



**RE-BID
PARTIAL ROOF REPLACEMENT –
PHASE 2
DUBLIN RECREATION CENTER
PROJECT #15-002.2-FAC**

BIDS DUE:

November 4, 2015

2:00 p.m.

6555 Shier Rings Road

Dublin, Ohio 43016



CITY OF DUBLIN, OHIO

BID AND CONTRACT DOCUMENTS

For

**Partial Roof Replacement – Phase 2
Dublin Recreation Center**

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SECTION 1
BIDDING REQUIREMENTS



RE-BID INVITATION TO BID

Project Name: Partial Roof Replacement - Phase 2 Dublin Recreation Center

The City of Dublin, Ohio is seeking bids from contractors for a project known as the Partial Roof Replacement – Phase 2 Dublin Recreation Center. This project consists of:

All the materials and labor necessary to remove existing asphalt shingle system and replace with new asphalt shingle system; replace gutters and downspouts; replace skylights; modify lightning protection system.

Bids must be submitted in sealed envelopes plainly marked CITY OF DUBLIN – Project Name: **Partial Roof Replacement – Phase 2 Dublin Recreation Center** and must be addressed to Brian Ashford, Facilities Manager, City of Dublin, 6555 Shier Rings Road, Dublin, Ohio 43016. Bids must be submitted no later than **2:00 p.m. (local time) on November 4, 2015** and will be publicly opened at that time at the address above. This is an Ohio Prevailing Wage Rate contract. The contractor and ALL subcontractors shall be required to submit Certified Payrolls.

The Architect's Base Bid Estimate is \$768,000.00.

A certified check, bank draft or a satisfactory bid bond in an amount equal to five percent (5%) of the estimated cost of said construction services shall be submitted with each bid.

The successful bidder will be required to furnish and pay for satisfactory performance and payment bonds in the amount of one-hundred percent (100%) each in the total amount of the bid.

A pre-bid meeting will be held on October 23, 2015 at 10:00 a.m. at the Dublin Recreation Center, Talla 2, 5600 Post Road, Dublin, Ohio 43017.

Bid specifications and documents may be obtained or reviewed at Schorr Architects, Inc., 230 Bradenton Avenue, Dublin, Ohio 43017 beginning Tuesday, October 13, 2015. Copies can be purchased at a charge of seventy-five dollars (\$75.00) per set. Documents are available online at <http://dublinohiousa.gov/bids-and-requests-for-proposals/>. When downloading bid documents from online you must register as a planholder to receive any addendums that may be issued.

THE CITY OF DUBLIN RESERVES THE RIGHT TO REJECT ANY OR ALL BIDS

10/13/15
10/19/15
10/26/15

ODOT Pre-qualification

NOT APPLICABLE X

Bidders are required to be pre-qualified with the Ohio Department of Transportation. Bidders must present a current approved copy of ODOT Pre-qualification at the time proposals are picked up from City Engineer's Office.

General Specifications

NOT APPLICABLE _____

The general specifications for the Project are the following (as all are in effect at time of awarding of the contract):

- 1). City of Dublin, Ohio Streets and Highways General Provisions
- 2). Sections 200 through 1000 of the *Construction and Material Specifications of the City of Columbus, Ohio*, and
- 3). Sections 200 through 700 of the *Construction and Material Specifications of the State of Ohio Department of Transportation*

Copies of the *Construction and Material Specifications of the City of Columbus, Ohio* may be obtained from:

Director of Public Service
City of Columbus, Ohio
90 W. Broad Street, 3rd Floor
Columbus, Ohio

Copies of the *Construction and Material Specifications of the State of Ohio Department of Transportation* may be obtained from:

Ohio Department of Transportation
Bureau of Contract Sales
P.O. Box 899
Columbus, Ohio 43216-0899

Contract Documents

The contract documents will be available for examination during regular business hours until the date of bid opening at:

**Schorr Architects, Inc.
230 Bradenton Avenue
Dublin, Ohio 43017**

Copies of the contract documents may be obtained upon request accompanied by a non-refundable deposit in the amount of **\$75.00** for each set of contract documents. Checks shall be made payable to "Schorr Architects, Inc." The contract documents may be obtained from:

**Schorr Architects, Inc.
230 Bradenton Avenue
Dublin, Ohio 43017**

Prevailing Wages

APPLICABLE X NOT APPLICABLE _____

Bidders shall comply with Chapter 4115 of the Ohio Revised Code (Wages and Hours on Public Works). Bidders are responsible for verifying that the most current wage rates are utilized in their bids. The successful bidder is also responsible for any changes in the prevailing wage rates or classifications throughout its performance of work on the Project.

Bids and Attached Documents

Bidders shall submit their bids on the form of proposal provided by the City of Dublin.

Each proposal shall be submitted in its entirety in a sealed envelope addressed to:

**Brian Ashford
Facilities Manager
City of Dublin, Ohio
6555 Shier Rings Road
Dublin, Ohio 43016**

Each sealed envelope containing a proposal shall be plainly marked on the outside as – **“Bid for: PARTIAL ROOF REPLACEMENT – PHASE 2 DUBLIN RECREATION CENTER.”** The envelope shall bear the name and address of the bidder.

If forwarded by mail, the sealed envelope containing the proposal must be enclosed in another envelope and the outside of the envelope must be addressed to and marked:

**Brian Ashford
Facilities Manager
City of Dublin, Ohio
6555 Shier Rings Road
Dublin, Ohio 43016**

**BID FOR: PARTIAL ROOF REPLACEMENT – PHASE 2
DUBLIN RECREATION CENTER**

Bidders shall submit the following with their proposals:

1. Non-collusion Affidavit.
2. Bid Guaranty.
3. List of Subcontractors if applicable.
4. Delinquent Personal Property Tax Affidavit.
5. Affidavit of Authority (if Bidder is a corporation).
7. Experience Record/References.
8. Power of Attorney (if Bidder is an out-of-state corporation).

The City of Dublin, Ohio reserves the right to reject any and all proposals and to waive any informalities or irregularities in the proposals.

Bidders may address technical inquiries to:

Tony Schorr, AIA
Schorr Architects, Inc.
230 Bradenton Avenue
Dublin, OH 43017
Phone: 614-798-2096
Email: tschorr@schorrarchitects.com

By order of the City Council of the City of Dublin, Ohio.
CITY OF DUBLIN, OHIO
Dana L. McDaniel
City Manager

INTERPRETATION OR CORRECTION OF BIDDING DOCUMENTS

Immediately notify **Tony Schorr** upon finding discrepancies or omissions in the bidding documents.

Direct general inquiries and questions to Tony Schorr, Schorr Architects, Inc. at 614-798-2096 or tschorr@schorrarchitects.com.

1. Submit written request for clarification, correction or interpretation to the Architect not less than 7 days before the date for receipt of bids.
2. Modifications to the bidding documents will be issued as Addenda to the specifications and will become a part of the Contract.
3. No bidder shall rely on oral modifications or any other method of clarification, correction or interpretation of the bidding documents. Only modifications set forth in an Addendum will be binding.

PREVAILING WAGE DISKETTE

SECTION 2
BIDDING FORMS

Unit Price: Replacement of Wet Insulation and Plywood at Pitched Roofs \$ _____/sq.ft.

The Bidder understands and agrees that delivery under the Agreement for **PARTIAL ROOF REPLACEMENT – PHASE 2 DUBLIN** shall be complete **three hundred (300) consecutive calendar days**, or as specified in bid documents unless an extension of time is granted by the City of Dublin.

Upon failure to have all work completed within the project time, the City of Dublin, Ohio shall be entitled to retain or recover from the Bidder, as liquidated damages, and not as a penalty, the amounts set forth in the following table for each and every calendar day until completion. The right of the City of Dublin, Ohio to recover liquidated damages shall not substitute for any recovery for additional costs in the event the Bidder fails to complete the Agreement for construction according to the contract documents.

Liquidated Damages:

<u>Contract Amount</u>	<u>Dollars Per Day</u>
\$0-25,000	\$ 100.00
25,001-50,000	150.00
50,001-100,000	200.00
100,001-500,000	300.00
500,001-1,000,000	500.00
1,000,001-2,000,000	750.00
2,000,001-5,000,000	1,000.00
5,000,001-10,000,000	1,500.00
Over \$10,000,001	2,000.00

REPRESENTATIONS OF THE BIDDER

The Bidder represents the following:

1. The Bidder has read and understands the contract documents and understands that it must comply with all requirements of the contract documents, regardless of whether the Bidder has actual knowledge of the requirements and regardless of any statement or omission made by the Bidder which might indicate a contrary intention.
2. The Proposal is based upon the items specified by the contract documents.
3. The Bidder has visited the site, become familiar with local conditions, and has correlated personal observations about the requirements of the contract documents. The Bidder has no outstanding questions regarding the interpretation of the contract documents.

4. The Bidder has submitted the following in connection with this Proposal and the information contained therein is complete and accurate:
 - a. Non-collusion Affidavit.
 - b. Bid Guaranty.
 - c. List of Subcontractors.
 - d. Delinquent Personal Property Tax Affidavit.
 - e. Affidavit of Authority (if Bidder is a corporation).
 - g. Experience Record/References.
 - h. Power of Attorney (if Bidder is an out-of-state corporation).
6. The Bidder understands that the Agreement for **PARTIAL ROOF REPLACEMENT – PHASE 2 DUBLIN RECREATION CENTER** is subject to all of the provisions, duties, obligations, remedies and penalties of Ohio Revised Code Chapter.
7. Within ten (10) business days from the date of receipt the Notice of Intent to Award, the Bidder understands that it must enter into and execute an Agreement for **PARTIAL ROOF REPLACEMENT – PHASE 2 DUBLIN RECREATION CENTER** with the City of Dublin, Ohio if awarded on the basis of this Proposal. If the Bidder does not execute an Agreement for **PARTIAL ROOF REPLACEMENT – PHASE 2 DUBLIN RECREATION CENTER** for any reason, the Bidder and the Bidder's surety shall be liable to the City of Dublin, Ohio as provided in Ohio Revised Code Section 153.54(G).
8. Within ten (10) business days of the date of receipt of the Notice of Intent to Award, the Bidder understands that it must submit the following:
 - a. Performance Bond.
 - b. Certificate of Insurance and a copy of Additional Insured Endorsement.
9. The Bidder understands that it must furnish any other information requested by the Brian Ashford, Facilities Manager, City of Dublin.

The Bidder hereby signs this Proposal on the ___ day of _____, 2015.

If Bidder is an individual, complete the following:

Signature: _____

Print Name: _____

Name of Business: _____
(if different than above)

Federal Identification Number: _____

Address: _____

Telephone: () _____

Fax: () _____

If Bidder is a partnership, complete the following:

Name of Partnership: _____

By: _____
(Signature)

Print Name: _____

Federal Identification Number: _____

Address: _____

Telephone: () _____

Fax: () _____

Names and Addresses of all general partners:

If Bidder is a joint venture, complete the following:

Name of Joint Venture: _____

By: _____
(Signature)

Print Name: _____

Address: _____

Telephone: () _____

Fax: () _____

Complete the following for each firm represented by the joint venture:

1. Name: _____

Federal Identification Number: _____

Address: _____

Telephone: () _____

Fax: () _____

2. Name: _____

Federal Identification Number: _____

Address: _____

Telephone: () _____

Fax: () _____

If Bidder is a corporation, complete the following:

Name of Corporation: _____

By: _____

(Signature)

Print Name: _____

Title: _____

Federal Identification Number: _____

Address: _____

Telephone: () _____

Fax: () _____

State of Incorporation: _____

Names and addresses of Corporate Officers:

If Bidder is an entity other than those described above, complete the following:

Name of Bidder:

By: _____
(Signature)

Print Name: _____

Title: _____

Federal Identification Number: _____

Address: _____

Telephone: () _____

Fax: () _____

Type of Business Entity: _____

Names and addresses of all Principals:

BID BOND

**PARTIAL ROOF REPLACEMENT – PHASE 2
DUBLIN RECREATION CENTER**

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

_____ (the
“Principal”) and _____ (the
“Surety”) are hereby held and firmly bound unto the City of Dublin, Ohio ("Dublin") as obligee in
the penal sum of the dollar amount of the bid submitted by the Principal to Dublin on
_____, 2015 to undertake the project known as:

**PARTIAL ROOF REPLACEMENT – PHASE 2
DUBLIN RECREATION CENTER**

The penal sum referred to herein shall be the dollar amount of the Principal's bid to Dublin, incorporating any additive or deductive alternate proposals made by the Principal on the date referred to above to Dublin, which are accepted by Dublin. In no case shall the penal sum exceed the amount of _____ dollars (\$ _____). (If the foregoing blank is not filled in, the penal sum will be the full amount of the Principal's bid, including alternates. Alternatively, if the blank is filled in, 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.

THE CONDITION OF THE ABOVE OBLIGATION IS SUCH, that whereas the above-named Principal has submitted a bid for **PARTIAL ROOF REPLACEMENT – PHASE 2 DUBLIN RECREATION CENTER**.

NOW, THEREFORE, if Dublin accepts the bid of the Principal and the Principal fails to enter into a proper contract in accordance with the bid, plans, details, specifications, and bills of material; and in the event the Principal pays to Dublin the difference not to exceed five percent of the penalty hereof between the amount specified in the bid and such larger amount for which Dublin may in good faith contract with the next lowest bidder to perform the work covered by the bid, or in the event Dublin does not award the contract to the next lowest bidder and resubmits the project for bidding, the Principal will pay Dublin the difference not to exceed five percent of the penalty hereof between the amount specified in the bid, or the costs, in connection with the 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 Dublin accepts the bid of the Principal and the Principal within ten days after the awarding of the contract, enters into a proper contract in accordance with the bid, plans, details specifications, and bills of material, which said contract is made a part of this bond the same as though set forth herein.

NOW ALSO, if the Principal shall well and faithfully do and perform the things agreed by Principal to be done and performed according to the terms of said contract; and shall pay all lawful claims of subcontractors, material men, 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 material man or laborer having a just claim, as well as for Dublin 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 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 wise affect the obligations of the Surety on the Surety's bond, and the Surety does hereby waive notice of any such modifications, omissions or additions to the terms of the contract or to the plans or specifications.

Signed this _____ day of _____, 2015.

PRINCIPAL:

By: _____
(Signature)

Print Name: _____

Title: _____

Address:

Telephone: () _____

SURETY:

By: _____
(Signature)

Print Name: _____

Title: _____

Address:

Telephone: () _____

SURETY AGENT:

By: _____
(Signature)

Print Name: _____

Title: _____

Address:

Telephone: () _____

**DELINQUENT PERSONAL PROPERTY TAX AFFIDAVIT
PARTIAL ROOF REPLACEMENT – PHASE 2
DUBLIN RECREATION CENTER**

STATE OF _____
COUNTY OF _____, SS:

I, _____ (Affiant),
_____ (Title) of _____ (the "Bidder"),
after being cautioned and sworn, represent to the City of Dublin, Ohio, the following: (check the appropriate statement)

At the time the Proposal was submitted, the Bidder was not charged with delinquent personal property taxes on the General Tax Lists of Personal Property of a county in which the City of Dublin, Ohio has territory (Franklin, Delaware, and Union Counties).

OR

At the time the Proposal was submitted, the Bidder was charged with delinquent personal property taxes on the General Tax Lists of Personal Property of a county in which the City of Dublin, Ohio has territory (Franklin, Delaware, and Union Counties) and that the amounts of such due and unpaid delinquent taxes, including due and unpaid penalties and interest, are set forth below:

<u>Taxes:</u>	<u>Penalties and Interest:</u>	<u>Counties:</u>
\$ _____	\$ _____	_____
\$ _____	\$ _____	_____
\$ _____	\$ _____	_____

(Signature of Affiant)

(Print Name)

Sworn to and subscribed before me this ____ day of _____ 2015.

Notary Public

**NONCOLLUSION AFFIDAVIT
PARTIAL ROOF REPLACEMENT – PHASE 2
DUBLIN RECREATION CENTER**

STATE OF _____
COUNTY OF _____, SS:

I, _____ (Affiant),
_____ (Title) of _____ (the
"Bidder"), after being cautioned and sworn, represent to the City of Dublin, Ohio the following:

1. The bid price contained in the Bidder's Proposal for the Project has been arrived at independently without collusion, consultation, communication, or agreement for the purpose of restricting competition as to any matter relating to such bid price with any other bidder or third party.
2. Unless otherwise required by law, neither the bid price nor the Proposal has been knowingly disclosed by the Bidder and will not knowingly be disclosed by the Bidder prior to the bid opening, directly or indirectly, to any other bidder or to any third party that would have any interest in the bid price.
3. No attempt has been made or will be made by the Bidder to induce any other individual, partnership, or corporation to submit or not to submit a bid for the purpose of restricting competition.

(Signature of Affiant)

(Print Name)

Sworn to and subscribed before me this ___ day of _____, 2015

Notary Public

**AFFIDAVIT OF AUTHORITY
PARTIAL ROOF REPLACEMENT – PHASE 2
DUBLIN RECREATION CENTER**

STATE OF _____
COUNTY OF _____, SS:

I, _____ (Affiant), after being cautioned and sworn, state the following:

1. I am the Secretary of _____ (the "Company"), a corporation organized and existing under the laws of the State of _____.
2. I am familiar with the records of the Company.
3. _____ (name of officer) is authorized to sign the Proposal and to execute a contract on behalf of the Company for the above-referenced project.

(Signature of Affiant)

(Print Name)

Sworn to and subscribed before me this _____ day of _____, **2015**

Notary Public

LIST OF SUBCONTRACTORS
Not Applicable _____
PARTIAL ROOF REPLACEMENT – PHASE 2
DUBLIN RECREATION CENTER

NOTE: The bidder must perform at least 50% of the total contract cost with its own forces.

Complete the following information for all subcontractors, which will be employed on the Project.

1. Name of Subcontractor: _____

Federal Identification Number: _____

Address: _____

Type of Work
Subcontractor to Provide: _____

Approximate Percentage of the Contract
Cost to be Performed by Subcontractor: _____

Experience Record: _____

2. Name of Subcontractor: _____

Federal Identification Number: _____

Address: _____

Type of Work
Subcontractor to Provide: _____

Approximate Percentage of the Contract
Cost to be performed by Subcontractor: _____

Experience Record: _____

3. Name of Subcontractor: _____

Federal Identification Number: _____

Address: _____

Type of Work

Subcontractor to Provide: _____

Approximate Percentage of the Contract

Cost to be performed by Subcontractor: _____

Experience Record: _____

4. Name of Subcontractor: _____

Federal Identification Number: _____

Address: _____

Type of Work

Subcontractor to Provide: _____

Approximate Percentage of the Contract

Cost to be performed by Subcontractor: _____

Experience Record: _____

5. Name of Subcontractor: _____

Federal Identification Number: _____

Address: _____

Type of Work

Subcontractor to Provide: _____

Approximate Percentage of the Contract

Cost to be performed by Subcontractor: _____

Experience Record: _____

**EXPERIENCE RECORD/REFERENCES
PARTIAL ROOF REPLACEMENT – PHASE 2
DUBLIN RECREATION CENTER**

NOTE: Bids from contractors inexperienced in this particular type of work will not be considered.

Complete the following information with respect to previous purchasers.

1. Name of Person to

Contact for Reference: _____

Address: _____

Phone: () _____

2. Name of Person to

Contact for Reference: _____

Address: _____

Phone: () _____

3. Name of Person to

Contact for Reference: _____

Address: _____

Phone: () _____

SECTION 3
CONTRACT FORMS

NOTICE OF INTENT TO AWARD

**PARTIAL ROOF REPLACEMENT – PHASE 2
DUBLIN RECREATION CENTER**

To: _____

You are hereby notified that the City of Dublin, Ohio has accepted the Proposal submitted by you on _____, **2015** in response to the Invitation to Bid for the above-referenced project.

Within ten (10) business days from the date of receipt of this Notice of Award, you are required to:

1. Execute an Agreement for Construction.
2. Submit a Performance Bond.
3. Submit a Certificate of Insurance and a copy of an Additional Insured Endorsement.
4. Submit an Affirmative Action Certificate of Compliance.

If you fail to execute the Agreement for construction or provide the required submittals within ten (10) business days from the date of receipt of this Notice of Intent to Award, you or your surety shall be liable to the City of Dublin, Ohio as provided in Ohio Revised Code Section 153.54(G) and the City of Dublin, Ohio may award the contract to the next lowest and best bidder.

You are required to prepare and submit a progress schedule prior to the pre-construction conference to be held on _____ **Not Applicable** _____

Return an acknowledged copy of this Notice of Intent to Award to:

**Brian Ashford, Facilities Manager
City of Dublin
6555 Shier Rings Road
Dublin, Ohio 43016**

CITY OF DUBLIN, OHIO

Date: _____

By: _____

Brian Ashford
Facilities Manager

RECEIPT OF NOTICE OF INTENT TO AWARD

Receipt of this Notice of Intent to Award is hereby acknowledged this ____ day
of _____, **2015**.

Company Name: _____

Signature: _____

Print Name: _____

Title: _____

Contract No: _____

**STANDARD AGREEMENT
CITY OF DUBLIN, OHIO**

This Agreement is entered into this _____ day of _____, 20____, by and between the City of Dublin, Ohio (**DUBLIN**), the Owner, located at 5200 Emerald Parkway, Dublin, Ohio 43017, and the

SERVICE PROVIDER

For services in connection with:

All the materials and labor necessary to replace roofing systems and related work.

FOR THE FOLLOWING:

PARTIAL ROOF REPLACEMENT – PHASE 2 DUBLIN RECREATION CENTER

The **ARCHITECT** of the Project is

**Tony Schorr, AIA
Schorr Architects, Inc.
230 Bradenton Avenue
Dublin, OH 43017**

THIS DOCUMENT HAS IMPORTANT LEGAL CONSEQUENCES. CONSULTATION WITH AN ATTORNEY IS ENCOURAGED WITH RESPECT TO ITS EXECUTION, COMPLETION AND MODIFICATION.

CONTRACT DOCUMENTS

This Agreement is for performance of a portion of the Work for the Project identified above. All Work by Service Provider shall be performed in accordance with the Contract Documents. The Contract Documents comprise of and include this Agreement, General and Supplemental Conditions, Plans and Specifications, Project Manuals and all amendments thereto. These Contract Documents are hereby specifically incorporated herein as part of this Agreement and shall govern the Service Provider for his portion of the Work related to the Project.

Service Provider shall furnish all materials, supplies, equipment, and other items proper or necessary to perform and complete the Work, including specifically providing all supervision and labor required for the completion of the Work in accordance with the Contract Documents.

Service Provider agrees and acknowledges that it has evaluated and is satisfied with the conditions and limitations under which the Work is to be performed, including, without limitation (i) the location, condition, layout and nature of the Project site and surrounding areas; (ii) generally prevailing weather and climatic conditions; (iii) anticipated labor supply and costs; (iv) availability and cost of materials, tools and equipment; and (v) other similar issues. Service Provider further represents and warrants that it is familiar with the entire Scope of its Work and that the Contract Price includes all of its Work that is specifically included in the Contract Documents or which is reasonably inferable from the Contract Documents.

1.4

In the event of inconsistencies within or between parts of the Contract Documents, or between the Contract Documents and applicable standards, codes, and ordinances, Service Provider shall (i) provide the better quality or greater quantity of Work or (ii) comply with the more stringent requirement.

CONTRACT PRICE

As full compensation for performance of the Agreement, Dublin agrees to pay Service Provider in current funds the Contract Price for the satisfactory performance of the Work, in the manner described below, subject to all applicable provisions of the Agreement (check appropriate box):

X the firm fixed price of _____
Dollars (\$ _____) subject to additions and deductions
as provided for in the Contract Documents; and/or

unit prices in accordance with the attached Schedule of Unit Prices and estimated quantities,
which is incorporated herein by reference and identified as Schedule; and/or

time and material rates and prices in accordance with the attached Schedule of Labor and
Material Costs which is incorporated herein by reference and identified as Schedule

2.2

The firm fixed-price, unit prices and/or time and material rates and prices are hereinafter referred to as the "Contract Price."

SURETY BONDING

BONDS

Service Provider shall, if required, furnish to Dublin appropriate surety bonds to secure performance of the Work and to satisfy all Service Provider’s payment obligations under the Agreement. The surety bond shall provide that the terms of the Agreement and Contract Documents are incorporated by reference therein. Any bond provided by Service Provider pursuant to this provision is hereby deemed to so incorporate the Contract Documents and it is understood that the surety is accepting each and every responsibility and obligation which Service Provider has assumed toward Dublin under this Agreement and the Contract Documents, including but not limited to liability for indemnity, attorneys' fees and delay damages.

Bond: **X** Required Not Required

If a performance or payment bond, or both, are required of the Service Provider under this Agreement, then said bonds shall be in the full amount of the Contract Price, unless otherwise specified herein.

The cost of the bond, if required, is included in the Contract Price.

In the event Service Provider shall fail to provide the required bonds within seven days after date of signature of this Agreement by both Parties, Dublin after giving the Service Provider written notice and opportunity to cure this may terminate this Agreement and enter into a contract for the balance of the Work with another contractor. The Service Provider shall pay all Dublin’s costs and expenses incurred by Dublin as a result of said termination.

PERFORMANCE OF WORK

TIME IS OF THE ESSENCE

It is expressly understood and agreed by and between the Parties that time is of the essence regarding completion of the Work by Service Provider. Service Provider shall undertake all activities necessary for the performance of its Work immediately upon receipt of a letter of intent or notification of the award of this Agreement and shall commence work hereunder so that the entire Project may be completed in accordance with the Project Schedule. Service Provider shall perform, coordinate and schedule its Work so as not to cause any delay or disruption to the Project Schedule, the work of other entities on this Project or the completion date of the Project.

Service Provider acknowledges and agrees that Dublin will incur additional costs, damages, liabilities, lost profits or losses related to loss of use if this Project is not completed in accordance with any milestone or interim dates/deadlines or the substantial or final completion dates on the Project Schedule. As a result, Service Provider shall be liable for and shall reimburse Dublin for any such additional costs, damages, liabilities, lost profits or losses related to loss of use for its failure to meet all milestone, interim, substantial or final completion dates in accordance with the Project Schedule.

RELATIONSHIP OF THE PARTIES

Service Provider accepts the relationship of trust and confidence established by this Agreement to exercise its skill and judgment to further Dublin's interests, and to perform the Work in an expeditious and economical manner consistent with Dublin's interests. Nothing in this Agreement shall be construed to constitute the relationship between Service Provider and Dublin as a partnership, association, or joint venture.

Service Provider shall perform its Work under the general direction of Dublin (and/or Dublin's representative, construction manager, architect, or other duly authorized individual/entity) and in accordance with this Agreement and as reasonably inferable from the Contract Documents as being necessary to produce the intended results as specified hereafter.

PROJECT SCHEDULE

Service Provider agrees to perform its work in accordance with the sequence and schedule for this Project, and with any updates thereto (referred to in this Agreement as the "Project Schedule"). By agreeing to perform its Work in accordance with the Project Schedule, Service Provider has included reasonable allowances for out of sequence work, and weather and unusual or unforeseen delays. If requested by Dublin, Service Provider shall participate and cooperate in the development of the Project Schedule and any revisions thereto.

Service Provider shall continuously monitor the Project Schedule so as to be fully familiar with the timing, phasing and sequence of operations of Service Provider's Work and the other work being performed on the Project. Service Provider shall coordinate its Work with all other work on the Project to avoid conflict or interference with such other work.

If Dublin determines that Service Provider's Work has failed to meet the Project Schedule or any update thereof, Service Provider shall within seventy-two (72) hours of its receipt of written notice from Dublin prepare and submit a recovery schedule relating to its activities. Service Provider agrees that it shall at its sole cost and expense take such measures as are necessary, including adding manpower and/or equipment and/or working overtime to accelerate its activities to conform to the Project Schedule or any update thereto. Should Service Provider fail to undertake such measures Dublin shall have the right to supplement Service Provider's forces and/or equipment and back-charge Service Provider for the costs so incurred, together with a markup of ten percent (10%) for overhead and profit.

PERFORMANCE

Service Provider shall use its best care, skill, and diligence in supervising, directing and

performing, the Work. Service Provider shall have sole responsibility for the performance of the Work, including the methods, techniques and means for completing all portions of the Work. Service Provider has the responsibility to ensure that all material suppliers and subcontractors adhere to the Contract Documents, and that they order materials in time, taking into account the current market regarding both pricing and delivery conditions.

EXTRAORDINARY MEASURES BY DUBLIN

If the performance of the Work, as of a milestone or interim date/deadline on the Project Schedule, has not progressed or reached the level of completion required by the Contract Documents, Dublin shall have the right to order Service Provider to take corrective measures necessary to expedite the progress of the Work, including, without limitation, (i) working additional shifts or overtime, (ii) supplying additional manpower, equipment, and facilities, and (iii) other similar measures (hereinafter referred to collectively as "Extraordinary Measures"). Such Extraordinary measures shall continue until the progress of the Work complies with the stage of completion required by the Contract Documents. Dublin's right to require Extraordinary Measures is solely for the purpose of ensuring the Contractor's compliance with the Project Schedule. Service Provider shall not be entitled to an adjustment in the Contract Price in connection with Extraordinary Measures required by Dublin.

INTERPRETATION OF AGREEMENT INCONSISTENCIES AND OMISSIONS

Should inconsistencies or omissions appear in the Contract Documents, it shall be the duty of Service Provider to so notify Dublin in writing within three (3) working days of Service Provider's discovery thereof. Upon receipt of said notice, Dublin shall instruct the Service Provider as to the measures to be taken and Service Provider shall comply with Dublin's instructions. If Service Provider performs work knowing it to be contrary to any applicable laws, statues, ordinances, building codes, rules or regulations without notice to Dublin and advance approval by appropriate authorities, then Service Provider shall assume full responsibility for such work and shall bear all associated costs, charges, fees and expenses necessarily incurred to remedy the situation.

LAW AND EFFECT

The performance of this Agreement and all of its terms and conditions shall be interpreted and governed by the laws of the State of Ohio, unless otherwise noted herein.

SEVERABILITY

The partial or complete invalidity of anyone or more provisions of this Agreement shall not affect the validity or continuing force and effect of any other provision.

ENTIRE AGREEMENT

This Agreement is solely for the benefit of the signatories hereto and represents the entire and integrated agreement between the Parties hereto and, unless specifically referenced herein, supersedes any prior negotiations, representations, or agreements, either written or oral.

DUBLIN'S OBLIGATIONS

FINANCING INFORMATION

Upon written request from Service Provider, Dublin agrees to furnish reasonable evidence that financial arrangements have been made or otherwise exist to fulfill Dublin's payment obligations under the Agreement.

PROJECT FEES

Except for permits and fees, which are the responsibility of Service Provider, Dublin agrees to secure and pay for necessary approvals, easements, assessments and charges required for construction, use or occupancy of permanent structures or for permanent changes in existing facilities.

TIMELY COMMUNICATIONS

Dublin, with reasonable promptness, shall transmit all submittals, transmittals, and written approvals relating to the Work. Any other information or services relevant to service Provider's performance of the Work under Dublin's control shall be furnished by Dublin after receipt from Service Provider of a written request for such information or services.

SERVICE PROVIDER'S OBLIGATIONS

RESPONSIBILITIES

Service Provider shall furnish all of the labor, materials, equipment, and services, including, but not limited to, competent supervision, shop drawings, samples, tools, and equipment as may be necessary for the proper performance of the Work in accordance with and as reasonably inferable from the Contract Documents.

SUBCONTRACTING

Service Provider shall provide to Dublin written notice that it intends to subcontract any of the Work covered by the scope of the Contract Documents to a third party. Dublin shall have the right to approve any and all such subcontracts and Service Provider shall not allow any work to be performed by any subcontractor that has not been approved in writing by Dublin. Service Provider agrees that it shall not be entitled to any additional compensation in the event that Dublin does not approve a proposed subcontractor. Service Provider further agrees to incorporate the terms and conditions of this Agreement into every subcontract.

In the event that Service Provider has work performed by a subcontractor who has not been approved by Dublin, Dublin shall have the right to terminate this Agreement or supplement Service Provider's Work as necessary to have the same completed in accordance with the Contract Documents. Any and all costs incurred by Dublin as a result of such action shall be the responsibility of Service Provider and Dublin may back-charge Service Provider therefor.

SHOP DRAWINGS SAMPLES, PRODUCT DATA AND MANUFACTURERS' LITERATURE

To the extent applicable or required, Service Provider shall promptly submit to Dublin for approval all shop drawings, samples, product data, manufacturers' literature and similar submittals as required by the Contract Documents or as required herein. Service Provider shall prepare and deliver its submittals to Dublin in such time and sequence so as not to delay the Project. The approval of any Service Provider submittal shall not be deemed to authorize deviations, substitutions or changes in the requirements of the Contract Documents unless express written approval is obtained from Dublin authorizing such deviation, substitution or change.

COORDINATION AND COOPERATION

Service Provider shall:

- (a) cooperate with Dublin and all others whose work may interfere or interface with the Work;
- (b) before proceeding with the Work under this Agreement, accurately check all previous and surrounding work done by other entities, determine its correctness, specifically note and immediately advise Dublin of any interference or discrepancies with the Work. Failure of Service Provider to detect and report discrepancies shall relieve Dublin of any and all Service Provider claims to recover cost, expense or damage resulting there from; and
- (c) participate in the preparation of coordination drawings and work schedules involving the Work, to the extent required or requested by Dublin.

AUTHORIZED REPRESENTATIVE

Unless otherwise stated in writing by Dublin, Service Provider shall have a competent foreman, superintendent, or representative, satisfactory to Dublin, on the Project at all times with authority to act on behalf of Service Provider with respect to the work and for the purpose of receiving notices, orders and instructions. Service Provider shall identify the person or persons so authorized to act on its behalf, in writing, before commencing work on the Project. All decisions, agreements or representations made by Service Provider's designated representative for this Project, whether oral or written, shall be binding on Service Provider.

TESTS AND INSPECTIONS

Service Provider shall schedule all required tests, approvals and inspections of the Work or portions thereof at appropriate times so as not to delay the progress of the Work or the Project. Service Provider shall bear all expenses associated with tests, inspections and approvals required of the Service Provider by the Contract Documents, unless otherwise agreed to.

WORKMANSHIP

Every part of the Work shall be executed in accordance with the Contract Documents in a workmanlike and professional manner. All materials used in the Work shall be furnished in sufficient quantities to facilitate the proper and expeditious execution of the Work, and shall be new.

MATERIALS FURNISHED BY OTHERS

In the event the scope of the Work includes installation of materials or equipment furnished by others, it shall be the responsibility of Service Provider to examine those items, store and install the items, unless otherwise provided for in the Contract Documents, with such skill and care as to ensure a satisfactory and proper installation. Loss or damage due to acts of Service Provider shall be deducted from any amounts due or to become due Service Provider under this Agreement.

SUBSTITUTIONS

No substitutions shall be made in the Work unless permitted in the Contract Documents and then only upon the Service Provider first receiving all approvals required under the Contract Documents for substitutions.

WARRANTY

Service Provider warrants and guarantees that its Work conforms in all respects to the Contract Documents and that it is free from defects in material and/or workmanship. Service Provider hereby warrants and guarantees its work to be free of defects in material or workmanship for a period of one year from the date of substantial completion, or such longer period as may be required by the Contract Documents or provided by any manufacturer's warranty applicable thereto. Service Provider further agrees to furnish any special warranties required by the Contract Documents relating to its Work prior to and as a condition of final payment. Service Provider agrees to perform any remedial or corrective work necessary to satisfy its warranty obligations without cost to Dublin.

UNCOVERING/CORRECTION OF WORK

If directed in writing by Dublin, Service Provider must uncover any portion of the Work, which has been covered by the Service Provider in violation of the Contract Documents or contrary to a directive issued by Dublin. Upon receipt of a written directive from Dublin, Service Provider shall uncover such Work for Dublin's inspection and then

restore the uncovered Work to its original condition at the Service Provider's time and expense.

