



CONSTRUCTION PERMIT APPLICATION

Applicant Completes: Sections I, II, III (optional), IV, VI, and VII

I. IDENTIFICATION LAKE RIVIERA MIDDLE SCHOOL

1. Proposed Work Site at: 171 BEAVERSON BLVD - BRICK NJ

2. Name of Owner in Fee: Brick Twp Bd of Ed Tel. (732) 785-3000
Address 101 Hendrickson Avenue - Brick NJ 08724
street municipality zip code

3. Ownership in fee: Public X Private _____

4. Principal Contractor: JDS Contracting Tel. (732) 695-0100
Address 23 Cindy Lane #4 - Ocean, NJ 07712
License No. OR, if new home, Builder Reg. No. _____ Exp. Date _____
Federal Employee No. 22-3409984 FAX: (732) 695-0455

5. Architect or Engineer: Fletcher + Thompson Engineers Tel. (732) 246-5620
Address ONE TOWER CENTER AVE - E. BRUNSWICK NJ Contact _____

6. Responsible Person in Charge once Work has Begun Dominick SPAMPANATO JR
Tel. (732) 695-0100 FAX: (732) 695-0455

Roof Replacement

V. FEE SUMMARY (for office use only)

		Update	Update
1. Building	\$	✓	
2. Electrical			
3. Plumbing			
4. Fire Protection			
5. Elevator Devices			
6. Subtotal	\$		
7. Less 20% for State Plan Review			
8. Subtotal	\$		
9. State Permit Fee Surcharge			
10. Subtotal	\$		
11. Cert. of Occupancy			
12. Other			
13. TOTAL	\$		

VI. BUILDING/SITE CHARACTERISTICS

		(office use only)
1. Number of Stories		
2. Height of Structure	ft.	
3. Area - Largest Floor	sq. ft.	
4. New Building Area	sq. ft.	
5. Volume of New Structure	cu. ft.	
6. Construction Classification		
7. Total Land Area Disturbed	sq. ft.	
8. Flood Hazard Zone		
9. Base Flood Elevation	ft.	
10. Wetlands	yes _____ no _____	
11. Max. Live Load		
12. Max. Occupancy Load		

II. PROPOSED WORK

	Est. Cost	Plans Rec'd by	Date Rec'd	Rejection Date	Approval Date	Re-viewer	Resubmission Dates Approval	Rejection	Re-viewer
1. ☐ Minor Work									
2. ☐ New Building									
3. ☐ Addition									
4. ☐ a. Repair									
☐ b. Alteration									
☐ c. Renovation									
☐ d. Reconstruction									
5. ☐ Fire Protection									
6. ☐ Plumbing									
7. ☐ Electrical									
8. ☐ Elevator Devices									
9. ☐ Asbestos Abat. Subch. 8									
10. ☐ Lead Hazard Abatement									
11. ☐ Demolition									
TOTAL COSTS									

OPTIONAL (for office use only)

VII. DESCRIPTION OF BUILDING USE

A. RESIDENTIAL

1. State Specific Use:
2. Use Group:
3. Change in Use Group, Indicate Former:
4. No. of dwelling units: All Units Income-restricted
Before Construction _____
After Construction _____
Net Gain or Loss _____

B. NON-RESIDENTIAL

1. State Specific Use:
2. Use Group:
3. Change in Use Group, Indicate Former:

III. DO YOU WANT: (optional)

1. ☐ Partial Releases
2. ☐ Prototype Processing

IV. DOES OR WILL YOUR BUILDING CONTAIN ANY OF THE FOLLOWING?

1. ☐ Elevators/Escalators/Lifts/Dumbwaiters/Moving Walks
2. ☐ High Pressure Boilers
3. ☐ Pressure Vessels
4. ☐ Refrigeration Systems
5. ☐ Cross-Connections/Backflow Preventers
6. ☐ Hazardous Uses/Places of Assembly
7. ☐ Sprinklers
8. ☐ Smoke Control Systems in Open Wells
9. ☐ Underground Storage Tanks
10. ☐ Swimming Pools, Spas and Hot Tubs

CERTIFICATION IN LIEU OF OATH

I. OWNER SECTION (to be completed if the applicant is the owner in fee)

I hereby certify that I am the owner in fee of the property listed on Page 1.

Mark the following applicable boxes:

- A. ☐ I further certify that a new home (private residence) will be constructed on this property for my own use and occupancy. This dwelling is to be occupied by myself and is not to be used for any purpose other than single family residential use. I attest that all construction, plumbing, or electrical work will be done, in whole or in part, by me or by subcontractors under my supervision, in accordance with all applicable laws; and, I further acknowledge that said new home is not covered under the New Home Warranty and Builders Registration Act (N.J.S.A. 46:3B-1 et seq.) and that such fact shall be disclosed to any person purchasing this property within ten years of the date of issuance of a certificate of occupancy.

I UNDERSTAND THAT IN MARKING BOX A, I ACKNOWLEDGE THAT I AM ASSUMING RESPONSIBILITY FOR THE WORK DONE ON SAID PROPERTY, THE CONDITION OF THE PROPERTY PRIOR TO, DURING, AND AFTER ANY WORK PERFORMED, AND FOR THE PERFORMANCE OF THE SUBCONTRACTORS I HIRE, EMPLOY, OR OTHERWISE CONTRACT OR WITH WHOM I MAKE AGREEMENTS TO PERFORM WORK. I AM VOLUNTARILY AND KNOWINGLY ASSUMING THIS RESPONSIBILITY

- B. ☐ I further certify the following as required by the New Jersey Uniform Construction Code, N.J.A.C. 5:23-2.15(e)1 vii:

I personally prepared the plans submitted for: 1) the new home referred to in A., or, 2) an addition, alteration, renovation, or repair to an existing single family residence owned and occupied by myself and located on the property listed on Page 1; or, 3) a new structure that will be physically separate from, but that will be deemed part of, an existing single family residence that is owned and occupied by myself and located on the property listed on Page 1

- C. ☐ I further certify that I will perform or supervise the following work:

C.1. ☐ Building C.2. ☐ Fire Protection

I further certify that I will perform the following work:

C.3. ☐ Electrical C.4. ☐ Plumbing

- D. ☐ I agree to advise all contractors on this project that they are required to be registered with the New Jersey Division of Taxation and to comply with all New Jersey tax laws.

I further certify the following as required by the Uniform Construction Code, N.J.A.C. 5:23-2.15(a)5: All required State, county, and local prior approvals have been given, including such certification as the construction official may require.

I understand that if any of the above statements are willfully false, I am subject to punishment.

Signature _____ Date _____

II. AGENT SECTION (to be completed if the applicant is not the owner in fee)

I hereby certify the following as required by the Uniform Construction Code, N.J.A.C. 5:32-2.15(d): the proposed work is authorized by the owner in fee; and I have been authorized by the owner in fee to make this application as his agent.

I further certify the following as required by the Uniform Construction Code, N.J.A.C. 5:23-2.15(a)5: All required State, county, and local prior approvals have been given, including such certification as the construction official may require.

I agree to advise all contractors on this project that they are required to be registered with the New Jersey Division of Taxation and to comply with all New Jersey tax laws.

I understand that if any of the above statements are willfully false, I am subject to punishment.

☒ Check if contractor.

Agent Name JDS Contracting

Address 23 CINDY LANE #4

Ocean, NJ 07712

Telephone (232) 695-0100

Signature [Signature]

- III. ☐ LEAD HAZARD ABATEMENT: Include Homeowner or Building Owner Affidavit as per N.J.A.C. 5:17.

OFFICE DATE RECEIVED: _____

VIII. PRIOR APPROVALS CHECKLIST (office use only)	LOCAL APPROVAL		COUNTY APPROVAL		REGIONAL APPROVAL		STATE APPROVAL		COMMENTS
	Prelimin. Initial	Final Date	Prelimin. Initial	Final Date	Prelimin. Initial	Final Date	Prelimin. Initial	Final Date	
☐ Zoning Officer									
☐ Planning Board									
☐ Zoning Board									
☐ Sewer Authority									
☐ Water Authority									
☐ Police Department									
☐ Health Department									
☐ Soil Conservation									
☐ N.J. Department of Community Affairs									
☐ N.J. Department of Transportation									
☐ N.J. Department of Environmental Protection									
☐ Utility Dig No.									
☐									
☐									

IX. SUBCODES AND SPECIAL REGULATIONS APPLICABLE (office use only—optional)

Name of Code & Edition _____ Name of Code & Edition _____

Building _____ Energy _____ Other _____

Electrical _____ Barrier Free _____

Plumbing _____ Flood Hazard _____

Fire Protection _____ As Built Elevation Cert. _____

Mechanical _____ Other _____

X. CERTIFICATES ISSUED (office use only)

	DATE ISSUED	DATE EXPIRED	DATE REISSUED	DATE EXPIRED
☐ Temporary Certificate of Occupancy	No. _____	_____	_____	_____
☐ Temporary Certificate of Compliance	No. _____	_____	_____	_____
☐ Continued Certificate of Occupancy	No. _____	_____	_____	_____
☐ Certificate of Compliance	No. _____	_____	_____	_____
☐ Certificate of Occupancy	No. _____	_____	_____	_____
☐ Certificate of Approval	No. _____	_____	_____	_____
☐ Lead Abatement Clearance Certificate	No. _____	_____	_____	_____

ANY BUILDING QUESTIONS
CALL 732-262-1027

[illegible]

Initialed: _____ Date: _____

Initialed: _____ Date: _____

1



Brick Township
401 Chambersbridge Rd
Brick, NJ 08723

Date Issued 11/20/2007
Control Number C-07-003136
Permit Number 07-1917
Permit Issue Date 06/27/2007
Certificate Number 07-1917

Certificate

Construction Code Division
(Certificate of Approval)

Identification

Work Site Location: 171 BEAVERSON BLVD. Brick Township, NJ Block: 380 Lot: 13 Qual: _____
Owner in Fee: BRICK TOWNSHIP BOARD OF EDUCATION
Owner Address: 101 HENDRICKSON AVE. BRICK NJ 08723
Telephone: (732) 785-3000
Contractor: JDS CONTRACTING
Address: 23 CINDY STREET OCEAN NJ 07712
Telephone: (732) 695-0100 Fax: _____
License Number or Builders Registration Number: _____ Federal Emp. Number: _____

Home Warranty Number: _____

Type of Warranty Plan: ☐ State ☐ Private

Use Group: R-5

Construction Classification: _____

Maximum Live Load: 0

Maximum Occupancy Load: 0

Description of Work Used: NEW ROOF

Certificate Comments:

☐ **Certificate of Occupancy**

This serves notice that said building or structure has been constructed in accordance with the New Jersey Uniform Construction Code and is approved for occupancy.

☒ **Certificate of Approval**

This serves notice that the work completed has been constructed or installed in accordance with the New Jersey Uniform Construction Code and is approved. If the permit was issued for minor work, this certificate was based upon what was visible at the time of inspection.

☐ **Certificate of Continued Occupancy**

This serves notice that based on a general inspection of the visible parts of the building there are no imminent hazards and the building is approved for continued occupancy.

☐ **Temporary Certificate of Compliance**

The following conditions must be met no later than or the owner will be subject to fine or order to vacate:
This certificate has an expiration date of:

Conditions to be met:

☐ **Certificate of Clearance - Lead Abatement 5:17**

This serves notice that based on written certification, lead abatement was performed as per NJAC5:17 to the following extent.

- ☐ Total removal of lead-based paint hazards in scope of work
☐ Partial or limited time period (years); see file

☐ **Certificate of Clearance - Asbestos Abatement**

This serves notice that based on written certification, asbestos abatement was performed to the following extent.

- ☐ Total removal of asbestos hazards in scope of work
☐ Partial or limited time period (years); see file

☐ **Certificate of Compliance**

This serves notice that said potentially hazardous equipment has been installed and/or maintained in accordance with the New Jersey Uniform Construction Code and is approved for use until

☐ **Temporary Certificate of Occupancy**

The following conditions must be met no later than:
or the owner will be subject to fine or order to vacate:
This certificate has an expiration date of:
Conditions to be met:

Construction Official

Fee: \$0.00

Check Number: _____

Collected By: _____

Date Printed: 11/20/2007

Page 1



CONSTRUCTION PERMIT

Date Issued _____

Control # _____

Permit # _____

IDENTIFICATION Block _____ Lot _____

Work Site Location LAKE RIVIERA MIDDLE SCHOOL171 BEAVERSON AVE - BRICK NJOwner in Fee BRICK TWP APPEAddress 101 HENDRICKSON AVENUE
BRICK NJ 08724Tel. (732) 785-3000Contractor JDS CONTRACTINGAddress 23 CINDY LANE #4ORAN NJ 07712Tel. (732) 695-0100

Lic. No. or Bldrs. Reg. No. _____

Fed. Emp. No. 22-3409984

Is hereby granted permission to perform the following work:

- | | | |
|---|---|--|
| ☐ BUILDING | ☐ PLUMBING | ☐ LEAD HAZARD ABATEMENT |
| ☐ ELECTRICAL | ☐ FIRE PROTECTION | ☐ DEMOLITION |
| ☐ ELEVATOR DEVICES | ☐ ASBESTOS ABATEMENT | ☒ OTHER <u>Roofing</u> |
- (Subchapter 8 only)

DESCRIPTION OF WORK:

NOTE: If construction does not commence within one (1) year of date of issuance, or if construction ceases for a period of six (6) months, this permit is void.

Estimated Cost of Work \$ 1,290,000

Construction Official _____

Date _____

PAYMENTS (Office Use Only)

Building	_____
Electrical	_____
Plumbing	_____
Fire Protection	_____
Elevator Devices	_____
Other	_____
DCA Training Fee	_____
Cert. of Occupancy	_____
Other	_____
Total	_____
Check No.	_____
Cash	_____
Collected by	_____

U.C.C. F170
(rev. 3/98)

1 WHITE—INSPECTOR COPY 2 CANARY—OFFICE COPY 3 PINK—OFFICE COPY 4 GOLD—APPLICANT COPY

(see reverse side)

REQUIRED INSPECTIONS

Construction work must be inspected in accordance with the State Uniform Construction Code Regulations N.J.A.C. 5:23-2.18. This agency will carry out such periodic inspections during the progress of work as are necessary to insure that work installed conforms to the approved plans and the requirements of the Uniform Construction Code.

The owner or other responsible person in charge of work must notify this agency when work is ready for any required inspections specified below. Requests for inspections must be made at least 24 hours prior to the time the inspection is desired. Inspections will be performed within three business days of the time for which they are requested. The work must not proceed in a manner which will preclude the inspection until it has been made and approval given.

☐ Required inspections for all subcodes for one and two family dwellings are the following:

1. The bottom of footing trenches before placement of footings, except that in the case of pile foundations, inspections shall be made in accordance with the requirements of the building subcode;
2. Foundations and all walls up to grade level prior to back filling;
3. All structural framing and connections prior to covering with finish or infill material; plumbing underground services, rough piping, water service, sewer, septic services and storm drains; electrical rough wiring, panels and service installations; insulation installations;
4. Installation of all finished materials, sealings of exterior joints; plumbing piping, trim and fixtures; electrical wiring, devices and fixtures; mechanical systems equipment.

☐ Required special inspections. The applicant by accepting the permit will be deemed to have consented to these requirements:

- ☐ A final inspection is required for each applicable subcode area before a final Certificate of Occupancy or Approval may be issued. Any violations of the approved plans and/or permit will be noted and the holder of the permit notified of discrepancies.
- ☐ A complete copy of approved plans must be kept on the job site.

If you do not understand any of this information, please ask.



CONSTRUCTION PERMIT

Date Issued 06/27/2007
Control # C-07-003136
Permit # 07-1917

IDENTIFICATION Block: 380 Lot: 13 Qualifier _____
Work Site Location: 171 BEAVERSON BLVD. Brick Township, NJ Contractor JDS CONTRACTING
Address 23 CINDY STREET OCEAN NJ 07712
Owner in Fee BRICK TOWNSHIP BOARD OF EDUCATION
Address 101 HENDRICKSON AVE. BRICK NJ 08723 Telephone: (732) 695-0100
Telephone: (732) 785-3000 Lic. No. or Bldrs. Reg. No. _____
Federal Employee No. _____

Is hereby granted permission to perform the following work:

- | | | |
|--|--|--|
| ☒ BUILDING | ☐ PLUMBING | ☐ LEAD HAZARD ABATEMENT |
| ☐ ELECTRICAL | ☐ FIRE PROTECTION | ☐ DEMOLITION |
| ☐ ELEVATOR DEVICES | ☐ ASBESTOS ABATEMENT
(Subchapter 8 only) | ☐ OTHER |

DESCRIPTION OF WORK:

NEW ROOF

Note: If construction does not commence within one (1) year of date of issuance, or it construction ceases for a period of six (6) months, this permit is void.
Estimated Cost of Work \$1,290,000

Construction Official _____

Date _____

U.C.C. F170
equiv (rev 8/03)

1 WHITE - INSPECTOR

2 CANARY - OFFICE

3 PINK - TAX ASSESSOR

4 GOLD - APPLICANT

PAYMENTS (Office Use Only)

Building	_____	\$0
Electrical	_____	\$0
Plumbing	_____	\$0
Fire Protection	_____	\$0
Elevator Devices	_____	\$0
Other	_____	\$0.00
DCA Training Fee	_____	\$0
CO Fee	_____	
Other	_____	\$0
Total	<u>Exempt</u>	\$0
Check No.	_____	
Cash	_____	\$0
Credit	_____	\$0
Collected By	_____	<u>SL</u>

REQUIRED INSPECTIONS

Construction work must be inspected in accordance with the State Uniform Construction Code Regulations N.J.A.C. 5:23-2.18. This agency will carry out such periodic inspections during the progress of work as are necessary to insure that the work installed conforms with the requirements of the Uniform Construction Code.

The owner or other responsible person in charge of work must notify this agency when work is ready for any required inspections specified below. Requests for inspections must be made at least 24 hours prior to the time the inspection is desired. Inspections will be performed within three business days of the time for which they are requested. The work must not proceed in a manner which will preclude the inspection until it has been made and approval granted.

- ☐ Required inspections for all subcodes for one- and two-family dwellings are as follows:
1. The bottom of footing trenches before placement of footings, except that in cases of pile foundations, inspections shall be made in accordance with the requirements of the building subcode.
 2. Foundations and all walls up to grade level prior to back filling.
 3. All structural framing, connections, wall and roof sheathing and insulation; electrical rough wiring, panel and service installation; rough plumbing. The framing inspection shall take place after the rough electrical and plumbing inspections and after the installation of the heating, ventilation and /or air conditioning duct system. The insulation inspection shall be performed after all other subcode rough inspections and prior to the installation of any interior finish material.
 4. Installation of all finished materials, sealings of exterior joints, plumbing piping, trim and fixtures; electrical wiring, devices and fixtures; mechanical systems equipment.

Additional required inspections for all subcodes of construction, for other than one- and two-family dwellings, are fire suppression systems, heat producing devices and Barrier Free subcode accessibility, if applicable.

- ☐ Required special inspections. The applicant by accepting the permit will be deemed to have consented to these requirements:
- ☐ A final inspection is required for each applicable subcode area before a final Certificate of Occupancy or Approval may be issued. The final inspections include the installation of all interior and exterior finish materials, sealing of exterior joints, mechanical system and other required equipment; electrical wiring, devices and fixtures; plumbing pipes, trim and fixtures; tests required by any provision of the adopted subcodes, Barrier Free accessibility, if applicable; and verification of compliance with NJAC 5:23-3.5, "Posting structures".

- ☐ A complete copy of released plans must be kept on the job site.

If you do not understand any of this information, please ask.



BUILDING SUBCODE TECHNICAL SECTION



A. IDENTIFICATION—APPLICANT: COMPLETE ALL APPLICABLE INFORMATION. WHEN CHANGING CONTRACTORS, NOTIFY THIS OFFICE. CALL UTILITY DIG NO: 1-800-272-1000.

Block 380 Lot 13 Qualification Code 13

Work Site Location LAKE RIVER MIDDLE SCHOOL

Owner in Fee 171 BARNESON BLVD - BRICK NJ

Address 191 HADICKSON AVENUE

Brick NJ 08724

Tel. (232) 785-3200

Contractor JDS CONTRACTING

Address 23 E. 4th Lane #43

Brick NJ 07712

Tel. (232) 695-0000

FAX (232) 695-0455

Contractor License No. or Builder Registration No. 13VHA3094400

Federal Emp. No. 29-3409984

JOB SUMMARY (Office Use Only)

PLAN REVIEW	Date	Initial	INSPECTIONS	Failure	Dates (Month/Day)	Initial
Type:	Failure	Failure	Approval	Initial		
☐ No Plans Required						
☐ All						
☐ Footing						
☐ Foundation						
☐ Frame						
☐ Other						
Joint Plan Review Required:						
☐ Elec. ☐ Plumb. ☐ Fire ☐ Elevator						
SUBCODE APPROVAL						
☐ CO ☐ CCO ☐ CA						
Date: <u>11-15-07</u>						
Approved by: <u>[Signature]</u>						
TCO						
Mechanical						
Other						
Final						
Barrier-Free						

B. BUILDING CHARACTERISTICS

Use Group	Present	Proposed	Est. Cost of Bldg. Work:
Constr. Class	Present	Proposed	1. New Bldg. \$
No. of Stories			2. Rehabilitation \$
Height of Structure			3. Total (1+2) \$
Area — Largest Floor			
New Bldg. Area/All Floors			
Volume of New Structure			
Total Land Area Disturbed			

Date Received 6/27/07
Control # 07-1917
Date Issued
Permit #

C. CERTIFICATION IN LIEU OF OATH

I hereby certify that I am the (agent of) owner of record and am authorized to make this application.
Signature [Signature]

D. TECHNICAL SITE DATA

DESCRIPTION OF WORK
<u>Roof Replacement</u>

TYPE OF WORK:	FEE (Office Use Only)
☐ New Building	
☐ Addition	
☐ Rehabilitation	
☒ Roofing	
☐ Siding	
☐ Fence	
☐ Sign	
☐ Pool	
☐ Asbestos Abatement Subchapter 8	
☐ Lead Haz. Abatement NJAC 5:17	
☐ Other	
☐ Demolition	

Administrative Surcharge \$	
Minimum Fee \$	
State Permit Surcharge Fee \$	
TOTAL FEE \$	



BUILDING SUBCODE TECHNICAL SECTION



A. IDENTIFICATION—APPLICANT: COMPLETE ALL APPLICABLE INFORMATION. WHEN CHANGING CONTRACTORS, NOTIFY THIS OFFICE. CALL UTILITY DIG NO. 1-800-272-1000.

Block 785 Lot 15 Qualification Code 15

Work Site Location LAKE RIVERA MIDDLE SCHOOL

Owner in Fee BRICK TWP BRICK NJ

Address 401 HENDRICKSON AVENUE

Tel. (732) 785-3000

Contractor JDS Contracting

Address 23 Andy Lane #4

Tel. (732) 695-0000

Contractor License No. or Builder Registration No. 13VHD30794100

Federal Emp. No. 22-3409864

FAX (732) 695-0455

JOBSUMMARY (Office Use Only)

PLAN REVIEW	Date	Initial	INSPECTIONS	Failure	Dates (Month/Day)	Initial
☐ No Plans Required			Type:	Failure	Failure	Approval
☐ All			Footings			
☐ Footing			Footings Bonding			
☐ Foundation			Foundation			
☐ Frame			Slab			
☐ Other			Frame			
			Truss Sys./Bracing			
			Barrier-Free			
Joint Plan Review Required:			Insulation			
☐ Elec. ☐ Plumb. ☐ Fire ☐ Elevator			Finishes -Base Layer			
			Finishes -Final			
SUBCODE APPROVAL			Energy			
☐ CO ☐ CCO ☐ CA			Mechanical			
Date:			TCO			
Approved by:			Other			
			Final			
			Barrier-Free			

B. BUILDING CHARACTERISTICS

Use Group Present Proposed

Constr. Class Present Proposed

No. of Stories

Height of Structure Ft.

Area — Largest Floor Sq. Ft.

New Bldg. Area/All Floors Sq. Ft.

Volume of New Structure Cu. Ft.

Total Land Area Disturbed Sq. Ft.

Est. Cost of Bldg. Work:

1. New Bldg. \$

2. Rehabilitation \$

3. Total (1+2) \$

C. CERTIFICATION IN LIEU OF OATH

I hereby certify that I am the (agent of) owner of record and am authorized to make this application.

Signature

D. TECHNICAL SITE DATA

DESCRIPTION OF WORK

Roof Replacement

TYPE OF WORK:

☐ New Building

☐ Addition

☐ Rehabilitation

☒ Roofing

☐ Siding

☐ Fence Height (exceeds 6') Sq. Ft.

☐ Sign Sq. Ft.

☐ Pool

☐ Asbestos Abatement Subchapter 8

☐ Lead Haz. Abatement NJAC 5:17

☐ Other

☐ Demolition

FEE (Office Use Only)

\$

Administrative Surcharge \$

Minimum Fee \$

State Permit Surcharge Fee \$

TOTAL FEE \$

Date Received
Control #
Date Issued 6/27/17
Permit # 17-1117

PROJECT MANUAL

PROJECT NO. E070581.06

Brick Township Public Schools Roofing Replacements

101 Hendrickson Avenue
Brick, NJ 08724

May 21, 2007
ISSUED FOR BID

Volume 1 of 1
Construction Documents & Specifications

Owner

Brick Township Public School District

**Board and Administration Office
101 Hendrickson Avenue
Brick, NJ 08724**

**Dr. Thomas L. Seidenberger, Superintendent
Melindo A. Persi, Interim BA /Board Secretary**

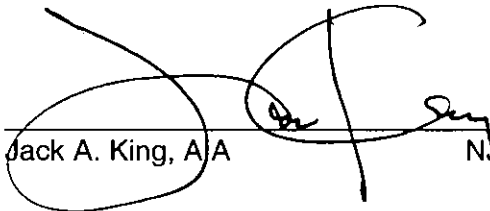
PROJECT MANUAL E070581.06

MAY 21, 2007

BRICK TOWNSHIP PUBLIC SCHOOL DISTRICT
ROOFING REPLACEMENTS
101 Hendrickson Avenue
Brick, NJ 08724

FLETCHER THOMPSON ARCHITECTURE ENGINEERING, LLC
ARCHITECTURE/ENGINEERING/INTERIOR DESIGN

ONE TOWER CENTER BOULEVARD
17TH FLOOR
EAST BRUNSWICK, NEW JERSEY 08816
Telephone: (732) 246-5620
Fax: (732) 246-5630

 (SEAL)

Jack A. King, AIA NJ Lic. No. 08624

School Board President or Vice President

School Superintendent

ROOFING REPLACEMENTS
BRICK TOWNSHIP PUBLIC SCHOOLS
101 HENDRICKSON AVENUE
BRICK, NEW JERSEY 08724

ADDENDUM No. 1

MAY 30, 2007
FTAE# E070581

TO: **ALL BIDDERS**

NOTICE: The information contained herein supplements and/or supersedes specific parts of the Contract Documents referred to in each item, and shall be attached to and become a part thereof. All other provisions shall remain in full force and effect as set forth in the original documents. Additional work called for herein shall comply with the requirements originally specified for similar work, unless otherwise described in the specific item. Bidders shall acknowledge receipt of this Addendum in the Bid.

Scope of Addendum: This Addendum answers RFI's, and revises/clarifies Contract Drawings.

All Bidders wishing to have their bids considered responsive must:

1. Sign and date a copy of this Addendum

Received by: _____ Date: _____

Company submitting Bid: _____

Address of Bidder: _____

2. Fax a completed copy to the Architect: 732-246-5630
3. Submit an original signed copy of this form with Bid.
4. This Addendum Number 1 is herewith included and made part of the Contract Documents

**ROOFING REPLACEMENTS
BRICK TOWNSHIP PUBLIC SCHOOLS
BRICK TOWNSHIP, NEW JERSEY**

The following changes to the Drawings and Project Manual shall become a part of the Contract Documents; superseding previously issued Drawings and Specifications, to the extent modified by this Addendum No. 1.

CLARIFICATIONS

A. Regarding the "LIST OF SUBCONTRACTORS"; Section 00432, page 1:

1. The 3rd paragraph which begins with the words, "NOTE: If the Bidder..." Clearly describes the condition in which a subcontractor does not need to be listed. Naming of Subcontractors shall be subject to the state requirements for subcontract work-value threshold identified by the State of New Jersey.

B. Regarding Board of Education Meeting schedule during the summer months:

1. The Board of Education will met once each, in July and August to take action on properly prepared, submitted, and duly approved Contractor Applications for Payments. A meeting schedule identifying those dates will be issued to the award contractor(s).

C. Regarding Location of Refuse Containers (Dumpsters):

1. Bidders shall be aware that the Owner Representative will coordinate proposed refuse container locations with the contractor and the school users to minimize impact on continued use of the facility and to facilitate the contractor's work.

D. Regarding completing the BID FORM:

1. Bidders shall provide a bid value for each of the three (3) Contacts identified in the BID FORM.

E. Regarding Supplemental Instructions to Bidders, Section 00201:

1. Bidders are advised to review and pay special attention to this section and its contents.
2. Page 00201-9, paragraph 4.3.1, regarding **bid forms submitted in Triplicate**; Contractors may reproduce their completed "original" Bid Form to make up the triplicate submission. **HOWEVER**, all 3 sets of Bid Forms MUST bear original signatures and seals where indicated and/or required.

F. Regarding "Hebertsville" School name:

1. All instances of the name "Hebertsville Elementary School" in the Project Manual and on the Drawings shall be changed to "Herbertsville Elementary School".

G. Regarding existing equipment curbs and rails, vent stacks, other existing rooftop penetrations, and pipe and conduit runs to remain:

1. All existing equipment curbs and rails, vent stacks, and other existing rooftop penetrations shall be raised to a minimum of 8" clear of the new roofing surface. Curb extensions shall be utilized whenever possible or provide new curb-work of rot-resistant treated dimensional lumber to the requirements of the roofing system manufacturer to obtain the specified warrantee.
2. Pipe and conduit runs shall be raised to new elevations, minimum 6 inches clear of the new roofing system, without unexpected disruption to service or damage to existing materials. Utilize pre-molded, appropriately-sized, EPDM chairs approved by the roofing system manufacturer to support existing pipe and conduit runs to remain. If service interruptions are necessary and unavoidable to reposition the pipe or conduit, it shall be coordinated with the School District Facility Department to minimize impact on the building users, including but not limited to, after school hours, evenings, and/or weekends and holidays.

CHANGES TO DRAWINGS

H. DRAWING NO. A-100-LR – ROOF PLAN (roof detail sheet) – Lake Riviera Middle School:

1. Drawing number and title revised and corrected to read "A-101-LR, ROOF DETAILS" and as indicated on the copy enclosed herewith, dated May 30, 2007.
2. Details 5 and 11 reinstated.

I. DRAWING NO. A-102-BH – ROOF DETAILS – Brick Township High School:

1. Detail 11 reinstated.

J. DRAWING NO. A-100-BM – ROOF PLAN – Brick Township Memorial High School:

1. Drawing revised as indicated on A-100-BM, copy enclosed herewith, dated May 30, 2007.

K. DRAWING NO. A-101-BM – ROOF PLAN – Brick Township Memorial High School:

1. Drawing revised as indicated on A-101-BM, copy enclosed herewith, dated May 30, 2007.

L. DRAWING NO. A-101-VM – ROOF DETAILS – Veteran's Memorial Middle School:

1. Detail 11 reinstated.

M. DRAWING NO. A-100-LR, A-100-BH, A-101-BH, A-100-BM, A-101-BM, A-100-VM, A-100-HE – ROOF PLANS – (All Schools):

1. In the "ROOF NOTES" (legend box), delete Roof Note #1 in its entirety on all Roof Plan drawings noted above.

CHANGES TO THE PROJECT MANUAL

N. SECTION 00411 – BID FORM:

1. Remove and Discard Section 00411 – Bid Form, dated May 21, 2007, in its entirety, as originally issued in the Project Manual and substitute and insert the revised Section 00411 – Bid Form (Add. No. 1), dated May 30, 2007, consisting of 7 pages, enclosed herewith.
2. Bidders shall note the inclusion of separate Allowance in each of Separate Contact Bid - Contract No. 1, Separate Contact Bid - Contract No. 2, and Single Overall Lump Sum Bid - Contract No. 3, for removal and replacement of existing roof drains, as described therein.
3. Bidders shall note the inclusion of an Allowance at Brick Township Memorial High School for Roof Drain Testing and Repair in Separate Contract Bid - Contract No. 2 and Single Overall Lump Sum Bid - Contract No. 3.

O. SECTION 00010 – TABLE OF CONTENTS:

1. Remove and Discard Section 00010 – Table Of Contents, dated May 21, 2007, in its entirety, as originally issued in the Project Manual and substitute and insert the revised Section 00010 – Table of Contents (Add. No. 1), dated May 30, 2007, consisting of 3 pages, enclosed herewith.

P. SECTION 01450 – QUALITY CONTROL:

1. Insert new Section 01450 – Quality Control (ADD. No. 1), dated May 30, 2007, as enclosed herewith and consisting of 2 pages, after the last page of Section 01331 and before the first page of Section 01500 in the Project Manual.

Q. SECTION 01210 – ALLOWANCES:

1. Insert new Section 01210 – Allowances (ADD. No. 1), dated May 30, 2007 after the last page of Section 01110 and before the first page of Section 01312 in the Project Manual, as enclosed herewith and consisting of 2 pages.

END OF ADDENDUM NO.1

**ROOFING REPLACEMENTS
BRICK TOWNSHIP PUBLIC SCHOOLS
BRICK TOWNSHIP, NEW JERSEY**

The following statement(s) clarifies existing information on the drawings and in the Project Manual.

CLARIFICATIONS

- A. Regarding "Roof Details" as drawn on all Roof Detail drawings:
1. All roof details are drawn indicating new wood blocking unless specifically noted otherwise. Specification Section 06100 – Rough Carpentry, dated May 21, 2007, was included in the issued Bidding Documents for the purposes of providing such treated wood blocking. Bidders are to prepare their bid accordingly.
- B. Regarding the "Affirmative Action questionnaire" referenced on page 00430-1 of the Project Manual:
1. The Affirmative Action questionnaire is included on page 00816-1 of the Project Manual.
- C. Regarding Surety Bid Bonds:
1. The bidder shall deliver an acceptable Surety Bid Bond for each bid as stated in the Project Manual Section 00201 - Supplemental Instructions to Bidders, paragraph 4.2.4 (page 00210-9).

