title) (Contractor's Company Name)

the Contractor named and referred to within the Contract Documents; that he/she is fully competent and authorized to give this affidavit and that the attached original insurance certificate truly and accurately reflects the insurance coverage that is now available and will be available during the term of the Contract.

Affiant

SWORN AND SUBSCRIBED before me on the _____ day of _____, 2019.

Notary Public
In and for the County of _____
State of _____

My commission expires: _____

THIS SHEET LEFT INTENTIONALLY BLANK



Department of Commerce

Division of Industrial Compliance

Bureau of Wage and Hour Administration
6606 Tussing Road - PO Box 4009
Reynoldsburg, OH 43068-9009
Phone 614-644-2239 | Fax 614-728-8639
TTY/TDD 800-750-0750
www.com.ohio.gov
An Equal Opportunity Employer and Service Provider

John R. Kasich, Governor
Andre T. Porter, Director

Affidavit Of Compliance

PREVAILING WAGES

I, _____
(Name of person signing affidavit) (Title)

do hereby certify that the wages paid to all employees of

(Company Name)

for all hours worked on the

(Project name and location)

project, during the period from _____ to _____ are in
(Project Dates)

compliance with prevailing wage requirements of Chapter 4115 of the Ohio Revised Code. I further certify that no rebates or deductions have been or will be made, directly or indirectly, from any wages paid in connection with this project, other than those provided by law.

(Signature of Officer or Agent)

Sworn to and subscribed in my presence this _____ day of _____,
20_____.

(Notary Public)

The above affidavit must be executed and sworn to by the officer or agent of the contractor or subcontractor who supervises the payment of employees. This affidavit must be submitted to the owner (public authority) before the surety is released or final payment due under the terms of the contract is made.

THIS SHEET LEFT INTENTIONALLY BLANK

*******FOR INSTRUCTIONAL USE ONLY*******

READ BEFORE COMPLETING YOUR DMA FORM

Forms not conforming to the specifications listed below or not submitted to the appropriate agency or office will not be processed.

To complete this form, you will need a copy of the Terrorist Exclusion List for reference. The Terrorist Exclusion List can be found on the Ohio Homeland Security Web site at the following address:

<http://www.homelandsecurity.ohio.gov/dma/dma.asp>

Be sure you have the correct DMA form. If you are applying for a state issued license, permit, certification or registration, the "State Issued License" DMA form must be completed (HLS 0036). If you are applying for employment with a government entity, the "Public Employment" DMA form must be completed (HLS 0037). If you are obtaining a contract to conduct business with or receive funding from a government entity, the "Government Business and Funding Contracts" DMA form must be completed (HLS 0038).

Your DMA form is to be submitted to the issuing agency or entity. "Issuing agency or entity" means the government agency or office that has requested the form from you or the government agency or office to which you are applying for a license, employment or a business contract. For example, if you are seeking a business contract with the Ohio Department of Commerce's Division of Financial Institutions, then the form needs to be submitted to the Department of Commerce's Division of Financial Institutions. Do NOT send the form to the Ohio Department of Public Safety UNLESS you are seeking a license from or employment or business contract with one of its eight divisions listed below.

Department of Public Safety Divisions:

Administration

Ohio Bureau of Motor Vehicles

Ohio Emergency Management Agency

Ohio Emergency Medical Services Ohio Homeland Security*

Ohio Investigative Unit

Ohio Criminal Justice Services

Ohio State Highway Patrol

* DO NOT SEND THE FORM TO OHIO HOMELAND SECURITY UNLESS OTHERWISE DIRECTED.
FORMS SENT TO THE WRONG AGENCY OR ENTITY WILL NOT BE PROCESSED.

*******FOR INSTRUCTIONAL USE ONLY*******

THIS SHEET LEFT INTENTIONALLY BLANK

GOVERNMENT BUSINESS AND FUNDING CONTRACTS
In accordance with section 2909.33 of the Ohio Revised Code

DECLARATION REGARDING MATERIAL ASSISTANCE/NONASSISTANCE TO A TERRORIST ORGANIZATION

This form serves as a declaration by an applicant for a government contract or funding of material assistance/non-assistance to an organization on the U.S. Department of State Terrorist Exclusion List ("TEL"). Please see the Ohio Homeland Security Division Web site for a copy of the TEL.

Any answer of "yes" to any question, or the failure to answer "no" to any question on this declaration shall serve as a disclosure that material assistance to an organization identified on the U.S. Department of State Terrorist Exclusion List has been provided. Failure to disclose the provision of material assistance to such an organization or knowingly making false statements regarding material assistance to such an organization is a felony of the fifth degree.

For the purposes of this declaration, "material support or resources" means currency, payment instruments, other financial securities, funds, transfer of funds, financial services, communications, lodging, training, safe houses, false documentation or identification, communications equipment, facilities, weapons, lethal substances, explosives, personnel, transportation, and other physical assets, except medicine or religious materials.

COMPLETE THIS SECTION ONLY IF YOU ARE AN INDEPENDENT CONTRACTOR

| | | | |
|-------------------|-------|-------------------|--------|
| LAST NAME | | FIRST NAME | |
| HOME ADDRESS | | | |
| CITY | STATE | ZIP | COUNTY |
| HOME PHONE () | | WORK PHONE () | |

COMPLETE THIS SECTION ONLY IF YOU ARE A COMPANY, BUSINESS OR ORGANIZATION

| | | | |
|---|-------|-----|--------------|
| BUSINESS/ORGANIZATION NAME | | | PHONE () |
| BUSINESS ADDRESS | | | |
| CITY | STATE | ZIP | COUNTY |
| BUSINESS/ORGANIZATION REPRESENTATIVE NAME | | | TITLE |

DECLARATION

In accordance with section 2909.32 (A)(2)(b) of the Ohio Revised Code

For each question, indicate either "yes," or "no" in the space provided. Responses must be truthful to the best of your knowledge.

- | | | |
|--|-----|----|
| 1. Are you a member of an organization on the U.S. Department of State Terrorist Exclusion List? | Yes | No |
| 2. Have you used any position of prominence you have with any country to persuade others to support an organization on the U.S. Department of State Terrorist Exclusion List? | Yes | No |
| 3. Have you knowingly solicited funds or other things of value for an organization on the U.S. Department of State Terrorist Exclusion List? | Yes | No |
| 4. Have you solicited any individual for membership in an organization on the U.S. Department of State Terrorist Exclusion List? | Yes | No |
| 5. Have you committed an act that you know, or reasonably should have known, affords "material support or resources" to an organization on the U.S. Department of State Terrorist Exclusion List? | Yes | No |
| 6. Have you hired or compensated a person you knew to be a member of an organization on the U.S. Department of State Terrorist Exclusion List, or a person you knew to be engaged in planning, assisting, or carrying out an act of terrorism? | Yes | No |

If an applicant is prohibited from receiving a government contract or funding due to a positive indication on this form, the applicant may request the Ohio Department of Public Safety to review the prohibition. Please see the Ohio Homeland Security Web site for information on how to file a request for review.

CERTIFICATION

I hereby certify that the answers I have made to all of the questions on this declaration are true to the best of my knowledge. I understand that if this declaration is not completed in its entirety, it will not be processed and I will be automatically disqualified. I understand that I am responsible for the correctness of this declaration. I understand that failure to disclose the provision of material assistance to an organization identified on the U.S. Department of State Terrorist Exclusion List, or knowingly making false statements regarding material assistance to such an organization is a felony of the fifth degree. I understand that any answer of "yes" to any question, or the failure to answer "no" to any question on this declaration shall serve as a disclosure that material assistance to an organization identified on the U.S. Department of State Terrorist Exclusion List has been provided by myself or my organization. If I am signing this on behalf of a company, business or organization, I hereby acknowledge that I have the authority to make this certification on behalf of the company, business or organization referenced on page 1 of this declaration.

| | |
|---------------------------------|------|
| APPLICANT SIGNATURE X | DATE |
|---------------------------------|------|

CERTIFICATE OF FISCAL OFFICER

As Fiscal Officer for the City of Moraine, Montgomery County, Ohio, I hereby certify that funds in the amount of _____ Dollars have been lawfully appropriated for the purpose of meeting the obligations of this contract with _____ duly authorized by Resolution No. _____ approved by the City of Moraine Council, Montgomery County, Ohio, and that they are in the treasury or in the process of collection to the credit of the City of Moraine free from any previous encumbrances.

Signed this _____ day of _____, 2019.

Fiscal Officer for the City of Moraine,
County of Montgomery,
State of Ohio

THIS SHEET LEFT INTENTIONALLY BLANK

PROPOSAL for:

**Payne Recreation Center Gymnasium Roofing Project
City of Moraine**

The undersigned, _____, having carefully inspected the sites and locations of the work proposed to be performed, and also the premises at and adjacent to the location of the proposed work and specified equipment and conditions thereof, and having also carefully examined the "Notice to Contractor," "Instruction to Bidders," "Form of Contract," "General Provisions," and the detailed specifications which shall govern the work to be done, NOW PROPOSES to furnish any and all materials, tools, labor, transportation, machinery, appliances and/or necessary appurtenances, and to prosecute to full completion the work called for under the Contract Documents, all upon the terms and the conditions and provisions set forth in the "Instructions to Bidder," "Form of Contract," "Contract Bond," and "General Provisions," detailed specifications of this Proposal; and in consideration thereof to accept from the Owner as full payment for the completion of each specified item and any required maintenance thereof as hereinafter provided, the price quoted for each item for work completed, the price of labor and materials to be stated separately.

The undersigned _____ agrees that if this Proposal shall be accepted, he will be prepared to discuss with the Owner in detail any matters relating to special features and the methods he proposes to follow for the general conduct of the work; that he will within twenty (20) business days after notice of acceptance of bid, complete the Contract Form with the Owner for the performance of the work and furnish evidence of required insurance policies.

The undersigned _____ hereby certifies that no person interested in this Proposal is directly or indirectly interested in or connected with any other bid or proposal for the said work and no member of the City of Moraine or any other person in the employ of said City is directly or indirectly interested therein, or in any portion thereof, and he will, if required by the Owner, execute and submit from himself as Principal Contractor and from any subcontractor, the non-collusion affidavits as provided herein.

SUM PROPOSAL PRICE FOR: Payne Recreation Center Gymnasium Roofing Project
Having read and examined the Contract Documents, including without limitation the Drawings and Specifications, prepared by RDA Group Architects, LLC for the above referenced project and the following addenda as applicable:

Addendum No.

Date of Addendum

Submitted by:

Contracting Firm

The undersigned Bidder having full knowledge of the site and the requirements proposes to perform all Work in accordance with the Contract Documents for the sums as stated below:

BID ITEM #1: PAYNE RECREATION CENTER GYMNASIUM ROOF: Roof Replacement at Areas Identified, ALL LABOR, MATERIALS, EQUIPMENT and PERMIT FEES for the sum of

\$ _____ \$ _____
[FIGURES] [WORDS]

ADD ALTERNATE #1: COVER BOARD: Add 1/2" high density polyiso cover board at all roof areas to the project. ADD to BID ITEM #1 in the amount of:

\$ _____ \$ _____
[FIGURES] [WORDS]

UNIT PRICE SCHEDULE

UP-1: Replacement deteriorated or wet existing insulation. \$ _____/SF

Bid SF costs provided will be used as the basis for change order costs in accordance with square footage replaced. *Contractor to photo document replacement.*

PROJECT SCHEDULE

Anticipated Start Date: _____

Calendar Days from Start Date to Completion: _____

The final contract period, start date, and other dates may be negotiated by the Owner and shall be mutually agreed to between the Owner and Contractor. Failure to complete within the final agreed upon dates as established in the contract may cause the enforcement of liquidated damages per the contract. Bidder acknowledges the project schedule as stated herein and in the Bid Documents and agrees to complete the work within the contract period scheduled/proposed.

[Bidder Initials]

Signed at _____ this _____ day of _____,
2019.

Firm: _____

By: _____

Title: _____

(SEAL)

Official Address:

(Telephone Number)

THIS SHEET LEFT INTENTIONALLY BLANK

PREVAILING WAGE REQUIREMENTS

THIS SHEET LEFT INTENTIONALLY BLANK

Prevailing Wage Rate

Skilled Crafts

Name of Union: Sheet Metal Local 24 (Dayton)

Change # : LCR02-2019fbLoc24(Day)

Craft : Sheet Metal Worker Effective Date : 06/19/2019 Last Posted : 06/19/2019

| | BHR | | Fringe Benefit Payments | | | | | Irrevocable Fund | | Total PWR | Overtime Rate | |
|---------------------|---------|---------|-------------------------|---------|---------|--------|---------|------------------|-----------|-----------|---------------|---------|
| | | | H&W | Pension | App Tr. | Vac. | Annuity | Other | LECET (*) | MISC (*) | | |
| Classification | | | | | | | | | | | | |
| Sheet Metal Worker | \$27.72 | | \$8.52 | \$14.46 | \$0.85 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$51.55 | \$65.41 |
| Apprentice | Percent | | | | | | | | | | | |
| Apprentice | | | | | | | | | | | | |
| 5th Year B | 80.00 | \$22.18 | \$8.26 | \$11.56 | \$0.85 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$42.85 | \$53.93 |
| 5th Year A | 75.00 | \$20.79 | \$8.20 | \$10.85 | \$0.85 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$40.69 | \$51.09 |
| 4th Year B | 70.00 | \$19.40 | \$8.13 | \$10.13 | \$0.85 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$38.51 | \$48.22 |
| 4th Year A | 65.00 | \$18.02 | \$8.07 | \$9.40 | \$0.85 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$36.34 | \$45.35 |
| 3rd year B | 60.00 | \$16.63 | \$8.01 | \$8.68 | \$0.85 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$34.17 | \$42.49 |
| 3rd Year A | 55.00 | \$15.25 | \$7.94 | \$7.95 | \$0.85 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$31.99 | \$39.61 |
| 2 Year B | 53.78 | \$14.91 | \$7.90 | \$7.02 | \$0.85 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$30.68 | \$38.13 |
| 2 Year A | 52.69 | \$14.61 | \$7.88 | \$6.49 | \$0.85 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$29.83 | \$37.13 |
| Probationary 1 Year | 51.13 | \$14.17 | \$7.85 | \$5.87 | \$0.85 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$28.74 | \$35.83 |

Special Calculation Note : No special calculations for this skilled craft wage rate are required at this time.

