

May 9, 2022

**SCO ID# 21-23718-01A
NCDOT HIGHWAY DIVISION 3
TRAFFIC SERVICES ROOF REPAIRS**

ADDENDUM No. 1

<u>Item No.</u>	<u>Reference</u>	<u>Description</u>
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GENERAL:

Item No. 1		A Pre-Bid Meeting, mandatory for Prime Bidders, was conducted on Thursday, May 5, 2022. See Attachment ‘A’ for Pre-Bid Meeting Attendance Sheet.
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Item No. 2		Photographs taken by the Engineer will be posted on the Highway Division 3 website:
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https://connect.ncdot.gov/letting/Pages/Letting-List.aspx?let_type=3&let_status=Advertised

Item No. 3		Because neither drawings nor specs of the original building construction are available, the gauge of the metal roof panels is unknown.
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SPECIFICATIONS:

Item No. 1	Informal Contract	Refer to State of North Carolina Standard Form of Informal Contract and General Conditions. Delete the Informal Contract in its entirety and replace it with Attachment ‘B’ . Note that Allowance No. 1 has been added for replacement of wet insulation.
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Item No. 2	Informal Contract	Refer to State of North Carolina Standard Form of Informal Contract and General Conditions, page 1. Bids will be received until 2:00 PM on June 2, 2022 in the NCDOT Traffic Services Conference Room, 5504 Barbados Boulevard, Castle Hayne, North Carolina 28429.
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Item No. 3	01 11 00	Refer to Specification Section 01 11 00 – Summary of Work. Delete this section in its entirety and replace it with Attachment ‘C’ .
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Item No. 4	01 22 13	Refer to Specification Section 01 22 13 – Unit Prices. Delete this section in its entirety and replace it with Specification Section 01 22 13 – Unit Prices and Allowances, Attachment ‘D’ .
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Item No. 5	01 33 00	Refer to Specification Section 01 33 00 – Submittals, Paragraph 1.8.4. Contractor shall provide color charts for coatings and sealants for the Owner’s approval.
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Item No. 6	07 56 00	Refer to Specification Section 07 56 00 - Fluid Applied Coating and
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Sealants. Delete this section in its entirety, and insert **Attachment 'E'**
07 56 00 - Fluid Applied Coating and Sealants.

Mark D. Gibson RA
Architectural Supervisor
NCDOT Facilities Design Unit

**PRE-BID
CONFERENCE
RECORD OF
ATTENDANCE**



**FACILITIES MANAGEMENT UNIT
FACILITIES DESIGN UNIT**

ATTACHMENT 'A'

1525 Mail Services Center
RALEIGH, NC 27699-1525
(919) 707-4550

1 S. WILMINGTON STREET
RALEIGH, NC 27601
FAX (919) 715-0399

SCO ID #21-23718-01A

DATE: May 5, 2022

TIME: 2:00 PM

PROJECT: NCDOT Highway Division 3 Traffic Services Roof Repairs
SUBJECT: Mandatory Pre-Bid Conference

NAME:	Company	Phone	Email
1. Mark Gibson RA	NCDOT Facilities Design Unit	919-707-4550	mdgibson1@ncdot.gov
2. Randy Eddington	Wayn Co Roofing	704-814-9516	randyeddington71@gmail.com
3. JEFF BELL	THE DAVIS COMPANY	252-217-8382	DAVISCO5555@Gmail.Com
4. Mike Burke	Facilities Div 3	910-512-4281	MEBurke@NCDOT.GOV
5. Nick Newfang	Highland Roofing Company (703)	895-8652	nnewfang@highlandroofingcompany.com
6.			
7.			
8. Brady Knowles	Owens Roofing, Inc	919 821 0082	bradyowensroofinginc.com bert@owensroofinginc.com
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21.			
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ATTACHMENT 'B'