END OF BULLETIN NO.1

TABLE OF CONTENTS

SECTION 00010

INTRODUCTORY INFORMATION

- 00000 - Project Manual Cover
- 00001 - Title Page
- 00010 - Table of Contents

DIVISION 0 - BIDDING AND CONTRACTING REQUIREMENTS

- 00100 - Notice to Bidders (Advertisement to Bid)
- 00200 - Instructions to Bidders AIA Document A701 - 1997
- 00201 - Supplemental Instructions to Bidders
- 00411 - Bid Form (Add. No. 1)
- 00430 - Bid Document Checklist
- 00431 - Contractor Data Sheet
- 00432 - List of Subcontractors
- 00433 - Bid Bond AIA Document A310 - 1970
- 00453 - Non-Collusion Affidavit
- 00454 - Ownership Disclosure Statement
- 00520 - Agreement Form – AIA Document A105 – 1993
- 00611 - Certificate of Surety Company
- 00612 - Surety Disclosure Statement and Certification
- 00700 - General Conditions of the Contract AIA Document A205 - 1993
- 00800 - Supplemental General Conditions
- 00801 - Prevailing Wage Rates
- 00810 - Insurance Requirements
- 00815 - Exhibit B, Mandatory Affirmative Action Language Construction Contracts
- 00816 - Affirmative Action Regulations
- 00817 - Equal Opportunity for Individuals with Disabilities
- 00900 - Addenda and Modifications
- 00910 - Addendum Acknowledgment Form

DIVISION 1 - GENERAL REQUIREMENTS

- 01110 - Summary of Work
- 01210 - Allowances (Add. No. 1)
- 01312 - Project Meetings
- 01315 - Contractor's Requests for Information
- 01330 - Submittal Procedures
- 01331 - Submittal Review Stamp
- 01450 - Quality Control (Add. No. 1)
- 01500 - Temporary Facilities and Controls
- 01600 - Product Requirements
- 01731 - Cutting and Patching
- 01742 - Progress Cleaning
- 01771 - Project Closeout

DIVISION 2 - SITE CONSTRUCTION

Not Used

DIVISION 3 - CONCRETE

Not Used

DIVISION 4 - MASONRY

Not Used

DIVISION 5 - METALS

Not Used

DIVISION 6 - WOOD AND PLASTICS

06100 - Rough Carpentry

DIVISION 7 - THERMAL AND MOISTURE PROTECTION

07513 - Cold-Applied Built-Up Asphalt Roofing
07591 - Membrane Reroofing Preparation
07620 - Sheet Metal Flashing and Trim
07716 - Roof Expansion Assemblies

DIVISION 8 - DOORS AND WINDOWS

Not Used

DIVISION 9 - FINISHES

Not Used

DIVISION 10 - SPECIALTIES

Not Used

DIVISION 11 - EQUIPMENT

Not Used

DIVISION 12 - FURNISHINGS

Not Used

DIVISION 13 - SPECIAL CONSTRUCTION

Not Used

DIVISION 14 - CONVEYING SYSTEMS

Not Used

DIVISION 15 - MECHANICAL

Not Used

DIVISION 16 - ELECTRICAL

Not Used

END OF TABLE OF CONTENTS

BID FORM

Brick Township Public Schools
Roofing Replacements
101 Hendrickson Avenue, Brick, NJ 08723

TO: BRICK PUBLIC SCHOOL BOARD OF EDUCATION
Brick Township School District
Administration Building
101 Hendrickson Avenue
Brick, New Jersey, 08723

FROM:

Name of Company

Address

GENTLEMEN:

The undersigned having carefully examined the bidding and contract documents, and being familiar with all the conditions affecting the Work including availability of Labor and Materials hereby proposes to furnish all related labor, materials and equipment required for Brick Township Public Schools – Roofing Replacements in accordance with the Contract Documents and Addenda, if any thereto, prepared by Fletcher Thompson Architecture Engineering, LLC under Separate Contracts Bids No. 1 and/or No. 2 and/or a Single Overall Lump Contract Bid No. 3 as indicated as follows, for the contract price set forth below:

SEPARATE CONTRACT BIDS:

CONTACT No. 1 – Lake Riviera Middle School and Brick Township High School:

TOTAL BASE BID:

(Fill out in words)

\$

(Fill out in numbers)

Note: All Unit Prices and Allowances must be included in the Base Bid.

Allowance A-1-1 - Replace existing roof drains – Include in the bid proposal **\$13,500.00** for the removal and replacement of existing deteriorated/damaged roof drain bodies and assemblies at any of the 2 schools in this contract as authorized and directed by the Owners Representative. Replacement shall include the roof drain body, strainer assembly, drain clamp, outlet, and all required fittings, and one elbow of equal size to connect to the existing drain leader.

Unit Price No. 1-1 – Tectum Roof Deck Repair / Replacement – State the unit price amount per square foot to remove, dispose, and replace, discovered, existing Tectum roof deck at Brick High School, as authorized by the Board's representative, in the Base Bid quantity of thirty (30) square feet.

\$_____ per sq. ft.

Unit Price No. 1-2 – Steel Roof Deck Repair / Replacement – State the unit price amount per square foot to remove, dispose, and replace, discovered, existing steel roof deck at Lake Riviera School, as authorized by the Board's representative, in the Base Bid quantity of forty-five (45) square feet.

\$_____ per sq. ft.

**CONTACT No. 2 – Brick Township Memorial High School, Veteran's Memorial Middle School,
and Herbertsville School Annex Building:**

TOTAL BASE BID: _____
(Fill out in words)

\$ _____
(Fill out in numbers)

ALTERNATE BID No. 1 – Veteran's Memorial Middle School:

State the amount to be ADDED TO the Base Bid to remove and dispose of the additional existing roofing system as identified as "Alternate No. 1" on Drawing A-100-VM and replace as detailed with the specified new insulation and roofing system.

(Fill out in words)

\$ _____
(Fill out in numbers)

Note: All Unit Prices and Allowances must be included in the Base Bid and Alternate Bid.

Allowance A-2-1 - Replace existing roof drains – Include in the bid proposal **\$15,500.00** for the removal and replacement of existing deteriorated/damaged roof drain bodies and assemblies at any of the 3 schools in this contract as authorized and directed by the Owners Representative. Replacement shall include the roof drain body, strainer assembly, drain clamp, outlet, and all required fittings, and one elbow of equal size to connect to the existing drain leader.

Allowance A-2-2 - Roof drain testing and repair – Include in the bid proposal **\$8,000.00** to flood test suspect clogged existing roof drains at Brick Township Memorial High School as directed by the Owner's Representative and make repairs as needed, to those roof drains confirmed to be obstructed, to provide free-flowing drainage. Repairs shall include, but not be limited to, replacement of elbows or lengths of straight piping, power-scouring of pipe and elbow interiors, etc.

Unit Price No. 2-1 – Tectum Roof Deck Repair / Replacement – State the unit price amount per square foot to remove, dispose, and replace in kind, discovered, existing Tectum roof deck at Veteran's Memorial Middle School, as authorized by the Board's representative, in the Base Bid quantity of thirty (30) square feet.

\$ _____ per sq. ft.

Unit Price No. 2-2 – Steel Roof Deck Repair / Replacement – State the unit price amount per square foot to remove, dispose, and replace in kind, discovered, existing steel roof deck at Brick Memorial High School, as authorized by the Board's representative, in the Base Bid quantity of forty-five (45) square feet.

\$_____ per sq. ft.

Unit Price No. 2-3 – Plywood Roof Deck Repair / Replacement – State the unit price amount per square foot to remove, dispose, and replace in kind, discovered, existing plywood roof deck at the Herbertsville School, as authorized by the Board's representative, in the Base Bid quantity of ninety-six (96) square feet.

\$_____ per sq. ft.

SINGLE OVERAL LUMP SUM BID:

CONTACT No. 3 – Lake Riviera Middle School, Brick Township High School, Brick Township Memorial High School, Veteran's Memorial Middle School, and Herbertsville School Annex Building:

TOTAL BASE BID: _____
(Fill out in words)

\$ _____
(Fill out in numbers)

ALTERNATE BID No. 1 – Veteran's Memorial Middle School:

State the amount to be ADDED TO the Base Bid to remove and dispose of the additional existing roofing system as identified as "Alternate No. 1" on Drawing A-100-VM and replace as detailed with the specified new insulation and roofing system.

(Fill out in words)

\$ _____
(Fill out in numbers)

Note: All Unit Prices and Allowances must be included in the Base Bid and Alternate Bid.

Allowance A-3-1 - Replace existing roof drains – Include in the bid proposal **\$29,000.00** for the removal and replacement of existing deteriorated/damaged roof drain bodies and assemblies at any of the 5 schools in this contract as authorized and directed by the Owners Representative. Replacement shall include the roof drain body, strainer assembly, drain clamp, outlet, and all required fittings, and one elbow of equal size to connect to the existing drain leader.

Allowance A-3-2 - Roof drain testing and repair – Include in the bid proposal **\$8,000.00** to flood test suspect clogged existing roof drains at Brick Township Memorial High School as directed by the Owner's Representative and make repairs as needed, to those roof drains confirmed to be obstructed, to provide free-flowing drainage. Repairs shall include, but not be limited to, replacement of elbows or lengths of straight piping, power-scouring of pipe and elbow interiors, etc.

Unit Price No. 3-1 – Tectum Roof Deck Repair / Replacement – State the unit price amount per square foot to remove, dispose, and replace in kind, discovered, existing Tectum roof deck at Brick High School, as authorized by the Board's representative, in the Base Bid quantity of thirty (30) square feet.

\$_____ per sq. ft.

Unit Price No. 3-2 – Steel Roof Deck Repair / Replacement – State the unit price amount per square foot to remove, dispose, and replace in kind, discovered, existing steel roof deck at Lake Riviera School, as authorized by the Board's representative, in the Base Bid quantity of forty-five (45) square feet.

\$_____ per sq. ft.

Unit Price No. 3-3 – Tectum Roof Deck Repair / Replacement – State the unit price amount per square foot to remove, dispose, and replace in kind, discovered, existing Tectum roof deck at Veteran's Memorial Middle School, as authorized by the Board's representative, in the Base Bid quantity of thirty (30) square feet.

\$_____ per sq. ft.

Unit Price No. 3-4 – Steel Roof Deck Repair / Replacement – State the unit price amount per square foot to remove, dispose, and replace in kind, discovered, existing steel roof deck at Brick Memorial High School, as authorized by the Board's representative, in the Base Bid quantity of forty-five (45) square feet.

\$_____ per sq. ft.

Unit Price No. 3-5 – Plywood Roof Deck Repair / Replacement – State the unit price amount per square foot to remove, dispose, and replace in kind, discovered, existing plywood roof deck at the Herbertsville School, as authorized by the Board's representative, in the Base Bid quantity of ninety-six (96) square feet.

\$_____ per sq. ft.

NOTE: If written amount differs from the Numerical Figures, only the Written amount will be accepted as the correct BID. Bidders are also required to provide cost amounts for base bid, all alternate bids and all unit prices associated with the Contract or Contracts being bid. No conditions, limitations, or provision may be placed on a bid.

The Owner reserves the right to award Separate Multiple Contracts or a Single Lump Sum Contract based upon the Base Bids alone or upon the combination of the Base Bids and Alternate Bid, and with Unit Prices calculated at the rate of measure indicated.

Proposal forms will not be accepted unless signed by the Owner or authorized corporate officer.
Respectfully submitted,

NAME OF BIDDER:

(Typed or Printed)

SIGNED:

(Authorized Signature)

(SEAL IF BID IS BY A
CORPORATION)

(Title of Person Signing)

COMPANY ADDRESS:

MAILING ADDRESS: (If different from above)

TELEPHONE NUMBER

End of Bid Form

PART 1 – GENERAL1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes administrative and procedural requirements governing allowances.
 - 1) Certain materials and equipment are specified in the Contract Documents by allowances. In some cases, these allowances include installation. Allowances have been established in lieu of additional requirements and to defer selection of actual materials and equipment to a later date when additional information is available for evaluation. If necessary, additional requirements will be issued by Change Order.
- B. Types of allowances include the following:
 - 1) Lump-sum allowances.
- C. Related Sections include the following:
 - 1) Section 07513 – Cold-Applied Built-Up Asphalt Roofing: Replacement of existing roof drains.

1.3 SELECTION AND PURCHASE

- A. At the earliest practical date after award of the Contract, advise Architect of the date when final selection and purchase of each product or system described by an allowance must be completed to avoid delaying the Work.
- B. At Architect's request, obtain proposals for each allowance for use in making final selections. Include recommendations that are relevant to performing the Work.
- C. Purchase products and systems selected by Architect from the designated supplier.
- D. If actual installed cost of product(s) or system(s) is less than allowance, the difference will be returned to Owner as credit.
- E. If actual installed cost of product(s) or system(s) is greater than allowance, the difference will be charged as an addition.

1.4 SUBMITTALS

- A. Submit proposals for purchase of products or systems included in allowances, in the form specified for Change Orders. Use of allowances must be authorized by the Owners Representative and approved by Architect through change order prior to start of work.
- B. Submit invoices or delivery slips to show actual quantities of materials delivered to the site for use in fulfillment of each allowance.

PART 2 – PRODUCTS

Not Used

PART 3 – EXECUTION

3.1 EXAMINATION

- A. Examine products covered by an allowance promptly on delivery for damage or defects. Return damaged or defective products to manufacturer for replacement.

3.2 PREPARATION

- A. Coordinate materials and their installation for each allowance with related materials and installations to ensure that each allowance item is completely integrated and interfaced with related work.

3.3 SCHEDULE OF ALLOWANCES

- A. As identified in each Contract Bid in Section 00411 – Bid Form (ADD. No. 1), dated May30, 2007

END OF SECTION

PART 1 - GENERAL1.1 INSPECTION SERVICES

- A. The Owner will select and pay costs of a roofing inspection service for all initial reports listed in the various sections. The Contractor shall be responsible for additional tests and reports necessary as well as work specified in Article RESPONSIBILITIES AND DUTIES OF CONTRACTOR.

1.2 RESPONSIBILITIES AND DUTIES OF CONTRACTOR

- A. The use of roofing inspection service shall in no way relieve the Contractor of his responsibility to furnish materials and construction in full compliance with the requirements of the Contract Documents.
- B. To facilitate inspection services, the Contractor shall cooperate with the service and:
- 1) Secure and deliver to the Architect or to the service, without extra cost to the Owner, preliminary representative samples of the materials he proposes to use and that are required to be tested.
 - 2) Furnish such casual labor and all facilities that are necessary to obtain and handle samples at the project and to facilitate the specified inspections.
 - 3) Advise the service sufficiently in advance of operations to allow for completion of tests and for the assignment of personnel.
 - 4) Provide and maintain for the sole use of the service adequate facilities for safe storage of such test specimens that must remain on the project site prior to testing.
 - 5) Pay the service for such tests or inspections as are performed exclusively for the Contractor's convenience and for such retests as may be occasioned by initial nonconformance of the materials with the Contract Documents.

1.3 TESTING FOR SECTION 07513 – COLD-APPLIED BUILT-UP ASPHALT ROOFING

- A. The Owner will employ and pay for a qualified independent roofing inspection service to review the proposed roofing system and to make inspections, provide written daily reports, and take photographic images at his discretion, every day that the roofing subcontractor is working.
- B. Inspections shall be made to determine that:
- 1) Deck surface is satisfactory for insulation installation prior to commencing installation of insulation.
 - 2) Insulation surface is satisfactory for roofing application prior to commencing installation of roofing.
 - 3) Materials, equipment, and application methods are in accordance with the Material Manufacturer's printed recommendations.

- 4) Application is being made in accordance with approved methods.
- 5) Completed work is satisfactory.
- C. The roofing inspection service will provide written reports to the Architect and Owner every day.

END OF SECTION

NOTICE TO BIDDERS

NOTICE IS HEREBY GIVEN that sealed bids will be received by the Brick Township Public School District ("Board") for:

**Roofing Replacements
Brick Township Public School District
101 Hendrickson Avenue, Brick, NJ 08724**

together with all work incidental thereto.

Separate sealed Bid Packages will be received for the following:

- | | |
|-------------------------------------|---|
| Separate Contract Bid No. 1 – | Lake Riviera Middle School and Brick High School. |
| Separate Contract Bid No. 2 - | Brick Memorial High School, Veteran's Memorial Middle School, and Hebertsville School Annex Building. |
| Single Overall Lump Sum Bid No. 3 - | Lake Riviera Middle School, Brick High School, Brick Memorial High School, Veteran's Memorial Middle School, and Hebertsville School Annex Building |

Commencing on May 21, 2007, Contract Documents may be obtained at the office of the Architect,

Fletcher Thompson Architecture Engineering, LLC
One Tower Center Boulevard
17th Floor
East Brunswick, New Jersey 08816
Contact: P. James Repka, 732-447-1036

During regular business hours, 8:00 A.M. to 5:00 P.M., Monday through Friday, excluding holidays, upon proper notice and payment of non-refundable fee of Seventy-Five (\$75.00) Dollars (Make checks out to: Fletcher Thompson Architecture Engineering, LLC), No refunds will be made, unless bids are rejected.

Sealed bids shall be delivered to the Office of the Business Administrator between the hours 8:00 A.M. and 4:00 P.M. on official business days. All bids must be submitted in Triplicate and duly time stamped, in the Office of the Business Administrator not later than the "Bid Opening Date and Time" as stated in the Advertisement. Bids shall bear the name and address of the Bidder and shall be endorsed "Roofing Replacements at Brick Township Public School District".

Bids will be received by the Board through the designated person for the Board, Melindo A. Persi, Business Administrator/Board Secretary at the Board Offices, Brick Township Board of Education, Administration Building, 101 Hendrickson Avenue, Brick, New Jersey 08724, at 11:00 A.M. prevailing time on Wednesday, June 6, 2007, and will be publicly opened and read immediately thereafter.

Pre-bid Meeting: There will be an optional pre-bid meeting for all Bidders on Tuesday, May 29, 2007 at 10:00 a.m.. The site visit will begin at the School Board Office Conference Room, 101 Hendrickson Avenue, Brick, New Jersey 08724, then shall proceed to each of the project sites, in turn, at the direction of the Architect. Attendance is highly recommended.

Bids must be submitted on the proposal forms in the manner designated, enclosed in a sealed envelope bearing the name and address of Bidder and proposal identification number on the outside, and must be accompanied by certified check, cashier's check or Bid Security Bond drawn to the Order of the "Brick Township Public School District", for not less than ten percent (10%) of the amount of the bid, but in no case in excess of twenty thousand dollars (\$20,000); and must be delivered to the Business Administrator at the above place, by the hour named. The Board and the Board's Architects assume no responsibility for bids mismailed or misdirected.

No bid may be withdrawn for a period of sixty (60) days after the date set for the opening thereof. The Board reserves the right to reject any and all bids. The contract(s) will be awarded to the lowest responsible Bidder(s).

Bidders are required to comply with the requirements of Public Laws 1975, Chapter 127 (Affirmative Action Regulations), Public Laws 1977, Chapter 33, (Stockholder or Partnership Disclosure Requirement) and Chapter 150 of the Laws of 1963 as amended by Chapter 64 of the Laws of 1974 (New Jersey Prevailing Wage Act).

Bidding shall be in conformance with the applicable requirements of N.J.S.A. 18A:18A-1 et seq. pertaining to the "Public School Contract Laws".

By Order of the Brick Township Public School District,
Ocean County, New Jersey

Melindo A. Persi,
Business Administrator/Board Secretary

Dated: May 16, 2007

INSTRUCTIONS TO BIDDERS

SECTION 00200

1.1 INSTRUCTIONS TO BIDDERS

- A. The "Instructions to Bidders", American Institute of Architects Document A701 – 1997 is hereby made part of *these specifications*.

END OF INSTRUCTIONS TO BIDDERS

SUPPLEMENTAL INSTRUCTIONS TO BIDDERS

GENERAL: The following supplements modify and amend the "Instructions to Bidders", AIA Document A701, 1997 Edition. Where a portion of the Instructions to Bidders is modified, amended or deleted by these Supplementary Instructions, the unaltered portion of the Instructions to Bidders shall remain in effect.

Add new Article 0:

ARTICLE 0 SPECIALIZED BID INFORMATION

0.1 BID OPENING

0.1.1 Bids will be received by the Business Administrator of the Brick Township Public School District at the Board Offices and Administration Building, 101 Hendrickson Avenue, Brick, NJ 08724.

0.1.2 All Bids:

- WILL BE OPENED PUBLICLY, IN THE BOARD OFFICE CONFERENCE ROOM, IN THE ADMINISTRATION BUILDING, 101 HENDRICKSON AVENUE, BRICK, NEW JERSEY, COMMENCING AT 11:00 A.M., PREVAILING TIME ON THE DATE SPECIFIED IN THE NOTICE TO BIDDERS.
- MUST BE ENCLOSED IN A SEALED ENVELOPE BEARING THE NAME AND ADDRESS OF THE BIDDER, THE NAME OF THE BID AND THE DATE OF THE BID OPENING ON THE OUTSIDE.
- WHICH, IF ARE TO BE HAND DELIVERED THE DAY OF THE OPENING, MUST BE TAKEN AND PRESENTED TO THE BUSINESS ADMINISTRATOR AT THE TIME THE BIDS ARE CALLED FOR.
- WHICH, IF ARE TO BE MAILED PRIOR TO THE DAY OF OPENING, SHALL BE MAILED TO THE:

BUSINESS ADMINSTRATOR
BRICK TOWNSHIP PUBLIC SCHOOL DISTRICT
101 HENDRICKSON AVENUE
BRICK, NJ 08724

AND MUST BE RECEIVED PRIOR TO THE PREVAILING TIME STIPULATED IN THE NOTICE TO BIDDER ON THE DATE ON WHICH THEY ARE TO BE OPENED.

- THE DISTRICT AND THE ARCHITECT WILL NOT BE RESPONSIBLE FOR LATE MAIL DELIVERIES AND NO BIDS WILL BE ACCEPTED IF RECEIVED AFTER THE TIME STIPULATED IN THE NOTICE TO BIDDER.

0.1.3 Bidders shall complete, sign and submit all procedural documents:

- Refer to "**Bid Document Checklist**"

Failure to do so may be cause for rejection. Each bid must be signed in ink or ball point pen by person authorized to do so.

- 0.1.4 The District reserves the right to reject any or all bids, or to waive any informalities in the bids, and unless otherwise specified by the bidder, to accept any item in the bid, should it be deemed in the best interest of the District to do so.
- 0.1.5 In case of default by the bidder or contractor, the District may procure the articles or services from other sources and hold the bidder or contractor responsible for any excess cost occasioned thereby.
- 0.1.6 The bidder, if awarded a contract, agrees to protect, defend and save harmless the District against any damage for payment for the use of any patented material process, article or device that may enter into the manufacture, construction or form a part of the work covered by either order or contract, and he further agrees to indemnify and save harmless the District from suits or actions of every nature and description brought against it, for, or on account of injuries or damages received or sustained by any party or parties by, or from any of the acts of the contractor, his servants or agents.
- 0.1.7 It is to be understood by the bidder that this bid is submitted on the basis of specifications prepared by the Architect and the fact that any bidder is not familiar with these specifications or conditions will not be accepted as an excuse.

0.2 ENVELOPE ADDRESSEE

- 0.2.1 Bids shall be addressed as follows:

**Business Administrator
Brick Township Public School District
101 Hendrickson Avenue
Brick, NJ 08724**

Roofing Replacements at Brick Township Public School District

0.3 BID SECURITY REQUIREMENT

In accordance with Section 4.2 BID SECURITY of the Supplementary Instructions to Bidders, each bid shall be accompanied by Bid Security Bond in the form of a Certified Check, payable to the "Brick Township Public School District", Bank Draft; United States Government Bond; or satisfactory Bid Bond executed by the bidder and a surety company organized in the State of New Jersey and licensed to do business in the State of New Jersey and approved by the Brick Township Public School District in an amount of not less than ten (10%) percent of the bid price, but not in excess of \$20,000.00 including alternates.

- 0.3.2 Bid Bond shall be provided on AIA Form A310.
- 0.3.3 Bidders must use the proposal form furnished by the District when submitting their bid.
- 0.3.4 Chapter 33 and a copy of bidder's New Jersey Business Registration Certificate must be included with bid.
- 0.3.5 Insert prices for furnishing all of the material and/or labor described or required. Prices shall be net, including any charges for packing, crating, containers, etc. and all transportation charges fully prepaid by the contractor F.O.B. destination and placement at locations specified

by the District. No additional charges will be allowed for any transportation costs resulting from partial shipments made at the vendor's convenience when a single shipment is ordered.

0.3.6 Payments will be made upon the approval of vouchers submitted by the successful bidders in accordance with the requirements of the District and subject to the District's customary procedures.

0.3.7 In the event that there is a discrepancy between the unit prices and the extended totals, the unit prices shall prevail. In the event there is an error of the summation of the extended totals, the computation by the OWNER of the extended totals shall govern.

0.4 GOVERNING LAW COMPLIANCE

0.4.1 All bidders shall comply with all laws governing:

- a) Hiring of citizens of the State of New Jersey, as indicated in N.J.S.A. 34:9-2, et. seq.
- b) Guarantee of equal employment opportunity, including N.J.S.A. 10:5-12, et. seq.
- c) Disclosure of all stockholders, owners, or partners of their business, as included in N.J.P.L. 1977, c. 33, et. seq.
- d) Non-collusion (N.J.S.A. 52:34-15).
- e) Construction Contract Mandatory Language, Affirmative Action Regulations, P.L. 1975, c. 127.
- f) N.J.S.A. 34:11-55.25 et seq., Certified Payroll Records.

0.5 DURATION OF BID

In accordance with 4.4.1 of the Instructions to Bidders, no bidder may withdraw their proposal for a period of sixty (60) days after the date designated for the receipt of bids. The Bidder, however, agrees by the submission of his bid, to an additional thirty (30) day extension of this duration, if required by the Owner. All proposals are considered as being binding on all bidders for said periods.

0.6 COPIES OF BIDDING DOCUMENTS

0.6.1 In accordance with Section 3.1 COPIES of the Instructions to Bidders, copies of the contract documents may be obtained from the Architect.

0.6.2 Contract Documents may be obtained from the Architect for the non-refundable fee of \$75.00 (plus \$15.00 for postage, if mailed within local area) for a complete set of documents.

0.6.3 Contract Documents will be available for inspection by prospective bidders at the office of the Architect, Fletcher Thompson Architects and Engineers, One Tower Center Boulevard, 17th Floor, East Brunswick, New Jersey 08816; and on file with the School District's Facility's Office.

0.7 QUALIFICATIONS OF BIDDERS

0.7.1 The Owner and Architect may make such investigations as they deem necessary to determine the ability of the bidding general contract as well as his subcontractors, to perform the terms of the contract. The bidding contractors and his subcontracts shall furnish the Owner and Architect all the information for this purpose as the Owner, and Architect may request. Such qualifications shall include but not be limited to information on financial status, years in business in their particular discipline and experience in constructed projects of similar size, type and scope. The Owner reserves the right to reject any bid if its investigation reveals that,

in the opinion of the Owner, the bidding general contractor or his subcontractors are not qualified to carry out the obligations of the contract and complete it as outlined herein.

0.8 TIME OF COMPLETION AND LIQUIDATED DAMAGES

- 0.8.1 The Bidder agrees to commence physical work the day after the last day of school, tentatively scheduled as June 16, 2007 and to continue without interruption until the work is completed on or before August 27, 2007; and within the number of calendar days specified in Paragraph 6.3 of the Supplementary General Conditions of the Contract.
- 0.8.2 As set forth in Article 7 of the Supplementary General Conditions of the contract; the damages to the District in the case of failure to meet the schedule on the part of the Contractor shall be liquidated in the sum of **One Hundred Dollars (\$100.00)** for each calendar day. For further delineation of terms and conditions concerning Liquidated Damages, refer to Article 7 of the Supplementary General Conditions.
- 0.8.3 Prevailing Wage & Labor Laws. The New Jersey Prevailing Wage Act (P.L. 1963, Chapter 150) and provisions of the State Labor Laws must be complied with by the successful bidder, if applicable.
- 0.8.3 Equal or Tie Bids. The District reserves the right to award at their discretion to any one of the tie bidders.

0.9 TAXES

The Brick Township Public School District is exempt from State Sales and Use Taxes and Federal Excise Taxes. Such taxes must not be included in the Bidder's price quotations. The District's Tax Exempt Certificate will be provided at the execution of the Contract.

- 0.10.1 For purpose of evaluation where an equivalent product is being furnished, bidder must indicate any variation to the specifications no matter how slight. If no variations are indicated, it will be construed that the bid fully complies with the specifications.
- 0.10.2 Quantities shown are approximate and the District reserves the right to decrease or omit quantities. The District also reserves the right to increase quantities to twenty (20) percent of the maximum quantities listed at the unit price bid.
- 0.10.3 The contract shall be in effect for one (1) year from date of award or until delivery is complete unless otherwise stated.
- 0.10.4 Bids may be hand delivered or mailed per legal notice to bidders. In the case of mailed bids the District and the Architect assumes no responsibility for bids received after the designated date and time and will return late bids to the bidder unopened.
- 0.10.5 Delivery shall be made upon receipt of a Purchase Order issued by the Brick Township Public School District, upon which delivery locations and needed quantities shall be indicated.
- 0.10.6 "All contractors must comply with the provisions of New Jersey Statute Title 40A:11-18, when applicable."
- 0.10.7 Public Works Contractor Registration Act

The bidder must comply with the provisions of "The Public Works Contractor Registration Act", if applicable.

- All named contractors must be registered with the Department of Labor pursuant to the Public Works Contractor Registration Act at the time the proposal is received, or the proposal will be determined to be non-responsive.
- Any non-listed contractor must be registered with the Department of Labor prior to physically starting work. It is the responsibility of the General Contractor to insure that all non-listed contractors comply.
- Contractors are encouraged to submit their and all named contractors' Public Works Contractor Registration Certificates with the bid.

0.10.8 This agreement shall not be assigned without the written consent of the Brick Township Public School District.

0.10.9 **New Jersey Business Registration Requirements**. N.J.S.A. 52:32-44 imposes the following requirements on contractors and all subcontractors that **knowingly** provide goods or perform services for a contractor fulfilling this contract:

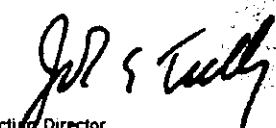
- The contractor shall provide written notice to its subcontractors and suppliers to submit proof of business registration to the contractor;
- Subcontractors through all tiers of a project must provide written notice to their subcontractors and suppliers to submit proof of business registration and subcontractors shall collect such proofs of business registration and maintain them on file;
- Prior to receipt of final payment from a contracting agency, a contractor must submit to the contracting agency an accurate list of all subcontractors and suppliers or attest that none was used; and,
- During the term of this contract, the contractor and its affiliates shall collect and remit, and shall notify all subcontractors and their affiliates that they must collect and remit, to the Director, New Jersey Division of Taxation, the use tax due pursuant to the Sales and Use Tax Act, (N.J.S.A. 54:32B-1 et seq.) on all sales of tangible personal property delivered into this State.

A contractor, subcontractor or supplier who fails to provide proof of business registration or provides false business registration information shall be liable to a penalty of \$25 for each day of violation, not to exceed \$50,000 for each business registration copy not properly provided or maintained under a contract with a contracting agency. Information on the law and its requirements are available by calling (609) 292-9292.

Please see samples of acceptable Business Registration Certificates on next page.

THESE ARE SAMPLES OF THE **ONLY** ACCEPTABLE BUSINESS REGISTRATION CERTIFICATES.

FAILURE TO SUBMIT ONE OF THESE DOCUMENTS **WITH THE BID** WILL CAUSE YOUR BID TO BE REJECTED, REGARDLESS OF THE FACT THAT A COPY MAY ALREADY BE ON FILE WITH THE BRICK TOWNSHIP PUBLIC SCHOOL DISTRICT.

STATE OF NEW JERSEY BUSINESS REGISTRATION CERTIFICATE		DEPARTMENT OF TREASURY/ DIVISION OF REVENUE PO BOX 252 TRENTON, N J 08646-0252
TAXPAYER NAME:	TRADE NAME:	
TAXPAYER IDENTIFICATION#:	SEQUENCE NUMBER:	
ADDRESS:	ISSUANCE DATE:	
EFFECTIVE DATE:	 Acting Director	
FORM-BRC(08-01) This Certificate is NOT assignable or transferable. It must be conspicuously displayed at above address.		

 STATE OF NEW JERSEY BUSINESS REGISTRATION CERTIFICATE	
Taxpayer Name:	TAX REG TEST ACCOUNT
Trade Name:	
Address:	847 ROEBLING AVE TRENTON, NJ 08611
Certificate Number:	1093907
Date of Issuance:	October 14, 2004
For Office Use Only: 20041014112823533	

ARTICLE 2 BIDDER'S REPRESENTATIONS

Replace in its entirety:

- 2.1 The bidder by making a bid represents that:
 - 2.1.1 The bidder has thoroughly examined and become familiar with all bidding documents, i.e., drawings, specifications and addenda if any, and the bid is made in accordance therewith.
 - 2.1.3 The bidder has visited the site of the proposed work; has fully acquainted and familiarized themselves with local conditions as they exist and the character of the operations to be carried out under the proposed contract and made such investigations as they see fit so that they shall fully understand the facilities, difficulties, and restrictions attending the work under the contract.
 - 2.1.4 The bid is based upon the materials, equipment and systems required by the bidding documents and includes all necessary labor to the complete functioning system without exception.

