

ADDENDUM NO.: 6
 DATE OF CMR ADDENDUM: 03.06.2013

**Notice of Construction Manager-at-Risk (CMR)
 Addendum
 on behalf of the
 CT Department of Construction Services (CT DCS)**

Project Name:	Southern Connecticut State University Buley Library Renovation
Project Location:	New Haven, CT
Project Description:	Core & Shell & Fit-Out
Project Construction Budget:	20.7 Million
CT DCS Project Number:	BI-RS-225B CMR

The Construction Manager-at-Risk (CMR) is issuing a **Notice of CMR Addendum** for this State of CT Department of Construction Services (CT DCS) Project. Specific Addendum Information is available as noted below. If you have any questions, please contact the CMR as noted below.

CMR Information:

CMR Firm:	Skanska USA Building Inc.
Address:	545 Long Wharf Drive, 6 th Floor
Contact Name:	Kate Westrin
Contact Phone Number:	203-509-3619
Contact Email Address:	Kate.westrin@skanska.com

Addendum Information is available as follows:

CMR Website and/or FTP Site:	https://partners.myskanska.com/usa/clients/scsu/Buley/SitePages/Home.aspx
Printing Company:	Service Point USA - 203-624-0079

Copies: DCS Project Manager DCS Process Management (randy.daigle@ct.gov)
 DCS Process Management (peter.babey@ct.gov)



March 6th, 2013

ADDENDUM #6: REBID NOTIFICATION-

- BID PACKAGE 08 CURTAINWALL
- BID PACKAGE 08B METAL PANEL

BID DUE DATE: Thursday, March 28th, 2013 by 11AM

PROJECT: SCSU Buley Library Renovations
Project No. BI-RS-225B CMR

SUBMIT TO: Skanska USA Building Inc.
545 Long Wharf Drive, 6th Floor
New Haven, Connecticut 06511

Attention: Kate Westrin

I. GENERAL ITEMS:

1. In accordance with Division 0 Instructions to Bidders, sealed bid packages shall be submitted in duplicate to Skanska with the contractor's company information and bid package number identified on the sealed envelope. All bids shall remain sealed until the scheduled bid opening. Bid opening will be at Skanska's New Haven Office at 545 Long Wharf Drive, 6th Floor, New Haven, CT 06511 at 11AM on Thursday, March 28th, 2013. Bidders are welcome to witness the bid opening. Representatives from Skanska (CM), CT DCS (Owner) and SBS (Owner's Rep.) shall witness the bid opening. Skanska shall read aloud and record both the Base Bid value and Supplemental Bid value. Skanska shall contact the lowest responsible bidder for a scope review meeting following the bid opening.
2. All bidders are instructed to review the bid documents inclusive of Addenda 1, 2 & 3 in their entirety. These Addenda are incorporated into the contract documents. Addenda are available for review on the project website:
<https://partners.myskanska.com/usa/clients/scsu/Buley/SitePages/Home.aspx>
 - A. Note- Skanska has incorporated clarifications and changes issued via Addenda into the revised Exhibit A documents as much as possible to clarify the scope of work for Bid Packages 08 and 08B. Bidders are still responsible for sketches, specification and scope changes identified in Addenda 1-3, as issued.
 - B. Note- Addendum #4 was issued on 2.12.13 extending the original bid date. This addendum does not affect the scope of BP-08 nor BP-08B.
 - C. Note- Addendum #5 was issued on 2.28.13 to rebid the Structural Steel Bid Package #05. This addendum does not affect the scope of BP-08 nor BP-08B.

3. There is no requirement for S/M/WBE participation for BP-08 CURTAINWALL / STOREFRONT & FIRE RATED GLASS ASSEMBLIES, nor for BP-08B METAL PANEL. If there are opportunities for supplier and/or subcontractor involvement for the work of these bid packages, Skanska recommends bidders reach out to the small and minority contractors in the spirit of CHRO.
4. Revised Proposal Form 00 41 00 ADDENDUM #6 shall be utilized for submission of bid proposals for BP-08 and BP-08B.
5. Attached RE-BID Scope Review Meeting Schedule for review by all bidders.

II. SCOPE CLARIFICATIONS/CHANGES:

BP-08 CURTAINWALL / STOREFRONT & FIRE RATED GLASS ASSEMBLIES

1. See attached BP-08 Curtainwall/ Storefront & Fire Rated Glass Assemblies Exhibit A Scope of Work.
 - a. Scope Clarifications from Addenda #2 and #3 have been incorporated into the revised Exhibit A Scope of Work.
2. See Section IV, below, for revised specification sections issued for this project. Bidders may select one of the following two options:
 - a. Incorporate revised specification sections 08 44 13A and 08 51 13A in preparation of a bid utilizing either FM Graham, EFCO or Kawneer.
 - b. Incorporate original specification sections 08 44 13 and 08 51 13 in preparation of a bid utilizing Schuco USA.
3. Please incorporate attached, revised excerpt of 00 31 25 Stored Material List. Stored Materials allocated to this bid package are this bidder's responsibility, regardless of manufacturer utilized for the new work.

BP-08B METAL PANEL

1. See attached BP-08B METAL PANEL Exhibit A Scope of Work.
2. Please incorporate attached, revised excerpt of Stored Material List. Stored Materials allocated to this bid package are this bidder's responsibility, regardless of manufacturer utilized for the new work.

III. SUBCONTRACTOR RFIs:

Subcontractor RFI's #1-210 issued via Addenda #2 and #3 are incorporated into the bid documents by reference. RFIs specifically related to this bid package have been incorporated into the revised Exhibit A Scope of Work.

IV. DRAWINGS AND SPECIFICATION CLARIFICATIONS/CHANGES:

1. Specification Section 01 23 13 'SUPPLEMENTAL BIDS – CMR' dated 3-01-2013, ADDENDA #6 is hereby incorporated into the bid documents
2. Specification Section 08 44 13 A 'ALUMINUM CURTAIN WALL SYSTEM' dated 3-01-2013, ADDENDA #6 is hereby incorporated into the bid documents.
 - a. Note- Bidders for the Schuco curtain wall system shall utilize original specification section 08 44 13.

3. Specification Section 08 51 13 A 'ALUMINUM WINDOWS' dated 3-01-2013 ADDENDA #6 is hereby incorporated into the bid documents.
 - a. Note- Bidders for the Schuco window system shall utilize original specification section 08 51 13.
4. Specification Section 08 80 00 'GLASS AND GLAZING' dated 3-01-2013 ADDENDA #6 is hereby incorporated into the bid documents.
 - a. Note- This specification section applies to all BP-08 bidders.

See Addenda 1, 2, and 3, and revised Exhibit A Scope of Work for this trade.

Sincerely,
Skanska USA Building, Inc.

Kate Westrin, LEED® AP
Project Manager

cc: Service Point USA at 85 Willow St., Bldg. 12. New Haven, CT
Skanska Share Site: <https://partners.myskanska.com/usa/clients/scsu/Buley/SitePages/Home.aspx>

Rebid Due Dates / Scope Review Meeting Schedule

Bid Drop-off and Scope Meeting Location:

Skanska Main Office, 545 Long Wharf Drive, 6th Floor, New Haven, CT

BP-05 Structural Steel Bids Due:

- BP-05 Scope Review Meeting:

Thursday, March 21st 2013

Friday, March 22nd, 2013 at 9AM

BP-08 Curtainwall and BP-08B Metal Paneling Bid Due Date:

- BP-08 Curtainwall Scope Review Meeting:
- BP-08B Metal Paneling Scope Review Meeting:

Thursday, March 28th

Friday, March 29th, 2013 at 9AM

Friday, March 29th, 2013 at 11AM

Note: Per the Project Bid Documents, Skanska intends to interview the apparent low bidder only. Skanska will contact the apparent low bidder following the bid opening to advise if a scope review meeting is required.

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BID PROPOSAL FORM

Project: Buley Library Renovations BI-RS-225B CMR

Bid Package: _____

Bid Package No.: _____

Bid Due Date/Time: Thursday, March 28th, 2013 – 11am

(BIDDER MUST SUBMIT SEPARATE BID FORMS WHEN BIDDING MULTIPLE PACKAGES)

Proposal Submitted By:

Company Name _____
 Address _____

 Telephone _____
 Fax _____

 Subcontractor License No. _____
 Subcontractor EMR Rate _____
 Federal Tax ID No. _____
 Business Classification MBE WBE SBE

1. BASE BID

The above noted Bidder hereby proposes to provide for all work as defined in the Contract Documents and any incidental work necessary to construct a complete, working, and fully operational system for all work as defined herein, for the totally inclusive lump sum amount, including all applicable sales and use taxes of:
 (Written) _____ \$ _____

Note #1 - The award of subcontracts for a specific bid package will be based on the lowest qualified and responsible Subcontractor base bid plus those Supplemental Bids selected. The selection of supplemental bids will be determined after the bid opening and is contingent on the available project funds.

Note #2 - The award of supplemental bids will be taken in order as they appear in Note #3 of the Subcontractor Proposal Form. If project funds do not allow for a supplemental bid to be taken in its entirety, the owner reserves the right to add portions of the supplemental bid. The definition of "Supplemental Bid" is outlined in the Section #4.1.4 of the Instruction to Bidders.

Note #3 - If project funds do not allow for a supplemental bid to be taken in its entirety, the owner reserves the right to add portions of the supplemental bid in following order from first to last: BP15A, BP15, BP16, BP13, BP13B, BP09, BP08A, BP09A, BP08, BP06, BP09B, BP09C, BP12, BP10A, and BP13A. Remaining trades not listed will be selected at the owner's discretion.

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2. CONTRACT

Bidder has reviewed the Skanska USA Building Inc. Subcontract Agreement, acknowledges all requirements are included in the above lump sum price, and agrees to sign upon contract award without modification:

Acknowledged (box must be marked)

3. EXISTING INVENTORY MATERIALS

Bidder has reviewed the Existing Inventory Materials list included in section **00 31 25, Addendum #1 Inventory Update and Addendum #6 Revised Material List Excerpt** and has included those materials assigned to your specific bid package for use on this project. Bidder is responsible for the transportation of inventory materials from storage facilities to your shop for fabrication or to the project site for installation. Any unused materials assigned to your bid package will be the responsibility of this Subcontractor to remove from storage and legally dispose of at no additional cost to the project unless specifically identified to be turned over to the owner at the completion of the project. Materials currently stored on site shall be removed by the responsible trades prior to the start of construction. Delivery of any and all materials to the jobsite shall be coordinated with the Project Schedule and reviewed with Skanska’s Superintendent. *Refer to section 01 35 16 – 2.2 Salvaged Materials for those materials that are to be turned over to the owner at project completion.*

Acknowledged (box must be marked)

**~~4. COMMISSION ON HUMAN RIGHTS AND OPPORTUNITIES
(SELECT NON SET ASIDE BID PACKAGES)~~**

~~Select Non Set Aside Subcontractors, as identified in the Invitation to Bid, shall award twenty five (25%) percent or more of the value of this Subcontract to DAS certified SBE’s. This Subcontractor shall also award ten (10%) percent or more to DAS certified M/WBE’s.~~

~~**Note: All SBE Set Aside bidders will be required to award five (5%) percent or more of the value of this subcontract to DAS certified M/WBE’s.**~~

~~Within five (5) days of Bid Opening, this apparent lowest bidder will disclose its estimated costs for the named SBE and M/WBE Sub-Subcontracts to verify compliance with this requirement.~~

~~By submitting this bid, this Subcontractor has acknowledged and agreed to this requirement.~~

Acknowledged (box must be marked)

~~Failure to acknowledge and verify compliance with these requirements will result in a bid that is non-responsive and will be rejected.~~

5. ADDENDA

Receipt of the following Addenda is hereby acknowledged:

Addendum No. 1	Date	01-15-13
Addendum No. 2	Date	01-22-13

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Addendum No. 3	Date	01-28-13
Addendum No. 4	Date	02-12-13
Addendum No. 5	Date	02-26-13
Addendum No. 6	Date	03-06-13

Acknowledged (box must be marked)

6. SUB-SUBCONTRACTORS

The following Sub-Subcontractors are included with this proposal:

Sub-Subcontractor	Scope of Work	Business Classification (SBE, MBE, WBE)	EMR
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

7. SUPPLEMENTAL BIDS (Addendum #6)

Provide supplemental bid pricing to reflect the work of the bid package under which this bid proposal was submitted. The supplemental pricing indicated shall remain valid for the life of the project and include all costs for complete installation.

- A. Supplemental Bid 1: Add to furnish and install horizontal metal louver sunshades (eyebrow) around perimeter of existing addition (north) building attached to existing brackets. (Addendum #6 Specification 01 23 13, 3.1A)

SUPPLEMENTAL BID #1: \$ _____

- B. Supplemental Bid 2: Add to furnish and install horizontal metal louver sunshades (eyebrow) at perimeter of reconstructed (south) building. (Addendum #6 Specification 01 23 13, 3.1B)

SUPPLEMENTAL BID #2: \$ _____

- C. Supplemental Bid 3: Add to complete 2nd Floor Fit-Out (*reference A-102A*). (Addendum #6 Specification 01 23 13, 3.1C)

SUPPLEMENTAL BID #3: \$ _____

Note: 3rd and 4th floor fit-out work identified in the contract documents *on drawings A103A, A104A and A104.1 is not part of his project and may be bid as a separate project at a future date.*

8. UNIT PRICES

Specification Section 012000 – Contract Considerations identifies established unit price rates for specific scopes of work. By submitting this bid, this Subcontractor has acknowledged and agreed to the rates applicable to the Scope of Work related to this proposal.

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Acknowledged (box must be marked)

9. LABOR & EQUIPMENT RATES

A. LABOR RATES

Skanska may elect to have Subcontractor provide labor (or additional labor) in connection with its Scope. All additional labor shall be billed at the applicable rate as required by law. Each specified rate is inclusive of all of Subcontractor’s costs and expenses to furnish the additional labor in accordance with all requirements of the Subcontract/Purchase Order.

This Subcontractor shall complete the requested information noted below based on their Scope of Work. This shall be used as reference only and does not constitute acceptance. This Subcontractor will be required to provide a complete breakdown in accordance with Exhibit C prior to issuance of a Subcontract.

Trade	Straight Time	Premium Time	Double Time
1. Forman	\$ _____ /hr	\$ _____ /hr	\$ _____ /hr
2. Journeyman	\$ _____ /hr	\$ _____ /hr	\$ _____ /hr
3. Apprentice	\$ _____ /hr	\$ _____ /hr	\$ _____ /hr
4. Laborer	\$ _____ /hr	\$ _____ /hr	\$ _____ /hr
5.	\$ _____ /hr	\$ _____ /hr	\$ _____ /hr
6.	\$ _____ /hr	\$ _____ /hr	\$ _____ /hr

10. EQUIPMENT

Skanska may elect to have Subcontractor provide any of the following equipment in connection with its Scope at the applicable “Hourly”, “Daily”, “Weekly”, or “Monthly” rate specified. Each specified rate is inclusive of all of Subcontractor’s costs and expenses to furnish the equipment in accordance with all requirements of the Subcontract/Purchase Order, including but not limited to the following: transportation, delivery, pickup, fuel, energy costs, consumables, connections, maintenance, wear and tear, repair, depreciation, storage, tax, overhead, and profit. If an hourly rate is used, equipment shall be charged based upon actual usage within ½ hour.

This Subcontractor shall complete the requested information noted below based on their Scope of Work. This shall be used as reference only and does not constitute acceptance. This Subcontractor will be required to provide a complete breakdown in accordance with Exhibit C prior to issuance of a Subcontract.

Equipment Description	Rate			
	Hourly	Daily	Weekly	Monthly

Rental costs of Subcontractor equipment not shown on the list above shall be charged as follows:

- 80% of the rates shown in the latest edition of “Nationally Averaged Rental Rate and Model

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- Reference Data for Construction Equipment” prepared by Associated Equipment Distributors, Chicago, Illinois (“AED”); or if not shown in AED,
- 80% of the rates shown in the latest edition of “Tool and Equipment Rental Guide” prepared by Mechanical Contractors Association of America (“MCA”); or if not shown in MCA,
 - 60% of the rates shown in the latest edition of “Rental Rate Blue Book for Construction Equipment” published by Equipment Guidebook Company, Palo Alto, CA (“Blue Book”); or if not shown in the Blue Book,
 - 60% of the rates shown in the latest edition of “Tool and Equipment Rental Schedule” published by National Electrical Contractors Association, Bethesda, MD (“NECA”).

11. CHANGE ORDERS/ALLOWABLE MARKUPS (Addendum #2)

Subcontractor/Seller shall apply the following overhead and profit markups for changes in the Scope in accordance with State of Connecticut DPW/DCS Standard forms 735 and 737 as included in Division 0 Section 00 70 01 Standard Form of Agreement Between Owner and CMR, Part 13.9 :

	<u>OH&P</u> <u>% Markup</u>
A. Labor, Material and Equipment up to \$5,000	20%
B. Labor, Material and Equipment \$5,001 to \$15,000	17%
C. Labor, Material and Equipment \$15,001 to \$25,000	15%
D. Labor, Material and Equipment \$25,001 and greater	12%
D. Sub-Subcontractor Allowable Markup	6%

- *The markup on labor shall be reflected in the labor rates stated in Section V and shown in the Labor Rate Breakdown.*
- *The markup on material shall be applied after all applicable discounts and rebates due Subcontractor/Seller are considered.*
- *The markup on third party rentals shall be applied to the direct invoiced cost. Equipment owned by the Subcontractor/Seller is not eligible for markup, and is subject to the rates shown in Subcontract Exhibit C Section IV.*
- *The markup on Sub-subcontractor/Subsupplier work/supply in connection with a change in Scope shall be applied to the direct invoiced cost from the Sub-subcontractor/Subsupplier. Sub-subcontractor’s/Subsupplier’s markup for its own direct cost shall not exceed the percentages listed above for labor, material, and third party rentals.*
- *The additional bond and insurance premium on a change in Scope shall be applied to the direct cost of the change and is not eligible for markup.*
- *Overhead and profit shall be inclusive of the following: home office costs, management, supervision, training, vehicles and pickups, travel, reproduction, temporary facilities, computers, office equipment, small tools, and other incidentals. Small tools are defined as tools that do not have a new unit cost in excess of \$750.00.*
- *CT DPW/DCS Form must be completed inclusive of associated backup documentation for each change order proposal submitted by the prime subcontractor.*

12. BASE BID COST BREAKDOWN

The following information is required at time of bid:

PROPOSEDSYSTEM MANUFACTURER: _____

Material Cost \$ _____

Labor Cost (Total Hours ___ / Avg. Crew ___) \$ _____

Equipment Cost \$ _____

Air and Vapor Barrier Work Cost (Labor and Material) \$ _____

Exterior Clock Support Work (Labor and Material) \$ _____

Insurance, Bond, Other Costs \$ _____

Tax, as Required \$ _____

Total Cost (Must Equal Base Bid) \$ _____

In addition to the above cost breakdown, Skanska reserves the right to request additional cost breakdowns at the time of scope review and prior to Contract Award.

By submitting this bid, this Subcontractor has acknowledged and agreed to this requirement.

Acknowledged (box must be marked)

13. QUANTITY BREAKDOWN

Skanska reserves the right to request quantity breakdowns at the time of scope review and prior to Contract Award.

By submitting this bid, this Subcontractor has acknowledged and agreed to this requirement.