STATE OF NORTH CAROLINA STANDARD FORM OF INFORMAL CONTRACT AND GENERAL CONDITIONS

FOR

NCDOT Division 3 Castle Hayne Traffic Services Building (Roof Repairs)
North Carolina Department of Transportation
5504 Barbados Blvd
Castle Hayne, NC 28429
phone # 910-341-2200; fax # 910-602-7079

GL: 52199012

Cost Center: 150538

WBS#: 51233.01D

SCO ID#: 21-23718-01A

SCOPE OF WORK

The project involves roof repairs to the existing standing seam metal roof on the NCDOT Division 3 Castle Hayne Traffic Services building that were identified in a previous investigation. The project will involve replacing missing and damaged sealants, replacing fasteners, removing the existing metal roof hip and ridge panels, sealing existing penetrations within the assembly, and reinstalling the hip and ridge panels and applying a sealant. Alternates in the project include using a silicone coating in lieu of sealant on the exposed visible surfaces of the roof areas that require the repairs. Other alternates include repairs to copings using sealant, wall panels and masonry cleaning in select areas.

NOTICE TO BIDDERS

Sealed bid for this work will be received by:

Mark D. Gibson RA
Architect
Facilities Management Unit
North Carolina Department of Transportation
1 South Wilmington Street, 27601
Raleigh, NC 27699-1557
Office: 919-707-4550

up to 2:00 PM, on 6/2/2022 and immediately thereafter publicly opened and read aloud.
Complete electronic plans and specification and contract documents can be obtained from

Mark D. Gibson RA
Architect
Facilities Management Unit
North Carolina Department of Transportation
1 South Wilmington Street, 27601
Raleigh, NC 27699-1557
Office: 919-707-4550
Email: mdgibson1@ncdot.gov

Contractors are hereby notified that they must have proper license under the State laws governing their respective trades and that North Carolina General Statute 87 will be observed in receiving and awarding contracts. General Contractors must have general license classification for S-Roofing.

No bid may be withdrawn after the opening of bids for a period of 30 days. The Owner reserves the right to reject any or all bids and waive informalities. Bids shall be made only on the BID/ACCEPTANCE form provided herein with all blank spaces for bids properly filled in and all signatures properly executed.

Please note on the envelope – **Bid: Attn:**

Mark D. Gibson RA
Architect
Facilities Management Unit
State of North Carolina Department of Transportation
1 South Wilmington Street, 27601
Raleigh, NC 27699-1557

GL: 52199012 Cost Center: 150538 WBS#: 51233.01D
SCO ID#: 21-23718-01 Day, Date, at 2:00 PM

(Contractor)
(License Number)

A **mandatory** pre-bid meeting will be held at project site, **5504 Barbados Blvd, Castle Hayne, NC 28429** at **Thursday, 5/5 at 2:00 PM**. The meeting will address project specific questions, issues, bidding procedures and bid forms.

Each proposal shall be accompanied by the appropriate Minority Business Forms.

SILICONE COATING MANUFACTURER'S CERTIFICATE
for
NCDOT Division 3 Castle Hayne Traffic Services Building

TO: The State of North Carolina
Through the North Carolina Department of Transportation

The undersigned manufacturer of the specified roof system and related roof system materials is familiar with local weather and climate; is aware of the current interior and exterior environmental conditions to which the roof coating and related roof system materials will be subjected; has reviewed the plans and technical specifications for this project; and hereby certifies that:

- (1) their roof system(s) and component materials are suitable for the roofs of this project,
- (2) their roof coating and related roof system materials are suitable for use with each other and that the new roof coating and new roof system materials specified will be included in the coating manufacturer's warranty, as part of alternate 9, as specified (see specification section 01 78 36),
- (3) the roofing contractor named below is an authorized applicator of their roof system and related roof system materials, has been trained by the manufacturer in the installation of the roof system specified and, subject to the Owner's award of construction contract, is authorized to install said system,
- (4) the roof coating manufacturer will provide bi-weekly inspection and additional training (if needed) to the roofing contractor until completion of the roof system.