ARTICLE 3 BIDDING DOCUMENTS

- 3.1 COPIES
 - 3.1.1 Amend as follows:
Bidders may obtain complete sets of the bidding documents, from the Architect, for the advertised non-refundable sum as dictated by the Notice to Bidders. If the bids are rejected the cost of bid documents will be refunded. The documents, once purchased, become the property of the Contractor.
- 3.2 INTERPRETATION OR CORRECTION OF BIDDING DOCUMENTS
 - 3.2.2 Amend as follows:
Bidders requiring clarification or interpretation of the bidding documents shall make a written request which shall reach the Architect at least ten (10) calendar days prior to the date for receipt of bids.
- 3.3 SUBSTITUTIONS
 - 3.3.1 Replace in its entirety:
Materials, products and equipment specified, whether by name of manufacturer, brand/trade name or catalog reference, shall be the basis of the bid and shall be furnished under the contract. Any decisions by the Contractor to base his bid on a substitution will be made at his own risk. Substitutions after contract award shall be as set forth in other sections of the Contract Documents.
- 3.4 ADDENDA
 - 3.4.3 Amend first portion of sentence as follows:

No addenda will be issued later than (7) seven days prior to the date for receipt of bids...

3.4.5 Add the following:

No oral interpretation of documents, or oral answers to bidder's questions will be given to any bidder. Should bidders require; such interpretations and answers to questions will be sent to all bidders by certified mail, return receipt requested. All such interpretations, answers of questions and supplemental instructions will be in the form of a written addenda and will become a part of the contract documents.

ARTICLE 4 BIDDING PROCEDURES

4.1 PREPARATION OF BIDS

4.1.4 Amend as follows:

Interlineations, alterations, erasures, or other changes in the bid must be initialed and explained or noted over the signature of the bidder. Bids containing any conditions, omissions, unexplained erasures or alterations or items not called for in the proposal, or irregularities of any kind may be rejected by the Owner as being incomplete.

4.1.7 Amend as follows:

Each copy of the bid shall include the legal name and full business address of the bidder and a properly completed Ownership Disclosure Statement. Each copy shall be signed and designated by the person or persons, in their usual manner legally authorized to bind the bidder to a contract. Bids by corporations shall further give the state of incorporation, have the corporate seal affixed and be signed with the legal name of the corporation followed by the signature and designation of the president, secretary, or other person authorized to bind the bidder to a contract. The name of each person signing shall also be typed or printed below the signature. A bid submitted by an agency shall have a current power of attorney attached certifying the agent's authority to bind the bidder.

Add the following:

4.1.8 A bid by a person who affixes to their signature the word "president", "secretary", "agent", or other designation, without disclosing their principal, may be held to be the bid of the individual signing.

Add the following:

4.1.9 When required by the Owner, satisfactory evidence of the authority of the officer signing on behalf of the corporation shall be furnished.

Add the following:

4.1.10 The work of this project is to be awarded under a single or multiple contracts and the bidder(s) shall indicate on their bid form the names and addresses of those subcontractors who are to perform the subcontracting work as identified and requested on the bid form. If the bidder is qualified and chooses to perform the work with their own forces, so indicate on the bid form. Failure to indicate requested information will disqualify their bid. The Architect or Owner shall request information regarding the qualifications and experience of the subcontractors listed prior to the award of contract. Such qualification and experience shall include financial as well as demonstrated experience in constructed projects of similar size, type and scope. These subcontractors will not be changed or substituted prior to the award of contract. These subcontractors will not be changed or substituted at any time subsequent to award of contract,

without prior written notice, review and approval of the Owner. Such changes or substitutions shall be as set forth in the specific sections of the specifications covering substitutions.

4.2 BID SECURITY

4.2.1 Amend first sentence as follows:

Each bid shall be accompanied by a bid security in the form and amount required in the Notice to Bidders (Advertisement to Bid), or other sections of the Supplementary Instructions to Bidders, pledging that the bidder will enter into a contract with the Owner on the terms stated in the bid and will furnish bonds covering the faithful performance of the contract and payment of all obligations arising there under.

Add the following:

4.2.4 The form of the security bond and the company shall have the approval of the Owner. The surety company shall be rated in one of the three highest categories by one of the nationally recognized rating companies listed in the N.J.A.C. 11:1-41.3. The Bidder shall submit, with its bid, documentation verifying the surety company's rating in compliance with this paragraph.

4.3 SUBMISSION OF BIDS

4.3.1 Each bid and other required documents with the bid, shall be submitted in TRIPLICATE; and each shall contain original signatures and seals where indicated. All copies of the bid, the bid security, and other documents required to be submitted with the bid shall be enclosed in a single, sealed opaque 9" x 12" or larger envelope. The envelope shall be addressed in accordance with the Supplementary Instructions to Bidders Section 0.2 ENVELOPE ADDRESSEE; and shall be identified with the project name and the bidder's name and address. If the bid is sent by mail, the sealed envelope shall be enclosed in a separate mailing envelope with the notation "Sealed Bid Enclosed" on the face thereof.

4.4 MODIFICATION OR WITHDRAWAL OF BID

Amend as follows:

4.4.1 A bid may not be withdrawn by the bidder during the stipulated time period as stated in Section 0.5 DURATION OF BID BINDING, following the time and date designated for the receipt of bids, and each bidder so agrees in submitting a bid.

ARTICLE 5 CONSIDERATION OF BIDS

5.3 ACCEPTANCE OF BID (AWARD)

5.3.1 Amend the first sentence as follows:

It is the intent of the Owner to award, within sixty (60) days after receipt of the bids, a contract to the lowest responsible bidder provided the bid has been submitted in accordance with the requirements of the bidding documents and does not exceed the funds available; or to reject the bids; unless the low bidder consents to an extension of time for the award.

ARTICLE 6 POST-BID INFORMATION

6.3 SUBMITTALS

6.3.1 Amend as follows:

The successful bidder, shall as soon as practical and within ten (10) days after the award of contract, furnish to the Owner and the Architect in writing:

- .1 A designation of the work to be performed with the Bidder's own forces;
- .2 Names of the manufacturers, products, and the suppliers of principal items or systems of materials and equipment proposed for the work;
- .3 Names of person or entities (including those who are to furnish materials, labor or equipment fabricated to a special design) proposed for the principal portions of the work. No contract shall be entered into with any subcontractor prior to Architect's approval. The successful bidder shall submit proper evidence of orders for materials; such contracts shall be entered into early to allow time for the work to be properly expedited.
- .4 At least five (5) days prior to the commencement of the work, a Pre-Construction Meeting conducted by the Contractor and attended by the Roofing Manufacturer's Representative and the Architect shall be held.

6.3.3 Amend as follows:

Prior to the start of work or within five (5) days of receipt of all Post-Bid Information, the Architect will notify the bidder in writing if either the Owner or Architect, after due investigation, has reasonable objection to a person or entity proposed by the bidder. If the Owner or Architect has reasonable objection to a proposed person or entity, the bidder will submit an acceptable substitute person or entity with an adjustment in the base bid or alternate bid to cover the difference in cost occasioned by such substitution. The Owner may accept the adjusted bid price or disqualify the bidder.

7.2.1 Amend as follows:

The bidder shall deliver the required bonds to the owner no later than seven (7) days following the execution of the contract.

END OF SUPPLEMENTAL INSTRUCTION TO BIDDERS

BID FORM

Brick Township Public Schools
Roofing Replacements
101 Hendrickson Avenue, Brick, NJ 08723

TO: BRICK PUBLIC SCHOOL BOARD OF EDUCATION
Brick Township School District
Administration Building
101 Hendrickson Avenue
Brick, New Jersey, 08723

FROM: _____
Name of Company

Address

GENTLEMEN:

The undersigned having carefully examined the bidding and contract documents, and being familiar with all the conditions affecting the Work including availability of Labor and Materials hereby proposes to furnish all related labor, materials and equipment required for Brick Township Public Schools – Roofing Replacements in accordance with the Contract Documents and Addenda, if any thereto, prepared by Fletcher Thompson Architecture Engineering, LLC under Separate Contracts Bids No. 1 and/or No. 2 and/or a Single Overall Lump Contract Bid No. 3 as indicated as follows, for the contract price set forth below:

SEPARATE CONTRACT BIDS:

CONTACT No. 1 – Lake Riviera School and Brick High School:

TOTAL BASE BID:

(Fill out in words)

\$ _____
(Fill out in numbers)

TOTAL ALTERNATE BID No. 1 – Lake Riviera School:

(Fill out in words)

\$ _____
(Fill out in numbers)

Note: All Unit Prices must be included in the Base Bid and Alternate Bid.

Unit Price No. 1-1 – Tectum Roof Deck Repair / Replacement – State the unit price amount per square foot to remove, dispose, and replace, discovered, existing Tectum roof deck at Brick High School, as authorized by the Board's representative, in the Base Bid quantity of thirty (30) square feet.

\$ _____ per sq. ft.

Unit Price No. 1-2 – Steel Roof Deck Repair / Replacement – State the unit price amount per square foot to remove, dispose, and replace, discovered, existing steel roof deck at Lake Riviera School, as authorized by the Board's representative, in the Base Bid quantity of forty-five (45) square feet.

\$ _____ per sq. ft.

CONTACT No. 2 – Brick Memorial High School, Veteran's Memorial Middle School, and Hebertsville School Annex Building:

TOTAL BASE BID:

(Fill out in words)

\$ _____
(Fill out in numbers)

Note: All Unit Prices must be included in the Base Bid and Alternate Bid.

Unit Price No. 2-1 – Tectum Roof Deck Repair / Replacement – State the unit price amount per square foot to remove, dispose, and replace in kind, discovered, existing Tectum roof deck at Veteran's Memorial Middle School, as authorized by the Board's representative, in the Base Bid quantity of thirty (30) square feet.

\$ _____ per sq. ft.

Unit Price No. 2-2 – Steel Roof Deck Repair / Replacement – State the unit price amount per square foot to remove, dispose, and replace in kind, discovered, existing steel roof deck at Brick Memorial High School, as authorized by the Board's representative, in the Base Bid quantity of forty-five (45) square feet.

\$_____ per sq. ft.

Unit Price No. 2-3 – Plywood Roof Deck Repair / Replacement – State the unit price amount per square foot to remove, dispose, and replace in kind, discovered, existing plywood roof deck at the Hebertsville School, as authorized by the Board's representative, in the Base Bid quantity of ninety-six (96) square feet.

\$_____ per sq. ft.

SINGLE OVERAL LUMP SUM BID:

CONTACT No. 3 – Lake Riviera School, Brick High School, Brick Memorial High School, Veteran's Memorial Middle School, and Hebertsville School Annex Building:

TOTAL BASE BID:

_____ (Fill out in words)

\$ _____
(Fill out in numbers)

TOTAL ALTERNATE BID No. 1 – Lake Riviera School:

_____ (Fill out in words)

\$ _____
(Fill out in numbers)

UNIT PRICES (See the Specifications and drawings for full description)

Note: All Unit Prices must be included in the Base Bid and Alternate Bid.

Unit Price No. 3-1 – Tectum Roof Deck Repair / Replacement – State the unit price amount per square foot to remove, dispose, and replace in kind, discovered, existing Tectum roof deck at Brick High School, as authorized by the Board's representative, in the Base Bid quantity of thirty (30) square feet.

\$ _____ per sq. ft.

Unit Price No. 3-2 – Steel Roof Deck Repair / Replacement – State the unit price amount per square foot to remove, dispose, and replace in kind, discovered, existing steel roof deck at Lake Riviera School, as authorized by the Board's representative, in the Base Bid quantity of forty-five (45) square feet.

\$ _____ per sq. ft.

Unit Price No. 3-3 – Tectum Roof Deck Repair / Replacement – State the unit price amount per square foot to remove, dispose, and replace in kind, discovered, existing Tectum roof deck at Veteran's Memorial Middle School, as authorized by the Board's representative, in the Base Bid quantity of thirty (30) square feet.

\$ _____ per sq. ft.

Unit Price No. 3-4 – Steel Roof Deck Repair / Replacement – State the unit price amount per square foot to remove, dispose, and replace in kind, discovered, existing steel roof deck at Brick Memorial High School, as authorized by the Board's representative, in the Base Bid quantity of forty-five (45) square feet.

\$_____ per sq. ft.

Unit Price No. 3-5 – Plywood Roof Deck Repair / Replacement – State the unit price amount per square foot to remove, dispose, and replace in kind, discovered, existing plywood roof deck at the Hebertsville School, as authorized by the Board's representative, in the Base Bid quantity of ninety-six (96) square feet.

\$_____ per sq. ft.

NOTE: If written amount differs from the Numerical Figures, only the Written amount will be accepted as the correct BID. Bidders are also required to provide cost amounts for base bid, all alternate bids and all unit prices associated with the Contract or Contracts being bid. No conditions, limitations, or provision may be placed on a bid.

The Owner reserves the right to award the contract based upon the Base Bid alone or upon the combination of the Base Bid and Alternate Bid and with Unit Prices calculated at the rate of measure indicated.

Proposal forms will not be accepted unless signed by the Owner or authorized corporate officer.
Respectfully submitted,

NAME OF BIDDER:

(Typed or Printed)

SIGNED:

(Authorized Signature)

(SEAL IF BID IS BY A
CORPORATION)

(Title of Person Signing)

COMPANY ADDRESS:

MAILING ADDRESS: (If different from above)

TELEPHONE NUMBER

End of Bid Form

BID DOCUMENT CHECKLIST

Bid Title: _____

**Items required
with bid**
↓

**Items submitted
(Bidder's INITIALS)**
↓

**A. FAILURE TO SUBMIT ANY OF THESE DOCUMENTS IS
MANDATORY CAUSE FOR REJECTION OF BID.**

<u>X</u>	Bid guarantee (bid bond or certified/cashier's check)	_____
<u>X</u>	Certificate from a surety company (Consent of Surety)	_____
<u>X</u>	Statement of ownership (Chapter 33 of the Laws of 1977)	_____
<u>X</u>	List of designated subcontractors	_____
<u>X</u>	Acknowledgment of receipt of addenda or revisions (if issued) (Titled the "Addendum Acknowledgment Form")	_____
<u>X</u>	Copy of Bidder's New Jersey Business Registration Certificate	_____

**B. FAILURE TO SUBMIT ANY OF THESE DOCUMENTS
MAY BE CAUSE FOR REJECTION OF BID.**

<u>X</u>	Affirmative Action questionnaire	_____
<u>X</u>	Non-collusion affidavit	_____
<u>X</u>	DCA Pre-Qualification Certification	_____
_____	Product samples	_____
_____	References	_____
_____	Certified financial statement	_____
_____	Certification of available equipment	_____
<u>X</u>	Signature Page	_____
<u>X</u>	Other: Contractor's Data Sheet	_____

C. DOCUMENTS THAT MAY BE INCLUDED WITH THE BID

<u>X</u>	Copy of Bidder's & Named Contractor's Public Works Contractor Registration Certificate(s)	_____
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**D. THE UNDERSIGNED BIDDER HEREWITH SUBMITS
THE ABOVE REQUIRED DOCUMENTS.**

PRINT NAME OF BIDDER: _____

SIGNED BY: _____

PRINT NAME AND TITLE: _____

DATE: _____

**THIS CHECKLIST SHOULD BE INITIALED AND SIGNED WHERE
INDICATED AND RETURNED WITH ALL DOCUMENTS.**

CONTRACTORS DATA SHEET

As evidence of the bidder's qualifications, he shall complete and submit with this bid proposal, the "Contractor Data" Sheet information.

THE BRICK TOWNSHIP PUBLIC SCHOOL DISTRICT RESERVES THE RIGHT TO REQUEST VENDORS TO EXPLAIN THE METHOD USED TO ARRIVE AT ANY OR ALL FIGURES IN THEIR BID.

The number of years your firm has been performing these services _____.

How many personnel will be available to work in this contract _____.

Name(s) of supervisor(s) to be assigned to work on this contract. Please include how long these individuals have worked for your firm.

Name _____ Name _____

Years Employed by Firm _____ Years Employed by Firm _____

Locations of bidder's facility where bidder's equipment may be inspected:

Name _____

Address _____

Name(s) and phone number(s) of management personnel to be contacted if problems or emergencies occur:

Name _____

Phone Number _____

Name _____

Phone Number _____

Name of Insurance Company _____

Name of Insurance Representative _____

Please provide a list of institutions, industries and commercial buildings now under contract with your firm. Include the length of time each contract has been in force and the name of a person with phone number the County may contact for reference.

<u>CURRENT CLIENTS</u>	<u>LENGTH OF CONTRACT</u>	<u>NAME & PHONE # TO CONTACT</u>
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

BIDDER _____

DATE _____

LIST OF SUBCONTRACTORS

In accordance with NJSA 40A:11-16, the bidder will set forth below the names, addresses and if applicable, license numbers of the subcontractors to whom the bidder will subcontract work in the categories listed in connection with the erection, alteration or repair of any public building and the related site work.

WORK

SUBCONTRACTOR

- | | | |
|----|--|--|
| 1. | Plumbing and gas fitting and all kindred work. | Name: _____
Address: _____
License No. _____ Expires _____ |
| 2. | Steam and hot water heating and ventilating apparatus, steam power plants and kindred work | Name: _____
Address: _____
License No. _____ Expires _____ |
| 3. | Electrical work. | Name: _____
Address: _____
License No. _____ Expires _____ |
| 4. | Structural steel and ornamental iron work. | Name: _____
Address: _____
License No. _____ Expires _____ |

Contractor Registration pursuant to NJSA 34:11-56.48, NJSA 45:14C-21 and NJAC 13:32-1.5(A) (2) et seq. for contractor and all subcontractors must meet State code.

NOTE: If the BIDDER will not subcontract the work described in any category above but will complete it as prime contractor, it is not necessary to name a subcontractor. In such case, the BIDDER should insert "prime contractor" in the subcontractor name space. If more than one subcontractor will be utilized in any category, attach a certificate signed by the BIDDER listing each subcontractor named in the bid for that category. The certificate shall set forth the scope of work for which the subcontractor has submitted a price quote and which the BIDDER has agreed to award to each subcontractor should the BIDDER be awarded the contract. The certificate shall be submitted to the contracting unit simultaneously with the list of the subcontractors. The certificate may take the form of a single certificate listing all subcontractors or, alternatively, a separate certificate may be submitted for each subcontractor.

Each of the above subcontractors shall be qualified in accordance with 40A:11-1 et seq. The OWNER shall require evidence of performance security to be submitted with this proposal. Evidence of performance security may be supplied by the BIDDER on behalf of the BIDDER and any or all subcontractors, or by each respective subcontractor, or by any combination thereof which results in evidence of performance security equaling, but in no event exceeding, the total amount bid. If separate evidence of performance security will be submitted by any subcontractor, the bid shall be accompanied by a separate certificate from a surety company in accordance with NJSA 40A:11-22.

1.1 BID BOND

- A. A bid bond is required for this project. The American Institute of Architects Document A310, February 1970 edition entitled "Bid Bond" shall be the contract bond form of this project. The Owner will also accept a Bank Draft or United States Government Bond executed by the bidder and a surety company organized in the State of New Jersey and licensed to do business in the State of New Jersey and approved by the Brick Township Public School District in an amount of not less than ten (10%) percent of the bid price, but not in excess of \$20,000.00 including alternates. The check shall be made out to the Brick Township Public School District. Bid security will be returned upon execution of a contract with the low bidder.

END OF BID BONDS

NON - COLLUSION AFFIDAVIT

STATE OF NEW JERSEY :

: ss

COUNTY OF _____ :

I, _____ of
the City of _____ In the County of _____
and the State of _____, of full age, being duly sworn
according to law on my oath depose and say that:

I am _____ of the firm of _____
the bidder
making the Proposal for the above-named Project, and that I executed the said Proposal with
full authority so to do; that said bidder has not, directly or indirectly, entered into any agreement,
participated in any collusion, or otherwise taken any action in restraint of free, competitive
bidding in connection with the above-named Project; and that all statements contained in said
Proposal and in this affidavit are true and correct, and made with full knowledge that the
Brick Township Public School District relies upon the truth of the statements contained in
said Proposal and in the statements contained in this affidavit in awarding the contract for the
said Project.

I further warrant that no person or selling agency has been employed or retained to
solicit or secure such contract upon an agreement or understanding for a commission,
percentage, brokerage or contingent fee, except bona fide employees or bona fide established
commercial or selling agencies maintained by _____.
(N.J.S.A. 52:3415). (Name of Contractor)

(Also type or print name of affiant under signature)

Subscribed and sworn to
before me this
day of _____, 20____.

Notary Public of
My commission expires

OWNERSHIP DISCLOSURE STATEMENT

SETTING FORTH THE NAMES AND ADDRESSES OF STOCKHOLDERS
OR PARTNERS OWNING MORE THAN 10% OF

(Name of Organization)
IN COMPLIANCE WITH CHAPTER 33 OF THE LAWS OF 1977.

The following constitute the names and addresses of all stockholders in the corporation if the corporation is a bidder, or partners if the bidder is a partnership who own 10% or more of the corporate stock of the bidder of any class or of all individual partners in the partnership who own 10% or greater interest therein.

In the event no stockholder or partner owns 10% or greater, please so indicate at the appropriate space on this form.

If one or more such stockholder or partner is itself a corporation or is a partnership, the stockholders holding 10% or more of that corporation's stock or the individual partners owning 10% or greater interest in that partnership are as follows:

NAME	ADDRESS	PERCENTAGE OF OWNERSHIP
NAME _____	ADDRESS _____	_____
NAME _____	ADDRESS _____	_____
NAME _____	ADDRESS _____	_____
NAME _____	ADDRESS _____	_____
NAME _____	ADDRESS _____	_____

NO STOCKHOLDER OR PARTNER OWNS 10% OR MORE OF THE CORPORATE STOCK
OWNERSHIP OF THE BIDDER, CHECK HERE _____

I certify that the foregoing information is correct.

Signature of Secretary or Partner

Print Name and Title

of _____
Corporation or Partnership

THIS FORM MUST BE COMPLETED AND SIGNED

1.1 FORM OF AGREEMENT

- A. Agreement will be the "Standard Form of Agreement Between Owner and Contractor for a Small Project" where basis of payment is a stipulated sum. AIA Document A105 - 1993.

END OF AGREEMENT FORM

SPECIAL SURETY BID REQUIREMENTS

Roofing Replacements
Brick Township Public School District
101 Hendrickson Avenue, Brick, NJ 08724

The attention of the Bidder is called to the provisions of P.L. 1996, Chapter 384 enacted on January 10, 1996 which requires that the Brick Township Public School District shall only accept Performance and Payment Bonds from surety companies meeting the requirements of that statute. The Bidder shall deliver with their Bid a Consent of Surety. The Bidder's Surety Company shall complete the following certificate which the Bidder shall submit with their Bid.

CERTIFICATE OF SURETY COMPANY

The undersigned does hereby certify and state on behalf of _____
that it is authorized to make the following averments: Surety Company

- (1) The surety meets the requirements of P.L. 1996, Chapter 384 [N.J.S.A. 2A:44-143].
- (2) The surety shall deliver Performance and Payment Bonds in accordance with the requirements of the Consent of Surety which shall be accompanied by a Surety Disclosure Statement and Certification in the form set forth in the above statute.
- (3) The undersigned is authorized to sign this Certificate and
 - a. Acknowledges that if any of the foregoing averments are false, that he or she is subject to punishment as provided by law.

Signature of Certifying Agent

Date

Printed/Typed Name of Certifying Agent

Title of Certifying Agent

The delivery of the foregoing Certificate of Surety Company is an integral part of the requirement for the provision of a Consent of Surety with the Bid and the failure to provide said certificate is a non-waivable defect and shall result in the rejection of the bid. Furthermore, the failure of the successful Bidder to deliver Performance and Payment Bonds from a surety company meeting the standards of P.L. 1996, Chapter 384 and accompanying statutory disclosure information and certificate will result in the Brick Township Public School District either rebidding the project or awarding the contract to the next lowest responsible bidder as it shall determine in its discretion.

SURETY DISCLOSURE STATEMENT AND CERTIFICATION

Roofing Replacements
Brick Township Public School District
101 Hendrickson Avenue, Brick, NJ 08724

_____, surety(ies) on the attached bond, hereby certifies(y) the following:

(1) The surety meets the applicable capital and surplus requirements of R.S. 17:17-6 or R.S. 17:17-7 as of the surety's most current annual filing with the New Jersey Department of Insurance.

(2) The capital (where applicable) and surplus, as determined in accordance with the applicable laws of this state, of the surety(ies) participating in the issuance of the attached bond is (are) in the following amount(s) as of the calendar year ended December 31, _____ (most recent calendar year for which capital and surplus amounts are available), which amounts have been certified as indicated by certified public accountants (indicating separately for each surety that surety's capital and surplus amounts, together with the name and address of the firm of certified public accounts that shall have certified those amounts):

(3) (a) With respect to each surety participating in the issuance of the attached bond that has received from the United States Secretary of the Treasury a certificate of authority pursuant to 31 U.S.C. sec. 9305, the underwriting limitation established therein and the date as of which that limitation was effective is as follows (indicating for each such surety that surety's underwriting limitation and the effective date thereof):

(b) With respect to each surety participating in the issuance of the attached bond that has not received such a certificate of authority from the United States Secretary of the Treasury, the underwriting limitation of that surety as established pursuant to R.S. 17:18-9 as of _____ (date on which such limitation was so established) is as follows (indicating for each such surety's underwriting limitation and the date on which that limitation was established):

The Amount of the bond to which this statement and certification is attached is

\$ _____.

(5) If, by virtue of the one or more contracts of reinsurance, the amount of the bond indicated under item (4) above exceeds the total underwriting limitation of all sureties on the bonds as set forth in items (3) (a) or (3) (b) above, or both, then for each such contract of reinsurance:

(a) The name and address of each such reinsurer under that contract and the amount of that reinsurer's participation in the contract is as follows:

and, (b) Each surety that is party to any such contract of reinsurance certifies that each reinsurer listed under item (5) (a) satisfies the credit for reinsurance requirement established under P.L. 1993, c. 243 (c. 17:51B-1 et seq.) and any applicable regulations in effect as of the date on which the bond to which this statement and certification is attached shall have been filed with the appropriate public agency.

CERTIFICATE

(To be completed by an authorized certifying agent for each surety on the bond)

I, _____, as

(Name of Agent)

(Title of Agent)

for

(Name of Surety)

a (corporation/mutual insurance company/other) domiciled in _____,
(Indicating type of Business Organization) (Circle one.) (State of Domicile)

DO HEREBY CERTIFY that, to the best of my knowledge, the foregoing statements made by me are true and ACKNOWLEDGE that if any of those statements are false, this bond is VOID.

Signature of Certifying Agent

Date

Printed/Typed Name of Certifying Agent

Title of Certifying Agent

1.1 GENERAL CONDITIONS OF THE CONTRACT

- A. The "General Conditions of the Contract for Construction of a Small Project", American Institute of Architects Document A205 – 1993 is hereby made part of these specifications.

END OF GENERAL CONDITIONS

1. GENERAL

- A. The following supplements modify the "General Conditions of the Contract for Construction of Small Project", AIA Document A205, 1993 Edition. Where a portion of the General Conditions is modified or deleted by these Supplementary Conditions, the unaltered portions of the General Conditions shall remain in effect.

2. ARTICLE 1 - GENERAL PROVISIONS

- A. Subparagraph 1.1, add new subparagraph:

- .1 The Contract Documents *include* other documents such as bidding requirements (advertisement or invitation to bid, Instructions to Bidders), sample forms, the Contractor's bid, or portions of Addenda relating to bidding requirements).

- B. Subparagraph 1.1, add new subparagraph:

- .2 Severability. If any part of the Contract Documents or their application to any situation is to any extent invalidated or found to be contrary to law, the remainder of the Contract Documents, and the application to other situations of any provision found invalid as to any given situation, shall not be affected thereby.

- C. Subparagraph 1.2, add new subparagraphs:

- .1 The Contractor shall keep at the Project one set of Contract Drawing prints that shall be marked "As-Built." The As-Built prints shall be kept current as the Work progresses.
- .a The Contractor shall prepare Final As-Built drawings using the set of reproducibles that will be issued by the Architect and furnished to the Contractor at the beginning of the project and as supplemented during the course of the Work. The Contractor shall thereafter deliver the Final As-Built reproducibles and the As-Built prints to the Architect for his review and approval. The Architect shall have the right to return the As-Built prints and reproducibles to the Contractor for revisions, corrections or clarifications. The Contractor will be furnished prints of the approved Final As-Built documents.

4. ARTICLE 3 - CONTRACTOR

- A. Subparagraph 3.1, add new subparagraphs:

- .1 The Contractor further acknowledges that it has familiarized itself with the character, quality and quantity of surface and subsurface materials and/or obstacles to be encountered during the performance of this Contract, insofar as such information is reasonably ascertainable from the inspection of the site and from information presented by the Drawings and Specifications included in this Contract. Any extra work occasioned by the Contractor's failure to familiarize itself as described above shall be performed at no cost to the Owner.

- B. Subparagraph 3.2, add new subparagraphs:

- .1 The Contractor shall make new Work fit existing work and/or existing conditions at Contractor's cost and expense. Changes in the Work attributable to varying field and/or

existing conditions which represent a minor difference from those indicated on the drawings or can be reasonably predicted or expected to be encountered shall be provided and accomplished at no cost to the Owner. Changes in the work attributable to varying field and/or existing conditions which represent a major difference from those indicated on Drawings shall be governed by Article 7 of the General Conditions.

C. Paragraph 3.4, add new subparagraphs:

- .3 The Contractor agrees to assume full responsibility for, and to indemnify and save the Owner and the Architect harmless from the payment of all wages, including Overtime (as defined in Subparagraph 7.6.5), and of all state and/or federal taxes payable in connection therewith including, but not limited to, those for Unemployment Insurance, Social Security Contributions, Old Age Pensions or withholding, with respect to all employees engaged by the Contractor or his Subcontractors and Sub-subcontractors in the performance of this Contract. The Contractor further agrees to comply with all laws, regulations and rules applicable to the Work.
- .4 The Owner will in all cases assume that the bid price represents the use of products and materials as specified, and further that the bid price is not based upon the use of a substituted material. Any decision by the Contractor to base his bid on a substitution will be made at his own risk. After contract award, the Contractor may propose a substitution; however, the Owner will assume that the Contractor is proposing a substitution for the benefit of the Owner. Substitutions submitted for approval must:
 - .1 Be readily available in sufficient quantity to prevent any delay of the Work, inspection or tests.
 - .2 Be available, as applicable, in the same range of colors, textures, dimensions, gages, capacities, consumption, serviceability, and ease and cost of maintenance as materials or items for which the substitutions are submitted for approval.
 - .3 Be at least equal to the specified item or material in strength, durability, efficiency, capacity, consumption, serviceability, and ease and cost of maintenance.
 - .4 Be compatible with the civil, architectural, structural, electrical and mechanical designs and must not necessitate design modification by the Architect.
 - .5 The Architect, with the concurrence of the Owner, reserves the sole right to accept or reject any substitutions, and all such decisions shall be final and binding on all parties concerned.

Failure by the Architect to object to an accepted substitution or acceptance by the Owner of a proposed substitution shall not constitute a waiver of any requirements of the Contract Documents. Full responsibility for the performance of a substitution shall rest with the Contractor regardless of approval by the Architect.

- .6 In the event that a substitution is submitted, the Contractor agrees to reimburse the Owner for any charges incurred by the Architect in evaluating such substitution. In the event that a substitution should entail any modification of the Specifications, the Drawings, the construction, or of the work of other trades, the Contractor agrees to reimburse the Owner for any and all charges resulting there from, including any charges for engineering, inspections and tests, and any charges for modifications in the work of other trades.
- .7 The Contractor acknowledges that it has thoroughly studied the Contract Documents and is fully familiar therewith, and, where specific materials are mentioned, that it has investigated the source of such materials and guarantees that these materials will be supplied as required by the Contract Documents and in accordance with applicable time schedules.

- .8 No materials or supplies for the Work shall be purchased by the Contractor or by any Subcontractor subject to any chattel mortgage or under a conditional sale or other agreement by which an interest is retained by the seller. The Contractor warrants that he has good title to all materials and supplies for which he accepts partial payment.

D. Paragraph 3.5, add new subparagraphs:

- .1 The Contractor shall warrant the Work to be free of defects and deficiencies from the date of acceptance to one year beyond the date of substantial completion for the overall project. This clause shall remain in effect even if the Work of this project is activated, made operable, or otherwise used to the benefit of the Contractor or the Owner prior to said date of substantial completion of the entire project.
- .2 Eleventh Month Inspection. During the eleventh (11th) month after date of Substantial Completion, the Contractor shall meet with the Owner on a day mutually agreed upon and determine whether all conditions related to guarantees have been satisfied in accordance with the Contract. Should any defects appear at this time, they are to be remedied by the Contractor prior to the expiration of the General Guarantee. Any guarantees which are in effect for more than one (1) year after the date of Substantial Completion shall continue under conditions of the Contract. Nothing contained in this Paragraph shall release the Contractor from his obligations under his General Guarantees.

E. Paragraph 3.7.1, add new sub-subparagraph:

- .1 The Contractor will file for and obtain all building permits and all other required permits necessary to perform the Work shown in the Contract Documents.

F. Paragraph 3.12, add new sub-subparagraph:

- .1 At the Owner's request, the Contractor shall (1) promptly take such lawful action as is necessary to cancel any liens or claims of lien filed against the Owner in respect of the Project by a Subcontractor or any lower tiered Sub-contractor, and (2) assume complete responsibility for the legal review of any action in which any Subcontractor or lower tiered Sub-contractors attempt to enforce any lien rights; provided, however, that the Contractor will not settle any action in which the Owner is named as a defendant without the prior written consent of the Owner, which consent shall not be unreasonably withheld. In the event the Contractor does not present the Owner with satisfactory evidence that such lien or claim of lien has been canceled within 20 days after such request, the Owner may take whatever action is necessary to effect such cancellation and deduct any costs incurred in connection therewith from any amounts owed to the Contractor. Without in any way limiting the generality of the foregoing, upon the Owner's receipt of a notice of lien or notice of claim of lien, the Owner may retain from any payments due or to become due to the Contractor, the amounts demanded in such notice until the Owner receives evidence of the cancellation or payment of such amount to the lien claimant, satisfactory to the Owner.

5. ARTICLE 5 – CHANGES IN THE WORK

A. Paragraph 5.2, add new subparagraphs:

- .1 The Contractor's documentation of costs shall be cross-referenced to the particular provisions and parts of the Contract Documents that established the requirements for performing the affected original Contract Work.

