

**Client:** Village of Oak Park  
**Project Name:** North Fire Station Emergency Egress Construction

**Project No.:** 23-125  
**Bid Due Date:** Friday, August 4th, 2023 @ 11:00 a.m.  
**Project Manager:** Vic Sabaliauskas  
 Building Maintenance Superintendent

### BID TAB WORKSHEET

Contractor	Base Bid Amount	Alternates	Total Bid Amount	EEO	Bid Bond
		Alt. No. 1		M/W/DBE	
Midwest Services & Development <a href="mailto:midwestservices2010@gmail.com">midwestservices2010@gmail.com</a>	\$73,000.00	\$13,000.00	\$86,000.00	No	X
D Kersey Construction <a href="mailto:brian@dkersey.com">brian@dkersey.com</a>	\$132,979.00	\$4,500.00	\$137,479.00	No	X

Base bid: Provide 6 X 6 wooden posts with black powder coated post anchor to concrete foundations

Alt. No. 1: Provide 4 X 4 galvanized hollow steel tube sections secured to concrete foundations with bolts to the anchor plate

**ADDENDUM NO. 1**

DATE: July 31, 2023

Project: Village of Oak Park – Main Fire Station #2  
Second Floor Balcony & Egress Alterations

Architect: StudioGC architecture + interiors  
223 W. Jackson Blvd. Suite 1200  
Chicago, Illinois 60606

Project No.: 23016B

*constantin bontas*

1.1 SUMMARY

- A. The Bidding Documents and Project Manual dated June 28, 2023 and Drawings dated June 28, 2023 for the above referenced project are hereby modified and revised as follows.
- B. The information contained within this Addendum modifies, supplements or replaces information contained in the Project Manual and the Contract Drawings and is hereby made a part of the Contract Documents.
- C. Acknowledge receipt of this Addendum on the Bid Form. FAILURE TO DO SO MAY SUBJECT THE BIDDER TO DISQUALIFICATION.
- D. The Bidding Documents include the Project Manual dated June 28, 2023 and Drawings dated June 28, 2023, and Addenda issued prior to the receipt of bids.

1.2 DRAWINGS

- A. Sheet A1.00 Dimensional & Demolition Plans
  - 1. REVISE per resubmitted sheet.
- B. Sheet A2.00 New & Demolition Elevations & Enlarged Plans
  - 1. REVISE per resubmitted sheet.
- C. Sheet A3.00 Sections & Details
  - 1. REVISE per resubmitted sheet.

1.3 CLARIFICATIONS

- A. Pre-bid meeting attendees sign in sheet is attached for information.

End Addendum 009113.1

This Addendum consists of 1 page and the following attachments:

Drawings: A1.00, A2.00, & A3.00.

Other: Attendees Sign In Sheet (1) Page



223 West Jackson Boulevard  
Suite 1200  
Chicago, IL 60606  
(312) 253-3400

Client: Village of Oak Park Fire Station #2  
Project: Renovations - Egress Deck Station #2  
Project No.: 23016B - 212 Augusta St, Oak Park, IL 60302  
Date: Thursday, July 13, 2023 @ 10:00 a.m.  
Meeting: Mandatory Prebid Meeting

### SIGN-IN SHEET

PLEASE PRINT LEGIBLY	NAME	COMPANY NAME	GC/SUB	PHONE	CELL PHONE	E-MAIL ADDRESS
	Constantin Boute	Midwest	G.C.	773-810-5204		midwestservices2020@gmail.com
	Pete Kelly	LoDestro	G.C.	630-383-8695		PKelly@LoDestroConstruction.com
	DAN RYDNIK	P. Kersey	GC	847-919-4980		1420 RD KERSEY.COM

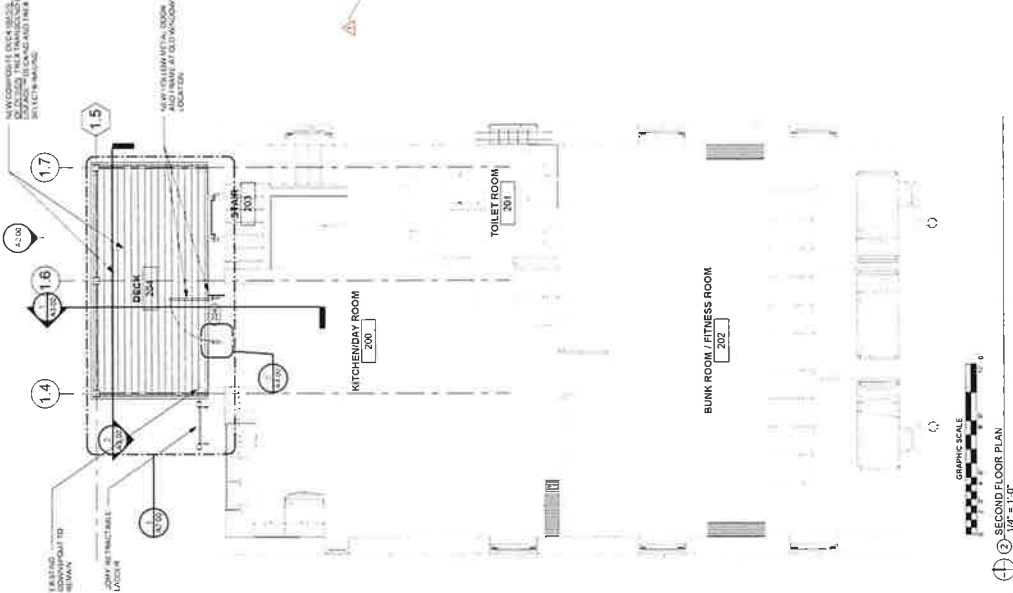
Second Floor Balcony & Egress  
Alertions

**FLOOR PLAN LEGEND**

ROOM NAME	ROOM #	ROOM FILL	ROOM LINE	ROOM HATCH
TOILET ROOM	201	[Pattern]	[Pattern]	[Pattern]
STAIR	202	[Pattern]	[Pattern]	[Pattern]
KITCHEN DAY ROOM	200	[Pattern]	[Pattern]	[Pattern]
BUNK ROOM / FITNESS ROOM	202	[Pattern]	[Pattern]	[Pattern]

**GENERAL NOTES - FLOOR PLAN**

1. ALL EXISTING WALLS AND PARTITIONS TO REMAIN UNLESS NOTED OTHERWISE.
2. ALL EXISTING FLOORING TO REMAIN UNLESS NOTED OTHERWISE.
3. ALL EXISTING CEILING TO REMAIN UNLESS NOTED OTHERWISE.
4. ALL EXISTING LIGHT FIXTURES TO REMAIN UNLESS NOTED OTHERWISE.
5. ALL EXISTING ELECTRICAL AND MECHANICAL TO REMAIN UNLESS NOTED OTHERWISE.
6. ALL EXISTING DOORS TO REMAIN UNLESS NOTED OTHERWISE.
7. ALL EXISTING WINDOWS TO REMAIN UNLESS NOTED OTHERWISE.
8. ALL EXISTING STAIRS TO REMAIN UNLESS NOTED OTHERWISE.
9. ALL EXISTING BALCONY TO REMAIN UNLESS NOTED OTHERWISE.
10. ALL EXISTING EGRESS TO REMAIN UNLESS NOTED OTHERWISE.
11. ALL EXISTING SIGNAGE TO REMAIN UNLESS NOTED OTHERWISE.
12. ALL EXISTING PAINT TO REMAIN UNLESS NOTED OTHERWISE.
13. ALL EXISTING PLASTER TO REMAIN UNLESS NOTED OTHERWISE.
14. ALL EXISTING LATH AND GYPSUM TO REMAIN UNLESS NOTED OTHERWISE.
15. ALL EXISTING CONCRETE TO REMAIN UNLESS NOTED OTHERWISE.
16. ALL EXISTING MASONRY TO REMAIN UNLESS NOTED OTHERWISE.
17. ALL EXISTING METAL TO REMAIN UNLESS NOTED OTHERWISE.
18. ALL EXISTING GLASS TO REMAIN UNLESS NOTED OTHERWISE.
19. ALL EXISTING ROOFING TO REMAIN UNLESS NOTED OTHERWISE.
20. ALL EXISTING FOUNDATION TO REMAIN UNLESS NOTED OTHERWISE.

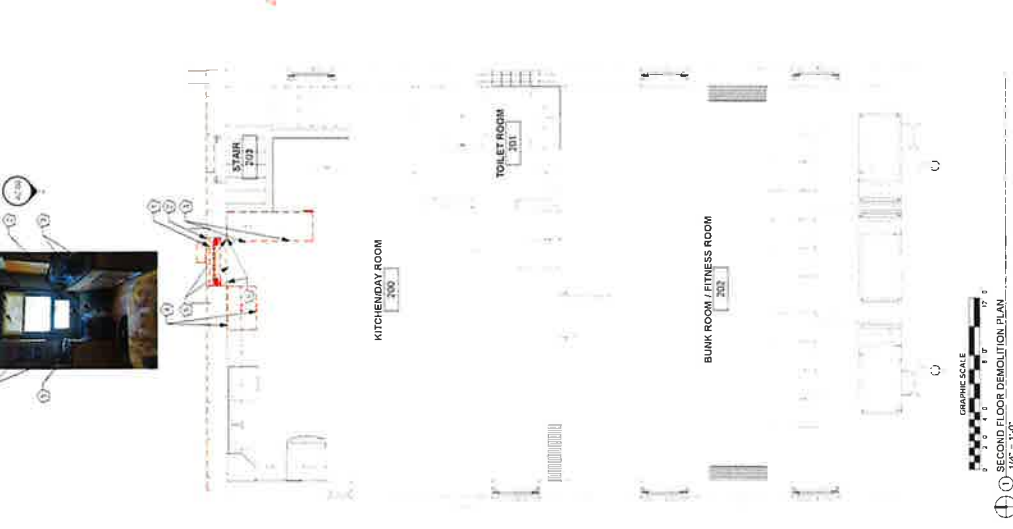


**DEMOLITION LEGEND**

DEMOLITION TYPE	DEMOLITION LINE	DEMOLITION HATCH
WALLS TO BE REMOVED	[Pattern]	[Pattern]
ROOFING TO BE REMOVED	[Pattern]	[Pattern]
CEILING TO BE REMOVED	[Pattern]	[Pattern]
FLOORING TO BE REMOVED	[Pattern]	[Pattern]
MECHANICAL TO BE REMOVED	[Pattern]	[Pattern]
ELECTRICAL TO BE REMOVED	[Pattern]	[Pattern]
PLASTER TO BE REMOVED	[Pattern]	[Pattern]
CONCRETE TO BE REMOVED	[Pattern]	[Pattern]
MASONRY TO BE REMOVED	[Pattern]	[Pattern]
GLASS TO BE REMOVED	[Pattern]	[Pattern]
ROOFING TO BE REMOVED	[Pattern]	[Pattern]
CEILING TO BE REMOVED	[Pattern]	[Pattern]
FLOORING TO BE REMOVED	[Pattern]	[Pattern]
MECHANICAL TO BE REMOVED	[Pattern]	[Pattern]
ELECTRICAL TO BE REMOVED	[Pattern]	[Pattern]
PLASTER TO BE REMOVED	[Pattern]	[Pattern]
CONCRETE TO BE REMOVED	[Pattern]	[Pattern]
MASONRY TO BE REMOVED	[Pattern]	[Pattern]
GLASS TO BE REMOVED	[Pattern]	[Pattern]

**DEMOLITION SHEET NOTES**

1. ALL EXISTING WALLS AND PARTITIONS TO REMAIN UNLESS NOTED OTHERWISE.
2. ALL EXISTING FLOORING TO REMAIN UNLESS NOTED OTHERWISE.
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19. ALL EXISTING ROOFING TO REMAIN UNLESS NOTED OTHERWISE.
20. ALL EXISTING FOUNDATION TO REMAIN UNLESS NOTED OTHERWISE.



Second Floor Balcony & Egress Alterations

**FLOOR PLAN LEGEND:**

**ROOM NAME**  
 101 KEEP TAC  
 102 DOOR AND FRAME TAG  
 103 PARTITION TAG  
 104 NEW WINDOW SCHEDULE

- GENERAL NOTES - FLOOR PLAN**
1. CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS AND MATERIALS TO BE DEMOLISHED OR REMOVED PRIOR TO THE START OF WORK.
  2. THE CONTRACTOR SHALL PROTECT ALL WORKING CONDITIONS AND MATERIALS TO BE RE-USED OR RE-INSTALLED AT THE TIME OF CONSTRUCTION.
  3. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE LATEST EDITIONS OF ALL APPLICABLE CODES AND REGULATIONS.
  4. THE CONTRACTOR SHALL MAINTAIN ACCESS TO ALL EXISTING UTILITIES AND SERVICES AT ALL TIMES.
  5. ALL DEMOLITION WORK SHALL BE DONE IN ACCORDANCE WITH ALL APPLICABLE REGULATIONS AND PERMITS.
  6. THE CONTRACTOR SHALL MAINTAIN ALL EXISTING STRUCTURAL ELEMENTS AND FOUNDATIONS UNLESS OTHERWISE NOTED.
  7. ALL NEW WORK SHALL BE DONE IN ACCORDANCE WITH ALL APPLICABLE REGULATIONS AND PERMITS.
  8. THE CONTRACTOR SHALL MAINTAIN ALL EXISTING FINISHES AND MATERIALS UNLESS OTHERWISE NOTED.
  9. ALL WORK SHALL BE DONE IN ACCORDANCE WITH ALL APPLICABLE REGULATIONS AND PERMITS.
  10. THE CONTRACTOR SHALL MAINTAIN ALL EXISTING CONDITIONS AND MATERIALS TO BE RE-USED OR RE-INSTALLED AT THE TIME OF CONSTRUCTION.

NEW WINDOW TO EXISTING WINDOW LOCATION  
 EXISTING WINDOW TO NEW WINDOW LOCATION

NEW WINDOW TO EXISTING WINDOW LOCATION  
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**DEMOLITION LEGEND**

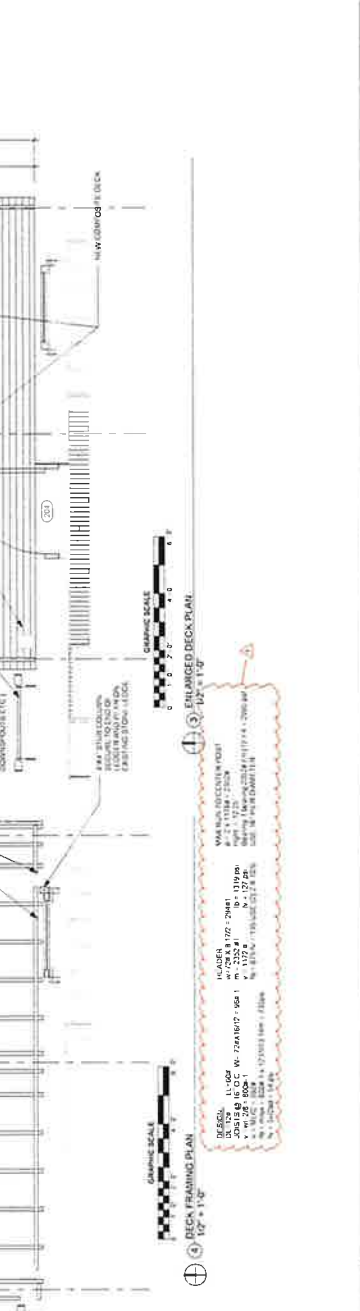
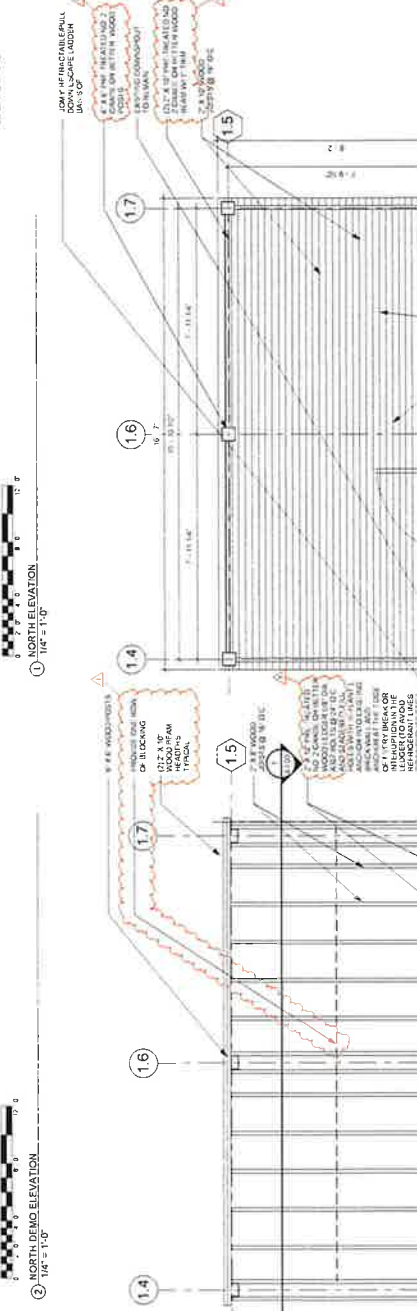
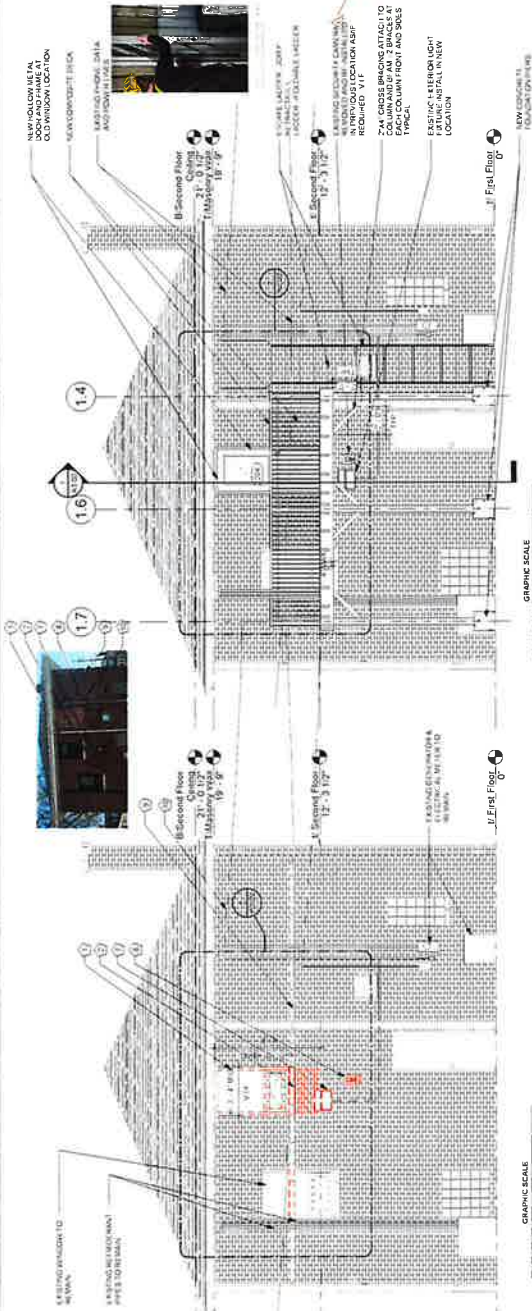
1. NEW TO BE REMOVED  
 2. DEMOLITION NOTE  
 3. PORTION OF EXISTING CONCRETE EXISTING WITH NEW WORK

**DEMOLITION SHEET NOTES**

1. DEMOLITION SHALL BE DONE IN ACCORDANCE WITH ALL APPLICABLE REGULATIONS AND PERMITS.
2. ALL DEMOLITION WORK SHALL BE DONE IN ACCORDANCE WITH ALL APPLICABLE REGULATIONS AND PERMITS.
3. THE CONTRACTOR SHALL MAINTAIN ALL EXISTING STRUCTURAL ELEMENTS AND FOUNDATIONS UNLESS OTHERWISE NOTED.
4. ALL DEMOLITION WORK SHALL BE DONE IN ACCORDANCE WITH ALL APPLICABLE REGULATIONS AND PERMITS.
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7. THE CONTRACTOR SHALL MAINTAIN ALL EXISTING CONDITIONS AND MATERIALS TO BE RE-USED OR RE-INSTALLED AT THE TIME OF CONSTRUCTION.
8. ALL DEMOLITION WORK SHALL BE DONE IN ACCORDANCE WITH ALL APPLICABLE REGULATIONS AND PERMITS.
9. THE CONTRACTOR SHALL MAINTAIN ALL EXISTING STRUCTURAL ELEMENTS AND FOUNDATIONS UNLESS OTHERWISE NOTED.
10. ALL DEMOLITION WORK SHALL BE DONE IN ACCORDANCE WITH ALL APPLICABLE REGULATIONS AND PERMITS.

**GENERAL NOTES - DEMOLITION**

1. CONTRACTOR TO VERIFY THE BUILDING WITH THE LOCAL PERMITS DEPARTMENT PRIOR TO THE START OF WORK.
2. CONTRACTOR TO COORDINATE WITH ALL APPLICABLE REGULATIONS AND PERMITS.
3. CONTRACTOR TO MAINTAIN ALL EXISTING CONDITIONS AND MATERIALS TO BE RE-USED OR RE-INSTALLED AT THE TIME OF CONSTRUCTION.
4. CONTRACTOR TO MAINTAIN ALL EXISTING STRUCTURAL ELEMENTS AND FOUNDATIONS UNLESS OTHERWISE NOTED.
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10. CONTRACTOR TO MAINTAIN ALL EXISTING STRUCTURAL ELEMENTS AND FOUNDATIONS UNLESS OTHERWISE NOTED.



DESK: 11-265  
 JOB: 12-125  
 DATE: 02/20/21

OWNER: VILLAGE OF OAK PARK  
 PROJECT: 212 AUGUSTA ST  
 DRAWING: A2.00



NO.	ISSUE	DATE
1	REVISION	6/20/2021
2	REVISION	7/20/2023

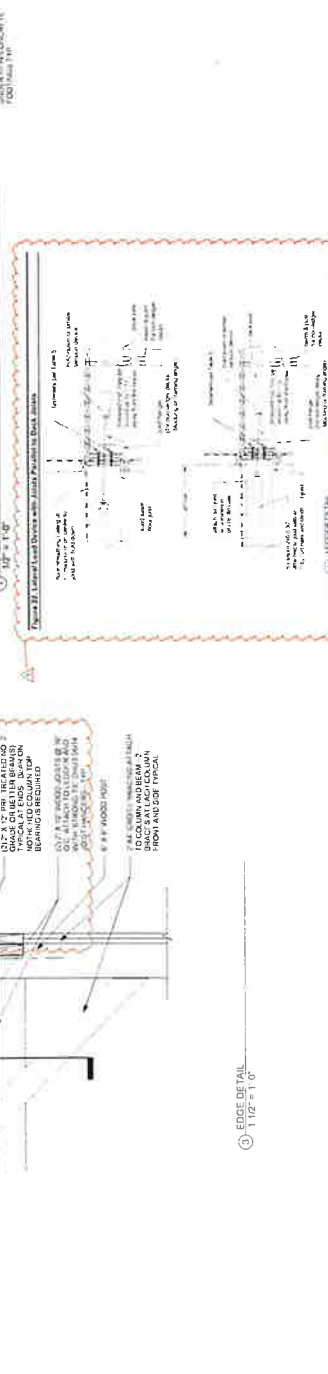
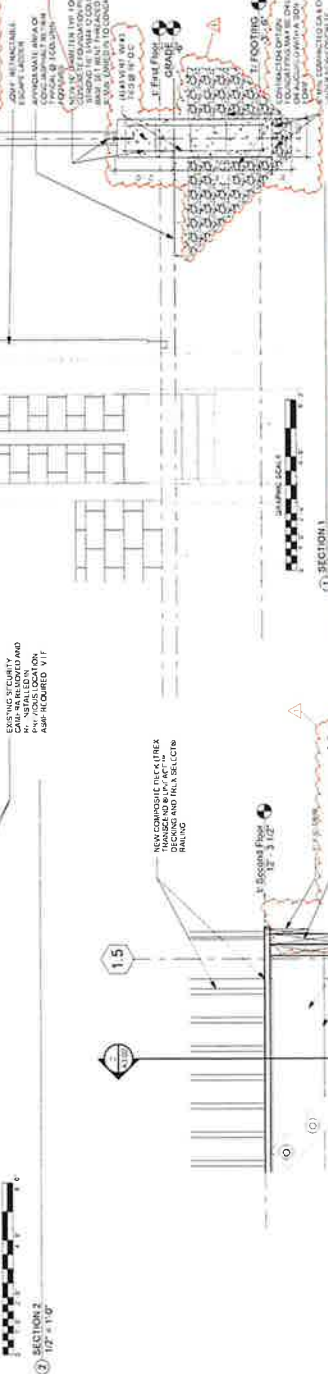
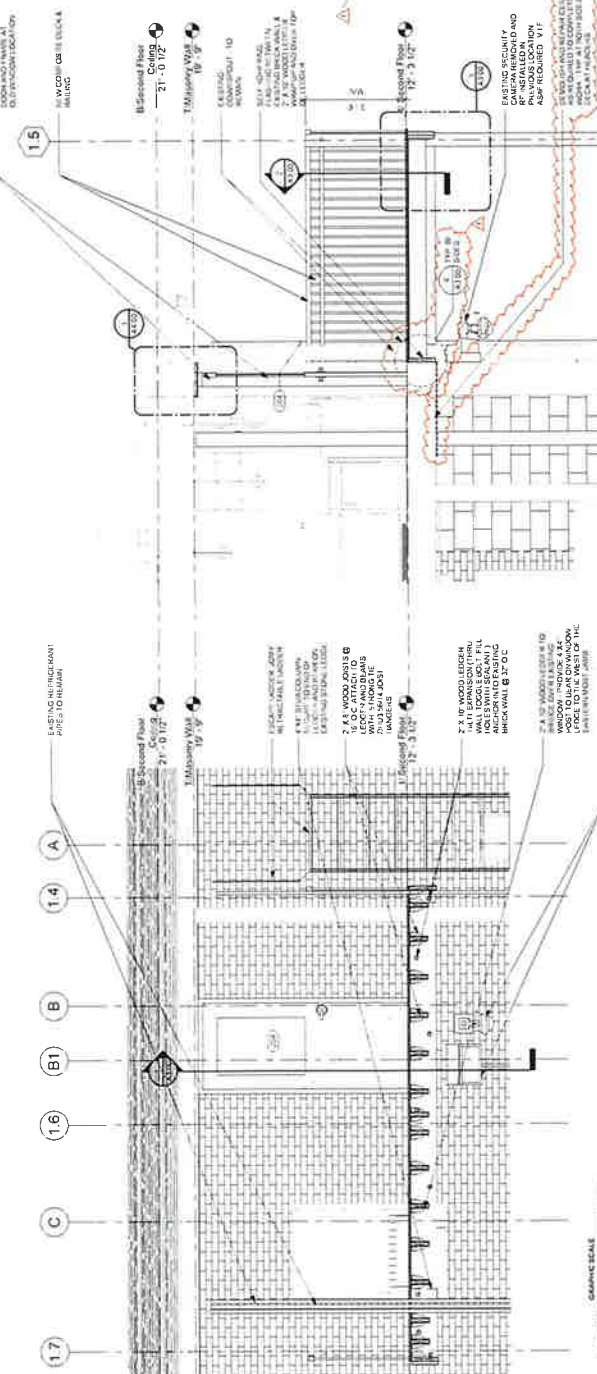
SECTIONS & DETAILS

**FLOOR PLAN LEGEND:**

ROOM NAME	ROOM #	ROOM #	ROOM #
EXISTING	101	102	103
NEW WORK	104	105	106

**GENERAL NOTES - FLOOR PLAN**

- FIELD VIT ALL EXISTING DIMENSIONS AND WALLS THAT TERMINATE AGAINST AN EXISTING WALL SHALL BE SHOWN WITH A DASHED LINE.
- THE EXISTING AND THE NEW SHALL BE SHOWN WITH DIFFERENT PATTERNS.
- ALL WALLS AND CEILING SHALL BE FINISHED WITH GYP. BOARD.
- DOOR SWING SHALL BE TO THE RIGHT UNLESS NOTED OTHERWISE.
- DOOR SWING SHALL BE TO THE LEFT UNLESS NOTED OTHERWISE.
- DOOR SWING SHALL BE TO THE RIGHT UNLESS NOTED OTHERWISE.
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7/18/2023

Nicoleta Man  
MIDWEST SERVICES AND DEVELOPMENT CORP.  
5280 N. Lawler Ave  
Chicago, IL 60630

Dear Nicoleta,

Enclosed please find the attached bond(s) executed per your request.

It is your responsibility to carefully review the bond(s) prior to execution to verify they have been presented on the correct form with the appropriate name(s), bond amounts and dates, and to ensure the bond(s) conform with your needs and instructions to us and provide the appropriate terms to all parties. Any discrepancies, deficiencies or modifications must immediately be brought to our attention in writing. Failing such advice to us, you understand we will have no liability for any deficiencies or discrepancies in or required modifications to the bond(s).

By affixing your signature, executing and providing this bond(s) to the obligee you are verifying and, we will justifiably assume, the bond(s) has been issued correctly with the best interests and requirements of all parties being properly considered.

Sincerely,

J. Ryan Bonding, Inc.



July 18, 2023

Contractor Fax (773)000-0000  
Website [ryanbonding.com](http://ryanbonding.com)  
P.O. Box 465, Hudson WI 54016-0465  
Phone 800-535-0006 Fax 715-377-8231

MIDWEST SERVICES AND DEVELOPMENT CORP.  
5280 N. Lawler Ave  
Chicago, IL 60630

**Bid Bond Results Form**

**DO NOT PUT THIS PAGE WITH YOUR BID-COMPLETE AND FAX OR EMAIL BACK TO J.RYAN BONDING, INC.**

Your Bid Bond is attached. Be sure to *SIGN* your Bid Bond.  
It may need to be notarized. If you have any questions, please call.

**Project Owner:** Village of Oak Park  
**Bid Date:** 8/04/2023  
**Project Name:** Fire Station 2 Exterior Deck Egress

**Approximate Bid Amount:** \$80,000.00

**\*\*\*IMPORTANT\*\*\*** If your bid is over 10% of your estimate, you **MUST** call us for approval.

**PLEASE LIST THE FIRST THREE BIDDERS WHEN KNOWN AND RETURN VIA FAX OR EMAIL**

**OS02371**

**Bid Security**

<b>Contractor's Name</b>	<b>Amount</b>	<b>Bid Bond</b>	<b>Check</b>
Low _____	\$ _____	<input type="checkbox"/>	<input type="checkbox"/>
2 <sup>nd</sup> _____	\$ _____	<input type="checkbox"/>	<input type="checkbox"/>
3 <sup>rd</sup> _____	\$ _____	<input type="checkbox"/>	<input type="checkbox"/>
<b>Your Bid If Not Listed Above</b>	\$ _____		

**Comments:** \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

By \_\_\_\_\_ Phone \_\_\_\_\_ Date \_\_\_\_\_

**PLEASE RETURN TO J.RYAN BONDING BY FAX, EMAIL ([bidbonds@ryanbonding.com](mailto:bidbonds@ryanbonding.com))**

**J. Ryan Fax: (715) 377-8231**

**THANK YOU**

RETURNED VIA: Email



**Bid Bond**

 **AIA** Document A310™ – 2010

**CONTRACTOR:**  
*(Name, legal status and address)*

Bid Bond No. OS02371

**MIDWEST SERVICES AND DEVELOPMENT CORP.**  
5280 N. Lawler Ave  
Chicago, IL 60630

**SURETY:**  
*(Name, legal status and principal place of business)*

**Old Republic Surety Company**  
P.O. Box 1635  
Milwaukee, WI 53201-1635

This document has important legal consequences. Consultation with an attorney is encouraged with respect to its completion or modification.

**OWNER:**  
*(Name, legal status and address)*

Any singular reference to Contractor, Surety, Owner or other party shall be considered plural where applicable.

Village of Oak Park  
201 South Boulevard  
Oak Park, IL 60302

**BOND AMOUNT:** Ten Percent of the Bid Amount (10.00% of Bid Amount)

**PROJECT:**  
*(Name, location or address, and Project number, if any)*  
Fire Station 2 Exterior Deck Egress

The Contractor and Surety are bound to the Owner in the amount set forth above, for the payment of which the Contractor and Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, as provided herein. The conditions of this Bond are such that if the Owner accepts the bid of the Contractor within the time specified in the bid documents, or within such time period as may be agreed to by the Owner and Contractor, and the Contractor either (1) enters into a contract with the Owner in accordance with the terms of such bid, and gives such bond or bonds as may be specified in the bidding or Contract Documents, with a surety admitted in the jurisdiction of the Project and otherwise acceptable to the Owner, for the faithful performance of such Contract and for the prompt payment of labor and material furnished in the prosecution thereof; or (2) pays to the Owner the difference, not to exceed the amount of this Bond, between the amount specified in said bid and such larger amount for which the Owner may in good faith contract with another party to perform the work covered by said bid, then this obligation shall be null and void, otherwise to remain in full force and effect. The Surety hereby waives any notice of an agreement between the Owner and Contractor to extend the time in which the Owner may accept the bid. Waiver of notice by the Surety shall not apply to any extension exceeding sixty (60) days in the aggregate beyond the time for acceptance of bids specified in the bid documents, and the Owner and Contractor shall obtain the Surety's consent for an extension beyond sixty (60) days.

If this Bond is issued in connection with a subcontractor's bid to a Contractor, the term Contractor in this Bond shall be deemed to be Subcontractor and the term Owner shall be deemed to be Contractor.

When this Bond has been furnished to comply with a statutory or other legal requirement in the location of the Project, any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted herefrom and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. When so furnished, the intent is that this Bond shall be construed as a statutory bond and not as a common law bond.

Signed and sealed this 18th day of July, 2023

*Bianca Rogers*  
\_\_\_\_\_  
(Witness)  
*Karla K. Hoffron*  
\_\_\_\_\_  
(Witness) Karla K. Hoffron

**MIDWEST SERVICES AND DEVELOPMENT CORP.**  
(Principal) *constantin bontas* (Seal)  
\_\_\_\_\_  
(Title)  
**Old Republic Surety Company**  
(Surety) *Samuel Duchow* (Seal)  
\_\_\_\_\_  
(Title) Samuel Duchow, Attorney-in-Fact



# OLD REPUBLIC SURETY COMPANY

## POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS: That OLD REPUBLIC SURETY COMPANY, a Wisconsin stock insurance corporation, does make, constitute and appoint: MICHAEL J. DOUGLAS, CHRIS M. STEINAGEL, CHRISTOPHER MATHER KEMP, ROBERT S. DOWNEY, CONNIE SMITH, KORY C. MORTEL, ELIOT MOTU, SAMUEL DUCHOW of HUDSON, WI

its true and lawful Attorney(s)-in-Fact, with full power and authority for and on behalf of the company as surety, to execute and deliver and affix the seal of the company thereto (if a seal is required), bonds, undertakings, recognizances or other written obligations in the nature thereof, (other than bail bonds, bank depository bonds, mortgage deficiency bonds, mortgage guaranty bonds, guarantees of installment paper and note guaranty bonds, self-insurance workers compensation bonds guaranteeing payment of benefits, or black lung bonds), as follows:

### ALL WRITTEN INSTRUMENTS

and to bind OLD REPUBLIC SURETY COMPANY thereby, and all of the acts of said Attorneys-in-Fact, pursuant to these presents, are ratified and confirmed. This appointment is made under and by authority of the board of directors at a special meeting held on February 18, 1982.

This Power of Attorney is signed and sealed by facsimile under and by the authority of the following resolutions adopted by the board of directors of the OLD REPUBLIC SURETY COMPANY on February 18, 1982.

RESOLVED that, the president, any vice-president or assistant vice president, in conjunction with the secretary or any assistant secretary, may appoint attorneys-in-fact or agents with authority as defined or limited in the instrument evidencing the appointment in each case, for and on behalf of the company to execute and deliver and affix the seal of the company to bonds, undertakings, recognizances, and suretyship obligations of all kinds; and said officers may remove any such attorney-in-fact or agent and revoke any Power of Attorney previously granted to such person.

RESOLVED FURTHER, that any bond, undertaking, recognizance, or suretyship obligation shall be valid and binding upon the Company

- (i) when signed by the president, any vice president or assistant vice president, and attested and sealed (if a seal be required) by any secretary or assistant secretary; or
- (ii) when signed by the president, any vice president or assistant vice president, secretary or assistant secretary, and countersigned and sealed (if a seal be required) by a duly authorized attorney-in-fact or agent; or
- (iii) when duly executed and sealed (if a seal be required) by one or more attorneys-in-fact or agents pursuant to and within the limits of the authority evidenced by the Power of Attorney issued by the company to such person or persons.

RESOLVED FURTHER that the signature of any authorized officer and the seal of the company may be affixed by facsimile to any Power of Attorney or certification thereof authorizing the execution and delivery of any bond, undertaking, recognizance, or other suretyship obligations of the company; and such signature and seal when so used shall have the same force and effect as though manually affixed.

IN WITNESS WHEREOF, OLD REPUBLIC SURETY COMPANY has caused these presents to be signed by its proper officer, and its corporate seal to be affixed this 22nd day of September, 2022

Karen J. Haffner  
Assistant Secretary



Alan Pavlic  
President

STATE OF WISCONSIN, COUNTY OF WAUKESHA - SS

On this 22nd day of September, 2022, personally came before me, Alan Pavlic and Karen J Haffner, to me known to be the individuals and officers of the OLD REPUBLIC SURETY COMPANY who executed the above instrument, and they each acknowledged the execution of the same, and being by me duly sworn, did severally depose and say: that they are the said officers of the corporation aforesaid, and that the seal affixed to the above instrument is the seal of the corporation, and that said corporate seal and their signatures as such officers were duly affixed and subscribed to the said instrument by the authority of the board of directors of said corporation.



Kathryn R. Pearson  
Notary Public

My Commission Expires: September 28, 2026  
(Expiration of notary's commission does not invalidate this instrument)

### CERTIFICATE

I, the undersigned, assistant secretary of the OLD REPUBLIC SURETY COMPANY, a Wisconsin corporation, CERTIFY that the foregoing and attached Power of Attorney remains in full force and has not been revoked; and furthermore, that the Resolutions of the board of directors set forth in the Power of Attorney, are now in force.

24-5172



Signed and sealed at the City of Brookfield, WI this 18th day of July, 2023

Karen J. Haffner  
Assistant Secretary

ORSC 22262 (3-05)

**SECTION IV  
PROPOSAL FORM (Pricing)**

The undersigned proposes to furnish all labor and materials required to complete the Work in accordance with the attached specifications and at the price indicated below.

**Total Lump Sum Cost Base Bid:**                     \$ 73,000.00

**Alternates:**

Alternate Bid No. 1: Support Columns

Base Bid: Provide 6x6 wood posts secured with black powder coated post anchor to concrete foundations.

Alternate Bid: Provide 4x4 galvanized steel hollow steel tube sections secured to concrete foundations with bolts to the anchor plate.

**Total for Alt. No.1:**                                     \$ 13,000.00

**24-Hour Emergency Call-back Number:**

( 773 ) 8185204

Printed Name: Constantin Bontas

Proposal Signature: *constantin bontas*

State of Illinois )                     County of Cook )

Constantin Bontas  
(Type Name of Individual Signing)

being first duly sworn on oath deposes and says that the contractor on the above proposal is organized as indicated below and that all statements herein made on behalf of such Contractor and that their deponent is authorized to make them, and also deposes and says that deponent has examined and carefully prepared their proposal from the agreement specifications and has checked the same in detail before submitting this proposal; that the statements contained herein are true and correct.

Signature of contractor authorizes the Village of Oak Park to verify references of business and credit at its option.

Signature of contractor shall also be acknowledged before a Notary Public or other person authorized by law to execute such acknowledgments.

Contractor and that their deponent is authorized to make them, and also deposes and says that deponent has examined and carefully prepared their proposal from the agreement specifications and has checked the same in detail before submitting this proposal; that the statements contained herein are true and correct.

Signature of contractor authorizes the Village of Oak Park to verify references of business and credit at its option.

Signature of contractor shall also be acknowledged before a Notary Public or other person authorized by law to execute such acknowledgments.

Dated: 08/04/2023 /      / 2023                      Midwest Service and Development

Organization Name

(Seal - If Corporation)

By: Constantin Bontas

5820 N. Lawler, Chicago, IL, 60630

Authorized Signature

Address

Telephone: 773-8185204

Subscribed and sworn to before me this Eight day of August, 2023  
in the State of Illinois. My

Commission

Notary Public Bianca Rogers

Expires on      /      /     



Complete Applicable Paragraph Below

(a) Corporation

The contractor is a corporation, which operates under the legal name of Midwest Services and is organized and existing under the laws of the State of     . The full names of its Officers are:

President Constantin Bontas

Secretary Nicoleta Man

Treasurer Nicoleta Man

The corporation does have a corporate seal. (In the event that this proposal is executed by a person other than the President, attach hereto a certified copy of that section of Corporate By-Laws or other authorization by the Corporation that permits the person to execute the offer for the corporation.)

(b) Partnership

Names, Signatures, and Addresses of all Partners

\_\_\_\_\_



Contractor and that their deponent is authorized to make them, and also deposes and says that deponent has examined and carefully prepared their proposal from the agreement specifications and has checked the same in detail before submitting this proposal; that the statements contained herein are true and correct.

Signature of contractor authorizes the Village of Oak Park to verify references of business and credit at its option.

Signature of contractor shall also be acknowledged before a Notary Public or other person authorized by law to execute such acknowledgments.

Dated: 08/04/2023 /      / 2023                      Midwest Service and Development  
Organization Name  
(Seal - If Corporation)  
By: constantin bontas    5820 N.Lawler , Chicago, IL, 60630  
Authorized Signature    Address

Telephone: 773-8185204  
Subscribed and sworn to before me this Eight day of August, 2023  
in the State of Illinois. My

Commission  
Notary Public BIANCA ROGERS  
Expires on      /      /     



Complete Applicable Paragraph Below

(a) Corporation

The contractor is a corporation, which operates under the legal name of Midwest Services and is organized and existing under the laws of the State of     . The full names of its Officers are:

President Constantin Bontas

Secretary Nicoleta Man

Treasurer Nicoleta Man

The corporation does have a corporate seal. (In the event that this proposal is executed by a person other than the President, attach hereto a certified copy of that section of Corporate By-Laws or other authorization by the Corporation that permits the person to execute the offer for the corporation.)

(b) Partnership

Names, Signatures, and Addresses of all Partners

\_\_\_\_\_



\_\_\_\_\_

The partnership does business under the legal name of \_\_\_\_\_, which name is \_\_\_\_\_

is registered with the office of \_\_\_\_\_ in the county of \_\_\_\_\_.

(c) Sole Proprietor  
The contractor is a Sole Proprietor whose full name is \_\_\_\_\_ If the contractor is operating under a trade name, said trade name is \_\_\_\_\_, which name is registered with the office of \_\_\_\_\_ in the county of \_\_\_\_\_.

Signed: \_\_\_\_\_  
Sole Proprietor

In compliance with the above, the undersigned offers and agrees, if his/her proposal is accepted within ninety (90) calendar days from date of opening, to furnish any or all of the items upon which prices are quoted, at the price set opposite each item, delivered at the designated point within the time specified above.

**SECTION VI**  
**TAX COMPLIANCE AFFIDAVIT**

Constantin Bontas, being first duly sworn, deposes and says:

that he/she is President of  
(partner, officer, owner, etc.)

Midwest Service and Development  
(Contractor selected)

The individual or entity making the foregoing proposal or proposal certifies that he/she is not barred from entering into an agreement with the Village of Oak Park because of any delinquency in the payment of any tax administered by the Department of Revenue unless the individual or entity is contesting, in accordance with the procedures established by the appropriate revenue act, liability for the tax or the amount of the tax. The individual or entity making the proposal or proposal understands that making a false statement regarding delinquency in taxes is a Class A Misdemeanor and, in addition, voids the agreement and allows the municipality to recover all amounts paid to the individual or entity under the agreement in civil action.

Constantin Bontas

By:

Its: President

(name of contractor if the contractor is an individual)

(name of partner if the contractor is a partnership)

(name of officer if the contractor is a corporation)

The above statement must be subscribed and sworn to before a notary public.

Subscribed and sworn to before me this Eight day of August, 2023.

Bianca ROGERS  
Notary Public's Signature

- Notary Public Seal



**Reporting Requirements**

The following forms must be completed in their entirety, notarized and included as part of the proposal document. Failure to respond truthfully to any question on the list or failure to cooperate fully with further inquiry by the Village of Oak Park will result in disqualification of your proposal.

**SECTION VII**  
**ORGANIZATION OF PROPOSING FIRM**

Please fill out the applicable section:

**A. Corporation:**

The contractor is a corporation, legally named Midwest Service and Development and is organized and existing in good standing under the laws of the State of Illinois. The full names of its officers are:

President Constantin Bontas

Secretary Nicoleta Man

Treasurer Nicoleta Man

Registered Agent Name and Address: 5820 N. Lawler , Chicago, IL, 60630

The corporation has a corporate seal. (In the event that this proposal is executed by a person other than the President, attach hereto a certified copy of that section of Corporate By-Laws or other authorization by the Corporation that permits the person to execute the offer for the corporation.)

**B. Sole Proprietor:**

The contractor is a Sole Proprietor. If the contractor does business under an assumed name, the

assumed name is \_\_\_\_\_, which is registered with the Cook County Clerk. The contractor is otherwise in compliance with the Assumed Business Name Act, 805 ILCS 405/0.01, et. seq.

**C. Partnership:**

The contractor is a partnership which operates under the name \_\_\_\_\_

The following are the names, addresses and signatures of all partners:

Signature	Signature

(Attach additional sheets if necessary.) If so, check here \_\_\_\_\_.

If the partnership does business under an assumed name, the assumed name must be registered with the Cook County Clerk and the partnership is otherwise in compliance with the Assumed Business Name Act, 805 ILCS 405/0.01, et. seq.

**D. Affiliates:** The name and address of any affiliated entity of the business, including a description of the affiliation: \_\_\_\_\_

\_\_\_\_\_  
Signature of Owner

**SECTION VIII**  
**PROPOSAL BOND**

WE \_\_\_\_\_  
as PRINCIPAL, and \_\_\_\_\_  
as SURETY, are held and firmly bound unto the Village of Oak Park, Illinois (hereafter referred to as "VOP") in the penal sum of Ten Percent (10%) of the total Proposal price, as specified in the invitation for Proposals. We bind ourselves, our heirs, executors, administrators, successors, and assigns, jointly to pay to the VOP this sum under the conditions of this instrument.

WHEREAS THE CONDITION OF THE FOREGOING OBLIGATION IS SUCH that, the said PRINCIPAL is submitting a written Proposal to the VOP acting through its awarding authority for the completion of the work designated as the above section.

THEREFORE if the Proposal is accepted and an agreement awarded to the PRINCIPAL by the VOP for the above-designated section and the PRINCIPAL shall within fifteen (15) days after award enter into a formal agreement, furnish surety guaranteeing the faithful performance of the work, and furnish evidence of the required insurance coverage, all as provided in specifications then this obligation shall become void; otherwise it shall remain in full force and effect.

IN THE EVENT the VOP determines the PRINCIPAL has failed to enter into a formal agreement in compliance with any requirements set forth in the preceding paragraph, then the VOP acting through its awarding authority shall immediately be entitled to recover the full penal sum set out above, together with all court costs, all attorney fees, and any other expense of recovery.

IN TESTIMONY WHEREOF, the said PRINCIPAL and the said SURETY have caused this instrument to be signed by their respective officers this \_\_\_\_\_ day of \_\_\_\_\_ A.D. 2023.

PRINCIPAL

\_\_\_\_\_  
(Company Name) (Company Name)

By: \_\_\_\_\_ By: \_\_\_\_\_  
(Signature & Title) (Signature & Title)

(If PRINCIPAL is a joint venture of two or more contractors, the company names, and authorized signatures of each contractor must be affixed)

**SECTION IX**  
**CONTRACT BOND**



**Contract Bond**

\_\_\_\_\_, as PRINCIPAL, and \_\_\_\_\_ as SURETY, are held and firmly bound unto the Village of Oak Park (hereafter referred to as "Village") in the penal sum of \_\_\_\_\_, well and truly to be paid to the Village, for the payment of which its heirs, executors, administrators, successors and assigns, are bound jointly to pay to the Village under the conditions of this instrument.

**WHEREAS**, THE CONDITION OF THE FOREGOING OBLIGATION IS SUCH that, the Principal has entered into a written contract with the Village, acting through its President and Board of Trustees, for the construction of work, which contract is hereby referred to and made a part hereof as if written herein at length, and whereby the Principal has promised and agreed to perform the work in accordance with the terms of the contract, and has promised to pay all sums of money due for any labor, materials, apparatus, fixtures or machinery furnished to such Principal for the purpose of performing such work, including paying not less than the prevailing rate of wages in Cook County, where the work is for the construction of any public work subject to the Prevailing Wage Act, and has further agreed to save and indemnify and keep harmless the Village against all liabilities, judgments, costs and expenses which may in any manner accrue against the Village in consequence of granting such contract or which may in any manner result from the carelessness or neglect of the Principal, his agents, employees or workmen in any respect whatever: and has further agreed that this bond will inure to the benefit of any person, firm, company, or corporation, to whom any money may be due from the Principal, subcontractor or otherwise, for any such labor, materials, apparatus, fixtures or machinery so furnished and that suit may be maintained on such bond by any such person, firm, company, or corporation, for the recovery of any such money.

**NOW THEREFORE**, if the Principal shall well and truly perform the work in accordance with the terms of the contract, and shall pay all sums of money due or to become due for any labor, materials, apparatus, fixtures or machinery furnished to it for the purpose of constructing such work, and shall commence and complete the work within the time prescribed in the contract, and shall pay and discharge all damages, direct and indirect, that may be suffered or sustained on account of such work during the time of performance thereof and until the work shall have been accepted, and shall save and indemnify and keep harmless the Village against all liabilities, judgments, costs and expenses which may in any manner accrue against the Village in consequence of granting such contract or which may in any manner result from the carelessness or neglect of the Principal, his agents, employees or workmen in any respect whatever: and shall in all respects fully and faithfully comply with all the provisions, conditions, and requirements of the contract, then this obligation will be void; otherwise it will remain in full force and effect.



IN WITNESS WHEREOF, the PRINCIPAL and the SURETY have caused this instrument to be signed by their respective officers this \_\_\_\_ day of \_\_\_\_\_, 2023.

**NAME OF PRINCIPAL**

By: \_\_\_\_\_  
Signature

By: \_\_\_\_\_  
Printed Name

Its: \_\_\_\_\_  
Title

Subscribed to and Sworn before me on the  
\_\_\_\_ day of \_\_\_\_\_, 2023.

\_\_\_\_\_  
Notary Public

**NAME OF SURETY**

By: \_\_\_\_\_  
Signature of Attorney-in-Fact

Subscribed to and Sworn before me on the  
\_\_\_\_ day of \_\_\_\_\_, 2023.

\_\_\_\_\_  
Notary Public

**SECTION X  
COMPLIANCE AFFIDAVIT**

I, Constantin Bontas, (print name) being first duly sworn on oath depose and state:

1. I am the (title) President of the proposing company and am authorized to make the statements contained in this affidavit on behalf of the company;
2. I have examined and carefully prepared this Proposal based on the request and have verified the facts contained in the Proposal in detail before submitting it;
3. The proposing company is organized as indicated above on the form entitled "Organization of Proposing Company."
4. I authorize the Village of Oak Park to verify the company's business references and credit at its option;
5. Neither the proposing company nor its affiliates<sup>1</sup> are barred from proposing on this project as a result of a violation of 720 ILCS 5/33E-3 or 33E-4 relating to Proposal rigging and Proposal rotating, or section 2-6-12 of the Oak Park Village Code relating to "Proposing Requirements".
6. The proposing company has the M/W/DBE status indicated below on the form entitled "EEO Report."
7. Neither the proposing company nor its affiliates is barred from agreeing with the Village of Oak Park because of any delinquency in the payment of any debt or tax owed to the Village except for those taxes which the proposing company is contesting, in accordance with the procedures established by the appropriate revenue act, liability for the tax or the amount of the tax. I understand that making a false statement regarding delinquency in taxes is a Class A Misdemeanor and, in addition, voids the agreement and allows the Village of Oak Park to recover all amounts paid to the proposing company under the agreement in civil action.
8. I am familiar with Section 13-3-2 through 13-3-4 of the Oak Park Village Code relating to Fair Employment Practices and understand the contents thereof; and state that the proposing company is an "Equal Opportunity Employer" as defined by Section 2000(E) of Chapter 21, Title 42 of the United States Code Annotated and Federal Executive Orders #11246 and #11375 which are incorporated herein by reference. **Also complete the attached EEO Report or Submit an EEO-1.**
9. I certify that the contractor is in compliance with the Drug Free Workplace Act, 41 U.S.C.A, 702

Signature: constantin bontas

Name and address of Business: Midwest Service and Development 5820 N.Lawler , Chicago, IL, 60630

Telephone 773 818 5204 E-Mail midwestservices2010@gmail.com

Subscribed to and sworn before me this 08 day of August, 2023.

Bianca ROGERS  
Notary Public



<sup>1</sup> Affiliates means: (i) any subsidiary or parent of the agreeing business entity, (ii) any member of the same unitary business group; (iii) any person with any ownership interest or distributive share of the agreeing business entity in excess of 7.5%; (iv) any entity owned or controlled by an executive employee, his or her spouse or minor children of the agreeing business entity.

**SECTION XI**  
**M/W/DBE STATUS AND EEO REPORT**

Failure to respond truthfully to any questions on this form, failure to complete the form or failure to cooperate fully with further inquiry by the Village of Oak Park will result in disqualification of this Proposal.

1. Contractor Name: Midwest Service and Development
2. Check here if your firm is:
- Minority Business Enterprise (MBE) (A firm that is at least 51% owned, managed and controlled by a Minority.)
  - Women's Business Enterprise (WBE) (A firm that is at least 51% owned, managed and controlled by a Woman.)
  - Owned by a person with a disability (DBE) (A firm that is at least 51% owned by a person with a disability)
  - None of the above

[Submit copies of any W/W/DBE certifications]

3. What is the size of the firm's current stable work force?
- 3 Number of full-time employees
- 2 Number of part-time employees
4. Similar information will be requested of all sub-contractors working on this agreement. Forms will be furnished to the lowest responsible contractor with the notice of agreement award, and these forms must be completed and submitted to the Village before the execution of the agreement by the Village.

Signature: constantin bontas

Date: August 08 2023

### EEO Report

Please fill out this form completely. Failure to respond truthfully to any questions on this form, or failure to cooperate fully with further inquiry by the Village of Oak Park will result in disqualification of this Proposal. An incomplete form will disqualify your Proposal.

An EEO-1 Report may be submitted in lieu of this report

Contractor Name Midwest Service and Development  
 Total Employees 5

Job Category	Total # of Empl.	Total Males	Total Females	Males					Females				Total Minorities	
				Black	Hispanic	American Indian	Alaskan Native	Asian & Pacific Islander	Hispanic	American Indian	Alaskan Native	Asian & Pacific Islander		
Officials & Managers	3	2	1											
Professionals	1				1									
Technicians														
Sales Workers														
Office & Clerical														
Semi-Skilled Laborers														
Service Workers														
Management Trainees														
Apprentices	1													

This completed and notarized report must accompany your Proposal. It should be attached to your Affidavit of Compliance. Failure to include it with your Proposal will be disqualify you from consideration.

Midwest Service and Development, being first duly sworn, deposes and says that he/she is the President  
 (Name of Person Making Affidavit)  
 (Title or Officer)  
 of Midwest Services and that the above EEO Report information is true and accurate and is submitted with the intent that it

be relied upon. Subscribed and sworn to before me this Eight day of August, 2023.

constantin bontas  
 ( Signature )

August 08 2023  
 ( Date )



Office of the Secretary of State  
 ilsos.gov

# Business Entity Search

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## Entity Information

<b>Entity Name</b>	MIDWEST SERVICES AND DEVELOPMENT CORP.		
<b>File Number</b>	67948955	<b>Status</b>	GOODSTANDING
<b>Entity Type</b>	CORPORATION	<b>Type of Corp</b>	DOMESTIC BCA
<b>Incorporation Date (Domestic)</b>	05-24-2011	<b>State</b>	ILLINOIS
<b>Duration Date</b>	PERPETUAL		
<b>Annual Report Filing Date</b>	05-01-2023	<b>Annual Report Year</b>	2023
<b>Agent Information</b>	NICOLETA MAN 5280 N LAWLER AVE CHICAGO ,IL 60630	<b>Agent Change Date</b>	10-21-2014

## Services and More Information



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**REQUEST FOR PROPOSALS**  
**INSTRUCTIONS AND SPECIFICATIONS FOR:**

**Village of Oak Park North Fire Station Emergency Egress Construction**  
**Bid Number: 23-125**  
**Issuance Date: 6/28/2023**

The Village of Oak Park will receive proposals from qualified contractors to provide an exterior egress deck at the north fire station, located at 212 Augusta, Oak Park, IL 60302. Proposals will be accepted at the Public Works Center Monday through Friday, 7:30 a.m. to 4:00 p.m. local time until **11:00 a.m. on Friday, August 4<sup>th</sup>, 2023**. Proposals may also be sent via e-mail to [vics@oak-park.us](mailto:vics@oak-park.us). Proposals will be reviewed and the results of the review will be presented to the Village of Oak Park Board of Trustees.

There will be a mandatory pre-bid meeting at the north fire station, located at 212 Augusta on Thursday, July 13<sup>th</sup>, 2023 at 10:00 a.m. Prospective bidders are encouraged to attend the pre-bid meeting to inspect site conditions and obtain other pertinent information about the scope of work. Plans/specs/drawings will be available after July 6<sup>th</sup> and will be distributed at the pre-bid mtg.

Specifications and bid forms may be obtained by sending a request to Building Maintenance Superintendent, Vic Sabaliauskas at [vics@oak-park.us](mailto:vics@oak-park.us) or by stopping by the Public Works Center at the address listed above or by calling 708-358-5710.

The Board of Trustees reserves the right to accept or reject any and all proposals or to waive technicalities, or to accept any item of any proposal.

Do not detach any portion of this document. Upon formal award to the successful contractor, a written agreement will be executed in substantially the form attached.

In responding to this Request for Proposals, the official logo of the Village of Oak Park is not to be used in any form. Use of the Village logo is strictly prohibited by law and such use could subject the proposer to disqualification.

**Submission of Proposals**

The bid shall be submitted on the bid form included herewith. If bid is hand delivered or mailed to the Public Works Center, the bid shall be submitted in a sealed envelope marked "**BID: 23-125 Village of Oak Park North Fire Station Emergency Egress Construction**", shall bear the return address of the bidder, and shall be addressed as follows:

TO: Vic Sabaliauskas, Building Maintenance Superintendent  
Department of Public Works  
201 South Blvd.  
Oak Park, IL 60302

**SECTION I**  
**PROPOSAL INSTRUCTIONS, TERMS AND CONDITIONS**

**Preparation and Submission of Proposal**

All proposals must be delivered to the Public Works Center by the specific time indicated on the cover page. Proposals arriving after the specified time will not be accepted. Mailed proposals that are received by the Village after the specified hour will not be accepted regardless of the post-marked time on the envelope. Proposals must be signed by an officer of the company who is authorized to enter into agreements on behalf of the company. Proposals shall be sealed in an envelope and marked as stated on the cover page.

**Proposal Bond**

The contractor shall provide a proposal bond in the amount of ten percent (10%) of the total proposal price. The attached form may be used or the contractor may provide cash or a certified check in the amount specified. The proposal bonds, cash or checks will be returned once the selected contractor has entered into an agreement for this work and provided the Contract bond in an amount of one hundred percent (100%) of the total approved proposal price.

**Contract Bond**

The successful contractor shall, within ten (10) calendar days after award of the Proposal, furnish a contract bond in the amount of one hundred percent (100%) of the contract price. The bond shall ensure faithful performance of the work, and the payment for materials, labor and of the subcontractors. The bond shall be with a surety or sureties with a rating of "A" or better by A.M. Best and Company and such sureties shall be approved by the Village. Bonds in the form of certified or cashier's check shall be made payable to the Village of Oak Park, Illinois. The contract bond shall be furnished in the same number of copies as the number of copies of the agreement to be executed.

**Award of Agreement**

The agreement will be awarded in whole or in part to the responsible contractor whose proposal, conforming to the request for proposals, will be most advantageous to the Village; price and other factors considered.

**Costs of Preparation**

The Village will not be responsible for any expenses incurred in preparing and submitting a proposal or entering into the applicable agreement.

**Taxes not Applicable**

The Village of Oak Park as an Illinois municipality pays neither Illinois Sales Tax nor Federal Excise Tax (State Tax Exemption Identification Number E9998-1823-06). Contractors should exclude these taxes from their prices.

**Withdrawal of Proposals**

Any contractor may withdraw its proposal at any time prior to the time specified in the advertisement as the closing time for the receipt of proposals, by signing a request therefore. No contractor may withdraw or cancel its proposal for a period of sixty (60) calendar days after

the advertised closing time for the receipt of proposals. The successful contractor may not withdraw or cancel its proposal after having been notified that the proposal was accepted by the Village Board of Trustees.

### **Investigation of Contractors**

The Village will make such investigations as are necessary to determine the ability of the contractor to fulfill proposal requirements. If requested, the contractor should be prepared to present evidence to the Village of Oak Park of ability and possession of necessary facilities and financial resources to comply with the terms of the attached specifications and proposals. In addition, the contractor shall furnish the Village with any information the Village may request, and shall be prepared to show completed work of a similar nature to that included in its proposal. The Village reserves the right to visit and inspect the premises and operation of any contractor.

### **Rejection of Contractor**

The Village will reject any proposal from any person, firm or corporation that appears to be in default or arrears on any debt, agreement or the payment of any taxes. The Village will reject any proposal from a contractor that failed to satisfactorily complete work for the Village under any previous agreement.

### **Conditions**

Contractors are advised to become familiar with all conditions, instructions and specifications governing the work. Contractors shall be presumed to have investigated the work site, conditions and scope of the work before submitting a proposal.

### **Compliance with Applicable Laws**

The contractor will strictly comply with all ordinances of the Village of Oak Park and Village Code and laws of the State of Illinois.

### **Governing Law**

All agreements entered into by the Village of Oak Park are governed by the laws of the State of Illinois without regard to conflicts of law. Any action brought to enforce an agreement with the Village of Oak Park must be brought in the state and federal courts located in Cook County, Illinois.

### **Subletting of Agreement**

No agreement awarded by the Village of Oak Park shall be assigned or any part sub-agreement without the written consent of the Village of Oak Park or as noted in the contractor's proposal. In no case shall such consent relieve the contractor from its obligations or change the terms of the agreement.

### **Interpretation of Agreement Documents**

Any contractor with a question about this proposal may request an interpretation thereof from the Village. If the Village changes the proposal, either by clarifying it or by changing the specifications, the Village will issue a written addendum, and will mail a copy of the addendum to all prospective contractors. The Village will not assume responsibility for receipt of such addendum. In all cases, it will be the contractor's responsibility to obtain all addenda issued.

Contractors will provide written acknowledgment of receipt of each addendum issued with the proposal submission.

**Minority Business and Women Business Enterprise Requirements**

The Village of Oak Park, in an effort to reaffirm its policy of non-discrimination, encourages the efforts of contractors and subcontractors to take affirmative action in providing for Equal Employment Opportunity without regard to race, religion, creed, color, sex, national origin, age, handicap unrelated to ability to perform the job or protected veteran's status.

**Licenses and Permits**

The contractor shall be responsible for becoming a licensed contractor in the Village. The contractor shall also be responsible for obtaining any and all required permits from the Village's Development Customer Services Department (Building Permits Division). The Village shall waive all permit fees.

**Agreement**

The selected contractor shall enter into an Independent Contractor Agreement with the Village to complete the work in a form substantially similar to the agreement attached hereto. The agreement shall be executed by the contractor and returned, together with the contract bond within ten (10) calendar days after the agreement has been mailed to the contractor. The contractor shall execute three copies of the agreement. One fully executed copy will be returned to the contractor.

**Notice to Proceed**

Work shall begin within fourteen (14) days from the Notice to Proceed from the Village's Building Maintenance Superintendent. All work shall be completed in accordance with the detailed specifications set forth herein, unless the Building Maintenance Superintendent grants an extension.

**Fees and Cost**

In the event any action is brought to enforce any agreement entered into by the Village of Oak Park, or to collect any unpaid amount from the Village of Oak Park, each party bears the responsibility of paying its own attorneys' fees and costs.

**Dispute Resolution**

The Village of Oak Park does not agree to the mandatory arbitration of any dispute.

## **SECTION II** **DETAILED SPECIFICATIONS**

See attached detailed specs and design documents as submitted by the design firm of Studio GC, Inc.

The selected contractor shall furnish all labor, supervision, supplies, tools, equipment, vehicles and other means necessary or proper for performing and completing the work. The selected contractor shall be responsible for the cleaning up of the job site and shall repair or restore all structures and property that may be damaged or disturbed during performance of the work to the satisfaction of the Village of Oak Park.

The agreement and work shall be carried out in conformance with the laws and regulations of the Village of Oak Park and these specifications. All work will be performed according to the standards set forth in the applicable building codes and standards, including mechanical, fire, plumbing, electric, accessibility, or any other applicable codes in force in the Village of Oak Park and State of Illinois.

### **Alterations, Omissions and Extra Work**

The Village of Oak Park reserves the right to increase or decrease the quantity of any item or portion of the work, or to omit portions of the work as may be deemed necessary.

### **Job Site Conditions**

To the fullest extent possible, the contractor will not allow its work to interfere with the critical operations of the Fire Department. Contractor will take all necessary actions as directed by the Village in that regard.

**Material Storage:** The contractor shall be responsible for the storage and safety of his own materials. The Village assumes no liability whatever for any material damaged or stolen on the premises. Any damage to, or loss by theft or vandalism of any material, appurtenance, or appliance, after such has been applied, connected or installed on Village property, shall be the sole responsibility of the contractor until the project is completed and accepted by the Village.

**Safety Precautions:** The contractor is solely responsible for implementing effective safety precautions on and around the work site to protect workers and other persons who might be affected and shall exercise every precaution at all times for the protection of the property. The contractor shall not leave any combustible materials or other fire hazards overnight or allowed them to accumulate. The contractor shall abide by all applicable laws, standards, and regulations that apply to the completion of the work, including EPA and OSHA safety standards and regulations.

**Damage to Property:** Contractor shall repair, at no additional cost to the Village, all damage to Village property caused by the contractor resulting from his work. Where repair of existing work is called for, such patching and replacement shall be made to blend with existing work so that the patch or replacement will be inconspicuous after finishing.

Daily Clean-up: The contractor shall keep the premises clean and orderly during the course of the work and all debris shall be removed on a continuous basis.

### **Method of Payment**

The Village of Oak Park will pay monthly all undisputed invoices billed at the rates set forth in the contractor's proposal within 30 days of approval as provided in the Local Government Prompt Payment Act, 50 ILCS505/4. The maximum interest rate for any payment not made within 30 days of approval is 1%.

### **Change Orders**

Change Orders: Changes in the Work may be agreed to after execution of the agreement, and without invalidating the agreement, if the change order is in writing and signed. Any changes to the scope of work which result in an increase in the agreement price will be subject to an agreement addendum which must be signed by both parties. Any such change order will be prepared by the Village. The contractor may only proceed with the change upon receipt of the written change order signed by the Village.

Emergency Changes: Contractor may perform work not included in the scope of work if necessary to remedy a condition that poses an immediate threat to persons or property. Work of this nature shall be carried out only to the extent of bringing the condition under control. The Village shall be notified immediately. A change order will then be negotiated and executed for the work performed, and for work remaining, if any.

Minor Changes (Field Orders): The Village may verbally authorize minor changes in the scope of work in order to prevent a delay in the progression of the work. These field orders may not involve a change in the agreement price or be inconsistent with the scope of work.

Changes Due to Unknown Conditions: The contractor is not responsible for changes in the work that are due to conditions that were not reasonably observable or conditions that have changed. In such cases, the contractor shall notify the Village and a change order will be negotiated.

Any change which results in a total agreement price in excess of \$10,000 must be approved by the Village of Oak Park Board of Trustees.

### **Correction of Work Prior To Final Payment**

The Village has the right to stop work if the contractor fails to carry out the work in a manner acceptable to the Village. If the Village deems the contractor's work unacceptable, at the Village's election, the contractor shall do one of the following:

1. Promptly repair or replace the defective work, without expense to the Village, including costs associated with repairing any damage to property caused by the replacement work; or;
2. If the Village deems it unacceptable to have the contractor correct work which has been incorrectly done, a deduction from the agreement price shall be made based on the costs to the Village to have the work repaired. Such a deduction from the agreement price shall in no way affect the Village's other remedies or relieve the



contractor from responsibility for defects and related damage occurring as a result of defective or unacceptable work.

**Contractor's Representative**

The contractor shall have at all times a competent foreman or superintendent on the job that shall have full authority to act for the contractor, and to receive and execute orders from the Director of Public Works or appointed representative. Any instructions given to such superintendent or person executing work for the contractor shall be binding on the contractor as though given to him personally. Contractor's representative must be proficient in the use and interpretation of the English language.

**Workers**

The contractors shall employ competent laborers and shall replace, at the request of the Building Maintenance Superintendent any incompetent, unfaithful, abusive or disorderly workers in their employ. Only workers expert in their respective branches of work shall be employed where special skill is required. Inappropriate behavior or examples of unproductive work effort will not be tolerated. The Village has the right to require a contractor's employee to be immediately removed from the work crew if the above behavior is exhibited.

**Dispute Resolution**

All disputes, including collection disputes, shall be brought in the Circuit Court of Cook County, Illinois. This agreement shall be interpreted in accordance with the laws of the State of Illinois. In any dispute resolution process, each party shall bear its own costs, including attorney's fees. Any purported agreement between the parties that states terms contrary to this paragraph M will be deemed per se invalid.

**Mandatory Qualifications for Contractor's Personnel**

Crews shall include at least one (1) supervisor during any given shift.

1. No more than 50% of the crew may be trainees at any one time.
2. Supervisors must be fluent in the English language and capable of reading and writing English.
3. Technicians employed by the contractor selected shall be fully trained and skilled in safe and proper techniques. Specific training required must follow the OSHA standards (see *below*).
4. The contractor selected shall provide sufficient documentation, if requested by the Village, to demonstrate adequate training has been provided upon commencement of the agreement. Contractor selected shall submit statement outlining training program and method of verifying employee competency. Failure to do so may be ample cause for rejection of proposal. The use of technicians who are not adequately trained may be sufficient grounds for termination of the agreement.
5. The Village reserves the right to require immediate removal of any employee of the contractor selected deemed unfit for service for any reason. This right is non-negotiable and the

contractor selected agrees to this condition by accepting this agreement. The contractor selected shall have enough qualified personnel to replace a terminated employee within 24 hours. Failure to do so can result in the termination of the agreement.

### **OSHA Requirements**

1. Material Safety Data Sheets – Contractor selected shall furnish the Village of Oak Park copies of Material Safety Data Sheets (MSDS), for all products used, prior to beginning service at Village facilities. In addition, each time a new chemical is introduced, a copy of that product’s MSDS must be provided to the Building Maintenance Superintendent prior to the product being used. The Material Safety Data Sheets must be in compliance with OSHA Regulation 1910.1200, paragraph g.
2. Labeling of Hazardous Materials – Contractor selected shall comply with OSHA regulation 1919.1200, paragraph f, concerning labeling of all chemical containers.
3. Caution Signs – Contractor selected shall use “caution signs” as required by OSHA Regulation 1910.44 and 1910.145 at no cost to the Village. Caution signs shall be on-site upon commencement of agreement.

Proof of compliance with OSHA regulation 1920.1200, Hazard Communication, shall be provided to the Building Maintenance Superintendent upon commencement of this agreement, if requested.

Failure of the contractor selected or his/her employees to comply with all applicable laws, regulations and rules shall permit the Village to immediately terminate this agreement without liability.

### **Prevailing Wages**

Contractor and any applicable subcontractor shall pay prevailing wages as established by the Illinois Department of Labor and determined by the Village for each craft or type of work needed to execute the contract in accordance with the Illinois Prevailing Wage Act, 820 ILCS 130/0.01 *et seq.* (“Act”). Contractor shall prominently post the current schedule of prevailing wages at the Project site(s) and shall notify immediately in writing all of its subcontractors of all changes in the schedule of prevailing wages. Any increases in costs to Contractor due to changes in the prevailing rate of wage during the terms of any Contract shall be at the sole expense of Contractor and not at the expense of the Village, and shall not result in an increase to the Contract Price. Contractor shall be solely responsible to maintain accurate records as required by the Act and shall submit certified payroll records to the Village evidencing its compliance with the Act on no less than a monthly basis as required by the Act. Contractor shall be solely liable for paying the difference between prevailing wages and any wages actually received by laborers, workmen and/or mechanics engaged in the Work for the Project.

Contractor shall indemnify, hold harmless, and defend the Village, its officers, officials, employees, agents and volunteers (“Indemnified Parties”) against all regulatory actions, complaints, damages, claims, suits, liabilities, liens, judgments, costs and expenses, including reasonable attorney’s fees, which may in any way arise from or accrue against the Indemnified

Parties as a consequence of noncompliance with the Act or which may in any way result therefrom, including a complaint by the Illinois Department of Labor under Section 4(a-3) of the Act, 820 ILCS 130/4(a-3) that any or all of the Indemnified Parties violated the Act by failing to give proper notice to the Grantee or any other party performing work on the Public Improvements that not less than the prevailing rate of wages shall be paid to all laborers, workers and mechanics performing Work on the Project, including interest, penalties or fines under Section 4(a-3). The indemnification obligations of this section on the part of Contractor shall survive the termination or expiration of this Agreement. In any such claim, complaint or action against the Indemnified Parties, Contractor shall, at its own expense, appear, defend and pay all charges of reasonable attorney's fees and all reasonable costs and other reasonable expenses arising therefrom or incurred in connection therewith, and, if any judgment or award shall be rendered against the Indemnified Parties in any such action, Contractor shall at its own expense, satisfy and discharge such judgment or award.

**SECTION III**  
**SCOPE OF WORK**

Plans, drawings and specifications will be available after July 6<sup>th</sup> and will be distributed at the pre-bid meeting on July 13<sup>th</sup>. Plans can also be sent electronically to prospective bidders upon request after July 6<sup>th</sup>.

An asbestos survey of the areas included in the scope of work has been completed (by the firm of Environmental Consulting Group) and the results of the analysis showed no presence of ACM.

*Addenda: The bidding contractor acknowledges receipt of Addenda as listed below and represents that any additions to, modifications of, or deletions from the Work specified, as called for in these Addenda, are included in the Base Bid Sum and the Alternates. Contractor shall submit this form with their bid.*

<i>Addendum No.</i>	<i>Date</i>
_____	_____
_____	_____
_____	_____
_____	_____

**SECTION IV**  
**PROPOSAL FORM (Pricing)**

The undersigned proposes to furnish all labor and materials required to complete the Work in accordance with the attached specifications and at the price indicated below.

**Total Lump Sum Cost Base Bid:** \$ \_\_\_\_\_

**Alternates:**

Alternate Bid No. 1: Support Columns

Base Bid: Provide 6x6 wood posts secured with black powder coated post anchor to concrete foundations.

Alternate Bid: Provide 4x4 galvanized steel hollow steel tube sections secured to concrete foundations with bolts to the anchor plate.

**Total for Alt. No.1:** \$ \_\_\_\_\_

**24-Hour Emergency Call-back Number:**

(\_\_\_\_) \_\_\_\_\_

Printed Name: \_\_\_\_\_

Proposal Signature: \_\_\_\_\_

State of \_\_\_\_\_) County of \_\_\_\_\_)

\_\_\_\_\_,  
(Type Name of Individual Signing)

being first duly sworn on oath deposes and says that the contractor on the above proposal is organized as indicated below and that all statements herein made on behalf of such Contractor and that their deponent is authorized to make them, and also deposes and says that deponent has examined and carefully prepared their proposal from the agreement specifications and has checked the same in detail before submitting this proposal; that the statements contained herein are true and correct.

Signature of contractor authorizes the Village of Oak Park to verify references of business and credit at its option.

Signature of contractor shall also be acknowledged before a Notary Public or other person authorized by law to execute such acknowledgments.

Dated: \_\_\_\_\_/\_\_\_\_\_/2023 \_\_\_\_\_

Organization Name  
(Seal - If Corporation)

By:

\_\_\_\_\_  
Authorized Signature

\_\_\_\_\_  
Address

Telephone: \_\_\_\_\_

Subscribed and sworn to before me this \_\_\_\_\_ day of \_\_\_\_\_, 2023  
\_\_\_\_\_ in the State of \_\_\_\_\_.

My  
Commission  
Notary Public

Expires on \_\_\_\_/\_\_\_\_/\_\_\_\_\_

Complete Applicable Paragraph Below

(a) Corporation

The contractor is a corporation, which operates under the legal name of \_\_\_\_\_ and is organized and existing under the laws of the State of \_\_\_\_\_. The full names of its Officers are:

President \_\_\_\_\_

Secretary \_\_\_\_\_

Treasurer \_\_\_\_\_

The corporation does have a corporate seal. (In the event that this proposal is executed by a person other than the President, attach hereto a certified copy of that section of Corporate By-Laws or other authorization by the Corporation that permits the person to execute the offer for the corporation.)

(b) Partnership

Names, Signatures, and Addresses of all Partners

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

The partnership does business under the legal name of \_\_\_\_\_, which name is

is registered with the office of \_\_\_\_\_ in the county of \_\_\_\_\_.

(c) Sole Proprietor



The contractor is a Sole Proprietor whose full name is \_\_\_\_\_ . If the contractor is operating under a trade name, said trade name is \_\_\_\_\_ , which name is registered with the office of \_\_\_\_\_ in the county of \_\_\_\_\_ .