Contractor:

_____ Name

_____ Address

Manufacturer:

_____ Name

_____ Address

_____ Authorized Signature

_____ Date

BID/ACCEPTANCE FORM

for

State of North Carolina Department of Transportation
1 South Wilmington Street, 27601
Raleigh, NC 27699-1557

We are in receipt of Addendum _____ 1 _____ 2 _____ 3

The undersigned, as bidder, proposes and agrees if this bid is accepted to contract with the State of North Carolina through the North Carolina Department of Transportation for the furnishing of all materials, equipment, and labor necessary to complete the construction of the work described in these documents in full and complete accordance with plans, specifications, and contract documents, and to the full and entire satisfaction of the State of North Carolina and the North Carolina Department of Transportation for the sum of:

BASE BID: _____

TOTAL BASE BID) _____

_____ Dollars (\$) _____

ALTERNATES: _____

Should any of these alternates as described in the contract documents be accepted, the amount written shall be the amount to be "added to" or "deducted from" the base bid.

Alternate 1A: Coating and Sealant repair work associated with the hip and ridge of the standing seam metal roof.

(Add) _____ Dollars (\$) _____

Alternate 1B: NOT USED

Alternate 2A: Sealant repair work associated with the hip and ridge of the standing seam metal roofs.

(Add) _____ Dollars (\$) _____

Alternate 2B: Coating and Sealant repair work associated with the hip and ridge of the standing seam metal roofs.

(Add) _____ Dollars (\$) _____

Alternate 3: NOT USED

Alternate 4: Review existing standing seam metal roof seams, apply coating on damaged seams, allowance of 800LF.

(Add) _____ Dollars (\$) _____

Alternate 5: Secure loose metal wall panels and seal penetrations, allowance of 50 SF per location, 2 locations.

(Add) _____ Dollars (\$) _____

Alternate 6: NOT USED

Alternate 7: Clean masonry at select locations as indicated on roof plan. 2 Locations total, Allowance of 200SF at one location and 100SF at the other location.

(Add) _____ Dollars (\$) _____

Alternate 8: NOT USED

Alternate 9: Install coating on roof in its entirety to achieve a 10 year no dollar limit warranty.

(Add) _____ Dollars (\$) _____

UNIT PRICES

This work is being bid based upon the Contractor's lump sum prices, unit prices, and the quantity allowance amounts noted. Unit prices quoted and accepted shall apply throughout the life of the contract, except as otherwise specifically noted. Unit prices shall be applied, as appropriate, to compute the total value of changes in the base bid quantity of the work all in accordance with the contract documents.

(Alternate 4) Apply coating on damaged metal standing seams \$ _____ / s.f. (UP#1) = \$ _____

(Alternate 5) Secure loose metal wall panels and seal penetrations \$ _____ / s.f. (UP#2) = \$ _____

(Alternate 7) Clean masonry at select locations as indicated on roof plan \$ _____ / s.f. (UP#3) . = \$ _____

(Allowance 1): Replace wet insulation with 4" mineral wool insulation \$ _____ / s.f. (UP#4) = \$ _____

In the event of a discrepancy in the mathematical extensions of unit prices, the extended price shall be corrected per the unit price shown. In the event of a discrepancy in the addition of extended and lump sum prices, the subtotal shall be corrected based on the extended and lump sum prices shown.

Respectively submitted this _____ day of _____ 20 _____

(Contractor's Name)

Federal ID#: _____

By: _____

Witness: _____

Title: _____

(Owner, partner, corp. Pres. Or Vice President)

Address: _____

(Proprietorship or Partnership)

Attest: *(corporation)*

Email Address: _____

(Corporate Seal)

By: _____ License #: _____

Title: _____
(Corporation, Secretary./Ass't Secretary.)