Dublin may direct Service Provider to uncover portions of the Work for inspection by Dublin at any time. Service Provider is required to uncover such Work whether or not Dublin had requested to inspect the Work prior to it being covered. This Agreement shall be adjusted by Change Order for the cost and time of uncovering and restoring any Work which is uncovered for inspection and proves to be installed in accordance with the Contract Documents, provided Dublin had not previously instructed the Service Provider to leave the Work uncovered. If Service Provider uncovers Work pursuant to a directive issued by Dublin, and such Work upon inspection does not comply with the Contract Documents, then Service Provider shall be responsible for all costs and time of uncovering, correcting and restoring the Work so as to make it conform to the Contract Documents.

Service Provider is required to correct in a timely fashion any Work rejected by Dublin for failing to comply with the Contract Documents whether observed prior to the commencement of the warranty period(s) or during the warranty period(s). Service Provider shall correct at its own cost and time and bear the expense of additional services for any nonconforming Work for which it is responsible.

CLEANUP

Service Provider shall at all times: (a) keep the Project and premises free from all rubbish and debris resulting from the Work; (b) broom clean each of its work areas prior to discontinuing work each day; and (c) clean up to the satisfaction of Dublin, including, but not limited to, dirt, grease, machine marks, etc., from walks, ceilings, floors, fixtures, etc. deposited or placed by or resulting from its Work.

If Service Provider fails to immediately commence compliance with cleanup duties within twenty-four (24) hours after written notification from Dublin of non-compliance, Dublin may implement appropriate cleanup measures without further notice and deduct the cost thereof from any amounts due or to become due to Service Provider under this Agreement.

SAFETY OF PERSONS AND PROPERTY

Service Provider is responsible for the health and safety of its employees, agents, subcontractors, and other persons on and adjacent to the Project site. Service Provider, however, shall take all necessary and prudent safety precautions with respect to its Work and shall comply with all safety programs and measures, and with all applicable laws, ordinances, rules, regulations and orders of any public authority for the safety of persons or property, including, but not limited to, OSHA. Service Provider shall also coordinate work activities with Dublin, other contractors or entities, or any other parties involved with this Project to reduce the risk of an accident or injury occurring.

Service Provider shall protect any of its Work and materials susceptible to damage from moisture or hosting of mold at all times. Service Provider agrees to indemnify, hold harmless and defend

Dublin from any and all claims, losses, costs and expenses (including, but not limited to, all attorneys' and consultants' fees) relating to or arising from mold resulting from Service Provider's Work.

INSURANCE

SERVICE PROVIDER'S INSURANCE

Prior to start of the Work, Service Provider shall procure and maintain in full force and effect Workers' Compensation Insurance, Employer's Liability Insurance, Comprehensive or Commercial General Liability Insurance on an occurrence basis, and any additional insurance required of Service Provider. Service Provider shall deliver all certificates of insurance to Dublin, or upon request, copies of the actual insurance policies. All liability insurance policies described above shall be written on a comprehensive form and shall conform to the laws of the State of Ohio. Before any of the Service Provider's employees perform any work on the Project, Service Provider shall furnish Dublin with the Insurance Company's certificate that such coverage has been provided and each certificate shall contain the required limits. Dublin shall be specifically named and included as an additional insured party under all coverage required by this Agreement and coverage for such additional insured shall also be amended to include a waiver of subrogation and primary and noncontributing endorsements in favor of the additional insured.

The types of insurance, and minimum amount of limits, required hereunder are:

- (A) Workers' Compensation Insurance coverage: statutory requirements in the State of Ohio.
- (B) Employers Liability Insurance with limits of not less than \$1,000,000 to anyone person: USL&H; FELA; Jones Act; and, Continental Shelf Act Endorsements, if applicable.
- (C) Commercial General Liability Insurance, written on an occurrence form:
 - X** Standard Limits
 - Excess Liability Policy, if applicable: \$____,000,000.
 - Professional Liability, if applicable, \$1,000,000 Each Occurrence, with not less than a Five Year Completed Operations period if claims-made coverage.
 - Other policies.

NUMBER OF POLICIES

Commercial General Liability insurance and other liability insurance may be arranged under a single policy for the full limits required or by a combination of underlying policies with the balance provided by an Excess or Umbrella Liability Policy. The Umbrella Liability coverage must be as broad or broader than the Primary Insurance Policies.

PROPERTY INSURANCE

Service Provider is responsible to provide insurance coverage for tools, equipment or personal belongings that are owned or leased by the Service Provider or its employees at Service Provider's own expense. Service Provider accepts and shall bear the risk of loss for its property, material, or equipment, which is stored on-site and off-site.

SUBROGATION

Service Provider on behalf of itself, its insurers, successors and assigns does hereby waive any and all rights of subrogation against Dublin relating to or arising from any loss or damage which is within any insurance coverage of Service Provider, regardless of whether a claim has been submitted to or denied by the insurer.

INDEMNIFICATION AND DUTY TO DEFEND

Except to the extent expressly prohibited by statute, Service Provider agrees to fully indemnify and hold harmless Dublin and its elected officials, agents, officers, representatives, attorneys, employees, volunteers, indemnities, independent contractors and invitees from and against any and all claims, causes of action, amounts, damages, demands, expenses, judgments, liabilities, losses, obligations, proceedings and costs, including actual attorneys' fees, expert witness fees and costs incurred, that in whole or in part, arise out of, involve, result from, relate to or are alleged to have been caused by:

- (a) The performance of any aspect of the Work by Service Provider or any of its subcontractors, independent contractors, suppliers, manufacturers, materialmen or persons or entities for whose acts Service Provider is or may be liable and/or their respective agents and/or employees;
- (b) Act(s), failure(s) to act, omission(s) or negligence of or by Service Provider or any of its subcontractors, suppliers, manufacturers, materialmen or persons or entities for whose acts Service Provider is or may be liable and/or any of their respective agents and/or employees.
- (c) Injury or death to persons or damage to property which arises out of, involves, results from, relates to or is caused by, in whole or in part, any action(s), inaction(s) and/or negligence of or by Service Provider or any of its subcontractors, independent contractors, suppliers, manufacturers, materialmen or persons or entities for whose acts Service Provider is or may be liable and/or any of their respective agents and/or employees.
- (d) The failure of Service Provider to pay its subcontractors, suppliers, materialmen, laborers, union fringe benefits or any other obligation arising in the performance of the Work.

This indemnification provision shall not be construed to negate, abridge or reduce any other rights of Dublin and its elected officials, agents, officers, representatives, attorneys, employees, volunteers, indemnities, independent contractors and invitees.

In the event that any such claims, loss, cost, expense, liability, damage or other injury arise or are made or threatened against any indemnity hereunder, Dublin shall have the right to withhold any payments due or to become due to Service Provider an amount sufficient in its judgment and sole discretion to protect and indemnify in accordance with this provision against any and all such claims, loss, damage, cost and expense.

All indemnity obligations set forth in this Agreement shall survive the termination of this Agreement or the completion of Service Provider's Work.

CHANGES, CLAIMS AND DELAYS

CHANGES

Change to Agreement

Without invalidating this Agreement, Dublin may change, add to or reduce the Work to be performed hereunder. Any such change may be authorized as set forth herein.

Change Order

A Change Order is a document prepared by Dublin and signed by Service Provider stating their agreement upon the change in the scope of the Work, adjustment in the Contract Price and/or to the Project Schedule.

Adjustment in Contract Price

Service Provider shall not be entitled to receive compensation for extra work, materials or changes of any kind regardless of whether ordered by Dublin or Dublin's Representative, unless a written Change Order has been previously issued and signed by Dublin. If a change was ordered by Dublin or Dublin's Representative, and Service Provider performed but did not receive a written Change Order, Service Provider shall be deemed to have waived any claim for extra compensation, including anything related to schedule impacts or lost productivity, regardless of any written or verbal protests or claims by Service Provider. Dublin's issuance of a signed, written Change Order shall be deemed and construed as a condition precedent to Service Provider's filing of a valid claim for extra compensation as a result of Service Provider's performance of any work not originally included as part of the original scope of Work. If a Change Order requires an adjustment in the Contract Price, the adjustment shall be established by one of the following methods:

- (a) mutual agreement on a lump sum, which shall be supported by sufficient information submitted by Service Provider to substantiate the amount, including specifically a labor, material, equipment and Service Provider's cost breakdown;
- (b) unit prices already established in the Agreement or if not established by the Agreement then established by mutual agreement for the adjustment;
- (c) on a time and material basis or, if none, then as otherwise allowed by the Contract Documents, or, if none, as jointly acceptable.

(d) for overtime work, Service Provider shall only be entitled to recover the premium time differential without mark-up of any kind.

Agreement on any Change Order shall constitute a final settlement, and full accord and satisfaction, of all matters relating to the change in the Work that is the subject of the Change Order, including, but not limited to, the cumulative effect on the Project of all change orders issued to the date thereof, all direct and indirect costs, home office overhead and any and all adjustments to the Contract Price or Project Schedule.

CLAIMS

Claim

A claim is a demand or assertion made in writing by Dublin or Service Provider seeking an adjustment to the Contract Price and/or Project Schedule, an adjustment or interpretation of the Agreement's terms, or other relief arising under or relating to this Agreement, including the resolution of any matters in dispute between Dublin and Service Provider in connection with the Project.

Timing of Claims

Claims by Service Provider must be made within 21 days after occurrence of the event giving rise to such Claim. Claims must be initiated by written notice to Dublin and must be submitted through the "Statement of Claim" Form attached As Exhibit A to this Agreement. Any submitted "Statement of Claim" Forms must be complete, accurate and contain all information requested by the "Statement of Claim" Form. Failure by Service Provider to present written claims within 21 days of the event giving rise to the claim through the "Statement of Claim" shall constitute an express waiver of any rights to additional time, money or other relief.

Claim Documentation

All Claims presented or submitted by Service Provider shall include all supporting documentation and information to allow Dublin to evaluate the Claim. Dublin may request any additional documentation or information from Service Provider (whether maintained in any form or medium) to assist in assessing and evaluating Service Provider's Claim, and Service Provider agrees to provide the same.

Within ten (10) days of its receipt of a written request, Service Provider shall make available to Dublin or Dublin's Representative any books, records or other documents or information in its possession, custody or control relating to any Claim. Service Provider shall also require its subcontractors and suppliers, regardless of tier, to do likewise.

DELAYS/TIME IMPACT

Should Service Provider delay the progress of the Work so as to cause Dublin to suffer or become liable for any damages, Service Provider agrees to pay to Dublin the full amount of any and all such damages. Such damages, at Dublin's option, may be deducted from any payments due, or which become due, under the Agreement. Nothing in this paragraph shall limit Dublin's right to claim all actual damages sustained by it as a result

of Service Provider's delay. In addition, Dublin may terminate this Agreement for default as provided in Article 13 herein.

Dublin shall have the right, at any time, to delay or suspend the start or prosecution of the whole or any part of the Work under this Agreement, or to vary the sequence of performance thereof. Progress schedules may from time to time be modified to conform to contract completion requirements.

Dublin shall not be liable to Service Provider for delay to Service Provider's Work by reason of fire or other casualty; or on account of riots or of strikes, or other combined action of the workmen or other persons; or on account of any acts of God; or any other cause, whether foreseen or unforeseen, beyond Dublin's control.

All schedules incorporated into the Contract Documents or provided during the course of the performance of the Work are provided for the Service Provider's convenience. Dublin does not warrant or guarantee such Schedule(s) and Service Provider should not rely upon the sequence or duration of activities as set forth therein for any purpose, including the pricing of the Work. Service Provider specifically acknowledges that the sequence and duration of activities set forth in the Schedule(s) typically change on projects of this size, nature and complexity, and that they are likely to change on this Project. Dublin shall have the right to determine and, if necessary, change the time, order and priority in which the various portions of the Work is to be performed and all other matters relative to the timely and orderly conduct of the Work.

PAYMENT

GENERAL PROVISIONS

Schedule of Values

If the Agreement is not a unit price agreement, then the Service Provider shall prepare and submit to the Contractor prior to the due date for the submission of Service Provider's first application for payment, a Schedule of Values apportioned to the various divisions or phases of the Work. The Schedule of Values shall include line items for each portion of the Work. Each line item contained in the Schedule of Values shall be assigned an appropriate monetary price such that the total of all such items shall equal the Contract Price. The Schedule of Values shall be prepared in such detail as may be required by Dublin.

Payment Use and Verification

Service Provider is required to pay for all labor, materials, and equipment used in the performance of the Work. Reasonable evidence, satisfactory to Dublin, may be required to show that all obligations relating to Subcontract Work are current before releasing any payment due to Service Provider. If required by Dublin, before final payment is made for the Work, Service Provider shall submit evidence satisfactory to Dublin that all payrolls, bills for materials and equipment, and all known indebtedness connected with the Agreement and the Work, have been paid or otherwise satisfied.

Taxes

Service Provider agrees to withhold all municipal income taxes due or payable under the provisions of Chapter 181 of the Codified Ordinances of Dublin, Ohio, for wages, salaries and commissions paid to its employees and further agrees to require that all of its subcontractors shall also withhold any such municipal income taxes due under such chapter for any work completed or services performed related to this Project.

Payment Not Acceptance

Payment to Service Provider by Dublin does not constitute or imply acceptance of any portion of the Work.

PROGRESS PAYMENTS

Applications

Service Provider's Applications for Payment shall, unless otherwise required by Dublin or the Contract Documents, be submitted on the AIA 0702 form and shall be itemized and supported by the Service Provider's Schedule of Values, unit prices, and any other substantiating data as required by Dublin.

Partial Lien Waivers and Affidavits

Service Provider shall obtain from all of its subcontractors, vendors and suppliers, regardless of tier, a waiver of claim under the relevant mechanic's lien laws for the Project of all claim or lien rights for the amounts for which they have received payments with respect to the Project in the form attached hereto as Exhibit B to the Agreement.

Rejection of Service Provider's Payment Application

Dublin may reject a Service Provider's payment application or nullify a previously approved payment application, in whole or in part, as may reasonably be necessary to protect Dublin from loss or damage based upon:

- (a) Service Provider's repeated failure to perform the Work as required by the Contract Documents;
- (b) loss or damage arising out of or relating to the Contract Documents and caused by Service Provider to Dublin;
- (c) Service Provider's failure to properly pay for labor, materials, equipment or supplies furnished in connection with the Work;
- (d) rejected, nonconforming or defective Work, which has not been corrected in a timely fashion;
- (e) reasonable evidence of delay in performance of the Work such that the Work will not be completed in accordance with the Project Schedule, and that the unpaid balance of the Contract Price is not sufficient to offset the additional costs or damages that may be incurred by Dublin as a result of the anticipated delay caused by Service Provider;

- (f) reasonable evidence demonstrating that the unpaid balance of the Contract Price is insufficient to cover the cost to complete the Work; or
- (g) third party claims involving Service Provider or reasonable evidence demonstrating that third party claims are likely to be filed unless and until Service Provider furnishes Dublin with adequate security in the form of a surety bond, letter of credit or other collateral or commitment which are sufficient to discharge such claims if established.

Payment Amount

Subject to other provisions of the Contract Documents, the amount of each progress payment shall be computed as follows:

1. The portion of the Contract Price properly allocable to completed Work as determined by multiplying the percentage completion of each portion of the Work by the share of the Contract Price allocated to that portion of the Work in the schedule of values, less retainage of ten percent (10%). Pending final determination of cost to Dublin of changes in the Work, amounts not in dispute shall be included and paid upon approval and payment by Dublin.
2. The progress payment amount shall be further modified under the following circumstance: (a) Add, upon Substantial Completion of the Work, a sum sufficient to increase the total payments to the full amount of the Contract Price, less such amounts as Dublin shall determine for incomplete Work, retainage applicable to such Work and unsettled claims.
3. Dublin shall not make advance payments to Service Provider for materials or equipment, which have not been delivered and stored at the site unless the Contract Documents allow otherwise.

Time of Application

For each progress payment period, Service Provider shall submit its progress payment application to Dublin for the Work performed to date no later than the fifth day of each month, unless otherwise agreed.

Stored Materials and Equipment

To the extent permitted by the Contract Documents, applications for payment may include materials and equipment not incorporated into the Work. Approval of payment applications for materials and equipment stored on or off the site shall be conditioned on submission by Service Provider of bills of sale and applicable insurance or such other procedures satisfactory to Dublin to establish the proper valuation of the stored materials and equipment.

Time of Payment

Dublin shall make progress payments for all undisputed amounts to Service Provider for satisfactory performance of the Work no later than thirty (30) calendar days after receipt of Service Provider's complete payment application.

FINAL PAYMENT

Application

Service Provider may submit its final payment application to Dublin upon acceptance of the Work by Dublin, and upon Service Provider furnishing evidence of fulfillment of the Service Provider's obligations in accordance with the Agreement.

Requirements

When submitting its final payment application, Service Provider shall furnish the following to Dublin:

- (a) the Final Waiver of Lien form attached hereto as Exhibit C. Such form shall be in the amount of the application for final payment and be accompanied by the same Final Lien Waiver form executed by Service Provider's subcontractors, materialmen and suppliers;
- (b) an affidavit that all payrolls, bills for materials and equipment, and other indebtedness connected with the Work for which Dublin might in any way be liable, have been paid or otherwise satisfied;
- (c) consent of Service Provider's surety to final payment, if applicable and required;
- (d) satisfaction of closeout procedures required by Dublin;
- (e) current certificates of insurance establishing that all insurance coverage required by the Agreement shall remain in effect through the final acceptance of the Project by Dublin, or such later date as may be required by the Contract Documents, and that such coverage will not be materially altered, expire or terminate without thirty (30) days prior certified mail notice thereof; and
- (f) other data if required by Dublin, such as receipts, releases, and waivers of liens effective upon payment. Acceptance of final payment by Service Provider shall constitute a waiver of any and all claims (whether known or unknown) by Service Provider except those previously made in writing and identified by Service Provider as unsettled at the time of final application for payment.

Time of Payment

Final payment of the undisputed balance due of the Contract Price shall be made to Service Provider within ten (10) calendar days after receipt of all information required under Section 12.3 of this Agreement.

DISPUTE RESOLUTION

INITIAL DISPUTE RESOLUTION

If a dispute arises out of, or relates to this Subcontract or the alleged breach thereof, the parties shall endeavor to settle the dispute first through direct discussions by and between the parties respective Project Managers or principals.

If the dispute cannot be settled through direct discussions, the parties shall then endeavor to settle the dispute by mediation in accordance with the Construction Industry Mediation Rules of the American Arbitration Association. Notice of demand for mediation shall be filed in writing with the other party to this Agreement with the American Arbitration Association. The demand for mediation shall be made within a reasonable time after written notice of the claim, dispute or other matter in question has been given, but in no event shall it be made when institution of legal or equitable proceedings based on such claim, dispute or other matter in question would be barred by the applicable statutes of limitation. The location of the proceedings shall be in Dublin, Ohio, unless the parties agree otherwise. The parties shall share all costs of the mediation equally.

ARBITRATION/LITIGATION

In the event that a dispute is not resolved as set forth above, Dublin shall have the right, in its sole and exclusive discretion, to elect whether the dispute will then be decided by arbitration or litigation. In the event that Dublin should elect to resolve the dispute through Arbitration it shall so notify Service Provider in writing. The parties will then meet or confer to reach agreement on an arbitrator. The arbitration shall be conducted in general conformity with the Construction Industry Rules of the American Arbitration Association, however, the American Arbitration Association shall not administer the arbitration. The locale of any arbitration hearing shall be Dublin, Ohio. Any award rendered in the arbitration shall be final and binding upon the parties and may be enforced in any court of competent jurisdiction.

In the event that Contractor should elect to resolve the dispute through litigation jurisdiction thereof shall reside exclusively with the Common Pleas court of Franklin County, Ohio.

PREVAILING PARTY

In the event of any arbitration, the prevailing party shall be awarded its share of the arbitration costs and arbitrator compensation. For the purpose of the application of this provision, the arbitrator(s) shall determine the prevailing party as follows: the prevailing party shall be that party who's last written settlement position (demand/offer) made before the commencement of the arbitration hearing(s) is closest to the final award rendered by the arbitrator(s). In order to be considered for the purpose of this provision, any settlement position (demand/offer) must be in writing and must have been delivered by certified mail to the other party. It is the intent of this provision for the arbitrator(s) to identify the true party prevailing in any arbitration proceeding. To that end, in the event that a party seeking relief has not taken a settlement position, i.e. the claimant, the

arbitrator(s) shall consider the settlement demand to be the full relief requested in the arbitration demand. In the event that the respondent has not taken a settlement position,

the arbitrator(s) shall consider the offer to be a complete rejection of the relief requested by the claimant. Where there are mixed claims and counterclaims, the determination of the prevailing party shall be within the discretion of the arbitrator(s) consistent with the intent of this provision."

WORK CONTINUATION AND PAYMENT

Service Provider shall carry on the Work and maintain the Project Schedule pending final resolution of a Claim including mediation, arbitration or litigation, unless the Agreement has been terminated or the Work suspended as provided for in the Agreement, or the parties otherwise agree in writing to a partial or total suspension of the Work. If Service Provider is continuing to perform in accordance with the Agreement, Dublin shall continue to make undisputed payments as required by the Agreement.

RECOURSE BY DUBLIN FAILURE OF PERFORMANCE

Notice to Cure

If Service Provider refuses or fails to supply enough properly skilled workers, proper materials, or maintain the Project Schedule, or it fails to make prompt payment to its workers, subcontractors or suppliers, disregards laws, ordinances, rules, regulations or orders of any public authority having jurisdiction, or otherwise is guilty of a breach of a provision of this Agreement, Service Provider may be deemed in default of this Agreement. If Service Provider fails within three (3) working days after written notification to commence and continue satisfactory correction of such default, with diligence and promptness, then Dublin without prejudice to any other rights or remedies, shall have the right to any or all of the following remedies:

- (a) supply such number of workers and quantity of materials, equipment and other facilities as Dublin deems necessary for the satisfactory correction of such default, which Service Provider has failed to complete or perform after the aforesaid notice, and charge the cost thereof to Service Provider, who shall be liable for the payment of same including reasonable overhead and profit;
- (b) contract with one or more additional contractors, to perform such part of the Work, as Dublin shall determine will provide the most expeditious correction of the default and charge the cost thereof to Service Provider;
- (c) without further notice to Service Provider, withhold payment of monies due the Service Provider in accordance with this Agreement; and
- (d) in the event of an emergency affecting the safety of persons or property (as determined in Dublin's sole discretion), Dublin may correct such default, without first giving three (3) working days' written notice to Service Provider, but shall

give prompt written notice of such action to Service Provider, and charge the cost thereof to the Service Provider.

Service Provider agrees to indemnify and hold Dublin harmless from and against any and all damage, loss, cost or expense, including the actual attorneys' fees incurred, arising from or relating to the default of Service Provider, regardless of whether Service Provider cures the default or is ultimately determined not to have been in default of its obligations under this Agreement, in which event the termination shall be deemed to have been a termination for Dublin's convenience.

Termination by Dublin

Termination for Default/Cause

If Service Provider fails to commence and satisfactorily continue correction of a default within three (3) working days after written notification from Dublin, then the Agreement may be terminated and Dublin may use any materials, implements, equipment, appliances or tools furnished by or belonging to Service Provider to complete the Work. Dublin shall issue a written notice of termination to Service Provider at the time the Agreement is terminated.

Dublin may also furnish those materials, equipment, and/or employ such workers or subcontractors, as Dublin deems necessary to maintain the orderly progress of the Work. Service Provider hereby consents to the assignment of its subcontracts or agreements which Dublin, in its sole discretion, deems necessary for the orderly progress of the Work, immediately upon the issuance of a determination of default.

All costs incurred by Dublin in performing the Work, shall be deducted from any monies due or to become due Service Provider under this Agreement. Service Provider shall be liable for the payment of any amount by which such expense may exceed the unpaid balance of the Contract Price.

Termination for Convenience

Dublin shall have the right to terminate this Agreement for its convenience by providing Service Provider with written notice thereof. Upon Service Provider's receipt of such notification it shall immediately cease work on the Project and take all steps reasonably available to minimize the cost of termination. In the event of such termination, Service Provider shall be entitled to receive as full and complete compensation the value of Work that is properly completed up to the date of termination as identified on the schedule of values, the cost of any stored material not previously paid for or incorporated in the Work which can not be returned or restocked, and reasonable direct costs of demobilization. Service Provider shall not be entitled to compensation for any field or home office overhead or any profit on work not performed.

In the event that any court or arbitration panel should determine that a termination of Service Provider by Contractor for cause was a breach of the Agreement, any such termination shall immediately be converted to a termination for convenience and Service Provider's damages shall be so calculated.

Use of Service Provider's Equipment

If Dublin performs work under this Article, or subcontracts such work to be so performed, Dublin and/or the persons to whom work has been subcontracted shall have the right to take and use any materials, implements, equipment, appliances or tools furnished by, belonging or delivered to Service Provider and located at the Project for the purpose of completing any remaining Work. Immediately upon completion of the Work, any remaining materials, implements, equipment, appliances or tools not consumed or incorporated in performance of the Work, and furnished by, belonging to, or delivered to the Project by or on behalf of Service Provider, shall be returned to Service Provider in substantially the same condition as when they were taken, normal wear and tear excepted.

BANKRUPTCY

Termination Absent Cure

Should there be filed by or against Service Provider a petition in bankruptcy, or for a reorganization, or should Service Provider become insolvent or be adjudicated as bankrupt or go into receivership, liquidation or dissolution, either voluntarily, involuntarily or under court order, or make a general assignment for the benefit of creditors, or otherwise acknowledge insolvency, then in any such event, each of which shall constitute a default hereunder on the Service Provider's part, Dublin shall have the right, in addition to any other rights and remedies provided by this Agreement, the Contract Documents or by law, to proceed in accordance with the provisions of Article 14 of this Agreement.

Interim Remedies

If Service Provider is not performing in accordance with the Project Schedule at the time a petition of bankruptcy is filed, or at any subsequent time, Dublin may avail itself of such remedies under this Article as are reasonably necessary to maintain the Project Schedule.

EQUAL OPPORTUNITY EMPLOYMENT

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

Service Provider shall comply with all provisions of the DPW Regulation on EEO, and the implementing rules, regulations and applicable orders of the State Equal Employment Opportunity Coordinator.

DUBLIN/OWNER:

SERVICE PROVIDER:

CITY OF DUBLIN, OHIO

By: _____

By: _____

Its: _____

Its: _____

Date: _____

Date: _____

APPROVED AS TO FORM:

Date: _____

Legal

PERFORMANCE BOND

KNOW ALL MEN BY THESE PRESENTS, that we, the undersigned (the "Principal") and _____ (the "Surety"), are hereby held and firmly bound unto the City of Dublin, Ohio ("Dublin") in an amount not to exceed one hundred percent (100%) of the agreed contract amount for the payment of which well and truly to be made, we hereby jointly and severally bind ourselves, our heirs, executors, administrators, successors and assigns.

THE CONDITION OF THE ABOVE OBLIGATION is such, that whereas the Principal did on this _____ day of _____, 20 __, enter into a contract with Dublin which said contract is made a part of this bond the same as though set forth herein;

NOW, if the Principal shall well and faithfully do and perform the things agreed by the Principal to be done and performed according to the terms of said contract; and shall pay all lawful claims of subcontractors, material men 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 material man or laborer having a just claim, as well as for Dublin; 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 of any and all claims hereunder shall in no event exceed the penal amount of this obligation as herein stated.

The Surety for value received, hereby stipulates and agrees that no modifications, omissions, or additions in or to the terms of the contract or to the work to be performed there under or in or to the plans or specifications therefore shall in any wise affect the Surety's obligations on this bond.

Signed this _____ day of _____, 20 __.

PRINCIPAL: _____

By: _____
(Signature)

Print Name: _____

Title: _____

Address: _____

Telephone: () _____

SURETY: _____

By: _____
(Signature)

Print Name: _____

Title: _____

Address: _____

Telephone: () _____

SURETY AGENT: _____

By: _____
(Signature)

Print Name: _____

Title: _____

Address: _____

Telephone: () _____

CERTIFICATION OF FUNDS

PARTIAL ROOF REPLACEMENT – PHASE 2 DUBLIN RECREATION CENTER

I, Angel Mumma, Director of Finance of the City of Dublin, Ohio, certify that:

1. The Council of the City of Dublin, Ohio has appropriated \$_____ for the above-referenced project by Resolution No. _____ adopted on _____, 20__.
2. The amount so appropriated is on deposit or in the process of collection to the credit of the appropriate fund free from any outstanding obligations.

CITY OF DUBLIN, OHIO

Date: _____

By: _____
Angel Mumma
Director of Finance

NOTICE TO PROCEED
Not Applicable ____
PARTIAL ROOF REPLACEMENT – PHASE 2
DUBLIN RECREATION CENTER

To: _____

You are hereby notified to commence work within ten (10) business days from the date of receipt of this Notice to Proceed. You are required to complete the work within **one hundred and twenty (120) consecutive calendar days**.

Return an acknowledged copy of this Notice to Proceed to:

Brian Ashford, Facilities Manager
City of Dublin
6555 Shier Rings Road
Dublin, Ohio 43016

CITY OF DUBLIN, OHIO

Date: _____

By: _____

Brian Ashford
Facilities Manager

RECEIPT OF NOTICE TO PROCEED

Receipt of this Notice to Proceed is hereby acknowledged this ____ day of _____, 2015.

Company Name: _____

Signature: _____

Print Name: _____

Title: _____

NOTICE OF COMMENCEMENT OF PUBLIC IMPROVEMENT

Not Applicable ____

Section 1311.252, Ohio Revised Code

Notice is hereby given of the commencement of a public improvement as follows:

1. The public improvement is identified as:

Project Name: **PARTIAL ROOF REPLACEMENT – PHASE 2 DUBLIN RECREATION CENTER**

Location: 5600 Post Road, Dublin, Ohio 43017

2. The public authority responsible for the public improvement is:

City of Dublin, Ohio
5200 Emerald Parkway
Dublin, Ohio 43017

3. The principal contractor and its surety on the public improvement are as follows:

Principal Contractor: _____	Surety: _____
Name _____	Name _____
Address _____	Address _____
City, State _____	City, State _____
Zip Code _____	Zip Code _____
Telephone Number _____	Telephone Number _____

4. The City of Dublin, Ohio first executed a contract with a principal contractor for the public improvement on _____ 2015.

5. The name and address of the representative of the City of Dublin, Ohio upon whom service may be made for the purposes of serving an affidavit pursuant to Section 1311.26 of the Ohio Revised Code is:

**Brian Ashford, Facilities Manager
City of Dublin
6555 Shier Rings Road
Dublin, Ohio 43016**

CITY OF DUBLIN, OHIO

By: _____
**Brian Ashford
Facilities Manager, City of Dublin**

Sworn to and subscribed before me this _____ day of _____, **2015**.

Notary Public

CHANGE ORDER

Partial Roof Replacement – Phase 2
Dublin Recreation Center

Change Order No. _____ Contractor Name: _____

Date: _____

Agreement Date: _____

The following changes are made to the contract documents:

The changes are made for the following reasons:

Change to contract price:

Original contract amount: \$ _____

Current contract amount
adjusted by previous
Change Orders: \$ _____

The contract will be (circle one:
increased/decreased) due to this
Change Order by: \$ _____

New contract amount (including
this Change Order): \$ _____

Change to contract time:

The contract time will be (circle one: increased/decreased) due to this Change Order by _____ calendar days.

The date for completion of all work will be _____, 2015.

This Change Order is signed this _____ day of _____, 2015.

CONTRACTOR

CITY OF DUBLIN, OHIO

By: _____
Dana L. McDaniel
City Manager

By: _____
Brian Ashford
Facilities Manager

Print Name: _____

By: _____
Angel Mumma
Director of Finance

Title: _____

SECTION 4
GENERAL PROVISIONS

CITY OF DUBLIN, OHIO
PUBLIC IMPROVEMENTS GENERAL PROVISIONS

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**CITY OF DUBLIN, OHIO
GENERAL PROVISIONS**

1010 - DEFINITIONS AND TERMS

Whenever in these general provisions or in other contract documents the following terms or pronouns in place of them are used, the intent and meaning shall be interpreted as follows:

101.01 Abbreviations. Whenever the following abbreviations are used in these general provisions or in any other contract documents, they are to be construed the same as the respective expressions represented:

AAN	American Association of Nurserymen
AASHTO	American Association of State Highway and Transportation Officials
ACI	American Concrete Institute
AISC	American Institute of Steel Construction
AISI	American Iron and Steel Institute
ANSI	American National Standards Institute
AREA	American Railway Engineering Association
ASA	American Standards Association
ASCE	American Society of Civil Engineers
ASME	American Society of Mechanical Engineers
ASTM	American Society for Testing and Materials
AWG	American Wire Gage
AWS	American Welding Society
AWWA	American Water Works Association
CMSC	Construction and Material Specifications - City of Columbus
EEI	Edison Electric Institute
FHWA	Federal Highway Administration, Department of Transportation
FSS	Federal Specifications and Standards, General Services Administration
IEEE	Institute of Electrical and Electronic Engineers
IES	Illuminating Engineering Society
IMSA	International Municipal Signal Association
IPCEA	Insulated Power Cable Engineering Association
ITE	Institute of Transportation Engineers
NEMA	National Electrical Manufacturers Association
ODOTCMS	Ohio Department of Transportation Construction and Material Specifications
OMUTCD	Ohio Manual of Uniform Traffic Control Devices
OSHA	Occupation Safety & Health Act
SSPC	Steel Structures Painting Council
UL	Underwriters' Laboratories, Inc.

Unless otherwise stated in special provisions or in a drawing note, the latest revision of the above standards shall apply.

References made to date Specifications shall govern, unless the Engineer approves later revisions.

101.02 Advertisement. The public announcement, as required by law, inviting bids for work to be performed or materials and equipment to be furnished.

101.03 Award. The written acceptance by the City Manager of a bid.

101.04 Bidder. Any individual, firm, partnership, or corporation submitting a bid for the advertised work, acting directly or through a duly authorized representative.

101.05 Borrow Area. The term borrow area as used in this section refers to locations outside the right-of-way from which natural materials are removed for use in the work.

101.06 Bridge. A structure, including supports, erected over a depression or an obstruction, such as water, highway, or railway, and having a track or passageway for carrying traffic or other moving loads and having a length measured along the center of roadway of more than twenty feet between the center line of bearing of abutments or extreme limits of openings for multiple boxes.

101.07 Calendar Day or Day. Every day shown on the calendar.

101.08 Certified Test Data. A test report from an independent laboratory listing test data for the specified requirements for the samples tested and a statement furnished by the Contractor by a person having legal authority to act for the supplier and/or manufacturer of the material that the test report furnished represents the material delivered to the project. The certification shall include the laboratory report number and the number of the project to which the material is delivered. Laboratory reports signed by a registered professional engineer and those signed by other personnel and notarized will be accepted for this purpose.

101.09 Change Order. A written order issued by the Director of Parks & Open Space to the Contractor, covering changes in the plans or quantities or both, within or beyond the scope of the contract and establishing the basis of payment and time adjustments for the work affected by the changes.

101.10 City. The City of Dublin, Ohio, acting through its Director of Parks & Open Space or properly authorized agents thereof; such agents acting severally within the scope of the particular duties entrusted to them.

101.11 Completion. Completion of the project shall occur when all of the following items are completed in compliance with the contract: (1) the work has been satisfactorily completed in all respects; (2) the project is ready for use by the City; and (3) the Contractor has satisfactorily executed and delivered to the Director of Parks & Open Space all documents, certificates and proofs of compliance.

101.12 Completion Date. The date, as shown in the proposal, on which the work contemplated shall be completed unless extended by an approved written extension.