Ratio :

1 Journeyman to 1 Apprentice then,
1 Apprentice for every 2 Journeymen thereafter

Jurisdiction (* denotes special jurisdictional note) :

ALLEN, AUGLAIZE, BUTLER, CHAMPAIGN,
CLARK, CLINTON, DARKE, GREENE,
HARDIN, LOGAN, MERCER, MIAMI,
MONTGOMERY, PREBLE, SHELBY, VAN
WERT, WARREN, WYANDOT

Special Jurisdictional Note :

Details :

Prevailing Wage Rate Skilled Crafts

Name of Union: Plumber Pipefitter Local 162

Change # : OCRO1-2019fbLoc162

Craft : Plumber/Pipefitter Effective Date : 08/07/2019 Last Posted : 08/07/2019

| | BHR | | Fringe Benefit Payments | | | | | | Irrevocable Fund | | Total PWR | Overtime Rate |
|---|---------|---------|-------------------------|---------|---------|--------|---------|--------|------------------|----------|-----------|---------------|
| | | | H&W | Pension | App Tr. | Vac. | Annuity | Other | LECET (*) | MISC (*) | | |
| Classification | | | | | | | | | | | | |
| Plumber Pipefitter | \$31.25 | | \$8.40 | \$10.62 | \$0.90 | \$0.00 | \$3.35 | \$0.72 | \$0.00 | \$0.00 | \$55.24 | \$70.86 |
| Apprentice Indentured AFTER 6/1/2002 | | | | | | | | | | | | |
| | Percent | | | | | | | | | | | |
| 1st Year | 50.00 | \$15.63 | \$8.40 | \$3.19 | \$0.90 | \$0.00 | \$1.01 | \$0.72 | \$0.00 | \$0.00 | \$29.84 | \$37.66 |
| 2nd Year | 55.00 | \$17.19 | \$8.40 | \$4.25 | \$0.90 | \$0.00 | \$1.34 | \$0.72 | \$0.00 | \$0.00 | \$32.80 | \$41.39 |
| 3rd Year | 60.00 | \$18.75 | \$8.40 | \$6.37 | \$0.90 | \$0.00 | \$2.01 | \$0.72 | \$0.00 | \$0.00 | \$37.15 | \$46.52 |
| 4th Year | 70.00 | \$21.87 | \$8.40 | \$8.50 | \$0.90 | \$0.00 | \$2.68 | \$0.72 | \$0.00 | \$0.00 | \$43.07 | \$54.01 |
| 5th Year | 80.00 | \$25.00 | \$8.40 | \$10.62 | \$0.90 | \$0.00 | \$3.35 | \$0.72 | \$0.00 | \$0.00 | \$48.99 | \$61.49 |

Special Calculation Note : Other is for Training & Promotion Fund.

Ratio :

- 1 Journeyman to 1 Apprentice
- 2 - 4 Journeymen to 2 Apprentices
- 5 - 7 Journeymen to 3 Apprentices
- 8 - 10 Journeymen to 4 Apprentices

Jurisdiction (* denotes special jurisdictional note) :

- CHAMPAIGN, CLARK, CLINTON, DARKE,
- FAYETTE, GREENE, MIAMI,
- MONTGOMERY, PREBLE

Special Jurisdictional Note :

Details :

Wage rate covers: all plumbing, pipefitting, heating, refrigeration and air conditioning work.

Prevailing Wage Rate

Skilled Crafts

Name of Union: Roofer Local 75

Change # : LCN01-2019fbLoc75

Craft : Roofer Effective Date : 05/01/2019 Last Posted : 05/01/2019

| | BHR | | Fringe Benefit Payments | | | | | Irrevocable Fund | | Total PWR | Overtime Rate | |
|----------------------|---------|---------|-------------------------|---------|---------|--------|---------|------------------|-----------|-----------|---------------|----------|
| | | | H&W | Pension | App Tr. | Vac. | Annuity | Other | LECET (*) | | | MISC (*) |
| Classification | | | | | | | | | | | | |
| Roofer | \$24.38 | | \$7.98 | \$8.18 | \$0.65 | \$0.00 | \$0.00 | \$0.80 | \$0.00 | \$0.00 | \$41.99 | \$54.18 |
| Slate and Tile | \$24.60 | | \$7.98 | \$8.18 | \$0.65 | \$0.00 | \$0.00 | \$0.80 | \$0.00 | \$0.00 | \$42.21 | \$54.51 |
| Apprentice | Percent | | | | | | | | | | | |
| 1st term 1000 hrs | 50.00 | \$12.19 | \$2.50 | \$0.50 | \$0.65 | \$0.00 | \$0.00 | \$0.80 | \$0.00 | \$0.00 | \$16.64 | \$22.73 |
| 2nd term 1000 hrs | 55.00 | \$13.41 | \$7.98 | \$1.23 | \$0.65 | \$0.00 | \$0.00 | \$0.80 | \$0.00 | \$0.00 | \$24.07 | \$30.77 |
| 3rd term 1000 hrs | 60.00 | \$14.63 | \$7.98 | \$2.05 | \$0.65 | \$0.00 | \$0.00 | \$0.80 | \$0.00 | \$0.00 | \$26.11 | \$33.42 |
| 4th term 1000 hrs | 70.00 | \$17.07 | \$7.98 | \$2.86 | \$0.65 | \$0.00 | \$0.00 | \$0.80 | \$0.00 | \$0.00 | \$29.36 | \$37.89 |
| 5th term 1000 hrs | 80.00 | \$19.50 | \$7.98 | \$3.68 | \$0.65 | \$0.00 | \$0.00 | \$0.80 | \$0.00 | \$0.00 | \$32.61 | \$42.37 |
| Tradesman | 79.00 | \$19.26 | \$5.00 | \$1.47 | \$0.65 | \$0.00 | \$0.00 | \$0.80 | \$0.00 | \$0.00 | \$27.18 | \$36.81 |

Special Calculation Note : Other is for National Roofing Industry Pension Plan.

Ratio :

3 Journeymen to 2 Apprentices

Jurisdiction (* denotes special jurisdictional note) :

ALLEN, AUGLAIZE, CLARK, CLINTON,
DARKE, GREENE, MERCER, MIAMI,
MONTGOMERY, PREBLE, SHELBY, VAN
WERT

Special Jurisdictional Note :

Details :

Prevailing Wage Rate Skilled Crafts

Name of Union: Labor Local 1410 Building

Change # : LCN01-2019bLoc1410

Craft : Laborer Effective Date : 07/03/2019 Last Posted : 07/03/2019

| | BHR | | Fringe Benefit Payments | | | | | Irrevocable Fund | | Total PWR | Overtime Rate | |
|-----------------------------|----------------|---------|-------------------------|---------|---------|--------|---------|------------------|-----------|-----------|---------------|---------|
| | | | H&W | Pension | App Tr. | Vac. | Annuity | Other | LECET (*) | MISC (*) | | |
| Classification | | | | | | | | | | | | |
| Laborer Group 1 | \$25.90 | | \$7.00 | \$3.70 | \$0.40 | \$0.00 | \$0.00 | \$0.00 | \$0.10 | \$0.00 | \$37.10 | \$50.05 |
| Group 2 | \$26.50 | | \$7.00 | \$3.70 | \$0.40 | \$0.00 | \$0.00 | \$0.00 | \$0.10 | \$0.00 | \$37.70 | \$50.95 |
| Group 3 | \$27.00 | | \$7.00 | \$3.70 | \$0.40 | \$0.00 | \$0.00 | \$0.00 | \$0.10 | \$0.00 | \$38.20 | \$51.70 |
| Apprentice | Percent | | | | | | | | | | | |
| Building Laborer 1-1000 hrs | 60.00 | \$15.54 | \$7.00 | \$3.70 | \$0.40 | \$0.00 | \$0.00 | \$0.00 | \$0.10 | \$0.00 | \$26.74 | \$34.51 |
| 1001-2000 | 70.02 | \$18.14 | \$7.00 | \$3.70 | \$0.40 | \$0.00 | \$0.00 | \$0.00 | \$0.10 | \$0.00 | \$29.34 | \$38.40 |
| 2001-3000 | 80.00 | \$20.72 | \$7.00 | \$3.70 | \$0.40 | \$0.00 | \$0.00 | \$0.00 | \$0.10 | \$0.00 | \$31.92 | \$42.28 |
| 3001-4000 | 90.00 | \$23.31 | \$7.00 | \$3.70 | \$0.40 | \$0.00 | \$0.00 | \$0.00 | \$0.10 | \$0.00 | \$34.51 | \$46.17 |
| More than 4000 hrs | 100.00 | \$25.90 | \$7.00 | \$3.70 | \$0.40 | \$0.00 | \$0.00 | \$0.00 | \$0.10 | \$0.00 | \$37.10 | \$50.05 |

Special Calculation Note : \$0.10 LECET is for Labor Management.

Ratio :

1 Journeymen to 1 Apprentice
4 Journeymen to 1 Apprentice

Jurisdiction (* denotes special jurisdictional note) :

CHAMPAIGN, CLARK, DARKE, GREENE,
LOGAN, MIAMI, MONTGOMERY, PREBLE

Special Jurisdictional Note :

Details :

Group 1

Building & Construction Laborer, Railroad Laborer, Asbestos & Hazardous Waste (Levels A,B,C, & D), Concrete Crew, Form Setter, Pipelayer, Bottom Man, Burner (Cutting Torch), Welder Helper, All Machine & Power Driven Tools, Sandblaster

Yardman-Landscaping, Sewer Jet, Waterperson, Tool Cage Laborer, Unloading Furniture & Fixtures, Final Clean-Up

Watchman, Residential Construction, Signal Men

Group 2

Mason Tender For Bricklayers, Flexcore, Firebrick Tender (Blast Furnaces, Soaking Pits, Stoves & Stacks), Plasterer Tenders & Lathers

Group 3

Tender Operator

Asbestos, Lead and Hazardous Material:

The removal, abatement or encapsulation of asbestos, lead and/or toxic and hazardous waste or materials is defined as all work included in the erection, moving servicing and dismantling of all enclosures, scaffolding, barricades, etc. and the operation of all tools and equipment (including generators, compressors and vacuums) normally used in the removal or abatement or asbestos, lead and toxic and hazardous waste or materials; the labeling, bagging, cartoning, crating or otherwise packaging of materials for disposal; as well as the clean-up of the work site and all other work incidental to the removal, abatement or encapsulation of asbestos, lead or toxic and hazardous waste materials.

Level A

Protective equipment is required when the area has been determined to contain extremely toxic contaminants or contaminants unknown but may be expected to be extremely toxic and/or immediately dangerous to life and health. This ensemble includes a fully encapsulated chemical suit, self contained breathing apparatus (SCBA) or airline fed respirator, and various types and numbers of boots and gloves.

Level B

Protective equipment includes a chemically resistant splash suit and a SCBA or airline respirator. This ensemble is required when the situation is very hazardous, such as oxygen deficient atmospheres, IDLH atmospheres, or confined space entries.

Level C

Protective equipment includes a protective suit and an air purifying respirator (APR) with the appropriate filter canisters.

Level D

To be worn only in established "safe zones" may consist of, from normal work clothes to normal skin protection such as gloves, face shields goggles, coveralls and occasionally respiratory protection.

THIS SHEET LEFT INTENTIONALLY BLANK

CONTRACT

THIS SHEET LEFT INTENTIONALLY BLANK

FORM OF CONTRACT

THIS AGREEMENT, entered into this ____ day of _____, 2019, by
and between the *City of Moraine, Ohio*, hereinafter called the "Owner" and
_____ hereinafter called the "Contractor."

WITNESSETH: That the said Contractor has agreed and by these presents does agree with the said Owner for the consideration hereinafter named, to furnish all the materials and do all of the work of whatever kind necessary to complete, in a good, substantial, and workmanlike manner, ready for use, and in strict accordance with the specifications on file in the office of the Maintenance Superintendent, and subject to all the terms and conditions of said specifications, and to the approval of said Superintendent, for the provision of services for the

PAYNE RECREATION CENTER ROOF REPLACEMENT PROJECT CONTRACT FOR CITY OF MORaine

in accordance with the Contract Documents dated October 2019, and Addenda thereto numbered and dated ____, for

The sum of _____ **thousand Dollars, (\$.000.00)** for Roofing Project.

The Owner agrees to pay, and the Contractor agrees to accept as full compensation, satisfaction, and discharge for all work done and material furnished, and also for all costs and expenses incurred and losses or damages sustained by reason of the action of the elements or because of the nature of the work or because of any unforeseen obstruction or difficulty encountered in the prosecution of the work, herein as specified and also for well and faithful completion of the work, and the whole thereof, in accordance with the terms, conditions and provisions of this contract and the instructions, orders, and directions of the Superintendent hereunder, and also for maintaining the work in good condition, except extra work which shall be paid for as provided in the General Conditions and except as in this Contract otherwise specifically provided, a sum of money equal to the amount of the actual work furnished, as determined by the Superintendent, as set forth in the Proposal attached hereto.

WITNESSETH, that in consideration of the sums of money herein specified to be paid by the

CONTRACTOR:

OWNER:

(name of company)

City of Moraine _____

By: _____

By: _____

(title)

(title)

Contract approved as to form _____

TECHNICAL SPECIFICATIONS

THIS SHEET LEFT INTENTIONALLY BLANK

SECTION 01 00 00 - GENERAL REQUIREMENTS

PART 1 GENERAL

1.1 DESCRIPTION OF THE PROJECT DOCUMENTS

- A. The work covered by these specifications consists of furnishing all labor, equipment and materials necessary in connection with a Roof Recover Project at Payne Recreation Center for the City of Moraine. Work includes items as shown, subject to the terms and condition of the contract, specifications and the drawings as listed.

1.2 CONTRACT DESCRIPTION

- A. Project Identification: **Roof Recover 2019
Payne Recreation Center – Gym Roof**

- B. Project Location: 3800 Main Street
Moraine, OH 45439

- C. Owner: City of Moraine
4200 Dryden Road
Moraine, OH 45439

- D. Architect: RDA Group Architects, LLC
7945 Washington Woods Drive
Dayton, OH 45459
937.610.3440 phone
937.610.3441 fax

- E. Perform Work of Contract under a stipulated sum contract with Owner in accordance with Conditions of Contract.

1.3 CONTRACTOR'S USE OF PREMISES

- A. Coordinate work to allow continued Owner Occupancy of the buildings.
- B. Work Schedule:
 - 1. Roof Replacement: 7:00 AM to 5:00 PM Monday thru Friday, weekend work is acceptable provided notification is provided to the Owner in advance.
- C. Weekend and overtime work may be required by the Owner at no additional cost if the contractor fails to meet milestone dates as prescribed in the contract. Liquidated damages will be assessed if the contractor does not meet milestone completion date. Contractor must notify Owner in advance if weekend work will be accomplished.

1.4 CONTRACT PERIOD

- A. Refer to Contract / Supplementary Conditions in the Contract Documents.
- B. Coordinate schedule / activities so as not to inconvenience the Owner unnecessarily.

1.5 PROJECT ALLOWANCES INCLUDED IN THE CONTRACT

- A. None

1.6 INSTRUCTIONS/RESPONSIBILITIES OF THE CONTRACTOR

- A. Protect all finishes and equipment scheduled to remain.
- B. Contractor shall commence and complete work as noted in the contract.

- C. Contractor shall furnish labor, materials, equipment, and management required to complete the project.
- D. Contractor shall visit the site to become thoroughly familiar with all working conditions, check and verify all dimensions, and site conditions. Any dimensions given or referred to in the specification or drawing is to be used purely as approximate and not as a basis for exact amounts for bidding. Contractor shall promptly advise the Architect of any discrepancies, errors with the specifications and drawings before bidding the work.
- E. Contractor to provide a valid Certificate of Insurance, follow all Workman's Compensation requirements and regulations, and conduct all work according to OSHA recognized safe work practices.
- F. All bonds, payment schedule, insurance shall be as noted in the contract documents.
- G. The plans and specifications are intended to depict the general scope, layout and quality of workmanship required, they are not intended to show or describe in detail every item necessary for the proper installation of the work.
- H. Special care shall be taken not to allow dust and debris to fall onto any equipment, material, personnel, or any room below the deck.
- I. The contractor shall provide Safety Data Sheets (SDS) on all products used.
 - 1. Submit directly to Owner. RDA does not review nor approve SDS.
- J. The term 'Architect' as referenced in these contract documents is RDA Group Architects.
- K. The term 'Owner' as referenced in this specification is City of Moraine.