Acknowledged (box must be marked)

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14. BID PROPOSAL FORM ATTACHEMENTS
(MUST BE SUBMITTED WITH BID PROPOSAL)

- Proposal Form
- Skanska Qualification Form
- DAS Prequalification Certificate (If Bid is in excess of \$500,000)
- Bid Bond
- Consent of Surety
- Non-Collusion Affidavit
- State of Connecticut OPM Ethics Form 6
- Contractors Wage Certification Form
- Requirement Omitted via Addendum*

SUBCONTRACTOR: _____

SIGNATURE: _____

PRINT NAME: _____

TITLE: _____

TELEPHONE: _____

TELEFAX: _____

DATE: _____

(Affix Corporate Seal –if Corporation)

END OF BID PROPOSAL FORM

EXHIBIT “A”

Attachment to **Subcontract/Purchase Order No. 1312021-XXX** dated mm dd, year, by and between **Subcontractor XYZ** and **SKANSKA USA BUILDING INC.** for **BID PACKAGE NO. 08 – CURTAIN WALL / STOREFRONT & FIRE RATED GLASS ASSEMBLIES** at **Southern Connecticut State University, Buley Library, New Haven, CT**

SCOPE OF WORK/SUPPLY AND CLARIFICATIONS/QUALIFICATIONS

SCOPE OF WORK/SUPPLY:

The Scope of Work/Supply is identified in the following specification section(s) and further described below:

<u>Spec. Section</u>	<u>Description</u>
Division 0	ALL SECTIONS
Division 1	ALL SECTIONS
Section 02 4119	Selective Demolition (As it Pertains to this Scope of Work)
Section 05 4000	Cold Form Metal Framing (As it Pertains to this Scope of Work)
Section 07 1300	Air and Vapor Barrier System (As it Pertains to this Scope of Work)
Section 07 2100	Thermal Insulation (As it Pertains to this Scope of Work)
Section 07 4200	Laminated Metal Wall Panels
Section 07 4213	Insulated Metal Wall Panels
Section 07 6200	Sheet Metal Flashing and Trim (As it Pertains to this Scope of Work)
Section 07 9000	Joint Protection (As it Pertains to this Scope of Work)
Section 07 9500	Expansion Control (As it Pertains to this Scope of Work)
Section 08 4123	Glazed Fire Rated Door and Framing Systems
Section 08 4413	Aluminum Curtain Wall Systems
Section 08 4413A	Aluminum Curtain Wall Systems (ADDENDUM #6)
Section 08 4429	Glass Canopy
Section 08 5113	Aluminum Windows
Section 08 5113A	Aluminum Windows (ADDENDUM #6)
Section 08 7100	Finish Hardware (As it Pertains to this Scope of Work)
Section 08 7113	Automatic Door Operators
Section 08 8000	Glass and Glazing (REVISED ADDENDUM #6)
Section 10 2000	Louvers and Vents

A) Trade Specific Scope of Work

1. This Subcontractor is responsible for pricing all *Supplemental Bids* as it pertains to their base bid Scope of Work and as identified in the Contract Documents.

EXHIBIT "A"

Attachment to **Subcontract/Purchase Order No. 1312021-XXX** dated **mm dd, year**, by and between **Subcontractor XYZ** and **SKANSKA USA BUILDING INC.** for **BID PACKAGE NO. 08 – CURTAIN WALL / STOREFRONT & FIRE RATED GLASS ASSEMBLIES** at **Southern Connecticut State University, Buley Library, New Haven, CT**

2. This Subcontractor has reviewed specification section 00 31 25 "Stored Materials" and has incorporated materials into this Scope of Work and further agrees to the requirements of this section as it applies to this Scope of Work.
3. In addition to the above item, this Subcontractor shall provide staff to inspect the Stored Materials associated with this Scope of Work at the designated storage location within two weeks from Skanska's issuance of the Notice to Proceed. Within 30 days from date of material inspection, the Subcontractor must submit a report to Skanska regarding the usability of Stored Material for this Bid Package. If a Subcontractor or its vendor determines that materials or equipment is deemed unusable, the Subcontractor and or its vendor will be required to submit a written report identifying the unusable material, and will be required to provide a detailed description as to why the material is unusable. If this occurs, and Skanska agrees that the material is unusable, Skanska will work with the Subcontractor to determine a replacement cost for the materials. Any material that will not be used on this project, as confirmed in writing by Skanska shall be salvaged in accordance with Specification Section 01 35 16 or else removed and legally disposed of within 7 calendar days from the date of written confirmation.
4. This Subcontractor is responsible for the removal and disposal of existing window systems scheduled to be removed as shown on AD drawings.
5. This Subcontractor shall furnish and install all shims and wood trim required for a complete installation of stained glass windows. This Subcontractor is responsible for coordination with owner's stained glass supplier/installer and coordination with steel framing supports for stained glass furnished and installed by BP-05A. Coordination shall include a site visit to stained glass supplier's facility in Needham, MA prior to submission of shop drawings in order to field measure stained glass units to be installed. Refer to drawing A-302 for additional information. (Revised Addendum #2)
6. This Subcontractor shall furnish and install stair glass canopy system. Scope includes all laminated glass, spider clamps, fasteners, etc. for a complete installation. Structural steel support framing will be furnished and installed as part of BP-05. Structural support includes all tube steel and ½" steel plates required for attachment of clamp system.
7. This Subcontractor shall furnish and install exterior and interior storefront framing and entrance doors. This includes all extruded aluminum framing, custom extrusions, finish coatings, aluminum breakmetal work, insulation, firesafing, glass, gaskets, fillers, fasteners, anchors, coatings, sealants, and doors. All aluminum door hardware, other than those materials identified to be provided by this Subcontractor, will be furnished by BP-08A for installation by this Subcontractor.

EXHIBIT "A"

Attachment to **Subcontract/Purchase Order No. 1312021-XXX** dated **mm dd, year**, by and between **Subcontractor XYZ** and **SKANSKA USA BUILDING INC.** for **BID PACKAGE NO. 08 – CURTAIN WALL / STOREFRONT & FIRE RATED GLASS ASSEMBLIES** at **Southern Connecticut State University, Buley Library, New Haven, CT**

8. This Subcontractor shall furnish and install all interior closed cell compressed gasket and sealant between curtain wall systems and interior finishes. Refer to detail 10/A-302 for an example of this Scope of Work.
9. This Subcontractor shall furnish and install aluminum curtainwalls and windows. This includes all extruded aluminum framing, custom extrusions, finish coatings, aluminum breakmetal work, insulation, firesafing, glass, gaskets, fillers, fasteners, anchors, coatings, sealants, and hardware for a complete installation. **Note: All metal window surround materials are to be provided by this bid package.**
10. BP-09 is responsible for furnishing and installing temporary framing, fire rated reinforced poly, and sealants in all curtainwall, entrance and window openings to provide a complete temporary building weather-tight enclosure. The curtainwall/storefront Subcontractor will be responsible for removal and disposal of the temporary enclosures when permanent systems are installed. All materials shall be placed in dumpsters provided by Skanska.
11. The electrical Subcontractor will be responsible for furnishing and installing the custom exterior clock as shown on drawing A-810 (aluminum curtain-wall AL-2) and as detailed on drawing A-812. This subcontractor will be responsible for engineering curtain-wall members and providing internal support necessary to adequately support the weight of the clock. In addition, this Subcontractor will be responsible for coordinating the installation of all electrical power within the curtain wall framing with the electrical contractor.
12. This Subcontractor shall furnish and install all glazed fire rated door and frame assembly systems. This Subcontractor is also responsible for providing all door hardware for this Scope of Work. In addition, this subcontractor is responsible for furnishing and installing all ¾" x 2" x 1/16" thick anodized aluminum angle at base of fire rated assemblies. **Note: Fire rated assemblies specified in section 08 41 23 are limited to the following areas: Stair A next to RM208 and Stair B next to RM493A. (Revised Addendum #2)**
13. This Subcontractor is responsible for furnishing and installing all required curtain wall attachment clips. Horizontal support steel tied back to structure will be installed by BP-05A with slotted connections for final positioning by this Subcontractor. Refer to detail 12/A-513 for an example of this condition.
14. This Subcontractor is responsible for furnishing and installing all required attachment angles to masonry necessary for the installation of windows. Refer to detail 4.1/A-513 for an example of this condition.
15. This Subcontractor is responsible for furnishing and installing all bent aluminum closure angles as shown. Refer to detail 6/A-514 for an example of this condition.

EXHIBIT "A"

Attachment to **Subcontract/Purchase Order No. 1312021-XXX** dated **mm dd, year**, by and between **Subcontractor XYZ** and **SKANSKA USA BUILDING INC.** for **BID PACKAGE NO. 08 – CURTAIN WALL / STOREFRONT & FIRE RATED GLASS ASSEMBLIES** at **Southern Connecticut State University, Buley Library, New Haven, CT**

16. This Subcontractor is responsible for all insulation and metal trim closure pieces between curtain wall/window systems and expansion joint systems. Refer to details 6, 7, 8 and 12 on drawing A-551 for examples of this condition.
17. ~~This Subcontractor is responsible for furnishing and installing all flashing and copings as shown on details 1/A-551, 2/A-551, A/S-308, B/S-308 and C/S-308 and all other similar locations. All tube steel, framing, sheathing and insulation will be installed by others. (Addendum #6)~~
18. This Subcontractor is responsible for furnishing and installing all 1/16" thick bronze anodized aluminum plate with counter sunk fasteners at ALL roll-down grilles. Refer to 11/A-205, 6/A-300 and J6/A-801 for examples of this scope of work.
19. This Subcontractor is responsible for furnishing and installing all fixed metal wall louvers, louver screens and blank off panels for wall louvers. Scope of Work includes all roof top louvers, mechanical room louvers, loading dock louvers, flashings, trim accessories, sealants, etc. as required for a complete installation. All steel support systems required for installation of louvers is either existing or new and will be provided by BP-05A. All required painting of structural steel will be provided by BP-09B.
20. This Subcontractor is responsible for furnishing and installing all "metal window surround" materials as identified on the contract documents. Refer to detail 2/A-513 for additional information.
21. This Subcontractor is responsible for furnishing and installing all 2" rigid insulation and required light gauge aluminum angles required for retention of insulation. Refer to detail 12/A-513 for an example of this scope of work.
22. This Subcontractor is responsible for all sill flashing, bent metal cap head flashing, drain flashing, light gauge metal angle attached to head blocking, and any other flashing required for a proper installation of aluminum curtain wall, window and entrance systems.
23. This Subcontractor shall be responsible for engineering the windows, curtainwall, **sunshade and eyebrow** systems. This includes engineered shop drawings and calculations. This includes quality assurance responsibilities identified in the specifications. The curtainwall will be engineered by a licensed Professional Engineer in the State of Connecticut. All submissions shall be stamped and signed in accordance with the specifications. This Subcontractor shall be responsible for providing Professional Liability Insurance in accordance with *Exhibit G* and *Y*. **Note: ('Eyebrow' type sunshade engineering shall only be included in Addendum #6 Supplemental Bids #1 & #2)**
24. It is understood that this Subcontractor is responsible for the final development, engineering and detailing of the window, curtainwall, and related systems. This Subcontractor shall prepare a detailed

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set of shop drawings in accordance with the design requirements set forth in the specifications, for approval by the Architect and Engineer.

25. This Subcontractor shall be responsible for field testing assemblies as required in the Contract Documents.
26. This Subcontractor shall be responsible for furnishing and installing all metal louvered vertical sunshades.
27. NOTE- There are two (2) different types of sunshades shown on the contract documents. Base bid shall include the **vertical** sunshades mounted directly to the vertical members of the curtain wall system. **SUNSHADE (Attached to Curtain Wall):** BP-08 will be responsible for furnishing and installing all materials for this Scope of Work including internal support steel, bolts, etc. as required for a complete installation. Refer to S-305 for additional information.
28. SUPPLEMENTAL BID #1: “EYEBROW” type horizontal sunshades around the entire perimeter of the Phase I Addition previously completed. This sunshade is attached directly to the building structural steel support system. Brackets are existing for this sunshade as identified in Addendum #6 Specification Section 01 23 13 SUPPLEMENTAL BIDS. BP-08 will be responsible for furnishing and installing all louver blades, horizontal brackets (as applicable), support plates, and all required bolts and welding required for a complete installation. BP-05 will be responsible for furnishing and installing all vertical and horizontal support angles that are attached directly to the structure. BP-05 will also be responsible for coordinating bolt patterns and holes with BP-08 as required for attachment of sunshade systems. BP-08 shall be responsible for the installation of the EYEBROW sunshades in two (2) phases. The first phase will consist of the installation of the steel support plates prior only. This work will take place prior to the installation of the exterior metal panel systems. The second phase will take place after the installation of metal panels and will include all other EYEBROW components. Refer to S-305 for additional information.
29. SUPPLEMENTAL BID #2: “EYEBROW” type horizontal sunshade for the Phase II renovation project. This sunshade is attached directly to the building structural steel support system. See Addendum #6 Specification Section 01 23 13 SUPPLEMENTAL BIDS for additional information. BP-08 will be responsible for furnishing and installing all louver blades, horizontal brackets, support plates, and all required bolts and welding required for a complete installation. BP-05 will be responsible for furnishing and installing all vertical and horizontal support angles that are attached directly to the structure. BP-05 will also be responsible for coordinating bolt patterns and holes with BP-08 as required for attachment of sunshade systems. BP-08 will be responsible for the installation of the EYEBROW sunshades in two (2) phases. The first phase will consist of the installation of the steel support plates prior only. This work will take place prior to the installation of the exterior metal panel systems. The second phase will take

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place after the installation of metal panels and will include all other EYEBROW components. Refer to S-305 for additional information.

30. This Subcontractor is responsible for furnishing and installing "bullet snap trim" at select location on existing addition as identified on the drawings.
31. This Subcontractor will be responsible for reviewing support, framing, and blocking details during shop drawing preparation for completeness. This Subcontractor shall identify any issues or discrepancies in their submission. This Subcontractor will confirm through field verification that all discrepancies have been addressed prior to mobilization and commencement of their work.
32. The Drywall Subcontractor will provide blocking specified on the Contract Drawings. This Subcontractor shall cross-reference the drawings against their window assembly requirements. If additional blocking is required and not shown, this Subcontractor will be required to include all labor, equipment, and material for additional blocking work.
33. This Subcontractor will be responsible for coordinating rough opening dimensions with the Drywall Subcontractor. This Subcontractor will be responsible for verifying all rough openings prior to shop fabrication. Any discrepancies resulting from this will be the responsibility of this Subcontractor.
34. This Subcontractor will be responsible for providing continuous anchor plates at sill conditions identified on the contract documents where adequate anchorage is not shown.
35. This Subcontractor shall coordinate curb framing and blocking requirements with the Drywall and Roofing Subcontractor at the clearstory areas. This Subcontractor will be responsible for additional blocking and shimming required for leveling purposes prior to the installation of their window assembly.
36. This Subcontractor shall furnish and install all insulation required as a part of their storefront, curtainwall, and window assemblies.
37. This Subcontractor is responsible for furnishing and installing sheetmetal flashing and trim within their own work and as it abuts work by others. This includes but is not limited to; all sill, wall, and counter flashings for tie-in to vertical wall finishes and roofing whether shown on the drawings or not.
38. This Subcontractor shall furnish and install sill flashings glazed into windows and curtainwall as shown on the contract drawings. In addition, this Subcontractor shall furnish and install continuous sill flashings full depth of the windows and curtainwall in all locations.

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39. This Subcontractor is responsible for furnishing and installing all back panels behind their window and curtainwall assemblies.
40. This Subcontractor is responsible for furnishing and installing custom interior and exterior snap trim pieces on head, sill, and jambs. Examples of this Scope of Work can be seen on A513, A514 and A515.
41. This Subcontractor shall furnish and install all joint sealants (interior and exterior) within curtain walls, aluminum entrances and storefronts, window systems, glazing, mirrored glass, louvers and vents.
42. This Subcontractor shall furnish and install all frameless mirrors. All framed mirrors will be provided by others.
43. This Subcontractor is responsible for furnishing and installing all automatic door operators. Door operators will be wired by BP-16. This Subcontractor will be responsible for also providing all handicap push buttons and steel posts for mounting of push buttons for each location.
44. This Subcontractor is responsible for furnishing and installing all aluminum door hardware identified in specification section 08 71 00 that is noted as "By Aluminum Door Manufacturer". All other hardware is by BP-08A.
45. This Subcontractor will include all joint sealants as required between their respective work and dissimilar materials. This includes a primary sealant layer at the exterior and subsequent layer on the interior whether shown on the drawings or not.
46. This Subcontractor is responsible for isolation of dissimilar materials to prevent galvanic action whether required by the Contract Drawings or not.
47. This Subcontractor will install a sealant bed below all installed storefront thresholds. This Subcontractor shall run thresholds long and cope around vertical mullions in order to provide a continuous system.
48. This Subcontractor shall coordinate final keying with the Door Hardware Subcontractor who is furnishing hollow metal and wood door hardware under a separate Subcontract.
49. This Subcontractor shall furnish hardware attic stock as indicated in the specifications.
50. This Subcontractor shall furnish and install all borrow lite and sidelight glass to be installed in aluminum, hollow metal, fire rated and wood doors.

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51. This Subcontractor shall furnish and install all laminated glass, aluminum standoff spacers and aluminum frames for interior building signage. Refer to detail 2 & 3 on A-951 for an example of this scope of work. All adhesive film lettering is not part of the scope of work and will be furnished and installed on glass by BP-10A. This Subcontractor shall coordinate with BP-10A Signage to furnish glass signage to either the jobsite or another location within Connecticut for application of vinyl lettering.
52. This Subcontractor shall be responsible for custom films, coatings, frits, inter-layers, and graphics as requested in the design documents.
53. This Subcontractor shall provide one manufacturer for each type of glass.
54. This Subcontractor shall furnish and install all louvers, vents, screens, panels included in storefront and curtainwall assemblies for a complete and weathertight installation.
55. This Subcontractor shall furnish and install all louvers, vents, screens, panels included in other assemblies such as metal panels, hollow metal frames, and brick walls for a complete and weathertight installation.
56. This Subcontractor shall coordinate rough openings where louvers and vents require installation in assemblies provided by others (i.e., framed walls).
57. This Subcontractor shall coordinate and manufacture all electrical rough-ins within curtainwall and storefront assemblies with the Electrical Subcontractor.
58. This Subcontractor will be responsible for protecting their material prior to and during installation and until the project is turned over to the Owner.
59. This Subcontractor is responsible for all storage, deliveries, unloading, handling staging, scaffolding, hoisting, rigging and all associated costs for all materials required to be furnished and installed by this Subcontractor.
60. ~~This Subcontractor is responsible for the removal, modification and re-installation of existing panels as identified on the drawings. Refer to drawing A-400 for additional information.~~
61. ~~This Subcontractor shall furnish and install new panel in fills as identified on the contract documents.~~
62. ~~This Subcontractor shall be responsible for furnishing and installing all laminated and insulated metal wall panels. This includes secondary metal framing support systems, factory fabricated panels, panel~~

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~~accessories, shims, flashings, base trims, soffit trims, moldings, copings, clips, concealed fasteners, trim frames and joint sealants for a complete and weather tight installation.~~

- ~~63. This Subcontractor will be responsible for furnishing and installing all air/vapor barrier and auxiliary materials behind ALL metal panel systems. This includes but is not limited to; framed surfaces, gypsum board surfaces, concrete surfaces, and CMU backup. This Subcontractor shall carry this cost at all locations whether shown on the drawings or not. This Subcontractor shall ensure compatibility with adjoining trade products. This Subcontractor shall overlap adjoining trade work a minimum of 2' to ensure a continuous system.~~
64. This Subcontractor will be responsible for furnishing and installing membrane flashings behind ALL exterior finish assemblies furnished under this subcontract. This includes but is not limited to; flashing window openings, louver openings, and MEP/FP penetrations. This also includes flashing between dissimilar materials and varying backup wall surfaces (i.e., gypsum to CMU, CMU to concrete, etc).
65. This Subcontractor shall be responsible for furnishing and installing all membrane and metal flashings required to provide a watertight enclosure whether specified on the design documents or not. This includes flashings within this system, through this system, and as they abut this system.
66. This Subcontractor shall ensure their system(s) are compatible with adjoining systems. ~~An example of this the compatibility of metal panel fasteners and the damproofing systems provided by others.~~
67. This Subcontractor will be responsible for all field dimensions prior to shop fabrication. Any discrepancies resulting from this will be the responsibility of this Subcontractor.
- ~~68. This Subcontractor will be responsible for providing partial material releases, for each type of metal panel, to meet the demands of the project schedule. This Subcontractor shall assume four (4) separate panel releases.~~
69. This Subcontractor shall provide a metal panel material allowance to be used for re-fabricating metal panels to be used at the discretion of Skanska. This Subcontractor shall assume 5%.
70. This Subcontractor shall assume exterior framing will be provided at a set interval based on their design of the exterior structure. This Subcontractor is responsible for providing additional support required to complete their panel installation. This includes but is not limited to; additional support at horizontal panel jointing, vertical panel jointing, inside corners, outside corners, and areas where panel terminates against other finish materials.