- .2 The Contractor shall promptly furnish any additional information that the Owner and/or Architect deem necessary to establish the costs for the affected original Contract Work.
- .3 The Contractor shall not receive credit for the costs of original Contract Work that was not included in his Bid Proposal and the Contract Sum.
- .4 The Contractor is required to promptly respond to requests by the Owner and/or Architect for all appropriate back-up and supporting information for Change Orders. In the event the Contractor does not cooperate or withholds such required information, the Owner shall be entitled to withhold all payments until the requests are fully complied with.
- .5 The Contractor shall not start Work, order any materials or cancel orders already placed for any material in connection with any Change Order before he has received such order from the Architect in written form signed by the Owner.

6. ARTICLE 6 - TIME

A. Subparagraph 6.1, add new Subparagraph:

- .1 Contract time shall be a total of 73 calendar days from the date of commencement of the work to the date of Completion of the work.

B. Paragraph 6.3, add new paragraph:

PARAGRAPH 6.3 – OVERTIME

- .1 It is intended that Work shall be performed during normal business hours except in those instances which may be stipulated in technical portions of the Specifications. Except as otherwise provided in Subparagraph 8.4.2, Overtime, as defined herein, authorized by the Contractor, including that which may be required to maintain the schedule, shall be performed at the Contractor's own expense.
- .2 Overtime shall be defined per individual as time worked by such individual in excess of 8 hours/day and/or 40 hours/week. For any incidental Overtime which has been requested in writing by and for the convenience of the Owner, the Owner will reimburse the Contractor for the premium portion over and above the standard hourly rate, but not for added profit and overhead on such Overtime.
- .3 When the Contractor desires to carry on the Work outside normal business hours, it shall notify the Owner and Architect sufficiently in advance so as to enable satisfactory arrangements to be made by the Owner to observe Work in progress. Additionally, the Contractor shall reimburse the Owner for all costs incurred by the Owner in his obligation to observe the Work. This reimbursement shall include the cost of the Architect and /or Architect's Consultant in performance of his duties during these Overtime hours.
- .4 During the performance of the Work during Overtime hours by the Contractor or by any of its Subcontractors or sub-subcontractors, the Contractor's superintendent and/or assistant shall be in attendance at the Project site to supervise and direct the Work.

C. Paragraph 6.4, add new paragraph:

PARAGRAPH 6.4 – EXTENSIONS AND REDUCTIONS OF CONTRACT TIME.

- .1 Extensions and reductions to the Contract Time will be allowed only to the extent that the increase or decrease in the Work or delays of the types indicated below affect current controlling operations and the overall Completion. Increases or decreases in Work or such delays which do not affect the overall Completion are not to be the basis for reduction or extension of Contract Time. Extensions of Contract Time will not be granted where it is determined that the Contractor could have avoided the circumstances which give rise to his requesting such extension.
- .2 The Contractor may be granted an extension of Contract Time caused by the following reasons:
 - .1 acts of civil or military authorities, war or riot;
 - .2 fire;
 - .3 floods, earthquakes, tornadoes, hurricanes, or other cataclysmic natural phenomenon;
 - .4 Extreme weather conditions (see below);
 - .5 epidemics or quarantine restrictions;
 - .6 strikes or labor disputes beyond the control of the Contractor which prevent work on the construction operations which are critical to the completion of the Project;
 - .7 shortages of materials or freight embargoes.

7. ARTICLE 7 - PAYMENTS AND COMPLETION

A. Subparagraph 7.2.1, add the following sub-subparagraphs:

- .1 The form for Application for Payment shall be a notarized AIA Document G702, Application and Certification for Payment, supported by AIA Document G703, Continuation Sheet.

B. Subparagraph 7.2.2, delete "no later than the time of payment." in the second line, and substitute the following: either upon incorporation in the construction or upon payment by the Owner, whichever occurs first.

C. Subparagraph 7.2.2, delete "to the best of the Contractor's knowledge, information and belief" from the fifth line.

D. Paragraph 7.6, add new subparagraphs:

- .4 Final payment shall be made within forty-five (45) days of approval by the Owner, providing the Contractor has completed all outstanding punchlist items to the satisfaction of the Owner and Architect, and furnishes such releases and other documentation as may be required.
- .5 To the fullest extent permitted by law, the Contractor shall indemnify and hold the Owner, and the Owner's agents and employees harmless from and against any and all claims, damages, losses and expenses, including, but not limited to, attorneys' fees, arising out of or resulting from any breach of warranty set forth in Subparagraph 7.2.2.

E. Subparagraph 7.6, add new subparagraph:

- .6 The Contractor shall turn over to the Owner the final As-Built documents as per Clause 1.2.1.a, prior to the Owner's release of final payment or release of retained monies.

F. Paragraph 7.7, add new Paragraph:

7.7 LIQUIDATED DAMAGES FOR PROJECT DELAYS

- .1 Inasmuch as the damage and loss to the Owner which will result from a failure by the Contractor to complete the Work within the period herein specified, including any extensions thereof fixed and approved as hereinafter provided, may include interest on monies borrowed for construction, loss from the inability of the Owner to utilize the new work, additional costs for engineering inspection fees and other expenses and damages, and cannot be calculated with any degree of mathematical certainty, the damages to the Owner for delay in the case of such failure or failures on the part of such Contractor shall be liquidated in the sum of \$100.00 per calendar day.
- .2 The Owner shall recover said damages by deducting the amount thereof from any monies due or that may be due the Contractor and if said monies prove to be insufficient to cover said damages then the Contractor shall pay the amount due.
- .3 All work specified shall be completed in a total of 73 calendar days from the date of commencement of the work to the date of Completion of the work.

8. ARTICLE 8 - PROTECTION OF PERSONS AND PROPERTY

A. Subparagraph 8.1, add new subparagraphs:

- .1 The Contractor shall assign one of his personnel at the site to initiate, maintain, and supervise the safety precautions and programs in connection with this Work. He shall identify this person, in writing, to the Owner and Architect and post a copy of same at the Project Site.
- .2 Nothing implied or stated in these Contract Documents shall require the Owner to defend or indemnify any person for acts which arise from gross negligence, willful misconduct, fraud, intentional tort, bad faith or criminal wrongdoing or for claims for punitive or exemplary damages, except for such acts of the Owner, his agents, servants or employees which are the proximate cause of any such claims.
- .3 Due to the age of the existing facilities, it is concluded that the existing sealants around the perimeter of the roof and penetrations through the roof contain asbestos containing materials. The contractor shall take all appropriate protective measures in removing roofing system as per the pertinent regulations of the Occupational Safety and Health Act, OSHA.
- .4 At all times, the Contractor shall provide adequate protection against inclement weather, including, but not limited to, rain, wind, storms, snow, dust, cold and heat, so as to protect all Work, materials, apparatus and fixtures from injury or damage.

9. ARTICLE 10 – MICELLANEOUS PROVISIONS

A. Subparagraph 10.1, add new subparagraphs:

- .1 Reports of any testing laboratory or entity shall specifically state whether or not that portion of the Work tested meets the applicable requirements of the Contract Documents when tested under the required procedures and methods. Copies of the reports shall be sent by the testing laboratory to the Owner and Architect in triplicate, and others as required by the Specifications.
- .2 The Contractor shall take samples of materials required by the Specifications to be tested, and protect and pack such samples for shipment in accordance with the applicable methods prescribed by the American Society for Testing and Materials or such other testing authority

as required by the Specifications. The Contractor shall send the samples by express delivery, all expenses prepaid, to such qualified independent commercial testing laboratory as approved by the Owner and Architect for such tests as required in the Specifications. Materials which fail to meet the applicable test requirements will be rejected. All tests shall be reported to the Owner and Architect. All test reports shall be certified by a licensed Professional Engineer.

- .3 If the Owner or Architect requires laboratory tests to establish the quality of a material which is submitted by the Contractor as a substitute for the material specified, such tests shall be conducted and the laboratory report shall be submitted to the Owner and Architect prior to ordering it. All expenses, including but not limited to, laboratory charges for such tests to demonstrate suitability of a substitute material, shall be paid by the Contractor.

END OF SUPPLEMENTARY GENERAL CONDITIONS

NJSA 34:11-55.25 NEW JERSEY PREVAILING WAGE ACT

Please be advised that the effective February 18, 1992 Regulation NJAC 12:60-2.2 AND 6.1 of the New Jersey Prevailing Wage Act, NJSA 34:11-55.25 et seq. requires that all public works employers shall submit a certified payroll record to the public body or lessor which contracted for the public work project each payroll period within ten (10) days of the payment of wages. The public body shall receive, file and make available for inspection during normal business hours the certified payroll records.

A copy of the certified payroll form may be obtained by contacting the New Jersey Department of Labor, Division of workplace standards, Public Contracts Section, PO Box 389, Trenton, NJ 08625-0389, telephone 609-292-2259.

END OF SECTION

1.1 INSURANCE REQUIREMENTS

The contractor shall maintain insurance to protect against all claims under Workmen's Compensation, Comprehensive General Liability and Automobile and shall be subject to approval for adequacy of protection as per the following limits:

Worker's Compensation

1. Limits according to Worker's compensation Laws of the State of New Jersey.
2. Contractor's Liability not less than \$100,000.

Comprehensive General Liability

1. Bodily Injury - \$500,000 per person; \$1,000,000 per occurrence.
2. Property Damage - \$1,000,000 per occurrence.

Comprehensive General Liability shall include the following:

1. Coverage for explosion, collapse or underground hazards.
2. Occurrence basis coverage.
3. Broad form property damage coverage.
4. Coverage for personal injury sustained by any person as a result of an offense directly or indirectly related to the employment of such person by the insured.

Comprehensive Automobile Liability shall include the following:

Business auto liability insurance or its equivalent with a minimum limit of \$1,000,000 per accident and including coverage for all of the following:

Liability arising out of the ownership, maintenance or use of any auto;

Auto non-ownership and hired car coverage.

Contractor's Worker's Compensation, Comprehensive General Liability and Comprehensive Automobile Liability arising out of subcontractor's operations shall be identical as that listed above.

Copies of each insurance certificate shall be furnished to the County when requested.

END OF INSURANCE REQUIREMENTS

EXHIBIT B

MANDATORY EQUAL EMPLOYMENT OPPORTUNITY LANGUAGE

N.J.S.A. 10:5-31 et seq. (P.L. 1975, C. 127)

N.J.A.C. 17:27

CONSTRUCTION CONTRACTS

During the performance of this contract, the contractor agrees as follows:

The contractor or subcontractor, where applicable, will not discriminate against any employee or applicant for employment because of age, race, creed, color, national origin, ancestry, marital status, affectional or sexual orientation or sex. Except with respect to affectional or sexual orientation, the contractor will take affirmative action to ensure that such applicants are recruited and employed, and that employees are treated during employment, without regard to their age, race, creed, color, national origin, ancestry, marital status, affectional or sexual orientation or sex. Such action shall include, but not be limited to the following: employment, up-grading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided by the Public Agency Compliance Officer setting forth provisions of this nondiscrimination clause;

The contractor or subcontractor, where applicable will, in all solicitations or advertisements for employees placed by or on behalf of the contractor, state that all qualified applicants will receive consideration for employment without regard to age, race, creed, color, national origin, ancestry, marital status, affectional or sexual orientation or sex;

The contractor or subcontractor, where applicable, will send to each labor union or representative of workers with which it has a collective bargaining agreement or other contract or understanding, a notice, to be provided by the agency contracting officer advising the labor union or workers' representative of the contractor's commitments under this act and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

The contractor or subcontractor, where applicable, agrees to comply with any regulations promulgated by the Treasurer, pursuant to N.J.S.A. 10:5-31 et seq., as amended and supplemented from time to time and the Americans with Disabilities Act.

When hiring or scheduling workers in each construction trade, the contractor or subcontractor agrees to make good faith efforts to employ minority and women workers in each construction trade consistent with the applicable employment goal prescribed by N.J.A.C. 17:27-7.3; provided, however, that the Division may, in its discretion, exempt a contractor or subcontractor from compliance with the good faith procedures prescribed by the following provisions, A, B and C, as long as the Division is satisfied that the contractor or subcontractor is employing workers provided by a union which provides evidence, in accordance with standards prescribed by the Division, that its percentage of active "card carrying" members who are minority and women workers is equal to or greater than the applicable employment goal established in accordance with N.J.A.C. 17:27-7.3. The contractor or subcontractor agrees that a good faith effort shall include compliance with the following procedures:

(A) If the contractor or subcontractor has a referral agreement or arrangement with a union for a construction trade, the contractor or subcontractor shall, within three business days of the contract award, seek assurances from the union that it will cooperate with the contractor or subcontractor as it fulfills its affirmative action obligations under this contract and in accordance with the rules promulgated

by the Treasurer pursuant to N.J.S.A. 10:5-31 et. seq., as supplemented and amended from time to time and the Americans with Disabilities Act. If the contractor or subcontractor is unable to obtain said assurances from the construction trade union at least five business days prior to the commencement of construction work, the contractor or subcontractor agrees to attempt to hire or schedule minority and women workers directly, consistent with the applicable employment goal. If the contractor's or subcontractor's prior experience with a construction trade union, regardless of whether the union has provided said assurances, indicates a significant possibility that the trade union will not refer sufficient minority and women workers consistent with the applicable employment goal, the contractor or subcontractor agrees to be prepared to hire or schedule minority and women workers directly, consistent with the applicable employment goal, by complying with the hiring or scheduling procedures prescribed under (B) below; and the contractor or subcontractor further agrees to take said action immediately if it determines or is so notified by the Division that the union is not referring minority and women workers consistent with the applicable employment goal.

(B) If the hiring or scheduling of a workforce consistent with the employment goal has not or cannot be achieved for each construction trade by adhering to the procedures of (A) above, or if the contractor does not have a referral agreement or arrangement with a union for a construction trade, the contractor or subcontractor agrees to take the following actions consistent with the applicable county employment goals:

(1) To notify the public agency compliance officer, the Division, and minority and women referral organizations listed by the Division pursuant to N.J.A.C. 17:27-5.3, of its workforce needs, and request referral of minority and women workers;

(2) To notify any minority and women workers who have been listed with it as awaiting available vacancies;

(3) Prior to commencement of work, to request that the local construction trade union refer minority and women workers to fill job openings, provided the contractor or subcontractor has a referral agreement or arrangement with a union for the construction trade;

(4) To leave standing requests for additional referral to minority and women workers with the local construction trade union, provided the contractor or subcontractor has a referral agreement or arrangement with a union for the construction trade, the State Training and Employment Service and other approved referral sources in the area until such time as the workforce is consistent with the employment goal;

(5) If it is necessary to lay off some of the workers in a given trade on the construction site, to assure, consistent with the applicable State and Federal statutes and court decisions, that sufficient minority and women employees remain on the site consistent with the employment goal; and to employ any minority and women workers laid off by the contractor on any other construction site on which its workforce composition is not consistent with an employment goal established pursuant to rules implementing N.J.S.A. 10:5-31 et. seq.;

(6) To adhere to the following procedure when minority and women workers apply or are referred to the contractor or subcontractor:

(i) If said individuals have never previously received any document or certification signifying a level of qualification lower than that required in order to perform the work of the construction trade, the contractor or subcontractor shall determine the qualifications of such individuals and if the contractor's or subcontractor's workforce in each construction trade is not consistent with the applicable employment goal, it shall hire or schedule those individuals who satisfy appropriate qualification

standards. However, a contractor or subcontractor shall determine that the individual at least possesses the requisite skills, and experience recognized by a union, apprentice program or a referral agency, provided the referral agency is acceptable to the Division. If necessary, the contractor or subcontractor shall hire or schedule minority and women workers who qualify as trainees pursuant to these rules. All of the requirements, however, are limited by the provisions of (C) below.

(ii) If the contractor's or subcontractor's workforce is consistent with the applicable employment goal, the name of any interested women or minority individual shall be maintained on a waiting list for the first consideration, in the event the contractor's or subcontractor's workforce is no longer consistent with the applicable employment goal.

(iii) If, for any reason, said contractor or subcontractor determines that a minority individual or a woman is not qualified or if the individual qualifies as an advanced trainee or apprentice, the contractor or subcontractor shall inform the individual in writing of the reasons for the determination, maintain a copy of the determination in its files, and send a copy to the public agency compliance officer and to the Division.

(7) To keep a complete and accurate record of all requests made for the referral of workers in any trade covered by the contract, on forms made available by the Division and submitted promptly to the Division upon request.

(C) The contractor or subcontractor agrees that nothing contained in (B) above shall preclude the contractor or subcontractor from complying with the union hiring hall or apprenticeship policies in any applicable collective bargaining agreement or union hiring hall arrangement, and, where required by custom or agreement, it shall send journeymen and trainees to the union for referral, or to the apprenticeship program for admission, pursuant to such agreement or arrangement. However, where the practices of a union or apprenticeship program will result in the exclusion of minorities and women or the failure to refer minorities and women consistent with the county employment goal, the contractor or subcontractor shall consider for employment persons referred pursuant to (B) above without regard to such agreement or arrangement; provided further, however, that the contractor or subcontractor shall not be required to employ women and minority advanced trainees and trainees in numbers which result in the employment of advanced trainees and trainees as a percentage of the total workforce for the construction trade, which percentage significantly exceeds the apprentice to journey worker ratio specified in the applicable collective bargaining agreement, or in the absence of a collective bargaining agreement, exceeds the ratio established by practice in the area for said construction trade. Also, the contractor or subcontractor agrees that, in implementing the procedures of (B) above, it shall, where applicable, employ minority and women workers residing within the geographical jurisdiction of the union.

After notification of award, but prior to signing a construction contract, the contractor shall submit to the public agency compliance officer and the Division an initial project workforce report (Form AA 201) provided to the public agency by the Division for distribution to and completion by the contractor, in accordance with N.J.A.C. 17:27:7. The contractor also agrees to submit a copy of the Monthly Project Workforce Report once a month thereafter for the duration of this contract to the Division and to the public agency compliance officer.

The contractor agrees to cooperate with the public agency in the payment of budgeted funds, as is necessary, for on-the-job and/or off-the-job programs for outreach and training of minorities and women.

(D) The contractor and its subcontractors shall furnish such reports or other documents to the Division of Contract Compliance & EEO as may be requested by the Division from time to time in order to carry out the purposes of these regulations, and public agencies shall furnish such information as

may be requested by the Division of Contract Compliance & EEO for conducting a compliance investigation pursuant to **Subchapter 10 of the Administrative Code (NJAC 17:27)**.

NOTICE TO ALL CONTRACTORS

RE: AFFIRMATIVE ACTION REGULATIONS P.L. 1975 C. 127 (N.J.A.C. 17:27)

A. ACTIVITY OF YOUR COMPANY- Indicate below:

- ☐ Procurement and/or Service Company
☐ Professional Consultant
☐ Other _____

All Contractors, except Government Agencies, are required to comply with the above law.

B. TO ALL CONTRACTORS:

1. Within seven (7) days after receipt of the notification of intent to award the contract or receipt of the contract, whichever is sooner, a Contractor should present one of the following to the County of Ocean:
 - (a) An existing federally approved or sanctioned affirmative action program.
 - (b) A New Jersey Certificate of Employee Information Report Approval.
 - (c) If the Contractor cannot present "a" or "b", the Contractor is required to submit a completed Employees Information Report (Form AA302). This form will be made available to the Contractor by the County of Ocean.

C. QUESTIONS BELOW MUST BE ANSWERED BY ALL CONTRACTORS:

1. Do you have a Federally approved or sanctioned Affirmative Action Program?
Yes _____ No _____
 - (a) If yes, please submit a photocopy of such approval.
2. Do you have a State of New Jersey "Certificate of Employee Information Report" approval?
Yes _____ No _____
 - (a) If yes, please submit a photocopy of such certificate.

The undersigned Contractor certifies that he is aware of the commitment to comply with the requirements of P.L. 1975, C. 127 and agrees to furnish the required documentation pursuant to the law.

COMPANY: _____

SIGNATURE: _____

TITLE: _____

Note: A contract must be rejected as non-responsive if a contractor fails to comply with the requirements of P.L. 1975, C. 127. (N.J.A.C. 17:27)

AMERICANS WITH DISABILITIES ACT

Equal Opportunity For Individuals With Disabilities

The CONTRACTOR and the DISTRICT do hereby agree that the provisions of title II of the Americans with Disabilities Act of 1990 (the "Act") (42 U.S.C. 12101 et. seq.), which prohibits discrimination on the basis of disability by public entities in all services, programs and activities provided or made available by public entities, and the rules and regulations promulgated pursuant thereto, are made a part of this contract. In providing any aid, benefit, or service on behalf of the DISTRICT pursuant to this contract, the CONTRACTOR agrees that the performance shall be in strict compliance with the Act. In the event that the CONTRACTOR, its agents, servants, employees, or subcontractors violate or are alleged to have violated the Act during the performance of this contract, the CONTRACTOR shall defend the DISTRICT in any action or administrative proceeding commenced pursuant to this Act. The CONTRACTOR shall indemnify, protect and save harmless the DISTRICT, its agents, servants and employees from and against any and all suits, claims, losses, demands, or damages of whatever kind or nature arising out of or claimed to arise out of the alleged violation. The CONTRACTOR shall, at its own expense, appear, defend and pay any and all charges for legal services and any and all costs and other expenses arising from such action or administrative proceeding or incurred in connection therewith. In any and all complaints brought pursuant to the DISTRICT'S grievance procedure, the CONTRACTOR agrees to abide by any decision of the DISTRICT which is rendered pursuant to said grievance procedure. If any action or administrative proceeding results in an award of damages against the DISTRICT or if the DISTRICT incurs any expense to cure a violation of the ADA which has been brought pursuant to its grievance procedure, the CONTRACTOR shall satisfy and discharge the same at its own expense.

The DISTRICT shall, as soon as practicable after a claim has been made against it, give written notice thereof to the CONTRACTOR along with full and complete particulars of the claim. If any action or administrative proceeding is brought against the DISTRICT or any of its agents, servants and employees, the DISTRICT shall expeditiously forward or have forwarded to the CONTRACTOR every demand, complaint, notice, summons, pleading, or other process received by the DISTRICT or its representatives.

It is expressly agreed and understood that any approval by the DISTRICT of the services provided by the CONTRACTOR pursuant to this contract will not relieve the CONTRACTOR of the obligation to comply with the Act and to defend, indemnify, protect and save harmless the DISTRICT pursuant to this paragraph.

It is further agreed and understood that the DISTRICT assumes no obligation to indemnify or save harmless the CONTRACTOR, its agents, servants, employees and subcontractors for any claim which may arise out of their performance of this Agreement. Furthermore, the CONTRACTOR expressly understands and agrees that the provision of this indemnification clause shall in no way limit the CONTRACTOR'S obligations assumed in this Agreement, nor shall they be construed to relieve the CONTRACTOR from any liability, nor preclude the DISTRICT from taking any other actions available to it under any other provisions of this Agreement or otherwise at law.

The Brick Township Public School District does not discriminate on the basis of handicapped status in the admission or access to, or treatment, or employment in its programs or activities.

The Brick Township Public School District shall allow access to any books, documents, papers and records of the contractor, which are directly pertinent to that specific contract.

Compliance is required with all applicable standards, orders, or requirements issued under 306 of the Clean Air Act, Section 508 of the Clean Water Act, Executive Order 11738 and Environmental Protection Agency Regulations (40 CRF, Part 15) which prohibits the use under non-exempt federal contracts, grants or loans of facilities included on the EPA list of violating facilities.

"The Brick Township Public School District considers it to be a substantial conflict of interest for any company desiring to do business with the District to be owned, operated or managed by any District employee, nor shall any District personnel be employed by the vendor in conjunction with any work to be performed for or on behalf of the Brick Township Public School District".

I HEREBY CERTIFY COMPLIANCE WITH THE FOREGOING.

A certified check, cashier's check or bid bond is enclosed, payable to the Brick Township Public School District, in the sum of \$_____ which the undersigned agree is to be forfeited as liquidated damages, and not as a penalty, if contract is awarded to the undersigned and the undersigned shall fail to execute the contract or shall fail to furnish the bond required within the stipulated time, otherwise said check will be returned to the undersigned.

Partnership

The undersigned is a Corporation under the law of the State

Individual

of _____, having principal offices
at _____.

NAME OF COMPANY, CORPORATION OR INDIVIDUAL
- PLEASE PRINT -

SIGNED BY: _____

PRINT NAME AND OFFICIAL TITLE

ADDRESS: _____

INCLUDE ZIP CODE

TELEPHONE: _____

E-MAIL ADDRESS _____

FEDERAL IDENTIFICATION NO. _____

PART 1 – GENERAL1.1 DEFINITIONS

A. Addenda:

- 1) An addendum is a document that is added to the original Contract Documents before the signing of the Owner/Contractor agreement to clarify, revise, add to, or delete from the Contract Documents or previous addenda.
- 2) The primary purpose of an addendum is to clarify the Drawings and Project Manual and respond to questions raised by Contractors, or issue new requirements, including decisions to decrease or increase the scope of certain work.

B. Construction Change Directives:

- 1) A Construction Change Directive is a document that is added to the Contract Documents and issued after the signing of the Owner/Contractor agreement to clarify, revise, add to, or delete from the Contract Documents or previous changes.
- 2) The primary purpose of a Construction Change Directive is to clarify the Drawings and Project Manual and respond to questions raised by the Contractor, or issue new requirements, including decisions to decrease or increase the scope of certain work.
- 3) Construction Change Directives altering the amount of the Contract Price shall result in Change Orders issued by the Contractor and must be reviewed by the Owner, Architect, prior to Contractor implementation.

C. Request for Information (RFI): A document submitted by a Contractor requesting information clarifying a portion of the Contract Documents, hereinafter referred to as an RFI, which is required to properly perform the Work and handled under provisions of Section 01315.

1.2 FORMAT

- A. Changes will follow a consistent format and will be filed after this page in the Project Manual. Replace revised pages and sections of the Project Manual as applicable and discard obsolete pages. Insert new sections in the proper order in the Project Manual.

PART 2 – PRODUCTS

Not Used

PART 3 – EXECUTION

Not Used

END OF SECTION

BRICK TOWNSHIP PUBLIC SCHOOL DISTRICT

ADDENDUM NO: _____, **DATED:** _____

ADDENDUM NO: _____, **DATED:** _____

ADDENDUM NO: _____, **DATED:** _____

ACKNOWLEDGMENT

PROJECT ENTITLED: _____

Acknowledgment is hereby made of the receipt of Addendum No. _____
containing information for the above referenced project.

BIDDER: _____

BY: _____

SIGNATURE: _____

TITLE: _____

DATE: _____

NOTE:

WHEN AN ADDENDUM IS ISSUED, THIS ACKNOWLEDGMENT MUST BE ATTACHED TO THE
FRONT OF THE PROPOSAL AT THE TIME OF BIDDING. FAILURE TO DO SO WILL RESULT IN BID
REJECTION.

PART 1 - GENERAL**1.1 SUMMARY**

- A. Project Identification: Tear off and replacement of existing roof at multiple school building facility locations at the Brick Township Public School District.
- B. Project Summary: The following are brief summaries of the work that makes up this contract:
 - 1) Roof replacement at the multiple school facility locations includes, but is not limited to, the following work:
 - a) Demolition of existing roofing and removal of all debris down to existing roof deck. The existing roofing materials have been tested and there is asbestos present at select facility locations as identified on the contract drawings.
 - b) Existing roof deck to remain.
 - c) Install new composite-fiber reinforced base sheet to provide temporary roof/vapor barrier during project. Be sure not to demolish more area than can be safely covered and protected by the end of the day.
 - d) Install flat and tapered insulation, including crickets, in accordance with contract drawings.
 - e) Install, and/or modify as indicated, all perimeter wood blocking.
 - f) Existing drains to remain.
 - g) Include raising of curbs on existing structures if required for warranty.
 - h) Provide new curbs and expansion joint where called for on plans.
 - i) Patch, replace or repair existing deck types up to a total of that indicated in the contract documents.
 - 2) Unit Price for addition of each deck-type replacement.
 - 3) Alternate Bid under Contract No. 1 and Contract No. 3 for additional reroofing area at the Lake Riviera Middle School as indicated in the contract documents.
- C. Particular Project Requirements:
 - 1) Existing Site Conditions and Restrictions: Maintain all existing warranties on adjacent roof surfaces not scheduled for reroofing. If existing adjacent roof surfaces are disturbed, they must be restored to the condition required by the warrantor, and in a manner acceptable to the warrantor to maintain the warranty.
 - a) Selective building demolition, including but not limited to, Asbestos Management. The Scope of the management to be as defined by all of the Contract Documents, see Section 02085 - Asbestos Management. The management shall be done in accordance with all government regulations, including but not limited to, OSHA. This scope shall also include the management at all asbestos-containing roofing material.

- 2) Requirements for Sequencing, Scheduling and Completion Date: It is the intent of this contract that physical work be started on the day after the last day of school, tentatively scheduled as June 16, 2007, and be substantially completed by August 27, 2007.
- 3) Owner's Occupancy: Buildings may be in use during this work. Proper care must be used to protect the occupants of the building during the project. All construction personnel will be required to have ID cards issued by the District. Anyone not having this ID card will be removed from the premises.

1.2 CONTRACT

- A. The Owner will award a Contract for the project to complete all work as indicated and specified.
- B. The Contractor agrees to accept the site as it exists and to remove any encumbrances which interfere with the proper fulfillment of the Work without change in the Contract Sum.
- C. In the event of conflicts or discrepancies among the Contract Documents, interpretations will be based on the following priorities:
 - 1) The Agreement.
 - 2) Addenda, with those of later date having precedence over those of earlier date.
 - 3) The Supplementary Conditions.
 - 4) The General Conditions of the Contract for Construction.
 - 5) Drawings and Specifications.
- D. In the case of an inconsistency between Drawings and Specifications, or within either Document not clarified by addendum, the better quality or greater quantity of Work shall be provided in accordance with the Architect's interpretation.
- E. In the case of inconsistencies between Drawings where quality and quantity are not in conflict, the Scope of work indicated by the larger-scaled drawing shall take precedence over conflicting information shown in a smaller scaled drawing.

1.3 PROJECT OBJECTIVES

- A. The Contractor shall complete the construction in the shortest period of time and shall plan the work, obtain materials, and execute the construction in the most expeditious manner possible in accordance with the requirements listed below.
- B. The Contractor shall protect the building and occupants from damages caused by weather and construction activity during the progress of the work. Safety shall be of paramount importance. The Contractor shall erect temporary barricades to facilitate construction safety without hindering access of the students and staff.
- C. The Contractor shall maintain all systems in working order, maintain appropriate means of egress, and maintain the construction site in an orderly manner. Housekeeping procedures shall be maintained on a daily basis to minimize the intrusion of dust and construction debris into the school environment.
- D. The Contractor shall maintain an alcohol, drug and smoke free environment; all workers shall refrain from fraternizing with students or staff and refrain from objectionable or obnoxious language or behavior. Violators will be discharged from the project site.

1.4 SCHEDULE CONSTRAINTS

- A. The Construction Schedule is critical to the project. All construction must be completed, including Certificate(s) of Continued Use, to permit the Owner's unlimited use of the facilities.
- B. All work shall be conducted during normal business hours and during all school holidays and vacations or on weekends, or weeknights until 9:00 PM with the Owner's prior consent. Evening work beyond 9:00 PM is subject to Municipal approval and constraints.
- C. All premium costs required by the Contractor to perform the work that is required during the non-school hours and/or to comply with the completion dates on the construction schedule are to be included in the Contractor's base bid. Additional Contractor costs related to the use of overtime or additional personnel necessary to complete work within the stated completion time will not be considered after award of Contract.

1.5 WORK SCHEDULE

- A. All work shall be done in accordance with a predetermined Work Schedule agreed upon by the Owner and Contractor.
- B. The Contractor shall coordinate all work with the Owner, other Contractors at the site, and all subcontractors.
- C. Location of trailers, storage areas, parking areas, waste management, and staging areas shall be coordinated with the Owner.
- D. If the Contractor fails to expedite and pursue any part of the Work, the Owner may terminate the Work or may carry out the Work in accordance with the General Conditions.
- E. Immediately upon the receipt of a contract for construction, the Contractor shall organize the Work, prepare a detailed construction schedule, provide all required submittals in accordance with the Shop Drawing, Product Data, and Sample Schedule specified in Section 01330 so that all materials subject to approval may be ordered, and shall expedite long-lead items. If requested by the Owner, the Contractor shall provide proof of orders and delivery dates.
- F. If it appears that the Work cannot be completed by the scheduled dates, the Contractor shall increase the work force or increase the hours of work, including evenings and weekends if necessary, at no additional cost to the Owner.
- G. If the Contractor fails to staff the job adequately to meet the completion date, the Owner reserves the right to assume possession of the material and to complete the installation with the Owner's forces or other Contractors or to require the Contractor to work additional shifts, as necessary.
- H. If the Work is complete, but the area is not cleaned and debris or equipment is not removed, the Owner shall have the right to have the area prepared for occupancy with his own or other forces and deduct the costs from the contract amount.
- I. The Construction Schedule is critical to the project. All work is required to be Substantially Complete, with a Certificate of Continued Use obtained, and ready for occupancy by the Owner, on or before the date agreed upon in the Contract.
- J. The final Construction Schedule will be subject to the approval of the Owner and the Architect.

- K. The Contractor shall secure and pay for all required permits, fees, licenses and shall schedule all progress inspections necessary for proper execution and completion of work.

1.6 PRE-CONSTRUCTION CONFERENCE

- A. Prior to commencing any work on the project, a Pre-Construction Conference shall be scheduled at the site by the Architect. The following parties shall be represented: Owner, Architect, Contractor, Approved Roofing System's Technical Representative, and Subcontractors.

1.7 CODES AND STANDARDS APPLICABLE

- A. All construction will be governed by:
 - 1) State of New Jersey Building Code.
 - 2) New Jersey Fire Safety Code.
 - 3) Code for Safety to Life from Fire in Buildings and Structures of the National Fire Protection Association, Inc., Standard 101 (NFPA 101).
 - 4) All other applicable laws and regulations, including local Building, Fire or Health Codes.

1.8 PREPARATION OF SITE

- A. Contractor agrees to accept site as indicated and to remove encumbrances that interfere with proper fulfillment of his work without change in Contract Sum.
- B. Contractor shall do all work as noted inside or outside of Contract Limit Lines.