1.7 WORK BY THE OWNER

- A. None

1.8 APPLICABLE REFERENCES, CODES, AND PERMITS

- A. References will be found in each section that applies to that section. In addition, Contractor shall comply with the Ohio Building Code requirements as they relate to the work.
- B. Contractor shall procure at his own expense all necessary permits from municipal or other agencies and give all notices required. Fines levied due to non-compliance shall be paid by the contractor.

1.9 WAGES

- A. This contract is Prevailing Wages and Reporting. Refer to prevailing wage rates in the Contract Documents. Coordinate all Owner requirements / submittals.

1.10 TAXES

- A. TAX EXEMPT Project – Any taxes paid by the Contractor will be considered their expense for which no additional compensation will be made by the Owner. Tax Exempt Forms will be provided upon request.

1.11 SMOKING

- A. Smoking is not permitted on the work site or inside / outside of any facility.

1.12 CONTRACTOR / GENERAL REQUIREMENTS

- A. Visit the project sites to verify general and pertinent conditions and take measurements necessary for bidding purposes.
- B. Failure to show or mention petty details shall not be warranted for the omission of anything necessary for the proper completion of the work.

- C. Contractor shall not take advantage of any clerical errors, omissions, contradictions, or conflicts that may develop in plans, specifications, or details. Such errors, ambiguities and discrepancies shall be reported to the Architect immediately for clarification, revision, or correction prior to the submission of bids. If no notification is given, it shall be assumed that all specifications and conditions will be met.
- D. Remain in compliance with all OSHA STANDARD 1926 – REGULATIONS FOR CONSTRUCTION at all times during project. Comply with all applicable Safe Work Practices.
- E. Contract Period
 - 1. If an extension of time is necessary, a request in writing must be submitted to the Owner at least [7] days prior to the contract completion date.
 - 2. Notify the Architect, in writing, upon determination of any delay in material delivery.
- F. Security: Contractor's Liability for Vandalism
 - 1. Contractor shall be responsible at the Contractor's cost and expense, for the securing and protection of the project which is under the control of the Contractor, and for the repair and replacement of the work until that portion of the work is accepted as completed by the Owner. The Contractor shall take the measures necessary to provide such security.
- G. Qualifying Contractors and Sub-Contractors: The Owner may require the contractor/sub-contractor to provide references of similar projects, past performance, financial disclosures, etc. in the interest of selection of the lowest and best bidder for the project.
 - 1. The Contractor is responsible for all work performed by Sub-Contractors.

1.13 SPECIFICATION CONVENTIONS

- A. These specifications are written in imperative mood and streamlined form. This imperative language is directed to the Contractor, unless specifically noted otherwise. The words "shall be" are included by inference where a colon (:) is used within sentences or phrases.

1.14 SCHEDULE OF VALUES

- A. Submit schedule on AIA Form G703.
- B. Submit Schedule of Values in duplicate within 5 days after date of Owner-Contractor Agreement.

1.15 APPLICATIONS FOR PAYMENT

- A. Submit Application for Payment on AIA Form G702 and G703.
 - 1. Submit to RDA for review and processing, RDA will forward to Owner for payment.
 - 2. Email submission is acceptable unless otherwise directed by Owner. If hard copies are required, confirm with Owner quantity of copies to be submitted.
- B. Content and Format: Utilize Schedule of Values for listing items in Application for Payment.
- C. Submit all required waivers of lien / partial release of lien [including vendors and subcontractors as requested by Owner], payroll reports, etc. as required by the Owner. Failure to submit required paperwork can delay processing of Application for Payment.

1.16 CHANGE PROCEDURES

- A. Stipulated Sum/Price Change Order: Based on Proposal Request and Contractor's fixed price quotation.
- B. Change Order Forms: AIA G701.
- C. Unit Price Change Order: For pre-determined unit prices and quantities, Change Order will be executed on fixed unit price basis. For unit costs or quantities of units of work which are not pre-determined, execute Work under Construction Change Directive. Changes in Contract Sum/Price or Contract Time will be computed as specified for Time and Material Change Order.

D. Maximum mark up for overhead and profit on change orders shall be 15%.

1.17 UNIT PRICES

- A. It is the Contractor's responsibility to document unit price quantities. RDA and/or Owner will take confirm quantities as required. Provide and assist in taking of measurements. Contractor may not be paid for unit cost work without documentation of the work accomplished.
- B. Unit Price Schedule:
 - 1. UP-1: Removal and replacement of existing wet / damp / deteriorated existing roof system down to the metal deck and install new ISO insulation to match existing roof system thickness, on a per square foot basis. Bid SF costs provided will be used as the basis for adjustments in accordance with the actual square footage replaced.
- C. Unit Price includes: Full compensation for required labor, products, tools, equipment, plant and facilities, transportation, services, and incidentals; erection, application or installation of item of the Work; overhead and profit.
- D. Final payment for Work governed by unit prices will be made on basis of actual measurements and quantities accepted by Architect multiplied by unit price for Work incorporated in or made necessary by the Work.

1.18 ALTERNATES

- A. Alternates quoted on Bid Forms will be reviewed and accepted or rejected at Owner's option.
- B. Coordinate related Work and modify surrounding Work as required.
- C. Schedule of Alternates:
 - 1. Add Alternate #1: Add ½" high density ISO cover board to the roof system. Set in low rise foam adhesive.

1.19 COORDINATION

- A. Coordinate scheduling, submittals, and Work of various sections of specifications to ensure efficient and orderly sequence of installation of interdependent construction elements.

1.20 QUALITY CONTROL

- A. Monitor quality control over suppliers, manufacturers, Products, services, site conditions, and workmanship, to produce Work of specified quality.
- B. Comply with manufacturer's instructions.
- C. When manufacturers' instructions conflict with Contract Documents, request clarification from Architect/Owner before proceeding.
- D. Comply with specified standards as minimum quality for the Work except where more stringent tolerances, codes, or specified requirements indicate higher standards or more precise workmanship.
- E. Perform Work by persons qualified to produce required and specified quality.
- F. Verify field measurements are as indicated on Shop Drawings or as instructed by manufacturer.
- G. Secure products in place with positive anchorage devices designed and sized to withstand stresses, vibration, physical distortion, or disfigurement.

1.21 TOLERANCES

- A. Monitor fabrication and installation tolerance control of installed Products over suppliers, manufacturers, Products, site conditions, and workmanship, to produce acceptable Work. Do not permit tolerances to accumulate.

- B. Comply fully with manufacturer's tolerances.

1.22 REFERENCES

- A. Conform to reference standards by date of issue current as of date of Contract Documents.
- B. When specified reference standard conflicts with Contract Documents, request clarification from Architect before proceeding.

1.23 LABELING

- A. Attach label from agency approved by authority having jurisdiction for products, assemblies, and systems required to be labeled by applicable code.
- B. Label Information: Include manufacturer's or fabricator's identification, Factory Mutual approved agency identification, and the following information, as applicable, on each label.
 - 1. Model number.
 - 2. Serial number.
 - 3. Performance characteristics.

1.24 PRECONSTRUCTION MEETING

- A. Owner/Architect will schedule preconstruction meeting after Notice of Award for affected parties.
- B. Owner, Architect, Contractor Project Manager, and Foreman shall be in attendance.
- C. Agenda:
 - 1. Scheduling of construction events, set-up, storage and etc.
 - 2. Project personnel with contact information.
 - 3. Sequence of construction, starting points, events and required resources.
 - 4. Subcontractors list with contact information.
 - 5. Temporary utilities.
 - 6. Inspection and acceptance of existing conditions – roof drains, units, etc.
 - 7. Project Safety
 - 8. Owner's requirements.

1.25 PROGRESS MEETINGS

- A. RDA will be providing periodic observation of the work. RDA will issue field reports at each site visit. RDA will be observing the work for compliance with the specifications and will not be responsible for the ways, means and methods of constructing the project or managing the day to day operations.
- B. Schedule and administer meetings throughout progress of the Work as applicable to the work at maximum bi-weekly intervals.
- C. Agenda:
 - 1. Review of work progress and Owner's Requirements.
 - 2. Field Observations of the completed work.
 - 3. Identification of any problems and associated solutions.
 - 4. Proposed changes.
 - 5. Administrative issues – payment applications, change orders, etc.

1.26 CUTTING AND PATCHING

- A. Employ skilled and experienced installer to perform cutting and patching new Work; restore Work with new Products.
- B. Execute cutting, fitting, and patching [including excavation/removal and fill,] to complete Work, and to:
 - 1. Fit several parts together, to integrate with other Work.

2. Uncover Work to install or correct ill-timed Work.
 3. Remove and replace defective and non-conforming Work.
 4. Remove samples of installed Work for testing.
 5. Provide openings in elements of Work for penetrations of mechanical and electrical Work.
- C. Cut masonry and concrete materials using masonry saw or core drill. Restore Work with new Products in accordance with requirements of Contract Documents.
- D. Fit Work tight to adjacent elements. Maintain integrity of wall, ceiling, or floor construction; completely seal voids.
- E. Fit Work tight to pipes, sleeves, ducts, conduit, and other penetrations through surfaces.
- F. Refinish surfaces to match adjacent finishes.

1.27 CONSTRUCTION PROGRESS SCHEDULES

- A. Submit initial progress schedule in duplicate within 5 days after date of Owner-Contractor Agreement for Architect review.
- B. Submit revised schedules as appropriate throughout the duration of the project.
- C. Submit implementation plan indicating planned process, sequencing, and order of operations.

1.28 SUBMITTAL REQUIREMENTS

- A. Refer to Section 01 33 00.

1.29 MOCK-UPS

- A. Accomplish mockups as directed by the Owner / RDA.
- B. Accepted mock-ups are representative of quality required for the Work.
- C. Where mock-up has been accepted by Architect and is specified in product specification sections to be removed; remove mock-up and clear area when directed to do so.

1.30 TEMPORARY UTILITIES

- A. Provide temporary power as needed to facilitate work.
- B. Provide temporary lighting for construction operations as required by conditions.
- C. Provide temporary emergency egress and exit signage as required by conditions and where existing has been temporarily removed to facilitate work.
- D. Coordinate with Owner if work requires temporary disconnect or disabling of building life safety systems.

1.31 TEMPORARY SANITARY FACILITIES

- A. Contractor shall provide any and all necessary portable toilet facilities at the project site as applicable to the work. Do not use building facilities unless explicitly approved by the Owner.
 1. If located on the ground, provide all required protection from vandalism.

1.32 STAGING AREA / MATERIAL STORAGE

- A. Coordinate with Owner on acceptable location of project staging and material storage area.
- B. Owner will make reasonable effort to provide suitable space on the site for the Contractor to set up operations. Moving from this space may be necessary when instructed by the Owner and shall be accomplished without charge to the Owner. Cooperate with Owner to minimize conflict from Owner's operations.

1.33 PARKING

- A. Park Contractor vehicles in areas designated by the Owner.

1.34 PROGRESS CLEANING AND WASTE REMOVAL

- A. Collect and maintain areas free of waste materials, debris, and rubbish. Maintain site in clean and orderly condition to the satisfaction of the Owner. Clean up shall occur on a daily basis.

1.35 FIRE PREVENTION FACILITIES

- A. Establish fire watch for cutting and welding and other hazardous operations capable of starting fires. Maintain fire watch before, during, and after hazardous operations until threat of fire does not exist.
- B. Portable Fire Extinguishers: NFPA 10 with a 10-pound capacity, ABC UL rating.
 - 1. Provide one fire extinguisher at each project site during work operations located maximum of 20 horizontal feet from work area.
 - 2. Supplement as necessary per the local fire department requirements for construction operations.

1.36 PROTECTING INSTALLED CONSTRUCTION

- A. Provide temporary and removable protection for installed products. Control activity in immediate work area to prevent damage.
- B. Protect finished pavement, concrete, stairs, and other surfaces from traffic, dirt, wear, damage, or movement of heavy objects, by protecting with durable sheet materials.
- C. Prohibit traffic or storage upon waterproofed or roofed surfaces. When traffic or activity is necessary, obtain recommendations for protection from waterproofing or roofing material manufacturer and provide all required protection as determined necessary. Any damage caused shall be repaired to like new condition.
- D. Prohibit traffic from landscaped areas.

1.37 POLLUTION AND ENVIRONMENTAL CONTROL

- A. Provide methods, means, and facilities to prevent contamination of soil, water, and atmosphere from discharge of noxious, toxic substances, and pollutants produced by construction operations.
- B. Provide dust control, erosion and sediment control, etc. to allow for proper execution of the Work.
- C. Provide protective coverings, etc. as necessary to protect work.

1.38 REMOVAL OF UTILITIES, FACILITIES, AND CONTROLS

- A. Remove existing utilities, connections, finishes, etc. as applicable to the work. Remove back to the nearest termination, junction box, etc. as applicable to the work. Coordinate with requirements on the drawings.
- B. Remove temporary utilities, equipment, facilities, materials, prior to Substantial Completion review.
- C. Clean and repair damage caused by installation or use of temporary work.
- D. Restore existing facilities used during construction to original condition. Restore permanent facilities used during construction to specified condition.

1.39 PROJECT RECORD DOCUMENTS

- A. Maintain on site one set of Contract Documents to be utilized for record documents.
- B. Record actual revisions to the Work. Record information concurrent with construction progress.

- C. Specifications: Legibly mark and record at each Product section description of actual Products installed.
- D. Record Documents and Shop Drawings: Legibly mark each item to record actual construction.
- E. Submit documents to Owner.

1.40 FINAL CLEANING

- A. Execute final cleaning prior to final inspection.
- B. Clean all surfaces exposed to view as impacted from the work.
- C. Remove waste and surplus materials, rubbish, and construction facilities from site.

1.41 CLOSE OUT PROCEDURES

- A. Contractor shall notify the Owner when the work is complete to establish the desired inspection date.
- B. The Owner shall inspect the completed project and notify the contractor of any deficiencies. Deficiencies will form 'punch list' for final acceptance.