Signed: \_\_\_\_\_  
Sole Proprietor

In compliance with the above, the undersigned offers and agrees, if his/her proposal is accepted within ninety (90) calendar days from date of opening, to furnish any or all of the items upon which prices are quoted, at the price set opposite each item, delivered at the designated point within the time specified above.

**MUNICIPAL QUALIFICATION REFERENCE SHEET**  
(or attach separate form)

**MUNICIPALITY** \_\_\_\_\_

**ADDRESS** \_\_\_\_\_

\_\_\_\_\_

**CONTACT** \_\_\_\_\_

**PHONE** \_\_\_\_\_ **E-mail:** \_\_\_\_\_

**WORK PERFORMED** \_\_\_\_\_  
\_\_\_\_\_

**MUNICIPALITY** \_\_\_\_\_

**ADDRESS** \_\_\_\_\_

\_\_\_\_\_

**CONTACT** \_\_\_\_\_

**PHONE** \_\_\_\_\_ **E-mail:** \_\_\_\_\_

**WORK PERFORMED** \_\_\_\_\_  
\_\_\_\_\_

**MUNICIPALITY** \_\_\_\_\_

**ADDRESS** \_\_\_\_\_

\_\_\_\_\_

**CONTACT** \_\_\_\_\_

**PHONE** \_\_\_\_\_ **E-mail:** \_\_\_\_\_

**WORK PERFORMED** \_\_\_\_\_  
\_\_\_\_\_

**SECTION V**  
**CONTRACTOR CERTIFICATION**

\_\_\_\_\_, as part of its proposal on an agreement for construction Work  
(Name of Contractor selected) for the Village of Oak Park, hereby certifies that said contractor selected is not barred from proposing on the aforementioned agreement as a result of a violation to either Section 33E-3 or 33E-4 of Article 33E of Chapter 38 of the Illinois Revised Statutes or Section 2-6-12 of the Oak Park Village Code relating to "Proposing Requirement.

\_\_\_\_\_  
(Authorized Agent of Contractor selected)

Subscribed and sworn to before me this \_\_\_\_\_ day of \_\_\_\_\_, 2023.

\_\_\_\_\_  
Notary Public's Signature

- Notary Public Seal -

**SECTION VI**  
**TAX COMPLIANCE AFFIDAVIT**

\_\_\_\_\_, being first duly sworn, deposes and says:

that he/she is \_\_\_\_\_ of  
(partner, officer, owner, etc.)

\_\_\_\_\_  
(Contractor selected)

The individual or entity making the foregoing proposal or proposal certifies that he/she is not barred from entering into an agreement with the Village of Oak Park because of any delinquency in the payment of any tax administered by the Department of Revenue unless the individual or entity is contesting, in accordance with the procedures established by the appropriate revenue act, liability for the tax or the amount of the tax. The individual or entity making the proposal or proposal understands that making a false statement regarding delinquency in taxes is a Class A Misdemeanor and, in addition, voids the agreement and allows the municipality to recover all amounts paid to the individual or entity under the agreement in civil action.

\_\_\_\_\_  
By:  
Its:

\_\_\_\_\_  
(name of contractor if the contractor is an individual)  
(name of partner if the contractor is a partnership)  
(name of officer if the contractor is a corporation)

The above statement must be subscribed and sworn to before a notary public.

Subscribed and sworn to before me this \_\_\_\_\_ day of \_\_\_\_\_, 2023.

\_\_\_\_\_  
Notary Public's Signature

- Notary Public Seal -

**Reporting Requirements**

The following forms must be completed in their entirety, notarized and included as part of the proposal document. Failure to respond truthfully to any question on the list or failure to cooperate fully with further inquiry by the Village of Oak Park will result in disqualification of your proposal.

**SECTION VII**  
**ORGANIZATION OF PROPOSING FIRM**

Please fill out the applicable section:

**A. Corporation:**

The contractor is a corporation, legally named \_\_\_\_\_ and is organized and existing in good standing under the laws of the State of \_\_\_\_\_. The full names of its officers are:

President \_\_\_\_\_

Secretary \_\_\_\_\_

Treasurer \_\_\_\_\_

Registered Agent Name and Address: \_\_\_\_\_

The corporation has a corporate seal. (In the event that this proposal is executed by a person other than the President, attach hereto a certified copy of that section of Corporate By-Laws or other authorization by the Corporation that permits the person to execute the offer for the corporation.)

**B. Sole Proprietor:**

The contractor is a Sole Proprietor. If the contractor does business under an assumed name, the

assumed name is \_\_\_\_\_, which is registered with the Cook County Clerk. The contractor is otherwise in compliance with the Assumed Business Name Act, 805 ILCS 405/0.01, et. seq.

**C. Partnership:**

The contractor is a partnership which operates under the name \_\_\_\_\_

The following are the names, addresses and signatures of all partners:

Signature	Signature

(Attach additional sheets if necessary.) If so, check here \_\_\_\_\_.

If the partnership does business under an assumed name, the assumed name must be registered with the Cook County Clerk and the partnership is otherwise in compliance with the Assumed Business Name Act, 805 ILCS 405/0.01, et. seq.

**D. Affiliates:** The name and address of any affiliated entity of the business, including a description of the affiliation: \_\_\_\_\_

\_\_\_\_\_  
Signature of Owner





Subscribed to and sworn before me on the  
\_\_\_\_\_ day of \_\_\_\_\_, 2023.

\_\_\_\_\_  
Notary Public

**NAME OF SURETY**

By: \_\_\_\_\_  
Signature of Attorney-in-Fact

subscribed to and sworn before me on the  
\_\_\_\_\_ day of \_\_\_\_\_, 2023.

\_\_\_\_\_  
Notary Public

**SECTION IX**  
**CONTRACT BOND**



**Contract Bond**

\_\_\_\_\_, as PRINCIPAL, and \_\_\_\_\_ as SURETY, are held and firmly bound unto the Village of Oak Park (hereafter referred to as “Village”) in the penal sum of \_\_\_\_\_, well and truly to be paid to the Village, for the payment of which its heirs, executors, administrators, successors and assigns, are bound jointly to pay to the Village under the conditions of this instrument.

**WHEREAS**, THE CONDITION OF THE FOREGOING OBLIGATION IS SUCH that, the Principal has entered into a written contract with the Village, acting through its President and Board of Trustees, for the construction of work, which contract is hereby referred to and made a part hereof as if written herein at length, and whereby the Principal has promised and agreed to perform the work in accordance with the terms of the contract, and has promised to pay all sums of money due for any labor, materials, apparatus, fixtures or machinery furnished to such Principal for the purpose of performing such work, including paying not less than the prevailing rate of wages in Cook County, where the work is for the construction of any public work subject to the Prevailing Wage Act, and has further agreed to save and indemnify and keep harmless the Village against all liabilities, judgments, costs and expenses which may in any manner accrue against the Village in consequence of granting such contract or which may in any manner result from the carelessness or neglect of the Principal, his agents, employees or workmen in any respect whatever; and has further agreed that this bond will inure to the benefit of any person, firm, company, or corporation, to whom any money may be due from the Principal, subcontractor or otherwise, for any such labor, materials, apparatus, fixtures or machinery so furnished and that suit may be maintained on such bond by any such person, firm, company, or corporation, for the recovery of any such money.

**NOW THEREFORE**, if the Principal shall well and truly perform the work in accordance with the terms of the contract, and shall pay all sums of money due or to become due for any labor, materials, apparatus, fixtures or machinery furnished to it for the purpose of constructing such work, and shall commence and complete the work within the time prescribed in the contract, and shall pay and discharge all damages, direct and indirect, that may be suffered or sustained on account of such work during the time of performance thereof and until the work shall have been accepted, and shall save and indemnify and keep harmless the Village against all liabilities, judgments, costs and expenses which may in any manner accrue against the Village in consequence of granting such contract or which may in any manner result from the carelessness or neglect of the Principal, his agents, employees or workmen in any respect whatever; and shall in all respects fully and faithfully comply with all the provisions, conditions, and requirements of the contract, then this obligation will be void; otherwise it will remain in full force and effect.

**IN WITNESS WHEREOF**, the PRINCIPAL and the SURETY have caused this instrument to be signed by their respective officers this \_\_\_\_ day of \_\_\_\_\_, 2023.

**NAME OF PRINCIPAL**

By: \_\_\_\_\_  
Signature

By: \_\_\_\_\_  
Printed Name

Its: \_\_\_\_\_  
Title

Subscribed to and Sworn before me on the  
\_\_\_\_\_ day of \_\_\_\_\_, 2023.

\_\_\_\_\_  
Notary Public

**NAME OF SURETY**

By: \_\_\_\_\_  
Signature of Attorney-in-Fact

Subscribed to and Sworn before me on the  
\_\_\_\_\_ day of \_\_\_\_\_, 2023.

\_\_\_\_\_  
Notary Public

**SECTION X**  
**COMPLIANCE AFFIDAVIT**

I, \_\_\_\_\_, (print name) being first duly sworn on oath depose and state:

1. I am the (title) \_\_\_\_\_ of the proposing company and am authorized to make the statements contained in this affidavit on behalf of the company;
2. I have examined and carefully prepared this Proposal based on the request and have verified the facts contained in the Proposal in detail before submitting it;
3. The proposing company is organized as indicated above on the form entitled "Organization of Proposing Company."
4. I authorize the Village of Oak Park to verify the company's business references and credit at its option;
5. Neither the proposing company nor its affiliates<sup>1</sup> are barred from proposing on this project as a result of a violation of 720 ILCS 5/33E-3 or 33E-4 relating to Proposal rigging and Proposal rotating, or section 2-6-12 of the Oak Park Village Code relating to "Proposing Requirements".
6. The proposing company has the M/W/DBE status indicated below on the form entitled "EEO Report."
7. Neither the proposing company nor its affiliates is barred from agreementing with the Village of Oak Park because of any delinquency in the payment of any debt or tax owed to the Village except for those taxes which the proposing company is contesting, in accordance with the procedures established by the appropriate revenue act, liability for the tax or the amount of the tax. I understand that making a false statement regarding delinquency in taxes is a Class A Misdemeanor and, in addition, voids the agreement and allows the Village of Oak Park to recover all amounts paid to the proposing company under the agreement in civil action.
8. I am familiar with Section 13-3-2 through 13-3-4 of the Oak Park Village Code relating to Fair Employment Practices and understand the contents thereof; and state that the proposing company is an "Equal Opportunity Employer" as defined by Section 2000(E) of Chapter 21, Title 42 of the United States Code Annotated and Federal Executive Orders #11246 and #11375 which are incorporated herein by reference. **Also complete the attached EEO Report or Submit an EEO-1.**
9. I certify that the contractor is in compliance with the Drug Free Workplace Act, 41 U.S.C.A, 702

Signature: \_\_\_\_\_

Name and address of Business: \_\_\_\_\_

Telephone \_\_\_\_\_ E-Mail \_\_\_\_\_

Subscribed to and sworn before me this \_\_\_\_\_ day of \_\_\_\_\_, 2023.

\_\_\_\_\_  
Notary Public

- Notary Public Seal -

<sup>1</sup> Affiliates means: (i) any subsidiary or parent of the agreementing business entity, (ii) any member of the same unitary business group; (iii) any person with any ownership interest or distributive share of the agreementing business entity in excess of 7.5%; (iv) any entity owned or controlled by an executive employee, his or her spouse or minor children of the agreementing business entity.

**SECTION XI**  
**M/W/DBE STATUS AND EEO REPORT**

Failure to respond truthfully to any questions on this form, failure to complete the form or failure to cooperate fully with further inquiry by the Village of Oak Park will result in disqualification of this Proposal.

1. Contractor Name: \_\_\_\_\_

2. Check here if your firm is:

- Minority Business Enterprise (MBE) (A firm that is at least 51% owned, managed and controlled by a Minority.)
- Women's Business Enterprise (WBE) (A firm that is at least 51% owned, managed and controlled by a Woman.)
- Owned by a person with a disability (DBE) (A firm that is at least 51% owned by a person with a disability)
- None of the above

[Submit copies of any W/W/DBE certifications]

3. What is the size of the firm's current stable work force?

\_\_\_\_\_ Number of full-time employees

\_\_\_\_\_ Number of part-time employees

4. Similar information will be requested of all sub-contractors working on this agreement. Forms will be furnished to the lowest responsible contractor with the notice of agreement award, and these forms must be completed and submitted to the Village before the execution of the agreement by the Village.

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

## EEO Report

Please fill out this form completely. Failure to respond truthfully to any questions on this form, or failure to cooperate fully with further inquiry by the Village of Oak Park will result in disqualification of this Proposal. An incomplete form will disqualify your Proposal.

**An EEO-1 Report may be submitted in lieu of this report**

Contractor Name \_\_\_\_\_

Total Employees \_\_\_\_\_

Job Category	Total # of Empl.	Total Males	Total Females	Black	Males				Females				Total Minorities
					Hispanic	American Indian	Alaskan Native	Asian & Pacific Islander	Hispanic	American Indian	Alaskan Native	Asian & Pacific Islander	
Officials & Managers													
Professionals													
Technicians													
Sales Workers													
Office & Clerical													
Semi-Skilled													
Laborers													
Service Workers													
Management Trainees													
Apprentices													

This completed and notarized report must accompany your Proposal. It should be attached to your Affidavit of Compliance. Failure to include it with your Proposal will be disqualify you from consideration.

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

(Name of Person Making Affidavit)

(Title or Officer)

of \_\_\_\_\_ and that the above EEO Report information is true and accurate and is submitted with the intent that it

be relied upon. Subscribed and sworn to before me this \_\_\_\_\_ day of \_\_\_\_\_, 2023.

\_\_\_\_\_  
( Signature )

\_\_\_\_\_  
( Date

**SECTION XII**  
**NO PROPOSAL EXPLANATION**

If your company does not wish to propose on the attached specifications, the Village of Oak Park would be interested in any explanation or comment you may have as to what prevented your firm from submitting a Proposal.

Thank you.

Proposal Name:

**Village of Oak Park North Fire Station Emergency Egress Construction**  
**Bid Number: 23-125**  
**Issuance Date: 6/28/23**

Comments:

Signed: \_\_\_\_\_

Phone: \_\_\_\_\_





**SAMPLE ONLY – DO NOT SIGN**  
**INDEPENDENT CONTRACTOR AGREEMENT**

THIS INDEPENDENT CONTRACTOR AGREEMENT (“Contract”) is entered into on the \_\_\_\_\_ day of \_\_\_\_\_ 2023, by and between the Village of Oak Park, an Illinois home rule municipal corporation (hereinafter the “Village”), and \_\_\_\_\_, a \_\_\_\_\_ (hereafter the “Contractor”).

**WHEREAS**, the Contractor submitted a Proposal to renovate the bunk room, locker room and restroom at the south fire station (hereinafter referred to as the “Work”), pursuant to the Village’s Request for Proposals, attached hereto and incorporated herein by reference; and

**WHEREAS**, the Contractor represented in said Proposal that it has the necessary personnel, experience, and competence to promptly complete the Work and the work required hereunder; and

**WHEREAS**, the Contractor’s Proposal is attached hereto and incorporated herein by reference into this Agreement; and

**WHEREAS**, the Contractor shall perform the Work pursuant to the terms and conditions of this Contract..

**NOW, THEREFORE**, in consideration of the premises and the mutual promises contained in this Contract,, and other good and valuable consideration received and to be received, it is mutually agreed by and between the parties as follows:

**1. RECITALS INCORPORATED**

The above recitals are incorporated herein as though fully set forth.

**2. SCOPE OF WORK**

The Contractor shall perform the Work in accordance with its Proposal for a total cost not to exceed \$\_\_\_\_\_ (“Contract Price”). The Contractor shall complete the Work in accordance with any applicable manufacturers’ warranties and in accordance with the Village’s Request for Proposals, the Contractor’s Proposal and this Contract, all of which, together shall constitute the Contract Documents. The Contractor acknowledges that it has inspected the sites where the work is to be performed and that it is fully familiar with all of the conditions at the sites, and further that its Proposal has adequately taken into consideration all of the conditions at the sites. The Contractor hereby represents and warrants that it has the skill and experience necessary to complete this Work in a good and workmanlike manner. The Contractor further represents and warrants that the Work will be completed in a good and workmanlike manner in accordance with the Contract Documents, and that the Work will be free from defects.

The Contractor shall achieve completion of all work required pursuant to the Contract

Documents by December 31, 2022 (“Contract Time”). The Contract Time is of the essence. In the event the Contractor fails to complete the Project on or before said date, the Village shall be entitled to liquidated damages in the amount of \$500.00 per day for each day the work remains uncompleted beyond the completion date set forth above. This amount is not a penalty, and the parties agree to said amount given the difficulties associated with determining or calculating damages to the Village in the event the Project is not completed on time. The Contractor shall have no claim for damages, for compensation in excess of the Contract Price, or for a delay or extension of the Contract Time based upon conditions found at, or in the vicinity of, the site(s).

### **3. DESIGNATED REPRESENTATIVES**

The Contractor shall designate in writing a person to act as its designated representative with respect to the Work to be performed under this Agreement. Such person shall have complete authority to transmit and receive instructions and information, interpret and define the Contractor's policies and decisions with respect to the Work governed by this Contract. The Village's Building Maintenance Superintendent shall have complete authority to transmit and receive instructions and information, interpret and define the Village's policies and decisions with respect to the Work governed by this Contract, or such other person as designated in writing by the Village Manager.

### **4. TERM OF CONTRACT**

The Contractor shall perform the Work pursuant to this Contract beginning on the effective date as defined herein and ending on December 31<sup>st</sup>, 2022 or on the date that the Work is completed as determined by the Village. The Contractor shall invoice the Village for the Work provided pursuant to this Contract the rates set forth in its Proposal.

### **5. PAYMENT SCHEDULE**

The Contractor shall, as a condition precedent to its right to receive any payment, submit to the Village an application for payment and such receipts, vouchers, and other documents as may be necessary to establish the Contractor's payment for all labor and material and the absence of any interest whether in the nature of a lien or otherwise of any party in any property, work, or fund with respect to the Work performed hereunder. Such documents shall include, where relevant, the following forms, copies of which are attached hereto:

- (i) Contractor's sworn statement;
- (ii) Contractor's partial or final waiver of lien;
- (iii) Subcontractor's sworn statement(s); and
- (iv) Subcontractor's partial or final waiver of lien.

Payment by the Village shall be conditioned upon an inspection by the Village of the

work completed and submission of required waivers by the Contractor. Payment by the Village shall in no way constitute a waiver of, or relieve the Contractor from, any defects in the work. All payments shall be made in accordance with the Illinois Local Government Prompt Payment Act, 50 ILCS 505/1 *et seq.* Final payment for any Work performed by the Contractor pursuant to an invoice by the Contractor shall be made by the Village to the Contractor when the Contractor has fully performed the work and the work has been approved by the Village and submission of required waivers and paperwork by Contractor. Approval of the work and issuance of the final payment by the Village shall not constitute a waiver of, or release the Contractor from, any defects in the work.

The Village shall have the right to withhold from any payment due hereunder such amount as may reasonably appear necessary to compensate the Village for any actual or prospective loss due to Work which is defective or does not conform to the Contract Documents; damage for which the Contractor is liable hereunder; liens or claims of liens; claims of third parties, subcontractors, or material men; or any failure of the Contractor to perform any of its obligations under this Contract. The Village may apply any money withheld or due Contractor hereunder to reimburse itself for any and all costs, expenses, losses, damages, liabilities, suits, judgments, awards, and attorney's fees incurred, suffered, or sustained by the Village and chargeable to the Contractor.

## **6. TERMINATION**

The Village may terminate this Contract for cause, which includes but is not necessarily limited to, the Contractor's failure to perform the work pursuant to this Contract. The Village shall provide the Contractor with five (5) days' written notice of a termination for cause pursuant to the provisions of Section 12 below. The Village may also terminate this Contract when it determines the same to be in its best interests by giving fourteen (14) days' written notice to the Contractor pursuant to the provisions of Section 12 below. In such event, the Village shall pay to the Contractor all amounts due for the work performed up to the date of termination.

## **7. COMPLIANCE WITH APPLICABLE LAWS**

The Contractor shall comply with all applicable laws, regulations, and rules promulgated by any federal, state, county, municipal and/or other governmental unit or regulatory body now in effect during the performance of the work. By way of example only and not as a limitation, the following are included within the scope of the laws, regulations and rules with which the Contractor must comply: all forms of Workers Compensation Laws, all terms of the equal employment opportunity rules and regulations of the Illinois Department of Human Rights, statutes relating to contracts let by units of government, and all applicable civil rights and anti-discrimination laws and regulations.

## **8. INDEMNIFICATION**

To the fullest extent permitted by law, the Contractor shall waive any right of

contribution against the Village and shall indemnify and hold harmless the Village and its officers, officials, employees, volunteers and agents from and against all claims, damages, losses and expenses, including, but not limited to, legal fees (attorney's and paralegal's fees, expert fees and court costs) arising out of or resulting from the performance of the Contractor's work, provided that any such claim, damage, loss or expense is attributable to bodily injury, sickness, disease or death, or injury to or destruction of property, other than the work itself, including the loss of use resulting therefrom, or is attributable to misuse or improper use of trademark or copyright-protected material or otherwise protected intellectual property, to the extent it is caused in whole or in part by any wrongful or negligent act or omission of the Contractor, any subcontractor, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable. Such obligation shall not be construed to negate, abridge or otherwise reduce any other right to indemnity which the Village would otherwise have. The Contractor shall similarly protect, indemnify and hold and save harmless, the Village, its officers, officials, employees, volunteers and agents against and from any and all claims, costs, causes, actions and expenses, including, but not limited to, legal fees incurred by reason of the Contractor's breach of any of its obligations under, or the Contractor's default of, any provisions of this Contract. The indemnification obligations under this Section shall not be limited in any way by any limitation on the amount or type of damages, compensation, or benefits payable by or for the Contractor or any subcontractor under Workers' Compensation or Disability Benefit Acts or Employee Benefit Acts.

**9. INSURANCE**

The Contractor shall, at the Contractor's expense, secure and maintain in effect throughout the duration of this Contract, insurance of the following kinds and limits set forth in this Section. The Contractor shall furnish "Certificates of Insurance" to the Village before beginning Work on the Project pursuant to this Contract. All insurance policies shall be written with insurance companies licensed to do business in the State of Illinois and having a rating of at least A:VII according to the latest edition of the Best's Key Rating Guide; and shall include a provision preventing cancellation of the insurance policy unless thirty (30) days prior written notice is given to the Village. This provision shall also be stated on each Certificate of Insurance: "Should any of the above described policies be canceled before the expiration date, the issuing company shall mail fifteen thirty (30) days written notice to the certificate holder named to the left."

The limits of liability for the insurance required shall provide coverage for not less than the following amounts, or greater where required by law:

(A) **Commercial General Liability:**

- i. Coverage to include Broad Form Property Damage, Contractual and Personal Injury.
- ii. Limits:
 

General Aggregate	\$ 2,000,000.00
Each Occurrence	\$ 1,000,000.00

Personal Injury \$ 1,000,000.00

iii. Coverage for all claims arising out of the Contractor's operations or premises and anyone directly or indirectly employed by the Contractor.

**(B) Workers' Compensation:**

i. Workers' Compensation insurance shall be provided in accordance with the provisions of the laws of the State of Illinois, including occupational disease provisions, for all employees who perform the Work pursuant to this Contract, and if work is subcontracted pursuant to the provisions of this Contract, the Contractor shall require each subcontractor similarly to provide workers' compensation insurance. In case employees engaged in hazardous work under this Contract are not protected under the Workers' Compensation Act, the Contractor shall provide, and shall cause each subcontractor to provide, adequate and suitable insurance for the protection of employees not otherwise provided.

**(C) Comprehensive Automobile Liability:**

i. Comprehensive Automobile Liability coverage shall include all owned, hired, non-owned vehicles, and/or trailers and other equipment required to be licensed, covering personal injury, bodily injury and property damage.

ii. Limits:  
Combined Single Limit \$1,000,000.00

**(D) Umbrella:**

i. Limits:  
Each Occurrence/Aggregate \$ 5,000,000.00

(E) The Village, its officers, employees, agents and volunteers shall be named as additional insureds on all insurance policies set forth herein except Workers' Compensation. The Contractor shall be responsible for the payment of any deductibles for said insurance policies. The coverage shall contain no special limitations on the scope of protection afforded to the Village, its officers, employees, agents, and volunteers.

(F) The Contractor understands and agrees that any insurance protection required by this Contract or otherwise provided by the Contractor, shall in no way limit the responsibility to indemnify, keep and save harmless, and defend the Village, its officers, employees, agents and volunteers as herein provided.

**10. GUARANTY**

The Contractor warrants and guarantees that its Work provided for the Project to be performed under this Agreement, and all workmanship, materials, equipment, and supplies performed, furnished, used, or installed under this Contract, shall be free from

defects and flaws in workmanship or design; shall strictly conform to the requirements of this Contract; and shall be fit and sufficient for the purposes expressed in, or reasonably inferred from, this Contract. The Contractor further warrants and guarantees that the strength of all parts of all manufactured materials, equipment, and supplies shall be adequate and as specified and that the performance requirements of this Contract shall be fulfilled.

The Contractor shall, at no expense to the Village, correct any failure to fulfill the above guaranty that may appear at any time. In any event, the guaranty herein expressed shall not be sole and exclusive, and is additional to any other guaranty or warranty expressed or implied.

**11. AFFIDAVIT OR CERTIFICATE**

The Contractor shall furnish any affidavit or certificate in connection with the work covered by this Contract as required by law.

**12. NOTICES**

Any notice required to be given by this Contract shall be deemed sufficient if made in writing and sent by certified mail, return receipt requested, or personal service, or by facsimile transmission to the persons and addresses indicated below or to such addresses and persons as either party hereto shall notify the other party of in writing pursuant to the provisions of this Section:

**To the Village:**

Village Manager  
Village of Oak Park  
123 Madison Street  
Oak Park, Illinois 60302-4272  
Email: [villagemanger@oak-park.us](mailto:villagemanger@oak-park.us)  
Facsimile: (708) 358-5101

**To the Contractor:**

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
Email: \_\_\_\_\_  
Facsimile: \_\_\_\_\_

Mailing of such notice as and when above provided shall be equivalent to personal notice and shall be deemed to have been given at the time of mailing.

Notice of facsimile transmission shall be effective as of date and time of facsimile transmission, provided that the notice transmitted shall be sent on business days during business hours (9:00 a.m. to 5:00 p.m. Chicago time). In the event facsimile notice transmitted during non-business hours, the effective date and time of notice is the first hour of the first business day after transmission.

**13. AUTHORITY TO EXECUTE**

The individuals executing this Contract on behalf of the Contractor and the Village represent that they have the legal power, right, and actual authority to bind their respective parties to the terms and conditions of this Contract.

**14. EFFECTIVE DATE**

The effective date of this Contract reflected above and below shall be the date that the Village Manager executes this Contract behalf of the Village.

**15. ENTIRE CONTRACT; APPROVAL OF SUBCONTRACTORS**

This Contract, including the documents incorporated by reference herein, sets forth the entire Contract of the parties with respect to the accomplishment of the Work. No right or interest in this Contract shall be assigned, in whole or in part, by either party without the prior written consent of the other party. The Village reserves the right to approve the use of subcontractors to complete any portion of the Work and to approve any applicable contract between the Contractor and a proposed subcontractor to perform any of the Work. This Contract shall be binding upon the parties and upon their respective heirs, executors, administrators, personal representatives, successors, and assigns, except as herein provided.

**16. INDEPENDENT CONTRACTOR**

The Contractor shall have the full control of the ways and means of performing the work referred to above and that the Contractor and its employees, representatives or subcontractors are not employees of the Village, it being specifically agreed that the Contractor bears the relationship of an independent contractor to the Village. The Contractor shall solely be responsible for the payment of all salaries, benefits and costs of supplying personnel for the Work.

**17. CONTRACT BOND**

The Contractor, before commencing the work on the Project, shall furnish a Contract Bond. The Contract Bond shall be in an amount equal to 100% of the full amount of the Contract Sum as security for the faithful performance of its obligations pursuant to the Contract Documents and as security for the payment of all persons performing labor and furnishing materials in connection with the Contract Documents. Such bond shall be on standard AIA Documents, shall be issued by a surety satisfactory to the Village, and shall name the Village as a primary co-obligee. The Contract Bond shall become a part of the Contract Documents. The failure of Contractor to supply the required Contract Bond within ten (10) days after the Notice of Award or within such extended period as the Village may grant if the Contract Bond does not meet its approval shall constitute a default, and the Village may either award the Contract to the next lowest responsible proposer or re-advertise for proposals. A charge against the defaulting Contractor may be made for the difference between the amount of the



Contractor's Proposal and the amount for which a contract for the work is subsequently executed, irrespective of whether the amount thus due exceeds the amount of the proposal guarantee.

**18. GOVERNING LAW AND VENUE**

This Contract shall be governed by the laws of the State of Illinois both as to interpretation and performance. Venue for any action pursuant to this Contract shall be in the Circuit Court of Cook County, Illinois.

**19. AMENDMENTS AND MODIFICATIONS**

This Contract may be modified or amended from time-to-time provided, however, that no such amendment or modification shall be effective unless reduced to writing and duly authorized and signed by the authorized representative of the Village and the authorized representative of the Contractor.

**20. NON-WAIVER OF RIGHTS**

No failure of either party to exercise any power given to it hereunder or to insist upon strict compliance by the other party with its obligations hereunder, and no custom or practice of the parties at variance with the terms hereof, nor any payment under this Contract shall constitute a waiver of either party's right to demand exact compliance with the terms hereof.

**21. CONFLICT**

In case of a conflict between any provision(s) of the Village's Request for Proposals or the Contractor's Proposal and this Contract, this Contract and the Village's Request for Proposals shall control to the extent of such conflict.

**22. HEADINGS AND TITLES**

The headings and titles provided in this Contract are for convenience only and shall not be deemed a part of this Contract.

**23. COOPERATION OF THE PARTIES**

The Village and the Contractor shall cooperate in the provision of the Work to be provided by Contractor pursuant to this Contract and in compliance with applicable laws, including, but not limited to, the Illinois Freedom of Information Act, 5 ILCS 140/1 et seq. ("FOIA"), and the provision of any documents and information pursuant to a FOIA request. The Contractor shall provide any and all documents to the Village pursuant to a FOIA request at no cost to the Village.

**24. COUNTERPARTS; FACSIMILE OR PDF SIGNATURES**

This Contract may be executed in counterparts, each of which shall be considered an original and together shall be one and the same Contract. A facsimile or pdf copy of this Agreement and any signature(s) thereon will be considered for all purposes as an original.

**25. CERTIFIED PAYROLL**

Contractor shall be solely responsible to maintain accurate records reflecting its payroll for its employees who perform any of the Work for the Village pursuant to this Contract and shall submit certified payroll records to the Village's Director of Public Works at any time during the term of this Contract. Contractor shall provide said certified payroll records within seven (7) days upon the request of the Director of Public Works.

**26. PREVAILING WAGE**

Contractor and any applicable subcontractor shall pay prevailing wages as established by the Illinois Department of Labor and determined by the Village for each craft or type of work needed to execute the contract in accordance with the Illinois Prevailing Wage Act, 820 ILCS 130/0.01 *et seq.* ("Act"). Contractor shall prominently post the current schedule of prevailing wages at the Project site(s) and shall notify immediately in writing all of its subcontractors of all changes in the schedule of prevailing wages. Any increases in costs to Contractor due to changes in the prevailing rate of wage during the terms of any Contract shall be at the sole expense of Contractor and not at the expense of the Village, and shall not result in an increase to the Contract Price. Contractor shall be solely responsible to maintain accurate records as required by the Act and shall submit certified payroll records to the Village evidencing its compliance with the Act on no less than a monthly basis as required by the Act. Contractor shall be solely liable for paying the difference between prevailing wages and any wages actually received by laborers, workmen and/or mechanics engaged in the Work for the Project.

Contractor shall indemnify, hold harmless, and defend the Village, its officers, officials, employees, agents and volunteers ("Indemnified Parties") against all regulatory actions, complaints, damages, claims, suits, liabilities, liens, judgments, costs and expenses, including reasonable attorney's fees, which may in any way arise from or accrue against the Indemnified Parties as a consequence of noncompliance with the Act or which may in any way result therefrom, including a complaint by the Illinois Department of Labor under Section 4(a-3) of the Act, 820 ILCS 130/4(a-3) that any or all of the Indemnified Parties violated the Act by failing to give proper notice to the Grantee or any other party performing work on the Public Improvements that not less than the prevailing rate of wages shall be paid to all laborers, workers and mechanics performing Work on the Project, including interest, penalties or fines under Section 4(a-3). The indemnification obligations of this section on the part of Contractor shall survive the termination or expiration of this Agreement. In any such claim, complaint or action against the Indemnified Parties, Contractor shall, at its own expense, appear, defend and pay all

charges of reasonable attorney's fees and all reasonable costs and other reasonable expenses arising therefrom or incurred in connection therewith, and, if any judgment or award shall be rendered against the Indemnified Parties in any such action, Contractor shall at its own expense, satisfy and discharge such judgment or award.

**[REMAINDER OF PAGE INTENTIONALLY LEFT BLANK -  
SIGNATURE PAGE FOLLOWS]**

**IN WITNESS WHEREOF**, the parties hereto have caused this Contract to be signed by their duly authorized representatives on the days and dates set forth below.

**VILLAGE OF OAK PARK**

**CONTRACTOR**

\_\_\_\_\_  
By:  
Its: Village Manager

\_\_\_\_\_  
By:  
Its:

Date: \_\_\_\_\_, 2023

Date: \_\_\_\_\_, 2023

**ATTEST**

**ATTEST**

\_\_\_\_\_  
By:  
Its: Village Clerk

\_\_\_\_\_  
By:  
Its:

Date: \_\_\_\_\_, 2023

Date: \_\_\_\_\_, 2023

Village of Oak Park  
 Capital Improvement Program  
 2023 - 2027

Project:

Fire Station 2 Egress for Second Floor

Priority Code:

Category:



Description:

This project involves removing one window in the kitchen area on the second floor and installing a new egress point (doorway with exterior landing) for life safety purposes. Structural and masonry work would be included.

Justification:

Currently, there is no point of egress on the 2nd floor of the fire station, and only one stairway leading down to the main floor and exit. The existing windows are too small to serve as emergency exits. This is a life safety concern as the bunk room and kitchen are directly above the fire apparatus floor. In case of a fire on the apparatus floor, there would be no emergency exit available for staff.

Current Status:

This is a new project.

Funding Sources	Account Number	Actuals			Project Budget			Amended Budget			Year End Estimate			Recommended Budget			
		FY 2020	FY 2021	FY 2022	FY 2022	FY 2022	FY 2022	FY 2022	FY 2022	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027		
Transfer From CIP Fund #3095	3012-41300-101-491495	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total:		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Expenditures																	
Construction	3012-43790-101-540673	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total:		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



# Village of Oak Park Fire Department Oak Park Fire Station 2



**STUDIO GC**  
architecture + interiors  
223 West Jackson Boulevard, Suite 1200  
Chicago, Illinois 60606  
(312) 253-3400



**ALTERNATES:**  
**ALTERNATE BID NO. 1: COLUMNS.**  
**BASE BID:** BASE BID: PROVIDE 6X6 WOOD POSTS SECURED WITH BLACK POWDER COATED POST ANCHOR TO CONCRETE FOUNDATIONS, AS SHOWN.  
**ALTERNATE BID:** PROVIDE (3) HSS 4"x4"x5/16" GALVANIZED STEEL COLUMNS WITH (3) 1/2 BOLTS WELDED TO COLUMN TOP ON THE FRONT AND OUTSIDE OF THE COLUMNS, TO ATTACH THE WOOD BEAMS TO THE COLUMNS, WITH A 8"x8"x 1/2" BASE PLATE TO ATTACH THE BASE OF THE COLUMNS TO ANCHOR BOLTS SET IN THE CONCRETE FOUNDATION.

DRAWING INDEX	
SHEET NO.	SHEET NAME
GENERAL	
T1.00	TITLE SHEET
G1.00	GENERAL NOTES
G2.00	CODE COMPLIANCE - SECOND FLOOR
ARCHITECTURAL	
A1.00	DIMENSIONAL & DEMOLITION PLANS
A2.00	NEW & DEMOLITION ELEVATIONS & ENLARGED PLANS
A3.00	SECTIONS & DETAILS
A4.00	DOOR AND FRAME SCHEDULE & DETAILS

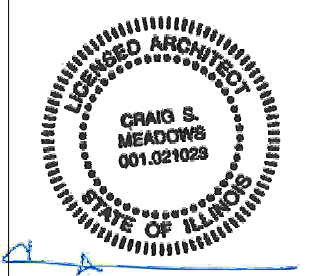


**BOARD**

VICKI SCAMAN	PRESIDENT
SUSAN BUCHANAN	TRUSTEE
CHIBUIKE ENYIA	TRUSTEE
RAVI PARAKKAT	TRUSTEE
LUCIA ROBINSON	TRUSTEE
BRIAN D. STRAW	TRUSTEE
CORY J. WESLEY	TRUSTEE
CHRISTINA WATERS	CLERK
RONALD KOBYLESKI	FIRE CHIEF
VIC SABALIAUSKAS	BUILDING MAINTENANCE SUPERINTENDENT

**CERTIFICATION:**  
I HEREBY CERTIFY THAT THESE PLANS AND SPECIFICATIONS WERE PREPARED IN THE OFFICES OF STUDIO GC, INC. UNDER MY DIRECT SUPERVISION AND TO THE BEST OF MY KNOWLEDGE, COMPLY WITH THE FOLLOWING:

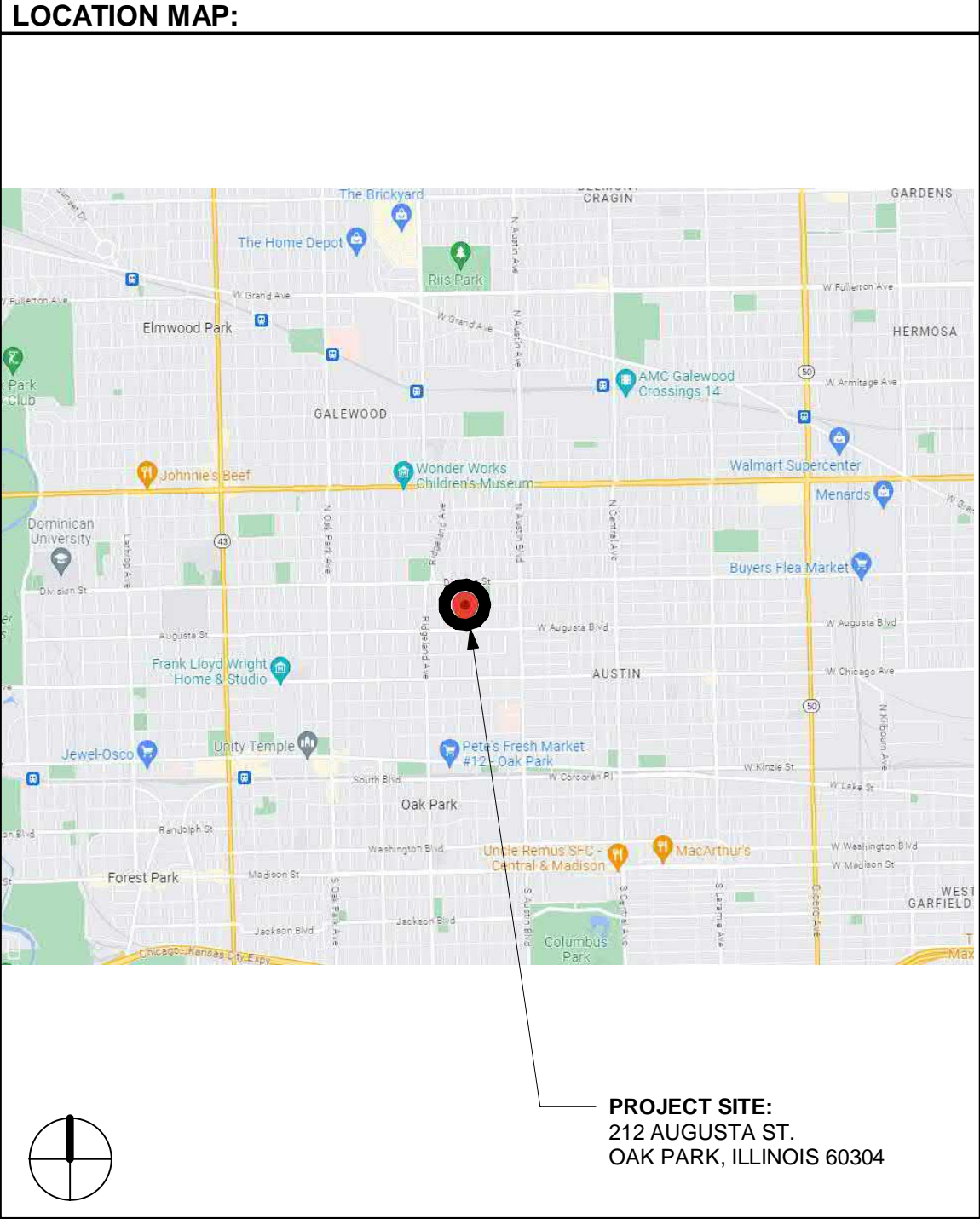
- INTERNATIONAL BUILDING CODE (2018 IBC) FOR COMMERCIAL BUILDINGS WITH LOCAL AMENDMENTS
- INTERNATIONAL EXISTING BUILDING CODE (2018 IEB) WITH LOCAL AMENDMENTS
- NATIONAL ELECTRIC CODE (2017 NEC, NFPA 10) WITH LOCAL AMENDMENTS
- INTERNATIONAL FUEL GAS CODE (2018 IFGC) WITH LOCAL AMENDMENTS
- INTERNATIONAL MECHANICAL CODE (IMC) WITH LOCAL AMENDMENTS
- INTERNATIONAL FIRE CODE (2018 IF) WITH LOCAL AMENDMENTS
- INTERNATIONAL ENERGY CONSERVATION CODE (2018 IECC)
- ILLINOIS STATE PLUMBING CODE WITH LOCAL AMENDMENTS
- STATE OF ILLINOIS ACCESSIBILITY CODE (2014)



CRAIG S. MEADOWS  
ARCHITECT  
001-021023 11/30/2024  
LICENSE NO. AND EXPIRATION DATE  
FILL DATE  
DATE SIGNED

**CONSULTANTS:**

**2010 ENGINEERING GROUP LLC**  
MECHANICAL, ELECTRICAL, PLUMBING, FIRE PROTECTION ENGINEERS



Second Floor Balcony & Egress Alterations

Village of Oak Park  
212 Augusta St, Oak Park, IL 60301

NO.	ISSUE	DATE
•	ISSUED FOR BIDDING	• 6/28/2023
•		•
•		•
•		•
•		•
•		•
•		•
•		•
•		•
•		•

TITLE SHEET

T1.00



**GENERAL NOTES**

- 1.) REFER TO THE PROJECT MANUAL FOR BIDDING REQUIREMENTS, CONTRACT FORMS, GENERAL CONDITIONS OF THE CONTRACT, SUPPLEMENTARY CONDITIONS OF THE CONTRACT, AND TECHNICAL SPECIFICATIONS.
- 2.) EACH CONTRACTOR SHALL BE RESPONSIBLE FOR VISITING THE PROJECT SITE AND OBSERVING THE SURROUNDING CONDITIONS PRIOR TO SUBMITTING A BID FOR THIS PROJECT. CONTRACTORS SHALL PROMPTLY CONTACT THE ARCHITECT IN WRITING IF THERE IS A CONFLICT BETWEEN THE DRAWINGS AND EXISTING CONDITIONS, OR OTHER QUESTIONS ARISE FROM THE CONTRACTOR'S OBSERVATIONS.
- 3.) SEVERAL ITEMS ON THE DRAWINGS ARE INDICATED AS AN ALTERNATE. THE SCOPE OF THESE ITEMS ARE EXPLAINED IN THE SECTION 012300 - ALTERNATES WITHIN THE PROJECT MANUAL.
- 4.) ALL REQUIRED PRE-INSTALLATION MEETINGS AND MOCKUPS FOR CRITICAL WORK SHALL BE PERFORMED PRIOR TO COMMENCEMENT. EACH CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ADDITIONAL MEETINGS AND MOCKUPS WITH THE ARCHITECT AS THEY DEEM NECESSARY. SUCH WORK SHALL BE CONSIDERED PART OF THIS CONTRACT AND THE CONTRACTORS SHALL BE RESPONSIBLE FOR PROVIDING SUCH WORK IN THEIR BID.
- 5.) EACH CONTRACTOR SHALL COORDINATE THEIR WORK WITH ALL OTHER TRADES.
- 6.) WHERE DISCREPANCIES EXIST BETWEEN THE DRAWINGS OF THE VARIOUS TRADES, PROMPTLY REPORT THE DISCREPANCIES TO THE ARCHITECT IN WRITING FOR RESOLUTION BEFORE PROCEEDING WITH THE WORK.
- 7.) WHERE ANY PROVISIONS OF THE DRAWINGS AND SPECIFICATIONS CONFLICT WITH ONE ANOTHER, THE MORE STRINGENT OR COSTLY REQUIREMENT SHALL GOVERN UNLESS SPECIFICALLY DIRECTED OTHERWISE BY THE ARCHITECT.
- 8.) EACH CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL FIELD CONDITIONS, MATERIALS, CONSTRUCTION METHODS AND DIMENSIONS PRIOR TO COMMENCING HIS WORK. CONTRACTORS SHALL PROMPTLY CONTACT THE ARCHITECT IN WRITING IF ISSUES OR QUESTIONS ARISE. COMMENCEMENT OF THE WORK BY A CONTRACTOR CONSTITUTES HIS ACCEPTANCE OF EXISTING CONDITIONS, AS WELL AS TAKING ON THE RESPONSIBILITY FOR ALL UNACCEPTABLE WORK CAUSED BY PREVIOUS CONDITIONS.
- 9.) ANY MATERIALS ORDERED, FABRICATED, OR INSTALLED PRIOR TO THE ARCHITECT'S REVIEW AND APPROVAL OF REQUIRED SUBMITTALS AND ASSOCIATED SUBMITTALS PERTAINING TO THE WORK, IS DONE SO AT EACH CONTRACTOR'S OWN RISK. THE OWNER AND ARCHITECT ASSUME NO RESPONSIBILITY FOR DELAYS OR ADDED COSTS INCURRED BY ANY CONTRACTOR AS A RESULT OF WORK INSTALLED OR COMPLETED WITHOUT PROPER SUBMITTAL REVIEW AND APPROVAL.
- 10.) ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE, NATIONAL CODES AND ORDINANCES AND ALL AUTHORITIES HAVING JURISDICTION. EACH CONTRACTOR IS RESPONSIBLE FOR FAMILIARIZING HIMSELF WITH ALL APPLICABLE CODES AND ORDINANCES AND THE REQUIREMENTS OF AUTHORITIES HAVING JURISDICTION PRIOR TO SUBMITTING BIDS FOR THIS PROJECTS. SEE TITLE PAGE FOR ALL LIST OF ADOPTED CODES.
- 11.) GENERAL CODE AND LIFE SAFETY INFORMATION FOR THIS PROJECT IS INDICATED ON THE G-SERIES SHEETS. INFORMATION PROVIDED IS NOT COMPREHENSIVE. CONTRACTORS SHALL BE RESPONSIBLE FOR PERFORMING WORK AS NOTED IN GENERAL NOTE 10.
- 12.) DO NOT SCALE DRAWINGS; READ DIMENSIONS ONLY. IF A REQUIRED DIMENSION IS NOT INDICATED OR ANY DIMENSIONING DISCREPANCIES EXIST ON THE DRAWINGS THE CONTRACTOR SHALL PROMPTLY WRITE TO THE ARCHITECT FOR RESOLUTION.
- 13.) CONTRACTORS SHALL NOT CUT STRUCTURAL ELEMENTS OR MEMBERS IN A MANNER RESULTING IN A REDUCTION OF LOAD CARRYING CAPACITY OR LOAD DEFLECTION RATIO.
- 14.) ALL STRUCTURAL ITEMS, INCLUDING BUT NOT LIMITED TO, BEAMS, LINTELS, JOISTS, DECKS, MASONRY TIES, BOND BEAMS, COLUMNS, CONNECTIONS AND CONNECTORS, ETC., APPEARING ON ARCHITECTURAL DRAWINGS ARE ONLY SHOWN TO ILLUSTRATE RELATIONSHIPS TO OTHER BUILDING MATERIALS AND SYSTEMS AND SHALL BE CONSIDERED FOR INFORMATION ONLY. REFER TO STRUCTURAL DRAWINGS FOR DETAILED CONFIGURATIONS, TYPES, SIZES, CONNECTIONS, NOTES, AND SCHEDULES.
- 15.) ALL COLD FORMED METAL FRAMING APPEARING ON ARCHITECTURAL DRAWINGS ARE SHOWN TO ILLUSTRATE INTENT. THE CONTRACTOR, AS PART OF DELEGATED DESIGN SUBMITTAL RESPONSIBILITY UNDER HIS SCOPE, IS TO PROVIDE CONNECTIONS, ACCESSORIES, AND CONFIGURATIONS REQUIRED TO MEET THE SPECIFICATIONS.
- 16.) ALL PLUMBING, HVAC, ELECTRICAL, AND FIRE PROTECTION ITEMS APPEARING ON ARCHITECTURAL DRAWINGS ARE ONLY SHOWN TO ILLUSTRATE RELATIONSHIPS TO OTHER BUILDING MATERIALS AND SYSTEMS AND SHALL BE CONSIDERED FOR INFORMATION ONLY. REFER TO EACH DISCIPLINES DRAWINGS FOR DETAILED CONFIGURATIONS, TYPES, SIZES, CONNECTIONS, NOTES, AND SCHEDULES.
- 17.) ALL PLUMBING, HVAC, ELECTRICAL AND FIRE PROTECTION ROUGH-IN WORK IN FINISHED AREAS SHALL BE CONCEALED IN AVAILABLE CEILING, WALL AND FLOOR SPACES.
- 18.) ALL PIPE PENETRATIONS THROUGH THE NEW OR EXISTING SLAB ON GRADE, WALLS BELOW GRADE, AND EXTERIOR WALLS SHALL BE WATER SEALED. WHERE PENETRATIONS ARE REQUIRED TO BE FIRE SEALED PER THE CONTRACT DOCUMENTS, THE WATER SEAL SHALL BE IN ADDITION, THE FIRE SEALANT SHALL BE INSTALLED FIRST (DEPRESSED A MINIMUM OF 3/4 INCH) AND WITH THE WATER SEAL INSTALLED OVER THE TOP. AN APPROPRIATE BOND BREAKER SHALL BE INSTALLED IN BETWEEN THE TWO TYPES OF SEALANT.
- ALL DUCT PENETRATIONS THROUGH THE NEW OR EXISTING SLAB ON GRADE, WALLS BELOW GRADE, AND EXTERIOR WALLS SHALL BE FLASHED WITH A PREFABRICATED COLLAR AND WATER SEALED. WHERE PENETRATIONS ARE REQUIRED TO BE FIRE SEALED PER THE CONTRACT DOCUMENTS, THE WATER SEAL SHALL BE IN ADDITION, THE FIRE SEALANT SHALL BE INSTALLED FIRST (DEPRESSED A MINIMUM OF 3/4 INCH) AND WITH THE WATER SEAL INSTALLED OVER THE TOP. AN APPROPRIATE BOND BREAKER SHALL BE INSTALLED IN BETWEEN THE TWO TYPES OF SEALANT.
- 19.) ALL PIPE AND DUCT PENETRATIONS THROUGH THE NEW OR EXISTING ROOF DECK SHALL BE FLASHED WITH A PREFABRICATED BOOT/COLLAR AND WATER SEALED.
- 20.) ROOF FLASHING DETAILS ARE GENERIC AND SHALL BE FINALIZED DURING SHOP DRAWING SUBMITTALS BASED ON THE ROOFING MANUFACTURER'S STANDARD DETAILS.

**GENERAL NOTES**

- 21.) PROVIDE GROUTED CELLS IN MASONRY WALLS TO ANCHOR ALL WALL MOUNTED ITEMS INCLUDING, BUT NOT LIMITED TO, MILLWORK, CASEWORK, WALL CABINETS, HANDRAILS, COAT RACKS, WALL HOOKS, DOOR STOPS, TOILET ACCESSORIES, OWNER FURNISHED EQUIPMENT, SHELIVING, LIGHT FIXTURES, LIFE SAFETY EQUIPMENT AND OTHER SIMILAR ITEMS. THE AREA OF CELLS TO BE GROUTED SHOULD MATCH THE SIZE OF THE MOUNTED COMPONENT OR AT A MINIMUM HAVE GROUTED CELLS BEHIND EACH FASTENER POINT.
- 22.) PROVIDE FIRE TREATED WOOD OR STEEL FRAME BLOCKING, AS REQUIRED, IN FRAMED WALLS AND CEILINGS TO ANCHOR ALL WALL AND CEILING MOUNTED ITEMS INCLUDING, BUT NOT LIMITED TO: MILLWORK, CASEWORK, WALL CABINETS, HANDRAILS, COAT RACKS, WALL HOOKS, DOOR STOPS, TOILET ACCESSORIES, OWNER FURNISHED EQUIPMENT, SHELIVING, LIGHT FIXTURES, LIFE SAFETY EQUIPMENT AND OTHER SIMILAR ITEMS.
- 23.) WOOD BLOCKING AND METAL FRAMING IS SHOWN GENERICALLY IN DETAILS TO ACHIEVE THE DESIRED OVERALL DESIGN INTENT. ITS RELATIONSHIP TO OTHER MATERIALS CAN BE ALTERED OR REPLACED AS REQUIRED BY APPROPRIATE CONSTRUCTION PRACTICES TO ACHIEVE THE FINAL APPEARANCE INDICATED ON THE DRAWINGS.
- 24.) THE PERIMETER OF ALL OPENINGS ARE TO BE BACKED AS NECESSARY AND SEALED, INTERIOR AND EXTERIOR.
- 25.) THE PERIMETER OF ALL PENETRATIONS ARE TO BE BACKED AS NECESSARY AND SEALED, INTERIOR AND EXTERIOR.
- 26.) ALL OPENINGS, INTERIOR AND EXTERIOR, THAT HAVE A RETURN FROM THE MAIN FACE, SHALL HAVE THE RETURN FINISHED THE SAME AS THE MAIN EXPOSED FACE U.N.O. THIS APPLIES TO BOTH SIDES OF ALL OPENINGS.
- 27.) CONTROL JOINTS IN MASONRY WALLS ARE TO BE PROVIDED AS SHOWN. IN AREAS WHERE JOINTS ARE NOT SHOWN, THE CONTRACTOR SHALL PROVIDE JOINTS AS FOLLOWS: 1. AT EVERY 20 FEET IN RUNNING WALLS AND 6 FEET FROM CORNERS. 2. AT ALL CORNERS OF AN 'L', 'U', OR 'T' CONFIGURATION ON A WALL SURFACE. A CONTROL JOINT SHALL BE PROVIDED TO DIVIDE THE SECTIONS. THE CONTRACTOR IS TO REVIEW ALL LOCATIONS WITH THE ARCHITECT IN THE FIELD PRIOR TO COMMENCING MASONRY INSTALLATION REGARDLESS OF WHETHER JOINTS ARE SHOWN OR THE JOINTS ARE BEING PROVIDED PER THE GUIDELINES NOTED HERE.
- 28.) PROVIDE BOND BREAKER MATERIAL AT CONTROL JOINTS WHERE JOINTS ARE FULLY PARGED OR GROUTED.
- 29.) CONTROL JOINTS IN GYPSUM BOARD ARE TO BE PROVIDED AS SHOWN. IN AREAS WHERE JOINTS ARE NOT SHOWN, THE CONTRACTOR SHALL PROVIDE JOINTS AS FOLLOWS: 1. AT EVERY 30 FEET IN WALLS OR CEILINGS. 2. AT ALL CORNERS OF AN 'L', 'U', OR 'T' CONFIGURATION ON A WALL OR CEILING SURFACE. A CONTROL JOINT SHALL BE PROVIDED TO DIVIDE THE SECTIONS. THE CONTRACTOR IS TO REVIEW ALL LOCATIONS WITH THE ARCHITECT IN THE FIELD PRIOR TO COMMENCING CONTROL JOINT INSTALLATION REGARDLESS OF WHETHER JOINTS ARE SHOWN OR THE JOINTS ARE BEING PROVIDED PER THE GUIDELINES NOTED HERE.
- 30.) CONTROL JOINTS IN RATED ASSEMBLIES ARE TO BE TREATED AS NOT TO COMPROMISE THE RATED ASSEMBLY. CONTRACTORS SHALL PROVIDE APPROPRIATE BACKING MATERIAL AND FIRE STOPPING TO CLOSE THE CAVITY AND PROVIDE AN APPROPRIATELY RATED SEALANT.
- 31.) THE TYPICAL CONDITION, UNLESS DETAILED OTHERWISE, WHERE GYPSUM WALLBOARD MEETS ANY KIND OF DISSIMILAR SURFACE, INCLUDING BUT NOT LIMITED TO MASONRY, WOOD, OR METAL, IS TO HAVE WALLBOARD EDGE FINISHED WITH A PAINTED J-BEAD EDGE AND DRYWALL COMPOUND AND THE JOINT CAULKED.
- 32.) WHENEVER MASONRY REQUIRES CUTTING TO ENCLOSE A STRUCTURAL MEMBER, PROVIDE MAXIMUM THICKNESS POSSIBLE AND STILL PREVENT CONTACT WITH THE STRUCTURE, EXCEPT FOR WALL TIES. USE THE SAME UNITS AS IN WALL SO FACE TEXTURE AND APPEARANCE IS UNIFORM.
- 33.) CONTRACTORS SHALL FINISH DESIGNING AND FABRICATE ITEMS DESIGNATED AS A "DELEGATED DESIGN" WITHIN THE SPECIFICATIONS. COORDINATE WITH INDIVIDUAL SPECIFICATION SECTIONS FOR THESE ITEMS.
- 34.) CONTRACTORS SHALL CAREFULLY COORDINATE ALL WORK WITH EQUIPMENT BEING FURNISHED BY THE OWNER AND INSTALLED BY THE CONTRACTORS. ALL SHOP DRAWINGS AND OTHER SUBMITTALS SHALL BE CAREFULLY COORDINATED ACCORDINGLY. CONTRACTORS SHALL PROVIDE FOR SOME ADJUSTMENT IN FINAL DESIGN AND FABRICATION TO ACCOMMODATE INSTALLATION OF EQUIPMENT.
- 35.) CONTRACTORS SHALL COORDINATE TESTING WITH OWNER'S PROVIDED TESTING SERVICE. CONTRACTOR SHALL PROVIDE TESTING SERVICES AS PART OF THEIR BID FOR THOSE TESTS SPECIFICALLY NOTED AS CONTRACTOR'S RESPONSIBILITY WITHIN THE INDIVIDUAL SPECIFICATIONS SECTIONS.

**PROJECT NOTES**

- 1.) CONTRACTORS SHALL PROVIDE TEMPORARY BARRIERS AND CONTROLS IN THE PRIORITY OF SITE THROUGHOUT THE WORK DAY. CONTRACTORS SHALL COORDINATE WITH THE LOCAL MUNICIPALITY AND OWNER TO LIMIT DISRUPTION AND TO PROTECT LOCAL TRAFFIC AND RESIDENTS DURING THE COURSE OF THE WORK.
- 2.) BEFORE BEGINNING WORK AT THE SITE AND THROUGHOUT THE COURSE OF THE WORK, INSPECT AND VERIFY THE EXISTING CONDITIONS, MATERIALS, DIMENSIONS, LOCATIONS AND CONDITIONS OF EVERY ITEM AFFECTED BY THE WORK UNDER THIS CONTRACT AND REPORT DISCREPANCIES IMMEDIATELY TO THE ARCHITECT IN WRITING FOR RESOLUTION BEFORE BEGINNING THE WORK RELATED TO THAT BEING INSPECTED.
- 3.) BEFORE BEGINNING WORK AT THE SITE, INSPECT THE EXISTING BUILDING AND DETERMINE THE EXTENT OF EXISTING CONSTRUCTION, BUILDING SYSTEMS, FINISHES, SPECIALTIES, EQUIPMENT, FURNITURE AND OTHER ITEMS WHICH MUST BE REMOVED AND REINSTALLED IN ORDER TO PERFORM THE WORK UNDER THIS CONTRACT.
- 4.) THE DRAWINGS SHOW PRINCIPLE AREAS WHERE WORK MUST BE ACCOMPLISHED UNDER THIS CONTRACT. INCIDENTAL WORK MAY ALSO BE NECESSARY IN AREAS NOT SHOWN ON THE CONTRACT DRAWINGS AS REQUIRED TO THE PRINCIPAL WORK DELINEATED WITHIN THIS SET. SUCH INCIDENTAL WORK SHALL BE DONE PER THE CONTRACT DOCUMENT REQUIREMENTS AND ALL APPLICABLE CODES. SEE TITLE PAGE FOR LIST OF ADOPTED CODES. SUCH WORK SHALL BE CONSIDERED PART OF THIS CONTRACT AND THE CONTRACTORS SHALL BE RESPONSIBLE FOR PROVIDING SUCH WORK IN THEIR BID.
- 5.) CONTRACTORS SHALL PROVIDE NEW UNDAMAGED MATERIALS. ANY DAMAGED MATERIALS, FIXTURES AND/OR FINISHES RECEIVED ARE NOT TO BE INSTALLED AND RETURNED TO THE MANUFACTURER/DISTRIBUTOR. INSTALLATION OF DAMAGED MATERIALS WILL BE REJECTED.
- 6.) PROTECT ALL EXISTING CONSTRUCTION, INFRASTRUCTURE, EQUIPMENT AND FURNISHINGS TO REMAIN FROM DAMAGE. VIDEOTAPE/ PHOTOGRAPH EXISTING CONDITIONS PRIOR TO COMMENCEMENT OF WORK. TRADE CONTRACTORS WILL REPAIR/REPLACE OR CORRECT ANY AND ALL EXISTING CONSTRUCTION TO MATCH THAT DAMAGED BY CONSTRUCTION AND/OR INSTALLATION PROCESS UNDER THIS CONTRACT AS NECESSARY AT NO ADDITIONAL EXPENSE TO OWNER.**
- 7.) REPAIR, PATCH AND REFINISH, OR REPLACE ANY EXISTING CONSTRUCTION AND INFRASTRUCTURE THAT IS DISTURBED OR DAMAGED DURING THE COURSE OF THE WORK. SUCH REPAIR OR REPLACEMENT WORK IS TO MATCH EXISTING CONSTRUCTION IN QUALITY, CHARACTER AND FINISH.
- 8.) WHERE MATCH EXISTING IS INDICATED OR NEEDED, THE NEW CONSTRUCTION, INFRASTRUCTURE OR FINISHES REQUIRED TO COMPLETE THE WORK SHALL MATCH THE EXISTING IN SHAPE, CONFIGURATION, CHARACTERISTIC AND PROPERTY.
- 9.) CONTRACTORS SHALL USE EXISTING INFRASTRUCTURE TO COMPLETE BUILDING SYSTEM INSTALLATION AS MUCH AS POSSIBLE.
- 10.) SHOULD DISCREPANCIES APPEAR AMONG THE CONTRACT DOCUMENTS OR BETWEEN THE CONTRACT DOCUMENTS AND EXISTING SITE CONDITIONS, THE CONTRACTOR SHALL REQUEST AN INTERPRETATION FROM THE ARCHITECT BEFORE THE BIDDING PERIOD IS COMPLETE. IF THE CONTRACTORS FAIL TO MAKE SUCH REQUESTS, IT IS PRESUMED THAT BOTH PROVISIONS WERE INCLUDED IN THE BID, AND THE ARCHITECT SHALL DETERMINE WHICH OF THE CONFLICTING REQUIREMENTS SHALL GOVERN. THE CONTRACTORS SHALL PERFORM THE WORK AT NO ADDITIONAL COST TO THE OWNER IN ACCORDANCE WITH THE ARCHITECT'S DETERMINATION.
- 11.) WHERE CONFLICT EXISTS BETWEEN, OR WITHIN, THE CONTRACT DOCUMENTS, BETWEEN THE CONTRACT DOCUMENTS AND APPLICABLE STANDARDS, CODES, ORDINANCES, OR MANUFACTURERS' RECOMMENDATIONS, AND CLARIFICATION HAS NOT BEEN REQUESTED FROM THE ARCHITECT PRIOR TO THE CLOSE OF BIDDING AS PROVIDED FOR ABOVE (NOTE 10), THE MORE STRINGENT OR HIGHER QUALITY STANDARD SHALL PREVAIL. LARGE SCALE DRAWINGS SHALL TAKE PRECEDENCE OVER SMALL SCALE DRAWINGS, FIGURED DIMENSIONS ON THE DRAWINGS OVER SCALED DIMENSIONS, AND NOTED MATERIAL OVER GRAPHIC REPRESENTATIONS.
- 12.) THE CONTRACTORS SHALL PROVIDE ALL WORK AND MATERIALS WHICH ANY SECTION OR PART OF THE DRAWINGS, SPECIFICATIONS, OR CONDITIONS REQUIRE HIM TO PROVIDE FOR ALL SIMILAR WORK. THIS SHALL APPLY TO ALL SIMILAR WORK REGARDLESS OF WHETHER SUCH REQUIREMENT IS OR IS NOT FAITHFULLY REPEATED IN OTHER PARTS OF THE CONTRACT DOCUMENTS, THEREOF TO WHICH, THE PROVISIONS MIGHT BE APPROPRIATE.
- 13.) PERFORM WORK SO AS NOT TO ADVERSELY AFFECT THE PERFORMANCE OR OPERATION OF THE BUILDING OR CAUSE THE EXISTING STRUCTURE TO BECOME UNSAFE OR CAUSE AN INCREASE IN REQUIRED OWNER MAINTENANCE TO THE EXISTING BUILDING SYSTEMS TO REMAIN.
- 14.) EPROM WORK TO MAINTAIN WEATHER TIGHT CONSTRUCTION OF THE EXISTING BUILDING AT ALL TIMES.
- 15.) CONFINE OPERATIONS TO AREAS WITHIN CONTRACT LIMITS INDICATED AND AS SPECIFICALLY ALLOWED BY THE OWNER PER WRITTEN APPROVAL. AREAS OF THE SITE BEYOND THE LIMITS OF THE CONTRACT OPERATIONS ARE NOT TO BE DISTURBED. CONTRACTORS SHALL BE RESPONSIBLE FOR REPAIR AND RESTORATION OF ANY EXISTING SITE CONSTRUCTION DAMAGED OUTSIDE OF THE CONTRACT LIMITS.
- 16.) KEEP CONSTRUCTION ENTRANCES AND LOCAL ACCESS ROAD SERVING THE SITE CLEAN AND CLEAR AT ALL TIMES. SCHEDULE DELIVERIES TO MINIMIZE SPACE AND TIME REQUIRED FOR STORAGE OF MATERIALS ON SITE.
- 17.) CONTRACTORS ARE RESPONSIBLE FOR THEIR OWN CLEANUP AT THE END OF EACH WORK DAY THROUGHOUT THE COURSE OF THE PROJECT.
- 18.) CONTRACTORS SHALL PROVIDE A FINAL CLEANUP AT THE END OF THE PROJECT PRIOR TO FINAL COMPLETION. ALL SURFACES, FIXTURES AND COMPONENTS ARE TO BE CLEANED THOROUGHLY SO NO MARKS, RESIDUE, STICKERS, OR RUBBISH REMAINS. ANY ITEM THAT CAN NOT BE EFFECTIVELY CLEANED SHALL BE REPLACED.
- 19.) OWNER SHALL PAY FOR THE BUILDING PERMIT PERTAINING TO THE PROJECT. CONTRACTORS SHALL BE RESPONSIBLE FOR SCHEDULING REQUIRED INSPECTIONS, AND SUBMITTING REQUIRED RECORDS, FORMS AND SUBMITTALS TO THE LOCAL AUTHORITY HAVING JURISDICTION. CONTRACTORS SHALL BE RESPONSIBLE FOR LICENSE FEES AND PERMITS RELATED TO OPERATING AND WORKING WITHIN THE MUNICIPALITY.

**PROJECT NOTES**

- 20.) WORK SHOWN IS NEW UNLESS SPECIFICALLY NOTED OR OTHERWISE INDICATED.
  - 21.) DO NOT SCALE DRAWINGS. DIMENSIONS SHALL GOVERN. LARGE SCALE DETAILS SHALL GOVERN OVER SMALL SCALE DETAILS. IF A REQUIRED DIMENSION IS NOT INDICATED OR ANY DIMENSIONING DISCREPANCIES EXIST ON THE DRAWINGS THE CONTRACTORS SHALL PROMPTLY WRITE TO THE ARCHITECT FOR RESOLUTION.
  - 22.) VERIFY ALL DIMENSIONS IN FIELD PRIOR TO SHOP FABRICATION OF ITEMS.
  - 23.) DETERMINE THE LOCATION OF PARTITIONS NOT DIMENSIONED BY THEIR RELATION TO COLUMN FACE OR CENTER, OPENING JAMB OR MULLION, EXISTING WALLS OR OTHER SIMILAR FIXED ITEMS.
  - 24.) ALL HOLD DIMENSIONS ARE REQUIRED TO BE EXACT WITH 1/8" TOLERANCE ALONG FULL HEIGHT AND FULL WIDTH OF WALL, PARTITION OR BUILDING COMPONENT.
  - 25.) AT LOCATIONS WHERE PERMANENT REMOVAL OF EXISTING MILLWORK, CASEWORK, DOORS AND FRAMES, ACCESSORIES, EQUIPMENT OR FURNISHINGS CAUSES PREVIOUSLY CONCEALED SURFACES TO REMAIN EXPOSED, PATCH SUCH SURFACES TO MATCH ADJACENT EXPOSED WORK. WHERE THE ADJACENT EXPOSED WORK SURFACES ARE SCHEDULED TO RECEIVE NEW FINISHES, PREPARE THE PREVIOUSLY CONCEALED SURFACES TO RECEIVE THE NEW FINISHES.
  - 26.) WHERE CUTTING OF EXISTING SURFACES OR REMOVAL OF EXISTING SURFACES IS REQUIRED TO PERFORM THE WORK UNDER THIS CONTRACT, AND NEW FINISH IS NOT INDICATED, FILL RESULTING OPENINGS AND PATCH THE SURFACE AFTER DOING THE WORK, AND FINISH TO MATCH ADJACENT EXISTING SURFACES.
  - 27.) WHERE CONDUITS, DUCTS, AND SIMILAR ITEMS ARE SHOWN TO BE INSTALLED IN EXISTING WALLS OR PARTITIONS, NEATLY CHASE OR CUT THE WALLS OR PARTITIONS, INSTALL THE ITEMS, AND PATCH THE WALLS OR PARTITIONS TO MAKE THE INSTALLATION NOT DISCERNIBLE IN THE FINISH WORK.
  - 28.) SEAL TIGHT AND PROTECT WITH FIRE SAFING AND CAULKING PER UL DETAILS, EXISTING AND NEW SLEEVES AND OPENINGS THROUGH FLOORS.
  - 29.) REFER TO NEW WORK PLANS TO COORDINATE EXTENT OF DEMOLITION REQUIRED.
  - 30.) WHERE NOT SPECIFICALLY NOTED, CONTRACTORS SHALL MODIFY EXISTING FLOORING AND CEILING CONSTRUCTION TO REMAIN AS REQUIRED TO ABUT NEW CONSTRUCTION AND MATCH ADJACENT EXISTING CONDITIONS (TYP.).
  - 31.) VERIFY W/ OWNER ITEMS TO BE SALVAGED AND RETURNED TO OWNER. ALL ITEMS TO BE SALVAGED SHALL BE CAREFULLY REMOVED SO AS TO ALLOW FOR REUSE.
  - 32.) PROVIDE WALL PREPARATION OF NEW AND EXISTING WALLS, PRIOR TO BEGINNING PAINTING WORK, INCLUDING BUT NOT LIMITED TO PATCHING HOLES, GOUGES, OR OTHER DAMAGE, SECURING LOOSE TRIM, CONDUITS AND ANY OTHER WALL OR CEILING HARDWARE ITEMS REQUIRING PAINTING.
  - 33.) WALLS INDICATED TO BE PAINTED, OR REQUIRED TO BE REPAINTED DUE TO REPAIR OF DAMAGED/DISTURBED WORK SHALL HAVE THE ENTIRE WALL SURFACE FROM CORNER TO CORNER, OR OTHER NATURAL BREAK PAINTED.
  - 34.) CONTRACTORS SHALL COORDINATE THE WORK WITH OWNER'S REQUIREMENTS TO PREVENT DELAYS IN THE WORK AND PROVIDE A COMPLETE INSTALLATION.
- OWNER'S OTHER FORCES ARE INSTALLING : FURNISHINGS
- 35.) CONTRACTORS ARE RESPONSIBLE FOR PURCHURING TEMPORARY UTILITIES AND PAYING FOR SUCH UTILITIES UNTIL SUCH TIME THAT THE PERMANENT UTILITIES ARE OPERATIONAL AND THE OWNER HAS GRANTED, IN WRITING, THEIR USE BY THE CONTRACTORS.
  - 36.) CONTRACTOR IS RESPONSIBLE FOR PREPARING AND SUBMITTING FULLY DESIGNED FIRE SPRINKLER AND FIRE ALARM DRAWINGS TO THE LOCAL AUTHORITY HAVING JURISDICTION FOR REVIEW AND APPROVAL.
  - 37.) ALL NEW CONCRETE SLABS ARE TO HAVE INTEGRAL WATER VAPOR REDUCING ADMIXTURE OR RECEIVE MOISTURE VAPOR EMISSION CONTROL COATING. ALL EXISTING CONCRETE SLABS ARE TO RECEIVE MOISTURE VAPOR EMISSION CONTROL COATING WHERE INSTALLING NEW FLOOR FINISH.
  - 38.) ALL AREAS OF DISTURBED EARTH, WHETHER BY CONSTRUCTION PROCESS, DEMOLITION, OR MATERIAL STORAGE, ARE TO BE RESTORED WITH BLACK TOP SOIL & SODDED (NO EXCEPTIONS). ALL LANDSCAPE WORK IS TO BE PERFORMED BY A LANDSCAPE CONTRACTOR. ALL SOD IS TO BE WATERED, MOWED & FERTILIZED UNTIL "VIGOROUS GROWTH" IS ESTABLISHED AS DETERMINED BY OWNER INSPECTION. FOR REGULAR WATERING, CONTRACTOR IS RESPONSIBLE FOR TRUCKING IN ANY "BROWNED" OR "BURNED OUT" SOD IS TO BE REPLACED. SUCH WORK SHALL BE PART OF THE CONTRACTORS BID.
  - 39.) IT IS MANDATORY THAT THE EXISTING BUILDING REMAIN IN CONTINUOUS AND NON-INTERRUPTED OPERATION DURING REMODELING/ALTERING OF SAID EXISTING BUILDING. ONLY THE SPECIFIC AREAS BEING REMODELED/ALTERED AT ANY SCHEDULED TIME ARE EXCLUDED. SERVICES TO EXISTING BUILDING SHALL BE KEPT IN CONTINUOUS OPERATION INCLUDING POWER, SIGNAL SYSTEMS, LIGHTING, TELEPHONE, HEATING, COOLING, VENTILATING, TEMPERATURE CONTROLS, SEWERS AND HOT AND COLD WATER. ANY ABSOLUTELY NECESSARY INTERRUPTION OF THESE SERVICES TO ACCOMPLISH CONTRACT WORK SHALL BE ARRANGED THROUGH THE ARCHITECT WITH THE OWNER A MINIMUM OF FIVE (5) WORKING DAYS IN ADVANCE. SUCH INTERRUPTIONS SHALL BE KEPT TO AN ABSOLUTE MINIMUM AS FAR AS TIME INTERVAL IS INVOLVED. TEMPORARY SERVICES SHALL BE FURNISHED AND INSTALLED UNDER THIS CONTRACT WHEN THE LENGTH OF THE DISRUPTION IS GREATER THAN ONE WORKING DAY. TEMPORARIES SHALL BE REMOVED BY THE CONTRACTOR ONLY AFTER NEW PERMANENT SERVICES ARE INSTALLED AND FULLY OPERATIONAL.
  - 40.) "AS BUILT DRAWINGS" WILL BE DEVELOPED BY THE GENERAL CONTRACTOR DURING THE COURSE OF THIS PROJECT. A COPY OF SUCH WILL ALSO BE SUBMITTED TO THE VILLAGE OF OAK PARK FOR THE PERMANENT BUILDING PERMIT FILE.