1.9 TIME FOR COMPLETION

- A. It shall be understood and mutually agreed that the time for Substantial Completion is an essential condition of this Contract.
- B. Contractor agrees that Work shall be prosecuted diligently and uninterruptedly at such rate as will insure Substantial Completion of all Work and Certificates of Occupancy on or before the dates stated in the Contract.
- C. It is expressly understood and agreed by the Contractor and Owner that the time for Substantial Completion and Certificates of Occupancy are reasonable, taking into consideration average climatic range, Owner's restrictions, and other conditions prevailing.
- D. Contractor shall schedule the Work accordingly.

1.10 EXAMINATION OF SURFACES TO BE COVERED

- A. Prior to application of materials included in the various sections, the installer, the manufacturer's representative, and the Contractor shall together examine the surfaces upon which materials are to be supplied.
- B. The installer and the manufacturer's technical representative shall accept all surfaces and conditions affecting proper installation of their materials. The installer shall not proceed with the work until all conditions and surfaces are satisfactory to him.

- C. The Contractor shall do all work necessary to correct unsatisfactory conditions and surfaces not specifically included as work of the subcontractor.
- D. The subcontractor shall furnish to the Contractor for submission to the Architect two (2) copies of his statement, countersigned by the manufacturer or his appointed representative that the entire installation assembly has been made by correct techniques over properly prepared surfaces and under proper job conditions.

1.11 WORK BY OWNER

- A. The Owner may furnish labor and materials under separate contracts for certain items of work to be selected.
- B. The Contractor shall coordinate their work with that of the separate contractors as provided in the General Conditions.

1.12 FIRE SAFETY REQUIREMENTS

- A. The Contractor shall conform to the following mandatory requirements during the course of the work:
 - 1) All debris shall be cleaned up at the end of each working day.
 - 2) All combustible materials shall be stored outside and off the roof of the building.

PART 2 – PRODUCTS

Not Used

PART 3 – EXECUTION

Not Used

END OF SECTION

PART 1 - GENERAL

1.1 DESCRIPTION

- A. General: To enable the orderly review during progress of the Work, and to provide for a systematic discussion of problems, the Contractor will conduct the following project meetings in accordance with the Contract Documents.
- B. Scope of Meetings includes but is not limited to:
 - 1) Pre-Construction Meeting.
 - 2) Field Observations.
 - 3) Other Meetings.
- C. Related Meetings not included in this Scope:
 - 1) Special meetings between Architect, Owner, Contractor or manufacturer representatives.
 - 2) Pre-bid clarification meetings.

1.2 QUALITY ASSURANCE

- A. Contractor and his subcontractors and manufacturer representatives must be represented at meetings by a principal or authorized representative of their organization capable of making binding financial decisions.

1.3 SUBMITTALS

- A. Minutes of Meeting: The Contractor shall take, transcribe and distribute minutes of job meetings, clearly indicating the action taken and/or the follow-up required of each party. Minutes shall be of consistent size and format for record keeping purposes.

1.4 PRE-CONSTRUCTION MEETING

- A. Meeting will be held at a location near the job site with adequate light and ventilation as provided by the Owner or the Contractor.
- B. Attendees: Major subcontractors shall be represented. Attendees shall include Contractor, appropriate subcontractors, major material suppliers, Owner and Architect's representatives and others as needed.
- C. Agenda: Organizational arrangement of each subcontractor's forces and personnel, and those of Materials Suppliers, and Architect.
 - 1) Channels and procedures for communications.
 - 2) Construction schedule, including sequence of critical work, deliveries and priorities.

- 3) Contract Documents, including distribution of required copies of original Documents and revisions.
- 4) Processing of shop drawings and other data submitted to the Architect for review.
- 5) Processing of field decisions and Change Orders.
- 6) Rules and regulations governing performance of the Work.
- 7) Procedures for safety and first aid, security quality control, use of premises, housekeeping, field decisions, proposal requests, change orders, application for payment and other related matters.

1.5 FIELD OBSERVATIONS

- A. Formal Observation Trips: Shall be made of the job progress for the Owner, Architect, Local, State or Federal officials, etc., as the occasion warrants, as scheduled through the Contractor.
- B. Requests For Observation: If requested, the Contractor shall be prepared to show and explain his job progress throughout the building to the observation parties.
- C. Field Notes: Observation trips shall have appropriate comments transcribed and distributed to the observation party members, Owner, Engineers and subcontractors by the Contractor.
- D. Punch List & Final Inspection: The Contractor shall conduct a punch list inspection and final inspection of completed work in accordance with Section 01771.

1.6 OTHER MEETINGS

- A. The Owner or Contractor shall call meetings to resolve construction problems. Subcontractors must work through the Contractor for resolving questions and differences.

PART 2 - PRODUCTS

Not Used

PART 3 – EXECUTION

Not Used

END OF SECTION

PART 1 – GENERAL

1.1 SECTION INCLUDES

- A. Administrative requirements for requests for information.

1.2 DEFINITIONS

- A. Request For Information (RFI): A document submitted by the Contractor requesting information clarifying a portion of the Contract Documents, hereinafter referred to as an RFI, which is required to properly perform the Work.
- B. Improper RFI: An RFI that is not properly prepared or that requests information that, in the opinion of the Architect, is discernable from the Contract Documents, that has previously been addressed and documented in job meeting minutes or where time permits it to be addressed at a subsequent job meeting.
 - 1) Costs incurred by the Architect to process an Improper RFI will be backcharged to the Contractor in accordance with procedures set forth elsewhere in this Section.

1.3 CONTRACTOR'S REQUESTS FOR INFORMATION FORM

- A. RFI's shall be submitted on a form prepared by the Contractor and approved by the Architect, which shall include the following items:
 - 1) Date of RFI
 - 2) RFI Number
 - 3) To (Including Name, Address, Phone and Fax Numbers of Recipient)
 - 4) From (Including Name, Address, Phone and Fax Numbers of Sender)
 - 5) Project Name
 - 6) Architect's Project Number
 - 7) Latest date response is required by Sender
 - 8) Clearly stated description of information required.
 - 9) A space for the Recipient to indicate if a Potential Cost / Time Change is anticipated.
 - 10) Contractor's proposed solution or recommendation.
 - 11) A space for the Recipient to record the Response Date.
 - 12) A space for the Recipient to record the Respondent's name.
 - 13) A space for the Recipient to record the response.

1.4 SUBMITTAL OF RFI'S BY CONTRACTOR

- A. A properly prepared request for information shall include a detailed written statement that indicates the specific Drawings or Specification in need of clarification and the nature of the clarification requested.
 - 1) Forms shall be completely filled in, and if prepared by hand, shall be fully legible after photocopying or transmission by facsimile (fax).
 - a) Drawings shall be referenced by number and location on the drawing sheet.
 - b) Specifications shall be referenced by Section number, page and paragraph.
 - 2) RFI's shall be submitted in numerical order with no breaks in the consecutive numbering.
 - 3) Each page of attachments to RFI's shall bear the RFI number in upper right hand corner and shall be consecutively numbered in chronological order.
 - 4) RFI's may be submitted by E-Mail, facsimile or regular mail; E-mail addresses will be distributed at the Pre-Construction Conference. Contractor shall use only one (1) transmission method, e-mail, facsimile or regular mail for each RFI; follow-ups in another form shall not be sent.
- B. When the Contractor is unable to determine from the Contract Documents, the material, process or system to be installed, the Architect shall be requested to make a clarification of the indeterminate item.
 - 1) When possible, such clarification shall be requested at the next appropriate project meeting, with the response entered into the meeting minutes. When clarification at the meeting is not possible, either because of the urgency of the need, or the complexity of the item, Contractor shall prepare and submit an RFI to the Architect.
- C. RFI's from subcontractors, vendors or material suppliers must be submitted through, reviewed by, and signed by the Contractor prior to submittal to the Architect's designated representative.
- D. Contractor shall carefully study the Contract Documents to assure that the RFI is not an "Improper RFI."
- E. RFI's shall not be used for the following purposes:
 - 1) To request approval of submittals.
 - 2) To request approval of substitutions.
 - 3) To request changes which are known to entail additional cost or credit. Use a Change Order Request form instead.
 - 4) To request different methods of performing work other than those drawn and / or specified.
- F. In the event the Contractor believes that a clarification by the Architect will result in additional cost or time, Contractor shall not proceed with the work indicated by the RFI until a Change Order (or Construction Change Directive, if applicable to project) is prepared and approved.
- G. Contractor shall prepare and maintain a log of RFI's, and at any time requested by the Architect, Contractor shall furnish copies of the log showing outstanding RFI's. Contractor shall note unanswered RFI's in the log.

1.5 ARCHITECT'S PROCESSING OF RFI'S

- A. The Architect will require a minimum of 48 hours from Architect's receipt to respond to the RFI.
- B. Answered RFI's shall not be construed as approval to perform extra work.
- C. Architect will respond to RFI's on one of the following forms:
 - 1) Properly Prepared RFI's:
 - a) Response directly upon Request for Information form or attached thereto.
 - 2) Improper RFI's That Are Not Properly Prepared:
 - a) Returned noted "IMPROPER - INCOMPLETE."
 - 3) Improper RFI's That Have Been Previously Addressed or Addressed in Meeting Minutes:
 - a) Returned noted "IMPROPER – PREVIOUSLY ADDRESSED."
 - 4) Improper RFI's That Are Adequately Addressed on Contract Documents:
 - a) Returned noted "IMPROPER – SEE CONTRACT DOCUMENTS."

1.6 PROCEDURES FOR ARCHITECT'S PROCESSING OF RFI'S

- A. Process for Backcharging:
 - 1) Improper RFI's will be processed by the Architect at the Architect's standard hourly billing rates.
 - 2) Architect will charge the Owner and the Owner will deduct such costs from monies still due the Contractor.

PART 2 – PRODUCTS

Not Used

PART 3 – EXECUTION

Not Used

END OF SECTION

PART 1 - GENERAL1.1 DESCRIPTION

A. General:

- 1) To insure that the specified products are furnished and installed in accordance with the law and design intent, the following submittals are required for review by the Architect. Make submittals in accordance with the Contract Documents.
- 2) Contractor shall assume that the Architect will require 7 working days for review of submittals. If submittals need to be expedited for the Contractors purposes, then the Architect's overtime expenses will be billed to the Owner. The Owner will backcharge these costs to the Contractor.
- 3) Submittals shall be submitted for review within 21 days after award of Contract.
- 4) If Contractor submittals are not submitted for review within 32 days after award of Contract, the Architects review period of 7 workings days is waived and additional review time shall not be considered a basis for the extension of the Contract Time or Contract Sum.
- 5) If first submittals are not submitted for review within 21 days after award of Contract, the Architect will meet with the Contractor to mutually determine the outstanding submittals. A change order will then be issued for a credit to the Contract Sum of Two Hundred Dollars (\$200.00) for each submittal that is delinquent.
- 6) If Contractor fails to properly review all submittals in accordance with Paragraph 3.12.7 of the General Conditions by verifying materials, field measurements, field criteria and has not checked and coordinated the information contained in the submittal with the Work and Contract Documents, the submittal will be returned rejected and be accounted as the first submission.
- 7) When more than two (2) submittals are made for the same item, or time is required by the Architect to investigate proposed substitutions, the Contractor shall be responsible for the extra costs to the Architect for processing these submittals or investigating these proposed substitutions. The Architect will bill the Owner for these extra costs. The Owner shall back charge these extra costs to the Contractor.

B. Scope of Submittals includes but is not limited to:

- 1) Subcontractor List
- 2) Schedule of Values
- 3) Insurance
 - a) Workmen's Compensation
 - b) Liability
 - c) Fire & Casualty
- 4) Permits

- 5) Material & Assembly Submittals (as required under Article 1.3 of each Section) including:
 - a) Submittal Schedule
 - b) Samples
 - c) Product Data
 - d) Shop Drawings
 - e) Maintenance Instructions
 - f) Architect's Shop Drawing Stamp
 - 6) Construction Photographs
 - 7) Progress Payment Certificates
 - 8) Change Orders
 - 9) Project Record Documents
 - 10) Warranties
 - 11) Waiver of Liens and Final Waiver
 - 12) Sworn Statements
 - 13) Existing surface acceptance and assembly letter (Prior to installation)
- C. Related Sections:
- 1) Section 01315 – Contractor's Requests for Information.
 - 2) *Individual requirements* for product submittals are described in each section of Divisions 2 through 16 of the specifications.

1.2 QUALITY ASSURANCE

- A. Prior to each submittal, each Subcontractor shall carefully review and coordinate the aspects of each item being submitted and verify that each item and the submittal conforms with the requirements of the Contract Documents. Contractor shall review the submittal package and stamp each item to verify his acceptance.

1.3 SUBMITTALS

- A. See individual items described in Article 2.6 of this Section.
- B. Before construction work may proceed, submit required copies of the following items:
- 1) Subcontractor List
 - 2) Schedule of Values
 - 3) Certificate of Insurance:
 - a) Workmen's Compensation
 - b) Liability
 - c) Fire

- 4) Permits
 - 5) Progress Schedule
 - 6) Material & Assembly Submittals as required under Article 1.3 of each Section including:
 - a) Samples
 - b) Product Data
 - c) Shop Drawings
 - d) Project Material & Equipment Submittal Schedule
- C. Before final payment may be authorized, the following submittals must be complete, updated and on file:
- 1) Progress Payment Certificates
 - 2) Change Orders
 - 3) Record Drawings
 - 4) Substantial Completion Items List (Punch List) from the Architect
 - 5) Warranties
 - 6) Final Waiver of Lien
 - 7) Maintenance Instructions
 - 8) Special Maintenance Agreements and Product Warranty
 - 9) Sworn Statement
 - 10) Consent of Surety
 - 11) Affidavit of Payment of Debts and Claims
 - 12) Affidavit of Release of Liens
 - 13) Attic stock as required by the various sections.

PART 2 - PRODUCTS

2.1 SUBCONTRACTOR LIST

- A. Submit names of Subcontractors proposed for the principal portions of the work.

2.2 SCHEDULE OF VALUES

- A. Submit a schedule of values, emulating CSI format, aggregating the total contract sum divided so as to facilitate payments to Subcontractors. Include values in Division 1 for project closeout, submittals, and punch list.

2.3 INSURANCE

- A. Submit requested number of insurance policy copies of each type of insurance coverage as per General and supplemental Conditions. The Contractor shall review Subcontractor insurance policies to maintain coverage identified in Section 00800.

2.4 PERMITS

- A. Scope: Obtain, maintain and pay for permits and licenses legally required for the work.
- B. Inspection & Approval: Arrange for inspections and approvals of this work required by government agencies.
- C. Requirements: If the Contractor or his Subcontractors perform work knowing it to be contrary to such laws, ordinances, rules, regulations, building codes, orders or other directives, the responsible party shall assume full responsibility and shall bear attributable costs. If equipment is substituted for manufacturer's model numbers shown on the contract documents and filed with the Building Department, this trade shall have the responsibility of preparing and filing amendments with the Building Department. Application for Use Permits shall be filed by this trade.
- D. Display: Post original permit in conspicuous location for Building Department use, as required by law.

2.5 MATERIAL AND ASSEMBLY SUBMITTALS

- A. Project Material & Equipment Submittal Schedule: The Contractor, immediately after being awarded the Contract, shall prepare and submit to the Architect, a detailed schedule of shop drawings, product data, certifications, and sample submissions as required by each Section of the Specifications.

This Schedule shall indicate dates the Contractor expects to submit shop drawings, product data, certifications, or samples, allowing ample lead time for review and approval, to permit him to meet dates in the Agreement.

- 1) Labeling: Each item shall have a label bearing the name and description of the material, the Subcontractor's name, (and Sub-subcontractor's name, if applicable), date, project name, specification number, Contractor's and Architect's name. A letter of transmittal from the Contractor requesting acceptance should accompany such items.
- 2) Cost: Postage or transportation charges to the office designated by the Contractor must be prepaid on literature forwarded. A letter of transmittal requesting acceptance should accompany literature stating Contractor's name (and Subcontractor's name, if applicable), date, project name, specification number and Architect's name.
- 3) Time: Samples shall be submitted in accordance with 1.1.A.2 so as to permit proper consideration without delaying the Subcontractor's operation. Allow a reasonable time for processing by the Architect and his Consultants in addition to time required by the Contractor and transit time. Material shall not be ordered until written or stamped approval is received from the Architect. Materials furnished shall be the same as the approved samples.
- 4) Responsibility: Review by the Architect of shop drawings of details for materials, apparatus, devices, etc., will not relieve the Subcontractor from responsibility for furnishing the same of proper dimension, size, quantity and quality to effectively perform the work and carry out the requirements and intent of the Drawings and Project Manual.

If the shop drawings deviated or are intended to deviate from the Drawings or Project Manual, the Subcontractor shall so advise the Contractor and Architect in writing at the time the shop drawings are submitted.

B. Transmittals:

- 1) Shop Drawing and Sample Transmittals shall include the following information:
 - a) Date.
 - b) Transmittal numbers that shall be consecutive for the project.
 - c) Subcontractor's name and project job number.
 - d) Specification section number where item is specified. Do not submit items from more than one specification section or contractor on the same transmittal.
 - e) Specification section paragraph under which item is specified.
 - f) Submission number (1st, 2nd, 3rd, etc.) depending on previous submission of same item.
 - g) Subcontractor's remarks noting exceptions or deviations from contract documents.

C. Samples:

- 1) Type & Quantity: The Subcontractor shall submit to the Contractor, for review by the Architect, samples of materials he proposes to use, as directed. Samples shall be of sufficient size to show the quality, type, range of color, finish and texture of the proposed materials. Three (3) samples shall be submitted in quantities required by the Architect. One (1) color or finish sample shall be retained by the Architect. Subcontractor and Contractor shall stamp each submittal or submittal tag indicating his review of the material, its appropriateness and that it complies with the Contract Documents.

D. Product Data: The Subcontractor shall submit to the Contractor for review by the Architect the required number of copies of Product Data fully describing the standard features of the material or assembly he proposes for use. Manufacturer's literature shall describe the material content, features or assembly of each product as listed under Article 1.3 of each specification section. Edit material to conform to job requirements. Subcontractor and Contractor shall stamp each drawing indicating its appropriateness.

E. Shop Drawings:

- 1) Format: The Subcontractor shall submit drawings to the Contractor, for review by the Architect, so as not to delay their work or the work of other Subcontractors, as the Subcontractor deems necessary for the execution of his work. Submit the required number of prints of each shop drawing, including fabrication, erection layout and setting drawings and such other drawings as required under various sections of the Specifications, until no exceptions are taken is obtained. Shop drawing titles shall carry job title, name or number of building, name of Subcontractor, specification and project numbers and date and, in addition, the location shall be designated for each item shown. Drawings shall show the design, dimensions, connections and other details necessary to insure that they accurately interpret the Drawings and Specifications and shall also show adjoining work in such detail as required to provide proper connection with same. Where adjoining connected work requires shop drawings, they shall be submitted for review at the same time so that connections can be accurately checked. Subcontractor shall review and Contractor shall stamp and initial each shop drawing submitted

indicating he has personally reviewed the conditions concerning it and that it conforms to the Contract Documents for the project.

2) Submittal Distribution:

a) Submittals:

1. Shop Drawings: Submit shop drawings by means of two blue line or black line prints. Maximum acceptable shop drawings size is 30" x 42". Minimum scale for insulation layout and roof plans shall be 1/8" = 1'-0"
 - a. After review, one print will be returned to the Contractor marked, "Approved", "Furnish as Corrected", "Rejected", and/or "Revise and Resubmit".
 - b. Incomplete, improperly assembled, or improperly reviewed submittals will be returned to the Contractor marked "Rejected" and will be accounted as the first submission.
 - c. When marked "Rejected" and/or "Revise and Resubmit", resubmit two new blue line or black line prints. Changes or revisions to previously made submittals shall be circled and brought to the attention of the Architect.
 - d. When Reviewed and marked "Approved" or "Furnish as Corrected", Architect will provide copies for Owner and Architect and return the one print to the Contractor.
2. Product Data: For submission of Product Data including catalog cuts, brochures, data sheets, test report, certifications, and similar materials:
 - a. Submit two sets of each. Product data shall be submitted on 8-1/2" x 11" or 11" x 17" bond paper only. Bound product data shall be contained in three ring binders or spring clips only, staples or GBC binders will not be permitted.
 - b. After review, the submission will be marked as described above.
 - c. When marked "Rejected" and/or "Revise and Resubmit", one copy will be returned to Contractor. Revise original pages. Resubmit two of copies of each revised page.
 - d. When Reviewed and so marked, or marked "Furnish as Corrected", Architect will retain one copy for Owner and Architect, and return other copy to Contractor.
 - e. Submittals requiring the selection of a color shall be reviewed and marked "Approved" and returned without the color selection. Color selections will not be made until color charts for all related products have been "Approved" by the Architect. In order to expedite the color selection process, related products should be submitted in succession.
3. Samples:
 - a. Identify each sample with the project name, name of Contractor, name of Subcontractor, name of producer and brand, and Specification Section Number.

- b. Deliver samples with letter of transmittal to the Architect with shipping charges prepaid.
 - c. Unsatisfactory samples will be rejected by letter to Contractor but will not be returned by the Architect.
 - d. Certification:
 - Where a sample submittal is specified for a material where only one manufacturer, type, and color is named in the specifications, and that particular manufacturer, type, and color of material is proposed for use, Certification specified in E.3.a.5 will be acceptable in lieu of the specified sample submittal.
4. Certification: Where a submittal is specified for a single product not requiring selection of colors or textures, or not having complex relationships with other products, Certification from the subcontractor, countersigned by the Contractor, stating that the product is exactly as specified, will be acceptable in lieu of the specified submittal.

F. Maintenance Instructions: See Section 01771.

G. Architect's Submittal Stamp:

- 1) The Contractor shall have a "Combined Contractor Submittal Stamp & F.T. Inc. Submittal Stamp" made up in the form of a rubber stamp and containing information as indicated in Section 01331.
 - a) Affix this stamp, and provide information noted thereon, including Contractor's signature on each copy of drawings, catalog cuts, brochures, data sheets, test reports, certifications, and other submittals. Contractor's signature indicates review and conformance to correct submittal procedures and adherence to contract requirements.
 - b) Identify each shop drawing with Project name, Submittal and Review Stamp, name of Contractor and Subcontractor submitting the drawing, clear identity of contents and location in the Work, and date of shop drawing or revision to shop drawing.
 - c) Ensure that each specification section; shop drawing, product, or sample is submitted under separate transmittal. In addition, each transmittal may only accompany the required shop drawing, product data or samples for one component of work. Submittals will not be considered if more than one component of work is submitted per transmittal.
 - d) Place applicable Specification Section Number wherein materials are specified and Contract Drawing Number where materials are shown on both shop drawing and on transmittal accompanying shop drawing.
 - e) Provide a blank area about 4" x 6" adjoining the title block on each sheet for imprinting the Submittal and Review Stamp.
- 2) Revisions after Architect's Review: When a submittal has been reviewed by the Architect, re-submittal for substitution of materials or equipment will not be considered unless accompanied by an acceptable explanation as to why the substitution is necessary.

2.6 CONSTRUCTION PHOTOGRAPHS

- A. Scope: The Contractor shall provide two (2) or more photographs taken weekly during the progress of the work showing work in progress. One photograph shall be taken from a common roof top position showing Construction Progress. Photographs shall be mounted on a linen backing to permit placement in a notebook without damage to the photograph. The Contractor shall coordinate the photography work.
- B. Distribution: The Contractor shall distribute three (3) sets of 8" x 10" glossy photographs with the Application For Payment and distributed as follows:
 - 1) 1 set to Contractor
 - 2) 1 set to Architect
 - 3) 1 set to Owner

2.7 CHANGE ORDERS

- A. Change orders shall be issued as revisions to the subcontract order.

2.8 PROJECT RECORD DOCUMENTS

- A. Refer to Section 01771 for as-built drawing requirements.

2.9 WARRANTY

- A. Provide a warrantee for construction work except as modified in conformance with requirements of Section 01771.

2.10 WAIVER OF LIENS AND FINAL WAIVER

- A. Provide a waiver of liens for each Subcontractor as per requirements of Section 01771.

2.11 SWORN STATEMENTS

- A. Refer to Section 01771 for sworn statements needed in Project Closeout.

PART 3 - EXECUTION

Not Used

END OF SECTION

5"	3 1/4"	
	CONTRACTOR	
	BRICK TOWNSHIP PUBLIC SCHOOL DISTRICT	
	ROOFING REPLACEMENTS	
	PROJECT TITLE	
	SPEC. SECTION NO. REF.: _____	
	SUBMITTAL NO.: _____	
	Approved for conformance to contract requirements. _____	
	DATE: _____	BY: _____
	FLETCHER-THOMPSON, INC. FT PROJECT NO.: _____	ARCHITECTS-ENGINEERS DATE RECEIVED: _____
E070581.09		
COMMENTS MADE ON THE SUBMITTALS DURING THIS REVIEW DO NOT RELIEVE THE CONTRATOR FROM COMPLIANCE WITH REQUIREMENTS OF THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL DIRECT SPECIFIC ATTENTION, IN WRITING AND/OR GRAPHIC FORM, TO DEVIATIONS FROM THE REQUIREMENTS OF THE CONTRACT DOCUMENTS, OR ON RESUBMITTALS, TO ANY DEVIATIONS OTHER THAN THOSE REQUESTED BY THE ARCHITECT ON PREVIOUS SUBMITTALS. THIS REVIEW IS ONLY FOR GENERAL CONFORMANCE WITH THE DESIGN CONCEPT OF THE PROJECT AND GENERAL COMPLIANCE WITH THE INFORMATION GIVEN IN THE CONTRACT DOCUMENTS. THE CONTRACTOR IS RESPONSIBLE FOR CONFIRMING AND CORRELATING ALL QUANTITIES AND DIMENSIONS; SELECTING FABRICATION PROCESSES; TECHNIQUES OF CONSTRUCTION; COORDINATING THE WORK WITH THAT OF ALL OTHER TRADES; AND PERFORMING THE WORK IN A SAFE AND SATISFACTORY MANNER. REFER TO SPECIFICATION SECTION NO. 01330.		
SUBMITTAL NO.: _____		
REFERRED TO: _____		
☐ APPROVED	☐ REVISE AND RESUBMIT	
☐ REJECTED	☐ FURNISH AS CORRECTED	
DATE: _____	BY: _____	

TO BE FILLED IN BY THE CONTRACTOR

END OF SECTION

PART 1 - GENERAL**1.1 DESCRIPTION**

- A. General: During the construction period various types of services are necessary to record or support the construction process that is not an integral part of the final construction. Provide temporary facilities and controls in accordance with the Contract Documents.
- B. Scope of Work includes but is not limited to:
 - 1) Staging areas.
 - 2) Rubbish removal.
 - 3) Safety, protection and security.
 - 4) Temporary toilets.
 - 5) Temporary scaffolding, ladders, stairs, hoists, etc.
 - 6) Labor disputes.
 - 7) Temporary light and power.
 - 8) Tree protection.
- C. Related Items specified in other Sections:
 - 1) Ladders, scaffolds, planks, hoists and similar items required for a specific item of work shall be part of that Scope of Work.
 - 2) Submittals (Section 01330).

1.2 QUALITY ASSURANCE

- A. Codes: Comply with applicable Building Code and standards.
- B. Standards: Comply with the State and local Board of Health, Environmental Protection Agency, Fire Department and other applicable standards.

1.3 SUBMITTALS

- A. Refer to Section 01330 or certain individual items of this section.

1.4 PRODUCT HANDLING

- A. Maintain temporary facilities and controls in proper safe condition throughout progress of the Work.

PART 2 - PRODUCTS

2.1 STAGING AREAS

- A. Scope: Access and staging areas for purposes of this Contract shall be confined to areas as directed by the Owner.
- B. Scheduling: Subject to the conditions as noted on drawings and specified in this article, the Trade Contractor shall plan and be responsible for the methods of use of the access and staging areas in accordance with his construction schedules and needs.
- C. Protection of Existing Work:
 - 1) In the use of the access and staging areas, protect operations under the Contract including construction utilities and installations of whatever sort except such as are designated to be removed.
 - 2) Provide for adequate timber bridging and planking or other suitable means as required for legal egress, and for the safeguarding of existing paving, walks and curbs, structures and utilities from damage due to his construction vehicle traffic. Safeguard existing work from damage due to other construction operations under this Contract and permit safety without interference or delay in the carrying out of construction operations. Repair or replace existing work within the designated access and staging areas which is needed to remain in place and which is damaged by operations under this Contract.
- D. Limits for Each Trade Contractor's Staging Areas: Do not encumber the premises nor overload the structures beyond their allowable design live load with his apparatus, storage of materials and the operation of his workmen, and shall be confined within the limits designated by the Owner or Construction Manager.
- E. Storage of Material: Provide temporary storage sheds and other storage facilities on the job site for the storage of materials that may be subject to weather damage when interior or covered space is not available.

2.2 RUBBISH REMOVAL

- A. Clean-up debris, rubbish and old materials resulting from the work on a daily basis.
- B. Cleaning Responsibility: Remove from the work area of buildings and site debris, resulting from the work daily or as often as necessary if same interferes with the work under any contract or presents a fire hazard. No rubbish or debris shall be dropped from a height of more than six (6) feet, or thrown out of windows or openings without a chute. An adequate number of cleaning personnel shall be provided during working hours, who shall keep areas within and adjacent to the building free from dust and loose dirt by sweeping and wet mopping.
- C. Rubbish Disposal:
 - 1) Furnish containers at central collection locations as designated by the Construction Manager on the site to receive construction debris. Cost of containers, removal and disposal charges shall be paid by the Trade Contractor. Containers shall be removed as often as necessary to minimize interference with work in progress.
 - 2) Clean the site around the building and maintain it clean and free from food and beverage containers, waste and other debris. Provide and rigidly enforce the use of waste receptacles by construction personnel. Burning of refuse is not permitted.
- D. Salvage Materials: Construction salvage materials, not including items elsewhere to be returned to the Owner, shall become the property of the Trade Contractor and shall be taken

from the premises. Storage of materials and equipment on the site, other than for this project, will not be permitted.

- E. Existing Debris: Rubbish and debris found existing on the site at the start of the work shall be removed from the premises.
- F. Coordination of the Final Clean-Up: Refer to Section 01771.

2.3 SAFETY PROTECTION AND SECURITY

- A. Prior to starting and during the progress of the work, coordinate the prevention of hazards to personnel and property, including that of the Owner, other Trade Contractors, the neighborhood and the public, and provide for the proper care, safety and protection of materials, installed work, personnel equipment and other items.
- B. Safety Standards: The work shall include the erection of bridges, barricades, fences, footways, etc., and the maintenance of danger lights, illumination, etc., as required by law, by public authorities having jurisdiction, and by the National Board of Fire Underwriters, by other insurance-regulating or rating organizations having jurisdiction, and U.S. Department of Labor Occupational Safety and Health Administration. Safety precautions taken shall not relieve the Trade Contractor from liability due to accidents or other causes.
- C. Protection: Protection shall be maintained for the duration of the Project and shall include:
 - 1) Weather Protection: Arrange to provide protection against rain, wind, storms, frost, heat and other weather conditions, so as to maintain work, materials, apparatus and fixtures free from injury or damage. At the end of each day's work items likely to be damaged shall be covered. Remove snow and ice for the proper protection and/or execution of the construction work.
 - 2) Protection of Finished Work: Provide protection for the finished work. Finished floors shall be protected from traffic by method approved by the finish manufacturer. Finished construction and materials shall be protected from rain, snow and windstorm damage throughout the building period.
 - 3) Fire Protection: Maintain fire-fighting equipment for the duration of construction in accordance with the requirements of the Fire Department and the Insurance Underwriters and subject to approval of the Owner's insurance agents. Provide fire extinguishers as required by the local Fire Department and the Building Code. Coordinate with existing fire fighting equipment in existing buildings.
 - 4) Volatile Liquids: Bulk storage of volatile liquids shall be outside the building at location. Only as much volatile liquid shall be allowed within the building at any given time as is needed for that day's operation.
 - 5) Vermin and Rodent Control: Prevent the infestation and multiplication of vermin and rodents, and, if necessary, employ an exterminator to rid the premises of them if there is evidence that they exist.
 - 6) Dust Protection: Prevent the nuisance of dust to the surrounding areas, and provide water sprinkling materials and equipment as required for such dust prevention for the work.
 - 7) Structural Alterations: Do not permit endangering work by excavation or otherwise and shall not cut or alter the work without the consent of the Structural Engineer. Written instruction shall be obtained from the Structural Engineer's representatives before cutting beams or other structural members, arches, lintels, etc.

8) Welding & Cutting:

- a) Handling of Welding Materials: The handling and storage of welding materials, acetylene and oxygen tanks, burners, and other equipment required for the execution of welding and cutting work at the job shall be subject to the approval of the Building Department.
- b) Welding Standards: Work shall be performed in accordance with the standard specifications of the American Welding Society.
- c) Fire Protection: Welders shall take precautions required to prevent fires as a result of his operations. When welding tools or torches are in use, the Trade Contractor shall have available, in the immediate vicinity of the work, a fire extinguisher of the CO₂ type. The fire extinguisher shall be provided and maintained by the Installer. Fuel for cutting and heating torches shall be gas only, and shall be contained in Underwriters Laboratory listed containers. Storage of gas shall be in locations approved by the Fire Department. Provide fireproofed tarpaulins where applicable at welding and cutting operations.
- d) Power: The Owner will not provide power for electric welders.

- 9) Tree Protection: Trees identified on the plans or by the Owner to remain must be protected during the construction period. Maintain a snow fence at the tree drip line. Avoid driving vehicles or storing materials within the fence area and excavating in the root area unless acceptable by the Landscape Architect (see Section 02900).

- D. Security: During the period of the Construction Contract, the Owner's security force shall maintain the necessary security of the construction site and areas after normal working hours. Each Trade Contractor shall secure his tools, materials and assemblies. Claims shall not be made against the Owner or Architect for equipment or tool losses or damage to installed assemblies.

2.4 TEMPORARY TOILETS

- A. Chemical Toilets: Provide and maintain temporary enclosed and weatherproof chemical toilets located on the site or within buildings where directed. The chemical toilets shall be used for construction personnel. Use of toilets by construction personnel within occupied areas of the building is not permitted.
- B. Use of Existing Toilets: Use of toilets in the building by the construction personnel is prohibited.