1.42 PREREQUISITES TO FINAL ACCEPTANCE AND PAYMENT

- A. Prior to acceptance and final payment, all claims or disputes must have been resolved and the contractor must have provided the following items to the Architect:
 - 1. Notarized affidavit of waiver of liens
 - 2. Final statement of charges [100% application for payment].
 - 3. Documented evidence of completing 'punch list' as applicable.
 - 4. Manufacturer's original warranty documents.
 - 5. Contractor's warranty documents
 - 6. Manufacturer's maintenance and repair instructions.
 - 7. Final cleaning of all work areas.
 - a. Clean roof of debris including power wash or blowing roof as applicable, cleaning of roof drains to remove any obstructions, remove soil from building surfaces, etc.
 - 8. Restore all work staging and lay-out areas to pre-construction conditions, including but not limited to, removal of debris, temporary facilities, grading and grass seeding and cleaning or repair of impacted structures

1.43 OPERATION AND MAINTENANCE DATA

- A. Submit two sets prior to final inspection, bound in 8-1/2 x 11 inch text pages, binder covers.
- B. Prepare binder cover with printed title "OPERATION AND MAINTENANCE INSTRUCTIONS" and title of project.
- C. Internally subdivide binder contents with permanent page dividers, logically organized, with tab titles legibly printed under reinforced laminated plastic tabs.
- D. Contents:
 - 1. Part 1: Directory, listing names, addresses, and telephone numbers of Architect, Contractor, subcontractors, and major equipment suppliers.
 - 2. Part 2: Operation and maintenance instructions, arranged by system.
 - 3. Part 3: Project documents and certificates.

1.44 WARRANTIES

- A. Provide manufacturer warranties as outlined in the Contract Documents
- B. Provide notarized copies of warranty documents to the Owner.

1. Execute and assemble transferable warranty documents from subcontractors, suppliers, and manufacturers.
- C. Submit prior to final Application for Payment.

PART 2 PRODUCTS

2.1 MANUFACTURED PRODUCTS

- A. Where a particular system, product, or material is specified by name it shall be considered a standard and most satisfactory for its particular purpose. Any other product or material considered equal or better in all respects must be approved by the Architect prior to bidding.
- B. All products used on this project shall be new, unless otherwise noted on the drawings or as specified herein.

2.2 PRODUCTS

- A. Products: Means new material, machinery, components, equipment, fixtures, and systems forming the Work, but does not include machinery and equipment used for preparation, fabrication, conveying and erection of the Work. Products may also include existing materials or components specifically identified for reuse.
- B. Do not use materials and equipment removed from existing premises, except as specifically identified or allowed by the Contract Documents.
- C. Provide interchangeable components of same manufacturer for components being replaced.

2.3 DELIVERY, HANDLING, STORAGE, AND PROTECTION

- A. Deliver, handle, store, and protect Products in accordance with manufacturer's instructions.
- B. Contractor shall be responsible for storage and safekeeping of all materials, including company's personal property. All damaged materials shall be removed from the site.
- C. Coordinate material delivery to avoid Owner involvement.
- D. Locations of ground level storage and waste dumpster must be approved by the Owner.
- E. All materials shall be properly secured to prevent blow off during weather, wind, etc.

2.4 PRODUCT OPTIONS

- A. Products Specified by Reference Standards or by Description Only: Any Product meeting those standards or description.
- B. Products Specified by Naming One or More Manufacturers: Products of manufacturers named and meeting specifications, no options or substitutions allowed.
- C. Products Specified by Naming One or More Manufacturers with Provision for Substitutions: Submit request for substitution for manufacturers not named.

2.5 SUBSTITUTIONS

- A. Architect will consider requests for Substitutions by the Bidder only [not materials suppliers, etc]. Submit list of proposed substitutions as part of project startup documents. Refer to Instructions to Bidders.
- B. Document each request with complete data substantiating compliance of proposed Substitution with Contract Documents.
- C. A request constitutes a representation that the Bidder:
 1. Has investigated proposed product and determined that it meets or exceeds quality level of specified product.

2. Will provide same warranty for Substitution as for specified product.
 3. Will coordinate installation and make changes to other Work which may be require for the Work to be complete with no additional cost to Owner.
 4. Waives claims for additional costs or time extension which may subsequently become apparent.
- D. Substitution Procedure
1. Submit copy of request for Substitution for consideration to Architect.
 2. Submit shop drawings, product data, and applicable certified test results attesting to proposed product equivalence. Burden on proof is on proposer.
 3. Architect will notify Contractor in writing of decision to accept or reject request.
 4. Substitution requests shall only be submitted by registered bidder for the project.
- E. Substitutions will not be considered when they are indicated or implied on Submittals, without written request or when acceptance will require revision to Contract Documents.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify existing site conditions and substrate surfaces are acceptable for subsequent Work. **Beginning new Work means acceptance of existing/job-site conditions.**
- B. Verify utility services are available, of correct characteristics, and in correct location.
- C. Contact OUPS a minimum of 48 hours prior to beginning work to verify location of existing utilities, coordinate requirements as applicable.
1. Contact private utility locating services as required by the conditions. It is the Contractor's responsibility to locate all public and private utilities that may be impacted by the work.

3.2 PROTECTION

- A. The work shall be accomplished in accordance with the provision of Federal, State American Standard Safety Code for Building Construction and OSHA safety requirements.
1. Contractor shall be responsible for protective railings and guards, tie-offs, fall protection, and other safety measures as required by OSHA, even if not specified. Fall protection is required. RDA is not a safety consultant and as such does not direct the means and methods of compliance with safety regulations.
 2. Contractor shall be responsible to provide personal safety equipment necessary for the Architect and Owner to safely visit the construction site as applicable, including, but not limited to safety harnesses, fall protection, as well as any other Contractor safety requirements such as high visibility safety vests, etc..
- B. The Contractor shall protect and maintain all building entrances, interior contents, building exterior and grounds.
1. Return all surfaces to their original condition after all work is complete.
- C. In the event of damages of any kind caused by improper protection. The contractor shall replace/repair the damages [including interior or exterior equipment] at no expense to the Owner.
- D. Contractor shall comply with all regulations of the Local Fire Department and the Owner's requirement regarding storage and handling of flammable materials, etc. It is the responsibility of the contractor performing any hot /torch work to comply with the safety provisions of the National Fire Codes pertaining to such work and the contractor shall be responsible for all damage or fines resulting from failure to so comply.

3.3 PREPARATION

- A. Clean substrate surfaces prior to applying next material or substance.

- B. Apply manufacturer required or recommended substrate primer, sealer, or conditioner prior to applying new material or substance in contact or bond.

3.4 JOB SUPERINTENDENT/EMPLOYEES

- A. Each prime contractor shall have a qualified foreman on the project at all times when work is being accomplished.
- B. Employees shall refrain from fraternization with building occupants.
- C. The Contractor shall furnish the Owner with a list of personnel with phone numbers that will be working on the project and emergency contacts names and numbers that has the authority to handle emergencies on a 24 hour/seven days a week.

3.5 ROOF / PROJECT ACCESS

- A. Access to roof areas shall be from outside portable ladder or ladder on man lift, provided, installed and maintained by the Contractor for the duration of the work. Workers are not to enter into any facility interior spaces unless approved by the Owner.

3.6 SAFETY PROGRAM

- A. Contractor must have a written safety program for all operations/ work performed on this project. The documents must be at the job site and be made available to the Owner or Architect when requested. The Contractor assumes all responsibility for project safety, ways, and means and methods of constructing the project. In addition, the Owner may require special safety requirements to be performed by the Contractor, these requirements will be provided prior to commencement of work.

3.7 REMOVALS AND CLEANUP

- A. Contractor shall be responsible for the removal, dismantling of items that are required for proper completion of the work as applicable in each section. All debris resulting from the work not designated for reuse becomes the property of the Contractor unless stated otherwise.
- B. At the completion of each day, the Contractor shall maintain the work area clean of all debris to the satisfactory of the Owner, including all the subcontractors work area.
- C. Provide dumpsters or trash containers needed for the proper removal of project materials, trash, or debris related to the work. Keep all work areas and project sites neat and free of trash and clutter at all times.
 - 1. No Debris, materials, etc. may be left unprotected on the grounds.
 - 2. All exterior staging / dumpster areas shall be fenced / protected.

3.8 GENERAL PROJECT REQUIREMENTS

- A. Equipment delivery and equipment staging must be coordinated with Owner prior to start of project.
- B. Safety is paramount and all personnel on site must wear appropriate personal protection equipment [PPE]. The Contractor is responsible for means and methods to ensure that proper PPE is provided. Failure to comply may result in dismissal from site.
- C. Barricade work area with appropriate construction grade barriers to establish boundaries of work area and assure safety for all workers and general public. All work areas must be properly barricaded from the general public prior to starting any work.
- D. Job sites will be maintained in an orderly and neat fashion at all times.
- E. Contractor will pre-determine work phases with Owner to minimize disruption of business operations.

Roof Recover 2019
Payne Rec Center Gym Roof
City of Moraine

END OF SECTION

SECTION 01 33 00 – SUBMITTALS

PART 1 GENERAL

1.1 WORK INCLUDES

- A. Review of shop drawings and product data by RDA.

1.2 SUBMITTAL PROCEDURES

- A. Contractor to submit product data and shop drawings for all applicable components of the project.
 - 1. RDA's review of the submittals will be general in nature and does not relieve the Contractor in any way of the responsibility in compliance with the contract requirements, manufacturer requirements, and/or applicable codes.
- B. Submittals shall be accomplished in a digital [PDF format]. Any hard copies received will be scanned and returned electronically.
 - 1. Mark each component to identify applicable products, models, options, and other data. Supplement manufacturer's standard data to provide information unique to this project. Non-identified submittals will be rejected.
- C. Submittals shall have a Submittal form / cover sheet to identify Project, Contractor, subcontractor or supplier; and pertinent Contract Document references.
- D. Apply Contractor's stamp, signed or initialed, certifying that review, verification of Products required, field dimensions, adjacent construction Work, and coordination of information is in accordance with requirements of the Work and Contract Documents.
- E. Identify variations from Contract Documents and Product or system limitations which may be detrimental to successful performance of completed Work.
- F. Revise and resubmit submittals as required; identify changes made since previous submittal.
- G. All submittals shall be accomplished at the beginning of the project to allow the proper ordering of materials for the project.
 - 1. Failure by the Contractor to provide submittals in a timely fashion does not change the project start date nor contract period.
- H. Any materials on the job site that have not been reviewed as part of the submittal process are subject to rejection / removal from the job-site. Any work undertaken without review of the submittal data is at the Contractor's risk and subject to rejection or replacement at no cost to the Owner if submittals are not in conformance with the project documents.
- I. Allow 7 days for review of submittal items by RDA.

1.3 SUBMITTALS / PRODUCT DATA / SHOP DRAWINGS

- A. Product Data / Shop Drawings:
 - 1. Submitted to RDA for review for limited purpose of checking for conformance with information given and design concept expressed in Contract Documents.
 - a. Roof Membrane, flashing components, insulation, cover board, fasteners, bonding adhesive, and other related components.
 - b. Insulation adhesive attachment patterns and frequency / spacing.
 - c. Tapered Insulation layout, tapered saddle layout if applicable.
 - d. Any Additional Details to comply with manufacturer's details or changes to the details as shown on the drawings.
- B. Samples for Review:
 - 1. Submitted to RDA for review and selection for aesthetic, color, or finish.

- a. Color chart for all metal items.
 2. Submit samples of finishes from full range of manufacturer's standard colors, textures, and patterns for Architect selection.
 3. Submit samples to illustrate functional and aesthetic characteristics of Product.
- C. Factory Mutual Global [FMG], Roof Manufacturer and Material Data Sheets
1. Roof Assembly / System Letter: Submit evidence that the roofing material system meets the performance intent of FMG's wind resistance tests. The roof membrane manufacturer must provide the roof assembly securement requirements along with a list of the proposed materials [assembly letter] to resist the wind uplift design pressures as specified, to meet the roof warranty wind requirements and other requirements as outlined in the specifications. See regulatory performance requirements.
- D. Eligible Applicator
1. Submit a letter from the roofing material manufacturer with the following items addressed.
 - a. The applicator is approved to use the products as specified and the manufacturer accepts the roofing system requirements and details as shown or with changes as provided.
 - b. The applicator has been manufacturer approved for over 5 years and is capable of obtaining the warranty as outlined in the specifications.
- E. Personnel/Other Contractors
1. Submit a list of all subcontractors and on-site personnel with the list of lead contact and associated phone numbers.
 2. Submit emergency contact sheet with contact's for an emergency – 24/7 call list.
- F. Contract Items:
1. Submit Certificate of Insurance, Worker's Comp Certificates as required by Owner.
 2. Submit bonds if applicable to the contract.
 3. Construction Schedule / Implementation and Sequencing Plan
- G. Safety Data Sheets: Submit Safety Data Sheets [SDS] on all products to the Owner.
1. Owner shall be responsible to provide to employees as applicable.
 2. RDA does not review / approve any SDS sheets.

1.4 MANUFACTURER'S INSTRUCTIONS

- A. When specified in individual specification sections, submit manufacturer printed instructions for delivery, storage, assembly, installation, [start-up,] adjusting, and finishing, in quantities specified for Product Data.

1.5 MANUFACTURER'S CERTIFICATES

- A. When specified in individual specification sections, submit certifications by manufacturer to Architect/Engineer, in quantities specified for Product Data.
- B. Indicate material or Product conforms to or exceeds specified requirements. Submit supporting reference data, affidavits, and certifications as appropriate.

END OF SECTION

**SECTION 02 41 00 / 07 01 50 - SELECTIVE DEMOLITION/
MAINTENANCE OF MEMBRANE ROOFING**

PART 1 GENERAL

1.1 WORKS INCLUDES, BUT IS NOT LIMITED TO:

Payne Rec Center:

Roof Area A: Clean / Prep existing EPDM roof membrane for overlay. [see roof matrix].

- A. Removal of existing perimeter base flashing [single ply]
- B. Removal of existing associated equipment supports and related items.
- C. Removal of wood nailers and blocking as applicable to the work. Wood members that are securely bolted or adequately fastened or can be adequately fastened to the structure per specs and are in a dry good condition can remain in place, if approved by RDA. [See section 06 10 53 for anchoring requirements].
- D. Removal and salvage of sheet metal items such as edges, gutters/downspouts, bib flashings, copings and counter-flashings as noted, if required.
- E. Removal of existing curbs, vents and covering associated openings as noted on the drawings.
- F. Other removals necessary to accomplish the new work.

1.2 QUALITY ASSURANCE

- A. Work shall be performed in strict accordance with the terms and conditions of all municipal and state regulation and local codes.
- B. Demolition shall comply with the requirements of ANSI - American National Standard Safety Requirements for Demolition.
- C. Conduct demolition work in a manner that will minimize disruption of owner's normal operations. Coordinate work activities daily with Owner.
- D. Do not remove existing roofing membrane or components when weather conditions threaten integrity of building contents.
- E. Properly protect all facility surfaces and associated landscaping from damages due to normal demolition operation. Return all areas to their original condition at no charge to the Owner.

1.3 COORDINATION

- A. All utilities and mechanical rooftop equipment will remain active during normal work hours, unless approved otherwise by the Owner.
- B. All removals shall be legally disposed, except those indicated to be reinstalled, salvaged or to remain Owner's property.

PART 2 PRODUCTS

NOT APPLICABLE

PART 3 EXECUTION

3.1 DUST / FUME CONTROL

- A. Contractor to take measures to avoid dust, dirt and debris from entering the building. Throwing material off the roof is prohibited; provide an enclosed chute, crane or raised dump

truck to remove roofing materials. Contractor shall provide a tarp or other protection of walls where material is being removed.

- B. Contractor must take special precautions around deck penetrations, including but not limited to installation and removal of reinforced visqueen below the roof deck to protect property below.
- C. Special precautions shall be taken to avoid fumes from entering the facilities through air intakes. Provide charcoal filters or other filtration media as necessary.