ACCEPTED by the STATE OF NORTH CAROLINA
through the _____ Department of Transportation _____

Total amount accepted by the owner, including base bid and bid alternates: _____

BY: _____ TITLE: _____

**SECTION 01 11 00
SUMMARY OF WORK****ATTACHMENT 'C'****PART 1 - GENERAL**

- 1.1 Drawings and general provisions of the contract, including General Conditions, Supplementary Conditions and other Division 1 specification sections apply to work in this section.
- 1.2 Work Covered by Contract Documents:
- 1.2.1 Work under this Contract consists of furnishing all labor, materials, and equipment necessary to perform the roof repair work at the NCDOT Division 3 Castle Hayne at 5504 Barbados Blvd, Castle Hayne, NC 28429.
- 1.2.2 The work will include, but is not necessarily limited to, the following:
- 1.2.2.1 Base Bid:
- (a) Sealant repair work associated with the hip and ridge of the standing seam metal roof as indicated in the base bid legend and base bid roof plan.
 - (i) Careful removal of the metal hip and ridge roof panels for reuse.
 - (ii) Remove existing exposed butyl, sealant, and existing fasteners.
 - (iii) Preparing surfaces for new sealant.
 - (iv) New fasteners, sealant and butyl on interior hip and ridge flashings including on edges and fastener penetrations as indicated in the details. 15lb felt paper over interior ridge or hip panels.
 - (v) New fasteners and sealant on exterior hip and ridge flashings on edges and fastener penetrations and other intersections and junctions of standing seam metal roof as indicated in the details.
 - (b) Penetrations on all roof areas:
 - (i) Remove all flashing sealant and clamps at all penetrations on all roof areas as required. Prepare for new work.
 - (ii) Install new flashing, clamps and coatings at all penetrations.
 - (c) Secure loose section of metal coping, apply sealant over penetrations as required. Remove deteriorated sealant and apply new sealant as required.
 - (d) Remove and replace sealant at vent trim panel as indicated on roof plan.
 - (e) Install coating on the interior lining of all gutters.
 - (f) Remove wet insulation and replace with new 4" mineral wool insulation, allowance of 200 SF.
- 1.2.2.2 Alternate 1A:
- (a) Coating and Sealant repair work associated with the hip and ridge of the standing seam metal roofs as indicated in the alternates legend and alternates roof plan.
 - (i) Careful removal of the metal hip and ridge roof panels for reuse.
 - (ii) Remove existing exposed butyl, sealant, and existing fasteners.
 - (iii) Preparing surfaces for coatings and sealant.
 - (iv) New fasteners, sealant and butyl on interior hip and ridge flashings including on edges and fastener penetrations as indicated in the details. 15lb felt paper over interior ridge or hip panels.
 - (v) New fasteners and coating on exterior hip and ridge flashings on edges, fastener penetrations and other intersections and junctions of standing seam metal roof as indicated in the details.
- 1.2.2.3 Alternate 1B: NOT USED
- 1.2.2.4 Alternate 2A:

- (a) Sealant repair work associated with the hip and ridge of the standing seam metal roofs as indicated in the alternates legend and alternates roof plan.
 - (i) Careful removal of the metal hip and ridge roof panels for reuse.
 - (ii) Remove existing exposed butyl, sealant, and existing fasteners.
 - (iii) Preparing surfaces for new sealant.
 - (iv) New fasteners, sealant and butyl on interior hip and ridge flashings including on edges and fastener penetrations as indicated in the details. 15lb felt paper over interior ridge or hip panels.
 - (v) New fasteners and sealant on exterior hip and ridge flashings on edges and fastener penetrations and other intersections and junctions of standing seam metal roof as indicated in the details.