101.13 Conduit. Any pipe or similar passageway for electricity, gas, water or other utility.

101.14 Contract. The agreement between the City and the Contractor as set forth in the contract documents setting forth the obligations of the parties thereunder, including but not limited to, the performance of the work, the furnishing of labor and materials, and the basis of payment.

101.15 Contract Documents. The contract documents include the invitation to bid; proposals; affidavits; contract forms and contract bond; General Provisions at the time of the award of the contract; supplemental specifications; special provisions; general and detailed plans; notices to the Contractor; and any change orders and supplemental agreements that are required to complete the construction of the work in an acceptable manner, including authorized extensions of the completion date, all of which constitute one instrument.

101.16 Contract Bond. The approved form of security, executed by the Contractor and the Contractor's surety or sureties, guaranteeing complete performance of the contract and all supplemental agreements pertaining thereto and the payment of all legal debts pertaining to the construction of the project.

101.17 Contract Item (Pay Item). A specifically described unit of work for which a price is provided in the contract.

101.18 Contractor. The individual, firm, partnership, corporation, or other entity contracting with the City for performance of prescribed work, acting directly or through a duly authorized representative.

101.19 County. The county in which the work is to be performed.

101.20 Culvert. Any structure not classified as a bridge, which provides an opening under the roadway.

101.21 Department or Division. All references to "Department," or "Division," or any particular department or division of the City of Dublin, Ohio or any particular department or division of the State of Ohio shall refer to the Parks and Recreation, Parks & Open Space of the City of Dublin, Ohio.

101.22 Director. All references to Director shall refer to the Director of Parks & Open Space.

101.23 Director of Parks & Open Space. The Director of Parks & Open Space of the City of Dublin, Ohio or the Director of Parks & Open Space designated representative.

101.24 Equipment. All machinery and equipment, together with the necessary supplies for upkeep and maintenance, and also tools and apparatus necessary for the proper construction and acceptable completion of the work

101.25 Extra Work. An item of work not provided for in the contract as awarded but found essential to the satisfactory completion of the contract within its intended scope.

101.26 Extra Work Contract. A contract concerning the performance of work or furnishing of materials involving extra work. Such extra work may be performed at agreed prices or on a force account basis.

101.27 Fabricator. The individual, firm, or corporation that fabricates structural metals or prestressed concrete members as an agent of the Contractor.

101.28 Inspector. The Director of Parks & Open Space's authorized representative assigned to make detailed inspections of contract performance.

101.29 Invitation to Bid. The invitation for proposals for all work or materials on which bids are required. Such Invitation to Bid will indicate with reasonable accuracy the quantity and location of the work to be done or the character and quality of the material and/or equipment to be furnished and the time and place of the opening of proposals.

101.30 Laboratory. A reputable testing laboratory that is designated by or acceptable to the Director of Parks & Open Space for rendering testing and inspection services on a contract where these specifications govern.

101.31 Materials. Any materials specified for use in the construction of the project and its appurtenances.

101.32 National Holidays. New Years Day, January 1; Martin Luther King's Birthday - the third Monday in January; Presidents' Day, the third Monday in February; Memorial Day, the last Monday in May; Independence Day, July 4; Labor Day, the first Monday in September; Thanksgiving Day, the fourth Thursday in November; Christmas Day, December 25.

101.33 Notice to Proceed. Written notice by the Director of Parks & Open Space to the Contractor, authorizing the beginning of work.

101.34 Owner. The City of Dublin, Ohio.

101.35 Plans. The plans, profiles, typical cross-sections, working drawings and supplemental drawings, approved by the Director of Parks & Open Space, or exact reproductions thereof, which show the location, character, dimensions and details of the work.

101.36 Profile Grade. The trace of a vertical plane along the centerline of roadway, or as indicated on the plans. Profile grade means either elevation or gradient of such trace according to the context.

101.37 Project. The specific section of the work together with all appurtenances and construction to be performed thereon under the contract.

101.38 Proposal. The offer of a bidder, on the prescribed form properly signed and

guaranteed, to perform the work and to furnish the labor and materials at the prices quoted.

101.39 Proposal Form. The approved form on which the City requires bids to be prepared and submitted for the work.

101.40 Proposal Guaranty. The security furnished with a bid to guarantee that the bidder will enter into the contract if the bid is accepted.

101.41 right-of-way. A general term denoting land, property, or interest therein, usually in a strip, acquired for or devoted to the project.

101.42 Road. A general term denoting a public way for purposes of vehicular travel, including the entire area within the right-of-way.

101.43 Roadbed. The graded portion of a highway within top and side slopes, prepared as a foundation for the pavement structure and shoulder.

101.44 Roadside. A general term denoting the area adjoining the outer edge of the roadway. Extensive areas between the roadways of a divided highway may also be considered roadside.

101.45 Roadside Development. Those items necessary to the complete highway which provide for the preservation of landscape materials and features; the rehabilitation and protection against erosion of all areas disturbed by construction through seeding, sodding, mulching and the placing of other ground covers; such suitable planting and other improvements as may increase the effectiveness and enhance the appearance of the highway.

101.46 Roadway. The portion of a highway or street within limits of construction.

101.47 Sewer. Pipe or conduit intended for carrying storm drainage or sanitary drainage.

101.48 Shoulder. The portion of the roadway contiguous to the traveled way for accommodation of stopped vehicles, for emergency use, and for lateral support of base and surface courses.

101.49 Sidewalk. The facility within the public right-of-way primarily constructed for the use of pedestrians.

101.50 Special Provisions. Additions and revisions to the standard and supplemental specifications covering conditions peculiar to an individual project.

101.51 Specifications. The directions, provisions and requirements contained in General Provisions; all as supplemented by the supplemental specifications and special provisions.

101.52 State. The State of Ohio acting through its authorized representative.

101.53 Street. A general term denoting a public way for purposes of vehicular travel, including all improvements within the right-of-way such as sidewalks, bikepaths, sewers, and streetlights.

101.54 Structures. Bridges, culverts, catch basins, curb inlets, drop inlets, retaining walls, cribbing, manholes, end walls, buildings, curbs, pavements, sewers, water mains, service pipes, under drains, foundation drains and other features which may be encountered in the work and not otherwise classed herein.

101.55 Subcontractor. An individual, firm, partnership, corporation or other entity to whom the Contractor sublets part of the contract with the written approval of the Director of Parks & Open Space.

101.56 Subgrade. The surface upon which a structure or work and appurtenances are to be constructed.

101.57 Substructure. All of that part of a bridge or culvert below the bearings of simple and continuous spans, skewbacks of arches and tops of footings of rigid frames, together with back walls and wings.

101.58 Superintendent. The Contractor's authorized representative in responsible charge of the work.

101.59 Superstructure. The entire structure except the substructure.

101.60 Supplemental Specifications. Detailed specifications supplemental to or superseding these General Provisions or any other provisions.

101.61 Surety. The corporation, partnership or individual, other than the Contractor, executing a bond furnished by the Contractor.

101.62 Titles (or Headings). The titles or headings of the sections and subsections herein are intended for convenience of reference and shall not be considered as having any bearing on their interpretation.

101.63 Water line. Conduit for carrying public water supply.

101.64 Work. The furnishing of all labor, services, materials, equipment, and other incidentals necessary or convenient to the successful completion of the project and the carrying out of all duties and obligations imposed by the contract.

101.65 Work Days. Wherever indicated in these specifications, work days are defined as: Monday, Tuesday, Wednesday Thursday, Friday, and Saturday, excluding national holidays.

101.66 Working Drawings. Stress sheets, shop drawings, erection plans, false work plans, cofferdam plans, bending diagrams for reinforcing steel, or any other supplementary plans or similar data which the Contractor is required to submit for approval.

101.67 Interpretations. In order to avoid cumbersome and confusing repetition of expressions in these specifications, it is provided that whenever anything is, or is to be, done, if, as, or when, or where contemplated, required, determined, directed, specified authorized, ordered, given, designated, indicated, considered necessary, deemed necessary, permitted, reserved, suspended, established, approval, approved, disapproved, acceptable, unacceptable, suitable, accepted, satisfactory, unsatisfactory, sufficient, insufficient, rejected, or condemned, it shall be understood as if the expression were followed "by the Director of Public Works" or "to the Director of Public Works".

1020 - BIDDING REQUIREMENTS AND CONDITIONS

102. 01	Pre-qualification of Bidders
102. 02	Availability of Contract Documents
102. 03	Proposals
102. 04	Interpretation of Quantities in Proposal
102. 05	Examination of Plans, Specifications, Special Provisions, and Site of Work
102. 06	Preparation of Proposal
102. 07	Irregular Proposals
102. 08	Proposal Guaranty
102. 09	Delivery of Proposals
102. 10	Withdrawal of Proposals
102. 11	Public Opening of Proposals
102. 12	Statement of Materials
102. 13	Combination or Conditional Proposals

102.01 Pre-qualification of Bidders. Not applicable to this contract.

102.02 Availability of Contract Documents. The contract documents are available to prospective bidders at the locations stated in the Invitation to Bid. The prospective bidder will be required to pay the Architect the sum stated in the Invitation to Bid for each set of the contract documents.

102.03 Proposals. The City reserves the right to disqualify or refuse to consider a proposal if a bidder is in default for any of the following reasons:

(a) More than one proposal for the same work from an individual, partnership, joint venture, corporation or other entity under the same or different name, or corporation under the same name or corporations with one or more of the same persons as officers of such corporations, or corporations who are holding companies, parent companies or holding companies which are subsidiaries of such corporations.

(b) Evidence of collusion among bidders. Participants in such collusion will receive no recognition as bidders for any future work of the City for a period of three years.

(c) Bid prices which obviously are unbalanced.

- (d) Lack of competency and/or adequate machinery, plant and other equipment.
- (e) Uncompleted work, whether or not with the City, which, in the judgment of the City, might hinder or prevent the prompt completion of additional work if awarded.
- (f) Failure to comply with the Pre-qualification requirement of 102. 01.
- (g) Failure to perform previous contracts adequately or a breach of prior contracts, whether or not the breach was waived by the City at a prior time.
- (h) Any other reasonable cause.

102.04 Interpretation of Quantities in Proposal. Not applicable to this contract.

102.05 Examination of Plans, Specifications, Special Provisions, and Site of Work. The bidder is expected to examine carefully the site of the proposed work and the contract documents before submitting a proposal. The bidder may also make additional investigations of subsurface conditions prior to submitting the bid. Such soil tests and investigations shall be at the bidder's expense and at no cost to the City. Any physical variation at the site of the work from that indicated by the contract documents, noted by the Contractor during the required examination or during any additional investigation conducted by the bidder, shall be called to the attention of the Director of Parks & Open Space prior to submitting a proposal. The submission of a proposal shall be considered evidence that the bidder has made such examination and is satisfied as to the conditions to be encountered in performing the work and as to the requirements of the contract documents.

No pleas of ignorance of any provisions of the contract documents or of available subsurface data which may have been obtained by the City or its authorized representatives for use in designing the project shall not be accepted as a basis for any claim for extra compensation, extra work or for any extension of time.

Data concerning subsurface materials or conditions may have been obtained by the City for use in designing the project. Said borings, test excavations, and other subsurface investigations even if incorporated into the plans, if any, are incomplete, are not a part of the contract documents, and are not warranted to show the actual subsurface conditions. Said subsurface data, if not in the plans, is available for review by bidders upon written request and execution of a release for subsurface information. Bidders shall not rely on subsurface information obtained from the City and the City will not be responsible in any way for additional compensation for excavation work performed under the contract due to the Contractor's assumptions or deductions based on said subsurface data. The Contractor agrees that no claims will be made against the City, if, in carrying out the work, it is found that the actual subsurface conditions encountered do not conform to those indicated by said borings, test excavations and other subsurface investigations.

All soil data obtained from the City is for information only and indicates conditions existing at the time of the tests. The information is not guaranteed to be indicative of any subsurface condition except at the particular and exact locations of the borings.

102.06 Preparation of Proposal. The bidder shall submit the proposal upon the forms furnished by the City. All the words and figures shall be in ink or typed.

When an item in the proposal contains a choice to be designated by the bidder, the bidder shall indicate that choice in accordance with the specifications for that particular item, and thereafter no further choice will be permitted.

The bidder's proposal must be signed with ink by the individual, by one or more members of the partnership, by one or more members or officers of each firm representing a joint venture, or by one or more officers of a corporation, or by an agent of the Contractor legally qualified and acceptable to the City. If the proposal is made by an individual, the name and business address of that individual must be shown; if as a partnership, the names and business addresses of all general partners must be shown; if as a joint venture, the name and business address of each member of the joint venture must be shown; if by a corporation, the name of the state under the laws of which the corporation is chartered, the name of the corporation and the names and business addresses of its corporate officers must be shown; or if by any other business entity, the names and addresses of the principals of such entity. Anyone signing a proposal on behalf of a corporation must file with the proposal legal evidence of one's authority to do so.

Before a contract will be awarded to a foreign corporation or a person or partnership non-resident of the State of Ohio, such foreign corporation, person, or partnership non-resident shall file with the Secretary of State of Ohio a power of attorney designating his or its agent or the Secretary of State of Ohio, as agent, for the purpose of accepting service of summons, in any action in law or equity, or both, brought in the State of Ohio.

102.07 Irregular Proposals. Proposals will be considered irregular and may be rejected for reasons including but not limited to the following:

(a) If the proposal is on a form other than that furnished by the City, or if the form is altered or any part thereof is detached.

(b) If there are unauthorized additions, conditional or alternate bids, or irregularities of any kind which may tend to make the proposal incomplete, indefinite, or ambiguous as to its meaning.

8 If the bidder adds any provisions reserving the right to accept or reject an award, or to enter into a contract pursuant to an award. This does not exclude a bid limiting the maximum gross amount of awards acceptable to any one bidder at any one bid letting, provided that any selection of awards will be made by the City.

(d) If the proposal is not signed by the bidder.

(e) If the proposal is not typed or written legibly in ink.

102.08 Proposal Guaranty. No proposal will be considered unless accompanied by a certified check, cashier's check, letter of credit, or a satisfactory bid bond, in an amount not less than ten percent of the bidder's proposal, including the base bid and all alternates conditioned upon execution of the contract and the furnishing of a performance bond in the event the contract is awarded to the bidder.

102.09 Delivery of Proposal. The proposal shall be placed, together with the proposal guaranty, in a sealed envelope so marked as to indicate the identity of the project and the name and address of the bidder. If forwarded by mail, said envelope shall then be placed in another envelope which shall be sealed and addressed as indicated in the proposal. Proposals will be received until the hour and date set for the opening thereof and must be in the hands of the official indicated by such time. Proposals received after the time for opening of bids will be returned to the bidder unopened.

102.10 Withdrawal of Proposals. No bidder may withdraw his proposal unless a written request to do so is submitted to the Director of Parks & Open Space prior to the time set for opening of the proposals. When such request is received, the proposal will be returned to the bidder unopened.

102.11 Public Opening of Proposals. Proposals will be opened and read publicly at the time and place designated by the Director of Parks & Open Space. Bidders, their authorized agents and other interested parties are invited to be present.

102.12 Statement of Materials. Before any contract is awarded, the bidder may be required to furnish a complete statement of the origin, composition, and manufacture of any or all materials to be used in the construction of the work together with samples, which samples may be subjected to the tests provided for in the specifications to determine their quality and fitness for the work.

102.13 Combination or Conditional Proposals. If the City so elects, proposals may be issued for the project in combination, unless otherwise stated on the proposal form. The City reserves the right to make awards on combination bids or separate bids to the best advantage of the City. No combination bids, other than those specifically stated on the proposal form by the City, will be considered. Separate contracts will be written for each individual project included in the combination.

103. - AWARD AND EXECUTION OF CONTRACT

- 103. 01 Consideration of Proposals**
- 103. 02 Award of Contract**
- 103. 03 Cancellation of Award**
- 103. 04 Return of Proposal Guaranty**
- 103. 05 Requirement of Contract Bond**
- 103. 06 Execution of Contract**
- 103. 07 Failure to Execute contract**
- 103. 08 Contractor's Insurance**

- 103.09 Fire and Builder's Risk Insurance**
- 103.10 Railroad Protective Insurance**
- 103.11 Workers' Compensation Insurance**

103.01 Consideration of Proposals. After the proposals are opened and read, they will be compared on the basis of the summation of the products of the approximate quantities shown in the proposal by the unit bid prices. In the event of a discrepancy between unit bid prices and extensions, the unit price shall govern.

The right is reserved to reject any or all proposals, to waive technicalities or to advertise for new proposals, if in the judgment of the awarding authority the best interests of the City will be promoted thereby.

The City reserves the right to hold proposals for a period of up to sixty days after the opening, and to award a contract at any time during that period.

103.02 Award of Contract. The award of the contract, if it be awarded, will be made as soon as is reasonably possible after the opening of the proposals to the lowest and best bidder whose proposal complies with all the requirements prescribed. In no case will an award be made until all necessary investigations are made as to the responsibility of the bidder to whom it intends to award the contract. The successful bidder will receive a Notice of Intent to Award sent to the bidder at the address shown in the proposal stating that its proposal has been accepted by the City.

103.03 Cancellation of Award. The City reserves the right to rescind the award of any contract at any time before the execution of said contract by all parties without any liability against the City.

103.04 Return of Proposal Guaranty. All proposal guaranties, except those of the three lowest bidders, will be returned immediately following the opening and checking of the proposals. The retained proposal guaranties of the three lowest bidders will be returned within ten days following the award of contract and that of the successful bidder will be returned after a satisfactory performance bond has been furnished and the Agreement for Construction has been executed.

103.05 Requirement of Performance Bond. The successful bidder must within ten days after receiving the Notice of Intent to Award and before execution of the Agreement for Construction by the City, furnish a performance bond in the form provided by Ohio Revised Code Section 153. 57 in the full amount of the proposal. Said bond shall cover the entire contract including the guarantee period required under 109. 11. The successful bidder's failure to submit a performance bond with the executed Agreement for Construction shall be deemed a refusal by the bidder to enter into a contract and shall release the City from all obligations to the bidder.

103.06 Execution of Contract. The Agreement for Construction shall be signed by the successful bidder and returned, together with the performance bond and other required contract documents, within ten days after the bidder has received the Notice of Intent to Award.

103.07 Failure to Execute Contract. Failure of the bidder to execute the Agreement for Construction and file an acceptable performance bond shall be just cause for the cancellation of the award and the forfeiture of the proposal guaranty which shall become the property of the City, not as a penalty, but in liquidation of damages sustained. Award may then be made to the next lowest and best bidder, or the work may be re-advertised as the Director of Parks & Open Space may decide.

103.08 Contractor's Insurance.

(A) General. The Contractor shall secure and maintain, at his/her own expense, until completion of the contract, general liability and property insurance as shall protect him and the City from claims for personal injury or property damage which may arise because of the nature of the work or from operations under this contract.

(B) General Liability. The Contractor shall have General Liability coverage on a per project basis, per occurrence, and in comprehensive form. General Liability coverage shall include Products/Completed Operations, Explosion Underground and Collapse Hazard, Premises Operations, Contractual, Independent Contractors, Broad Form Property Damage and Personal Injury.

The Contractor shall provide General Liability and Excess General Liability coverage in the following amounts, at a minimum:

Projects less than \$1,000,000: Contractor shall have total limits of insurance to include primary and excess coverage in an amount not less than \$2,000,000. (Examples: may be \$1,000,000 primary and \$1,000,000 excess, \$2,000,000 primary, or other equivalent combination.)

Projects greater than \$1,000,000: Contractor shall provide total limits of insurance to include primary and excess coverage in an amount of not less than \$5,000,000. (Examples: may be \$1,000,000 primary and \$4,000,000 excess, \$2,000,000 primary and \$3,000,000 excess, or other equivalent combination.)

8 Automobile Liability. The Contractor shall secure, and maintain, at his/her own expense, until the completion of the Contract, coverage for any auto, including non-owned and hired autos, with a combined single limit of \$1,000,000 per occurrence. The City shall be named as an Additional Insured.

(D) Workers' Compensation Insurance. Before beginning work, the Contractor shall furnish to the City satisfactory proof that he/she has, for the period covered under the Contract, full Workers' Compensation coverage for all persons whom he/she may employ directly, or through subcontractors, in carrying out the work contemplated under the Contract, and shall hold

the City free and harmless for all personal injuries of all persons whom the Contractor may employ directly or through subcontractors.

(E) Additional Insured. The Contractor shall name the City of Dublin, Ohio as an "Additional Insured" on all insurance policies, except Workers' Compensation, and this shall be reflected on the Certificate of Insurance.

(F) Cancellation Notice or Material Change of Coverage. The Contractor's required insurance shall be endorsed to provide that the policy(ies) will not be canceled, reduced, discontinued, or otherwise materially altered during the period of performance without thirty (30) days prior written notice to the Director of Parks & Open Space.

(G) Certificate(s) of Insurance. Prior to commencing work under each contract or subcontract, certificates of insurance shall be submitted and approved by the City. The Contractor is responsible for obtaining certificates of insurance establishing that the Contractor and all subcontractors have complied with insurance requirements previously stated.

(H) Rating of Insurance Company(ies). Any and all insurance company(ies) supplying coverage to the Contractor must have no less than an A- rating in accordance with the A. M. Best rating guide.

104. - SCOPE OF WORK

- 104. 01 Intent of Contract**
- 104. 02 Alteration of Plans or Character of the Work**
- 104. 03 Extra Work**
- 104. 04 Modification of Contract**
- 104. 05 Maintenance of Traffic and Accessibility to Utilities**
- 104. 06 Materials Found on the Work Site**
- 104. 07 Final Cleaning Up**

104.01 Intent of Contract. The intent of the contract is to provide for the construction and completion in every detail of the work described. The Contractor shall perform all items of work covered and stipulated in the proposal and perform altered and extra work, furnish all labor, materials, equipment, tools, transportation and supplies required to complete the work in accordance with the plans, specifications and terms of the contract. Should any misunderstanding arise as to the intent or meaning of the plans, specifications, special provisions or proposal, or any discrepancy appear, the decision of the Director of Parks & Open Space shall be final and conclusive.

104.02 Alteration of Plans or Character of the Work. The City reserves the right to make, at any time during the progress of the work, such increases or decreases in quantities and such alterations in the details of construction, including alterations or alignments of road structures, grades, etc..., as may be found to be necessary or desirable. Such increases or decreases and alterations shall not invalidate the contract nor release the surety, and the Contractor agrees to perform the altered work the same as if it had been a part of the original contract. The

Contractor shall insure that coverage provided by the surety is maintained at the same value as the altered project value.

Unless such alterations and increases or decreases materially change the character of the work to be performed or the cost thereof, the altered work shall be paid for at the same unit prices as other parts of the work. In this case, all expenses for increased alterations and increased costs shall be borne solely by the Contractor. If, however, the character of the work or the unit costs thereof are materially changed, an allowance shall be made on such basis as may have been agreed to in advance of the performance of the work, or in case no such basis has been previously agreed upon, then an allowance shall be made, either for or against the Contractor, in such amount as the Director of Parks & Open Space may determine to be fair and equitable.

Should the Contractor encounter or the Director of Parks & Open Space discover during the progress of the work or any conditions at the site differing materially from those indicated in this contract, or unknown physical conditions at the site of an unusual nature, differing materially from those ordinarily encountered and generally recognized as inherent in work of the character provided for in the contract the Director of Parks & Open Space shall be promptly notified in writing of such conditions before they are disturbed. The Director of Parks & Open Space will thereupon promptly cause the investigation of conditions and if they are found to so materially differ and cause an increase or decrease in the cost of, or the time required for performance of the contract, an equitable adjustment will be made.

Latent physical subsurface conditions such as abandoned public and private utilities, ancient foundations or other such man-made structures of which the City and the Contractor could not have been aware, or reasonably could not have been aware of at the time of the execution of the contract, may qualify for adjustment in time of completion and increased cost of construction, all of which must be documented by the Contractor and submitted to the Director of Parks & Open Space for approval.

Any adjustment in compensation because of a change or changes resulting from one or more of the conditions described in the foregoing paragraphs will be made in accordance with the provisions of 104. 03 and 104. 04. Any adjustment in contract time because of changes will be made in accordance with the provisions of 108. 06.

104.03 Extra Work. Subject to 104. 04, the Contractor shall perform unforeseen work, for which there is no price included in the contract, whenever it is deemed necessary or desirable in order to complete fully the work as contemplated. Such work shall be performed in accordance with the specifications and as directed, and will be paid for as provided under 109. 04.

104.04 Modification of Contract. When it becomes necessary in the opinion of the Director of Parks & Open Space, in the prosecution of any work or improvement under contract, that alterations or extra work are needed, the same shall only be made upon a written change order approved by the City Manager. No such change order shall be effective until the price to be paid for the work or material, or both, under the altered or modified contract shall have been agreed upon in writing and signed by the Contractor and the City Manager on behalf of the City.

The Contractor shall have no claim for and nor be entitled to compensation for any such alterations or extra work until the same have been incorporated into appropriate change orders. All such change orders must be approved by the City Manager and have an appropriate Certification of Funds by the Finance Director of Dublin attached to the change order.

104.05 Maintenance of Traffic and Accessibility to Utilities. The Contractor shall at all times provide and maintain access to fire hydrants, water valves, water service boxes, gas valves, gas, service boxes, manholes and other similar appurtenances.

When so stated on the plans or in the proposal, public traffic shall be maintained during construction. This may be traffic through the project or it may be only cross traffic at intersections. Maintenance of traffic may be required only at certain stages of construction or at all times, if so noted.

At locations on the work where sewer or water line construction only is called for and a part of the existing pavement will remain in place, traffic will be maintained and ingress and egress to all public and private entrances shall be provided.

In the event of the complete closure of any street, alley or private drive, the Contractor shall notify the occupants of all premises affected by such closure as per 614. 04 of the CMSC.

Whenever the Contractor, for any reason, ceases operations on this contract for a period of fifteen or more calendar days, the Contractor, if so directed by the Director of Parks & Open Space, shall construct a temporary roadway to provide access to the premises affected by project operations. The temporary roadway shall be constructed of cinders, gravel, crushed stone or other acceptable materials and of suitable width and thickness to carry anticipated vehicles, as directed by the Director of Parks & Open Space. The temporary roadway shall be maintained by the Contractor in serviceable condition until such time that the contract work is resumed. The cost of constructing and maintaining the temporary roadway shall be borne by the Contractor.

Failure of the Contractor to perform the operations stated in this section when directed by the Director of Parks & Open Space, within a reasonable time as determined by the Director of Parks & Open Space, will give the City authority to perform the work and bill the cost of same to the Contractor.

All traffic control devices shall be furnished, erected, maintained and removed by the Contractor in accordance with the OMUTCD and paid for in accordance with the provisions of 614 of the CMSC. When the proposal does not include the cost of maintaining traffic, this work shall be performed but will not be paid for directly, and the cost of this work shall be included in the price bid for various items in the proposal. The provisions of these items and this section shall not in any way relieve the Contractor of any of his legal responsibilities or liabilities for the safety of the public. The attention of the bidder is directed to the provisions of 107. 02 (Permits, Licenses, and Taxes) and 107. 08 (Public Convenience and Safety).

104.06 Materials Found on the Work Site. The Contractor may use stone, gravel, sand or other material found on the work site subject to approval by the Director of Parks & Open Space.

The Contractor shall be paid for the excavation of such stone, gravel, sand or other material at the unit prices set forth in the proposal for such items; provided however that the cost of any additional inspections directed by the Director of Parks & Open Space for such materials shall be deducted from the payments to the Contractor for such materials. The Contractor, at its expense, shall replace the material removed with material approved by the Director of Parks & Open Space. The Contractor shall not excavate or remove any material from within the project location which is not within the grading limits, as indicated by the slope and grade lines, without written authorization from the Director of Parks & Open Space.

Unless otherwise provided, the material from any existing old structure may be used temporarily by the Contractor in the erection of the new structure. Such material shall not be cut or otherwise damaged except with the approval of the Director of Parks & Open Space.

104.07 Final Cleaning Up. Before final acceptance, all ground occupied by the Contractor in connection with the work shall be cleaned of all rubbish, excess materials, temporary structures, and equipment. These areas shall have suitable vegetative cover established by seeding and mulching or sodding as required by 659 or 660 of the CMSC, the cost of which to be included in various items bid, unless a separate bid item is provided in the proposal, and all parts of the work shall be left in an acceptable condition.

105. - CONTROL OF WORK

- 105. 01 Authority of the Director of Parks & Open Space**
- 105. 02 Plans and Working Drawings**
- 105. 03 Conformity with Plans and Specifications**
- 105. 04 Coordination of Plans, Specifications, Supplemental Specifications and Special Provisions**
- 105. 05 Cooperation by Contractor**
- 105. 06 Night Work and Sundays**
- 105. 07 Work on National Holidays**
- 105. 08 Cooperation with Utilities**
- 105. 09 Cooperation Between Contractors**
- 105. 10 Construction Stakes, Lines and Grades**
- 105. 11 Photographs and Videos**
- 105. 12 Authority and Duties of the Inspector**
- 105. 13 Inspection of Work**
- 105. 14 Unauthorized Work**
- 105. 15 Load Restrictions**
- 105. 16 Maintenance During Construction**
- 105. 17 Failure to Maintain Roadway or Structures, Traffic Control Facilities and Other Appurtenances**
- 105. 18 Borrow and Waste Areas**
- 105. 19 Use of Fire Hydrants**
- 105. 20 Claims**
- 105. 21 Moving of Equipment**

105.01 Authority of the Director of Parks & Open Space. The Director of Parks & Open Space will decide all questions which may arise as to the quality and acceptability of materials furnished, work performed and rate of progress; all questions which may arise as to conformity with plans, specifications and other contract documents; all questions as to the acceptable fulfillment of the contract on the part of the Contractor; and all questions which may arise as to interpretation of the plans, specifications, and other contract documents.

The Director of Parks & Open Space has immediate charge of the engineering details of each construction project and is responsible to insure that the Contractor satisfactorily administers and completes the project. The Director of Parks & Open Space has the authority to reject defective material and to suspend any work that is being improperly performed.

The Director of Parks & Open Space will have the authority to suspend the work wholly or in part due to the failure of the Contractor to correct conditions unsafe for the workers or the general public; for failure to carry out provisions of the contract; for failure to carry out orders; and for such periods as may be deemed necessary due to unsuitable weather. The suspension of the work for the above reasons does not relieve the Contractor of responsibility according to 107.14.

In the event the Director of Parks & Open Space orders the work suspended for unsafe conditions (whether they be unsafe to workers or the public), unsuitable weather, use of defective material not in conformity with the specifications or because work is being improperly performed, the expense, whether direct or indirect, for such suspension shall be borne solely by the Contractor.

105.02 Plans and Working Drawings. The plans will show location and design details of all structures, lines, grades, and typical cross sections of roadways, conduits and all other items required by the contract. The Contractor shall keep one set of the plans available at the project site at all times.

The Contractor shall be responsible for the furnishing of copies of plans, specifications and special provisions, or the necessary portions thereof, to subcontractors and parties furnishing labor, materials and equipment for the project.

The plans will be supplemented by such working drawings as are necessary to adequately control the work. Working drawings for structures shall be furnished by the Contractor and shall consist of such detailed plans as may be required to adequately control the work and are not included in the plans furnished by the City. All working drawings must be approved by the Director of Parks & Open Space and such approval shall not operate to relieve the Contractor of any responsibility under the contract for the successful completion of the work. Where work consists of repairs, extensions or alterations of existing structures, the Contractor shall make such measurements of original construction as may be required to accurately join old and new work. Any measurements which may appear upon the plans to indicate the extent and nature of such repair or extension shall not relieve the Contractor of this responsibility. The contract price will include the cost of furnishing all working drawings.

105.03 Conformity with Plans and Specifications. All work performed and all materials furnished shall be in conformity with the lines, grades, cross sections, dimensions and material requirements, including tolerances, shown on the plans or indicated in the specifications.

In the event that the Director of Parks & Open Space finds the materials, or the finished product in which the materials are used, not in conformity with the plans and specifications, but that acceptable work has been produced, the Director of Parks & Open Space shall then make a determination if the work shall be accepted and remain in place. In this event, the Director of Parks & Open Space will document the basis of acceptance by change order which will provide for an appropriate adjustment in the contract price for such work or materials as the Director of Parks & Open Space deems necessary.

In the event the Director of Parks & Open Space finds the materials of the finished product in which the materials are used or the work performed are not in conformity with the plans and specifications and have resulted in an inferior or unsatisfactory product, the work or materials shall be removed, replaced or otherwise re-mediated by, and at the expense of, the Contractor.

Failure of the Contractor to follow the order of the Director of Parks & Open Space pursuant to this section shall give the City the unqualified right to remove, replace, or otherwise remediate the defective work or materials any and all expense incurred by the City, directly or indirectly, shall be deducted or billed to the Contractor at the option of the Director of Parks & Open Space.

105.04 Coordination of Plans, Specifications, Supplemental Specifications and Special Provisions. The specifications, the supplemental specifications, the plans, special provisions, proposal, and all supplementary documents are essential parts of the contract, and a requirement occurring in one is as binding as though occurring in all. They are intended to be complementary and to describe and provide for a complete work. In case of discrepancy, calculated dimensions will govern over scaled dimensions, plan notes will govern over specifications, supplemental specifications will govern over specifications; proposals and special provisions will govern over both specifications and plans.

The Contractor shall take no advantage of any apparent error or omission in the plans or specifications. In the event the Contractor discovers such an error or omission, it shall immediately be made known to the Director of Parks & Open Space. The Director of Parks & Open Space will then make such corrections and interpretations as may be deemed necessary for fulfilling the intent of the plans and specifications.

105.05 Cooperation by Contractor. The Contractor must obtain one copy of the specifications and two sets of the plans at the Contractor's own cost and keep available at least one set of the specifications, the plans and all other contract documents including special provisions at the project site at all times.

Unless otherwise provided for in the plans or proposal, no work shall be commenced under this contract until a pre-construction conference has been held. In general, fourteen days are required to notify all interested parties of a pre-construction conference. Upon confirmation of a valid contract, the Director of Parks & Open Space will fax or mail, via U.S. postal service-first class, pre-construction conference notices to all parties. The Contractor shall take due note of this

requirement and aid in the timely scheduling of the pre-construction conference to avoid unnecessary delays in the commencement of the work. Following the pre-construction conference, the Director of Parks & Open Space will issue a Notice to Proceed to the Contractor. The Contractor is required to commence work within ten days from the date of receipt of the Notice to Proceed.

The Contractor shall give the work the constant attention necessary to facilitate the progress thereof, and shall cooperate with the Director of Parks & Open Space, inspectors and other Contractors in every way possible.

The Contractor shall have on the project at all times a competent superintendent, acting as an authorized agent, capable of reading and thoroughly understanding the plans and specifications and thoroughly experienced in the type of work being performed, who shall receive instructions from the Director of Parks & Open Space or an authorized representative. The superintendent shall have the full authority to execute orders or directions of the Director of Parks & Open Space without delay and to promptly supply such materials, equipment, tools, labor and incidentals as may be required. Such superintendence shall be furnished irrespective of the amount of work sublet.

Where the work extends across private property, the Contractor shall conduct operations in strict conformity with the terms and conditions of the easements and agreements obtained from the owners of the property. The City will not provide any points of access to any of these easements other than at points shown or described in the agreement with the property owner. Arrangements for the use of any additional points of access shall be made with the property owners by the Contractor at the Contractor's own expense.

The Contractor agrees to confine the work under this contract to the strict dimensions of easements, rights-of-way, or other work area authorized in writing by the City. Any failure of the Contractor, or the Contractor's agents, servants and employees to restrict the work in the defined area shall be the sole liability and responsibility of the Contractor who further agrees to save the City harmless from any activity of the Contractor's agents, servants, employees and subcontractors where such activity concerning work under this contract extends beyond the defined work area. The Contractor also agrees that where operations extend outside prescribed work areas, the City has the absolute right to suspend the work unless written evidence indicates permission from the property owner.