3.2 TRAFFIC

- A. Conduct demolition operations and the removals of debris to ensure minimum interference with streets, walks and other adjacent facilities. Do not close or obstruct streets or walks, without permission from owner and authorities having jurisdiction.

3.3 DISPOSAL OF MATERIALS

- A. Remove from the site, all debris, rubbish and other materials resulting from the demolition operations, are not being reused as soon as possible. The landfill used for disposal shall be approved for type of materials being disposed. Comply with local laws, EPA regulations when transporting materials from the site.
- B. All materials that are to be reused in the new work shall be removed, cleaned and stored in a safe place until reinstallation, as applicable.

3.4 ASBESTOS REMOVAL / NOTIFICATION

- A. If asbestos is found during course of work, all removals shall be in accordance with written guidelines provided by OSHA Asbestos Construction Standard [29 CFR 1926.1101], and State, County and EPA guidelines as applicable. Contractor must be OSHA trained meeting the requirements of 29 CFR 1926.1101 for the removal, handling and monitoring of removed material. Notify and provide all documentation to the Owner for disposal of asbestos. All costs for asbestos removal, permitting and handling will be included in the bid if noted herein. No suspect ASBESTOS containing materials have been found.
- B. All asbestos removals shall be in a manner not to cause the roofing fibers to become crumbed, pulverized or airborne, these materials shall be handled as Category I and II non-friable asbestos. Should asbestos be encountered noted or not, that has become friable due to the actions of the Contractor or the condition of the material, the Contractor shall secure the services of an abatement contractor to remove the material and an independent firm to monitor removal activities and procedures [removal plan required]. Contractor shall pay for this abatement contractor if asbestos became friable due to their removal procedures. Notify RDA if asbestos has been encountered that was not noted, prior to removal.

3.5 UTILITIES / EQUIPMENT

- A. Where electrical lines, refrigerant line sets, equipment, controls, etc. interface with the performance of the work, they shall be temporarily removed, replaced and made fully operational as soon as possible, a 48-hour notice and approval from Owner is required before any removals can take place. The Contractor has the responsibility to verify the operational status of all equipment before removals take place.
- B. The Contractor must notify the Owner of any non-operational items prior to removal, commencement of work constitutes acceptance of equipment and any costs to make operational shall be borne by the Contractor.

END OF SECTION

SECTION 06 10 53 - MISCELLANEOUS ROUGH CARPENTRY FOR ROOFING

PART 1 GENERAL

1.1 WORK INCLUDES, BUT NOT LIMITED TO:

- A. Miscellaneous sized new wood nailers/blocking, curbs, fascia/trim boards, plywood and associated fasteners, bolts, adhesives as required for installation of the roofing system and sheet metal. *Some items below may not be required for this project, but are outlined herein if required during course of work due to changing conditions or changes in scope.*
- B. Well secured wood members that meet the requirements of Section 02 41 00/07 01 50 can remain in place as per conditions/guidelines and attachment as specified herein. RDA must approve all nailers that will remain in place. Any new replacement nailers must be minimum of 2-inch x 6-inch unless otherwise noted or conditions dictate otherwise.

1.2 APPLICABLE REFERENCES

- A. The following references form a part of this specification.
 - 1. NFPA - National Forest Products design specifications.
 - 2. Factory Mutual Research Corporation, Loss Prevention Data Sheet 1-49, Perimeter Flashings
 - 3. APA – American Plywood Association.
 - 4. Lumber Grading Agency.
 - 5. American Wood Preservers Association
 - 6. State Building Code
 - 7. ANSI/SPRI/FM 4435 ES-1 Edge Systems.
- B. Perform work in accordance with Local Building Code.

PART 2 PRODUCTS

2.1 DIMENSIONAL LUMBER

- A. Board Stock: graded in accordance with NFPA and Lumber Grading Agency, board class number 2, structural grade, kiln-dried Douglas fir or Southern yellow pine. Preservative treated; asphaltic, creosote or copper additive [CCA, CA-B & ACQ] or any other type treated lumber not acceptable for use on this project unless for used as nailers on top of concrete or masonry wall surface, then use salt pressure treated lumber. Provide fire retardant treated blocking in non-combustible buildings. Sizes as shown are standard nominal sizes. Provide dressed lumber, S4S, unless otherwise noted.
- B. Plywood: 48/24 APA rated sheathing, 3/4-inch thickness, fire retardant treated.
- C. Moisture content for all lumber shall not exceed 19% by weight at time of installation, including any lumber that can remain in place. Lumber will be removed if moisture exceed 19%.
- D. Any lumber intended to be left exposed shall be appearance grade, suitable for a painted finish or finish as specified.

2.2 FASTENERS

- A. General: Contractor to determine the required length for each application in accordance with manufacturer data and Factory Mutual recommendations,
 - 1. Minimum embedment:
 - a. Steel-3/4 inch unless otherwise noted
 - b. Wood-1 1/4 inch unless otherwise noted
 - c. Concrete/concrete block [masonry] -1 1/4 inch unless otherwise noted.
 - 2. Comply with the fastening requirements of the International Building Code, Local Building Code and State requirements, whichever is more stringent.

3. All fasteners to anchor wood members shall be corrosion-resistant steel, compatible for the conditions or other requirements stated herein [as noted].
 4. See section 07 54 00 for additional fasteners data.
 5. Contractor shall notify the RDA if deteriorated substrate conditions exists.
- B. Lag Bolts: ANSI/ASME B18.2.1
- C. Steel Bolts: ASTM A 307, Grade A
- D. Nails: ASTM F 1667 [2015], 8d, 11-12-gauge, .113-inch diameter, ring-shank, corrosion resistance by coating or galvanization
- E. Wood Screws: ANSI/ASME B 18.6.1-81 [2016], corrosion resistance by coating, galvanization or stainless steel.
- F. Expansion Anchors: Steel, corrosion resistance, 3/8-inch diameter.

2.3 ADHESIVES

- A. Standard wood adhesive, caulk grade.
- B. ITW Red Head, A7 acrylic adhesive.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Inspect fastening of existing wood members left in place for conformance to requirements specified herein, upgrade as necessary to meet performance criteria outlined.
- B. Examine surfaces for satisfactory conditions and do not use materials that are warped, bowed, twisted or unsound.

3.2 INSTALLATION

General: Installation shall be in accordance with Factory Mutual Loss Prevention Data Sheet 1-49 perimeter flashing recommendations and details, Local Building Code, ANSI/SPRI/FM 4435 ES-1, other standard industry framing methods and as shown. Attachment withdraw resistance criteria for nailers/wood blocking is 200 P/F for perimeter, 300 P/F for corners *onto substrate with margins of safety applied from printed values, as follows: Steel, Wood, Structural Steel 2:1, Concrete, 4:1, Gypsum 3:1. No power actuated fasteners or pin drive fasteners allowed. Fastener spacing as outlined below is the maximin allowable, unless otherwise shown on the plans.*

- A. Install members true, plumb and level, secure in place. Provide all required shoring and temporary bracing required.
 1. Use members of continuous possible lengths.
 2. Fasteners or nails used to secure fascia and top nailers [stacked] to other wood members shall penetrate 1-1/4 inch, apply in two rows at 12 inches on center at perimeters and 6 inches in corners, staggered if feasible.
 3. Wood nailers/blocking shall have a 1/4 inch space between boards.
- B. Metal/ Metal Deck: Wood nailers at perimeter/corners shall be fastened to the deck with two rows of # 14 steel, wood to metal deck tek fasteners [wafer head] or #14 HD steel roofing fastener at 24 inches on center staggered in perimeters and 12 inches staggered in corners. Start fasteners 3 inches from each end of the board, staggered fasteners 2 inches from edge if nailer is wider than 5 1/2 inches [if existing or stacked wood nailers exceed 6 inches in thickness height consult RDA for fastener selection]. An alternate method, when nailers/blocking are parallel to deck ribs, the nailers can be attached to the structural members [joists] with 3/8-inch steel bolts/nuts or tek/5 fasteners, 7 feet on center max. spacing. All fasteners must penetrate the top flange of the deck and be driven flush or countersunk, if necessary.

- C. Steel Members: Wood nailers at perimeter/corners shall be fastened to a steel member with one row of #14 or 1/4-inch steel, wood to metal deck tek/5 fasteners at 18 inches on center, centered, staggered fasteners 2 inches from edge if nailer is wider than 6 inches, pre-drill holes and countersink, if necessary. Fasteners shall start 3 inches from each end of the boards and shall be spaced 16 inches on center each way from the corner.
- D. Concrete Block/Concrete, Stone and Concrete Decking: Wood nailers at perimeter/ corners or on top of parapet wall shall be fastened with one row [two rows if nailer is over 5 1/2 inches wide] of 1/4-inch self-tapping fasteners at 24 inches on center [offset or staggered] in perimeters and 16 inches [offset or staggered] in corners-each way. Fasteners shall be spaced 2 inches from edge if nailer is wider than 5 1/2 inches, pre-drill holes and countersink, if necessary. Fasteners shall start 3 inches from each end of the boards [if existing or stacked wood nailers exceed 6 inches in thickness height consult RDA for fastener selection] or use a 3/8-inch diameter treaded rod placed into a pre-drilled hole with adhesive injected for a solid substrate, bolt boards to rod. Rods placed at 4 feet on center in the perimeter and 2 feet on center in corners-each way. Cores of hollow block must be filled with grout where rods are located. Embed rods 5 inches minimum into filled block cores or solid block/concrete.
- E. Gypsum/Tectum Deck: Wood nailers at roof perimeters/corners on decking shall be fastened to the deck with 3/8-inch corrosion resistant thru bolts with nut and bolts attached at 18 inches on center in perimeters and 18 inches on center in corners, bolts shall have a 5/8-inch diameter outside diameter washer and be countersunk flush with top of nailer. Provide a lock washer/nut to secure bolts. An alternate method, the nailers can be attached to the structural members [joists/structural members] with 3/8-inch steel bolts/nuts or tek/5 fasteners, 7 feet on center max. spacing.

3.3 SURFACE TREATMENT

- A. All exposed to view newly installed wood members shall be primed and painted to match surrounding surfaces colors unless otherwise noted.

END OF SECTION

THIS SHEET LEFT INTENTIONALLY BLANK

**SECTION 07 53 00 / 07 62 00 / 07 71 00 - FULLY ADHERED ELASTOMERIC [EPDM]
AND SHEET METAL / ROOF SPECIALTIES**

PART 1 GENERAL

1.1 WORK INCLUDES, BUT NOT LIMITED TO

General: Intent of project is to provide a functional 20-year new watertight roof system, resisting wind uplift pressures, thermally induced movement and exposure to weather without failure. Roof system must have been tested and have field experience by the manufacturer.

- A. Removal of existing roof systems and related items [See section 02 41 00/07 01 50 [Selective Demolition/Maintenance of Membrane Roofing].
- B. Clean and dry deck surface.
- C. Installation of a new EPDM roofing system.
- D. Installation of new sheet metal items, including drip/gravel stop edge, bib flashing, vent flashings, termination bars, and pipe and equipment supports.
- E. Installation of new flat stock insulation [see roof schedule]. New insulation at areas of removed wet insulation if applicable.
- F. Installation of new membrane flashings and roof accessories/specialties.
- G. Raising existing curbs on mechanical units, vents, etc and rework, disconnect/ extend ducting/ electrical /gas lines to accommodate new insulation heights, flashings, penetration covers and sheet metal as required. Electrical connections/utility hookups removed and reinstalled by Electrical contractor. Purge and recharge all removed HVAC units by HVAC contractor.
 - 1. All work required for plumbing, mechanical, and electrical disconnect and reconnect, rework, etc. as necessary for the proper execution of the work shall be included within the Contractor's scope – this will NOT be accomplished by the Owner, unless specifically noted.
 - 2. Sub / Trade Contractors must be approved by Owner. In some cases, there may be maintenance contracts, preferred vendors who work on the building and understand the intricacies of the existing building systems that must be utilized.

1.2 RELATED SECTIONS

- A. Section 06 10 53 – Miscellaneous Rough Carpentry for Roofing
- B. Section 02 41 00/07 01 50 – Selective Demolition/Maintenance of Membrane Roofing

1.3 APPLICABLE REFERENCES

General: The following references form a part of this specification.

- 1. ASTM D 41 Asphalt Primer Used in Roofing, Damp proofing Waterproofing.
- 2. ASTM D 4586 Type II, Asphalt Roof Cement, Asbestos Free.
- 3. ASTM A792, Pre-Finished [Galvalume], Grade 50, Coating Class AZ50, Sheet Steel, Aluminum-Zinc Alloy.
- 4. ASTM A755 Pre-Finished [Galvanized], Grade A, Hot Dipped, Zinc Coated G90.
- 5. ASTM C 1289-13 Closed cell polyiso Insulation Board, Type II, Class 1, Grade 2
- 6. ASTM C 1289-13 Closed cell polyiso HD Cover Board, Type II, Class 4, Grade 1
- 7. ASTM E 108 Fire Test of Roof Coverings
- 8. [FMG] Factory Mutual Global - Current Approval System, Loss Prevention Data Sheets for Roof Deck Securement for Above Deck Roof Components, Perimeter Flashings, Wind Design – ANSI/FM 4474, Approval Standard FM 4470 and Roof Loads for Construction.
- 9. ASTM B209 Aluminum.

10. [UL] Underwriters Laboratories - Roofing Materials and Systems Directory, Fire Resistance Directory, Current Edition.
11. [NRCA] National Roofing Contractors Association - Current Roofing and Waterproofing Manual
12. [SMACNA] Sheet Metal and Air Conditioning Contractors Association- 6th Edition or Current Manual
13. [OSHA] Occupational Safety and Health Administration, Guidelines.
14. [ASCE] American Society of Civil Engineers ASCE 7-10, Minimum Design Loads for Buildings.
15. ASTM D 4637 Standard Specifications for Ethylene Propylene Diene Monomer [EPDM].
16. ANSI/SPRI/FM 4435 ES-1 Wind Design for Edge Systems.

1.4 SUBSTITUTIONS / EQUALS

- A. When a particular make or trade name is specified, it shall indicate the standard quality required. Bidders proposing substitutions shall submit the following five [5] days prior to bid date to RDA. Refer to Section 00 21 13
 1. Manufacturer's literature and samples of requested substitutions.
 2. Only substitutions approved by RDA prior to scheduled bid date will be considered.