**STUDIO GC**  
architecture + interiors

223 West Jackson Boulevard, Suite 1200  
Chicago, Illinois 60606  
(312) 253-3400

Second Floor Balcony & Egress Alterations

Village of Oak Park  
212 Augusta St, Oak Park, IL 60301

NO	ISSUE	DATE
	ISSUED FOR BIDDING	6/28/2023

**GENERAL NOTES**

**G1.00**



CODE COMPLIANCE	
BUILDING DATA: CONSTRUCTION CLASSIFICATION: TYPE_VB OCCUPANCY: NON -SEPARATED MIXED USE / GROUP(S) B S-1 (Most Stringent) S-2 R-3	
AREAS (GSF): TO REMAIN RENOVATED NEW COMPLETE SECOND FLOOR: 2,286 1,052 1,052 3,483	
ALLOWABLE ARE PER FLOOR PER SECTION 503 AND MODIFICATIONS: 36,000 SF > 5,300 SF	
HEIGHTS: ACTUAL ALLOWABLE GROUP: 1 STORIES - 20'-0" 2 STORIES - 40'	
GENERAL FIRE RESISTANCE RATED ELEMENTS	
STRUCTURAL FRAME	0 HOURS
EXTERIOR BEARING WALLS	0 HOURS
INTERIOR BEARING WALLS	0 HOURS
NON BEARING WALLS AND PARTITIONS	0 HOURS
FLOOR CONSTRUCTION	0 HOURS
ROOF CONSTRUCTION	0 HOURS

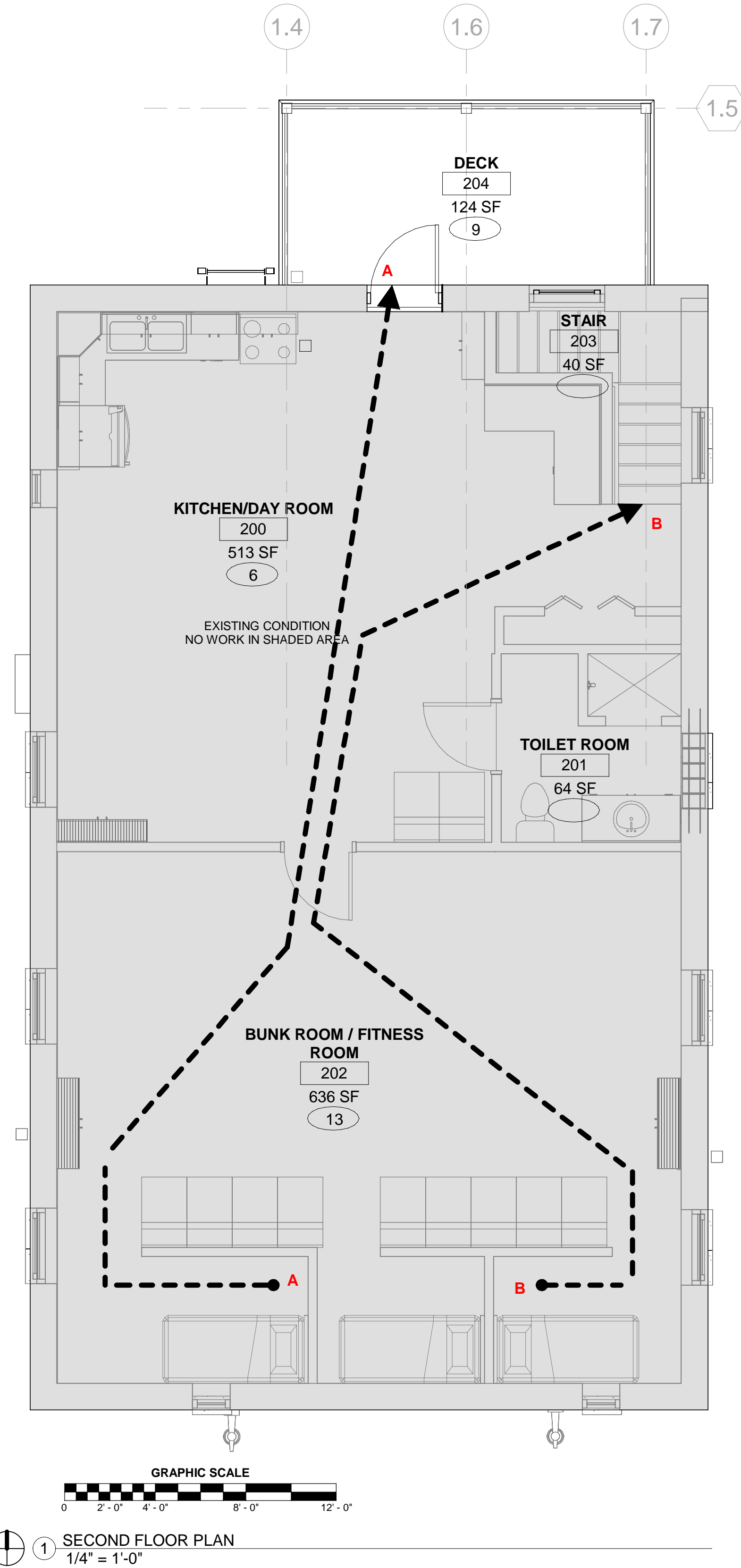
	PORTION OF BUILDING NOT INCLUDED IN SCOPE OF WORK
	F.E. SURFACE MOUNTED FIRE EXTINGUISHER
	F.E.C. RECESSED FIRE EXTINGUISHER CABINET
	TRAVEL DISTANCE TO EXITS: OCCUPANCY: " " MAXIMUM - FULLY SPRINKLERED
	MAX. OCCUPANT LOAD OF ROOM
	AT STAIR STAIR EGRESS INFORMATION TAG
	OL=100 OCCUPANT LOAD FOR STAIRS
	REQUIRED:30' WIDTH REQUIRED PER OCCUPANT LOAD
	PROVIDED:72' ACTUAL WIDTH PROVIDED

UL Assembly Notes	
1	CONTRACTOR SHALL COORDINATE BETWEEN CODE COMPLIANCE PLANS, LEGEND AND WALL TYPES TO DETERMINE CORRESPONDING UL DESIGNATION.
2	ALL FIRE RATED ASSEMBLIES SHALL BE INSTALLED IN STRICT ACCORDANCE WITH TESTED ASSEMBLIES INDICATED AND SHALL MEET THE REQUIREMENTS OF ALL APPLICABLE CODES. SEE TITLE PAGE FOR LIST OF ADOPTED CODES.
3	CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL COMPONENTS OF INDICATED ASSEMBLIES WHETHER SPECIFICALLY NOTED OR SHOWN IN THE DETAILS HEREIN.
4	CONTRACTOR SHALL FOLLOW MANUFACTURER'S DIRECTIONS TO ACHIEVE THE REQUIRED ASSEMBLY. IF THERE IS A CONFLICT OR DISCREPENCY BETWEEN THE MANUFACTURER'S INSTRUCTIONS AND THE DRAWINGS OR SPECIFICATIONS THE CONTRACTOR SHALL NOTIFY THE ARCHITECT IN WRITING PRIOR TO COMMENCEMENT OF THE WORK.
5	ALL PENETRATIONS THROUGH ALL FIRE RATED WALL, FLOOR AND ROOF ASSEMBLIES SHALL BE FIRE SEALED IN ACCORDANCE WITH THE FIRE RESISTANT JOINT MANUFACTURER'S DETAILS. INSTALLATION SHALL BE APPROPRIATE FOR LOCATION, TYPE OF CONSTRUCTION AND PENETRATING ITEM. ALL PENETRATIONS ARE TO MEET OR EXCEED THE REQUIRED ASSEMBLY RATING.
6	TERMINATIONS OF FIRE RATED WALLS TO THE ROOF DECK, FLOOR DECK OR DIFFERING WALL TYPE SHALL BE FIRE SEALED ALONG THE ENTIRE EDGE TO CLOSE ALL GAPS.
7	ALL DUCTWORK, DIFFUSERS AND GRILLES PENETRATING FIRE RATED ASSEMBLIES SHALL BE INSTALLED WITH AN APPROPRIATE FIRE DAMPER. DAMPER SHALL BE APPROPRIATE FOR LOCATION AND TYPE OF CONSTRUCTION. DAMPERS ARE TO MEET OR EXCEED THE REQUIRED RATING.
8	ALL FIXTURES, EQUIPMENT AND DEVICES PENETRATING FIRE RATED ASSEMBLIES SHALL BE UL LISTED FOR INSTALLATION IN THE ASSEMBLY.
9	NO FIXTURES, EQUIPMENT OR DEVICES ARE TO BE INSTALLED IF ITS INSTALLATION WILL COMPROMISE A REQUIRED FIRE RATED ASSEMBLY.

UL Assemblies		EGRESS PATH...	
Assembly Type		EXIT ROUTE	DISTANCE
BEAMS		A	55'
COLUMNS		B	53'
EXTERIOR WALL (Load Bearing)			
EXTERIOR WALL (Non Load Bearing)			
FLOOR			
INTERIOR WALL - SHAFTS			
ROOF			

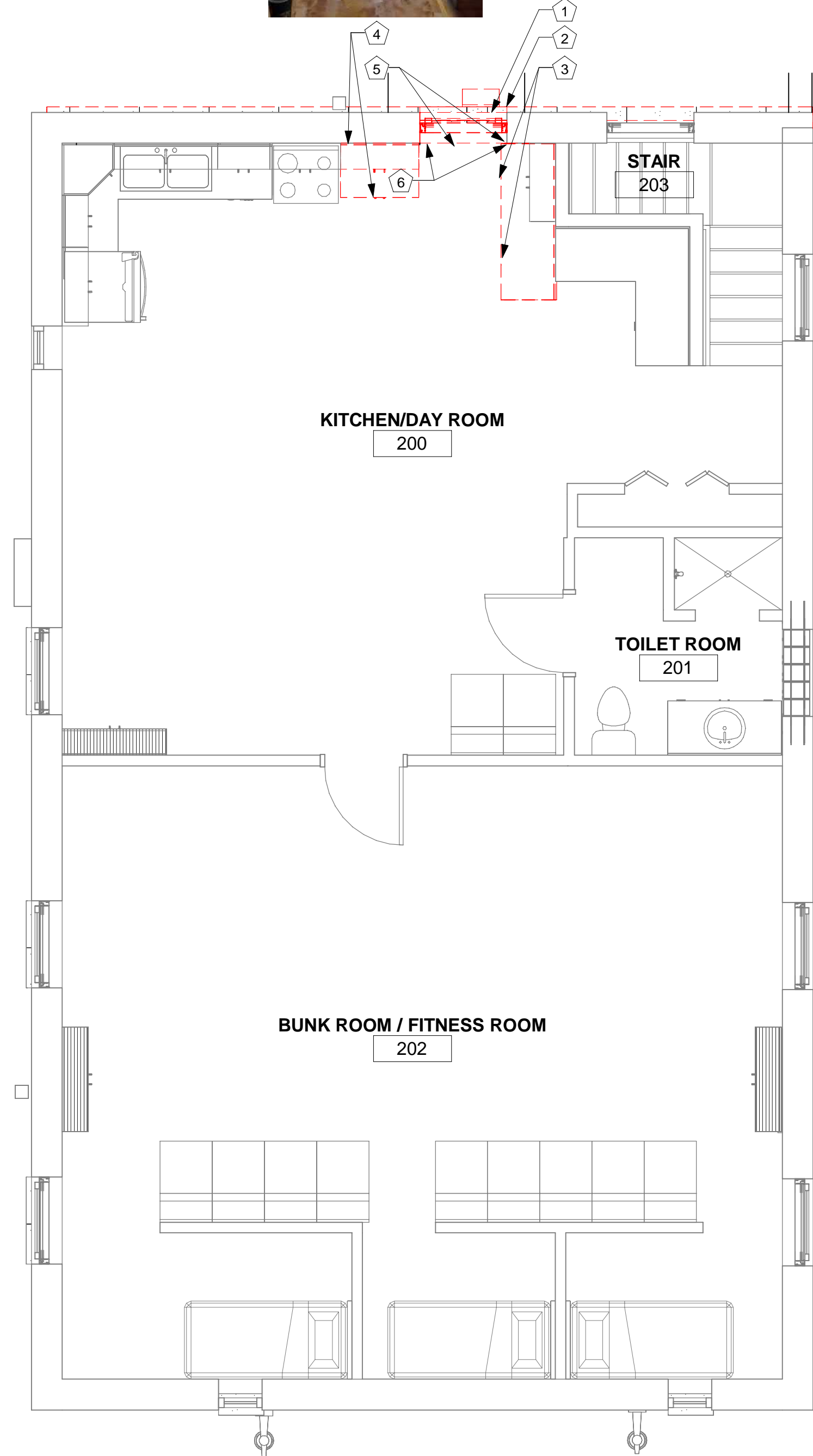
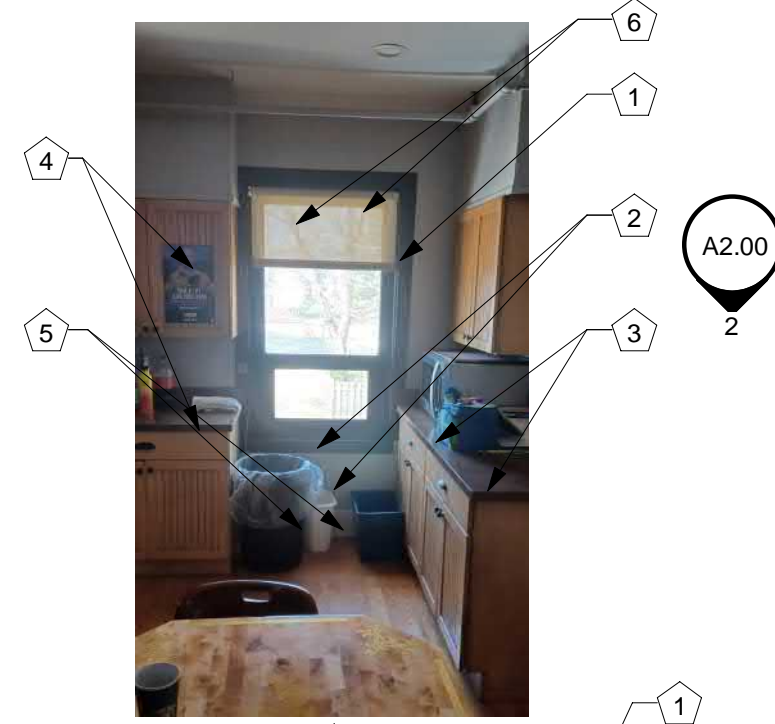
Code Compliance Notes	
1	PROJECT SHALL REMAIN IN COMPLIANCE WITH ALL ASPECTS OF ALL GOVERNING CODES AND ORDINANCES DURING THE COURSE OF CONSTRUCTION.
2	CONTRACTOR SHALL BE RESPONSIBLE FOR SUBMITTING ALL REQUIRED SHOP DRAWINGS AND CUTSHEETS FOR LIFE SAFETY SYSTEM COMPONENTS TO THE LOCAL AUTHORITY HAVING JURISDICTION.
3	CONTRACTOR SHALL ORGANIZE A MEETING WITH THE LOCAL AUTHORITY HAVING JURISDICTION TO REVIEW THE LOCATIONS OF ALL LIFE SAFETY DEVICES AND EQUIPMENT PRIOR TO THEIR INSTALLATION.
4	REFER TO SHEET A1.00 FOR PARTITION TYPES
5	ALL EGRESS EXITS OUT TO GRADE
6	PLUMBING FIXTURE COUNTS COMPLY (NO WORK IN THE TOILET ROOMS)

OCCUPANT LOAD (IBC)				
Number	Name	Area	Room Occupancy Style	Room Occupancy
200	KITCHEN/DAY ROOM	513 SF	Business	6
201	TOILET ROOM	64 SF	Toilets	0
202	BUNK ROOM / FITNESS ROOM	636 SF	Exercise rooms	13
203	STAIR	40 SF	Circulation	0
204	DECK	124 SF	Circulation	9
1/2 Second Floor: 5		1378 SF		28
Grand total: 5		1378 SF		28



NO	ISSUE	DATE
•	ISSUED FOR BIDDING	6/28/2023
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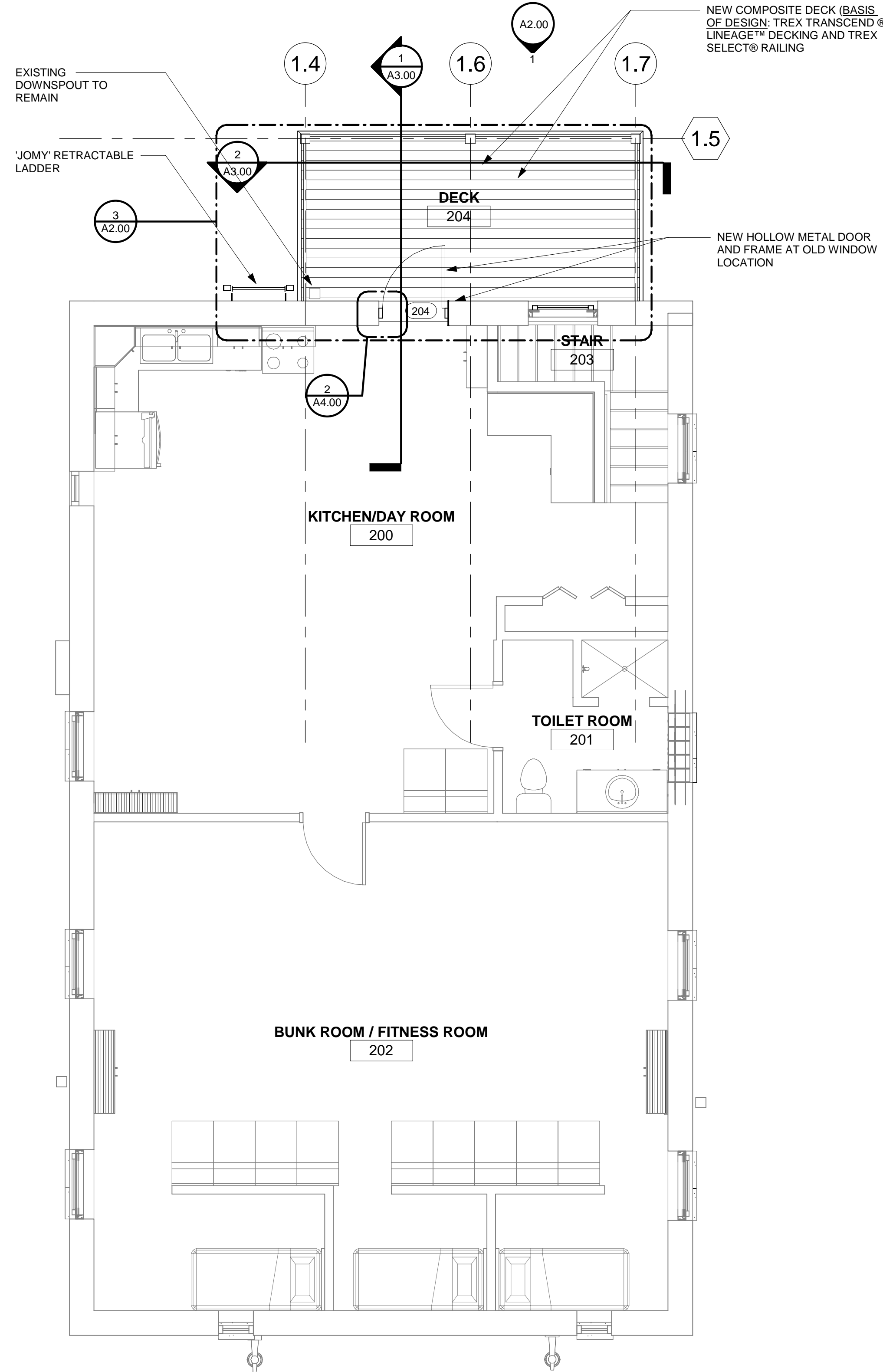
1 SECOND FLOOR DEMOLITION PLAN  
1/4" = 1'-0"

**DEMOLITION LEGEND:**

	WALL PARTITION TO BE REMOVED
	ITEM TO BE REMOVED
	DEMO KEY NOTE
	PORTION OF AREA TO BE REMOVED. COORDINATE EXACT EXTENTS WITH NEW WORK PLANS
	PORTION OF EXISTING CONCRETE SLAB TO BE REMOVED. COORDINATE EXACT EXTENTS WITH NEW WORK PLANS

- DEMOLITION SHEET NOTES**
- DEMOLISH EXISTING ALUMINUM WINDOW TO FACILITATE THE INSTALLATION OF NEW DOOR AND FRAME - EXISTING LINTEL TO REMAIN
  - DEMOLISH EXISTING MASONRY WALL, GYP. BD. INTERIOR WALL AND CAST STONE SILL DOWN TO FINISH FLOOR HEIGHT - PREPARE OPENINGS AND FLOOR TO FACILITATE INSTALLATION OF NEW DOOR
  - DEMOLISH EXISTING LOWER WOOD CASEWORK AND COUNTER-TOP TO FACILITATE INSTALLATION OF NEW DOOR.
  - DEMOLISH EXISTING UPPER AND LOWER WOOD CASEWORK, COUNTER-TOP AND +/- 1" (V.I.F.) OF EXISTING FRAMED GYP. BD. SOFFIT TO FACILITATE INSTALLATION OF NEW DOOR.
  - REMOVE EXISTING BASE BOARD TRIM - PROTECT EXISTING WOOD FLOORING TO REMAIN DURING ENTIRE COURSE OF CONSTRUCTION - TYP. THIS AREA
  - CONTRACTOR SHALL REMOVE ALL WINDOW SHADES IN WORK AREA AND SALVAGE FOR REUSE. CONTRACTOR SHALL LABEL EACH SHADE TO DESIGNATE ITS ORIGINAL LOCATION SO THE SHADE CAN BE REINSTALLED IN THE SAME PLACE.
  - REMOVE EXISTING LIGHT FIXTURE - SALVAGE TO BE RE-INSTALLED IN NEW LOCATION
  - REMOVE EXISTING PTZ CAMERA - SALVAGE TO BE RE-INSTALLED IN NEW LOCATION
  - EXISTING PHONE AND DATA WIRES TO BE REMOVED AND RELOCATED TO FACILITATE NEW DECK AND ESCAPE LADDER
  - EXISTING POWER LINES TO REMAIN

- GENERAL NOTES - DEMOLITION**
- CONTRACTOR TO WALK THE BUILDING WITH ARCHITECT TO REVIEW DEMOLITION SCOPE PRIOR TO COMMENCING THE WORK.
  - REFER TO NEW WORK PLANS TO COORDINATE EXTENT OF DEMOLITION.
  - PROVIDE ALL DEMOLITION WORK NECESSARY TO ACCOMPLISH THE NEW WORK AS SHOWN HEREIN.
  - WHERE DEMOLITION AND/OR REMOVAL IS INDICATED, IT IS INTENDED TO SHOW THE GENERAL NATURE OF EXISTING CONDITIONS AND EXTENT OF WORK. IT IS NOT TO BE CONSIDERED A RECORD DRAWING OF EXISTING CONDITIONS.
  - WHERE AN ELECTRICAL COMPONENT IS INDICATED TO BE DEMOLISHED OR IS WITHIN A WALL, FLOOR OR CEILING INDICATED TO BE DEMOLISHED, CONTRACTOR SHALL REMOVE THE EXISTING ELECTRICAL FIXTURE/DEVICE AND THE CONDUIT FEED, WIRING, AND ALL ASSOCIATED ITEMS AND EQUIPMENT BACK TO THE SOURCE OF THE SUPPLY U.O.N. (TYP.)
  - ENLARGING OR PATCHING WALL, FLOOR OR CEILING OPENINGS AT REMOVAL OR INSTALLATION OF NEW COMPONENTS IS THE RESPONSIBILITY OF THE CONTRACTOR. SUCH WORK SHALL BE INCLUDED IN THE CONTRACTOR'S BID.
  - PROVIDE TEMPORARY AND PERMANENT SUPPORT AS NECESSARY TO MAINTAIN THE INTEGRITY OF EXISTING STRUCTURES.
  - VERIFY W/ OWNER ITEMS TO BE SALVAGED AND RETURNED TO OWNER. ALL ITEMS TO BE SALVAGED SHALL BE CAREFULLY REMOVED SO AS TO ALLOW FOR REUSE.



2 SECOND FLOOR PLAN  
1/4" = 1'-0"

**FLOOR PLAN LEGEND:**

	ROOM NAME	ROOM TAG
	DOOR AND FRAME TAG	
	PARTITION TAG	
	NEW WORK SHEET NOTE	

- GENERAL NOTES - FLOOR PLAN**
- FIELD VERIFY ALL EXISTING DIMENSIONS AND CONDITIONS.
  - WALLS THAT TERMINATE AGAINST A DISSIMILAR MATERIAL ARE TO RECEIVE J-BEAD TRIM ALONG THE ENTIRE EDGE AND THE JOINT SEALED.
  - SEE CODE COMPLIANCE PLANS FOR FIRE RATING OF WALLS AND UL RATED ASSEMBLY TO BE FOLLOWED.
  - DOORS JAMB, HINGE SIDE, TO BE 4" FROM ADJACENT WALL U.N.O.
  - INFILL ALL HOLES IN CONCRETE FLOOR AND OR SLAB ON GRADE THAT ARE NOT IN USE. FULL DEPTH. USE A CEMENTITIOUS FILL MATERIAL. PROVIDE TEMPORARY FRAMING TO HOLD FILL MATERIAL IN PLACE.
  - FURNITURE SHOWN IS FOR REFERENCE ONLY.
  - CONTRACTOR SHALL SALVAGE ALL WINDOW SHADES.



Second Floor Balcony & Egress Alterations

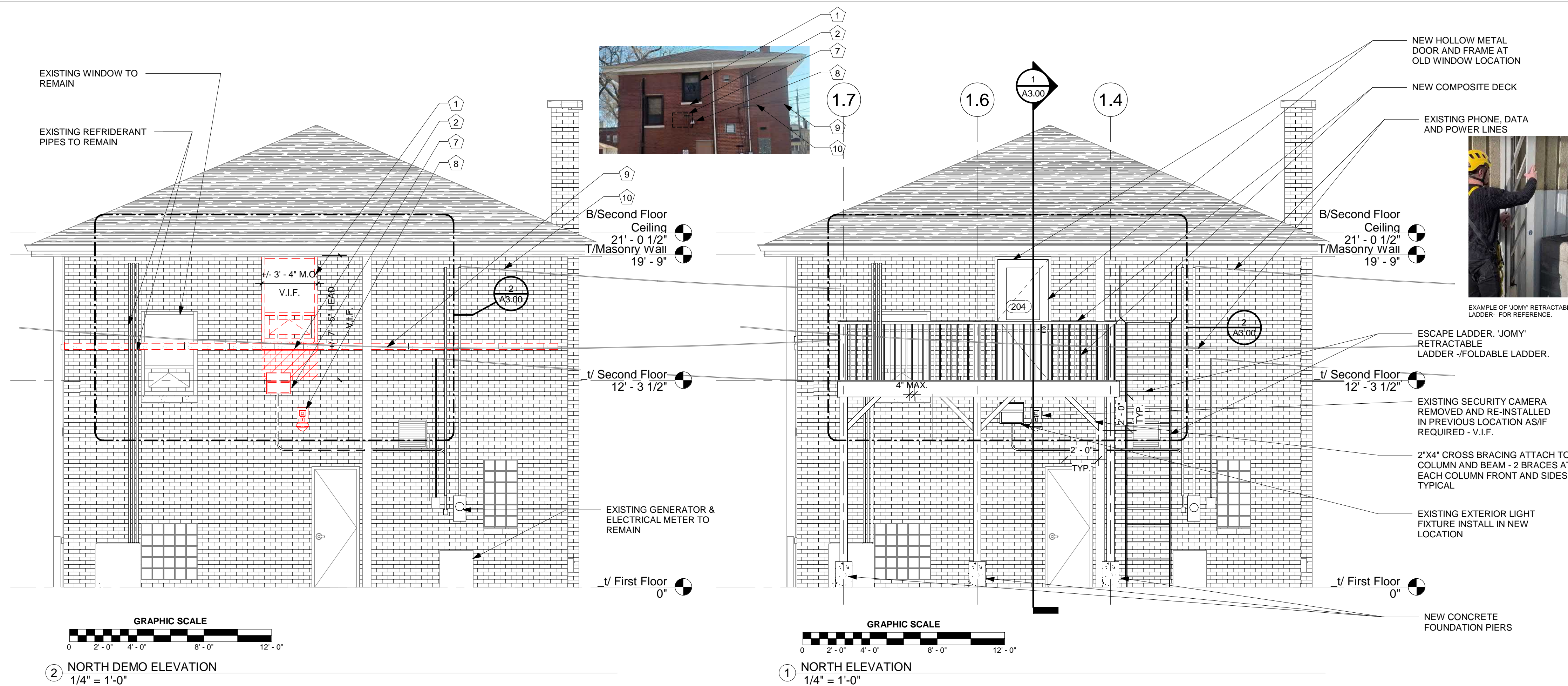
Village of Oak Park  
212 Augusta St, Oak Park, IL 60301

NO	ISSUE	DATE
•	DEMOLITION PLAN	5/1/2023
•	FOR REFERENCE	
•	ISSUED FOR BIDDING	6/28/2023
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**DIMENSIONAL & DEMOLITION PLANS**

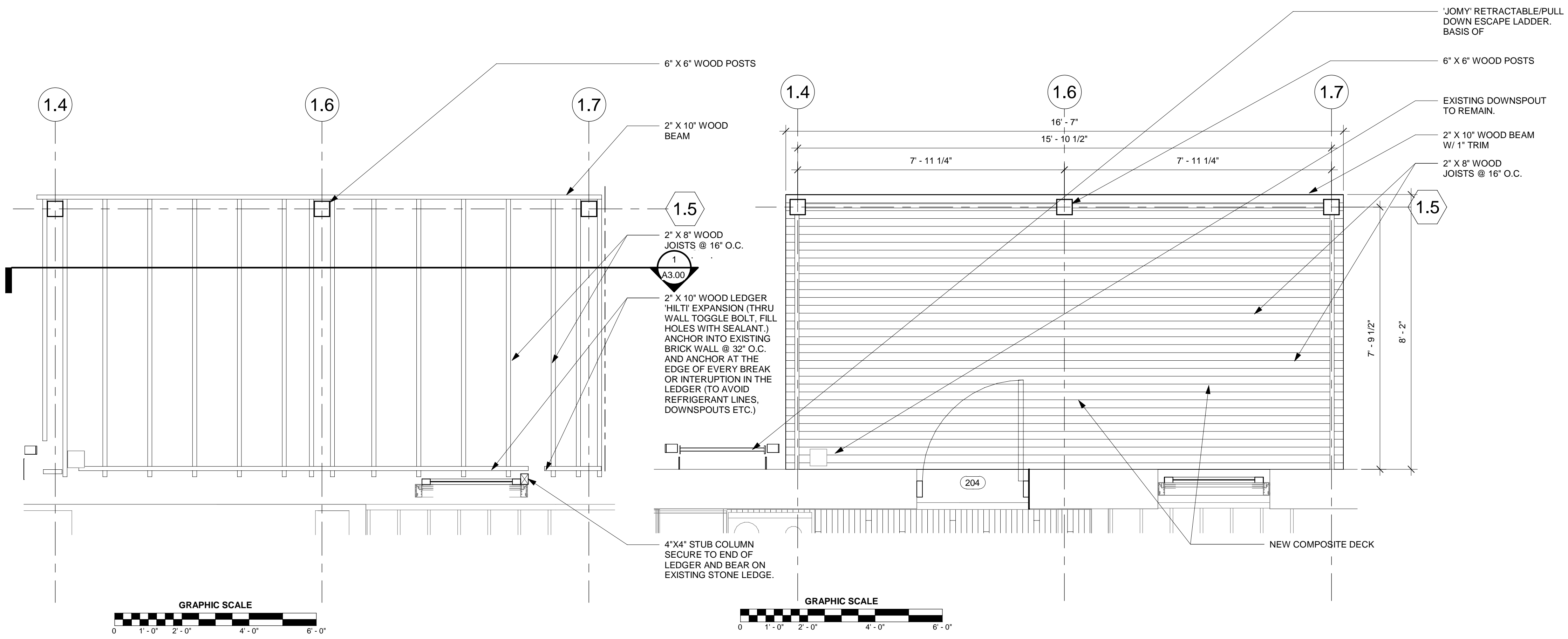
**A1.00**





GRAPHIC SCALE  
0 2'-0" 4'-0" 8'-0" 12'-0"  
2 NORTH DEMO ELEVATION  
1/4" = 1'-0"

GRAPHIC SCALE  
0 2'-0" 4'-0" 8'-0" 12'-0"  
1 NORTH ELEVATION  
1/4" = 1'-0"



GRAPHIC SCALE  
0 1'-0" 2'-0" 4'-0" 6'-0"  
4 DECK FRAMING PLAN  
1/2" = 1'-0"

GRAPHIC SCALE  
0 1'-0" 2'-0" 4'-0" 6'-0"  
3 ENLARGED DECK PLAN  
1/2" = 1'-0"

**FLOOR PLAN LEGEND:**

101	ROOM TAG
101	DOOR AND FRAME TAG
11	PARTITION TAG
1	NEW WORK SHEET NOTE

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  - FURNITURE SHOWN IS FOR REFERENCE ONLY.
  - CONTRACTOR SHALL SALVAGE ALL WINDOW SHADES.

**DEMOLITION LEGEND:**

	WALL PARTITION TO BE REMOVED
	ITEM TO BE REMOVED
	DEMO KEY NOTE
	PORTION OF AREA TO BE REMOVED. COORDINATE EXACT EXTENTS WITH NEW WORK PLANS
	PORTION OF EXISTING CONCRETE SLAB TO BE REMOVED. COORDINATE EXACT EXTENTS WITH NEW WORK PLANS

- DEMOLITION SHEET NOTES**
- DEMOLISH EXISTING ALUMINUM WINDOW TO FACILITATE THE INSTALLATION OF NEW DOOR AND FRAME - EXISTING LINTEL TO REMAIN
  - DEMOLISH EXISTING MASONRY WALL, GYP. BD. INTERIOR WALL AND CAST STONE SILL DOWN TO FINISH FLOOR HEIGHT - PREPARE OPENING AND FLOOR TO FACILITATE INSTALLATION OF NEW DOOR
  - DEMOLISH EXISTING LOWER WOOD CASEWORK AND COUNTER-TOP TO FACILITATE INSTALLATION OF NEW DOOR
  - DEMOLISH EXISTING UPPER AND LOWER WOOD CASEWORK, COUNTER-TOP AND +/- 1" (V.I.F.) OF EXISTING FRAMED GYP. BD. SOFFIT TO FACILITATE INSTALLATION OF NEW DOOR
  - REMOVE EXISTING BASE BOARD TRIM - PROTECT EXISTING WOOD FLOORING TO REMAIN DURING ENTIRE COURSE OF CONSTRUCTION - TYP. THIS AREA CAN BE REINSTALLED IN THE SAME PLACE.
  - CONTRACTOR SHALL REMOVE ALL WINDOW SHADES IN WORK AREA AND SALVAGE FOR REUSE. CONTRACTOR SHALL LABEL EACH SHADE TO DESIGNATE ITS ORIGINAL LOCATION SO THE SHADE CAN BE REINSTALLED IN THE SAME PLACE.
  - REMOVE EXISTING LIGHT FIXTURE - SALVAGE TO BE RE-INSTALLED IN NEW LOCATION
  - REMOVE EXISTING PTZ CAMERA - SALVAGE TO BE RE-INSTALLED IN NEW LOCATION
  - EXISTING PHONE AND DATA WIRES TO BE REMOVED AND RELOCATED TO FACILITATE NEW DECK AND ESCAPE LADDER
  - EXISTING POWER LINES TO REMAIN

- GENERAL NOTES - DEMOLITION**
- CONTRACTOR TO WALK THE BUILDING WITH ARCHITECT TO REVIEW DEMOLITION SCOPE PRIOR TO COMMENCING THE WORK.
  - REFER TO NEW WORK PLANS TO COORDINATE EXTENT OF DEMOLITION.
  - PROVIDE ALL DEMOLITION WORK NECESSARY TO ACCOMPLISH THE NEW WORK AS SHOWN HEREIN.
  - WHERE DEMOLITION AND/OR REMOVAL IS INDICATED, IT IS INTENDED TO SHOW THE GENERAL NATURE OF EXISTING CONDITIONS AND EXTENT OF WORK. IT IS NOT TO BE CONSIDERED A RECORD DRAWING OF EXISTING CONDITIONS.
  - WHERE AN ELECTRICAL COMPONENT IS INDICATED TO BE DEMOLISHED OR IS WITHIN A WALL, FLOOR OR CEILING INDICATED TO BE DEMOLISHED, CONTRACTOR SHALL REMOVE THE EXISTING ELECTRICAL FIXTURE/DEVICE AND THE CONDUIT FEED, WIRING, AND ALL ASSOCIATED ITEMS AND EQUIPMENT BACK TO THE SOURCE OF THE SUPPLY U.O.N. (TYP.)
  - ENLARGING OR PATCHING WALL, FLOOR OR CEILING OPENINGS AT REMOVAL OR INSTALLATION OF NEW COMPONENTS IS THE RESPONSIBILITY OF THE CONTRACTOR. SUCH WORK SHALL BE INCLUDED IN THE CONTRACTOR'S BID.
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**STUDIO GC**  
architecture + interiors  
223 West Jackson Boulevard, Suite 1200  
Chicago, Illinois 60606  
(312) 253-3400

Second Floor Balcony & Egress Alterations

Village of Oak Park  
212 Augusta St, Oak Park, IL 60301

NO	ISSUE	DATE
•	• DEMOLITION PLAN	• 5/1/2023
•	• FOR REFERENCE	•
•	• ISSUED FOR BIDDING	• 6/28/2023
•	•	•
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**NEW & DEMOLITION ELEVATIONS & ENLARGED PLANS**

**A2.00**



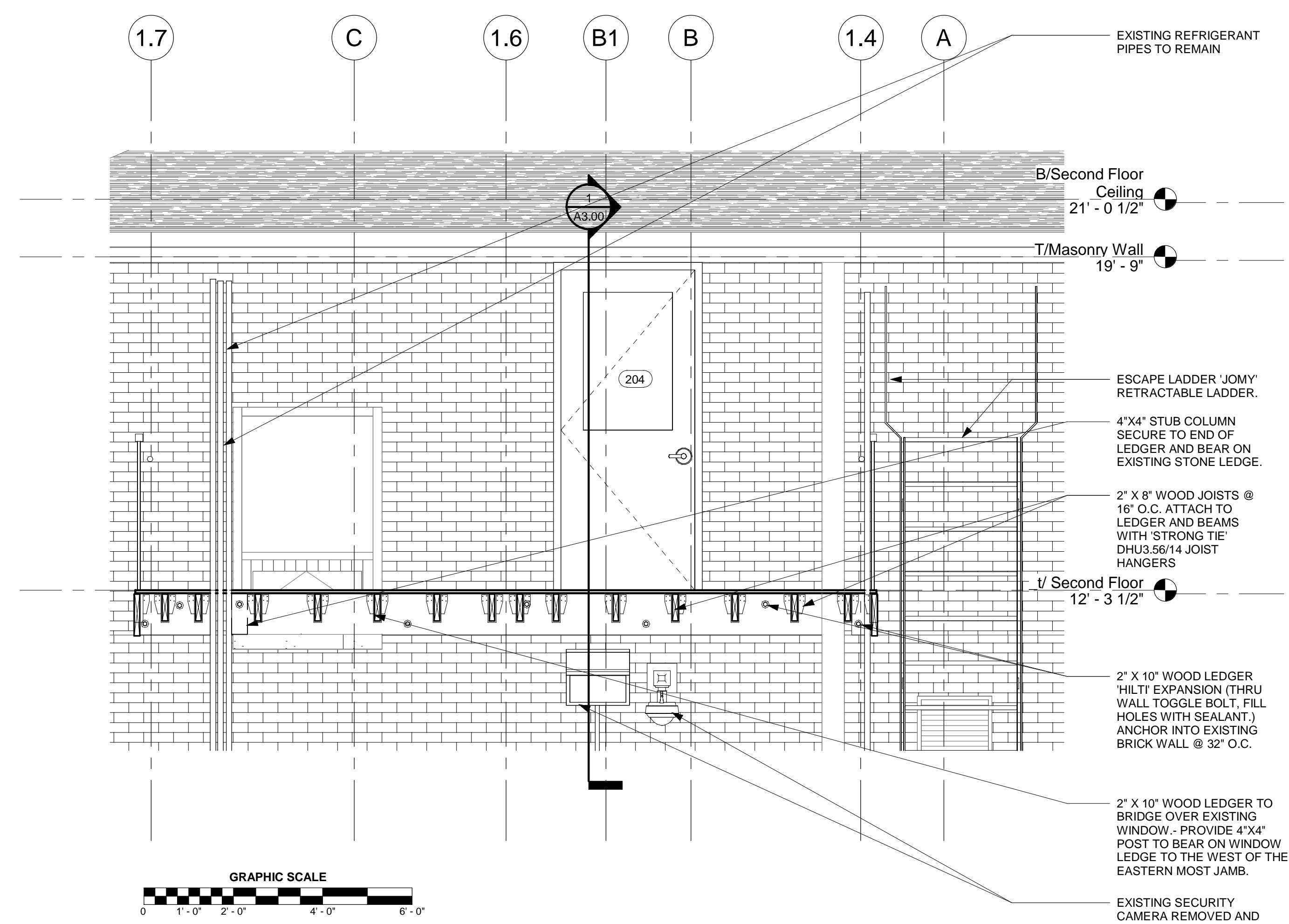


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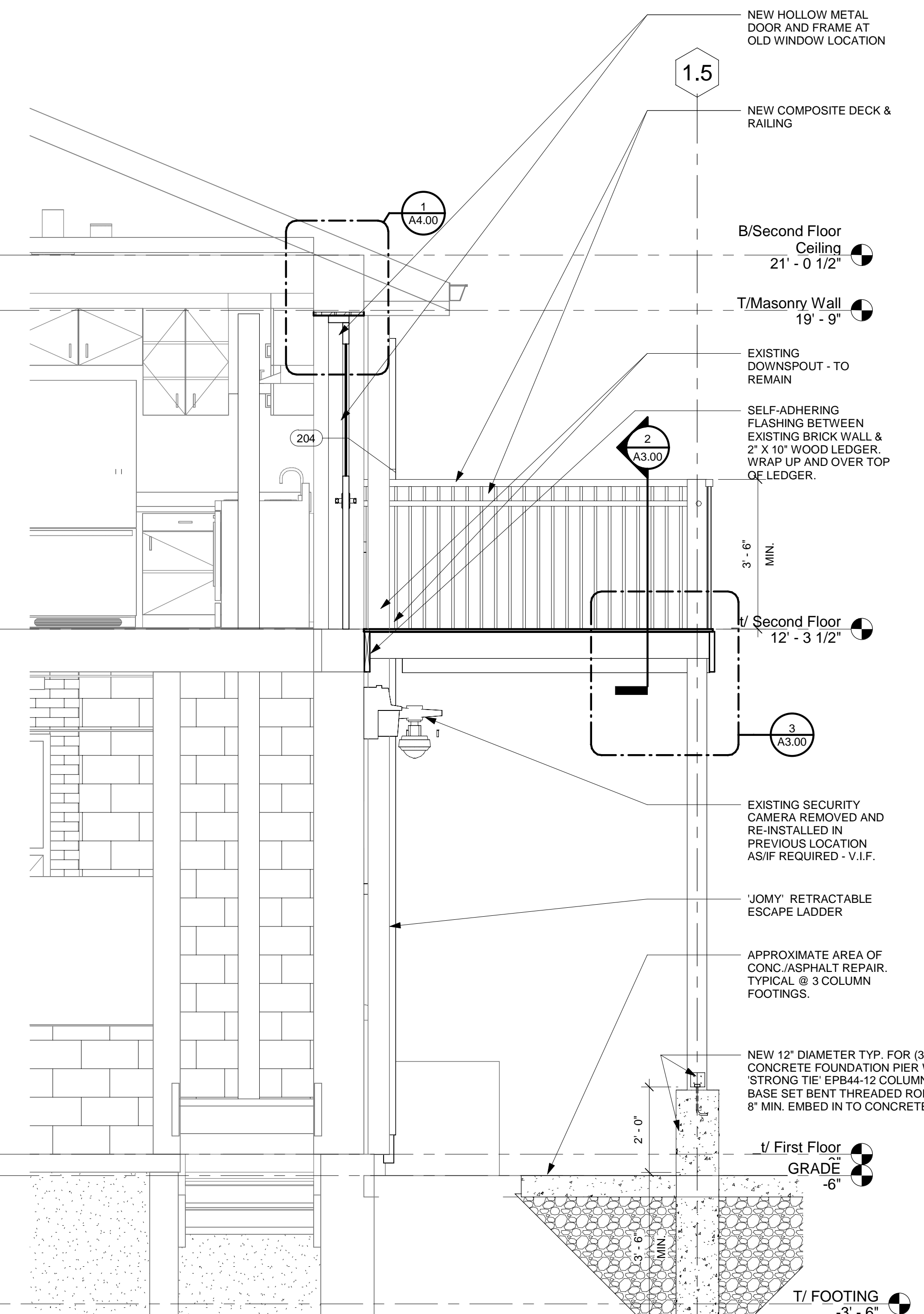
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101	ROOM TAG
101	DOOR AND FRAME TAG
11	PARTITION TAG
1	NEW WORK SHEET NOTE

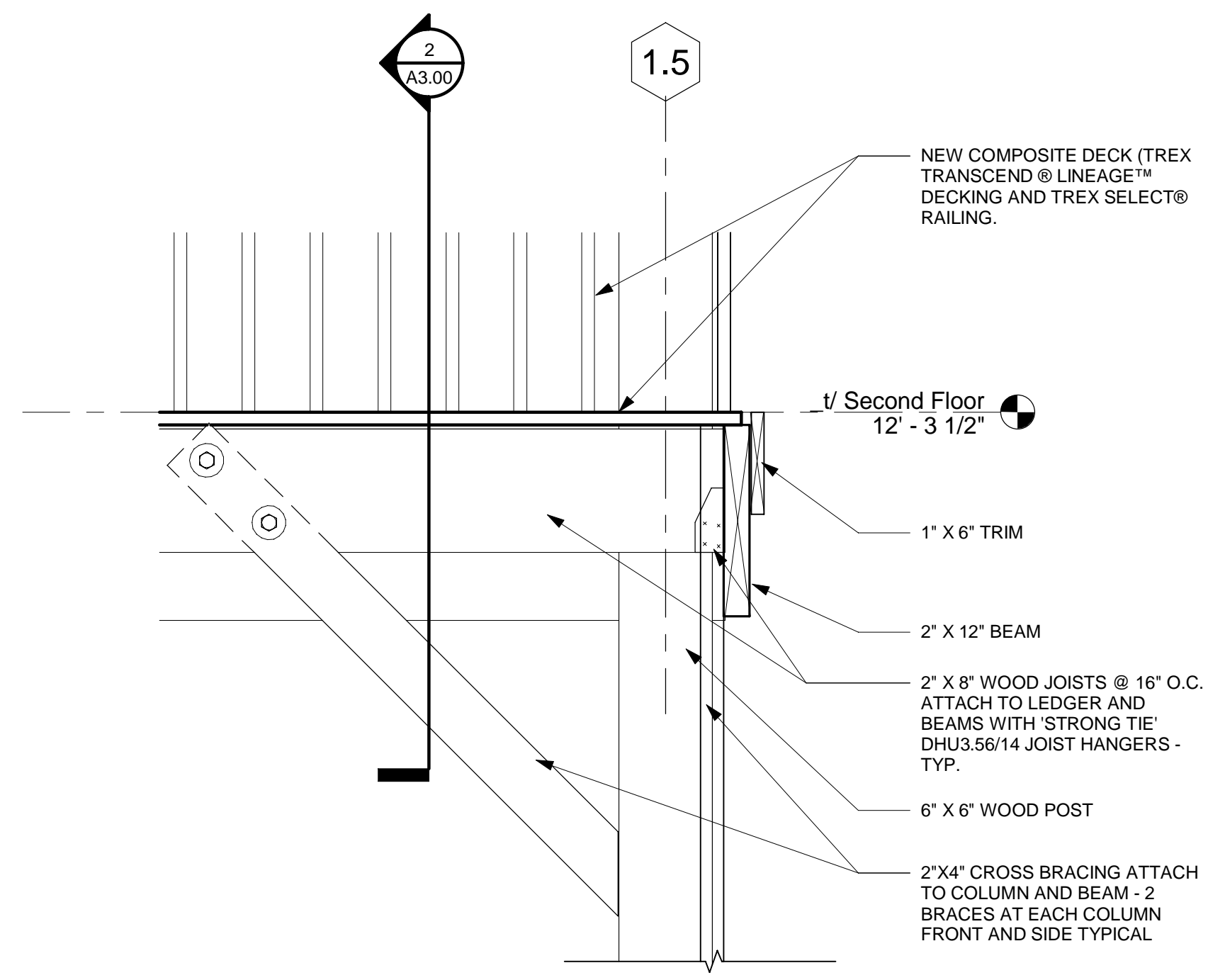
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SECTION 2  
 1/2" = 1'-0"



SECTION 1  
 1/2" = 1'-0"



EDGE DETAIL  
 1 1/2" = 1'-0"

Second Floor Balcony & Egress Alterations

Village of Oak Park  
 212 Augusta St, Oak Park, IL 60301

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SECTIONS & DETAILS

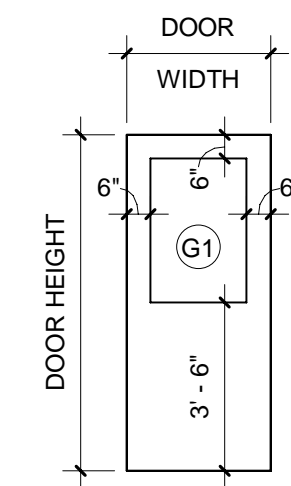
A3.00

DOOR AND FRAME SCHEDULE		DOOR										FRAME					DETAIL		COMMENTS
DOOR NO.	ROOM	HARDWARE SET	FIRE LABEL	QUANTITY	TYPE	WIDTH	HEIGHT	THICKNESS	MATERIAL	FINISH	TYPE	WIDTH	HEIGHT	THICKNESS	MATERIAL	FINISH	HEAD	JAMB	
204	DECK	1		1	A	3'-0"	7'-2"	1 3/4"	HM	STAIN	A	3'-4"	7'-4"	5 3/4"	HM	PAINT	1/ A4.00	2/ A4.00	

HARDWARE SETS		
BASIS OF DESIGN: PROVIDE LISTED OR EQUAL		
SET #1	HINGE	(1) 112HD CL 85° FULL MORTISE CONTINUOUS (IVES)
DOOR	RIM EXIT DEVICE	RIM EXIT DEVICE - 99 L-NL x ALK 626 - VON DUPRIN
205	LOCK	CYLINDER AS REQUIRED 626 SCHLAGE
	CLOSER	4040 HCUSH TOP INTERIOR MOUNTED HOLD OPEN (LCN) W/
	THRESHOLD	BUILT IN OVER HEAD STOP
		8425 MIL NGP
	WEATHERSTRIP	160S AL NGP
	SWEEP	200N AL NGP
	DRIP CAP	PEMKO 346D-40 DOOR TOP DRIP CAP, 40 INCHES, DARK BRONZE

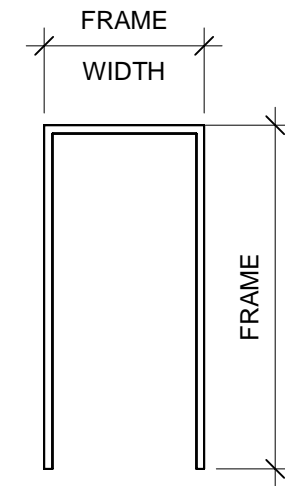
○ Hardware Sets  
N.T.S.

**DOOR TYPES**



G

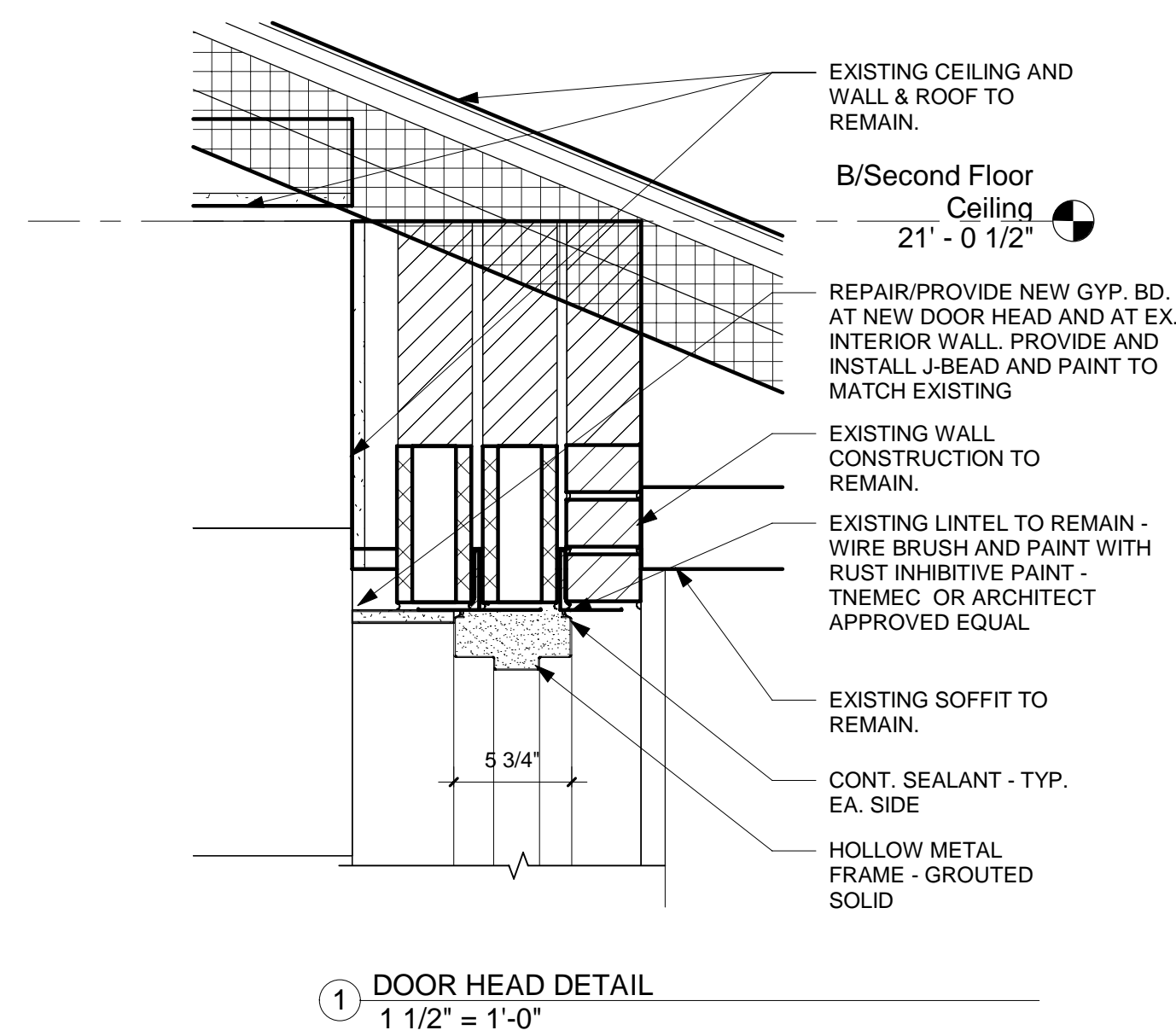
**FRAME TYPES**



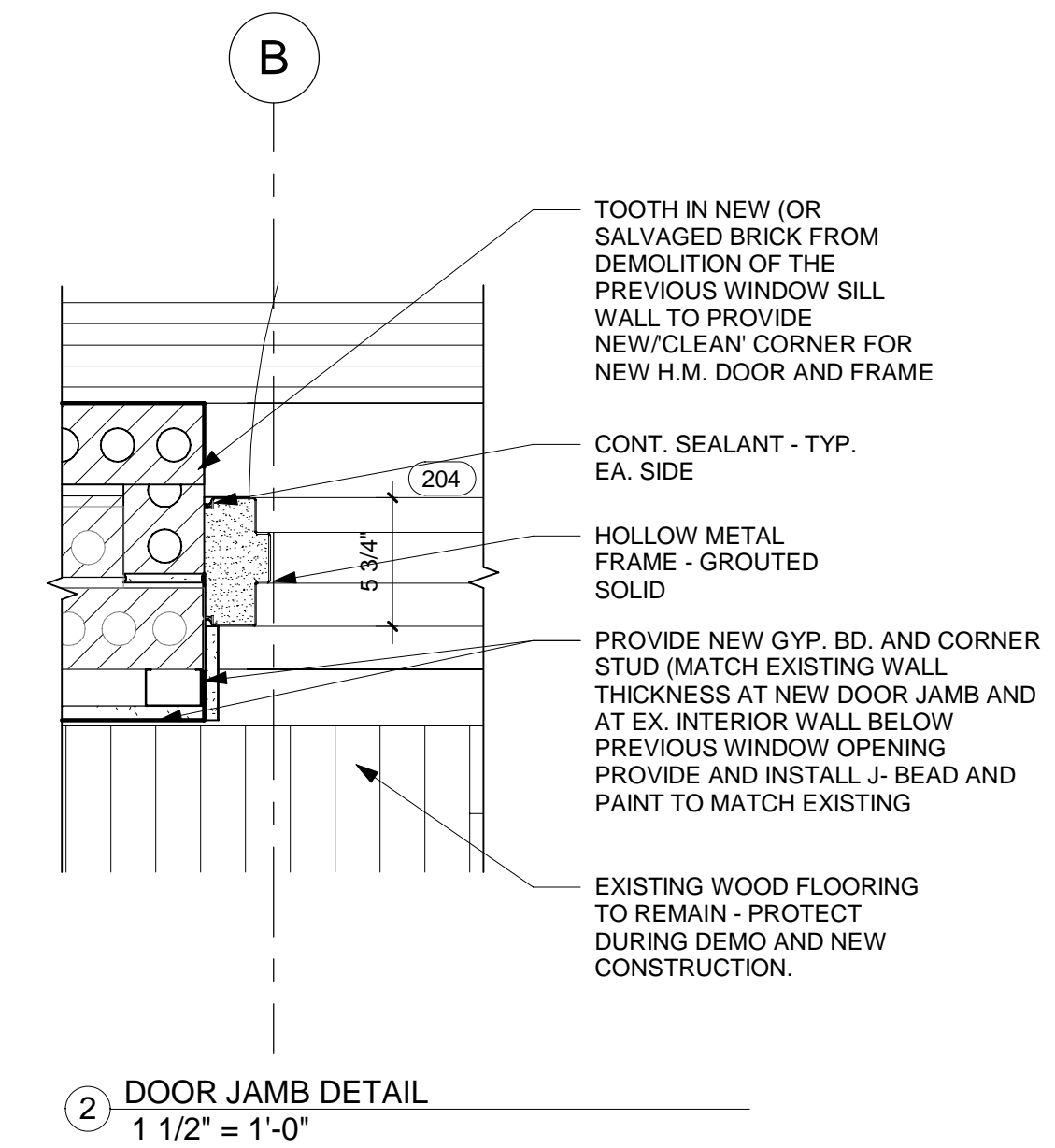
1

**GLAZING SCHEDULE**

G1 1" INSULATED LOW-E TEMPERED 1/4" GLAZING



1 DOOR HEAD DETAIL  
1 1/2" = 1'-0"



2 DOOR JAMB DETAIL  
1 1/2" = 1'-0"



**STUDIO GC**  
architecture + interiors  
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Second Floor Balcony & Egress Alterations

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**DOOR AND FRAME SCHEDULE & DETAILS**

**A4.00**

23016B

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# VILLAGE OF OAK PARK FIRE STATION 2

EXTERIOR EGRESS DECK



ARCHITECT'S PROJECT NO. 23016B

VILLAGE OF OAK PARK  
FIRE STATION  
EXTERIOR EGRESS DECK

VILLAGE OF OAK PARK  
DEPARTMENT OF PUBLIC WORKS  
201 SOUTH BLVD  
OAK PARK, ILLINOIS, 60302

ARCHITECT:           STUDIOGC ARCHITECTURE + INTERIORS  
                          223 WEST JACKSON BOULEVARD  
                          SUITE 1200  
                          CHICAGO, ILLINOIS 60606  
                          312-253-3400

DATE:                 JUNE 28, 2023

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**REQUEST FOR PROPOSALS**  
**INSTRUCTIONS AND SPECIFICATIONS FOR:**

**Village of Oak Park North Fire Station Emergency Egress Construction**  
**Bid Number: 23-125**  
**Issuance Date: 6/28/2023**

The Village of Oak Park will receive proposals from qualified contractors to provide an exterior egress deck at the north fire station, located at 212 Augusta, Oak Park, IL 60302. Proposals will be accepted at the Public Works Center Monday through Friday, 7:30 a.m. to 4:00 p.m. local time until **11:00 a.m. on Friday, August 4<sup>th</sup>, 2023**. Proposals may also be sent via e-mail to [vics@oak-park.us](mailto:vics@oak-park.us). Proposals will be reviewed and the results of the review will be presented to the Village of Oak Park Board of Trustees.

There will be a mandatory pre-bid meeting at the north fire station, located at 212 Augusta on Thursday, July 13<sup>th</sup>, 2023 at 10:00 a.m. Prospective bidders are encouraged to attend the pre-bid meeting to inspect site conditions and obtain other pertinent information about the scope of work. Plans/specs/drawings will be available after July 6<sup>th</sup> and will be distributed at the pre-bid mtg.

Specifications and bid forms may be obtained by sending a request to Building Maintenance Superintendent, Vic Sabaliauskas at [vics@oak-park.us](mailto:vics@oak-park.us) or by stopping by the Public Works Center at the address listed above or by calling 708-358-5710.

The Board of Trustees reserves the right to accept or reject any and all proposals or to waive technicalities, or to accept any item of any proposal.

Do not detach any portion of this document. Upon formal award to the successful contractor, a written agreement will be executed in substantially the form attached.

In responding to this Request for Proposals, the official logo of the Village of Oak Park is not to be used in any form. Use of the Village logo is strictly prohibited by law and such use could subject the proposer to disqualification.

**Submission of Proposals**

The bid shall be submitted on the bid form included herewith. If bid is hand delivered or mailed to the Public Works Center, the bid shall be submitted in a sealed envelope marked "**BID: 23-125 Village of Oak Park North Fire Station Emergency Egress Construction**", shall bear the return address of the bidder, and shall be addressed as follows:

TO: Vic Sabaliauskas, Building Maintenance Superintendent  
Department of Public Works  
201 South Blvd.  
Oak Park, IL 60302

**SECTION I**  
**PROPOSAL INSTRUCTIONS, TERMS AND CONDITIONS**

**Preparation and Submission of Proposal**

All proposals must be delivered to the Public Works Center by the specific time indicated on the cover page. Proposals arriving after the specified time will not be accepted. Mailed proposals that are received by the Village after the specified hour will not be accepted regardless of the post-marked time on the envelope. Proposals must be signed by an officer of the company who is authorized to enter into agreements on behalf of the company. Proposals shall be sealed in an envelope and marked as stated on the cover page.

**Proposal Bond**

The contractor shall provide a proposal bond in the amount of ten percent (10%) of the total proposal price. The attached form may be used or the contractor may provide cash or a certified check in the amount specified. The proposal bonds, cash or checks will be returned once the selected contractor has entered into an agreement for this work and provided the Contract bond in an amount of one hundred percent (100%) of the total approved proposal price.

**Contract Bond**

The successful contractor shall, within ten (10) calendar days after award of the Proposal, furnish a contract bond in the amount of one hundred percent (100%) of the contract price. The bond shall ensure faithful performance of the work, and the payment for materials, labor and of the subcontractors. The bond shall be with a surety or sureties with a rating of "A" or better by A.M. Best and Company and such sureties shall be approved by the Village. Bonds in the form of certified or cashier's check shall be made payable to the Village of Oak Park, Illinois. The contract bond shall be furnished in the same number of copies as the number of copies of the agreement to be executed.

**Award of Agreement**

The agreement will be awarded in whole or in part to the responsible contractor whose proposal, conforming to the request for proposals, will be most advantageous to the Village; price and other factors considered.

**Costs of Preparation**

The Village will not be responsible for any expenses incurred in preparing and submitting a proposal or entering into the applicable agreement.

**Taxes not Applicable**

The Village of Oak Park as an Illinois municipality pays neither Illinois Sales Tax nor Federal Excise Tax (State Tax Exemption Identification Number E9998-1823-06). Contractors should exclude these taxes from their prices.

**Withdrawal of Proposals**

Any contractor may withdraw its proposal at any time prior to the time specified in the advertisement as the closing time for the receipt of proposals, by signing a request therefore. No contractor may withdraw or cancel its proposal for a period of sixty (60) calendar days after

the advertised closing time for the receipt of proposals. The successful contractor may not withdraw or cancel its proposal after having been notified that the proposal was accepted by the Village Board of Trustees.

### **Investigation of Contractors**

The Village will make such investigations as are necessary to determine the ability of the contractor to fulfill proposal requirements. If requested, the contractor should be prepared to present evidence to the Village of Oak Park of ability and possession of necessary facilities and financial resources to comply with the terms of the attached specifications and proposals. In addition, the contractor shall furnish the Village with any information the Village may request, and shall be prepared to show completed work of a similar nature to that included in its proposal. The Village reserves the right to visit and inspect the premises and operation of any contractor.

### **Rejection of Contractor**

The Village will reject any proposal from any person, firm or corporation that appears to be in default or arrears on any debt, agreement or the payment of any taxes. The Village will reject any proposal from a contractor that failed to satisfactorily complete work for the Village under any previous agreement.

### **Conditions**

Contractors are advised to become familiar with all conditions, instructions and specifications governing the work. Contractors shall be presumed to have investigated the work site, conditions and scope of the work before submitting a proposal.

### **Compliance with Applicable Laws**

The contractor will strictly comply with all ordinances of the Village of Oak Park and Village Code and laws of the State of Illinois.

### **Governing Law**

All agreements entered into by the Village of Oak Park are governed by the laws of the State of Illinois without regard to conflicts of law. Any action brought to enforce an agreement with the Village of Oak Park must be brought in the state and federal courts located in Cook County, Illinois.

### **Subletting of Agreement**

No agreement awarded by the Village of Oak Park shall be assigned or any part sub-agreement without the written consent of the Village of Oak Park or as noted in the contractor's proposal. In no case shall such consent relieve the contractor from its obligations or change the terms of the agreement.

### **Interpretation of Agreement Documents**

Any contractor with a question about this proposal may request an interpretation thereof from the Village. If the Village changes the proposal, either by clarifying it or by changing the specifications, the Village will issue a written addendum, and will mail a copy of the addendum to all prospective contractors. The Village will not assume responsibility for receipt of such addendum. In all cases, it will be the contractor's responsibility to obtain all addenda issued.

Contractors will provide written acknowledgment of receipt of each addendum issued with the proposal submission.

**Minority Business and Women Business Enterprise Requirements**

The Village of Oak Park, in an effort to reaffirm its policy of non-discrimination, encourages the efforts of contractors and subcontractors to take affirmative action in providing for Equal Employment Opportunity without regard to race, religion, creed, color, sex, national origin, age, handicap unrelated to ability to perform the job or protected veteran's status.

**Licenses and Permits**

The contractor shall be responsible for becoming a licensed contractor in the Village. The contractor shall also be responsible for obtaining any and all required permits from the Village's Development Customer Services Department (Building Permits Division). The Village shall waive all permit fees.

**Agreement**

The selected contractor shall enter into an Independent Contractor Agreement with the Village to complete the work in a form substantially similar to the agreement attached hereto. The agreement shall be executed by the contractor and returned, together with the contract bond within ten (10) calendar days after the agreement has been mailed to the contractor. The contractor shall execute three copies of the agreement. One fully executed copy will be returned to the contractor.

**Notice to Proceed**

Work shall begin within fourteen (14) days from the Notice to Proceed from the Village's Building Maintenance Superintendent. All work shall be completed in accordance with the detailed specifications set forth herein, unless the Building Maintenance Superintendent grants an extension.

**Fees and Cost**

In the event any action is brought to enforce any agreement entered into by the Village of Oak Park, or to collect any unpaid amount from the Village of Oak Park, each party bears the responsibility of paying its own attorneys' fees and costs.

**Dispute Resolution**

The Village of Oak Park does not agree to the mandatory arbitration of any dispute.

**SECTION II**  
**DETAILED SPECIFICATIONS**

See attached detailed specs and design documents as submitted by the design firm of Studio GC, Inc.

The selected contractor shall furnish all labor, supervision, supplies, tools, equipment, vehicles and other means necessary or proper for performing and completing the work. The selected contractor shall be responsible for the cleaning up of the job site and shall repair or restore all structures and property that may be damaged or disturbed during performance of the work to the satisfaction of the Village of Oak Park.

The agreement and work shall be carried out in conformance with the laws and regulations of the Village of Oak Park and these specifications. All work will be performed according to the standards set forth in the applicable building codes and standards, including mechanical, fire, plumbing, electric, accessibility, or any other applicable codes in force in the Village of Oak Park and State of Illinois.

**Alterations, Omissions and Extra Work**

The Village of Oak Park reserves the right to increase or decrease the quantity of any item or portion of the work, or to omit portions of the work as may be deemed necessary.

**Job Site Conditions**

To the fullest extent possible, the contractor will not allow its work to interfere with the critical operations of the Fire Department. Contractor will take all necessary actions as directed by the Village in that regard.

**Material Storage:** The contractor shall be responsible for the storage and safety of his own materials. The Village assumes no liability whatever for any material damaged or stolen on the premises. Any damage to, or loss by theft or vandalism of any material, appurtenance, or appliance, after such has been applied, connected or installed on Village property, shall be the sole responsibility of the contractor until the project is completed and accepted by the Village.

**Safety Precautions:** The contractor is solely responsible for implementing effective safety precautions on and around the work site to protect workers and other persons who might be affected and shall exercise every precaution at all times for the protection of the property. The contractor shall not leave any combustible materials or other fire hazards overnight or allowed them to accumulate. The contractor shall abide by all applicable laws, standards, and regulations that apply to the completion of the work, including EPA and OSHA safety standards and regulations.

**Damage to Property:** Contractor shall repair, at no additional cost to the Village, all damage to Village property caused by the contractor resulting from his work. Where repair of existing work is called for, such patching and replacement shall be made to blend with existing work so that the patch or replacement will be inconspicuous after finishing.

Daily Clean-up: The contractor shall keep the premises clean and orderly during the course of the work and all debris shall be removed on a continuous basis.

### **Method of Payment**

The Village of Oak Park will pay monthly all undisputed invoices billed at the rates set forth in the contractor's proposal within 30 days of approval as provided in the Local Government Prompt Payment Act, 50 ILCS505/4. The maximum interest rate for any payment not made within 30 days of approval is 1%.

### **Change Orders**

Change Orders: Changes in the Work may be agreed to after execution of the agreement, and without invalidating the agreement, if the change order is in writing and signed. Any changes to the scope of work which result in an increase in the agreement price will be subject to an agreement addendum which must be signed by both parties. Any such change order will be prepared by the Village. The contractor may only proceed with the change upon receipt of the written change order signed by the Village.

Emergency Changes: Contractor may perform work not included in the scope of work if necessary to remedy a condition that poses an immediate threat to persons or property. Work of this nature shall be carried out only to the extent of bringing the condition under control. The Village shall be notified immediately. A change order will then be negotiated and executed for the work performed, and for work remaining, if any.

Minor Changes (Field Orders): The Village may verbally authorize minor changes in the scope of work in order to prevent a delay in the progression of the work. These field orders may not involve a change in the agreement price or be inconsistent with the scope of work.

Changes Due to Unknown Conditions: The contractor is not responsible for changes in the work that are due to conditions that were not reasonably observable or conditions that have changed. In such cases, the contractor shall notify the Village and a change order will be negotiated.

Any change which results in a total agreement price in excess of \$10,000 must be approved by the Village of Oak Park Board of Trustees.

### **Correction of Work Prior To Final Payment**

The Village has the right to stop work if the contractor fails to carry out the work in a manner acceptable to the Village. If the Village deems the contractor's work unacceptable, at the Village's election, the contractor shall do one of the following:

1. Promptly repair or replace the defective work, without expense to the Village, including costs associated with repairing any damage to property caused by the replacement work; or;
2. If the Village deems it unacceptable to have the contractor correct work which has been incorrectly done, a deduction from the agreement price shall be made based on the costs to the Village to have the work repaired. Such a deduction from the agreement price shall in no way affect the Village's other remedies or relieve the

contractor from responsibility for defects and related damage occurring as a result of defective or unacceptable work.

**Contractor's Representative**

The contractor shall have at all times a competent foreman or superintendent on the job that shall have full authority to act for the contractor, and to receive and execute orders from the Director of Public Works or appointed representative. Any instructions given to such superintendent or person executing work for the contractor shall be binding on the contractor as though given to him personally. Contractor's representative must be proficient in the use and interpretation of the English language.

**Workers**

The contractors shall employ competent laborers and shall replace, at the request of the Building Maintenance Superintendent any incompetent, unfaithful, abusive or disorderly workers in their employ. Only workers expert in their respective branches of work shall be employed where special skill is required. Inappropriate behavior or examples of unproductive work effort will not be tolerated. The Village has the right to require a contractor's employee to be immediately removed from the work crew if the above behavior is exhibited.

**Dispute Resolution**

All disputes, including collection disputes, shall be brought in the Circuit Court of Cook County, Illinois. This agreement shall be interpreted in accordance with the laws of the State of Illinois. In any dispute resolution process, each party shall bear its own costs, including attorney's fees. Any purported agreement between the parties that states terms contrary to this paragraph M will be deemed per se invalid.

**Mandatory Qualifications for Contractor's Personnel**

Crews shall include at least one (1) supervisor during any given shift.

1. No more than 50% of the crew may be trainees at any one time.
2. Supervisors must be fluent in the English language and capable of reading and writing English.
3. Technicians employed by the contractor selected shall be fully trained and skilled in safe and proper techniques. Specific training required must follow the OSHA standards (see *below*).
4. The contractor selected shall provide sufficient documentation, if requested by the Village, to demonstrate adequate training has been provided upon commencement of the agreement. Contractor selected shall submit statement outlining training program and method of verifying employee competency. Failure to do so may be ample cause for rejection of proposal. The use of technicians who are not adequately trained may be sufficient grounds for termination of the agreement.
5. The Village reserves the right to require immediate removal of any employee of the contractor selected deemed unfit for service for any reason. This right is non-negotiable and the

contractor selected agrees to this condition by accepting this agreement. The contractor selected shall have enough qualified personnel to replace a terminated employee within 24 hours. Failure to do so can result in the termination of the agreement.

### **OSHA Requirements**

1. Material Safety Data Sheets – Contractor selected shall furnish the Village of Oak Park copies of Material Safety Data Sheets (MSDS), for all products used, prior to beginning service at Village facilities. In addition, each time a new chemical is introduced, a copy of that product’s MSDS must be provided to the Building Maintenance Superintendent prior to the product being used. The Material Safety Data Sheets must be in compliance with OSHA Regulation 1910.1200, paragraph g.
2. Labeling of Hazardous Materials – Contractor selected shall comply with OSHA regulation 1919.1200, paragraph f, concerning labeling of all chemical containers.
3. Caution Signs – Contractor selected shall use “caution signs” as required by OSHA Regulation 1910.44 and 1910.145 at no cost to the Village. Caution signs shall be on-site upon commencement of agreement.

Proof of compliance with OSHA regulation 1920.1200, Hazard Communication, shall be provided to the Building Maintenance Superintendent upon commencement of this agreement, if requested.

Failure of the contractor selected or his/her employees to comply with all applicable laws, regulations and rules shall permit the Village to immediately terminate this agreement without liability.

### **Prevailing Wages**

Contractor and any applicable subcontractor shall pay prevailing wages as established by the Illinois Department of Labor and determined by the Village for each craft or type of work needed to execute the contract in accordance with the Illinois Prevailing Wage Act, 820 ILCS 130/0.01 *et seq.* (“Act”). Contractor shall prominently post the current schedule of prevailing wages at the Project site(s) and shall notify immediately in writing all of its subcontractors of all changes in the schedule of prevailing wages. Any increases in costs to Contractor due to changes in the prevailing rate of wage during the terms of any Contract shall be at the sole expense of Contractor and not at the expense of the Village, and shall not result in an increase to the Contract Price. Contractor shall be solely responsible to maintain accurate records as required by the Act and shall submit certified payroll records to the Village evidencing its compliance with the Act on no less than a monthly basis as required by the Act. Contractor shall be solely liable for paying the difference between prevailing wages and any wages actually received by laborers, workmen and/or mechanics engaged in the Work for the Project.

Contractor shall indemnify, hold harmless, and defend the Village, its officers, officials, employees, agents and volunteers (“Indemnified Parties”) against all regulatory actions, complaints, damages, claims, suits, liabilities, liens, judgments, costs and expenses, including reasonable attorney’s fees, which may in any way arise from or accrue against the Indemnified



Parties as a consequence of noncompliance with the Act or which may in any way result therefrom, including a complaint by the Illinois Department of Labor under Section 4(a-3) of the Act, 820 ILCS 130/4(a-3) that any or all of the Indemnified Parties violated the Act by failing to give proper notice to the Grantee or any other party performing work on the Public Improvements that not less than the prevailing rate of wages shall be paid to all laborers, workers and mechanics performing Work on the Project, including interest, penalties or fines under Section 4(a-3). The indemnification obligations of this section on the part of Contractor shall survive the termination or expiration of this Agreement. In any such claim, complaint or action against the Indemnified Parties, Contractor shall, at its own expense, appear, defend and pay all charges of reasonable attorney's fees and all reasonable costs and other reasonable expenses arising therefrom or incurred in connection therewith, and, if any judgment or award shall be rendered against the Indemnified Parties in any such action, Contractor shall at its own expense, satisfy and discharge such judgment or award.

**SECTION III**  
**SCOPE OF WORK**

Plans, drawings and specifications will be available after July 6<sup>th</sup> and will be distributed at the pre-bid meeting on July 13<sup>th</sup>. Plans can also be sent electronically to prospective bidders upon request after July 6<sup>th</sup>.

An asbestos survey of the areas included in the scope of work has been completed (by the firm of Environmental Consulting Group) and the results of the analysis showed no presence of ACM.

*Addenda: The bidding contractor acknowledges receipt of Addenda as listed below and represents that any additions to, modifications of, or deletions from the Work specified, as called for in these Addenda, are included in the Base Bid Sum and the Alternates. Contractor shall submit this form with their bid.*

<i>Addendum No.</i>	<i>Date</i>
_____	_____
_____	_____
_____	_____
_____	_____

**SECTION IV**  
**PROPOSAL FORM (Pricing)**

The undersigned proposes to furnish all labor and materials required to complete the Work in accordance with the attached specifications and at the price indicated below.

**Total Lump Sum Cost Base Bid:**                      \$ \_\_\_\_\_

**Alternates:**

Alternate Bid No. 1: Support Columns

Base Bid: Provide 6x6 wood posts secured with black powder coated post anchor to concrete foundations.

Alternate Bid: Provide 4x4 galvanized steel hollow steel tube sections secured to concrete foundations with bolts to the anchor plate.