1.2.2.5 Alternate 2B:

- (a) Coating and Sealant repair work associated with the hip and ridge of the standing seam metal roof as indicated in the alternates legend and alternates roof plan.
 - (i) Careful removal of the metal hip and ridge roof panels for reuse.
 - (ii) Remove existing exposed butyl, sealant, and existing fasteners.
 - (iii) Preparing surfaces for coatings and sealant.
 - (iv) New fasteners, sealant and butyl on interior hip and ridge flashings including on edges and fastener penetrations as indicated in the details. 15lb felt paper over interior ridge or hip panels.
 - (v) New fasteners and coating on exterior hip and ridge flashings on edges, fastener penetrations and other intersections and junctions of standing seam metal roof as indicated in the details.

1.2.2.6 Alternate 3: NOT USED

1.2.2.7 Alternate 4: Review existing standing seam metal roof seams, apply coating on damaged seams, 800LF.

1.2.2.8 Alternate 5: Secure loose wall panels and seal penetrations, 50 SF per location, 2 total locations as indicated on roof plan.

1.2.2.9 Alternate 6: NOT USED

1.2.2.10 Alternate 7: Clean masonry at two locations, 300 SF total.

1.2.2.11 Alternate 8: NOT USED

1.2.2.12 Alternate 9: Install coating on roof (4400 SF VIF) in its entirety to achieve a 10 year no dollar limit warranty.

1.2.2.13 Furnish and install any miscellaneous items not specifically listed here.

1.2.3 Allowances of Unit Priced Items included in the Base Bid as described in the Unit Prices and Allowances Specification Section 01 22 13.

1.3 Description of the Existing Roof System:

1.3.1 Information in this Section is provided only to establish general description and is not necessarily accurate. The Contractor is responsible for visiting the site and satisfying himself as to the existing conditions, size of roof areas, etc. before submitting his Bid.

1.3.2 The existing roof assembly is composed of the following:

1.3.2.1 All Roofs

- (a) Standing Seam Metal Roof (4/12 pitch (VIF), panels are 16" o.c., 2" Rib)
- (b) Purlins on Metal Trusses

(c) Perimeter Gutters (7" Deep at the rear, 5" deep at the front, 7" wide)

1.1 Contractor Behavior & Decorum:

- 1.1.1 Indecent language, harassing "cat" calls or whistles, etc., will not be tolerated. Violators will be removed from Owner's property immediately; questions will be asked later.
- 1.1.2 Proper dress is required. Shirts, long pants and shoes will be worn at all times. Music is not permitted.
- 1.1.3 Contractor's personnel are not permitted to use Owner's Buildings / Facilities for eating or leisure activity. Contractor's personnel are not permitted to use Owner's restrooms.
- 1.1.4 Contractor's personnel are prohibited from having firearms, alcoholic beverages, or drugs (except those prescribed by a physician) on the Owner's property.
- 1.1.5 Smoking - Contractor shall comply with area designations as established by the Department of Administration and the Owner's project manager.

PART 1 - PRODUCTS

1.1 Not used.

PART 2 - EXECUTION

2.1 Not used.

END OF SECTION

**SECTION 01 22 13
UNIT PRICES AND ALLOWANCES**

ATTACHMENT 'D'

PART 1 - GENERAL

- 1.1 Work Included: All unit prices and allowances as listed in Bid Form.
- 1.2 Procedures:
 - 1.2.1 Unit prices will be exercised at the option of the Owner.
 - 1.2.2 Modify and coordinate related activities as required to complete the work if, and when, acceptance is designated by the Owner in General Conditions and other Division 1 specifications.
 - 1.2.3 In the event unit prices are exercised, applicable sections of this Specification shall govern. Other sections may be modified as required to address the unit price.
 - 1.2.4 Cost associated with any anomalies identified on plans, on the roof, and/or in the Specification shall be included in the Base Bid.
 - 1.2.5 Cost associated with the repair of decking at removed abandoned penetrations identified on plans and/or marked on the roof shall be included in the Base Bid.
 - 1.2.6 Bidders shall provide a unit price for the items listed below and on the bid form. Bidder shall include a cash allowance in the Base Bid for each unit price in the quantity list below and on the bid form. Payment will be made for unit price work in excess of the cash allowance, which includes all overhead and profit. In the event it is necessary to replace fewer than quantity associated with the cash allowance, the Owner will take a credit at the unit price rate. The Design Professional shall be responsible for verifying the actual quantity and extent of the unit price work.