1.5 QUALITY ASSURANCE

- A. Manufacturer: Company specializing in manufacturing single ply / EPDM roofing membranes specified in this section, with minimum 10 years' experience.
 1. All roofing materials supplied must be manufactured or manufacturer approved by the company furnishing the warranty including the metal roof edge and coping - **single source responsibility**. The manufacturer must manufacture the membrane material furnished as a minimum.
 2. The roofing material manufacturer [manufacturer of record] must submit a letter stating that the applicator is approved to use the products as furnished, is licensed to install their material in the state in which the project is located, that the applicator is capable of obtaining the warranties as outlined in the specifications in accordance with the roof system requirements and details as drawn and the products are acceptable for use on the surfaces to which they are being applied. In addition, an outline of the roofing system components product name and their securement requirements shall be included with the letter.
- B. Applicator: Company specializing in applying single ply with minimum 5 years documented experience, never been terminated by a manufacturer for workmanship problems, be approved for minimum 5 years by the manufacturer for use of their materials and can provide the warranties as specified.
- C. Inspection: Prior to, during mid-point installation and at completion, an inspection shall be made by the manufacturer's representative to assure that the roofing system is/has been installed in accordance with their requirements and recommendations.
 1. An inspection status report at mid-point of construction shall be prepared by the manufacturer's rep and provided to RDA, no later than 3 days after the inspection.
- D. Training: The roof foremen or at least 1 assistant working on this project must either be a 'Journeymen Roofer' or have attended and completed the roof material membrane manufacturer's approved installation course herein within the last two years of the bid date with the membrane/s specified herein. [**Certificate of proof required or letter from manufacturer as part of the submittal**]. Roof foremen must have a minimum of 5 years' experience with application of single ply roof systems and be able to interpret specifications and drawings [Contract documents must be on-site at all times].

- E. Drainage Testing: The contractor shall test each roof drain and/or downspouts/scuppers for proper water flow and notify the Owner of any clogged drainage and drains that cannot have the roof membrane secured with the existing clamping ring [broken, bolts, etc] before commencement of work. Commencement of work shall constitute acceptance of drainage device and any costs to unclog or repair these items shall be borne by the Contractor.
- F. Contractor shall have a large waterproof tarp on site for sudden inclement weather and to safeguard dew accumulation on the roof surface if needed.
- G. Contractor to provide any power necessary to accomplish the work, Owner may or not provide power.
- H. Existing membrane penetrations or leak sources within work area must be repaired watertight before commencement of new work.

1.6 REGULATORY PERFORMANCE REQUIREMENTS

- A. Fire Hazard Classification: Underwriters Laboratories [UL], Use only Class A fire-rated materials as tested in accordance with ASTM E 108 or UL 790 for exterior fire.
- B. American Society of Civil Engineers [ASCE], Factory Mutual Global Corporation [FMG]/Roof Material Manufacturer/NRCA: Roof materials supplied must be FMG approved meeting FM 4470 test standards, meeting the intent of the test criteria set forth in FMG/ANSI standard 4474 and ANSI/SPRI WD-1 to resistance the uplift wind design pressures as noted on the drawings and for **FMG** windstorm resistance classifications, to support internal/external fire, [metal decks], to support corrosion resistance fasteners/anchors and impact resistance for **severe hail [SH]** rating. The roof membrane manufacturer in compliance with the building code must provide the roof assembly securement requirements to resist the wind pressures as noted along with meeting the roof warranty wind requirements and other requirements as shown and outlined in the specifications. The manufacturer's roof assembly securement must **not** be less stringent than the ASCE 7-10 calculations and must be successfully tested to resist wind uplift pressure according with ANSI/SPRI WD-1 standard. A field pull [ANSI/SPRI FX-1] or adhesion test [ANSI/SPRI 1A-1] will be necessary prior to commencing work when conditions are different than manufacturer's assembly test criteria for their approval to meet the design pressures or required by the state building codes or be conducted per RDA request. If a test has been accomplished the results will be provided herein.
- C. Occupational Safety and Health Administration [OSHA]:
 - 1. Asbestos roof materials training for the removal, handling and monitoring.
 - 2. Roofing safety requirements for torch application.
 - 3. Walking Work Surfaces and Fall Protection Standards

1.7 MEETINGS / COORDINATION

- A. A pre-installation conference one week prior to commencing work of this section will be mandatory. All parties responsible for work in this section are required to attend.
- B. Progress meetings will be held bi-weekly during construction. Memos resulting from these meetings will be provided to the Owner and Contractor by RDA [See section 01 00 00].
- C. Daily reporting by the Contractor is required.
 - 1. Contractor to email project team daily with outline summary of work accomplished, any problems encountered such as wet insulation, bad deck, etc.
 - 2. Contractor to email project team on days when weather prohibits work to indicate a 'weather day'. Time extensions may be granted by review of email / documentation.

1.8 DELIVERY, STORAGE, AND HANDLING

- A. Do not overload structure with storage of materials, verify roof deck weight capacity and location of structural supports, only items needed that day shall be stored on the roof. Limit

loads on roof to 25 pounds per square foot for uniformly distributed loads for metal/gypsum decks, 75 pounds per square for concrete decks.

1. Provide temporary securement of existing membrane to prevent membrane blow off while installing new roof system if applicable.
- B. Store and protect products in accordance with manufacturer's instructions.
- C. Deliver products in manufacturer's original containers, dry, undamaged, with seals and labels intact. All materials must be UL or FM labeled.
- D. Store products in weather-protected environment [manufacturer's plastic wrap is accepted for proper protection, unless wrap is broken, torn, removed], clear of ground 4 inches min. and moisture. Use breathable tarps for moisture protection as needed. Protect unwrapped foam insulation and liquids from direct sunlight exposure. Water damaged materials will be marked 'rejected' by the Contractor/Owner or RDA and removed from the site.
- E. Storage of flammable liquids in buildings is prohibited. All combustible debris shall be removed from the site daily.
- F. Storage shall be in areas designated by Owner [See section 01 00 00].

1.9 WEATHER CONDITIONS

- A. Do not apply roofing system during inclement weather or when the chance is 40% or greater, percentage as listed on www.weather.com for the local area, percentage as listed when read at 7 AM local time or at time of work commencement. Proceed with roofing and associated work when weather conditions will permit unrestricted use of materials and quality control of the work being installed.
- B. Do not apply roofing system to damp or frozen deck surface.
- C. Follow manufacturer's cold weather application when temperatures fall below 40 degrees F.
- D. Adverse weather conditions e.g. extreme temperature, high winds, high humidity and moisture could have a detrimental effect on adhesives, contact manufacturer for acceptable tolerances. See additional restrictions specified herein

1.10 SEQUENCING AND SCHEDULING

- A. Building space underneath roof work is utilized by on-going operations. Coordinate all work with Owner including, material storage and contractor parking. Owner's approval required before proceeding with the work. **Contractor must provide overhead protection for Owner's workers, public, visitors, etc from falling materials/debris at building entry points.**
- B. Coordinate the work of installing all associated items in such sequence that will not necessitate movement of workers and equipment over completed roof areas.
- C. Sequence daily work of new roofing to be limited only that can be covered and made 100% watertight at the end of each day, including full adhesion of the membrane, flashings and night seals. No temporary roofing shall be allowed unless approved by RDA.

1.11 MANUFACTURER'S WARRANTIES

- A. Provide a manufacturer's warranty for both repairs/replacements due to any faults in the material and workmanship [Total System Responsibility]. Any leak repairs/replacement due to normal wear and tear, membrane defects, workmanship defects, damage due to wind speeds up to **72 mph** [10 meters above ground], shall be performed at no charge to the Owner through the period of the warranty. Roof warranty shall be a no dollar limit type with no penal sum, covering all insulation, fasteners/adhesion [excluding existing insulation adhesion to the roof deck], membrane, flashings, liquid flashing, metal coping/edging, regardless of the manufacturer, sheet metal items such as coping and edges must be

furnished or approved by the Manufacturer of the roofing membrane. Warranty must be transferable and must be signed by the Manufacturer of record and the Owner. When a contractor warranty is provided or implied, this warranty must bind the Manufacturer and Contractor, for the terms of their agreement, to perform any necessary repairs/replacements for the term of the warranty [in most cases two years].

1. EPDM Roof System shall be warranted for [20] twenty years.
 2. Sheet metal coping and fascia edges shall be warranted for winds up to 72 MPH by the roof membrane manufacturer [part of the warranty]. Pre-manufactured items or ES-1 shop fabricated must be warranted by the metal manufacturer or fabricator for winds up to 90 MPH or be certified to meet or exceed the design pressure as noted and other requirements as stated herein.
 3. All pre-finished metal shall carry a 20 year, leak-proof, finish and base metal warranty.
- B. In the event of a default by the Contractor, the Manufacturer will provide a new contractor to fulfill the warranty obligation.

1.12 PORTABLE FIRE EXTINGUISHERS

- A. Two standard listed multipurpose dry chemical fire extinguishers, NFPA 10, with 10-pound capacity and an ABC UL rating shall be provided and located 20 horizontal feet from the work area. Additional fire extinguishers shall be provided for different roof levels/work sites.
1. Contractor to ensure all personnel are trained to use fire extinguishers.

PART 2 PRODUCTS

General: All products shall be state approved, and Building Code approved as applicable, meeting all manufacturers full system roof warranty requirements.

2.1 ROOFING SYSTEM DESCRIPTIONS

- A. Elastomeric Manufacturers, Membrane Products and Membrane Designation: [Single Ply]: Ethylene Propylene Diene Monomer [EPDM] .060 inches thick, non-reinforced, color black [See roofing system schedules].
1. Firestone Building Products [Firestone], RubberGard LSFR
 2. Carlisle SynTec., EDPM design A, Sure Seal FR
 3. Johns Manville, EDPM, SE6A-T
- B. System Assembly Applications: Metal Deck – Reroof, fully adhered membrane.
1. Insulation [polyisocyanurate] Manufacturer:
 - a. Firestone Building Products, ISO 95+GL
 - b. Carlisle SynTec, Insul Base
 - c. Johns Manville Energy 3
 2. Base Flashing Designations- Single ply: non-vulcanized EPDM.
 3. Use manufacturer approved product for irregular flashing conditions, including molded products.
 4. Other Flashing Designation- Manufacturer's approved details for 20-year warranty.

The contractor's quote must match the roof system including all components and application procedures [cover board, fasteners, membrane and etc.] The roofing schedules set the parameters for the roof system assembly and its application procedures.

ROOFING SYSTEM SCHEDULES

**ROOF SYSTEM [EPDM Roof System]
Low Sloped Metal Deck - Area A
Prep existing EPDM roof membrane**

| | |
|------------------------|--|
| Deck, Prep: | See deck preparation. |
| Existing Insul System: | Existing dry polyiso insulation to remain, flat stock, 3 inches thick, adhered to existing metal deck. |
| Ex. Roof System: | Fully adhered EPDM to remain, relief cut existing EPDM if required by roof manufacturer, approximate 10'x10' grids. |
| New Insulation: | Add one layer, 1 1/2-inch thick, flat stock, closed cell polyiso, adhered to existing EPDM roof membrane. |
| Cover Board: | One layer, 1/2-inch thick high density [HD] closed cell polyiso insulation, adhered to new insulation [add alternate #1] |
| Top Sheet: | One ply EPDM membrane, fully adhered with bonding adhesive to the new insulation / cover board. |

2.2 SHEET MATERIALS / COMPONENTS [ELASTOMERIC]

General: All membrane components, molded flashings shall be the same color as the main field membrane, unless otherwise noted.

- A. Elastomeric Sheet: ASTM D4637, type I, class A material, cured, synthetic, Non-polyester reinforced, single ply membrane composed of Ethylene Propylene Diene Monomer [EPDM], black, .060 inches thick.
- B. Membrane Flashing: ASTM D4811, Type II, .055 -.060 inches thick, black, non-reinforced, semi-cured, synthetic, single ply EPDM.
- C. Self-Adhesive Flashing: un-cured .045 inches thick, EPDM membrane laminated to 35 mil EPDM tape adhesive.
- D. Lap Splice Tape: .035 inches thick, EPDM-based, formulated for compatibility w/EPDM membrane, self adhering, cured, width as required.
- E. Adhesive Primer: Solvent based synthetic rubber based formulated for compatibility w/EPDM membrane.
- F. Splice Adhesive: Synthetic polymer-based.
- G. Bonding Adhesive: Solvent-based, SBR rubber based, design for bonding EPDM.
- H. Water Block Seal: Butyl rubber sealant.
- I. Splice Cleaner: Organic solvent mixture.

2.3 EPDM PRIMER / WASH

- A. Water-based cleaner designed to safely clean and prepare EPDM roof surfaces. Karnak 507 SPC Primer/Wash or Equal, and as approved by the roof manufacturer.

2.4 INSULATION ADHESIVE

- A. Insulation Adhesive: Two-part, moisture cured, polyurethane based, low odor, as approved and supplied by the manufacturer of the roof system.
 - 1. Firestone: I.S.O. Stick
 - 2. Carlisle SynTec: FAST Insulation Adhesive
 - 3. Johns Manville: Two Part Urethane Insulation Adhesive

2.5 INSULATION AND COVER BOARD

General: All flat stock insulation and/or cover board shall be from the same manufacturer. Board configuration: 48-inch x 96-inch thickness [mechanically fastened] or 48-inch x 48-inch thickness for adhered [adhesive] applied. Mixing of insulation panels from different manufacturers is not acceptable. All insulation/cover board shall be supplied and approved by the membrane manufacturer and must meet FMG 4450 or UL 1256 as a tested assembly.

- A. Flat Board Stock [includes replacement, tapered saddles and/or leveling insulation]: ASTM C1289, closed cell polyisocyanurate, square edge/rigid board, type II, class 2, grade 2, coated bonded inorganic glass fiber reinforced mat facers on both sides, square edges, minimum 20 psi compressive strength, size boards as approved for application and by the roof membrane manufacturer. Thickness as indicated.
- B. Cover Board, [top layer over new insulation – add alternate #1]: ASTM C 1289, Type II, class 4, grade 1 [80-109 PSI], 1/2-inch-thick, polyisocyanurate, square edge/rigid board, coated bonded inorganic facer with a water-resistant high-density close cell core.
 1. Firestone: ISOGARD HD
 2. Carlisle: SecurShield HD FR
 3. John Manville: ProtectoR HD

2.6 CANTS / EDGE

- A. Cant Strips and Tapered Edge Strips: Perlite, fire resistant, performed to 45 degree angle and 18 inch long tapered edge strip, tapered front to back as required by the Manufacturer.

2.7 ACCESSORIES / ROOF SPECIALTIES

General: Fasteners/Anchors: strength, type and configuration must meet the required pull test resistance for each attachment application. Fastener rate and pattern must be FMG or local code approved to meet the intent of the wind uplift rating specified. The Contractor shall determine fastener lengths, minimum embedment: steel-3/4 inch, concrete/concrete block-1 1/4 inch, gypsum 2- inch, tectum 2-inch and wood-1 1/4 inch. Fastener manufacturers listed are ITW Buildex, IWT Red Head and TruFast or equal. All fasteners shall be corrosion resistant steel or ASTM F1667 [2015] or type 304 -316 [coastal areas] stainless. Wind rated copings and fascia edges required - see details for selection of item. *Some items below may not be required for this project, but are outlined herein if required during course of work due to changing conditions or changes in scope.*

- A. Summary of items and requirements are as follows:
 1. Roofing and Other Nails: square or round head, ring shanked galvanized or non-ferrous type, length and diameter as required to suit application.
 2. Insulation Fasteners/Plate, Metal Deck: Steel, HD #14, phillips head, superior corrosion resistance with a 3-inch round metal cap, meeting FMG 4450 standard requirements and must be supplied or approved by the membrane manufacturer. **FASTENER COLOR SHALL BE WHITE.**
 3. Other Fasteners:
 - a. Metal Counterflashing and other LG metal sheets to Wood, ITW Buildex, 'Scots Tek's' [AB point] stainless steel-hex head, 1/4 inch, corrosion resistance steel shank with EPDM washer.
 - b. Metal Counterflashing and other LG metal sheets to Wood, ITW Buildex, 'Scots Tek's' [AB point] stainless steel-hex head, 1/4 inch, corrosion resistance steel shank with EPDM washer.
 - c. New -Existing Wood Members or New-Existing Nailers to Steel, ITW Buildex, # 12 or 1/4 inch, tek/ 3, 4.5 or 5, hex washer head, corrosion resistant self-drilling steel fastener [pre-drill holes and countersink head- max. wood thickness 7 inches].