If the Contractor disperses any or all of its equipment to an area outside the work limits of the project, for any reason whatsoever, the re-marshaling and re-grouping of the equipment back to the work area shall be at the Contractor's expense. If the Contractor has been granted permission by the Director of Parks & Open Space to remove said equipment from the work area, then, at the discretion of the Director of Parks & Open Space, consideration may be given as to the amount of the City's participation, if any.

105.06 Night Work and Sundays. The Contractor agrees that all work on this contract which includes any and all subcontractors shall be only during the period from one-half hour before

sunrise and one-half hour after sunset as sunrise and sunset are determined by the U. S National Weather Service.

No work shall be permitted on Sundays unless authorized by the Director of Parks & Open Space.

Authorization of work during any other time shall only be upon written permission by the Director of Parks & Open Space, or as detailed on the plans or in the proposal, special provisions or supplemental specifications.

Failure of the Contractor to comply or failure of the Contractor to control any and all of his subcontractors for work under the contract to comply with the above provisions shall be cause to make all such work performed subject to removal and replacement at no additional expense to the City.

105.07 Work on National Holidays. No work will be permitted on National Holidays as listed in 101. 33 except as authorized or directed by the Director of Parks & Open Space. The provisions of 105. 06 shall apply with equal force to this provision.

105.08 Cooperation with Utilities. During the course of plan preparation for an improvement, the City shall notify all utility companies, all pipe line owners or other parties affected and endeavor to have all necessary adjustments of the public or private utility fixtures, pipe lines and other appurtenances within or adjacent to the limits of construction made as soon as possible so as not to interfere with the progress of the work. During the course of construction, the Contractor shall be solely responsible for notifying any utility or other service when such service is encountered as provided hereinafter.

The Contractor shall be solely and completely responsible for all above ground utilities, structures, and appurtenances, in regard to protection or replacement of same. The Contractor shall also be solely responsible for below ground utilities, structures, and appurtenances that may be accurately located by removing manhole covers, valve box covers, and other access point coverings, with reasonable effort using hand tools for such removal. The cost of protecting and/or replacing the utilities, structures, and appurtenances covered by this paragraph shall be borne solely by the Contractor and included in the various bid items in the contract.

Existing surface or overhead structures or utility lines are not necessarily shown on the drawings and those shown are only approximately correct. The Contractor shall make such investigations as are necessary to determine the extent to which existing surface or overhead structures may interfere with the prosecution of the work contemplated under this contract.

Existing subsurface structures or utility lines including sewer service connections but excluding all other service connections, which may be encountered during the construction of the work embraced under this contract or are located in such close proximity to the work under this contract as to require special precautions or methods for their protection, such as sewers, drains, sewage force mains, water mains, gas mains, telephone and electric conduits, together with appurtenances, are shown in the plans and drawings, insofar as there is public record of their

existence. The sizes, locations and depths shown are only approximately correct and the Contractor shall make such investigations or explorations as may be necessary to verify the accuracy of the information given. Furthermore, it is recognized that the exact locations of water mains are unknown, hence the Contractor shall, if so ordered, uncover and locate these mains ahead of the excavation for the work required by these specifications.

In accordance with Ohio Revised Code Section 153. 64, at least two working days prior to commencing construction operations, the Contractor shall notify the Director of Parks & Open Space, the registered utility protection service and the owners of each underground and overhead utility facility not members of the registered utility protection service.

Water lines, gas lines, wire lines, service connections, water and gas meter boxes, water and gas valve boxes, light standards, cable-ways, signals and all other utility appurtenances within the limits of the proposed construction which are to be relocated or adjusted are to be moved by the owners at their expense, except as otherwise provided for in the special provisions or as noted on the plans.

Water mains, services and appurtenances owned and/or maintained by the Division of Water, Department of Public Utilities, City of Columbus, Ohio shall be adjusted as indicated on the drawings or as specified at the Contractor's cost and expense in a manner approved by the Division of Water Department of Public Utilities, City of Columbus, Ohio, and no separate payment will be made unless a separate item is included in the contract therefore.

It is understood and agreed that the Contractor has considered in the Contractor's proposal all permanent and temporary utility appurtenances in their present or relocated positions and that no additional compensation will be allowed for any delays, inconvenience, or damage sustained by the Contractor due to any interference from said utility appurtenances or the operation of moving them, except that in those cases where, after written notification from the Contractor, the Director of Parks & Open Space determines that the character of the work to be performed or the cost thereof or the time provided therefore has been materially changed by such delays without the fault or negligence of the Contractor, an equitable adjustment shall be made.

If, through no fault of the Contractor, the progress of contract work is delayed for an unreasonable length of time from that proposed in the progress schedule of 108. 02 because of failure of a utility company to relocate or adjust its lines, the Contractor shall immediately file with the City a detailed statement describing the nature of the delay and its effect upon contract work progress.

It is the complete responsibility of the Contractor to determine the exact location of all substructures and utility lines of public utility facilities including but not limited to water, sewer, traffic, and electricity pipes or conduits shown on the plans including services lines not shown whether or not located on private property, public property, public or private right of ways, or public or private easements and of all surface or overhead structures, including but not limited to utility lines, telephone or electrical poles, growing things such as trees, sidewalks and driveways.

The Contractor shall have sole responsibility for paying for any damage done directly or indirectly to the above mentioned items as a result of the progress of the work performed under this contract, whether performed by the Contractor or the Contractor's subcontractor(s), agents, servants or employees, whether such damage results from negligence or otherwise, and whether the damage is to private or public property or real or personal property. The Contractor further agrees to save the City harmless from any such damages.

In the event that the Contractor fails to pay the entire cost of the damages as stated above within thirty days, or in the event litigation arises as a result of such damages, the Director of Parks & Open Space shall have the unqualified right to deduct and withhold the entire amount of the damages from the monies due or to become due to the Contractor until said damages are liquidated and the City is kept whole from any such expense.

The Contractor further covenants not to sue the City, either in law or equity, where such deduction and withholding is made by the City.

The City shall return, within a reasonable time thereafter not to exceed thirty days, the amount of the withheld funds which exceed the amount of damages paid by the City.

The Contractor further waives any and all rights, title or interest in any and all amounts of damages and court costs paid by the City.

105.09 Cooperation Between Contractors. The City reserves the right at any time to contract for and perform other or additional work on or near the work covered by the contract.

When separate contracts are let within the limits of any one project, each Contractor shall conduct its work so as not to interfere with or hinder the progress or completion of the work being performed by other contractors. Contractors working on the same project shall cooperate with each other as directed.

Each contractor involved shall assume all liability, financial or otherwise, in connection with his contract and shall protect and save harmless the City from any and all damages or claims that may arise because of inconvenience, delay, or loss experienced by him because of the presence and operations of other contractors working within the limits of the same project.

Each contractor shall arrange its work and shall place and dispose of the materials being used so as not to interfere with the operations of the other contractors within the limits of the same project. Each contractor shall join their work with that of the others in an acceptable manner and shall perform it in proper sequence to that of the others.

105.10 Construction Stakes, Lines and Grades. The Contractor shall furnish and place construction layout stakes for the project in accordance with 623 of the CMSC. The Contractor shall notify the City at least two working days prior to the time that control points for line and grade will be needed. There shall be no compensation to the Contractor for the cost occasioned by delay in establishing lines, grades and elevations or making other necessary measurements or

by inspection; but such costs shall be considered as having been included in the price stipulated for doing the work called for in the contract.

All construction staking shall be performed under the supervision of a registered professional engineer or land surveyor. All field notes, cut sheets, etc. , shall be submitted to the City.

105.11 Photographs and Videos. From time to time during the progress of the work, photographs or videos of the work may be taken by the Director of Parks & Open Space, inspectors or other duly authorized City personnel or agents, at no expense to the Contractor. The Contractor shall, however, furnish access to the work at all times for this purpose and shall furnish such assistance as may be required. The photographs or videos thus taken shall be the property of the City. Nothing herein contained shall be construed as prohibiting the taking of photographs or videos by the Contractor or its agents, provided, however, that it is done at no cost or expense to the City.

105.12 Authority and Duties of the Inspector. Inspectors employed by the City will be authorized to inspect all work and materials furnished. Such inspection may extend to all or any part of the work and to the preparation, fabrication or manufacture of the materials to be used. Inspectors are not authorized to alter or waive the provisions of the contract, but shall have the authority to reject materials which do not meet specification requirements and to suspend the portion of the work involved until any question at issue can be referred to and decided by the Director of Parks & Open Space. Inspectors are not authorized to issue instructions contrary to the plans and specifications, or to act for the Contractor.

105.13 Inspection of Work. All materials and each part or detail of the work shall be subject to inspection by the Director of Parks & Open Space. The Director of Parks & Open Space or an authorized representative of the Engineer shall be allowed access to all parts of the work and shall be furnished with such information and assistance by the Contractor as is required to make a complete and detailed inspection.

If the Director of Parks & Open Space requests it, the Contractor, at any time before acceptance of the work, shall remove or uncover such portions of the finished work as may be directed. After examination, the Contractor shall restore said portions of the work to the standard required by the specifications. Should the work thus exposed or examined prove acceptable, the uncovering, or removing, and the replacing of the covering or making good of the parts removed will be paid for as extra work; but should the work so exposed or examined prove unacceptable, the uncovering or removing and the replacing of the covering or making good of the parts removed, will be at the Contractor's expense.

Any work done or materials used without supervision or inspection by the Director of Parks & Open Space or an authorized representative of the Director of Parks & Open Space may be ordered removed and replaced at the Contractor's expense. Failure to reject any defective work or material shall not in any way prevent later rejection when such defects be discovered, or obligate the City to final acceptance.

When any unit of government or political subdivision or railroad or any corporation is to pay a portion of the cost of the work covered by this contract, its respective representatives shall have the right to inspect the work. Such inspection shall in no sense make any unit of government or political subdivision or railroad or any corporation a part to this contract, and shall in no way interfere with the rights of either party hereunder.

105.14 Unauthorized Work. No work shall be done without control points having been given by the City. Work done contrary to the instructions of the Director of Parks & Open Space, work done beyond the control points, or any extra work done without authority will be considered as unauthorized and will not be paid for under the provisions of the contract. Work so done may be ordered removed or replaced at the Contractor's expense.

Upon failure on the part of the Contractor to comply with any order of the Director of Parks & Open Space under the provisions of this section, the Director of Parks & Open Space will have authority to cause unauthorized work to be removed and to deduct the costs from any monies due or to become due to the Contractor.

105.15 Load Restrictions. The Contractor shall comply with all legal load restrictions in the hauling of materials on public roads. A special permit will not relieve the Contractor from the Contractor's sole liability for damage which may result from the moving of equipment or materials, whether caused by the equipment of the Contractor or the Contractor's subcontractors.

The operation of equipment of such weight or so loaded as to cause damage to structures or the roadway or to any other type of construction will not be permitted. Hauling of materials over the base course or surface course of a roadway under construction shall be limited as directed by the Director of Parks & Open Space. No loads will be permitted on a concrete pavement, base or structure before the expiration of the curing period. In no case shall legal load limits be exceeded unless permitted in writing. The Contractor shall be responsible for all damage done by the equipment of the Contractor or the Contractor's subcontractors.

105.16 Maintenance During Construction. The Contractor shall maintain the work during construction and until the project is accepted. This maintenance shall constitute continuous and effective work prosecuted day by day, with adequate equipment and forces to the end that the roadway, conduits or structures are kept in satisfactory condition at all times.

In the case of a contract for the placing of a paving course upon a roadway subgrade previously constructed, the Contractor shall maintain the previous paving course or subgrade during all construction operations.

All costs of maintenance work during construction and before the project is accepted shall be included in the unit prices bid on the various pay items, and the Contractor will not be paid an additional amount for such work.

105.17 Failure to Maintain Roadway or Structures, Traffic Control Facilities and Other Appurtenance. If the Contractor, at any time, fails to comply with the provisions of 105. 17, the Director of Parks & Open Space will immediately notify the Contractor of such non-compli-

ance. If the Contractor fails to remedy unsatisfactory maintenance within twenty-four hours after receipt of such notice, the Director of Parks & Open Space may immediately proceed to maintain the project and the entire cost of this maintenance will be deducted from monies due or to become due the Contractor on this contract.

105.18 Borrow and Waste Areas. The terms "borrow area" and "waste area" as used in the specifications refer to locations outside the right-of-way from which natural materials are removed for use in the work or upon which materials from the work are to be deposited as waste.

Before any borrow or waste disposal operations are to begin, the Contractor shall submit his plan for operation, control of drainage water, cleanup, shaping, and restoration of the disturbed areas and obtain the Director of Parks & Open Space's written approval. The plan of operations shall include the saving of topsoil, and proposed measures to keep sediment and other contaminants from entering streams, lakes, and reservoirs by the use of methods such as diversion channels, dikes, sediment traps, and vegetation covers, etc. When it becomes necessary to locate such areas in or near streams, special precautions shall be taken.

The stability of borrow and waste areas and any damage to surrounding property resulting from movement of the area shall be the sole responsibility of the Contractor.

Restoration of all borrow or waste areas shall include cleanup, shaping, replacement of topsoil and establishment of vegetation cover by seeding and mulching in accordance with the requirements of 659 of the CMSC at no additional cost to the City. The restored area shall be well drained unless approval is given to convert a pit area into a pond or lake, in which case restoration measures shall be confined to the disturbed areas above the anticipated normal water level.

The cost of work described herein necessary to secure these results shall be included in the contract price bid for these items to which they apply.

105.19 Use of Fire Hydrants. The Contractor shall make the proper arrangements with the Dublin Service Department and the Division of Water, Department of Public Utilities, City of Columbus, Ohio for the use of fire hydrants when used for work performed under this contract.

Before the final estimate is paid, the Contractor shall submit a letter from the Division of Water, Department of Public Utilities, City of Columbus, Ohio, to the Director of Parks & Open Space stating that the Contractor and all subcontractors have returned the Siamese Valve to the Division of Water, Department of Public Utilities, City of Columbus, Ohio, and paid all costs arising from the use of the fire hydrants.

105.20 Claims.

(A) Early Notice. In the event the Contractor learns of circumstances ("Circumstances") perceived by the Contractor to be likely to give rise to a claim, the Contractor shall immediately inform the Director of Parks & Open Space of the Circumstances ("Early Notice"). The Contractor waives any part of the claim for costs incurred from the time the Contractor learns of

the Circumstances and before the Contractor notifies the Director of Parks & Open Space of same.

Notice of Claim. In the event the Contractor and the Director of Parks & Open Space disagree as to the responsibility of the parties under the contract concerning the Circumstances ("Disagreement"), then the Contractor shall submit to the Director of Parks & Open Space in writing within ten calendar days after the Contractor learns of the Disagreement, a Notice of Claim setting forth insofar as possible, the basis and the nature of the claim. The failure of the Contractor to timely submit a Notice of Claim constitutes a waiver of his right to any claim due to the Circumstances.

Estimates of Additional Costs and/or Time. Within ten calendar days of the date of submission of the Notice of Claim, the Contractor shall submit in writing to the Director of Parks & Open Space the Contractor's estimate of the additional cost to be incurred and any additional time required. If the Contractor fails to submit his estimate of additional cost and/or any additional time required within ten calendar days or such later date as agreed to with the Director of Parks & Open Space, the claim is abandoned and waived.

Records. From the time the Contractor learns of the Circumstances, the Contractor shall maintain complete and specific records of all matters relating to the preserved claim. The Director of Parks & Open Space shall have access to such records upon request.

Continuation of Work. Unless otherwise agreed to in writing, the Contractor shall, after giving Early Notice, continue with and carry on the work during the pendency of the claim, and the City will continue to make progress payments to the Contractor in accordance with the contract documents.

(B) Submission of Claim. As promptly as possible following the submission of the Notice of Claim, but in no event later than sixty calendar days after substantially all of the Contractor's costs are known to a reasonable certainty, the Contractor shall submit the claim to the Director of Parks & Open Space. If the Contractor fails to submit the claim within said sixty calendar days or such later date as agreed to with the Director of Parks & Open Space, the claim is abandoned and waived.

Content of Claim. The claim shall set forth clearly and in detail, for each item of additional compensation or extension of time requested:

- (a) The reasons for the claim.
- (b) References to the applicable provisions of the contract documents.
- (c) The nature and the specific cost ascribed to each element of the claim and for each period of time involved.
- (d) The basis used in describing each such element of cost or for each period of time.

- (e) Any other pertinent factual data.

Any claim, which in the opinion of the Director of Parks & Open Space is deficient in documentation, shall either be returned to the Contractor with comment as regards to the deficiencies or the Director of Parks & Open Space may, at the Director of Parks & Open Space's option, request additional information. The Contractor shall either furnish the additional information requested by the Director of Parks & Open Space within fifteen days of the request or such later time as agreed to with the Director of Parks & Open Space or state in writing to the Director of Parks & Open Space that the Contractor cannot or will not furnish such additional information, or the claim is abandoned and waived.

(C) The Decision of the Director of Parks & Open Space. The Director of Parks & Open Space shall render a written decision within sixty calendar days of the later of the date of receipt of the claim or the date of receipt of the supplemental information requested by the Director of Parks & Open Space. A failure of the Director of Parks & Open Space to render a decision within said sixty calendar days or such later time as agreed to with the Contractor constitutes a decision of denial. The decision of the Director of Parks & Open Space is final subject to an election by the Engineer to submit the matter to an alternative form of dispute resolution.

(D) Alternative Dispute Resolution. At the Director of Parks & Open Space's option and direction, the claim shall be submitted to arbitration, mediation, or some other form of alternative dispute resolution.

105.21 Moving of Equipment. Non-rubber tired vehicles or equipment shall not be moved on City streets. Exceptions may be granted by the Director of Parks & Open Space where short distances and special circumstances are involved. Exceptions must be in writing and any resulting damage must be repaired to the satisfaction of the Director of Parks & Open Space.

106. - CONTROL OF MATERIAL

- 106. 01 Source of Supply and Quality Requirements**
- 106. 02 Samples, Tests, Cited Specifications**
- 106. 03 Plant Inspection**
- 106. 04 Storage of Materials**
- 106. 05 Handling of Materials**
- 106. 06 Unacceptable Materials**
- 106. 07 City-Furnished Material**

106.01 Source of Supply and Quality Requirements. The materials used on the work shall meet all requirements of the contract. In order to expedite the inspection and testing of materials, the Contractor shall notify the Director of Parks & Open Space of the proposed sources of materials prior to delivery. At the option of the Director of Parks & Open Space, materials may be inspected at the source of supply before delivery is started. If it is determined by the Director of Parks & Open Space after trial, that sources of supply for previously approved materials do not produce specified products the Contractor shall furnish materials from other sources which shall, in turn, be subject to controls set forth herein.

The Contractor shall furnish or cause to be furnished delivery tickets or documents for all materials to be incorporated in the work, which tickets or documents shall describe in detail the type, size, specification or data, fully denoting the material being delivered.

106.02 Samples, Tests, Cited Specifications. All materials will be inspected, tested and compliance determined by the Director of Parks & Open Space before incorporation into the work. Unless otherwise designated, tests shall be made in accordance with AASHTO, ASTM or other methods on file in the Office of the Engineer. Except as provided in 105.03, tests shall be made at the expense of the City. Samples will be taken by a qualified representative of the City.

References included in these specifications to AASHTO, ASTM or Federal Specifications shall be the test method, sampling method or specification as amended to its issue date next preceding the bid opening date.

All materials being used are subject to inspection, test or rejection at any time prior to incorporation into the work. Copies of all tests will be furnished to the Contractor's representative. The Contractor, in all cases, shall furnish the required samples without charge.

Transports and distributors hauling bituminous material shall be equipped with an approved submerged bituminous material sampling device.

If, in the judgment of the Director of Parks & Open Space, the quantity used of any one material is so inconsequential as to not warrant testing in accordance with the minimum requirements for sampling materials in Chapter 900 of the CMSC, verification of the quality of the material may be covered by a Field Inspection Report of Materials, prepared by the Director of Parks & Open Space.

106.03 Plant Inspection. The Director of Parks & Open Space or an authorized representative may undertake the inspection of materials at the source.

In the event plant inspection is undertaken the following conditions shall be met:

(a) The Director of Parks & Open Space shall have the cooperation and assistance of the Contractor and the producer with whom he has contracted for materials.

(b) The Director of Parks & Open Space or an authorized representative shall have full entry at all times to such parts of the plant as may concern the manufacture or production of the materials being furnished.

8 If required by the Director of Parks & Open Space, the Contractor shall arrange for an approved building for the use of the inspector; such building to be located conveniently near the plant, independent of any building used by the material producer.

(d) Adequate safety measures shall be provided and maintained.

It is understood that the City reserves the right to re-test all materials prior to incorporation into the work which have been tested and accepted at the source of supply after the same have been delivered and to reject all materials which, when re-tested, do not meet the requirements of the specifications, or those established for the specific project.

106.04 Storage of Materials. Materials shall be so stored as to assure the preservation of their quality and fitness for the work. Stored materials, even though approved before storage, may again be inspected prior to their use in the work. Stored materials shall be located so as to facilitate their prompt inspection. Approved portions of the right-of-way may be used for storage purposes and for the placing of the Contractor's plant and equipment, but any additional space required therefor must be provided by the Contractor at no expense to the City. Private property shall not be used for storage purposes without written permission of the owner or lessee, and if requested by the Director of Parks & Open Space, copies of such written permission shall be furnished. All storage sites shall be restored to their original condition by the Contractor at no expense to the City.

106.05 Handling of Materials. All materials shall be handled in such manner as to preserve their quality and fitness for the work. Aggregate shall be transported from the storage site to the work in tight vehicles so constructed as to prevent loss or segregation of materials after loading and measuring in order that there may be no inconsistencies in the quantities of materials intended for incorporation in the work as loaded, and the quantities as actually received at the place of operations.

106.06 Unacceptable Materials. All materials not conforming to the requirements of the specifications at the time they are used shall be considered unacceptable and shall be removed immediately from the site of the work unless otherwise instructed by the Director of Parks & Open Space. No materials, the defects of which have been corrected, shall be used until approval has been given. Upon failure on the part of the Contractor to comply immediately with any order of the Director of Parks & Open Space made under the provisions of this section, the Director of Parks & Open Space shall have authority to remove and replace defective materials and to deduct the cost of removal and replacement from any monies due or to become due to the Contractor.

106.07 City-Furnished Material. The Contractor shall furnish all materials required to complete the work, except when otherwise provided in the proposal.

Materials furnished by the City will be delivered or made available to the Contractor at the points specified in the special provisions.

The cost of handling and placing all materials after they are delivered to the Contractor shall be considered as included in the contract price for the item in connection with which they are used.

The Contractor will be held responsible for all delivered materials, and deductions will be made from any monies due the Contractor to make good any shortages and deficiencies, from any cause whatsoever, and for any damage which may occur after such delivery, and for any demurrage charges.

107. - LEGAL RELATIONS AND RESPONSIBILITY TO PUBLIC

107. 01	Laws to be Observed
107. 02	Permits, Licenses and Taxes
107. 03	Patented Devices, Materials and Processes
107. 04	Restoration of Surfaces Opened by Permit
107. 05	Federal Aid Provisions
107. 06	Sanitary Provisions
107. 07	First Aid
107. 08	Public Convenience and Safety
107. 09	Barricades and Warning Signs
107. 10	Maintenance of Traffic
107. 11	Use of Explosives
107. 12	Protection and Restoration of Property
107. 13	Responsibility for Damage Claims
107. 14	Contractor's Responsibility for Work
107. 15	Contractor's Responsibility for Utility Property and Services
107. 16	Furnishing Right-of-Way
107. 17	Personal Liability of Public Officials
107. 18	No Waiver of Legal Rights
107. 19	OSHA

107.01 Laws to be Observed. The Contractor shall keep fully informed of all federal, state and local laws, ordinances, and regulations and all orders and decrees of authorities having any jurisdiction or authority, which in any manner affect those engaged or employed in the work, or which in any way affect the conduct of the work. The Contractor shall at all times observe and comply with all such laws, ordinances, regulations, orders, and decrees; and shall protect and indemnify the City and its representatives against any claim or liability arising from or based on the violation of any such law, ordinance, regulation, order, or decree, whether by the Contractor or the Contractor's subcontractor(s), agents or employees.

The Contractor agrees that in the hiring of employees for the performance of work under this contract or any subcontract hereunder, neither the Contractor nor any of the Contractor's subcontractors, nor any person acting on behalf of the Contractor or any of its subcontractors, shall, by reason of race, creed or color, discriminate against any citizen of the United States in the employment of labor or workers, who is qualified and available to perform the work to which the employment relates and that neither the Contractor nor any of the Contractor's subcontractors, nor any of their employees or agents shall, in any manner, discriminate against or intimidate any employee hired for the performance of work under this contract on account of race, creed or color.

107.02 Permits, Licenses and Taxes. The Contractor shall procure all permits and licenses, pay all charges, fees, and taxes, and give all notices necessary and incidental to the due and lawful prosecution of the work.

Prior to the closure of or working in or on any portion of a street the Contractor shall obtain a permit through the Director of Parks & Open Space.

107.03 Patented Devices, Materials and Processes. If the Contractor employs any design, device, material, or process covered by letters of patent or copyright, the Contractor shall provide for such use by suitable legal agreement with the patentee or owner. The Contractor and the surety shall indemnify and save harmless the City, any affected third party or political subdivision from any and all claims for infringement by reason of the use of any such patented design, device, material or process or any trademark or copyright, and shall indemnify the City for any costs, expenses, and damages which it may be obliged to pay by reason of any infringement, at any time during the prosecution of or after the completion of the work.

In the case of patented pavements and wearing courses, where royalties, licensing and proprietary service charges, exacted or to be exacted by the patentees, are published and certified agreements are filed with the City, guaranteeing to prospective bidders free unrestricted use of all such proprietary rights and trademarked goods upon payment of such published charges, such patented payments may be specifically designated in the proposal and competition secured upon the item exclusive of the patent or proprietary charges.

107.04 Restoration of Surfaces Opened by Permit. The right to construct or reconstruct any utility service in the highway or street or to grant permits for same, at any time, is hereby expressly reserved by the Director of Parks & Open Space, and the Contractor shall not be entitled to any damages either for the digging up of the street or for any delay occasioned thereby.

Any individual, firm, or corporation wishing to make an opening in the street must secure a permit through the Director of Parks & Open Space. The Contractor shall allow parties bearing such permits, and only those parties, to make openings in the street. When ordered by the Director of Parks & Open Space, the Contractor shall make in an acceptable manner all necessary repairs due to such openings and such necessary work will be paid for as extra work, or as provided in these specifications, and will be subject to the same conditions as original work performed.

107.05 Federal Aid Provisions. When the United States Government pays all or any portion of the cost of a project, the Federal laws and the rules and regulations made pursuant to such laws must be observed by the Contractor and the work shall be subject to the inspection of the appropriate federal agency.

Such inspection shall in no sense make the federal government a party to this contract and will in no way interfere with the rights of either party hereunder.

107.06 Sanitary Provisions. The Contractor shall provide and maintain in a neat, sanitary condition such accommodations for the use of his employees and City representatives as may be necessary to comply with the requirements of the state and local boards of health, or of other authorities having jurisdiction.

107.07 First Aid. The Contractor shall provide and keep upon the work a completely equipped first aid kit and shall provide ready access thereto at all times when workers are employed on the work. The Contractor shall designate some proper person or persons to be in charge of administering first aid and shall cause such person or persons to receive proper instructions therein.

107.08 Public Convenience and Safety. The Contractor shall at all times so conduct contract work as to assure the least possible obstruction to traffic. The safety and convenience of the general public and the residents along the street and the protection of persons and property shall be provided for by the Contractor as specified under 104. 05.

The Contractor shall provide and maintain safeguards, safety devices and protective equipment and take any other needed actions as may be necessary to protect the public and property in connection with the work.

The presence of barricades or lights, provided and maintained by any party other than the Contractor, shall not relieve the Contractor of this responsibility.

107.09 Barricades and Warning Signs. Temporary traffic control devices and facilities shall be furnished, erected, maintained and paid for in accordance with the provisions of 614 of the CMSC (Maintaining Traffic). All traffic control devices shall conform to Part 7 of the OMUTCD for Streets and Highways as amended, as required under Ohio Revised Code Section 4511. 09. The provisions of this item and this section shall not in any way relieve the Contractor of any of the Contractor's legal responsibilities or liabilities, for the safety of the public.

107.10 Maintenance of Traffic. All work shall be performed in accordance with 614 of the CMSC, except that unless an item for maintaining traffic is included in this contract, the cost of this work shall be included in the prices bid for the various items of the contract and there will be no separate payment made there for.

To avoid interruption of bus and coach operations, the Contractor shall give sufficient advance notice to the company or companies concerned, to permit rerouting of lines, if necessary, prior to the commencement of work.

When material is piled in the gutters, suitable drains of sufficient size to carry all the storm water flowing in the gutters, shall first be laid. Where the drainage from cross streets or alleys is interfered with or cut off by reason of the nature of the work, suitable crossings shall be provided for pedestrians. No material shall be piled within twenty feet of any fire hydrant.

The Contractor shall notify the appropriate fire department, and the City of Dublin Police Department whenever a street or section of street is about to be closed to traffic and also when it is to be opened.

107.11 Use of Explosives. Blasting shall not be permitted. Under certain special conditions, the Director of Parks & Open Space may request blasting. In such cases, the Contractor shall use the highest degree of care and adequate protective measures so as not to endanger life, completed portions of the project, and all other property, both public and private. Before conducting any blasting operations, the Contractor shall furnish the Director of Parks & Open Space, in writing, a schedule of intended blasting operations and the Contractor shall give the Director of Parks & Open Space prior written notification of any changes in such schedule. The Contractor shall provide proof of special hazard insurance as set forth under 103.08.

The use, handling, storage and transportation of explosives shall conform and be in accordance with the applicable requirements and/or provisions of:

- (a) the latest revision of "State of Ohio Administrative Code Chapter 4121:1-3," issued by the Department of Industrial Relations and the Industrial Commission of the State of Ohio;
- (b) the Ohio Explosive Laws, Ohio Revised Code Sections 3743.01 - 3743.26;
- 8 local regulations; and
- (d) as specified herein.

The Contractor shall secure a written permit from the appropriate fire department before any blasting work is begun.

Except in the case of continuous tunnel operations, all blasting shall be conducted during daylight hours only with the provision that when required by the Director of Parks & Open Space, blasting shall be limited to certain daylight hours. All firing shall be done by electrical means or any suitable, manufactured, non-electric blasting system which allows the blaster to control the exact moment in which firing of the shot will occur. The Contractor shall make suitable provisions to prevent the scattering of broken rock, earth, stones or other material during blasting operations.

107.12 Protection and Restoration of Property. The Contractor shall be responsible for the preservation of all public and private property.

The Contractor shall be responsible for all damage or injury to property during the prosecution of the work, resulting from any act omission, neglect, or misconduct in any manner or method of executing the work, or at any time due to defective work or materials.

Dust, mud, noise or other nuisance originating from any plant operations either inside or outside the right-of-way shall be controlled by the Contractor in accordance with local ordinances and regulations at the sole expense of the Contractor.

When or where any direct or indirect damage or injury is done to public or private property by or on account of any act, omission, neglect, or misconduct in the execution of the work; or in consequence of the non-execution thereof by the Contractor, the Contractor shall restore such property to a condition similar or equal to that existing before such damage or injury was done by repairing, rebuilding or otherwise restoring as may be directed by the Director of Parks & Open Space, or shall make good such damage or injury in an acceptable manner. The cost of all work associated with said restoration shall be at no additional cost to the City.

The Contractor shall cooperate with the Director of Parks & Open Space in protecting and preserving cornerstones and monuments that may be within the right-of-way. The Contractor shall not start grading or resurfacing operations until the Director of Parks & Open Space has referenced all known cornerstones, monuments and land-markers in the area to be improved. Monuments, cornerstones and land-markers unexpectedly encountered shall be protected, referenced and preserved in the same manner.

When cornerstones, monuments and land-markers are encountered in the performance of the work, and monument covers are not listed in the proposal, the City will furnish them and supervise their precise location and installation, and the Contractor will furnish all the labor, tools and other materials required incidental to such installations. Any labor, tools and materials so furnished shall be paid for as force account work.

The cost to the City for repair, re-evaluation of location and replacement of any cornerstone, monument or land-marker within the project, damaged, destroyed, or made inaccessible during the progress of the work by the Contractor or the Contractor's employees, in violation of these provisions, is a charge deductible from any estimate payable on account of the work.

107.13 Responsibility for Damage Claims. The Contractor and the surety shall save harmless the City and all of its representatives, or any participating railroad or railway company, from all suits, actions, or claims of any character brought on account of any injuries or damages sustained by any person or property in consequence of any neglect in safeguarding the work or through the use of unacceptable materials in the construction of the improvement or on account of any act or omission, by the Contractor, or its agents. The Contractor or the Surety shall pay any judgment obtained or growing out of any such claims or suits.

107.14 Contractor's Responsibility for Work. Until final written acceptance of the project by the Director of Parks & Open Space, the Contractor shall have the charge and care thereof and shall take every precaution against injury or damage to any part thereof by the action of the elements, from vandalism, from vehicular accidents, or from any other cause, whether arising from the execution or from the non-execution of the work. The Contractor shall rebuild, repair, restore and make good all injuries or damages to any portion of the work occasioned by any of the above causes before final acceptance and shall bear the expense thereof except damage to the work due to unforeseeable causes beyond the control of and without the fault or negligence of the Contractor, including but not restricted to acts of God, of the public enemy or governmental authorities.

In case of suspension of work by the Contractor, or under the provisions of 105.09, the Contractor shall be responsible for the project and shall take such precautions as may be necessary to prevent damage to the project, provide for adequate drainage and shall erect any necessary temporary structures, signs, or other facilities at the Contractor's expense. During such period of suspension of work, the Contractor shall properly and continuously maintain in an acceptable growing condition all living material in newly established plantings, seeding, and sodding furnished under the contract, and shall take adequate precautions to protect new tree growth and other important vegetative growth against injury.

107.15 Contractor's Responsibility for Utility Property and Services. At points where the Contractor's operations are adjacent to properties of railway, telegraph, telephone, and power companies, or are adjacent to other utilities or property, damage to which might result in considerable expense, loss, or inconvenience, work shall not be commenced until all arrangements necessary for the protection thereof have been made.

The Contractor shall cooperate with the owners of any underground or overhead utility lines in their protection and in removal and rearrangement operations in order that these operations may progress in a reasonable manner, that duplication of rearrangement work may be reduced to a minimum, and that services rendered by those parties will not be unnecessarily interrupted.

In the event of interruption to water or utility services as a result of accidental breakage or as a result of being exposed or unsupported, the Contractor shall promptly notify the proper authority and shall cooperate with the said authority in the restoration of service. If water or sewer service is interrupted, repair work shall be continuous until the service is restored. No work shall be undertaken around fire hydrants until provisions for continued service have been approved by the appropriate fire department.

107.16 Furnishing Right-of-Way. The City will be responsible for the securing of all necessary rights-of-way in advance of construction deemed necessary by the City. Any exceptions will be indicated in the contract.

107.17 Personal Liability of Public Officials. In carrying out any of the provisions of the specifications, or in exercising any power or authority granted to them by or within the scope of the contract, there shall be no liability upon the City Manager, the Director of Parks & Open Space, or their authorized representatives, either personally or as officials of the City, it being understood that in all such matters they act solely as agents and representatives of the City.