PART 2 - PRODUCTS

- 2.1 See applicable specification sections.

PART 3 - EXECUTION

- 3.1 **UNIT PRICE No. (1):** Apply coating on damaged metal standing seams. This unit price shall also reflect any power tools, fasteners, labor, safety harnesses, interior protections, overhead, and profit associated with accomplishing this work. Refer to Section 07 56 00 of the Specification.

Note: The Alternate 4 includes an allowance of 800 LF.
- 3.2 **UNIT PRICE No. (2):** Secure loose metal wall panels and seal penetrations. This unit price shall also reflect any power tools, fasteners, labor, safety harnesses, interior protections, overhead, and profit associated with accomplishing this work. Refer to Section 02 41 13 and 06 10 53 of the Specification.

Note: The Alternate 5 includes an allowance of 50SF per location, 2 locations noted.
- 3.3 **UNIT PRICE No. (3):** Clean masonry at select locations as indicated on roof plan. This unit price shall also reflect any power tools, fasteners, labor, safety harnesses, interior protections, overhead, and profit associated with

accomplishing this work. Refer to Section 04 01 00 of the Specification.

Note: The Alternate 7 includes an allowance of a total of 300 SF of masonry cleaning.

- 3.4 **UNIT PRICE No. (4):** Remove wet insulation and replace with new 4” mineral wool insulation. This unit price shall also reflect any power tools, fasteners, labor, safety harnesses, interior protections, overhead, and profit associated with accomplishing this work.

Note: The Base Bid contract includes an allowance of 200SF for replacing wet insulation with new 4” mineral wool insulation.

END OF SECTION

SECTION 07 56 00**ATTACHMENT 'E'****FLUID APPLIED COATING AND SEALANTS****PART 1 GENERAL**

- 1.1 Work Included: Installation of sealants and silicone coating system at:
- 1.1.1 DIV 3 Traffic Services Building Roof
 - 1.1.1.1 Sealant
 - i. Base Bid: Ridges, Hips and repairs as noted
 - ii. Alternate 2A: Ridges and Hips
 - iii. Alternate 5: Wall panels
 - 1.1.1.2 Coatings
 - i. Base bid gutters, penetrations
 - ii. Alternate 1A: Hips and Ridges
 - iii. Alternate 2B: Hips and Ridges
 - iv. Alternate 4: Metal Standing Seams
 - v. Alternate 9: Entire Hip Roof
 - 1.2 Related Work:
 - 1.2.1 Summary of Work – Section 01 11 00
 - 1.3 Quality Assurance:
 - 1.3.1 The Coating Applicator shall be certified by the coating manufacturer to install the coating system.
 - 1.3.2 The Coating Applicator shall have been actively applying coatings on roofs of equal or greater size, for a minimum of 5 years.
 - 1.3.3 Qualifications of Installers: Use adequate numbers of skilled workmen who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the work in this section. As a minimum, the Coating Applicator's foreman and the Coating Applicator shall be certified and trained by the Coating Manufacturer and shall be experienced in the application of the specified coating system. Written certification must be provided.
 - 1.3.4 Foreman shall have a minimum of 5 years of experience in the type of coating work specified and be able to proficiently communicate in English in the judgement of the Designer.
 - 1.3.5 The silicone coating manufacturer shall have a minimum of 25 years' experience in the manufacture of silicone roof coatings and be ISO 9001 certified. The coating shall have an Underwriters Laboratories (UL) Listing, and Factory Mutual (FM) Class 1, 4470 Approval.
 - 1.3.6 Standards: Comply with standards specified in this section and as listed in the General Requirements.
 - 1.4 Submittals
 - 1.4.1 Submittals shall be in accordance with Section 01 33 00.
 - 1.4.2 Contractor shall provide sample material warranty.
 - 1.4.3 Contractor shall provide product data and manufacture's standard color charts for coatings and sealants for owner's selection.
 - 1.4.4 Provide shop drawings for any details that deviate from the project drawings.
 - 1.5 Delivery, Storage, and Handling.