- d. New -Existing Wood Members or New-Existing Nailers to Metal Decking, TruFast , #14 HD, phillips head, corrosion resistant self drilling steel roof fastener .
 - e. Metal Counterflashing and Other LG Sheet Metal [exposed] to Masonry, ITW Red Head, 1/4 inch, 'Scots Tapcon', stainless steel-hex head, HL treads, corrosion resistant steel shank, with EPDM washer.
 - f. Termination Bars [exposed] to Masonry, ITW Red Head, 1/4inch, 'Scots Tapcon', stainless steel-hex head, HL treads, corrosion resistant steel shank, with EPDM washer.
 - g. Metal Sheets or Metal Decking to Metal Decking, #10, ITW Buildex, ' tek/ 1', hex washer head, ABOT self-tapping with corrosion resistant steel shank.
 - h. Metal Decking to Metal Joists, #12 or 1/4 inch, ITW Buildex, ' tek/ 4 or 4.5' hex washer head, self tapping with corrosion resistant steel shank.
 - i. Wood Members/Nailers to Masonry: ITW Red Head, ¼ inch, 'tapcon' steel anchor, corrosion resistant, pre-drilled and countersink head - max wood thickness 5 inches required. Or use TruFast, #14, HD phillips head, corrosion resistance steel roof fastener.
 - j. General Purpose Stainless Steel: Series 304 fasteners, with or w/out EPDM washers, as noted. Size as required.
4. Pre-Molded Manufactured Accessories: Molded EPDM, color to match field, .055-.075 inch thick, pipe flashings, etc. Manufacturer, warranted accessories
 5. Walkway Pads: Rubber with quick seam tape laminated to the bottom membrane. Size shall be 30-inch x 30-inch x.30 in. thick or as supplied by the manufacturer. black in color.
 6. Penetration Pockets: Pre-finished 24-gauge stainless steel, soldered together with 4-inch roof flange and 4-inch height or size required for condition, only use if another manufacturer approved detail, field flashing, or liquid flashing system will not work for the conditions.
 7. Pourable Sealer: Polyurethane, Manufacturer's standard.
 8. Termination Bars: Aluminum 1.3-inch-wide, 10 feet long, 1.08 inch [min.] thick bars with flat or with [integral caulk edge], as applicable per manufacturer.
 9. Edge Securement [EPDM]: Reinforced perimeter fastening strip (RTS), 6 in. wide, .045 in. thick, polyester scrim reinforced, with and without factory laminated self-adhering tape.
 10. Pipe Supports/Hangers:
 - a. Manufactured by Portable Pipe Hangers, Adjustable, stainless metal components, polypropylene base, 'type SS8 – C or R [up to 2 ½ inch pipes] or PP10' [up to 3 ½ inch pipes], as required for conditions
 - b. Manufactured by OMG, Pipe-Guard, non-adjustable, PGM-BK, PGS-BK, PGTS-BK pipes up to 2 inches, as required for conditions.
 - c. Manufactured by Advanced Supports Products, EcoCurb or equal. Pipe supports for Condensate Lines/Piping.
 11. Rail Curbs: Manufactured by Pate, type es-1, es-2 or es-5, as required for condition, size as required by unit base size.
 12. Vent Pipe Extenders: Manufactured by Tubos, Clearwater, FL, PVC pipe extenders.
 13. Roof Drain Accessories: bolts, clamping ring, strainers, size and type as required to accommodate existing drains.
 14. Equipment enclosure: 24-gauge stainless steel, shop or pre-manufactured [pate curb's pipe hood assembly] with top fabricated [angled] to allow no moisture from entering the pipe areas, access to pipes required. Install mortar in the bottom of base with polyurethane pourable sealer poured around pipes [2-inch depth minimum]. Seal pipes that exit enclosure with sealant/foam.
 15. Expansion Joints: 60 mil PVC sheet attached to aluminum flanges with bifurcated crimp, with a closed cell polyethylene foam backer; Continuous or longest pieces

- possible [if available], Johns- Manville 'Expand-O-Flash', curb to wall type with bellow size to match existing with shop fabricated termination.
16. Grease Containment: Manufactured by Omni containment system, type as required for condition.
 17. Continuous Cleats: Galvanized steel, 22 gauge.
 18. Counter-flashing and Flange/Sleeve: Pre-finished 24-gauge galvanized steel [flange/sleeve], with 4-inch roof flange, length/style as shown. CF corners shall be mitered and sealed with sealant
 19. Bib Metal: 24-gauge stainless steel or 24-gauge pre-finished [match housing / adjacent color as applicable] steel, minimum 4 inch wide.
 20. Wind-Rated Coping [pre-manufactured only]: Pre-finished 24-gauge metal coping cap, without exposed fasteners cleated on both sides, [continuous cleated or seat/chair configuration] tapered style [toward roof], butt joint. Provide factory-fabricated corners, intersections. Concealed splice plates which must allow the cap to expand and contract freely while locked in place with cleats on sides or with a heavy gage metal seat/chair anchored to nailer/substrate. Condition must allow for moisture to drain off edges without moisture to enter under coping cap, ANSI/SPRI/FM ES-1/FM class number 4435 standard tested and approved, size and shape as shown, roof membrane manufacturer approved and warranted for minimum 120 mph wind resistance or higher to meet design pressures and a 20-year finish, leak proof warranty by the metal/roof materials manufacturer. Pre-Manufactured by Metal Era's 'Perma-Tite' or equal.
 21. Wind-Rated Drip Edge/Gravel Stop: [Shop fabricated ES1 or pre-manufactured] Pre-finished 24-gauge metal fastened metal cover over a 22-gauge metal continuous cleat with 1 inch projected on top, slotted or prepared for fastener locations on the cleat face. Size, length and shape/profile as shown, roof membrane manufacturer approved and 20-year finish warranty by the metal manufacturer. ANSI/SPRI/FM ES-1/class Number 4435 Standard tested and approved. Pre-Manufactured by Metal Era, One System, Drip Edge/Gravel Stop.
 22. Gutter:
 - a. Gutters: 24-gauge, pre-finished galvanized metal, style A or D, continuous, with 3-4-inch flange back, size 7-inch, Longest length possible, 30 feet max, between expansion joints.
 - b. Gutter Spacers: non-penetrating spacers, 1/16 inch thick x 1 inch wide, spaced at 30 inches on center.
 - c. Gutter Brackets: 1 ½ inch wide, 1/8-inch-thick steel, painted to match gutter color.
 23. Downspouts:
 - a. Downspouts: 24-gauge, pre-finished galvanized metal, square, smooth with flat lock seams, size as existing or as noted, see roof plan for locations.
 - b. Downspout Hangers: 1 ½ inches wide, 1/16-inch-thick steel [primed and painted] to match downspout/gutter color.
 24. Conductor Head: 24-gauge, pre-finished galvanized metal, pop riveted and sealed, [SMACNA, style FIG 1-25C], top opening size as existing with other dimensions in accordance with SMACNA sizing recommendations or as required by condition.
 25. Overflow Scupper: 24-gauge, stainless steel, solder all corners, size and shape to match opening as shown with pre-finished, 24 gauge exposed to view outside cover plate. Installation [SMACNA FIG.1-30 A & B singular].

2.8 SHEET METAL

General: Roof membrane manufacturer supplied and approved components [copings/fascia edges - if required/shown] must be used, these sheet metal components must be tested and approved in accordance with ANSI/SPRI/FM 4435 ES-1 test methods and must be included into the roof warranty. Fabricated by Metal Panel System, Architectural Products, Metal Era,

Una-Clad or Dimensional Metals, etc., [the metal manufacturer may allow the contractor to use his metal/materials and shop fabricate only drip edge/gravel stop - roof penetrating flange type if required/shown] and install the items in accordance with their wind rated ES-1 approved tested assembly requirements, only will be accepted if the metal or membrane manufacturer will provide the warranties - wind and finish warranties as outline herein and meet RDA design requirements]. All other metal shall be shop fabricated in accordance with SMACNA 6th Edition or other details or pre-manufactured as shown. All pre-finished metal [steel] shall be fabricated using galvalume, unless not available or wind resisting testing was used with galvanized steel.

- A. Pre-Finished Metal [Galvalume]: ASTM A792, grade 50, 24 or 22 gauge [as outlined], primed and finished one side with a fluoropolymer Kynar 500 coating and a wash coat applied to the reverse side, 20-year warranty covering fade, chalking and film integrity. Colors as selected by RDA and Owner.
- B. Pre-Finished Metal [Galvanized]: ASTM A755, grade A, 24 or 22 gauge [as outlined], primed and finished one side with a fluoropolymer Kynar 500 coating and a wash coat applied to the reverse side, 20-year warranty covering fade, chalking and film integrity. Colors as selected by RDA and Owner.
- C. Galvanized Steel: ASTM A 653, hot dipped, zinc-coated, G90, gauges as shown.
- D. Lead: ASTM B749, 2 1/2 pounds per square foot [roof drain and vent pipe flashing-modified only].
- E. Stainless Steel: ASTM A240/A 240M, dead soft fully annealed, smooth 24-gauge, type/grade 304 [painted] and 316 [exposed to view].

2.9 SEALANT

- A. General Use: ASTM C920, Type S, Grade NS, Class 25, single component, Tremco's 'Dymonic' polyurethane, non- staining, non- shrinking, non-sagging and ultra-violet resistance, clear or to match surrounding existing color.
- B. Gutter: GE Silicone II, Clear in color.

PART 3 EXECUTION

3.1 EXAMINATION / LEVEL SURFACE CONDITIONS

- A. Verify that surfaces and site conditions are ready to receive work. Verify that deck [total removed sections] is clean and smooth, free of depressions, irregularities, or projections, properly leveled, start of work constitutes acceptance of conditions.
- B. Areas of substrate where ponding water will occur [3/4" deep or greater] one hour after rainfall] shall be built-up in accordance with the leveling fill manufacturer's recommendations prior to the installation of the final mineral surfaced cap ply sheet. Failure to perform this action could result in total roof removal, string leveling prior to final ply recommended.

3.2 PROTECTION

- A. Protect building surfaces/interior spaces against damage from roofing work. It is the Contractor's responsibility to take any necessary actions to prevent construction-related leaks, to include but not limited to repairing watertight existing surrounding roofing scheduled to be replaced or overlaid. Surround roofing areas include roof top material storage areas, workers roof top access to from roofing work site areas and any drainage system [roof drain-scuppers] leak issues located in work area. Contractor must include the cost to deal with these existing leak sources into the overall project unless the Owner/Project Manager/RDA is made aware of these leak sources prior to commencement of the project.

- B. Provide, erect barricades, guardrails as required by applicable regulatory advisory to protect occupants of building and workers.
- C. Cover all drains and other openings intended for drainage during construction to prevent clogging of system, remove at the end of each day to allow for drainage.
- D. Special precautions shall be taken to avoid fumes from entering the facilities through air intakes, coordinate with owner to deal with active A/C units.

3.3 EXISTING EPDM SURFACE PREPARATION

- A. Existing EPDM Surfaces should be free of all roof debris and in a water-tight condition.
 - 1. Recommended application temperature is 40°F and rising.
 - 2. Apply Primer/ Wash via a sprayer [Hudson-type agricultural] to the entire roof at an application rate of 500 square feet per gallon [0.20 gal./100 sq. ft.].
 - 3. Use a 3-4 foot arc pattern. Allow Primer to stand for 10-15 minutes.
 - 4. Clean EPDM roof with a commercial power washer [between 2000-2500 psi].
 - 5. When cleaning the EPDM, it should be done slowly and close to the surface in order to remove mica and inorganic release agents. Start washing up the roof. Then, back down to completely remove all residues. Care should be taken to not damage the EPDM roof membrane. Use caution when walking on roof surfaces, as they may be extremely slick.
 - 6. Rinse thoroughly with power washer. The rinse step may be done at a faster pace than the cleaning step. In the final rinse water should be clear with no soap bubbles present. The EPDM membrane will range from muddy brown to black after washing with the Primer/ Wash. When the surface is dry work can commence.
 - 7. Surface conditions must be prepped and acceptable to the roof membrane manufacturer prior to the application of new roof insulation / overlay.
- B. Relief cut existing EPDM if required by the roof manufacturer, approximate 10'x10' grids.

3.4 INSULATION / COVER BOARD APPLICATION

General: Secure insulation/cover board to roof deck to the requirements of FMG loss Prevention Data Sheet 1-28 and 1-29 to include additional securement at the corners and perimeters. Install insulation including saddles [if required] as shown on the contractor/manufacturer-approved layout. This layout must be capable of draining the roof completely into drainage elements after 48 hours following a rainfall with an outside average temperature of 65F or higher [partly sunny or sunny conditions]. The layout pattern must not block the flow of rainwater into any roof top unit/ventilator.

- A. Overlay existing EPDM: Adhere one layer of new insulation onto the existing prepped EPDM roof membrane in adhesive. Adhere new cover board [add alternate #1] to the new insulation in adhesive. in Install the insulation board perpendicular to roof slope with joints staggered [as applicable] no less than 24 inches in all directions from the insulation below. Two opposite edges on any panel shall be supported on the deck flutes minimum 1 1/2 inch where total removal has taken place [if removals are required]. Any portion of an insulation board that falls within the calculated perimeter or corner area has the increased securement applied over the entire board. Install the insulation board [in-fill insulation boards where tapered board system is underneath] perpendicular to the roof slope with long joints continuous and short joints staggered no less than 12 inches to a maximum of half the board length/width from the joints in adjacent rows. Offset joints of top insulation layers/cover board from bottom layers/saddles no less than 6 inches. Set insulation and the cover board in adhesive at the rate / pattern as tested, shown, and approved by the manufacturer. Boards shall be walked-in before skin coat develops and boards shall have continuous pressure until the adhesive sets [4 to 8 minutes, less time if the adhesive is the quick setting type] to ensure not less than 85% of any board is in contact with the substrate.
- B. Level all decks as necessary prior to starting work.

- C. Apply no more insulation than can be sealed watertight with roofing membrane in the same day. Cut insulation to fit neatly to perimeter blocking and around penetrations through the roof, maximum joint width 3/8 inch.
- D. All ventilators, A/C unit curbs, supports etc. [square or rectangle] will have a tapered edge strip [formed as a saddle] placed around the high side of unit to slope water from unit. Ventilators, A/C unit, supports etc. curbs over 2 feet wide will require insulation saddles sloped 1/2 inch per foot.
- E. Provide adequate separation of insulation between hot exhaust stacks.