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71. This Subcontractor will submit all shop drawings, certifications, mock ups, samples, technical data, drawings, as required by plans and specifications contained within this bid package. These items must be submitted in a timely fashion in order to avoid delaying the work.
72. This Subcontractor shall be responsible for furnishing and installing all pre-finished metal edge trim, gravel stop, and metal copings. This includes but is not limited to roof edges, top of walls, and overhangs where metal panel assemblies are installed. The roofing Subcontractor will provide membrane flashing atop of the edge trim and gravel stop.
73. This Subcontractor will assist in the coordination and layout of all exterior overflows, FDC, and outlets in conjunction with their finish systems.
74. This Subcontractor is responsible for furnishing and installing all caulking within their assemblies and as it abuts any other material (i.e., masonry, aluminum curtain wall / window / entrance systems).
75. This Subcontractor shall assume a minimum of two (2) mobilizations to complete caulking of metal panels.
76. This Subcontractor is responsible for furnishing and installing expansion joint assemblies within the metal panel systems and as it abuts other finish systems (i.e., masonry, aluminum curtain wall/window/entrance systems). This Subcontractor shall coordinate exact locations with the masonry and framing Subcontractors.
77. This Subcontractor is responsible for all storage, deliveries, unloading, handling, staging, scaffolding, hoisting, rigging and all associated costs for all materials required to complete the work of this Subcontract.
78. This Subcontractor must assume varying elevations around the building. This Subcontractor must provide all terrain equipment to meet the varying site conditions.
- ~~79. This Subcontractor is responsible for shimming of all metal panel support systems to accommodate tolerances in structural steel, CMU, or heavy gauge framing.~~
- ~~80. This Subcontractor is responsible for cleaning of metal panels after installation is complete.~~
- ~~81. This Subcontractor shall provide an allowance for metal panel premium time work. This allowance will be used at the discretion of Skanska. This Subcontractor shall assume a six (6) man crew for four (4) Saturdays. This Subcontractor shall assume eight (8) hours for each Saturday.~~

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82. This Subcontractor shall provide an allowance for curtain wall premium time work. This allowance will be used at the discretion of Skanska. This Subcontractor shall assume an four (4) man crew for four (4) Saturdays. This Subcontractor shall assume eight (8) hours for each Saturday
83. This Subcontractor is responsible for providing scaffolding and shoring as required for a safe and quality installation in accordance with OSHA standards and Skanska SHMP.
84. This Subcontractor must assume varying elevations around the building. This Subcontractor must provide all terrain equipment to meet the varying site conditions.
85. This Subcontractor shall be responsible for providing all fall arrest and protection systems required to complete this Scope of Work in accordance with OSHA requirements and Skanska SHMP.
86. This Subcontractor is responsible for handling, sorting and disposing their miscellaneous metal, glass, and debris in accordance with Specification Section Construction Waste Management and in accordance with LEED requirements. This will occur on a daily basis and will be strictly enforced.
87. This Subcontractor shall be responsible for quality assurance in strict accordance with the Contract Documents.
88. This Subcontractor will submit mockups in accordance with contract documents. Rejection of mockup does not entitle this Subcontractor to additional compensation.
89. This Subcontractor is responsible for all lay out of work in order to maintain a true, straight and plumb installation. This Subcontractor will work off column lines established within the building and will use this to establish their grids and associated layout required by their installation. If any discrepancies are found, this Subcontractor will bring them to the attention of Skanska before proceeding any further.
90. The drywall Subcontractor is responsible for furnishing and installing temporary framing and poly in all window openings to provide a temporary weather-tight enclosure. The curtainwall/storefront Subcontractor will be responsible for removal and disposal of the temporary enclosures when permanent windows are installed. The curtainwall/storefront Subcontractor shall dispose of all materials in dumpsters provided by Skanska.
91. ~~This Subcontractor is responsible for providing cleaning of all systems on both sides of all glazing and framing, curtain walls, storefronts, and doors. The cleaning will be coordinated by Skanska during final building cleaning.~~

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92. Warrantees and guarantees shall be in accordance with the Contract Documents and as previously identified in this Scope of Work.
93. This Subcontractor will be responsible for meeting the demands of the project schedule. This Subcontractor shall thoroughly review the schedule items set forth in Exhibit 'A' - General Requirements.
94. This Subcontractor shall provide a man-loaded schedule to Skanska prior to the start of construction, identifying milestone dates in accordance with the Project Schedule. This Subcontractor shall provide updated crew and schedule information periodically, as requested by Skanska, in order to meet the project schedule.
95. Skanska may take whatever action it deems necessary to attempt to meet the construction activity, milestone and/or substantial completion dates. If any work activity of this Subcontractor falls more than 2 (two) days behind the Project Schedule, Skanska has the right to direct the Subcontractor to prepare and submit a recovery plan within two (2) days, setting forth in detail how Subcontractor intends to make up the lost time in order to comply with the schedule. The cost of such action shall be the responsibility of this Trade Contractor and be deducted from this contract.

B) ADDENDA CLARIFICATIONS AND PRE-BID RFI RESPONSES

1. This Subcontractor shall be responsible for Addenda #1-5 as they relate to this scope of work. RFI responses specifically related to the work of this bid package are inserted below for reference and inclusion in this Subcontract Agreement.
 - a. Addendum #1- incorporate the revised 00 31 25 Existing Inventory Materials List
 - b. Addendum #1- incorporate the revised 00 70 00 Exhibit B Drawings, Sketches, Specifications & Other Documents
 - c. Addendum #2- incorporate State of Connecticut DPW/DCS Change Order Proposal Workbook Form 735. Subcontractors shall be responsible to complete this form with any proposed change order proposals. Skanska will provide an electronic copy of this document to successful bidders for use during the project.
 - d. Addendum #2- incorporate the revised 00 21 13 Instructions to Bidders, reflecting: REVISED Section 4.3.5 omitting bid attachment requirement for 'Small Contractor & Minority Business Enterprise Goals and/or Good Faith Effort Contractor Attachment IIIa (Section 00 43 39.2)'
 - e. Addendum #2- incorporate the revised 00 31 13 Project Schedule 'BL05' data date 15-January-13.
 - f. Addendum #2- **BP-08 Scope Clarifications:**

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- i. MODIFY Item #5 to read- "This Subcontractor shall furnish and install all shims and wood trim required for a complete installation of stained glass windows. This Subcontractor is responsible for coordination with owner's stained glass supplier/installer and coordination with steel framing supports for stained glass furnished and installed by BP-05A. Coordination shall include a site visit to stained glass supplier's facility in Needham, MA prior to submission of shop drawings in order to field measure stained glass units to be installed. Refer to drawing A-302 for additional information."
- ii. MODIFY Item #12 as follows- "...Note: Fire rated assemblies specified in section 08 41 23 are limited to the following areas: Stair A next to RM208 and Stair B next to RM493A."
- iii. 3. MODIFY Item #23 as follows- "This Subcontractor shall be responsible for engineering the windows, curtainwall, sunshade and eyebrow systems..."
- iv. MODIFY Item #43 as follows- "...providing all handicap push buttons and steel posts for and mounting of push buttons for each location."
- v. ~~5. MODIFY Item #66 as follows- "This Subcontractor shall provide a metal panel material allowance to be used for re-fabricating metal panels to be used at the discretion of Skanska. This Subcontractor shall assume 5% of total metal panel square footage."~~
- vi. MODIFY Item #83 Adding the following statement " ...This Subcontractor shall enlist the services of a Professional Engineer to provide engineered support for scaffolding and material loading at all locations not on a structural beam"
- g. Addendum #2 RFI #9:
QUESTION: REFERENCE Spec. 07 13 00 Substitution Request- Grace Permabarrier Liquid; Sto Guard System Vapor Seal. Documentation Attached
OPA RESPONSE: Substitution request for Sto Guard System is accepted.
- h. Addendum #2 RFI #36:
QUESTION: REFERENCE A515 Detail 2. Bent metal trim with 1/2" drip shows batt insulation in-fill. 1- how is batt insulation installed here? 2- is this part of Bid Package #09?
OPA/SKANSKA RESPONSE: BP-08 is responsible to provide insulated metal trim with drip edge, curtainwall flashing and trim to match color of Schucco system. Various flashing and trim pieces are not necessarily Schucco.
- i. Addendum #2- RFI #40:
QUESTION: REFERENCE A-513, Detail 12. This detail shows the specific UL # for the floor/wall termination at curtain walls. What is the UL # requested for the floor/wall terminations at metal stud walls or CMU walls?
OPA RESPONSE: See Partition Types on A-820, note 8 for CMU, follow HW-D-0097

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j. Addendum #2- RFI #44:

QUESTION: The Curtainwall and windows specifications call out for Schucco USA as the ONLY specified manufacturer. Is the Architect going to open the specifications up to other manufacturer's like Oldcastle; EFCO and Kawneer? Or are we going to have to submit substitution requests for each manufacturer?

SKANSKA RESPONSE: Reference Stored Materials Inventory 00-31-25, as modified in Addendum #1. Schucco is the curtainwall manufacturer. No substitutions. **See Addendum #6 specification sections. Contractors may use originally specified Schucco or choose one of the alternate manufacturers per the revised specifications issued.**

k. Addendum #2- RFI #48:

QUESTION: REFERENCE 6/A300 & 11/A205 Please verify the 1/16" thick anodized plates as shown by 6/A300 and 11/A205 are by the curtain wall subcontractor as called for by Bid Package 08 scope of work item 18.

SKANSKA RESPONSE: BP-08 is responsible for Exhibit A Item #18.

l. Addendum #2- RFI #57:

QUESTION: Please verify that the glass canopy support structure and demo of existing structure are to be by the misc metals subcontractor as described by Bid Package 05A scope of work items 27 & 33 and not by the structural steel subcontractor. Note that this work is clearly shown by the structural steel drawings and is part of Bid Package 05 per Bid Package 08 scope of work item 6.

SKANSKA RESPONSE: BP-05A is responsible glass canopy for Scope of Work Items #27 & 33 in their entirety. BP-08 Item #6 shall be revised to reference BP-05A.

m. Addendum #2- RFI #67:

QUESTION: REFERENCE A812, SPEC 08 80 00. Please identify glass types on drawings.

OPA RESPONSE: A-812 note: All glass shall be B or B1 (tempered as required by code). A-811, AL-7B and AL-7C: All Panels that go to floor shall be B1 Tempered glass.

n. Addendum #2- RFI #72:

QUESTION: Please clarify who owns section 07 13 00 "Air and Vapor Barrier System". Exhibit A Roofing scope this this section as well as in the mason scope. This is typically carried in the mason scope because of the specialty rig that is required to apply the specified product. Also line item 16 in the roofing scope calls out installation of some air and vapor barrier. Can you please clarify this installation or possibly include with the mason scope due to the previously mentioned specialty rig required.

SKANSKA RESPONSE: BP-07 is responsible for section 07 13 00 as described in Exhibit A. Reference BP-07 scope of work item #14, 16, 19, 20. BP-07 is responsible for AVB

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- per details 1 & 2/A551 and similar conditions. BP-03, BP-04, **BP-08 AND BP-08B** are each responsible for section 07 13 00 as described in applicable Exhibit A documents.
- o. Addendum #2- RFI #123:
QUESTION: REFERENCE SPEC 07 13 00. Substitution Request BASF Wall Systems Enershield System. See attached product data.
OPA RESPONSE: Accepted
 - p. Addendum #2- RFI #142:
QUESTION: Are fire rated doors part of bid package 08?
SKANSKA RESPONSE: Reference BP-08 Exhibit A Scope of Work Item #12 as modified in Addendum #2.
 - q. Addendum #2- RFI #143:
QUESTION: Do we have to carry professional liability insurance for engineering if the PE (Professional Engineer) we hired already has professional liability insurance?
SKANSKA RESPONSE: No, provided Professional Engineer satisfies the requirements of Subcontract Exhibits G and Y.
 - r. Addendum #2 RFI #144:
QUESTION: We are bidding BP-08. In the Door Schedule Doors 101.1A, 101.1B, 101.2, 101.3, 101.4, 101.5, 101.6, and 101.7, are marked as existing. What hardware do we have to replace or what additional hardware we have to supply?
OPA RESPONSE: See hardware schedule in spec. Provide what is indicated.
 - s. Addendum #2- RFI #145:
QUESTION: ...[Trade Question- Response applies to all contractors]...
SKANSKA RESPONSE: All work between column lines XH-XK are included in the Base Bid, as shown on plans, in addition to the areas identified in the Notes section of A-102, A-103 and A-104.
 - t. Addendum #3- RFI #172:
QUESTION: Are there liquidated damages on this project? If so, what amount?
SKANSKA RESPONSE: This project has two conditions of liquidated damages.
1. There is an assessment of Liquidated Damages in the amount of four thousand five hundred three dollars (\$4,503) per day for each Calendar Day beyond established Substantial Completion date the contractor fails to achieve Substantial Completion.
2. There is an assessment of Liquidated Damages- Post Substantial Completion of three thousand three hundred twenty seven dollars (\$3,327) per day for each Calendar Day beyond the ninety (90) Calendar Days after established Substantial Completion Date that the contractor fails to complete all of the Work required of the Acceptance of the Work.
 - u. Addendum #3- RFI #175:

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QUESTION: REFERENCE A800. Door schedule A800 shows aluminum doors as existing with new glazing, is this correct? If so, are the frames shown (AL-11, 14, 15A) also existing?

OPA RESPONSE: Yes, existing doors with new glazing. No, frames are not existing. See inventory list for available material.

v. Addendum #3- RFI #176:

QUESTION: Please provide a specification for the fire rated glass required in the hollow metal doors. 08800 states 'refer to 084123'. The only glass specified is 1" thick (2.2B) which I believe is too thick for the doors. Normally we supply TGP fire lite plus which is 5/16" thick.

OPA RESPONSE: Change Spec Section 08 41 23 2.2B to: 1" or thickness as required to meet 90Min rating for door and wall system.

w. Addendum #3- RFI #177:

QUESTION: Scope Item #46 states provide hardware attic stock. Exhibit A Scope Item #41 states we only supply hardware as noted by the aluminum door supplier in 08 71 00. The only item shown is gasket. Please confirm attic stock does not apply to this bid package.

SKANSKA RESPONSE: BP-08 is responsible to provide attic stock for all materials included in BP-08 scope of work.

x. Addendum #3- RFI #178:

QUESTION: Will there be a lull on site where the "stored material" is located to load material on to our trucks?

SKANSKA RESPONSE: Each subcontractor shall be responsible for providing all equipment required to load and unload stored materials to their respective trucks.

y. Addendum #3- RFI #193:

QUESTION: Scope Item #5 states stained glass furnished and installed by this Bid Package. Detail 1 on A302 states stained glass by owner. Please clarify.

SKANSKA RESPONSE: Reference Addendum #2 Part II Scope Clarifications/Changes.

z. Addendum #3- RFI #194:

QUESTION: Who supplies the ¼" aluminum plate shown on detail 17/A806

SKANSKA RESPONSE: This plate and similar jamb conditions are the responsibility of BP-08.

aa. Addendum #3- RFI #195:

QUESTION: Please confirm Section 08 71 00 does not supply the automatic operators.

SKANSKA RESPONSE: All hardware shall be furnished by BP-08A Doors, Frames and Hardware. BP-08A shall furnish aluminum hardware to BP-08 as identified in Exhibit A.

bb. Addendum #3- RFI #196:

EXHIBIT "A"

Attachment to **Subcontract/Purchase Order No. 1312021-XXX** dated **mm dd, year**, by and between **[Subcontractor XYZ]** and **SKANSKA USA BUILDING INC.** for **BID PACKAGE NO. 08 – CURTAIN WALL / STOREFRONT & FIRE RATED GLASS ASSEMBLIES** at **Southern Connecticut State University, Buley Library, New Haven, CT**

QUESTION: Hardware sets 1.0 and 7.0 show auto operators which should be aluminum doors #101.7 and 101.1B. Door 111.1 shows set 3 and 101.3 shows set 6 which do not show automatic operators, yet under remarks it shows auto operators. Please clarify.

OPA RESPONSE: Delete auto operator note from A-800 at doors 111.1 and 101.3.

C) SCOPE OF WORK/SUPPLY: GENERAL REQUIREMENTS

1. This Subcontractor shall be responsible for General Requirements identified in Specification Section **00 70 00** Exhibit A.

EXHIBIT “A”

Attachment to **Subcontract/Purchase Order No. 1312021-XXX** dated **mm dd, year**, by and between **[Subcontractor XYZ]** and **SKANSKA USA BUILDING INC.** for **BID PACKAGE NO. 08B – METAL PANELING** at **Southern Connecticut State University, Buley Library, New Haven, CT.**

SCOPE OF WORK/SUPPLY AND CLARIFICATIONS/QUALIFICATIONS

SCOPE OF WORK/SUPPLY:

The Scope of Work/Supply is identified in the following specification section(s) and further described below:

<u>Spec. Section</u>	<u>Description</u>
Division 0	ALL SECTIONS
Division 1	ALL SECTIONS
Section 02 4119	Selective Demolition (As it Pertains to this Scope of Work)
Section 05 4000	Cold Formed Metal Framing (As it Pertains to this Scope of Work)
Section 07 1300	Air and Vapor Barrier System
Section 07 2100	Thermal Insulation (As it Pertains to this Scope of Work)
Section 07 4200	Laminated Metal Wall Panels
Section 07 4213	Insulated Metal Wall Panels
Section 07 6200	Sheet Metal Flashing and Trim (As it Applies to this Scope of Work)
Section 07 9000	Joint Protections (As it Applies to this Scope of Work)
Section 07 9500	Expansion Control (As it Applies to this Scope of Work)

A) Trade Specific Scope of Work

1. This Subcontractor is responsible for pricing all *Supplemental Bids* as it pertains to their base bid scope of work and as identified in the Contract Documents.
2. This Subcontractor has reviewed specification section 00 31 25 “Stored Materials” and has incorporated materials into this scope of work and further agrees to the requirements of this section as it applies to this scope of work.
3. In addition to the above item, this Subcontractor shall provide staff to inspect the Stored Materials associated with this Scope of Work at the designated storage location within two weeks from Skanska’s issuance of the Notice to Proceed. Within 30 days from date of material inspection, the Subcontractor must submit a report to Skanska regarding the usability of Stored Material for this Bid Package. If a Subcontractor or its vendor determines that materials or equipment is deemed unusable, the Subcontractor and or its vendor will be required to submit a written report identifying the unusable material, and will be required to provide a detailed description as to why the material is unusable. If this occurs, and Skanska agrees that the material is unusable, Skanska will work with the Subcontractor to determine a replacement cost for the materials. Any material that will not be used on this project, as

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confirmed in writing by Skanska shall be salvaged in accordance with Specification Section 01 35 16 or else removed and legally disposed of within 7 calendar days from the date of written confirmation.

4. This Subcontractor is responsible for the removal, modification and re-installation of existing panels as identified on the drawings. Refer to drawing A-400 for additional information.
5. This Subcontractor shall furnish and install new panel in-fills as identified on the contract documents.
6. This Subcontractor shall be responsible for furnishing and installing laminated and metal insulated wall panels. This includes secondary metal framing support systems, factory fabricated panels, panel accessories, shims, flashings, base trims, soffit trims, moldings, copings, clips, concealed fasteners, trim frames and joint sealants for a complete and weathertight installation.
7. This Subcontractor is responsible for furnishing and installing all flashing and copings as shown on details 1/A-551, 2/A-551, A/S-308, B/S-308 and C/S-308 and all other similar locations. All tube steel, framing, sheathing and insulation will be installed by others.
8. This Subcontractor shall furnish and install metal channels supporting solid phenolic panels.
9. This Subcontractor will be responsible for furnishing and installing all air/vapor barrier and auxiliary materials behind ALL metal panel systems. This includes but is not limited to; framed surfaces, gypsum board surfaces, concrete surfaces, and CMU backup. This Subcontractor shall carry this cost at all locations whether shown on the drawings or not. This Subcontractor shall ensure compatibility with adjoining trade products. This Subcontractor shall overlap adjoining trade work a minimum of 2' to ensure a continuous system.
10. This Subcontractor will be responsible for furnishing and installing membrane flashings behind ALL exterior finish assemblies furnished under this subcontract. This includes but is not limited to; flashing window openings, louver openings, and MEP/FP penetrations. This also includes flashing between dissimilar materials and varying backup wall surfaces (i.e., gypsum to CMU, CMU to concrete, etc).
11. This Subcontractor shall be responsible for furnishing and installing all membrane and metal flashings required to provide a watertight enclosure whether specified on the design documents or not. This includes flashings within this system, through this system, and as they abut this system.
12. This Subcontractor includes furnishing and installing thru-wall flashing within and adjacent to their finish assemblies.
13. This Subcontractor shall ensure their system(s) are compatible with adjoining systems. An example of this the compatibility of metal panel fasteners and the damproofing systems provided by others.