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- 1.5.1 Deliver materials in manufacturer's original, unopened containers or packages with labels intact and legible. Where materials are covered by referenced specification number, labels shall bear specification number, type, class compliance with UL requirements, date of manufacture, and shelf life expiration date. The material shall be within its listed shelf life when applied. Deliver materials in sufficient quantity to allow work to proceed without interruption.
- 1.5.2 Store materials in accordance with manufacturer's recommendations.
- 1.5.3 Store materials on clean raised platforms. Store all materials in dry area, protected from water, direct sunlight and extreme temperatures.
- 1.5.4 Provide continuous weatherproof protection of materials to ensure against deterioration for duration of project.
- 1.5.5 Material stored on roof areas for immediate use:
- 1.5.5.1 Distribute to prevent concentrated loads that would impose excessive strain to deck or structural members, or block storm water drainage.
 - 1.5.5.2 Secure to prevent displacement by wind.
 - 1.5.5.3 Cover with waterproof canvas tarp for protection from exposure.
 - 1.5.5.4 Material storage shall be in strict accordance with manufacturer's recommendations.
 - 1.5.5.5 Environmental Conditions - Materials installation shall proceed only when weather conditions are in compliance with the applicable manufacturer's recommendations for installation and no precipitation imminent. Materials installed during adverse weather conditions shall be subject to removal and replacement.
- 1.6 Environmental Conditions.
- 1.6.1 Apply in dry weather. Do not install in inclement weather, when rain is predicted at 30 percent or greater as reported by the National Weather Service nearest the project site, or when the dew point is within 5° F of the surface temperature.
- 1.6.2 Apply silicone only to clean, dry and secure surfaces.
- 1.6.3 Do not install when the surface temperature is less than 0° F. Contact the manufacturer if the substrate is over 120° F.
- 1.6.4 Do not spray apply when the wind velocity exceeds 10 MPH without taking adequate precautions to eliminate overspray.
- 1.6.5 Take all measures necessary to protect unrelated surfaces from coating overspray or spillage. Contractor to repair, clean or replace as chosen by the Designer and Owner all damaged finishes.
- 1.6.6 Do not install when safe roofing operations cannot be maintained.
- 1.7 Guarantee: Shall be in accordance with Section 01 78 36 of this specification.

PART 2 PRODUCTS

- 2.1 Coating:

-
- 2.1.1 Coating shall be high solids, solvent-free, alkoxy-based, moisture cured, silicone roof coating, mill thickness as required by manufacturers have written instructions:
- 2.1.1.1 Alsan Coating SIL 402 by Soprema
 - 2.1.1.2 Sikalastic 500 by Sika
 - 2.1.1.3 Enduris 3500 by GE.
- 2.1.2 Coating Flashing: as required by the coating manufacturer and compatible with the base coating.
- 2.1.3 Coating primer: As required by the coating manufacturer.
- 2.1.4 Fabric reinforcing: as required by product manufacturer.
- 2.1.5 Seam sealant: Supplied by the silicone coating manufacturer and compatible with the silicone coating. Shall be high solids, solvent-free, silicone sealant.
- 2.1.6 Color of coating shall be one of the manufacturer's standard colors and shall be approved by the Owner.
- 2.2 Cleaner: Biodegradable cleaner as recommended by the coating manufacturer.
- 2.3 Sealants:
- 2.3.1 Manufactures
 - 2.3.1.1 M1 by Chemlink
 - 2.3.1.2 Dowsil silicone 780 plumbers and roofers sealant
 - 2.3.1.3 Sikalastomer 511
 - 2.3.2 Color of sealant shall be one of the manufacturer's standard colors and shall be approved by the Owner.
- 2.4 Butyl sealant meeting or exceeding the requirement of the following:
- 2.4.1 Conforms to U.S. Federal Specification TT-S-001657, Type 1
 - 2.4.2 ASTM C1311
 - 2.4.3 CAN/CGSB 19-GP-14M
- 2.5 Accessory materials shall be as provided by the system manufacturer.