**Total for Alt. No.1:**    \$ \_\_\_\_\_

**24-Hour Emergency Call-back Number:**

(\_\_\_\_\_) \_\_\_\_\_

Printed Name: \_\_\_\_\_

Proposal Signature: \_\_\_\_\_

State of \_\_\_\_\_)                      County of \_\_\_\_\_)

\_\_\_\_\_,  
(Type Name of Individual Signing)

being first duly sworn on oath deposes and says that the contractor on the above proposal is organized as indicated below and that all statements herein made on behalf of such Contractor and that their deponent is authorized to make them, and also deposes and says that deponent has examined and carefully prepared their proposal from the agreement specifications and has checked the same in detail before submitting this proposal; that the statements contained herein are true and correct.

Signature of contractor authorizes the Village of Oak Park to verify references of business and credit at its option.

Signature of contractor shall also be acknowledged before a Notary Public or other person authorized by law to execute such acknowledgments.

Dated: \_\_\_\_\_/\_\_\_\_\_/2023 \_\_\_\_\_

Organization Name  
(Seal - If Corporation)

By:

\_\_\_\_\_  
Authorized Signature

\_\_\_\_\_  
Address

Telephone: \_\_\_\_\_

Subscribed and sworn to before me this \_\_\_\_\_ day of \_\_\_\_\_, 2023  
\_\_\_\_\_ in the State of \_\_\_\_\_.

My  
Commission  
Notary Public

Expires on \_\_\_\_/\_\_\_\_/\_\_\_\_\_

Complete Applicable Paragraph Below

(a) Corporation

The contractor is a corporation, which operates under the legal name of \_\_\_\_\_ and is organized and existing under the laws of the State of \_\_\_\_\_. The full names of its Officers are:

President \_\_\_\_\_

Secretary \_\_\_\_\_

Treasurer \_\_\_\_\_

The corporation does have a corporate seal. (In the event that this proposal is executed by a person other than the President, attach hereto a certified copy of that section of Corporate By-Laws or other authorization by the Corporation that permits the person to execute the offer for the corporation.)

(b) Partnership

Names, Signatures, and Addresses of all Partners

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

The partnership does business under the legal name of \_\_\_\_\_, which name is

is registered with the office of \_\_\_\_\_ in the county of \_\_\_\_\_.

(c) Sole Proprietor

The contractor is a Sole Proprietor whose full name is \_\_\_\_\_ . If the contractor is operating under a trade name, said trade name is \_\_\_\_\_ , which name is registered with the office of \_\_\_\_\_ in the county of \_\_\_\_\_ .

Signed: \_\_\_\_\_  
Sole Proprietor

In compliance with the above, the undersigned offers and agrees, if his/her proposal is accepted within ninety (90) calendar days from date of opening, to furnish any or all of the items upon which prices are quoted, at the price set opposite each item, delivered at the designated point within the time specified above.

**MUNICIPAL QUALIFICATION REFERENCE SHEET**  
(or attach separate form)

**MUNICIPALITY** \_\_\_\_\_

**ADDRESS** \_\_\_\_\_

\_\_\_\_\_

**CONTACT** \_\_\_\_\_

**PHONE** \_\_\_\_\_ **E-mail:** \_\_\_\_\_

**WORK PERFORMED** \_\_\_\_\_  
\_\_\_\_\_

**MUNICIPALITY** \_\_\_\_\_

**ADDRESS** \_\_\_\_\_

\_\_\_\_\_

**CONTACT** \_\_\_\_\_

**PHONE** \_\_\_\_\_ **E-mail:** \_\_\_\_\_

**WORK PERFORMED** \_\_\_\_\_  
\_\_\_\_\_

**MUNICIPALITY** \_\_\_\_\_

**ADDRESS** \_\_\_\_\_

\_\_\_\_\_

**CONTACT** \_\_\_\_\_

**PHONE** \_\_\_\_\_ **E-mail:** \_\_\_\_\_

**WORK PERFORMED** \_\_\_\_\_  
\_\_\_\_\_

**SECTION V**  
**CONTRACTOR CERTIFICATION**

\_\_\_\_\_, as part of its proposal on an agreement for construction Work  
(Name of Contractor selected) for the Village of Oak Park, hereby certifies that said contractor selected  
is not barred from proposing on the aforementioned agreement as a result of a violation to  
either Section 33E-3 or 33E-4 of Article 33E of Chapter 38 of the Illinois Revised Statutes or  
Section 2-6-12 of the Oak Park Village Code relating to "Proposing Requirement.

\_\_\_\_\_  
(Authorized Agent of Contractor selected)

Subscribed and sworn to before me this \_\_\_\_\_ day of \_\_\_\_\_, 2023.

\_\_\_\_\_  
Notary Public's Signature

- Notary Public Seal -

**SECTION VI**  
**TAX COMPLIANCE AFFIDAVIT**

\_\_\_\_\_, being first duly sworn, deposes and says:

that he/she is \_\_\_\_\_ of  
(partner, officer, owner, etc.)

\_\_\_\_\_  
(Contractor selected)

The individual or entity making the foregoing proposal or proposal certifies that he/she is not barred from entering into an agreement with the Village of Oak Park because of any delinquency in the payment of any tax administered by the Department of Revenue unless the individual or entity is contesting, in accordance with the procedures established by the appropriate revenue act, liability for the tax or the amount of the tax. The individual or entity making the proposal or proposal understands that making a false statement regarding delinquency in taxes is a Class A Misdemeanor and, in addition, voids the agreement and allows the municipality to recover all amounts paid to the individual or entity under the agreement in civil action.

\_\_\_\_\_  
By:  
Its:

\_\_\_\_\_  
(name of contractor if the contractor is an individual)  
(name of partner if the contractor is a partnership)  
(name of officer if the contractor is a corporation)

The above statement must be subscribed and sworn to before a notary public.

Subscribed and sworn to before me this \_\_\_\_\_ day of \_\_\_\_\_, 2023.

\_\_\_\_\_  
Notary Public's Signature

- Notary Public Seal -

**Reporting Requirements**

The following forms must be completed in their entirety, notarized and included as part of the proposal document. Failure to respond truthfully to any question on the list or failure to cooperate fully with further inquiry by the Village of Oak Park will result in disqualification of your proposal.



**SECTION VII**  
**ORGANIZATION OF PROPOSING FIRM**

Please fill out the applicable section:

**A. Corporation:**

The contractor is a corporation, legally named \_\_\_\_\_ and is organized and existing in good standing under the laws of the State of \_\_\_\_\_. The full names of its officers are:

President \_\_\_\_\_

Secretary \_\_\_\_\_

Treasurer \_\_\_\_\_

Registered Agent Name and Address: \_\_\_\_\_

The corporation has a corporate seal. (In the event that this proposal is executed by a person other than the President, attach hereto a certified copy of that section of Corporate By-Laws or other authorization by the Corporation that permits the person to execute the offer for the corporation.)

**B. Sole Proprietor:**

The contractor is a Sole Proprietor. If the contractor does business under an assumed name, the

assumed name is \_\_\_\_\_, which is registered with the Cook County Clerk. The contractor is otherwise in compliance with the Assumed Business Name Act, 805 ILCS 405/0.01, et. seq.

**C. Partnership:**

The contractor is a partnership which operates under the name \_\_\_\_\_

The following are the names, addresses and signatures of all partners:

Signature	Signature

(Attach additional sheets if necessary.) If so, check here \_\_\_\_\_.

If the partnership does business under an assumed name, the assumed name must be registered with the Cook County Clerk and the partnership is otherwise in compliance with the Assumed Business Name Act, 805 ILCS 405/0.01, et. seq.

**D. Affiliates:** The name and address of any affiliated entity of the business, including a description of the affiliation: \_\_\_\_\_

\_\_\_\_\_  
Signature of Owner



Subscribed to and sworn before me on the  
\_\_\_\_\_ day of \_\_\_\_\_, 2023.

\_\_\_\_\_  
Notary Public

**NAME OF SURETY**

By: \_\_\_\_\_  
Signature of Attorney-in-Fact

subscribed to and sworn before me on the  
\_\_\_\_\_ day of \_\_\_\_\_, 2023.

\_\_\_\_\_  
Notary Public

**SECTION IX**  
**CONTRACT BOND**



**Contract Bond**

\_\_\_\_\_, as PRINCIPAL, and \_\_\_\_\_ as SURETY, are held and firmly bound unto the Village of Oak Park (hereafter referred to as “Village”) in the penal sum of \_\_\_\_\_, well and truly to be paid to the Village, for the payment of which its heirs, executors, administrators, successors and assigns, are bound jointly to pay to the Village under the conditions of this instrument.

**WHEREAS**, THE CONDITION OF THE FOREGOING OBLIGATION IS SUCH that, the Principal has entered into a written contract with the Village, acting through its President and Board of Trustees, for the construction of work, which contract is hereby referred to and made a part hereof as if written herein at length, and whereby the Principal has promised and agreed to perform the work in accordance with the terms of the contract, and has promised to pay all sums of money due for any labor, materials, apparatus, fixtures or machinery furnished to such Principal for the purpose of performing such work, including paying not less than the prevailing rate of wages in Cook County, where the work is for the construction of any public work subject to the Prevailing Wage Act, and has further agreed to save and indemnify and keep harmless the Village against all liabilities, judgments, costs and expenses which may in any manner accrue against the Village in consequence of granting such contract or which may in any manner result from the carelessness or neglect of the Principal, his agents, employees or workmen in any respect whatever; and has further agreed that this bond will inure to the benefit of any person, firm, company, or corporation, to whom any money may be due from the Principal, subcontractor or otherwise, for any such labor, materials, apparatus, fixtures or machinery so furnished and that suit may be maintained on such bond by any such person, firm, company, or corporation, for the recovery of any such money.

**NOW THEREFORE**, if the Principal shall well and truly perform the work in accordance with the terms of the contract, and shall pay all sums of money due or to become due for any labor, materials, apparatus, fixtures or machinery furnished to it for the purpose of constructing such work, and shall commence and complete the work within the time prescribed in the contract, and shall pay and discharge all damages, direct and indirect, that may be suffered or sustained on account of such work during the time of performance thereof and until the work shall have been accepted, and shall save and indemnify and keep harmless the Village against all liabilities, judgments, costs and expenses which may in any manner accrue against the Village in consequence of granting such contract or which may in any manner result from the carelessness or neglect of the Principal, his agents, employees or workmen in any respect whatever; and shall in all respects fully and faithfully comply with all the provisions, conditions, and requirements of the contract, then this obligation will be void; otherwise it will remain in full force and effect.

**IN WITNESS WHEREOF**, the PRINCIPAL and the SURETY have caused this instrument to be signed by their respective officers this \_\_\_\_ day of \_\_\_\_\_, 2023.

**NAME OF PRINCIPAL**

By: \_\_\_\_\_  
Signature

By: \_\_\_\_\_  
Printed Name

Its: \_\_\_\_\_  
Title

Subscribed to and Sworn before me on the  
\_\_\_\_\_ day of \_\_\_\_\_, 2023.

\_\_\_\_\_  
Notary Public

**NAME OF SURETY**

By: \_\_\_\_\_  
Signature of Attorney-in-Fact

Subscribed to and Sworn before me on the  
\_\_\_\_\_ day of \_\_\_\_\_, 2023.

\_\_\_\_\_  
Notary Public

**SECTION X**  
**COMPLIANCE AFFIDAVIT**

I, \_\_\_\_\_, (print name) being first duly sworn on oath depose and state:

1. I am the (title) \_\_\_\_\_ of the proposing company and am authorized to make the statements contained in this affidavit on behalf of the company;
2. I have examined and carefully prepared this Proposal based on the request and have verified the facts contained in the Proposal in detail before submitting it;
3. The proposing company is organized as indicated above on the form entitled "Organization of Proposing Company."
4. I authorize the Village of Oak Park to verify the company's business references and credit at its option;
5. Neither the proposing company nor its affiliates<sup>1</sup> are barred from proposing on this project as a result of a violation of 720 ILCS 5/33E-3 or 33E-4 relating to Proposal rigging and Proposal rotating, or section 2-6-12 of the Oak Park Village Code relating to "Proposing Requirements".
6. The proposing company has the M/W/DBE status indicated below on the form entitled "EEO Report."
7. Neither the proposing company nor its affiliates is barred from agreementing with the Village of Oak Park because of any delinquency in the payment of any debt or tax owed to the Village except for those taxes which the proposing company is contesting, in accordance with the procedures established by the appropriate revenue act, liability for the tax or the amount of the tax. I understand that making a false statement regarding delinquency in taxes is a Class A Misdemeanor and, in addition, voids the agreement and allows the Village of Oak Park to recover all amounts paid to the proposing company under the agreement in civil action.
8. I am familiar with Section 13-3-2 through 13-3-4 of the Oak Park Village Code relating to Fair Employment Practices and understand the contents thereof; and state that the proposing company is an "Equal Opportunity Employer" as defined by Section 2000(E) of Chapter 21, Title 42 of the United States Code Annotated and Federal Executive Orders #11246 and #11375 which are incorporated herein by reference. **Also complete the attached EEO Report or Submit an EEO-1.**
9. I certify that the contractor is in compliance with the Drug Free Workplace Act, 41 U.S.C.A, 702

Signature: \_\_\_\_\_

Name and address of Business: \_\_\_\_\_

Telephone \_\_\_\_\_ E-Mail \_\_\_\_\_

Subscribed to and sworn before me this \_\_\_\_\_ day of \_\_\_\_\_, 2023.

\_\_\_\_\_  
Notary Public

- Notary Public Seal -

<sup>1</sup> Affiliates means: (i) any subsidiary or parent of the agreementing business entity, (ii) any member of the same unitary business group; (iii) any person with any ownership interest or distributive share of the agreementing business entity in excess of 7.5%; (iv) any entity owned or controlled by an executive employee, his or her spouse or minor children of the agreementing business entity.

**SECTION XI**  
**M/W/DBE STATUS AND EEO REPORT**

Failure to respond truthfully to any questions on this form, failure to complete the form or failure to cooperate fully with further inquiry by the Village of Oak Park will result in disqualification of this Proposal.

1. Contractor Name: \_\_\_\_\_

2. Check here if your firm is:

- Minority Business Enterprise (MBE) (A firm that is at least 51% owned, managed and controlled by a Minority.)
- Women's Business Enterprise (WBE) (A firm that is at least 51% owned, managed and controlled by a Woman.)
- Owned by a person with a disability (DBE) (A firm that is at least 51% owned by a person with a disability)
- None of the above

[Submit copies of any W/W/DBE certifications]

3. What is the size of the firm's current stable work force?

\_\_\_\_\_ Number of full-time employees

\_\_\_\_\_ Number of part-time employees

4. Similar information will be requested of all sub-contractors working on this agreement. Forms will be furnished to the lowest responsible contractor with the notice of agreement award, and these forms must be completed and submitted to the Village before the execution of the agreement by the Village.

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

## EEO Report

Please fill out this form completely. Failure to respond truthfully to any questions on this form, or failure to cooperate fully with further inquiry by the Village of Oak Park will result in disqualification of this Proposal. An incomplete form will disqualify your Proposal.

**An EEO-1 Report may be submitted in lieu of this report**

Contractor Name \_\_\_\_\_  
 Total Employees \_\_\_\_\_

Job Category	Total # of Empl.	Total Males	Total Females	Black	Males				Females				Total Minorities
					Hispanic	American Indian	Alaskan Native	Asian & Pacific Islander	Hispanic	American Indian	Alaskan Native	Asian & Pacific Islander	
Officials & Managers													
Professionals													
Technicians													
Sales Workers													
Office & Clerical													
Semi-Skilled													
Laborers													
Service Workers													
Management Trainees													
Apprentices													

This completed and notarized report must accompany your Proposal. It should be attached to your Affidavit of Compliance. Failure to include it with your Proposal will be disqualify you from consideration.

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

(Name of Person Making Affidavit)

(Title or Officer)

of \_\_\_\_\_ and that the above EEO Report information is true and accurate and is submitted with the intent that it

be relied upon. Subscribed and sworn to before me this \_\_\_\_\_ day of \_\_\_\_\_, 2023.

\_\_\_\_\_  
 ( Signature )

\_\_\_\_\_  
 ( Date



**SECTION XII**  
**NO PROPOSAL EXPLANATION**

If your company does not wish to propose on the attached specifications, the Village of Oak Park would be interested in any explanation or comment you may have as to what prevented your firm from submitting a Proposal.

Thank you.

Proposal Name:

**Village of Oak Park North Fire Station Emergency Egress Construction**  
**Bid Number: 23-125**  
**Issuance Date: 6/28/23**

Comments:

Signed: \_\_\_\_\_

Phone: \_\_\_\_\_



**SAMPLE ONLY – DO NOT SIGN**  
**INDEPENDENT CONTRACTOR AGREEMENT**

THIS INDEPENDENT CONTRACTOR AGREEMENT (“Contract”) is entered into on the \_\_\_\_\_ day of \_\_\_\_\_ 2023, by and between the Village of Oak Park, an Illinois home rule municipal corporation (hereinafter the “Village”), and \_\_\_\_\_, a \_\_\_\_\_ (hereafter the “Contractor”).

**WHEREAS**, the Contractor submitted a Proposal to renovate the bunk room, locker room and restroom at the south fire station (hereinafter referred to as the “Work”), pursuant to the Village’s Request for Proposals, attached hereto and incorporated herein by reference; and

**WHEREAS**, the Contractor represented in said Proposal that it has the necessary personnel, experience, and competence to promptly complete the Work and the work required hereunder; and

**WHEREAS**, the Contractor’s Proposal is attached hereto and incorporated herein by reference into this Agreement; and

**WHEREAS**, the Contractor shall perform the Work pursuant to the terms and conditions of this Contract..

**NOW, THEREFORE**, in consideration of the premises and the mutual promises contained in this Contract,, and other good and valuable consideration received and to be received, it is mutually agreed by and between the parties as follows:

**1. RECITALS INCORPORATED**

The above recitals are incorporated herein as though fully set forth.

**2. SCOPE OF WORK**

The Contractor shall perform the Work in accordance with its Proposal for a total cost not to exceed \$\_\_\_\_\_ (“Contract Price”). The Contractor shall complete the Work in accordance with any applicable manufacturers’ warranties and in accordance with the Village’s Request for Proposals, the Contractor’s Proposal and this Contract, all of which, together shall constitute the Contract Documents. The Contractor acknowledges that it has inspected the sites where the work is to be performed and that it is fully familiar with all of the conditions at the sites, and further that its Proposal has adequately taken into consideration all of the conditions at the sites. The Contractor hereby represents and warrants that it has the skill and experience necessary to complete this Work in a good and workmanlike manner. The Contractor further represents and warrants that the Work will be completed in a good and workmanlike manner in accordance with the Contract Documents, and that the Work will be free from defects.

The Contractor shall achieve completion of all work required pursuant to the Contract

Documents by December 31, 2022 (“Contract Time”). The Contract Time is of the essence. In the event the Contractor fails to complete the Project on or before said date, the Village shall be entitled to liquidated damages in the amount of \$500.00 per day for each day the work remains uncompleted beyond the completion date set forth above. This amount is not a penalty, and the parties agree to said amount given the difficulties associated with determining or calculating damages to the Village in the event the Project is not completed on time. The Contractor shall have no claim for damages, for compensation in excess of the Contract Price, or for a delay or extension of the Contract Time based upon conditions found at, or in the vicinity of, the site(s).

### **3. DESIGNATED REPRESENTATIVES**

The Contractor shall designate in writing a person to act as its designated representative with respect to the Work to be performed under this Agreement. Such person shall have complete authority to transmit and receive instructions and information, interpret and define the Contractor's policies and decisions with respect to the Work governed by this Contract. The Village's Building Maintenance Superintendent shall have complete authority to transmit and receive instructions and information, interpret and define the Village's policies and decisions with respect to the Work governed by this Contract, or such other person as designated in writing by the Village Manager.

### **4. TERM OF CONTRACT**

The Contractor shall perform the Work pursuant to this Contract beginning on the effective date as defined herein and ending on December 31<sup>st</sup>, 2022 or on the date that the Work is completed as determined by the Village. The Contractor shall invoice the Village for the Work provided pursuant to this Contract the rates set forth in its Proposal.

### **5. PAYMENT SCHEDULE**

The Contractor shall, as a condition precedent to its right to receive any payment, submit to the Village an application for payment and such receipts, vouchers, and other documents as may be necessary to establish the Contractor's payment for all labor and material and the absence of any interest whether in the nature of a lien or otherwise of any party in any property, work, or fund with respect to the Work performed hereunder. Such documents shall include, where relevant, the following forms, copies of which are attached hereto:

- (i) Contractor's sworn statement;
- (ii) Contractor's partial or final waiver of lien;
- (iii) Subcontractor's sworn statement(s); and
- (iv) Subcontractor's partial or final waiver of lien.

Payment by the Village shall be conditioned upon an inspection by the Village of the

work completed and submission of required waivers by the Contractor. Payment by the Village shall in no way constitute a waiver of, or relieve the Contractor from, any defects in the work. All payments shall be made in accordance with the Illinois Local Government Prompt Payment Act, 50 ILCS 505/1 *et seq.* Final payment for any Work performed by the Contractor pursuant to an invoice by the Contractor shall be made by the Village to the Contractor when the Contractor has fully performed the work and the work has been approved by the Village and submission of required waivers and paperwork by Contractor. Approval of the work and issuance of the final payment by the Village shall not constitute a waiver of, or release the Contractor from, any defects in the work.

The Village shall have the right to withhold from any payment due hereunder such amount as may reasonably appear necessary to compensate the Village for any actual or prospective loss due to Work which is defective or does not conform to the Contract Documents; damage for which the Contractor is liable hereunder; liens or claims of liens; claims of third parties, subcontractors, or material men; or any failure of the Contractor to perform any of its obligations under this Contract. The Village may apply any money withheld or due Contractor hereunder to reimburse itself for any and all costs, expenses, losses, damages, liabilities, suits, judgments, awards, and attorney's fees incurred, suffered, or sustained by the Village and chargeable to the Contractor.

## **6. TERMINATION**

The Village may terminate this Contract for cause, which includes but is not necessarily limited to, the Contractor's failure to perform the work pursuant to this Contract. The Village shall provide the Contractor with five (5) days' written notice of a termination for cause pursuant to the provisions of Section 12 below. The Village may also terminate this Contract when it determines the same to be in its best interests by giving fourteen (14) days' written notice to the Contractor pursuant to the provisions of Section 12 below. In such event, the Village shall pay to the Contractor all amounts due for the work performed up to the date of termination.

## **7. COMPLIANCE WITH APPLICABLE LAWS**

The Contractor shall comply with all applicable laws, regulations, and rules promulgated by any federal, state, county, municipal and/or other governmental unit or regulatory body now in effect during the performance of the work. By way of example only and not as a limitation, the following are included within the scope of the laws, regulations and rules with which the Contractor must comply: all forms of Workers Compensation Laws, all terms of the equal employment opportunity rules and regulations of the Illinois Department of Human Rights, statutes relating to contracts let by units of government, and all applicable civil rights and anti-discrimination laws and regulations.

## **8. INDEMNIFICATION**

To the fullest extent permitted by law, the Contractor shall waive any right of

contribution against the Village and shall indemnify and hold harmless the Village and its officers, officials, employees, volunteers and agents from and against all claims, damages, losses and expenses, including, but not limited to, legal fees (attorney's and paralegal's fees, expert fees and court costs) arising out of or resulting from the performance of the Contractor's work, provided that any such claim, damage, loss or expense is attributable to bodily injury, sickness, disease or death, or injury to or destruction of property, other than the work itself, including the loss of use resulting therefrom, or is attributable to misuse or improper use of trademark or copyright-protected material or otherwise protected intellectual property, to the extent it is caused in whole or in part by any wrongful or negligent act or omission of the Contractor, any subcontractor, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable. Such obligation shall not be construed to negate, abridge or otherwise reduce any other right to indemnity which the Village would otherwise have. The Contractor shall similarly protect, indemnify and hold and save harmless, the Village, its officers, officials, employees, volunteers and agents against and from any and all claims, costs, causes, actions and expenses, including, but not limited to, legal fees incurred by reason of the Contractor's breach of any of its obligations under, or the Contractor's default of, any provisions of this Contract. The indemnification obligations under this Section shall not be limited in any way by any limitation on the amount or type of damages, compensation, or benefits payable by or for the Contractor or any subcontractor under Workers' Compensation or Disability Benefit Acts or Employee Benefit Acts.

**9. INSURANCE**

The Contractor shall, at the Contractor's expense, secure and maintain in effect throughout the duration of this Contract, insurance of the following kinds and limits set forth in this Section. The Contractor shall furnish "Certificates of Insurance" to the Village before beginning Work on the Project pursuant to this Contract. All insurance policies shall be written with insurance companies licensed to do business in the State of Illinois and having a rating of at least A:VII according to the latest edition of the Best's Key Rating Guide; and shall include a provision preventing cancellation of the insurance policy unless thirty (30) days prior written notice is given to the Village. This provision shall also be stated on each Certificate of Insurance: "Should any of the above described policies be canceled before the expiration date, the issuing company shall mail fifteen thirty (30) days written notice to the certificate holder named to the left."

The limits of liability for the insurance required shall provide coverage for not less than the following amounts, or greater where required by law:

(A) **Commercial General Liability:**

- i. Coverage to include Broad Form Property Damage, Contractual and Personal Injury.
- ii. Limits:
 

General Aggregate	\$ 2,000,000.00
Each Occurrence	\$ 1,000,000.00

Personal Injury \$ 1,000,000.00

iii. Coverage for all claims arising out of the Contractor's operations or premises and anyone directly or indirectly employed by the Contractor.

**(B) Workers' Compensation:**

i. Workers' Compensation insurance shall be provided in accordance with the provisions of the laws of the State of Illinois, including occupational disease provisions, for all employees who perform the Work pursuant to this Contract, and if work is subcontracted pursuant to the provisions of this Contract, the Contractor shall require each subcontractor similarly to provide workers' compensation insurance. In case employees engaged in hazardous work under this Contract are not protected under the Workers' Compensation Act, the Contractor shall provide, and shall cause each subcontractor to provide, adequate and suitable insurance for the protection of employees not otherwise provided.

**(C) Comprehensive Automobile Liability:**

i. Comprehensive Automobile Liability coverage shall include all owned, hired, non-owned vehicles, and/or trailers and other equipment required to be licensed, covering personal injury, bodily injury and property damage.

ii. Limits:  
Combined Single Limit \$1,000,000.00

**(D) Umbrella:**

i. Limits:  
Each Occurrence/Aggregate \$ 5,000,000.00

(E) The Village, its officers, employees, agents and volunteers shall be named as additional insureds on all insurance policies set forth herein except Workers' Compensation. The Contractor shall be responsible for the payment of any deductibles for said insurance policies. The coverage shall contain no special limitations on the scope of protection afforded to the Village, its officers, employees, agents, and volunteers.

(F) The Contractor understands and agrees that any insurance protection required by this Contract or otherwise provided by the Contractor, shall in no way limit the responsibility to indemnify, keep and save harmless, and defend the Village, its officers, employees, agents and volunteers as herein provided.

**10. GUARANTY**

The Contractor warrants and guarantees that its Work provided for the Project to be performed under this Agreement, and all workmanship, materials, equipment, and supplies performed, furnished, used, or installed under this Contract, shall be free from

defects and flaws in workmanship or design; shall strictly conform to the requirements of this Contract; and shall be fit and sufficient for the purposes expressed in, or reasonably inferred from, this Contract. The Contractor further warrants and guarantees that the strength of all parts of all manufactured materials, equipment, and supplies shall be adequate and as specified and that the performance requirements of this Contract shall be fulfilled.

The Contractor shall, at no expense to the Village, correct any failure to fulfill the above guaranty that may appear at any time. In any event, the guaranty herein expressed shall not be sole and exclusive, and is additional to any other guaranty or warranty expressed or implied.

**11. AFFIDAVIT OR CERTIFICATE**

The Contractor shall furnish any affidavit or certificate in connection with the work covered by this Contract as required by law.

**12. NOTICES**

Any notice required to be given by this Contract shall be deemed sufficient if made in writing and sent by certified mail, return receipt requested, or personal service, or by facsimile transmission to the persons and addresses indicated below or to such addresses and persons as either party hereto shall notify the other party of in writing pursuant to the provisions of this Section:

**To the Village:**

Village Manager  
Village of Oak Park  
123 Madison Street  
Oak Park, Illinois 60302-4272  
Email: [villagemanger@oak-park.us](mailto:villagemanger@oak-park.us)  
Facsimile: (708) 358-5101

**To the Contractor:**

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
Email: \_\_\_\_\_  
Facsimile: \_\_\_\_\_

Mailing of such notice as and when above provided shall be equivalent to personal notice and shall be deemed to have been given at the time of mailing.

Notice of facsimile transmission shall be effective as of date and time of facsimile transmission, provided that the notice transmitted shall be sent on business days during business hours (9:00 a.m. to 5:00 p.m. Chicago time). In the event facsimile notice transmitted during non-business hours, the effective date and time of notice is the first hour of the first business day after transmission.

**13. AUTHORITY TO EXECUTE**

The individuals executing this Contract on behalf of the Contractor and the Village represent that they have the legal power, right, and actual authority to bind their respective parties to the terms and conditions of this Contract.

**14. EFFECTIVE DATE**

The effective date of this Contract reflected above and below shall be the date that the Village Manager executes this Contract behalf of the Village.

**15. ENTIRE CONTRACT; APPROVAL OF SUBCONTRACTORS**

This Contract, including the documents incorporated by reference herein, sets forth the entire Contract of the parties with respect to the accomplishment of the Work. No right or interest in this Contract shall be assigned, in whole or in part, by either party without the prior written consent of the other party. The Village reserves the right to approve the use of subcontractors to complete any portion of the Work and to approve any applicable contract between the Contractor and a proposed subcontractor to perform any of the Work. This Contract shall be binding upon the parties and upon their respective heirs, executors, administrators, personal representatives, successors, and assigns, except as herein provided.

**16. INDEPENDENT CONTRACTOR**

The Contractor shall have the full control of the ways and means of performing the work referred to above and that the Contractor and its employees, representatives or subcontractors are not employees of the Village, it being specifically agreed that the Contractor bears the relationship of an independent contractor to the Village. The Contractor shall solely be responsible for the payment of all salaries, benefits and costs of supplying personnel for the Work.

**17. CONTRACT BOND**

The Contractor, before commencing the work on the Project, shall furnish a Contract Bond. The Contract Bond shall be in an amount equal to 100% of the full amount of the Contract Sum as security for the faithful performance of its obligations pursuant to the Contract Documents and as security for the payment of all persons performing labor and furnishing materials in connection with the Contract Documents. Such bond shall be on standard AIA Documents, shall be issued by a surety satisfactory to the Village, and shall name the Village as a primary co-obligee. The Contract Bond shall become a part of the Contract Documents. The failure of Contractor to supply the required Contract Bond within ten (10) days after the Notice of Award or within such extended period as the Village may grant if the Contract Bond does not meet its approval shall constitute a default, and the Village may either award the Contract to the next lowest responsible proposer or re-advertise for proposals. A charge against the defaulting Contractor may be made for the difference between the amount of the



Contractor's Proposal and the amount for which a contract for the work is subsequently executed, irrespective of whether the amount thus due exceeds the amount of the proposal guarantee.

**18. GOVERNING LAW AND VENUE**

This Contract shall be governed by the laws of the State of Illinois both as to interpretation and performance. Venue for any action pursuant to this Contract shall be in the Circuit Court of Cook County, Illinois.

**19. AMENDMENTS AND MODIFICATIONS**

This Contract may be modified or amended from time-to-time provided, however, that no such amendment or modification shall be effective unless reduced to writing and duly authorized and signed by the authorized representative of the Village and the authorized representative of the Contractor.

**20. NON-WAIVER OF RIGHTS**

No failure of either party to exercise any power given to it hereunder or to insist upon strict compliance by the other party with its obligations hereunder, and no custom or practice of the parties at variance with the terms hereof, nor any payment under this Contract shall constitute a waiver of either party's right to demand exact compliance with the terms hereof.

**21. CONFLICT**

In case of a conflict between any provision(s) of the Village's Request for Proposals or the Contractor's Proposal and this Contract, this Contract and the Village's Request for Proposals shall control to the extent of such conflict.

**22. HEADINGS AND TITLES**

The headings and titles provided in this Contract are for convenience only and shall not be deemed a part of this Contract.

**23. COOPERATION OF THE PARTIES**

The Village and the Contractor shall cooperate in the provision of the Work to be provided by Contractor pursuant to this Contract and in compliance with applicable laws, including, but not limited to, the Illinois Freedom of Information Act, 5 ILCS 140/1 et seq. ("FOIA"), and the provision of any documents and information pursuant to a FOIA request. The Contractor shall provide any and all documents to the Village pursuant to a FOIA request at no cost to the Village.

**24. COUNTERPARTS; FACSIMILE OR PDF SIGNATURES**

This Contract may be executed in counterparts, each of which shall be considered an original and together shall be one and the same Contract. A facsimile or pdf copy of this Agreement and any signature(s) thereon will be considered for all purposes as an original.

**25. CERTIFIED PAYROLL**

Contractor shall be solely responsible to maintain accurate records reflecting its payroll for its employees who perform any of the Work for the Village pursuant to this Contract and shall submit certified payroll records to the Village's Director of Public Works at any time during the term of this Contract. Contractor shall provide said certified payroll records within seven (7) days upon the request of the Director of Public Works.

**26. PREVAILING WAGE**

Contractor and any applicable subcontractor shall pay prevailing wages as established by the Illinois Department of Labor and determined by the Village for each craft or type of work needed to execute the contract in accordance with the Illinois Prevailing Wage Act, 820 ILCS 130/0.01 *et seq.* ("Act"). Contractor shall prominently post the current schedule of prevailing wages at the Project site(s) and shall notify immediately in writing all of its subcontractors of all changes in the schedule of prevailing wages. Any increases in costs to Contractor due to changes in the prevailing rate of wage during the terms of any Contract shall be at the sole expense of Contractor and not at the expense of the Village, and shall not result in an increase to the Contract Price. Contractor shall be solely responsible to maintain accurate records as required by the Act and shall submit certified payroll records to the Village evidencing its compliance with the Act on no less than a monthly basis as required by the Act. Contractor shall be solely liable for paying the difference between prevailing wages and any wages actually received by laborers, workmen and/or mechanics engaged in the Work for the Project.

Contractor shall indemnify, hold harmless, and defend the Village, its officers, officials, employees, agents and volunteers ("Indemnified Parties") against all regulatory actions, complaints, damages, claims, suits, liabilities, liens, judgments, costs and expenses, including reasonable attorney's fees, which may in any way arise from or accrue against the Indemnified Parties as a consequence of noncompliance with the Act or which may in any way result therefrom, including a complaint by the Illinois Department of Labor under Section 4(a-3) of the Act, 820 ILCS 130/4(a-3) that any or all of the Indemnified Parties violated the Act by failing to give proper notice to the Grantee or any other party performing work on the Public Improvements that not less than the prevailing rate of wages shall be paid to all laborers, workers and mechanics performing Work on the Project, including interest, penalties or fines under Section 4(a-3). The indemnification obligations of this section on the part of Contractor shall survive the termination or expiration of this Agreement. In any such claim, complaint or action against the Indemnified Parties, Contractor shall, at its own expense, appear, defend and pay all

charges of reasonable attorney's fees and all reasonable costs and other reasonable expenses arising therefrom or incurred in connection therewith, and, if any judgment or award shall be rendered against the Indemnified Parties in any such action, Contractor shall at its own expense, satisfy and discharge such judgment or award.

**[REMAINDER OF PAGE INTENTIONALLY LEFT BLANK -  
SIGNATURE PAGE FOLLOWS]**

**IN WITNESS WHEREOF**, the parties hereto have caused this Contract to be signed by their duly authorized representatives on the days and dates set forth below.

**VILLAGE OF OAK PARK**

**CONTRACTOR**

\_\_\_\_\_  
By:  
Its: Village Manager

\_\_\_\_\_  
By:  
Its:

Date: \_\_\_\_\_, 2023

Date: \_\_\_\_\_, 2023

**ATTEST**

**ATTEST**

\_\_\_\_\_  
By:  
Its: Village Clerk

\_\_\_\_\_  
By:  
Its:

Date: \_\_\_\_\_, 2023

Date: \_\_\_\_\_, 2023

SECTION 011000 – SUMMARY

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section. The General Conditions, Supplementary Conditions, and Division 01 General Requirements are hereby made a part of each Division and Section of these Specifications.

1.2 PROJECT DESCRIPTION

- A. The Project consists of an exterior egress deck at the existing fire station located at 212 Augusta St. in Oak Park IL 60302 for the Village of Oak Park, hereafter called the Owner. To be constructed in accordance with the Contract Documents prepared by StudioGC, dated June 28, 2023.
- B. Scope: The Work includes the work of all trades required; and all the labor, materials, and equipment necessary and incidental to the construction and completion of the Work.
- C. Work to be executed under one General Contract, including all trades.

1.3 CONTRACTOR USE OF PREMISES

- A. General: During the construction period the Contractor shall have limited use of the premises for construction operations, including use of the site. The Contractor's use of the premises is limited by the Owner's need for continuity of Fire Department operations.
- B. General: Limit use of the premises to construction activities in areas indicated; allow for Owner occupancy and use by the public.
  - 1. Keep driveways and entrances serving the premises clear and available to the Owner and the Owner's employees at all times. Do not use these areas for parking or storage of materials. Schedule deliveries to minimize space and time requirements for storage of materials and equipment on site.
  - 2. Move all stored materials or equipment which interferes with the operations of the Owner or other contractors.
- C. Do not load the structure with weight that will endanger structure.
- D. Contractor shall assume full responsibility for protection and safekeeping of materials and equipment stored on site.
- E. Contractor shall obtain and pay for additional storage space or work area as required for operations.

1.4 OWNER OCCUPANCY

- A. Full Owner Occupancy: The Owner will occupy the site and existing building during the entire construction period. Cooperate with the Owner during construction operations to minimize conflicts and facilitate Owner usage. Perform the Work so as not to interfere with the Owner's operations.

1.5 DUTIES OF CONTRACTOR

- A. Except as specifically noted, provide and pay for:
  - 1. Labor, materials and equipment.
  - 2. Tools, construction equipment and machinery.
  - 3. Other facilities and services required to complete the Work.
- B. Secure and pay for as required to complete the Work, and as applicable at the time of receipt of bids:
  - 1. Licenses.
  - 2. Fees.
- C. Give required notices to Owner, testing agency, and public authorities which have jurisdiction over the Work.
- D. Comply with codes, ordinances and other legal requirements of public authorities which have jurisdiction over the Work.
- E. Promptly submit written notice to the Architect of any observed variance of Contract Documents from legal requirements.
- F. Provide bonds for each portion of the Work.
- G. Activities which are to occur on site during the construction period shall be coordinated with Owner to establish proper dates which construction operations may occur.
- H. The Contractor shall include expedited delivery schedules, additional labor shifts, overtime work, and such other labor, equipment and materials as are necessary to complete each portion of the work by the date of Substantial Completion.
- I. Utilities Shut-offs shall not occur without prior approval of the Owner.

1.6 PROJECT LIMITATIONS

- A. The Work shall commence as follows:
  - 1. Commencement of Work on site: September 5th 2023
- B. The Work shall not commence until the contractor's bonds and insurance have been received and approved by the Owner.

1.7 TIME OF COMPLETION AND OCCUPANCY

- A. As part of the bid proposal, the general contractor is to submit a proposed project schedule for the work.

1.8 JOB OPERATIONS

A. Work Limitations:

1. Areas that are under construction are located adjacent to areas occupied by the Owner's personnel and the public. Owner will endeavor to remain out of construction zones.
2. Owner will occupy those spaces in the building that are not under construction during each phase for the purpose of maintain fire department operations.
3. Schedule and perform work in such a manner so as not to disrupt existing electrical, plumbing and mechanical systems in the building areas that are used for maintaining fire department operations. Existing systems must remain fully functional at all times; the fire station is open 24 hours a day. Provide Owner with minimum 48 hours' notice of any required shut down of any existing system.
4. Provide Owner with minimum 48-hour notice before starting demolition of any area that may disturb Owner's operations.
5. Maintain required exits and exit pathways at all times building is occupied.

B. Project Security:

1. General Project Security to be provided by the General Contractor. All Subcontractors must provide necessary precautions to protect their own materials and equipment until such Work is installed and operational.
2. Provide necessary precautions, including, but not limited to barriers and/or fencing, to protect Owner's personnel, pedestrians and workmen in the area of construction or demolition, as well as areas with stored materials and equipment.
3. Securely close off all areas of construction to prevent unauthorized entry.

1.9 ELECTRICAL UTILITIES

A. Owner will provide electrical power for construction activities in the form of designated existing line-voltage receptacles:

1. Coordinate power requirements with owner's representative.
2. Do not use emergency power circuits.
3. Do not overload circuits.
4. Provide all necessary extension cords.

B. Contractor, if it intends to set a trailer on site as part of their operation, shall be responsible for obtaining and paying for a temporary electrical service to run the trailer.

C. Contractor, if existing line voltage is insufficient to perform their work, shall be responsible for obtaining and paying for additional temporary electrical infrastructure to run the project.

1.10 CLEAN UP

A. Rubbish and debris resulting from the Work shall be collected and properly disposed of away from the site. If the Owner is required to perform cleaning as a result of the Contractor's lack of cleaning, the Owner may perform the required cleaning. If the Owner performs the cleaning, the Contractor will be backcharged at a rate of three (3) times the cost of the cleaning including labor and material costs.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 011000



SECTION 012300 - ALTERNATES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. This Section includes administrative and procedural requirements for alternates.

1.3 DEFINITIONS

- A. Alternate: An amount proposed by bidders and stated on the Bid Form for certain work defined in the Bidding Requirements that may be added to or deducted from the Base Bid amount if Owner decides to accept a corresponding change either in 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 or credit for each alternate is the net addition to or deduction from the Contract Sum to incorporate alternate into the Work. No other adjustments are made to the Contract Sum.

1.4 PROCEDURES

- A. Coordination: Modify or adjust affected adjacent work as necessary to completely integrate work of the alternate into Project.
  - 1. Include as part of each alternate, miscellaneous devices, accessory objects, and similar items incidental to or required for a complete installation whether or not indicated as part of alternate.
- B. Notification: Immediately following award of the Contract, notify each party involved, in writing, of the status of each alternate. Indicate if alternates have been accepted, rejected, or deferred for later consideration. Include a complete description of negotiated modifications to alternates.
- C. Execute accepted alternates under the same conditions as other work of the Contract.
- D. Schedule: A Schedule of Alternates is included at the end of this Section. Specification Sections referenced in schedule contain requirements for materials necessary to achieve the work described under each alternate.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 SCHEDULE OF ALTERNATES

A. Alternate Bid No. 1: Support Columns

1. Base Bid: Provide 6x6 wood posts secured with black powder coated post anchor to concrete foundations.
2. Alternate Bid: Provide 4x4 galvanized steel hollow steel tube sections secured to concrete foundations with bolts to the anchor plate.

END OF SECTION 012300

## SECTION 012500 - SUBSTITUTION PROCEDURES

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

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

#### 1.2 SUMMARY

- A. Section includes administrative and procedural requirements for substitutions.
- B. Related Sections:
  - 1. Division 01 Section "Allowances" for products selected under an allowance.
  - 2. Division 01 Section "Alternates" for products selected under an alternate.
  - 3. Division 01 Section "Product Requirements" for requirements for submitting comparable product submittals for products by listed manufacturers.
  - 4. Divisions 02 through 32 Sections for specific requirements and limitations for substitutions.

#### 1.3 DEFINITIONS

- A. Substitutions: Changes in products, materials, equipment, and methods of construction from those required by the Contract Documents and proposed by Contractor.
  - 1. Substitutions for Cause: Changes proposed by Contractor that are required due to changed Project conditions, such as unavailability of product, regulatory changes, or unavailability of required warranty terms.
  - 2. Substitutions for Convenience: Changes proposed by Contractor or Owner that are not required in order to meet other Project requirements but may offer advantage to Contractor or Owner.

#### 1.4 SUBMITTALS

- A. Substitution Requests: Submit each request for consideration electronically. Identify product or fabrication or installation method to be replaced. Include Specification Section number and title and Drawing numbers and titles.
  - 1. Substitution Request Form: Use facsimile of form provided in the Project Manual.
  - 2. Documentation: Show compliance with requirements for substitutions and the following, as applicable:
    - a. Statement indicating why specified product or fabrication or installation cannot be provided, if applicable.
    - b. Coordination information, including a list of changes or modifications needed to other parts of the Work and to construction performed by Owner and separate contractors that will be necessary to accommodate proposed substitution.
    - c. Detailed comparison of significant qualities of proposed substitution with those of the Work specified. Include annotated copy of applicable specification section. Significant

qualities may include attributes such as performance, weight, size, durability, visual effect, sustainable design characteristics, warranties, and specific features and requirements indicated. Indicate deviations, if any, from the Work specified.

- d. Product Data, including drawings and descriptions of products and fabrication and installation procedures.
  - e. Samples, where applicable or requested.
  - f. Certificates and qualification data, where applicable or requested.
  - g. List of similar installations for completed projects with project names and addresses and names and addresses of architects and owners.
  - h. Material test reports from a qualified testing agency indicating and interpreting test results for compliance with requirements indicated.
  - i. Research reports evidencing compliance with building code in effect for Project.
  - j. Detailed comparison of Contractor's construction schedule using proposed substitution with products specified for the Work, including effect on the overall Contract Time. If specified product or method of construction cannot be provided within the Contract Time, include letter from manufacturer, on manufacturer's letterhead, stating date of receipt of purchase order, lack of availability, or delays in delivery.
  - k. Cost information, including a proposal of change, if any, in the Contract Sum.
  - l. Contractor's certification that proposed substitution complies with requirements in the Contract Documents except as indicated in substitution request, is compatible with related materials, and is appropriate for applications indicated.
  - m. Contractor's waiver of rights to additional payment or time that may subsequently become necessary because of failure of proposed substitution to produce indicated results.
3. Architect's Action: If necessary, Architect will request additional information or documentation for evaluation within one (1) week of receipt of a request for substitution. Architect will notify Contractor of acceptance or rejection of proposed substitution within 15 days of receipt of request, or seven days of receipt of additional information or documentation, whichever is later.
- a. Forms of Acceptance: Change Order, Construction Change Directive, or Architect's Supplemental Instructions for minor changes in the Work.
  - b. Use product specified if Architect does not issue a decision on use of a proposed substitution within time allocated.

## 1.5 QUALITY ASSURANCE

- A. Compatibility of Substitutions: Investigate and document compatibility of proposed substitution with related products and materials. Engage qualified testing agency to perform compatibility tests recommended by manufacturers.

## 1.6 PROCEDURES

- A. Coordination: Modify or adjust affected work as necessary to integrate work of the approved substitutions.

## PART 2 - PRODUCTS

### 2.1 SUBSTITUTIONS

- A. Substitutions for Cause: Submit requests for substitution immediately upon discovery of need for change, but not later than 15 days prior to time required for preparation and review of related submittals.
1. Conditions: Architect will consider Contractor's request for substitution when the following conditions are satisfied. If the following conditions are not satisfied, Architect will return requests without action, except to record noncompliance with these requirements:
    - a. Requested substitution is consistent with the Contract Documents and will produce indicated results.
    - b. Substitution request is fully documented and properly submitted.
    - c. Requested substitution will not adversely affect Contractor's construction schedule.
    - d. Requested substitution has received necessary approvals of authorities having jurisdiction.
    - e. Requested substitution is compatible with other portions of the Work.
    - f. Requested substitution has been coordinated with other portions of the Work.
    - g. Requested substitution provides specified warranty.
    - h. If requested substitution involves more than one contractor, requested substitution has been coordinated with other portions of the Work, is uniform and consistent, is compatible with other products, and is acceptable to all contractors involved.
- B. Substitutions for Convenience: Architect will consider requests for substitution if received within 30 days after the Notice of Award. Requests received after that time may be considered or rejected at discretion of Architect.
1. Conditions: Architect will consider Contractor's request for substitution when the following conditions are satisfied. If the following conditions are not satisfied, Architect will return requests without action, except to record noncompliance with these requirements:
    - a. Requested substitution offers Owner a substantial advantage in cost, time, energy conservation, or other considerations, after deducting additional responsibilities Owner must assume. Owner's additional responsibilities may include compensation to Architect for redesign and evaluation services, increased cost of other construction by Owner, and similar considerations.
    - b. Requested substitution does not require extensive revisions to the Contract Documents.
    - c. Requested substitution is consistent with the Contract Documents and will produce indicated results.
    - d. Substitution request is fully documented and properly submitted.
    - e. Requested substitution will not adversely affect Contractor's construction schedule.
    - f. Requested substitution has received necessary approvals of authorities having jurisdiction.
    - g. Requested substitution is compatible with other portions of the Work.
    - h. Requested substitution has been coordinated with other portions of the Work.
    - i. Requested substitution provides specified warranty.
    - j. If requested substitution involves more than one contractor, requested substitution has been coordinated with other portions of the Work, is uniform and consistent, is compatible with other products, and is acceptable to all contractors involved.

## PART 3 - EXECUTION (Not Used)

END OF SECTION 012500

SUBSTITUTIONS REQUEST FROM

All bids shall be based upon the Contractor providing materials and equipment as required by the proposed Contract Documents.

Bidders desiring to propose substitutions for acceptable manufacturers, suppliers, materials and/or equipment indicated within the specifications shall list below such proposed substitutions, along with the amount to be added or deducted from the lump sum base bid should the Owner decide to accept such proposed substitutions.

The Owner reserves the right to reject any and all such proposed substitutions.

Proposed substitutions will not be used to determine the low bid.

In order to receive consideration, each proposed substitution shall be accompanied by complete technical data and written description of material or product, including effect on the construction schedule.

Note: Manufacturers, suppliers, materials and/or equipment approved by the Architect prior to the scheduled time for receipt of Bids, but not indicated in Addenda, must be listed below if said change from the specification requirements is to be considered.

<u>ITEM SPECIFIED</u>	<u>PROPOSED SUBSTITUTION</u>	<u>ADD</u>	<u>DEDUCT</u>
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

Name of Bidder: \_\_\_\_\_

Date: \_\_\_\_\_

## SECTION 012600 - CONTRACT MODIFICATION PROCEDURES

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

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

#### 1.2 SUMMARY

- A. This Section specifies administrative and procedural requirements for handling and processing Contract modifications.
- B. Related Sections include the following:
  - 1. Division 01 Section "Allowances" for procedural requirements for handling and processing allowances.
  - 2. Division 01 Section "Unit Prices" for administrative requirements for using unit prices.
  - 3. Division 01 Section "Substitution Procedures" for administrative procedures for handling requests for substitutions made after Contract award.

#### 1.3 MINOR CHANGES IN THE WORK

- A. Architect will issue supplemental instructions authorizing Minor Changes in the Work, not involving adjustment to the Contract Sum or the Contract Time, on AIA Document G710, "Architect's Supplemental Instructions."

#### 1.4 PROPOSAL REQUESTS

- A. Owner-Initiated Proposal Requests: Architect will issue a detailed description of proposed changes in the Work that may require adjustment to the Contract Sum or the Contract Time. If necessary, the description will include supplemental or revised Drawings and Specifications.
  - 1. Proposal Requests issued by Architect are for information only. Do not consider them instructions either to stop work in progress or to execute the proposed change.
  - 2. Within 5 days after receipt of Proposal Request, submit a quotation estimating cost adjustments to the Contract Sum and the Contract Time necessary to execute the change.
    - a. Include a list of quantities of products required or eliminated and unit costs, with total amount of purchases and credits to be made. Furnish survey data to substantiate quantities.
    - b. Indicate applicable taxes, delivery charges, equipment rental, and amounts of trade discounts.
    - c. Include costs of labor and supervision directly attributable to the change.
    - d. Include an updated Contractor's Construction Schedule that indicates the effect of the change, including, but not limited to, changes in activity duration, start and finish times, and activity relationship. Use available total float before requesting an extension of the Contract Time.

- B. Contractor-Initiated Proposals: If latent or unforeseen conditions require modifications to the Contract, Contractor may propose changes by submitting a request for a change to Architect.
  - 1. Include a statement outlining reasons for the change and the effect of the change on the Work. Provide a complete description of the proposed change. Indicate the effect of the proposed change on the Contract Sum and the Contract Time.
  - 2. Include a list of quantities of products required or eliminated and unit costs, with total amount of purchases and credits to be made. Furnish survey data to substantiate quantities.
  - 3. Indicate applicable taxes, delivery charges, equipment rental, and amounts of trade discounts.
  - 4. Include costs of labor and supervision directly attributable to the change.
  - 5. Include an updated Contractor's Construction Schedule that indicates the effect of the change, including, but not limited to, changes in activity duration, start and finish times, and activity relationship. Use available total float before requesting an extension of the Contract Time.
  - 6. Comply with requirements in Division 01 Section "Product Requirements" if the proposed change requires substitution of one product or system for product or system specified.
  
- C. Proposal Request Form: Use AIA Document G709 for Proposal Requests.

#### 1.5 CHANGE ORDER PROCEDURES

- A. On Owner's approval of a Proposal Request, Architect will issue a Change Order for signatures by Owner and Contractor on AIA Document G701.

#### 1.6 CONSTRUCTION CHANGE DIRECTIVE

- A. Construction Change Directive: When the Owner and Contractor are not in total agreement on the terms of a Change Order Proposal Request, the Architect may issue a Construction Change Directive on AIA Form G714, instructing the Contractor to proceed with a change in the Work, for subsequent inclusion in a Change Order.
  - 1. Construction Change Directive contains a complete description of change in the Work. It also designates method to be followed to determine change in the Contract Sum or the Contract Time.
  
- B. Documentation: Maintain detailed records on a time and material basis of work required by the Construction Change Directive.
  - 1. After completion of change, submit an itemized account and supporting data necessary to substantiate cost and time adjustments to the Contract.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 012600



SECTION 012900 - PAYMENT PROCEDURES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. This Section specifies administrative and procedural requirements necessary to prepare and process Applications for Payment.
- B. Related Sections include the following:
  - 1. Division 01 Section "Allowances" for procedural requirements governing handling and processing of allowances.
  - 2. Division 01 Section "Unit Prices" for administrative requirements governing use of unit prices.
  - 3. Division 01 Section "Contract Modification Procedures" for administrative procedures for handling changes to the Contract.

1.3 DEFINITIONS

- A. Schedule of Values: A statement furnished by Contractor allocating portions of the Contract Sum to various portions of the Work and used as the basis for reviewing Contractor's Applications for Payment.

1.4 SCHEDULE OF VALUES

- A. Coordination: Coordinate preparation of the Schedule of Values with preparation of Contractor's Construction Schedule.
  - 1. Correlate line items in the Schedule of Values with other required administrative forms and schedules, including the following:
    - a. Application for Payment forms with Continuation Sheets.
    - b. Submittals Schedule.
    - c. Contractor's Construction Schedule.
  - 2. Submit the Schedule of Values to Architect at earliest possible date, but no later than the date scheduled for the pre-construction meeting.
  - 3. Subschedules: Where the Work is separated into multiple sites or phases, provide sub-schedules showing values correlated with each site or phase of payment.
- B. Format and Content: Use the Project Manual table of contents as a guide to establish line items for the Schedule of Values. Provide at least one line item for each Specification Section.
  - 1. Identification: Include the following Project identification on the Schedule of Values:

- a. Project name and location.
  - b. Name of Architect.
  - c. Architect's project number.
  - d. Contractor's name and address.
  - e. Date of submittal.
2. Submit draft of AIA Document G703 Continuation Sheets.
  3. Arrange the Schedule of Values in tabular form with separate columns to indicate the following for each item listed:
    - a. Related Specification Section or Division.
    - b. Description of the Work.
    - c. Name of subcontractor.
    - d. Name of manufacturer or fabricator.
    - e. Name of supplier.
    - f. Change Orders (numbers) that affect value.
    - g. Dollar value.
      - 1) Percentage of the Contract Sum to nearest one-hundredth percent, adjusted to total 100 percent.
  4. Provide a breakdown of the Contract Sum in enough detail to facilitate continued evaluation of Applications for Payment and progress reports. Coordinate with the Project Manual table of contents. Provide several line items for principal subcontract amounts, where appropriate. Include separate line items under required principal subcontracts for operation and maintenance manuals, punch list activities, Project Record Documents, and demonstration and training in the amount of 10 percent of the Contract Sum.
  5. Round amounts to nearest whole dollar; total shall equal the Contract Sum.
  6. Provide a separate line item in the Schedule of Values for each part of the Work where Applications for Payment may include materials or equipment purchased or fabricated and stored, but not yet installed.
    - a. Differentiate between items stored on-site and items stored off-site. Include evidence of insurance or bonded warehousing if stored off site.
  7. Provide separate line items in the Schedule of Values for initial cost of materials, for each subsequent stage of completion, and for total installed value of that part of the Work.
  8. Allowances: Provide a separate line item in the Schedule of Values for each allowance. Show line-item value of unit-cost allowances, as a product of the unit cost, multiplied by measured quantity. Use information indicated in the Contract Documents to determine quantities.
  9. Each item in the Schedule of Values and Applications for Payment shall be complete. Include total cost and proportionate share of general overhead and profit for each item.
    - a. Temporary facilities and other major cost items that are not direct cost of actual work-in-place shall be shown as separate line items in the Schedule of Values and not distributed as general overhead expense.
  10. Schedule Updating: Update and resubmit the Schedule of Values before the next Applications for Payment when Change Orders or Construction Change Directives result in a change in the Contract Sum.

1.5 APPLICATIONS FOR PAYMENT

- A. Each Application for Payment shall be consistent with previous applications and payments as certified by Architect and paid for by Owner.
  - 1. Initial Application for Payment, Application for Payment at time of Substantial Completion, and final Application for Payment involve additional requirements.
- B. Payment Application Times: The date for each progress payment is indicated in the Agreement between Owner and Contractor. The period of construction Work covered by each Application for Payment is the period indicated in the Agreement.
- C. Payment Application Forms: Use AIA Document G702 and AIA Document G703 Continuation Sheets as form for Applications for Payment.
- D. Application Preparation: Complete every entry on form. Notarize and execute by a person authorized to sign legal documents on behalf of Contractor. Architect will return incomplete applications without action.
  - 1. Entries shall match data on the Schedule of Values and Contractor's Construction Schedule. Use updated schedules if revisions were made.
  - 2. Include amounts of Change Orders and Construction Change Directives issued before last day of construction period covered by application.
- E. Transmittal: Submit 2 signed and notarized original copies of each Application for Payment to Architect by a method ensuring receipt within 24 hours. Each copy shall include waivers of lien and similar attachments.
  - 1. Transmit each copy with a transmittal form listing attachments and recording appropriate information about application.
- F. Waivers of Mechanic's Lien: With each Application for Payment, submit waivers of mechanic's lien as follows:
  - 1. From the Prime contractor for the Work covered by the payment.
  - 2. From subcontractors, sub-subcontractors, and suppliers for construction period covered by the previous application.
    - a. Submit partial waivers on each item for amount requested in previous application, after deduction for retainage, on each item.
    - b. When an application shows completion of an item, submit final or full waivers.
    - c. Owner reserves the right to designate which entities involved in the Work must submit waivers.
    - d. Submit final Application for Payment with or preceded by final waivers from every entity involved with performance of the Work covered by the application who is lawfully entitled to a lien.
    - e. Waiver Forms: Submit waivers of lien on forms, executed in a manner acceptable to Owner.
- G. Initial Application for Payment: Administrative actions and submittals that must precede or coincide with submittal of first Application for Payment include the following:
  - 1. List of subcontractors.
  - 2. Schedule of Values.

3. Contractor's Construction Schedule (preliminary if not final).
  4. Products list and local suppliers of products. List supplier's name, address, and contact person.
  5. Schedule of unit prices.
  6. Submittals Schedule (preliminary if not final).
  7. List of Contractor's staff assignments.
  8. List of Contractor's principal consultants.
  9. Copies of building permits.
  10. Copies of authorizations and licenses from authorities having jurisdiction for performance of the Work.
  11. Initial progress report.
  12. Report of preconstruction conference.
  13. Certificates of insurance and insurance policies.
  14. Performance and payment bonds.
  15. Initial settlement survey and damage report if required.
- H. Application for Payment at Substantial Completion: After issuing the Certificate of Substantial Completion, submit an Application for Payment showing 100 percent completion for portion of the Work claimed as substantially complete.
1. Include documentation supporting claim that the Work is substantially complete and a statement showing an accounting of changes to the Contract Sum.
  2. This application shall reflect Certificates of Partial Substantial Completion issued previously for Owner occupancy of designated portions of the Work.
- I. Final Payment Application: Submit final Application for Payment with releases and supporting documentation not previously submitted and accepted, including, but not limited, to the following:
1. Evidence of completion of Project closeout requirements.
  2. Insurance certificates for products and completed operations where required and proof that taxes, fees, and similar obligations were paid.
  3. Updated final statement, accounting for final changes to the Contract Sum.
  4. AIA Document G706, "Contractor's Affidavit of Payment of Debts and Claims."
  5. AIA Document G706A, "Contractor's Affidavit of Release of Liens."
  6. AIA Document G707, "Consent of Surety to Final Payment."
  7. Evidence that claims have been settled.
  8. Final meter readings for utilities, a measured record of stored fuel, and similar data as of date of Substantial Completion or when Owner took possession of and assumed responsibility for corresponding elements of the Work.
  9. Final, liquidated damages settlement statement.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 012900

SECTION 013100 - PROJECT MANAGEMENT AND COORDINATION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. This Section includes administrative provisions for coordinating construction operations on Project including, but not limited to, the following:
  - 1. Coordination Drawings.
  - 2. Administrative and supervisory personnel.
  - 3. Project meetings.
  - 4. Requests for Interpretation (RFIs).
- B. Each contractor shall participate in coordination requirements. Certain areas of responsibility will be assigned to a specific contractor.
- C. Related Sections include the following:
  - 1. Division 01 Section "Construction Progress Documentation" for preparing and submitting Contractor's Construction Schedule.
  - 2. Division 01 Section "Closeout Procedures" for coordinating closeout of the Contract.

1.3 DEFINITIONS

- A. RFI: Request from Contractor seeking interpretation or clarification of the Contract Documents.

1.4 COORDINATION

- A. Coordination: Coordinate construction operations included in different Sections of the Specifications to ensure efficient and orderly installation of each part of the Work. Coordinate construction operations, included in different Sections, that depend on each other for proper installation, connection, and operation.
- B. Prepare memoranda for distribution to each party involved, outlining special procedures required for coordination. Include such items as required notices, reports, and list of attendees at meetings.
  - 1. Prepare similar memoranda for Owner and separate contractors if coordination of their Work is required.
- C. Administrative Procedures: Coordinate scheduling and timing of required administrative procedures with other construction activities and activities of other contractors to avoid conflicts and to ensure orderly progress of the Work. Such administrative activities include, but are not limited to, the following:

1. Preparation of Contractor's Construction Schedule.
2. Preparation of the Schedule of Values.
3. Installation and removal of temporary facilities and controls.
4. Delivery and processing of submittals.
5. Progress meetings.
6. Preinstallation conferences.
7. Project closeout activities.
8. Startup and adjustment of systems.
9. Project closeout activities.

D. Conservation: Coordinate construction activities to ensure that operations are carried out with consideration given to conservation of energy, water, and materials.

1. Salvage materials and equipment involved in performance of, but not actually incorporated into, the Work. Refer to other Sections for disposition of salvaged materials that are designated as Owner's property.

## 1.5 SUBMITTALS

A. Coordination Drawings, General: Prepare coordination drawings according to requirements in individual Sections, and additionally where installation is not completely shown on Shop Drawings, where limited space availability necessitates coordination, or if coordination is required to facilitate integration of products and materials fabricated or installed by more than one entity.

1. Content: Project-specific information, drawn accurately to a scale large enough to indicate and resolve conflicts. Do not base coordination drawings on standard printed data. Include the following information, as applicable:

- a. Use applicable Drawings as a basis for preparation of coordination drawings. Prepare sections, elevations, and details as needed to describe relationship of various systems and components.
- b. Indicate functional and spatial relationships of components of architectural, structural, civil, mechanical, and electrical systems.
- c. Indicate space requirements for routine maintenance and for anticipated replacement of components during the life of the installation.
- d. Show location and size of access doors required for access to concealed dampers, valves, and other controls.
- e. Indicate required installation sequences.
- f. Indicate dimensions shown on the Drawings. Specifically note dimensions that appear to be in conflict with submitted equipment and minimum clearance requirements. Provide alternate sketches to Architect indicating proposed resolution of such conflicts. Minor dimension changes and difficult installations will not be considered changes to the Contract.

B. Key Personnel Names: Within **15** days of starting construction operations, submit a list of key personnel assignments, including superintendent and other personnel in attendance at Project site. Identify individuals and their duties and responsibilities; list addresses and telephone numbers, including home and office telephone numbers. Provide names, addresses, and telephone numbers of individuals assigned as standbys in the absence of individuals assigned to Project.

1. Post copies of list in Project meeting room, in temporary field office, and by each temporary telephone. Keep list current at all times.

1.6 ADMINISTRATIVE AND SUPERVISORY PERSONNEL

- A. General: In addition to Project superintendent, provide other administrative and supervisory personnel as required for proper performance of the Work.
1. Include special personnel required for coordination of operations with other contractors.

1.7 PROJECT MEETINGS

- A. General: Schedule and conduct meetings and conferences at Project site, unless otherwise indicated.
1. Attendees: Inform participants and others involved, and individuals whose presence is required, of date and time of each meeting. Notify Owner and Architect of scheduled meeting dates and times.
  2. Agenda: Prepare the meeting agenda. Distribute the agenda to all invited attendees.
  3. Minutes: Record significant discussions and agreements achieved. Distribute the meeting minutes to everyone concerned, including Owner and Architect, within three days of the meeting.
- B. Preconstruction Conference: Schedule a preconstruction conference before starting construction, at a time convenient to Owner and Architect, but no later than 15 days after execution of the Agreement. Hold the conference at Project site or another convenient location. Conduct the meeting to review responsibilities and personnel assignments.
1. Attendees: Authorized representatives of Owner, Architect, and their consultants; Contractor and its superintendent; major subcontractors; suppliers; and other concerned parties shall attend the conference. All participants at the conference shall be familiar with Project and authorized to conclude matters relating to the Work.
  2. Agenda: Discuss items of significance that could affect progress, including the following:
    - a. Tentative construction schedule.
    - b. Phasing.
    - c. Critical work sequencing and long-lead items.
    - d. Designation of key personnel and their duties.
    - e. Procedures for processing field decisions and Change Orders.
    - f. Procedures for RFIs.
    - g. Procedures for testing and inspecting.
    - h. Procedures for processing Applications for Payment.
    - i. Distribution of the Contract Documents.
    - j. Submittal procedures.
    - k. Preparation of Record Documents.
    - l. Use of the premises and existing building.
    - m. Work restrictions.
    - n. Owner's occupancy requirements.
    - o. Responsibility for temporary facilities and controls.
    - p. Construction waste management and recycling.
    - q. Parking availability.
    - r. Office, work, and storage areas.
    - s. Equipment deliveries and priorities.
    - t. First aid.
    - u. Security.
    - v. Progress cleaning.
    - w. Working hours.
  3. Minutes: Record and distribute meeting minutes.

- C. Preinstallation Conferences: Conduct a preinstallation conference at Project site before each construction activity that requires coordination with other construction.
1. Attendees: Installer and representatives of manufacturers and fabricators involved in or affected by the installation and its coordination or integration with other materials and installations that have preceded or will follow, shall attend the meeting. Advise Architect of scheduled meeting dates.
  2. Agenda: Review progress of other construction activities and preparations for the particular activity under consideration, including requirements for the following:
    - a. The Contract Documents.
    - b. Options.
    - c. Related RFIs.
    - d. Related Change Orders.
    - e. Purchases.
    - f. Deliveries.
    - g. Submittals.
    - h. Review of mockups.
    - i. Possible conflicts.
    - j. Compatibility problems.
    - k. Time schedules.
    - l. Weather limitations.
    - m. Manufacturer's written recommendations.
    - n. Warranty requirements.
    - o. Compatibility of materials.
    - p. Acceptability of substrates.
    - q. Temporary facilities and controls.
    - r. Space and access limitations.
    - s. Regulations of authorities having jurisdiction.
    - t. Testing and inspecting requirements.
    - u. Installation procedures.
    - v. Coordination with other work.
    - w. Required performance results.
    - x. Protection of adjacent work.
    - y. Protection of construction and personnel.
  3. Record significant conference discussions, agreements, and disagreements, including required corrective measures and actions.
  4. Reporting: Distribute minutes of the meeting to each party present and to parties who should have been present.
  5. Do not proceed with installation if the conference cannot be successfully concluded. Initiate whatever actions are necessary to resolve impediments to performance of the Work and reconvene the conference at earliest feasible date.
- D. Progress Meetings: Conduct progress meetings at weekly intervals. Coordinate dates of meetings with preparation of payment requests.
1. Attendees: In addition to representatives of Owner and Architect, each contractor, subcontractor, supplier, and other entity concerned with current progress or involved in planning, coordination, or performance of future activities shall be represented at these meetings. All participants at the conference shall be familiar with Project and authorized to conclude matters relating to the Work.
  2. Agenda: Review and correct or approve minutes of previous progress meeting. Review other items of significance that could affect progress. Include topics for discussion as appropriate to status of Project.



- a. Contractor's Construction Schedule: Review progress since the last meeting. Determine whether each activity is on time, ahead of schedule, or behind schedule, in relation to Contractor's Construction Schedule. Determine how construction behind schedule will be expedited; secure commitments from parties involved to do so. Discuss whether schedule revisions are required to ensure that current and subsequent activities will be completed within the Contract Time.
  - 1) Review schedule for next period.
- b. Review present and future needs of each entity present, including the following:
  - 1) Interface requirements.
  - 2) Sequence of operations.
  - 3) Status of submittals.
  - 4) Deliveries.
  - 5) Off-site fabrication.
  - 6) Access.
  - 7) Site utilization.
  - 8) Temporary facilities and controls.
  - 9) Work hours.
  - 10) Hazards and risks.
  - 11) Progress cleaning.
  - 12) Quality and work standards.
  - 13) Status of correction of deficient items.
  - 14) Field observations.
  - 15) RFIs.
  - 16) Status of proposal requests.
  - 17) Pending changes.
  - 18) Status of Change Orders.
  - 19) Pending claims and disputes.
  - 20) Documentation of information for payment requests.
3. Minutes: Record the meeting minutes.
4. Reporting: Distribute minutes of the meeting to each party present and to parties who should have been present.
  - a. Schedule Updating: Revise Contractor's Construction Schedule after each progress meeting where revisions to the schedule have been made or recognized. Issue revised schedule concurrently with the report of each meeting.
- E. Coordination Meetings: Conduct Project coordination meetings at weekly intervals. Project coordination meetings are in addition to specific meetings held for other purposes, such as progress meetings and preinstallation conferences.
  1. Attendees: In addition to representatives of Owner and Architect, each contractor, subcontractor, supplier, and other entity concerned with current progress or involved in planning, coordination, or performance of future activities shall be represented at these meetings. All participants at the conference shall be familiar with Project and authorized to conclude matters relating to the Work.
  2. Agenda: Review and correct or approve minutes of the previous coordination meeting. Review other items of significance that could affect progress. Include topics for discussion as appropriate to status of Project.
    - a. Combined Contractor's Construction Schedule: Review progress since the last coordination meeting. Determine whether each contract is on time, ahead of schedule, or

behind schedule, in relation to Combined Contractor's Construction Schedule. Determine how construction behind schedule will be expedited; secure commitments from parties involved to do so. Discuss whether schedule revisions are required to ensure that current and subsequent activities will be completed within the Contract Time.

- b. Schedule Updating: Revise Combined Contractor's Construction Schedule after each coordination meeting where revisions to the schedule have been made or recognized. Issue revised schedule concurrently with report of each meeting.
  - c. Review present and future needs of each contractor present, including the following:
    - 1) Interface requirements.
    - 2) Sequence of operations.
    - 3) Status of submittals.
    - 4) Deliveries.
    - 5) Off-site fabrication.
    - 6) Access.
    - 7) Site utilization.
    - 8) Temporary facilities and controls.
    - 9) Work hours.
    - 10) Hazards and risks.
    - 11) Progress cleaning.
    - 12) Quality and work standards.
    - 13) Change Orders.
3. Reporting: Record meeting results and distribute copies to everyone in attendance and to others affected by decisions or actions resulting from each meeting.

#### 1.8 REQUESTS FOR INTERPRETATION (RFIs)

- A. Procedure: Immediately on discovery of the need for interpretation of the Contract Documents, and if not possible to request interpretation at Project meeting, prepare and submit an RFI in the form specified.
  1. RFIs shall originate with Contractor. RFIs submitted by entities other than Contractor will be returned with no response.
  2. Coordinate and submit RFIs in a prompt manner so as to avoid delays in Contractor's work or work of subcontractors.
- B. Content of the RFI: Include a detailed, legible description of item needing interpretation and the following:
  1. Project name.
  2. Date.
  3. Name of Contractor.
  4. Name of Architect.
  5. RFI number, numbered sequentially.
  6. Specification Section number and title and related paragraphs, as appropriate.
  7. Drawing number and detail references, as appropriate.
  8. Field dimensions and conditions, as appropriate.
  9. Contractor's suggested solution(s). If Contractor's solution(s) impact the Contract Time or the Contract Sum, Contractor shall state impact in the RFI.
  10. Contractor's signature.
  11. Attachments: Include drawings, descriptions, measurements, photos, Product Data, Shop Drawings, and other information necessary to fully describe items needing interpretation.

- a. Supplementary drawings prepared by Contractor shall include dimensions, thicknesses, structural grid references, and details of affected materials, assemblies, and attachments.
- C. Architect's Action: Architect will review each RFI, determine action required, and return it. Allow seven working days for Architect's response for each RFI.
1. The following RFIs will be returned without action:
    - a. Requests for approval of submittals.
    - b. Requests for approval of substitutions.
    - c. Requests for coordination information already indicated in the Contract Documents.
    - d. Requests for adjustments in the Contract Time or the Contract Sum.
    - e. Requests for interpretation of Architect's actions on submittals.
    - f. Incomplete RFIs or RFIs with numerous errors.
  2. Architect's action may include a request for additional information, in which case Architect's time for response will start again.
    - a. If Contractor believes the RFI response warrants change in the Contract Time or the Contract Sum, notify Architect in writing within three days of receipt of the RFI response.
- D. On receipt of Architect's action, update the RFI log and immediately distribute the RFI response to affected parties. Review response and notify Architect within three days if Contractor disagrees with response.
- E. RFI Log: Prepare, maintain, and submit a tabular log of RFIs organized by the RFI number. Submit log weekly. Include the following:
1. Project name.
  2. Name and address of Contractor.
  3. Name and address of Architect.
  4. RFI number including RFIs that were dropped and not submitted.
  5. RFI description.
  6. Date the RFI was submitted.
  7. Date Architect's response was received.
  8. Identification of related Minor Change in the Work, Construction Change Directive, and Proposal Request, as appropriate.
  9. Identification of related Field Order, Work Change Directive, and Proposal Request, as appropriate.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 013100

SECTION 013200 – CONSTRUCTION PROGRESS DOCUMENTATION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. General: This Section specifies administrative and procedural requirements for schedules and reports required for proper performance of the Work.
- B. Coordination: Each prime Contractor shall closely coordinate scheduling and reporting with the scheduling and reporting of other prime Contractors.
- C. Schedules required include:
  - 1. Preliminary Construction Schedule.
  - 2. Contractor's Construction Schedule.
  - 3. Schedule of Inspections and Tests.
- D. Reports required include:
  - 1. Daily Construction Reports.
  - 2. Material location reports.
  - 3. Field correction reports.
  - 4. Special reports.
- E. The schedule of values is included in Section "Payment Procedures."
- F. Project meeting minutes are included in Section "Project Management and Coordination."
- G. Inspection and test reports are included in Section "Quality Requirements."

1.3 PRELIMINARY CONSTRUCTION SCHEDULE

- A. Bar-Chart Schedule: Submit a preliminary horizontal bar-chart type construction schedule within 2 days of the date established for Commencement of the Work.
  - 1. Provide a separate time bar for each significant construction activity. Coordinate each element on the schedule with other construction activities. Schedule each construction activity in proper sequence. Provide a continuous vertical line to identify the first working day of each week.
  - 2. Indicate completion of the Work in advance of the date established for Substantial Completion.
- B. Submittal Tabulation: With the submittal of the Preliminary Construction Schedule, include a tabulation by date of submittals required during the first 90 days of construction. List those submittals required to

maintain orderly progress of the Work, and those required early because of long lead time for manufacture or fabrication.

1. At the Contractor's option, submittal dates may be shown on the schedule, in lieu of being tabulated separately.

#### 1.4 CONTRACTOR'S CONSTRUCTION SCHEDULE

- A. Bar-Chart Schedule: Prepare a comprehensive, fully developed, horizontal bar-chart type Contractor's Construction Schedule based on the Preliminary Construction Schedule and on whatever updating and feedback was received since the start of the Project.

1. Submit the schedule within 15 days of the date established for commencement of the Work.
2. Provide a separate time bar for each significant construction activity. Provide a continuous vertical line to identify the first working day of each week.
  - a. If practical, use the same breakdown of units of the Work as indicated in the "Schedule of Values."
3. For significant construction activities that require 3 months or longer to complete, indicate an estimated completion percentage in 10 percent increments within the time bar. As Work progresses, place a contrasting mark in each bar to indicate actual completion percentage.
4. Prepare the Schedule on a sheet, or series of sheets, of stable transparency, or other reproducible media, of sufficient width to show data clearly for the entire construction period.
5. Secure time commitments for performing critical elements of the Work from parties involved. Coordinate each element on the schedule with other portions of the Work; include minor elements involved in the overall sequence of the Work. Show each construction activity in proper sequence. Indicate graphically sequences necessary for completion of related portions of the Work.
6. Coordinate the Contractor's Construction Schedule with the schedule of values, list of subcontracts, Submittal Schedule, progress reports, payment requests and other required schedules and reports.
7. Indicate completion of the Work in advance of the date established for Substantial Completion. Indicate Substantial Completion on the Schedule to allow ample time for the Architect administrative procedures necessary for Certification of Substantial Completion.