107.18 No Waiver of Legal Rights. Neither the inspection by the Director of Parks & Open Space, nor by any inspector or duly authorized City representatives nor any order, measurements, or certificate by the Director of Parks & Open Space, or said representatives, nor any order by the Director of Parks & Open Space, for the payments of money, nor any payment for, nor acceptance of any work by the Director of Parks & Open Space, nor any extension of time, nor any possession taken by the City or its duly authorized representatives, shall operate as a waiver of any provision of this contract, or of any power herein reserved to the City, or any right to damages herein provided; nor shall any waiver of any breach of this contract be held to be a waiver of any other subsequent breach.

107.19 OSHA. All Contractors shall comply with the provisions of the Occupational Safety and Health Act of 1972 and all amendments thereto.

108. - PROSECUTION AND PROGRESS

- 108.01 Subletting of Contract**
- 108.02 Prosecution and Progress**
- 108.03 Suspension of Work**
- 108.04 Limitation of Operations**
- 108.05 Character of Workers, Methods, and Equipment**
- 108.06 Date for Completion**
- 108.07 Liquidated Damages**
- 108.08 Cancellation of Contract**
- 108.09 Certified Payroll**

108.01 Subletting of Contract. The Contractor shall not sublet, sell, transfer, assign, or otherwise dispose of the contract or contracts or any portion thereof, or of its right, title, or interest therein, without written consent of the Director of Parks & Open Space. In case such consent is given, the Contractor will be permitted to subcontract a portion thereof, but shall perform with the Contractor's own organization, work amounting to not less than fifty percent of the total contract cost, except that any items set forth in the proposal to be "specialty items" may be performed by subcontract and the cost of any such specialty items so performed by subcontract may be deducted from the total cost before computing the amount of work required to be performed by the Contractor's own organization. No subcontract, or transfer of contract, shall in any case release the Contractor of liability under the contract and bonds.

108.02 Prosecution and Progress. The Contractor shall submit a progress schedule on an approved form within ten days after the Notice to Proceed has been issued showing how the Contractor proposes to prosecute the work. If the Contractor's operations are materially affected by changes in the plan or in the amount of the work or if the Contractor has failed to comply with the approved schedule, the Contractor shall submit a revised progress schedule, if requested by the Director of Parks & Open Space, which schedule shall show how the Contractor proposes to prosecute the balance of the work. The Contractor shall submit the revised progress schedule within ten days after the date of the request. The Contractor shall incorporate into every progress schedule submitted, any contract requirements regarding the order of performance of portions of the work. The Contractor shall use all practicable means to make the progress of the work conform to that shown on the progress schedule which is in effect. Acceptance by the City of the revised progress schedule shall not serve as a time extension approval. Any extension of the contract completion date must be processed per 108.06. No payment will be made to the Contractor while the Contractor is delinquent in the submission of a progress schedule. Should the prosecution of the work, for any reason, be discontinued, the Contractor shall notify the Director of Parks & Open Space at least one working day in advance of resuming operations. No payment will be made to the Contractor if the Contractor is delinquent in the submission of a progress schedule. Should the prosecution of the work, for any reason, be discontinued, the

Contractor shall notify the Director of Parks & Open Space at least two working days in advance of resuming operations.

On contracts which are complicated and interdependent in nature, a Critical Path Method type progress diagram may be required by the special provisions to the contract.

Progress schedules and diagrams are to be included in unit price bids of the various contract items, unless a specific bid item is included in the contract.

108.03 Suspension of Work. The Director of Parks & Open Space may instruct the Contractor to delay the start of operations or suspend the Contractor's operations in whole or in part, for the length of time the Director of Parks & Open Space may deem necessary. The Contractor shall start or resume the operations when notified to do so by the Director of Parks & Open Space.

If, without the fault or negligence of the Contractor, the performance of all or any part of the work is, for an unreasonable period of time, suspended, delayed, or interrupted by an act of the Director of Parks & Open Space in the administration of the contract or by failure to act within the time specified in the contract (or if no time is specified within a reasonable time), an adjustment shall be made by the Director of Parks & Open Space for any increase in the cost of performance of the contract (excluding profit) necessarily caused by the unreasonable period of such suspension, delay, or interruption, and the contract shall be modified in writing.

If construction under these specifications is suspended, delayed, or interrupted through no fault of the Contractor by an order of a court of competent jurisdiction or the Environmental Protection Agency, such suspension, delay, or interruption will be considered to be an unreasonable suspension, delay, or interruption.

In the event that additional expense or loss due to suspension includes machinery or equipment idled by such act or failure to act, payment therefore may be allowed only for machinery or equipment actually on the project site required for those phases of the construction work to which such order applies, and such payment shall be made at the following rates: for idled machinery or equipment owned by the Contractor, fifty percent of the rental price; and for idled machinery or equipment rented by the Contractor, the actual rental price paid plus fifteen percent thereof. The maximum rental price shall be as set forth in the current Equipment Guide Blue Book.

108.04 Limitation of Operations. The Contractor shall conduct the work at all times in such a manner and in such sequence as will assure the least interference with traffic and other operations of the public. The Contractor shall have due regard to the location of detours and to the provisions for handling traffic. The Contractor shall not open up work to the prejudice or detriment of work already started. The Director of Parks & Open Space may require the Contractor to finish a section on which work is in progress before work is started on any additional sections if the opening of such section is essential to public convenience.

108.05 Character of Workers, Methods, and Equipment. The Contractor shall at all times employ sufficient competent labor and equipment for prosecuting the several classes of work to full completion in the manner and time required by these specifications.

All workers shall have sufficient skill and experience to perform properly the work assigned to them. Workers engaged in special work or skilled work shall have sufficient experience in such work and in the operation of the equipment required to perform all work properly and satisfactorily.

Any person employed by the Contractor or by any subcontractor who, in the opinion of the Director of Parks & Open Space, does not perform their work in a proper and skillful manner or is intemperate or disorderly shall, at the written request of the Director of Parks & Open Space, be removed forthwith by the Contractor or subcontractor employing such person, and shall not be employed again in any portion of the work without the approval of the Director of Parks & Open Space. Should the Contractor fail to remove such person or persons as required above, or fail to furnish suitable and sufficient personnel for the proper prosecution of the work, the Director of Parks & Open Space may withhold all estimates, which are or may become due, or may suspend the work by written notice until the Contractor complies with such orders.

All equipment which is proposed to be used on the work shall be of sufficient size and in such mechanical condition as to meet the requirements of the work and produce a satisfactory quality of work. Equipment used on any portion of the project shall be such that no injury to the roadway, adjacent property, or other streets or highways will result from its use.

When the methods and equipment to be used by the Contractor in accomplishing the construction are not prescribed in the contract, the Contractor is free to use any methods or equipment that is demonstrated to the satisfaction of the Director of Parks & Open Space will accomplish the contract work in conformity with the requirements of the contract.

When the contract specifies that the construction be performed by the use of certain methods and equipment, such methods and equipment shall be used unless others are authorized by the Director of Parks & Open Space. If the Contractor desires to use a method or type of equipment other than those specified in the contract, the Contractor may request authorization from the Director of Parks & Open Space to do so. The request shall be in writing and shall include a full description of the methods and equipment proposed to be used and an explanation of the reasons for desiring to make the change. If approval is given, it will be on the condition that the Contractor will be fully responsible for producing construction work in conformity with contract requirements. If, after trial use of the substituted methods of equipment, the Director of Parks & Open Space determines that the work produced does not meet the contract requirements, the Contractor shall discontinue the use of the substitute methods or equipment and shall complete the remaining construction with the specified methods and equipment. The Contractor shall remove the deficient work and replace it with work of specified quality at no expense to the City, or take such other corrective action as directed by the Director of Parks & Open Space. No change will be made in basis of payment for the construction items involved nor in contract time as a result of authorizing a change in methods or equipment under these provisions.

108.06 Date for Completion. The Contractor shall have completed the work on or before the calendar date specified in the contract or on or before a later date determined as specified herein, otherwise the Director of Parks & Open Space shall proceed as provided in 108. 07 or 108. 08.

If the contract is revised in any material respect and it is determined that said revision will cause delay in the completion of the work, the Director of Parks & Open Space will postpone the completion date by the number of calendar days determined to be equitable. If the Contractor finds it impossible for reasons beyond the Contractor's control to complete the work by the date as specified or as extended in accordance with the provisions of this section, the Contractor at any time prior to the expiration of the contract time as extended, may make a written request to the Director of Parks & Open Space for an extension of time setting forth therein the reasons which will justify the granting of the Contractor's request. The Contractor's plea that insufficient time was specified is not a valid reason for extension of time. If the Director of Parks & Open Space finds that the work was delayed because of conditions beyond the control and without the fault of the Contractor, then an extension of the time for completion in such amount as the conditions justify may be granted.

The extended time for completion shall then be in full force and effect the same as though it were the original time for completion.

If the Director of Parks & Open Space should suspend the work in whole or in part as provided in 108. 03, the date for completion shall be postponed the number of days that the suspension directly or indirectly delays the completion of the work.

108.07 Liquidated Damages. For each calendar day that any work shall remain uncompleted after the contract completion date, the sum specified herein will be deducted from any money due the Contractor, not as a penalty but as liquidated damages; provided however, that due account shall be taken of any adjustment of the completion date granted under the provisions of 108. 06. If the proposal contains a special provision for liquidated damages it shall be used in lieu of the schedule contained herein.

The Contractor shall complete the work by the calendar date specified in the contract, or by a later date determined in accordance with 108. 06. Requests for extension of the completion date shall be in writing and shall be submitted to the Director of Parks & Open Space, prior to the calendar date set for completion in the proposal. Failure to request an extension of the completion date, in writing, prior to the calendar date set for completion in the proposal and/or per 108. 06, will AUTOMATICALLY cause the deduction of liquidated damages, as set forth in 108. 07 or the proposal, from all estimates due and payable to the Contractor after such completion date.

Permitting the Contractor to continue and finish the work or any part of it after the date fixed for its completion, or after the date to which completion may have been extended, will in no way operate as a waiver on the part of the City of any of its rights under the contract.

The Director of Parks & Open Space may waive such portions of the liquidated damages as may accrue after the work is in condition for safe and convenient use.

In addition to the amounts specified hereinafter for each calendar day after the completion date, the Contractor will be charged for all inspection services regardless of any extension of time granted, unless such charges are waived by the Director of Parks & Open Space.

SCHEDULE OF LIQUIDATED DAMAGES

Original Contract Amount (Total Amount of the Bid)		Amount of Liquidated Damages to be Deducted for Each Calendar Day of Overrun in Time
From More Than	To and Including	
\$ 0	\$ 25,000	\$ 100. 00
25,001	50,000	150. 00
50,001	100,000	200. 00
100,001	500,000	300. 00
500,001	1,000,000	500. 00
1,000,001	2,000,000	750. 00
2,000,001	5,000,000	1,000. 00
5,000,001	10,000,000	1,500. 00
Over \$10,000,001		2,000. 00

108.08 Certified Payroll. The Contractor shall submit to the Prevailing Wage Coordinator of the City a weekly copy of all project employee payrolls for the duration of the time of construction. The copy shall be accompanied by a certified statement, signed by the Contractor or an agent of the Contractor, indicating that the payrolls are correct and complete and that the wage rates contained therein are not less than those required by the prevailing wage rates in the contract, or any subsequent revision of wage rates during the life of the contract. The Contractor shall be responsible for the submission of copies of payrolls of all subcontractors.

The Contractor shall make employment records available for inspection by authorized representatives of the City and will permit employees to be interviewed during working hours by these representatives.

All weekly payrolls shall contain or have attached the following:

- 1) the name and employer identification number of each employee;
- 2) the current address of the employee;

- 3) the job classification of the employee (same as shown on wage determination or provisional approval);
- 4) rate of pay;
- 5) hours worked each day and total for each week;
- 6) fringe payments and deductions made.

Failure to furnish and submit the above information as part of the required weekly Certified Payroll will be cause for the City to withhold the preparation of the monthly estimate. In the event of a violation of the wage rate provisions by the Contractor or any subcontractor, the City may, after notice to the Contractor, suspend further payments or proceed to terminate the contract as provided by other sections of the contract.

109. - ACCEPTANCE, MEASUREMENT AND PAYMENT

- 109.01 Measurement of Quantities**
- 109.02 Scope of Payment**
- 109.03 Compensation for Altered Quantities**
- 109.04 Extra and Force Account Work**
- 109.05 Eliminated Items**
- 109.06 Partial Payments**
- 109.07 Payment for Material on Hand**
- 109.08 Final Inspection and Acceptance**
- 109.09 Final Estimate**
- 109.10 Release of Liability**
- 109.11 Guarantee**

109.01 Measurement of Quantities. Where work is to be paid for by units of length, area, weight or volume, all work accepted under this contract will be measured by the Director of Parks & Open Space, and the quantities of various items of work performed will be determined by the Director of Parks & Open Space, as the basis for final settlement.

For the calculation of quantities in which the computation of area by geometric methods would be comparatively laborious, it is stipulated and agreed that the planimeter shall be considered an instrument of precision adapted to the measurement of such areas.

109.02 Scope of Payment. The Contractor shall receive and accept compensation provided in the contract as full payment for furnishing all materials and equipment for performing all work under the contract in a complete and acceptable manner and for all risk, loss, damage, or expense of whatever character arising out of the nature of the work or the prosecution thereof, except as otherwise provided in 104.02, 105.22 and 107.14.

If the "Basis of Payment" clause in the specifications relating to any unit price in the bid schedule requires that the said unit price cover and be considered compensation for certain work

or material essential to the item, this same work or material will not also be measured or paid under any other pay item which may appear elsewhere in the specifications.

109.03 Compensation for Altered Quantities. When the accepted quantities of work vary from the quantities in the bid schedule, the Contractor shall accept as payment in full, so far as contract items are concerned, payment at the original contract unit prices for the accepted quantities of work done. No allowance except as provided in 104. 02 will be made for any increased expense, loss of expected reimbursement, or loss of anticipated profits suffered or claimed by the Contractor resulting either directly from such alterations or indirectly from unbalanced allocation among the contract items of overhead expense on the part of the bidder and subsequent loss of expected reimbursements therefor or from any other cause.

Increased work involving supplemental agreements shall be paid for as stipulated in such agreements. The Contractor shall furnish substantiating data required in the preparation of these agreements. The costs of increased work shall be developed using guidelines of 109. 04.

109.04 Extra and Force Account Work. Extra work performed in accordance with the requirements and provisions of 104. 03 will be paid for at the unit prices or lump sum stipulated in the order authorizing the work, or the City may require the Contractor to do such work on a force account basis to be compensated in the following manner:

(a) Labor. For all labor and for all foremen in direct charge of the specific operations, the Contractor shall receive the rate of wage and fringe benefits currently in effect at the time the work is performed for each and every hour that said labor and foremen are actually engaged in such work, to which may be added an amount equal to thirty percent of the sum thereof. The term fringe benefits shall be defined as the actual costs paid to, or in behalf of, workers by reason of health and welfare benefits, pension fund benefits or other benefits, when such amounts are required by collective bargaining agreement or other employment contract generally applicable to the classes of labor employed on the work. In addition to the above the Contractor shall receive the actual cost of Social Security Tax, Workers' Compensation and State and Federal Unemployment Insurance. In lieu of itemizing these four items, fifteen percent of the sum of wages and fringe benefits may be added.

The wages of any supervisor or timekeeper who is employed partly on force account work and partly in other work, shall be prorated between the two classes of work according to the number of men employed on each class of work as shown by the payrolls.

The Contractor shall receive the actual costs paid for subsistence and travel allowances when such payments are required by collectible bargaining agreement or other employment contract generally applicable to the classes of labor employed on the work. No percentage may be added to these costs.

(b) Materials. For materials accepted by the Director of Parks & Open Space and used, the Contractor shall receive the actual cost of such materials delivered on the work, including transportation charges paid (exclusive of machinery rentals as hereinafter set forth), to which cost fifteen percent may be added.

8 Equipment. For machinery or special equipment other than small tools which it may be deemed necessary or desirable to use, the Contractor shall be allowed a rental price to be agreed upon in writing before such work is begun, for the time that such equipment is in use on the work. No profit or overhead shall be added to any charges in connection with the use of owned equipment, however fifteen percent of the basic amount payable for rented equipment may be added for overhead and profit. Proper invoices will be required for rental equipment. The maximum rental price shall be as set forth in the current Equipment Guide Blue Book.

(d) Supervisor's Transportation. A flat hourly rate, which includes fuel and lubricants, profit and overhead, and any other costs will be allowed for the supervisor's transportation.

(e) Fuel and Lubricants. For all equipment except the supervisor's transportation (for which an all inclusive flat rate is allowed) fifteen percent of the basic equipment allowance may be added for cost of fuel and lubricants unless the Blue Book rate includes such fuel and lubricants.

(f) Subcontract Work. For work performed by an approved subcontractor the Contractor will be allowed an amount to cover administrative costs, equal to five percent of the compensation provided in (a), (b) (c), (d), and (e) but not exceeding \$5,000. 00.

(g) Compensation. The compensation to the Contractor as above provided in (a), (b), (c), (d), (e) and (f) shall constitute payment in full for extra work done on a force account including administrative, superintendence, overhead, use of tools and equipment for which no rental is allowed, profit, taxes other than sales tax, premium on insurance, and any other expense incidental to performing the force account work. Sales tax will not be allowed on any item for which tax exemption may be obtained.

(h) Statements. Final payment will not be made for work performed on a force account basis until the Contractor has furnished the Director of Parks & Open Space with quadruplicate itemized statements of the cost of such force account work detailed as follows:

- (1) Name, classification, date, daily hours, total hours, rate, and extension for each laborer and supervisor.
- (2) Designation, dates, daily hours, total hours, rental rate, and extension for each unit of machinery and equipment.
- (3) Quantities of materials, prices, and extensions.
- (4) Transportation of materials.

The Contractor's representative and the Director of Parks & Open Space shall compare records daily of the cost of work done as ordered on a force account basis. The Director of Parks & Open Space shall certify that these records are correct.

Statements shall be accompanied and supported by proper invoices for all materials used, transportation charges, and rented equipment performing work on force account operations. However, if materials used on the force account work are not specifically purchased for such

work, but are produced by the Contractor or taken from the Contractor's stock, then in lieu of the invoices the Contractor shall furnish an affidavit certifying that such materials were produced by or taken from the Contractor's stock, that the quantity claimed was actually used, and that the price and transportation claimed represent the actual cost to the Contractor. Statements shall be filed not later than the twentieth day of the month following that in which the work was actually performed.

The above described force account provisions will also apply to work performed at agreed unit prices and agreed lump sums when the agreed prices are based on analyses of cost of labor, material and equipment.

109.05 Eliminated Items. Should any items contained in the proposal be found unnecessary for the proper completion of the work, the Director of Parks & Open Space may, upon written order to the Contractor, eliminate such items from the contract, and such action shall in no way invalidate the contract. When the Contractor is notified of the elimination of items, the Contractor will be reimbursed for actual work done and all costs incurred, including mobilization of materials prior to said notification.

109.06 Partial Payments. On or about the first of each month, the Contractor shall prepare and submit to the Director of Parks & Open Space for approval, an estimate of the amount of labor performed and/or acceptable materials delivered to the site.

Progress payments shall be at the rate of ninety-two percent (92%) of the amount certified by the Director of Parks & Open Space until the work is fifty percent (50%) complete as determined by the Director of Parks & Open Space, from which time progress payments shall be at the rate of one hundred percent (100%) of the amount certified by the Director of Parks & Open Space with no further funds being retained.

When the project is substantially completed and occupied, or in use, or otherwise accepted, and there exists no other reason to withhold retainage, the retained funds shall be paid to the Contractor, withholding only that amount necessary to assure completion of the work. Retained funds shall be paid to the Contractor with interest thirty days from the date of final completion or either acceptance or occupancy by the City.

Partial payments may, at any time, be withheld, if in the opinion of the Director of Parks & Open Space, the work is not proceeding in accordance with the provisions of 108. 02.

Before the second partial payment estimate is processed and for each subsequent partial estimate thereafter, the Contractor will be required to submit a notarized affidavit confirming that all bills for materials and for subcontracted work represented by the previous partial payment have been paid. Should any defective work, material or acceptable work that has been damaged by the Contractor's operations be discovered previous to the final acceptance or should a reasonable doubt arise previous to the final acceptance as to the integrity of any part of the completed work, the estimate and payment for such defective or questioned work shall not be allowed until the defect has been remedied and cause for doubt removed, by and at the expense of the Contractor upon the order of the Director of Parks & Open Space.

109.07 Payment for Material on Hand. Partial payments may be made to the extent of the delivered cost of approved materials to be incorporated in the work, when delivered on the project or stored in acceptable storage places in the vicinity of the project. Delivered cost shall be evidenced by manufacturer's invoices bearing the statement that all previous invoices have been paid.

The Contractor shall make application for payment for materials on hand or stored on forms provided by the Director of Parks & Open Space. Information will be required as to the cost of the materials, when such materials will be incorporated in the work and such other information which will be considered for approval of advanced payment. Consideration will only be given to materials for major items of the contract.

109.08 Final Inspection and Acceptance. When the Contractor completes all or portions of the work to be accepted by the City, a request for a final inspection by the Contractor shall be made. If items remain which must be completed or remedied by the Contractor, the Contractor shall perform the work immediately upon being notified by the Director of Parks & Open Space. When such items have been corrected by the Contractor, final inspection will be made. The work must pass final inspection before it will be accepted by the City.

Where the City has made a final inspection and has accepted any portion of the work, the retained percentage for the entire contract will be appropriately reduced for the portion of the work accepted.

109.09 Final Estimate. As soon as practicable after the acceptance of the work by the City, there shall be issued a final estimate for payment based on the actual quantities of completed and accepted work performed under this contract. Such final estimates shall be approved by the Director of Parks & Open Space, after which the City shall pay the entire sum found to be due, after deducting all previous payments made under 109.06. All prior estimates are subject to correction in the final estimate payment.

The date of approval of the final estimate by the Director of Parks & Open Space shall be the date of acceptance for the project.

109.10 Release of Liability. No person or corporation other than the signer of this contract as Contractor, has any interest hereunder and no claim shall be made or be valid, and neither the City, nor any official or agent thereof, shall be liable for or be held to pay any money except as provided herein. The acceptance by the Contractor of payment shall operate as and shall be a release to the City, and every officer and agent thereof, from all claims and liability to the Contractor for anything done or furnished for, or relating to the work, or for any act or neglect of the City, or of any person relating to or affecting the work.

109.11 Guarantee. When any work is accepted by the City there shall be a guarantee period extending for one year from the date of acceptance of the work. The City will designate on the plans or in the proposal those portions of the project which may be accepted prior to completion of the entire project. If during the course of the construction, the City desires to accept and

place in operation any additional portions of the work, written notification will be given to the Contractor by the City.

At any time during the guarantee period, the City may notify the Contractor and his surety that certain repairs are necessary. Within ten days after being so notified, the Contractor shall make such repairs as are declared necessary to restore the work to a good and serviceable condition. Specifications for the work performed under this contract shall govern in the making of repairs under this section. In the event that the Contractor fails to comply with the order to repair as provided, said repairs may be made by the City and it is hereby agreed by the Contractor that reimbursement shall be made to the City for said expense so incurred within ten days following the receipt of a statement rendered to the Contractor by the City for said expense. Further, the Contractor will receive no recognition as a bidder for any future work of the City for a period of three years.

If the cost of providing security to the City for the one year guarantee period is prohibitive, the Contractor may, with approval of the Director of Parks & Open Space, make an assignment of bonds or other form of acceptable security to the City in the amount of five percent of the contract cost for the duration of the guarantee period.

PAYROLL INFORMATION

I, _____ (Name),
_____ (Title) of _____
(Subcontractor/Contractor), state the following:

1. That I pay or supervise the payment of the persons employed by _____ (Subcontractor/Contractor) on the above-referenced project.

2. That during the payroll period commencing on the _____ day of _____, 2015, and ending on the _____ day of _____, 2015, all persons employed on said project have been paid the full weekly wages earned; that no rebates have been or will be made either directly or indirectly to or on behalf of said _____ (Contractor/Subcontractor) from the full weekly wages earned by such persons; and that no deductions have been made either directly or indirectly from the full wages earned by such persons, other than permissible deductions as defined in Regulations, Part 3 (29 CFR Subtitle A), issued by the Secretary of Labor under the Copeland Act, as amended (48 Stat. 948, 63 Stat. 108, 72 Stat. 967; 76 Stat. 357; 40 U.S.C. 276c), and described below:

3. That any payrolls otherwise under this Agreement for Construction (the "Agreement") required to be submitted for the above period are correct and complete; that the wage rates for laborers or mechanics contained therein are not less than the applicable wage rates contained in the specifications as supplied by the Department of Industrial Relations or any wage determination incorporated into the Agreement; and that the classifications set forth therein for each laborer or mechanic conform with the work he performed.

4. That any apprentices employed in the above period are duly registered in a bona fide apprenticeship program registered with the Ohio Apprenticeship Council.

5. That (check applicable box):

9 a. WHERE FRINGE BENEFITS ARE PAID TO APPROVED PLANS, FUNDS, OR PROGRAMS:

In addition to the basic hourly wage rates paid to each laborer or mechanic listed in the above-referenced payroll, payments of fringe benefits listed in the Agreement have been or will be made to appropriate programs for the benefit of such employees, except as noted in Section 48 below.

9 b. WHERE FRINGE BENEFITS ARE PAID IN CASH:

Each laborer or mechanic listed in the above-referenced payroll has been paid as indicated on the payroll, and amount not less than the sum of the applicable basic hourly wage rate plus the amount of the required fringe benefits as listed in the Agreement, except as noted in Section 48 below.

c. Exceptions:

Exception (Craft):

Explanation:

_____	_____
_____	_____
_____	_____
_____	_____

Remarks:

(Signature)

(Print Name and Title)

The willful falsification of any of the above statements may subject the Contractor or Subcontractor to fines as described in Section 4115.99 of the Ohio Revised Code.

FINAL PAYROLL AFFIDAVIT

STATE OF _____
COUNTY OF _____, SS:

I, _____ (Affiant),
_____ (Title) of _____
(Contractor/Subcontractor), do hereby certify that:

1. The Payroll Information reports submitted on behalf of (Contractor/Subcontractor) for this project are correct.
2. The wages paid to all employees for the full number of hours worked in connection with the Agreement for Construction (the "Agreement") for the above-referenced project during the period from _____ to _____ is in accordance with the prevailing wages prescribed by the Agreement.
3. No rebates or deductions for any wages due any person have been directly or indirectly made other than those provided by law.

(Signature of Affiant)

(Print Name)

Sworn to and subscribed in my presence this ___ day of _____, 2015.

Notary Public

The above affidavit must be executed and sworn to by the officer or agent or the Contractor/Subcontractor who supervised the payment of employees, before the City of Dublin, Ohio will release the surety and/or make final payment due under the terms of the Agreement.

SECTION 5
SPECIFICATIONS

PARTIAL ROOF REPLACEMENT -
PHASE 2 DUBLIN RECREATION CENTER

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DIVISION 1 GENERAL REQUIREMENTS

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013100	Project Management and Coordination
013200	Construction Schedule
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--------	-----------------------

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SECTION 011000 - SUMMARY

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including Contract Documents and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section Includes:
 - 1. Project information.
 - 2. Work covered by Contract Documents.
 - 3. Access to site.
 - 4. Coordination with Work By Others.
 - 5. Coordination with occupants.
 - 6. Work restrictions.
 - 7. Specification and drawing conventions.

1.3 PROJECT INFORMATION

- A. Project Identification: Partial Roof Replacement, Dublin Recreation Center.
 - 1. Project Location: 5600 Post Road, Dublin, Ohio 43017.
- B. Owner: City of Dublin.
 - 1. Owner's Representative: Tim Elmer, Operations Administrator, 6555 Shier Rings Road, Dublin, Ohio 43016-8716.
- C. Architect: Schorr Architects, Inc., Tony Schorr, AIA, 230 Bradenton Ave., Dublin, Ohio 43017, 614/798-2096, tschorr@schorrarchitects.com.

1.4 WORK COVERED BY CONTRACT DOCUMENTS

- A. The Work of Project is defined by the Contract Documents. The general scope includes the following:
 - 1. Removal of single-ply membrane system and asphalt shingle system.
 - 2. Replacement of wet insulation and/or plywood nail board.
 - 3. New single-ply roof membrane system and asphalt shingle system.
 - 4. Replacement of metal copings system, gutters and downspouts.
 - 5. Replacement of joint sealants and repairs to E.I.F.S. at wall and soffit locations.
 - 6. Upgrades to lightning protection system.
 - 7. The Contractor is to verify all existing conditions which may affect their bid including, but not limited to the following:
 - a. Existing structural systems and roofing systems.

- b. Areas and dimensions.
 - c. Size and location of all roof penetrations.
- 8. The project includes related demolition. It is the Contractor's responsibility to remove and dispose of all materials in accordance with all local, state and federal codes and regulations.
 - 9. The project also includes all sheet metal work, flashings, carpentry and other related work.
 - 10. The project, when finished, is to be complete in every respect.

B. Type of Contract:

- 1. Project will be constructed under a single prime contract.
- 2. The Contractor to include a unit price on the Proposal to remove existing wet or damaged insulation and plywood at the pitched roof areas. Reference Section 073113.

C. Unit Price:

- 1. The Contractor to include a unit price on the Proposal to remove existing wet or damaged insulation and plywood at the pitched roof areas. Reference Section 073113.

D. Permits:

- 1. The Architect will submit all Contract Drawings and Specifications to the City of Dublin and will pay for the Plan Approval Certificate.
- 2. Contractor to secure and pay for any licenses or registrations required for the proper execution and completion of the Work.
- 3. Contractor to arrange for all inspections required to obtain a Certificate of Occupancy.

1.5 ACCESS TO SITE

A. General: Contractor shall have limited use of Project site for construction operations as indicated by requirements of this Section.

B. Use of Site: Limit use of Project site to work in areas indicated. Do not disturb portions of Project site beyond areas in which the Work is indicated.

- 1. Driveways, Walkways and Entrances: Keep driveways and entrances serving premises clear and available to Owner, Owner's employees, public and emergency vehicles at all times. Do not use these areas for parking or storage of materials.
 - a. Schedule deliveries to minimize use of driveways and entrances by construction operations.
 - b. Schedule deliveries to minimize space and time requirements for storage of materials and equipment on-site.

C. Condition of Existing Building: Maintain portions of existing building affected by construction operations in a weathertight condition throughout construction period. Repair damage caused by construction operations. **CONTRACTOR WILL BE REQUIRED TO PROVIDE TEMPORARY MEASURES (ROOFING, JOINT SEALANT, ETC.) TO KEEP WATER FROM ENTERING BUILDING. ROOF DRAINS ARE TO BE FLASHED-IN AND WATERTIGHT PRIOR TO LEAVING SITE EACH DAY.**

1.6 COORDINATION WITH WORK BY OTHERS

- A. Contractor to coordinate with the Owner and other Contractors.
- B. During replacement of the skylight over the pool area Contractor to work with the Owner and other Contractors to schedule work.

1.7 COORDINATION WITH OCCUPANTS

- A. Full Owner Occupancy: Owner will occupy site and existing building during entire construction period. Cooperate with Owner during construction operations to minimize conflicts and facilitate Owner usage. Perform the Work so as not to interfere with Owner's day-to-day operations. Maintain existing exits unless otherwise indicated.
 - 1. Do not close or obstruct walkways or exits without written permission from Owner and approval of authorities having jurisdiction.
 - 2. Notify Owner not less than 72 hours in advance of activities that will affect Owner's operations.
 - 3. Contractor is not to enter building without specific permission of the Owner.

1.8 WORK RESTRICTIONS

- A. On-Site Work Hours: Contractor can work from 7:00 a.m. to 7:00 p.m., Monday through Saturday. Contractor will not be able to work on Sundays or Federal Holidays. Contractor to verify local governmental restrictions.
- B. Existing Utility Interruptions: Do not interrupt utilities serving facilities occupied by Owner or others unless permitted under the following conditions and then only after providing temporary utility services according to requirements indicated:
 - 1. Notify Architect and Owner not less than (72) hours in advance of proposed utility interruptions.
- C. Noise, Vibration, and Odors: Coordinate operations that may result in high levels of noise and vibration, odors, or other disruption to Owner occupancy with Owner.
 - 1. Notify Architect and Owner not less than (72) hours in advance of proposed disruptive operations.
 - 2. Obtain Architect's and Owner's written permission before proceeding with disruptive operations.
 - 3. Radios will not be permitted.
- D. Tobacco Free Building and Site: Tobacco products are not permitted within the building or on site.
- E. Controlled Substances: Use of controlled substances on the Project site is not permitted.

1.9 SPECIFICATION AND DRAWING CONVENTIONS

- A. Specification Content: The Specifications use certain conventions for the style of language and the intended meaning of certain terms, words, and phrases when used in particular situations. These conventions are as follows:

1. Imperative mood and streamlined language are generally used in the Specifications. The words "shall," "shall be," or "shall comply with," depending on the context, are implied where a colon (:) is used within a sentence or phrase.
 2. Specification requirements are to be performed by Contractor unless specifically stated otherwise.
- B. Division 01 General Requirements: Requirements of Sections in Division 01 apply to the Work of all Sections in the Specifications.
- C. Drawing Coordination: Requirements for materials and products identified on Drawings are described in detail in the Specifications. One or more of the following are used on Drawings to identify materials and products:
1. Terminology: Materials and products are identified by the typical generic terms used in the individual Specifications Sections.
 2. Abbreviations: Materials and products are identified by abbreviations scheduled on Drawings.

END OF SECTION 011000

SECTION 013100 - PROJECT MANAGEMENT AND COORDINATION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including Contract Documents and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes administrative provisions for coordinating construction operations on Project including, but not limited to, the following:
 - 1. General coordination procedures.
 - 2. Requests for Information (RFIs).
 - 3. Project meetings.

1.3 DEFINITIONS

- A. RFI: Request from Owner, Architect, or Contractor seeking information required by or clarifications of the Contract Documents.

1.4 GENERAL COORDINATION PROCEDURES

- A. Coordination: Contractor shall coordinate its construction operations to ensure efficient and orderly installation of each part of the Work.
- B. Administrative Procedures: Coordinate scheduling and timing of required administrative procedures to avoid conflicts and to ensure orderly progress of the Work. Such administrative activities include, but are not limited to, the following:
 - 1. Preparation of Contractor's construction schedule.
 - 2. Preparation of the schedule of values.
 - 3. Installation and removal of temporary facilities and controls.
 - 4. Delivery and processing of submittals.
 - 5. Progress meetings.
 - 6. Project closeout activities.

- C. Conservation: Coordinate construction activities to ensure that operations are carried out with consideration given to conservation of energy, water, and materials. Coordinate use of temporary utilities to minimize waste.

1.5 REQUESTS FOR INFORMATION (RFIs)

- A. General: Immediately on discovery of the need for additional information or interpretation of the Contract Documents, Contractor shall prepare and submit an RFI in the form specified.