2.5 TEMPORARY SCAFFOLDING, LADDERS, STAIRS, HOISTS, ETC.

- A. Scope: Coordinate the installation and maintenance and safety of temporary stairs, ladders, ramps, scaffolds, runways, sidewalk bridges, fences, derricks, hoists, chutes, and other such operational facilities as may be needed for the proper execution of the work. Apparatus, equipment and construction shall meet the requirements of the Labor Law and other State and local Building Department Requirements.
- B. Scaffolding: Coordinate the location, erection, maintenance and removal of scaffolding and other temporary facilities as required for the proper installation of the work.
- C. Hoists and/or Crane (for General Use): Coordinate and maintain the use of conventional construction hoists of sufficient size and capacity to raise materials and equipment and give

access to construction levels. Coordinate the use of other cranes used on the site by individual Trade Contractors.

2.6 LABOR DISPUTES

- A. Notifications: Immediately notify the Owner of actual or impending labor disputes that may affect or is affecting the schedule of the Work. Take appropriate measures to eliminate or minimize the effect of such labor dispute on the schedule, including but not limited to, such measures as: promptly seeking appropriate injunctive relief; filing appropriate charges with the National Labor Relations Board under the applicable provisions of the Labor Management Relations Act of 1947, as amended; filing appropriate damage actions; taking such measures as establishing a reserved gate, where appropriate; seek other sources or supply or service; and other measures that may be appropriately utilized to limit or eliminate the effect of the labor dispute.
- B. Damage - Time Extension: To the extent the Trade Contractor fails to promptly initiate measures that are appropriate, no extension of time for completion shall be allowed. In addition, any delay impact on any Trade Contractor's schedule or on the schedule for the Project, which is a direct result of such failure, shall be considered as a Trade Contractor caused delay under applicable provisions of the Contract. The rights and remedies provided in this paragraph are in addition to other rights or remedies provided by law or under this Contract. The Trade Contractor shall include this clause in every Contract, together with a requirement that Sub-Subcontractors include a substantially similar clause in each lower tier subcontract.

2.7 TEMPORARY POWER

- A. Contractor shall provide his own temporary power. Contractor is not to use facilities power without owner's permission.

2.8 TREE PROTECTION

- a) Provide protection around existing trees from damage during construction.

PART 3 - EXECUTION

3.1 MAINTENANCE & REMOVAL

- A. Maintain temporary facilities and controls as long as needed for the safe and proper completion of the Work.
- B. Remove temporary facilities and controls as rapidly as progress of the Work will permit, or as directed by the Owner's Construction Representative.

END OF SECTION

PART 1 - GENERAL1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes the following administrative and procedural requirements: selection of products for use in Project; product delivery, storage, and handling; manufacturers' standard warranties on products; special warranties; product substitutions; and comparable products.
- B. Related Sections include the following:
 - 1) Section 01771 - Project Closeout: Submitting warranties for contract closeout.
 - 2) Divisions 2 through 16 Sections for specific requirements for warranties on products and installations specified to be warranted.

1.3 DEFINITIONS

- A. Products: Items purchased 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, except that products consisting of recycled-content materials are allowed, unless explicitly stated otherwise. Products salvaged or recycled from other projects are not considered new products.
 - 3) Comparable Product: Product that is demonstrated and approved through submittal process, or where indicated as a product substitution, 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. Substitutions: Changes in products, materials, equipment, and methods of construction from those required by the Contract Documents and proposed by Contractor.
- C. Basis-of-Design Product Specification: Where a specific manufacturer's product is named and accompanied by the words "basis of design," 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 other named manufacturers.

- D. **Manufacturer's Warranty:** Preprinted written warranty published by individual manufacturer for a particular product and specifically endorsed by manufacturer to Owner.
- E. **Special Warranty:** Written warranty required by or incorporated into the Contract Documents, either to extend time limit provided by manufacturer's warranty or to provide more rights for Owner.

1.4 SUBMITTALS

- A. **Product List:** Submit a list, in tabular form, showing specified products. Include generic names of products required. Include manufacturer's name and proprietary product names for each product.
 - 1) Coordinate product list with Contractor's Construction Schedule and the Submittals Schedule.
 - 2) **Form:** Tabulate information for each product under the following column headings:
 - a) Specification Section number and title.
 - b) Generic name used in the Contract Documents.
 - c) Proprietary name, model number, and similar designations.
 - d) Manufacturer's name and address.
 - e) Supplier's name and address.
 - f) Installer's name and address.
 - g) Projected delivery date or time span of delivery period.
 - h) Identification of items that require early submittal approval for scheduled delivery date.
 - 3) **Initial Submittal:** Within 21 days after date of commencement of the Work, submit three (3) copies of initial product list. Include a written explanation for omissions of data and for variations from Contract requirements.
 - a) At Contractor's option, initial submittal may be limited to product selections and designations that must be established early in Contract period.
 - 4) **Completed List:** Within 30 days after date of commencement of the Work, submit three (3) copies of completed product list. Include a written explanation for omissions of data and for variations from Contract requirements.
 - 5) **Architect's Action:** Architect will respond in writing to Contractor within 8 days of receipt of completed product list. Architect's response will include a list of unacceptable product selections and a brief explanation of reasons for this action. Architect's response, or lack of response, does not constitute a waiver of requirement that products comply with the Contract Documents.
- B. **Substitution Requests:** Submit three (3) copies of each request for consideration. Identify product or fabrication or installation method to be replaced. Include Specification Section number and title and Drawing numbers and titles.

- 1) Documentation: Show compliance with requirements for substitutions and the following, as applicable:
 - a) Statement indicating why specified material or product cannot be provided.
 - b) Coordination information, including a list of changes or modifications needed to other parts of the Work and to construction performed by Owner and separate contractors that will be necessary to accommodate proposed substitution.
 - c) Detailed comparison of significant qualities of proposed substitution with those of the Work specified. Significant qualities may include attributes such as performance, weight, size, durability, visual effect, and specific features and requirements indicated.
 - d) Product Data, including drawings and descriptions of products and fabrication and installation procedures.
 - e) Samples, where applicable or requested.
 - f) List of similar installations for completed projects with project names and addresses and names and addresses of architects and owners.
 - g) Material test reports from a qualified testing agency indicating and interpreting test results for compliance with requirements indicated.
 - h) Research/evaluation reports evidencing compliance with building code in effect for Project, from a model code organization acceptable to authorities having jurisdiction.
 - i) Detailed comparison of Contractor's Construction Schedule using proposed substitution with products specified for the Work, including effect on the overall Contract Time. If specified product or method of construction cannot be provided within the Contract Time, include letter from manufacturer, on manufacturer's letterhead, stating lack of availability or delays in delivery.
 - j) Cost information, including a proposal of change, if any, in the Contract Sum.
 - k) Contractor's certification that proposed substitution complies with requirements in the Contract Documents and is appropriate for applications indicated.
 - l) Contractor's waiver of rights to additional payment or time that may subsequently become necessary because of failure of proposed substitution to produce indicated results.
- 2) Architect's Action: If necessary, Architect will request additional information or documentation for evaluation within one (1) week of receipt of a request for substitution. Architect will notify Contractor of acceptance or rejection of proposed substitution within 10 days of receipt of request, or seven (5) days of receipt of additional information or documentation, whichever is later.
 - a) Form of Acceptance: Change Order.
 - b) Use product specified if Architect cannot make a decision on use of a proposed substitution within time allocated.

- C. Basis-of-Design Product Specification Submittal: Comply with requirements in Section 01330 "Submittal Procedures." Show compliance with requirements.

1.5 QUALITY ASSURANCE

- A. Compatibility of Options: If Contractor is given option of selecting between two (2) or more products for use on Project, product selected shall be 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.

1.6 PRODUCT DELIVERY, STORAGE AND HANDLING

- A. Deliver, store, and handle products using means and methods that will prevent damage, deterioration, and loss, including theft. Comply with manufacturer's written instructions.
- 1) Schedule delivery to minimize long-term storage at Project site and to prevent overcrowding of construction spaces.
 - 2) Coordinate delivery with installation time to ensure minimum holding time for items that are flammable, hazardous, easily damaged, or sensitive to deterioration, theft, and other losses.
 - 3) 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.
 - 4) Inspect products on delivery to ensure compliance with the Contract Documents and to ensure that products are undamaged and properly protected.
 - 5) Store products to allow for inspection and measurement of quantity or counting of units.
 - 6) Store materials in a manner that will not endanger Project structure.
 - 7) Store products that are subject to damage by the elements, under cover in a weathertight enclosure above ground, with ventilation adequate to prevent condensation.
 - 8) Comply with product manufacturer's written instructions for temperature, humidity, ventilation, and weather-protection requirements for storage.
 - 9) Protect stored products from damage.

1.7 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.

- B. Special Warranties: Prepare a written document that contains appropriate terms and identification, ready for execution. Submit a draft for approval before final execution.
- 1) Manufacturer's Standard Form: Modified to include Project-specific information and properly executed.
 - 2) Specified Form: Forms are included with the Specifications. Prepare a written document using appropriate form properly executed.
 - 3) Refer to Divisions 2 through 16 Sections for specific content requirements and particular requirements for submitting special warranties.
- C. Submittal Time: Comply with requirements in Division 1 Section 01771 "Project Closeout."

PART 2 - PRODUCTS

2.1 PRODUCT OPTIONS

- A. General Product Requirements: Provide products that comply with the Contract Documents, that are undamaged, and unless otherwise indicated, that are new at time of installation.
- 1) Provide products complete with accessories, trim, finish, fasteners, and other items needed for a complete installation and indicated use and effect.
 - 2) Standard Products: If available, and unless custom products or nonstandard options are specified, provide standard products of types that have been produced and used successfully in similar situations on other projects.
 - 3) Owner reserves the right to limit selection to products with warranties not in conflict with requirements of the Contract Documents.
 - 4) Where products are accompanied by the term "as selected," Architect will make selection.
 - 5) Where products are accompanied by the term "match sample," sample to be matched is Architect's.
 - 6) Descriptive, performance, and reference standard requirements in the Specifications establish "salient characteristics" of products.
 - 7) Or Equal: Where products are specified by name and accompanied by the term "or equal" or "or approved equal" or "or approved," comply with provisions in "Comparable Products" Article to obtain approval for use of an unnamed product.
- B. Product Selection Procedures: Procedures for product selection include the following:
- 1) Product: Where Specification paragraphs or subparagraphs titled "Product" name a single product and manufacturer, provide the product named.
 - a) Substitutions may be considered, unless otherwise indicated.

- 2) Manufacturer/Source: Where Specification paragraphs or subparagraphs titled "Manufacturer" or "Source" name single manufacturers or sources, provide a product by the manufacturer or from the source named that complies with requirements.
 - a) Substitutions may be considered, unless otherwise indicated.
- 3) Products: Where Specification paragraphs or subparagraphs titled "Products" introduce a list of names of both products and manufacturers, provide one of the products listed that complies with requirements.
 - a) Substitutions will not be considered, unless otherwise indicated.
- 4) Manufacturers: Where Specification paragraphs or subparagraphs titled "Manufacturers" introduce a list of manufacturers' names, provide a product by one of the manufacturers listed that complies with requirements.
 - a) Substitutions will not be considered, unless otherwise indicated.
- 5) Product Options: Where Specification paragraphs titled "Product Options" indicate that size, profiles, and dimensional requirements on Drawings are based on a specific product or system, provide either the specific product or system indicated or a *comparable product or system* by another manufacturer. Comply with provisions in "Product Substitutions" Article.
- 6) Visual Matching Specification: Where Specifications require matching an established Sample, select a product (and manufacturer) that complies with requirements and matches Architect's sample. Architect's decision will be final on whether a proposed product matches satisfactorily.
 - a) If no product available within specified category matches satisfactorily and complies with other specified requirements, comply with provisions of the Contract Documents on "substitutions" for selection of a matching product.
- 7) Visual Selection Specification: Where Specifications include the phrase "as selected from manufacturer's colors, patterns, textures" or a similar phrase, select a product (and manufacturer) that complies with other specified requirements.
 - a) Standard Range: Where Specifications include the phrase "standard range of colors, patterns, textures" or similar phrase, Architect will select color, pattern, or texture from manufacturer's product line that does not include premium items.
 - b) Full Range: Where Specifications include the phrase "full range of colors, patterns, textures" or similar phrase, Architect will select color, pattern, or texture from manufacturer's product line that includes both standard and premium items.

2.2 PRODUCT SUBSTITUTIONS

- A. Substitutions for named products or systems will only be considered during bidding. Such requests for substitutions must be accompanied by complete data substantiating compliance with Contract Documents a minimum of 10 days before date established for receipt of bids. Acceptance of a substitution will be acknowledged in an addendum.

- B. Conditions: Architect will consider Contractor's request for substitution for named products or systems when the following conditions are satisfied. If the following conditions are not satisfied, Architect will return requests without action, except to record noncompliance with these requirements:
- 1) Requested substitution offers Owner a substantial advantage in cost, time, energy conservation, or other considerations, after deducting additional responsibilities Owner must assume. Owner's additional responsibilities may include compensation to Architect for redesign and evaluation services, increased cost of other construction by Owner, and similar considerations.
 - 2) Requested substitution is consistent with the Contract Documents and will produce indicated results.
 - 3) Substitution request is fully documented and properly submitted.
 - 4) Requested substitution will not adversely affect the Construction Schedule.
 - 5) Requested substitution has received necessary approvals of authorities having jurisdiction.
 - 6) Requested substitution is compatible with other portions of the Work.
 - 7) Requested substitution has been coordinated with other portions of the Work.
 - 8) Requested substitution provides specified warranty.
 - 9) If requested substitution involves more than one (1) contractor, requested substitution has been coordinated with other portions of the Work, is uniform and consistent, is compatible with other products or systems, and is acceptable to all contractors involved.
 - 10) Contractor agrees to assume liability for any design and construction changes or coordination resulting from substitution of products or systems, including additional cost to Architect resulting from such design changes or coordination.
- C. After the Contract has been executed, Architect will consider a formal request for substitution of named products or systems in place of those specified only if the manufacturer of each named product or system certifies in writing that it is no longer available. Certification must be submitted within a time frame equal to the first 25 percent of the total construction schedule. If a substitution is submitted subsequent to this time frame and the manufacturer certifies that the product or system would have been available if ordered within this time frame then the Contractor shall be assessed a penalty of \$5000.00.
- 1) Contractor agrees to be responsible for the costs incurred by the Architect to review, investigate or coordinate proposed substitution. Architect will bill Owner for these costs. The Owner will backcharge the Contractor for these costs.
- D. Any request for substitution shall be accompanied by complete data on proposed substitution substantiating compliance with Contract Documents including product identification and description, performance and test data, references, samples where applicable, comparative cost data, and an itemized comparison of proposed substitution with products specified, and data relating to Contract time schedule, design, and artistic effect where applicable, and its relationship for changed to adjacent construction and to separate contracts (if any).

- E. Substitutions will not be considered if they are indicated on submittals without the formal request required above.

2.3 COMPARABLE PRODUCTS

- A. Where products or manufacturers are specified by name, submit the following, in addition to other required submittals, to obtain approval of an unnamed product:
- 1) Evidence that the proposed product or system is consistent with the Contract Documents and will produce the indicated results, and that it is compatible with other portions of the Work.
 - 2) Detailed comparison of significant qualities of proposed product or system with those named in the Specifications. Significant qualities include attributes such as performance, weight, size, durability, visual effect, and specific features and requirements indicated.
 - 3) Evidence that proposed product or system provides specified warranty.
 - 4) List of similar installations for completed projects with project names and addresses and names and addresses of architects and owners, if requested.
 - 5) Samples, if requested.

PART 3 - EXECUTION

Not Used

END OF SECTION

PART 1 - GENERAL1.1 DESCRIPTION

- A. Related Documents: Provide cutting and patching in accordance with the Contract Documents.
- B. Work Included: This Section establishes general requirements pertaining to cutting, fitting, and patching of the work required to:
 - 1) Make the several parts fit properly.
 - 2) Uncover work to provide for installation, inspection, or both, of ill-timed work.
 - 3) Remove and replace work not conforming to requirements of the Contract Documents.
 - 4) Remove and replace defective work.
- C. Related Work Described Elsewhere:
 - 1) In addition to other requirements specified, upon the Architect's request, uncover Work to provide for inspection by the Architect of covered Work, and remove samples of installed materials for testing.
 - 2) Do not cut or alter work performed under separate contract without the Architect's written permission.
- D. Definitions:
 - 1) "Cutting and patching", including cutting into existing construction to provide for the installation or performance of other work is performed for coordination of the work, to uncover the work for access or inspection, to obtain samples for testing, to permit alterations to be performed or for other similar purposes from existing work and subsequent fitting and patching required to restore surfaces to their original condition.
 - a) Requirements of this section apply to mechanical and electrical work. Refer to Division 15 sections for additional requirements and limitations on cutting and patching of mechanical and electrical work.

1.2 QUALITY ASSURANCE

- A. Codes: Comply with applicable Building Code and standards.
- B. Perform cutting and patching in strict accordance with these Specifications.

1.3 SUBMITTALS

- A. Request for the Architect's Consent: Prior to cutting which affects structural safety, submit written request to the Architect for permission to proceed with cutting. Should conditions of the Work, or schedule, indicate a required change of materials or methods for cutting and patching, so notify the Architect and secure his written permission prior to proceeding.

- B. Notices to the Architect: Prior to cutting and patching work not identified on the Architect's drawings obtain the Architect's instructions and submit a cost estimate. Secure the Owner's approval of cost estimates and type of cost reimbursement before proceeding with cutting and patching. Submit written notice to the Architect designating time the Work will be uncovered, to provide for the Architect's observation.
- C. Shop Drawings: Sleeves and other floor penetrations must have shop drawings indicating the specific location as coordinated with the surrounding construction.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. For replacement of work in the existing facility, use materials that comply with the pertinent Sections of these Specifications. Use material for cutting and patching that are identical to existing material. If identical materials are not available, or cannot be used, use materials that match existing adjacent surfaces to the fullest extent possible with regard to visual effect as determined by the Architect. Use materials for cutting and patching that will result in equal-or-better performance characteristics.

PART 3 - EXECUTION

3.1 PREPARATION

- A. Inspection: Inspect existing conditions, including elements subject to movement or damage during cutting and patching. After uncovering the work, inspect conditions affecting installation of new work.
- B. Discrepancies: If uncovered conditions are not as anticipated, immediately notify the Architect and secure needed directions. Do not proceed in areas of discrepancy until discrepancies have been fully resolved.
- C. Preparation Prior to Cutting: Provide all required protection including weather protection, shoring, bracing, and support to maintain structural integrity of the work.

3.2 PERFORMANCE

- A. Cutting: Perform cutting and demolition by methods that will prevent damage to other portions of the work and will provide proper surfaces to receive installation of repair and new work. Perform fitting and adjustment of products to provide finished installation complying with the specified tolerances and finishes.
 - 1) Non-Structural: Coordinate rough and finish patching, as reviewed by the Architect. Cutting and patching work must use materials and procedures that comply with the pertinent Section for these Specifications.
- B. Patching: Patch with seams that are durable and as invisible as possible.

- 1) Restore exposed finishes of patched areas and where necessary extend finish restoration into retained adjoining work in a manner which will eliminate evidence of patching and refinishing.
- 2) Where removal of walls or partitions extends one finished area into another finished area, patch and repair floor and wall surfaces in the new space to provide an even surface of uniform color and appearance.

3.3 CLEANING

- A. Thoroughly clean areas and spaces where work is performed or used as access to work. Remove completely paint, mortar, oils, excess sealant and items of similar nature. Thoroughly clean piping, conduit and similar features before painting or other finishing is applied. Restore damaged pipe covering to its original condition.

END OF SECTION

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes progress cleaning during construction.
- B. Related Sections:
 - 1) Section 01500 – Temporary Facilities and Control: Rubbish removal.
 - 2) Section 01771 – Project Closeout: Final cleaning of the Work.

1.3 REFERENCES

- A. National Fire Protection Association (NFPA):
 - 1) NFPA 241-00, Safeguarding Construction, Alteration, and Demolition Operations.

PART 2 – PRODUCTS

Not Used

PART 3 – EXECUTION

3.1 PROGRESS CLEANING

- A. General: Clean Project site and work areas daily, including common areas. Coordinate progress cleaning for joint-use areas where more than one installer has worked. Enforce requirements strictly. Dispose of materials lawfully.
 - 1) Comply with requirements in NFPA 241 for removal of combustible waste materials and debris.
 - 2) Do not hold materials more than seven (7) days during normal weather or three (3) days if the temperature is expected to rise above 80 degrees F.
 - 3) Containerize hazardous and unsanitary waste materials separately from other waste. Mark containers appropriately and dispose of legally, according to regulations.
- B. Work Areas: Clean areas where work is in progress to the level of cleanliness necessary for proper execution of the Work.
 - 1) Remove liquid spills promptly.

- 2) Where dust would impair proper execution of the Work, broom-clean or vacuum the entire work area, as appropriate.
- C. Installed Work: Keep installed work clean. Clean installed surfaces according to written instructions of manufacturer or fabricator of product installed, using only cleaning materials specifically recommended. If specific cleaning materials are not recommended, use cleaning materials that are not hazardous to health or property and that will not damage exposed surfaces.
- D. Concealed Spaces: Remove debris from concealed spaces before enclosing the space.
- E. Exposed Surfaces: Clean exposed surfaces and protect as necessary to ensure freedom from damage and deterioration at time of Substantial Completion.
- F. Cutting and Patching: Clean areas and spaces where cutting and patching are performed. Completely remove paint, mortar, oils, putty, and similar materials.
 - 1) Thoroughly clean piping, conduit, and similar features before applying paint or other finishing materials. Restore damaged pipe covering to its original condition.
- G. Waste Disposal: Burying or burning waste materials on-site will not be permitted. Washing waste materials down sewers or into waterways will not be permitted.
- H. During handling and installation, clean and protect construction in progress and adjoining materials already in place. Apply protective covering where required to ensure protection from damage or deterioration at Substantial Completion.
- I. Clean and provide maintenance on completed construction as frequently as necessary through the remainder of the construction period. Adjust and lubricate operable components to ensure operability without damaging effects.
- J. Limiting Exposures: Supervise construction operations to assure that no part of the construction, completed or in progress, is subject to harmful, dangerous, damaging, or otherwise deleterious exposure during the construction period. Where applicable, such exposures include, but are not limited to, the following:
 - 1) Excessive static or dynamic loading.
 - 2) Excessive internal or external pressures.
 - 3) Excessively high or low temperatures.
 - 4) Thermal shock.
 - 5) Excessively high or low humidity.
 - 6) Pollution and air contamination.
 - 7) Water or ice.
 - 8) Chemicals and solvents.
 - 9) Light.
 - 10) Radiation.
 - 11) Puncture.
 - 12) Abrasion.
 - 13) Heavy traffic.

- 14) Soiling, staining, and corrosion.
- 15) Bacteria.
- 16) Rodent and insect infestation.
- 17) Combustion.
- 18) Electrical current.
- 19) High-speed operation.
- 20) Improper lubrication.
- 21) Unusual wear or other misuse.
- 22) Contact between incompatible materials.
- 23) Destructive testing.
- 24) Misalignment.
- 25) Excessive weathering.
- 26) Unprotected storage.
- 27) Improper shipping or handling.
- 28) Theft or vandalism.

END OF SECTION

PART 1 - GENERAL

1.1 DESCRIPTION

- A. General: To facilitate the orderly transfer of project information of the building to the Owner and his maintenance staff the following project closeout information must be completed in accordance with the Contract Documents.
- B. Scope of Work includes but is not limited to:
 - 1) Closeout documentation.
 - 2) Warranties.
 - 3) Maintenance instructions.
 - 4) Project record documents.
 - 5) Coordination of clean-up.
 - 6) Repair of items damaged during construction.
- C. Related Sections:
 - 1) Payments and completion - As per the Agreement.
 - 2) Punch list inspection and project meetings (Section 01312).
 - 3) Submittals (Section 01330).

1.2 QUALITY ASSURANCE

- A. Codes: Comply with applicable Building Code and standards.
- B. Personnel: Delegate the responsibility for maintenance of the record documents to one person on the Owner's Construction Representative's staff.
- C. Accuracy of Records: Coordinate changes in the record documents within 24 hours after having received the reviewed information. Make proper entries on each page of drawings and specifications to accurately record the change.

1.3 SUBMITTALS

- A. See Section 01330 and each item.

1.4 PRODUCT HANDLING

- A. Protect the job set of record documents from deterioration, loss or damage until transfer of the recorded data to the Owner.

1.5 PROJECT CLOSEOUT DOCUMENTATION

- A. **Punch List:** After the Architect declares the project ready for closeout, submit a list of outstanding "punch list" items to identify work to be corrected or completed.
- 1) **Revised Punch List:** The Architect reserves the right to issue a revised punch list. If such a revised punch list is necessary, the Architect will provide a copy to the Owner.
 - 2) **Punch List Distribution:** It shall be the Owner's Construction Representatives' responsibility to reproduce and distribute necessary copies of the punch list to the various Contractors immediately and see that the items requiring correction or completion are given prompt attention.
 - 3) **Completion of Punch List Items:** No Certificate of Substantial Completion will be issued by the Architect until corrections required by said punch list are made or the Architect is satisfied that they will be made.
- B. **Documentation:** Prior to final payment, the Owner's Construction Representative shall obtain from each Contractor the following documents in an original and one copy unless otherwise noted and submit it to the Architect.
- 1) **Subcontractor List:** A complete listing of Subcontractors with business addresses.
 - 2) **Manufacturer List:** A listing of manufacturers of major materials, equipment and systems installed in the Work.
 - 3) **Payment of Debts and Claims and Consent of Surety:** Adequate evidence that the Contractor has paid obligations to date arising out of the Contract. Contractor shall submit AIA Document No. G-706 (or other approved form), Contractor's Affidavit of Payment of Debts and Claims, together with AIA Document G-707 (or other approved form) and the Consent of Surety, indicating written consent of the surety of final payment.
 - 4) **Release of Liens:** Contractor and Subcontractors shall also submit AIA Document G-706A (or other approved form) Subcontractor's Affidavit of Release of Liens, indicating that the releases for waivers submitted are complete to the best of his knowledge.
 - 5) **Final Approvals and Certificates:** Building Department approved plans and certificates which were maintained at the job site shall be amended to show construction changes and resubmitted as required by law. Separate trades requiring filing shall complete Building Department records before application for final payment. Submit final approvals and certificates required by the specifications, drawings, and applicable codes regulations, including:
 - a) Departments or Agencies of the City or State.
 - b) Fire Department.
 - c) Air Pollution/Environmental Protection.
- C. **Shop Drawings, Manufacturers' Literature & Test Data:** Submit to the Owner, before final acceptance, a copy of reviewed shop drawings (with corrections noted), plus sets of reviewed catalog cuts, equipment manuals, etc. Material shall be indexed to specification section.
- D. **Building Department Approved Drawings & Certificates:** After Building Department approval of the Project and prior to final inspection, Building Department approved plans and certificates are to be maintained at the job site.

- E. Keys & Maintenance Kits: Keys, maintenance kits or stock, replacement parts or materials, spare construction material, and equipment required under the Contract shall be delivered or made available to the Owner.
- F. Final Payment Requirements: Before final payment may be authorized, the following submittals must be complete, updated and on file:
 - 1) Progress Payment Certificate
 - 2) Change Orders
 - 3) As-Built (Record) Drawings
 - 4) Substantial Completion Items List
 - 5) Statement of Satisfactory Completion
 - 6) Warranties

1.6 WARRANTIES

- A. Definition: unless additional maintenance or performance warranties are required, the Contractor shall warrant the work for one (1) year after the date of Substantial Completion of the work. Where the Owner requests and obtains use of a portion of the work prior to the date of Substantial Completion, the Contractor's warranty for the portion so use shall commence as of the date such use commences. The warranty shall not include replaceable items such as light bulbs or cleaning materials, or damage by war, vandalism or unusual climatic phenomenon.
- B. Scope: Deliver to the Architect upon completion of the work under this Contract his written warranty made out to the Owner and in form satisfactory to the Architect and the Owner, warranting the work under the Contract to be free from faulty materials, and free from improper workmanship. Under the warranty, the Contractor shall replace work in accordance with Article 8 & 9 of AIA Document A-111 such work as may be found by the Owner to be improper or imperfect and to make good damage caused to other work or materials by the imperfection or removal and replacement of the imperfect work.
- C. Time Limit/Individual Warranties: The warranty may cover a longer period than that stated in 2.2A (above) where so stipulated in the Contract Documents. Warranties under service policies and warranties for individual pieces of equipment shall be assigned and delivered to Owner on the date of final acceptance, but individual warranties shall in no way modify or shorten the one year overall warranty to be provided.
- D. Extended Warranties & Special Warranties:
 - 1) Certain extended warranties by Subcontractors or maintenance contracts longer than one (1) year's duration are required under various sections of the specifications. At the completion of the Work, such warranties or maintenance contracts covering material, workmanship, maintenance, or other items as specified, shall be forwarded in duplicate to the Architect, together with a letter addressed to the Owner giving a summary of each said warranty as follows:
 - a) Character of work covered by the warranty
 - b) Name of Subcontractor furnishing warranty
 - c) Period of warranty

- d) Condition of warranty
- 2) Contractor shall issue four (4) copies of a special written agreement of warranty if called for under Article 1.3 of each specification section. Examples of items requiring a special agreement of warranty include roofing, waterproofing, certain insulation, caulking, wood and automatic doors, carpet and certain equipment.
- E. Format: The warranties shall cover the Work done under this Contract, either by the Contractor or Subcontractors. Subcontractor warranties shall bear the endorsement of the Contractor in writing, as per the following format:

To:

Attention of:

Re:

(Work Covered in Warranty)

Name of Subcontractor:
(or Contractor if Contractor
providing Warranty)

Address of Subcontractor:
(or Contractor if Contractor
providing Warranty)

Dear _____:

The undersigned warrants to the Owner that they will be responsible for faulty or defective materials, equipment and workmanship, in the _____ work* and that they will remedy defects and pay for damage to other work as a result of his work which shall appear within a period of year(s) from the date of Substantial Completion, as defined in the Contract Documents.

(Add additional conditions of warranty as noted in various technical sections of the Specification.)

During the warranty period, upon written notice from Owner, the undersigned shall proceed with due diligence at the undersigned's sole expense to remove and replace properly defective materials and equipment or perform labor necessary to correct such defect in the above. In case that the undersigned fails to remedy such defects, then the Owner may furnish such materials and equipment or labor as are necessary to correct the work, and the undersigned agrees to reimburse the Owner for expenses promptly and fully.

Witness:

Signed: ** _____

Date:

Signed: ** _____

* (the Contractor shall insert "the Work as that term is defined in the Contract Documents")
** Signatures must be notarized.

Contractor - endorsement of above warranty.

Date:

Signed: ** _____

- F. Cost: Contractor warranties shall provide for the correction of work performed without additional charge. Additional expense or damage resulting from imperfect work or the removal or replacement of imperfect work shall also be covered by the Contractor warranty.

1.7 PROJECT RECORD DOCUMENTS

- A. Project Record Drawings: The purpose of the project drawings (as-built drawings), is to record the actual location of the work in place including but not limited to underground lines, concealed piping, and ductwork within building, concealed valves and control equipment, and to record changes in the Work.
- B. Contract Drawings and Specifications: In addition to the sets of contract drawings that are required to perform the Work, the Owner's Construction Representative shall maintain, at the site, one (1) copy of drawings, specifications and addenda that are part of the contract as awarded. Each of these documents should be clearly marked "Project Record", maintained in a clean and neat condition available at all times for inspection by the Owner or the Architect, and shall not be used for other purposes during the progress of the Work.
- C. Project Record Requirements: The Owner's Construction Representative shall mark up a copy of the "Project Record" with an erasable colored pencil (not ink or indelible pencil) and a "cloud" on back around the areas affected to show:
- 1) General:
 - a) Accepted changes in the work.
 - b) Details not shown in the original Contract Documents.
 - c) Accepted change orders.
 - d) Relocation of work.
 - e) Changes in dimensions.
 - f) Changes in floor elevations.
 - g) Substitutions. Include the updating of equipment schedule sheets.
- D. Submittal Procedure: The project record drawings are to be submitted when the work is completed, and forwarded to the Architect and his consultants for review.
- 1) Reproducible Drawings: Project record drawings must be submitted in the form of easily reproduced Mylar transparencies or other quality reproducible method.
 - 2) Shop Drawings: Project record drawings submitted in the form of Shop Drawings to the Architect shall be keyed into reproducible copies of the Construction Drawings with indications of the applicable shop drawings and other data for complete cross referencing of information. Indicate floor and column numbers or other data on both shop drawings and construction drawings by indicating the specific areas each shop drawing covers with a key plan and indicating shop drawing number, etc. Size, dimensions, and information indicated on shop drawings need not be duplicated on construction drawings.
 - 3) Material Data: Reviewed catalogue cuts, certified performance data for materials and equipment, etc. shall be indexed by Project Manual Section and submitted to the Architect for review along with the above drawings before final payment. Certify the performance of:

- a) Plumbing
- b) Electrical work
- c) Equipment

1.8 MAINTENANCE INSTRUCTIONS

Arrange to familiarize the Owner's maintenance forces with the routine care and repair of products or assemblies at the time of final acceptance.

- A. Written Instructions: Provide four (4) sets of maintenance instructions covering completely the maintenance of materials furnished under the Contract and deliver to the Owner. Certify by endorsement that each of the manuals is complete and accurate. Assemble these manuals for sections of work, review them for completeness prior to submission. Provide suitable transfer cases and deliver the manuals suitably bound, indexed and marked.

1.9 COORDINATION OF CLEANUP

- A. Intent: At completion of the work, the site and premises shall be left in a neat, unobstructed condition, and work in perfect repair and order. Tools, appliances, trailers, materials and equipment belonging to the Contractor and his Subcontractors shall be removed from the premises upon completion of the work.
- B. Cleaning During Construction: In addition to the cleaning specified in the General Conditions and the more specific cleaning which is required in Section 01500 of the Project Manual, the building shall be prepared for occupancy by a thorough cleaning throughout, including washing, or cleaning by other approved methods, surfaces on which excess dirt, stains or dust has collected. Ceiling and wall surfaces, floors, windows and door frames, hardware, metal work, equipment, etc. shall be thoroughly cleaned. Equipment shall be left in an undamaged, bright, clean condition.
- C. Re-Cleaning: Re-cleaning will not be required after the work has been inspected and accepted unless later operations of the Contractor, in the opinion of the Owner, make re-cleaning of certain portions necessary.
- D. Glass Cleaning: Glass shall be washed and polished on both sides by a cleaner specializing in such work. Glass damaged in cleaning shall be replaced.
- E. Protective Covers: Provide and maintain adequate runner strips of non-staining reinforced draft building paper on finished floors and surfaces for protection. Remove runner strips, wash, wax or shampoo finished floors before final acceptance.