PART 3 EXECUTION

- 3.1 General – Contractor shall prevent overspray by masking surfaces not to be coated. Use wind screens as necessary. Contractor shall clean up and remove any overspray.
- 3.2 Adhesion Test: Prior to installing coating, conduct adhesion tests on the membrane and metal in accordance with manufacturer adhesion testing procedures to determine if a primer or other specific surface preparation is required.
- 3.3 Installation of coating system:
- 3.3.1 General:
 - 3.3.1.1 Apply coating system in accordance with the manufacturer's written instructions.
 - 3.3.1.2 Coating system to be installed shall have passed an adhesion test performed by the manufacturer's representative on the roof and witnessed by the designer.

- 3.3.1.3 The Coating Applicator's foreman shall be at the point of application at all times when coating materials are being applied.
- 3.3.1.4 Contractor shall take precautions to not allow fumes to be drawn into the building.
- 3.3.1.5 Allow all coating to dry thoroughly before further application of system.
- 3.3.1.6 Apply coating at rate, mil thickness, and pattern specified by system manufacturer. Extend time, if required to feel dry to the touch. Repeat as required by manufacturer for warranty coverage.
- 3.3.1.7 The minimum dry film thickness for the finished coating system shall not be less than the manufacturer's written requirements for a ten (10) year warranty.
- 3.3.1.8 Contractor shall request visits by manufacturer's technical representative as required for review of proper installation and as required for ten (10) year warranty coverage.
- 3.3.1.9 The wet thickness shall be measured and recorded daily, along with the quantity, batch number, and total square feet applied on a Daily Quality Control Form and given to the Designer once per week.

3.3.2 Preparation:

- 3.3.2.1 Clean the substrate in accordance with the manufacturer's written instructions and using the same procedure as accepted adhesion sample tests:
 - i. Remove all grease, dirt, sediment or other foreign matter from the existing roof coating and flashings by vacuuming and/or power brooming.
 - ii. Lightly pressure wash (approximately 2500 psi) and clean with a biodegradable cleaner all surfaces to receive coating system to remove all dirt. Allow surfaces to completely dry.
- 3.3.2.2 Remove and replace wet insulation with new 4" mineral wool insulation (allowance of 200 SF), see Summary of Work and Section 01 22 13 - Unit prices and Allowances.
- 3.3.2.3 Seam sealant:
 - i. Curbs, gaps, flashing details, angle changes, and penetrations must be sealed with a minimum 60 mils of seam sealant.
 - ii. Loose seams must be repaired with seam sealant and fabric reinforcing.
- 3.3.2.4 The coating manufacturer's representative shall provide written approval of the substrate before coating application commences.

3.3.3 Application of coating system:

- 3.3.3.1 Primer: Apply primer as recommended by the manufacturer.
- 3.3.3.2 Coating: Apply coating to the properly prepared surface at a rate of approximately 1.5 gallons per square or as required by the coating manufacturer. Coating may be applied by brush, roller, or airless sprayer. Back-rolling should be kept to a minimum.

- 3.3.3.3 Protect finished work from weather or foot traffic until fully cured.
- 3.3.3.4 Cured silicone roof coating shall be monolithic and seamless, encapsulating the entire roof surface.
- 3.3.3.5 The minimum dry film thickness for the finished coating system shall be as required by the manufacturer for a ten (10) year manufacturer warranty. Contractor shall submit documentation from the manufacturer stating their requirements for a ten (10) year warranty.

END OF SECTION