1. Architect will return RFIs submitted to Architect by other entities controlled by Contractor with no response.
 2. Coordinate and submit RFIs in a prompt manner so as to avoid delays in Contractor's work or work of Subcontractors.
- B. Content of the RFI: Include a detailed, legible description of item needing information or interpretation and the following:
1. Project name.
 2. Project number.
 3. Date.
 4. Name of Contractor.
 5. Name of Architect.
 6. RFI number, numbered sequentially.
 7. RFI subject.
 8. Specification Section number and title and related paragraphs, as appropriate.
 9. Drawing number and detail references, as appropriate.
 10. Field dimensions and conditions, as appropriate.
 11. Contractor's suggested resolution. If Contractor's suggested resolution impacts the Contract Time or the Contract Sum, Contractor shall state impact in the RFI.
 12. Contractor's signature.
 13. Attachments: Include sketches, descriptions, measurements, photos, Product Data, Shop Drawings, coordination drawings, and other information necessary to fully describe items needing interpretation.
 - a. Include dimensions, thicknesses, structural grid references, and details of affected materials, assemblies, and attachments on attached sketches.
- C. RFI Forms:
1. Contractor form.
- D. Architect's action: Architect will review each RFI, determine action required, and respond. Allow three working days for Architect's response for each RFI. RFIs received by Architect after 1:00 p.m. will be considered as received the following working day.
1. The following Contractor-generated RFIs will be returned without action:
 - a. Requests for approval of submittals.
 - b. Requests for approval of substitutions.
 - c. Requests for approval of Contractor's means and methods.
 - d. Requests for coordination information already indicated in the Contract Documents.
 - e. Requests for adjustments in the Contract Time or the Contract Sum.
 - f. Requests for interpretation of Architects actions on submittals.
 - g. Incomplete RFIs or inaccurately prepared RFIs.
 2. Architect's action may include a request for additional information, in which case Architect's time for response will date from time of receipt of additional information.
 3. Architect's action on RFIs that may result in a change to the Contract Time or the Contract Sum may be eligible for Contractor to submit Change Proposal.
 - a. If Contractor believes the RFI response warrants change in the Contract Time or the Contract Sum, notify Architect in writing within 7 days of receipt of the RFI response.
- E. RFI Log: The Architect will maintain.

- F. On receipt of Architect's action, immediately distribute the RFI response to affected parties. Review response and notify Architect within seven days if Contractor disagrees with response.
 - 1. Identification of related Minor Change in the Work, Construction Change Directive, and Proposal Request, as appropriate.
 - 2. Identification of related Field Order, Work Change Directive, and Proposal Request, as appropriate.

1.6 PROJECT MEETINGS

- A. General: Architect to schedule and conduct project meetings at Project site unless otherwise indicated. The Architect will record discussions and will distribute minutes.
- B. Preconstruction Conference: Architect will schedule and conduct a preconstruction conference before starting construction, at a time convenient to Owner and Architect.
 - 1. Conduct the conference to review responsibilities and personnel assignments.
 - 2. Attendees: Authorized representatives of Owner, Architect, Contractor and its superintendent and major subcontractors, shall attend the conference. Participants at the conference shall be familiar with Project and authorized to conclude matters relating to the Work.
 - 3. Agenda: Discuss items of significance that could affect progress, including the following:
 - a. Tentative construction schedule.
 - b. Sequencing.
 - c. Designation of key personnel and their duties.
 - d. Lines of communications.
 - e. Procedures for processing field decisions and Change Orders.
 - f. Procedures for RFIs.
 - g. Submittal procedures.
 - h. Preparation of record documents.
 - i. Use of the premises and existing building.
 - j. Work restrictions.
 - k. Working hours.
 - l. Owner's occupancy requirements.
 - m. Responsibility for temporary facilities and controls.
 - n. Procedures for moisture and mold control.
 - o. Procedures for disruptions and shutdowns.
 - p. Parking availability.
 - q. Office, work, and storage areas.
 - r. Equipment deliveries and priorities.
 - s. First aid.
 - t. Security.
 - u. Progress cleaning.
 - 4. Minutes: Architect will record discussions and will distribute minutes.
- C. Progress Meetings: Architect to conduct progress meetings at weekly intervals.
 - 1. Attendees: Authorized representatives of Owner, Architect, Contractor, and its superintendent and major subcontractors, shall be represented at these meetings. All participants at the meeting shall be familiar with Project and authorized to conclude matters relating to the Work.
 - 2. Agenda: Review and correct or approve minutes of previous progress meeting. Review other items of significance that could affect progress. Include topics for discussion as appropriate to status of Project.

- a. Contractor's Construction Schedule: Review progress since the last meeting. Determine whether each activity is on time, ahead of schedule, or behind schedule, in relation to Contractor's construction schedule. Determine how construction behind schedule will be expedited; secure commitments from parties involved to do so. Discuss whether schedule revisions are required to ensure that current and subsequent activities will be completed within the Contract Time.
 - 1) Review schedule for next period.
- 3. Minutes: Architect will record discussions and will distribute minutes.

END OF SECTION 013100

SECTION 013200 – CONSTRUCTION SCHEDULE

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including Contract Documents and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. By submitting the Bid, the bidder agrees that the periods for performing the Work are reasonable, and that the bidder's work can be complete by the applicable dates for completion.
- B. The completion date below, shall be adhered to unless modified by mutual agreement between the Contractor, Owner and Architect. The Contractor is responsible to maintain progress so as to achieve the milestones including shift work, overtime work, weekend work, supplemental labor and equipment, etc. at no additional cost to the Owner. The intended Notice to Proceed date is January 4, 2016.

<u>MILESTONE ACTIVITY</u>	<u>DURATION (CALENDAR DAYS)</u>	<u>MILESTONE</u>
Submittal Review	14	Day 14
Mobilization	01	Day 15
Construction	271	Day 286
Punch-Out & Closeout Documents	<u>14</u>	<u>Day 300</u>
	Total	300 days

- C. Reference the drawings for dates when certain roof and skylight work needs to take place.
- D. **CONTRACTOR IS TO PROVIDE DAILY CONSTRUCTION REPORTS TO THE ARCHITECT ON A WEEKLY BASIS. IF THESE FORMS ARE NOT PROVIDED WEEKLY, THE CONTRACTOR'S APPLICATIONS FOR PAYMENT WILL NOT BE PAID AND THE WORK WILL BE STOPPED.**

1.3 Historical Weather Data

- A. The Contract Time may be extended by Change Order for the number of days lost due to inclement weather occurring in excess of the "Maximum Expected Days Lost" as shown on the following table. Actual weather experience will be recorded by the U.S. Department of Commerce, National Oceanic and Atmospheric Administration (USDC/NOAA). Inclement weather exists when one or more of the following occurs: the precipitation other than snow and ice exceeds 1/10" within a calendar day, when snow or ice accumulation exceeds 1.0 inch within a calendar day, when maximum temperature for the calendar day is 32 degrees F. or below, or when any combination of these occurs simultaneously. The Contract Time shall not be extended unless actual inclement weather for a number of calendar days in excess of the "Maximum Expected Days Lost" for the Contract Time and that the completion of the work was, in fact, delayed because of such excess inclement weather.

MONTH	Precipitation 0.10" or more	Snow/Ice Pellets 1.0" or more	Max. at 32 Degrees or Below	MAXIMUM EXPECTED DAYS LOST
January	10	3	14	14
February	9	3	12	12
March	9	2	2	9
April	9	0	0	6
May	9	0	0	5
June	8	0	0	5
July	8	0	0	4
August	7	0	0	4
September	7	0	0	5
October	8	0	0	6
November	9	1	1	6
December	10	3	9	10
YEAR TOTAL	103	12	38	108

1.4 SCHEDULE OF WORK

- A. If at any time the Contractor's working force and equipment, in the opinion of the Architect shall be inadequate for securing the necessary progress or required quality of work as herein stipulated, the Contractor shall, if so directed, at his own expense, increase or supplement the working force and equipment an/or perform the work on an overtime or multiple shift basis to such an extent as to give reasonable assurance of compliance with the schedule of completion and the required quality of the work. When so directed, the Contractor shall submit for approval such supplementary construction schedules as may be necessary to demonstrate the manner in which such compliance will be established. Failure to make such demands shall not relieve the Contractor of his obligation to secure the quality and the rate of progress required by the Contract; and the Contractor alone shall be and remain liable and responsible for the efficiency and adequacy of his methods, materials, working force, and equipment, irrespective of whether or not he makes any change as a result of any order or orders received.
- B. Should the Architect require, either for convenience or to move the completion date forward or to otherwise accelerate schedules, causing the Contractor to perform contract work outside of the normal working hours, the Contractor shall do so, in which case the Contractor shall be reimbursed for actual premium payments made for labor overtime worked, with no allowance for overhead or profit. In the event that such overtime work is required the Contractor shall, at the end of each day on which the overtime is worked, furnish daily time slips showing the name or number of each workman employed thereon with the time worked, the character of work performed and the wages to be paid. Loss of efficiency or productivity associated with multiple shift or overtime work, work whether affecting work on which overtime is spent or on work under the contract, shall not be the basis for any claim for additional compensation by the Contractor.

END OF SECTION 013100

SECTION 013300 - SUBMITTAL PROCEDURES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including Contract Documents and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes requirements for the submittal schedule and administrative and procedural requirements for submitting Shop Drawings, Product Data, Samples, and other submittals.

1.3 DEFINITIONS

- A. Action Submittals: Written and graphic information and physical samples that require Architect's responsive action. Action submittals are those submittals indicated in individual Specification Sections as "action submittals."
- B. File Transfer Protocol (FTP): Communications protocol that enables transfer of files to and from another computer over a network and that serves as the basis for standard Internet protocols. An FTP site is a portion of a network located outside of network firewalls within which internal and external users are able to access files.
- C. Portable Document Format (PDF): An open standard file format licensed by Adobe Systems used for representing documents in a device-independent and display resolution-independent fixed-layout document format.

1.4 ACTION SUBMITTALS

- A. Submittal Schedule: Submit a schedule of submittals, arranged in chronological order by dates required by construction schedule. Include time required for review, ordering, manufacturing, fabrication, and delivery when establishing dates. Include additional time required for making corrections or revisions to submittals noted by Architect and additional time for handling and reviewing submittals required by those corrections.
 - 1. Coordinate submittal schedule with list of subcontracts, the schedule of values, and Contractor's construction schedule.
 - 2. Initial Submittal: Submit concurrently with startup construction schedule. List those submittals required to maintain orderly progress of the Work and those required early because of long lead time for manufacture or fabrication.
 - 3. Final Submittal: Submit concurrently with the first complete submittal of Contractor's construction schedule.
 - a. Submit revised submittal schedule to reflect changes in current status and timing for submittals.

4. Format: Arrange the following information in a tabular format:
 - a. Scheduled date for first submittal.
 - b. Specification Section number and title.
 - c. Submittal category: Action; informational.
 - d. Name of subcontractor.
 - e. Description of the Work covered.
 - f. Scheduled date for Architect's final release or approval.
 - g. Scheduled date of fabrication.
 - h. Scheduled dates for purchasing.
 - i. Scheduled dates for installation.
 - j. Activity or event number.

1.5 SUBMITTAL ADMINISTRATIVE REQUIREMENTS

- A. Coordination: Coordinate preparation and processing of submittals with performance of construction activities.
 1. Coordinate each submittal with fabrication, purchasing, testing, delivery, other submittals, and related activities that require sequential activity.
 2. Submit all submittal items required for each Specification Section concurrently unless partial submittals for portions of the Work are indicated on approved submittal schedule.
 3. Submit action submittals and informational submittals required by the same Specification Section as separate packages under separate transmittals.
 4. Coordinate transmittal of different types of submittals for related parts of the Work so processing will not be delayed because of need to review submittals concurrently for coordination.
 - a. Architect reserves the right to withhold action on a submittal requiring coordination with other submittals until related submittals are received.
- B. Processing Time: Allow time for submittal review, including time for resubmittals, as follows. Time for review shall commence on Architect's receipt of submittal. No extension of the Contract Time will be authorized because of failure to transmit submittals enough in advance of the Work to permit processing, including resubmittals.
 1. Initial Review: Allow 7 days for initial review of each submittal. Allow additional time if coordination with subsequent submittals is required. Architect will advise Contractor when a submittal being processed must be delayed for coordination.
 2. Intermediate Review: If intermediate submittal is necessary, process it in same manner as initial submittal.
 3. Resubmittal Review: Allow 3 days for review of each resubmittal.
- C. Paper Submittals; Place a permanent label or title block on each submittal item for identification
 1. Indicate name of firm or entity that prepared each submittal on label or title block.
 2. Provide a space approximately 6 by 8 inches on label or beside title block to record Contractor's review and approval markings and action taken by Architect.
 3. Include the following information for processing and recording action taken:
 - a. Project name.
 - b. Date.
 - c. Name of Architect.
 - d. Name of Contractor.
 - e. Name of subcontractor.

- f. Name of supplier.
 - g. Name of manufacturer.
 - h. Submittal number or other unique identifier, including revision identifier.
 - 1) Submittal number shall use Specification Section number followed by a decimal point and then a sequential number (e.g., 061000.01). Resubmittals shall include an alphabetic suffix after another decimal point (e.g., 061000.01.A).
 - i. Number and title of appropriate Specification Section.
 - j. Drawing number and detail references, as appropriate.
 - k. Location(s) where product is to be installed, as appropriate.
 - l. Other necessary identification.
4. Transmittal for Paper Submittals: Assemble each submittal individually and appropriately for transmittal and handling. Transmit each submittal using a transmittal form. Architect will return without review submittals received from sources other than Contractor.
- a. Transmittal Form for Paper Submittals: Use AIA Document G810.
 - b. Transmittal Form for Paper Submittals: Provide locations on form for the following information:
 - 1) Project name.
 - 2) Date.
 - 3) Name and address of Architect.
 - 4) Name of Contractor.
 - 5) Name of firm or entity that prepared submittal.
 - 6) Names of subcontractor, manufacturer, and supplier.
 - 7) Category and type of submittal.
 - 8) Submittal purpose and description.
 - 9) Specification Section number and title.
 - 10) Specification paragraph number or drawing designation and generic name for each of multiple items.
 - 11) Drawing number and detail references, as appropriate.
 - 12) Indication of full or partial submittal.
 - 13) Transmittal number numbered consecutively.
 - 14) Submittal and transmittal distribution record.
 - 15) Remarks.
 - 16) Signature of transmitter.
- D. Electronic Submittals: Contractor can submit electronically. Identify and incorporate information in each electronic submittal file as follows:
- 1. Assemble complete submittal package into a single indexed file incorporating submittal requirements of a single Specification Section and transmittal form with links enabling navigation to each item.
 - 2. Name file with submittal number or other unique identifier, including revision identifier.
 - a. File name shall use project identifier and Specification Section number followed by a decimal point and then a sequential number (e.g., LNHS-061000.01). Resubmittals shall include an alphabetic suffix after another decimal point (e.g., LNHS-061000.01.A).
 - 3. Provide means for insertion to permanently record Contractor's review and approval markings and action taken by Architect.
 - 4. Transmittal Form for Electronic Submittals: Use electronic form acceptable to Owner and Architect, containing the following information:

- a. Project name.
 - b. Date.
 - c. Name and address of Architect.
 - d. Name of Contractor.
 - e. Name of firm or entity that prepared submittal.
 - f. Names of subcontractor, manufacturer, and supplier.
 - g. Category and type of submittal.
 - h. Submittal purpose and description.
 - i. Specification Section number and title.
 - j. Specification paragraph number or drawing designation and generic name for each of multiple items.
 - k. Drawing number and detail references, as appropriate.
 - l. Location(s) where product is to be installed, as appropriate.
 - m. Related physical samples submitted directly.
 - n. Indication of full or partial submittal.
 - o. Transmittal number, numbered consecutively.
 - p. Submittal and transmittal distribution record.
 - q. Other necessary identification.
 - r. Remarks.
- E. Options: Identify options requiring selection by Architect.
- F. Deviations and Additional Information: On an attached separate sheet, prepared on Contractor's letterhead, record relevant information, requests for data, revisions other than those requested by Architect on previous submittals, and deviations from requirements in the Contract Documents, including minor variations and limitations. Include same identification information as related submittal.
- G. Resubmittals: Make resubmittals in same form and number of copies as initial submittal.
- 1. Note date and content of previous submittal.
 - 2. Note date and content of revision in label or title block and clearly indicate extent of revision.
 - 3. Resubmit submittals until they are marked with approval notation from Architect's action stamp.
- H. Distribution: Furnish copies of final submittals to manufacturers, subcontractors, suppliers, fabricators, installers, authorities having jurisdiction, and others as necessary for performance of construction activities. Show distribution on transmittal forms.
- I. Use for Construction: Retain complete copies of submittals on Project site. Use only final action submittals that are marked with approval notation from Architect's action stamp.

PART 2 - PRODUCTS

2.1 SUBMITTAL PROCEDURES

- A. General Submittal Procedure Requirements: Prepare and submit submittals required by individual Specification Sections. Types of submittals are indicated in individual Specification Sections.
- 1. Submit electronic submittals via email as PDF electronic files.
 - a. Architect will return annotated file. Annotate and retain one copy of file as an electronic Project record document file.

2. Certificates and Certifications Submittals: Provide a statement that includes signature of entity responsible for preparing certification. Certificates and certifications shall be signed by an officer or other individual authorized to sign documents on behalf of that entity.
 - a. Provide a digital signature with digital certificate on electronically submitted certificates and certifications where indicated.
 - b. Provide a notarized statement on original paper copy certificates and certifications where indicated.
- B. Product Data: Collect information into a single submittal for each element of construction and type of product or equipment.
1. If information must be specially prepared for submittal because standard published data are not suitable for use, submit as Shop Drawings, not as Product Data.
 2. Mark each copy of each submittal to show which products and options are applicable.
 3. Include the following information, as applicable:
 - a. Manufacturer's catalog cuts.
 - b. Manufacturer's product specifications.
 - c. Standard color charts.
 - d. Statement of compliance with specified referenced standards.
 - e. Testing by recognized testing agency.
 4. Submit Product Data before or concurrent with Samples.
- C. Shop Drawings: Prepare Project-specific information, drawn accurately to scale. Do not base Shop Drawings on reproductions of the Contract Documents or standard printed data.
1. Preparation: Fully illustrate requirements in the Contract Documents. Include the following information, as applicable:
 - a. Identification of products.
 - b. Notation of dimensions established by field measurement.
 2. Sheet Size: Except for templates, patterns, and similar full-size drawings, submit Shop Drawings on sheets at least 8-1/2 by 11 inches, but no larger than 30 by 42 inches.
- D. Samples: Submit Samples for review of kind, color, pattern, and texture for a check of these characteristics with other elements and for a comparison of these characteristics between submittal and actual component as delivered and installed.
1. Transmit Samples that contain multiple, related components such as accessories together in one submittal package.
 2. Identification: Attach label on unexposed side of Samples that includes the following:
 - a. Generic description of Sample.
 - b. Product name and name of manufacturer.
 - c. Sample source.
 - d. Number and title of applicable Specification Section.
 - e. Specification paragraph number and generic name of each item.
 3. For projects where electronic submittals are required, provide corresponding electronic submittal of Sample transmittal, digital image file illustrating Sample characteristics, and identification information for record.

4. Disposition: Maintain sets of approved Samples at Project site, available for quality-control comparisons throughout the course of construction activity. Sample sets may be used to determine final acceptance of construction associated with each set.
 - a. Samples not incorporated into the Work, or otherwise designated as Owner's property, are the property of Contractor.
5. Samples for Initial Selection: Submit manufacturer's color charts consisting of units or sections of units showing the full range of colors, textures, and patterns available.
 - a. Number of Samples: Submit two full set(s) of available choices where color, pattern, texture, or similar characteristics are required to be selected from manufacturer's product line. Architect will return submittal with options selected.
- E. Qualification Data: Prepare written information that demonstrates capabilities and experience of firm or person. Include lists of completed projects with project names and addresses, contact information of Architect and Owners, and other information specified.
- F. Installer Certificates: Submit written statements on manufacturer's letterhead certifying that Installer complies with requirements in the Contract Documents and, where required, is authorized by manufacturer for this specific Project.
- G. Manufacturer Certificates: Submit written statements on manufacturer's letterhead certifying that manufacturer complies with requirements in the Contract Documents. Include evidence of manufacturing experience where required.
- H. Product Certificates: Submit written statements on manufacturer's letterhead certifying that product complies with requirements in the Contract Documents.
- I. Material Certificates: Submit written statements on manufacturer's letterhead certifying that material complies with requirements in the Contract Documents.
- J. Material Test Reports: Submit reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting test results of material for compliance with requirements in the Contract Documents.
- K. Product Test Reports: Submit written reports indicating that current product produced by manufacturer complies with requirements in the Contract Documents. Base reports on evaluation of tests performed by manufacturer and witnessed by a qualified testing agency, or on comprehensive tests performed by a qualified testing agency.

PART 3 - EXECUTION

3.1 CONTRACTOR'S REVIEW

- A. Action and Informational Submittals: Review each submittal and check for coordination with other Work of the Contract and for compliance with the Contract Documents. Note corrections and field dimensions. Mark with approval stamp before submitting to Architect.
- B. Approval Stamp: Stamp each submittal with a uniform, approval stamp. Include Project name and location, submittal number, Specification Section title and number, name of reviewer, date of

Contractor's approval, and statement certifying that submittal has been reviewed, checked, and approved for compliance with the Contract Documents.

3.2 ARCHITECT'S ACTION

- A. Action Submittals: Architect will review each submittal and make marks to indicate corrections or revisions required. Architect will stamp each submittal with an action stamp and will mark stamp appropriately to indicate action.
- B. Informational Submittals: Architect will review each submittal and will not return it, or will return it if it does not comply with requirements. Architect will forward each submittal to appropriate party.
- C. Partial submittals prepared for a portion of the Work will be reviewed when use of partial submittals has received prior approval from Architect.
- D. Incomplete submittals are unacceptable, will be considered nonresponsive, and will be returned for resubmittal without review.
- E. Submittals not required by the Contract Documents may be returned by the Architect without action.

END OF SECTION 013300

SECTION 015000 - TEMPORARY FACILITIES AND CONTROLS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including Contract Documents and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes requirements for temporary utilities, support facilities, and security and protection facilities.

1.3 USE CHARGES

- A. Water and Sewer Service from Existing System: Water from Owner's existing water system is available for use without metering and without payment of use charges. Provide connections and extensions of services as required for construction operations.
- B. Electric Power Service from Existing System: Electric power from Owner's existing system is available for use without metering and without payment of use charges. Provide connections and extensions of services as required for construction operations.

1.4 INFORMATIONAL SUBMITTALS

- A. Fire-Safety Program: Show compliance with requirements of NFPA 241 and authorities having jurisdiction. Indicate Contractor personnel responsible for management of fire-prevention program.
- B. Moisture-Protection Plan: Describe procedures and controls for protecting materials and construction from water absorption and damage.
 - 1. Describe delivery, handling, and storage provisions for materials subject to water absorption or water damage.
 - 2. Indicate procedures for discarding water-damaged materials, protocols for mitigating water intrusion into completed Work, and replacing water-damaged Work.

PART 2 - PRODUCTS

2.1 TEMPORARY FACILITIES

- A. Field Offices, General: Contractor can provide prefabricated or mobile units with serviceable finishes, temperature controls, and foundations adequate for normal loading. Progress meetings to take place within the Dublin Recreation Center.

- B. Contractor Field Office: Of sufficient size to accommodate needs of construction personnel office activities.
- C. Storage: Contractor can provide lockable trailers sized, furnished, and equipped to accommodate materials and equipment for construction operations. If materials to be stored at grade they will need to be located at the Northwest parking lot. Verify location with the Owner.
 - 1. Contractor cannot store materials and equipment on low slope roofs that are not being replaced. Contractor cannot store shingles over any ridges. Contractor can store materials and equipment on sloped roofs if they feel the roof can support those items.

2.2 EQUIPMENT

- A. Fire Extinguishers: Portable, UL rated; with class and extinguishing agent as required by locations and classes of fire exposures.

PART 3 - EXECUTION

3.1 TEMPORARY UTILITY INSTALLATION AND PARKING

- A. Water Service: Connect to Owner's existing water service facilities. Clean and maintain water service facilities in a condition acceptable to Owner. At Final Completion, restore these facilities to condition existing before initial use.
- B. Sanitary Facilities: Contractor to provide temporary toilets, wash facilities, and drinking water for use of construction personnel. Comply with requirements of authorities having jurisdiction for type, number, location, operation, and maintenance of fixtures and facilities.
 - 1. Verify location with the Owner.
 - 2. Use of Owner's existing toilet facilities will not be permitted.
- C. Isolation of Work Areas in Occupied Facilities: Prevent fumes and odors from entering occupied areas.
 - 1. Prior to commencing work, isolate the HVAC system in area where work is to be performed according to coordination drawings.
 - 2. Perform daily construction cleanup and final cleanup using approved, HEPA-filter-equipped vacuum equipment.
- D. Electric Power Service: Connect to Owner's existing electric power service. Maintain equipment in a condition acceptable to Owner.
- E. Parking: Verify location with the Owner.

3.2 SECURITY AND PROTECTION FACILITIES INSTALLATION

- A. Protection of Existing Facilities: Protect existing vegetation, equipment, structures, utilities, and other improvements at Project site. Repair damage to existing facilities.
- B. Barricades, Warning Signs, and Lights: Comply with requirements of authorities having jurisdiction for erecting structurally adequate barricades, including warning signs and lighting.

- C. Temporary Egress: Maintain temporary egress from existing occupied facilities and as required by authorities having jurisdiction.
- D. Temporary Fire Protection: Contractor to install and maintain temporary fire-protection facilities of types needed to protect against reasonably predictable and controllable fire losses. Comply with NFPA 241; Contractor to manage fire-prevention program.
 - 1. Prohibit smoking in construction areas.
 - 2. Develop and supervise an overall fire-prevention and -protection program for personnel at Project site. Review needs with local fire department and establish procedures to be followed. Instruct personnel in methods and procedures. Post warnings and information.

3.3 MOISTURE AND MOLD CONTROL

- A. Contractor's Moisture-Protection Plan: Avoid trapping water in finished work. Document visible signs of mold that may appear during construction.
- B. Provide temporary enclosures and/or roofing as required.
 - 1. Water shall be diverted to or shall be pumped into existing drains and shall not be allowed to run onto ground area or overflow into the building. Contractor shall have on the job site a container of 6 mil clean plastic cover and a wet/dry vacuum sweeper for emergency situations. Cover to be the size of the possible largest area of tear-off. Contractor is to remove only a portion of the existing roof which can be made watertight at the end of each work day. The Contractor will be held responsible for any water damage to the building or its contents during the construction project.

3.4 OPERATION AND TERMINATION

- A. Supervision: Enforce strict discipline in use of temporary facilities. To minimize waste and abuse, limit availability of temporary facilities to essential and intended uses. If Contractors are being negligent, Owner may decide to halt use of utilities and Contractor will be responsible to provide and pay for temporary utility use.
- B. Maintenance: Maintain facilities in good operating condition until removal.

END OF SECTION 015000

SECTION 016000 - PRODUCT REQUIREMENTS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including Contract Documents and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes administrative and procedural requirements for selection of products for use in Project; product delivery, storage, and handling; manufacturers' standard warranties on products; special warranties; and comparable products.

1.3 DEFINITIONS

- A. Products: Items obtained for incorporating into the Work, whether purchased for Project or taken from previously purchased stock. The term "product" includes the terms "material," "equipment," "system," and terms of similar intent.
 - 1. Named Products: Items identified by manufacturer's product name, including make or model number or other designation shown or listed in manufacturer's published product literature that is current as of date of the Contract Documents.
 - 2. New Products: Items that have not previously been incorporated into another project or facility. Products salvaged or recycled from other projects are not considered new products.
 - 3. Comparable Product: Product that is demonstrated and approved through submittal process to have the indicated qualities related to type, function, dimension, in-service performance, physical properties, appearance, and other characteristics that equal or exceed those of specified product.
- B. Basis-of-Design Product Specification: A specification in which a specific manufacturer's product is named and accompanied by the words "basis-of-design product," including make or model number or other designation, to establish the significant qualities related to type, function, dimension, in-service performance, physical properties, appearance, and other characteristics for purposes of evaluating comparable products of additional manufacturers named in the specification.

1.4 QUALITY ASSURANCE

- A. Compatibility of Options: If Contractor is given option of selecting between two or more products for use on Project, select product compatible with products previously selected, even if previously selected products were also options.
 - 1. Each Contractor is responsible for providing products and construction methods compatible with products and construction methods of other Contractors.
 - 2. If a dispute arises between Contractors over concurrently selectable but incompatible products, Architect will determine which products shall be used.

1.5 PRODUCT DELIVERY, STORAGE, AND HANDLING

- A. Deliver, store, and handle products using means and methods that will prevent damage, deterioration, and loss, including theft and vandalism. **COMPLETELY COVER ALL INSULATIONS DURING DELIVERY AND WHILE STORED ON SITE. DO NOT INSTALL ANY WET INSULATION.** Comply with manufacturer's written instructions.
- B. Delivery and Handling:
 - 1. Deliver products to Project site in an undamaged condition in manufacturer's original sealed container or other packaging system, complete with labels and instructions for handling, storing, unpacking, protecting, and installing.
 - 2. Inspect products on delivery to determine compliance with the Contract Documents and to determine that products are undamaged and properly protected.
- C. Storage:
 - 1. Store products to allow for inspection and measurement of quantity or counting of units.
 - 2. Store products that are subject to damage by the elements, in a weathertight enclosure, with ventilation adequate to prevent condensation.
 - 3. Comply with product manufacturer's written instructions for temperature, humidity, ventilation, and weather-protection requirements for storage.
 - 4. Protect stored products from damage and liquids from freezing.

1.6 PRODUCT WARRANTIES

- A. Warranties specified in other Sections shall be in addition to, and run concurrent with, other warranties required by the Contract Documents. Manufacturer's disclaimers and limitations on product warranties do not relieve Contractor of obligations under requirements of the Contract Documents.
 - 1. **Manufacturer's Warranty:** Written warranty furnished by individual manufacturer for a particular product and specifically endorsed by manufacturer to Owner.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (Not Used)

END OF SECTION 016000

SECTION 017700 - CLEANING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including Contract Documents and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes administrative and procedural requirements for contract closeout, including, but not limited to, the following:
 - 1. Cleaning.
 - 2. Repair of the Work.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Cleaning Agents: Use cleaning materials and agents recommended by manufacturer or fabricator of the surface to be cleaned. Do not use cleaning agents that are potentially hazardous to health or property or that might damage finished surfaces.
 - 1. Use cleaning products that comply with Green Seal's GS-37, or if GS-37 is not applicable, use products that comply with the California Code of Regulations maximum allowable VOC levels.

PART 3 - EXECUTION

3.1 CLEANING

- A. General: Perform cleaning. Conduct cleaning and waste-removal operations to comply with local laws and ordinances and Federal and local environmental and antipollution regulations.
- B. The Contractor shall keep the project broom-clean at all times. All debris shall be removed from the roof daily. The Owner's dumpsters are not to be used. **THE CONTRACTOR IS TO KEEP DEBRIS AND MATERIALS FROM FLYING OFF THE ROOF. IF THIS HAPPENS, THE CONTRACTOR NEEDS TO PICK UP DEBRIS IMMEDIATELY.**
- C. During the course of the project, the Contractor needs to clean all interior spaces affected by the construction process. This cleaning needs to be coordinated with the Owner's Representative.
- D. At the conclusion of the project the following is to be done:
 - 1. Remove all remnants of roofing system, sealants, etc. from these roof areas.

2. Sweep roof areas clean of all debris.
3. Remove all adhesive off building and metal surfaces.
4. Wipe metal fascia, copings etc. clean.
5. Remove all tools, equipment, etc. from the site.

3.2 REPAIR OF THE WORK

- A. Complete repair and restoration operations before requesting inspection for determination of Final Completion.
- B. Repair or remove and replace defective construction. Repairing includes replacing defective parts, refinishing damaged surfaces and touching up with matching materials. Where damaged or worn items cannot be repaired or restored, provide replacements. Restore damaged construction and permanent facilities used during construction to specified condition.

END OF SECTION 017700

SECTION 017839 - PROJECT RECORD DOCUMENTS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including Contract Documents and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes administrative and procedural requirements for project record documents.

1.3 CLOSEOUT SUBMITTALS

- A. Record Drawings: Comply with the following:
 - 1. Number of Copies: Submit one set of marked-up record prints.

PART 2 - PRODUCTS

2.1 RECORD DRAWINGS

- A. Record Prints: Maintain one set of marked-up paper copies of the Contract Drawings and Shop Drawings, incorporating new and revised drawings as modifications are issued.
 - 1. Preparation: Mark record prints to show the actual installation where installation varies from that shown originally. Require individual or entity who obtained record data, whether individual or entity is Installer, subcontractor, or similar entity, to provide information for preparation of corresponding marked-up record prints.
 - a. Give particular attention to information on concealed elements that would be difficult to identify or measure and record later.
 - b. Accurately record information in an acceptable drawing technique.
 - c. Record data as soon as possible after obtaining it.
 - d. Record and check the markup before enclosing concealed installations.
 - 2. Content: Types of items requiring marking include, but are not limited to, the following:
 - a. Dimensional changes to Drawings.
 - b. Revisions to details shown on Drawings.
 - c. Changes made by Change Order or Construction Change Directive.
 - d. Changes made following Architect's written orders.
 - 3. Mark the Contract Drawings and Shop Drawings completely and accurately. Use personnel proficient at recording graphic information in production of marked-up record prints.
 - 4. Mark record sets with erasable, red-colored pencil. Use other colors to distinguish between changes for different categories of the Work at same location.

5. Mark important additional information that was either shown schematically or omitted from original Drawings.
6. Note Construction Change Directive numbers, alternate numbers, Change Order numbers, and similar identification, where applicable.

PART 3 - EXECUTION

3.1 RECORDING AND MAINTENANCE

- A. Recording: Maintain one copy of each submittal during the construction period for project record document purposes. Post changes and revisions to project record documents as they occur; do not wait until end of Project.
- B. Maintenance of Record Documents: Do not use project record documents for construction purposes. Maintain record documents in good order and in a clean, dry, legible condition, protected from deterioration and loss. Provide access to project record documents for Architect's reference.

END OF SECTION 017839

SECTION 061000 - ROUGH CARPENTRY

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Wood nailers.
2. Plywood at walls.

1.2 DEFINITIONS

A. Dimension Lumber: Lumber of 2 inches nominal or greater but less than 5 inches nominal in least dimension.

B. Lumber grading agencies, and the abbreviations used to reference them, include the following:

1. NeLMA: Northeastern Lumber Manufacturers' Association.
2. NLGA: National Lumber Grades Authority.
3. SPIB: The Southern Pine Inspection Bureau.
4. WCLIB: West Coast Lumber Inspection Bureau.
5. WWPA: Western Wood Products Association.

1.3 DELIVERY, STORAGE, AND HANDLING

A. Stack lumber flat with spacers beneath and between each bundle to provide air circulation. Protect lumber from weather by covering with waterproof sheeting, securely anchored. Provide for air circulation around stacks and under coverings.

2.0 PRODUCTS

2.1 WOOD PRODUCTS, GENERAL

A. Lumber: DOC PS 20 and applicable rules of grading agencies indicated. If no grading agency is indicated, provide lumber that complies with the applicable rules of any rules-writing agency certified by the ALSC Board of Review. Provide lumber graded by an agency certified by the ALSC Board of Review to inspect and grade lumber under the rules indicated.

1. Factory mark each piece of lumber with grade stamp of grading agency.
2. Where nominal sizes are indicated, provide actual sizes required by DOC PS 20 for moisture content specified. Where actual sizes are indicated, they are minimum dressed sizes for dry lumber.
3. Provide dressed lumber, S4S, unless otherwise indicated.

B. Maximum Moisture Content of Lumber: 19 percent.

2.2 MISCELLANEOUS LUMBER

A. For concealed boards, provide lumber with 19 percent maximum moisture content and any of the following species and grades:

1. Mixed southern pine; No. 2 grade; SPIB.
2. Hem-fir (north); Construction or No. 2 Common grade; NLGA, WCLIB, or WWPA.

- B. For nailers used for attachment of other construction, select and cut lumber to eliminate knots and other defects that will interfere with attachment of other work.

2.3 PLYWOOD

- A. Plywood at walls; 5/8" CDX or Exterior Grade.

2.4 FASTENERS

- A. General: Provide fasteners of size and type indicated that comply with requirements specified in this article for material and manufacture.
 - 1. Where rough carpentry is exposed to weather, in ground contact, pressure-preservative treated, or in area of high relative humidity, provide fasteners with hot-dip zinc coating complying with ASTM A 153/A 153M.
- B. Nails, Brads, and Staples: ASTM F 1667.
- C. Power-Driven Fasteners: NES NER-272.
- D. Wood Screws: ASME B18.6.1.
- E. Lag Bolts: ASME B18.2.1.