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EXHIBIT "A"

Attachment to **Subcontract/Purchase Order No. 1312021-XXX** dated **mm dd, year**, by and between **[Subcontractor XYZ]** and **SKANSKA USA BUILDING INC.** for **BID PACKAGE NO. 08B – METAL PANELING** at **Southern Connecticut State University, Buley Library, New Haven, CT.**

14. This Subcontractor will be responsible for all field dimensions prior to shop fabrication. Any discrepancies resulting from this will be the responsibility of this Subcontractor.
15. This Subcontractor will be responsible for providing partial material releases, for each type of metal panel, to meet the demands of the project schedule. This Subcontractor shall assume four (4) separate panel releases.
16. This Subcontractor shall provide a man-loaded schedule to Skanska prior to the start of construction, identifying milestone dates in accordance with the Project Schedule. This Subcontractor shall provide updated crew and schedule information periodically, as requested by Skanska, in order to meet the project schedule.
17. Skanska may take whatever action it deems necessary to attempt to meet the construction activity, milestone and/or substantial completion dates. If any work activity of this Subcontractor falls more than 2 (two) days behind the Project Schedule, Skanska has the right to direct the Subcontractor to prepare and submit a recovery plan within two (2) days, setting forth in detail how Subcontractor intends to make up the lost time in order to comply with the schedule. The cost of such action shall be the responsibility of this Trade Contractor and be deducted from this contract.
18. This Subcontractor shall provide a metal panel material allowance to be used for re-fabricating metal panels to be used at the discretion of Skanska. This Subcontractor shall assume 5% ~~of each material purchased~~ of total metal panel square footage. (Addendum #2)
19. This Subcontractor shall assume exterior framing will be provided at a set interval based on their design of the exterior structure. This Subcontractor is responsible for providing additional support required to complete their panel installation. This includes but is not limited to; additional support at horizontal panel jointing, vertical panel jointing, inside corners, outside corners, and areas where panel terminates against other finish materials.
20. This Subcontractor will submit all shop drawings, certifications, mock ups, samples, technical data, drawings, as required by plans and specifications contained within this bid package. These items must be submitted in a timely fashion in order to avoid delaying the work.
21. This Subcontractor shall be responsible for furnishing and installing all pre-finished metal edge trim, gravel stop, and metal copings. This includes but is not limited to roof edges, top of walls, and overhangs where metal panel assemblies are installed. The roofing Subcontractor will provide membrane flashing atop of the edge trim and gravel stop.

EXHIBIT "A"

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22. This Subcontractor shall furnish and install metal drip edge (wall flashings) where metal panel systems terminate above another wall assembly.
23. This Subcontractor will assist in the coordination and layout of all exterior overflows, FDC, and outlets in conjunction with their finish systems.
24. This Subcontractor is responsible for furnishing and installing all caulking within their assemblies and as it abuts any other material (i.e., masonry, aluminum curtain wall / window / entrance systems).
25. This Subcontractor is responsible for isolation of dissimilar materials to prevent galvanic action whether required by the Contract Drawings or not.
26. This Subcontractor shall assume a minimum of three (3) mobilizations to complete caulking.
27. This Subcontractor is responsible for furnishing and installing expansion joint assemblies within their system and as it abuts other finish systems (i.e., masonry, aluminum curtain wall/window/entrance systems). This Subcontractor shall coordinate exact locations with the masonry and framing Subcontractors.
28. This Subcontractor shall be responsible for providing all fall arrest and protection systems required to complete this scope of work in accordance with OSHA requirements and Skanska SHMP. This Subcontractor shall enlist the services of a Professional Engineer to provide engineered support for scaffolding and material loading at all locations not on a structural beam (Addenda #2 & 6)
29. This Subcontractor is responsible for all storage, deliveries, unloading, handling, staging, scaffolding, hoisting, rigging and all associated costs for all materials required to complete the work of this Subcontract.
30. This Subcontractor must assume varying elevations around the building. This Subcontractor must provide all terrain equipment to meet the varying site conditions.
31. This Subcontractor is responsible for all lay out of work in order to maintain a true, straight and plumb installation. This Subcontractor will work off column lines established within the building and will use this to establish their grids and associated layout required by their installation. If any discrepancies are found, this Subcontractor will bring them to the attention of Skanska before proceeding any further.
32. This Subcontractor is responsible for shimming of all metal panel support systems to accommodate tolerances in structural steel, CMU, or heavy gauge framing.
33. This Subcontractor is responsible for cleaning after installation is complete.

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EXHIBIT "A"

Attachment to **Subcontract/Purchase Order No. 1312021-XXX** dated **mm dd, year**, by and between **Subcontractor XYZ** and **SKANSKA USA BUILDING INC.** for **BID PACKAGE NO. 08B – METAL PANELING at Southern Connecticut State University, Buley Library, New Haven, CT.**

34. This Subcontractor is responsible for handling, sorting and disposing their miscellaneous debris and trash in accordance with Specification Section for Construction Waste Management and in accordance with LEED. This will occur on a daily basis and will be strictly enforced.
35. This Subcontractor will be responsible for meeting the demands of the project schedule. This Subcontractor shall thoroughly review the schedule items set forth in Exhibit 'A' - General Requirements.
36. This Subcontractor shall provide an allowance for premium time work. This allowance will be used at the discretion of Skanska. This Subcontractor shall assume a six (6) man crew for six (4) Saturdays. This Subcontractor shall assume eight (8) hours for each Saturday.

B) ADDENDA CLARIFICATIONS AND PRE-BID RFI RESPONSES

1. This Subcontractor shall be responsible for Addenda #1-5 as they relate to this scope of work. RFI responses specifically related to the work of this bid package are inserted below for reference and inclusion in this Subcontract Agreement.
 - a. Addendum #1- incorporate the revised 00 31 25 Existing Inventory Materials List
 - b. Addendum #1- incorporate the revised 00 70 00 Exhibit B Drawings, Sketches, Specifications & Other Documents
 - c. Addendum #2- incorporate State of Connecticut DPW/DCS Change Order Proposal Workbook Form 735. Subcontractors shall be responsible to complete this form with any proposed change order proposals. Skanska will provide an electronic copy of this document to successful bidders for use during the project.
 - d. Addendum #2- incorporate the revised 00 21 13 Instructions to Bidders, reflecting: REVISED Section 4.3.5 omitting bid attachment requirement for 'Small Contractor & Minority Business Enterprise Goals and/or Good Faith Effort Contractor Attachment IIIa (Section 00 43 39.2)'
 - e. Addendum #2- incorporate the revised 00 31 13 Project Schedule 'BL05' data date 15-January-13.
 - f. Addendum #2- **BP-08 Scope Clarifications (ADDENDUM #6- revised to address BP-08B):**
 - i. ~~MODIFY Item #5 to read "This Subcontractor shall furnish and install all shims and wood trim required for a complete installation of stained glass windows. This Subcontractor is responsible for coordination with owner's stained glass supplier/installer and coordination with steel framing supports for stained glass furnished and installed by BP-05A. Coordination shall include a site visit to stained glass supplier's facility in Needham, MA prior to submission of shop drawings in~~

EXHIBIT "A"

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- order to field measure stained glass units to be installed. Refer to drawing A-302 for additional information."
- ii. ~~MODIFY Item #12 as follows – "...Note: Fire rated assemblies specified in section 08 41 23 are limited to the following areas: Stair A next to RM208 and Stair B next to RM493A."~~
 - iii. ~~3. MODIFY Item #23 as follows – "This Subcontractor shall be responsible for engineering the windows, curtainwall, sunshade and eyebrow systems..."~~
 - iv. ~~MODIFY Item #40 as follows – "...providing all handicap push buttons and steel posts for and mounting of push buttons for each location."~~
 - v. **MODIFY Item #18 as follows- "This Subcontractor shall provide a metal panel material allowance to be used for re-fabricating metal panels to be used at the discretion of Skanska. This Subcontractor shall assume 5% of total metal panel square footage."**
 - vi. **MODIFY Item #28 Adding the following statement " ...This Subcontractor shall enlist the services of a Professional Engineer to provide engineered support for scaffolding and material loading at all locations not on a structural beam"**
- g. Addendum #2 RFI #9:
QUESTION: REFERENCE Spec. 07 13 00 Substitution Request- Grace Permabarrier Liquid; Sto Guard System Vapor Seal. Documentation Attached
OPA RESPONSE: Substitution request for Sto Guard System is accepted.
- h. Addendum #2 RFI #36:
QUESTION: REFERENCE A515 Detail 2. Bent metal trim with ½" drip shows batt insulation in-fill. 1- how is batt insulation installed here? 2- is this part of Bid Package #09?
OPA/SKANSKA RESPONSE: BP-08 is responsible to provide insulated metal trim with drip edge, curtainwall flashing and trim to match color of Schucco system. Various flashing and trim pieces are not necessarily Schucco.
- i. Addendum #2- RFI #37:
QUESTION: REFERENCE A-550, Details E, 9, G, H, J. A number of details on this page show 2 ½" rigid insulation on AVB on ½" gyp sheathing. Who is to furnish and install this rigid insulation?
SKANSKA RESPONSE: BP-09 owns AVB at exterior of all drywall. BP-04 Masonry/Precast owns insulation and AVB behind all brick, precast and metal paneling.
- j. Addendum #2- RFI #44:
QUESTION: The Curtainwall and windows specifications call out for Schucco USA as the ONLY specified manufacturer. Is the Architect going to open the specifications up to other manufacturer's like Oldcastle; EFCO and Kawneer? Or are we going to have to submit substitution requests for each manufacturer?

EXHIBIT "A"

Attachment to **Subcontract/Purchase Order No. 1312021-XXX** dated **mm dd, year**, by and between **Subcontractor XYZ** and **SKANSKA USA BUILDING INC.** for **BID PACKAGE NO. 08B – METAL PANELING** at **Southern Connecticut State University, Buley Library, New Haven, CT.**

SKANSKA RESPONSE: Reference Stored Materials Inventory 00-31-25, as modified in Addendum #1. Schucco is the curtainwall manufacturer. No substitutions. **See Addendum #6 specification sections. Contractors may use originally specified Schucco or choose one of the alternate manufacturers per the revised specifications issued.**

k. Addendum #2- RFI #72:

QUESTION: Please clarify who owns section 07 13 00 "Air and Vapor Barrier System". Exhibit A Roofing scope this this section as well as in the mason scope. This is typically carried in the mason scope because of the specialty rig that is required to apply the specified product. Also line item 16 in the roofing scope calls out installation of some air and vapor barrier. Can you please clarify this installation or possibly include with the mason scope due to the previously mentioned specialty rig required.

SKANSKA RESPONSE: BP-07 is responsible for section 07 13 00 as described in Exhibit A. Reference BP-07 scope of work item #14, 16, 19, 20. BP-07 is responsible for AVB per details 1 & 2/A551 and similar conditions. BP-03, BP-04, **BP-08 AND BP-08B** are each responsible for section 07 13 00 as described in applicable Exhibit A documents.

l. Addendum #2- RFI #123:

QUESTION: REFERENCE SPEC 07 13 00. Substitution Request BASF Wall Systems Enershield System. See attached product data.

OPA RESPONSE: Accepted

m. Addendum #2- RFI #143:

QUESTION: Do we have to carry professional liability insurance for engineering if the PE (Professional Engineer) we hired already has professional liability insurance?

SKANSKA RESPONSE: No, provided Professional Engineer satisfies the requirements of Subcontract Exhibits G and Y.

n. Addendum #2- RFI #145:

QUESTION: ...[Trade Question- Response applies to all contractors]...

SKANSKA RESPONSE: All work between column lines XH-XK are included in the Base Bid, as shown on plans, in addition to the areas identified in the Notes section of A-102, A-103 and A-104.

o. Addendum #3- RFI #172:

QUESTION: Are there liquidated damages on this project? If so, what amount?

SKANSKA RESPONSE: This project has two conditions of liquidated damages.

1. There is an assessment of Liquidated Damages in the amount of four thousand five hundred three dollars (\$4,503) per day for each Calendar Day beyond established Substantial Completion date the contractor fails to achieve Substantial Completion.

2. There is an assessment of Liquidated Damages- Post Substantial Completion of three

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thousand three hundred twenty seven dollars (\$3,327) per day for each Calendar Day beyond the ninety (90) Calendar Days after established Substantial Completion Date that the contractor fails to complete all of the Work required of the Acceptance of the Work.

p. Addendum #3- RFI #178:

QUESTION: Will there be a lull on site where the "stored material" is located to load material on to our trucks?

SKANSKA RESPONSE: Each subcontractor shall be responsible for providing all equipment required to load and unload stored materials to their respective trucks.

C) SCOPE OF WORK/SUPPLY: GENERAL REQUIREMENTS

1. This Subcontractor shall be responsible for General Requirements identified in Specification Section **00 70 00** Exhibit A.

Southern Connecticut State University – Buley Library Renovation BI-RS-225B CMR**ADDENDUM #1 UPDATE:**

Attached material inventory has been sorted by Bid Package Responsibility. Please note, some inventory items have been reallocated to a different bid package.

Shaded inventory items have been identified by the design team as not intended for use on this project. Follow the requirements of Specification Sections 01 35 16 and 00 31 25 for turn-over and/or legal disposal for all items not installed. Contractors are responsible for proper handling of all materials not utilized, whether shaded or not. The shaded designation does not relieve the contractor of material inspection and conformance with the plans and specifications.

Stored Locations have been updated in this Addendum #1. Contractors shall assume that materials with 1st Floor storage locations indicated are currently stored at William B. Meyer.

For all materials stored at William B. Meyer, contractors shall assume transportation of materials is necessary from the jobsite to the responsible contractor's facilities. All material transportation will be coordinated with Skanska and the Owner's Representative with signed material tickets.

ATTACHED: ADDENDUM #1 INVENTORY UPDATE

ATTACHED: EXCERPT FOR ADDENDUM #6. SEE ADDENDUM #1 FOR COMPLETE INVENTORY LIST

This section includes a complete inventory of all stored materials delivered to the project site at the completion of the Library Addition project. The intent is to re-use some or all of the materials identified within this section in the construction of the Library Renovation project. The re-use of materials is contingent on 1) the quantity of available materials identified in the inventory list as it compares to the design 2) the condition of the stored materials.

All inventoried materials have been assigned to a specific bid package for inclusion in the Subcontractor's bid proposal.

Each bidder is responsible for the transportation of inventory materials from the storage facilities to your shop for fabrication or to the project site for installation. Any unused materials assigned to your bid package will be the responsibility of the assigned subcontractor to remove from storage and legally dispose of at no additional cost to the project unless specifically identified to be turned over to the owner. *Refer to specification section 01 35 16 for additional information concerning existing stored "salvaged" materials. Note: Bid Packages that have been assigned the responsibility for light fixtures, VAV's, and carpet as part of their bid package will be required to transport all surplus materials left over at the end of the project back to the project site and stored on one of the uncompleted floor areas within the library. Bid Package that has been assigned the responsibility of the brick shall transport 1,000 left over brick to a location on site designated by the owner. All other excess materials shall be the responsibility of this subcontractor to remove and dispose at no additional cost to the project.*

Any additional materials required to complete the design over and beyond the inventory will be the responsibility of the subcontractor who has been assigned the materials.

Bidders are advised that all materials currently stored on site, as described in Specification Section 01 35 16 (ie. bricks and light fixtures) must be removed from the site by the responsible trade to their own storage facility prior to the start of construction. Material deliveries back to the site shall be in accordance with the project schedule, as coordinated with Skanska's superintendent.

Each bidder will be responsible for reviewing and accepting all materials prior to installation. Depending on the material, the Subcontractor may be required to provide third party inspections

Southern Connecticut State University – Buley Library Renovation BI-RS-225B CMR

from vendors in order to recertify that equipment is in good working order and functions properly. If a Subcontractor or its vendor determines that materials or equipment is deemed unusable, the subcontractor and or its vendor will be required to submit a written report identifying the unusable material and will be required to provide a detailed description as to why the material is unusable. If this occurs, and Skanska agrees that the material is unusable, Skanska will work with the Subcontractor to determine a replacement cost for the materials.

OFFSITE STORAGE LOCATIONS:**Storage Location A**

William B. Meyer, Inc.
175 Great Pond Drive
Windsor, CT 06095

Storage Location B

William B. Meyer, Inc.
255 Long Beach Blvd
Stratford, CT 06615



**ADDENDUM #6 INVENTORY UPDATE -
EXCERPT FOR BP-08 & BP-08B**

Date	Tag No.	Serial/Part No.	Quantity	Description	Stored Date	Stored Location	Bid Package
3/9/2009	2020 - 2050	205 831	100	Schucko DPN 78.1.A2 Torx T 25 Dacromet ST5.5 x 40mm	3/12/2009	Basement Bay 8	BP-08
3/11/2009		264491	150	aluminum brackets	Existing	Basement Bay 3 and 4	BP-08
3/12/2009			50	2'x1.5" window frame flashing (rusted)	3/14/2009	1st Floor Bay 4	BP-08
3/12/2009			50	1'x1.5" window frame flashing (rusted)	3/14/2009	1st Floor Bay 4	BP-08
3/12/2009			9 Stacks, 9 x 100pc	Fiberboard		Yard	BP-08
3/12/2009			2	Trudite Industries Ltd., 47 1/2" x 58 7/8, WIS-15A/Typend/inch OA/Lowe SD#2, 1" glass double		Yard	BP-08
3/12/2009			3	Trudite Industries Ltd., 57 7/8" x 43 7/8, 1" glass double pane		Yard	BP-08
3/12/2009			2	Trudite Industries Ltd., 57 7/8" x 43 7/8, 1" glass double pane		Yard	BP-08
3/12/2009			2	Trudite Industries Ltd., 31" x 43 7/8, 1" glass double pane		Yard	BP-08
3/12/2009			1	Trudite Industries Ltd., 30 3/4" x 42 7/8, 1" glass double pane		Yard	BP-08
3/12/2009			10	Neoprene Pipe Gaskets, 8" SB, Quik Tite WARCO		Yard	BP-08
3/12/2009			20 pc	Neoprene Pipe Gaskets, 5" SV, Quik Tite WARCO		Yard	BP-08
3/12/2009			20 pc	Neoprene Pipe Gaskets, 2" SV, Quik Tite WARCO		Yard	BP-08
3/12/2009			20 pc	Neoprene Pipe Gaskets, 3" SV, Quik Tite WARCO		Yard	BP-08
3/12/2009			33 rolls	Neoprene Pipe Gaskets, 18" Self Adhesive		Yard	BP-08
3/16/2009		110950	22	Schuco Cover cap	3/17/2009	1st Floor Bay 5, 6, 11, 12	BP-08
3/16/2009		324090	2	Schuco Vertical mullion	3/17/2009	1st Floor Bay 5, 6, 11, 12	BP-08
3/16/2009		110910	24	Schuco Cover cap	3/17/2009	1st Floor Bay 5, 6, 11, 12	BP-08
3/16/2009		324480	3	Schuco Transom (Horizontal mullion)	3/17/2009	1st Floor Bay 5, 6, 11, 12	BP-08
3/16/2009		324460	25	Schuco Transom (Horizontal mullion)	3/17/2009	1st Floor Bay 5, 6, 11, 12	BP-08
3/16/2009		110950	30	Schuco Cover cap	3/17/2009	1st Floor Bay 5, 6, 11, 12	BP-08
3/16/2009		324030	30	Schuco Vertical mullion	3/17/2009	1st Floor Bay 5, 6, 11, 12	BP-08
3/16/2009		324030	20	Schuco Vertical mullion	3/17/2009	1st Floor Bay 5, 6, 11, 12	BP-08
3/16/2009		324030	6	Schuco Vertical mullion	3/17/2009	1st Floor Bay 5, 6, 11, 12	BP-08
3/16/2009		324080	1	Schuco - Stocklengths	3/17/2009	1st Floor Bay 5, 6, 11, 12	BP-08
3/16/2009		324050	24	Schuco Vertical mullion Misc. lengths	3/17/2009	1st Floor Bay 5, 6, 11, 12	BP-08
3/16/2009		324040	5	Schuco Vertical mullion	3/17/2009	1st Floor Bay 5, 6, 11, 12	BP-08
3/16/2009		324070	2	Schuco - Stocklengths	3/17/2009	1st Floor Bay 5, 6, 11, 12	BP-08
3/16/2009		324030	2	Schuco Vertical mullion	3/17/2009	1st Floor Bay 5, 6, 11, 12	BP-08
3/16/2009		324490	5	Schuco Transom (Horizontal mullion)	3/17/2009	1st Floor Bay 5, 6, 11, 12	BP-08
3/16/2009		134350	2	Schuco Aluminum channel	3/17/2009	1st Floor Bay 5, 6, 11, 12	BP-08
3/16/2009		110950	2	Schuco Cover cap	3/17/2009	1st Floor Bay 5, 6, 11, 12	BP-08
3/16/2009		324480	1	Schuco Transom (Horizontal mullion)	3/17/2009	1st Floor Bay 5, 6, 11, 12	BP-08
3/16/2009		324480	2	Schuco Transom (Horizontal mullion)	3/17/2009	1st Floor Bay 5, 6, 11, 12	BP-08
3/16/2009		324490	2	Schuco Transom (Horizontal mullion)	3/17/2009	1st Floor Bay 5, 6, 11, 12	BP-08
3/16/2009		134350	15	Schuco Aluminum channel	3/17/2009	1st Floor Bay 5, 6, 11, 12	BP-08
3/16/2009		324050	14	Schuco Vertical mullion	3/17/2009	1st Floor Bay 5, 6, 11, 12	BP-08
3/16/2009		324090	2	Schuco Vertical mullion	3/17/2009	1st Floor Bay 5, 6, 11, 12	BP-08
3/16/2009		336270	5	Schuco Mullion	3/17/2009	1st Floor Bay 5, 6, 11, 12	BP-08
3/16/2009		162880	10	Schuco pressure plate	3/17/2009	1st Floor Bay 5, 6, 11, 12	BP-08
3/16/2009		324530	6	Schuco Transom (Horizontal mullion)	3/17/2009	1st Floor Bay 5, 6, 11, 12	BP-08
3/16/2009		162880	15	Schuco pressure plate	3/17/2009	1st Floor Bay 5, 6, 11, 12	BP-08
3/16/2009		324320	2	Schuco Aluminum reinforcing	3/17/2009	1st Floor Bay 5, 6, 11, 12	BP-08
3/16/2009		336280	1	Schuco - Stocklengths	3/17/2009	1st Floor Bay 5, 6, 11, 12	BP-08
3/16/2009		324300	1	Schuco Aluminum reinforcing	3/17/2009	1st Floor Bay 5, 6, 11, 12	BP-08
3/16/2009		323130	10	Schuco Reducer	3/17/2009	1st Floor Bay 5, 6, 11, 12	BP-08
3/16/2009		323130	20	Schuco Reducer	3/17/2009	1st Floor Bay 5, 6, 11, 12	BP-08
3/16/2009		323130	15	Schuco Reducer	3/17/2009	1st Floor Bay 5, 6, 11, 12	BP-08
3/16/2009		324040	1	Schuco Vertical mullion	3/17/2009	1st Floor Bay 5, 6, 11, 12	BP-08
3/16/2009		323130	20	Schuco Reducer	3/17/2009	1st Floor Bay 5, 6, 11, 12	BP-08
3/16/2009		323130	15	Schuco Reducer	3/17/2009	1st Floor Bay 5, 6, 11, 12	BP-08
3/16/2009		323130	20	Schuco Reducer	3/17/2009	1st Floor Bay 5, 6, 11, 12	BP-08
3/16/2009		134350	20	Schuco Aluminum channel	3/17/2009	1st Floor Bay 5, 6, 11, 12	BP-08
3/16/2009		324440	1	Schuco Horizontal mullion	3/17/2009	1st Floor Bay 5, 6, 11, 12	BP-08