3.5 MEMBRANE APPLICATION [ELASTOMERIC]

General: Install roofing sheets as per manufacturer's recommendations and the following summary of requirements. Additional enhancements to the membrane may be required, consult the manufacturer for these requirements. Complete all flashings, terminations and daily night seals each work day to ensure a watertight condition. These requirements are in addition to what is specified herein.

- A. Beginning at the low point of the roof, place the membrane without stretching over the acceptable substrate and allow membrane to relax a minimum of 30 minutes before attachment or splicing.
- B. After making sure the sheet is placed in its final position, fold it back evenly onto itself so as to expose the underside. The membrane should be smooth, clean and free of wrinkles and buckles.
- C. Adhere membrane with bonding adhesive to both the exposed underside of the sheet and the substrate to which it will be adhered at the rate as recommended by the manufacturer. Apply bonding adhesive so to provide an even and uniform film thickness using a roller. Do not apply bonding adhesive to areas that will be subsequently spliced.
- D. Allow bonding adhesive to flash off until tacky.
- E. Starting at the fold, roll the previously coated portion of the sheet into the coated substrate slowly and evenly so as to minimize wrinkles. Compress the bonded half of the sheet to the substrate with a stiff push broom.
- F. Fold the un-adhered half of the membrane sheet back onto itself and repeat the bonding procedure to complete the bonding of the sheet. Do not fully set any sheet edges that are to be lap over adjoining sheet. Leave 12 inches folded back for splicing.

3.6 MEMBRANE LAP SPLICING [ELASTOMERIC]

- A. Position the sheet at the splice area by overlapping membrane 5 inches. Tack the sheet back with primer at 5' centers and at factory splices or as necessary to hold back the membrane at the splicing area. Remove excess amounts of dusting agent on the sheet and at factory splices using a stiff push broom. Apply primer to both surfaces at the same time to allow the same flash off time. Additional scrubbing is required at areas that may have become contaminated or have excess amounts of dusting agent, and at all factory splices.
- B. Position the seam splice tape on the bottom sheet, aligning the edge of the release paper with the markings. Immediately roll the splice tape with a 3 inch-4 inch wide silicone or silicone sleeved steel hand roller or a short nap 3 inch paint roller.
- C. When the seam splice tape has been installed for the entire splice length allow the top sheet to rest on top of the tape's paper backing. Trim the top sheet as necessary to assure that 1/8 inch-1/2 inch of the seam splice tape will be exposed on the finished splice.
- D. Roll back the membrane sheet, then peel the paper backing off the seam splice tape by pulling against the weight of the bottom sheet at approximately a 45 degree angle to the tape

and parallel with the roof surface. Allow the top sheet to fall freely onto the exposed seam splice tape. Broom the entire length of the splice as the release paper is being removed.

- E. Roll the splice using a 1-1/2 inch-2-inch-wide silicone or silicone sleeved steel hand roller, first across the splice, and then along the entire length of the splice.

3.7 FLASHING APPLICATION [ELASTOMERIC] – Vertical Surfaces, etc.

General: Secure membrane when there is an angle change greater than 2 inch 12 inches with a reinforced perimeter fastening strip [RPS] fastened to the deck or wall, see manufacturer's recommendations for exceptions.

- A. Remove loose or unsecured flashings, mineral surfaced or coated flashings and excessive asphalt to provide a smooth, sound surface for new flashings.
- B. Complete the splice between flashing and the main roof sheet with splice adhesive before adhering flashing to the vertical surface. Provide lap splices in accordance with manufacturer's details.
- C. Apply bonding adhesive at about the same time to both the flashing and the surface to which it is being bonded so as to allow approximately the same flash off time. Apply bonding adhesive in a uniform coating.
- D. Allow bonding adhesive to flash off until tacky. Roll the flashing into the adhesive evenly and carefully so as to minimize wrinkles.
- E. Install T-Joint covers at field and flashing splice intersections as required by manufacturer.
- F. Provide termination directly to the vertical by a termination bar set in water block seal and other requirements as shown on the drawings.

3.8 FLASHING APPLICATION [ELASTOMERIC] - Edge, Pipes and Drains.

General: Install flashing sheets over cants strips and other vertical surfaces, at edges and penetrations through roof as per manufacturer's recommendations, requirements of FMG loss Prevention Data Sheet 1-49 including details and the following requirements.

- A. EDGES
 1. Apply primer to the metal edging and membrane. Remove approximately 2 ft.-3 ft. of release paper from the seam flashing and apply to the metal flange and membrane. Lap adjacent rolls of seam flashing a minimum of one inch with a 2 inch-3-inch-wide silicone or silicone sleeved steel hand roller, roll the seam flashing ensure proper adhesion. Additional attention must be given to factory splice intersections and to any change in plane.
 2. Apply 6-inch length of seam flashing, a seam Joint Cover, or 6-inch x 6-inch form flash to the inside edge of the seam flashing at all overlaps and at all intersections between the seam flashing and field fabricated splices.
 3. Apply seam edge treatment at the intersections of the flashing sections.
 4. If the roof edge includes a metal edge and sealant is not applied between the laps in the metal edging, an additional piece of seam flashing shall be applied over the metal lap to the top of the metal edge, after the initial application of seam flashing. Seam edge treatment shall be applied at the intersections of the two flashing sections.
- B. PIPES
 1. Flash pipes with manufacturer's pre-molded flashing to max. extent possible or form flash only when pre-molded flashing is not available. Prime and install an additional 12-inch seam flashing over pre-molded flange.
- C. DRAINS

1. Remove all existing flashings, leads and cement. Provide a clean even finish between the drain clamping ring and the drain bowl. Position the membrane and cut a hole for the roof drain allowing a $\frac{3}{4}$ inch membrane inside the clamping ring. Make round holes in the membrane to align with the bolts. Install water block seal on the clamping ring flange below the membrane. Tighten the clamping bolts to achieve a constant compression. Replace or repair [drain bolts] where existing clamping ring cannot be bolted securely in place.

3.9 INSTALLATION OF SHEET METAL / ACCESSORIES / ROOF SPECIALTIES

General: Sheet metal items shall be installed in accordance with manufacturers and NRCA's/SMACNA recommendations and details from their current manual.

- A. Continuous cleat [for non-pre-manufactured metal components]: Cleats shall not exceed 12 feet in length; allow a $\frac{1}{4}$ inch gap between pieces. Fasten cleat face to wood nailer or deck as applicable at 4 inches on center with corrosion resistant annular threaded nails [3/16-inch head]-wood or stainless-steel screws-metal [staggered pattern-1 inch from edge] on center, long enough to penetrate the wood $1\frac{1}{4}$ inch or metal $1\frac{1}{2}$ inch.
- B. Equipment enclosure shall be 24-gauge stainless steel, shop or pre-manufactured with top fabricated [angled] to allow no moisture from entering the pipe areas. Install mortar in the bottom of base with polyurethane pourable sealer poured around pipes [2 inch depth minimum]. Seal pipes that exit enclosure with sealant/foam.
- C. Pitch pans shall have mortar installed in the bottom of pitch pans with polyurethane pourable sealer [2-inch min] filled to the top of the pan, then slope.
- D. Bib Flashing shall be installed around all roof top units/supports and all items that cannot be removed and reinstalled. Position under unit curb and anchor to unit with corrosion resistance fasteners with EPDM washers at 12 inches on center unless otherwise noted.
- E. Rail curbs and pipe supports shall be installed in accordance with the manufacturer's instructions. Place curbs on deck and position curbs ends to allow water to flow toward drains or gutters.
- F. Termination bars shall be placed no more than $1\frac{1}{2}$ inches down from top of base flashing and be fastened at 6 inches on center with concrete self-tapping [tapcon] or wood fasteners, as applicable fitted with an EPDM washer. Provide sealant at top edge of bars.
- G. Counter-flashing [CF] shall be surfaced mounted attached with concrete self-tapping [tapcon] or wood fasteners, as applicable fitted with an EPDM washer at 12 inches on center, 1 in. minimum embedment. Apply a bead of sealant on the top of 45 degree angle lip of the metal flashing, CF shall overlap base flashing a minimum of three inches and shall terminate no lower than 4 inch above finished roof surface, unless approved by the manufacturer.
- H. Roof drain clamp rings/bolts where distorted, corroded or too short, shall be replaced. Clamp rings shall be clean of all asphalt and other deposits. Provide new drain strainers where missing. Install drain inserts if clamping rings cannot be compressed on the new roof membrane due to broken bolts, etc.
- I. Downspouts shall be attached to the gutter with screws. Attach downspout sections to wall with 2-inch-wide, $\frac{1}{16}$ -inch steel straps [2 per 10-foot section] - Fig 1-35G SMACNA, with stainless steel screws anchored into solid support members. Down spouts terminating at ground or roof shall be provided with an elbow fitting and a concrete splash block [provide a roof membrane sheet under blocks that terminate on the roof]. If existing receivers are available downspouts shall be inserted into receives, provide size and shape adapters as necessary.

- J. Gutters shall be continuous with no joints, if applicable. Gutter shall be installed with 1 1/2-inch-wide, 1/8-inch-thick painted [match gutter color] steel brackets installed at 48 inches on center, min. [2 each per gutter section], as applicable. Anchor roof gutter flange to nailers with screws driven flush at 4 inches on center, staggered.
- K. Walkway pads and other accessories shall be installed in accordance with the manufacturer's recommendations or as shown on the drawings. Space pads 3 inches.
- L. Expansion joint, and other accessories not noted herein shall be installed in accordance with the manufacturer's recommendations and as shown on the drawings.
- M. Wind Rated ES-1 approved continuous cleated drip edge/gravel stop shall have the cleat face anchored into the nailer face at 12 inches on center. Space cleats as outlined by the metal manufacturer. The exposed to view metal edge to be cleated and fastened on top of the nailer at 6 inches on center. Strip-in flange with membrane over the top of the fastened roof flange. Edge face shall be a single piece extending down to overlap and cover nailers as shown and extending down exterior wall. Follow manufacturer installation instructions.
- N. Wind Rated pre-manufactured ES-1 approved coping sections shall be jointed together with a butt type joint with 8-inch-wide concealed splice located underneath the 10 to 12-foot-long panels, which must allow to expand and contract freely while locked in place with cleats. Provide factory-fabricated corners, intersections and ends. Coping metal seat/chair to be anchored to wood nailer or surface material at splice joints and within the coping panel [approx. every three feet on center, maximum] or coping that is installed using continuous cleats on both sides shall have cleats anchored on top of nailer and nailer front at 12 inches on center, follow manufactures installation requirements. Both methods shall use steel fasteners or other fasteners to meet the wind resistance rating pressures as shown and as recommended by coping manufacturer. Coping shall have a 4-inch vertical end flange where terminating into wall, counter-flash

3.10 FIRE SAFETY

- A. Measures to be implemented by the contractor to minimize the possibility of fire and to provide a safe work environment. It is the responsibility of the contractor performing any work to comply with the safety provisions of the National Fire Codes pertaining to such work along with other requirements specified herein. In the event of a fire of any size, contractor shall notify the Local Fire Department.

3.11 WATER CUT-OFF

- A. At the end of the day's work or when precipitation is imminent, a water cut-off or other waterproof protection shall be provided to ensure a watertight condition is obtained, between the new and existing conditions, remove cut-off prior to resuming the installation of the roofing system.

3.12 CLEANING

- A. In areas where finished surfaces are soiled by any other source of soiling caused by work of this section, consult manufacturer for cleaning advice.

END OF SECTION

THIS SHEET LEFT INTENTIONALLY BLANK

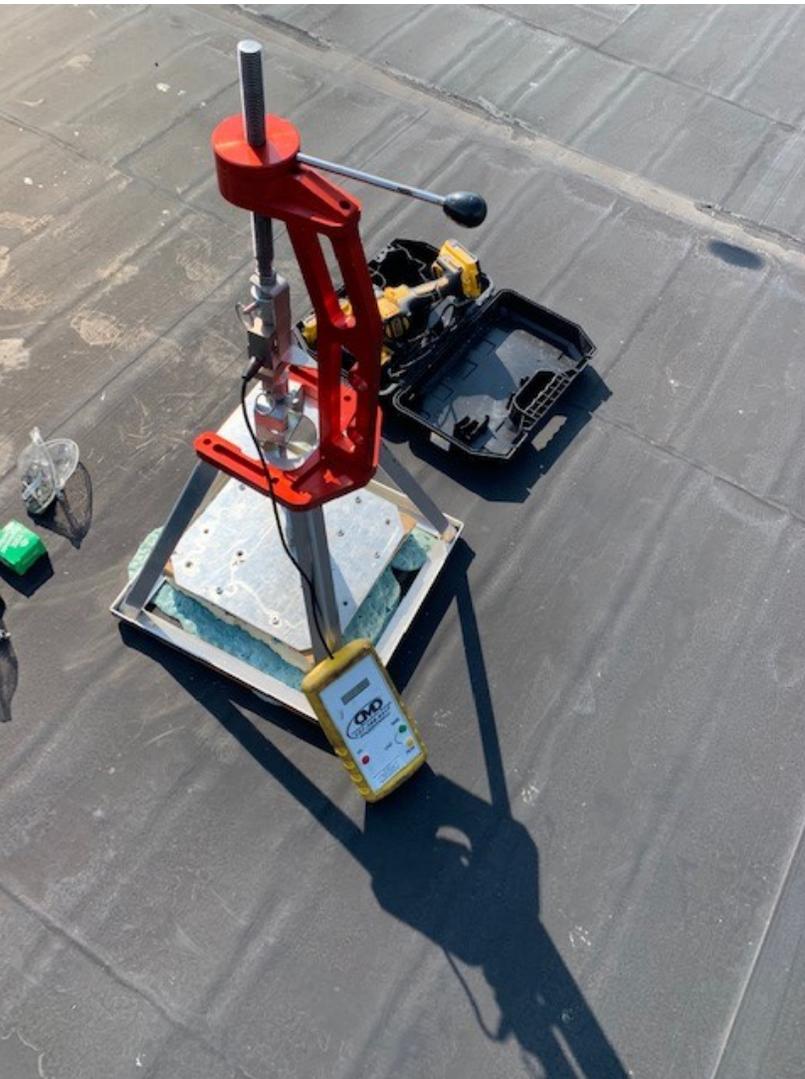
REPORTS

THIS SHEET LEFT INTENTIONALLY BLANK

PAYNE RECREATION CENTER PULL TEST RESULTS.

TESTING ADHESION CAPABILITIES OF FLEXIBLE FAST ADHESIVE TO EXISTING EPDM MEMBRANE SYSTEM. RESULTS WERE POSITIVE AND WITHIN WARRANTABLE STANDARDS.

TEST CONDUCTED 11 AND 12 SEPTEMBER 2019. 27 HOUR CURE TIME ON TEST.



TEST AREA 1, FULL COVERAGE ADHESIVE, 156.5 PSF, FAILURE MODE WAS INSULATION FACER



PULL TEST #2, 6" BEAD SPACING, 294 PSF, FAILURE MODE WAS
INSULATION FACER



TEST AREA #3, 12" BEAD SPACING, 230 PSF, FAILURE MODE WAS INSULATION FACER AND ADHESION FROM BOTTOM FACER. ATTACHMENT TO EPDM WAS STABLE.

THIS SHEET LEFT INTENTIONALLY BLANK