3.0 EXECUTION

3.1 INSTALLATION, GENERAL

- A. Set rough carpentry to required levels and lines, with members plumb, true to line, cut, and fitted. Fit rough carpentry to other construction; scribe and cope as needed for accurate fit. Locate nailers, blocking, and similar supports to comply with requirements for attaching other construction.
- B. Framing Standard: Comply with AF&PA's WCD 1, "Details for Conventional Wood Frame Construction," unless otherwise indicated.
- C. Sort and select lumber so that natural characteristics will not interfere with installation or with fastening other materials to lumber. Do not use materials with defects that interfere with function of member or pieces that are too small to use with minimum number of joints or optimum joint arrangement.
- D. Securely attach rough carpentry work to substrate by anchoring and fastening as indicated, complying with the following:
 - 1. NES NER-272 for power-driven fasteners.
 - 2. Table 2304.9.1, "Fastening Schedule," in ICC's International Building Code.
 - 3. Table R602.3(1), "Fastener Schedule for Structural Members," and Table R602.3(2), "Alternate Attachments," in ICC's International Residential Code for One- and Two-Family Dwellings.

3.2 WOOD NAILER INSTALLATION

- A. Install where indicated and where required for attaching other work. Form to shapes indicated and cut as required for true line and level of attached work. Coordinate locations with other work involved.

END OF SECTION 061000

SECTION 073113 - ASPHALT SHINGLES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. Section Includes:
 - 1. Asphalt shingles.
 - 2. Underlayments.
 - 3. Contractor to remove and replace all wet or damaged plywood coverboard and insulation at roof areas to receive new asphalt shingles. Contractor to include a unit price per square foot on the Proposal. THE AMOUNT OF INSULATION TO BE REMOVED AND REPLACED IN THE CONTRACTOR'S BASE BID IS 3,000 SQUARE FEET. A Change Order will be processed once exact amounts are determined.

1.3 DEFINITION

- A. Roofing Terminology: See ASTM D 1079 and glossary of NRCA's "The NRCA Roofing and Waterproofing Manual" for definitions of terms related to roofing work in this Section.

1.4 ACTION SUBMITTALS

- A. Product Data: For each type of product indicated.
- B. Samples for Initial Selection: Manufacturers full range of colors. Only one color will be selected for all roofs.

1.5 INFORMATIONAL SUBMITTALS

- A. Qualification Data: For qualified Installer.
- B. Product Test Reports: Based on evaluation of comprehensive tests performed by manufacturer and witnessed by a qualified testing agency, for asphalt shingles.
- C. Warranties: Sample of special warranties.

1.6 CLOSEOUT SUBMITTALS

- A. Maintenance Data: For each type of asphalt shingle to include in maintenance manuals.

1.7 MATERIALS MAINTENANCE SUBMITTALS

- A. Furnish extra materials that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.
 - 1. Asphalt Shingles: 300 sq. ft., in unbroken bundles.

1.8 QUALITY ASSURANCE

- A. Installer Qualifications: Manufacturer's authorized representative who is trained, certified by manufacturer, and approved for installation of units required for this Project, **prior to bidding. CONTRACTOR WILL NEED TO HAVE A MINIMUM OF THREE SIMILAR SHINGLE ROOF PROJECTS OF NO LESS THAN 25,000 SQUARE FEET OF AREA.**
- B. Source Limitations: Obtain ridge and hip cap shingles felt underlayment and self-adhering sheet underlayment from single source from single manufacturer.
- C. Fire-Resistance Characteristics: Where indicated, provide asphalt shingles and related roofing materials identical to those of assemblies tested for fire resistance per test method below by UL or another testing and inspecting agency acceptable to authorities having jurisdiction. Identify products with appropriate markings of applicable testing agency.
 - 1. Exterior Fire-Test Exposure: Class A; ASTM E 108 or UL 790, for application and roof slopes indicated.

1.9 DELIVERY, STORAGE, AND HANDLING

- A. Store roofing materials in a dry, well-ventilated, weathertight location according to asphalt shingle manufacturer's written instructions. Store underlayment rolls on end on pallets or other raised surfaces. Do not double stack rolls.
 - 1. Handle, store, and place roofing materials in a manner to avoid significant or permanent damage to roof deck or structural supporting members.
- B. Protect unused underlayment from weather, sunlight, and moisture when left overnight or when roofing work is not in progress.

1.10 PROJECT CONDITIONS

- A. Environmental Limitations: Install self-adhering sheet underlayment within the range of ambient and substrate temperatures recommended by manufacturer.

1.11 WARRANTY

- A. Special Warranty: Standard form in which manufacturer agrees to repair or replace asphalt shingles that fail in materials within specified warranty period.
 - 1. Failures include, but are not limited to, the following:
 - a. Manufacturing defects.
 - b. Structural failures including failure of asphalt shingles to self-seal after a reasonable time.

2. Material and Labor Warranty Period: 40 years from date of Final Completion, and the non-prorated period is 20 years.
 3. Wind-Speed Warranty Period: Asphalt shingles will resist blow-off or damage caused by wind speeds up to 110.
 4. Algae-Discoloration Warranty Period: Asphalt shingles will not discolor 10 years from date of Final Completion.
- B. Special Project Warranty: Roofing Installer's Warranty, or warranty form at end of this Section, signed by roofing Installer, covering the Work of this Section, in which roofing Installer agrees to repair or replace components of asphalt shingle roofing that fail in materials or workmanship within specified warranty period.
1. Warranty Period: Two years from date of Final Completion.

PART 2 - PRODUCTS

2.1 GLASS-FIBER-REINFORCED ASPHALT SHINGLES

- A. Laminated Asphalt Shingles: ASTM D 3462, laminated, multi-ply overlay construction, glass-fiber reinforced, mineral-granule surfaced, and self-sealing.
1. Basis-of-Design Product: Subject to compliance with requirements, provide "Timberline HD" by GAF or comparable product by one of the following:
 - a. "Landmark" by CertainTeed Corporation.
 - b. "Duration" by Owens Corning.
 2. Algae Resistance: Granules treated to resist algae discoloration.
 3. Color and Blends: As selected by Architect and Owner from manufacturer's full range.
- B. Hip and Ridge Shingles: Manufacturer's standard units to match asphalt shingles.

2.2 UNDERLAYMENT MATERIALS

- A. Self-Adhering Sheet Underlayment, Granular Surfaced (ice and watershed): ASTM D 1970, minimum of 58-mil- thick sheet; glass-fiber-mat-reinforced, SBS-modified asphalt; mineral-granule surfaced; with release paper backing; cold applied.
1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. Carlisle Coatings & Waterproofing, Inc.
 - b. CertainTeed Corporation.
 - c. GAF Materials Corporation.
 - d. Johns Manville.
 - e. Owens Corning.

2.3 ACCESSORIES

- A. Asphalt Roofing Cement: ASTM D 4586, Type II, asbestos free.

- B. Roofing Nails: ASTM F 1667; aluminum, stainless-steel, copper, or hot-dip galvanized-steel wire shingle nails, minimum 0.120-inch- diameter, barbed shank, sharp-pointed, with a minimum 3/8-inch-diameter flat head and of sufficient length to penetrate 3/4 inch into solid wood decking or extend at least 1/8 inch through OSB or plywood sheathing.
 - 1. Where nails are in contact with metal flashing, use nails made from same metal as flashing.

2.4 METAL FLASHING AND TRIM

- A. General: Comply with requirements in Section 076200 "Sheet Metal Flashing and Trim."
 - 1. Sheet Metal: Aluminum.
- B. Fabricate sheet metal flashing and trim to comply with recommendations in SMACNA's "Architectural Sheet Metal Manual" that apply to design, dimensions, metal, and other characteristics of the item.
 - 1. Cricket Flashings: Fabricate with concealed flange extending a minimum of 24 inches beneath upslope asphalt shingles and 6 inches above the roof plane.
 - 2. Open-Valley Flashings: Fabricate in lengths not exceeding 10 feet with 1-inch- high, inverted-V profile at center of valley and equal flange widths of 12 inches.
 - 3. Drip Edges: Fabricate in lengths not exceeding 10 feet.
- C. Vent Pipe Flashings: ASTM B 749, Type L51121, at least 1/16 inch thick. Provide lead sleeve sized to slip over and turn down into pipe, soldered to skirt at slope of roof, and extending at least 4 inches from pipe onto roof.

2.5 ROOF INSULATION AND PLYWOOD

- A. Contractor to remove and replace all wet or damaged plywood coverboard and insulation at all roof areas to receive new asphalt shingles.
- B. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
 - 1. Atlas Roofing Corporation.
 - 2. Carlisle SynTec Incorporated.
 - 3. Firestone Building Products.
 - 4. Hunter Panels.
 - 5. Johns Manville.
 - 6. Rmax, Inc.
- C. Flat roof insulation; minimum (2) layers staggered , rigid, closed cell polyisocyanurate foam core bonded to heavy duty glass filter mat facers, long term thermal resistance (LTTR) of approximately 5.6 per inch, selected for chemical compatibility with specific manufacturer's roofing membrane, compressive strength of 20 psi when tested in accordance with ASTM C1289. Reference drawings for flat versus tapered and thicknesses.
- D. Plywood Coverboard; 5/8" CDX or Exterior Grade.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates, areas, and conditions, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of the Work.
 - 1. Examine roof sheathing to verify that sheathing joints are supported by framing and blocking or metal clips and that installation is within flatness tolerances.
 - 2. Verify that substrate is sound, dry, smooth, clean, sloped for drainage, and completely anchored; and that provision has been made for flashings and penetrations through asphalt shingles.
- B. Prepare written report, endorsed by Installer, listing conditions detrimental to performance of the Work.
- C. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 UNDERLAYMENT INSTALLATION

- A. General: Comply with underlayment manufacturer's written installation instructions applicable to products and applications indicated unless more stringent requirements apply.
- B. Self-Adhering Sheet Underlayment: Install, wrinkle free, on roof deck. Comply with low-temperature installation restrictions of underlayment manufacturer if applicable. Install at locations indicated on Drawings, lapped in direction to shed water. Lap sides not less than 3-1/2 inches. Lap ends not less than 6 inches staggered 24 inches between courses. Roll laps with roller. Cover underlayment within seven days.
- C. Metal-Flashed, Open-Valley Underlayment: Install two layers of 36-inch- wide felt underlayment centered in valley. Stagger end laps between layers at least 72 inches. Lap ends of each layer at least 12 inches in direction to shed water, and seal with asphalt roofing cement. Fasten each layer to roof deck with roofing nails.
 - 1. Lap roof-deck felt underlayment over first layer of valley felt underlayment at least 6 inches.

3.3 METAL FLASHING INSTALLATION

- A. General: Install metal flashings and other sheet metal to comply with requirements in Section 076200 "Sheet Metal Flashing and Trim."
 - 1. Install metal flashings according to recommendations in ARMA's "Residential Asphalt Roofing Manual" and asphalt shingle recommendations in NRCA's "The NRCA Roofing and Waterproofing Manual."
- B. Cricket Flashings: Install against the roof-penetrating element extending concealed flange beneath upslope asphalt shingles and beyond each side.
- C. Open-Valley Flashings: Install centered in valleys, lapping ends at least 8 inches in direction to shed water. Fasten upper end of each length to roof deck beneath overlap.
 - 1. Secure hemmed flange edges into metal cleats spaced 12 inches apart and fastened to roof deck.
- D. Rake Drip Edges: Install rake drip edge flashings over underlayment and fasten to roof deck.

- E. Eave Drip Edges: Install eave drip edge flashings below underlayment and fasten to roof sheathing.
- F. Pipe Flashings: Form flashing around pipe penetrations and asphalt shingles. Fasten and seal to asphalt shingles as recommended by manufacturer.

3.4 ASPHALT SHINGLE INSTALLATION

- A. General: Install asphalt shingles according to manufacturer's written instructions, recommendations in ARMA's "Residential Asphalt Roofing Manual," and asphalt shingle recommendations in NRCA's "The NRCA Roofing and Waterproofing Manual." ATTACHMENT OF SHINGLES WITH STAPLES WILL NOT BE PERMITTED.
- B. Install starter strip along lowest roof edge, consisting of an asphalt shingle strip with tabs removed with self-sealing strip face up at roof edge.
 - 1. Extend asphalt shingles 1/2 inch over fasciae at eaves and rakes.
 - 2. Install starter strip along rake edge.
- C. Install first and remaining courses of asphalt shingles stair-stepping diagonally across roof deck with manufacturer's recommended offset pattern at succeeding courses, maintaining uniform exposure.
- D. Install asphalt shingles by single-strip column or racking method, maintaining uniform exposure. Install full-length first course followed by cut second course, repeating alternating pattern in succeeding courses.
- E. Fasten asphalt shingle strips with a minimum of six roofing nails located according to manufacturer's written instructions.
 - 1. When ambient temperature during installation is below 50 deg F, seal asphalt shingles with asphalt roofing cement spots.
- F. Ridge Cap Shingles: Maintain same exposure of cap shingles as roofing shingle exposure. Lap cap shingles at ridges to shed water away from direction of prevailing winds. Fasten with roofing nails of sufficient length to penetrate sheathing.

END OF SECTION 073113

SECTION 075323 - ETHYLENE-PROPYLENE-DIENE-MONOMER (EPDM) ROOFING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including Contract Documents and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section Includes:

1. Removal of existing roofing system, wet insulations, metal trim, etc. as indicated on the drawings.
2. Adhered ethylene-propylene-diene-monomer (EPDM) roofing system.
3. Roof insulation and saddles at low slope roof.
4. THE CONTRACTOR AND ROOFING MANUFACTURER ARE REQUIRED TO REVIEW THE CONTRACT DOCUMENTS AND THE EXISTING CONDITIONS. IN SUBMITTING A BID, THEY GUARANTEE THEY WILL PROVIDE WARRANTIES SPECIFIED WITHOUT REQUIRING MODIFICATIONS. IF MODIFICATIONS ARE NEEDED, THEN THE COST FOR SUCH MODIFICATIONS IS TO BE INCLUDED IN THE BID. THERE WILL NOT BE ANY ADDITIONAL COST TO THE OWNER FOR UNKNOWN DETAILS TO MEET MANUFACTURER'S SPECIFICATIONS.

- B. All existing low slope roofs that are not indicated to be replaced are under warranty. The roofing manufacturer is Versico. The roofs are also still covered by the installing Contractor's guarantee. Any need repairs due to Contractor negligence are to be reformed by that Contractor. That Contractor is Windsor Construction Services, LLC (614/210-3002).

1.3 DEFINITIONS

- A. Roofing Terminology: Definitions in ASTM D 1079 and glossary of NRCA's "The NRCA Roofing and Waterproofing Manual" apply to work of this Section.

1.4 ACTION SUBMITTALS

- A. Product Data: For each type of product.
- B. Shop Drawings: For roofing system. Include seam layout, insulation layout and all edge and penetration details:
 1. Base flashings and membrane terminations.
 2. Custom details for project requirements (edge installations, etc.)
 - a. Manufacturer's standard details are not acceptable.
- C. Edited copies of the manufacturer's roofing specifications and warranty.
- D. Uplift pressure classification data.

1. Roof system shall meet the following design pressures per ASCE-7 wind design:

- a. Field: 30 psf
- b. Perimeter: 45 psf
- c. Corners: 60 psf

E. Fire classification data.

F. Material safety data sheets.

G. Contractor is required to provide with initial submittals, approved pre-installation notice to show manufacturer's required Pre-Installation Notice (PIN) has been accepted and approved by the manufacturer. PIN must clearly state that all metal installed on the project will be supplied and warranted by the primary roof system manufacturer.

H. Qualification Data: For Installer and manufacturer.

I. Sample Warranties: For manufacturer's special warranties

1.5 QUALITY ASSURANCE

A. THE ROOFING MANUFACTURER IS REQUIRED TO HAVE MANUFACTURED THEIR OWN MEMBRANE FOR A MINIMUM OF TEN (10) YEARS IN THEIR OWN FACILITIES.

B. Roofing system installation shall be performed by an installer trained and approved by the manufacturer for a minimum of 5 years. The installer and his workmen shall be certified by the manufacturer and are subject to the approval of the Owner and the Architect.

C. The Roofing Contractor is to have five years experience installing the roofing system with the manufacturer they bid. Also, the Superintendent is to have five years experience installing the roof system specified. The Superintendent is to be familiar with the requirements of this project and is to be on the job at all times when roofing system work is in progress.

1.6 DELIVERY, STORAGE, AND HANDLING

A. Deliver roofing materials to Project site in original containers with seals unbroken and labeled with manufacturer's name, product brand name and type, date of manufacture, approval or listing agency markings, and directions for storing and mixing with other components.

B. Store liquid materials in their original undamaged containers in a clean, dry, protected location and within the temperature range required by roofing system manufacturer. Protect stored liquid material from direct sunlight.

1. Discard and legally dispose of liquid material that cannot be applied within its stated shelf life.

C. Protect roof insulation materials from physical damage and from deterioration by sunlight, moisture, soiling, and other sources. Store in a dry location. Comply with insulation manufacturer's written instructions for handling, storing, and protecting during installation.

D. Handle and store roofing materials, and place equipment in a manner to avoid permanent deflection of deck.

1.7 FIELD CONDITIONS

- A. Weather Limitations: Proceed with installation only when existing and forecasted weather conditions permit roofing system to be installed according to manufacturer's written instructions and warranty requirements.

1.8 WARRANTY

- A. Provide a written twenty (20) year Manufacturer's Total System Warranty with no dollar limit. This warranty is to be non-prorated. This warranty is to cover ALL materials and workmanship used to install those materials including the membrane, flashing, fasteners, adhesives, insulations, sheet metal, metal coping systems, etc. The warranty is to include any labor and/or materials required to make any repairs including accidental cuts and punctures without limit to the amount of hours, incidents, or other monetary caps. Warranty is to include verbiage that states warranty covers damages due to winds up to 90 m.p.h. for the roofing and for the metal fascias and copings. There are to be no inspection fees for any manufacturer inspections during the twenty years. Nor shall Owner be required to submit yearly inspection reports in order to maintain warranty.
- B. In addition to and without limiting any other warranty or repair requirement in the Contract Documents, Contractor shall provide a roofing installer's written guarantee for all material and workmanship against defects for a period of two (2) years.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Source Limitations: Obtain all components for roofing system from manufacturer approved by membrane roofing manufacturer.

2.2 PERFORMANCE REQUIREMENTS

- A. General Performance: Installed roofing and base flashings shall withstand specified uplift pressures, thermally induced movement, and exposure to weather without failure due to defective manufacture, fabrication, installation, or other defects in construction. Roofing and base flashings shall remain watertight.
 - 1. Accelerated Weathering: Roofing system shall withstand 2000 hours of exposure when tested according to ASTM G 152, ASTM G 154, or ASTM G 155.
 - 2. Impact Resistance: Roofing system shall resist impact damage when tested according to ASTM D 3746 or ASTM D 4272.
- B. Material Compatibility: Roofing materials shall be compatible with one another and adjacent materials under conditions of service and application required, as demonstrated by roofing manufacturer based on testing and field experience.
- C. The roofing system is to remain secured and watertight for a peak gust for wind velocity of 90 m.p.h. Metal fascias and copings to remain secure and watertight for a peak gust for wind velocity of 90 m.p.h.
- D. The roofing system installation shall meet uplift pressure in accordance with ASCE-7 or ANSI-SPR1 and has been tested and certified by an independent agency.

- E. Exterior Fire-Test Exposure: ASTM E 108 or UL 790, Class A; for application and roof slopes indicated; testing by a qualified testing agency. Identify products with appropriate markings of applicable testing agency.
- F. Fire-Resistance Ratings: Comply with Class A fire-resistance-rated assembly. Identify products with appropriate markings of applicable testing agency.

2.3 EPDM ROOFING

- A. EPDM: ASTM D 4637, Type II, scrim or fabric internally reinforced, uniform, flexible EPDM sheet.
 - 1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include the following:
 - a. Carlisle SynTec Incorporated.
 - b. Firestone Building Products.
 - c. Johns Manville
 - d. Versico Incorporated.
 - 2. Thickness: 60 mils, nominal.
 - 3. Exposed Face Color: Black.

2.4 AUXILIARY ROOFING MATERIALS

- A. General: Auxiliary materials recommended by roofing system manufacturer for intended use and compatible with roofing.
 - 1. Liquid-type auxiliary materials shall comply with VOC limits of authorities having jurisdiction.
- B. Sheet Flashing: 60-mil- thick EPDM, scrim or fabric internally reinforced, partially cured or cured, according to application.
- C. Bonding Adhesive: Manufacturer's standard.
- D. Seaming Material: Manufacturer's standard, synthetic-rubber polymer primer and 3-inch- wide minimum, butyl splice tape with release film.
- E. Lap Sealant: Manufacturer's standard, single-component sealant.
- F. Water Cutoff Mastic: Manufacturer's standard butyl mastic sealant.
- G. Fasteners: Factory-coated steel fasteners complying with corrosion-resistance provisions in FM Global 4470, designed for fastening membrane to substrate, and acceptable to roofing system manufacturer.
- H. Termination Bars; aluminum bars with integral caulk ledge; 1.3 inches wide by 0.01 inch thick.
- I. Roofing sealants; compatible with membrane and other adjoining materials and in accordance with membrane manufacturer's specification.

2.5 ROOF INSULATION AT LOW SLOPE ROOF

- A. General: Preformed roof insulation boards manufactured or approved by EPDM roofing manufacturer, selected from manufacturer's standard sizes suitable for application, of thicknesses indicated.
- B. Contractor to remove and replace all wet insulation at low sloped roof to be replaced. The roofs have been scanned and the approximate location of wet insulation has been marked. ONE HUNDRED FIFTY (150) SQUARE FEET OF WET INSULATION IS TO BE REMOVED AND REPLACED IN CONTRACTOR'S BASE BID.
- C. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
 - 1. Atlas Roofing Corporation.
 - 2. Carlisle SynTec Incorporated.
 - 3. Firestone Building Products.
 - 4. Hunter Panels.
 - 5. Johns Manville.
 - 6. Rmax, Inc.
- D. Flat roof insulation; rigid, closed cell polyisocyanurate foam core bonded to heavy duty glass fiber mat facers, long term thermal resistance (LTTR) of approximately 5.6 per inch, selected for chemical compatibility with specific manufacturer's roofing membrane, compressive strength of 20 psi when tested in accordance with ASTM C1289. Reference drawings for flat versus tapered and thicknesses.
- E. **COVERBOARD:** 1/2", high density, 120 P.S.I., rigid polyisocyanurate foam core bonded to heavy duty glass fiber mat facers. (LTTR) of 2.5 or greater, surface water absorption of 3% maximum when tested in accordance with ASTM C209, compressive strength of 120 psi when tested in accordance with ASTM D1621, density of 5 pcf when tested in accordance with ASTM D1622, mold growth resistance passing ASTM D3273.
- F. Provide polyisocyanurate insulation, preformed saddles, and other insulation shapes where indicated for sloping to drain. Fabricate to slopes indicated.

2.6 INSULATION ACCESSORIES

- A. General: Roof insulation accessories recommended by insulation manufacturer for intended use and compatibility with roofing.
- B. Adhesive attachment where indicated on the drawings: Insulation manufacturer's recommended adhesive formulated to attach roof insulation to substrate or to another insulation layer as follows:
 - 1. Spray-applied or bead applied, low-rise, two-component urethane adhesive to be applied in accordance with manufacturer's requirements for uplift and wind warranty.
- C. Fastener attachment where indicated on the drawings: Factory-coated steel fasteners and metal or plastic plates complying with corrosion-resistance provisions is FM Global 4470, designed for fastening insulation to substrate and acceptable to roofing system manufacturer.

PART 3 - EXECUTION

3.1 GENERAL

- A. Cut existing membrane 10' center to center.

- B. Install roofing, insulation, flashings, and accessories in accordance with roofing manufacturer's published instructions and recommendations for the specified roofing system. Where manufacturer provides no instructions or recommendations, follow good roofing practices and industry standards. Comply with federal, state, and local regulations.
- C. Obtain all relevant instructions and maintain copies at project site for duration of installation period.
- D. Do not start work until Pre-Installation Notice has been submitted to manufacturer as notification that this project requires a manufacturer's warranty.
- E. Perform work using competent and properly equipped personnel.
- F. Temporary closures, which ensure that moisture does not damage any completed section of the new roofing system, are the responsibility of the applicator. Completion of flashings, terminations, and temporary closures shall be completed as required to provide a watertight condition at the end of each day. Roof drains to be completely flashed and watertight each day.
- G. Install roofing membrane only when surfaces are clean, dry, smooth and free of snow or ice; do not apply roofing membrane during inclement weather or when ambient conditions will not allow proper application; consult manufacturer for recommended procedures during cold weather. Do not work with sealants and adhesives when material temperature is outside the range of 60 to 80 degrees F.
- H. Protect adjacent construction, property, vehicles, and persons from damage related to roofing work; repair or restore damage caused by roofing work.
 - 1. Protect from spills and overspray from adhesives, sealants and coatings.
 - 2. Particularly protect metal, glass, plastic, and painted surfaces from adhesives and sealants within the range of wind-borne overspray.
 - 3. Protect finished areas of the roofing system from roofing related work traffic.
- I. Until ready for use, keep materials in their original containers as labeled by the manufacturer.
- J. Consult membrane manufacturer's instructions, container labels and Material Safety Data Sheets (MSDS) for specific safety instructions. Keep all adhesives, sealants, primers and cleaning materials away from all sources of ignition.

3.2 EXAMINATION

- A. Examine roof deck to determine that it is sufficiently rigid to support installers, their mechanical equipment and materials and that deflection will not strain or rupture roof components or deform deck.
- B. Verify that the specifications and drawing details are workable and not in conflict with the roofing manufacturer's recommendations and instructions; start of work constitutes acceptance of project conditions and requirements.

3.3 INSULATION AND COVER BOARD INSTALLATION

- A. Insulation is to be attached using low-rise foam adhesives. Reference the drawings.
- B. Install only as much insulation as can be covered with the completed roofing system before the end of the day's work or before the onset of inclement weather.
- C. Lay roof insulation in courses parallel to roof edges.

- D. Neatly and tightly fit insulation to all penetrations, projection, and nailers, with gaps not greater than 1/4 inch. Fill gaps greater than 1/4 inch with acceptable insulation. Do not leave the roofing membrane unsupported over a space greater than 1/4 inch.
- E. Cold Adhesive Attachment: Apply in accordance with membrane manufacturer's instructions and recommendations; "walk-in" individual roof insulation boards to obtain maximum adhesive contact.

3.4 SINGLE-PLY MEMBRANE INSTALLATION

- A. Beginning at low point of roof, place membrane without stretching over substrate and allow to relax at least 30 minutes before attachment or splicing; in colder weather allow for longer relax time.
- B. Lay out the membrane pieces so that field and flashing splices are installed to shed water.
- C. Install membrane without wrinkles and without gaps or fishmouths in seams; bond and test seams and laps in accordance with membrane manufacturer's instructions and details.
- D. Install membrane adhered to the substrate, with edge securement as specified.
- E. Adhered Membrane: Bond membrane sheet to substrate using membrane manufacturer's recommended bonding material, application rate, and procedures.
- F. Edge Securement: Secure membrane at all locations where membrane terminates or goes through an angle change greater than 2 in 12 inches using mechanically fastened reinforced perimeter fastening strips, plates, or metal edging as indicated or as recommended by roofing manufacturer.
 - 1. Exceptions: Round pipe penetrations less than 18 inches in diameter and square penetrations less than 4 inches square.
 - 2. Metal edging: Ensure anchorage of membrane as intended by roofing manufacturer.

3.5 FLASHING AND ACCESSORIES INSTALLATION

- A. Install flashings, including laps, splices, joints, bonding, adhesion, and attachment, as required by membrane manufacturer's recommendations and details.
- B. Metal Accessories: Install metal fascias and copings in locations indicated on the drawings. Reference Section 077100 Roof Specialties.
- C. Roof Drains
 - 1. Taper insulation around drain to provide smooth transition from roof surface to drain. Use specified pre-manufactured tapered insulation with facer or suitable bonding surface to achieve slope; slope not to exceed manufacturer's recommendations.
 - 2. Position membrane, then cut a hole for roof drain to allow 1/2 to 3/4 inch of membrane to extend inside clamping ring past drain bolts.
 - 3. Make round holes in membrane to align with clamping bolts; do not cut membrane back to bolt holes.
 - 4. Apply sealant on top of drain bowl where clamping ring seats below the membrane.
 - 5. Install roof drain clamping ring and clamping bolts/ tighten clamping bolts to achieve constant compression.

3.6 FIELD QUALITY CONTROL

- A. Inspection by Manufacturer: Provide final inspection of the roofing system by a Technical Representative employed by roofing system manufacturer specifically to inspect installation for warranty purposes.
- B. Provide copies of inspection report to the Architect within 72 hours after inspection.
- C. Perform all corrections necessary for issuance of warranty.

3.7 CLEANING

- A. Clean all contaminants generated by roofing work from building and surrounding areas, including adhesives, sealants, and coatings.
- B. Repair or replace building components and finished surfaces damaged or defaced due to the work of this section; comply with recommendations of manufacturers of components and surfaces.
- C. Remove leftover materials, trash, debris, equipment from project site and surrounding areas.

END OF SECTION 075323

SECTION 076210 - MANUFACTURED ROOF SPECIALTIES

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. Provide fabricated retrofit roof drain inserts where indicated on the drawings. The fixture is installed from the roof surface and provides a watertight connection to the existing plumbing and roofing system. The fixture is designed so that it may be installed without removing the existing drain body and plumbing.

1.3 REFERENCES

- A. ANSI/SPRI RD-1 2004
- B. CAN/ULC-C790.4-1996.

1.4 SUBMITTALS

- A. Provide manufacturer specification and data sheet.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Deliver materials to project site in manufacturer's original packaging, marked with manufacturer's name, product model names, and catalog numbers, identification numbers, and other related information.

PART 2 – PRODUCTS

2.1 MANUFACTURER

- A. Acceptable Manufacturers: OMG Roofing Products or Zurn.

2.2 MATERIALS

- A. Drain Body:
 - 1. Manufactured from 11 gauge (.125") spun aluminum
 - 2. 17 ½ diameter flange with a 12" long, aluminum studs
 - 3. Flange includes six, 2 ½" long stem
 - 4. Depressed sump area
- B. Strainer Dome:
 - 1. Made of cast aluminum
 - 2. Height - 7.25"
 - 3. Outside base diameter – 9.77"
- C. Clamping Ring:
 - 1. Made of cast aluminum

2. Gravel stop height – 1.2”
3. Drainage slots – 18 “V” shaped
4. 4. Six bosses to accept studs on flange

D. Backflow Seal (UFlow Seal):

1. Mechanical compression seal
2. Made of Polyamid and EPDM rubber
3. Required for activation – A UFlow Screwdriver

E. Nuts and Screws:

1. Six stainless steel locknuts for the studs
2. Three stainless steel screws to attach strainer to clamping ring

2.3 ACCESSORIES

- A. UFlow Screwdriver: A 12 ½” long shaft with a #2 square socket tip designed to reach the base of the drain stem to activate the backflow seal (UFlow Seal).

PART 3 – EXECUTION

3.1 PREPARATION

- A. Remove the clamping ring, strainer dome, and bolts from the existing drain assembly and discard.
- B. The existing drain leader pipe shall be cleaned of bitumen, dirt, and debris.

3.2 INSTALLATION

- A. Install the retrofit roof drain with aluminum dome into the existing drain leader as per the installation instructions.
- B. Install the flashing material into place per primary roofing manufacturers.

END OF SECTION 076210

SECTION 077100 - ROOF SPECIALTIES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. Section Includes:
 - 1. Copings and fascias.
 - 2. Fascia wrap.
 - 3. Step and counterflashings.
 - 4. Drip edges.

1.3 ACTION SUBMITTALS

- A. Product Data: For each type of product.
 - 1. Include construction details, material descriptions, dimensions of individual components and profiles, and finishes.
- B. Shop Drawings: For roof specialties.
 - 1. Include plans, elevations, expansion-joint locations, keyed details, and attachments to other work. Distinguish between plant- and field-assembled work.
 - 2. Include details for expansion and contraction; locations of expansion joints, including direction of expansion and contraction.
 - 3. Indicate profile and pattern of seams and layout of fasteners, cleats, clips, and other attachments.
 - 4. Detail termination points and assemblies, including fixed points.
 - 5. Include details of special conditions.
- C. Samples for Initial Selection:
 - 1. Metal samples of manufacturer standard colors.

1.4 INFORMATIONAL SUBMITTALS

- A. Sample Warranty: For manufacturer's special warranty.

1.5 QUALITY ASSURANCE

- A. Manufacturer Qualifications: A qualified manufacturer offering products meeting requirements that are SPRI ES-1 tested to specified design pressure.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Do not store roof specialties in contact with other materials that might cause staining, denting, or other surface damage.
- B. Protect strippable protective covering on roof specialties from exposure to sunlight and high humidity, except to extent necessary for the period of roof-specialty installation.

1.7 FIELD CONDITIONS

- A. Field Measurements: Verify profiles and tolerances of roof-specialty substrates by field measurements before fabrication, and indicate measurements on Shop Drawings.

1.8 WARRANTY

- A. Special Warranty on Painted Finishes: Manufacturer agrees to repair finish or replace roof specialties that show evidence of deterioration of factory-applied finishes within specified warranty period.
 - 1. Fluoropolymer Finish: Deterioration includes, but is not limited to, the following:
 - a. Color fading more than 5 Hunter units when tested according to ASTM D 2244.
 - b. Chalking in excess of a No. 8 rating when tested according to ASTM D 4214.
 - c. Cracking, checking, peeling, or failure of paint to adhere to bare metal.
 - 2. Finish Warranty Period: 20 years from date of Final Completion.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

- A. General Performance: Roof specialties shall withstand exposure to weather and resist thermally induced movement without failure, rattling, leaking, or fastener disengagement due to defective manufacture, fabrication, installation, or other defects in construction.
- B. SPRI Wind Design Standard: Manufacture and install roof-edge specialties tested according to SPRI ES-1.
- C. Metal copings and fascias are to be secure for a peak gust for wind velocity of 90 m.p.h.
- D. Thermal Movements: Allow for thermal movements from ambient and surface temperature changes to prevent buckling, opening of joints, hole elongation, overstressing of components, failure of joint sealants, failure of connections, and other detrimental effects. Provide clips that resist rotation and avoid shear stress as a result of thermal movements. Base calculations on surface temperatures of materials due to both solar heat gain and nighttime-sky heat loss.
 - 1. Temperature Change (Range): 120 deg F, ambient; 180 deg F, material surfaces.

2.2 COPINGS

- A. Metal Copings: Manufactured coping system consisting of metal coping cap in section lengths not exceeding 12 feet, concealed anchorage; with corner units, end cap units, and concealed splice plates with finish matching coping caps.

1. Basis-of-Design Product: Subject to compliance with requirements, provide “Perma-Tite Coping” as manufactured by Metal-Era, Inc. or comparable product approved by roofing system manufacturer specified in Section 075323 EPDM Roofing.
2. Formed Aluminum Sheet Coping Caps: Aluminum sheet, 0.050 inch thick. Verify drawings for sizes.
 - a. Surface: Smooth, flat finish.
 - b. Finish: Two-coat fluoropolymer.
 - c. Color: As selected by Architect from manufacturer's full range.
3. Corners: Factory mitered and continuously welded.
4. Coping-Cap Attachment Method: Snap-on.