**ADDENDUM #6 INVENTORY UPDATE -
EXCERPT FOR BP-08 & BP-08B**

Date	Tag No.	Serial/Part No.	Quantity	Description	Stored Date	Stored Location	Bid Package
3/16/2009		323130	13	Schuco Reducer	3/17/2009	1st Floor Bay 5, 6, 11, 12	BP-08
3/16/2009		324680	5	Schuco Vertical mullion	3/17/2009	1st Floor Bay 5, 6, 11, 12	BP-08
3/16/2009		323130	20	Schuco Reducer	3/17/2009	1st Floor Bay 5, 6, 11, 12	BP-08
3/16/2009		324010	3	Schuco Vertical mullion	3/17/2009	1st Floor Bay 5, 6, 11, 12	BP-08
3/16/2009		324420	2	Schuco Horizontal mullion	3/17/2009	1st Floor Bay 5, 6, 11, 12	BP-08
3/16/2009		134350	11	Schuco Aluminum channel	3/17/2009	1st Floor Bay 5, 6, 11, 12	BP-08
3/16/2009		323130	18	Schuco Reducer	3/17/2009	1st Floor Bay 5, 6, 11, 12	BP-08
3/16/2009		323130	10	Schuco Reducer	3/17/2009	1st Floor Bay 5, 6, 11, 12	BP-08
3/16/2009		323130	20	Schuco Reducer	3/17/2009	1st Floor Bay 5, 6, 11, 12	BP-08
3/16/2009		323130	20	Schuco Reducer	3/17/2009	1st Floor Bay 5, 6, 11, 12	BP-08
3/16/2009		323130	20	Schuco Reducer	3/17/2009	1st Floor Bay 5, 6, 11, 12	BP-08
3/16/2009		324510	1	Schuco Transom	3/17/2009	1st Floor Bay 5, 6, 11, 12	BP-08
3/16/2009		324010	4	Schuco Vertical mullion	3/17/2009	1st Floor Bay 5, 6, 11, 12	BP-08
3/16/2009		324430	2	Schuco Horizontal mullion	3/17/2009	1st Floor Bay 5, 6, 11, 12	BP-08
3/16/2009		324960	6	Schuco Joint profile	3/17/2009	1st Floor Bay 5, 6, 11, 12	BP-08
3/16/2009		224808	10	Schuco Isolater	3/17/2009	1st Floor Bay 5, 6, 11, 12	BP-08
3/16/2009		224808	527	Schuco Isolater	3/17/2009	1st Floor Bay 5, 6, 11, 12	BP-08
3/16/2009		224814	235	Schuco Perimeter filer	3/17/2009	1st Floor Bay 5, 6, 11, 12	BP-08
3/16/2009		162880	450	Schuco pressure plate	3/17/2009	1st Floor Bay 5, 6, 11, 12	BP-08
3/16/2009		324300	12	Schuco Aluminum reinforcing	3/17/2009	1st Floor Bay 5, 6, 11, 12	BP-08
3/16/2009		324310	5	Schuco Aluminum reinforcing	3/17/2009	1st Floor Bay 5, 6, 11, 12	BP-08
3/16/2009		324320	5	Schuco Aluminum reinforcing	3/17/2009	1st Floor Bay 5, 6, 11, 12	BP-08
3/16/2009		2889-654	34	Schuco - Stocklengths	3/17/2009	1st Floor Bay 5, 6, 11, 12	BP-08
3/16/2009		129590	4	Schuco Shearblocks	3/17/2009	1st Floor Bay 5, 6, 11, 12	BP-08
3/16/2009		2889-654	80	Schuco - Stocklengths	3/17/2009	1st Floor Bay 5, 6, 11, 12	BP-08
3/16/2009		162880	250	Schuco pressure plate (approx qty)	3/17/2009	1st Floor Bay 5, 6, 11, 12	BP-08
3/16/2009		129430	1	Schuco Shearblocks	3/17/2009	1st Floor Bay 5, 6, 11, 12	BP-08
3/16/2009		204507	33	Glasdichtung 11mm, Rolls - Shuco accessories	3/17/2009	1st Floor Bay 5&9	BP-08
3/16/2009		224866	1	Ve = 200m, Roll - Shuco accessories	3/17/2009	1st Floor Bay 5&9	BP-08
3/16/2009		244160	4	100m, Roll - Shuco accessories	3/17/2009	1st Floor Bay 5&9	BP-08
3/16/2009		224842	8	Ve = 200m, Roll - Shuco accessories	3/17/2009	1st Floor Bay 5&9	BP-08
3/16/2009		224850	4	Ve = 100m, Roll - Shuco accessories	3/17/2009	1st Floor Bay 5&9	BP-08
3/16/2009		224643	2	Roll - Shuco accessories	3/17/2009	1st Floor Bay 5&9	BP-08
3/16/2009		224297	2	Roll - Shuco accessories	3/17/2009	1st Floor Bay 5&9	BP-08
3/16/2009		224606	19	Roll - Shuco accessories	3/17/2009	1st Floor Bay 5&9	BP-08
3/16/2009		224636	2	8mm, 5x10m, Boxes - Shuco accessories	3/17/2009	1st Floor Bay 5&9	BP-08
3/16/2009		204649	22	Roll - Shuco accessories	3/17/2009	1st Floor Bay 5&9	BP-08
3/16/2009		224608	14	Roll - Shuco accessories	3/17/2009	1st Floor Bay 5&9	BP-08
3/16/2009		204507	38	Roll - Shuco accessories	3/17/2009	1st Floor Bay 5&9	BP-08
3/16/2009		204992	1	Roll - Shuco accessories	3/17/2009	1st Floor Bay 5&9	BP-08
3/16/2009		224063	1	Roll - Shuco accessories	3/17/2009	1st Floor Bay 5&9	BP-08
3/16/2009		??	19	Misc. Rolls (Used/Unidentifiable) - Shuco accessories	3/17/2009	1st Floor Bay 5&9	BP-08
3/16/2009		224063	1	Roll - Shuco accessories	3/17/2009	1st Floor Bay 5&9	BP-08
3/16/2009		224836	1	Package - Shuco accessories	3/17/2009	1st Floor Bay 5&9	BP-08
3/16/2009		217585	2	Package - Shuco accessories	3/17/2009	1st Floor Bay 5&9	BP-08
3/16/2009		238490	1	Package - Shuco accessories	3/17/2009	1st Floor Bay 5&9	BP-08
3/16/2009		205437	3	Box - Shuco accessories	3/17/2009	1st Floor Bay 5&9	BP-08
3/16/2009		205436	1	Package - Shuco accessories	3/17/2009	1st Floor Bay 5&9	BP-08
3/16/2009		205583	1	Box - Shuco accessories	3/17/2009	1st Floor Bay 5&9	BP-08
3/16/2009		207047	1	Package - Shuco accessories	3/17/2009	1st Floor Bay 5&9	BP-08
3/16/2009		205439	2	Package - Shuco accessories	3/17/2009	1st Floor Bay 5&9	BP-08
3/16/2009		208015	1	Package - Shuco accessories	3/17/2009	1st Floor Bay 5&9	BP-08
3/16/2009		218311	50	Misc. Pieces - Shuco accessories	3/17/2009	1st Floor Bay 5&9	BP-08
3/16/2009		205827	5	Box - Shuco accessories	3/17/2009	1st Floor Bay 5&9	BP-08
3/16/2009		228414	1	Package - Shuco accessories	3/17/2009	1st Floor Bay 5&9	BP-08



**ADDENDUM #6 INVENTORY UPDATE -
EXCERPT FOR BP-08 & BP-08B**

Date	Tag No.	Serial/Part No.	Quantity	Description	Stored Date	Stored Location	Bid Package
3/16/2009		226146	5	Package - Shuco accessories	3/17/2009	1st Floor Bay 5&9	BP-08
3/16/2009		217923	1	Used Box - Shuco accessories	3/17/2009	1st Floor Bay 5&9	BP-08
3/16/2009		244737	1	Package - Shuco accessories	3/17/2009	1st Floor Bay 5&9	BP-08
3/16/2009		217432	1	Package - Shuco accessories	3/17/2009	1st Floor Bay 5&9	BP-08
3/16/2009		205598	2	Package - Shuco accessories	3/17/2009	1st Floor Bay 5&9	BP-08
3/16/2009		203087	1	Package - Shuco accessories	3/17/2009	1st Floor Bay 5&9	BP-08
3/16/2009		207047	1	Package - Shuco accessories	3/17/2009	1st Floor Bay 5&9	BP-08
3/16/2009		219418	1	Package - Shuco accessories	3/17/2009	1st Floor Bay 5&9	BP-08
3/16/2009		205462	2	Package, 50 Fastners Each - Shuco accessories	3/17/2009	1st Floor Bay 5&9	BP-08
3/16/2009		205492	2	Package, 50 Fastners Each - Shuco accessories	3/17/2009	1st Floor Bay 5&9	BP-08
3/16/2009		205930	1	Box, 100 Fastners Each - Shuco accessories	3/17/2009	1st Floor Bay 5&9	BP-08
3/16/2009		205082	4	Box, 100 Fastners Each - Shuco accessories	3/17/2009	1st Floor Bay 5&9	BP-08
3/16/2009		205077	3	Box, 100 Fastners Each - Shuco accessories	3/17/2009	1st Floor Bay 5&9	BP-08
3/16/2009		205512	1	Box, 100 Fastners Each - Shuco accessories	3/17/2009	1st Floor Bay 5&9	BP-08
3/16/2009		226087	1	Package, 50 Brackets Each - Shuco accessories	3/17/2009	1st Floor Bay 5&9	BP-08
3/16/2009		205431	3	Package, 100 Fasteners Each - Shuco accessories	3/17/2009	1st Floor Bay 5&9	BP-08
3/16/2009		205875	1	Box, 100 Fastners Each - Shuco accessories	3/17/2009	1st Floor Bay 5&9	BP-08
3/16/2009		234785	16	Window Latches - Shuco accessories	3/17/2009	1st Floor Bay 5&9	BP-08
3/16/2009		??	1	Box, Misc Window Seals - Shuco accessories	3/17/2009	1st Floor Bay 5&9	BP-08
3/16/2009		226083	6	Box - Shuco accessories	3/17/2009	1st Floor Bay 5&9	BP-08
3/16/2009		205431	2	Package, 100 Screws Each - Shuco accessories	3/17/2009	1st Floor Bay 5&9	BP-08
3/16/2009		205827	4	Package, 100 Screws Each - Shuco accessories	3/17/2009	1st Floor Bay 5&9	BP-08
3/16/2009		205082	11	Box, 100 Screws Each - Shuco accessories	3/17/2009	1st Floor Bay 5&9	BP-08
3/16/2009		306493	1	Package, 50 Plastic Safety Hinges - Shuco accessories	3/17/2009	1st Floor Bay 5&9	BP-08
3/16/2009		233946	1	Package, 40 Hinges - Shuco accessories	3/17/2009	1st Floor Bay 5&9	BP-08
3/16/2009		224269	1	Roll (8mm, Used) - Shuco accessories	3/17/2009	1st Floor Bay 5&9	BP-08
3/16/2009		234785	7	Package, Window Handle Assemblies - Shuco accessories	3/17/2009	1st Floor Bay 5&9	BP-08
3/16/2009		??	1	Tube, 600 ml Silicon Sealant - Shuco accessories	3/17/2009	1st Floor Bay 5&9	BP-08
3/16/2009		228417	9	Package, Plastic Pane Dividers - Shuco accessories	3/17/2009	1st Floor Bay 5&9	BP-08
3/16/2009		295432	1	Package, 20 Window Rubber Corner Guards - Shuco accessories	3/17/2009	1st Floor Bay 5&9	BP-08
3/16/2009		??	1	Partial Roll Window Seal - Shuco accessories	3/17/2009	1st Floor Bay 5&9	BP-08
3/16/2009		??	1	Partial Roll Window Seal, Double Sided Adhesive - Shuco accessories	3/17/2009	1st Floor Bay 5&9	BP-08
3/16/2009		244670	1	Partial Roll Felt Window Liner Strip - Shuco accessories	3/17/2009	1st Floor Bay 5&9	BP-08
3/16/2009		204456	1	Partial Roll Felt Window Liner Strip - Shuco accessories	3/17/2009	1st Floor Bay 5&9	BP-08
3/16/2009		217917	2	Packages, 100 Plastic Yellow Tabs Each - Shuco accessories	3/17/2009	1st Floor Bay 5&9	BP-08
3/16/2009		205432	8	Boxes, 100 Fasteners Each - Shuco accessories	3/17/2009	1st Floor Bay 5&9	BP-08
3/16/2009		??	1	Tube, Latex Caulk 300 ml - Shuco accessories	3/17/2009	1st Floor Bay 5&9	BP-08
3/16/2009		228390	3	Packages, 3 Inch Alluminun Angle - Shuco accessories	3/17/2009	1st Floor Bay 5&9	BP-08
3/16/2009		205827	13	Packages - Shuco accessories	3/17/2009	1st Floor Bay 5&9	BP-08
3/16/2009		395432	1	Package, Small Rubber Seal - Shuco accessories	3/17/2009	1st Floor Bay 5&9	BP-08
3/16/2009		??	1	Can, .5"-2" Screws, Approx. 400 - Shuco accessories	3/17/2009	1st Floor Bay 5&9	BP-08
3/16/2009		242524	1	Roll, Foam Water Seal - Shuco accessories	3/17/2009	1st Floor Bay 5&9	BP-08
3/16/2009		??	1	Box, Misc. Plastic Pane Dividers, 40 Total - Shuco accessories	3/17/2009	1st Floor Bay 5&9	BP-08
3/16/2009		239122	6	Packages, Large Window Hinges - Shuco accessories	3/17/2009	1st Floor Bay 5&9	BP-08
3/16/2009		204429	2	Boxes, Felt Window Seal - Shuco accessories	3/17/2009	1st Floor Bay 5&9	BP-08
3/16/2009		233946	4	Packages - Shuco accessories	3/17/2009	1st Floor Bay 5&9	BP-08
3/16/2009		226081	7	Packages - Shuco accessories	3/17/2009	1st Floor Bay 5&9	BP-08
3/16/2009		215587	1	Package, Small Rubber Seal - Shuco accessories	3/17/2009	1st Floor Bay 5&9	BP-08
3/16/2009		205287	2	Packages, 100 Fasteners Each - Shuco accessories	3/17/2009	1st Floor Bay 5&9	BP-08
3/16/2009		205082	6	Boxes, 100 Fasteners Each - Shuco accessories	3/17/2009	1st Floor Bay 5&9	BP-08
3/16/2009		HM88	4	Boxes, Simple Plastic Rubber Blocks, 500 Pieces, 4" Length - Shuco accessor	3/17/2009	1st Floor Bay 5&9	BP-08
3/16/2009		205583	41	Boxes, 100 Fasteners Each - Shuco accessories	3/17/2009	1st Floor Bay 5&9	BP-08
3/16/2009		205437	40	Boxes, 100 Fasteners Each - Shuco accessories	3/17/2009	1st Floor Bay 5&9	BP-08
3/16/2009		224968	125	Packages, 4 Way Rubber Seal, 25 Per Package - Shuco accessories	3/17/2009	1st Floor Bay 5&9	BP-08
3/16/2009		244633	25	Packages, Rubber Corner Joint, 4 Per Package - Shuco accessories	3/17/2009	1st Floor Bay 5&9	BP-08