- B. Phasing: Provide notations on the Schedule to show how the sequence of the Work is affected by the following:

1. Requirements for phased completion.
2. Work by separate Contractors.
3. Work by the Owner.
4. Pre-purchased materials.
5. Coordination with existing construction.
6. Limitations of continued occupancies.
7. Uninterruptible services.
8. Partial occupancy prior to Substantial Completion.
9. Site restrictions.
10. Provisions for future construction.
11. Seasonal variations.
12. Environmental control.

- C. Work Stages: Use crosshatched bars to indicate important stages of construction for each major portion of the Work.

- D. Such stages include, but are not necessarily limited to:
1. Subcontract awards.
  2. Purchases.
  3. Mockups.
  4. Fabrication.
  5. Sample testing.
  6. Deliveries.
  7. Installation.
  8. Testing.
  9. Adjusting.
  10. Curing.
  11. Start-up and placement into final use and operation.
- E. Area Separations: Provide a separate time bar to identify each major area of construction for each major portion of the Work. For the purposes of this article, a "major area" is defined as a story of construction, separate buildings or a similar significant construction element.
1. Indicate where each construction activity within a major area must be sequenced or integrated with other construction activities to provide for the following:
    - a. Structural Completion.
    - b. Permanent space enclosure.
    - c. Completion of mechanical installation.
    - d. Completion of the electrical portion of the Work.
    - e. Substantial Completion.
- F. Cost Correlation: Immediately below the date line at the head of the bar-chart, provide a two item cost correlation line, indicating both "precalculated" and "actual" costs. On the cost correlation line show dollar-volume of Work performed as of the same dates used for preparation of payment requests.
1. Refer to Section "Payment Procedures" for cost reporting and payment procedures.
- G. Distribution: Following the Architect response to initial submittal of the Contractor's Construction Schedule, print and distribute copies to the Architect, Owner, separate contractors, subcontractors, suppliers, fabricators, and other parties required to comply with scheduled dates.
1. Post copies of the Schedule in the Project meeting room and temporary field office.
  2. When revisions are made, distribute the updated Schedule to the same parties and post in the same locations. Delete parties from distribution when they have completed their assigned portion of the Work and are no longer involved in performance of construction activities.
- H. Schedule Updating: Revise the Schedule immediately after each meeting or other activity, where revisions have been recognized or made. Issue the updated Schedule concurrently with report of each meeting.

#### 1.5 SCHEDULE OF INSPECTIONS AND TESTS

- A. Prepare a schedule of inspections, tests and similar services required by the Contract Documents. Submit the schedule within 30 days of the date established for commencement of the Work.
- B. Form: The Schedule shall be in tabular form and shall include but not be limited to the following data:
1. Specification Section number.

2. Description of the test.
3. Identification of applicable standards.
4. Identification of test methods.
5. Number of tests required.
6. Time schedule or time span for tests.
7. Entity responsible for performing tests.
8. Requirements for taking Samples.
9. Unique characteristics of each service.

- C. Distribution: Distribute the Schedule to the Owner, Architect, and each party involved in performance of portions of the Work, where inspections and tests are required.

## 1.6 REPORTS

- A. Daily Construction Reports: Prepare a daily construction report, recording the following information concerning events at the site; and submit duplicate copies to the Architect at weekly intervals:

1. List of subcontractors at the site.
2. List of separate contractors at the site.
3. Approximate count of personnel at the site.
4. High and low temperatures, general weather conditions.
5. Accidents (refer to accident reports).
6. Meetings and significant decisions.
7. Unusual events (refer to special reports).
8. Stoppages, delays, shortages, losses.
9. Meter readings and similar recordings.
10. Emergency procedures.
11. Orders and requests of governing authorities.
12. Change Orders received, implemented.
13. Services connected, disconnected.
14. Equipment or system tests and start-ups.
15. Partial Completions, occupancies.
16. Substantial Completions authorized.

- B. Material Location Reports: At weekly intervals prepare a comprehensive list of materials delivered to and stored at the site. The list shall be cumulative, showing materials previously reported plus items recently delivered. Include with the list a statement of progress on and delivery dates for all materials or items of equipment being fabricated or stored away from the building site. Submit copies of the list to the Architect at weekly intervals.

- C. Field Correction Report: When the need to take corrective action that requires a departure from the Contract Documents arises, prepare a detailed report including a statement describing the problem and recommended changes. Indicate reasons the Contract Documents cannot be followed. Submit a copy to the Architect immediately.

- D. The Contractor shall furnish to the Owner weekly written progress reports including an updated schedule of construction and schedule of values in duplicate on all construction activities.

## 1.7 ACCIDENT REPORTS

- A. General: The Contractor shall provide a written report to the Owner of any and all accident whatsoever arising out of or in connection with the performance of the Work, whether on or adjacent to the site,

which causes death or personal injury or property damage. The report shall be furnished to the Owner within five (5) days of the occurrence.

1.8 FIELD CORRECTION REPORTS

- A. Field Correction Report: When the need to take corrective action that requires a departure from the Contract Documents arises, prepare a detailed report including a statement describing the problem and recommended changes. Indicate reasons the Contract Documents cannot be followed. Submit a copy to the Architect immediately.

1.9 SPECIAL REPORTS

- A. General: Submit special reports directly to the Owner within one day of an occurrence. Submit a copy to the Architect and other parties affected by the occurrence.
- B. Reporting Unusual Events: When an event of an unusual and significant nature occurs at the site, prepare and submit a special report. List the chain of events, persons participating, response by the Contractor's personnel, an evaluation of the results or effects and similar pertinent information. Advise the Owner in advance when such events are known or predictable.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 SCHEDULES & REPORTS

- A. General: Maintain a record of all schedules and reports. Include with electronic version of closeout documents to Owner.

END OF SECTION 013200



SECTION 013300 – SUBMITTAL PROCEDURES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. This Section specifies administrative and procedural requirements for submittals required for performance of the Work including:

- 1. Submittal schedule.
- 2. Shop Drawings.
- 3. Product Data.
- 4. Samples.

- B. Administrative Submittals: Refer to other Division 01 Sections and other Contract Documents for requirements for administrative submittals. Such submittals include, but are not limited to:

- 1. Permits.
- 2. Applications for payment.
- 3. Performance and payment bonds.
- 4. Insurance certificates.
- 5. List of Subcontractors.
- 6. Schedule of Values.

- C. Inspection and test reports are included in Section "Quality Requirements."

1.3 SUBMITTAL PROCEDURES

- A. Coordination: Coordinate preparation and processing of submittals with performance of construction activities. Transmit each submittal sufficiently in advance of performance of related construction activities to avoid delay.

- 1. Coordinate each submittal with fabrication, purchasing, testing, delivery, other submittals and related activities that require sequential activity.
- 2. Coordinate transmittal of different types of submittals for related elements of the Work so processing will not be delayed by the need to review submittals concurrently for coordination.
  - a. The Architect reserves the right to withhold action on a submittal requiring coordination with other submittals until related submittals are received.
- 3. Processing: Allow sufficient review time so that installation will not be delayed as a result of the time required to process submittals, including time for resubmittals.

- a. Allow ten (10) business days for initial review. Allow additional time if processing must be delayed to permit coordination with subsequent submittals. The Architect will promptly advise the Contractor when a submittal being processed must be delayed for coordination.
  - b. If an intermediate submittal is necessary, process the same as the initial submittal.
  - c. Allow ten (10) business days for reprocessing each submittal.
  - d. No extension of Contract Time will be authorized because of failure to transmit submittals to the Architect sufficiently in advance of the Work to permit processing.
- B. Submittal Preparation: Architect will provide access to their Newforma Project Center (Project Management System) to the Contractor for logging, transmission, and overall management of electronic submittals.
1. Place a permanent label or title block on each submittal for identification. Indicate the name of the entity that prepared each submittal on the label or title block.
  2. Provide a space approximately 4" x 5" on the label or beside the title block on Shop Drawings to record the Contractor's review and approval markings and the action taken.
  3. Include the following information on the label for processing and recording action taken.
    - a. Project name.
    - b. Date.
    - c. Name and address of Architect/Engineer.
    - d. Name and address of Contractor.
    - e. Name and address of subcontractor.
    - f. Name and address of supplier.
    - g. Name of manufacturer.
    - h. Number and title of appropriate Specification Section.
    - i. Drawing number and detail references, as appropriate.
- C. Submittal Transmittal: Package each submittal appropriately for transmittal and handling. Transmit each submittal from Contractor to Architect using a transmittal form. Submittals received from sources other than the Contractor will be returned without action.
1. On the transmittal Record relevant information and requests for data. On the form, or separate sheet, record deviations from Contract Document requirements, including minor variations and limitations. Include Contractor's certification that information complies with Contract Document requirements.
- 1.4 CONTRACTOR'S REVIEW OF SUBMITTALS
- A. Action Submittals and Informational Submittals: Review each submittal and check for coordination with other Work of the Contract and for compliance with the Contract Documents. Note corrections and field dimensions. Mark with approval stamp before submitting to Architect.
  - B. Contractor's Approval: Indicate Contractor's approval for each submittal with a uniform approval stamp or indication in web-based Project software. Include name of reviewer, date of Contractor's approval, and statement certifying that submittal has been reviewed, checked, and approved for compliance with the Contract Documents.
  - C. Architect will not review submittals received from Contractor that do not have Contractor's review and approval.

1.5 ARCHITECT ACTION

- A. Except for submittals for record, information or similar purposes, where action and return are required or requested, the Architect/Engineer will review each submittal, mark to indicate action taken, and return promptly.
  - 1. Compliance with specified characteristics is the Contractor's responsibility.
- B. Action Stamp: The Architect will stamp each submittal with a uniform, self-explanatory action stamp. The stamp will be appropriately marked, as follows, to indicate the action taken:
  - 1. Final Unrestricted Release: Where submittals are marked "Accepted," that part of the Work covered by the submittal may proceed provided it complies with requirements of the Contract Documents; final acceptance will depend upon that compliance.
  - 2. Final-But-Restricted Release: When submittals are marked "Accepted as Noted," that part of the Work covered by the submittal may proceed provided it complies with notations or corrections on the submittal and requirements of the Contract Documents; final acceptance will depend on that compliance.
  - 3. Returned for Resubmittal: When submittal is marked "Not Accepted, Revise and Resubmit," do not proceed with that part of the Work covered by the submittal, including purchasing, fabrication, delivery, or other activity. Revise or prepare a new submittal in accordance with the notations; resubmit without delay. Repeat if necessary, to obtain a different action mark.
    - a. Do not permit submittals marked "Not Accepted, Revise and Resubmit" to be used at the Project site, or elsewhere where Work is in progress.
  - 4. Other Action: Where a submittal is primarily for information or record purposes, special processing or other activity, the submittal will be returned, marked "No Action Taken"

PART 2 - PRODUCTS (Not Applicable)

PART 3 - EXECUTION (Not Applicable)

END OF SECTION 013300

## SECTION 014000 - QUALITY REQUIREMENTS

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

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

#### 1.2 SUMMARY

- A. This Section includes administrative and procedural requirements for quality assurance and quality control.
- B. Testing and inspecting services are required to verify compliance with requirements specified or indicated. These services do not relieve Contractor of responsibility for compliance with the Contract Document requirements.
  - 1. Specific quality-assurance and -control requirements for individual construction activities are specified in the Sections that specify those activities. Requirements in those Sections may also cover production of standard products.
  - 2. Specified tests, inspections, and related actions do not limit Contractor's other quality-assurance and -control procedures that facilitate compliance with the Contract Document requirements.
  - 3. Requirements for Contractor to provide quality-assurance and -control services required by Architect, Owner, or authorities having jurisdiction are not limited by provisions of this Section.
- C. Related Sections include the following:
  - 1. Division 01 Section "Allowances" for testing and inspecting allowances.
  - 2. Division 01 Section "Construction Progress Documentation" for developing a schedule of required tests and inspections.
  - 3. Division 01 Section "Execution" for repair and restoration of construction disturbed by testing and inspecting activities.
  - 4. Divisions 02 through 33 Sections for specific test and inspection requirements.

#### 1.3 DEFINITIONS

- A. Quality-Assurance Services: Activities, actions, and procedures performed before and during execution of the Work to guard against defects and deficiencies and substantiate that proposed construction will comply with requirements.
- B. Quality-Control Services: Tests, inspections, procedures, and related actions during and after execution of the Work to evaluate that actual products incorporated into the Work and completed construction comply with requirements. Services do not include contract enforcement activities performed by Architect.
- C. Mockups: Full-size, physical assemblies that are constructed on-site. Mockups are used to verify selections made under sample submittals, to demonstrate aesthetic effects and, where indicated, qualities of materials and execution, and to review construction, coordination, testing, or operation; they are not Samples. Approved mockups establish the standard by which the Work will be judged.

- D. Laboratory Mockups: Full-size, physical assemblies that are constructed at testing facility to verify performance characteristics.
  - E. Preconstruction Testing: Tests and inspections that are performed specifically for the Project before products and materials are incorporated into the Work to verify performance or compliance with specified criteria.
  - F. Product Testing: Tests and inspections that are performed by an NRTL, an NVLAP, or a testing agency qualified to conduct product testing and acceptable to authorities having jurisdiction, to establish product performance and compliance with industry standards.
  - G. Source Quality-Control Testing: Tests and inspections that are performed at the source, i.e., plant, mill, factory, or shop.
  - H. Field Quality-Control Testing: Tests and inspections that are performed on-site for installation of the Work and for completed Work.
    - 1. Material testing related to excavation and backfill testing and observation, cast in place concrete and reinforcement testing and observation, unit masonry mortar grout and reinforcement testing and observation, structural steel weld and bolt testing and observation, hot-mix asphalt testing and observation are conducted by Owner. Contractor shall be responsible for coordinating with Owner's testing agency to have testing and observation completed when required based on the construction schedule. Contractor shall maintain a log of all testing requested of the Owner's testing agency and documented results. The cost of follow up testing or observation that is required due to failed inspections, Contractor work not being ready for scheduled inspection, or miss communication by the Contractor which require rescheduling of the inspection shall be the responsibility of the Contractor.
    - 2. Material testing specified in the individual specifications, and not noted above, are to be provided by the Contractor's testing agency funded from the testing allowance at the discretion of the Owner through written authorization.
  - I. Testing Agency: An entity engaged to perform specific tests, inspections, or both. Testing laboratory shall mean the same as testing agency.
  - J. Installer/Applicator/Erector: Contractor or another entity engaged by Contractor as an employee, Subcontractor, or Sub-subcontractor, to perform a particular construction operation, including installation, erection, application, and similar operations.
    - 1. Using a term such as "carpentry" does not imply that certain construction activities must be performed by accredited or unionized individuals of a corresponding generic name, such as "carpenter." It also does not imply that requirements specified apply exclusively to tradespeople of the corresponding generic name.
  - K. Experienced: When used with an entity, "experienced" means having successfully completed a minimum of **five** previous projects similar in size and scope to this Project; being familiar with special requirements indicated; and having complied with requirements of authorities having jurisdiction.
- 1.4 DELEGATED-DESIGN SERVICES
- A. Performance and Design Criteria: Where professional design services or certifications by a design professional are specifically required of Contractor by the Contract Documents, provide products and systems complying with specific performance and design criteria indicated.

1. If criteria indicated are not sufficient to perform services or certification required, submit a written request for additional information to Architect.

#### 1.5 CONFLICTING REQUIREMENTS

- A. General: If compliance with two or more standards is specified and the standards establish different or conflicting requirements for minimum quantities or quality levels, comply with the most stringent requirement. Refer uncertainties and requirements that are different, but apparently equal, to Architect for a decision before proceeding.
- B. Minimum Quantity or Quality Levels: The quantity or quality level shown or specified shall be the minimum provided or performed. The actual installation may comply exactly with the minimum quantity or quality specified, or it may exceed the minimum within reasonable limits. To comply with these requirements, indicated numeric values are minimum or maximum, as appropriate, for the context of requirements. Refer uncertainties to Architect for a decision before proceeding.

#### 1.6 SUBMITTALS

- A. Qualification Data: For testing agencies specified in "Quality Assurance" Article to demonstrate their capabilities and experience. Include proof of qualifications in the form of a recent report on the inspection of the testing agency by a recognized authority.
- B. Schedule of Tests and Inspections: Prepare in tabular form and include the following:
  1. Specification Section number and title.
  2. Description of test and inspection.
  3. Identification of applicable standards.
  4. Identification of test and inspection methods.
  5. Number of tests and inspections required.
  6. Time schedule or time span for tests and inspections.
  7. Entity responsible for performing tests and inspections.
  8. Requirements for obtaining samples.
  9. Unique characteristics of each quality-control service.
- C. Reports: Prepare and submit certified written reports that include the following:
  1. Date of issue.
  2. Project title and number.
  3. Name, address, and telephone number of testing agency.
  4. Dates and locations of samples and tests or inspections.
  5. Names of individuals making tests and inspections.
  6. Description of the Work and test and inspection method.
  7. Identification of product and Specification Section.
  8. Complete test or inspection data.
  9. Test and inspection results and an interpretation of test results.
  10. Record of temperature and weather conditions at time of sample taking and testing and inspecting.
  11. Comments or professional opinion on whether tested or inspected Work complies with the Contract Document requirements.
  12. Name and signature of laboratory inspector.
  13. Recommendations on retesting and reinspecting.
- D. Permits, Licenses, and Certificates: For Owner's records, submit copies of permits, licenses, certifications, inspection reports, releases, jurisdictional settlements, notices, receipts for fee payments,

judgments, correspondence, records, and similar documents, established for compliance with standards and regulations bearing on performance of the Work.

- E. Delegated-Design Services Submittal: In addition to Shop Drawings, Product Data, and other required submittals, submit a statement signed and sealed by the responsible design professional, for each product and system specifically assigned to Contractor to be designed or certified by a design professional, indicating that the products and systems are in compliance with performance and design criteria indicated. Include list of codes, loads, and other factors used in performing these services.

#### 1.7 QUALITY ASSURANCE

- A. General: Qualifications paragraphs in this Article establish the minimum qualification levels required; individual Specification Sections specify additional requirements.
- B. Installer Qualifications: A firm or individual experienced in installing, erecting, or assembling work similar in material, design, and extent to that indicated for this Project, whose work has resulted in construction with a record of successful in-service performance.
- C. Manufacturer Qualifications: A firm experienced in manufacturing products or systems similar to those indicated for this Project and with a record of successful in-service performance, as well as sufficient production capacity to produce required units.
- D. Fabricator Qualifications: A firm experienced in producing products similar to those indicated for this Project and with a record of successful in-service performance, as well as sufficient production capacity to produce required units.
- E. Professional Engineer Qualifications: A professional engineer who is legally qualified to practice in jurisdiction where Project is located and who is experienced in providing engineering services of the kind indicated. Engineering services are defined as those performed for installations of the system, assembly, or products that are similar to those indicated for this Project in material, design, and extent.
- F. Specialists: Certain sections of the Specifications require that specific construction activities shall be performed by entities who are recognized experts in those operations. Specialists shall satisfy qualification requirements indicated and shall be engaged for the activities indicated.
  - 1. Requirement for specialists shall not supersede building codes and regulations governing the Work.
- G. Testing Agency Qualifications: An NRTL, an NVLAP, or an independent agency with the experience and capability to conduct testing and inspecting indicated, as documented according to ASTM E 548; and with additional qualifications specified in individual Sections; and where required by authorities having jurisdiction, that is acceptable to authorities.
  - 1. NRTL: A nationally recognized testing laboratory according to 29 CFR 1910.7.
  - 2. NVLAP: A testing agency accredited according to NIST's National Voluntary Laboratory Accreditation Program.
- H. Factory-Authorized Service Representative Qualifications: An authorized representative of manufacturer who is trained and approved by manufacturer to inspect installation of manufacturer's products that are similar in material, design, and extent to those indicated for this Project.
- I. Preconstruction Testing: Where testing agency is indicated to perform preconstruction testing for compliance with specified requirements for performance and test methods, comply with the following:

1. Contractor responsibilities include the following:
    - a. Provide test specimens representative of proposed products and construction.
    - b. Submit specimens in a timely manner with sufficient time for testing and analyzing results to prevent delaying the Work.
    - c. Provide sizes and configurations of test assemblies, mockups, and laboratory mockups to adequately demonstrate capability of products to comply with performance requirements.
    - d. Build site-assembled test assemblies and mockups using installers who will perform same tasks for Project.
    - e. Build laboratory mockups at testing facility using personnel, products, and methods of construction indicated for the completed Work.
    - f. When testing is complete, remove test specimens, assemblies, mockups, and laboratory mockups; do not reuse products on Project.
  2. Testing Agency Responsibilities: Submit a certified written report of each test, inspection, and similar quality-assurance service to Architect with copy to Contractor. Interpret tests and inspections and state in each report whether tested and inspected work complies with or deviates from the Contract Documents.
- J. Mockups: Before installing portions of the Work requiring mockups, build mockups for each form of construction and finish required to comply with the following requirements, using materials indicated for the completed Work:
1. Build mockups in location and of size indicated or, if not indicated, as directed by Architect.
  2. Notify Architect seven days in advance of dates and times when mockups will be constructed.
  3. Demonstrate the proposed range of aesthetic effects and workmanship.
  4. Obtain Architect's approval of mockups before starting work, fabrication, or construction.
    - a. Allow three days for initial review and each re-review of each mockup.
  5. Maintain mockups during construction in an undisturbed condition as a standard for judging the completed Work.
  6. Demolish and remove mockups when directed, unless otherwise indicated.
- K. Laboratory Mockups: Comply with requirements of preconstruction testing and those specified in individual Sections in Divisions 02 through 33.

## 1.8 QUALITY CONTROL

- A. Tests and inspections not explicitly assigned to Owner are Contractor's responsibility. Unless otherwise indicated, provide quality-control services specified and those required by authorities having jurisdiction. Perform quality-control services required of Contractor by authorities having jurisdiction, whether specified or not.
1. Contractor shall engage a qualified testing agency to perform these quality-control services.
  2. Notify testing agencies at least 24 hours in advance of time when Work that requires testing or inspecting will be performed.
  3. Where quality-control services are indicated, submit a certified written report, in duplicate, of each quality-control service.
  4. Testing and inspecting requested by Contractor and not required by the Contract Documents are Contractor's responsibility.
  5. Submit additional copies of each written report directly to authorities having jurisdiction, when they so direct.



- B. **Manufacturer's Field Services:** Where indicated, engage a factory-authorized service representative to inspect field-assembled components and equipment installation, including service connections. Report results in writing as specified in Division 01 Section "Submittal Procedures."
- C. **Retesting/Reinspecting:** Regardless of whether original tests or inspections were Contractor's responsibility, provide quality-control services, including retesting and reinspecting, for construction that replaced Work that failed to comply with the Contract Documents.
- D. **Testing Agency Responsibilities:** Cooperate with Architect and Contractor in performance of duties. Provide qualified personnel to perform required tests and inspections.
  - 1. Notify Architect and Contractor promptly of irregularities or deficiencies observed in the Work during performance of its services.
  - 2. Determine the location from which test samples will be taken and which tests are conducted.
  - 3. Conduct and interpret tests and inspections and state in each report whether tested and inspected work complies with or deviates from requirements.
  - 4. Submit a certified written report, in duplicate, of each test, inspection, and similar quality-control service through Contractor.
  - 5. Do not release, revoke, alter, or increase the Contract Document requirements or approve or accept any portion of the Work.
  - 6. Do not perform any duties of Contractor.
- E. **Associated Services:** Cooperate with agencies performing required tests, inspections, and similar quality-control services, and provide reasonable auxiliary services as requested. Notify agency sufficiently in advance of operations to permit assignment of personnel. Provide the following:
  - 1. Access to the Work.
  - 2. Incidental labor and facilities necessary to facilitate tests and inspections.
  - 3. Adequate quantities of representative samples of materials that require testing and inspecting. Assist agency in obtaining samples.
  - 4. Facilities for storage and field curing of test samples.
  - 5. Delivery of samples to testing agencies.
  - 6. Preliminary design mix proposed for use for material mixes that require control by testing agency.
  - 7. Security and protection for samples and for testing and inspecting equipment at Project site.
- F. **Coordination:** Coordinate sequence of activities to accommodate required quality-assurance and -control services with a minimum of delay and to avoid necessity of removing and replacing construction to accommodate testing and inspecting.
  - 1. Schedule times for tests, inspections, obtaining samples, and similar activities.
- G. **Schedule of Tests and Inspections:** Prepare a schedule of tests, inspections, and similar quality-control services required by the Contract Documents.
  - 1. **Distribution:** Distribute schedule to Owner, Architect, testing agencies, and each party involved in performance of portions of the Work where tests and inspections are required.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 TEST AND INSPECTION LOG

- A. Prepare a record of tests and inspections. Include the following:
  - 1. Date test or inspection was conducted.
  - 2. Description of the Work tested or inspected.
  - 3. Date test or inspection results were transmitted to Architect.
  - 4. Identification of testing agency or special inspector conducting test or inspection.
- B. Maintain log at Project site. Post changes and modifications as they occur. Provide access to test and inspection log for Architect's reference during normal working hours.

3.2 REPAIR AND PROTECTION

- A. General: On completion of testing, inspecting, sample taking, and similar services, repair damaged construction and restore substrates and finishes.
  - 1. Provide materials and comply with installation requirements specified in other Specification Sections. Restore patched areas and extend restoration into adjoining areas with durable seams that are as invisible as possible.
  - 2. Comply with the Contract Document requirements for Division 01 Section "Execution."
- B. Protect construction exposed by or for quality-control service activities.
- C. Repair and protection are Contractor's responsibility, regardless of the assignment of responsibility for quality-control services.

END OF SECTION 014000

SECTION 014200 - REFERENCES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 DEFINITIONS

- A. General: Basic Contract definitions are included in the Conditions of the Contract.
- B. "Approved": When used to convey Architect's action on Contractor's submittals, applications, and requests, "approved" is limited to Architect's duties and responsibilities as stated in the Conditions of the Contract.
- C. "Directed": A command or instruction by Architect. Other terms including "requested," "authorized," "selected," "approved," "required," and "permitted" have the same meaning as "directed."
- D. "Indicated": Requirements expressed by graphic representations or in written form on Drawings, in Specifications, and in other Contract Documents. Other terms including "shown," "noted," "scheduled," and "specified" have the same meaning as "indicated."
- E. "Regulations": Laws, ordinances, statutes, and lawful orders issued by authorities having jurisdiction, and rules, conventions, and agreements within the construction industry that control performance of the Work.
- F. "Furnish": Supply and deliver to Project site, ready for unloading, unpacking, assembly, installation, and similar operations.
- G. "Install": Operations at Project site including unloading, temporarily storing, unpacking, assembling, erecting, placing, anchoring, applying, working to dimension, finishing, curing, protecting, cleaning, and similar operations.
- H. "Provide": Furnish and install, complete and ready for the intended use.
- I. "Project Site": Space available for performing construction activities. The extent of Project site is shown on Drawings and may or may not be identical with the description of the land on which Project is to be built.

1.3 INDUSTRY STANDARDS

- A. Applicability of Standards: Unless the Contract Documents include more stringent requirements, applicable construction industry standards have the same force and effect as if bound or copied directly into the Contract Documents to the extent referenced. Such standards are made a part of the Contract Documents by reference.
- B. Publication Dates: Comply with standards in effect as of date of the Contract Documents, unless otherwise indicated.

- C. Copies of Standards: Each entity engaged in construction on Project should be familiar with industry standards applicable to its construction activity. Copies of applicable standards are not bound with the Contract Documents.
1. Where copies of standards are needed to perform a required construction activity, obtain copies directly from publication source.
- D. Abbreviations and Acronyms for Standards and Regulations: Where abbreviations and acronyms are used in Specifications or other Contract Documents, they shall mean the recognized name of the standards and regulations in the following list. Names, telephone numbers, and Web-site addresses are subject to change and are believed to be accurate and up-to-date as of the date of the Contract Documents.

ADAAG	Americans with Disabilities Act (ADA) Accessibility Guidelines for Buildings and Facilities Available from Access Board <a href="http://www.access-board.gov">www.access-board.gov</a>	(800) 872-2253 (202) 272-0080
CFR	Code of Federal Regulations Available from Government Printing Office <a href="http://www.access.gpo.gov/nara/cfr">www.access.gpo.gov/nara/cfr</a>	(888) 293-6498 (202) 512-1530
CRD	Handbook for Concrete and Cement Available from Army Corps of Engineers Waterways Experiment Station <a href="http://www.wes.army.mil">www.wes.army.mil</a>	(601) 634-2355
DOD	Department of Defense Military Specifications and Standards Available from Department of Defense Single Stock Point <a href="http://www.dodssp.daps.mil">www.dodssp.daps.mil</a>	(215) 697-6257
DSCC	Defense Supply Center Columbus (See FS)	
FED-STD	Federal Standard (See FS)	
FS	Federal Specification Available from Department of Defense Single Stock Point <a href="http://www.dodssp.daps.mil">www.dodssp.daps.mil</a>	(215) 697-6257
	Available from General Services Administration <a href="http://www.apps.fss.gsa.gov/pub/fedspecs/index.cfm">www.apps.fss.gsa.gov/pub/fedspecs/index.cfm</a>	(202) 619-8925
	Available from National Institute of Building Sciences <a href="http://www.nibs.org">www.nibs.org</a>	(202) 289-7800
FTMS	Federal Test Method Standard (See FS)	
MIL	See MILSPEC	
MS MIL	See MILSPEC	

MILSPEC	Military Specification and Standards Available from Department of Defense Single Stock Point www.dodssp.daps.mil	(215) 697-6257
UFAS	Uniform Federal Accessibility Standards Available from Access Board www.access-board.gov	(800) 872-2253 (202) 272-5434

#### 1.4 ABBREVIATIONS AND ACRONYMS

- A. Industry Organizations: Where abbreviations and acronyms are used in Specifications or other Contract Documents, they shall mean the recognized name of the entities indicated in Gale Research's "Encyclopedia of Associations" or in Columbia Books' "National Trade & Professional Associations of the U.S."
- B. Industry Organizations: Where abbreviations and acronyms are used in Specifications or other Contract Documents, they shall mean the recognized name of the entities in the following list. Names, telephone numbers, and Web-site addresses are subject to change and are believed to be accurate and up-to-date as of the date of the Contract Documents.

AA	Aluminum Association, Inc. (The) www.aluminum.org	(202) 862-5100
AAADM	American Association of Automatic Door Manufacturers www.aaadm.com	(216) 241-7333
AABC	Associated Air Balance Council www.aabchq.com	(202) 737-0202
AAMA	American Architectural Manufacturers Association www.aamanet.org	(847) 303-5664
AASHTO	American Association of State Highway and Transportation Officials www.aashto.org	(202) 624-5800
AATCC	American Association of Textile Chemists and Colorists (The) www.aatcc.org	(919) 549-8141
ABMA	American Bearing Manufacturers Association www.abma-dc.org	(202) 367-1155
ACI	American Concrete Institute/ACI International www.aci-int.org	(248) 848-3700
ACPA	American Concrete Pipe Association www.concrete-pipe.org	(972) 506-7216
AEIC	Association of Edison Illuminating Companies, Inc. (The) www.aeic.org	(205) 257-2530

AFPA	American Forest & Paper Association (See AF&PA)	
AF&PA	American Forest & Paper Association www.afandpa.org	(800) 878-8878 (202) 463-2700
AGA	American Gas Association www.aga.org	(202) 824-7000
AGC	Associated General Contractors of America (The) www.agc.org	(703) 548-3118
AHA	American Hardboard Association www.hardboard.org	(847) 934-8800
AHAM	Association of Home Appliance Manufacturers www.aham.org	(202) 872-5955
AI	Asphalt Institute www.asphaltinstitute.org	(859) 288-4960
AIA	American Institute of Architects (The) www.aia.org	(800) 242-3837 (202) 626-7300
AISC	American Institute of Steel Construction www.aisc.org	(800) 644-2400 (312) 670-2400
AISI	American Iron and Steel Institute www.steel.org	(202) 452-7100
AITC	American Institute of Timber Construction www.aitc-glulam.org	(303) 792-9559
ALCA	Associated Landscape Contractors of America www.alca.org	(800) 395-2522 (703) 736-9666
ALSC	American Lumber Standard Committee, Incorporated www.alsc.org	(301) 972-1700
AMCA	Air Movement and Control Association International, Inc. www.amca.org	(847) 394-0150
ANSI	American National Standards Institute www.ansi.org	(202) 293-8020
AOSA	Association of Official Seed Analysts www.aosaseed.com	(505) 522-1437
APA	APA - The Engineered Wood Association www.apawood.org	(253) 565-6600
APA	Architectural Precast Association www.archprecast.org	(239) 454-6989
API	American Petroleum Institute	(202) 682-8000

	<a href="http://www.api.org">www.api.org</a>	
ARI	Air-Conditioning & Refrigeration Institute <a href="http://www.ari.org">www.ari.org</a>	(703) 524-8800
ARMA	Asphalt Roofing Manufacturers Association <a href="http://www.asphaltroofing.org">www.asphaltroofing.org</a>	(202) 207-0917
ASCA	Architectural Spray Coaters Association <a href="http://www.ascassoc.com">www.ascassoc.com</a>	(856) 848-6120
ASCE	American Society of Civil Engineers <a href="http://www.asce.org">www.asce.org</a>	(800) 548-2723 (703) 295-6300
ASHRAE	American Society of Heating, Refrigerating and Air-Conditioning Engineers <a href="http://www.ashrae.org">www.ashrae.org</a>	(800) 527-4723 (404) 636-8400
ASME	ASME International (The American Society of Mechanical Engineers International) <a href="http://www.asme.org">www.asme.org</a>	(800) 843-2763 (212) 591-7722
ASSE	American Society of Sanitary Engineering <a href="http://www.asse-plumbing.org">www.asse-plumbing.org</a>	(440) 835-3040
ASTM	ASTM International (American Society for Testing and Materials International) <a href="http://www.astm.org">www.astm.org</a>	(610) 832-9585
AWCI	AWCI International (Association of the Wall and Ceiling Industries International) <a href="http://www.awci.org">www.awci.org</a>	(703) 534-8300
AWCMA	American Window Covering Manufacturers Association (See WCSC)	
AWI	Architectural Woodwork Institute <a href="http://www.awinet.org">www.awinet.org</a>	(800) 449-8811 (703) 733-0600
AWPA	American Wood-Preservers' Association <a href="http://www.awpa.com">www.awpa.com</a>	(817) 326-6300
AWS	American Welding Society <a href="http://www.aws.org">www.aws.org</a>	(800) 443-9353 (305) 443-9353
AWWA	American Water Works Association <a href="http://www.awwa.org">www.awwa.org</a>	(800) 926-7337 (303) 794-7711
BHMA	Builders Hardware Manufacturers Association <a href="http://www.buildershardware.com">www.buildershardware.com</a>	(212) 297-2122
BIA	Brick Industry Association (The) <a href="http://www.bia.org">www.bia.org</a>	(703) 620-0010
BIFMA	BIFMA International	(616) 285-3963

	(Business and Institutional Furniture Manufacturer's Association International) www.bifma.com	
CCC	Carpet Cushion Council www.carpetcushion.org	(203) 637-1312
CCFSS	Center for Cold-Formed Steel Structures www.umn.edu/~ccfss	(573) 341-4471
CDA	Copper Development Association Inc. www.copper.org	(800) 232-3282 (212) 251-7200
CEA	Canadian Electricity Association www.canelect.ca	(514) 866-6121
CFFA	Chemical Fabrics & Film Association, Inc. www.chemicalfabricsandfilm.com	(216) 241-7333
CGA	Compressed Gas Association www.cganet.com	(703) 788-2700
CGSB	Canadian General Standards Board www.pwgsc.gc.ca/cgsb	(819) 956-0425
CIMA	Cellulose Insulation Manufacturers Association www.cellulose.org	(888) 881-2462 (937) 222-2462
CISCA	Ceilings & Interior Systems Construction Association www.cisca.org	(630) 584-1919
CISPI	Cast Iron Soil Pipe Institute www.cispi.org	(423) 892-0137
CLFMI	Chain Link Fence Manufacturers Institute www.chainlinkinfo.org	(301) 596-2583
CPPA	Corrugated Polyethylene Pipe Association www.cppa-info.org	(800) 510-2772 (202) 462-9607
CRI	Carpet & Rug Institute (The) www.carpet-rug.com	(800) 882-8846 (706) 278-3176
CRSI	Concrete Reinforcing Steel Institute www.crsi.org	(847) 517-1200
CSA	CSA International (Formerly: IAS - International Approval Services) www.csa-international.org	(800) 463-6727 (416) 747-4000
CSI	Construction Specifications Institute (The) www.csinet.org	(800) 689-2900 (703) 684-0300
CSSB	Cedar Shake & Shingle Bureau www.cedarbureau.org	(604) 820-7700



CTI	Cooling Technology Institute (Formerly: Cooling Tower Institute) www.cti.org	(281) 583-4087
DHI	Door and Hardware Institute www.dhi.org	(703) 222-2010
EIA	Electronic Industries Alliance www.eia.org	(703) 907-7500
EIMA	EIFS Industry Members Association www.eima.com	(800) 294-3462 (770) 968-7945
EJCDC	Engineers Joint Contract Documents Committee www.asce.org	(800) 548-2723 (703) 295-6300
EJMA	Expansion Joint Manufacturers Association, Inc. www.ejma.org	(914) 332-0040
ESD	ESD Association	(315) 339-6937
FCI	Fluid Controls Institute www.fluidcontrolsintitute.org	(216) 241-7333
FGMA	Flat Glass Marketing Association (See GANA)	
FM	Factory Mutual System (See FMG)	
FMG	FM Global (Formerly: FM - Factory Mutual System) www.fmglobal.com	(401) 275-3000
FRSA	Florida Roofing, Sheet Metal & Air Conditioning Contractors Association, Inc. www.floridarroof.com	(407) 671-3772
FSA	Fluid Sealing Association www.fluidsealing.com	(610) 971-4850
FSC	Forest Stewardship Council www.fscoax.org	52 951 5146905
GA	Gypsum Association www.gypsum.org	(202) 289-5440
GANA	Glass Association of North America (Formerly: FGMA - Flat Glass Marketing Association) www.glasswebsite.com	(785) 271-0208
GRI	Geosynthetic Research Institute www.drexel.edu/gri	(215) 895-2343

GTA	Glass Tempering Division of Glass Association of North America (See GANA)	
HI	Hydraulic Institute www.pumps.org	(888) 786-7744 (973) 267-9700
HI	Hydronics Institute www.gamanet.org	(908) 464-8200
HMMA	Hollow Metal Manufacturers Association (See NAAMM)	
HPVA	Hardwood Plywood & Veneer Association www.hpva.org	(703) 435-2900
HPW	H. P. White Laboratory, Inc. www.hpwhite.com	(410) 838-6550
IAS	International Approval Services (See CSA)	
ICEA	Insulated Cable Engineers Association, Inc. www.icea.net	(770) 830-0369
ICRI	International Concrete Repair Institute, Inc. www.icri.org	(847) 827-0830
IEC	International Electrotechnical Commission www.iec.ch	41 22 919 02 11
IEEE	Institute of Electrical and Electronics Engineers, Inc. (The) www.ieee.org	(212) 419-7900
IESNA	Illuminating Engineering Society of North America www.iesna.org	(212) 248-5000
IGCC	Insulating Glass Certification Council www.igcc.org	(315) 646-2234
IGMA	Insulating Glass Manufacturers Alliance (The) www.igmaonline.org	(613) 233-1510
ILI	Indiana Limestone Institute of America, Inc. www.iliai.com	(812) 275-4426
ISSFA	International Solid Surface Fabricators Association www.issfa.net	(702) 567-8150
ITS	Intertek Testing Services www.itsglobal.com	(800) 345-3851 (607) 753-6711
IWS	Insect Screening Weavers Association (Now defunct)	

KCMA	Kitchen Cabinet Manufacturers Association www.kcma.org	(703) 264-1690
LMA	Laminating Materials Association www.lma.org	(201) 664-2700
LPI	Lightning Protection Institute www.lightning.org	(800) 488-6864 (847) 577-7200
LSGA	Laminated Safety Glass Association (See GANA)	
MBMA	Metal Building Manufacturers Association www.mbma.com	(216) 241-7333
MFMA	Maple Flooring Manufacturers Association www.maplefloor.org	(847) 480-9138
MFMA	Metal Framing Manufacturers Association www.metalframingmfg.org	(312) 644-6610
MH	Material Handling Industry of America (See MHIA)	
MHIA	Material Handling Industry of America www.mhia.org	(800) 345-1815 (704) 676-1190
MIA	Marble Institute of America www.marble-institute.com	(440) 250-9222
MPI	Master Painters Institute www.paintinfo.com	(888) 674-8937
MSS	Manufacturers Standardization Society of The Valve and Fittings Industry Inc. www.mss-hq.com	(703) 281-6613
NAAMM	National Association of Architectural Metal Manufacturers www.naamm.org	(312) 332-0405
NAAMM	North American Association of Mirror Manufacturers (See GANA)	
NACE	NACE International (National Association of Corrosion Engineers International) www.nace.org	(281) 228-6200
NADCA	National Air Duct Cleaners Association www.nadca.com	(202) 737-2926
NAIMA	North American Insulation Manufacturers Association (The) www.naima.org	(703) 684-0084
NAMI	National Accreditation and Management Institute, Inc.	(304) 258-5100

NBGQA	National Building Granite Quarries Association, Inc. www.nbgqa.com	(800) 557-2848
NCMA	National Concrete Masonry Association www.ncma.org	(703) 713-1900
NCPI	National Clay Pipe Institute www.ncpi.org	(262) 248-9094
NCTA	National Cable & Telecommunications Association www.ncta.com	(202) 775-3550
NEBB	National Environmental Balancing Bureau www.nebb.org	(301) 977-3698
NECA	National Electrical Contractors Association www.necanet.org	(301) 657-3110
NeLMA	Northeastern Lumber Manufacturers' Association www.nelma.org	(207) 829-6901
NEMA	National Electrical Manufacturers Association www.nema.org	(703) 841-3200
NETA	InterNational Electrical Testing Association www.netaworld.org	(303) 697-8441
NFPA	NFPA International (National Fire Protection Association International) www.nfpa.org	(800) 344-3555 (617) 770-3000
NFRC	National Fenestration Rating Council www.nfrc.org	(301) 589-1776
NGA	National Glass Association www.glass.org	(703) 442-4890
NHLA	National Hardwood Lumber Association www.natlhardwood.org	(800) 933-0318 (901) 377-1818
NLGA	National Lumber Grades Authority www.nlga.org	(604) 524-2393
NOFMA	National Oak Flooring Manufacturers Association www.nofma.org	(901) 526-5016
NRCA	National Roofing Contractors Association www.nrca.net	(800) 323-9545 (847) 299-9070
NRMCA	National Ready Mixed Concrete Association www.nrmca.org	(888) 846-7622 (301) 587-1400
NSF	NSF International (National Sanitation Foundation International) www.nsf.org	(800) 673-6275 (734) 769-8010

NSSGA	National Stone, Sand & Gravel Association www.nssga.org	(800) 342-1415 (703) 525-8788
NTMA	National Terrazzo and Mosaic Association, Inc. www.ntma.com	(800) 323-9736 (703) 779-1022
NTRMA	National Tile Roofing Manufacturers Association (See RTI)	
NWWDA	National Wood Window and Door Association (See WDMA)	
OPL	Omega Point Laboratories, Inc. www.opl.com	(800) 966-5253 (210) 635-8100
PCI	Precast/Prestressed Concrete Institute www.pci.org	(312) 786-0300
PDCA	Painting and Decorating Contractors of America www.pdca.com	(800) 332-7322 (703) 359-0826
PDI	Plumbing & Drainage Institute www.pdionline.org	(800) 589-8956 (508) 230-3516
PGI	PVC Geomembrane Institute www.pgi-tp.ce.uiuc.edu	(217) 333-3929
RCSC	Research Council on Structural Connections www.boltcouncil.org	(800) 644-2400 (312) 670-2400
RFCI	Resilient Floor Covering Institute  www.rfci.com	Contact by mail only
RIS	Redwood Inspection Service www.calredwood.org	(888) 225-7339 (415) 382-0662
RTI	Roof Tile Institute (Formerly: NTRMA - National Tile Roofing Manufacturers Association) www.ntrma.org	(541) 689-0366
SAE	SAE International www.sae.org	(724) 776-4841
SDI	Steel Deck Institute www.sdi.org	(847) 462-1930
SDI	Steel Door Institute www.steeldoor.org	(440) 899-0010
SEFA	Scientific Equipment and Furniture Association www.sefalabfurn.com	(516) 294-5424
SGCC	Safety Glazing Certification Council	(315) 646-2234

	<a href="http://www.sgcc.org">www.sgcc.org</a>	
SIA	Security Industry Association <a href="http://www.siaonline.org">www.siaonline.org</a>	(703) 683-2075
SIGMA	Sealed Insulating Glass Manufacturers Association (See IGMA)	
SJI	Steel Joist Institute <a href="http://www.steeljoist.org">www.steeljoist.org</a>	(843) 626-1995
SMA	Screen Manufacturers Association	(561) 533-0991
SMACNA	Sheet Metal and Air Conditioning Contractors' National Association <a href="http://www.smacna.org">www.smacna.org</a>	(703) 803-2980
SMPTE	Society of Motion Picture and Television Engineers <a href="http://www.smpte.org">www.smpte.org</a>	(914) 761-1100
SPFA	Spray Polyurethane Foam Alliance (Formerly: SPI/SPFD - The Society of the Plastics Industry, Inc.; Spray Polyurethane Foam Division) <a href="http://www.sprayfoam.org">www.sprayfoam.org</a>	(800) 523-6154
SPIB	Southern Pine Inspection Bureau (The) <a href="http://www.spib.org">www.spib.org</a>	(850) 434-2611
SPI/SPFD	Society of the Plastics Industry, Inc. (The) Spray Polyurethane Foam Division (See SPFA)	
SPRI	SPRI (Single Ply Roofing Institute) <a href="http://www.spri.org">www.spri.org</a>	(781) 647-7026
SSINA	Specialty Steel Industry of North America <a href="http://www.ssina.com">www.ssina.com</a>	(800) 982-0355 (202) 342-8630
SSPC	SSPC: The Society for Protective Coatings <a href="http://www.sspc.org">www.sspc.org</a>	(877) 281-7772 (412) 281-2331
STI	Steel Tank Institute <a href="http://www.steeltank.com">www.steeltank.com</a>	(847) 438-8265
SWI	Steel Window Institute <a href="http://www.steelwindows.com">www.steelwindows.com</a>	(216) 241-7333
SWRI	Sealant, Waterproofing, & Restoration Institute <a href="http://www.swrionline.org">www.swrionline.org</a>	(816) 472-7974
TCA	Tile Council of America, Inc. <a href="http://www.tileusa.com">www.tileusa.com</a>	(864) 646-8453
TIA/EIA	Telecommunications Industry Association/Electronic	(703) 907-7700

	Industries Alliance www.tiaonline.org	
TMS	The Masonry Society www.masonrysociety.org	(303) 939-9700
TPI	Truss Plate Institute, Inc. www.tpinst.org	(608) 833-5900
TPI	Turfgrass Producers International www.turfgrassod.org	(800) 405-8873 (847) 705-9898
UL	Underwriters Laboratories Inc. www.ul.com	(800) 704-4050 (847) 272-8800
UNI	Uni-Bell PVC Pipe Association www.uni-bell.org	(972) 243-3902
USITT	United States Institute for Theatre Technology, Inc. www.usitt.org	(800) 938-7488 (315) 463-6463
WASTEC	Waste Equipment Technology Association www.wastec.org	(800) 424-2869 (202) 244-4700
WCLIB	West Coast Lumber Inspection Bureau www.wclib.org	(800) 283-1486 (503) 639-0651
WCMA	Window Covering Manufacturers Association (See WCSC)	
WCSC	Window Covering Safety Council (Formerly: WCMA - Window Covering Manufacturers Association) www.windowcoverings.org	(800) 506-4636 (212) 661-4261
WDMA	Window & Door Manufacturers Association (Formerly: NWWDA - National Wood Window and Door Association) www.wdma.com	(800) 223-2301 (847) 299-5200
WIC	Woodwork Institute of California www.wicnet.org	(916) 372-9943
WMMPA	Wood Moulding & Millwork Producers Association www.wmmpa.com	(800) 550-7889 (530) 661-9591
WSRCA	Western States Roofing Contractors Association www.wsrca.com	(800) 725-0333 (650) 548-0112
WWPA	Western Wood Products Association www.wwpa.org	(503) 224-3930

C. Code Agencies: Where abbreviations and acronyms are used in Specifications or other Contract Documents, they shall mean the recognized name of the entities in the following list. Names, telephone

numbers, and Web-site addresses are subject to change and are believed to be accurate and up-to-date as of the date of the Contract Documents.

BOCA	BOCA International, Inc. www.bocai.org	(708) 799-2300
CABO	Council of American Building Officials (See ICC)	
IAPMO	International Association of Plumbing and Mechanical Officials (The) www.iapmo.org	(909) 595-8449
ICBO	International Conference of Building Officials www.icbo.org	(800) 284-4406 (562) 699-0541
ICBO ES	ICBO Evaluation Service, Inc. www.icbo.org/ICBO_ES/	(800) 423-6587
ICC	International Code Council, Inc. (Formerly: CABO - Council of American Building Officials) www.intlcode.org	(703) 931-4533
SBCCI	Southern Building Code Congress International, Inc. www.sbcci.org	(205) 591-1853

D. Federal Government Agencies: Where abbreviations and acronyms are used in Specifications or other Contract Documents, they shall mean the recognized name of the entities in the following list. Names, telephone numbers, and Web-site addresses are subject to change and are believed to be accurate and up-to-date as of the date of the Contract Documents.

CE	Army Corps of Engineers www.usace.army.mil	
CPSC	Consumer Product Safety Commission www.cpsc.gov	(800) 638-2772 (301) 504-0990
DOC	Department of Commerce www.doc.gov	(202) 482-2000
EPA	Environmental Protection Agency www.epa.gov	(202) 260-2090
FAA	Federal Aviation Administration www.faa.gov	(202) 366-4000
FDA	Food and Drug Administration www.fda.gov	(888) 463-6332
GSA	General Services Administration www.gsa.gov	(202) 708-5082



HUD	Department of Housing and Urban Development www.hud.gov	(202) 708-1112
LBL	Lawrence Berkeley Laboratory (See LBNL)	
LBNL	Lawrence Berkeley National Laboratory www.lbl.gov	(510) 486-5605
NCHRP	National Cooperative Highway Research Program (See TRB)	
NIST	National Institute of Standards and Technology www.nist.gov	(301) 975-6478
OSHA	Occupational Safety & Health Administration www.osha.gov	(800) 321-6742 (202) 693-1999
PBS	Public Building Service (See GSA)	
RUS	Rural Utilities Service (See USDA)	(202) 720-9540
SD	State Department www.state.gov	(202) 647-4000
TRB	Transportation Research Board www.nas.edu/trb	(202) 334-2934
USDA	Department of Agriculture www.usda.gov	(202) 720-2791
USPS	Postal Service www.usps.com	(202) 268-2000

- E. State Government Agencies: Where abbreviations and acronyms are used in Specifications or other Contract Documents, they shall mean the recognized name of the entities in the following list. Names, telephone numbers, and Web-site addresses are subject to change and are believed to be accurate and up-to-date as of the date of the Contract Documents.

CAPUC (See CPUC)

CBHF	State of California, Department of Consumer Affairs Bureau of Home Furnishings and Thermal Insulation www.dca.ca.gov/bhfti	(800) 952-5210 (916) 574-2041
CPUC	California Public Utilities Commission www.cpuc.ca.gov	(415) 703-2782

TFS Texas Forest Service  
Forest Products Laboratory  
[www.txforestsservice.tamu.edu](http://www.txforestsservice.tamu.edu)

(936) 639-8180

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 014200

SECTION 015000 – TEMPORARY FACILITIES AND CONTROLS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. This Section specifies requirements for temporary services and facilities, including utilities, construction and support facilities, security and protection.
- B. Temporary utilities required include but are not limited to:
  - 1. Water service and distribution.
  - 2. Temporary electric power and light.
  - 3. Temporary heat.
- C. Temporary construction and support facilities to be provided by the General Contractor include, but are not limited to:
  - 1. Field offices and storage sheds as needed.
  - 2. Temporary enclosures.
  - 3. Waste disposal services.
  - 4. Construction aids and miscellaneous services and facilities.
- D. Security and protection facilities to be provided by the General Contractor include, but are not limited to:
  - 1. Barricades, warning signs, lights.
  - 2. Enclosure to separate work area from remainder of fire station..

1.3 SUBMITTALS

- A. Temporary Utilities: Submit reports of tests, inspections, meter readings and similar procedures performed on temporary utilities.

1.4 QUALITY ASSURANCE

- A. Regulations: Comply with industry standards and applicable laws and regulations if authorities having jurisdiction, including but not limited to:
  - 1. Building Code requirements.
  - 2. Health and safety regulations.
  - 3. Utility company regulations.
  - 4. Police, Fire Department and Rescue Squad rules.
  - 5. Environmental protection regulations.

- B. Standards: Comply with NFPA Code 241, "Building Construction and Demolition Operations", ANSI-A10 Series standards for "Safety Requirements for Construction and Demolition", and NECA Electrical Design Library "Temporary Electrical Facilities."
  - 1. Refer to "Guidelines for Bid Conditions for Temporary Job Utilities and Services", prepared jointly by AGC and ASC, for industry recommendations.
  - 2. Electrical Service: Comply with NEMA, NECA and UL standards and regulations for temporary electric service. Install service in compliance with National Electric Code (NFPA 70).
- C. Inspections: Arrange for authorities having jurisdiction to inspect and test each temporary utility before use. Obtain required certifications and permits.

## 1.5 PROJECT CONDITIONS

- A. Temporary Utilities: Prepare a schedule indicating dates for implementation and termination of each temporary utility or negotiate terms of use of existing utilities with Owner if available. At the earliest feasible time, when acceptable to the Owner, change over from use of temporary service to use of the permanent service.
- B. Conditions of Use: Keep temporary services and facilities clean and neat in appearance. Operate in a safe and efficient manner. Take necessary fire prevention measures. Do not overload facilities or permit them to interfere with progress. Do not allow hazardous dangerous or unsanitary conditions, or public nuisances to develop or persist on the site.

## PART 2 - PRODUCTS

### 2.1 MATERIALS

- A. General: Provide new materials; if acceptable to the Architect, undamaged previously used materials in serviceable condition may be used. Provide materials suitable for the use intended.
- B. Lumber and Plywood: Comply with requirements in Division 06 Section "Rough Carpentry."
  - 1. For fences and vision barriers, provide exterior type, minimum 3/8" thick plywood.
  - 2. For safety barriers, sidewalk bridges and similar uses, provide minimum 5/8" thick exterior plywood.
- C. Tarpaulins: Provide waterproof, fire-resistant, UL labeled tarpaulins with flame-spread rating of 15 or less. For temporary enclosures provide translucent nylon reinforced laminated polyethylene or polyvinyl chloride fire retardant tarpaulins.
- D. Water: Provide potable water approved by local health authorities.
- E. Open-Mesh Fencing: Provide 11-gage, galvanized 2-inch, chain link fabric fencing 6-feet high with galvanized steel pipe posts, 1-1/2" I.D. for line posts and 2-1/2" I.D. for corner posts.
- F. Construction Sign: Provide 4' x 8' sign on approved backup material, mounted to three 4" galvanized steel pipe posts. Sign graphic to be provided by Owner.

## 2.2 EQUIPMENT

- A. General: Provide new equipment; if acceptable to the Architect, undamaged, previously used equipment in serviceable condition may be used. Provide equipment suitable for use intended.
- B. Water Hoses: Provide 3/4" heavy-duty, abrasion-resistant, flexible rubber hoses 100 ft. long, with pressure rating greater than the maximum pressure of the water distribution system; provide adjustable shut-off nozzles at hose discharge.
- C. Electrical Outlets: Provide properly configured NEMA polarized outlets to prevent insertion of 110-120 volt plugs into higher voltage outlets. Provide receptacle outlets equipped with ground-fault circuit interrupters, reset button and pilot light, for connection of power tools and equipment.
- D. Electrical Power Cords: Provide grounded extension cords; use "hard-service" cords where exposed to abrasion and traffic. Provide waterproof connectors to connect separate lengths of electric cords, if single lengths will not reach areas where construction activities are in progress.
- E. Lamps and Light Fixtures: Provide general service incandescent lamps of wattage required for adequate illumination. Provide guard cages or tempered glass enclosures, where exposed to breakage. Provide exterior fixtures where exposed to moisture.
- F. Temporary Toilet Units: Provide self-contained single-occupant toilet units of the chemical, aerated recirculation, or combustion type, properly vented and fully enclosed with a glass fiber reinforced polyester shell or similar nonabsorbent material.
- G. First Aid Supplies: Comply with governing regulations.
- H. Fire Extinguishers: Provide hand-carried, portable UL-rated, class "A" fire extinguishers for temporary offices and similar spaces. In other locations provide hand-carried, portable, UL-rated, class "ABC" dry chemical extinguishers, or a combination of extinguishers of NFPA recommended classes for the exposures.
  - 1. Comply with NFPA 10 and 241 for classification, extinguishing agent and size required by location and class of fire exposure

## PART 3 - EXECUTION

### 3.1 INSTALLATION

- A. Use qualified personnel for installation of temporary facilities. Locate facilities where they will serve the Project adequately and result in minimum interference with performance of the Work. Relocate and modify facilities as required.
- B. Provide each facility ready for use when needed to avoid delay. Maintain and modify as required. Do not remove until facilities are no longer needed or are replaced by authorized use of completed permanent facilities.

### 3.2 TEMPORARY UTILITY INSTALLATION

- A. General: Engage the appropriate local utility company to install temporary service the general contractor requires to perform work. Where the company provides only part of the service, provide the remainder with matching, compatible materials and equipment; comply with the company's recommendations.
1. Arrange with the company and existing users for a time when service can be interrupted, where necessary, to make connections for temporary services.
  2. Provide adequate capacity at each stage of construction. Prior to temporary utility availability, provide trucked-in services.
  3. Obtain easements to bring temporary utilities to the site, where the Owner's easements cannot be used for that purpose.
  4. Install and operate temporary lighting that will fulfill security and protection requirements, without operating the entire system, and will provide adequate illumination for construction operations and traffic conditions.
- B. Sewers and Drainage: If sewers are available, provide temporary connections to remove effluent that can be discharged lawfully. If sewers are not available or cannot be used, provide drainage ditches, dry wells, stabilization ponds and similar facilities. If neither sewers nor drainage facilities can be lawfully used for discharge of effluent, provide containers to remove and dispose of effluent off the site in a lawful manner.
1. Filter out excessive amounts of soil, construction debris, chemicals, oils and similar contaminants that might clog sewers or pollute waterways before discharge.
  2. Connect temporary sewers to the municipal system as directed by the sewer department officials.
  3. Maintain temporary sewers and drainage facilities in a clean, sanitary condition. Following heavy use, restore normal conditions promptly.
- C. Provide earthen embankments and similar barriers in and around excavations and subgrade construction, sufficient to prevent flooding by runoff of storm water from heavy rains.

### 3.3 TEMPORARY CONSTRUCTION AND SUPPORT FACILITIES INSTALLATION

- A. Locate field offices, storage sheds, sanitary facilities and other temporary construction and support facilities for easy access if facilities are required.
1. Maintain temporary construction and support facilities until near Substantial Completion. Remove prior to Substantial Completion. Personnel remaining after Substantial Completion will be permitted to use permanent facilities, under conditions acceptable to the Owner.
- B. Storage and Fabrication Sheds: Install storage and fabrication sheds, sized, furnished and equipped to accommodate materials and equipment involved, including temporary utility service. Sheds may be open shelters or fully enclosed spaces within the building or elsewhere on the site.
- C. Toilets: Provide temporary facilities on site for use by contractors. Use of the Owner's existing toilet facilities will not be permitted.
- D. Drinking Water Facilities: Containerized tap-dispenser bottled-water type drinking water units, including paper supply to be provided by General Contractor.
1. Where power is accessible, provide electric water coolers to maintain dispensed water temperature at 45 to 55 deg F (7 to 13 deg C).
- E. Dewatering Facilities and Drains: For temporary drainage and dewatering facilities and operations not directly associated with construction activities included under individual Sections, comply with

dewatering requirements of applicable Division 02 Sections. Where feasible, utilize the same facilities. Maintain the site, excavations and construction free of water.

- F. Temporary Enclosures: General Contractor shall provide temporary enclosure for protection of construction in progress and completed, from exposure, foul weather, other construction operations and similar activities.
  - 1. Where heat is needed and the permanent building enclosure is not complete, provide temporary enclosures where there is no other provision for containment of heat. Coordinate enclosure with ventilating and material drying or curing requirements to avoid dangerous conditions and effects.
  - 2. Install tarpaulins securely, with incombustible wood framing and other materials. Close openings of 25 square feet or less with plywood or similar materials.
  - 3. Close openings through floor or roof decks and horizontal surfaces with load-bearing wood-framed construction.

### 3.4 SECURITY AND PROTECTION FACILITIES INSTALLATION

- A. Except for use of permanent fire protection as soon as available, do not change over from use of temporary security and protection facilities to permanent facilities until Substantial Completion, or longer as requested by the Architect.
- B. Temporary Fire Protection: Until fire protection needs are supplied by permanent facilities, install and maintain temporary fire protection facilities of the types needed to protect against reasonably predictable and controllable fire losses. Comply with NFPA 10 "Standard for Portable Fire Extinguishers," and NFPA 241 "Standard for Safeguarding Construction, Alterations and Demolition Operations."
  - 1. Locate fire extinguishers where convenient and effective for their intended purpose, but not less than one extinguisher on each floor at or near each usable stairwell.
  - 2. Store combustible materials in containers in fire-safe locations.
  - 3. Maintain unobstructed access to fire extinguishers, fire hydrants, temporary fire protection facilities, stairways and other access routes for fighting fires. Prohibit smoking in hazardous fire exposure areas.
  - 4. Provide supervision of welding operations, combustion type temporary heating units, and similar sources of fire ignition.
- C. Site Enclosure Fence: Before construction operations begin, furnish and install site enclosure fence in a manner that will prevent people and animals from easily entering site except by entrance gates.
  - 1. Extent of Fence: As required to enclose entire Project site or portion determined sufficient to accommodate construction operations. Unless otherwise indicated on Drawings.
  - 2. Maintain security by limiting number of keys and restricting distribution to authorized personnel. Furnish one set of keys to Owner.
- D. Barricades, Warning Signs and Lights: Comply with standards and code requirements for erection of structurally adequate barricades. Paint with appropriate colors, graphics and warning signs to inform personnel and the public of the hazard being protected against. Where appropriate and needed provide lighting, including flashing red or amber lights.
- E. Security Enclosure and Lockup: Install substantial temporary enclosure of partially completed areas of construction. Provide locking entrances to prevent unauthorized entrance, vandalism, theft and similar violations of security.

1. Storage: Where materials and equipment must be stored, and are of value or attractive for theft, provide a secure lockup. Enforce discipline in connection with the installation and release of material to minimize the opportunity for theft and vandalism.

- F. Environmental Protection: Provide protection, operate temporary facilities and conduct construction in ways and by methods that comply with environmental regulations, and minimize the possibility that air, waterways and subsoil might be contaminated or polluted, or that other undesirable effects might result. Avoid use of tools and equipment which produce harmful noise. Restrict use of noise making tools and equipment to hours that will minimize complaints from persons or firms near the site.

### 3.5 DISPOSAL OF WASTE

- A. General: Except for items or materials to be salvaged, recycled, or otherwise reused, remove waste materials from Project site and legally dispose of them in a landfill or incinerator acceptable to authorities having jurisdiction.

1. Do not allow waste materials that are to be disposed of accumulate on-site.
2. Remove and transport debris in a manner that will prevent spillage on adjacent surfaces and areas.
3. Burning: Do not burn waste materials.
4. Disposal: Remove waste materials from Owner's property and legally dispose of them.

### 3.6 OPERATION, TERMINATION AND REMOVAL

- A. Supervision: Enforce strict discipline in use of temporary facilities. Limit availability of temporary facilities to essential and intended uses to minimize waste and abuse.

- B. Maintenance: Maintain facilities in good operating condition until removal. Protect from damage by freezing temperatures and similar elements.

1. Maintain operation of temporary enclosures, heating, cooling, humidity control, ventilation and similar facilities on a 24-hour day basis where required to achieve indicated results and to avoid possibility of damage.
2. Protection: Prevent water filled piping from freezing. Maintain markers for underground lines. Protect from damage during excavation operations.

- C. Termination and Removal: Unless the Architect requests that it be maintained longer, remove each temporary facility when the need has ended, or when replaced by authorized use of a permanent facility, or no later than Substantial Completion. Complete or, if necessary, restore permanent construction that may have been delayed because of interference with the temporary facility. Repair damaged Work, clean exposed surfaces and replace construction that cannot be satisfactorily repaired.

1. Materials and facilities that constitute temporary facilities are property of the Contractor. The Owner reserves the right to take possession of Project identification signs.
2. Remove temporary paving that is not intended for or acceptable for integration into permanent paving. Where the area is intended for landscape development, remove soil and aggregate fill that does not comply with requirements for fill or subsoil in the area. Remove materials contaminated with road oil, asphalt and other petrochemical compounds, and other substances which might impair growth of plant materials or lawns. Repair or replace street paving, curbs and sidewalks at the temporary entrances, as required by the governing authority.
3. At Substantial Completion, clean and renovate permanent facilities that have been used during the construction period, including but not limited to:
  - a. Replace air filters and clean inside of ductwork and housings.



- b. Replace significantly worn parts and parts that have been subject to unusual operating conditions.
- c. Replace lamps that are burned out or noticeably dimmed by substantial hours of use.

END OF SECTION 015000

## SECTION 016000 – PRODUCT REQUIREMENTS

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

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

#### 1.2 SUMMARY

- A. This Section specifies administrative and procedural requirements governing the Contractor's selection of products for use in the Project.
- B. The Contractor's Construction Schedule is included under Section "Submittal Procedures."
- C. Administrative procedures for handling requests for substitutions made after award of the Contract are included under Section "Substitution Procedures."

#### 1.3 DEFINITIONS

- A. Definitions used in this Article are not intended to change the meaning of other terms used in the Contract Documents, such as "specialties," "systems," "structure," "finishes," "accessories," and similar terms. Such terms such are self-explanatory and have well recognized meanings in the construction industry.
  - 1. "Products" are items purchased for incorporation in the Work, whether purchased for the Project or taken from previously purchased stock. The term "product" includes the terms "material," "equipment," "system," and terms of similar intent.
    - a. "Named Products" are items identified by manufacturer's product name, including make or model designation, indicated in the manufacturer's published product literature, that is current as of the date of the Contract Documents.
    - b. "Foreign Products", as distinguished from "domestic products," are items substantially manufactured (50 percent or more of value) outside of the United States and its possessions; or produced or supplied by entities substantially owned (more than 50 percent) by persons who are not citizens of nor living within the United States and its possessions.
  - 2. "Materials" are products that are substantially shaped, cut, worked, mixed, finished, refined or otherwise fabricated, processed, or installed to form a part of the Work.
  - 3. "Equipment" is a product with operational parts, whether motorized or manually operated, that requires service connections such as wiring or piping.
- B. Basis-of-Design Product Specification: A specification in which a specific manufacturer's product is named and accompanied by the words "basis-of-design product," including make or model number or other designation, to establish the significant qualities related to type, function, dimension, in-service performance, physical properties, appearance, and other characteristics for purposes of evaluating comparable products of additional manufacturers named in the specification.

#### 1.4 SUBMITTALS

- A. Product List Schedule: Prepare a schedule showing products specified in a tabular form acceptable to the Architect. Include generic names of products required. Include the manufacturer's name and proprietary product names for each item listed.
1. Coordinate the product list schedule with the Contractor's Construction Schedule.
  2. Form: Prepare the product listing schedule with information on each item tabulated under the following column headings:
    - a. Related Specification Section number.
    - b. Generic name used in Contract Documents.
    - c. Proprietary name, model number and similar designations.
    - d. Manufacturer's name and address.
    - e. Supplier's name and address.
    - f. Installer's name and address.
    - g. Projected delivery date, or time span of delivery period.
  3. Completed Schedule: Within 2 business days after date of commencement of the Work, submit 3 copies of the completed product list schedule. Provide a written explanation for omissions of data, and for known variations from Contract requirements.
  4. Architect/Engineer's Action: The Architect will respond in writing to the Contractor within 2 business days of receipt of the completed product list schedule. No response within this time period constitutes no objection to listed manufacturers or products, but does not constitute a waiver of the requirement that products comply with Contract Documents. The Architect response will include the following:
    - a. A list of unacceptable product selections, containing a brief explanation of reasons for this action.

#### 1.5 QUALITY ASSURANCE

- A. Source Limitations: To the fullest extent possible, provide products of the same kind, from a single source.
1. When specified products are available only from sources that do not or cannot produce a quantity adequate to complete project requirements in a timely manner, consult with the Architect for a determination of the most important product qualities before proceeding. Qualities may include attributes relating to visual appearance, strength, durability, or compatibility. When a determination has been made, select products from sources that produce products that possess these qualities, to the fullest extent possible.
- B. Compatibility of Options: When the Contractor is given the option of selecting between two or more products for use on the Project, the product selected shall be compatible with products previously selected, even if previously selected products were also options.
- C. Foreign Product Limitations: Except under one or more of the following conditions, provide domestic products, not foreign products, for inclusion in the Work:
1. No available domestic product complies with the Contract Documents.
  2. Domestic products that comply with Contract Document are only available at prices or terms that are substantially higher than foreign products that also comply with the Contract Documents.

## 1.6 PRODUCT DELIVERY, STORAGE, AND HANDLING

- A. Deliver, store and handle products in accordance with the manufacturer's recommendations, using means and methods that will prevent damage, deterioration and loss, including theft.
  - 1. Schedule delivery to minimize long-term storage at the site and to prevent overcrowding of construction spaces.
  - 2. Coordinate delivery with installation time to ensure minimum holding time for items that are flammable, hazardous, easily damaged, or sensitive to deterioration, theft and other losses.
  - 3. Deliver products to the site in the manufacturer's original sealed container or other packaging system, complete with labels and instructions for handling, storing, unpacking, protecting and installing.
  - 4. Inspect products upon delivery to ensure compliance with the Contract Documents, and to ensure that products are undamaged and properly protected.
  - 5. Store products at the site in a manner that will facilitate inspection and measurement of quantity or counting of units.
  - 6. Store heavy materials away from the Project structure in a manner that will not endanger the supporting construction.
  - 7. Store products subject to damage by the elements above ground, under cover in a weathertight enclosure, with ventilation adequate to prevent condensation. Maintain temperature and humidity within range required by manufacturer's instructions.

## PART 2 - PRODUCTS

### 2.1 PRODUCT SELECTION

- A. General Product Requirements: Provide products that comply with the Contract Documents, that are undamaged and, unless otherwise indicated, unused at the time of installation.
  - 1. Provide products complete with all accessories, trim, finish, safety guards and other devices and details needed for a complete installation and for the intended use and effect.
  - 2. Standard Products: Where available, provide standard products of types that have been produced and used successfully in similar situations on other projects.
- B. Product Selection Procedures: Product selection is governed by the Contract Documents and governing regulations, not by previous Project experience. Procedures governing product selection include the following:
  - 1. Proprietary Specification Requirements: Where only a single product or manufacturer is named, provide the product indicated. No substitutions will be permitted.
  - 2. Semiproprietary Specification Requirements: Where two or more products or manufacturers are named, provide one of the products indicated. No substitutions will be permitted.
    - a. Where products or manufacturers are specified by name, accompanied by the term "or equal," or "or approved equal" comply with the Contract Document provisions concerning "substitutions" to obtain approval for use of an unnamed product.
  - 3. Non-Proprietary Specifications: When the Specifications list products or manufacturers that are available and may be incorporated in the Work, but do not restrict the Contractor to use of these products only, the Contractor may propose any available product that complies with Contract requirements. Comply with Contract Document provisions concerning "substitutions" to obtain approval for use of an unnamed product.

4. Descriptive Specification Requirements: Where Specifications describe a product or assembly, listing exact characteristics required, with or without use of a brand or trade name, provide a product or assembly that provides the characteristics and otherwise complies with Contract requirements.
5. Performance Specification Requirements: Where Specifications require compliance with performance requirements, provide products that comply with these requirements, and are recommended by the manufacturer for the application indicated. General overall performance of a product is implied where the product is specified for a specific application.
  - a. Manufacturer's recommendations may be contained in published product literature, or by the manufacturer's certification of performance.
6. Compliance with Standards, Codes and Regulations: Where the Specifications only require compliance with an imposed code, standard or regulation, select a product that complies with the standards, codes or regulations specified.
7. Visual Matching: Where Specifications require matching an established Sample, the Architect/Engineer's decision will be final on whether a proposed product matches satisfactorily.
  - a. Where no product available within the specified category matches satisfactorily and also complies with other specified requirements, comply with provisions of the Contract Documents concerning "substitutions" for selection of a matching product in another product category, or for noncompliance with specified requirements.
8. Visual Selection: Where specified product requirements include the phrase "...as selected from manufacturer's standard colors, patterns, textures..." or a similar phrase, select a product and manufacturer that complies with other specified requirements. The Architect/Engineer will select the color, pattern and texture from the product line selected.

### PART 3 - EXECUTION

#### 3.1 INSTALLATION OF PRODUCTS:

- A. Comply with manufacturer's instructions and recommendations for installation of products in the applications indicated. Anchor each product securely in place, accurately located and aligned with other Work.
  1. Clean exposed surfaces and protect as necessary to ensure freedom from damage and deterioration at time of Substantial Completion.

END OF SECTION 016000

SECTION 017300 - EXECUTION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. Section includes general administrative and procedural requirements governing execution of the Work including, but not limited to, the following:

- 1. Construction layout.
- 2. Installation of the Work.
- 3. Cutting and patching.
- 4. Protection of installed construction.

- B. Related Sections include the following:

- 1. Division 01 Section "Submittal Procedures" for submitting surveys.
- 2. Division 01 Section "Closeout Procedures" for submitting final property survey with Project Record Documents, recording of Owner-accepted deviations from indicated lines and levels, and final cleaning.
- 3. Division 02 Section "Selective Demolition" for demolition and removal of selected portions of the building.

1.3 DEFINITIONS

- A. Cutting: Removal of in-place construction necessary to permit installation or performance of other Work.
- B. Patching: Fitting and repair work required to restore surfaces to original conditions after installation of other Work.

1.4 SUBMITTALS

- A. Cutting and Patching Proposal: Submit a proposal describing procedures at least **10** days before the time cutting and patching will be performed, requesting approval to proceed. Include the following information:

- 1. Extent: Describe cutting and patching, show how they will be performed, and indicate why they cannot be avoided.
- 2. Changes to In-Place Construction: Describe anticipated results. Include changes to structural elements and operating components as well as changes in building's appearance and other significant visual elements.
- 3. Products: List products to be used and firms or entities that will perform the Work.
- 4. Dates: Indicate when cutting and patching will be performed.

5. Utility Services and Mechanical/Electrical Systems: List services/systems that cutting and patching procedures will disturb or affect. List services/systems that will be relocated and those that will be temporarily out of service. Indicate how long services/systems will be disrupted.
6. Structural Elements: Where cutting and patching involve adding reinforcement to structural elements, submit details and engineering calculations showing integration of reinforcement with original structure.
7. Architectural Historical Elements: Where cutting and patching exterior or interior elements of the Carnegie Library, indicate processes and procedures for restoring the area to match the existing historical character of the building.
8. Architect's Approval: Obtain approval of cutting and patching proposal before cutting and patching. Approval does not waive right to later require removal and replacement of unsatisfactory work.

#### 1.5 QUALITY ASSURANCE

- A. Structural Elements: Do not cut and patch structural elements in a manner that could change their load-carrying capacity or load-deflection ratio.
- B. Operational Elements: Do not cut and patch operating elements and related components in a manner that results in reducing their capacity to perform as intended or that results in increased maintenance or decreased operational life or safety. Operating elements include the following:
  1. Primary operational systems and equipment.
  2. Air or smoke barriers.
  3. Fire-suppression systems.
  4. Mechanical systems piping and ducts.
  5. Control systems.
  6. Communication systems.
  7. Conveying systems.
  8. Electrical wiring systems.
  9. Operating systems of special construction in Division 13 Sections.
- C. Miscellaneous Elements: Do not cut and patch miscellaneous elements or related components in a manner that could change their load-carrying capacity that results in reducing their capacity to perform as intended, or that result in increased maintenance or decreased operational life or safety. Miscellaneous elements include the following:
  1. Water, moisture, or vapor barriers.
  2. Membranes and flashings.
  3. Exterior curtain-wall construction.
  4. Equipment supports.
  5. Piping, ductwork, vessels, and equipment.
  6. Noise- and vibration-control elements and systems.
- D. Visual Requirements: Do not cut and patch construction in a manner that results in visual evidence of cutting and patching. Do not cut and patch construction exposed on the exterior or in occupied spaces in a manner that would, in Architect's opinion, reduce the building's aesthetic qualities. Remove and replace construction that has been cut and patched in a visually unsatisfactory manner.
- E. Cutting and Patching Conference: Before proceeding, meet at Project site with parties involved in cutting and patching, including mechanical and electrical trades. Review areas of potential interference and conflict. Coordinate procedures and resolve potential conflicts before proceeding.

1.6 WARRANTY

- A. Existing Warranties: Remove, replace, patch, and repair materials and surfaces cut or damaged during cutting and patching operations, by methods and with materials so as not to void existing warranties.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. General: Comply with requirements specified in other Sections.
- B. In-Place Materials: Use materials identical to in-place materials. For exposed surfaces, use materials that visually match in-place adjacent surfaces to the fullest extent possible.
  - 1. If identical materials are unavailable or cannot be used, use materials that, when installed, will match the visual and functional performance of in-place materials.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine surfaces to be cut and patched and conditions under which cutting and patching are to be performed.
  - 1. Compatibility: Before patching, verify compatibility with and suitability of substrates, including compatibility with in-place finishes or primers.
  - 2. Proceed with installation only after unsafe or unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. Temporary Support: Provide temporary support of Work to be cut.
- B. Protection: Protect in-place construction during cutting and patching to prevent damage. Provide protection from adverse weather conditions for portions of Project that might be exposed during cutting and patching operations.
- C. Adjoining Areas: Avoid interference with use of adjoining areas or interruption of free passage to adjoining areas.
- D. Existing Utility Services and Mechanical/Electrical Systems: Where existing services/systems are required to be removed, relocated, or abandoned, bypass such services/systems before cutting to minimize or prevent interruption to occupied areas.