2.3 FASCIAS

- A. Metal-Edge Fascia: Manufactured, two-piece, roof edge fascia consisting of screw-applied metal fascia cover in sections lengths not exceeding 12-feet, with a horizontal flange and vertical leg fascia terminating in a drip edge, and a continuous metal receiver with integral drip-edge cleat to engage fascia cover. Provide concealed splice plates of same material, finish and shape as fascia. Provide matching corner units.
 1. Basis-of-Design Product: Subject to compliance with requirements, provide product indicated on Drawings or comparable product approved by the roofing system manufacturer specified in Section 075323 EPDM Roofing.
 2. Formed Aluminum Sheet Fascia Cover: Aluminum sheet, 0.050 inch thick.
 - a. Surface: Smooth, flat finish.
 - b. Finish: Two-coat fluoropolymer.
 - c. Color: As selected by Architect from manufacturer's full range.
 3. Corners: Factory mitered and continuously welded.
 4. Split plates: Concealed of same material, finish and shape as fascia cover.
 5. Receiver: Concealed, 20 gauge, galvanized steel sheet.

2.4 MISCELLANEOUS METALS

- A. Metal Fascia Wrap, Drip Edges, Step Flashing, Counterflashings:
 1. Aluminum sheet, 0.040 inch thick.
 - a. Surface: Smooth, flat finish.
 - b. Finish: Two-coat fluoropolymer.
 - c. Color: As selected by Architect from manufacturer's full range.

2.5 ROOF-EDGE DRAINAGE SYSTEMS

- A. Gutters:
 1. Fabricate to cross section required, complete with end pieces, outlet tubes, and other accessories as required. Fabricate in minimum 96-inch long section. **PROVIDE PREFABRICATED SECTION AT ALL OUTSIDE CORNERS, 18” LONG IN EACH DIRECTION.** Furnish flat-stock gutter spacers and straps fabricated from same metal as gutters, of size recommended by

cited sheet metal standard but with thickness not less than twice the gutter thickness. Fabricate expansion joints, expansion-joint covers and gutter accessories from same metal as gutters.

- a. Gutter Profile: Reference drawings.
- b. Expansion Joints: Butt type with cover plate.
- c. Formed Aluminum: 0.050" thick.
 - 1) Surface: Smooth, flat finish.
 - 2) Finish: Two-coat fluoropolymer.
 - 3) Color: As selected by Architect from manufacturer's full range.

B. Downspouts:

1. Plain rectangular complete with mitered elbows, manufactured from the following exposed metal. Furnish with metal hangers, from same material as downspouts, and anchors.
 - a. Formed Aluminum: 0.040 inch thick.
 - 1) Surface: Smooth, flat finish.
 - 2) Finish: Two-coat fluoropolymer.
 - 3) Color: As selected by Architect from manufacturer's full range.

2.6 MATERIALS

- A. Zinc-Coated (Galvanized) Steel Sheet: ASTM A 653/A 653M, G90 coating designation.
- B. Aluminum Sheet: ASTM B 209, alloy as standard with manufacturer for finish required, with temper to suit forming operations and performance required.
- C. Aluminum Extrusions: ASTM B 221, alloy and temper recommended by manufacturer for type of use and finish indicated, finished as follows:
- D. Stainless-Steel Sheet: ASTM A 240/A 240M or ASTM A 666, Type 304.

2.7 MISCELLANEOUS MATERIALS

- A. Fasteners: Manufacturer's recommended fasteners, suitable for application and designed to meet performance requirements. Furnish the following unless otherwise indicated:
 1. Fasteners for Aluminum: Aluminum or Series 300 stainless steel.
 2. Fasteners for Zinc-Coated (Galvanized) Steel Sheet: Series 300 stainless steel or hot-dip zinc-coated steel according to ASTM A 153/A 153M or ASTM F 2329.
- B. Elastomeric Sealant: ASTM C 920, elastomeric polyurethane polymer sealant of type, grade, class, and use classifications required by roofing-specialty manufacturer for each application.
- C. Butyl Sealant: ASTM C 1311, single-component, solvent-release butyl rubber sealant; polyisobutylene plasticized; heavy bodied for hooked-type joints with limited movement.
- D. Bituminous Coating: Cold-applied asphalt emulsion complying with ASTM D 1187/D 1187M.
- E. Asphalt Roofing Cement: ASTM D 4586, asbestos free, of consistency required for application.

2.8 FINISHES

- A. Comply with NAAMM's "Metal Finishes Manual for Architectural and Metal Products" for recommendations for applying and designating finishes.
- B. Protect mechanical and painted finishes on exposed surfaces from damage by applying a strippable, temporary protective covering before shipping.
- C. Appearance of Finished Work: Noticeable variations in same piece are unacceptable. Variations in appearance of adjoining components are acceptable if they are within the range of approved Samples and are assembled or installed to minimize contrast.
- D. Coil-Coated Aluminum Sheet Finishes:
 - 1. High-Performance Organic Finish: Prepare, pretreat, and apply coating to exposed metal surfaces to comply with coating and resin manufacturers' written instructions.
 - a. Two-Coat Fluoropolymer: AAMA 2605. Fluoropolymer finish containing not less than 70 percent PVDF resin by weight in color coat. Prepare, pretreat, and apply coating to exposed metal surfaces to comply with coating and resin manufacturers' written instructions.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates, areas, and conditions, with Installer present, to verify actual locations, dimensions, and other conditions affecting performance of the Work.
- B. Examine walls, roof edges, and parapets for suitable conditions for roof specialties.
- C. Verify that substrate is sound, dry, smooth, clean, sloped for drainage where applicable, and securely anchored.
- D. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION, GENERAL

- A. General: **GUTTERS TO BE REPLACED IMMEDIATELY UPON REMOVAL. WATER IS NOT TO DRAIN OFF ROOFS.** Install roof specialties according to manufacturer's written instructions. Anchor roof specialties securely in place, with provisions for thermal and structural movement. Use fasteners, solder, protective coatings, separators, underlayments, sealants, and other miscellaneous items as required to complete roof-specialty systems.
 - 1. Install roof specialties level, plumb, true to line and elevation; with limited oil-canning and without warping, jogs in alignment, buckling, or tool marks.
 - 2. Provide uniform, neat seams with minimum exposure of solder and sealant.
 - 3. Install roof specialties to fit substrates and to result in weathertight performance. Verify shapes and dimensions of surfaces to be covered before manufacture.
 - 4. Torch cutting of roof specialties is not permitted.
 - 5. Do not use graphite pencils to mark metal surfaces.

- B. Metal Protection: Protect metals against galvanic action by separating dissimilar metals from contact with each other or with corrosive substrates by painting contact surfaces with bituminous coating or by other permanent separation as recommended by manufacturer.
 - 1. Coat concealed side of uncoated aluminum roof specialties with bituminous coating where in contact with wood, ferrous metal, or cementitious construction.
 - 2. Bed flanges in thick coat of asphalt roofing cement where required by manufacturers of roof specialties for waterproof performance.
- C. Expansion Provisions: Allow for thermal expansion of exposed roof specialties.
 - 1. Space movement joints at a maximum of 12 feet with no joints within 18 inches of corners or intersections unless otherwise indicated on Drawings.
 - 2. When ambient temperature at time of installation is between 40 and 70 deg F, set joint members for 50 percent movement each way. Adjust setting proportionately for installation at higher ambient temperatures.
- D. Fastener Sizes: Use fasteners of sizes that penetrate wood blocking or sheathing not less than 1-1/4 inches for nails and not less than 3/4 inch for wood screws.
- E. Seal concealed joints with butyl sealant as required by roofing-specialty manufacturer.
- F. Seal joints as required for weathertight construction. Place sealant to be completely concealed in joint. Do not install sealants at temperatures below 40 deg F.

3.3 COPING INSTALLATION

- A. Install cleats, anchor plates, and other anchoring and attachment accessories and devices with concealed fasteners.
- B. Anchor copings with manufacturer's required devices, fasteners, and fastener spacing to meet performance requirements.
 - 1. Interlock face and back leg drip edges of snap-on coping cap into cleated anchor plates anchored to substrate at manufacturer's required spacing that meets performance requirements.

3.4 ROOF-EDGE FASCIA INSTALLATION

- A. Install cleats and other anchoring and attachment accessories and devices with concealed fasteners.
- B. Anchor roof edgings with manufacturer's required devices, fasteners, and fastener spacing to meet performance requirements.

3.5 ROOF-EDGE DRAINAGE SYSTEM INSTALLATION

- A. General: Install components to produce a complete roof-edge drainage system according to manufacturer's written instructions. Coordinate installation of roof perimeter flashing with installation of roof-edge drainage system.
 - 1. Fasten gutter spacers to front and back of gutter.
 - 2. Anchor back edge of gutter as shown.
 - 3. Anchor gutter with gutter straps spaced as indicated, and loosely lock to front gutter bead.

4. Install gutter with expansion joints 40 ft. o.c. and sloped 1/16" per foot.

B. Downspouts: Join sections with manufacturer's standard telescoping joints. Provide hangers with fasteners designed to hold downspouts securely to walls; locate hangers at top and bottom.

3.6 CLEANING AND PROTECTION

A. Clean exposed metal surfaces of substances that interfere with uniform oxidation and weathering.

B. Clean and neutralize flux materials. Clean off excess solder and sealants.

C. Remove temporary protective coverings and strippable films as roof specialties are installed. On completion of installation, clean finished surfaces, including removing unused fasteners, metal filings, pop rivet stems, and pieces of flashing. Maintain roof specialties in a clean condition during construction.

D. Replace roof specialties that have been damaged or that cannot be successfully repaired by finish touchup or similar minor repair procedures.

END OF SECTION 077100

SECTION 086300 – METAL FRAMED SKYLIGHT

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including Contract Documents and other Division 1 Specification Sections, apply to this Section

1.2 SUMMARY

- A. Section includes:
 1. Engineering and preparation of fabrication drawings for the entire skylight system.
 2. Fabrication and installation of extruded aluminum skylight assembly.
 3. Finish of skylight assembly.
 4. Gasket and sealants.
 5. Skylight glazing.
 6. Skylight related flashings.

1.3 REFERENCED

- A. American Architectural Manufacturers Association (AAMA):
 1. 501.1: Standard Test Method for Metal Curtain Walls for Water Penetration Using Dynamic Pressure
 2. 501.2: Field Check of Metal Curtain Walls for Water Leakage
 3. 501.3: Field Check of Water Penetration Through Installed Exterior Windows, Curtain Walls and Doors by Uniform Air Pressure Difference
 4. 603.8: Performance Requirements and Test Procedures for Pigmented Organic Coatings on Extruded Aluminum
 5. 605.2: Specifications for High Performance Organic Coatings on Architectural Extrusions and Panels
 6. 606.1: Voluntary Guide Specification and Inspection Methods for Integral Color Anodic Finishes for Architectural Aluminum
 7. 607.1: Voluntary Guide Specifications and Inspection Methods for Clear Anodize Finishes for Architectural Aluminum
- B. American Society for Testing and Materials (ASTM):
 1. A193: Standard Specifications for Alloy-Steel and Stainless Steel Materials for High Temperature Service
 2. A307: Specification for Carbon Steel Bolts and Studs, 60,000 psi Tensile Strength
 3. B209: Specification for Aluminum and Aluminum-Alloy Sheet and Plate
 4. B211: Specification for Aluminum-Alloy Bar, Rod, and Wire
 5. B221: Specification for Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Shapes, and Tubes
 6. B316: Specification for Aluminum and Aluminum-Alloy Rivet and Cold-Heading Wire and Rods
 7. C719: Standard Test Method for Adhesion and Cohesion of Elastomeric Joint Sealants Under Cycle Movement
 8. C794: Test Method for Adhesion-in-Peel of Elastomeric Joint Sealants
 9. D395: Test Methods for Rubber-Property - Compression Set
 10. D412: Test Methods for Rubber Properties in Tension

11. D1171: Test Method for Rubber Deterioration - Surface Ozone Cracking Outdoors or Chamber (Triangular Specimens)
 12. D2240: Test Method for Rubber Property - Durometer Hardness
 13. E283: Test Method for Rate of Air Leakage Through Exterior Windows, Curtain Walls and Doors by Uniform Static Air Pressure Difference
 14. E330: Test Method for Structural Performance of Exterior Windows, Curtain Walls, and Doors by Uniform Static Air Pressure Difference
 15. E331: Standard Test Method for Water Penetration of Exterior Windows, Curtain Walls, and Doors by Uniform Static Air Pressure Difference
- C. American National Standards Institute (ANSI): Z 97.1-1948-Safety Glazing Materials Used in Buildings - Safety Performance Specifications and Methods of Test
- D. Flat Glass Manufacturers Association (FGMA): Glazing Manual
- E. Insulating Glass Certification Council (IGCC): Classification of Insulating Glass Units

1.4 SYSTEM DESCRIPTION

- A. A complete skylight assembly that is weather tight and air tight conforming to the performance requirements in this section.
- B. Performance Requirements:
1. Structural members shall be of sufficient size to support design loads as prescribed by government building codes.
 2. Deflection of skylight framing members shall not exceed L/175 when subject to a uniform load deflection test in accordance with ASTM E330, and per the above specified loads.
 3. Water Penetration: No water penetration shall occur when system is tested in accordance with ASTM E331. Water penetration is defined as the appearance of uncontrolled water other than condensation on the interior surface of any part of the skylight.
 - a. Drain to the exterior all water entering at joints or glazing reveals as well as all condensation occurring within unit construction.
 4. Air Infiltration: Air infiltration through the skylight assembly when tested in accordance with ASTM E283 shall not exceed 0.06 cubic feet per minute per square foot of fixed area.
 5. Thermal Movement: Skylight assembly shall be so designed and anchored that there will be no objectionable distortion or stresses in fastening and joinery due to expansion and contraction when subjected to temperature variance.

1.5 QUALITY ASSURANCE

- A. Manufacturer Qualifications: The work in this section including design, engineering and fabrication shall be the responsibility of the skylight manufacturer. The skylight manufacturer shall have been regularly engaged in the specialized type of work for at least 10 years and have satisfactorily completed projects of a similar scope.
- B. Installer Qualifications: All products listed in this section are to be installed by a single installer with a minimum of five (5) years demonstrated experience in installing products of the same type and scope as specified

1.6 SUBMITTALS

- A. Product Data: Manufacturer's data sheets, including:
 - 1. Preparation instructions and recommendations.
 - 2. Storage and handling requirements and recommendations.
 - 3. Installation methods.
- B. Submit full scale shop drawings indicating methods of construction. Location and spacing of anchorage, joinery, finishes, size, shape and thickness, alloy of framing members glazing materials and relationships to surrounding work.
- C. Sample Manufacturer's warranty.
- D. Submit glazing sample.
- E. Submit 6" long extrusions with appropriate finish.

1.8 WARRANTY

- A. Special Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace components of metal-framed skylights that fail in materials or workmanship within specified warranty period.
 - 1. Failures include, but are not limited to, the following:
 - a. Structural failures including, but not limited to, excessive deflection.
 - b. Noise or vibration caused by thermal movements.
 - c. Deterioration of metals, finishes, and other materials beyond normal weathering.
 - d. Adhesive or cohesive sealant failures.
 - e. Water leakage.
 - 2. Warranty Period: Ten (10) years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Basis of Design Product:
 - 1. Bristolite Skylights, Inc.
- B. Other Acceptable Manufacturers:
 - 1. Linel.
 - 2. Old Castle.

2.2 MATERIALS

- A. Extruded aluminum framing members shall be 6063-T5, 6061-T6, or 6063-T6 per ASTM B221.
- B. Flashing, trim, closures and other accessory items shall be a minimum .032" thick aluminum.
- C. Glazing Gaskets: Shall be dense EPDM, 50 durometer per ASTM C-509.
- D. Fasteners:
 - 1. Exterior fasteners used as cap retainers shall be 300 series stainless steel per ASTM A 193 B8.
 - 2. Framework connections shall be cadmium plated steel or as required by connection.

- F. Finish:
 - 1. Anodic Coatings: a) AAMA 607.1 Class I Clear Anodize A41.
- G. Glazing:
 - 1. Glazing to be Opal Insulair Polycarbonate panel.
 - a. At 5' x 5' skylight – 10 mm.
 - b. At all other skylights – 25 mm.
- H. Sealants: Compatible with all substrates and applied in accordance with manufacturer's recommendations.

2.3 FABRICATION

- A. Skylights shall be factory fabricated.
- B. All cap retainers shall be attached using stainless steel fasteners. These fasteners shall be designed and located such that all glazing strips are compressed to provide a uniform compression seal. Fasteners shall be located at 12" O.C. or less.
- C. All clips for the attachment of the rafter bars shall be of aluminum or stainless steel and by shop-riveting, bolting or welding to the rafter bars attain fully rated structural loading.
- D. All welding shall be by the heliarc process. All exposed welds to be dressed where practical.
- E. Silicone or neoprene setting blocks shall be used for the support of the polycarbonate and shall be sized and located in accordance with the manufacturer's recommendations.
- F. Skylights shall have a properly designed weep system for drainage to the exterior without excessive air infiltration.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Prior to beginning work of this section, the skylight erector shall examine the associated support structure to determine that it is properly prepared and ready to receive the skylight work included herein. No installation shall proceed until any discrepancies have been resolved.

3.2 PREPARATION

- A. Aluminum surfaces in contact with masonry, concrete or dissimilar materials if not organically coated shall be given a heavy coat of zinc chromate or bituminous paint.

3.3 INSTALLATION

- A. Skylight installation shall be the sole responsibility of the skylight erector in strict accordance with the approved shop drawings. Coordinate installation of new flashing and skylight with Roofing Contractor and provide protection during process.
- B. Install skylights plumb, true without warping or racking of panels.

- C. Anchor system in strict accordance with approved shop drawings.
- D. During erection, provide for thermal movement with a minimum ambient air temperature shift of 100° Fahrenheit without creating undue stresses.
- E. Apply sealant where indicated on shop drawings. Before application, clean surfaces as recommended by manufacturer.

3.4 TOLERANCES

- A. All parts of the work, when completed shall be within the following tolerances:
 - 1. Maximum variation from plane or location shown on approved shop drawings: 1/8" per 12 feet of length or 1/2" in total length.
 - 2. Maximum offset from true alignment between two members abutting end-to-end, edge-to-edge in line or separated by less than 3": 1/32".

3.5 CLEANING AND PROTECTION

- A. Glazing panels shall be left in scratch free condition inside and out. Thoroughly clean all glazing and framing.
- B. Touch-up, repair or replace damaged product.

END OF SECTION 086300

SECTION 099000 – PAINTINGS AND COATINGS

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including Contract Documents and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Use products specified in this section to finish all surfaces exposed to view, unless otherwise indicated.
- B. For paint systems, see Schedules at end of Section.

1.3 SUBMITTALS

- A. Manufacturer's descriptive literature for coating materials and coating application accessories.
- B. Manufacturer's standard color charts.

1.4 DELIVERY, STORAGE, AND HANDLING

- A. Store products of this section in manufacturer's unopened packaging until installation.
- B. Establish and maintain storage area conditions for products of this section in accordance with manufacturer's instructions until installation.
- C. Store and dispose of solvent-based materials, and materials used with solvent-based materials, in accordance with requirements of local authorities having jurisdiction over project.

1.5 PROJECT CONDITIONS

- A. Do not apply coatings to exterior surfaces except under environmental conditions recommended by coating manufacturer.
- B. Establish and maintain environmental conditions recommended by coating manufacturer before, during, and after application of coatings to interior surfaces.
- C. During application of coating materials, post "WET PAINT" signs.
- D. During application of solvent-based materials, post "NO SMOKING" signs.

1.6 SEQUENCING

- A. Do not allow application of finish coats in an area until moisture-producing construction activities, dust-producing construction activities, and other construction activities which could impair performance or appearance of finish coatings, have been completed in that area.

2.0 PRODUCTS

2.1 MANUFACTURERS

- A. Sherwin Williams
- B. Benjamin Moore
- C. Pittsburgh Paints

2.2 MATERIALS

- A. Paints and Coatings - General:
 - 1. Acceptable products: Indicated in Schedules at the end of this section.
 - 2. Unless otherwise indicated, provide factory-mixed coatings. When required, mix coatings to correct consistency in accordance with manufacturer's instructions before application. Do not dilute or thin coatings, except as instructed.
 - 3. Do not add additives, except as instructed or recommended by coating manufacturer.
 - 4. Supply each coating material in quantity required for this section from a single production run.
 - 5. Colors: To be selected by Architect from manufacturer's full range of standard colors.
- B. Coating Application Accessories: Specified in this section or in coating manufacturer's application instructions, including but not limited to thinners, sealers, primers, cleaning agents, etching agents, cleaning cloths, sanding materials, and clean-up materials.

3.0 EXECUTION

3.1 EXAMINATION

- A. Immediately prior to coating application, ensure that surfaces to receive coatings are dry.
- B. Ensure that moisture-retaining substrates to receive coatings have moisture content within tolerances allowed by coating manufacturer, using moisture measurement techniques recommended by coating manufacturer.
- C. Immediately prior to coating application, examine surfaces to receive coatings for surface imperfections and for contaminants which could impair performance or appearance of coatings, including but not limited to, loose primer, rust, scale, oil, grease, mildew, algae, or fungus, stains or marks, cracks, indentations, or abrasions.
- D. Correct the above conditions and other conditions which could impair performance or appearance of coatings in accordance with specified surface preparation procedures before proceeding with coating application.

3.2 PREPARATION

- A. Do not start work until surfaces to be finished are in proper condition to produce finished surfaces of uniform, satisfactory appearance.
- B. Stains and Marks: Remove completely, if possible, using materials and methods recommended by coating manufacturer; cover stains and marks which cannot be completely removed with isolating primer or sealer recommended by coating manufacturer to prevent bleed-through.
- C. Mildew, Algae, and Fungus: Remove using materials and methods recommended by coating manufacturer.
- D. Remove dust and loose particulate matter from surfaces to receive coatings immediately prior to coating application.

- E. Remove or protect electrical equipment plates, mechanical grilles and louvers, lighting fixture trim, and other items not indicated to receive coatings which are adjacent to surfaces to receive coatings.
- F. Protect surfaces not indicated to receive coatings which are adjacent to surfaces indicated to receive coatings.
- G. Prepare surfaces in accordance with manufacturer's instructions for specified coatings and indicated materials, using only methods and materials recommended by coating manufacturer, and as follows:
- H. Existing Coatings:
 - 1. Remove surface irregularities by scraping or sanding to produce uniform substrate for coating application; apply one coat primer of type recommended by coating manufacturer for maximum coating adhesion.
 - 2. If presence of lead in existing coatings is suspected, cease surface preparation of existing coating and notify Architect immediately.
- I. Ferrous Metals, Unprimed: Remove rust or scale, if present, by wire brush cleaning, power tool cleaning, or sandblast cleaning; remove grease, oil, and other contaminants which could impair coating performance or appearance by solvent cleaning, with phosphoric-acid solution cleaning of welds, bolts and nuts; spot-prime repaired welds with specified primer.
- J. Ferrous Metals, Shop-Primed: Remove loose primer and rust, if present, by scraping and sanding, feathering edges of cleaned areas to produce uniform flat surface; solvent-clean surfaces and spot-prime bare metal with specified primer, feathering edges to produce uniform flat surface.

3.3 APPLICATION

- A. Apply each coat to uniform coating thickness in accordance with manufacturer's instructions, not exceeding manufacturer's specified maximum spread rate for indicated surface; thins, brush marks, roller marks, orange-peel, or other application imperfections are not permitted.
- B. Allow manufacturer's specified drying time, and ensure correct coating adhesion, for each coat before applying next coat.
- C. Inspect each coat before applying next coat; touch-up surface imperfections with coating material, feathering, and sanding if required; touch-up areas to achieve flat, uniform surface without surface defects visible from 5 feet.
- D. Do not apply succeeding coat until previous coat has been approved by Architect, only Architect-approved coats will be considered in determining number of coats applied.
- E. Remove dust and other foreign materials from substrate immediately prior to applying each coat.
- F. Where coating application abuts other materials or other coating color, terminate coating, making clean sharp termination line without coating overlap.
- G. Re-prepare and re-coat unsatisfactory finishes; refinish entire area to corners or other natural terminations.

3.4 CLEANING

- A. Clean excess coating materials, and coating materials deposited on surfaces to indicated to receive coatings, as construction activities of this section progress; do not allow to dry.

3.5 PROTECTION

- A. Repair to Architect's acceptance coating applications which are damaged by subsequent construction activities in accordance with specified application procedures; re-apply finish coating to nearest adjacent change of surface plane, in both horizontal and vertical directions, where repairs cannot be made to Architect's acceptance.

3.6 SCHEDULE - EXTERIOR PAINT SYSTEMS

- A. The products listed are as manufactured by Sherwin-Williams. Equivalent products by Benjamin Moore & Pittsburgh Paints are acceptable.
 - 1. Unprimed & Shop Primed Ferrous Metal Surfaces:
 - Prime – Kem Kromik Universal Primer B50WZ Series
 - Paint – Fast Clad DTM Urethane B65W851 Series – Part A & B65V850 Series – Part B

END OF SECTION 099000

SECTION 264113 - LIGHTNING PROTECTION FOR STRUCTURES

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

- A. Section 26 05 26, "Grounding and Bonding for Electrical Systems."

1.02 SCOPE

- A. Remove and replace existing lightning protection system.
- B. Provide all items of equipment necessary for, and incidental to, a complete new UL Class I (less than 75 ft.) Master Label Lightning Protection System.
- C. Provide parapet-mounted and roof-mounted air terminals 20 ft. on center, roof perimeter cable, and tap conductors. Connect to existing building steel. Reuse existing through-roof assemblies and associated connectors.
- D. General Trades Contractor shall provide new roof pitch pockets, if required.
- E. Bond to metal objects within 6 ft. of conductor if not inherently connected.
- F. Bond lightning protection ground system to electrical service ground with full-size conductor.
- G. Terminals, conductors, etc., shall be suitable for building construction.

1.03 QUALITY ASSURANCE

- A. Complete system shall comply with the following:
 - 1. National Fire Protection Association (NFPA):
 - a. 2014 NFPA 70, "National Electrical Code® (NEC)," Article 250.
 - b. 2008 NFPA 780, "Standard for the Installation of Lightning Protection Systems."
 - 2. Underwriters Laboratories, Inc., (UL) UL96A requirements for a Master Label System.
 - 3. Lightning Protection Institute.
- B. Materials and fittings shall be of type, weight, and construction as listed and labeled by UL.
- C. Lightning Protection Contractor:
 - 1. Shall have minimum of (10) years of experience in this type of work.
 - 2. Shall be a member in good standing with UL.
 - 3. Shall possess a UL Listing Number.

PART 2 PRODUCTS

2.01 MATERIALS

- A. Air Terminals:
 - 1. Steel: Cat. No. AT12CB solid copper, 3/8 in. x 12 in. long, drawn to a blunt point.
 - 2. Coordinate length and mounting with roof construction. Furnish mechanical attachments for terminals on roof construction.

- B. Anchors, Fasteners, and Connectors: Heavy hard copper or bronze, of bolt connection type best suited for connection to surface where used. Do NOT use pinch type.

- C. Conductors, Steel:
 - 1. Roof conductors: #29 Class I copper lightning conductor, 29 strands of #17 AWG copper wire.
 - 2. Bonding conductors: #14, 14 strands of #17 AWG copper wire.

PART 3 EXECUTION

3.01 INSTALLATION

- A. Use cables and terminals that are compatible with the roof and building materials and finish to prevent galvanic action between dissimilar metals.

- B. Run cables as inconspicuously as possible.

- C. Interconnect cables on roofs so as to divide the roof surfaces into rectangles not exceeding 50 ft. in length. Roof cables shall have air terminals at each point of intersection.

- D. Cables shall be protected by stiff copper or brass tubing encasing cables where exposed within buildings and where exposed to injury. Solder cables to ends of protector tubing.

- E. Make connections between connecting cables, and between cables and grounds, by unraveling 6 in. or more of each cable and making wrapped (Western Union) splice, or with malleable bronze bolted couplings of proper size. Cad-weld all connections to ground system. Do not cover any connections to ground system before receiving approval from the Architect/Engineer (A/E).

- F. Bond all exposed metal on roof, such as antennas, exhaust fans, lighting fixture brackets, ladders, roof hatches, roof ventilators, satellite dish, rooftop HVAC units, and similar construction to lightning protection system.

- G. Air Terminals:
 - 1. Terminals shall project a minimum of 10 in. above the object protected.
 - 2. Locate terminals at intervals not exceeding 20 ft.-0 in. along ridges and around perimeter of flat, or gently sloping, roofs. Provide flat or gently sloping roofs exceeding 50 ft.-0 in. in width with additional terminals at intervals not exceeding 50 ft.-0 in. on the flat or gently sloping area.
 - 3. Locate terminals within 24 in. of the roof edge and outside corners of the protected area.

4. Provide terminals for metal stacks, flues, and mechanical equipment having a metal thickness of less than 3/16 in., which are not within a zone of protection of a terminal. Bond equipment with metal thickness 3/16 in. or greater.
5. Securely fasten terminals to roof or structure with mechanical fasteners only. Use fasteners as required for roof construction.
6. General Trades Contractor shall provide new pitch pockets to maintain roof warranty, if required.
7. Lightning Protection Contractor shall coordinate size and location of pitch pockets with the General Trades Contractor.

END OF SECTION 264113

SECTION 264500 - SNOW/ICE MELTING SYSTEM

PART 1 - GENERAL

1.1 SCOPE

- A. Furnish and install a snow and ice melting system with components and controls to keep roof eaves, gutters, and downspouts from being clogged by snow and ice. System shall be UL-listed, CSA-certified and FM-approved with heating cables with multiplexed, microprocessor-based control system with intelligent analog snow-sensing devices, ambient temperature sensors, and monitoring and control devices, as described herein and as shown on the Drawings.
- B. The system shall consist of necessary hardware, equipment, and software programming to perform the following functions, as described herein and as shown on the Drawings:
 - 1. Temperature detection.
 - 2. Snow and ice detection and instigation of operations.
 - 3. Monitoring of the devices with trouble indication.
 - 4. Control of electric heat cables.
- C. The snow and ice melting system indicated on the Drawings and specified herein shall be used as the design intent only and not as a complete system. The Contractor shall retain the services of a qualified de-icing system designer to design snow melting system and prepare and submit the necessary documents to the Architect for approval.

1.2 RELATED DOCUMENTS

- A. Section 260500, Common Work Results for Electrical
- B. Section 260519, Low-Voltage Electrical Power Conductors and Cables.
- C. Section 260526, Grounding and Bonding for Electrical Systems
- D. Section 260529, Hangers and Supports for Electrical Systems
- E. Section 260533, Raceways and Boxes for Electrical Systems

1.3 REFERENCES

- A. NFPA 70 – National Electrical Code.
- B. Underwriters Laboratory (UL) standards.
- C. Ohio Building Code and referenced codes.

1.4 SUBMITTALS

- A. Refer to and comply with the Submittal Procedures section of Division 01 - General Requirements for the following documents. In the absence of Division 01 requirements, submit for review a minimum of six (6) copies.
 - 1. Product Data: Submit manufacturer's product data for each item of equipment, including cables.
 - 2. Shop Drawings: Floor plans and system wiring diagram of the entire heat cable system with device types and locations, wiring and connection diagrams, and wire and cable types and sizes.
 - 3. Field quality-control test reports: Submit test and inspection reports as part of the Operation and Maintenance Manual.
- B. Shop drawings and calculations shall be prepared by persons trained and certified in snow melting system design by the snow melting system manufacturer.

1.5 QUALITY ASSURANCE

- A. Heating cable components shall be UL listed under the appropriate category by Underwriters' Laboratories, Inc. (UL), and shall bear the UL label. Component enclosure shall meet NEMA 4X requirements to prevent water ingress or corrosion.
- B. The snow melting system supplier shall be authorized distributor of the snow melting system manufacturer with a minimum of three (3) years experience.
- C. The cable and components shall be qualified for prolonged exposure to the sun per IEEE 515.1-1995, Section 4.3.2 and UL 1588-1993.
- D. The cable and components shall be qualified to with stand continuous submersion in water for 2000 hours per IEEE 515.1-1995, Section 4.3.1.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Inspect equipment upon delivery for damage during shipment and report damage to the carrier within the carrier's required time period.
- B. Store and protect equipment in accordance with the manufacturer's recommendations. Cover stored products to keep out dirt, water, and construction debris.
- C. Handle and install equipment in accordance with the manufacturer's recommendations to avoid damaging equipment, devices, and finishes.

1.7 WARRANTY

- A. Manufacturer shall provide a 10 year warranty.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Snow melting system components as manufactured by Raychem (Relcon, Inc. 1-800-388-9824) shall be furnished. Equal product by Chromalox or Thermon may be provided at the contractor's option.

2.2 HEATING CABLE

- A. The heating cable shall be self-regulating with two (2) 16AWG nickel-coated copper bus wires embedded in a self-regulating polymer core that varies its power output to respond to temperature along its length allowing the cable to be crossed over itself without overheating, to be used with wood, plastic and asphalt building materials and to be cut to length in the field.
- B. The heating cable shall operate on 277 volts and shall be Ice Stop Model GM-2XT cable by Raychem.
- C. Complete system shall include attachment clips, FTC-P power connection kits, FTC-HST tee/splice kits, RAY CLIC-E end seal kits, GMK-RC roof mounting clips, GMK-RAKE hanger brackets, and UV stable cable ties.
- D. For sufficient power for roof and gutter de-icing and energy conservation the self-regulating heating cable shall have a nominal power output of 12 watts per foot in snow and ice and 5 watts per foot in air, per IEEE 515-1997, and a crush resistance of 2000 lbs per UL 1588-1993.

2.3 CONTROLLER AND PANELBOARD

- A. Panelboard shall be Raychem Model HTPG-277/480-18-2-X/1P (XXA)-12-125-D,T,W with space for eighteen (18) ground fault interrupter branch circuit breakers. Refer to the Drawings for additional information and branch circuit breaker sizes and quantities. Enclosure shall be NEMA 12, 36" H x 36" H x 36" W x 10" D baked enamel carbon steel with door disconnect, three-pole main contactor, "Hand-Off-Auto" selector switch, "Power" pilot light, pre-wired terminate blocks, and wired for APS-3 snow controller.
- B. Controller shall be Raychem APS-3C-120V automatic control panel to control the circuits by call from one (1) CIT-1 ambient snow/ice sensor and four (4) GIT-1 gutter snow/ice sensors. Include appropriate contactors, manual bypass switch and programming of controller.

2.4 SENSOR WIRE AND CABLE

- A. Provide three conductor jacketed cable for connection of outdoor sensor devices - water tight where exposed to weather. Conductors shall be tinned solid copper, quantity as required, with 300 volt rated, 105 degrees Celsius, color-coded insulation. Provide shielded cable where required by the system. Provide No. 16 AWG minimum conductors, larger sizes as required by the system installer to minimize voltage drop for long runs. Manufacturers: Belden, Quabbin Wire and Cable, West Penn Wire.
- B. Other system wiring shall be 600 volt single conductor wire as per Specification Section 260519 - Low-Voltage Electrical Power Conductors and Cables.

PART 3 - EXECUTION

3.1 SYSTEM INSTALLATION

- A. General Installation Requirements:
 - 1. Install the system in accordance with the plans and specifications, applicable codes, and the manufacturer's recommendations.

2. The heating cable shall be protected from damage during installation according to manufacturer's instructions.
 3. The heating cable shall be carefully laid in gutters with brackets, suspended in downspouts either as a loop or a single length and held in place by a down spout hanger and serpentine routed along roof edge with edge clips.
- B. Provide building envelop penetration with waterproof sealant, junction boxes and wiring to circuit breakers as noted on the drawings.
- C. Tests:
1. After installation test the dielectric jacket's insulation resistance from the conductors to the shield to indicate resistance greater than 1,000 mega ohms.

END OF SECTION 264500