**ADDENDUM #6 INVENTORY UPDATE -
EXCERPT FOR BP-08 & BP-08B**

Date	Tag No.	Serial/Part No.	Quantity	Description	Stored Date	Stored Location	Bid Package
3/16/2009		237486	100	Packages, Alluminum Angle, 50 Per Package - Shuco accessories	3/17/2009	1st Floor Bay 5&9	BP-08
3/16/2009		??	4	Tubes, Bronze Sealant Mix - Shuco accessories	3/17/2009	1st Floor Bay 5&9	BP-08
3/16/2009		257855	1	Package - Shuco accessories	3/17/2009	1st Floor Bay 5&9	BP-08
3/16/2009		217907	20	Packages, 100 Plastic Yellow Tabs Each - Shuco accessories	3/17/2009	1st Floor Bay 5&9	BP-08
3/16/2009		228728	35	Packages, Plastic Window Dividers - Shuco accessories	3/17/2009	1st Floor Bay 5&9	BP-08
3/16/2009		228692	7	Packages, Joint Clips, 200 Each - Shuco accessories	3/17/2009	1st Floor Bay 5&9	BP-08
3/16/2009		205436	36	Boxes, 100 Fasteners Each - Shuco accessories	3/17/2009	1st Floor Bay 5&9	BP-08
3/16/2009		226146	80	Packages, Horizontal Mullion - Shuco accessories	3/17/2009	1st Floor Bay 5&9	BP-08
3/16/2009		217587	200	Pieces of Alluminum Angle - Shuco accessories	3/17/2009	1st Floor Bay 5&9	BP-08
3/16/2009		226147	140	Boxes, 10 Each - Shuco accessories	3/17/2009	1st Floor Bay 5&9	BP-08
3/16/2009		205963	7	Packages, 100 Fasteners Each - Shuco accessories	3/17/2009	1st Floor Bay 5&9	BP-08
3/16/2009		237855	5	Packages - Shuco accessories	3/17/2009	1st Floor Bay 5&9	BP-08
3/16/2009		205241	6	Boxes - Shuco accessories	3/17/2009	1st Floor Bay 5&9	BP-08
3/16/2009		205827	2500	Pieces - Shuco accessories	3/17/2009	1st Floor Bay 5&9	BP-08
3/16/2009		217587	2	Packages - Shuco accessories	3/17/2009	1st Floor Bay 5&9	BP-08
3/16/2009		228501	4	Packages - Shuco accessories	3/17/2009	1st Floor Bay 5&9	BP-08
3/16/2009		218521	1	Package - Shuco accessories	3/17/2009	1st Floor Bay 5&9	BP-08
3/16/2009		205082	45000	Fastners - Shuco accessories	3/17/2009	1st Floor Bay 5&9	BP-08
3/16/2009		185482	15	Rolls - Shuco accessories	3/17/2009	1st Floor Bay 5&9	BP-08
3/16/2009		224295	5	Rolls - Shuco accessories	3/17/2009	1st Floor Bay 5&9	BP-08
3/16/2009		205831	12500	Fastners - Shuco accessories	3/17/2009	1st Floor Bay 5&9	BP-08
3/16/2009		223965	4	Bundles, 2 Each, 237" - Shuco	3/17/2009	1st Floor Bay 5&9	BP-08
3/16/2009		324030	99	Bundles, 2 Each, 15' Long - Shuco Vertical mullion	3/17/2009	1st Floor Bay 5&9	BP-08
3/16/2009		324090	11	Schuco Vertical mullion	3/17/2009	1st Floor Bay 5, 6, 11, 12	BP-08
3/16/2009		336270	5	Schuco Mullion	3/17/2009	1st Floor Bay 5, 6, 11, 12	BP-08
3/16/2009		324050	27	Schuco Vertical mullion 299"	3/17/2009	1st Floor Bay 5, 6, 11, 12	BP-08
3/16/2009		324050	27	Schuco Vertical mullion 299"	3/17/2009	1st Floor Bay 5, 6, 11, 12	BP-08
3/16/2009		324050	27	Schuco Vertical mullion 299"	3/17/2009	1st Floor Bay 5, 6, 11, 12	BP-08
3/16/2009		324470	8	Schuco Transom (Horizontal mullion) 237"	3/17/2009	1st Floor Bay 5, 6, 11, 12	BP-08
3/16/2009		324040	24	Schuco Vertical mullion 264"	3/17/2009	1st Floor Bay 5, 6, 11, 12	BP-08
3/16/2009		324480	24	Schuco Transom (Horizontal mullion) 237"	3/17/2009	1st Floor Bay 5, 6, 11, 12	BP-08
3/16/2009		324480	24	Schuco Transom (Horizontal mullion) 237"	3/17/2009	1st Floor Bay 5, 6, 11, 12	BP-08
3/16/2009		324480	24	Schuco Transom (Horizontal mullion) 237"	3/17/2009	1st Floor Bay 5, 6, 11, 12	BP-08
3/16/2009		324050	7	Schuco Vertical mullion 260"	3/17/2009	1st Floor Bay 5, 6, 11, 12	BP-08
3/16/2009		324490	15	Schuco Transom (Horizontal mullion)	3/17/2009	1st Floor Bay 5, 6, 11, 12	BP-08
3/16/2009		324460	1	Schuco Transom (Horizontal mullion)	3/17/2009	1st Floor Bay 5, 6, 11, 12	BP-08
3/16/2009		110990	18	Schuco - Stocklengths	3/17/2009	1st Floor Bay 5, 6, 11, 12	BP-08
3/16/2009		162880	9	Schuco pressure plate	3/17/2009	1st Floor Bay 5, 6, 11, 12	BP-08
3/16/2009		324470	2	Schuco Transom (Horizontal mullion)	3/17/2009	1st Floor Bay 5, 6, 11, 12	BP-08
3/16/2009		324480	24	Schuco Transom (Horizontal mullion) 237"	3/17/2009	1st Floor Bay 5, 6, 11, 12	BP-08
3/16/2009		324480	24	Schuco Transom (Horizontal mullion) 237"	3/17/2009	1st Floor Bay 5, 6, 11, 12	BP-08
3/16/2009		324050	27	Schuco - Stocklengths	3/17/2009	1st Floor Bay 5, 6, 11, 12	BP-08
3/16/2009		324460	45	Schuco Transom (Horizontal mullion) 237"	3/17/2009	1st Floor Bay 5, 6, 11, 12	BP-08
3/16/2009		336270	18	Schuco Mullion 299"	3/17/2009	1st Floor Bay 5, 6, 11, 12	BP-08
3/16/2009		324480	28	Schuco Transom (Horizontal mullion) 237"	3/17/2009	1st Floor Bay 5, 6, 11, 12	BP-08
3/16/2009		324480	32	Schuco Transom (Horizontal mullion) 237"	3/17/2009	1st Floor Bay 5, 6, 11, 12	BP-08
3/16/2009		110910	112	Schuco Cover cap	3/17/2009	1st Floor Bay 5, 6, 11, 12	BP-08
3/16/2009		323120	39	Schuco Glaz reb reduct	3/17/2009	1st Floor Bay 5, 6, 11, 12	BP-08
3/16/2009		336270	1	Schuco Mullion	3/17/2009	1st Floor Bay 5, 6, 11, 12	BP-08
3/16/2009		324030	13	Schuco Vertical mullion	3/17/2009	1st Floor Bay 5, 6, 11, 12	BP-08
3/16/2009		324050	8	Schuco Vertical mullion	3/17/2009	1st Floor Bay 5, 6, 11, 12	BP-08
3/16/2009		324890	12	Schuco Cover cap	3/17/2009	1st Floor Bay 5, 6, 11, 12	BP-08
3/16/2009		324030	10	Schuco Vertical mullion	3/17/2009	1st Floor Bay 5, 6, 11, 12	BP-08
3/16/2009		324480	9	Schuco Transom (Horizontal mullion)	3/17/2009	1st Floor Bay 5, 6, 11, 12	BP-08
3/16/2009		324480	2	Schuco Transom (Horizontal mullion)	3/17/2009	1st Floor Bay 5, 6, 11, 12	BP-08



**ADDENDUM #6 INVENTORY UPDATE -
EXCERPT FOR BP-08 & BP-08B**

Date	Tag No.	Serial/Part No.	Quantity	Description	Stored Date	Stored Location	Bid Package
3/16/2009		324500	1	Schuco Transom (Horizontal mullion)	3/17/2009	1st Floor Bay 5, 6, 11, 12	BP-08
3/16/2009		324040	1	Schuco Vertical mullion	3/17/2009	1st Floor Bay 5, 6, 11, 12	BP-08
3/16/2009		324030	1	Schuco Vertical mullion	3/17/2009	1st Floor Bay 5, 6, 11, 12	BP-08
3/16/2009		336270	6	Schuco Mullion	3/17/2009	1st Floor Bay 5, 6, 11, 12	BP-08
3/16/2009		324050	9	Schuco Vertical mullion	3/17/2009	1st Floor Bay 5, 6, 11, 12	BP-08
3/16/2009		323130	24	Schuco Reducer	3/17/2009	1st Floor Bay 5, 6, 11, 12	BP-08
3/17/2009		324050	26	Schuco Vertical mullion	3/18/2009	1st Floor Bay 5, 6, 11, 12	BP-08
3/17/2009		324490	21	Schuco Transom (Horizontal mullion)	3/18/2009	1st Floor Bay 5, 6, 11, 12	BP-08
3/17/2009		224814	230	Schuco Perimeter filer	3/18/2009	1st Floor Bay 5, 6, 11, 12	BP-08
3/17/2009		322730	3	Shuco - stocklengths (full description NA)	3/18/2009	1st Floor Bay 5, 6, 11, 12	BP-08
3/17/2009		326050	2	Shuco - stocklengths (full description NA)	3/18/2009	1st Floor Bay 5, 6, 11, 12	BP-08
3/17/2009		324050	27	Schuco Vertical mullion	3/18/2009	1st Floor Bay 5, 6, 11, 12	BP-08
3/17/2009		324030-99	26	Schuco Vertical mullion Length=299"	3/18/2009	1st Floor Bay 5, 6, 11, 12	BP-08
3/17/2009		324030	15	Schuco Vertical mullion	3/18/2009	1st Floor Bay 5, 6, 11, 12	BP-08
3/17/2009		224808	44	Schuco Isolater	3/18/2009	1st Floor Bay 5, 6, 11, 12	BP-08
3/17/2009		324030-99	2	Length=169"	3/18/2009	1st Floor Bay 5, 6, 11, 12	BP-08
3/17/2009		224812	7	Schuco Isolater	3/18/2009	1st Floor Bay 5, 6, 11, 12	BP-08
3/17/2009		224808	72	Schuco Isolater	3/18/2009	1st Floor Bay 5, 6, 11, 12	BP-08
3/17/2009		134080	44	Schuco Angle V shape	3/18/2009	1st Floor Bay 5, 6, 11, 12	BP-08
3/17/2009		204734	100	Schuco Attachment Profile	3/18/2009	1st Floor Bay 5, 6, 11, 12	BP-08
3/17/2009		224813	10	Schuco PVC-U Attachment profile	3/18/2009	1st Floor Bay 5, 6, 11, 12	BP-08
3/17/2009		050513	10	Schuco door subframe	3/18/2009	1st Floor Bay 5, 6, 11, 12	BP-08
3/17/2009		050526	12	Shuco - stocklengths (full description NA)	3/18/2009	1st Floor Bay 5, 6, 11, 12	BP-08
3/17/2009		134650	14	Schuco Aluminum tube 3/4"x1 1/8"	3/18/2009	1st Floor Bay 5, 6, 11, 12	BP-08
3/17/2009		324460	8	Schuco Transom (Horizontal mullion) Full length appr. 237"	3/18/2009	1st Floor Bay 5, 6, 11, 12	BP-08
3/17/2009		134650	9	Schuco Aluminum tube 3/4"x1 1/8" Full length appr. 237"	3/18/2009	1st Floor Bay 5, 6, 11, 12	BP-08
3/17/2009		324470	1	Schuco Transom (Horizontal mullion)	3/18/2009	1st Floor Bay 5, 6, 11, 12	BP-08
3/17/2009		134080	33	Schuco Angle	3/18/2009	1st Floor Bay 5, 6, 11, 12	BP-08
3/17/2009		324030	5	Full length 205"	3/18/2009	1st Floor Bay 5, 6, 11, 12	BP-08
3/17/2009		324030	2	Schuco Vertical mullion 169"	3/18/2009	1st Floor Bay 5, 6, 11, 12	BP-08
3/17/2009		324030	2	Schuco Vertical mullion 92"	3/18/2009	1st Floor Bay 5, 6, 11, 12	BP-08
3/17/2009		324030	2	Schuco Vertical mullion 79"	3/18/2009	1st Floor Bay 5, 6, 11, 12	BP-08
3/17/2009		324300	1	Schuco Vertical mullion 117"	3/18/2009	1st Floor Bay 5, 6, 11, 12	BP-08
3/17/2009		324460	11	Schuco Transom (Horizontal mullion)	3/18/2009	1st Floor Bay 5, 6, 11, 12	BP-08
3/17/2009		162180	57	Schuco Cover cap	3/18/2009	1st Floor Bay 5, 6, 11, 12	BP-08
3/17/2009		110910	134	Schuco Cover cap	3/18/2009	1st Floor Bay 5, 6, 11, 12	BP-08
3/17/2009		110910	96	Schuco Cover cap	3/18/2009	1st Floor Bay 5, 6, 11, 12	BP-08
3/17/2009		134350	16	Schuco Aluminum channel	3/18/2009	1st Floor Bay 5, 6, 11, 12	BP-08
3/17/2009		324460	1	Schuco Transom (Horizontal mullion)	3/18/2009	1st Floor Bay 5, 6, 11, 12	BP-08
3/17/2009		324030	2	Schuco Vertical mullion	3/18/2009	1st Floor Bay 5, 6, 11, 12	BP-08
3/17/2009		050513	6	Schuco door subframe	3/18/2009	1st Floor Bay 5, 6, 11, 12	BP-08
3/17/2009		050526	3	Shuco - stocklengths (full description NA)	3/18/2009	1st Floor Bay 5, 6, 11, 12	BP-08
3/17/2009		???	2	Shuco - stocklengths (full description NA)	3/18/2009	1st Floor Bay 5, 6, 11, 12	BP-08
3/17/2009		33320	2	Shuco V shape	3/18/2009	1st Floor Bay 5, 6, 11, 12	BP-08
3/17/2009		110910	74	Schuco Cover cap	3/18/2009	1st Floor Bay 5, 6, 11, 12	BP-08
3/17/2009		162180	154	Schuco Cover cap	3/18/2009	1st Floor Bay 5, 6, 11, 12	BP-08
3/17/2009		324050	17	Schuco Vertical mullion	3/18/2009	1st Floor Bay 5, 6, 11, 12	BP-08
3/17/2009		324490	11	Schuco Transom (Horizontal mullion)	3/18/2009	1st Floor Bay 5, 6, 11, 12	BP-08
3/17/2009		336280	44	Shuco - stocklengths (full description NA)	3/18/2009	1st Floor Bay 5, 6, 11, 12	BP-08
3/18/2009		W14A/Offset/Type#3/1" OA/Crate	12	Truelite Industries Limited Type 14 Vents 6MM PPG TMP CLR	3/19/2009	1st Floor Bay 5	BP-08
3/18/2009			8	1 crate - Standard Bent Glass Corp. Glass 1/4+1/4CLR 4-51 5/8 x 42 1/4 4-51 7/16 x 42 1/4	3/19/2009	1st Floor Bay 5	BP-08



**ADDENDUM #6 INVENTORY UPDATE -
EXCERPT FOR BP-08 & BP-08B**

Date	Tag No.	Serial/Part No.	Quantity	Description	Stored Date	Stored Location	Bid Package
3/18/2009			6	1 crate - Standard Bent Glass Corp. Glass 1/4+1/4CLR 4-51 5/16 x 42 1/4 2-51 13/16 x 42 1/4	3/19/2009	1st Floor Bay 5	BP-08
3/18/2009			6	1 crate - Standard Bent Glass Corp. Glass 1/4+1/4CLR 1-56 1/8 x 42 3/4 4-56 3/4 x 42 1/4 1-52 3/8 x 42 1/8 1-59 1/2 x 43 1-40 5/16" x 42 1/4 1-41 5/8 x 41 3/8	3/19/2009	1st Floor Bay 5	BP-08
3/18/2009		L980	4	Sargent Exit Device, Box	3/19/2009	1st Floor Bay 5, 6, 11, 12	BP-08
3/18/2009		171A42	4	Penko/ASSA ABLOY (Door Hardware)	3/19/2009	1st Floor Bay 5	BP-08
3/18/2009		171A80	6	Penko/ASSA ABLOY (Door Hardware)	3/19/2009	1st Floor Bay 5	BP-08
3/18/2009		171A60	1	Penko/ASSA ABLOY (Door Hardware)	3/19/2009	1st Floor Bay 5	BP-08
3/18/2009		52-3373	2	Sargent 3540 Power Supply, Box	3/19/2009	1st Floor Bay 5	BP-08
3/18/2009		442/409	3	Rockwood Door Stops	3/19/2009	1st Floor Bay 5	BP-08
3/18/2009		8810F	5	Sargent Exit Device, Box	3/19/2009	1st Floor Bay 5	BP-08
3/18/2009		8876F	2	Sargent Exit Device, Box	3/19/2009	1st Floor Bay 5	BP-08
3/18/2009			17	EFCO, Series D500 Doorleafs	3/19/2009	1st Floor Bay 14	BP-08
3/23/2009			12	24" (W) X 10' (L) X 2" (T), Panels - From TP Builders	3/23/2009	1st Floor, Bay 13	BP-08B
3/23/2009			2	30" (W) X 5' (L) X 3" (T), Panels - From TP Builders	3/23/2009	1st Floor, Bay 13	BP-08B
3/23/2009		36210178	1	22 ga, 30" (W), Metal Coil, 2110 lbs	3/23/2009	1st Floor, Bay 10	BP-08B
3/23/2009		36210177	1	22 ga, 30" (W), Metal Coil, 6000 lbs	3/23/2009	1st Floor, Bay 10	BP-08B
3/23/2009		36210178	1	22 ga, 30" (W), Metal Coil, 3750 lbs	3/23/2009	1st Floor, Bay 10	BP-08B
3/23/2009		36224167	1	22 ga, 36" (W), Metal Coil, 7110 lbs	3/23/2009	1st Floor, Bay 10	BP-08B
3/23/2009		36221057	1	22 ga, 41" (W), Metal Coil, 7500 lbs	3/23/2009	1st Floor, Bay 10	BP-08B
3/23/2009		36224167	1	22 ga, 36" (W), Metal Coil, 3210 lbs	3/23/2009	1st Floor, Bay 10	BP-08B
3/23/2009		36221057	1	22 ga, 41" (W), Metal Coil, 685 lbs	3/23/2009	1st Floor, Bay 10	BP-08B
3/23/2009		36210178	1	22 ga, 30" (W), Metal Coil, 900 lbs	3/23/2009	1st Floor, Bay 10	BP-08B

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Construction Documents and general provisions of the CMR Agreement Between Owner and Construction Manager and the Guaranteed Maximum Price (GMP) Amendment, including Division 00 General Conditions of the Contract for Construction – CMR and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes administrative and procedural requirements governing Supplemental Bids.
- B. Related Sections: The following Sections contain requirements that relate to this Section:
 - 1. Division 01 Section 01 20 00 - CMR "Contract Considerations".
 - 2. Division 01 Section 01 33 00 – CMR "Submittal Procedures".
 - 3. Division 01 Section 01 60 00 – CMR "Product Requirements".

1.3 DEFINITIONS

- A. **Definition:** "The monetary value stated in the Bid to be added to the amount of the Base Bid if the corresponding Work, as described in the Bidding Documents, is accepted." A Supplemental Bid is an amount proposed by bidders and stated on the Bid Proposal Form for certain work defined in the Bidding Documents that may be added to the Base Bid amount if the Owner decides to accept a corresponding change in either the amount of construction to be completed, or in the products, materials, equipment, systems, or installation methods described in the Contract Documents.
 - 1. The cost for each supplemental bid is the net addition to the Contract Sum to incorporate the Supplemental Bid into the Work. Supplemental Bids are only accepted in the numerical order that they are listed on the Bid Proposal Form and never accepted out of numerical sequence. No other adjustments are made to the Contract Sum.

1.4 PROCEDURES

- A. **Coordination:** Modify or adjust affected adjacent Work as necessary to completely and fully integrate that Work into the Project.
 - 1. Include as part of each Supplemental Bid, miscellaneous devices, accessory objects, and similar items incidental to or required for a complete installation whether or not mentioned as part of the Supplemental Bid.
 - 2. Consider all work that must be accomplished for complete incorporation of the Supplemental Bids including modifications to Base Bid items.
 - 3. Include in lump sum prices for Supplemental Bids all costs of labor, materials, equipment, permits, fees, insurance, bonds, overhead, and profit.
 - 4. Immediately after award of Contract, advise all necessary subcontractors, vendors, and suppliers as to which Supplemental Bids have been selected by Owner. Use all means necessary to alert those subcontractors, vendors, and suppliers involved as to all changes in the work caused by Owner's selection or rejection of Supplemental Bids.
 - 5. Coordinate related work and modify surrounding work to integrate work of each Supplemental Bid.
- B. Execute accepted Supplemental Bids under the same conditions as other Work of this Contract.
- C. **Schedule:** A "Schedule of Supplemental Bids" is included at the end of this Section. It contains all of the applicable portions of Drawings and Details that govern the scope, quality, and execution of referenced in the Schedule contain all of the requirements necessary to achieve the Work described under each Supplemental Bid.

PART 2 - PRODUCTS (Not Applicable)

PART 3 - EXECUTION

3.1 SCHEDULE OF SUPPLEMENTAL BIDS

- A. **Supplemental Bid No. 1:** Requires the construction and installation of the metal louver sunshades (eyebrow) around the perimeter of the existing addition (north) building attached to existing brackets as detailed on portions of drawings A-104.1, A-400, A-401, Details 7 A-514, A S-304, D S-401 and portions of specification Section 08 44 13 and 08 44 13 A.

- B. **Supplemental Bid No. 2:** Requires the construction and installation of the metal louver sunshades (eyebrow) around the perimeter of the reconstructed (south) building as detailed on portions of drawings A-400, A-401, Details 7 A-514, A S-304, D S-401 and portions of specification Section 08 44 13 and 08 44 13 A.

- C. **Supplemental Bid No. 3:** Requires the construction of the remaining fit out of the 2nd floor of the existing building as detailed on portions of drawings A-102A, A-202, Details 6,7,9 &10 on A-666, A-667, Details G14 & G16 on A-805, Light gray toned portions of A-800 and A-950, A-902A, A-902B, FP-102, P-102, M-102,E-102, E-202, T-102 and SEC-102. Portions of Division 6, 8, 9, 21, 22, 23, 26, 27, 28 and Section 10 22 26 of the specifications.

END OF SECTION 01 23 13 - CMR

-PART 1 - GENERAL

RELATED DOCUMENTS

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

1.01 SECTION INCLUDES

- A. Aluminum curtain wall system based on FM Graham 2500 Series curtain wall pressure equalized attached to supporting floors and beams with metal louver sunscreen system and custom sun shades (eyebrows) as detailed in architectural drawings, Graham Windows top hung outward opening aluminum windows (see window specifications) and existing aluminum doors complete with related components as shown on drawings and specified in this section.

1.2 RELATED SECTIONS

- 1. Section 03 30 30 "Cast in Place Concrete".
- 2. Section 05 12 00 "Structural Steel Framing".
- 3. Section 06 20 00: "Rough Carpentry".
- 4. Section 07 42 13: "Insulated Wall Panel"
- 5. Section 07 62 00: "Flashing and Sheet Metal".
- 6. Section 07 90 00: "Joint Sealers".
- 7. Section 08 51 13: "Aluminum Windows".
- 8. Section 08 80 00: "Glazing".