3.3 CONSTRUCTION LAYOUT

- A. Verification: Before proceeding to lay out the Work, verify layout information shown on Drawings, in relation to the property survey and existing benchmarks. If discrepancies are discovered, notify Architect and Construction Manager promptly.



- B. General: Engage a land surveyor to lay out the Work using accepted surveying practices.
- C. Establish benchmarks and control points to set lines and levels at each story of construction and elsewhere as needed to locate each element of Project.
- D. Establish limits on use of Project site.
- E. Establish dimensions within tolerances indicated. Do not scale Drawings to obtain required dimensions.
- F. Inform installers of lines and levels to which they must comply.
- G. Check the location, level and plumb, of every major element as the Work progresses.
- H. Notify Architect when deviations from required lines and levels exceed allowable tolerances.
- I. Close site surveys with an error of closure equal to or less than the standard established by authorities having jurisdiction.
- J. Site Improvements: Locate and lay out site improvements, including pavements, grading, fill and topsoil placement, utility slopes, and rim and invert elevations.
- K. Building Lines and Levels: Locate and lay out control lines and levels for structures, building foundations, column grids, and floor levels, including those required for mechanical and electrical work. Transfer survey markings and elevations for use with control lines and levels. Level foundations and piers from two or more locations.
- L. Record Log: Maintain a log of layout control work. Record deviations from required lines and levels. Include beginning and ending dates and times of surveys, weather conditions, name and duty of each survey party member, and types of instruments and tapes used. Make the log available for reference by Architect and Construction Manager.

### 3.4 INSTALLATION

- A. General: Locate the Work and components of the Work accurately, in correct alignment and elevation, as indicated.
  - 1. Make vertical work plumb and make horizontal work level.
  - 2. Where space is limited, install components to maximize space available for maintenance and ease of removal for replacement.
  - 3. Conceal pipes, ducts, and wiring in finished areas unless otherwise indicated.
  - 4. Maintain minimum headroom clearance of 96 inches in occupied spaces and 90 inches in unoccupied spaces.
- B. Comply with manufacturer's written instructions and recommendations for installing products in applications indicated.
- C. Install products at the time and under conditions that will ensure the best possible results. Maintain conditions required for product performance until Substantial Completion.
- D. Conduct construction operations so no part of the Work is subjected to damaging operations or loading in excess of that expected during normal conditions of occupancy.

- E. Sequence the Work and allow adequate clearances to accommodate movement of construction items on site and placement in permanent locations.
- F. Tools and Equipment: Do not use tools or equipment that produce harmful noise levels.
- G. Templates: Obtain and distribute to the parties involved templates for work specified to be factory prepared and field installed. Check Shop Drawings of other work to confirm that adequate provisions are made for locating and installing products to comply with indicated requirements.
- H. Attachment: Provide blocking and attachment plates and anchors and fasteners of adequate size and number to securely anchor each component in place, accurately located and aligned with other portions of the Work. Where size and type of attachments are not indicated, verify size and type required for load conditions.
  - 1. Mounting Heights: Where mounting heights are not indicated, mount components at heights directed by Architect.
  - 2. Allow for building movement, including thermal expansion and contraction.
  - 3. Coordinate installation of anchorages. Furnish setting drawings, templates, and directions for installing anchorages, including sleeves, concrete inserts, anchor bolts, and items with integral anchors, that are to be embedded in concrete or masonry. Deliver such items to Project site in time for installation.
- I. Joints: Make joints of uniform width. Where joint locations in exposed work are not indicated, arrange joints for the best visual effect. Fit exposed connections together to form hairline joints.
- J. Hazardous Materials: Use products, cleaners, and installation materials that are not considered hazardous.

### 3.5 PERFORMANCE

- A. General: Employ skilled workers to perform cutting and patching. Proceed with cutting and patching at the earliest feasible time, and complete without delay.
  - 1. Cut in-place construction to provide for installation of other components or performance of other construction, and subsequently patch as required to restore surfaces to their original condition.
- B. Cutting: Cut in-place construction by sawing, drilling, breaking, chipping, grinding, and similar operations, including excavation, using methods least likely to damage elements retained or adjoining construction. If possible, review proposed procedures with original Installer; comply with original Installer's written recommendations.
  - 1. In general, use hand or small power tools designed for sawing and grinding, not hammering and chopping. Cut holes and slots as small as possible, neatly to size required, and with minimum disturbance of adjacent surfaces. Temporarily cover openings when not in use.
  - 2. Finished Surfaces: Cut or drill from the exposed or finished side into concealed surfaces.
  - 3. Concrete or Masonry: Cut using a cutting machine, such as an abrasive saw or a diamond-core drill.
  - 4. Excavating and Backfilling: Comply with requirements in applicable Division 02 Sections where required by cutting and patching operations.
  - 5. Mechanical and Electrical Services: Cut off pipe or conduit in walls or partitions to be removed. Cap, valve, or plug and seal remaining portion of pipe or conduit to prevent entrance of moisture or other foreign matter after cutting.
  - 6. Proceed with patching after construction operations requiring cutting are complete.

- C. Patching: Patch construction by filling, repairing, refinishing, closing up, and similar operations following performance of other Work. Patch with durable seams that are as invisible as possible. Provide materials and comply with installation requirements specified in other Sections.
1. Inspection: Where feasible, test and inspect patched areas after completion to demonstrate integrity of installation.
  2. Exposed Finishes: Restore exposed finishes of patched areas and extend finish restoration into retained adjoining construction in a manner that will eliminate evidence of patching and refinishing.
    - a. Clean piping, conduit, and similar features before applying paint or other finishing materials.
    - b. Restore damaged pipe covering to its original condition.
  3. Floors and Walls: Where walls or partitions that are removed extend one finished area into another, patch and repair floor and wall surfaces in the new space. Provide an even surface of uniform finish, color, texture, and appearance. Remove in-place floor and wall coverings and replace with new materials, if necessary, to achieve uniform color and appearance.
    - a. Where patching occurs in a painted surface, apply primer and intermediate paint coats over the patch and apply final paint coat over entire unbroken surface containing the patch. Provide additional coats until patch blends with adjacent surfaces.
  4. Ceilings: Patch, repair, or rehang in-place ceilings as necessary to provide an even-plane surface of uniform appearance.
  5. Exterior Building Enclosure: Patch components in a manner that restores enclosure to a weathertight condition.
- D. Cleaning: Clean areas and spaces where cutting and patching are performed. Completely remove paint, mortar, oils, putty, and similar materials.

### 3.6 PROTECTION OF INSTALLED CONSTRUCTION

- A. Provide final protection and maintain conditions that ensure installed Work is without damage or deterioration at time of Substantial Completion.
- B. Comply with manufacturer's written instructions for temperature and relative humidity.

END OF SECTION 017300

SECTION 017700 – CLOSEOUT PROCEDURES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. This Section specifies administrative and procedural requirements for project closeout, including but not limited to:
  - 1. Inspection procedures.
  - 2. Project record document submittal.
  - 3. Operating and maintenance manual submittal.
  - 4. Submittal of warranties.
  - 5. Final cleaning.
- B. Closeout requirements for specific construction activities are included in the appropriate Sections in Divisions 02 through 32.

1.3 SUBSTANTIAL COMPLETION

- A. Preliminary Procedures: Before requesting inspection for certification of Substantial Completion, complete the following. List exceptions in the request.
  - 1. In the Application for Payment that coincides with, or first follows, the date Substantial Completion is claimed, show 100 percent completion for the portion of the Work claimed as substantially complete. Include supporting documentation for completion as indicated in these Contract Documents and a statement showing an accounting of changes to the Contract Sum.
    - a. If 100 percent completion cannot be shown, include a list of incomplete items, the value of incomplete construction, and reasons the Work is not complete.
  - 2. Advise Owner of pending insurance change-over requirements.
  - 3. Submit specific warranties, workmanship bonds, maintenance agreements, final certifications and similar documents.
  - 4. Obtain and submit releases enabling the Owner unrestricted use of the Work and access to services and utilities; include occupancy permits, operating certificates and similar releases.
  - 5. Submit record drawings, maintenance manuals, and similar final record information.
  - 6. Deliver tools, spare parts, extra stock, and similar items.
  - 7. Make final change-over of permanent locks and transmit keys to the Owner. Advise the Owner's personnel of change-over in security provisions.
  - 8. Complete start-up testing of systems, and instruction of the Owner's operating and maintenance personnel. Discontinue or change over and remove temporary facilities from the site, along with construction tools, mock-ups, and similar elements.

9. Complete final clean up requirements, including touch-up painting. Touch-up and otherwise repair and restore marred exposed finishes.

B. Inspection Procedures: On receipt of a request for inspection, the Architect will either proceed with inspection or advise the Contractor of unfilled requirements. The Architect will prepare the Certificate of Substantial Completion following inspection or advise the Contractor of construction that must be completed or corrected before the certificate will be issued.

1. The Architect will repeat inspection when requested and assured that the Work has been substantially completed.
2. Results of the completed inspection will form the basis of requirements for final acceptance.

#### 1.4 FINAL ACCEPTANCE

A. Preliminary Procedures: Before requesting final inspection for certification of final acceptance and final payment, complete the following. List exceptions in the request.

1. Submit the final payment request with releases and supporting documentation not previously submitted and accepted. Include certificates of insurance for products and completed operations where required.
2. Submit an updated final statement, accounting for final additional changes to the Contract Sum.
3. Submit a certified copy of the Architect's final inspection list of items to be completed or corrected, stating that each item has been completed or otherwise resolved for acceptance, and the list has been endorsed and dated by the Architect.
4. Submit consent of surety to final payment.
5. Submit a final liquidated damages settlement statement.
6. Submit evidence of final, continuing insurance coverage complying with insurance requirements.

B. Reinspection Procedure: The Architect will reinspect the Work upon receipt of notice that the Work, including inspection list items from earlier inspections, has been completed, except items whose completion has been delayed because of circumstances acceptable to the Architect.

1. Upon completion of reinspection, the Architect will prepare a certificate of final acceptance, or advise the Contractor of Work that is incomplete or of obligations that have not been fulfilled but are required for final acceptance.
2. If necessary, reinspection will be repeated.

#### 1.5 RECORD DOCUMENT SUBMITTALS

A. General: Do not use record documents for construction purposes; protect from deterioration and loss in a secure, fire-resistive location; provide access to record documents for the Architect's reference during normal working hours.

B. Record Drawings: Maintain a clean, undamaged set of blue or black line white-prints of Contract Drawings and Shop Drawings. Mark the set to show the actual installation where the installation varies substantially from the Work as originally shown. Mark whichever drawing is most capable of showing conditions fully and accurately; where Shop Drawings are used, record a cross-reference at the corresponding location on the Contract Drawings. Give particular attention to concealed elements that would be difficult to measure and record at a later date.

1. Mark record sets with red erasable pencil; use other colors to distinguish between variations in separate categories of the Work.

2. Mark new information that is important to the Owner, but was not shown on Contract Drawings or Shop Drawings.
  3. Note related Change Order numbers where applicable.
  4. Organize record drawing sheets into manageable sets, bind with durable paper cover sheets, and print suitable titles, dates and other identification on the cover of each set.
- C. Record Sample Submitted: Immediately prior to the date or dates of Substantial Completion, the Contractor will meet at the site with the Architect and the Owner's personnel to determine which of the submitted Samples that have been maintained during progress of the Work are to be transmitted to the Owner for record purposes. Comply with delivery to the Owner's Sample storage area.
- D. Miscellaneous Record Submittals: Refer to other Specification Sections for requirements of miscellaneous record-keeping and submittals in connection with actual performance of the Work. Immediately prior to the date or dates of Substantial Completion, complete miscellaneous records and place in good order, properly identified and bound or filed, ready for continued use and reference. Submit to the Architect for the Owner's records.
- E. Maintenance Manuals: Organize operating and maintenance data into suitable sets of manageable size. Bind properly indexed data in individual heavy-duty 2-inch, 3-ring vinyl-covered binders, with pocket folders for folded sheet information. Mark appropriate identification on front and spine of each binder. Include the following types of information:
1. Emergency instructions.
  2. Spare parts list.
  3. Copies of warranties.
  4. Wiring diagrams.
  5. Recommended "turn around" cycles.
  6. Inspection procedures.
  7. Shop Drawings and Product Data.
  8. Fixture lamping schedule.

## 1.6 WARRANTIES

- A. Submittal Time: Submit written warranties on request of Architect for designated portions of the Work where commencement of warranties other than date of Substantial Completion is indicated.
- B. Partial Occupancy: Submit properly executed warranties within 30 days of completion of designated portions of the Work that are completed and occupied or used by Owner during construction period by separate agreement with Contractor.
- C. Organize warranty documents into an orderly sequence based on the table of contents of the Project Manual.
1. Bind warranties and bonds in heavy-duty, 3-ring, vinyl-covered, loose-leaf binders, thickness as necessary to accommodate contents, and sized to receive 8-1/2-by-11-inch (215-by-280-mm) paper.
  2. Provide heavy paper dividers with plastic-covered tabs for each separate warranty. Mark tab to identify the product or installation. Provide a typed description of the product or installation, including the name of the product and the name, address, and telephone number of Installer.
  3. Identify each binder on the front and spine with the typed or printed title "WARRANTIES," Project name, and name of Contractor.
- D. Provide additional copies of each warranty to include in operation and maintenance manuals.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 CONTRACT CLOSEOUT

- A. Operating and Maintenance Instructions: Arrange for each installer of equipment that requires regular maintenance to meet with the Owner's personnel to provide instruction in proper operation and maintenance. If installers are not experienced in procedures, provide instruction by manufacturer's representatives. Include a detailed review of the following items:

1. Maintenance manuals.
2. Record documents.
3. Spare parts and materials.
4. Tools.
5. Lubricants.
6. Identification systems.
7. Control sequences.
8. Hazards.
9. Cleaning.
10. Warranties and bonds.
11. Maintenance agreements and similar continuing commitments.

- B. As part of instruction for operating equipment, demonstrate the following procedures:

1. Start-up.
2. Shutdown.
3. Emergency operations.
4. Noise and vibration adjustments.
5. Safety procedures.
6. Economy and efficiency adjustments.
7. Effective energy utilization.

3.2 FINAL CLEANING

- A. General: General cleaning during construction is required by the General Conditions and included in Section "Temporary Facilities and Controls".

- B. Cleaning: Employ experienced workers or professional cleaners for final cleaning. Complete cleaning after all construction operations are completed. Clean each surface or unit to the condition expected in a normal, commercial building cleaning and maintenance program. Comply with manufacturer's instructions.

1. Complete the following cleaning operations before requesting inspection for Certification of Substantial Completion.
  - a. Remove labels that are not permanent labels.
  - b. Clean transparent materials, including mirrors and glass in doors and windows.
  - c. Clean exposed exterior and interior hard-surfaced finishes and components to a dust-free condition, free of stains, films and similar foreign substances. Restore reflective surfaces to their original reflective condition. Leave concrete floors broom clean. Vacuum carpeted surfaces, extracting all construction debris and dust.

- d. Clean the interior of the duct system. Wipe surfaces of mechanical and electrical equipment and fixtures. Remove excess lubrication and other substances. Clean plumbing fixtures to a sanitary condition. Clean light fixtures and lamps.
- C. Compliance: Comply with regulations of authorities having jurisdiction and safety standards for cleaning. Do not burn waste materials. Do not bury debris or excess materials on the Owner's property. Do not discharge volatile, harmful or dangerous materials into drainage systems. Remove waste materials from the site and dispose of in a lawful manner.
1. Where extra materials of value remaining after completion of associated Work have become the Owner's property, arrange for disposition of these materials as directed.

END OF SECTION 017700



SECTION 017823 - OPERATION AND MAINTENANCE DATA

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. This Section includes administrative and procedural requirements for preparing operation and maintenance manuals, including the following:

1. Operation and maintenance documentation directory.
2. Emergency manuals.
3. Operation manuals for systems, subsystems, and equipment.
4. Maintenance manuals for the care and maintenance of products, materials, and finishes systems and equipment.

- B. Related Sections include the following:

1. Division 01 Section "Submittal Procedures" for submitting copies of submittals for operation and maintenance manuals.
2. Division 01 Section "Closeout Procedures" for submitting operation and maintenance manuals.
3. Division 01 Section "Project Record Documents" for preparing Record Drawings for operation and maintenance manuals.
4. Divisions 02 through 32 Sections for specific operation and maintenance manual requirements for the Work in those Sections.

1.3 DEFINITIONS

- A. System: An organized collection of parts, equipment, or subsystems united by regular interaction.
- B. Subsystem: A portion of a system with characteristics similar to a system.

1.4 CLOSEOUT SUBMITTALS

- A. Manual Content: Operations and maintenance manual content is specified in individual Specification Sections to be reviewed at the time of Section submittals. Submit reviewed manual content formatted and organized as required by this Section.

1. Architect will comment on whether content of operations and maintenance submittals are acceptable.
2. Where applicable, clarify and update reviewed manual content to correspond to revisions and field conditions.

- B. Format: Submit operations and maintenance manuals in the following format:

1. PDF electronic file. Assemble each manual into a composite electronically indexed file. Submit on digital media acceptable to Architect.
  - a. Name each indexed document file in composite electronic index with applicable item name. Include a complete electronically linked operation and maintenance directory.
  - b. Enable inserted reviewer comments on draft submittals.
- C. Initial Manual Submittal: Submit draft copy of each manual at least 30 days before commencing demonstration and training. Architect will comment on whether general scope and content of manual are acceptable.
- D. Final Manual Submittal: Submit each manual in final form prior to requesting inspection for Substantial Completion and at least 15 days before commencing demonstration and training. Architect will return copy with comments.
  1. Correct or revise each manual to comply with Architect's comments. Submit copies of each corrected manual within 15 days of receipt of Architect's comments and prior to commencing demonstration and training.
  2. One indexed paper copy in 3 labeled three ring binders are to be provided to the Owner, matching the electronic submittal.

#### 1.5 COORDINATION

- A. Where operation and maintenance documentation includes information on installations by more than one factory-authorized service representative, assemble and coordinate information furnished by representatives and prepare manuals.

### PART 2 - PRODUCTS

#### 2.1 OPERATION AND MAINTENANCE DOCUMENTATION DIRECTORY

- A. Organization: Include a section in the directory for each of the following:
  1. List of documents.
  2. List of systems.
  3. List of equipment.
  4. Table of contents.
- B. List of Systems and Subsystems: List systems alphabetically. Include references to operation and maintenance manuals that contain information about each system.
- C. List of Equipment: List equipment for each system, organized alphabetically by system. For pieces of equipment not part of system, list alphabetically in separate list.
- D. Tables of Contents: Include a table of contents for each emergency, operation, and maintenance manual.
- E. Identification: In the documentation directory and in each operation and maintenance manual, identify each system, subsystem, and piece of equipment with same designation used in the Contract Documents. If no designation exists, assign a designation according to ASHRAE Guideline 4, "Preparation of Operating and Maintenance Documentation for Building Systems."

## 2.2 REQUIREMENTS FOR EMERGENCY, OPERATION, AND MAINTENANCE MANUALS

- A. Organization: Unless otherwise indicated, organize each manual into a separate section for each system and subsystem, and a separate section for each piece of equipment not part of a system. Each manual shall contain the following materials, in the order listed:
1. Title page.
  2. Table of contents.
  3. Manual contents.
- B. Title Page: Enclose title page in transparent plastic sleeve. Include the following information:
1. Subject matter included in manual.
  2. Name and address of Project.
  3. Name and address of Owner.
  4. Date of submittal.
  5. Name, address, and telephone number of Contractor.
  6. Name and address of Architect.
  7. Cross-reference to related systems in other operation and maintenance manuals.
- C. Table of Contents: List each product included in manual, identified by product name, indexed to the content of the volume, and cross-referenced to Specification Section number in Project Manual.
1. If operation or maintenance documentation requires more than one volume to accommodate data, include comprehensive table of contents for all volumes in each volume of the set.
- D. Manual Contents: Organize into sets of manageable size. Arrange contents alphabetically by system, subsystem, and equipment. If possible, assemble instructions for subsystems, equipment, and components of one system into a single binder.
- E. Manuals, Electronic Files: Submit manuals in the form of a multiple file composite electronic PDF file for each manual type required.
1. Electronic Files: Use electronic files prepared by manufacturer where available. Where scanning of paper documents is required, configure scanned file for minimum readable file size.
  2. File Names and Bookmarks: Enable bookmarking of individual documents based on file names. Name document files to correspond to system, subsystem, and equipment names used in manual directory and table of contents. Group documents for each system and subsystem into individual composite bookmarked files, then create composite manual, so that resulting bookmarks reflect the system, subsystem, and equipment names in a readily navigated file tree. Configure electronic manual to display bookmark panel on opening file.
- F. Manuals, Paper Copy: Submit manuals in the form of hard copy, bound and labeled volumes.
1. Binders: Heavy-duty, 3-ring, vinyl-covered, loose-leaf binders, in thickness necessary to accommodate contents, sized to hold 8-1/2-by-11-inch (215-by-280-mm) paper; with clear plastic sleeve on spine to hold label describing contents and with pockets inside covers to hold folded oversize sheets.
    - a. If two or more binders are necessary to accommodate data of a system, organize data in each binder into groupings by subsystem and related components. Cross-reference other binders if necessary, to provide essential information for proper operation or maintenance of equipment or system.

- b. Identify each binder on front and spine, with printed title "OPERATION AND MAINTENANCE MANUAL," Project title or name, and subject matter of contents. Indicate volume number for multiple-volume sets.
2. Dividers: Heavy-paper dividers with plastic-covered tabs for each section. Mark each tab to indicate contents. Include typed list of products and major components of equipment included in the section on each divider, cross-referenced to Specification Section number and title of Project Manual.
3. Protective Plastic Sleeves: Transparent plastic sleeves designed to enclose diagnostic software diskettes for computerized electronic equipment.
4. Supplementary Text: Prepared on 8-1/2 by 11-inch (215-by-280-mm) white bond paper.
5. Drawings: Attach reinforced, punched binder tabs on drawings and bind with text.
  - a. If oversize drawings are necessary, fold drawings to same size as text pages and use as foldouts.
  - b. If drawings are too large to be used as foldouts, fold and place drawings in labeled envelopes and bind envelopes in rear of manual. At appropriate locations in manual, insert typewritten pages indicating drawing titles, descriptions of contents, and drawing locations.

### 2.3 EMERGENCY MANUALS

- A. Content: Organize manual into a separate section for each of the following:
  1. Type of emergency.
  2. Emergency instructions.
  3. Emergency procedures.
- B. Type of Emergency: Where applicable for each type of emergency indicated below, include instructions and procedures for each system, subsystem, piece of equipment, and component:
  1. Fire.
  2. Flood.
  3. Gas leak.
  4. Water leak.
  5. Power failure.
  6. Water outage.
  7. System, subsystem, or equipment failure.
  8. Chemical release or spill.
- C. Emergency Instructions: Describe and explain warnings, trouble indications, error messages, and similar codes and signals. Include responsibilities of Owner's operating personnel for notification of Installer, supplier, and manufacturer to maintain warranties.
- D. Emergency Procedures: Include the following, as applicable:
  1. Instructions on stopping.
  2. Shutdown instructions for each type of emergency.
  3. Operating instructions for conditions outside normal operating limits.
  4. Required sequences for electric or electronic systems.
  5. Special operating instructions and procedures.

## 2.4 OPERATION MANUALS

- A. Content: In addition to requirements in this Section, include operation data required in individual Specification Sections and the following information:
1. System, subsystem, and equipment descriptions.
  2. Performance and design criteria if Contractor is delegated design responsibility.
  3. Operating standards.
  4. Operating procedures.
  5. Operating logs.
  6. Wiring diagrams.
  7. Control diagrams.
  8. Piped system diagrams.
  9. Precautions against improper use.
  10. License requirements including inspection and renewal dates.
- B. Descriptions: Include the following:
1. Product name and model number.
  2. Manufacturer's name.
  3. Equipment identification with serial number of each component.
  4. Equipment function.
  5. Operating characteristics.
  6. Limiting conditions.
  7. Performance curves.
  8. Engineering data and tests.
  9. Complete nomenclature and number of replacement parts.
- C. Operating Procedures: Include the following, as applicable:
1. Startup procedures.
  2. Equipment or system break-in procedures.
  3. Routine and normal operating instructions.
  4. Regulation and control procedures.
  5. Instructions on stopping.
  6. Normal shutdown instructions.
  7. Seasonal and weekend operating instructions.
  8. Required sequences for electric or electronic systems.
  9. Special operating instructions and procedures.
- D. Systems and Equipment Controls: Describe the sequence of operation, and diagram controls as installed.
- E. Piped Systems: Diagram piping as installed and identify color-coding where required for identification.

## 2.5 PRODUCT MAINTENANCE MANUAL

- A. Content: Organize manual into a separate section for each product, material, and finish. Include source information, product information, maintenance procedures, repair materials and sources, and warranties and bonds, as described below.
- B. Source Information: List each product included in manual, identified by product name and arranged to match manual's table of contents. For each product, list name, address, and telephone number of Installer

or supplier and maintenance service agent, and cross-reference Specification Section number and title in Project Manual.

- C. Product Information: Include the following, as applicable:
  - 1. Product name and model number.
  - 2. Manufacturer's name.
  - 3. Color, pattern, and texture.
  - 4. Material and chemical composition.
  - 5. Reordering information for specially manufactured products.
  
- D. Maintenance Procedures: Include manufacturer's written recommendations and the following:
  - 1. Inspection procedures.
  - 2. Types of cleaning agents to be used and methods of cleaning.
  - 3. List of cleaning agents and methods of cleaning detrimental to product.
  - 4. Schedule for routine cleaning and maintenance.
  - 5. Repair instructions.
  
- E. Repair Materials and Sources: Include lists of materials and local sources of materials and related services.
  
- F. Warranties and Bonds: Include copies of warranties and bonds and lists of circumstances and conditions that would affect validity of warranties or bonds.
  - 1. Include procedures to follow and required notifications for warranty claims.

## 2.6 SYSTEMS AND EQUIPMENT MAINTENANCE MANUAL

- A. Content: For each system, subsystem, and piece of equipment not part of a system, include source information, manufacturers' maintenance documentation, maintenance procedures, maintenance and service schedules, spare parts list and source information, maintenance service contracts, and warranty and bond information, as described below.
  
- B. Source Information: List each system, subsystem, and piece of equipment included in manual, identified by product name and arranged to match manual's table of contents. For each product, list name, address, and telephone number of Installer or supplier and maintenance service agent, and cross-reference Specification Section number and title in Project Manual.
  
- C. Manufacturers' Maintenance Documentation: Manufacturers' maintenance documentation including the following information for each component part or piece of equipment:
  - 1. Standard printed maintenance instructions and bulletins.
  - 2. Drawings, diagrams, and instructions required for maintenance, including disassembly and component removal, replacement, and assembly.
  - 3. Identification and nomenclature of parts and components.
  - 4. List of items recommended to be stocked as spare parts.
  
- D. Maintenance Procedures: Include the following information and items that detail essential maintenance procedures:
  - 1. Test and inspection instructions.
  - 2. Troubleshooting guide.

3. Precautions against improper maintenance.
  4. Disassembly; component removal, repair, and replacement; and reassembly instructions.
  5. Aligning, adjusting, and checking instructions.
  6. Demonstration and training videotape, if available.
- E. Maintenance and Service Schedules: Include service and lubrication requirements, list of required lubricants for equipment, and separate schedules for preventive and routine maintenance and service with standard time allotment.
1. Scheduled Maintenance and Service: Tabulate actions for daily, weekly, monthly, quarterly, semiannual, and annual frequencies.
  2. Maintenance and Service Record: Include manufacturers' forms for recording maintenance.
- F. Spare Parts List and Source Information: Include lists of replacement and repair parts, with parts identified and cross-referenced to manufacturers' maintenance documentation and local sources of maintenance materials and related services.
- G. Maintenance Service Contracts: Include copies of maintenance agreements with name and telephone number of service agent.
- H. Warranties and Bonds: Include copies of warranties and bonds and lists of circumstances and conditions that would affect validity of warranties or bonds.
1. Include procedures to follow and required notifications for warranty claims.

### PART 3 - EXECUTION

#### 3.1 MANUAL PREPARATION

- A. Operation and Maintenance Documentation Directory: Prepare a separate manual that provides an organized reference to emergency, operation, and maintenance manuals.
- B. Emergency Manual: Assemble a complete set of emergency information indicating procedures for use by emergency personnel and by Owner's operating personnel for types of emergencies indicated.
- C. Product Maintenance Manual: Assemble a complete set of maintenance data indicating care and maintenance of each product, material, and finish incorporated into the Work.
- D. Operation and Maintenance Manuals: Assemble a complete set of operation and maintenance data indicating operation and maintenance of each system, subsystem, and piece of equipment not part of a system.
1. Engage a factory-authorized service representative to assemble and prepare information for each system, subsystem, and piece of equipment not part of a system.
  2. Prepare a separate manual for each system and subsystem, in the form of an instructional manual for use by Owner's operating personnel.
- E. Manufacturers' Data: Where manuals contain manufacturers' standard printed data, include only sheets pertinent to product or component installed. Mark each sheet to identify each product or component incorporated into the Work. If data include more than one item in a tabular format, identify each item using appropriate references from the Contract Documents. Identify data applicable to the Work and delete references to information not applicable.

1. Prepare supplementary text if manufacturers' standard printed data are not available and where the information is necessary for proper operation and maintenance of equipment or systems.
- F. Drawings: Prepare drawings supplementing manufacturers' printed data to illustrate the relationship of component parts of equipment and systems and to illustrate control sequence and flow diagrams. Coordinate these drawings with information contained in Record Drawings to ensure correct illustration of completed installation.
1. Do not use original Project Record Documents as part of operation and maintenance manuals.
  2. Comply with requirements of newly prepared Record Drawings in Division 01 Section "Project Record Documents."
- G. Comply with Division 01 Section "Project Closeout" for schedule for submitting operation and maintenance documentation.

END OF SECTION 017823



SECTION 017839 - PROJECT RECORD DOCUMENTS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. This Section includes administrative and procedural requirements for Project Record Documents, including the following:
  - 1. Record Drawings.
  - 2. Record Specifications.
  - 3. Record Product Data.
- B. Related Sections include the following:
  - 1. Division 01 Section "Closeout Procedures" for general closeout procedures.
  - 2. Division 01 Section "Operation and Maintenance Data" for operation and maintenance manual requirements.
  - 3. Divisions 02 through 32 Sections for specific requirements for Project Record Documents of the Work in those Sections.

1.3 SUBMITTALS

- A. Record Drawings: Comply with the following:
  - 1. Number of Copies: Submit copies of Record Drawings as follows:
    - a. Initial Submittal: Submit one set of PDF files of scanned marked-up Record Prints. Architect will indicate whether general scope of changes, additional information recorded, and quality of drafting are acceptable. Architect will return documents for corrections, organizing into sets, scanning, and final submittal.
    - b. Final Submittal: Submit one set of Record PDF Drawing plots to Owner and Architect. Submit one paper copy printed from record plots to Owner. Plot and print each Drawing, whether or not changes and additional information were recorded.
- B. Record Specifications: Submit one copy of Project's Specifications, including addenda and contract modifications.
- C. Record Product Data: Submit one copy of each Product Data submittal.
  - 1. Where Record Product Data is required as part of operation and maintenance manuals, submit marked-up Product Data as an insert in manual instead of submittal as Record Product Data.

## PART 2 - PRODUCTS

### 2.1 RECORD DRAWINGS

- A. Record Prints: Maintain one set of blue- or black-line white prints of the Contract Drawings and Shop Drawings.
1. Preparation: Mark Record Prints to show the actual installation where installation varies from that shown originally. Require individual or entity who obtained record data, whether individual or entity is Installer, subcontractor, or similar entity, to prepare the marked-up Record Prints.
    - a. Give particular attention to information on concealed elements that would be difficult to identify or measure and record later.
    - b. Accurately record information in an understandable drawing technique.
    - c. Record data as soon as possible after obtaining it. Record and check the markup before enclosing concealed installations.
  2. Content: Types of items requiring marking include, but are not limited to, the following:
    - a. Dimensional changes to Drawings.
    - b. Revisions to details shown on Drawings.
    - c. Depths of foundations below first floor.
    - d. Locations and depths of underground utilities.
    - e. Revisions to routing of piping and conduits.
    - f. Revisions to electrical circuitry.
    - g. Actual equipment locations.
    - h. Duct size and routing.
    - i. Locations of concealed internal utilities.
    - j. Changes made by Change Order or Construction Change Directive.
    - k. Changes made following Architect's written orders.
    - l. Details not on the original Contract Drawings.
    - m. Field records for variable and concealed conditions.
    - n. Record information on the Work that is shown only schematically.
  3. Mark the Contract Drawings or Shop Drawings, whichever is most capable of showing actual physical conditions, completely and accurately. If Shop Drawings are marked, show cross-reference on the Contract Drawings.
  4. Mark record sets with erasable, red-colored pencil. Use other colors to distinguish between changes for different categories of the Work at same location.
  5. Mark important additional information that was either shown schematically or omitted from original Drawings.
  6. Note Construction Change Directive numbers, alternate numbers, Change Order numbers, and similar identification, where applicable.
- B. Newly Prepared Record Drawings: Prepare new Drawings instead of preparing Record Drawings where Architect determines that neither the original Contract Drawings nor Shop Drawings are suitable to show actual installation.
1. New Drawings may be required when a Change Order is issued as a result of accepting an alternate, substitution, or other modification.
  2. Consult Architect for proper scale and scope of detailing and notations required to record the actual physical installation and its relation to other construction. Integrate newly prepared Record

Drawings into Record Drawing sets; comply with procedures for formatting, organizing, copying, binding, and submitting.

- C. Format: Identify and date each Record Drawing; include the designation "PROJECT RECORD DRAWING" in a prominent location.
  - 1. Record Prints: Organize Record Prints and newly prepared Record Drawings into manageable sets. Bind each set with durable paper cover sheets. Include identification on cover sheets.
  - 2. Record PDF Drawings: Organize sheets into separate electronic files that correspond to each sheet of the Contract Drawings. Name each file with the sheet identification.

## 2.2 RECORD SPECIFICATIONS

- A. Preparation: Mark Specifications to indicate the actual product installation where installation varies from that indicated in Specifications, addenda, and contract modifications.
  - 1. Give particular attention to information on concealed products and installations that cannot be readily identified and recorded later.
  - 2. Mark copy with the proprietary name and model number of products, materials, and equipment furnished, including substitutions and product options selected.
  - 3. Record the name of manufacturer, supplier, Installer, and other information necessary to provide a record of selections made.
  - 4. For each principal product, indicate whether Record Product Data has been submitted in operation and maintenance manuals instead of submitted as Record Product Data.
  - 5. Note related Change Orders, Record Product Data, and Record Drawings where applicable.

## 2.3 RECORD PRODUCT DATA

- A. Preparation: Mark Product Data to indicate the actual product installation where installation varies substantially from that indicated in Product Data submittal.
  - 1. Give particular attention to information on concealed products and installations that cannot be readily identified and recorded later.
  - 2. Include significant changes in the product delivered to Project site and changes in manufacturer's written instructions for installation.
  - 3. Note related Change Orders, Record Specifications, and Record Drawings where applicable.

## 2.4 MISCELLANEOUS RECORD SUBMITTALS

- A. Assemble miscellaneous records required by other Specification Sections for miscellaneous record keeping and submittal in connection with actual performance of the Work. Bind or file miscellaneous records and identify each, ready for continued use and reference.

PART 3 - EXECUTION

3.1 RECORDING AND MAINTENANCE

- A. Recording: Maintain one copy of each submittal during the construction period for Project Record Document purposes. Post changes and modifications to Project Record Documents as they occur; do not wait until the end of Project.
- B. Maintenance of Record Documents and Samples: Store Record Documents and Samples in the field office apart from the Contract Documents used for construction. Do not use Project Record Documents for construction purposes. Maintain Record Documents in good order and in a clean, dry, legible condition, protected from deterioration and loss. Provide access to Project Record Documents for Architect's reference during normal working hours.

END OF SECTION 017839

SECTION 017900 - DEMONSTRATION AND TRAINING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. Section includes administrative and procedural requirements for instructing Owner's personnel, including the following:
  - 1. Instruction in operation and maintenance of systems, subsystems, and equipment.
  - 2. Demonstration and training video recordings.
- B. Specified Elsewhere:
  - 1. Refer to technical sections in Divisions 2 through 32 for systems requiring demonstration and training sessions.

1.3 INFORMATIONAL SUBMITTALS

- A. Instruction Program: Submit outline of instructional program for demonstration and training, including a list of training modules and a schedule of proposed dates, times, length of instruction time, and instructors' names for each training module. Include learning objective and outline for each training module.
  - 1. Indicate proposed training modules using manufacturer-produced demonstration and training video recordings for systems, equipment, and products in lieu of video recording of live instructional module.
- B. Attendance Record: For each training module, submit list of participants and length of instruction time.

1.4 CLOSEOUT SUBMITTALS

- A. Demonstration and Training Video Recordings: Submit two copies within seven days of end of each training module.
  - 1. Identification: On each copy, provide an applied label with the following information:
    - a. Name of Project.
    - b. Name of Architect.
    - c. Name of Contractor.
    - d. Date of video recording.

1.5 COORDINATION

- A. Coordinate instruction schedule with Owner's operations. Adjust schedule as required to minimize disrupting Owner's operations and to ensure availability of Owner's personnel.
- B. Coordinate instructors, including providing notification of dates, times, length of instruction time, and course content.
- C. Coordinate content of training modules with content of approved emergency, operation, and maintenance manuals. Do not submit instruction program until operation and maintenance data have been reviewed and approved by Architect.

1.6 INSTRUCTION PROGRAM

A. Training Modules:

- 1. Emergencies: Include the following, as applicable:
  - a. Instructions on meaning of warnings, trouble indications, and error messages.
  - b. Instructions on stopping.
  - c. Shutdown instructions for each type of emergency.
  - d. Operating instructions for conditions outside of normal operating limits.
  - e. Sequences for electric or electronic systems.
  - f. Special operating instructions and procedures.
- 2. Operations: Include the following, as applicable:
  - a. Startup procedures.
  - b. Equipment or system break-in procedures.
  - c. Routine and normal operating instructions.
  - d. Regulation and control procedures.
  - e. Control sequences.
  - f. Safety procedures.
  - g. Instructions on stopping.
  - h. Normal shutdown instructions.
  - i. Operating procedures for emergencies.
  - j. Operating procedures for system, subsystem, or equipment failure.
  - k. Seasonal and weekend operating instructions.
  - l. Required sequences for electric or electronic systems.
  - m. Special operating instructions and procedures.
- 3. Adjustments: Include the following:
  - a. Alignments.
  - b. Checking adjustments.
  - c. Noise and vibration adjustments.
  - d. Economy and efficiency adjustments.
- 4. Troubleshooting: Include the following:
  - a. Diagnostic instructions.
  - b. Test and inspection procedures.
- 5. Maintenance: Include the following:

- a. Inspection procedures.
  - b. Types of cleaning agents to be used and methods of cleaning.
  - c. List of cleaning agents and methods of cleaning detrimental to product.
  - d. Procedures for routine cleaning.
  - e. Procedures for preventive maintenance.
  - f. Procedures for routine maintenance.
  - g. Instruction on use of special tools.
6. Repairs: Include the following:
- a. Diagnosis instructions.
  - b. Repair instructions.
  - c. Disassembly; component removal, repair, and replacement; and reassembly instructions.
  - d. Instructions for identifying parts and components.
  - e. Review of spare parts needed for operation and maintenance.

#### 1.7 PREPARATION

- A. Set up instructional equipment at instruction location.

#### 1.8 INSTRUCTION

- A. Engage qualified instructors to instruct Owner's personnel to adjust, operate, and maintain systems, subsystems, and equipment not part of a system.
  1. Owner will furnish Contractor with names and positions of participants.
- B. Scheduling: Provide instruction at mutually agreed-on times. For equipment that requires seasonal operation, provide similar instruction at start of each season.
  1. Schedule training with Owner, through Architect, with at least seven days' advance notice.
- C. Training Location and Reference Material: Conduct training on-site in the completed and fully operational facility using the actual equipment in-place. Conduct training using final operation and maintenance data submittals.

#### 1.9 DEMONSTRATION AND TRAINING VIDEO RECORDINGS

- A. Digital Video Recordings:
  1. Submit video recordings in electronic format.
  2. File Hierarchy: Organize folder structure and file locations according to Project Manual table of contents. Provide complete screen-based menu.
  3. File Names: Utilize file names based on name of equipment generally described in video segment, as identified in Project specifications.
- B. Recording: Mount camera on tripod before starting recording, unless otherwise necessary to adequately cover area of demonstration and training. Display continuous running time.
  1. Film training session(s) in segments not to exceed 15 minutes.
    - a. Produce segments to present a single significant piece of equipment per segment.

- b. Organize segments with multiple pieces of equipment to follow order of Project Manual table of contents.
  - c. Where a training session on a particular piece of equipment exceeds 15 minutes, stop filming and pause training session. Begin training session again upon commencement of new filming segment.
- C. Light Levels: Verify light levels are adequate to properly light equipment. Verify equipment markings are clearly visible prior to recording.
- 1. Furnish additional portable lighting as required.

PART 2 - PRODUCTS

PART 3 - EXECUTION

END OF SECTION 017900



SECTION 024119 - SELECTIVE DEMOLITION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

A. Section Includes:

1. Demolition and removal of selected portions of building or structure.
2. Salvage of existing items to be reused or recycled.

B. Related Requirements:

1. Section 011000 "Summary" for restrictions on the use of the premises, Owner-occupancy requirements, and phasing requirements.
2. Section 017300 "Execution" for cutting and patching procedures.

1.3 DEFINITIONS

- A. Remove: Detach items from existing construction and legally dispose of them off-site unless indicated to be removed and salvaged or removed and reinstalled.
- B. Remove and Reinstall: Detach items from existing construction, prepare for reuse, and reinstall where indicated.
- C. Existing to Remain: Existing items of construction that are not to be permanently removed and that are not otherwise indicated to be removed, removed and salvaged, or removed and reinstalled.

1.4 MATERIALS OWNERSHIP

- A. Unless otherwise indicated, demolition waste becomes property of Contractor.

1.5 PREINSTALLATION MEETINGS

- A. Predemolition Conference: Conduct conference at Project site.

1. Inspect and discuss condition of construction to be selectively demolished.
2. Review and finalize selective demolition schedule and verify availability of materials, demolition personnel, equipment, and facilities needed to make progress and avoid delays.
3. Review requirements of work performed by other trades that rely on substrates exposed by selective demolition operations.
4. Review areas where existing construction is to remain and requires protection.

1.6 INFORMATIONAL SUBMITTALS

- A. Proposed Protection Measures: Submit report, including drawings, that indicates the measures proposed for protecting individuals and property. Indicate proposed locations and construction of barriers.
- B. Predemolition Photographs: Submit before Work begins.
- C. Statement of Refrigerant Recovery: Signed by refrigerant recovery technician responsible for recovering refrigerant, stating that all refrigerant that was present was recovered and that recovery was performed according to EPA regulations. Include name and address of technician and date refrigerant was recovered.
- D. Warranties: Documentation indicated that existing warranties are still in effect after completion of selective demolition.

1.7 CLOSEOUT SUBMITTALS

- A. Inventory: Submit a list of items that have been removed and salvaged.

1.8 FIELD CONDITIONS

- A. Conditions existing at time of inspection for bidding purpose will be maintained by Owner as far as practical.
- B. Notify Architect of discrepancies between existing conditions and Drawings before proceeding with selective demolition.
- C. Hazardous Materials: It is not expected that hazardous materials will be encountered in the Work.
  - 1. If suspected hazardous materials are encountered, do not disturb; immediately notify Architect and Owner. Hazardous materials will be removed by Owner under a separate contract.
- D. Hazardous Materials, Lead Based Paint: When surfaces containing lead based paint are encountered during the course of demolition, comply with all applicable EPA and IEPA regulations and procedures concerning full or partial demolition.
- F. Storage or sale of removed items or materials on-site is not permitted.
- G. Utility Service: Maintain existing utilities indicated to remain in service and protect them against damage during selective demolition operations.
  - 1. Maintain fire-protection facilities in service during selective demolition operations.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

- A. Regulatory Requirements: Comply with governing EPA and IEPA notification regulations before beginning selective demolition. Comply with hauling and disposal regulations of authorities having jurisdiction.

- B. Standards: Comply with ANSI/ASSE A10.6 and NFPA 241.

### PART 3 - EXECUTION

#### 3.1 EXAMINATION

- A. Verify that utilities have been disconnected and capped before starting selective demolition operations.
- B. Review record documents of existing construction provided by Owner. Owner does not guarantee that existing conditions are same as those indicated in record documents.
- C. Survey existing conditions and correlate with requirements indicated to determine extent of selective demolition required.
- D. When unanticipated mechanical, electrical, or structural elements that conflict with intended function or design are encountered, investigate and measure the nature and extent of conflict. Promptly submit a written report to Architect.
- E. Survey of Existing Conditions: Record existing conditions by use of preconstruction photographs.
  - 1. Inventory and record the condition of items to be removed and salvaged. Provide photographs of conditions that might be misconstrued as damage caused by salvage operations.

#### 3.2 UTILITY SERVICES AND MECHANICAL/ELECTRICAL SYSTEMS

- A. Existing Services/Systems to Remain: Maintain services/systems indicated to remain and protect them against damage.
  - 1. Comply with requirements for existing services/systems interruptions specified in Section 011000 "Summary."
- B. Existing Services/Systems to Be Removed, Relocated, or Abandoned: Locate, identify, disconnect, and seal or cap off indicated utility services and mechanical/electrical systems serving areas to be selectively demolished.
  - 1. Owner will arrange to shut off indicated services/systems when requested by Contractor.
  - 2. If services/systems are required to be removed, relocated, or abandoned, provide temporary services/systems that bypass area of selective demolition and that maintain continuity of services/systems to other parts of building.
- C. Refrigerant: Remove refrigerant from mechanical equipment to be selectively demolished according to 40 CFR 82 and regulations of authorities having jurisdiction.

#### 3.3 PREPARATION

- A. Site Access and Temporary Controls: Conduct selective demolition and debris-removal operations to ensure minimum interference with roads, streets, walks, walkways, and other adjacent occupied and used facilities.

1. Comply with requirements for access and protection specified in Section 015000 "Temporary Facilities and Controls."
- B. Temporary Facilities: Provide temporary barricades and other protection required to prevent injury to people and damage to adjacent buildings and facilities to remain.
1. Provide protection to ensure safe passage of people around selective demolition area and to and from occupied portions of building.
  2. Provide temporary weather protection, during interval between selective demolition of existing construction on exterior surfaces and new construction, to prevent water leakage and damage to structure and interior areas.
  3. Protect walls, ceilings, floors, and other existing finish work that are to remain or that are exposed during selective demolition operations.
  4. Cover and protect furniture, furnishings, and equipment that have not been removed.
  5. Comply with requirements for temporary enclosures, dust control, heating, and cooling specified in Section 015000 "Temporary Facilities and Controls."

### 3.4 SELECTIVE DEMOLITION, GENERAL

- A. General: Demolish and remove existing construction only to the extent required by new construction and as indicated. Use methods required to complete the Work within limitations of governing regulations and as follows:
1. Neatly cut openings and holes plumb, square, and true to dimensions required. Use cutting methods least likely to damage construction to remain or adjoining construction. Use hand tools or small power tools designed for sawing or grinding, not hammering and chopping, to minimize disturbance of adjacent surfaces. Temporarily cover openings to remain.
  2. Cut or drill from the exposed or finished side into concealed surfaces to avoid marring existing finished surfaces.
  3. Do not use cutting torches until work area is cleared of flammable materials. At concealed spaces, such as duct and pipe interiors, verify condition and contents of hidden space before starting flame-cutting operations. Maintain fire watch and portable fire-suppression devices during flame-cutting operations.
  4. Dispose of demolished items and materials promptly.
- B. Removed and Reinstalled Items:
1. Clean and repair items to functional condition adequate for intended reuse.
  2. Protect items from damage during transport and storage.
  3. Reinstall items in locations indicated. Comply with installation requirements for new materials and equipment. Provide connections, supports, and miscellaneous materials necessary to make item functional for use indicated.
- C. Removed and Salvaged Items:
1. Carefully remove and clean face brick in sufficient quantities as may be required to reinstall at transitions between new and existing construction.
- D. Existing Items to Remain: Protect construction indicated to remain against damage and soiling during selective demolition. When permitted by Architect, items may be removed to a suitable, protected storage location during selective demolition and reinstalled in their original locations after selective demolition operations are complete.

3.5 DISPOSAL OF DEMOLISHED MATERIALS

- A. General: Except for items or materials indicated to be recycled, reused, salvaged, reinstalled, or otherwise indicated to remain Owner's property, remove demolished materials from Project site and legally dispose of them.
  - 1. Do not allow demolished materials to accumulate on-site.
  - 2. Remove and transport debris in a manner that will prevent spillage on adjacent surfaces and areas.
- B. Burning: Do not burn demolished materials.
- C. Disposal: Transport demolished materials off Owner's property and legally dispose of them.

3.6 CLEANING

- A. Clean adjacent structures and improvements of dust, dirt, and debris caused by selective demolition operations. Return adjacent areas to condition existing before selective demolition operations began.

END OF SECTION 024119

SECTION 03 30 00 - CAST-IN-PLACE CONCRETE

PART 1 - GENERAL

1.1 SECTION INCLUDES

- A. All items required for executing and completing the cast-in-place concrete work and related work shown on the drawings or specified herein. Work shall include installation of items furnished in other sections of these specifications.
- B. Concrete paving, walks, and curbs are specified in Division 32
- C. Structural notes indicated on the drawings regarding cast-in-place concrete shall be considered a part of this specification.

1.3 REFERENCES

- A. Codes and Standards: Comply with the provisions of the following codes, specifications, and standards, except where more stringent requirements are shown or specified. Where any provision of other pertinent codes and standards conflict with this specification, the more stringent provision shall govern.

- 1. ACI 117 - Specification for Tolerances for Concrete Construction and Materials.
- 2. ACI 301 - Specifications for Structural Concrete.
- 5. ACI 304R - Guide to Measuring, Mixing, Transporting, and Placing Concrete.
- 6. ACI 305.1 - Specification for Hot Weather Concreting.
- 7. ACI 306.1 - Guide to Cold Weather Concreting.
- 8. ACI 308R - Guide to External Curing of Concrete.
- 9. ACI 309R - Guide for Consolidation of Concrete.
- 10. ACI 318 - Building Code Requirements for Structural Concrete.
- 12. ASTM C31 - Standard Practice for Making and Curing Concrete Test Specimens in the Field.
- 13. ASTM C33 - Standard Specification for Concrete Aggregates.
- 14. ASTM C39 - Standard Test Method for Compressive Strength of Cylindrical Concrete Specimens.
- 15. ASTM C42 - Standard Test Method for Obtaining and Testing Drilled Cores and Sawed Beams of Concrete.
- 16. ASTM C94 - Standard Specification for Ready-Mixed Concrete.
- 17. ASTM C138 - Standard Test Method for Density (Unit Weight), Yield, and Air Content (Gravimetric) of Concrete.
- 18. ASTM C143 - Standard Test Method for Slump of Hydraulic Cement Concrete.
- 19. ASTM C150 - Standard Specification for Portland Cement.
- 20. ASTM C157 Standard Test Method for Length Change of Hardened Hydraulic Cement Mortar and Concrete
- 21. ASTM C171 - Standard Specification for Sheet Materials for Curing Concrete.
- 22. ASTM C172 - Standard Practice for Sampling Freshly Mixed Concrete.
- 23. ASTM C173 - Standard Test Method for Air Content of Freshly Mixed Concrete by the Volumetric Method.
- 24. ASTM C231 - Standard Test Method for Air Content of Freshly Mixed Concrete by the Pressure Method.
- 25. ASTM C260 - Standard Specification for Air-Entraining Admixtures for Concrete.
- 26. ASTM C309 - Standard Specification for Liquid Membrane-Forming Compounds for Curing Concrete.
- 27. ASTM C494 - Standard Specification for Chemical Admixtures for Concrete.

28. ASTM C618 - Standard Specification for Coal Fly Ash and Raw or Calcined Natural Pozzolan for Use in Concrete.
29. ASTM C1017 - Standard Specification for Chemical Admixtures for Use in Producing Flowing Concrete.
30. ASTM C1059 - Standard Specification for Latex Agents for Bonding Fresh to Hardened Concrete.
31. ASTM C1064 - Standard Test Method for Temperature of Freshly Mixed Hydraulic Cement Concrete.
32. ASTM C1077 - Standard Practice for Agencies Testing Concrete and Concrete Aggregates for Use in Construction and Criteria for Testing Agency Evaluation.
33. ASTM C1107 - Standard Specification for Packaged Dry, Hydraulic-Cement Grout (Nonshrink).
34. ASTM D1751 - Standard Specification for Preformed Expansion Joint Filler for Concrete Paving and Structural Construction (Nonextruding and Resilient Bituminous Types).
35. ASTM D2103 - Standard Specification for Polyethylene Film and Sheeting.
36. ASTM E154 - Standard Test Methods for Water Vapor Retarders Used in Contact with Earth Under Concrete Slabs, on Walls, or as Ground Cover.
37. ASTM E329 - Standard Specification for Agencies Engaged in Construction Inspection, Testing, or Special Inspection.
38. ASTM E1745 - Standard Specification for Plastic Water Vapor Retarders Used in Contact with Soil or Granular Fill under Concrete Slabs.
39. Concrete Reinforcing Steel Institute (CRSI) - Manual of Standard Practice.

1.4 TESTING AND INSPECTION

A. Inspection and Testing

1. In accordance with Chapter 17 of the International Building Code, the Contractor shall employ an Inspection Agency to perform the duties and responsibilities specified in Section 1704.0 of the IBC.
2. Duties of the Inspection Agency:
  - a. Perform all testing and inspection required per the Testing and Inspection Schedule indicated below.
  - b. Furnish inspection reports to the building official, the Owner, the Architect, the Engineer of Record, and the General Contractor. The reports shall be completed and furnished within 48 hours of inspected work.
  - c. Submit a final signed report stating whether the work requiring special inspection was, to the best of the Inspection Agency’s knowledge in conformance with the approved plans and specifications.
3. Structural Component Testing and Inspection Schedule for Section 03 30 00 is as:

	Continuous	Periodic	Referenced Standard	IBC Reference
Concrete and Concrete Placement				
Review of proposed mix design and supporting test results		X		
Inspect anchors cast in concrete		X	ACI 318: 17.8.2	
Inspect anchors post-installed in hardened concrete members.				

B. Mechanical anchors and adhesive anchors not defined in row above.		X	ACI 318: 17.8.2	
Verify use of required design mix		X	ACI 318: Ch. 19, 26.4.3, 26.4.4	1904.1, 1904.2,
Prior to concrete placement, fabricate specimens for strength tests, perform slump and air content tests, and determine the temperature of the concrete.	X		ASTM C172, ASTM C31, ACI 318: 26.4, 26.12	
Inspection of concrete placement for proper application techniques	X		ACI 318: 26.5	
Verify maintenance of specified curing temperature and techniques.		X	ACI 318: 26.5.3-26.5.5	

B. Sampling and testing requirements:

1. Maintain records verifying materials used are of the specified and accepted types and sizes and are in conformance with the requirements of the Contract Documents.
2. Use of testing services will not relieve the Contractor of the responsibility to furnish materials and construction in full compliance with the Contract Documents.
3. Take samples of fresh concrete at the job site for each mix design placed each day. Sampling and testing shall be done after the final addition and proper mixing of any water or admixtures that are added on site.
  - a. Personnel and testing equipment shall meet the requirements of ASTM E329.
  - b. Testing Frequency: Obtain at least one composite sample for each 150 cu. yd. or 5,000 sq. ft. of surface area, whichever is less or fraction thereof of each concrete mixture placed each day.
    - 1) On a given project, if the total volume of concrete is such that the frequency of testing required above would provide less than five strength tests for a given class of concrete, tests shall be made from at least five randomly selected batches or from each batch if fewer than five batches are used.
  - c. A strength test shall be the average of the strengths of two 6x12 inch or three 4x8 inch cylinders made from the same sample of concrete and tested at 28 days.
4. For each sample of fresh concrete, perform the following duties:
  - a. Measure and record slump in accordance with ASTM C143.
  - b. Measure and record temperature in accordance with ASTM C1064.
    - 1) Provide one test hourly when air temperature is 40°F and below and when 80°F and above, and one test for each composite sample.
  - c. Measure and record air content by volume in accordance with either ASTM C231 or ASTM C173.
  - d. Mold three 6x12 inch or four 4x8 inch cylinders (laboratory cylinders) in accordance with ASTM C31 to be laboratory-cured. Protect from moisture loss and maintain at 60°F to 80°F for 24 to 48 hours before moving. Deliver cylinders to testing laboratory for curing and testing.



- e. Mold two 6x12 inch or three 4x8 inch cylinder (field cylinder) in accordance with ASTM C31 to be field-cured. Field cylinder shall be placed as near as possible to the in-place concrete from which it was taken, protected, and cured in the same manner. Deliver field-cured cylinder to testing laboratory, and measure and record compressive strength in accordance with ASTM C39. Field cylinder shall be used to determine if concrete footings, walls, or piers have reached the required compressive strength for steel erection to begin.
5. Measure and record compressive strength in accordance with ASTM C39 for laboratory cylinders. Test one laboratory cylinder at 7 days and all other cylinders at 28 days. Acceptance is based on the average of the two 6x12 inch or three 4x8 inch laboratory cured 28-day tests. Notify Architect in the event strength levels do not meet the acceptance requirements of ACI 318.
  - a. Any additional cylinders molded for Contractor to have a compressive strength test done before seven days shall be at the Contractor's expense.
6. Prepare and submit test reports to the Architect, Engineer, Contractor, and Supplier. Reports shall be completed and furnished within 48 hours of testing. Refer to description in Submittals.
7. When strength of field-cured cylinders is less than 85 percent of companion laboratory-cured cylinders, Contractor shall evaluate operations and provide corrective procedures for protecting and curing in-place concrete.
8. Should the strength of any grade of concrete for any portion of work, as indicated by molded test cylinders, fall below the minimum 28-day compressive strength specified on the drawings, upon approval of the Structural Engineer of Record (SEOR), the concrete supplier shall adjust the concrete mix for remaining portion of construction so that the resulting concrete meets the minimum strength requirements.

## 1.5 SUBMITTALS

- A. Concrete Materials: Submit information on concrete materials as listed below.
  1. Cementitious materials: Submit type, class, producer name, and certification not more than 90 days old of compliance with applicable ASTM standard.
  2. Aggregates: Submit type, pit or quarry location, producer name, gradations, specific gravity, water content, and certification not more than 90 days old.
  3. Admixtures: Submit product data sheet. Product data shall include dosages and performance data, brand names, producers, chloride ion concentrations, and certifications of compliance with applicable ASTM standard. Certifications shall not be more than 90 days old.
  4. Water: Submit name of source.
- B. Product Data: Prepare and submit product and performance data for materials and accessories, including patching compounds, joint systems, curing compounds, finish materials and other concrete related items.
- C. Testing Agency Qualifications: When requested, the proposed testing agencies shall submit data on qualifications for acceptance.
- D. Concrete Mix Design:

1. Concrete mix design submittals shall be submitted to the SEOR for review and approval at least 14 days prior to placing concrete.
  2. Submit concrete mixture proportions and characteristics for each concrete mix. Include standard deviation analysis or trial batch data with mix design. Submit historical field test data to demonstrate the average compressive strength for approval. Concrete mix proportions, materials, and handling methods for field test data or trial batches shall be the same as used for the work. Include the following information for each mix design:
    - a. Water/cementitious materials ratio.
    - b. Slump per ASTM C143
    - c. Air content per ASTM C231 or ASTM C173
    - d. Unit weight of concrete per ASTM C138
    - e. Compressive strength at 28 days per ASTM C39
  3. If trial batches are used, submit representative samples of each proposed ingredient to independent testing laboratory for use in preparation of mix design.
  4. Include alternate mix designs when characteristics of materials, project conditions, weather, test results, or other circumstances warrant adjustments. Indicate amounts of mix water to be withheld for later addition at Project site.
  5. Provide a record copy of the final mix designs and test results to the testing agency prior to commencement of the concrete work.
- E. Concrete Finish Shop Drawings: Submit drawings indicating type of finish to be used at each location.
- G. Construction Sequence Submittal: Contractor shall submit an elevated slab construction sequence indicating construction joints and the pour sequence.
- H. Test Reports: Submit laboratory test reports for concrete materials, mix design, compressive strength, slump, air content, and temperature. Each report shall indicate date of sampling, date of test, mix design, and location of concrete in structure.
- I. Repair Methods: When stains, rust, efflorescence, and surface deposits must be removed, submit the proposed method of removal.
- J. Certificates: Submit written certification regarding the design mix from the ready-mix supplier and the admixture manufacturer stating all concrete and admixtures do not contain chloride ions in excess of concentrations specified herein.
- K. Placement Notification: Notify the Architect at least 24 hours in advance of concrete placement.
- L. Adjustments: Submit any adjustments to mixture proportions or changes in materials, suppliers, or sources, along with supporting documentation, during the course of the work.
- M. Cold Weather Procedure Submittal: Refer to Cold Weather Concreting article in Part 3 for more information.
- N. Record Documents: Accurately record actual locations of embedded utilities and components that are concealed from view.

#### 1.6 DELIVERY, STORAGE, AND HANDLING

- A. Cementitious materials: Store cementitious materials in dry weather tight buildings, bins, or silos

that exclude contaminants.

- B. Aggregates: Store and handle aggregate in a manner that will avoid segregation and prevent contamination with other materials or other sizes of aggregates. Store aggregates so as to drain freely.
- C. Admixtures: Protect stored admixtures against contamination, evaporation, or damage. Protect liquid admixtures from freezing and temperature changes, which would adversely affect their performance. Handle chemical admixtures in accordance with manufacturer's instructions.

## PART 2 - PRODUCTS

### 2.1 CONCRETE MATERIALS

- A. Portland Cement: Portland cement shall conform to ASTM C150, Type I Normal, and be a standard brand of Portland cement. Use one brand of cement throughout project, unless approved in writing by the Engineer. Cement, which conforms to ASTM C150 Type II, may be used if it also meets the requirements of ASTM C150 Type I. Cement used in concrete shall be of the same brand and type as the cement used in the concrete represented by the submitted field test data or used in the trial mixtures. Maintain consistent cement color throughout project unless directed otherwise by architectural requirements.
  - 1. Total replacement of Portland cement by supplementary cementitious materials in design mixture shall not exceed 50% (by weight).
- B. Supplementary Cementitious Materials
  - 1. Fly Ash: Fly ash shall conform to ASTM C618, Class C or Class F. Replacement of Portland cement by fly ash shall not exceed the following (percentages are by weight):
    - a. Concrete Flatwork: 20 percent.
    - b. Mass Concrete (more than two feet thick): 50 percent.
    - c. All other concrete: 25 percent.
    - d. Concrete to be placed in cold weather as defined herein: No fly ash allowed unless the cold weather procedure submitted has compensated for the increased setting time and decreased rate of strength gain due to cold weather and fly ash.
  - 2. Slag Cement: ASTM C989, Grade 100 or 120.
    - a. Ground Granulated Blast-Furnace Slag Limit: 50% by weight of total cementitious materials.
    - b. In mass concrete more than 2 feet thick, the usage rate may be 80% by weight of total cementitious materials.
  - 3. Combined Fly Ash and Ground Granulated Blast-Furnace Slag:
    - a. Supplementary Cementitious Materials Limit: 50% with fly ash not exceeding 25% by weight of total cementitious materials.
    - b. In mass concrete more than 2 feet thick: 80% with fly ash not exceeding 50% by weight of total cementitious materials.
- C. Coarse Aggregate for Normal Weight Concrete: Comply with ASTM C33. Provide coarse

aggregate from a single source for exposed concrete. Gradations shall be similar to that described in the following table:

COARSE AGGREGATE GRADATIONS							
SIEVE SIZE - PERCENT PASSING							
Grade No.	1-1/2"	1"	3/4"	1/2"	3/8"	No. 4	No. 16
4	90-100 Note 1	20-55	0-15	---	0-5		---
57	100	95-100	---	25-60	0-10	0-10	---
67		100	90-100	---	20-55	0-10	---
89	---	---	---	100	90-100	20-55	0-10

1. Shall be 100 percent passing the 2" sieve.

- D. Fine Aggregate for Normal Weight Concrete: Comply with ASTM C33. Provide fine aggregate from a single source for exposed concrete. Fine aggregate shall consist of washed sand. Gradations shall be similar to that described in the following table:

FINE AGGREGATE GRADATIONS							
SIEVE SIZE - PERCENT PASSING							
Grade No.	3/8	No. 4	No. 8	No. 16	No. 50	No. 80	No. 100
FA	100	95-100	80-100	50-85	5-30	---	0-10

- E. Do not use aggregates containing deleterious substances that could cause spalling on any exterior exposed surface. These include, but are not limited to the following:

1. Organic impurities.
2. Ferrous metals.
3. Soluble salts.
4. Coal, lignite, or other lightweight materials.
5. Soft particles.
6. Clay lumps and friable particles.
7. Cherts of less than 2.40 specific gravity.

- F. Water: Mixing water for concrete shall meet the requirements of ASTM C94. Water shall be clean and free from injurious amounts of acids, alkalis, organic materials, chloride ions and oils deleterious to concrete or reinforcing steel.

- G. Testing agency shall be given access to plants and stockpiles to obtain samples for testing for compliance with the Contract Documents.

## 2.2 ADMIXTURES

- A. Chemical Admixtures: Provide admixtures certified by manufacturer to be compatible with other admixtures. Calcium chloride thiocyanates or admixtures containing intentionally added

chlorides are not permitted.

- B. Water Reducing Admixture: Material shall comply with ASTM C494, Type A. Acceptable manufacturers and products include:
1. BASF Corporation - MasterPozzolith Series or MasterPolyheed Series.
  2. Euclid Chemical Company - Eucon WR Series.
  3. Sika Chemical Corp. - Plastocrete 161.
  4. GRT – Polychem 400 NC.
  5. Grace Construction Products - WRDA 82.
- C. High Range Water Reducing Admixture (superplasticizer): Material shall comply with ASTM C494, Type F or Type G. Acceptable manufacturers and products include:
1. BASF Corporation - MasterRheobuild 1000 or MasterGlenium Series.
  2. Euclid Chemical Company - Eucon 37 or Plastol Series.
  3. Sika – ViscoCrete 2100.
  4. GRT – Melchem.
  5. Grace Construction Products - Mira 110.
- D. High Range Water Reducing, Slump Retaining Admixture: Material shall comply with ASTM C494, Type F or Type G. Acceptable manufacturers and products include:
1. BASF Corporation - MasterGlenium 7700.
  2. Euclid Chemical Company - Eucon 537, Eucon 1037, or Plastol Series.
  3. Sika – Sikament 686
  4. GRT – Melchem – M.
  5. Grace Construction Products – ADVA FLEX.
- E. Non-Chloride Accelerator: Material shall comply with ASTM C494, Type C or Type E, and not contain a higher chloride ion concentration than municipal drinking water. Acceptable manufacturers and products include:
1. BASF Corporation - MasterSet FP 20 or MasterSet AC 534.
  2. Euclid Chemical Company - Accelguard Series.
  3. Sika Chemical Corp. - Sika Rapid-1.
  4. GRT – Polychem HE.
  5. Grace Construction Products – Lubricon NCA.
- F. Air Entraining Admixture: Air entraining admixture shall comply with ASTM C260, and be certified by the manufacturer to be compatible with other admixtures to be used. Acceptable manufacturers and products include:
1. BASF Corporation - MasterAir Series.
  2. Euclid Chemical Company - Air-Mix or AEA Series.
  3. Sika Chemical Corporation - Sika-Aer.
  4. GRT – Polychem VR.
  5. Grace Construction Products - Darex II or Daravair 1000.
- G. Shrinkage Reducing and/or Shrinkage Compensating Admixture: Admixture used for the compensation and reduction of shrinkage in Portland cement concrete. Acceptable manufacturers and products include:
1. Euclid Chemical Company - Conex.
  2. Grace Construction Products - Eclipse Floor 200.
  3. BASF Corporation - MasterLife SRA Series or MasterLife CRA 007 MasterSure Z60

MasterLife 300D.

- H. Corrosion-Inhibiting Admixture: Commercially formulated, anodic inhibitor or mixed cathodic and anodic inhibitor; capable of forming a protective barrier and minimizing chloride reactions with steel reinforcement in concrete. Acceptable manufacturers and products:
1. Axim Concrete Technologies - Catexol 1000CL
  2. BASF Corporation - MasterLife CI 30 or MasterLife CI 222.
  3. Cortec Corporation - MCI 2000 or MCI 2005
  4. W. R. Grace & Co - DCI or DCI-S
  5. Sika Corporation - FerroGard-901
  6. Euclid Chemical Company - Eucon CIA
- I. Admixtures used in concrete shall be the same brand, type, and dosage used in concrete represented by field test data or used in trial mixes.
- J. Concrete Water Vapor Reducing Admixture: Refer to Section 03 05 13 for vapor reducing admixture for all slab on grade within the building enclosure.
- K. Water Reducing and Retarding Admixture: Material shall comply with ASTM C494, Types B and D. Acceptable manufacturers and products include:
1. BASF Corporation - MasterSet R Series or MasterSet DELVO Series.
  2. Euclid Chemical Company - Eucon Retarder Series.
  3. Sika Chemical Corporation - Plastiment.
  4. GRT – Polychem – R.
  5. Grace Construction Products - Daratard 17 or Recover.

## 2.3 CURING PRODUCTS

- A. Moisture Retaining Cover:
1. Plastic Film: Use 6 mil polyethylene film sheet materials that meet the requirements of  
ASTM  
C171.
  2. White burlap-polyethylene sheet meeting ASTM C171.
  3. Reinforced Curing Paper complying with ASTM C171.
  4. Moisture Retaining Fabric: A naturally colored, non-woven, polypropylene fabric with a  
4-mil, non-perforated reflective (white) polyethylene coating containing stabilizers to resist degradation from ultraviolet light. Fabric shall exhibit low permeability and high moisture retention. Acceptable manufacturers and products include:
    - a. PNA Construction Technologies, Inc.: Hydracure S16.
    - b. PNA Construction Technologies, Inc.: Hydracure M5.
    - c. Reef Industries Incorporated: Transguard 4000.
- B. Dissipating Resin Curing Compound: Clear, waterborne, membrane-forming curing compound complying with ASTM C309, Type 1, Class B shall be composed of hydrocarbon resins and dissipating agents that begin to break down upon exposure to ultraviolet light and traffic approximately 4 to 6 weeks after application, providing a film that is removable with standard degreasing agents, and mechanized scrubbing actions so as to not impair the later addition of applied

finishes.

1. Curing compounds used on interior enclosed environments shall be a water-borne product and VOC compliant as required by the U.S. EPA Architectural Coating Rule.
- C. Non-dissipating Curing Compound: Clear, membrane-forming curing compound complying with ASTM C309, Type 1, Class B.
1. Curing compounds used on interior enclosed environments shall be a water-borne product and VOC compliant as required by the U.S. EPA Architectural Coating Rule.
- D. Curing and Sealing Compound: Clear, membrane-forming curing and sealing compound complying with ASTM C309, Type 1, and ASTM C1315, Type 1, Class A. Compound shall dry to a clear finish, resist yellowing due to ultraviolet degradation and provide a long-lasting finish that has high resistance to chemicals, oil, grease, deicing salts, and abrasion.
1. Curing and sealing compounds used on interior enclosed environments shall be a water-borne product and VOC compliant as required by the U.S. EPA Architectural Coating Rule.

#### 2.4 MISCELLANEOUS MATERIALS

- A. Patching Mortar: Non-shrink, non-slump, non-metallic, quick setting. Acceptable manufacturers and products:
1. Euclid Chemical Company - Eucospeed.
  2. BASF Corporation - MasterEmaco N 424.
  3. Adhesive Technologies. - Hard Rok Vertipatch.
  4. W.R. Meadows - Speed Crete (Red Line).
  5. Dayton Superior – Re-Crete 20 minute.
  6. SpecChem - Precast Patch.
- B. Cement Grout: Mix 1-part Portland cement, 2-1/2 to 3 parts fine aggregate, and enough water for required consistency. Depending on use, consistency may range from mortar consistency to a mixture that will flow under its own weight. Do not mix more than the amount that can be used within 30 minutes. Retempering is not permitted. Use for leveling, preparing setting pads, beds, construction joints (with liquid bonding admixture) and similar uses. Do not use for grouting under bearing plates or structural members in place.
- C. Dry-Pack: Mix 1-part Portland cement, 2 parts fine aggregate, and enough water to hydrate cement and provide a mixture that can be molded with the hands into a stable ball (a stiff mix). Do not mix more than the amount that can be used within 30 minutes.
- D. Expansion Joint Material: Preformed, resilient, non-extruding asphalt-impregnated fiber conforming to ASTM D1751. Thickness of expansion joint material shall be 1/2” unless noted otherwise on the drawings.
- E. Magnesium phosphate patching cement specially designed for cold weather grouting and anchoring. Acceptable Manufacturer:
1. BASF Corporation - MasterEmaco T545.
  2. Euclid Chemical Company - Eucospeed MP.
- F. Bonding Agent: “Weld-Crete” manufactured by the Larsen Products Corporation or “Nitobond Acrylic” manufactured by Fosroc Inc., or approved equivalent.

- G. Anti-Bonding Agent: “Thompson’s Water Seal” as manufactured by A. E. Thompson, Inc., California or approved equivalent.
- H. Penetrating Liquid Floor Treatment: Chemically reactive, waterborne solution of inorganic silicate or silicate materials and proprietary components; odorless; colorless; that penetrates, hardens, and densifies concrete surfaces. Acceptable manufacturers and products:
  - 1. BASF Corporation - MasterKure HD 200WB.
  - 2. Conspec Marketing & Manufacturing Co., Inc. - Intraseal
  - 3. Curecrete Chemical Co., Inc. - Ashford Formula
  - 4. Dayton Superior Corporation - Day-Chem Sure Hard (J-17)
  - 5. Euclid Chemical Company - Eucosil
  - 6. L&M Construction Chemicals, Inc. - Seal Hard
  - 7. Vexcon Chemicals, Inc - Vexcon Starseal PS
  - 8. SpecChem - SpecHard
- I. Epoxy-Bonding Adhesive: ASTM C 881, two-component epoxy resin, capable of humid curing and bonding to damp surfaces, of class and grade to suit requirements, and as follows:
  - 1. Type II, non-load bearing, for bonding freshly mixed concrete to hardened concrete.
  - 2. Types I and II, non-load bearing, for bonding hardened or freshly mixed concrete to hardened concrete.
  - 3. Types IV and V, load bearing, for bonding hardened or freshly mixed concrete to hardened concrete.
- J. Control Joint Filler: Flexible, single-component polyurethane sealant with backer rod compliant with ASTM C 920, Type S, Grade P, Class 25. Apply sealant per manufacturers written recommendations. Acceptable manufacturers and products:
  - 1. Dayton Superior – Perma 230 SL.
  - 2. Euclid Chemical Company – Eucolastic I.
  - 3. BASF Corporation - MasterSeal SL 1.
- K. Slip-Resistive Aggregate Finish: Factory-graded, packaged, rustproof, non-glazing, abrasive aggregate of fused aluminum-oxide granules or crushed emery with emery aggregate containing not less than 50 percent aluminum oxide and not less than 25 percent ferric oxide; unaffected by freezing, moisture, and cleaning materials.

2.5 STRENGTH AND PROPERTIES

- A. Concrete Mix Designs: Refer to drawings for specified compressive strength. Proportion concrete mixes according to the properties in the following tables. The concrete supplier may produce a mix at a lower water-cement ratio to allow for adjustment of slump at the site by adding water. The addition of site water shall be in accordance with ASTM C94, and the total water-cement ratio shall not exceed the value specified below.

Class	Coarse Aggregate Gradation	Fine Aggregate Gradation	Range of Slump	Max. w/c	Air Content	Other Requirements
A	57 or 67	FA	1" to 4"	0.40	5% to 8%	
B	57 or 67	FA	1" to 4"	0.45	5% to 8%	
C	57 or 67	FA	1" to 4"	0.50	—	



D	57 or 67	FA	4" to 6"	0.50	—	Use water reducing admixture to achieve slump specified
E	4 or 57	FA	1" to 4"	0.50	—	
F	4 or 57	FA	5" to 8"	0.50	—	Use retarder
H	89	FA	5" to 8"	0.50	—	
J	Lightweight	FA	5" max	0.5	4% to 7%	Maximum 107-116 pcf dry density

Note: w/c = water-cementitious materials ratio.

- B. Schedule of Concrete Classes: Provide concrete of the specified class according to the following schedule.
1. Footings: Class E
  2. Exterior foundation walls and piers: Class B
  3. Interior piers: Class C
  4. Retaining walls: Class B
  5. Interior slabs on grade: Class D
  6. Interior slab on metal decks: Class D
  7. Floor topping: Class H
  8. Unless noted otherwise: Class B
- C. Slump of Superplasticized Concrete: Concrete containing high-range water reducing admixtures (superplasticizer) shall have 8" maximum slump, unless otherwise approved by Structural Engineer.
- D. Compliance with Fire Assembly: All concrete supplied for slab on metal decks shall meet the requirements for a 2-hour floor construction per UL assembly number D925. Specifically, the concrete must meet the following:
1. Be vibrated during placement.
  2. Be constructed to maintain a minimum 3-1/4-inch slab thickness above the metal flutes.
- E. Accelerators: Add non-chloride accelerator to all concrete slabs placed at air temperatures below 50°F only when approved in the mix design. Use of admixtures will not relax cold weather placement requirements.
- F. Water Reducer: Add water reducing admixture or high range water reducing admixtures (superplasticizers) as follows:
1. All pumped concrete.
  2. Fiber reinforced concrete.
  3. As required for placement or workability.
  4. As required by high temperatures, low humidity, or other adverse placement conditions.
  5. Concrete with water-cementitious materials ratio below 0.50.
- G. No other admixtures shall be used unless approved by SEOR.
- H. Chlorides: Admixtures or other ingredients including aggregates containing calcium chloride or more than 0.05% chloride ions by weight shall not be used.