1.10 REPAIR OF ITEMS DAMAGED DURING CONSTRUCTION

- A. Scope: Repair work that becomes damaged during the course of the work. This repair work shall include, but not be limited to, restoration of surfaces to the original condition, painting and re-finishing.
- B. Broken Glass Replacement: Repair damaged, broken or scratched glass.

1.11 COORDINATION

- A. Record the changes of Subcontractors within the Record Documents to accurately show installed work. Future changes must be able to rely on the Record Documents for installed

information. At the time of Project Record transfer to the Owner, provide a general review of the information and the filing method for the Owner's staff.

1.12 PROJECT CLOSEOUT SUBMITTAL PROCEDURE

- A. No partial submittals of the above items are to be made to the Architect. Items of each category to be collected and delivered at one time to the Architect together with a letter of transmittal listing items. Where items are to be delivered to the Owner's representative the Contractor shall furnish the Architect a copy of the transmittal letter listing enclosures, signed by the Owner's representative acknowledging receipt.

PART 2 - PRODUCTS

Not Used

PART 3 - EXECUTION

Not Used

END OF SECTION

PART 1 - GENERAL1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 specification sections, apply to this section.

1.2 SECTION INCLUDES

- A. Lumber and plywood.
- B. Anchors and fasteners.
- C. Preservative treatment.
- D. Fire retardant treatment.
- E. Wood cants.

1.3 RELATED SECTIONS

- A. Section 07550 - Modified Bituminous Membrane Roofing.
- B. Section 07620 - Sheet Metal Flashing and Trim.

1.4 SUBMITTALS

- A. Submit under provisions of Section 01330.
- B. Certification of Wood Preservative Treatment: Submit certification in approved form, stating name of preservative used, retention in pounds per cubic foot of lumber treated and that the treated material conforms to paintability, drying time and surface deposit requirements of TT-W-572, and that moisture content upon shipment from the treating plant does not exceed 19 percent.
- C. Certification of Fire Retardant Treatment: Submit certification in an approved form, stating name and type of fire retardant treatment used and compliance with fire hazard classification required by Code. Indicate that fire retardant treatment is compatible with finishes (if any) on finished wood.
- D. Submission of Wood Types and Grades: Submit types and grades of wood proposed for each application.

1.5 QUALITY ASSURANCE

- A. Codes: Comply with applicable Building Code and standards.
- B. Standards:
 - 1) National Forest Products Association (NFPA):

- a) National Design Specification for Wood Construction 1991 including:
 - 1. Span tables.
 - 2. Working stresses.
 - 3. Structural design data.
- 2) Lumber Grading: Grade lumber in accordance with one of the following standards:
 - a) American Forest and Paper Association (AFPA) - Lumber grading standards to Code requirements.
 - b) Northeastern Lumber Manufacturer's Association Inc. (NELMA)
 - c) Southern Pine Inspection Bureau (SPIB, SPIBGR) (1991; Suppl. 1)
 - d) West Construction Lumber Inspection Bureau (WCLIB 1991)
 - e) Western Wood Products Association (WWPA, WLGR) Western Lumber Grading Rules 1991, Western Lumber Use Manual and Grade Stamps.
 - f) American Softwood Lumber Standard Product Standards (PS20-70)
 - g) NBS PS 20-70 (86) - American Softwood Lumber Standard; U.S. Department of Commerce, National Bureau of Standards; 1970 (Amended 1986) and latest supplement.
 - h) NFPA WCD No. 1 - Manual for House Framing; National Forest Products Association (NFPA); 1961.
- 3) American Plywood Association (APA):
 - a) APA Form E3OJ-1988 - Residential and Commercial.
 - b) APA Form E445L (1991) - Performance Standards and Policies for Structural-Use Panels.
 - c) APA Form J20C - Grades and Specifications; 1987.
- 4) American Wood-Preserver Association (AWPA):
 - a) AWPA C-27 (96) - Plywood Fire Retardant Pressure Treatment By Pressure Processes; 1996.
 - b) AWPA M4 (96) - Standard for the Care of Preservative-Treated Wood Products; 1996.
- 5) National Design Specification for Wood Construction 1986 and Supplement.
- 6) American Wood Preservers Bureau (AWPB):
 - a) AWPB C-1 (1992), C9 (1990) and M2 (1991) and LP-2-88 - American Wood Preservers Bureau Quality Control and Inspection Procedures for Softwood Lumber, Timber and Plywood Pressure Treated with Waterborne Preservatives for Above Ground Use.
- 7) American Society for Testing and Materials (ASTM):
 - a) ASTM A153-95 - Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware; 1982 (Reapproved 1987).

- b) ASTM D245-93 - Standard Methods for Establishing Structural Grades and Related Allowable Properties for Visually Graded Lumber.
 - c) ASTM D4442-92 (97) - Test Methods for Direct Moisture Content Measurement of Wood and Wood Base Materials.
 - d) ASTM E84-04 - Standard Test Method for Surface Burning Characteristics of Building Materials.
- 8) Underwriters Laboratory (UL): Approval for fire retardant treatments.

1.6 DELIVERY, STORAGE AND HANDLING

- A. Delivery: Immediately, upon delivery to job site, place materials in area protected from weather. Protect sheet materials from corners breaking and damaging surfaces, while unloading.
- B. Storage:
 - 1) Store materials a minimum of six (6) inches above ground on frame or blocking and cover with protective waterproof covering providing for adequate air circulation or ventilation.
 - 2) Do not store seasoned materials in wet or damp portions of buildings. Protect fire retardant materials against high humidity and moisture during storage and erection.

PART 2 - PRODUCTS

2.1 LUMBER & PLYWOOD

- A. Lumber: Provide either Douglas fir, Southern Pine, or other suitable species of similar strength, nailability and treatment capabilities. Lumber shall be graded in accordance with Product Standard PS-20.
 - 1) Lumber Grading: Comply with "Simplified Practice Recommendations R-16, American Lumber Standards for Softwood Lumber" by U.S. Department of Commerce, and with the applicable Lumbermen's Association rules under which each species of lumber is produced.
 - 2) Grade Marking: Factory mark each piece of lumber with the official grade mark of the appropriate association or authorized inspection service under whose rules the lumber is graded.
 - 3) Sizes & Patterns: Provide lumber that is dressed S4S and worked to such patterns as shown or specified. Dimensions designate the nominal undressed size of the item.
 - 4) Moisture Content: Provide lumber that has been seasoned to a moisture content not to exceed 19 percent by either air or kiln drying.
 - 5) Studs shall be stud grade, free of warps and defects, fire retardant treated as per Article 2.5
- B. Plywood:

- 1) Materials: Softwood plywood shall be graded in accordance with Product Standard 1 (PS). Plywood panels exposed at electrical and telephone closets must be fire retardant treated equal to:
 - a) Weyerhaeuser Fire Retardant Structurwood (UL No. 12151, Class 1).
 - b) Louisiana Pacific Inner Seal.
- 2) Assembly: Plywood shall be 1/2-inch or 3/4-inch thick (as shown or needed by Code), Grade A-D exterior grade where one face exposed and sheathing grade where concealed in finish construction. Identify plywood panel as to species, and fire retardant treatment used.

2.2 ANCHORS & FASTENERS

- A. Coordinate with NDS Standards, 1991 Edition. Provide plated fasteners complying with ASTM B633, Class Fe/Zn 25 for electro deposited zinc coatings.
- B. Bolts: Hexagon head, ASTM A307, Grade A.
- C. Nuts: Hexagon shape, ASTM A563.
- D. Expansion Shields: ASTM E488, group, type, class and style best suited for the purpose.
 - 1) Carbon Steel: Zinc plated, ASTM B633, Class Fe/Zn 5.
 - 2) Stainless Steel:
 - a) Bolts: ASTM F593, alloy 304 or 316.
 - b) Nuts: ASTM F594, alloy 304 or 316.
- E. Lag Screws & Bolts: Tested as per ANSI B18.2.1 of type and grade best suited for the purpose.
- F. Lock Washers: Helical spring type, carbon steel, ANSI B18.21.1.
- G. Steel Nails: FS-FF-N-105; type and size best suited for the purpose. Plain at interior and hot-dipped galvanized at exterior.
- H. Toggle Bolts: FS-FF-B-588; type and class best suited for the purpose.
- I. Wood Screws: ANSI B18.6.1 of style best suited for the purpose. Steel hot dipped galvanized.
- J. Power-Driven Fasteners: These may be used when reviewed by the Architect for the purpose intended.
- K. Sleeves, as needed to secure blocking through masonry walls without straining outside Wythe.

2.3 PRESERVATIVE TREATED WOOD

- A. Preservative Treatment by Pressure Process: AWP C2 (lumber) and AWP C9 (plywood), except that lumber that is not in contact with the ground and is continuously protected from liquid water may be treated according to AWP C31 with inorganic boron (SBX).

- 1) Preservative Chemicals: Acceptable to authorities having jurisdiction and one of the following:
 - a) Ammoniacal, or amine, copper quat (ACQ).
 - b) Ammoniacal copper citrate (CC).
- B. For exposed items indicated to receive a stained or natural finish, use chemical formulations that do not require incising, contain colorants, bleed through, or otherwise adversely affect finishes.
- C. Kiln-dry material after treatment to maximum moisture content of 19 percent for lumber and 15 percent for plywood. Do not use material that is warped or does not comply with requirements for untreated material.
- D. Job Fabrication: Where it is necessary to frame lumber on the job after treatment, cut surfaces, bolt holes and machined areas shall be liberally brushed with four (4) copper naphenate solution in accordance with AWP Standard M-4.
- E. Applied Finishes: Where shrinkage is a serious fault or where treated lumber will be in contact with plaster or stucco, and where water-borne treated lumber is to be painted, excess moisture will be removed.
 - 1) Paint: Material to be painted shall have knots and pitch streaks sealed as with untreated wood.
 - 2) Fasteners: Provide corrosion-resistant fasteners appropriate for the job requirements.

2.4 FIRE RETARDANT TREATMENT

- A. Manufacturer shall be equal to: Hickson Corporation - Dricon.
- B. Materials: Wood required to be fire-retardant treated shall be pressure impregnated with approved fire retardant to comply with the requirement for a flamespread of 25 or less with no evidence of significant progressive combustion when tested for 30 minutes duration under the standard test method for fire hazard classification of building materials (ASTM E84).
- C. Assembly:
 - 1) Label: Each piece of wood shall bear the UL FR-S label, indicating compliance with the fire hazard classification.
 - 2) Finishing: There are special considerations in painting and other finishing of FRT wood. Refer to manufacturers' recommendations. Interior FRT wood should not be used in places of continuous heat or high humidity.
 - 3) Fireproofing materials containing mono or di-ammonium phosphate chemicals are prohibited.
 - a) Lumber shall be kiln dried to a maximum moisture content of 19 percent after treatment. Plywood shall be kiln dried to a maximum moisture content of 15% after treatment.
 - b) The fire retardant chemicals used to treat the lumber were free of halogens, sulfates, ammonium phosphate and formaldehyde.
 - c) Carbon steel, galvanized steel, aluminum, copper and red brass in contact with the fire retardant treated wood shall exhibit corrosion rates less than one mill per year

when tested in accordance with Federal Specification MIL-L-1914OE Paragraph 4.6.5.2.

- d) The fire retardant treated wood has an equilibrium moisture content of not more than 25 percent when tested in accordance with ASTM D3201 procedures at 95 percent relative humidity and 80 degrees F.
- e) The fire retardant chemical provides protection against termites and decay, and is registered for use as a wood preservative by the U.S. Environmental Protection Agency.
- f) Testing on the fire performance and strength properties of the fire retardant treated wood shall be recognized by issuance of a National Evaluation Services Report.

2.5 WOOD CANTS

- A. Materials: A triangular shaped block for use in roofing and waterproofing systems four (4) inches high:
 - 1) Wood Cants: Preservative treatment on lumber as specified in Article 2.3.

PART 3 - EXECUTION

3.1 PREPARATION

- A. Work Installed by Others: Examine substrates, adjoining construction and conditions under which the work is to be installed and do not proceed with the work until satisfactory conditions detrimental to the proper and timely completion of the work have been corrected.
- B. Coordination: Whenever rough carpentry is fitted to other work, obtain measurements of such other work; verify dimensions shown and the shop drawing details.

3.2 INSTALLATION

- A. Blocking & Nailers: Provide blocking and nailers as shown or required for fastening of roofing, roof accessories, or attachment of fixtures, equipment and other such items.

END OF SECTION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes the following:
 - 1. Cold-applied built-up asphalt roofing system on cementitious wood fiber decks, steel decks, gypsum plank decks and wood decks.
 - 2. Base sheets to be fastened on tectum, gypsum plank and wood decks.
 - 3. Roof insulation.
 - 4. Flashings.
 - 5. Roof surfacing consisting of aggregate surfacing and smooth surface with aluminized top coating.
- B. Related Sections include the following:
 - 1. Division 6 Section "Miscellaneous Carpentry" for wood nailers, cants, curbs, and blocking.
 - 2. Division 7 Section "Sheet Metal Flashing and Trim" for pre-engineered roof-edge fascia and trim system, gravel stops, metal roof penetration flashings, flashings, and counterflashings provided and warranted as part of the Work of this Section.

1.3 DEFINITIONS

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

1.4 PERFORMANCE REQUIREMENTS

- A. General: Provide installed roofing membrane and base flashings that remain watertight; do not permit the passage of water; and resist specified uplift pressures, thermally induced movement, and exposure to weather without failure.
- B. Material Compatibility: Provide roofing materials that are compatible with one another under conditions of service and application required, as demonstrated by roofing manufacturer based on testing and field experience.
- C. FMG Listing: Provide roofing membrane, base flashings, and component materials that comply with requirements in FMG 4450 and FMG 4470 as part of a roofing system and

that are listed in FMG's "Approval Guide" for Class 1 or noncombustible construction, as applicable. Identify materials with FMG markings.

1. Fire/Windstorm Classification: Class 1A- 90 on tectum and 1A-105 on steel decks.
2. Hail Resistance: SH.

D. Roofing Membrane Load-Strain Properties

1. Provide a roofing membrane identical to component systems that have been successfully tested by a qualified independent testing and inspecting agency to meet the following minimum load-strain properties at membrane failure when tested according to ASTM D 2523:
 - a. Tensile strain at failure, at 0 deg F: 435 lbf / inch machine direction, minimum; 3.8 percent elongation, maximum.
 - b. Tensile strain at failure, at 0 deg F: 435 lbf/inch cross-machine direction, minimum; 4.3 percent elongation, maximum.

E. Flashings: Comply with requirements of Division 7 Section "Sheet Metal Flashing and Trim." Provide base flashings, perimeter flashings, detail flashings and component materials that comply with requirements and recommendations of the following:

1. FMG 1-49 Loss Prevention Data Sheet for Perimeter Flashings.
2. FMG 1-29 Loss Prevention Data Sheet for Above Deck Roof Components.
3. NRCA Roofing and Waterproofing Manual (Fifth Edition) for construction details and recommendations.
4. SMACNA Architectural Sheet Metal Manual (Fifth Edition) for construction details.

1.5 SUBMITTALS

- A. Product Certificate: Submit notarized certificate, indicating complete list of products intended for use under Work of this Section, including product names and numbers and manufacturers' names, with statement indicating that products to be provided meet the requirements of the Contract Documents.
- B. Product Data: For each type of product indicated.
- C. Shop Drawings: For roofing system. Include plans, elevations, sections, details, and attachments to other Work.
 1. Base, perimeter, and detail flashings, cants, and membrane terminations.
 2. Tapered insulation, including slopes.
 3. Crickets, saddles, and tapered edge strips, including slopes.
 4. Insulation fastening patterns.
- D. Samples for Verification: For the following products:
 1. 8-by-10-inch square of ply sheet and flashing backer sheet.
 2. 8-by-10-inch square of base sheet and flashing sheet.
 3. 8-by-10-inch square of roof insulation.
 4. Six insulation fasteners of each type, length, and finish.
- E. Installer Certificates: Signed by roofing system manufacturer certifying that Installer is approved, authorized, or licensed by manufacturer to install roofing system.

- F. Manufacturer Certificates: Signed by roofing manufacturer certifying that roofing system complies with requirements specified in "Performance Requirements" Article.
 - 1. Submit evidence of meeting performance requirements.
- G. Qualification Data: For Installer, manufacturer.
- H. Manufacturer Certificates: Indicating compliance of proposed products with requirements, including:
 - 1. Product Compatibility: Indicate manufacturer has verified compatibility of roofing system components, including but not limited to: Roofing base and ply sheets, membrane backer and flashing sheets, reinforcement fabric felts and mats, adhesives, mastics, coatings, and sealants.
 - 2. Adhesive Flammability: Indicate manufacturer has verified cold process adhesives and coatings are non-flammable.
- I. Manufacturer Approval of Testing Agency: Manufacturer's letter indicating acceptance of qualifications and approval of testing agency to perform inspections specified under Part 3 Article "Field Quality Control."
 - 1. Indicate manufacturer's approval of testing agency's authority to perform final roofing inspection and manufacturer's warranty certification.
- J. Research/Evaluation Reports: For components of roofing system, published by one or more of the following:
- K. Maintenance Data and Training Materials: For roofing system to include in maintenance manuals and Owner's training library.
- L. Warranties: Special warranties specified in this Section.
- M. Inspection Reports: Copy of daily and final technical inspection reports of roofing installation.

1.6 QUALITY ASSURANCE

- A. Installer Qualifications: A qualified firm that is approved, authorized, or licensed by roofing system manufacturer to install manufacturer's product and that is eligible to receive manufacturer's warranty.
- B. Manufacturer Qualifications: A qualified manufacturer that has UL listing and FMG approval for roofing system identical to that used for this Project.
- C. Manufacturer's Technical Representative Qualifications: An authorized full-time employee representative of manufacturer experienced in the installation and maintenance of the specified roofing system and qualified to determine Installer's compliance with the requirements of this Project. Contractor shall be responsible to provide three days per week of inspections.
- D. Testing Agency Qualifications: An independent testing agency with the experience and capability to conduct the testing and inspection indicated, as documented according to ASTM E 548.

1. If Manufacturer does not employ full-time Technical Representatives, inspection personnel shall be certified as a Registered Roof Observer by the Roof Consultants Institute, and shall be experienced in the installation and maintenance of the specified roofing system and qualified to determine Installer's compliance with the requirements of this Project.
- E. Source Limitations: Obtain components for roofing system from or approved in writing by roofing system manufacturer.
- F. Fire-Test-Response Characteristics: Provide roofing materials with the fire-test-response characteristics indicated as determined by testing identical products per test method below by UL, FMG, or another testing and inspecting agency acceptable to authorities having jurisdiction. Materials shall be identified with appropriate markings of applicable testing and inspecting agency.
 1. Exterior Fire Test Exposure: Class A; ASTM E 108, for application and roof slopes indicated.
- G. Preliminary Roofing Conference: Before starting reroofing preparation, conduct conference at Project site. Comply with requirements for preinstallation conferences in Division 1 Section "Project Management and Coordination."
 1. Meet with Owner, and Architect, roofing Installer, roofing system manufacturer's representative, and other installers whose work interfaces with or affects roofing including installers of roof accessories and roof-mounted equipment.
 2. Review methods and procedures related to roofing installation, including manufacturer's written instructions.
 3. Review and finalize construction schedule and verify availability of materials, Installer's personnel, equipment, and facilities needed to make progress and avoid delays.
 4. Review flashings, special roofing details, roof drainage, roof penetrations, equipment curbs, and condition of other construction that will affect roofing system.

1.7 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, and directions for storage.
 1. Where roofing system is indicated as requiring FMG classification or UL listing, containers shall bear label indicating manufacture in compliance with FMG classification or UL listing quality assurance requirements.
- B. Do not store materials in open or in contact with ground or roof surface.
- C. Store materials in their original undamaged containers in a clean, dry, protected location and within the temperature range required by roofing system manufacturer. Store roll goods on ends only.
- D. Protect stored liquid material from direct sunlight.
 1. Discard and legally dispose of liquid material that cannot be applied within its stated shelf life.

- E. 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.
- F. Handle and store roofing materials and place equipment in a manner to avoid temporary overloading or permanent deflection of deck.

1.8 PROJECT 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.

1.9 WARRANTY

- A. Warranty, General: Warranties specified 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. . Manufacturer will inspect the roof and provide a written executive summary to the owner every second, fifth, tenth and fifteenth year.
- B. Special Manufacturer's Warranty: Submit roofing system Manufacturer's standard form, in which manufacturer agrees to repair or replace components of roofing system that fail in materials or workmanship within specified warranty period. Failure includes roof leaks.
 - 1. Special warranty includes roofing membrane, base flashings, roofing membrane accessories, roof insulation, fasteners, cover boards, vapor retarder, pre-engineered fascia and trim system, sheet metal flashings and trim, copings, roof edge flashings, roof edge drainage systems, counterflashings and reglets, and roof expansion assemblies specified in other Division 7 Sections and other components of roofing system.
 - 2. Warranty Period: 20 years from date of Substantial Completion.
- C. Special Project Warranty: Submit roofing Installer's warranty, on warranty form at end of this Section, signed by Installer, covering Work of this Section, including all components of roofing system such as roofing membrane, base flashing, roof insulation, fasteners, cover boards, , for the following warranty period:
 - 1. Warranty Period: Two years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Basis-of-Design Manufacturer/Product: The roof system specified in this section is based upon Tremco, Inc.
 - 1. Cold-Applied Built-up Asphalt Roofing:
 - a. Tremco, Inc.
 - b. Approved equal.
 - 2. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the manufacturers specified.

2.2 BASE-SHEET MATERIALS

- A. Base Sheet: Nonperforated, asphalt-coated, polyester/fiberglass/polyester reinforced sheet dusted with fine mineral surfacing on both sides which meets the requirements of ASTM D 4601, Type II, and the following properties:
 - 1. Breaking Strength, minimum, ASTM D 146: machine direction, 135 lbf/in cross direction, 130 lbf/in.
 - 2. Tear Strength, minimum, ASTM D 4073: machine direction, 220 lbf; cross direction, 215 lbf.
 - 3. Pliability, ½ inch radius bend, ASTM D 146: No failures.
 - 4. Thickness, minimum, ASTM D 146: 0.055 inch
 - 5. Weight, minimum, ASTM D 228: 31 lb/100 sq. ft..
 - 6. Mass of desaturated polyester/glass/polyester mat, ASTM D 228: 2.2 lb/100 sq. ft..
 - 7. Asphalt, minimum, ASTM D 228: 10 lb/100 sq. ft..

2.3 ROOFING MEMBRANE PLIES

- A. Ply Sheet: Nonperforated, asphalt-coated, polyester/fiberglass/polyester reinforced sheet dusted with fine mineral surfacing on both sides which meets the requirements of ASTM D 4601, Type II, suitable for application method specified, and as follows:
 - 1. Breaking Strength, minimum, ASTM D 146: machine direction, 135 lbf/in cross direction, 130 lbf/in.
 - 2. Tear Strength, minimum, ASTM D 4073: machine direction, 220 lbf; cross direction, 215 lbf.
 - 3. Pliability, 1/2-inch radius bend, ASTM D 146: No failures.
 - 4. Thickness, minimum, ASTM D 146: 0.055 inch
 - 5. Weight, minimum, ASTM D 228: 31 lb/100 sq. ft..
 - 6. Mass of desaturated polyester/glass/polyester mat, ASTM D 228: 2.2 lb/100 sq. ft..
 - 7. Asphalt, minimum, ASTM D 228: 10 lb/100 sq. ft..

2.4 BASE FLASHING MATERIALS

- A. Flashing Sheet: ASTM D 5019, Type I, Grade II, CSPE sheet with the following physical properties:
 - 1. Breaking Strength, minimum, ASTM D 751: 225 lbf.
 - 2. Tear Resistance: ASTM D 751: 90 lbf
 - 3. Elongation at Fabric Break, minimum, ASTM D 751: 25 percent.
 - 4. Low Temperature Flexibility: ASTM D 2136: -40 deg F.
 - 5. Thickness, minimum, ASTM D 751: 0.045 inch.

2.5 ASPHALT MATERIALS

- A. Water-Based Asphalt Primer: Water-based, polymer modified, asphalt primer with the following physical properties:
 - 1. Asbestos Content, EPA 600/R13/116: None.
 - 2. Non-Volatile Content, minimum, ASTM D 2823: 32 percent.
- B. Cold-Applied Adhesive: One-part, asbestos-free, cold-applied adhesive specially formulated for compatibility and use with specified roofing membranes and flashings, with the following physical properties:
 - 1. Asbestos Content, EPA 600 R-93/116: None.
 - 2. Volatile Organic Compounds (VOC), maximum, ASTM D 6511: 340 g/L.
 - 3. Nonvolatile Content, minimum, ASTM D 6511: 67 percent.
 - 4. Flash Point, minimum, ASTM D 93: 100 deg F.
 - 5. Density at 77 deg F ASTM D 6511: 8.4 lb/gal.
 - 6. Uniformity and Consistency, ASTM D 6511: Pass.
 - 7. Asphalt Content, minimum, ASTM D 6511: 42 percent.
- C. Elastomeric Flashing Adhesive: One-part, asbestos-free, cold-applied, butyl rubber-based, elastomeric trowel-grade adhesive specially formulated for compatibility and use with specified roofing membranes and flashings, with the following properties:
 - 1. Adhesion in Peel, minimum, ASTM D 1876: 3 lbf/in.
 - 2. Lap Shear Adhesion, minimum, ASTM D 816: 18 psi.
 - 3. Asbestos Content: ASTM D 276: None.
 - 4. Volatile Organic Compounds (VOC), maximum, ASTM D 3960: 250 g/L.

2.6 AUXILIARY ROOFING MEMBRANE MATERIALS

- A. General: Auxiliary materials recommended by roofing system manufacturer for intended use and compatible with built-up roofing.
- B. Asphalt Roofing Cement: ASTM D 4586, asbestos free, of consistency required by roofing system manufacturer for application.
- C. Mastic Sealant: Polyisobutylene, plain or modified bitumen, nonhardening, nonmigrating, nonskinning, and nondrying.
- D. Fasteners: Factory-coated steel fasteners and metal or plastic plates meeting corrosion-resistance provisions in FM 4470; designed for fastening roofing membrane

components to substrate; tested by manufacturer for required pullout strength; and acceptable to roofing system manufacturer.

- E. Metal Flashing Sheet: Metal flashing sheet is specified in Division 7 Section "Sheet Metal Flashing and Trim."
- F. Aggregate Surfacing: ASTM D 1863, No. 6 or No. 67, clean, dry, opaque, water-worn gravel or crushed stone, free of sharp edges.
- G. Miscellaneous Accessories: Provide miscellaneous accessories recommended by roofing system manufacturer.

2.7 ROOF INSULATION

- A. General: Provide preformed roof insulation boards that comply with requirements and referenced standards, selected from manufacturer's standard sizes and of thicknesses indicated.
- B. Polyisocyanurate Board Insulation: ASTM C 1289, Type II, Class 1, Grade 2, HCFC-free, with felt or glass-fiber mat facer on both major surfaces.
- C. Tapered Insulation: Provide factory-tapered insulation boards fabricated to slope of 1/4" is specified areas, otherwise flat boards will be utilized as indicated.
- D. Provide preformed saddles, crickets, tapered edge strips, and other insulation shapes where indicated for sloping to drain. Fabricate to slopes indicated.
- E. Bottom layer of insulation to be mechanically fasten on steel decks and over lay of woodfiber to be adheres in solvent free insulation adhesive.
- F. All layers of insulation to be adhered in solvent free insulation adhesive to a fastened base sheet on cementitious woodfiber decks, wood decks, and gypsum decks.

2.8 INSULATION ACCESSORIES

- A. General: Roof insulation accessories recommended by insulation manufacturer for intended use and compatible with membrane roofing.
- B. Fasteners: Factory-coated steel fasteners and metal or plastic plates meeting corrosion-resistance provisions in FMG 4470, designed for fastening roof insulation to substrate, and acceptable to roofing system manufacturer.
- C. Insulation Adhesive: Solvent-free, cold fluid-applied, bituminous-urethane adhesive formulated to adhere roof insulation to substrate, with the following physical properties:
 - 1. Asbestos Content, EPA 600/R13/116: None.
 - 2. Volatile Organic Compounds (VOC), maximum, ASTM D 3960: 20 g/L.
 - 3. Non-Volatile Content, minimum, ASTM D 1644: 98 percent.
 - 4. Density at 77 deg F, minimum: ASTM D 1875: 8.5 lb/gal.
 - 5. Elongation at 77 deg. F, minimum, ASTM D 412: 1200 percent.
 - 6. T-Peel Strength at 77 deg. F, minimum: ASTM D 1876: 15 lbf.

7. Adhesion Strength in Shear at 77 deg. F, minimum, ASTM D 816: 80 psi.
 8. Low-Temperature Flexibility, maximum, ASTM D 816: -60 deg. F.
- D. Insulation Cant Strips: ASTM C 208, Type II, Grade 1, cellulosic-fiber insulation board.
 - E. Tapered Edge Strips: ASTM C 208, Type II, Grade 1, cellulosic-fiber insulation board.
 - F. Cover Board: ASTM C 208, Type II, Grade 2, Cellulosic-fiber and water-resistant binders, asphalt coated on six sides and chemically treated for deterioration. Woodfiber to be 4'X4'X .5"

2.9 COATING MATERIALS

- A. Aluminum Coating: Non-fibered, aluminum pigmented roof coating with the following physical properties:
 1. Asbestos Content, EPA/600/R-93/116: None.
 2. Non-volatile Matter, minimum, ASTM D 1644: 48 percent.
 3. Metallic Aluminum Content, minimum, ASTM D 2824: 15 percent.
 4. Volatile Organic Compounds (VOC), maximum, ASTM D 3960: 495 g/L.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates, areas, and conditions, with Installer present, for compliance with the following requirements and other conditions affecting performance of roofing system:
 1. Verify that roof openings and penetrations are in place and set and braced and that roof drains are securely clamped in place.
 2. Verify that wood cants, blocking, curbs, and nailers are securely anchored to roof deck at penetrations and terminations and that nailers match thicknesses of insulation.
 3. Verify that surface plane flatness and fastening of steel roof deck comply with requirements in Division 5 Section "Steel Deck."
 4. Verify that concrete/cementitious substrate is visibly dry and free of moisture. Test for capillary moisture by plastic sheet method according to ASTM D 4263.
 5. Verify that wood deck is securely fastened with no projecting fasteners and with no adjacent units in excess of 1/16 inch out of plane relative to adjoining deck.
 6. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. Clean substrate of dust, debris, moisture, and other substances detrimental to roofing installation according to roofing system manufacturer's written instructions. Remove sharp projections.

- B. Prevent materials from entering and clogging roof drains and conductors and from spilling or migrating onto surfaces of other construction. Remove roof-drain plugs when no work is taking place or when rain is forecast.

3.3 INSTALLATION, GENERAL

- A. Install roofing system in accordance with manufacturer's recommendations.
- B. Install roofing membrane, base flashings, and component materials in compliance with requirements in FMG 4450 and FMG 4470 as part of a membrane roofing system as as listed in FMG's "Approval Guide" for fire/windstorm classification indicated. Comply with recommendations in FMG Loss Prevention Data Sheet 1-49.
- C. Install roofing system in accordance with the following NRCA Manual Plates and NRCA recommendations; modify as required to comply with requirements of FMG references above:
 - 1. Base Flashing at Parapet Wall: Plates BUR-1 and BUR-1S.
 - 2. Base Flashing and Counterflashing at Parapet Wall: Plates BUR-4 and BUR-4S.
 - 3. Base Flashing and Counterflashing at Parapet Wall, Movement Joint: Plates BUR-6 and BUR-6S.
 - 4. Base and Surface-mounted Counterflashing: Plates BUR-4 and BUR-4S.
 - 5. Perimeter Edge, Raised: Plates BUR- and BUR-2S.
 - 6. Perimeter Edge, Gravel-stop: Plates BUR-3 and BUR-3S.
 - 7. Scupper, Raised: Plates BUR-21 and BUR-21S.
 - 8. Gutter at Draining Edge: Plates BUR-22 and BUR-22S.
 - 9. Expansion Joint, with metal cover: Plates BUR-7 and BUR-7S and Division 7 Section "Sheet Metal Flashing and Trim."
 - 10. Expansion Joint, with premanufactured cover: Plates BUR-7A and BUR-7AS and Division 7 Section "Roof Expansion Assemblies."
 - 11. Curb Detail at Rooftop HVAC Units, Premanufactured: Plates BUR-12 and BUR-12S.
 - 12. Curb Detail at Rooftop HVAC Units, Job-Built, Wood: Plates BUR-13 and BUR-13S.
 - 13. Curb Detail at Skylight, Roof Hatch, and Smoke Vents: Plates 14 and 14S
 - 14. Penetration, Structural Member: Plates BUR-14 and BUR-14S.
 - 15. Penetration, Sheet Metal Enclosure: Plates 15 and 15S
 - 16. Penetration, Stack Flashing: Plates BUR-17 and BUR-17S.
 - 17. Penetration, Pocket: Plates BUR-19 and BUR-19S.
 - 18. Roof Drain: Plates BUR-20 and BUR-22S.

3.4 INSULATION INSTALLATION

- A. Retain paragraph above and delete remaining paragraphs in Article if utilizing lightweight insulating concrete system.
- B. Coordinate installing roofing system components so insulation is not exposed to precipitation or left exposed at the end of the workday.
- C. Comply with roofing system manufacturer's written instructions for installing roof insulation.