1.3 REFERENCES

- A. American Architectural Manufacturer's Association (AAMA):
 - 1. AAMA 501 – Methods of Test for Exterior Walls.
 - 2. AAMA 611 – Voluntary Standards for Anodized Architectural Aluminum.
 - 3. AAMA 2605 – Voluntary Specification, Performance Requirements, and Test Procedures for Superior Performing Coatings on Architectural Extrusions and Panels.
- B. American National Standards Institute (ANSI): ANSI Z97.1 – Safety Performance Specifications and Methods of Test for Safety Glazing Material Used in Buildings.
- C. American Society of Civil Engineers (ASCE): ASCE 7 – Minimum Design Loads for Buildings and Other Structures.
- D. American Society for Testing and Materials (ASTM):
 - 1. ASTM B221 – Aluminum-Alloy Extruded Bar, Rod, Wire, Shape, and Tube.
 - 2. ASTM E283 – Rate of Air Leakage Through.....Across Specimen.
 - 3. ASTM E330 – Structural Performance.....Uniform Static Air Pressure Difference.
 - 4. ASTM E331 – Water Penetration of Exterior Windows.....Pressure Difference.
 - 5. ASTM E413 – Classification for Rating Sound Insulation.
 - 6. ASTM E1300 – Determining Load Resistance of Glass in Buildings.
- E. International Code Council (ICC): ICC IBC – International Building Code 2003 with 2005 and 2009 supplements.

1.4 SYSTEMS DESCRIPTION

Buley Library Renovations
SCSU, New Haven, CT
Project No: BI-RS-225B Phase 2
08 44 13/ 1 of 8
3-01-2013 Addenda #6

DIVISION 8
SECTION 08 44 13 A
ALUMINUM CURTAIN WALL
SYSTEM

- A. Air Infiltration: Shall be no more than 0.06 cubic feet/minute/square at 6.24 pounds/square foot when tested in accordance with ASTM E283.
- B. Water infiltration: No penetration when tested at rate of 5 gallons/hour/square foot and 15 pounds/square foot pressure for 15 minutes when tested in accordance with ASTM E331.
- C. Uniform load deflection: In accordance with ASTM E330, a static air pressure difference of 30 pounds/square foot applied in the positive and negative directions. Maximum deflection of L/175.
- D. Uniform load structural: In accordance with ASTM E330, a minimum static air pressure difference of 45 pounds/square foot shall be applied in the positive and negative directions.
- E. Interstory movement/seismic requirements: Tested in accordance with AAMA 501.4 or per calculation provided by a registered PE: The system shall be tested to resist failures and gross permanent distortion of anchors, frame, glass or panels and glazing gaskets shall not disengage framing when horizontal movement occurs at 0.750" in either horizontal direction and 0.500" in either vertical direction.
- F. Design loads are to be in accordance with the 2005 State Building Code, State of Connecticut, 2003 IBC Building Code including 2009 Connecticut Amendment as well as stated above in items 1.4.C and D of this section whichever is greater. Refer also to Design Data chart on Structural Design Drawings. Sunshade design is to incorporate design loads for snow, wind, seismic, ice lenses, thermal, etc. as required by the State Building Code.

1.5 SUBMITTALS

- A. In accordance with Section 01 33 00 "Submittal Procedures" provide:
 - 1. Product data for aluminum framing system including connectors, anchors, fasteners, gaskets, and other accessories.
 - 2. Shop drawings showing elevations, profiles, dimensions, tolerances, components, anchorage, structural reinforcing, method of installation, and sealing. Prepared and reviewed by the manufacturer.
 - 3. Structural design: Provide design calculations and details for self-supporting curtain wall, louver- sunscreen, sunshade framing system. Show compliance with performance specific in Paragraph 1.3.A. and 1.4.C, D and F
 - 4. Certificates that systems have been successfully tested as required by paragraph 1.4.
 - 5. Documentation from manufacturer and installer qualifications required by paragraphs 1.5.A and B.
 - 6. Samples:
 - a. Metal finishes for selection by architect.
 - b. [8 inches] minimum lengths of mullion and transom frames joined and holding [6 inch by 6 inch] glass panel. Shall be of specified components and finishes.
 - c. Sealant colors.
 - 7. Manufacturer's assembly, installation, and maintenance instructions.

1.6 QUALITY ASSURANCE

- A. Manufacturer qualifications: Design, engineering, fabrication, assembly and supply of all components for aluminum framing system, louver sunshades,

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ALUMINUM CURTAIN WALL
SYSTEM

sunshades, and windows shall be sole responsibility manufacturer. Manufacturer shall supply all components as a single source. Manufacture will have 5 years minimum successful experience. Manufacture to supply 5 projects that have been completed as single source.

- B. Installer qualifications: Company experienced in installing aluminum framed glass curtain walls, facades, and sunshades with 5 years minimum successful experience and having completed a minimum of 5 installations of similar scope and type as proposed project. Installer shall be acceptable to framing system manufacturer for installing their products.
- C. Single installation responsibility: The following components shall be installed by single installation company.
 - 1. Aluminum framing (existing and new) and sun shade framing system specified in this section.
 - 2. Sheet metal fabrications and flashings required for joints between aluminum framing and adjacent construction specified in Section 07 62 00 "Flashing and Sheet Metal".
 - 3. Weatherproofing sealants specified in Section 07 90 00 "Joint Sealers".
 - 4. Windows to be installed in aluminum framing system.
 - 5. Operable windows.
 - 6. Existing Aluminum glazed door assemblies to be installed in aluminum framing system.
 - 7. Glazing specified in Section 08 80 00 "Glazing".
 - 8. Custom louver sunshades.
 - 9. Custom sunshades.
- D. Manufacturer to design and develop shop drawings for structural components of framing system under direct supervision of a qualified licensed professional structural engineer registered in the State of Connecticut. Calculations and shop drawings shall bear engineer's seal. Submit for Record.
- E. Safety glazing: Comply with ICC IBC and Consumer Product Safety Commission 16 CFR 1201, ANSI Z97.1, and other applicable safety requirements. Each piece of safety glazing shall be permanently labeled with appropriate marking.
- F. Prefabricated curtain wall frames delivered in ladders to the jobsite. Stick or site built framing will not be accepted. Manufacture to assemble and seal frames as much as possible prior to shipping to jobsite.
- G. Custom sunshades to be factory assembled.
- H. Custom

1.7 WARRANTY

- A. Manufacturer shall provide a warranty against the following defects:
 - 1. Aluminum Curtain wall and Windows: Warrant for (five) years against defects in material or workmanship under normal use.
 - 2. Insulating Glass Units: Warrant seal for (20) years against visual obstruction from film formation or moisture collection between internal glass surfaces, excluding that caused by glass breakage or abuse.
 - 3. Paint Finish: Warrant for (ten) years against chipping, peeling or cracking.

PART 2 PRODUCTS

2.1 ACCEPTABLE MANUFACTURERS

- A. FM Graham, 1101 North Mill St., Merrill, WI 54452: (715)536-4927 2500 Series Curtain Wall. Zero Sightline Windows. Custom Sunshade (eyebrow). Custom Louver Sunshade.
- B. Other Acceptable Manufacturers:
 - 1. EFCO – 5600 Series Curtain Wall. Shadowline Windows. Custom Sunshade (eyebrow). Custom Louver Sunshade.
 - 2. Kawneer Company – 1600 Series Curtain Wall, GLASSvent Windows. Custom Sunshade (eyebrow). Custom Louver Sunshade.

2.2 MATERIALS

- A. Aluminum profiles: Alloy [6063] and temper [T6] suitable for structural requirement specified in Paragraph 1.4.A of anodizing quality and complying with [ASTM B221]. Shall be comprised of a minimum of 35 per cent recycled material.
- B. Attachment hardware and fasteners: Stainless steel.
- C. Glazing gaskets and vapor barriers: EPDM elastomeric extrusions of profiles specifically designed for framing system and capable of being removed and replaced.
- D. Weatherstripping: EPDM elastomeric flanged extrusions capable of being compressed when vent is closed to seal around the perimeter of frame. Weatherstripping shall be removable for replacement.
- E. Thermal insulation: EPDM isolator thermally breaking pressure plate from mullion.

2.3 COMPONENTS CURTAIN WALL

- A. Vertical and horizontal mullion profiles:
 - 1. Profile: extruded aluminum rectangle box with flanges to receive pressure plate and glazing gaskets.
 - 2. Face width: [2 ½ inches].
 - 3. Depth: [7 to 10 inches]. As specified by manufacturer to meet structural requirements.
 - 4. Structurally glazed or captured as indicated on drawings.
- B. Special frame profile members: Provide the following special members as detailed on drawings and required to accommodate design.
 - 1. Mullions: Exterior corner, interior corner as detailed.
 - 2. Transoms: Head and sill, eave, ridge, vented curtain wall.
 - 3. Insert adapter profiles: Provide thermally broken aluminum frame adapters to receive operable aluminum windows, aluminum doors.
 - 4. Assembly mullions and transoms: Provide two-piece, sliding member allowing for expansion and contraction.
- C. Structural reinforcement: Insert profiles fixed inside mullion and/or transom profiles to meet structural requirements specified in Paragraph 1.4.A..
 - 1. Aluminum insert
 - 2. Steel insert profile – require bituminous paint.
- D. Glass and glazing:
 - 1. Glass make-ups:
 - a. Insulating glass: ASTM E 774.

- b. Annealed glass: ASTM C 1036.
- c. Tempered glass ASTM C 1048.
- d. Safety glazing: ANSI Z97.1
- e. Glass type and make-up: See Section 08 80 00.
- f. Glass overall thickness 1 inch.

2.4 COMPONENTS WINDOWS GLAZED INTO CURTAIN WALL

- A. Zero sightline window – casement or outswing vent as located and indicated on drawings.
- B. The 3 1/4" deep, glazed-in-place frame is fabricated from extruded aluminum, with .075" minimum wall thickness. Joints are coped, double screw fastened, and sealed with small joint sealer. The sash is fabricated from extruded aluminum, with .075" minimum wall thickness. Mitered hairline joints are mechanically staked to solid aluminum, internal corner keys, and sealed with small joint sealer.
- C. Glazing shall be by means of an open cell, high density, polyurethane foam tape spacer with a one part, high modulus, structural silicone sealant.
- D. Weathering consists of double Santoprene bulb gasket between sash and frame, plus exterior neoprene wiper, continuous at perimeter.
- E. Glass and glazing
 - 1. General:
 - i. Glass unit shall be dry glazed in accordance with ASTM C509-91.
 - ii. Glass units to be "stepped" double glazed units.
 - 2. Glass make-ups:
 - i. Insulating glass: ASTM E 774.
 - ii. Annealed glass: ASTM C 1036.
 - iii. Tempered glass ASTM C 1048.
 - iv. Safety glazing: ANSI Z97.1
 - v. Glass type: See Section 08 80 00.
 - vi. Glass type and make-up: See Section 08 80 00.
 - vii. Glass overall thickness 1 inch.

2.5 COMPONENTS SUN SHADE (eyebrow) /LOUVER SUNSHADE

- A. Deep Louver Blade, see drawings for depth, spacing, and to match Schuco profile #238257.
- B. Attachment brackets and vertical carrier fin with mullion with bracket as required by manufacturer.
- C. Provide additional mullion fixing bracket to anchor clock to curtain wall. See drawings for size and location.
- D. Custom fabricate sunshade (eyebrow) bracket to anchor blades to building bracket.
- E. Provide calculations and certification from a Connecticut Licensed Engineer that the sunshade and louver sunshade will meet all loading requirements required by code.

2.6 ACCESSORIES CURTAIN WALL

- A. Pressure plate: Secures glazing to framing members using stainless steel fasteners.
 - 1. Aluminum extrusion: Standard insulation system.
 - 2. Aluminum extrusion with applied high density foam block water diverter

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- B. Cover cap:
 - 1. Aluminum extrusion: Bullet Shaped as detailed in architectural drawings and to match existing Schuco profile #324890.
 - 2. Finish: To match existing custom color as approved by architect.
 - 3. Attachment: snap-on and concealed stainless steel screws as needed per manufacturer.
- C. Isolator: EPDM isolator – installed by manufacturer, run continuously on vertical and horizontal mullions.
- F. Gaskets: EPDM extrusions specific to specified system:
 - 1. Gasket corners: One-piece molded gasket corners for internally sealing, and as glazing gasket for straight curtain wall designs
 - 2. Molded gasket intersections: External sealing of cruciform joints in combination with glazing gaskets.
- G. Anchorage: Connections to building structure.
 - 1. Anchors as designed and supplied by curtain wall manufacture to meet design requirements and building conditions.

2.7 ACCESSORIES WINDOW ZERO SIGHTLINE VENT

- A. Window hardware: Provide manufacturer's standard hardware. Shall be constructed from non-corrosive materials.
- B. Stays: Provide to hold vents open and to limit opening. Shall be fully concealed in profiles.
 - 1. Parallel opening stays: quantity and size according to vent size.
- C. Stainless Steel 4 bar arm concealed hinges.
- D. Operating handles: Cam handles with keepers. White Bronze.
- E. Screens: Provide insect screens for all operable windows. Extruded aluminum, finish to match window. Corners firmly joined and framed rigid to lie flat against window without bow or screen sag.
 - 1. Attachment: Clips and screws.

2.8 FABRICATION

- A. Field verify dimensions prior to fabricating components for aluminum framed glazed assembly. Frames to be factory fabricate, assembled and sealed – as much as possible. Factory fabricated frames to be shipped in ladders to be installed in the field. Stick fabrication will not be accepted.
- B. Fabricate framing to designs indicated on drawings and to meet performance requirements specified in paragraph 1.4.
- D. Provide for thermal expansion and contraction.
- E. EPDM thermal isolator, installed by manufacturer at the factory
- F. Drainage and ventilation: Framing system shall be fully ventilated, drained, and pressure equalized. Each lite shall be compartmentalized for drainage.
- H. Glazing: Dry set factory glazing as specified in section 08 80 00 "Glazing". Structurally glazed where noted on architectural drawings.

2.9 FACTORY APPLIED FINISHES

- A. Preparation: Prior to finishing, ensure exposed aluminum surfaces are free of scratches and other serious blemishes.

- B. Factory applied aluminum finishes:
 - 1. Fluoropolymer coating: Resin base fluoropolymer colored paint coating [2.4 mm] thickness complying with AAMA A2605. Color to match existing custom color as verified by architect.
 - 2. Alternate to provide AAMA 2603 interior framing, AAMA 2605 exterior framing, sunshades/sunscreen.
- C. Fasteners and concealed items: Non-corrosive type of finish.

PART 3 EXECUTION

3.1 PREPARATION

- A. Coordinate provision of framing system with substructure framing specified in [Section 03 30 00 "Cast-in-Place Concrete"] [Section 05 12 00 "Structural Steel"] [Section 06 20 00 "Carpentry"]. Ensure system compatibility and that provision is made for attachments and transfer of calculated loads.
- B. Coordinate with provision of glazing specified in Section 08 80 00 "Glazing". Ensure dimensions and tolerances are compatible.
- C. Prior to starting installation, verify that wall openings are ready to receive framing.
- D. Report unacceptable conditions and deficiencies. Do not proceed with installation until corrective action has been performed.

3.2 GENERAL INSTALLATION

- A. Erect aluminum framing in accordance with reviewed shop drawings and manufacturer's installation instructions.
- B. Damaged glass: Do not install glass with edge damage or other imperfections.
- C. Make connections to allow for settling and other substructure movement to occur without stresses being transferred to aluminum framing systems.
- D. Do not field cut or alter structural framing without written approval from manufacturer and Architect.
- E. Use anchorage devices to securely attach aluminum framing to substructure and to accommodate construction tolerances and irregularities.
- F. Insulate dissimilar metals with bituminous paint or non-absorptive gasket to prevent corrosion.
- G. Align framing plumb, level, and free of warp or twist.

3.3 GLAZING

- A. Protect adjacent surfaces from sealants and glazing materials with masking tape or other means.
- B. Install setting blocks and spacers as recommended by glass façade manufacturer and indicated on reviewed shop drawings.
- C. Provide edge blocking as required to prevent sideways movement of glass in glazing channel.
- D. Ensure glazing pressure plates provide required bite on glass.

3.4 CLEANING

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- A. Remove excess sealant by moderate use of mineral spirits or other solvent acceptable to sealant manufacturer.
- B. Exercise care in removing mortar, cementitious materials, and sand from glass and frames. Do not wipe surfaces in order to avoid scratching.
- C. Wash exposed surfaces with solution of mild detergent applied with soft cloth. Take care to remove dirt from corners. Wipe surfaces clean.

END OF SECTION

PART 1 - GENERAL

RELATED DOCUMENTS

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

1.1 SECTION INCLUDES

- A. Aluminum windows based on Graham series 6200 outward projecting casement and fixed windows installed in masonry wall openings.
- B. Screens
- C. Installation

1.2 RELATED SECTIONS

- A. Section 07 62 00 – Sheet Metal Flashing and Trim.
- B. Section 07 90 00 – Joint Protection.
- C. Section 08 80 00 – Glass and Glazing

1.3 REFERENCES

- A. American Architectural Manufacturer's Association (AAMA):
 - 1. AAMA 611 – Voluntary Standards for Anodized Architectural Aluminum.
 - 2. AAMA 910 – Voluntary Life Cycle Specifications and Test Methods for Architectural Grade Windows and Sliding Glass Doors.
 - 3. AAMA 2605 – Voluntary Specification, Performance Requirements, and Test Procedures for Superior Performing Coatings on Architectural Extrusions and Panels.
- B. American National Standards Institute (ANSI): ANSI Z97.1 – Safety Performance Specifications and Methods of Test for Safety Glazing Material Used in Buildings.
- C. American Society for Testing and Materials (ASTM):
 - 1. ASTM B221 – Aluminum-Alloy Extruded Bar, Rod, Wire, Shape, and Tube.
 - 2. ASTM E283 – Rate of Air Leakage Through.....Across Specimen.
 - 3. ASTM E330 – Structural Performance.....Uniform Static Air Pressure Difference.
 - 4. ASTM E331 – Water Penetration of Exterior Windows.....Pressure Difference.
 - 5. ASTM E413 – Classification for Rating Sound Insulation.
 - 6. ASTM E2068 – Operating Force.
- D. International Code Council (ICC): ICC IBC – International Building Code 2003 with 2005 and 2009 supplements.

1.4 SYSTEMS DESCRIPTION

- A. Air Infiltration: Shall be less than 0.10 cubic feet/minute/square foot at 6.24 pounds/square foot when tested in accordance with ASTM E283.
- B. Water infiltration: No penetration when tested at rate of 5 gallons/hour/square foot and 12 pounds/square foot pressure for 15 minutes when tested in accordance with ASTM E331.
- C. Uniform load deflection: In accordance with ASTM E330, a static air pressure difference

of 75 pounds/square foot applied in the positive and negative directions.
Maximum deflection of L/175.

- D. Uniform load structural: In accordance with ASTM E330, a minimum static air pressure difference of 90 pounds/square foot shall be applied in the positive and negative directions.
- E. Operating force: In accordance with ASTM E2068, vent shall require a maximum force of 2.2 pounds/ foot in order to initiate motion and 1.4 pounds/ foot to sustain motion.
- F. Forced entry resistance: Conform to ASTM F588.
- G. Sound Transmission Class (STC): Minimum value of 34, in accordance with ASTM E413.

1.5 SUBMITTALS

- A. In accordance with Section 01 33 00 "Submittal Procedures" provide:
 - 1. Product data for aluminum windows including hardware, gaskets, glazing, and installation accessories.
 - 2. Shop drawings showing window configurations, profiles, dimensions, installation tolerances, hardware, and details showing fabrication, installation, and sealing.
 - 3. Certificates that windows have been successfully tested as required by paragraph 1.4.
 - 4. Documentation from manufacturer and installer qualifications required by paragraphs 1.5.A and B.
 - 5. Samples:
 - a. Metal finishes for selection by architect.
 - b. [8 inches][203 mm] minimum length window frame.
 - c. Glass samples [12 inches by 12 inches][305 mm by 305 mm].
 - 6. Manufacturer's assembly, installation, and maintenance instructions.

1.6 QUALITY ASSURANCE

- A. Manufacturer qualifications: Minimum of 5 years successful experience designing, engineering, and fabricating operable aluminum windows.
- B. Installer qualifications: Minimum of 5 years successful experience installing operable aluminum windows. Shall be acceptable to manufacturer for installing their products.

1.7 WARRANTY

- A. Manufacturer shall provide a warranty against the following defects:
 - 1. Windows: Warrant for (five) years against defects in material or workmanship under normal use.
 - 2. Insulating Glass Units: Warrant seal for (20) years against visual obstruction from film formation or moisture collection between internal glass surfaces, excluding that caused by glass breakage or abuse.
 - 3. Paint Finish: Warrant for (five) years against chipping, peeling or cracking.