- I. Workability: Concrete shall have a workability such that it will fill the forms without voids, honeycombs, or rock pockets with proper vibration without permitting materials to separate or excess water to collect on the surface.
- J. Concrete Temperatures: Minimum concrete temperature of fresh concrete varies in relation to average air temperature over a 24-hour period as follows:
  - 1. Air temperature below 0°F Concrete temperature 70°F min.
  - 2. Air temperature 0°F to 30°F Concrete temperature 65°F min.
  - 3. Air temperature 30°F to 50°F Concrete temperature 50°F min.
  - 4. Air temperature above 50°F No minimum temperature

The maximum temperature of concrete at the time of delivery shall be 90°F. When concrete temperature exceeds 90°F, concrete supplier shall attempt to reduce temperature by shading aggregates and cement and cooling mix water. When these methods fail to reduce concrete temperature below 90°F, supplier shall use ice in the water to reduce the concrete temperature. Use set retarding admixtures only when approved in the mix design.

### PART 3 - EXECUTION

#### 3.1 PREPARATION

- A. Verify requirements for concrete cover over reinforcement.
- B. Verify that anchors, seats, plates, reinforcement, and other items to be cast into concrete are accurately placed, positioned securely, and will not cause hardship in placing concrete.
- C. Do not place concrete until data on materials and mix designs have been approved, Architect has been notified, and all other affected trades have coordinated their work.
- D. Remove snow, ice, frost, water, mud, and other foreign material from surfaces, reinforcing bars and embedded items against which concrete will be placed.
- E. Prepare previously placed concrete by cleaning with sandblasting, steel brush, or water blast to expose aggregate to minimum 1/4" amplitude.
- F. Sandblast all existing concrete surfaces older than 28 days against which concrete is to be placed, unless directed otherwise in writing by Architect/Engineer.

#### 3.2 CONCRETE PLACEMENT

- A. Place concrete as continuously as possible until placement is complete. Do not place against concrete that has attained initial set, except at authorized joints. If, for any reason, concrete pour is delayed for more than 45 minutes, bulkhead off pour at last acceptable construction joint. Immediately remove excess concrete and clean forms.
- B. Do not begin to place concrete during periods of rain, sleet or snow unless adequate protection is provided.
- C. No concrete shall be cast onto or against sub-grades containing free water, frost, ice or snow. If earth at bottom of forms has dried out, rewet so the soil is moist, but free of standing water and mud.
- D. Notify the architect in advance if concrete is to be pumped.
- E. Do not place concrete until all reinforcement is in place, forms have been thoroughly cleaned and approval has been given.

- F. Do not accept concrete delivered to the job site more than 90 minutes after initial mixing.
- G. Concrete from its point of release to mixers, hoppers, or conveyances, shall not be permitted to drop more than 5 feet (10 feet for concrete containing high range water reducers). Deposit concrete directly into conveyances and directly from conveyances to final points of deposit. Sufficient transportation equipment in good working order shall be on hand before work begins. All conveying equipment must be clean and kept clean during concreting operations. Take every possible precaution to prevent segregation or loss of ingredients.
- H. Regulate rate of placement so concrete surface is kept level throughout; a minimum being permitted to flow from one area to another. Use tremie heads spaced at approximately 10-foot intervals for placing concrete in walls. Control rate of placement consistent with form design.
- I. Deposit concrete in one continuous operation until section being placed has been completed. For slab thicknesses greater than 12 inches, prevent excessive segregation of aggregate and high temperatures in accordance with ACI 304 and ACI 308. Place concrete in wall forms in layers not greater than 12 inches in depth, each layer being compacted by internal vibration before succeeding layer is placed.
- J. Place concrete as near as possible to its final position to prevent segregation or loss of materials. Do not use vibrators to transport concrete within forms. Consolidate concrete in walls, columns, beams and slabs or joist construction thicker than 8" with internal vibrators (8,000 to 12,000 VPM). Slabs less than 8" thick may be consolidated with internal vibrators (9,000 to 13,500 VPM) or vibrating screeds supported on forms, boards or rails, approved by SEOR, supplement vibration by forking or spading by hand along surfaces adjacent to forms and construction joints. Be sure an adequate number of operating vibrator units are on hand to properly consolidate quantity of concrete to be placed, including spares for emergency use.
  - 1. Vertically insert and remove handheld vibrators at constant intervals 18 to 30 inches apart. Vibrate concrete the maximum amount and time required for complete consolidation, without segregation, and release of entrapped air bubbles, but in no instance exceed 15 seconds per square foot of exposed surface.
- K. Place concrete during daylight hours, unless permitted otherwise by the SEOR.
- L. Re-tempering of concrete shall not be permitted. Concrete that has stood more than 15 minutes after leaving the mixer shall be discarded.
- M. Exercise care in placing concrete over waterproof membranes, rigid insulation and/or protection boards to avoid damaging those materials. Report damage immediately, and do not proceed until damage is repaired.
- N. Remove loose debris from hardened surfaces of previous pours by sandblasting surfaces and expose clean coarse aggregate firmly embedded in mortar matrix.
- O. Protect existing concrete work to be exposed to view and other finished materials from damage and staining resulting from concreting operations. Handle concrete carefully to avoid dripping and spillage. Remove spilled concrete from existing surfaces immediately. Covering sills, ledges, and other surfaces with protective coverings may be necessary to protect the work.
- P. Filling In: Fill in holes and openings left in concrete structures, unless otherwise indicated, after work of other trades is in place. Mix, place, and cure concrete, as specified, to blend with in-place construction. Provide other miscellaneous concrete filling indicated or required to complete Work.
- Q. Equipment Bases and Foundations: Provide machine and equipment bases and foundations as

shown on drawings. Set anchor rods for machines and equipment at correct elevations, complying with diagrams or templates of manufacturer furnishing machines and equipment.

- R. Steel Pan Stairs: Provide concrete fill for steel pan stair treads, landings, and associated items. Cast-in inserts and accessories as shown on drawings. Screed, tamp, and trowel-finish concrete surfaces.

### 3.3 CONCRETE FINISHES AND TOLERANCES

- A. Exposed Smooth Formed Surfaces: Remove forms and perform necessary repairs and patch to produce surface finish-3.0 as specified in ACI 301. Apply the following to smooth-formed finished concrete exposed to view in the finished work. Confirm finishes with architect prior to concrete placement by submitting shop drawings indicating locations of all types of finishes.

- 1. Smooth-Rubbed Finish: Not later than one day after form removal, moisten concrete surfaces and rub with carborundum brick or another abrasive until producing a uniform color and texture. Do not apply cement grout other than that created by the rubbing process.

- B. Related Unformed Surfaces: At tops of walls, horizontal offsets, and similar unformed surfaces adjacent to formed surfaces, strike off smooth and finish with a texture matching adjacent formed surfaces. Continue final surface treatment of formed surfaces uniformly across adjacent unformed surfaces, unless otherwise indicated.

### 3.4 CONCRETE CURING

- A. Freshly placed concrete shall be protected from premature drying and excessively hot temperatures. B. Concrete other than high-early strength shall be maintained above 50°F and in a moist condition for at least the first 7 days after placement, except when special curing is used. Special curing procedures shall not be used without written permission from the SEOR.

- C. High-early strength concrete shall be maintained above 50°F and in a moist condition until it has reached 2/3 of the specified 28-day compressive strength, but not less than 3 days unless special curing is used with written permission from the SEOR. Formed surfaces shall be cured by leaving the formwork in place during the curing period.

- D. Protect concrete from excessive changes in temperature during the curing period and at the termination of the curing process. Changes in the temperature of the concrete shall be as uniform as possible and shall not exceed 5°F in any one hour or 50°F in any 24-hour period.

- E. Protect concrete from injury from the elements until full strength is developed. Protect from mechanical injury.

- F. During cold weather construction, all footings shall be protected from frost penetration until the building is enclosed and temporary heat is provided.

### 3.5 COLD WEATHER CONCRETING

- A. Definition: Cold weather shall be defined as a period when for more than three successive days the average daily outdoor temperature drops below 40°F. The average daily temperature is the average of the highest and lowest temperature during the period from midnight to midnight. When temperatures above 50°F occur during more than half of any 24-hour duration, the period shall not be regarded as cold weather.

- B. All cast-in-place concrete work occurring during cold weather shall conform to all requirements of ACI 306.1, “Standard Specification for Cold Weather Concreting”, published by the American Concrete Institute, Detroit, Michigan, except as modified by the contract documents or this specification.
- C. Planning: The General Contractor, concrete contractor, concrete supplier and the architect shall have a pre-construction conference to outline the cold weather concreting operations concerning the placing, finishing, curing and protection of the concrete during cold weather. Pre-construction conference shall occur before cold weather is expected to occur.
- D. Detailed procedure submittal: Concrete contractor shall prepare and submit for review detailed procedures for the production, transportation placement, protection, curing and temperature monitoring of concrete during cold weather. Include procedures to be implemented upon abrupt changes in weather conditions. Do not begin cold weather concreting until these procedures have been reviewed and approved
- E. Mixing: Concrete flatwork poured in cold weather shall be proportioned to obtain a lower slump to minimize the amount of bleed water during finishing. All bleed water should be skimmed off flatwork prior to troweling. Concrete that will be exposed to cycles of freezing and thawing while saturated should be properly air entrained as outlined in this specification.
- F. Protection of Concrete: Cure and protect concrete against damage from freezing for a minimum period of 72 hours, unless approved by the structural engineer. The protection period may be reduced according to ACI 306.1 requirements. Concrete contractor shall submit a letter of request to reduce the protection period, by outlining the method used to achieve the reduction per ACI 306.1.
  - 1. When practical for the construction schedule, formwork shall be insulated and remain in place for at least the required protection period.
- G. Concrete Temperatures: The minimum temperature of concrete immediately after placement shall be as specified in the following table.

Section Size	Minimum temperature of concrete as placed and maintained during the protection period	Maximum gradual decrease in surface temperature during any 24 hours after the end of the protection.	Mixing Temperatures		
			Above 30°F	0 to 30°F	Below 0°F
< 12 in	55°F	50°F	60°F	65°F	70°F
12-36 in	50°F	40°F	55°F	60°F	65°F
36-72 in	50°F	30°F	50°F	55°F	60°F
> 72 in	50°F	20°F	45°F	50°F	55°F

- H. Mixing Temperatures: As the ambient air temperature decreases the concrete mixing temperature shall be increased to compensate for the heat lost in the period between mixing and placement. The concrete supplier shall use one or both of the following methods for increasing the concrete temperature.
  - 1. Heating the mixing water to a temperature necessary to offset the temperature losses during transport. Supplier shall not heat water to temperatures in excess of 140°F, without taking special precautions as outlined in ACI 306.
  - 2. Heating the aggregate with a circulated steam piping system.

- I. Temperature measurements: The Contractor shall be responsible for monitoring and recording the concrete temperatures during placement and throughout the protection period.
  - 1. Inspection personnel shall keep a record of the date, time, outside air temperature, temperature of concrete as placed, and weather conditions.
  - 2. Temperature of the concrete and the outside air shall be recorded at regular intervals but not less than twice in a 24-hour period. The record shall include temperatures at several points within the enclosure and on the concrete surface of sufficient frequency to determine a range of temperatures.
    - 1. Inspection agency shall submit the temperature logs to the Architect for permanent job records.

3.6 HOT WEATHER PROTECTION

- A. Definition: Hot weather shall be defined as any combination of high ambient temperature, low relative humidity, high winds and intense solar radiation that leads to higher than usual evaporation. The table below defines low relative humidity based on air temperature. For a given air temperature, if the relative humidity is equal to or less than the specified minimum, provisions for hot weather concreting shall be as follows:

Air Temperature	Minimum Relative Humidity
105°F	90%
100°F	80%
95°F	70%
90°F	60%
85°F	50%
80°F	40%
75°F	30%

- B. Scheduling: When hot weather is expected, adjust concrete placement schedules to avoid placing or finishing during the period from noon until 3:00 pm. When possible, slab pours should be delayed until the building is enclosed to protect the concrete from wind and direct sunlight, Construction schedule shall account for 7-day moist curing period.
- C. Mixing: Concrete supplier shall adjust mix designs and admixtures to minimize slump loss. Concrete shall be mixed at a water-cement, which is lower than the specified maximum to allow for the adjustment of slump by addition of water in the field. Water reduction shall be accomplished without reducing initial slump by increasing dosage of water reducing admixture.
- D. Preparation: Do not order concrete earlier than is required to avoid delays. Cool forms, subgrades and reinforcing bars with water spray from fog nozzle prior to concrete placement.
- E. Delivery: Site traffic shall be coordinated and delivery times scheduled to minimize waiting times for concrete trucks.
- F. Placement: Preparations shall be made to place and consolidate the concrete at the fastest possible rate. Maintain a continuous flow of concrete to the job site to avoid development of cold joints, during placement of slabs, apply fog spray to prevent moisture loss without causing surplus water to stand on concrete surface.
- G. Finishing: Finish concrete as fast as practical. Continue fogging concrete during finishing. Where

fogging is not possible, apply sprayable moisture-retaining film between finishing passes.

- H. Curing: Formed concrete shall be covered with a waterproof material to retain moisture. Flat work shall be moisture cured as described in this specification. Moist curing shall continue for at least 7 days.

### 3.14 FIELD QUALITY ASSURANCE

- A. Independent Testing Agency and Special Inspector shall each perform their prescribed inspection, sampling, and testing services as described in Part 1 of this specification section.
- B. In cases where samples have not been taken or tests conducted as specified or strength of laboratory test cylinders for a particular portion of the structure fails to meet requirements of ACI 301, for evaluation of concrete strength, Structural Engineer shall have the right to order compressive or flexural test specimens or both be taken from the hardened concrete according to ASTM C42, load tests according to ACI 318, or such other tests as may be necessary to clearly establish the strength of the in situ concrete, and such tests shall be paid for by the Contractor. Where cores have been cut from work, Contractor shall fill void with dry-pack and patch the finish the match the adjacent existing surfaces.

### 3.15 REPAIR OF DEFECTIVE AREAS

- A. All repair of defective areas shall be made, with prior approval of Architect and SEOR as to method and procedure, in accordance with Section 5 of ACI 301, except specified bonding compound must be used. Cosmetic repairs of minor defects in exposed concrete surfaces shall be in a manner acceptable to the Architect. Defective areas shall be deemed when:
  - 1. Tests on core or prism specimens fail to show specified strengths.
  - 2. Not formed as indicated or detailed.
  - 3. Not plumb or level where so indicated or required to receive subsequent work.
  - 4. Not true to intended grades and levels.
  - 5. Cut, filled, or resurfaces, unless under direction of the SEOR.
  - 6. Debris is embedded therein.
  - 7. Not fully in conformance with provisions of the drawings.
  - 8. Damaged by hot or cold weather conditions.
  - 9. Mixing time exceeds 90 minutes from ready-mix plant to the time of deposit.
- B. Patch form tie holes at the following locations:
  - 1. Unfinished exposed concrete (not scheduled for painting, plus at board formed concrete finish).
  - 2. All other areas: Prime voids with bonding compound and fill with patching mortar. Strike flush without overlap, float to uniform texture to match adjacent surfaces.
  - 3. Exposed areas scheduled for spray texture:
    - a. Remove projections and protrusions: 1/16" or larger.
    - b. Remove continuous ridges 1/32" or larger.
    - c. Fill voids and pin holes.
  - 4. Exposed areas scheduled for paint or epoxy:
    - a. Remove projections, ridges, and other protrusions 1/32" or larger.
    - b. Fill voids and pin holes 1/16" or larger.

5. Exposed areas not scheduled for paint or other finishes:
  - a. Remove projections, ridges and other protrusions not conforming to requirements specified under Section 03 10 00.
  - b. Fill voids and pin holes not conforming to requirements specified under Section 03 10 00.
- C. All structural repairs shall be made, with prior approval of the Architect/Engineer, as to method and procedure, using the specified epoxy adhesive and/or epoxy mortar.
- D. Repairing Formed Surfaces: Surface defects include color and texture irregularities, cracks, spalls, air bubbles, honeycombs, rock pockets, fins and other projections on the surface, and stains and other discolorations that cannot be removed by cleaning.
  1. Immediately after form removal, cut out honeycombs, rock pockets, and voids more than 1/2 inch in any dimension in solid concrete but not less than 1 inch in depth. Make edges of cuts perpendicular to concrete surface. Clean, dampen with water, and brush-coat holes and voids with bonding agent. Fill and compact with patching mortar before bonding agent has dried. Fill form-tie voids with patching mortar or cone plugs secured in place with bonding agent.
  2. Repair defects on surfaces exposed to view by blending white Portland cement and standard Portland cement so that, when dry, patching mortar will match surrounding color. Patch a test area at inconspicuous locations to verify mixture and color match before proceeding with patching. Compact mortar in place and strike off slightly higher than surrounding surface.
  3. Repair defects on concealed formed surfaces that affect concrete's durability and structural performance as determined by Architect.
- E. Repairing Unformed Surfaces: Test unformed surfaces, such as floors and slabs, for finish and verify ace tolerances specified for each surface. Correct low and high areas. Test surfaces sloped for trueness of slope and smoothness; use a sloped template.
  1. Repair finished surfaces containing defects. Surface defects include spalls, popouts, honeycombs, rock pockets, crazing and cracks in excess of 0.01 inch wide or that penetrate to reinforcement or completely through unreinforced sections regardless of width, and other objectionable conditions.
  2. After concrete has cured at least 14 days, correct high areas by grinding.
  3. Correct localized low areas during or immediately after completing surface finishing operations by cutting out low areas and replacing with patching mortar. Finish repaired areas to blend into adjacent concrete.
  4. Correct other low areas scheduled to receive floor coverings with a repair underlayment. Prepare, mix, and apply repair underlayment and primer according to manufacturer's written instructions to produce a smooth, uniform, plane, and level surface. Feather edges to match adjacent floor elevations.
  5. Correct other low areas scheduled to remain exposed with a repair topping. Cut out low areas to ensure a minimum repair topping depth of 1/4 inch to match adjacent floor elevations. Prepare, mix, and apply repair topping and primer according to manufacturer's written instructions to produce a smooth, uniform, plane, and level surface.
  6. Repair defective areas, except random cracks and single holes 1 inch or less in diameter, by cutting out and replacing with fresh concrete. Remove defective areas with clean, square cuts and expose steel reinforcement with at least 3/4-inch clearance all around. Dampen concrete surfaces in contact with patching concrete and apply bonding agent. Mix



patching concrete of same materials and mix as original concrete except without coarse aggregate. Place, compact, and finish to blend with adjacent finished concrete. Cure in same manner as adjacent concrete.

7. Repair random cracks and single holes 1 inch or less in diameter with patching mortar. Groove top of cracks and cut out holes to sound concrete and clean off dust, dirt, and loose particles. Dampen cleaned concrete surfaces and apply bonding agent. Place patching mortar before bonding agent has dried. Compact patching mortar and finish to match adjacent concrete. Keep patched area continuously moist for at least 72 hours. of cuts perpendicular to concrete surface. Clean, dampen with water, and brush-coat holes.

### 3.16 CEMENT GROUT AND DRY-PACK

- A. Cement Grout: Thoroughly mix sufficient quantities to avoid combining different batches of grout mix. Ensure that grout completely fills all spaces and voids. Level, screed, or cut flush excess grout to produce smooth, neat, even exposed surfaces.
- B. Dry-Pack: Thoroughly blend dry ingredients prior to mixing with water. Forcibly pack mixture to complete fill voids and spaces.

### 3.17 CLEANING

- A. Clean exposed concrete to remove laitance, efflorescence and stains.

END OF SECTION 033000

SECTION 042000 - UNIT MASONRY

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. Section Includes:
  - 1. Concrete masonry units.
  - 2. Clay face brick.
  - 3. Mortar and grout.
  - 4. Masonry-joint reinforcement.
  - 5. Ties and anchors.
  - 6. Embedded flashing.
  - 7. Miscellaneous masonry accessories.

1.3 DEFINITIONS

- A. CMU(s): Concrete masonry unit(s).

1.4 ACTION SUBMITTALS

- A. Product Data: For each type of product.
- B. Shop Drawings: For the following:
  - 1. Reinforcing Steel: Detail bending, lap lengths, and placement of unit masonry reinforcing bars. Comply with ACI 315. Show elevations of reinforced walls.
- C. Samples for Initial Selection: For each type and color of the following:
  - 1. Clay face brick, in the form of straps of five or more bricks matching existing brick on the building.

1.5 INFORMATIONAL SUBMITTALS

- A. Cold-Weather and Hot-Weather Procedures: Detailed description of methods, materials, and equipment to be used to comply with requirements.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Store masonry units on elevated platforms in a dry location. If units are not stored in an enclosed location, cover tops and sides of stacks with waterproof sheeting, securely tied. If units become wet, do not install until they are dry.
- B. Store cementitious materials on elevated platforms, under cover, and in a dry location. Do not use cementitious materials that have become damp.
- C. Deliver preblended, dry mortar mix in moisture-resistant containers. Store preblended, dry mortar mix in delivery containers on elevated platforms in a dry location or in covered weatherproof dispensing silos.
- D. Store masonry accessories, including metal items, to prevent corrosion and accumulation of dirt and oil.

1.7 FIELD CONDITIONS

- A. Protection of Masonry: During construction, cover tops of walls, projections, and sills with waterproof sheeting at end of each day's work. Cover partially completed masonry when construction is not in progress.
  - 1. Extend cover a minimum of 24 inches down both sides of walls, and hold cover securely in place.
  - 2. Where one wythe of multiwythe masonry walls is completed in advance of other wythes, secure cover a minimum of 24 inches down face next to unconstructed wythe, and hold cover in place.
- B. Stain Prevention: Prevent grout, mortar, and soil from staining the face of masonry to be left exposed or painted. Immediately remove grout, mortar, and soil that come in contact with such masonry.
  - 1. Protect base of walls from rain-splashed mud and from mortar splatter by spreading coverings on ground and over wall surface.
  - 2. Protect sills, ledges, and projections from mortar droppings.
  - 3. Protect surfaces of window and door frames, as well as similar products with painted and integral finishes, from mortar droppings.
  - 4. Turn scaffold boards near the wall on edge at the end of each day to prevent rain from splashing mortar and dirt onto completed masonry.
- C. Cold-Weather Requirements: Do not use frozen materials or materials mixed or coated with ice or frost. Do not build on frozen substrates. Remove and replace unit masonry damaged by frost or by freezing conditions. Comply with cold-weather construction requirements contained in TMS 602/ACI 530.1/ASCE 6.
  - 1. Cold-Weather Cleaning: Use liquid cleaning methods only when air temperature is 40 deg F and higher and will remain so until masonry has dried, but not less than seven days after completing cleaning.
- D. Hot-Weather Requirements: Comply with hot-weather construction requirements contained in TMS 602/ACI 530.1/ASCE 6.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Source Limitations for Masonry Units: Obtain exposed masonry units of a uniform texture and color, or a uniform blend within the ranges accepted for these characteristics, from single source from single manufacturer for each product required.
- B. Source Limitations for Mortar Materials: Obtain mortar ingredients of a uniform quality, including color for exposed masonry, from single manufacturer for each cementitious component and from single source or producer for each aggregate.

2.2 UNIT MASONRY, GENERAL

- A. Masonry Standard: Comply with TMS 602/ACI 530.1/ASCE 6, except as modified by requirements in the Contract Documents.
- B. Defective Units: Referenced masonry unit standards may allow a certain percentage of units to contain chips, cracks, or other defects exceeding limits stated. Do not use units where such defects are exposed in the completed Work and will be within 20 feet vertically and horizontally of a walking surface.
- C. Fire-Resistance Ratings: Comply with requirements for fire-resistance-rated assembly designs indicated.
  - 1. Where fire-resistance-rated construction is indicated, units shall be listed and labeled by a qualified testing agency acceptable to authorities having jurisdiction.

2.3 CONCRETE MASONRY UNITS

- A. Shapes: Provide shapes indicated and as follows, with exposed surfaces matching exposed faces of adjacent units unless otherwise indicated.
  - 1. Provide special shapes for lintels, corners, jambs, sashes, movement joints, headers, bonding, and other special conditions.
  - 2. Provide bullnose units for outside corners unless otherwise indicated.
- B. CMUs: ASTM C 90.
  - 1. Density Classification: Normal weight.
  - 2. Size (Width): Manufactured to dimensions 3/8 inch less than nominal dimensions.
  - 3. Exposed Faces: Provide color and texture matching the range represented by Architect's sample.

2.4 BRICK

- A. General: Provide shapes indicated and as follows, with exposed surfaces matching finish and color of exposed faces of adjacent units:
  - 1. For ends of sills and caps and for similar applications that would otherwise expose unfinished brick surfaces, provide units without cores or frogs and with exposed surfaces finished.
  - 2. Provide special shapes for applications where stretcher units cannot accommodate special conditions, including those at corners, movement joints, bond beams, sashes, and lintels.

3. Provide special shapes for applications requiring brick of size, form, color, and texture on exposed surfaces that cannot be produced by sawing.
4. Provide special shapes for applications where shapes produced by sawing would result in sawed surfaces being exposed to view.

B. Clay Face Brick: Facing brick complying with ASTM C 216.

1. Grade: SW.
2. Type: FBX.
3. Initial Rate of Absorption: Less than 30 g/30 sq. in. per minute when tested according to ASTM C 67.
4. Efflorescence: Provide brick that has been tested according to ASTM C 67 and is rated "not effloresced."
5. Size (Actual Dimensions): Modular - 3-5/8 inches wide by 2-1/4 inches high by 7-5/8 inches long.
6. Application: Use where brick is exposed unless otherwise indicated.
7. Provide face brick matching color range, texture, and size of existing adjacent brickwork, as approved by the Architect.
  - a. Contractor shall match the existing brick; providing three options in the field for Architect's approval.

2.5 MORTAR AND GROUT MATERIALS

A. Portland Cement: ASTM C 150/C 150M, Type I or II, except Type III may be used for cold-weather construction. Provide natural color or white cement as required to produce mortar color indicated.

1. Alkali content shall not be more than 0.1 percent when tested according to ASTM C 114.

B. Hydrated Lime: ASTM C 207, Type S.

C. Portland Cement-Lime Mix: Packaged blend of portland cement and hydrated lime containing no other ingredients.

D. Aggregate for Mortar: ASTM C 144.

1. For mortar that is exposed to view, use washed aggregate consisting of natural sand or crushed stone.
2. For joints less than 1/4 inch thick, use aggregate graded with 100 percent passing the No. 16 sieve.

E. Aggregate for Grout: ASTM C 404.

F. Cold-Weather Admixture: Nonchloride, noncorrosive, accelerating admixture complying with ASTM C 494/C 494M, Type C, and recommended by manufacturer for use in masonry mortar of composition indicated.

1. Products: Subject to compliance with requirements, provide one of the following:
  - a. Euclid Chemical Company (The); Accelguard 80.
  - b. Grace Construction Products, W. R. Grace & Co. - Conn.; Morset.
  - c. BASF Corporation, Building Systems; Trimix-NCA.

G. Water: Potable.

2.6 REINFORCEMENT

- A. Masonry-Joint Reinforcement, General: ASTM A 951/A 951M.
  - 1. Interior Walls: Hot-dip galvanized carbon steel.
  - 2. Exterior Walls: Hot-dip galvanized carbon steel.
  - 3. Wire Size for Side Rods: 0.148-inch diameter.
  - 4. Wire Size for Cross Rods: 0.148-inch diameter.
  - 5. Spacing of Cross Rods, Tabs, and Cross Ties: Not more than 16 inches o.c.
  - 6. Provide in lengths of not less than 10 feet, with prefabricated corner and tee units.
- B. Masonry-Joint Reinforcement for Single-Wythe Masonry: Ladder or truss type with single pair of side rods.

2.7 TIES AND ANCHORS

- A. General: Ties and anchors shall extend at least 1-1/2 inches into veneer but with at least a 5/8-inch cover on outside face.
- B. Materials: Provide ties and anchors specified in this article that are made from materials that comply with the following unless otherwise indicated:
  - 1. Hot-Dip Galvanized, Carbon-Steel Wire: ASTM A 82/A 82M, with ASTM A 153/A 153M, Class B-2 coating.
  - 2. Galvanized-Steel Sheet: ASTM A 653/A 653M, Commercial Steel, G60 zinc coating.
- C. Adjustable Anchors for Connecting to Structural Steel Framing: Provide anchors that allow vertical or horizontal adjustment but resist tension and compression forces perpendicular to plane of wall.
  - 1. Anchor Section for Welding to Steel Frame: Crimped 1/4-inch- diameter, hot-dip galvanized steel wire.
  - 2. Tie Section: Triangular-shaped wire tie made from 0.187-inch- diameter, hot-dip galvanized steel wire.
- D. Stabilization/Shear Anchor: Galvanized steel anchor that allows for load transfer across control joints and inhibits lateral movement. Resists out-of-plane shear forces while allowing for in-plane movement of the masonry. Provide one of the following:
  - 1. Heckmann Building Products, Inc.; No. 353 Debonded shear anchor.
  - 2. Hohmann & Barnard, Inc.; Slip-Set Stabilizer.
  - 3. Wirebond; No 1700 Control Joint Anchor
- E. Adjustable Masonry-Veneer Anchors:
  - 1. General: Provide anchors that allow vertical adjustment but resist a 100-lbf load in both tension and compression perpendicular to plane of wall without deforming or developing play in excess of 1/16 inch.
  - 2. Fabricate sheet metal anchor sections and other sheet metal parts from 0.105-inch- thick steel sheet, galvanized after fabrication.
  - 3. Fabricate wire ties from 0.25-inch- diameter, hot-dip galvanized-steel wire unless otherwise indicated.

4. Screw-Attached, Masonry-Veneer Anchors: Wire tie and a sheet metal anchor section, 1-1/4 inches wide by 6 inches long, with screw holes top and bottom and with raised rib-stiffened strap, 5/8 inch wide by 3-5/8 inches long, stamped into center to provide a slot between strap and base for inserting wire tie.
  - a. Products: Subject to compliance with requirements, provide one of the following:
    - 1) Heckmann Building Products Inc.; 315-D with 316.
    - 2) Hohmann & Barnard, Inc.; DW-10HS.
    - 3) Wire-Bond; 1004, Type III.
5. Provide polymer-coated, steel expansion anchors to fasten sheet metal anchor sections to cmu backup..

## 2.1 EMBEDDED FLASHING MATERIALS

### A. Flexible Flashing: Use the following unless otherwise indicated:

1. Stainless Steel Flashing: Composite flashing product consisting of a stainless-steel core with one uncoated (bare) stainless steel face (outward facing) with a butyl block co-polymer adhesive (inward facing).
  - a. Products: Subject to compliance with requirements, provide one of the following:
    - 1) York Manufacturing, Inc.; York 304 SS.
    - 2) Illinois Products, Inc.; IPCO Self-Adhesive Stainless Steel.
    - 3) STS Coatings, Inc.; Wall Guardian Self Adhering Stainless Steel Flashing.
  - b. Stainless steel: type 304, ASTM A240.
  - c. Adhesive: block co-polymer.
  - d. Polyether sealant
    - 1) York Manufacturing, Inc.; UniverSeal US-100.
    - 2) STS Coatings; GreatSeal LT-100.
    - 3) Prosoco, Inc.; R-Guard Joint Seam Sealer.
  - e. Splice Tape
    - 1) York Manufacturing, Inc.; York 304 SS.
    - 2) Illinois Products, Inc.; IPCO Self-Adhering Stainless-Steel Flashing.
  - f. Corner and End Dams: form the stainless-steel flashing in the field or use 26-gauge stainless steel pre-manufactured corners.
  - g. Termination Bar: Rigid PVC or stainless-steel termination bar with sealant catch lip

## 2.2 MISCELLANEOUS MASONRY ACCESSORIES

- ### A. Cavity Drainage Material: Free-draining mesh, made from polymer strands that will not degrade within the wall cavity.
1. Products: Subject to compliance with requirements, provide one of the following:

- a. Heckmann Building Products Inc.; #84 Wall Defender.
  - b. Hohmann & Barnard, Inc.; Mortar Trap.
  - c. Mortar Net USA, Ltd.; Mortar Net.
  - d. York Flashing; Weep-Armor.
2. Configuration: Strips, full depth of cavity and 10 inches high, with dovetail-shaped notches 7 inches deep that prevent clogging with mortar droppings. Provide multiple layers if necessary to fill full width of cavity.

### 2.3 MASONRY CLEANERS

- A. Proprietary Non-Acidic Cleaner: Manufacturer's standard-strength cleaner designed for removing mortar/grout stains, efflorescence, and other new construction stains from new masonry without discoloring or damaging masonry surfaces. Use product expressly approved for intended use by cleaner manufacturer and manufacturer of masonry units being cleaned.
1. Manufacturers: Subject to compliance with requirements, provide products by the following:
    - a. Diedrich Technologies, Inc.
    - b. EaCo Chem, Inc.
    - c. ProSoCo, Inc.

### 2.4 MORTAR AND GROUT MIXES

- A. General: Do not use admixtures, including pigments, air-entraining agents, accelerators, retarders, water-repellent agents, antifreeze compounds, or other admixtures unless otherwise indicated.
1. Do not use calcium chloride in mortar or grout.
  2. Use portland cement-lime mortar unless otherwise indicated.
  3. Add cold-weather admixture (if used) at same rate for all mortar that will be exposed to view, regardless of weather conditions, to ensure that mortar color is consistent.
- B. Preblended, Dry Mortar Mix: Furnish dry mortar ingredients in form of a preblended mix. Measure quantities by weight to ensure accurate proportions, and thoroughly blend ingredients before delivering to Project site.
- C. Mortar for Unit Masonry: Comply with ASTM C 270, Proportion Specification. Provide the following types of mortar for applications stated unless another type is indicated.
1. For all masonry, use Type N.

## PART 3 - EXECUTION

### 3.1 EXAMINATION

- A. Examine conditions, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of the Work.
1. For the record, prepare written report, endorsed by Installer, listing conditions detrimental to performance of the Work.
  2. Verify that foundations are within tolerances specified.



3. Verify that reinforcing dowels are properly placed.
  4. Verify that substrates are free of substances that impair mortar bond.
- B. Before installation, examine rough-in and built-in construction for piping systems to verify actual locations of piping connections.
- C. Proceed with installation only after unsatisfactory conditions have been corrected.

### 3.2 INSTALLATION, GENERAL

- A. Thickness: Build cavity and composite walls and other masonry construction to full thickness shown. Build single-wythe walls to actual widths of masonry units, using units of widths indicated.
- B. Build chases and recesses to accommodate items specified in this and other Sections.
- C. Leave openings for equipment to be installed before completing masonry. After installing equipment, complete masonry to match construction immediately adjacent to opening.
- D. Use full-size units without cutting if possible. If cutting is required to provide a continuous pattern or to fit adjoining construction, cut units with motor-driven saws; provide clean, sharp, unchipped edges. Allow units to dry before laying unless wetting of units is specified. Install cut units with cut surfaces and, where possible, cut edges concealed.
- E. Select and arrange units for exposed unit masonry to produce a uniform blend of colors and textures. Mix units from several pallets or cubes as they are placed.
- F. Wetting of Brick: Wet brick before laying if initial rate of absorption exceeds 30 g/30 sq. in. per minute when tested according to ASTM C 67. Allow units to absorb water so they are damp but not wet at time of laying.

### 3.3 TOLERANCES

- A. Dimensions and Locations of Elements:
1. For dimensions in cross section or elevation, do not vary by more than plus 1/2 inch or minus 1/4 inch.
  2. For location of elements in plan, do not vary from that indicated by more than plus or minus 1/2 inch.
  3. For location of elements in elevation, do not vary from that indicated by more than plus or minus 1/4 inch in a story height or 1/2 inch total.
- B. Lines and Levels:
1. For bed joints and top surfaces of bearing walls, do not vary from level by more than 1/4 inch in 10 feet, or 1/2-inch maximum.
  2. For conspicuous horizontal lines, such as lintels, sills, parapets, and reveals, do not vary from level by more than 1/8 inch in 10 feet, 1/4 inch in 20 feet, or 1/2-inch maximum.
  3. For vertical lines and surfaces, do not vary from plumb by more than 1/4 inch in 10 feet, 3/8 inch in 20 feet, or 1/2-inch maximum.
  4. For conspicuous vertical lines, such as external corners, door jambs, reveals, and expansion and control joints, do not vary from plumb by more than 1/8 inch in 10 feet, 1/4 inch in 20 feet, or 1/2-inch maximum.

5. For lines and surfaces, do not vary from straight by more than 1/4 inch in 10 feet, 3/8 inch in 20 feet, or 1/2-inch maximum.
6. For vertical alignment of exposed head joints, do not vary from plumb by more than 1/4 inch in 10 feet or 1/2-inch maximum.
7. For faces of adjacent exposed masonry units, do not vary from flush alignment by more than 1/16 inch except due to warpage of masonry units within tolerances specified for warpage of units.

C. Joints:

1. For bed joints, do not vary from thickness indicated by more than plus or minus 1/8 inch, with a maximum thickness limited to 1/2 inch.
2. For exposed bed joints, do not vary from bed-joint thickness of adjacent courses by more than 1/8 inch.
3. For head and collar joints, do not vary from thickness indicated by more than plus 3/8 inch or minus 1/4 inch.
4. For exposed head joints, do not vary from thickness indicated by more than plus or minus 1/8 inch. Do not vary from adjacent bed-joint and head-joint thicknesses by more than 1/8 inch.

3.4 LAYING MASONRY WALLS

- A. Lay out walls in advance for accurate spacing of surface bond patterns with uniform joint thicknesses and for accurate location of openings, movement-type joints, returns, and offsets. Avoid using less-than-half-size units, particularly at corners, jambs, and, where possible, at other locations.
- B. Bond Pattern for Exposed Masonry: Unless otherwise indicated, lay exposed masonry in running bond; do not use units with less-than-nominal 4-inch horizontal face dimensions at corners or jambs.
- C. Lay concealed masonry with all units in a wythe in running bond or bonded by lapping not less than 4 inches. Bond and interlock each course of each wythe at corners. Do not use units with less-than-nominal 4-inch horizontal face dimensions at corners or jambs.
- D. Stopping and Resuming Work: Stop work by stepping back units in each course from those in course below; do not tooth. When resuming work, clean masonry surfaces that are to receive mortar, remove loose masonry units and mortar, and wet brick if required before laying fresh masonry.
- E. Built-in Work: As construction progresses, build in items specified in this and other Sections. Fill in solidly with masonry around built-in items.
- F. Fill space between steel frames and masonry solidly with mortar unless otherwise indicated.
- G. Where built-in items are to be embedded in cores of hollow masonry units, place a layer of metal lath, wire mesh, or plastic mesh in the joint below, and rod mortar or grout into core.
- H. Fill cores in hollow CMUs with grout 24 inches under bearing plates, beams, lintels, posts, and similar items unless otherwise indicated.
- I. Build nonload-bearing interior partitions full height of story to underside of solid floor or roof structure above unless otherwise indicated.
  1. Install compressible filler in joint between top of partition and underside of structure above.
  2. Unless otherwise indicated, fasten partition top anchors to structure above and build into top of partition. Grout cells of CMUs solidly around plastic tubes of anchors and push tubes down into grout to provide 1/2-inch clearance between end of anchor rod and end of tube. Space anchors 48 inches o.c. unless otherwise indicated.

3. Wedge nonload-bearing partitions against structure above with small pieces of tile, slate, or metal. Fill joint with mortar after dead-load deflection of structure above approaches final position.
4. At fire-rated partitions, treat joint between top of partition and underside of structure above to comply with Section 078446 "Fire-Resistive Joint Systems."

### 3.5 MORTAR BEDDING AND JOINTING

#### A. Lay CMUs as follows:

1. Bed face shells in mortar and make head joints of depth equal to bed joints.
2. Bed webs in mortar in grouted masonry, including starting course on footings.
3. Fully bed units and fill cells with mortar at anchors and ties as needed to fully embed anchors and ties in mortar.

#### B. Lay solid masonry units and hollow brick with completely filled bed and head joints; butter ends with sufficient mortar to fill head joints and shove into place. Do not deeply furrow bed joints or slush head joints.

#### C. Tool exposed joints slightly concave when thumbprint hard, using a jointer larger than joint thickness unless otherwise indicated.

### 3.6 CAVITY WALLS

#### A. Bond wythes of cavity walls together using adjustable masonry veneer anchors.

#### B. Keep cavities clean of mortar droppings and other materials during construction. Bevel beds away from cavity, to minimize mortar protrusions into cavity. Do not attempt to trowel or remove mortar fins protruding into cavity.

#### C. Installing Cavity Wall Insulation: Place small dabs of adhesive, spaced approximately 12 inches o.c. both ways, on inside face of insulation boards, or attach with plastic fasteners designed for this purpose. Fit courses of insulation between wall ties and other confining obstructions in cavity, with edges butted tightly both ways. Press units firmly against inside wythe of masonry or other construction as shown.

1. Fill cracks and open gaps in insulation with crack sealer compatible with insulation and masonry.

### 3.7 MASONRY-JOINT REINFORCEMENT

#### A. General: Install entire length of longitudinal side rods in mortar with a minimum cover of 5/8 inch on exterior side of walls, 1/2 inch elsewhere. Lap reinforcement a minimum of 6 inches.

1. Space reinforcement not more than 16 inches o.c.
2. Provide reinforcement not more than 8 inches above and below wall openings and extending 12 inches beyond openings in addition to continuous reinforcement.

#### B. Interrupt joint reinforcement at control and expansion joints unless otherwise indicated.

#### C. Provide continuity at wall intersections by using prefabricated T-shaped units.

#### D. Provide continuity at corners by using prefabricated L-shaped units.

- E. Cut and bend reinforcing units as directed by manufacturer for continuity at corners, returns, offsets, column fireproofing, pipe enclosures, and other special conditions.

### 3.8 FLASHING, WEEP HOLES, AND CAVITY VENTS

- A. General: Install embedded flashing and weep holes in masonry at shelf angles, lintels, ledges, other obstructions to downward flow of water in wall, and where indicated. Install cavity vents at shelf angles, ledges, head of wall cavities, and other obstructions to upward flow of air in cavities, and where indicated.
- B. Install flashing as follows unless otherwise indicated:
  - 1. Prepare masonry surfaces so they are smooth and free from projections that could puncture flashing. Where flashing is within mortar joint, place through-wall flashing on sloping bed of mortar and cover with mortar. Before covering with mortar, seal penetrations in flashing with adhesive, sealant, or tape.
  - 2. At multiwythe masonry walls, including cavity walls, extend flashing through outer wythe, turned up a minimum of 8 inches, and through inner wythe to within 1/2 inch of the interior face of wall in exposed masonry. Where interior face of wall is to receive furring or framing, carry flashing completely through inner wythe and turn flashing up approximately 2 inches on interior face.
  - 3. At masonry-veneer walls, extend flashing through veneer, across airspace behind veneer, and up face of sheathing at least 8 inches; with upper edge tucked under , lapping at least 4 inches.
  - 4. At lintels and shelf angles, extend flashing a minimum of 6 inches into masonry at each end. At heads and sills, extend flashing 6 inches at ends and turn up not less than 2 inches to form end dams.
- C. Install reglets and nailers for flashing and other related construction where they are shown to be built into masonry.
- D. Install weep holes in exterior wythes and veneers in head joints of first course of masonry immediately above embedded flashing.
  - 1. Use open-head joints to form weep holes.
  - 2. Space weep holes 24 inches o.c. unless otherwise indicated.
- E. Place cavity drainage material in airspace behind veneers to comply with configuration requirements for cavity drainage material in "Miscellaneous Masonry Accessories" Article.
- F. Install cavity vents in head joints in exterior wythes at spacing indicated. Use open-head joints to form cavity vents.

### 3.9 REPAIRING, POINTING, AND CLEANING

- A. Remove and replace masonry units that are loose, chipped, broken, stained, or otherwise damaged or that do not match adjoining units. Install new units to match adjoining units; install in fresh mortar, pointed to eliminate evidence of replacement.
- B. In-Progress Cleaning: Clean unit masonry as work progresses by dry brushing to remove mortar fins and smears before tooling joints.
- C. Final Cleaning: After mortar is thoroughly set and cured, clean exposed masonry as follows:

1. Remove large mortar particles by hand with wooden paddles and nonmetallic scrape hoes or chisels.
2. Test cleaning methods on sample wall panel; leave one-half of panel uncleaned for comparison purposes. Obtain Architect's approval of sample cleaning before proceeding with cleaning of masonry.
3. Protect adjacent stone and nonmasonry surfaces from contact with cleaner by covering them with liquid strippable masking agent or polyethylene film and waterproof masking tape.
4. Wet wall surfaces with water before applying cleaners; remove cleaners promptly by rinsing surfaces thoroughly with clear water.
5. Clean concrete masonry by applicable cleaning methods indicated in NCMA TEK 8-4A.
6. Clean masonry with a proprietary non-acidic cleaner applied according to manufacturer's written instructions.
7. Clean limestone units to comply with recommendations in ILI's "Indiana Limestone Handbook."

END OF SECTION 042000

## SECTION 051200 - STRUCTURAL STEEL FRAMING

### PART 1 - GENERAL

#### 1.1 SUMMARY

- A. Section Includes:
  - 1. Structural steel.
  - 2. Shrinkage-resistant grout.
- B. Related Requirements:
  - 1. Section 099113 "Exterior Painting" for painting requirements.

#### 1.2 DEFINITIONS

- A. Structural Steel: Elements of the structural frame indicated on Drawings and as described in ANSI/AISC 303.

#### 1.3 COORDINATION

- A. Coordinate selection of shop primers with topcoats to be applied over them. Comply with paint and coating manufacturers' written recommendations to ensure that shop primers and topcoats are compatible with one another.
- B. Coordinate installation of anchorage items to be embedded in or attached to other construction without delaying the Work. Provide setting diagrams, sheet metal templates, instructions, and directions for installation.

#### 1.4 PREINSTALLATION MEETINGS

- A. Preinstallation Conference: Conduct conference at Project site.

#### 1.5 ACTION SUBMITTALS

- A. Product Data:
  - 1. Structural-steel materials.
  - 2. Lintels and metal fabrications.
  - 3. High-strength, bolt-nut-washer assemblies.
  - 4. Anchor rods.
  - 5. Threaded rods.
  - 6. Shop primer.
  - 7. Galvanized-steel primer.
  - 8. Etching cleaner.
  - 9. Galvanized repair paint.
  - 10. Shrinkage-resistant grout.

- B. Shop Drawings: Show fabrication of structural-steel components.
  - 1. Include details of cuts, connections, splices, camber, holes, and other pertinent data.
  - 2. Include embedment Drawings.
  - 3. Indicate welds by standard AWS symbols, distinguishing between shop and field welds, and show size, length, and type of each weld. Show backing bars that are to be removed and supplemental fillet welds where backing bars are to remain.
  - 4. Indicate type, size, and length of bolts, distinguishing between shop and field bolts. Identify pretensioned and slip-critical, high-strength bolted connections.
  - 5. Identify members not to be shop primed.
  
- C. Delegated Design Submittal: For structural-steel connections indicated on Drawings to comply with design loads, design criteria, and structural general notes. Standard connections to be selected by the steel Fabricator's Steel Detailer in conformance with the requirements of the AISC Manual of Steel Construction and the AISC Code of Standard Practice.

#### 1.6 INFORMATIONAL SUBMITTALS

- A. Qualification Data: For Installer, fabricator, shop-painting applicators, and testing agency.
- B. Welding certificates.
- C. Paint Compatibility Certificates: From manufacturers of topcoats applied over shop primers, certifying that shop primers are compatible with topcoats.
- D. Survey of existing conditions.
- E. Field quality-control reports.

#### 1.7 QUALITY ASSURANCE

- A. Comply with the applicable provisions of the following specifications and documents:
  - 1. AISC 303
  - 2. AISC 360
  - 3. RCSC's "Specification for Structural Joints Using ASTM A325 or A490 Bolts"
  - 4. AWS D1.1
- B. Fabricator Qualifications: A qualified fabricator that participates in a Quality Certification Program.
- C. Installer Qualifications: A qualified Installer who participates in a Quality Certification Program.
- D. Welding Qualifications: Qualify procedures and personnel in accordance with AWS D1.1.

#### 1.8 DELIVERY, STORAGE, AND HANDLING

- A. Store materials to permit easy access for inspection and identification. Keep steel members off ground and spaced by using pallets, dunnage, or other supports and spacers. Protect steel members and packaged materials from corrosion and deterioration.
  - 1. Do not store materials on structure in a manner that might cause distortion, damage, or overload to members or supporting structures. Repair or replace damaged materials or structures as directed.

- B. Store fasteners in a protected place in sealed containers with manufacturer's labels intact.
  - 1. Fasteners may be repackaged provided Owner's testing and inspecting agency observes repackaging and seals containers.
  - 2. Clean and relubricate bolts and nuts that become dry or rusty before use.
  - 3. Comply with manufacturers' written recommendations for cleaning and lubricating ASTM F3125/F3125M, Grade F1852 bolt assemblies and for retesting bolt assemblies after lubrication.

## PART 2 - PRODUCTS

### 2.1 PERFORMANCE REQUIREMENTS

- A. Comply with applicable provisions of the following specifications and documents:
  - 1. ANSI/AISC 303.
  - 2. ANSI/AISC 360.
  - 3. RCSC's "Specification for Structural Joints Using High-Strength Bolts."
- B. Connection Design Information:
  - 1. Option 2: Fabricator's experienced steel detailer shall select or complete connections in accordance with AISC 303 and AISC 360.
    - a. Select and complete connections using schematic details indicated and AISC 360.
- C. Moment Connections: Type FR, fully restrained.
- D. Construction: Shear wall system.

### 2.2 STRUCTURAL-STEEL MATERIALS

- A. W-Shapes: ASTM A992 Grade 50.
- B. Channels and Angles: ASTM A36 Grade 36.
- C. Plate and Bar: ASTM A36 Grade 36.
- D. Cold-Formed Hollow Structural Sections: ASTM A500 Grade B structural tubing.
- E. Steel Pipe: ASTM A53/A53M, Grade B.
- F. Welding Electrodes: Comply with AWS requirements.

### 2.3 BOLTS AND CONNECTORS

- A. High-Strength A325 Bolts, Nuts, and Washers: ASTM F3125/F3125M, Grade A325 (Grade A325M), Type 1, heavy-hex steel structural bolts; ASTM A563, Grade DH (ASTM A563M, Class 10S), heavy-hex carbon-steel nuts; and ASTM F436/F436M, Type 1, hardened carbon-steel washers; all with plain finish.



- B. Tension-Control, High-Strength Bolt-Nut-Washer Assemblies: ASTM F3125/F3125M, Grade F1852, Type 1, heavy-hex or round head assemblies, consisting of steel structural bolts with splined ends; ASTM A563, Grade DH (ASTM A563M, Class 10S), heavy-hex carbon-steel nuts; and ASTM F436/F436M, Type 1, hardened carbon-steel washers.
- C. Shear Stud Connectors: ASTM A108, AISI C-1015 through C-1020, headed-stud type, cold-finished carbon steel; AWS D1.1/D1.1M, Type B.

#### 2.4 RODS

- A. Headed Anchor Rods: ASTM F1554, Grade 36, straight.
  - 1. Nuts: ASTM A563 (ASTM A563M) heavy-hex carbon steel.
  - 2. Plate Washers: ASTM A36/A36M carbon steel.
  - 3. Washers: ASTM F436 (ASTM F436M), Type 1, hardened carbon steel.
  - 4. Finish: Plain.
- B. Threaded Rods: ASTM A36.
  - 1. Nuts: ASTM A63 (ASTM A563M) heavy-hex carbon steel.
  - 2. Washers: ASTM F436 (ASTM F436M), Type 1, hardened or ASTM A36 carbon steel.
  - 3. Finish: Plain.

#### 2.5 PRIMER

- A. Steel Primer:
  - 1. Comply with Section 099113 "Exterior Painting," Section 099123 "Interior Painting," and Section 099600 "High-Performance Coatings."
  - 2. Fabricator's standard lead- and chromate-free, nonasphaltic, rust-inhibiting primer complying with MPI#79 and compatible with topcoat.
- B. Galvanized-Steel Primer:
  - 1. Etching Cleaner: MPI#25, for galvanized steel.
  - 2. Galvanizing Repair Paint: MPI#18, MPI#19, or SSPC-Paint 20 ASTM A780.

#### 2.6 SHRINKAGE-RESISTANT GROUT

- A. Nonmetallic, Shrinkage-Resistant Grout: ASTM C1107/C1107M, factory-packaged, nonmetallic aggregate grout, noncorrosive and nonstaining, mixed with water to consistency suitable for application and a 30-minute working time.

#### 2.7 FABRICATION

- A. Structural Steel: Fabricate and assemble in shop to greatest extent possible. Fabricate in accordance with ANSI/AISC 303 and to ANSI/AISC 360.
  - 1. Camber structural-steel members where indicated.
  - 2. Fabricate beams with rolling camber up.

3. Identify high-strength structural steel in accordance with ASTM A6/A6M and maintain markings until structural-steel framing has been erected.
  4. Mark and match-mark materials for field assembly.
  5. Complete structural-steel assemblies, including welding of units, before starting shop-priming operations.
- B. Thermal Cutting: Perform thermal cutting by machine to greatest extent possible.
1. Plane thermally cut edges to be welded to comply with requirements in AWS D1.1/D1.1M.
- C. Bolt Holes: Cut, drill, or punch standard bolt holes perpendicular to metal surfaces.
- D. Finishing: Accurately finish ends of columns and other members transmitting bearing loads.
- E. Cleaning: Clean and prepare steel surfaces that are to remain unpainted in accordance with SSPC-SP 3.
- F. Steel Wall-Opening Framing: Select true and straight members for fabricating steel wall-opening framing to be attached to structural-steel frame. Straighten as required to provide uniform, square, and true members in completed wall framing. Build up welded framing, weld exposed joints continuously, and grind smooth.
- G. Welded-Steel Door Frames: Build up welded-steel door frames attached to structural-steel frame. Weld exposed joints continuously and grind smooth. Plug-weld fixed steel bar stops to frames. Secure removable stops to frames with countersunk machine screws, uniformly spaced not more than 10 inches (250 mm) o.c. unless otherwise indicated on Drawings.
- H. Holes: Provide holes required for securing other work to structural steel and for other work to pass through steel members.
1. Cut, drill, or punch holes perpendicular to steel surfaces. Do not thermally cut bolt holes or enlarge holes by burning.
  2. Baseplate Holes: Cut, drill, mechanically thermal cut, or punch holes perpendicular to steel surfaces.
  3. Weld threaded nuts to framing and other specialty items indicated to receive other work.

## 2.8 SHOP CONNECTIONS

- A. High-Strength Bolts: Shop install high-strength bolts in accordance with RCSC's "Specification for Structural Joints Using High-Strength Bolts" for type of bolt and type of joint specified.
1. Joint Type: Snug tightened, Pretensioned.
- B. Weld Connections: Comply with AWS D1.1 for tolerances, appearances, welding procedure specifications, weld quality, and methods used in correcting welding work.
1. Assemble and weld built-up sections by methods that maintain true alignment of axes without exceeding tolerances in ANSI/AISC 303 for mill material.

## 2.9 GALVANIZING

- A. Hot-Dip Galvanized Finish: Apply zinc coating by the hot-dip process to structural steel in accordance with ASTM A123/A123M.

1. Fill vent and drain holes that are exposed in the finished Work unless they function as weep holes, by plugging with zinc solder and filing off smooth.
2. Galvanize all steel permanently exposed to weather and all lintels in exterior walls. Coordinate cleaning of steel after galvanizing with finished coating, comply with Section 099113 "Exterior Painting," Section 099123 "Interior Painting," and Section 099600 "High-Performance Coatings."

## 2.10 SHOP PRIMING

- A. Shop prime steel surfaces, except the following:
  1. Surfaces embedded in concrete or mortar. Extend priming of partially embedded members to a depth of 2 inches (50 mm).
  2. Surfaces to be field welded.
  3. Surfaces of high-strength bolted, slip-critical connections.
  4. Surfaces to receive sprayed fire-resistive materials (applied fireproofing).
  5. Galvanized surfaces unless indicated to be painted.
  6. Corrosion-resisting (weathering) steel surfaces.
  7. Surfaces enclosed in interior construction.
- B. Surface Preparation of Steel: Clean surfaces to be painted. Remove loose rust and mill scale and spatter, slag, or flux deposits. Prepare surfaces in accordance with the following specifications and standards:
  1. SSPC-SP 3.
- C. Surface Preparation of Galvanized Steel: Prepare galvanized-steel surfaces for shop priming by thoroughly cleaning steel of grease, dirt, oil, flux, and other foreign matter, and treating with etching cleaner or in accordance with SSPC-SP 16.
- D. Priming: Immediately after surface preparation, apply primer in accordance with manufacturer's written instructions and at rate recommended by SSPC to provide a minimum dry film thickness of 1.5 mils (0.038 mm). Use priming methods that result in full coverage of joints, corners, edges, and exposed surfaces.
  1. Stripe paint corners, crevices, bolts, welds, and sharp edges.
  2. Apply two coats of shop paint to surfaces that are inaccessible after assembly or erection. Change color of second coat to distinguish it from first.

## 2.11 SOURCE QUALITY CONTROL

- A. Testing Agency: Owner will engage a qualified testing agency to perform shop tests and inspections.
  1. Allow testing agency access to places where structural-steel work is being fabricated or produced to perform tests and inspections.
  2. Bolted Connections: Inspect shop-bolted connections in accordance with RCSC's "Specification for Structural Joints Using High-Strength Bolts."
  3. Welded Connections: Visually inspect shop-welded connections in accordance with AWS D1.1.
  4. In addition to visual inspection, test and inspect shop-welded shear stud connectors in accordance with requirements in AWS D1.1/D1.1M for stud welding and as follows:
    - a. Perform bend tests if visual inspections reveal either a less-than-continuous 360-degree flash or welding repairs to any shear stud connector.
    - b. Conduct tests in accordance with requirements in AWS D1.1/D1.1M on additional shear stud connectors if weld fracture occurs on shear stud connectors already tested.

5. Prepare test and inspection reports.

### PART 3 - EXECUTION

#### 3.1 EXAMINATION

- A. Verify, with certified steel erector present, elevations of concrete- and masonry-bearing surfaces and locations of anchor rods, bearing plates, and other embedments for compliance with requirements.
  1. Prepare a certified survey of existing conditions. Include bearing surfaces, anchor rods, bearing plates, and other embedments showing dimensions, locations, angles, and elevations.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

#### 3.2 PREPARATION

- A. Provide temporary shores, guys, braces, and other supports during erection to keep structural steel secure, plumb, and in alignment against temporary construction loads and loads equal in intensity to design loads. Remove temporary supports when permanent structural steel, connections, and bracing are in place unless otherwise indicated on Drawings.
  1. Do not remove temporary shoring supporting composite deck construction and structural-steel framing until cast-in-place concrete has attained its design compressive strength.

#### 3.3 ERECTION

- A. Set structural steel accurately in locations and to elevations indicated and in accordance with ANSI/AISC 303 and ANSI/AISC 360.
- B. Baseplates, Bearing Plates and Leveling Plates: Clean concrete- and masonry-bearing surfaces of bond-reducing materials, and roughen surfaces prior to setting plates. Clean bottom surface of plates.
  1. Set plates for structural members on wedges, shims, or setting nuts as required.
  2. Weld plate washers to top of baseplate.
  3. Snug-tighten anchor rods after supported members have been positioned and plumbed. Do not remove wedges or shims but, if protruding, cut off flush with edge of plate before packing with grout.
  4. Promptly pack shrinkage-resistant grout solidly between bearing surfaces and plates, so no voids remain. Neatly finish exposed surfaces; protect grout and allow to cure. Comply with manufacturer's written installation instructions for grouting.
- C. Maintain erection tolerances of structural steel within ANSI/AISC 303.
- D. Align and adjust various members that form part of complete frame or structure before permanently fastening. Before assembly, clean bearing surfaces and other surfaces that are in permanent contact with members. Perform necessary adjustments to compensate for discrepancies in elevations and alignment.
  1. Level and plumb individual members of structure. Slope roof framing members to slopes indicated on Drawings.
  2. Make allowances for difference between temperature at time of erection and mean temperature when structure is completed and in service.

- E. Splice members only where indicated.
- F. Do not use thermal cutting during erection unless approved by Architect. Finish thermally cut sections within smoothness limits in AWS D1.1/D1.1M.
- G. Do not enlarge unfair holes in members by burning or using drift pins. Ream holes that must be enlarged to admit bolts.

### 3.4 FIELD CONNECTIONS

- A. High-Strength Bolts: Install high-strength bolts in accordance with RCSC's "Specification for Structural Joints Using High-Strength Bolts" for bolt and joint type specified.
  - 1. Joint Type: Snug tightened, Pretensioned.
- B. Weld Connections: Comply with AWS D1.1 for tolerances, appearances, welding procedure specifications, weld quality, and methods used in correcting welding work.
  - 1. Comply with ANSI/AISC 303 and ANSI/AISC 360 for bearing, alignment, adequacy of temporary connections, and removal of paint on surfaces adjacent to field welds.
  - 2. Remove backing bars or runoff tabs where indicated, back gouge, and grind steel smooth.
  - 3. Assemble and weld built-up sections by methods that maintain true alignment of axes without exceeding tolerances in ANSI/AISC 303 for mill material.
- C. Shear Stud Connectors: Prepare steel surfaces as recommended by manufacturer of shear connectors. Weld using end welding of headed-stud shear connectors in accordance with AWS D1.1/D1.1M and manufacturer's written instructions.

### 3.5 REPAIR

- A. Galvanized Surfaces: Clean areas where galvanizing is damaged or missing, and repair galvanizing to comply with ASTM A780/A780M.
- B. Touchup Painting:
  - 1. Immediately after erection, clean exposed areas where primer is damaged or missing, and paint with the same material as used for shop painting to comply with SSPC-PA 1 for touching up shop-painted surfaces.
    - a. Clean and prepare surfaces by SSPC-SP 2 hand-tool cleaning or SSPC-SP 3 power-tool cleaning.
  - 2. Cleaning and touchup painting are specified in Section 099113 "Exterior Painting.", Section 099123 "Interior Painting.", and Section 099600 "High-Performance Coatings."
- C. Touchup Priming: Cleaning and touchup priming are specified in Section 099600 "High-Performance Coatings."

### 3.6 FIELD QUALITY CONTROL

- A. Special Inspections: Owner will engage a special inspector to perform the following special inspections:

1. Verify structural-steel materials and inspect steel frame joint details.
  2. Verify weld materials and inspect welds.
  3. Verify connection materials and inspect high strength bolted connections.
- B. Testing Agency: Owner will engage a qualified testing agency to perform tests and inspections.
1. Bolted Connections: Inspect bolted connections in accordance with RCSC's "Specification for Structural Joints Using High-Strength Bolts."
  2. Welded Connections: Visually inspect field welds in accordance with AWS D1.1/D1.1M.
  3. Shear Stud Connectors: In addition to visual inspection, test and inspect field-welded shear connectors according to requirements in AWS D1.1/D1.1M for stud welding and as follows:
    - a. Perform bend tests if visual inspections reveal either a less-than-continuous 360-degree flash or welding repairs to any shear connector.
    - b. Conduct tests according to requirements in AWS D1.1/D1.1M on additional shear connectors if weld fracture occurs on shear connectors already tested.

END OF SECTION 051200

SECTION 061053 - MISCELLANEOUS ROUGH CARPENTRY

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. Section Includes:
  - 1. Wood framing, blocking and backing.
  - 2. Plywood backing panels.

1.3 DEFINITIONS

- A. Dimension Lumber: Lumber of 2 inches nominal or greater but less than 5 inches nominal in least dimension.
- B. Lumber grading agencies, and the abbreviations used to reference them, include the following:
  - 1. NeLMA: Northeastern Lumber Manufacturers' Association.
  - 2. NLGA: National Lumber Grades Authority.
  - 3. SPIB: The Southern Pine Inspection Bureau.
  - 4. WCLIB: West Coast Lumber Inspection Bureau.
  - 5. WWPA: Western Wood Products Association.

1.4 ACTION SUBMITTALS

- A. Product Data: For each type of process and factory-fabricated product. Indicate component materials and dimensions and include construction and application details.
  - 1. Include data for fire-retardant treatment from chemical treatment manufacturer and certification by treating plant that treated materials comply with requirements. Include physical properties of treated materials based on testing by a qualified independent testing agency.
  - 2. For fire-retardant treatments, include physical properties of treated lumber both before and after exposure to elevated temperatures, based on testing by a qualified independent testing agency according to ASTM D 5664.
  - 3. For products receiving a waterborne treatment, include statement that moisture content of treated materials was reduced to levels specified before shipment to Project site.
  - 4. Include copies of warranties from chemical treatment manufacturers for each type of treatment.

1.5 DELIVERY, STORAGE, AND HANDLING

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

PART 2 - PRODUCTS

2.1 WOOD PRODUCTS, GENERAL

- A. Lumber: DOC PS 20 and applicable rules of grading agencies indicated. If no grading agency is indicated, provide lumber that complies with the applicable rules of any rules-writing agency certified by the ALSC Board of Review. Provide lumber graded by an agency certified by the ALSC Board of Review to inspect and grade lumber under the rules indicated.
  - 1. Factory mark each piece of lumber with grade stamp of grading agency.
  - 2. Where nominal sizes are indicated, provide actual sizes required by DOC PS 20 for moisture content specified. Where actual sizes are indicated, they are minimum dressed sizes for dry lumber.
  - 3. Provide dressed lumber, S4S, unless otherwise indicated.
- B. Maximum Moisture Content of Lumber: 15 percent for 2-inch nominal thickness or less, 19 percent for more than 2-inch nominal thickness unless otherwise indicated.
- C. MDF: ANSI A208.2, Grade 130, made with binder containing no urea-formaldehyde resin.

2.2 FIRE-RETARDANT-TREATED MATERIALS

- A. General: Where fire-retardant-treated materials are indicated, use materials complying with requirements in this article, that are acceptable to authorities having jurisdiction, and with fire-test-response characteristics specified as determined by testing identical products per test method indicated by a qualified testing agency.
- B. Fire-Retardant-Treated Lumber and Plywood by Pressure Process: Products with a flame spread index of 25 or less when tested according to ASTM E 84, and with no evidence of significant progressive combustion when the test is extended an additional 20 minutes, and with the flame front not extending more than 10.5 feet beyond the centerline of the burners at any time during the test.
  - 1. Use treatment that does not promote corrosion of metal fasteners.
  - 2. Interior Type A: Treated materials shall have a moisture content of 28 percent or less when tested according to ASTM D 3201 at 92 percent relative humidity. Use where exterior type is not indicated.
  - 3. Exterior Type: Treated materials shall comply with requirements specified above for fire-retardant-treated lumber and plywood by pressure process after being subjected to accelerated weathering according to ASTM D2898. Use for exterior locations and where indicated.
- C. Kiln-dry lumber after treatment to a maximum moisture content of 19 percent. Kiln-dry plywood after treatment to a maximum moisture content of 15 percent.
- D. Identify fire-retardant-treated wood with appropriate classification marking of testing and inspecting agency acceptable to authorities having jurisdiction.



- E. Application: Treat items indicated on Drawings, and the following:
1. Concealed blocking.
  2. Plywood backing panels.
  3. Wood cants, nailers, curbs, equipment support bases, blocking, and similar members in connection with roofing.

### 2.3 MISCELLANEOUS LUMBER

- A. General: Provide miscellaneous lumber indicated and lumber for support or attachment of other construction, including the following:
1. Framing.
  2. Blocking.
  3. Nailers.
  4. Cants.
- B. For items of dimension lumber size, provide Standard, Stud, or No. 3 grade lumber and any of the following species:
1. Hem-fir (north); NLGA.
  2. Mixed southern pine; SPIB.
  3. Spruce-pine-fir; NLGA.
- C. For concealed boards, provide lumber with 15 percent maximum moisture content and any of the following species and grades:
1. Mixed southern pine, No. 2 grade; SPIB.
  2. Hem-fir or hem-fir (north), Construction or No. 2 Common grade; NLGA, WCLIB, or WWPA.
  3. Spruce-pine-fir (south) or spruce-pine-fir, Construction or No. 2 Common grade; NeLMA, NLGA, WCLIB, or WWPA.
- D. For blocking not used for attachment of other construction, Utility, Stud, or No. 3 grade lumber of any species may be used provided that it is cut and selected to eliminate defects that will interfere with its attachment and purpose.
- E. For blocking and nailers used for attachment of other construction, select and cut lumber to eliminate knots and other defects that will interfere with attachment of other work.
- F. Lumber Trim for Opaque Finish (Painted Finish):
1. Species and Grade: Alder, aspen, basswood, cottonwood, gum, magnolia, soft maple, sycamore, tupelo, or yellow poplar; B Finish or better; NHLA.
  2. Maximum Moisture Content: 13 percent.
  3. Finger Jointing: Allowed.
  4. Face Surface: Surfaced (smooth).
  5. Ease exposed edges.

### 2.4 PLYWOOD BACKING PANELS

- A. Equipment Backing Panels: DOC PS 1, Exterior, BC, fire-retardant treated, in thickness indicated or, if not indicated, not less than 3/4-inch nominal thickness.

## 2.5 FASTENERS AND HARDWARE

- A. General: Provide fasteners of size and type indicated that comply with requirements specified in this article for material and manufacture.
  - 1. Where carpentry is exposed to weather, in ground contact, pressure-preservative treated, or in area of high relative humidity, provide fasteners with hot-dip zinc coating complying with ASTM A 153/A 153M.
- B. Nails, Brads, and Staples: ASTM F 1667.
- C. Power-Driven Fasteners: NES NER-272.
- D. Wood Screws: ASME B18.6.1.
- E. Screws for Fastening to Metal Framing: ASTM C 1002, length as recommended by screw manufacturer for material being fastened.
- F. Adjustable Shelf Standards and Supports: BHMA A156.9, B04071; with shelf rests, B04081 BHMA A156.9, B04102; with shelf brackets, B04112.
- G. Shelf Rests: BHMA A156.9, B04013; metal, two-pin type with shelf hold-down clip.

## PART 3 - EXECUTION

### 3.1 INSTALLATION, GENERAL

- A. Set carpentry to required levels and lines, with members plumb, true to line, cut, and fitted. Fit carpentry to other construction; scribe and cope as needed for accurate fit. Locate nailers, blocking, and similar supports to comply with requirements for attaching other construction.
- B. Where wood-preservative-treated lumber is installed adjacent to metal decking, install continuous flexible flashing separator between wood and metal decking.
- C. Framing Standard: Comply with AF&PA's WCD 1, "Details for Conventional Wood Frame Construction," unless otherwise indicated.
- D. Install plywood backing panels by fastening to studs; coordinate locations with utilities requiring backing panels. Install fire-retardant treated plywood backing panels with classification marking of testing agency exposed to view.
- E. Do not splice structural members between supports unless otherwise indicated.
- F. Provide blocking and framing as indicated and as required to support facing materials, fixtures, specialty items, and trim.
  - 1. Provide metal clips for fastening gypsum board or lath at corners and intersections where framing or blocking does not provide a surface for fastening edges of panels. Space clips not more than 16 inches o.c.
- G. Sort and select lumber so that natural characteristics will not interfere with installation or with fastening other materials to lumber. Do not use materials with defects that interfere with function of member or pieces that are too small to use with minimum number of joints or optimum joint arrangement.

- H. Securely attach carpentry work to substrate by anchoring and fastening as indicated, complying with the following:
  - 1. NES NER-272 for power-driven fasteners.
  - 2. Table 2304.9.1, "Fastening Schedule," in ICC's International Building Code.
- I. Use steel common nails unless otherwise indicated. Select fasteners of size that will not fully penetrate members where opposite side will be exposed to view or will receive finish materials. Make tight connections between members. Install fasteners without splitting wood. Drive nails snug but do not countersink nail heads unless otherwise indicated.

### 3.2 WOOD BLOCKING, AND NAILER INSTALLATION

- A. Install where indicated and where required for attaching other work. Form to shapes indicated and cut as required for true line and level of attached work. Coordinate locations with other work involved.
- B. Attach items to substrates to support applied loading. Recess bolts and nuts flush with surfaces unless otherwise indicated.

### 3.3 PROTECTION

- A. Protect miscellaneous rough carpentry from weather. If, despite protection, miscellaneous rough carpentry becomes wet, apply EPA-registered borate treatment. Apply borate solution by spraying to comply with EPA-registered label.

END OF SECTION 061053

SECTION 062013 - EXTERIOR FINISH CARPENTRY

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. Section Includes:

- 1. Exterior wood/plastic composite material..

- B. Related Requirements:

- 1. Section 061053 "Miscellaneous Rough Carpentry" for furring, blocking, and other carpentry work not exposed to view.

1.3 DELIVERY, STORAGE, AND HANDLING

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

- B. Composite Wood Products (Trex):

- 1. Store Trex products on a flat and level surface. Adjust support blocks accordingly
- 2. Support Trex bundles on supplied dunnage
- 3. When stacking Trex bundles, supports should start approximately 8” from each end and be spaced approximately 2ft on center. Supports should line up vertically/perpendicular to the decking product.
- 4. Do not stack Trex Select decking more than 14 bundles.
- 5. Keep material covered using the provided bundle cover until time of installation

1.4 FIELD CONDITIONS

- A. Weather Limitations: Proceed with installation only when existing and forecast weather conditions permit work to be performed and at least one coat of specified finish can be applied without exposure to rain, snow, or dampness.

- 1. For exterior ornamental wood columns, comply with manufacturer's written instructions and warranty requirements.

- B. Do not install finish carpentry materials that are wet, moisture damaged, or mold damaged.

- 1. Indications that materials are wet or moisture damaged include, but are not limited to, discoloration, sagging, or irregular shape.

2. Indications that materials are mold damaged include, but are not limited to, fuzzy or splotchy surface contamination and discoloration.

1.5 WARRANTY

- A. Composite Wood Products: Provide manufactures warranty against rot, decay, splitting, checking, splintering, fungal damage, and termite damage for a period of 10 years for a commercial installation. In addition provide the Trex Transcend Fade and Stain Warranty against food staining and fading beyond 5 Delta E (CIE units) for a period of 10 years for a commercial installation.

PART 2 - PRODUCTS

2.1 MATERIALS, GENERAL

- A. Exterior Wood/Plastic Composite Material: Applicable rules of manufacturer.
- B. Factory mark each piece of composite material with grade stamp of manufacturer.

2.2 COMPOSITE WOOD PRODUCTS

- A. Composite decking, railings, balusters and post sleeve consisting of recycled Linear Low Density Polyethylene (LLDPE) and recycled wood. The product is extruded into shapes and sizes as follows:
  1. Trex Transcend Decking Boards; 1 x 5.5”.
  2. Trex Railings: Manufacturer’s standard.
  3. Trex Balusters: Manufacturer’s standard.
  4. Trex Posts Sleeve: 4” x 4”.
  5. Lengths: As indicated.
  6. Color: As indicated on the Drawings.
- B. Physical and Mechanical Properties as follows:

Test	Test Method	Value	
Flame spread	ASTM E 84	Class B	
Thermal Expansion	ASTM D 1037	1.9 x 10-5 inch/inch/degreeF	
Moisture Absorption	ASTM D 1037	< 1%	
Screw Withdrawal	ASTM D1761	558 lbs/in	
Fungus Resistance	ASTM D1413	Rating - no decay	
Termite Resistance	AWPAE1-72	Rating = 9.6	
		<u>Ultimate (Typical)Values *</u>	<u>Design Values</u>
Compression Parallel	ASTM D198	1588 psi	540 psi
Compression Perpendicular	ASTM D143	1437 psi	540 psi
Bending Strength	ASTM D198	3280 psi	500 psi
Shear Strength	ASTM D143	1761 psi	360 psi
Modulus of Elasticity	ASTM D4761	412,000psi	200,000 psi
Modulus of Rupture	ASTM D4761	3280 psi	500 psi

### 2.3 MISCELLANEOUS MATERIALS

- A. Fasteners for Exterior Finish Carpentry: Provide nails or screws, in sufficient length to penetrate not less than 1-1/2 inches into wood substrate.
  - 1. For face-fastening siding, provide ringed-shank siding nails or hot-dip galvanized-steel siding nails.
- B. Fasteners for Exterior Composite Carpentry:
  - 1. Trex Universal Hideaway Hidden Fasteners.

### 2.4 FABRICATION

- A. Back out or kerf backs of standing and running trim wider than 5 inches , except members with ends exposed in finished work.
- B. Ease edges of lumber less than 1 inch in nominal thickness to 1/16-inch radius and edges of lumber 1 inch or more in nominal thickness to 1/8-inch radius.

## PART 3 - EXECUTION

### 3.1 EXAMINATION

- A. Examine substrates, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of the Work.
- B. Examine finish carpentry materials before installation. Reject materials that are wet, moisture damaged, and mold damaged.
- C. Proceed with installation only after unsatisfactory conditions have been corrected.

### 3.2 PREPARATION

- A. Clean substrates of projections and substances detrimental to application.
- B. Prime lumber and moldings to be painted, including both faces and edges, unless factory primed. Cut to required lengths and prime ends. Comply with requirements in Section 099113 "Exterior Painting."

### 3.3 INSTALLATION, GENERAL

- A. Do not use materials that are unsound, warped, improperly treated or finished, inadequately seasoned, or too small to fabricate with proper jointing arrangements.
  - 1. Do not use manufactured units with defective surfaces, sizes, or patterns.