- D. Install one lapped course of base sheet and mechanically fasten to substrate according to roofing system manufacturer's written instructions. Base sheet shall be mechanically fastened to Gypsum plank, wood and cementitious plank decks. Fastening pattern shall be double row 18" O.C. staggered, 9" O.C. at the end laps.
- E. Insulation Cant Strips: Install and secure preformed 45-degree insulation cant strips at junctures of built-up roofing membrane system with vertical surfaces or angle changes greater than 45 degrees.
- F. Install tapered insulation under area of roofing to conform to slopes indicated.
- G. Install insulation with long joints of insulation in a continuous straight line with end joints staggered between rows, abutting edges and ends between boards. Fill gaps exceeding 1/4 inch with insulation.
 - 1. Cut and fit insulation within 1/4 inch of nailers, projections, and penetrations.
- H. Install insulation at minimum thickness of 2 inches.
- I. Install one or more layers of insulation under area of roofing to achieve thickness indicated. Where overall insulation thickness is 2 inches or greater, install 2 or more layers with joints of each succeeding layer staggered from joints of previous layer a minimum of 6 inches in each direction.
- J. Trim surface of insulation where necessary at roof drains so completed surface is flush and does not restrict flow of water.
- K. Install tapered edge strips at perimeter edges of roof that do not terminate at vertical surfaces.
- L. Adhered Insulation (Tectum, gypsum and wood): Install each layer of insulation and adhere to substrate as follows:
 - 1. Set each layer of insulation in a cold fluid-applied insulation adhesive.
- M. Mechanically Fastened and Adhered Insulation (Steel decks): Install each layer of insulation and secure first layer of insulation to deck using mechanical fasteners specifically designed and sized for fastening specified board-type roof insulation to deck type.
 - 1. Fasten first layer of insulation according to requirements in FMG's "Approval Guide" for specified Windstorm Resistance Classification.
 - 2. Fasten first layer of insulation to resist uplift pressure at corners, perimeter, and field of roof.
 - 3. Install subsequent layers of insulation in a cold fluid-applied adhesive.
- N. Install cover boards over insulation with long joints in continuous straight lines with end joints staggered between rows. Stagger joints from joints in insulation below a minimum of 6 inches in each direction. Loosely butt cover boards together and fasten to roof deck. Tape joints if required by roofing system manufacturer.
 - 1. Apply cold, fluid-applied adhesive to underside and immediately bond cover board to substrate.

3.5 ROOFING MEMBRANE INSTALLATION, GENERAL

- A. Install built-up roofing membrane system according to roofing system manufacturer's written instructions and applicable recommendations of ARMA/NRCA's "Quality Control Guidelines for the Application of Built-up Roofing."
- B. Start installation of built-up roofing membrane in presence of roofing system manufacturer's technical personnel.
- C. Cooperate with testing and inspecting agencies engaged or required to perform services for installing built-up roofing system.
- D. Coordinate installing roofing system components so insulation and roofing membrane sheets are not exposed to precipitation or left exposed at the end of the workday or when rain is forecast.
 - 1. Provide tie-offs at end of each day's work to cover exposed roofing membrane sheets and insulation with a course of coated felt set in roofing cement or hot roofing asphalt with joints and edges sealed.
 - 2. Complete terminations and base flashings and provide temporary seals to prevent water from entering completed sections of roofing system.
 - 3. Remove and discard temporary seals before beginning work on adjoining roofing.
- E. Cold Process Asphalt Heating
 - 1. An in-line heat exchange unit may be used to facilitate application
 - a. Do not exceed maximum adhesive temperature of 100° F..
 - 2. Heat exchange unit: Use heat transfer oil approved by heating equipment manufacturer.
 - 3. Follow operation procedures recommended by heating equipment manufacturer.
- F. Install one lapped course of base sheet, extending sheet over and terminating beyond cants. Attach base sheet as follows:
 - 1. Mechanically fasten base sheet to wood, tectum and gypsum plank substrates.
- G. Install three ply sheets over insulation starting at low point of roofing system. Align ply sheets without stretching. Shingle side laps of ply sheets uniformly to achieve required number of plies throughout thickness of roofing membrane. Shingle in direction to shed water. Extend ply sheets over and terminate beyond cants.
 - 1. Embed each ply sheet in a solid mopping of cold, fluid-applied adhesive, applied at rate required by roofing system manufacturer, to form a uniform membrane without ply sheets touching.
- H. Aggregate Surfacing: Promptly after installing and testing roofing membrane, base flashing, and stripping, flood-coat roof surface with 5 gallons/100 sq. ft. of cold fluid-applied adhesive. While flood coat is fluid, cast the following average weight of aggregate in a uniform course:
 - 1. Aggregate Weight: 400 lb/100 sq. ft..

3.6 FLASHING AND STRIPPING INSTALLATION

- A. Install base flashing over cant strips and other sloping and vertical surfaces, at roof edges, and at penetrations through roof, and secure to substrates according to roofing system manufacturer's written instructions and as follows:
 - 1. Prime substrates with asphalt primer if required by roofing system manufacturer.
 - 2. Flashing Sheet Application: Adhere flashing sheet to substrate in cold adhesive applied at rate required by roofing system manufacturer.
- B. Extend base flashing up walls or parapets a minimum of 8 inches above roofing membrane and 6 inches onto field of roofing membrane.
- C. Mechanically fasten top of base flashing securely at terminations and perimeter of roofing.
 - 1. Seal top termination of base flashing with a termination bar.
- D. Install stripping, according to roofing system manufacturer's written instructions, where metal flanges and edgings are set on built-up roofing.
 - 1. Flashing-Sheet Stripping: Install flashing-sheet stripping in a continuous coating of asphalt roofing cement and extend onto roofing membrane.
- E. Roof Drains: Set 30-by-30-inch metal flashing in bed of asphalt roofing cement on completed roofing membrane. Cover metal flashing with stripping and extend a minimum of 4 inches beyond edge of metal flashing onto field of roofing membrane. Clamp roofing membrane, metal flashing, and stripping into roof-drain clamping ring.
 - 1. Install flashing-sheet stripping by same method as installing base flashing.

3.7 COATING INSTALLATION

- A. Apply coatings to base flashings according to manufacturer's written instructions, by spray, roller, or other suitable application method.

3.8 FIELD QUALITY CONTROL

- A. Manufacturer's Technical Representative: Contractor will engage a qualified manufacturer's technical representative acceptable to Owner for a minimum of 3 days full-time days on site to perform roof tests and inspections and to prepare test reports.
- B. Final Roof Inspection: Arrange for roofing system manufacturer's technical personnel to inspect roofing installation on completion and submit report to Architect.
 - 1. Notify Architect and Owner 48 hours in advance of date and time of inspection.

3.9 PROTECTING AND CLEANING

- A. Protect roofing system from damage and wear during remainder of construction period. When remaining construction will not affect or endanger roofing, inspect roofing for deterioration and damage, describing its nature and extent in a written report, with copies to Architect and Owner.

- B. Correct deficiencies in or remove roofing system that does not comply with requirements, repair substrates, and repair or reinstall roofing system to a condition free of damage and deterioration at time of Substantial Completion and according to warranty requirements.
- C. Clean overspray and spillage from adjacent construction using cleaning agents and procedures recommended by manufacturer of affected construction.

3.10 SCHEDULE OF SPECIAL WARRANTIES AND SERVICE AGREEMENTS

- A. The following documents are referenced in this Section and are attached following this Section; complete and submit documents in accordance with requirements:
 - 1. Roofing Installer's Warranty
 - 2. Roofing System Manufacturer's Continuing Maintenance Proposal

END OF SECTION 07513

PART 1 – GENERAL**1.1 RELATED DOCUMENTS**

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 specification sections, apply to this section.

1.2 SECTION INCLUDES

- A. Roof tear-off.
- B. Temporary roofing membrane.
- C. Removal of base flashings.

1.3 RELATED SECTIONS

- A. Section 01110 - Summary of Work: Use of the premises and restrictions on use of the premises due to Owner or tenant occupancy.
- B. Section 01500 - Temporary Facilities and Controls: Temporary construction and environmental-protection measures for reroofing preparation.
- C. Section 01731 - Cutting and Patching: Cutting and patching procedures for reroofing preparation.
- D. Section 06100 - Rough Carpentry: Wood nailers, cants, curbs, and blocking [and] [wood deck panel replacement].
- E. Section 07550 - Modified Bituminous Membrane Roofing: Roofing membrane, base flashings, roof insulation, cover boards, and roofing accessories.
- F. Section 07620 - Sheet Metal Flashing and Trim: Metal roof penetration flashings, flashings, and counterflashings.
- G. Section 15160 - Storm Drainage Piping: Replacement roof drains.

1.4 MATERIALS OWNERSHIP

- A. Except for items or materials indicated to be reused, reinstalled, or otherwise indicated to remain Owner's property, demolished materials shall become Contractor's property and shall be removed from project site.

1.5 DEFINITIONS

- A. Roofing Terminology: Refer to ASTM D1079 and glossary in NRCA's "The NRCA Roofing and Waterproofing Manual" for definition of terms related to roofing work in this section.
- B. Existing Membrane Roofing System: Existing roofing membrane, surfacing, and components and accessories between deck and roofing membrane.

- C. Cover Board: Rigid board or panel products placed over the roof deck that serve as thermal barriers, provide a smooth substrate, or serve as a component of a fire-resistance-rated roofing system.
- D. Roof Tear-Off: Removal of existing membrane roofing system from deck.
- E. Remove: Detach items from existing construction and legally dispose of them off-site unless indicated to be removed and reinstalled.
- F. Existing to Remain: Existing items of construction that are not indicated to be removed.

1.6 SUBMITTALS

- A. Submit under provisions of Section 01330.
- B. Product Data: For each type of product indicated.
- C. Temporary Roofing: Include product data and description of temporary roofing system. If temporary roof will remain in place, submit surface preparation requirements needed to receive permanent roof, and submit a letter from roofing membrane manufacturer stating acceptance of the temporary membrane, and that its inclusion will not adversely affect the roofing system's resistance to fire and wind.
- D. Fastener pull-out test report.
- E. Photographs or Videotape: Show existing conditions of adjoining construction and site improvements, including exterior and interior finish surfaces, that might be misconstrued as having been damaged by reroofing operations. Submit before Work begins.
- F. Landfill Records: Indicate receipt and acceptance of hazardous wastes, such as asbestos-containing material, by a landfill facility licensed to accept hazardous wastes.
- G. Qualification Data: For installer is approved by warrantor of roofing system.

1.7 QUALITY ASSURANCE

- A. Installer Qualifications: Installer of new membrane roofing system.
- B. Regulatory Requirements: Comply with governing EPA notification regulations before beginning membrane roofing removal. Comply with hauling and disposal regulations of authorities having jurisdiction.
- C. Reroofing Conference: Conduct conference at project site to comply with requirements in Section 01312. Review methods and procedures related to roofing system including, but not limited to, the following:
 - 1) Meet with Owner; Architect; Owner's insurer if applicable; testing and inspecting agency representative; roofing system manufacturer's representative; roofing installer including project manager, superintendent, and foreman; and installers whose work interfaces with or affects reroofing.
 - 2) Review methods and procedures related to reroofing preparation, including membrane roofing system manufacturer's written instructions.
 - 3) Review roof drainage during each stage of reroofing and review roof drain plugging and plug removal procedures.

- 4) Review and finalize construction schedule, and verify availability of materials, Installer's personnel, equipment, and facilities needed to make progress and avoid delays.
- 5) Review procedures to determine condition and acceptance of existing deck for reuse.
- 6) Review structural loading limitations of deck during reroofing.
- 7) Review base flashings, special roofing details, drainage, penetrations, equipment curbs, and condition of other construction that will affect reroofing.
- 8) Review HVAC shutdown and sealing of air intakes.
- 9) Review shutdown of fire-suppression, -protection, and -alarm and -detection systems.
- 10) Review procedures for asbestos removal or unexpected discovery of asbestos-containing materials.
- 11) Review governing regulations and requirements for insurance and certificates if applicable.
- 12) Review existing conditions that may require notification of Architect before proceeding.

1.8 PROJECT CONDITIONS

- A. Owner will occupy portions of building immediately below reroofing area. Conduct reroofing so Owner's operations will not be disrupted. Provide Owner with not less than 72 hours' notice of activities that may affect Owner's operations.
 - 1) Coordinate work activities daily with Owner so Owner can place protective dust or water leakage covers over sensitive equipment or furnishings, shut down HVAC and fire-alarm or -detection equipment if needed, and evacuate occupants from below the work area if desired.
- B. Protect building to be reroofed, adjacent buildings, walkways, site improvements, exterior plantings, and landscaping from damage or soiling from reroofing operations.
- C. Maintain access to existing walkways, corridors, and other adjacent occupied or used facilities.
- D. Owner assumes no responsibility for condition of areas to be reroofed.
 - 1) Conditions existing at time of inspection for bidding will be maintained by Owner as far as practical.
- E. Weather Limitations: Proceed with reroofing preparation only when existing and forecasted weather conditions permit Work to proceed without water entering into existing roofing system or building.
- F. Hazardous Materials: Present in building to be reroofed. A report on the presence of hazardous materials is on file for review and use. Examine report to become aware of locations where hazardous materials are present.
 - 1) Hazardous material remediation is specified elsewhere in the Contract Documents.
 - 2) Do not disturb hazardous materials or items suspected of containing hazardous materials except according to procedures specified elsewhere in the Contract Documents.
 - 3) Coordinate with hazardous material remediation Contractor to prevent water from entering building or existing roofing system.

1.9 WARRANTY

- A. Existing Warranties: Remove, replace, patch, and repair materials and surfaces cut or damaged during reroofing, by methods and with materials so as not to void existing roofing system warranty. Notify warrantor before proceeding.
 - 1) Notify warrantor of existing roofing system on completion of reroofing, and obtain documentation verifying that existing roofing system has been inspected and warranty remains in effect. Submit documentation at project closeout.

PART 2 – PRODUCTS

2.1 TEMPORARY ROOFING MATERIALS

- A. Selection of materials and design of temporary roofing is responsibility of Contractor.

2.2 AUXILIARY REROOFING MATERIALS

- A. General: Auxiliary reroofing preparation materials recommended by roofing system manufacturer for intended use and compatible with components of new membrane roofing system.
- B. Base Sheet Fasteners: Capped head, factory-coated steel fasteners, listed in FMG's "Approval Guide."
- C. Metal Flashing Sheet: Metal flashing sheet is specified in Division 7 Section "Sheet Metal Flashing and Trim."

PART 3 – EXECUTION

3.1 PREPARATION

- A. Coordinate with Owner to shut down air intake equipment in the vicinity of the Work. Cover air intake louvers before proceeding with reroofing work that could affect indoor air quality or activate smoke detectors in the ductwork.
- B. During removal operations, have sufficient and suitable materials on-site to facilitate rapid installation of temporary protection in the event of unexpected rain.
- C. Maintain roof drains in functioning condition to ensure roof drainage at end of each workday. Prevent debris from entering or blocking roof drains and conductors. Use roof-drain plugs specifically designed for this purpose. Remove roof-drain plugs at end of each workday, when no work is taking place, or when rain is forecast.
 - 1) If roof drains will be temporarily blocked or unserviceable due to roofing system removal or partial installation of new membrane roofing system, provide alternative drainage method to remove water and eliminate ponding. Do not permit water to enter into or under existing membrane roofing system components that are to remain.
- D. Verify that rooftop utilities and service piping have been shut off before commencing Work.

3.2 ROOF TEAR-OFF

- A. General: Notify Owner each day of extent of roof tear-off proposed.
- B. Remove aggregate ballast from roofing membrane.
- C. Roof Tear-Off: Remove existing roofing membrane and other membrane roofing system components down to the deck.
 - 1) Remove roof insulation and substrate boards.
 - 2) Remove fasteners from deck.

3.3 DECK PREPARATION

- A. Inspect deck after tear-off of membrane roofing system.
- B. If broken or loose fasteners that secure deck panels to one another or to structure are observed, or if deck appears or feels inadequately attached, immediately notify Architect. Do not proceed with installation until directed by Architect.
- C. If deck surface is not suitable for receiving new roofing, or if structural integrity of deck is suspect, immediately notify Architect. Do not proceed with installation until directed by Architect.
- D. Replace deck as indicated on Drawings and specified under unit prices. Replacement deck shall match existing.

3.4 TEMPORARY ROOFING MEMBRANE

- A. Install approved temporary roofing membrane over area to be reroofed.
- B. Remove temporary roofing membrane before installing new roofing membrane.

3.5 EXISTING BASE FLASHINGS

- A. Remove existing base flashings around parapets, curbs, walls, and penetrations.
 - 1) Clean substrates of contaminants such as asphalt, sheet materials, dirt, and debris.
- B. Do not damage metal counterflashings that are to remain. Replace metal counterflashings damaged during removal with counterflashings specified in Section 07620.
- C. Inspect parapet sheathing for deterioration and damage. If parapet sheathing has deteriorated, immediately notify Architect.

3.6 FASTENER PULL-OUT TESTING

- A. Retain independent testing and inspecting agency to conduct fastener pull-out tests according to SPRI FX-1, and submit test report to Architect before installing new membrane roofing system.
 - 1) Obtain Architect's approval to proceed with specified fastening pattern. Architect may furnish revised fastening pattern commensurate with pull-out test results.

3.7 DISPOSAL

- A. Collect and place demolished materials in containers. Promptly dispose of demolished materials. Do not allow demolished materials to accumulate on-site.
 - 1) Storage or sale of demolished items or materials on-site will not be permitted.
- B. Transport demolished materials off Owner's property and legally dispose of them.

END OF SECTION

PART 1 – GENERAL1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 specification sections, apply to this section.

1.2 SECTION INCLUDES

- A. Pre-engineered roof-edge fascia and trim system.
- B. Formed low-slope roof flashing and trim.

1.3 RELATED SECTIONS

- A. Section 07513 – Cold-Applied Built-Up Asphalt Roofing.

1.4 SUBMITTALS

- A. Submit under provisions of Section 01330.
- B. Product Data: For each product indicated.
- C. Shop Drawings: Show layouts, profiles, shapes, seams, dimensions, and details for fastening, joining, supporting, and anchoring sheet metal flashing and trim.
- D. Samples: For each type of sheet metal flashing and trim.

1.5 QUALITY ASSURANCE

- A. Sheet Metal Flashing and Trim Standard: Comply with SMACNA's "Architectural Sheet Metal Manual." Conform to dimensions and profiles shown unless more stringent requirements are indicated.
- B. Preinstallation Conference: Conduct conference at project site.

PART 2 – PRODUCTS2.1 SHEET METALS

- 1) Pre-engineered free floating .070 extruded aluminum fascia. Tremline fascia or approved equal, designed to accept differential movement at roof edges. Multi-piece, system components free to move independently, withstanding thermal shock while maintaining a watertight seal.
 - a) Finish and Color: Match existing finish and color at each individual building facility.

B. SHEET METAL

- 1) Furnish and install all items of sheet metal to provide a weathertight installation, where roofing abuts vertical surfaces; at roof edges, and elsewhere as shown.
- 2) Fascia System: Pre-engineered free floating .070 extruded aluminum fascia. Tremline fascia or approved equal, designed to accept differential movement at roof edges. Multi-piece, system components free to move independently, withstanding thermal shock while maintaining a watertight seal. Fascia extenders shall be 0.050" and sized as necessary to conceal construction and overlap by a minimum of 1", or as detailed otherwise. Utilize 2-piece, pre-engineered fascia extenders where total face height is 7" or greater.
- 3) Edgings, Gravel Stops, etc.: in shapes, 0.063" gauge-thickness, and sizes indicated for intended application, with shop-mitered and welded corners. Include water dams formed from at least 0.028-inch (0.7 mm) thick aluminum; galvanized steel sheet anchor plates; cleats or other attachment devices; concealed splice plates; and trim and other accessories indicated or required for complete installation, with no exposed fasteners. Caulk top surface of splice plates set 1" on each side of joint. Install with continuous cleat at drip on outside face.
- 4) Accessories: Factory fabricated preformed, welded, aluminum inside and outside corners, scupper outlets, and scupper heads prefinished to match Architect's sample of existing roof edge metal trim on each building facility.
 - a) Cleats: Provide system manufacturer's concealed cleats to secure roof edge metal, coping, and fascia trim and to establish straight lines
- 5) Finish and Color: Exposed Aluminum to be factory fabricated in finish and color to match Architect's samples of existing roof edge metal at each building facility.
 - a) Siliconized-Polyester Coating: Epoxy primer and silicone-modified, polyester-enamel topcoat; with a dry film thickness of not less than 0.2 mil for primer and 0.8 mil for topcoat.
 1. Color: Match existing color of building facility.
 - b) Anodized Finish: Apply the following coil-anodized finish:
 1. Class I, Clear Anodic Finish: AA-M12C22A41 (Mechanical Finish: nonspecular as fabricated; Chemical Finish: etched, medium matte; Anodic Coating: Architectural Class I, clear coating 0.018 mm or thicker) complying with AAMA 611.
 2. Class I, Color Anodic Finish: AA-M12C22A44 (Mechanical Finish: nonspecular as fabricated; Chemical Finish: etched, medium matte; Anodic Coating: Architectural Class I, electrolytically deposited color coating 0.018 mm or thicker) complying with AAMA 611.
 - a. Color: Medium bronze or Dark bronze to match Architect's Sample.

2.2 MISCELLANEOUS MATERIALS

- A. General: Provide materials and types of fasteners, solder, welding rods, protective coatings, separators, sealants, and other miscellaneous items as required for complete sheet metal flashing and trim installation.
- B. Felt Underlayment: ASTM D226, Type II (No. 30), asphalt-saturated organic felt, non-perforated.
 - 1) Slip Sheet: Rosin-sized paper, minimum three (3) lb/100 sq ft.
- C. Fasteners: Wood screws, annular threaded nails, self-tapping screws, self-locking rivets and bolts, and other suitable fasteners designed to withstand design loads.
 - 1) Blind Fasteners: High-strength aluminum or stainless-steel rivets.
 - 2) Exposed Fasteners: Where permitted, heads matching color of sheet metal by means of factory-applied coating.
 - 3) Fasteners for Flashing and Trim: Blind fasteners or self-drilling screws, gasketed, with hex washer head.
- D. Sealing Tape: Pressure-sensitive, 100 percent solids, polyisobutylene compound sealing tape with release-paper backing. Provide permanently elastic, nonsag, nontoxic, nonstaining tape.
- E. Elastomeric Sealant: ASTM C920, elastomeric polyurethane polymer sealant; of type, grade, class, and use classifications required to seal joints in sheet metal flashing and trim and remain watertight.
- F. Bituminous Coating: Cold-applied asphalt mastic, SSPC-Paint 12, compounded for 15-mil dry film thickness per coat.

2.3 FABRICATION, GENERAL

- A. General: Custom 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 item indicated. Shop fabricate items where practicable. Obtain field measurements for accurate fit before shop fabrication.
- B. Fabricate sheet metal flashing and trim without excessive oil canning, buckling, and tool marks and true to line and levels indicated, with exposed edges folded back to form hems.
 - 1) Seams for Aluminum: Fabricate nonmoving seams with flat-lock seams. Form seams and seal with epoxy seam sealer. Rivet joints for additional strength.
- C. Sealed Joints: Form non-expansion but movable joints in metal to accommodate elastomeric sealant to comply with SMACNA recommendations.
- D. Expansion Provisions: Where lapped or bayonet-type expansion provisions in the Work cannot be used, form expansion joints of intermeshing hooked flanges, not less than one (1) inch deep, filled with elastomeric sealant concealed within joints.
- E. Conceal fasteners and expansion provisions where possible on exposed-to-view sheet metal flashing and trim, unless otherwise indicated.
- F. Fabricate cleats and attachment devices from same material as accessory being anchored or from compatible, non-corrosive metal, and in thickness not less than that of metal being secured.

2.4 LOW-SLOPE ROOF SHEET METAL FABRICATIONS

- A. Counterflashing: Fabricate from the following material:
 - 1) Aluminum: 0.0320 inch thick.
- B. Roof-Drain and Plumbing Stack Flashing: Fabricate from the following material:
 - 1) Lead: 4.0-lb/sq ft, hard tempered.

PART 3 – EXECUTION

3.1 INSTALLATION, GENERAL

- A. General: Anchor sheet metal flashing and trim and other components of the Work securely in place, with provisions for thermal and structural movement. Use fasteners, solder, welding rods, protective coatings, separators, sealants, and other miscellaneous items as required to complete sheet metal flashing and trim system.
 - 1) Torch cutting of sheet metal flashing and trim is not permitted.
- B. Metal Protection: Where dissimilar metals will contact each other or corrosive substrates, protect against galvanic action by painting contact surfaces with bituminous coating or by other permanent separation as recommended by fabricator or manufacturers of dissimilar metals.
- C. Install exposed sheet metal flashing and trim without excessive oil canning, buckling, and tool marks.
- D. Install sheet metal flashing and trim true to line and levels indicated. Provide uniform, neat seams with minimum exposure of solder, welds, and elastomeric sealant.
- E. Install sheet metal flashing and trim to fit substrates and to result in watertight performance. Verify shapes and dimensions of surfaces to be covered before fabricating sheet metal.
 - 1) Space cleats not more than 12 inches apart. Anchor each cleat with two (2) fasteners. Bend tabs over fasteners.
- F. Expansion Provisions: Provide for thermal expansion of exposed flashing and trim. Space movement joints at a maximum of 10 feet with no joints allowed within 24 inches of corner or intersection. Where lapped or bayonet-type expansion provisions cannot be used or would not be sufficiently watertight, form expansion joints of intermeshing hooked flanges, not less than one (1) inch deep, filled with elastomeric sealant concealed within joints.
- G. Fasteners: Use fasteners of sizes that will penetrate substrate not less than 1-1/4 inches for nails and not less than 3/4 inch for wood screws.
 - 1) Aluminum: Use aluminum or stainless steel fasteners.
- H. Seal joints with elastomeric sealant as required for watertight construction.

3.2 ROOF FLASHING INSTALLATION

- A. General: Install sheet metal roof flashing and trim to comply with performance requirements and SMACNA's "Architectural Sheet Metal Manual." Provide concealed fasteners where possible, set units true to line, and level as indicated. Install work with laps, joints, and seams that will be permanently watertight.
- B. Counterflashing: Coordinate installation of counterflashing with installation of base flashing. Insert counterflashing in reglets or receivers and fit tightly to base flashing. Secure in a waterproof manner. Extend counterflashing four (4) inches over base flashing. Lap counterflashing joints a minimum of four (4) inches and bed with elastomeric sealant.

END OF SECTION

PART 1 - GENERAL**1.1 RELATED DOCUMENTS**

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 specification sections, apply to this section.

1.2 SECTION INCLUDES

- A. Metal-flanged, bellows-type roof expansion joint assemblies.

1.3 RELATED SECTIONS

- A. Section 06100 - Rough Carpentry: Wooden curbs for mounting roof expansion assemblies.
- B. Section 07513 - Cold-Applied Built-Up Asphalt Roofing.
- C. Section 07620 - Sheet Metal Flashing and Trim: Shop- and field-fabricated sheet metal, curved area separators, flashing, and other sheet metal items.

1.4 PERFORMANCE REQUIREMENTS

- A. General: Provide roof expansion joint assemblies that, when installed, remain watertight within movement limitations specified by manufacturer.

1.5 SUBMITTALS

- A. Submit under provisions of Section 01330.
- B. Product Data: Include manufacturer's product specifications, construction details, material and finish descriptions, installation instructions, and dimensions of individual components.
- C. Shop Drawings: Include plans, elevations, sections, details, joints, splices, locations of joints and splices, anchorage details, intersections, transitions, fittings, and attachments to other Work. Where joint assemblies change planes, provide isometric drawings depicting how components interconnect to achieve continuity.
- D. Research/Evaluation Reports: Evidence of roof expansion joint assemblies' compliance with building code in effect for project, from a model code organization acceptable to authorities having jurisdiction.

1.6 QUALITY ASSURANCE

- A. Installer Qualifications: An experienced installer who has completed installation of roof expansion joint assemblies similar in material, design, and extent to that indicated for this project and whose work has resulted in construction with a record of successful in-service performance.
- B. Source Limitations: Obtain metal-flanged, bellows-type roof expansion joint assemblies approved by roofing membrane manufacturer and that are part of roofing membrane warranty.
- C. Fire-Test-Response Characteristics: Provide fire-barrier assemblies with fire-test-response characteristics not less than that of adjacent construction, as determined by testing identical products per test method indicated below by UL or another testing and inspecting agency acceptable to authorities having jurisdiction. Assemblies shall be capable of anticipated movement while maintaining fire rating. Identify assemblies with appropriate markings of applicable testing and inspecting agency.
 - 1. Fire-Resistance Ratings: UL 2079.
 - 2. Fire-Resistance Ratings: ASTM E119.

1.7 SCHEDULING

- A. Coordinate delivery and installation of expansion joint assemblies to prevent damage and provide timely integration of units with roofing membranes and flashing.

1.8 WARRANTY

- A. General Warranty: Special warranty specified in this article shall not deprive Owner of other rights Owner may have under other provisions of the Contract Documents and shall be in addition to, and run concurrent with, other warranties made by Contractor under requirements of the Contract Documents.
- B. Special Warranty: Written warranty, signed by roof expansion assembly manufacturer and Installer agreeing to repair or replace roof expansion assemblies that leak, deteriorate in excess of rates specified in manufacturer's published product literature, or otherwise fail to perform within specified warranty period.
- C. Warranty Period: 20 years after date of Substantial Completion.

PART 2 - PRODUCTS

2.1 PRODUCTS AND MANUFACTURERS

- A. Products: Subject to compliance with requirements, provide one (1) of the following:
 - 1. Metal-Flanged, Bellows-Type Roof Expansion Joint Assemblies:
 - a. Series BRB Roof Bellows; Balco Metalines, a division of Balco, Inc.
 - b. Expand-O-Flash Series; Johns Manville Corporation.
 - c. Series ER; MM Systems Corporation.

2.2 SHEET METALS

- A. Galvanized Steel Sheet: ASTM A653/, hot-dip zinc-coating designation G90, stretcher-leveled standard of flatness and either commercial steel or forming steel, minimum 0.019 inch thick.
- B. Stainless-Steel Sheet: ASTM A666, Type 304, stretcher-leveled standard of flatness, minimum 0.015 inch thick.
- C. Sheet Aluminum: ASTM B209 alloy 3003-H14, 5052-H32, or 6061-T6, mill finish, minimum 0.032 inch thick.
- D. Extruded Aluminum: ASTM B221 alloy 6063-T5 or 6063-T52, mill finish, minimum 0.040 inch thick.

2.3 MISCELLANEOUS MATERIALS

- A. Roof Cement: ASTM D4586, Type II.
- B. Mineral-Fiber Blanket: ASTM C665.
- C. Flexible Cellular Sponge or Expanded Rubber: ASTM D1056.
- D. Silicone Extrusions: Classified according to ASTM D2000, 4GE, 709, UV stabilized and does not propagate flame.

2.4 FIRE BARRIERS

- A. Fire Barriers: Devices complying with requirements specified in "Quality Assurance" article for fire-test-response characteristics and designed for dynamic structural movement without material degradation or fatigue when tested according to ASTM E1399. Provide joint systems with manufacturer's continuous, standard, flexible fire-barrier seals in back of joint system at locations indicated to provide fire-resistance rating not less than rating of adjacent construction.

2.5 BELLOWS-TYPE ROOF EXPANSION JOINT ASSEMBLIES

- A. General: Provide manufacturer's standard assemblies of sizes and types indicated, including prefabricated units for corner and joint intersections and horizontal and vertical transitions including those to other building expansion joints, splicing units, adhesives, coatings, and other components as recommended by joint unit manufacturer for complete installation. Fabricate assemblies specifically for roof-to-roof, roof-to-wall, curb-to-curb, and curb-to-wall applications, as indicated.
- B. Metal-Flanged, Bellows-Type Roof Expansion Assemblies: Provide assemblies consisting of exposed polymeric sheet over foam bellows, securely anchored at both edges to 3- to 4-inch wide sheet metal nailing flanges, either flat or angle formed to fit cant or curbs as required. Insulate bellows with closed-cell, flexible rubber or plastic foam not less than 5/16-inch thick; adhere bellows to underside of polymeric sheet.
 - 1. Polymeric Sheet: Manufacturer's standard.

2. Metal Flanges: Sheet aluminum, minimum 0.032 inch thick.
3. Metal Flanges: Where flanges will be embedded in concrete or mortar, provide manufacturer's standard perforated-metal mortar flanges.
4. Moisture Barrier: Manufacturer's standard, flexible, continuous, polymeric moisture barrier looped under roof expansion assembly covers at locations indicated. Fill space with blanket-type, glass-fiber insulation.
5. Fire Barrier: Provide manufacturer's standard fire barrier.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. Comply with manufacturer's written instructions for handling and installing roof expansion assemblies and materials, unless more stringent requirements are indicated.
- B. Coordinate installation of roof expansion joint assembly materials and associated work so complete assemblies comply with assembly performance requirements.
- C. Install fire barriers to provide continuous, uninterrupted fire resistance throughout length of roof expansion joint, including transitions and end joints.
- D. Extend roof expansion joint assemblies over curbs, parapets, and other elements in the construction profile, with factory-fabricated transitions to provide continuous, uninterrupted, waterproof roof expansion assemblies.
 1. Install factory-fabricated transitions between roof expansion joint assemblies and building expansion joint cover assemblies to provide continuous, uninterrupted, watertight construction.
- E. Splice roof expansion joint assemblies with materials provided by roof expansion assembly manufacturer for this purpose, according to manufacturer's written instructions, to provide continuous, uninterrupted, waterproof roof expansion assemblies.
- F. Provide uniform profile of expansion joint assembly throughout length of each installation; do not stretch polymeric sheets.
- G. Install mineral-fiber blanket insulation to fill joint space within joint and moisture barrier.
- H. Bed anchorage flanges in cement or sealant recommended by manufacturer and securely nail to curbs and cant strips as recommended by manufacturer, but not less than 6 inches oc.
- I. Anchor roof expansion joint assemblies in the manner indicated, complying with manufacturer's written instructions.
- J. Provide not less than a 4-inch embedding of flanges in bituminous membranes, with hot bitumen or roof cement. Cover with stripping material and install according to requirements in Division 7 Section 07513.

3.2 PROTECTION

- A. Provide final protection and maintain conditions, in a manner acceptable to manufacturer and installer, which ensures roof expansion joint assemblies are without damage or deterioration at time of Substantial Completion.

END OF SECTION