PART 2 PRODUCTS

2.1 ACCEPTABLE MANUFACTURERS

- A. Graham architectural Products, 1551 Mt Rose Ave, York, PA
- B. EFCO series 325
- C. Kawneer series AA®4325

2.2 MATERIALS

- A. Extruded aluminum: Alloy [6063] and temper [T6] suitable for structural requirement specified in Paragraph 1.4.A of anodizing quality and complying with [ASTM B221]. Shall be comprised of a minimum of 35 per cent recycled material.
- B. Attachment hardware and fasteners: Stainless steel, galvanized, aluminum, or other non-corrosive metal.
- D. Glazing gaskets: EPDM elastomeric extrusions of profiles specifically designed for framing system and capable of being removed and replaced.
- E. Weatherstripping: EPDM elastomeric flanged extrusions capable of being compressed when vent is closed to seal around the perimeter of frame. Weatherstripping shall be removable for replacement.
- F. Thermal insulation: Shall be constructed of [15/16inch][23.8 mm] 2- piece polythermide "Isobar" suitable for maintaining structural integrity.

2.3 COMPONENTS

- A. Outer frame profiles: Shall be thermally insulated using thermal strut
 - 1. Profile: shapes with flanges to receive operable vent.
- B. Vent frame profile: Shall be thermally insulated using thermal strut":
 - 1. Profile: Face-fitted tubular member with flange that overlaps outer frame in closed position. Shall have rebate gasket on inside edge of vent profile.
- C. Glass and glazing
 - 1. General:
 - a. Glass unit shall be dry glazed in accordance with ASTM C509-91.
 - b. Glazing beads shall be constructed of snap-in aluminum profile finished to match window. Profile to be selected by architect from manufacturer's full range.
 - 2. Glass make-ups:
 - a. Insulating glass: ASTM E 774.
 - b. Annealed glass: ASTM C 1036.
 - c. Tempered glass ASTM C 1048.
 - d. Safety glazing: ANSI Z97.1
 - e. Glass type: See Section 08 80 00.
 - f. Glass type and make-up: See Section 08 80 00.
 - g. Glass overall thickness 1 inch.

2.4 ACCESSORIES

- A. Window hardware: Provide single ion operating hardware "OS" model by Giesse www.giesse.it, concealed hinges, sash travel limit device, multi locks with single action operator Provide type suitable for smooth, functional vent operation..

1. Friction hinges: Stainless steel, 4-bar extension, heavy duty friction hinge capable of holding vent open in strong winds. Suitable for side hinged casement and bottom hinged hopper windows.
- C. Stays: Provide to hold vents open and to limit opening. Shall be fully concealed in profile.
 1. Friction stay: Stainless steel, adjustable stay allowing 45 degrees maximum opening. Suitable for side hinged casement windows.
 2. Anti-slam device: Adjustable device suitable for face-fitted, tilt and turn windows to prevent vent from slamming shut in tilt mode.
- D. Operating handles: single handle with Separate cavity fitted gearbox. Provide designated handles with keyed lock cylinders. Handle style selected by architect from manufacturer's full range. Size of handle and gearbox shall be appropriate for vent size and weight.
- E. Custodian lock: Designated windows to be operated for cleaning shall be provided with recessed lock housing and custodian key handle which unlocks recessed housing and operates vent.
- F. Security lock: Lock vent in tilt position or in closed position. When locked, all form of operation is impossible.
- G. Screens: Provide insect screens for all operable windows.
 1. Frames:
 - a. Extruded aluminum, finish to match window.
 - b. Corners firmly joined and framed rigid to lie flat against window without bow or screen sag.
 2. Attachment: Clips and screws.

2.5 FABRICATION

- A. Field verify dimensions prior to fabricating aluminum windows.
- B. Shop fabricate windows to designs indicated on drawings and to meet performance requirements specified in paragraph 1.3.
- C. Profile construction: Profiles shall be 2 part construction with inner and outer frames continuously connected using thermal isolators which shall accommodate shear forces. All metal to metal contact between exterior and interior frames shall be eliminated.
- D. Butt joints: Shall be nailed and glued to ensure a rigid, tight union.
- E. Corner joints: All frame and vent corners shall be mitered.
 1. Apply clear adhesive to the miter cut edge of all profiles to ensure weathertightness.
 2. Join members with two separate cleats having cross section which conforms to interior profile of frame members.
 3. Corners to be "crimped" and/or nailed as per fabricator.
 4. Corner cleats to be glued to ensure rigidity.
 5. Snap-in stainless steel miter support into the outer rebate area of the sash and frame.
- F. Weatherstripping: Provide resilient gasket weatherstripping around outside face of vent. Provide second weathersrtipping gasket on opposite side or in center of frame profile.
- G. Drainage: Rebates and profile grooves where water or condensation can seep in shall be drained to exterior from lowest point of profile.
- H. Hardware and fittings: To be factory installed. Fittings to be fully concealed.

- I. J. Glazing: Dry set factory glazing as specified in section 08 80 00 "Glazing".

2.6 FACTORY APPLIED FINISHES

- A. Preparation: Prior to finishing, ensure exposed aluminum surfaces are free of scratches and other serious blemishes.
- B. Factory applied aluminum finishes:
 - 1. Exterior Fluoropolymer coating: Resin base fluoropolymer colored paint coating [2.4 mm] thickness complying with AAMA A2605. Color to match existing custom color as verified by architect.
 - 2. Interior Baked enamel complying with AAMA 2603, color to be selected by architect
- C. Fasteners and concealed items: Non-corrosive type of finish.

PART 3 EXECUTION

3.1 PREPARATION

- A. Coordinate provision of aluminum windows with aluminum framed glass façade specified in Section 08 41 13 "Aluminum Framed Glazed Assembly". Ensure compatibility of framing system to receive window units and that openings are accurately sized.
- B. Coordinate provision of aluminum windows with construction of exterior wall to receive windows. Ensure rough openings are accurately sized and provisions are made for anchoring window units in place.
- C. Prior to starting installation, verify that wall openings are ready to receive windows.
- D. Report unacceptable conditions and deficiencies. Do not proceed with installation until corrective action has been performed.

3.2 INSTALLATION

- A. Install windows in accordance with reviewed shop drawings and manufacturer's instructions.
- B. Installation in aluminum framed glass assembly:
 - 1. Use adapter profiles to frame openings to receive window units.
 - 2. Center window units in openings, plumb, square, and level and free of warp and twist.
 - 3. Ensure gaskets, weatherstripping, and vapor barrier are installed.
- C. Installation in rough wall openings:
 - 4. Insulate dissimilar metals to prevent electrolysis and other forms of corrosion with bituminous paint or non-absorptive gasket to prevent contact.
 - 5. Use anchorage to securely attach frames in rough openings. Align window units plumb, level, and free of warp and twist.
 - 6. Apply backing material and sealant in perimeter joints to ensure weathertight installation.
- D. Securely attach screens.
- E. After installation test each operable vent by fully opening, closing, and locking a minimum of two times. Ensure all functions are properly executed. Correct any deficiencies and adjust for smooth operation.

3.3 CLEANING

- A. Remove excess sealant by moderate use of mineral spirits or other solvent acceptable to sealant manufacturer.
- B. Exercise care in removing mortar, cementitious materials, and sand from glass and frames. Do not wipe surfaces in order to avoid scratching.
- C. Wash exposed surfaces with solution of mild detergent applied with soft cloth. Take care to remove dirt from corners. Wipe surfaces clean.

END OF SECTION

PART 1 GENERAL

1.1 GENERAL REQUIREMENTS

- A. Work of this Section, as shown or specified, shall be in accordance with the requirements of the Contract Documents.

1.2 SECTION INCLUDES

- A. Work of this Section includes all labor, materials, equipment, and services necessary to complete the glass and glazing as shown on the drawings and/or specified herein, including, but not limited to, glazing of the following:
 - 1. Exterior glazing at curtain walls and windows.
 - 2. Exterior and Interior doors.
 - 3. Interior glazed framing systems.
 - 4. Interior borrowed lites.
- B. Laminated Glass at interior signage.

1.3 RELATED SECTIONS

- A. Mock-ups – Section 016300.
- B. Steel Doors and Frames - Section 081113.
- C. Glazed Fire-Rated Door and Framing Systems - Section 084123, for fire-rated glazing.
- D. Toilet Accessories - Section 102813, for framed mirrors.
- E. Signage – 101400.

1.4 PERFORMANCE REQUIREMENTS

- A. Glass units shall be annealed, heat strengthened, or fully tempered where required to meet safety glazing requirements, as shown, specified, or recommended by the glass fabricator, and as required by the prevailing Building Code.

1.5 SUBMITTALS

- A. Product Data: Submit manufacturer's printed product data, specifications, standard details, installation instructions, use limitations and recommendations for each material used. Provide certifications that materials and systems comply with specified requirements.

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- B. Verification Samples: Submit representative samples of each glass and glazing material that is to be exposed in completed work. Show full color ranges and finish variations expected. Provide glass samples having minimum size of 144 sq. in. and 6 in. long samples of sealants and glazing materials; all samples shall bear the name of the manufacturer, brand name, thickness, and quality

1.6 QUALITY ASSURANCE

- A. Source: For each glass and glazing type required for work of this Section, provide primary materials which are products of one manufacturer. Provide secondary or accessory materials which are acceptable to manufacturers of primary materials.
- B. Installer: A firm with a minimum of five years' experience in type of work required by this Section and which is acceptable to manufacturers of primary materials; and with a successful record of in-service installations similar in size and scope to this Project.
- C. Glazing Publications: Comply with published recommendations of the Glass Association of North America's (GANA's) "Glazing Manual" unless more stringent requirements are indicated.
- D. Glazing for Fire-Rated Door Assemblies: Glazing for assemblies that comply with NFPA 80 and that are listed and labeled by a testing and inspecting agency acceptable to authorities having jurisdiction, for fire-protection ratings indicated, based on testing according to NFPA 252.
- E. Safety Glazing Products: Comply with testing requirements in 16 CFR 1201.
 - 1. Subject to compliance with requirements, obtain safety glazing products permanently marked with certification label of the Safety Glazing Certification Council.
 - 2. Where glazing units, including Kind FT glass, are specified in Part 2 articles for glazing lites more than 9 sq. ft. in exposed surface area of one side, provide glazing products that comply with Category II materials, for lites 9 sq. ft. or less in exposed surface area of one side, provide glazing products that comply with Category I or II materials, except for hazardous locations where Category II materials are required by 16 CFR 1201 and regulations of authorities having jurisdiction.

1.7 DELIVERY, STORAGE AND HANDLING

- A. Deliver materials and products in unopened, factory labeled packages. Store and handle in strict compliance with manufacturer's instructions and recommendations and GANA Manual.
 - 1. Protect materials from moisture, sunlight, excess heat, sparks and flame.

2. Sequence deliveries to avoid delays, but minimize on-site storage.

PART 2 PRODUCTS

2.1 GLASS MATERIALS AND PRODUCTS

- A. Clear Float Glass: ASTM C 1036, Type I (Transparent, Flat), Class 1 (Clear), Quality q3, minimum 1/4" thick.
- B. Clear Tempered Glass: ASTM C 1048, Condition A (Uncoated), Type I (Transparent, Flat), Class 1 (Clear), Quality q3, Kind FT, minimum 1/4" thick. Tempered glass must be certified by SGCC to meet applicable standards.
- C. Low 'E' Coated Glass: Provide high-performance, clear, metallic coating, Solarban 60, as manufactured by PPG *or Cardinal 272 insulated units*. Provide Low 'E' coating which has the following performance characteristics when applied to the No. 2 surface of 1 in. insulating units, outer lite 1/4" clear, inner lite is 1/4" clear "Type B glass" or 1/4" smoke colored ceramic frit "Type A glass" or Sandwich of 1/8" clear annealed, .03 artic snow vinyl, 1/8" clear annealed "Type C glass":
 1. Visible Light Transmittance: 70%.
 2. Ultraviolet Transmittance: 19%.
 3. Shading Coefficient: 0.44.
 4. Solar Energy Transmittance: 33%.
 5. Visible Light Reflectance: 11%.
- D. Patterned Glass: Provide white ceramic frit patterned glass in patterns as selected by the Architect from manufacturer's full range of available patterns, minimum thickness of 1/4".
- E. Fire-Rated Glazing Material: Refer to Section 084123.
- F. Laminated Glass at interior signage.

2.2 GLAZING MATERIALS AND PRODUCTS

- A. General: Provide sealants and gaskets with performance characteristics suitable for applications indicated. Ensure compatibility of glazing sealants with surfaces in contact.
- B. General Glazing and Cap Bead Sealant: Provide sealant with maximum Shore A hardness of 50. Provide one of the following:

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1. Dow Corning 795.
 2. General Electric Silglaze N 2500 or Contractors SCS-1000.
 3. Tremco Spectrem 2.
- C. Backer Rod: Closed cell non-gassing polyethylene rod with rod diameter 25% wider than joint width.
- D. Dense Elastomeric Compression Seal Gaskets: Provide molded or extruded neoprene or EPDM gaskets, Shore A hardness of 75 ± 5 for hollow profile, and 60 ± 5 for solid profiles, ASTM C 864.
- E. Cellular, Elastomeric Preformed Gaskets: Provide extruded or molded closed cell, integral-skinned neoprene, Shore A 40 ± 5 , and 20% to 35% compression, ASTM C 509; Type II.
- F. Preformed Glazing Tape: Provide solvent-free butyl-polyisobutylene rubber with 100% solids content complying with ASTM C 1281 AAMA A 800 with integral continuous EPDM shim. Provide preformed glazing tape in extruded tape form. Provide Tremco "Polyshim II" or approved equal.
- G. Setting Blocks: Provide 100% silicone blocks with Shore A hardness of 80-90. Provide products certified by manufacturer to be compatible with silicone sealants. Length to be not less than 4". Width for setting blocks to be 1/16" more than glass thickness and high enough to provide the lite recommended by glass manufacturer. When thickness of setting block exceeds 3/4" the glass manufacturer must be consulted for sizes and configuration. In a vented system, setting block shall be designed so as to not restrict the flow of water within the glazing rabbet to the weep holes.
1. Shims: For shims used with setting blocks, provide same materials, hardness, length and width as setting blocks.
- H. Edge Blocks: Provide neoprene or silicone as required for compatibility with glazing sealants. Provide blocks with Shore A hardness of 55 ± 5 .
- I. Spacers: Elastomeric blocks or continuous extrusions with a Shore A durometer hardness required by glass manufacturer to maintain glass lites in place.
- J. Miscellaneous Glazing Materials: Provide sealant backer rods, primers, cleaners, and sealers of type recommended by glass and sealant manufacturers.
- K. Aluminum glazing receivers at circulation desk glazing.
- 2.3 FABRICATION OF GLASS AND OTHER GLAZING PRODUCTS
- A. Fabricate glass and other glazing products in sizes required to glaze openings indicated for Project, with edge and face clearances, edge and surface

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conditions, and bite complying with written instructions of product manufacturer and referenced glazing standard, to comply with system performance requirements.

- B. Clean-cut or flat-grind vertical edges of butt-glazed monolithic lites in a manner that produces square edges with slight kerfs at junctions with indoor and outdoor faces.
- C. Grind smooth and polish exposed glass edges.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Examine framing glazing, with Installer present, for compliance with the following:
 - 1. Manufacturing and installation tolerances, including those for size, squareness, and offsets at corners.
 - 2. Minimum required face or edge clearances.
 - 3. Effective sealing between joints of glass-framing members.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. Clean glazing channels and other framing members receiving glass immediately before glazing. Remove coatings not firmly bonded to substrates.

3.3 GLAZING, GENERAL

- A. Comply with combined written instructions of manufacturers of glass, sealants, gaskets, and other glazing materials unless more stringent requirements are indicated, including those in referenced glazing publications.
- B. Glazing channel dimensions, as indicated on Shop Drawings, provide necessary bite on glass, minimum edge and face clearances, and adequate sealant thicknesses, with reasonable tolerances. Adjust as required by Project conditions during installation.
- C. Protect glass edges from damage during handling and installation. Remove damaged glass from Project site and legally dispose of off Project site. Damaged glass is glass with edge damage or other imperfections that, when installed, could weaken glass and impair performance and appearance.

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- D. Apply primers to joint surfaces where required for adhesion of sealants, as determined by preconstruction sealant-substrate testing.
- E. Install setting blocks in sill rabbets, sized and located to comply with referenced glazing publications, unless otherwise required by glass manufacturer. Set blocks in thin course of compatible sealant suitable for heel bead.
- F. Do not exceed edge pressures stipulated by glass manufacturers for installing glass lites.
- G. Provide spacers for glass lites where the length plus width is larger than 50 inches as follows:
 - 1. Locate spacers directly opposite each other on both inside and outside faces of glass. Install correct size and spacing to preserve required face clearances, unless gaskets and glazing tapes are used that have demonstrated ability to maintain required face clearances and to comply with system performance requirements.
 - 2. Provide 1/8-inch minimum bite of spacers on glass and use thickness equal to sealant width. With glazing tape, use thickness slightly less than final compressed thickness of tape.
- H. Provide edge blocking where indicated or needed to prevent glass lites from moving sideways in glazing channel, as recommended in writing by glass manufacturer and according to requirements in referenced glazing publications.
- I. Set glass lites in each series with uniform pattern, draw, bow, and similar characteristics.
- J. Flush Glazing
 - 1. If the butt joint in the metal framing is in the vertical direction, the glazier shall run the tape initially on the head and sill members going directly over this joint. Should the butt joint in the metal framing run horizontally, tapes must first be applied to the jambs so that it crosses over the joint.
 - 2. Each tape section shall butt the adjoining tape and be united with a tool to eliminate any opening.
 - 3. Do not overlap the adjoining length of tape or rubber shim as this will prevent full contact around the perimeter of glass.
- K. Off-Set Glazing
 - 1. Where the glazing legs are off-set, the difference in the rabbet width shall be compensated by employing different glazing tapes with different

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diameter shims. The difference in shim shall be equal to the size of the offset. The thinner tape shall be positioned first on the glazing leg closest to the interior. The thicker tape shall be cut to the exact length of the dimension between the applied tapes, and installed on the outermost glazing leg.

2. Immediately prior to setting glass, paper backing shall be removed. Apply a toe bead of sealant 6" in each direction, from each corner.
3. Locate setting blocks in the sill member at quarter points, or if necessary to within 6" of each corner. Setting blocks must be set equal distance from center line of the glass and high enough to provide the recommended bite and edge clearances.
4. Set edge block according to glass manufacturer's recommendations.
5. Set Glass: The glass shall be pressed firmly against the tape to achieve full contact.
6. Interior stops shall be set, and glazing tape spline for the appropriate face clearance shall be rolled into place, compressing the glass to the shim within the glazing tape.

3.4 TAPE GLAZING

- A. Position tapes on fixed stops so that, when compressed by glass, their exposed edges are flush with or protrude slightly above sightline of stops.
- B. Install tapes continuously, but not necessarily in one continuous length. Do not stretch tapes to make them fit opening.
- C. Where framing joints are vertical, cover these joints by applying tapes to heads and sills first and then to jambs. Where framing joints are horizontal, cover these joints by applying tapes to jambs and then to heads and sills.
- D. Place joints in tapes at corners of opening with adjoining lengths butted together, not lapped. Seal joints in tapes with compatible sealant approved by tape manufacturer.
- E. Do not remove release paper from tape until just before each glazing unit is installed.
- F. Apply heel bead of elastomeric sealant as recommended by glass manufacturer or glass frame manufacturer.
- G. Center glass lites in openings on setting blocks and press firmly against tape by inserting dense compression gaskets formed and installed to lock in place

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against faces of removable stops. Start gasket applications at corners and work toward centers of openings.

- H. Apply cap bead of elastomeric sealant over exposed edge of tape where noted on approved shop drawings.

3.5 PROTECTION AND CLEANING

- A. Protect glass from contact with contaminating substances resulting from construction operations, including weld splatter. If, despite such protection, contaminating substances do come into contact with glass, remove them immediately as recommended by glass manufacturer.
- B. Examine glass surfaces adjacent to or below exterior concrete and other masonry surfaces at frequent intervals during construction, but not less than once a month, for build-up of dirt, scum, alkaline deposits, or stains; remove as recommended by glass manufacturer.
- C. Remove and replace glass that is broken, chipped, cracked, abraded, or damaged in any way, including natural causes, accidents, and vandalism, during construction period.
- D. Clean excess sealant or compound from glass and framing members immediately after application, using solvents or cleaners recommended by manufacturers.
- E. Glass to be cleaned according to:
 - 1. GANA Glass Information Bulletin GANA 01-0300 – "Proper Procedure for Cleaning Architectural Glass Products."
 - 2. GANA Glass Informational Bulletin GANA TD-02-0402 – "Heat Treated Glass Surfaces are Different."
- F. Do not use razor blades, scrapers or metal tools to clean glass.

END OF SECTION