- B. Install exterior finish carpentry level, plumb, true, and aligned with adjacent materials. Use concealed shims where necessary for alignment.
  - 1. Scribe and cut exterior finish carpentry to fit adjoining work. Refinish and seal cuts as recommended by manufacturer.
  - 2. Install to tolerance of 1/8 inch in 96 inches for level and plumb. Install adjoining exterior finish carpentry with 1/32-inch maximum offset for flush installation and 1/16-inch maximum offset for reveal installation.
  - 3. Coordinate exterior finish carpentry with materials and systems in or adjacent to it. Provide cutouts for mechanical and electrical items that penetrate exterior finish carpentry.

### 3.4 INSTALLATION – COMPOSITE WOOD PRODUCTS

- A. Install according to Trex installation guidelines.  
<http://s7d4.scene7.com/is/content/Trex/Installation%20Guide%202013pdf>
- B. Cut, drill, and rout using carbide tipped blades.
- C. Do not use composite wood material for structural applications.
- D. Clean in accordance with cleaning recommendations as found in Trex installation guide at;  
<http://s7d4.scene7.com/is/content/Trex/Installation%20Guide%202013pdf>

### 3.5 ADJUSTING

- A. Replace exterior finish carpentry that is damaged or does not comply with requirements. Exterior finish carpentry may be repaired or refinished if work complies with requirements and shows no evidence of repair or refinishing. Adjust joinery for uniform appearance.

### 3.6 CLEANING

- A. Clean exterior finish carpentry on exposed and semiexposed surfaces. Touch up factory-applied finishes to restore damaged or soiled areas.

### 3.7 PROTECTION

- A. Protect installed products from damage from weather and other causes during construction.
- B. Remove and replace finish carpentry materials that are wet, moisture damaged, and mold damaged.
  - 1. Indications that materials are wet or moisture damaged include, but are not limited to, discoloration, sagging, or irregular shape.
  - 2. Indications that materials are mold damaged include, but are not limited to, fuzzy or splotchy surface contamination and discoloration.

END OF SECTION 062013

SECTION 079200 - JOINT SEALANTS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. Section Includes:
  - 1. Nonstaining silicone joint sealants.
  - 2. Latex joint sealants.

1.3 ACTION SUBMITTALS

- A. Product Data: For each joint-sealant product.
- B. Samples for Initial Selection: Manufacturer's color charts consisting of strips of cured sealants showing the full range of colors available for each product exposed to view.

1.4 QUALITY ASSURANCE

- A. Mockups: Install sealant in mockups of assemblies specified in other Sections that are indicated to receive joint sealants specified in this Section. Use materials and installation methods specified in this Section.

1.5 FIELD CONDITIONS

- A. Do not proceed with installation of joint sealants under the following conditions:
  - 1. When ambient and substrate temperature conditions are outside limits permitted by joint-sealant manufacturer or are below 40 deg F.
  - 2. When joint substrates are wet.
  - 3. Where joint widths are less than those allowed by joint-sealant manufacturer for applications indicated.
  - 4. Where contaminants capable of interfering with adhesion have not yet been removed from joint substrates.

1.6 WARRANTY

- A. Special Installer's Warranty: Installer agrees to repair or replace joint sealants that do not comply with performance and other requirements specified in this Section within specified warranty period.
  - 1. Warranty Period: Two years from date of Substantial Completion.



- B. Special warranties specified in this article exclude deterioration or failure of joint sealants from the following:
  - 1. Movement of the structure caused by stresses on the sealant exceeding sealant manufacturer's written specifications for sealant elongation and compression.
  - 2. Disintegration of joint substrates from causes exceeding design specifications.
  - 3. Mechanical damage caused by individuals, tools, or other outside agents.
  - 4. Changes in sealant appearance caused by accumulation of dirt or other atmospheric contaminants.

## PART 2 - PRODUCTS

### 2.1 JOINT SEALANTS, GENERAL

- A. Compatibility: Provide joint sealants, backings, and other related materials that are compatible with one another and with joint substrates under conditions of service and application, as demonstrated by joint-sealant manufacturer, based on testing and field experience.
- B. VOC Content of Interior Sealants: Sealants and sealant primers used inside the weatherproofing system shall comply with the following:
  - 1. Architectural sealants shall have a VOC content of 250 g/L or less.
  - 2. Sealants and sealant primers for nonporous substrates shall have a VOC content of 250 g/L or less.
- C. Colors of Exposed Joint Sealants: As selected by Architect from manufacturer's full range.

### 2.2 NONSTAINING SILICONE JOINT SEALANTS

- A. Nonstaining Joint Sealants: No staining of substrates when tested according to ASTM C 1248.
- B. Silicone, Nonstaining, S, NS, 50, NT: Nonstaining, single-component, nonsag, plus 50 percent and minus 50 percent movement capability, nontraffic-use, neutral-curing silicone joint sealant; ASTM C 920, Type S, Grade NS, Class 50, Use NT.
  - 1. Products: Subject to compliance with requirements, provide one of the following:
    - a. Dow Corning Corporation; 756 SM.
    - b. GE Construction Sealants; SCS 9000.
    - c. Pecora; 864 NST.
    - d. Tremco Incorporated; Spectrem 3.

### 2.3 LATEX JOINT SEALANTS

- A. Acrylic Latex: Acrylic latex or siliconized acrylic latex, ASTM C 834, Type OP, Grade NF.
  - 1. Products: Subject to compliance with requirements, provide one of the following:
    - a. BASF Construction Chemicals, LLC, Building Systems; Sonolac.
    - b. Sherwin-Williams Company (The); 850A.
    - c. Tremco Incorporated; Tremflex 834.

## 2.4 JOINT-SEALANT BACKING

- A. Sealant Backing Material, General: Nonstaining; compatible with joint substrates, sealants, primers, and other joint fillers; and approved for applications indicated by sealant manufacturer based on field experience and laboratory testing.
  - 1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
    - a. BASF Construction Chemicals, LLC, Building Systems.
    - b. Construction Foam Products, a division of Nomaco, Inc.
- B. Cylindrical Sealant Backings: ASTM C 1330, Type C (closed-cell material with a surface skin) or Type O (open-cell material), and of size and density to control sealant depth and otherwise contribute to producing optimum sealant performance. Use open-cell material at double caulk beads in vertical joints for curing of initial (internal) caulk bead.
- C. Bond-Breaker Tape: Polyethylene tape or other plastic tape recommended by sealant manufacturer for preventing sealant from adhering to rigid, inflexible joint-filler materials or joint surfaces at back of joint. Provide self-adhesive tape where applicable.

## 2.5 MISCELLANEOUS MATERIALS

- A. Primer: Material recommended by joint-sealant manufacturer where required for adhesion of sealant to joint substrates indicated, as determined from preconstruction joint-sealant-substrate tests and field tests.
- B. Cleaners for Nonporous Surfaces: Chemical cleaners acceptable to manufacturers of sealants and sealant backing materials, free of oily residues or other substances capable of staining or harming joint substrates and adjacent nonporous surfaces in any way and formulated to promote optimum adhesion of sealants to joint substrates.
- C. Masking Tape: Nonstaining, nonabsorbent material compatible with joint sealants and surfaces adjacent to joints.

## PART 3 - EXECUTION

### 3.1 EXAMINATION

- A. Examine joints indicated to receive joint sealants, with Installer present, for compliance with requirements for joint configuration, installation tolerances, and other conditions affecting performance of the Work.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

### 3.2 PREPARATION

- A. Surface Cleaning of Joints: Clean out joints immediately before installing joint sealants to comply with joint-sealant manufacturer's written instructions and the following requirements:

1. Remove all foreign material from joint substrates that could interfere with adhesion of joint sealant, including dust, paints (except for permanent, protective coatings tested and approved for sealant adhesion and compatibility by sealant manufacturer), old joint sealants, oil, grease, waterproofing, water repellents, water, surface dirt, and frost.
  2. Remove laitance and form-release agents from concrete.
- B. Joint Priming: Prime joint substrates where recommended by joint-sealant manufacturer or as indicated by preconstruction joint-sealant-substrate tests or prior experience. Apply primer to comply with joint-sealant manufacturer's written instructions. Confine primers to areas of joint-sealant bond; do not allow spillage or migration onto adjoining surfaces.
- C. Masking Tape: Use masking tape where required to prevent contact of sealant or primer with adjoining surfaces that otherwise would be permanently stained or damaged by such contact or by cleaning methods required to remove sealant smears. Remove tape immediately after tooling without disturbing joint seal.

### 3.3 INSTALLATION OF JOINT SEALANTS

- A. General: Comply with joint-sealant manufacturer's written installation instructions for products and applications indicated, unless more stringent requirements apply.
- B. Sealant Installation Standard: Comply with recommendations in ASTM C 1193 for use of joint sealants as applicable to materials, applications, and conditions indicated.
- C. Install sealant backings of kind indicated to support sealants during application and at position required to produce cross-sectional shapes and depths of installed sealants relative to joint widths that allow optimum sealant movement capability.
1. Do not leave gaps between ends of sealant backings.
  2. Do not stretch, twist, puncture, or tear sealant backings.
  3. Remove absorbent sealant backings that have become wet before sealant application and replace them with dry materials.
- D. Install bond-breaker tape behind sealants where sealant backings are not used between sealants and backs of joints.
- E. Install sealants using proven techniques that comply with the following and at the same time backings are installed:
1. Place sealants so they directly contact and fully wet joint substrates.
  2. Completely fill recesses in each joint configuration.
  3. Produce uniform, cross-sectional shapes and depths relative to joint widths that allow optimum sealant movement capability.
- F. Tooling of Nonsag Sealants: Immediately after sealant application and before skinning or curing begins, tool sealants according to requirements specified in subparagraphs below to form smooth, uniform beads of configuration indicated; to eliminate air pockets; and to ensure contact and adhesion of sealant with sides of joint.
1. Remove excess sealant from surfaces adjacent to joints.
  2. Use tooling agents that are approved in writing by sealant manufacturer and that do not discolor sealants or adjacent surfaces.
  3. Provide concave joint profile per Figure 8A in ASTM C 1193 unless otherwise indicated.

### 3.4 FIELD QUALITY CONTROL

#### A. Field-Adhesion Testing: Field test joint-sealant adhesion to joint substrates as follows:

1. Extent of Testing: Test completed and cured sealant joints as follows:
  - a. Perform 10 tests for the first 1000 feet of joint length for each kind of sealant and joint substrate.
  - b. Perform one test for each 1000 feet of joint length thereafter or one test per each floor per elevation.
2. Test Method: Test joint sealants according to Method A, Field-Applied Sealant Joint Hand Pull Tab, in Appendix X1 in ASTM C 1193 or Method A, Tail Procedure, in ASTM C 1521.
  - a. For joints with dissimilar substrates, verify adhesion to each substrate separately; extend cut along one side, verifying adhesion to opposite side. Repeat procedure for opposite side.
3. Inspect tested joints and report on the following:
  - a. Whether sealants filled joint cavities and are free of voids.
  - b. Whether sealant dimensions and configurations comply with specified requirements.
  - c. Whether sealants in joints connected to pulled-out portion failed to adhere to joint substrates or tore cohesively. Include data on pull distance used to test each kind of product and joint substrate. Compare these results to determine if adhesion complies with sealant manufacturer's field-adhesion hand-pull test criteria.
4. Record test results in a field-adhesion-test log. Include dates when sealants were installed, names of persons who installed sealants, test dates, test locations, whether joints were primed, adhesion results and percent elongations, sealant material, sealant configuration, and sealant dimensions.
5. Repair sealants pulled from test area by applying new sealants following same procedures used originally to seal joints. Ensure that original sealant surfaces are clean and that new sealant contacts original sealant.

#### B. Evaluation of Field-Adhesion-Test Results: Sealants not evidencing adhesive failure from testing or noncompliance with other indicated requirements will be considered satisfactory. Remove sealants that fail to adhere to joint substrates during testing or to comply with other requirements. Retest failed applications until test results prove sealants comply with indicated requirements.

### 3.5 CLEANING

- #### A. Clean off excess sealant or sealant smears adjacent to joints as the Work progresses by methods and with cleaning materials approved in writing by manufacturers of joint sealants and of products in which joints occur.

### 3.6 PROTECTION

- #### A. Protect joint sealants during and after curing period from contact with contaminating substances and from damage resulting from construction operations or other causes so sealants are without deterioration or damage at time of Substantial Completion. If, despite such protection, damage or deterioration occurs, cut out, remove, and repair damaged or deteriorated joint sealants immediately so installations with repaired areas are indistinguishable from original work.

3.7 JOINT-SEALANT SCHEDULE

- A. Joint-Sealant Application: Exterior joints in vertical surfaces and horizontal nontraffic surfaces.
  - 1. Joint Locations:
    - a. Construction joints in cast-in-place concrete.
    - b. Joints between storefront framing.
    - c. Joints between different materials listed above.
    - d. Exterior sealant joints as indicated.
  - 2. Joint Sealant: Silicone, nonstaining, S, NS, 50, NT.
  - 3. Joint-Sealant Color: As selected by Architect from manufacturer's full range of colors.
  
- B. Joint-Sealant Application: Interior joints in vertical surfaces and horizontal nontraffic surfaces not subject to significant movement.
  - 1. Joint Locations:
    - a. Control joints on exposed interior surfaces of exterior walls.
    - b. Perimeter joints between interior wall surfaces and frames of interior doors.
    - c. Other joints as indicated on Drawings.
  - 2. Joint Sealant: Acrylic latex.
  - 3. Joint-Sealant Color: As selected by Architect from manufacturer's full range of colors.

END OF SECTION 079200

SECTION 081113 - HOLLOW METAL DOORS AND FRAMES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. Section includes hollow-metal work.
- B. Related Requirements:
  - 1. Division 08 Section "Door Hardware" for door hardware for hollow-metal doors.

1.3 DEFINITIONS

- A. Minimum Thickness: Minimum thickness of base metal without coatings according to NAAMM-HMMA 803 or SDI A250.8.

1.4 COORDINATION

- A. Coordinate anchorage installation for hollow-metal frames. Furnish setting drawings, templates, and directions for installing anchorages, including sleeves, concrete inserts, anchor bolts, and items with integral anchors. Deliver such items to Project site in time for installation.

1.5 ACTION SUBMITTALS

- A. Product Data: For each type of product.
- B. Shop Drawings: Include the following:
  - 1. Elevations of each door type.
  - 2. Details of doors, including vertical- and horizontal-edge details and metal thicknesses.
  - 3. Frame details for each frame type, including dimensioned profiles and metal thicknesses.
  - 4. Locations of reinforcement and preparations for hardware.
  - 5. Details of each different wall opening condition.
  - 6. Details of anchorages, joints, field splices, and connections.
  - 7. Details of accessories.
  - 8. Details of moldings, removable stops, and glazing.
  - 9. Details of conduit and preparations for power, signal, and control systems.
- C. Schedule: Provide a schedule of hollow-metal work prepared by or under the supervision of supplier, using same reference numbers for details and openings as those on Drawings. Coordinate with final Door Hardware Schedule.

1.6 INFORMATIONAL SUBMITTALS

- A. Product Test Reports: For each type of hollow-metal door and frame assembly, for tests performed by a qualified testing agency.

1.7 DELIVERY, STORAGE, AND HANDLING

- A. Deliver hollow-metal work palletized, packaged, or crated to provide protection during transit and Project-site storage. Do not use nonvented plastic.
  - 1. Provide additional protection to prevent damage to factory-finished units.
- B. Deliver welded frames with two removable spreader bars across bottom of frames, tack welded to jambs and mullions.
- C. Store hollow-metal work vertically under cover at Project site with head up. Place on minimum 4-inch-high wood blocking. Provide minimum 1/4-inch space between each stacked door to permit air circulation.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
  - 1. Ceco Door; ASSA ABLOY.
  - 2. LaForce, Inc.
  - 3. Mesker Door Inc.
  - 4. Pioneer Industries, Inc.
  - 5. Steelcraft.
- B. Source Limitations: Obtain hollow-metal work from single source from single manufacturer.

2.2 EXTERIOR HOLLOW-METAL DOORS AND FRAMES

- A. Construct exterior doors and frames to comply with the standards indicated for materials, fabrication, hardware locations, hardware reinforcement, tolerances, and clearances, and as specified.
- B. Heavy-Duty Doors and Frames: SDI A250.8, Level 2.
  - 1. Physical Performance: Level B according to SDI A250.4.
  - 2. Doors:
    - a. Type: As indicated in the Door and Frame Schedule.
    - b. Thickness: 1-3/4 inches
    - c. Face: Metallic-coated steel sheet, minimum thickness of 0.042 inch, with minimum A40 coating.
    - d. Edge Construction: Model 2, Seamless.
    - e. Core: Polyisocyanurate.

- 1) Thermal-Rated Doors: Provide doors fabricated with thermal-resistance value (R-value) of not less than 2.1 deg F x h x sq. ft./Btu when tested according to ASTM C 1363.
3. Frames:
  - a. Materials: Metallic-coated steel sheet, minimum thickness of 0.053 inch, with minimum A40 coating.
  - b. Construction: Full profile welded.
4. Exposed Finish: Prime.

## 2.3 FRAME ANCHORS

### A. Jamb Anchors:

1. Masonry Type: Adjustable strap-and-stirrup or T-shaped anchors to suit frame size, not less than 0.042 inch thick, with corrugated or perforated straps not less than 2 inches wide by 10 inches long; or wire anchors not less than 0.177 inch thick.
2. Stud-Wall Type: Designed to engage stud, welded to back of frames; not less than 0.042 inch thick.
3. Postinstalled Expansion Type for In-Place Concrete or Masonry: Minimum 3/8-inch- diameter bolts with expansion shields or inserts. Provide pipe spacer from frame to wall, with throat reinforcement plate, welded to frame at each anchor location.

### B. Floor Anchors: Formed from same material as frames, minimum thickness of 0.042 inch, and as follows:

1. Monolithic Concrete Slabs: Clip-type anchors, with two holes to receive fasteners.

## 2.4 MATERIALS

- A. Cold-Rolled Steel Sheet: ASTM A 1008/A 1008M, Commercial Steel (CS), Type B; suitable for exposed applications.
- B. Hot-Rolled Steel Sheet: ASTM A 1011/A 1011M, Commercial Steel (CS), Type B; free of scale, pitting, or surface defects; pickled and oiled.
- C. Frame Anchors: ASTM A 879/A 879M, Commercial Steel (CS), 04Z coating designation; mill phosphatized.
  1. For anchors built into exterior walls, steel sheet complying with ASTM A 1008/A 1008M or ASTM A 1011/A 1011M, hot-dip galvanized according to ASTM A 153/A 153M, Class B.
- D. Inserts, Bolts, and Fasteners: Hot-dip galvanized according to ASTM A 153/A 153M.
- E. Power-Actuated Fasteners in Concrete: Fastener system of type suitable for application indicated, fabricated from corrosion-resistant materials, with clips or other accessory devices for attaching hollow-metal frames of type indicated.
- F. Grout: ASTM C 476, except with a maximum slump of 4 inches, as measured according to ASTM C 143/C 143M.



- G. Mineral-Fiber Insulation: ASTM C 665, Type I (blankets without membrane facing); consisting of fibers manufactured from slag or rock wool; with maximum flame-spread and smoke-developed indexes of 25 and 50, respectively; passing ASTM E 136 for combustion characteristics.
- H. Glazing: Comply with requirements in Section 088000 "Glazing."
- I. Bituminous Coating: Cold-applied asphalt mastic, compounded for 15-mil dry film thickness per coat. Provide inert-type noncorrosive compound free of asbestos fibers, sulfur components, and other deleterious impurities.

## 2.5 FABRICATION

- A. Fabricate hollow-metal work to be rigid and free of defects, warp, or buckle. Accurately form metal to required sizes and profiles, with minimum radius for metal thickness. Where practical, fit and assemble units in manufacturer's plant. To ensure proper assembly at Project site, clearly identify work that cannot be permanently factory assembled before shipment.
- B. Hollow-Metal Doors:
  - 1. Steel-Stiffened Door Cores: Provide minimum thickness 0.026 inch, steel vertical stiffeners of same material as face sheets extending full-door height, with vertical webs spaced not more than 6 inches apart. Spot weld to face sheets no more than 5 inches o.c. Fill spaces between stiffeners with glass- or mineral-fiber insulation.
  - 2. Fire Door Cores: As required to provide fire-protection and temperature-rise ratings indicated.
  - 3. Vertical Edges for Single-Acting Doors: Bevel edges 1/8 inch in 2 inches.
  - 4. Top Edge Closures: Close top edges of doors with flush closures of same material as face sheets.
  - 5. Bottom Edge Closures: Close bottom edges of doors with end closures or channels of same material as face sheets.
  - 6. Exterior Doors: Provide weep-hole openings in bottoms of exterior doors to permit moisture to escape. Seal joints in top edges of doors against water penetration.
  - 7. Astragals: Provide overlapping astragal on one leaf of pairs of doors where required by NFPA 80 for fire-performance rating or where indicated. Extend minimum 3/4 inch beyond edge of door on which astragal is mounted or as required to comply with published listing of qualified testing agency.
- C. Hollow-Metal Frames: Where frames are fabricated in sections due to shipping or handling limitations, provide alignment plates or angles at each joint, fabricated of same thickness metal as frames.
  - 1. Sidelite Frames: Provide closed tubular members with no visible face seams or joints, fabricated from same material as door frame. Fasten members at crossings and to jambs by butt welding.
  - 2. Provide countersunk, flat- or oval-head exposed screws and bolts for exposed fasteners unless otherwise indicated.
  - 3. Floor Anchors: Weld anchors to bottoms of jambs with at least four spot welds per anchor; however, for slip-on drywall frames, provide anchor clips or countersunk holes at bottoms of jambs.
  - 4. Jamb Anchors: Provide number and spacing of anchors as follows:
    - a. Masonry Type: Locate anchors not more than 16 inches from top and bottom of frame. Space anchors not more than 32 inches o.c., to match coursing, and as follows:
      - 1) Three anchors per jamb from 60 to 90 inches high.
    - b. Stud-Wall Type: Locate anchors not more than 18 inches from top and bottom of frame. Space anchors not more than 32 inches o.c. and as follows:

- 1) Four anchors per jamb from 60 to 90 inches high.
- c. Postinstalled Expansion Type: Locate anchors not more than 6 inches from top and bottom of frame. Space anchors not more than 26 inches o.c.
5. Head Anchors: Two anchors per head for frames more than 42 inches wide and mounted in metal-stud partitions.
6. Door Silencers: Except on weather-stripped frames, drill stops to receive door silencers as follows. Keep holes clear during construction.
  - a. Single-Door Frames: Drill stop in strike jamb to receive three door silencers.
  - b. Double-Door Frames: Drill stop in head jamb to receive two door silencers.
- D. Fabricate concealed stiffeners and edge channels from either cold- or hot-rolled steel sheet.
- E. Hardware Preparation: Factory prepare hollow-metal work to receive templated mortised hardware; include cutouts, reinforcement, mortising, drilling, and tapping according to SDI A250.6, the Door Hardware Schedule, and templates.
  1. Reinforce doors and frames to receive nontemplated, mortised, and surface-mounted door hardware.
  2. Comply with applicable requirements in SDI A250.6 and BHMA A156.115 for preparation of hollow-metal work for hardware.
- F. Stops and Moldings: Provide stops and moldings around glazed lites and louvers where indicated. Form corners of stops and moldings with butted or mitered hairline joints.
  1. Single Glazed Lites: Provide fixed stops and moldings welded on secure side of hollow-metal work.
  2. Multiple Glazed Lites: Provide fixed and removable stops and moldings so that each glazed lite is capable of being removed independently.
  3. Provide fixed frame moldings on outside of exterior and on secure side of interior doors and frames.
  4. Provide loose stops and moldings on inside of hollow-metal work.
  5. Coordinate rabbet width between fixed and removable stops with glazing and installation types indicated.

## 2.6 STEEL FINISHES

- A. Prime Finish: Clean, pretreat, and apply manufacturer's standard primer.
  1. Shop Primer: Manufacturer's standard, fast-curing, lead- and chromate-free primer complying with SDI A250.10; recommended by primer manufacturer for substrate; compatible with substrate and field-applied coatings despite prolonged exposure.

## PART 3 - EXECUTION

### 3.1 EXAMINATION

- A. Examine substrates, areas, and conditions, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of the Work.

- B. Examine roughing-in for embedded and built-in anchors to verify actual locations before frame installation.
- C. Prepare written report, endorsed by Installer, listing conditions detrimental to performance of the Work.
- D. Proceed with installation only after unsatisfactory conditions have been corrected.

### 3.2 PREPARATION

- A. Remove welded-in shipping spreaders installed at factory. Restore exposed finish by grinding, filling, and dressing, as required to make repaired area smooth, flush, and invisible on exposed faces.
- B. Drill and tap doors and frames to receive nontemplated, mortised, and surface-mounted door hardware.

### 3.3 INSTALLATION

- A. General: Install hollow-metal work plumb, rigid, properly aligned, and securely fastened in place. Comply with Drawings and manufacturer's written instructions.
- B. Hollow-Metal Frames: Install hollow-metal frames for doors, transoms, sidelites, borrowed lites, and other openings, of size and profile indicated. Comply with SDI A250.11 or NAAMM-HMMA 840 as required by standards specified.
  - 1. Set frames accurately in position; plumbed, aligned, and braced securely until permanent anchors are set. After wall construction is complete, remove temporary braces, leaving surfaces smooth and undamaged.
    - a. At fire-rated openings, install frames according to NFPA 80.
    - b. Install frames with removable stops located on secure side of opening.
    - c. Install door silencers in frames before grouting.
    - d. Remove temporary braces necessary for installation only after frames have been properly set and secured.
    - e. Check plumb, square, and twist of frames as walls are constructed. Shim as necessary to comply with installation tolerances.
    - f. Field apply spray insulation in the frame cavity for exterior frames.
  - 2. Floor Anchors: Provide floor anchors for each jamb and mullion that extends to floor, and secure with postinstalled expansion anchors.
    - a. Floor anchors may be set with power-actuated fasteners instead of postinstalled expansion anchors if so indicated and approved on Shop Drawings.
  - 3. Metal-Stud Partitions: Solidly pack mineral-fiber insulation inside frames.
  - 4. Masonry Walls: Coordinate installation of frames to allow for solidly filling space between frames and masonry with grout.
  - 5. Concrete Walls: Solidly fill space between frames and concrete with mineral-fiber insulation.
  - 6. In-Place Concrete or Masonry Construction: Secure frames in place with postinstalled expansion anchors. Countersink anchors, and fill and make smooth, flush, and invisible on exposed faces.
  - 7. In-Place Metal or Wood-Stud Partitions: Secure slip-on drywall frames in place according to manufacturer's written instructions.
  - 8. Installation Tolerances: Adjust hollow-metal door frames for squareness, alignment, twist, and plumb to the following tolerances:

- a. Squareness: Plus or minus 1/16 inch, measured at door rabbet on a line 90 degrees from jamb perpendicular to frame head.
  - b. Alignment: Plus or minus 1/16 inch, measured at jambs on a horizontal line parallel to plane of wall.
  - c. Twist: Plus or minus 1/16 inch, measured at opposite face corners of jambs on parallel lines, and perpendicular to plane of wall.
  - d. Plumbness: Plus or minus 1/16 inch, measured at jambs at floor.
- C. Hollow-Metal Doors: Fit hollow-metal doors accurately in frames, within clearances specified below. Shim as necessary.
1. Non-Fire-Rated Steel Doors:
    - a. Between Door and Frame Jambs and Head: 1/8 inch plus or minus 1/32 inch.
    - b. Between Edges of Pairs of Doors: 1/8 inch to 1/4 inch plus or minus 1/32 inch.
    - c. At Bottom of Door: 3/4 inch plus or minus 1/32 inch.
    - d. Between Door Face and Stop: 1/16 inch to 1/8 inch plus or minus 1/32 inch.
- D. Glazing: Comply with installation requirements in Section 088000 "Glazing" and with hollow-metal manufacturer's written instructions.
1. Secure stops with countersunk flat- or oval-head machine screws spaced uniformly not more than 9 inches o.c. and not more than 2 inches o.c. from each corner.

### 3.4 ADJUSTING AND CLEANING

- A. Final Adjustments: Check and readjust operating hardware items immediately before final inspection. Leave work in complete and proper operating condition. Remove and replace defective work, including hollow-metal work that is warped, bowed, or otherwise unacceptable.
- B. Remove grout and other bonding material from hollow-metal work immediately after installation.
- C. Prime-Coat Touchup: Immediately after erection, sand smooth rusted or damaged areas of prime coat and apply touchup of compatible air-drying, rust-inhibitive primer.
- D. Metallic-Coated Surface Touchup: Clean abraded areas and repair with galvanizing repair paint according to manufacturer's written instructions.

END OF SECTION 081113

SECTION 087110 - DOOR HARDWARE

PART 1 - GENERAL

1.1 Refer to “General and Special Conditions” and “Instructions to Bidders”, Division 1 of Specifications. Requirements of these Sections and the project drawings shall govern work in this section.

1.2 SUMMARY

A. Section Includes:

1. Door Hardware
2. Cylinders for doors fabricated with locking hardware.
3. Costs of jobsite visit(s) necessary for keying conference(s), field verifying of existing conditions, and service issues which may be required during the course of construction.

B. Related Sections:

1. Division 1 - General Requirements
2. Division 7 - Joint Sealers
3. Division 8 - Metal Doors and Frames.

C. Specific Omissions: Hardware for the following is specified or indicated elsewhere.

1. Cabinets, including open wall shelving and locks.
2. Toilet accessories, including grab bars.
3. Rough hardware.

1.3 REFERENCES:

- A. Use date of standard in effect as of Bid date.
- B. American National Standards Institute – ANSI 156.18 – Materials and Finishes.
- C. ANSI A117.1 – Specifications for making buildings and facilities usable by physically handicapped people.
- D. ADA – Americans with Disabilities Act of 1990
- E. BHMA – Builders Hardware Manufacturers Association
- F. DHI – Door and Hardware Institute
- G. International Building Code (IBC)
- H. NFPA – National Fire Protection Association

1. NFPA 80 – Fire Doors and Windows
  2. NFPA 101 – Life Safety Code
  3. NFPA 105 – Smoke and Draft Control Door Assemblies
  4. NFPA 252 – Fire Tests of Door Assemblies
- I. UL – Underwriters Laboratories
1. UL10C – Fire Test of Door Assemblies as amended to incorporate positive pressure testing.
- J. WHI – Warnock Hersey Incorporated
- K. SDI – Steel Door Institute
- L. AWI – Architectural Woodwork Institute
- M. Illinois Accessibility Code, current version.

#### 1.4 SUBMITTALS & SUBSTITUTIONS

- A. Submit electronic copy of schedule per Division 1. Organize vertically formatted schedule into “Hardware Sets” following guidelines established in Door & Hardware Institute Handbook (DHI) Sequence and Format for the Hardware Schedule with index of doors and headings, indicating complete designations of every item required for each door or opening. Horizontal schedule format will be returned “Not Approved”. Include following information:
1. Type, style, function, size, quantity and finish of hardware items.
    - a. Use BHMA Finish codes per ANSI A156.18.
  2. Name, part number and manufacturer of each item.
  3. Fastenings and other pertinent information.
  4. Location of hardware set coordinated with floor plans and door schedule.
  5. Explanation of abbreviations, symbols, and codes contained in schedule.
  6. Mounting locations for hardware.
  7. Door and frame sizes, materials and degrees of swing.
  8. List of manufacturers used and their nearest representative with address and phone number.
  9. Catalog cuts.
  10. Manufacturer’s technical data and installation instructions for electronic hardware.
  11. Date of jobsite visit.
- B. Bid and submit manufacturer’s updated/improved item if scheduled item is discontinued.
- C. Make substitution requests in accordance with Division 1. Only products bearing BHMA certification will be considered. Include product data and indicate benefit to the Project. Furnish operating samples on request.
1. Items listed with no substitute manufacturers have been requested by Owner to meet existing standard.
  2. For products specified by naming several Products or Manufacturers select any one of the products or manufacturers named, which complies with the specifications. No substitute product will be considered.

- D. Furnish as-built/as-installed schedule with closeout documents, including keying schedule, manufacturers' installation, adjustment and maintenance information, and supplier's final inspection report.
- E. Schedules shall be kept current with all changes to the project. If changes occur, project hardware schedules shall be maintained to reflect the changes as they are approved. Omitted items shall be deleted from openings, added and replaced items shall be included. Installation submittals shall be kept current as changes occur. Upon request, a complete updated hardware schedule shall be provided to the contractor. Supplemental submittals that include only the changed openings will not be acceptable.
- F. Prior to final payment, provide a record copy of hardware schedules, including all revisions and updates. All openings shall be listed to reflect final installed configuration only.

1.5 QUALITY ASSURANCE:

- A. Qualifications:
  - 1. Hardware supplier: A recognized architectural finish hardware supplier, with warehousing facilities, who has been furnishing hardware in the project's vicinity for a period of not less than 2 years. The hardware supplier shall be a corporate member in good standing of The Door and Hardware Institute (DHI), employing at least one Architectural Hardware Consultant (AHC) who is currently participating in DHI's continuing education program (CEP).
  - 2. Electrified hardware supplier: An experienced door hardware supplier who has completed projects with electrified door hardware similar in material, design and extent to that indicated for this project, who has a record of successful in-service performance and is acceptable to manufacturer of materials. Shall prepare data for electrified door hardware based on testing and engineering analysis of manufacturer's assemblies similar to those in this project.
  - 3. Responsible for detailing, scheduling and ordering of finish hardware.
- B. Hardware: New, free of defects, blemishes and excessive play. Obtain each kind of hardware (latch and locksets, exit devices, hinges and closers) from one manufacturer.
- C. Exit Doors: Operable from inside with single motion without the use of a key or special knowledge or effort.
- D. Fire-Rated Openings: In compliance with NFPA 80. Provide proper latching hardware, non-flaming door closers and approved-bearing hinges. Furnish openings complete. Provide positive latching and self-closing, regardless if not listed in sets.
- E. Pre-Installation Meetings: Prior to start of hardware installation, contractor shall schedule and conduct pre-installation meeting with hardware supplier, lock, exit device, and door closer manufacturers' representative(s), installer and related trades, to coordinate materials and techniques, and sequence complex hardware items and systems installation. Proper and correct installation and adjustment of hardware is to be reviewed, and criteria for punch list review will be established. Convene at least one week prior to commencement of related work. Written documentation of date and attendees/participants is to be provided to architect and owner for record.
- F. Items of hardware not definitely specified herein but necessary for completion of the work shall be provided. Such items shall be of type and quality suitable to the service required and comparable to the adjacent hardware. Where size and shape of members is such as to prevent the use of types specified, hardware shall be furnished of suitable types having as nearly as practicable the same operation and quality as the type specified. Sizes shall be adequate for the service required.

- G. Include such nuances as strike type, strike lip length, raised barrel hinges, mounting brackets, blade stop spacers, special templates, fasteners, shims, and coordination between conflicting products. All doors shall be provided with a stop.

1.6 DELIVERY, STORAGE AND HANDLING:

- A. Delivery: coordinate delivery to appropriate locations (shop or field).
  - 1. Permanent keys and cores: secured delivery direct to Owner's representative.
- B. Acceptance at Site: Items individually packaged in manufacturers' original containers, complete with proper fasteners and related pieces. Clearly mark packages to indicate contents, locations in hardware schedule and door numbers. Shipments direct from manufacturer to Site are not acceptable.
- C. Storage: Provide locked storage area for hardware, protect from moisture, sunlight, paint, chemicals, etc.

1.7 PROJECT CONDITIONS:

- A. Where exact types of hardware specified are not adaptable to finished shape or size of members requiring hardware, provide suitable types having as nearly as practical as the same operation and quality as type specified, subject to Architect's approval.
- B. Prior to submittal, carefully inspect existing conditions to verify finish hardware required to complete Work, including size, strike plate size, quantities, and sill conditions material. If conflict between the scheduled material and existing conditions, submit request for directions from Architect.

1.8 SEQUENCING AND COORDINATION:

- A. Reinforce walls for wall stops.
- B. Coordinate finish floor materials and floor-mounted hardware.
- C. Conduit and raceways as needed for electrical and electronic hardware items. Fire/life-safety system interfacing. Point-to-point wiring diagrams plus riser diagrams to related trades.
- D. Furnish manufacturer templates to door and frame fabricators.
- E. Use hardware consultant to check Shop Drawings for doors and entrances to confirm that adequate provisions will be made for proper hardware installation.

1.9 WARRANTY:

- A. Part of respective manufacturers' regular terms of sale. Provide manufacturers' warranties:
  - 1. Mortise Locksets: Three years.
  - 2. Closers: Ten years mechanical, two years electrical.
  - 3. Exit Devices: Three years.
  - 4. Hinges: One year butt hinges, lifetime geared hinges.
  - 5. Other Hardware: One year.



1.10 COMMISSIONING:

- A. Test door hardware operation with climate control system and stairwell pressurization system both at rest and while in full operation.
- B. Test electrical hardware systems for satisfactory operation.
- C. Test hardware interfaced with fire/life-safety system for proper operation and release.

1.11 MAINTENANCE:

- A. Furnish operating and maintenance data of manufacturers for door hardware items. Include instructions for operation, adjustments and maintenance and parts list.
- B. Instruct personnel of Owner in proper adjustments and maintenance of door hardware and hardware finishes during final adjustment phase of hardware installation.
- C. Furnish a complete set of specialized tools as needed for continued adjustment, maintenance, removal and replacement of door hardware by Owner.

PART 2 - PRODUCTS

2.1 MANUFACTURERS:

- A. Listed acceptable alternate manufacturers: submit for review products with equivalent function and features of scheduled products.

<u>ITEM:</u>	<u>MANUFACTURER:</u>	<u>ACCEPTABLE SUB:</u>
Hinges	(IVE) Ives	McKinney, Hager
Continuous Hinges	(HAG) Hager	Select, Zero
Locks	(SCH) Schlage	Sargent, Yale, <i>Falcon (Add04)</i>
Exit Devices	(VON) Von Duprin	Sargent, Yale, <i>Falcon (Add04)</i>
Closers	(LCN) LCN	Sargent, <i>(Remove Norton Add04)</i>
Flush Bolts	(IVE) Ives	Hiawatha, Trimco, Rockwood
Push & Pull Plates	(IVE) Ives	Hiawatha, Trimco, Rockwood
Kickplates	(IVE) Ives	Rockwood, Trimco, Rockwood
Stops & Holders	(IVE) Ives	Hiawatha, Trimco, Rockwood
Overhead Stops	(GLY) Glynn-Johnson	Rixson, Sargent
Thresholds	(NGP) National Guard	Pemko, Reese
Seals & Bottoms	(NGP) National Guard	Pemko, Reese

- B. Provide hardware items required to complete the work in accordance with these specifications and manufacturers' instructions.
  - 1. Include items inadvertently omitted from this specification. Note these items in submittal for review. There will not be any extra's allowed for items that should have been picked up during bidding.
  - 2. Where scheduled item is now obsolete, bid and furnish manufacturers updated item at no additional cost to the project.

2.2 HANGING MEANS:

- A. Conventional Hinges: Hinge open widths minimum, but, of sufficient throw to permit maximum door swing. Steel or stainless steel pins and concealed bearings.
1. Three hinges per leaf to 7 foot, 6 inch height. Add one for each additional 30 inches in height, or any fraction thereof.
  2. Extra heavy weight hinges on doors over 3 foot, 5 inches in width.
  3. Out swinging exterior doors: non-ferrous with non-removable (NRP) pins.
  4. Non-ferrous material exteriors and at doors subject to corrosive atmospheric conditions.
  5. Provide shims and shimming instructions for proper door adjustment.
  6. Scheduled Hinges are Ives 5BB1
  7. Accepted substitutions: McKinney TB2714, Hager BB1279
- B. Continuous Hinges: A pinless assembly of three interlocking extrusions applied to the full height of the door and frame without mortising. The door leaf and jamb leaf shall be geared together for the entire length of the hinge and joined by a channel. Hinge knuckle shall be monolithic in appearance. Continuous hinge with visible knuckle separations are not acceptable. Vertical door loads shall be carried on minimum 3/4" acetal bearings through a full 180 degrees. The door leaf and jamb leaf shall have templated screw hole locations for future replacement needs. All heavy duty hinges (HD) shall have a minimum of 32 bearings for a 7' length.
1. Factory machine hinge leaves for electric power transfer device where specified in Hardware Sets.
  2. Scheduled Hinge: Hager 780-112HD / 780-224HD
  3. Accepted substitution: Select SL11HD / SL24HD, Zero.

2.3 LOCKSETS, LATCHSETS, DEADBOLTS:

- A. Cylindrical Locksets and Latchsets:
1. Latchbolts: 1/2 inch throw.
  2. Lever Trim: through-bolted, accessible design, cast lever or solid extruded type levers as scheduled. Filled hollow tube design unacceptable.
  3. Spindles: security design independent break-away. Breakage of outside lever does not allow access to inside lever's hubworks to gain wrongful entry.
  4. Strikes: 16 gage curved steel, bronze or brass with 1 inch deep box construction, lips of sufficient length to clear trim and protect clothing.
  5. Scheduled Lock Series and Design: Schlage ND Series (except mortise where shown in sets).
  6. Certifications:
    - a. ANSI A156.2, Series 4000, Grade 1.
  7. Accepted substitutions: Sargent 10-line, Yale 5400LN series, *Falcon T series (Add04)*. No alternate manufacturers will be allowed without architects written approval prior to bidding.

2.4 EXIT DEVICES/PANIC HARDWARE

- A. General features:
1. Independent lab-tested 2,000,000 cycles.

2. Push-through touch pad design. No exposed touch bar fasteners, no exposed cavities when operated. Return stroke fluid dampeners and rubber bottoming dampeners, plus anti-rattle devices.
3. ¾” throw deadlocking latchbolts.
4. No exposed screws to show through glass doors.
5. Non-handed basic device design with center case interchangeable with all functions, no extra parts required to effect change of function.
6. Releasable with 32 lb. maximum pressure under 250 lb. load to the door.
7. Heavy cast metal flush mounted end caps finished to match exit device.

B. Specific features:

1. Lever Trim: Breakaway type (996L), forged brass or bronze escutcheon min .130” thickness, match lockset lever design.
2. Fire-Labeled Devices: UL label indicating “Fire Exit Hardware”. Vertical rod devices less bottom rod (LBR) unless otherwise scheduled.
3. Electrically Operated Devices: Single manufacturer source for electric latch retraction devices, electrically controlled trim, power transfers, power supplies, monitoring switches and controls.
4. Removable Mullions: Removable with single turn of building key. Securely reinstalled without need for key.
5. Scheduled Exit Device: Von Duprin 33 / 99 series
6. Accepted substitutions: Sargent 80, Yale 7000 Series, *Falcon 24/25 Series (Add04)*. No alternate manufacturers will be allowed without architects written approval prior to bidding.

C. Power Supplies: Power supplies are to provide filtered, regulated power to operate electrical products including electrified exit devices. Output power is to be field-selectable for either 24VDC @ 2.0 ampere or 12VDC @ 4.0 ampere. Standard input is to be 120VAC @ 1.0 ampere or 240VAC @ 0.5 ampere. Steel enclosure shall incorporate key lock and have minimum quantity of five knockout holes for conduit connection. Terminal block to accept up to 14 gauge wire.

1. Scheduled Power Supplies: Von Duprin
2. Accepted substitutions: Securitron.

D. Electrical Power Transfer Devices: Fully concealed when door is closed, power transfer device is to have two 18 gauge or ten 24 gauge wires as indicated by model scheduled.

1. Scheduled Power Transfer Devices: Von Duprin
2. Accepted substitutions: Securitron.

## 2.5 CLOSERS

A. General: One manufacturer for closer units throughout the Work, including surface closers, high security closers, overhead concealed closers, floor closers, low-energy door operators and electromagnetic hold-open closers.

1. Full rack-and-pinion type cylinder with removable non-ferrous cover and cast iron body. Double heat-treated pinion shaft, single piece forged piston, chrome-silicon steel spring.
2. ISO 2000 certified. Units stamped with date-of-manufacture code.
3. Independent lab-tested 10,000,000 cycles.
4. Thru-bolts at wood doors unless doors are provided with closer blocking. Non-sized, and adjustable. Place closer inside building, stairs, and rooms.

5. Plates, brackets and special templating when needed for interface with particular header, door and wall conditions and neighboring hardware.
6. Opening pressure: Exterior doors 8.5 lb., interior doors 5 lb., labeled fire doors 15 lb.
7. Separate adjusting valves for closing speed, latching speed and backcheck, fourth valve for delayed action where scheduled.
8. Extra-duty arms (EDA) at all doors scheduled with parallel arm units.
9. Exterior door closers: tested to 100 hours of ASTM B117 salt spray test, furnish data on request.
10. Exterior doors do not require seasonal adjustments in temperatures from 120 degrees F to -30 degrees F, furnish data on request.
11. Non-flaming fluid will not fuel door or floor covering fires.
12. Scheduled Closers: LCN 4040XP.
13. Accepted substitutions: Sargent 281. (*Removed Norton Add04*) No alternate manufacturers will be allowed without architects written approval prior to bidding.

## 2.6 FLUSH BOLTS AND DUSTPROOF STRIKES, COORDINATORS

- A. Constant Latching Flush Bolts shall be UL listed for use in pairs or as single top bolt with auxiliary latch for labeled pairs of wood or hollow metal doors. Low actuation forces. Inactive door will re-latch automatically.
  1. Scheduled constant latching flush bolts: Ives
  2. Accepted substitutions: Hiawatha, Trimco, Rockwood.
- B. Manual Flush Bolts shall be provided in pairs, be non-handed, fit standard ANSI metal door prep and be UL listed for use on doors with fire ratings up to 3 hours. Bolts shall have minimum 5/8" bolt throw with 7/8" vertical adjustment. Top bolt rod shall be provided in length to position activating lever not more than 80 inches above the finished floor.
  1. Scheduled manual flush bolts: Ives FB458
  2. Accepted substitutions: Hiawatha, Trimco, Rockwood.
- C. Dustproof Strikes are to be spring loaded plunger type, with locking ring for use with threshold, or mounting flange for installation where no threshold is present.
  1. Scheduled dustproof strikes: Ives DP2
  2. Accepted substitutions: Hiawatha, Trimco, Rockwood.

## 2.7 OVERHEAD STOPS AND HOLDERS

- A. Surface mounted and concealed overhead stops and holders shall be heavy duty 300 series stainless steel, brass/bronze and steel materials, as required for specified finish, with finished metal end caps. Holders shall incorporate selective, adjustable hold-open mechanism. Templating of both surface and concealed overhead stops and holders allows for 85 to 115 degree stop/hold open position.
  1. Scheduled surface mounted overhead stops and holders are Glynn-Johnson 90 Series; scheduled concealed overhead stops and holders are Glynn-Johnson 100 series.
  2. Accepted substitutions: Rixson, Sargent.

2.8 OTHER HARDWARE

- A. Kick Plates: Four beveled edges, .050 inches minimum thickness, height and width as scheduled. Sheet-metal screws of bronze or stainless steel to match other hardware.
  - 1. Scheduled kick plates are: Ives 8400
  - 2. Accepted substitutions: Rockwood, Trimco
  
- B. Door Stops: Provide stops to protect walls, casework or other hardware.
  - 1. Unless otherwise noted in Hardware Sets, provide wall type with appropriate fasteners. Where wall type cannot be used, provide overhead type.
  - 2. Scheduled door stops are: Ives WS407CCV
  - 3. Accepted substitutions: Hiawatha W1326R, Trimco 1270WV, Rockwood
  
- C. Seals: Specially formulated to withstand greater temperature extremes while providing maximum protection against air infiltration. UL label applied to seals on rated doors. Substitute products: certify that the products equal or exceed specified material's thickness and durability. Proposed substitutions: submit for approval.
  - 1. Meets UL10B and ASTM E283 classification.
  - 2. Sound control openings: Use components tested as a system using nationally accepted standards by independent laboratories. Ensure that the door leafs have the necessary sealed-in-place STC ratings.
  - 3. Scheduled seals: National Guard Products 160S, 5050B, 1038NA
  - 4. Accepted substitutions: Pemko, Reese
  
- D. Automatic door bottoms: low operating force units. Doors with automatic door bottoms plus head and jamb seals cannot require more than two pounds operating force to open when closer is disconnected.
  - 1. Scheduled door bottoms: National Guard Products
  - 2. Accepted substitutions: Pemko, Reese
  
- E. Sweeps: Specially formulated to withstand greater temperature extremes while providing maximum protection against air infiltration. Neoprene or nylon brush type as scheduled.
  - 1. Scheduled sweeps: National Guard Products 200NA
  - 2. Accepted substitutions: Pemko, Reese
  
- F. Thresholds: As scheduled and per details. Substitute products: certify that the products equal or exceed specified material's thickness. Proposed substitutions: submit for approval.
  - 1. Exteriors: Set in full bed of butyl-rubber or polyisobutylene mastic sealant complying with requirements in Division 7 "Thermal and Moisture Protection". Non-ferrous ¼ inch fasteners and lead expansion shield anchors, or Red-Head #SFS-1420 (or approved equivalent) Flat Head Sleeve Anchors (SS/FHSL).
  - 2. Fire-rated openings, 90min or less duration: use thresholds to interrupt floor covering material under the door where that material has a critical radiant flux value less than 0.22 watts per square centimeter, per NFPA 253. Use threshold unit as scheduled. If none scheduled, request direction from Architect.
  - 3. Sound control openings: Set in bed of mastic sealant.
  - 4. Scheduled thresholds: National Guard Products 425, 442-5, 804V
  - 5. Accepted substitutions: Pemko, Reese

- G. Push Plates: Push plates shall be minimum .050” thickness brass, bronze or stainless steel as appropriate for specified finish. Plates are to be in size scheduled in Hardware Sets. Beveled four sides, and provided with fasteners appropriate for attaching to doors. Where “CFC” or “CFTP” is indicated in Hardware Sets, factory drill holes in face of push plates to accommodate deadbolt cylinder or turnpiece.
  - 1. Scheduled push plates: Ives 8200 4” X 16”
  - 2. Accepted substitutions: Hiawatha 200F, Trimco 1001-3, Rockwood
- H. Pull Plates: Where pull plates are listed in the Hardware Sets, provide 1’ round pull, 10” center-to-center, with 2-1/2” projection, factory attached to push plate in size indicated.
  - 1. Scheduled pull plates: Ives 8303-0
  - 2. Accepted substitutions: Hiawatha 200F X 536B, Trimco 1018-3B, Rockwood
- I. Push/Pull Bars: Where push/pull bars are listed in the Hardware Sets, provide 1” diameter round bar stock with 10” center-to-center offset pulls.
  - 1. Scheduled push/pull bars: Ives 9190-0
  - 2. Accepted substitutions: Hiawatha 658A X 1081LBP, Trimco 1737, Rockwood
- J. Fasteners: Generally, exposed screws to be Phillips or Robertson drive. Flat head sleeve anchors (FHSL) may be slotted drive. Sheet metal and wood screws: full-thread. Sleeve nuts: full length to prevent door compression.
- K. Silencers: Interior hollow metal frames, 3 for single doors, 2 for pairs of doors. Omit where adhesive mounted seal occurs. Leave no unfilled/uncovered pre-punched silencer holes.

2.9 FINISH:

- A. Generally BHMA 626 Satin Chromium (US26D).
  - 1. Areas using BHMA 626 to have push-plates, pulls and protection plates of BHMA 630, Satin Stainless Steel, unless otherwise noted.
- B. Door closers: factory powder coated to match other hardware, unless otherwise noted.
- C. Aluminum items: match predominant adjacent material. Seals to coordinate with frame color.

2.10 KEYING REQUIREMENTS:

- A. Key System: Master key system. Key blanks available from factory-direct sources. Supplier must meet with Owner to determine exact keying and source for permanent cylinders. For estimate use factory GMK charge.
- B. Locksets and cylinders: Keyed at factory of lock manufacturer where permanent records are maintained. Locks and cylinders same manufacturer.
- C. Bitting List: Secured shipment direct from point of origination to Owner.
- D. Supply three (3) cut keys per cylinder or lock.

- E. All keys to be stamped with “Do Not Duplicate” and appropriate key set.

### PART 3 - EXECUTION

#### 3.1 ACCEPTABLE INSTALLERS:

- A. Installer must demonstrate suitable competence and experience with installing finish hardware on like projects.

#### 3.2 PREPARATION:

- A. Ensure that walls and frames are square and plumb before hardware installation.
- B. Locate hardware per SDI-100 and applicable building, fire, life-safety, accessibility, and security codes.
- C. Notify Architect of any code conflicts before ordering material.
- D. Existing frames and doors scheduled to receive new hardware: carefully remove existing hardware, tag and bag, and turn over to Owner. Match new locksets strike plates to existing frame preps.
  - 1. Patch and fill wood frames and doors with solid wood stock or dowel material before cutting for new hardware. Do not reuse existing screw holes - - fill and re-pilot.
  - 2. Metal doors/frames: Weld or fasten with screws filler pieces in existing hardware cut-outs and mortises not scheduled for re-use by new hardware. Leave surfaces smooth by using non-metallic filler material.
  - 3. Patch all holes, sand smooth and paint existing doors and frames scheduled to receive new hardware.

#### 3.3 INSTALLATION

- A. Install hardware per manufacturer’s instructions and recommendations. Do not install surface-mounted items until finishes have been completed on substrate. Set units level, plumb and true to line and location. Adjust and reinforce attachment substrate for proper installation and operation.
  - 1. Gaskets: install jamb-applied gaskets before closers, overhead stops, rim strikes, etc. Install sweeps across bottoms of doors before astragals, cope sweeps around bottom pivots, trim astragals to tops of sweeps.
  - 2. When hardware is to be attached to existing metal surface and insufficient reinforcement exists, use RivNuts, NutSerts or similar anchoring device for screws.
- B. Drill pilot holes for fasteners in wood doors and/or frames.
- C. Lubricate and adjust existing hardware scheduled to remain. Carefully remove and give to Owner items not scheduled for re-use.

3.4 ADJUSTING

- A. Adjust and check for proper operation and function. Replace units, which cannot be adjusted to operate freely and smoothly.
  - 1. Hardware damaged by improper installation or adjustment methods to be repaired or replaced to Owner's satisfaction at no additional cost to Owner.
- B. Inspection: Prior to owner's occupancy, the general contractor shall schedule and conduct a post-installation meeting with the hardware supplier and the manufacturer representative who supplied the commercial locks, the exit devices, the door controls/closers, etc.. The purpose is to eliminate any or all institutional door hardware "punch list" items. This will enable the general contractor and the owner to gain approval for their building occupancy permit much quicker.
- C. Follow-up inspection: Installer to provide letter of agreement to Owner that approximately 6 months after substantial completion, installer will visit Project with representatives of the manufacturers of the locking devices and door closers to accomplish following:
  - 1. Re-adjust hardware.
  - 2. Evaluate maintenance procedures and recommend changes or additions, and instruct Owner's personnel.
  - 3. Identify items that have deteriorated or failed.
  - 4. Submit written report identifying problems and likely future problems.

3.5 DEMONSTRATION:

- A. Demonstrate electrical hardware systems, including adjustment and maintenance procedures.

3.6 PROTECTION/CLEANING:

- A. Cover installed hardware, protect from paint, cleaning agents, weathering, carts/barrows, etc. Remove covering materials and clean hardware just prior to substantial completion.
- B. Clean adjacent wall, frame and door surfaces soiled from installation/reinstallation process.

3.7 SCHEDULE OF FINISH HARDWARE

- A. Provide hardware as noted on the drawings.

END OF SECTION 087110



SECTION 092900 - GYPSUM BOARD

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. Section Includes:

- 1. Interior gypsum board.

- B. Related Requirements:

- 1. Section 092216 "Non-Structural Metal Framing" for non-structural framing and suspension systems that support gypsum board panels.

1.3 ACTION SUBMITTALS

- A. Product Data: For each type of product.

1.4 QUALITY ASSURANCE

- A. Mockups: Before beginning gypsum board installation, install mockups of at least 100 sq. ft. in surface area to demonstrate aesthetic effects and set quality standards for materials and execution.

- 1. Install mockups for the following:

- a. Each level of gypsum board finish indicated for use in exposed locations.

- 2. Apply or install final decoration indicated, including painting and wallcoverings, on exposed surfaces for review of mockups.
- 3. Simulate finished lighting conditions for review of mockups.
- 4. Subject to compliance with requirements, approved mockups may become part of the completed Work if undisturbed at time of Substantial Completion.

1.5 DELIVERY, STORAGE AND HANDLING

- A. Store materials inside under cover and keep them dry and protected against weather, condensation, direct sunlight, construction traffic, and other potential causes of damage. Stack panels flat and supported on risers on a flat platform to prevent sagging.

1.6 FIELD CONDITIONS

- A. Environmental Limitations: Comply with ASTM C 840 requirements or gypsum board manufacturer's written recommendations, whichever are more stringent.
- B. Do not install paper-faced gypsum panels until installation areas are enclosed and conditioned. At Contractor's discretion and at contractor's cost, fiberglass faced interior gypsum panels may be installed in areas which are yet to be enclosed and conditioned. Follow gypsum panel manufacturer's recommendations.
- C. Do not install panels that are wet, those that are moisture damaged, and those that are mold damaged.
  - 1. Indications that panels are wet or moisture damaged include, but are not limited to, discoloration, sagging, or irregular shape.
  - 2. Indications that panels are mold damaged include, but are not limited to, fuzzy or splotchy surface contamination and discoloration.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

- A. Fire-Resistance-Rated Assemblies: For fire-resistance-rated assemblies, provide materials and construction identical to those tested in assembly indicated according to ASTM E 119 by an independent testing agency.
- B. STC-Rated Assemblies: For STC-rated assemblies, provide materials and construction identical to those tested in assembly indicated according to ASTM E 90 and classified according to ASTM E 413 by an independent testing agency.

2.2 GYPSUM BOARD, GENERAL

- A. Recycled Content of Gypsum Panel Products: Postconsumer recycled content plus one-half of preconsumer recycled content not less than 25 percent.
- B. Size: Provide maximum lengths and widths available that will minimize joints in each area and that correspond with support system indicated.

2.3 INTERIOR GYPSUM BOARD

- A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
  - 1. CertainTeed Corp.
  - 2. Georgia-Pacific Gypsum LLC.
  - 3. National Gypsum Company.
  - 4. USG Corporation.
- B. Gypsum Board: ASTM C 1396/C 1396M.
  - 1. Products: Subject to compliance with requirements, provide one of the following:
    - a. CertainTeed Corp.: "ProRoc Regular Gypsum Board."

- b. Georgia-Pacific Gypsum LLC.; "ToughRock Gypsum Board."
      - c. National Gypsum Company; "Gold Bond Gypsum Board."
      - d. USG Corporation; "Sheetrock Gypsum Panels."
    - 2. Thickness: 5/8 inch.
    - 3. Long Edges: Tapered and featured (rounded or beveled) for prefilling.
  - C. Gypsum Board, Type X: ASTM C 1396/C 1396M.
    - 1. Products: Subject to compliance with requirements, provide one of the following:
      - a. CertainTeed Corp.: "ProRoc Type X Gypsum Board."
      - b. Georgia-Pacific Gypsum LLC.; "ToughRock Fireguard Gypsum Board."
      - c. National Gypsum Company; "Fire-Shield Gypsum Board."
      - d. USG Corporation; "Sheetrock Firecode Core Gypsum Panels."
    - 2. Thickness: 5/8 inch.
    - 3. Long Edges: Tapered and featured (rounded or beveled) for prefilling.
  - D. Gypsum Ceiling Board: ASTM C 1396/C 1396M.
    - 1. Thickness: 1/2 inch.
    - 2. Long Edges: Tapered.
- 2.4 GYPSUM BOARD FOR INTERIOR FACE OF EXTERIOR WALL (OR AS NOTED ON DRAWINGS)
  - A. Glass-Mat Interior Gypsum Board: ASTM C 1658/C 1658M. With fiberglass mat laminated to both sides. Specifically designed for interior use.
    - 1. Products: Subject to compliance with requirements, provide one of the following:
      - a. CertainTeed Corp.; "GlasRoc."
      - b. Georgia-Pacific Gypsum LLC; DensArmour Plus.
      - c. National Gypsum; e2XP Interior Extreme.
      - d. USG Corporation; "Mold Tough Glass-Mat Panels."
    - 2. Core: 5/8 inch, Type X, unless otherwise indicated.
    - 3. Core: 5/8 inch, abuse resistant where indicated.
    - 4. Long Edges: Tapered.
    - 5. Mold Resistance: ASTM D 3273, score of 10.
- 2.5 TRIM ACCESSORIES
  - A. Interior Trim: ASTM C 1047.
    - 1. Material: Plastic.
    - 2. Manufacturer: Subject to compliance with the requirements, provide trim accessories from the following:
      - a. Trimtex.
      - b. Manufacturer as approved by the Architect prior to receipt of bids.

3. Shapes:
  - a. Cornerbead.
  - b. Bullnose bead.
  - c. LC-Bead: J-shaped; exposed long flange receives joint compound.

B. Aluminum Trim: Extruded accessories of profiles and dimensions indicated.

1. Basis-of-Design Product: Subject to compliance with requirements, provide Fry Reglet No. DA.1, DRM 625-100; Standard Reveal Molding 5/8" deep x " tall, or comparable product by one of the following:
  - a. Fry Reglet Corporation.
  - b. Gordon Inc.
  - c. Pittcon Industries.
2. Aluminum: Alloy and temper with not less than the strength and durability properties of ASTM B 221 (ASTM B 221M), Alloy 6063-T5.
3. Finish: Corrosion-resistant primer compatible with joint compound and finish materials specified.
4. Provide Fry "Snap-In" Reveal where indicated to cover cut edge of wall coverings and prevent peeling.

## 2.6 JOINT TREATMENT MATERIALS

A. General: Comply with ASTM C 475/C 475M.

B. Joint Tape:

1. Interior Gypsum Board: Paper.
2. Glass-Mat Gypsum Sheathing Board: 10-by-10 glass mesh.

C. Joint Compound for Interior Gypsum Board: For each coat use formulation that is compatible with other compounds applied on previous or for successive coats.

1. Prefilling: At open joints, rounded or beveled panel edges, and damaged surface areas, use setting-type taping compound.
2. Embedding and First Coat: For embedding tape and first coat on joints, fasteners, and trim flanges, use drying-type, all-purpose compound.
  - a. Use setting-type compound for installing paper-faced metal trim accessories.
3. Fill Coat: For second coat, use drying-type, all-purpose compound.
4. Finish Coat: For third coat, use drying-type, sandable topping compound.
5. Skim Coat. For fourth coat, use drying-type, sandable topping compound.

## 2.7 AUXILIARY MATERIALS

A. General: Provide auxiliary materials that comply with referenced installation standards and manufacturer's written recommendations.

B. Steel Drill Screws: ASTM C 1002, unless otherwise indicated.

1. Use screws complying with ASTM C 954 for fastening panels to steel members from 0.033 to 0.112 inch thick.
- C. Sound Attenuation Blankets: ASTM C 665, Type I (blankets without membrane facing) produced by combining thermosetting resins with mineral fibers manufactured from glass, slag wool, or rock wool.
  1. Fire-Resistance-Rated Assemblies: Comply with mineral-fiber requirements of assembly.
  2. Fit to wall cavity space.
- D. Acoustical Joint Sealant: Manufacturer's standard nonsag, paintable, nonstaining latex sealant complying with ASTM C 834. Product effectively reduces airborne sound transmission through perimeter joints and openings in building construction as demonstrated by testing representative assemblies according to ASTM E 90.
  1. Products: Subject to compliance with requirements, provide one of the following:
    - a. Accumetric LLC; BOSS 824 Acoustical Sound Sealant.
    - b. Pecora Corporation; AIS-919.
    - c. USG Corporation; SHEETROCK Acoustical Sealant.

### PART 3 - EXECUTION

#### 3.1 EXAMINATION

- A. Examine areas and substrates including welded hollow-metal frames and framing, with Installer present, for compliance with requirements and other conditions affecting performance.
- B. Examine panels before installation. Reject panels that are wet, moisture damaged, and mold damaged.
- C. Proceed with installation only after unsatisfactory conditions have been corrected.

#### 3.2 APPLYING AND FINISHING PANELS, GENERAL

- A. Comply with ASTM C 840.
- B. Install ceiling panels across framing to minimize the number of abutting end joints and to avoid abutting end joints in central area of each ceiling. Stagger abutting end joints of adjacent panels not less than one framing member.
- C. Install panels with face side out. Butt panels together for a light contact at edges and ends with not more than 1/16 inch of open space between panels. Do not force into place.
- D. Locate edge and end joints over supports, except in ceiling applications where intermediate supports or gypsum board back-blocking is provided behind end joints. Do not place tapered edges against cut edges or ends. Stagger vertical joints on opposite sides of partitions. Do not make joints other than control joints at corners of framed openings.
- E. Form control and expansion joints with space between edges of adjoining gypsum panels.
- F. Extend panels a minimum of 1/2-inch into hollow-metal frames.

- G. Cover both faces of support framing with gypsum panels in concealed spaces (above ceilings, etc.), except in chases braced internally.
  - 1. Unless concealed application is indicated or required for sound, fire, air, or smoke ratings, coverage may be accomplished with scraps of not less than 8 sq. ft. in area.
  - 2. Fit gypsum panels around ducts, pipes, and conduits.
  - 3. Where partitions intersect structural members projecting below underside of floor/roof slabs and decks, cut gypsum panels to fit profile formed by structural members; allow 1/4- to 3/8-inch- wide joints to install sealant.
- H. Isolate perimeter of gypsum board applied to non-load-bearing partitions at structural abutments, except floors. Provide 1/4- to 1/2-inch- wide spaces at these locations and trim edges with edge trim where edges of panels are exposed. Seal joints between edges and abutting structural surfaces with acoustical sealant.
- I. Attachment to Steel Framing: Attach panels so leading edge or end of each panel is attached to open (unsupported) edges of stud flanges first.
- J. STC-Rated Assemblies and Assemblies with Insulation: Seal construction at perimeters, behind control joints, and at openings and penetrations with a continuous bead of acoustical sealant. Install acoustical sealant at both faces of partitions at perimeters and through penetrations. Comply with ASTM C 919 and with manufacturer's written recommendations for locating edge trim and closing off sound-flanking paths around or through assemblies, including sealing partitions above acoustical ceilings.
- K. Install sound attenuation blankets before installing gypsum panels unless blankets are readily installed after panels have been installed on one side.

### 3.3 APPLYING INTERIOR GYPSUM BOARD

- A. Install interior gypsum board in the following locations:
  - 1. Wallboard Type: Vertical surfaces unless otherwise indicated.
  - 2. Type X: Where required for fire-resistance-rated assembly.
  - 3. Ceiling Type: Ceiling surfaces.
  - 4. Glass-Mat Interior Type: At interior face of exterior wall construction, tile backing panels, and as indicated on Drawings.
- B. Single-Layer Application:
  - 1. On ceilings, apply gypsum panels before wall/partition board application to greatest extent possible and at right angles to framing unless otherwise indicated.
  - 2. On partitions/walls, apply gypsum panels vertically (parallel to framing) unless otherwise indicated by fire-resistance-rated assembly, and minimize end joints.
    - a. Stagger abutting end joints not less than one framing member in alternate courses of panels.
    - b. At stairwells and other high walls, install panels horizontally unless otherwise indicated or required by fire-resistance-rated assembly.
  - 3. Fastening Methods: Apply gypsum panels to supports with steel drill screws.

### 3.4 INSTALLING TRIM ACCESSORIES

- A. General: For trim with back flanges intended for fasteners, attach to framing with same fasteners used for panels. Otherwise, attach trim according to manufacturer's written instructions.
- B. Control Joints: Install control joints according to ASTM C 840 and in specific locations approved by Architect for visual effect.
- C. Interior Trim: Install in the following locations:
  - 1. Cornerbead: Use at outside corners unless otherwise indicated.
  - 2. Bullnose Bead: Use where indicated.
  - 3. LC-Bead: Use at exposed panel edges.
- D. Aluminum Trim: Install in locations indicated on Drawings.

### 3.5 FINISHING GYPSUM BOARD

- A. General: Treat gypsum board joints, interior angles, edge trim, control joints, penetrations, fastener heads, surface defects, and elsewhere as required to prepare gypsum board surfaces for decoration. Promptly remove residual joint compound from adjacent surfaces.
- B. Prefill open joints, rounded or beveled edges, and damaged surface areas.
- C. Apply joint tape over gypsum board joints, except for trim products specifically indicated as not intended to receive tape.
- D. Gypsum Board Finish Levels: Finish panels to levels indicated below and according to ASTM C 840:
  - 1. Level 1: Ceiling plenum areas, concealed areas, and where indicated.
  - 2. Level 4: At panel surfaces that will be exposed to view unless otherwise indicated.
    - a. Primer and its application to surfaces are specified in other Division 09 Sections.
  - 3. Level 5:
    - a. On interior face of exterior walls.
    - b. On all fiberglass-faced gypsum interior panels where paint is final decoration, unless otherwise noted.
    - c. On all walls scheduled to receive vinyl wall covering as a finish material.

### 3.6 PROTECTION

- A. Protect adjacent surfaces from drywall compound and promptly remove from floors and other non-drywall surfaces. Repair surfaces stained, marred, or otherwise damaged during drywall application.
- B. Protect installed products from damage from weather, condensation, direct sunlight, construction, and other causes during remainder of the construction period.
- C. Remove and replace panels that are wet, moisture damaged, and mold damaged.
  - 1. Indications that panels are wet or moisture damaged include, but are not limited to, discoloration, sagging, or irregular shape.

2. Indications that panels are mold damaged include, but are not limited to, fuzzy or splotchy surface contamination and discoloration.

END OF SECTION 092900



SECTION 099113 - EXTERIOR PAINTING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. Section includes surface preparation and the application of paint systems on the following exterior substrates:
  - 1. Steel and iron.
  - 2. Galvanized metal.
- B. Related Requirements:
  - 1. Section 051200 "Structural Steel Framing" for shop priming metal steel components and fabrications.

1.3 ACTION SUBMITTALS

- A. Product Data: For each type of product. Include preparation requirements and application instructions.
- B. Samples for Initial Selection: For each type of topcoat product.

1.4 MAINTENANCE MATERIAL SUBMITTALS

- A. Furnish extra materials, from the same product run, that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.
  - 1. Paint: 5 percent, but not less than 1 gal. of each material and color applied.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Store materials not in use in tightly covered containers in well-ventilated areas with ambient temperatures continuously maintained at not less than 45 deg F.
  - 1. Maintain containers in clean condition, free of foreign materials and residue.
  - 2. Remove rags and waste from storage areas daily.

1.6 FIELD CONDITIONS

- A. Apply paints only when temperature of surfaces to be painted and ambient air temperatures are between 50 and 95 deg F.

- B. Do not apply paints in snow, rain, fog, or mist; when relative humidity exceeds 85 percent; at temperatures less than 5 deg F above the dew point; or to damp or wet surfaces.

## PART 2 - PRODUCTS

### 2.1 MANUFACTURERS

- A. Manufacturers: Subject to compliance with requirements, provide specified products by one of the following:
  - 1. Behr Process Corporation.
  - 2. Benjamin Moore & Co.
  - 3. PPG Architectural Coatings.
  - 4. Sherwin-Williams Company (The).

### 2.2 PAINT, GENERAL

- A. Material Compatibility:
  - 1. Materials for use within each paint system shall be compatible with one another and substrates indicated, under conditions of service and application as demonstrated by manufacturer, based on testing and field experience.
  - 2. For each coat in a paint system, products shall be recommended in writing by topcoat manufacturers for use in paint system and on substrate indicated.
- B. Colors: As selected by Architect from manufacturer's full range.

## PART 3 - EXECUTION

### 3.1 EXAMINATION

- A. Examine substrates and conditions, with Applicator present, for compliance with requirements for maximum moisture content and other conditions affecting performance of the Work.
- B. Maximum Moisture Content of Substrates: When measured with an electronic moisture meter as follows:
  - 1. Concrete: 12 percent.
  - 2. Masonry (Clay and CMUs): 12 percent.
- C. Verify suitability of substrates, including surface conditions and compatibility, with existing finishes and primers.
- D. Proceed with coating application only after unsatisfactory conditions have been corrected.
  - 1. Application of coating indicates acceptance of surfaces and conditions.

### 3.2 PREPARATION

- A. Comply with manufacturer's written instructions and recommendations in "MPI Architectural Painting Specification Manual" applicable to substrates and paint systems indicated.
- B. Remove hardware, covers, plates, and similar items already in place that are removable and are not to be painted. If removal is impractical or impossible because of size or weight of item, provide surface-applied protection before surface preparation and painting.
  - 1. After completing painting operations, use workers skilled in the trades involved to reinstall items that were removed. Remove surface-applied protection.
- C. Clean substrates of substances that could impair bond of paints, including dust, dirt, oil, grease, and incompatible paints and encapsulants.
  - 1. Remove incompatible primers and reprime substrate with compatible primers or apply tie coat as required to produce paint systems indicated.
- D. Steel Substrates: Remove rust, loose mill scale, and shop primer if any. Clean using methods recommended in writing by paint manufacturer.
- E. Concrete Substrates: Remove release agents, curing compounds, efflorescence, and chalk. Do not paint surfaces if moisture content or alkalinity of surfaces to be painted exceeds that permitted in manufacturer's written instructions.
- F. Masonry Substrates: Remove efflorescence and chalk. Do not paint surfaces if moisture content or alkalinity of surfaces or mortar joints exceeds that permitted in manufacturer's written instructions.
- G. Shop-Primed Steel Substrates: Clean field welds, bolted connections, and areas where shop paint is abraded. Paint exposed areas with the same material as used for shop priming to comply with SSPC-PA 1 for touching up shop-primed surfaces.
- H. Galvanized-Metal Substrates: Remove grease and oil residue from galvanized sheet metal by mechanical methods to produce clean, lightly etched surfaces that promote adhesion of subsequently applied paints.

### 3.3 APPLICATION

- A. Apply paints according to manufacturer's written instructions and recommendations in "MPI Architectural Painting Specification Manual."
  - 1. Use applicators and techniques suited for paint and substrate indicated.
  - 2. Paint surfaces behind movable items same as similar exposed surfaces. Before final installation, paint surfaces behind permanently fixed items with prime coat only.
  - 3. Paint both sides and edges of exterior doors and entire exposed surface of exterior door frames.
  - 4. Primers specified in painting schedules may be omitted on items that are factory primed or factory finished if acceptable to topcoat manufacturers.
- B. Tint undercoats same color as topcoat, but tint each undercoat a lighter shade to facilitate identification of each coat if multiple coats of same material are to be applied. Provide sufficient difference in shade of undercoats to distinguish each separate coat.
- C. If undercoats or other conditions show through topcoat, apply additional coats until cured film has a uniform paint finish, color, and appearance.

- D. Apply paints to produce surface films without cloudiness, spotting, holidays, laps, brush marks, roller tracking, runs, sags, ropiness, or other surface imperfections. Cut in sharp lines and color breaks.
- E. Painting Fire Suppression, Plumbing, HVAC, Electrical, Communication, and Electronic Safety and Security Work.
  - 1. Paint the following work where exposed to view:
    - a. Uninsulated metal piping.
    - b. Metal conduit.

### 3.4 FIELD QUALITY CONTROL

- A. Dry Film Thickness Testing: Owner may engage the services of a qualified testing and inspecting agency to inspect and test paint for dry film thickness.
  - 1. Contractor shall touch up and restore painted surfaces damaged by testing.
  - 2. If test results show that dry film thickness of applied paint does not comply with paint manufacturer's written recommendations, Contractor shall pay for testing and apply additional coats as needed to provide dry film thickness that complies with paint manufacturer's written recommendations.

### 3.5 CLEANING AND PROTECTION

- A. At end of each workday, remove rubbish, empty cans, rags, and other discarded materials from Project site.
- B. After completing paint application, clean spattered surfaces. Remove spattered paints by washing, scraping, or other methods. Do not scratch or damage adjacent finished surfaces.
- C. Protect work of other trades against damage from paint application. Correct damage to work of other trades by cleaning, repairing, replacing, and refinishing, as approved by Architect, and leave in an undamaged condition.
- D. At completion of construction activities of other trades, touch up and restore damaged or defaced painted surfaces.

### 3.6 EXTERIOR PAINTING SCHEDULE

- A. Steel and Iron Substrates:
  - 1. Alkyd System:
    - a. Prime Coat: Primer, alkyd, anticorrosive, for metal.
      - 1) BEHR: Premium Plus Multi-Surface Primer, 436 (<50 g/L).
      - 2) BM: Super Spec Alkyd Metal Primer P06.
      - 3) PPG Paints: Devguard 4360 Rust Inhibitive Primer.
      - 4) S-W: Kem Bond HS, B50 Series.
    - b. Topcoat: Alkyd, exterior, semi-gloss (MPI Gloss Level 5).

- 1) BEHR: Oil-Base Interior/Exterior Semi-Gloss Enamel, 3800 (<380 g/L).
- 2) BM: Super Spec HP Alkyd Semi-Gloss Enamel P24.
- 3) PPG Paints: Devguard 4306 Alkyd Semi-Gloss Enamel.
- 4) S-W: Metalatex DTM, B55 Series.

B. Galvanized-Metal Substrates:

1. Latex System:

a. Prime Coat: Primer, galvanized, water based.

- 1) BEHR: Premium Plus Multi-Surface Primer, 436 (<50 g/L).
- 2) BM: Ultra Spec DTM Acrylic Semi-Gloss Enamel HP29.
- 3) PPG Paints: 90-912 Pitt Tech Plus 100% Acrylic DTM Primer.
- 4) S-W: Pro Industrial ProCryl WB Metal Primer, B66-310 Series.

b. Topcoat: Latex, exterior, semi-gloss (MPI Gloss Level 5).

- 1) BEHR: Direct To Metal Semi-Gloss, 3200 (<100 g/L).
- 2) BM: Ultra Spec DTM Acrylic Semi-Gloss Enamel HP29.
- 3) PPG Paints: 6-900XI Speedhide Exterior Semi-Gloss.
- 4) S-W: Pro Industrial Acrylic Semi-Gloss, B66-651 Series.

END OF SECTION 099113